



Peace Airshed Zone Association

Ambient Air Monitoring Network Summary

**Continuous Ambient Air Quality Monitoring Program
Monthly Report
March 2014**

Operations and Reporting



April 30th, 2014

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

RE: Peace Airshed Zone Association (PAZA) – March 2014 Ambient Air Report

Enclosed is the PAZA Ambient Monitoring Network Report for the month of **March 2014**.

This report is submitted by PAZA on behalf of the industrial member companies to satisfy the requirements of the following facility Operating Approvals:

Company	Facility	LSD	EPEA Approval Number
Advantage Oil & Gas Ltd.	Glacier	05-02-076-13-W6	262479-00-00
Alberta Power (2000) Ltd. (an ATCO company)	Sturgeon	SW-06-069-21-W5	10283-02-02
ATCO Power Canada	Poplar Hill	11-19-073-08-W6	67774-01-01
ATCO Power Canada	Valleyview	SW-06-069-21-W5	147709-01-01
AltaGas Ltd.	Pouce Coupe	03-03-081-13-W6	247673-00-00
	Ante Creek	02-26-068-25-W5	266694-00-00
	Gordondale	16-31-78-11-W6M	287474-00-00
Apache Canada Ltd.	House Mountain	01-08-070-10-W5	10137-02-02
Birchcliff Energy Ltd.	Pouce Coupe	03-22-078-12-W6	252529-00-00
Canadian Natural Resources Limited	Bonanza	11-25-081-11-W6	00000029-01-00
	Progress/Gordondale	01-01-077-10-W6	00010036-02-00
	Gold Creek	13-26-067-05-W6	00010446-02-00

Company	Facility	LSD	EPEA Approval Number
Canfor Forest Products	Teepee Creek	SE-2-074-04-W6	00001635-02-00
	Sturgeon/Valleyview	02-02-069-22-W5	1633-02-00
	Grande Prairie	SW-23-071-06-W6	152645-01-00
Conocophillips Canada Energy Partnership	Wembley	06-19-073-08-W6	00000212-01-00
Devon Canada	NW Belloy (Dunvegan)	16-36-079-03-W6	00009810-02-00
	Eaglesham (South)	02-14-077-25-W5	00047669-01-00
	North Normanville	03-36-079-23-W5	00047455-01-00
	West Culp	05-34-078-25-W6	00136284-00-00
	Cecil	08-15-084-08-W6	00010032-02-00
Encana Corporation	Sexsmith	04-08-075-07-W6	00010002-01-00
Enerplus Resources	Pouce Coupe	SW-06-069-21-W5	1464-02-03
Grande Prairie Generation Inc.	Northern Prairie Power Project	04-19-073-08-W6	00238762-00-00
Long Run Exploration	Eaglesham	01-25-076-01-W6	00241532-00-00
	Kakut	14-12-075-03-W6	00248469-00-00
	Donnelly	06-01-077-21-W5	00000087-02-00
	Puskwaskau	03-26-074-01-W6	00017524-01-00
Longview Oil Corp.	Sunset House	06-22-070-20-W5	138884-01-00
Penn West Petroleum Ltd.	Tangent	13-29-080-23-W5	00001746-02-00
	Pouce Coupe	16-07-078-11-W6	00000614-01-00

Company	Facility	LSD	EPEA Approval Number
Petrus Resources	Rycroft	08-25-077-06-W6	11351-02-00
	Spirit River	08-34-077-06-W6	11096-02-00
Spectra Energy Midstream Corporation	Fourth Creek	16-11-082-09-W6	00000263-01-00
	Gordondale	11-26-079-09-W6	00011495-01-01
	Pouce Coupe/Bonanza	3-23-080-13-W6	00070203-01-01
Suncor Energy Inc.	Progress	07-22-078-09-W6	00011428-02-00
TAQA North Ltd.	Valhalla	13-21-076-09-W6	00017620-01-00
Veresen Energy	Hythe Brainard	11-18-074-12-W6	00010910-02-00
Weyerhaeuser Canada	Grande Prairie Pulp and Wood Plant	01-14-070-05-W6	00000113-02-00

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

Continuous Monitoring: Seven (7) Stations including Henry Pirker (Grande Prairie), Evergreen Park, Smoky Heights, Beaverlodge, Valleyview, Falher and Portable-Reno.

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

Henry Pirker Station:

- ◆ The measured ambient air quality was within the 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 March.

Evergreen Park Station:

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

Smoky Heights Station:

- ◆ The measured ambient air quality was within the AAAQO for the Smoky Heights station with the exception of the PM_{2.5} analyzer, which recorded three (3) 1-hour exceedences of the guideline of 80 µg/m³:
 - o Mar 01 02:00 130.1 µg/m³ Alberta Environment Reference # 280972
 - o Mar 01 03:00 113.3 µg/m³ Alberta Environment Reference # 280972
 - o Mar 01 04:00 111.7 µg/m³ Alberta Environment Reference # 280972
- ◆ All analyzers and sensors at the Smoky Heights station had an operational uptime greater than 90% for the month of March.

Beaverlodge Station:

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

Valleyview Station:

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

Reno Station:

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

Falher Station:

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

Passive Monitoring - 46 Stations throughout the PAZA zone:

There were five duplicate sites sampled in the month of March: Bay Tree, Fitzsimmons, Wapiti, Sunset House, and Girouxville 3. The passive sample analyses were performed by MAXXAM Analytics Inc.

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

- Monthly average concentrations for SO₂ passives ranged from 0.2 ppb to 0.6 ppb, with a mean of 0.4 ppb.
- Monthly average concentrations for NO₂ passives ranged from 0.1 ppb to 4.0 ppb, with a mean of 0.7 ppb.
- Monthly average concentrations for O₃ passives ranged from 34.6 ppb to 49.5 ppb, with a mean of 41.4 ppb.
- Monthly average concentrations for H₂S were 0.2 ppb.

If you have any questions or concerns, please contact Patrick Andersen at 403.505.1041 or the PAZA office at 780.833.4343.

On Behalf of the
Peace Airshed Zone Association



Shelly Pruden, C. Tech
Environmental Coordinator
City of Grande Prairie

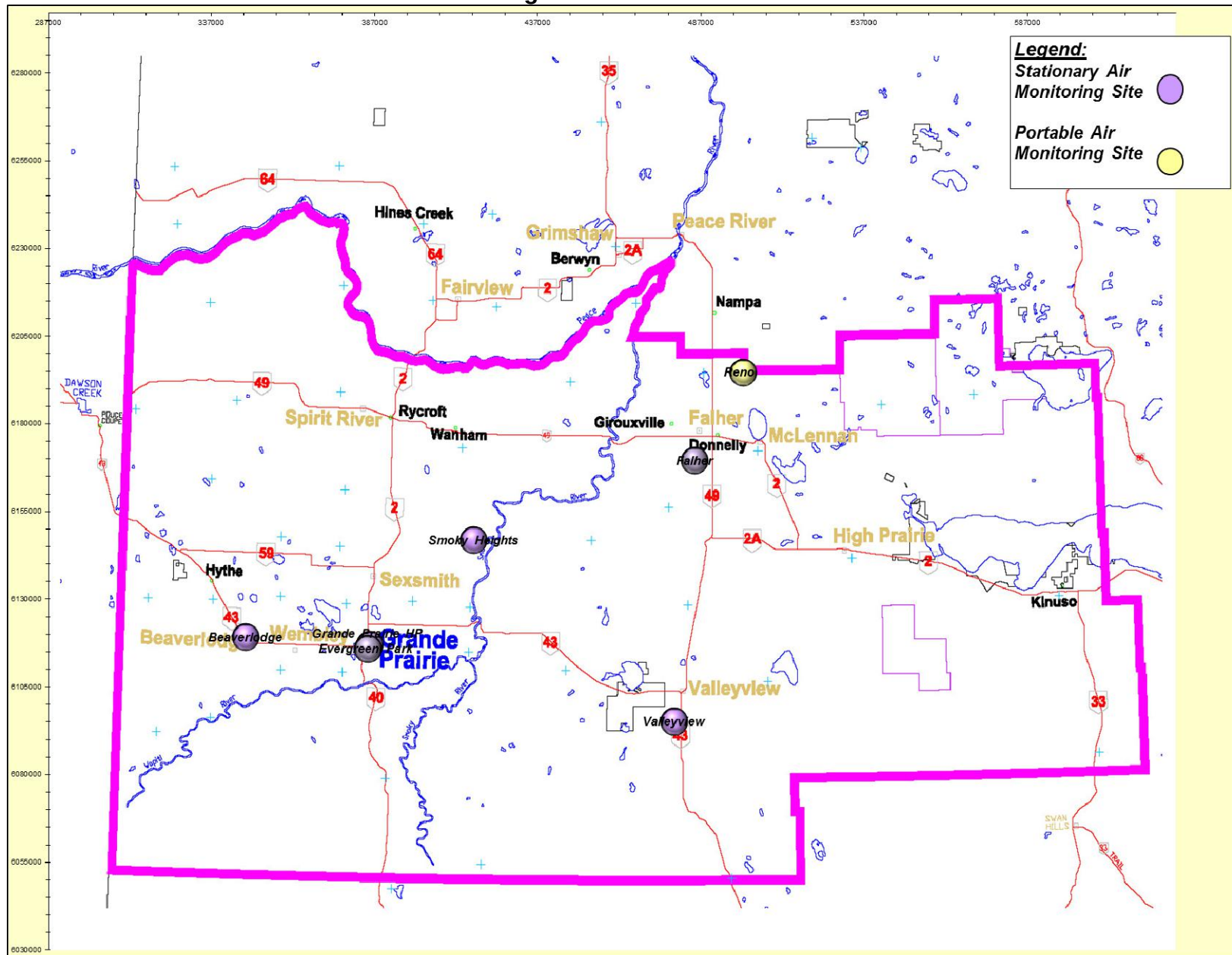


Greg Pippus, MSc., EP.
Environmental Leader
Weyerhaeuser - Grande Prairie Operations



Jeff Cooper, C.Tech.
AQM Operations Manager

Location of PAZA Continuous Monitoring Stations



PAZA Monthly Continuous Data Summary

Mar-2014Peace Airshed Zone Association							Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
Pollutant (units)	Objectives		Station	Monthly Average	Exceedence		Conc	Day	Conc	Day	Operational Time (%)
	1-hr	24-hr			1-hr	24-hr					
SO ₂ (ppb)	172	48	Henry Pirker	0.6	0	0	4.9	Mar-23 14:00	2.2	Mar-03	100%
SO ₂ (ppb)	172	48	Evergreen Park	0.4	0	0	2.7	Mar-02 15:00	2.0	Mar-03	100%
SO ₂ (ppb)	172	48	Smoky Heights	0.7	0	0	9.0	Mar-07 03:00	2.1	Mar-05	100%
SO ₂ (ppb)	172	48	Beaverlodge	0.7	0	0	10.1	Mar-31 14:00	2.5	Mar-03	100%
SO ₂ (ppb)	172	48	Valleyview	0.7	0	0	9.3	Mar-11 15:00	2.3	Mar-12	99%
SO ₂ (ppb)	172	48	Reno	0.3	0	0	4.1	Mar-04 12:00	1.4	Mar-05	100%
SO ₂ (ppb)	172	48	Falher	0.2	0	0	2.4	Mar-31 17:00	0.6	Mar-31	100%
NO (ppb)			Henry Pirker	4.0	0	0	73.9	Mar-19 08:00	16.6	Mar-05	100%
NO ₂ (ppb)	159	106	Henry Pirker	12.3	0	0	54.0	Mar-05 21:00	29.3	Mar-08	100%
NO _x (ppb)			Henry Pirker	16.3	0	0	124.4	Mar-19 08:00	44.6	Mar-08	100%
NO (ppb)			Beaverlodge	1.4	0	0	63.5	Mar-05 11:00	10.7	Mar-05	100%
NO ₂ (ppb)	159	106	Beaverlodge	4.2	0	0	24.7	Mar-31 23:00	10.7	Mar-05	100%
NO _x (ppb)			Beaverlodge	5.5	0	0	87.0	Mar-05 11:00	21.4	Mar-05	100%
NO (ppb)			Reno	0.3	0	0	4.2	Mar-04 11:00	0.9	Mar-05	100%
NO ₂ (ppb)	159	106	Reno	1.9	0	0	10.5	Mar-31 23:00	5.5	Mar-05	100%
NO _x (ppb)			Reno	2.1	0	0	11.2	Mar-31 23:00	65.0	Mar-05	100%
O ₃ (ppb)	82		Henry Pirker	21.1	0	-	36.8	Mar-01 16:00	32.9	Mar-01	100%
O ₃ (ppb) - 8-hr			Henry Pirker		0				35.5	Mar-01	
O ₃ (ppb)	82		Beaverlodge	37.8	0	-	53.2	Mar-29 21:00	47.1	Mar-29	100%
O ₃ (ppb) - 8-hr			Beaverlodge		0				51.4	Mar-29	
O ₃ (ppb)	82		Reno	39.6	0	-	52.5	Mar-12 14:00	47.3	Mar-12	100%
O ₃ (ppb) - 8-hr			Reno		0				50.8	Mar-28	
CO (ppm)	13		Henry Pirker	0.22	0	-	1.2	Mar-19 08:00	0.4	Mar-08	100%
CO (ppm) - 8-hr	5		Henry Pirker		0				0.6	Mar-19	

PAZA Monthly Continuous Data Summary – continued

Mar-2014Peace Airshed Zone Association							Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
THC (ppm)			Henry Pirker	2.0	-	-	3.4	Mar-09 05:00	2.3	Mar-08	100%
CH ₄ (ppm)			Henry Pirker	2.0	-	-	3.4	Mar-09 05:00	2.3	Mar-08	100%
NMHC (ppm)			Henry Pirker	0.0	-	-	0.0	Mar-19 03:00	0.0	Mar-19	100%
THC (ppm)			Reno	1.96	-	-	3.6	Mar-28 01:00	2.2	Mar-28	99%
TRS (ppb)			Henry Pirker	0.5	-	-	1.4	Mar-08 10:00	0.8	Mar-08	100%
TRS (ppb)			Evergreen Park	0.3	-	-	1.9	Mar-09 03:00	0.6	Mar-08	100%
TRS (ppb)			Smoky Heights	0.1	-	-	0.4	Mar-13 14:00	0.1	Mar-09	100%
TRS (ppb)			Reno	0.3	-	-	0.9	Mar-06 04:00	0.6	Mar-08	100%
H ₂ S (ppb)	10	3	Valleyview	0.2	0	0	1.4	Mar-19 07:00	0.4	Mar-19	99%
H ₂ S (ppb)	10	3	Falher	0.1	0	0	0.7	Mar-06 11:00	0.2	Mar-08	100%
PM _{2.5} (µg/m3)	80	30	Henry Pirker	4.8	0	0	34.4	Mar-08 09:00	15.9	Mar-08	100%
PM _{2.5} (µg/m3)	80	30	Evergreen Park	2.9	0	0	25.9	Mar-31 07:00	11.6	Mar-31	100%
PM _{2.5} (µg/m3)	80	30	Smoky Heights	3.7	3	0	130.1	Mar-01 02:00	24.7	Mar-01	100%
PM _{2.5} (µg/m3)	80	30	Beaverlodge	8.4	0	0	24.2	Mar-09 05:00	14.5	Mar-05	98%
PM _{2.5} (µg/m3)	80	30	Reno	1.5	0	0	16.2	Mar-20 09:00	4.0	Mar-07	100%
RH (%)			Henry Pirker	55.3	-	-	85.5	Mar-16 05:00	74.4	Mar-08	100%
RH (%)			Evergreen Park	57.8	-	-	91.5	Mar-09 07:00	82.4	Mar-08	100%
RH (%)			Beaverlodge	66.2	-	-	99.1	Mar-08 09:00	86.5	Mar-08	100%
RH (%)			Valleyview	56.7	-	-	93.6	Mar-20 01:00	81.0	Mar-08	99%
SR (W/m ²)			Henry Pirker	132.1	-	-	632.4	Mar-29 13:00	202.7	Mar-31	100%
Temp (°C)			Henry Pirker	-7.6	-	-	10.4	Mar-12 12:00	5.6	Mar-12	100%
Temp (°C)			Evergreen Park	-7.4	-	-	10.4	Mar-12 13:00	7.0	Mar-12	100%
Temp (°C)			Smoky Heights	-8.4	-	-	7.1	Mar-12 12:00	4.6	Mar-12	100%
Temp (°C)			Beaverlodge	-7.6	-	-	7.7	Mar-12 12:00	5.1	Mar-12	100%
Temp (°C)			Valleyview	-6.7	-	-	12.5	Mar-12 15:00	7.7	Mar-12	99%
Temp (°C)			Reno	-8.6	-	-	6.8	Mar-12 14:00	4.3	Mar-12	100%
Temp (°C)			Falher	12.9	-	-	40.0	Mar-11 21:00	26.5	Mar-12	100%

PAZA Monthly Continuous Data Summary – continued

Mar-2014Peace Airshed Zone Association							Maximum Recorded Values				
							1-hr		24-hr / 8-hr		
WSPD s (km/hr)			Henry Pirker	8.6	-	-	30.0	Mar-17 18:00	15.4	Mar-12	100%
WSPD s (km/hr)			Evergreen Park	12.9	-	-	63.0	Mar-12 16:00	29.4	Mar-12	100%
WSPD s (km/hr)			Smoky Heights	11.6	-	-	44.0	Mar-11 21:00	23.9	Mar-11	100%
WSPD s (km/hr)			Beaverlodge	11.9	-	-	54.0	Mar-12 16:00	26.5	Mar-12	100%
WSPD s (km/hr)			Valleyview	5.9	-	-	24.0	Mar-20 07:00	14.1	Mar-20	99%
WSPD s (km/hr)			Reno	12.4	-	-	38.0	Mar-12 20:00	28.2	Mar-12	100%
WSPD s (km/hr)			Falher	12.9	-	-	40.0	Mar-11 21:00	26.5	Mar-12	100%
WSPD v (km/hr)			Henry Pirker	2.0	-	-	30.0	Mar-17 18:00	14.1	Mar-12	100%
WSPD v (km/hr)			Evergreen Park	3.8	-	-	63.0	Mar-12 16:00	28.1	Mar-12	100%
WSPD v (km/hr)			Smoky Heights	3.9	-	-	44.0	Mar-11 21:00	23.1	Mar-11	100%
WSPD v (km/hr)			Beaverlodge	2.8	-	-	54.0	Mar-12 16:00	25.7	Mar-12	100%
WSPD v (km/hr)			Valleyview	2.4	-	-	24.0	Mar-20 07:00	13.5	Mar-20	99%
WSPD v (km/hr)			Reno	3.5	-	-	38.0	Mar-12 20:00	27.0	Mar-12	100%
WSPD v (km/hr)			Falher	4.7	-	-	40.0	Mar-11 21:00	24.8	Mar-12	100%
WDIR			Henry Pirker	NW	-	-	-	-	-	-	100%
WDIR			Evergreen Park	WNW	-	-	-	-	-	-	100%
WDIR			Smoky Heights	WNW	-	-	-	-	-	-	100%
WDIR			Beaverlodge	W	-	-	-	-	-	-	100%
WDIR			Valleyview	NW	-	-	-	-	-	-	99%
WDIR			Reno	SW	-	-	-	-	-	-	100%
WDIR			Falher	WSW	-	-	-	-	-	-	100%

Continuous Network Equipment Summary

PAZA – Henry Pirker Station

General Station Issues

Routine monthly calibrations were performed on March 4th (SO₂, NO_x, O₃), and 17th (CO, TRS, THC).

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	Switching valve found to require maintenance during March 4 th calibration, replaced on March 5 th and analyzer recalibrated.
CO	TEI	48C	No operational issues observed.
THC/CH ₄ /NMHC	TEI	55I	No operational issues observed.
TRS	TEI	45C/43C	No operational issues observed.
PM _{2.5}	Sharp	5030	Analyzer maintenance performed March 27 th .
RH	Met One	083D	No operational issues observed.
ET	Met One	083D	No operational issues observed.
SR	Met One	096-1	No operational issues observed.
WS / WD	Met One	010C/020C	No operational issues observed.

PAZA – Evergreen Park Station

General Station Issues

Routine monthly calibration performed on March 6th (SO₂, TRS).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
TRS	TEI	43C	Sample pump failed on March 22 nd , replacement installed March 24 th .
PM _{2.5}	R&P	1400AB	Glassware cleaned during calibration period.
ET	Met One/Gill	083D	No operational issues observed.
RH	Met One/Gill		No operational issues observed.
WS / WD	Met One/ Gill		No operational issues observed.

PAZA – Smoky Heights Station

General Station Issues

Routine monthly calibration performed on March 13th (SO₂, TRS, PM_{2.5}).

Parameter	Make	Model	Notes
SO ₂	TEI	43C	No operational issues observed.
TRS	TEI	43C	Low spans attributed to low external temperatures.
PM _{2.5}	R&P	1400AB	Three 1-hour exceedences of the AAAQO were recorded on March 1 st . AE Reference #280972. Analyzer failed to capture two hours of data on March 1 st , glassware cleaned March 13 th .
ET	Met One	083D	No operational issues observed.
WS / WD	Met One	010C/020C	No operational issues observed.

PAZA – Beaverlodge Station

General Station Issues

Routine monthly calibrations performed on March 10th (NO_x, O₃), 12th (SO₂) and 26th (PM_{2.5}). Power outage caused a failed to capture one hour of data from continuous analyzers on March 13th. Technician turned off power to datalogger during PM_{2.5} maintenance on March 26th, one hour of data not collected.

Parameter	Make	Model	Notes
SO ₂	TEI	43CTL	No operational issues observed.
NOx/NO/NO ₂	TEI	42C	Analyzer maintenance done during calibration to correct for span drift.
O ₃	TEI	49C	No operational issues observed.
PM _{2.5}	R&P	1400AB	Glassware cleaned March 12 th . Switching block, O-rings and seals replaced and analyzer calibrated March 26 th . Nine (9) hours flagged invalid due to negative swings.
ET	n/a	n/a	No operational issues observed.
RH	n/a	n/a	No operational issues observed.
WS / WD	Blue Sky	857	No operational issues observed.

PAZA – Valleyview Station

General Station Issues

Routine monthly calibrations were performed on March 14th (SO₂ & H₂S). Power outages March 17th and 29th caused loss of six and two hours of data respectively.

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
H ₂ S	TEI	43A	No operational issues observed.
ET	Gill	Met Pak 3	No operational issues observed.
RH	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	No operational issues observed.

PAZA – Portable-Reno

General Station Issues

Routine monthly calibrations were performed on March 19th (SO₂, NO_x, O₃, TRS, THC).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
NO _x	TEI	42i	No operational issues observed.
O ₃	TEI	49C	Poor spans on March 16-17 checked at calibration on March 19 th , no adjustments made.
TRS	TEI	39C	Low spans attributed to low external temperatures.
THC	TEI	51C	Analyzer reset before calibration on March 19 th , span cylinder replaced. Analyzer failed to capture valid data for one hour on March 23 rd .
PM _{2.5}	R&P	1400AB	Mass transducer and tuning board replaced on March 18 th , glassware cleaned and analyzer calibrated March 19 th .
ET	Gill	Met Pak 3	No operational issues observed.
WS / WD	Gill	Met Pak 3	No operational issues observed.

PAZA – Falher Station

General Station Issues

Routine monthly calibrations were performed on March 18th (SO₂ & H₂S).

Parameter	Make	Model	Notes
SO ₂	TEI	43i	No operational issues observed.
H ₂ S	Thermo	450i	No operational issues observed.
ET	Gill	RM Young 5103	No operational issues observed.
WS / WD	Gill	RM Young 5103	No operational issues observed.

PAZA

Henry Pirker Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

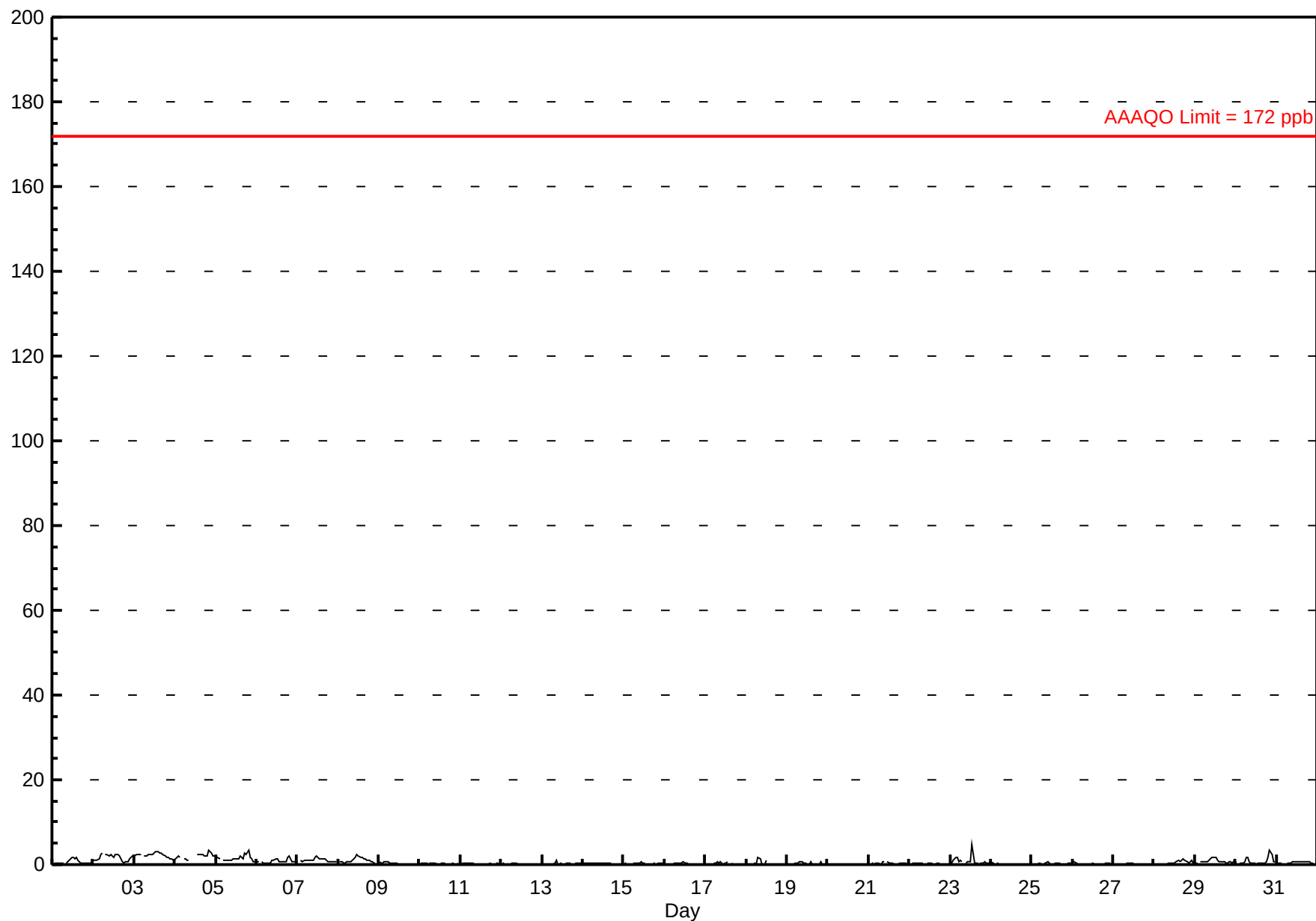
Henry Pirker - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.9 ppb on Mar 23 14:00 Maximum Daily Average: 2.2 ppb on Mar 3																				Hours in Service: 744 Hours of Data: 707						
Minimum Value: 0 ppb on Mar 9 12:00 Minimum Daily Average: 0.0 ppb on Mar 20 Maximum Diurnal Average: 0.8 ppb at hour 14 Minimum Diurnal Average: 0.4 ppb at hour 1 Monthly Average: 0.56 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.3 Q ₃ = 0.7 P ₉₀ = 1.6 P ₉₉ = 2.9																				Hours of Missing Data: 37 Hours of Calibration: 37 Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	0	0	0	0	0	0	0	A	0	1	1	2	2	1	2	1	0	0	0	0	0	0	0	1	0.6	1.9
2-Mar	1	1	1	1	2	3	A	2	2	2	2	2	2	2	2	2	1	1	0	1	1	1	2	2	1.6	2.8
3-Mar	2	2	2	2	3	A	2	2	2	3	2	3	3	3	3	3	3	2	2	2	2	2	1	1	2.2	3.0
4-Mar	1	2	2	2	A	1	1	1	1	C	C	C	C	2	2	2	2	2	2	2	3	3	2	2	2.0	3.3
5-Mar	2	2	1	A	1	1	1	1	1	1	1	1	1	1	2	2	1	3	2	3	2	1	1	1	1.5	3.3
6-Mar	1	1	A	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	0.8	2.0
7-Mar	1	A	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1.1	2.1
8-Mar	A	1	1	0	0	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1	0	0	A	1.0	2.3
9-Mar	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0.3	0.7
10-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0	0.2	0.3
11-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.4
12-Mar	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	0.5
13-Mar	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	1.1
14-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.4
15-Mar	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.7
16-Mar	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.5
17-Mar	0	0	0	0	0	0	0	1	0	1	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0.2	0.8
18-Mar	0	0	0	0	0	0	0	2	1	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0.2	1.6
19-Mar	0	0	0	0	0	0	0	1	1	1	0	0	A	0	1	0	0	0	0	0	1	0	0	0	0.2	0.8
20-Mar	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
21-Mar	0	0	0	0	0	0	0	0	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
22-Mar	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
23-Mar	0	0	1	2	2	1	1	1	A	0	1	1	1	5	1	0	0	0	0	0	1	0	0	0	0.8	4.9
24-Mar	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
25-Mar	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
26-Mar	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
27-Mar	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
28-Mar	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	1	1	0.5	1.3
29-Mar	0	0	A	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	0	1	1	0	1	0.8	1.8
30-Mar	0	A	0	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	1	2	3	2	1	1	0.8	3.4
31-Mar	A	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	A	0.5	0.8
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

Henry Pirker - March 2014



Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

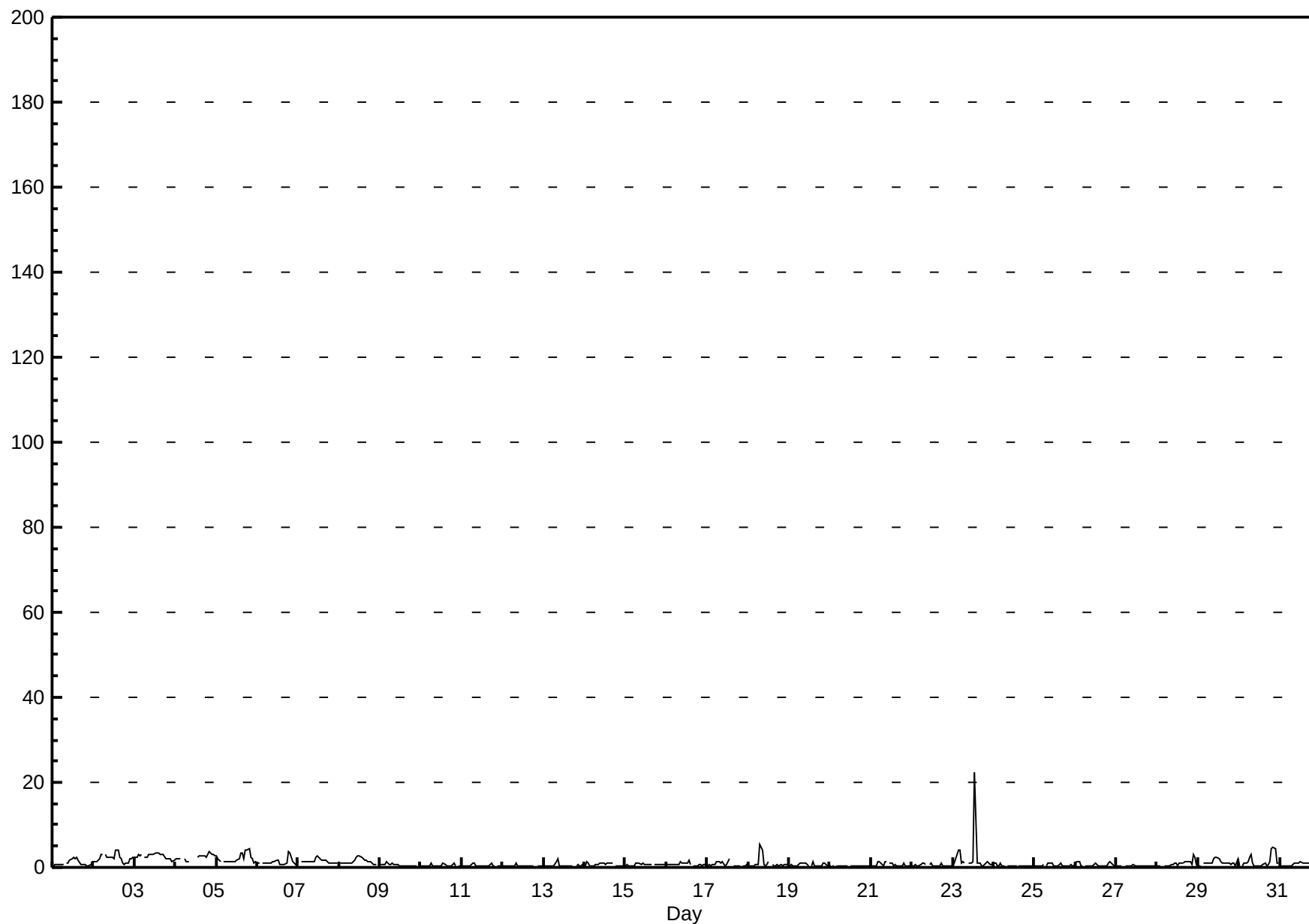
Henry Pirker - March 2014

Maximum Value: 22.3 ppb on Mar 23 14:00																				Maximum Daily Average: 2.7 ppb on Mar 3										Hours in Service: 744									
Minimum Value: 0 ppb on Mar 20 02:00																				Minimum Daily Average: 0.4 ppb on Mar 20										Hours of Data: 707									
Maximum Diurnal Average: 1.9 ppb at hour 14																				Minimum Diurnal Average: 0.8 ppb at hour 1										Hours of Missing Data: 37									
Monthly Average: 1.03 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.6 Q ₃ = 1.2 P ₉₀ = 2.3 P ₉₉ = 3.9										Hours of Calibration: 37									
																				Percent Operational Time: 100.0																			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Mar	1	1	1	1	1	1	1	A	1	1	2	2	3	2	3	2	1	1	1	1	1	1	1	1	1.0	2.5													
2-Mar	2	1	1	2	3	3	A	3	2	2	2	2	2	4	4	2	2	1	1	1	1	2	2	2	2.2	4.0													
3-Mar	2	2	3	3	3	A	2	2	3	3	3	3	3	4	3	3	3	3	2	2	2	2	1	2	2.7	3.5													
4-Mar	2	2	2	2	A	2	1	1	1	C	C	C	C	2	3	3	3	3	2	3	4	3	3	3	2.4	3.7													
5-Mar	3	2	2	A	1	1	1	1	1	1	1	1	2	2	3	3	2	4	4	4	2	2	1	1	2.1	4.5													
6-Mar	1	1	A	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	4	3	2	1	1	1	1.3	3.8													
7-Mar	1	A	1	1	1	1	1	1	1	1	2	3	2	2	2	2	2	1	1	1	1	1	1	1	1.5	2.8													
8-Mar	A	1	1	1	1	1	1	1	1	2	2	3	3	2	2	2	2	1	1	1	1	1	1	A	1.4	2.8													
9-Mar	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	A	0.6	1.3													
10-Mar	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	1	0	A	0	0	0.5	1.0													
11-Mar	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0	0.5	1.0													
12-Mar	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.5	1.0													
13-Mar	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	A	0	1	0	0	1	0.6	2.0													
14-Mar	0	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	A	0	0	0	0	0	0	0.7	1.3													
15-Mar	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.6	1.2													
16-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	A	0	0	0	1	1	0	1	1	0.7	1.5													
17-Mar	0	1	1	1	1	2	1	2	1	2	1	1	1	2	A	1	0	0	0	0	0	1	0	1	0.7	2.0													
18-Mar	1	1	1	0	1	1	1	5	4	1	1	1	2	A	1	0	0	1	0	1	0	1	1	1	0.9	5.3													
19-Mar	1	1	1	1	1	1	1	1	1	1	1	0	A	0	2	0	0	0	0	0	1	1	0	0	0.7	1.5													
20-Mar	1	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5													
21-Mar	0	0	0	0	1	1	1	0	1	1	A	1	1	0	1	0	0	0	0	1	0	0	0	0	0.7	1.4													
22-Mar	0	0	1	0	0	1	1	1	1	A	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0.6	0.9													
23-Mar	0	1	2	4	4	1	1	1	A	1	1	1	1	22	1	1	1	0	0	1	1	1	1	1	2.1	22.3													
24-Mar	1	1	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9													
25-Mar	0	0	0	0	0	1	A	0	1	1	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0.6	1.0													
26-Mar	1	1	1	0	0	A	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	1	1	0	0.7	1.5													
27-Mar	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6													
28-Mar	0	0	0	A	0	0	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	3	2	1	1.0	3.0													
29-Mar	0	1	A	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	0	2	1.2	2.5													
30-Mar	0	A	0	1	1	1	2	3	1	0	0	0	0	0	1	1	0	1	1	4	5	5	1	1	1.5	4.7													
31-Mar	A	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0.8	1.3													
0.8 0.8 0.8 0.9 1.0 0.9 0.9 1.2 1.2 1.0 1.1 1.1 1.2 1.9 1.2 1.0 0.9 0.9 0.9 1.1 1.0 1.1 0.8 0.8																									Diurnal Average														
2.6 2.5 3.0 3.9 3.9 3.0 2.5 5.3 4.1 3.0 3.0 3.0 3.4 22.3 4.0 3.5 3.0 4.0 4.0 4.5 4.7 4.5 3.1 2.6																									Diurnal Maximum														
C - Calibration																									A - Automated Daily Zero Span														

Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

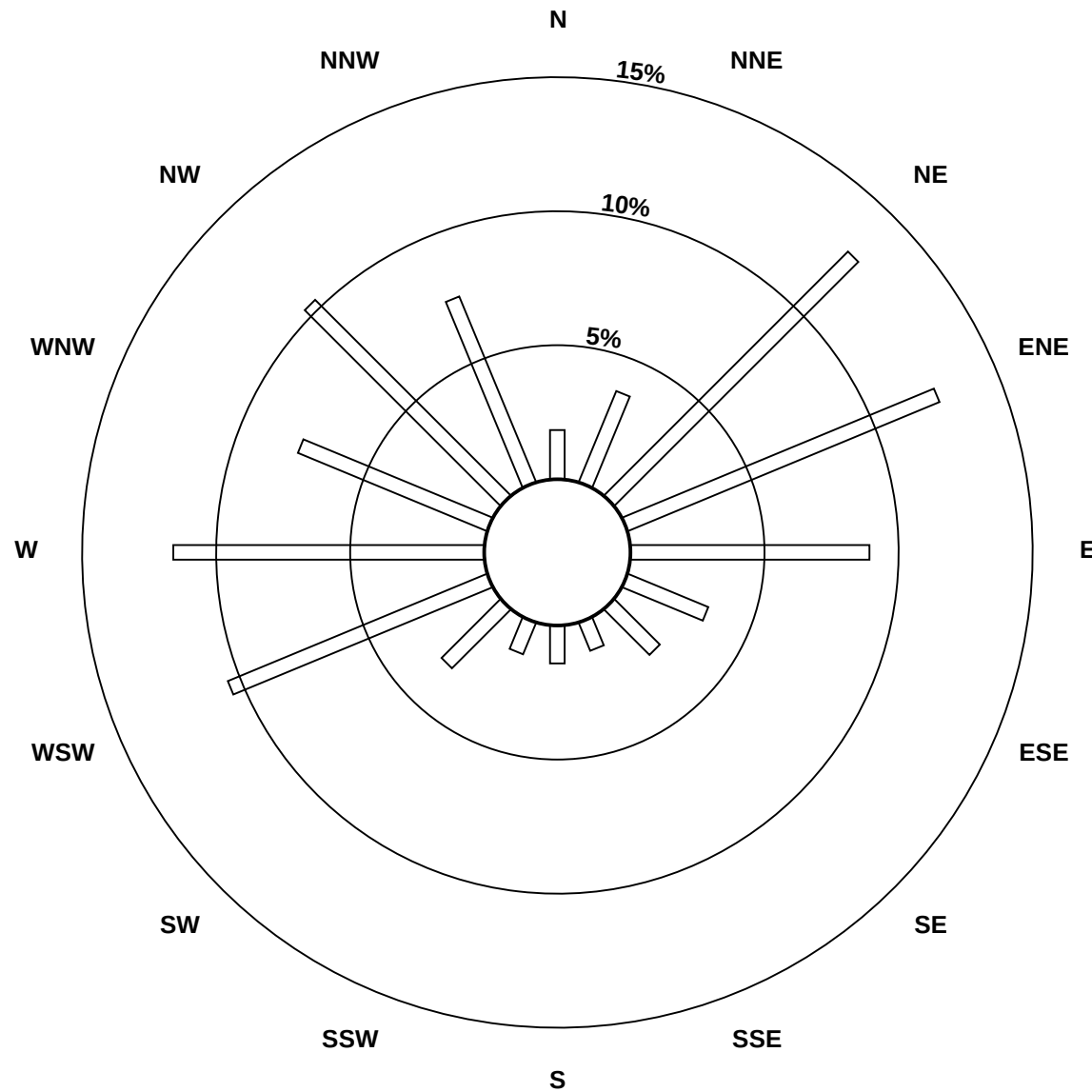
Henry Pirker - March 2014



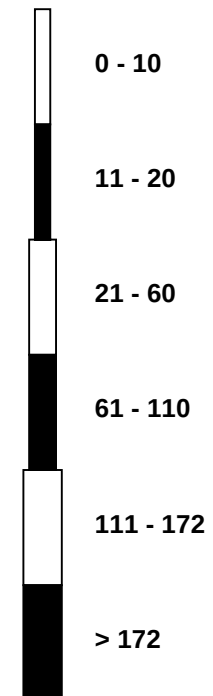
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb

Henry Pirker - March 2014

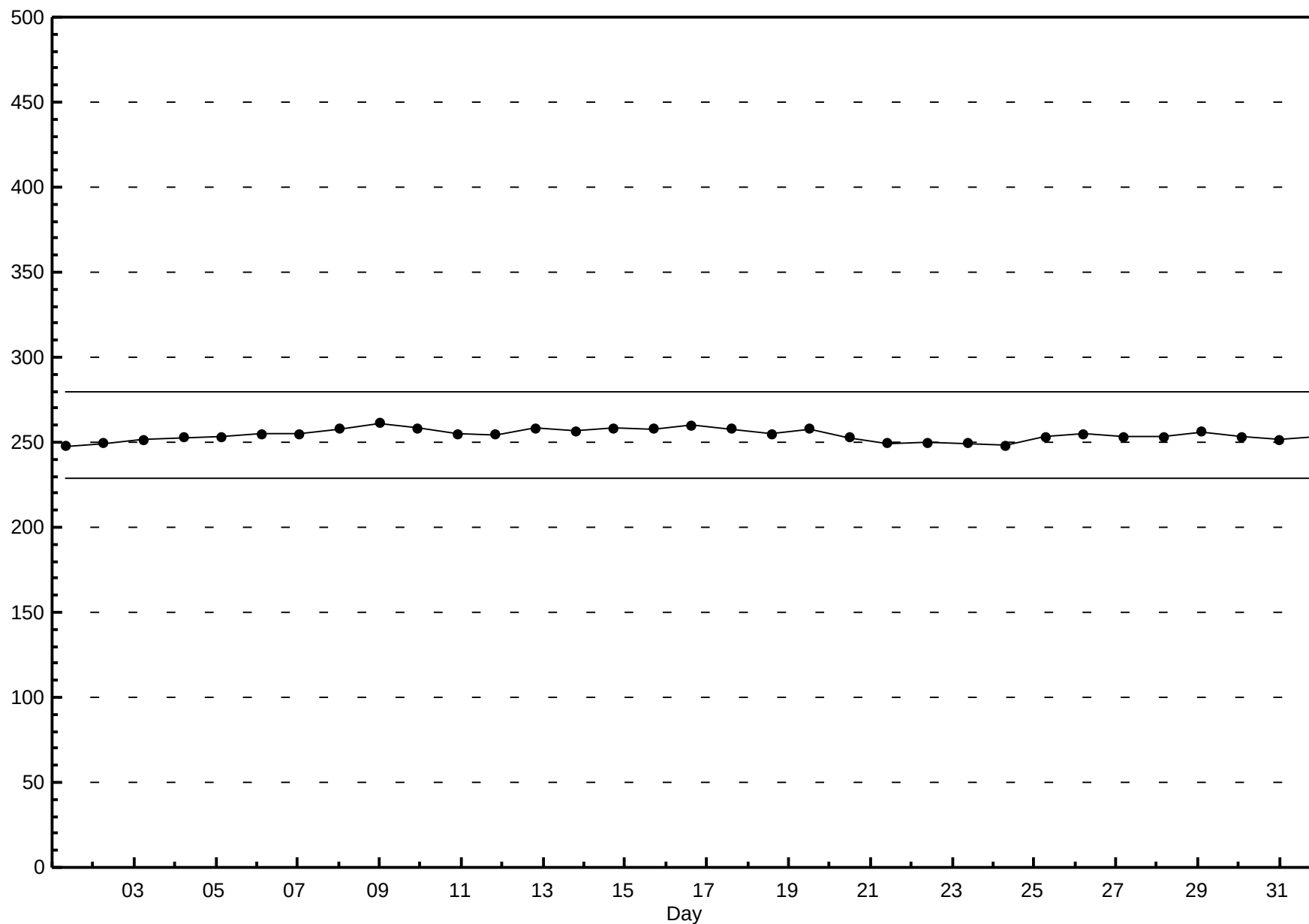


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Henry Pirker - March 2014



Hourly Averages

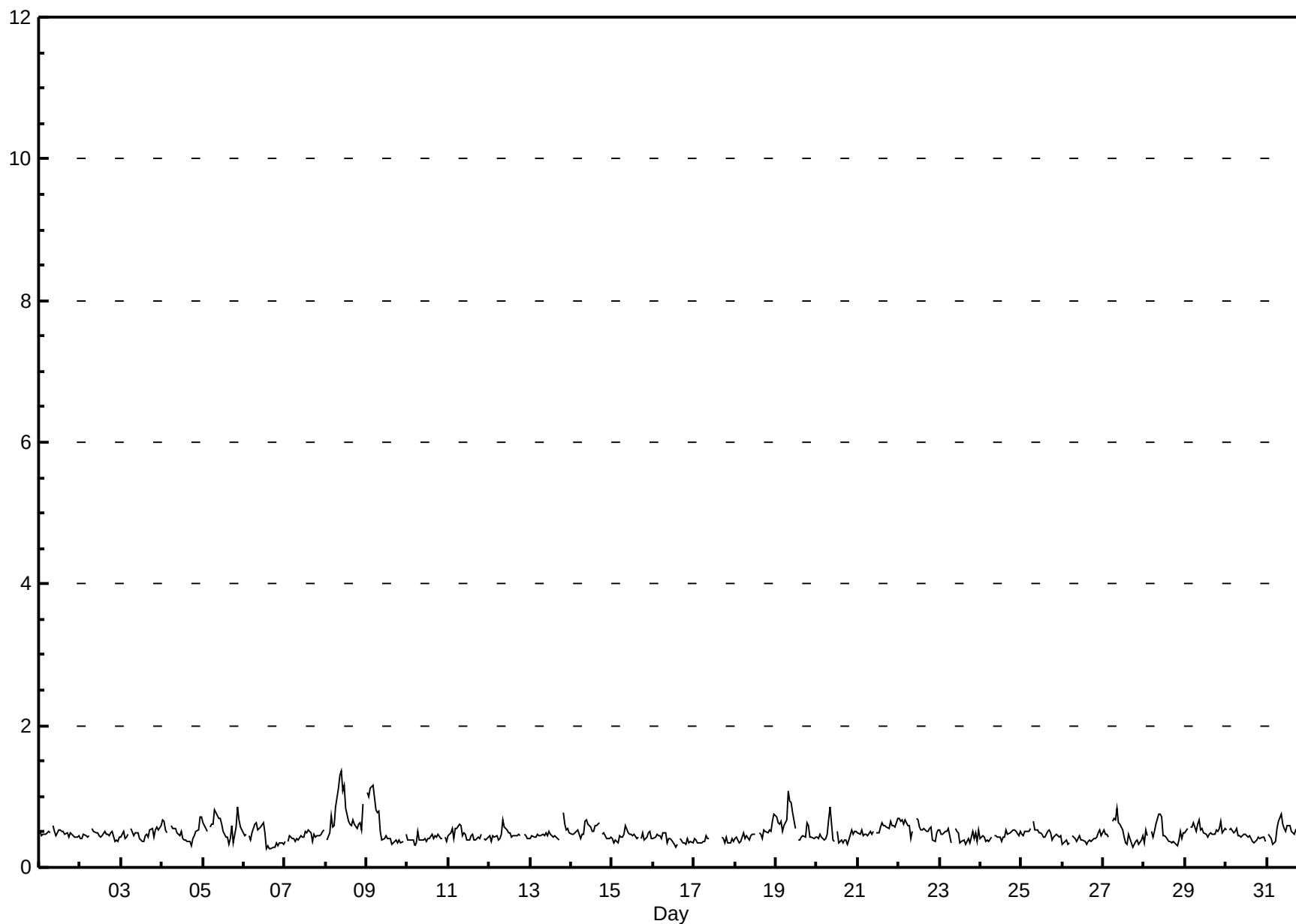
Total Reduced Sulphur (TRS) - ppb

Henry Pirker - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																			Hours in Service: 744							
Maximum Value: 1.4 ppb on Mar 8 10:00																			Maximum Daily Average: 0.8 ppb on Mar 8		Hours of Data: 706					
Minimum Value: 0 ppb on Mar 6 16:00																			Minimum Daily Average: 0.4 ppb on Mar 17		Hours of Missing Data: 38					
Maximum Diurnal Average: 0.6 ppb at hour 9																			Minimum Diurnal Average: 0.4 ppb at hour 14		Hours of Calibration: 38					
Monthly Average: 0.49 ppb																			Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.5 P ₉₀ = 0.6 P ₉₉ = 1.1		Percent Operational Time: 100.0					
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	1	0	0	0	0	1	0	A	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0.5	0.6
2-Mar	0	0	0	0	0	0	A	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.5	0.5
3-Mar	0	1	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	1	0.5	0.6
4-Mar	1	1	1	0	A	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	0.5	0.7
5-Mar	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	0	0	1	0	1	1	1	1	1	0.6	0.9
6-Mar	0	0	A	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
7-Mar	0	A	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0.4	0.5
8-Mar	A	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.4
9-Mar	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.6	1.2
10-Mar	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.4	0.5
11-Mar	0	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.5	0.6
12-Mar	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0.5	0.7
13-Mar	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	1	1	1	1	0	0.5	0.8
14-Mar	0	0	0	1	1	0	0	0	1	1	1	1	1	1	1	1	1	A	0	0	0	0	0	0	0.5	0.7
15-Mar	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0.4	0.6
16-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.4	0.5
17-Mar	0	0	0	0	0	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0.4	0.4
18-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	1	0	1	1	1	1	0.5	0.8
19-Mar	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0	0	0	0	1	1	0	0	0	0	0.6	1.1
20-Mar	0	0	0	0	0	0	0	1	1	0	0	A	1	0	0	0	0	0	0	0	1	0	1	1	0.4	0.9
21-Mar	0	0	1	0	0	0	0	1	0	1	A	0	0	1	1	1	1	1	1	1	1	1	1	1	0.5	0.7
22-Mar	1	1	1	1	1	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0.6	0.7
23-Mar	1	0	0	1	1	1	0	0	A	1	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0.4	0.6
24-Mar	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	1	1	1	1	0	1	0.4	0.5
25-Mar	0	0	1	1	1	1	A	1	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0.5	0.7
26-Mar	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.4	0.5
27-Mar	1	0	0	0	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.8
28-Mar	0	1	0	A	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0.5	0.8
29-Mar	0	1	A	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	1	0	1	0.5	0.7
30-Mar	1	A	1	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
31-Mar	A	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	0	0	A	0.5	0.8
		0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	Diurnal Average
		1.1	1.0	1.1	1.1	1.2	0.8	0.9	1.1	1.3	1.4	1.1	1.2	0.8	0.6	0.6	0.6	0.7	0.6	0.6	0.8	0.9	0.7	0.9	0.8	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
Henry Pirker - March 2014



