Peace AirShed Zone Association

Ambient Air Monitoring Network Summary

Continuous Ambient Air Quality Monitoring Program
Monthly Report
April 2010

Operations and Reporting

FOCUS
AIR QUALITY MONITORING

PASZA
Peace AirShed Zone Association

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May 31, 2010

Alberta Environment
11th Floor, Oxbridge Place
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Edmonton Alberta T6B 2X3

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

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

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

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

During the month of April the following events were noted:

Henry Pirker Station:

- The measured ambient air quality was within the Alberta Ambient Air Quality Objectives (AAAQO) for the Henry Pirker station.
- All analyzers and sensors at the Henry Pirker station had an operational uptime greater than 90% for the month of April, with the exception of the $PM_{2.5}$ TEOM analyzer which was less than 90% operational – **Alberta Environment Reference # 236223**.

Evergreen Park Station:

- The measured ambient air quality was within the AAAQO for the Evergreen Park station; with the exception of the $PM_{2.5}$ which had two exceedences of the 1-hour AAAQG:
  - April 8: 18:00 MST 83 µg/m^3 **Alberta Environment Referece #224940**
  - April 8: 20:00 MST 92 µg/m^3 **Alberta Environment Referece #224940**
- All analyzers / sensors at the Evergreen Park station had an operational uptime greater than 90% for the month of April.

Smoky Heights Station:

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

Beaverlodge Station:

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

Portable – Kinuso Station:

- The measured ambient air quality was within the AAAQO for the Kinuso station.

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

Valleyview Station:

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

Passive Monitoring - 43 Stations throughout the PASZA zone:

There were four duplicate sites sampled in the month of April: Gordondale, Spirit River, Hythe and High Prairie. 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_2 passives ranged from 0.1 ppb to 0.3 ppb, with a mean of 0.2 ppb.
- Monthly average concentrations for NO_2 passives ranged from 0.2 ppb to 3.2 ppb, with a mean of 0.7 ppb.
- Monthly average concentrations for O_3 passives ranged from 26.6 ppb to 43.2 ppb, with a mean of 33.8 ppb.

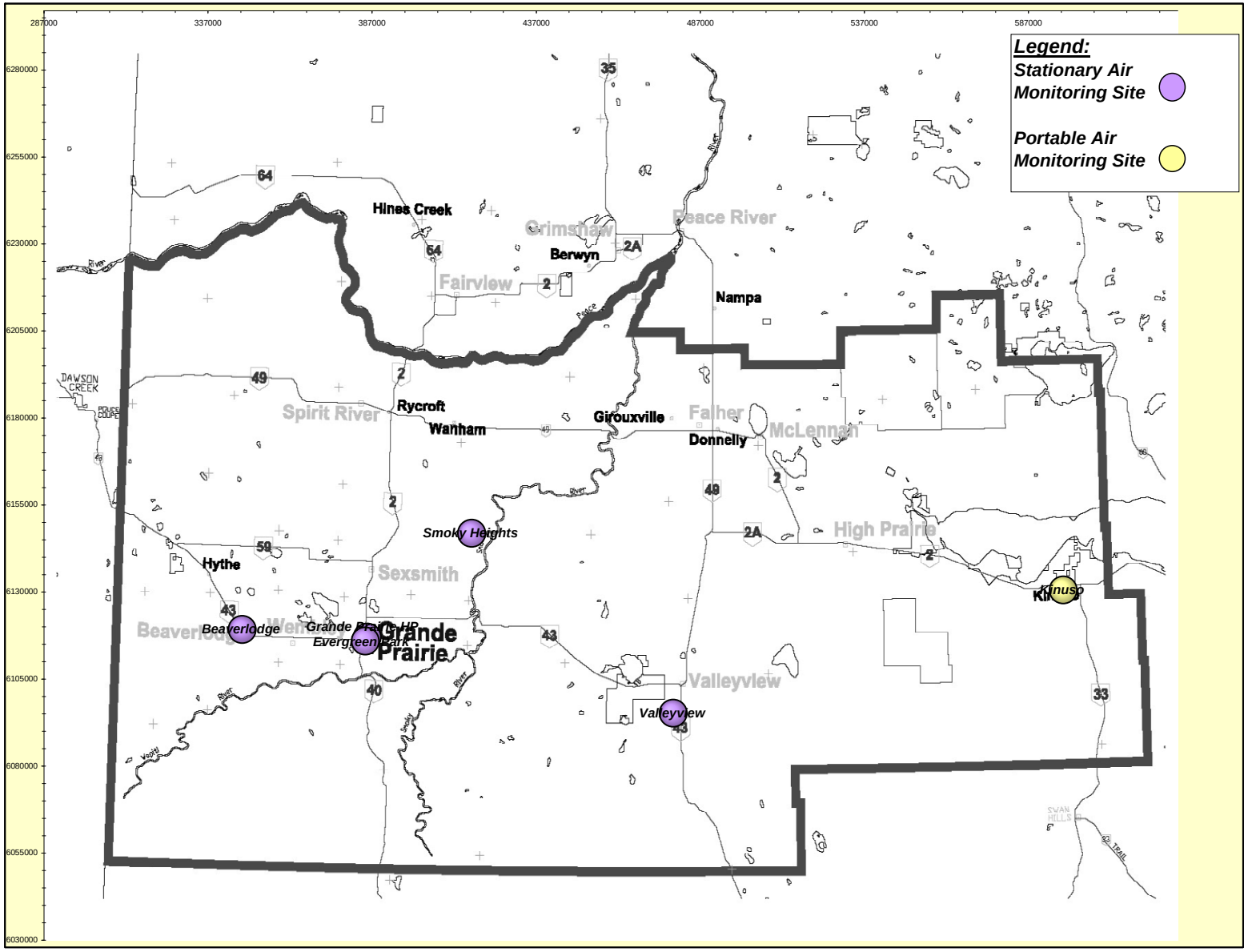
If you have any questions or concerns, please contact Shelly Pruden, PASZA Program Manager at 780.833.4343 or 780.882.4071.

On Behalf of the,
Peace Airshed Zone Association

Shelly Pruden
Program Manager

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

Location of PASZA Continuous Monitoring Stations



PASZA Monthly Continuous Data Summary

Apr-2010	Peace Airshed Zone Assocation						Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
Pollutant (units)	Objectives 1-hr	Objectives 24-hr	Station	Monthly Average	Exceedence 1-hr	Exceedence 24-hr	Conc	Day	Conc	Day	Operational Time (%)
SO_2 (ppb)	172	57	Henry Pirker	0.3	0	0	10.6	Apr-19 10:00	1.3	Apr-19	100.0%
SO_2 (ppb)	172	57	Evergreen Park	0.2	0	0	3.7	Apr-19 09:00	0.6	Apr-19	100.0%
SO_2 (ppb)	172	57	Smoky Heights	0.4	0	0	4.2	Apr-30 07:00	1.0	Apr-21	100.0%
SO_2 (ppb)	172	57	Beaverlodge	0.3	0	0	3.1	Apr-19 04:00	0.8	Apr-20	99.9%
SO_2 (ppb)	172	57	Portable-Kinuso	0.3	0	0	3.1	Apr-15 09:00	0.9	Apr-18	97.2%
SO_2 (ppb)	172	57	Valleyview	0.0	0	0	0.6	Apr-04 00:00	0.2	Apr-03	100.0%
NO (ppb)			Henry Pirker	1.4	0	0	81.4	Apr-15 08:00	8.3	Apr-15	100.0%
NO_2 (ppb)	212	106	Henry Pirker	6.7	0	0	35.9	Apr-07 07:00	11.8	Apr-15	100.0%
NO_X (ppb)			Henry Pirker	8.1	0	0	110.3	Apr-15 08:00	20.2	Apr-15	100.0%
NO (ppb)			Beaverlodge	0.3	0	0	9.4	Apr-05 08:00	1.3	Apr-05	99.9%
NO_2 (ppb)	212	106	Beaverlodge	2.1	0	0	14.7	Apr-05 08:00	4.3	Apr-15	99.9%
NO_X (ppb)			Beaverlodge	2.6	0	0	24.2	Apr-05 08:00	5.4	Apr-15	99.9%
NO (ppb)			Portable-Kinuso	0.1	0	0	5.1	Apr-19 20:00	0.3	Apr-19	97.2%
NO_2 (ppb)	212	106	Portable-Kinuso	1.3	0	0	11.1	Apr-19 20:00	3.1	Apr-16	97.2%
NO_X (ppb)			Portable-Kinuso	1.4	0	0	16.2	Apr-19 20:00	3.3	Apr-16	97.2%
O_3 (ppb)	82		Henry Pirker	33.1	0	-	61.9	Apr-20 16:00	47.6	Apr-20	100.0%
O_3 (ppb) - 8-hr			Henry Pirker		0				58.2	Apr-20	
O_3 (ppb)	82		Beaverlodge	40.1	0	-	66.3	Apr-20 17:00	48.2	Apr-20	99.9%
O_3 (ppb) - 8-hr			Beaverlodge		0				62.3	Apr-20	
O_3 (ppb)	82		Portable-Kinuso	39.3	0	-	64.8	Apr-17 18:00	52.1	Apr-18	97.2%
O_3 (ppb) - 8-hr			Portable-Kinuso		0				61.9	Apr-17	
CO (ppm)	13		Henry Pirker	0.22	0	-	0.9	Apr-15 08:00	0.3	Apr-02	100.0%
CO (ppm) - 8-hr	5		Henry Pirker		0				0.4	Apr-15	
THC (ppm)			Henry Pirker	2.11	-	-	3.7	Apr-19 04:00	2.4	Apr-15	100.0%
TRS (ppb)			Henry Pirker	0.3	-	-	1.4	Apr-22 06:00	0.4	Apr-22	100.0%
TRS (ppb)			Evergreen Park	0.6	-	-	4.5	Apr-18 05:00	0.9	Apr-18	100.0%
TRS (ppb)			Smoky Heights	0.3	-	-	0.5	Apr-25 08:00	0.4	Apr-09	100.0%
TRS (ppb)			Portable-Kinuso	0.4	-	-	0.7	Apr-06 13:00	0.5	Apr-13	97.2%
H_2S (ppb)	10	3	Valleyview	0.1	0	0	0.4	Apr-20 07:00	0.2	Apr-30	100.0%
$PM_{2.5}$ ($\mu g/m^3$)	80	30	Henry Pirker	8.4	0	0	41.6	Apr-01 19:00	14.2	Apr-16	83.2%
$PM_{2.5}$ ($\mu g/m^3$)	80	30	Evergreen Park	5.9	2	0	92.1	Apr-08 19:00	19.7	Apr-08	99.2%
$PM_{2.5}$ ($\mu g/m^3$)	80	30	Smoky Heights	3.9	0	0	44.7	Apr-16 20:00	10.9	Apr-21	99.6%
$PM_{2.5}$ ($\mu g/m^3$)	80	30	Beaverlodge	13.3	0	0	62.7	Apr-21 09:00	28.0	Apr-20	99.9%

PASZA Monthly Continuous Data Summary – continued

Apr-2010	Peace Airshed Zone Assocation						Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
RH (%)			Henry Pirker	52.0	-	-	87.6	Apr-28 05:00	83.2	Apr-28	100.0%
RH (%)			Evergreen Park	52.5	-	-	96.2	Apr-28 07:00	91.8	Apr-28	100.0%
RH (%)			Beaverlodge	51.8	-	-	92.2	Apr-26 06:00	87.1	Apr-28	99.9%
RH (%)			Valleyview	48.2	-	-	97.4	Apr-24 09:00	87.1	Apr-28	100.0%
SR (W/m^2)			Henry Pirker	170.2	-	-	746.6	Apr-29 15:00	222.6	Apr-22	100.0%
Temp (°C)			Henry Pirker	6.3	-	-	27.3	Apr-20 17:00	17.7	Apr-20	100.0%
Temp (°C)			Evergreen Park	6.2	-	-	26.6	Apr-20 17:00	16.5	Apr-20	100.0%
Temp (°C)			Smoky Heights	6.3	-	-	26.0	Apr-20 17:00	18.4	Apr-20	100.0%
Temp (°C)			Beaverlodge	6.2	-	-	25.7	Apr-20 18:00	17.0	Apr-20	99.9%
Temp (°C)			Portable-Kinuso	6.6	-	-	27.0	Apr-21 16:00	19.2	Apr-21	97.2%
Temp (°C)			Valleyview	6.3	-	-	26.5	Apr-21 18:00	18.2	Apr-20	100.0%
WSPD s (km/hr)			Henry Pirker	10.3	-	-	34.0	Apr-21 20:00	19.8	Apr-08	100.0%
WSPD s (km/hr)			Evergreen Park	6.5	-	-	24.0	Apr-08 19:00	14.0	Apr-08	100.0%
WSPD s (km/hr)			Smoky Heights	13.1	-	-	35.0	Apr-21 20:00	24.5	Apr-09	100.0%
WSPD s (km/hr)			Beaverlodge	11.7	-	-	41.0	Apr-08 19:00	22.4	Apr-08	99.9%
WSPD s (km/hr)			Portable-Kinuso	9.3	-	-	24.0	Apr-19 13:00	16.5	Apr-27	97.2%
WSPD s (km/hr)			Valleyview	8.3	-	-	32.0	Apr-09 16:00	18.9	Apr-09	100.0%
WSPD v (km/hr)			Henry Pirker	2.8	-	-	34.0	Apr-21 20:00	19.0	Apr-08	100.0%
WSPD v (km/hr)			Evergreen Park	2.3	-	-	24.0	Apr-08 19:00	13.5	Apr-08	100.0%
WSPD v (km/hr)			Smoky Heights	3.4	-	-	34.0	Apr-21 20:00	22.6	Apr-09	100.0%
WSPD v (km/hr)			Beaverlodge	1.3	-	-	40.0	Apr-08 19:00	21.8	Apr-08	99.9%
WSPD v (km/hr)			Portable-Kinuso	2.7	-	-	24.0	Apr-19 13:00	15.4	Apr-27	97.2%
WSPD v (km/hr)			Valleyview	1.5	-	-	31.0	Apr-09 16:00	17.9	Apr-09	100.0%
WDIR			Henry Pirker	WNW	-	-	-	-	-	-	100.0%
WDIR			Evergreen Park	NW	-	-	-	-	-	-	100.0%
WDIR			Smoky Heights	WNW	-	-	-	-	-	-	100.0%
WDIR			Beaverlodge	NNW	-	-	-	-	-	-	99.9%
WDIR			Portable-Kinuso	SSE	-	-	-	-	-	-	97.2%
WDIR			Valleyview	NW	-	-	-	-	-	-	100.0%

Continuous Network Equipment Summary

PASZA – Henry Pirker Station

General Station Issues

Routine monthly calibrations were performed on April 22nd (SO_2, NO_X & O_3), April 29th (TRS, THC &CO) and April 30th ($PM_{2.5}$).

Parameter	Make	Model	Notes
SO_2	TEI	43C	No operational issues observed.
NOx/NO/NO_2	TEI	42C	No operational issues observed.
O_3	TEI	49C	No operational issues observed.
CO	TEI	48C	No operational issues observed.
THC	TEI	51-CLT	Spans outside target range from April 17th to 19th due to span cylinder running out. No other operational issues observed.
TRS	TEI	43C	No operational issues observed.
$PM_{2.5}$	R&P	1400AB	One hundred and twenty-one (121) hours were flagged invalid (including baseline drift) due to analogue / motherboard failing. **AE Reference #236223**. The motherboard was replaced May 18th.
RH	Met One	083D	No operational issues observed.
ET	Met One	083D	No operational issues observed.
SR	Met One	096-1	No operational issues observed.
WS	Met One	010C	No operational issues observed.
WD	Met One	020C	No operational issues observed.

PASZA – Evergreen Park Station

General Station Issues

Routine monthly calibrations were performed on April 20th (SO_2, TRS & $PM_{2.5}$).

Parameter	Make	Model	Notes
SO_2	TEI	43i	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
$PM_{2.5}$	R&P	1400AB	There were two (2) exceedences of the 1-hour AAAQG: ♦ April 8: 18:00 MST 83 µg/m^3 **AE Referece #224940** ♦ April 8: 20:00 MST 92 µg/m^3 **AE Referece #224940** A total of six (6) hours were flagged for baseline drift.
ET	Met One/Gill	083D	No operational issues observed.
RH	Met One/Gill		No operational issues observed.
WS	Met One/ Gill	010C	No operational issues observed.
WD	Met One/ Gill	020C	No operational issues observed.

PASZA – Smoky Heights Station

General Station Issues

Routine monthly calibrations were performed on April 15th (TRS, SO_2 & $PM_{2.5}$).

Parameter	Make	Model	Notes
SO_2	TEI	43C	No operational issues observed.
TRS	TEI	43C	No operational issues observed.
$PM_{2.5}$	R&P	1400AB	Three (3) hours were flagged for baseline drift.
ET	Met One	083D	No operational issues observed.
WS	Met One	010C	No operational issues observed.
WD	Met One	020C	No operational issues observed.

PASZA – Beaverlodge Station

General Station Issues

Routine monthly calibrations were performed on April 12th (SO_2, O_3 & NO_X & $PM_{2.5}$). One (1) hour of data was flagged invalid due to communication/DACS error on April 1st – for all parameters.

Parameter	Make	Model	Notes
SO_2	TEI	43CTL	No other operational issues observed.
NOx/NO/NO_2	TEI	42C	Spans were outside the target range April 10 to 12th due to leak at the pump scrubber canister – repaired April 12th.
O_3	TEI	49C	No other operational issues observed.
$PM_{2.5}$	R&P	1400AB	No other operational issues observed.
ET	n/a	n/a	No other operational issues observed.
RH	n/a	n/a	No other operational issues observed.
WS	Blue Sky	857	No other operational issues observed.
WD	Blue Sky	857	No other operational issues observed.

PASZA – Kinuso (Portable) Station

General Station Issues

Routine monthly calibrations were performed on April 14th (SO_2, TRS, NO_X & O_3). From April 3rd to April 4th the DACS failed (memory configuration corruption) resulting in twenty (20) hours of invalid data for all parameters.

Parameter	Make	Model	Notes
SO_2	TEI	43C	No operational issues observed, other than above noted DACS failure.
TRS	TEI	43C	No operational issues observed, other than above noted DACS failure.
NOx/NO/NO_2	TEI	42I	No operational issues observed, other than above noted DACS failure.
O_3	TEI	49C	No operational issues observed, other than above noted DACS failure.
ET	Met One		No operational issues observed, other than above noted DACS failure.
WS	Met One		No operational issues observed, other than above noted DACS failure.
WD	Met One		No operational issues observed, other than above noted DACS failure.

PASZA – Valleyview Station

General Station Issues

Routine monthly calibrations were performed April 13th (SO_2 & H_2S).

Parameter	Make	Model	Notes
SO_2	TEI	43i	No operational issues observed.
H_2S	TEI	43A	No operational issues observed.
ET	Gill	Met Pak 3	No operational issues observed.
RH	Gill	Met Pak 3	No operational issues observed.
WS	Gill	Met Pak 3	No operational issues observed.
WD	Gill	Met Pak 3	No operational issues observed.

PASZA
Henry Pirker Station
Monthly Summary Tables, Graphs and Roses

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 10.6 ppb on Apr 19 10:00

Maximum Daily Average: 1.3 ppb on Apr 19

Minimum Value: 0 ppb on Apr 3 18:00

Minimum Daily Average: 0.0 ppb on Apr 4

Maximum Diurnal Average: 0.8 ppb at hour 10

Minimum Diurnal Average: 0.2 ppb at hour 1

Monthly Average: 0.31 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.6$ $P_{99} = 2.1$

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
2-Apr	0	0	0	0	0	0	A	0	0	1	1	3	1	0	0	1	2	2	1	1	0	1	0	0	0.7	2.7
3-Apr	0	0	0	0	0	A	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	1.4
4-Apr	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
5-Apr	0	0	0	A	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	3	1	0	0	0.4	2.6
6-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
7-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.2	0.9
8-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
9-Apr	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
10-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
11-Apr	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
12-Apr	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	1	1	1	1	0	0	A	0	0.5	1.0
13-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	A	0	0	0.4	0.6
14-Apr	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	1	A	0	0	0	0.3	0.6
15-Apr	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	1	0	A	0	0	0	0	0.4	1.1
16-Apr	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
17-Apr	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	A	0	1	0	0	0	0	0.4	0.9
18-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
19-Apr	0	0	0	0	1	A	1	2	8	11	4	1	0	0	0	0	0	0	0	0	0	0	0	0	1.3	10.6
20-Apr	1	1	1	1	A	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
21-Apr	0	0	1	A	0	0	0	1	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.5	1.1
22-Apr	0	0	A	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
23-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.1	0.5
24-Apr	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
25-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0.1	0.5
26-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.2	0.8
27-Apr	0	A	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.4	1.0
28-Apr	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	0.1
29-Apr	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	0.9
30-Apr	0	3	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.0
	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.6	0.8	0.6	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	Diurnal Average	
	0.5	3.0	0.7	0.6	0.6	0.7	1.0	2.2	8.5	10.6	4.2	2.7	1.1	1.0	1.0	0.7	1.7	2.2	1.0	1.4	2.6	0.8	0.5	0.4	Diurnal Maximum	

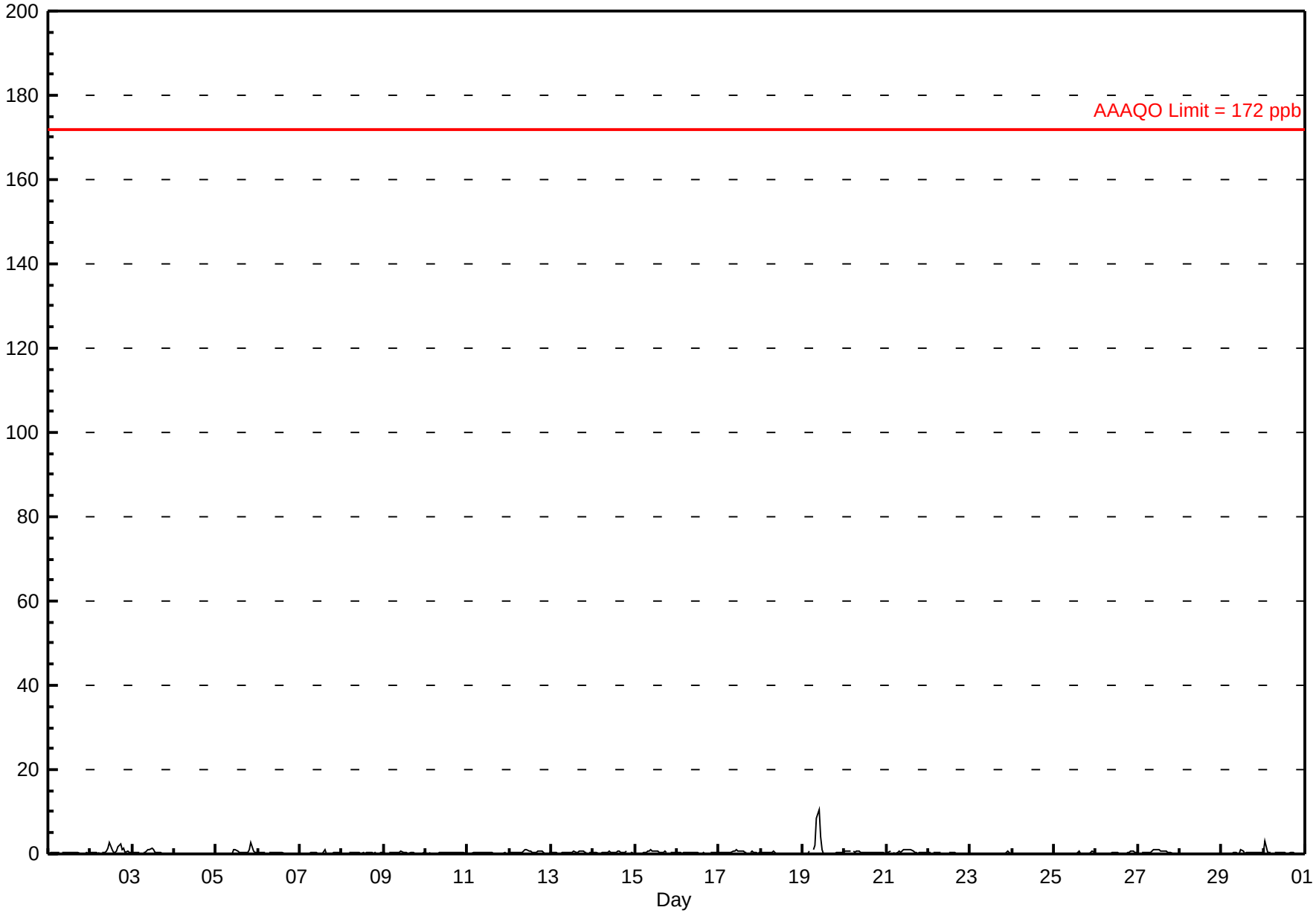
C - Calibration A - Automated Daily Zero Span

Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 57 ppb

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - April 2010



Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - April 2010

Maximum Value: 16.6 ppb on Apr 19 10:00

Maximum Daily Average: 2.2 ppb on Apr 19

Minimum Value: 0 ppb on Apr 29 06:00

Minimum Daily Average: 0.3 ppb on Apr 4

Maximum Diurnal Average: 1.3 ppb at hour 10

Minimum Diurnal Average: 0.4 ppb at hour 4

Monthly Average: 0.69 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.2$ $Q_1 = 0.4$ Median = 0.5 $Q_3 = 0.8$ $P_{90} = 1.1$ $P_{99} = 4.2$

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	1	0	A	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0.4	0.8
2-Apr	0	0	1	0	0	0	A	0	0	2	2	4	4	0	0	2	3	4	3	4	0	3	0	1	1.6	4.4
3-Apr	1	0	0	0	0	A	0	0	1	1	1	2	2	1	1	1	0	0	0	0	0	0	0	0	0.7	2.4
4-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
5-Apr	0	0	0	A	0	0	0	1	0	1	2	1	1	1	1	1	1	1	1	4	4	2	1	0	1.0	3.8
6-Apr	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.5	0.9
7-Apr	0	0	0	0	A	0	1	1	1	1	0	0	0	0	12	0	0	0	0	1	1	0	0	0	0.9	11.7
8-Apr	0	0	0	A	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
9-Apr	0	0	A	0	0	0	0	0	0	1	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0.5	1.4
10-Apr	0	A	0	1	0	0	0	0	0	0	1	1	0	1	0	0	0	0	1	1	0	0	0	0	0.5	0.8
11-Apr	A	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	A	0.5	0.9
12-Apr	0	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.3
13-Apr	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	0.9
14-Apr	0	0	0	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	0	1	A	1	0	0	0.6	0.8
15-Apr	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.3
16-Apr	1	1	0	0	0	1	1	1	1	1	1	1	1	0	0	1	0	1	A	1	1	1	0	0	0.6	0.8
17-Apr	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0	1	0.8	1.3
18-Apr	1	1	1	1	1	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0.5	1.4
19-Apr	1	1	1	0	2	A	2	3	12	17	6	3	1	1	0	0	0	0	0	1	1	1	1	1	2.2	16.6
20-Apr	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
21-Apr	1	1	1	A	1	1	1	1	1	1	2	2	1	1	1	1	1	0	0	1	0	0	0	1	0.8	1.7
22-Apr	1	0	A	1	1	0	0	0	C	C	C	C	1	1	1	1	1	0	0	0	0	1	0	0	0.5	0.9
23-Apr	0	1	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0.4	1.1
24-Apr	1	0	0	0	A	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	0	0	0.3	0.5
25-Apr	0	0	0	A	0	1	0	1	1	1	1	0	0	1	1	1	1	0	0	0	1	1	1	1	0.5	1.1
26-Apr	1	0	A	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	1.0
27-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.8	1.2
28-Apr	A	0	1	0	0	0	1	0	0	1	1	1	0	0	0	0	0	1	1	1	1	0	1	A	0.4	0.6
29-Apr	0	1	1	1	0	0	0	1	1	0	0	2	1	0	0	0	0	0	0	0	0	1	0	1	0.6	2.0
30-Apr	0	8	1	0	0	A	0	0	0	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	0.9	8.4
	0.5	0.8	0.5	0.4	0.5	0.5	0.5	0.7	1.1	1.3	1.0	1.0	0.8	0.6	1.0	0.6	0.6	0.6	0.6	0.8	0.6	0.7	0.5	0.5	Diurnal Average	
	0.8	8.4	1.2	1.0	2.0	1.2	1.6	3.2	12.1	16.6	5.6	3.9	3.6	1.2	11.7	1.9	3.1	4.4	2.7	4.3	3.8	2.9	1.1	1.0	Diurnal Maximum	

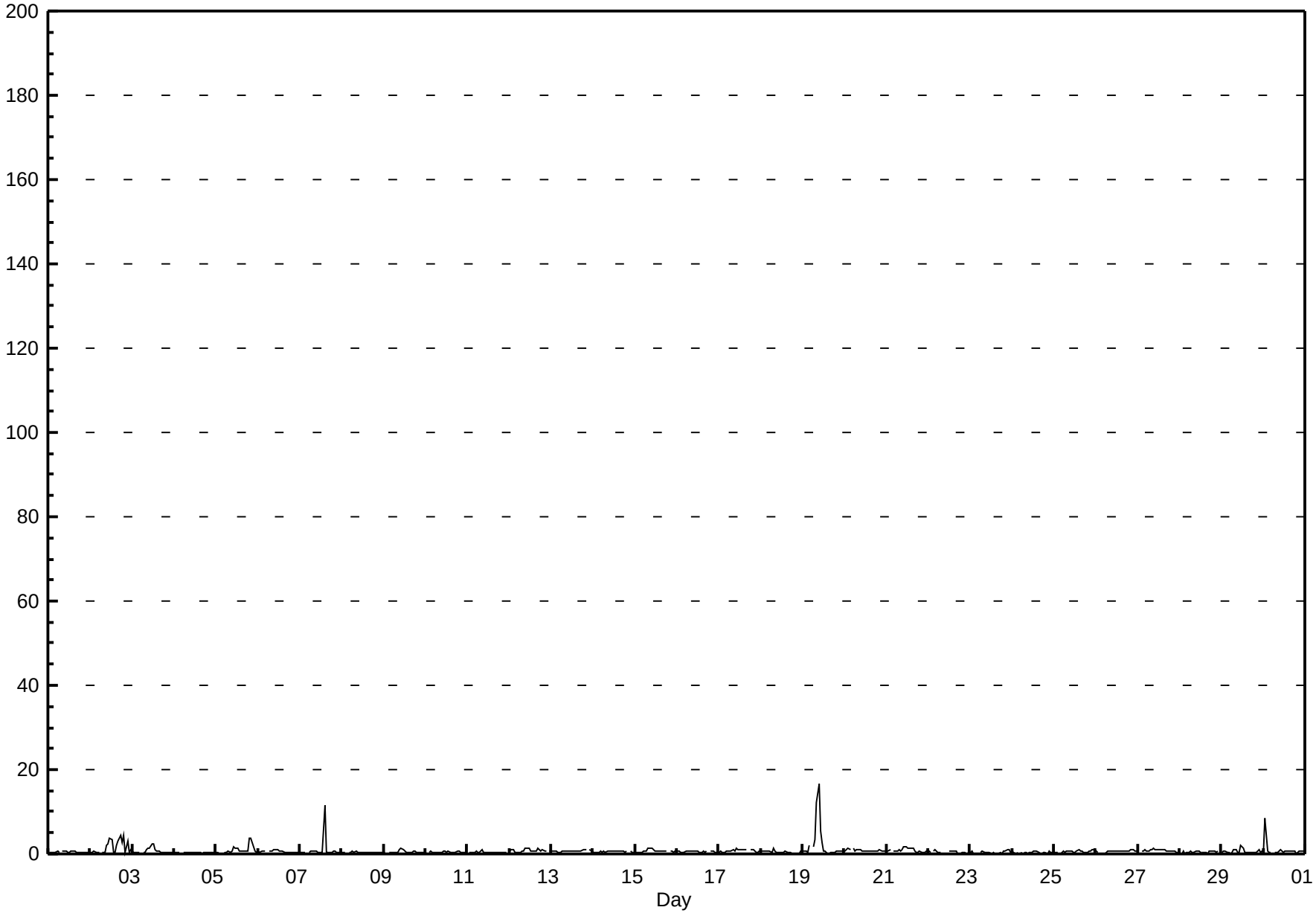
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

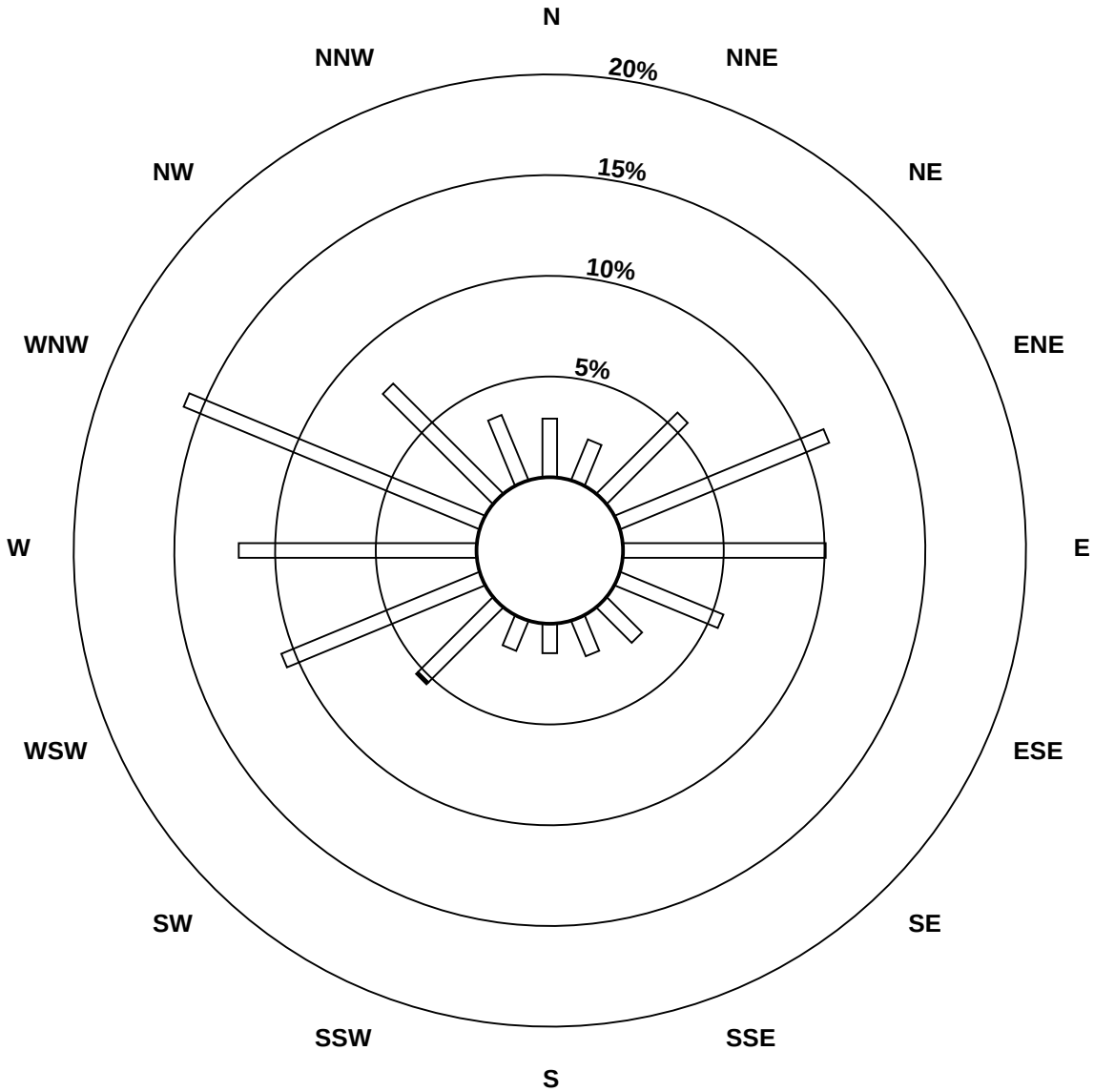
Henry Pirker - April 2010



Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Henry Pirker - April 2010



Pollutant Classes (ppb)

- 0 - 10
- 11 - 20
- 21 - 60
- 61 - 110
- 111 - 172
- > 172

PASZA
Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 1.4 ppb on Apr 22 06:00 Maximum Daily Average: 0.4 ppb on Apr 22

Minimum Value: 0 ppb on Apr 10 00:00 Minimum Daily Average: 0.1 ppb on Apr 28
Maximum Diurnal Average: 0.4 ppb at hour 8 Minimum Diurnal Average: 0.2 ppb at hour 14
Monthly Average: 0.26 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.2$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.4$ $P_{99} = 0.9$

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

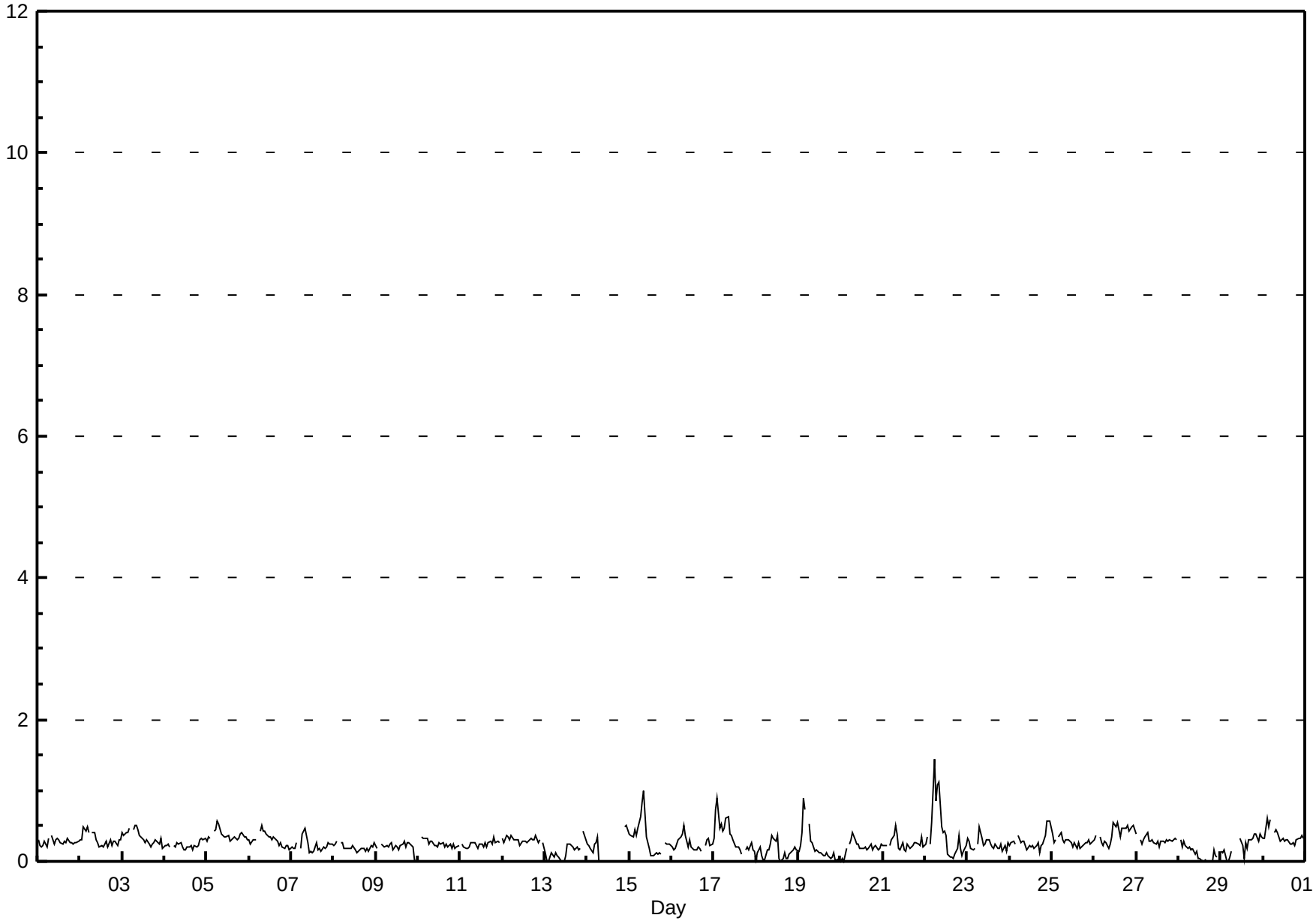
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
2-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
3-Apr	0	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
4-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
5-Apr	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
6-Apr	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
7-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
8-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
9-Apr	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
10-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
11-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.3
12-Apr	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
13-Apr	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
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0.1	0.5
15-Apr	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	1.0
16-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.5
17-Apr	0	1	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	0.9
18-Apr	0	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
19-Apr	0	0	0	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
20-Apr	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
21-Apr	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
22-Apr	0	0	A	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.4
23-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
24-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.3	0.6
25-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
26-Apr	0	0	A	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0.4	0.5
27-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
28-Apr	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
29-Apr	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
30-Apr	0	0	1	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	Diurnal Average	
	0.4	0.7	0.9	0.9	0.7	1.4	0.9	1.1	1.1	0.7	0.4	0.5	0.5	0.5	0.4	0.3	0.5	0.5	0.5	0.5	0.4	0.6	0.6	0.6	Diurnal Maximum	

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

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2010



Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2010

Maximum Value: 2.6 ppb on Apr 22 06:00

Maximum Daily Average: 0.9 ppb on Apr 22

Minimum Value: 0 ppb on Apr 14 10:00

Minimum Daily Average: 0.4 ppb on Apr 14

Maximum Diurnal Average: 0.8 ppb at hour 8

Minimum Diurnal Average: 0.5 ppb at hour 18

Monthly Average: 0.63 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.6 $Q_3 = 0.7$ $P_{90} = 0.8$ $P_{99} = 1.3$

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
2-Apr	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
3-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
4-Apr	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	0.6	0.7
5-Apr	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
6-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	0	0.7	0.9
7-Apr	1	1	1	1	A	1	1	1	1	1	0	0	1	1	1	0	0	0	1	1	1	1	1	1	0.6	1.0
8-Apr	1	1	1	A	1	1	0	1	1	0	0	0	1	1	0	1	1	0	1	1	1	1	0	1	0.5	0.7
9-Apr	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.6	0.8
10-Apr	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	0.6	0.8
11-Apr	A	1	0	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	A	0.6	0.7
12-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	1.0
13-Apr	1	0	0	0	1	0	1	0	0	0	0	0	1	1	1	1	1	1	1	0	1	A	1	1	0.5	0.9
14-Apr	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	0.4	0.9
15-Apr	1	1	1	1	1	1	1	1	2	1	1	1	0	1	1	0	0	1	0	A	1	1	1	1	0.7	1.7
16-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	1	1	0.6	0.8
17-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	A	1	0	1	1	1	1	0.7	1.3
18-Apr	1	1	1	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	0.5	0.8
19-Apr	0	1	1	1	1	A	1	1	1	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0.6	1.4
20-Apr	0	0	0	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	0.6	0.8
21-Apr	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.6	0.9
22-Apr	0	1	A	1	1	3	1	2	2	1	1	1	1	0	0	0	0	0	0	1	1	0	1	1	0.9	2.6
23-Apr	1	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	1	0	1	0.6	1.0
24-Apr	1	1	1	1	A	1	1	1	1	1	0	1	1	1	1	1	1	0	0	1	1	1	1	1	0.6	1.0
25-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.6	0.8
26-Apr	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
27-Apr	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
28-Apr	A	1	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0	1	A	0.5	0.7
29-Apr	1	1	0	0	0	0	0	C	C	C	C	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0
30-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2
	0.6	0.6	0.7	0.6	0.7	0.7	0.7	0.8	0.8	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.5	0.5	0.6	0.7	0.6	0.6	0.6	Diurnal Average	
	0.9	1.2	1.3	1.4	1.3	2.6	1.3	1.9	2.1	1.0	0.8	0.9	0.8	0.9	1.0	0.8	0.8	0.7	0.9	1.5	1.3	0.9	1.0	0.9	Diurnal Maximum	

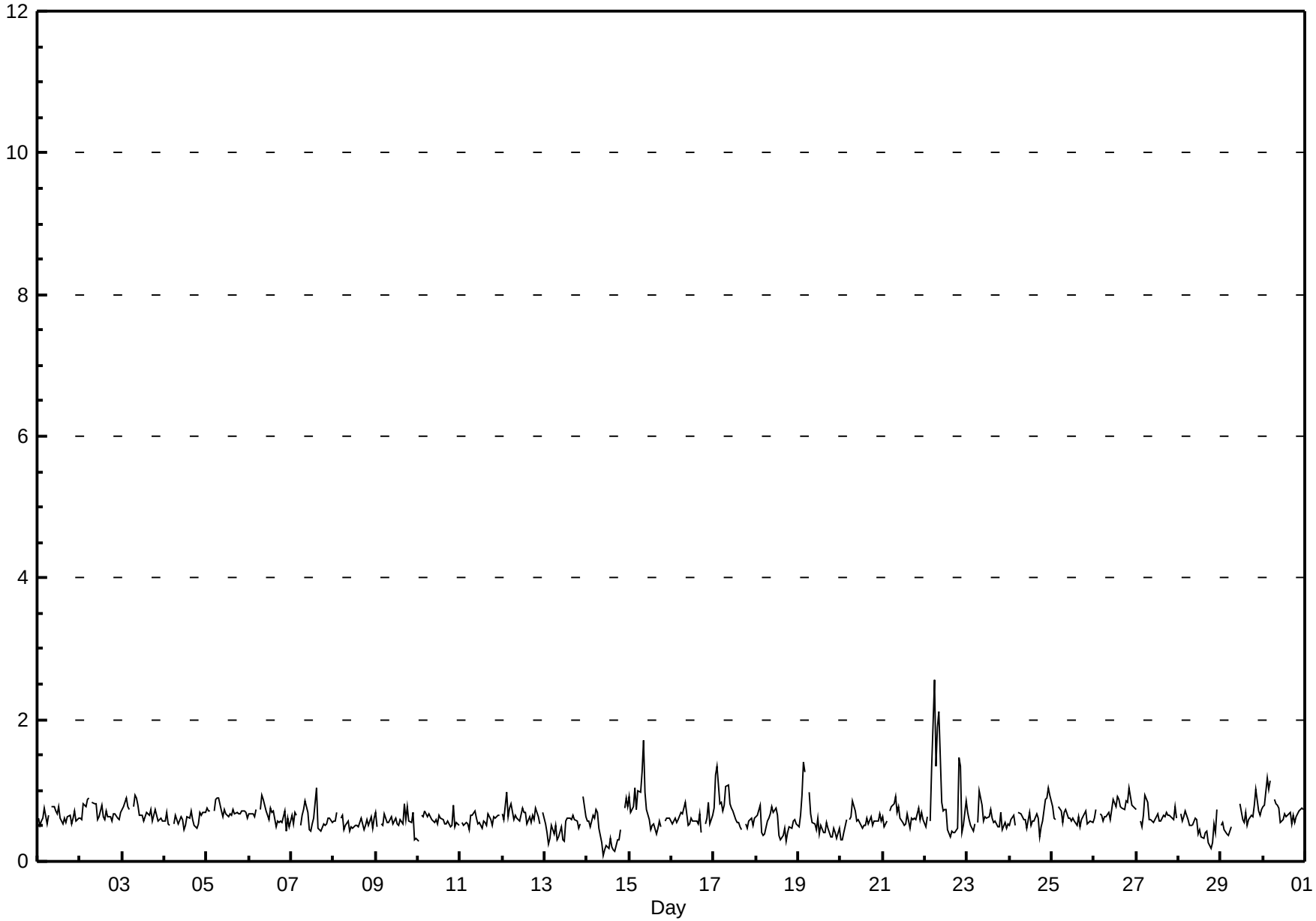
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

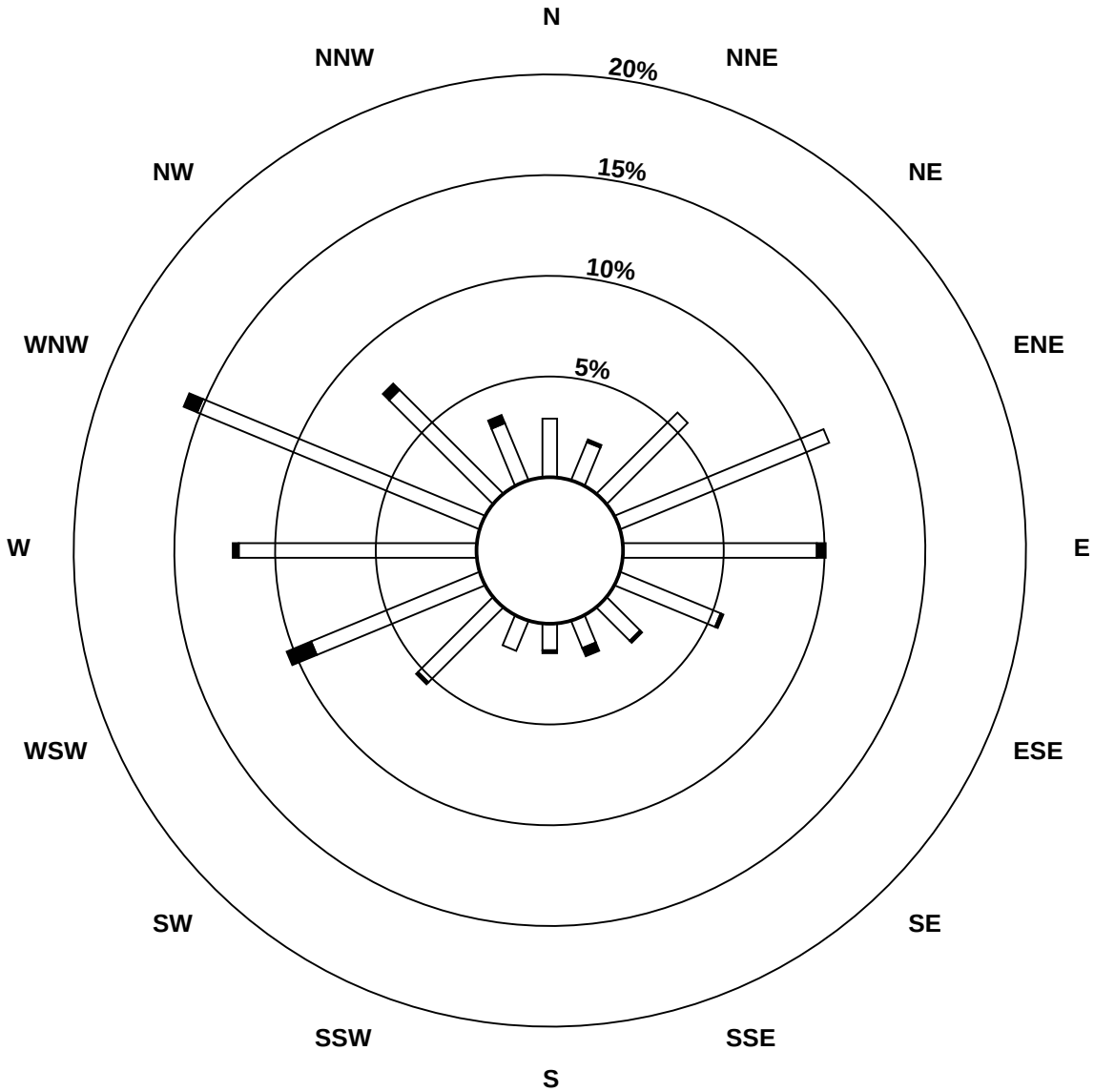
Henry Pirker - April 2010



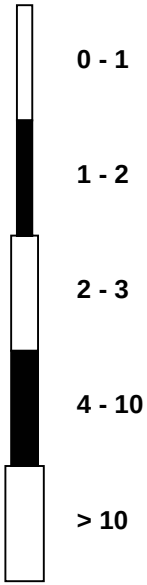
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Henry Pirker - April 2010



Pollutant Classes (ppb)



PASZA
Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 35.9 ppb on Apr 7 07:00 Maximum Daily Average: 11.8 ppb on Apr 15

Minimum Value: 1 ppb on Apr 4 16:00 Minimum Daily Average: 2.5 ppb on Apr 10
Maximum Diurnal Average: 14.7 ppb at hour 7 Minimum Diurnal Average: 2.2 ppb at hour 14
Monthly Average: 6.65 ppb Percentiles: $P_1 = 1.1$ $P_{10} = 1.6$ $Q_1 = 2.4$ Median = 4.5 $Q_3 = 8.4$ $P_{90} = 15.5$ $P_{99} = 32.7$

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

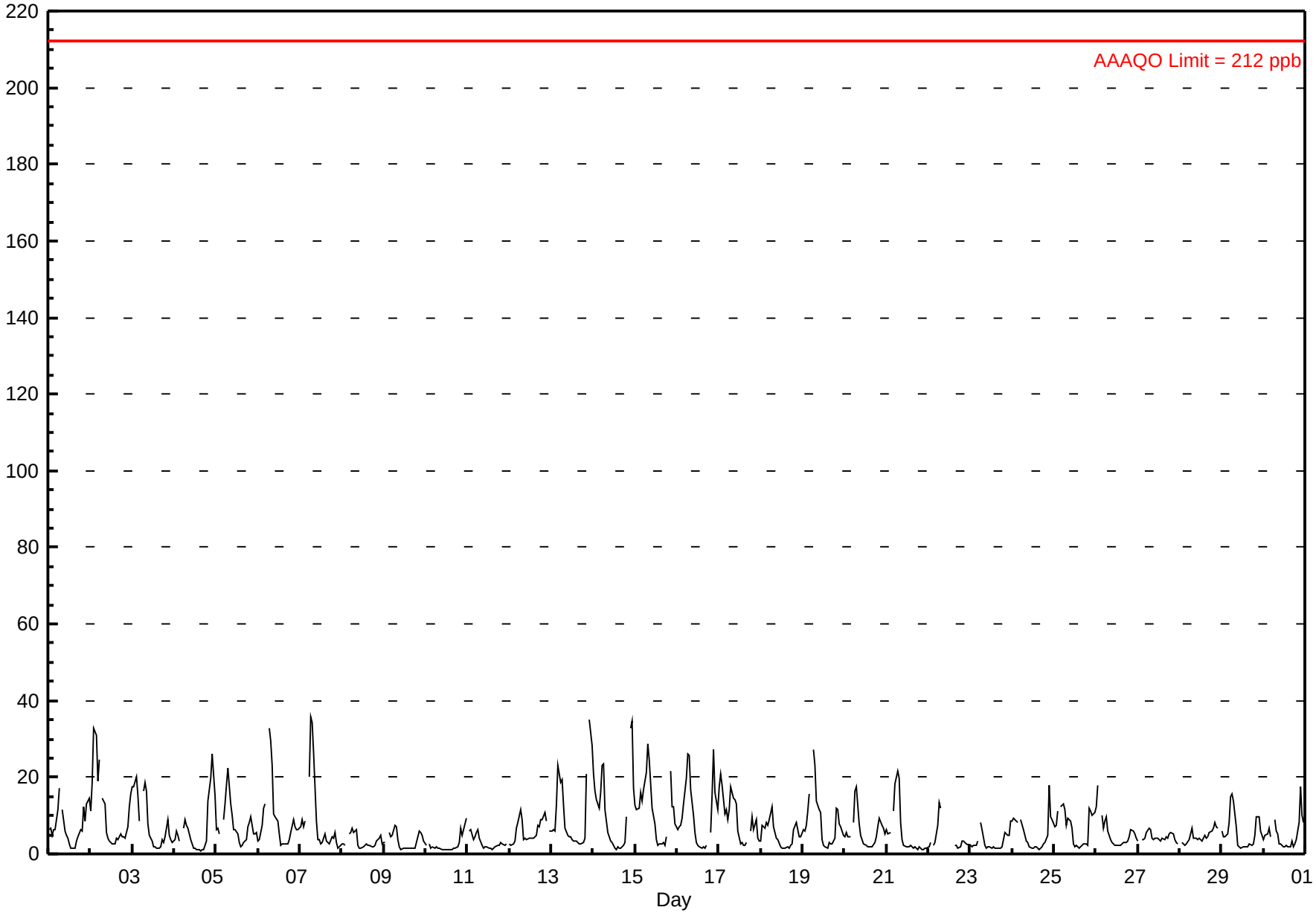
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	6	7	5	6	6	12	17	A	12	6	5	4	3	1	1	2	3	5	6	6	12	9	13	14	7.0	17.2
2-Apr	11	19	33	31	19	25	A	15	13	6	4	3	2	3	2	4	4	5	5	4	4	7	12	16	10.8	32.7
3-Apr	18	18	20	15	8	A	17	18	16	8	5	3	2	2	1	1	2	4	3	5	9	5	4	3	8.1	20.1
4-Apr	4	6	5	3	A	7	9	8	7	4	2	2	2	1	1	1	1	1	3	14	17	20	26	15	6.9	25.9
5-Apr	6	7	5	A	9	13	18	22	13	10	7	6	5	3	2	2	3	4	7	8	10	5	5	6	7.7	22.3
6-Apr	3	4	8	12	13	A	33	29	23	10	10	9	5	2	3	3	3	2	4	6	9	7	6	6	9.1	32.9
7-Apr	7	9	7	8	A	20	36	34	27	9	4	4	3	3	5	4	3	3	5	4	6	3	2	2	8.9	35.9
8-Apr	2	3	2	A	5	6	7	6	6	2	1	2	2	2	3	2	2	2	2	2	3	4	5	3	3.2	6.6
9-Apr	3	3	A	6	5	5	8	7	4	2	1	1	1	1	2	2	1	2	2	3	6	6	5	3	3.4	7.6
10-Apr	2	A	3	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	3	7	5	6	9	2.5	9.4
11-Apr	A	6	6	4	4	6	6	4	2	2	2	2	2	1	1	2	2	2	2	3	3	2	3	A	3.0	6.5
12-Apr	3	2	2	3	7	8	11	9	4	4	4	4	4	4	4	5	7	7	9	9	11	9	A	6	6.0	11.5
13-Apr	6	6	6	13	23	18	19	13	7	5	4	5	4	3	3	3	3	2	3	4	21	A	35	28	10.2	34.9
14-Apr	21	17	14	12	16	23	23	11	5	4	3	3	2	1	2	1	2	2	3	10	A	33	35	17	11.4	34.6
15-Apr	13	12	12	16	14	17	21	29	25	18	12	8	4	2	3	2	3	2	5	A	22	12	12	8	11.8	28.6
16-Apr	6	7	8	9	13	20	26	26	17	10	6	3	2	2	2	2	2	2	A	6	15	27	16	11	10.3	27.2
17-Apr	18	21	18	11	12	9	11	18	15	14	13	6	3	3	2	2	3	A	6	10	6	9	4	3	9.4	20.9
18-Apr	3	7	7	8	8	9	12	7	5	4	4	2	1	1	1	2	1	2	3	6	8	6	5	4	4.9	12.3
19-Apr	6	6	7	11	16	A	27	23	14	12	11	4	2	2	2	3	3	3	4	12	12	8	7	5	8.6	27.3
20-Apr	5	6	5	5	A	8	16	18	8	5	4	3	2	2	2	2	2	3	4	7	9	7	7	5	5.8	17.6
21-Apr	6	5	6	A	11	18	22	20	8	4	2	2	2	2	2	1	2	1	1	2	1	1	1	2	5.4	21.5
22-Apr	2	3	A	2	3	7	13	12	C	C	C	C	C	C	C	2	2	2	2	3	3	3	2	2	--	13.3
23-Apr	2	2	2	2	3	A	8	6	2	2	2	2	1	2	1	1	2	2	2	4	5	5	5	9	3.2	8.7
24-Apr	8	9	8	8	A	9	6	5	3	3	2	2	1	2	2	1	2	2	2	3	5	18	10	9	5.3	17.9
25-Apr	7	7	11	A	12	13	12	7	9	9	7	3	2	2	2	2	2	3	3	2	12	11	10	11	6.9	12.9
26-Apr	12	18	A	10	7	9	10	6	4	3	3	2	2	2	2	3	3	3	3	5	6	6	5	4	5.5	17.8
27-Apr	3	A	4	4	4	5	7	6	4	4	4	4	4	3	4	4	5	4	5	5	5	4	3	2	4.3	6.8
28-Apr	A	3	3	2	3	4	5	7	4	4	4	4	4	3	5	4	4	5	6	7	8	7	7	A	4.6	8.2
29-Apr	6	4	4	5	8	15	16	14	7	2	2	2	2	2	2	2	2	2	3	5	10	10	6	5	5.6	15.6
30-Apr	4	5	5	7	5	A	9	6	5	3	3	2	2	2	2	2	3	2	2	4	8	18	10	8	5.0	17.5
	7.0	7.9	8.0	8.3	9.1	11.5	14.7	13.3	9.3	5.8	4.5	3.3	2.5	2.2	2.3	2.3	2.6	2.8	3.7	5.6	8.7	9.2	9.2	7.8	Diurnal Average	
	21.0	20.9	32.7	31.1	23.1	24.6	35.9	34.3	26.5	18.3	13.2	8.6	5.2	3.9	5.2	4.9	7.3	7.0	9.0	13.8	21.6	32.8	34.9	28.2	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

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - April 2010



Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - April 2010

Maximum Value: 41.7 ppb on Apr 13 23:00

Maximum Daily Average: 17.3 ppb on Apr 15

Minimum Value: 2 ppb on Apr 4 15:00

Minimum Daily Average: 4.5 ppb on Apr 10

Maximum Diurnal Average: 20.1 ppb at hour 7

Minimum Diurnal Average: 3.9 ppb at hour 14

Monthly Average: 10.36 ppb

Percentiles: P_1 = 2.0 P_{10} = 3.2 Q_1 = 4.6 Median = 7.5 Q_3 = 13.3 P_{90} = 22.4 P_{99} = 39.5

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	9	9	6	9	13	19	30	A	18	9	7	7	5	2	4	4	10	9	10	10	17	15	16	20	11.3	29.8
2-Apr	16	30	36	33	24	28	A	19	18	11	5	6	4	6	5	10	6	9	6	6	7	13	19	21	14.8	36.2
3-Apr	23	22	25	18	14	A	23	23	21	13	7	5	2	2	2	3	4	8	7	8	20	6	5	4	11.7	25.4
4-Apr	6	8	7	5	A	9	12	9	24	5	4	3	3	3	2	3	3	4	8	23	26	30	35	32	11.6	34.8
5-Apr	8	9	7	A	14	17	25	38	16	13	9	8	7	5	5	4	6	7	13	12	12	9	8	13	11.7	38.1
6-Apr	7	5	21	20	20	A	39	33	33	15	12	11	8	3	5	4	4	4	6	10	14	9	8	8	13.2	39.3
7-Apr	11	10	12	12	A	38	41	40	31	19	11	6	5	5	30	5	5	5	8	8	11	5	2	4	14.2	41.3
8-Apr	4	7	4	A	8	9	15	10	8	5	4	5	5	4	4	4	3	3	3	4	4	5	7	3	5.8	14.9
9-Apr	4	4	A	7	6	7	14	14	6	4	2	10	2	2	4	2	2	2	3	6	10	10	6	8	6.1	14.4
10-Apr	5	A	5	5	3	2	3	2	3	2	2	2	2	2	2	2	2	4	3	7	11	7	12	14	4.5	13.9
11-Apr	A	10	13	6	5	10	9	7	4	3	4	3	4	2	3	5	3	16	5	5	5	4	8	A	6.1	15.6
12-Apr	4	3	4	4	10	12	16	16	6	7	6	6	10	7	6	7	10	12	14	12	27	13	A	9	9.7	27.1
13-Apr	7	8	8	23	30	22	22	17	12	6	6	6	5	5	5	4	4	4	6	14	41	A	42	33	14.4	41.7
14-Apr	24	23	22	15	23	31	31	15	8	6	6	10	4	2	4	2	3	5	8	23	A	40	40	32	16.4	39.8
15-Apr	19	17	14	22	19	25	27	40	35	22	16	11	6	4	13	5	7	5	9	A	34	17	17	14	17.3	39.5
16-Apr	10	13	11	13	17	24	31	30	28	12	12	4	8	4	6	5	4	5	A	10	26	33	29	17	15.4	32.6
17-Apr	21	24	25	15	15	10	15	21	17	21	17	8	5	3	4	6	8	A	22	25	15	17	8	6	14.3	25.4
18-Apr	6	15	10	12	11	11	19	11	9	5	7	3	3	2	3	4	8	8	7	10	11	12	7	7	8.3	18.7
19-Apr	8	8	10	14	22	A	33	28	21	15	13	9	5	3	3	6	5	5	9	21	16	11	10	6	12.3	33.0
20-Apr	6	10	10	8	A	12	22	26	12	8	5	4	3	3	4	4	4	6	8	10	15	15	9	7	9.1	26.1
21-Apr	9	8	8	A	15	24	30	27	17	5	3	3	3	3	5	3	4	2	2	3	3	2	2	3	8.1	30.4
22-Apr	5	6	A	3	6	13	19	17	C	C	C	C	C	C	C	4	4	3	4	6	5	4	3	4	--	18.9
23-Apr	3	3	3	5	9	A	12	11	7	4	3	5	4	5	3	3	3	5	7	7	11	7	8	15	6.2	14.8
24-Apr	11	14	11	12	A	13	11	7	6	5	4	3	2	5	3	2	5	5	4	7	8	24	22	14	8.7	24.0
25-Apr	13	13	16	A	19	17	16	9	11	10	8	4	2	3	4	3	6	7	5	5	20	25	13	14	10.7	25.2
26-Apr	15	20	A	19	12	16	16	8	5	5	5	5	4	4	5	4	5	5	4	7	9	9	15	5	8.9	20.0
27-Apr	4	A	5	5	5	8	11	10	5	4	5	5	5	5	7	6	6	6	7	7	7	6	7	3	6.3	11.5
28-Apr	A	4	4	4	4	5	9	17	6	6	7	7	7	5	10	8	6	9	9	10	14	13	9	A	8.0	16.9
29-Apr	8	6	8	8	15	18	20	28	28	5	4	4	4	4	5	3	5	4	7	8	13	13	8	6	9.6	28.1
30-Apr	5	8	8	11	8	A	12	9	8	4	5	3	4	6	5	4	10	4	4	6	16	22	18	11	8.4	22.5
	9.8	11.4	11.8	11.8	13.5	16.1	20.1	18.7	14.7	8.7	6.9	5.8	4.6	3.9	5.5	4.3	5.3	6.0	7.2	10.0	14.8	13.7	13.6	12.0	Diurnal Average	
	24.3	30.3	36.2	33.3	30.3	38.2	41.3	39.7	35.2	21.8	16.9	10.9	9.6	6.9	30.4	9.6	10.4	15.6	21.8	24.7	41.4	39.5	41.7	32.8	Diurnal Maximum	

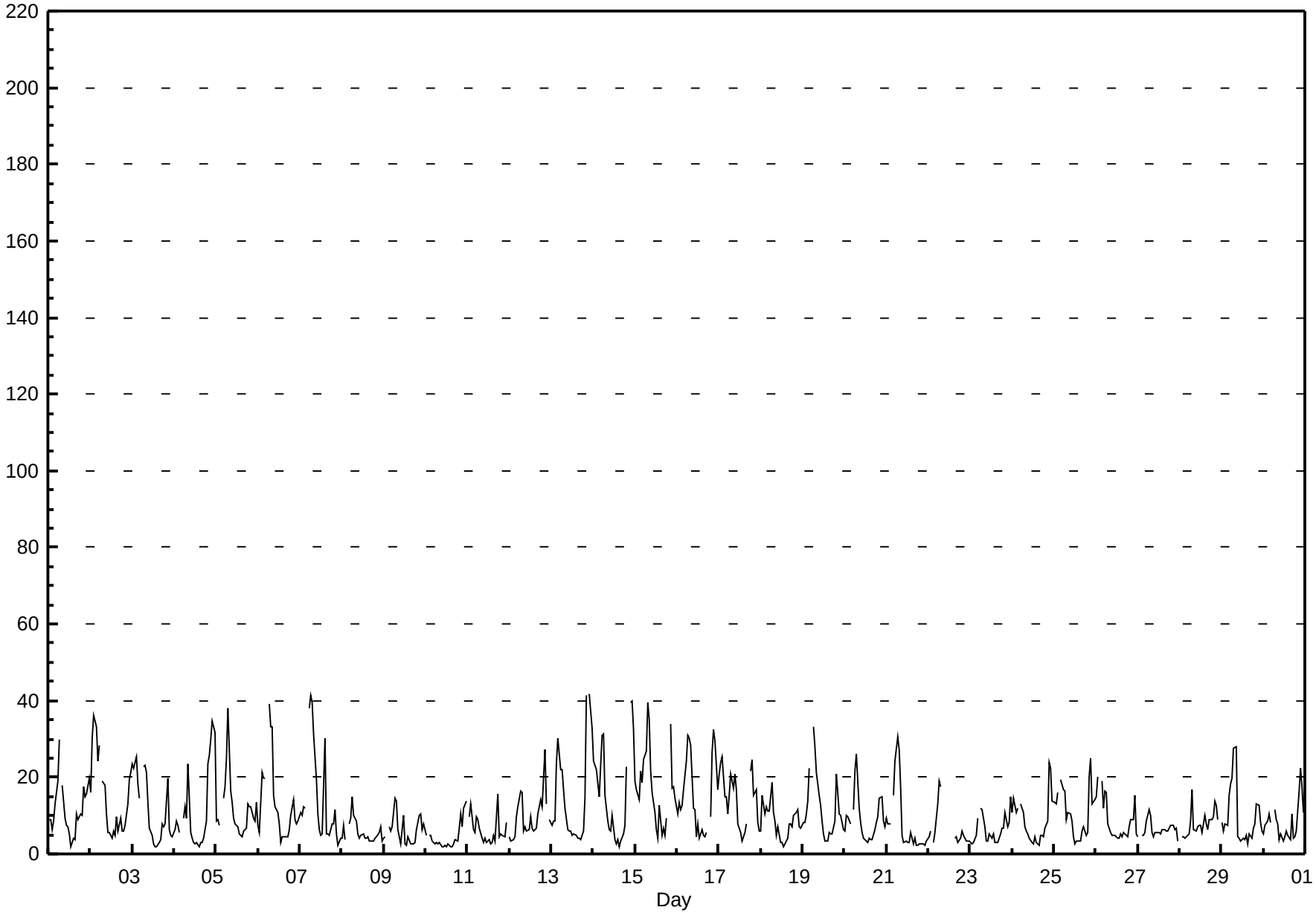
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

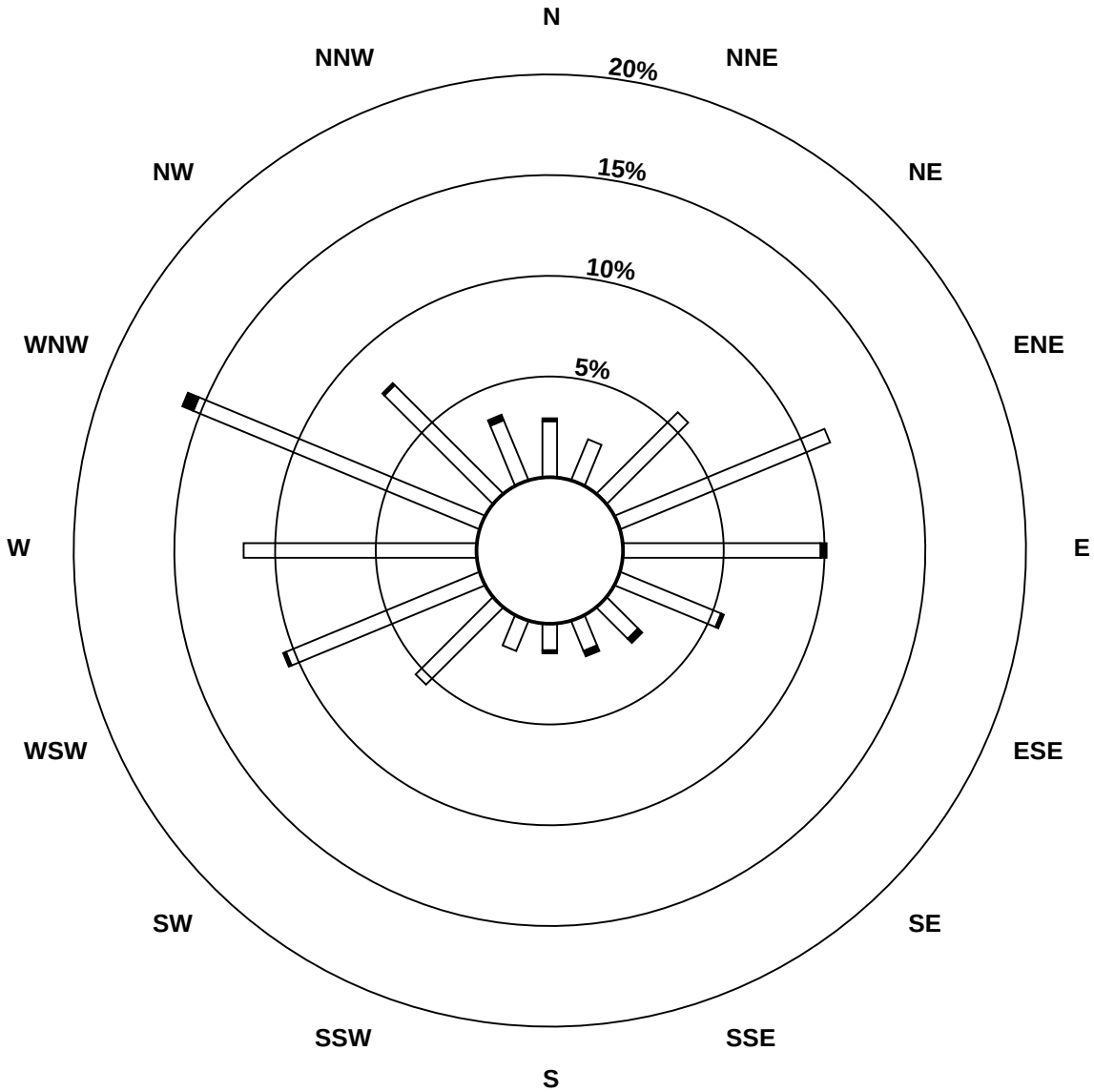
Henry Pirker - April 2010



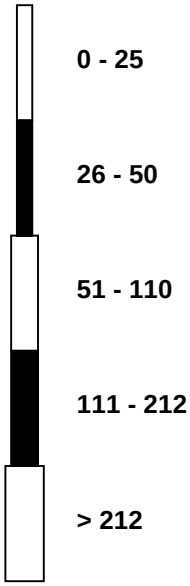
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Henry Pirker - April 2010



Pollutant Classes (ppb)



Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 81.4 ppb on Apr 15 08:00

Maximum Daily Average: 8.3 ppb on Apr 15

Minimum Value: 0 ppb on Apr 1 01:00

Minimum Daily Average: 0.2 ppb on Apr 8

Maximum Diurnal Average: 8.4 ppb at hour 8

Minimum Diurnal Average: 0.2 ppb at hour 2

Monthly Average: 1.36 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.3 $Q_3 = 0.9$ $P_{90} = 2.3$ $P_{99} = 17.1$

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

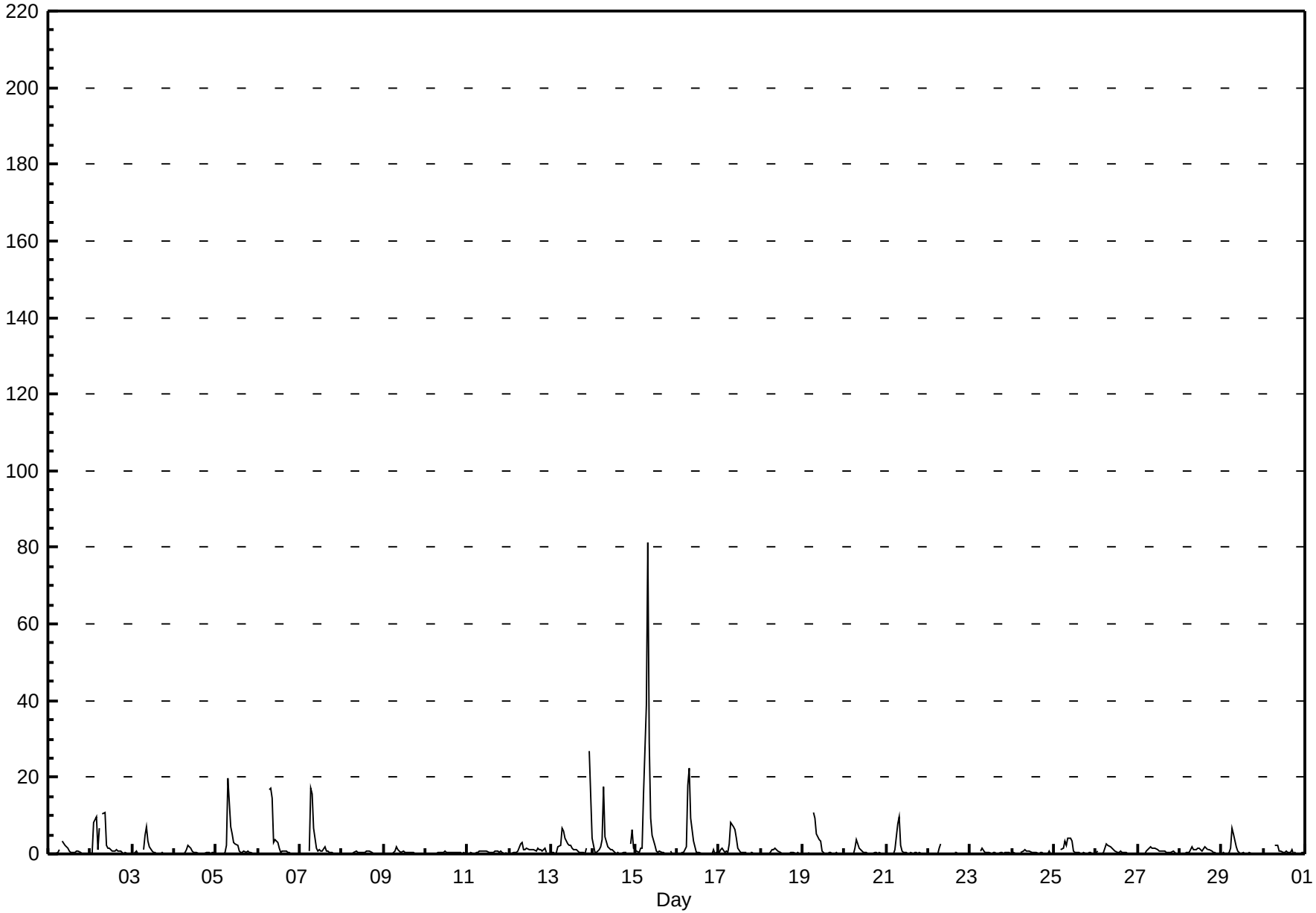
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	1	A	3	2	2	2	1	0	0	0	1	1	0	0	0	0	0	0	0.6	3.5
2-Apr	0	0	8	10	1	7	A	11	11	2	2	1	1	1	1	1	1	1	0	0	0	0	0	0	2.5	11.0
3-Apr	0	0	1	0	0	A	1	5	7	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.9	7.2
4-Apr	0	0	0	0	A	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.3
5-Apr	0	0	0	A	0	0	2	20	7	5	3	3	2	1	0	1	1	1	1	0	0	0	0	0	2.0	19.7
6-Apr	0	0	0	0	0	A	17	17	15	3	4	3	2	0	1	1	1	0	0	0	0	0	0	0	2.8	17.1
7-Apr	0	0	0	0	A	1	17	16	7	2	1	1	1	1	2	1	1	0	0	0	0	0	0	0	2.2	17.1
8-Apr	0	0	0	A	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0.2	0.8
9-Apr	0	0	A	0	0	0	1	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.8
10-Apr	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0.3	0.6
11-Apr	A	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	1	1	0	1	0	0	0	A	0.4	0.9
12-Apr	0	0	0	0	0	1	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	1.0	3.1
13-Apr	0	0	0	0	2	2	7	6	4	3	2	2	2	1	1	1	1	0	0	0	2	A	27	4	2.9	26.8
14-Apr	2	1	0	1	2	4	18	4	2	1	1	1	0	0	0	0	0	0	0	0	A	3	6	1	2.1	17.6
15-Apr	1	1	0	1	1	16	39	81	29	9	5	2	1	0	1	0	0	0	0	A	1	0	0	0	8.3	81.4
16-Apr	0	0	0	0	0	2	18	22	9	3	2	1	0	0	0	0	0	0	A	0	0	1	0	1	2.6	22.4
17-Apr	0	1	1	1	1	0	2	8	7	6	4	1	0	0	0	0	0	A	0	0	0	0	0	0	1.6	8.4
18-Apr	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4
19-Apr	0	0	0	0	0	A	11	9	5	4	3	1	0	0	0	0	0	0	0	1	0	0	0	0	1.6	10.8
20-Apr	0	0	0	0	A	0	1	4	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.7
21-Apr	0	0	0	A	0	1	8	10	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0	9.7
22-Apr	0	0	A	0	0	0	2	3	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	--	2.8
23-Apr	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4
24-Apr	0	0	0	0	A	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0.4	1.1
25-Apr	0	0	0	A	1	2	3	2	4	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	1.0	4.2
26-Apr	0	1	A	0	0	1	3	2	2	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0.7	2.6
27-Apr	0	A	0	0	0	1	2	2	1	1	2	1	1	1	1	1	0	1	0	0	1	0	0	0	0.7	2.0
28-Apr	A	0	0	0	0	0	1	2	1	1	1	2	1	1	2	1	1	1	1	0	1	0	0	A	0.8	2.0
29-Apr	0	0	0	0	0	2	7	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	6.8
30-Apr	0	0	0	0	0	A	2	2	2	1	1	0	0	1	1	0	1	0	0	0	0	0	0	0	0.5	2.3
	0.2	0.2	0.5	0.6	0.4	1.6	5.8	8.4	4.6	2.1	1.6	1.0	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.3	0.3	1.2	0.3	Diurnal Average	
	2.3	1.1	8.0	9.8	1.9	15.7	38.8	81.4	29.3	9.3	5.0	3.0	2.1	1.3	2.0	1.5	1.5	1.1	1.1	0.6	1.6	2.5	26.8	4.1	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

Hourly Averages

Nitrogen Oxide (NO) - ppb

Henry Pirker - April 2010



PASZA
Pasco Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - April 2010

Maximum Value: 129.9 ppb on Apr 15 08:00

Maximum Daily Average: 18.6 ppb on Apr 15

Minimum Value: 0 ppb on Apr 1 02:00

Minimum Daily Average: 0.8 ppb on Apr 8

Maximum Diurnal Average: 17.6 ppb at hour 8

Minimum Diurnal Average: 1.2 ppb at hour 1

Monthly Average: 3.99 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 1.5 $Q_3 = 3.4$ $P_{90} = 7.9$ $P_{99} = 44.9$

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	2	5	7	A	8	4	3	3	2	1	2	1	2	2	1	0	0	8	0	0	2.3	8.4
2-Apr	0	4	18	22	6	13	A	41	18	5	2	4	3	3	2	7	2	2	1	1	2	1	1	0	7.0	40.6
3-Apr	1	0	4	0	0	A	3	8	12	6	3	1	1	1	0	0	1	1	1	1	1	0	0	0	2.0	12.0
4-Apr	0	0	0	0	A	0	1	2	23	2	1	1	1	1	1	1	2	1	3	1	2	2	3	2	2.2	23.0
5-Apr	0	0	0	A	2	1	11	63	10	8	5	3	3	2	2	2	3	4	3	2	2	3	3	1	6.0	62.9
6-Apr	2	1	2	1	1	A	41	35	31	5	6	4	3	1	1	1	1	1	1	1	0	0	0	0	6.1	41.0
7-Apr	0	0	0	0	A	6	35	27	9	4	3	2	1	2	20	2	1	1	1	1	1	0	0	0	5.1	34.9
8-Apr	0	0	0	A	0	0	1	1	1	1	1	3	2	1	1	2	1	1	1	0	0	0	0	0	0.8	2.7
9-Apr	0	0	A	0	0	0	1	6	3	2	1	5	1	1	2	1	1	1	1	1	1	1	0	1	1.3	5.8
10-Apr	0	A	0	0	0	0	1	1	3	1	1	4	1	1	1	2	1	1	5	3	4	1	2	1	1.5	4.9
11-Apr	A	1	2	0	1	3	1	1	4	2	2	1	3	3	2	3	3	13	2	2	2	2	3	A	2.6	13.2
12-Apr	2	1	2	1	1	2	8	6	2	2	2	2	3	2	2	1	3	6	6	2	46	4	A	1	4.9	46.5
13-Apr	1	1	1	3	6	5	13	8	16	3	3	4	2	9	2	1	1	1	3	0	17	A	49	7	6.9	49.4
14-Apr	8	11	3	2	4	15	66	7	3	2	6	8	2	1	1	1	1	1	3	0	A	20	16	12	8.5	66.3
15-Apr	11	5	1	10	5	65	70	130	84	12	7	4	2	1	9	2	2	1	1	A	5	1	1	0	18.6	129.9
16-Apr	1	1	1	1	2	14	38	42	22	4	4	1	3	1	1	1	1	0	A	1	1	7	2	20	7.3	41.5
17-Apr	2	3	3	2	3	1	8	13	9	12	6	2	1	1	1	2	2	A	5	3	0	0	0	0	3.5	13.1
18-Apr	0	0	0	4	0	1	2	3	2	1	2	1	1	1	1	1	2	3	2	2	2	4	2	0	1.6	3.8
19-Apr	1	0	0	0	3	A	21	15	9	5	4	2	2	1	1	1	1	0	0	3	0	1	1	0	3.2	21.5
20-Apr	0	0	1	3	A	1	4	7	3	2	1	1	0	1	1	0	0	2	2	1	3	3	0	0	1.7	6.8
21-Apr	0	0	1	A	0	5	20	28	7	1	1	1	1	1	2	0	1	1	1	1	1	1	0	0	3.1	27.7
22-Apr	0	0	A	0	0	1	3	8	C	C	C	C	C	C	C	1	1	1	1	1	0	0	0	0	--	8.0
23-Apr	0	0	0	0	0	A	2	3	2	2	2	2	2	3	1	2	1	4	3	3	6	2	3	1	1.8	6.2
24-Apr	1	3	1	3	A	3	5	4	2	3	3	3	1	3	1	1	1	7	2	4	2	7	1	2	2.7	7.2
25-Apr	1	0	2	A	4	5	5	3	5	5	5	2	1	2	5	0	1	2	1	0	2	3	1	1	2.5	5.5
26-Apr	2	4	A	1	2	8	20	4	4	2	3	2	1	1	2	1	2	1	1	1	1	1	1	0	2.9	20.4
27-Apr	1	A	1	0	1	5	7	5	3	2	3	3	2	2	2	2	1	1	1	2	4	3	2	2	2.3	7.2
28-Apr	A	1	2	2	3	2	4	20	3	3	5	5	4	3	11	4	3	4	4	2	3	1	1	A	4.2	20.1
29-Apr	0	2	4	0	2	4	20	14	14	1	1	1	2	0	1	0	1	0	1	0	0	0	0	0	3.0	20.2
30-Apr	0	0	1	0	1	A	6	5	4	1	2	3	1	3	4	2	7	2	1	0	1	1	2	2	2.2	6.9
	1.2	1.5	1.9	2.3	2.0	6.6	14.7	17.6	10.9	3.8	3.2	2.7	1.8	1.7	2.9	1.6	1.7	2.2	2.0	1.5	3.8	2.6	3.2	2.0	Diurnal Average	
	11.5	10.7	18.1	22.0	6.4	64.6	70.3	129.9	83.9	12.3	7.5	8.3	3.9	8.7	20.1	7.3	6.9	13.2	6.4	4.2	46.5	20.0	49.4	19.8	Diurnal Maximum	

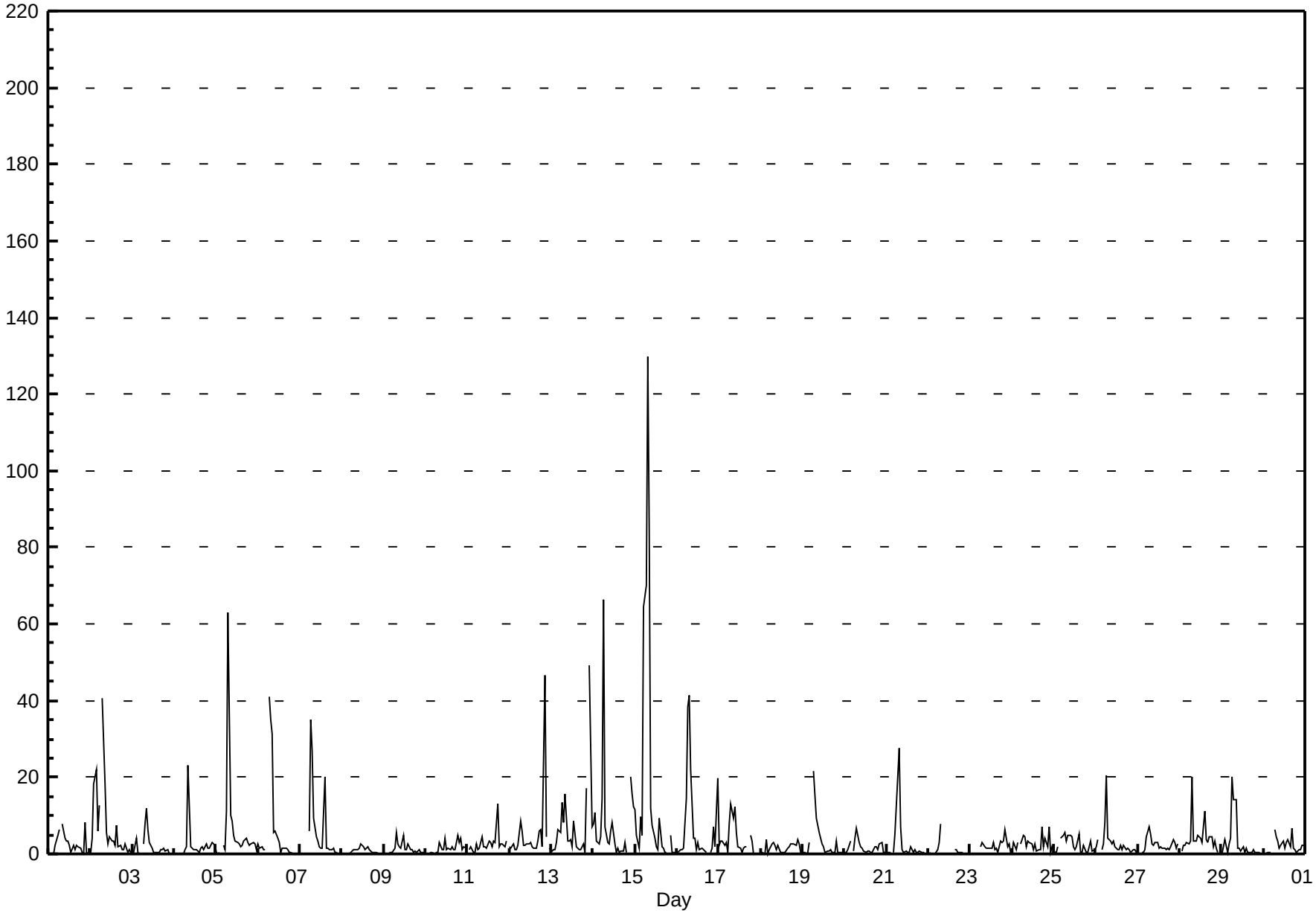
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Henry Pirker - April 2010



Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 110.3 ppb on Apr 15 08:00

Maximum Daily Average: 20.2 ppb on Apr 15

Minimum Value: 1 ppb on Apr 4 16:00

Minimum Daily Average: 2.8 ppb on Apr 10

Maximum Diurnal Average: 21.8 ppb at hour 8

Minimum Diurnal Average: 2.7 ppb at hour 14

Monthly Average: 8.09 ppb

Percentiles: P_1 = 1.5 P_{10} = 1.9 Q_1 = 2.8 Median = 5.1 Q_3 = 9.1 P_{90} = 17.9 P_{99} = 49.6

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

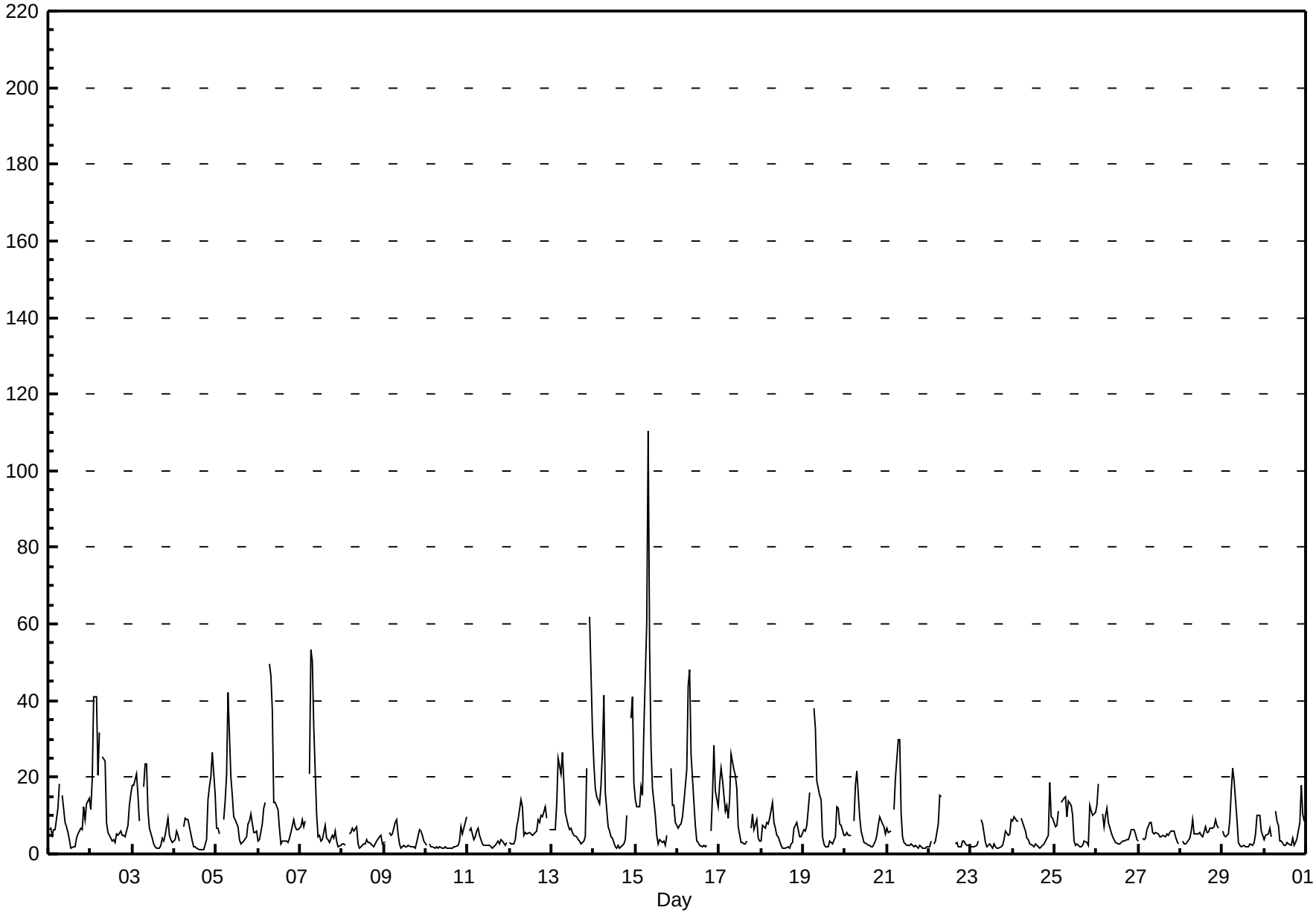
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	6	7	5	6	7	12	18	A	15	8	7	6	4	2	2	2	4	5	7	6	12	9	13	15	7.7	18.4
2-Apr	11	19	41	41	20	32	A	25	24	8	6	5	3	4	3	5	5	6	5	5	4	7	13	16	13.4	41.1
3-Apr	18	18	21	15	9	A	18	23	24	11	7	4	2	2	2	2	2	4	3	5	9	5	4	3	9.1	23.7
4-Apr	4	6	5	4	A	7	9	9	9	5	3	2	2	2	1	1	1	1	4	14	17	20	27	16	7.3	26.6
5-Apr	7	7	5	A	9	14	20	42	20	15	10	9	7	4	2	3	4	4	8	8	10	6	6	6	9.8	42.1
6-Apr	3	4	8	12	13	A	50	47	38	14	13	12	7	3	3	3	3	3	4	6	9	7	6	6	11.9	49.8
7-Apr	7	9	7	9	A	21	53	50	33	10	5	5	3	4	7	4	4	3	5	4	6	3	2	2	11.2	53.2
8-Apr	3	3	2	A	5	6	7	6	7	3	2	2	2	3	4	3	3	2	2	3	3	4	5	3	3.5	7.0
9-Apr	3	3	A	6	5	5	8	9	5	3	2	2	2	2	2	2	2	2	2	3	6	6	5	3	3.8	9.0
10-Apr	2	A	3	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	3	7	5	7	10	2.8	9.6
11-Apr	A	6	7	4	5	6	7	5	3	2	2	2	2	2	2	2	2	3	3	4	3	2	3	A	3.5	6.8
12-Apr	3	3	3	4	7	9	14	12	5	5	5	6	5	5	5	6	9	8	10	10	12	9	A	6	7.0	14.3
13-Apr	6	6	6	13	25	21	27	19	11	7	6	7	6	5	4	4	3	3	3	4	22	A	62	32	13.2	62.0
14-Apr	24	17	15	13	18	27	41	16	7	6	5	4	2	1	2	2	2	3	4	10	A	36	41	19	13.6	41.3
15-Apr	14	12	12	18	15	33	60	110	54	28	17	10	5	3	4	3	3	2	5	A	22	13	13	8	20.2	110.3
16-Apr	7	7	8	10	13	22	44	48	26	14	8	3	3	2	2	2	2	2	A	6	15	29	16	12	13.1	48.2
17-Apr	18	22	19	11	13	9	14	26	22	21	17	7	3	3	3	3	3	A	7	10	6	9	4	3	11.1	26.2
18-Apr	3	7	7	8	8	9	13	8	7	5	5	2	2	2	2	2	2	2	3	7	8	6	5	4	5.3	13.4
19-Apr	6	6	7	11	16	A	38	33	19	15	14	4	3	2	2	3	3	3	4	12	12	8	7	5	10.2	38.1
20-Apr	5	6	5	5	A	8	18	22	10	6	4	3	3	2	2	2	2	3	5	8	10	8	7	5	6.4	21.6
21-Apr	7	5	6	A	12	20	30	30	10	4	3	2	2	2	3	2	2	2	2	2	2	1	2	2	6.6	29.7
22-Apr	2	3	A	3	3	8	15	15	C	C	C	C	C	C	C	3	3	2	2	3	3	3	2	2	--	15.2
23-Apr	2	2	2	2	3	A	9	8	3	2	2	3	2	2	2	2	2	2	2	4	6	5	5	9	3.5	9.1
24-Apr	9	10	9	8	A	9	7	6	4	4	3	2	2	2	2	1	2	2	3	3	5	19	10	9	5.7	18.6
25-Apr	7	7	11	A	13	15	15	10	14	13	10	3	2	3	2	2	2	3	3	2	13	11	10	11	8.0	14.9
26-Apr	13	18	A	10	7	10	12	8	6	5	4	3	3	3	3	3	3	4	4	5	6	6	5	4	6.3	18.4
27-Apr	4	A	4	4	4	6	8	8	6	5	6	5	5	4	5	4	5	5	6	6	6	4	3	3	5.0	8.3
28-Apr	A	3	3	3	3	4	6	9	5	5	5	6	5	4	7	6	6	7	7	7	9	7	7	A	5.6	8.9
29-Apr	6	5	5	5	9	17	22	19	9	3	2	2	2	2	2	2	3	2	3	5	10	10	6	5	6.5	22.5
30-Apr	4	5	5	7	5	A	11	8	7	3	3	2	2	3	3	2	4	2	3	4	8	18	11	9	5.7	17.9
	7.3	8.1	8.5	9.0	9.6	13.2	20.6	21.8	13.9	8.0	6.1	4.3	3.1	2.7	2.9	2.7	3.1	3.2	4.1	5.9	9.1	9.6	10.5	8.1	Diurnal Average	
	23.5	22.2	41.0	41.1	25.2	32.7	60.4	110.3	54.1	27.8	17.3	11.7	7.1	5.0	7.3	5.9	8.8	8.1	10.2	14.3	22.5	35.5	62.0	32.5	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - April 2010



PASZA
Pasco Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - April 2010

Maximum Value: 165.1 ppb on Apr 15 08:00

Maximum Daily Average: 35.0 ppb on Apr 15

Minimum Value: 2 ppb on Apr 4 15:00

Minimum Daily Average: 5.8 ppb on Apr 10

Maximum Diurnal Average: 35.6 ppb at hour 8

Minimum Diurnal Average: 5.5 ppb at hour 14

Monthly Average: 14.10 ppb

Percentiles: P_1 = 2.5 P_{10} = 4.0 Q_1 = 5.9 Median = 9.1 Q_3 = 15.9 P_{90} = 29.0 P_{99} = 84.7

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	9	9	7	9	15	24	37	A	26	13	11	10	8	2	5	5	13	10	11	10	17	23	16	20	13.5	36.5
2-Apr	16	35	53	53	29	40	A	50	35	16	7	10	7	9	7	17	7	11	6	7	8	14	20	22	20.9	53.5
3-Apr	24	23	30	19	15	A	25	31	34	20	10	7	4	3	2	4	5	9	8	8	21	7	5	5	13.7	33.9
4-Apr	7	9	8	6	A	9	13	11	45	8	6	4	3	4	2	4	4	5	9	25	27	30	38	34	13.5	45.4
5-Apr	9	9	8	A	17	19	36	101	27	22	14	11	10	8	6	6	9	11	15	13	14	10	10	14	17.3	100.6
6-Apr	10	7	22	20	20	A	81	67	64	21	18	15	11	4	6	6	6	5	7	10	14	9	8	8	19.1	80.6
7-Apr	11	10	12	12	A	43	72	67	41	24	14	8	7	7	51	6	7	6	8	9	12	6	2	4	19.1	71.9
8-Apr	4	8	4	A	8	10	16	10	9	6	5	8	7	5	6	6	5	4	4	5	4	6	7	4	6.5	15.5
9-Apr	4	5	A	8	6	7	16	20	9	6	4	15	4	3	7	3	3	3	3	7	10	11	7	9	7.4	19.8
10-Apr	5	A	5	5	3	3	3	3	4	3	3	6	3	4	3	4	4	5	7	10	15	7	13	14	5.8	14.8
11-Apr	A	10	15	7	6	12	10	8	8	4	6	4	7	5	5	8	6	29	6	8	7	6	9	A	8.5	29.0
12-Apr	6	5	6	5	11	15	23	22	9	9	8	9	13	9	7	8	14	17	19	14	74	15	A	9	14.2	73.8
13-Apr	8	10	9	26	36	27	35	25	28	10	9	9	7	12	7	6	5	5	9	15	58	A	87	37	20.8	87.4
14-Apr	32	33	25	15	26	46	97	22	12	8	12	17	5	3	5	3	4	6	10	23	A	55	52	45	24.2	97.2
15-Apr	29	20	15	31	23	85	95	165	118	34	24	15	8	5	22	7	8	5	10	A	36	18	18	15	35.0	165.1
16-Apr	11	14	12	13	18	39	68	72	50	16	16	5	11	5	8	6	5	6	A	10	27	39	31	37	22.6	71.5
17-Apr	22	26	28	17	17	11	22	34	27	33	22	10	7	4	6	8	10	A	26	25	15	17	8	6	17.5	34.1
18-Apr	6	16	11	16	11	12	21	14	11	6	9	4	4	2	3	5	9	10	10	13	13	16	9	7	9.9	21.3
19-Apr	9	8	10	14	25	A	54	42	31	21	17	11	7	4	4	6	6	6	9	22	17	11	11	7	15.3	53.8
20-Apr	6	11	10	11	A	12	26	33	15	10	7	5	4	4	5	4	4	8	10	10	17	18	9	8	10.8	33.2
21-Apr	9	8	8	A	16	30	51	55	25	6	4	4	4	4	8	3	5	3	2	4	3	3	2	4	11.3	54.6
22-Apr	5	6	A	3	6	14	22	26	C	C	C	C	C	C	C	5	6	4	4	6	5	4	4	3	--	25.7
23-Apr	3	2	3	5	10	A	14	14	9	5	5	7	6	8	4	4	3	9	10	10	17	8	11	15	7.9	17.4
24-Apr	11	16	11	13	A	16	14	12	8	7	7	6	3	7	4	3	6	12	6	11	9	28	23	15	10.7	28.2
25-Apr	14	13	18	A	22	22	22	12	16	16	13	6	3	5	8	3	7	9	5	6	22	27	13	15	12.9	27.4
26-Apr	17	24	A	20	15	25	36	12	9	7	8	7	5	5	8	5	8	6	6	8	9	10	17	5	11.7	36.4
27-Apr	5	A	5	6	6	13	19	15	8	7	8	8	6	7	8	8	7	7	8	9	11	9	7	6	8.3	19.1
28-Apr	A	5	6	6	7	7	11	37	10	9	11	12	11	8	22	12	9	12	14	11	17	14	9	A	11.9	37.2
29-Apr	9	7	11	8	18	22	40	42	42	6	6	4	6	4	6	3	6	5	8	8	13	13	8	6	12.6	42.1
30-Apr	5	8	9	11	9	A	18	12	12	5	8	6	6	9	9	6	17	5	5	7	17	23	19	13	10.4	23.2
	10.9	12.7	13.4	13.8	15.1	22.5	34.4	35.6	25.5	12.4	10.0	8.4	6.4	5.5	8.4	5.8	6.9	8.0	8.8	11.1	18.3	15.7	16.4	13.8	Diurnal Average	
	31.9	34.7	53.5	53.1	36.1	85.3	97.2	165.1	117.8	33.9	23.5	16.9	12.7	12.4	50.5	16.8	16.6	29.0	26.3	25.0	73.8	54.5	87.4	45.3	Diurnal Maximum	

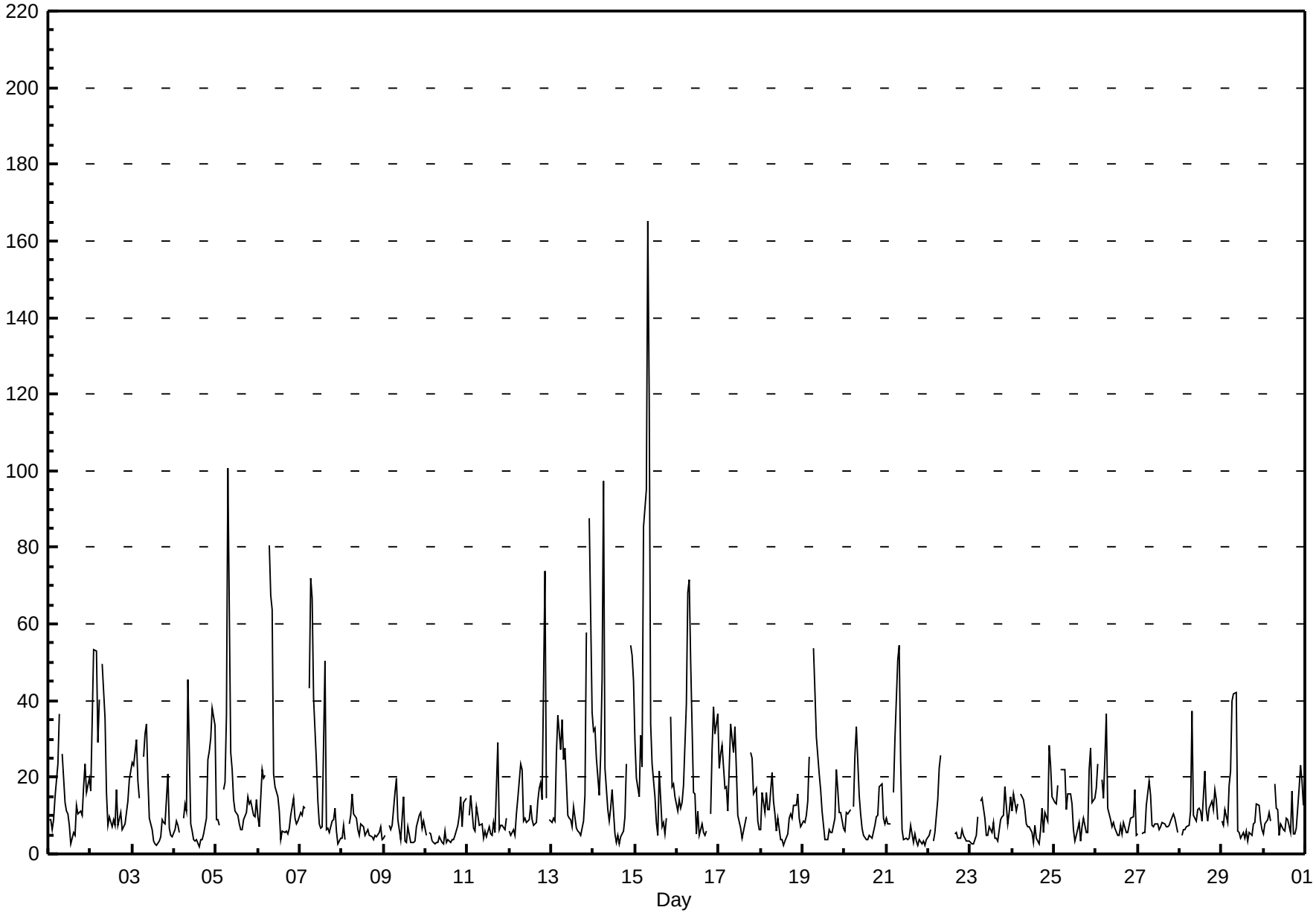
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Henry Pirker - April 2010



PASZA
Peace Airshed Zone Association

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 61.9 ppb on Apr 20 16:00 Maximum Daily Average: 47.6 ppb on Apr 20

Minimum Value: 1 ppb on Apr 15 06:00 Minimum Daily Average: 23.7 ppb on Apr 25
Maximum Diurnal Average: 45.4 ppb at hour 16 Minimum Diurnal Average: 16.2 ppb at hour 7
Monthly Average: 33.12 ppb Percentiles: P_1 = 2.5 P_{10} = 14.0 Q_1 = 25.9 Median = 34.6 Q_3 = 41.5 P_{90} = 47.8 P_{99} = 58.8

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

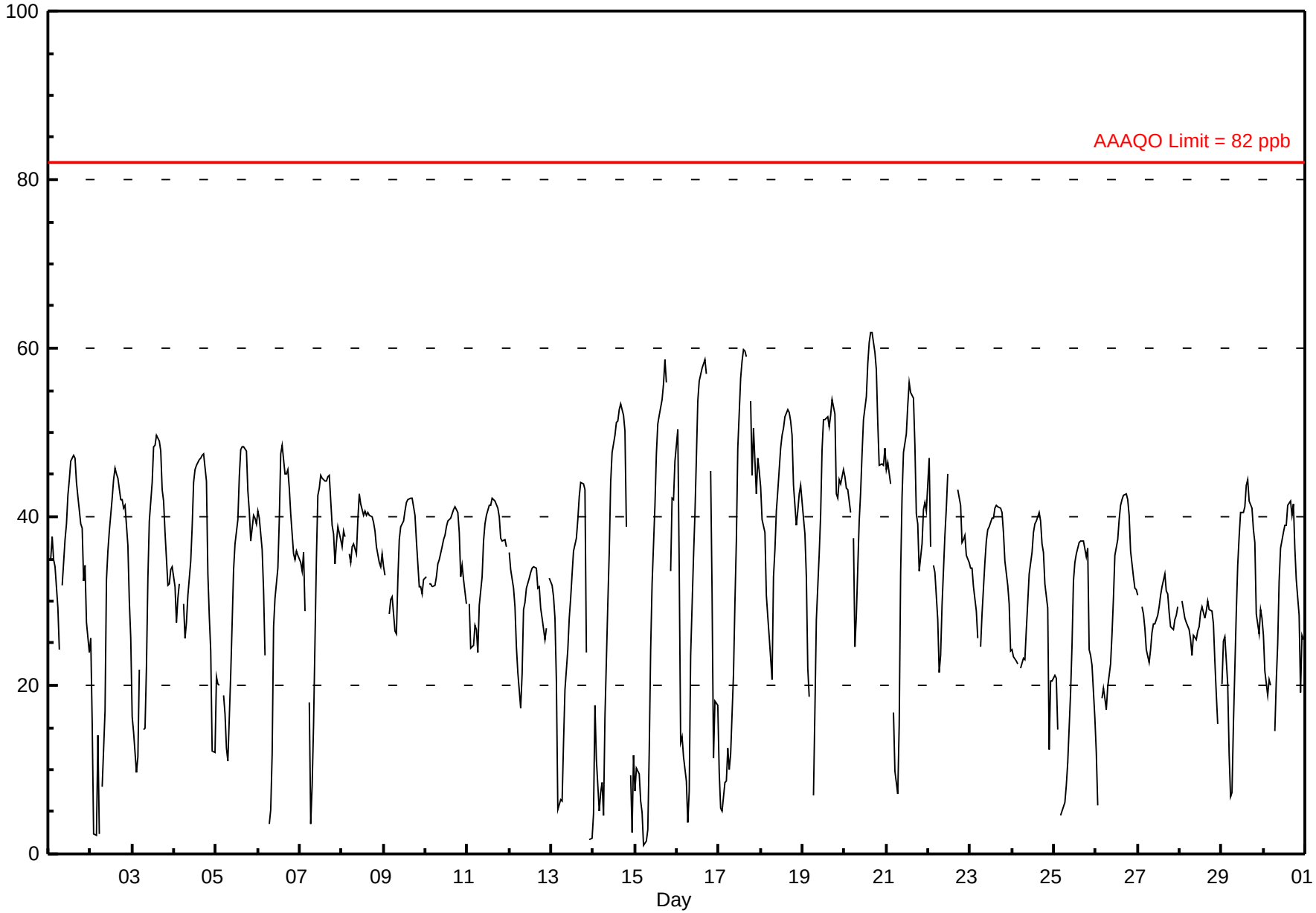
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	35	35	38	35	34	29	24	A	32	37	39	42	44	47	47	47	44	42	39	39	32	34	27	24	36.9	47.4
2-Apr	26	16	2	2	14	2	A	8	17	33	36	38	42	44	46	45	45	42	42	41	41	37	30	26	29.3	45.8
3-Apr	16	14	10	12	22	A	15	15	22	33	40	44	48	49	50	49	48	43	42	38	32	32	34	34	32.2	49.7
4-Apr	32	28	30	32	A	30	26	27	31	35	39	44	46	46	47	47	47	48	44	33	28	24	12	12	34.2	47.5
5-Apr	21	20	20	A	19	17	13	11	21	27	34	37	40	45	48	48	48	48	43	41	37	40	40	39	32.9	48.3
6-Apr	41	40	36	31	24	A	4	5	12	27	30	34	40	47	49	45	45	46	43	40	36	35	36	35	33.9	48.6
7-Apr	35	34	36	29	A	18	4	8	15	35	43	43	45	45	44	44	45	45	39	38	34	37	39	37	34.4	44.9
8-Apr	36	38	38	A	36	35	36	37	36	40	43	42	40	41	40	40	40	40	39	38	36	35	34	36	38.1	42.7
9-Apr	34	33	A	29	30	31	26	26	33	37	39	40	41	42	42	42	42	41	40	37	32	32	31	32	35.3	42.3
10-Apr	33	A	32	32	32	32	33	34	35	36	37	38	39	39	40	40	41	41	40	38	33	34	33	30	35.8	41.2
11-Apr	A	30	24	25	27	27	24	30	33	37	39	40	41	41	42	42	42	41	40	38	37	37	36	A	35.2	42.2
12-Apr	36	34	31	29	24	22	17	21	29	30	32	33	33	34	34	34	32	32	29	28	25	27	A	33	29.5	35.7
13-Apr	32	31	28	21	5	6	6	13	19	24	28	30	33	36	37	40	42	44	44	43	24	A	2	2	25.7	44.0
14-Apr	5	18	11	5	7	8	5	16	30	36	44	48	50	51	51	53	53	52	50	39	A	9	3	12	28.5	53.4
15-Apr	7	10	10	6	5	1	2	3	12	24	32	41	47	51	52	54	56	59	56	A	34	42	42	47	30.1	58.6
16-Apr	50	34	13	14	12	9	4	8	23	35	40	47	54	56	58	58	59	57	A	45	31	11	18	18	32.8	58.6
17-Apr	10	5	5	8	9	12	10	12	21	30	37	48	57	58	60	60	59	A	54	45	51	43	47	46	34.2	59.9
18-Apr	43	40	38	31	28	26	21	33	36	41	43	48	50	51	52	53	52	51	50	44	39	41	43	44	41.5	52.7
19-Apr	40	38	33	22	19	A	7	17	28	36	40	48	52	52	52	51	52	54	52	43	42	44	44	46	39.5	53.9
20-Apr	45	43	43	41	A	37	25	28	39	43	47	51	54	58	61	62	62	59	57	51	46	46	46	48	47.6	61.9
21-Apr	46	46	44	A	17	10	7	15	33	42	48	50	53	56	55	54	48	40	39	34	37	41	42	41	39.0	55.9
22-Apr	47	36	A	34	33	28	22	24	29	38	41	45	C	C	C	C	C	43	41	37	37	38	36	35	35.8	46.9
23-Apr	34	34	32	29	26	A	25	29	35	37	38	39	40	40	41	41	41	41	41	38	35	32	30	24	34.7	41.3
24-Apr	24	23	23	23	A	22	23	23	27	30	33	36	38	39	39	41	40	37	36	32	29	12	20	20	29.2	40.5
25-Apr	21	21	15	A	5	6	6	8	11	19	25	32	35	36	37	37	37	37	35	36	24	24	22	16	23.7	37.2
26-Apr	12	6	A	18	20	18	17	20	22	26	30	35	37	40	41	42	43	43	42	40	36	33	31	31	29.8	42.7
27-Apr	31	A	29	28	27	24	23	24	26	27	27	28	29	31	32	33	31	31	29	27	27	28	28	29	28.3	33.2
28-Apr	A	30	29	28	27	27	25	24	26	25	26	27	29	29	28	29	30	29	29	27	23	19	15	A	26.4	30.0
29-Apr	20	25	26	20	12	7	7	15	29	34	38	41	40	41	44	44	42	41	39	37	29	26	29	28	29.7	44.3
30-Apr	26	22	19	21	20	A	15	21	25	32	36	38	39	39	41	42	40	42	36	32	28	19	26	25	29.8	41.9
	29.9	28.0	25.7	23.2	20.5	19.3	16.2	19.1	26.3	32.9	36.8	40.3	42.6	44.2	45.2	45.4	45.0	43.7	41.8	37.9	33.6	31.4	30.2	30.3	Diurnal Average	
	50.4	46.4	43.8	40.5	35.6	37.4	36.4	36.7	39.4	42.9	47.6	51.5	56.5	58.5	60.6	61.9	61.9	59.5	57.4	51.2	50.6	46.3	47.0	48.2	Diurnal Maximum	

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

Hourly Averages

Ozone (O_3) - ppb

Henry Pirker - April 2010



Hourly Maximums

Ozone (O_3) - ppb

Henry Pirker - April 2010

Maximum Value: 65.4 ppb on Apr 20 11:00

Maximum Daily Average: 51.2 ppb on Apr 20

Minimum Value: 2 ppb on Apr 15 07:00

Minimum Daily Average: 27.3 ppb on Apr 25

Maximum Diurnal Average: 47.1 ppb at hour 16

Minimum Diurnal Average: 20.5 ppb at hour 7

Monthly Average: 36.45 ppb

Percentiles: P_1 = 6.9 P_{10} = 21.0 Q_1 = 29.3 Median = 37.7 Q_3 = 44.1 P_{90} = 50.2 P_{99} = 61.4

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	39	38	39	37	36	33	32	A	37	40	42	45	47	48	49	49	48	47	43	42	37	39	34	28	40.3	48.8
2-Apr	30	30	10	7	20	13	A	12	32	35	38	40	45	46	47	47	46	44	43	43	43	41	37	29	33.9	47.1
3-Apr	26	21	17	16	29	A	22	19	27	38	43	48	49	50	51	50	50	47	45	42	37	35	36	36	36.2	50.7
4-Apr	34	29	34	34	A	33	30	30	34	37	44	45	47	47	48	48	48	48	48	43	36	32	21	18	37.7	48.5
5-Apr	25	22	21	A	22	21	19	19	26	32	38	38	48	47	50	50	50	50	48	43	39	43	42	42	36.3	50.3
6-Apr	42	41	40	37	32	A	8	8	22	31	33	36	46	50	51	49	47	47	47	44	38	39	38	38	37.5	51.2
7-Apr	37	37	40	34	A	31	11	20	24	42	45	46	47	46	48	46	47	47	45	41	39	41	41	39	38.8	47.6
8-Apr	39	41	39	A	41	40	41	40	38	42	44	44	42	42	42	42	42	41	41	40	38	36	36	37	40.3	44.2
9-Apr	35	35	A	31	32	32	30	30	36	39	40	41	42	43	43	43	43	43	42	40	37	35	33	35	37.3	43.3
10-Apr	35	A	35	36	33	34	35	37	37	38	38	39	40	40	41	42	42	43	42	41	37	37	37	34	37.8	42.6
11-Apr	A	34	28	28	29	28	28	32	36	40	42	41	43	43	44	43	43	43	42	40	39	39	38	A	37.2	43.6
12-Apr	37	36	33	31	28	24	21	28	31	31	33	35	36	36	36	36	35	34	33	30	29	30	A	34	32.0	37.1
13-Apr	34	32	31	28	13	9	12	17	23	27	32	32	36	38	39	41	44	46	46	46	37	A	6	5	29.2	46.3
14-Apr	15	26	19	9	16	17	10	23	34	39	48	50	51	53	53	54	55	54	53	47	A	23	7	22	33.6	54.6
15-Apr	12	14	13	9	11	3	2	6	21	28	38	45	51	53	54	56	59	60	60	A	40	45	45	50	33.8	60.1
16-Apr	53	51	16	17	16	17	6	14	36	37	46	49	56	58	59	60	60	60	A	50	38	32	25	26	38.3	60.2
17-Apr	15	11	11	11	13	14	14	15	26	38	46	56	59	60	61	61	62	A	59	52	59	49	50	49	38.7	61.5
18-Apr	47	45	43	38	34	32	29	35	40	42	47	50	51	52	53	54	54	54	52	48	41	43	45	45	44.6	54.2
19-Apr	44	39	37	27	23	A	10	23	34	41	44	51	53	53	54	53	54	57	56	47	47	47	46	48	42.9	56.6
20-Apr	46	46	45	43	A	40	32	38	42	46	65	53	57	61	63	63	64	62	61	55	49	48	48	50	51.2	65.4
21-Apr	47	48	46	A	25	14	11	29	39	46	49	53	56	57	58	56	53	42	42	40	42	46	46	43	43.0	58.5
22-Apr	59	44	A	35	35	31	26	28	37	41	43	49	C	C	C	C	C	45	44	40	39	39	37	36	39.3	59.1
23-Apr	35	34	34	32	28	A	27	31	37	39	40	41	41	42	43	43	43	43	43	40	38	34	31	28	36.8	42.8
24-Apr	27	26	27	26	A	24	26	26	29	33	36	38	40	41	41	42	43	40	39	34	32	22	28	26	32.4	42.6
25-Apr	25	24	21	A	9	10	11	10	17	25	31	34	36	37	39	39	39	39	39	39	33	27	25	23	27.3	39.1
26-Apr	19	9	A	23	21	21	19	23	24	29	34	38	41	42	43	44	44	44	44	42	39	34	33	32	32.3	44.2
27-Apr	32	A	30	29	28	27	24	27	28	29	29	30	31	32	34	35	34	33	31	30	28	30	30	31	29.9	35.2
28-Apr	A	31	31	29	29	28	27	26	28	27	28	29	31	31	31	31	33	32	32	30	27	24	17	A	28.7	32.6
29-Apr	26	27	29	27	16	10	14	20	36	38	40	42	43	44	46	46	45	43	41	40	36	29	32	29	33.2	45.8
30-Apr	28	24	22	24	25	A	17	23	32	36	38	40	42	42	45	43	43	43	39	35	34	27	29	29	33.1	45.0
	33.6	31.8	29.3	26.7	24.7	23.4	20.5	23.8	31.3	36.3	40.4	42.5	45.0	46.0	47.0	47.1	47.1	45.8	44.7	41.5	38.2	36.0	33.5	33.7	Diurnal Average	
	59.1	50.9	46.2	42.6	41.2	40.4	41.1	40.3	42.1	46.4	65.4	56.1	59.4	60.6	62.6	63.1	63.6	62.0	60.8	54.6	58.8	49.2	49.7	50.5	Diurnal Maximum	

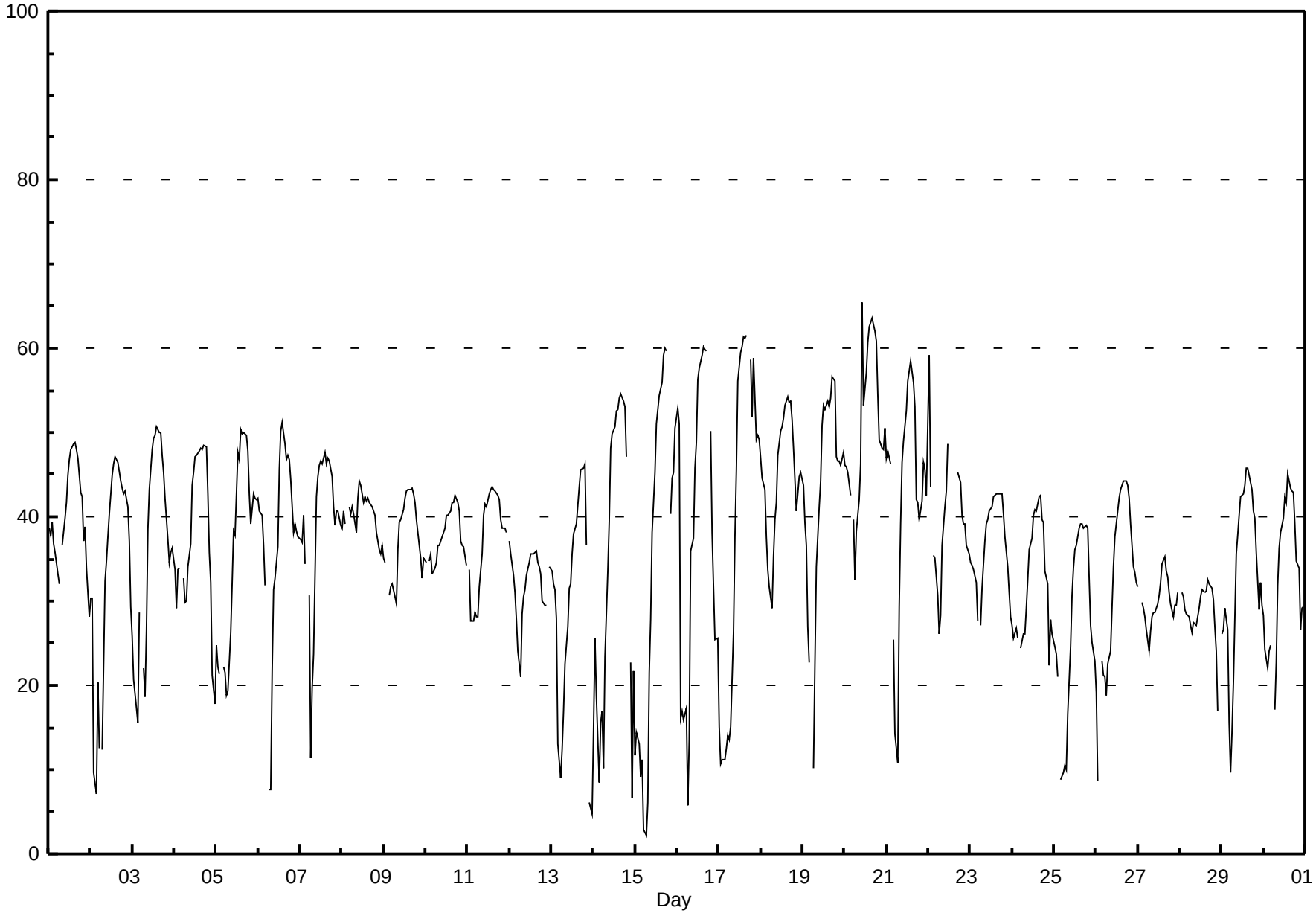
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums

Ozone (O_3) - ppb

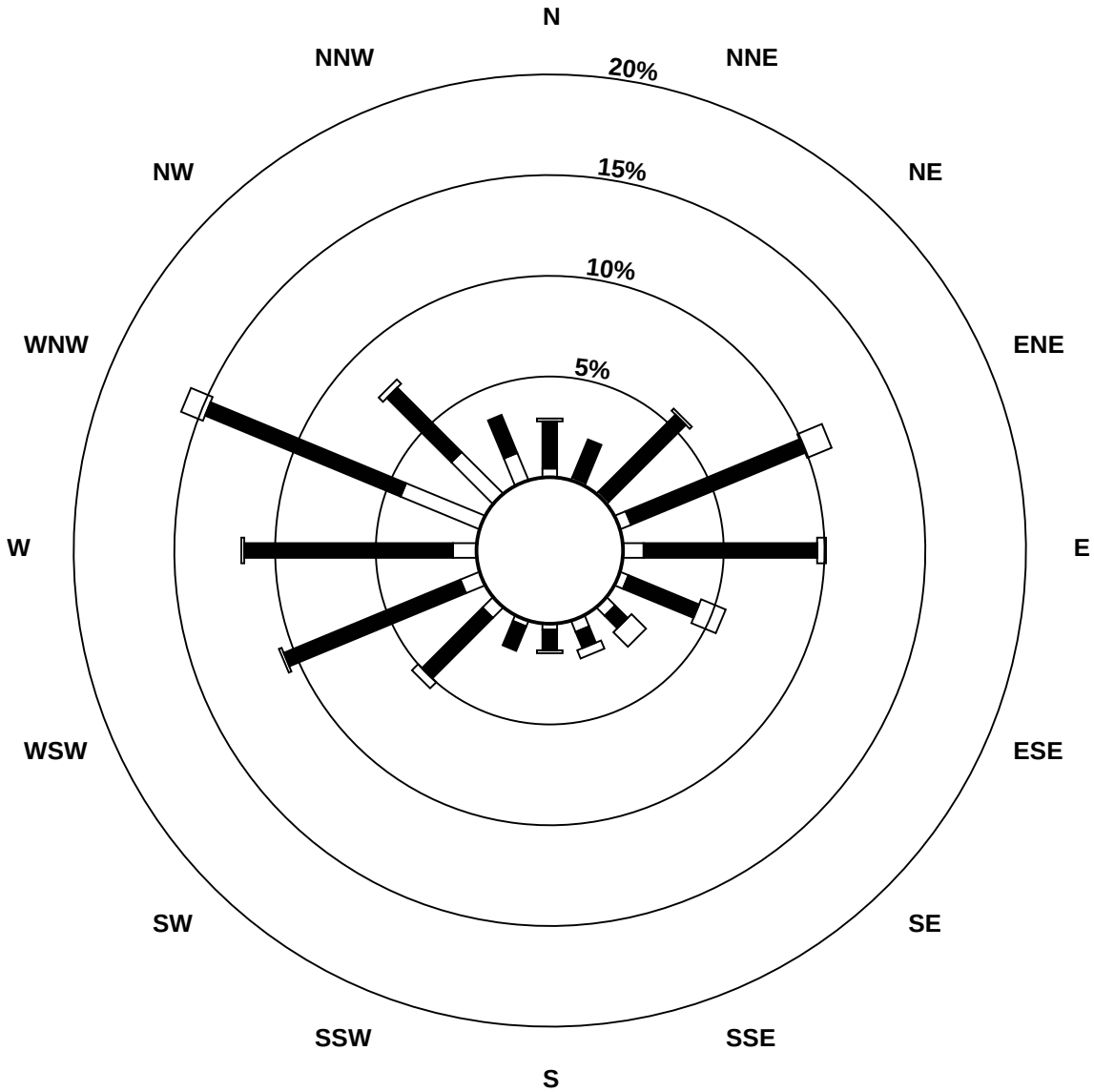
Henry Pirker - April 2010



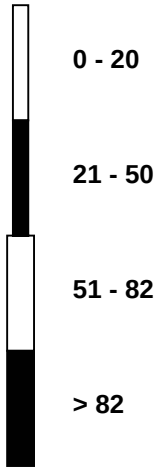
Pollutant Rose

Ozone (O_3) - ppb

Henry Pirker - April 2010



Pollutant Classes (ppb)



Eight Hour Running Averages

Ozone (O_3) - ppb

Henry Pirker - April 2010

Maximum Value: 58.2 ppb on Apr 20 19:00

Minimum Value: 5.5 ppb on Apr 15 08:00

Percentiles: P_1 = 7.7 P_{10} = 18.3 Q_1 = 26.6 Median = 33.8 Q_3 = 39.9 P_{90} = 45.4 P_{99} = 55.4