Hourly Maximums

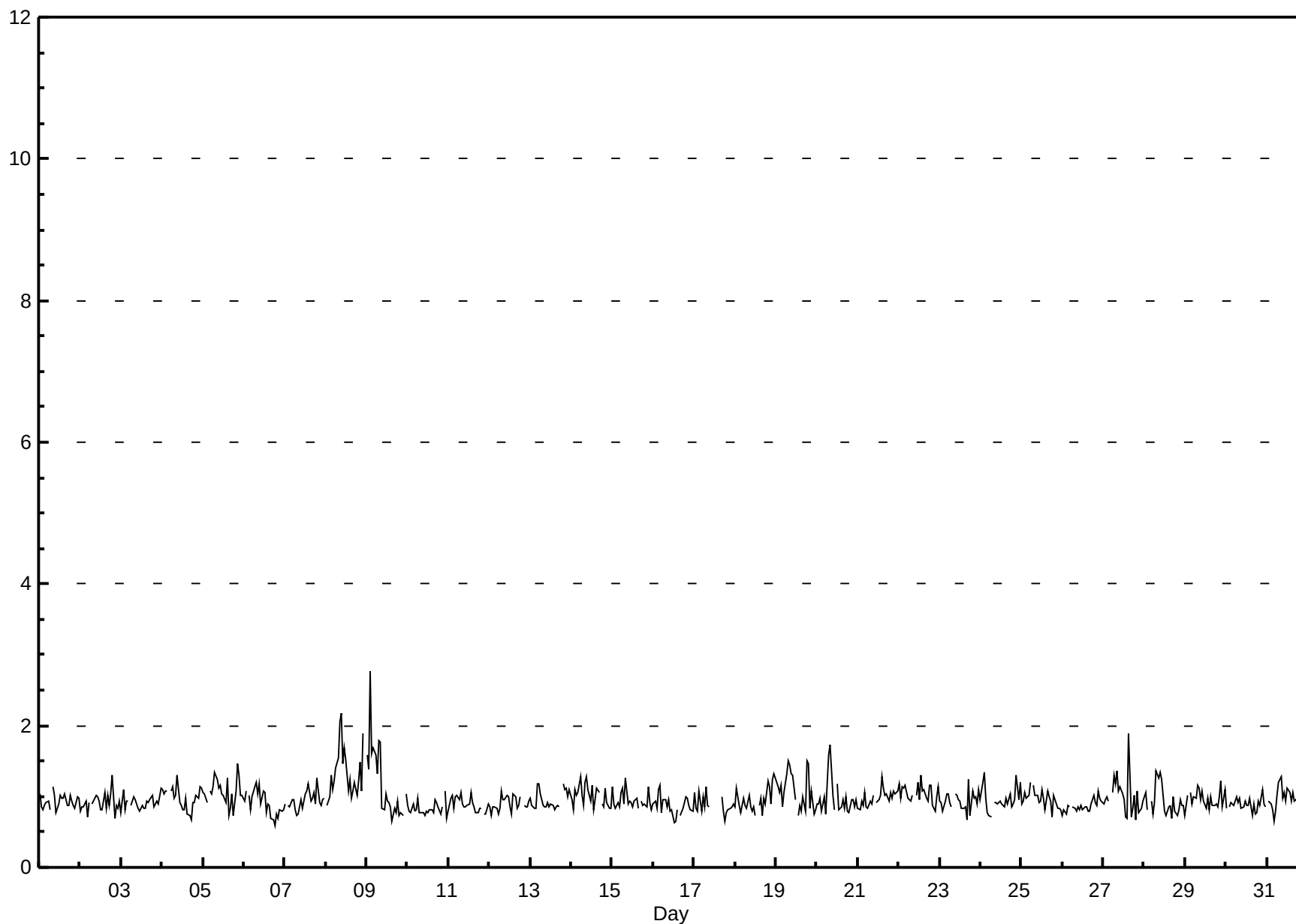
Total Reduced Sulphur (TRS) - ppb

Henry Pirker - March 2014

Maximum Value: 2.8 ppb on Mar 9 03:00																			Maximum Daily Average: 1.3 ppb on Mar 8						Hours in Service: 744		
Minimum Value: 1 ppb on Mar 6 19:00																			Minimum Daily Average: 0.8 ppb on Mar 10						Hours of Data: 706		
Maximum Diurnal Average: 1.1 ppb at hour 9																			Minimum Diurnal Average: 0.9 ppb at hour 17						Hours of Missing Data: 38		
Monthly Average: 0.97 ppb																			Percentiles: P ₁ = 0.7 P ₁₀ = 0.8 Q ₁ = 0.8 Median = 0.9 Q ₃ = 1.0 P ₉₀ = 1.2 P ₉₉ = 1.8						Hours of Calibration: 38		
																									Percent Operational Time: 100.0		
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Mar	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	
2-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3	
3-Mar	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	
4-Mar	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3	
5-Mar	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5	
6-Mar	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2	
7-Mar	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	1.3	
8-Mar	A	1	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	2	A	1.3	2.2	
9-Mar	2	1	3	2	2	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.2	2.8	
10-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.1	
11-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.1	
12-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.9	1.1	
13-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.0	1.2	
14-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.0	1.3	
15-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.9	1.3	
16-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.9	1.2	
17-Mar	1	1	1	1	1	1	1	1	1	1	C	C	C	C	C	C	1	1	1	1	1	1	1	1	0.9	1.1	
18-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.9	1.3	
19-Mar	1	1	1	1	1	1	1	2	1	1	1	1	A	1	1	1	1	1	2	1	1	1	1	1	1.1	1.5	
20-Mar	1	1	1	1	1	1	1	2	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.7	
21-Mar	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3	
22-Mar	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.3	
23-Mar	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2	
24-Mar	1	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	1.3	
25-Mar	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.2	
26-Mar	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	
27-Mar	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1.0	1.9	
28-Mar	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4	
29-Mar	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.2	
30-Mar	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	1.1	
31-Mar	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	1.3	
1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	0.9	1.0	0.9	1.0	Diurnal Average		
1.6		1.4	2.8	1.6	1.7	1.6	1.4	1.8	2.1	2.2	1.5	1.7	1.5	1.3	1.3	1.9	1.1	1.2	1.5	1.5	1.5	1.3	1.9	1.3	Diurnal Maximum		
C - Calibration		A - Automated Daily Zero Span																									

Hourly Maximums

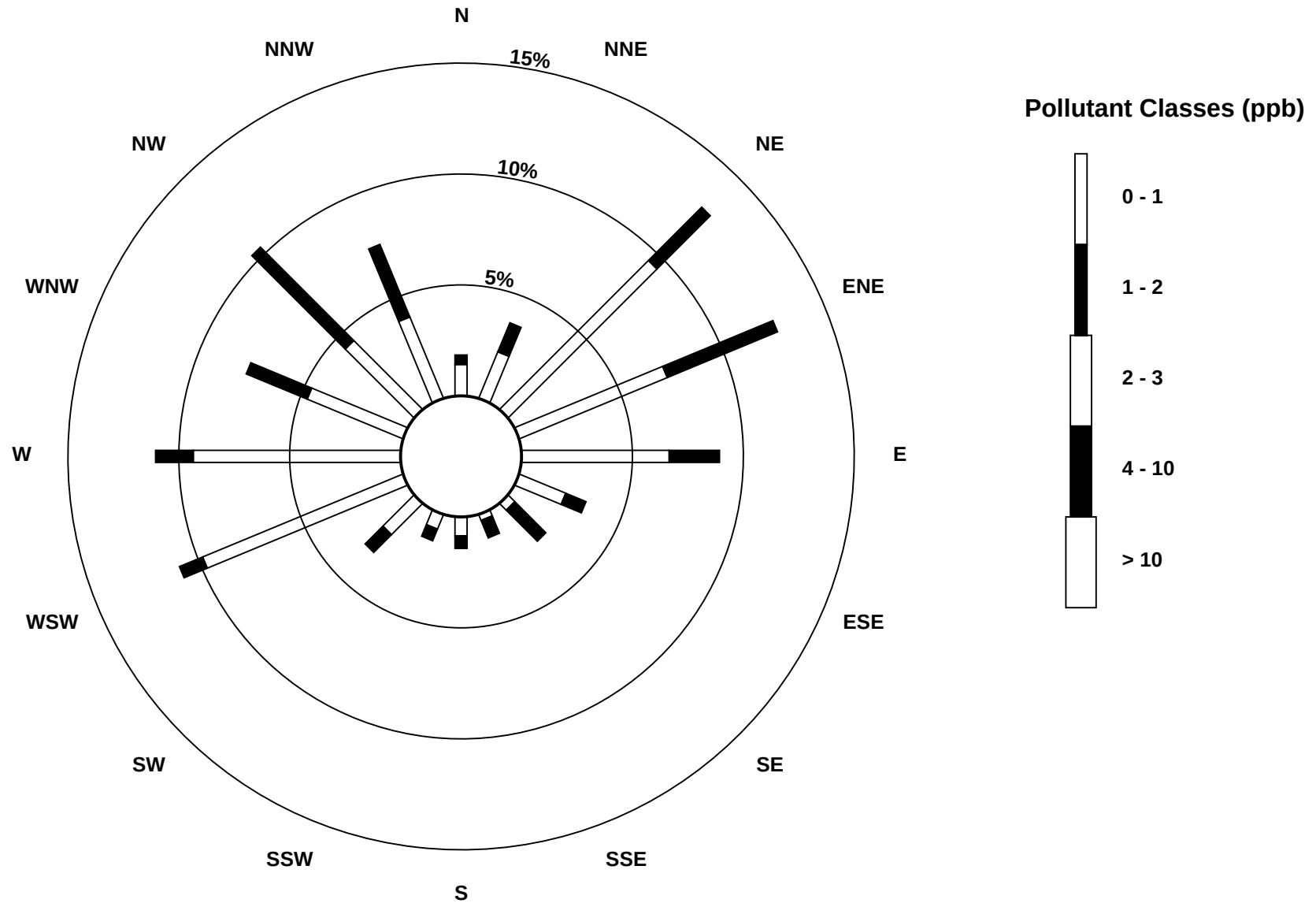
Total Reduced Sulphur (TRS) - ppb
Henry Pirker - March 2014



Pollutant Rose

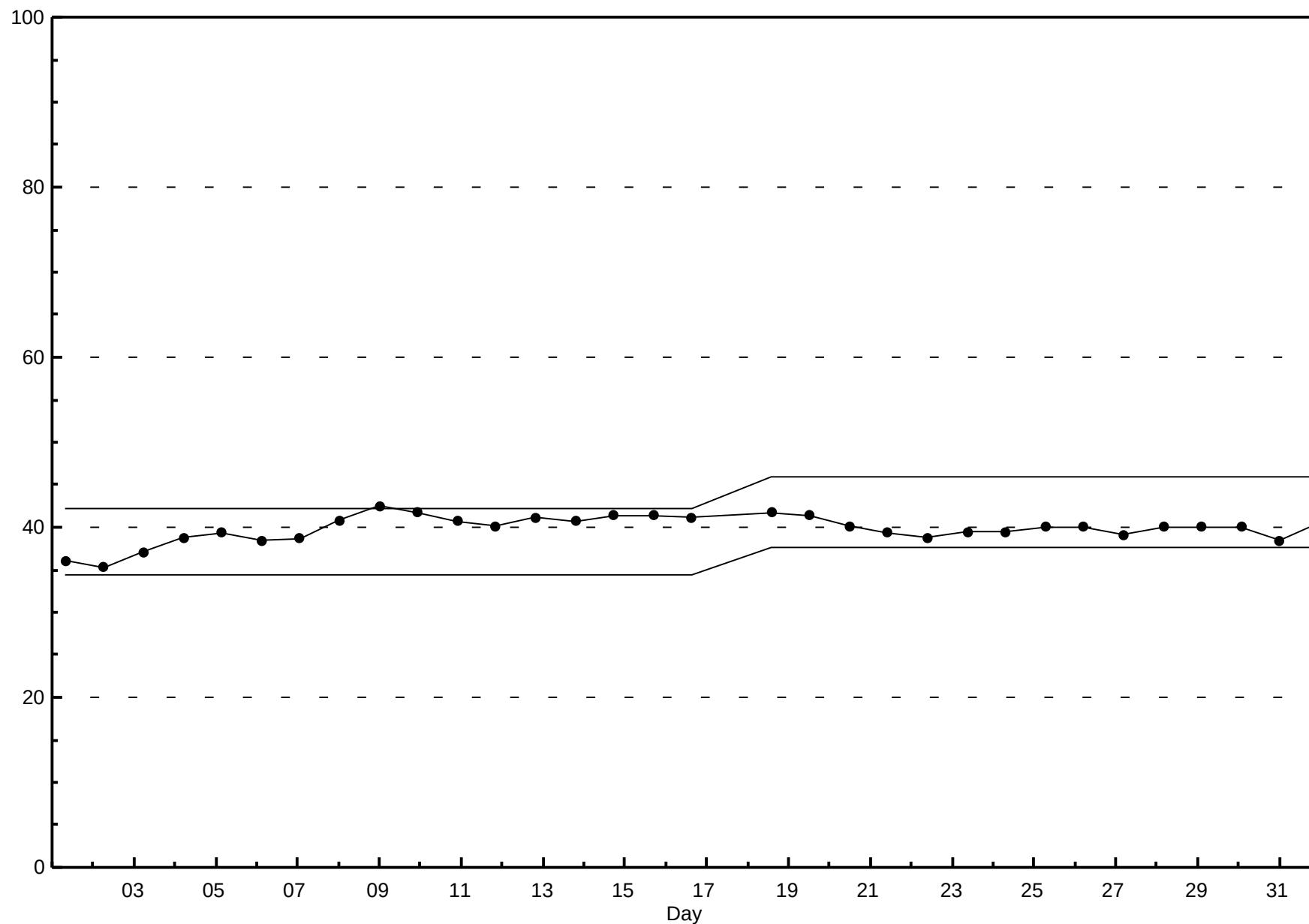
Total Reduced Sulphur (TRS) - ppb

Henry Pirker - March 2014



Span Responses

Total Reduced Sulphur (TRS)
Henry Pirker - March 2014



Hourly Averages

Nitrogen Dioxide (NO₂) - ppb

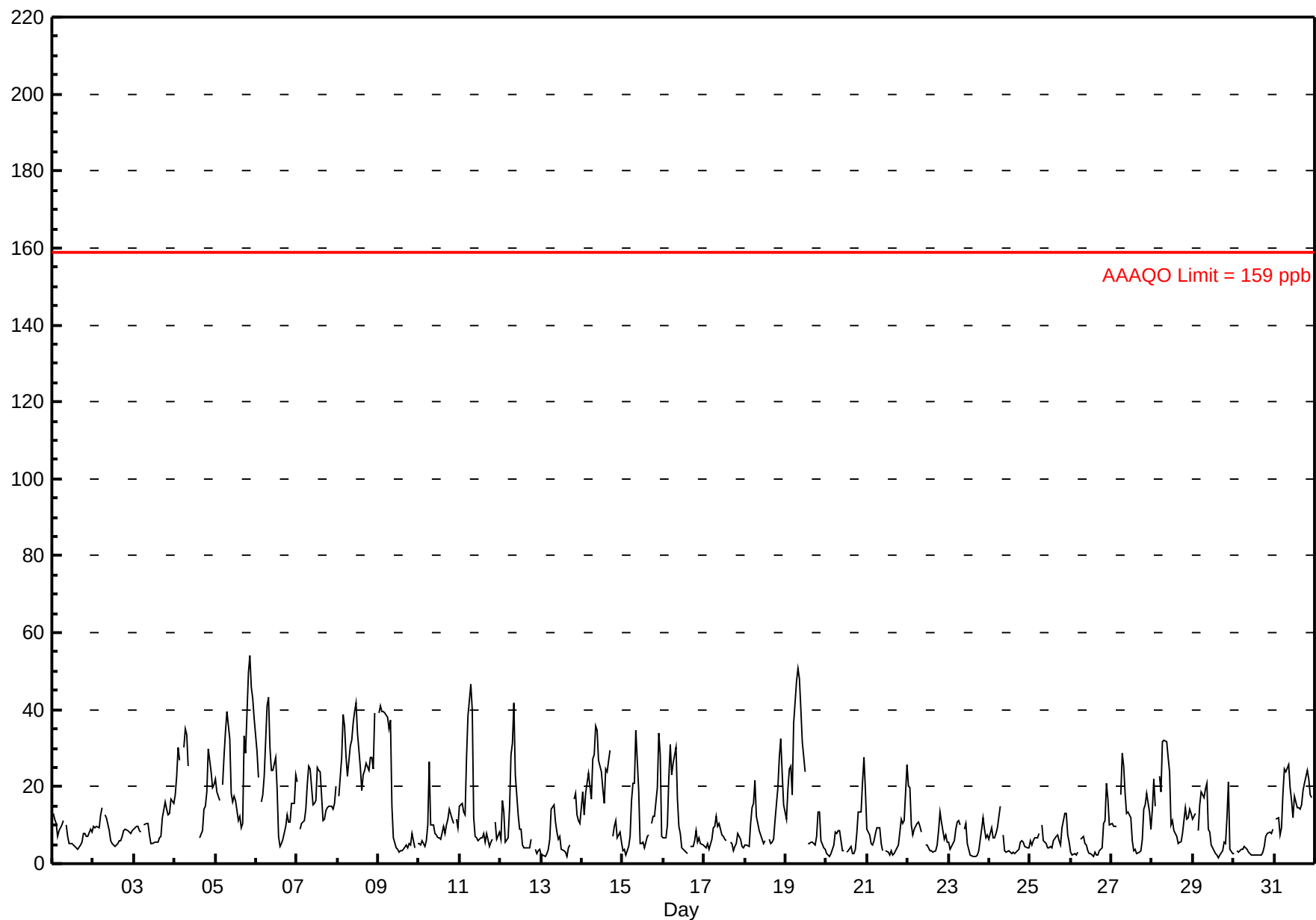
Henry Pirker - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 54.0 ppb on Mar 5 21:00 Maximum Daily Average: 29.3 ppb on Mar 8																								Hours in Service: 744 Hours of Data: 705 Hours of Missing Data: 39 Hours of Calibration: 39 Percent Operational Time: 100.0		
Minimum Value: 2 ppb on Mar 29 16:00 Minimum Daily Average: 4.1 ppb on Mar 30 Maximum Diurnal Average: 22.3 ppb at hour 7 Minimum Diurnal Average: 6.3 ppb at hour 16 Monthly Average: 12.31 ppb Percentiles: P ₁ = 2.0 P ₁₀ = 3.3 Q ₁ = 5.1 Median = 8.8 Q ₃ = 16.3 P ₉₀ = 27.5 P ₉₉ = 45.5																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	13	12	11	7	8	10	11	A	10	7	5	5	5	5	4	4	5	6	8	8	7	7	9	8	7.6	13.1
2-Mar	10	9	10	9	13	15	A	12	12	9	6	5	5	5	5	6	6	7	8	9	9	8	8	9	8.4	14.5
3-Mar	9	10	10	9	8	A	10	11	10	7	5	5	5	6	5	7	7	12	16	14	13	13	17	16	9.8	16.7
4-Mar	18	23	30	27	A	30	35	34	25	C	C	C	C	C	C	7	8	14	15	19	30	24	20	21	--	35.1
5-Mar	22	19	16	A	20	28	34	40	33	18	16	18	16	11	12	9	10	33	29	49	54	46	43	38	26.7	54.0
6-Mar	29	22	A	16	18	23	41	43	30	24	24	28	20	7	5	5	6	10	13	11	11	16	15	23	19.2	43.2
7-Mar	21	A	9	10	11	14	21	25	25	15	16	16	25	24	24	11	12	14	14	15	15	14	15	20	16.8	25.4
8-Mar	A	17	27	39	36	28	23	31	32	36	39	42	34	25	19	23	24	26	24	28	28	25	39	A	29.3	41.9
9-Mar	39	41	40	39	39	38	35	37	15	7	4	4	3	4	3	4	5	4	5	5	8	4	A	5	16.9	41.2
10-Mar	5	5	6	5	6	10	27	10	10	8	8	7	7	6	10	8	10	12	14	12	10	A	11	9	9.3	26.6
11-Mar	15	16	13	13	27	38	46	40	12	7	7	6	7	7	8	6	8	5	6	6	A	11	6	8	13.8	46.4
12-Mar	7	16	13	6	7	14	28	31	42	23	13	9	9	5	4	4	4	4	6	A	4	3	3	4	11.3	41.8
13-Mar	2	2	2	3	4	6	14	15	11	8	6	7	4	3	3	2	4	5	A	17	18	13	11	10	7.5	18.3
14-Mar	19	13	18	21	24	17	27	28	36	35	27	24	19	16	25	24	29	A	7	10	11	7	8	6	19.5	35.9
15-Mar	3	4	2	4	7	17	21	21	35	19	5	5	6	4	7	7	A	11	12	12	20	34	28	7	12.7	34.7
16-Mar	7	7	10	22	31	23	26	30	17	10	8	4	3	3	3	A	4	4	6	9	6	7	5	5	10.9	30.8
17-Mar	5	4	5	4	6	9	10	12	10	10	7	7	6	6	A	6	5	3	4	5	8	6	4	4	6.5	12.1
18-Mar	5	5	5	10	15	16	22	12	9	7	6	5	6	A	6	5	6	6	11	20	28	32	24	15	12.0	32.4
19-Mar	12	19	24	25	18	37	47	51	48	40	32	24	A	5	5	6	6	5	7	13	13	6	4	4	19.6	50.6
20-Mar	2	2	2	2	5	8	8	9	9	3	3	A	3	3	5	3	2	4	8	13	13	21	27	19	7.6	27.5
21-Mar	9	7	5	5	6	8	9	9	5	3	A	3	3	2	3	2	2	3	5	8	11	10	11	26	6.9	25.6
22-Mar	20	20	10	7	9	11	11	10	8	A	5	5	4	3	3	3	3	5	9	13	11	6	7	6	8.2	20.0
23-Mar	6	4	4	6	9	11	11	10	A	9	10	5	4	2	2	2	2	2	3	9	12	9	7	7	6.4	12.1
24-Mar	6	9	7	7	8	9	15	A	8	3	3	3	3	3	3	2	3	4	6	6	5	4	4	4	5.5	14.9
25-Mar	6	5	6	7	7	8	A	10	6	5	4	4	4	4	6	7	7	6	5	9	13	13	7	6	6.7	13.2
26-Mar	3	2	3	2	3	A	6	7	5	5	3	3	3	2	3	2	2	3	4	10	11	21	17	10	5.7	20.8
27-Mar	10	10	10	10	A	18	29	26	18	13	13	12	6	3	4	3	3	3	6	14	15	18	14	9	11.6	28.7
28-Mar	14	22	15	A	23	19	32	32	32	28	24	10	11	9	7	5	5	5	8	15	11	12	14	13	15.9	32.2
29-Mar	12	13	A	9	15	19	17	20	21	9	8	5	3	3	2	2	2	4	6	5	12	21	4	2	9.2	21.4
30-Mar	2	A	3	3	4	4	4	4	4	3	2	2	2	2	2	2	2	3	5	7	8	8	8	9	4.1	8.8
31-Mar	A	11	12	7	9	18	25	24	26	20	16	12	18	14	14	14	15	19	21	24	22	18	17	A	17.2	25.8
11.4 12.1 11.4 11.5 13.7 17.4 22.3 22.2 18.7 13.6 11.3 9.8 8.4 6.6 7.0 6.3 7.0 8.1 9.7 13.2 14.6 14.6 13.7 11.1																								Diurnal Average		
39.3 41.2 39.6 39.4 39.3 38.5 47.3 50.6 48.2 40.4 39.4 41.9 34.0 24.8 24.8 24.0 29.4 33.3 28.7 49.4 54.0 45.8 42.9 37.6																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb																										

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - March 2014



Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb

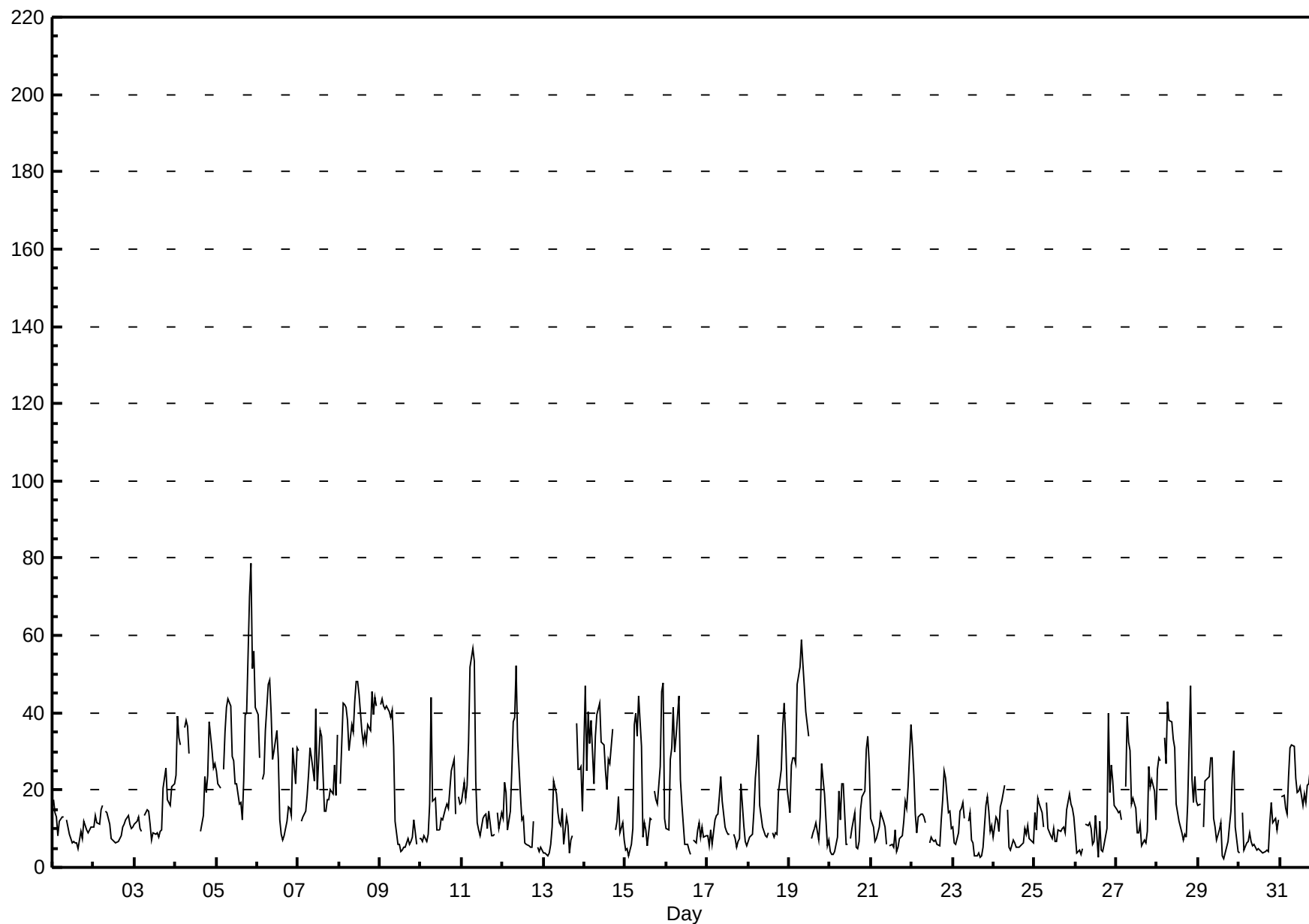
Henry Pirker - March 2014

Maximum Value: 78.5 ppb on Mar 5 21:00																				Maximum Daily Average: 38.6 ppb on Mar 8										Hours in Service: 744	
Minimum Value: 2 ppb on Mar 29 16:00																				Minimum Daily Average: 7.4 ppb on Mar 30										Hours of Data: 705	
Maximum Diurnal Average: 29.3 ppb at hour 7																				Minimum Diurnal Average: 9.3 ppb at hour 16										Hours of Missing Data: 39	
Monthly Average: 17.66 ppb																				Percentiles: P ₁ = 3.1 P ₁₀ = 5.7 Q ₁ = 8.3 Median = 13.5 Q ₃ = 24.0 P ₉₀ = 37.6 P ₉₉ = 51.9										Hours of Calibration: 39	
																				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-Mar	18	14	13	8	12	13	13	A	12	11	9	6	7	6	7	5	9	7	12	11	10	9	11	10	10.1	17.5					
2-Mar	11	14	12	11	15	16	A	15	14	11	7	7	7	6	7	7	8	11	11	12	13	11	10	11	10.7	16.1					
3-Mar	11	12	13	10	9	A	13	15	15	11	7	9	9	9	8	9	10	20	26	18	17	16	21	22	13.4	25.6					
4-Mar	24	39	33	32	A	36	38	37	29	C	C	C	C	C	C	9	14	23	19	24	38	30	26	27	--	39.1					
5-Mar	25	22	21	A	25	35	41	43	42	29	28	22	22	16	17	12	23	40	40	70	79	52	56	41	34.8	78.5					
6-Mar	39	28	A	23	24	35	47	48	40	28	30	35	28	12	9	7	8	12	16	15	13	31	22	31	25.3	48.4					
7-Mar	30	A	12	13	14	19	24	31	28	22	41	20	28	35	34	14	15	17	17	20	19	27	19	34	23.3	41.1					
8-Mar	A	22	42	42	41	38	30	37	35	43	48	48	45	35	32	35	32	37	36	45	40	44	42	A	38.6	48.0					
9-Mar	42	44	42	41	42	40	39	41	31	12	6	6	4	5	5	5	8	6	7	8	12	6	A	8	19.9	43.8					
10-Mar	8	7	8	7	9	17	44	17	18	10	10	10	13	12	15	16	15	20	25	28	14	A	18	16	15.5	44.0					
11-Mar	17	22	18	21	32	52	57	53	23	12	10	8	13	13	14	10	15	8	8	9	A	14	10	14	19.7	56.7					
12-Mar	13	22	19	10	15	25	37	39	52	33	19	12	13	6	6	6	5	5	12	A	5	4	5	5	16.0	52.3					
13-Mar	4	4	3	4	6	10	22	19	14	12	11	15	6	13	11	4	7	8	A	37	25	25	26	15	13.1	37.1					
14-Mar	47	25	40	32	38	22	34	40	41	43	32	32	25	20	28	27	36	A	10	12	18	9	12	7	27.3	46.9					
15-Mar	5	5	3	6	10	37	40	34	44	31	8	12	10	6	13	12	A	20	18	16	26	45	48	13	20.0	47.7					
16-Mar	10	10	28	31	41	30	34	44	23	16	11	6	6	5	3	A	7	6	10	12	8	11	8	8	16.0	44.2					
17-Mar	8	6	10	6	12	14	14	18	23	17	10	9	9	9	A	8	8	5	7	8	22	11	7	6	10.7	23.3					
18-Mar	7	8	9	15	23	28	34	16	11	9	8	8	9	A	9	8	9	9	19	25	37	42	34	20	17.2	42.5					
19-Mar	14	27	28	28	27	47	52	59	52	47	40	34	A	7	9	10	12	7	13	27	23	19	6	7	25.9	58.8					
20-Mar	4	3	3	4	8	20	12	22	22	6	6	A	7	10	14	5	5	7	15	18	20	31	34	27	13.2	34.0					
21-Mar	13	10	7	8	9	10	14	12	10	6	A	6	6	5	10	4	5	8	8	12	17	15	21	37	11.0	37.0					
22-Mar	31	24	14	9	13	14	14	13	12	A	6	8	7	7	7	6	6	12	18	25	23	14	15	10	13.3	31.4					
23-Mar	10	6	6	9	15	15	17	13	A	12	14	7	6	3	3	4	3	3	5	16	18	15	9	11	9.6	18.3					
24-Mar	8	13	12	9	16	17	21	A	15	5	5	7	6	5	5	5	6	6	10	9	11	7	7	6	9.2	21.3					
25-Mar	14	10	18	16	14	11	A	17	10	8	8	10	7	7	10	9	10	10	9	15	19	16	15	13	12.0	18.9					
26-Mar	9	4	5	3	5	A	11	11	12	10	6	7	13	3	12	5	4	6	10	40	19	26	22	16	11.2	39.9					
27-Mar	15	14	14	12	A	21	39	33	30	16	18	15	9	9	11	6	7	6	9	26	21	23	20	12	16.8	39.2					
28-Mar	25	28	28	A	33	27	43	38	38	33	31	16	14	12	9	7	8	8	16	47	23	17	23	17	23.6	47.1					
29-Mar	16	16	A	11	22	23	24	28	28	13	10	7	10	12	3	2	4	7	11	14	24	30	10	4	14.3	30.1					
30-Mar	4	A	14	5	6	7	9	7	6	6	5	5	5	4	4	4	4	4	12	17	11	13	10	12	7.4	16.7					
31-Mar	A	18	19	15	14	23	31	32	31	23	19	20	21	16	19	17	21	21	25	60	42	22	22	A	24.2	60.0					
16.6 16.4 17.1 15.2 19.0 24.1 29.3 28.6 25.4 18.4 16.0 14.0 12.5 10.7 11.5 9.3 10.8 12.0 15.1 23.2 22.2 21.2 19.6 15.8																									Diurnal Average						
46.9 43.8 42.4 42.3 41.9 52.0 56.7 58.8 52.4 46.6 48.0 47.9 44.9 35.4 34.0 34.6 35.8 39.6 39.9 70.2 78.5 51.5 56.1 41.4																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb

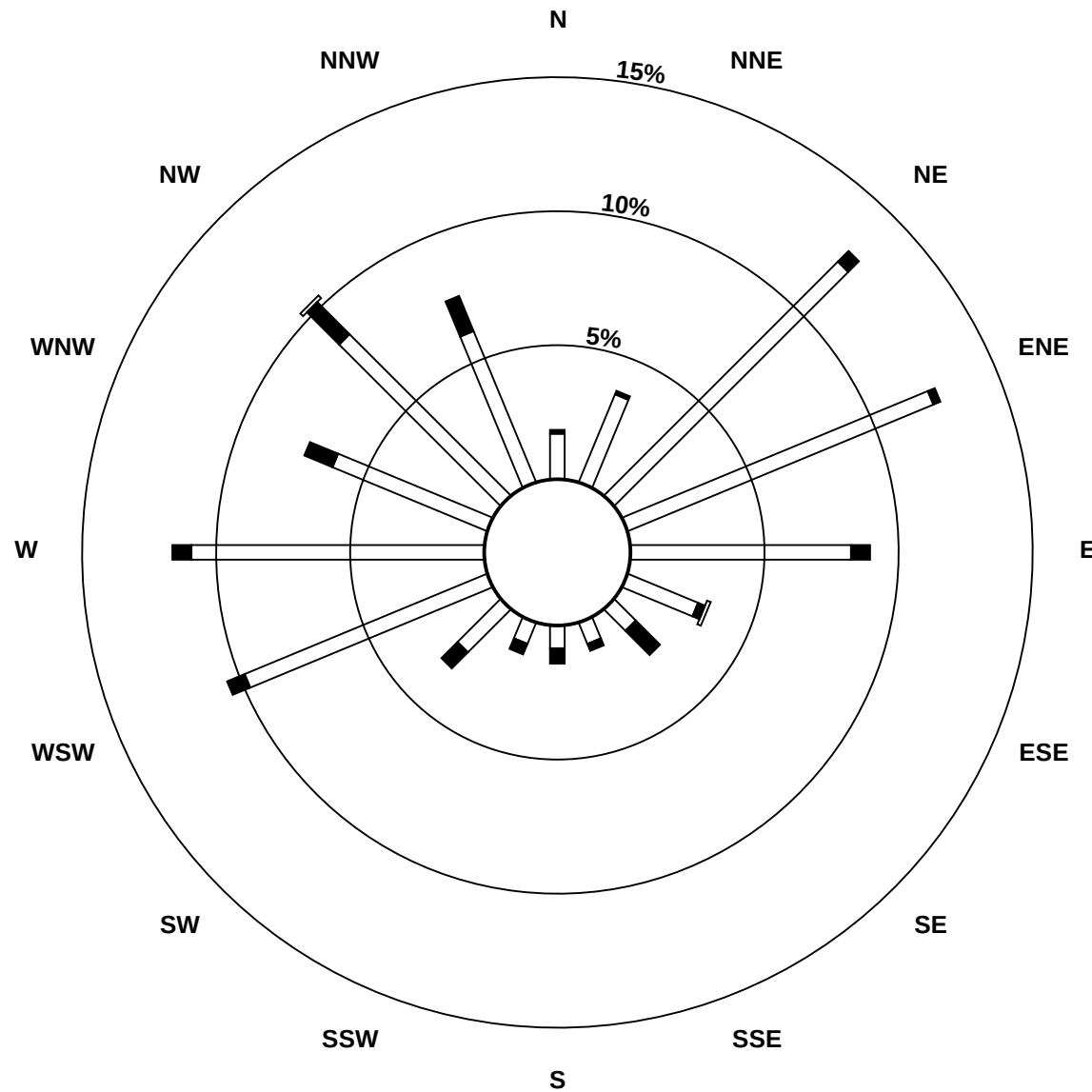
Henry Pirker - March 2014



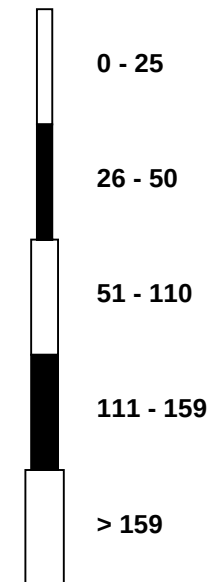
Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb

Henry Pirker - March 2014

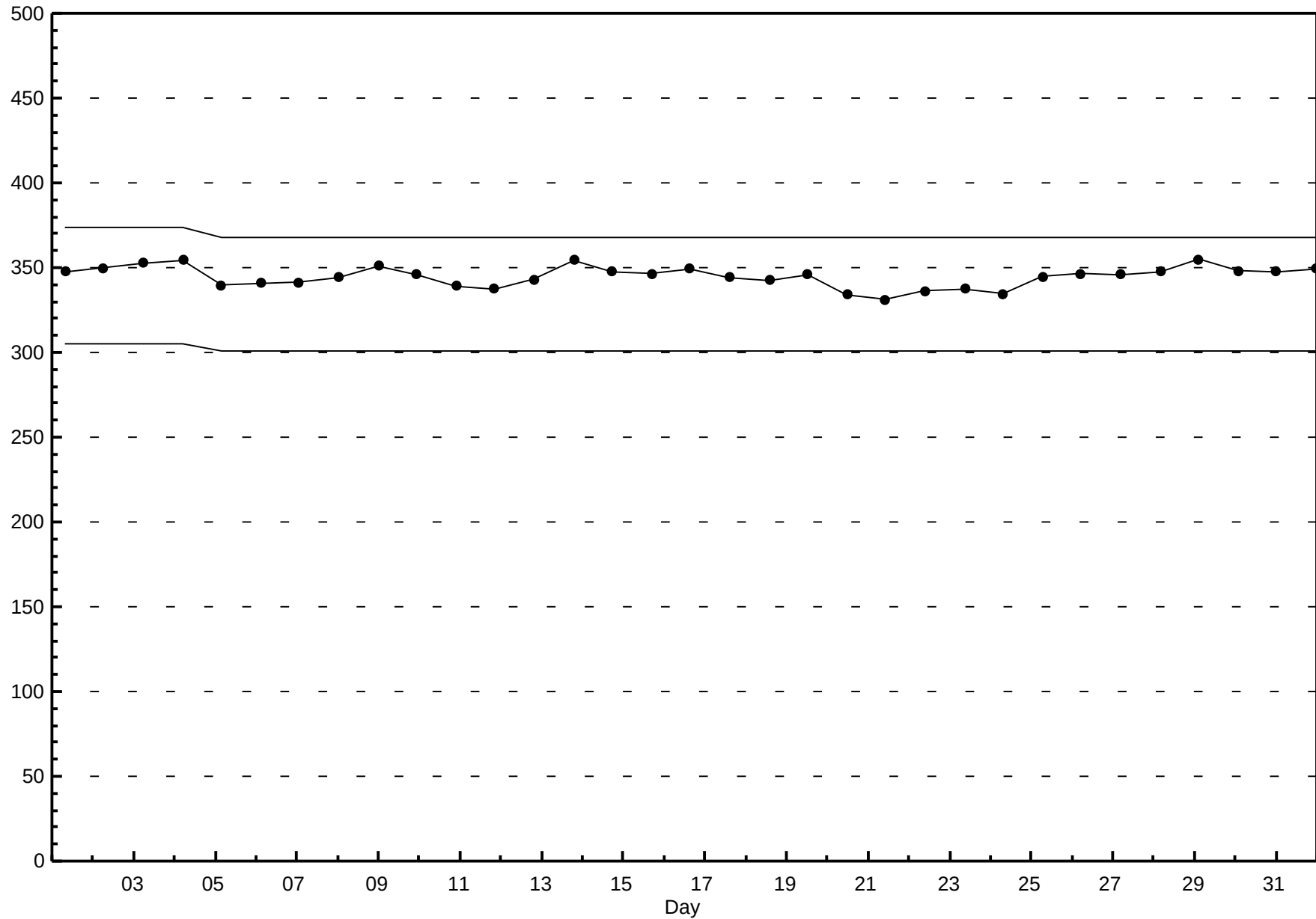


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Henry Pirker - March 2014



Hourly Averages

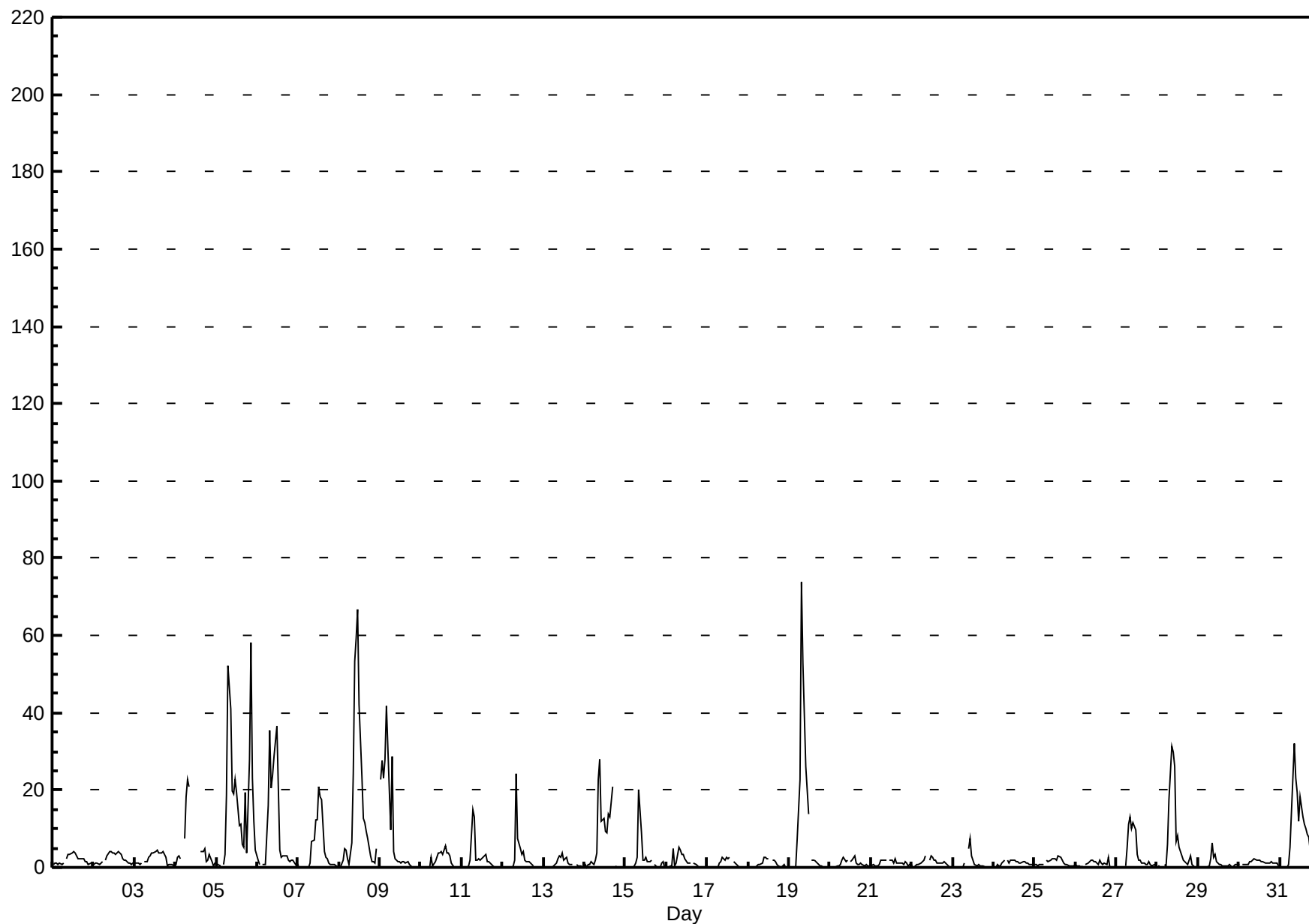
Nitrogen Oxide (NO) - ppb

Henry Pirker - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 73.9 ppb on Mar 19 08:00 Maximum Daily Average: 16.6 ppb on Mar 5																								Hours in Service: 744 Hours of Data: 705 Hours of Missing Data: 39 Hours of Calibration: 39 Percent Operational Time: 100.0		
Minimum Value: 0 ppb on Mar 12 04:00 Minimum Daily Average: 0.8 ppb on Mar 17 Maximum Diurnal Average: 11.8 ppb at hour 9 Minimum Diurnal Average: 0.5 ppb at hour 24 Monthly Average: 4.01 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.4 Median = 1.2 Q ₃ = 2.8 P ₉₀ = 11.7 P ₉₉ = 51.7																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	1	1	1	1	1	1	1	A	2	3	3	4	4	4	3	2	2	2	2	2	1	1	1	1	2.0	4.2
2-Mar	1	1	1	1	1	1	A	2	3	4	4	4	4	4	4	4	3	2	2	2	1	1	1	1	2.2	4.3
3-Mar	1	1	1	1	1	A	2	2	3	3	4	4	4	4	4	4	4	4	2	1	1	1	1	0	2.2	4.3
4-Mar	1	3	3	2	A	7	18	23	21	C	C	C	C	C	C	4	4	5	2	2	3	2	1	1	--	22.6
5-Mar	1	1	0	A	1	3	19	52	41	20	19	23	20	11	11	6	5	19	4	28	58	23	12	5	16.6	58.1
6-Mar	2	1	A	1	1	1	16	35	21	24	29	36	20	5	3	3	3	3	2	1	2	2	1	1	9.2	36.4
7-Mar	0	A	0	0	0	0	0	1	7	7	12	12	21	18	18	4	3	2	1	1	1	1	0	0	4.8	20.8
8-Mar	A	0	2	5	5	2	1	6	24	53	59	67	42	24	13	12	9	8	3	2	1	1	5	A	15.6	66.7
9-Mar	23	27	23	28	42	20	10	29	4	2	2	1	1	2	1	1	1	1	0	0	0	0	A	A	9.5	41.6
10-Mar	0	0	0	0	0	0	3	1	2	3	4	4	4	3	6	4	4	3	1	0	0	A	0	0	1.7	5.7
11-Mar	0	0	0	0	0	2	15	13	2	2	2	2	3	3	3	1	2	1	0	0	A	0	0	0	2.2	15.1
12-Mar	0	0	0	0	0	0	0	2	24	8	5	4	4	2	2	1	1	1	0	A	0	0	0	0	2.3	24.1
13-Mar	0	0	0	0	0	0	0	1	2	3	3	4	2	3	1	1	1	1	A	1	0	0	0	0	1.0	3.8
14-Mar	1	0	1	1	2	1	2	4	23	28	12	13	9	9	14	13	21	A	0	0	0	0	0	0	6.6	28.0
15-Mar	0	0	0	0	0	0	1	3	20	9	2	2	3	1	1	2	A	1	1	0	0	1	1	0	2.1	20.1
16-Mar	0	0	0	0	5	0	1	5	4	3	3	2	1	1	1	A	1	1	0	0	0	0	0	0	1.3	5.0
17-Mar	0	0	0	0	0	0	0	1	2	3	2	3	2	3	A	2	1	1	0	0	0	0	0	0	0.8	2.7
18-Mar	0	0	0	0	0	0	1	1	1	2	2	2	2	A	2	2	2	1	1	0	0	1	0	0	0.9	2.5
19-Mar	0	0	0	0	0	7	23	74	53	40	26	14	A	2	2	2	1	1	1	0	0	0	0	0	10.7	73.9
20-Mar	0	0	0	0	0	1	1	2	3	2	2	A	1	2	3	1	1	1	1	1	0	1	1	0	1.0	2.9
21-Mar	0	1	0	0	0	1	2	2	2	2	A	2	2	1	2	1	1	1	1	1	1	1	0	1	1.2	2.1
22-Mar	0	0	0	1	1	1	1	2	3	A	2	3	3	2	2	1	1	1	1	1	1	0	0	0	1.2	3.0
23-Mar	0	0	0	0	0	0	0	1	A	5	7	3	2	1	1	1	1	0	0	0	0	0	0	0	0.9	7.3
24-Mar	0	0	1	0	1	1	2	A	2	1	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1.1	1.9
25-Mar	1	1	0	1	1	1	A	2	2	2	2	2	2	2	3	2	2	1	1	1	0	0	0	1	1.3	3.0
26-Mar	1	0	0	0	0	A	1	1	1	2	2	1	1	1	2	1	1	1	1	3	0	0	0	0	0.9	2.6
27-Mar	0	0	0	0	A	0	5	11	13	10	12	10	3	2	2	1	1	1	1	1	1	0	1	0	3.3	13.2
28-Mar	0	0	0	A	1	0	6	18	31	30	26	7	8	5	3	2	2	1	1	3	1	0	0	0	6.3	31.1
29-Mar	0	0	A	0	0	0	0	2	6	3	3	2	1	1	1	0	0	0	1	0	0	0	1	1	1.0	6.4
30-Mar	1	A	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	2	1	1	1	0	1.3	2.1
31-Mar	A	0	0	0	0	1	5	14	32	23	19	12	18	13	11	10	8	8	4	2	1	0	0	A	8.3	32.1
1.2 1.3 1.2 1.5 2.2 1.9 4.7 10.7 11.8 10.3 9.4 8.4 6.6 4.4 4.1 3.0 2.9 2.5 1.2 1.8 2.6 1.3 0.9 0.5 22.8 27.5 23.1 28.1 41.6 20.1 22.8 73.9 53.0 53.2 59.3 66.7 42.2 23.6 17.5 13.2 20.8 19.5 4.4 28.1 58.1 23.2 11.9 4.5																								Diurnal Average	Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Nitrogen Oxide (NO) - ppb
Henry Pirker - March 2014