Hours in Service:	720
Hours of Data:	712
Hours of Missing Data:	8
Hours of Calibration:	8
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	36	35	35	35	35	34	33	33	32	33	33	34	36	38	41	42	44	44	44	44	42	41	38	35	44.2
2-Apr	33	30	25	20	18	14	12	10	9	11	16	21	25	31	33	38	41	42	43	43	43	42	40	38	43.4
3-Apr	34	31	27	23	21	18	16	15	16	18	22	27	31	33	38	42	45	46	47	46	44	42	40	38	46.6
4-Apr	36	34	32	32	32	31	30	29	29	30	31	33	35	37	39	42	44	45	46	45	43	40	35	31	46.1
5-Apr	28	24	21	20	18	17	17	17	17	18	20	22	25	28	33	37	41	43	45	45	45	44	43	42	45.0
6-Apr	41	40	39	38	36	36	31	26	22	20	19	19	22	25	30	35	40	42	44	44	44	42	41	40	44.4
7-Apr	38	37	36	34	34	32	27	23	20	21	22	24	26	30	35	39	43	44	44	43	42	41	40	39	44.2
8-Apr	38	37	37	37	37	37	37	37	36	37	37	38	38	39	40	40	41	41	40	40	39	39	38	37	40.7
9-Apr	37	36	35	34	33	32	31	30	30	30	31	33	34	35	37	39	41	41	41	41	40	39	37	36	41.2
10-Apr	35	34	33	32	32	32	32	33	33	33	34	35	36	37	37	38	39	39	40	40	39	38	38	36	39.9
11-Apr	36	34	32	30	29	28	27	27	27	28	30	32	34	36	38	40	41	41	41	41	40	40	39	39	41.3
12-Apr	38	37	36	34	33	30	28	27	26	26	26	26	27	29	31	32	33	33	33	32	31	30	30	29	37.9
13-Apr	29	29	29	28	25	22	20	18	16	15	15	17	20	24	28	31	34	36	38	40	39	39	34	29	40.0
14-Apr	23	20	15	9	7	7	8	9	13	15	19	24	30	35	41	45	48	50	51	50	50	44	37	31	51.0
15-Apr	25	19	13	8	8	7	7	5	6	8	11	15	20	27	33	39	45	49	52	54	52	50	49	48	53.5
16-Apr	47	44	37	34	32	28	23	18	14	15	18	22	27	33	40	46	51	54	55	55	52	46	40	34	55.4
17-Apr	27	20	18	13	11	11	10	9	10	13	17	22	28	34	40	46	51	54	56	56	55	53	51	49	56.5
18-Apr	47	46	44	42	39	37	34	32	32	32	32	34	37	40	44	47	49	50	51	50	49	48	47	45	50.8
19-Apr	44	42	40	37	35	34	29	25	23	23	24	28	32	35	40	45	48	50	51	51	50	49	48	47	51.5
20-Apr	46	45	44	44	44	43	40	37	37	37	37	39	41	43	48	52	55	57	58	58	57	56	54	52	58.2
21-Apr	50	48	47	46	42	37	31	26	25	24	25	28	32	38	44	49	51	51	49	47	45	43	42	40	50.8
22-Apr	40	40	40	40	39	37	34	32	29	30	31	32	32	33	N	N	N	N	N	N	N	N	39	38	40.0
23-Apr	38	36	35	34	33	32	30	30	30	30	31	33	35	35	37	39	40	40	40	40	40	39	37	35	40.4
24-Apr	33	31	29	27	26	24	23	23	23	24	26	28	29	31	33	35	37	38	38	38	37	33	31	28	38.2
25-Apr	26	24	21	20	16	15	13	12	10	10	11	14	18	21	25	29	32	34	36	36	35	33	32	29	36.3
26-Apr	26	22	20	18	17	16	15	16	17	20	22	24	26	29	32	34	37	39	40	41	41	40	39	37	41.0
27-Apr	36	35	33	31	30	29	28	27	26	26	26	26	26	27	28	29	30	30	31	30	30	30	29	29	35.9
28-Apr	28	28	28	28	29	28	28	27	27	26	26	26	26	26	27	27	28	28	29	29	28	27	25	25	28.7
29-Apr	23	23	22	21	20	18	17	17	18	19	20	23	26	31	35	39	41	41	41	41	40	38	36	34	41.5
30-Apr	32	29	27	25	24	23	21	20	20	22	24	27	29	31	34	37	39	40	40	39	38	35	33	31	39.7
Diurnal Maximums	50.0	48.4	46.7	46.1	43.7	42.7	39.9	37.5	36.7	36.6	37.3	38.8	40.7	43.3	47.8	52.0	54.8	56.9	58.2	58.1	57.1	55.6	53.8	52.1	

N - Not Valid

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 0.86 ppm on Apr 15 08:00 Maximum Daily Average: 0.26 ppm on Apr 2

Minimum Value: 0.1 ppm on Apr 29 11:00 Minimum Daily Average: 0.16 ppm on Apr 10
Maximum Diurnal Average: 0.28 ppm at hour 8 Minimum Diurnal Average: 0.19 ppm at hour 13
Monthly Average: 0.217 ppm Percentiles: P_1 = 0.15 P_{10} = 0.16 Q_1 = 0.18 Median = 0.20 Q_3 = 0.23 P_{90} = 0.27 P_{99} = 0.51

Hours in Service:	720
Hours of Data:	687
Hours of Missing Data:	33
Hours of Calibration:	33
Percent Operational Time:	100.0

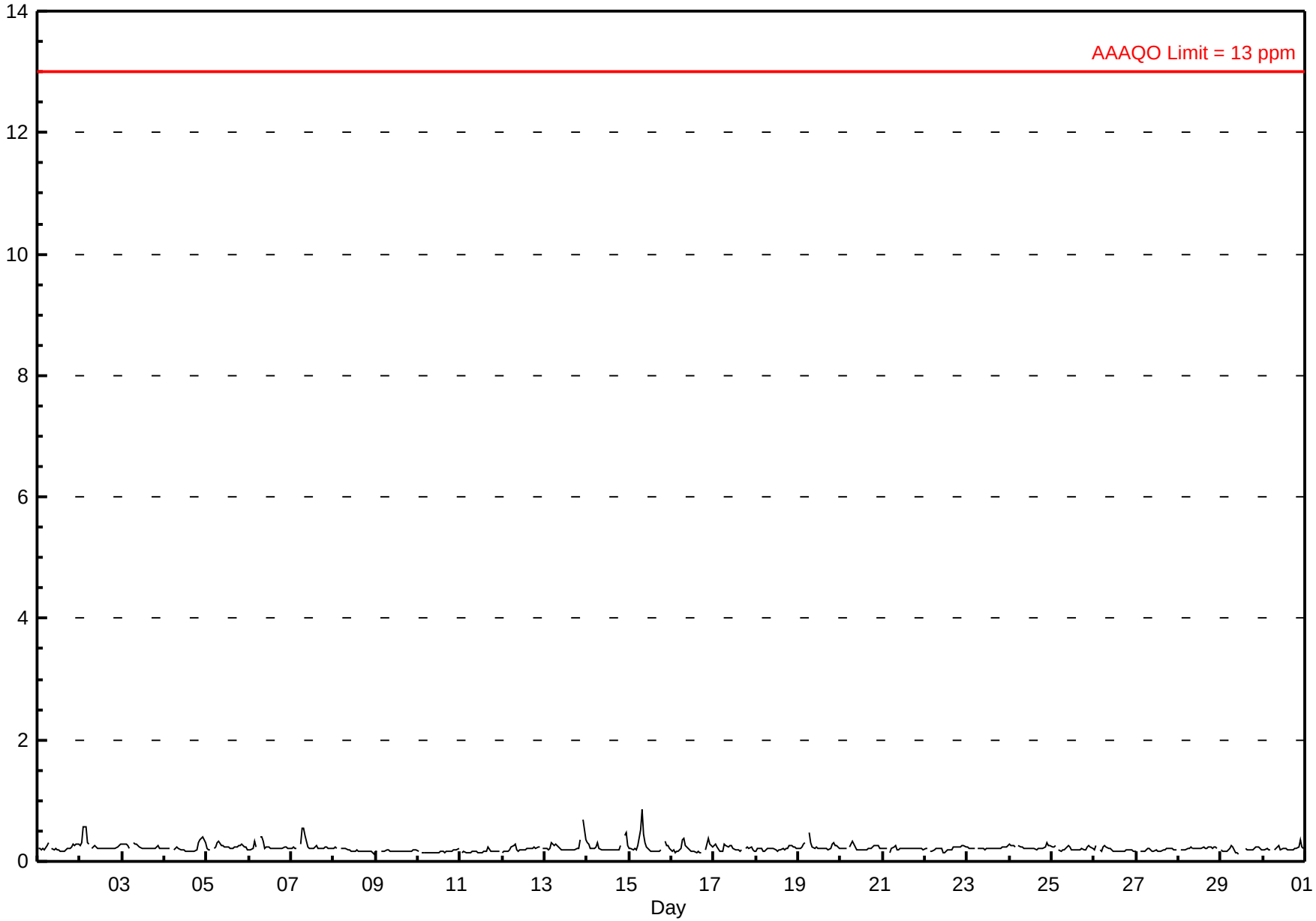
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.22	0.30
2-Apr	0.3	0.3	0.6	0.6	0.3	0.3	A	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.26	0.57
3-Apr	0.3	0.3	0.3	0.3	0.2	A	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.23	0.30
4-Apr	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.3	0.23	0.41
5-Apr	0.2	0.2	0.2	A	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.24	0.32
6-Apr	0.2	0.2	0.2	0.3	0.2	A	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24	0.41
7-Apr	0.2	0.2	0.2	0.2	A	0.3	0.5	0.6	0.4	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26	0.55
8-Apr	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.18	0.23
9-Apr	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.20
10-Apr	0.2	A	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.20
11-Apr	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.16	0.24
12-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.21	0.28
13-Apr	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	A	0.7	0.4	0.25	0.68
14-Apr	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.4	0.5	0.3	0.24	0.47
15-Apr	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.9	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	0.3	0.2	0.26	0.86
16-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	0.4	0.3	0.2	0.21	0.39
17-Apr	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.29
18-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.2	0.2	0.2	0.21	0.26
19-Apr	0.2	0.2	0.2	0.3	0.3	A	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.25	0.47
20-Apr	0.2	0.2	0.2	0.2	A	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.22	0.33
21-Apr	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.27
22-Apr	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.21	0.27
23-Apr	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.25
24-Apr	0.3	0.3	0.3	0.2	A	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.23	0.31
25-Apr	0.2	0.2	0.3	A	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.21	0.26
26-Apr	0.2	0.3	A	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.27
27-Apr	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.21
28-Apr	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.22	0.24
29-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.1	C	C	C	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.27
30-Apr	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.21	0.35
	0.21	0.22	0.22	0.21	0.20	0.21	0.27	0.28	0.23	0.21	0.20	0.19	0.19	0.19	0.19	0.19	0.20	0.20	0.20	0.22	0.24	0.25	0.25	0.22	Diurnal Average	
	0.31	0.30	0.57	0.56	0.31	0.29	0.54	0.86	0.46	0.30	0.27	0.25	0.23	0.22	0.26	0.22	0.24	0.24	0.25	0.31	0.36	0.42	0.68	0.36	Diurnal Maximum	

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

Hourly Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2010



Hourly Maximums

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2010

Maximum Value: 1.38 ppm on Apr 19 07:00

Maximum Daily Average: 0.42 ppm on Apr 15

Minimum Value: 0.2 ppm on Apr 11 07:00

Minimum Daily Average: 0.20 ppm on Apr 9

Maximum Diurnal Average: 0.46 ppm at hour 7

Minimum Diurnal Average: 0.22 ppm at hour 13

Monthly Average: 0.292 ppm

Percentiles: $P_1 = 0.15$ $P_{10} = 0.20$ $Q_1 = 0.21$ Median = 0.25 $Q_3 = 0.30$ $P_{90} = 0.41$ $P_{99} = 0.91$

Hours in Service:	720
Hours of Data:	687
Hours of Missing Data:	33
Hours of Calibration:	33
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0.2	0.2	0.2	0.2	0.2	1.1	0.9	A	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.31	1.14
2-Apr	0.3	0.4	0.8	0.8	0.5	0.5	A	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.35	0.80
3-Apr	0.4	0.3	0.4	0.3	0.3	A	0.6	0.5	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.2	0.2	0.30	0.60
4-Apr	0.3	0.3	0.3	0.2	A	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.5	0.6	0.5	0.5	0.5	0.30	0.55
5-Apr	0.3	0.3	0.2	A	0.3	0.4	0.7	0.5	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.32	0.66
6-Apr	0.2	0.2	0.3	1.0	0.3	A	0.7	1.1	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.34	1.07
7-Apr	0.3	0.3	0.3	0.3	A	0.4	0.8	0.7	0.5	0.4	0.3	0.3	0.2	0.3	0.8	0.3	0.3	0.3	0.3	0.5	0.3	0.3	0.3	0.3	0.36	0.83
8-Apr	0.3	0.3	0.3	A	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.30
9-Apr	0.2	0.2	A	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.20	0.31
10-Apr	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.5	0.3	0.3	0.2	0.3	0.3	0.21	0.48
11-Apr	A	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.8	0.3	0.2	0.2	0.2	0.2	0.2	A	0.25	0.79
12-Apr	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	A	0.3	0.28	0.45
13-Apr	0.5	0.3	0.2	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.3	0.6	A	1.2	0.4	0.37	1.19
14-Apr	0.4	0.4	0.3	0.3	0.3	0.4	0.8	0.4	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.4	A	0.6	0.6	0.4	0.36	0.78
15-Apr	0.5	0.3	0.3	0.3	0.2	0.8	0.9	1.2	0.9	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.7	0.2	0.3	A	0.5	0.3	0.4	0.3	0.42	1.22
16-Apr	0.2	0.3	0.2	0.2	0.2	0.3	0.6	0.6	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.3	0.4	0.6	0.5	0.3	0.30	0.65
17-Apr	0.3	0.4	0.3	0.2	0.2	0.2	0.6	0.5	0.3	0.3	0.4	0.3	0.2	0.3	0.6	0.2	0.2	A	0.4	0.4	0.3	0.3	0.2	0.2	0.31	0.64
18-Apr	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.24	0.35
19-Apr	0.3	0.3	0.3	0.3	0.4	A	1.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.3	0.34	1.38
20-Apr	0.3	0.4	0.3	0.3	A	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.28	0.40
21-Apr	0.4	0.3	0.3	A	0.2	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.25	0.40
22-Apr	0.3	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.23	0.29
23-Apr	0.3	0.3	0.2	0.2	0.2	A	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.26	0.45
24-Apr	0.5	0.4	0.3	0.3	A	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.31	0.51
25-Apr	0.3	0.3	0.3	A	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.26	0.34
26-Apr	0.2	0.3	A	0.2	0.2	0.5	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.26	0.50
27-Apr	0.2	A	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.25	0.31
28-Apr	A	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.5	0.3	0.2	0.3	0.3	0.3	A	0.29	0.51
29-Apr	0.2	0.3	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.2	0.2	C	C	C	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.25	0.38
30-Apr	0.2	0.3	0.3	0.2	0.2	A	0.3	0.7	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.3	0.5	0.3	0.3	0.30	0.74
	0.29	0.28	0.28	0.29	0.26	0.35	0.46	0.43	0.31	0.25	0.25	0.24	0.22	0.23	0.28	0.23	0.27	0.26	0.30	0.30	0.32	0.31	0.33	0.28	Diurnal Average	
	0.52	0.41	0.80	1.00	0.55	1.14	1.38	1.22	0.94	0.35	0.36	0.41	0.30	0.44	0.83	0.36	0.79	0.51	0.56	0.52	0.64	0.58	1.19	0.46	Diurnal Maximum	

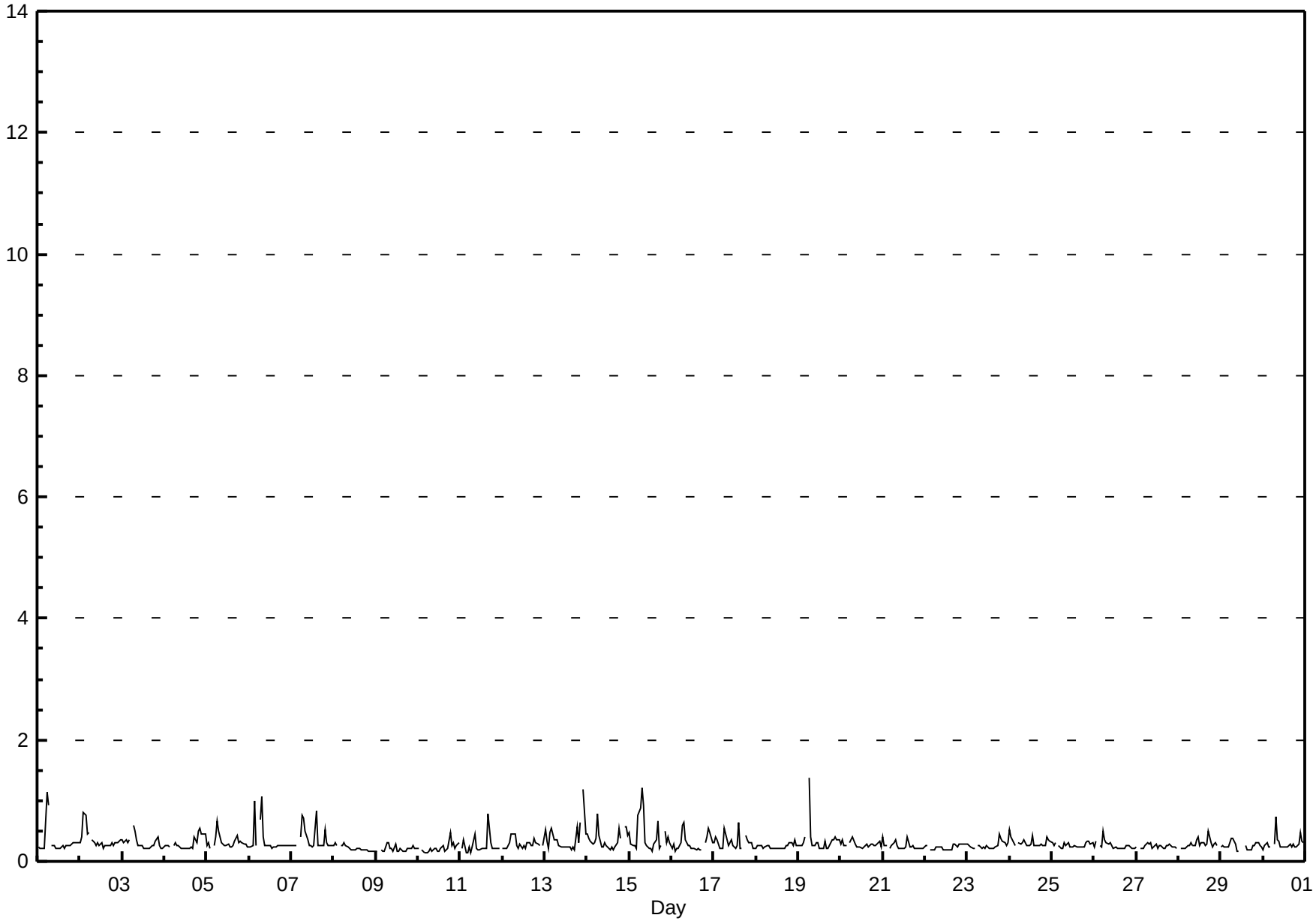
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums

Carbon Monoxide (CO) - ppm

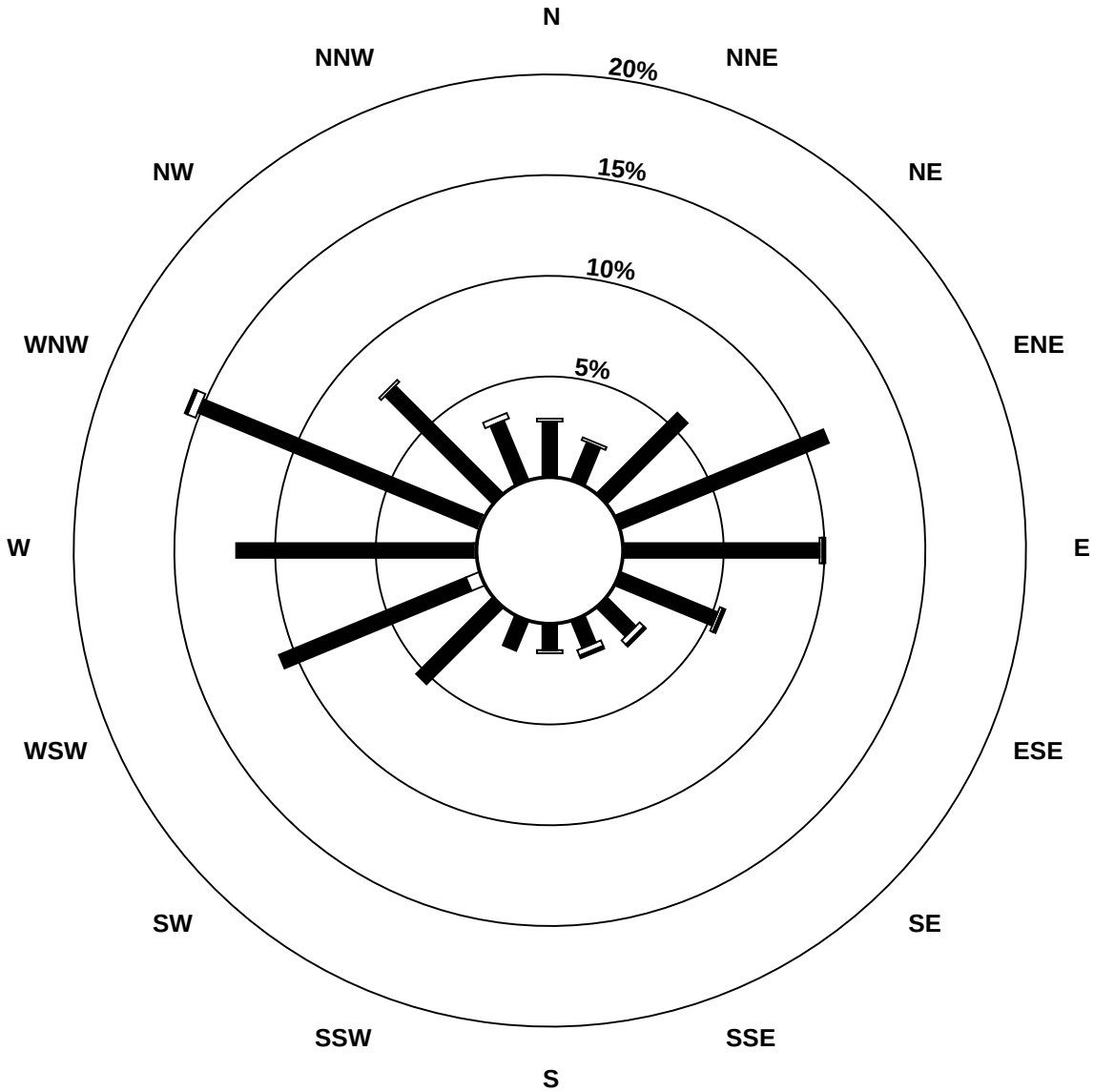
Henry Pirker - April 2010



Pollutant Rose

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2010



Pollutant Classes (ppm)

- 0 - 0.1
- 0.1 - 0.3
- 0.3 - 0.5
- 0.5 - 1
- 1 - 10
- > 10

Eight Hour Running Averages

Carbon Monoxide (CO) - ppm

Henry Pirker - April 2010

Number of Exceedences (AAAQO): 8-hr: 0
Maximum Value: 0.38 ppm on Apr 15 11:00

Minimum Value: 0.15 ppm on Apr 10 09:00

Percentiles: P_1 = 0.15 P_{10} = 0.17 Q_1 = 0.20 Median = 0.21 Q_3 = 0.23 P_{90} = 0.27 P_{99} = 0.36

Hours in Service:	720
Hours of Data:	714
Hours of Missing Data:	6
Hours of Calibration:	6
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
2-Apr	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.37
3-Apr	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27
4-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.28
5-Apr	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29
6-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.31
7-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.35
8-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
9-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17
10-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
11-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
12-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
13-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.31
14-Apr	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.35
15-Apr	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.38
16-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
17-Apr	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27
18-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
19-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.30
20-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
21-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
22-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
23-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
24-Apr	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26
25-Apr	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26
26-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
27-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
28-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
29-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	N	N	N	N	N	N	0.2	0.2	0.2	0.2	0.2	0.22
30-Apr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
Diurnal Maximums	0.33	0.34	0.35	0.35	0.35	0.36	0.37	0.36	0.36	0.37	0.38	0.38	0.37	0.36	0.32	0.25	0.23	0.22	0.23	0.23	0.24	0.24	0.29	0.31	

N - Not Valid
Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 3.71 ppm on Apr 19 04:00 Maximum Daily Average: 2.39 ppm on Apr 15

Minimum Value: 1.9 ppm on Apr 21 17:00 Minimum Daily Average: 1.98 ppm on Apr 8
Maximum Diurnal Average: 2.34 ppm at hour 7 Minimum Diurnal Average: 1.99 ppm at hour 17
Monthly Average: 2.107 ppm Percentiles: P_1 = 1.95 P_{10} = 1.97 Q_1 = 1.99 Median = 2.03 Q_3 = 2.11 P_{90} = 2.35 P_{99} = 3.09

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

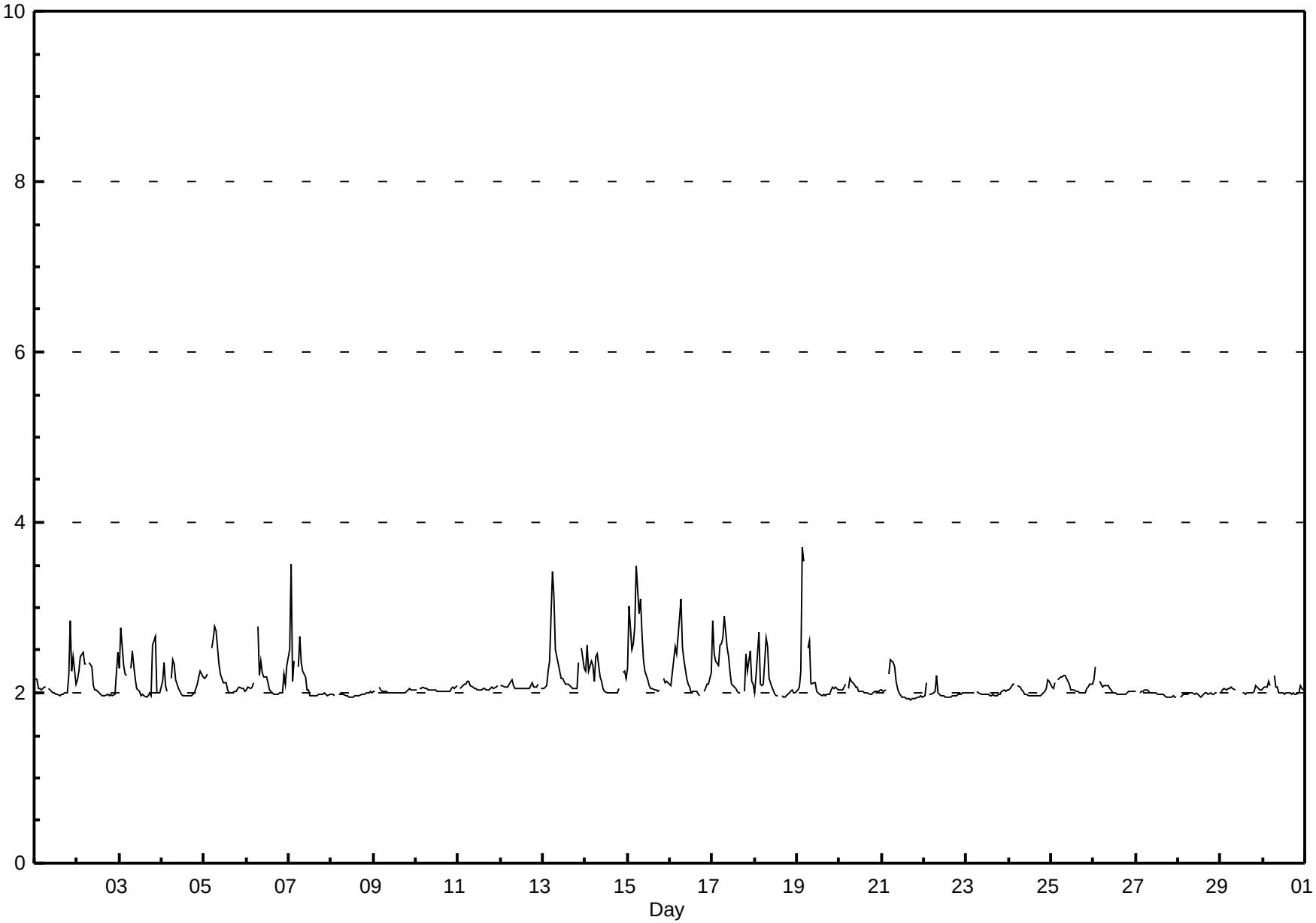
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	2.2	2.1	2.0	2.0	2.0	2.1	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.8	2.3	2.4	2.1	2.10	2.84
2-Apr	2.2	2.3	2.4	2.5	2.3	2.3	A	2.4	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.5	2.14	2.48
3-Apr	2.3	2.8	2.3	2.2	2.2	A	2.3	2.5	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.6	2.7	2.0	2.0	2.0	2.18	2.77
4-Apr	2.1	2.4	2.1	2.0	A	2.2	2.4	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.2	2.10	2.40
5-Apr	2.2	2.2	2.2	A	2.5	2.6	2.8	2.7	2.3	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.20	2.79
6-Apr	2.0	2.1	2.1	2.1	2.1	A	2.8	2.2	2.4	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.3	2.13	2.78
7-Apr	2.5	3.5	2.1	2.4	A	2.3	2.7	2.4	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.18	3.51
8-Apr	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.98	2.01
9-Apr	2.0	2.0	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.01	2.07
10-Apr	2.0	A	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.04	2.08
11-Apr	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	A	2.07	2.14
12-Apr	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	A	2.1	2.07	2.15
13-Apr	2.1	2.1	2.1	2.3	2.4	3.4	3.1	2.5	2.4	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.4	A	2.5	2.3	2.29	3.42
14-Apr	2.2	2.6	2.3	2.4	2.3	2.1	2.4	2.5	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.2	2.3	2.2	2.17	2.56
15-Apr	2.3	3.0	2.5	2.6	2.8	3.5	2.9	3.1	2.7	2.4	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.2	2.1	2.1	2.1	2.39	3.49
16-Apr	2.1	2.2	2.4	2.5	2.5	2.9	3.1	2.5	2.4	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.1	2.1	2.2	2.24	3.10
17-Apr	2.8	2.5	2.4	2.3	2.6	2.6	2.6	2.9	2.5	2.4	2.2	2.1	2.1	2.0	2.0	2.0	2.0	A	2.0	2.5	2.3	2.5	2.1	2.1	2.33	2.89
18-Apr	2.0	2.2	2.7	2.1	2.1	2.1	2.6	2.5	2.2	2.1	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.11	2.72
19-Apr	2.0	2.1	2.3	3.7	3.5	A	2.5	2.6	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.23	3.71
20-Apr	2.0	2.0	2.0	2.1	A	2.1	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.04	2.17
21-Apr	2.0	2.0	2.0	A	2.2	2.4	2.3	2.3	2.1	2.1	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.03	2.38
22-Apr	2.0	2.1	A	2.0	2.0	2.0	2.0	2.2	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.20
23-Apr	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.04
24-Apr	2.0	2.0	2.1	2.1	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.02	2.15
25-Apr	2.1	2.1	2.1	A	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.08	2.20
26-Apr	2.1	2.3	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.05	2.31
27-Apr	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.99	2.04
28-Apr	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	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	1.99	2.01
29-Apr	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.0	2.0	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.03	2.09
30-Apr	2.0	2.1	2.1	2.1	2.1	A	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.04	2.21
	2.12	2.24	2.16	2.22	2.24	2.29	2.34	2.29	2.17	2.10	2.06	2.03	2.01	2.00	1.99	1.99	1.99	1.99	2.00	2.05	2.10	2.08	2.09	2.09	Diurnal Average	
	2.85	3.51	2.72	3.71	3.54	3.49	3.14	3.10	2.70	2.42	2.25	2.19	2.14	2.10	2.09	2.08	2.06	2.08	2.11	2.56	2.84	2.49	2.53	2.48	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2010



PASZA
Peace Airshed Zone Association

Hourly Maximums

Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2010

Maximum Value: 10.60 ppm on Apr 6 07:00

Maximum Daily Average: 3.41 ppm on Apr 17

Minimum Value: 1.9 ppm on Apr 21 16:00

Minimum Daily Average: 1.99 ppm on Apr 8

Maximum Diurnal Average: 3.00 ppm at hour 7

Minimum Diurnal Average: 2.07 ppm at hour 17

Monthly Average: 2.400 ppm

Percentiles: P_1 = 1.96 P_{10} = 1.99 Q_1 = 2.03 Median = 2.11 Q_3 = 2.38 P_{90} = 2.78 P_{99} = 6.96

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	2.4	2.2	2.1	2.1	2.1	2.1	2.2	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.9	4.0	3.1	3.9	2.2	2.32	3.97
2-Apr	2.4	2.4	2.5	2.6	2.5	2.5	A	2.4	2.4	2.5	2.1	2.2	2.3	2.5	2.2	2.2	2.1	2.2	2.1	2.2	2.2	2.0	3.6	3.9	2.44	3.95
3-Apr	2.8	5.9	4.5	2.3	2.2	A	2.4	4.0	2.5	2.5	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.0	6.7	6.7	2.0	2.0	2.1	2.91	6.72
4-Apr	3.3	3.1	2.8	2.1	A	3.2	3.1	3.3	2.6	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.1	2.2	2.2	2.3	2.4	2.41	3.35
5-Apr	2.2	2.2	2.3	A	2.6	2.7	2.9	4.1	2.6	2.4	2.2	2.2	2.2	2.1	2.4	2.1	2.3	2.5	2.1	2.3	2.4	2.5	2.6	2.3	2.44	4.10
6-Apr	2.3	2.5	2.3	2.1	2.4	A	10.6	2.5	2.9	2.4	2.3	2.5	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.3	2.9	3.3	2.72	10.60
7-Apr	4.0	5.3	3.2	2.6	A	2.6	2.8	2.6	2.3	2.3	2.1	2.3	2.0	2.0	2.2	2.0	2.0	2.3	2.0	2.0	2.1	2.0	2.0	2.0	2.46	5.34
8-Apr	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.99	2.04
9-Apr	2.1	2.1	A	2.2	2.1	2.0	2.0	2.1	2.0	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	2.05	2.22
10-Apr	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.2	2.2	2.1	2.1	2.07	2.21
11-Apr	A	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.8	2.6	2.2	2.2	2.3	2.3	2.5	2.5	2.4	2.5	2.4	2.4	2.3	2.4	2.3	A	2.32	2.78
12-Apr	2.4	2.5	2.5	2.5	2.1	2.4	2.7	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.5	2.8	2.2	2.1	2.3	A	2.2	2.27	2.79
13-Apr	2.1	2.1	2.2	2.7	2.6	5.0	4.5	2.9	2.8	2.5	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	5.1	A	2.9	2.4	2.67	5.06
14-Apr	2.8	3.8	2.4	2.4	2.4	2.2	2.6	2.6	2.3	2.2	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.3	2.4	2.3	2.32	3.77
15-Apr	2.4	9.1	2.6	3.6	4.5	5.7	3.1	3.3	3.1	2.5	2.3	2.2	2.2	2.1	2.1	2.1	2.2	2.0	2.1	A	2.8	2.2	2.2	2.5	2.99	9.05
16-Apr	2.1	2.4	2.4	6.9	3.1	7.8	5.3	3.4	3.5	2.6	2.2	2.1	2.2	2.3	2.4	2.3	2.0	2.0	A	2.1	2.1	2.2	2.2	2.3	2.95	7.82
17-Apr	9.3	2.5	2.5	2.5	2.6	2.6	2.7	7.2	3.3	2.8	2.5	2.1	2.1	2.1	2.1	2.1	2.2	A	2.1	6.8	5.2	5.5	3.0	2.8	3.41	9.26
18-Apr	2.3	3.4	5.0	2.2	2.2	2.1	5.4	3.4	2.5	2.3	2.2	2.0	2.1	2.0	A	2.0	2.0	2.1	2.0	2.0	2.4	2.8	2.1	2.0	2.55	5.42
19-Apr	2.1	2.1	3.3	8.2	8.0	A	3.2	4.0	2.3	2.2	2.3	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.79	8.19
20-Apr	2.0	2.1	2.6	2.9	A	2.1	2.4	2.3	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.2	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.14	2.86
21-Apr	2.1	2.0	2.1	A	2.3	6.6	2.4	2.6	2.5	2.1	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.28	6.62
22-Apr	2.0	2.7	A	2.0	2.0	2.1	2.1	2.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.07	2.94
23-Apr	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.4	2.7	2.2	2.1	2.07	2.73
24-Apr	2.1	2.2	3.0	2.3	A	2.5	2.7	2.5	2.3	2.4	2.3	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.4	2.5	2.1	2.7	2.7	2.29	3.00
25-Apr	2.1	2.1	2.3	A	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.4	2.2	2.6	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.18	2.56
26-Apr	2.2	2.9	A	2.3	2.6	2.2	2.1	2.1	2.3	2.1	2.1	2.0	2.0	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.17	2.91
27-Apr	2.2	A	2.1	2.2	2.3	2.3	2.4	2.4	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.1	2.2	2.12	2.35
28-Apr	A	2.2	2.2	2.4	2.5	2.5	2.4	2.4	2.4	2.3	2.3	2.4	2.2	2.0	2.3	2.6	2.5	2.4	2.4	2.3	2.0	2.0	2.0	A	2.31	2.61
29-Apr	2.0	2.3	2.7	2.1	2.1	2.1	2.1	2.1	2.1	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.3	2.1	2.0	2.0	2.11	2.74
30-Apr	2.1	2.2	2.1	2.3	2.2	A	2.2	2.2	2.4	2.0	2.0	2.1	2.0	2.0	2.0	2.2	2.0	2.7	2.0	2.1	2.0	2.1	2.1	2.1	2.14	2.69
	2.57	2.87	2.59	2.75	2.61	2.96	3.00	2.83	2.41	2.26	2.14	2.11	2.09	2.07	2.11	2.08	2.07	2.13	2.08	2.45	2.60	2.38	2.35	2.30	Diurnal Average	
	9.26	9.05	5.05	8.19	7.97	7.82	10.60	7.19	3.46	2.80	2.46	2.47	2.37	2.52	2.56	2.61	2.47	2.69	2.79	6.75	6.72	5.52	3.86	3.95	Diurnal Maximum	

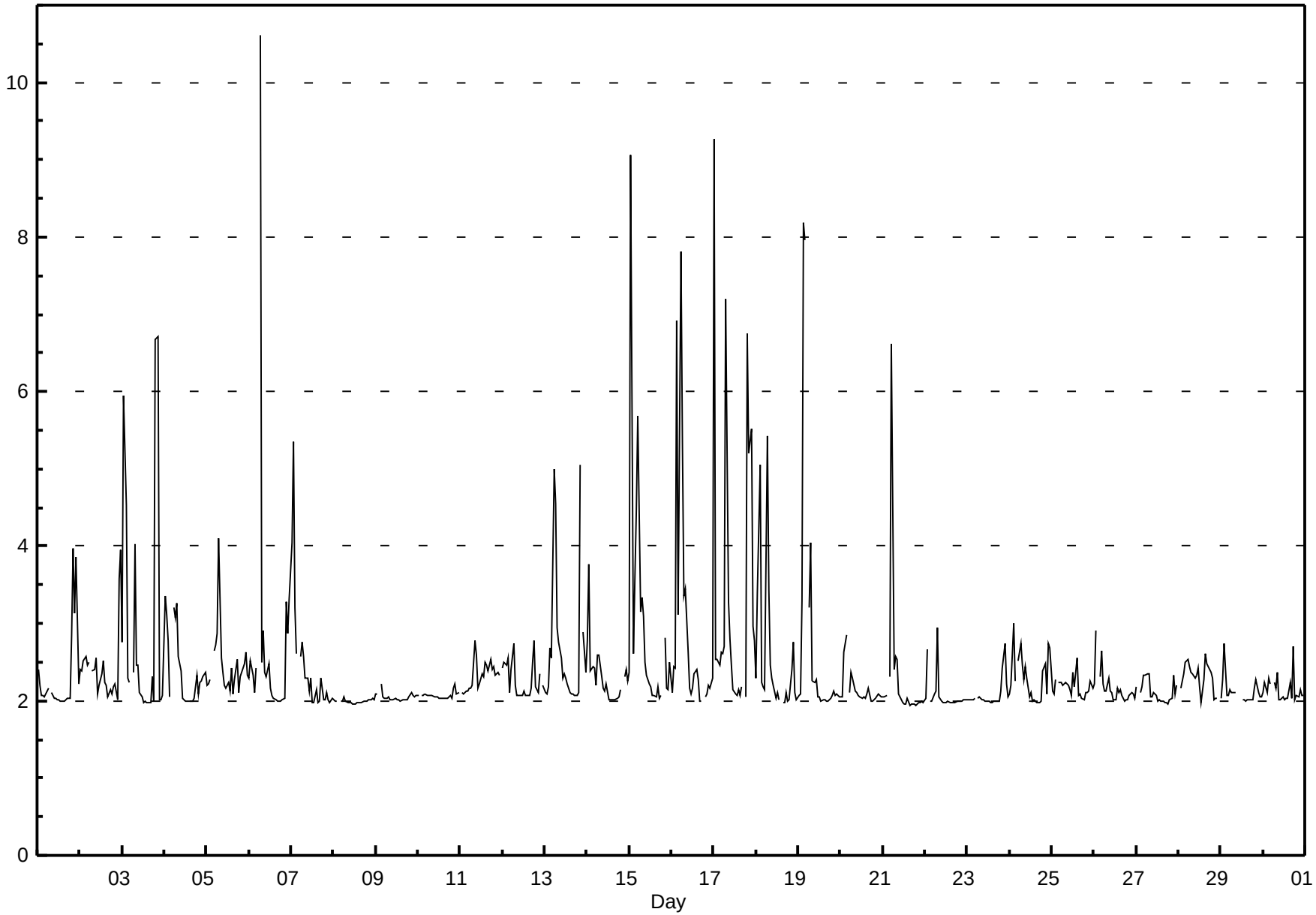
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums

Total Hydrocarbons (THC) - ppm

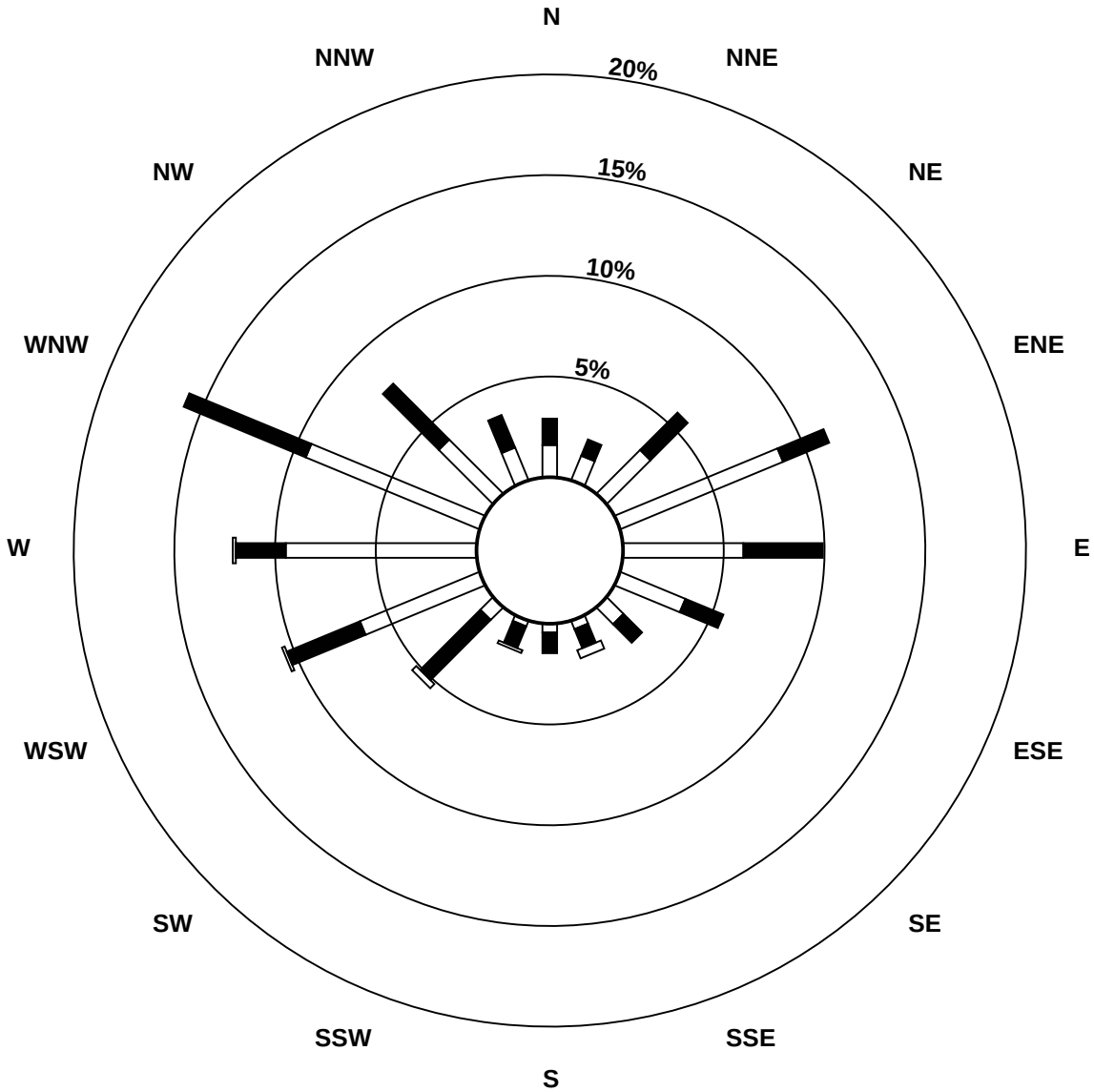
Henry Pirker - April 2010



Pollutant Rose

Total Hydrocarbons (THC) - ppm

Henry Pirker - April 2010



Pollutant Classes (ppm)

- 1.5 - 2.0
- 2.1 - 3.0
- 3.1 - 10.0
- > 10.0

Hourly Averages

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

Henry Pirker - April 2010

Number of Exceedences: 1-hr: 0 24-hr: 0

Maximum Value: 41.6 $\mu g/m^3$ on Apr 1 19:00

Maximum Daily Average: 14.2 $\mu g/m^3$ on Apr 16

Minimum Value: 0 $\mu g/m^3$ on Apr 2 11:00

Minimum Daily Average: 3.7 $\mu g/m^3$ on Apr 23

Maximum Diurnal Average: 11.0 $\mu g/m^3$ at hour 23

Minimum Diurnal Average: 6.4 $\mu g/m^3$ at hour 19

Monthly Average: 8.43 $\mu g/m^3$

Percentiles: P_1 = 0.0 P_{10} = 1.3 Q_1 = 3.6 Median = 7.3 Q_3 = 11.6 P_{90} = 17.0 P_{99} = 30.7

Hours in Service:	720
Hours of Data:	595
Hours of Missing Data:	125
Hours of Calibration:	4
Percent Operational Time:	83.2

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	BD	16	BD	19	6	BD	BD	BD	4	BD	2	11	BD	BD	BD	BD	BD	8	42	N	N	N	N	10	--	41.6
2-Apr	4	13	15	10	14	11	12	9	BD	BD	0	9	6	BD	BD	BD	BD	2	22	10	N	N	N	N	--	21.8
3-Apr	N	12	17	5	0	10	6	10	BD	28	BD	9	19	30	N	N	N	N	N	N	N	N	N	12	--	29.8
4-Apr	10	2	3	4	5	4	4	5	N	N	N	N	N	N	N	N	N	N	N	N	6	21	14	14	--	20.8
5-Apr	14	5	4	5	4	5	6	10	13	8	6	N	N	N	N	N	N	N	N	19	9	15	7	0	--	18.8
6-Apr	BD	22	1	8	15	3	14	14	10	7	10	16	11	13	BD	24	30	15	0	8	11	N	N	BD	12.2	29.5
7-Apr	1	11	0	11	2	11	BD	15	0	12	7	5	2	9	0	10	0	6	3	3	N	N	N	N	5.6	14.9
8-Apr	BD	12	0	5	BD	18	9	2	BD	0	0	6	7	5	5	6	3	5	BD	BD	15	0	5	2	5.5	17.8
9-Apr	4	3	2	3	4	3	3	4	1	3	4	5	2	5	6	10	BD	BD	0	BD	2	7	6	5	3.9	10.4
10-Apr	3	2	3	4	4	5	4	2	2	3	BD	0	0	4	BD	BD	11	BD	1	6	4	6	6	5	3.7	11.5
11-Apr	7	5	4	3	2	4	4	3	BD	0	2	6	10	0	0	3	11	BD	0	6	6	3	5	4	4.1	10.7
12-Apr	4	4	3	5	3	5	5	5	15	10	14	14	8	9	10	8	9	11	7	11	10	3	7	11	7.9	15.0
13-Apr	8	19	5	13	4	13	10	0	14	13	11	12	14	33	0	20	20	12	0	N	N	N	36	35	13.9	36.0
14-Apr	33	22	16	17	13	9	10	14	10	14	16	11	7	2	11	0	7	18	8	BD	BD	22	20	23	13.9	33.3
15-Apr	19	15	10	9	8	7	11	17	31	18	11	N	N	N	N	N	N	N	N	29	21	16	16	12	--	31.4
16-Apr	9	10	10	9	10	13	15	18	23	17	12	N	N	N	N	N	N	3	5	6	12	24	28	31	14.2	31.1
17-Apr	26	21	24	17	15	9	7	10	12	17	18	17	10	9	12	14	11	6	6	12	14	14	13	8	13.3	25.8
18-Apr	10	12	10	8	11	3	6	9	6	9	10	8	11	9	9	9	8	6	3	3	7	10	10	6	8.0	12.4
19-Apr	12	8	10	21	17	21	17	19	13	17	12	13	14	14	10	0	9	16	6	3	11	20	21	11	13.1	21.4
20-Apr	7	14	18	10	6	13	8	16	14	8	13	13	12	25	24	14	15	7	14	21	13	8	3	9	12.8	24.6
21-Apr	3	BD	0	9	21	13	1	28	27	4	3	12	13	20	25	15	1	1	9	15	11	4	6	13	11.1	28.4
22-Apr	BD	2	4	0	2	4	1	4	9	8	17	9	9	10	15	15	8	0	0	1	5	9	2	5	6.1	17.3
23-Apr	1	3	0	2	3	3	3	3	2	3	1	10	7	0	BD	3	7	3	3	1	9	10	9	0	3.7	9.7
24-Apr	4	5	3	5	3	4	4	5	5	7	2	BD	BD	5	10	11	6	0	0	0	0	0	8	3	4.1	10.6
25-Apr	3	6	3	6	4	3	3	3	5	5	4	3	2	7	6	4	3	2	2	5	5	10	5	5	4.3	9.5
26-Apr	7	8	9	8	4	5	3	5	3	6	0	0	BD	BD	0	BD	BD	2	9	6	0	7	13	4	5.0	13.4
27-Apr	1	5	5	3	7	6	8	4	6	6	1	8	2	5	14	10	2	3	6	3	12	4	11	2	5.6	14.2
28-Apr	8	0	7	0	6	0	8	4	BD	8	9	1	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	3	5	--	9.4
29-Apr	8	12	14	9	0	9	3	2	0	M	4	4	5	8	7	8	5	9	7	7	12	11	9	8	7.1	14.4
30-Apr	8	8	7	7	7	8	8	7	9	C	C	C	C	0	7	4	0	14	0	12	1	12	13	8	7.1	14.3
	8.5	9.6	7.1	7.9	6.9	7.6	6.9	8.5	9.8	9.3	7.3	8.4	8.1	10.1	9.0	9.5	8.2	6.7	6.4	8.5	8.5	10.2	11.0	9.2	Diurnal Average	
	33.3	22.1	23.6	21.2	21.4	21.4	17.2	28.4	31.4	27.7	17.7	16.6	18.9	33.1	24.7	24.0	29.5	17.9	41.6	28.6	21.4	23.7	36.0	34.5	Diurnal Maximum	

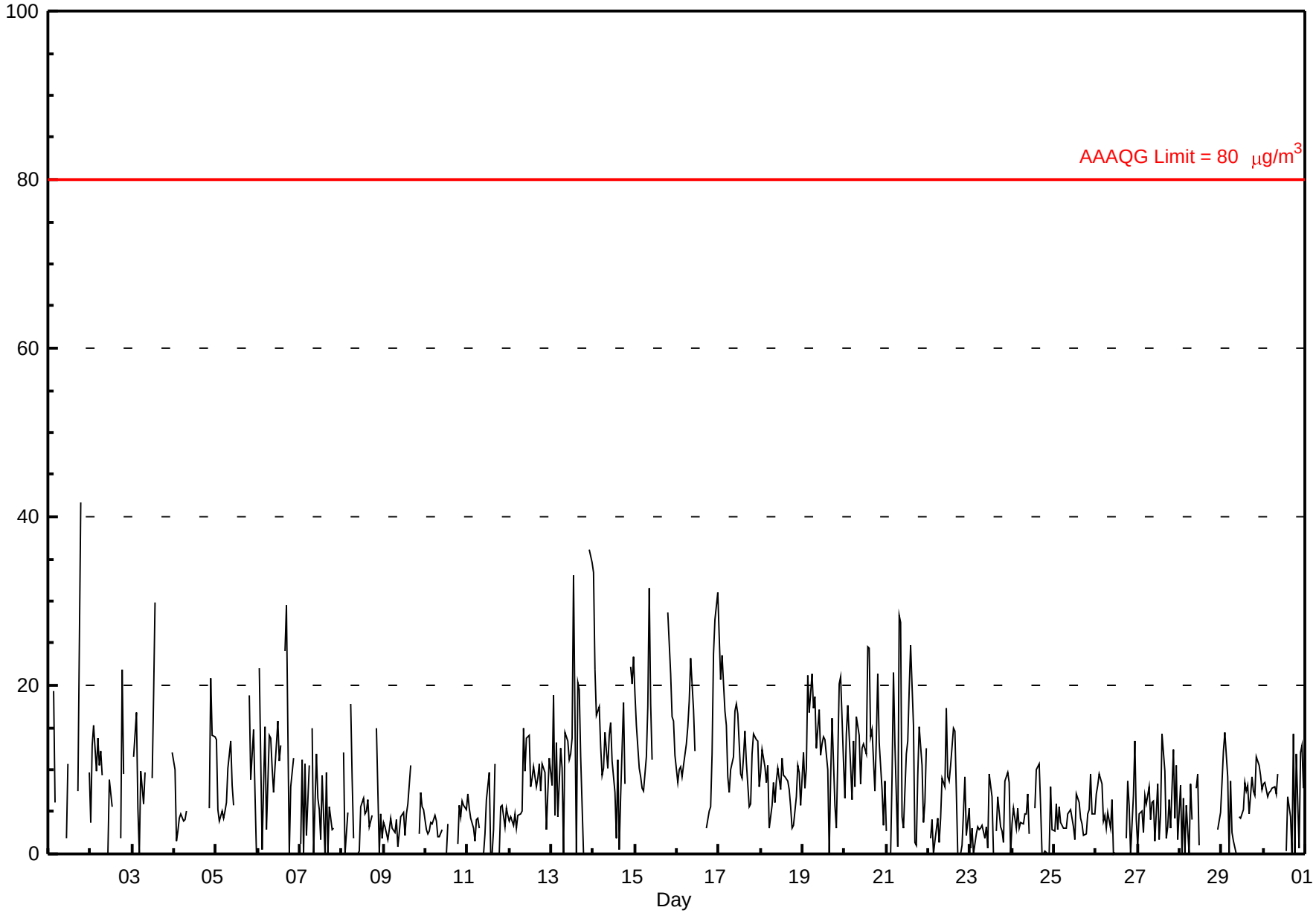
C - Calibration M - Maintenance N - Not Valid BD - Baseline Drift

Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Hourly Averages

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

Henry Pirker - April 2010



PASZA
Peace Airshed Zone Association

Hourly Maximums

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

Henry Pirker - April 2010

Maximum Value: 73.5 $\mu g/m^3$ on Apr 1 01:00

Maximum Daily Average: 27.5 $\mu g/m^3$ on Apr 1

Minimum Value: 0 $\mu g/m^3$ on Apr 1 14:00

Minimum Daily Average: 6.1 $\mu g/m^3$ on Apr 23

Maximum Diurnal Average: 19.6 $\mu g/m^3$ at hour 10

Minimum Diurnal Average: 11.2 $\mu g/m^3$ at hour 15

Monthly Average: 14.16 $\mu g/m^3$

Percentiles: P_1 = 0.0 P_{10} = 4.7 Q_1 = 7.4 Median = 11.5 Q_3 = 18.3 P_{90} = 27.9 P_{99} = 51.7

Hours in Service:	720
Hours of Data:	641
Hours of Missing Data:	79
Hours of Calibration:	4
Percent Operational Time:	89.6

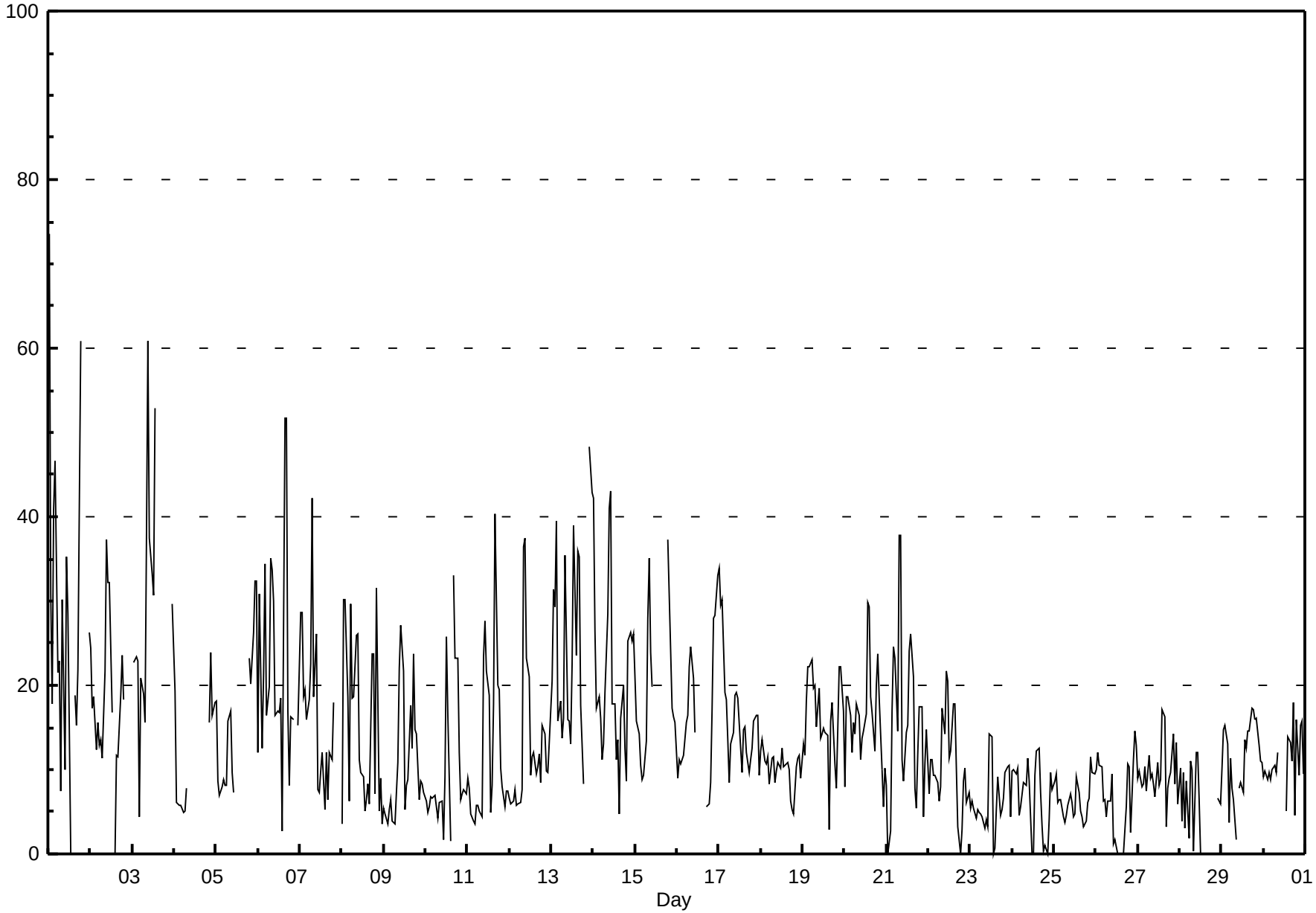
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	74	31	18	41	47	22	23	7	30	10	35	29	15	0	BD	19	15	22	61	N	N	N	N	26	27.5	73.5
2-Apr	24	17	19	12	16	13	14	11	22	37	32	32	17	BD	0	12	11	19	24	18	N	N	N	N	18.4	37.2
3-Apr	N	23	23	23	4	21	19	16	37	61	37	33	31	53	N	N	N	N	N	N	N	N	N	30	--	60.8
4-Apr	19	6	6	6	6	5	5	8	N	N	N	N	N	N	N	N	N	N	N	N	16	24	16	18	--	24.0
5-Apr	18	9	7	8	9	8	8	16	17	10	7	N	N	N	N	N	N	N	N	23	20	26	32	32	--	32.3
6-Apr	12	31	12	21	34	16	20	35	34	30	17	17	17	18	3	52	52	17	8	16	16	N	N	15	22.4	51.7
7-Apr	29	29	19	19	16	18	23	42	19	26	8	7	10	12	5	12	6	12	11	18	N	N	N	N	17.0	42.1
8-Apr	4	30	30	19	6	30	18	19	26	26	11	10	9	5	6	8	6	24	24	7	31	5	9	4	15.3	31.5
9-Apr	5	5	4	5	6	4	4	7	11	22	27	22	5	8	9	18	13	24	15	14	6	9	8	7	10.7	27.2
10-Apr	6	5	6	7	7	7	6	4	6	6	2	9	26	16	2	BD	33	23	23	12	6	7	8	7	10.2	33.1
11-Apr	9	8	5	4	4	6	6	5	4	23	28	22	19	5	8	18	40	20	19	10	8	6	7	8	12.1	40.4
12-Apr	7	6	6	8	6	6	6	8	36	37	23	21	9	11	12	10	10	12	9	15	14	10	10	13	12.7	37.5
13-Apr	20	31	29	40	16	18	14	16	36	16	16	13	23	39	24	36	35	18	8	N	N	N	48	43	25.6	48.4
14-Apr	42	26	17	19	16	11	13	19	28	41	43	18	18	11	14	5	16	20	12	9	25	26	25	26	20.9	43.0
15-Apr	21	16	14	10	9	9	13	28	35	24	20	N	N	N	N	N	N	N	N	37	24	17	16	16	--	37.2
16-Apr	9	11	11	11	12	16	17	22	25	21	14	N	N	N	N	N	N	6	6	9	17	28	28	33	16.4	33.0
17-Apr	34	29	30	19	18	14	8	13	14	19	19	18	12	10	15	15	12	10	11	13	16	16	16	9	16.4	33.9
18-Apr	12	14	11	11	11	8	11	12	9	10	11	10	13	10	11	11	10	6	5	5	10	11	12	9	10.1	13.6
19-Apr	13	12	18	22	22	23	20	20	15	20	14	14	15	14	14	3	16	18	11	8	15	22	22	17	16.1	23.0
20-Apr	8	19	19	17	12	16	14	18	17	11	14	15	17	30	29	19	17	12	20	24	18	10	6	10	16.2	29.8
21-Apr	8	0	3	17	25	23	15	38	38	11	9	14	15	24	26	21	8	6	12	18	17	4	11	15	15.7	37.7
22-Apr	7	11	11	9	9	8	6	8	17	14	22	21	11	12	18	18	10	3	0	3	9	10	6	7	10.5	21.8
23-Apr	5	6	5	4	5	5	5	4	3	4	3	14	14	0	1	5	9	5	5	7	10	10	10	4	6.1	14.2
24-Apr	10	10	9	10	5	6	8	8	8	11	9	0	0	9	12	13	7	3	0	1	0	4	10	8	6.8	12.6
25-Apr	9	10	6	7	7	4	4	5	6	7	6	4	5	9	7	5	4	3	4	6	7	12	10	9	6.4	11.5
26-Apr	10	12	11	10	6	7	4	6	6	9	1	2	0	BD	0	0	0	6	11	10	3	11	15	13	6.6	14.6
27-Apr	9	10	8	8	10	7	12	9	9	8	7	11	8	9	17	16	3	8	9	10	14	8	13	6	9.6	17.2
28-Apr	10	4	10	3	9	2	11	10	0	12	12	6	0	BD	BD	BD	BD	BD	BD	BD	BD	BD	7	6	--	12.0
29-Apr	10	15	15	13	4	11	8	6	2	M	8	9	7	14	12	15	15	17	17	16	16	13	11	11	11.5	17.2
30-Apr	9	10	9	10	9	10	10	10	12	C	C	C	C	5	14	13	11	18	4	16	9	15	16	9	11.0	18.0
	15.7	14.8	13.0	13.8	12.2	11.8	11.5	14.3	18.0	19.6	16.2	14.8	12.6	14.2	11.2	14.9	15.1	13.2	13.2	13.0	13.7	13.3	14.9	14.7	Diurnal Average	
	73.5	31.3	30.1	40.9	46.7	29.6	22.9	42.1	37.7	60.8	43.0	33.2	30.7	52.8	29.4	51.7	51.7	23.7	60.9	37.2	31.5	27.9	48.4	42.9	Diurnal Maximum	

C - Calibration M - Maintenance N - Not Valid BD - Baseline Drift

Hourly Maximums

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

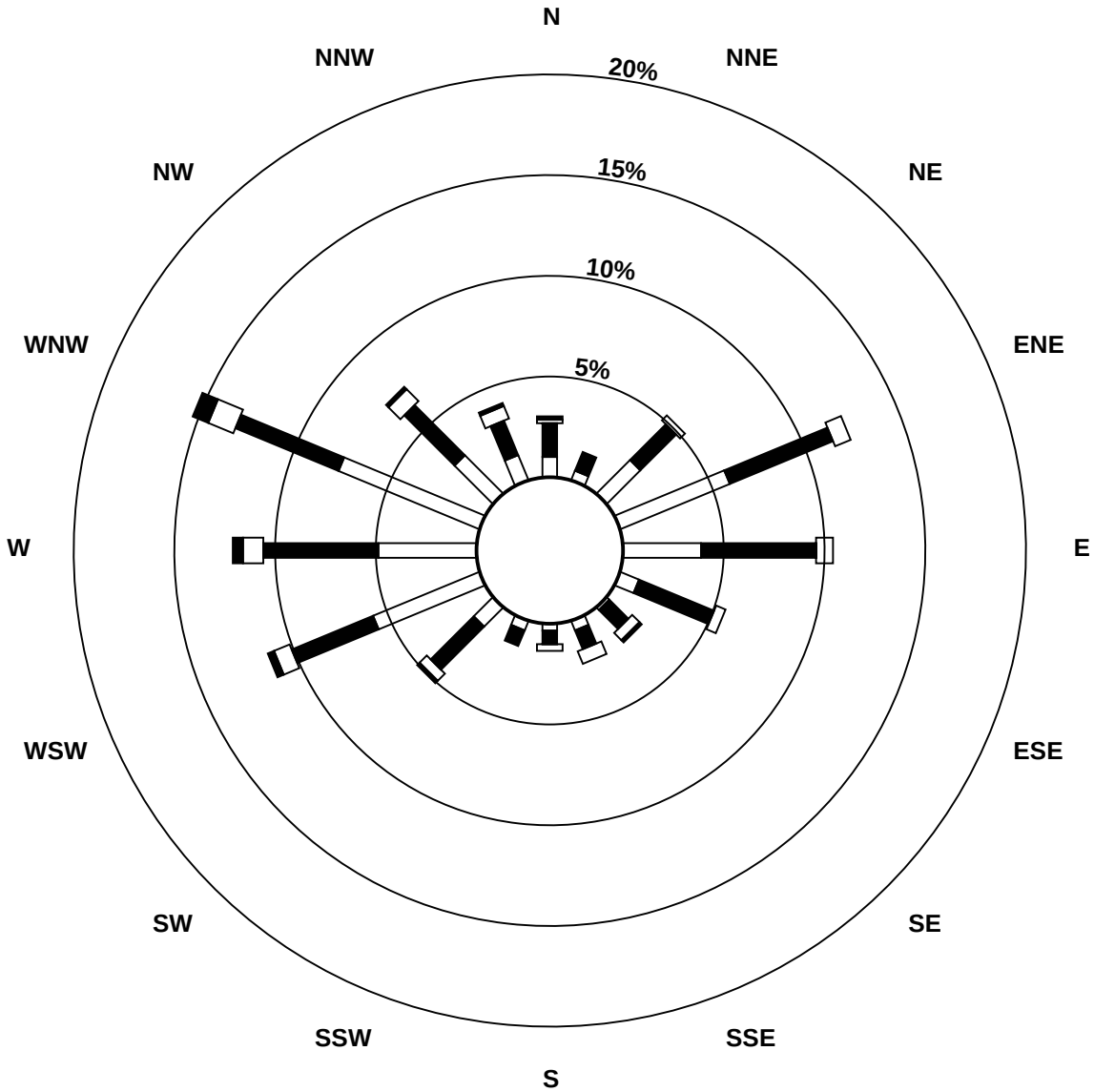
Henry Pirker - April 2010



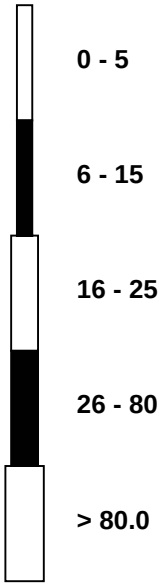
Pollutant Rose

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

Henry Pirker - April 2010



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



PASZA
Pasco Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Henry Pirker - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 27.3 ^{o}C on Apr 20 17:00 Maximum Daily Average: 17.7 ^{o}C on Apr 20

Minimum Value: -8 ^{o}C on Apr 2 07:00 Minimum Daily Average: -2.9 ^{o}C on Apr 11
Maximum Diurnal Average: 12.5 ^{o}C at hour 16 Minimum Diurnal Average: -0.5 ^{o}C at hour 7
Monthly Average: 6.25 ^{o}C Percentiles: P_1 = -6.7 P_{10} = -2.1 Q_1 = 0.8 Median = 4.9 Q_3 = 10.6 P_{90} = 16.8 P_{99} = 25.3

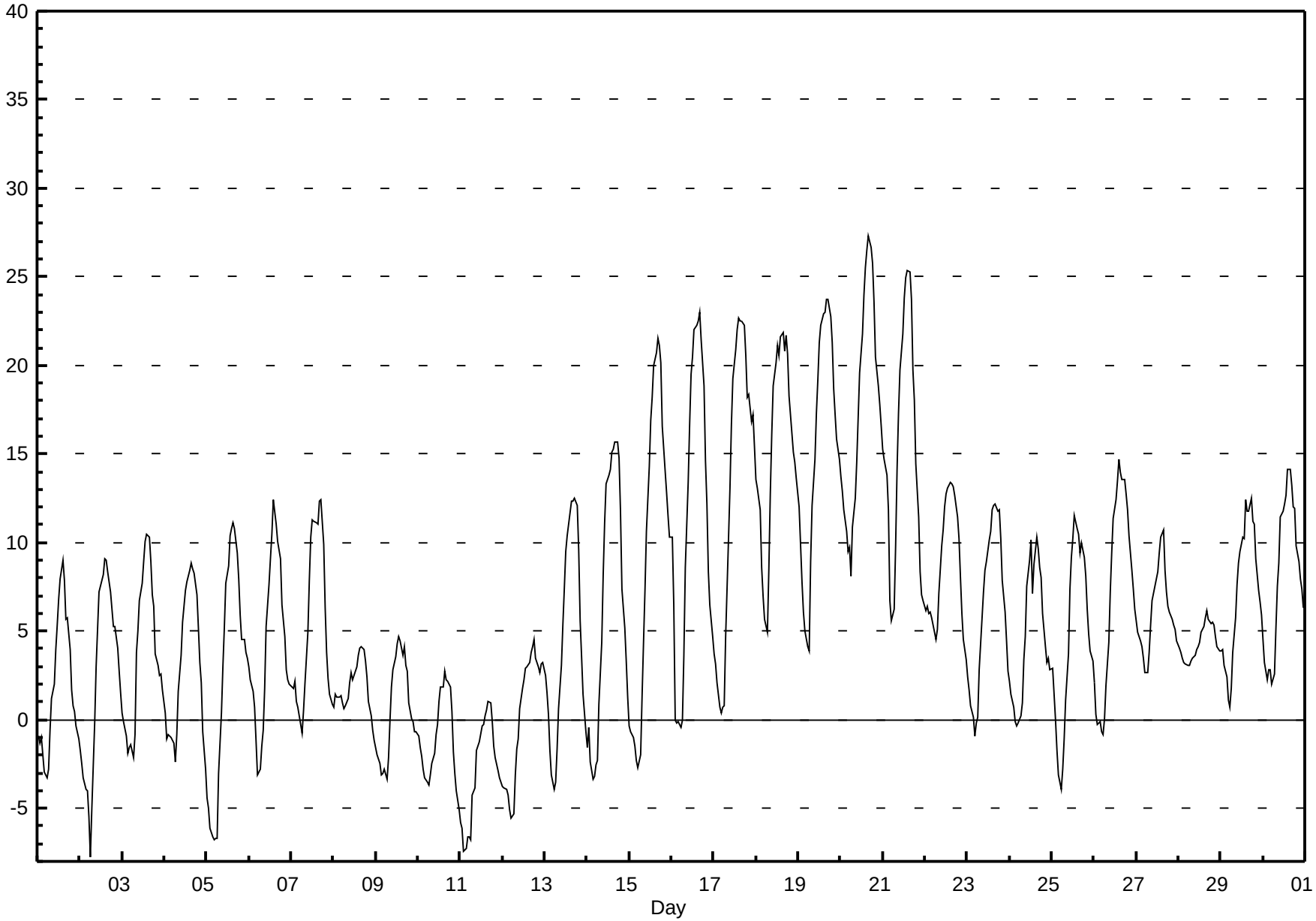
Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	-1	-1	-1	-2	-3	-3	-3	-1	1	2	4	5	7	8	9	8	6	6	4	2	1	0	0	-1	1.9	9.0
2-Apr	-2	-2	-3	-4	-4	-5	-8	-5	0	3	5	7	8	8	9	9	8	7	6	5	5	4	3	2	2.3	9.1
3-Apr	0	0	-1	-2	-2	-1	-2	-1	4	5	7	8	9	10	10	10	9	7	6	4	3	3	3	2	3.8	10.5
4-Apr	0	-1	-1	-1	-1	-1	-2	-1	2	4	5	6	7	8	8	9	9	8	7	5	3	2	-1	-3	3.0	8.9
5-Apr	-4	-5	-6	-7	-7	-7	-7	-3	0	3	5	8	9	10	11	11	11	9	8	6	4	5	4	4	2.6	11.1
6-Apr	3	2	2	1	-1	-3	-3	-1	-1	2	5	8	9	10	12	11	10	10	9	7	5	3	2	2	4.3	12.4
7-Apr	2	2	2	1	1	0	-1	1	2	5	8	10	11	11	11	11	12	12	10	6	4	2	1	1	5.3	12.4
8-Apr	1	1	1	1	1	1	1	1	1	2	3	2	3	3	4	4	4	4	3	2	1	0	-1	-1	1.8	4.1
9-Apr	-2	-2	-2	-3	-3	-3	-3	-2	0	2	3	4	4	5	4	4	4	3	3	1	0	0	-1	-1	0.6	4.7
10-Apr	-1	-2	-2	-3	-3	-4	-4	-3	-2	-2	-1	0	1	2	2	3	2	2	2	0	-2	-3	-4	-5	-1.1	2.7
11-Apr	-6	-6	-7	-7	-7	-7	-7	-4	-4	-2	-2	-1	0	0	0	1	1	1	0	-1	-2	-3	-3	-4	-2.9	1.0
12-Apr	-4	-4	-4	-4	-5	-6	-5	-3	-2	-1	1	2	2	3	3	3	4	4	5	3	3	3	3	3	0.2	4.6
13-Apr	3	1	0	-2	-3	-4	-4	-2	1	3	5	7	9	10	12	12	12	13	12	10	6	4	1	-1	4.5	12.5
14-Apr	-2	0	-2	-3	-3	-3	-2	1	4	8	11	13	14	14	15	15	16	16	15	12	7	5	3	1	6.5	15.7
15-Apr	0	-1	-1	-2	-2	-3	-2	1	4	7	11	14	17	18	20	21	22	21	20	17	14	13	12	10	9.6	21.5
16-Apr	10	7	0	0	0	0	0	4	9	13	17	19	20	22	22	23	23	21	19	15	12	8	6	5	11.4	23.0
17-Apr	4	3	2	1	0	1	1	5	10	13	17	19	21	22	23	23	22	22	21	18	18	17	17	15	13.1	22.7
18-Apr	14	13	12	9	7	6	5	9	13	16	19	20	21	21	22	22	21	22	21	18	16	15	14	14	15.3	21.9
19-Apr	12	10	8	6	5	4	4	9	12	15	17	19	21	22	23	23	24	24	23	21	19	17	16	15	15.4	23.7
20-Apr	14	13	12	11	9	10	8	11	13	15	17	20	22	24	26	26	27	27	26	24	21	19	18	17	17.7	27.3
21-Apr	15	15	14	12	7	6	6	10	14	17	20	22	24	25	25	25	24	20	18	14	11	8	7	7	15.2	25.3
22-Apr	6	6	6	6	6	5	5	5	7	10	11	12	13	13	13	13	13	13	11	10	8	6	5	3	8.6	13.4
23-Apr	2	2	1	0	-1	0	0	3	6	7	8	9	10	11	12	12	12	12	12	10	8	6	4	3	6.2	12.1
24-Apr	2	1	1	0	0	0	0	1	3	5	8	9	10	7	9	10	10	9	8	6	4	3	3	3	4.7	10.3
25-Apr	3	1	0	-2	-3	-4	-3	-1	1	4	7	9	10	12	11	10	9	10	9	8	6	5	4	3	4.6	11.5
26-Apr	2	0	0	0	-1	-1	0	2	4	7	9	11	12	13	15	14	14	14	13	12	10	8	7	6	7.2	14.7
27-Apr	6	5	4	4	3	3	3	4	5	7	7	8	8	9	10	11	8	7	6	6	6	5	5	4	6.1	10.7
28-Apr	4	4	3	3	3	3	3	3	3	4	4	4	4	5	5	6	6	6	5	5	5	5	4	4	4.3	6.2
29-Apr	4	4	3	2	1	1	2	4	6	8	9	9	10	10	12	12	12	12	11	11	9	7	7	6	7.2	12.5
30-Apr	5	3	2	3	3	2	3	5	8	9	11	12	12	13	14	14	13	12	12	10	9	8	7	6	8.2	14.2
	3.0	2.3	1.4	0.6	-0.1	-0.5	-0.5	1.7	4.2	6.3	8.4	9.9	11.0	11.7	12.4	12.5	12.3	11.8	10.8	8.9	7.2	5.9	5.0	4.0	Diurnal Average	
	15.2	14.7	13.8	11.8	9.5	9.7	8.1	10.9	14.2	17.3	19.7	21.7	23.8	25.0	25.5	26.5	27.3	26.7	25.8	23.6	20.5	18.8	17.8	16.6	Diurnal Maximum	

Hourly Averages

External Temperature (ET) - ^{o}C

Henry Pirker - April 2010



Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 87.6 % on Apr 28 05:00 Maximum Daily Average: 83.2 % on Apr 28

Minimum Value: 12 % on Apr 15 18:00 Minimum Daily Average: 33.9 % on Apr 20

Maximum Diurnal Average: 71.4 % at hour 6 Minimum Diurnal Average: 32.6 % at hour 16

Monthly Average: 52.02 % Percentiles: P_1 = 14.9 P_{10} = 25.5 Q_1 = 37.4 Median = 52.5 Q_3 = 67.4 P_{90} = 77.8 P_{99} = 86.8

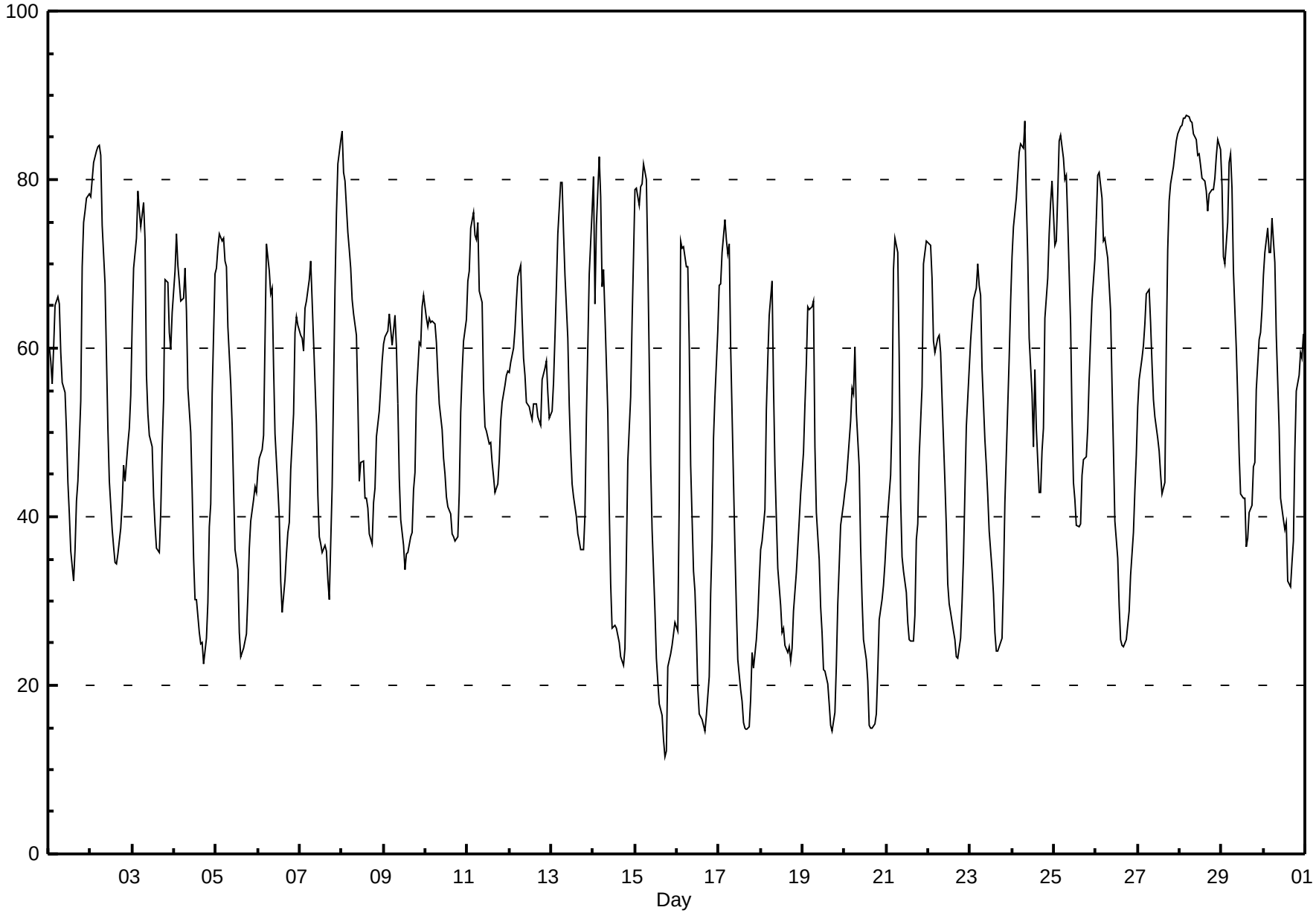
Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	60	58	56	60	65	66	65	59	56	55	50	44	40	36	32	36	42	44	54	70	75	76	78	78	56.5	78.4
2-Apr	78	80	82	83	84	84	83	75	68	59	51	44	39	36	35	34	36	39	42	46	44	49	50	54	57.3	84.1
3-Apr	63	69	73	79	76	74	77	73	57	52	50	48	42	39	36	36	41	48	54	68	68	62	60	64	58.7	78.7
4-Apr	69	74	70	68	66	66	69	64	55	50	43	35	30	30	26	25	25	22	26	30	39	42	55	69	47.8	73.6
5-Apr	69	72	74	73	73	70	70	62	56	51	43	36	34	26	23	24	24	26	31	36	39	42	43	43	47.6	73.6
6-Apr	45	47	48	50	61	72	69	66	67	58	50	43	40	32	29	32	36	38	39	46	52	62	64	63	50.4	72.4
7-Apr	61	61	60	65	66	68	70	66	61	51	42	38	37	36	37	36	33	30	44	55	67	76	82	85	55.2	84.6
8-Apr	86	81	80	74	72	69	66	64	62	54	44	46	47	42	42	41	38	37	42	43	49	53	55	58	56.0	85.8
9-Apr	61	61	62	64	62	60	64	60	53	44	40	37	34	36	36	38	38	43	45	54	61	60	65	66	51.9	66.3
10-Apr	64	63	64	63	63	63	61	57	53	50	47	45	42	41	40	38	38	37	38	43	52	57	61	63	51.8	63.6
11-Apr	68	69	74	76	73	73	75	67	65	55	51	50	49	49	46	45	43	44	47	51	53	56	57	57	58.1	76.2
12-Apr	57	58	60	62	66	68	70	64	59	57	54	53	52	51	53	53	52	51	51	56	58	58	55	52	57.1	69.9
13-Apr	53	56	61	67	73	80	80	74	69	61	53	48	44	42	40	38	37	36	36	40	52	60	69	76	56.1	79.7
14-Apr	80	65	75	83	78	67	69	64	52	41	32	27	27	27	26	25	23	22	24	35	47	54	63	71	49.1	82.6
15-Apr	79	79	77	79	80	82	80	70	58	46	39	29	23	20	18	16	14	12	12	22	24	25	26	27	43.2	81.8
16-Apr	26	42	73	72	72	70	70	61	46	34	31	26	20	17	16	15	15	16	21	31	37	49	54	62	40.6	72.7
17-Apr	67	68	71	75	73	71	72	60	44	36	29	23	19	18	16	15	15	15	18	24	22	25	28	32	39.1	75.3
18-Apr	36	37	41	53	59	64	68	56	46	40	34	30	26	27	25	24	25	23	24	29	33	36	40	43	38.2	68.0
19-Apr	48	53	58	65	65	65	66	48	40	35	29	26	22	22	20	18	15	15	17	22	30	34	39	42	37.2	65.6
20-Apr	43	44	47	51	55	55	60	52	46	36	30	25	23	21	15	15	15	15	17	22	28	30	32	34	33.9	60.2
21-Apr	38	40	45	52	69	73	71	59	42	35	34	31	28	25	25	25	28	37	39	47	55	70	71	73	46.4	73.0
22-Apr	72	72	68	61	59	61	62	59	54	44	39	32	30	29	26	25	23	23	26	30	35	43	51	57	45.1	72.4
23-Apr	61	63	66	67	70	67	66	58	49	46	42	38	34	31	26	24	24	25	26	32	42	53	59	65	47.3	70.0
24-Apr	71	74	78	81	83	84	84	87	78	71	61	55	48	58	50	43	43	48	50	64	68	74	77	80	67.0	87.0
25-Apr	72	73	78	84	85	83	80	81	75	63	52	44	42	39	39	39	45	47	47	51	56	61	66	71	61.3	85.3
26-Apr	75	80	81	78	73	73	72	71	64	56	48	39	35	29	25	25	25	25	27	29	33	38	43	47	49.7	80.8
27-Apr	53	56	59	60	63	66	67	63	58	54	52	49	48	45	43	44	60	72	77	80	81	83	85	85	62.7	85.4
28-Apr	86	86	87	87	88	87	87	87	85	85	83	83	82	80	80	79	76	78	79	79	80	83	85	84	83.2	87.6
29-Apr	79	71	70	75	82	83	79	69	60	54	47	43	42	42	37	37	41	41	46	46	55	61	62	65	57.8	83.0
30-Apr	69	71	74	71	71	75	70	62	56	51	42	40	38	39	32	32	35	37	48	55	57	60	59	62	54.4	75.4
	63.0	64.2	67.0	69.3	70.8	71.4	71.4	65.2	57.9	50.8	44.7	40.3	37.2	35.5	33.2	32.6	33.4	35.0	38.2	44.6	49.8	54.4	57.7	61.0	Diurnal Average	
	86.3	86.4	87.3	87.3	87.6	87.4	87.0	87.0	85.4	84.7	82.9	83.0	81.7	80.2	79.9	78.7	76.2	78.3	78.8	79.5	81.5	83.0	84.7	85.4	Diurnal Maximum	

Hourly Averages

Relative Humidity (RH) - %

Henry Pirker - April 2010



Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 746.6 W/m^2 on Apr 29 15:00

Maximum Daily Average: 222.6 W/m^2 on Apr 22

Minimum Value: 0 W/m^2 on Apr 1 01:00

Maximum Diurnal Average: 512.1 W/m^2 at hour 13

Monthly Average: 170.18 W/m^2

Minimum Daily Average: 74.7 W/m^2 on Apr 28

Minimum Diurnal Average: 0.0 W/m^2 at hour 1

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 52.5 Q_3 = 337.7 P_{90} = 529.7 P_{99} = 625.6

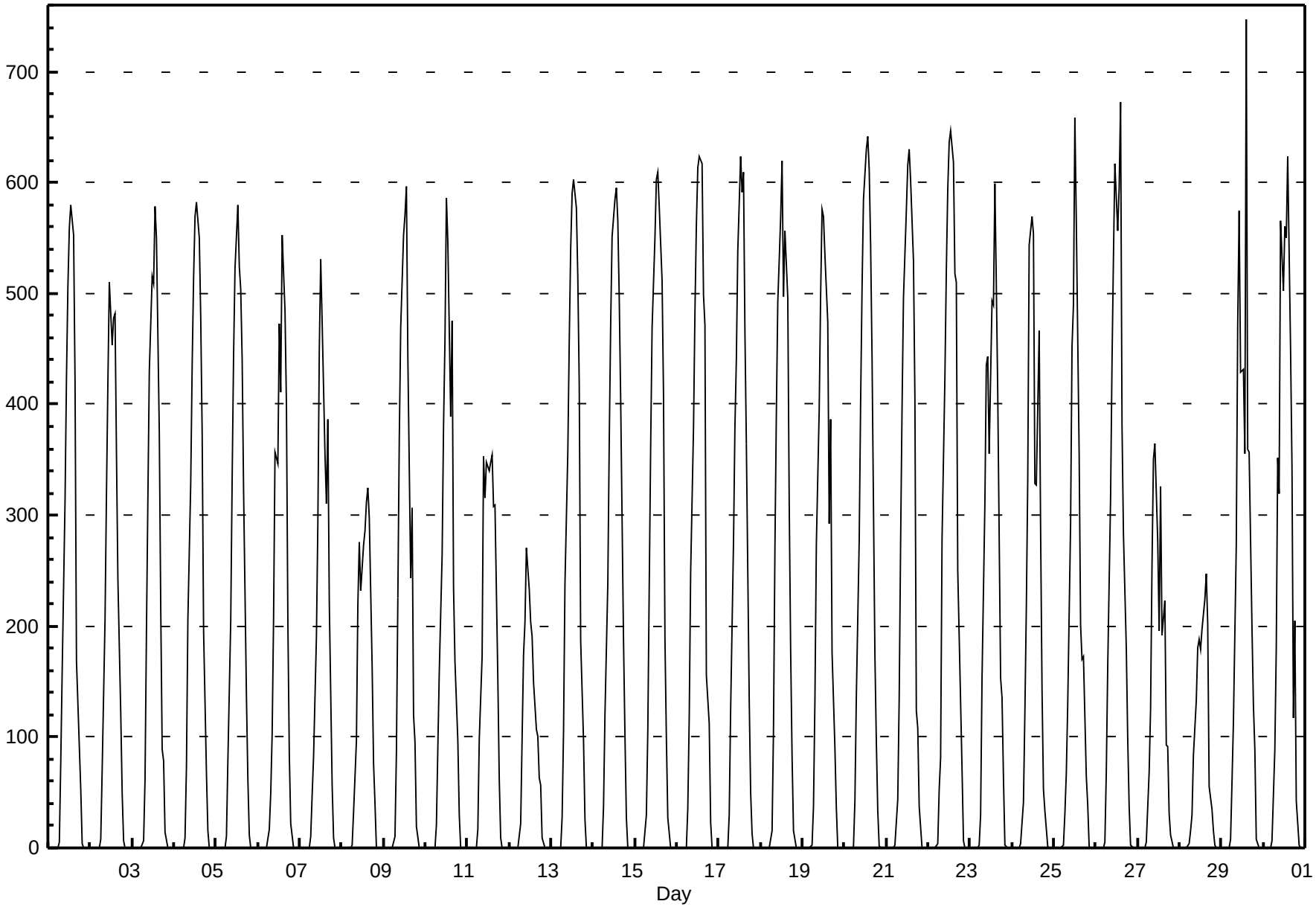
Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	0	0	0	0	0	0	5	77	160	314	423	506	559	579	552	419	168	130	53	4	0	0	0	0	164.6	579.0
2-Apr	0	0	0	0	0	0	8	71	206	320	420	510	454	478	482	356	242	122	49	6	0	0	0	0	155.1	509.5
3-Apr	0	0	0	0	0	0	6	62	196	315	431	515	509	578	551	374	217	89	79	15	0	0	0	0	164.0	578.1
4-Apr	0	0	0	0	0	0	8	74	206	330	436	514	570	583	550	478	373	196	67	15	0	0	0	0	183.3	582.7
5-Apr	0	0	0	0	0	0	10	79	205	334	444	523	580	525	504	441	322	137	62	12	0	0	0	0	174.0	579.5
6-Apr	0	0	0	0	0	0	16	49	103	207	357	347	473	411	553	484	400	205	85	22	0	0	0	0	154.6	552.9
7-Apr	0	0	0	0	0	0	10	48	82	191	294	449	531	475	354	311	386	222	57	9	0	0	0	0	142.4	530.6
8-Apr	0	0	0	0	0	0	3	33	97	219	276	232	273	286	312	324	298	163	76	40	0	0	0	0	109.7	324.2
9-Apr	0	0	0	0	0	0	10	86	226	368	469	552	570	597	443	243	307	120	95	19	0	0	0	0	171.0	596.7
10-Apr	0	0	0	0	0	0	20	90	158	264	381	458	586	546	389	476	235	168	97	29	0	0	0	0	162.4	586.1
11-Apr	0	0	0	0	0	0	17	97	172	353	316	348	340	348	354	308	309	153	62	9	0	0	0	0	132.8	353.7
12-Apr	0	0	0	0	0	0	22	99	174	203	270	233	204	190	149	107	100	63	57	9	0	0	0	0	78.3	270.0
13-Apr	0	0	0	0	0	0	27	104	238	357	458	539	590	603	577	514	417	187	96	26	0	0	0	0	197.2	602.6
14-Apr	0	0	0	0	0	0	37	119	238	366	471	551	585	595	565	496	405	187	101	27	0	0	0	0	197.7	595.3
15-Apr	0	0	0	0	0	0	29	106	236	362	469	550	602	610	578	512	408	190	99	27	0	0	0	0	199.1	609.8
16-Apr	0	0	0	0	0	0	36	118	249	378	483	561	613	624	616	498	472	156	112	23	0	0	0	0	205.8	623.8
17-Apr	0	0	0	0	0	0	29	124	276	380	440	538	624	592	609	465	364	134	51	13	0	0	0	0	193.3	623.6
18-Apr	0	0	0	0	0	0	16	107	270	392	492	568	620	498	556	496	310	179	83	16	0	0	0	0	191.8	620.1
19-Apr	0	0	0	0	0	2	38	133	274	396	499	575	570	535	474	293	386	177	90	37	0	0	0	0	186.6	575.2
20-Apr	0	0	0	0	0	2	43	136	277	402	505	585	630	641	611	544	442	174	95	33	1	0	0	0	213.4	641.1
21-Apr	0	0	0	0	0	2	44	135	275	396	496	575	616	630	601	529	406	124	109	37	0	0	0	0	207.3	630.1
22-Apr	0	0	0	0	0	4	53	81	279	423	520	594	637	647	618	518	510	249	132	70	6	0	0	0	222.6	647.2
23-Apr	0	0	0	0	0	3	30	153	311	436	444	356	493	490	598	508	410	153	136	64	2	0	0	0	191.1	598.4
24-Apr	0	0	0	0	0	4	42	123	215	330	543	569	555	329	327	467	288	143	53	33	2	0	0	0	167.6	568.8
25-Apr	0	0	0	0	0	3	31	66	130	292	452	489	658	565	354	201	171	172	64	39	2	0	0	0	153.7	658.5
26-Apr	0	0	0	0	0	5	68	164	316	438	532	617	557	595	673	382	284	180	98	37	2	0	0	0	206.2	672.8
27-Apr	0	0	0	0	0	5	69	125	255	351	365	277	196	326	192	223	92	91	31	12	0	0	0	0	108.8	365.1
28-Apr	0	0	0	0	0	3	16	30	83	133	180	188	178	197	224	248	202	56	35	15	3	0	0	0	74.7	247.7
29-Apr	0	0	0	0	0	7	59	113	273	472	574	430	432	356	747	359	357	198	129	89	8	0	0	0	191.8	746.6
30-Apr	0	0	0	0	0	7	89	180	351	319	565	503	561	550	624	450	343	117	205	43	3	0	0	0	204.6	623.5
	0.0	0.0	0.0	0.0	0.0	1.6	29.7	99.5	217.8	334.7	433.5	475.0	512.1	499.2	491.2	400.8	320.8	154.5	85.3	27.7	1.0	0.0	0.0	0.0	Diurnal Average	
	0.0	0.0	0.0	0.0	0.0	7.5	88.8	180.5	351.3	472.1	574.2	617.3	658.5	647.2	746.6	544.2	510.1	249.4	205.0	89.0	8.0	0.0	0.0	0.0	Diurnal Maximum	

Hourly Averages

Solar Radiation (SR) - W/m^2

Henry Pirker - April 2010



Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	8	9	13	9	7	6	6	5	8	13	13	17	13	9	6	12	13	7	9	8	6	3	4	5	7.6	16.7
Dir	235	237	247	269	294	305	284	288	255	268	275	258	275	287	287	297	291	305	291	244	216	199	191	179	268.0	258.4
2 Spd	3	1	3	4	4	3	3	3	1	6	6	7	8	11	12	11	11	10	11	11	11	9	4	3	5.1	11.5
Dir	155	36	102	94	94	328	309	301	120	95	79	56	54	54	52	40	39	36	38	47	74	106	119	206	59.2	51.8
3 Spd	2	3	3	3	4	6	5	3	3	6	7	8	7	7	8	8	8	10	11	3	10	12	18	13	6.1	17.7
Dir	324	219	308	323	289	327	338	270	250	235	273	280	277	286	297	286	295	249	302	322	234	256	248	242	272.2	248.3
4 Spd	11	8	10	11	14	10	8	7	9	10	10	15	16	18	16	11	11	9	5	5	5	5	2	5	6.2	18.2
Dir	242	228	241	248	247	239	226	195	208	246	264	260	266	282	287	316	342	349	13	79	97	108	95	308	263.2	282.2
5 Spd	5	3	5	6	5	5	5	4	7	6	6	5	3	6	6	7	7	8	9	7	6	10	9	9	2.9	10.0
Dir	322	303	306	309	282	304	312	257	243	243	274	265	288	48	48	31	26	28	25	40	46	59	63	75	359.8	58.8
6 Spd	10	9	6	3	1	3	3	2	6	8	6	6	8	7	7	26	27	21	13	14	10	9	8	8	6.5	27.4
Dir	60	66	79	94	8	263	334	282	238	268	276	247	287	290	288	264	268	276	276	268	250	235	245	229	269.0	267.6
7 Spd	7	6	5	2	3	5	4	5	7	10	13	15	18	23	22	20	14	17	11	10	9	12	12	12	7.6	23.5
Dir	226	221	222	216	168	146	138	143	150	155	176	233	260	257	257	259	261	252	288	302	311	314	304	310	253.1	256.5
8 Spd	6	8	7	9	9	11	12	14	16	24	28	26	25	26	25	27	31	27	30	25	21	20	20	20	19.0	31.2
Dir	286	280	300	292	271	274	276	274	260	282	286	282	279	277	265	260	253	258	252	261	250	249	247	247	266.2	252.6
9 Spd	15	15	15	14	17	18	11	8	18	26	26	25	26	26	25	24	23	22	22	19	14	13	14	16	17.1	25.6
Dir	242	242	241	232	246	251	278	282	267	278	296	300	304	308	306	306	303	300	287	281	283	260	262	277	281.3	296.2
10 Spd	14	13	15	14	14	15	16	20	23	25	26	28	25	24	25	23	21	21	16	14	7	5	5	4	16.0	27.9
Dir	280	284	286	289	290	287	296	297	295	297	301	301	309	303	303	307	314	322	341	342	17	38	19	357	305.6	301.3
11 Spd	6	5	6	7	8	7	4	5	6	3	4	7	5	7	6	6	8	10	11	10	10	12	12	11	5.8	11.9
Dir	327	331	320	311	335	339	307	8	92	23	10	353	55	46	64	47	28	29	51	48	45	51	53	55	26.5	51.5
12 Spd	11	10	10	8	5	5	7	9	14	13	14	15	16	17	18	15	12	8	5	7	6	5	7	8	9.5	17.9
Dir	56	65	70	75	84	73	66	88	102	114	111	110	107	104	106	102	89	66	52	29	34	49	63	79	86.9	105.7
13 Spd	10	9	6	2	2	4	5	8	10	8	7	6	4	5	5	3	7	4	4	2	3	1	4	1	2.2	10.2
Dir	89	89	123	360	86	210	215	212	220	218	243	234	219	270	272	286	294	269	312	181	157	126	290	285	226.7	89.0
14 Spd	3	3	4	4	5	6	7	7	10	10	11	8	11	13	13	14	13	12	10	6	4	3	2	4	7.0	14.0
Dir	249	253	286	290	279	271	281	291	299	317	337	356	307	296	302	286	293	323	339	304	333	9	317	298	305.1	285.8
15 Spd	3	5	4	2	1	2	2	2	5	6	6	7	7	9	6	2	2	5	6	3	7	8	7	9	2.9	8.8
Dir	315	286	360	291	281	281	33	146	140	117	125	143	136	123	65	54	62	131	122	359	72	76	89	83	98.7	82.8
16 Spd	9	2	4	4	3	3	2	3	5	4	7	7	12	5	3	4	8	12	19	11	7	5	5	4	4.6	18.5
Dir	96	53	288	294	310	286	259	282	252	236	258	272	257	234	182	230	295	285	300	310	327	340	294	312	284.7	300.1
17 Spd	2	3	4	5	5	6	4	2	2	3	3	3	4	6	7	10	10	8	10	4	7	8	12	9	0.4	12.0
Dir	347	330	333	285	325	307	291	263	251	221	90	131	104	72	66	80	74	42	353	305	215	180	197	233	7.5	196.8
18 Spd	4	4	3	4	6	4	4	5	5	3	3	3	4	3	3	4	6	7	10	8	8	8	9	10	1.5	10.1
Dir	208	162	224	284	300	285	254	231	231	214	265	247	216	131	92	60	116	70	79	68	66	64	79	82	94.1	81.5
19 Spd	9	7	4	2	1	3	5	4	5	3	2	6	5	7	9	10	12	11	7	7	9	11	10	10	5.2	11.9
Dir	101	119	173	147	167	179	177	226	234	222	194	121	115	119	114	109	125	129	118	78	82	86	83	87	117.0	125.0
20 Spd	10	10	8	8	7	8	4	5	7	9	8	9	8	7	7	6	2	9	12	10	9	10	11	9	7.0	11.8
Dir	90	86	69	58	65	86	149	118	115	116	114	140	151	147	132	154	134	78	86	77	65	76	90	96	98.4	85.5
21 Spd	10	13	12	2	5	3	4	6	11	16	19	16	10	7	7	12	22	29	28	34	32	26	21	15	11.8	34.4
Dir	91	89	93	101	303	306	298	255	265	284	290	288	289	278	310	292	284	293	288	270	281	290	286	281	286.6	270.2
22 Spd	11	8	11	15	14	11	11	10	13	19	18	19	21	23	21	23	22	23	24	20	21	20	21	21	17.2	23.6
Dir	280	228	247	254	257	253	243	240	254	264	268	265	253	259	260	262	266	271	273	267	250	247	246	246	257.9	273.3

Hourly Averages

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	19	16	10	12	9	12	13	18	24	26	24	20	21	17	18	16	15	13	8	8	11	10	8	5	11.3	26.2
Dir	246	250	263	268	268	253	256	261	281	281	283	295	298	293	294	295	293	304	337	38	19	57	60	106	285.9	280.6
24 Spd	5	5	5	5	4	5	7	7	10	11	8	7	7	14	5	11	16	14	9	6	3	3	5	1	4.5	16.1
Dir	92	78	83	54	56	53	53	72	72	73	57	49	3	351	320	313	314	339	355	62	62	333	225	296	22.5	314.3
25 Spd	4	4	2	4	3	4	3	4	2	3	4	1	3	4	3	6	7	6	9	1	3	4	1	3	0.9	9.3
Dir	94	129	77	333	298	307	308	274	241	186	252	184	199	57	11	224	298	112	342	260	360	55	74	289	315.6	342.1
26 Spd	3	3	4	5	7	7	7	9	10	12	15	16	15	15	15	18	17	18	18	15	14	13	13	12	11.5	18.4
Dir	0	152	78	82	75	75	80	95	83	97	89	90	91	87	99	87	91	93	90	93	86	78	81	78	87.5	89.9
27 Spd	15	15	15	14	12	12	13	16	19	18	18	17	16	17	15	15	17	16	13	12	12	12	13	14	14.0	18.5
Dir	79	76	75	71	68	63	62	71	79	87	80	84	98	93	91	108	129	113	102	78	71	59	60	68	83.0	79.0
28 Spd	12	12	10	10	11	11	11	10	12	11	13	13	13	12	12	11	10	9	7	5	6	5	6	6	8.8	13.2
Dir	70	68	64	61	58	59	60	59	61	57	59	62	65	64	64	64	57	44	42	11	346	306	312	314	53.6	59.1
29 Spd	6	7	6	3	5	3	3	3	9	10	10	7	8	12	11	10	11	14	12	10	8	8	11	11	6.6	13.6
Dir	343	37	39	327	316	315	299	269	250	242	241	266	280	287	253	269	277	277	286	266	237	231	239	229	269.1	276.5
30 Spd	9	9	6	9	9	9	7	7	6	2	3	3	6	7	7	6	9	4	16	8	4	5	8	5	2.5	16.4
Dir	243	274	292	242	285	300	301	316	9	306	326	294	335	46	355	23	58	87	248	240	118	109	100	79	305.1	248.1
Spd	0.3	0.2	0.9	2.3	2.9	3.0	2.5	2.2	2.9	3.9	4.3	4.4	4.5	4.0	3.7	4.7	5.4	4.9	5.5	3.6	1.8	1.0	0.9	1.1	Diurnal Average	
Dir	299.6	183.9	300.5	291.6	294.8	291.3	292.3	272.1	254.9	265.4	288.0	284.2	287.9	306.1	305.5	296.9	301.1	311.5	317.0	312.7	326.9	355.3	270.2	271.9		
Spd	18.8	16.4	14.9	14.6	17.2	17.8	15.9	19.9	24.2	26.2	28.4	27.9	25.6	26.5	25.5	27.4	31.2	29.1	30.5	34.4	31.7	26.3	21.3	21.1	Diurnal Maximum	
Dir	245.5	250.0	74.5	253.5	246.2	250.5	295.7	297.3	281.1	280.6	286.2	301.3	303.6	277.0	264.9	260.4	252.6	292.8	252.3	270.2	281.2	290.5	246.1	246.2		

Maximum Speed Value: 34 km/h on Apr 21 20:00
Maximum Daily Speed Average: 19.0 km/h on Apr 8
Maximum Diurnal Speed Average: 5.5 km/h at hour 19

Minimum Speed Value: 1 km/h on Apr 2 02:00
Minimum Daily Speed Average: 0.4 km/h on Apr 25
Minimum Diurnal Speed Average: 0.2 km/h at hour 2

Monthly Average Velocity: 2.80 km/h 295.47 deg

Speed Percentiles: $P_1 = 1.4$ $P_{10} = 3.1$ $Q_1 = 5.0$ Median = 8.2 $Q_3 = 12.6$ $P_{90} = 18.5$ $P_{99} = 27.8$

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

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

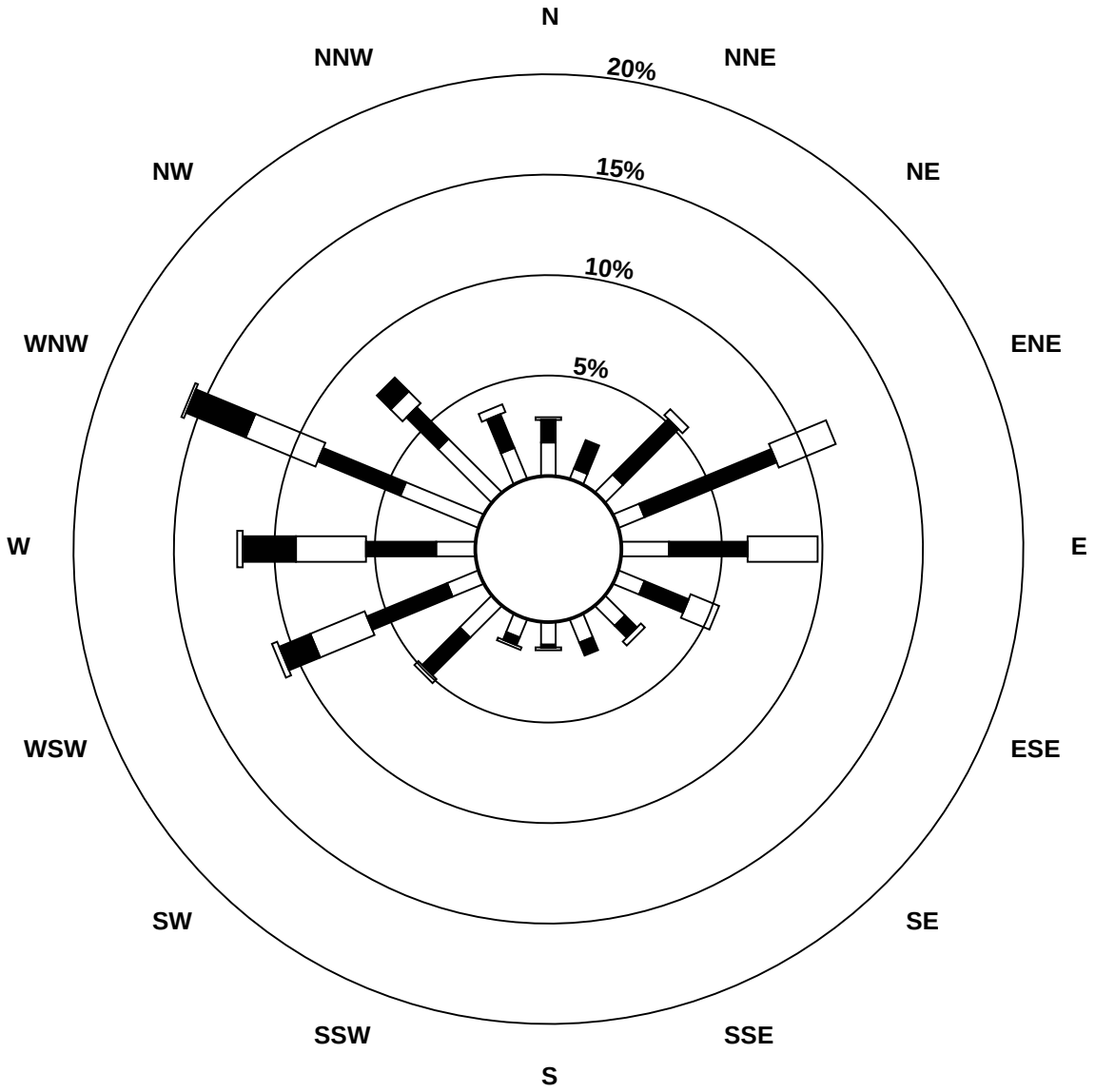
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	14	19	4	0	0	0	37
NorthEast	12	66	19	0	0	0	97
East	19	60	47	0	0	0	126
SouthEast	19	26	4	0	0	0	49
South	15	2	2	0	0	0	19
SouthWest	21	42	13	5	0	0	81
West	36	54	58	35	6	0	189
NorthWest	38	42	20	21	1	0	122
Total	174	311	167	61	7	0	720

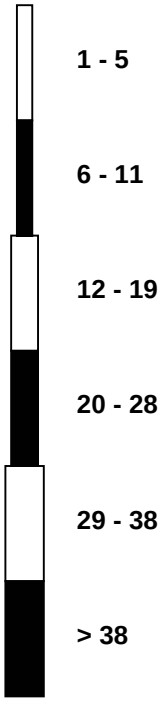
Wind Rose

Wind Speed (WS) (km/h)

Henry Pirker - April 2010



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - April 2010

Maximum Speed: 34 km/h on Apr 21 20:00

Maximum Daily Speed Average: 19.8 km/h on Apr 8

Minimum Speed: 2 km/h on Apr 14 00:00

Minimum Daily Speed Average: 5.3 km/h on Apr 25

Maximum Diurnal Speed Average: 14.1 km/h at hour 17

Minimum Diurnal Speed Average: 6.9 km/h at hour 7

Monthly Average Speed: 10.29 km/h

Percentiles: P_1 = 2.7 P_{10} = 4.1 Q_1 = 5.7 Median = 8.7 Q_3 = 12.9 P_{90} = 18.9 P_{99} = 28.1

Hours in Service: 720

Hours of Data: 720

Hours of Missing Data: 0

Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	8	9	13	9	7	7	6	5	8	14	13	17	13	9	7	12	13	8	9	9	6	3	4	5	9.0	17.0
2-Apr	3	3	3	4	4	4	3	3	4	7	7	8	9	11	12	11	11	10	11	11	12	9	6	4	7.1	12.1
3-Apr	3	4	3	3	4	6	5	5	4	6	8	8	7	8	8	8	9	11	12	5	10	12	18	14	7.5	17.8
4-Apr	11	8	10	11	14	10	8	7	9	10	11	16	17	18	16	12	11	9	6	5	5	5	3	5	9.9	18.4
5-Apr	5	4	5	6	5	5	5	5	7	6	6	6	8	7	6	8	8	8	9	7	7	10	9	9	6.8	10.0
6-Apr	10	9	6	4	3	3	5	3	6	8	6	7	8	8	8	26	28	21	13	14	11	9	8	8	9.7	27.6
7-Apr	7	6	7	4	4	5	5	5	7	11	13	16	19	24	23	20	15	17	12	11	10	12	12	12	11.5	23.8
8-Apr	7	9	7	9	9	11	12	14	16	24	29	26	25	27	26	28	32	28	31	25	21	20	20	20	19.8	31.5
9-Apr	16	15	15	14	17	18	12	9	18	26	26	26	26	26	26	24	23	22	22	19	14	13	14	16	18.9	25.9
10-Apr	14	13	15	14	14	16	16	20	23	25	26	28	26	25	25	23	21	21	17	14	8	6	5	4	17.4	28.3
11-Apr	7	6	6	7	8	7	4	6	6	6	5	8	7	8	8	7	9	10	11	10	10	12	12	11	7.9	12.1
12-Apr	11	10	10	8	6	5	7	10	14	13	15	16	16	17	18	16	13	8	5	7	7	5	7	8	10.6	18.1
13-Apr	10	9	7	3	3	5	5	8	10	9	8	7	6	8	7	6	8	5	5	3	3	3	4	2	6.0	10.2
14-Apr	4	4	4	4	5	6	7	7	10	10	12	9	13	14	14	14	13	13	10	7	4	3	3	4	8.1	14.4
15-Apr	4	6	4	3	4	3	3	3	5	6	7	8	8	11	8	7	6	6	7	4	7	8	7	9	5.9	10.5
16-Apr	9	6	4	5	5	4	3	4	6	4	8	8	12	8	9	8	10	12	19	12	7	5	5	5	7.4	18.8
17-Apr	3	3	4	6	5	6	4	3	3	4	4	5	6	7	8	11	11	9	10	8	9	8	12	10	6.7	12.3
18-Apr	8	5	4	4	6	4	4	5	5	4	4	4	6	6	7	7	7	8	11	8	8	8	9	10	6.4	10.5
19-Apr	9	7	5	3	2	4	5	4	5	4	5	7	7	8	10	11	13	11	8	7	9	11	10	10	7.4	13.0
20-Apr	10	10	8	8	7	9	4	5	8	9	9	9	8	8	9	8	7	9	12	10	10	10	11	9	8.6	12.1
21-Apr	10	13	12	7	6	4	5	6	12	16	19	17	11	8	9	13	22	29	28	34	32	26	21	16	15.7	34.5
22-Apr	12	9	11	15	14	11	11	10	13	19	19	20	22	23	22	24	22	23	24	20	21	20	21	21	17.9	24.0
23-Apr	19	17	10	12	9	13	13	18	25	26	24	21	21	18	19	17	16	15	11	8	11	10	8	6	15.3	26.4
24-Apr	5	5	5	5	4	5	7	7	10	11	9	8	10	16	8	12	18	14	11	7	3	3	5	3	8.0	17.6
25-Apr	5	4	3	4	4	5	3	4	3	4	5	5	7	7	5	7	11	8	11	8	4	4	3	4	5.3	11.4
26-Apr	4	3	4	5	7	7	8	9	10	13	15	16	16	16	17	18	18	18	19	16	14	13	13	12	12.1	18.6
27-Apr	15	15	15	14	12	12	13	16	19	18	18	17	16	17	15	16	17	17	13	12	13	12	13	14	14.9	18.7
28-Apr	12	12	11	11	11	11	11	10	12	12	13	13	13	12	12	11	10	9	7	6	6	5	6	6	10.1	13.3
29-Apr	7	7	6	5	5	4	4	3	9	11	11	9	10	12	11	11	12	14	12	11	8	8	11	11	8.9	14.3
30-Apr	10	10	6	10	10	9	7	7	7	5	6	6	10	8	10	8	10	6	17	9	5	5	8	6	8.1	16.9
	8.5	8.1	7.5	7.2	7.2	7.2	6.9	7.4	9.8	11.4	11.9	12.4	12.8	13.2	12.7	13.5	14.1	13.3	13.0	10.9	9.8	9.4	9.6	9.1	Diurnal Average	
	18.9	16.5	15.0	14.7	17.3	17.9	16.1	20.1	24.7	26.4	28.6	28.3	25.8	26.7	25.8	28.1	31.5	29.4	30.7	34.5	31.8	26.5	21.3	21.2	Diurnal Maximum	

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

Hourly Standard Deviations

Wind Direction (WD) - deg

Henry Pirker - April 2010

Maximum Value: 98.4 deg on Apr 25 12:00

Minimum Value: 3.2 deg on Apr 9 20:00

Percentiles: P_1 = 3.8 P_{10} = 6.3 Q_1 = 9.0 Median = 15.1 Q_3 = 27.5 P_{90} = 50.8 P_{99} = 83.1

Hours in Service:	720
Hours of Data:	720
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-Apr	8	8	3	23	15	10	19	21	19	10	10	10	17	17	31	14	11	20	17	30	10	57	23	13	57.1
2-Apr	31	81	8	24	31	32	25	36	90	23	27	21	16	11	17	10	13	13	9	12	14	8	50	58	90.0
3-Apr	51	29	41	38	16	20	19	41	24	17	16	12	16	26	20	14	18	28	27	74	17	13	6	10	73.9
4-Apr	10	7	8	6	6	11	11	20	12	16	17	14	12	7	7	24	15	18	36	15	11	9	45	17	45.0
5-Apr	16	25	12	7	23	14	20	25	9	17	15	23	78	40	32	33	27	15	9	11	11	6	7	8	78.1
6-Apr	6	5	12	25	70	31	59	38	22	20	22	28	14	29	26	13	7	6	5	7	9	11	14	9	70.3
7-Apr	6	9	44	57	39	11	20	17	8	9	17	25	15	10	9	9	14	16	8	8	10	9	4	6	57.4
8-Apr	20	12	12	18	12	9	8	7	8	8	7	6	7	8	10	13	8	13	8	6	6	6	5	3	19.9
9-Apr	7	9	6	7	6	6	24	23	10	9	8	10	8	8	8	7	7	7	7	3	4	12	7	5	23.7
10-Apr	5	7	6	6	6	6	9	8	7	7	7	9	9	9	7	8	10	7	9	7	16	19	16	19	19.4
11-Apr	12	21	9	13	6	17	20	30	21	73	60	46	49	32	40	28	29	22	13	11	11	9	8	12	72.5
12-Apr	10	10	11	8	9	13	8	9	11	12	11	13	11	9	10	10	12	13	21	12	12	15	8	6	20.6
13-Apr	4	4	34	75	64	19	15	10	12	21	25	35	55	52	58	76	35	51	21	54	12	72	21	68	75.7
14-Apr	42	31	18	15	8	8	8	11	9	14	18	32	26	22	14	14	15	17	10	9	13	26	42	15	42.5
15-Apr	37	30	27	89	71	31	33	44	17	21	25	29	31	39	43	81	83	53	20	61	5	4	5	9	89.0
16-Apr	6	75	18	42	51	36	57	31	28	22	17	22	19	63	76	64	47	12	10	12	4	17	29	33	76.0
17-Apr	66	21	22	12	16	18	18	38	35	37	46	63	65	42	28	25	24	19	12	68	46	25	13	20	67.7
18-Apr	68	44	57	17	16	24	35	16	30	47	58	62	71	88	71	70	50	35	16	8	6	6	7	8	88.1
19-Apr	8	14	37	46	58	53	21	13	21	48	70	34	56	60	36	25	23	20	23	9	5	4	4	5	70.1
20-Apr	5	6	9	7	9	7	22	15	15	16	21	26	27	45	44	46	78	24	11	8	6	5	5	6	77.8
21-Apr	4	4	6	88	27	46	25	19	18	7	10	12	37	47	47	18	11	9	8	5	5	6	5	9	87.5
22-Apr	21	15	8	6	5	11	6	8	13	12	15	18	13	14	13	13	13	13	11	9	6	4	4	5	21.3
23-Apr	5	7	12	8	17	7	10	7	12	8	12	12	10	19	17	19	26	24	40	18	17	9	9	24	39.7
24-Apr	17	17	22	14	15	16	16	14	14	18	25	36	72	36	57	29	25	14	30	27	61	27	30	77	77.1
25-Apr	29	16	51	40	53	25	24	16	53	51	50	98	72	60	76	40	67	62	34	91	21	33	62	45	98.4
26-Apr	46	37	37	16	10	9	10	12	13	12	12	15	16	19	22	10	14	11	9	7	6	6	6	5	46.2
27-Apr	5	5	6	6	9	8	6	8	8	11	10	12	12	12	11	17	11	9	12	9	8	8	9	8	17.2
28-Apr	10	9	9	9	8	8	7	10	8	11	10	10	12	11	13	17	12	16	15	24	9	13	7	10	23.5
29-Apr	19	14	17	46	19	45	63	17	11	19	17	42	41	18	22	31	16	18	11	13	11	7	6	5	62.9
30-Apr	17	21	19	11	21	10	15	14	31	85	72	79	56	36	54	44	27	66	13	25	37	24	10	31	84.9
	67.9	81.3	57.0	89.0	71.4	53.1	62.9	44.4	90.0	84.9	71.9	98.4	78.1	88.1	76.0	80.8	83.0	65.5	39.7	91.1	61.1	71.9	62.3	77.1	

PASZA
Evergreen Park Station
Monthly Summary Tables, Graphs and Roses

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 3.7 ppb on Apr 19 09:00 Maximum Daily Average: 0.6 ppb on Apr 19

Minimum Value: 0 ppb on Apr 1 06:00 Minimum Daily Average: 0.0 ppb on Apr 28
Maximum Diurnal Average: 0.4 ppb at hour 10 Minimum Diurnal Average: 0.1 ppb at hour 6
Monthly Average: 0.20 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.2$ $P_{90} = 0.5$ $P_{99} = 1.2$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

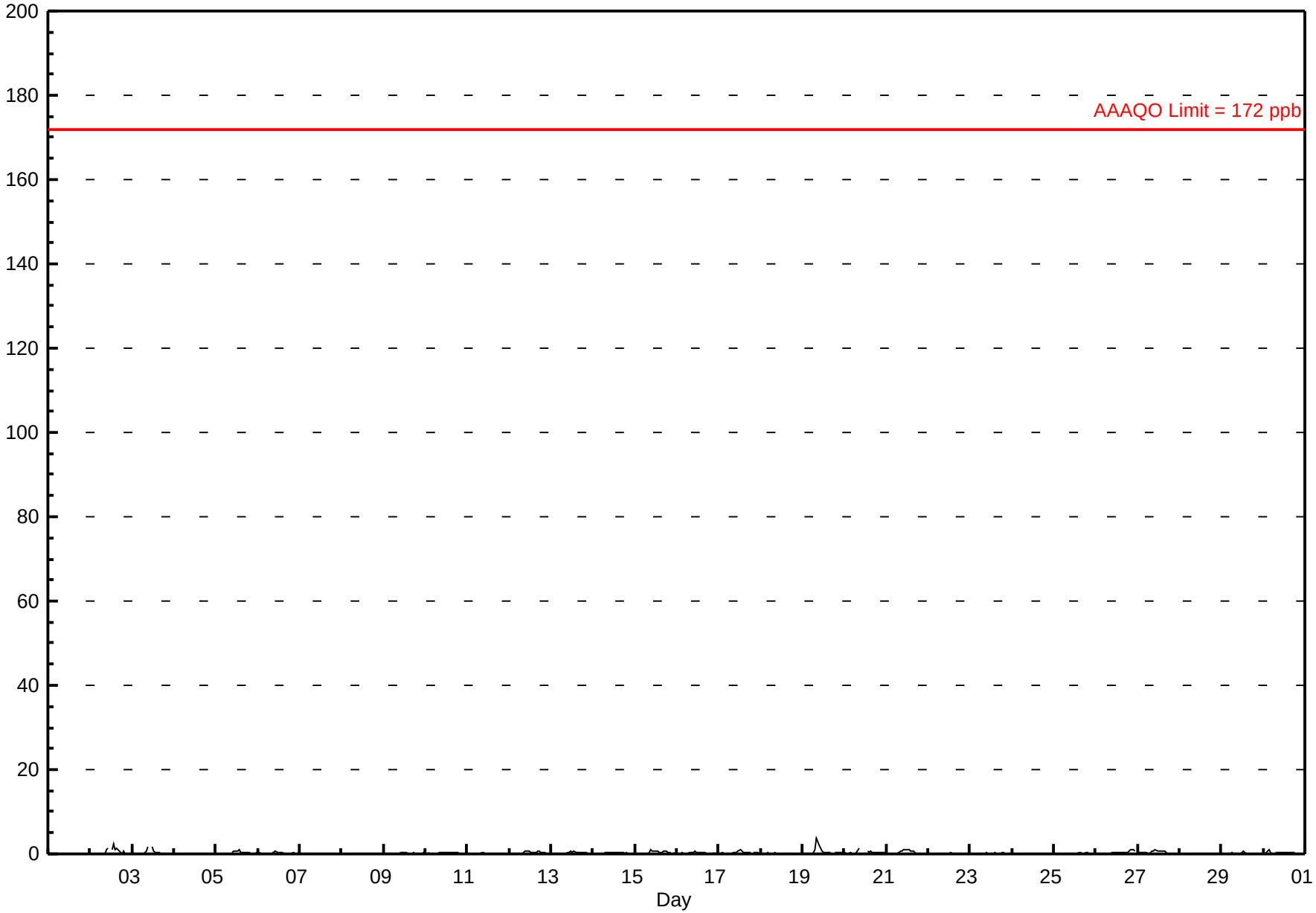
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
2-Apr	0	0	0	0	0	0	0	0	0	1	1	A	1	2	1	1	1	0	0	1	0	0	0	0	0.5	2.4
3-Apr	0	0	0	0	0	0	0	0	1	2	A	2	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.6
4-Apr	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	0.1
5-Apr	0	0	0	0	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	1.1
6-Apr	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
7-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
8-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
9-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
10-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
11-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
12-Apr	0	A	0	0	0	0	0	0	0	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0.3	0.7
13-Apr	A	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	A	0.2	0.5
14-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.5
15-Apr	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	1	1	1	0	0	A	0	0	0.4	0.9
16-Apr	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.6
17-Apr	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	A	0	0	0	0	0.3	0.9
18-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.3
19-Apr	0	0	0	0	0	0	0	1	4	2	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0.6	3.7
20-Apr	0	0	0	0	0	0	0	0	1	C	C	C	C	1	0	1	0	0	0	0	0	0	0	0	0.3	1.2
21-Apr	0	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0.3	1.0
22-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
23-Apr	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
24-Apr	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	0.1
25-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
26-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	A	0.3	1.0
27-Apr	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	A	0	0.4	1.0
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.0	0.1
29-Apr	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0.1	0.6
30-Apr	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	1.0
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	Diurnal Average	
	0.3	0.3	0.8	1.0	0.3	0.2	0.2	1.2	3.7	2.1	1.4	1.6	1.0	2.4	1.0	1.2	1.1	0.6	0.6	0.7	0.9	1.0	0.6	0.3	Diurnal Maximum	

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

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - April 2010



Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - April 2010

Maximum Value: 5.8 ppb on Apr 2 14:00

Maximum Daily Average: 1.2 ppb on Apr 2

Minimum Value: 0 ppb on Apr 11 21:00

Minimum Daily Average: 0.3 ppb on Apr 28

Maximum Diurnal Average: 0.9 ppb at hour 14

Minimum Diurnal Average: 0.4 ppb at hour 5

Monthly Average: 0.57 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.2$ $Q_1 = 0.3$ Median = 0.5 $Q_3 = 0.6$ $P_{90} = 0.9$ $P_{99} = 2.8$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0.4	0.6
2-Apr	1	0	0	0	0	0	0	0	0	2	2	A	2	6	2	2	3	1	0	2	0	0	0	0	1.2	5.8
3-Apr	1	1	1	0	0	0	1	1	1	3	A	4	1	1	1	1	1	0	0	0	2	0	0	0	0.9	4.2
4-Apr	0	0	0	0	0	0	0	1	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.3
5-Apr	0	0	0	0	1	1	1	1	A	1	1	1	2	2	1	1	1	1	1	1	0	1	1	1	0.8	2.4
6-Apr	1	1	1	1	0	1	0	A	1	1	1	1	1	1	1	0	0	0	0	0	2	0	0	0	0.6	1.7
7-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
8-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
9-Apr	0	1	0	0	A	0	0	0	0	0	0	1	1	1	1	1	0	1	1	0	1	0	0	1	0.5	0.8
10-Apr	0	0	1	A	1	1	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.5	0.5
11-Apr	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
12-Apr	0	A	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0.6	1.0
13-Apr	A	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	A	0.6	1.3
14-Apr	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	1	1	1	0	1	0	0	A	0	0.5	0.8
15-Apr	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0	0.7	1.4
16-Apr	1	0	0	1	0	1	0	1	1	1	1	1	1	1	0	1	0	0	0	0	A	1	0	1	0.5	0.9
17-Apr	0	0	1	0	0	1	1	1	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1	1	0.7	1.7
18-Apr	1	1	1	1	1	0	1	1	1	1	1	0	0	1	1	1	0	0	A	1	0	0	0	1	0.4	0.6
19-Apr	0	0	0	1	0	0	1	4	4	3	2	2	1	1	1	1	1	A	1	1	1	1	1	1	1.1	4.3
20-Apr	1	0	1	1	0	1	1	1	3	C	C	C	C	1	1	1	1	1	1	1	1	1	1	1	0.8	3.4
21-Apr	1	1	0	0	0	A	1	1	1	1	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0.7	1.6
22-Apr	0	0	1	0	A	0	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	0	1	0.4	1.1
23-Apr	1	0	0	A	0	0	1	0	1	1	0	1	0	1	1	1	0	0	1	0	0	1	0	0	0.4	0.6
24-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.3	0.5
25-Apr	0	A	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	1	1	1	1	0	0	1	0.4	0.8
26-Apr	A	1	0	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	1.5
27-Apr	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	A	0	0.7	1.3
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0.3	0.6
29-Apr	0	0	0	0	0	0	1	1	0	0	0	0	1	1	1	0	1	0	1	0	A	0	0	1	0.4	0.8
30-Apr	0	1	3	3	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0	0	0	0.7	3.2
	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.6	0.8	0.8	0.8	0.8	0.8	0.9	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.4	0.4	0.4	Diurnal Average	
	1.0	0.8	3.2	2.9	0.6	0.6	0.7	4.1	4.3	2.9	2.3	4.2	2.4	5.8	1.9	2.3	2.9	0.9	1.1	1.9	2.2	1.5	1.0	0.8	Diurnal Maximum	

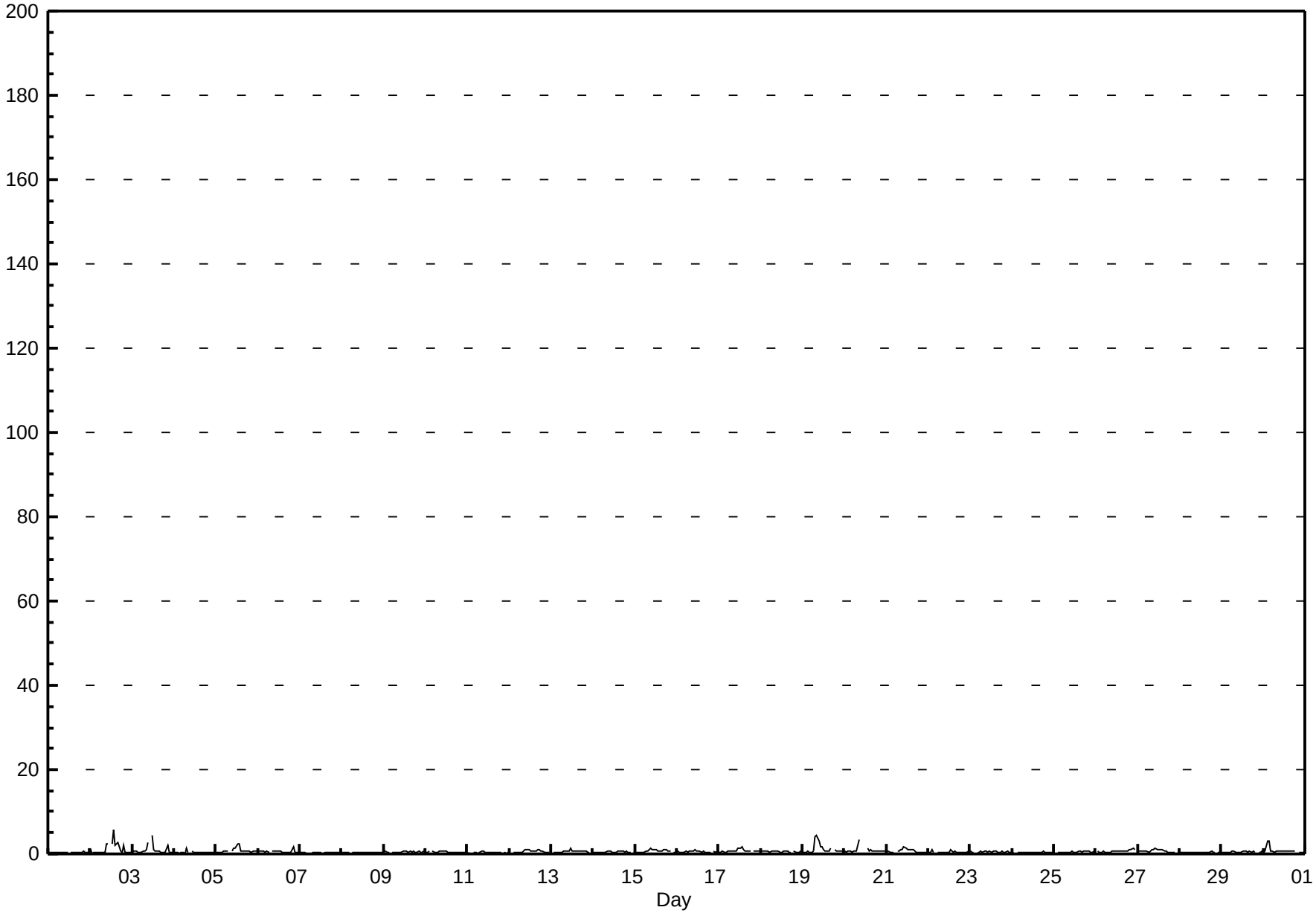
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