Hourly Maximums

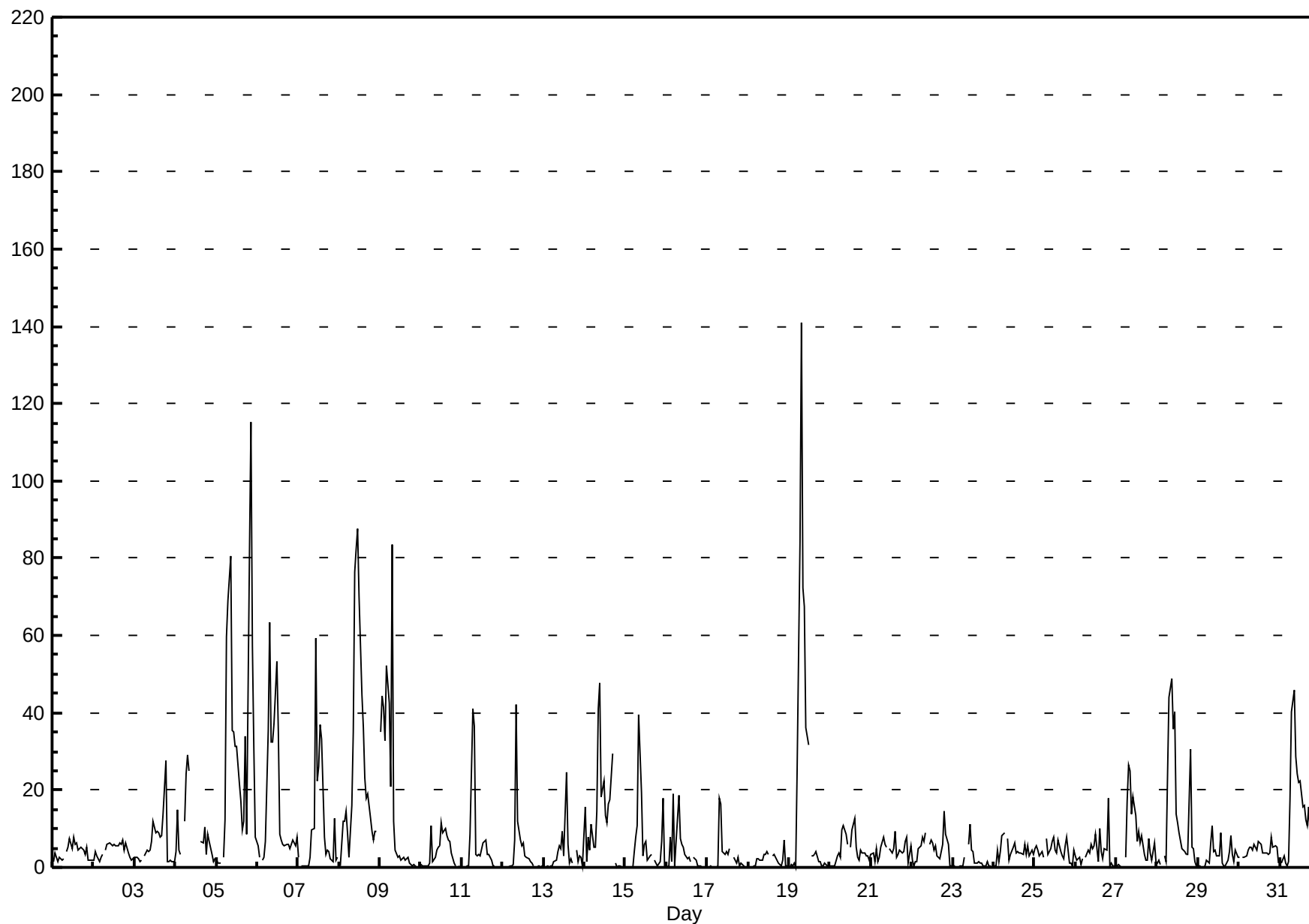
Nitrogen Oxide (NO) - ppb

Henry Pirker - March 2014

Maximum Value: 141.0 ppb on Mar 19 08:00																				Maximum Daily Average: 33.0 ppb on Mar 5					Hours in Service: 744				
Minimum Value: 0 ppb on Mar 15 03:00																				Minimum Daily Average: 1.7 ppb on Mar 23					Hours of Data: 705				
Maximum Diurnal Average: 23.6 ppb at hour 8																				Minimum Diurnal Average: 1.8 ppb at hour 24					Hours of Missing Data: 39				
Monthly Average: 8.50 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.5 Q ₁ = 1.5 Median = 3.8 Q ₃ = 7.8 P ₉₀ = 22.3 P ₉₉ = 82.3					Hours of Calibration: 39				
																									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-Mar	1	4	3	2	2	2	2	A	4	5	7	5	8	6	6	4	5	5	4	3	5	2	2	2	4.0	7.8			
2-Mar	2	4	3	2	3	3	A	4	6	6	6	6	6	6	6	6	6	7	5	6	4	2	2	2	4.4	7.2			
3-Mar	3	3	2	2	2	A	3	5	4	5	7	12	9	9	9	8	8	14	27	2	1	2	2	2	6.0	27.4			
4-Mar	4	15	5	4	A	12	24	29	25	C	C	C	C	C	C	7	6	10	3	9	7	3	2	2	--	29.3			
5-Mar	2	1	1	A	2	12	60	69	81	35	35	31	31	22	17	10	12	34	8	82	115	57	31	8	33.0	115.3			
6-Mar	6	3	A	2	2	7	35	63	33	32	37	53	35	9	7	6	6	6	6	5	6	7	5	8	16.5	63.4			
7-Mar	2	A	0	0	0	0	1	3	10	10	59	22	26	37	33	8	4	5	4	2	2	13	2	3	10.7	59.1			
8-Mar	A	0	12	12	14	9	2	16	35	77	82	88	70	45	36	23	18	19	13	9	7	9	9	A	27.6	87.8			
9-Mar	35	44	41	33	52	42	21	84	12	4	2	3	2	2	2	2	2	1	1	0	1	0	A	0	16.9	83.7			
10-Mar	1	1	0	0	1	1	11	2	3	4	5	6	12	9	10	8	7	7	4	1	1	A	1	0	4.0	11.7			
11-Mar	0	0	0	0	1	8	41	36	4	3	4	3	7	7	7	3	3	2	1	0	A	0	0	0	5.7	41.1			
12-Mar	0	0	0	0	0	1	1	7	42	12	7	6	7	3	2	2	2	1	1	A	0	0	0	0	4.1	42.1			
13-Mar	0	0	0	0	0	0	1	2	4	5	5	9	3	25	6	1	2	1	A	5	1	3	3	1	3.5	24.8			
14-Mar	16	1	8	4	11	5	5	15	41	48	18	22	13	11	17	17	29	A	1	0	1	0	0	0	12.4	47.9			
15-Mar	0	0	0	0	0	4	8	11	39	19	3	6	7	2	3	3	A	2	1	1	1	7	18	1	5.9	39.4			
16-Mar	0	0	8	1	19	1	7	18	8	6	5	3	2	2	2	A	2	2	1	0	0	0	0	0	3.9	19.1			
17-Mar	0	0	0	0	0	0	1	18	16	4	3	4	3	5	A	3	2	1	2	1	1	1	0	0	2.9	18.0			
18-Mar	0	0	0	0	0	2	2	2	2	3	4	4	4	A	3	4	3	2	1	1	2	7	1	1	2.0	7.0			
19-Mar	0	1	1	1	0	25	84	141	72	68	36	32	A	3	3	3	4	2	1	1	1	1	0	0	20.9	141.0			
20-Mar	1	1	1	1	3	4	3	10	11	9	6	A	5	10	13	5	2	2	4	4	4	3	3	2	4.5	12.6			
21-Mar	3	4	1	5	1	2	5	8	6	5	A	5	4	5	9	2	3	4	4	4	7	8	1	5	4.5	9.2			
22-Mar	2	1	1	1	5	6	8	7	9	A	6	7	6	4	6	3	2	4	6	15	9	6	1	0	5.0	14.7			
23-Mar	0	0	0	0	1	1	1	3	A	6	11	5	4	1	1	1	1	1	1	1	1	1	1	0	1.7	11.2			
24-Mar	0	1	5	1	4	8	9	A	7	2	3	5	6	4	4	4	4	3	6	4	5	3	5	3	4.2	8.8			
25-Mar	5	5	5	3	4	3	A	7	4	5	7	8	4	4	7	4	3	2	5	8	1	1	1	5	4.3	8.0			
26-Mar	3	2	2	1	2	A	2	4	4	6	5	5	9	2	10	4	2	5	4	18	0	1	1	1	4.1	17.9			
27-Mar	0	1	0	0	A	2	17	27	25	14	18	13	7	9	6	8	3	2	2	8	4	2	6	1	7.7	26.6			
28-Mar	1	2	1	A	3	1	23	44	49	36	40	14	12	9	5	4	4	3	3	31	5	5	1	1	12.9	48.9			
29-Mar	0	0	A	0	0	2	1	6	11	4	4	3	3	9	1	1	1	2	4	8	3	2	4	3	3.2	11.0			
30-Mar	3	A	2	3	3	4	5	5	4	6	4	7	6	6	4	4	4	3	4	8	5	6	5	1	4.5	7.8			
31-Mar	A	1	3	1	0	1	18	40	46	29	24	22	22	16	16	12	11	16	7	18	10	1	1	A	14.3	45.9			
3.1 3.2 3.7 2.8 4.8 5.9 13.8 23.6 20.5 16.2 15.7 14.1 11.5 9.7 8.7 5.7 5.4 5.6 4.5 8.4 7.0 5.1 3.5 1.8																									Diurnal Average				
35.0 44.2 41.4 32.7 52.3 42.5 84.2 141.0 80.7 76.6 82.5 87.8 70.3 44.8 36.2 23.3 29.4 33.9 27.4 82.4 115.3 57.4 30.9 8.0																									Diurnal Maximum				
C - Calibration A - Automated Daily Zero Span																													

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Henry Pirker - March 2014



Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

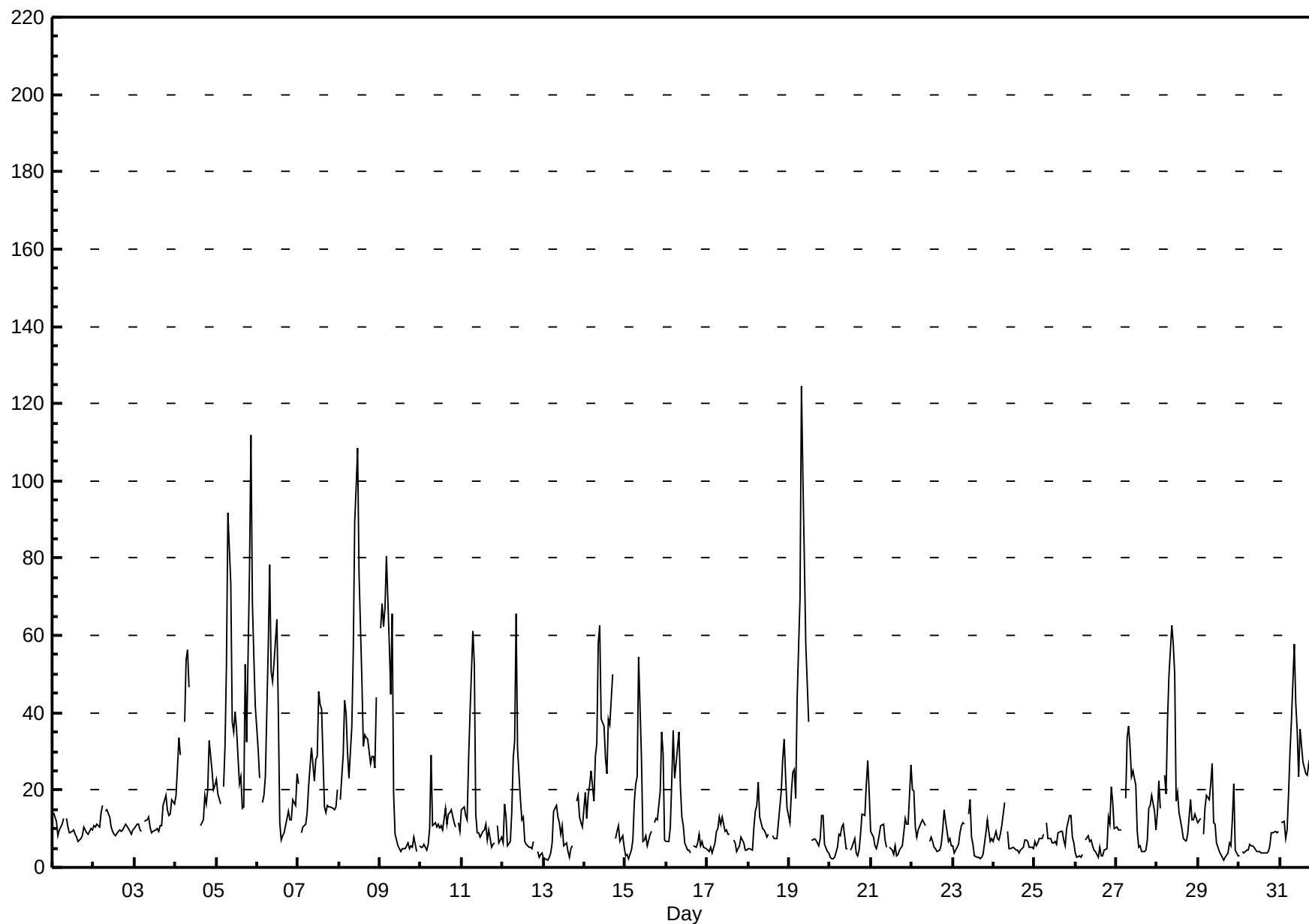
Henry Pirker - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 124.4 ppb on Mar 19 08:00 Maximum Daily Average: 44.6 ppb on Mar 8																								Hours in Service: 744 Hours of Data: 705 Hours of Missing Data: 39 Hours of Calibration: 39 Percent Operational Time: 100.0		
Minimum Value: 2 ppb on Mar 29 16:00 Minimum Daily Average: 5.4 ppb on Mar 30 Maximum Diurnal Average: 32.8 ppb at hour 8 Minimum Diurnal Average: 9.4 ppb at hour 16 Monthly Average: 16.29 ppb Percentiles: P ₁ = 2.3 P ₁₀ = 4.3 Q ₁ = 6.3 Median = 10.4 Q ₃ = 18.9 P ₉₀ = 36.4 P ₉₉ = 88.5																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Mar	14	13	12	8	10	11	13	A	13	11	9	9	10	8	8	7	8	8	10	10	9	8	10	10	9.9	14.2
2-Mar	11	10	11	10	14	16	A	14	15	13	10	9	9	8	10	10	9	10	11	11	10	9	9	10	10.9	16.0
3-Mar	10	11	11	10	9	A	12	12	13	11	9	9	10	10	9	11	11	16	19	15	13	14	18	16	12.1	18.8
4-Mar	19	26	33	29	A	38	54	56	46	C	C	C	C	C	C	11	12	18	16	20	33	25	20	21	--	56.4
5-Mar	23	19	17	A	21	31	53	92	73	38	35	40	36	22	23	15	16	53	32	77	112	69	55	42	43.2	111.9
6-Mar	31	23	A	17	19	24	57	78	51	48	53	64	40	12	7	8	9	13	15	12	12	17	16	24	28.2	78.3
7-Mar	22	A	9	10	11	14	21	26	31	23	28	29	46	42	41	16	14	16	16	16	15	15	16	20	21.5	45.6
8-Mar	A	17	29	43	40	30	23	36	56	90	99	108	76	48	31	34	33	33	27	29	29	26	44	A	44.6	108.4
9-Mar	62	68	62	67	81	58	45	66	19	9	6	5	4	5	5	5	6	5	5	5	8	4	A	5	26.3	80.6
10-Mar	5	5	6	5	6	10	29	11	12	10	11	10	11	10	15	11	14	14	15	12	11	A	11	9	11.0	29.1
11-Mar	15	16	13	12	27	40	61	53	14	9	9	8	9	10	11	7	10	5	6	7	A	11	6	8	15.9	61.2
12-Mar	6	16	13	6	7	14	28	33	66	31	18	12	13	7	6	5	5	5	7	A	4	3	3	4	13.5	65.6
13-Mar	2	2	2	3	4	6	15	16	13	11	9	11	6	6	4	2	5	6	A	17	19	13	12	10	8.4	18.6
14-Mar	19	13	19	21	25	17	29	32	58	63	38	36	28	24	38	37	50	A	7	9	11	7	8	5	25.9	62.5
15-Mar	3	3	2	4	7	17	22	23	55	28	7	7	8	6	9	9	A	11	13	12	20	35	29	7	14.7	54.5
16-Mar	7	7	10	22	35	23	27	35	21	13	11	6	5	4	4	A	5	5	6	9	6	7	5	5	12.1	35.4
17-Mar	5	4	5	4	6	9	10	13	11	13	9	10	9	9	A	7	6	4	5	6	8	6	4	4	7.3	13.1
18-Mar	5	5	5	10	15	16	22	13	10	10	9	8	8	A	8	7	8	7	12	20	28	33	24	15	12.9	33.2
19-Mar	12	20	24	25	18	44	70	124	101	80	58	38	A	7	7	7	7	6	7	14	13	6	4	4	30.2	124.4
20-Mar	3	2	2	3	5	9	8	10	11	5	5	A	4	5	7	4	3	4	8	14	13	21	28	19	8.5	27.7
21-Mar	9	8	5	5	6	8	11	11	7	5	A	5	5	3	6	3	3	4	6	9	13	11	11	26	7.9	26.5
22-Mar	20	20	10	8	10	11	12	11	11	A	7	8	7	5	5	4	4	6	10	15	12	7	7	6	9.4	20.0
23-Mar	6	4	4	6	9	11	11	11	A	14	18	8	6	3	3	3	2	3	4	9	12	9	7	7	7.3	17.6
24-Mar	7	9	7	7	9	11	17	A	9	5	5	5	5	4	5	4	4	5	7	7	7	5	5	5	6.7	16.7
25-Mar	7	6	6	7	8	8	A	12	8	7	6	6	7	6	9	9	9	7	5	10	14	13	8	6	8.1	13.5
26-Mar	4	3	3	3	4	A	7	8	7	7	6	4	4	3	5	3	3	5	5	13	11	21	17	10	6.7	20.9
27-Mar	10	10	10	10	A	18	34	37	31	23	25	21	9	5	5	4	4	4	7	15	16	19	14	10	14.9	36.7
28-Mar	14	22	15	A	24	19	38	50	63	58	50	17	19	14	10	7	7	7	9	18	12	12	14	13	22.2	62.7
29-Mar	12	13	A	8	15	19	17	22	27	11	11	6	4	3	3	2	3	4	6	6	12	22	5	3	10.2	27.0
30-Mar	3	A	4	4	4	5	6	6	6	5	4	4	4	4	4	4	4	4	6	9	9	9	9	9	5.4	9.3
31-Mar	A	12	12	8	10	19	30	38	58	43	36	24	36	27	26	24	24	27	25	26	23	18	17	A	25.5	57.9
12.5 13.3 12.6 12.9 15.8 19.2 26.9 32.8 30.5 23.9 20.6 18.3 15.1 11.1 11.2 9.4 10.0 10.5 10.9 15.0 17.1 15.9 14.5 11.6																								Diurnal Average		
61.7 68.2 62.4 67.2 80.6 57.7 69.8 124.4 101.0 89.6 98.6 108.4 76.0 48.3 41.2 36.9 49.9 52.6 32.3 77.3 111.9 68.8 54.6 41.9																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

Henry Pirker - March 2014



Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

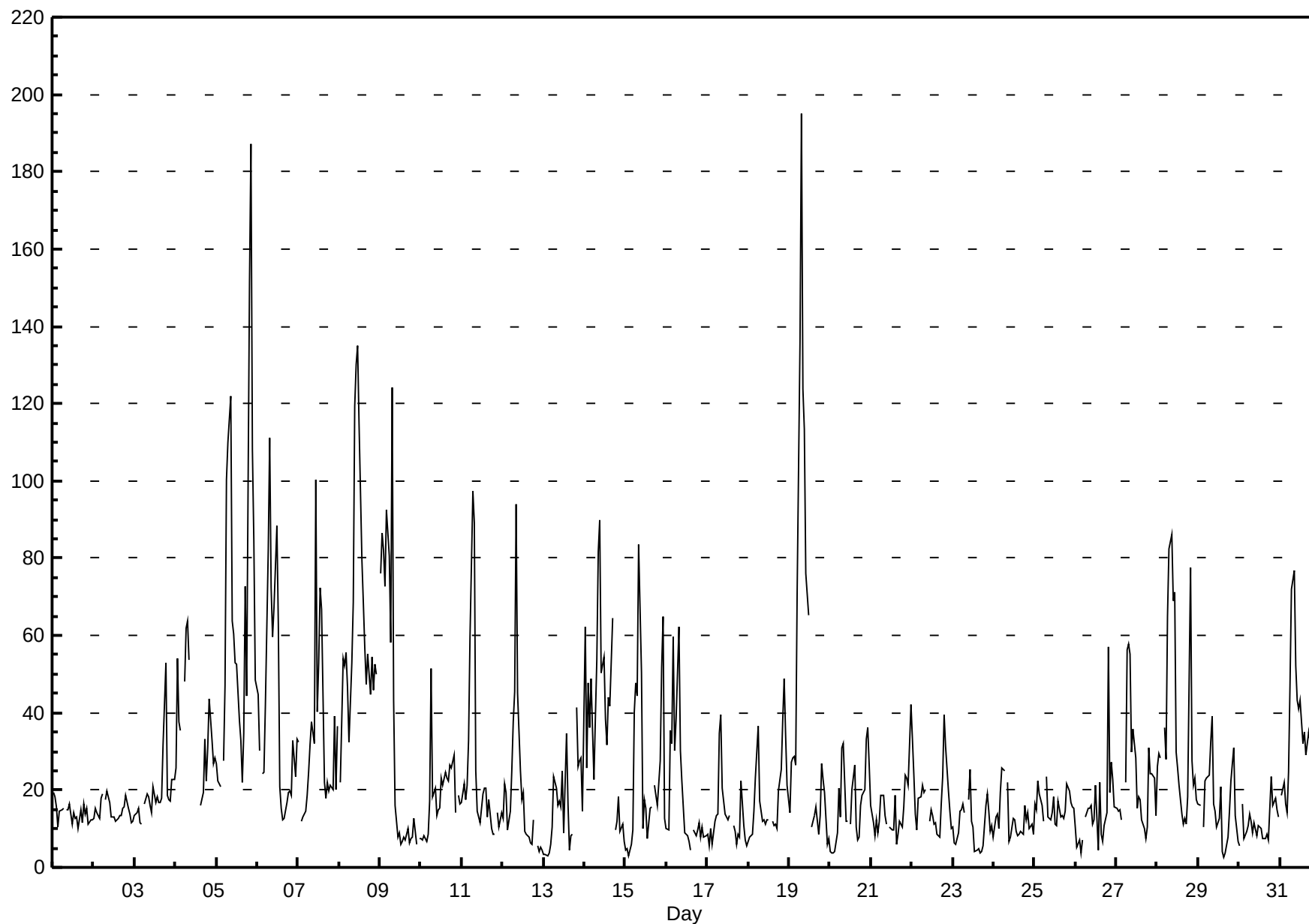
Henry Pirker - March 2014

Maximum Value: 194.9 ppb on Mar 19 08:00																				Maximum Daily Average: 66.6 ppb on Mar 5					Hours in Service: 744	
Minimum Value: 3 ppb on Mar 29 16:00																				Minimum Daily Average: 11.0 ppb on Mar 23					Hours of Data: 705	
Maximum Diurnal Average: 51.3 ppb at hour 8																				Minimum Diurnal Average: 14.6 ppb at hour 16					Hours of Missing Data: 39	
Monthly Average: 25.66 ppb																				Percentiles: P ₁ = 3.6 P ₁₀ = 7.7 Q ₁ = 11.3 Median = 16.8 Q ₃ = 30.0 P ₉₀ = 55.3 P ₉₉ = 120.7					Hours of Calibration: 39	
																									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-Mar	19	18	16	10	14	15	15	A	15	15	17	11	14	13	13	10	15	12	16	14	15	11	12	12	14.1	19.3
2-Mar	13	15	14	13	18	19	A	18	20	17	13	13	13	12	13	14	13	15	16	19	15	14	12	12	14.7	19.7
3-Mar	14	14	15	12	11	A	16	19	18	16	14	21	17	18	17	17	18	32	53	19	18	17	23	23	19.1	53.1
4-Mar	26	54	38	35	A	48	62	64	54	C	C	C	C	C	C	16	20	33	22	31	44	33	27	28	--	63.8
5-Mar	27	22	21	A	28	47	100	110	122	64	60	53	53	38	33	22	35	73	44	152	187	108	85	49	66.6	187.1
6-Mar	45	30	A	24	25	42	82	111	72	60	68	88	63	21	15	12	13	17	19	20	19	33	24	33	40.6	111.3
7-Mar	32	A	12	13	15	19	25	32	38	32	100	40	53	72	67	22	18	22	20	21	20	39	20	37	33.4	100.1
8-Mar	A	22	54	52	55	47	33	53	69	119	130	135	115	80	68	57	47	55	45	54	46	53	50	A	65.3	135.1
9-Mar	76	87	82	73	92	80	58	124	43	16	8	9	6	7	8	7	10	6	7	8	13	6	A	8	36.2	124.0
10-Mar	8	7	8	7	9	17	52	18	20	13	15	15	23	21	25	23	22	27	26	29	14	A	19	16	18.9	51.6
11-Mar	17	22	18	21	33	60	97	89	25	14	13	11	19	21	20	13	18	10	9	9	A	14	10	14	25.1	97.1
12-Mar	13	22	19	10	15	25	38	45	94	45	25	18	19	9	9	8	7	6	12	A	6	4	5	5	19.9	94.0
13-Mar	4	4	3	4	6	11	23	21	16	17	16	25	9	35	17	5	8	9	A	41	26	28	28	15	16.0	41.3
14-Mar	62	26	48	36	49	23	39	54	82	90	50	54	38	32	44	42	65	A	10	12	18	9	11	7	39.1	89.7
15-Mar	4	5	3	6	10	40	48	44	83	50	10	18	15	7	15	15	A	21	18	16	27	52	65	13	25.6	83.5
16-Mar	10	10	36	32	60	30	38	62	30	22	16	9	8	7	5	A	10	8	10	11	8	10	8	8	19.5	62.2
17-Mar	8	6	10	6	12	13	14	35	40	21	14	13	12	14	A	11	9	6	9	8	22	11	7	6	13.3	39.7
18-Mar	7	8	9	15	23	30	37	17	12	12	11	12	12	A	12	11	11	10	20	25	38	49	34	21	19.0	49.0
19-Mar	14	27	28	29	27	71	136	195	124	114	76	65	A	11	12	13	16	9	13	27	23	19	6	7	46.2	194.9
20-Mar	4	4	4	4	9	21	13	31	32	12	12	A	11	20	27	10	7	8	16	19	20	33	36	26	16.5	36.2
21-Mar	16	11	8	12	9	12	19	19	13	11	A	10	10	10	19	6	9	12	11	16	24	23	21	42	14.9	42.1
22-Mar	33	24	14	10	18	18	21	19	20	A	12	15	14	11	12	8	8	16	24	40	31	20	15	10	17.9	39.5
23-Mar	10	6	6	9	15	15	17	14	A	18	25	12	10	4	4	5	4	4	6	16	19	15	9	11	11.0	25.5
24-Mar	8	13	14	10	20	26	25	A	22	7	8	13	12	9	8	9	9	9	16	12	14	10	11	9	12.8	25.6
25-Mar	16	15	22	19	16	12	A	23	13	12	14	18	11	11	17	13	13	13	14	22	20	17	16	15	15.8	23.4
26-Mar	10	5	7	4	7	A	13	15	15	16	11	12	21	4	22	8	7	11	14	57	19	27	23	16	15.1	56.9
27-Mar	15	15	15	12	A	22	56	58	55	30	36	28	15	18	17	12	10	8	11	31	24	24	23	14	23.9	57.7
28-Mar	26	29	28	A	36	28	65	82	86	69	71	30	26	21	14	11	13	11	18	78	28	21	23	18	36.2	86.2
29-Mar	16	16	A	11	23	23	24	33	39	17	14	11	13	21	4	3	4	8	15	22	27	31	13	7	17.1	39.1
30-Mar	6	A	16	8	9	11	14	12	9	12	8	11	11	10	7	7	9	7	15	24	16	18	15	13	11.6	23.6
31-Mar	A	19	22	16	14	25	47	72	77	52	43	41	43	32	35	29	32	35	33	75	51	23	23	A	38.1	76.8
19.3 19.1 20.3 17.6 23.3 29.2 42.3 51.3 45.3 34.2 31.4 28.0 23.7 20.3 19.9 14.6 15.9 17.1 18.7 30.9 28.4 25.8 22.4 17.0																									Diurnal Average	
76.1 86.7 82.2 72.8 92.3 80.4 136.2 194.9 124.0 119.2 130.1 135.1 114.7 79.6 68.3 56.6 64.6 72.8 53.1 151.9 187.1 108.1 84.7 48.6																									Diurnal Maximum	
C - Calibration																										
A - Automated Daily Zero Span																										

Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

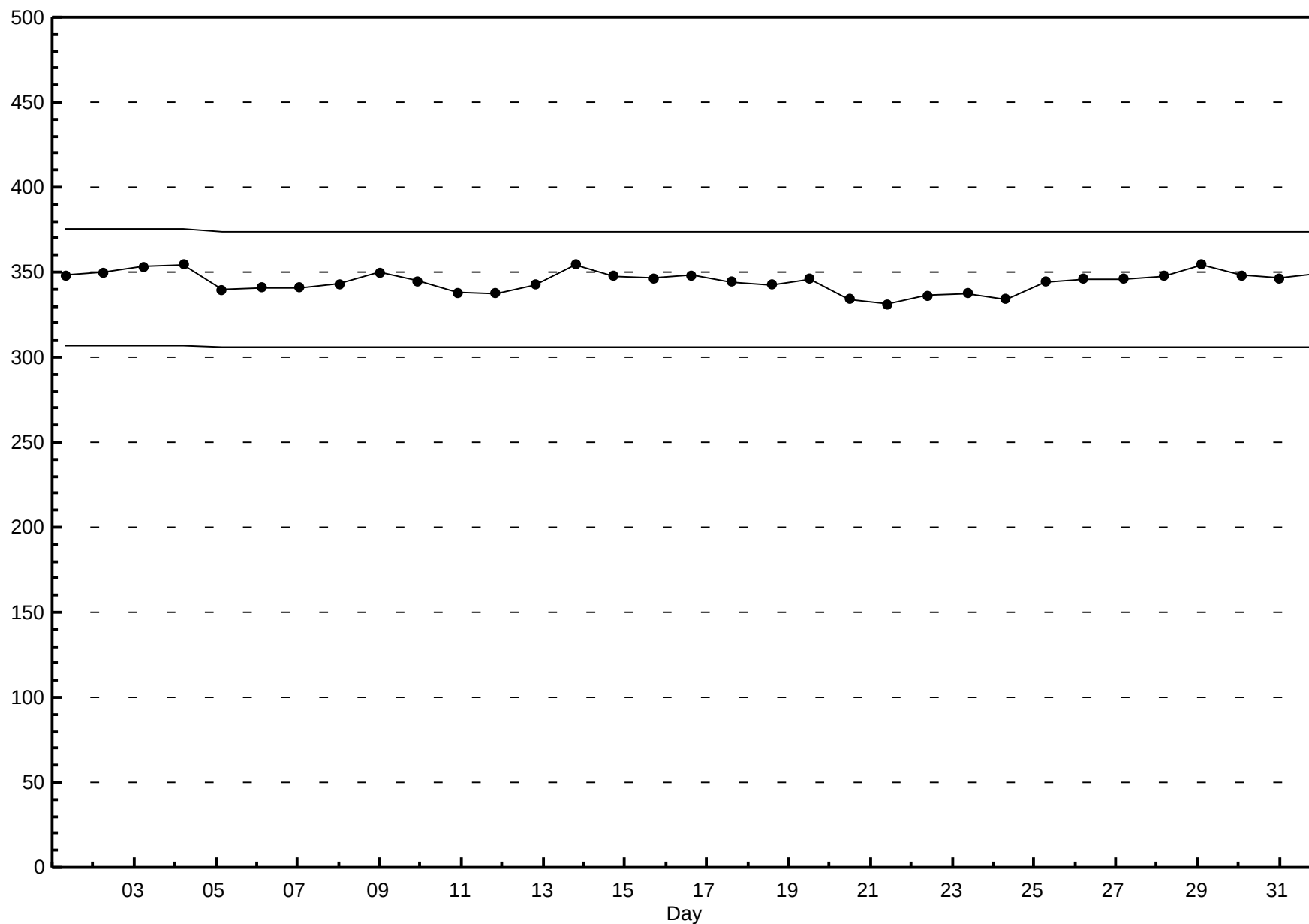
Henry Pirker - March 2014



Span Responses

Oxides of Nitrogen (NO_x)

Henry Pirker - March 2014



Hourly Averages

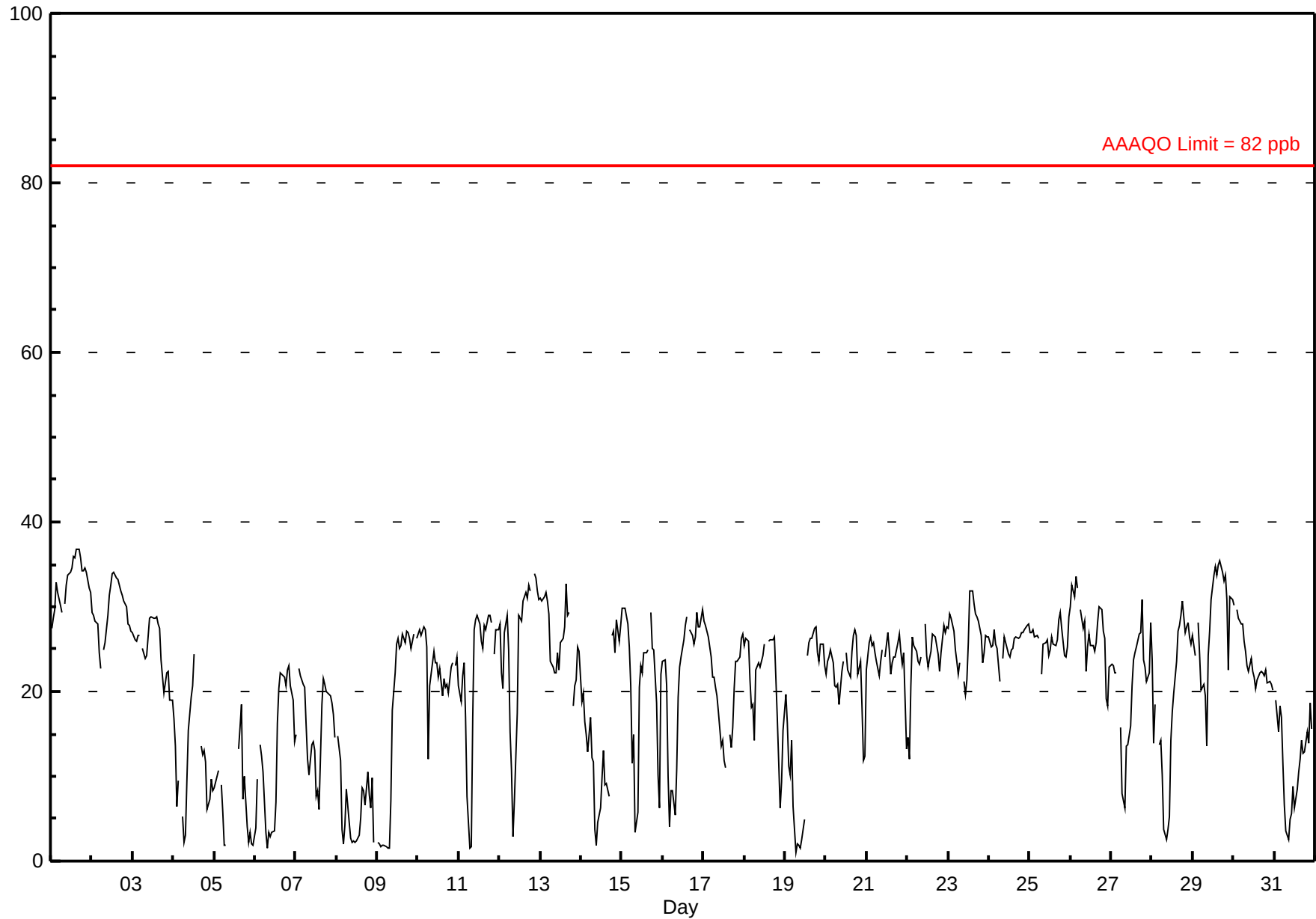
Ozone (O₃) - ppb

Henry Pirker - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 36.8 ppb on Mar 1 16:00 Maximum Daily Average: 32.9 ppb on Mar 1																				Hours in Service: 744 Hours of Data: 702 Hours of Missing Data: 42 Hours of Calibration: 42 Percent Operational Time: 100.0						
Minimum Value: 1 ppb on Mar 19 07:00 Maximum Diurnal Average: 24.7 ppb at hour 18 Monthly Average: 21.06 ppb										Minimum Daily Average: 5.9 ppb on Mar 8 Minimum Diurnal Average: 13.9 ppb at hour 8 Percentiles: P ₁ = 1.7 P ₁₀ = 6.4 Q ₁ = 15.4 Median = 23.6 Q ₃ = 27.0 P ₉₀ = 29.9 P ₉₉ = 34.8																
Day	Hourly Period Ending At (MST)																						Daily Average	Daily Maximum		
1-Mar	27	29	30	33	32	30	29	A	30	33	34	34	35	36	36	37	37	36	34	34	35	34	32	32	32.9	36.8
2-Mar	29	29	28	28	24	23	A	25	26	29	31	33	34	34	33	33	33	32	31	31	30	28	28	27	29.6	34.1
3-Mar	27	26	26	27	27	A	25	24	24	26	29	29	29	29	29	28	27	24	20	21	22	22	19	19	25.1	28.8
4-Mar	17	13	6	10	A	5	2	3	10	15	19	21	24	C	C	C	14	13	13	12	6	7	10	8	11.4	24.5
5-Mar	9	9	11	A	9	6	2	2	C	C	C	C	C	C	13	16	19	7	10	4	2	3	2	2	--	18.5
6-Mar	4	10	A	14	12	11	3	2	3	3	3	4	7	16	20	22	22	22	21	23	23	21	19	14	13.0	23.1
7-Mar	15	A	23	22	21	21	16	12	10	14	14	13	8	8	6	19	22	21	20	20	20	19	17	15	16.2	22.8
8-Mar	A	15	12	4	2	4	8	5	3	2	2	2	3	5	9	8	7	11	8	6	10	2	A	5.9	14.7	
9-Mar	2	2	2	2	2	2	2	1	7	18	22	26	26	25	25	27	26	27	27	26	25	27	A	26	16.3	27.1
10-Mar	27	27	27	28	27	25	12	21	23	25	23	23	22	23	20	21	21	21	20	23	23	A	23	24	23.0	27.7
11-Mar	21	19	22	23	17	8	2	2	17	27	28	29	28	26	25	28	27	29	29	28	A	24	27	27	22.3	29.0
12-Mar	28	22	20	27	29	25	15	11	3	7	17	29	29	28	31	32	31	32	32	A	34	33	32	31	25.2	33.8
13-Mar	31	31	31	32	31	29	24	23	22	22	25	23	26	26	28	33	29	29	A	18	21	21	25	25	26.2	32.7
14-Mar	19	20	16	15	13	17	12	12	4	2	5	6	10	13	9	9	8	A	27	27	25	29	26	28	15.2	28.6
15-Mar	30	30	30	28	25	21	12	15	3	6	20	23	22	25	25	25	A	29	25	25	19	10	6	22	20.7	29.9
16-Mar	24	24	21	10	4	8	8	5	11	19	23	24	26	28	29	A	27	27	26	26	29	28	28	30	21.0	29.6
17-Mar	28	28	27	26	24	22	22	21	19	18	13	14	12	11	A	15	13	16	20	24	24	24	26	27	20.6	28.2
18-Mar	25	26	26	21	18	18	14	22	23	23	24	24	26	A	26	26	26	26	26	17	12	6	9	15	21.0	26.4
19-Mar	20	16	11	10	14	6	1	2	2	1	3	5	A	24	26	26	26	27	28	25	23	26	26	23	16.1	27.6
20-Mar	22	23	24	25	23	21	21	21	18	22	23	A	25	23	22	25	27	27	27	22	24	18	12	12	22.0	27.2
21-Mar	23	26	26	25	26	25	24	22	24	25	A	24	27	25	22	23	24	24	26	27	25	23	25	13	24.0	27.0
22-Mar	15	12	21	26	25	25	24	23	24	A	28	24	23	24	25	27	26	25	24	22	24	28	27	28	24.0	28.0
23-Mar	27	29	29	27	25	24	22	23	A	21	20	21	26	32	32	30	29	29	28	27	23	25	27	26	26.2	31.9
24-Mar	26	25	25	27	26	25	21	A	24	26	26	24	24	25	25	26	26	26	26	27	27	27	28	28	25.8	28.0
25-Mar	27	27	27	26	27	26	A	22	26	26	26	24	25	27	26	25	26	29	29	27	24	24	25	29	26.1	29.3
26-Mar	30	33	31	34	32	A	30	27	28	22	25	27	25	25	25	26	28	30	30	27	26	19	18	23	27.1	33.6
27-Mar	23	23	22	22	A	16	8	7	6	14	14	16	21	24	25	25	27	27	31	24	23	21	22	28	20.4	30.9
28-Mar	24	14	19	A	14	14	10	4	3	4	5	14	18	20	24	27	28	29	31	27	28	28	26	26	18.9	30.6
29-Mar	27	24	A	28	24	20	21	20	14	24	27	31	34	35	34	35	35	34	33	34	31	22	31	31	28.2	35.4
30-Mar	30	A	30	29	28	28	26	25	23	22	24	22	22	20	21	22	22	22	22	22	21	21	21	20	23.7	30.1
31-Mar	A	19	15	18	17	12	7	3	3	5	6	9	6	9	11	12	14	13	13	15	14	19	16	A	11.5	19.0
22.6 21.8 22.0 22.3 20.6 17.7 14.6 13.9 14.9 17.3 19.3 20.6 22.0 23.0 23.3 24.5 24.3 24.7 24.6 23.1 22.3 21.6 21.2 22.7																								Diurnal Average		
31.0 32.5 31.2 33.6 32.3 30.1 29.6 27.4 30.3 32.6 33.8 34.0 34.5 36.0 35.8 36.8 36.7 35.8 34.3 34.2 34.6 34.0 32.2 31.7																								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 (O₃) - ppb
Henry Pirker - March 2014



Hourly Maximums

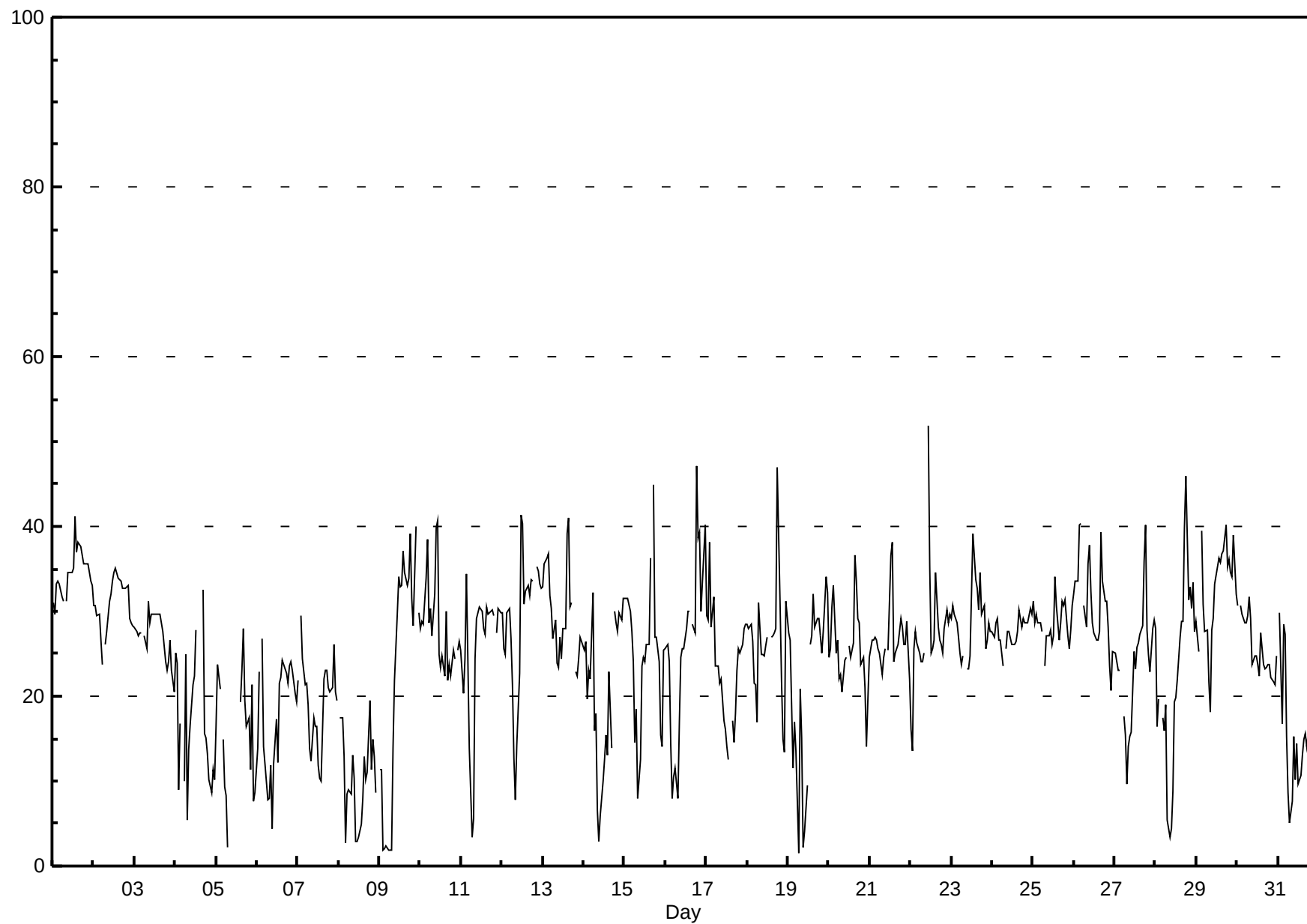
Ozone (O₃) - ppb

Henry Pirker - March 2014

Maximum Value: 51.8 ppb on Mar 22 11:00																				Maximum Daily Average: 34.5 ppb on Mar 1					Hours in Service: 744		
Minimum Value: 1 ppb on Mar 19 07:00																				Minimum Daily Average: 10.2 ppb on Mar 8					Hours of Data: 702		
Maximum Diurnal Average: 29.3 ppb at hour 19																				Minimum Diurnal Average: 17.4 ppb at hour 8					Hours of Missing Data: 42		
Monthly Average: 24.78 ppb																				Percentiles: P ₁ = 2.3 P ₁₀ = 12.0 Q ₁ = 21.0 Median = 26.3 Q ₃ = 29.9 P ₉₀ = 34.1 P ₉₉ = 41.1					Hours of Calibration: 42		
																				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-Mar	31	30	33	34	33	32	31	A	31	35	35	35	35	41	37	38	38	37	36	36	36	36	34	33	34.5	41.2	
2-Mar	31	31	30	30	27	24	A	26	28	31	32	34	35	35	34	34	34	33	33	33	33	29	29	28	30.9	35.1	
3-Mar	28	28	27	27	27	A	27	26	31	29	30	30	30	30	30	30	29	28	24	23	24	27	23	21	27.2	31.1	
4-Mar	25	24	9	17	A	10	25	5	14	17	21	22	28	C	C	C	33	16	15	13	10	9	11	10	16.7	32.5	
5-Mar	16	24	21	A	15	9	8	2	C	C	C	C	C	C	C	19	23	28	19	16	18	11	21	8	9	--	28.0
6-Mar	14	23	A	27	14	12	8	8	12	4	12	17	12	22	22	24	24	23	22	24	24	23	20	19	17.8	26.7	
7-Mar	22	A	29	24	21	22	19	14	12	17	16	17	12	10	10	22	23	23	21	21	21	26	21	20	19.3	29.4	
8-Mar	A	18	18	13	3	8	9	8	13	10	3	3	3	5	8	13	10	11	19	11	15	13	9	A	10.2	19.5	
9-Mar	11	11	2	2	2	2	2	2	14	22	30	34	33	33	37	35	33	34	39	32	28	40	A	A	30	22.1	39.9
10-Mar	28	29	28	34	38	29	30	27	32	40	41	25	23	25	22	30	22	24	22	25	24	A	25	26	28.3	40.7	
11-Mar	25	20	24	34	24	14	3	6	24	29	30	30	30	28	27	30	30	30	30	29	A	27	30	30	25.6	34.5	
12-Mar	30	26	25	30	30	27	21	13	8	14	23	41	40	31	32	33	32	34	34	A	35	35	33	33	28.7	41.4	
13-Mar	33	36	36	37	32	30	27	29	24	23	27	24	28	28	39	41	30	31	A	23	22	24	27	26	29.5	41.0	
14-Mar	25	26	20	23	22	32	16	18	7	3	6	10	12	15	13	23	14	A	30	29	28	30	29	31	20.1	32.2	
15-Mar	32	32	32	30	28	24	14	19	8	12	24	25	24	26	26	36	A	45	27	27	24	15	14	25	24.7	44.9	
16-Mar	26	26	24	14	8	10	11	8	17	25	26	26	28	30	30	A	29	28	47	39	39	30	33	40	25.8	47.2	
17-Mar	30	29	38	28	32	24	24	24	22	22	17	16	14	13	A	17	15	18	23	26	25	26	28	29	23.3	38.1	
18-Mar	29	28	29	27	21	21	17	31	25	25	25	26	27	A	27	27	27	28	47	31	22	15	13	31	26.0	46.9	
19-Mar	27	27	19	11	17	13	1	21	15	2	4	10	A	26	27	32	28	29	29	27	25	28	34	32	21.1	34.1	
20-Mar	25	26	31	33	25	27	22	23	21	24	25	A	26	25	26	37	34	29	29	24	25	21	14	20	25.5	36.6	
21-Mar	25	27	27	27	27	26	25	23	25	26	A	25	37	38	24	25	26	26	29	28	26	26	29	22	26.8	38.1	
22-Mar	16	14	26	28	26	25	24	24	25	A	52	35	25	26	27	35	28	27	26	25	28	30	29	30	27.4	51.8	
23-Mar	29	31	30	29	27	25	24	25	A	23	23	25	32	39	34	33	30	35	30	31	26	27	29	28	28.7	39.2	
24-Mar	28	27	29	29	27	27	24	A	26	28	28	26	26	26	27	28	30	28	29	29	29	29	30	30	27.6	30.3	
25-Mar	31	29	30	29	29	28	A	24	27	27	28	26	27	34	31	27	29	31	31	31	27	26	28	31	28.6	34.1	
26-Mar	32	34	34	40	40	A	31	28	36	38	32	29	27	27	27	28	39	33	31	31	28	24	21	25	31.0	40.3	
27-Mar	25	24	23	23	A	18	15	10	14	15	16	25	23	26	26	27	28	36	40	28	25	23	28	29	23.8	40.1	
28-Mar	28	16	20	A	17	16	19	5	3	4	9	19	20	22	27	29	29	40	46	31	33	30	33	28	22.9	45.9	
29-Mar	29	25	A	39	31	28	28	22	18	28	29	33	35	36	36	37	37	40	35	36	35	34	39	32	32.3	40.2	
30-Mar	31	A	31	30	29	29	30	32	29	24	25	25	24	22	27	24	23	23	24	24	22	22	21	25	25.8	31.7	
31-Mar	A	30	17	28	27	15	9	5	8	15	10	14	10	11	13	15	16	14	16	19	20	21	19	A	16.0	29.8	
26.2 25.8 25.4 26.8 24.1 20.9 18.8 17.4 19.5 21.1 23.3 24.4 25.1 26.0 26.4 28.6 27.5 28.4 29.3 26.7 25.7 25.5 24.7 26.6																								Diurnal Average			
32.8 35.7 38.1 40.2 40.3 32.2 31.1 31.7 35.6 39.8 51.8 41.4 40.3 41.2 39.2 41.0 39.3 44.9 47.2 38.6 39.3 39.9 39.0 40.1																								Diurnal Maximum			
C - Calibration A - Automated Daily Zero Span																											