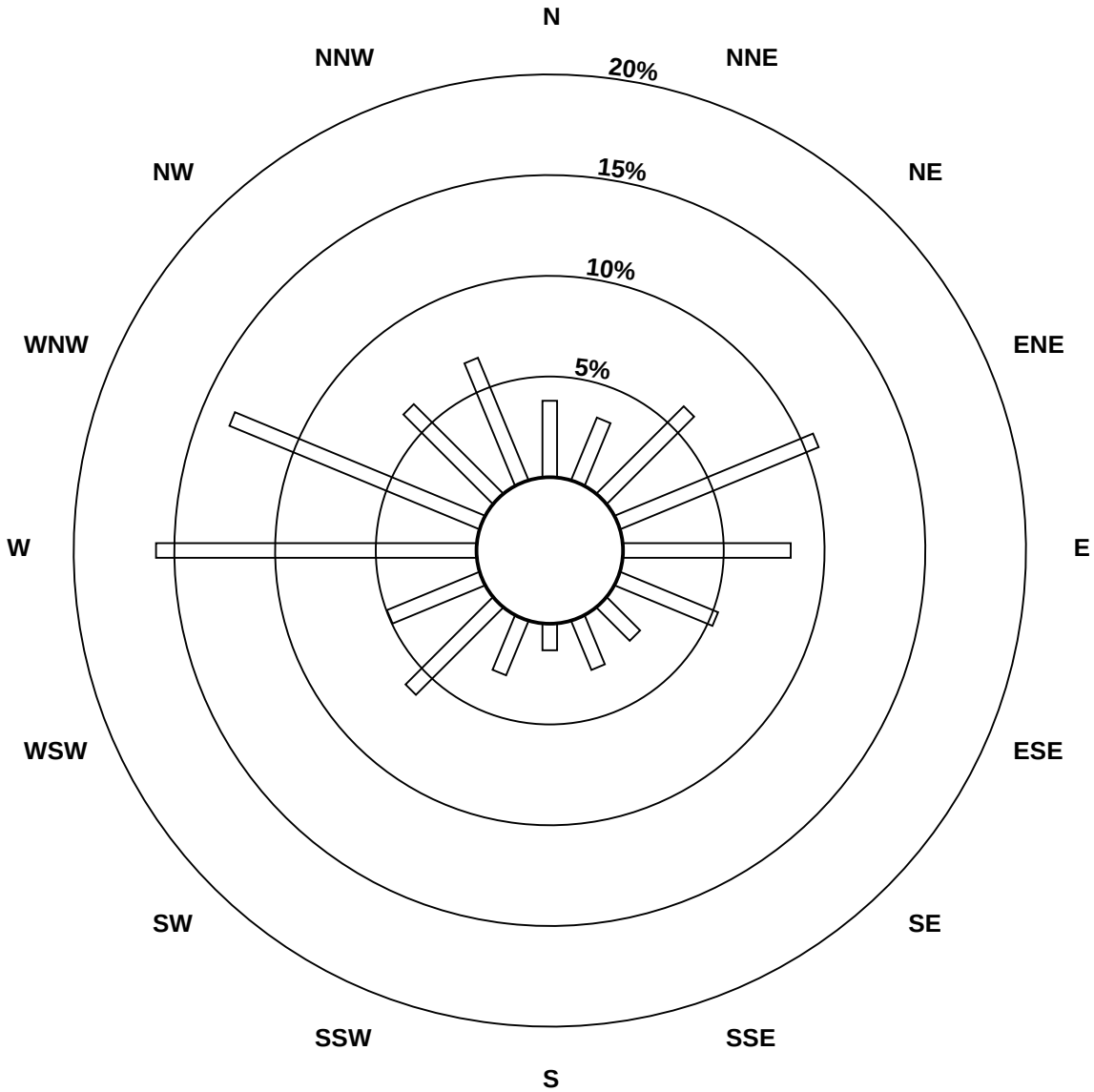
Evergreen Park - April 2010



Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Evergreen Park - April 2010



Pollutant Classes (ppb)

- 0 - 10
- 11 - 20
- 21 - 60
- 61 - 110
- 111 - 172
- > 172

PASZA
Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 4.5 ppb on Apr 18 05:00 Maximum Daily Average: 0.9 ppb on Apr 18

Minimum Value: 0 ppb on Apr 25 04:00 Minimum Daily Average: 0.5 ppb on Apr 24
Maximum Diurnal Average: 0.8 ppb at hour 5 Minimum Diurnal Average: 0.5 ppb at hour 20
Monthly Average: 0.60 ppb Percentiles: $P_1 = 0.4$ $P_{10} = 0.4$ $Q_1 = 0.5$ Median = 0.5 $Q_3 = 0.6$ $P_{90} = 0.7$ $P_{99} = 2.0$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

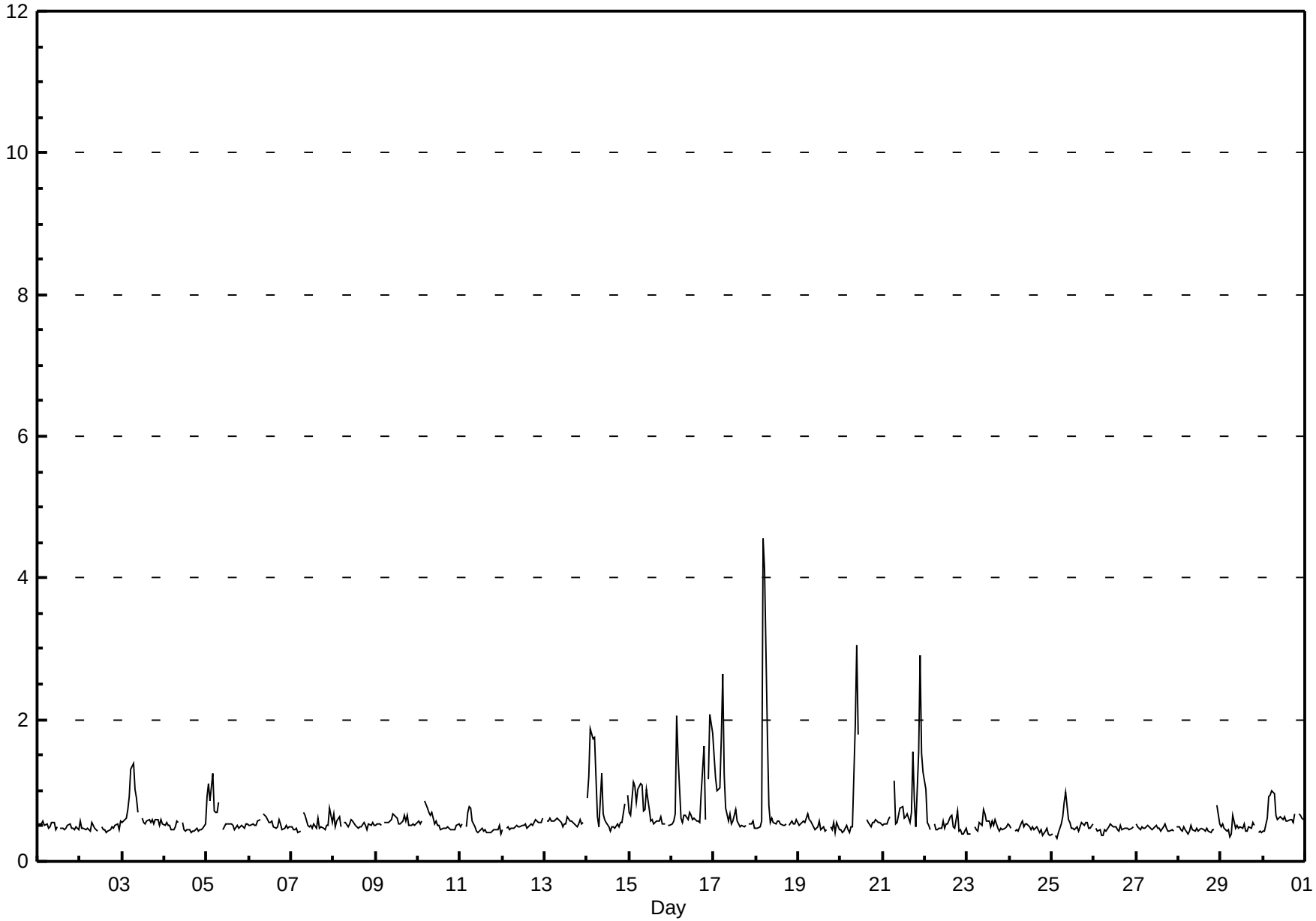
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	1	1	1	0	0	1	1	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0.5	0.6
2-Apr	1	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0	1	0.5	0.6
3-Apr	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.4
4-Apr	1	1	1	0	0	0	0	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5	0.6
5-Apr	1	1	1	1	1	1	1	1	A	0	0	1	1	1	1	1	0	1	0	0	1	0	1	1	0.6	1.2
6-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	0	0	1	1	0	0	1	0	0	0.5	0.7
7-Apr	0	0	0	0	0	0	A	1	1	1	0	1	0	1	0	1	0	0	0	0	1	1	1	1	0.5	0.7
8-Apr	1	0	1	1	0	A	1	1	0	1	1	1	1	0	0	0	0	1	1	0	1	1	1	0	0.5	0.7
9-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
10-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0.5	0.8
11-Apr	0	1	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.5	0.8
12-Apr	0	A	0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	0.5	0.6
13-Apr	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	A	0.6	0.6
14-Apr	1	1	2	2	2	1	1	0	1	1	1	1	0	0	0	0	0	1	0	1	1	1	A	1	0.8	1.9
15-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.7	1.1
16-Apr	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	A	1	2	2	0.9	2.1
17-Apr	1	1	1	1	2	3	1	1	1	1	1	1	1	1	1	0	1	0	1	A	1	1	1	0	0.8	2.6
18-Apr	0	0	0	1	5	4	2	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.9	4.5
19-Apr	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	0	0	A	0	0	1	0	1	0	0.5	0.7
20-Apr	0	0	0	1	0	0	0	0	2	3	2	C	C	C	C	1	1	0	1	1	1	1	1	1	0.8	3.0
21-Apr	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	1	0	2	3	2	1	0.9	2.9
22-Apr	1	1	1	0	A	1	0	0	0	0	1	0	1	1	1	1	0	0	1	0	0	0	0	0	0.5	1.0
23-Apr	0	0	0	A	0	0	0	1	1	1	1	1	1	0	1	1	1	0	0	0	0	0	0	1	0.5	0.7
24-Apr	1	0	A	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.6
25-Apr	0	A	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	0	0	1	0.5	1.0
26-Apr	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	A	0.5	0.5
27-Apr	1	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	A	0	0.5	0.5
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	0.5	0.8
29-Apr	0	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	1	0	A	0	0	0	0.5	0.6
30-Apr	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	1.0
	0.6	0.6	0.6	0.7	0.8	0.8	0.7	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.6	0.6	0.6	Diurnal Average	
	1.5	1.2	1.9	2.1	4.5	4.1	1.8	1.1	1.9	3.0	1.8	0.8	0.7	0.6	0.7	0.6	0.7	1.5	1.6	0.6	1.5	2.9	2.1	1.8	Diurnal Maximum	

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

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2010



PASZA
Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2010

Maximum Value: 15.3 ppb on Apr 18 05:00

Maximum Daily Average: 1.9 ppb on Apr 18

Minimum Value: 1 ppb on Apr 4 16:00

Minimum Daily Average: 0.8 ppb on Apr 24

Maximum Diurnal Average: 1.9 ppb at hour 5

Minimum Diurnal Average: 0.8 ppb at hour 20

Monthly Average: 1.05 ppb

Percentiles: $P_1 = 0.7$ $P_{10} = 0.7$ $Q_1 = 0.8$ Median = 0.9 $Q_3 = 1.0$ $P_{90} = 1.3$ $P_{99} = 5.4$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.9	1.0
2-Apr	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
3-Apr	1	1	1	1	1	2	2	1	1	1	A	1	1	1	1	1	1	1	1	1	2	1	1	1	1.1	2.4
4-Apr	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
5-Apr	2	2	1	2	1	1	1	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.9
6-Apr	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1
7-Apr	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3
8-Apr	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
9-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3
10-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5
11-Apr	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
12-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.0
13-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.2
14-Apr	3	3	2	2	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.3	2.9
15-Apr	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.1	1.7
16-Apr	1	1	2	6	4	1	1	1	1	1	1	1	1	1	1	1	1	2	4	1	A	2	3	2	1.7	5.7
17-Apr	2	2	2	1	8	9	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.8	8.9
18-Apr	1	1	1	1	15	7	3	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.9	15.3
19-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.8	1.0
20-Apr	1	1	1	1	1	1	1	1	8	5	3	C	C	C	C	1	1	1	1	1	1	1	1	1	1.5	7.6
21-Apr	1	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	3	2	1	3	7	3	3	1.7	7.4
22-Apr	2	1	1	1	A	1	1	1	1	1	1	1	1	2	1	2	1	1	2	1	1	1	1	1	1.0	2.2
23-Apr	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3
24-Apr	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	0.9
25-Apr	1	A	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.8
26-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.0
27-Apr	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	0.9
28-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.2
29-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.0
30-Apr	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.1	1.7
	1.0	1.0	1.0	1.2	1.9	1.5	1.1	1.0	1.2	1.1	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	0.8	1.0	1.1	1.1	1.0	Diurnal Average	
	2.5	2.9	2.5	5.7	15.3	8.9	3.1	1.7	7.6	5.2	2.8	1.4	1.1	1.7	1.5	1.6	1.4	2.9	4.1	1.0	3.0	7.4	3.5	3.0	Diurnal Maximum	

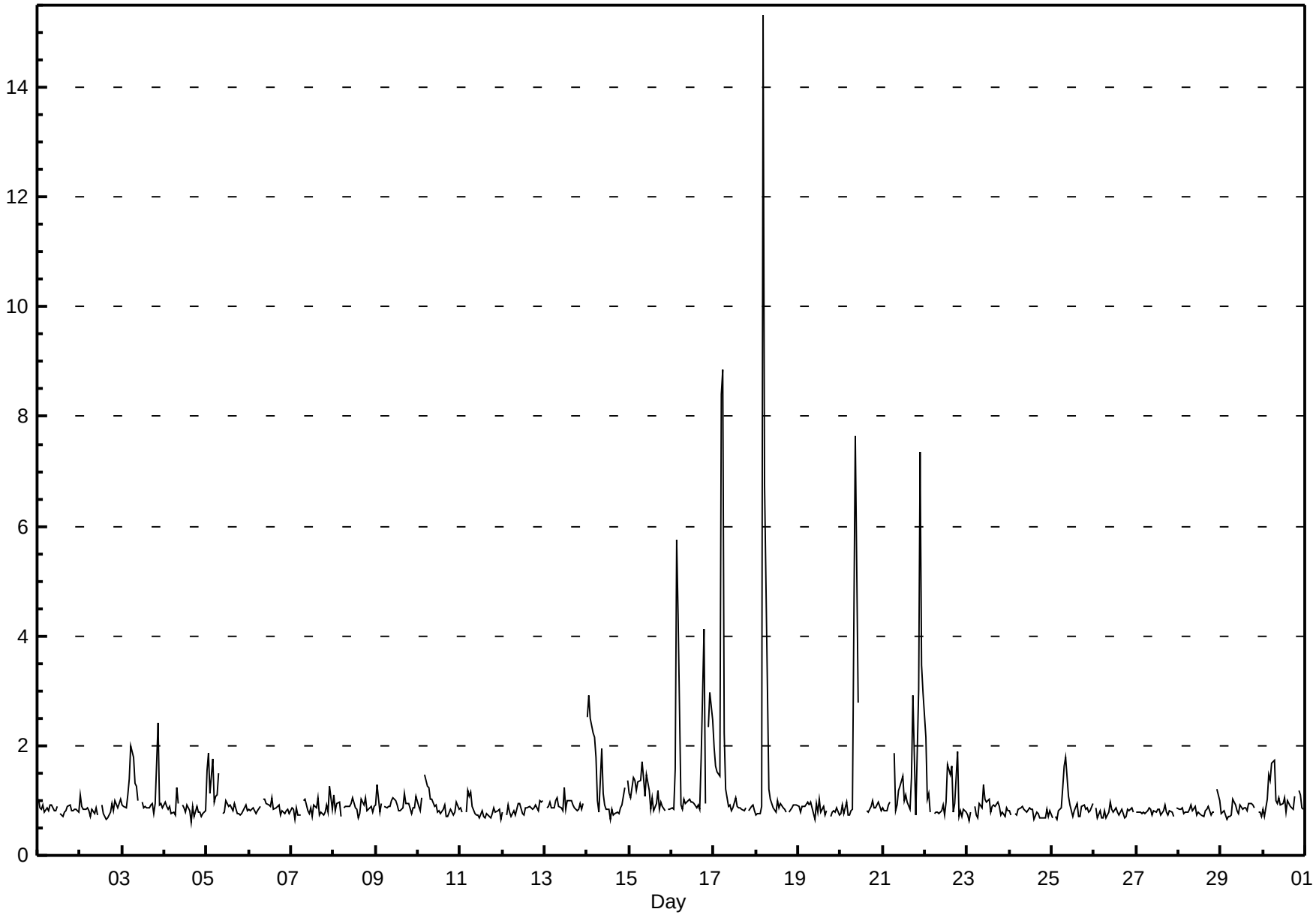
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

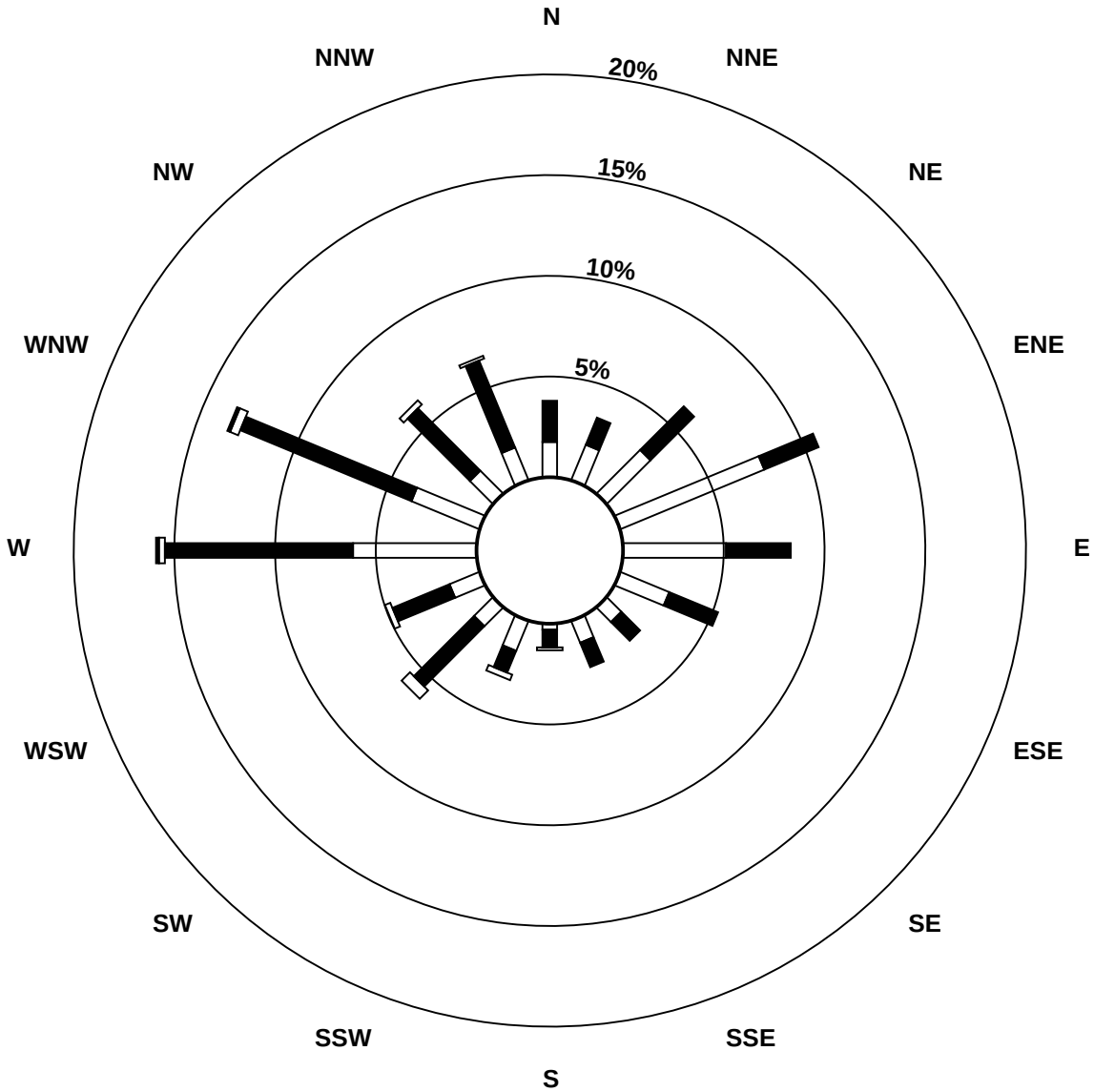
Evergreen Park - April 2010



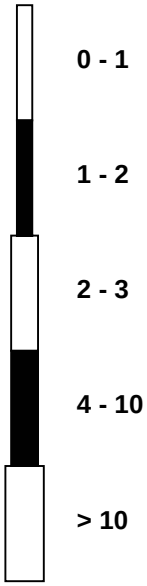
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Evergreen Park - April 2010



Pollutant Classes (ppb)



PASZA
Peace Airshed Zone Association

Hourly Averages

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

Evergreen Park - April 2010

Number of Exceedences: 1-hr: 2 24-hr: 0
Maximum Value: 92.1 $\mu g/m^3$ on Apr 8 19:00
Maximum Daily Average: 19.7 $\mu g/m^3$ on Apr 8

Minimum Value: 0 $\mu g/m^3$ on Apr 2 10:00
Maximum Diurnal Average: 9.3 $\mu g/m^3$ at hour 17
Monthly Average: 5.93 $\mu g/m^3$

Minimum Daily Average: 1.7 $\mu g/m^3$ on Apr 26
Minimum Diurnal Average: 3.4 $\mu g/m^3$ at hour 2
Percentiles: $P_1 = 0.0$ $P_{10} = 0.6$ $Q_1 = 1.8$ Median = 3.9 $Q_3 = 7.6$ $P_{90} = 13.3$ $P_{99} = 39.8$

Hours in Service:	720
Hours of Data:	712
Hours of Missing Data:	8
Hours of Calibration:	2
Percent Operational Time:	99.2

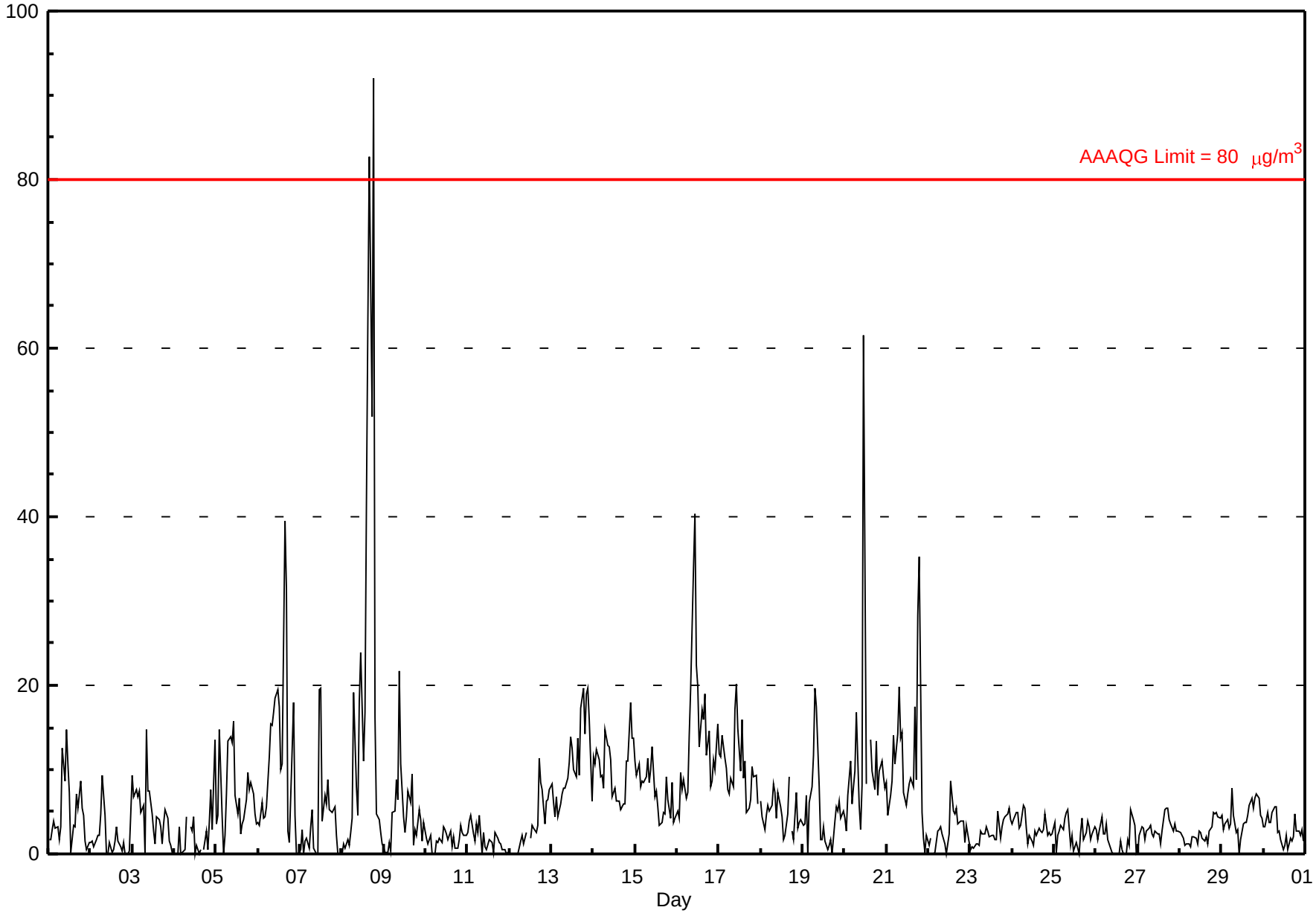
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	2	2	3	4	3	3	2	3	13	9	15	11	7	0	3	3	7	5	9	5	5	2	1	1	4.9	14.8
2-Apr	1	2	1	2	2	2	5	9	5	0	0	1	0	1	1	3	2	1	0	1	0	0	0	5	1.9	9.3
3-Apr	9	7	8	7	7	5	6	0	15	7	7	5	3	1	4	4	3	1	4	5	4	1	1	0	4.8	14.7
4-Apr	0	0	0	3	0	0	0	4	BD	3	3	4	0	1	0	1	BD	1	3	0	4	8	3	14	2.4	13.5
5-Apr	4	5	15	4	0	2	7	13	14	13	16	7	5	7	2	4	4	6	10	8	9	7	5	4	7.0	15.7
6-Apr	4	3	6	4	4	6	12	15	15	17	18	20	17	10	11	40	31	3	1	7	18	5	0	0	11.1	39.5
7-Apr	1	3	0	2	2	1	3	5	1	0	0	20	20	4	7	6	9	5	5	5	6	2	0	0	4.3	19.6
8-Apr	0	1	1	2	1	3	4	19	8	5	18	24	11	17	41	63	83	52	92	16	5	4	3	1	19.7	92.1
9-Apr	1	0	0	1	0	5	5	9	7	22	11	4	3	4	7	6	9	1	3	2	5	4	1	4	4.8	21.7
10-Apr	2	1	2	2	0	0	2	1	2	1	3	3	2	2	3	1	2	1	1	2	3	3	2	2	1.8	3.4
11-Apr	2	4	5	2	1	3	3	4	0	3	1	1	2	2	1	0	2	2	1	1	1	1	0	0	1.8	4.6
12-Apr	0	0	0	0	0	0	2	2	1	2	3	BD	2	3	3	3	3	11	8	8	4	6	6	8	3.3	11.4
13-Apr	8	6	4	7	4	6	7	8	8	9	11	14	12	10	9	14	9	17	20	14	19	20	16	6	10.8	19.7
14-Apr	12	11	12	11	9	9	8	15	13	13	11	7	8	6	6	6	5	6	6	11	11	18	14	14	10.1	17.9
15-Apr	11	9	11	8	9	8	9	11	9	10	13	7	8	6	3	4	5	5	9	6	4	8	4	4	7.5	12.8
16-Apr	5	4	10	8	9	7	7	14	20	34	40	22	20	13	17	16	19	12	15	8	9	11	10	15	14.3	40.4
17-Apr	12	12	14	11	10	8	7	9	8	17	20	15	10	16	9	11	5	5	7	10	9	9	6	BD	10.4	20.2
18-Apr	6	4	3	5	6	5	6	8	7	4	7	6	4	2	2	5	9	BD	3	2	7	3	4	4	4.9	9.2
19-Apr	3	4	7	0	6	8	12	20	17	8	2	2	3	1	1	1	2	0	4	6	5	6	4	5	5.3	19.7
20-Apr	4	3	7	11	6	8	10	17	6	3	8	61	8	C	C	14	10	8	13	7	10	11	9	8	11.0	61.4
21-Apr	8	4	7	9	14	11	14	20	14	14	7	6	7	8	9	8	17	9	28	35	5	2	0	2	10.8	35.3
22-Apr	1	2	BD	0	0	3	3	3	2	1	0	1	2	9	5	5	5	4	4	4	4	1	3	1	2.8	8.7
23-Apr	1	1	1	1	1	1	3	2	2	3	3	2	2	2	2	2	5	2	3	4	4	5	5	4	2.6	5.5
24-Apr	4	4	5	5	3	3	6	5	3	1	2	2	1	3	2	3	3	3	3	5	2	3	2	2	3.1	5.7
25-Apr	4	0	2	3	3	3	4	5	5	1	2	0	1	1	0	2	4	2	3	4	3	2	2	3	2.5	5.2
26-Apr	3	2	3	4	2	2	4	2	1	0	0	0	0	0	2	0	0	0	2	1	5	4	3	0	1.7	5.3
27-Apr	0	2	3	3	2	3	3	3	2	2	3	2	2	1	3	5	5	5	4	4	3	3	3	3	2.9	5.5
28-Apr	2	2	2	1	1	1	1	2	2	2	1	3	3	2	2	2	1	3	3	5	5	5	4	4	2.5	5.0
29-Apr	5	3	4	4	3	4	8	5	3	3	0	2	4	4	4	5	6	7	5	7	7	7	5	4	4.3	7.8
30-Apr	3	3	5	4	4	5	6	6	2	3	2	1	1	2	1	2	1	2	5	3	3	2	3	2	2.9	5.6
	3.9	3.4	4.8	4.3	3.8	4.2	5.5	8.1	7.0	7.0	7.6	8.6	5.6	4.7	5.6	7.9	9.3	6.1	9.1	6.5	5.9	5.4	4.0	4.2	Diurnal Average	
	11.8	11.5	14.8	11.3	14.0	10.7	14.3	19.8	19.7	33.9	40.4	61.4	19.8	16.9	41.4	63.1	82.7	51.8	92.1	35.3	19.0	19.6	15.9	15.5	Diurnal Maximum	

C - Calibration BD - Baseline Drift
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Hourly Averages

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

Evergreen Park - April 2010



PASZA
Pasco Airshed Zone Association

Hourly Maximums

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

Evergreen Park - April 2010

Maximum Value: 322.4 $\mu g/m^3$ on Apr 20 12:00

Maximum Daily Average: 38.2 $\mu g/m^3$ on Apr 8

Minimum Value: 1 $\mu g/m^3$ on Apr 26 13:00

Minimum Daily Average: 4.9 $\mu g/m^3$ on Apr 28

Maximum Diurnal Average: 26.2 $\mu g/m^3$ at hour 12

Minimum Diurnal Average: 7.8 $\mu g/m^3$ at hour 6

Monthly Average: 13.85 $\mu g/m^3$

Percentiles: P_1 = 2.2 P_{10} = 4.0 Q_1 = 5.5 Median = 8.5 Q_3 = 15.5 P_{90} = 25.6 P_{99} = 87.8

Hours in Service:	720
Hours of Data:	718
Hours of Missing Data:	2
Hours of Calibration:	2
Percent Operational Time:	100.0

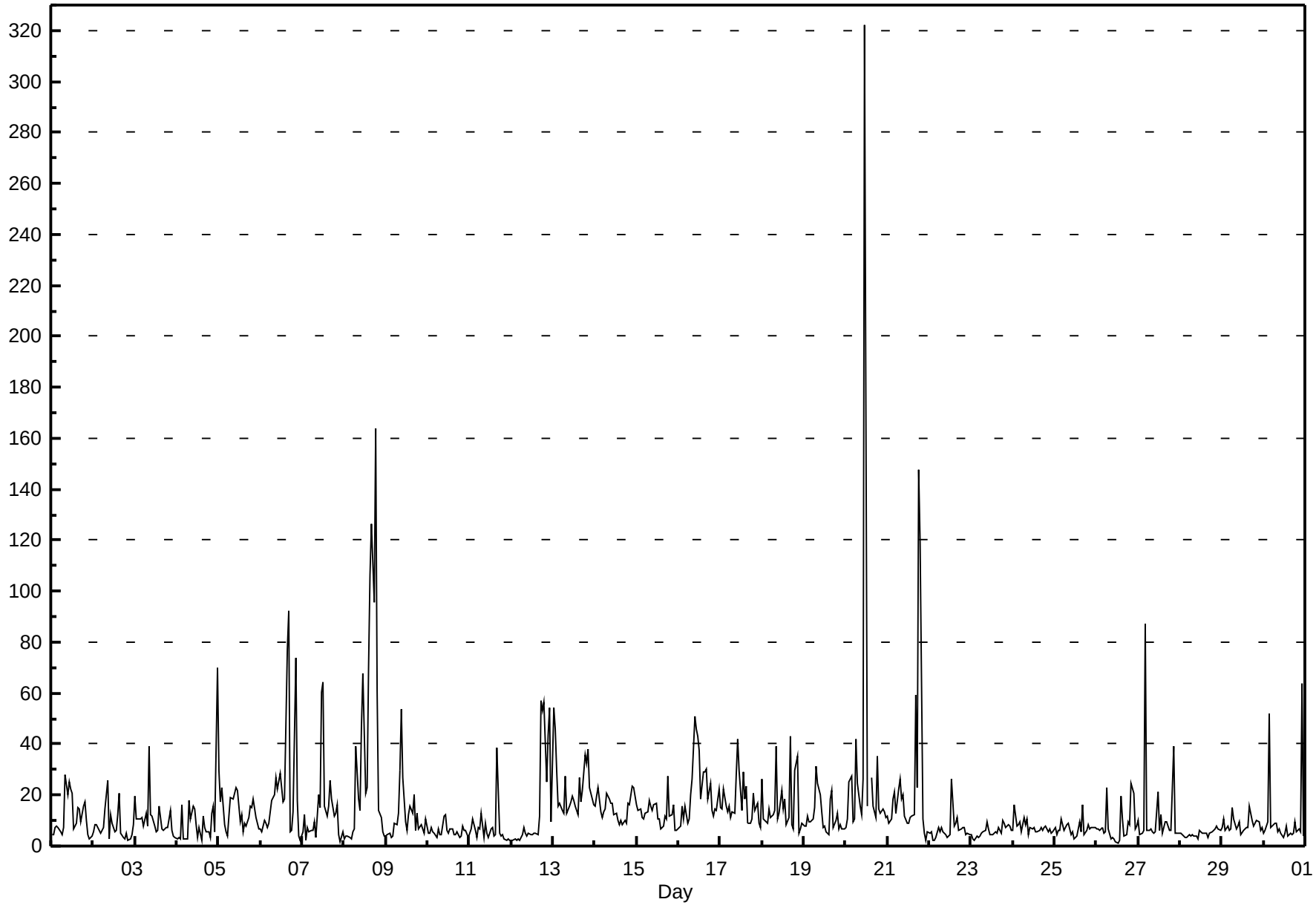
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	4	4	7	8	7	6	5	7	28	20	25	23	21	7	9	15	15	10	16	17	10	4	3	4	11.4	27.8
2-Apr	5	8	8	6	5	6	7	14	26	3	12	9	6	6	12	21	5	3	3	5	2	3	4	8	7.9	25.7
3-Apr	19	11	10	10	11	8	13	8	39	12	12	8	6	6	16	7	6	7	7	8	14	6	4	3	10.4	39.2
4-Apr	3	3	3	16	3	3	3	18	11	15	15	8	3	7	2	12	7	6	6	4	13	16	6	70	10.5	69.8
5-Apr	30	17	23	8	6	4	12	19	18	21	23	22	10	12	5	9	8	11	15	15	19	11	9	7	13.9	29.7
6-Apr	7	6	10	9	7	9	18	19	20	27	22	28	23	18	18	77	92	6	6	14	74	18	4	2	22.3	92.3
7-Apr	6	12	2	7	6	6	6	10	4	20	15	60	65	16	12	16	26	18	12	13	16	4	2	5	14.9	64.5
8-Apr	3	4	4	4	3	6	7	39	19	14	47	67	21	23	70	107	126	95	164	61	14	11	6	4	38.2	164.0
9-Apr	4	4	5	3	4	9	8	13	29	53	27	9	6	12	16	13	20	6	13	7	8	7	5	11	12.2	53.5
10-Apr	5	5	7	6	5	3	7	4	5	12	12	6	5	7	7	4	4	6	3	4	8	6	6	3	5.9	12.3
11-Apr	5	7	11	6	3	7	7	13	3	9	5	3	6	7	4	4	39	5	4	5	3	2	3	2	6.9	38.6
12-Apr	2	2	3	2	3	2	5	7	5	4	5	5	5	5	5	5	11	57	53	56	25	44	54	10	15.6	57.0
13-Apr	54	46	30	15	17	14	13	28	13	16	17	20	18	16	12	27	17	22	36	33	38	23	21	16	23.3	54.4
14-Apr	16	19	23	14	11	14	15	21	18	17	17	12	13	10	9	10	8	10	9	17	16	23	23	19	15.1	23.3
15-Apr	16	14	15	11	10	13	13	18	16	14	16	17	11	11	7	8	12	10	28	12	12	16	6	6	12.9	27.6
16-Apr	7	8	16	11	15	9	11	20	26	51	46	43	38	18	29	29	30	19	25	14	12	15	14	22	22.0	50.8
17-Apr	15	15	22	16	14	16	11	13	13	28	42	30	14	29	19	23	9	9	10	20	14	17	9	7	17.3	41.7
18-Apr	26	11	10	9	14	11	12	14	39	10	13	22	15	18	8	11	43	8	7	30	35	5	7	9	16.2	42.8
19-Apr	8	8	12	9	9	11	15	31	25	20	14	7	8	5	4	19	22	7	10	13	7	9	6	7	11.9	31.1
20-Apr	7	11	25	27	9	11	42	24	15	13	26	322	16	C	C	27	15	11	35	15	13	15	14	11	32.1	322.4
21-Apr	12	9	11	18	21	13	23	26	18	20	12	9	9	11	12	13	59	23	148	120	11	5	2	5	25.4	147.9
22-Apr	5	5	2	2	3	7	5	7	5	4	4	4	5	26	8	9	11	6	6	7	7	4	5	4	6.5	26.4
23-Apr	5	3	2	4	3	4	5	6	6	10	7	5	5	5	6	5	8	5	10	9	7	9	8	6	5.9	10.2
24-Apr	6	16	8	8	10	6	11	8	11	5	7	7	7	6	5	6	7	6	7	8	5	7	5	5	7.4	16.0
25-Apr	7	5	6	6	11	6	7	9	9	5	6	3	3	4	9	6	16	4	6	8	7	7	7	7	6.8	16.1
26-Apr	7	6	6	7	5	6	23	7	3	3	3	2	1	2	20	11	4	5	9	9	25	21	6	8	8.2	24.7
27-Apr	10	5	5	6	88	6	6	7	5	5	6	21	6	12	5	9	9	8	6	6	39	5	5	5	11.9	87.5
28-Apr	5	4	4	4	3	4	4	5	4	4	3	6	5	5	5	5	3	5	5	6	7	8	7	6	4.9	7.6
29-Apr	7	11	6	8	6	6	15	11	6	8	9	5	6	7	7	7	16	10	8	9	10	10	6	7	8.4	15.6
30-Apr	5	6	9	52	7	8	9	9	6	7	5	3	5	8	4	5	5	5	10	5	7	5	64	4	10.6	64.0
	10.4	9.5	10.2	10.5	10.7	7.8	11.2	14.5	14.9	15.0	15.7	26.2	12.0	11.0	11.9	17.3	21.8	13.5	22.6	18.2	15.9	11.2	10.7	9.6	Diurnal Average	
	54.4	45.7	29.8	52.2	87.5	15.8	42.1	39.4	39.3	53.5	47.2	322.4	64.5	28.9	70.0	106.5	126.2	95.4	164.0	119.5	73.9	43.8	64.0	69.8	Diurnal Maximum	

C - Calibration

Hourly Maximums

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

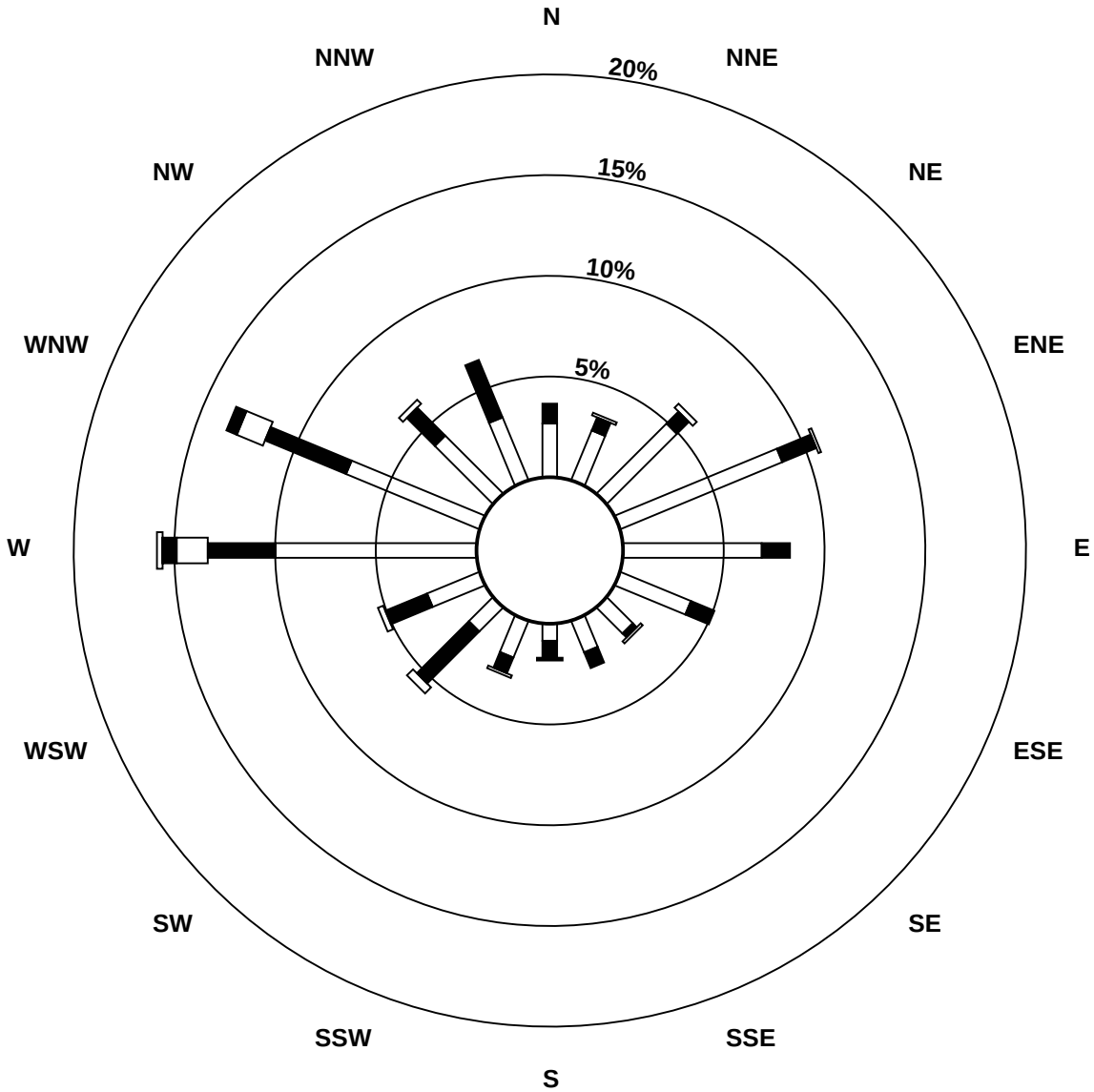
Evergreen Park - April 2010



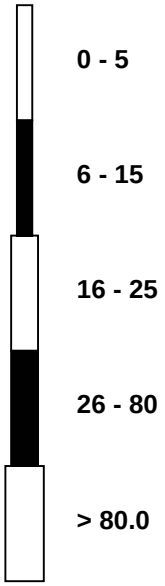
Pollutant Rose

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

Evergreen Park - April 2010



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



PASZA
Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Evergreen Park - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 26.6 ^{o}C on Apr 20 17:00
Maximum Daily Average: 16.5 ^{o}C on Apr 20

Minimum Value: -7 ^{o}C on Apr 11 06:00
Maximum Diurnal Average: 12.0 ^{o}C at hour 17
Monthly Average: 6.21 ^{o}C

Minimum Daily Average: -3.1 ^{o}C on Apr 11
Minimum Diurnal Average: -0.1 ^{o}C at hour 6
Percentiles: P_1 = -5.7 P_{10} = -1.9 Q_1 = 1.2 Median = 5.3 Q_3 = 10.2 P_{90} = 16.5 P_{99} = 23.7

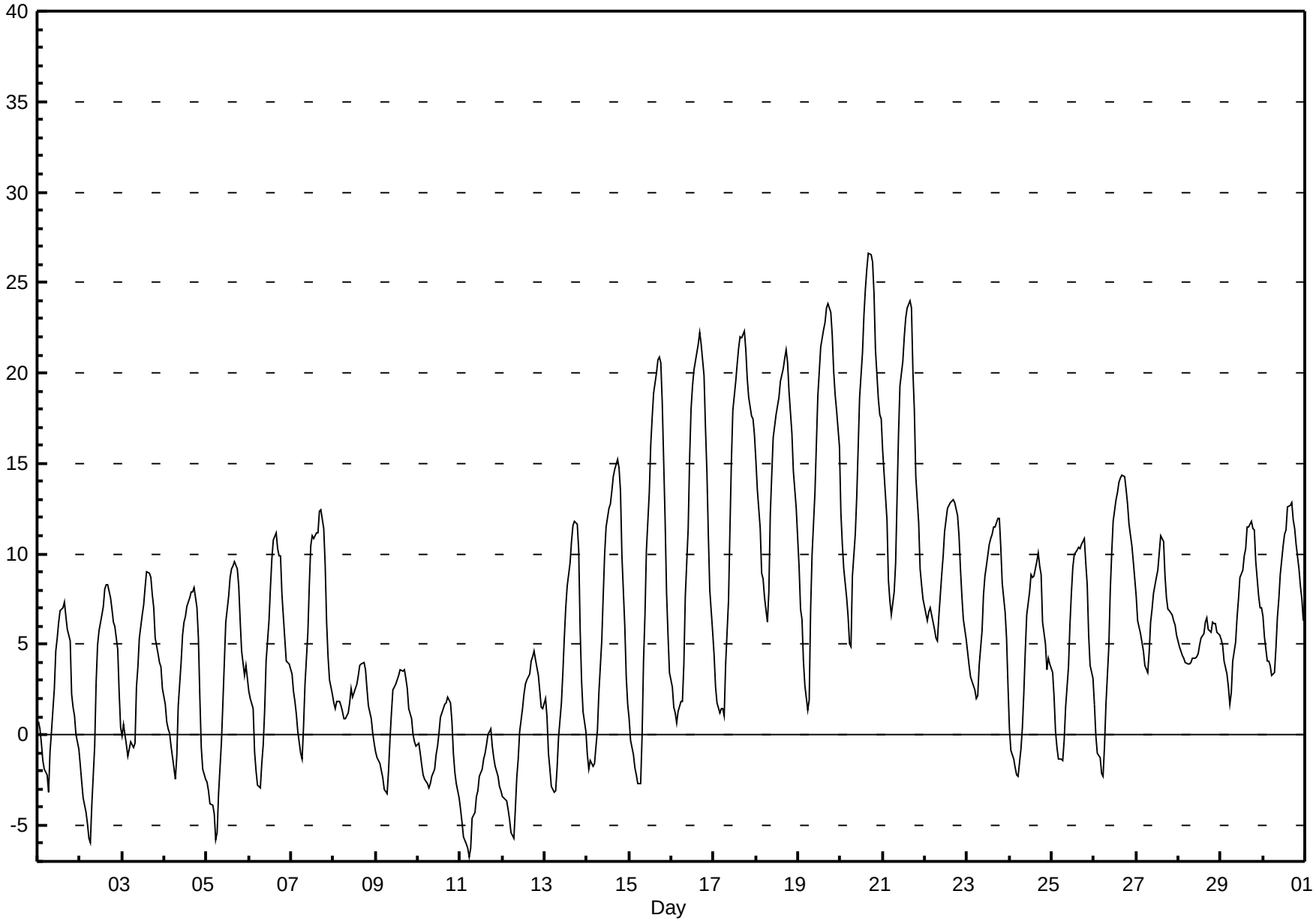
Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	1	0	0	-1	-2	-2	-3	-1	0	3	5	5	6	7	7	7	7	6	5	2	2	1	0	-1	2.2	7.3
2-Apr	-2	-3	-3	-4	-5	-6	-6	-4	-1	3	5	6	7	7	8	8	8	8	7	6	6	5	2	0	2.2	8.3
3-Apr	0	1	-1	-1	-1	0	-1	0	3	4	5	7	7	8	9	9	9	8	7	5	4	4	4	3	3.8	9.0
4-Apr	2	1	0	0	-1	-2	-2	-1	2	4	5	6	7	7	8	8	8	8	7	5	2	-1	-2	-2	2.9	8.1
5-Apr	-3	-3	-4	-4	-4	-6	-5	-3	0	2	4	6	8	9	9	9	10	9	8	6	5	3	4	3	2.6	9.6
6-Apr	2	2	1	-1	-2	-3	-3	-2	-1	1	4	6	8	10	11	11	10	10	10	8	5	4	4	4	4.2	11.1
7-Apr	3	2	2	1	0	-1	-1	0	3	6	8	10	11	11	11	11	12	12	11	9	6	4	3	2	5.8	12.4
8-Apr	2	1	2	2	2	1	1	1	1	2	3	2	3	3	3	4	4	4	4	3	2	1	0	0	2.0	4.0
9-Apr	-1	-1	-2	-2	-2	-3	-3	-2	0	1	2	3	3	3	4	4	4	3	3	1	1	0	0	-1	0.6	3.6
10-Apr	0	-1	-2	-2	-2	-3	-3	-3	-2	-2	-1	-1	0	1	1	2	2	2	2	1	-1	-2	-3	-4	-0.9	2.1
11-Apr	-4	-5	-6	-6	-6	-7	-6	-5	-4	-3	-3	-2	-2	-1	-1	-1	0	0	-1	-1	-2	-2	-3	-3	-3.1	0.3
12-Apr	-3	-4	-4	-4	-5	-5	-6	-4	-2	-1	0	1	2	3	3	3	4	4	5	4	3	2	1	1	0.0	4.6
13-Apr	2	1	-1	-2	-3	-3	-3	-2	0	2	3	5	7	8	9	11	12	12	12	10	6	3	1	0	3.8	11.8
14-Apr	-1	-2	-1	-2	-2	-1	0	2	5	8	10	12	12	13	13	14	15	15	15	13	10	6	3	2	6.7	15.3
15-Apr	1	0	-1	-2	-2	-3	-3	0	4	7	10	13	16	18	19	20	21	21	21	18	12	8	5	3	8.6	20.9
16-Apr	3	2	1	1	1	2	2	4	8	11	15	18	19	20	21	22	22	22	20	17	15	11	8	6	11.2	22.2
17-Apr	4	3	2	1	1	1	1	4	7	11	15	18	20	21	21	22	22	22	21	20	19	18	17	17	12.9	22.3
18-Apr	15	14	11	9	9	8	6	8	12	14	16	18	18	19	19	20	21	21	21	19	17	15	14	12	14.8	21.3
19-Apr	9	7	6	4	3	1	2	7	10	13	16	19	20	21	22	23	24	24	23	22	20	19	18	16	14.6	23.8
20-Apr	12	11	9	8	7	5	5	9	11	13	16	19	21	23	25	26	27	27	26	24	21	19	18	17	16.5	26.6
21-Apr	16	14	12	9	7	7	8	9	13	17	19	21	22	23	24	24	24	20	18	14	12	9	8	8	14.9	24.0
22-Apr	7	6	7	7	7	6	5	5	7	9	10	11	12	13	13	13	13	13	12	11	9	8	6	5	8.9	13.0
23-Apr	5	4	3	3	2	2	2	4	6	8	9	9	11	11	11	11	11	12	12	10	8	7	5	3	7.1	12.0
24-Apr	0	-1	-1	-2	-2	-2	-1	0	2	5	7	8	9	9	9	10	10	9	9	6	5	4	4	4	4.2	10.1
25-Apr	3	2	0	-1	-1	-1	-1	0	2	4	6	8	9	10	10	10	10	11	11	9	8	6	4	3	5.1	10.8
26-Apr	2	0	-1	-1	-2	-2	-1	2	5	8	10	12	13	13	14	14	14	14	14	13	12	10	10	9	7.5	14.4
27-Apr	8	6	6	5	5	4	3	5	6	7	8	9	9	10	11	11	9	8	7	7	7	6	6	5	6.9	11.0
28-Apr	5	5	4	4	4	4	4	4	4	4	4	4	5	5	6	6	6	6	6	6	6	6	6	6	5.0	6.5
29-Apr	5	5	4	3	3	2	2	4	5	6	7	9	9	10	10	11	11	12	11	11	10	8	7	7	7.3	11.8
30-Apr	7	5	4	4	4	3	3	5	6	7	9	10	11	11	13	13	13	12	11	11	9	8	7	6	8.1	12.8
	3.3	2.4	1.6	0.8	0.4	-0.1	-0.1	1.5	3.7	5.8	7.6	9.1	10.1	10.8	11.5	11.9	12.0	11.8	11.2	9.8	7.9	6.3	5.3	4.4	Diurnal Average	
	15.7	14.4	11.9	9.0	8.6	7.6	7.9	9.5	13.0	16.5	19.3	20.6	22.0	23.2	24.6	25.7	26.6	26.5	26.2	24.4	21.3	18.8	17.9	17.5	Diurnal Maximum	

Hourly Averages

External Temperature (ET) - ^{o}C

Evergreen Park - April 2010



Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 96.2 % on Apr 28 07:00

Maximum Daily Average: 91.8 % on Apr 28

Minimum Value: 13 % on Apr 15 19:00

Minimum Daily Average: 36.4 % on Apr 20

Maximum Diurnal Average: 74.4 % at hour 6

Minimum Diurnal Average: 32.4 % at hour 16

Monthly Average: 52.46 %

Percentiles: P_1 = 15.5 P_{10} = 25.1 Q_1 = 35.5 Median = 52.2 Q_3 = 67.4 P_{90} = 82.7 P_{99} = 95.6

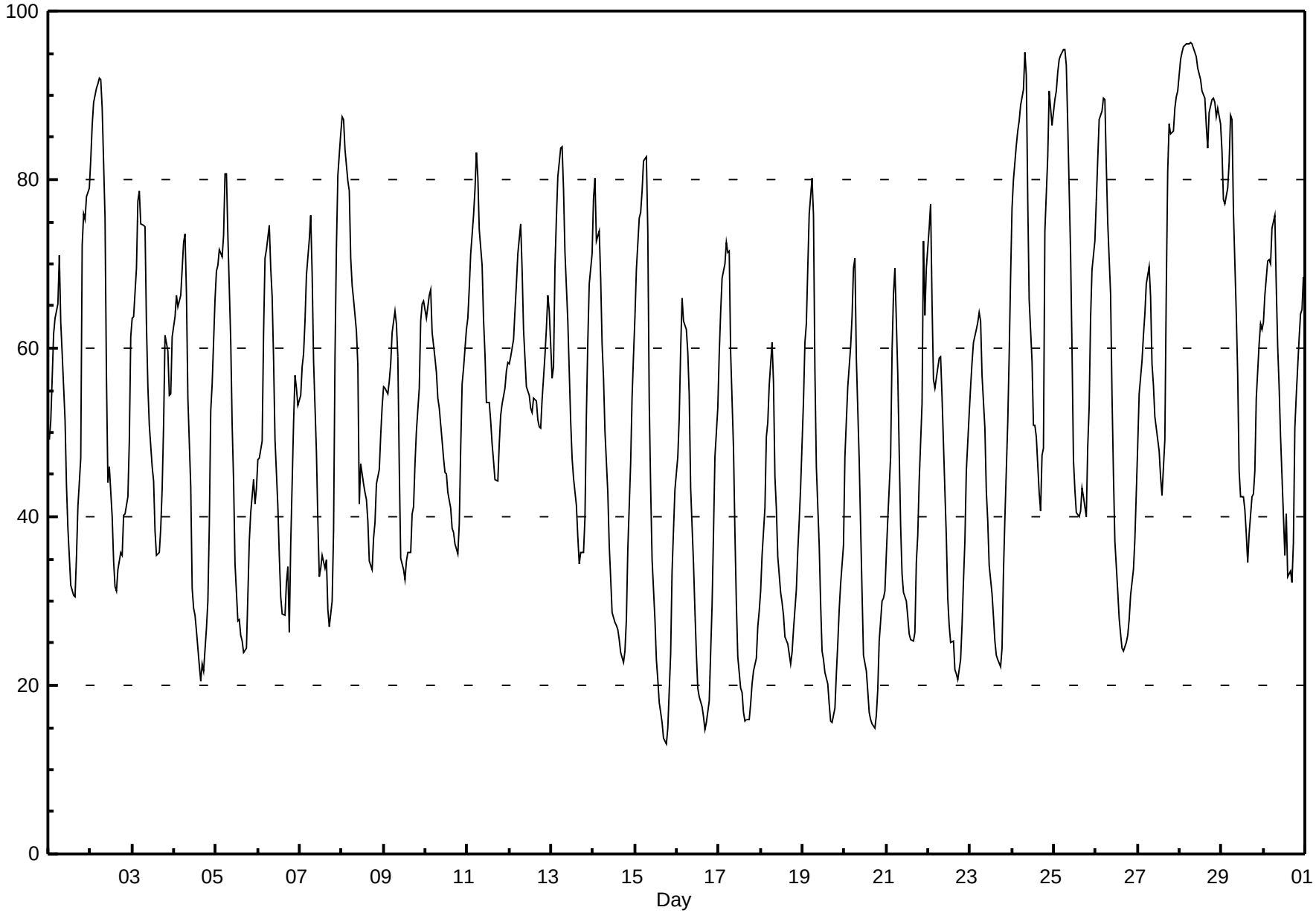
Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	49	51	56	62	64	65	71	63	59	51	44	39	35	32	31	31	35	41	47	72	76	75	78	79	54.5	78.9
2-Apr	82	86	89	91	91	92	92	88	75	56	44	46	40	35	32	31	34	36	35	40	40	42	49	61	58.7	92.0
3-Apr	64	64	70	78	79	75	75	74	63	55	51	46	44	38	35	36	39	43	51	62	60	54	55	61	57.1	78.6
4-Apr	64	66	65	66	66	72	73	66	54	43	31	29	28	26	22	21	23	22	27	30	39	53	56	66	46.2	73.5
5-Apr	69	70	72	71	73	81	81	73	61	51	44	34	28	28	26	25	24	24	31	37	41	44	42	43	48.9	80.8
6-Apr	47	47	49	62	71	72	75	70	66	59	49	41	35	30	29	28	32	34	26	37	51	57	55	53	49.0	74.5
7-Apr	54	58	59	63	69	73	76	69	58	48	40	33	34	36	34	35	29	27	30	38	59	72	81	85	52.4	85.5
8-Apr	88	87	83	80	79	71	67	66	62	58	42	46	44	43	42	40	35	34	37	39	44	46	50	53	55.6	87.5
9-Apr	55	55	55	56	58	62	64	63	59	46	35	34	33	35	36	36	40	41	46	50	55	63	65	66	50.3	65.6
10-Apr	64	65	66	67	62	59	57	54	53	49	47	45	45	43	41	39	38	37	36	39	48	56	58	62	51.2	67.0
11-Apr	63	67	71	76	79	83	80	74	70	63	59	53	54	51	49	47	44	44	49	52	53	55	57	58	60.6	83.3
12-Apr	58	59	61	64	68	71	75	69	62	59	55	54	53	52	54	54	51	51	51	54	59	62	66	64	59.5	74.7
13-Apr	56	58	70	75	80	84	84	79	71	63	57	51	47	45	41	38	34	36	36	40	52	61	68	71	58.2	83.9
14-Apr	78	80	73	74	68	61	56	50	43	37	33	29	27	27	27	25	24	23	24	28	36	46	54	59	45.1	80.2
15-Apr	64	69	75	76	79	82	83	74	54	43	35	28	23	21	18	16	14	13	13	15	24	34	38	43	43.0	82.8
16-Apr	47	52	60	66	63	62	59	54	43	34	29	24	20	19	18	16	15	16	18	24	29	38	47	53	37.8	65.9
17-Apr	59	64	68	70	73	71	71	60	48	38	30	23	20	19	17	16	16	16	18	20	22	23	27	29	38.2	72.6
18-Apr	31	35	41	49	51	56	61	56	45	41	35	31	30	28	26	25	24	23	24	27	31	36	39	44	37.0	60.8
19-Apr	54	61	63	69	76	80	76	57	46	37	30	24	23	22	20	18	16	16	17	21	25	29	32	37	39.5	80.2
20-Apr	47	51	55	60	64	69	71	59	47	39	31	24	22	19	17	16	15	15	16	19	25	30	30	31	36.4	70.8
21-Apr	36	40	47	59	66	70	57	48	39	33	31	30	28	26	25	25	26	35	38	44	53	73	64	69	44.3	72.7
22-Apr	74	77	65	56	55	58	59	59	54	43	38	30	27	25	25	22	21	21	23	27	32	37	45	52	42.8	77.1
23-Apr	55	58	61	62	63	64	63	57	50	43	40	34	31	28	25	24	23	22	24	33	40	51	59	69	45.0	68.5
24-Apr	77	80	84	86	87	89	91	95	92	78	66	58	51	51	49	43	41	47	48	74	83	90	89	86	72.3	95.1
25-Apr	89	90	93	94	95	95	95	94	87	71	60	47	43	41	40	41	43	42	40	48	53	64	69	73	67.0	95.5
26-Apr	78	82	87	88	90	89	82	75	67	54	45	37	31	28	26	24	24	25	26	28	31	34	37	43	51.3	89.6
27-Apr	48	55	59	61	64	68	70	66	58	56	52	49	48	45	43	49	67	81	87	85	86	88	90	90	65.2	90.5
28-Apr	94	95	96	96	96	96	96	96	96	95	93	93	92	90	90	86	84	88	89	90	89	87	89	87	91.8	96.2
29-Apr	83	78	77	79	82	88	87	76	64	57	45	42	42	41	38	35	38	42	43	45	54	61	63	62	59.3	87.6
30-Apr	63	66	70	70	70	74	76	67	60	55	50	40	35	40	33	34	32	37	51	54	61	64	65	68	55.7	75.8
	63.1	65.6	68.0	70.9	72.7	74.4	74.1	68.4	60.2	51.9	44.7	39.9	37.1	35.5	33.6	32.4	32.7	34.4	36.7	42.5	48.4	54.2	57.2	60.6	Diurnal Average	
	94.3	95.1	95.8	95.9	96.1	96.1	96.2	96.1	95.7	94.5	93.2	92.5	91.8	90.5	89.7	86.4	83.7	87.9	89.5	89.6	89.2	90.5	89.9	90.5	Diurnal Maximum	

Hourly Averages

Relative Humidity (RH) - %

Evergreen Park - April 2010



Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	5	6	5	5	5	2	1	1	4	7	11	15	10	9	5	5	8	5	6	7	2	0	1	3	4.7	15.2
Dir	257	260	265	262	263	313	97	205	274	291	284	282	300	328	310	325	319	305	284	278	242	151	205	210	286.1	281.7
2 Spd	1	1	1	1	1	1	1	2	2	3	1	5	8	10	11	12	11	9	8	7	4	1	1	1	3.7	11.9
Dir	242	60	63	125	62	53	3	52	65	118	166	21	53	62	67	60	59	59	64	70	99	128	196	235	64.5	59.6
3 Spd	0	1	1	0	1	1	1	2	2	4	6	7	7	9	6	7	7	6	3	3	6	10	10	8	4.2	10.4
Dir	192	225	253	319	242	321	265	275	264	283	270	281	326	313	307	293	254	305	269	324	259	265	275	263	281.8	275.4
4 Spd	6	4	6	8	5	0	1	4	9	9	13	12	12	11	10	9	7	6	3	2	1	0	1	1	4.4	13.2
Dir	253	254	257	265	258	155	196	215	224	256	275	275	295	295	323	323	344	351	46	95	155	33	202	289	281.3	274.5
5 Spd	0	1	1	2	2	1	1	2	5	6	4	4	6	5	6	6	7	6	6	4	2	3	6	5	2.0	7.1
Dir	293	353	333	296	250	343	262	280	268	281	261	345	25	35	45	37	55	56	52	58	62	73	84	74	28.6	54.8
6 Spd	5	4	1	0	2	1	1	3	6	6	7	6	6	5	4	14	16	11	12	9	7	4	9	7	4.9	15.8
Dir	77	79	118	51	246	227	247	276	263	282	289	294	289	338	321	275	295	297	271	288	276	261	240	252	282.0	295.0
7 Spd	5	1	1	1	0	1	0	2	4	6	9	18	12	10	12	11	11	14	16	6	7	10	6	8	5.5	17.8
Dir	242	195	193	216	199	212	149	199	198	199	222	251	277	305	281	306	262	263	261	276	336	347	325	339	273.7	251.4
8 Spd	3	2	4	6	7	7	7	8	12	14	15	16	16	17	20	21	23	24	24	19	19	17	16	11	13.5	24.1
Dir	303	233	291	295	280	284	288	290	283	294	305	291	293	291	277	282	277	273	273	277	273	273	272	269	281.5	273.2
9 Spd	12	10	11	11	11	11	11	11	13	17	15	17	17	20	16	14	13	14	11	11	10	9	12	9	11.5	19.6
Dir	260	266	261	261	266	270	272	283	295	298	304	322	337	343	327	314	296	331	298	291	290	283	279	289	297.2	342.8
10 Spd	8	8	7	7	7	8	9	12	14	17	16	18	19	17	17	19	15	12	9	6	5	6	6	3	9.6	18.9
Dir	287	292	290	291	304	303	315	322	317	333	331	341	347	345	342	349	351	358	15	33	53	55	49	31	338.4	348.9
11 Spd	3	2	2	1	1	0	2	2	3	4	4	4	4	6	3	5	7	8	8	8	9	9	9	8	4.2	9.3
Dir	16	6	28	314	298	277	267	2	29	41	39	37	44	57	86	58	54	56	70	67	62	66	66	70	54.1	65.5
12 Spd	8	6	5	4	3	1	2	4	6	6	9	9	9	9	9	8	6	5	4	3	2	1	1	2	4.3	9.2
Dir	67	75	73	77	95	71	79	86	117	135	125	127	129	127	126	114	108	69	56	31	23	7	5	73	100.8	126.6
13 Spd	4	2	2	1	2	2	3	6	8	7	7	5	4	5	6	4	4	3	3	1	0	1	1	1	2.2	7.9
Dir	89	106	243	227	221	231	225	252	272	278	287	278	305	300	302	291	282	27	40	90	144	226	224	249	278.9	271.6
14 Spd	1	1	1	2	1	3	5	7	5	6	8	8	6	9	10	8	9	6	5	2	1	1	0	1	3.6	10.1
Dir	221	5	278	245	297	300	290	289	312	336	2	1	12	345	340	335	341	341	40	336	315	207	171	225	336.6	339.7
15 Spd	1	0	0	1	1	0	1	1	2	3	4	4	4	5	4	4	4	3	3	2	1	0	1	1	1.6	4.7
Dir	224	319	152	211	214	39	223	98	151	152	168	177	148	151	116	114	178	119	141	97	41	338	50	46	145.6	151.2
16 Spd	1	1	2	1	4	3	4	3	7	5	4	6	8	3	1	3	5	9	12	7	3	1	1	1	3.3	12.1
Dir	35	289	235	256	252	256	230	269	276	264	277	279	300	301	260	274	303	318	331	344	340	247	218	236	293.6	331.5
17 Spd	0	1	0	0	1	2	2	2	3	2	2	1	1	6	4	4	6	6	4	4	2	6	10	7	0.7	10.1
Dir	212	241	225	273	278	219	223	260	256	273	46	173	171	65	113	114	73	53	19	250	231	221	225	261	221.1	224.9
18 Spd	3	1	1	1	3	1	1	2	4	4	3	4	4	4	3	6	5	5	4	3	3	4	4	4	0.9	6.3
Dir	214	199	80	281	297	267	232	257	272	261	293	291	16	337	42	61	57	108	79	81	80	78	85	90	46.2	61.0
19 Spd	0	1	2	0	0	1	1	2	2	2	1	2	4	6	6	5	7	5	3	4	5	6	5	4	2.2	6.6
Dir	228	163	236	182	111	213	224	245	234	12	322	155	170	126	124	161	153	144	104	95	106	105	106	83	133.6	152.5
20 Spd	1	3	2	1	1	1	0	0	4	3	3	4	4	3	4	3	2	6	5	4	4	4	3	3	2.0	6.2
Dir	69	81	72	65	59	227	179	274	203	185	199	170	169	150	177	141	232	100	123	86	80	77	115	117	131.0	100.4
21 Spd	4	4	2	0	1	1	3	7	9	10	12	9	7	6	6	8	12	17	18	23	17	11	10	8	7.3	23.0
Dir	95	99	78	350	263	305	276	276	282	299	335	332	331	344	348	333	311	313	301	287	296	311	299	293	309.0	286.8
22 Spd	6	6	8	10	10	7	6	7	11	16	13	16	18	16	15	16	16	16	14	16	16	16	16	16	12.5	18.4
Dir	295	227	262	271	272	270	281	283	286	279	295	279	274	282	303	286	288	283	296	278	271	270	274	274	279.8	274.3

Hourly Averages

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	16	15	14	13	12	13	12	14	16	16	16	15	14	11	11	10	10	9	6	6	6	5	3	0	8.8	16.5
Dir	270	273	268	265	263	265	272	279	283	289	293	310	310	322	291	302	290	331	4	59	52	70	96	83	291.3	288.9
24 Spd	1	1	1	2	0	2	4	5	6	8	7	6	4	11	7	7	9	8	6	4	1	1	1	1	3.2	10.8
Dir	61	56	51	52	19	61	76	84	81	84	74	86	56	26	15	335	347	32	32	61	148	224	245	236	44.6	25.9
25 Spd	1	0	0	0	2	1	0	1	1	1	1	2	4	3	5	2	4	4	3	4	2	2	1	0	0.7	4.7
Dir	257	69	64	341	261	4	15	352	65	262	271	284	299	274	4	237	232	49	30	46	350	55	229	157	332.8	4.2
26 Spd	1	0	1	0	1	2	2	3	4	6	8	8	8	9	8	11	10	11	10	9	8	7	8	9	5.8	11.1
Dir	186	234	66	183	71	71	72	80	92	102	109	100	116	122	120	114	109	106	113	107	105	102	103	103	107.1	106.2
27 Spd	7	6	6	6	6	6	7	8	12	9	9	8	9	9	6	8	6	6	5	6	6	6	7	7	6.8	12.5
Dir	95	82	83	81	83	78	79	83	103	97	90	94	91	91	114	137	147	121	100	97	79	76	81	82	94.1	103.4
28 Spd	6	5	5	5	6	6	6	5	6	7	7	7	7	6	7	8	7	4	3	0	2	2	3	3	4.6	7.7
Dir	80	81	80	73	70	72	68	75	75	67	78	75	76	72	79	82	68	72	64	5	356	309	319	335	69.1	82.3
29 Spd	4	3	2	2	1	0	1	3	7	8	8	6	8	7	7	6	6	11	6	4	3	4	4	6	4.0	10.5
Dir	358	55	51	354	358	27	263	272	274	278	267	291	293	303	302	296	318	284	312	284	243	241	251	261	289.7	284.2
30 Spd	7	7	6	6	8	4	5	5	6	4	4	5	8	6	3	5	4	1	8	3	1	2	2	2	2.4	8.2
Dir	265	273	331	271	272	307	335	359	37	334	331	353	342	60	11	54	45	34	268	288	132	134	100	91	330.3	341.6
Spd	1.1	0.7	1.3	1.9	2.2	1.6	1.5	2.2	2.9	3.6	3.7	4.2	4.1	4.0	3.3	3.3	3.6	3.5	3.0	2.2	1.5	1.1	1.3	1.3	Diurnal Average	
Dir	279.8	275.2	282.3	276.7	272.2	285.6	286.6	291.7	282.6	293.2	302.3	305.9	324.3	344.7	335.5	328.5	319.9	336.7	326.6	321.6	315.0	310.3	275.5	289.0		
Spd	15.7	14.5	13.8	12.8	12.5	12.6	11.8	14.4	16.3	17.4	16.1	18.1	18.7	19.6	19.6	20.8	22.7	24.0	24.1	23.0	19.1	17.2	16.3	16.0	Diurnal Maximum	
Dir	270.4	272.8	268.4	265.0	263.4	264.6	272.2	279.0	283.4	333.1	330.8	341.4	347.3	342.8	277.1	281.6	276.7	273.1	273.2	286.8	273.1	272.5	273.9	273.7		

Maximum Speed Value: 24 km/h on Apr 8 19:00
Maximum Daily Speed Average: 13.5 km/h on Apr 8
Maximum Diurnal Speed Average: 4.2 km/h at hour 12

Minimum Speed Value: 0 km/h on Apr 15 02:00
Minimum Daily Speed Average: 0.7 km/h on Apr 25
Minimum Diurnal Speed Average: 0.7 km/h at hour 2

Monthly Average Velocity: 2.28 km/h 309.06 deg

Speed Percentiles: $P_1 = 0.2$ $P_{10} = 0.8$ $Q_1 = 2.0$ Median = 5.1 $Q_3 = 8.1$ $P_{90} = 12.5$ $P_{99} = 19.5$

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

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

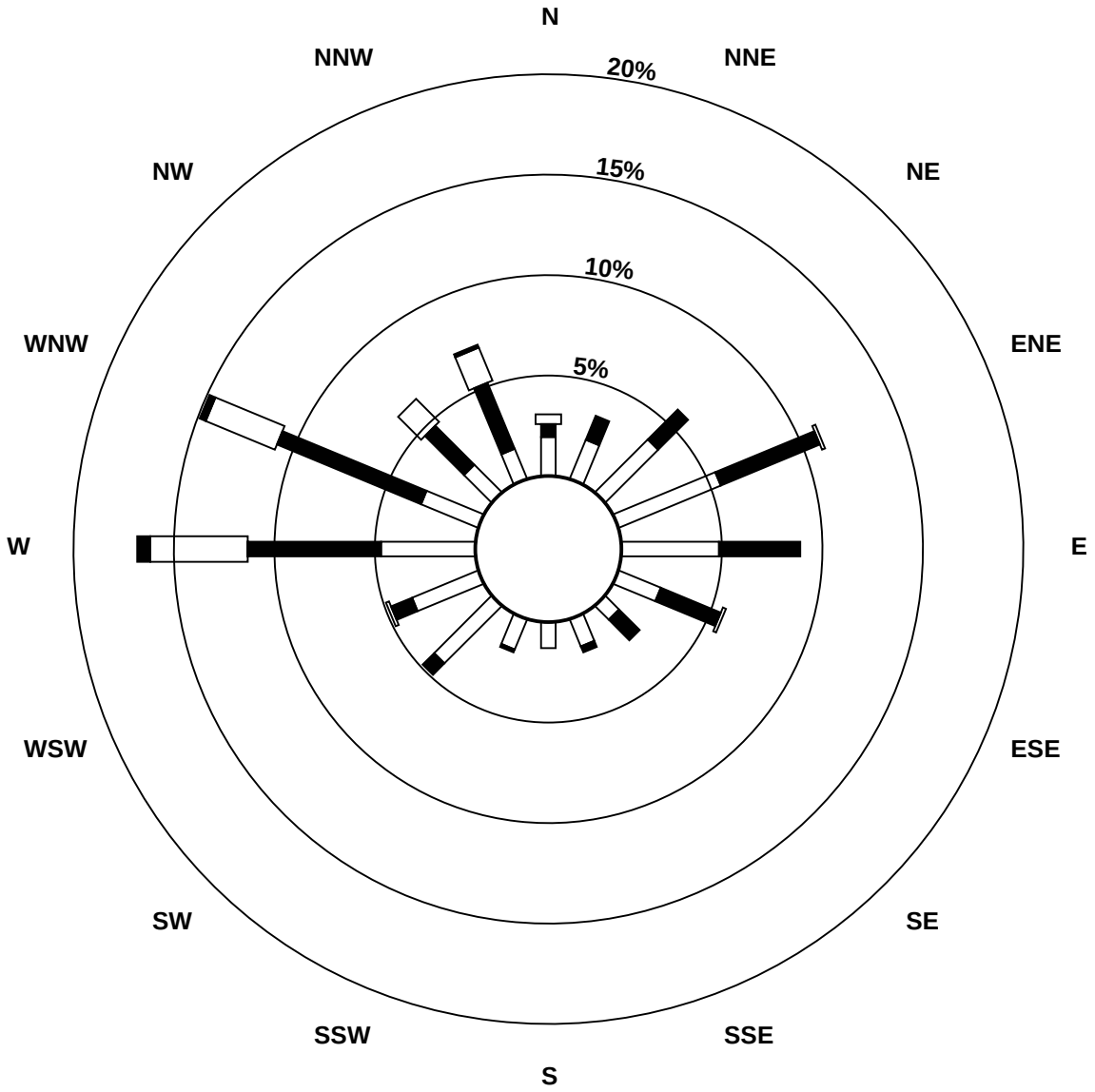
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	32	20	7	1	0	0	60
NorthEast	54	38	1	0	0	0	93
East	56	59	2	0	0	0	117
SouthEast	30	21	0	0	0	0	51
South	29	1	0	0	0	0	30
SouthWest	62	6	0	0	0	0	68
West	58	76	46	8	0	0	188
NorthWest	35	43	35	0	0	0	113
Total	356	264	91	9	0	0	720

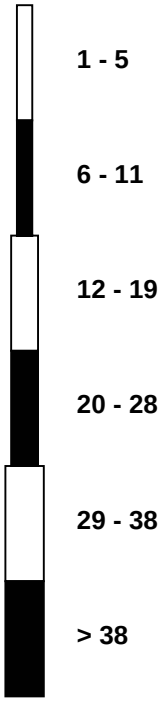
Wind Rose

Wind Speed (WS) (km/h)

Evergreen Park - April 2010



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - April 2010

Maximum Speed: 24 km/h on Apr 8 19:00

Maximum Daily Speed Average: 14.0 km/h on Apr 8

Minimum Speed: 1 km/h on Apr 15 02:00

Minimum Daily Speed Average: 2.8 km/h on Apr 15

Maximum Diurnal Speed Average: 9.5 km/h at hour 14

Minimum Diurnal Speed Average: 3.4 km/h at hour 6

Monthly Average Speed: 6.47 km/h

Percentiles: $P_1 = 0.9$ $P_{10} = 1.3$ $Q_1 = 2.5$ Median = 5.8 $Q_3 = 8.6$ $P_{90} = 12.9$ $P_{99} = 19.7$

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	5	6	5	5	5	2	1	1	4	7	12	16	11	10	6	6	9	6	6	7	2	1	1	3	5.8	15.8
2-Apr	1	1	1	2	1	1	1	2	2	4	4	6	9	10	11	12	11	9	8	7	5	2	2	2	4.8	12.1
3-Apr	3	1	1	1	1	2	3	2	3	5	6	7	7	10	8	8	8	7	7	4	7	10	10	8	5.4	10.4
4-Apr	6	4	6	8	5	1	2	4	9	10	14	13	13	12	10	10	8	6	3	2	1	1	1	1	6.3	13.6
5-Apr	1	1	2	3	2	1	1	2	5	6	5	5	7	6	7	6	8	7	6	4	2	3	6	5	4.2	7.6
6-Apr	5	5	2	1	2	2	2	3	6	6	7	6	7	6	6	16	16	12	12	9	7	5	9	7	6.6	16.4
7-Apr	5	2	2	2	1	1	1	2	4	6	10	18	13	11	13	11	12	14	16	8	7	10	6	8	7.6	18.4
8-Apr	3	3	4	7	7	8	7	9	12	14	16	17	16	18	20	21	23	24	24	19	19	17	16	11	14.0	24.3
9-Apr	12	10	11	11	11	11	11	11	14	17	16	18	18	20	18	15	13	15	12	12	10	9	12	10	13.2	20.1
10-Apr	9	8	7	8	7	8	9	12	14	18	17	19	19	18	17	19	15	13	10	6	5	6	6	3	11.4	19.1
11-Apr	3	2	2	2	1	1	2	2	4	5	4	6	5	7	4	6	8	9	9	8	9	10	9	8	5.2	9.5
12-Apr	8	7	5	4	3	1	2	5	6	7	9	9	9	10	9	8	6	5	4	3	2	1	1	2	5.3	9.6
13-Apr	4	2	2	1	2	2	3	6	8	8	8	6	5	6	7	6	5	4	3	2	1	1	1	1	4.0	8.1
14-Apr	1	1	1	2	1	3	5	7	5	6	9	9	7	10	11	8	10	7	5	2	1	1	1	1	4.9	10.7
15-Apr	1	1	1	1	1	1	1	1	2	3	4	5	6	6	5	5	6	4	3	2	1	1	1	1	2.8	5.8
16-Apr	1	1	2	2	5	3	4	4	7	5	5	7	9	6	5	6	7	10	13	8	4	1	1	1	4.9	13.0
17-Apr	1	1	1	2	2	2	2	2	3	2	3	4	4	7	7	6	7	6	5	6	3	6	10	8	4.2	10.2
18-Apr	5	2	1	1	3	2	1	3	5	4	4	5	6	6	6	7	6	6	5	3	3	4	4	4	4.0	7.0
19-Apr	1	1	2	2	1	1	1	2	2	2	3	5	6	7	7	6	8	6	3	4	5	6	5	4	3.8	7.5
20-Apr	2	3	2	2	1	2	1	1	4	4	4	5	6	5	6	5	4	7	5	4	4	4	3	3	3.7	6.9
21-Apr	4	4	2	1	1	2	3	7	9	11	13	11	8	7	8	10	13	18	19	23	17	12	10	8	9.2	23.2
22-Apr	8	6	8	10	10	7	6	7	11	16	14	17	19	17	16	17	17	17	15	16	16	16	16	16	13.3	19.3
23-Apr	16	15	14	13	13	13	12	15	17	17	17	16	15	13	12	11	11	10	8	6	7	5	3	1	11.5	17.1
24-Apr	2	2	1	2	1	2	4	5	6	8	8	7	5	12	8	8	10	8	7	5	1	2	2	3	5.0	11.6
25-Apr	2	1	1	1	2	1	1	1	1	2	2	4	6	6	6	3	4	5	3	5	3	2	2	1	2.8	6.2
26-Apr	1	1	2	2	1	2	2	3	5	6	9	9	10	11	9	11	10	11	10	9	8	7	8	9	6.6	11.5
27-Apr	8	7	6	6	7	6	8	9	13	9	10	8	9	9	8	8	7	6	5	6	6	6	7	7	7.5	12.8
28-Apr	7	5	6	5	6	6	6	5	6	7	7	7	7	6	7	8	7	5	4	1	2	3	3	4	5.4	8.0
29-Apr	5	3	2	2	1	1	2	3	8	9	8	7	9	8	9	8	6	11	6	4	4	4	4	6	5.4	10.9
30-Apr	8	7	6	6	8	5	5	5	6	5	5	6	10	8	6	6	6	4	8	3	2	3	3	2	5.5	9.7
	4.5	3.8	3.6	3.8	3.8	3.4	3.7	4.7	6.7	7.7	8.4	9.4	9.4	9.5	9.1	9.3	9.4	9.0	8.2	6.6	5.4	5.3	5.5	5.0	Diurnal Average	
	15.8	14.6	13.9	12.9	12.5	12.7	11.8	14.6	16.6	18.1	17.0	18.7	19.3	20.1	19.9	21.3	23.0	24.3	24.3	23.2	19.2	17.4	16.4	16.1	Diurnal Maximum	

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

Hourly Standard Deviations

Wind Direction (WD) - deg

Evergreen Park - April 2010

Maximum Value: 98.6 deg on Apr 17 01:00

Minimum Value: 4.3 deg on Apr 18 21:00

Percentiles: P_1 = 5.3 P_{10} = 9.6 Q_1 = 14.6 Median = 23.9 Q_3 = 49.3 P_{90} = 74.0 P_{99} = 93.3

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Apr	11	5	9	11	15	29	57	71	16	19	13	17	23	28	35	53	25	25	14	12	42	87	46	29	87.1
2-Apr	47	73	59	73	71	20	58	28	30	51	81	27	19	14	13	10	11	7	9	11	20	52	65	59	80.8
3-Apr	88	45	77	79	39	78	75	36	63	18	15	22	29	28	38	27	37	33	55	54	6	6	6	5	87.8
4-Apr	10	6	5	6	12	81	74	11	8	21	15	22	15	22	24	24	22	26	19	17	66	87	50	69	87.2
5-Apr	75	50	38	35	33	50	59	27	28	17	26	51	33	35	32	27	21	11	8	8	15	61	8	7	75.2
6-Apr	6	7	75	93	54	89	62	24	13	16	17	21	26	36	53	36	13	18	11	13	8	12	7	10	92.7
7-Apr	9	88	64	58	94	49	76	22	13	14	17	15	32	21	21	19	21	16	7	46	16	11	18	12	93.5
8-Apr	57	51	28	21	10	13	12	15	11	18	18	17	18	11	10	12	10	10	8	8	6	6	6	7	57.4
9-Apr	5	20	7	5	7	6	6	11	20	17	19	17	15	13	28	26	18	20	15	9	8	9	9	10	28.1
10-Apr	9	11	11	10	17	17	19	19	19	16	19	14	13	17	13	10	12	19	22	17	18	8	11	13	21.7
11-Apr	28	21	41	38	55	74	32	55	42	45	45	62	67	43	58	36	30	20	15	13	12	13	11	13	74.1
12-Apr	13	19	19	15	15	16	13	15	19	27	19	21	20	19	17	19	25	18	12	16	18	47	76	22	75.9
13-Apr	8	28	40	58	18	17	15	10	13	16	23	34	56	57	46	46	47	52	28	42	89	66	63	61	89.0
14-Apr	74	79	80	33	43	19	11	14	28	24	29	30	38	31	20	31	19	33	19	33	63	82	91	70	91.2
15-Apr	29	97	78	82	57	84	75	63	46	39	35	38	52	40	62	72	53	59	33	16	43	85	51	45	97.3
16-Apr	28	68	57	87	44	21	13	31	17	19	36	43	35	67	97	77	51	18	22	19	23	77	36	71	96.8
17-Apr	99	60	95	82	39	28	18	21	20	43	69	94	90	35	62	59	32	27	25	57	56	23	9	39	98.6
18-Apr	64	73	51	59	34	67	75	21	22	33	60	67	47	61	72	31	47	44	30	13	4	6	12	25	74.7
19-Apr	91	55	27	87	94	55	35	25	47	60	94	78	57	41	43	53	29	30	24	16	8	9	10	11	93.9
20-Apr	62	10	20	38	39	39	84	82	21	40	50	44	59	72	66	67	69	40	24	14	7	7	16	8	84.4
21-Apr	13	12	63	82	76	69	29	12	15	22	18	33	40	45	43	33	24	14	21	8	11	16	15	23	81.7
22-Apr	35	5	9	7	6	15	15	13	12	13	19	18	18	21	24	24	18	16	21	10	6	5	6	6	34.6
23-Apr	7	6	6	5	6	5	6	10	10	16	20	22	25	30	27	26	23	28	38	11	11	9	15	69	68.6
24-Apr	70	88	71	38	91	11	8	15	17	19	26	39	53	21	37	44	30	20	28	47	72	91	87	84	91.3
25-Apr	83	91	91	79	48	45	82	67	53	89	73	78	68	83	46	83	74	36	34	43	47	29	74	80	91.0
26-Apr	87	89	62	80	70	21	53	30	27	26	29	36	31	31	34	24	20	16	16	12	12	12	11	12	89.2
27-Apr	13	11	13	11	13	12	13	13	15	21	21	23	19	24	32	34	21	16	21	17	14	14	12	14	34.1
28-Apr	15	16	16	14	14	14	13	17	17	12	16	14	15	18	16	17	17	19	16	83	26	16	10	13	82.8
29-Apr	20	15	12	41	38	79	76	20	11	16	22	58	34	37	46	46	35	16	17	20	18	10	15	9	78.7
30-Apr	8	24	25	22	14	32	14	26	29	48	60	49	34	42	83	42	52	89	33	55	61	65	22	42	88.7
	98.6	97.3	94.8	92.7	93.9	89.0	84.4	82.3	63.1	89.5	93.6	94.2	90.3	83.2	96.8	82.8	73.8	88.7	54.7	82.8	89.0	91.3	91.2	83.9	

PASZA
Smoky Heights Station
Monthly Summary Tables, Graphs and Roses

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 4.2 ppb on Apr 30 07:00 Maximum Daily Average: 1.0 ppb on Apr 21

Minimum Value: 0 ppb on Apr 2 00:00 Minimum Daily Average: 0.1 ppb on Apr 11
Maximum Diurnal Average: 0.6 ppb at hour 5 Minimum Diurnal Average: 0.3 ppb at hour 24
Monthly Average: 0.42 ppb Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.1$ Median = 0.3 $Q_3 = 0.5$ $P_{90} = 0.9$ $P_{99} = 2.5$

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

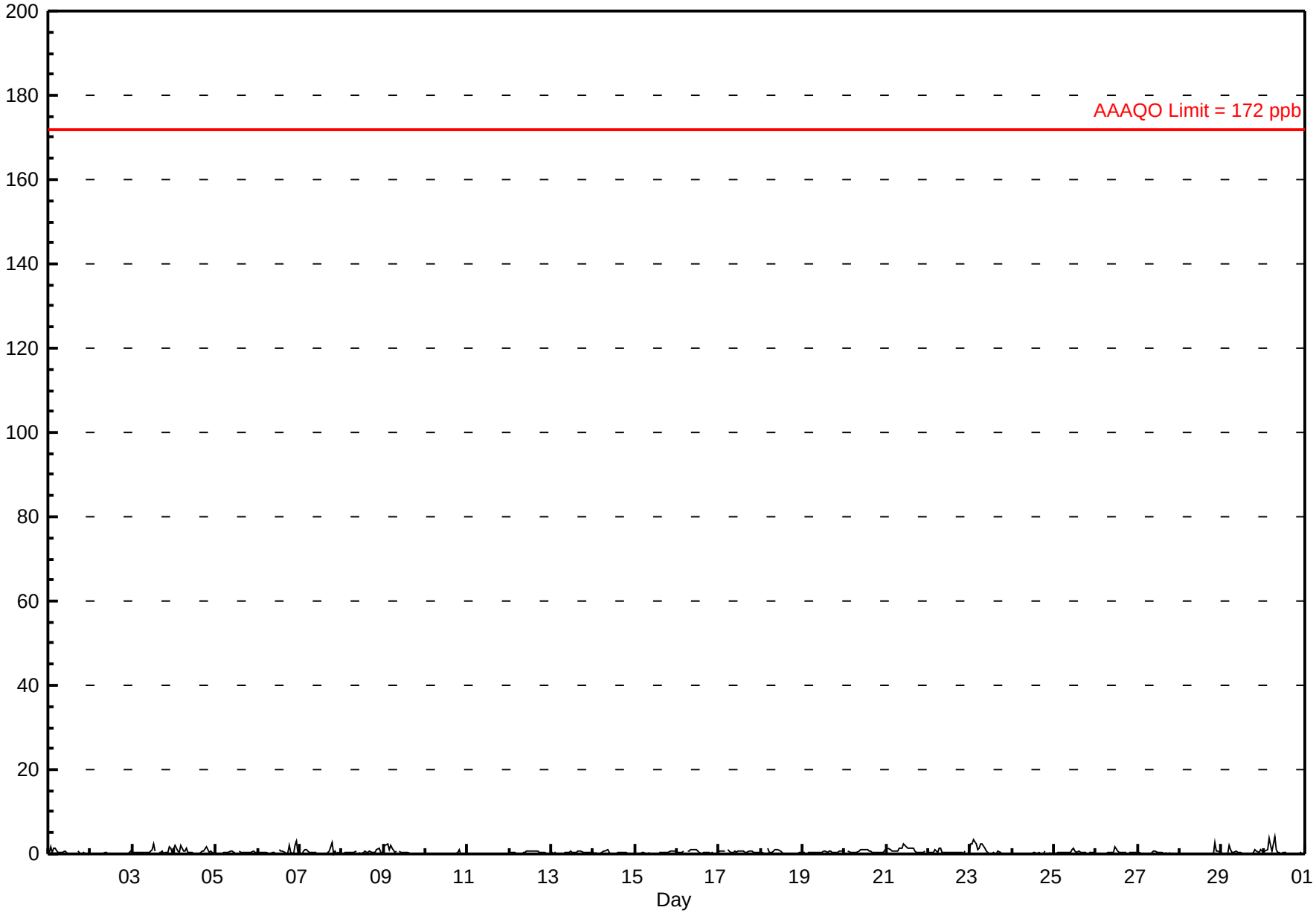
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	2	1	1	1	0	0	0	0	1	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0.4	1.6
2-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0.1	0.5
3-Apr	0	0	0	0	0	0	0	0	0	0	0	1	2	1	A	0	0	1	0	0	0	2	1	0	0.6	2.3
4-Apr	2	1	1	0	2	1	1	1	0	0	0	0	0	A	0	0	1	1	2	1	0	1	0	0	0.7	2.1
5-Apr	0	0	0	0	0	0	0	0	1	1	0	0	A	1	0	0	0	0	0	0	0	1	0	0	0.3	0.6
6-Apr	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	0	0	1	2	0	0	2	3	0	0.6	3.0
7-Apr	0	0	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	1	3	0	1	0	0	0	0.4	2.7
8-Apr	0	0	0	0	0	0	0	0	1	A	0	0	0	1	0	0	1	0	0	0	1	1	0	0	0.4	1.3
9-Apr	2	2	2	1	2	1	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.3
10-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.1	1.0
11-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
12-Apr	0	0	0	0	0	A	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.3	0.7
13-Apr	0	0	0	0	A	0	0	0	0	0	1	1	0	0	0	1	1	1	0	0	0	0	0	0	0.4	0.7
14-Apr	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1
15-Apr	0	0	A	0	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	1	1	1	1	0.3	0.7
16-Apr	0	0	0	1	1	A	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.5	1.2
17-Apr	1	1	1	1	A	1	1	0	0	1	0	1	1	1	1	0	0	1	1	1	0	0	0	0	0.6	1.2
18-Apr	0	0	0	A	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.3
19-Apr	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0	1	1	1	0.4	0.7
20-Apr	1	A	1	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0.6	1.2
21-Apr	A	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	0	0	0	0	0	1	A	1.0	2.3
22-Apr	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	0.4	1.5
23-Apr	2	2	3	3	1	1	2	2	1	1	0	0	0	0	0	0	1	0	0	0	0	A	0	0	1.0	3.4
24-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0.1	0.7
25-Apr	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	A	0	0	0	0	0.4	1.4
26-Apr	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	A	0	0	0	0	0	0.3	1.6
27-Apr	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.6
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	3	1	1	0	0.2	2.6
29-Apr	0	0	0	0	2	1	0	0	1	0	0	0	0	0	0	A	0	0	0	1	1	0	1	1	0.4	1.9
30-Apr	0	1	1	4	2	1	4	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.7	4.2
	0.4	0.5	0.5	0.5	0.6	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.3	Diurnal Average	
	2.5	2.3	3.4	3.6	2.2	1.4	4.2	2.2	1.4	1.3	2.3	1.7	2.3	1.3	1.4	1.3	0.8	0.8	2.7	1.1	2.6	2.1	3.0	0.9	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

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - April 2010



PASZA
Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - April 2010

Maximum Value: 9.5 ppb on Apr 6 22:00

Maximum Daily Average: 1.9 ppb on Apr 23

Minimum Value: 0 ppb on Apr 24 01:00

Minimum Daily Average: 0.4 ppb on Apr 11

Maximum Diurnal Average: 1.6 ppb at hour 5

Minimum Diurnal Average: 0.7 ppb at hour 15

Monthly Average: 1.01 ppb

Percentiles: P_1 = 0.3 P_{10} = 0.4 Q_1 = 0.5 Median = 0.6 Q_3 = 1.0 P_{90} = 2.0 P_{99} = 5.6

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	2	5	1	5	4	1	1	1	1	1	1	1	0	1	0	0	A	3	1	1	2	1	0	0	1.3	5.3
2-Apr	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	A	0	0	0	0	0	0	1	1	0.4	0.9
3-Apr	1	1	1	1	1	1	1	1	1	1	1	3	4	1	A	1	1	2	0	1	1	9	5	1	1.6	9.1
4-Apr	3	4	2	1	5	2	2	5	1	1	1	1	1	A	0	1	1	2	3	2	1	1	1	1	1.7	4.7
5-Apr	0	0	0	1	1	1	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
6-Apr	1	1	0	1	1	1	0	0	1	1	1	A	3	2	1	1	1	3	7	1	1	9	6	1	1.8	9.5
7-Apr	1	0	1	2	3	1	1	1	1	1	A	0	0	0	0	0	2	1	5	1	2	0	1	1	1.1	5.3
8-Apr	0	1	1	1	1	0	1	1	1	A	1	0	1	2	1	1	2	2	1	2	5	4	2	0	1.3	5.3
9-Apr	3	3	4	2	3	3	1	1	A	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	1.2	4.4
10-Apr	0	1	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0.5	2.2
11-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
12-Apr	0	1	1	1	0	A	0	0	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0.7	1.1
13-Apr	1	0	0	0	A	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.7	1.1
14-Apr	0	0	1	A	1	1	1	1	3	1	1	0	0	0	0	1	1	1	1	1	0	0	0	0	0.7	2.5
15-Apr	0	1	A	1	1	1	1	0	1	C	C	C	C	C	1	1	1	1	1	1	1	1	1	1	0.7	1.1
16-Apr	1	1	1	1	1	A	1	1	1	1	2	1	1	1	0	1	1	1	0	0	1	0	0	1	0.9	1.7
17-Apr	1	1	1	2	A	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	3.4
18-Apr	0	0	1	A	5	3	1	1	2	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1.0	5.0
19-Apr	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
20-Apr	1	A	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	0	1	1	1	0.9	1.6
21-Apr	A	2	1	1	1	1	1	2	2	2	5	3	2	2	2	2	1	1	1	1	1	1	1	A	1.5	4.5
22-Apr	1	1	1	1	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	2	1	2	A	2	1.0	2.3
23-Apr	4	4	6	4	2	3	4	3	3	2	1	1	0	0	1	1	2	2	0	0	0	A	0	0	1.9	5.5
24-Apr	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	0	0	1	1	A	1	0	0	0.6	1.6
25-Apr	0	0	1	0	1	1	1	1	1	1	2	2	1	1	1	1	1	1	0	A	1	1	0	1	0.8	2.4
26-Apr	0	0	0	0	0	1	0	0	1	1	1	3	2	1	1	1	1	1	A	1	1	1	0	1	0.7	2.8
27-Apr	0	1	0	0	0	1	0	0	1	1	1	1	1	1	1	1	1	A	1	0	0	0	0	0	0.6	0.9
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	7	2	2	0	0.7	6.7
29-Apr	0	0	0	1	4	3	1	1	1	1	2	1	1	0	0	A	0	0	1	4	2	1	3	2	1.3	3.8
30-Apr	1	2	2	7	5	3	8	4	1	1	0	1	1	1	A	1	0	0	0	0	1	1	0	0	1.6	7.7
	0.9	1.1	1.0	1.2	1.6	1.1	1.1	1.1	1.0	0.8	1.0	1.0	1.0	0.8	0.7	0.7	0.8	1.0	1.1	1.0	1.1	1.4	1.1	0.7	Diurnal Average	
	3.6	4.7	5.5	6.6	5.0	3.4	7.7	4.6	3.1	1.8	4.5	3.0	4.3	1.9	1.9	1.9	2.4	3.3	6.6	3.6	6.7	9.5	5.8	1.9	Diurnal Maximum	

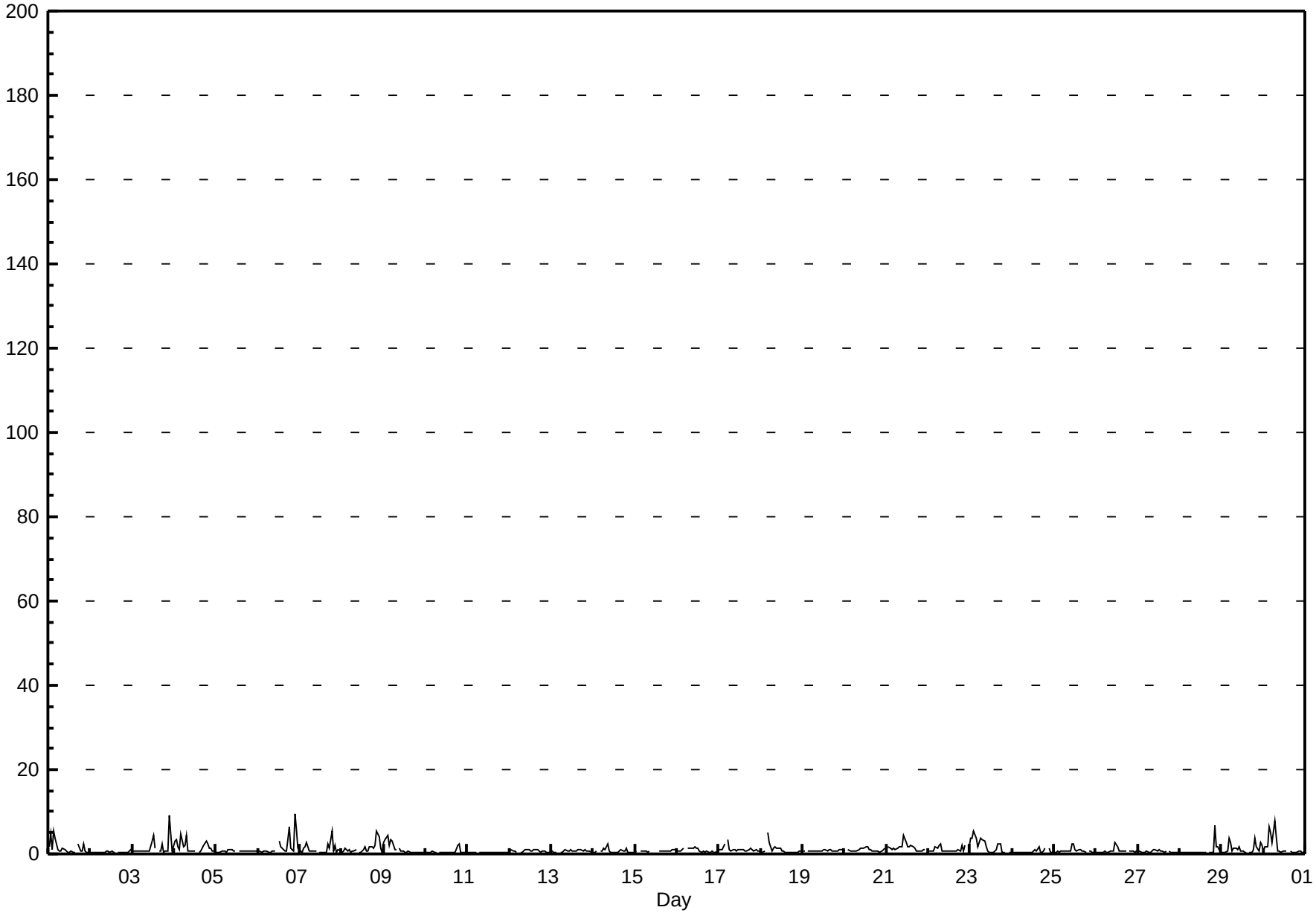
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

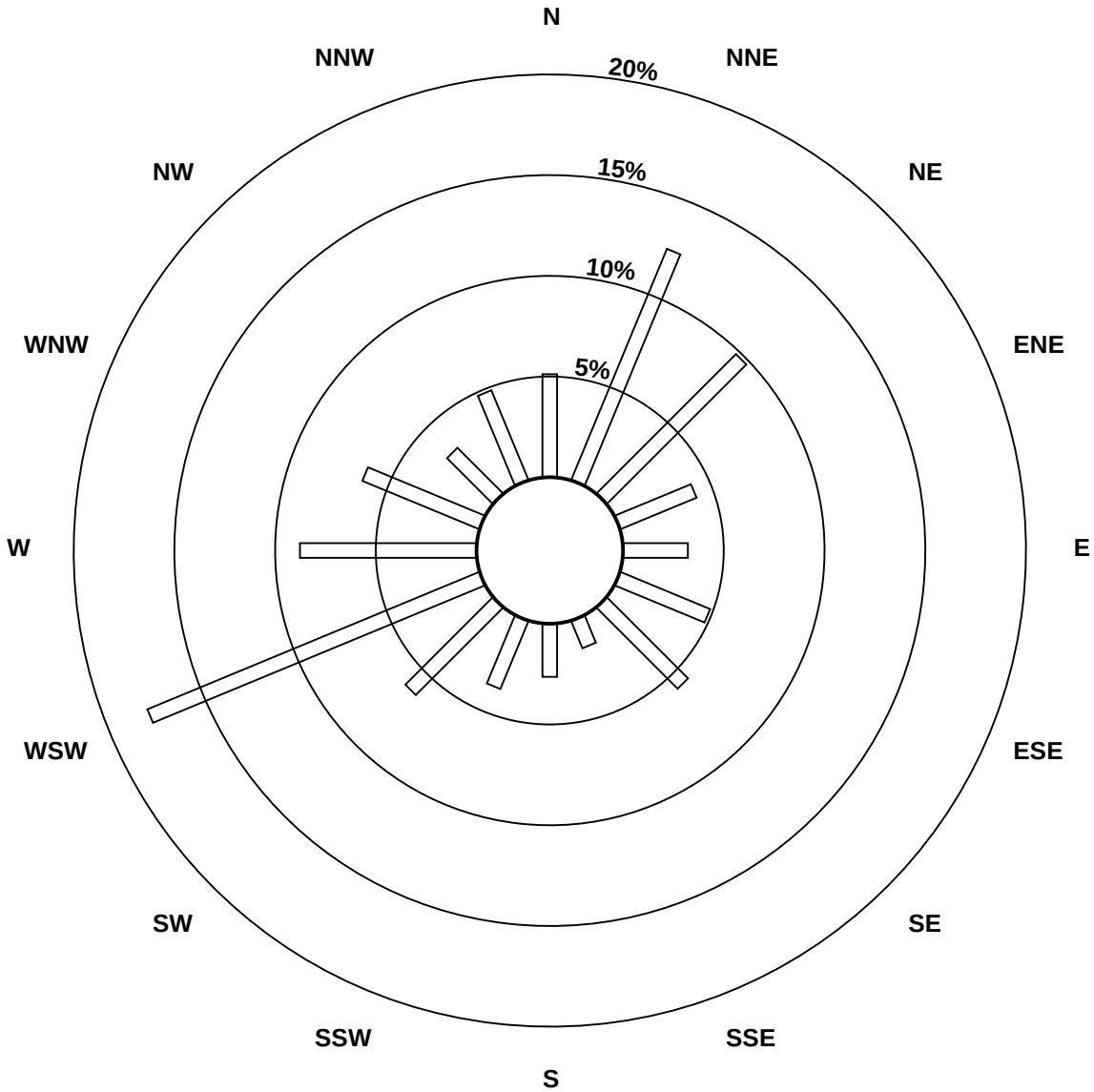
Smoky Heights - April 2010



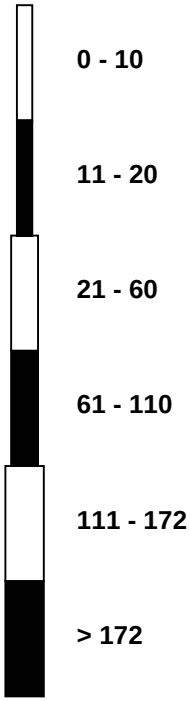
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Smoky Heights - April 2010



Pollutant Classes (ppb)



Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 0.5 ppb on Apr 25 08:00

Maximum Daily Average: 0.4 ppb on Apr 9

Minimum Value: 0 ppb on Apr 27 14:00

Minimum Daily Average: 0.2 ppb on Apr 27

Maximum Diurnal Average: 0.3 ppb at hour 23

Minimum Diurnal Average: 0.3 ppb at hour 14

Monthly Average: 0.32 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.2$ $Q_1 = 0.3$ Median = 0.3 $Q_3 = 0.4$ $P_{90} = 0.4$ $P_{99} = 0.5$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.4
2-Apr	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.4	0.5
3-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.4	0.5
4-Apr	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
5-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
6-Apr	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
7-Apr	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	0.5
8-Apr	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
9-Apr	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
10-Apr	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
11-Apr	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.3
12-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
13-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
14-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
15-Apr	0	0	A	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0.3	0.4
16-Apr	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
17-Apr	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-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
19-Apr	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
20-Apr	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-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.4
22-Apr	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	0.5
23-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.4
24-Apr	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
25-Apr	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.4	0.5
26-Apr	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
27-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.4
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	0.4
29-Apr	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	0.3
30-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	0.4
	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	
	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4	Diurnal Maximum	

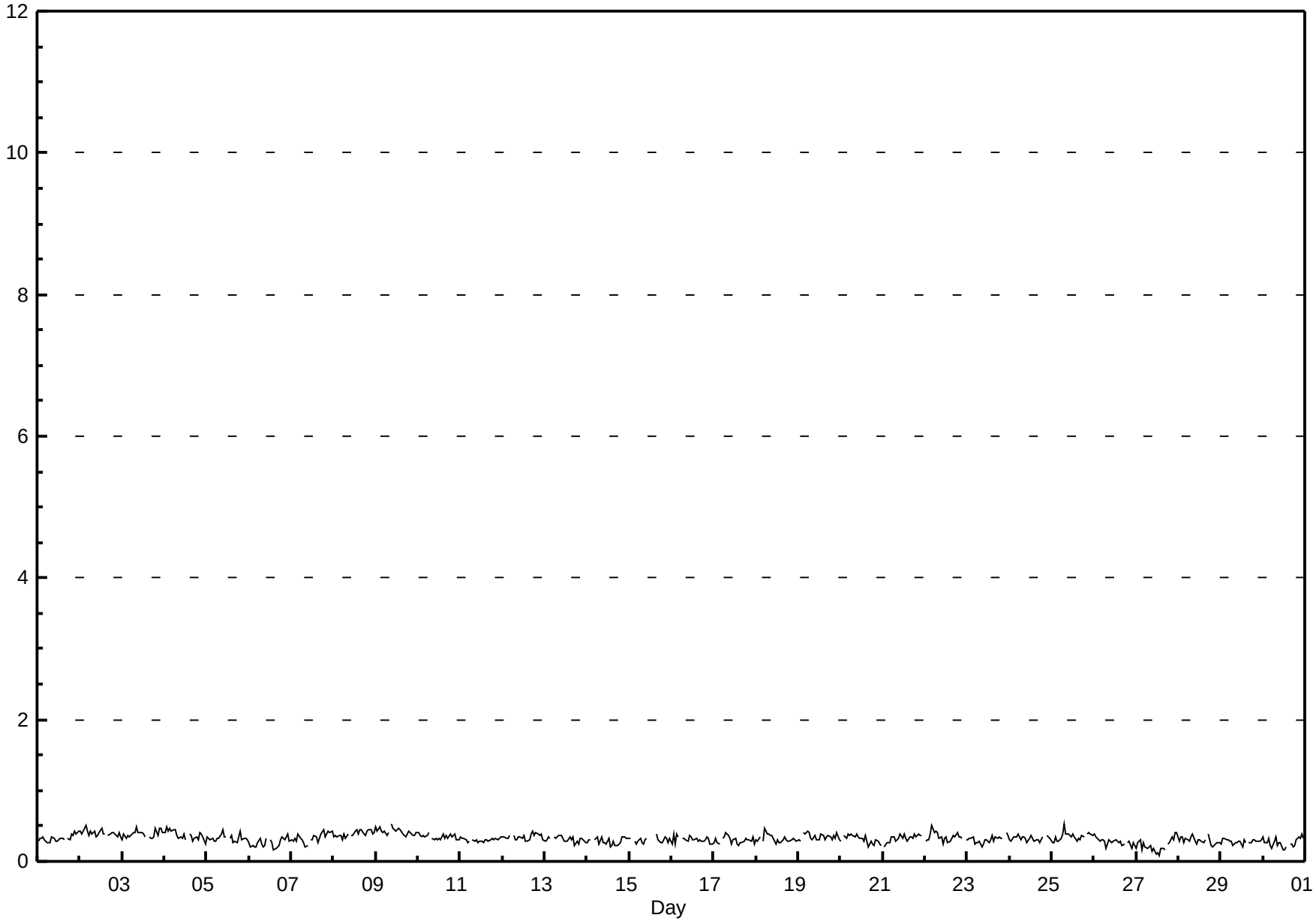
C - Calibration A - Automated Daily Zero Span

Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - April 2010



Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - April 2010

Maximum Value: 1.1 ppb on Apr 5 20:00

Maximum Daily Average: 0.8 ppb on Apr 9

Minimum Value: 0 ppb on Apr 27 13:00

Minimum Daily Average: 0.6 ppb on Apr 27

Maximum Diurnal Average: 0.7 ppb at hour 7

Minimum Diurnal Average: 0.7 ppb at hour 17

Monthly Average: 0.71 ppb

Percentiles: $P_1 = 0.5$ $P_{10} = 0.6$ $Q_1 = 0.6$ Median = 0.7 $Q_3 = 0.8$ $P_{90} = 0.9$ $P_{99} = 1.0$

Hours in Service:	720
Hours of Data:	685
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

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

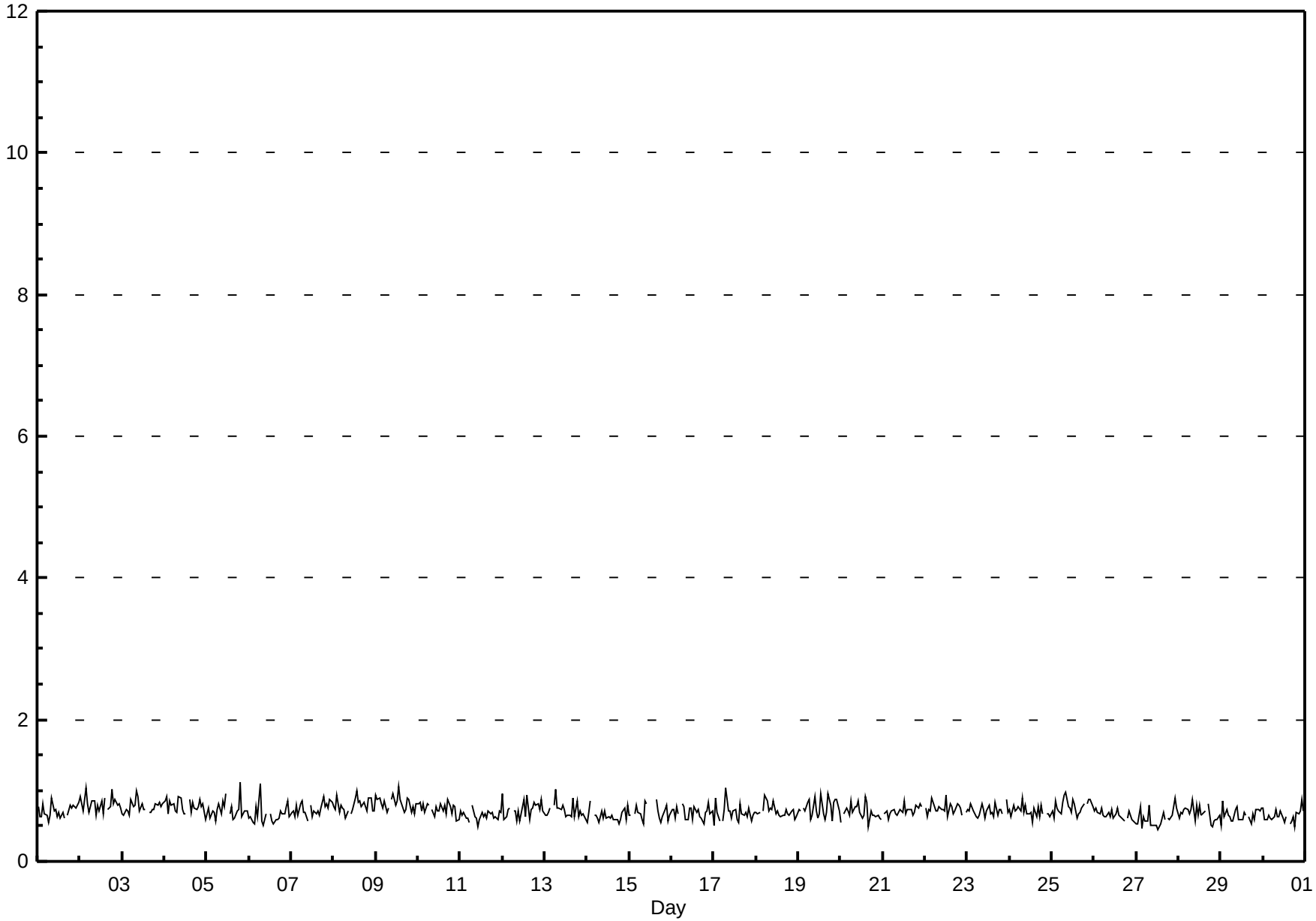
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

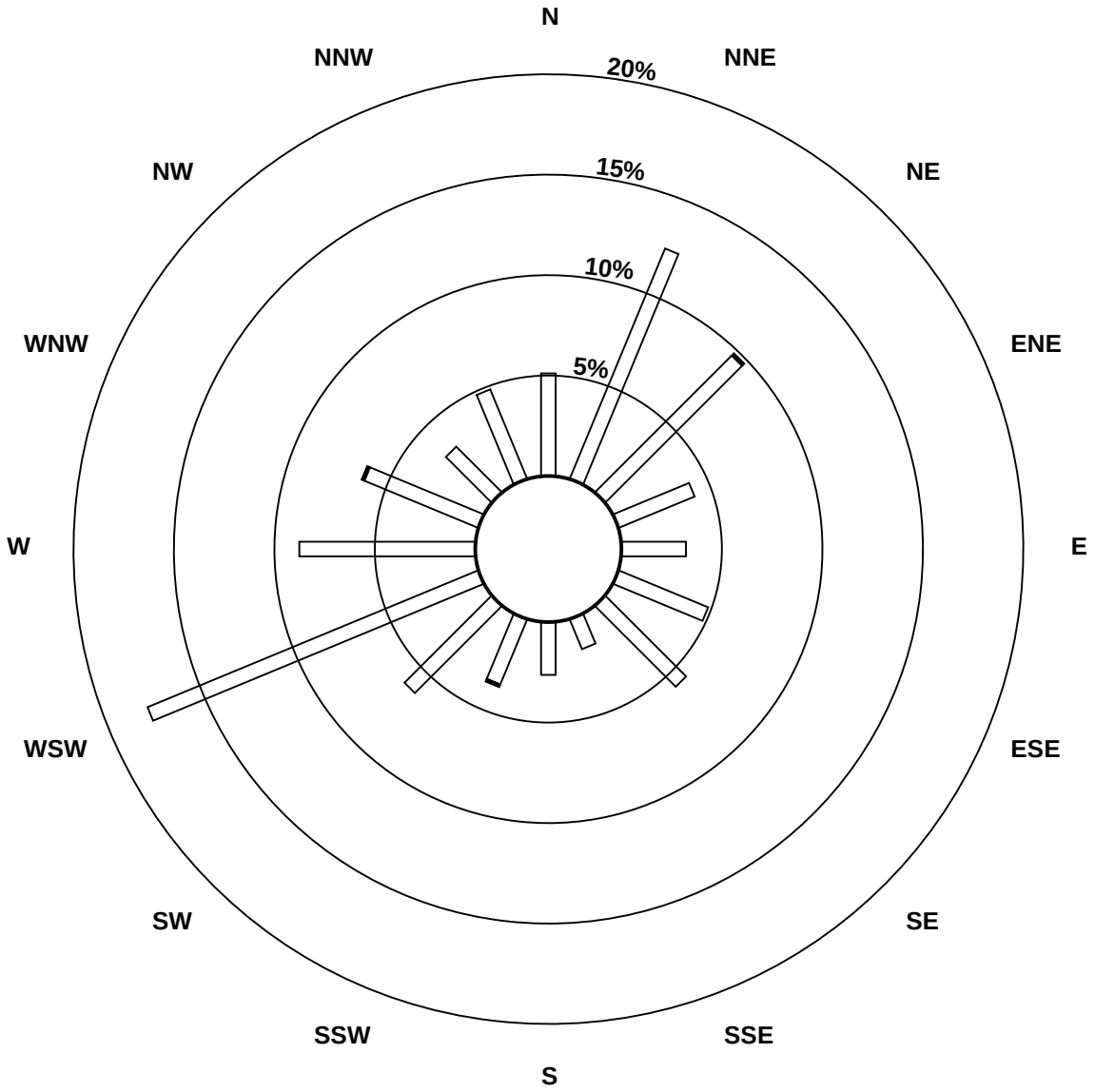
Smoky Heights - April 2010



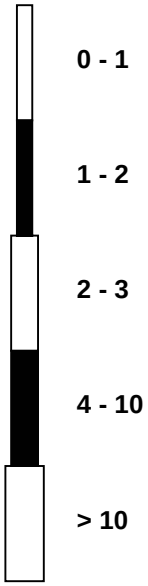
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Smoky Heights - April 2010



Pollutant Classes (ppb)



PASZA
Peace Airshed Zone Association

Hourly Averages

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

Smoky Heights - April 2010

Number of Exceedences: 1-hr: 0 24-hr: 0
Maximum Value: 44.7 $\mu g/m^3$ on Apr 16 20:00
Maximum Daily Average: 10.9 $\mu g/m^3$ on Apr 21

Minimum Value: 0 $\mu g/m^3$ on Apr 1 16:00
Maximum Diurnal Average: 8.3 $\mu g/m^3$ at hour 21
Monthly Average: 3.91 $\mu g/m^3$

Minimum Daily Average: 0.8 $\mu g/m^3$ on Apr 2
Minimum Diurnal Average: 2.6 $\mu g/m^3$ at hour 14
Percentiles: P_1 = 0.0 P_{10} = 0.3 Q_1 = 1.3 Median = 2.7 Q_3 = 5.4 P_{90} = 7.8 P_{99} = 17.6

Hours in Service:	720
Hours of Data:	715
Hours of Missing Data:	5
Hours of Calibration:	2
Percent Operational Time:	99.6

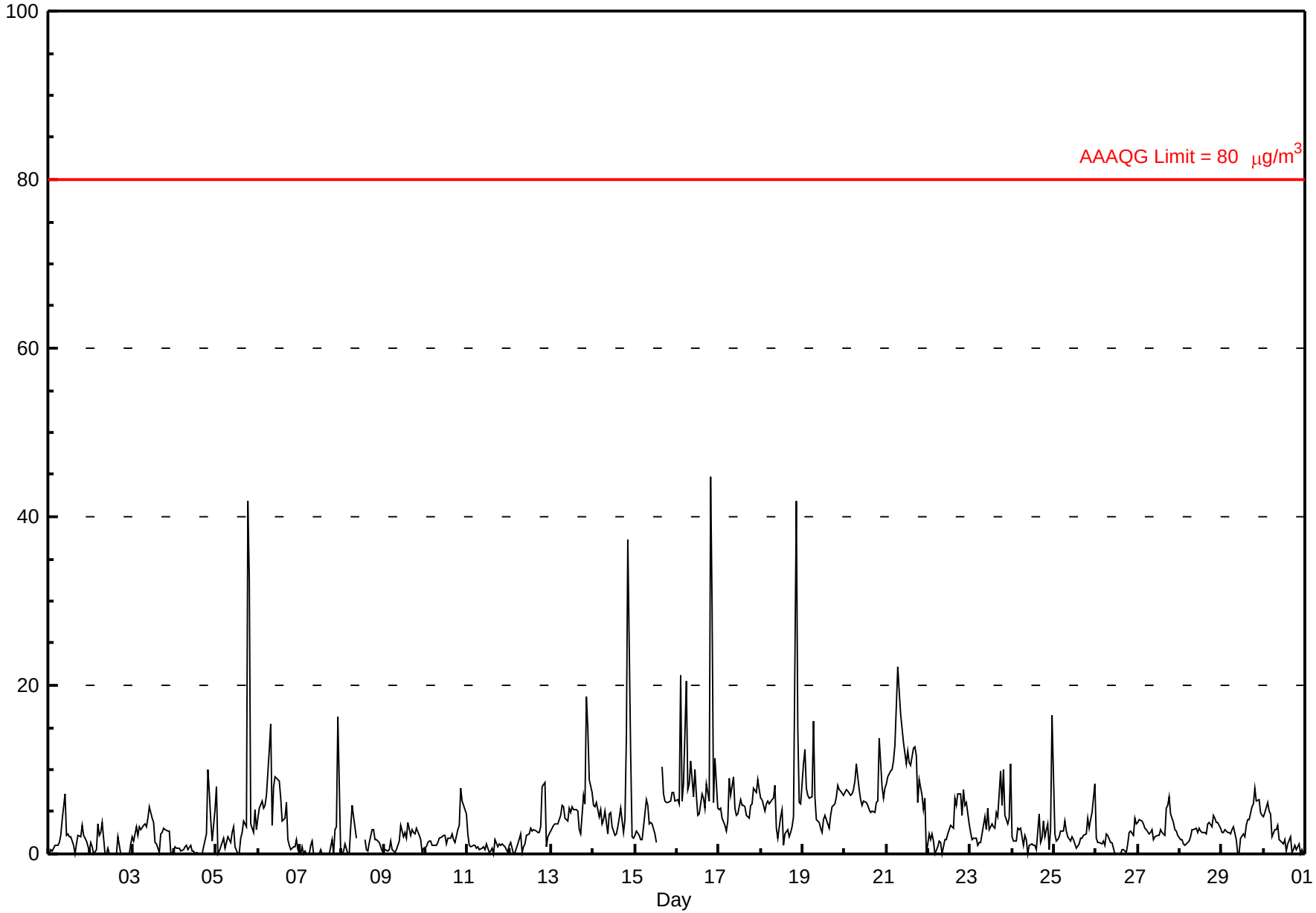
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	1	0	1	1	1	1	2	4	7	2	2	2	2	1	0	1	2	2	3	2	2	2	0	1.8	7.1
2-Apr	1	1	0	1	4	2	3	4	0	0	1	0	BD	0	0	0	2	0	0	0	0	0	0	1	0.8	3.7
3-Apr	2	1	3	2	3	3	3	3	3	4	6	4	4	1	1	0	2	2	3	3	3	3	0	0	2.6	5.6
4-Apr	1	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0	1	2	10	7	4	2	5	1.6	10.0
5-Apr	8	0	0	1	2	1	1	2	1	3	3	1	0	0	2	3	4	3	42	33	3	3	5	3	5.2	41.8
6-Apr	4	5	6	5	6	7	12	15	3	8	9	9	9	7	4	4	6	2	1	0	1	1	2	0	5.3	15.4
7-Apr	0	1	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	2	0	3	3	16	0	1.2	16.4
8-Apr	0	0	1	0	0	3	6	4	2	BD	0	0	BD	2	0	0	1	3	3	2	2	1	1	0	1.5	5.8
9-Apr	0	1	0	1	1	1	0	0	1	2	3	2	2	2	4	2	3	3	2	3	2	2	0	1	1.6	3.7
10-Apr	1	1	2	1	1	1	1	1	2	2	2	2	1	2	2	2	2	1	3	3	8	6	6	5	2.5	7.8
11-Apr	2	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	2	1	1	1	1	1	0	0	0.8	2.4
12-Apr	1	1	0	0	1	1	2	0	1	1	2	2	3	3	3	3	3	2	3	8	8	1	2	2	2.3	8.5
13-Apr	3	3	3	4	3	5	6	6	4	4	5	5	6	5	5	5	3	2	7	6	19	15	9	7	5.8	18.7
14-Apr	6	6	6	4	5	4	4	5	2	5	5	3	2	2	3	4	5	2	4	14	37	12	2	2	6.1	37.4
15-Apr	2	3	2	2	2	3	6	6	4	4	4	2	1	C	C	10	7	6	6	6	6	7	7	6	4.7	10.3
16-Apr	6	6	21	6	8	21	8	8	11	7	10	7	5	5	7	7	5	8	6	45	29	6	11	5	10.8	44.7
17-Apr	5	5	4	3	3	4	9	7	9	5	5	5	6	6	6	6	5	4	6	6	8	7	9	8	5.8	9.2
18-Apr	7	6	5	6	6	6	6	7	8	3	2	4	5	1	2	3	2	3	3	4	42	15	6	6	6.6	41.9
19-Apr	11	12	8	7	7	7	16	7	4	4	3	2	4	5	3	3	5	6	6	7	8	8	7	7	6.5	15.8
20-Apr	7	8	8	7	7	8	9	11	8	7	6	6	6	6	5	5	5	5	6	6	14	8	7	8	7.1	13.8
21-Apr	8	9	10	10	11	13	22	19	17	15	13	11	12	11	10	12	13	12	6	9	7	5	7	0	10.9	22.3
22-Apr	2	2	2	2	0	1	2	1	0	2	2	2	3	3	3	7	6	7	7	5	8	6	6	4	3.4	7.7
23-Apr	3	2	2	2	1	1	1	2	4	3	5	3	4	3	3	5	4	10	6	10	5	4	4	11	4.1	10.8
24-Apr	2	2	1	3	3	3	1	2	2	0	1	1	1	1	1	5	1	2	4	2	4	0	3	16	2.6	16.5
25-Apr	2	1	2	2	3	3	4	3	2	1	2	2	1	1	1	2	2	2	2	4	3	4	5	8	2.6	8.2
26-Apr	2	1	1	1	2	1	2	2	1	1	1	0	0	0	0	1	1	0	1	3	3	2	4	4	1.4	4.2
27-Apr	4	4	4	4	3	3	2	3	3	2	2	2	2	3	2	2	5	6	7	5	4	3	3	2	3.3	6.7
28-Apr	2	2	1	1	1	1	2	3	3	3	2	3	3	3	3	2	4	4	3	5	4	4	4	3	2.7	4.6
29-Apr	3	3	3	3	3	2	3	3	2	0	0	2	2	2	3	4	4	6	6	8	6	6	5	5	3.4	7.8
30-Apr	4	5	6	5	5	2	3	3	3	2	2	1	2	0	1	2	0	0	1	1	1	0	0	0	2.1	6.1
	3.3	3.1	3.5	2.9	3.1	3.6	4.7	4.5	3.5	3.3	3.3	2.9	3.1	2.6	2.7	3.3	3.4	3.5	5.0	7.0	8.3	4.6	4.5	4.0	Diurnal Average	
	10.6	12.3	21.2	10.1	11.0	20.5	22.3	19.3	16.6	15.0	13.3	10.8	12.2	10.9	10.5	12.5	12.7	11.7	41.8	44.7	41.9	14.9	16.4	16.5	Diurnal Maximum	

C - Calibration BD - Baseline Drift
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Hourly Averages

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

Smoky Heights - April 2010



PASZA
Peace Airshed Zone Association

Hourly Maximums

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

Smoky Heights - April 2010

Maximum Value: 149.9 $\mu g/m^3$ on Apr 16 20:00

Maximum Daily Average: 30.1 $\mu g/m^3$ on Apr 16

Minimum Value: 1 $\mu g/m^3$ on Apr 7 17:00

Minimum Daily Average: 3.0 $\mu g/m^3$ on Apr 26

Maximum Diurnal Average: 19.9 $\mu g/m^3$ at hour 21

Minimum Diurnal Average: 4.8 $\mu g/m^3$ at hour 4

Monthly Average: 8.46 $\mu g/m^3$

Percentiles: P_1 = 1.2 P_{10} = 2.5 Q_1 = 3.5 Median = 5.5 Q_3 = 8.6 P_{90} = 14.0 P_{99} = 51.4

Hours in Service:	720
Hours of Data:	718
Hours of Missing Data:	2
Hours of Calibration:	2
Percent Operational Time:	100.0

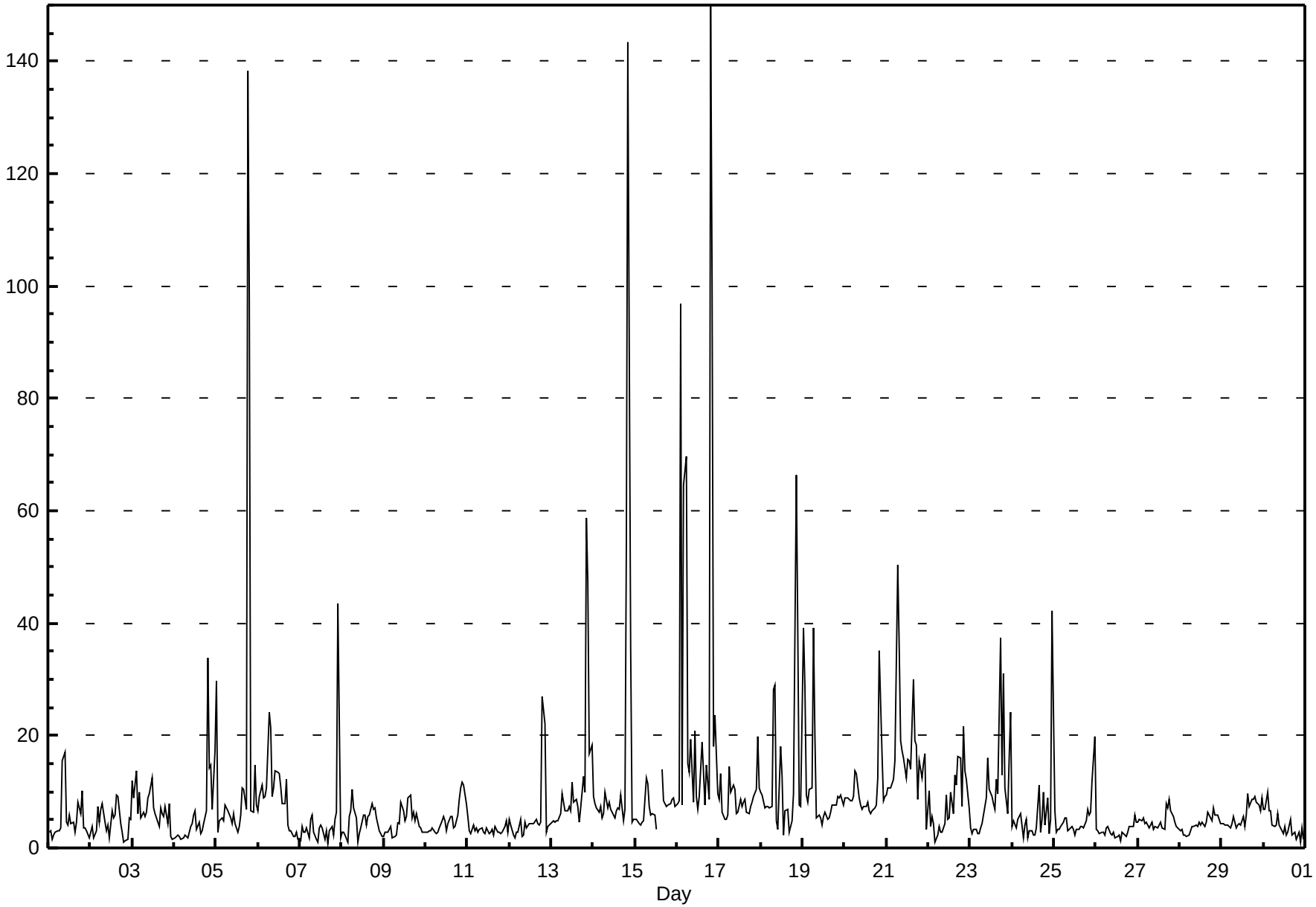
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	3	3	2	2	3	3	3	3	15	17	5	4	6	4	5	3	5	8	6	10	3	4	3	2	5.1	17.0
2-Apr	3	4	2	3	7	5	7	8	5	3	4	2	7	5	6	9	9	4	3	1	1	1	5	5	4.6	9.4
3-Apr	12	9	14	6	10	5	6	6	6	9	10	13	7	6	5	4	7	6	5	7	4	8	2	2	7.1	13.7
4-Apr	2	2	2	2	2	2	2	2	2	4	4	6	7	3	5	2	3	4	7	34	14	15	7	17	6.2	33.9
5-Apr	30	3	5	5	5	8	7	7	5	4	6	4	3	4	6	11	10	7	138	98	7	6	15	8	16.7	138.3
6-Apr	7	9	11	9	9	11	24	21	9	11	14	13	13	11	8	8	12	4	3	3	2	2	3	2	9.1	24.1
7-Apr	1	4	3	3	4	2	5	6	3	2	1	4	4	4	1	3	1	3	4	2	5	6	43	2	4.8	43.5
8-Apr	3	3	2	1	6	7	11	7	5	1	3	3	6	6	4	6	6	8	7	7	5	3	3	2	4.7	10.5
9-Apr	2	3	3	3	4	2	2	2	5	4	8	7	5	6	9	9	5	6	5	6	4	4	3	3	4.5	9.3
10-Apr	3	3	3	3	4	3	3	3	4	5	6	5	3	4	6	6	4	4	6	9	11	12	11	8	5.2	11.8
11-Apr	6	3	3	4	3	4	3	3	4	3	3	4	2	3	3	2	4	3	3	2	3	4	5	3	3.2	5.7
12-Apr	5	4	2	2	3	3	5	2	2	5	3	4	4	4	4	5	4	4	5	27	22	3	4	4	5.5	26.9
13-Apr	5	5	5	5	5	6	10	8	7	7	7	7	12	8	9	7	5	7	13	10	59	47	17	18	11.9	58.8
14-Apr	9	8	7	6	7	5	6	10	7	8	7	6	5	7	7	7	9	5	7	55	143	36	5	5	15.8	143.5
15-Apr	5	5	4	4	5	5	12	11	7	6	6	6	3	C	C	14	8	8	7	8	8	9	9	7	7.2	13.9
16-Apr	8	8	97	8	65	70	15	14	19	8	21	9	7	9	19	14	8	15	9	150	101	18	24	10	30.1	149.9
17-Apr	9	13	6	5	5	6	14	10	11	11	6	6	9	7	8	9	6	6	7	8	9	11	20	11	8.9	19.8
18-Apr	10	9	7	7	7	7	7	28	29	5	3	18	13	2	7	7	3	4	5	10	66	39	8	7	12.9	66.4
19-Apr	39	29	9	8	10	11	39	20	5	6	5	4	6	6	5	5	6	8	8	8	9	9	9	8	11.4	39.2
20-Apr	9	9	9	8	8	9	14	13	9	8	7	7	7	8	7	6	7	7	8	12	35	17	8	9	10.1	35.1
21-Apr	9	11	11	11	12	16	50	36	19	17	16	12	16	15	14	30	19	18	9	16	12	15	17	3	16.9	50.3
22-Apr	10	4	6	4	1	2	4	3	3	4	9	5	5	10	6	13	11	16	16	7	22	14	12	7	8.2	21.7
23-Apr	4	2	3	3	3	3	4	4	7	9	16	10	9	8	7	12	10	37	13	31	11	6	16	24	10.5	37.3
24-Apr	4	5	3	5	6	6	2	4	5	2	3	3	2	2	4	11	3	5	10	4	9	2	5	42	6.1	42.2
25-Apr	7	3	3	3	4	5	5	5	3	4	4	3	2	3	3	4	4	3	5	7	6	6	12	20	5.2	19.9
26-Apr	3	3	3	3	3	2	3	4	3	2	3	2	2	2	1	3	3	2	3	4	4	4	6	5	3.0	5.9
27-Apr	5	5	5	5	4	5	4	4	5	3	4	4	4	5	4	3	8	7	9	6	6	5	4	4	4.8	8.6
28-Apr	3	3	2	2	2	2	3	4	4	4	4	5	4	5	4	4	6	6	5	7	6	6	6	4	4.2	7.2
29-Apr	4	4	4	4	4	4	4	5	4	4	4	4	6	4	6	10	7	9	9	9	8	8	7	9	5.8	9.7
30-Apr	7	7	10	7	7	4	4	4	6	4	4	3	4	2	3	5	2	3	3	1	3	1	4	2	4.1	10.0
	7.5	6.1	8.2	4.8	7.2	7.3	9.3	8.6	7.3	5.9	6.5	6.1	6.1	5.7	6.0	7.7	6.5	7.6	11.2	18.7	19.9	10.6	9.7	8.4	Diurnal Average	
	39.1	28.8	96.8	11.4	64.5	69.7	50.3	36.0	28.9	17.2	20.9	18.2	15.7	15.4	18.8	29.9	18.9	37.3	138.3	149.9	143.5	47.3	43.5	42.2	Diurnal Maximum	

C - Calibration

Hourly Maximums

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

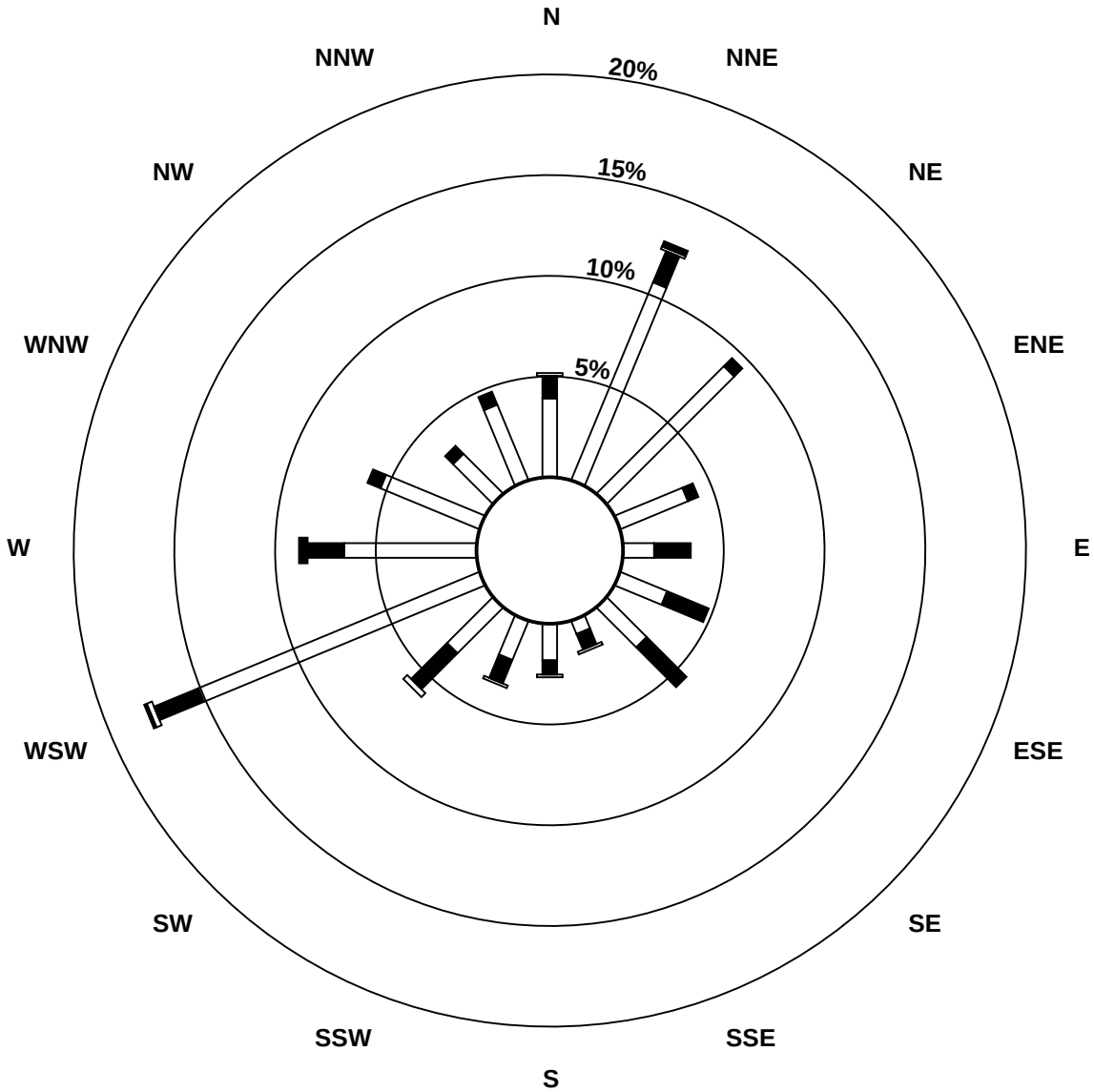
Smoky Heights - April 2010



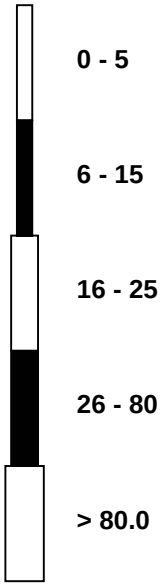
Pollutant Rose

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

Smoky Heights - April 2010



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



PASZA
Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Smoky Heights - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 26.0 ^{o}C on Apr 20 17:00
Maximum Daily Average: 18.4 ^{o}C on Apr 20

Minimum Value: -6 ^{o}C on Apr 11 07:00
Maximum Diurnal Average: 12.1 ^{o}C at hour 17
Monthly Average: 6.31 ^{o}C

Minimum Daily Average: -3.2 ^{o}C on Apr 11
Minimum Diurnal Average: 0.2 ^{o}C at hour 6
Percentiles: P_1 = -5.1 P_{10} = -2.0 Q_1 = 0.8 Median = 4.9 Q_3 = 10.7 P_{90} = 17.1 P_{99} = 25.1

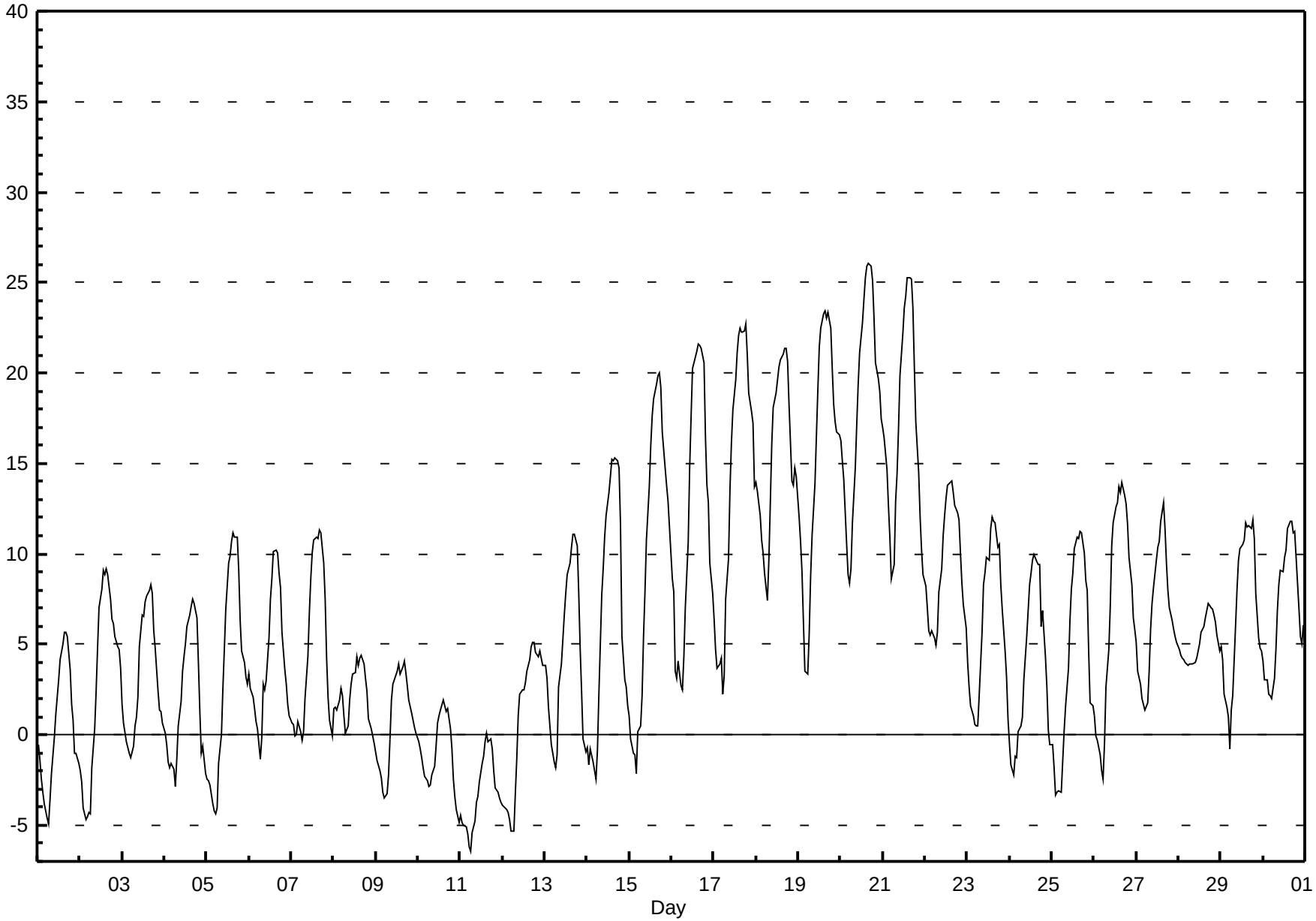
Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	-1	-1	-2	-3	-4	-5	-5	-4	-2	0	1	2	3	4	5	6	6	5	4	2	1	-1	-1	-2	0.3	5.7
2-Apr	-2	-3	-4	-5	-5	-4	-4	-2	0	2	5	7	8	9	9	9	9	8	6	6	5	5	5	4	2.9	9.2
3-Apr	2	1	0	-1	-1	-1	-1	1	1	2	5	7	7	7	8	8	8	8	6	5	2	1	1	1	3.1	8.3
4-Apr	0	-1	-2	-2	-2	-2	-3	-1	1	2	3	4	5	6	7	7	8	7	6	4	1	-1	-1	-2	1.9	7.5
5-Apr	-2	-3	-3	-4	-4	-4	-4	-2	0	3	5	7	9	10	11	11	11	11	9	6	5	4	3	3	3.4	11.2
6-Apr	3	3	2	1	1	0	-1	0	3	2	3	5	8	9	10	10	10	9	8	6	4	3	2	1	4.2	10.2
7-Apr	1	1	0	0	1	0	0	0	2	4	7	9	10	11	11	11	11	11	9	7	4	2	1	0	4.7	11.3
8-Apr	1	1	1	2	3	2	1	0	1	2	3	3	3	4	4	4	4	4	3	2	1	0	0	0	2.1	4.4
9-Apr	-1	-1	-2	-2	-3	-3	-3	-2	0	2	3	3	3	4	3	4	4	3	3	2	1	1	0	0	0.8	4.0
10-Apr	0	-1	-1	-2	-2	-3	-3	-3	-2	-2	-1	1	1	1	2	2	1	1	0	-1	-2	-3	-4	-5	-1.0	1.9
11-Apr	-4	-5	-5	-5	-6	-6	-6	-5	-5	-4	-3	-3	-2	-1	0	0	0	0	-1	-2	-3	-3	-4	-4	-3.2	0.1
12-Apr	-4	-4	-4	-4	-5	-5	-5	-3	-1	1	2	2	3	3	4	4	5	5	5	5	4	5	4	4	0.8	5.1
13-Apr	4	3	2	0	-1	-1	-2	-1	3	4	5	7	8	9	9	10	11	11	10	8	5	2	0	-1	4.4	11.1
14-Apr	-1	-2	-1	-2	-2	-2	-1	2	8	9	11	12	13	14	15	15	15	15	15	12	5	3	3	2	6.7	15.3
15-Apr	1	0	-1	-1	-2	0	0	2	5	8	11	14	16	18	19	19	20	20	19	17	15	14	13	11	9.9	20.0
16-Apr	9	8	4	3	4	3	3	4	7	11	15	18	20	21	21	22	22	21	21	16	14	13	10	8	12.3	21.6
17-Apr	6	5	4	4	4	2	3	7	10	14	16	18	20	21	22	22	22	22	23	21	19	18	17	14	13.9	22.7
18-Apr	14	13	12	11	10	9	7	10	13	16	18	19	20	20	21	21	21	21	21	18	14	14	15	14	15.5	21.3
19-Apr	12	11	9	6	4	3	6	9	11	14	17	19	21	22	23	23	23	23	22	20	18	17	17	17	15.3	23.4
20-Apr	16	15	14	11	9	8	9	12	15	17	19	21	23	24	25	26	26	26	25	23	21	20	19	17	18.4	26.0
21-Apr	17	16	15	13	11	9	9	13	14	17	20	22	24	24	25	25	25	24	20	17	15	12	10	9	16.9	25.3
22-Apr	8	7	6	5	6	5	5	6	8	9	11	12	13	14	14	14	13	13	12	12	10	8	7	6	9.4	14.0
23-Apr	4	3	2	1	1	0	0	2	6	8	9	10	10	11	12	12	12	10	11	8	7	5	3	1	6.1	12.0
24-Apr	-1	-2	-2	-1	-1	0	0	1	3	4	5	8	9	10	10	10	9	9	6	7	4	3	0	-1	3.8	10.0
25-Apr	-1	-2	-3	-3	-3	-3	-1	0	2	4	6	8	9	10	11	11	11	11	10	9	8	5	2	2	4.2	11.2
26-Apr	1	0	0	-1	-2	-2	0	3	5	7	10	12	13	13	14	13	14	13	13	12	10	8	6	6	6.9	13.9
27-Apr	5	4	3	2	2	1	2	4	6	7	8	10	10	11	12	13	11	10	8	7	6	6	5	5	6.5	12.8
28-Apr	5	4	4	4	4	4	4	4	4	4	4	5	5	6	6	6	7	7	7	7	7	6	5	5	5.2	7.3
29-Apr	5	4	2	2	1	-1	1	2	6	8	10	10	11	11	12	11	12	11	12	11	8	5	5	5	6.8	11.9
30-Apr	4	3	3	2	2	2	3	5	7	8	9	9	10	10	11	12	12	11	11	10	7	5	5	6	7.0	11.8
	3.4	2.6	1.7	1.1	0.6	0.2	0.5	2.1	4.2	6.1	7.9	9.4	10.4	11.2	11.8	12.1	12.1	11.8	10.8	9.2	7.2	5.9	5.0	4.1	Diurnal Average	
	17.0	16.4	14.7	12.7	10.9	9.0	9.4	12.9	14.7	17.1	19.8	22.1	23.6	24.2	25.3	25.9	26.0	25.9	25.1	23.0	20.6	19.7	19.0	17.5	Diurnal Maximum	

Hourly Averages

External Temperature (ET) - ^{o}C

Smoky Heights - April 2010



Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	15	14	14	13	12	13	12	15	15	17	20	22	22	19	17	15	16	14	11	13	14	10	11	8	14.4	22.5
Dir	258	257	260	259	260	259	251	232	238	237	236	236	239	238	238	235	238	258	250	263	249	252	242	240	245.7	236.0
2 Spd	6	6	7	7	5	6	5	5	4	4	5	4	0	4	5	4	9	12	14	15	14	9	6	7	1.7	15.0
Dir	205	244	228	201	232	252	232	237	208	117	22	44	168	109	121	79	25	25	27	50	45	30	104	142	60.1	49.8
3 Spd	1	4	4	5	8	7	5	9	6	7	5	8	16	15	17	16	16	16	15	15	12	15	20	19	9.9	19.6
Dir	130	264	222	267	272	213	198	251	182	182	138	240	241	242	238	237	237	238	250	272	248	262	259	261	243.3	259.2
4 Spd	20	21	18	14	16	13	10	12	13	19	19	22	22	19	21	18	14	13	7	6	4	5	7	4	13.6	22.1
Dir	261	258	264	259	245	250	230	220	223	233	230	243	243	238	244	251	256	265	263	225	260	246	273	296	246.9	243.3
5 Spd	2	5	3	2	3	0	3	2	4	3	5	4	2	5	3	2	2	3	2	9	12	10	10	12	2.0	12.0
Dir	11	219	317	358	57	108	221	187	171	160	123	124	359	330	308	237	303	87	253	18	27	23	25	39	24.5	38.6
6 Spd	13	12	10	7	7	9	4	2	5	10	14	16	22	19	16	16	26	28	21	15	16	18	17	15	8.9	27.8
Dir	38	39	38	7	10	16	355	206	125	177	234	238	237	247	247	240	243	251	256	258	258	256	253	244	254.0	251.4
7 Spd	13	11	9	8	9	6	3	6	11	17	22	27	22	28	31	26	25	17	11	11	12	10	3	7	12.7	30.6
Dir	238	247	263	247	232	200	239	198	183	184	188	199	225	242	243	246	257	257	260	248	260	267	350	268	234.5	243.1
8 Spd	11	10	16	16	19	14	9	9	9	19	22	25	24	30	32	28	29	32	27	29	25	24	24	23	20.0	31.7
Dir	279	264	263	273	292	297	295	249	219	293	296	293	284	251	252	261	250	253	253	254	254	255	258	256	264.8	251.9
9 Spd	24	25	24	18	17	22	21	22	18	19	23	23	27	30	32	31	33	30	27	23	21	21	23	29	22.6	32.5
Dir	247	254	257	249	249	254	258	259	264	294	297	295	297	293	307	298	300	298	299	295	289	296	300	305	284.0	300.4
10 Spd	30	30	25	26	26	28	29	31	32	27	32	32	31	30	27	23	23	21	16	14	10	7	8	5	22.4	32.3
Dir	312	313	308	297	296	302	303	311	315	309	299	300	299	307	305	312	321	329	338	344	11	5	9	20	311.7	298.7
11 Spd	5	9	3	5	8	7	9	10	11	8	7	9	6	6	9	9	13	15	14	15	17	15	16	17	9.9	17.0
Dir	34	49	64	28	40	33	27	20	27	20	15	26	19	16	17	12	24	29	43	35	33	38	33	35	30.1	33.3
12 Spd	18	17	16	15	14	13	11	12	12	13	25	27	27	23	18	15	13	13	11	8	8	9	9	12	11.2	27.4
Dir	28	30	30	28	30	23	22	38	46	104	130	131	128	120	103	105	94	58	41	28	52	74	71	63	74.3	128.1
13 Spd	12	14	18	12	10	6	5	1	12	13	12	12	10	10	12	11	13	17	14	9	4	6	7	9	3.4	17.6
Dir	68	62	73	68	55	18	356	228	182	172	173	200	206	244	250	239	230	239	240	223	241	218	248	276	208.2	72.9
14 Spd	11	12	17	8	13	9	9	6	14	16	17	15	13	14	14	20	17	14	10	8	9	11	9	2	8.2	19.7
Dir	219	256	258	253	258	247	238	123	352	8	4	353	345	332	337	325	334	334	343	311	277	278	287	346	312.6	324.9
15 Spd	4	5	2	4	5	7	6	7	9	9	10	11	12	12	12	12	10	11	11	8	11	14	16	14	7.3	15.6
Dir	2	333	242	222	198	211	221	209	192	168	159	158	143	136	149	130	149	136	129	108	108	136	151	158	152.8	151.4
16 Spd	9	3	6	7	8	8	7	7	10	11	6	9	11	17	8	7	4	3	5	6	15	12	4	6	4.9	17.4
Dir	170	233	249	236	216	223	217	192	222	222	164	108	233	235	261	277	226	337	50	270	275	298	89	26	234.8	235.3
17 Spd	4	6	7	10	2	3	3	4	5	6	5	5	6	7	10	9	14	13	16	16	13	13	12	8	5.2	15.9
Dir	29	263	267	276	359	187	211	141	114	38	67	104	128	108	115	129	135	108	99	112	138	139	175	170	128.5	112.1
18 Spd	11	13	13	14	15	13	5	6	6	4	5	6	6	8	9	8	5	5	7	5	7	7	10	9	3.5	15.1
Dir	186	204	250	265	266	259	218	220	196	171	119	240	243	239	206	205	95	129	104	70	28	61	93	109	207.9	266.0
19 Spd	4	5	1	4	6	5	5	10	8	5	8	10	12	15	18	18	16	18	20	11	10	8	8	10	8.3	20.2
Dir	142	123	59	229	214	210	195	193	173	159	140	144	143	145	129	145	125	120	124	109	100	88	77	97	135.1	124.0
20 Spd	11	7	8	8	7	9	6	6	5	9	14	14	13	14	13	14	12	12	13	9	8	11	14	14	8.4	14.5
Dir	115	95	93	21	7	24	14	18	84	102	129	143	126	138	143	129	122	107	108	90	78	100	124	138	108.2	143.0
21 Spd	18	18	10	5	4	2	6	9	6	3	7	9	5	6	5	10	12	20	30	34	30	29	20	20	6.1	34.3
Dir	148	147	140	143	120	223	216	178	152	94	33	14	27	319	334	333	335	329	300	289	281	261	269	284	282.8	288.5
22 Spd	20	14	10	8	13	17	17	19	27	26	27	25	24	21	25	26	26	26	24	26	25	19	20	23	21.0	27.2
Dir	270	275	259	213	242	253	252	254	259	261	261	258	253	252	248	250	250	253	260	261	263	259	260	256	256.1	259.0

Hourly Averages

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	25	28	26	22	24	21	17	17	20	22	26	24	21	20	17	18	17	12	7	7	8	9	7	5	13.0	27.8
Dir	250	254	254	250	245	247	250	252	267	278	300	298	303	304	312	324	339	314	20	50	29	32	36	23	283.8	254.3
24 Spd	3	3	4	7	9	9	10	12	12	12	6	8	9	11	10	17	13	16	15	7	7	7	5	5	8.3	17.5
Dir	345	303	0	22	21	30	37	36	44	44	35	41	32	354	351	348	4	357	334	5	330	16	20	12	11.5	348.4
25 Spd	5	5	4	4	5	6	7	6	6	2	3	2	6	5	6	7	8	9	7	8	5	2	3	5	4.8	9.4
Dir	10	11	359	13	11	15	22	37	50	41	357	286	338	355	16	14	24	38	15	14	18	280	311	17	13.6	38.2
26 Spd	7	7	8	7	5	5	6	8	7	11	14	18	16	15	18	21	22	21	19	17	15	14	10	11	10.9	21.6
Dir	20	18	19	9	13	11	30	30	46	37	45	94	103	96	88	80	88	92	89	72	65	54	26	23	65.3	87.7
27 Spd	13	13	14	14	15	16	18	18	19	17	16	19	18	17	18	17	21	18	12	12	13	13	10	11	13.9	20.6
Dir	23	31	36	32	35	36	35	41	51	69	76	63	62	61	55	63	135	112	92	84	49	42	38	33	57.0	134.9
28 Spd	17	16	15	14	16	15	14	16	17	15	15	17	17	15	15	13	14	13	9	6	9	10	8	8	12.5	17.3
Dir	48	49	47	45	46	46	45	44	51	47	46	49	52	54	48	43	27	35	18	341	331	333	2	346	38.4	49.3
29 Spd	11	6	6	7	8	5	6	3	3	6	10	12	9	11	13	11	12	12	12	14	12	13	16	9	7.0	16.1
Dir	50	32	343	332	336	302	277	2	230	276	341	336	337	323	291	304	291	291	255	246	248	255	258	292	297.5	257.6
30 Spd	4	10	5	6	7	12	15	14	14	12	10	9	8	8	9	13	9	7	9	8	6	6	7	8	7.5	14.6
Dir	268	273	307	346	10	3	2	12	20	27	32	4	26	17	25	41	60	69	49	59	30	36	59	62	22.1	1.9
Spd	2.6	4.0	4.3	4.4	4.4	4.5	3.8	2.5	1.7	1.9	1.8	2.8	4.1	5.1	4.6	4.3	3.6	3.7	3.2	3.5	4.0	3.4	2.7	2.6	Diurnal Average	
Dir	284.8	286.5	289.4	292.6	293.9	292.9	293.0	282.1	264.4	272.7	280.6	264.8	262.4	264.2	270.3	284.0	281.7	301.6	311.6	308.4	306.5	299.4	290.1	305.2		
Spd	30.1	30.1	25.8	25.7	26.2	27.9	29.5	31.4	31.7	27.3	32.3	32.0	30.7	30.3	31.7	31.4	32.5	31.6	30.2	34.3	30.3	29.2	24.2	28.8	Diurnal Maximum	
Dir	311.7	312.9	254.4	297.1	295.8	301.6	302.7	310.5	314.9	309.4	298.7	300.3	298.8	250.5	251.9	297.9	300.4	253.3	300.0	288.5	280.9	261.2	258.5	305.0		

Maximum Speed Value: 34 km/h on Apr 21 20:00
Maximum Daily Speed Average: 22.6 km/h on Apr 9
Maximum Diurnal Speed Average: 5.1 km/h at hour 14

Minimum Speed Value: 0 km/h on Apr 2 13:00
Minimum Daily Speed Average: 1.7 km/h on Apr 5
Minimum Diurnal Speed Average: 1.7 km/h at hour 9

Monthly Average Velocity: 3.37 km/h 287.19 deg

Speed Percentiles: $P_1 = 1.8$ $P_{10} = 4.6$ $Q_1 = 7.0$ Median = 11.5 $Q_3 = 16.5$ $P_{90} = 23.2$ $P_{99} = 31.6$

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

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

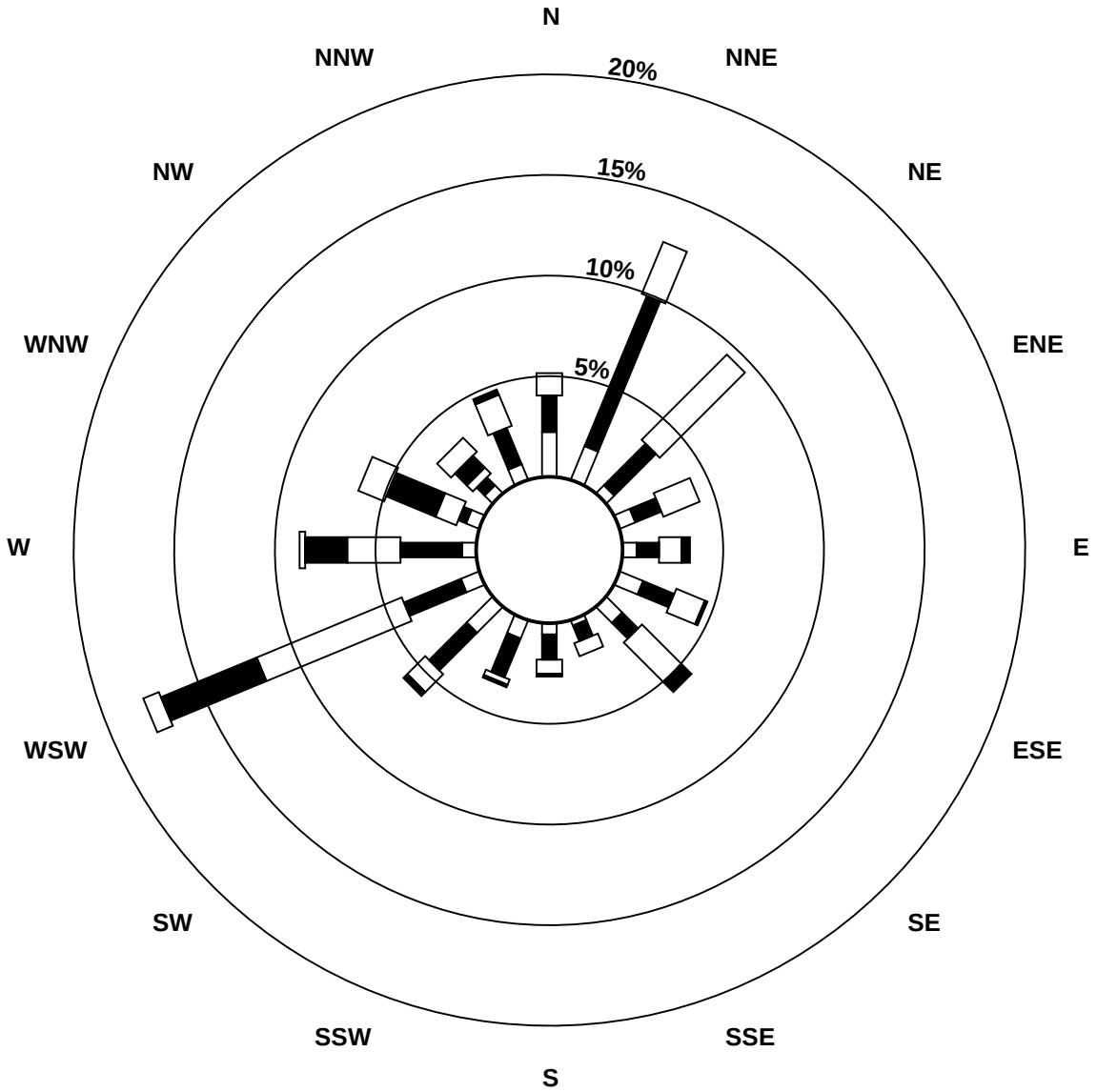
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	23	53	16	0	0	0	92
NorthEast	11	53	70	1	0	0	135
East	7	23	24	4	0	0	58
SouthEast	10	18	26	6	0	0	60
South	8	20	9	2	0	0	39
SouthWest	19	43	30	17	2	0	111
West	6	32	56	44	9	0	147
NorthWest	9	15	13	25	16	0	78
Total	93	257	244	99	27	0	720

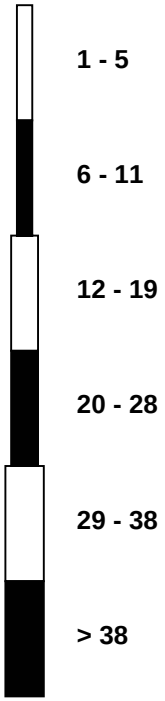
Wind Rose

Wind Speed (WS) (km/h)

Smoky Heights - April 2010



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - April 2010

Maximum Speed: 35 km/h on Apr 21 20:00

Maximum Daily Speed Average: 24.5 km/h on Apr 9

Minimum Speed: 3 km/h on Apr 5 01:00

Minimum Daily Speed Average: 5.7 km/h on Apr 5

Maximum Diurnal Speed Average: 16.3 km/h at hour 17

Minimum Diurnal Speed Average: 9.7 km/h at hour 7

Monthly Average Speed: 13.06 km/h

Percentiles: $P_1 = 2.9$ $P_{10} = 5.2$ $Q_1 = 7.6$ Median = 12.1 $Q_3 = 16.8$ $P_{90} = 23.5$ $P_{99} = 31.8$

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	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-Apr	15	15	14	13	12	13	12	15	15	17	20	23	22	19	17	15	16	14	11	13	14	10	11	9	14.8	22.5
2-Apr	6	7	8	7	6	6	5	6	4	4	5	5	6	6	6	6	9	12	14	15	14	10	9	7	7.6	15.1
3-Apr	3	5	5	5	8	8	6	9	6	7	5	9	16	15	17	16	16	16	15	15	13	15	20	19	11.2	19.6
4-Apr	20	21	18	14	16	14	10	12	14	19	19	22	22	20	21	18	14	13	8	6	4	5	7	5	14.2	22.3
5-Apr	3	6	4	3	3	3	4	3	4	4	5	5	4	6	6	5	6	4	4	10	12	10	11	12	5.7	12.2
6-Apr	13	12	10	7	8	9	4	3	6	10	14	16	22	19	16	16	26	28	21	15	16	18	17	15	14.2	27.9
7-Apr	13	11	9	9	10	7	4	6	11	17	22	27	23	28	31	26	25	18	11	11	12	10	4	7	14.7	30.8
8-Apr	12	10	16	16	19	14	9	11	10	19	22	26	25	30	32	28	29	32	28	30	25	24	24	23	21.3	31.8
9-Apr	24	26	24	19	17	22	21	22	18	20	23	24	27	30	32	32	33	30	27	23	21	21	23	29	24.5	33.0
10-Apr	30	30	25	26	26	28	30	32	32	28	33	33	31	30	28	23	23	21	17	14	10	7	8	5	23.8	32.6
11-Apr	6	9	4	5	8	7	9	10	11	9	8	9	7	8	10	11	13	16	15	15	17	15	16	17	10.6	17.1
12-Apr	18	17	16	15	14	13	12	12	12	15	26	27	28	23	18	16	13	13	11	8	8	9	9	12	15.2	27.8
13-Apr	13	14	18	13	10	6	5	3	12	13	12	12	12	11	13	12	13	17	15	9	5	6	8	9	10.9	17.7
14-Apr	12	12	17	10	14	9	11	8	15	16	17	15	14	15	15	21	18	15	10	8	9	11	9	4	12.6	20.6
15-Apr	4	5	3	4	5	7	6	7	10	9	10	11	12	13	13	14	11	11	11	8	11	14	16	14	9.6	15.7
16-Apr	10	4	6	8	8	8	7	7	10	12	9	10	15	18	10	9	9	5	6	9	16	13	5	6	9.0	18.4
17-Apr	5	6	7	10	5	4	3	4	5	7	6	6	8	9	11	10	15	13	16	16	13	13	13	8	8.9	16.1
18-Apr	12	14	13	14	15	13	5	6	6	7	7	10	9	11	11	11	8	7	8	6	7	8	10	9	9.5	15.1
19-Apr	4	5	4	5	6	5	5	10	9	5	8	11	13	17	19	19	18	18	20	11	10	9	8	10	10.4	20.4
20-Apr	11	8	10	8	7	9	6	6	7	10	14	15	14	15	14	15	14	13	14	9	8	11	14	14	11.1	15.1
21-Apr	18	18	10	5	5	3	6	9	7	5	8	10	8	9	7	11	13	20	31	35	31	30	21	20	14.1	34.7
22-Apr	21	14	10	9	14	17	18	19	27	26	27	26	25	21	26	26	27	27	24	26	25	19	21	23	21.5	27.5
23-Apr	25	28	26	22	24	21	17	17	20	23	26	25	22	21	18	20	18	13	8	7	8	9	7	5	17.9	27.9
24-Apr	4	5	5	7	9	9	10	12	12	12	7	10	11	12	11	18	13	16	16	8	7	7	5	5	9.6	18.1
25-Apr	5	5	4	4	5	6	7	6	6	4	6	6	9	7	8	9	9	10	8	9	6	3	4	5	6.3	10.1
26-Apr	7	7	8	7	6	5	6	8	7	11	15	19	17	17	19	22	22	21	19	17	15	14	10	11	12.9	22.3
27-Apr	13	13	14	14	15	16	18	18	19	18	17	20	19	17	18	18	22	20	13	12	13	13	10	11	15.9	21.9
28-Apr	17	16	15	14	16	15	14	16	17	15	15	17	17	15	15	13	14	13	9	6	9	10	8	8	13.5	17.5
29-Apr	11	7	7	7	8	6	7	7	5	10	11	13	10	11	14	12	13	13	12	14	12	13	16	12	10.5	16.2
30-Apr	6	11	7	6	7	13	15	15	14	13	11	10	9	9	10	14	10	8	10	8	6	6	7	8	9.6	14.7
	12.0	12.0	11.2	10.2	10.9	10.5	9.7	10.6	11.7	12.9	14.3	15.6	15.9	16.1	16.2	16.3	16.3	15.9	14.3	13.0	12.5	12.1	11.7	11.4	Diurnal Average	
	30.3	30.2	25.8	25.8	26.3	28.1	29.6	31.6	31.9	27.6	32.6	32.6	31.3	30.5	32.0	31.8	33.0	31.7	30.8	34.7	30.8	29.5	24.3	28.9	Diurnal Maximum	

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

Hourly Standard Deviations

Wind Direction (WD) - deg

Smoky Heights - April 2010

Maximum Value: 93.0 deg on Apr 2 13:00

Minimum Value: 1.7 deg on Apr 4 00:00

Percentiles: P_1 = 2.2 P_{10} = 4.6 Q_1 = 6.9 Median = 11.6 Q_3 = 22.6 P_{90} = 43.1 P_{99} = 78.6

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Apr	5	10	7	2	7	6	8	5	4	4	3	3	3	3	3	3	3	7	8	8	9	12	18	33	33.3
2-Apr	15	11	9	14	33	23	11	23	40	30	25	41	93	58	36	55	16	4	10	5	6	19	50	27	93.0
3-Apr	70	19	23	13	12	14	22	11	23	11	16	31	4	4	5	4	4	3	10	8	12	7	3	2	69.9
4-Apr	3	4	2	3	6	7	5	10	12	3	6	5	9	9	9	8	9	7	12	11	15	11	5	42	42.4
5-Apr	48	45	37	32	41	80	32	54	28	40	21	47	69	48	60	81	72	57	54	14	2	5	16	9	80.8
6-Apr	9	9	21	13	8	8	20	66	37	10	10	9	6	7	11	10	6	4	4	3	2	3	6	10	66.5
7-Apr	8	18	9	14	10	28	34	9	5	7	11	7	15	6	6	7	4	7	8	8	14	22	54	14	53.9
8-Apr	11	5	4	7	8	7	21	29	20	18	11	10	14	7	6	7	5	5	6	7	4	3	4	6	28.6
9-Apr	4	3	3	9	8	6	2	3	5	16	11	13	15	9	11	9	10	9	6	6	4	5	7	5	16.3
10-Apr	6	5	8	6	5	6	5	7	7	9	8	11	12	11	11	15	12	12	13	15	8	9	14	24	24.1
11-Apr	42	10	39	22	10	10	8	8	10	26	31	22	48	48	34	34	20	12	10	6	5	5	5	4	47.7
12-Apr	5	7	5	3	4	4	5	6	9	33	13	9	10	8	13	13	18	14	4	8	24	10	12	11	32.9
13-Apr	9	12	6	10	6	9	12	72	7	10	21	19	36	33	22	25	14	11	6	30	57	9	26	6	72.3
14-Apr	26	9	3	67	11	14	41	45	10	13	14	16	24	20	19	18	20	14	14	4	8	3	4	62	67.3
15-Apr	43	12	63	8	10	11	10	8	14	21	14	20	19	31	23	26	27	16	15	5	9	9	5	4	63.0
16-Apr	11	57	12	16	10	12	16	21	12	12	47	19	72	19	49	60	72	60	45	59	9	34	36	6	72.2
17-Apr	53	14	14	4	70	39	37	31	21	25	33	34	43	41	33	34	21	15	13	5	13	14	14	9	70.1
18-Apr	28	22	14	4	6	3	32	41	19	59	49	73	57	44	52	56	64	58	31	19	8	21	8	15	73.4
19-Apr	33	13	92	28	17	14	11	7	14	26	20	25	29	22	19	18	23	11	7	7	6	15	20	20	92.4
20-Apr	13	27	34	8	6	5	7	9	43	27	15	18	20	21	24	17	29	21	14	11	6	12	10	5	42.7
21-Apr	7	4	25	46	31	51	23	13	20	71	43	31	56	53	62	33	24	10	12	9	11	9	6	11	71.3
22-Apr	8	8	17	13	6	3	5	5	5	7	10	15	11	15	17	13	9	7	6	6	3	5	8	3	17.5
23-Apr	2	3	2	4	2	2	5	5	9	15	12	13	17	15	29	27	16	30	26	11	9	9	11	38	38.0
24-Apr	47	49	27	6	4	7	9	7	8	14	33	35	29	27	27	15	17	13	14	13	14	7	9	5	49.2
25-Apr	10	8	13	5	5	7	7	13	14	83	63	87	52	72	58	48	33	25	26	29	48	40	72	20	86.7
26-Apr	8	10	7	8	10	14	9	7	17	13	22	18	19	22	15	14	14	8	12	8	7	8	9	7	22.1
27-Apr	6	5	5	4	4	4	4	5	12	13	13	13	12	12	10	14	23	23	17	15	9	6	7	7	23.4
28-Apr	6	5	5	5	5	5	5	6	7	7	8	8	7	10	9	14	9	8	11	10	6	7	11	9	13.8
29-Apr	15	20	19	7	7	20	15	64	82	71	24	24	31	24	25	31	23	18	19	6	3	5	2	44	82.3
30-Apr	45	25	47	13	16	9	7	6	9	16	26	22	29	29	23	18	26	33	11	11	11	6	16	8	46.5
	69.9	57.1	92.4	67.3	70.1	79.5	41.1	72.3	82.3	82.7	62.9	86.7	93.0	72.3	61.7	80.8	72.1	59.9	54.3	58.6	57.0	40.0	72.4	62.1	

PASZA
Beaverlodge Station
Monthly Summary Tables, Graphs and Roses

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 3.1 ppb on Apr 20 04:00
Maximum Daily Average: 0.8 ppb on Apr 20

Minimum Value: 0 ppb on Apr 8 22:00
Maximum Diurnal Average: 0.4 ppb at hour 9
Monthly Average: 0.28 ppb

Minimum Daily Average: 0.1 ppb on Apr 7
Minimum Diurnal Average: 0.2 ppb at hour 17
Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.4$ $P_{90} = 0.6$ $P_{99} = 1.2$

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

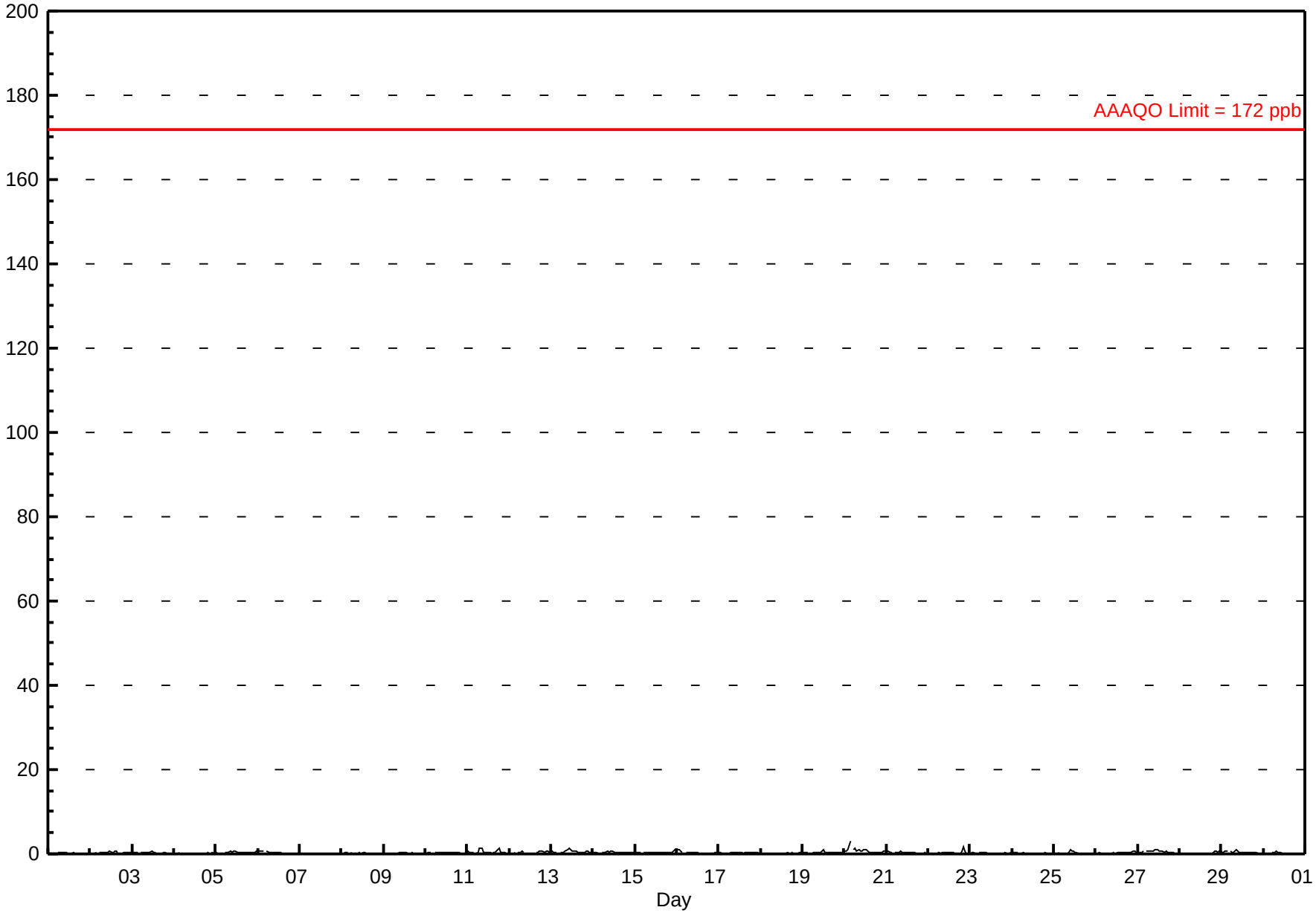
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	N	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
2-Apr	0	0	0	0	A	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0.3	0.6
3-Apr	0	0	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
4-Apr	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
5-Apr	0	0	0	0	A	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.6
6-Apr	1	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
7-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
8-Apr	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
9-Apr	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
10-Apr	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
11-Apr	1	0	0	0	A	0	0	2	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.4	1.5
12-Apr	0	0	0	0	A	0	0	1	0	C	C	C	C	C	C	0	0	1	1	1	0	1	1	0	--	0.7
13-Apr	1	0	0	0	A	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	1	1	0	0	0.5	1.3
14-Apr	0	0	0	0	A	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
15-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.4	1.0
16-Apr	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
17-Apr	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-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
19-Apr	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
20-Apr	1	1	1	3	A	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	0.8	3.1
21-Apr	1	1	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
22-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0.3	1.6
23-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
24-Apr	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
25-Apr	0	0	0	0	A	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
26-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.3	0.8
27-Apr	0	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.5	0.9
28-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0.2	0.9
29-Apr	0	0	1	1	A	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
30-Apr	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
	0.3	0.3	0.3	0.3	--	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	Diurnal Average	
	1.0	0.9	1.2	3.1	--	0.9	1.5	1.5	1.2	1.0	1.3	1.1	1.2	0.8	0.6	0.6	0.7	1.0	1.2	0.8	1.6	0.8	0.8	1.0	Diurnal Maximum	

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

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - April 2010



PASZA
Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - April 2010

Maximum Value: 6.3 ppb on Apr 20 04:00

Maximum Daily Average: 1.2 ppb on Apr 20

Minimum Value: 0 ppb on Apr 9 01:00

Maximum Diurnal Average: 0.7 ppb at hour 9

Monthly Average: 0.46 ppb

Minimum Daily Average: 0.2 ppb on Apr 7

Minimum Diurnal Average: 0.3 ppb at hour 16

Percentiles: $P_1 = 0.1$ $P_{10} = 0.1$ $Q_1 = 0.2$ Median = 0.3 $Q_3 = 0.5$ $P_{90} = 0.8$ $P_{99} = 2.5$

Hours in Service:	720
Hours of Data:	683
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

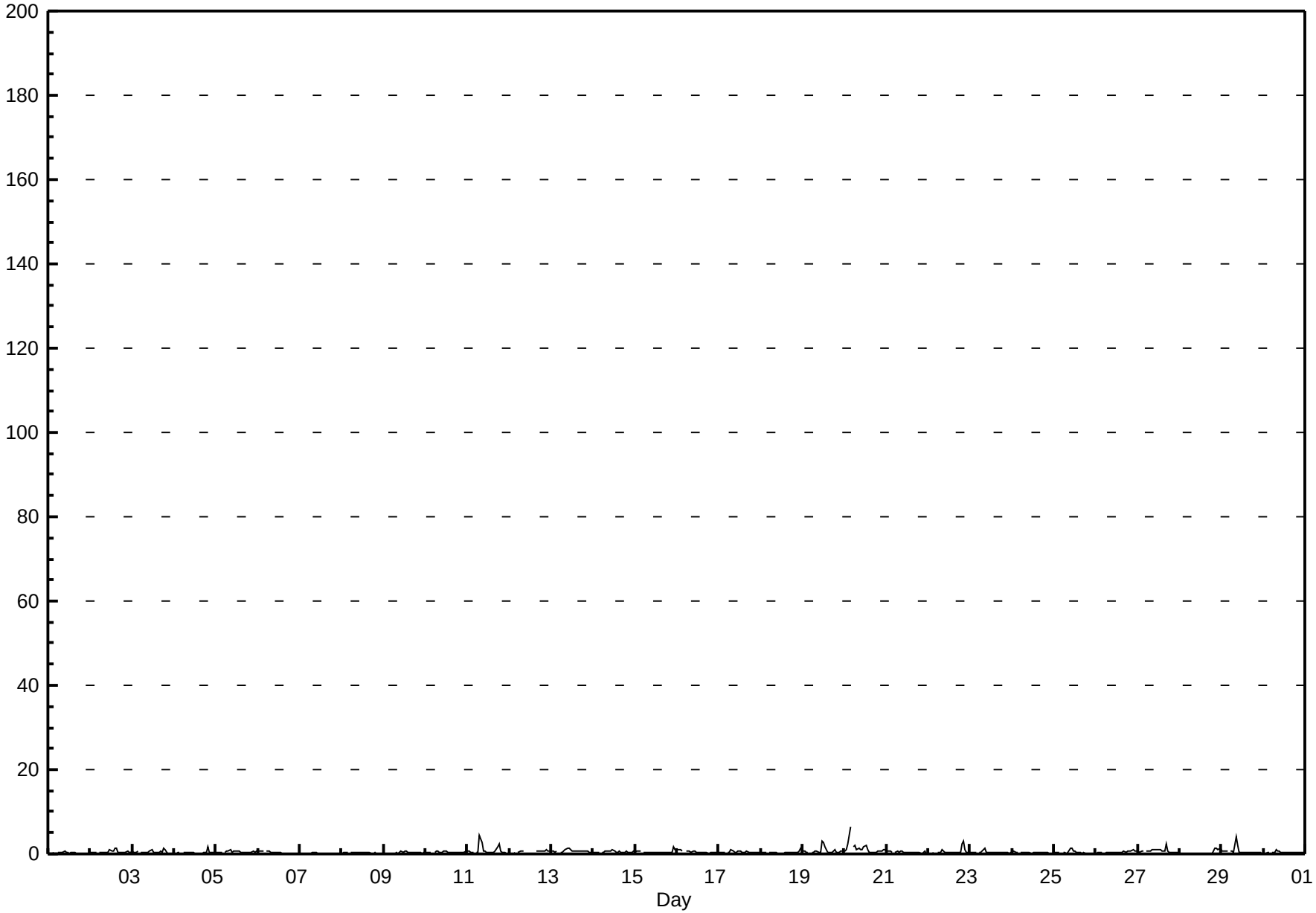
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	N	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
2-Apr	0	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	1	0	0	0.5	1.4
3-Apr	1	0	0	1	A	0	0	0	0	0	1	1	0	0	0	0	1	0	1	1	0	0	0	0	0.5	1.3
4-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0.3	1.5
5-Apr	0	0	0	0	A	0	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	1	0	1	0.5	1.0
6-Apr	1	1	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
7-Apr	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	0.2
8-Apr	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
9-Apr	0	0	0	0	A	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.6
10-Apr	0	0	0	0	A	0	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0.5	0.8
11-Apr	1	1	0	0	A	0	0	5	3	1	1	0	0	0	0	0	1	2	2	1	0	0	0	0	0.8	4.5
12-Apr	0	0	0	0	A	0	1	1	1	C	C	C	C	C	C	1	1	1	1	1	1	1	1	1	--	0.9
13-Apr	1	1	0	1	A	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.7	1.5
14-Apr	0	0	0	0	A	0	0	1	1	1	1	1	1	0	0	1	0	0	0	1	0	0	0	1	0.5	0.9
15-Apr	0	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	1	0.5	1.6
16-Apr	1	1	1	1	A	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.1
17-Apr	0	0	0	0	A	0	0	1	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0.4	1.0
18-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.3	1.4
19-Apr	1	1	0	0	A	0	0	1	1	0	0	3	3	2	0	0	0	0	1	0	0	0	1	1	0.7	3.1
20-Apr	1	1	2	6	A	2	2	1	1	1	1	2	2	1	0	0	0	0	0	1	1	1	1	1	1.2	6.3
21-Apr	1	1	1	1	A	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.4	0.8
22-Apr	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	3	1	0	0	0.6	3.2
23-Apr	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4
24-Apr	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
25-Apr	0	0	0	0	A	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4
26-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0.4	1.0
27-Apr	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	1	0	0	0	0	0	0	0.7	2.4
28-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0.4	1.4
29-Apr	1	1	1	1	A	1	1	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	4.2
30-Apr	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1
	0.4	0.4	0.4	0.6	--	0.4	0.4	0.6	0.7	0.6	0.5	0.6	0.6	0.4	0.4	0.3	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	Diurnal Average	
	1.1	1.0	2.4	6.3	--	1.6	2.0	4.5	4.2	2.2	1.5	3.1	2.6	1.6	1.3	1.4	2.4	1.6	2.3	2.5	3.2	1.3	1.6	1.4	Diurnal Maximum	

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

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

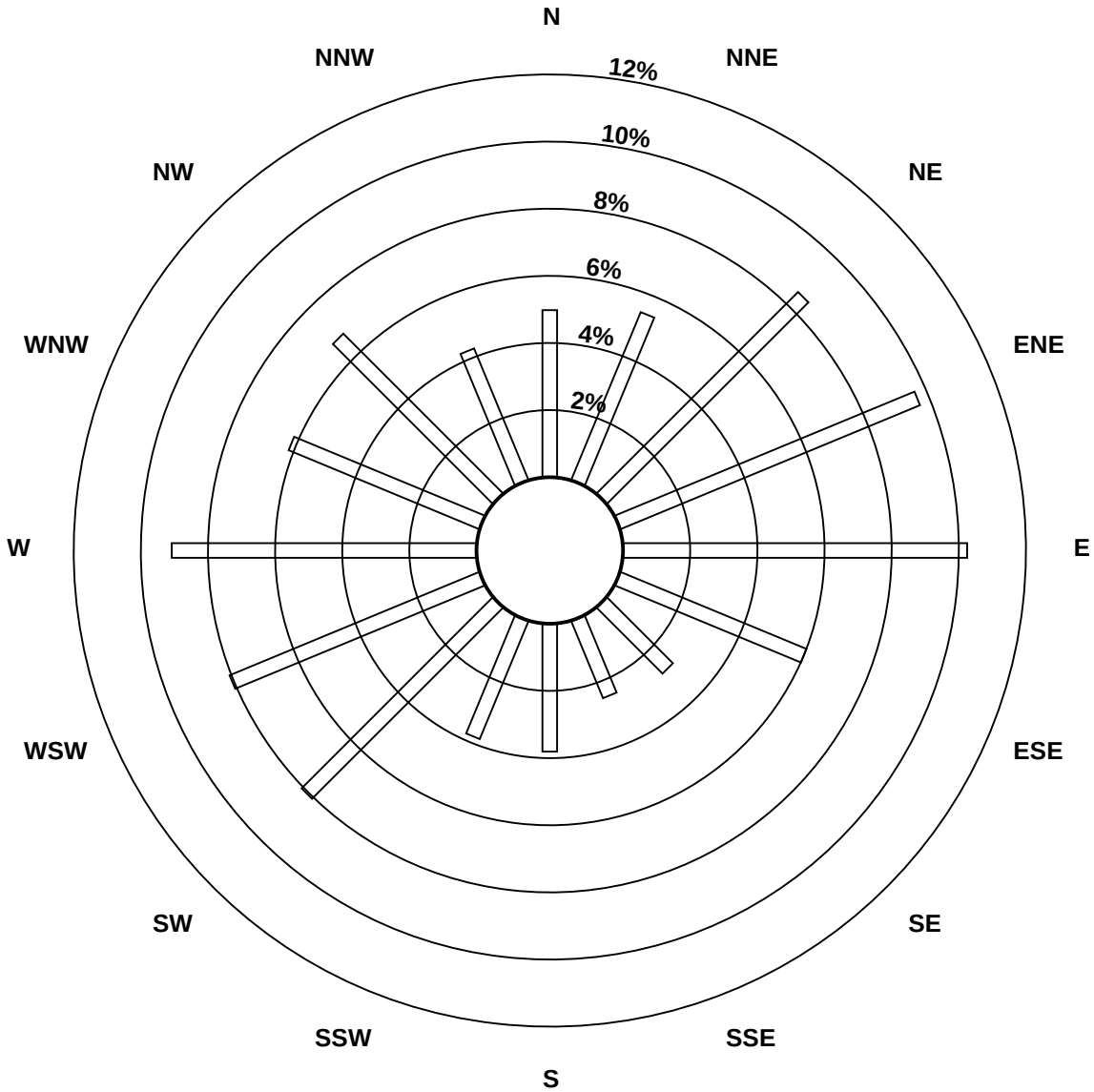
Beaverlodge - April 2010



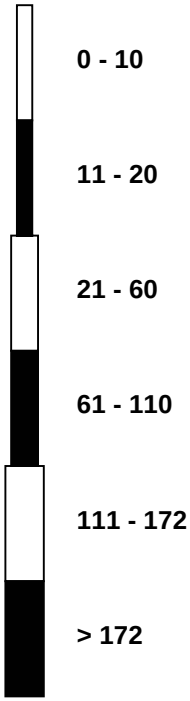
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Beaverlodge - April 2010



Pollutant Classes (ppb)



PASZA
Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 14.7 ppb on Apr 5 08:00 Maximum Daily Average: 4.3 ppb on Apr 15

Minimum Value: 0 ppb on Apr 4 14:00 Minimum Daily Average: 0.9 ppb on Apr 23
Maximum Diurnal Average: 5.0 ppb at hour 8 Minimum Diurnal Average: 0.7 ppb at hour 17
Monthly Average: 2.13 ppb Percentiles: P_1 = 0.3 P_{10} = 0.5 Q_1 = 0.8 Median = 1.4 Q_3 = 2.7 P_{90} = 4.8 P_{99} = 9.9

Hours in Service:	720
Hours of Data:	681
Hours of Missing Data:	39
Hours of Calibration:	38
Percent Operational Time:	99.9

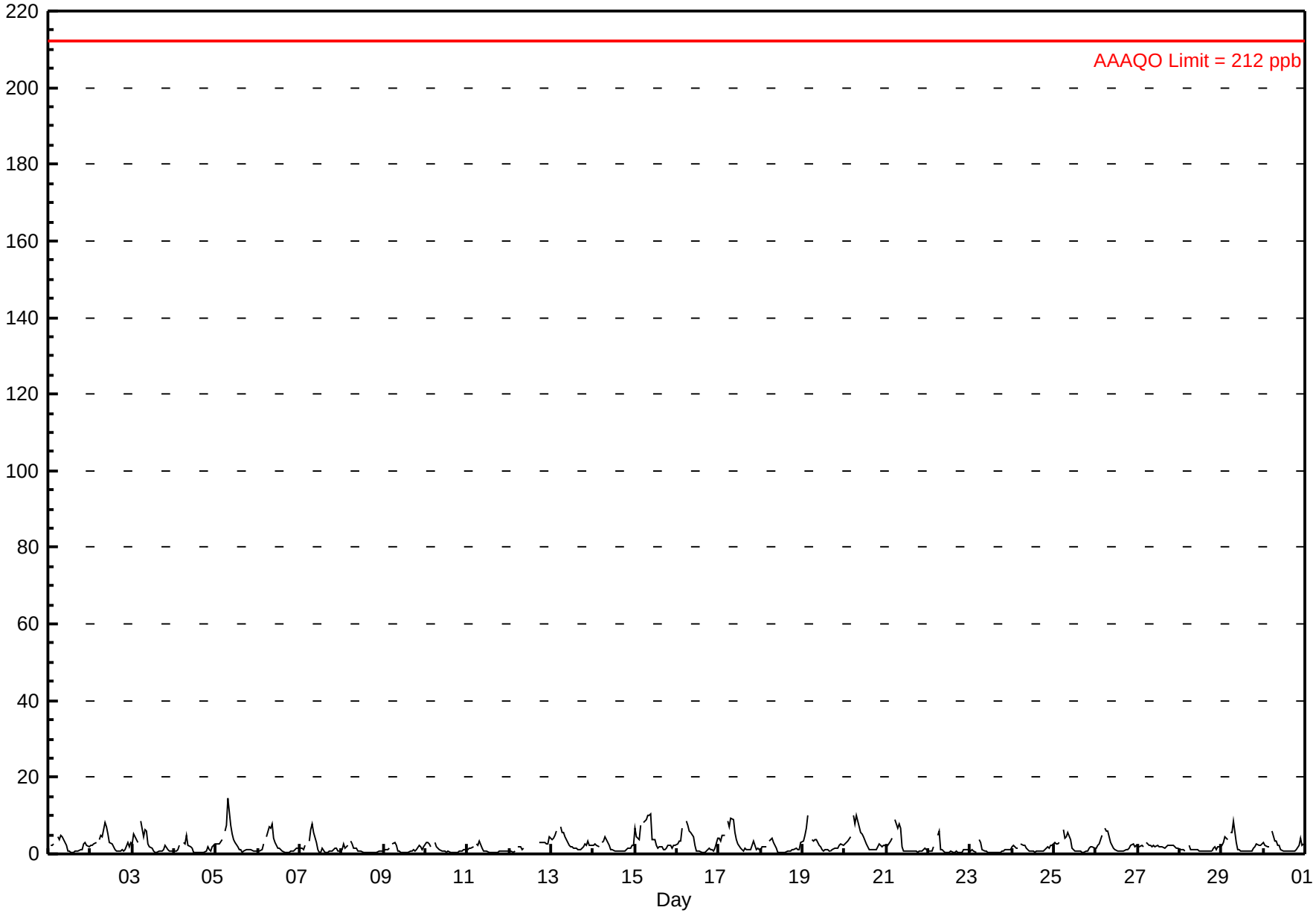
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	N	2	2	3	A	4	4	5	4	3	2	1	1	0	1	1	1	1	1	1	3	3	2	2	2.1	4.8
2-Apr	2	2	3	3	A	4	5	5	8	7	5	3	3	2	1	1	1	1	1	1	1	3	2	3	2.8	8.1
3-Apr	2	5	4	3	A	9	4	6	6	3	2	2	1	1	1	1	1	1	1	2	1	1	1	1	2.5	8.5
4-Apr	1	1	1	2	A	3	2	5	2	2	1	0	0	0	0	0	0	0	1	2	1	1	2	3	1.4	4.8
5-Apr	3	3	3	4	A	6	8	15	7	5	4	3	2	1	1	1	1	1	1	1	1	1	1	1	3.1	14.7
6-Apr	1	1	1	3	A	4	7	7	8	4	3	2	1	1	1	0	0	1	1	1	1	1	2	1	2.2	7.7
7-Apr	2	2	1	2	A	3	6	8	5	3	1	0	0	1	0	0	0	1	1	1	1	1	1	1	1.9	7.9
8-Apr	1	3	1	2	A	3	3	1	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	1	1.1	3.4
9-Apr	1	1	1	1	A	3	3	2	1	1	1	0	0	0	1	1	1	1	1	1	2	2	1	2	1.2	3.0
10-Apr	3	3	2	2	A	3	2	2	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1.2	3.1
11-Apr	1	1	1	2	A	3	2	3	2	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1	1.1	3.2
12-Apr	1	1	0	1	A	2	2	1	1	C	C	C	C	C	C	C	C	3	3	3	3	3	3	4	--	4.5
13-Apr	4	4	5	6	A	7	6	6	4	3	2	2	2	1	1	1	1	1	2	3	2	3	2	2	3.1	7.0
14-Apr	2	3	2	2	A	3	3	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1.8	4.4
15-Apr	7	5	4	7	A	8	9	10	10	10	4	4	2	2	2	2	1	1	1	2	2	2	2	2	4.3	10.3
16-Apr	3	3	3	7	A	9	8	6	6	4	2	1	1	1	1	1	1	1	1	1	1	1	1	4	2.8	8.5
17-Apr	4	3	5	5	A	8	7	9	9	6	4	2	1	1	1	1	1	1	1	2	3	1	1	1	3.5	9.1
18-Apr	1	2	2	2	A	3	4	3	2	1	0	0	1	0	1	1	1	1	1	1	1	1	1	3	1.5	4.1
19-Apr	3	5	7	10	A	4	3	4	4	2	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2.7	9.9
20-Apr	3	3	3	4	A	10	8	10	7	6	5	4	3	2	1	1	1	1	1	2	3	2	2	2	3.7	10.1
21-Apr	2	2	3	4	A	9	7	8	7	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2.4	8.9
22-Apr	1	1	1	2	A	5	6	1	1	0	0	0	0	1	0	0	1	0	0	1	1	1	1	1	1.2	5.8
23-Apr	1	1	1	1	A	4	3	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	0.9	3.6
24-Apr	2	2	2	2	A	3	2	2	2	1	1	1	1	0	1	1	1	1	1	1	2	2	2	2	1.4	2.7
25-Apr	3	3	3	3	A	6	4	4	6	4	2	1	1	1	1	1	1	1	1	1	2	2	2	1	2.2	6.3
26-Apr	2	2	3	5	A	7	6	6	3	2	1	1	1	1	1	1	1	1	1	1	2	3	2	2	2.3	6.7
27-Apr	2	2	2	2	A	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2.0	3.0
28-Apr	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	2	2	1.1	2.3
29-Apr	2	3	4	4	A	6	6	9	3	1	1	1	1	1	1	1	1	1	1	2	3	2	2	3	2.5	8.8
30-Apr	3	2	2	2	A	6	3	3	2	2	1	1	1	1	1	1	1	1	1	1	2	4	2	3	2.0	5.9
	2.1	2.4	2.5	3.2	--	5.0	4.6	5.0	4.0	2.8	1.8	1.3	1.0	0.9	0.8	0.8	0.7	0.9	1.1	1.4	1.7	1.7	1.6	1.9	Diurnal Average	
	6.6	5.3	6.9	9.9	--	10.1	9.0	14.7	10.0	10.3	5.2	4.3	2.8	1.9	1.8	1.8	1.7	3.0	3.0	2.8	3.3	4.1	2.6	4.5	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

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - April 2010



Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - April 2010

Maximum Value: 35.5 ppb on Apr 22 09:00

Maximum Daily Average: 8.3 ppb on Apr 15

Minimum Value: 0 ppb on Apr 4 14:00

Minimum Daily Average: 1.7 ppb on Apr 11

Maximum Diurnal Average: 8.7 ppb at hour 7

Minimum Diurnal Average: 1.2 ppb at hour 16

Monthly Average: 3.67 ppb

Percentiles: $P_1 = 0.5$ $P_{10} = 0.9$ $Q_1 = 1.4$ Median = 2.4 $Q_3 = 4.1$ $P_{90} = 7.6$ $P_{99} = 20.0$

Hours in Service:	720
Hours of Data:	681
Hours of Missing Data:	39
Hours of Calibration:	38
Percent Operational Time:	99.9

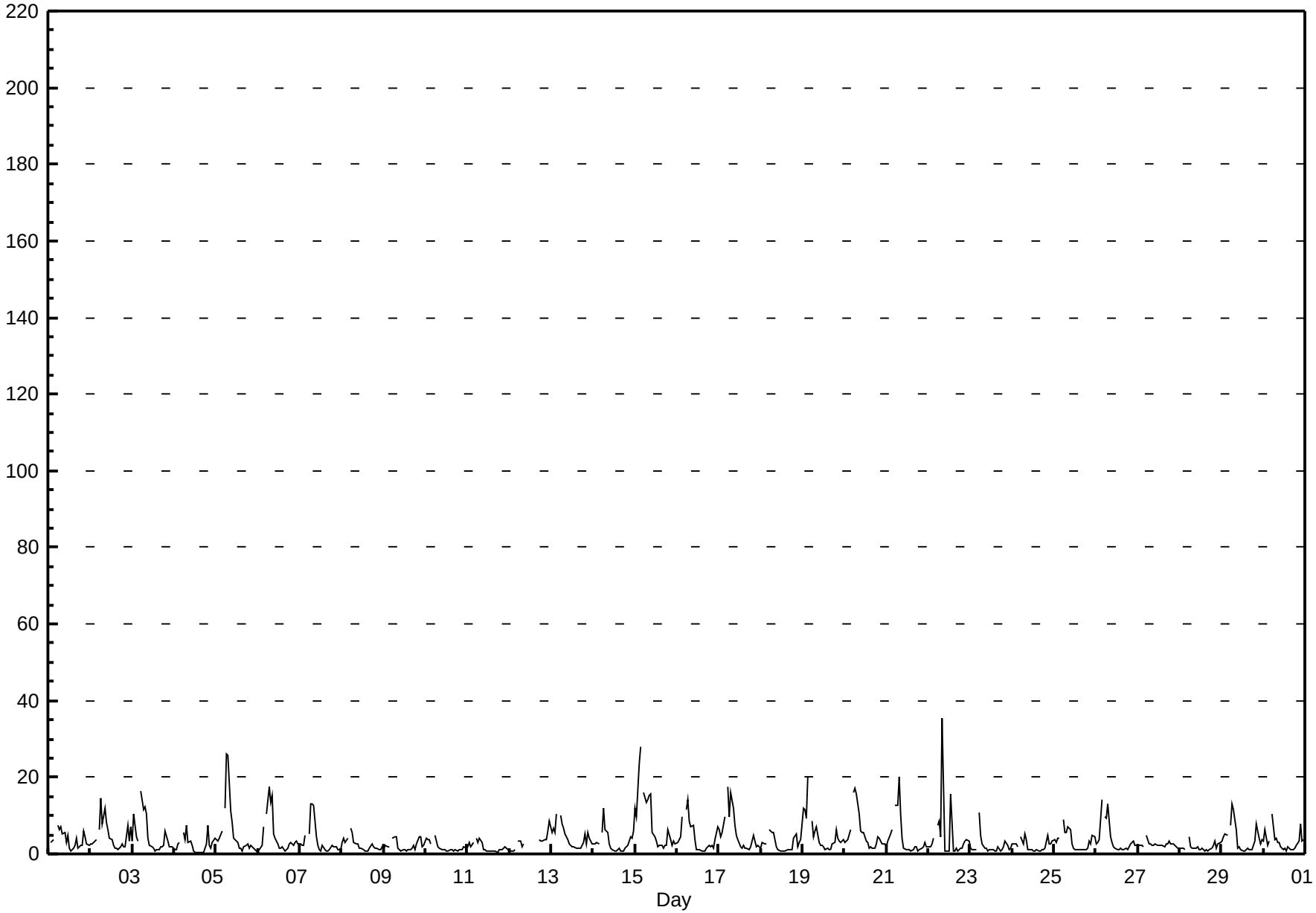
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	N	3	3	4	A	7	6	7	5	6	3	5	1	1	2	2	4	2	2	2	6	4	3	2	3.7	7.4
2-Apr	3	3	3	4	A	6	14	8	12	8	6	4	4	2	2	2	1	2	3	2	2	8	4	7	4.7	14.4
3-Apr	3	10	4	3	A	16	12	12	10	4	2	2	2	1	1	1	2	2	2	6	3	2	2	2	4.6	16.3
4-Apr	1	1	3	3	A	6	4	8	3	3	2	1	1	0	0	1	0	1	3	7	2	1	3	4	2.5	7.6
5-Apr	4	3	4	6	A	12	26	26	11	8	4	4	3	2	2	1	2	2	3	2	2	2	1	1	5.6	26.2
6-Apr	1	1	2	7	A	10	18	13	15	5	4	3	2	2	2	1	1	1	3	3	2	3	3	3	4.6	17.6
7-Apr	3	2	2	5	A	5	13	13	13	4	2	1	1	2	1	1	1	1	2	2	2	2	1	1	3.5	13.0
8-Apr	3	4	3	4	A	7	6	3	3	2	1	1	1	1	1	1	2	2	2	2	1	1	1	2	2.3	6.6
9-Apr	1	2	2	2	A	4	4	4	2	1	1	1	1	1	1	1	1	2	1	2	4	4	2	2	2.1	4.3
10-Apr	4	4	4	3	A	5	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.8	4.9
11-Apr	2	3	2	3	A	4	3	4	3	1	1	1	1	1	1	1	1	0	1	1	1	2	1	1	1.7	4.3
12-Apr	1	1	1	1	A	3	3	2	3	C	C	C	C	C	C	C	C	4	3	3	4	4	6	9	--	8.5
13-Apr	5	7	5	10	A	10	8	7	5	4	3	2	2	2	1	1	1	1	3	5	3	5	4	3	4.3	10.5
14-Apr	3	3	3	2	A	6	12	6	5	2	2	1	1	1	1	2	1	1	1	2	2	4	4	6	3.1	11.8
15-Apr	12	10	24	28	A	16	13	14	15	16	6	4	3	2	2	2	2	2	2	6	4	2	3	3	8.3	28.0
16-Apr	3	4	4	10	A	12	14	9	7	7	4	1	1	1	1	1	1	1	2	2	2	1	4	7	4.3	14.2
17-Apr	6	4	6	10	A	18	10	16	12	8	5	4	2	2	2	2	2	1	2	3	5	2	2	2	5.4	17.6
18-Apr	1	3	3	3	A	6	6	6	4	2	1	1	1	1	1	1	1	1	1	4	5	2	3	4	2.6	6.2
19-Apr	12	11	9	20	A	9	5	6	7	3	2	2	2	1	1	1	1	2	3	6	4	3	3	4	5.2	20.1
20-Apr	3	3	4	6	A	16	17	16	10	6	5	5	3	3	1	2	1	1	2	5	4	3	3	3	5.4	17.0
21-Apr	2	3	5	6	A	13	13	20	10	4	1	1	1	1	1	1	2	2	1	1	1	2	3	2	4.2	20.0
22-Apr	2	2	3	4	A	8	9	4	35	1	1	1	1	16	1	1	1	1	1	2	3	3	4	4	4.6	35.5
23-Apr	1	1	1	1	A	11	5	3	1	2	1	1	1	1	1	1	2	1	1	2	3	2	1	1	1.9	11.0
24-Apr	2	3	3	2	A	4	3	5	4	1	1	1	1	1	1	1	1	1	1	1	5	3	3	3	2.2	5.3
25-Apr	4	3	4	4	A	9	6	6	7	6	3	1	1	1	1	1	1	1	1	2	3	3	5	4	3.4	8.8
26-Apr	3	3	4	14	A	10	9	13	4	3	2	1	1	1	1	1	1	1	1	2	3	3	2	2	3.8	14.0
27-Apr	2	2	2	2	A	5	3	3	2	2	2	2	2	2	2	2	3	3	3	3	2	2	2	2	2.4	5.0
28-Apr	1	1	1	1	A	4	2	2	1	2	2	1	1	2	1	1	1	1	1	2	3	1	3	3	1.8	4.4
29-Apr	3	4	5	5	A	7	13	12	6	2	2	1	1	1	1	1	1	1	2	3	8	4	3	4	3.9	13.0
30-Apr	3	6	2	3	A	10	4	4	3	3	2	1	1	1	2	1	1	1	1	2	3	8	3	4	3.1	10.5
	3.3	3.7	4.0	5.9	--	8.7	8.7	8.4	7.4	4.1	2.5	2.0	1.4	1.8	1.2	1.2	1.3	1.5	1.9	2.9	3.2	2.9	2.8	3.2	Diurnal Average	
	12.0	11.4	23.6	28.0	--	17.6	26.2	25.9	35.5	15.8	6.3	5.5	3.6	15.7	2.3	2.3	3.9	3.6	3.5	7.5	7.7	7.8	5.8	8.5	Diurnal Maximum	

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

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

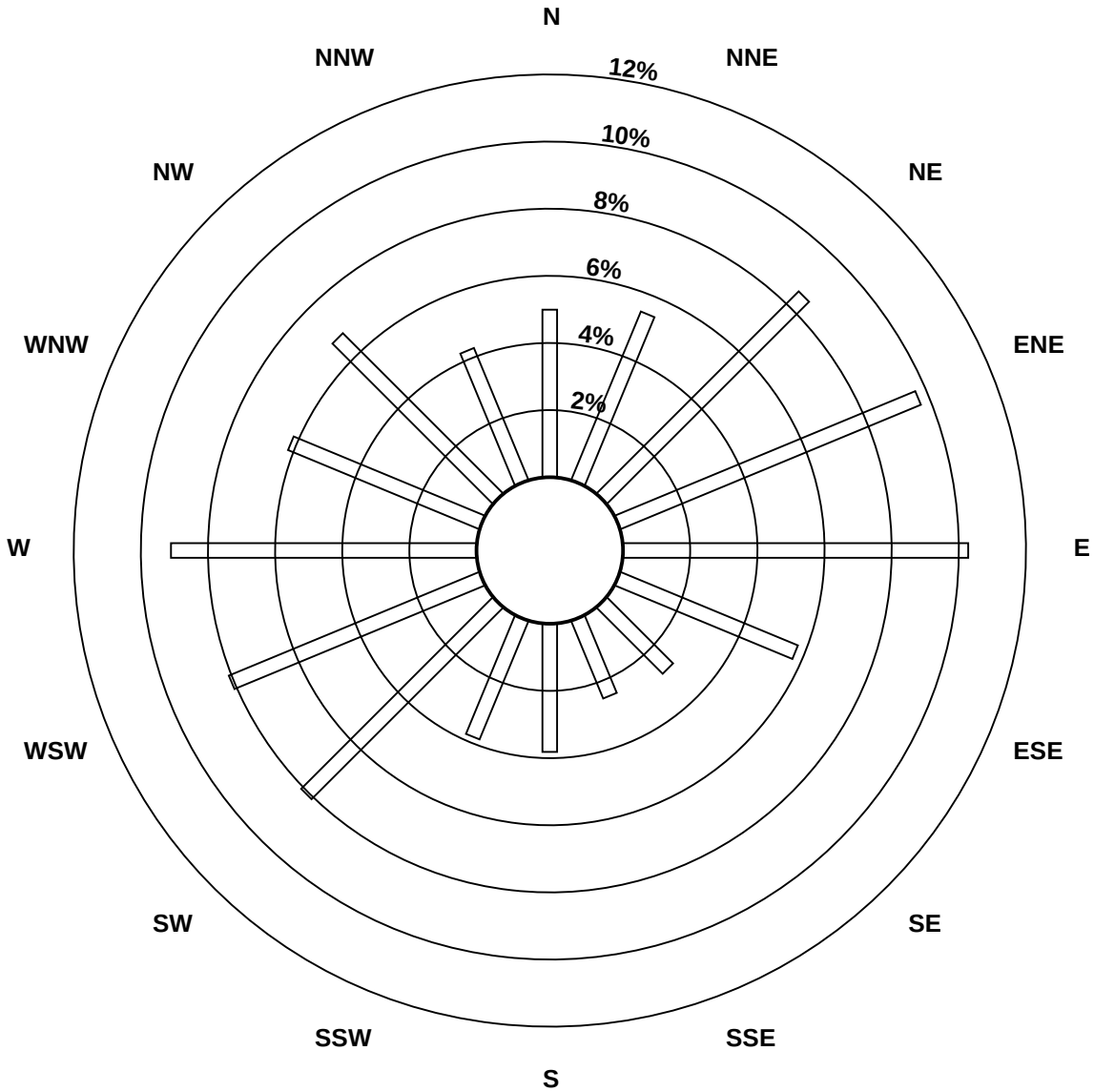
Beaverlodge - April 2010



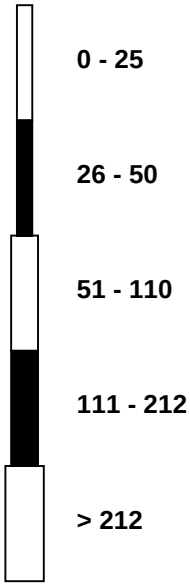
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Beaverlodge - April 2010



Pollutant Classes (ppb)



Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 9.4 ppb on Apr 5 08:00

Maximum Daily Average: 1.3 ppb on Apr 5

Minimum Value: 0 ppb on Apr 1 02:00

Minimum Daily Average: 0.0 ppb on Apr 8

Maximum Diurnal Average: 2.1 ppb at hour 9

Minimum Diurnal Average: 0.0 ppb at hour 1

Monthly Average: 0.33 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.0 $Q_3 = 0.2$ $P_{90} = 0.9$ $P_{99} = 5.2$

Hours in Service:	720
Hours of Data:	681
Hours of Missing Data:	39
Hours of Calibration:	38
Percent Operational Time:	99.9

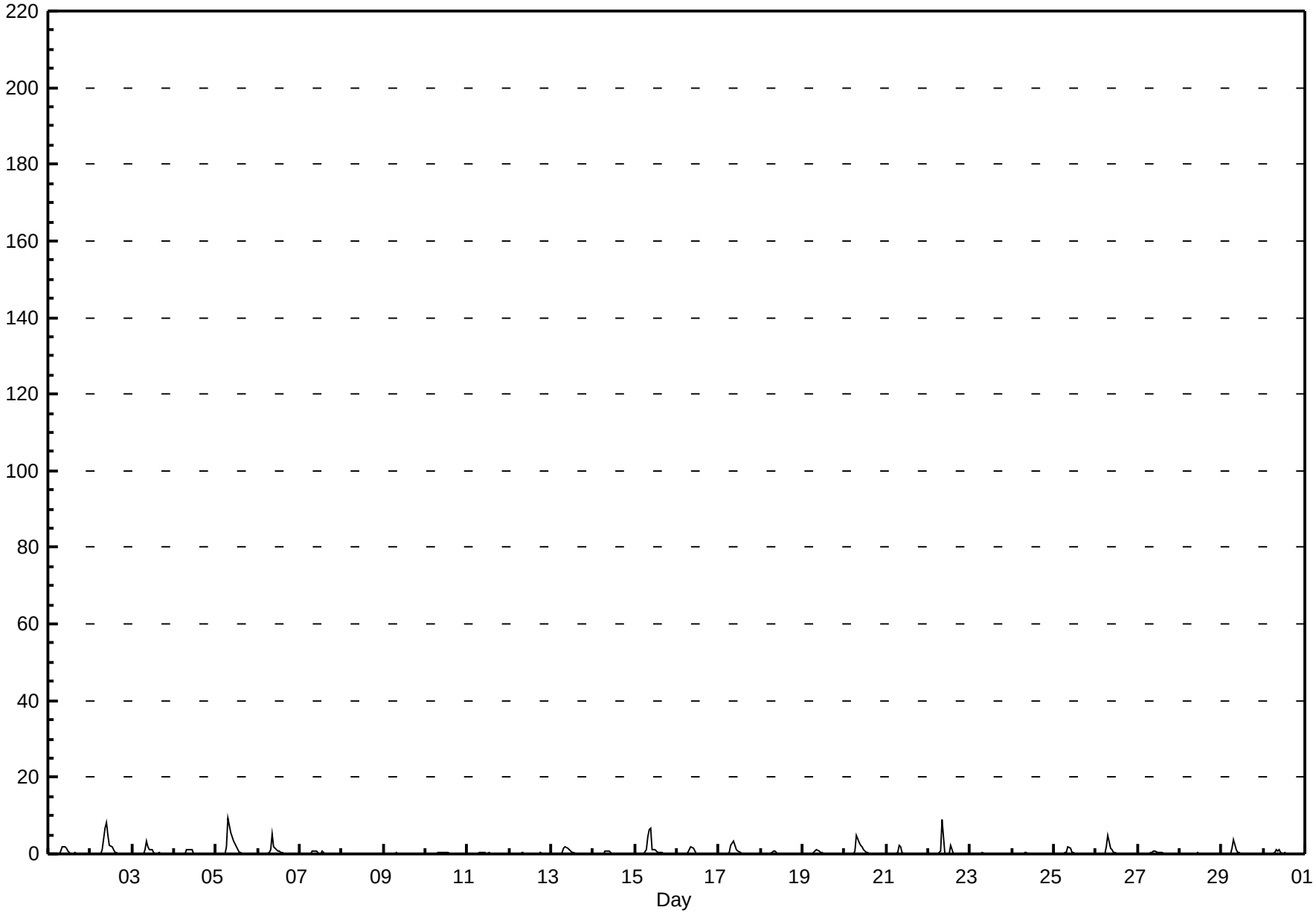
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	N	0	0	0	A	0	0	1	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.0
2-Apr	0	0	0	0	A	0	0	1	7	8	5	2	2	1	0	0	0	0	0	0	0	0	0	0	1.2	8.2
3-Apr	0	0	0	0	A	0	0	1	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.2
4-Apr	0	0	0	0	A	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
5-Apr	0	0	0	0	A	0	2	9	5	5	4	3	1	0	0	0	0	0	0	0	0	0	0	0	1.3	9.4
6-Apr	0	0	0	0	A	0	0	1	5	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0.5	5.2
7-Apr	0	0	0	0	A	0	0	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.9
8-Apr	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
9-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
10-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
11-Apr	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
12-Apr	0	0	0	0	A	0	0	0	0	C	C	C	C	C	C	C	C	0	0	0	0	0	0	0	--	0.4
13-Apr	0	0	0	0	A	0	0	2	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	2.0
14-Apr	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
15-Apr	0	0	0	0	A	0	1	5	6	7	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1.0	6.8
16-Apr	0	0	0	0	A	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.7
17-Apr	0	0	0	0	A	0	0	2	4	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.5
18-Apr	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
19-Apr	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
20-Apr	0	0	0	0	A	0	1	5	3	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0.7	4.9
21-Apr	0	0	0	0	A	0	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.1
22-Apr	0	0	0	0	A	0	0	1	9	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0.6	9.1
23-Apr	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
24-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
25-Apr	0	0	0	0	A	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.0
26-Apr	0	0	0	0	A	0	2	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	4.7
27-Apr	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	0.7
28-Apr	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
29-Apr	0	0	0	0	A	0	1	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	3.7
30-Apr	0	0	0	0	A	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
	0.0	0.0	0.0	0.0	--	0.0	0.4	1.6	2.1	1.5	0.8	0.5	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
	0.0	0.0	0.0	0.1	--	0.1	1.9	9.4	9.1	8.2	5.0	2.6	1.7	2.3	0.4	0.3	0.1	0.4	0.2	0.1	0.0	0.0	0.0	0.0	Diurnal Maximum	

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

Hourly Averages

Nitrogen Oxide (NO) - ppb

Beaverlodge - April 2010



PASZA
Peace Airshed Zone Association

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - April 2010

Maximum Value: 151.7 ppb on Apr 22 09:00

Maximum Daily Average: 8.9 ppb on Apr 22

Minimum Value: 0 ppb on Apr 1 02:00

Minimum Daily Average: 0.2 ppb on Apr 24

Maximum Diurnal Average: 8.6 ppb at hour 9

Minimum Diurnal Average: 0.0 ppb at hour 1

Monthly Average: 1.18 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.2 $Q_3 = 0.5$ $P_{90} = 1.9$ $P_{99} = 14.5$

Hours in Service:	720
Hours of Data:	681
Hours of Missing Data:	39
Hours of Calibration:	38
Percent Operational Time:	99.9

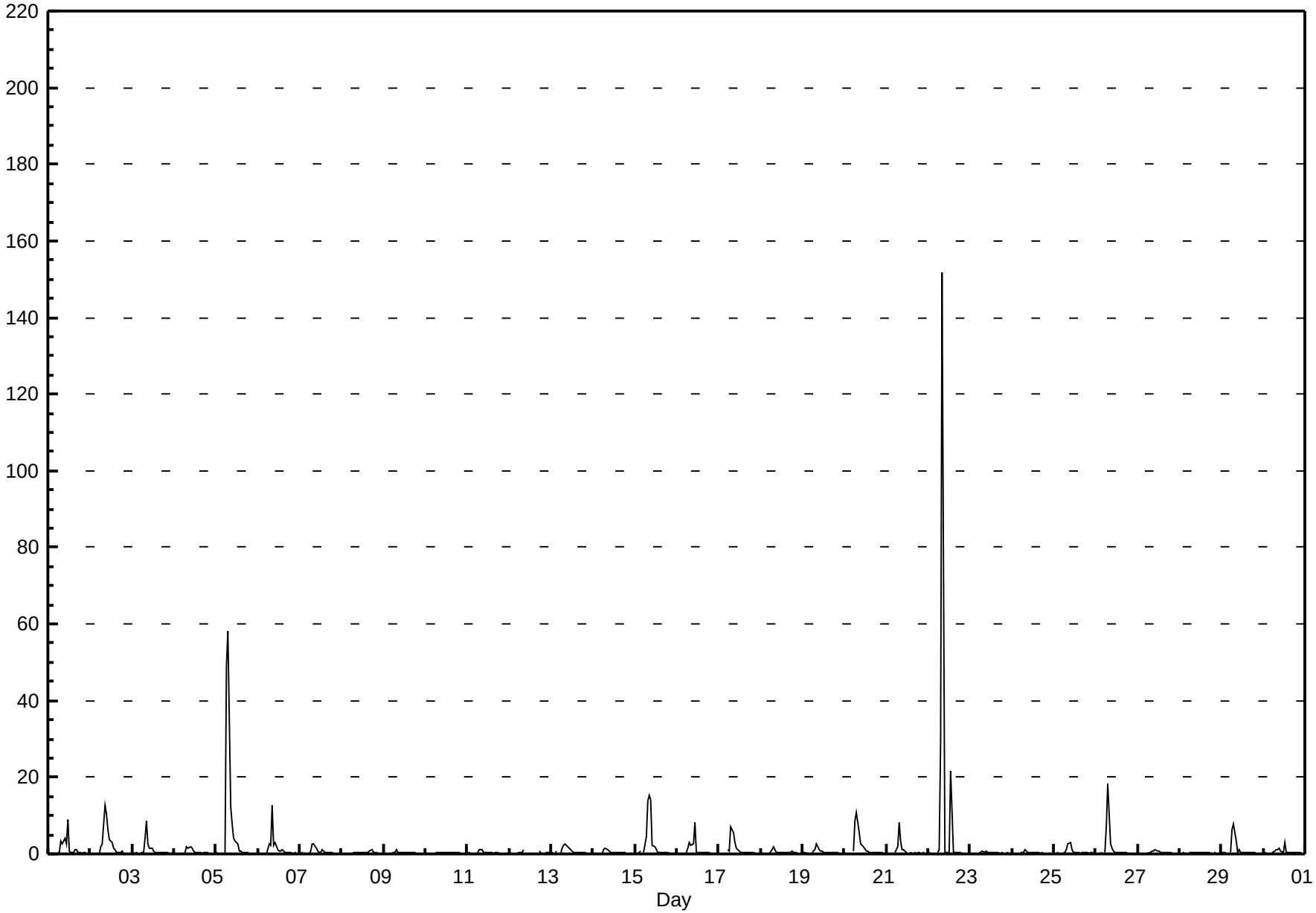
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	N	0	0	0	A	0	0	3	3	4	2	9	1	0	0	1	1	0	0	0	0	0	0	0	1.2	8.8
2-Apr	0	0	0	0	A	0	2	2	12	11	6	4	3	1	1	0	0	0	1	0	0	0	0	0	2.0	12.5
3-Apr	0	0	0	0	A	0	0	4	9	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1.0	8.5
4-Apr	0	0	0	0	A	0	0	2	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.0
5-Apr	0	0	0	0	A	0	49	58	12	8	4	3	2	1	1	0	0	0	0	0	0	0	0	0	6.1	58.1
6-Apr	0	0	0	0	A	0	2	2	12	2	3	1	1	1	1	0	0	0	0	0	0	0	0	0	1.2	12.5
7-Apr	0	0	0	0	A	0	1	2	2	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0.5	2.5
8-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0.2	1.1
9-Apr	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
10-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
11-Apr	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
12-Apr	0	0	0	0	A	0	0	0	1	C	C	C	C	C	C	C	C	1	0	0	0	0	0	0	--	1.0
13-Apr	0	0	0	1	A	0	1	2	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.6	2.5
14-Apr	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4
15-Apr	0	0	0	1	A	0	4	14	15	14	2	2	1	0	0	0	0	0	0	0	0	0	0	0	2.5	15.4
16-Apr	0	0	0	0	A	0	1	3	2	3	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	8.1
17-Apr	0	0	0	0	A	1	1	7	6	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1.0	7.0
18-Apr	0	0	0	0	A	0	1	2	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.4	2.0
19-Apr	0	0	0	0	A	0	1	1	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.6
20-Apr	0	0	0	0	A	1	8	11	6	3	2	2	1	1	0	0	0	0	0	0	0	0	0	0	1.6	10.8
21-Apr	0	0	0	0	A	0	2	8	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	8.0
22-Apr	0	0	0	0	A	0	1	29	152	0	0	0	0	21	0	0	0	0	0	0	0	0	0	0	8.9	151.7
23-Apr	0	0	0	0	A	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
24-Apr	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2
25-Apr	0	0	0	0	A	0	0	1	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.0
26-Apr	0	0	0	0	A	0	7	18	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1.4	18.3
27-Apr	0	0	0	0	A	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
28-Apr	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
29-Apr	0	0	0	0	A	0	6	8	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0	8.0
30-Apr	0	0	0	0	A	0	1	1	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0.5	3.0
	0.0	0.1	0.1	0.1	--	0.2	3.1	6.3	8.6	2.4	1.5	1.1	0.7	1.1	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.0	0.1	Diurnal Average	
	0.2	0.4	0.4	0.7	--	1.2	49.2	58.1	151.7	14.3	8.1	8.8	3.0	21.5	1.2	0.9	1.0	1.1	0.7	0.4	0.5	0.2	0.4	0.4	Diurnal Maximum	

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

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Beaverlodge - April 2010



Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 24.2 ppb on Apr 5 08:00

Maximum Daily Average: 5.4 ppb on Apr 15

Minimum Value: 0 ppb on Apr 4 17:00

Minimum Daily Average: 1.1 ppb on Apr 23

Maximum Diurnal Average: 6.7 ppb at hour 8

Minimum Diurnal Average: 0.9 ppb at hour 17

Monthly Average: 2.57 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.7$ $Q_1 = 0.9$ Median = 1.6 $Q_3 = 3.1$ $P_{90} = 5.9$ $P_{99} = 14.5$

Hours in Service:	720
Hours of Data:	681
Hours of Missing Data:	39
Hours of Calibration:	38
Percent Operational Time:	99.9

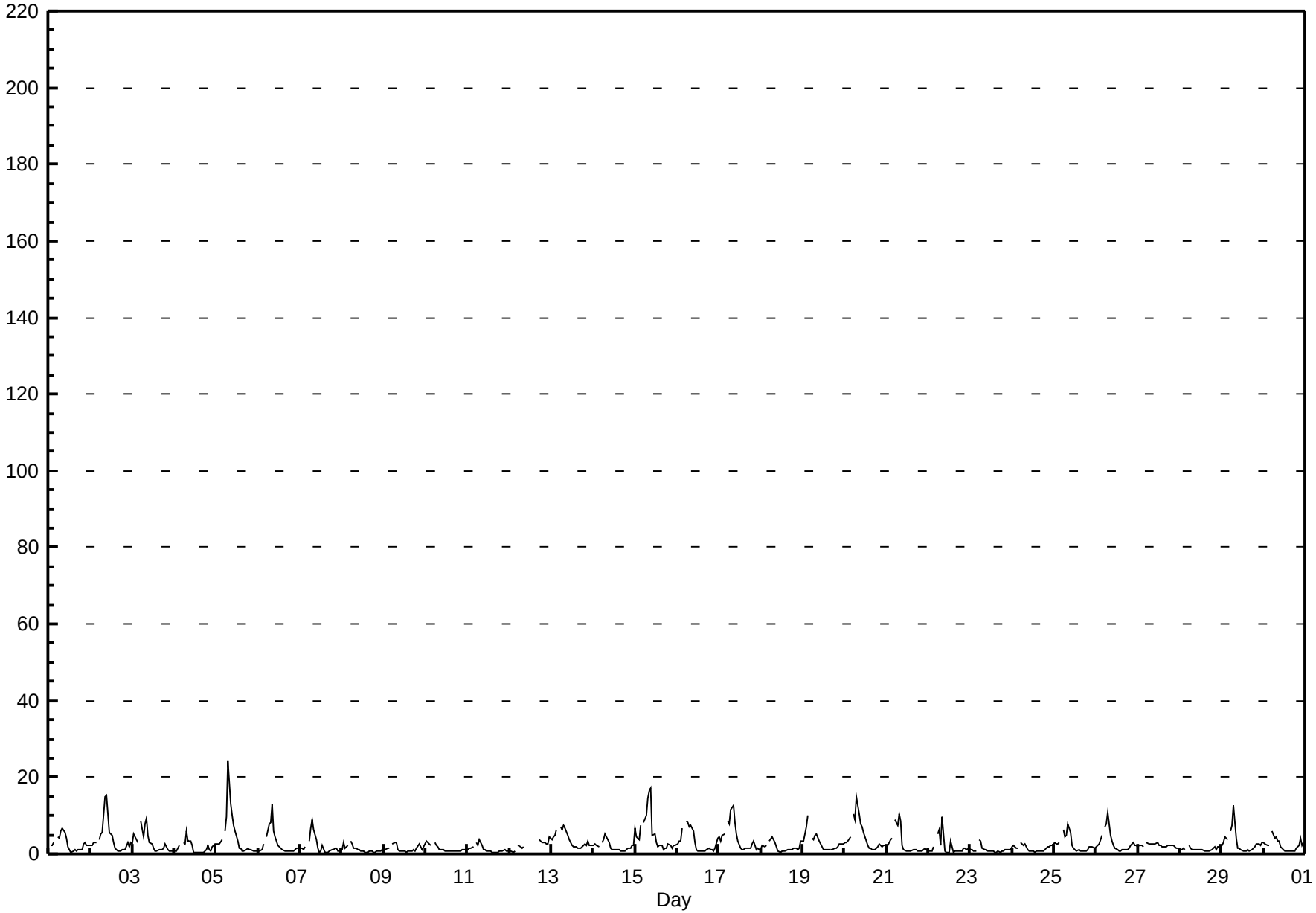
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	N	2	2	3	A	5	4	6	7	5	4	2	1	1	1	1	1	1	1	1	3	3	2	2	2.6	6.6
2-Apr	2	2	3	3	A	4	5	6	15	15	10	6	5	3	2	1	1	1	1	1	1	3	2	3	4.1	15.4
3-Apr	3	5	4	3	A	9	5	8	9	5	3	3	1	1	1	1	1	1	1	2	1	1	1	1	3.0	9.2
4-Apr	1	1	1	2	A	3	3	6	3	3	2	0	0	0	0	0	0	0	1	2	1	1	2	3	1.6	6.1
5-Apr	3	3	3	4	A	6	10	24	13	10	7	6	3	2	2	1	1	1	1	1	1	1	1	1	4.5	24.2
6-Apr	1	1	1	3	A	4	8	8	13	6	5	2	2	2	1	1	1	1	1	1	1	1	2	1	2.8	13.2
7-Apr	2	2	1	2	A	3	7	9	6	4	2	1	1	2	1	0	0	1	1	1	1	1	1	1	2.1	8.9
8-Apr	1	3	1	2	A	4	3	2	2	1	1	1	1	1	0	0	1	1	0	1	1	1	1	1	1.2	3.5
9-Apr	1	1	1	1	A	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	2	1.4	3.1
10-Apr	3	3	3	2	A	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.4	3.2
11-Apr	1	1	1	2	A	3	2	4	2	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1.2	3.9
12-Apr	1	1	1	1	A	2	2	2	2	C	C	C	C	C	C	C	C	4	3	3	3	3	3	5	--	4.6
13-Apr	4	4	5	6	A	7	6	7	7	5	4	3	2	2	2	2	1	1	2	3	2	4	2	2	3.6	7.3
14-Apr	2	3	2	2	A	3	4	5	4	3	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2.0	5.3
15-Apr	7	5	4	7	A	8	10	15	16	17	5	5	3	2	2	2	1	1	1	3	2	2	2	2	5.4	17.3
16-Apr	3	3	3	7	A	9	8	7	7	6	3	1	1	1	1	1	1	1	2	1	1	1	1	4	3.2	8.7
17-Apr	4	3	5	5	A	9	8	12	13	8	5	3	2	1	1	2	1	1	1	2	4	1	1	1	4.1	12.8
18-Apr	1	2	2	2	A	4	4	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1.7	4.5
19-Apr	3	5	7	10	A	4	4	5	5	3	3	2	1	1	1	1	1	1	2	2	2	3	3	2	3.1	10.1
20-Apr	3	3	3	4	A	10	9	15	11	8	7	6	3	2	1	1	1	1	1	2	3	2	2	2	4.5	15.1
21-Apr	2	2	4	4	A	9	7	10	9	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2.7	10.3
22-Apr	1	1	1	2	A	5	6	2	10	1	1	0	0	3	0	1	1	1	1	1	1	1	1	1	1.8	9.7
23-Apr	1	1	1	1	A	4	3	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1.1	3.7
24-Apr	2	2	2	2	A	3	2	3	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1.5	2.8
25-Apr	3	3	3	3	A	7	4	5	8	6	2	1	1	1	1	1	1	1	1	1	2	2	2	2	2.5	7.8
26-Apr	2	2	3	5	A	7	8	11	5	3	2	1	1	1	1	1	1	1	1	1	2	3	2	2	2.9	10.8
27-Apr	2	2	2	2	A	3	3	2	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2.3	3.1
28-Apr	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	2	2	1.3	2.4
29-Apr	2	3	5	4	A	6	7	13	4	2	2	1	1	1	1	1	1	1	2	2	3	3	2	3	2.9	12.7
30-Apr	3	3	2	2	A	6	4	5	3	3	2	1	1	1	1	1	1	1	1	1	2	4	2	3	2.3	6.1
	2.2	2.5	2.6	3.3	--	5.1	5.1	6.7	6.2	4.4	2.8	1.9	1.4	1.2	1.0	0.9	0.9	1.0	1.2	1.5	1.7	1.8	1.7	2.0	Diurnal Average	
	6.6	5.4	7.0	10.1	--	10.4	10.1	24.2	16.5	17.3	10.4	5.9	4.7	3.2	2.2	2.1	2.0	3.6	3.4	3.0	3.5	4.2	2.7	4.6	Diurnal Maximum	

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

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - April 2010



PASZA
Peace Airshed Zone Association

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - April 2010

Maximum Value: 83.8 ppb on Apr 5 08:00

Maximum Daily Average: 11.8 ppb on Apr 5

Minimum Value: 0 ppb on Apr 4 17:00

Minimum Daily Average: 1.9 ppb on Apr 11

Maximum Diurnal Average: 14.0 ppb at hour 8

Minimum Diurnal Average: 1.5 ppb at hour 16

Monthly Average: 4.67 ppb

Percentiles: P_1 = 0.7 P_{10} = 1.1 Q_1 = 1.5 Median = 2.7 Q_3 = 4.7 P_{90} = 9.9 P_{99} = 28.5

Hours in Service:	720
Hours of Data:	681
Hours of Missing Data:	39
Hours of Calibration:	38
Percent Operational Time:	99.9

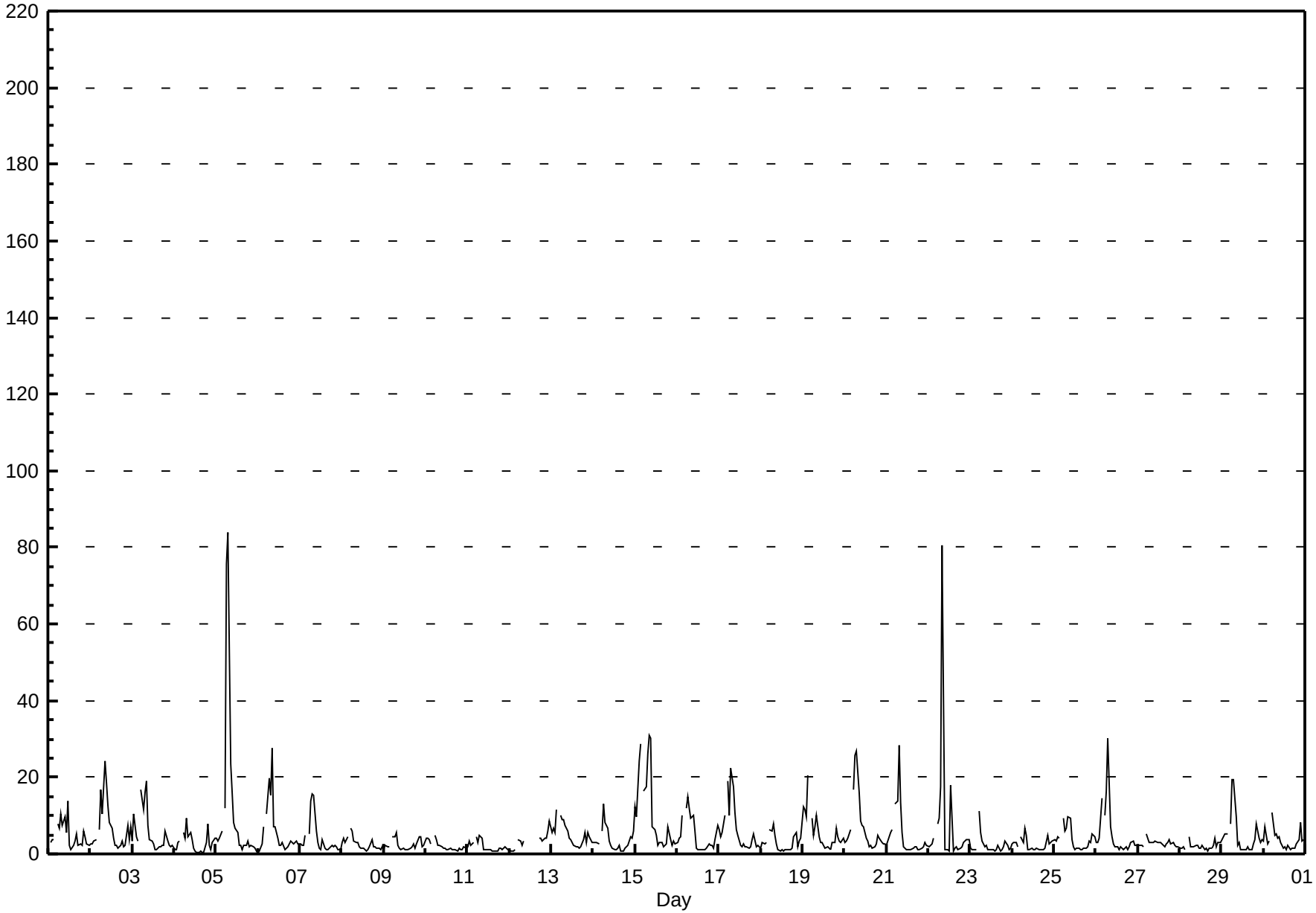
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	N	3	4	4	A	8	7	11	8	10	6	14	2	1	2	3	5	2	3	2	6	5	3	2	4.9	14.0
2-Apr	3	3	3	4	A	6	17	10	24	19	13	8	7	4	2	2	1	2	3	2	2	8	4	7	6.7	24.4
3-Apr	3	11	5	3	A	17	12	16	19	7	4	3	3	1	1	2	2	2	2	6	3	2	2	2	5.6	19.0
4-Apr	1	1	3	3	A	6	4	9	4	6	4	1	1	0	0	1	0	0	3	8	2	1	3	4	3.0	9.2
5-Apr	4	3	4	6	A	12	76	84	24	16	8	7	6	2	2	1	2	2	3	2	2	2	1	1	11.8	83.8
6-Apr	1	1	2	7	A	11	20	15	28	7	7	4	2	2	3	1	2	2	3	3	2	3	3	3	5.8	27.6
7-Apr	3	2	2	5	A	5	14	16	15	6	3	1	1	4	1	1	1	1	2	2	2	2	1	1	4.0	15.5
8-Apr	3	4	3	4	A	7	6	3	3	3	2	2	2	1	1	1	2	4	2	2	1	1	1	2	2.6	6.6
9-Apr	1	2	2	2	A	5	4	6	2	2	1	2	1	1	1	1	2	3	2	3	4	4	2	2	2.4	5.8
10-Apr	4	4	4	3	A	5	4	2	2	2	1	1	1	1	1	1	1	1	1	2	1	1	2	2	2.1	4.9
11-Apr	2	3	2	3	A	4	3	5	4	1	1	1	1	1	1	1	1	1	2	1	1	2	2	1	1.9	4.8
12-Apr	1	1	1	1	A	4	3	2	3	C	C	C	C	C	C	C	C	4	4	3	4	4	6	9	--	8.7
13-Apr	5	7	6	11	A	10	9	9	8	6	4	4	3	2	2	2	2	2	4	6	3	5	4	3	5.0	11.4
14-Apr	3	3	3	3	A	6	13	8	7	3	2	1	1	1	1	2	1	1	1	2	2	4	4	6	3.5	13.0
15-Apr	12	10	24	29	A	16	17	26	31	30	7	6	5	2	3	3	2	2	3	7	4	2	3	3	10.8	30.9
16-Apr	3	4	4	10	A	12	15	12	9	10	6	2	1	1	1	1	1	2	3	2	2	2	4	8	4.9	15.1
17-Apr	6	4	6	10	A	19	10	23	18	11	6	5	2	2	3	2	2	2	2	4	5	2	2	2	6.4	22.5
18-Apr	2	3	3	3	A	6	6	8	5	3	1	1	1	1	1	1	1	1	1	4	5	2	3	4	2.9	7.9
19-Apr	12	12	10	20	A	9	5	7	10	4	3	3	2	2	2	2	1	3	3	7	4	3	3	4	5.7	20.4
20-Apr	3	3	4	6	A	17	26	27	16	9	7	7	4	3	2	2	2	2	3	5	4	3	3	3	7.0	26.7
21-Apr	2	3	6	6	A	13	14	28	14	6	2	1	1	1	1	2	2	2	1	1	2	2	3	2	5.0	28.2
22-Apr	2	2	3	4	A	8	9	17	81	1	1	1	1	18	1	1	2	1	2	2	3	3	4	4	7.4	80.6
23-Apr	1	1	1	1	A	11	5	4	2	2	1	1	1	1	1	1	2	1	1	2	3	2	1	1	2.2	11.3
24-Apr	3	3	3	2	A	5	3	7	5	1	1	1	1	1	1	1	1	1	1	1	5	3	3	3	2.4	6.7
25-Apr	4	3	4	4	A	9	6	7	10	9	4	2	1	2	2	1	1	1	2	2	3	3	5	5	3.9	9.8
26-Apr	3	3	4	15	A	10	16	30	7	5	3	2	2	1	2	1	1	2	1	2	3	3	2	2	5.2	30.1
27-Apr	2	2	2	2	A	5	3	3	3	3	3	3	3	3	3	2	3	3	4	3	3	2	2	2	2.8	5.2
28-Apr	1	1	2	1	A	5	2	2	2	2	2	1	1	2	1	2	1	1	1	2	4	2	3	3	2.0	4.6
29-Apr	4	5	5	5	A	8	19	19	10	2	3	1	1	1	1	2	1	1	2	4	8	4	3	4	4.9	19.5
30-Apr	3	7	3	3	A	11	5	5	4	5	3	2	2	1	2	1	1	2	2	3	4	8	3	4	3.6	10.7
	3.4	3.9	4.2	6.1	--	8.9	11.8	14.0	12.5	6.6	3.8	3.1	2.1	2.2	1.6	1.5	1.6	1.8	2.2	3.1	3.3	3.1	2.9	3.3	Diurnal Average	
	12.2	11.6	24.2	28.9	--	19.0	75.5	83.8	80.6	30.3	12.6	14.0	6.9	17.9	3.1	3.3	5.1	4.2	3.9	7.8	7.8	8.1	5.9	8.7	Diurnal Maximum	

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

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Beaverlodge - April 2010



Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 66.3 ppb on Apr 20 17:00 Maximum Daily Average: 48.2 ppb on Apr 20

Minimum Value: 13 ppb on Apr 29 08:00 Minimum Daily Average: 32.4 ppb on Apr 12
Maximum Diurnal Average: 48.3 ppb at hour 17 Minimum Diurnal Average: 28.9 ppb at hour 8
Monthly Average: 40.09 ppb Percentiles: P_1 = 16.2 P_{10} = 29.1 Q_1 = 34.5 Median = 40.1 Q_3 = 46.0 P_{90} = 51.7 P_{99} = 61.8

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

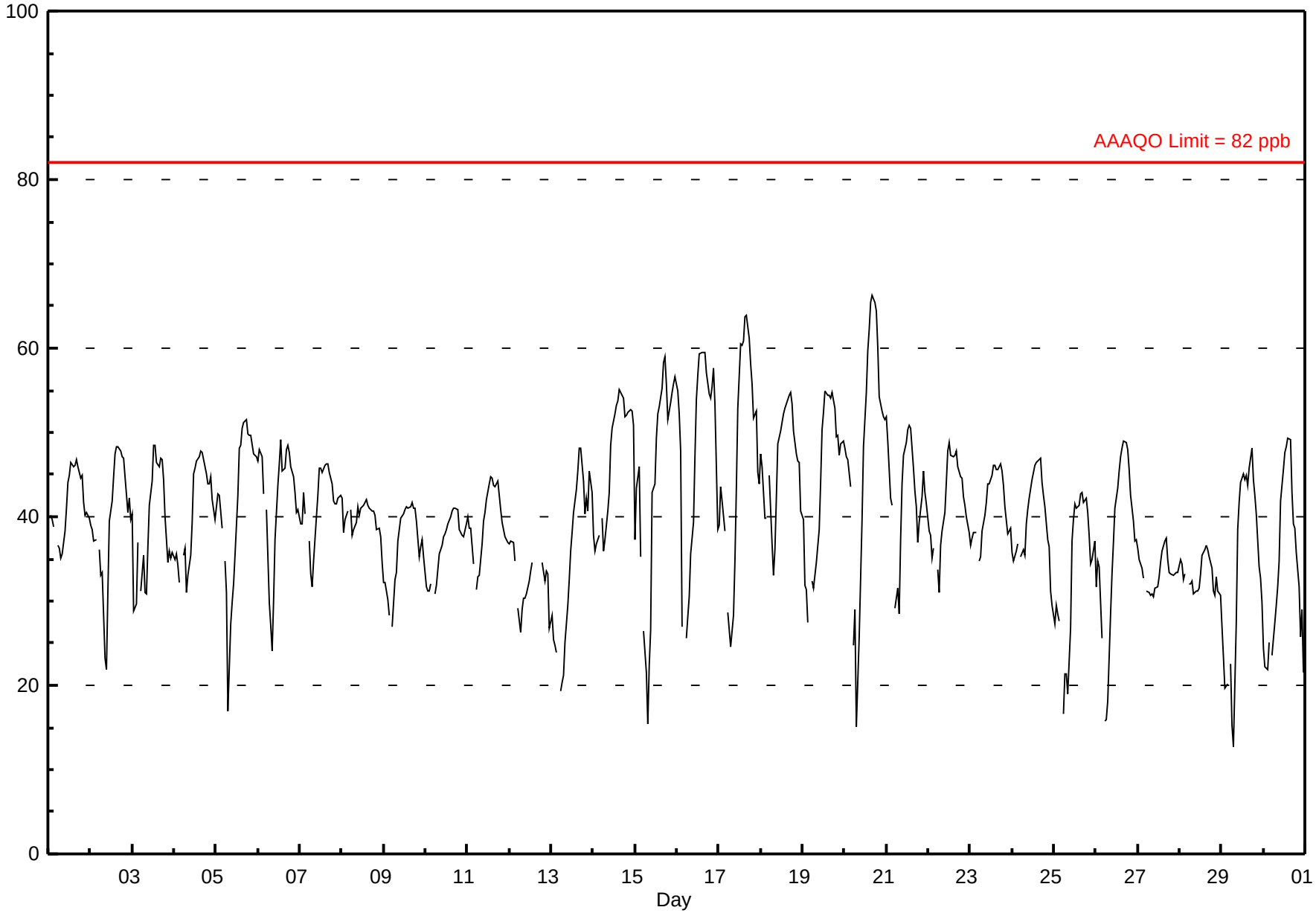
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	N	40	40	39	A	37	36	35	36	38	41	44	45	46	46	46	47	46	45	45	42	40	41	40	41.5	46.8
2-Apr	39	38	37	37	A	36	33	33	23	22	31	40	42	45	47	48	48	48	47	47	45	41	42	40	39.6	48.3
3-Apr	40	29	30	37	A	31	35	31	31	36	41	44	48	49	46	46	47	47	44	40	35	36	35	36	38.9	48.5
4-Apr	35	36	34	32	A	36	36	31	33	35	39	45	46	47	47	48	48	47	45	44	44	45	42	40	40.6	47.9
5-Apr	41	43	43	39	A	35	31	17	27	30	32	35	42	48	49	51	51	51	50	50	50	48	47	47	41.6	51.4
6-Apr	47	48	47	43	A	41	30	27	24	30	37	44	46	49	45	46	48	48	48	46	45	43	40	41	41.9	49.2
7-Apr	39	39	43	40	A	37	33	32	35	40	43	46	46	45	46	46	46	45	44	42	41	42	42	43	41.5	46.3
8-Apr	42	38	40	41	A	41	38	39	39	41	40	41	41	42	42	41	41	41	41	40	39	39	38	35	39.9	42.3
9-Apr	32	32	30	28	A	27	33	33	37	39	40	40	41	41	41	41	42	41	41	40	35	37	37	35	36.7	41.8
10-Apr	32	31	31	32	A	31	32	34	36	37	38	38	38	39	40	41	41	41	41	39	38	38	38	39	36.6	41.1
11-Apr	40	39	39	34	A	31	33	33	37	40	40	42	44	45	44	44	44	44	42	41	39	38	37	37	39.4	44.7
12-Apr	37	37	37	35	A	29	26	29	30	30	31	32	33	35	C	C	C	C	C	34	32	34	33	27	32.4	37.1
13-Apr	28	26	25	24	A	19	20	21	25	29	33	36	38	40	43	45	48	48	44	40	42	41	45	43	35.0	48.2
14-Apr	38	36	37	38	A	40	36	37	41	43	49	50	52	53	54	55	55	54	52	52	52	53	53	51	46.9	55.0
15-Apr	37	43	46	35	A	26	22	16	22	27	43	44	49	52	53	55	58	59	56	51	53	55	56	57	44.2	58.9
16-Apr	55	52	48	27	A	26	28	30	36	39	47	54	57	59	60	60	59	57	55	54	55	58	53	38	48.2	59.6
17-Apr	39	44	42	38	A	29	27	25	28	35	43	53	61	60	61	64	64	61	58	56	52	53	45	44	46.9	63.9
18-Apr	47	46	40	40	A	45	37	33	36	42	49	50	51	52	53	54	54	55	53	50	48	47	46	41	46.5	54.8
19-Apr	40	32	31	27	A	32	32	33	35	39	44	50	52	55	54	54	54	55	53	50	50	47	49	49	44.2	55.0
20-Apr	48	47	47	44	A	25	29	15	26	33	40	48	55	60	62	65	66	65	64	60	54	53	52	52	48.2	66.3
21-Apr	52	49	42	41	A	29	32	28	37	44	47	49	50	51	50	46	43	41	37	39	42	45	43	42	42.6	51.9
22-Apr	38	38	35	36	A	34	31	37	38	40	44	48	49	47	47	47	48	46	45	45	42	41	40	38	41.5	48.7
23-Apr	37	37	38	38	A	35	35	38	40	42	44	44	45	46	46	46	46	46	45	44	41	38	38	39	41.2	46.2
24-Apr	36	35	36	37	A	35	36	35	39	41	42	44	45	46	47	47	47	44	43	41	37	36	31	29	39.6	47.0
25-Apr	27	30	28	28	A	17	21	21	19	27	37	40	42	41	41	43	43	42	42	40	38	34	35	37	33.6	42.9
26-Apr	32	35	34	26	A	16	16	18	29	33	37	41	43	45	47	48	49	49	48	46	42	40	37	37	36.9	49.0
27-Apr	36	35	34	33	A	31	31	31	31	31	32	32	33	35	36	37	37	35	33	33	33	33	33	33	33.4	37.4
28-Apr	35	34	33	33	A	32	32	32	31	31	31	32	33	35	36	37	36	35	34	31	31	33	31	31	33.0	36.5
29-Apr	27	23	20	20	A	23	15	13	27	38	42	44	45	44	45	44	46	48	44	42	40	34	33	30	34.3	48.1
30-Apr	24	22	22	25	A	23	27	29	32	35	42	46	48	48	49	49	43	39	39	36	32	26	29	22	34.2	49.3
	38.0	37.1	36.2	34.2	--	30.9	30.1	28.9	32.0	35.5	39.9	43.2	45.4	46.7	47.6	48.1	48.3	47.6	46.0	43.9	42.4	41.4	40.8	39.0	Diurnal Average	
	55.0	52.3	47.8	43.6	--	44.9	37.7	38.5	40.6	43.9	48.7	53.8	60.5	60.4	62.3	65.4	66.3	65.5	64.4	60.2	55.5	57.7	55.8	56.6	Diurnal Maximum	

C - Calibration N - Not Valid A - Automated Daily Zero Span
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Hourly Averages

Ozone (O_3) - ppb

Beaverlodge - April 2010



PASZA
Peace Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Beaverlodge - April 2010

Maximum Value: 68.0 ppb on Apr 20 17:00

Maximum Daily Average: 53.0 ppb on Apr 16

Minimum Value: 19 ppb on Apr 20 08:00

Minimum Daily Average: 34.2 ppb on Apr 12

Maximum Diurnal Average: 50.2 ppb at hour 17

Minimum Diurnal Average: 33.7 ppb at hour 8

Monthly Average: 42.89 ppb

Percentiles: P_1 = 20.9 P_{10} = 33.1 Q_1 = 37.1 Median = 42.5 Q_3 = 48.0 P_{90} = 53.6 P_{99} = 65.0

Hours in Service:	720
Hours of Data:	684
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

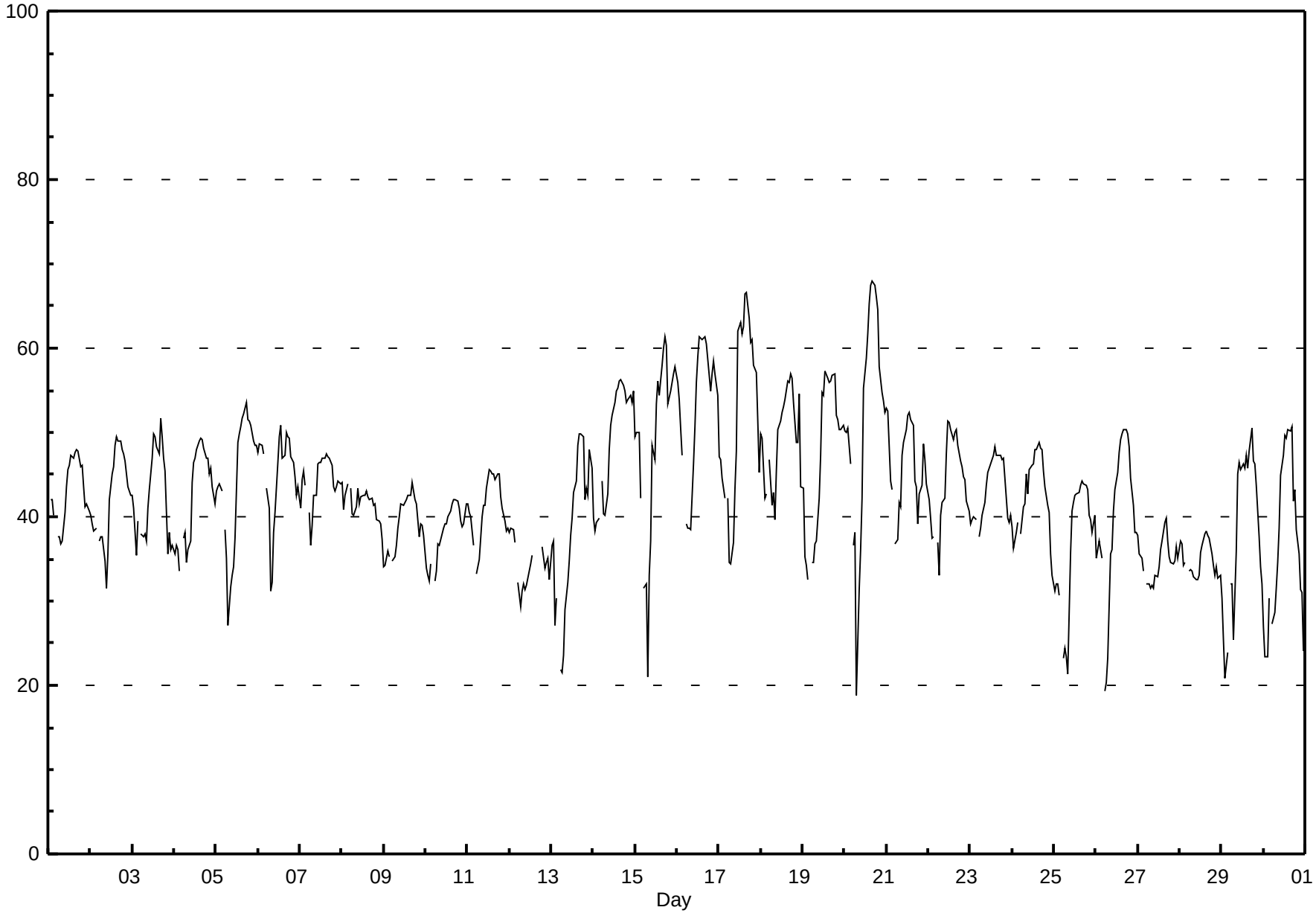
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	N	42	42	40	A	38	38	37	37	41	44	46	46	47	47	48	48	48	46	46	44	41	42	41	43.0	48.0
2-Apr	40	39	38	39	A	37	38	38	35	31	36	42	45	46	48	49	49	49	48	47	47	44	43	43	42.2	49.5
3-Apr	42	41	35	40	A	38	38	38	37	41	43	47	50	49	48	47	52	49	47	45	36	38	36	37	42.4	51.8
4-Apr	36	37	36	34	A	37	38	35	36	37	44	46	47	48	49	49	49	48	47	47	45	46	44	42	42.4	49.4
5-Apr	43	44	44	43	A	39	35	27	32	33	34	38	49	50	51	52	52	54	51	51	51	49	48	48	44.2	53.5
6-Apr	48	49	48	47	A	43	41	31	32	38	41	46	49	51	47	47	50	49	49	47	46	45	43	44	44.9	50.9
7-Apr	41	44	46	44	A	41	37	39	42	43	46	46	47	47	47	48	47	47	46	43	43	44	44	44	44.1	47.5
8-Apr	44	41	42	44	A	43	40	40	41	43	42	42	43	43	43	42	42	42	41	42	40	40	39	37	41.6	44.1
9-Apr	34	34	36	35	A	35	35	37	39	40	42	41	42	42	43	43	44	43	42	42	38	39	39	38	39.2	44.0
10-Apr	34	33	32	34	A	32	34	37	37	38	39	39	39	40	41	42	42	42	42	41	40	39	39	41	38.1	42.0
11-Apr	42	41	40	37	A	33	34	35	40	41	41	43	46	45	45	45	44	45	45	42	41	39	38	39	41.0	45.5
12-Apr	38	39	38	37	A	32	29	31	32	31	32	34	34	35	C	C	C	C	C	36	34	34	35	33	34.2	38.6
13-Apr	37	37	27	30	A	22	21	23	29	32	35	38	40	43	44	48	50	50	49	42	43	43	48	46	38.2	49.9
14-Apr	40	38	39	40	A	44	40	40	43	48	51	52	54	55	55	56	56	56	55	53	54	54	53	55	49.2	56.3
15-Apr	49	50	50	42	A	32	32	21	33	37	49	47	53	56	54	58	60	61	60	53	55	56	57	58	48.9	61.4
16-Apr	56	54	51	47	A	39	39	39	39	46	51	56	59	61	61	61	61	60	57	55	57	59	57	54	53.0	61.3
17-Apr	47	47	45	42	A	42	35	34	37	43	48	62	63	62	63	66	67	64	61	61	58	57	51	45	52.2	66.7
18-Apr	50	49	42	43	A	47	41	43	40	45	50	51	52	53	54	56	56	57	56	54	49	49	55	44	49.4	57.0
19-Apr	43	35	34	33	A	35	35	37	37	42	47	55	54	57	57	56	56	57	57	52	52	50	50	51	47.0	57.3
20-Apr	50	50	50	46	A	37	38	19	31	36	42	55	59	62	65	67	68	67	66	65	58	55	54	52	51.9	68.0
21-Apr	53	53	44	43	A	37	37	42	41	47	49	50	52	52	52	51	44	43	39	43	44	49	47	44	45.9	52.9
22-Apr	42	40	37	38	A	37	33	40	42	42	47	51	51	50	49	50	50	49	47	46	45	44	42	41	44.1	51.4
23-Apr	39	40	40	40	A	38	39	40	42	44	45	46	47	47	48	47	47	47	47	47	45	40	39	40	43.2	48.4
24-Apr	39	36	38	39	A	38	41	42	45	43	46	46	46	48	48	49	48	48	45	44	41	40	36	33	42.6	48.8
25-Apr	31	32	32	31	A	23	24	23	21	36	41	42	43	43	43	44	44	44	44	43	40	40	38	40	36.6	44.3
26-Apr	35	36	37	35	A	19	20	23	36	36	41	43	45	48	49	50	50	50	50	48	45	41	38	38	39.8	50.4
27-Apr	38	36	35	34	A	32	32	31	32	32	33	33	34	36	37	39	40	37	35	35	34	35	36	35	34.8	39.8
28-Apr	37	37	34	35	A	34	34	34	33	33	32	33	36	37	38	38	38	37	36	34	33	34	33	33	34.8	38.3
29-Apr	30	25	21	24	A	32	32	25	36	45	46	46	46	46	47	46	48	51	47	46	44	38	34	32	38.6	50.6
30-Apr	27	23	23	30	A	27	29	32	35	39	45	47	50	49	50	50	51	42	43	39	36	31	31	24	37.1	50.8
	40.9	40.0	38.7	38.2	--	35.4	34.6	33.7	36.3	39.5	42.7	45.5	47.3	48.3	49.1	49.9	50.2	49.6	48.2	46.4	44.5	43.7	43.0	41.7	Diurnal Average	
	56.0	54.0	50.5	47.4	--	46.9	41.4	42.8	45.1	47.9	50.8	62.0	63.0	61.8	65.3	67.4	68.0	67.5	66.1	64.6	58.0	58.5	57.0	57.8	Diurnal Maximum	