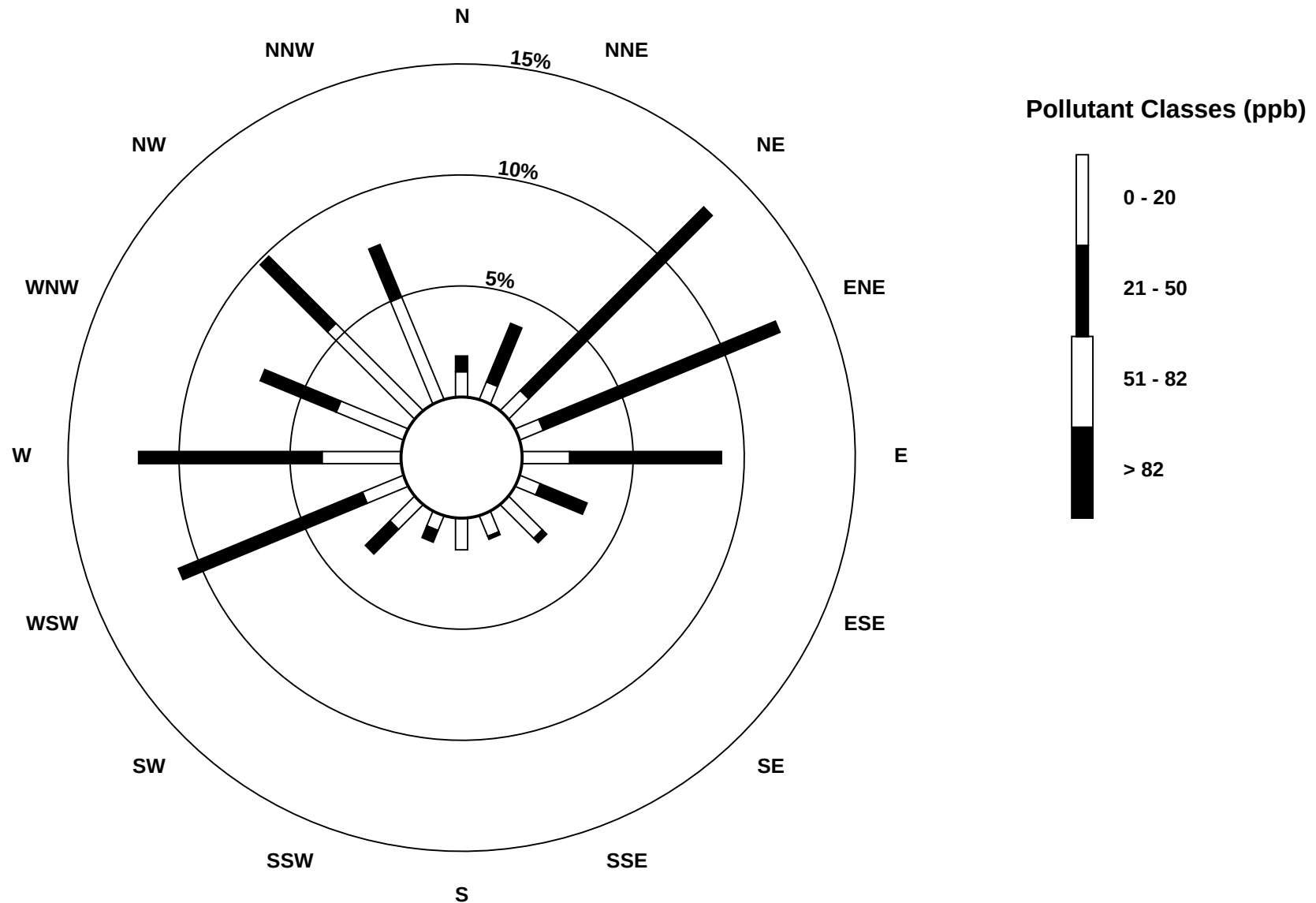
Hourly Maximums

Ozone (O₃) - ppb
Henry Pirker - March 2014



Pollutant Rose

Ozone (O₃) - ppb
Henry Pirker - March 2014



Eight Hour Running Averages

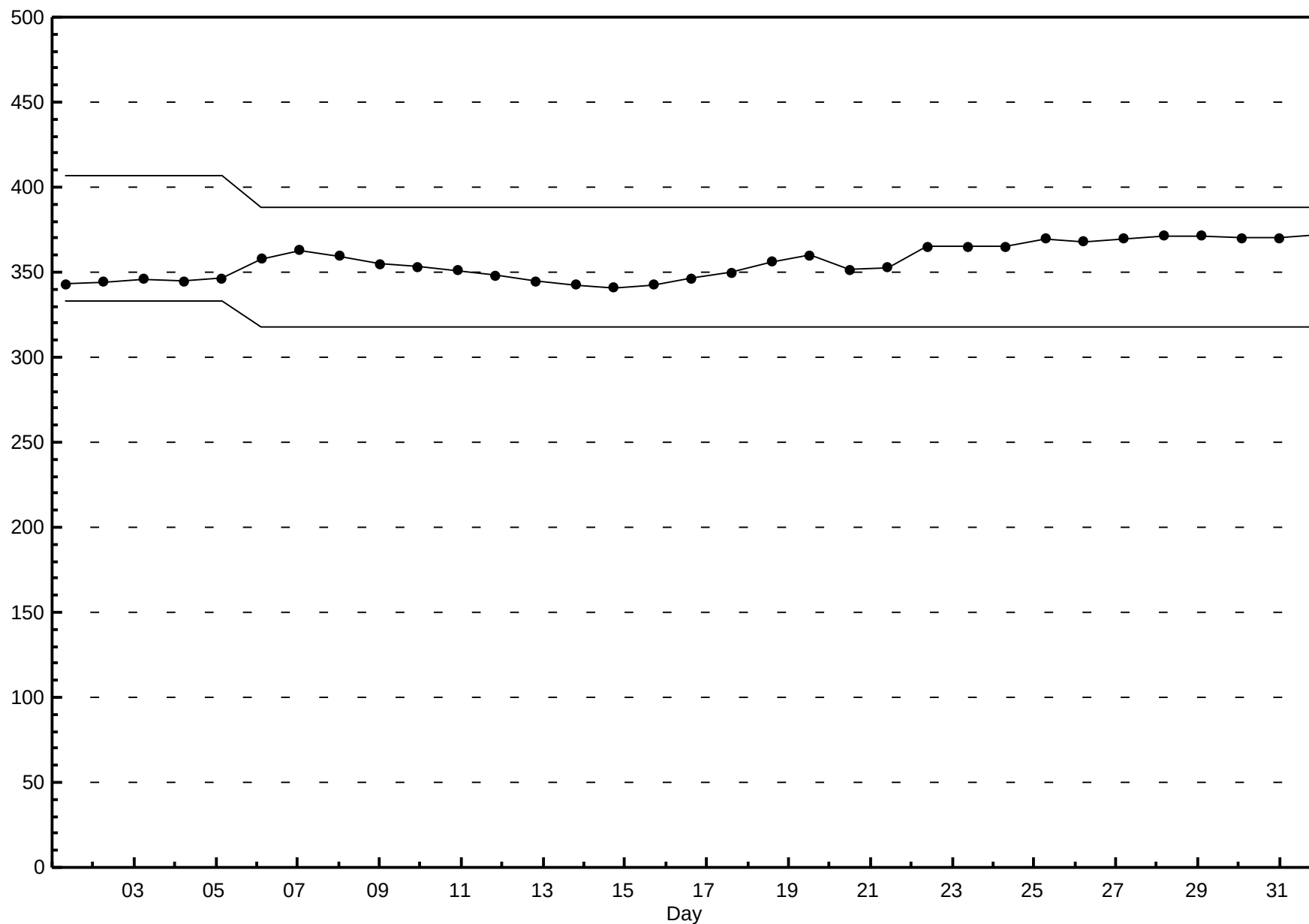
Ozone (O₃) - ppb

Henry Pirker - March 2014

Maximum Value: 35.5 ppb on Mar 1 21:00																							Hours in Service: 744		
Minimum Value: 1.8 ppb on Mar 9 08:00																							Hours of Data: 728		
																							Hours of Missing Data: 16		
Percentiles: P ₁ = 3.5 P ₁₀ = 8.8 Q ₁ = 16.7 Median = 23.4 Q ₃ = 26.4 P ₉₀ = 29.1 P ₉₉ = 34.7																							Hours of Calibration: 16		
																							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-Mar	31	30	29	30	30	30	30	30	30	31	32	32	32	33	34	34	35	35	35	36	36	35	35	34	35.5
2-Mar	33	32	32	31	30	28	28	27	26	26	27	27	29	30	31	32	33	33	33	33	32	31	31	30	33.3
3-Mar	29	29	28	27	27	27	26	26	25	26	26	26	27	27	27	28	28	28	27	26	25	24	23	22	29.2
4-Mar	20	19	18	16	15	13	10	8	7	7	9	11	13	14	15	N	N	N	N	N	N	11	11	10	20.5
5-Mar	10	9	9	9	9	9	8	7	6	N	N	N	N	N	N	N	N	N	N	11	10	9	8	6	11.5
6-Mar	4	5	4	5	7	8	8	8	8	7	6	5	4	5	7	10	12	15	17	19	21	22	21	20	21.7
7-Mar	20	19	20	19	19	19	19	18	18	17	16	15	13	12	11	11	13	14	15	15	17	18	20	19	19.6
8-Mar	19	18	17	14	12	10	9	7	7	5	4	4	4	3	4	4	4	5	6	7	7	8	8	7	18.7
9-Mar	7	6	5	4	3	2	2	2	2	4	7	10	13	16	19	22	24	26	26	26	26	26	26	26	26.4
10-Mar	26	26	26	27	27	27	25	24	24	23	23	23	22	21	22	23	22	22	21	21	21	21	22	22	27.0
11-Mar	22	22	22	22	21	20	17	14	14	15	16	16	18	20	23	26	27	28	28	28	27	27	28	27	27.6
12-Mar	28	27	25	25	26	26	24	22	19	17	17	17	17	17	19	22	25	29	30	31	31	32	32	32	32.3
13-Mar	32	32	32	32	31	31	30	29	28	27	26	25	24	24	24	25	26	27	28	27	26	26	25	24	32.2
14-Mar	23	21	21	20	19	19	17	15	14	11	10	9	8	8	7	7	8	8	12	15	17	19	21	24	24.1
15-Mar	27	28	28	28	28	27	25	24	20	17	16	16	15	16	17	19	21	24	25	25	25	23	20	19	28.2
16-Mar	20	19	19	17	15	15	15	13	11	11	11	13	16	18	21	23	25	26	27	27	27	27	27	28	27.5
17-Mar	28	28	28	28	27	27	26	25	24	22	21	19	18	16	15	15	14	14	15	16	18	19	20	22	27.9
18-Mar	23	25	25	25	24	24	22	22	21	21	21	22	22	24	25	25	25	25	26	25	23	21	19	17	25.8
19-Mar	16	15	13	12	13	13	12	10	8	6	5	4	3	5	9	12	16	20	23	26	26	26	26	25	26.0
20-Mar	25	24	24	24	24	23	23	22	22	22	22	21	22	22	22	23	24	24	25	25	24	24	23	21	24.9
21-Mar	21	20	20	21	21	22	23	25	25	25	24	24	24	24	24	24	24	24	24	25	24	24	25	23	24.8
22-Mar	22	21	20	20	20	20	20	21	23	24	25	25	24	24	24	25	25	25	25	25	25	25	26	26	25.7
23-Mar	26	26	27	27	27	27	26	26	26	24	23	22	22	24	25	26	26	27	28	29	29	28	27	27	29.1
24-Mar	26	26	26	26	26	26	25	25	25	25	25	25	24	24	25	25	25	25	25	26	26	26	27	27	27.0
25-Mar	27	27	27	27	27	27	27	26	26	26	26	25	25	25	25	25	26	26	26	27	27	26	26	27	27.3
26-Mar	27	28	28	29	30	31	31	31	31	29	28	27	26	26	26	26	26	26	27	27	27	26	26	25	31.1
27-Mar	25	24	23	22	22	21	20	17	15	14	12	11	13	14	16	18	21	22	24	25	26	25	25	25	25.6
28-Mar	25	23	22	22	20	19	17	14	11	10	8	8	9	10	11	14	17	21	24	25	27	28	28	28	28.0
29-Mar	28	27	27	27	26	25	24	23	22	22	22	23	24	26	27	29	32	33	34	34	34	32	32	31	34.2
30-Mar	31	30	30	29	29	29	29	28	27	26	26	25	24	23	22	22	22	22	22	22	22	22	22	22	30.8
31-Mar	21	21	20	19	19	17	15	13	12	10	9	8	6	6	6	7	9	10	11	12	13	14	14	15	21.4
33.3 32.4 31.9 31.8 31.4 30.9 31.1 30.9 30.7 30.9 31.5 31.7 32.1 32.9 33.9 34.2 35.0 35.4 35.5 35.5 35.5 35.3 34.8 34.2																								Diurnal Maximums	
N - Not Valid																									

Span Responses

Ozone (O₃)
Henry Pirker - March 2014



Hourly Averages

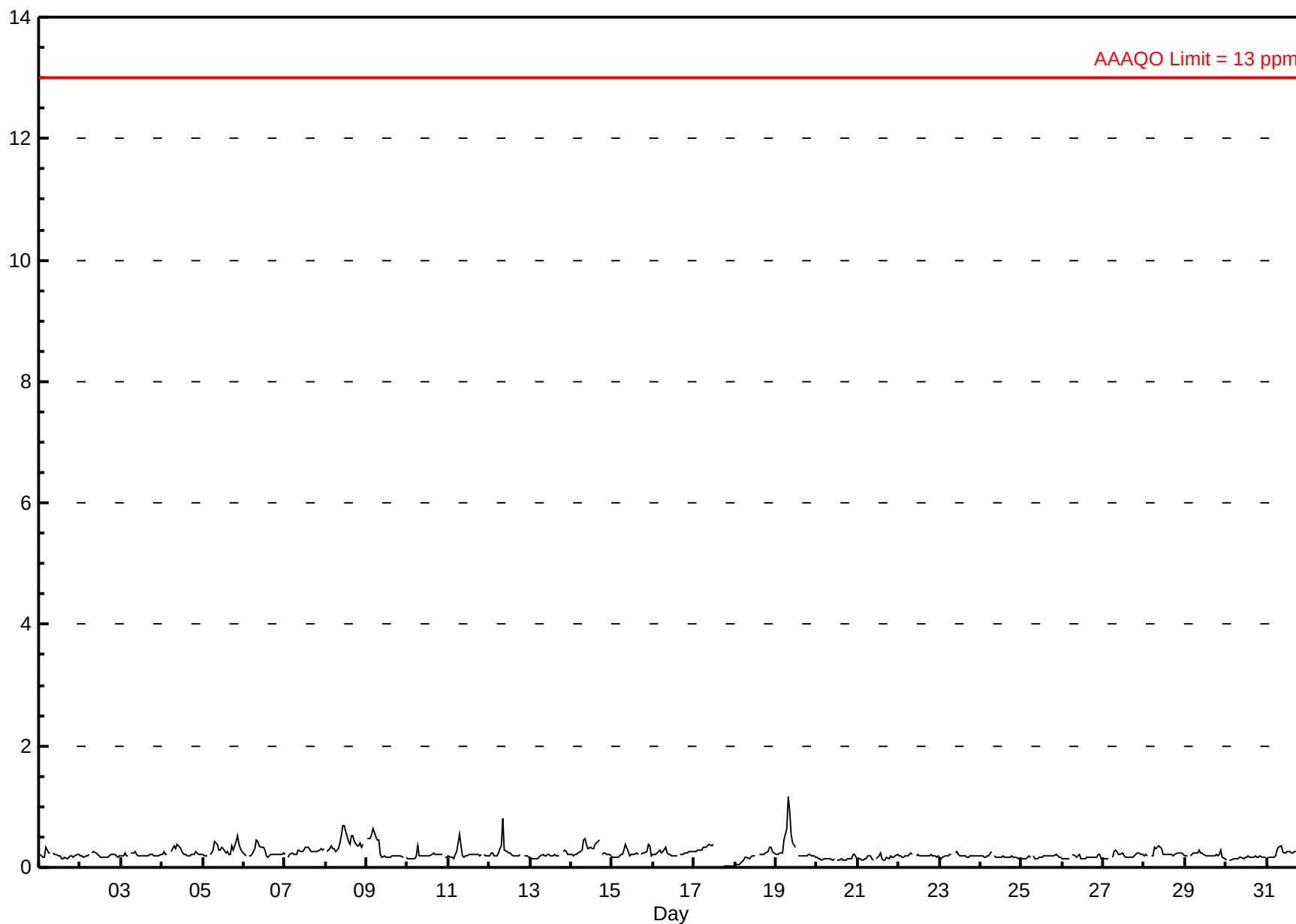
Carbon Monoxide (CO) - ppm

Henry Pirker - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.17 ppm on Mar 19 08:00 Maximum Daily Average: 0.42 ppm on Mar 8																					Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0						
Minimum Value: 0.0 ppm on Mar 17 18:00 Maximum Diurnal Average: 0.31 ppm at hour 8 Monthly Average: 0.224 ppm										Minimum Daily Average: 0.14 ppm on Mar 20 Minimum Diurnal Average: 0.19 ppm at hour 3 Percentiles: P ₁ = 0.03 P ₁₀ = 0.15 Q ₁ = 0.18 Median = 0.20 Q ₃ = 0.24 P ₉₀ = 0.33 P ₉₉ = 0.63																	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Mar	0.2	0.2	0.2	0.2	0.3	0.2	0.2	A	A	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.32
2-Mar	0.2	0.2	0.2	0.2	0.2	0.2	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	0.2	0.2	0.2	0.19	0.25
3-Mar	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.25
4-Mar	0.2	0.3	0.2	0.2	A	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.25	0.39
5-Mar	0.2	0.2	0.2	A	0.2	0.2	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.3	0.3	0.4	0.5	0.4	0.3	0.3	0.3	0.30	0.53
6-Mar	0.2	0.2	A	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25	0.44
7-Mar	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.26	0.34
8-Mar	A	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.7	0.7	0.6	0.4	0.4	0.5	0.5	0.4	0.4	0.3	0.4	0.3	0.4	A	A	0.42	0.69
9-Mar	0.5	0.5	0.5	0.5	0.6	0.5	0.4	0.5	0.2	0.2	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	A	0.2	0.29	0.64
10-Mar	0.2	0.1	0.1	0.1	0.1	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.20	0.36
11-Mar	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.22	0.54
12-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.8	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.25	0.82
13-Mar	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	A	0.3	0.3	0.3	0.2	0.2	0.2	0.20	0.28
14-Mar	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.5	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29	0.48
15-Mar	0.2	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	A	0.2	0.2	0.2	0.3	0.4	0.4	0.2	0.23	0.38	
16-Mar	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	0.2	A	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.23	0.33	
17-Mar	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.20	0.38	
18-Mar	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.18	0.34	
19-Mar	0.2	0.2	0.2	0.2	0.2	0.4	0.6	1.2	0.9	0.5	0.4	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	0.34	1.17	
20-Mar	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.14	0.20	
21-Mar	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	A	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.16	0.25	
22-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.23	
23-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.19	0.26	
24-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.18	0.26	
25-Mar	0.1	0.1	0.1	0.1	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	0.17	0.21	
26-Mar	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	0.17	0.21	
27-Mar	0.2	0.2	0.2	0.2	A	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.27	
28-Mar	0.2	0.2	0.2	A	0.2	0.2	0.3	0.3	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	0.24	0.36	
29-Mar	0.2	0.2	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	0.2	0.3	0.2	0.1	0.21	0.29	
30-Mar	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.18	
31-Mar	A	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	A	0.24	0.35	
0.19 0.19 0.19 0.19 0.21 0.23 0.28 0.31 0.30 0.26 0.25 0.24 0.22 0.21 0.21 0.21 0.20 0.20 0.20 0.22 0.23 0.22 0.21 0.19																									Diurnal Average		
0.48 0.47 0.47 0.54 0.64 0.50 0.64 1.17 0.93 0.54 0.69 0.69 0.59 0.43 0.39 0.52 0.52 0.43 0.36 0.44 0.53 0.37 0.38 0.30																									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 - March 2014



Hourly Maximums

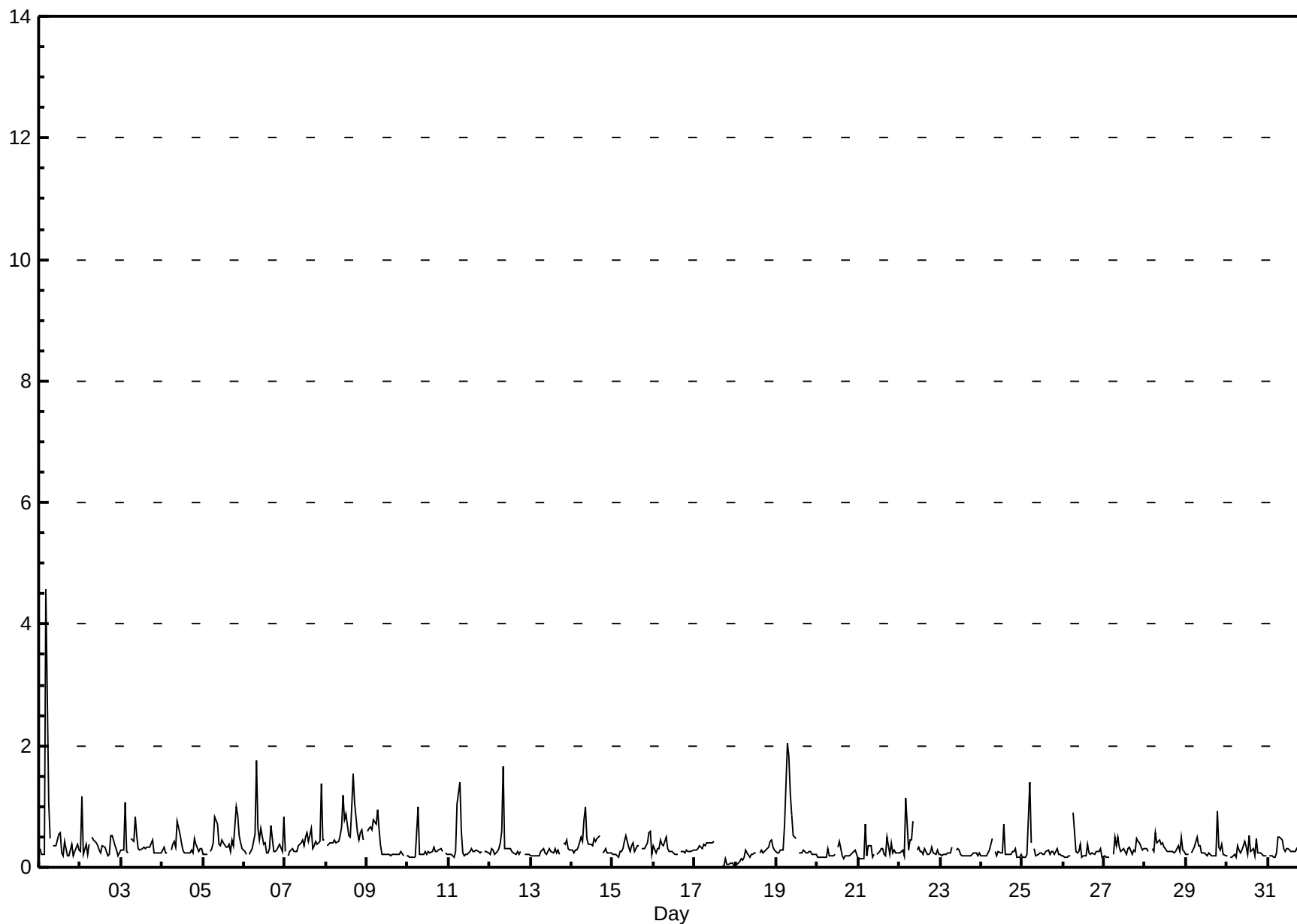
Carbon Monoxide (CO) - ppm

Henry Pirker - March 2014

Maximum Value: 4.57 ppm on Mar 1 05:00																					Maximum Daily Average: 0.64 ppm on Mar 8					Hours in Service: 744	
Minimum Value: 0.0 ppm on Mar 17 17:00																					Minimum Daily Average: 0.21 ppm on Mar 20					Hours of Data: 708	
Maximum Diurnal Average: 0.55 ppm at hour 7																					Minimum Diurnal Average: 0.24 ppm at hour 4					Hours of Missing Data: 36	
Monthly Average: 0.337 ppm																					Percentiles: P ₁ = 0.06 P ₁₀ = 0.19 Q ₁ = 0.21 Median = 0.27 Q ₃ = 0.36 P ₉₀ = 0.51 P ₉₉ = 1.32					Hours of Calibration: 36	
																					Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Mar	0.3	0.2	0.2	0.2	4.6	1.1	0.5	A	0.4	0.4	0.4	0.5	0.6	0.2	0.2	0.4	0.2	0.2	0.3	0.4	0.2	0.3	0.4	0.3	0.53	4.57	
2-Mar	0.2	1.2	0.2	0.4	0.2	0.4	A	0.5	0.4	0.4	0.3	0.3	0.2	0.4	0.3	0.3	0.2	0.2	0.5	0.5	0.3	0.3	0.2	0.2	0.36	1.15	
3-Mar	0.3	0.3	1.1	0.3	0.2	A	0.5	0.4	0.8	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.2	0.2	0.2	0.2	0.2	0.38	1.08	
4-Mar	0.3	0.3	0.2	0.2	A	0.3	0.4	0.4	0.3	0.8	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.5	0.4	0.3	0.3	0.3	0.34	0.75	
5-Mar	0.2	0.2	0.2	A	0.3	0.3	0.4	0.8	0.7	0.4	0.4	0.5	0.4	0.3	0.3	0.4	0.3	0.4	0.4	1.0	0.9	0.5	0.4	0.3	0.43	1.00	
6-Mar	0.3	0.2	A	0.2	0.3	0.3	0.5	1.8	0.7	0.5	0.6	0.4	0.4	0.2	0.2	0.3	0.7	0.3	0.3	0.3	0.3	0.4	0.3	0.8	0.44	1.75	
7-Mar	0.3	A	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.6	0.4	0.6	0.3	0.3	0.4	0.4	0.4	1.4	0.4	0.4	0.42	1.39	
8-Mar	A	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.7	1.2	0.8	0.9	0.5	0.5	1.0	1.5	1.1	0.6	0.5	0.6	0.6	0.5	A	0.64	1.54	
9-Mar	0.6	0.7	0.7	0.6	0.8	0.7	0.9	0.6	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	A	0.2	0.38	0.94	
10-Mar	0.2	0.2	0.2	0.2	0.2	0.6	1.0	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	A	0.2	0.2	0.28	1.00	
11-Mar	0.2	0.2	0.2	0.2	0.3	1.1	1.4	0.6	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	A	0.3	0.3	0.2	0.34	1.40	
12-Mar	0.2	0.3	0.3	0.2	0.3	0.3	0.4	0.6	1.7	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.3	A	0.2	0.2	0.2	0.2	0.33	1.67	
13-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.2	A	0.4	0.4	0.4	0.3	0.3	0.27	0.45	
14-Mar	0.3	0.2	0.3	0.3	0.3	0.5	0.4	0.8	1.0	0.5	0.4	0.4	0.4	0.5	0.4	0.5	0.5	A	0.2	0.3	0.3	0.2	0.2	0.2	0.40	1.00	
15-Mar	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.3	0.3	0.3	0.4	0.3	0.4	0.4	A	0.3	0.3	0.3	0.4	0.6	0.6	0.2	0.33	0.59	
16-Mar	0.3	0.2	0.3	0.3	0.5	0.4	0.4	0.5	0.3	0.3	0.3	0.3	0.2	0.2	0.2	A	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.29	0.50	
17-Mar	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	C	C	C	C	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.24	0.42	
18-Mar	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	0.2	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.23	0.44	
19-Mar	0.2	0.2	0.3	0.3	0.3	0.7	2.0	1.8	1.2	0.8	0.5	0.5	A	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.50	2.04	
20-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	A	0.3	0.4	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.21	0.42	
21-Mar	0.2	0.2	0.1	0.2	0.7	0.2	0.4	0.4	0.2	0.2	A	0.2	0.3	0.3	0.3	0.2	0.2	0.5	0.2	0.4	0.2	0.3	0.2	0.2	0.27	0.71	
22-Mar	0.2	0.3	0.3	0.2	1.1	0.3	0.4	0.5	0.8	A	0.3	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.33	1.14	
23-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	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	0.2	0.2	0.2	0.23	0.34	
24-Mar	0.2	0.2	0.2	0.2	0.2	0.3	0.5	A	0.3	0.2	0.3	0.2	0.2	0.7	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.26	0.71	
25-Mar	0.2	0.2	0.2	0.2	1.4	0.4	A	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.28	1.40	
26-Mar	0.2	0.2	0.2	0.2	0.2	A	0.9	0.3	0.2	0.3	0.4	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.26	0.91	
27-Mar	0.2	0.2	0.2	0.2	A	0.2	0.5	0.4	0.5	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.5	0.4	0.4	0.3	0.3	0.30	0.50	
28-Mar	0.3	0.3	0.3	A	0.3	0.3	0.6	0.4	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.4	0.3	0.5	0.3	0.32	0.57	
29-Mar	0.2	0.2	A	0.2	0.3	0.3	0.5	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.9	0.3	0.3	0.4	0.2	0.2	0.29	0.93	
30-Mar	0.2	A	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.3	0.4	0.3	0.2	0.5	0.3	0.3	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.26	0.51	
31-Mar	A	0.2	0.2	0.2	0.2	0.2	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.7	0.4	0.3	0.3	A	0.31	0.66	
Diurnal Average																											
Diurnal Maximum																											
C - Calibration A - Automated Daily Zero Span																											

Hourly Maximums

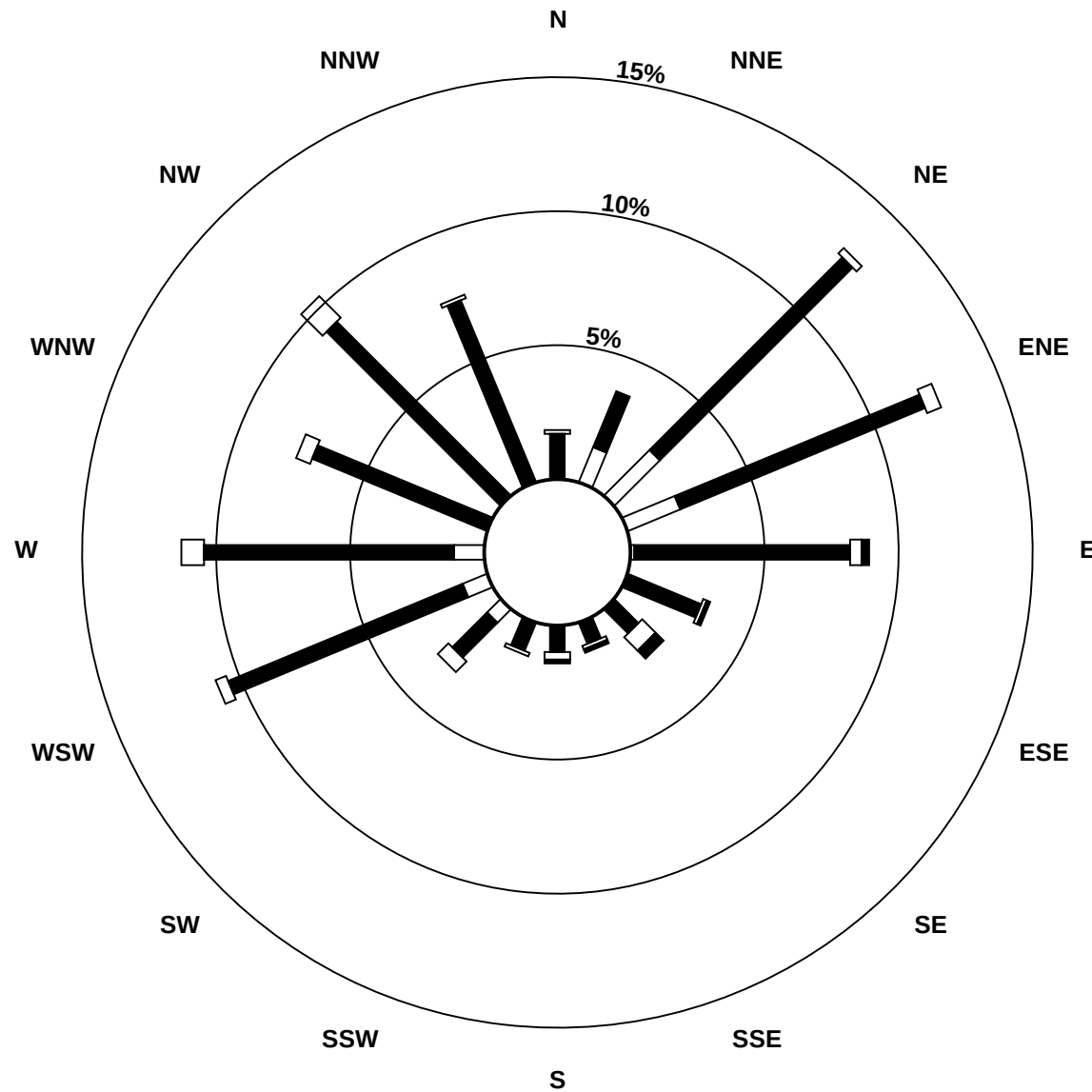
Carbon Monoxide (CO) - ppm
Henry Pirker - March 2014



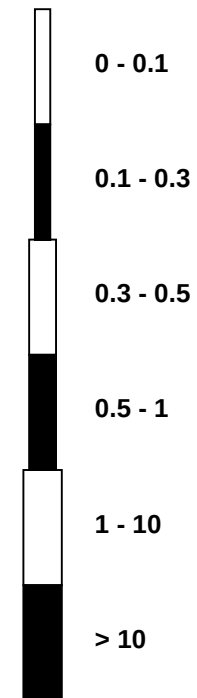
Pollutant Rose

Carbon Monoxide (CO) - ppm

Henry Pirker - March 2014



Pollutant Classes (ppm)



Eight Hour Running Averages

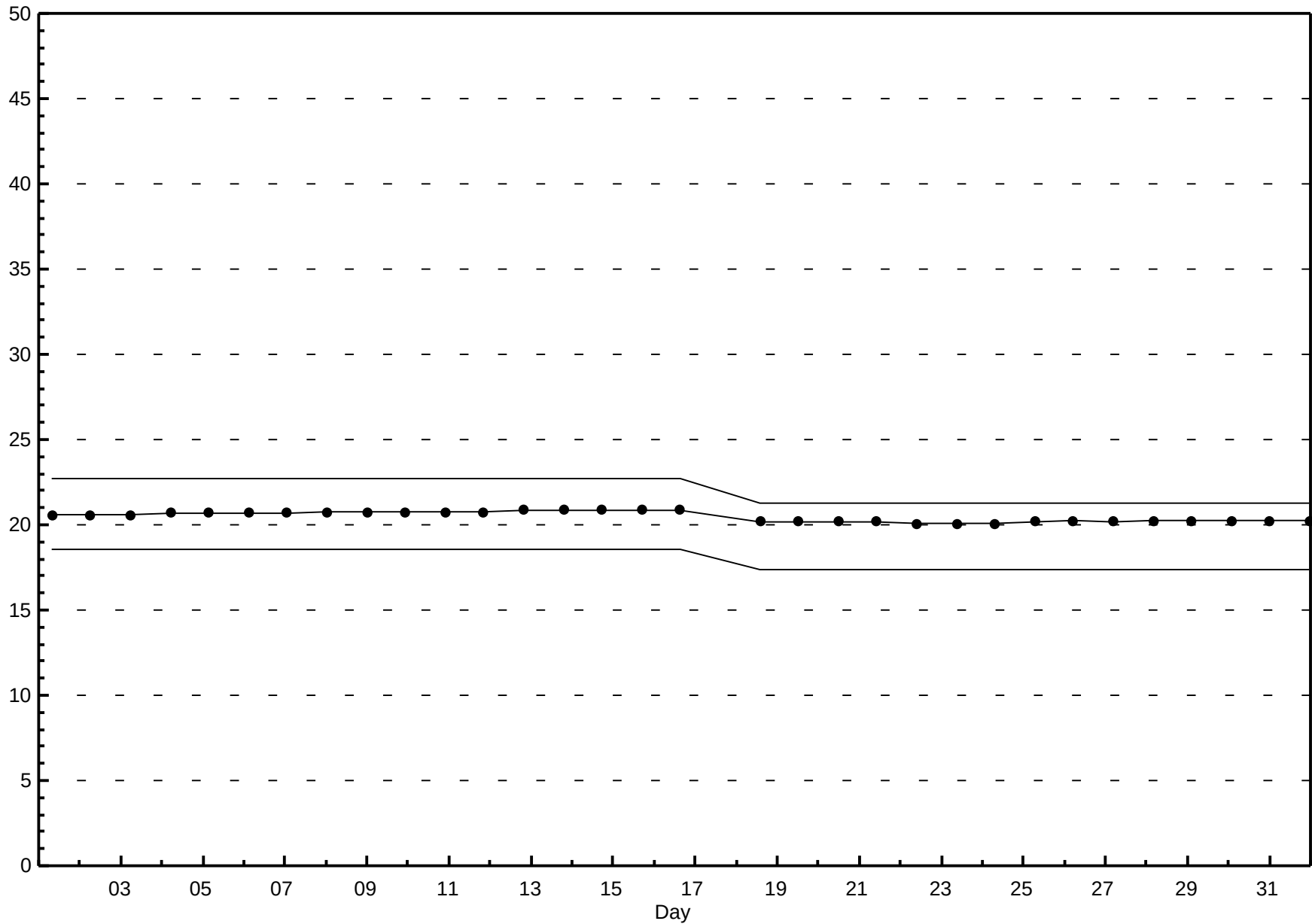
Carbon Monoxide (CO) - ppm

Henry Pirker - March 2014

Number of Exceedences (AAAQO): 8-hr: 0 Maximum Value: 0.64 ppm on Mar 19 13:00																								Hours in Service: 744
Minimum Value: 0.01 ppm on Mar 17 22:00																								Hours of Data: 737
Percentiles: P ₁ = 0.04 P ₁₀ = 0.16 Q ₁ = 0.18 Median = 0.21 Q ₃ = 0.25 P ₉₀ = 0.31 P ₉₉ = 0.53																								Hours of Missing Data: 7
																								Hours of Calibration: 7
																								Percent Operational Time: 100.0
Day	Hourly Period Ending At (MST)																							Daily Maximum
1-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
3-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
4-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.32
5-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.34
6-Mar	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	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.34
7-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.30
8-Mar	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.55
9-Mar	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.51
10-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
11-Mar	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27
12-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.34
13-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
14-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.37
15-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.27
16-Mar	0.3	0.3	0.3	0.3	0.3	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	0.26
17-Mar	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	N	N	N	N	N	N	N	0.0	0.0	0.35
18-Mar	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.26
19-Mar	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.64
20-Mar	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.19
21-Mar	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17
22-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
23-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
24-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
25-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
26-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
27-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
28-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29
29-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
30-Mar	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
31-Mar	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.27
0.39 0.40 0.41 0.44 0.47 0.50 0.51 0.50 0.52 0.56 0.58 0.59 0.64 0.60 0.54 0.53 0.55 0.53 0.49 0.45 0.43 0.41 0.41 0.40 Diurnal Maximums																								
N - Not Valid Alberta Ambient Air Quality Objectives (AAAQO): 8-hr 5 ppm																								

Span Responses

Carbon Monoxide (CO)
Henry Pirker - March 2014



Hourly Averages

Total Hydrocarbons (THC) - ppm

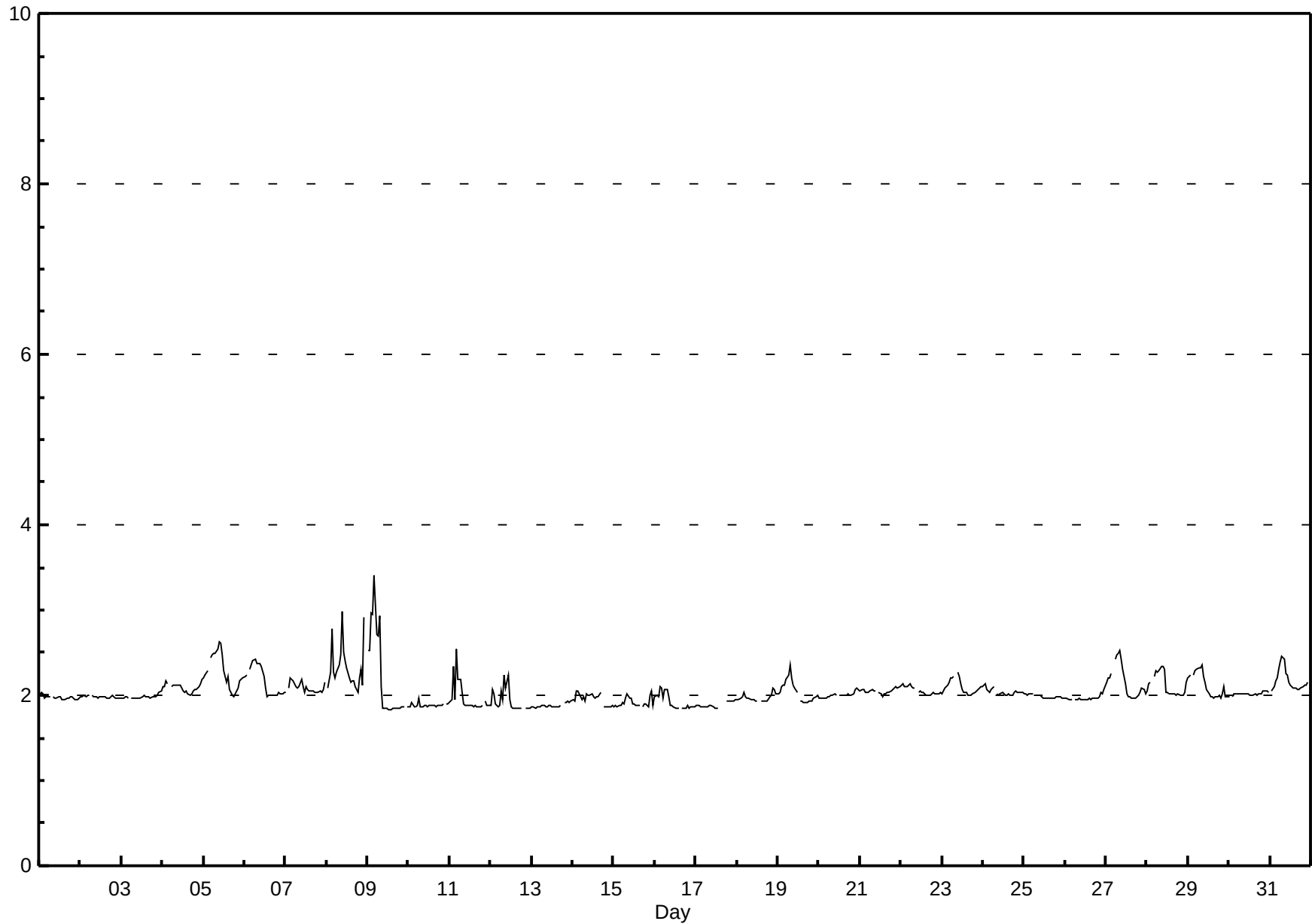
Henry Pirker - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.41 ppm on Mar 9 05:00 Maximum Daily Average: 2.33 ppm on Mar 8																				Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0							
Minimum Value: 1.8 ppm on Mar 9 13:00 Minimum Daily Average: 1.88 ppm on Mar 13 Maximum Diurnal Average: 2.14 ppm at hour 8 Minimum Diurnal Average: 1.96 ppm at hour 18 Monthly Average: 2.040 ppm Percentiles: P ₁ = 1.84 P ₁₀ = 1.87 Q ₁ = 1.95 Median = 2.01 Q ₃ = 2.08 P ₉₀ = 2.24 P ₉₉ = 2.71																											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Mar	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.97	2.03
2-Mar	2.0	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	1.98	2.01
3-Mar	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	2.1	1.98	2.06	
4-Mar	2.1	2.1	2.2	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.09	2.19	
5-Mar	2.2	2.2	2.3	A	2.4	2.5	2.5	2.5	2.5	2.6	2.6	2.5	2.3	2.2	2.2	2.1	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.27	2.63	
6-Mar	2.2	2.2	A	2.3	2.4	2.4	2.4	2.4	2.4	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	2.0	2.16	2.42	
7-Mar	2.0	A	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.09	2.20	
8-Mar	A	2.1	2.3	2.8	2.3	2.2	2.3	2.4	2.5	3.0	2.5	2.4	2.3	2.2	2.2	2.2	2.1	2.0	2.2	2.3	2.1	2.9	A	A	2.33	2.98	
9-Mar	2.5	2.5	3.0	3.0	3.4	2.7	2.7	2.9	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	A	A	1.9	2.20	3.41	
10-Mar	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.88	1.96	
11-Mar	1.9	1.9	2.3	2.0	2.5	2.2	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.97	2.55	
12-Mar	1.9	2.1	2.0	1.9	1.9	1.9	2.1	1.9	2.2	2.1	2.2	2.0	1.9	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.9	1.9	1.93	2.24	
13-Mar	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.88	1.93	
14-Mar	2.0	1.9	2.1	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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.96	2.06	
15-Mar	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.1	1.9	1.91	2.05	
16-Mar	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.0	1.9	1.9	1.9	1.8	1.8	1.8	A	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.92	2.11	
17-Mar	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	C	C	C	C	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.95	
18-Mar	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.0	1.97	2.09	
19-Mar	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.3	2.2	2.1	2.1	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.04	2.35	
20-Mar	2.0	2.0	2.0	2.0	2.0	2.0	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	2.1	2.1	2.1	2.00	2.08	
21-Mar	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.05	2.09	
22-Mar	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	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	2.06	2.14	
23-Mar	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.2	A	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.09	2.27	
24-Mar	2.1	2.1	2.1	2.1	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	2.0	2.0	2.0	2.0	2.0	2.04	2.13	
25-Mar	2.0	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	1.99	2.03	
26-Mar	2.0	2.0	2.0	1.9	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	1.97	2.06		
27-Mar	2.2	2.2	2.2	2.3	A	2.4	2.5	2.5	2.5	2.4	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.16	2.53	
28-Mar	2.1	2.1	2.2	A	2.2	2.3	2.3	2.3	2.3	2.3	2.3	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	2.12	2.34	
29-Mar	2.2	2.2	A	2.2	2.3	2.3	2.3	2.3	2.4	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.12	2.36	
30-Mar	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	2.1	2.1	2.0	2.02	2.06	
31-Mar	A	2.1	2.1	2.2	2.2	2.3	2.4	2.5	2.4	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.18	2.47	
2.03 2.05 2.08 2.10 2.13 2.12 2.14 2.14 2.11 2.11 2.08 2.02 2.00 1.97 1.98 1.97 1.97 1.96 1.97 1.98 1.99 2.01 2.04 2.00																								Diurnal Average			
2.53 2.52 2.97 2.96 3.41 2.71 2.69 2.94 2.54 2.98 2.60 2.48 2.33 2.20 2.22 2.17 2.17 2.10 2.08 2.20 2.30 2.17 2.92 2.20																								Diurnal Maximum			
C - Calibration A - Automated Daily Zero Span																											

Hourly Averages

Total Hydrocarbons (THC) - ppm

Henry Pirker - March 2014



Hourly Maximums

Total Hydrocarbons (THC) - ppm

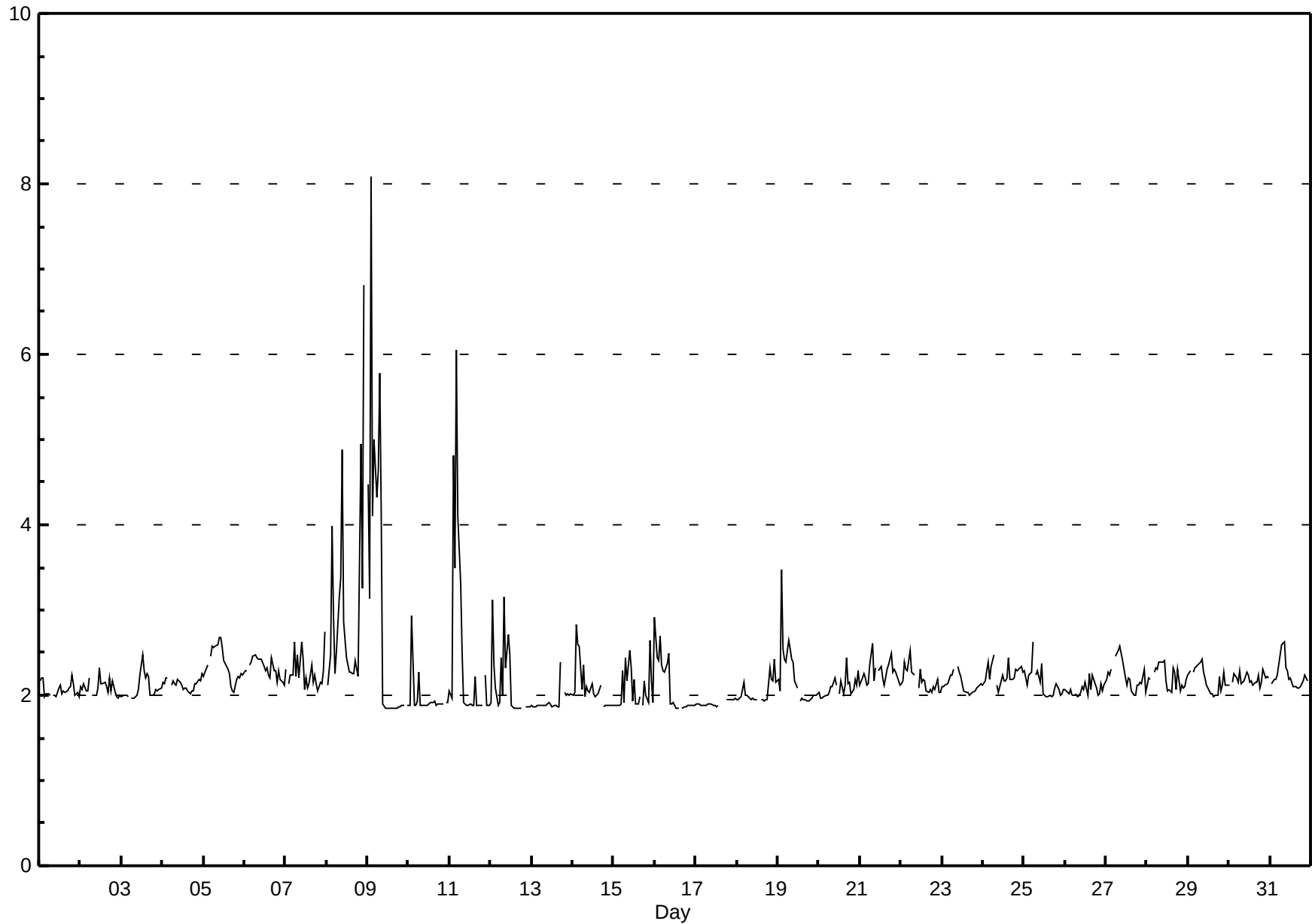
Henry Pirker - March 2014

Maximum Value: 8.08 ppm on Mar 9 03:00																				Maximum Daily Average: 3.09 ppm on Mar 8					Hours in Service: 744	
Minimum Value: 1.9 ppm on Mar 9 13:00																				Minimum Daily Average: 1.91 ppm on Mar 17					Hours of Data: 708	
Maximum Diurnal Average: 2.55 ppm at hour 3																				Minimum Diurnal Average: 2.06 ppm at hour 14					Hours of Missing Data: 36	
Monthly Average: 2.211 ppm																				Percentiles: P ₁ = 1.85 P ₁₀ = 1.89 Q ₁ = 1.99 Median = 2.12 Q ₃ = 2.27 P ₉₀ = 2.45 P ₉₉ = 4.84					Hours of Calibration: 36	
																				Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	2.2	2.2	2.2	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.0	2.1	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.07	2.23
2-Mar	2.1	2.1	2.1	2.1	2.1	2.2	A	2.0	2.0	2.0	2.1	2.3	2.1	2.1	2.2	2.1	2.0	2.2	2.1	2.2	2.0	2.0	2.0	2.0	2.09	2.33
3-Mar	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.2	2.5	2.3	2.2	2.3	2.2	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.08	2.47
4-Mar	2.1	2.1	2.2	2.2	A	2.1	2.2	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.3	2.13	2.26
5-Mar	2.2	2.3	2.3	A	2.5	2.6	2.6	2.6	2.6	2.7	2.7	2.6	2.4	2.3	2.3	2.3	2.1	2.1	2.0	2.2	2.2	2.2	2.3	2.2	2.35	2.67
6-Mar	2.3	2.3	A	2.4	2.4	2.5	2.5	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.4	2.3	2.3	2.1	2.3	2.2	2.2	2.1	2.32	2.47
7-Mar	2.3	A	2.1	2.2	2.2	2.6	2.2	2.5	2.2	2.6	2.4	2.1	2.2	2.1	2.1	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.3	2.7	2.27	2.74
8-Mar	A	2.1	2.5	4.0	2.9	2.3	2.5	3.2	3.4	4.9	2.9	2.6	2.4	2.3	2.3	2.3	2.3	2.4	2.2	3.6	5.0	3.3	6.8	A	3.09	6.81
9-Mar	4.5	3.1	8.1	4.1	5.0	4.3	4.6	5.8	4.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	3.03	8.08
10-Mar	1.9	1.9	2.9	1.9	1.9	1.9	2.3	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.96	2.94
11-Mar	2.0	2.0	4.8	3.5	6.1	4.1	3.3	2.5	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	1.9	1.9	1.9	1.9	A	2.2	1.9	1.9	2.49	6.05
12-Mar	1.9	3.1	2.4	2.1	1.9	1.9	2.4	2.0	3.2	2.3	2.7	2.5	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.12	3.15
13-Mar	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.4	A	2.0	2.0	2.0	2.0	2.0	1.93	2.39
14-Mar	2.0	2.0	2.8	2.6	2.6	2.1	2.4	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	A	1.9	1.9	1.9	1.9	1.9	1.9	2.09	2.82
15-Mar	1.9	1.9	1.9	1.9	1.9	2.3	1.9	2.4	2.2	2.5	2.3	1.9	2.2	1.9	1.9	2.0	A	1.9	2.2	2.0	1.9	2.6	2.2	1.9	2.07	2.65
16-Mar	2.9	2.4	2.4	2.7	2.4	2.3	2.3	2.4	2.5	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.11	2.92
17-Mar	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	C	C	C	C	1.9	1.9	1.9	2.0	2.0	2.0	1.91	1.97
18-Mar	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	2.3	2.2	2.2	2.4	2.2	2.04	2.42
19-Mar	2.2	2.1	3.5	2.5	2.4	2.4	2.6	2.5	2.4	2.4	2.2	2.1	A	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.21	3.47
20-Mar	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	A	2.0	2.2	2.0	2.1	2.4	2.1	2.1	2.0	2.1	2.2	2.1	2.3	2.10	2.44
21-Mar	2.1	2.2	2.3	2.2	2.1	2.1	2.4	2.6	2.2	2.3	A	2.3	2.3	2.2	2.1	2.2	2.3	2.4	2.5	2.3	2.3	2.3	2.2	2.1	2.26	2.61
22-Mar	2.1	2.2	2.4	2.3	2.3	2.5	2.3	2.3	2.2	A	2.1	2.3	2.1	2.2	2.2	2.1	2.0	2.1	2.0	2.1	2.1	2.2	2.0	2.0	2.18	2.52
23-Mar	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	A	2.3	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.13	2.34
24-Mar	2.1	2.2	2.3	2.4	2.2	2.3	2.5	A	2.1	2.0	2.1	2.2	2.2	2.2	2.2	2.4	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.24	2.48
25-Mar	2.3	2.2	2.1	2.2	2.3	2.6	A	2.2	2.3	2.2	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.14	2.63
26-Mar	2.1	2.1	2.0	2.1	2.0	A	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.3	2.1	2.2	2.2	2.1	2.0	2.0	2.1	2.1	2.1	2.07	2.25
27-Mar	2.2	2.3	2.2	2.3	A	2.5	2.5	2.5	2.6	2.5	2.4	2.2	2.1	2.2	2.2	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.3	2.0	2.24	2.57
28-Mar	2.1	2.2	2.2	A	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.2	2.1	2.1	2.0	2.3	2.3	2.1	2.3	2.1	2.1	2.1	2.1	2.2	2.21	2.41
29-Mar	2.2	2.3	A	2.3	2.3	2.3	2.4	2.4	2.4	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.1	2.3	2.1	2.1	2.18	2.43
30-Mar	2.1	A	2.1	2.3	2.2	2.1	2.3	2.1	2.1	2.2	2.3	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.3	2.2	2.2	2.19	2.30
31-Mar	A	2.1	2.2	2.2	2.2	2.4	2.5	2.6	2.6	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	A	2.23	2.63
2.20 2.18 2.55 2.35 2.42 2.37 2.37 2.40 2.33 2.27 2.19 2.14 2.10 2.06 2.06 2.09 2.07 2.07 2.07 2.12 2.17 2.15 2.25 2.08																								Diurnal Average		
4.47 3.14 8.08 4.11 6.05 4.32 4.64 5.78 4.17 4.89 2.86 2.65 2.47 2.34 2.30 2.43 2.44 2.41 2.49 3.58 4.96 3.26 6.81 2.74																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