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

Hourly Maximums

Ozone (O_3) - ppb

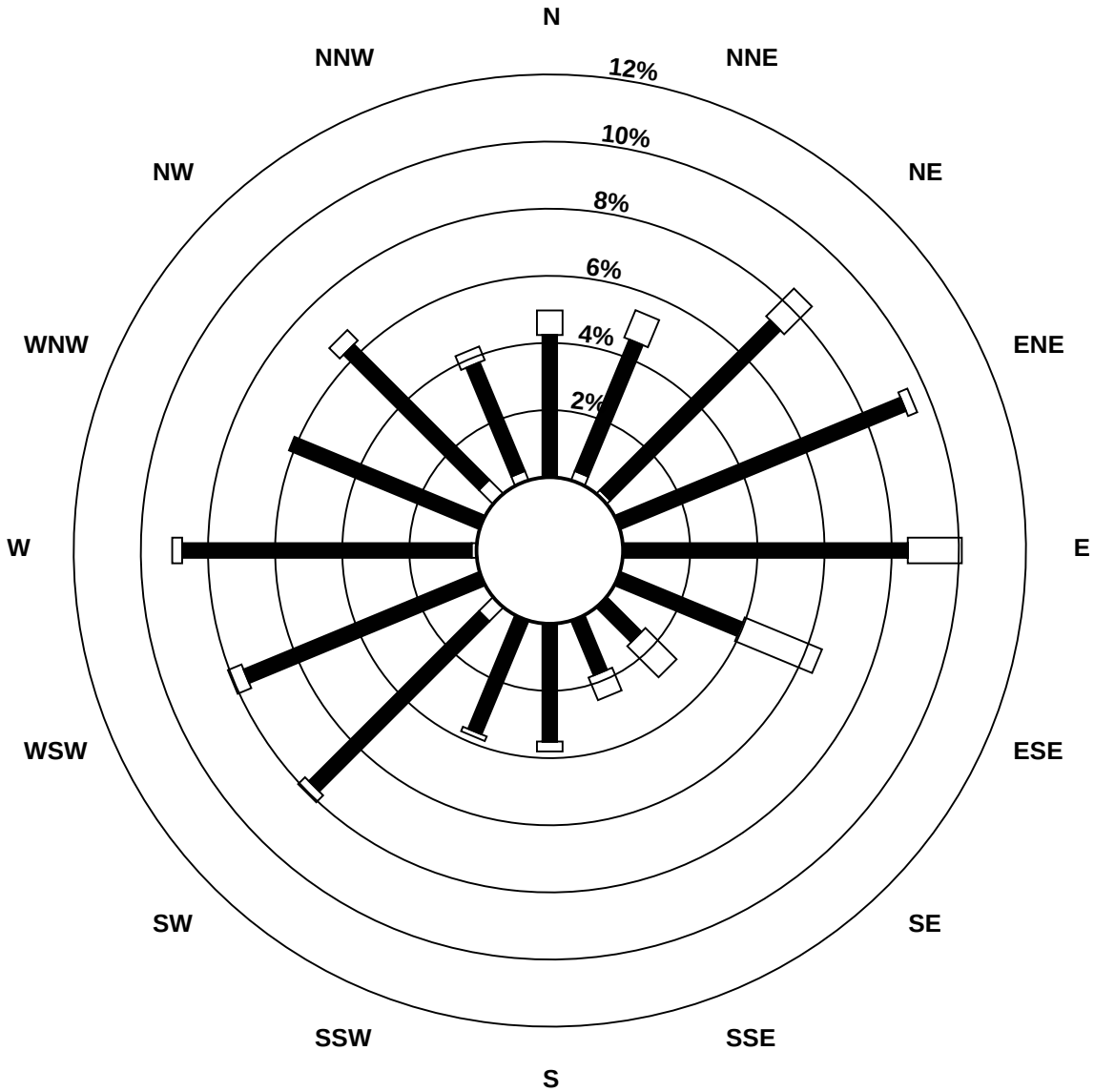
Beaverlodge - April 2010



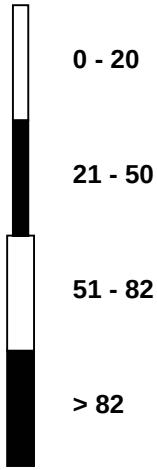
Pollutant Rose

Ozone (O_3) - ppb

Beaverlodge - April 2010



Pollutant Classes (ppb)



Eight Hour Running Averages

Ozone (O_3) - ppb

Beaverlodge - April 2010

Maximum Value: 62.3 ppb on Apr 20 20:00

Minimum Value: 20.1 ppb on Apr 29 08:00

Percentiles: P_1 = 23.4 P_{10} = 31.0 Q_1 = 34.7 Median = 39.8 Q_3 = 44.7 P_{90} = 49.8 P_{99} = 60.0

Hours in Service:	720
Hours of Data:	712
Hours of Missing Data:	8
Hours of Calibration:	8
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Apr	42	42	41	41	40	39	38	38	37	37	37	38	39	40	41	43	44	45	46	46	45	45	44	43	45.7
2-Apr	42	41	40	39	39	38	37	36	34	32	31	31	33	34	35	37	40	44	46	47	47	46	46	45	46.9
3-Apr	44	41	39	38	37	36	35	33	32	33	35	36	37	40	41	43	45	46	46	46	44	43	41	40	46.5
4-Apr	38	37	36	35	35	35	35	34	34	34	35	37	38	39	40	43	44	46	46	46	46	46	45	44	46.5
5-Apr	43	43	43	42	42	40	39	35	33	32	30	30	31	33	35	39	42	45	47	49	50	50	50	49	49.9
6-Apr	49	48	48	47	47	46	43	40	37	35	33	33	35	36	38	40	43	46	47	47	47	46	45	45	48.7
7-Apr	44	43	42	41	41	40	39	38	37	37	37	38	39	40	41	43	45	45	46	45	45	44	44	43	45.6
8-Apr	43	42	41	41	41	41	40	40	39	40	40	40	40	40	41	41	41	41	41	41	41	40	40	39	42.6
9-Apr	38	37	36	34	33	32	31	31	32	32	34	36	36	38	39	40	41	41	41	41	40	40	39	38	41.1
10-Apr	37	36	35	34	34	33	32	32	32	33	34	35	35	36	37	38	39	39	40	40	40	40	39	39	40.0
11-Apr	39	39	39	38	38	37	36	36	35	35	36	37	38	39	41	42	43	43	44	43	43	42	41	40	43.6
12-Apr	39	39	38	37	37	36	34	33	32	31	30	30	30	31	32	32	N	N	N	N	N	N	N	N	39.5
13-Apr	31	31	30	29	28	26	24	23	23	23	25	26	28	30	33	36	39	42	43	44	44	44	44	44	44.3
14-Apr	43	41	40	40	40	39	38	37	38	39	40	42	43	45	47	50	51	53	53	53	53	53	53	53	53.4
15-Apr	50	49	48	46	45	42	37	32	30	28	27	28	31	34	38	43	48	52	53	54	55	55	55	56	55.6
16-Apr	55	54	53	50	50	46	42	38	35	33	33	37	40	44	48	51	54	57	58	58	57	57	56	54	57.5
17-Apr	51	50	48	46	45	40	37	35	33	32	32	34	37	41	46	51	55	58	60	61	59	58	57	54	60.6
18-Apr	52	50	48	46	45	44	43	41	39	39	40	42	43	44	46	48	51	52	53	53	52	52	51	49	52.9
19-Apr	47	45	42	39	38	36	34	32	32	33	35	38	40	42	45	48	50	52	54	53	53	52	51	51	53.5
20-Apr	50	49	48	47	47	44	41	36	33	31	30	31	34	38	42	49	54	58	61	62	62	61	60	58	62.3
21-Apr	57	54	52	49	49	45	42	39	37	36	37	38	40	42	45	47	48	47	46	45	44	43	42	42	56.5
22-Apr	41	41	40	40	40	38	36	36	36	36	37	39	40	42	44	45	46	47	47	47	46	45	44	43	47.1
23-Apr	42	41	40	39	39	38	37	37	37	38	39	40	40	42	43	44	45	45	45	45	45	44	43	42	45.5
24-Apr	41	39	38	37	37	36	36	36	36	37	38	39	40	41	42	44	45	45	45	45	44	43	41	39	45.3
25-Apr	36	34	33	31	30	27	26	25	23	23	24	26	28	31	33	36	39	41	42	42	41	40	40	39	41.7
26-Apr	38	37	36	34	33	31	28	25	25	24	25	27	29	33	37	40	43	45	46	47	47	46	45	43	46.9
27-Apr	42	40	38	37	36	35	34	33	32	32	31	31	31	32	32	33	34	35	35	35	35	35	34	34	41.9
28-Apr	34	34	34	34	34	33	33	33	32	32	32	32	32	32	33	33	34	34	35	35	34	34	33	33	34.8
29-Apr	32	30	28	27	26	25	23	20	20	22	25	29	31	34	37	41	44	45	45	45	44	43	41	40	45.1
30-Apr	37	34	31	29	27	26	25	25	26	28	31	33	35	38	41	44	45	45	45	44	42	39	37	33	45.5
Diurnal Maximums	56.5	54.5	53.4	50.3	49.9	45.7	43.2	41.1	39.5	39.7	40.4	42.2	43.5	45.1	47.7	51.4	55.1	58.4	60.8	62.3	62.3	61.4	60.1	58.3	

N - Not Valid

PASZA
Peace Airshed Zone Association

Hourly Averages

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

Beaverlodge - April 2010

Number of Exceedences: 1-hr: 0 24-hr: 0
Maximum Value: 62.7 $\mu g/m^3$ on Apr 21 09:00
Maximum Daily Average: 28.0 $\mu g/m^3$ on Apr 20

Minimum Value: 4 $\mu g/m^3$ on Apr 8 15:00
Maximum Diurnal Average: 16.3 $\mu g/m^3$ at hour 9
Monthly Average: 13.29 $\mu g/m^3$

Minimum Daily Average: 6.7 $\mu g/m^3$ on Apr 10
Minimum Diurnal Average: 11.1 $\mu g/m^3$ at hour 16
Percentiles: P_1 = 4.9 P_{10} = 6.5 Q_1 = 8.1 Median = 11.6 Q_3 = 16.1 P_{90} = 22.0 P_{99} = 43.0

Hours in Service:	720
Hours of Data:	719
Hours of Missing Data:	1
Hours of Calibration:	0
Percent Operational Time:	99.9

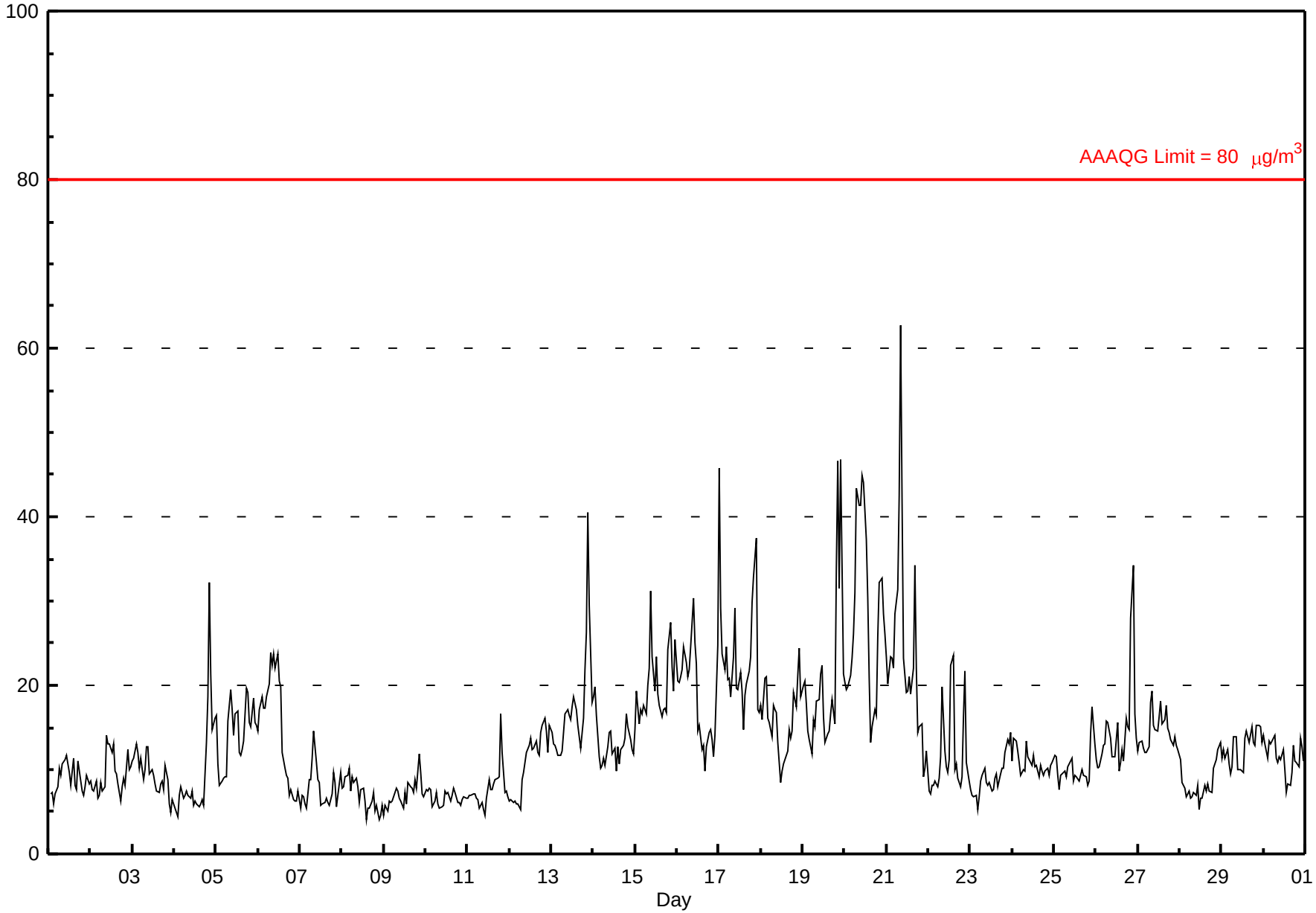
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	N	7	7	6	7	8	10	9	11	11	12	11	10	8	11	8	8	11	9	7	7	8	9	8	8.9	11.7
2-Apr	9	8	7	9	7	7	8	8	8	14	13	13	12	13	10	10	8	6	8	9	8	12	10	10	9.4	14.0
3-Apr	11	11	13	12	10	11	9	10	13	13	10	10	9	8	7	7	8	9	8	11	9	6	5	6	9.4	13.1
4-Apr	5	5	4	7	8	7	7	7	7	7	7	6	6	6	6	6	6	6	13	19	32	21	15	16	9.6	32.2
5-Apr	16	11	8	9	9	9	9	16	19	17	14	17	17	12	12	12	13	20	19	16	15	18	16	15	14.1	19.6
6-Apr	15	17	19	17	17	19	20	24	22	24	22	24	21	20	12	10	9	9	7	8	6	6	6	7	15.0	23.9
7-Apr	5	7	7	6	5	9	9	11	15	11	9	8	6	6	6	7	6	6	7	10	8	6	7	10	7.8	14.5
8-Apr	8	8	9	9	10	8	9	9	9	8	6	8	8	6	4	5	5	6	7	5	6	4	5	6	7.0	10.1
9-Apr	5	6	5	6	6	6	7	8	7	7	6	5	7	6	8	8	8	7	9	8	12	10	7	7	7.2	11.9
10-Apr	8	8	8	8	6	6	7	6	5	6	6	7	7	7	6	7	8	7	6	6	6	6	7	7	6.7	7.9
11-Apr	7	7	7	7	7	7	6	5	6	5	5	7	9	8	8	8	9	9	9	17	12	7	8	7	7.7	16.6
12-Apr	6	6	6	6	6	6	5	9	10	11	12	13	14	12	13	13	12	12	14	15	16	15	12	15	10.8	16.0
13-Apr	14	13	13	12	12	12	12	14	17	17	16	16	17	19	17	15	14	13	16	22	26	41	29	18	17.3	40.6
14-Apr	19	20	16	12	10	11	11	11	13	14	15	12	13	10	13	11	12	13	14	17	15	14	12	12	13.2	19.8
15-Apr	15	19	15	17	17	18	17	20	22	31	23	19	23	19	18	16	17	17	17	24	27	22	19	25	20.0	31.3
16-Apr	21	20	21	22	24	23	21	22	25	30	25	23	15	15	12	13	10	13	14	15	14	12	14	25	18.6	30.4
17-Apr	46	29	24	22	25	21	21	19	23	29	20	20	21	19	15	19	20	22	23	30	33	38	17	17	23.8	45.7
18-Apr	18	16	21	21	16	16	14	18	17	17	13	8	10	11	11	12	15	14	15	19	17	21	24	19	15.9	24.5
19-Apr	20	21	18	15	14	12	16	15	18	18	21	22	16	13	14	15	17	18	15	34	47	31	47	21	20.8	46.9
20-Apr	20	19	20	21	23	26	31	43	41	41	45	44	37	30	21	13	15	17	16	26	32	33	28	26	28.0	44.8
21-Apr	23	20	23	23	22	28	31	42	63	42	23	19	19	21	19	22	34	22	14	15	15	9	10	12	24.0	62.7
22-Apr	7	7	8	8	9	8	9	12	20	12	10	10	11	22	24	10	11	9	8	9	16	22	11	9	11.7	23.6
23-Apr	8	7	7	7	5	7	9	9	10	9	8	8	7	8	9	9	8	9	10	10	12	14	13	14	9.1	14.4
24-Apr	11	14	13	12	11	9	10	10	13	12	11	10	12	10	11	9	10	10	9	10	10	9	11	11	10.8	13.8
25-Apr	12	11	9	8	9	10	10	9	10	11	11	9	9	9	9	9	10	9	9	8	9	14	17	13	10.2	17.4
26-Apr	11	10	10	12	13	13	16	16	14	12	12	12	16	10	11	12	11	16	15	15	28	34	17	14	14.5	34.2
27-Apr	12	13	13	12	12	12	13	18	19	15	15	15	16	18	15	16	18	15	14	14	13	14	13	12	14.5	19.3
28-Apr	11	8	8	8	7	8	7	7	7	7	8	5	7	7	8	7	8	7	7	10	11	11	12	13	8.4	13.3
29-Apr	11	12	11	12	11	10	10	14	14	10	10	10	10	14	15	14	13	15	13	13	15	15	15	13	12.5	15.3
30-Apr	14	13	11	13	13	13	14	11	11	12	11	12	10	7	8	8	10	13	11	11	10	14	13	11	11.5	14.0
	13.3	12.5	12.2	12.0	11.7	11.9	12.6	14.4	16.3	15.7	14.0	13.4	13.2	12.5	11.7	11.1	11.8	12.0	12.0	14.3	16.3	16.2	14.3	13.3	Diurnal Average	
	45.7	29.2	23.7	23.1	24.6	28.5	31.4	43.4	62.7	42.0	44.8	44.0	37.2	30.4	23.6	22.0	34.2	22.0	23.5	33.9	46.7	40.6	46.9	26.1	Diurnal Maximum	

N - Not Valid
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 $\mu g/m^3$ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 $\mu g/m^3$

Hourly Averages

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

Beaverlodge - April 2010



Hourly Maximums

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

Beaverlodge - April 2010

Maximum Value: 73.3 $\mu g/m^3$ on Apr 21 09:00

Maximum Daily Average: 30.5 $\mu g/m^3$ on Apr 20

Minimum Value: 5 $\mu g/m^3$ on Apr 8 15:00

Maximum Diurnal Average: 19.6 $\mu g/m^3$ at hour 21

Monthly Average: 15.06 $\mu g/m^3$

Minimum Daily Average: 7.4 $\mu g/m^3$ on Apr 10

Minimum Diurnal Average: 12.7 $\mu g/m^3$ at hour 16

Percentiles: P_1 = 5.8 P_{10} = 7.5 Q_1 = 9.2 Median = 12.8 Q_3 = 18.0 P_{90} = 24.9 P_{99} = 46.9

Hours in Service:	720
Hours of Data:	719
Hours of Missing Data:	1
Hours of Calibration:	0
Percent Operational Time:	99.9

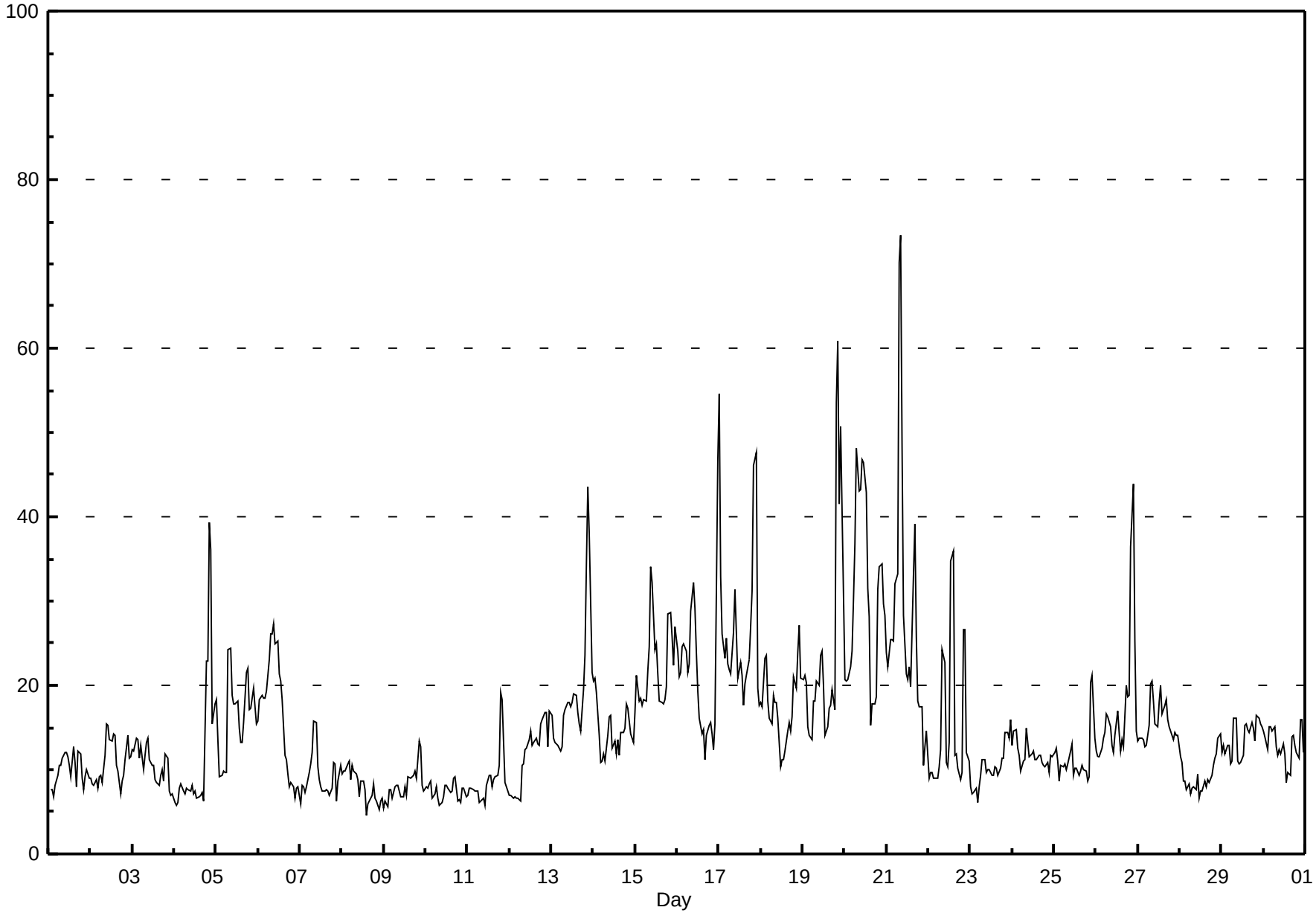
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Apr	N	8	8	7	8	9	11	11	11	12	12	11	10	9	13	11	8	12	12	9	8	9	10	9	9.9	12.7
2-Apr	9	8	8	9	8	9	9	9	12	15	15	14	13	14	14	10	10	7	9	9	11	14	11	11	10.8	15.4
3-Apr	12	12	14	14	11	13	10	12	13	14	11	10	10	9	8	8	9	10	9	12	11	7	7	7	10.6	13.8
4-Apr	6	6	6	8	8	8	7	8	8	7	8	7	7	7	7	7	7	6	23	23	39	36	15	18	11.8	39.3
5-Apr	18	14	9	9	10	10	10	24	24	19	18	18	18	15	13	13	16	22	22	17	17	20	17	16	16.2	24.4
6-Apr	16	18	19	19	19	19	23	26	26	27	25	25	21	20	18	12	11	9	8	8	8	7	8	8	16.7	27.2
7-Apr	6	8	8	7	8	10	11	12	16	16	10	9	8	8	7	8	8	7	8	11	11	6	9	11	9.2	15.8
8-Apr	9	10	10	11	11	9	11	10	10	9	7	9	9	8	5	6	6	7	8	7	6	5	6	7	8.0	11.0
9-Apr	5	6	6	8	8	7	8	8	8	7	7	7	8	7	9	9	9	9	10	9	13	13	8	7	8.2	13.4
10-Apr	8	8	8	9	7	7	8	7	6	6	7	8	8	8	7	7	9	9	6	6	6	8	8	7	7.4	9.1
11-Apr	7	8	8	8	8	8	8	6	7	7	6	8	9	9	8	9	9	9	11	19	18	8	8	7	8.8	19.1
12-Apr	7	7	7	7	7	7	6	11	11	12	13	13	15	13	13	14	13	13	15	16	17	17	13	17	11.7	17.0
13-Apr	17	14	13	13	13	12	13	16	17	18	18	17	18	19	19	17	15	15	20	24	34	43	38	21	19.3	43.5
14-Apr	20	21	19	14	11	11	12	11	14	16	16	13	13	12	14	12	14	14	15	18	17	14	14	13	14.5	20.9
15-Apr	17	21	18	19	18	18	18	22	24	34	32	24	25	21	18	18	18	18	20	28	29	26	22	27	22.3	34.0
16-Apr	24	21	21	24	25	24	22	23	29	32	29	24	19	16	14	15	11	14	15	16	14	12	15	47	21.1	46.6
17-Apr	55	33	26	23	26	23	22	21	26	31	26	21	23	21	18	20	21	23	27	31	46	48	20	18	27.0	54.6
18-Apr	18	17	23	24	18	16	15	19	18	18	16	10	11	11	12	15	16	14	16	21	20	24	27	21	17.5	27.2
19-Apr	21	21	20	15	14	14	18	18	21	20	24	24	20	14	15	17	18	20	17	54	61	42	51	31	24.5	60.9
20-Apr	21	20	21	22	24	30	37	48	43	43	47	47	43	32	28	15	18	18	19	31	34	34	30	28	30.5	48.1
21-Apr	24	22	25	25	25	32	33	70	73	48	28	21	21	22	20	33	39	26	18	17	18	11	13	15	28.4	73.3
22-Apr	9	10	10	9	9	9	10	12	24	23	11	10	13	35	36	12	12	10	9	10	27	27	12	11	14.9	35.9
23-Apr	8	7	7	8	6	8	9	11	11	10	10	10	9	9	10	10	9	10	11	11	14	14	14	16	10.2	16.0
24-Apr	13	15	15	13	12	10	11	11	15	13	12	12	12	11	11	12	12	11	11	10	11	10	12	12	11.8	14.9
25-Apr	12	12	11	9	10	10	11	10	11	12	13	9	10	10	9	10	10	10	10	9	9	20	21	14	11.4	21.3
26-Apr	12	12	12	13	14	14	17	16	15	13	12	14	17	14	12	14	13	20	19	19	36	44	25	15	17.1	43.8
27-Apr	13	14	14	14	13	13	15	20	20	18	15	15	18	20	17	18	18	16	15	15	14	14	14	14	15.7	20.5
28-Apr	11	11	9	9	8	8	7	8	8	8	10	7	7	7	9	8	9	9	9	10	11	12	14	14	9.2	14.2
29-Apr	12	13	12	13	13	11	11	16	16	11	11	11	12	15	15	15	14	16	15	13	16	16	15	15	13.6	16.4
30-Apr	15	14	12	15	15	15	15	13	12	12	12	13	12	9	10	9	14	14	13	12	11	16	16	12	12.9	16.0
	14.7	13.7	13.3	13.1	12.8	13.1	13.9	16.9	18.3	17.7	16.0	14.7	14.7	14.2	13.7	12.7	13.2	13.3	13.9	16.5	19.6	19.3	16.4	15.6	Diurnal Average	
	54.6	32.9	26.1	25.4	25.6	32.1	36.7	70.1	73.3	48.5	46.8	46.5	43.0	34.8	35.9	33.1	39.1	25.7	27.0	53.5	60.9	47.7	50.7	46.6	Diurnal Maximum	

N - Not Valid

Hourly Maximums

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

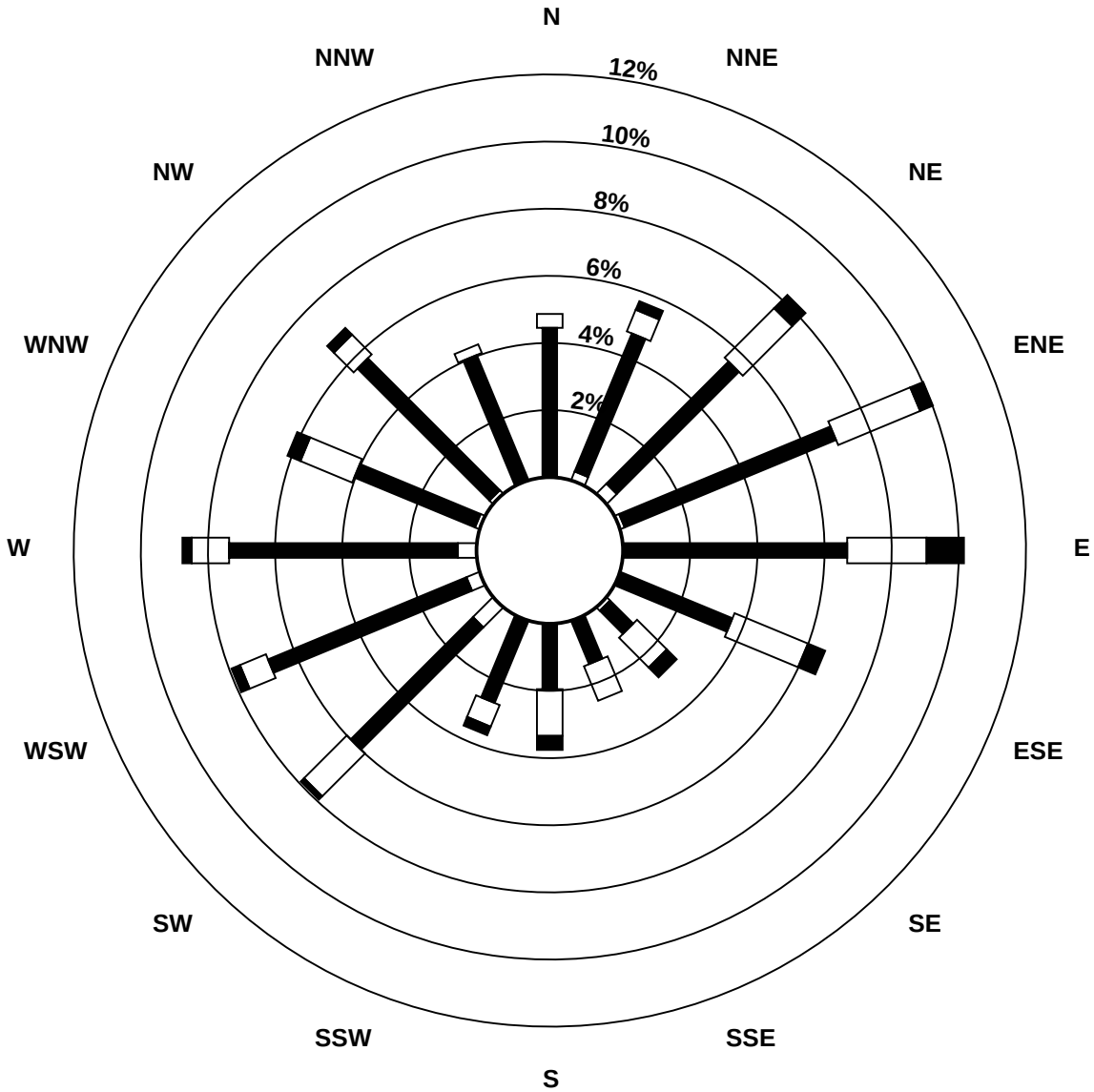
Beaverlodge - April 2010



Pollutant Rose

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

Beaverlodge - April 2010



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

- 0 - 5
- 6 - 15
- 16 - 25
- 26 - 80
- > 80.0

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Hourly Averages

External Temperature (ET) - ^{o}C

Beaverlodge - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 25.7 ^{o}C on Apr 20 18:00
Maximum Daily Average: 17.0 ^{o}C on Apr 20

Minimum Value: -7 ^{o}C on Apr 11 06:00
Maximum Diurnal Average: 11.3 ^{o}C at hour 16
Monthly Average: 6.15 ^{o}C

Minimum Daily Average: -3.0 ^{o}C on Apr 11
Minimum Diurnal Average: 0.1 ^{o}C at hour 6
Percentiles: P_1 = -5.5 P_{10} = -2.0 Q_1 = 1.0 Median = 5.2 Q_3 = 10.3 P_{90} = 16.5 P_{99} = 22.8

Hours in Service:	720
Hours of Data:	719
Hours of Missing Data:	1
Hours of Calibration:	0
Percent Operational Time:	99.9

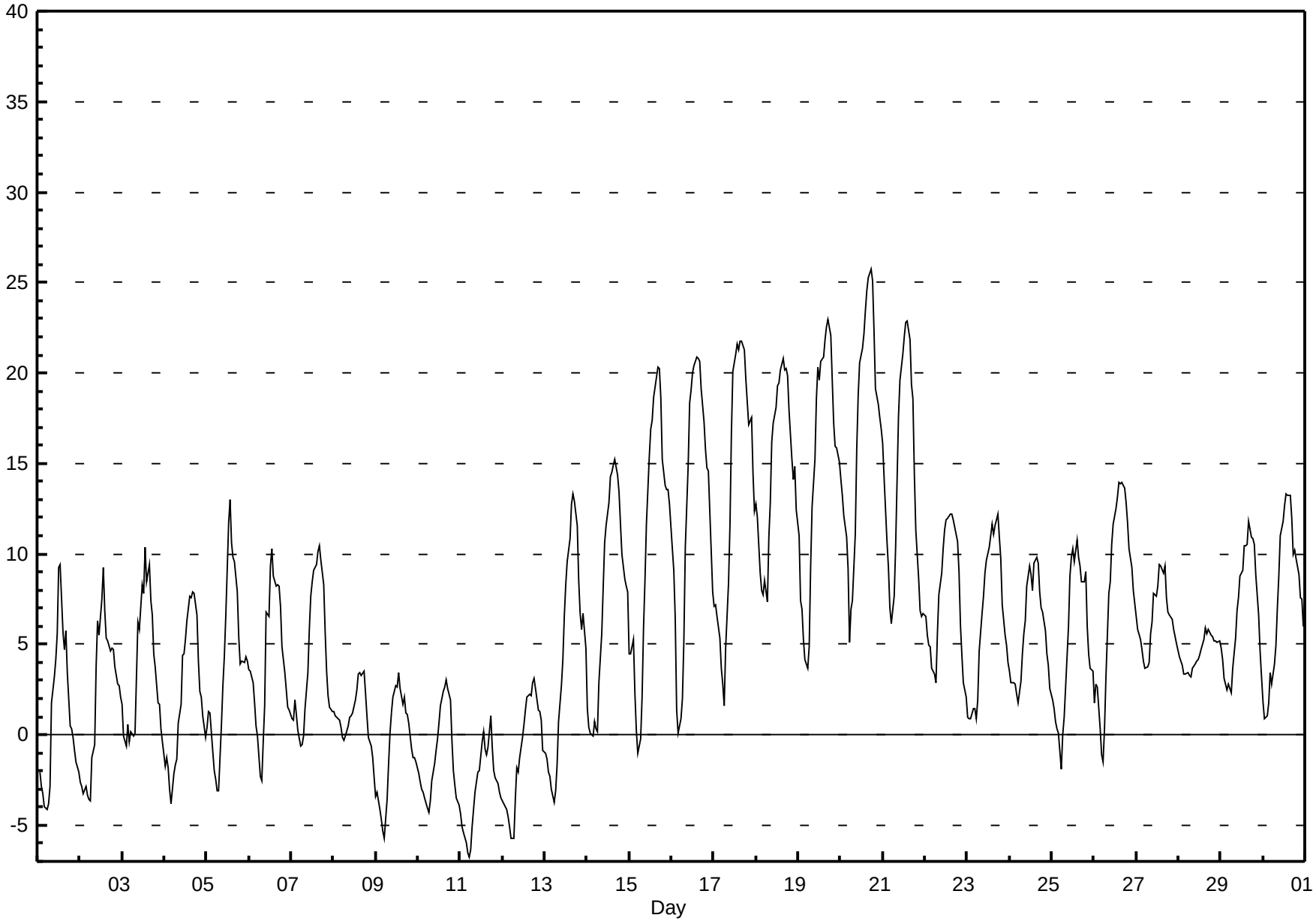
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	N	-2	-3	-3	-4	-4	-4	-3	2	3	4	6	9	9	6	5	6	3	0	0	0	-1	-1	-2	1.1	9.4
2-Apr	-3	-3	-3	-3	-3	-4	-4	-1	-1	4	6	6	8	9	7	5	5	5	5	5	4	3	3	2	2.1	9.2
3-Apr	2	0	-1	1	0	0	0	0	3	6	6	8	8	10	8	9	7	7	4	4	2	2	0	0	3.6	10.4
4-Apr	-2	-1	-2	-3	-4	-2	-2	-1	1	2	4	4	5	6	8	8	8	8	7	4	2	2	1	0	2.2	7.9
5-Apr	0	1	1	-1	-2	-2	-3	-3	1	3	4	7	12	13	11	10	10	8	5	4	4	4	4	4	3.9	13.0
6-Apr	4	4	3	2	1	0	-2	-3	0	2	7	7	9	10	9	8	8	8	7	5	3	3	1	1	4.0	10.3
7-Apr	1	1	2	1	0	-1	-1	0	1	3	6	8	8	9	9	10	10	10	8	6	4	2	2	1	4.2	10.5
8-Apr	1	1	1	1	0	0	0	0	0	1	1	1	2	2	3	3	3	4	2	1	0	-1	-1	-2	1.0	3.5
9-Apr	-3	-3	-4	-5	-5	-6	-4	-2	0	1	2	3	3	3	3	2	2	1	1	1	-1	-1	-1	-2	-0.6	3.4
10-Apr	-2	-3	-3	-3	-4	-4	-4	-4	-3	-2	-1	0	1	2	2	3	3	3	2	0	-2	-3	-3	-4	-1.2	3.1
11-Apr	-4	-5	-5	-6	-7	-7	-6	-5	-3	-3	-2	-2	0	0	-1	-1	-1	1	-1	-2	-2	-3	-3	-4	-3.0	1.0
12-Apr	-4	-4	-4	-5	-5	-6	-6	-4	-2	-2	-1	0	1	1	2	2	2	3	3	3	1	1	1	-1	-0.9	3.1
13-Apr	-1	-1	-2	-2	-3	-4	-3	-2	1	3	4	7	8	10	11	13	13	13	12	9	7	6	7	5	4.5	13.3
14-Apr	1	0	0	0	1	0	0	3	6	8	11	12	13	14	15	15	15	14	13	12	10	9	8	8	7.8	15.2
15-Apr	5	4	5	2	0	-1	0	2	6	9	12	15	17	17	19	20	20	20	19	15	14	14	14	13	10.8	20.3
16-Apr	10	9	6	1	0	1	2	5	10	15	18	19	20	20	21	21	21	19	17	16	15	15	12	8	12.6	20.9
17-Apr	7	7	7	5	4	3	2	5	8	12	17	20	21	22	21	22	22	21	20	18	17	18	14	12	13.5	21.8
18-Apr	13	12	9	8	8	9	7	11	13	16	17	18	19	19	20	21	20	20	20	18	15	14	15	12	14.8	20.8
19-Apr	11	7	7	5	4	4	5	9	13	15	19	20	20	21	21	22	23	23	22	20	17	16	16	15	14.7	23.0
20-Apr	14	13	12	11	9	5	7	7	11	16	19	21	21	22	23	25	25	26	25	22	19	18	18	17	17.0	25.7
21-Apr	16	14	11	9	7	6	8	10	14	18	20	21	22	23	23	22	19	19	14	11	9	7	7	7	14.0	22.9
22-Apr	7	6	5	5	4	3	3	6	8	9	10	11	12	12	12	12	12	12	11	9	6	4	3	2	7.6	12.2
23-Apr	1	1	1	1	1	1	2	5	7	8	9	10	10	11	12	11	12	12	11	10	7	5	5	4	6.5	12.2
24-Apr	4	3	3	3	2	2	3	5	6	6	8	9	9	8	9	10	9	8	7	7	6	4	4	3	5.7	9.8
25-Apr	2	1	1	0	0	-2	0	1	3	6	9	10	10	10	11	10	9	8	8	9	6	5	4	4	5.2	10.8
26-Apr	2	3	3	0	-1	-2	0	3	8	8	10	12	12	13	14	14	14	14	13	12	10	9	8	7	7.8	14.0
27-Apr	7	6	5	5	4	4	4	4	6	6	8	8	8	9	9	9	9	8	7	7	6	6	5	5	6.4	9.4
28-Apr	4	4	4	3	3	3	3	3	4	4	4	4	4	5	5	6	6	6	6	5	5	5	5	5	4.5	5.9
29-Apr	5	4	3	2	3	3	2	4	5	7	8	9	9	10	10	11	12	11	11	11	9	7	5	3	6.8	11.8
30-Apr	2	1	1	2	3	3	4	5	7	9	11	12	13	13	13	13	12	10	10	10	9	8	8	6	7.6	13.3
	3.4	2.7	2.1	1.3	0.6	0.1	0.4	2.0	4.4	6.4	8.3	9.4	10.5	11.2	11.2	11.3	11.3	10.8	9.7	8.3	6.7	5.9	5.3	4.3	Diurnal Average	
	16.1	14.2	12.2	10.9	9.2	8.5	7.6	10.9	14.0	17.6	19.6	21.0	22.0	22.8	23.4	24.5	25.3	25.7	25.1	22.3	19.1	18.3	17.5	16.9	Diurnal Maximum	

N - Not Valid

Hourly Averages

External Temperature (ET) - ^{o}C

Beaverlodge - April 2010



Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 92.2 % on Apr 26 06:00 Maximum Daily Average: 87.1 % on Apr 28

Minimum Value: 11 % on Apr 20 18:00 Minimum Daily Average: 32.4 % on Apr 16

Maximum Diurnal Average: 70.2 % at hour 6 Minimum Diurnal Average: 34.2 % at hour 14

Monthly Average: 51.83 % Percentiles: P_1 = 14.7 P_{10} = 24.7 Q_1 = 36.2 Median = 51.2 Q_3 = 66.8 P_{90} = 80.9 P_{99} = 90.5

Hours in Service:	720
Hours of Data:	719
Hours of Missing Data:	1
Hours of Calibration:	0
Percent Operational Time:	99.9

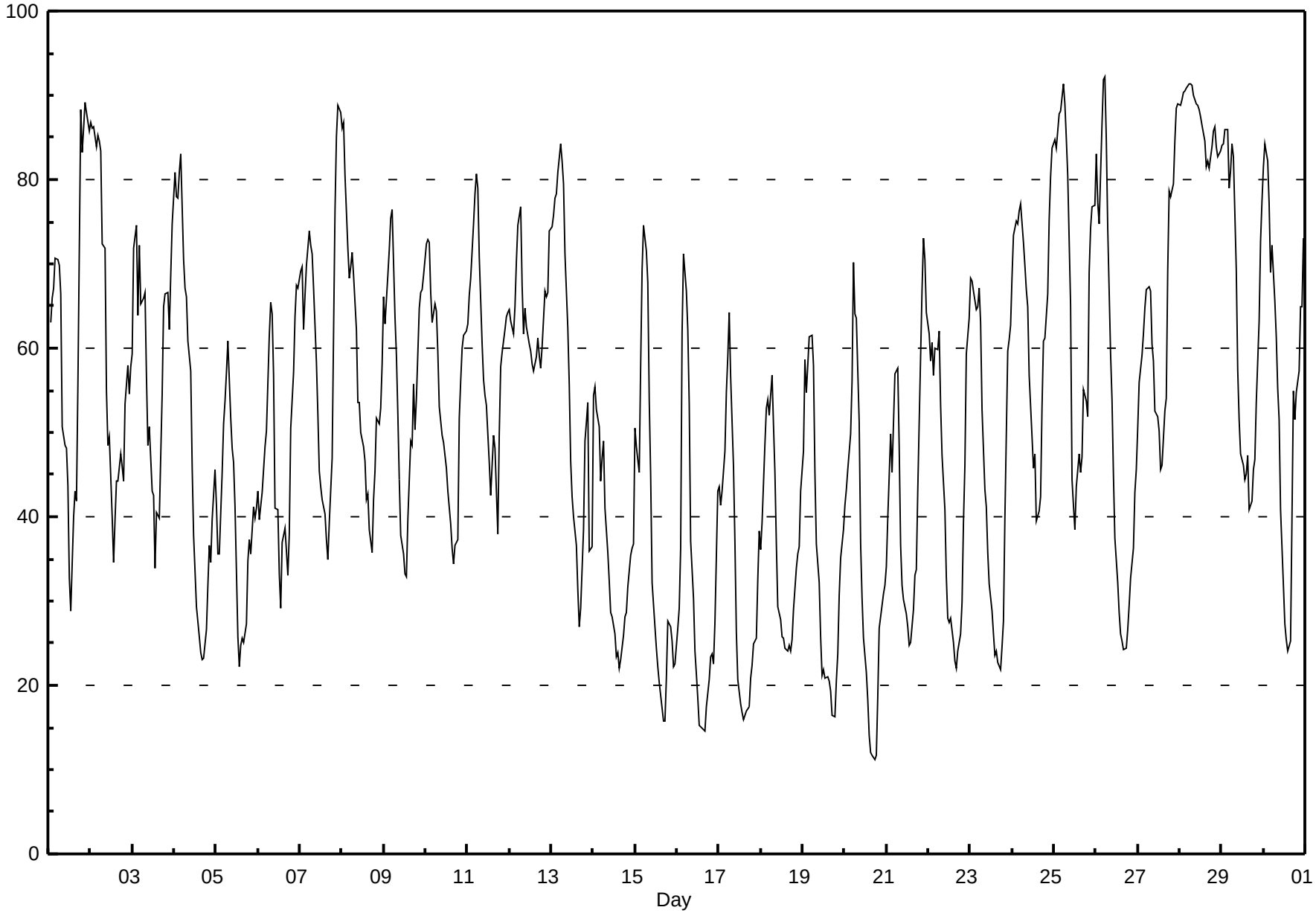
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	N	63	66	67	71	71	70	66	51	48	48	44	33	29	40	43	42	56	88	83	86	89	88	86	62.0	89.1
2-Apr	87	86	86	84	85	85	83	72	72	55	48	50	40	35	40	44	44	47	46	44	53	58	55	58	60.7	86.8
3-Apr	59	72	75	64	72	65	66	67	57	48	51	43	43	34	41	40	47	55	65	66	67	62	69	75	58.4	74.7
4-Apr	81	78	78	81	83	71	67	66	61	57	46	38	33	29	26	24	23	23	27	32	37	35	40	46	49.2	83.0
5-Apr	41	36	36	45	51	54	57	61	52	48	46	41	26	22	25	26	25	27	35	37	36	41	40	41	39.5	60.8
6-Apr	43	40	43	46	48	50	62	65	64	57	41	41	33	29	37	39	36	33	38	51	57	64	67	67	47.9	67.4
7-Apr	69	70	62	66	70	74	72	71	67	58	52	45	44	42	40	37	35	39	47	62	76	85	89	88	60.9	88.9
8-Apr	86	87	80	72	68	70	71	69	62	54	54	50	48	47	42	43	38	36	42	45	52	51	53	58	57.4	86.8
9-Apr	66	63	69	72	75	76	64	59	52	44	38	36	33	33	40	49	48	56	50	54	65	67	67	69	56.0	76.4
10-Apr	72	73	73	67	63	65	64	60	53	50	49	47	46	43	39	36	34	37	37	52	56	60	61	62	54.1	72.8
11-Apr	63	66	68	75	78	81	79	71	61	56	54	53	46	43	46	50	48	38	50	58	60	62	64	64	59.7	80.7
12-Apr	65	63	62	65	70	75	77	68	62	65	63	61	60	58	57	59	61	59	58	60	67	66	67	74	64.1	76.7
13-Apr	74	76	78	78	81	84	82	79	71	62	56	47	42	40	37	31	27	29	39	49	51	54	36	36	55.8	84.3
14-Apr	54	55	53	51	44	47	49	41	36	32	29	28	26	23	24	22	23	26	28	29	32	35	36	37	35.9	55.4
15-Apr	50	48	45	58	69	75	71	68	54	45	32	27	24	22	20	17	16	16	21	28	27	25	22	23	37.7	74.6
16-Apr	27	29	36	62	71	67	62	53	37	30	24	21	19	15	15	15	15	17	21	23	24	22	27	43	32.4	71.2
17-Apr	44	41	43	48	55	59	64	57	46	37	26	21	18	17	16	16	17	17	21	22	25	26	32	38	33.6	64.3
18-Apr	36	39	49	53	54	52	57	51	45	37	29	28	26	26	24	24	25	24	25	29	34	36	36	43	36.7	56.7
19-Apr	48	59	55	58	61	62	58	45	37	32	26	21	22	21	21	20	19	16	16	20	24	31	35	39	35.2	61.6
20-Apr	41	43	46	50	56	70	64	63	51	37	30	26	21	18	14	12	12	11	12	19	27	30	31	32	34.0	70.2
21-Apr	34	40	50	45	51	57	58	48	37	32	30	28	27	25	25	29	33	34	43	51	67	73	71	64	43.8	73.1
22-Apr	62	58	61	57	60	60	62	53	47	41	33	28	27	28	25	23	22	24	26	30	39	46	59	64	43.1	63.6
23-Apr	68	68	67	65	65	67	63	53	43	41	36	32	29	26	24	24	23	22	25	28	40	60	61	63	45.4	68.2
24-Apr	68	73	75	75	76	77	73	70	67	65	57	49	46	47	39	41	42	53	61	61	66	75	80	84	63.4	83.8
25-Apr	85	84	86	88	88	91	89	85	81	65	44	41	38	44	47	45	47	55	54	52	69	74	77	77	66.9	91.3
26-Apr	83	77	75	87	92	92	85	74	59	54	45	37	32	29	26	25	24	24	27	29	33	36	43	46	51.5	92.2
27-Apr	50	56	59	62	65	67	67	67	61	58	53	52	50	46	46	52	54	69	79	78	80	85	89	89	63.8	89.0
28-Apr	89	90	90	91	91	91	91	91	90	89	89	88	87	86	85	82	82	81	84	86	86	84	83	83	87.1	91.3
29-Apr	84	84	86	86	79	81	84	83	69	57	52	47	46	44	45	47	41	42	46	47	53	63	73	77	63.2	85.9
30-Apr	82	84	82	77	69	72	66	61	55	52	41	32	27	25	24	25	40	55	52	55	57	65	65	73	55.7	84.3
	62.5	63.4	64.4	66.4	68.8	70.2	69.2	64.6	56.6	50.3	44.0	40.1	36.5	34.2	34.3	34.7	34.8	37.4	42.0	46.0	51.5	55.3	57.2	59.9	Diurnal Average	
	88.7	89.5	90.3	90.5	91.8	92.2	91.3	91.2	90.1	88.9	88.9	88.3	87.4	86.5	84.5	81.5	82.1	81.4	88.3	85.8	86.2	89.1	88.9	89.0	Diurnal Maximum	

N - Not Valid

Hourly Averages

Relative Humidity (RH) - %

Beaverlodge - April 2010



Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	N	4	4	3	2	3	3	2	2	4	7	10	5	1	9	13	5	9	3	4	4	4	3	4	1.6	13.3
Dir	N	218	223	199	62	70	85	105	132	203	203	217	219	271	344	286	337	188	190	73	200	159	83	95	211	286
2 Spd	4	5	5	3	3	3	2	5	2	1	2	3	2	5	13	19	23	24	24	25	15	4	3	3	6.7	24.7
Dir	89	88	89	100	90	82	272	332	268	97	220	278	218	66	36	55	60	62	60	56	78	174	60	349	61	56
3 Spd	7	4	3	1	3	5	5	2	3	3	5	5	10	4	3	3	7	10	10	8	14	12	12	11	2.1	14.1
Dir	30	227	62	330	343	353	357	272	229	193	195	179	182	186	205	120	29	8	26	233	247	252	233	249	251	247
4 Spd	4	9	7	2	1	7	9	6	6	8	9	21	18	16	11	10	8	4	4	6	7	7	2	2	5.1	20.8
Dir	221	228	234	190	189	240	243	206	205	214	205	234	234	229	236	231	272	328	69	70	74	76	184	73	226	234
5 Spd	6	5	2	2	3	3	1	4	3	3	5	5	3	3	3	8	5	8	13	15	12	16	21	23	5.1	22.6
Dir	43	39	350	13	18	13	65	320	299	225	207	189	138	105	68	110	87	55	33	34	40	66	71	82	60	82
6 Spd	23	20	10	4	2	1	3	2	5	0	1	8	7	11	28	33	30	27	28	26	20	16	7	3	8.3	33.3
Dir	85	82	92	230	71	286	291	2	220	210	170	217	215	214	229	241	249	249	258	263	252	253	240	224	239	241
7 Spd	8	5	6	3	3	3	4	6	9	13	16	37	35	33	35	30	29	20	15	11	12	14	13	12	11.4	37.3
Dir	230	236	222	150	127	78	122	130	159	176	200	227	227	223	223	225	246	259	272	315	313	306	322	312	236	227
8 Spd	8	4	5	8	14	12	11	13	19	23	24	30	29	32	32	39	38	38	40	33	25	24	19	12	21.8	40.5
Dir	306	282	271	292	284	272	258	263	279	281	278	278	275	266	264	257	258	254	258	261	252	255	260	251	265	258
9 Spd	8	6	2	1	6	3	6	9	25	27	27	24	20	21	21	20	24	21	19	14	10	10	9	9	13.5	27.2
Dir	233	264	74	97	243	359	290	272	276	279	282	291	308	300	283	266	280	281	290	291	275	288	293	298	284	282
10 Spd	7	6	7	10	10	10	12	17	21	22	24	23	21	19	18	18	19	16	15	15	16	6	5	6	13.1	23.9
Dir	294	301	299	310	312	308	311	308	316	310	310	313	310	312	319	325	335	358	2	21	13	1	1	2	325	310
11 Spd	8	8	10	9	8	9	10	10	7	7	6	8	12	8	9	10	9	6	10	13	16	18	17	16	9.0	17.6
Dir	359	5	10	18	19	22	27	43	37	25	25	2	22	34	49	106	93	43	92	70	68	65	65	60	45	65
12 Spd	15	11	9	1	2	4	6	10	14	17	17	18	18	18	16	20	19	16	13	11	11	14	11	9	10.3	20.5
Dir	61	55	56	2	236	47	42	81	102	113	110	108	113	109	107	103	105	95	77	55	29	24	22	336	84	103
13 Spd	7	8	10	8	6	10	9	13	10	9	8	5	4	5	3	1	3	8	9	7	4	1	6	5	3.7	13.3
Dir	334	309	326	352	327	323	329	312	307	290	288	292	223	215	287	103	329	43	115	101	80	199	263	249	316	312
14 Spd	3	4	6	5	3	2	0	5	14	13	11	10	8	6	10	10	11	14	10	7	6	6	5	2	6.0	14.1
Dir	118	70	48	53	76	41	61	312	315	323	349	353	13	357	352	356	6	30	26	22	43	38	34	33	8	30
15 Spd	1	7	6	2	1	3	3	3	2	4	4	4	7	9	9	6	7	8	8	11	11	11	10	9	4.2	11.4
Dir	241	41	39	211	147	50	66	47	194	187	174	138	125	147	117	125	115	108	87	34	34	47	70	75	86	34
16 Spd	4	2	1	2	5	3	1	1	2	2	3	13	12	15	12	14	18	21	14	7	6	7	10	2	4.6	20.8
Dir	113	186	58	56	292	354	11	111	104	212	261	235	212	238	244	250	264	280	309	342	343	336	10	211	271	280
17 Spd	3	4	3	3	4	1	2	2	4	5	3	7	8	8	7	12	15	17	15	3	7	14	15	3	3.9	16.6
Dir	37	58	76	54	34	334	44	264	282	242	188	127	124	117	116	94	85	80	92	137	106	180	219	201	112	80
18 Spd	4	4	4	2	4	2	1	1	4	5	14	10	11	11	8	7	7	8	11	12	12	12	11	9	3.3	14.3
Dir	278	264	169	185	42	286	185	134	175	239	258	233	167	165	158	105	134	122	98	78	65	74	126	80	133	258
19 Spd	5	6	6	5	3	3	5	2	3	4	4	7	13	13	15	15	15	12	12	9	11	13	18	17	7.8	18.2
Dir	107	165	178	169	93	60	44	86	156	152	164	118	122	124	123	108	110	124	118	66	50	82	94	93	109	94
20 Spd	16	12	3	5	5	1	4	3	4	2	2	4	13	13	10	10	9	2	5	10	14	15	17	18	5.3	17.5
Dir	93	94	184	251	226	266	26	221	172	144	121	110	120	126	124	137	155	226	326	18	41	80	92	98	104	98
21 Spd	18	10	10	7	4	3	4	2	7	15	14	11	9	8	11	25	30	29	38	36	27	20	15	17	11.3	38.0
Dir	97	123	154	166	29	319	295	252	292	304	304	304	298	312	334	292	285	279	270	274	291	291	281	273	285	270
22 Spd	12	13	13	11	12	13	10	17	23	24	26	24	24	27	27	27	24	29	27	26	15	13	11	6	18.7	29.1
Dir	258	254	249	264	258	273	281	266	264	269	256	258	256	253	265	263	268	268	267	258	252	256	250	239	261	268

Hourly Averages

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	8	3	4	12	15	13	10	22	24	23	25	19	18	16	17	18	16	6	7	10	13	14	13	5	9.3	24.7
Dir	234	234	258	263	276	282	282	277	287	285	283	301	296	298	278	259	259	335	24	41	40	48	70	83	292	283
24 Spd	9	8	8	9	9	10	10	3	8	14	12	6	13	15	9	13	10	8	11	4	6	8	5	3	5.4	15.0
Dir	85	75	74	84	70	50	48	84	118	97	102	62	31	15	322	353	356	13	51	84	212	218	190	355	55	15
25 Spd	7	8	6	6	10	4	9	6	3	2	2	3	4	9	10	6	14	17	9	1	5	2	6	3	2.7	17.2
Dir	328	320	2	331	323	304	327	336	317	21	159	188	318	226	194	149	217	234	225	150	248	17	40	71	276	234
26 Spd	3	7	5	2	2	3	2	2	7	16	24	26	23	23	24	26	28	30	29	27	24	26	29	32	16.4	32.1
Dir	66	40	36	203	68	230	275	215	139	122	94	85	97	95	91	94	94	91	91	88	85	83	87	87	91	87
27 Spd	29	27	25	26	24	24	22	22	23	24	24	24	21	23	23	19	12	18	13	15	17	22	24	24	21.3	29.2
Dir	85	83	82	80	83	81	73	73	78	80	74	86	78	89	75	84	111	140	102	89	80	73	69	68	82	85
28 Spd	22	19	15	17	17	18	17	17	16	17	17	17	15	16	16	17	15	14	9	6	9	10	12	11	14.3	22.5
Dir	77	69	62	55	57	60	58	50	52	55	50	55	57	56	62	70	68	53	39	44	22	6	8	1	53	77
29 Spd	10	11	13	10	5	4	1	2	5	11	14	13	11	7	8	16	9	8	8	9	6	3	3	2	4.4	15.8
Dir	16	12	19	31	356	327	333	223	220	224	242	243	244	254	263	277	284	333	292	265	249	249	209	93	284	277
30 Spd	4	6	6	9	9	8	10	13	8	8	6	10	12	12	13	8	15	24	16	11	3	5	6	6	5.6	24.4
Dir	66	49	52	29	323	312	332	344	329	305	314	313	313	319	321	341	243	241	250	262	327	200	210	94	304	241
Spd	3.9	2.8	2.4	1.7	2.3	2.7	2.8	2.6	2.9	2.8	3.2	3.8	2.4	2.5	2.6	2.6	3.2	2.5	2.2	3.2	3.2	2.4	2.9	3.4	Diurnal Average	
Dir	67	60	56	31	357	355	353	322	287	275	269	261	244	236	262	254	268	290	331	356	13	34	59	61		
Spd	29.2	27.5	25.2	25.8	24.2	24.2	22.4	22.2	24.9	27.1	27.2	37.3	35.4	33.4	35.4	38.6	37.9	38.1	40.5	36.2	26.7	25.9	29.2	32.1	Diurnal Maximum	
Dir	85	83	82	80	83	81	73	277	276	279	282	227	227	223	223	257	258	254	258	274	291	83	87	87		

Maximum Speed Value: 40 km/h on Apr 8 19:00
Maximum Daily Speed Average: 21.8 km/h on Apr 8
Maximum Diurnal Speed Average: 3.9 km/h at hour 1

Minimum Speed Value: 0 km/h on Apr 14 07:00
Minimum Daily Speed Average: 1.6 km/h on Apr 1
Minimum Diurnal Speed Average: 1.7 km/h at hour 4

Monthly Average Velocity: 1.26 km/h 331.0 deg

Speed Percentiles: $P_1 = 0.8$ $P_{10} = 2.5$ $Q_1 = 4.6$ Median = 9.2 $Q_3 = 15.3$ $P_{90} = 23.7$ $P_{99} = 35.4$

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

Hours in Service:	720
Hours of Data:	719
Hours of Missing Data:	1
Percent Operational Time:	99.9

N - Not Valid

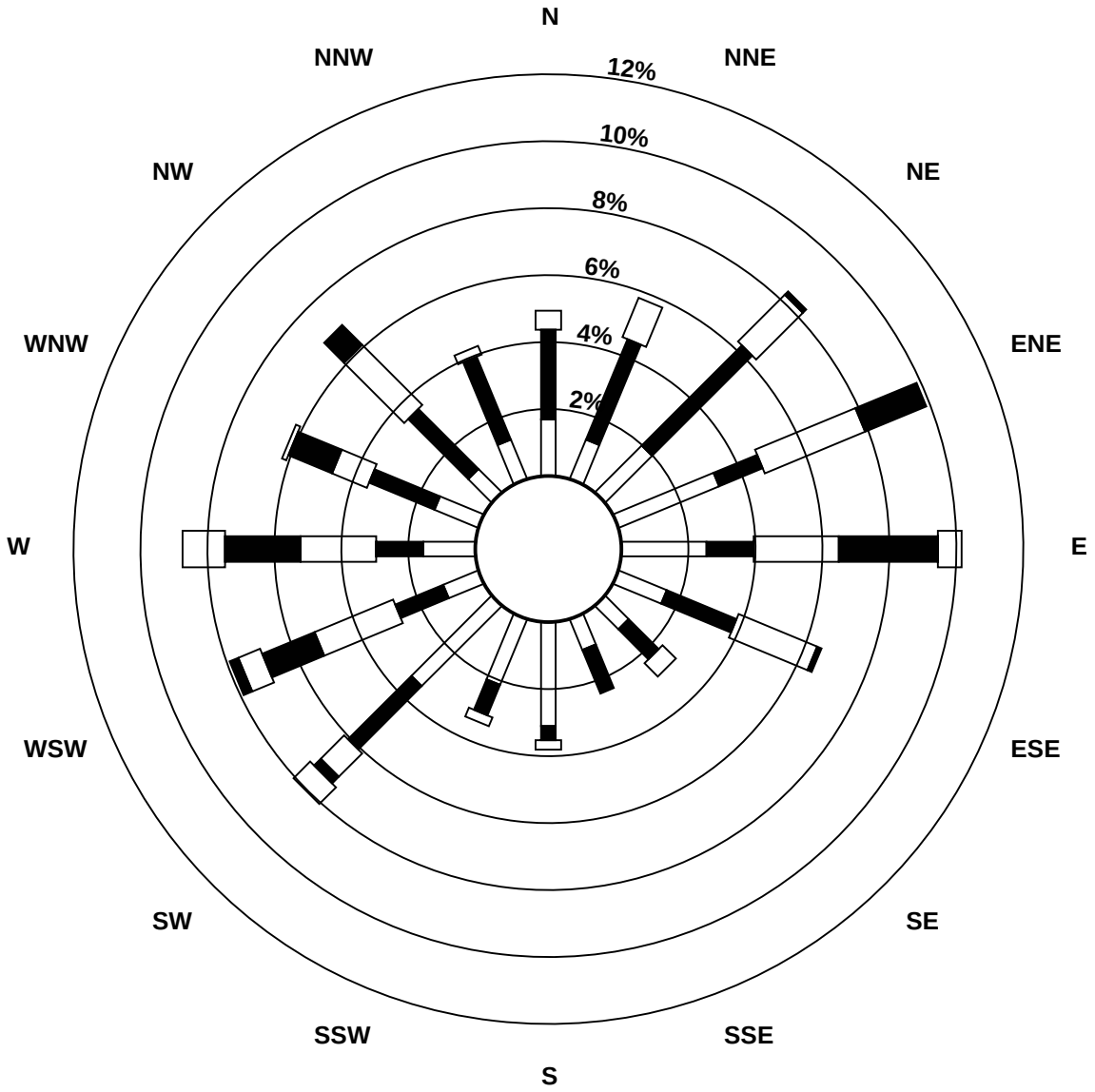
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	16	33	13	0	0	0	62
NorthEast	25	46	34	4	0	0	109
East	37	25	38	35	5	0	140
SouthEast	17	23	11	0	0	0	51
South	31	10	5	0	0	0	46
SouthWest	33	33	15	3	7	0	91
West	24	25	32	37	12	4	134
NorthWest	16	39	24	7	0	0	86
Total	199	234	172	86	24	4	719

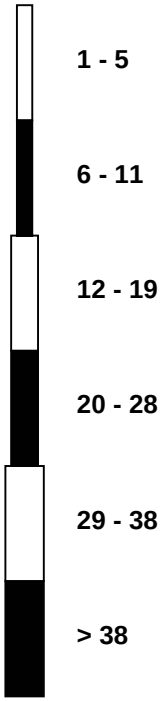
Wind Rose

Wind Speed (WS) (km/h)

Beaverlodge - April 2010



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - April 2010

Maximum Speed: 41 km/h on Apr 8 19:00

Maximum Daily Speed Average: 22.4 km/h on Apr 8

Minimum Speed: 1 km/h on Apr 15 05:00

Minimum Daily Speed Average: 5.7 km/h on Apr 1

Maximum Diurnal Speed Average: 16.8 km/h at hour 16

Minimum Diurnal Speed Average: 7.0 km/h at hour 4

Monthly Average Speed: 11.66 km/h

Percentiles: $P_1 = 2.1$ $P_{10} = 3.5$ $Q_1 = 5.5$ Median = 9.7 $Q_3 = 15.8$ $P_{90} = 24.0$ $P_{99} = 35.9$

Hours in Service: 720

Hours of Data: 719

Hours of Missing Data: 1

Percent Operational Time: 99.9

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	N	4	4	3	2	3	3	3	2	5	7	10	6	7	10	14	8	12	9	4	5	4	3	4	5.7	14.2
2-Apr	4	5	5	4	3	4	3	6	4	2	3	4	3	5	13	19	23	24	24	25	20	6	3	5	9.1	24.7
3-Apr	7	5	4	2	4	7	5	3	3	4	6	6	10	5	5	4	7	11	10	8	14	13	12	11	6.9	14.1
4-Apr	5	9	7	3	2	7	9	6	6	8	9	21	18	16	12	10	9	6	4	6	7	7	3	3	8.1	20.9
5-Apr	6	5	2	3	4	4	2	6	4	4	5	5	3	3	4	8	6	8	13	15	12	16	21	23	7.5	22.8
6-Apr	23	20	12	9	4	3	5	3	6	3	3	8	8	11	28	33	30	27	28	26	20	16	7	4	14.0	33.5
7-Apr	8	5	7	4	3	3	5	6	10	14	18	37	35	34	35	30	29	20	16	11	12	14	13	12	15.9	37.4
8-Apr	8	5	5	8	14	12	11	13	19	24	24	30	30	33	33	39	38	38	41	33	25	24	19	12	22.4	40.6
9-Apr	8	6	4	3	7	5	6	9	25	27	28	24	21	22	22	21	24	22	19	14	10	10	10	9	14.8	27.9
10-Apr	7	6	7	10	10	10	12	18	21	22	24	24	21	19	19	19	20	17	15	15	16	7	5	6	14.6	24.3
11-Apr	8	8	10	9	8	9	10	10	7	8	7	9	13	10	10	10	9	7	10	13	16	18	17	16	10.6	17.7
12-Apr	15	11	10	3	3	4	6	10	14	18	17	19	19	18	17	21	19	17	13	12	11	14	11	9	12.9	20.7
13-Apr	8	8	10	8	7	10	9	13	10	9	9	6	6	7	6	6	6	8	10	7	4	2	6	6	7.5	13.3
14-Apr	3	4	6	6	3	3	2	6	14	13	12	12	9	8	11	11	12	15	10	7	6	6	5	4	7.8	14.7
15-Apr	3	7	6	2	1	3	3	3	2	5	5	4	8	10	9	8	8	8	8	11	11	11	10	9	6.6	11.5
16-Apr	4	2	3	4	9	5	4	3	2	3	4	14	13	16	14	16	19	21	14	7	6	7	10	10	8.7	21.4
17-Apr	5	5	4	4	5	3	2	2	5	5	3	7	9	9	8	13	16	17	15	5	9	17	15	3	7.9	17.5
18-Apr	5	6	4	4	4	3	2	2	4	5	15	12	12	13	10	10	9	9	12	12	12	12	13	11	8.4	14.8
19-Apr	9	7	6	5	3	4	5	3	3	4	4	8	14	15	16	16	16	13	13	9	11	13	18	17	9.6	18.2
20-Apr	16	12	5	5	5	4	5	4	4	3	3	7	14	13	11	11	9	5	5	10	14	15	17	18	8.9	17.5
21-Apr	18	14	11	8	7	6	5	5	8	15	15	12	11	10	12	26	30	29	38	37	27	20	15	17	16.5	38.2
22-Apr	12	13	13	11	12	13	10	17	23	24	26	24	26	28	27	28	25	30	27	26	16	14	11	7	19.3	30.1
23-Apr	8	4	4	12	15	13	10	22	25	23	26	20	18	17	19	19	17	11	8	10	14	15	13	6	14.5	25.7
24-Apr	9	8	8	10	10	11	10	6	9	14	12	8	13	16	11	15	11	12	11	4	7	8	5	5	9.7	15.9
25-Apr	7	9	7	6	10	5	9	8	5	5	4	6	7	10	11	8	15	18	9	3	6	4	6	4	7.6	17.8
26-Apr	5	7	6	3	4	3	3	4	8	17	24	27	24	23	25	27	28	30	29	27	24	26	29	32	18.1	32.1
27-Apr	29	28	25	26	24	24	22	22	23	25	25	24	22	23	23	19	17	18	13	15	17	22	24	24	22.3	29.2
28-Apr	23	19	16	17	17	18	17	17	16	17	18	17	15	16	16	17	16	14	10	6	10	10	12	11	15.2	22.6
29-Apr	10	11	13	10	6	5	4	3	5	11	14	14	12	9	9	16	10	9	9	9	6	4	3	3	8.5	16.2
30-Apr	4	6	6	10	10	8	10	13	9	9	7	11	13	13	14	11	17	25	16	11	5	7	6	6	10.2	24.7
	9.5	8.6	7.7	7.0	7.2	7.1	7.1	8.2	9.9	11.5	12.6	14.3	14.3	14.6	15.3	16.8	16.7	16.7	15.3	13.3	12.4	12.0	11.5	10.2	Diurnal Average	
	29.2	27.5	25.3	25.9	24.3	24.3	22.5	22.4	25.0	27.4	27.9	37.4	35.4	33.5	35.5	38.9	38.1	38.4	40.6	36.5	26.8	26.0	29.2	32.1	Diurnal Maximum	

N - Not Valid

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

Hourly Standard Deviations

Wind Direction (WD) - deg

Beaverlodge - April 2010

Maximum Value: 92.7 deg on Apr 16 04:00

Minimum Value: 1.6 deg on Apr 5 23:00

Percentiles: P_1 = 2.5 P_{10} = 4.8 Q_1 = 8.3 Median = 16.3 Q_3 = 35.6 P_{90} = 60.3 P_{99} = 85.4

Hours in Service:	720
Hours of Data:	719
Hours of Missing Data:	1
Hours of Calibration:	0
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Apr	N	18	13	41	19	12	38	37	34	35	6	9	59	87	29	34	53	75	78	37	20	18	23	26	87.0
2-Apr	21	16	16	39	23	34	68	42	74	33	70	62	69	17	7	8	3	2	2	3	54	70	19	44	73.8
3-Apr	17	41	42	72	48	57	35	72	21	24	11	17	10	40	60	46	14	29	12	57	4	10	9	9	71.9
4-Apr	31	9	18	58	66	6	17	8	9	12	23	5	4	10	31	24	24	41	21	19	5	6	52	56	66.2
5-Apr	4	6	58	44	33	43	72	48	47	28	12	14	15	31	16	13	22	15	4	3	8	6	2	7	72.0
6-Apr	3	4	69	65	56	89	84	67	24	91	60	10	13	14	6	6	8	5	6	3	4	6	13	64	90.8
7-Apr	18	47	27	49	24	29	40	19	18	7	22	3	3	4	3	5	6	10	14	9	10	4	11	6	49.0
8-Apr	13	14	23	11	7	9	6	5	10	10	7	8	10	8	10	7	7	7	4	5	5	3	4	15	22.7
9-Apr	6	25	66	79	85	46	14	13	5	8	13	10	14	14	18	19	9	6	5	5	5	6	7	6	85.1
10-Apr	4	8	6	7	6	7	9	9	8	8	11	11	11	13	14	14	16	14	12	4	5	34	22	10	34.4
11-Apr	6	5	5	5	5	3	6	10	18	28	43	38	23	31	35	17	14	39	14	3	5	5	6	5	42.5
12-Apr	6	7	9	73	58	30	12	17	10	8	11	9	8	9	10	7	5	9	7	9	10	3	11	16	73.3
13-Apr	24	52	10	17	39	9	10	4	11	19	19	51	70	61	75	85	71	24	19	14	15	73	37	42	85.0
14-Apr	17	15	11	10	12	47	90	23	9	14	20	27	31	45	29	25	24	17	6	3	8	5	14	80	89.9
15-Apr	84	7	10	44	42	17	35	12	49	19	23	47	30	20	24	44	33	18	20	3	2	8	5	6	83.9
16-Apr	34	47	87	93	60	47	87	58	28	74	49	22	27	24	39	29	18	13	12	11	11	7	22	82	92.7
17-Apr	58	24	27	83	42	86	86	81	50	19	44	36	30	36	32	32	20	15	11	52	36	40	5	42	86.4
18-Apr	56	49	9	64	39	70	59	71	21	29	16	56	29	32	49	57	40	20	23	14	2	6	43	39	70.6
19-Apr	52	36	20	17	18	60	13	34	31	26	34	29	18	23	19	17	18	17	10	16	7	12	2	3	60.3
20-Apr	4	18	40	21	29	91	50	26	18	49	73	70	18	21	22	23	25	83	31	15	9	6	4	2	91.0
21-Apr	3	46	17	25	74	63	39	85	19	10	14	22	44	46	29	19	6	8	5	8	5	5	9	7	85.4
22-Apr	4	6	3	5	9	4	5	5	6	10	11	11	17	18	14	16	18	17	8	6	13	10	6	32	31.9
23-Apr	15	68	61	4	4	11	11	7	9	11	16	17	17	21	24	15	21	61	42	12	11	10	8	44	68.3
24-Apr	11	6	13	9	14	13	7	70	51	11	17	41	25	27	31	56	29	48	10	34	49	11	33	59	69.9
25-Apr	17	21	26	15	25	63	30	38	61	63	81	70	74	33	31	45	22	16	16	92	23	66	10	63	91.9
26-Apr	64	5	57	54	77	64	54	58	28	20	9	11	15	15	12	12	8	10	5	3	3	4	3	3	76.7
27-Apr	3	3	3	4	4	4	5	6	9	10	14	10	16	11	13	14	43	8	9	8	7	5	4	4	43.1
28-Apr	5	6	6	5	6	5	6	5	9	9	6	5	7	8	10	11	11	6	13	10	7	6	4	5	12.9
29-Apr	12	4	8	12	42	38	83	47	16	11	13	25	28	58	34	14	34	29	21	13	7	62	11	63	83.2
30-Apr	15	8	9	18	25	8	15	10	22	19	36	33	29	24	18	45	49	9	6	8	49	51	26	11	51.5
	83.9	68.3	86.9	92.7	85.1	91.0	89.9	85.4	73.8	90.8	81.0	70.4	73.9	87.0	74.8	85.0	70.9	82.5	78.5	91.9	54.1	73.5	51.6	81.7	

N - Not Valid

PASZA
Portable – Kinuso Station
Monthly Summary Tables, Graphs and Roses

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Portable-Kinuso - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 3.1 ppb on Apr 15 19:00
Maximum Daily Average: 0.9 ppb on Apr 18

Minimum Value: 0 ppb on Apr 1 01:00
Maximum Diurnal Average: 0.5 ppb at hour 10
Monthly Average: 0.27 ppb

Minimum Daily Average: 0.0 ppb on Apr 30
Minimum Diurnal Average: 0.1 ppb at hour 3
Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.3$ $P_{90} = 0.7$ $P_{99} = 2.3$

Hours in Service:	720
Hours of Data:	671
Hours of Missing Data:	49
Hours of Calibration:	29
Percent Operational Time:	97.2

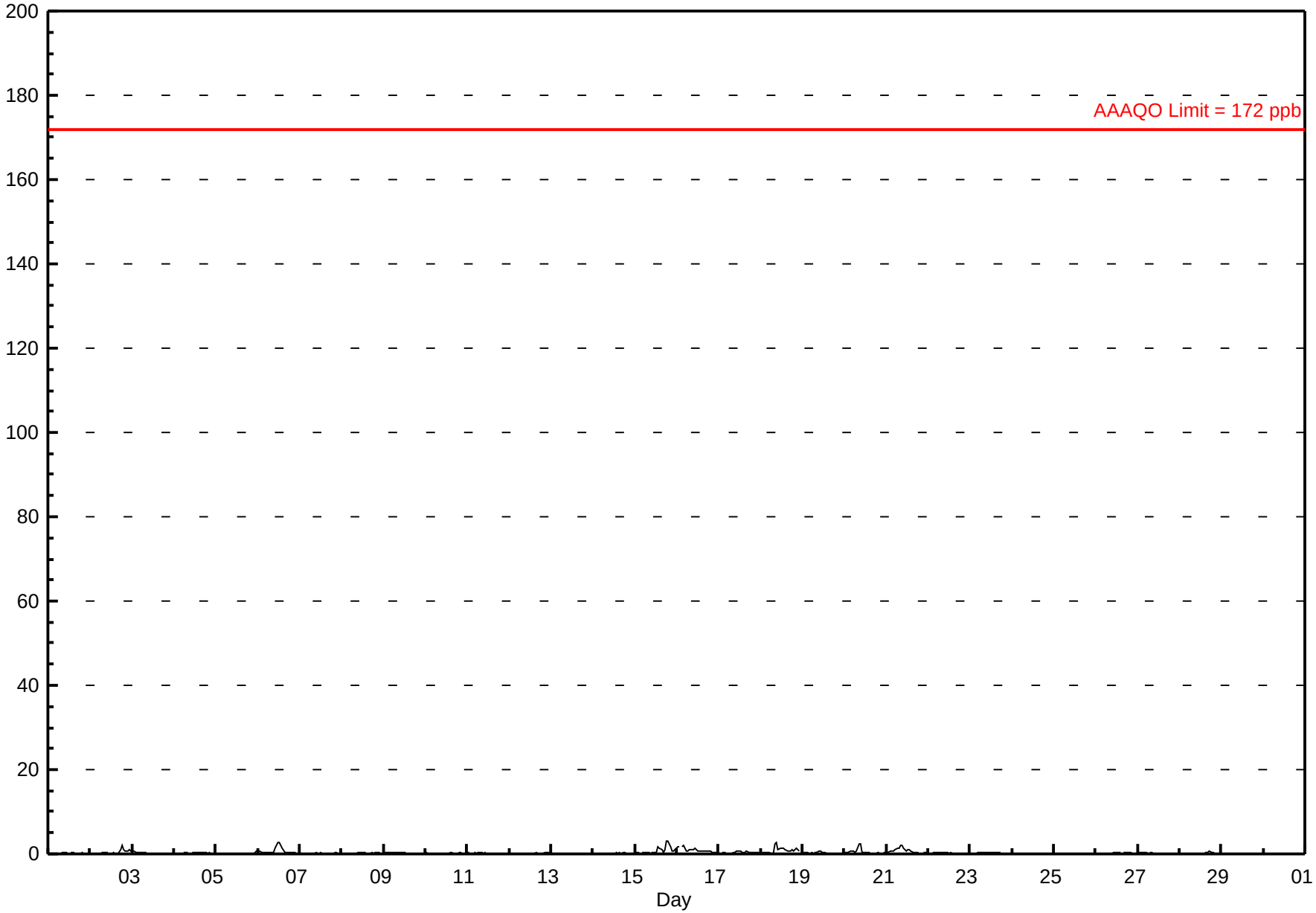
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
2-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	2	1	1	1	1	1	0.4	2.2
3-Apr	1	1	0	0	0	0	0	0	0	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	0.7
4-Apr	N	N	N	N	N	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
5-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	0.6
6-Apr	1	1	0	0	0	0	0	0	0	0	1	3	3	2	1	0	0	0	0	0	0	0	0	0	0.6	2.8
7-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
8-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
9-Apr	0	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	0.2
10-Apr	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
11-Apr	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
12-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
13-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1
14-Apr	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
15-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	2	2	1	0	1	3	3	2	1	1	1	0.8	3.1
16-Apr	2	2	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0.9	1.9
17-Apr	0	A	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0.3	0.6
18-Apr	A	0	0	0	0	0	0	0	3	3	1	1	2	1	1	1	1	1	1	1	1	1	1	A	0.9	2.6
19-Apr	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.6
20-Apr	0	0	0	1	1	1	0	1	2	2	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.5	2.3
21-Apr	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	0	0	0	0	A	0	0	0	0.8	2.2
22-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.2
23-Apr	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
24-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.0	0.1
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.0
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.4
27-Apr	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	0.5
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0.1	0.6
29-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
30-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.4	0.5	0.3	0.4	0.4	0.4	0.3	0.2	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.2	Diurnal Average	
	1.8	1.7	0.6	1.6	1.9	1.0	1.2	1.4	2.5	2.6	1.2	2.6	2.8	2.2	1.5	1.1	0.7	1.1	3.1	3.1	1.5	0.9	1.2	1.1	Diurnal Maximum	

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

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Portable-Kinuso - April 2010



Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Portable-Kinuso - April 2010

Maximum Value: 5.7 ppb on Apr 20 10:00

Maximum Daily Average: 1.4 ppb on Apr 18

Minimum Value: 0 ppb on Apr 14 13:00

Minimum Daily Average: 0.1 ppb on Apr 25

Maximum Diurnal Average: 0.8 ppb at hour 10

Minimum Diurnal Average: 0.4 ppb at hour 3

Monthly Average: 0.51 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.2$ $Q_1 = 0.2$ Median = 0.3 $Q_3 = 0.7$ $P_{90} = 1.2$ $P_{99} = 3.1$

Hours in Service:	720
Hours of Data:	671
Hours of Missing Data:	49
Hours of Calibration:	29
Percent Operational Time:	97.2

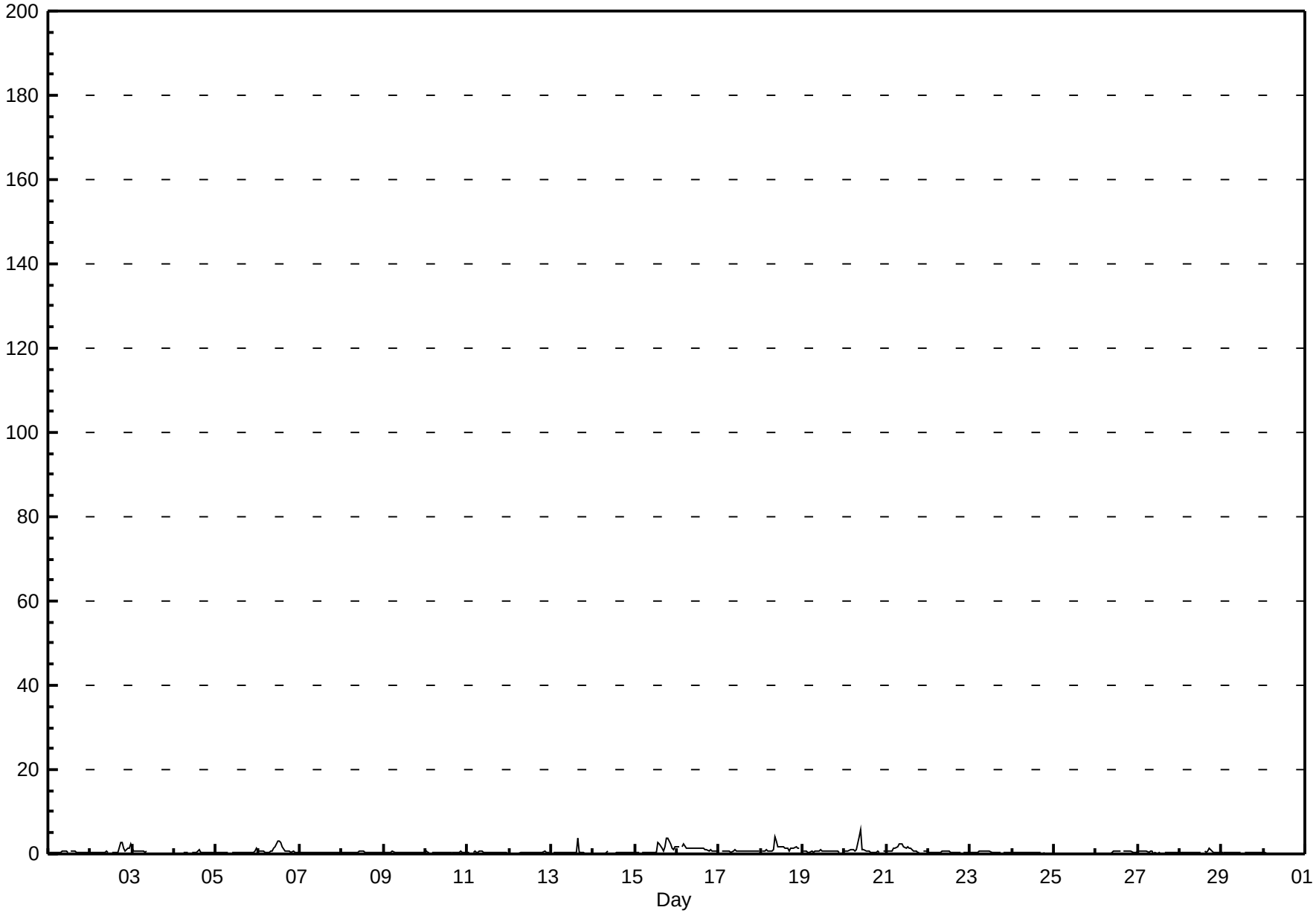
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	0	1	1	1	0	A	1	1	1	0	0	0	0	0	0	0	0	0.3	0.7
2-Apr	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	3	3	1	1	1	1	2	0.7	2.7
3-Apr	1	1	1	1	1	1	1	0	1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	1.3
4-Apr	N	N	N	N	N	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.4	0.9
5-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.3	1.2
6-Apr	1	1	1	1	0	0	0	1	1	1	2	3	3	3	2	1	1	1	1	0	1	0	0	0	1.0	3.2
7-Apr	0	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	0.2
8-Apr	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
9-Apr	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
10-Apr	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.3	0.6
11-Apr	0	0	A	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
12-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.2	0.7
13-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	A	0.4	3.8
14-Apr	0	0	0	0	0	0	0	0	1	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
15-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	3	2	1	1	2	4	4	2	1	1	2	1.2	3.8
16-Apr	2	2	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.3
17-Apr	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
18-Apr	A	1	1	1	1	1	1	1	4	3	2	2	2	2	1	1	1	1	1	1	2	1	1	A	1.4	4.0
19-Apr	1	1	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	0.6	1.1
20-Apr	1	1	1	1	1	1	1	1	4	6	1	1	1	1	1	0	0	0	0	1	0	A	1	1	1.1	5.7
21-Apr	1	1	1	1	1	1	2	2	2	2	2	1	2	1	1	1	1	1	0	0	A	1	1	1	1.1	2.3
22-Apr	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0.3	0.7
23-Apr	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.8
24-Apr	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
25-Apr	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	0.2
26-Apr	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	A	1	1	1	1	1	0	0	1	0.4	0.7
27-Apr	1	1	1	1	1	1	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.4	0.7
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	1	1	1	0	0	0	0	0	0.4	1.3
29-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2
30-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.8	0.8	0.6	0.6	0.6	0.6	0.6	0.6	0.4	0.6	0.6	0.5	0.5	0.4	0.4	0.5	Diurnal Average	
	1.8	1.8	0.8	1.8	2.3	1.3	1.7	2.2	4.2	5.7	1.7	3.2	3.2	2.8	2.3	3.8	0.9	2.7	3.8	3.8	2.5	1.3	1.3	2.2	Diurnal Maximum	

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

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

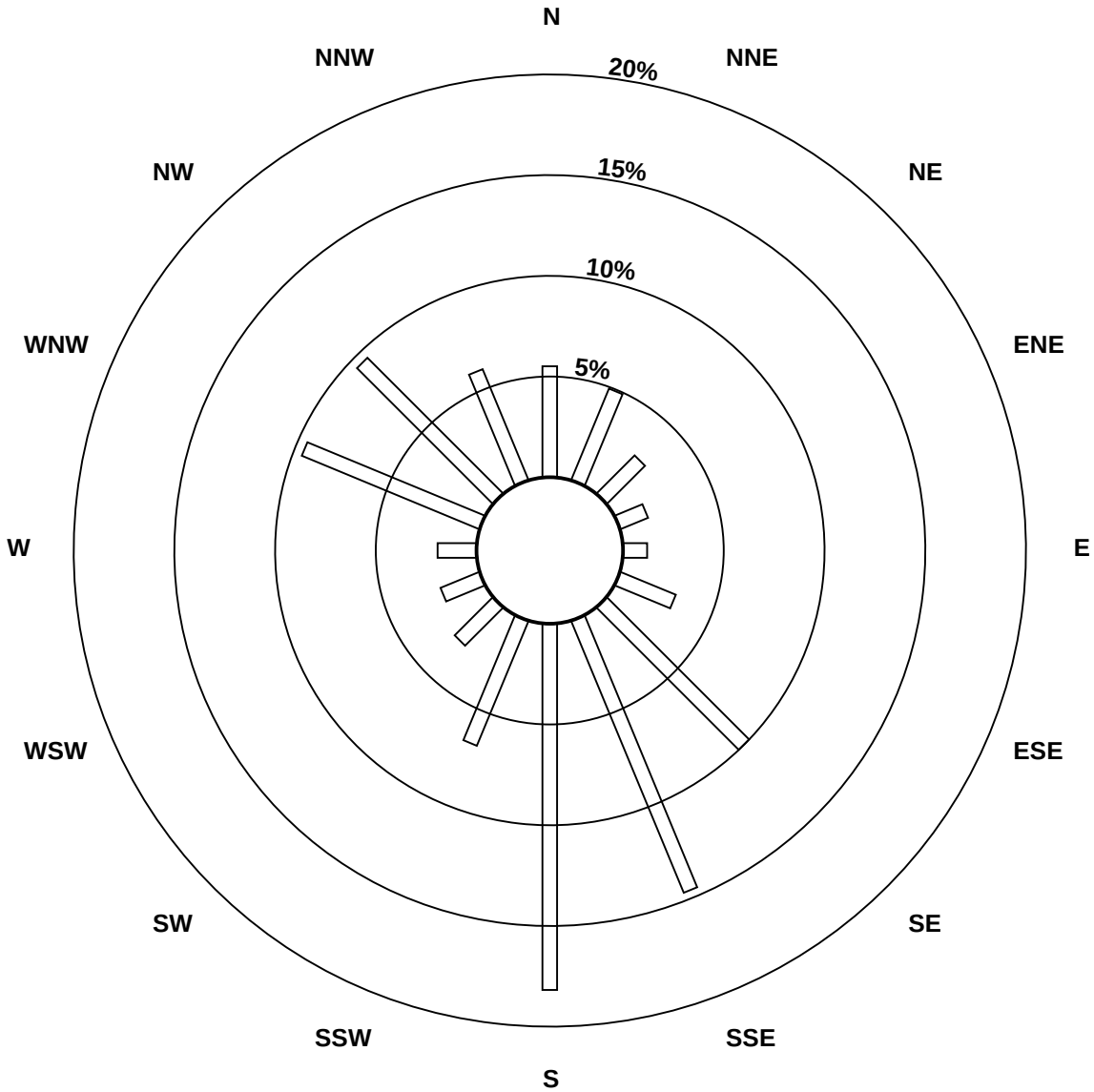
Portable-Kinuso - April 2010



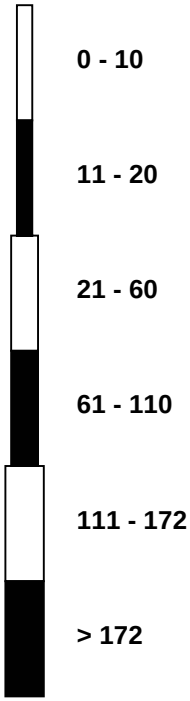
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Portable-Kinuso - April 2010



Pollutant Classes (ppb)



PASZA
Peace Airshed Zone Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Portable-Kinuso - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 0.7 ppb on Apr 6 13:00 Maximum Daily Average: 0.5 ppb on Apr 13

Minimum Value: 0 ppb on Apr 30 05:00 Minimum Daily Average: 0.3 ppb on Apr 30
Maximum Diurnal Average: 0.5 ppb at hour 12 Minimum Diurnal Average: 0.4 ppb at hour 21
Monthly Average: 0.44 ppb Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.4$ Median = 0.4 $Q_3 = 0.5$ $P_{90} = 0.5$ $P_{99} = 0.6$

Hours in Service:	720
Hours of Data:	671
Hours of Missing Data:	49
Hours of Calibration:	29
Percent Operational Time:	97.2

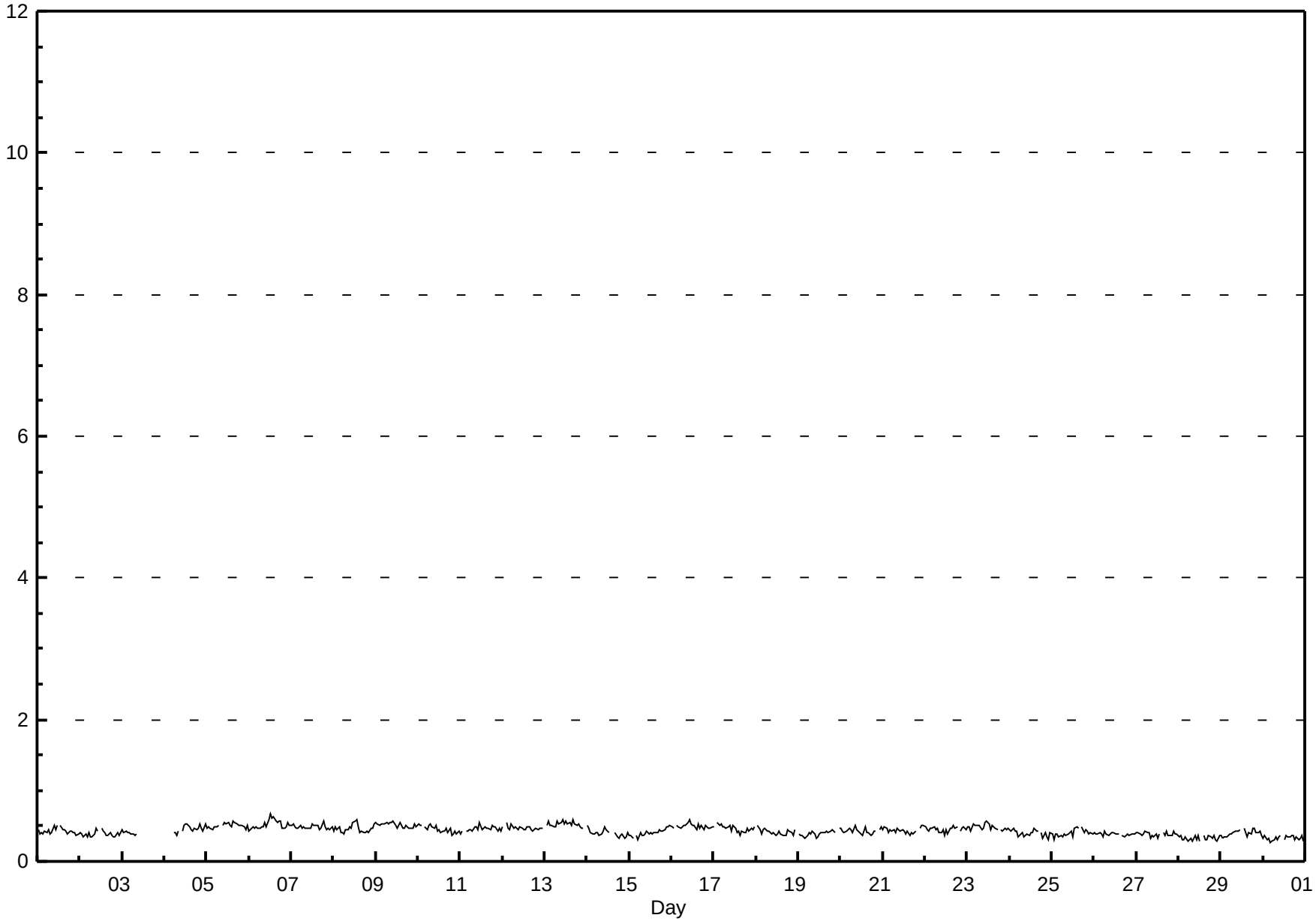
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	0	0	0	0	1	A	1	0	0	0	0	0	0	0	0	0	0	0.4	0.5
2-Apr	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
3-Apr	0	0	0	0	0	0	0	0	0	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	0.4
4-Apr	N	N	N	N	N	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	1	0	0	1	0.5	0.5
5-Apr	0	0	0	0	0	0	0	1	A	1	1	1	1	1	0	1	1	1	1	1	1	0	0	1	0.5	0.6
6-Apr	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	0	0	0	1	1	0.5	0.7
7-Apr	1	1	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0	0.5	0.6
8-Apr	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	0.5	0.6
9-Apr	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	1	0	0	0	0	1	0	0.5	0.6
10-Apr	1	1	1	A	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.5
11-Apr	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0.5	0.5
12-Apr	0	A	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.6
13-Apr	A	1	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	A	0.5	0.6
14-Apr	1	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0.4	0.5
15-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	0.5
16-Apr	0	0	A	1	0	0	0	1	1	1	1	1	1	1	0	1	0	1	0	1	0	0	0	0	0.5	0.6
17-Apr	0	A	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.6
18-Apr	A	1	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
19-Apr	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
20-Apr	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	0.5
21-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0.4	0.5
22-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0.5	0.5
23-Apr	0	0	0	1	0	1	1	1	0	0	1	1	1	0	1	0	0	0	A	0	0	0	0	0	0.5	0.6
24-Apr	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
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	0.5
26-Apr	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	0.4
27-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.4	0.4
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	0.4
29-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
30-Apr	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
	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	Diurnal Average	
	0.6	0.5	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.5	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	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

Total Reduced Sulphur (TRS) - ppb

Portable-Kinuso - April 2010



PASZA
Peace Airshed Zone Association

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

Portable-Kinuso - April 2010

Maximum Value: 1.1 ppb on Apr 8 23:00

Maximum Daily Average: 0.8 ppb on Apr 6

Minimum Value: 1 ppb on Apr 30 05:00

Minimum Daily Average: 0.6 ppb on Apr 30

Maximum Diurnal Average: 0.8 ppb at hour 23

Minimum Diurnal Average: 0.7 ppb at hour 4

Monthly Average: 0.75 ppb

Percentiles: $P_1 = 0.5$ $P_{10} = 0.6$ $Q_1 = 0.7$ Median = 0.7 $Q_3 = 0.8$ $P_{90} = 0.9$ $P_{99} = 1.1$

Hours in Service:	720
Hours of Data:	671
Hours of Missing Data:	49
Hours of Calibration:	29
Percent Operational Time:	97.2

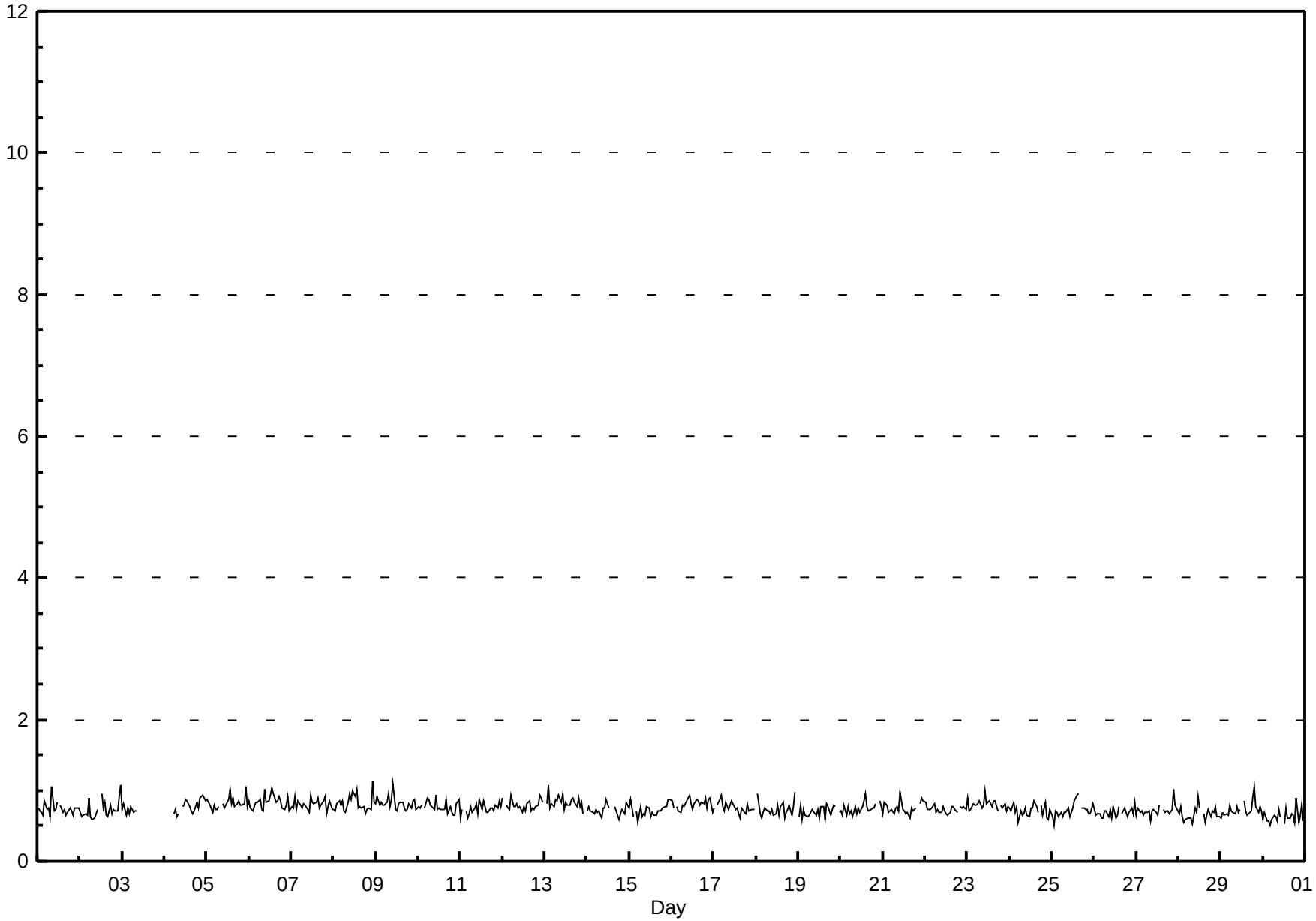
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
2-Apr	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
3-Apr	1	1	1	1	1	1	1	1	1	N	N	N	N	N	N	N	N	N	N	N	N	N	N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

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

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

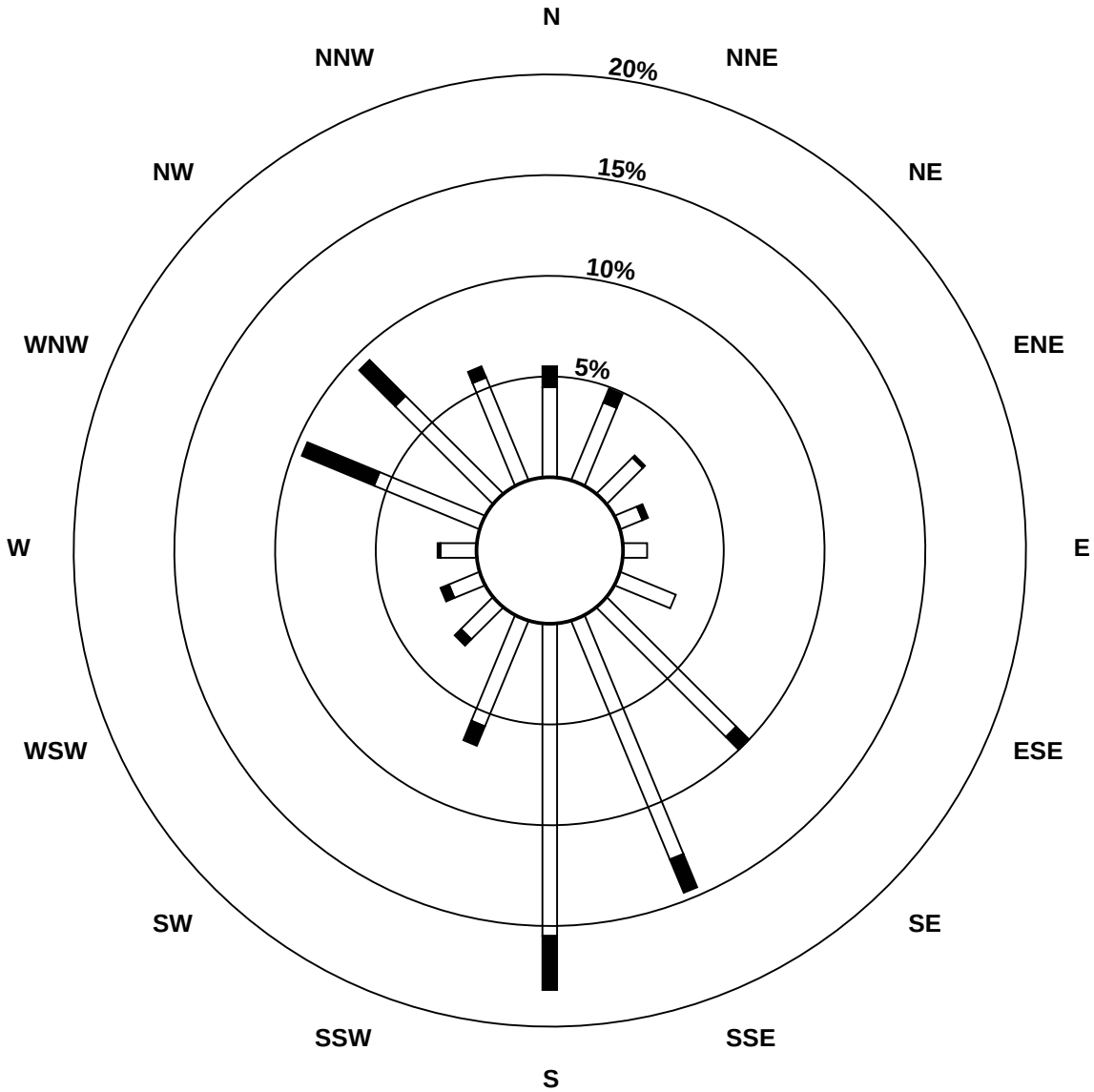
Portable-Kinuso - April 2010



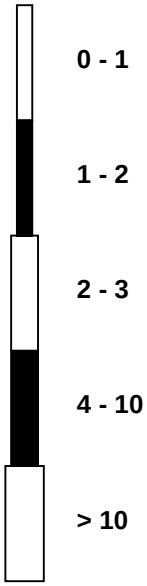
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb

Portable-Kinuso - April 2010



Pollutant Classes (ppb)



PASZA
Peace Airshed Zone Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Portable-Kinuso - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 11.1 ppb on Apr 19 20:00
Maximum Daily Average: 3.1 ppb on Apr 16

Minimum Value: 0 ppb on Apr 29 11:00
Maximum Diurnal Average: 2.1 ppb at hour 20
Monthly Average: 1.34 ppb

Minimum Daily Average: 0.4 ppb on Apr 10
Minimum Diurnal Average: 0.9 ppb at hour 17
Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.7$ Median = 1.1 $Q_3 = 1.7$ $P_{90} = 2.4$ $P_{99} = 5.0$

Hours in Service:	720
Hours of Data:	670
Hours of Missing Data:	50
Hours of Calibration:	30
Percent Operational Time:	97.2

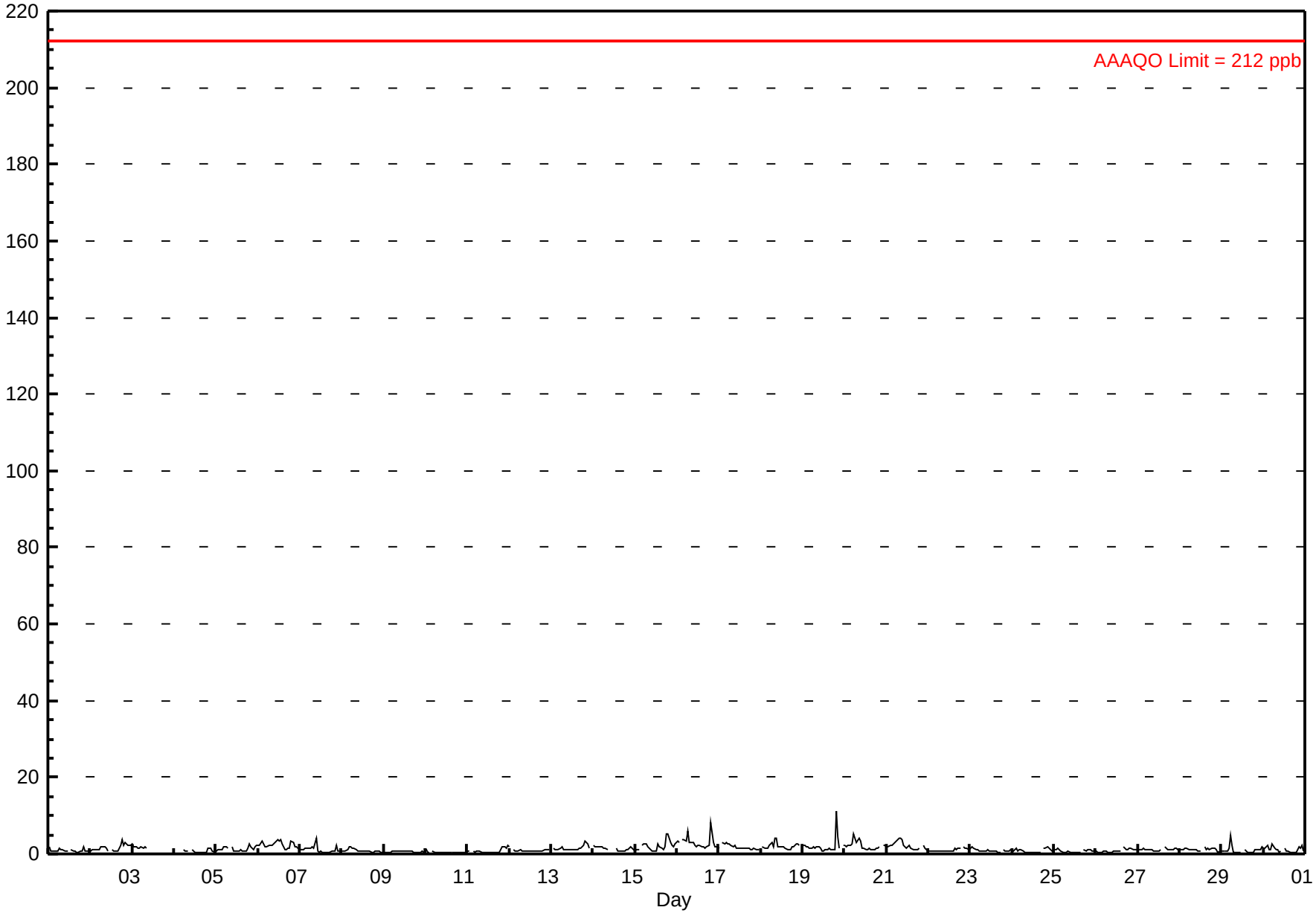
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	2	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1	1	1	1	1	2	1	1	1	0.9	2.0
2-Apr	1	1	1	1	1	1	2	2	2	2	1	A	1	1	1	1	1	2	4	2	3	2	2	2	1.6	3.7
3-Apr	3	2	2	2	2	2	2	2	2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	2.6
4-Apr	N	N	N	N	N	1	1	1	1	A	1	1	1	0	0	0	0	0	1	2	1	2	1	0	0.8	1.7
5-Apr	1	1	1	1	2	2	2	2	A	2	1	1	1	1	1	1	1	1	2	3	2	1	2	2	1.3	2.8
6-Apr	2	2	3	3	2	2	2	2	2	3	3	4	4	4	3	1	1	1	2	3	3	2	2	2	2.4	3.8
7-Apr	1	1	1	1	1	1	2	2	2	4	1	1	1	0	0	0	0	0	1	1	1	2	1	1	1.1	4.1
8-Apr	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	0.9	2.0
9-Apr	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	0	0.6	0.8
10-Apr	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.2
11-Apr	1	1	A	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	2	2	2	2	0.8	2.3
12-Apr	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.8
13-Apr	A	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	2	3	3	2	1	A	1.6	3.2
14-Apr	2	2	2	2	2	2	2	1	1	C	C	C	C	2	1	1	1	1	1	1	1	2	2	1	1.3	2.2
15-Apr	1	1	1	A	2	3	3	2	1	1	1	1	1	2	2	2	1	2	5	5	3	2	2	3	2.0	5.1
16-Apr	3	3	A	4	4	3	6	3	3	3	2	2	2	2	2	2	2	2	2	8	6	3	2	2	3.1	8.1
17-Apr	2	A	3	3	3	3	3	2	2	2	1	1	1	1	2	1	1	2	1	1	1	1	1	1	1.8	3.2
18-Apr	A	2	2	1	2	2	3	2	4	4	2	2	2	2	2	1	1	1	2	2	3	3	2	A	2.0	4.1
19-Apr	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	11	4	1	A	2	2.1	11.1
20-Apr	2	2	2	2	3	5	4	3	4	3	1	1	1	1	2	1	1	1	1	2	2	A	2	2	2.2	5.2
21-Apr	2	2	2	2	3	3	4	4	4	4	2	2	2	2	2	1	1	1	1	2	A	2	2	1	2.2	4.2
22-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	2	2	1	1	1.0	1.9
23-Apr	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	A	1	1	1	1	1	0.9	1.8
24-Apr	1	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	A	1	1	2	1	1	1	0.8	1.7
25-Apr	1	1	2	1	1	1	1	0	1	1	0	0	0	0	0	0	A	1	1	1	1	1	1	1	0.8	1.6
26-Apr	1	1	0	0	1	1	1	0	0	0	1	1	1	1	1	A	2	1	1	2	1	1	1	1	0.8	1.8
27-Apr	1	1	1	2	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	1	2	1	1.2	2.0
28-Apr	1	1	1	2	2	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	2	1	1	1	1.1	1.7
29-Apr	1	1	1	1	2	5	2	0	0	0	0	0	A	1	1	0	0	0	0	1	1	1	1	2	1.0	4.8
30-Apr	2	2	2	1	1	3	1	1	1	0	1	A	2	1	1	1	0	0	0	0	2	1	2	1	1.1	2.5
	1.4	1.3	1.4	1.4	1.5	1.7	1.7	1.4	1.4	1.5	1.0	1.0	1.0	1.1	1.0	0.9	0.9	1.0	1.3	2.1	1.8	1.5	1.3	1.3	Diurnal Average	
	3.3	3.1	3.2	3.8	3.7	5.2	6.1	4.2	4.2	4.1	2.9	3.8	3.5	3.6	2.5	2.0	1.8	2.4	5.1	11.1	5.6	3.0	2.3	2.5	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

Nitrogen Dioxide (NO_2) - ppb

Portable-Kinuso - April 2010



Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

Portable-Kinuso - April 2010

Maximum Value: 75.6 ppb on Apr 7 10:00

Maximum Daily Average: 6.3 ppb on Apr 19

Minimum Value: 0 ppb on Apr 29 11:00

Maximum Diurnal Average: 6.2 ppb at hour 20

Monthly Average: 2.63 ppb

Minimum Daily Average: 0.6 ppb on Apr 10

Minimum Diurnal Average: 1.4 ppb at hour 17

Percentiles: $P_1 = 0.5$ $P_{10} = 0.6$ $Q_1 = 1.0$ Median = 1.8 $Q_3 = 2.9$ $P_{90} = 4.5$ $P_{99} = 17.0$

Hours in Service:	720
Hours of Data:	670
Hours of Missing Data:	50
Hours of Calibration:	30
Percent Operational Time:	97.2

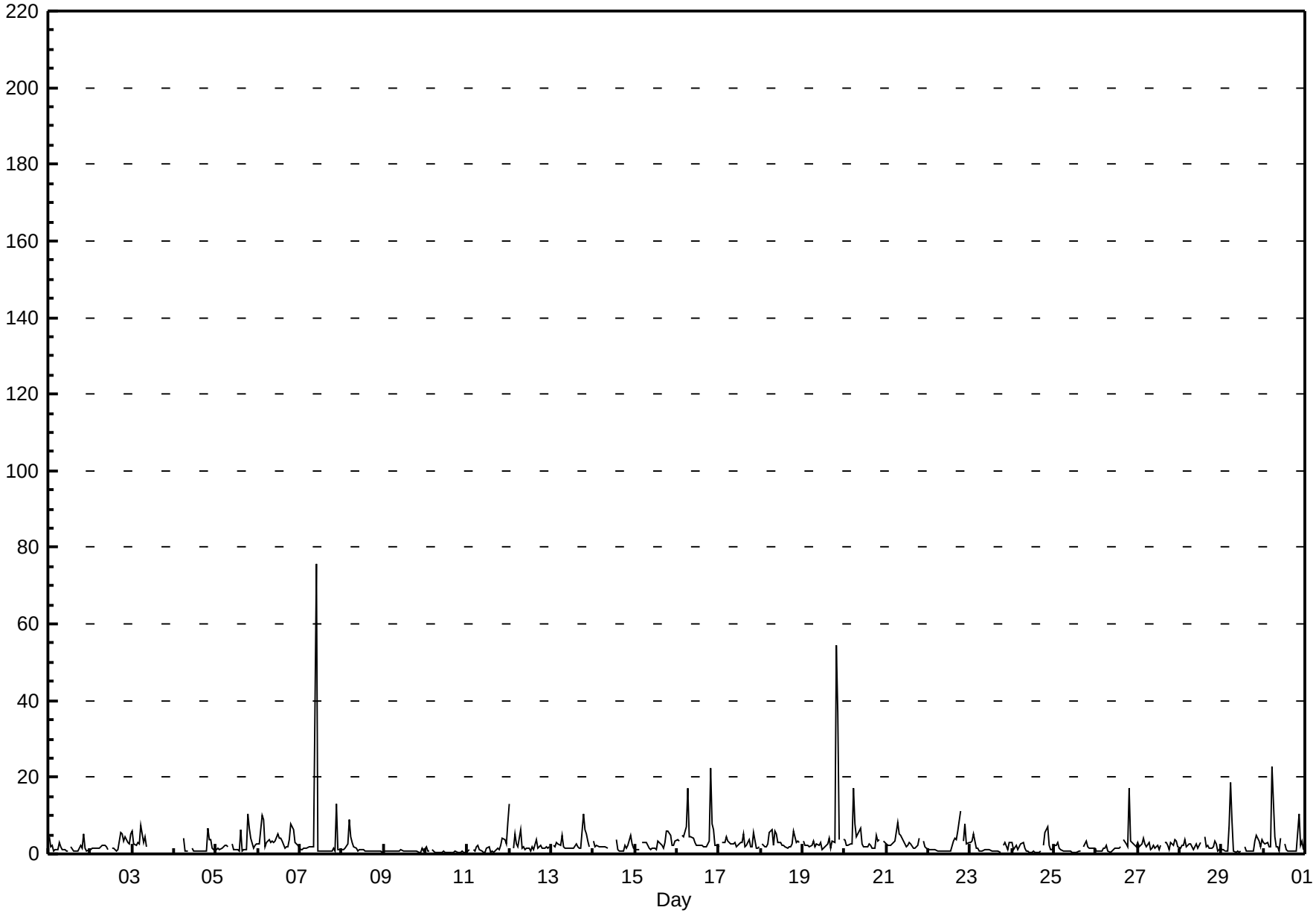
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	4	2	2	1	1	1	3	2	1	1	1	1	A	2	1	1	1	1	2	1	5	2	1	1	1.6	5.1
2-Apr	1	1	1	1	1	1	2	2	2	2	1	A	2	1	1	1	1	6	5	3	5	3	3	5	2.3	5.7
3-Apr	6	3	2	3	2	7	3	4	2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	7.5
4-Apr	N	N	N	N	N	4	1	1	1	A	2	1	1	1	1	1	1	1	1	7	4	4	1	1	1.6	6.5
5-Apr	1	1	1	2	2	2	2	2	A	3	1	1	1	1	6	1	1	1	10	7	4	2	2	2	2.5	10.3
6-Apr	3	3	10	9	2	3	4	3	3	3	3	5	4	4	3	1	2	2	4	8	6	3	3	2	3.9	10.2
7-Apr	1	1	2	1	2	2	2	2	2	76	1	1	1	1	1	1	1	1	1	2	1	13	1	1	4.8	75.6
8-Apr	1	1	2	3	9	4	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1.6	8.8
9-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	2	1	0.8	1.5
10-Apr	2	1	1	A	1	0	0	0	0	0	1	1	1	0	0	0	1	1	0	0	0	1	0	0	0.6	1.8
11-Apr	1	1	A	1	1	2	2	1	1	0	0	1	2	0	1	0	1	2	1	2	4	4	3	8	1.7	8.3
12-Apr	13	A	2	5	3	2	6	2	2	1	1	2	1	2	1	4	1	2	2	2	1	2	2	2	2.6	13.1
13-Apr	A	2	2	3	3	2	5	2	1	1	1	2	1	1	3	2	2	2	10	6	5	3	2	A	2.8	10.4
14-Apr	3	2	2	2	2	2	2	2	1	C	C	C	C	4	1	1	1	1	2	1	2	5	3	2	2.0	4.7
15-Apr	1	1	1	A	3	3	3	2	2	1	1	1	1	3	3	2	1	3	6	6	5	2	2	3	2.6	6.1
16-Apr	4	3	A	5	4	7	17	4	4	4	3	2	2	2	2	2	2	2	3	23	8	6	2	2	5.0	22.5
17-Apr	2	A	3	3	4	3	3	3	3	3	2	2	3	3	5	2	2	4	2	2	5	2	2	2	2.8	5.5
18-Apr	A	3	2	2	2	6	6	2	6	5	3	3	2	2	2	1	2	2	3	6	3	3	3	A	3.1	6.4
19-Apr	3	2	2	2	2	2	3	2	3	2	3	1	1	2	3	4	2	3	3	54	37	4	A	4	6.3	54.4
20-Apr	4	2	2	3	3	17	8	4	6	7	2	2	2	2	2	2	2	1	5	3	4	A	3	3	3.9	17.1
21-Apr	3	2	2	3	3	3	8	5	5	4	4	2	2	3	3	2	2	2	2	4	A	3	2	1	3.0	8.2
22-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	4	4	6	11	A	3	8	3	3	2.5	11.2
23-Apr	3	3	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	3	1	3	3	1.7	5.2
24-Apr	3	1	2	1	2	3	3	1	1	1	0	0	1	0	0	0	1	A	2	5	7	2	1	1	1.8	7.0
25-Apr	2	2	3	1	1	1	1	1	1	1	0	0	0	1	1	1	A	2	3	2	2	1	2	1	1.3	3.4
26-Apr	1	1	1	1	1	2	2	1	0	1	1	2	2	2	2	A	4	3	2	17	3	2	2	2	2.3	17.0
27-Apr	3	2	3	4	3	2	3	1	2	2	2	2	1	2	A	3	3	2	1	3	2	4	3	2	2.4	4.0
28-Apr	1	2	2	4	2	3	3	2	1	3	2	2	3	A	5	2	2	2	2	2	3	3	1	1	2.2	4.6
29-Apr	1	1	1	1	8	19	9	1	0	1	0	1	A	2	1	1	1	1	1	3	5	3	2	4	2.8	18.5
30-Apr	3	3	3	2	2	23	4	2	2	1	4	A	3	1	1	1	1	1	1	1	10	2	3	1	3.2	22.6
	2.6	1.8	2.3	2.4	2.5	4.3	3.7	1.9	1.9	4.7	1.6	1.5	1.5	1.7	1.9	1.5	1.4	1.9	3.1	6.2	5.0	3.2	2.0	2.2	Diurnal Average	
	13.1	3.5	10.2	9.1	8.8	22.6	17.3	5.1	6.0	75.6	3.9	5.2	3.9	4.1	6.3	4.1	3.7	6.0	11.2	54.4	36.9	12.9	3.4	8.3	Diurnal Maximum	

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

Hourly Maximums

Nitrogen Dioxide (NO_2) - ppb

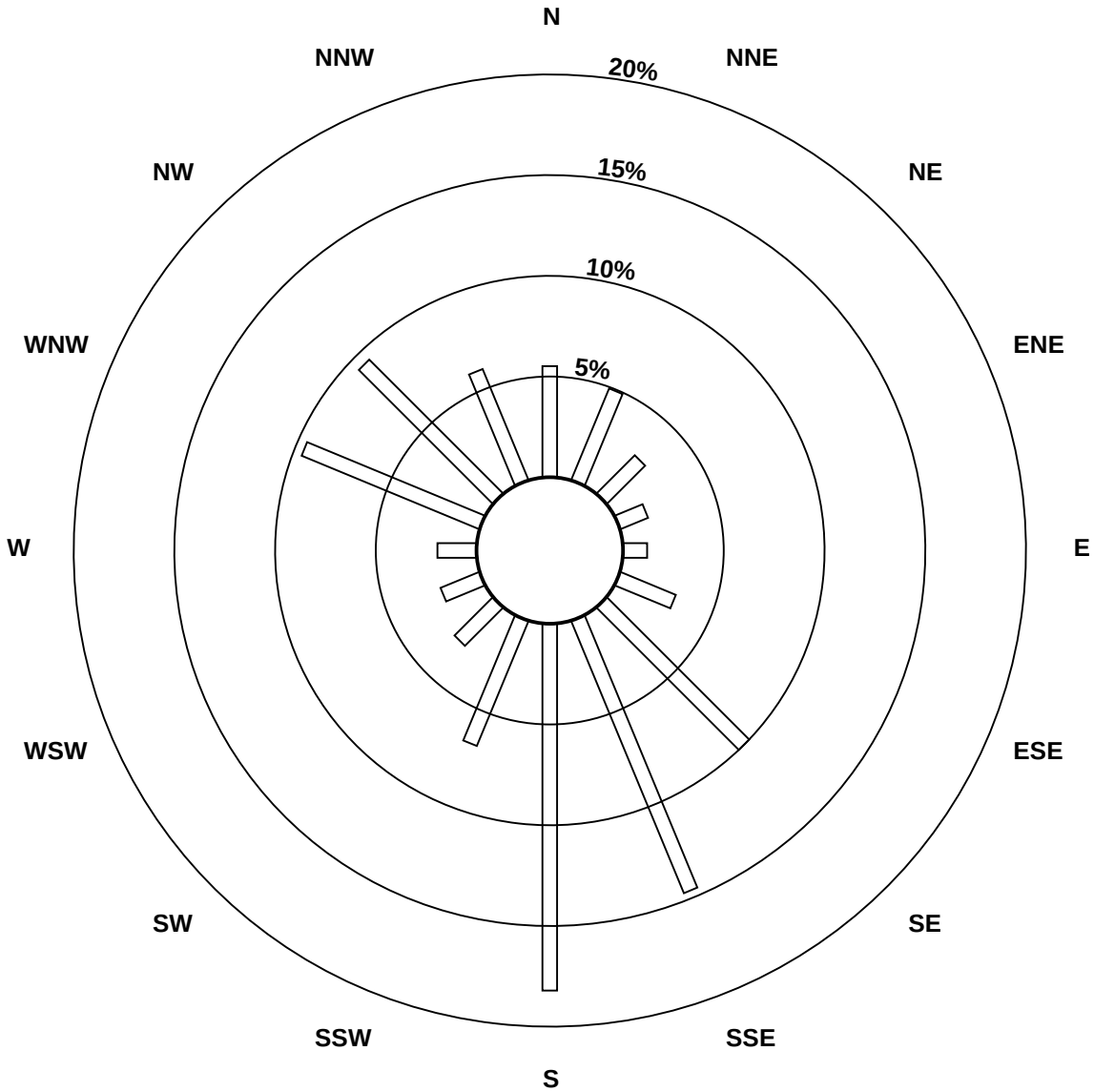
Portable-Kinuso - April 2010



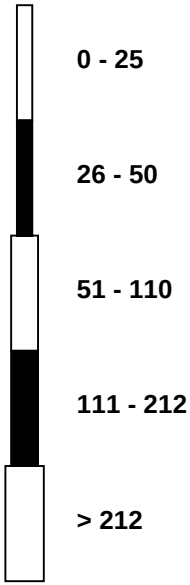
Pollutant Rose

Nitrogen Dioxide (NO_2) - ppb

Portable-Kinuso - April 2010



Pollutant Classes (ppb)



Hourly Averages

Nitrogen Oxide (NO) - ppb

Portable-Kinuso - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 5.1 ppb on Apr 19 20:00

Maximum Daily Average: 0.3 ppb on Apr 19

Minimum Value: 0 ppb on Apr 1 20:00

Minimum Daily Average: 0.0 ppb on Apr 10

Maximum Diurnal Average: 0.3 ppb at hour 10

Minimum Diurnal Average: 0.0 ppb at hour 24

Monthly Average: 0.11 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.1 $Q_3 = 0.1$ $P_{90} = 0.2$ $P_{99} = 0.9$

Hours in Service:	720
Hours of Data:	670
Hours of Missing Data:	50
Hours of Calibration:	30
Percent Operational Time:	97.2

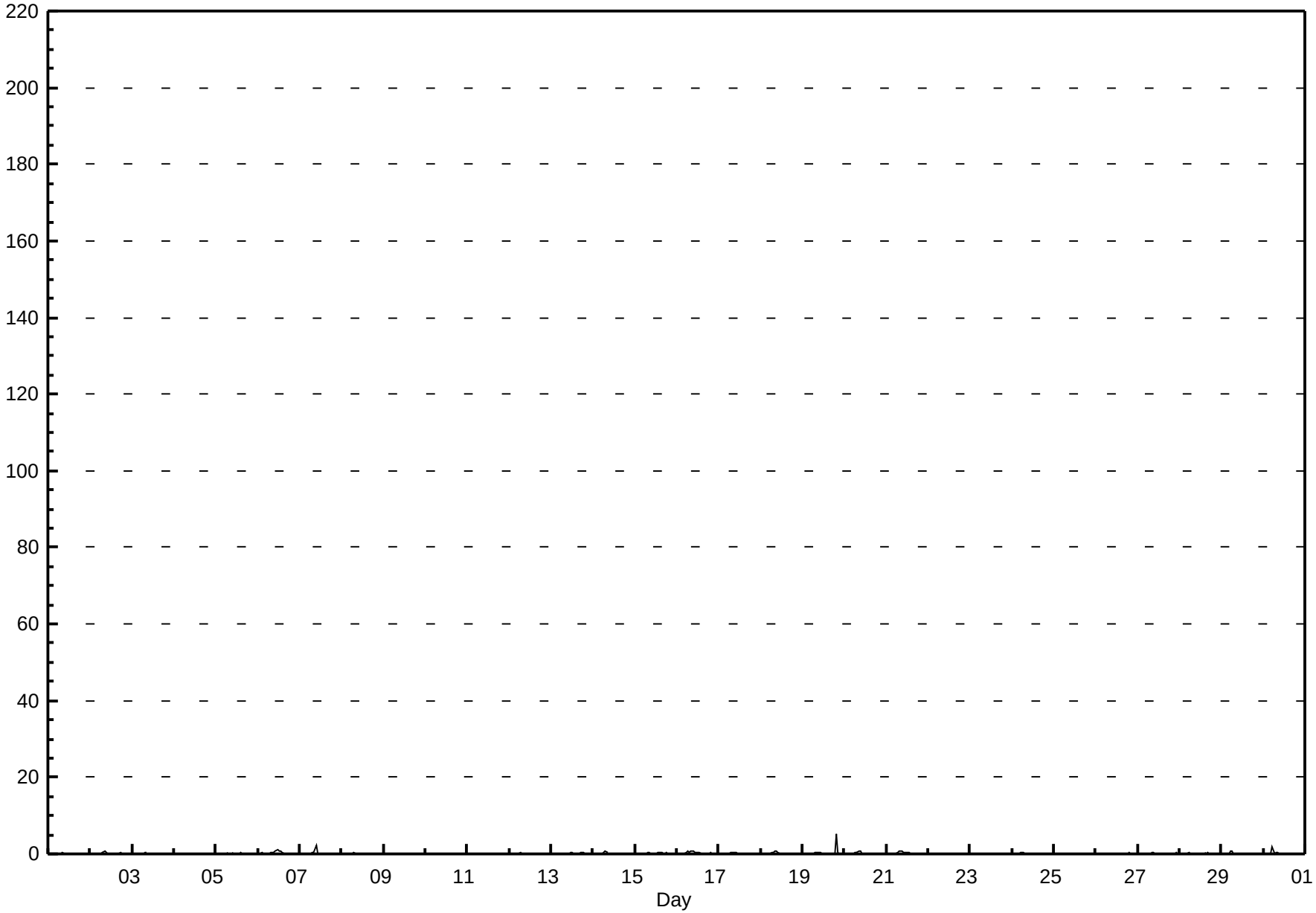
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
2-Apr	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
3-Apr	0	0	0	0	0	0	0	0	0	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	0.3
4-Apr	N	N	N	N	N	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
5-Apr	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
6-Apr	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	1.0
7-Apr	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.4
8-Apr	0	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
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
10-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
11-Apr	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
12-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
13-Apr	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	0.4
14-Apr	0	0	0	0	0	0	0	1	1	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
15-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.1	0.5
16-Apr	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
17-Apr	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
18-Apr	A	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.8
19-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	A	0	0.3	5.1
20-Apr	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.9
21-Apr	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.9
22-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.1	0.1
23-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.0	0.1
24-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.5
25-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.2
26-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.3
27-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.2
28-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.2
29-Apr	0	0	0	0	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
30-Apr	0	0	0	0	0	2	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.7
	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.0	Diurnal Average	
	0.3	0.1	0.2	0.2	0.1	1.7	0.6	0.6	0.9	2.4	0.7	1.0	0.9	0.7	0.5	0.2	0.2	0.2	0.4	5.1	0.5	0.2	0.2	0.1	Diurnal Maximum	

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

Hourly Averages

Nitrogen Oxide (NO) - ppb

Portable-Kinuso - April 2010



Hourly Maximums

Nitrogen Oxide (NO) - ppb

Portable-Kinuso - April 2010

Maximum Value: 42.8 ppb on Apr 7 10:00

Maximum Daily Average: 2.2 ppb on Apr 19

Minimum Value: 0 ppb on Apr 25 05:00

Minimum Daily Average: 0.1 ppb on Apr 10

Maximum Diurnal Average: 2.2 ppb at hour 20

Minimum Diurnal Average: 0.1 ppb at hour 5

Monthly Average: 0.58 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.1$ $Q_1 = 0.1$ Median = 0.2 $Q_3 = 0.4$ $P_{90} = 0.9$ $P_{99} = 5.7$

Hours in Service:	720
Hours of Data:	670
Hours of Missing Data:	50
Hours of Calibration:	30
Percent Operational Time:	97.2

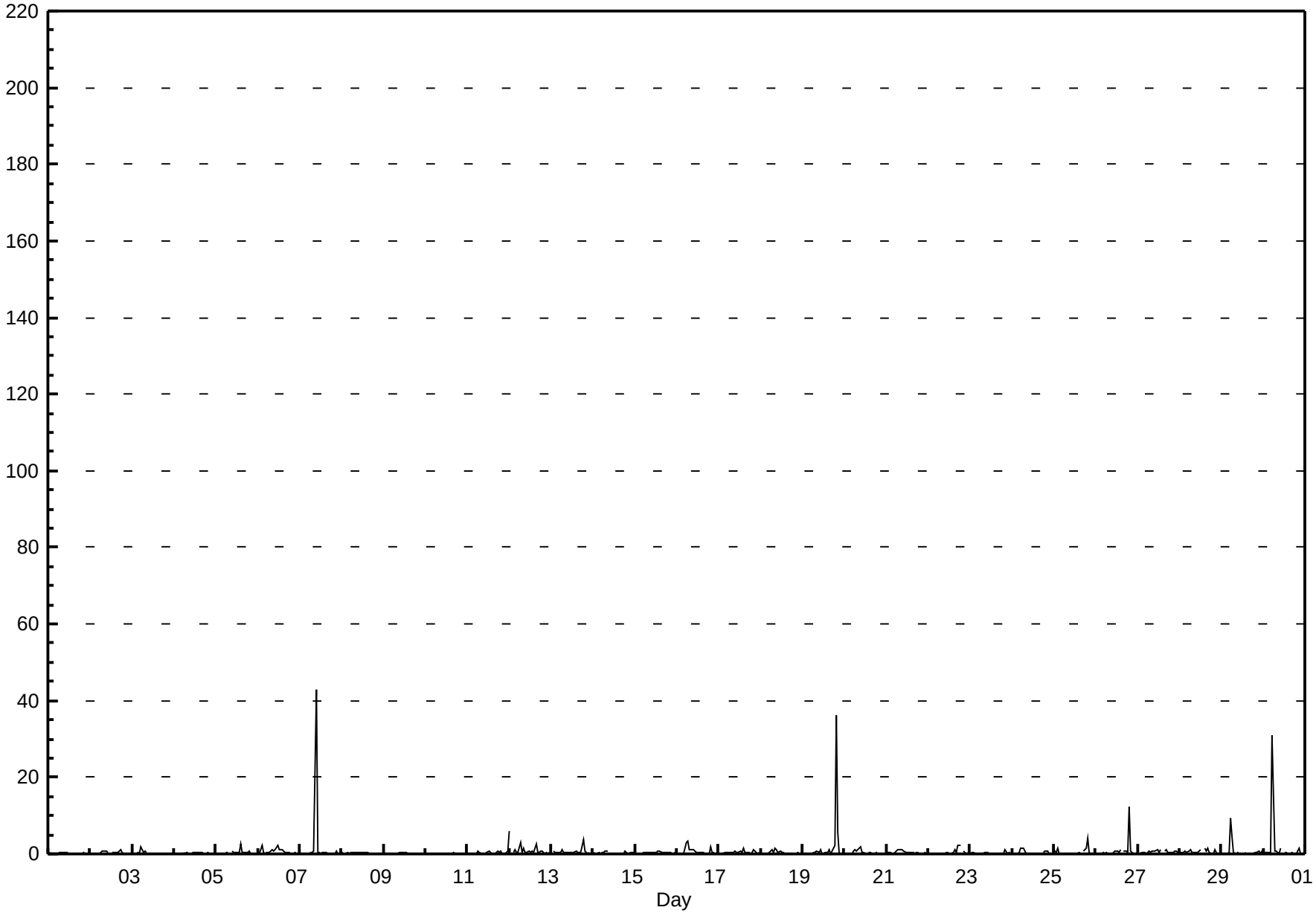
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
2-Apr	0	0	0	0	0	0	0	1	1	1	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0.3	1.3
3-Apr	0	0	0	0	0	2	0	1	0	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	1.9
4-Apr	N	N	N	N	N	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2
5-Apr	0	0	0	0	0	0	0	1	A	1	0	0	0	0	3	0	0	0	0	1	0	0	0	0	0.4	2.7
6-Apr	0	0	2	1	0	1	1	1	1	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0.6	2.4
7-Apr	0	0	0	0	0	0	0	0	1	43	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2.0	42.8
8-Apr	0	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
9-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
10-Apr	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
11-Apr	0	0	A	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	1	0.3	0.9
12-Apr	6	A	0	1	0	0	3	0	1	0	0	1	0	1	0	3	0	0	1	1	0	0	0	0	0.9	6.1
13-Apr	A	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	4	1	0	0	0	A	0.5	3.7
14-Apr	0	0	0	0	0	0	1	1	1	C	C	C	C	0	0	0	0	0	1	0	0	0	0	0	0.3	0.7
15-Apr	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.3	0.9
16-Apr	0	0	A	0	0	3	3	1	1	1	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0.7	3.2
17-Apr	0	A	0	0	0	0	0	0	1	1	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0.4	1.4
18-Apr	A	0	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0.3	1.4
19-Apr	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	2	36	6	0	A	0	2.2	36.2
20-Apr	0	0	0	0	0	1	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	1.8
21-Apr	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0.4	1.1
22-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	2	A	1	0	0	0	0.4	2.3
23-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0.2	1.0
24-Apr	0	0	0	0	0	2	2	1	0	0	0	0	0	0	0	0	0	A	0	1	1	0	0	0	0.4	1.5
25-Apr	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	4	0	0	0	0	0.5	4.2
26-Apr	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	A	1	1	0	12	1	0	0	0	0.9	12.3
27-Apr	0	0	0	0	0	0	1	0	1	1	1	1	0	1	A	1	1	0	0	0	0	1	1	0	0.5	1.2
28-Apr	0	0	0	1	0	1	1	0	0	0	0	1	1	A	1	1	1	0	0	0	1	0	0	0	0.5	1.4
29-Apr	0	0	0	0	0	9	4	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	1	0.8	9.4
30-Apr	0	0	0	0	0	31	1	1	0	0	2	A	0	0	0	0	0	0	0	0	1	0	0	0	1.7	31.0
	0.4	0.2	0.3	0.2	0.1	1.7	0.8	0.4	0.5	2.0	0.4	0.4	0.3	0.3	0.5	0.4	0.3	0.4	0.5	2.2	0.6	0.2	0.2	0.2	Diurnal Average	
	6.1	0.7	2.1	1.1	0.5	31.0	4.3	1.0	1.4	42.8	1.6	2.4	1.1	1.0	2.7	2.6	1.4	2.1	3.7	36.2	5.7	0.9	0.6	0.7	Diurnal Maximum	

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

Hourly Maximums

Nitrogen Oxide (NO) - ppb

Portable-Kinuso - April 2010



PASZA
Pasco Airshed Zone Association

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Portable-Kinuso - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 16.2 ppb on Apr 19 20:00
Maximum Daily Average: 3.3 ppb on Apr 16

Minimum Value: 0 ppb on Apr 11 17:00
Maximum Diurnal Average: 2.3 ppb at hour 20
Monthly Average: 1.42 ppb

Minimum Daily Average: 0.4 ppb on Apr 10
Minimum Diurnal Average: 0.9 ppb at hour 17
Percentiles: $P_1 = 0.3$ $P_{10} = 0.4$ $Q_1 = 0.7$ Median = 1.2 $Q_3 = 1.8$ $P_{90} = 2.5$ $P_{99} = 5.3$

Hours in Service:	720
Hours of Data:	670
Hours of Missing Data:	50
Hours of Calibration:	30
Percent Operational Time:	97.2

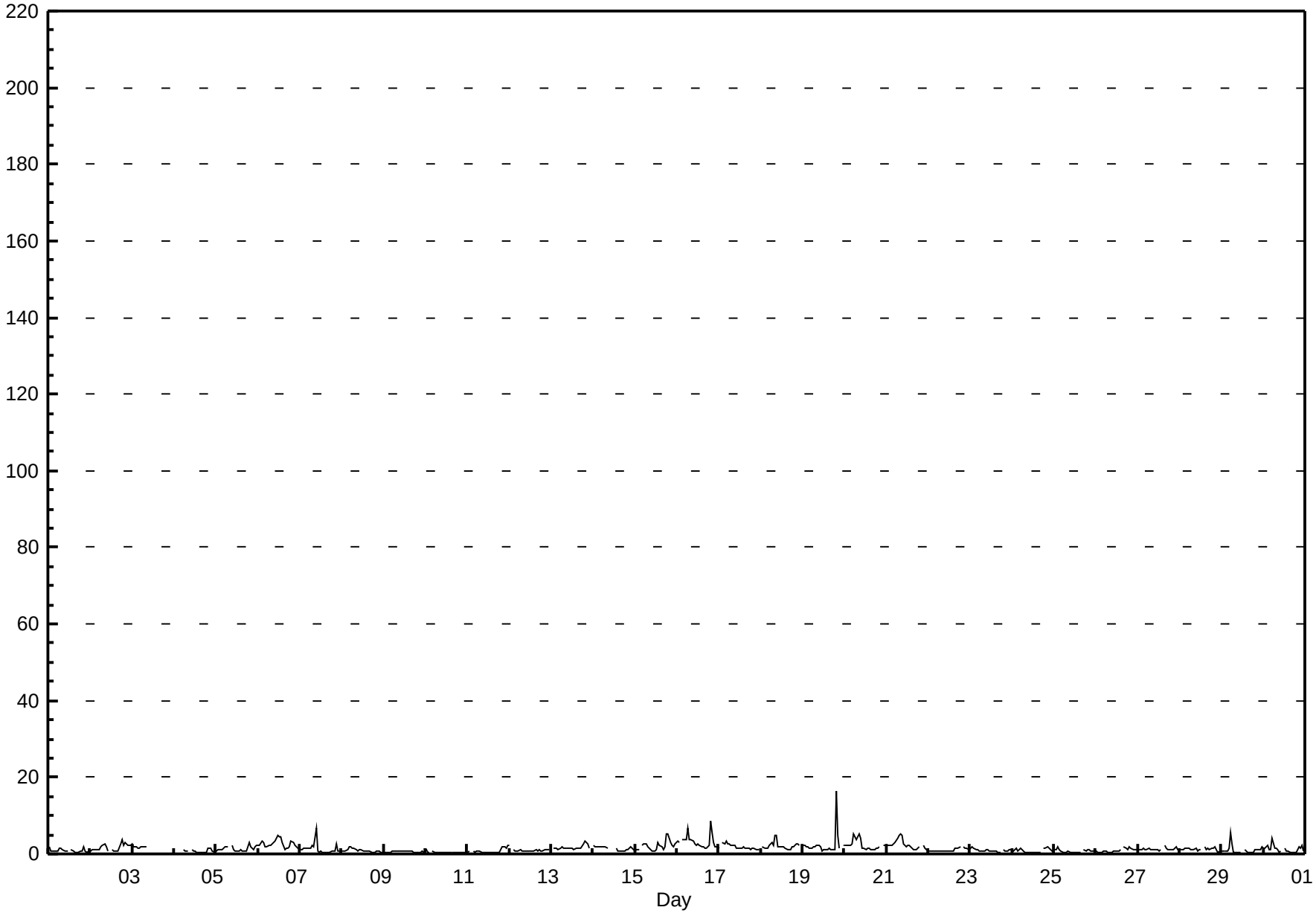
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	2	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1	0	0	1	1	2	1	1	1	0.9	1.9
2-Apr	1	1	1	1	1	1	2	2	2	2	1	A	1	1	1	1	1	3	4	2	3	2	2	2	1.7	3.8
3-Apr	3	2	2	2	2	2	2	2	2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	2.6
4-Apr	N	N	N	N	N	1	1	1	1	A	1	1	1	1	0	0	0	0	0	2	1	2	1	0	0.8	1.6
5-Apr	1	1	1	1	2	2	2	2	A	2	1	1	1	1	1	1	1	1	2	3	2	1	2	2	1.4	2.9
6-Apr	2	2	3	3	2	2	2	2	3	3	3	5	4	4	3	1	1	1	2	4	3	2	2	2	2.6	4.9
7-Apr	1	1	1	1	1	1	2	2	2	7	1	1	1	0	0	0	0	1	1	1	1	2	1	1	1.3	6.5
8-Apr	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	0.9	2.0
9-Apr	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	0	0.6	0.9
10-Apr	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.2
11-Apr	1	1	A	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	2	2	2	2	0.7	2.3
12-Apr	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.1
13-Apr	A	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	2	3	3	3	2	1	A	1.7	3.3
14-Apr	2	2	2	2	2	2	2	2	1	C	C	C	C	2	1	1	1	1	1	1	1	2	2	1	1.4	2.2
15-Apr	1	1	1	A	2	3	3	2	2	1	1	1	1	3	2	2	1	2	5	5	3	2	2	3	2.1	5.4
16-Apr	3	3	A	4	4	4	7	4	4	3	3	2	2	2	2	2	2	2	2	8	6	3	2	2	3.3	8.4
17-Apr	2	A	3	3	3	3	3	2	2	2	2	1	2	2	2	1	1	2	1	1	1	1	1	1	1.8	3.2
18-Apr	A	2	2	1	2	2	3	2	5	5	2	2	2	2	2	1	1	1	2	2	3	3	2	A	2.2	5.0
19-Apr	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	16	5	1	A	2	2.4	16.2
20-Apr	2	2	2	2	2	5	5	4	5	4	2	1	1	1	2	1	1	1	1	2	2	A	2	2	2.3	5.4
21-Apr	2	2	2	2	3	3	4	5	5	5	3	2	2	2	2	1	1	1	1	2	A	2	2	1	2.4	5.1
22-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	A	2	2	1	1	1.0	2.0
23-Apr	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	A	1	1	1	1	1	0.9	1.8
24-Apr	1	1	2	1	1	2	1	0	0	0	0	0	0	0	0	0	0	A	1	2	2	1	1	1	0.8	1.8
25-Apr	1	1	2	1	1	0	0	0	1	1	0	0	0	0	0	0	A	1	1	1	1	1	1	1	0.8	1.7
26-Apr	1	1	0	0	1	1	1	0	0	1	1	1	1	1	1	A	2	1	1	2	1	1	1	1	0.9	1.9
27-Apr	1	1	1	2	1	1	1	1	1	1	1	1	1	1	A	2	1	1	1	1	1	2	2	1	1.2	2.1
28-Apr	1	1	1	2	2	1	1	1	1	1	1	1	1	A	2	1	2	1	1	1	2	1	1	1	1.2	1.9
29-Apr	1	1	1	1	2	6	3	0	0	0	0	0	A	1	1	0	0	0	0	1	1	1	1	2	1.1	5.7
30-Apr	2	2	2	1	1	4	1	2	1	0	1	A	2	1	1	0	0	0	0	0	2	1	2	1	1.2	4.2
	1.5	1.3	1.4	1.4	1.5	1.9	1.9	1.6	1.7	1.8	1.1	1.1	1.1	1.2	1.1	0.9	0.9	1.0	1.3	2.3	1.9	1.5	1.3	1.3	Diurnal Average	
	3.3	3.1	3.4	3.8	3.8	5.7	6.8	4.8	5.1	6.5	3.5	4.9	4.4	4.3	3.0	2.1	1.9	2.6	5.4	16.2	5.7	3.0	2.3	2.6	Diurnal Maximum	

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

Hourly Averages

Oxides of Nitrogen (NO_X) - ppb

Portable-Kinuso - April 2010



Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Portable-Kinuso - April 2010

Maximum Value: 111.5 ppb on Apr 7 10:00

Maximum Daily Average: 8.4 ppb on Apr 19

Minimum Value: 0 ppb on Apr 11 00:00

Minimum Daily Average: 0.6 ppb on Apr 10

Maximum Diurnal Average: 8.2 ppb at hour 20

Minimum Diurnal Average: 1.5 ppb at hour 17

Monthly Average: 3.07 ppb

Percentiles: $P_1 = 0.4$ $P_{10} = 0.6$ $Q_1 = 1.0$ Median = 2.0 $Q_3 = 3.2$ $P_{90} = 5.4$ $P_{99} = 23.3$

Hours in Service:	720
Hours of Data:	670
Hours of Missing Data:	50
Hours of Calibration:	30
Percent Operational Time:	97.2

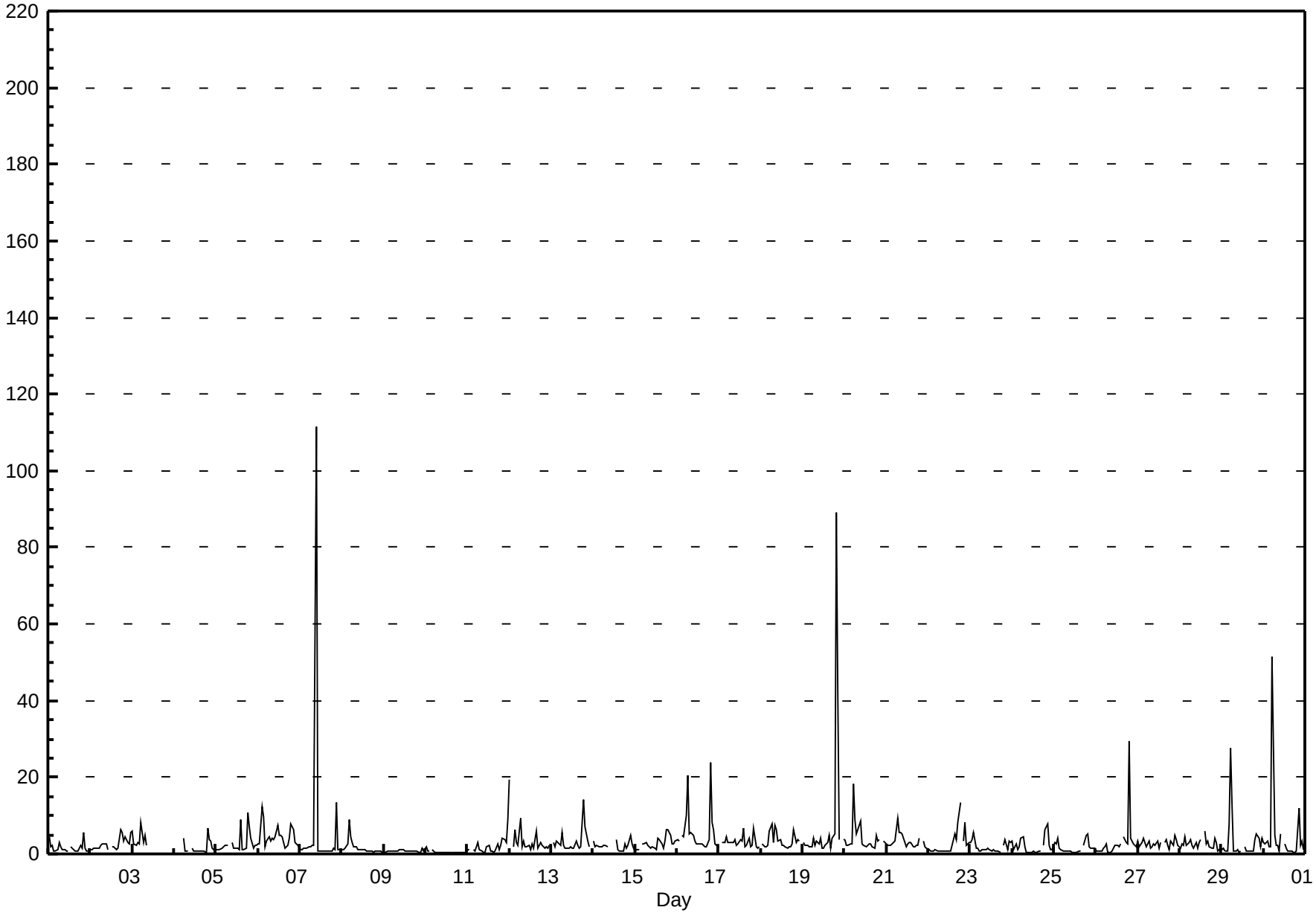
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	4	2	2	1	1	1	3	2	1	1	1	1	A	2	1	1	1	1	2	1	5	2	1	1	1.6	5.5
2-Apr	1	1	1	1	1	1	2	3	3	2	1	A	2	2	1	1	1	6	6	3	5	3	3	5	2.5	6.3
3-Apr	6	3	2	3	3	8	3	5	2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	8.1
4-Apr	N	N	N	N	N	4	1	1	1	A	2	1	1	1	1	1	1	1	0	7	4	4	1	1	1.6	6.7
5-Apr	1	1	1	1	2	2	2	2	A	3	1	1	1	1	9	1	1	1	11	7	4	2	2	2	2.7	10.8
6-Apr	3	3	12	10	2	3	4	3	4	4	4	7	5	5	4	2	2	2	4	8	6	3	3	2	4.4	12.2
7-Apr	1	1	2	2	2	2	2	2	2	112	1	1	1	1	1	1	1	1	1	2	1	13	1	1	6.3	111.5
8-Apr	1	1	2	3	9	5	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.6	9.0
9-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	2	1	0.7	1.5
10-Apr	2	1	1	A	1	1	0	0	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0.6	1.8
11-Apr	1	1	A	1	1	2	3	1	1	0	0	2	2	1	1	0	1	2	1	2	4	4	3	9	1.9	9.0
12-Apr	19	A	2	6	3	2	9	2	3	2	2	2	1	3	1	6	2	2	3	2	1	2	2	2	3.5	19.4
13-Apr	A	3	2	3	3	2	6	2	2	2	2	2	2	2	3	2	2	2	14	7	5	3	2	A	3.2	14.3
14-Apr	3	2	2	2	2	2	2	2	2	C	C	C	C	4	1	1	1	1	3	1	2	5	3	2	2.1	4.7
15-Apr	1	1	1	A	3	3	3	2	2	1	2	1	1	4	4	3	1	3	6	6	5	2	2	3	2.7	6.4
16-Apr	4	3	A	5	5	10	21	5	6	5	3	3	3	3	3	2	2	2	4	24	8	6	2	2	5.6	24.0
17-Apr	2	A	3	3	5	3	3	3	3	4	2	3	4	4	7	2	2	4	2	2	7	2	2	2	3.1	6.8
18-Apr	A	3	2	2	2	6	8	3	7	6	3	4	2	2	2	1	2	2	3	6	3	4	3	A	3.4	7.7
19-Apr	3	2	2	2	2	2	4	2	3	3	4	1	2	2	3	5	2	4	5	89	43	4	A	4	8.4	89.1
20-Apr	4	2	2	3	3	18	9	5	7	8	3	2	2	2	3	3	2	1	5	3	4	A	3	3	4.2	18.3
21-Apr	3	2	2	3	3	3	9	6	6	5	4	2	3	3	3	2	2	2	2	4	A	3	2	1	3.3	9.4
22-Apr	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	5	4	8	14	A	3	8	2	3	2.8	13.6
23-Apr	3	4	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	4	1	3	3	1.8	5.7
24-Apr	3	1	2	1	2	4	4	2	1	1	1	0	1	0	0	1	1	A	2	6	8	2	1	1	2.0	7.7
25-Apr	3	3	4	1	1	1	1	1	1	1	0	0	0	1	1	1	A	2	5	5	2	1	1	1	1.6	5.2
26-Apr	1	1	1	1	2	2	2	1	1	1	2	2	2	2	3	A	5	3	2	29	4	3	2	2	3.1	29.3
27-Apr	3	2	3	4	3	2	3	1	2	3	2	3	2	3	A	3	4	2	1	3	2	5	4	2	2.8	4.7
28-Apr	2	3	2	5	2	3	4	2	1	3	2	3	4	A	6	2	3	2	2	2	4	3	1	1	2.6	5.9
29-Apr	1	1	1	1	8	28	13	1	1	1	0	1	A	2	1	1	1	1	1	4	5	4	2	4	3.5	27.6
30-Apr	3	3	3	2	2	52	5	2	2	1	5	A	3	1	1	1	1	1	1	1	12	2	3	1	4.6	51.5
	2.9	1.8	2.4	2.5	2.5	5.8	4.4	2.2	2.4	6.4	1.9	1.8	1.8	1.9	2.3	1.7	1.5	2.1	3.6	8.2	5.5	3.3	2.0	2.3	Diurnal Average	
	19.4	3.7	12.2	9.7	9.0	51.5	20.7	5.7	7.3	111.5	5.4	7.5	4.9	4.7	9.1	6.1	4.6	8.2	14.3	89.1	42.6	13.5	3.7	9.0	Diurnal Maximum	

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

Hourly Maximums

Oxides of Nitrogen (NO_X) - ppb

Portable-Kinuso - April 2010



Hourly Averages

Ozone (O_3) - ppb

Portable-Kinuso - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 64.8 ppb on Apr 17 18:00

Maximum Daily Average: 52.1 ppb on Apr 18

Minimum Value: 11 ppb on Apr 14 05:00

Minimum Daily Average: 28.0 ppb on Apr 25

Maximum Diurnal Average: 47.7 ppb at hour 17

Minimum Diurnal Average: 30.2 ppb at hour 7

Monthly Average: 39.30 ppb

Percentiles: P_1 = 17.3 P_{10} = 27.2 Q_1 = 32.4 Median = 38.6 Q_3 = 45.0 P_{90} = 54.0 P_{99} = 62.4

Hours in Service:	720
Hours of Data:	672
Hours of Missing Data:	48
Hours of Calibration:	28
Percent Operational Time:	97.2

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	17	25	26	30	28	26	25	28	38	42	43	43	A	44	43	43	46	45	45	45	35	34	39	37	35.9	45.6
2-Apr	36	35	34	30	30	29	28	28	31	37	46	A	47	48	49	49	49	47	44	44	43	43	42	45	39.8	49.5
3-Apr	44	43	42	39	33	29	27	24	30	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	43.9
4-Apr	N	N	N	N	N	34	34	35	38	A	42	43	43	44	45	45	46	47	46	43	38	28	33	36	40.0	46.8
5-Apr	34	33	30	29	29	30	30	28	A	37	43	48	49	49	48	48	48	49	48	46	41	37	29	34	39.0	48.9
6-Apr	31	30	26	25	27	28	27	27	32	37	37	42	43	42	47	51	49	48	47	45	41	34	31	29	36.5	50.6
7-Apr	34	32	31	30	30	31	32	34	38	43	49	48	46	45	45	46	45	45	44	43	42	40	40	39	39.7	48.9
8-Apr	39	39	38	35	30	20	21	25	36	43	43	43	43	42	41	39	41	43	42	40	39	38	38	38	37.4	43.4
9-Apr	38	38	37	37	36	36	36	36	36	36	37	38	39	43	40	40	39	38	39	40	39	38	38	38	38.0	43.3
10-Apr	38	39	38	A	38	38	37	38	38	38	38	38	38	39	38	38	37	37	36	36	36	36	35	35	37.3	39.0
11-Apr	34	31	A	34	33	29	28	31	35	37	38	38	39	39	40	41	40	42	42	36	32	28	24	25	34.6	41.9
12-Apr	27	A	33	33	32	33	31	33	35	38	41	41	42	43	43	43	44	45	44	43	41	37	35	32	37.8	44.8
13-Apr	A	29	29	30	31	30	30	31	30	28	27	27	30	29	27	29	31	31	30	27	27	22	24	A	28.6	31.2
14-Apr	17	17	15	12	11	11	11	12	18	32	35	39	C	C	50	52	51	50	48	46	45	34	29	31	30.3	51.8
15-Apr	35	34	33	A	32	34	33	34	37	45	46	49	51	51	53	56	57	57	52	51	54	54	53	51	45.7	57.5
16-Apr	50	47	A	41	39	30	28	36	39	42	47	51	48	50	55	58	60	62	55	47	42	40	45	43	45.8	62.0
17-Apr	42	A	35	34	32	33	34	36	40	47	57	61	60	60	60	62	64	65	62	60	58	59	60	59	51.3	64.8
18-Apr	A	56	54	53	50	39	30	35	43	48	55	56	58	61	62	62	61	59	57	56	54	50	48	A	52.1	62.4
19-Apr	44	44	44	34	35	31	26	33	39	43	49	54	54	55	56	57	59	60	59	52	52	52	A	49	47.1	59.9
20-Apr	47	46	45	43	41	34	31	37	39	48	54	56	56	60	62	64	64	61	60	58	57	A	55	54	51.0	64.1
21-Apr	52	51	49	48	47	44	43	41	41	44	50	54	55	57	60	61	62	64	62	61	A	58	45	38	51.6	63.8
22-Apr	44	54	56	58	56	53	50	48	47	45	42	41	43	48	47	45	46	47	47	A	50	49	47	41	48.0	58.0
23-Apr	40	32	33	34	34	37	36	36	37	38	38	40	41	42	42	42	43	44	A	42	38	32	28	26	37.1	43.9
24-Apr	26	26	25	26	23	25	27	27	26	25	30	32	39	40	39	39	37	A	34	29	25	24	23	22	29.2	40.4
25-Apr	19	17	16	21	18	19	19	24	23	25	29	32	34	35	33	33	A	35	38	37	36	34	33	32	28.0	37.9
26-Apr	29	30	31	29	29	31	35	35	38	39	38	39	40	40	40	A	41	41	41	40	39	39	38	38	36.5	41.0
27-Apr	37	36	35	35	36	36	36	37	37	38	40	40	40	40	A	42	43	43	44	43	40	35	34	35	38.4	43.7
28-Apr	34	30	29	31	29	30	31	32	27	27	29	32	35	A	41	42	42	40	36	35	37	36	37	36	33.8	41.9
29-Apr	33	30	28	29	27	22	24	33	38	40	41	40	A	41	41	42	43	43	43	40	40	38	35	26	35.5	43.3
30-Apr	25	26	22	25	24	23	26	28	37	44	43	A	38	47	47	45	47	49	48	47	43	37	25	28	35.8	48.5
	35.1	35.1	33.8	33.5	32.5	30.8	30.2	32.0	35.3	38.7	41.5	43.2	44.3	45.7	46.3	46.9	47.7	47.7	46.2	44.1	41.6	38.8	37.3	36.9	Diurnal Average	
	52.1	55.7	56.2	58.0	55.6	53.1	50.2	48.4	46.5	47.7	57.0	60.8	60.2	60.8	62.2	63.7	64.1	64.8	62.5	60.9	58.5	58.9	59.6	58.9	Diurnal Maximum	

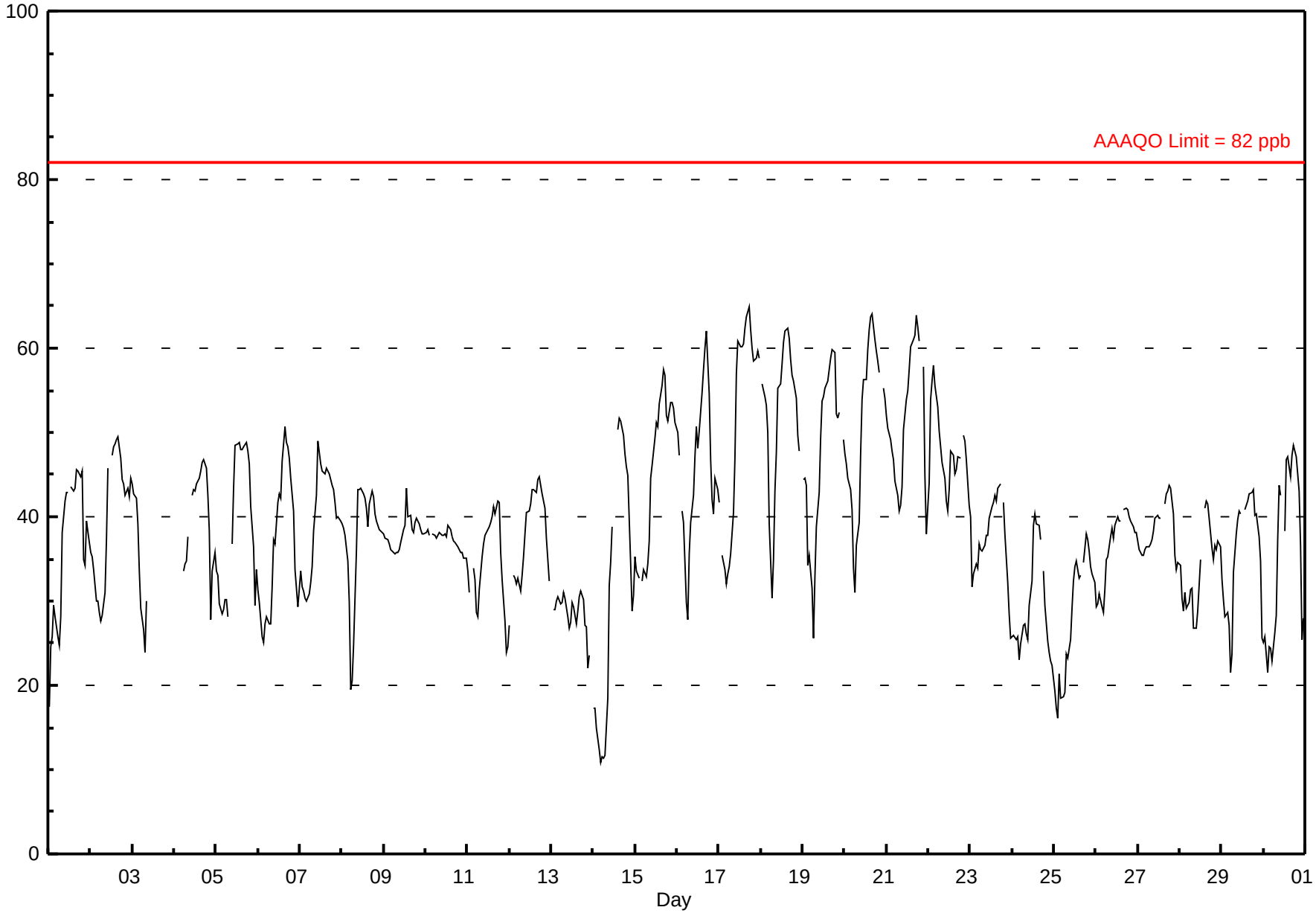
C - Calibration N - Not Valid A - Automated Daily Zero Span

Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na

Hourly Averages

Ozone (O_3) - ppb

Portable-Kinuso - April 2010



PASZA
Pasco Airshed Zone Association

Hourly Maximums

Ozone (O_3) - ppb

Portable-Kinuso - April 2010

Maximum Value: 67.8 ppb on Apr 17 18:00

Maximum Daily Average: 56.1 ppb on Apr 18

Minimum Value: 13 ppb on Apr 14 05:00

Minimum Daily Average: 30.8 ppb on Apr 25

Maximum Diurnal Average: 50.0 ppb at hour 18

Minimum Diurnal Average: 33.9 ppb at hour 7

Monthly Average: 42.26 ppb

Percentiles: P_1 = 19.4 P_{10} = 30.6 Q_1 = 35.4 Median = 41.6 Q_3 = 47.7 P_{90} = 56.8 P_{99} = 64.7

Hours in Service:	720
Hours of Data:	672
Hours of Missing Data:	48
Hours of Calibration:	28
Percent Operational Time:	97.2

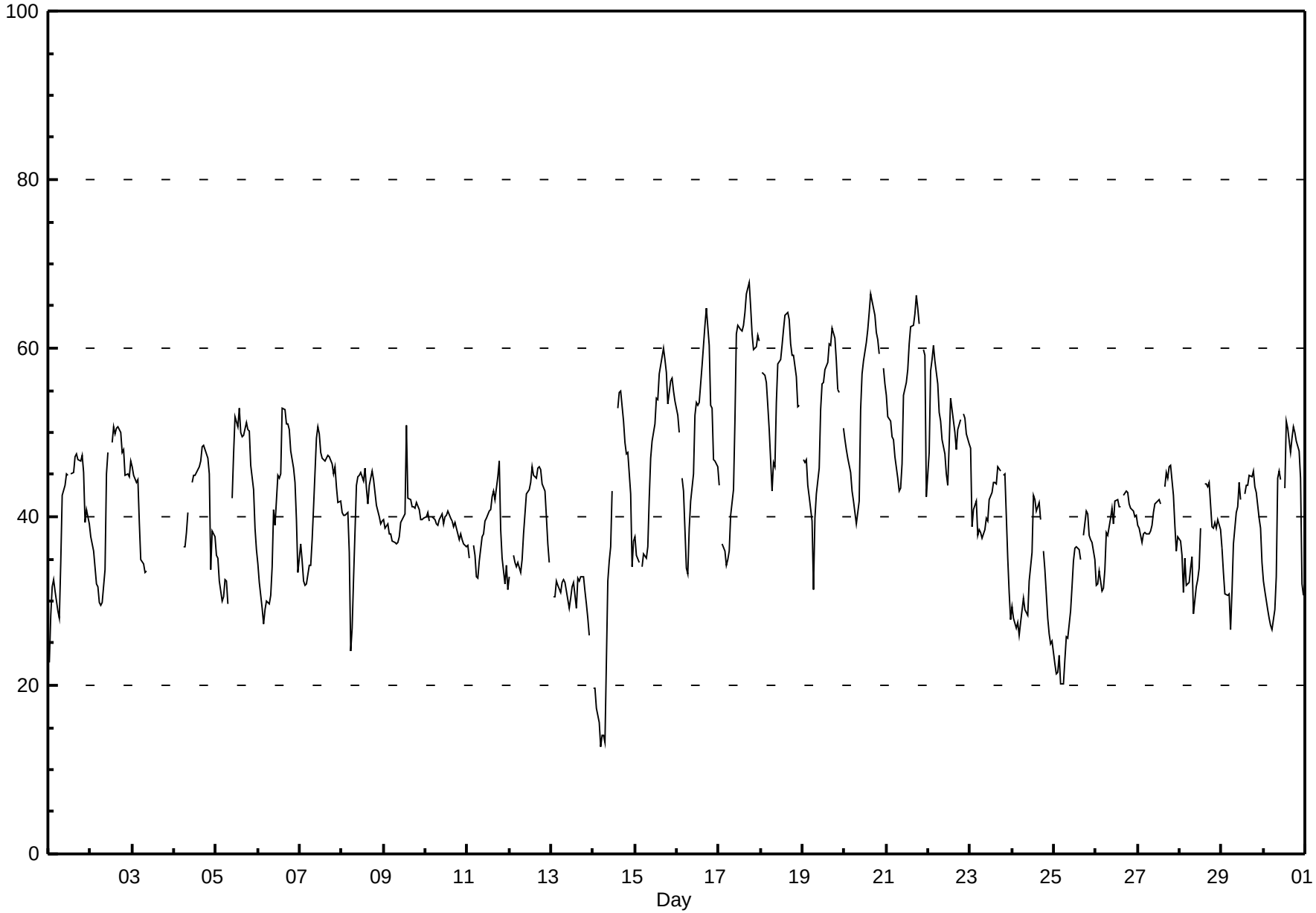
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	23	28	32	32	31	29	28	35	43	44	45	45	A	45	45	47	48	47	47	47	45	39	41	39	39.3	47.5
2-Apr	38	37	36	32	32	30	29	30	34	45	48	A	49	51	50	50	51	50	48	48	45	45	45	47	42.1	50.6
3-Apr	46	45	44	44	39	35	34	33	34	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	45.9
4-Apr	N	N	N	N	N	36	36	38	40	A	44	45	45	45	46	47	48	49	48	47	45	34	38	38	42.7	48.5
5-Apr	35	35	32	30	31	33	32	30	A	42	47	52	51	53	50	50	50	51	50	50	46	43	39	36	42.1	53.0
6-Apr	34	32	29	27	29	30	30	31	34	41	39	45	45	45	53	53	51	51	50	48	46	44	40	33	40.0	52.9
7-Apr	37	35	32	32	32	34	34	37	41	49	51	50	48	47	47	47	47	47	46	45	46	44	42	42	42.1	50.6
8-Apr	41	40	40	40	36	24	27	33	44	45	45	45	44	46	43	42	44	45	44	43	41	40	39	40	40.5	45.7
9-Apr	40	39	39	38	38	37	37	37	37	38	39	40	40	51	42	42	41	41	41	42	41	40	40	40	39.9	50.8
10-Apr	40	41	39	A	40	40	39	39	40	40	39	40	40	41	40	40	39	39	38	37	38	37	37	36	39.1	40.6
11-Apr	37	35	A	37	35	33	33	35	38	38	39	40	41	41	42	43	42	45	47	38	35	32	34	31	37.8	46.7
12-Apr	33	A	35	35	34	34	33	35	38	40	43	43	44	46	45	45	46	46	46	44	43	40	37	35	39.9	46.0
13-Apr	A	30	31	32	32	31	32	32	32	30	29	30	32	32	29	33	32	33	33	31	30	28	26	A	31.0	32.9
14-Apr	20	20	17	16	13	14	14	13	32	35	36	43	C	C	53	55	55	51	49	48	48	43	34	37	33.9	54.9
15-Apr	38	35	35	A	34	36	35	36	42	47	49	51	54	54	57	59	60	59	57	53	56	56	55	54	48.3	60.0
16-Apr	52	50	A	45	43	34	33	39	42	45	52	53	53	54	58	60	63	65	60	53	53	47	47	46	49.8	64.7
17-Apr	44	A	37	36	34	35	36	40	43	51	62	63	62	62	63	64	66	68	65	62	60	60	61	61	53.7	67.8
18-Apr	A	57	57	56	53	50	43	47	46	54	58	59	60	62	64	64	63	60	59	59	57	53	53	A	56.1	64.3
19-Apr	47	46	47	44	42	39	31	40	43	46	53	56	56	57	58	60	60	62	61	59	55	55	A	51	50.8	62.4
20-Apr	49	48	47	45	43	42	40	39	42	53	57	58	61	62	64	66	66	64	62	61	59	A	58	56	54.0	66.4
21-Apr	54	52	51	49	49	47	45	43	43	46	54	56	57	61	63	63	64	66	65	63	A	60	59	42	54.5	66.3
22-Apr	48	57	59	60	58	56	52	51	49	47	45	44	49	54	51	50	48	50	51	A	52	52	50	49	51.5	60.4
23-Apr	48	39	41	42	38	39	38	37	38	40	40	42	43	44	44	44	46	45	A	45	45	35	31	28	40.5	48.1
24-Apr	29	28	27	28	26	28	30	29	29	28	32	36	43	42	41	42	40	A	36	34	28	26	25	25	31.7	42.5
25-Apr	23	21	21	24	20	20	23	26	26	29	32	35	36	36	36	35	A	38	41	40	38	37	37	35	30.8	40.7
26-Apr	32	32	34	31	32	34	38	38	40	41	39	42	42	41	41	A	43	43	43	42	41	41	40	40	38.6	43.1
27-Apr	39	39	37	38	38	38	38	38	39	41	42	42	42	42	A	44	45	45	46	46	43	39	36	38	40.5	46.1
28-Apr	37	35	31	35	32	32	34	35	29	32	33	34	39	A	44	44	43	44	39	39	39	39	40	38	36.8	44.1
29-Apr	36	33	31	31	31	27	31	37	40	41	44	42	A	43	44	44	45	45	45	44	43	40	39	35	38.6	45.4
30-Apr	32	31	29	28	27	27	29	33	45	45	44	A	43	51	51	48	49	51	50	49	48	45	32	31	39.9	51.4
	38.2	37.8	36.7	36.5	35.3	34.1	33.9	35.5	38.7	41.9	44.1	45.6	46.8	48.4	48.7	49.2	49.8	50.0	48.8	47.0	45.2	42.6	41.2	40.0	Diurnal Average	
	54.4	57.2	58.6	60.4	58.4	55.8	52.4	51.4	49.2	53.6	61.6	62.7	62.1	62.3	64.3	66.4	66.4	67.8	64.9	62.9	59.9	60.2	61.5	60.9	Diurnal Maximum	

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

Hourly Maximums

Ozone (O_3) - ppb

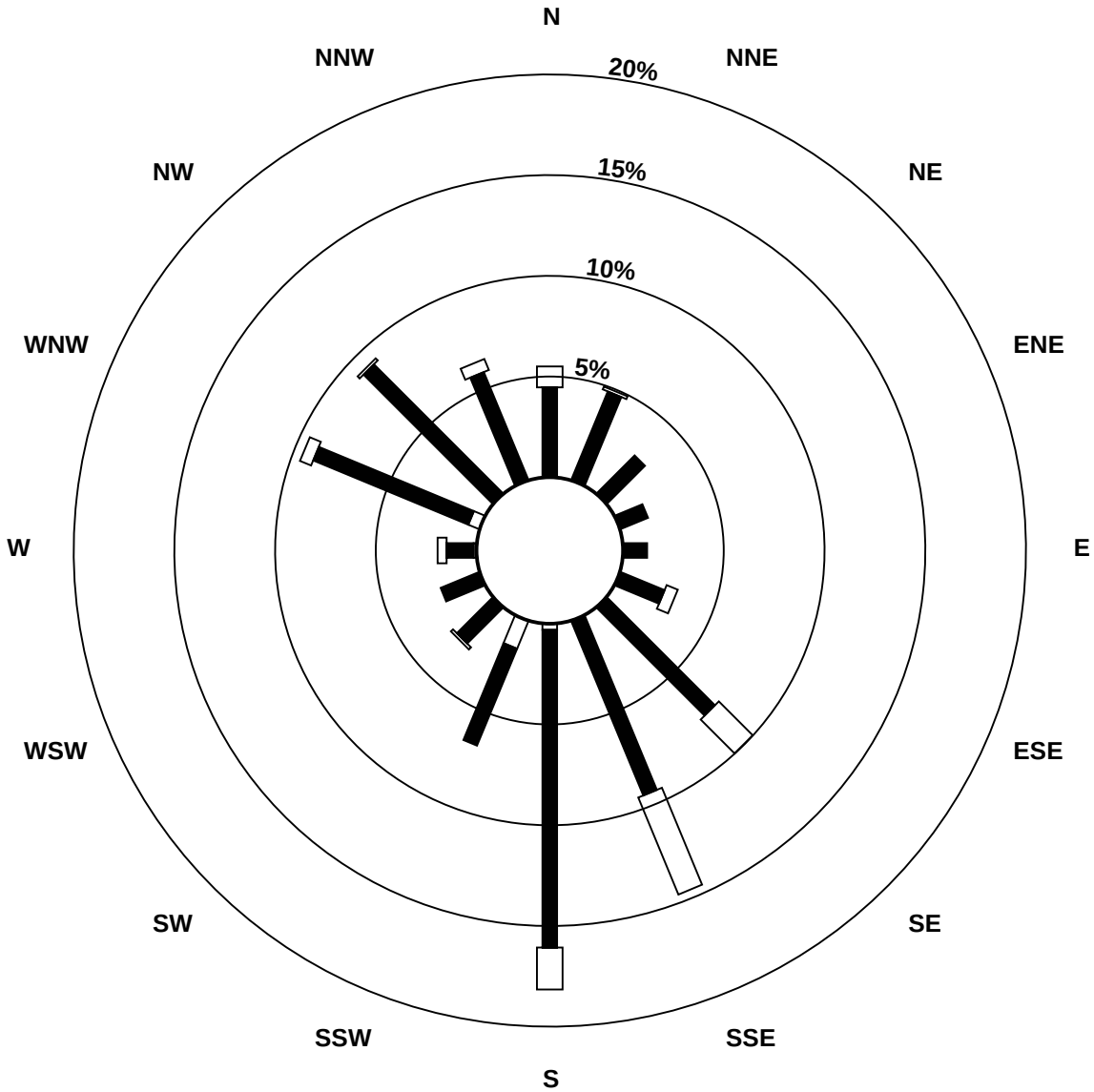
Portable-Kinuso - April 2010



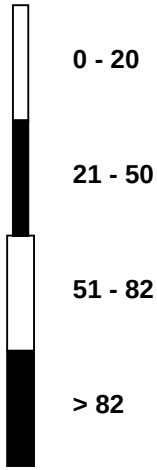
Pollutant Rose

Ozone (O_3) - ppb

Portable-Kinuso - April 2010



Pollutant Classes (ppb)



Eight Hour Running Averages

Ozone (O_3) - ppb

Portable-Kinuso - April 2010

Maximum Value: 61.9 ppb on Apr 17 19:00

Minimum Value: 13.4 ppb on Apr 14 08:00

Percentiles: P_1 = 19.0 P_{10} = 29.1 Q_1 = 33.4 Median = 38.6 Q_3 = 44.6 P_{90} = 52.5 P_{99} = 61.1

Hours in Service:	720
Hours of Data:	696
Hours of Missing Data:	24
Hours of Calibration:	0
Percent Operational Time:	96.7

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-Apr	34	32	30	28	27	25	25	26	28	30	32	34	35	37	40	42	43	44	44	44	43	42	42	41	44.4
2-Apr	40	38	37	35	34	34	32	31	31	31	32	33	35	38	41	44	47	48	48	47	47	46	45	45	47.9
3-Apr	44	43	43	43	41	40	38	35	33	32	30	N	N	N	N	N	N	N	N	N	N	N	N	N	44.0
4-Apr	N	N	N	N	N	N	N	N	N	N	N	38	38	40	41	43	44	44	45	45	44	42	41	40	44.9
5-Apr	38	36	34	33	31	32	31	30	30	30	32	35	38	41	43	46	46	48	48	48	47	46	43	42	48.4
6-Apr	39	37	34	32	30	29	29	28	28	29	30	32	34	36	38	41	43	45	46	46	46	45	43	40	46.4
7-Apr	39	37	35	33	31	31	31	32	32	34	36	38	40	42	44	45	46	46	46	45	44	44	43	42	46.2
8-Apr	42	41	40	39	37	35	32	31	30	31	31	33	34	37	40	41	42	42	42	42	41	41	40	40	42.0
9-Apr	40	39	38	38	38	37	37	37	36	36	36	36	37	38	38	39	39	39	40	40	40	39	39	39	39.8
10-Apr	39	39	39	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	37	37	37	36	36	38.7
11-Apr	36	35	35	34	34	33	32	31	32	32	33	34	34	36	37	38	39	40	40	40	39	38	36	34	40.2
12-Apr	32	30	29	29	29	29	31	32	33	34	34	35	37	38	39	41	42	43	43	43	43	43	41	40	43.3
13-Apr	40	37	35	33	32	31	30	30	30	30	30	29	29	29	29	28	29	29	29	29	29	28	28	27	39.6
14-Apr	25	23	21	19	17	15	14	13	14	15	18	21	23	24	31	38	43	46	48	49	49	47	44	42	49.5
15-Apr	40	38	36	34	33	32	33	34	34	35	37	39	41	43	46	49	51	53	53	54	54	54	54	54	54.2
16-Apr	53	51	51	50	48	44	41	39	37	36	38	39	40	43	46	49	51	54	55	54	53	52	51	49	54.7
17-Apr	47	45	42	40	39	38	36	35	35	36	39	43	46	49	53	56	59	61	62	62	62	61	61	61	61.9
18-Apr	60	59	58	57	56	53	49	45	45	44	44	45	46	48	52	56	58	59	59	59	59	58	56	55	60.4
19-Apr	53	50	49	45	43	40	37	37	36	36	36	39	41	44	48	51	53	56	57	57	56	56	56	55	56.9
20-Apr	53	51	49	48	46	44	42	40	39	40	41	42	44	48	52	55	58	60	60	61	61	61	60	59	60.9
21-Apr	57	55	54	52	51	50	48	47	45	45	45	45	46	48	50	53	55	58	59	60	61	61	59	56	61.1
22-Apr	53	52	51	50	51	50	51	52	53	52	50	48	46	45	45	45	45	45	45	46	47	47	47	47	53.1
23-Apr	46	44	42	41	39	37	36	35	35	36	36	37	38	38	39	40	41	42	42	42	42	41	39	36	45.8
24-Apr	34	31	30	28	26	26	25	26	26	26	26	27	29	31	32	34	35	37	37	37	35	33	30	28	37.3
25-Apr	25	24	22	21	20	20	19	19	20	21	22	24	26	28	29	31	32	33	34	35	35	35	35	35	35.2
26-Apr	34	34	33	32	31	31	31	31	32	33	34	35	37	38	38	39	39	40	40	40	40	40	40	40	40.2
27-Apr	39	39	38	37	37	37	36	36	36	37	37	38	38	39	39	40	40	41	42	42	42	41	41	40	42.1
28-Apr	39	37	35	34	32	31	31	31	30	29	29	29	30	30	32	33	35	37	38	39	39	39	38	37	38.9
29-Apr	36	35	34	33	32	30	29	28	29	30	32	33	34	37	39	40	41	42	42	42	42	41	40	38	41.9
30-Apr	36	34	31	29	27	26	25	25	26	29	31	32	34	38	41	43	44	45	46	46	47	45	43	40	46.5
	60.4	59.1	58.0	57.0	55.8	53.0	51.2	52.4	52.7	51.6	49.8	47.6	46.4	49.4	52.7	56.1	59.0	61.2	61.9	61.8	61.6	61.4	61.3	60.8	
	Diurnal Maximums																								

N - Not Valid

PASZA
Peace Airshed Zone Association

Hourly Averages

External Temperature (ET) - ^{o}C

Portable-Kinuso - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 27.0 ^{o}C on Apr 21 16:00
Maximum Daily Average: 19.2 ^{o}C on Apr 21

Minimum Value: -10 ^{o}C on Apr 11 06:00
Maximum Diurnal Average: 12.1 ^{o}C at hour 17
Monthly Average: 6.62 ^{o}C

Minimum Daily Average: -3.9 ^{o}C on Apr 11
Minimum Diurnal Average: 0.5 ^{o}C at hour 6
Percentiles: P_1 = -5.8 P_{10} = -2.1 Q_1 = 1.0 Median = 5.7 Q_3 = 11.0 P_{90} = 17.8 P_{99} = 24.9

Hours in Service:	720
Hours of Data:	700
Hours of Missing Data:	20
Hours of Calibration:	0
Percent Operational Time:	97.2

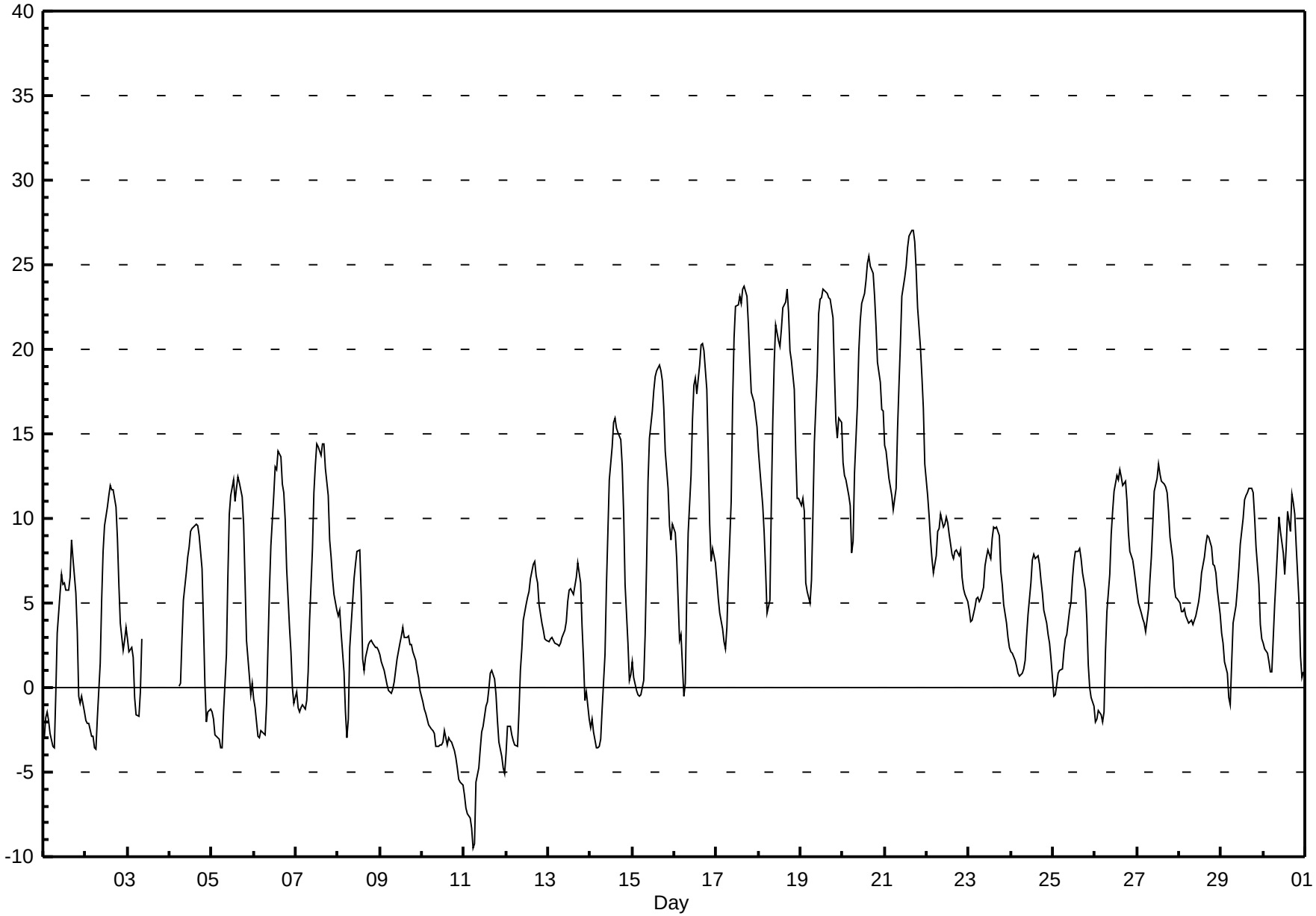
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	-3	-2	-1	-2	-3	-3	-4	0	3	6	7	6	6	6	6	6	9	8	6	3	0	-1	0	-1	2.0	8.7
2-Apr	-2	-2	-2	-3	-3	-4	-4	-2	1	5	8	10	11	11	12	12	12	11	9	6	4	2	3	4	4.1	11.9
3-Apr	3	2	2	2	-1	-2	-2	0	3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	2.9
4-Apr	N	N	N	N	N	0	0	3	5	7	8	8	9	9	10	10	10	9	7	4	0	-2	-1	-1	4.9	9.7
5-Apr	-1	-2	-3	-3	-3	-4	-4	-1	2	7	10	11	12	11	12	12	12	11	10	6	3	1	0	0	4.2	12.5
6-Apr	-1	-1	-3	-3	-3	-3	-3	-1	2	6	8	11	13	13	14	14	12	12	10	7	4	2	0	-1	4.6	14.0
7-Apr	0	-1	-1	-1	-1	-1	-1	1	4	8	12	13	14	14	14	14	14	13	11	9	8	6	6	5	6.6	14.4
8-Apr	4	5	3	1	-1	-3	-2	2	5	6	7	8	8	5	2	1	2	3	3	3	3	2	2	2	3.0	8.1
9-Apr	2	1	1	1	0	0	0	0	0	1	2	3	3	4	3	3	3	3	3	2	2	1	1	0	1.5	3.6
10-Apr	-1	-1	-2	-2	-2	-2	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-4	-4	-5	-5	-6	-6	-3.2	-0.9
11-Apr	-6	-7	-7	-8	-8	-10	-9	-6	-5	-4	-3	-2	-1	-1	0	1	1	1	0	-2	-3	-4	-5	-5	-3.9	1.0
12-Apr	-4	-2	-2	-3	-3	-3	-3	-1	1	2	4	5	5	6	6	7	7	7	6	5	4	3	3	3	2.2	7.4
13-Apr	3	3	3	3	3	3	2	3	3	3	4	5	6	6	6	6	7	7	6	4	2	-1	0	-2	3.4	7.3
14-Apr	-2	-2	-3	-4	-4	-3	-3	-1	2	6	9	12	14	16	16	15	15	15	13	10	6	3	0	1	5.5	15.9
15-Apr	2	1	0	0	0	0	0	3	7	12	15	16	18	18	19	19	19	18	17	14	12	10	9	10	9.8	19.1
16-Apr	9	8	5	3	3	0	0	5	9	13	16	18	18	17	19	20	20	20	18	14	10	7	8	7	11.2	20.3
17-Apr	6	5	4	3	3	2	4	6	11	17	21	23	23	23	23	24	24	23	21	19	17	17	16	15	14.6	23.8
18-Apr	14	13	11	9	7	4	5	11	16	19	21	21	20	21	22	23	24	22	20	19	18	14	11	11	15.7	23.6
19-Apr	11	11	10	6	6	5	6	10	14	19	22	23	23	24	23	23	23	23	22	19	16	15	16	16	16.1	23.6
20-Apr	13	13	12	11	11	8	9	13	17	20	22	23	23	24	25	25	25	25	23	21	19	18	16	16	18.0	25.5
21-Apr	14	14	12	12	11	10	12	15	18	20	23	24	25	26	27	27	27	26	25	22	20	18	17	13	19.2	27.0
22-Apr	11	10	9	8	7	8	9	9	10	9	10	10	10	9	8	8	8	8	8	8	7	6	6	5	8.3	11.4
23-Apr	5	4	4	5	5	5	5	5	6	7	8	8	8	9	9	9	9	9	7	6	5	4	3	2	6.2	9.5
24-Apr	2	2	2	1	1	1	1	1	2	3	4	6	8	8	8	8	7	6	6	5	4	3	3	2	3.8	7.9
25-Apr	0	0	0	1	1	1	2	3	3	5	5	6	7	8	8	8	8	7	6	4	1	0	-1	-1	3.4	8.2
26-Apr	-2	-2	-1	-2	-2	-1	2	4	7	9	10	12	13	12	13	12	12	12	11	9	8	8	7	6	6.6	12.9
27-Apr	6	5	4	4	4	3	5	6	8	10	12	12	13	13	12	12	12	12	10	9	8	6	5	5	8.1	13.2
28-Apr	5	4	5	5	4	4	4	4	4	4	5	5	6	7	8	8	9	9	8	7	7	7	6	4	5.8	9.0
29-Apr	3	3	2	1	-1	-1	1	4	5	6	7	8	10	11	11	11	12	12	12	10	8	6	4	3	6.2	11.8
30-Apr	3	2	2	2	1	1	5	7	8	10	9	8	7	8	10	9	11	11	10	8	5	2	1	1	5.9	11.4
	3.2	2.8	2.3	1.6	1.1	0.5	1.2	3.4	5.6	8.0	9.7	10.7	11.3	11.6	11.8	12.0	12.1	11.6	10.4	8.6	6.5	5.1	4.4	3.9	Diurnal Average	
	14.4	14.0	12.4	11.9	11.4	10.5	11.8	15.2	17.9	20.4	23.2	24.3	24.9	26.0	26.7	27.0	27.0	26.4	24.7	22.4	20.0	18.4	16.5	16.3	Diurnal Maximum	

N - Not Valid

Hourly Averages

External Temperature (ET) - ^{o}C

Portable-Kinuso - April 2010



Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	2	5	5	5	7	6	6	6	5	5	5	6	6	7	3	2	6	6	4	2	3	8	13	11	2.6	12.6
Dir	198	194	188	179	177	184	181	179	208	270	294	320	319	341	334	280	314	329	319	250	206	188	180	183	223	180
2 Spd	11	10	11	10	10	11	13	12	9	7	4	7	10	9	12	15	13	12	9	9	5	2	7	11	9.1	14.9
Dir	182	180	190	200	195	181	181	179	179	164	156	136	166	167	169	169	162	146	146	128	121	221	170	172	170	169
3 Spd	9	8	10	3	1	4	3	1	2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	9.8
Dir	169	165	163	167	112	194	114	192	199	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	163
4 Spd	N	N	N	N	N	2	2	4	5	7	8	9	9	10	10	10	10	10	6	0	1	3	8	10	4.3	10.1
Dir	N	N	N	N	N	213	221	275	299	303	308	322	315	330	334	334	336	330	331	61	224	206	193	193	307	334
5 Spd	14	14	9	9	13	15	13	9	6	5	5	11	10	4	7	10	13	12	8	2	1	2	7	10	4.3	15.5
Dir	182	180	189	195	186	185	181	174	165	174	169	147	173	29	23	8	20	28	35	349	232	215	190	192	170	185
6 Spd	10	9	4	5	9	11	8	6	5	5	2	8	5	7	7	8	7	5	2	2	2	3	3	6	3.2	11.4
Dir	194	187	128	169	179	173	168	147	160	171	210	191	220	323	321	294	308	289	328	80	231	225	195	200	201	173
7 Spd	8	6	9	11	11	12	12	14	11	9	7	7	9	8	7	6	6	6	4	3	7	7	7	8	6.6	14.0
Dir	186	197	186	189	189	187	178	175	173	178	237	250	258	273	298	280	249	256	244	202	200	181	191	184	205	175
8 Spd	11	10	4	1	2	3	4	1	1	7	8	10	10	12	10	8	9	11	10	9	8	7	9	11	5.3	12.4
Dir	174	165	190	289	208	209	199	262	278	311	311	306	300	298	300	304	307	308	316	307	307	303	295	296	291	298
9 Spd	12	11	11	10	10	10	9	10	10	11	12	13	15	13	13	13	12	10	10	10	10	11	11	10	11.1	14.7
Dir	299	298	297	299	301	301	299	300	301	304	304	303	302	304	300	300	302	299	303	306	307	307	306	308	302	302
10 Spd	11	11	12	13	13	13	11	12	13	12	12	13	11	13	12	9	8	8	8	6	6	5	4	4	9.9	13.3
Dir	308	304	304	304	305	306	309	323	321	317	317	318	321	319	328	324	331	329	337	323	333	308	302	303	316	306
11 Spd	3	3	4	3	3	2	1	3	5	5	5	6	4	6	7	1	6	7	8	6	6	2	1	3	3.1	7.5
Dir	306	302	302	288	294	236	208	332	344	331	331	345	333	2	15	238	356	7	16	31	31	359	94	110	350	16
12 Spd	5	6	10	8	10	12	8	7	8	16	17	17	17	18	18	19	21	21	19	16	15	14	10	12	13.4	21.1
Dir	122	135	143	134	136	146	127	131	163	145	147	138	136	132	128	125	135	135	126	130	129	138	140	139	135	135
13 Spd	14	13	12	10	13	8	10	8	9	9	9	8	7	7	9	7	5	2	5	4	1	3	7	4	6.9	13.7
Dir	138	125	140	143	143	148	147	155	175	177	172	170	166	159	150	164	182	181	73	73	48	206	182	196	153	138
14 Spd	7	8	5	5	7	6	5	5	2	5	7	8	9	11	13	14	13	11	12	6	2	2	2	8	2.8	14.1
Dir	201	190	193	206	201	189	208	200	212	337	335	327	326	323	328	330	353	348	18	17	238	229	217	189	305	330
15 Spd	13	14	14	14	15	15	13	12	11	14	11	7	9	14	16	16	16	15	14	10	9	9	13	17	12.9	16.9
Dir	187	181	179	180	181	177	184	186	178	174	157	163	159	170	171	167	174	170	172	163	163	161	163	161	173	161
16 Spd	19	15	4	2	9	2	2	4	5	6	6	1	8	12	7	7	6	6	3	1	1	5	12	13	2.0	18.6
Dir	163	156	173	239	175	302	113	147	153	141	176	5	354	9	24	1	332	353	323	30	220	197	184	179	160	163
17 Spd	16	12	12	9	11	14	9	7	5	1	11	16	18	18	16	14	16	17	20	18	16	18	12	13	12.1	20.1
Dir	177	182	185	178	179	183	182	160	200	168	144	150	139	139	134	155	135	131	116	113	120	125	131	145	147	116
18 Spd	14	12	6	4	2	1	3	5	10	6	7	7	12	9	8	5	1	11	8	13	10	3	4	8	3.2	13.5
Dir	161	168	215	187	221	89	119	169	166	201	179	332	4	355	349	337	272	162	154	154	185	138	162	184	169	161
19 Spd	9	10	10	8	7	7	3	7	7	4	11	21	24	20	17	18	16	16	14	8	7	6	12	12	10.9	23.7
Dir	184	173	172	174	168	192	199	172	163	160	148	152	150	155	152	142	141	139	142	128	114	131	164	156	154	150
20 Spd	8	9	11	10	11	5	5	6	5	11	15	20	23	21	18	18	19	18	19	15	11	14	11	13	12.9	22.7
Dir	167	170	177	175	180	181	183	186	173	144	147	171	149	164	168	157	155	157	156	147	147	156	161	156	161	149
21 Spd	10	13	11	13	14	15	9	6	9	10	15	21	19	15	11	11	10	11	12	10	10	12	9	8	10.6	21.0
Dir	180	173	166	165	175	171	170	165	169	183	173	173	169	166	164	166	159	166	145	148	150	171	286	284	170	173
22 Spd	7	8	7	5	4	5	6	6	7	6	6	7	5	6	3	3	5	6	6	13	8	5	1	2	2.8	12.5
Dir	288	293	290	285	272	279	286	294	288	289	290	287	294	290	300	97	161	70	55	44	43	55	148	274	312	44

Hourly Averages

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	1	0	2	3	4	7	7	8	8	9	9	8	9	9	12	11	10	11	10	9	6	6	4	5	6.0	12.1
Dir	179	209	358	314	303	293	292	296	298	307	301	300	305	307	324	319	320	349	9	356	15	15	26	24	324	324
24 Spd	5	3	4	3	4	6	5	3	4	5	4	5	6	8	9	10	10	13	10	7	7	4	3	2	5.1	12.6
Dir	36	331	345	349	52	37	18	12	1	323	322	327	332	340	359	7	24	33	49	40	18	1	301	285	8	33
25 Spd	1	0	1	2	3	4	4	6	6	6	8	8	9	12	14	13	16	14	12	7	3	4	8	9	3.6	15.9
Dir	269	197	289	308	298	291	292	310	316	327	331	318	332	358	27	27	29	48	62	66	106	154	176	168	11	29
26 Spd	7	9	8	9	7	7	9	8	7	8	9	11	11	13	16	14	18	17	16	13	12	14	16	16	11.2	17.8
Dir	175	174	154	130	130	137	157	180	170	176	141	143	141	133	140	141	133	141	143	142	135	151	150	155	147	133
27 Spd	13	12	12	14	14	11	14	18	19	20	21	22	23	22	22	20	18	22	19	15	12	10	7	7	15.4	23.4
Dir	152	152	150	153	154	157	143	143	145	144	139	123	121	127	128	123	114	120	129	123	108	81	89	95	131	121
28 Spd	7	7	7	7	8	9	11	8	5	6	8	12	13	16	14	9	8	5	4	3	9	7	7	6	7.2	16.1
Dir	92	50	48	78	63	67	70	52	2	12	13	24	39	41	45	32	13	349	318	316	21	5	355	9	35	41
29 Spd	5	5	4	6	3	1	4	10	12	13	13	9	8	9	8	7	7	7	8	4	10	8	2	2	6.1	13.4
Dir	332	330	326	351	352	101	31	1	12	4	357	335	321	326	332	317	309	324	359	10	45	41	355	269	351	4
30 Spd	2	2	4	5	6	3	2	3	4	6	10	5	13	11	6	5	3	4	4	3	1	2	4	10	2.5	13.1
Dir	218	168	204	185	178	135	244	328	28	24	21	177	163	162	205	249	218	241	237	216	153	219	199	187	189	163
Spd	5.7	5.5	4.4	3.9	4.8	4.4	3.7	2.8	2.4	1.7	1.5	2.1	2.1	0.7	1.2	1.0	1.5	2.4	3.3	3.3	2.7	2.7	4.1	5.4	Diurnal Average	
Dir	179	178	183	183	180	183	177	183	190	199	183	181	164	121	91	129	105	105	102	108	114	150	177	177		
Spd	18.6	14.6	14.0	14.2	14.6	15.5	14.0	18.4	19.3	19.5	21.0	21.7	23.7	22.3	21.6	20.1	21.1	22.4	20.1	18.5	15.8	17.6	16.4	16.9	Diurnal Maximum	
Dir	163	156	179	180	181	185	143	143	145	144	139	123	150	127	128	123	135	120	116	113	120	125	150	161		

Maximum Speed Value: 24 km/h on Apr 19 13:00
Maximum Daily Speed Average: 15.4 km/h on Apr 27
Maximum Diurnal Speed Average: 5.7 km/h at hour 1

Minimum Speed Value: 0 km/h on Apr 25 02:00
Minimum Daily Speed Average: 2.0 km/h on Apr 11
Minimum Diurnal Speed Average: 0.7 km/h at hour 14

Monthly Average Velocity: 2.65 km/h 165.4 deg

Speed Percentiles: $P_1 = 0.7$ $P_{10} = 2.7$ $Q_1 = 5.3$ Median = 8.2 $Q_3 = 11.7$ $P_{90} = 14.9$ $P_{99} = 21.5$

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

Hours in Service:	720
Hours of Data:	700
Hours of Missing Data:	20
Percent Operational Time:	97.2

N - Not Valid

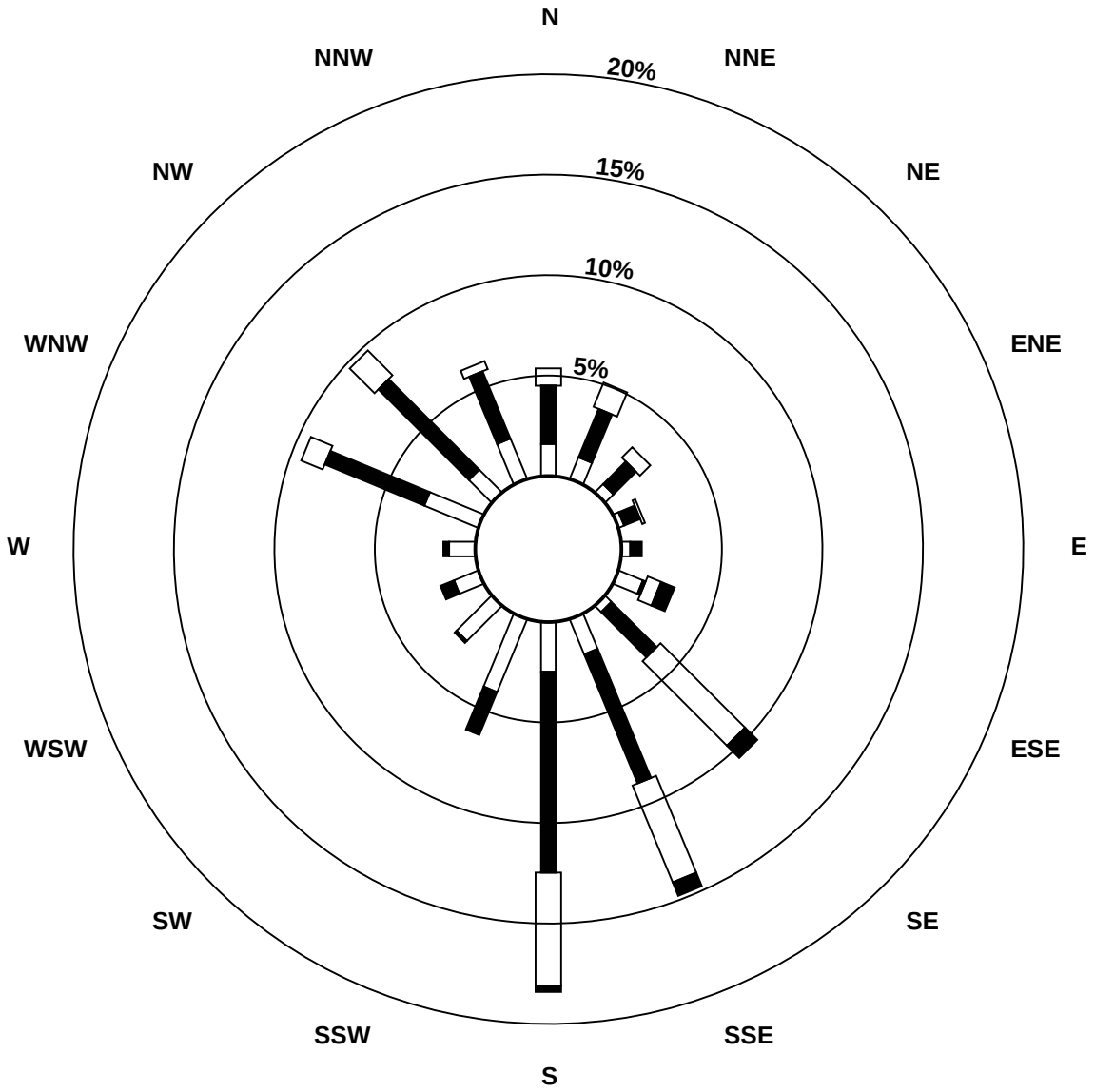
Frequency Distribution

Direction	Speed Range (km/h) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	13	37	10	0	0	0	60
NorthEast	11	21	12	0	0	0	44
East	10	7	1	0	0	0	18
SouthEast	13	36	70	17	0	0	136
South	32	117	60	3	0	0	212
SouthWest	37	4	0	0	0	0	41
West	18	20	0	0	0	0	38
NorthWest	31	89	31	0	0	0	151
Total	165	331	184	20	0	0	700

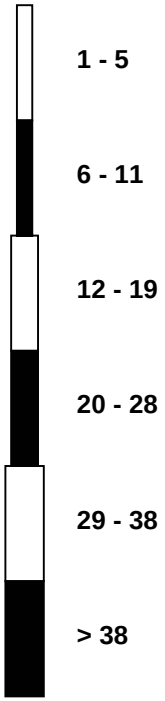
Wind Rose

Wind Speed (WS) (km/h)

Portable-Kinuso - April 2010



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable-Kinuso - April 2010

Maximum Speed: 24 km/h on Apr 19 13:00

Maximum Daily Speed Average: 16.5 km/h on Apr 27

Minimum Speed: 1 km/h on Apr 4 21:00

Minimum Daily Speed Average: 4.9 km/h on Apr 11

Maximum Diurnal Speed Average: 12.5 km/h at hour 14

Minimum Diurnal Speed Average: 7.1 km/h at hour 22

Monthly Average Speed: 9.25 km/h

Percentiles: P_1 = 1.8 P_{10} = 3.5 Q_1 = 5.9 Median = 8.7 Q_3 = 12.1 P_{90} = 15.5 P_{99} = 21.8

Hours in Service: 720

Hours of Data: 700

Hours of Missing Data: 20

Percent Operational Time: 97.2

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	3	5	5	5	8	6	6	6	6	6	6	7	7	8	4	4	8	7	4	2	3	8	13	11	6.1	12.6
2-Apr	11	10	11	10	10	11	13	12	9	8	5	8	11	11	13	16	14	13	10	9	5	3	8	11	10.1	15.8
3-Apr	10	9	10	5	5	6	4	1	2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	9.9
4-Apr	N	N	N	N	N	2	2	4	5	7	8	9	9	10	11	10	10	10	6	2	1	3	8	10	6.8	10.6
5-Apr	14	15	9	9	13	16	13	10	6	5	6	12	11	10	9	10	13	12	8	3	3	3	7	10	9.5	15.5
6-Apr	10	10	4	5	9	12	8	6	5	5	3	8	7	7	8	8	7	6	3	3	2	4	3	6	6.1	11.5
7-Apr	8	6	9	11	11	12	12	14	11	10	8	8	9	9	7	7	7	7	4	3	7	7	7	9	8.5	14.1
8-Apr	11	10	5	3	2	3	4	2	4	7	9	10	11	12	10	8	9	11	10	10	8	7	9	11	7.7	12.5
9-Apr	12	11	12	10	10	10	9	10	10	11	12	13	15	13	13	13	12	11	11	10	10	11	11	11	11.3	14.9
10-Apr	11	12	12	13	13	14	12	12	13	12	12	13	11	13	12	9	8	8	8	6	6	5	4	5	10.2	13.5
11-Apr	3	3	4	3	3	2	1	4	5	6	6	7	6	8	8	5	7	8	8	6	6	3	2	4	4.9	8.2
12-Apr	5	7	10	9	10	12	8	7	9	17	18	18	18	18	18	19	22	21	19	17	15	14	11	13	13.9	21.5
13-Apr	14	13	12	10	13	9	10	9	9	9	9	9	8	8	10	8	5	4	5	4	3	4	8	4	8.2	13.9
14-Apr	7	8	6	5	7	7	5	6	4	6	7	8	10	11	13	14	14	11	12	6	2	3	2	8	7.6	14.4
15-Apr	13	14	14	14	15	15	13	12	12	15	12	9	10	14	16	17	16	16	14	10	9	9	13	17	13.4	17.0
16-Apr	19	15	4	3	10	3	4	6	6	6	7	5	10	12	9	8	7	6	3	2	2	5	12	13	7.3	18.7
17-Apr	16	12	12	10	12	14	9	8	5	3	12	17	18	19	17	15	17	17	20	19	16	18	12	14	13.8	20.4
18-Apr	14	12	7	5	3	3	3	6	10	6	8	10	13	10	9	6	6	11	8	14	11	4	5	8	8.0	13.8
19-Apr	9	10	10	8	7	7	4	7	7	5	12	21	24	20	17	19	17	17	14	8	7	6	13	12	11.8	24.2
20-Apr	8	9	11	10	11	6	5	7	6	12	15	21	23	22	19	19	20	19	19	15	11	14	11	13	13.5	23.3
21-Apr	10	13	11	13	14	15	9	6	9	11	16	22	19	15	12	12	11	12	12	10	10	12	10	8	12.1	21.5
22-Apr	7	8	7	5	5	6	6	7	7	6	6	7	6	6	6	7	6	8	8	13	8	5	3	3	6.4	12.7
23-Apr	2	2	3	3	4	7	7	8	8	9	9	8	9	10	12	11	11	12	11	9	7	6	4	5	7.4	12.4
24-Apr	5	3	4	4	4	6	6	5	5	5	5	6	8	9	10	11	10	13	10	7	7	5	3	3	6.4	12.9
25-Apr	2	2	2	2	3	4	4	6	6	6	8	9	9	13	14	14	16	15	12	8	3	5	8	9	7.5	16.2
26-Apr	7	9	8	9	8	7	9	8	8	9	12	12	12	14	16	14	18	18	17	13	13	14	17	16	12.0	18.4
27-Apr	13	12	12	14	14	11	14	19	20	20	22	22	24	23	22	21	19	23	19	15	12	10	7	8	16.5	23.9
28-Apr	7	7	7	8	8	9	11	9	6	6	8	12	13	16	14	9	8	6	4	4	9	7	8	7	8.5	16.3
29-Apr	6	5	4	6	4	2	4	10	13	14	14	10	9	10	9	8	7	7	8	5	10	8	3	3	7.5	14.3
30-Apr	3	3	5	6	7	5	4	4	5	8	11	9	13	11	8	6	6	5	4	3	2	3	5	10	6.1	13.3
	8.9	8.9	7.9	7.6	8.4	7.9	7.4	7.6	7.7	8.6	9.9	11.4	12.2	12.5	11.9	11.4	11.4	11.5	10.0	8.0	7.2	7.1	7.8	8.9	Diurnal Average	
	18.7	14.6	14.0	14.2	14.6	15.5	14.3	18.7	19.7	20.0	21.6	22.4	24.2	22.7	22.0	20.6	21.5	22.9	20.4	18.6	15.9	17.7	16.5	17.0	Diurnal Maximum	

N - Not Valid

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

Hourly Standard Deviations

Wind Direction (WD) - deg

Portable-Kinuso - April 2010

Maximum Value: 99.8 deg on Apr 16 12:00

Minimum Value: 3.5 deg on Apr 17 01:00

Percentiles: P_1 = 4.2 P_{10} = 7.4 Q_1 = 10.5 Median = 16.1 Q_3 = 27.5 P_{90} = 47.9 P_{99} = 86.1

Hours in Service:	720
Hours of Data:	700
Hours of Missing Data:	20
Hours of Calibration:	0
Percent Operational Time:	97.2

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Apr	30	15	33	21	10	14	11	8	40	27	35	22	24	22	47	65	41	14	18	35	19	15	4	4	65.3
2-Apr	5	7	9	14	7	6	4	6	10	17	54	54	31	36	25	20	17	16	8	13	38	52	26	7	54.5
3-Apr	8	8	10	79	95	56	42	46	20	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	94.7
4-Apr	N	N	N	N	N	40	28	29	18	18	17	16	14	18	17	16	15	11	14	96	25	27	14	5	96.3
5-Apr	5	4	8	8	6	4	5	8	21	20	36	33	29	86	36	25	16	10	14	46	67	26	11	6	86.5
6-Apr	5	44	49	18	6	9	15	18	28	18	59	21	55	19	33	19	17	35	53	33	23	40	28	17	59.2
7-Apr	10	15	10	9	12	9	6	6	7	22	24	34	25	20	17	30	34	23	17	20	14	12	16	22	33.7
8-Apr	8	8	35	77	30	24	15	63	67	17	15	15	12	8	10	15	15	14	15	10	12	13	10	10	76.9
9-Apr	10	9	9	11	10	10	11	9	11	11	9	10	9	10	10	10	8	10	12	9	8	10	10	8	11.8
10-Apr	9	8	9	9	8	9	10	12	9	10	11	11	11	10	9	11	11	9	12	13	13	13	13	12	13.3
11-Apr	17	14	11	14	17	32	23	60	29	29	36	37	70	44	38	85	37	24	16	15	8	53	84	53	85.4
12-Apr	23	15	9	13	9	9	11	22	24	14	13	13	18	16	12	14	12	11	11	11	10	12	13	11	24.2
13-Apr	11	9	13	14	10	10	12	14	14	15	17	25	29	23	17	27	49	83	24	25	73	37	13	14	83.2
14-Apr	11	8	24	20	25	15	25	23	79	33	27	16	21	15	13	11	19	15	9	25	24	37	17	12	78.9
15-Apr	8	7	5	4	4	5	6	6	12	11	19	45	31	17	18	12	16	11	7	9	6	7	4	5	45.0
16-Apr	8	4	26	55	23	42	69	58	37	25	38	100	53	17	35	32	20	25	38	79	42	18	6	5	99.8
17-Apr	3	7	8	14	18	6	17	16	23	94	42	21	15	15	14	20	14	17	10	6	7	6	14	8	94.1
18-Apr	7	9	33	35	51	80	50	31	17	34	38	51	23	26	28	47	92	13	12	15	31	68	29	11	92.5
19-Apr	15	8	5	6	60	27	45	14	14	53	40	12	11	17	12	14	18	19	12	12	7	16	9	7	59.5
20-Apr	9	9	6	4	6	41	22	15	22	20	19	13	14	13	19	21	14	16	9	10	7	8	6	6	40.8
21-Apr	7	6	5	7	5	5	13	18	16	17	15	13	12	21	31	25	29	23	9	7	7	10	35	18	35.1
22-Apr	18	16	17	23	24	18	19	22	17	16	18	14	17	23	68	76	40	54	47	10	20	48	77	49	77.0
23-Apr	46	87	54	29	15	12	14	13	14	13	13	15	13	14	13	12	14	23	16	20	30	19	40	17	87.2
24-Apr	13	32	25	28	34	9	24	45	29	26	48	51	41	30	24	22	28	12	12	12	8	29	16	31	50.6
25-Apr	53	82	71	32	17	16	14	20	19	28	22	24	23	24	21	17	13	19	11	15	33	26	9	8	81.8
26-Apr	9	6	12	6	11	7	10	15	22	31	41	27	31	23	16	17	15	11	9	11	10	9	7	6	40.9
27-Apr	6	6	6	6	8	11	10	10	12	13	14	15	11	12	12	14	16	12	10	12	11	7	11	19	18.7
28-Apr	15	7	9	16	9	9	11	21	20	25	22	14	11	10	12	23	17	32	21	24	9	20	13	19	32.1
29-Apr	16	12	22	13	41	75	44	18	16	20	21	23	29	20	30	22	19	22	19	36	8	15	55	37	75.1
30-Apr	63	68	60	48	52	63	54	44	50	54	32	76	10	18	41	33	63	33	36	21	51	67	48	5	75.8
	63.4	87.2	71.2	78.9	94.7	79.9	68.6	63.3	78.9	94.1	59.2	99.8	70.2	86.5	67.8	85.4	92.5	83.2	52.5	96.3	73.2	67.8	84.3	53.5	

N - Not Valid

PASZA
Valleyview Station
Monthly Summary Tables, Graphs and Roses

PASZA
Peace Airshed Zone Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Valleyview - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 0.6 ppb on Apr 4 00:00 Maximum Daily Average: 0.2 ppb on Apr 3

Minimum Value: 0 ppb on Apr 1 02:00 Minimum Daily Average: 0.0 ppb on Apr 1
Maximum Diurnal Average: 0.1 ppb at hour 11 Minimum Diurnal Average: 0.0 ppb at hour 14
Monthly Average: 0.04 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.1 P_{90} = 0.1 P_{99} = 0.4

Hours in Service:	720
Hours of Data:	687
Hours of Missing Data:	33
Hours of Calibration:	33
Percent Operational Time:	100.0

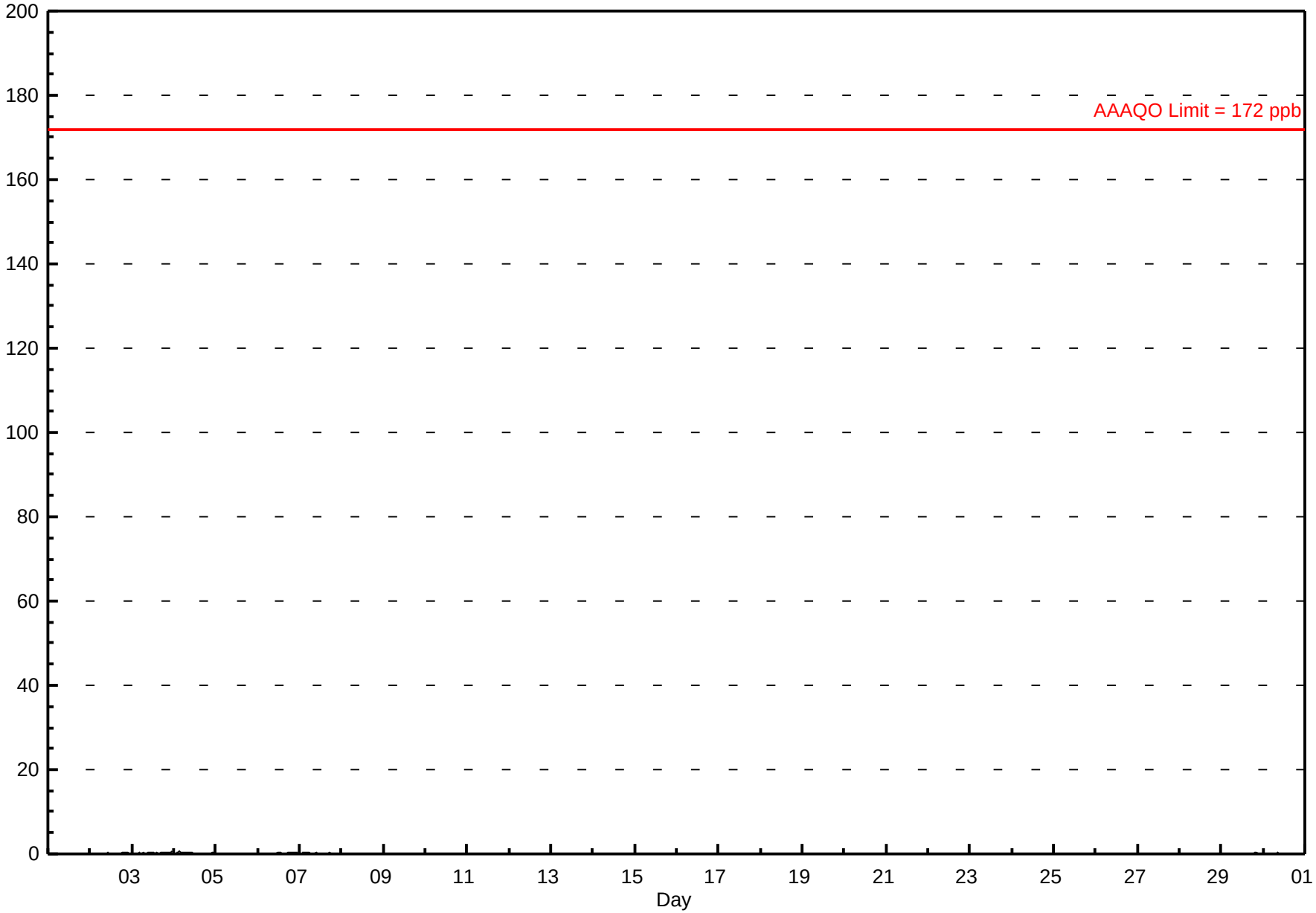
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
2-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
3-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	0.6
4-Apr	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
5-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
6-Apr	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
7-Apr	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
8-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
9-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
10-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
11-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
12-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
13-Apr	A	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
14-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
15-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
16-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
17-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
18-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
19-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
20-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
21-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
22-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
23-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
24-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
25-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
26-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
27-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
28-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
29-Apr	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	0.3
30-Apr	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
	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	Diurnal Average	
	--	0.4	0.5	0.6	0.3	0.5	0.3	0.3	0.2	0.3	0.4	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.4	0.4	0.3	0.3	0.4	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

Sulphur Dioxide (SO_2) - ppb

Valleyview - April 2010



PASZA
Peace Airshed Zone Association

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

Valleyview - April 2010

Maximum Value: 2.0 ppb on Apr 23 15:00

Maximum Daily Average: 0.7 ppb on Apr 3

Minimum Value: 0 ppb on Apr 11 22:00

Minimum Daily Average: 0.0 ppb on Apr 16

Maximum Diurnal Average: 0.3 ppb at hour 9

Minimum Diurnal Average: 0.1 ppb at hour 5

Monthly Average: 0.20 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.2 P_{90} = 0.5 P_{99} = 1.1

Hours in Service:	720
Hours of Data:	687
Hours of Missing Data:	33
Hours of Calibration:	33
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	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
2-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	0.5	0.6
3-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	0.7	1.6
4-Apr	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.6	1.2
5-Apr	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
6-Apr	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
7-Apr	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
8-Apr	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
9-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
10-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.2	0.7
11-Apr	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
12-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.0	0.6
13-Apr	A	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
14-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
15-Apr	A	0	0	0	0	1	1	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0.2	1.0
16-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
17-Apr	A	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.2	1.0
18-Apr	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
19-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
20-Apr	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0
21-Apr	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	0.2
22-Apr	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
23-Apr	A	0	0	1	0	2	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0.3	2.0
24-Apr	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	0.4
25-Apr	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.1	1.0
26-Apr	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
27-Apr	A	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.1
28-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
29-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.2	1.2
30-Apr	A	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.3	1.2
	--	0.1	0.2	0.2	0.1	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	Diurnal Average	
	--	0.7	1.2	1.0	0.7	2.0	1.0	0.6	1.2	1.0	1.0	0.6	0.6	0.6	2.0	0.7	0.7	0.7	1.6	1.2	1.2	0.7	0.7	0.8	Diurnal Maximum	

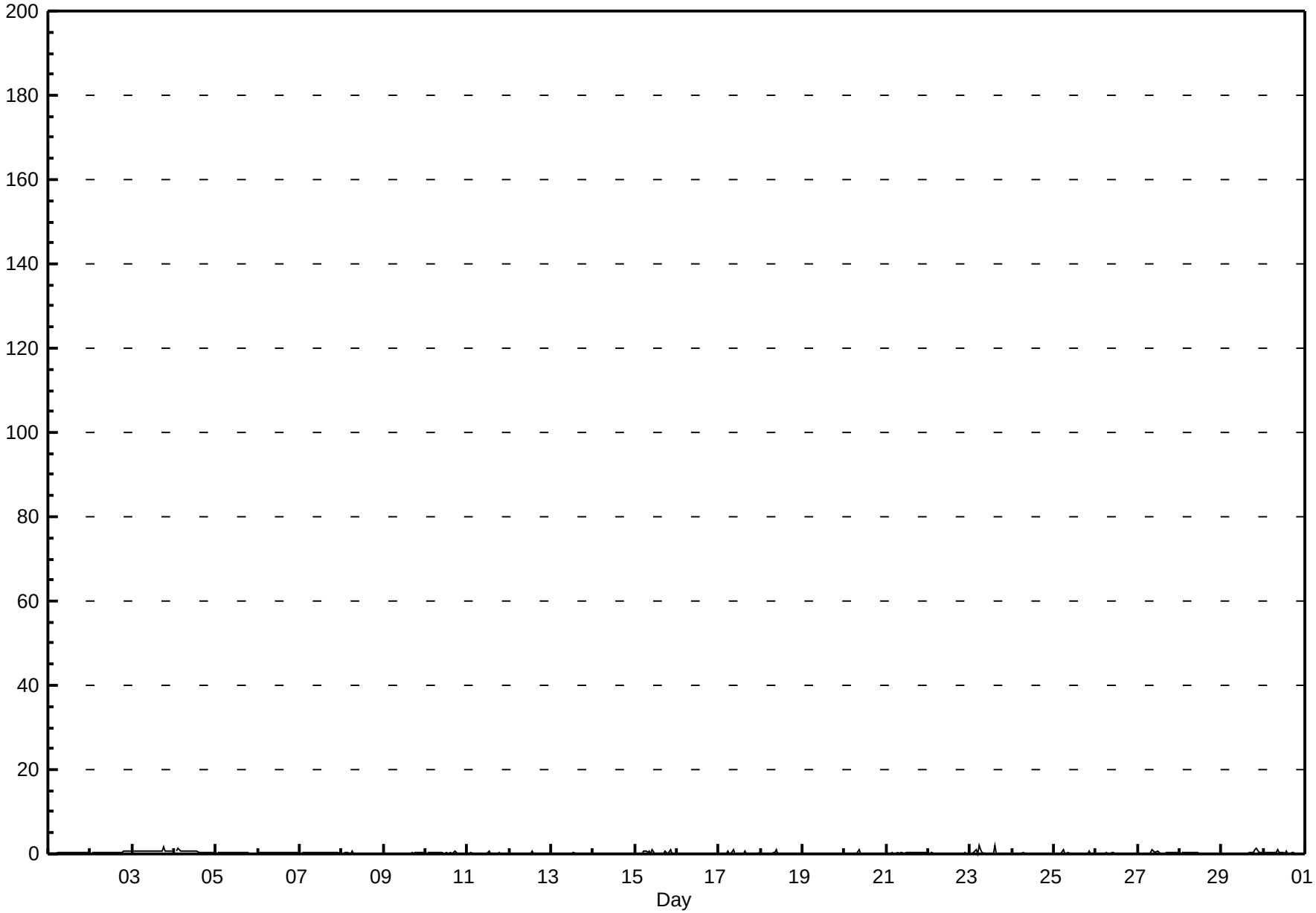
C - Calibration

A - Automated Daily Zero Span

Hourly Maximums

Sulphur Dioxide (SO_2) - ppb

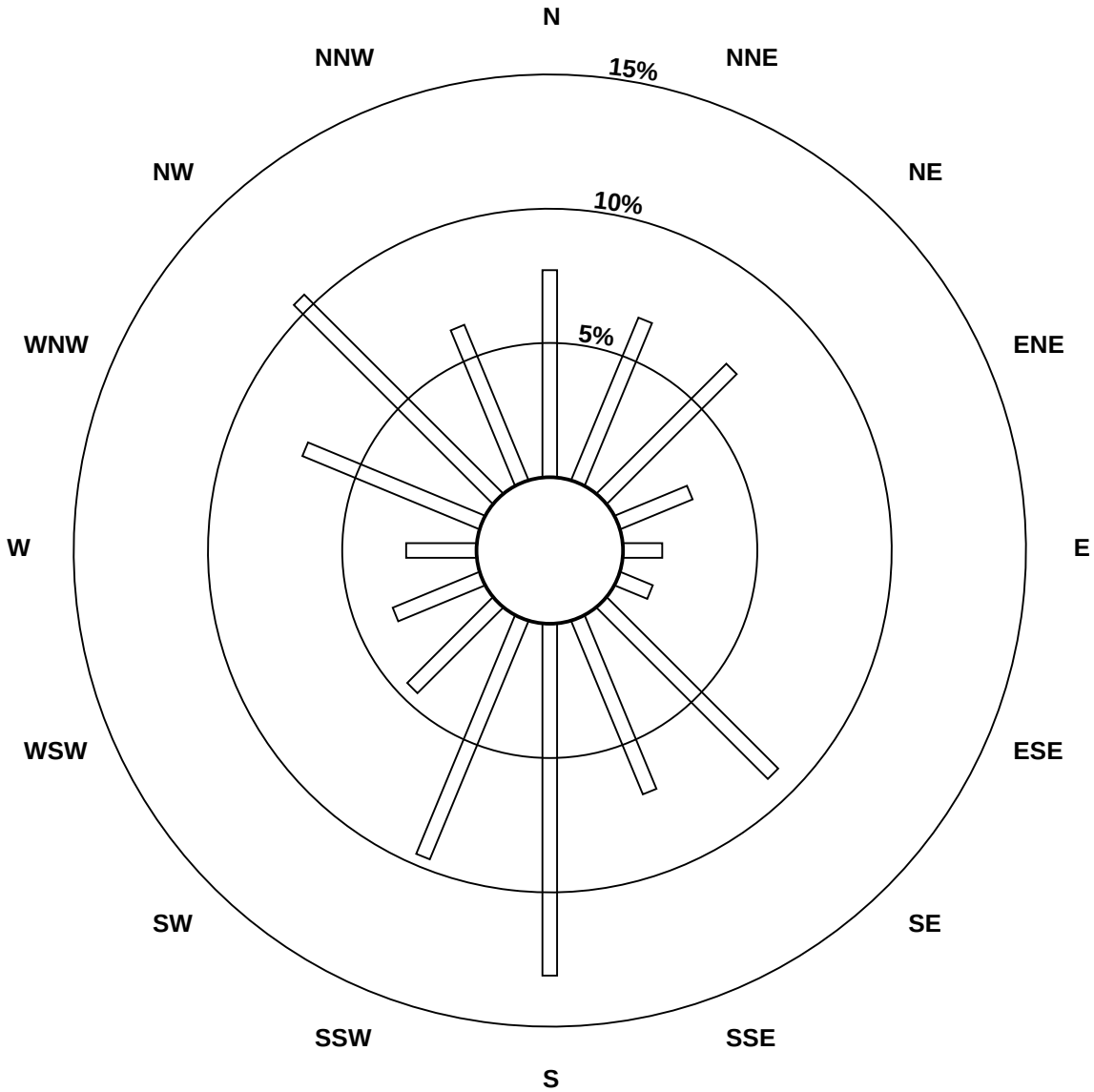
Valleyview - April 2010



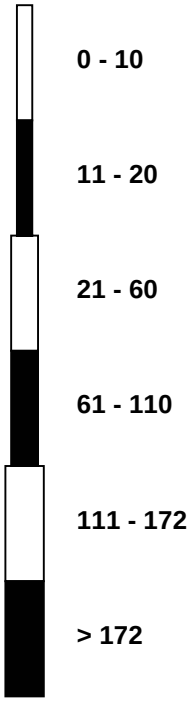
Pollutant Rose

Sulphur Dioxide (SO_2) - ppb

Valleyview - April 2010



Pollutant Classes (ppb)



Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 0.4 ppb on Apr 20 07:00 Maximum Daily Average: 0.2 ppb on Apr 30

Minimum Value: 0 ppb on Apr 2 00:00 Minimum Daily Average: 0.0 ppb on Apr 10
Maximum Diurnal Average: 0.1 ppb at hour 7 Minimum Diurnal Average: 0.0 ppb at hour 19
Monthly Average: 0.07 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.1 P_{90} = 0.2 P_{99} = 0.3

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

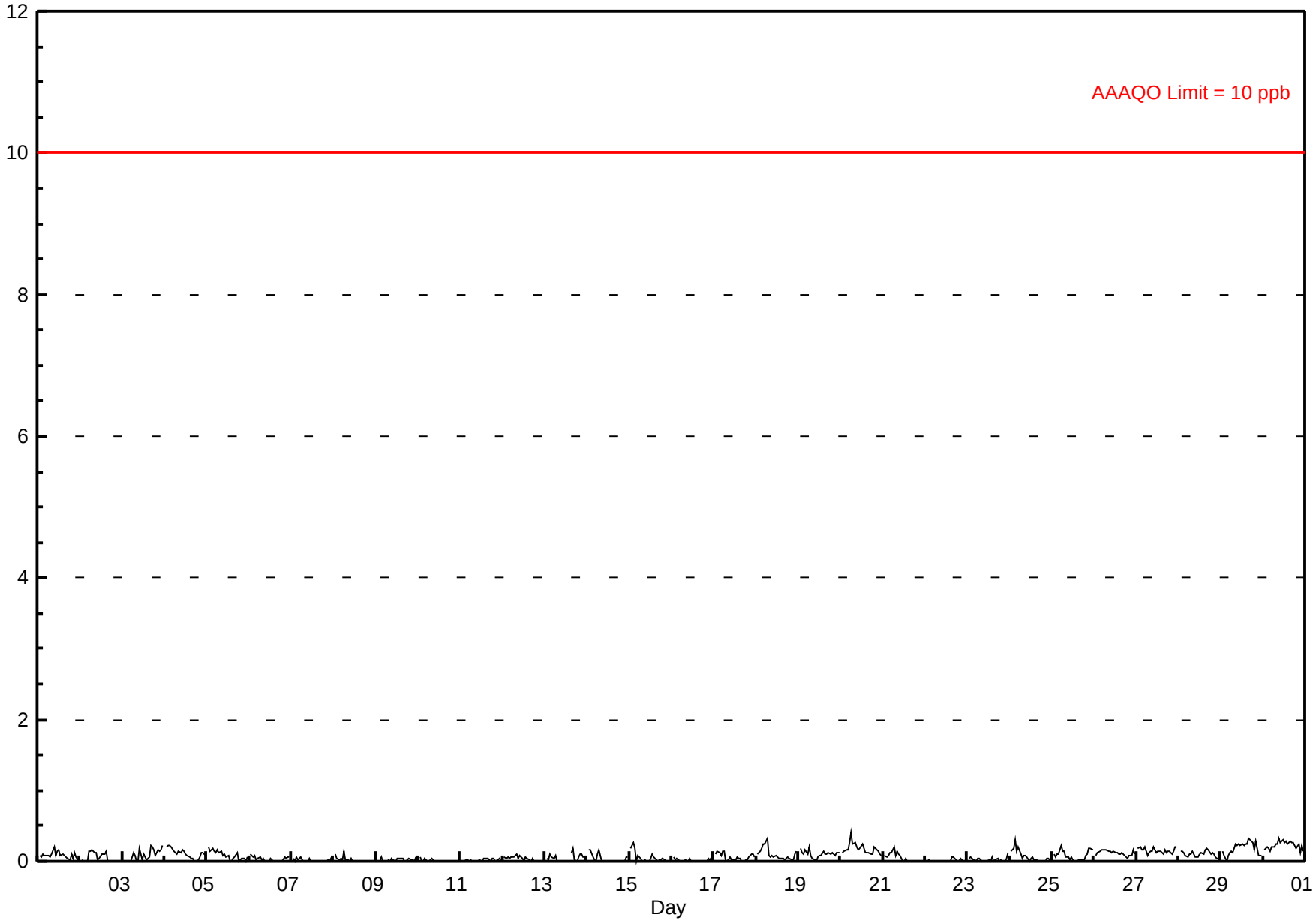
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
2-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
3-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
4-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
5-Apr	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-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
7-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
8-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
9-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
10-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
11-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
12-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
13-Apr	A	0	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0.1	0.2
14-Apr	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
15-Apr	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	0.3
16-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
17-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
18-Apr	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
19-Apr	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-Apr	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
21-Apr	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
22-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
23-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
24-Apr	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
25-Apr	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
26-Apr	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-Apr	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	0.2
28-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
29-Apr	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
30-Apr	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
	--	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	0.0	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	--	0.2	0.3	0.3	0.2	0.3	0.4	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	Diurnal Maximum	

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

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Valleyview - April 2010



Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

Valleyview - April 2010

Maximum Value: 1.7 ppb on Apr 15 15:00

Maximum Daily Average: 0.6 ppb on Apr 30

Minimum Value: 0 ppb on Apr 21 13:00

Maximum Diurnal Average: 0.5 ppb at hour 7

Monthly Average: 0.44 ppb

Minimum Daily Average: 0.3 ppb on Apr 11

Minimum Diurnal Average: 0.4 ppb at hour 20

Percentiles: $P_1 = 0.2$ $P_{10} = 0.3$ $Q_1 = 0.3$ Median = 0.4 $Q_3 = 0.5$ $P_{90} = 0.6$ $P_{99} = 1.1$

Hours in Service:	720
Hours of Data:	686
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

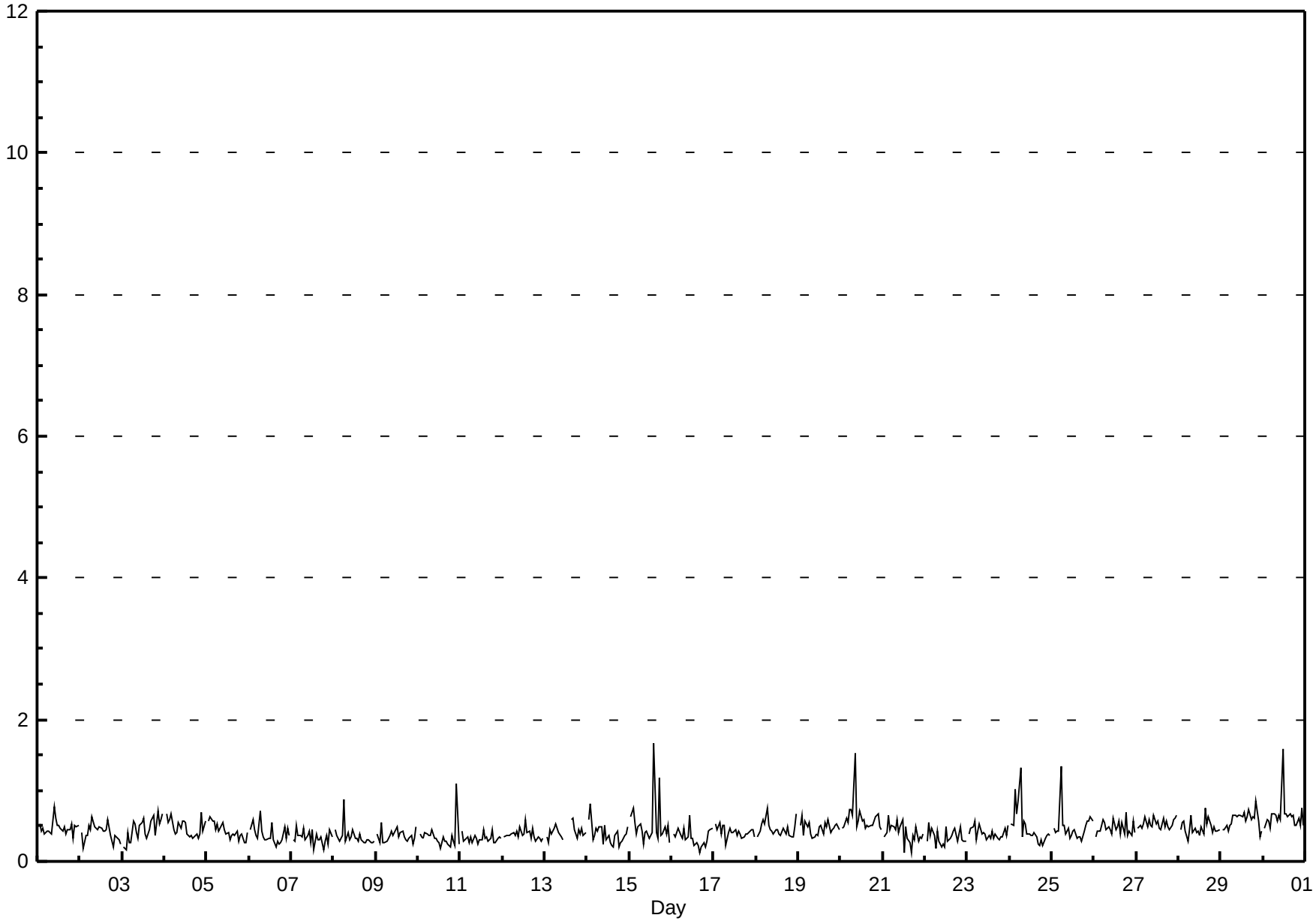
Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	A	1	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	1	0	0	0	1	0.5	0.8
2-Apr	A	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.4	0.6
3-Apr	A	0	0	0	0	0	1	1	0	0	1	1	1	0	0	0	1	1	1	0	1	1	1	1	0.5	0.7
4-Apr	A	1	1	1	1	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	1	0	1	0.5	0.7
5-Apr	A	1	1	1	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
6-Apr	A	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.4	0.7
7-Apr	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
8-Apr	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
9-Apr	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
10-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.3	1.1
11-Apr	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
12-Apr	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.4	0.6
13-Apr	A	0	0	0	0	0	1	0	0	0	0	C	C	C	C	1	1	0	0	0	0	0	0	0	0.4	0.6
14-Apr	A	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.8
15-Apr	A	1	1	1	0	0	1	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	1	0	0.5	1.7
16-Apr	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
17-Apr	A	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
18-Apr	A	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5	0.8
19-Apr	A	1	1	0	1	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	1	0	0.5	0.6
20-Apr	A	0	0	1	1	1	1	1	2	0	1	1	1	1	0	1	0	1	1	1	1	1	0	0	0.6	1.5
21-Apr	A	0	0	1	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
22-Apr	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
23-Apr	A	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	0.6
24-Apr	A	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.3
25-Apr	A	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0.5	1.3
26-Apr	A	0	0	0	1	1	1	0	0	0	0	1	0	0	1	0	1	0	1	0	0	0	1	0	0.5	0.7
27-Apr	A	0	1	0	1	1	0	1	1	0	1	1	1	0	0	1	0	1	0	0	0	1	1	1	0.5	0.7
28-Apr	A	0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0.5	0.7
29-Apr	A	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.6	0.9
30-Apr	A	0	1	1	0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.6
	--	0.4	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	Diurnal Average	
	--	0.7	0.8	1.0	0.7	1.3	1.3	0.7	1.5	0.8	0.7	1.6	0.7	0.7	1.7	0.7	0.7	1.2	0.7	0.6	0.9	0.7	1.1	0.7	Diurnal Maximum	

C - Calibration A - Automated Daily Zero Span

Hourly Maximums

Hydrogen Sulphide (H_2S) - ppb

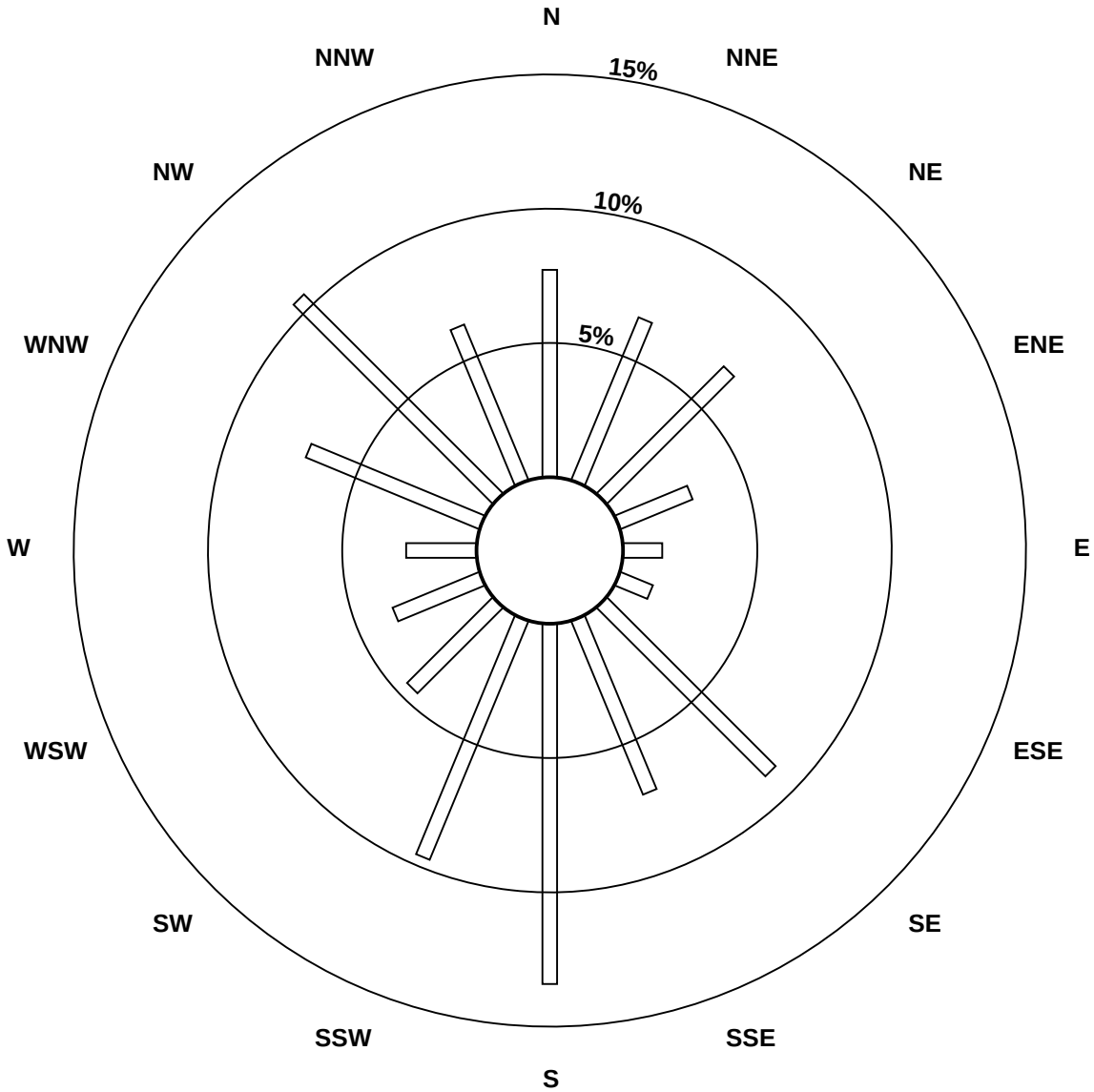
Valleyview - April 2010



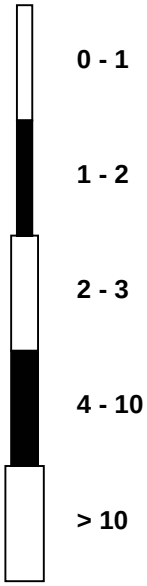
Pollutant Rose

Hydrogen Sulphide (H_2S) - ppb

Valleyview - April 2010



Pollutant Classes (ppb)



Hourly Averages

External Temperature (ET) - ^{o}C

Valleyview - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 26.5 ^{o}C on Apr 21 18:00

Maximum Daily Average: 18.2 ^{o}C on Apr 20

Minimum Value: -7 ^{o}C on Apr 11 07:00

Maximum Diurnal Average: 11.8 ^{o}C at hour 17

Monthly Average: 6.29 ^{o}C

Minimum Daily Average: -3.5 ^{o}C on Apr 11

Minimum Diurnal Average: 0.0 ^{o}C at hour 6

Percentiles: P_1 = -6.0 P_{10} = -2.0 Q_1 = 1.0 Median = 5.6 Q_3 = 10.1 P_{90} = 16.8 P_{99} = 24.8

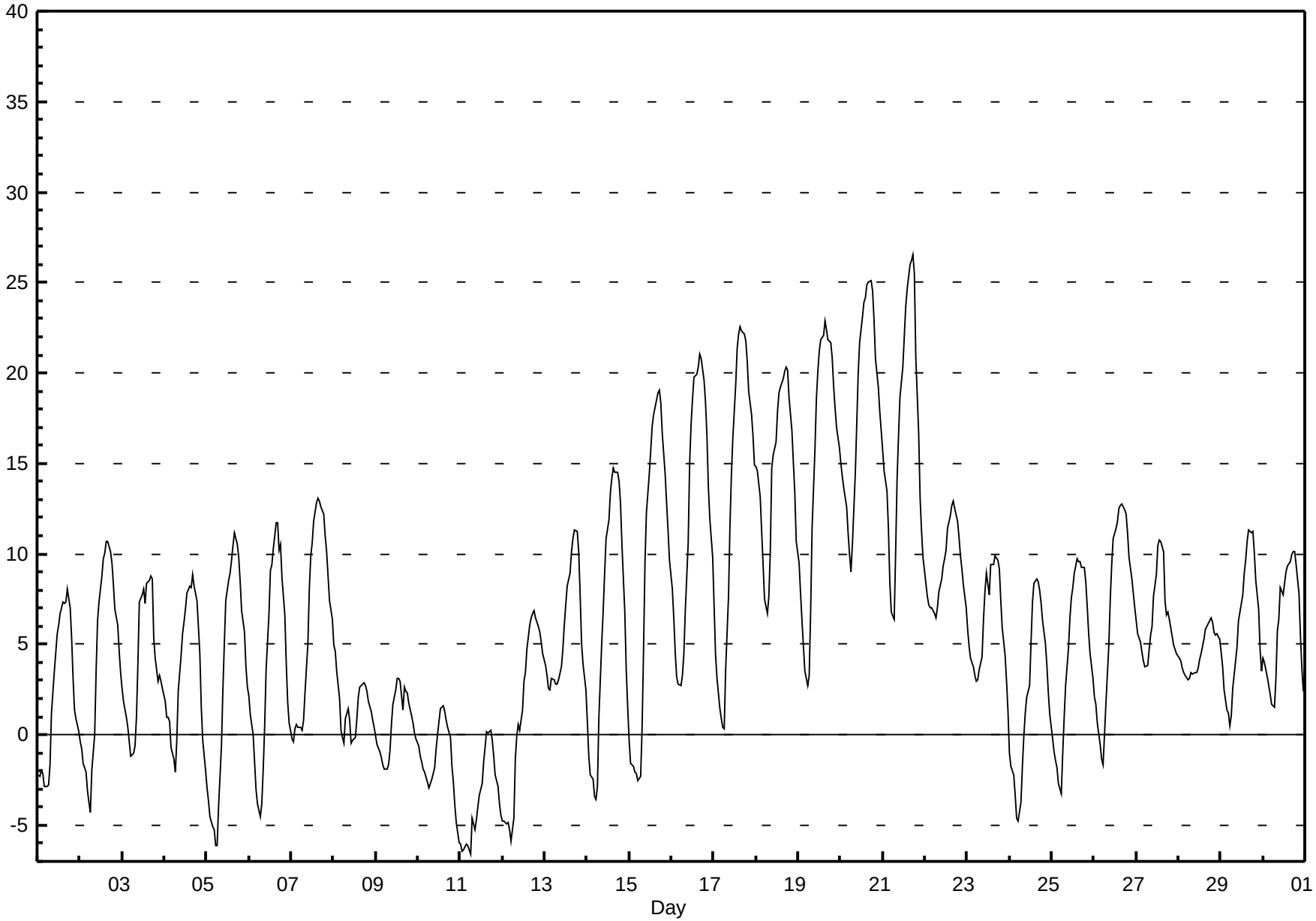
Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	-2	-2	-2	-2	-3	-3	-3	-2	1	4	5	6	6	7	7	7	7	8	7	5	3	1	1	0	2.4	8.0
2-Apr	0	-1	-2	-2	-3	-4	-4	-2	0	3	6	7	9	10	10	11	11	10	10	8	7	6	5	3	4.1	10.7
3-Apr	3	2	1	0	0	-1	-1	-1	1	4	7	8	8	7	8	9	9	9	5	4	3	3	3	3	3.9	8.7
4-Apr	2	1	1	1	-1	-1	-2	0	2	4	6	6	7	8	8	8	9	8	7	6	4	2	0	-2	3.5	8.8
5-Apr	-3	-4	-5	-5	-5	-6	-6	-4	-1	2	5	7	9	9	10	10	11	11	10	8	7	6	4	3	3.0	11.2
6-Apr	2	1	0	-1	-3	-4	-5	-4	-2	0	4	7	9	9	10	12	12	10	11	9	7	4	2	1	3.8	11.7
7-Apr	0	0	0	1	0	0	0	1	2	5	8	10	11	12	13	13	13	13	12	11	10	9	7	6	6.6	13.1
8-Apr	5	5	4	2	0	0	0	1	1	1	0	0	0	1	2	3	3	3	3	2	2	1	1	0	1.6	5.0
9-Apr	0	-1	-1	-1	-2	-2	-2	-2	-1	1	2	2	3	3	3	1	3	2	2	2	1	1	0	0	0.6	3.1
10-Apr	-1	-1	-1	-2	-2	-3	-3	-3	-2	-2	-1	0	1	1	2	1	1	0	0	-2	-3	-4	-5	-6	-1.4	1.6
11-Apr	-6	-6	-6	-6	-6	-6	-7	-5	-5	-5	-4	-3	-3	-2	-1	0	0	0	0	-1	-2	-3	-4	-4	-3.5	0.2
12-Apr	-5	-5	-5	-5	-5	-6	-5	-1	0	1	0	1	3	3	5	6	6	7	7	6	6	6	5	5	1.3	6.9
13-Apr	4	3	3	2	3	3	3	3	3	4	5	6	7	8	9	10	11	11	11	10	8	5	4	2	5.8	11.3
14-Apr	1	-1	-2	-2	-3	-4	-3	1	5	7	9	11	12	13	14	15	15	14	14	13	10	7	4	2	6.3	14.7
15-Apr	0	-2	-2	-2	-2	-3	-2	0	5	9	12	14	16	17	18	19	19	19	18	17	14	13	11	10	9.1	19.0
16-Apr	8	6	5	3	3	3	3	4	7	11	15	17	19	20	20	20	21	21	20	18	17	14	12	10	12.3	21.0
17-Apr	7	4	3	1	1	0	0	4	8	12	14	16	19	21	22	23	22	22	22	21	19	18	16	15	13.0	22.5
18-Apr	15	15	13	11	9	8	7	8	10	15	15	16	18	19	19	20	20	20	20	19	17	15	13	11	14.7	20.3
19-Apr	9	8	6	5	4	3	3	7	11	16	19	20	21	22	22	23	22	22	22	21	19	18	17	16	14.8	22.9
20-Apr	15	14	14	13	11	10	9	11	14	17	20	22	23	24	24	25	25	25	25	23	21	19	18	17	18.2	25.1
21-Apr	16	15	13	11	8	7	6	10	14	17	19	20	22	24	25	26	26	27	26	21	17	13	11	10	16.8	26.5
22-Apr	8	8	7	7	7	7	6	7	8	9	9	10	10	11	12	13	13	13	12	11	10	9	8	7	9.2	12.9
23-Apr	6	5	4	4	3	3	3	4	4	6	8	9	8	9	9	9	10	10	9	7	6	4	3	1	6.1	9.9
24-Apr	-1	-2	-2	-3	-5	-5	-4	-2	0	1	2	3	5	7	8	9	8	8	7	6	5	4	2	1	2.3	8.6
25-Apr	0	-1	-1	-2	-3	-3	-1	1	3	5	6	8	8	9	10	10	10	9	9	8	7	6	4	3	4.4	9.8
26-Apr	2	2	1	-1	-1	-2	0	2	5	7	9	11	11	12	13	13	13	12	12	11	10	9	8	7	6.9	12.7
27-Apr	6	6	5	5	4	4	4	5	5	6	8	9	10	11	11	10	7	7	7	6	5	5	5	5	6.5	10.8
28-Apr	4	4	4	3	3	3	3	3	3	3	3	4	4	4	5	6	6	6	6	6	6	6	6	5	4.5	6.5
29-Apr	5	4	3	1	1	0	1	3	4	5	6	7	8	9	10	11	11	11	11	10	9	7	5	4	6.0	11.4
30-Apr	4	4	3	3	2	2	2	3	6	6	8	8	8	9	9	10	10	10	10	9	8	5	4	2	6.1	10.2
	3.4	2.7	2.0	1.3	0.5	0.0	0.1	1.7	3.8	5.8	7.5	8.7	9.7	10.6	11.2	11.7	11.8	11.6	11.1	9.9	8.4	6.9	5.7	4.5	Diurnal Average	
	15.7	14.6	13.6	12.6	11.2	9.9	9.0	10.5	14.4	17.2	19.9	21.7	23.2	23.9	24.6	26.0	26.3	26.5	25.5	23.0	20.8	19.2	17.8	16.8	Diurnal Maximum	

Hourly Averages

External Temperature (ET) - ^{o}C

Valleyview - April 2010



Hourly Averages

Relative Humidity (RH) - %

Valleyview - April 2010

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 97.4 % on Apr 24 09:00 Maximum Daily Average: 87.1 % on Apr 28

Minimum Value: 13 % on Apr 15 18:00 Minimum Daily Average: 28.7 % on Apr 16

Maximum Diurnal Average: 68.9 % at hour 6 Minimum Diurnal Average: 31.6 % at hour 17

Monthly Average: 48.16 % Percentiles: P_1 = 15.7 P_{10} = 22.9 Q_1 = 32.1 Median = 45.5 Q_3 = 62.5 P_{90} = 77.7 P_{99} = 95.9