Total Hydrocarbons (THC) - ppm

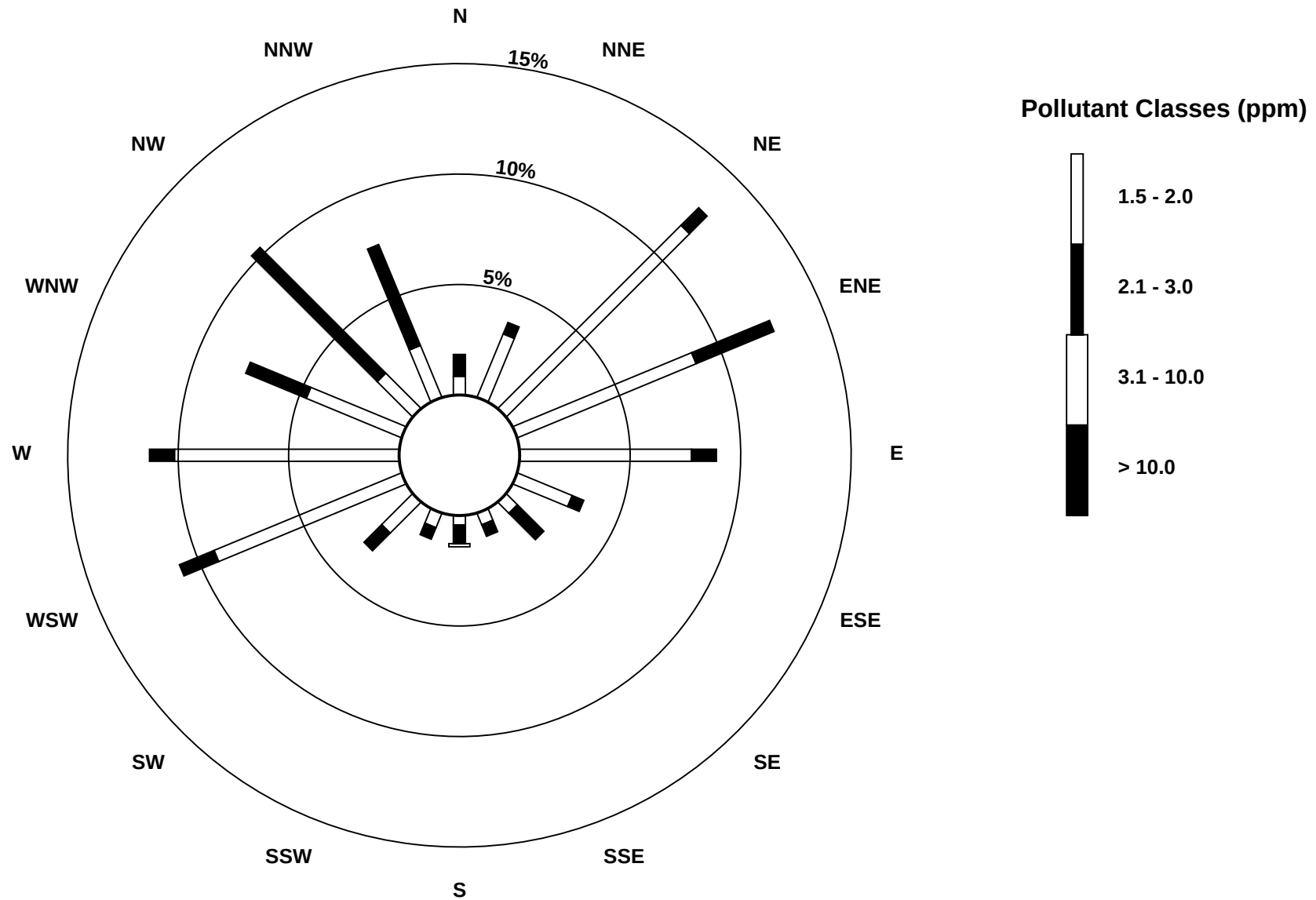
Henry Pirker - March 2014



Pollutant Rose

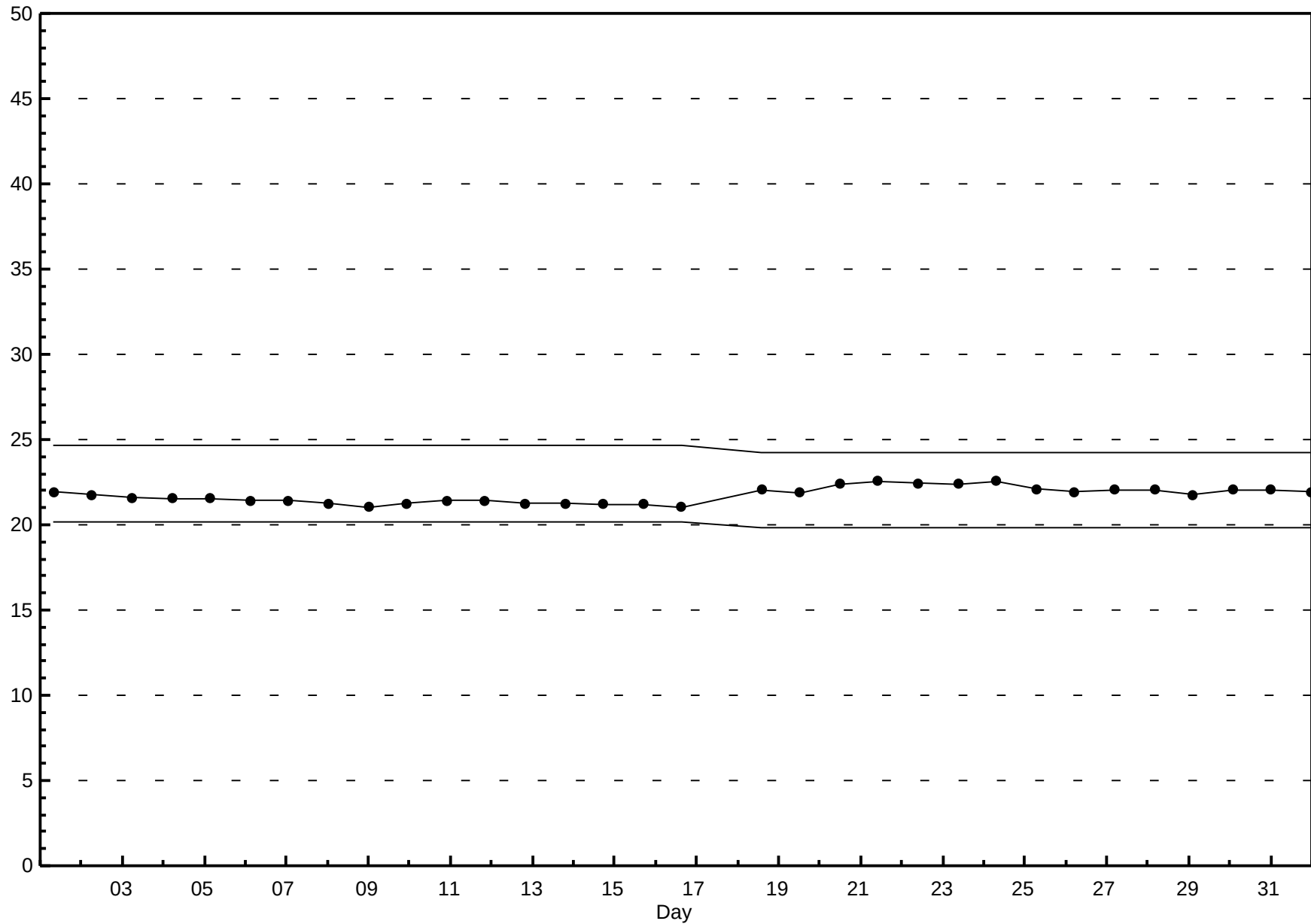
Total Hydrocarbons (THC) - ppm

Henry Pirker - March 2014



Span Responses

Total Hydrocarbons (THC)
Henry Pirker - March 2014



Hourly Averages

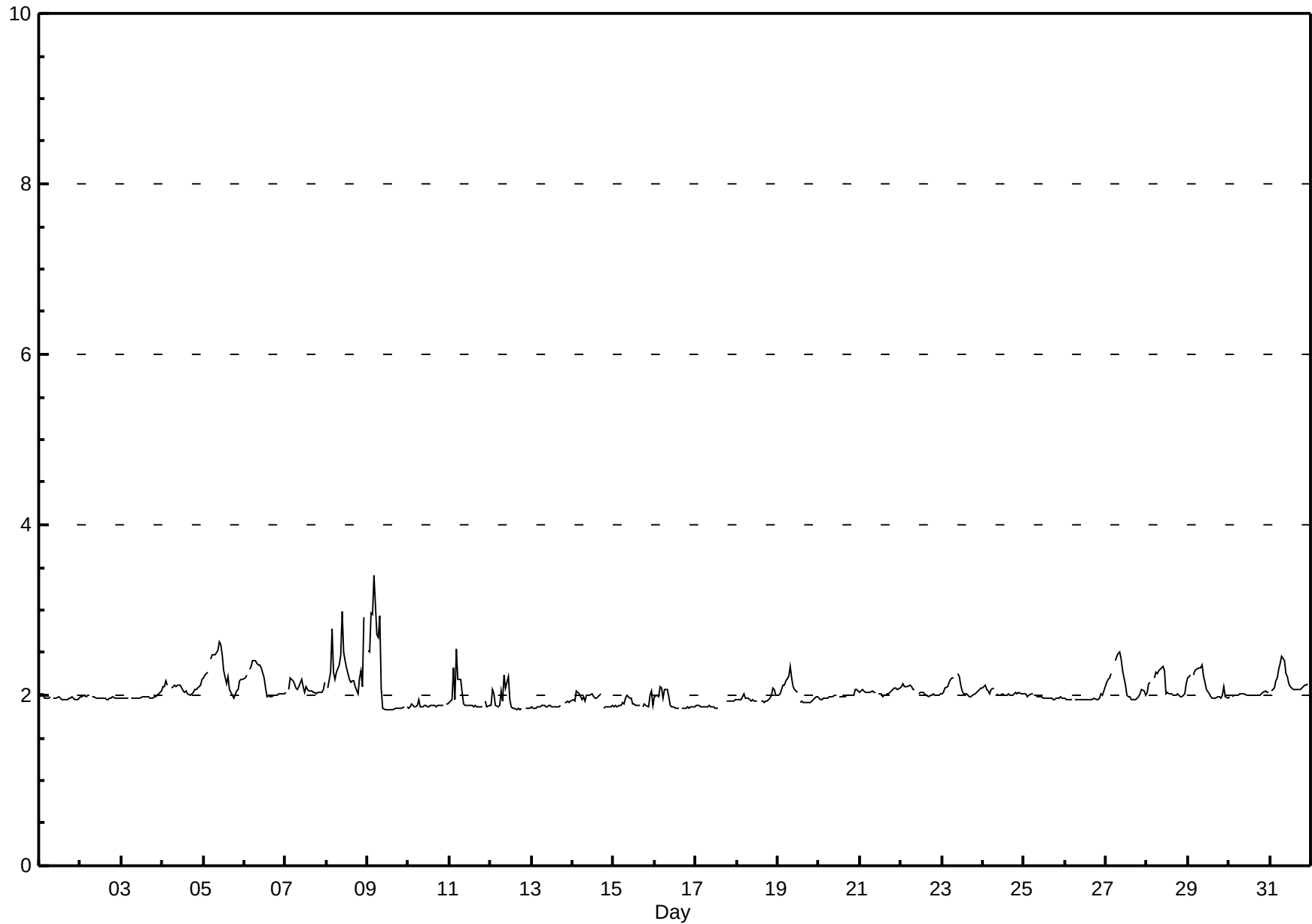
Methane (CH₄) - ppm

Henry Pirker - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.40 ppm on Mar 9 05:00 Maximum Daily Average: 2.33 ppm on Mar 8																				Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0							
Minimum Value: 1.8 ppm on Mar 9 13:00 Maximum Diurnal Average: 2.13 ppm at hour 8 Monthly Average: 2.033 ppm										Minimum Daily Average: 1.88 ppm on Mar 13 Minimum Diurnal Average: 1.96 ppm at hour 18 Percentiles: P ₁ = 1.84 P ₁₀ = 1.87 Q ₁ = 1.95 Median = 2.00 Q ₃ = 2.07 P ₉₀ = 2.23 P ₉₉ = 2.70																	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Mar	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.97	2.02
2-Mar	2.0	2.0	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	1.98	2.00
3-Mar	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	2.1	1.98	2.05	
4-Mar	2.1	2.1	2.2	2.1	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	2.1	2.1	2.1	2.1	2.2	2.08	2.19	
5-Mar	2.2	2.2	2.3	A	2.4	2.5	2.5	2.5	2.5	2.6	2.6	2.5	2.3	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.27	2.63	
6-Mar	2.2	2.2	A	2.3	2.3	2.4	2.4	2.4	2.4	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	2.0	2.16	2.41	
7-Mar	2.0	A	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.08	2.20	
8-Mar	A	2.1	2.3	2.8	2.3	2.2	2.3	2.4	2.5	3.0	2.5	2.4	2.3	2.2	2.1	2.2	2.2	2.1	2.0	2.2	2.3	2.1	2.9	A	2.33	2.98	
9-Mar	2.5	2.5	3.0	2.9	3.4	2.7	2.7	2.9	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	A	1.9	1.9	2.20	3.40	
10-Mar	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.88	1.95	
11-Mar	1.9	1.9	2.3	2.0	2.5	2.2	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.97	2.54	
12-Mar	1.9	2.1	2.0	1.9	1.9	1.9	2.1	1.9	2.2	2.1	2.2	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.9	1.93	2.23	
13-Mar	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.88	1.93	
14-Mar	1.9	1.9	2.1	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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.95	2.05	
15-Mar	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.91	2.05	
16-Mar	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.0	1.9	1.9	1.9	1.8	1.8	1.8	A	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.92	2.10	
17-Mar	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	C	C	C	C	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.95	
18-Mar	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.0	1.96	2.08	
19-Mar	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.3	2.2	2.1	2.1	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.03	2.34	
20-Mar	2.0	2.0	2.0	2.0	2.0	2.0	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	2.1	2.1	2.1	1.99	2.07	
21-Mar	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.04	2.09	
22-Mar	2.1	2.1	2.1	2.1	2.1	2.1	2.1	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	2.0	2.0	2.0	2.05	2.13	
23-Mar	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	A	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.08	2.26	
24-Mar	2.1	2.1	2.1	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	2.0	2.0	2.0	2.0	2.0	2.03	2.12	
25-Mar	2.0	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	1.98	2.02	
26-Mar	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	1.96	2.05	
27-Mar	2.1	2.2	2.2	2.3	A	2.4	2.5	2.5	2.5	2.4	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.15	2.51	
28-Mar	2.0	2.1	2.1	A	2.2	2.3	2.3	2.3	2.3	2.3	2.3	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	2.11	2.33	
29-Mar	2.2	2.2	A	2.2	2.3	2.3	2.3	2.3	2.4	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.11	2.35	
30-Mar	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	2.0	2.01	2.05	
31-Mar	A	2.0	2.1	2.2	2.2	2.3	2.4	2.5	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.17	2.45	
2.02 2.05 2.08 2.09 2.12 2.11 2.13 2.13 2.10 2.10 2.07 2.02 1.99 1.97 1.97 1.97 1.97 1.96 1.96 1.98 1.99 2.00 2.03 2.00																								Diurnal Average			
2.52 2.51 2.96 2.95 3.40 2.71 2.68 2.93 2.53 2.98 2.60 2.47 2.32 2.19 2.21 2.17 2.16 2.10 2.07 2.20 2.29 2.17 2.91 2.19																								Diurnal Maximum			
C - Calibration A - Automated Daily Zero Span																											

Hourly Averages

Methane (CH₄) - ppm
Henry Pirker - March 2014



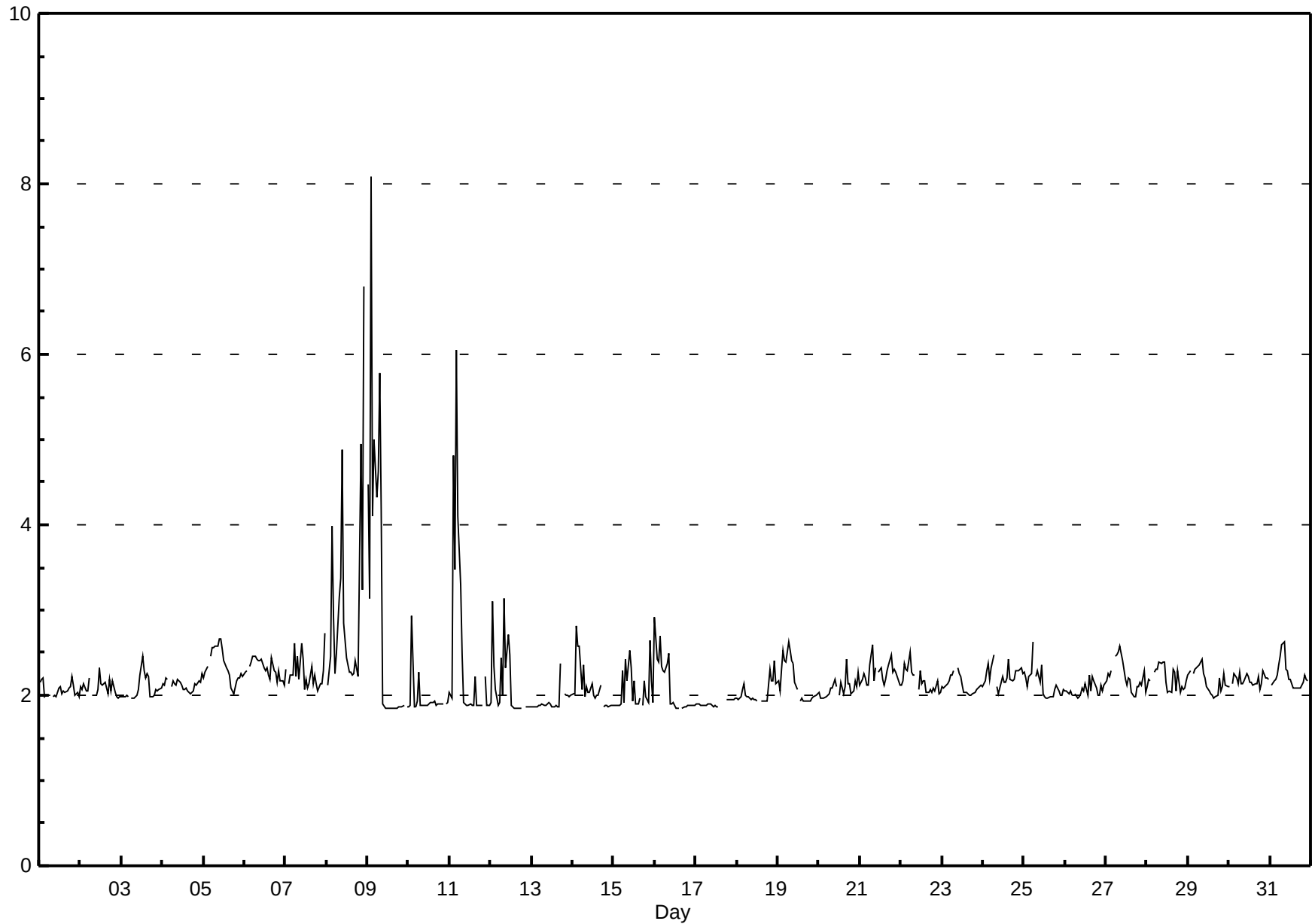
Hourly Maximums

Methane (CH₄) - ppm
Henry Pirker - March 2014

Maximum Value: 8.09 ppm on Mar 9 03:00																					Maximum Daily Average: 3.08 ppm on Mar 8										Hours in Service: 744	
Minimum Value: 1.8 ppm on Mar 9 15:00																					Minimum Daily Average: 1.90 ppm on Mar 17										Hours of Data: 708	
Maximum Diurnal Average: 2.50 ppm at hour 3																					Minimum Diurnal Average: 2.05 ppm at hour 14										Hours of Missing Data: 36	
Monthly Average: 2.202 ppm																					Percentiles: P ₁ = 1.85 P ₁₀ = 1.88 Q ₁ = 1.98 Median = 2.12 Q ₃ = 2.26 P ₉₀ = 2.45 P ₉₉ = 4.83										Hours of Calibration: 36	
																					Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24								
1-Mar	2.2	2.2	2.2	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.0	2.0	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.06	2.22						
2-Mar	2.1	2.1	2.1	2.1	2.0	2.2	A	2.0	2.0	2.0	2.1	2.3	2.1	2.1	2.1	2.1	2.0	2.2	2.1	2.2	2.0	2.0	2.0	2.0	2.08	2.32						
3-Mar	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.2	2.5	2.3	2.2	2.3	2.2	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.08	2.46						
4-Mar	2.1	2.1	2.2	2.2	A	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.3	2.12	2.25						
5-Mar	2.2	2.3	2.3	A	2.4	2.6	2.6	2.6	2.6	2.7	2.7	2.6	2.4	2.3	2.3	2.2	2.1	2.1	2.0	2.2	2.2	2.2	2.3	2.2	2.34	2.67						
6-Mar	2.3	2.3	A	2.3	2.4	2.5	2.5	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.4	2.3	2.3	2.2	2.3	2.2	2.2	2.1	2.31	2.46						
7-Mar	2.3	A	2.1	2.2	2.2	2.6	2.2	2.5	2.2	2.6	2.4	2.1	2.2	2.1	2.1	2.3	2.1	2.2	2.1	2.1	2.1	2.1	2.3	2.7	2.26	2.73						
8-Mar	A	2.1	2.5	4.0	2.9	2.2	2.5	3.1	3.4	4.9	2.8	2.6	2.4	2.3	2.3	2.2	2.3	2.4	2.2	3.6	5.0	3.2	6.8	A	3.08	6.80						
9-Mar	4.5	3.1	8.1	4.1	5.0	4.3	4.6	5.8	4.2	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	3.03	8.09						
10-Mar	1.9	1.9	2.9	1.9	1.9	1.9	2.3	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.96	2.94						
11-Mar	2.0	2.0	4.8	3.5	6.1	4.1	3.3	2.5	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	1.9	1.9	1.9	1.9	A	2.2	1.9	1.9	2.49	6.05						
12-Mar	1.9	3.1	2.3	2.1	1.9	1.9	2.4	2.0	3.1	2.3	2.7	2.5	1.9	1.9	1.9	1.9	1.9	1.8	1.9	A	1.9	1.9	1.9	1.9	2.12	3.14						
13-Mar	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.4	A	2.0	2.0	2.0	2.0	2.0	1.93	2.38						
14-Mar	2.0	2.0	2.8	2.6	2.6	2.1	2.4	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	A	1.9	1.9	1.9	1.9	1.9	1.9	2.09	2.82						
15-Mar	1.9	1.9	1.9	1.9	1.9	2.3	1.9	2.4	2.2	2.5	2.3	1.9	2.2	1.9	1.9	2.0	A	1.9	2.2	2.0	1.9	2.6	2.2	1.9	2.07	2.65						
16-Mar	2.9	2.4	2.4	2.7	2.3	2.3	2.3	2.4	2.5	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.11	2.91						
17-Mar	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	C	C	C	C	1.9	1.9	1.9	2.0	1.9	2.0	1.90	1.96						
18-Mar	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.3	2.2	2.2	2.4	2.1	2.03	2.40						
19-Mar	2.2	2.0	2.3	2.5	2.4	2.4	2.6	2.5	2.4	2.4	2.2	2.1	A	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.15	2.63						
20-Mar	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	A	2.0	2.1	2.0	2.1	2.4	2.1	2.1	2.0	2.1	2.2	2.1	2.3	2.09	2.43						
21-Mar	2.1	2.2	2.2	2.2	2.1	2.1	2.3	2.6	2.2	2.3	A	2.3	2.3	2.2	2.1	2.2	2.3	2.3	2.5	2.3	2.3	2.3	2.2	2.1	2.25	2.59						
22-Mar	2.1	2.2	2.4	2.3	2.3	2.5	2.3	2.2	2.2	A	2.1	2.3	2.1	2.2	2.2	2.0	2.0	2.1	2.0	2.1	2.1	2.2	2.0	2.0	2.17	2.50						
23-Mar	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	A	2.3	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.12	2.32						
24-Mar	2.1	2.2	2.3	2.4	2.2	2.3	2.5	A	2.1	2.0	2.1	2.2	2.2	2.2	2.2	2.4	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.23	2.47						
25-Mar	2.3	2.2	2.1	2.2	2.3	2.6	A	2.2	2.3	2.2	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.13	2.62						
26-Mar	2.1	2.0	2.0	2.1	2.0	A	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.2	2.1	2.2	2.1	2.2	2.1	2.0	2.0	2.1	2.0	2.1	2.06	2.24						
27-Mar	2.2	2.3	2.2	2.3	A	2.5	2.5	2.5	2.6	2.5	2.4	2.2	2.1	2.2	2.2	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.3	2.0	2.23	2.57						
28-Mar	2.1	2.2	2.2	A	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.1	2.0	2.1	2.0	2.3	2.3	2.1	2.3	2.0	2.1	2.1	2.1	2.2	2.20	2.39						
29-Mar	2.2	2.3	A	2.3	2.3	2.3	2.4	2.4	2.4	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.1	2.3	2.1	2.1	2.17	2.43						
30-Mar	2.1	A	2.1	2.2	2.2	2.1	2.3	2.1	2.1	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.3	2.2	2.2	2.17	2.29						
31-Mar	A	2.1	2.2	2.2	2.2	2.3	2.5	2.6	2.6	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	A	2.22	2.62						
2.19 2.17 2.50 2.35 2.41 2.37 2.37 2.39 2.32 2.27 2.19 2.14 2.09 2.05 2.05 2.08 2.07 2.07 2.06 2.11 2.17 2.15 2.24 2.07																									Diurnal Average							
4.47 3.13 8.09 4.11 6.05 4.32 4.63 5.78 4.17 4.88 2.85 2.64 2.46 2.33 2.30 2.42 2.44 2.40 2.48 3.57 4.96 3.24 6.80 2.73																									Diurnal Maximum							
C - Calibration																									A - Automated Daily Zero Span							

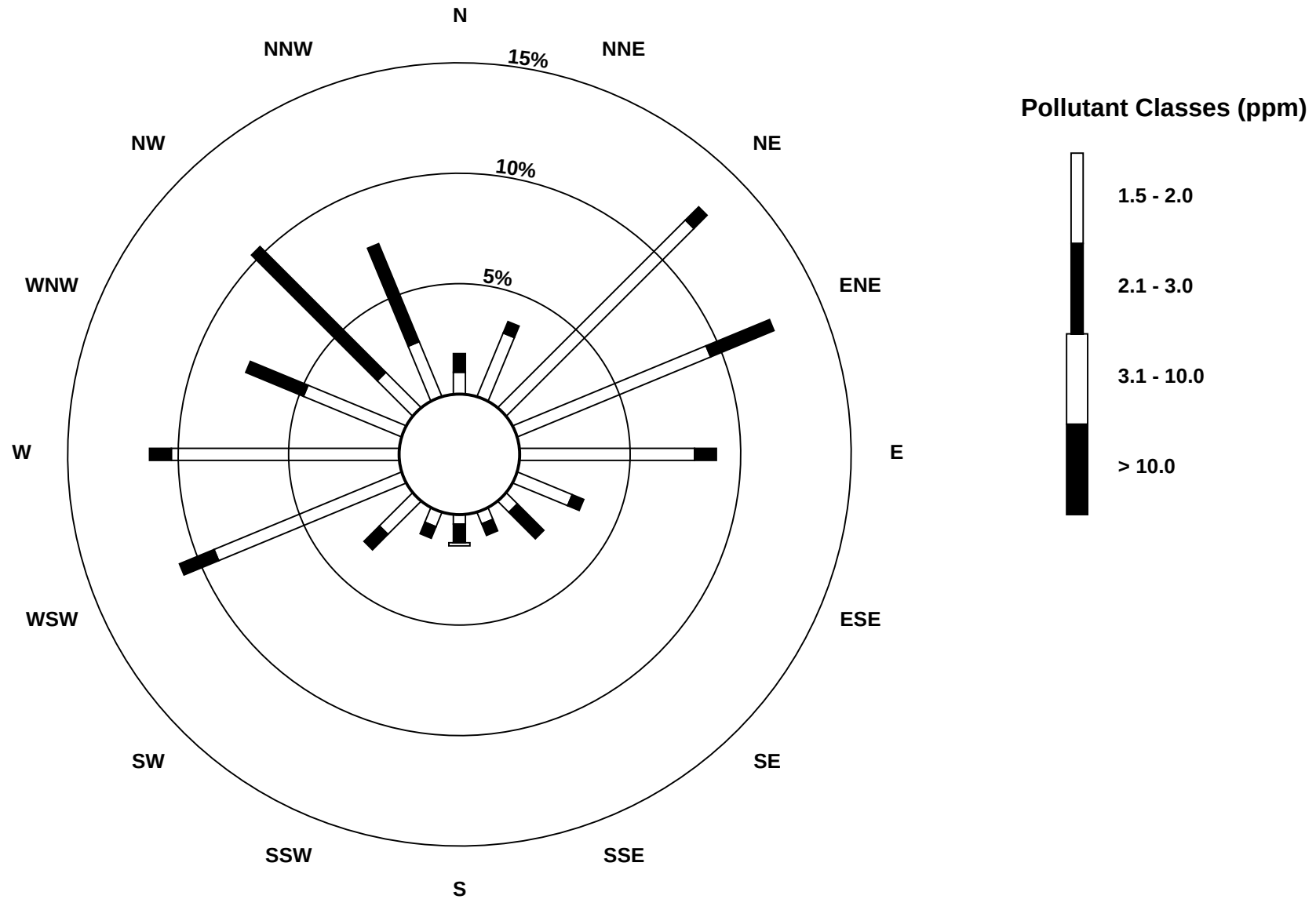
Hourly Maximums

Methane (CH₄) - ppm
Henry Pirker - March 2014



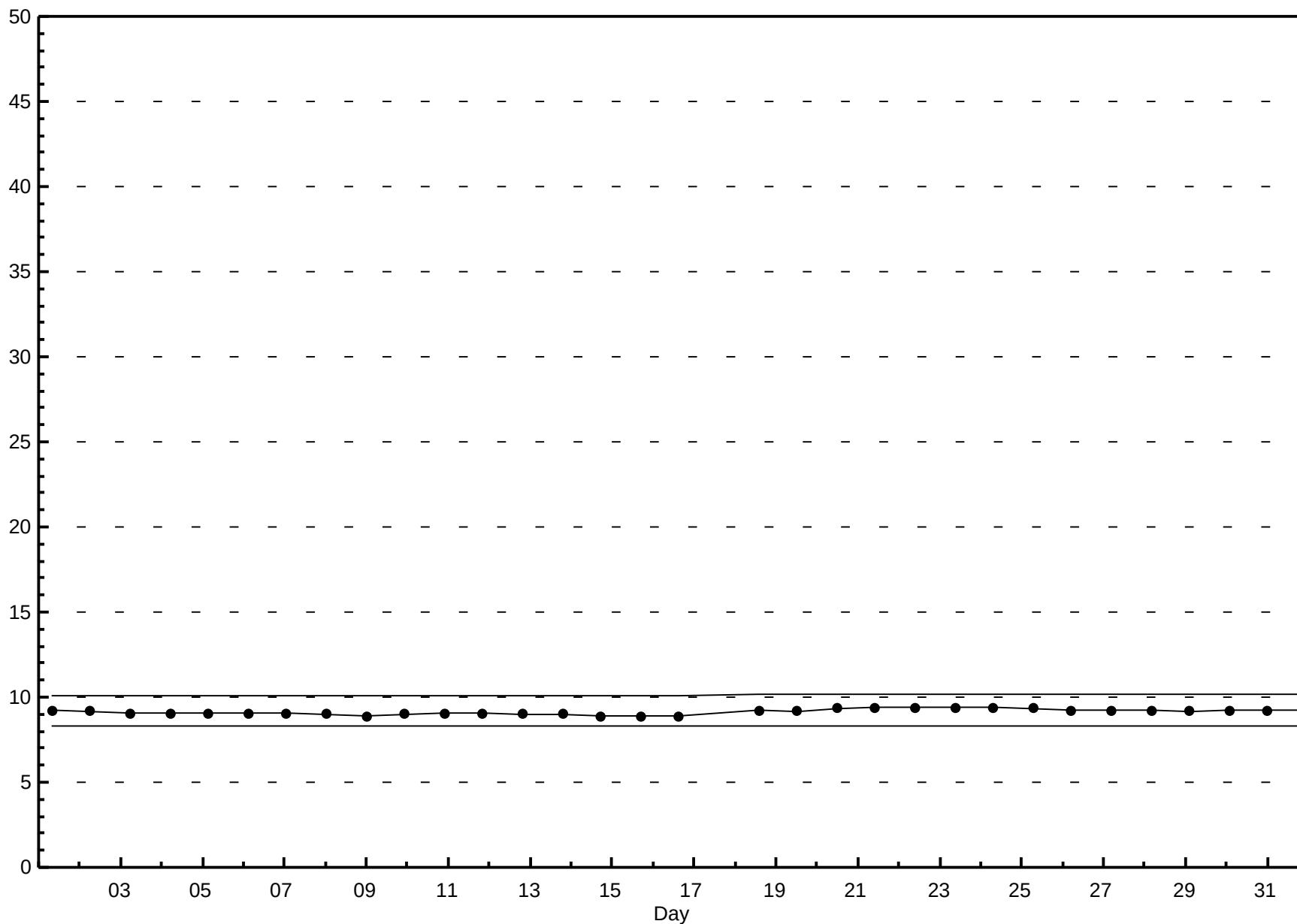
Pollutant Rose

Methane (CH₄) - ppm
Henry Pirker - March 2014



Span Responses

Methane (CH₄)
Henry Pirker - March 2014

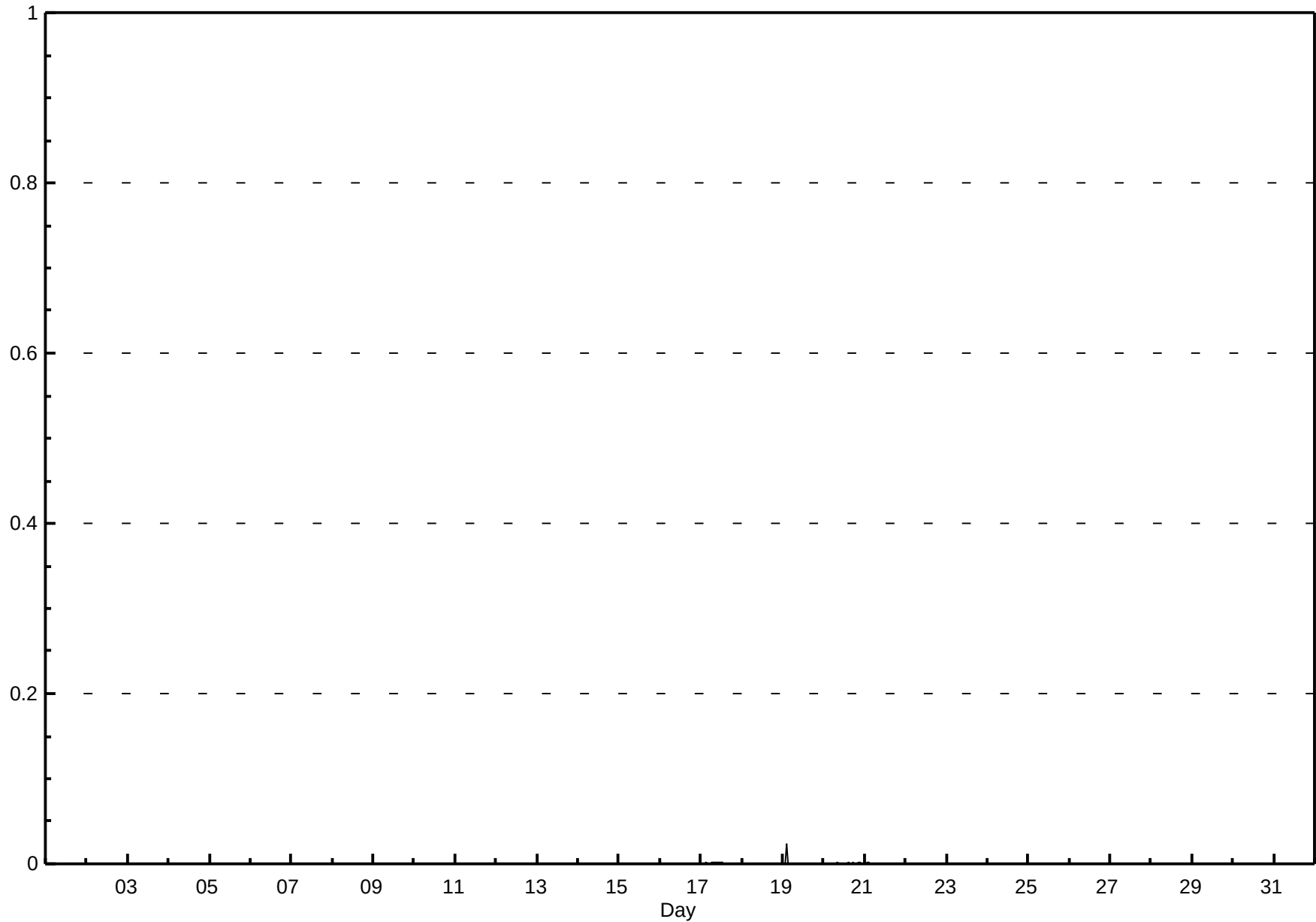


Hourly Averages

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.02 ppm on Mar 19 03:00 Maximum Daily Average: 0.00 ppm on Mar 19																								Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0		
Minimum Value: 0.0 ppm on Mar 1 01:00 Maximum Diurnal Average: 0.00 ppm at hour 3 Monthly Average: 0.000 ppm												Minimum Daily Average: 0.00 ppm on Mar 27 Minimum Diurnal Average: 0.00 ppm at hour 16 Percentiles: P ₁ = 0.00 P ₁₀ = 0.00 Q ₁ = 0.00 Median = 0.00 Q ₃ = 0.00 P ₉₀ = 0.00 P ₉₉ = 0.00														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
2-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
3-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
4-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
5-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
6-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
7-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
8-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00
9-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00
10-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00
11-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00
12-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00
13-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00
14-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
15-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
16-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
17-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.00	0.00
18-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
19-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.02
20-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
21-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
22-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
23-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
24-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
25-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
26-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
27-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
28-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
29-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
30-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
31-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00
0.00 0.00																								Diurnal Average		
0.00 0.00 0.02 0.00																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

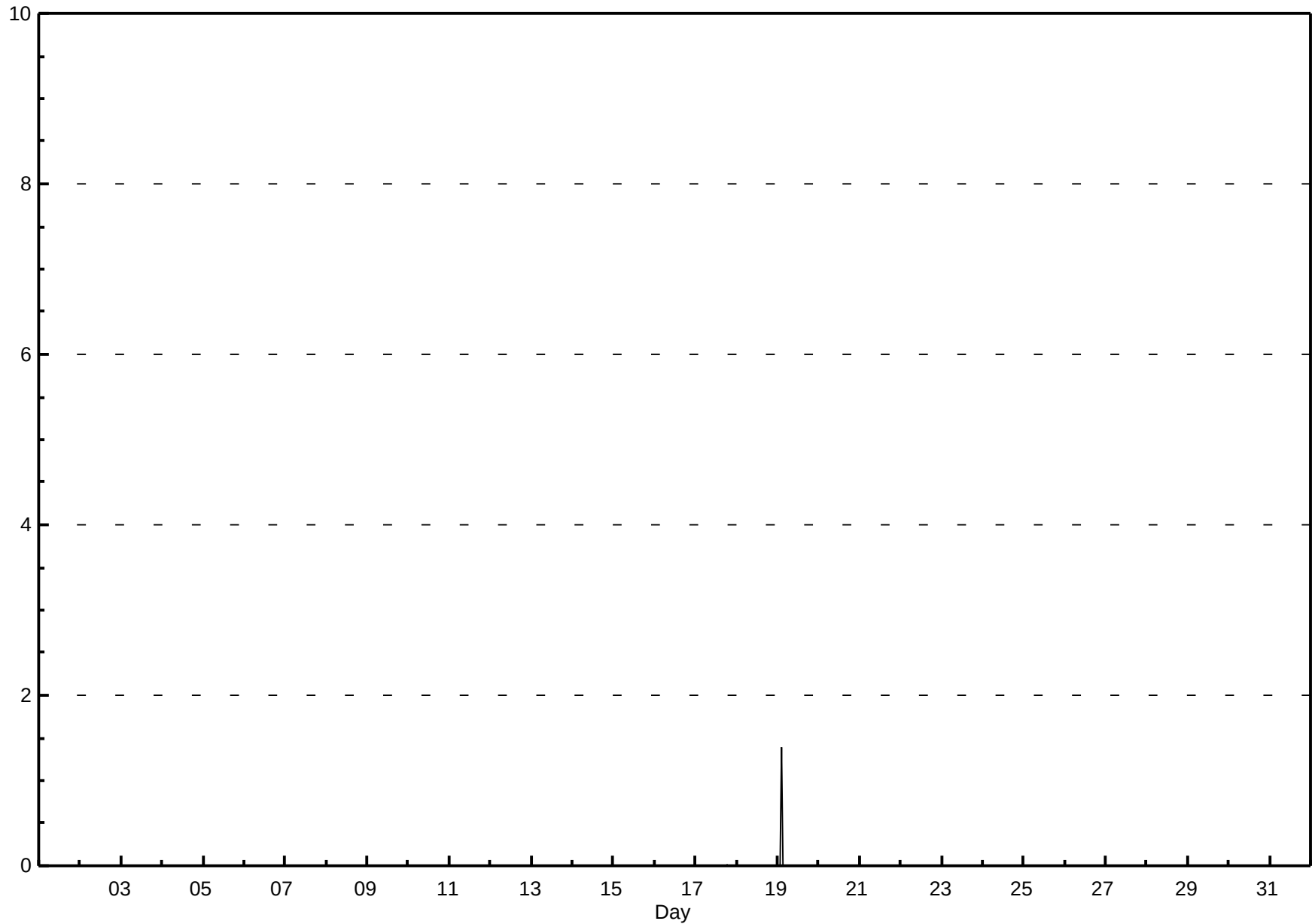


Hourly Maximums

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - March 2014

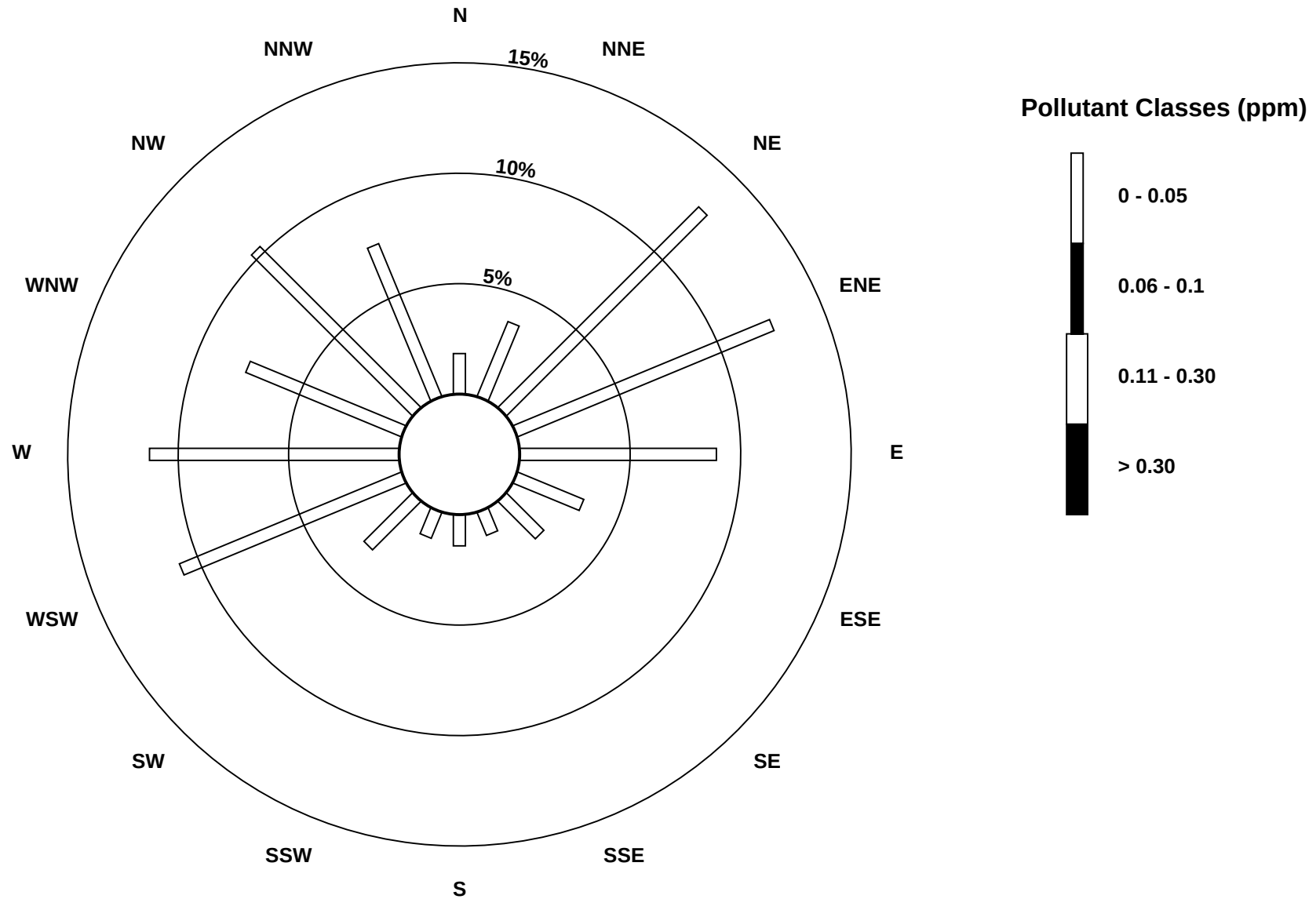
Maximum Value: 1.39 ppm on Mar 19 03:00																					Maximum Daily Average: 0.06 ppm on Mar 19					Hours in Service: 744	
Minimum Value: 0.0 ppm on Mar 31 23:00																					Minimum Daily Average: 0.00 ppm on Mar 31					Hours of Data: 708	
Maximum Diurnal Average: 0.05 ppm at hour 3																					Minimum Diurnal Average: 0.00 ppm at hour 20					Hours of Missing Data: 36	
Monthly Average: 0.003 ppm																					Percentiles: P ₁ = 0.00 P ₁₀ = 0.00 Q ₁ = 0.00 Median = 0.00 Q ₃ = 0.00 P ₉₀ = 0.00 P ₉₉ = 0.00					Hours of Calibration: 36	
																					Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
2-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
3-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
4-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
5-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
6-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
7-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
8-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00	
9-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.00	0.00	
10-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.00	0.00	
11-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.00	0.00	
12-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.00	0.00	
13-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
14-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
15-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
16-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
17-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.01	
18-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
19-Mar	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.06	1.39	
20-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
21-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
22-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
23-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
24-Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
25-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
26-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
27-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
28-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
29-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
30-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
31-Mar	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A	0.00	0.00	
0.00 0.00 0.05 0.00																									Diurnal Average		
0.00 0.00 1.39 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.01 0.00 0.00 0.00 0.00 0.00																									Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																											

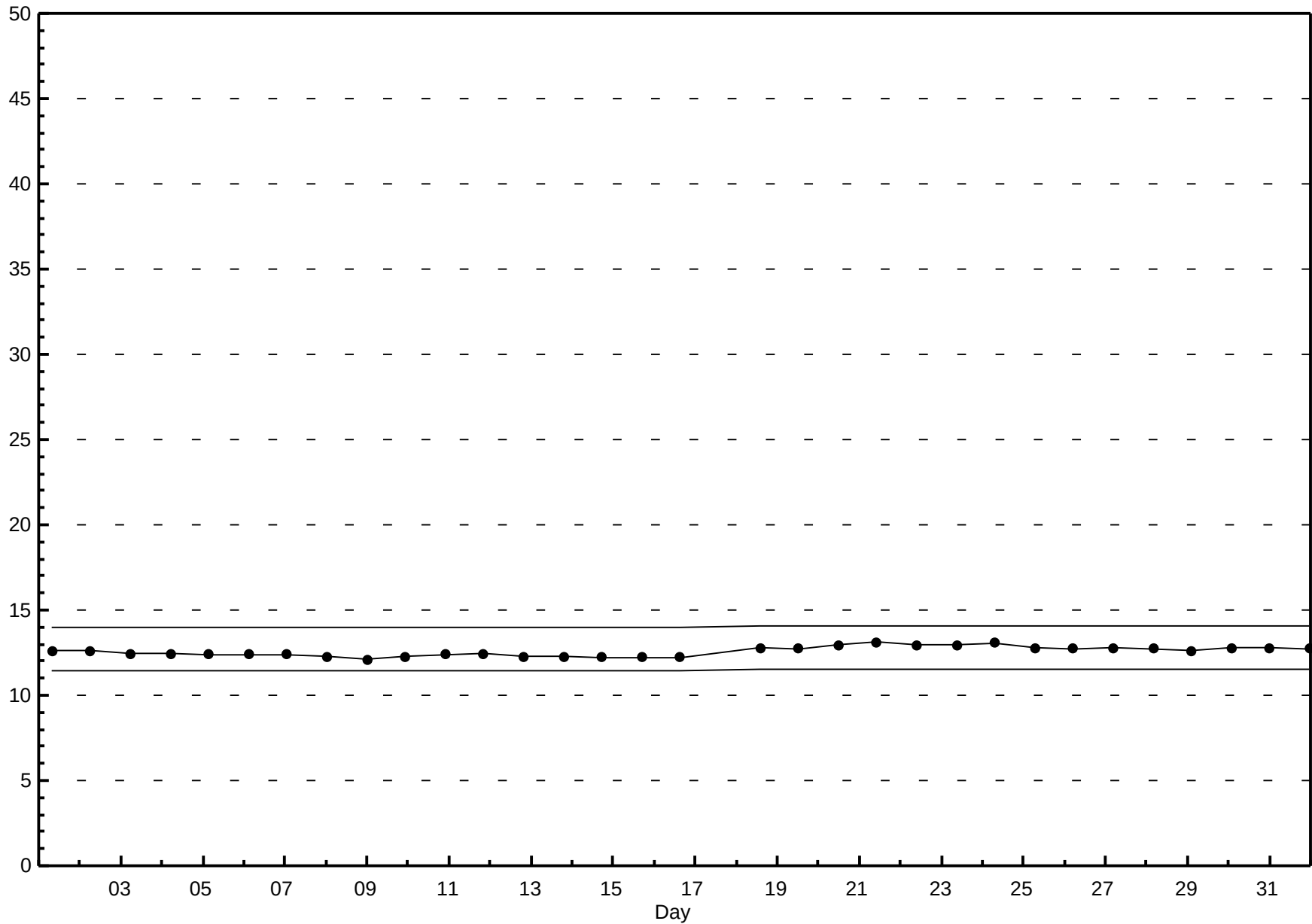


Pollutant Rose

Non Methane Hydrocarbon (NMHC) - ppm

Henry Pirker - March 2014



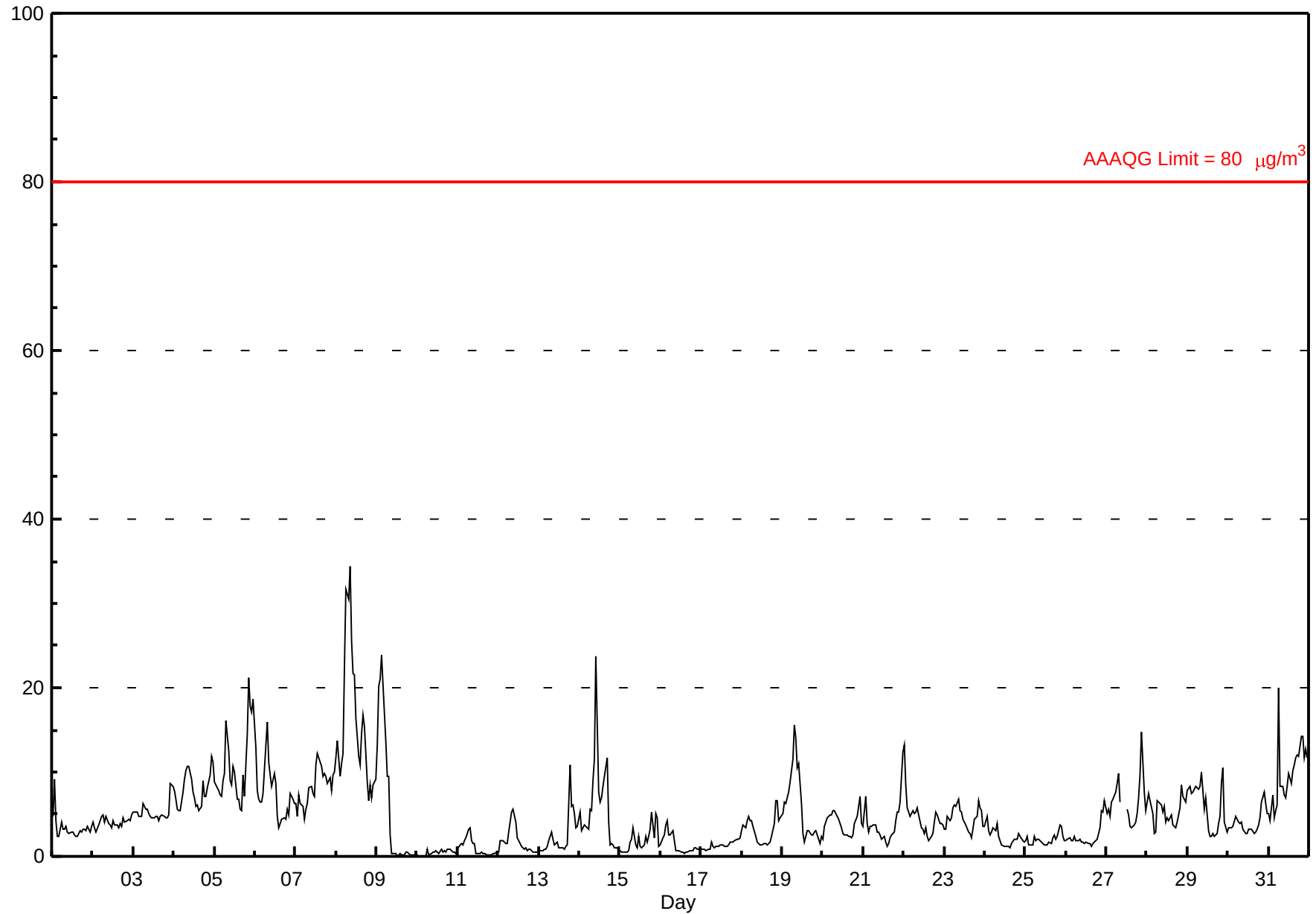


Hourly Averages

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

Henry Pirker - March 2014

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 34.4 µg/m³ on Mar 8 09:00 Maximum Daily Average: 15.9 µg/m³ on Mar 8																				Hours in Service: 744 Hours of Data: 741 Hours of Missing Data: 3 Hours of Calibration: 0 Percent Operational Time: 99.6						
Minimum Value: 0 µg/m³ on Mar 10 05:00 Maximum Diurnal Average: 6.7 µg/m³ at hour 8 Monthly Average: 4.79 µg/m³ Minimum Daily Average: 0.4 µg/m³ on Mar 10 Minimum Diurnal Average: 3.4 µg/m³ at hour 15 Percentiles: P ₁ = 0.1 P ₁₀ = 0.8 Q ₁ = 1.8 Median = 3.7 Q ₃ = 6.4 P ₉₀ = 9.8 P ₉₉ = 21.3																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	5	9	4	2	2	4	3	3	4	3	3	3	3	2	2	3	3	3	3	3	3	3	3	3	3.4	9.1
2-Mar	4	3	3	4	4	5	5	4	5	4	4	3	4	4	4	3	4	4	5	4	4	4	4	5	4.0	4.9
3-Mar	5	5	5	5	5	5	6	6	6	5	5	5	5	5	5	4	5	5	5	5	5	5	9	8	5.2	8.6
4-Mar	8	7	6	5	6	8	9	10	11	11	9	8	7	6	6	5	6	9	7	7	8	10	12	11	7.9	11.9
5-Mar	9	8	8	7	7	9	10	16	12	9	8	11	10	7	7	6	5	10	7	15	21	18	17	19	10.7	21.2
6-Mar	13	8	7	6	6	8	13	16	11	10	8	10	9	5	3	4	4	5	4	6	5	7	7	6	7.5	16.0
7-Mar	6	5	7	6	6	4	6	6	8	8	8	7	11	12	12	11	9	10	9	9	9	8	10	10	8.2	12.2
8-Mar	12	14	10	11	12	22	32	31	34	26	22	21	16	12	11	15	17	15	9	7	9	7	9	9	15.9	34.4
9-Mar	13	20	21	24	20	14	10	10	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5.7	23.9
10-Mar	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	1	1	1	1	1	1	1	0	0	0.4	0.9
11-Mar	1	1	2	1	2	2	3	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0	3.4
12-Mar	1	2	2	2	2	2	3	4	5	6	4	2	2	2	1	1	1	1	1	1	1	0	1	1	1.8	5.6
13-Mar	1	1	1	1	1	1	2	3	2	1	1	2	1	1	1	1	1	1	11	6	6	5	3	4	2.4	10.9
14-Mar	5	3	3	4	4	3	6	5	9	11	24	8	7	7	8	9	12	4	1	2	1	1	1	1	5.8	23.7
15-Mar	1	1	0	0	1	1	2	2	3	1	1	2	1	1	1	2	2	2	3	5	2	5	5	1	1.9	5.2
16-Mar	1	2	3	4	4	3	2	3	2	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1.4	4.3
17-Mar	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	1.3	2.2
18-Mar	3	4	3	4	5	4	4	3	2	2	1	1	1	1	1	1	2	2	2	4	7	7	4	5	3.1	6.6
19-Mar	5	6	6	7	8	9	12	16	14	11	11	6	3	2	2	3	3	3	2	3	3	3	1	2	5.9	15.6
20-Mar	2	4	4	5	5	5	5	6	5	4	4	3	3	3	3	2	2	2	3	4	5	6	7	4	3.9	7.1
21-Mar	4	7	4	3	4	3	4	4	3	3	2	2	2	2	1	2	2	3	3	4	5	5	6	12	3.8	12.4
22-Mar	13	8	6	5	5	5	5	5	6	5	3	3	3	3	2	2	2	3	4	5	5	4	4	4	4.7	13.3
23-Mar	3	3	5	4	4	6	6	6	7	5	5	4	4	4	3	3	2	3	4	5	7	6	5	4	4.5	6.8
24-Mar	4	5	3	2	3	3	3	4	2	2	1	1	1	1	1	1	1	2	2	2	3	2	2	2	2.3	4.8
25-Mar	2	2	1	1	1	2	2	2	2	2	2	1	1	1	2	2	2	3	2	2	4	4	2	2	2.0	3.7
26-Mar	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	1	1	2	2	3	3	5	5	7	2.4	6.5
27-Mar	5	6	5	6	7	8	9	10	6	M	M	M	6	5	4	3	4	4	5	7	10	15	8	5	6.5	14.7
28-Mar	6	7	7	5	3	3	7	6	6	5	6	4	5	4	5	4	4	3	4	6	8	7	7	6	5.3	8.4
29-Mar	8	8	7	8	8	8	8	8	10	8	6	7	3	2	2	3	2	3	4	5	9	11	4	3	6.0	10.6
30-Mar	3	3	3	4	5	4	4	4	4	3	3	3	3	3	3	3	3	3	4	5	6	8	6	5	4.0	7.7
31-Mar	5	4	7	5	5	6	20	8	8	7	7	8	10	9	10	11	12	12	12	14	14	12	13	12	9.7	20.1
4.9 5.2 4.7 4.7 4.7 5.2 6.6 6.7 6.3 5.3 5.1 4.4 4.0 3.5 3.4 3.4 3.7 3.8 4.0 4.5 5.4 5.5 5.1 5.0																								Diurnal Average		
13.3 20.2 21.1 23.9 20.3 22.4 31.7 30.6 34.4 25.6 23.7 21.5 16.4 12.2 11.7 14.7 16.7 15.5 11.9 14.6 21.2 17.8 17.1 18.7																								Diurnal Maximum		
M - Maintenance																										
Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³																										

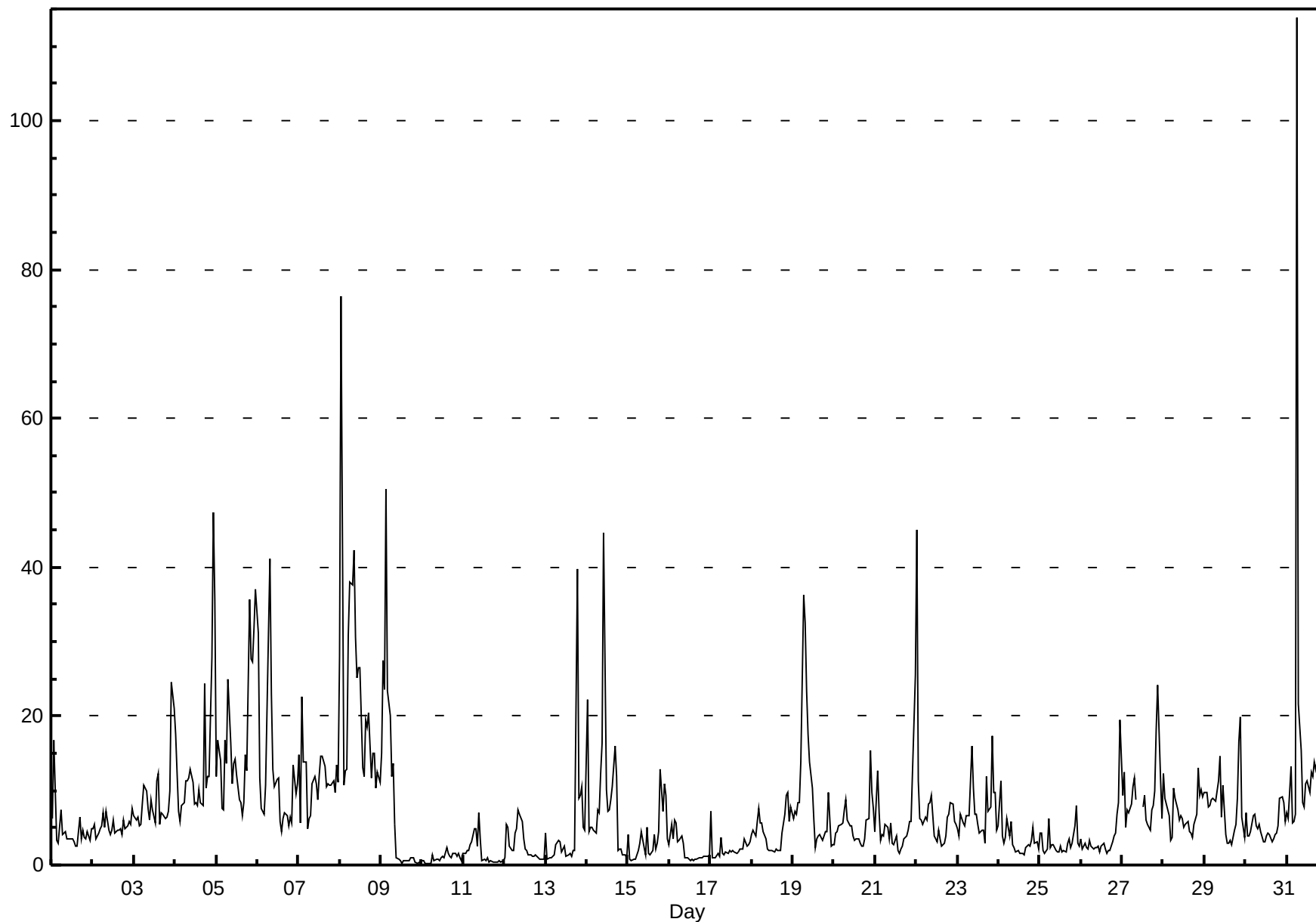


Hourly Maximums

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

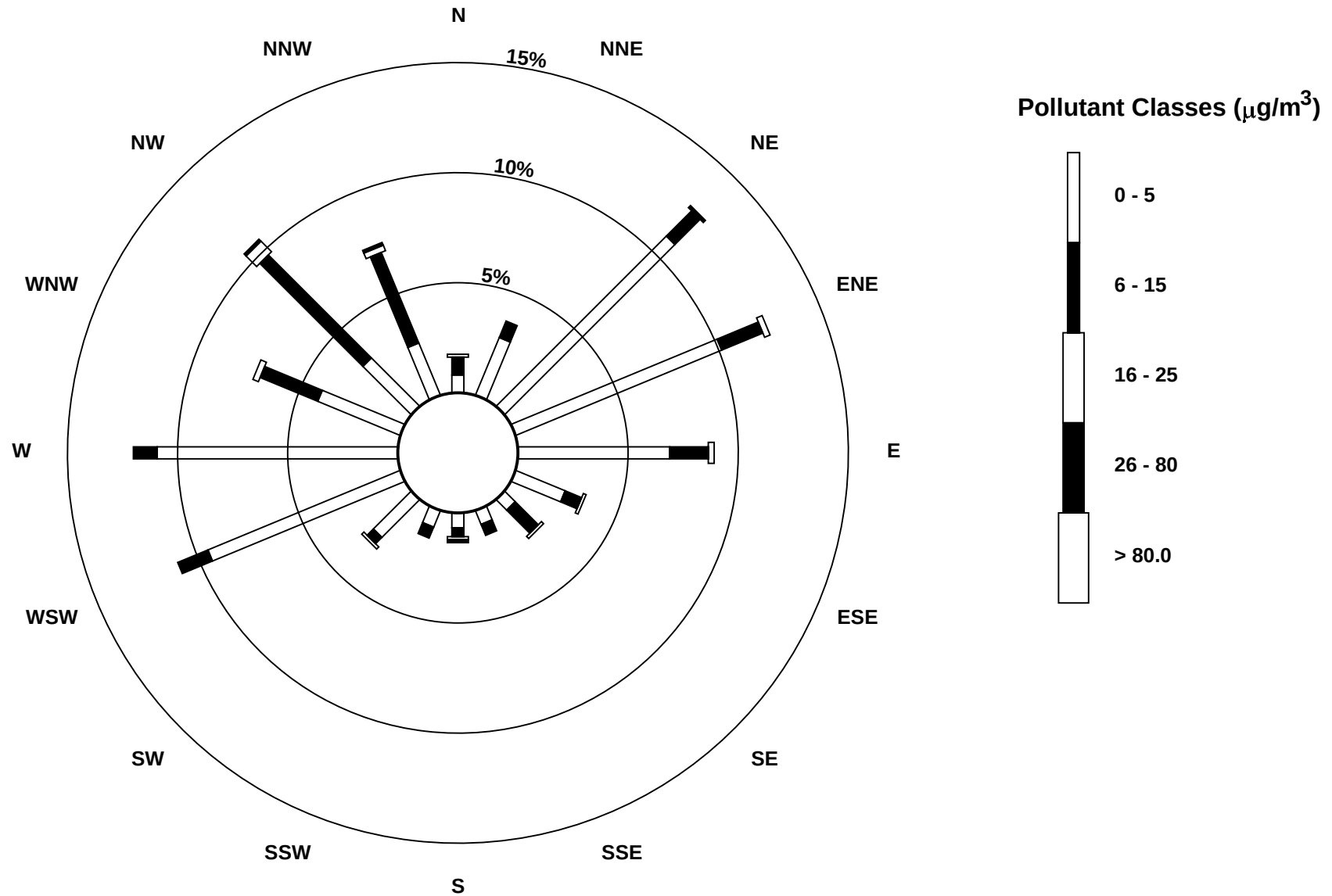
Henry Pirker - March 2014

Maximum Value: 113.9 μg/m ³ on Mar 31 07:00																					Maximum Daily Average: 23.2 μg/m ³ on Mar 8							Hours in Service: 744	
Minimum Value: 0 μg/m ³ on Mar 10 03:00																					Minimum Daily Average: 1.0 μg/m ³ on Mar 10							Hours of Data: 741	
Maximum Diurnal Average: 12.5 μg/m ³ at hour 7																					Minimum Diurnal Average: 4.5 μg/m ³ at hour 16							Hours of Missing Data: 3	
Monthly Average: 7.38 μg/m ³																					Percentiles: P ₁ = 0.3 P ₁₀ = 1.2 Q ₁ = 2.5 Median = 5.2 Q ₃ = 9.3 P ₉₀ = 14.5 P ₉₉ = 40.2							Hours of Calibration: 0	
																												Percent Operational Time: 99.6	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
1-Mar	6	17	10	3	3	7	4	4	4	4	3	3	3	3	6	3	5	4	4	5	3	5	4.8	16.7					
2-Mar	5	5	3	4	5	5	7	5	7	5	4	5	6	4	5	5	4	6	5	5	6	6	8	5.2	7.6				
3-Mar	7	6	6	5	5	8	11	10	8	6	9	7	6	11	12	6	7	7	6	6	7	10	25	21	8.8	24.6			
4-Mar	18	12	7	6	8	8	11	11	12	13	11	8	8	8	10	8	8	24	10	12	12	28	47	36	14.1	47.3			
5-Mar	12	17	14	8	7	17	14	25	16	11	14	14	12	9	8	7	8	15	13	36	28	27	32	37	16.6	36.9			
6-Mar	31	12	8	7	7	11	31	41	23	13	11	12	12	6	4	6	7	7	5	6	6	13	10	11	12.5	41.1			
7-Mar	15	6	23	14	14	5	6	7	11	12	11	9	12	15	15	13	11	11	11	11	11	10	13	11	11.4	22.7			
8-Mar	28	76	11	13	13	31	38	38	42	31	25	27	27	13	12	19	19	21	12	15	15	10	13	11	23.2	76.4			
9-Mar	15	28	24	50	23	20	12	14	5	1	1	1	0	1	1	1	1	1	1	0	0	0	0	0	8.4	50.5			
10-Mar	1	1	0	0	0	0	1	1	1	1	1	1	1	1	2	2	1	1	2	2	1	2	1	1	1.0	2.3			
11-Mar	2	2	2	2	3	3	5	5	2	7	4	1	1	1	1	0	1	0	0	0	0	1	0	1	1.8	7.0			
12-Mar	1	6	5	3	2	2	4	5	7	7	6	4	2	2	1	1	1	1	1	1	1	1	1	1	2.8	7.5			
13-Mar	4	1	1	1	1	1	3	3	3	2	2	3	1	1	2	1	2	2	40	9	9	11	5	5	4.7	39.7			
14-Mar	22	5	5	5	5	4	7	7	12	16	45	10	7	7	9	11	16	12	2	2	2	1	1	1	9.0	44.6			
15-Mar	4	1	1	1	1	1	2	3	5	2	1	5	2	1	2	4	2	3	4	13	7	11	9	3	3.7	12.8			
16-Mar	3	6	3	6	6	3	3	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2.1	6.0			
17-Mar	7	1	1	1	2	1	4	2	1	2	2	2	2	2	2	2	2	2	2	2	4	3	3	3	2.2	7.2			
18-Mar	4	5	4	6	8	6	6	5	3	2	2	2	2	2	2	2	2	2	4	7	9	10	6	8	4.4	9.7			
19-Mar	6	7	7	8	8	14	36	33	23	18	14	10	6	2	3	4	4	3	4	5	4	10	2	3	9.8	36.3			
20-Mar	3	4	5	5	5	6	7	9	6	5	5	4	3	4	3	3	2	2	4	6	6	15	10	8	5.5	15.4			
21-Mar	5	13	7	3	4	4	5	5	3	6	3	3	4	2	2	2	2	4	4	5	6	6	12	26	5.6	25.6			
22-Mar	45	11	6	6	6	6	6	8	8	9	4	4	3	5	3	3	3	4	6	7	8	8	6	5	7.6	45.1			
23-Mar	5	4	7	6	5	7	7	7	16	10	7	7	5	4	5	5	3	12	7	8	17	10	10	5	7.3	17.3			
24-Mar	5	11	4	3	4	6	4	6	3	2	2	2	2	1	2	1	2	3	2	3	5	3	3	2	3.4	11.4			
25-Mar	4	4	2	2	2	6	2	3	3	2	2	2	2	2	2	2	3	4	2	3	5	8	3	2	3.0	8.0			
26-Mar	3	2	3	2	2	3	2	2	2	2	3	2	2	3	2	2	2	2	3	4	4	7	8	20	3.7	19.5			
27-Mar	9	12	5	7	7	8	11	12	9	M	M	M	8	9	6	5	5	7	8	10	18	24	12	6	9.5	24.2			
28-Mar	12	9	8	7	3	4	10	9	7	6	7	6	5	5	6	5	4	4	5	7	13	9	10	9	7.2	13.1			
29-Mar	10	10	8	8	9	9	9	10	11	15	6	11	4	3	3	3	3	5	5	9	17	20	6	4	8.2	19.9			
30-Mar	7	4	4	5	7	7	5	5	5	5	3	3	4	4	4	3	3	4	4	5	9	9	8	6	5.2	9.2			
31-Mar	7	6	13	6	6	7	114	22	15	8	8	11	11	10	12	12	14	13	14	22	21	14	16	16	16.6	113.9			
9.9 9.7 6.6 6.5 5.8 7.2 12.5 10.2 9.1 7.4 7.1 5.9 5.3 4.6 4.7 4.5 4.8 5.9 6.3 7.2 8.3 9.4 9.2 8.8																									Diurnal Average				
45.1 76.4 23.5 50.5 23.3 30.9 113.9 41.1 42.3 30.6 44.6 26.6 26.6 14.7 14.5 19.4 18.6 24.4 39.7 35.6 27.7 27.8 47.3 36.9																									Diurnal Maximum				
M - Maintenance																													



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Henry Pirker - March 2014



Hourly Averages

External Temperature (ET) - °C

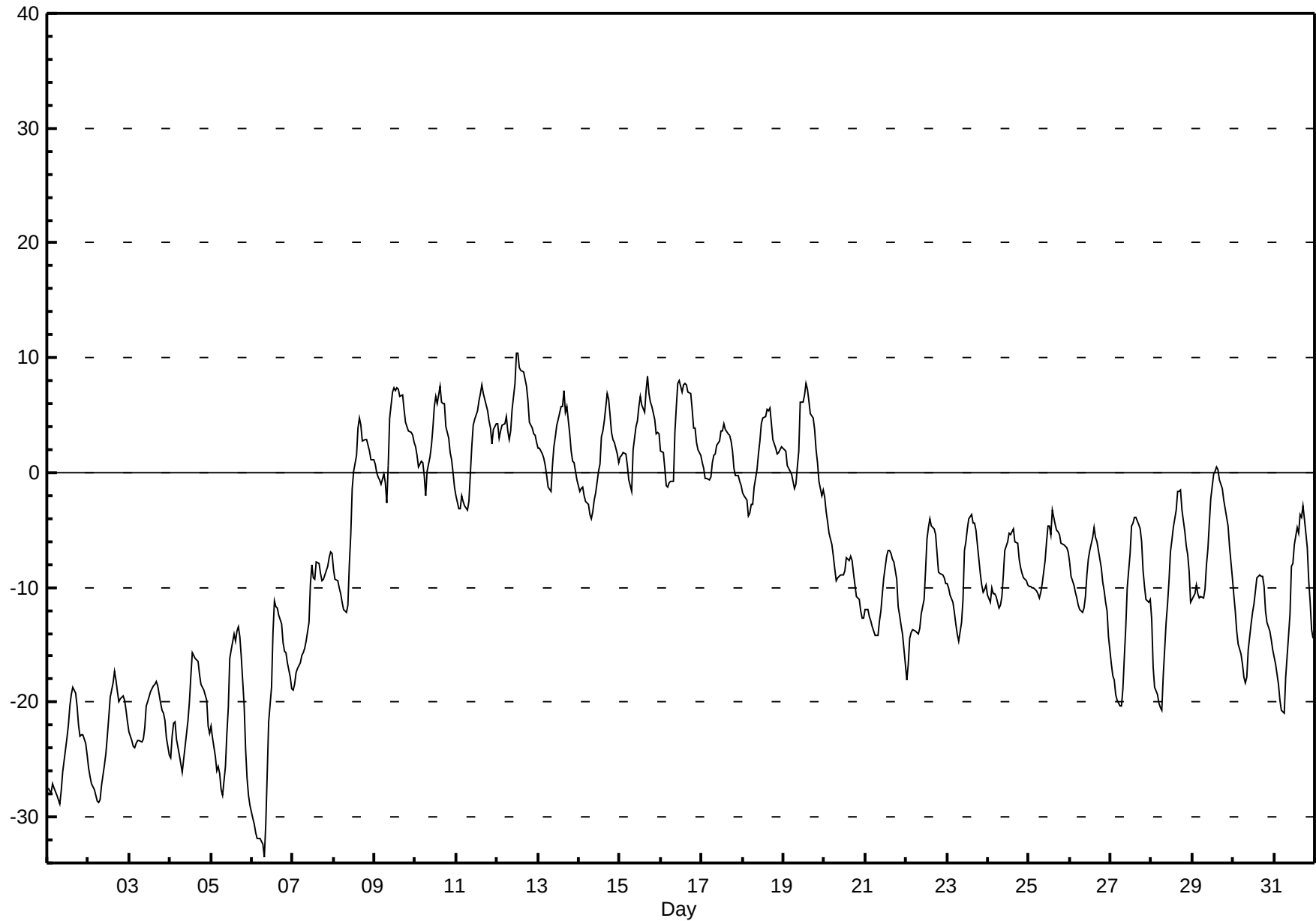
Henry Pirker - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 10.4 °C on Mar 12 12:00 Maximum Daily Average: 5.6 °C on Mar 12																					Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0					
Minimum Value: -33 °C on Mar 6 08:00 Maximum Diurnal Average: -2.8 °C at hour 16 Monthly Average: -7.61 °C																					Minimum Daily Average: -24.3 °C on Mar 1 Minimum Diurnal Average: -12.3 °C at hour 7 Percentiles: P ₁ = -30.6 P ₁₀ = -22.1 Q ₁ = -14.1 Median = -7.1 Q ₃ = 1.0 P ₉₀ = 4.8 P ₉₉ = 7.9					
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	-27	-28	-28	-27	-28	-28	-28	-29	-28	-26	-25	-23	-22	-20	-19	-19	-19	-20	-22	-23	-23	-23	-24	-25	-24.3	-18.7
2-Mar	-26	-26	-27	-28	-28	-29	-29	-28	-27	-25	-24	-23	-21	-20	-18	-17	-18	-19	-20	-20	-20	-20	-21	-22	-23.2	-17.4
3-Mar	-23	-23	-24	-24	-24	-23	-23	-23	-23	-22	-20	-20	-19	-19	-19	-18	-18	-19	-20	-21	-21	-22	-23	-25	-21.5	-18.3
4-Mar	-25	-23	-22	-22	-23	-25	-25	-26	-25	-24	-22	-20	-18	-16	-16	-16	-16	-18	-18	-19	-19	-20	-22	-23	-20.9	-15.6
5-Mar	-22	-23	-25	-26	-26	-26	-28	-28	-26	-23	-20	-16	-15	-14	-15	-14	-13	-14	-16	-20	-24	-27	-28	-29	-21.6	-13.5
6-Mar	-30	-31	-31	-32	-32	-32	-32	-33	-31	-26	-22	-19	-14	-11	-12	-12	-12	-13	-15	-16	-16	-17	-18	-19	-21.9	-11.1
7-Mar	-19	-18	-17	-17	-17	-16	-16	-15	-15	-13	-10	-8	-9	-9	-8	-8	-9	-9	-9	-8	-7	-7	-7	-7	-11.7	-6.8
8-Mar	-8	-9	-9	-10	-10	-11	-12	-12	-12	-8	-5	-1	0	2	4	5	4	3	3	2	2	1	1	1	-3.3	4.8
9-Mar	1	0	0	-1	-1	0	-1	-3	1	5	7	7	7	7	7	7	7	5	4	4	4	4	3	3	3.2	7.4
10-Mar	2	1	1	1	1	0	-2	0	1	2	4	6	7	6	8	6	6	6	4	3	2	1	0	-1	2.7	7.5
11-Mar	-2	-3	-3	-2	-3	-3	-3	-3	0	2	4	5	5	6	7	8	7	6	5	5	4	2	4	4	2.2	7.6
12-Mar	4	3	4	4	4	5	4	3	4	6	8	10	10	9	9	9	8	8	6	4	4	3	3	3	5.6	10.4
13-Mar	2	2	2	1	1	0	-1	-2	1	2	3	4	5	6	6	7	5	6	3	2	1	1	0	-1	2.3	7.1
14-Mar	-2	-1	-1	-2	-2	-3	-4	-4	-3	-2	-2	0	1	3	4	4	7	6	5	3	3	3	2	1	0.6	6.9
15-Mar	1	1	2	2	1	-1	-1	-2	2	4	4	6	7	6	5	7	8	7	6	6	5	3	4	3	3.6	8.4
16-Mar	2	2	0	-1	-1	-1	-1	-1	4	6	8	8	7	8	8	8	7	7	6	4	4	3	2	1	3.6	8.0
17-Mar	1	0	-1	-1	-1	0	1	1	2	2	3	4	4	4	4	3	3	3	2	0	0	0	-1	-1	1.4	4.3
18-Mar	-2	-2	-2	-4	-3	-3	-3	-1	0	2	3	4	5	5	5	5	6	4	3	2	2	2	2	2	1.3	5.6
19-Mar	2	2	1	0	0	0	-1	-1	1	2	6	6	7	8	7	6	5	5	4	2	1	-1	-2	-2	2.4	7.8
20-Mar	-2	-3	-4	-5	-6	-7	-8	-9	-9	-9	-9	-9	-9	-7	-8	-7	-8	-9	-10	-11	-11	-12	-13	-13	-8.3	-2.1
21-Mar	-12	-12	-12	-13	-13	-14	-14	-14	-13	-12	-11	-9	-7	-7	-7	-7	-8	-8	-9	-12	-12	-13	-14	-17	-11.3	-6.7
22-Mar	-18	-17	-14	-14	-14	-14	-14	-14	-14	-12	-11	-9	-6	-5	-4	-5	-5	-5	-7	-9	-9	-9	-9	-10	-10.2	-4.1
23-Mar	-10	-10	-11	-11	-12	-13	-14	-15	-13	-11	-7	-6	-5	-4	-4	-4	-4	-5	-6	-9	-10	-10	-10	-10	-8.9	-3.6
24-Mar	-11	-11	-10	-11	-11	-11	-12	-12	-11	-9	-7	-6	-5	-5	-5	-5	-6	-6	-7	-8	-9	-9	-9	-10	-8.6	-4.9
25-Mar	-10	-10	-10	-10	-10	-10	-11	-10	-10	-8	-6	-5	-5	-5	-3	-5	-5	-5	-5	-6	-6	-6	-6	-7	-7.3	-3.2
26-Mar	-8	-9	-10	-10	-11	-11	-12	-12	-12	-11	-9	-8	-7	-6	-5	-6	-6	-7	-8	-10	-10	-11	-12	-14	-9.3	-4.8
27-Mar	-17	-18	-18	-19	-20	-20	-20	-19	-16	-13	-10	-7	-5	-4	-4	-4	-4	-5	-6	-9	-10	-11	-11	-11	-11.7	-3.9
28-Mar	-13	-17	-19	-19	-20	-20	-21	-18	-13	-11	-9	-7	-6	-5	-3	-2	-2	-1	-3	-5	-6	-7	-9	-11	-10.3	-1.5
29-Mar	-11	-11	-10	-11	-11	-11	-11	-10	-8	-7	-4	-2	0	0	0	0	-1	-1	-2	-3	-4	-5	-6	-9	-5.7	0.5
30-Mar	-11	-12	-14	-15	-16	-17	-18	-18	-18	-15	-13	-12	-11	-10	-9	-9	-9	-9	-10	-12	-13	-14	-15	-15	-13.1	-8.9
31-Mar	-16	-17	-18	-20	-21	-21	-21	-18	-14	-12	-8	-8	-6	-5	-5	-4	-4	-3	-4	-6	-9	-11	-14	-14	-11.7	-2.9
																									Diurnal Average	
																									Diurnal Maximum	

Hourly Averages

External Temperature (ET) - °C

Henry Pirker - March 2014



Hourly Averages

Relative Humidity (RH) - %

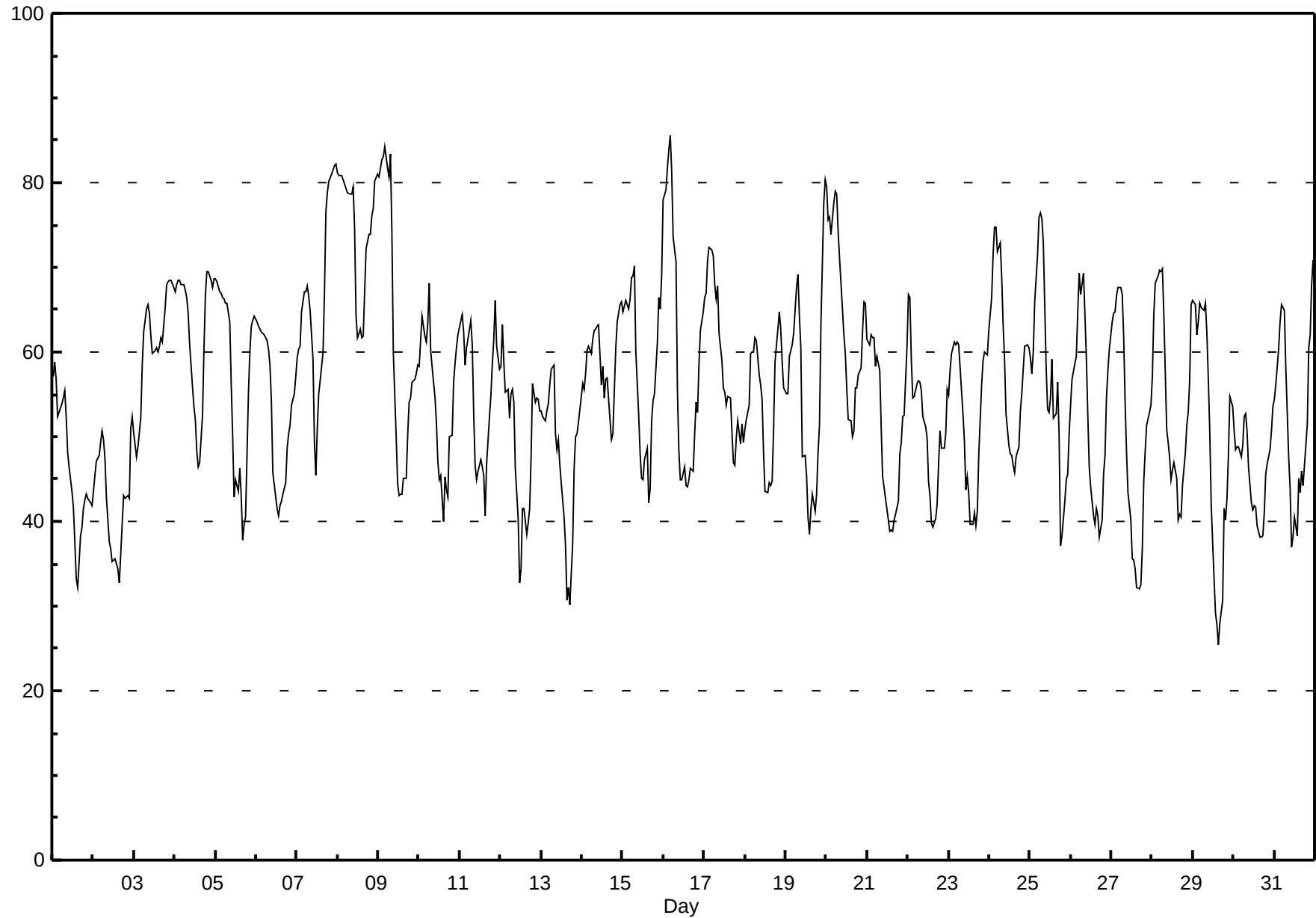
Henry Pirker - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 85.5 % on Mar 16 05:00 Maximum Daily Average: 74.4 % on Mar 8																								Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0		
Minimum Value: 25 % on Mar 29 16:00 Maximum Diurnal Average: 65.3 % at hour 7 Monthly Average: 55.34 %												Minimum Daily Average: 42.6 % on Mar 2 Minimum Diurnal Average: 43.6 % at hour 16 Percentiles: P ₁ = 32.1 P ₁₀ = 40.7 Q ₁ = 46.4 Median = 55.1 Q ₃ = 63.2 P ₉₀ = 69.4 P ₉₉ = 81.8														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	57	59	57	52	53	54	55	55	52	48	46	44	42	38	33	32	38	39	42	43	43	43	42	42	46.2	58.7
2-Mar	44	45	47	48	49	51	50	47	43	38	37	35	35	36	34	33	36	40	43	43	43	43	51	52	42.6	52.3
3-Mar	51	48	49	50	52	58	62	65	66	65	62	60	60	60	60	61	62	61	65	68	68	69	69	68	60.8	68.5
4-Mar	67	68	69	68	68	68	67	66	65	61	56	54	52	48	46	47	53	60	67	69	69	69	68	69	62.2	69.5
5-Mar	69	68	67	67	66	66	66	66	64	56	50	43	45	44	46	43	38	40	41	55	60	63	64	64	56.2	68.6
6-Mar	64	63	63	62	62	62	61	60	59	54	46	43	42	41	42	42	43	45	49	50	51	54	55	57	52.9	63.6
7-Mar	59	60	61	65	67	67	68	67	65	59	49	46	51	55	57	60	67	77	79	80	81	82	82	82	66.0	82.2
8-Mar	81	81	81	80	80	79	79	79	79	75	64	62	63	62	62	67	72	74	74	76	77	80	81	81	74.4	81.2
9-Mar	81	82	83	83	84	82	81	83	74	60	50	44	43	43	45	45	50	54	55	57	57	57	58	58	62.2	84.3
10-Mar	58	61	64	62	61	63	68	60	56	55	52	47	45	46	40	45	44	43	50	50	56	59	60	62	54.5	68.2
11-Mar	63	64	62	58	60	62	64	61	53	47	45	46	47	46	45	41	47	52	55	59	62	66	61	58	55.2	66.1
12-Mar	58	63	59	55	56	52	55	56	54	46	40	33	34	42	41	39	40	42	48	56	54	55	54	53	49.4	63.2
13-Mar	53	52	52	53	54	56	58	58	50	49	50	47	45	41	37	31	32	30	37	46	50	50	52	53	47.3	58.4
14-Mar	56	56	58	60	61	60	62	63	63	63	63	56	58	55	57	57	52	50	50	55	60	63	66	66	58.7	66.0
15-Mar	65	65	66	65	66	69	69	70	60	53	48	45	45	47	49	42	44	52	54	55	61	66	65	69	57.9	70.2
16-Mar	78	79	82	84	86	81	73	71	55	48	45	45	46	44	44	45	46	46	50	54	53	58	63	65	60.1	85.5
17-Mar	66	67	71	72	72	71	68	66	68	62	59	56	55	54	55	55	51	47	47	50	52	49	52	49	58.9	72.4
18-Mar	51	52	54	60	60	60	62	61	57	56	54	48	44	43	45	44	45	51	59	63	65	63	59	56	54.6	64.7
19-Mar	55	55	59	60	61	62	68	69	64	60	48	48	45	41	38	41	43	41	43	48	51	63	78	80	55.2	80.4
20-Mar	80	76	76	74	78	79	79	74	71	65	62	60	56	52	52	50	51	56	56	57	58	62	66	66	64.7	79.5
21-Mar	62	61	62	62	62	58	60	58	51	45	44	43	40	39	39	39	40	41	42	48	49	52	53	61	50.4	62.1
22-Mar	67	66	59	55	55	56	57	56	55	52	51	50	45	43	40	39	40	42	47	51	49	49	50	56	51.2	66.7
23-Mar	55	58	60	61	61	61	61	58	53	49	44	45	43	40	40	41	40	41	48	56	59	60	60	60	52.2	61.2
24-Mar	63	66	71	75	75	72	73	69	63	59	53	49	48	48	47	46	48	49	53	55	58	61	61	60	59.1	74.7
25-Mar	59	58	60	66	72	76	76	76	73	58	53	53	55	59	52	53	56	50	37	38	42	45	46	50	56.8	76.4
26-Mar	54	57	59	60	65	69	67	69	64	59	53	46	44	41	40	42	41	38	40	46	48	55	58	60	53.0	69.4
27-Mar	64	65	65	67	68	68	67	62	54	48	43	40	36	35	34	32	32	33	37	45	48	51	53	54	50.0	67.7
28-Mar	57	64	68	69	70	69	70	64	51	49	48	45	46	47	45	40	41	41	44	48	51	53	57	66	54.3	69.9
29-Mar	66	66	62	64	66	65	65	66	62	57	51	42	33	29	28	25	28	31	41	40	43	48	55	54	49.4	66.1
30-Mar	51	48	49	49	48	49	52	53	51	46	42	41	42	42	39	38	38	38	41	46	47	48	51	54	45.9	53.6
31-Mar	54	56	60	63	66	65	65	58	48	44	37	38	41	38	45	43	46	44	47	52	60	62	68	71	53.0	70.9
61.5 62.3 63.0 63.5 64.6 64.9 65.3 64.1 59.4 54.6 50.2 46.9 46.0 45.1 44.4 43.6 44.9 46.5 49.7 53.4 55.7 57.9 59.7 61.1																								Diurnal Average		
81.2 81.8 82.7 83.8 85.5 81.8 80.7 83.3 78.7 79.4 74.6 64.3 61.6 62.7 61.7 61.9 67.1 76.6 78.9 80.1 81.0 81.6 82.1 82.2																								Diurnal Maximum		

Hourly Averages

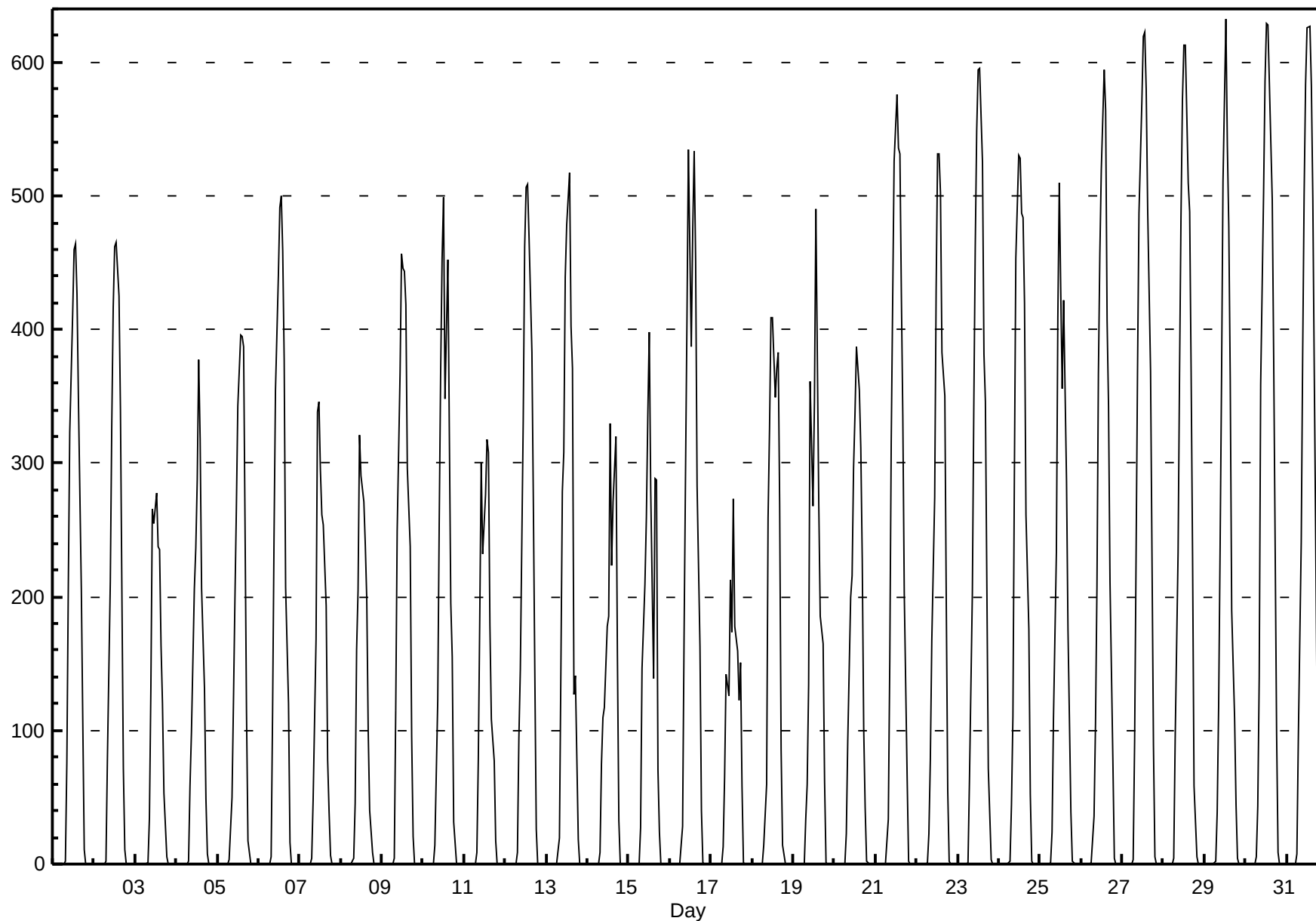
Relative Humidity (RH) - %

Henry Pirker - March 2014



Hourly Averages

Solar Radiation (SR) - W/m²
Henry Pirker - March 2014



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - March 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	3	4	7	11	11	8	9	9	9	11	14	12	15	16	20	19	12	13	11	12	12	14	12	13	11.2	19.7
Dir	77	62	83	95	94	89	94	92	95	98	94	87	79	85	85	79	53	52	63	76	80	92	95	94	83.6	85.3
2 Spd	10	11	12	13	12	10	11	12	10	10	12	14	16	19	14	12	14	10	10	11	10	14	16	14	11.7	18.9
Dir	86	85	83	88	86	87	91	95	93	103	95	89	86	81	66	51	48	49	51	68	93	112	116	106	84.4	80.8
3 Spd	14	12	11	12	13	11	10	10	7	8	7	7	6	7	6	2	3	0	0	0	2	7	5	5	5.5	14.4
Dir	108	106	97	94	97	106	111	118	105	103	93	86	72	78	85	73	67	15	159	144	328	334	329	319	91.6	107.9
4 Spd	4	2	3	6	5	4	4	5	5	7	8	6	6	7	6	5	4	4	4	4	5	4	3	4	4.0	7.7
Dir	326	274	235	249	254	259	251	260	256	247	240	240	260	289	295	294	296	307	328	3	346	325	295	323	278.3	239.9
5 Spd	3	3	3	3	2	3	2	3	3	4	5	0	2	5	6	6	5	5	2	2	4	3	4	5	3.2	6.5
Dir	327	326	298	315	330	320	312	316	312	309	315	307	290	303	335	329	344	27	54	345	310	318	338	340	326.4	334.6
6 Spd	4	4	4	4	4	3	3	4	4	5	4	5	3	6	9	9	8	8	9	8	7	5	3	5	3.8	9.3
Dir	332	334	327	329	333	311	331	319	315	323	304	300	0	51	62	59	54	52	50	55	64	56	14	353	17.5	50.1
7 Spd	3	4	4	4	3	3	4	2	3	4	3	4	5	6	4	5	6	7	7	7	6	4	2	1	1.0	6.9
Dir	333	314	318	312	305	227	240	266	178	184	207	315	345	351	59	80	78	90	98	91	89	95	94	192	50.5	90.3
8 Spd	3	3	2	1	2	3	3	2	1	1	2	1	5	5	4	2	3	4	4	3	4	2	3	5	1.0	5.1
Dir	296	291	306	242	339	316	317	338	36	188	88	93	135	134	101	63	75	59	87	130	109	149	140	153	101.9	133.7
9 Spd	2	3	1	1	1	2	1	5	11	16	21	27	30	21	25	24	21	27	22	20	16	18	18	17	14.0	29.8
Dir	268	350	74	216	170	138	249	218	231	241	254	257	260	268	265	259	259	253	247	252	251	259	260	256	255.1	260.2
10 Spd	17	14	9	16	13	8	4	15	17	17	16	14	14	12	10	13	12	10	9	13	13	10	9	9	11.9	17.4
Dir	248	239	228	240	244	284	291	272	258	257	258	265	283	287	274	271	270	275	270	257	247	245	236	239	258.6	257.1
11 Spd	6	6	6	8	6	3	2	7	12	21	23	21	21	13	10	9	21	28	18	16	16	4	11	9	12.0	27.7
Dir	242	244	242	260	218	209	208	261	275	249	251	268	278	279	279	253	266	276	270	259	260	268	253	244	261.4	275.7
12 Spd	7	5	6	6	10	10	7	4	5	3	6	7	14	24	26	29	26	29	21	20	28	26	25	21	14.0	29.3
Dir	237	224	224	242	242	221	190	170	166	171	176	217	278	264	249	252	259	244	251	269	256	256	263	262	249.3	243.9
13 Spd	19	24	20	20	19	17	15	14	16	12	10	12	15	10	6	3	1	1	2	6	5	5	8	5	8.3	24.0
Dir	257	261	259	259	256	254	253	250	270	282	281	275	291	302	307	327	5	220	200	114	112	97	111	110	263.7	260.8
14 Spd	3	3	3	2	5	4	4	2	2	4	3	4	4	2	2	2	3	17	18	15	15	15	8	9	3.7	18.1
Dir	109	111	113	96	97	74	83	94	40	288	292	222	268	304	302	310	288	251	257	256	248	249	247	248	252.0	257.5
15 Spd	14	14	14	13	9	8	8	2	4	3	6	7	8	10	5	7	11	7	6	8	4	3	6	6	3.0	14.4
Dir	245	244	247	263	279	274	277	185	228	177	140	104	91	95	93	111	121	125	210	206	291	155	216	281	214.7	243.9
16 Spd	1	6	3	3	3	3	1	1	4	9	8	13	22	25	26	21	21	16	14	10	16	11	12	10	10.0	25.9
Dir	191	202	158	261	330	230	92	114	230	241	284	286	274	262	258	263	269	266	260	259	257	256	260	251	260.7	258.3
17 Spd	12	12	6	10	8	4	12	12	6	11	17	16	18	18	19	21	21	30	25	21	15	14	14	12	14.1	30.1
Dir	246	242	272	299	287	307	261	273	289	276	270	271	272	273	275	281	266	259	254	251	241	230	235	226	262.4	259.3
18 Spd	9	9	11	4	7	7	7	11	18	19	19	17	17	15	15	21	17	18	10	3	1	3	5	5	10.1	20.5
Dir	229	263	260	265	264	278	277	282	258	255	258	259	262	268	253	273	268	260	270	278	195	126	135	137	260.4	272.6
19 Spd	5	4	3	5	5	3	1	3	2	3	2	5	6	9	10	9	13	17	16	12	10	11	11	10	4.6	17.3
Dir	148	127	129	157	168	134	133	116	146	145	239	293	237	258	283	290	288	278	276	271	258	300	321	317	271.4	278.0
20 Spd	9	14	15	15	11	12	12	10	8	9	8	9	9	7	7	5	5	8	6	6	4	3	3	3	7.9	14.7
Dir	17	22	12	18	22	13	20	35	39	51	51	23	14	28	19	53	75	52	44	28	22	21	37	41	28.0	18.0
21 Spd	4	5	5	6	7	8	7	6	8	11	8	8	7	7	9	6	8	6	6	5	5	5	3	3	6.2	11.0
Dir	56	60	53	49	50	48	56	64	66	71	66	65	58	40	44	58	58	62	68	67	71	69	56	332	57.6	70.5
22 Spd	2	2	3	5	3	5	5	5	6	8	13	12	9	9	10	12	13	12	8	8	8	7	4	5	6.4	13.0
Dir	335	16	67	73	58	69	68	75	71	83	89	78	61	61	57	38	36	37	30	13	32	38	349	315	50.7	89.3