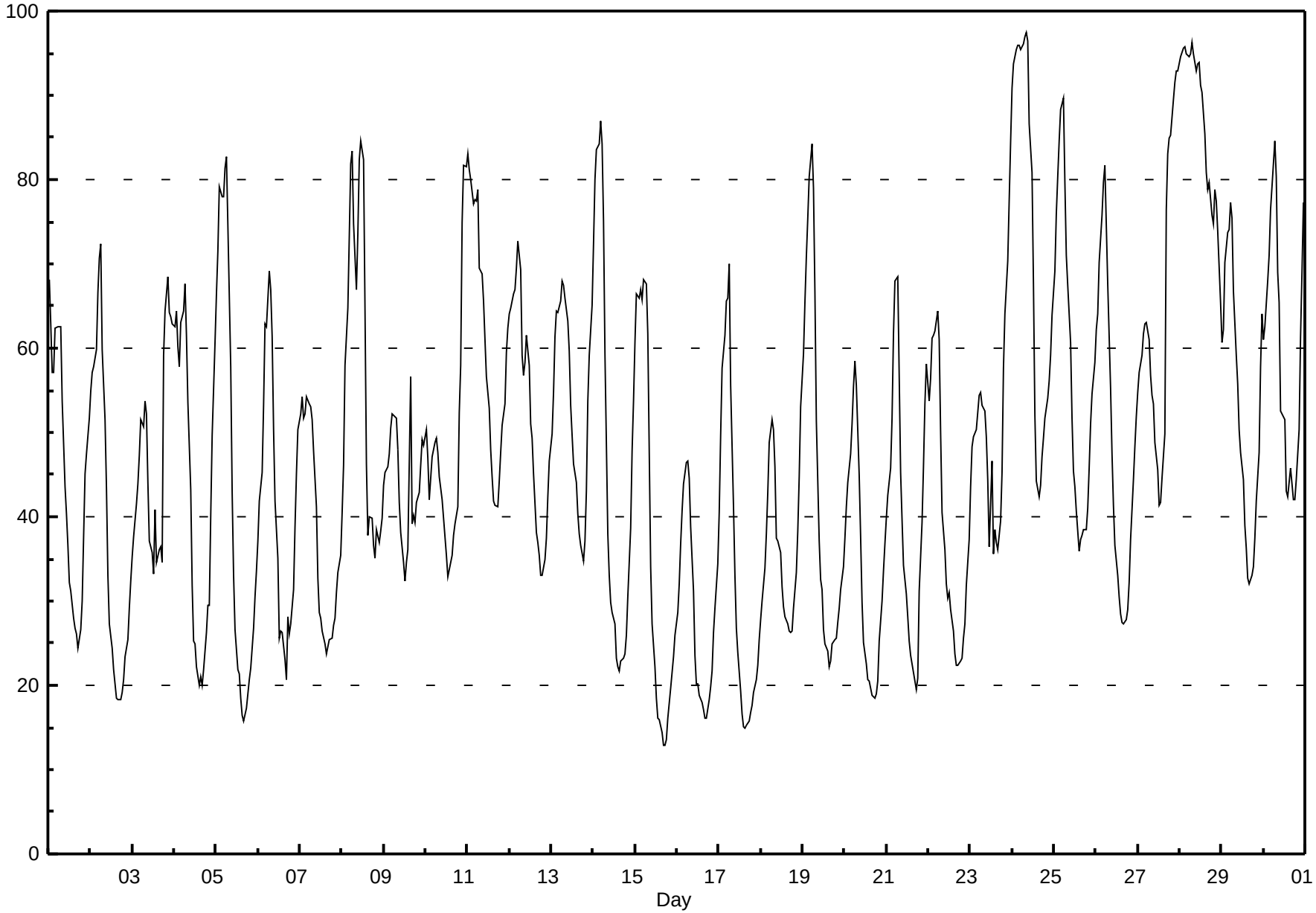
Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Apr	68	63	57	57	62	63	62	63	54	44	40	37	32	31	28	27	26	24	27	30	38	45	47	52	44.9	68.1
2-Apr	55	57	58	60	67	71	72	60	51	43	33	27	24	22	20	18	18	18	19	21	23	25	29	32	38.6	72.3
3-Apr	35	38	41	44	47	52	51	54	52	44	37	36	33	41	34	36	36	35	59	64	68	64	64	63	47.1	68.4
4-Apr	63	64	60	58	63	64	68	62	54	43	32	25	25	22	20	21	20	22	26	29	30	40	50	61	42.6	67.6
5-Apr	66	71	79	78	78	81	83	75	58	43	33	27	22	21	19	16	16	17	19	21	22	27	31	34	43.1	82.8
6-Apr	37	42	45	53	63	63	69	67	61	50	42	35	26	27	26	23	21	28	26	27	31	39	45	50	41.5	69.2
7-Apr	52	54	52	52	54	53	53	51	48	41	33	29	28	27	25	24	25	25	26	27	28	31	33	35	37.8	54.3
8-Apr	41	46	58	65	73	82	83	75	67	74	82	85	82	65	46	38	40	40	37	35	39	37	38	40	56.9	84.5
9-Apr	44	45	46	47	50	52	52	52	48	42	38	35	32	35	36	57	39	40	39	42	43	46	49	48	44.1	56.5
10-Apr	50	47	42	45	47	49	49	48	45	42	40	38	35	33	35	35	38	39	41	52	58	75	82	82	47.7	81.8
11-Apr	83	81	80	77	78	77	79	69	69	66	61	57	53	48	45	42	41	41	44	48	51	53	59	62	61.0	83.0
12-Apr	64	65	66	67	69	73	69	59	57	58	61	58	51	49	45	38	37	35	33	33	35	37	42	47	52.1	72.8
13-Apr	50	55	61	64	64	66	68	68	66	63	60	53	50	46	44	40	38	37	35	37	43	54	59	65	53.6	68.0
14-Apr	72	80	84	84	87	84	75	59	38	33	30	29	27	23	22	22	23	23	24	26	31	39	48	54	46.5	87.0
15-Apr	61	67	66	67	66	68	68	62	48	34	27	22	18	16	16	14	13	13	14	16	20	22	23	26	36.0	68.1
16-Apr	29	32	37	41	44	46	47	45	39	31	24	20	20	19	18	17	16	16	18	20	22	26	29	34	28.7	46.6
17-Apr	40	50	58	62	66	66	70	56	41	33	27	24	19	17	15	15	15	16	17	18	19	21	22	25	33.8	70.1
18-Apr	28	30	34	38	43	49	51	50	46	37	37	36	32	29	28	27	26	26	27	29	33	38	45	53	36.4	53.0
19-Apr	59	65	71	75	80	84	79	67	51	37	33	31	27	25	24	22	23	25	25	26	28	29	31	34	43.8	84.2
20-Apr	37	41	44	47	51	55	58	56	45	38	30	25	22	21	21	20	19	18	19	21	25	30	34	37	33.9	58.5
21-Apr	40	43	46	52	62	68	68	57	45	40	34	31	28	25	24	21	21	20	21	31	39	46	53	58	40.5	68.4
22-Apr	54	56	61	62	62	64	61	50	41	36	32	30	31	29	26	24	22	22	23	23	26	27	32	37	38.9	64.4
23-Apr	44	48	50	50	52	54	55	53	53	50	44	36	47	36	38	37	36	39	45	58	64	70	77	84	50.9	84.4
24-Apr	91	94	95	96	96	95	96	97	97	96	87	81	68	52	44	42	44	47	49	52	54	56	59	64	73.1	97.4
25-Apr	69	76	80	85	88	90	80	71	67	61	52	45	44	41	36	37	38	38	39	41	46	51	55	58	57.8	89.7
26-Apr	62	64	70	76	80	82	75	68	55	47	41	37	33	31	28	28	27	28	29	32	37	44	48	52	48.9	81.7
27-Apr	55	57	59	62	63	63	61	57	54	53	49	46	41	42	45	50	76	83	85	85	89	91	93	93	64.7	92.8
28-Apr	95	95	96	96	95	95	95	96	95	93	94	94	91	90	86	81	79	80	76	75	79	77	74	65	87.1	96.3
29-Apr	61	62	70	74	74	77	75	67	59	56	50	48	44	39	36	33	32	33	34	37	42	48	58	64	53.1	77.2
30-Apr	61	63	68	71	76	79	85	80	69	65	53	52	52	43	42	46	44	42	42	44	50	61	69	77	59.8	84.5
	55.5	58.4	61.1	63.5	66.7	68.9	68.6	63.0	55.8	49.8	44.5	40.9	38.0	34.8	32.4	31.7	31.6	32.4	33.9	36.7	40.4	45.1	49.3	52.9	Diurnal Average	
	94.6	95.1	95.6	96.0	96.0	95.5	96.0	97.0	97.4	96.4	93.7	93.9	91.2	90.4	85.5	80.8	78.9	83.1	85.0	85.3	89.5	91.5	92.8	92.8	Diurnal Maximum	

Hourly Averages

Relative Humidity (RH) - %

Valleyview - April 2010



Hourly Averages

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

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	3	5	5	5	3	5	4	4	4	11	13	11	12	11	7	7	6	1	3	1	1	3	1	2	3.2	13.1
Dir	131	190	201	209	181	198	186	182	226	286	297	294	300	310	306	332	299	275	19	74	235	235	215	187	273	297
2 Spd	2	3	3	2	1	0	3	2	2	1	4	7	6	9	10	9	8	12	12	11	11	12	6	4	5.6	12.0
Dir	185	179	189	193	189	76	151	174	169	152	161	187	169	160	172	170	165	137	135	135	137	138	183	182	158	138
3 Spd	3	4	2	3	3	3	2	2	4	3	2	5	4	1	1	8	6	6	11	5	6	7	9	5	2.8	11.1
Dir	185	206	207	198	221	200	200	212	203	190	54	51	356	112	7	206	251	276	270	250	250	266	273	268	244	270
4 Spd	7	3	3	3	4	4	3	3	4	7	10	10	8	6	6	7	7	6	7	2	2	1	2	1	3.0	10.3
Dir	274	231	260	234	193	180	147	154	182	273	283	310	326	294	284	314	280	305	351	360	57	242	338	326	287	310
5 Spd	1	1	1	1	2	2	1	2	4	4	3	4	2	3	2	4	1	6	6	6	4	4	6	5	0.5	6.5
Dir	186	154	191	218	227	208	244	194	193	187	187	188	184	5	316	300	332	8	22	43	77	56	8	0	20	22
6 Spd	4	1	1	1	1	2	1	2	3	4	4	4	13	10	6	2	7	13	7	8	2	3	3	2	2.9	13.1
Dir	341	328	305	191	187	207	206	188	215	198	193	210	292	320	329	248	260	305	303	296	268	203	208	193	277	292
7 Spd	3	5	5	6	5	6	7	6	8	7	11	9	10	10	12	15	13	8	5	5	6	5	2	2	6.1	15.2
Dir	173	191	184	188	194	195	194	194	192	196	196	231	213	231	267	262	256	250	214	240	225	248	211	80	222	262
8 Spd	4	8	8	7	5	3	4	9	14	16	15	12	13	17	18	19	17	17	18	15	16	21	21	21	12.5	21.0
Dir	16	9	350	328	312	303	282	328	317	314	324	311	323	324	316	307	304	297	297	301	304	295	292	293	310	295
9 Spd	18	17	14	14	12	12	15	18	19	20	21	22	24	25	26	31	23	21	18	15	15	15	16	16	17.9	31.3
Dir	290	292	294	291	297	296	292	292	296	306	316	309	314	327	331	344	327	327	329	322	317	309	303	303	312	344
10 Spd	15	16	19	16	18	16	17	19	24	24	25	25	26	26	22	26	27	26	20	8	7	7	5	6	17.3	26.6
Dir	310	319	325	318	316	314	314	317	328	332	330	316	322	321	323	343	348	348	353	34	31	29	23	12	331	348
11 Spd	6	4	3	2	4	3	3	0	5	2	1	3	3	2	3	4	8	8	10	8	10	11	10	9	4.8	10.7
Dir	27	36	5	109	346	26	353	22	19	51	69	46	31	51	29	5	41	57	39	39	37	35	30	22	33	35
12 Spd	7	6	5	5	4	5	0	13	16	15	13	12	15	16	13	15	16	16	13	13	12	14	13	13	9.2	16.1
Dir	25	22	27	24	12	5	86	144	139	144	140	140	144	141	142	157	141	135	141	134	131	134	136	136	133	141
13 Spd	11	9	8	11	11	9	7	7	9	11	10	5	3	4	3	1	4	1	4	3	1	4	4	5	4.5	11.0
Dir	136	134	136	137	140	137	140	161	166	181	174	175	286	130	39	35	248	231	339	2	190	182	204	188	155	140
14 Spd	2	1	2	3	3	5	5	2	11	13	12	18	21	19	17	18	17	14	10	4	1	2	2	3	6.0	21.2
Dir	208	215	208	215	203	167	161	257	326	342	348	9	357	6	12	355	11	15	19	24	328	194	194	194	359	357
15 Spd	2	1	1	2	2	2	2	2	2	6	9	11	12	11	11	11	10	10	9	7	8	9	7	3	5.9	11.7
Dir	202	193	213	225	204	227	248	207	200	197	190	180	154	183	164	183	188	186	171	153	154	171	178	186	179	154
16 Spd	5	3	1	2	3	7	9	8	6	4	4	13	13	4	6	4	3	4	4	3	2	5	4	1	0.1	13.1
Dir	187	182	224	208	213	197	192	190	195	203	318	358	336	34	61	21	40	82	91	76	94	327	318	206	281	358
17 Spd	3	1	2	2	1	1	1	2	4	3	3	4	6	6	12	13	15	11	15	11	10	9	6	7	5.7	15.2
Dir	342	191	172	207	178	242	190	182	178	182	202	184	169	161	179	172	172	161	146	142	136	141	175	156	164	172
18 Spd	9	7	2	2	2	1	2	4	3	2	2	3	1	4	0	2	1	3	4	6	4	3	2	1	1.4	8.6
Dir	174	186	187	102	191	212	212	175	178	86	350	8	61	32	15	248	220	162	130	94	102	125	319	236	152	174
19 Spd	2	1	1	2	2	1	1	2	2	6	7	13	13	14	13	16	12	11	13	10	9	10	10	8	6.8	15.8
Dir	184	197	233	251	216	231	222	185	168	184	188	165	173	177	148	180	171	146	141	137	133	133	140	154	161	180
20 Spd	9	9	9	8	4	1	1	2	3	11	14	17	12	11	11	9	9	9	9	9	9	10	10	11	8.1	17.1
Dir	168	169	171	167	188	246	325	296	169	169	177	182	171	150	137	159	170	165	143	138	138	147	148	162	162	182
21 Spd	9	7	4	2	0	1	2	4	11	8	5	4	3	4	1	2	1	6	11	21	22	21	13	17	3.7	21.7
Dir	176	179	193	235	208	345	187	192	184	181	211	187	202	186	22	273	1	297	328	311	306	318	318	330	284	306
22 Spd	13	13	7	4	2	1	3	9	11	13	14	14	13	12	14	17	19	16	15	12	10	12	15	18	11.0	19.5
Dir	321	321	325	316	299	223	257	296	308	309	309	319	323	338	336	342	336	312	309	307	310	303	301	293	315	336

Hourly Averages

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

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
23 Spd	19	19	18	19	20	19	16	17	17	18	21	20	23	18	15	19	13	15	12	8	3	6	5	2	13.2	22.9
Dir	290	289	290	291	290	291	290	294	296	302	303	311	325	317	307	322	333	8	16	29	42	40	28	238	310	325
24 Spd	2	1	0	1	2	2	2	2	5	9	8	8	6	9	10	10	13	11	9	9	7	4	5	5	5.4	12.8
Dir	204	167	23	24	345	355	38	52	42	34	28	14	22	10	18	17	9	6	7	15	25	28	342	319	15	9
25 Spd	3	1	0	1	0	1	1	2	3	2	2	8	15	13	12	11	9	6	5	3	1	2	1	3	3.7	15.1
Dir	322	278	161	152	101	244	112	36	8	5	50	359	350	345	323	26	34	35	27	41	178	23	173	54	6	350
26 Spd	6	7	1	0	2	1	0	4	6	7	10	9	10	9	10	12	14	14	14	13	13	15	13	12	8.2	14.6
Dir	149	176	181	242	214	241	279	147	167	152	145	145	141	146	149	152	136	137	142	139	136	135	136	138	145	135
27 Spd	9	3	6	6	7	7	9	13	14	12	12	12	9	11	10	12	9	5	6	6	4	6	5	5	7.5	14.1
Dir	139	72	116	123	121	124	131	137	140	132	132	135	153	154	151	158	160	107	89	125	90	64	61	63	130	140
28 Spd	5	5	6	6	7	7	7	7	8	8	8	7	8	8	8	7	7	8	9	9	8	7	7	8	6.8	9.1
Dir	49	38	39	34	41	45	37	38	38	54	58	54	47	46	60	59	45	9	8	2	351	357	14	34	35	8
29 Spd	8	7	9	9	8	6	4	5	5	7	8	11	12	12	13	14	16	14	12	9	7	5	3	3	7.2	15.5
Dir	29	7	5	7	6	340	351	355	9	358	345	341	352	347	346	344	322	321	305	299	279	263	192	167	340	322
30 Spd	3	2	3	3	1	2	2	2	2	7	5	9	10	12	11	7	9	7	6	3	1	1	0	1	2.9	12.1
Dir	111	234	198	192	182	250	202	319	254	5	18	356	23	360	358	38	28	38	34	73	72	61	37	221	15	360
Spd	1.0	1.4	1.3	1.3	1.3	1.4	1.3	1.5	1.6	1.9	2.2	2.7	3.8	3.1	2.9	3.1	2.6	2.7	2.4	1.4	0.6	0.2	1.0	0.9	Diurnal Average	
Dir	265	269	284	270	276	268	249	250	257	284	296	312	326	334	336	328	329	349	7	28	46	323	284	282		
Spd	19.1	18.9	18.6	19.0	19.6	19.1	16.9	18.9	23.9	24.1	25.4	25.3	25.9	25.5	25.6	31.3	26.6	25.5	20.3	20.5	21.7	21.0	20.9	20.6	Diurnal Maximum	
Dir	290	289	325	291	290	291	314	317	328	332	330	316	322	321	331	344	348	348	353	311	306	295	292	293		

Maximum Speed Value: 31 ppb on Apr 9 16:00
Maximum Daily Speed Average: 17.9 ppb on Apr 9
Maximum Diurnal Speed Average: 3.8 ppb at hour 13

Minimum Speed Value: 0 ppb on Apr 2 06:00
Minimum Daily Speed Average: 0.1 ppb on Apr 18
Minimum Diurnal Speed Average: 0.2 ppb at hour 22

Monthly Average Velocity: 1.47 ppb 310.9 deg

Speed Percentiles: $P_1 = 0.4$ $P_{10} = 1.5$ $Q_1 = 2.9$ Median = 6.6 $Q_3 = 11.5$ $P_{90} = 15.8$ $P_{99} = 25.5$

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

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

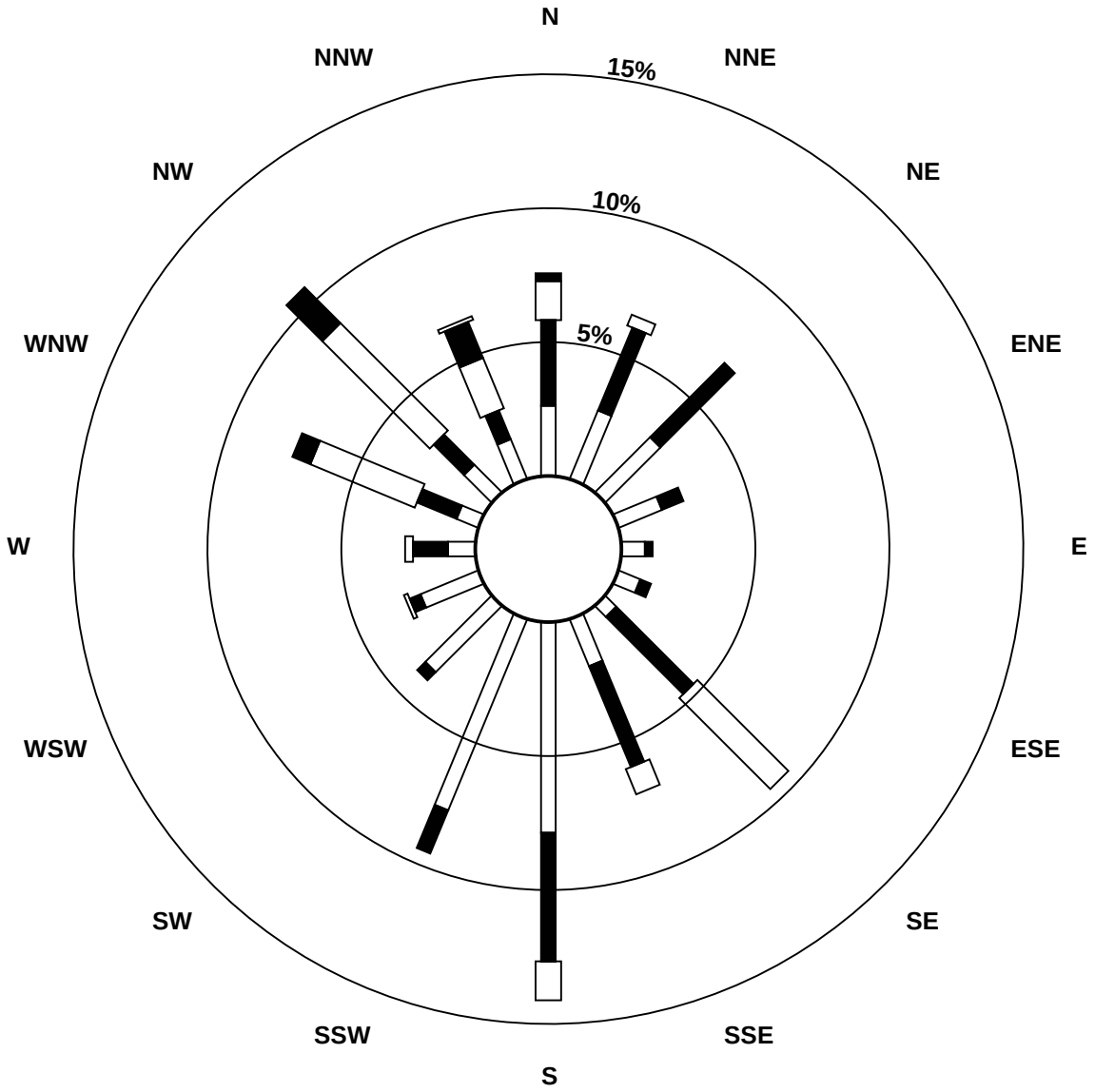
Frequency Distribution

Direction	Speed Range (ppb) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	34	36	23	5	1	0	99
NorthEast	38	47	1	0	0	0	86
East	23	2	0	0	0	0	25
SouthEast	11	39	44	0	0	0	94
South	90	60	13	0	0	0	163
SouthWest	66	5	0	0	0	0	71
West	19	15	15	4	0	0	53
NorthWest	20	23	61	25	0	0	129
Total	301	227	157	34	1	0	720

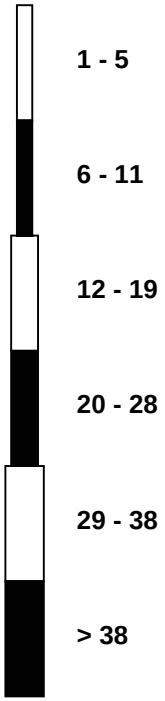
Wind Rose

Wind Speed (WS) (km/h)

Valleyview - April 2010



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - April 2010

Maximum Speed: 32 km/h on Apr 9 16:00

Maximum Daily Speed Average: 18.9 km/h on Apr 9

Minimum Speed: 1 km/h on Apr 26 07:00

Minimum Daily Speed Average: 3.8 km/h on Apr 5

Maximum Diurnal Speed Average: 12.2 km/h at hour 16

Minimum Diurnal Speed Average: 4.8 km/h at hour 7

Monthly Average Speed: 8.31 km/h

Percentiles: $P_1 = 1.2$ $P_{10} = 2.0$ $Q_1 = 3.8$ Median = 6.9 $Q_3 = 12.0$ $P_{90} = 16.4$ $P_{99} = 25.9$

Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily Average	Daily Maximum
1-Apr	3	5	5	5	3	5	5	4	5	12	13	12	13	12	10	9	6	2	4	1	1	4	3	3	6.0	13.4
2-Apr	4	3	3	2	2	1	3	2	3	2	5	8	7	10	11	10	8	12	12	11	11	12	7	4	6.4	12.1
3-Apr	3	4	2	3	3	3	2	3	4	3	4	6	5	7	5	8	6	6	12	5	6	7	9	5	5.0	11.7
4-Apr	7	4	4	4	4	5	3	3	4	8	11	11	9	7	8	8	7	7	7	4	3	2	2	1	5.4	11.2
5-Apr	1	1	2	1	2	2	2	2	4	4	4	4	4	5	5	5	4	6	7	6	4	4	6	5	3.8	6.6
6-Apr	4	2	2	2	2	2	1	2	3	4	4	5	14	11	7	4	8	14	8	8	3	3	4	2	4.9	14.0
7-Apr	4	5	5	6	5	6	7	6	8	7	11	10	10	11	13	16	13	9	5	5	7	6	2	2	7.4	15.8
8-Apr	4	8	8	7	5	3	4	9	14	16	15	12	13	17	19	20	17	17	18	15	16	21	21	21	13.3	21.2
9-Apr	18	17	14	14	12	12	15	19	19	20	22	23	25	26	26	32	24	22	18	15	15	15	16	16	18.9	31.7
10-Apr	15	17	19	16	18	16	17	19	24	24	26	26	27	26	23	27	27	26	21	8	7	7	6	6	18.6	26.8
11-Apr	6	4	3	3	4	3	3	2	5	5	4	5	6	5	5	7	9	9	10	8	10	11	10	9	5.9	10.8
12-Apr	7	6	5	5	4	5	2	13	16	16	13	13	15	16	13	15	16	16	13	13	12	14	13	13	11.5	16.4
13-Apr	11	9	8	11	11	9	7	7	9	11	10	6	5	5	5	5	5	3	4	3	2	5	4	5	6.6	11.1
14-Apr	2	1	2	3	3	5	5	4	11	13	13	18	22	19	18	18	18	15	10	5	1	3	2	3	9.0	21.7
15-Apr	2	1	1	2	2	2	2	2	2	6	9	11	12	11	12	11	11	10	10	7	8	9	7	3	6.4	12.4
16-Apr	5	3	2	2	3	7	9	8	6	5	7	13	14	6	8	6	4	4	4	3	2	5	6	3	5.6	14.1
17-Apr	3	2	3	2	2	1	2	2	4	4	3	4	7	7	12	14	16	11	15	11	10	9	7	7	6.7	15.5
18-Apr	9	7	2	3	2	1	2	4	4	4	5	5	4	5	6	4	4	4	4	6	4	3	2	2	4.0	8.7
19-Apr	3	2	1	2	2	1	1	2	2	6	7	14	14	14	13	16	13	11	13	10	9	10	10	8	7.7	16.1
20-Apr	9	9	9	8	4	2	1	3	4	11	14	17	13	11	12	10	10	10	10	9	9	10	10	11	9.1	17.4
21-Apr	9	7	4	2	2	2	2	4	11	8	5	5	4	5	5	5	5	6	11	21	22	21	13	18	8.3	22.3
22-Apr	13	13	7	4	2	1	3	9	11	13	14	14	13	12	15	17	20	16	15	12	10	13	15	18	11.8	19.7
23-Apr	19	19	18	19	20	19	16	17	18	19	22	21	25	19	16	20	15	16	12	8	3	6	5	2	15.6	24.5
24-Apr	2	2	2	2	3	2	3	2	5	10	9	9	7	10	11	12	13	12	10	9	7	4	5	5	6.4	13.3
25-Apr	4	1	2	1	1	1	1	3	4	5	5	9	16	14	14	12	10	6	5	3	1	2	2	4	5.3	15.9
26-Apr	6	8	2	1	2	1	1	4	7	8	11	10	10	10	10	13	14	14	14	14	14	15	13	12	8.9	14.7
27-Apr	9	4	7	6	7	7	9	13	14	12	13	13	10	12	11	12	10	6	6	6	4	6	5	5	8.7	14.3
28-Apr	5	5	6	6	7	7	7	7	8	8	9	8	8	9	8	7	7	8	9	9	8	7	7	8	7.4	9.2
29-Apr	9	8	9	9	8	6	4	5	5	7	9	12	13	13	14	15	16	14	12	9	7	5	4	3	9.0	16.4
30-Apr	4	2	4	3	1	5	4	4	5	7	7	11	12	13	13	8	10	8	6	3	2	2	1	2	5.7	13.3
	6.6	6.0	5.3	5.1	4.9	4.8	4.8	6.1	7.9	9.3	10.0	11.2	11.9	11.6	11.6	12.2	11.5	10.7	10.2	8.3	7.3	8.1	7.2	6.9	Diurnal Average	
	19.2	19.1	18.8	19.1	19.7	19.2	17.0	19.0	24.2	24.4	25.9	25.7	26.6	26.1	26.1	31.7	26.8	25.7	20.8	20.9	22.3	21.2	21.0	20.7	Diurnal Maximum	

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

Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - April 2010

Maximum Value: 94.5 deg on Apr 30 23:00

Minimum Value: 3.9 deg on Apr 1 04:00

Percentiles: P_1 = 5.1 P_{10} = 7.2 Q_1 = 10.2 Median = 17.3 Q_3 = 31.4 P_{90} = 61.5 P_{99} = 90.9

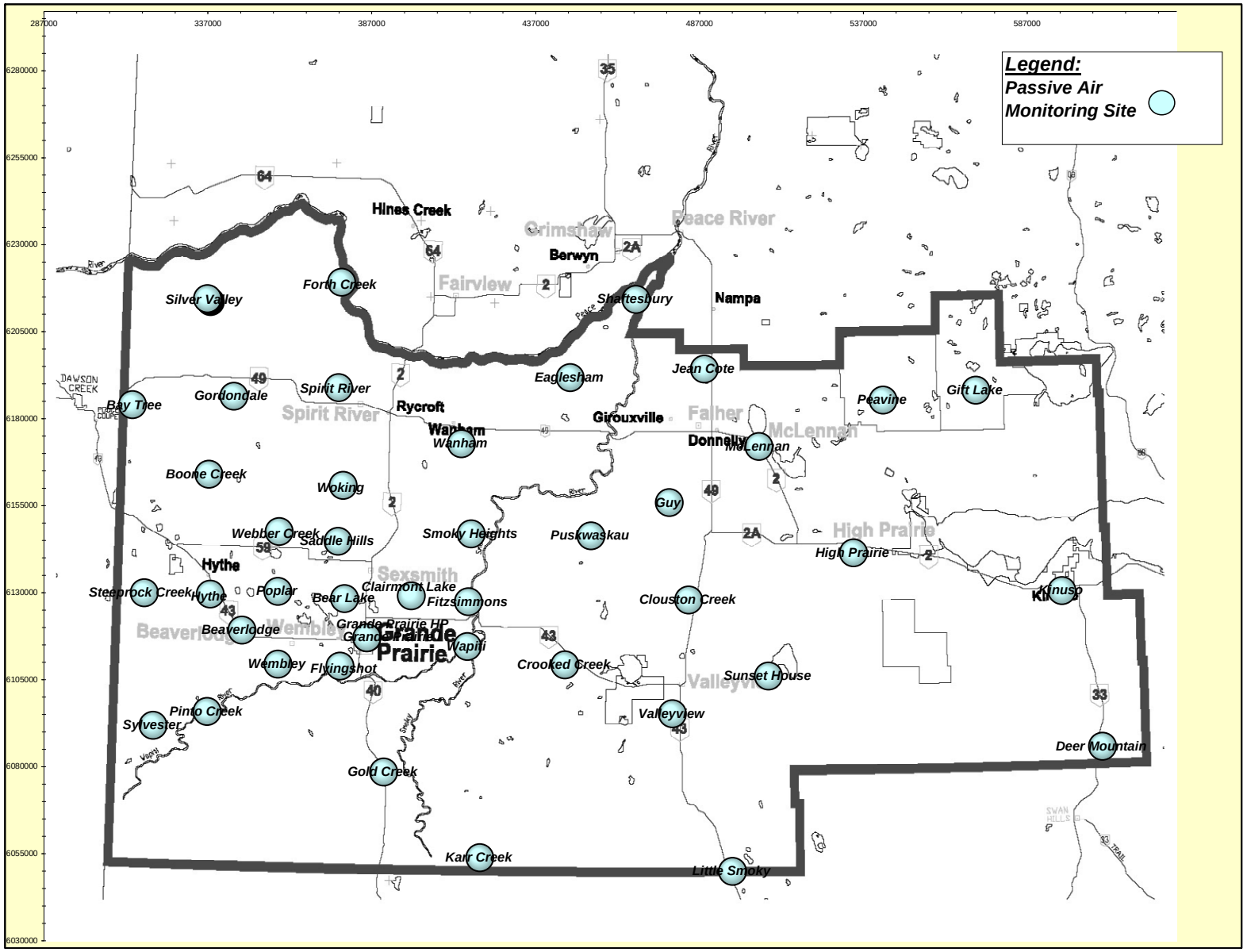
Hours in Service:	720
Hours of Data:	720
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Apr	31	12	6	4	20	5	7	11	32	15	13	23	24	24	50	46	26	63	20	32	69	50	64	66	69.1
2-Apr	66	19	17	16	64	84	16	26	34	71	46	25	35	24	22	24	20	9	6	5	7	7	20	22	83.6
3-Apr	27	6	36	13	7	25	37	17	11	17	69	48	54	90	91	19	24	19	26	11	9	9	7	12	91.5
4-Apr	10	28	47	40	15	14	29	16	18	43	20	25	33	48	39	26	31	26	13	66	24	79	56	72	79.3
5-Apr	52	24	70	62	31	17	38	17	13	25	45	38	78	64	85	55	89	24	7	9	15	26	13	18	89.4
6-Apr	26	55	73	60	60	16	25	38	20	19	15	31	19	16	44	70	27	25	47	6	55	19	26	42	73.4
7-Apr	22	10	7	9	7	5	5	7	8	9	11	24	13	21	31	16	13	19	18	12	23	22	55	28	55.3
8-Apr	29	14	11	10	14	24	26	10	10	9	9	11	11	12	12	10	11	8	8	7	9	6	6	5	29.2
9-Apr	6	6	6	9	6	6	5	6	7	10	11	11	14	11	11	10	16	16	13	8	7	7	6	7	16.4
10-Apr	8	7	7	7	6	7	7	7	10	8	12	10	12	12	16	9	7	6	15	10	10	9	8	10	16.2
11-Apr	9	25	32	42	24	13	33	89	29	73	80	58	65	82	63	66	19	19	10	8	6	7	6	6	89.4
12-Apr	12	6	8	8	8	37	88	13	11	14	12	15	12	12	15	15	15	8	9	7	7	7	8	7	87.8
13-Apr	8	8	7	7	7	8	11	12	13	12	15	30	70	46	71	87	42	86	43	22	55	17	6	8	87.1
14-Apr	24	40	21	14	21	6	7	51	15	13	16	14	14	15	16	17	17	11	8	10	48	14	17	12	50.6
15-Apr	17	51	31	23	16	54	11	19	25	14	15	18	20	16	23	18	14	12	11	8	8	8	8	17	54.2
16-Apr	12	15	12	30	20	7	6	10	17	26	87	15	33	61	41	69	75	29	17	17	22	23	83	77	87.2
17-Apr	32	61	40	43	40	69	45	24	21	34	34	27	33	39	19	23	11	14	10	8	6	10	20	13	68.9
18-Apr	8	10	34	53	24	57	16	21	22	55	93	62	82	54	92	60	87	52	38	14	16	23	65	67	93.2
19-Apr	42	64	51	16	31	14	63	26	29	34	27	20	21	18	18	13	18	15	10	8	5	6	9	13	63.7
20-Apr	9	9	9	15	20	52	71	37	59	16	15	11	20	22	16	28	21	25	16	7	7	8	8	12	70.9
21-Apr	9	10	15	35	90	49	26	12	10	19	26	51	56	48	89	70	88	36	16	12	12	9	13	11	90.1
22-Apr	9	9	14	20	31	29	25	11	12	12	18	16	12	18	19	12	9	13	10	8	8	8	8	7	31.3
23-Apr	6	7	7	6	6	6	7	9	10	11	14	14	21	21	22	19	28	24	13	10	6	5	19	48	47.6
24-Apr	34	23	93	83	32	42	41	53	17	17	26	25	42	30	27	31	18	16	30	9	8	12	13	7	93.2
25-Apr	13	42	91	47	69	43	67	30	50	76	76	55	20	24	25	22	18	26	17	13	60	52	83	39	90.8
26-Apr	14	11	84	82	29	39	91	22	30	26	19	25	27	21	22	18	12	13	11	9	7	7	7	10	91.1
27-Apr	25	51	22	12	13	8	10	9	10	12	14	20	23	22	21	18	21	30	19	14	26	8	11	17	50.5
28-Apr	12	15	11	9	8	8	9	8	8	10	10	13	15	15	15	20	17	7	8	11	6	6	9	10	20.1
29-Apr	14	24	7	5	5	13	9	18	25	25	32	21	19	24	20	20	19	15	11	10	8	10	16	24	31.7
30-Apr	43	24	17	24	66	93	60	71	62	32	44	39	33	25	37	34	19	24	27	22	71	69	95	60	94.5
	65.9	63.7	93.2	82.6	90.1	93.3	91.1	89.4	62.1	76.3	93.2	61.6	82.0	90.1	92.3	87.1	89.4	85.9	46.7	66.2	70.6	79.3	94.5	76.5	

PASZA

Monthly Passive Data Summary

Location of PASZA Passive Monitoring Stations



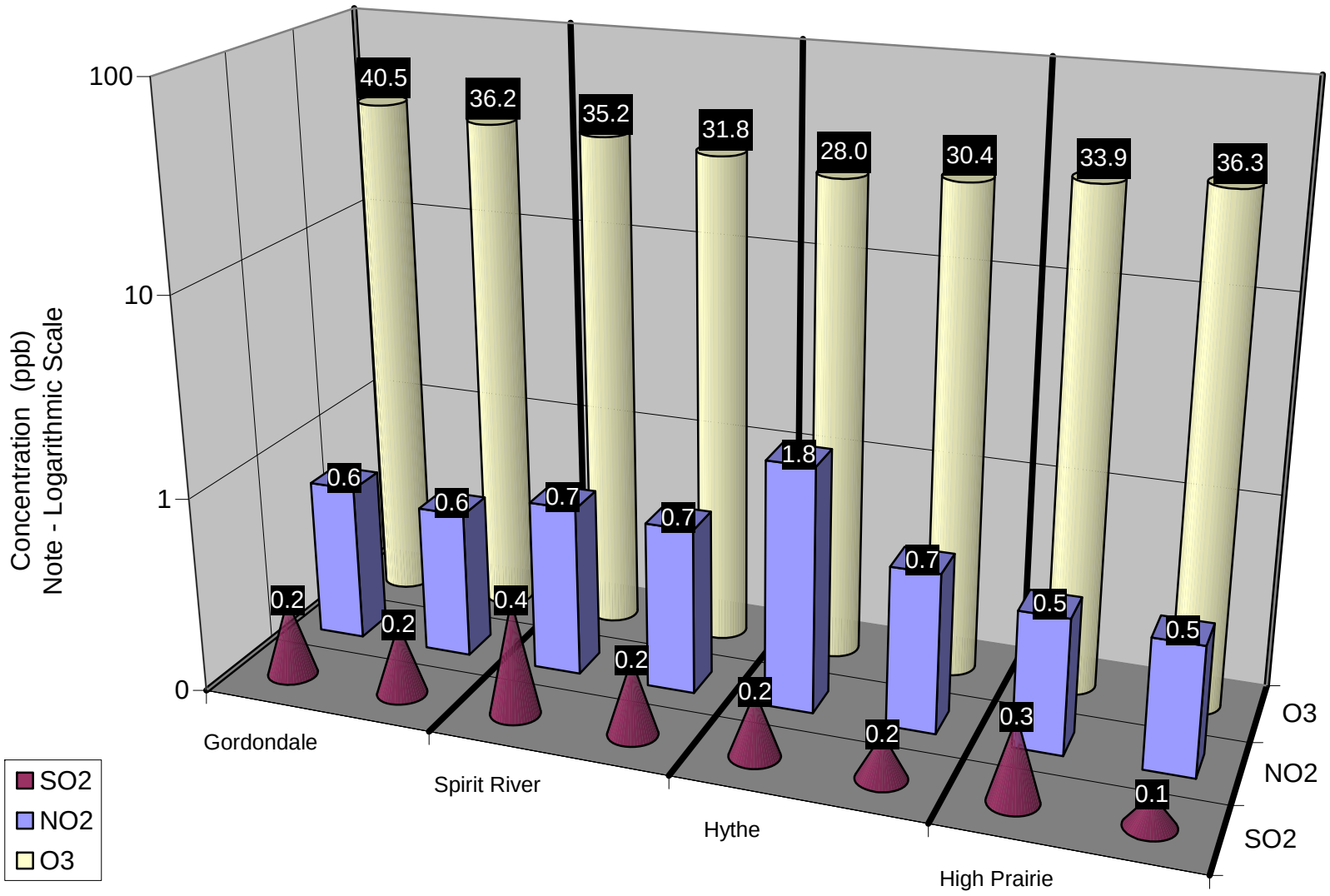
PASZA Passive Results for April 2010

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
Duplicates					
4a	Gordondale	**0.2**	**40.5**	**0.6**	
4b	Gordondale	**0.2**	**36.2**	**0.6**	
9a	Spirit River	**0.4**	**35.2**	**0.7**	
9b	Spirit River	**0.2**	**31.8**	**0.7**	
12a	Hythe	**0.2**	**28.0**	**1.8**	
12b	Hythe	**0.2**	**30.4**	**0.7**	
43a	High Prairie	**0.3**	**33.9**	**0.5**	
43b	High Prairie	**0.1**	**36.3**	**0.5**	
1	Silver Valley	**0.3**	**34.4**	**0.7**	08-27-081-11 W6M
2	Bay Tree	**0.2**	**33.9**	**0.5**	13-16-078-13 W6M
3	Fourth Creek	**0.3**	**43.2**	**0.5**	04-13-082-07 W6M
4	Gordondale	**0.2**	**38.4**	**0.6**	04-34-078-10 W6M
5	Boone Creek	**0.2**	**31.6**	**0.7**	01-23-076-11 W6M
7	Steeprock Creek	**0.3**	**35.8**	**0.4**	09-35-072-13 W6M
9	Spirit River	**0.3**	**33.5**	**0.7**	08-12-079-07 W6M
10	Woking	**0.2**	**32.1**	**0.7**	01-13-076-07 W6M
11	Webber Creek	**0.3**	**33.4**	**0.6**	09-36-074-09 W6M
12	Hythe	**0.2**	**29.2**	**1.2**	14-36-072-11 W6M
14	Sylvester	**0.1**	**26.6**	**0.6**	08-06-069-12 W6M
16	Beaverlodge	**0.3**	**37.2**	**0.9**	15-36-071-10 W6M
17	Poplar	**0.2**	**30.5**	**1.1**	13-06-073-08 W6M
18	Saddle Hills	**0.3**	**34.4**	**0.5**	04-25-074-07 W6M
19	Wanham	**0.2**	**38.4**	**0.4**	16-22-077-03 W6M
20	Shaftesbury	**0.2**	**37.2**	**0.3**	04-03-082-23 W5M
21	Eaglesham	**0.2**	**31.9**	**0.4**	16-21-079-25 W5M
23	Bear Lake	**0.2**	**31.1**	**0.9**	15-31-072-06 W6M

PASZA Passive Results for April 2010 (Continued)

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
24	Wembley	**0.2**	**32.9**	**1.0**	12-31-070-08 W6M
25	Pinto Creek	**0.1**	**32.4**	**0.5**	04-24-069-11 W6M
26	Flyingshot	**0.2**	**30.5**	**0.9**	15-36-070-07 W6M
27	Grande Prairie I	**0.3**	**34.0**	**3.2**	08-15-071-06 W6M
28	Clairmont Lake	**0.3**	**36.3**	**0.7**	09-06-073-04 W6M
29	Smoky Heights	**0.3**	**36.8**	**0.5**	04-06-075-02 W6M
30	Fitzsimmons	**0.2**	**30.2**	**0.5**	15-36-072-03 W6M
32	Gold Creek	**0.3**	**28.0**	**0.8**	06-33-067-05 W6M
33	Wapiti	**0.2**	**33.6**	**0.7**	02-25-071-03 W6M
34	Puskwaskau	**0.2**	**30.5**	**0.2**	15-35-074-25 W5M
35	Jean Cote	**0.2**	**35.0**	**0.7**	12-35-079-21 W5M
36	Guy	**0.2**	**34.0**	**0.5**	03-04-076-22 W5M
37	Crooked Creek	**0.2**	**38.0**	**0.9**	16-01-071-26 W5M
38	Karr Creek	**0.2**	**29.5**	**0.4**	10-16-065-02 W6M
39	Clouston Creek	**0.2**	**35.1**	**0.4**	12-01-073-22 W5M
40	McLennan	**0.3**	**37.9**	**0.8**	03-29-077-19 W5M
41	Valleyview	**0.3**	**35.6**	**0.5**	09-30-069-22 W5M
42	Sunset House	**0.2**	**39.4**	**0.3**	05-32-070-19 W5M
43	High Prairie	**0.2**	**35.1**	**0.5**	16-13-074-17 W5M
44	Peavine	**0.2**	**34.3**	**0.4**	03-05-079-15 W5M
45	Gift Lake	**0.1**	**32.9**	**0.4**	10-07-079-12 W5M
46	Little Smoky	**0.3**	**31.7**	**1.0**	12-01-065-21 W5M
47	Kinuso	**0.2**	**30.8**	**0.3**	12-10-073-10 W5M
48	Deer Mountain	**0.2**	**31.5**	**0.5**	15-22-068-09 W5M
49	Grande Prairie HP	**0.2**	**34.0**	**2.5**	17-26-071-06 W6M

*BDL = Below Detection Level



Duplicate Summary Chart

Passive Summary for April 2010

Stats	Sulphur Dioxide SO_2	Ozone O_3	Nitrogen Dioxide NO_2
	ppb	ppb	ppb
	Passive Summary for April 2010 (PASZA Zone)		
Mean	**0.2**	**33.8**	**0.7**
Standard Deviation	**0.1**	**3.3**	**0.5**
Minimum	**0.1**	**26.6**	**0.2**
Minimum At	**Sylvester (#14)**	**Sylvester (#14)**	**Puskwaskau (#34)**
Maximum	**0.3**	**43.2**	**3.2**
Maximum At	**Beaverlodge (#16)**	**Fourth Creek (#3)**	**Grande Prairie I (#27)**

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

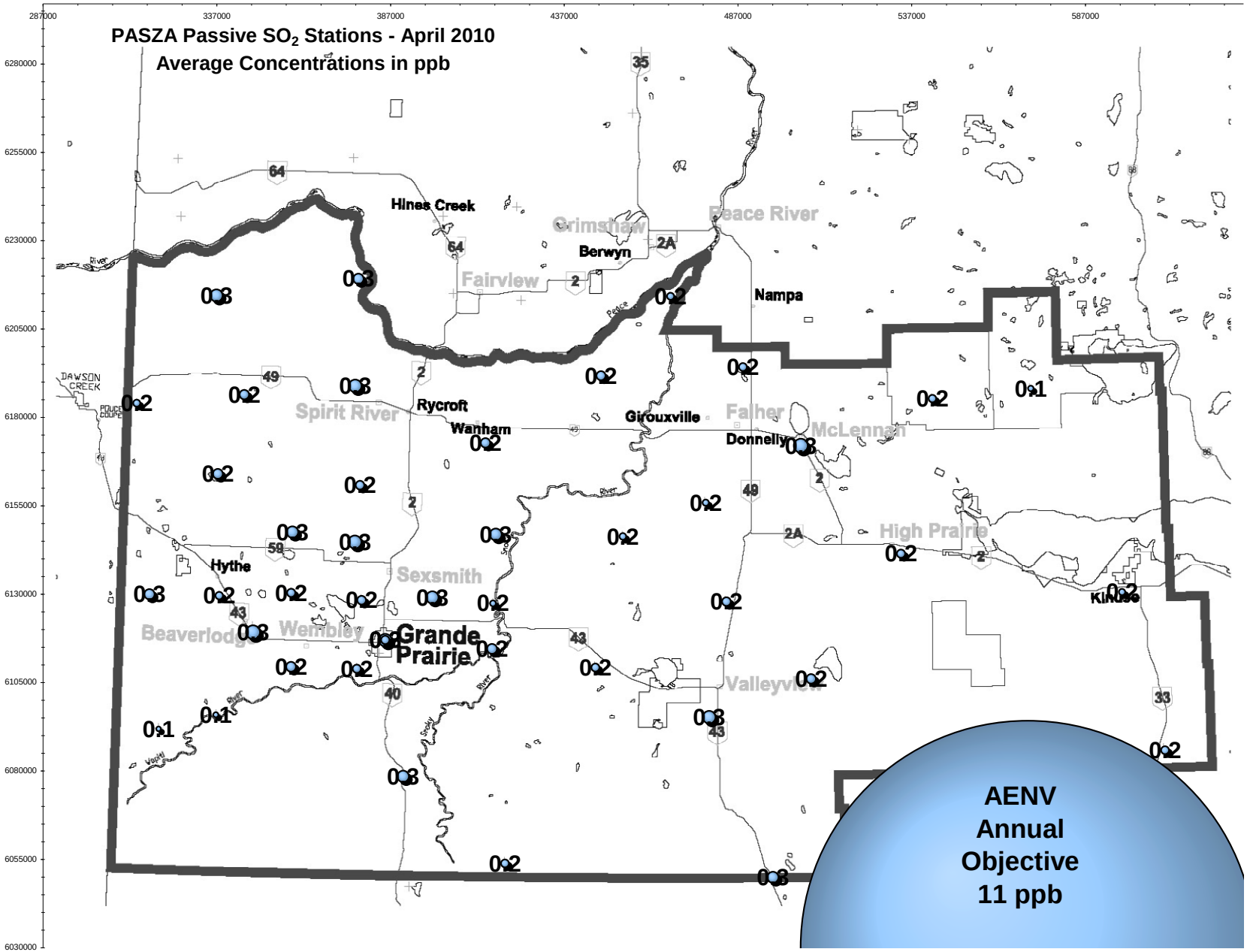
	SO_2	O_3	NO_2
PASZA Beaverlodge station	**0.3**	**40.1**	**2.1**
PASZA Beaverlodge passive	**0.3**	**37.2**	**0.9**

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

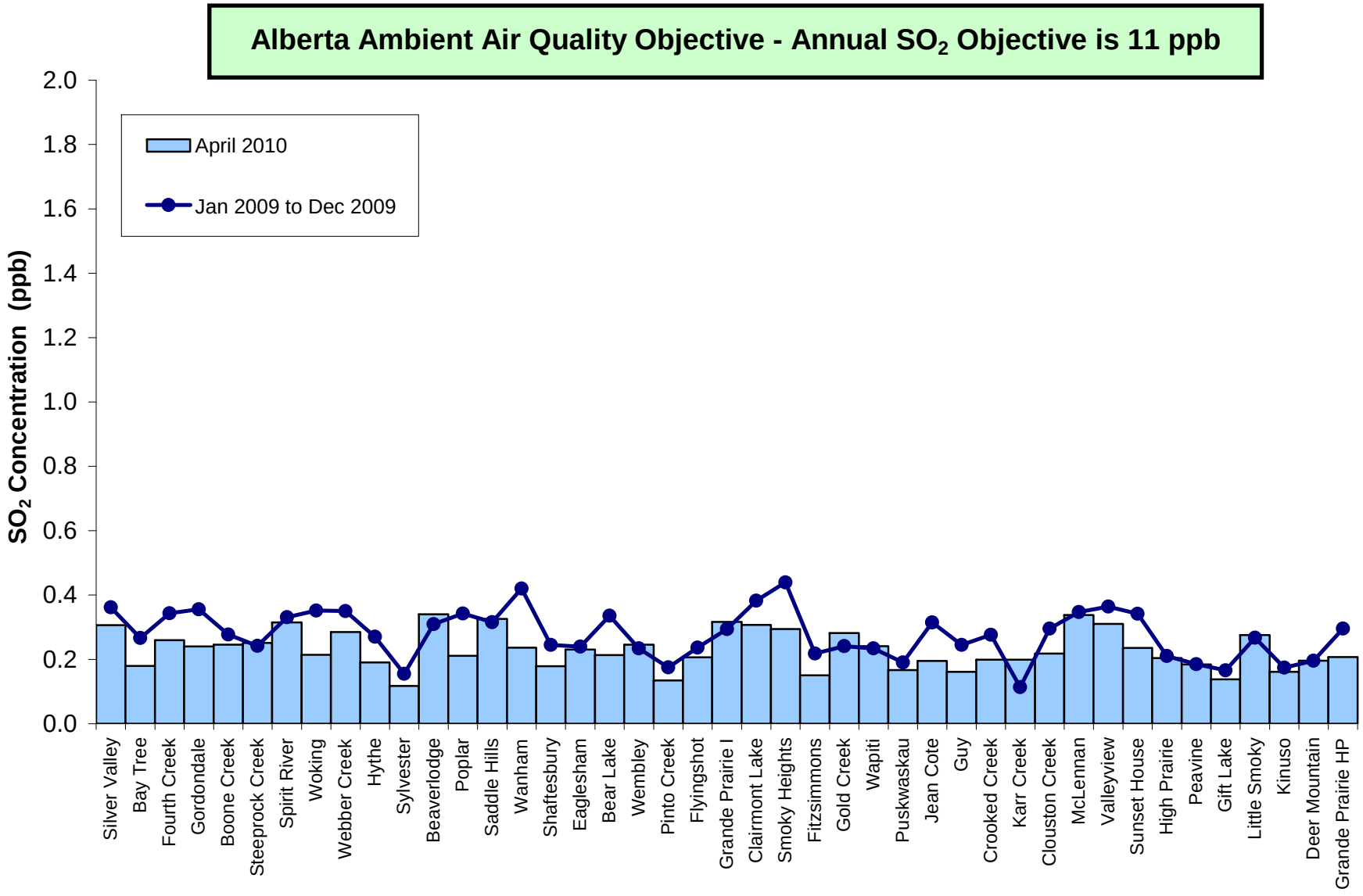
	SO_2	O_3	NO_2
PASZA Henry Pirker station	**0.3**	**33.1**	**6.7**
PASZA Grande Prairie passive	**0.2**	**34.0**	**2.5**

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

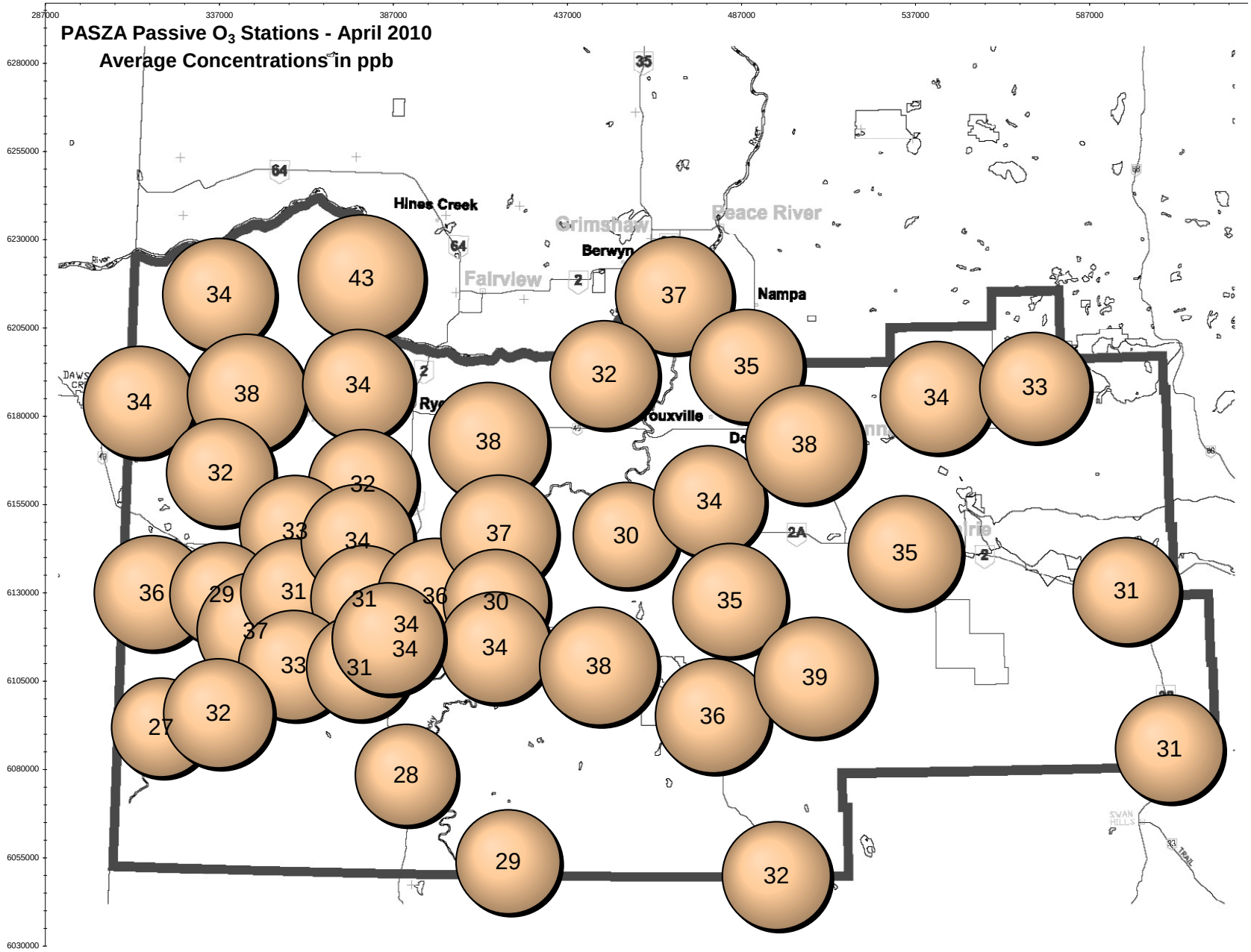
	SO_2	O_3	NO_2
PASZA Portable Kinuso station	**0.3**	**39.3**	**1.3**
PASZA Kinuso passive	**0.2**	**30.8**	**0.3**



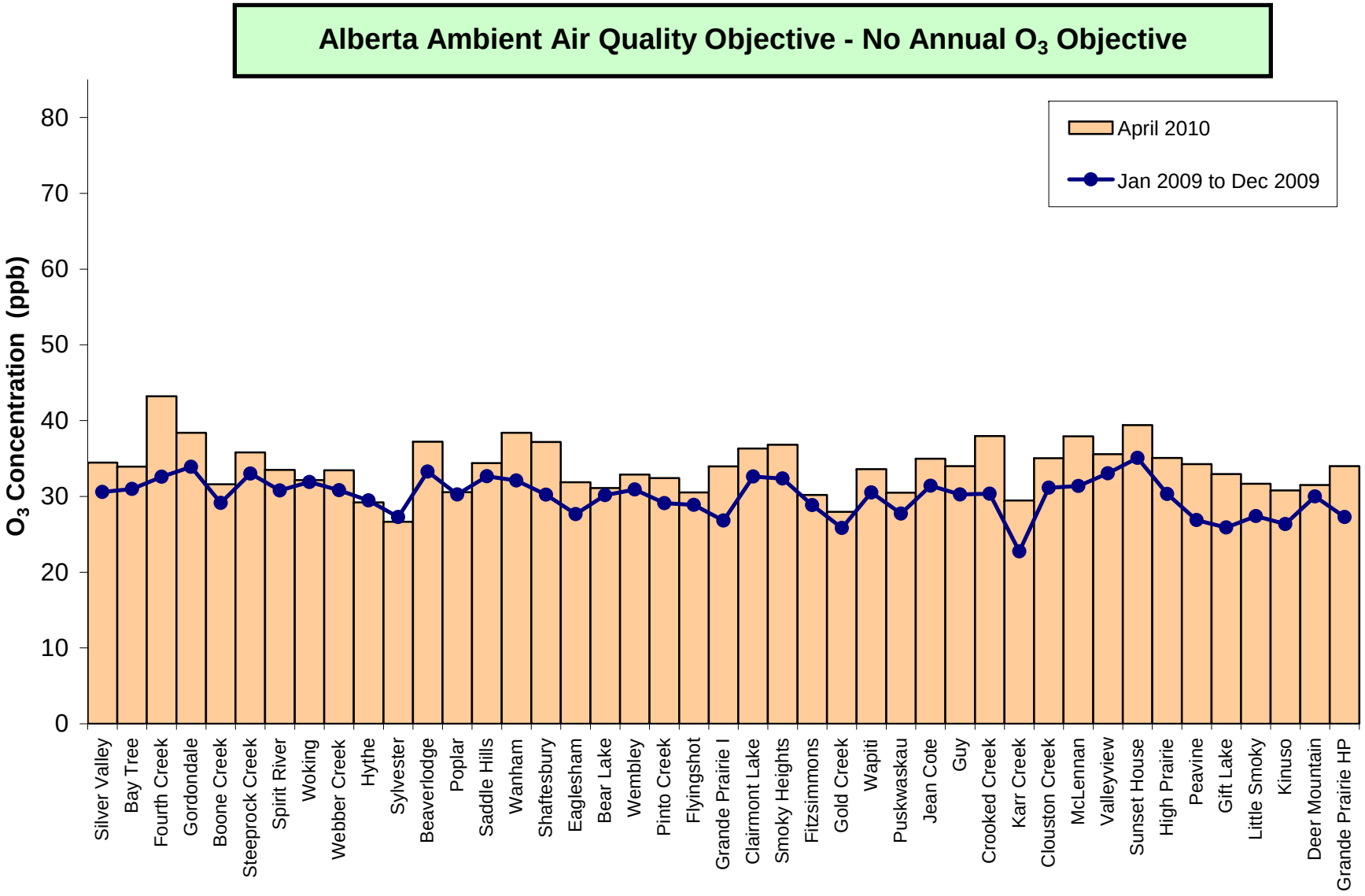
SO_2 Bubble Chart



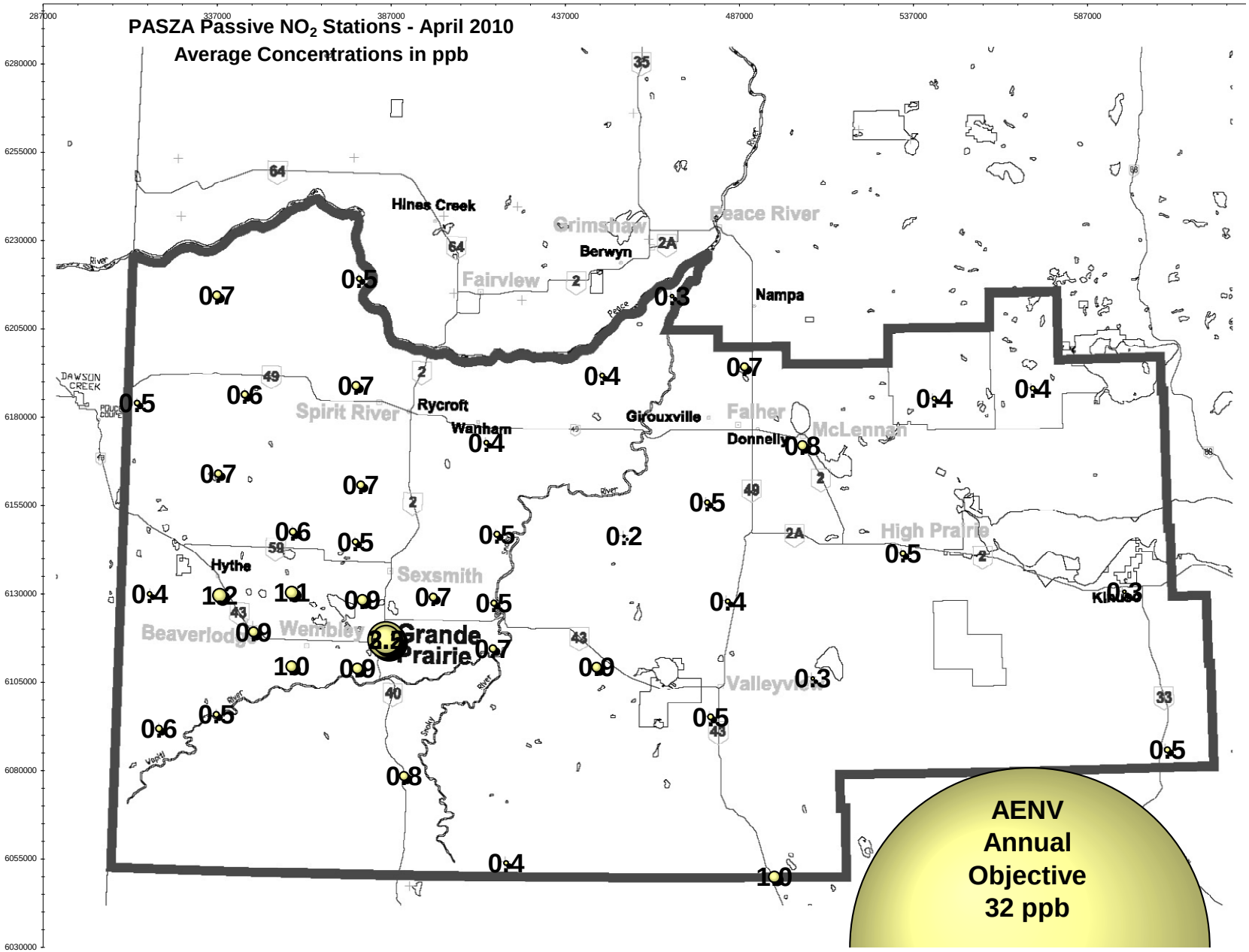
SO_2 Summary Chart



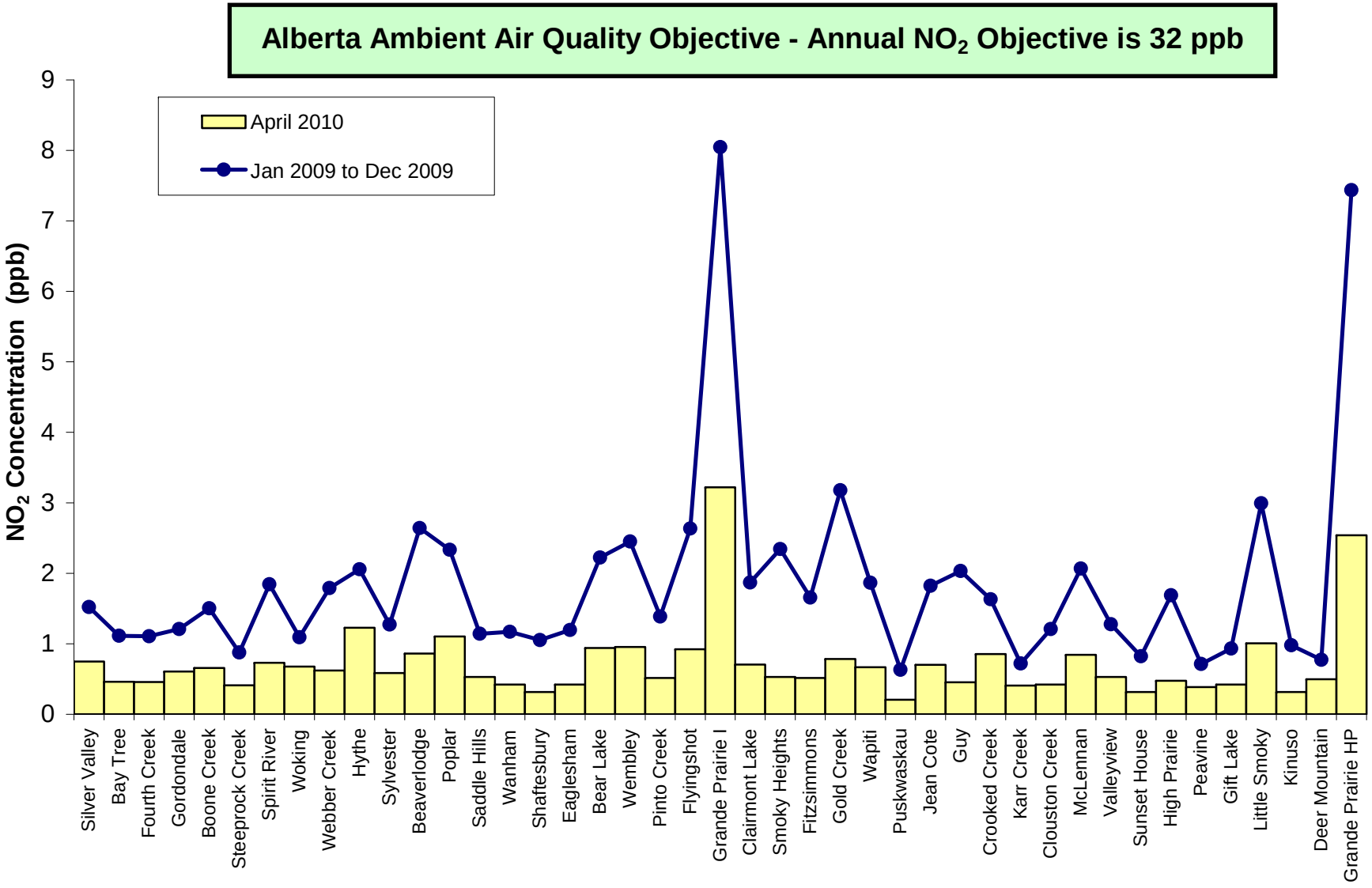
O_3 Bubble Chart



O_3 Summary Chart



NO_2 Bubble Chart



NO_2 Summary Chart

PASZA

ALBERTA ENVIRONMENT
INCIDENCE REPORTS

April 2010

Air Monitoring Directive Exceedence Report

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

Reference Number:	**224940**	**Reported To (AENV Contact):**	Christy
Date & Time Incident Reported to AENV:	**Apr 08, 2010**	**Reported By:**	Lenin Flores
Reported on Behalf of:	**PASZA**	**Approval Number (if applicable):**	Not applicable
Location(s) of Incident:	**Evergreen Park / South Grande Prairie Area**		
Start Date & Time of Incident:	**Apr 08 17:00 MST**	**End Date & Time of Incident:**	**Apr 08 20:00 MST**

Reason or Nature of Incident:

The $PM_{2.5}$ analyzer (TEOM) within the Evergreen Park station, currently located South of Grande Prairie at LSD 5-6-071-05 W6, exceeded the AENV hourly average $PM_{2.5}$ hourly guideline (80 µg/m^3) as detailed below:

Apr 08 17:00 – 18:00 MST	$PM_{2.5}$= 83 µg/m^3	WS= 22.7 km/h	WD=277 deg (W)
Apr 08 19:00 – 20:00 MST	$PM_{2.5}$= 92 µg/m^3	WS= 24.1 km/h	WD=273 deg (W)

Immediate Actions Taken:

Confirmed validity of data and reported ASAP to AENV Environmental Service Response Centre.

Investigation Details:

Operation of the PM2.5 analyzer appear normal during the time of this report. Heavy winds were noted throughout Grande Prairie at the noted exceedence time.

Actions Taken to Prevent Reoccurrence (if any):

Not applicable

Additional Actions Required (if any):

Not applicable

Report Completed By:	Kelly Baragar	Date Report Submitted:	Apr 09, 2010
7-Day Letter Due Date:	April 15, 2010		

Air Monitoring Directive Non-compliance Report

Alberta Environment
Environmental Service Response Centre
111 Twin Atria Building
4999 – 98th Avenue
Edmonton, Alberta T6B 2X3
Phone: (780) 422-4505
Fax: (780) 427-1044 or 427-3178

Reference Number:	**236223**	**Reported To (AENV Contact):**	**Carla**
Date & Time Incident Reported to AENV:	**May 26, 2010**	**Reported By:**	**Sharon Whiteley (FOCUS)**
Reported on Behalf of:	**PASZA (Peace Airshed Zone Association)**	**Approval Number (if applicable):**	**Not applicable**
Location(s) of Incident:	**The Henry Pirker Monitoring Site**		
Start Date & Time of Incident:	**April 1st 2010**	**End Date & Time of Incident:**	**To May 18th 2010**

Reason or Nature of Incident:

The PM2.5 analyzer (FDMS TEOM) housed within the Henry Pirker station, in Muskoseepi Park, (Grande Prairie) was at non-conformance level (operational time less than 90%). During the QA process of the data, the data was flagged as either baseline drift or invalid due to unrealistic spiking caused by the failure of the analogue / motherboard.

Immediate Actions Taken:

Harry Benders (Alberta Environment) was notified and a new analogue / motherboard was ordered. It was received and installed on May 18th.

Investigation Details:

Actions Taken to Prevent Reoccurrence (if any):

Additional Actions Required (if any):

Not applicable.

Report Completed By:	Sharon Whiteley	Date Report Submitted:	May 26th, 2010
7-Day Letter Due Date:	June 1st, 2010		

April 2010 Calibration Reports

PASZA - Henry Pirker Station with the following calibrations:
SO_2, NO, NO_2, NO_x, O_3, CO, THC, TRS

PASZA – Evergreen Park Station with the following calibrations:
SO_2, TRS

PASZA – Smoky Heights Station with the following calibrations:
SO_2, TRS

PASZA – Beaverlodge Station with the following calibrations:
SO_2, NO, NO_2, NO_x, O_3

PASZA – Kinuso (Portable) Station with the following calibrations:
SO_2, TRS, NO, NO_2, NO_x & O_3,

PASZA – Valleyview Station with the following calibrations:
SO_2 & H_2S

Calibration Report

Parameter SO_2

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 22, 2010	Previous Calibration	March 10, 2010
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	8:15	End Time (MST)	11:57
Barometric Pressure	0.918 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	50.6 ppb	Cal Gas Cert Date	13/3/2009
		Cal Gas Cylinder #	AAL 15377
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	1.000451	Calculated slope	1.000025
Calculated intercept	-1.065511	Calculated intercept	-1.336454
Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	8.6		8.4	
Coefficient	.813		.799	
Pressure	640.9	mm Hg	636.9	mm Hg
Flow	0.481	lpm	0.479	lpm
Lamp Voltage	44197	Hz	44065	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4989	0.00	0.0	0.3	N/A
4989	39.85	401.0	401.9	0.9976
4989	19.91	201.1	202.5	0.9934
4989	9.93	100.5	103.3	0.9734
4989	0.00	0.0	0.0	As Found Zero
4989	39.85	401.0	405.1	As Found Span
			Average Correction Factor	0.9881

Calculated value of As Found Response: 404.2 ppb Percent Change of As Found: -0.8%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	239.8	ppb	232.6	ppb

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

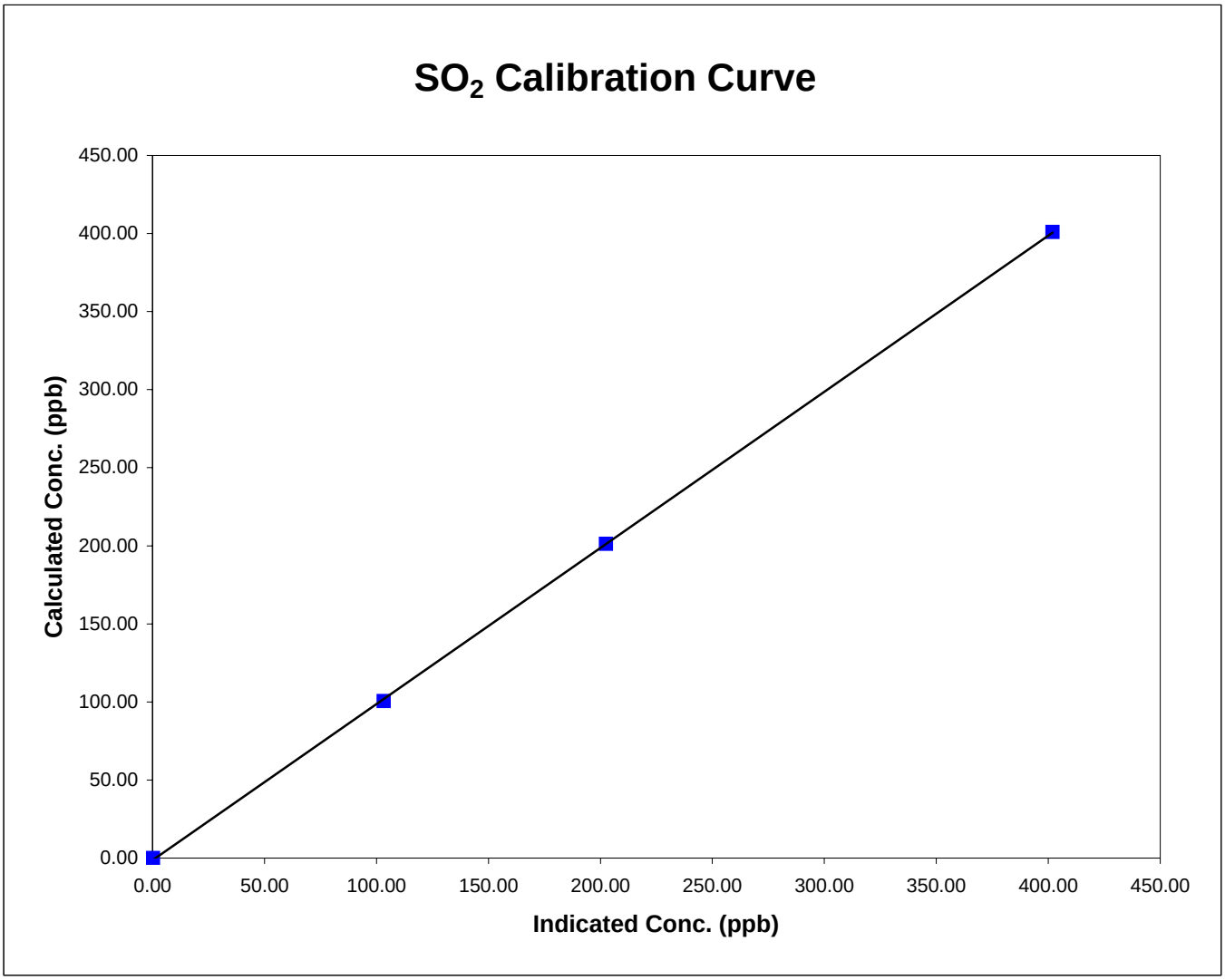
Air Monitoring Network **PASZA**

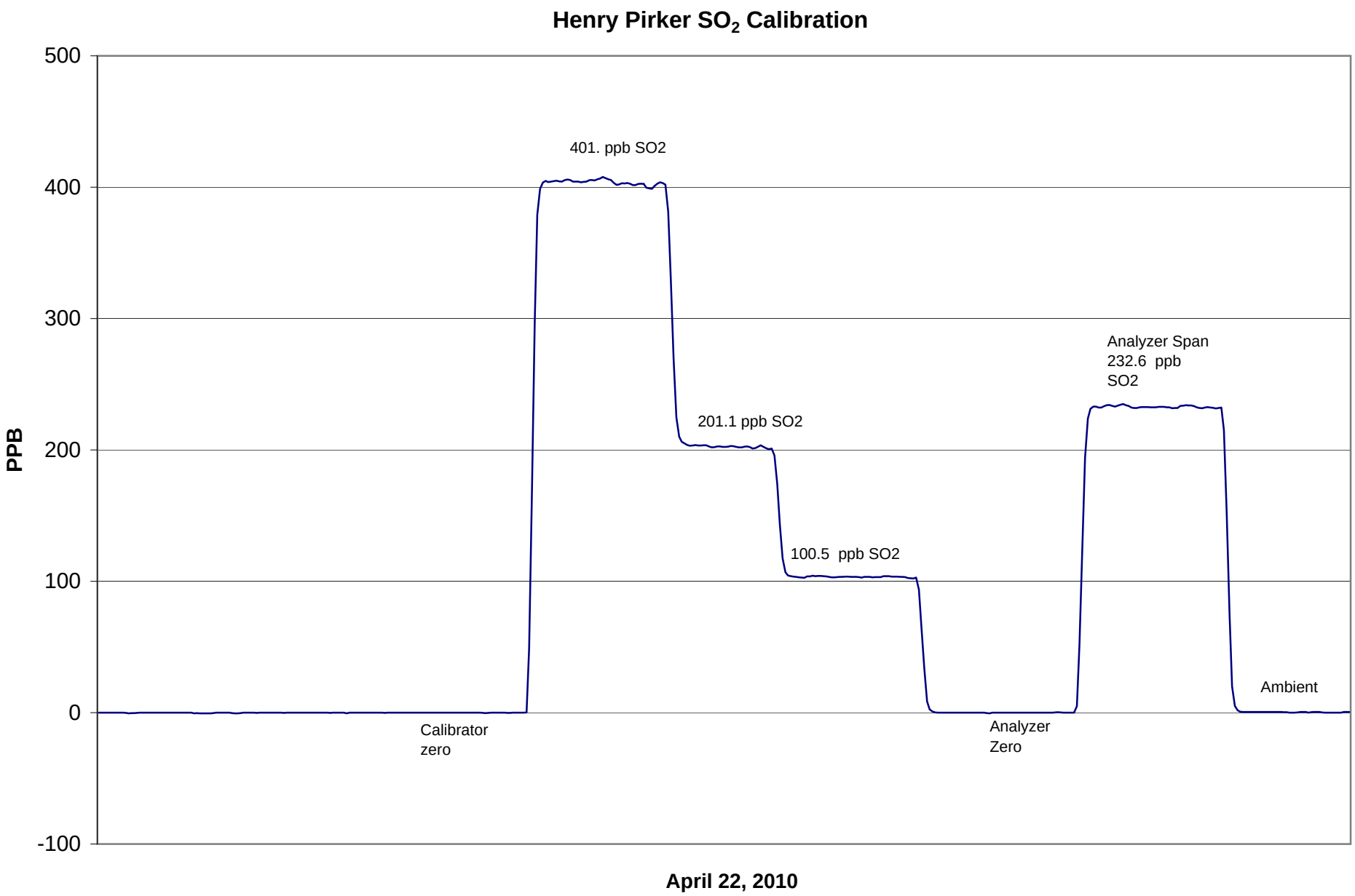
Station Information

Calibration Date	April 22, 2010	Previous Calibration	March 10, 2010
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:15	End Time (MST)	11:57
Analyzer make/model	TEI 43C	Analyzer serial #	610816292

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
401.0	401.9	0.9976	Correlation Coefficient	0.999963
201.1	202.5	0.9934		
100.5	103.3	0.9734	Slope	1.000025
			Intercept	-1.336454




Henry Pirker SO_2 Calibration
500
400
300
200
100
0
-100
PPB
401. ppb SO2
201.1 ppb SO2
100.5 ppb SO2
Analyzer Span
232.6 ppb
SO2
Ambient
Calibrator
zero
Analyzer
Zero
April 22, 2010

Calibration Report

Parameter **TRS**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 29, 2010	Previous Calibration	March 9, 2010
Station Number	1	Station Location	Henry Pirker
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	7:15	End Time (MST)	10:02
Barometric Pressure	0.919 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	5.15 ppb	Cal Gas Expiry Date	7/31/2008
		Cal Gas Cylinder #	ALM013295
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	0.998399	Calculated slope	1.013971
Calculated intercept	-0.239132	Calculated intercept	-0.149264
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	0.812		.812	
Background	17.4		17.4	
Pressure	658.5	mm Hg	659.1	mm Hg
Flow	471	ccm	471	ccm
Lamp Voltage	846	V	846	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)
4988	0.00	0.00	-0.03	N/A
4989	79.83	81.11	80.02	1.0136
4989	39.81	40.77	40.56	1.0051
4989	9.93	10.23	10.32	0.9915
4989	0.00	0.00	-0.09	As Found Zero
4989	79.77	81.05	80.02	As Found Span
			Average Correction Factor	1.0034

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

	before calibration		after calibration	
Auto zero	-0.29	ppb	-0.06	ppb
Auto span	21.32	ppb	22.03	ppb

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **TRS**

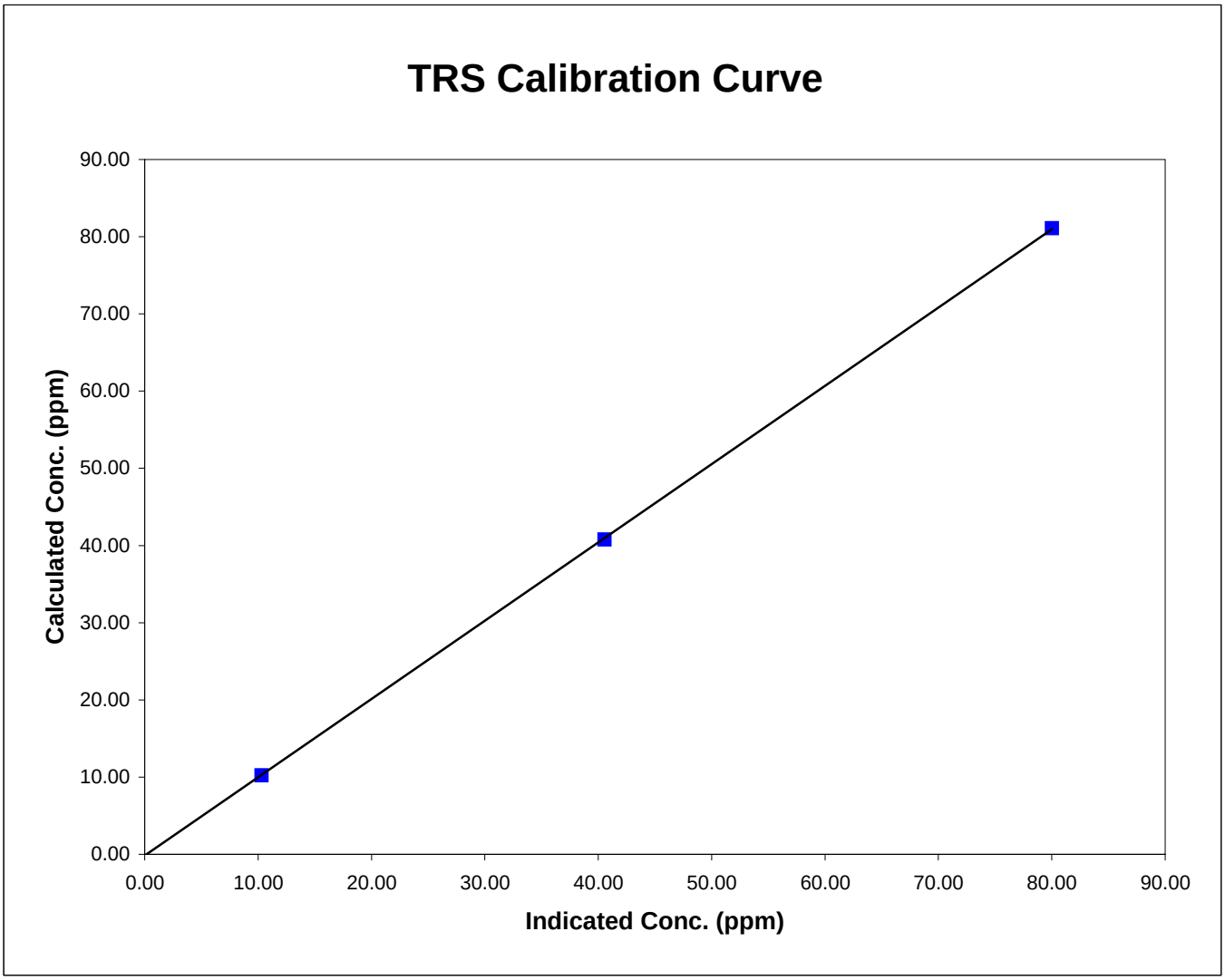
Air Monitoring Network **PASZA**

Station Information

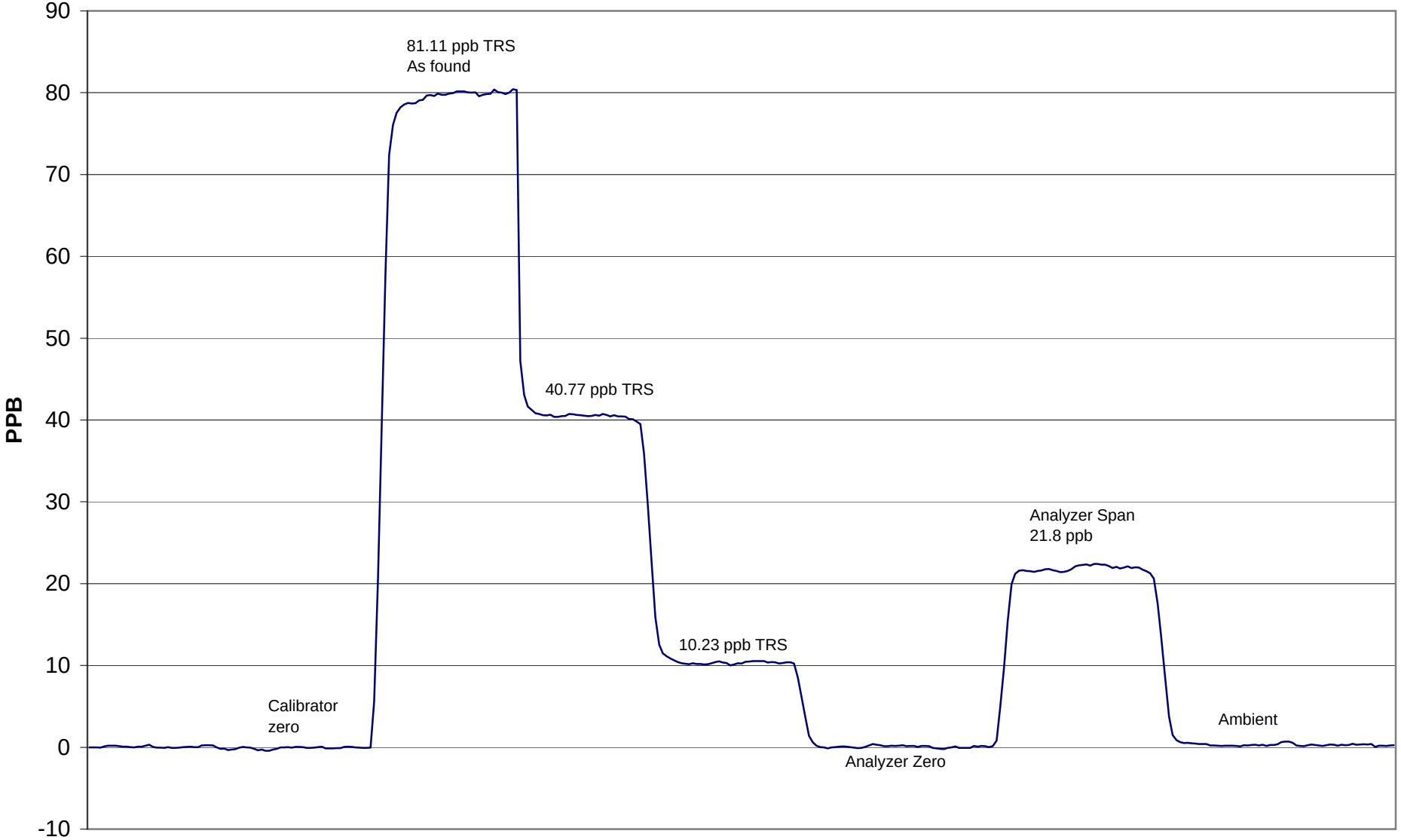
Calibration Date	April 29, 2010	Previous Calibration	March 9, 2010
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	7:15	End Time (MST)	10:02
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.027	N/A		
81.108	80.021	1.0136	Correlation Coefficient	0.999976
40.769	40.564	1.0051		
10.230	10.318	0.9915	Slope	1.013971
			Intercept	-0.149264



Henry Pirker TRS Calibration



April 29, 2010

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 22, 2010	Previous Calibration	March 10, 2010
Station Number	1	Station Location	Henry Pirker

Reason: Routine Installation Removal Other:

Start Time (MST)	8:15		End Time (MST)	14:00	
Barometric Pressure	0.919	Atm	Station Temperature	25.0	Deg C
Calibrator	Environics		Serial Number	3474	
NO Cal Gas Conc	49.6	ppm	Cal Gas Expiry Date	June 8, 2008	
NOx Cal Gas Conc	49.6	ppm	Cal Gas Serial #	AAL 15377	

DACS Information

DACS make: Focus AP1000 DACS serial No.:

Parameter		NO2	NOx	NO
Before	Data Slope	0.996508	1.003114	1.001595
	Data Offset	-0.186576	-2.039715	-2.204082
After	Data Slope	1.000758	1.004382	1.003461
	Data Offset	0.017075	-1.422679	-1.168688
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

Analyzer Information

Analyzer make/model	TEI 42C	Analyzer serial #	508011073

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	10.2	mV	10.4	mV
NOx bkgnd	10.4	mV	10.6	mV
NO coefficient	0.750		0.772	
NOx coefficient	1.004		1.001	
NO2 conv temp	318.0	Deg C	318.0	Deg C
PMT Temp	-2.5	Deg C	-2.5	Deg C
PMT Volt	-786.0	mV	-787.0	mV
R Cell Press	174.1	in Hg	172.5	in Hg
Sample Flow	0.748	ccm	0.754	ccm

Notes:

Calibration Report

Parameter **NO_x-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: April 22, 2010 Station Location: Henry Pirker

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4989	0.00	0.0	0.0	0.0	0.1	0.0	0.0	N/A	N/A
1	4989	39.85	393.0	393.0	0.0	392.2	392.4	-0.5	1.0021	1.0016
2	4989	19.91	197.2	197.2	0.0	197.9	197.7	0.3	0.9961	0.9974
3	4989	9.93	98.5	98.5	0.0	101.2	100.9	0.1	0.9736	0.9763
AFZ	4989	0.00	0.0	0.0	0.0	0.1	0.0	0.0	0.0000	0.0000
AFS	4989	39.84	392.9	392.9	0.0	386.9	385.1	1.7	1.0157	1.0204
							Average Correction Factor		0.9906	0.9917

As Found Concentrations: NO_X= 384.8 NO= 382.9 As Found Percent Change NO_X= -2.1% NO= -2.6%

GPT Calibration Data

Dilution Flow 4989 ccm Source Gas Flow 39.85 ccm

O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	0.0	0.0	0.0	0.1	0.0	0.0	N/A	N/A	N/A	N/A
NO point	392.6	392.6	0.0	393.3	392.6	0.6	0.9984	1.0000	N/A	N/A
300	392.6	133.2	259.5	392.4	133.2	259.3	1.0007	1.0000	1.0005	100.0%
200	392.6	216.2	176.4	392.3	216.2	176.2	1.0009	1.0000	1.0014	99.9%
100	392.6	296.4	96.2	392.4	296.4	96.1	1.0007	1.0000	1.0014	99.9%
					Average Correction Factor		1.0008	1.0000	1.0011	99.9%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.1	0.0	0.0	ppb	0.1	0.0	0.0	ppb
Auto span	168.4	169.5	1.2	ppb	175.4	174.7	0.6	ppb

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

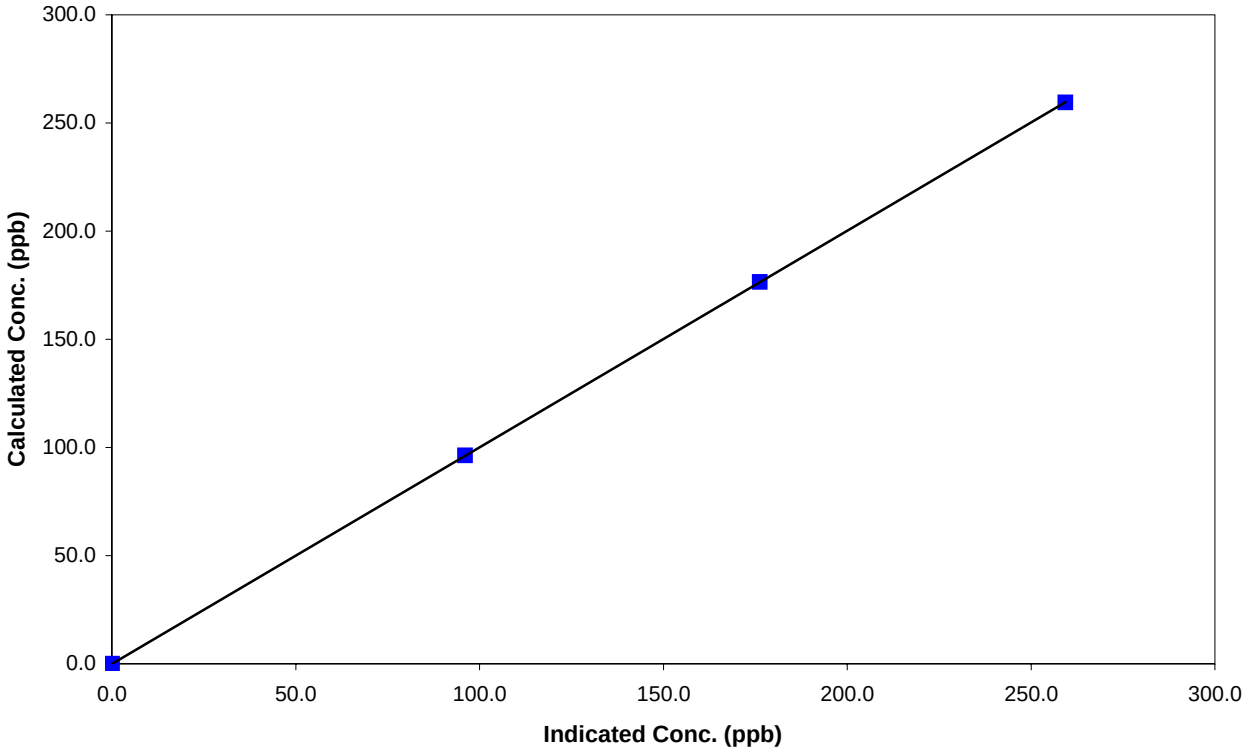
Station Information

Calibration Date	April 22, 2010	Previous Calibration	March 10, 2010
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:15	End Time (MST)	14:00
Analyzer make	TEI 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
259.5	259.3	1.0005	Correlation Coefficient	0.999999
176.4	176.2	1.0014		
96.2	96.1	1.0014	Slope	1.000758
			Intercept	0.017075

NO_2 Calibration Curve



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

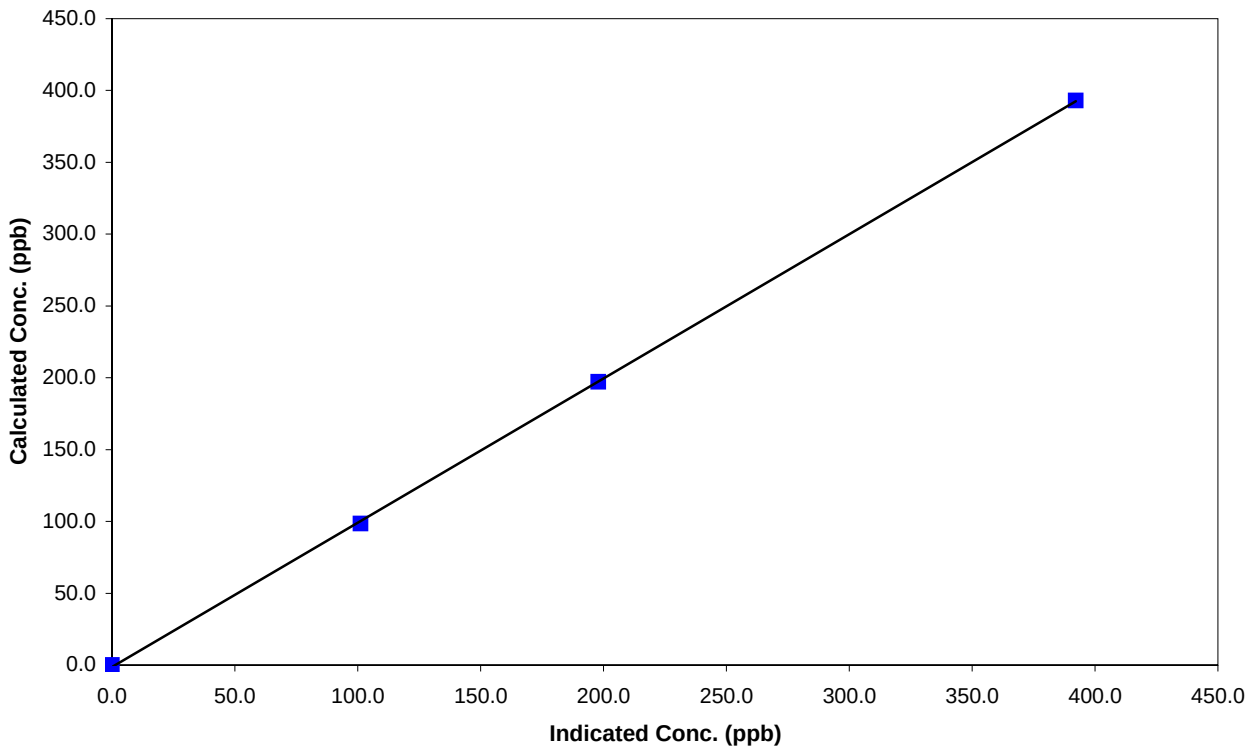
Station Information

Calibration Date	April 22, 2010	Previous Calibration	March 10, 2010
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:15	End Time (MST)	14:00
Analyzer make	TEI 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
393.0	392.2	1.0021	Correlation Coefficient	0.999940
197.2	197.9	0.9961		
98.5	101.2	0.9736	Slope	1.004382
			Intercept	-1.422679

NO_x Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

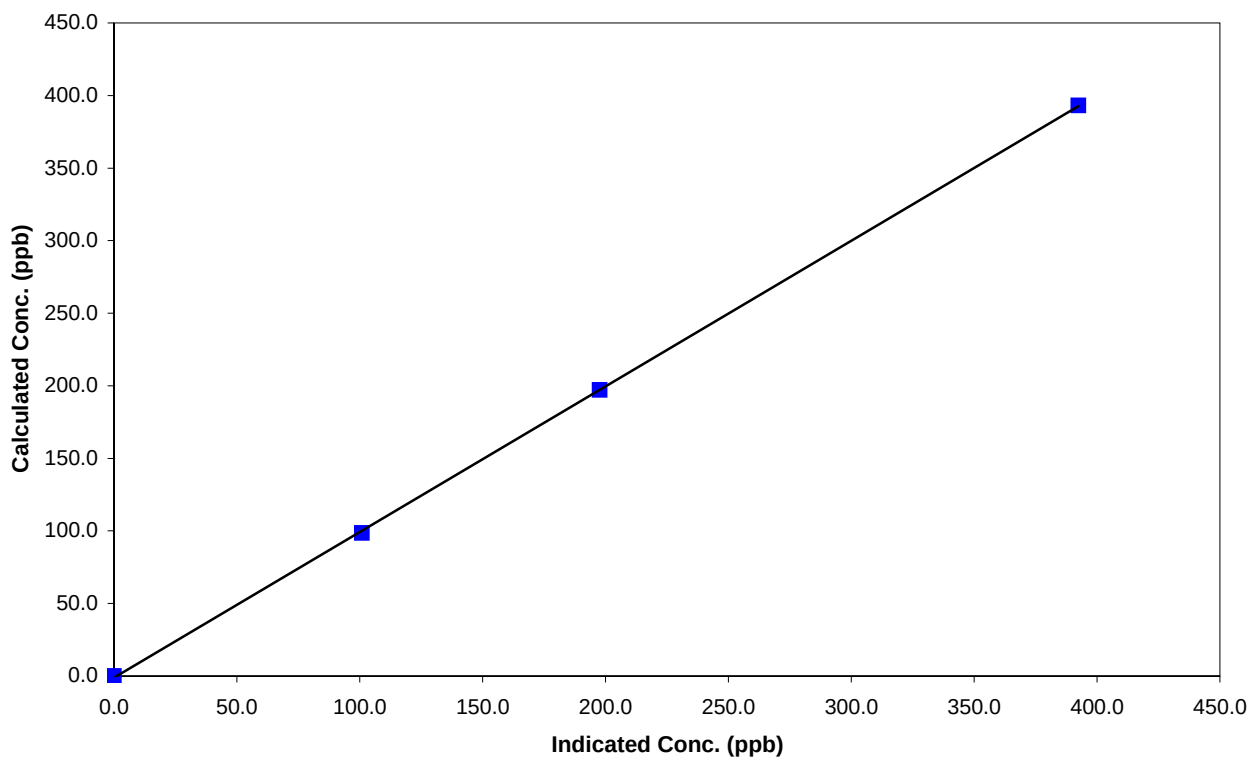
Station Information

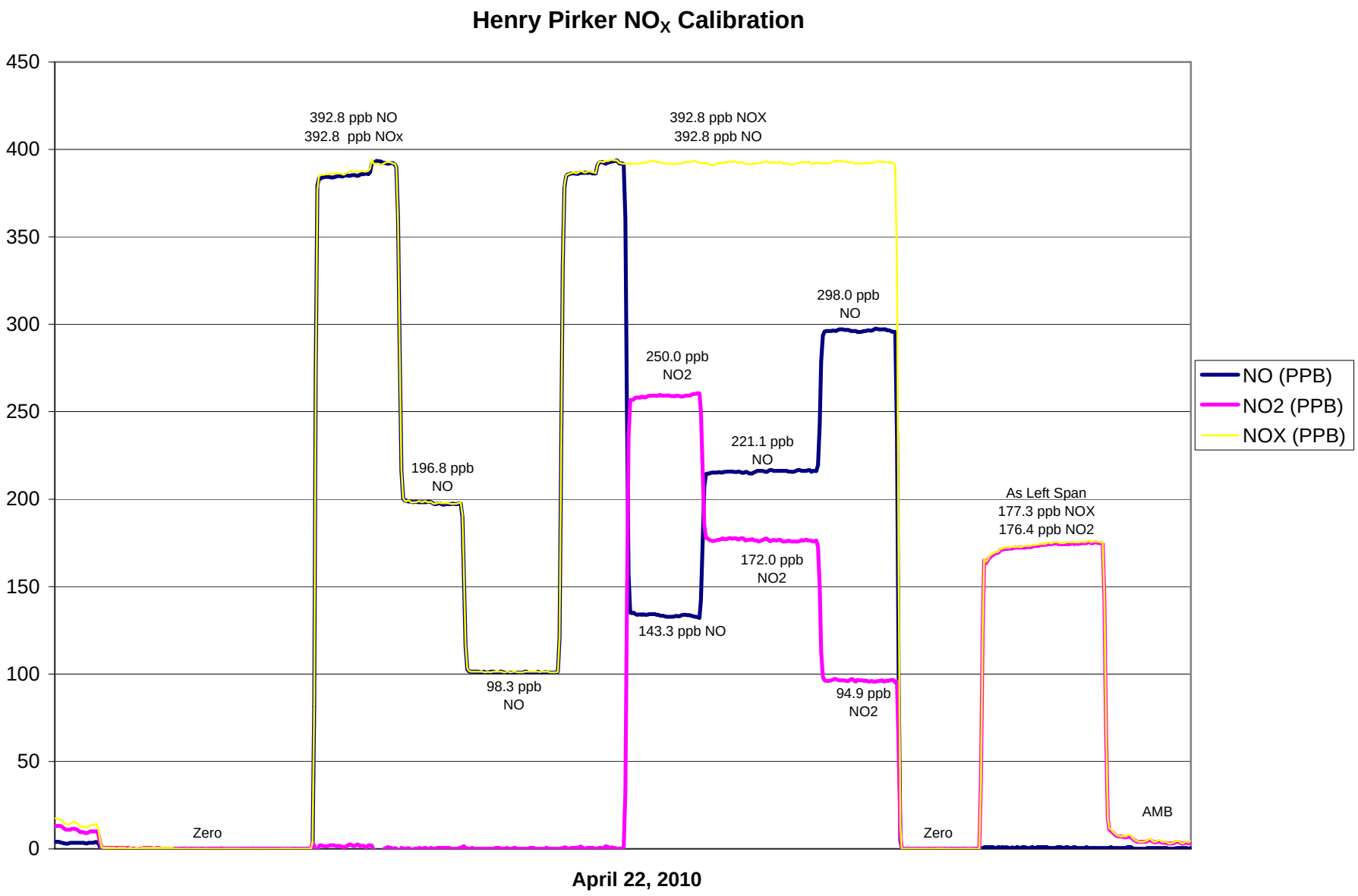
Calibration Date	April 22, 2010	Previous Calibration	March 10, 2010
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:15	End Time (MST)	14:00
Analyzer make	TEI 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
393.0	392.4	1.0016	Correlation Coefficient	0.999952
197.2	197.7	0.9974		
98.5	100.9	0.9763	Slope	1.003461
			Intercept	-1.168688

NO Calibration Curve




Henry Pirker NOX Calibration
450
400
350
300
250
200
150
100
50
0
392.8 ppb NO
392.8 ppb NOx
392.8 ppb NOX
392.8 ppb NO
298.0 ppb
NO
250.0 ppb
NO2
221.1 ppb
NO
196.8 ppb
NO
As Left Span
177.3 ppb NOX
176.4 ppb NO2
172.0 ppb
NO2
143.3 ppb NO
98.3 ppb
NO
94.9 ppb
NO2
AMB
Zero
Zero
NO (PPB)
NO2 (PPB)
NOX (PPB)
April 22, 2010

Calibration Report

Parameter O_3

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 22, 2010	Previous Calibration	March 10, 2010
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	12:30	End Time (MST)	15:35
Barometric Pressure	0.918 atm	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 1 volt	DACS channel #	5
	Before		After
Calculated slope	1.002025	Calculated slope	1.002628
Calculated intercept	0.299052	Calculated intercept	-0.903550
Analyzer make	TECO 49C	Analyzer serial #	607415761

	before		after	
Concentration range	500	ppb	500	ppb
offset	-0.7	ppb	-0.7	ppb
slope	1.014		0.922	
O3 Lamp temp	71	Deg C	71	Deg C
Intensities	85461/73752	mV	85461/73752	mV
Pressure	693.4	inches Hg	682	inches Hg
Flow A	0.725	ccm	0.720	ccm
Flow B	0.740	ccm	0.734	ccm

Calibration Data

Referenced concentration (ppb)	Dilution air flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
0	4991	0.0	0.1	N/A
300	4989	259.5	259.1	1.0017
200	4989	176.4	177.2	0.9955
100	4989	96.2	98.0	0.9821
0	4989	0.0	0.5	As found zero
300	4989	259.5	284.3	As found span
			Average Correction Factor	0.9931

Calculated value of As Found Response: 284.7 ppm Percent Change of As Found: 9.7%

	before calibration		after calibration	
Auto zero	0.3	ppb	0.3	ppb
Auto span	153.0	ppb	131.5	ppb

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **O3**

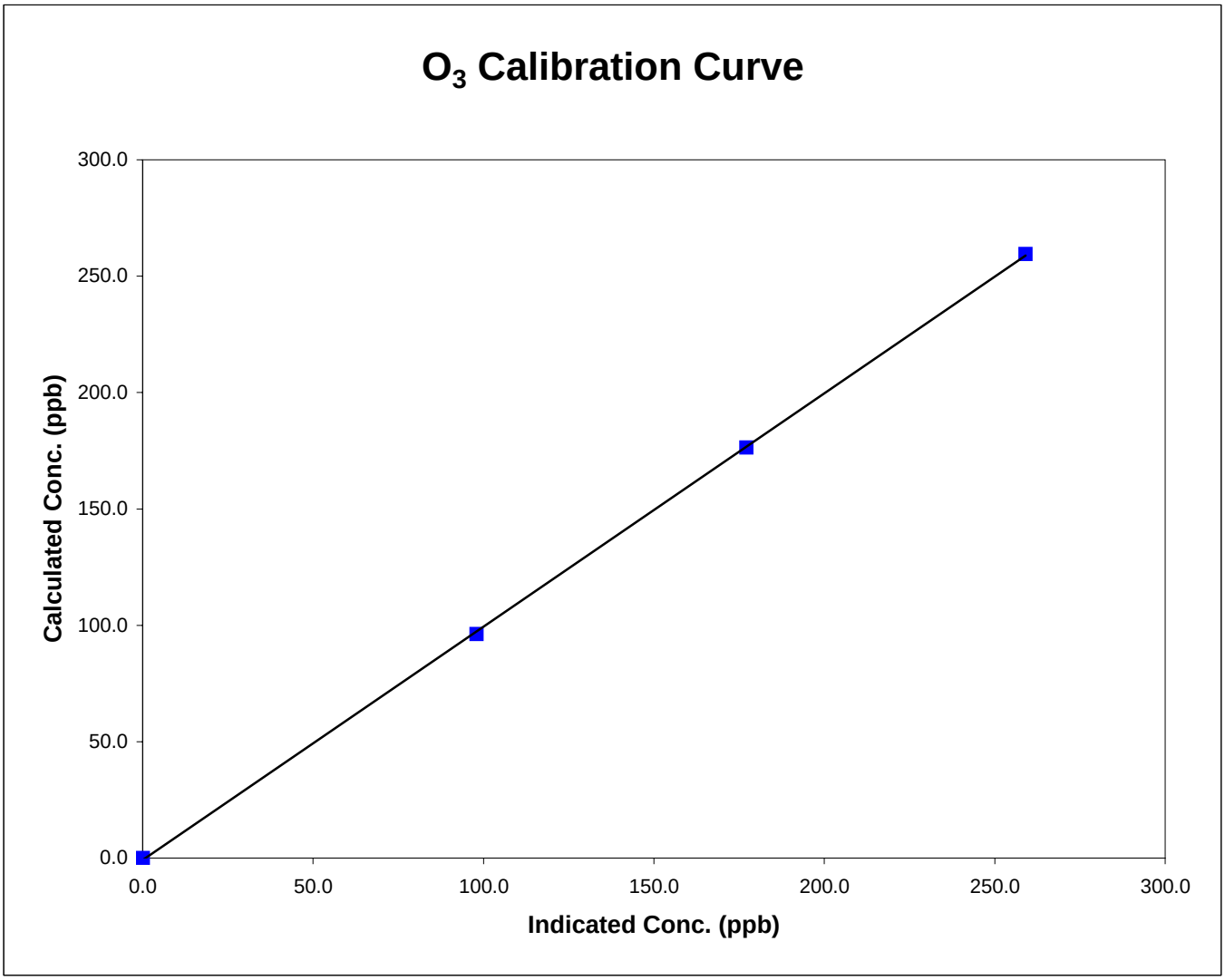
Air Monitoring Network **PASZA**

Station Information

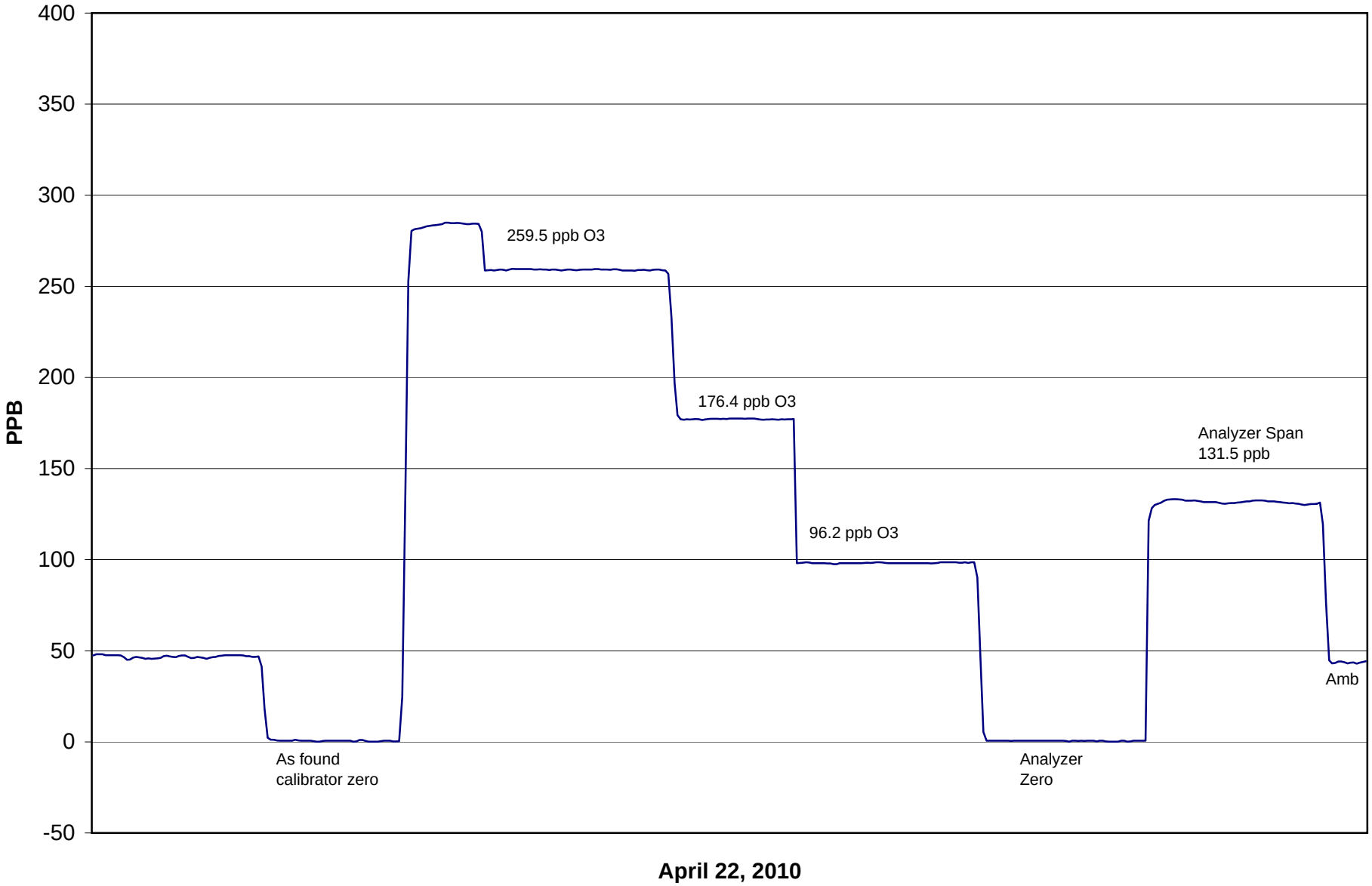
Calibration Date	April 22, 2010	Previous Calibration	March 10, 2010
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:30	End Time (MST)	15:35
Analyzer make/model	TECO 49C	Analyzer serial #	607415761

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	NA		
259.5	259.1	1.0017	Correlation Coefficient	0.999934
176.4	177.2	0.9955		
96.2	98.0	0.9821	Slope	1.002628
			Intercept	-0.903550



Henry Pirker O_3 Calibration



Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter: CO

Air Monitoring Network: **PASZA**

Station Information

Calibration Date	April 29, 2010	Previous Calibration	March 9, 2010
Station Number	1	Station Location	Henry Pirker
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	11:00	End Time (MST)	13:40
Barometric Pressure	0.919 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	3000 ppm	Cal Gas Expiry Date	AUG 28/05
		Cal Gas Cylinder #	AAL20565
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.008042	Calculated slope	1.027080
Calculated intercept	-0.167987	Calculated intercept	-0.408177
Analyzer make	TEI Model 48C	Analyzer serial #	508011062

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO span setting	1.062		1.062	
CO zero setting	9.148		9.652	
Sample pressure	684.3	mm Hg	684.5	mm Hg
Sample Flow	1.139	LPM	1.135	LPM

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4991	0.00	0.00	0.50	N/A
4989	39.84	23.77	23.59	1.0075
4989	19.90	11.92	11.94	0.9981
4989	9.95	5.97	6.12	0.9763
4990	0.00	0.00	0.04	As Found Zero
4989	39.84	23.77	23.59	As Found Span
			Average Correction Factor	0.9940

Calculated value of As Found Response: 23.572 ppm Percent Change of As Found: 0.8%

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	19.80	ppm	19.53	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **CO**

Air Monitoring Network **PASZA**

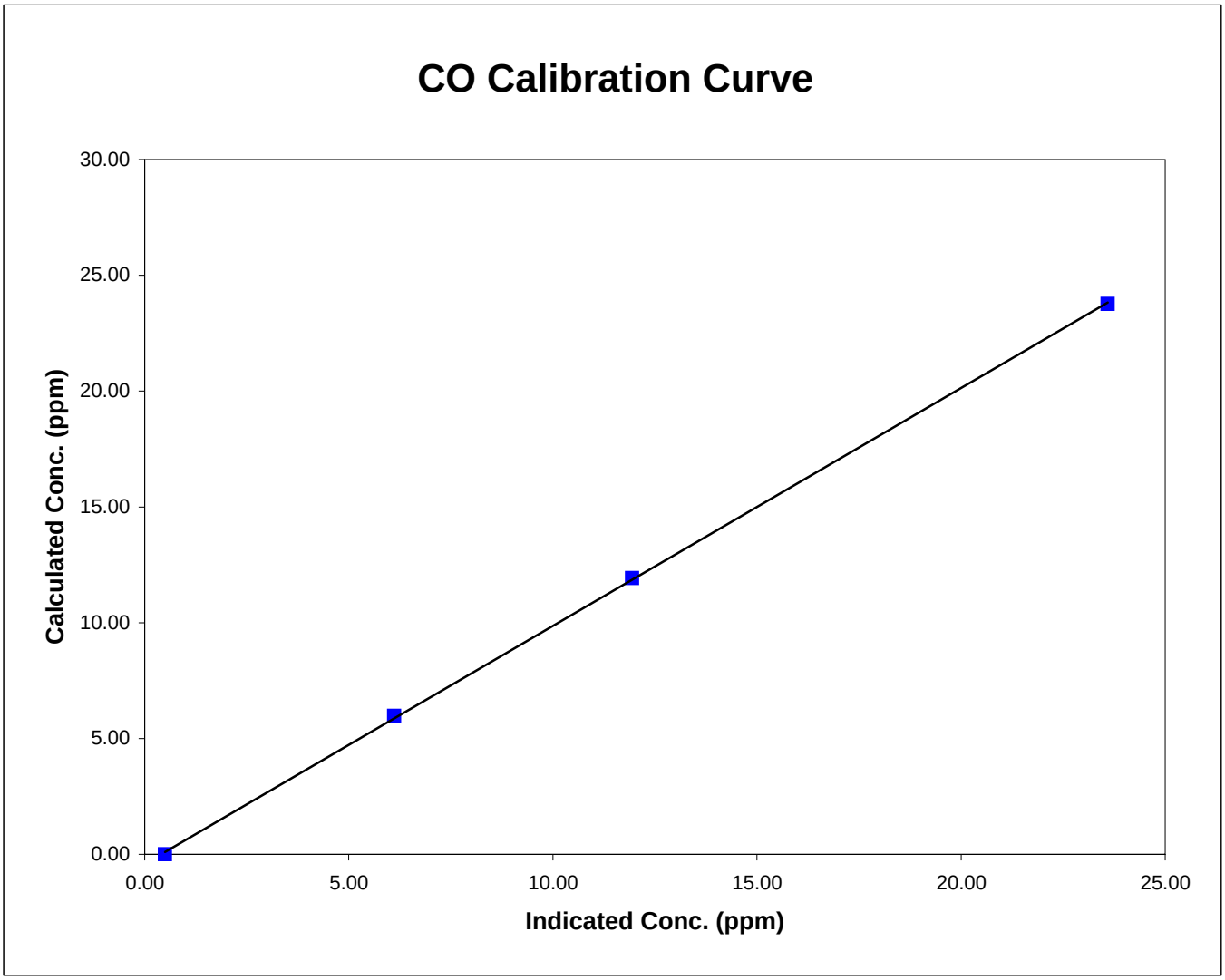
FOCUS AIR QUALITY MONITORING

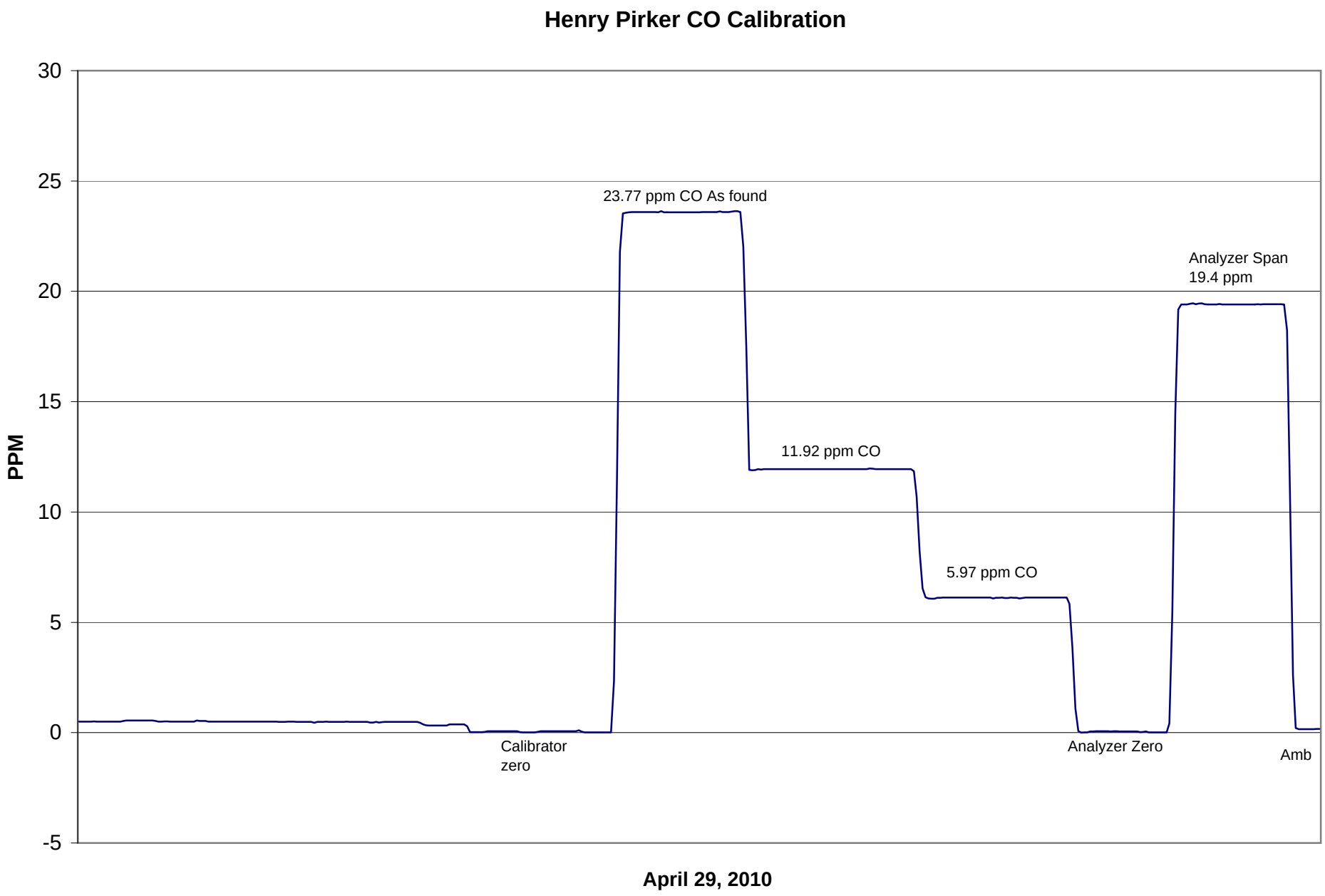
Station Information

Calibration Date	April 29, 2010	Previous Calibration	March 9, 2010
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	11:00	End Time (MST)	13:40
Analyzer make/model	TEI Model 48C	Analyzer serial #	508011062

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.500	N/A		
23.767	23.591	1.0075	Correlation Coefficient	0.999911
11.919	11.941	0.9981		
5.971	6.116	0.9763	Slope	1.027080
			Intercept	-0.408177




Henry Pirker CO Calibration
30
25
20
15
10
5
0
-5
PPM
23.77 ppm CO As found
11.92 ppm CO
5.97 ppm CO
Analyzer Span
19.4 ppm
Calibrator
zero
Analyzer Zero
Amb
April 29, 2010

Calibration Report

FOCUS
AIR QUALITY MONITORING

Parameter **THC**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	April 29, 2010	Previous Calibration	March 9, 2010
Station Number	1	Station Location	Henry Pirker
Reason: Routine	Install	Removal	Other:
Start Time (MST)	9:10	End Time (MST)	11:53
Barometric Pressure	0.919 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	701 ppm CH4/ 299 ppm C3H8	Cal Gas Expiry Date	2/4/2010
Cal Gas CH4 equiv	1523.25 ppm	Cal Gas Cylinder #	ALM 004476
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.021605	Calculated slope	1.019569
Calculated intercept	-0.048490	Calculated intercept	-0.030334
Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.50	psi	6.50	psi
THC span counts	9615	capture	9615	capture
THC zero counts	431	capture	431	capture

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4988	0.00	0.00	0.05	N/A
4989	69.50	20.93	20.60	1.0161
4989	29.94	9.09	8.83	1.0295
4989	9.92	3.02	3.05	0.9900
4988	0.00	0.00	0.05	As Found Zero
4989	69.50	20.93	20.60	As Found Span
			Average Correction Factor	1.0119

Calculated value of As Found Response: 20.947 ppm Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	0.10	ppm	0.00	ppm
Auto span	21.34	ppm	25.46	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **THC**

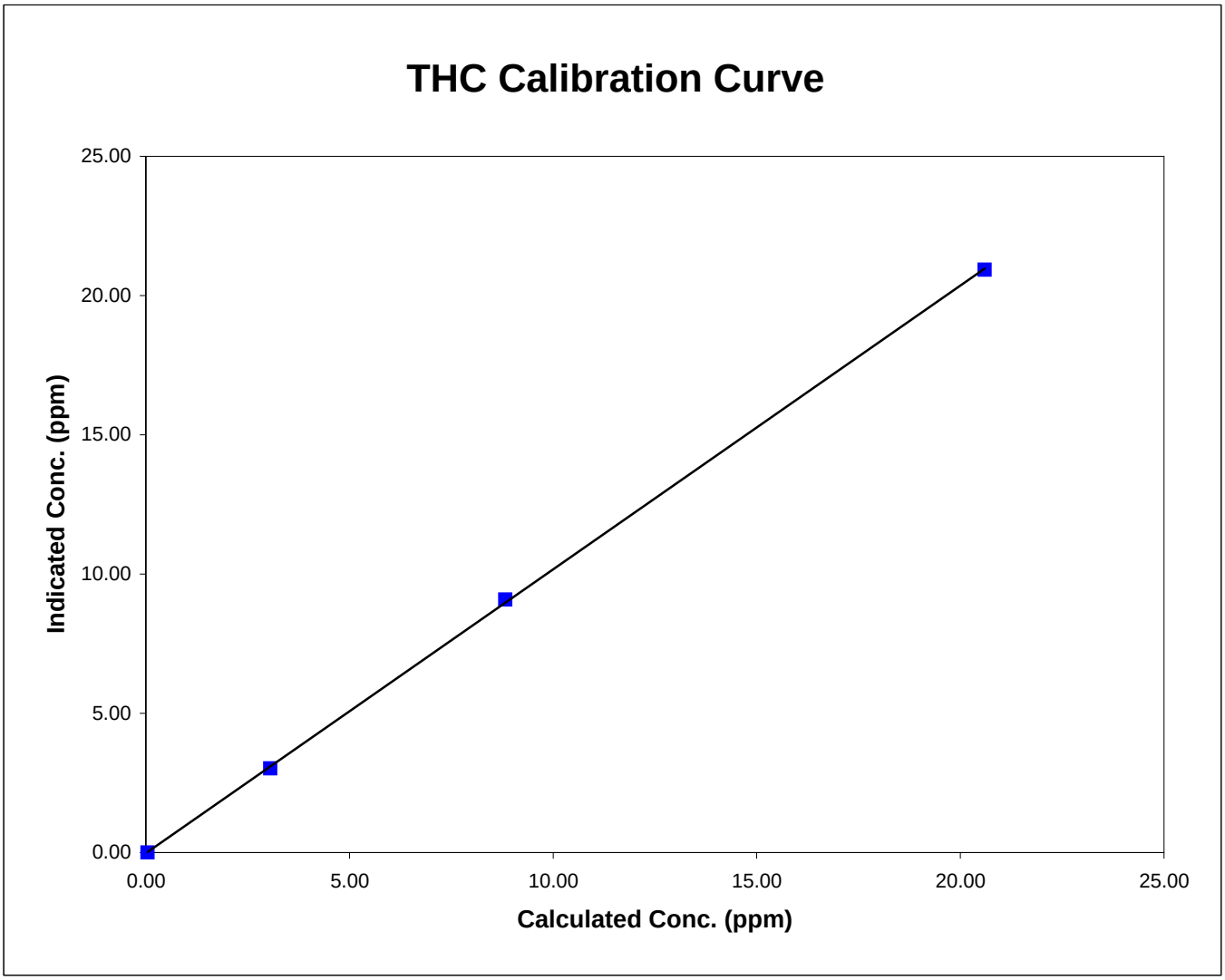
Air Monitoring Network **PASZA**

Station Information

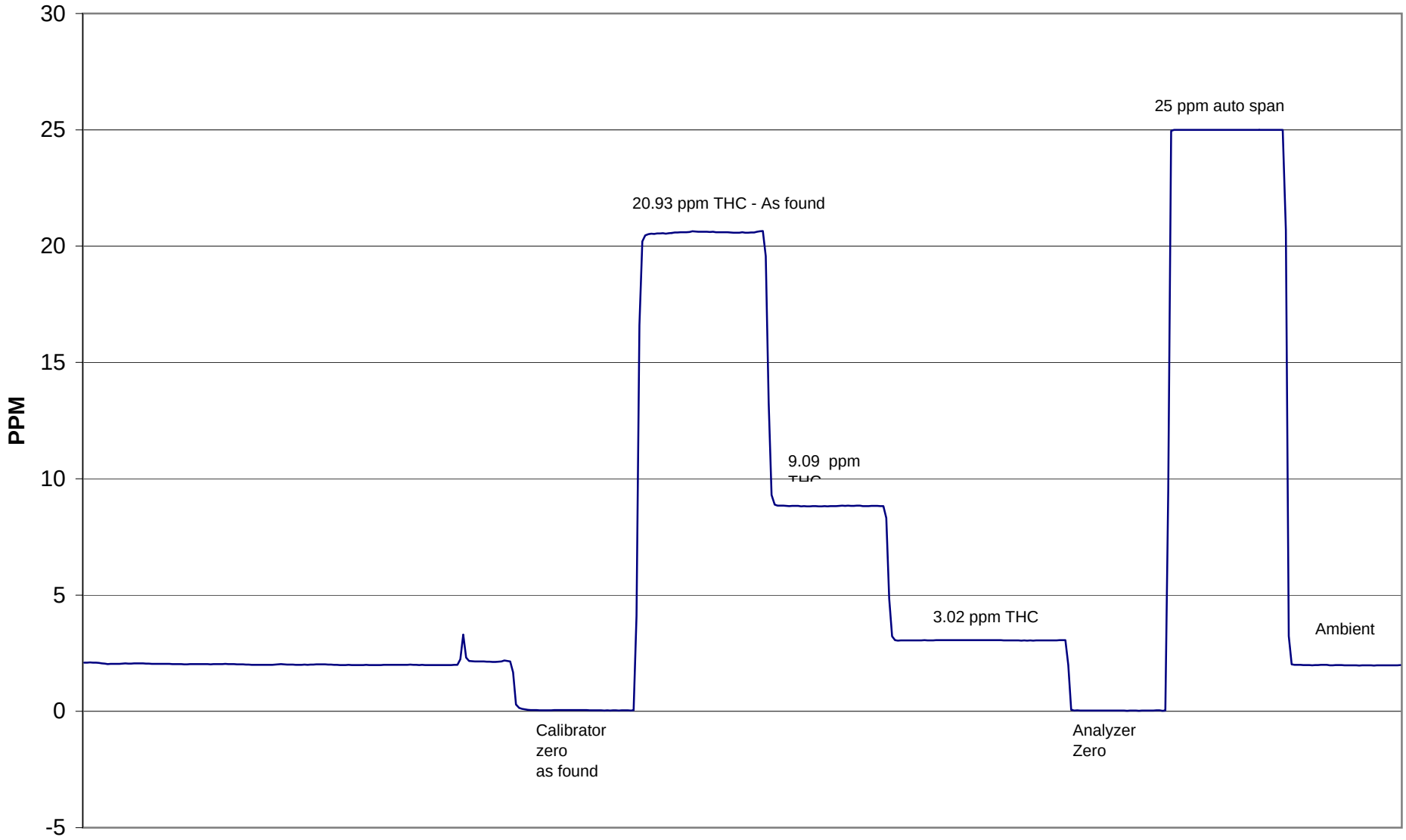
Calibration Date	April 29, 2010	Previous Calibration	March 9, 2010
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:10	End Time (MST)	11:53
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.046	N/A		
20.928	20.597	1.0161	Correlation Coefficient	0.999924
9.087	8.826	1.0295		
3.023	3.053	0.9900	Slope	1.019569
			Intercept	-0.030334



Henry Pirker THC Calibration



April 29, 2010

FDMS AB TEOM PM2.5 AUDIT

FOCUS
AIR QUALITY MONITORING

STATION: **Henry Pirker**

LOCATION: PASZA - Grande Prairie

OPERATOR: Grover Christiansen

DATE: 29-Apr-10

MONITOR INFO / PARAMETER VALUES:

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

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

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	9-Mar-10
Previous Calibration	NA

PUMP CAPACITY CHECK *	PASS

* capacity test or pump on timed test utilized to verify pump integrity

"FAIL" indicates that pump requires service.

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.060	0.020
PUMP OFF	0.000	0.000
NET	0.060	0.020
LIMITS	*<0.15*	*<0.60*

]

		Ambient Temp. (^{0}C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
	SET POINT (S)	na	na	13020	13.67	3.000
	INDICATED (I)	2.0	0.920		13.67	3.000
As Found Data	MEASURED (AF)	1.9	0.919		13.68	3.002
Adjusted Data	MEASURED (M)	1.9	0.919	12955	13.68	3.002
	DIFFERENCE (M-I)	-0.1	-0.001	-0.5%	0.07	0.07
	LIMITS	*± 2 ^{0} C*	*± 0.005 atm*	*± 2.5 %*	*± 1.0 L/min*	*± 0.2 L/min*

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

COMMENTS: PASS

Sample Head Inspection Or Cleaning:

PM10: Cleaned

PM2.5: Cleaned

TEOM / FDMS IN LINE FILTER INSPECTION OR REPLACI

TEOM IN LINE:

Main: Good

AUX: Replace next cal.