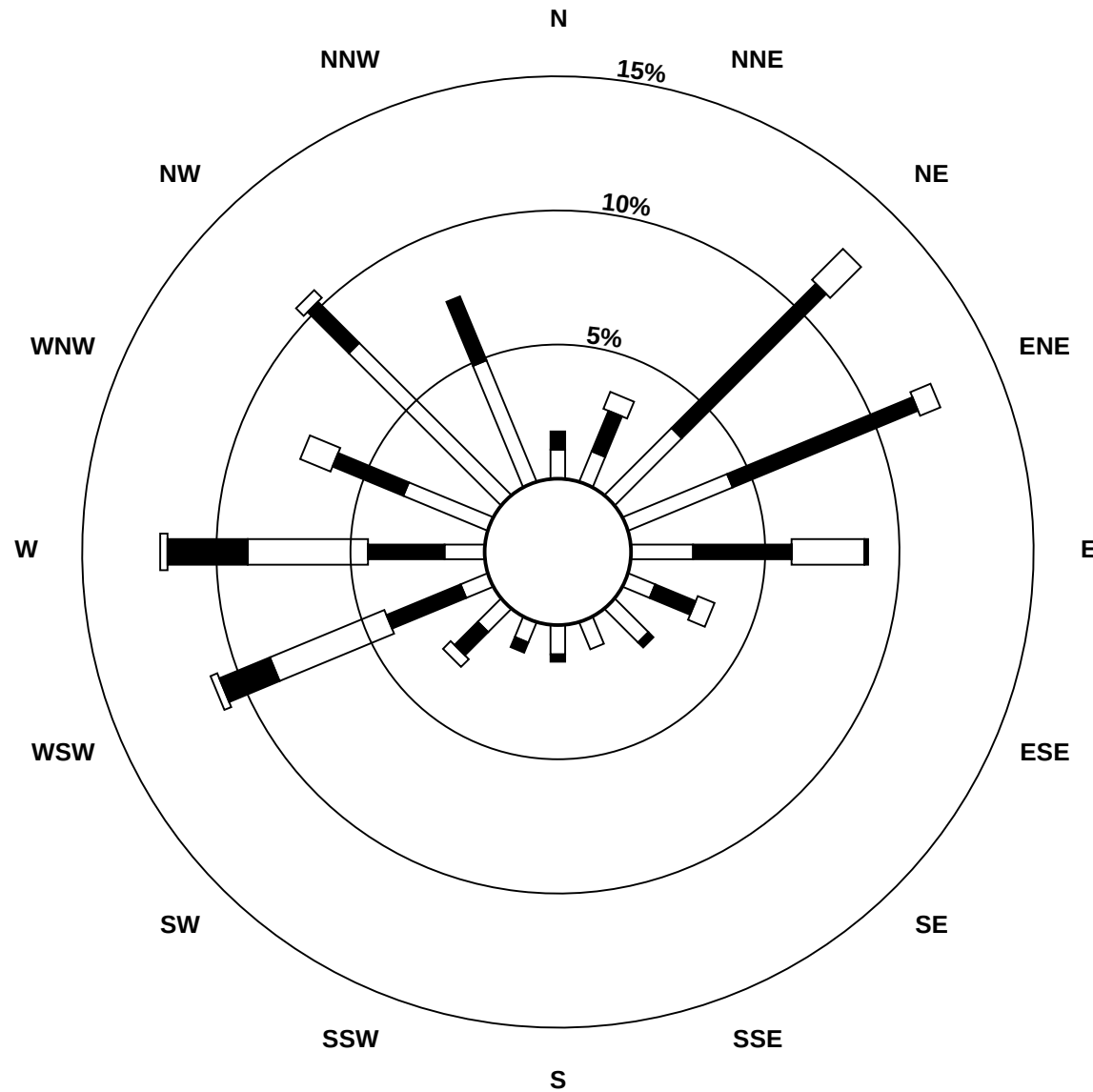
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Henry Pirker - March 2014

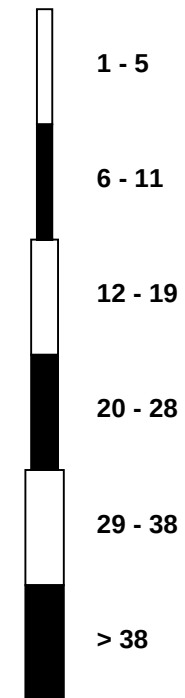
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	5	6	6	6	6	6	7	7	8	7	7	9	12	14	12	16	15	13	10	7	6	6	7	7	8.4	15.8
Dir	331	332	313	323	327	323	332	314	311	307	300	315	298	292	296	311	307	310	310	312	331	322	315	327	312.1	310.7
24 Spd	6	5	5	4	5	6	5	5	9	9	7	9	8	10	9	9	11	10	9	9	10	10	10	8	7.2	10.6
Dir	334	336	64	54	48	67	66	61	101	106	75	65	67	60	64	60	62	58	61	73	70	66	68	67	64.9	61.7
25 Spd	6	4	5	5	6	6	7	6	8	6	8	8	6	7	4	8	7	5	5	4	5	6	6	9	5.3	9.1
Dir	63	69	37	57	58	52	51	49	49	54	40	21	8	327	319	356	333	15	79	51	35	34	36	40	33.2	40.0
26 Spd	12	13	11	13	11	9	10	9	9	9	10	10	11	11	8	7	7	7	7	5	3	4	5	5	8.2	12.8
Dir	50	49	52	51	47	51	44	46	38	41	38	41	37	38	47	51	54	58	50	42	40	336	334	334	42.3	50.6
27 Spd	4	5	4	3	3	5	4	4	6	5	5	4	6	8	8	9	9	9	7	4	4	3	5	8	3.4	9.0
Dir	315	323	331	313	314	314	326	312	322	298	286	321	60	53	56	33	34	37	45	53	71	74	82	93	17.2	36.7
28 Spd	2	3	3	3	3	4	2	3	3	5	6	7	9	9	6	4	5	5	5	5	4	6	3	4	3.3	9.1
Dir	81	339	333	313	314	309	303	310	280	295	291	337	318	339	345	54	41	51	48	50	57	38	342	320	346.5	339.2
29 Spd	3	5	6	3	4	5	4	3	4	9	7	8	8	8	8	6	5	4	6	4	2	5	12	14	3.7	14.5
Dir	315	339	343	311	324	335	319	319	308	300	299	303	287	287	291	286	289	8	67	27	87	78	56	55	334.6	54.9
30 Spd	15	13	11	11	12	11	9	9	9	9	6	8	9	10	10	9	9	9	8	8	6	6	5	3	8.9	14.6
Dir	61	65	53	55	59	55	57	59	62	61	64	65	69	66	60	61	59	50	44	46	54	59	57	40	58.2	61.3
31 Spd	2	2	4	3	3	4	4	3	4	4	3	5	6	6	9	7	6	4	4	2	7	5	4	3	3.6	9.3
Dir	49	8	321	305	295	317	301	319	285	253	294	313	359	338	341	330	352	18	32	50	336	333	310	319	331.0	340.6
Spd	1.1	1.4	1.3	1.4	1.2	1.4	1.2	1.0	1.3	1.9	2.1	2.9	4.0	3.8	3.4	3.6	3.7	3.9	2.6	1.9	1.8	1.3	1.5	1.6	Diurnal Average	
Dir	300.2	307.8	335.1	330.3	342.7	354.0	359.8	339.4	295.8	266.1	277.0	302.8	308.1	316.4	315.1	316.5	315.2	298.5	296.5	296.5	284.5	295.3	285.6	299.9	Diurnal Maximum	
Spd	19.0	24.0	20.4	19.6	19.4	16.7	14.6	15.1	18.2	21.1	22.8	26.7	29.8	24.9	25.9	28.6	26.0	30.1	25.0	20.7	27.5	25.5	25.2	21.1	Diurnal Maximum	
Dir	256.9	260.8	259.2	259.5	256.2	253.9	253.0	271.9	258.1	248.9	250.9	256.9	260.2	261.9	258.3	251.7	258.9	259.3	253.9	250.5	256.4	256.2	263.4	262.3		
Maximum Speed Value: 30 km/h on Mar 17 18:00							Minimum Speed Value: 0 km/h on Mar 3 20:00													Hours in Service: 744						
Maximum Daily Speed Average: 14.1 km/h on Mar 12							Minimum Daily Speed Average: 1.0 km/h on Mar 8													Hours of Data: 744						
Maximum Diurnal Speed Average: 4.0 km/h at hour 13							Minimum Diurnal Speed Average: 1.0 km/h at hour 8													Hours of Missing Data: 0						
Monthly Average Velocity: 2.02 km/h 307.91 deg							Speed Percentiles: P ₁ = 0.9 P ₁₀ = 2.8 Q ₁ = 4.2 Median = 6.9 Q ₃ = 11.0 P ₉₀ = 16.1 P ₉₉ = 26.1													Percent Operational Time: 100.0						
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
Speed Range (km/h)																										
Direction	0 to 5		5 to 11		11 to 19		19 to 28		28 to 38		> 38		Total													
North	25		16		6		0		0		0		47													
NorthEast	37		108		20		0		0		0		165													
East	30		52		30		2		0		0		114													
SouthEast	19		9		1		0		0		0		29													
South	16		3		0		0		0		0		19													
SouthWest	15		25		16		1		1		0		58													
West	23		42		63		38		3		0		169													
NorthWest	92		45		6		0		0		0		143													
Total	257		300		142		41		4		0		744													

Wind Rose

Wind Speed (WS) (km/h)
Henry Pirker - March 2014



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Henry Pirker - March 2014

Maximum Speed: 30 km/h on Mar 17 18:00																					Maximum Daily Speed Average: 15.4 km/h on Mar 12										Hours in Service: 744	
Minimum Speed: 0 km/h on Mar 3 19:00																					Minimum Daily Speed Average: 3.5 km/h on Mar 8										Hours of Data: 744	
Maximum Diurnal Speed Average: 11.4 km/h at hour 18																					Minimum Diurnal Speed Average: 6.4 km/h at hour 7										Hours of Missing Data: 0	
Monthly Average Speed: 8.61 km/h																					Percentiles: P ₁ = 1.6 P ₁₀ = 3.2 Q ₁ = 4.6 Median = 7.2 Q ₃ = 11.2 P ₉₀ = 16.1 P ₉₉ = 26.2										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24								
1-Mar	3	4	7	11	11	8	9	9	9	11	14	12	15	17	20	19	12	13	11	12	13	14	12	13	11.7	19.9						
2-Mar	10	11	12	13	12	10	11	12	10	10	13	14	16	19	15	13	14	11	10	11	11	14	16	14	12.5	19.2						
3-Mar	15	12	12	12	13	11	10	10	7	9	8	7	6	7	6	3	3	1	0	0	2	7	5	5	7.1	14.6						
4-Mar	4	3	3	6	5	5	4	5	6	7	8	7	6	7	6	5	4	4	4	4	5	4	4	4	5.0	7.8						
5-Mar	3	4	3	3	3	3	2	3	3	5	5	0	2	5	7	6	5	5	2	2	5	4	4	5	3.7	6.6						
6-Mar	4	4	5	5	4	3	3	4	5	5	5	5	5	6	9	10	9	8	9	8	7	5	3	5	5.7	9.5						
7-Mar	4	4	4	4	3	3	4	2	3	4	4	5	5	6	4	5	6	7	7	7	6	4	2	2	4.4	6.9						
8-Mar	3	4	3	3	2	3	3	3	2	2	4	3	5	5	4	2	3	5	4	4	4	3	3	5	3.5	5.3						
9-Mar	2	3	2	1	2	4	3	6	11	16	22	27	30	21	26	24	21	27	22	20	16	18	18	17	14.9	30.0						
10-Mar	17	14	9	16	13	10	7	15	17	17	16	14	14	12	10	13	12	10	10	14	13	13	10	9	12.7	17.5						
11-Mar	6	6	6	8	6	4	3	8	13	21	23	22	21	14	10	9	21	28	19	17	16	5	11	10	12.8	27.9						
12-Mar	7	5	6	6	10	10	7	5	5	3	6	8	14	25	26	29	26	30	22	21	28	26	25	21	15.4	29.5						
13-Mar	19	24	21	20	19	17	15	14	16	12	10	12	15	10	7	4	2	2	2	6	6	5	8	5	11.4	24.1						
14-Mar	3	4	4	3	5	4	4	2	2	5	4	4	5	3	2	2	3	17	18	15	15	15	8	9	6.5	18.3						
15-Mar	14	15	14	13	10	8	8	5	4	3	6	7	8	10	8	9	11	7	7	8	5	3	6	8	8.1	14.6						
16-Mar	3	6	4	4	5	4	3	4	5	9	8	13	22	25	26	21	21	17	14	10	16	11	12	10	11.4	26.0						
17-Mar	12	12	7	11	8	5	12	12	6	11	17	16	18	18	20	22	21	30	25	21	15	15	14	12	15.0	30.3						
18-Mar	9	9	12	5	7	7	8	11	18	19	19	17	17	16	15	21	17	19	11	3	2	3	5	5	11.4	20.8						
19-Mar	5	4	3	5	5	3	2	4	3	3	3	5	6	9	10	9	13	17	16	12	10	12	11	10	7.6	17.4						
20-Mar	11	14	15	15	11	13	12	11	8	9	8	10	9	8	8	6	5	8	6	6	4	3	3	4	8.6	15.0						
21-Mar	4	5	5	6	7	8	8	6	8	11	8	9	7	8	10	7	8	7	6	5	5	5	3	3	6.7	11.3						
22-Mar	2	3	4	5	4	5	5	5	7	8	13	12	9	10	10	13	13	12	9	8	8	8	4	5	7.6	13.3						
23-Mar	5	6	6	6	6	6	7	7	8	8	7	9	12	14	13	16	15	13	10	7	6	6	7	7	8.7	16.0						
24-Mar	6	5	6	4	5	6	5	5	10	10	8	9	9	10	9	10	11	11	9	9	11	10	10	8	8.1	11.0						
25-Mar	6	5	5	6	6	6	7	6	8	6	8	9	7	8	5	8	8	7	5	4	5	6	6	9	6.5	9.4						
26-Mar	12	13	11	13	11	10	11	10	10	10	10	11	11	11	8	8	8	8	7	5	4	4	5	5	9.0	13.1						
27-Mar	4	5	4	3	3	5	4	4	6	5	5	6	7	8	8	9	9	9	7	5	4	3	5	8	5.7	9.2						
28-Mar	3	4	3	3	3	4	2	3	3	6	7	8	9	10	8	5	6	6	5	5	4	6	5	5	5.1	9.6						
29-Mar	4	5	6	4	5	6	4	4	4	9	8	8	8	8	8	6	5	5	6	5	3	5	13	15	6.3	14.8						
30-Mar	15	13	11	11	12	11	10	10	9	9	6	9	9	11	10	10	10	9	8	8	7	6	5	3	9.2	14.9						
31-Mar	2	2	4	3	3	4	4	3	4	4	3	5	6	7	10	8	7	5	4	3	7	5	4	3	4.6	9.7						
7.1 7.3 7.0 7.3 7.1 6.6 6.4 6.7 7.4 8.6 9.2 9.7 10.9 11.2 10.9 10.6 10.6 11.4 9.5 8.6 8.4 8.0 8.0 7.8																									Diurnal Average							
19.1 24.1 20.5 19.7 19.5 16.8 14.7 15.3 18.3 21.4 22.9 26.8 30.0 25.1 26.0 29.0 26.1 30.3 25.2 20.8 27.7 25.7 25.3 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 - March 2014

Maximum Value: 86.8 deg on Mar 16 01:00																		Hours in Service: 744							
Minimum Value: 4.1 deg on Mar 13 13:00																		Hours of Data: 744							
																		Hours of Missing Data: 0							
Percentiles: P ₁ = 5.1 P ₁₀ = 6.7 Q ₁ = 9.3 Median = 14.1 Q ₃ = 21.5 P ₉₀ = 37.1 P ₉₉ = 72.3																		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-Mar	42	13	12	7	6	8	8	7	8	10	8	12	10	12	10	12	14	12	14	9	8	6	7	6	41.9
2-Mar	6	7	7	6	6	6	6	7	9	12	14	11	10	10	16	13	12	14	12	13	14	11	8	8	16.0
3-Mar	8	7	6	5	8	8	9	11	14	14	19	22	19	19	21	23	24	38	12	10	7	8	7	6	37.7
4-Mar	12	34	23	7	9	12	14	11	11	10	8	9	23	6	14	20	16	11	10	13	11	11	15	16	34.4
5-Mar	12	14	12	11	34	29	30	18	12	19	16	20	18	17	13	12	19	11	26	34	22	17	10	6	34.2
6-Mar	5	14	10	26	29	21	14	22	29	17	16	22	51	25	13	17	16	20	13	12	12	20	38	15	51.4
7-Mar	28	11	13	14	18	31	33	33	37	13	32	34	22	18	30	23	15	9	12	10	8	19	27	60	59.9
8-Mar	35	24	49	72	74	36	47	58	55	60	60	68	22	16	34	41	29	43	43	53	22	55	25	15	74.3
9-Mar	60	51	62	38	80	64	70	24	7	9	8	7	7	7	8	6	6	5	6	8	6	5	6	5	79.9
10-Mar	7	8	12	6	11	38	70	9	9	7	7	8	7	7	14	15	11	8	16	12	6	5	5	6	70.2
11-Mar	9	9	20	18	16	25	46	31	17	8	7	12	6	16	18	31	7	6	8	6	7	39	12	8	46.1
12-Mar	10	11	18	20	10	9	10	30	28	18	10	21	16	9	10	9	7	6	13	8	6	7	5	5	30.4
13-Mar	6	6	6	6	5	5	5	7	7	15	19	12	4	10	22	48	77	40	38	12	12	13	9	10	76.5
14-Mar	18	14	49	31	14	22	37	37	47	58	29	38	36	47	40	28	44	16	7	5	8	6	9	10	58.0
15-Mar	6	7	9	7	14	12	7	66	23	34	25	15	11	8	56	48	10	14	41	10	39	30	22	49	65.7
16-Mar	87	18	63	48	57	57	77	81	40	20	21	9	5	7	7	8	9	8	8	8	6	9	8	9	86.8
17-Mar	9	7	35	11	8	19	19	18	11	9	8	8	8	10	9	7	7	7	7	6	9	7	7	6	34.9
18-Mar	9	17	13	28	14	19	9	7	6	6	7	8	9	12	10	10	9	8	13	49	54	23	10	13	54.4
19-Mar	11	8	15	18	9	30	70	46	48	27	44	20	14	20	8	7	10	7	6	9	6	13	6	6	70.3
20-Mar	37	13	10	10	12	14	15	16	18	16	18	23	24	26	27	36	36	22	20	16	16	15	7	14	36.9
21-Mar	16	14	20	17	16	14	17	20	20	13	15	21	19	24	22	24	17	22	18	16	13	14	30	14	29.8
22-Mar	33	28	25	14	26	11	17	19	12	13	11	15	14	16	17	16	12	11	18	11	20	21	26	7	33.1
23-Mar	7	7	7	8	9	13	15	13	12	12	16	13	12	8	13	9	6	5	6	10	9	6	7	7	16.0
24-Mar	11	21	17	18	20	13	13	18	19	16	23	15	16	17	17	16	16	15	13	12	9	12	10	11	23.3
25-Mar	15	29	27	21	14	15	18	15	18	35	15	26	35	17	42	20	25	49	20	19	14	15	15	15	48.8
26-Mar	14	11	14	12	16	14	15	14	15	17	17	17	17	19	23	25	25	25	22	16	23	13	6	10	24.9
27-Mar	11	9	9	9	14	9	15	15	16	18	9	52	22	22	20	19	16	14	17	19	16	13	11	7	51.9
28-Mar	80	44	10	15	13	10	15	18	19	15	13	28	24	19	39	51	37	27	19	15	22	13	47	28	79.6
29-Mar	32	14	9	33	14	10	13	22	18	8	12	11	12	6	8	11	22	37	20	44	32	12	16	13	43.5
30-Mar	11	11	16	14	11	13	15	13	15	16	19	17	18	20	19	21	20	18	16	15	16	14	20	18	21.3
31-Mar	56	52	12	13	9	8	19	13	26	19	27	28	32	36	17	23	26	24	20	40	6	11	13	19	56.4
86.8 52.0 62.5 72.2 79.9 64.4 77.2 80.8 55.2 60.1 60.4 67.9 51.4 47.3 55.7 51.0 76.5 48.8 43.4 52.7 54.4 55.1 47.3 59.9																									

PAZA

Evergreen Park Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

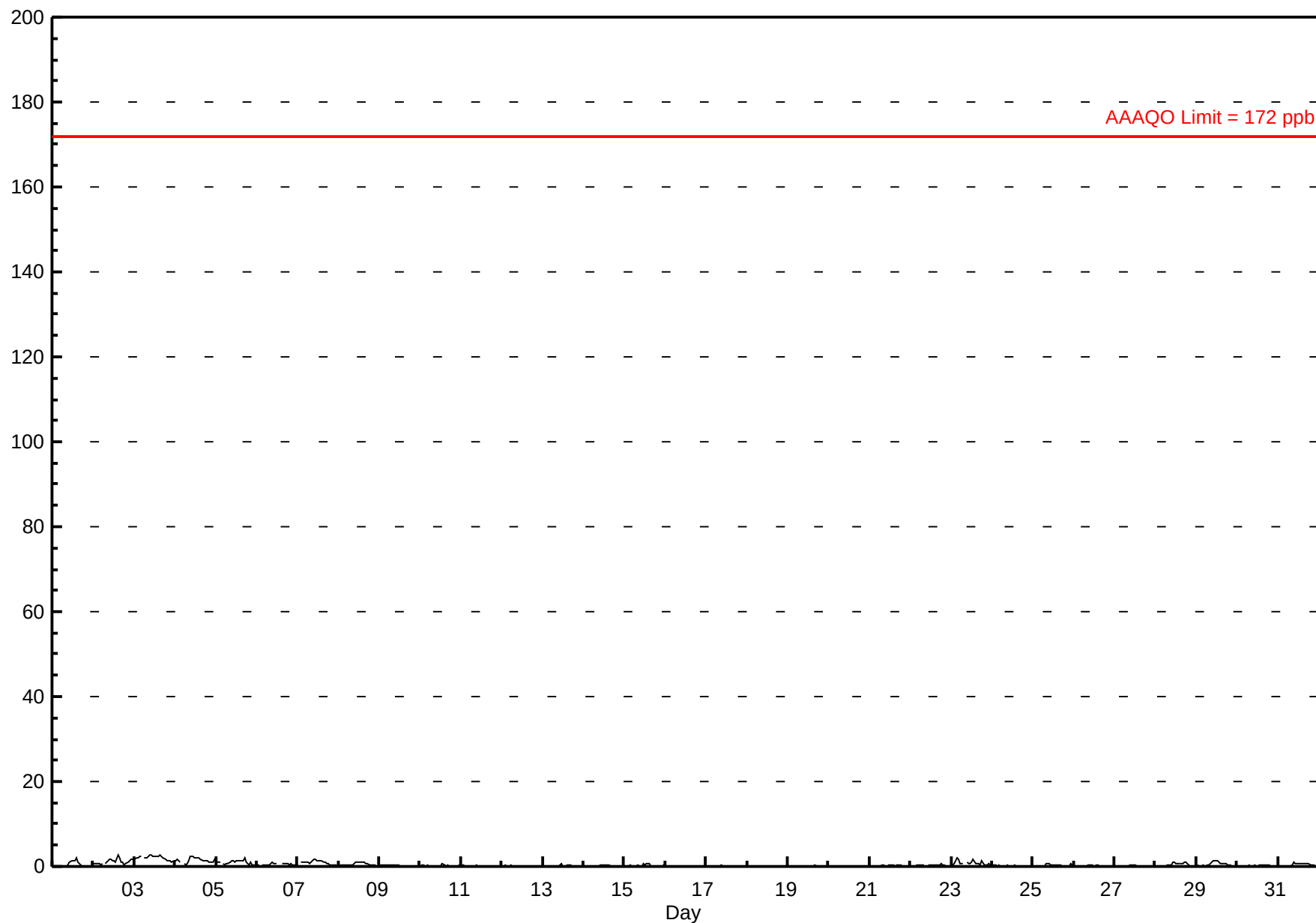
Sulphur Dioxide (SO₂) - ppb

Evergreen Park - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 2.7 ppb on Mar 2 15:00 Maximum Daily Average: 2.0 ppb on Mar 3																			Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0							
Minimum Value: 0 ppb on Mar 1 02:00 Maximum Diurnal Average: 0.7 ppb at hour 12 Monthly Average: 0.40 ppb																			Minimum Daily Average: 0.0 ppb on Mar 19 Minimum Diurnal Average: 0.2 ppb at hour 6 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.5 P ₉₀ = 1.2 P ₉₉ = 2.4							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	0	0	0	0	0	0	0	A	0	0	1	1	1	1	2	1	0	0	0	0	0	0	0	0	0.4	2.0
2-Mar	1	1	1	1	0	1	A	1	1	2	2	1	1	1	3	2	1	1	1	1	1	1	2	2	1.1	2.7
3-Mar	2	2	2	2	2	A	2	2	2	3	3	2	2	2	3	3	2	2	2	1	1	1	1	1	2.0	2.6
4-Mar	1	2	1	1	A	1	0	1	1	2	2	2	2	2	2	2	1	1	1	1	1	1	1	2	1.4	2.4
5-Mar	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	0	1	0	0	0	1.0	2.2
6-Mar	0	0	A	0	0	0	0	0	1	1	1	1	C	C	C	1	1	1	1	0	1	0	0	0	0.5	0.9
7-Mar	0	A	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	0	0	0	0	0	0.9	1.7
8-Mar	A	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	A	0.5	1.1
9-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	0.4
10-Mar	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0.2	0.5
11-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.2
12-Mar	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	0.3
13-Mar	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.8
14-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.3
15-Mar	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	A	0	0	0	0	0	0	0	0.2	0.8
16-Mar	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	0.1
17-Mar	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
18-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.0	0.1
19-Mar	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
20-Mar	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
21-Mar	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	0.3
22-Mar	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.3	0.5
23-Mar	0	0	1	2	2	1	1	1	A	1	1	1	1	2	1	1	1	0	1	0	0	0	1	0	0.8	2.0
24-Mar	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	0.4
25-Mar	0	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.3	0.8
26-Mar	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
27-Mar	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
28-Mar	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.4	1.1
29-Mar	0	0	A	0	0	0	0	0	1	1	1	2	1	1	1	1	1	1	0	0	0	0	0	0	0.5	1.5
30-Mar	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	0.4
31-Mar	A	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	A	0.4	1.2
0.3 0.3 0.3 0.3 0.3 0.2 0.2 0.3 0.4 0.6 0.6 0.7 0.6 0.6 0.6 0.5 0.5 0.4 0.4 0.3 0.3 0.2 0.3 0.3																								Diurnal Average		
1.8 2.0 2.1 2.4 2.3 0.9 1.9 2.0 2.3 2.6 2.6 2.3 2.2 2.4 2.7 2.6 2.3 2.2 1.5 1.4 1.3 1.3 1.7 1.7																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - March 2014



Hourly Maximums

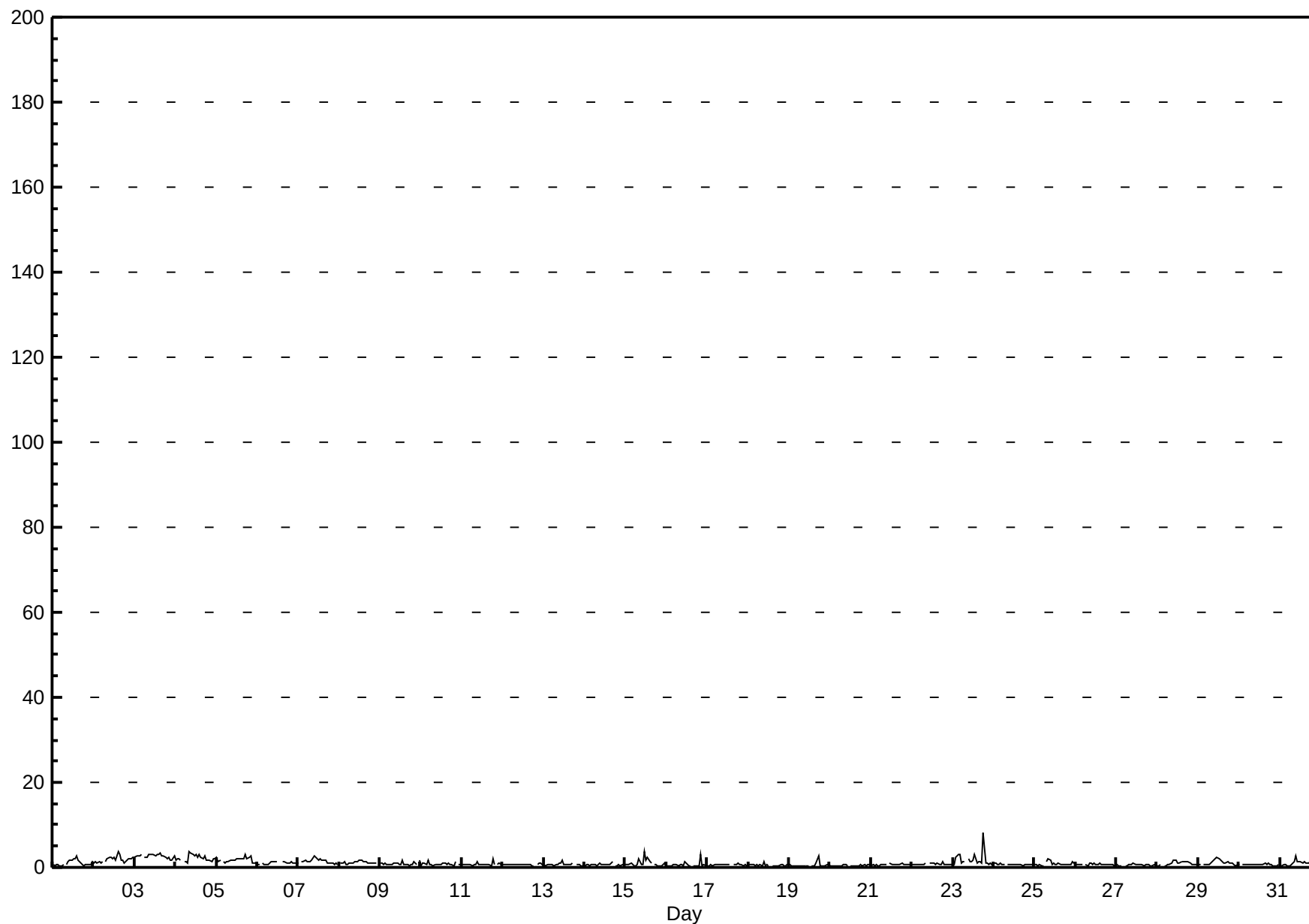
Sulphur Dioxide (SO₂) - ppb

Evergreen Park - March 2014

Maximum Value: 8.2 ppb on Mar 23 19:00																				Maximum Daily Average: 2.7 ppb on Mar 3				Hours in Service: 744		
Minimum Value: 0 ppb on Mar 19 20:00																				Minimum Daily Average: 0.5 ppb on Mar 20				Hours of Data: 708		
Maximum Diurnal Average: 1.4 ppb at hour 10																				Minimum Diurnal Average: 0.7 ppb at hour 6				Hours of Missing Data: 36		
Monthly Average: 1.00 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.7 Q ₃ = 1.2 P ₉₀ = 2.0 P ₉₉ = 3.1				Hours of Calibration: 36		
																				Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	1	0	1	1	0	0	1	A	1	1	2	2	2	2	3	2	1	1	1	1	1	1	1	1	1.0	2.7
2-Mar	1	1	1	1	1	1	A	1	2	2	2	2	2	2	4	3	2	2	1	1	2	2	2	2	1.8	3.6
3-Mar	2	3	3	3	3	A	2	2	3	3	3	3	3	3	3	3	3	3	2	2	3	2	2	3	2.7	3.3
4-Mar	2	2	2	2	A	1	1	1	4	3	3	3	3	2	3	2	2	3	2	2	2	1	2	2	2.2	3.7
5-Mar	2	1	2	A	1	1	1	1	2	2	2	2	2	2	2	2	2	3	2	2	3	1	1	1	1.7	3.0
6-Mar	1	1	A	1	1	1	1	1	1	1	1	1	C	C	C	1	1	1	1	1	1	1	1	1	1.1	1.5
7-Mar	1	A	1	1	2	1	1	1	2	3	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1.5	2.7
8-Mar	A	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	A	1.1	1.7
9-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	0	1	1	1	1	A	2	0.9	1.7
10-Mar	0	1	1	1	2	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	0.8	1.7
11-Mar	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	2	1	A	1	1	1	0.7	1.9
12-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	A	1	1	1	1	0.7	1.1
13-Mar	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	A	1	1	1	0	0	0.7	1.8
14-Mar	0	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	A	0	0	1	0	1	1	0.7	1.2
15-Mar	1	1	1	1	1	0	0	1	2	1	1	4	2	2	1	1	A	1	1	0	0	0	1	1	1.0	3.8
16-Mar	0	1	0	0	1	1	1	0	1	1	0	1	1	0	0	A	0	0	0	0	3	0	1	0	0.6	2.9
17-Mar	0	0	1	0	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	0	0.6	1.0
18-Mar	1	1	1	1	0	1	1	1	0	1	0	1	0	A	0	0	0	0	0	1	1	0	0	1	0.5	1.2
19-Mar	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	3	0	0	0	0	1	1	0.5	2.6
20-Mar	0	0	0	0	0	0	0	0	1	1	0	A	1	0	1	0	0	0	1	0	1	0	1	1	0.5	0.7
21-Mar	0	1	0	1	0	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0
22-Mar	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	1.3
23-Mar	1	1	2	3	3	1	1	1	A	2	1	1	2	3	1	1	2	1	8	1	1	1	1	1	1.8	8.2
24-Mar	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0.7	1.1
25-Mar	1	1	0	1	0	0	A	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1	0.8	2.1
26-Mar	1	1	1	1	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.7	1.2
27-Mar	1	0	0	0	A	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	0	0.6	1.0
28-Mar	0	0	1	A	0	0	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.6
29-Mar	1	1	A	1	1	1	1	1	1	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1.1	2.3
30-Mar	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0.7	1.0
31-Mar	A	0	1	1	0	1	0	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.0	2.7
0.8 0.8 0.9 0.9 0.9 0.7 0.8 0.8 1.1 1.4 1.2 1.4 1.2 1.3 1.2 1.1 1.0 1.0 1.2 0.8 1.0 0.7 0.9 0.9																								Diurnal Average		
2.5 2.7 2.7 2.9 3.2 1.4 2.4 2.5 3.7 3.5 3.2 3.8 2.9 3.1 3.6 3.3 2.8 3.0 8.2 2.3 2.9 1.9 2.2 2.6																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

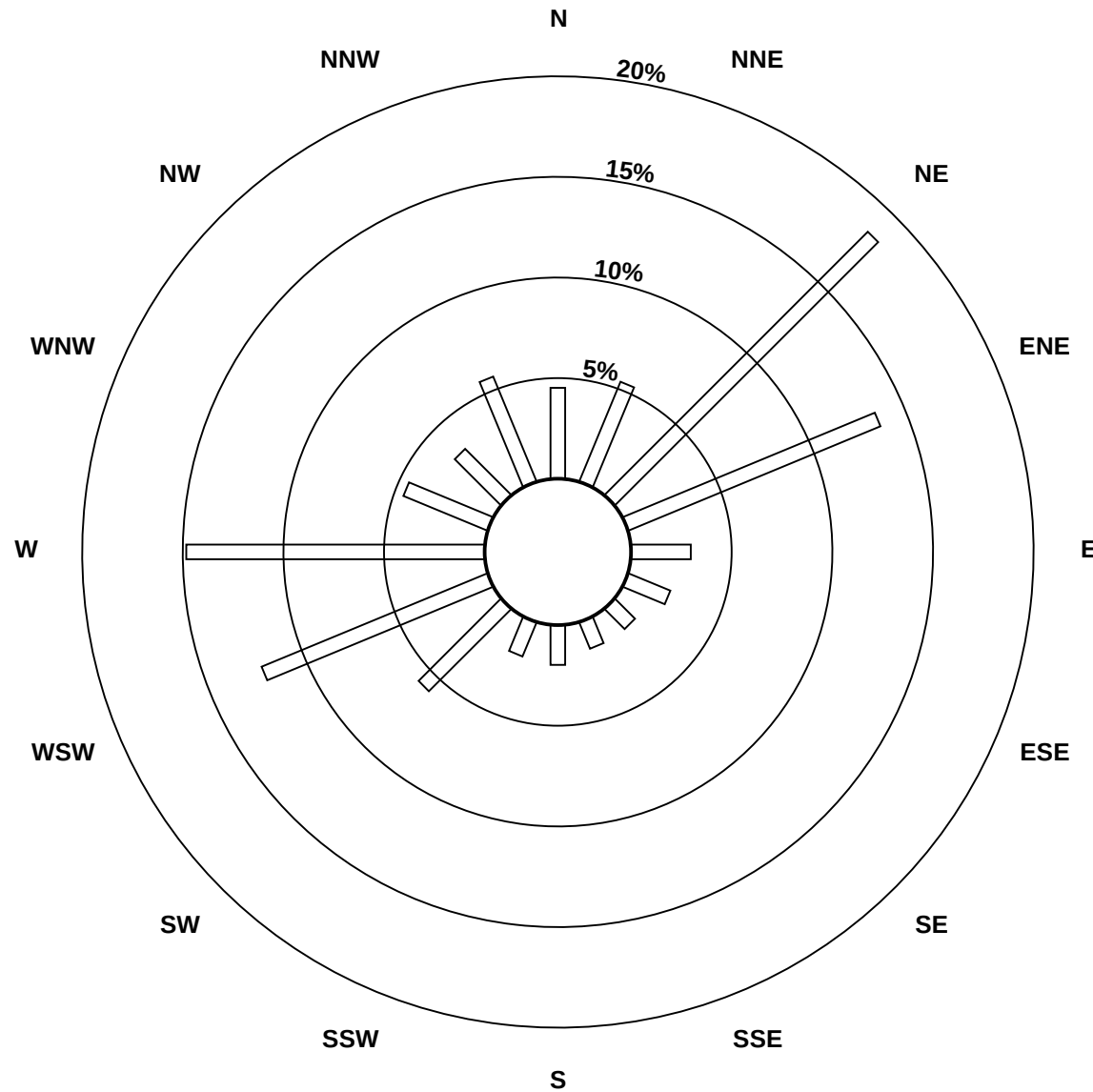
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - March 2014

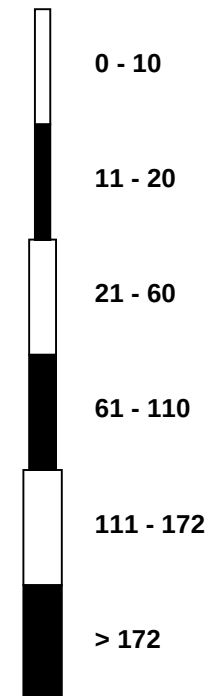


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Evergreen Park - March 2014

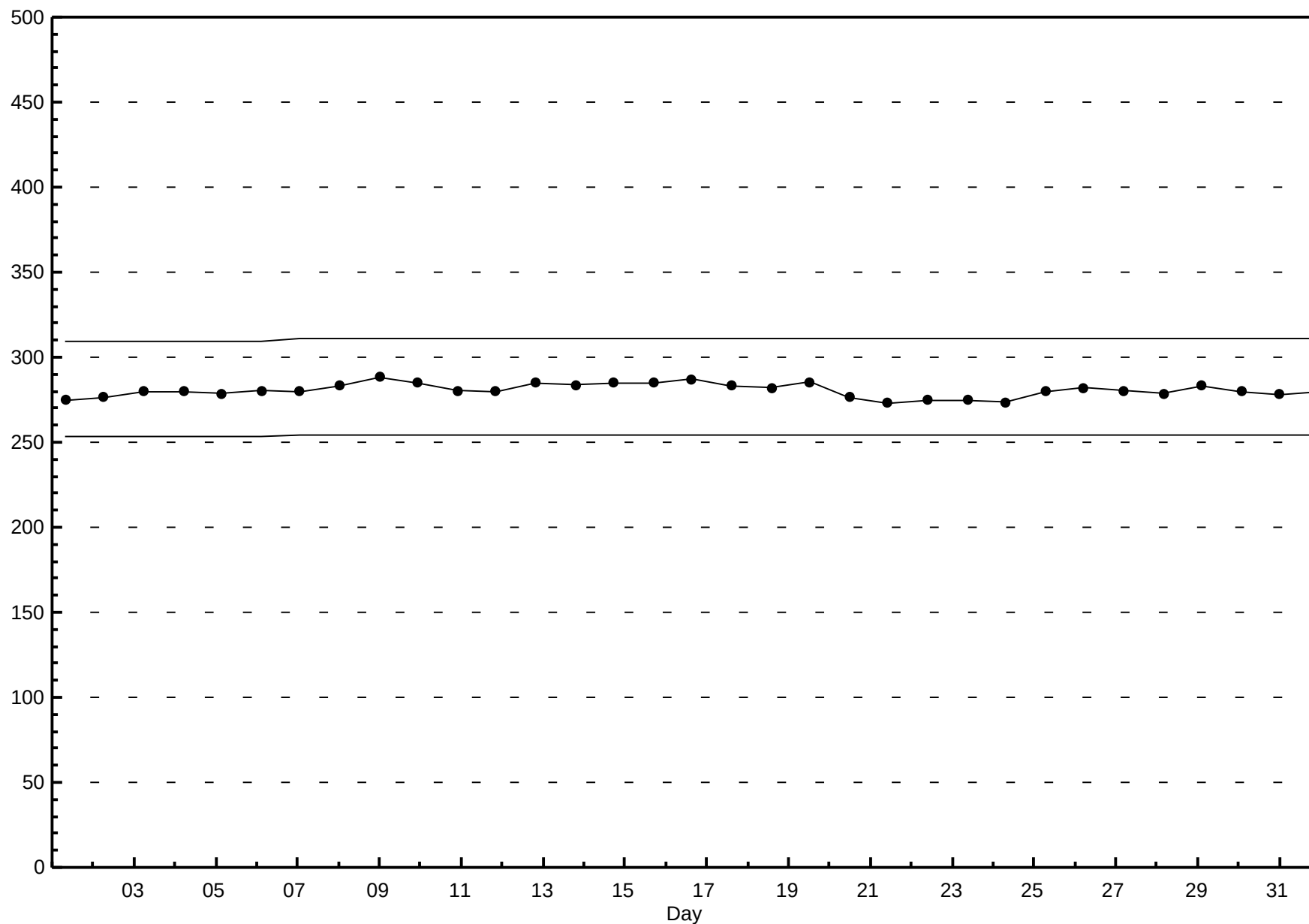


Pollutant Classes (ppb)



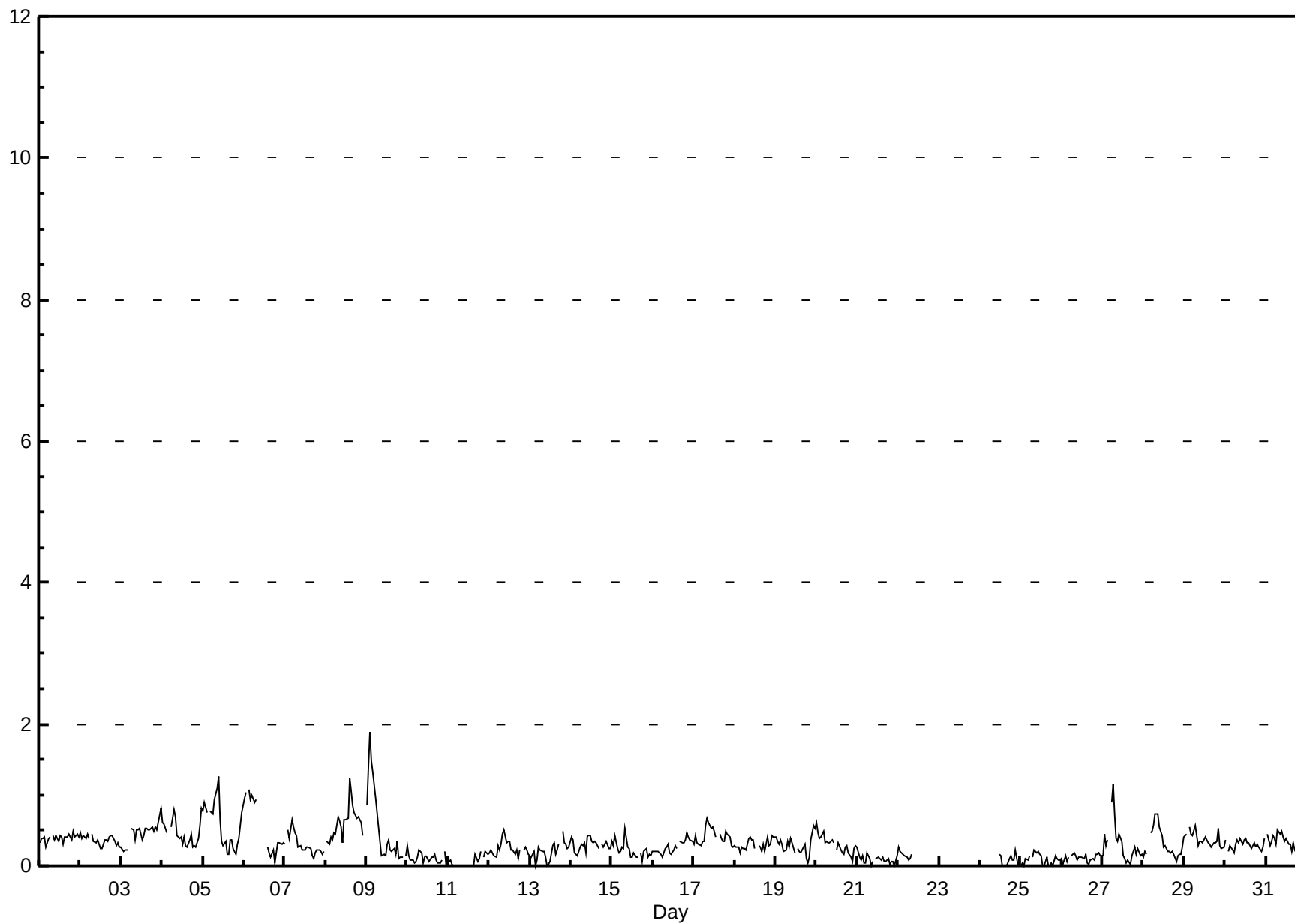
Span Responses

Sulphur Dioxide (SO₂)
Evergreen Park - March 2014



Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - March 2014



Hourly Maximums

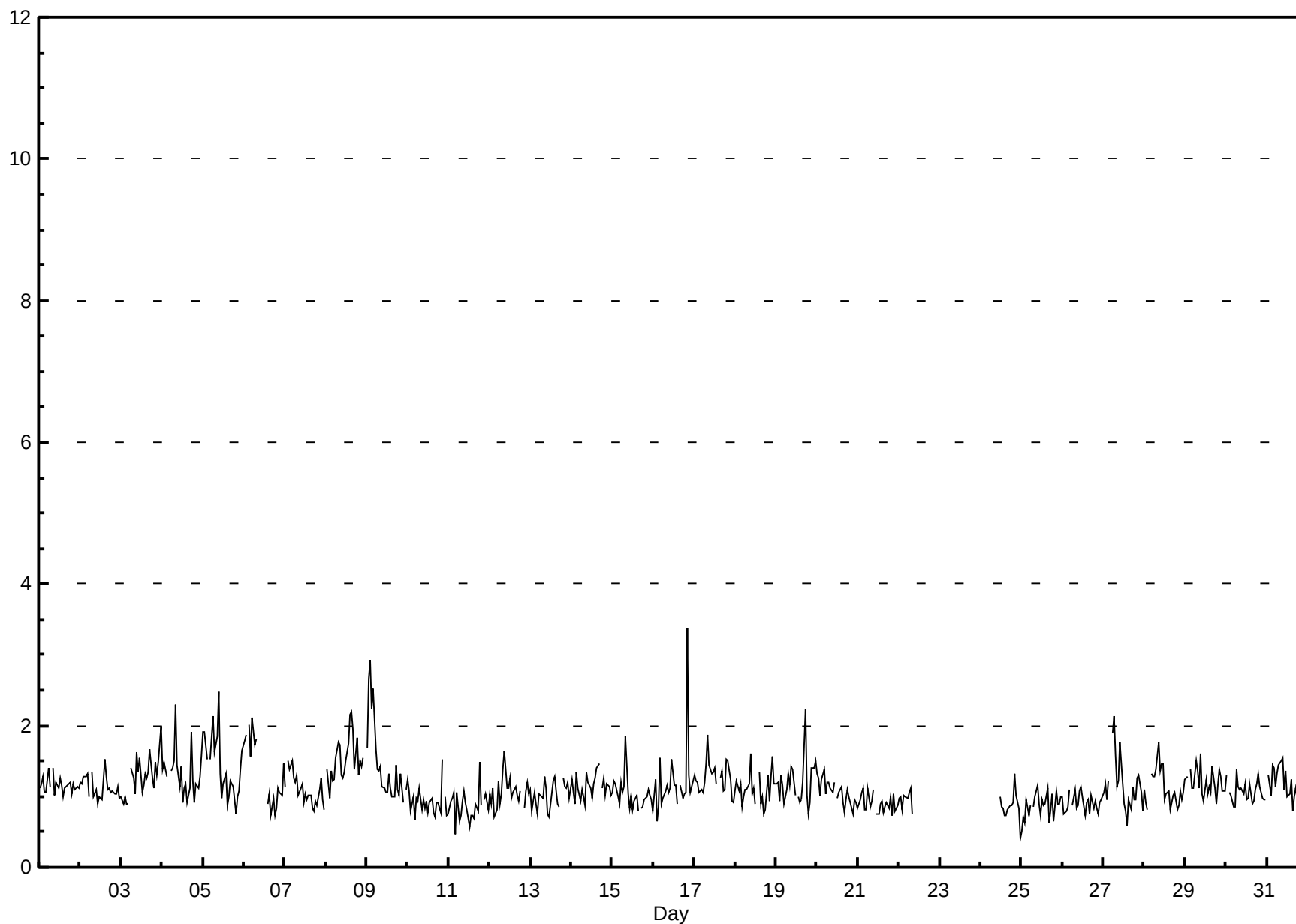
Total Reduced Sulphur (TRS) - ppb

Evergreen Park - March 2014

Maximum Value: 3.4 ppb on Mar 16 21:00																				Maximum Daily Average: 1.5 ppb on Mar 8					Hours in Service: 744					
Minimum Value: 0 ppb on Mar 25 00:00																				Minimum Daily Average: 0.9 ppb on Mar 25					Hours of Data: 658					
Maximum Diurnal Average: 1.3 ppb at hour 10																				Minimum Diurnal Average: 1.0 ppb at hour 13					Hours of Missing Data: 86					
Monthly Average: 1.13 ppb																				Percentiles: P ₁ = 0.7 P ₁₀ = 0.8 Q ₁ = 0.9 Median = 1.1 Q ₃ = 1.3 P ₉₀ = 1.5 P ₉₉ = 2.2					Hours of Calibration: 37					
																									Percent Operational Time: 93.4					
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1-Mar	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.4				
2-Mar	1	1	1	1	1	1	A	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1.1	1.5				
3-Mar	1	1	1	1	1	A	1	1	1	2	1	2	1	1	1	1	1	2	1	1	1	1	1	2	1.3	2.0				
4-Mar	1	1	1	1	A	1	1	2	2	1	1	1	1	1	1	1	1	2	1	1	1	1	1	2	1.3	2.3				
5-Mar	2	2	2	A	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.4	2.5				
6-Mar	2	2	A	2	2	2	2	2	C	C	C	C	C	C	1	1	1	1	1	1	1	1	1	1	--	2.1				
7-Mar	1	A	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5				
8-Mar	A	1	1	1	1	1	2	2	2	1	1	1	2	2	2	2	2	1	2	1	2	1	2	A	1.5	2.2				
9-Mar	2	3	3	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.5	2.9				
10-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	1	1	0.9	1.5				
11-Mar	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.5				
12-Mar	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.1	1.7				
13-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.0	1.3				
14-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1.1	1.5				
15-Mar	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.0	1.9				
16-Mar	1	1	1	1	2	1	1	1	1	1	1	2	1	1	1	A	1	1	1	1	3	1	1	1	1.2	3.4				
17-Mar	1	1	1	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1	1	2	2	1	1	1	1.3	1.9				
18-Mar	1	1	1	1	1	1	1	1	1	2	1	1	1	A	1	1	1	1	1	1	1	1	2	1	1.1	1.6				
19-Mar	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	2	1	1	1	1	1	1	1.2	2.2				
20-Mar	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.4				
21-Mar	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1				
22-Mar	1	1	1	1	1	1	1	1	1	A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	1.1				
23-Mar	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	--	--				
24-Mar	N	N	N	N	N	N	N	N	N	N	M	M	1	1	1	1	1	1	1	1	1	1	1	0	--	1.3				
25-Mar	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	1.2				
26-Mar	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				
27-Mar	1	1	1	1	A	2	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.1				
28-Mar	1	1	1	A	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.8				
29-Mar	1	1	A	1	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.6				
30-Mar	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.4				
31-Mar	A	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.2	1.5				
																									Diurnal Average					
																									Diurnal Maximum					
C - Calibration																									M - Maintenance		N - Not Valid		A - Automated Daily Zero Span	