FDMS Water knck out:Good

FDMS 47 mm Filter Cassette: Replaced

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **SO_2**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	April 20, 2010	Previous Calibration	March 15, 2010
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:
Start Time (MST)	9:30	End Time (MST)	12:47
Barometric Pressure	0.918 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	50.6 ppm	Cal Gas Expiry Date	1/2/2009
Correction factor	0.031205	Cal Gas Cylinder #	LL16161
DACS make	Focus AP1000	DACS serial No.	52620
DACS voltage range	0 - 10 volt	DACS channel #	6
	Before		After
Calculated slope	0.999421	Calculated slope	1.007590
Calculated intercept	-2.040790	Calculated intercept	-1.995693
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
Background	10.9		10.9	
coefficient	1.041		1.041	
Lamp Voltage	833	volts	833	volts
Chamber Temp	45	Deg C	45.3	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	661.6	mm Hg	660.7	mm Hg
Sample Flow	446	ccm	0.445	ccm
Lamp Intensity	90	%	90	%

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4990	0.0	0.00	0.0	N/A
4989	39.85	400.97	398.8	1.0054
4989	19.91	201.13	202.8	0.9916
4989	9.96	100.82	103.8	0.9709
	0.0			
4989	0.0	0.00	0.6	As Found Zero
4989	39.85	400.97	398.8	As Found Span
			Average Correction Factor	0.9893

Calculated value of As Found Response: 395.967 ppm Percent Change of As Found: 1.2%

	before calibration		after calibration	
Auto zero	0.7	ppm	0.6	ppm
Auto span	286.9	ppm	291.4	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

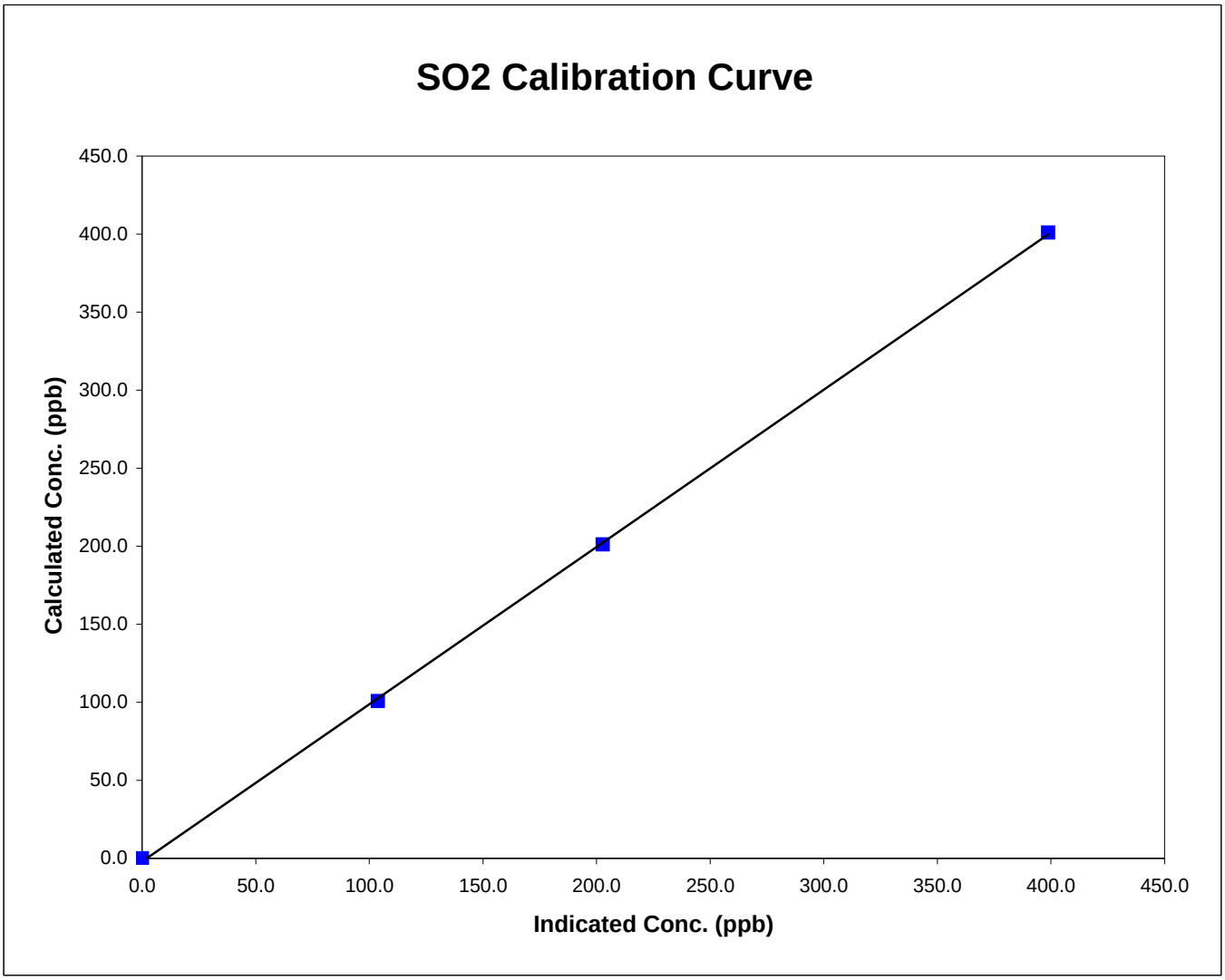
Air Monitoring Network **PASZA**

Station Information

Calibration Date	April 20, 2010	Previous Calibration	March 15, 2010
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	9:30	End Time (MST)	12:47
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
401.0	398.8	1.0054	Correlation Coefficient	0.999887
201.1	202.8	0.9916		
100.8	103.8	0.9709	Slope	1.007590
			Intercept	-1.995693



Evergreen Park SO_2 Calibration

April 20, 2010

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **TRS**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	April 20, 2010	Previous Calibration	March 15, 2010
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:

Start Time (MST)	11:10	End Time (MST)	14:18
Barometric Pressure	0.918 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	5.15 ppm	Cal Gas Expiry Date	4/2/2009
Correction factor	0.031205	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	1.003187	Calculated slope	0.998584
Calculated intercept	-0.187666	Calculated intercept	-0.294885

Analyzer make	TEI Model 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	15.5	ppb	15.3	ppb
coefficient	0.859		0.859	
Lamp Voltage	815	volts	818	volts
Chamber Temp	44.1	Deg C	44.3	Deg C
Perm Gas Temp	45.01	Deg C	45.3	Deg C
Pressure	638.9	mm Hg	636.7	mm Hg
Sample Flow	0.478	ccm	0.476	ccm
Lamp Intensity	45,525	mv	45,403	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
4991	79.79	81.04	81.4	0.9955
4991	39.87	40.81	41.2	0.9900
4990	9.95	10.25	10.7	0.9588
4990	0.00	0.00	0.1	As Found Zero
4990	79.91	81.17	81.4	As Found Span
			Average Correction Factor	0.9814

Calculated value of As Found Response: 81.41 ppm Percent Change of As Found: -0.3%

	before calibration		after calibration	
Auto zero	-0.5	ppm	-0.2	ppm
Auto span	62.0	ppm	59.3	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **TRS**

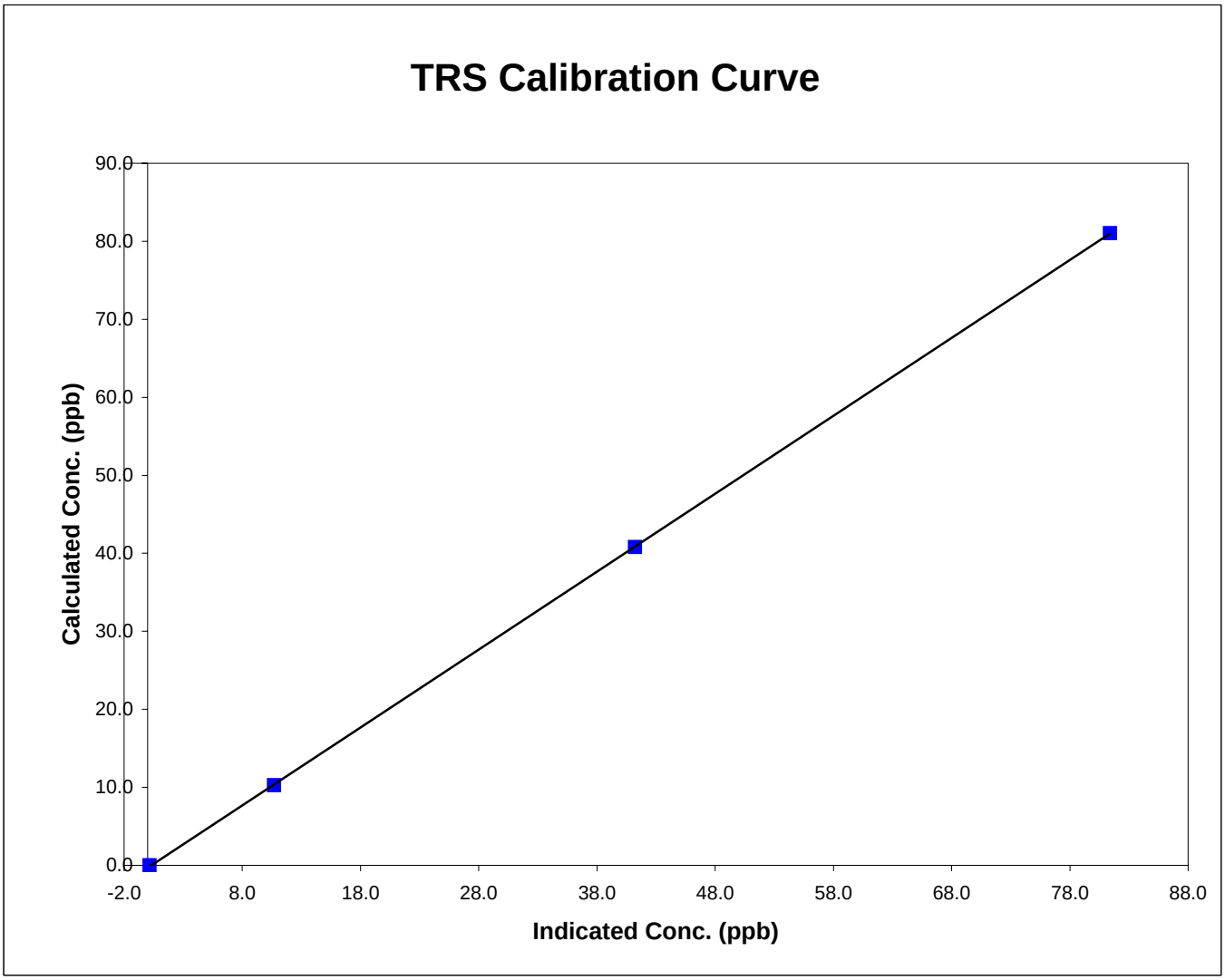
Air Monitoring Network **PASZA**

Station Information

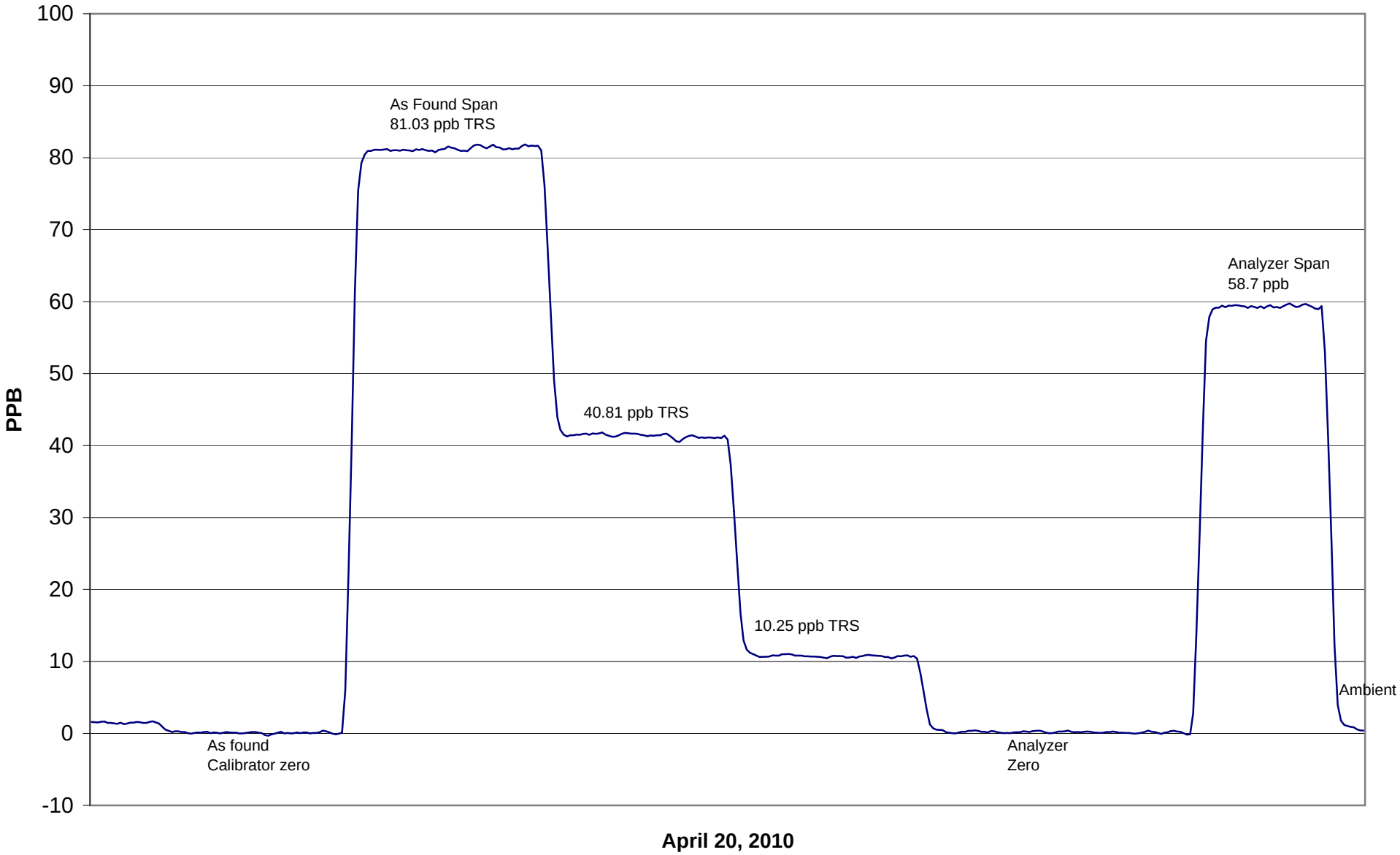
Calibration Date	April 20, 2010	Previous Calibration	March 15, 2010
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	11:10	End Time (MST)	14:18
Analyzer make/model	TEI Model 43C	Analyzer serial #	436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
81.0	81.4	0.9955	Correlation Coefficient	0.999989
40.8	41.2	0.9900		
10.2	10.7	0.9588	Slope	0.998584
			Intercept	-0.294885



Evergreen Park TRS Calibration



AB TEOM PM2.5 Calibration

FOCUS
AIR QUALITY MONITORING

STATION: **Evergreen Park**

LOCATION: PASZA - Grande Prairie

OPERATOR: Grover Christiansen

DATE: 20-Apr-10

MONITOR INFO / PARAMETER VALUES:

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

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

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	17-Mar-10
Previous Calibration	NA

PUMP CAPACITY CHECK *	PASS

* capacity test or pump on timed test utilized to verify pump integrity

"FAIL" indicates that pump requires service.

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.010	0.010
PUMP OFF	0.000	0.000
NET	0.010	0.010
LIMITS	*<0.15*	*<0.60*

		Ambient Temp. (^{0} C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
	SET POINT (S)	na	na	10124	13.67	3.000
	INDICATED (I)	25.2	0.917		13.67	3.000
As Found Data	MEASURED (AF)	24.5	0.917		13.72	3.003
Adjusted Data	MEASURED (M)	24.5	0.917	10118	13.72	3.003
	DIFFERENCE (M-I)	-0.7	0.000	-0.1%	0.37	0.10
	LIMITS	*± 2 ^{0} C*	*± 0.005 atm*	*± 2.5 %*	*± 1.0 L/min*	*± 0.2 L/min*

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

COMMENTS: PASS

Sample Head Inspection/Cleaning:

PM10:Cleaned

PM2.5:Cleaned

Large In Line Filter Inspection & Or Cleaning:

Main:Good

Aux: Replaced.

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **SO_2**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	April 15, 2010	Previous Calibration	March 19, 2010
Station Number	3	Station Location	Smoky Heights
Reason: Routine	Install	Removal	Other:

Start Time (MST)	9:00	End Time (MST)	11:51
Barometric Pressure	0.933 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentratior	50.6 ppm	Cal Gas Cert Date	6/8/2008
Correction factor	0.031715	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	1.003480	Calculated slope	1.002682
Calculated intercept	-2.605437	Calculated intercept	-2.387369

Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	8.3		8.2	
coefficient	0.701		6.96	
Lamp Voltage	923	volts	923	volts
Chamber Temp	44.9	Deg C	45.3	Deg C
Perm Gas Temp	45	Deg C	45.01	Deg C
Pressure	676.2	mm Hg	673	mm Hg
Sample Flow	446	ccm	444	ccm
Lamp Intensity	89	%	87	%

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4990	0.0	0.00	0.6	N/A
4990	39.85	400.89	401.3	0.9990
4990	19.89	200.89	203.7	0.9864
4990	9.95	100.70	104.6	0.9631
4990	0.0	0.00	0.6	As Found Zero
4990	39.85	400.89	401.3	As Found Span
			Average Correction Factor	0.9828

Calculated value of As Found Response: 399.420 ppm Percent Change of As Found: 0.4%

	before calibration		after calibration	
Auto zero	0.4	ppb	0.6	ppb
Auto span	304.1	ppb	303.4	ppb

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

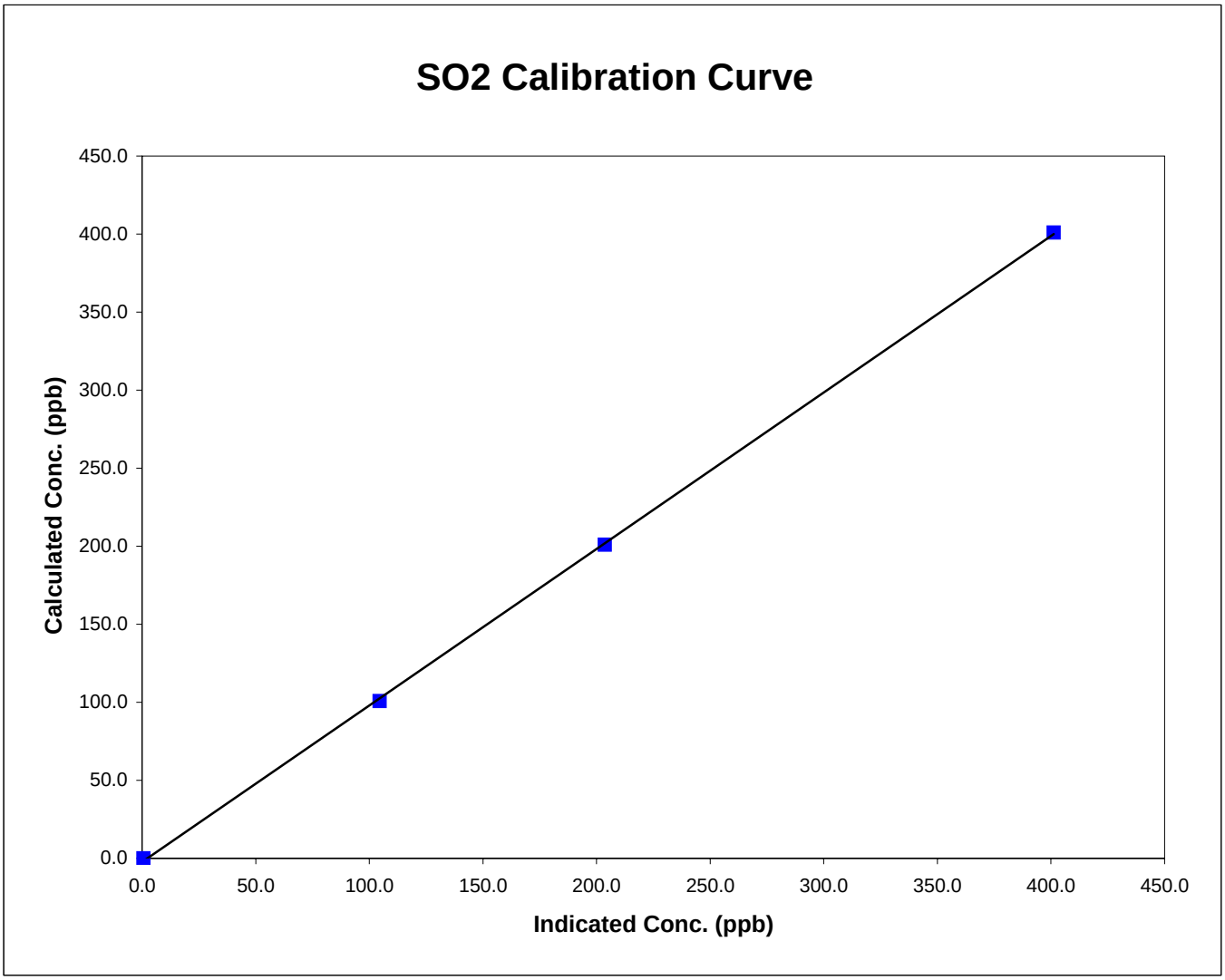
FOCUS AIR QUALITY MONITORING

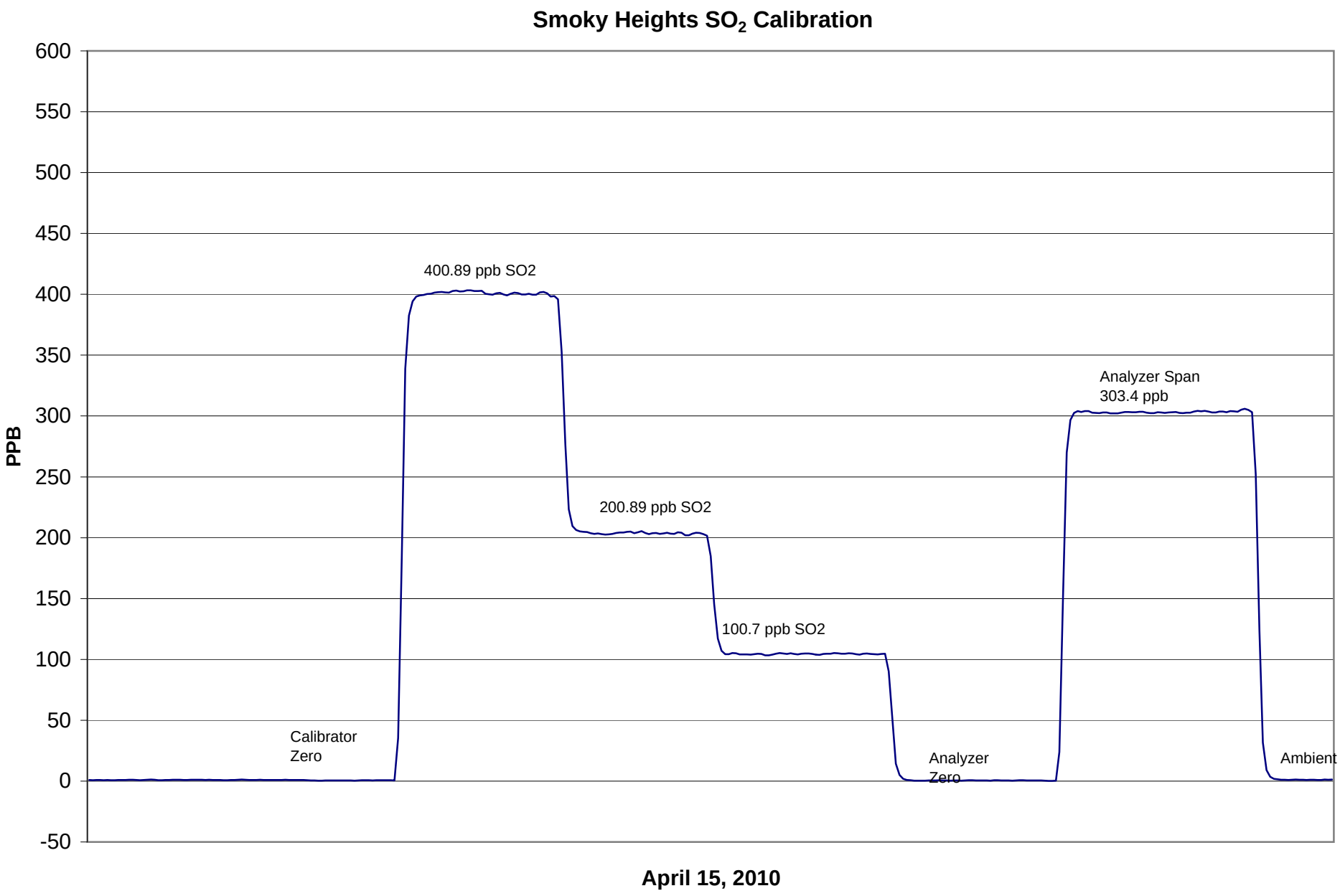
Station Information

Calibration Date	April 15, 2010	Previous Calibration	March 19, 2010
Station Number	3	Station Location	Smoky Heights
Start Time (MST)	9:00	End Time (MST)	11:51
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	0.6	N/A		
400.9	401.3	0.9990	Correlation Coefficient	0.999910
200.9	203.7	0.9864		
100.7	104.6	0.9631	Slope	1.002682
			Intercept	-2.387369




Smoky Heights SO_2 Calibration
600
550
500
450
400
350
300
250
200
150
100
50
0
-50
PPB
400.89 ppb SO2
200.89 ppb SO2
100.7 ppb SO2
Analyzer Span
303.4 ppb
Calibrator
Zero
Analyzer
Zero
Ambient
April 15, 2010

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **TRS**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	April 15, 2010	Previous Calibration	March 19, 2010
Station Number	3	Station Location	Smoky Heights
Reason: Routine	Install	Removal	Other:

Start Time (MST)	11:06	End Time (MST)	13:31
Barometric Pressure	0.933 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	5.15 ppm	Cal Gas Expiry Date	4/2/2009
Correction factor	0.031715	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	1.000724	Calculated slope	1.013169
Calculated intercept	-0.357246	Calculated intercept	-0.057705

Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	13.3	ppb	13.7	ppb
coefficient	0.999		0.999	
Lamp Voltage	768	volts	768	volts
Chamber Temp	43.7	Deg C	43.6	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	508.9	mm Hg	508.6	mm Hg
Sample Flow	748	ccm	448	ccm
Lamp Intensity	32,266	mv	32,699	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4989	0.0	0.00	0.0	N/A
4989	79.77	81.05	79.9	1.0138
4989	39.85	40.81	40.5	1.0065
4989	9.93	10.23	10.2	1.0072
4989	0.0	0.00	0.0	As Found Zero
4989	79.77	81.05	79.9	As Found Span
			Average Correction Factor	1.0092

Calculated value of As Found Response: 79.69 ppm Percent Change of As Found: 1.7%

	before calibration		after calibration	
Auto zero	0.0	ppm	-0.2	ppm
Auto span	40.8	ppm	40.2	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **TRS**

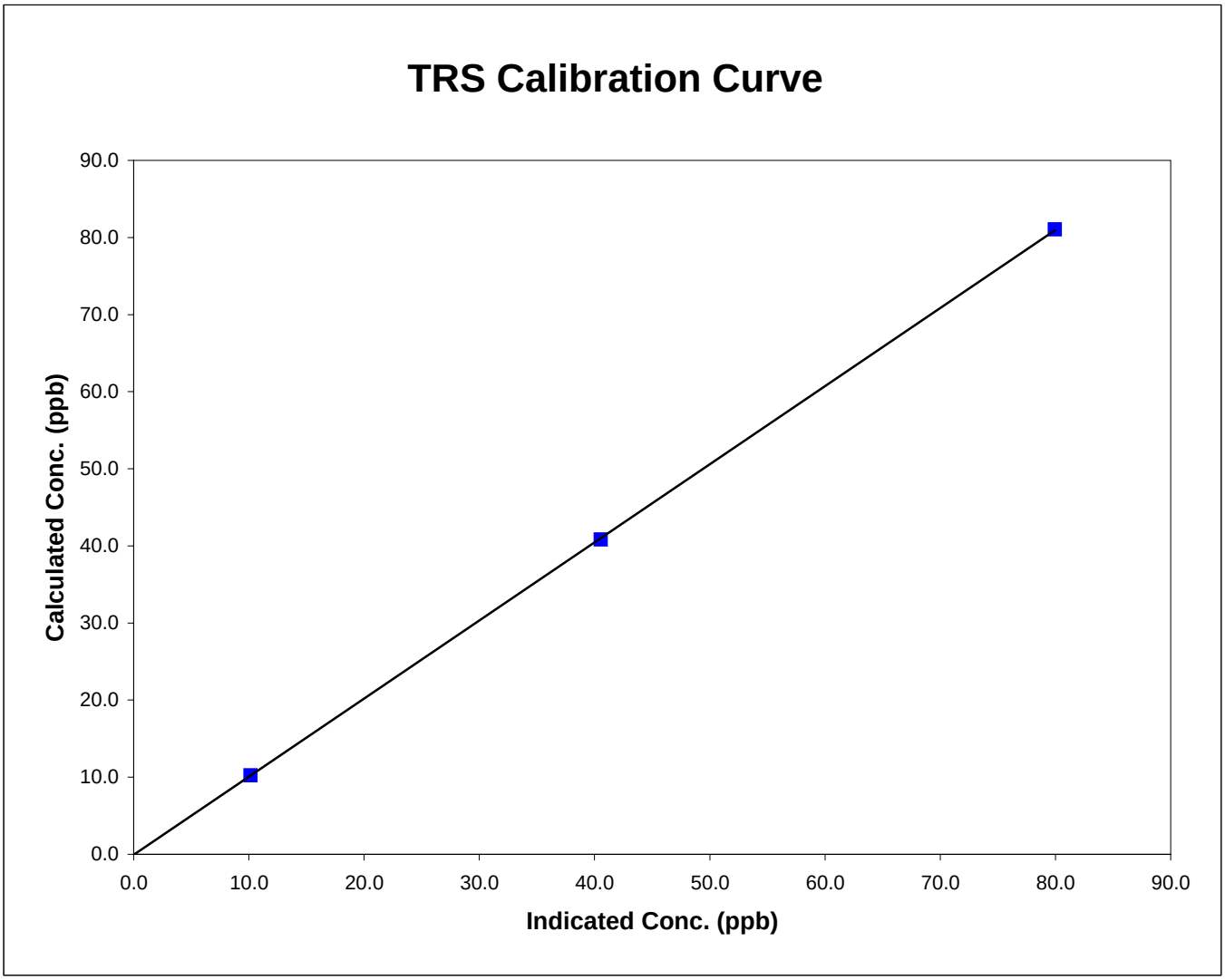
Air Monitoring Network **PASZA**

Station Information

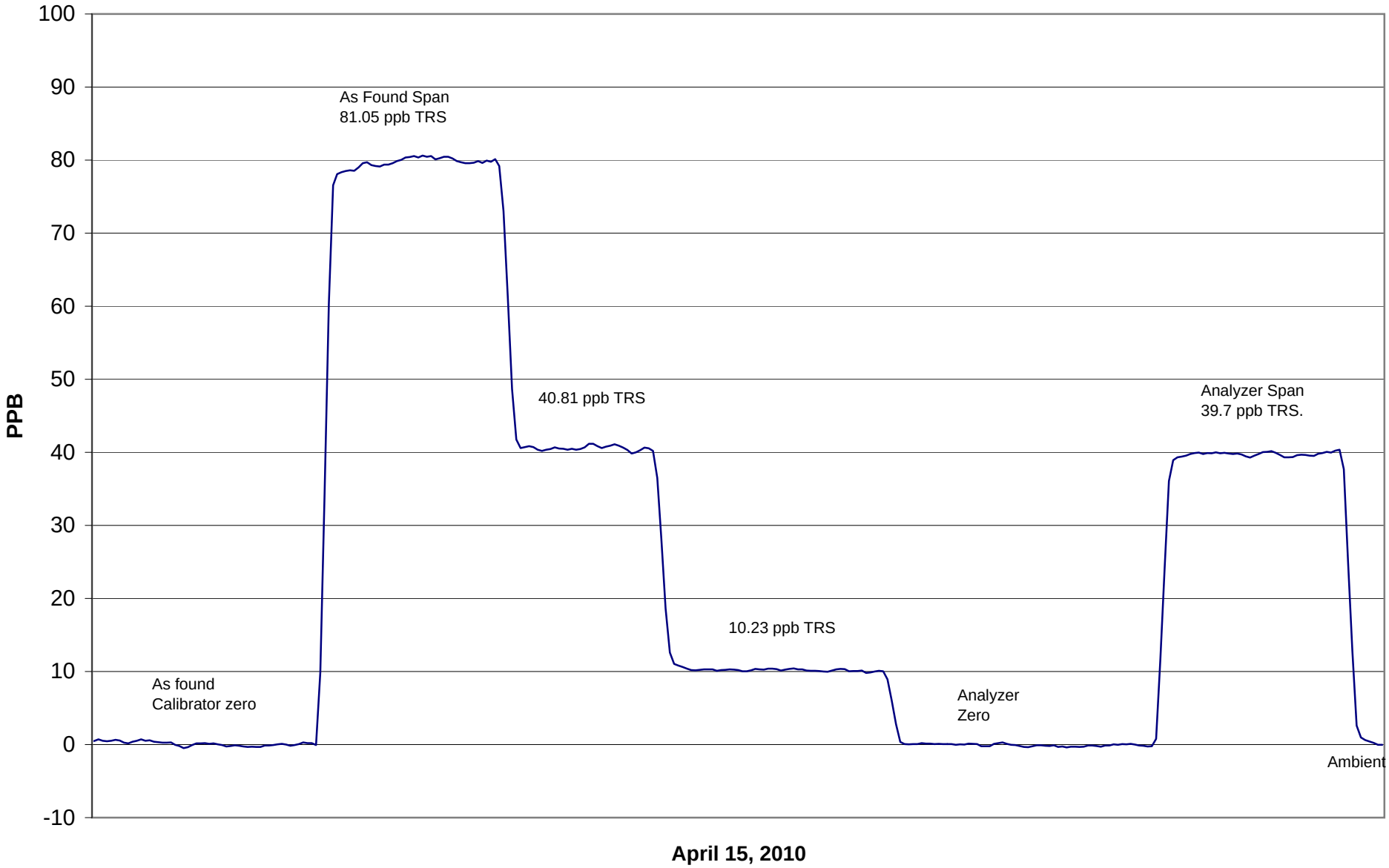
Calibration Date	April 15, 2010	Previous Calibration	March 19, 2010
Station Number	3	Station Location	Smoky Heights
Start Time (MST)	11:06	End Time (MST)	13:31
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
81.0	79.9	1.0138	Correlation Coefficient	0.999983
40.8	40.5	1.0065		
10.2	10.2	1.0072	Slope	1.013169
			Intercept	-0.057705



Smoky Heights TRS Calibration



AB TEOM PM2.5 Calibration

FOCUS AIR QUALITY MONITORING

STATION: **Smoky Heights**

LOCATION: PASZA - Grande Prairie

OPERATOR: Grover Christansen

DATE: 15-Apr-10

MONITOR INFO / PARAMETER VALUES:

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

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

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	19-Mar-10
Previous Calibration	NA

PUMP CAPACITY CHECK *	PASS

* capacity test or pump on timed test utilized to verify pump integrity

"FAIL" indicates that pump requires service.

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.000	0.030
PUMP OFF	0.000	0.002
NET	0.000	0.028
LIMITS	*<0.15*	*<0.60*

		Ambient Temp. (^{0}C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
	SET POINT (S)	na	na	12122	13.67	3.000
	INDICATED (I)	19.0	0.931		13.68	3.000
As Found Data	MEASURED (AF)	18.8	0.933		13.65	3.010
Adjusted Data	MEASURED (M)	18.8	0.933	12218	13.65	3.010
	DIFFERENCE (M-I)	-0.2	0.002	0.8%	-0.15	0.01
	LIMITS	*± 2 ^{0} C*	*± 0.005 atm*	*± 2.5 %*	*± 1.0 L/min*	*± 0.2 L/min*

Ko Audit Filter data *Weight:* 0.10814 *Serial #:* *CVK 3831*

COMMENTS: PASS

Sample Head Inspection/Cleaning:

PM10:Cleaned

PM2.5:Cleaned

Large In Line Filter Inspection & Or Replacement:

Main: Good

Aux: Good

Calibration Report

Parameter SO_2

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 12, 2010	Previous Calibration	March 11, 2010
Station Number	4	Station Location	Beaverlodge
Reason: Routine	Install	Removal	Other:
Start Time (MST)	10:50	End Time (MST)	15:20
Barometric Pressure	0.895 atm	Station Temperature	23.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	10.06 ppm	Cal Gas Expiry Date	7/27/2009
Gas Cert Reference	CC 114395		
DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 10 volt	DACS channel #	5
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.006617	Calculated slope	0.994833
Calculated intercept	-0.381235	Calculated intercept	-0.326546
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.52		2.59	
Coefficient	0.886		0.886	
PMT	-812.9	V	-812.5	V
UV Lamp Voltage	1072	V	1073	V
Chamber Temp	44.9	Deg C	45	Deg C
Pressure	667	mm Hg	661.9	mm Hg
Sample Flow	0.498	LPM	0.494	LPM
Lamp Intesity	86%	%	84%	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4988	0.00	0.0	0.0	N/A
4988	39.82	79.7	80.2	0.9933
4988	19.90	40.0	40.7	0.9815
4988	9.93	20.0	20.8	0.9622
4988	0.00	0.0	0.1	As found zero
4988	39.82	79.7	80.2	As found span
			Average Correction Factor	0.9790

Calculated value of As Found Response: 80.253 ppm Percent Change of As Found: -0.7%

	before calibration		after calibration	
Auto zero	-0.3	ppb	-0.3	ppb
Auto span	57.8	ppb	56.9	ppb

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

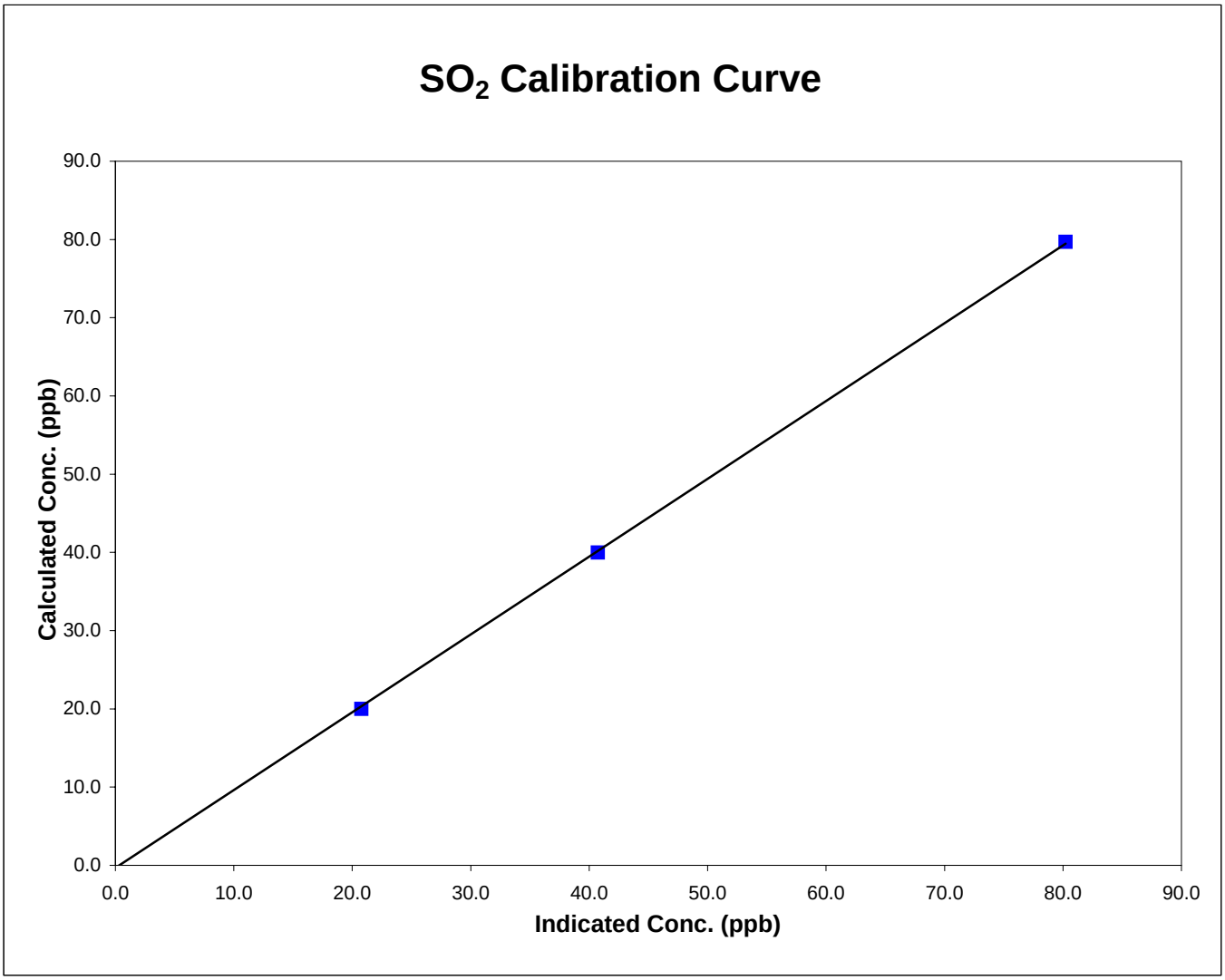
FOCUS AIR QUALITY MONITORING

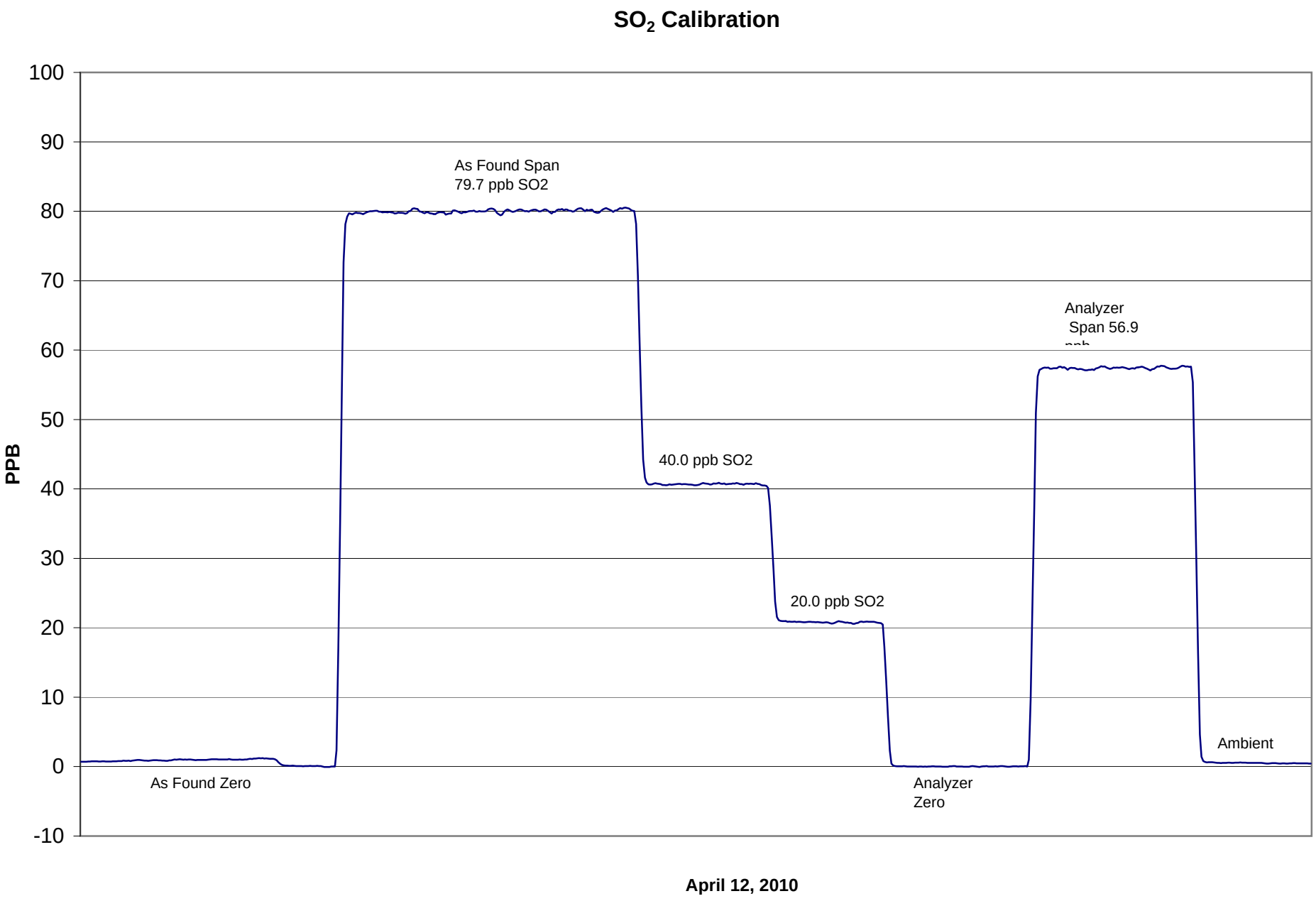
Station Information

Calibration Date	April 12, 2010	Previous Calibration	March 11, 2010
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	10:50	End Time (MST)	15:20
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
79.7	80.2	0.9933	Correlation Coefficient	0.999901
40.0	40.7	0.9815		
20.0	20.8	0.9622	Slope	0.994833
			Intercept	-0.326546




SO2 Calibration
100
90
80
70
60
50
40
30
20
10
0
-10
PPB
As Found Span
79.7 ppb SO2
40.0 ppb SO2
20.0 ppb SO2
Analyzer
Span 56.9
As Found Zero
Analyzer
Zero
Ambient
April 12, 2010

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 12, 2010	Previous Calibration	March 11, 2010
Station Number	4	Station Location	BeaverLodge

Reason: **Routine** Installation Removal Other:

Start Time (MST)	10:50		End Time (MST)	16:04	
Barometric Pressure	0.895	Atm	Station Temperature	20.0	Deg C
Calibrator	Environics		Serial Number	2844	
NO Cal Gas Conc	50.1	ppm	Cal Gas Expiry Date		
NOx Cal Gas Conc	50.2	ppm	Cal Gas Serial #	CC-114395	

DACS Information

DACS make: AP1000 DACS serial No.:

Parameter		NO2	NOx	NO
Before	Data Slope	0.992986	1.002768	1.002528
	Data Offset	0.233535	-2.018454	-1.115244
After	Data Slope	0.991968	1.002560	1.003800
	Data Offset	-0.462201	-2.288247	-1.228742
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

Analyzer Information

Analyzer make/model: TEI 42i Analyzer serial #: 906535068

Test Point	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
NO offset	2.4	mV	2.3	mV
NOx bkgnd	2.8	mV	2.6	mV
NO coefficient	1.494		1.371	
NOx coefficient	0.993		0.994	
NO2 conv temp	326.8	Deg C	326.8	Deg C
PMT Temp	-3.0	Deg C	-3.0	Deg C
PMT Volt	-676.4	mV	-676.0	mV
R Cell Press	199.5	in Hg	176.8	in Hg
Sample Flow	0.688	ccm	0.768	ccm

Notes: As found span showing 360 ppb for both NO & Nox. Drop back to zero and repair slight leak at pump carbon cannister.
Flow before 688 - flow after 786. Re-zero analyzer & climb up to 80% point & adj analyzer span.

Calibration Report

Parameter **NOX-NO-NO2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: April 12, 2010 Station Location: BeaverLodge

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4989	0.00	0.0	0.0	0.0	0.0	-0.1	-0.2	N/A	N/A
1	4988	39.82	397.6	396.8	0.8	397.6	395.7	0.4	1.0000	1.0027
2	4988	19.90	199.5	199.1	0.4	202.6	200.5	1.6	0.9846	0.9927
3	4988	9.93	99.7	99.5	0.2	104.0	101.5	2.1	0.9588	0.9811
AFZ	4988	0.00	0.0	0.0	0.0	0.0	-0.1	-0.2	0.0000	0.0000
AFS	4988	39.84	397.8	397.0	0.8	358.5	357.0	0.2	1.1095	1.1121
							Average Correction Factor		0.9811	0.9921

As Found Concentrations: NO_X= 356.6 NO= 355.9 As Found Percent Change NO_X= -10.4% NO= -10.3%

GPT Calibration Data

Dilution Flow 4989 ccm Source Gas Flow 39.84 ccm

O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	-0.1	-0.1	0.0	0.0	-0.1	-0.2	N/A	N/A	N/A	N/A
NO point	396.0	396.0	0.0	397.5	396.0	0.0	0.9963	1.0000	N/A	N/A
300	396.0	110.1	285.9	399.2	110.1	288.2	0.9919	1.0000	0.9920	100.8%
200	396.0	203.4	192.6	399.1	203.4	194.8	0.9923	1.0000	0.9888	101.1%
100	396.0	295.0	101.0	399.1	295.0	103.3	0.9921	1.0000	0.9775	102.3%
					Average Correction Factor		0.9921	1.0000	0.9861	101.4%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.2	-0.3	-0.2	ppb	0.2	0.0	-0.1	ppb
Auto span	175.3	173.3	2.1	ppb	216.8	215.2	1.4	ppb

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

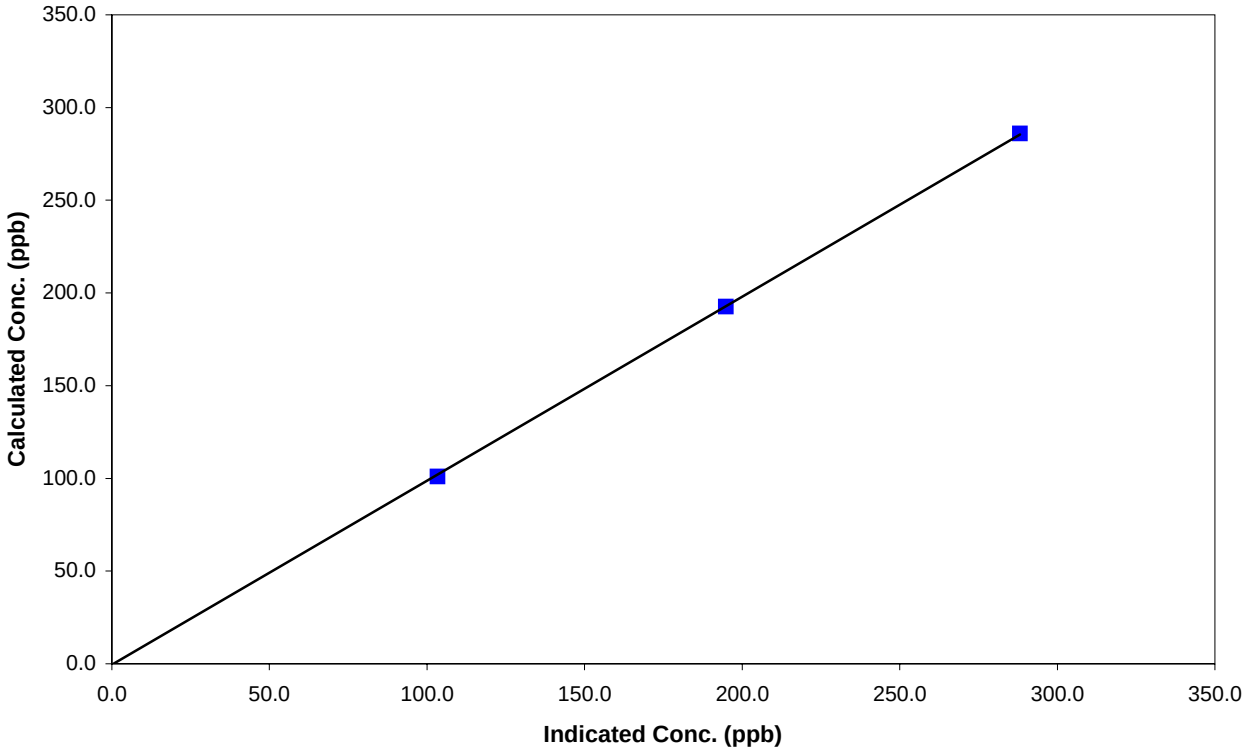
Station Information

Calibration Date	April 12, 2010	Previous Calibration	March 11, 2010
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	10:50	End Time (MST)	16:04
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
285.9	288.2	0.9920	Correlation Coefficient	0.999960
192.6	194.8	0.9888		
101.0	103.3	0.9775	Slope	0.991968
			Intercept	-0.462201

NO_2 Calibration Curve



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

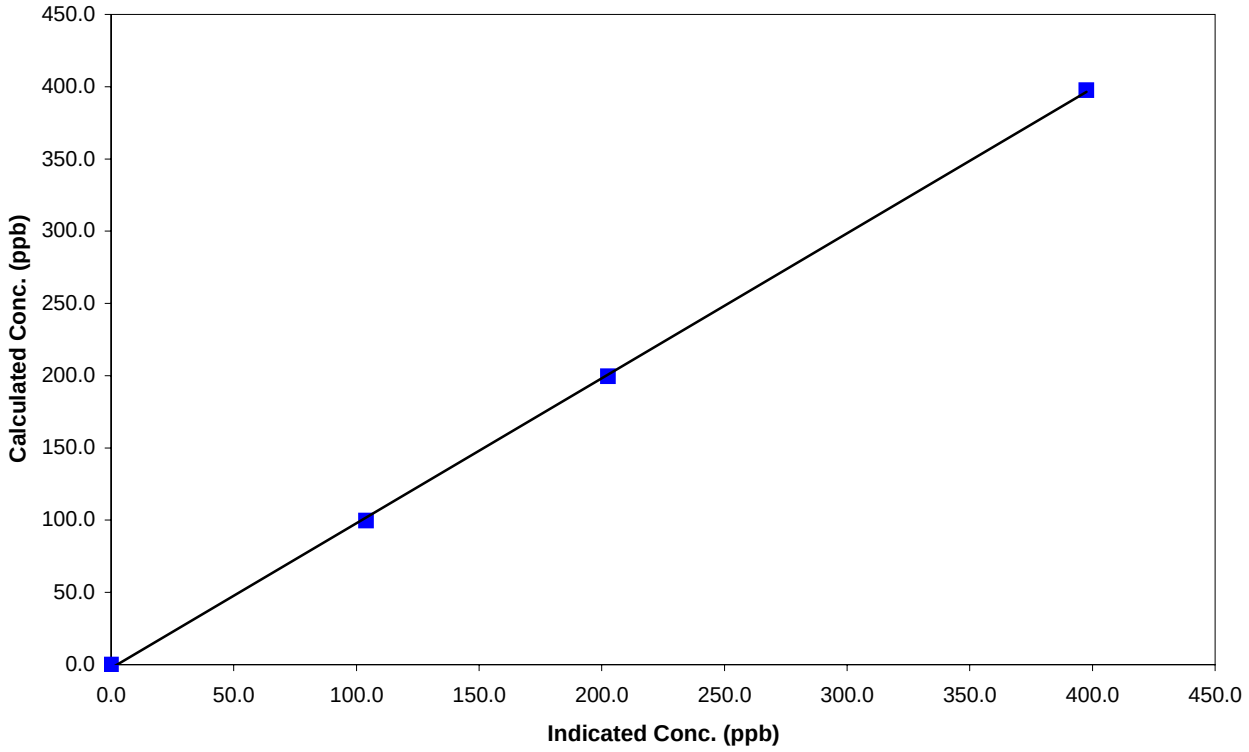
Station Information

Calibration Date	April 12, 2010	Previous Calibration	March 11, 2010
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	10:50	End Time (MST)	16:04
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
397.6	397.6	1.0000	Correlation Coefficient	0.999838
199.5	202.6	0.9846		
99.7	104.0	0.9588	Slope	1.002560
			Intercept	-2.288247

NO_x Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PASZA**

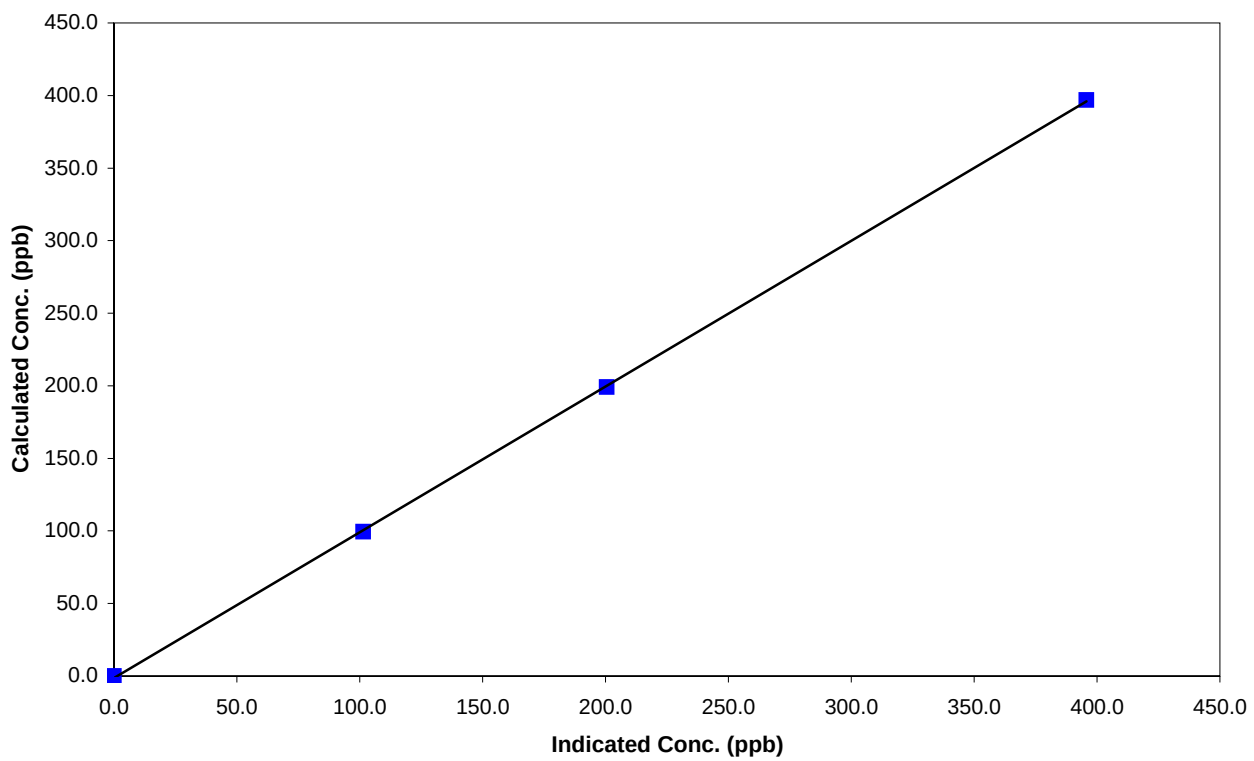
Station Information

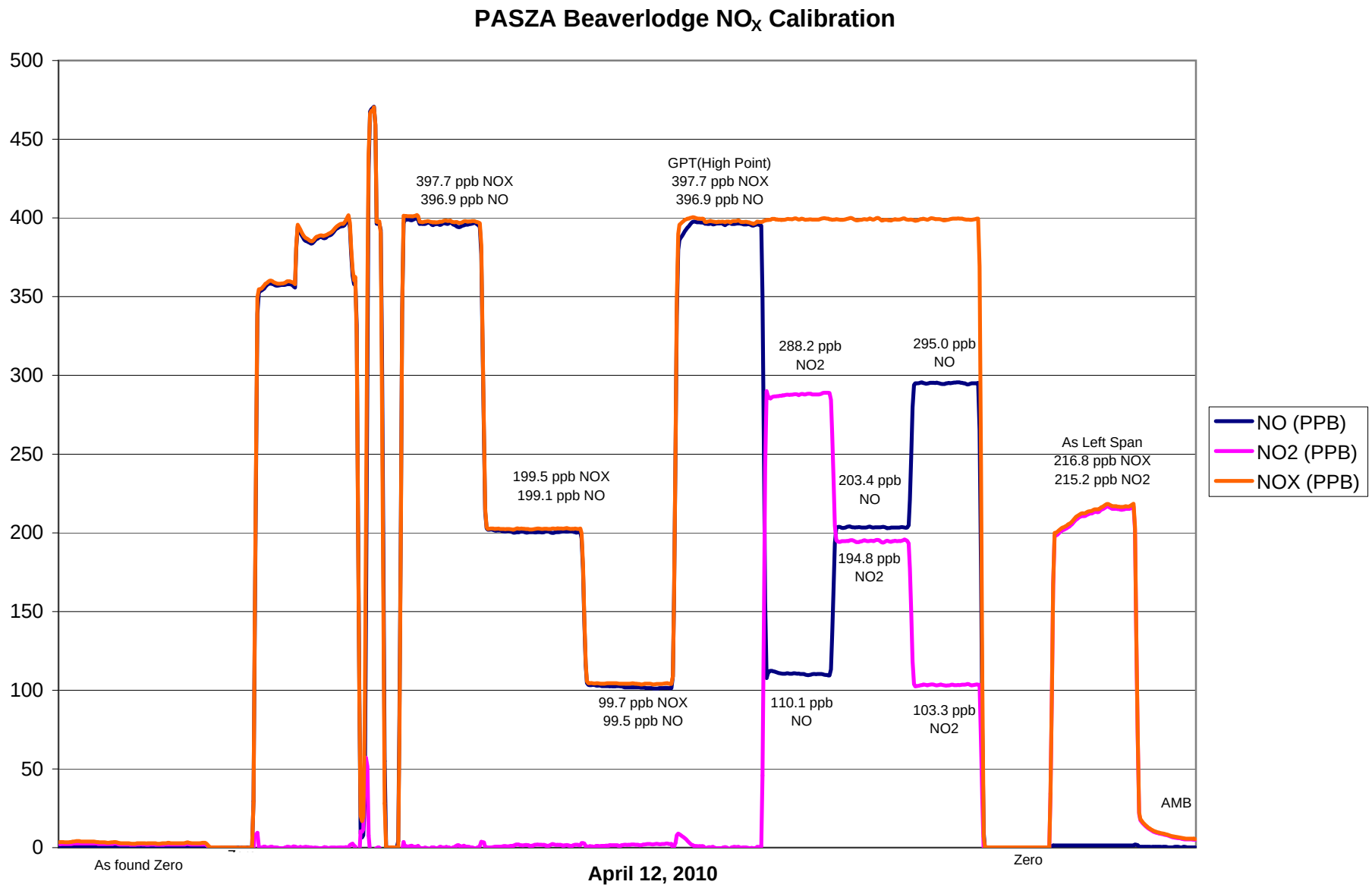
Calibration Date	April 12, 2010	Previous Calibration	March 11, 2010
Station Number	4	Station Location	BeaverLodge
Start Time (MST)	10:50	End Time (MST)	16:04
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
396.8	395.7	1.0027	Correlation Coefficient	0.999948
199.1	200.5	0.9927		
99.5	101.5	0.9811	Slope	1.003800
			Intercept	-1.228742

NO Calibration Curve




PASZA Beaverlodge NOX Calibration
500
450
400
350
300
250
200
150
100
50
0
397.7 ppb NOX
396.9 ppb NO
GPT(High Point)
397.7 ppb NOX
396.9 ppb NO
288.2 ppb
NO2
295.0 ppb
NO
199.5 ppb NOX
199.1 ppb NO
203.4 ppb
NO
194.8 ppb
NO2
As Left Span
216.8 ppb NOX
215.2 ppb NO2
99.7 ppb NOX
99.5 ppb NO
110.1 ppb
NO
103.3 ppb
NO2
AMB
As found Zero
Zero
April 12, 2010
NO (PPB)
NO2 (PPB)
NOX (PPB)

Calibration Report

FOCUS
AIR QUALITY MONITORING

Parameter O_3

Air Monitoring Network **PASZA**

Station Information

Calibration Date	April 12, 2010	Previous Calibration	March 11, 2010
Station Number	4	Station Location	Beaverlodge
Reason: Routine	Install	Removal	Other:
Start Time (MST)	14:00	End Time (MST)	17:36
Barometric Pressure	0.915 atm	Station Temperature	21.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	0.988693	Calculated slope	1.017875
Calculated intercept	1.054957	Calculated intercept	0.394900
Analyzer make	Teco 49C	Analyzer serial #	49C-76443-383

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.70	ppb	-0.70	ppb
slope	1.026		1.026	
Lamp temp	56.5	mV	56.5	mV
Lamp Intensity A/B	70041 / 69609	mV	70333 / 69833	mV
Pressure	649.5	mm Hg	660.3	mm Hg
Flow A	684	ccm	687	ccm
Flow B	638	ccm	636	ccm

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4990	0.00	0.0	-0.4	N/A
4990	0.00	285.9	280.5	1.0191
4990	0.00	192.6	188.7	1.0207
4990	0.00	101.0	98.9	1.0208
4990	0.00	0.0	0.1	As found zero
4990	0.00	285.9	280.6	As found span
			Average Correction Factor	1.0202

Calculated value of As Found Response: 278.4 ppm Percent Change of As Found: -2.6%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.3	ppb
Auto span	114.3	ppb	123.7	ppb

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **O3**

Air Monitoring Network **PASZA**

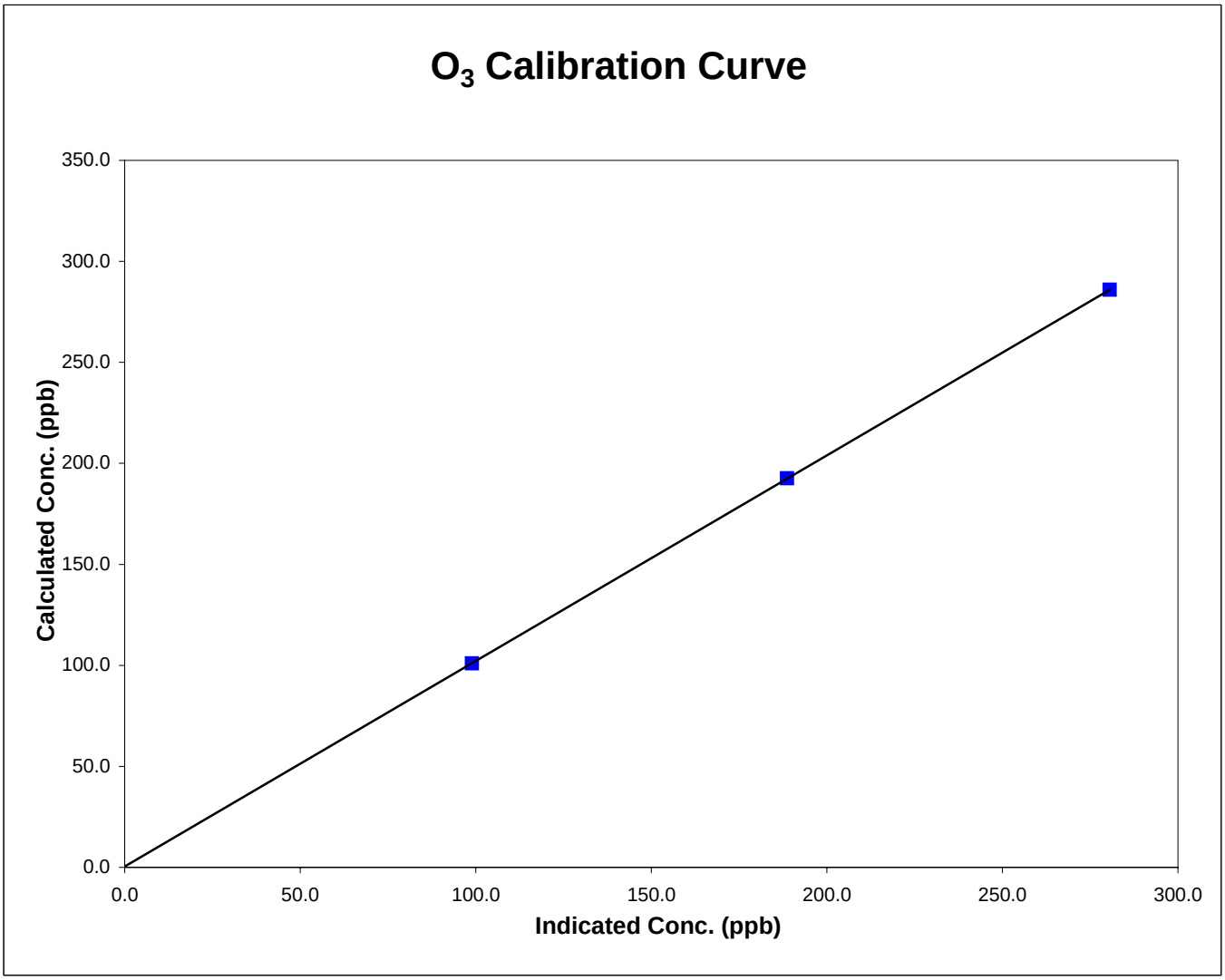
FOCUS AIR QUALITY MONITORING

Station Information

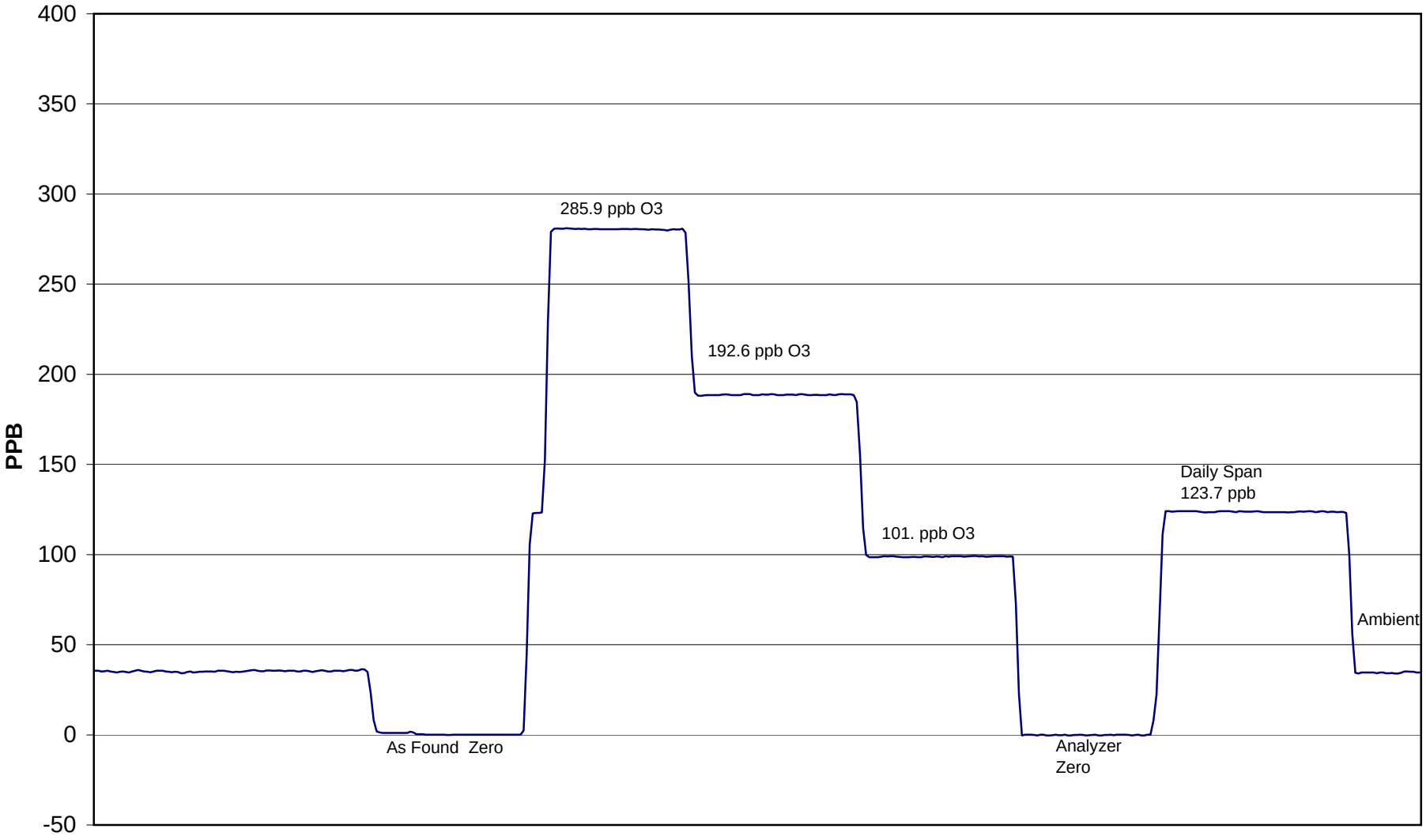
Calibration Date	April 12, 2010	Previous Calibration	March 11, 2010
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	14:00	End Time (MST)	17:36
Analyzer make/model	Teco 49C	Analyzer serial #	49C-76443-383

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	NA		
285.9	280.5	1.0191	Correlation Coefficient	0.999999
192.6	188.7	1.0207		
101.0	98.9	1.0208	Slope	1.017875
			Intercept	0.394900



Beaverlodge O_3 Calibration



April 12, 2010

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **SO2**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	April 14, 2010	Previous Calibration	March 17, 2010
Station Number	9	Station Location	Rover - Kinuso
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	10:00	End Time (MST)	13:54
Barometric Pressure	27.66 inches Hg	Station Temperature	22.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentratior	50.6 ppm	Cal Gas Expiry Date	7/27/2009
Gas Cert Reference	LL 16161		
DACS make	Focus AP1000	DACS serial No.	52662
DACS voltage range	0 - 10 volt	DACS channel #	9
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.997858	Calculated slope	1.001160
Calculated intercept	-1.375687	Calculated intercept	0.232411
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	8.6		8.8	
Coefficient	0.874		0.889	
UV Lamp Voltage	804	V	802	V
Chamber Temp	44.6	C	44.5	C
Perm Gas Temp	45	C	45	C
Pressure	679.2	mm Hg	676.6	mm Hg
Sample Flow	0.49	LPM	0.489	LPM
Lamp Intesity	47893	Hz	47945	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4989	0.00	0.0	0.3	N/A
4989	39.84	400.9	400.4	1.0011
4989	19.90	201.0	200.2	1.0039
4988	9.93	100.5	99.7	1.0083
4989	0.00	0.0	0.3	As found zero
4989	39.84	400.9	392.4	As found span
			Average Correction Factor	1.0044

Calculated value of As Found Response: 389.945 ppm Percent Change of As Found: 2.7%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	256.9	ppm	260.2	ppm

Notes:

Calibration Performed By: Brad Moyles

Calibration Summary

Parameter **SO2**

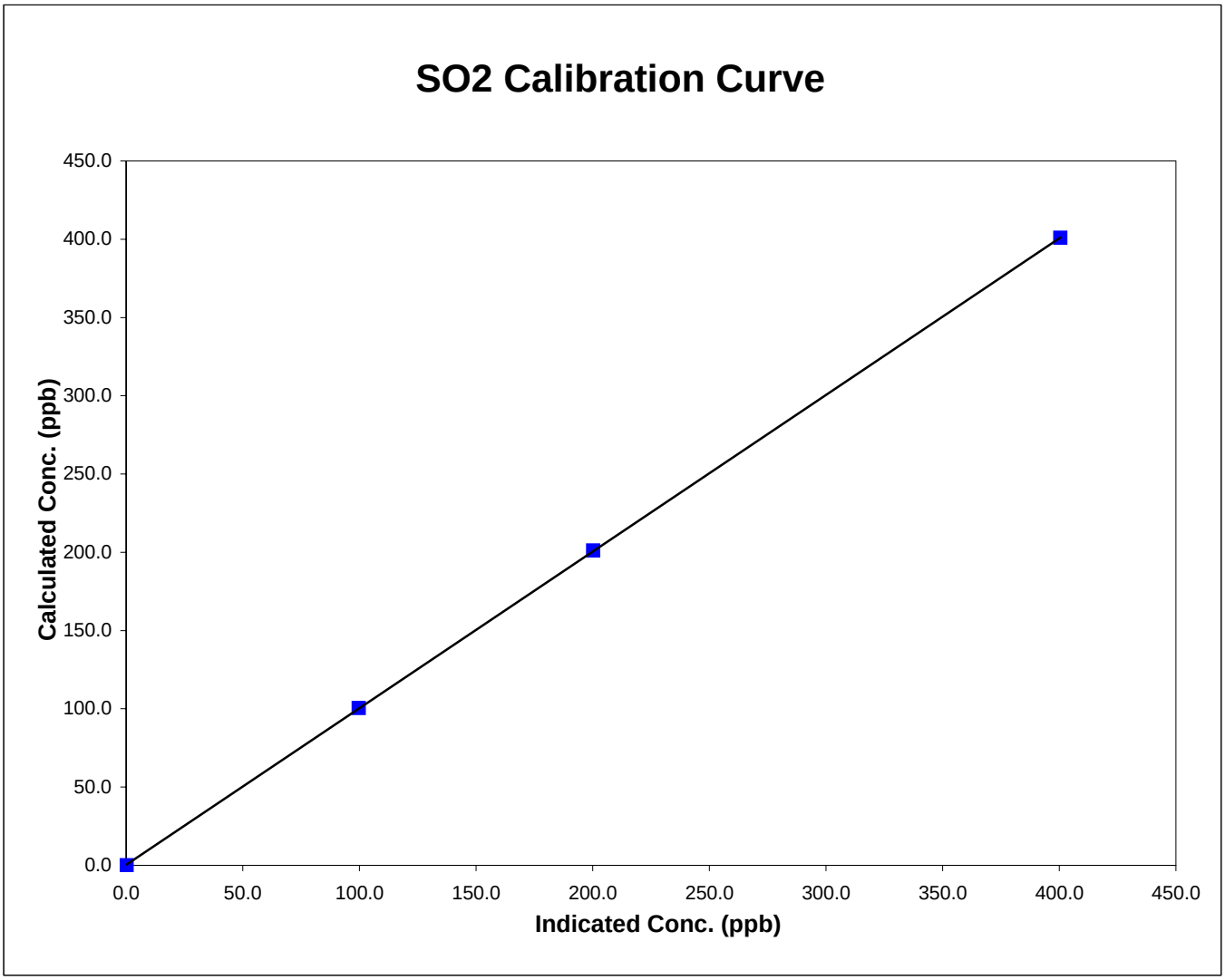
Air Monitoring Network **PASZA**

Station Information

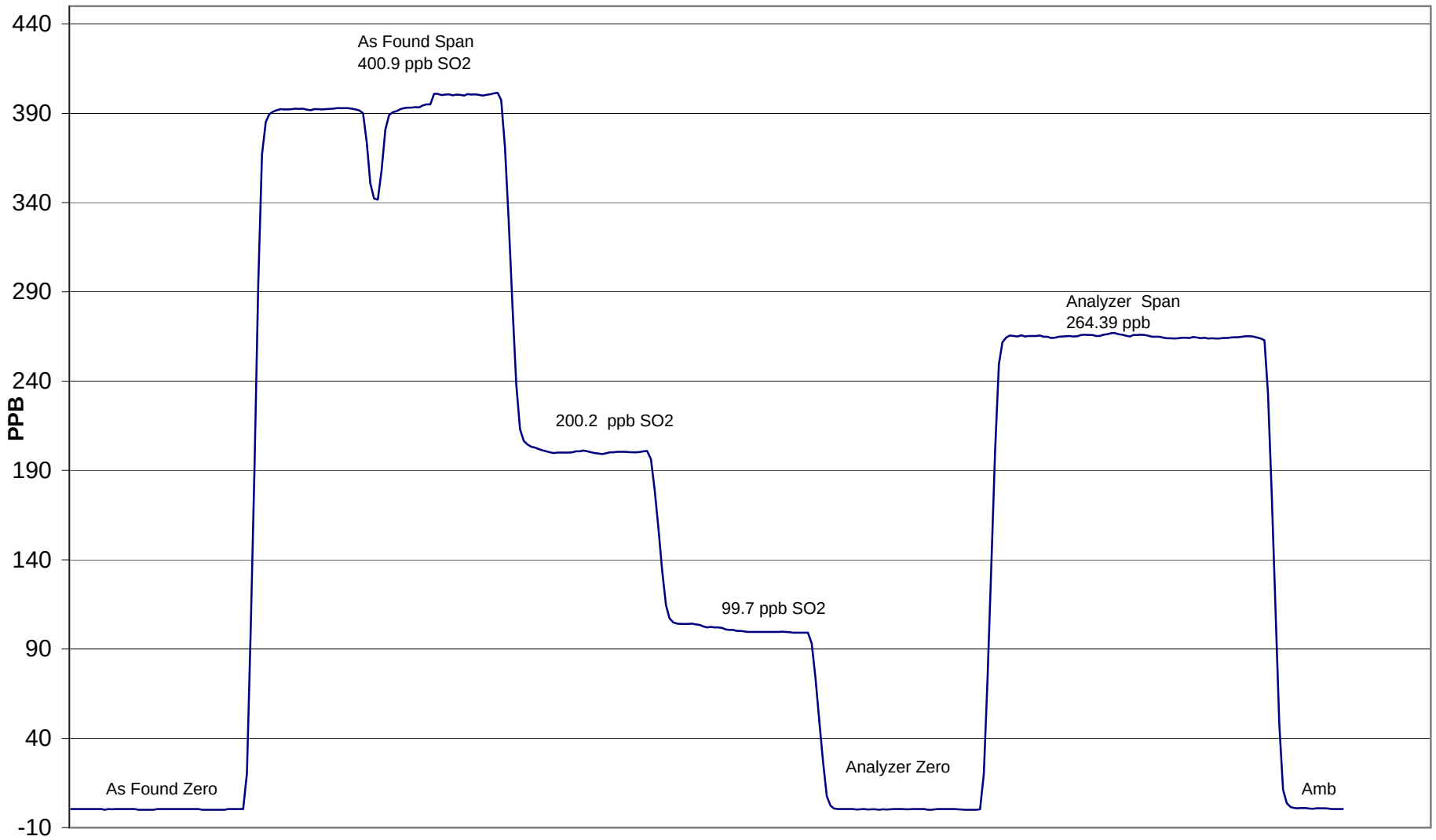
Calibration Date	April 14, 2010	Previous Calibration	March 17, 2010
Station Number	9	Station Location	Rover - Kinuso
Start Time (MST)	10:00	End Time (MST)	13:54
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
400.9	400.4	1.0011	Correlation Coefficient	0.999992
201.0	200.2	1.0039		
100.5	99.7	1.0083	Slope	1.001160
			Intercept	0.232411



Kinuso SO_2 Calibration



April 14, 2010

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **TRS**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	April 14, 2010	Previous Calibration	March 16, 2010
Station Number	9	Station Location	Rover-Kinuso
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	14:53	End Time (MST)	15:59
Barometric Pressure	27.5 inches Hg	Station Temperature	21.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	5.15 ppm	Cal Gas Expiry Date	11/15/2005
Gas Cert Reference	ALM013295		
DACS make	Focus AP1000	DACS serial No.	52662
DACS voltage range	0 - 5 volt	DACS channel #	8
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.004459	Calculated slope	0.997144
Calculated intercept	0.182172	Calculated intercept	0.595238
Analyzer make	TEI 43C	Analyzer serial #	609716238

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	10.2	ppb	10.2	ppb
Coefficient	1.384		1.375	
Lamp Voltage	793	V	785	V
Chamber Temp	43.8	C	43.7	C
Perm gas Temp	45	C	45	C
Pressure	664	mmHg	663	mmHg
Sample Flow	430	ccm	0.430	ccm
Lamp Intensity	38818.0	Hz	39468.0	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	79.75	81.0	80.9	1.0018
4988	39.80	40.8	39.9	1.0229
4988	9.93	10.2	9.6	1.0638
4988	0.00	0.0	-0.3	As found zero
4988	79.88	81.2	80.9	As found span
			Average Correction Factor	1.0295

Calculated value of As Found Response: 81.77 ppm Percent Change of As Found: -0.7%

	before calibration		after calibration	
Auto zero	-0.6	ppm	0.3	ppm
Auto span	64.8	ppm	65.7	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **TRS**

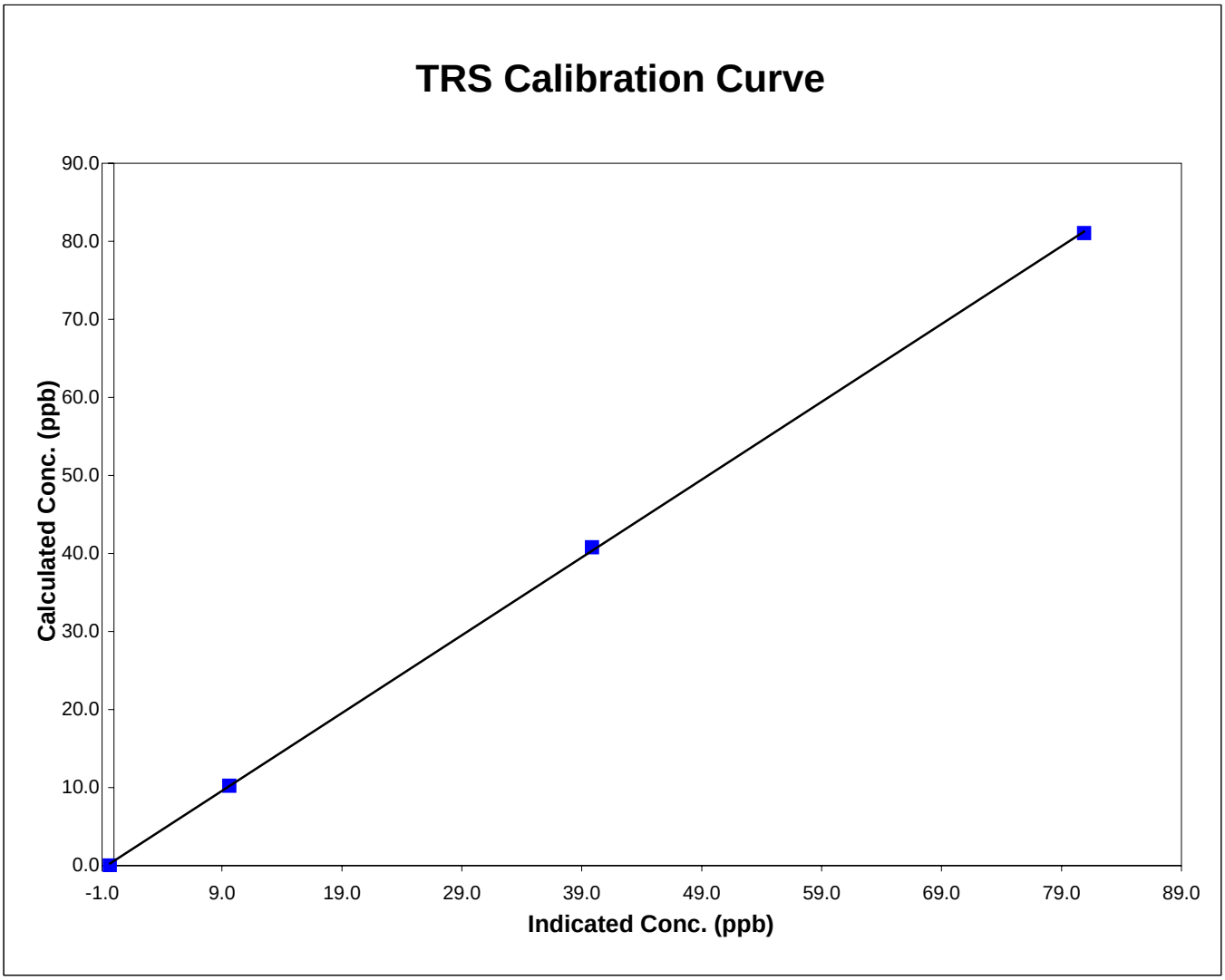
Air Monitoring Network **PASZA**

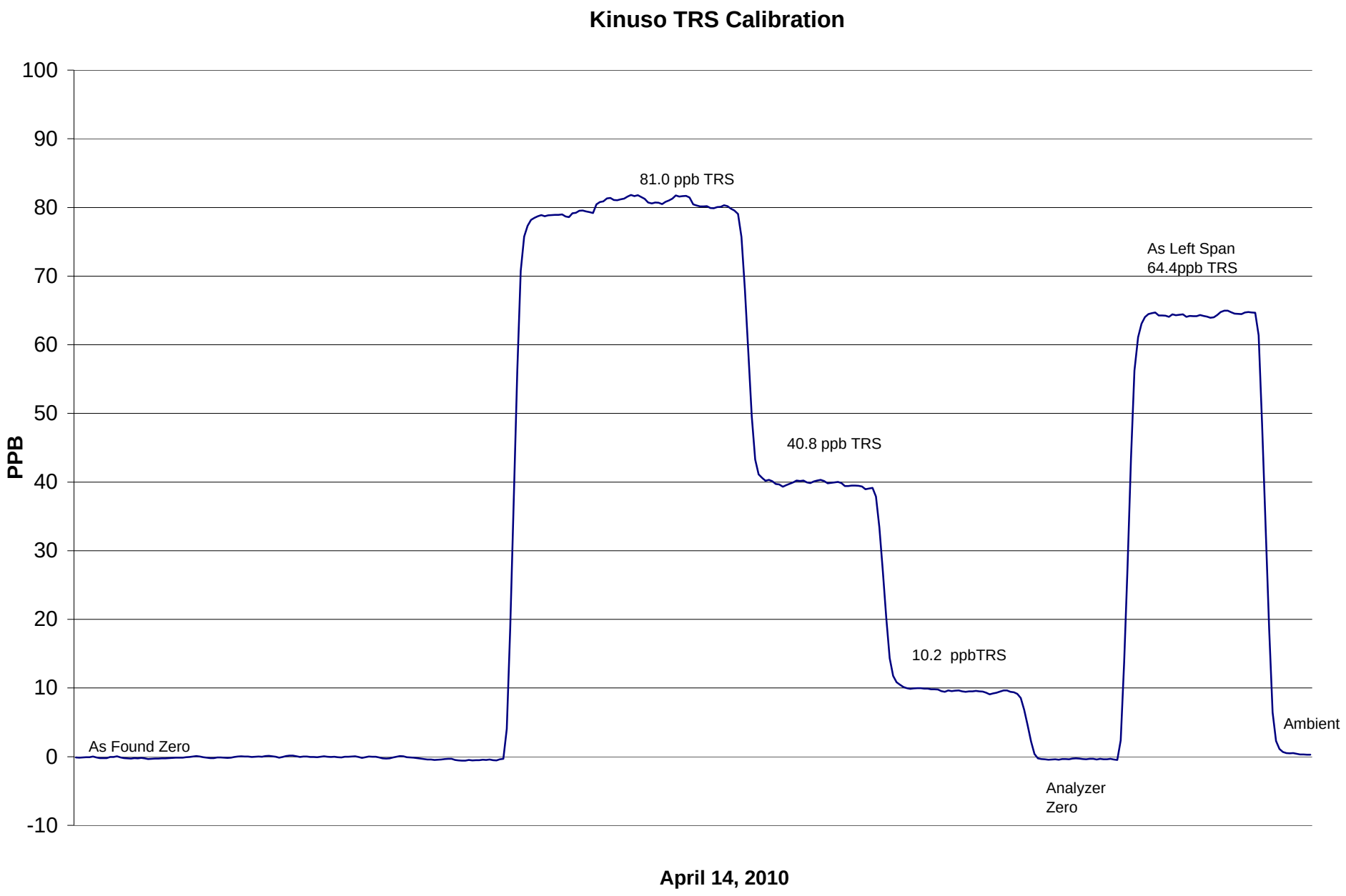
Station Information

Calibration Date	April 14, 2010	Previous Calibration	March 16, 2010
Station Number	9	Station Location	Rover-Kinuso
Start Time (MST)	14:53	End Time (MST)	15:59
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		
81.0	80.9	1.0018	Correlation Coefficient	0.999924
40.8	39.9	1.0229		
10.2	9.6	1.0638	Slope	0.997144
			Intercept	0.595238




Kinuso TRS Calibration
100
90
80
70
60
50
40
30
20
10
0
-10
PPB
81.0 ppb TRS
As Left Span
64.4ppb TRS
40.8 ppb TRS
10.2 ppbTRS
Ambient
As Found Zero
Analyzer
Zero
April 14, 2010

Calibration Report

Parameter **NO_X-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 14, 2010	Previous Calibration	March 17, 2010
Station Number	9	Station Location	Rover Kinuso

Reason: Routine | Installation | Removal | Other:

Start Time (MST)	9:00		End Time (MST)	13:12	
Barometric Pressure	0.916	Atm	Station Temperature	25.0	Deg C
Calibrator	Environics 6100		Serial Number	3474	
NO Cal Gas Conc	49.6	ppm	Cal Gas Expiry Date	July 2, 2007	
NOx Cal Gas Conc	49.6	ppm	Cal Gas Serial #	CC114395	

DACS Information

DACS make	Focus AP1000	DACS serial No.	52662

Parameter		NO2	NOx	NO
Before	Data Slope	0.994530	0.996047	1.001808
	Data Offset	1.190516	-2.472890	-2.860770
After	Data Slope	1.000759	0.998007	1.003851
	Data Offset	1.507418	-2.380580	-2.852062
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	701120011

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	4.1	mV	4.4	mV
NOx bkgnd	4.2	mV	4.6	mV
NO coefficient	0.749		0.810	
NOx coefficient	0.998		1.001	
NO2 conv temp	323.4	Deg C	323.9	Deg C
PMT Temp	-2.9	Deg C	-3.1	Deg C
PMT Volt	-829.5	mV	-829.4	mV
R Cell Press	143.9	in Hg	147.8	in Hg
Sample Flow	0.562	ccm	0.549	ccm

Notes:

Calibration Report

Parameter **NOx-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: April 14, 2010 Station Location: Rover Kinuso

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4989	0.00	0.0	0.0	0.0	0.2	0.6	-1.6	N/A	N/A
1	4989	39.84	392.9	392.9	0.0	395.0	393.2	-1.1	0.9949	0.9995
2	4989	19.90	197.1	197.1	0.0	201.0	200.1	-0.9	0.9803	0.9846
3	4988	9.93	98.5	98.5	0.0	103.2	103.4	-0.8	0.9545	0.9535
AFZ	4989	0.00	0.0	0.0	0.0	0.2	0.6	-0.9	0.0000	0.0000
AFS	4989	39.85	393.0	393.0	0.0	377.9	376.0	-0.9	1.0400	1.0452
							Average Correction Factor		0.9766	0.9792

As Found Concentrations: NO_X= 375.2 NO= 372.6 As Found Percent Change NO_X= -4.5% NO= -5.2%

GPT Calibration Data

Dilution Flow 4988 ccm Source Gas Flow 39.84 ccm

O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	0.6	0.6	0.0	0.2	0.6	-1.6	N/A	N/A	N/A	N/A
NO point	393.3	393.3	0.0	395.5	393.3	-0.6	0.9945	1.0000	N/A	N/A
300	393.3	98.1	295.2	393.3	98.1	293.4	1.0001	1.0000	1.0062	99.4%
200	393.3	190.5	202.9	394.0	190.5	201.3	0.9983	1.0000	1.0079	99.2%
100	393.3	282.6	110.8	394.4	282.6	109.3	0.9973	1.0000	1.0136	98.7%
					Average Correction Factor		0.9986	1.0000	1.0092	99.1%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.4	-0.9	0.7	ppb	0.3	-0.8	0.7	ppb
Auto span	312.6	308.0	2.9	ppb	316.1	311.6	2.8	ppb

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

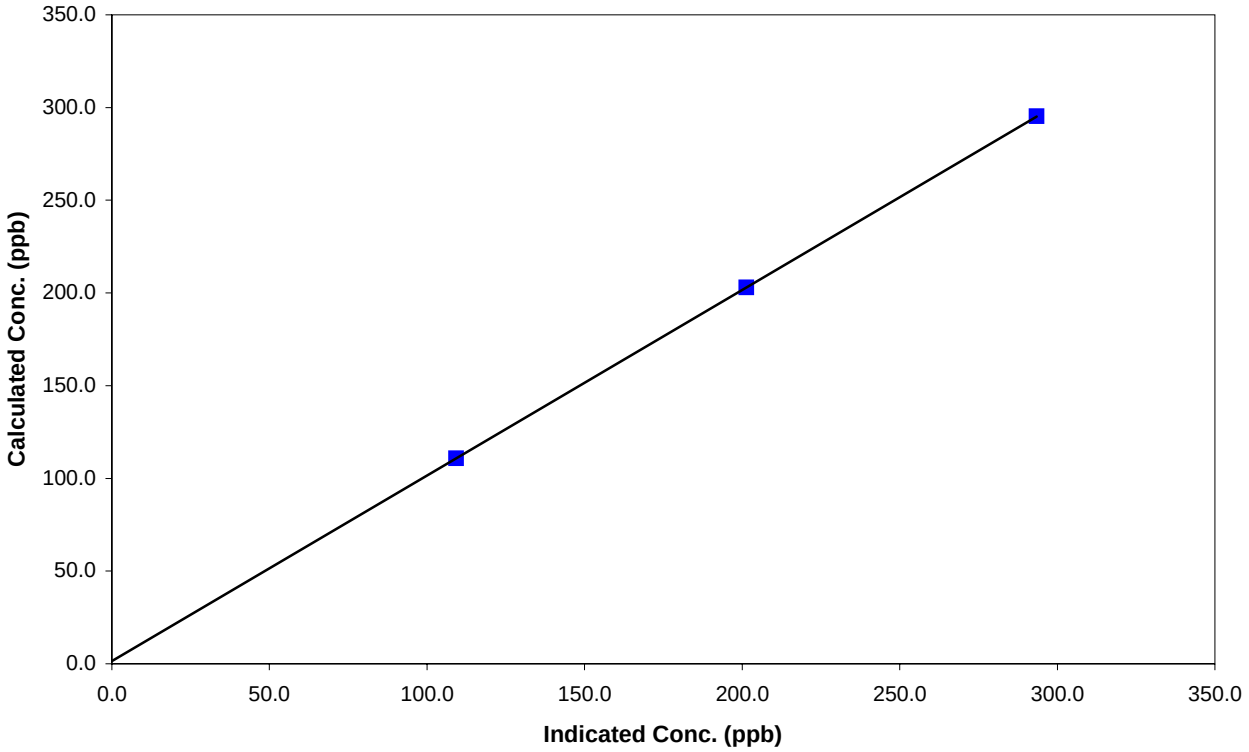
Station Information

Calibration Date	April 14, 2010	Previous Calibration	March 17, 2010
Station Number	9	Station Location	Rover Kinuso
Start Time (MST)	9:00	End Time (MST)	13:12
Analyzer make	TEI 42i	Analyzer serial #	701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-1.6	N/A		
295.2	293.4	1.0062	Correlation Coefficient	0.999999
202.9	201.3	1.0079		
110.8	109.3	1.0136	Slope	1.000759
			Intercept	1.507418

NO_2 Calibration Curve



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

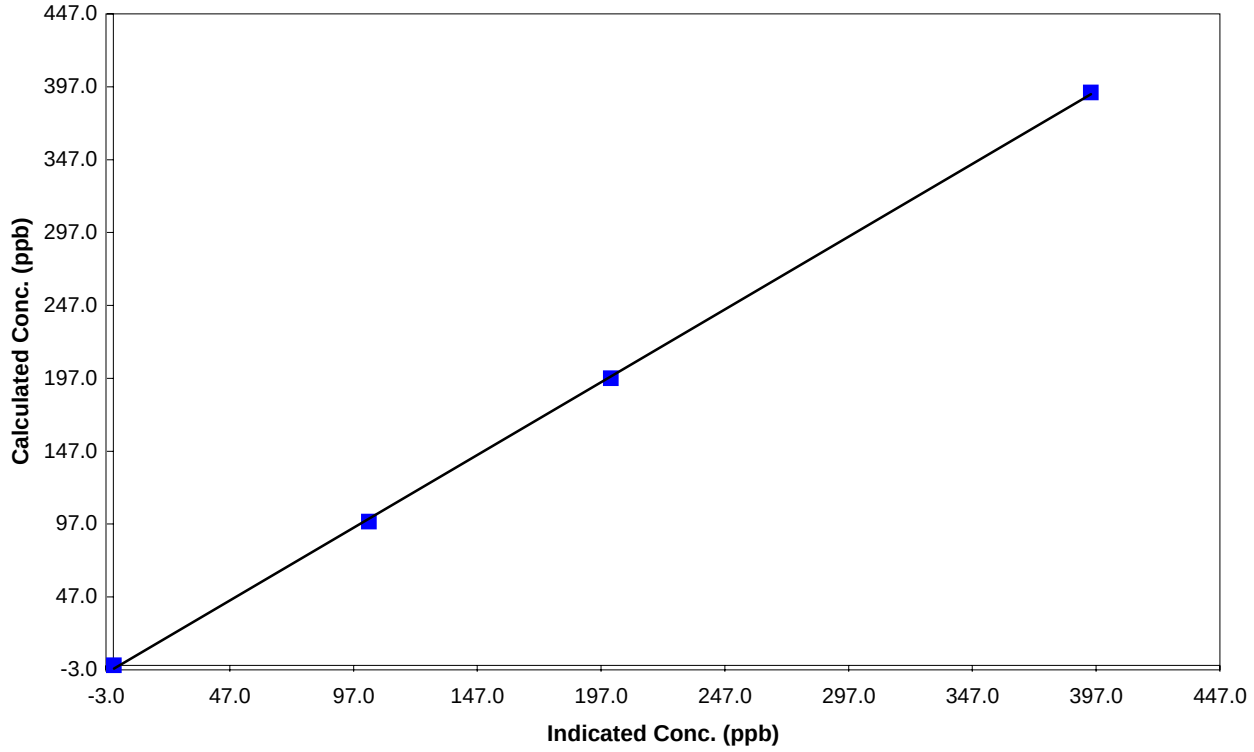
Station Information

Calibration Date	April 14, 2010	Previous Calibration	March 17, 2010
Station Number	9	Station Location	Rover Kinuso
Start Time (MST)	9:00	End Time (MST)	13:12
Analyzer make	TEI 42i	Analyzer serial #	701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	N/A		
392.9	395.0	0.9949	Correlation Coefficient	0.999861
197.1	201.0	0.9803		
98.5	103.2	0.9545	Slope	0.998007
			Intercept	-2.380580

NOx Calibration Curve



Calibration Summary

Parameter **NO**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

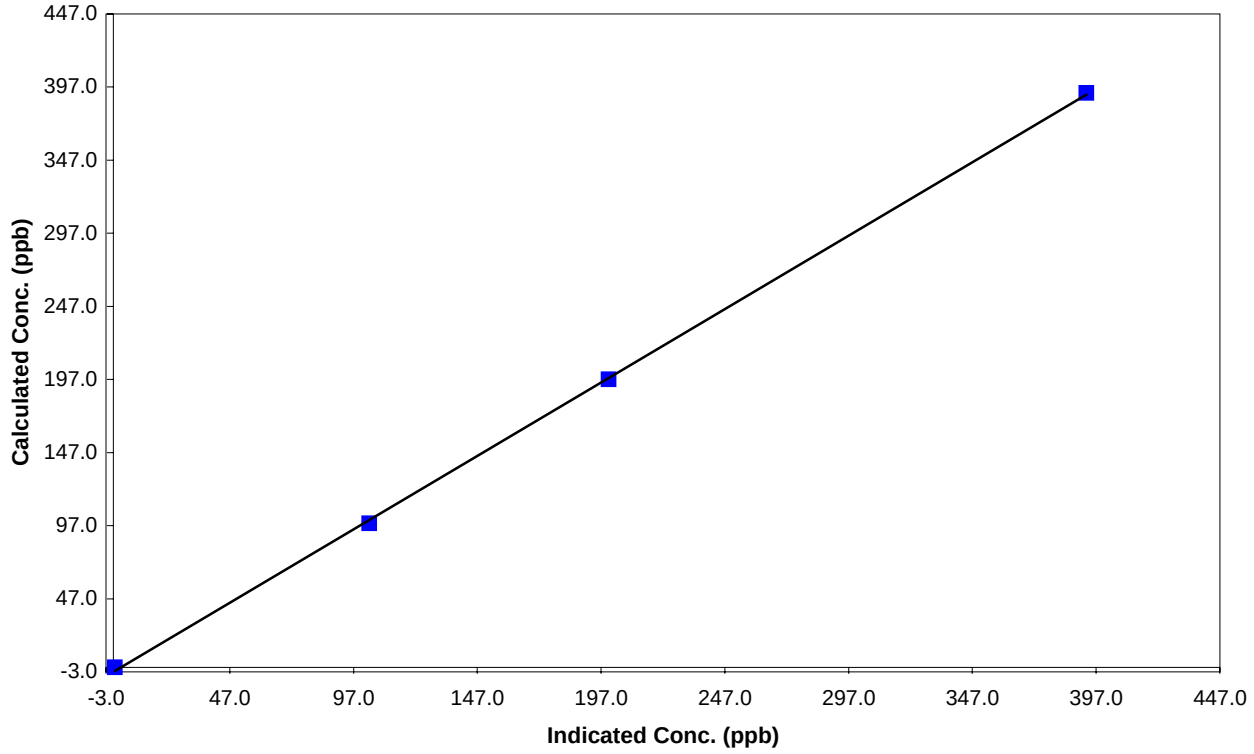
Station Information

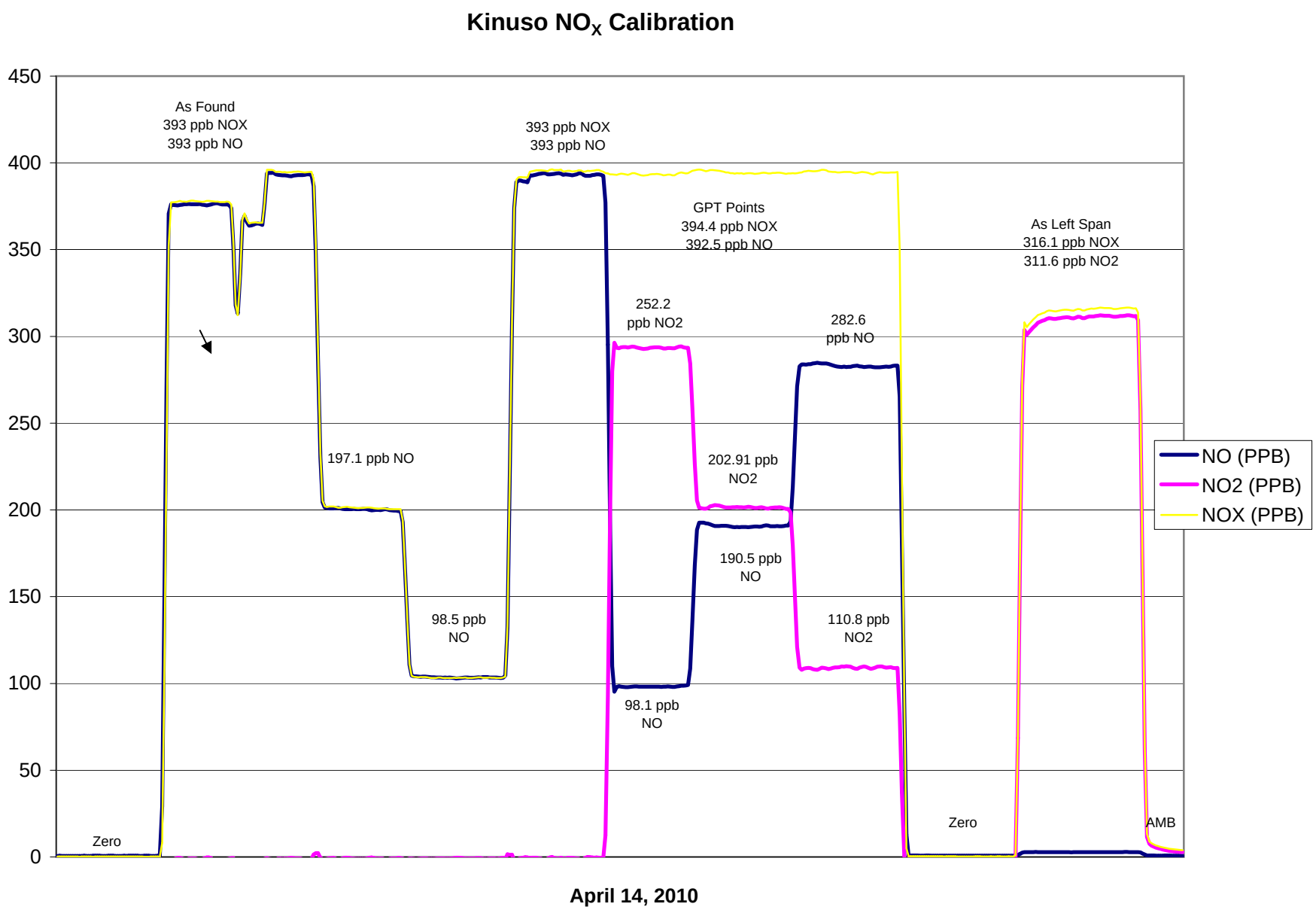
Calibration Date	April 14, 2010	Previous Calibration	March 17, 2010
Station Number	9	Station Location	Rover Kinuso
Start Time (MST)	9:00	End Time (MST)	13:12
Analyzer make	TEI 42i	Analyzer serial #	701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A		
392.9	393.2	0.9995	Correlation Coefficient	0.999848
197.1	200.1	0.9846		
98.5	103.4	0.9535	Slope	1.003851
			Intercept	-2.852062

NO Calibration Curve




Kinuso NOX Calibration
450
400
350
300
250
200
150
100
50
0
As Found
393 ppb NOX
393 ppb NO
393 ppb NOX
393 ppb NO
GPT Points
394.4 ppb NOX
392.5 ppb NO
As Left Span
316.1 ppb NOX
311.6 ppb NO2
252.2
ppb NO2
282.6
ppb NO
197.1 ppb NO
202.91 ppb
NO2
190.5 ppb
NO
98.5 ppb
NO
110.8 ppb
NO2
98.1 ppb
NO
Zero
Zero
AMB
NO (PPB)
NO2 (PPB)
NOX (PPB)
April 14, 2010

Calibration Report

FOCUS
AIR QUALITY MONITORING

Parameter **O3**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	April 14, 2010	Previous Calibration	March 17, 2010
Station Number	9	Station Location	Rover - Kinuso
Reason:	Routine / Install	Removal	Other:
Start Time (MST)	11:55	End Time (MST)	14:17
Barometric Pressure	0.935 atm	Station Temperature	21.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
DACS make	Focus AP1000	DACS serial No.	52662
DACS voltage range	0-5	DACS channel #	7
	Before		After
Calculated slope	1.002036	Calculated slope	1.009731
Calculated intercept	0.251492	Calculated intercept	0.619882
Analyzer make	TEI Model 49C	Analyzer serial #	609-716240

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	-15.4	ppb	-14.6	ppb
Span	1,479		1,479	
Cell A	88391	Hz	84469	Hz
Cell B	102436	Hz	98926	Hz
Pressure	693	in Hg	699	in Hg
CellA Flow	578	ccm	715	ccm
Cell B Flow	711	cmm	686	cmm

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4988	0.00	0.0	0.4	N/A
49.88	0.30	295.2	292.9	1.0078
4990	0.20	202.9	199.1	1.0191
4990	0.10	110.8	108.2	1.0243
4990	0.00	0.0	0.8	As found zero
4990	0.30	295.2	292.9	As found span
			Average Correction Factor	1.0170

Calculated value of As Found Response: 292.9 ppm Percent Change of As Found: -0.8%

	before calibration		after calibration	
Auto zero	2.1	ppb	0.9	ppb
Auto span	326.9	ppb	317.4	ppb

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **O3**

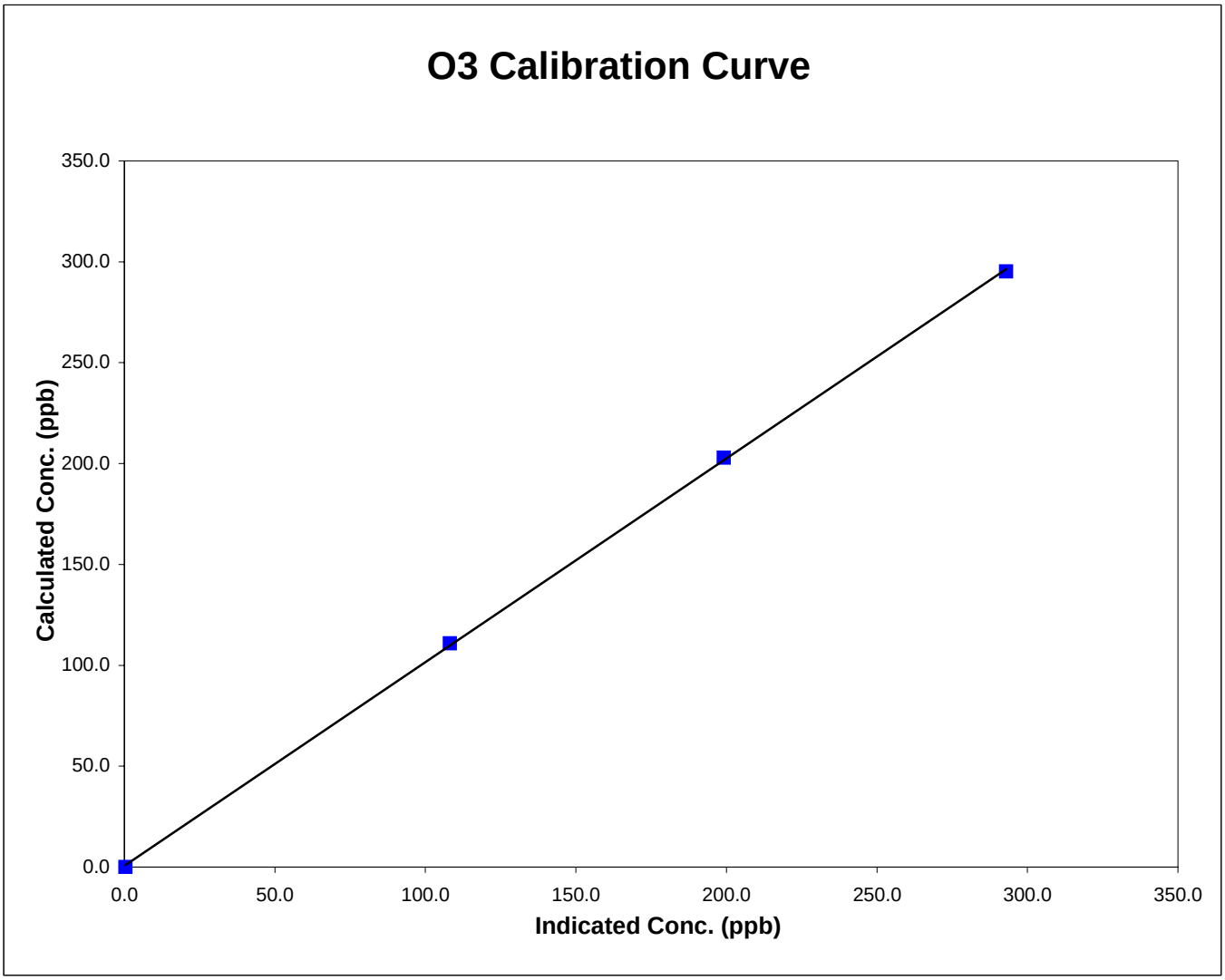
Air Monitoring Network **PASZA**

Station Information

Calibration Date	April 14, 2010	Previous Calibration	March 17, 2010
Station Number	9	Station Location	Rover - Kinuso
Start Time (MST)	11:55	End Time (MST)	14:17
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	0.4	NA		
295.2	292.9	1.0078	Correlation Coefficient	0.999898
202.9	199.1	1.0191		
110.8	108.2	1.0243	Slope	1.009731
			Intercept	0.619882



Kinuso O3 Calibration

April 14, 2010

Calibration Report

Parameter **SO2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 13, 2010	Previous Calibration	March 18, 2010
Station Number	6	Station Location	Valleyview
Reason: Routine	Install	Removal	Other:
Start Time (MST)	10:27	End Time (MST)	12:04
Barometric Pressure	29.90 inches Hg	Station Temperature	25.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentratior	50.6 ppm	Cal Gas Cert Date	12/3/2009
Gas Cert Reference	AAL 56996		
DACS make	Focus AP1000	DACS serial No.	45274
DACS voltage range	0 - 10 volt	DACS channel #	4
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.000248	Calculated slope	1.002671
Calculated intercept	-2.571311	Calculated intercept	-1.876147
Analyzer make	TEI 45C	Analyzer serial #	45C-57531-313

	before		after	
Concentration range	0 - 1000	ppb	0 - 1000	ppb
Background	25		24.3	
Coefficient	0.902		0.883	
UV Lamp Voltage	918	LPM	918	LPM
Chamber Temp	44.1	V	44.3	V
Perm Gas Temp	35.02	C	35.01	C
Pressure	616.9	in Hg	618.2	in Hg
Sample Flow	0.468	LPM	0.468	LPM
Lamp Intensity	48219	Hz	48707	Hz

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4989	0.00	0.0	-0.2	N/A
4989	39.85	401.0	400.6	1.0009
4989	19.89	200.9	203.5	0.9872
4989	9.94	100.6	104.2	0.9656
4989	0.00	0.0	-0.2	As found zero
4989	39.88	401.3	409.5	As found span
			Average Correction Factor	0.9845

Calculated value of As Found Response: 407.274 ppm Percent Change of As Found: -1.5%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.0	ppm
Auto span	150.3	ppm	152.9	ppm

Notes: A span adjustment was performed.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **SO2**

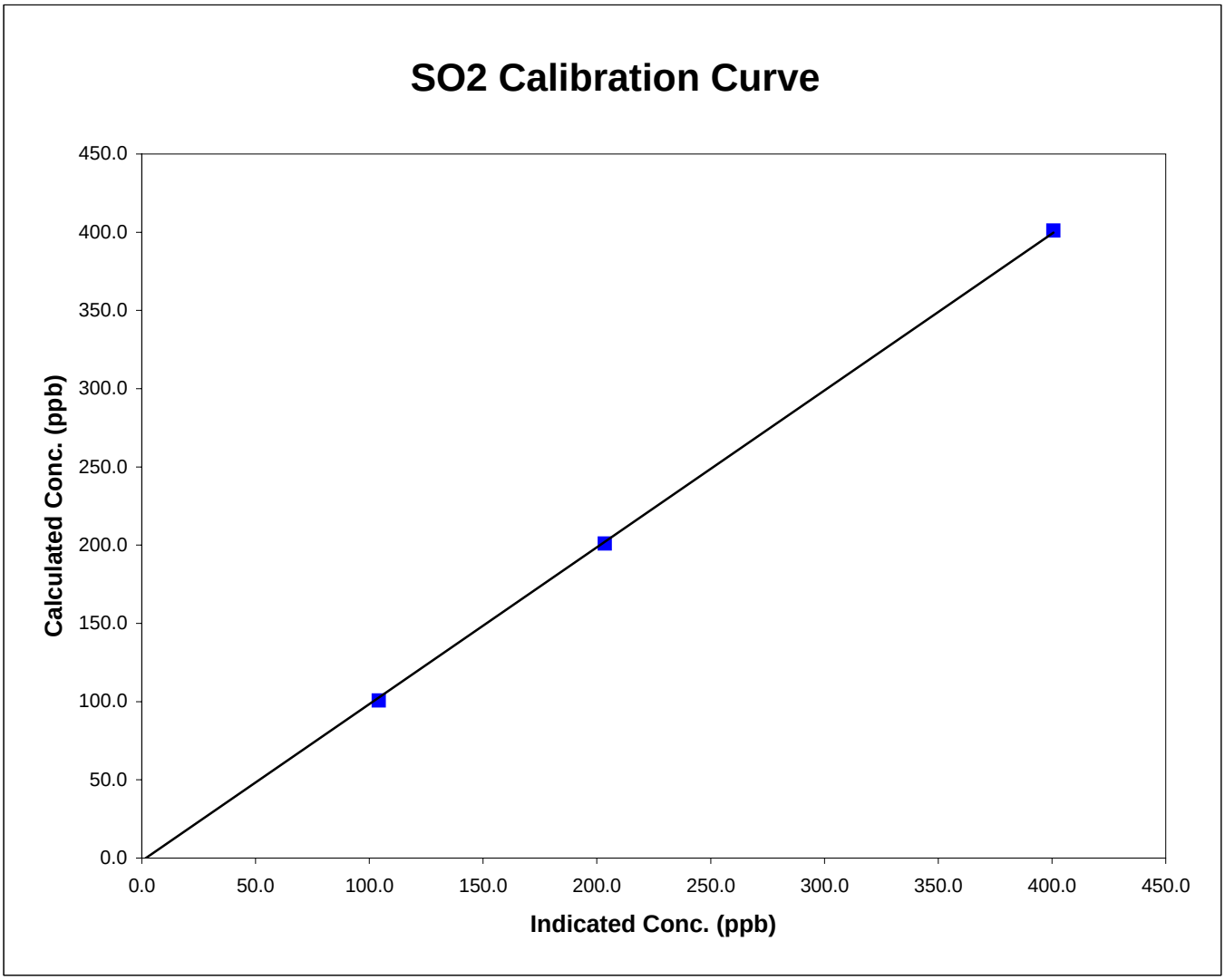
Air Monitoring Network **PASZA**

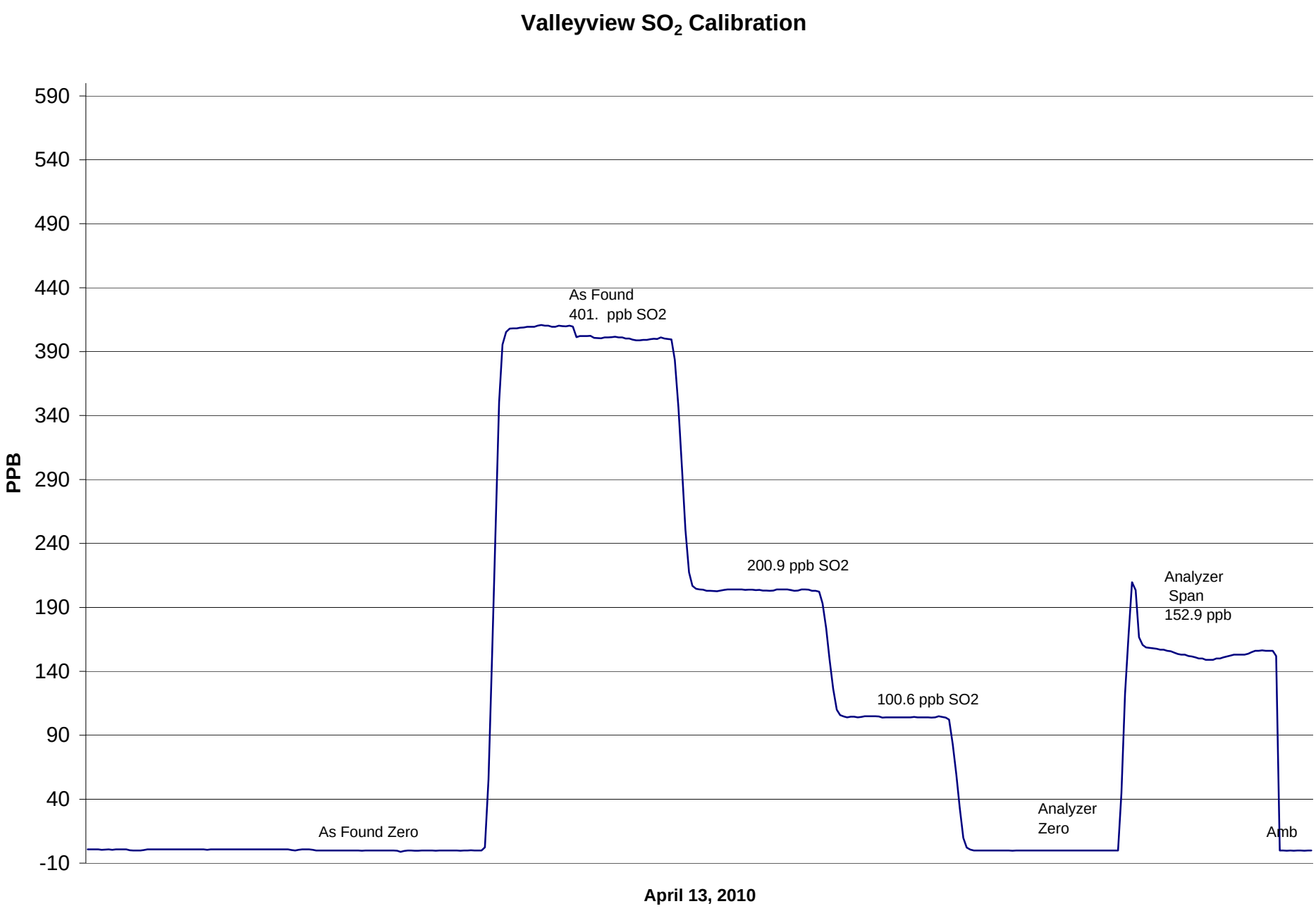
Station Information

Calibration Date	April 13, 2010	Previous Calibration	March 18, 2010
Station Number	6	Station Location	Valleyview
Start Time (MST)	10:27	End Time (MST)	14:42
Analyzer make/model	TEI 45C	Analyzer serial #	45C-57531-313

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
401.0	400.6	1.0009	Correlation Coefficient	0.999870
200.9	203.5	0.9872		
100.6	104.2	0.9656	Slope	1.002671
			Intercept	-1.876147




Valleyview SO_2 Calibration
590
540
490
440
390
340
290
240
190
140
90
40
-10
PPB
As Found
401. ppb SO2
200.9 ppb SO2
100.6 ppb SO2
Analyzer
Span
152.9 ppb
As Found Zero
Analyzer
Zero
Amb
April 13, 2010

Calibration Report

Parameter **H2S**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	April 13, 2010	Previous Calibration	March 18, 2010
Station Number	5	Station Location	Valleyview
Reason: Routine	Install	Removal	Other:
Start Time (MST)	12:20	End Time (MST)	13:43
Barometric Pressure	0.00 inches Hg	Station Temperature	23.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentratior	5.15 ppm	Cal Gas Expiry Date	4/4/2009
Gas Cert Reference	ALM013295		
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 10 volt	DACS channel #	9
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.990881	Calculated slope	1.009008
Calculated intercept	-0.061377	Calculated intercept	-0.145253
Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	5.0	ppb	5.0	ppb
Coefficient	1.085		1.085	
Lamp Voltage	791	V	791	V
Chamber Temp	45	c	44.9	c
Perm Oven Temp	44.99	c	44.98	c
Pressure	634	mm Hg	636	mm Hg
Sample Flow	424	ccm	422	ccm
Lamp Intensity	91.0	%	91.0	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4989	0.00	0.0	0.1	N/A
4989	79.75	81.0	80.4	1.0074
4989	39.83	40.8	40.6	1.0045
4989	9.93	10.2	10.3	0.9942
4989	0.00	0.0	0.1	As found zero
4989	79.81	81.1	80.4	As found span
			Average Correction Factor	1.0021

Calculated value of As Found Response: 79.52 ppm Percent Change of As Found: 1.9%

	before calibration		after calibration	
Auto zero	-0.1	ppm	0.1	ppm
Auto span	59.5	ppm	60.2	ppm

Notes:

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter **H2S**

Air Monitoring Network **PASZA**

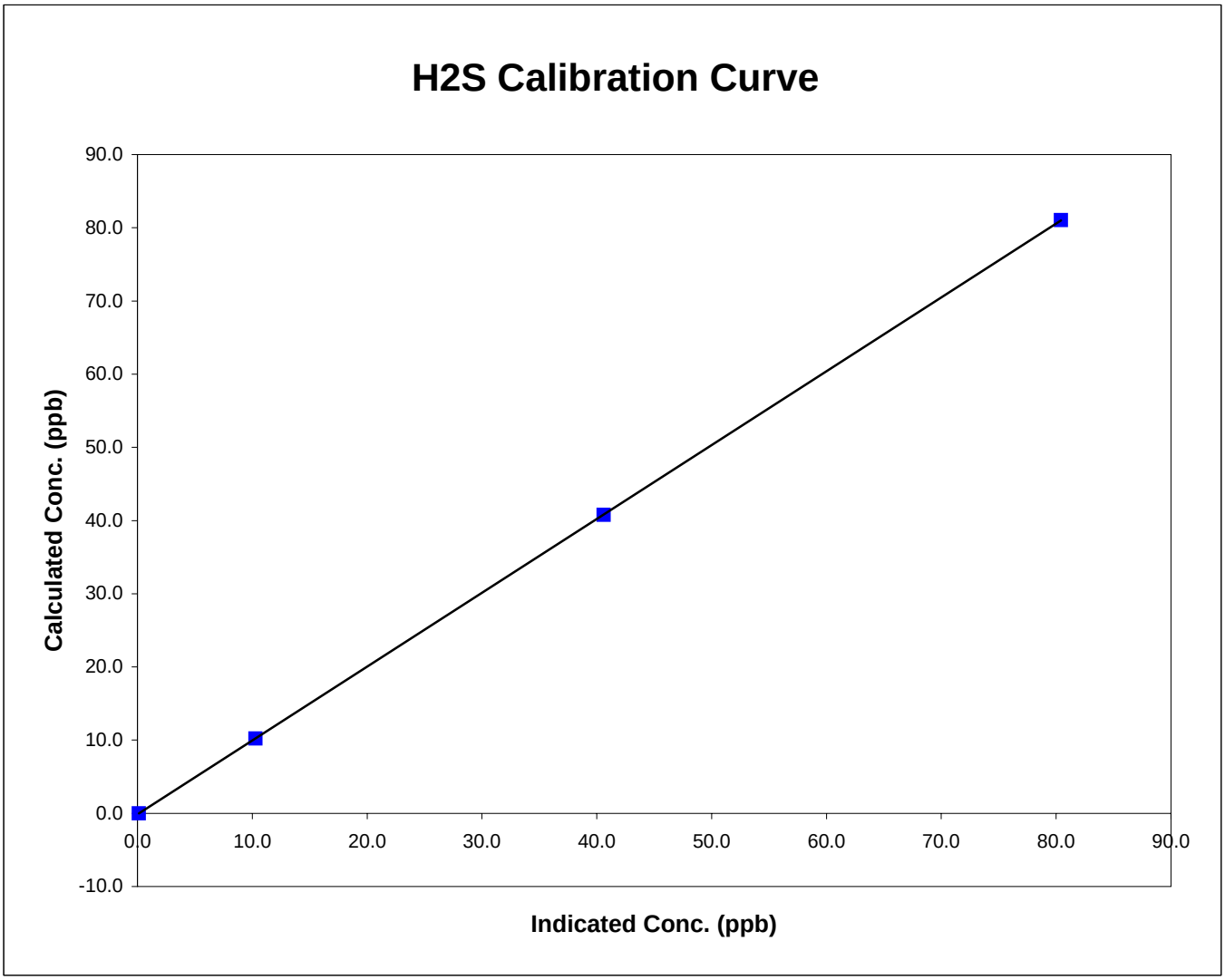
FOCUS AIR QUALITY MONITORING

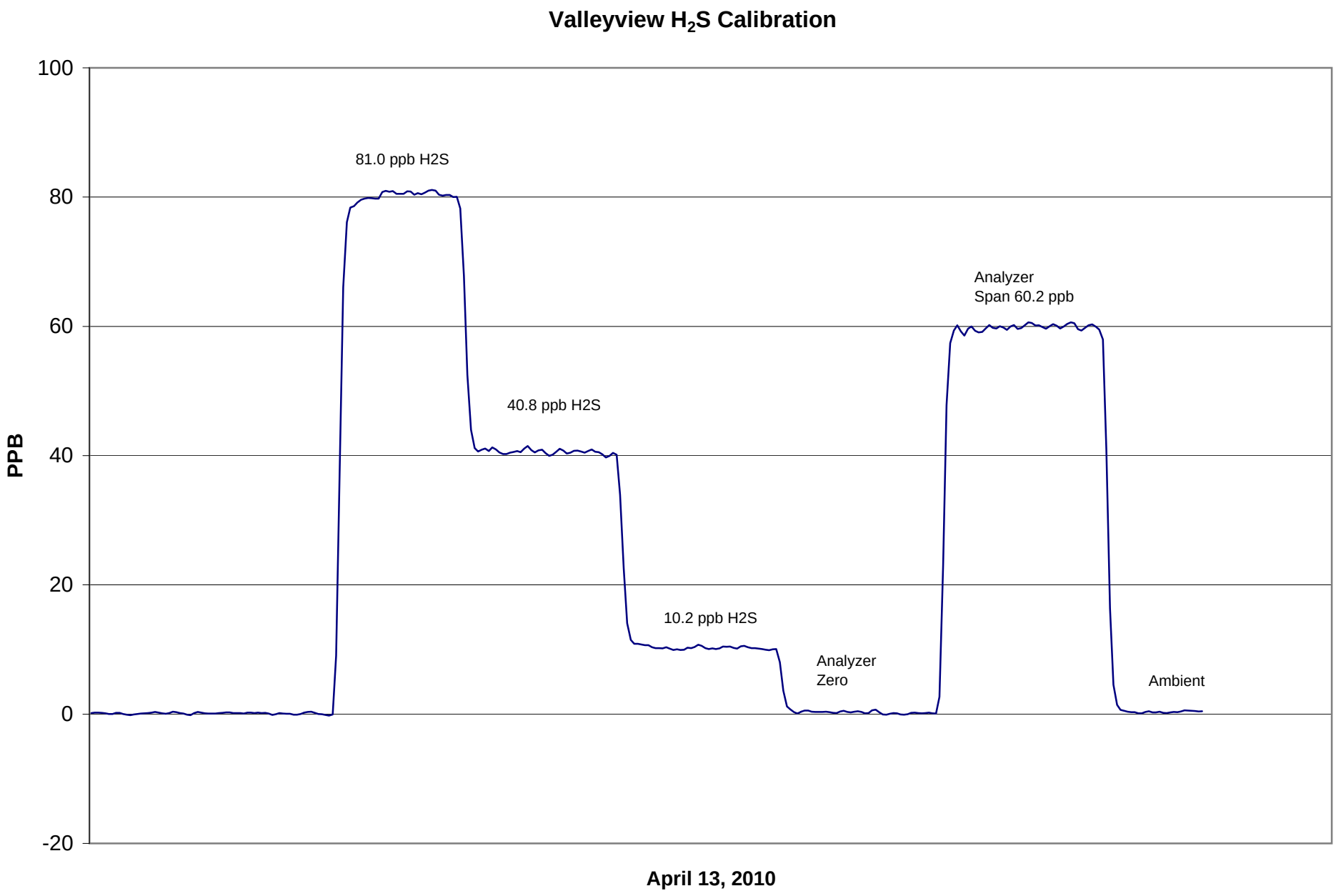
Station Information

Calibration Date	April 13, 2010	Previous Calibration	March 18, 2010
Station Number	5	Station Location	Valleyview
Start Time (MST)	12:20	End Time (MST)	13:43
Analyzer make/model	TEI Model 43i - APSCB	Analyzer serial #	701120010

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
81.0	80.4	1.0074	Correlation Coefficient	0.999999
40.8	40.6	1.0045		
10.2	10.3	0.9942	Slope	1.009008
			Intercept	-0.145253




Valleyview H2S Calibration
100
80
60
40
20
0
-20
PPB
81.0 ppb H2S
40.8 ppb H2S
10.2 ppb H2S
Analyzer
Zero
Analyzer
Span 60.2 ppb
Ambient
April 13, 2010