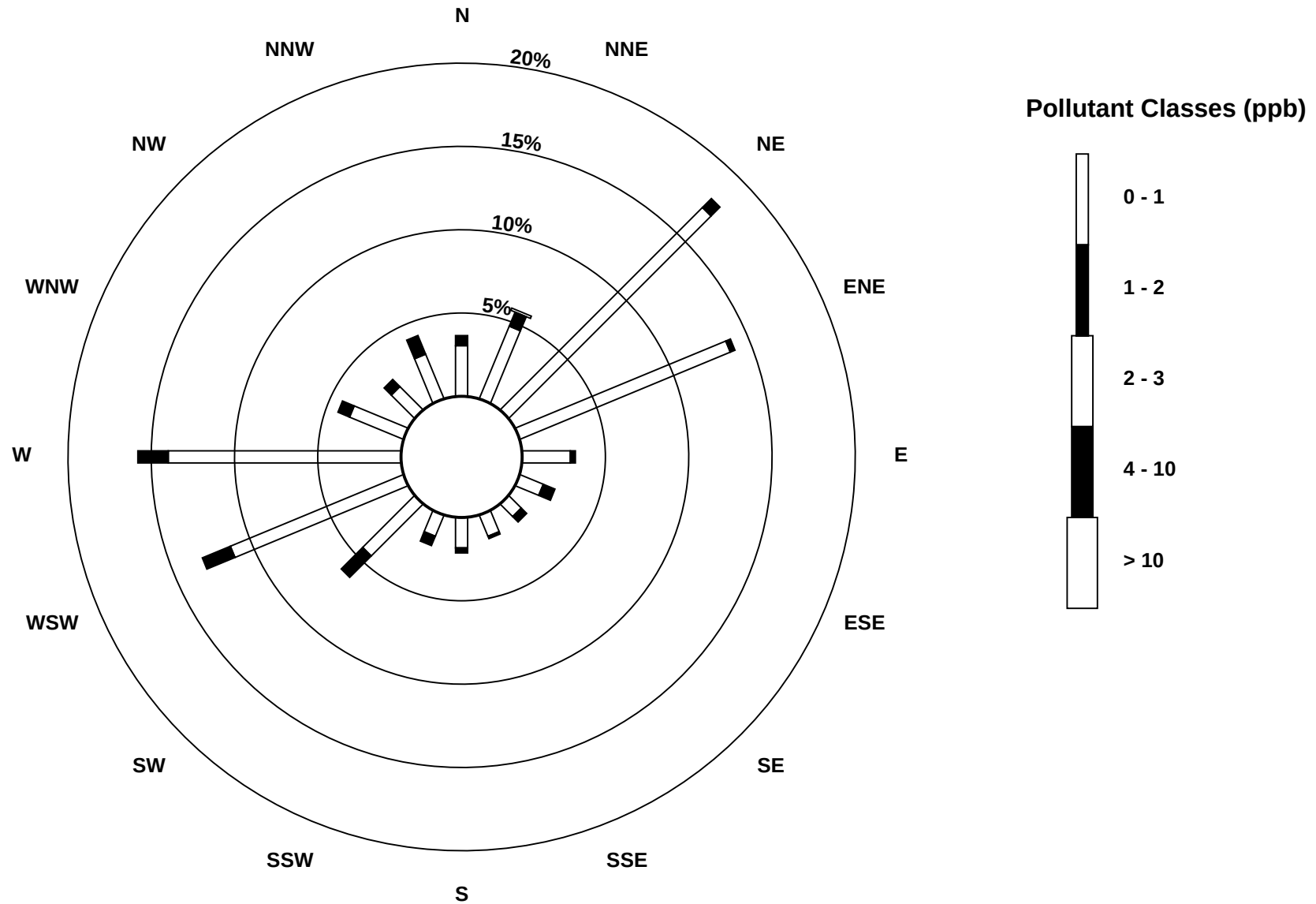
Hourly Maximums

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - March 2014



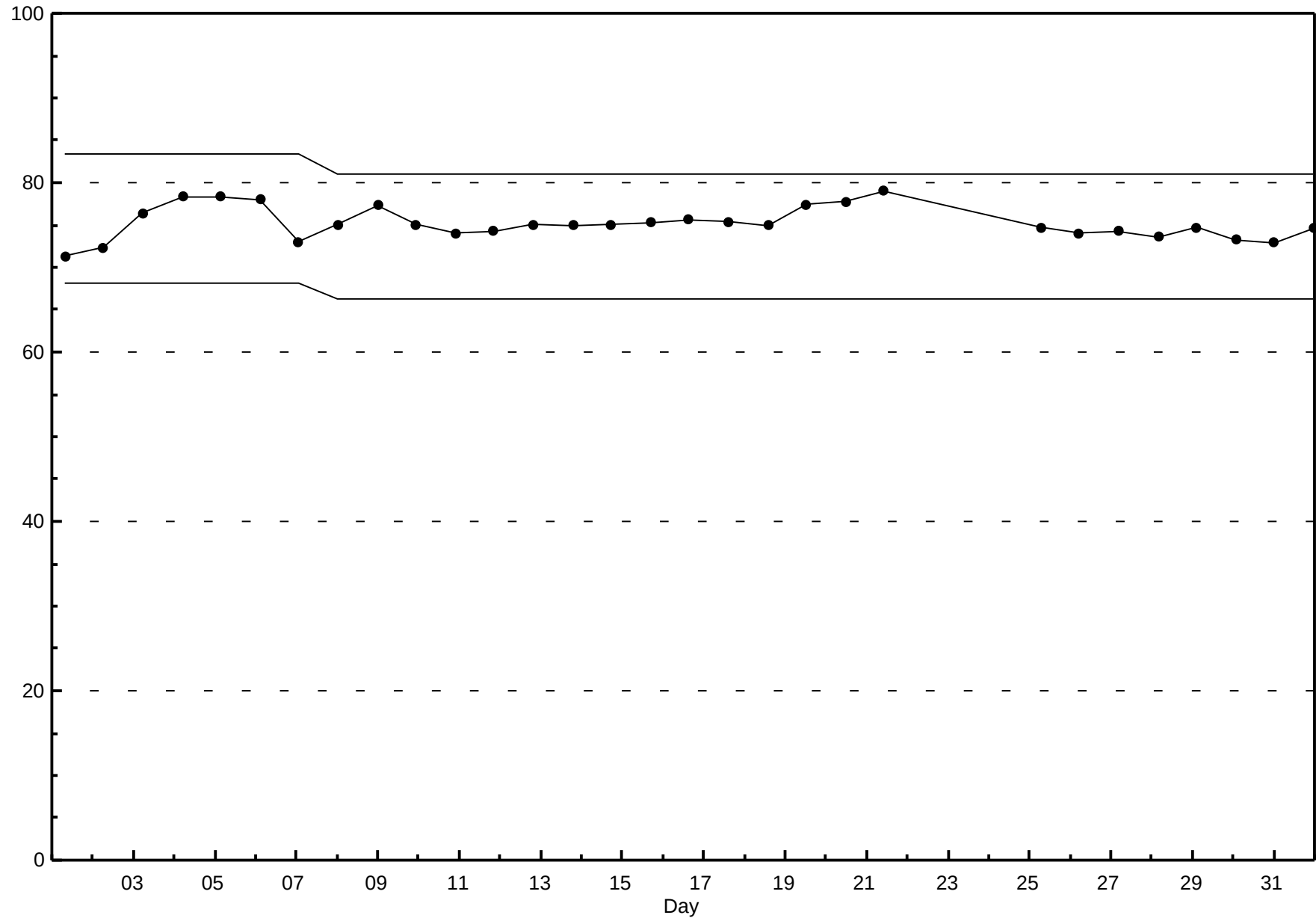
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Evergreen Park - March 2014



Span Responses

Total Reduced Sulphur (TRS)
Evergreen Park - March 2014

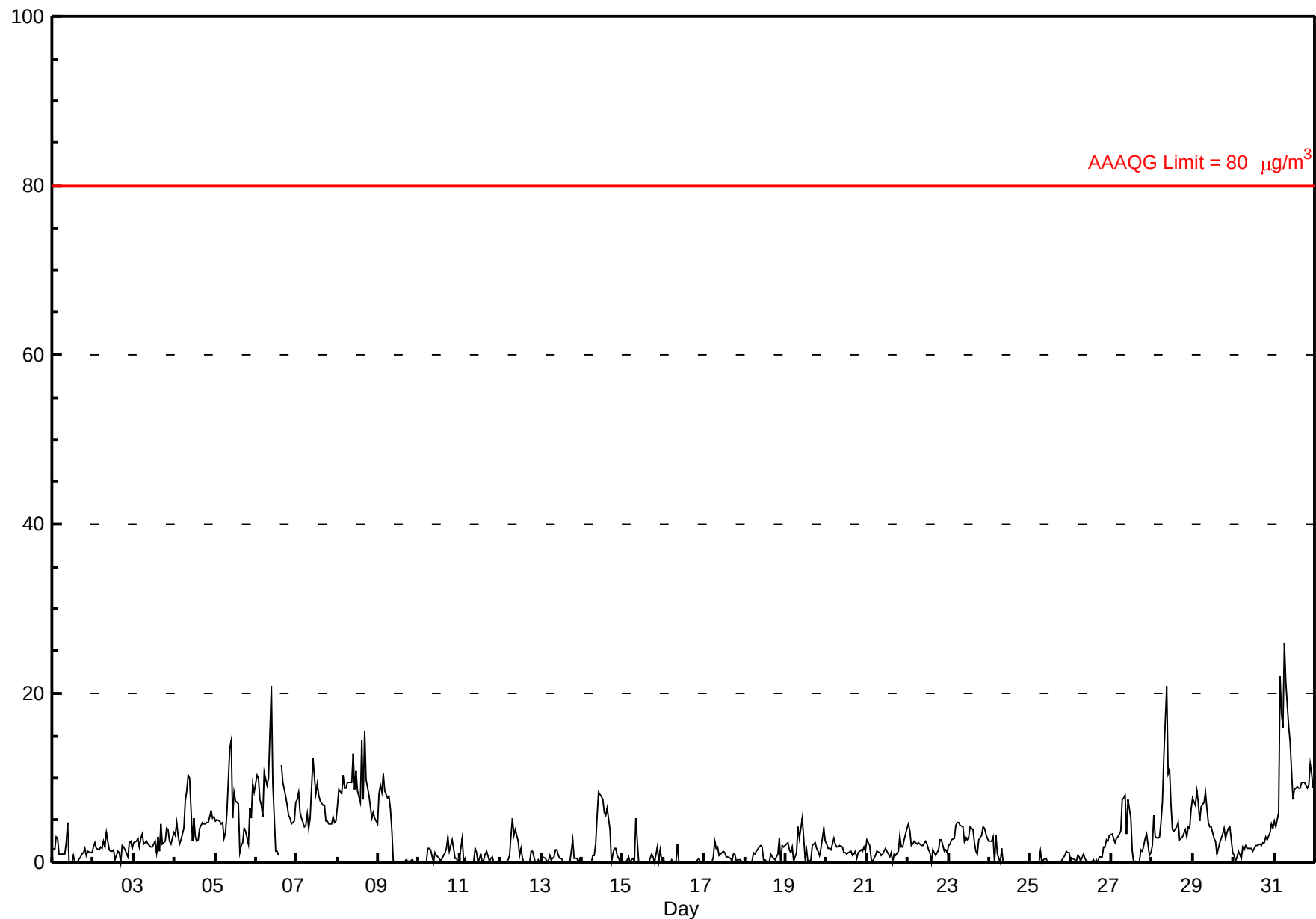


Hourly Averages

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

Evergreen Park - March 2014

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 25.9 µg/m ³ on Mar 31 07:00																								
Maximum Daily Average: 11.6 µg/m ³ on Mar 31																								
Minimum Value: 0 µg/m ³ on Mar 1 11:00 Maximum Diurnal Average: 4.8 µg/m ³ at hour 9 Monthly Average: 2.86 µg/m ³																								
Minimum Daily Average: 0.2 µg/m ³ on Mar 16 Minimum Diurnal Average: 1.9 µg/m ³ at hour 14 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.3 Median = 1.7 Q ₃ = 4.1 P ₉₀ = 7.7 P ₉₉ = 14.6																								
Hours in Service: 744 Hours of Data: 743 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
1-Mar	2	1	3	3	1	1	1	1	2	5	0	0	1	0	0	0	1	1	1	2	1	1	1	1
2-Mar	2	2	2	2	2	2	2	2	4	1	1	1	2	0	1	1	0	2	2	1	1	2	3	2
3-Mar	2	3	3	2	3	3	2	2	2	2	2	2	3	1	3	1	5	2	3	4	4	3	2	4
4-Mar	3	5	3	2	3	4	7	8	10	10	3	5	3	3	3	4	5	5	5	5	5	6	5	5
5-Mar	5	5	5	5	5	3	4	6	13	14	5	8	7	7	1	2	2	4	4	2	6	5	9	8
6-Mar	10	10	7	7	5	11	9	10	15	21	9	1	1	1	M	12	9	8	7	6	5	5	5	7
7-Mar	7	8	6	5	4	4	6	4	5	12	10	8	9	8	7	7	7	5	5	5	5	5	5	5
8-Mar	7	9	8	10	9	9	9	10	9	13	9	11	8	7	14	8	16	10	8	7	5	6	5	5
9-Mar	8	9	8	11	8	8	8	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Mar	0	0	0	0	0	2	2	2	0	1	1	1	1	0	1	1	2	3	1	3	2	0	1	0
11-Mar	1	3	0	1	0	0	0	0	0	2	1	0	1	0	0	1	1	0	1	1	0	0	0	0
12-Mar	0	0	0	0	0	1	3	5	3	4	3	1	2	0	0	0	0	0	1	1	0	0	0	0
13-Mar	0	1	1	0	0	1	0	1	2	1	1	1	0	0	0	0	0	0	3	0	0	0	0	1
14-Mar	0	0	0	0	0	0	1	1	2	5	8	8	8	6	6	6	4	0	1	2	2	1	0	0
15-Mar	0	0	0	1	0	0	0	0	5	0	0	0	0	0	0	0	1	1	1	0	2	0	1	0
16-Mar	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
17-Mar	0	0	0	0	0	1	3	2	2	1	1	1	1	1	1	0	0	1	1	0	0	0	0	0
18-Mar	0	0	0	0	0	1	1	1	2	2	2	0	0	0	0	1	1	1	0	1	3	0	2	2
19-Mar	2	2	2	1	2	0	1	4	3	4	5	0	2	0	0	0	2	2	2	1	1	2	4	2
20-Mar	2	2	2	2	3	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	2	1	2	1
21-Mar	3	2	1	0	1	1	1	1	1	1	1	2	1	1	1	0	1	1	1	3	2	2	3	4
22-Mar	5	4	2	2	3	2	2	2	2	2	3	2	2	1	0	1	1	1	1	3	3	1	2	1
23-Mar	2	2	3	3	4	5	5	4	4	3	3	3	3	4	4	2	1	1	3	3	4	4	3	3
24-Mar	3	3	3	0	3	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Mar	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1
26-Mar	0	1	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	1	1	2	2	3	3	3
27-Mar	3	3	2	3	3	4	7	8	8	3	7	5	1	0	0	0	0	1	1	2	3	3	1	1
28-Mar	2	6	3	3	5	5	7	13	21	10	11	7	4	4	4	5	3	3	4	3	4	4	4	6
29-Mar	8	7	8	7	5	7	7	8	6	5	4	4	3	3	1	2	2	3	4	3	4	4	4	1
30-Mar	1	0	1	1	1	2	2	2	2	2	2	1	2	2	2	2	2	2	2	3	3	4	5	4
31-Mar	5	4	6	22	18	16	26	21	16	14	11	7	9	9	9	9	10	9	10	9	9	12	11	9
2.7 2.9 2.5 3.0 2.8 3.1 3.9 4.2 4.8 4.6 3.4 2.6 2.4 1.9 2.0 2.2 2.5 2.2 2.3 2.4 2.5 2.5 2.6 2.5																								
10.4 10.1 8.4 22.1 17.6 15.9 25.9 21.4 20.9 20.8 11.0 10.8 9.3 9.0 14.4 11.5 15.5 9.8 9.5 8.9 9.1 11.7 10.5 8.9																								
Diurnal Average																								
Diurnal Maximum																								
M - Maintenance Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m ³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m ³																								

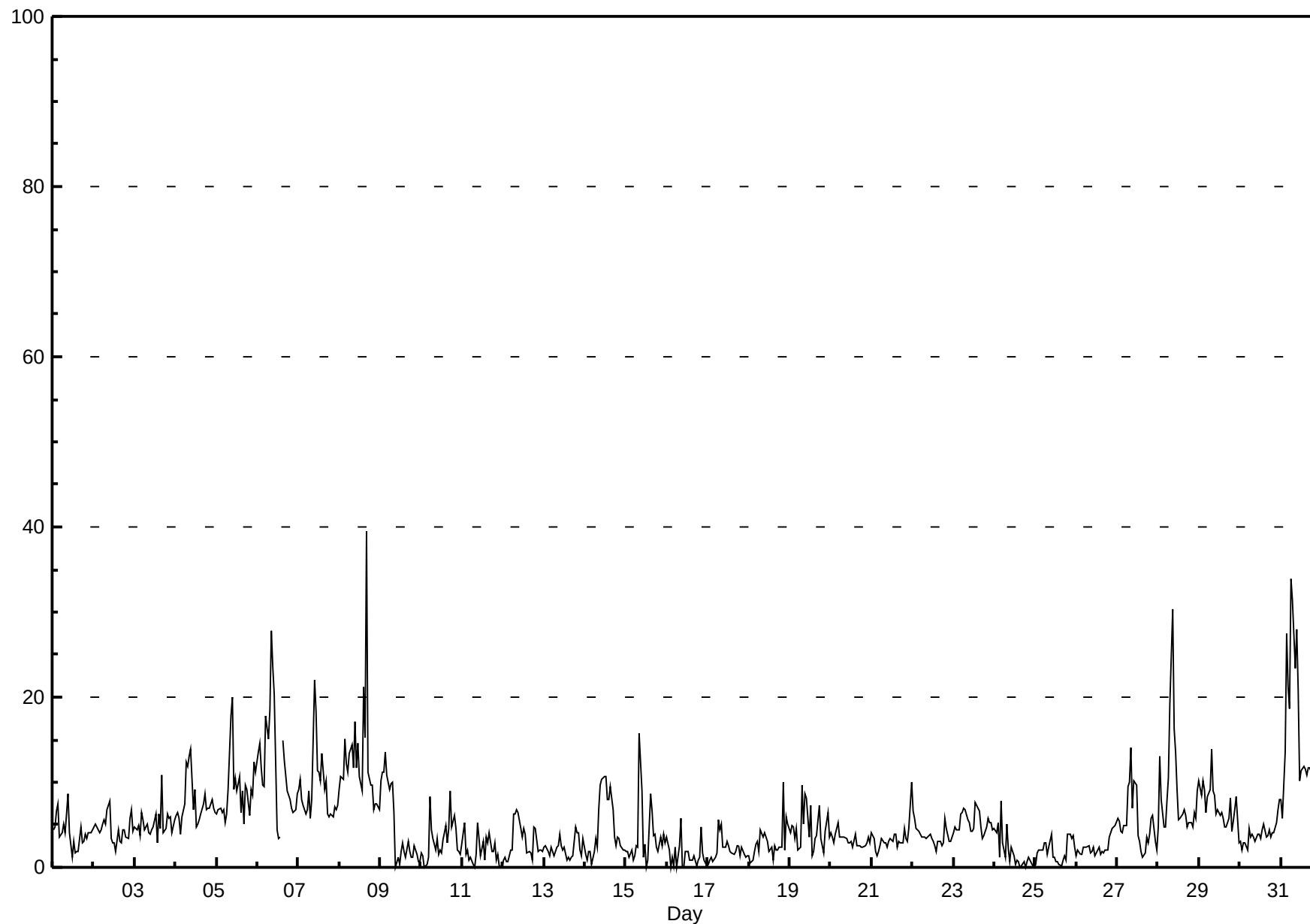


Hourly Maximums

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

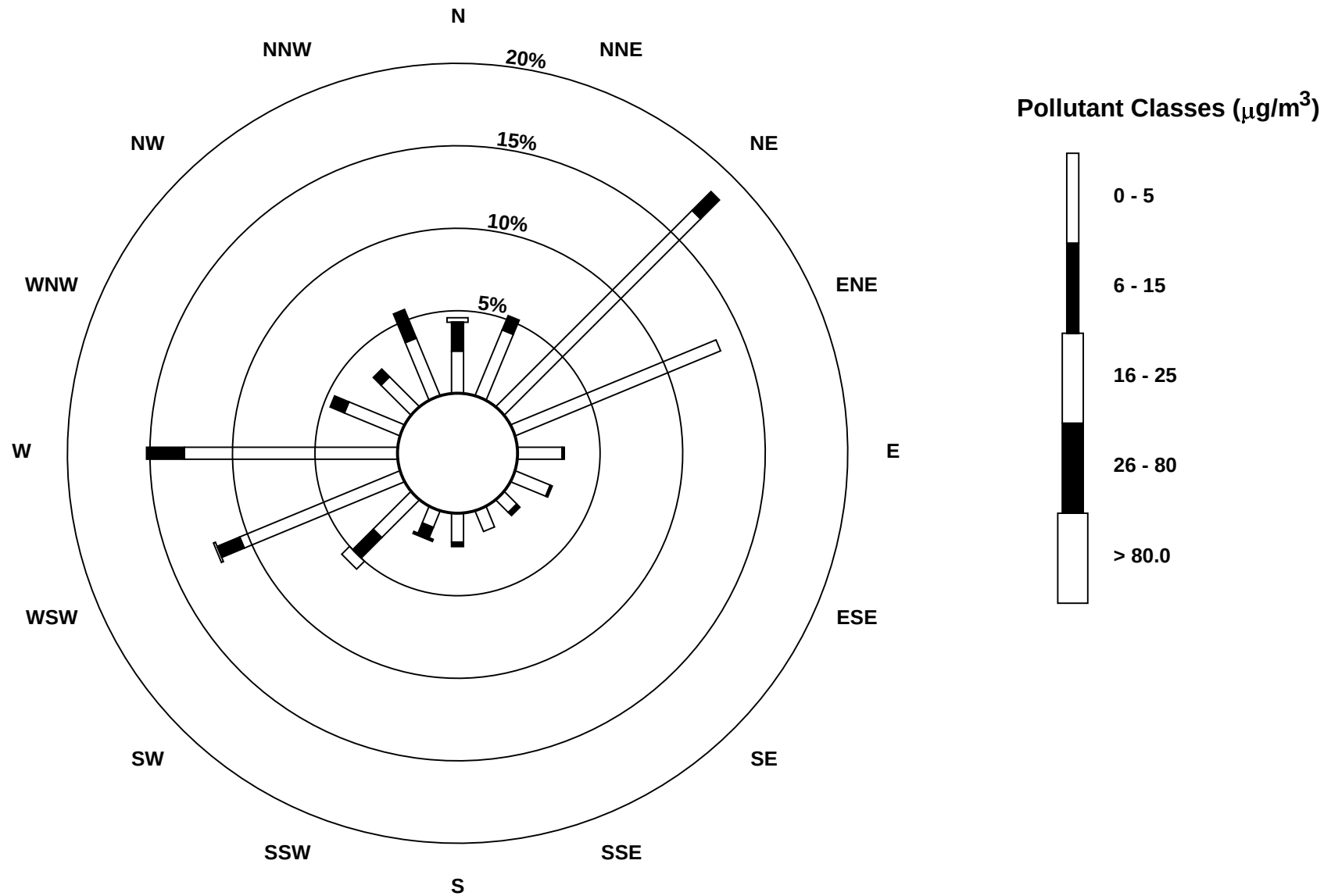
Evergreen Park - March 2014

Maximum Value: 39.4 μg/m³ on Mar 8 17:00																				Maximum Daily Average: 15.9 μg/m³ on Mar 31					Hours in Service: 744	
Minimum Value: 0 μg/m³ on Mar 9 10:00																				Minimum Daily Average: 1.5 μg/m³ on Mar 16					Hours of Data: 743	
Maximum Diurnal Average: 8.3 μg/m³ at hour 9																				Minimum Diurnal Average: 4.0 μg/m³ at hour 14					Hours of Missing Data: 1	
Monthly Average: 5.22 μg/m³																				Percentiles: P ₁ = 0.0 P ₁₀ = 1.1 Q ₁ = 2.1 Median = 3.8 Q ₃ = 6.7 P ₉₀ = 10.7 P ₉₉ = 27.3					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-Mar	4	5	7	7	4	4	5	4	6	9	4	1	3	2	2	2	5	3	3	4	3	4	4	4	4.1	8.6
2-Mar	5	5	5	4	4	5	6	5	7	8	3	3	3	2	4	3	3	4	4	4	3	6	7	4	4.4	7.7
3-Mar	5	4	5	4	6	6	4	5	4	4	4	5	6	3	6	5	11	4	5	6	6	6	4	6	5.1	10.9
4-Mar	6	7	6	4	6	7	12	12	13	14	7	9	5	5	6	6	7	9	7	7	7	8	7	7	7.6	13.8
5-Mar	6	7	7	7	7	5	6	9	18	20	9	10	9	11	7	9	5	10	9	6	9	8	12	11	9.1	20.0
6-Mar	14	15	12	10	9	18	15	18	28	24	20	4	3	4	M	15	13	9	8	8	7	6	7	9	12.0	27.7
7-Mar	9	10	8	7	6	7	9	6	8	22	18	11	11	10	13	9	10	6	6	6	6	7	7	7	9.2	22.1
8-Mar	9	11	10	15	12	11	13	14	12	17	12	15	11	9	21	15	39	11	10	10	7	7	7	7	12.7	39.4
9-Mar	10	11	11	14	11	9	10	10	7	0	1	0	2	3	2	1	3	2	1	1	3	2	1	1	4.8	13.6
10-Mar	2	1	0	0	1	8	4	3	2	3	2	2	2	3	5	3	5	9	5	6	5	2	2	2	3.2	8.9
11-Mar	3	5	2	2	1	1	0	0	2	5	3	1	3	1	4	3	4	2	2	3	1	2	0	0	2.1	5.3
12-Mar	1	1	1	1	2	2	6	6	7	6	5	4	5	4	2	2	2	1	5	5	2	2	2	2	3.0	6.7
13-Mar	2	3	2	1	2	2	1	2	3	4	3	2	2	1	1	1	1	1	5	4	4	2	1	3	2.3	4.8
14-Mar	2	1	2	2	0	2	3	2	7	10	10	11	11	8	8	9	7	4	3	4	3	3	2	2	4.8	10.7
15-Mar	2	2	1	2	1	1	3	2	16	9	1	3	0	1	9	7	4	4	2	2	4	3	4	3	3.5	15.8
16-Mar	4	2	0	1	0	2	0	3	6	0	0	2	2	1	1	1	1	0	1	1	5	2	1	0	1.5	5.8
17-Mar	0	1	1	1	1	2	6	4	5	2	2	3	3	2	2	2	2	3	3	1	2	2	1	1	2.1	5.5
18-Mar	1	1	1	2	3	3	2	4	4	4	4	3	2	2	1	3	2	2	2	2	10	2	6	5	2.9	9.9
19-Mar	4	5	5	3	5	2	2	10	5	9	8	4	7	1	2	3	4	7	3	3	2	4	6	4	4.5	9.7
20-Mar	4	4	3	4	5	4	4	4	4	3	3	3	3	2	4	3	3	3	2	2	3	3	4	3	3.2	5.3
21-Mar	4	3	2	1	2	3	3	3	3	2	3	3	3	4	4	2	3	3	3	5	3	3	5	10	3.3	10.0
22-Mar	7	6	5	4	4	4	4	4	3	4	4	3	3	3	2	3	3	3	3	6	5	3	3	4	3.7	6.5
23-Mar	4	5	4	4	6	6	7	7	6	5	4	4	5	8	7	7	5	3	4	5	6	5	5	4	5.3	7.7
24-Mar	5	4	5	1	8	3	1	5	2	1	2	1	0	1	1	0	0	1	0	1	1	1	0	0	1.8	7.7
25-Mar	0	2	2	2	2	3	3	2	2	4	1	1	1	1	0	0	1	1	1	4	4	3	4	2	1.9	3.8
26-Mar	1	2	2	2	2	2	2	3	2	2	2	1	2	2	2	2	2	2	2	4	4	5	5	5	2.4	5.0
27-Mar	6	5	4	4	5	5	9	10	14	7	10	10	4	3	2	1	2	4	3	4	6	6	3	2	5.3	14.1
28-Mar	5	13	8	5	5	8	10	19	30	16	14	9	6	6	6	7	6	5	5	5	5	6	6	9	8.9	30.4
29-Mar	10	8	10	9	7	8	9	14	9	8	6	7	6	6	6	5	5	6	8	4	6	7	8	3	7.3	13.8
30-Mar	3	2	3	3	2	5	4	4	4	3	4	4	3	4	5	4	4	4	4	4	4	5	7	8	4.0	8.0
31-Mar	8	6	14	28	21	19	34	31	23	28	21	10	11	12	12	11	12	12	11	10	12	14	13	10	15.9	33.8
4.7 5.0 4.7 5.0 4.9 5.4 6.4 7.3 8.3 8.2 6.2 4.9 4.4 4.0 4.8 4.6 5.5 4.4 4.2 4.4 4.7 4.5 4.6 4.4																									Diurnal Average	
13.6 14.6 13.6 27.5 21.1 18.7 33.8 31.4 30.4 28.0 20.9 14.6 11.3 11.8 21.1 15.3 39.4 11.7 11.2 10.4 11.9 14.3 12.6 11.2																									Diurnal Maximum	
M - Maintenance																										



Pollutant Rose

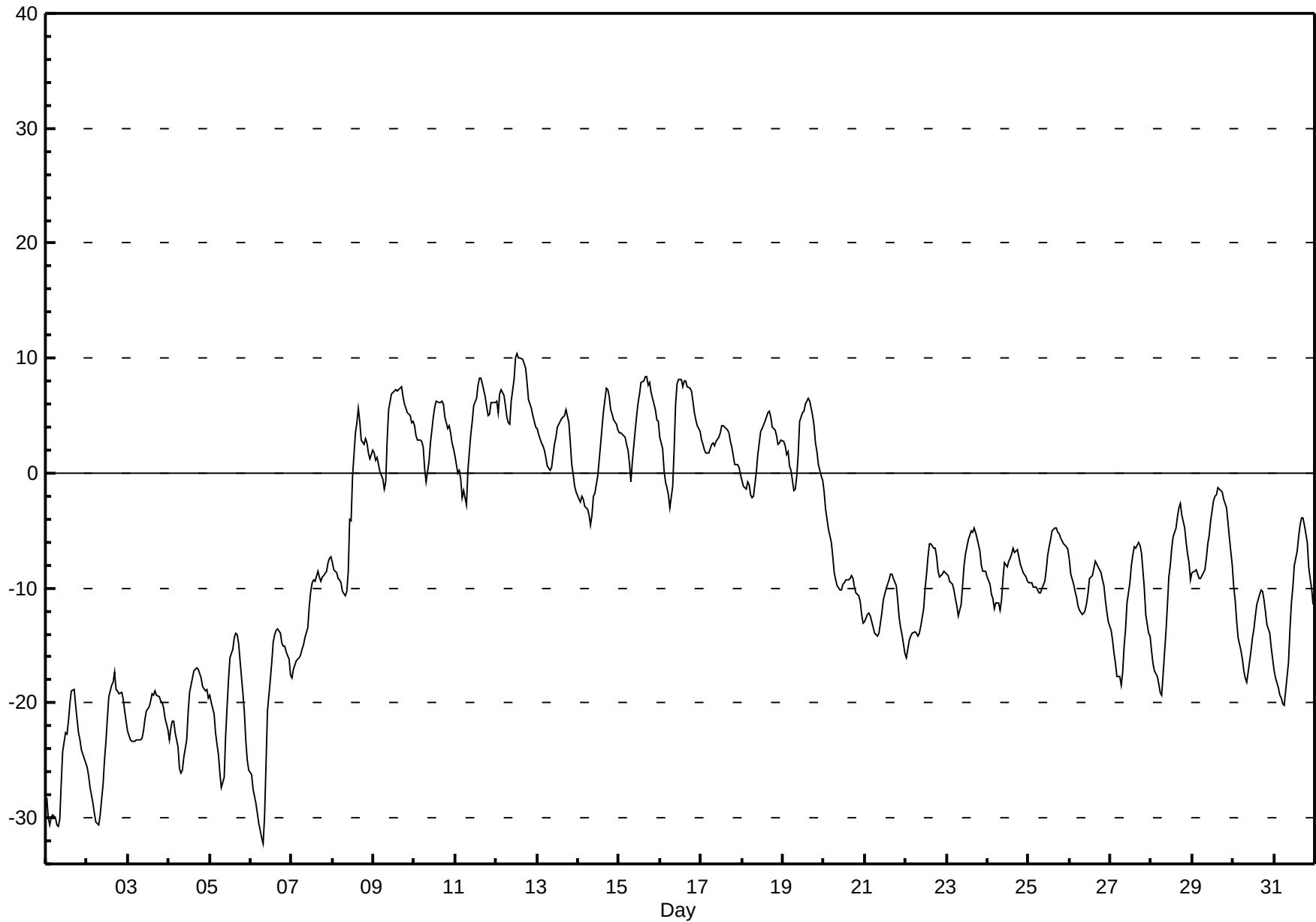
Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Evergreen Park - March 2014



Hourly Averages

External Temperature (ET) - °C

Evergreen Park - March 2014



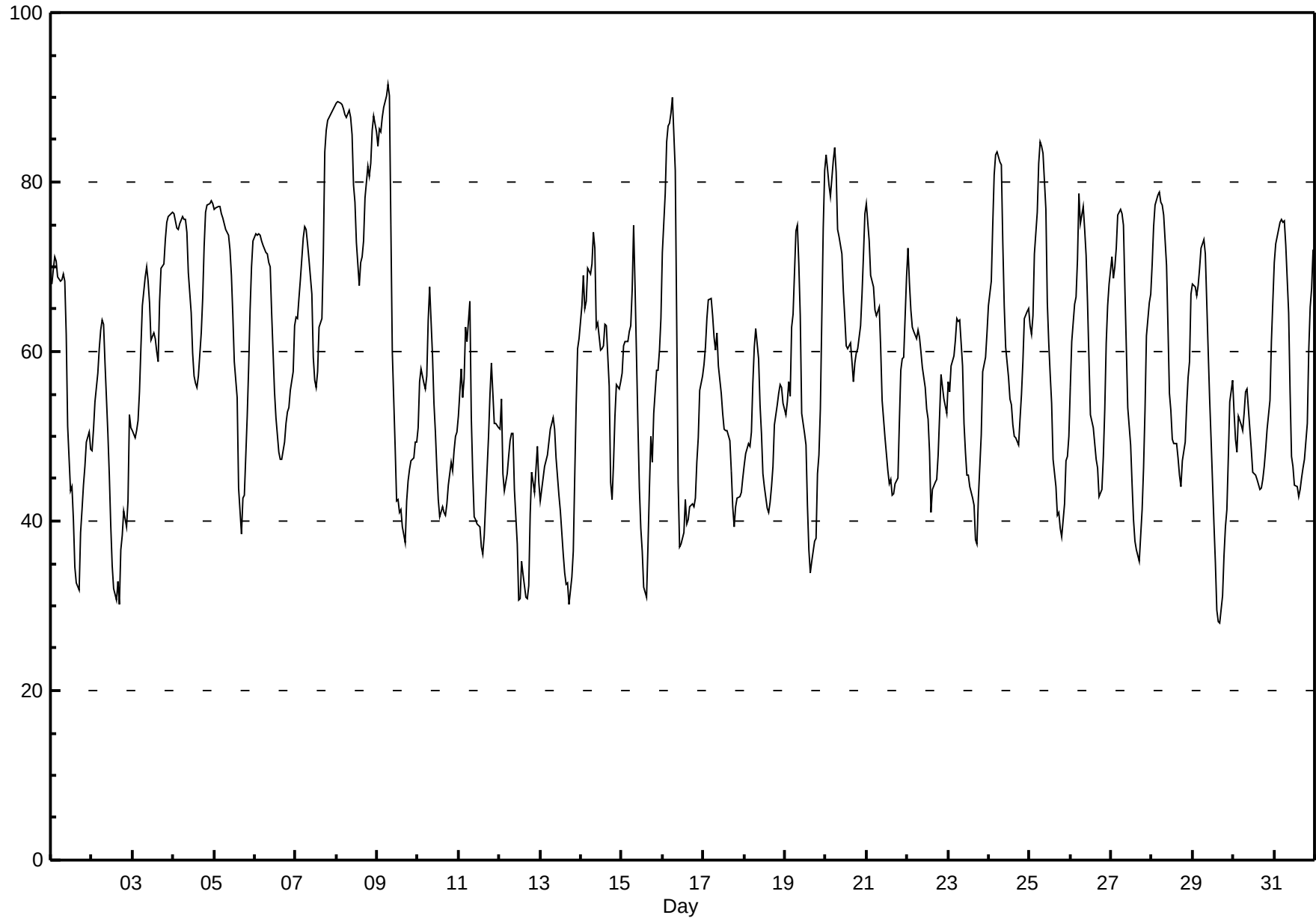
Hourly Averages

Relative Humidity (RH) - %
Evergreen Park - March 2014

Number of Exceedences (AAAQO): Maximum Value: 91.5 % on Mar 9 07:00																				1-hr: 0 24-hr: 0 Maximum Daily Average: 82.4 % on Mar 8				Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0			
Minimum Value: 28 % on Mar 29 17:00 Maximum Diurnal Average: 70.9 % at hour 7 Monthly Average: 57.84 %																				Minimum Daily Average: 42.2 % on Mar 12 Minimum Diurnal Average: 44.6 % at hour 16 Percentiles: P ₁ = 30.8 P ₁₀ = 40.7 Q ₁ = 46.4 Median = 56.4 Q ₃ = 68.5 P ₉₀ = 76.8 P ₉₉ = 89.2							
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-Mar	68	70	71	71	69	68	69	69	68	62	51	44	44	40	35	33	32	39	41	44	46	49	51	48	53.4	71.2	
2-Mar	48	51	54	57	60	63	64	63	59	50	45	40	35	32	31	33	30	37	38	41	39	42	52	51	46.5	63.8	
3-Mar	51	50	51	52	55	60	65	69	70	68	66	61	62	61	60	59	66	70	70	73	75	76	76	77	64.3	76.5	
4-Mar	76	75	75	74	75	76	76	76	74	69	65	60	57	56	56	57	62	66	72	76	77	78	78	77	70.2	77.9	
5-Mar	77	77	77	77	76	76	75	74	74	72	69	64	59	55	44	41	38	43	43	52	58	65	70	73	63.7	77.2	
6-Mar	74	74	74	74	73	73	72	72	70	70	65	55	52	50	48	47	47	49	51	53	53	55	58	63	61.4	74.0	
7-Mar	64	64	66	68	73	75	74	73	71	67	59	57	56	58	63	64	72	84	86	87	88	88	89	89	72.3	89.0	
8-Mar	89	89	89	89	89	88	88	88	88	86	80	78	73	68	71	71	73	78	82	81	82	86	88	86	82.4	89.4	
9-Mar	84	86	86	88	89	90	91	90	75	60	49	42	43	41	41	39	37	42	45	46	47	48	49	49	60.8	91.5	
10-Mar	51	56	58	56	56	57	64	68	60	54	51	46	43	41	42	41	41	42	44	47	46	48	50	51	50.4	67.6	
11-Mar	52	58	55	57	63	61	66	52	46	40	40	40	39	37	36	38	42	50	55	59	55	52	51	51	49.8	65.9	
12-Mar	51	54	46	44	46	48	50	50	50	44	37	31	31	35	34	31	31	32	41	46	43	46	49	45	42.2	54.3	
13-Mar	42	44	46	47	48	49	51	52	51	48	45	43	41	36	34	33	33	30	33	36	45	54	60	62	44.3	61.6	
14-Mar	65	69	65	66	70	69	70	74	72	63	63	60	60	61	63	63	56	45	43	47	52	56	56	56	61.0	74.1	
15-Mar	57	61	61	61	62	63	67	75	68	51	44	39	36	32	31	37	44	50	47	53	58	58	60	64	53.3	74.9	
16-Mar	72	79	85	87	87	88	90	81	63	45	37	37	39	43	40	40	42	42	42	43	47	50	55	57	57.9	89.9	
17-Mar	58	61	64	66	66	64	62	60	62	58	55	53	51	51	51	50	46	42	39	42	43	43	43	45	53.1	66.3	
18-Mar	47	48	49	49	51	56	61	63	59	54	50	46	44	41	41	42	44	46	51	54	55	56	56	54	50.7	62.8	
19-Mar	52	54	56	55	63	64	74	75	70	64	53	50	49	42	37	34	35	38	38	46	48	53	75	81	54.4	81.3	
20-Mar	83	82	80	78	83	84	81	74	74	72	67	64	61	60	61	59	57	59	60	60	63	67	71	76	69.8	84.1	
21-Mar	78	73	69	68	68	65	64	65	60	54	52	50	46	44	45	43	43	44	45	52	58	59	59	69	57.2	77.5	
22-Mar	72	68	65	63	62	62	62	62	60	58	56	53	52	48	41	44	45	45	48	52	57	54	54	53	55.7	72.1	
23-Mar	56	55	58	60	61	64	64	64	58	52	48	45	45	44	43	42	38	37	43	50	58	59	59	62	52.7	63.9	
24-Mar	65	68	75	81	83	84	82	82	73	65	60	57	54	54	51	50	50	49	52	55	59	64	65	65	64.3	83.5	
25-Mar	63	62	64	72	77	82	85	84	83	77	66	61	57	54	47	44	41	41	39	38	42	47	48	50	59.3	84.8	
26-Mar	56	61	66	66	71	79	75	77	74	71	66	59	53	51	49	47	46	43	44	48	53	61	65	68	60.4	78.7	
27-Mar	71	69	70	72	76	77	76	75	67	61	53	49	44	40	38	37	35	38	41	46	53	62	66	67	57.7	76.8	
28-Mar	70	75	77	78	79	78	77	76	70	63	55	53	50	49	49	47	45	44	47	49	54	57	59	67	61.2	78.8	
29-Mar	68	68	67	68	70	72	73	71	66	60	54	50	40	35	30	28	28	31	36	39	41	47	54	57	52.2	73.3	
30-Mar	53	50	48	52	51	51	53	55	56	53	48	46	46	45	45	44	44	45	46	49	51	54	61	66	50.5	65.9	
31-Mar	70	73	74	75	76	75	75	73	65	55	48	46	44	44	43	44	45	46	47	52	60	65	67	72	59.8	75.5	
64.1 65.2 65.8 66.8 68.6 69.7 70.9 70.4 66.3 60.2 54.8 50.9 48.6 46.7 45.1 44.6 44.8 46.7 48.8 52.1 55.1 58.1 61.1 62.9																								Diurnal Average			
89.3 89.4 89.3 89.1 88.8 90.1 91.5 90.2 87.7 85.6 79.7 77.5 72.8 67.8 70.5 71.2 73.0 83.6 86.0 87.3 88.0 88.3 88.6 89.0																								Diurnal Maximum			

Hourly Averages

Relative Humidity (RH) - %
Evergreen Park - March 2014



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - March 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	3	0	1	7	7	6	5	8	9	8	12	14	19	23	25	22	23	21	18	15	15	10	10	9	11.9	24.8
Dir	43	56	48	71	69	72	71	75	71	89	95	75	56	62	61	68	62	61	63	68	72	75	73	80	67.8	60.8
2 Spd	9	8	10	7	7	9	8	10	9	13	18	17	15	20	21	22	20	18	14	12	15	16	15	15	13.0	21.6
Dir	80	78	76	71	66	70	72	70	72	96	105	97	84	95	86	58	71	59	63	75	116	110	107	100	83.7	58.3
3 Spd	13	11	11	10	11	10	8	7	6	7	6	8	8	5	5	5	6	7	5	8	10	10	5	6	4.5	12.9
Dir	96	94	93	96	103	109	106	117	108	118	115	127	145	110	148	74	12	13	26	346	342	347	334	283	83.8	96.1
4 Spd	5	8	9	7	6	4	2	4	11	15	14	14	14	16	12	9	5	5	5	4	2	2	2	5	6.1	16.1
Dir	268	257	254	241	225	231	223	245	268	272	283	289	306	324	290	342	309	316	337	348	80	198	261	331	286.5	323.6
5 Spd	1	2	2	1	1	2	1	1	3	3	7	8	7	9	10	9	9	8	4	4	2	1	1	0	2.1	9.9
Dir	351	12	302	296	323	212	253	268	236	276	255	247	331	13	14	13	30	38	45	42	207	12	257	336	351.3	14.4
6 Spd	1	1	1	1	0	2	1	1	1	4	7	9	12	19	20	19	17	13	11	7	8	8	3	2	6.2	19.8
Dir	246	353	270	316	282	220	230	236	346	351	7	9	24	50	48	55	55	44	49	54	60	61	33	355	41.8	47.5
7 Spd	2	4	4	4	5	5	3	1	3	6	7	5	8	10	10	10	9	7	5	5	4	3	2	1	1.4	10.4
Dir	303	280	276	273	258	215	244	233	208	223	226	269	357	9	11	52	49	63	66	70	70	58	60	252	359.1	8.9
8 Spd	2	3	4	2	2	2	4	2	1	6	3	7	3	1	3	2	3	5	3	2	1	0	0	2	0.3	6.9
Dir	255	257	261	228	326	296	261	261	56	204	189	43	96	132	171	203	358	21	46	119	63	241	65	183	243.2	43.4
9 Spd	2	1	0	1	1	1	2	5	21	29	45	41	35	30	32	43	47	48	37	34	30	26	25	31	22.8	48.3
Dir	214	244	13	359	143	50	38	205	225	246	259	267	270	274	274	266	264	258	255	253	251	249	251	254	258.3	258.0
10 Spd	34	23	22	30	34	19	1	10	22	27	30	28	24	20	22	17	18	19	17	14	20	20	21	20	20.6	34.1
Dir	249	243	239	241	247	254	284	225	244	257	264	270	280	279	263	285	271	272	269	256	251	237	238	245	255.6	247.4
11 Spd	7	6	5	1	1	1	1	19	24	33	33	29	30	22	26	16	20	23	11	6	23	23	26	20	16.3	33.4
Dir	255	243	266	243	166	176	176	240	252	259	258	265	271	276	261	266	266	274	295	266	247	235	237	233	257.1	258.7
12 Spd	7	5	24	32	23	14	11	5	4	3	4	8	22	41	54	63	58	62	43	44	49	46	38	37	28.1	62.8
Dir	240	237	242	244	230	225	213	198	176	187	225	261	273	270	253	250	257	249	240	264	259	259	266	262	252.4	250.4
13 Spd	38	39	36	37	32	28	26	26	24	23	21	24	18	22	15	7	5	3	1	2	3	1	2	0	15.7	38.8
Dir	261	259	262	264	264	264	263	264	268	273	280	276	280	335	325	7	45	339	198	91	69	61	65	213	273.1	259.4
14 Spd	2	3	3	2	2	3	1	2	1	4	7	3	3	4	3	5	12	29	27	20	29	27	23	28	8.2	29.2
Dir	83	59	79	95	58	66	162	26	15	291	271	273	334	326	236	229	225	263	263	256	259	258	248	247	257.8	263.3
15 Spd	29	32	31	23	11	8	2	0	3	4	8	10	13	9	6	11	13	7	12	11	0	2	8	3	6.7	32.0
Dir	247	246	249	257	274	263	251	52	222	184	134	149	124	132	159	148	123	125	236	225	281	182	228	245	219.9	246.2
16 Spd	4	7	3	1	2	1	5	2	9	13	40	29	30	34	45	40	30	25	22	18	19	23	19	22	17.2	44.8
Dir	200	211	157	22	188	191	62	170	226	270	255	273	282	277	268	268	275	270	264	260	257	257	268	253	264.2	268.2
17 Spd	21	23	20	21	22	24	32	29	16	19	32	28	26	32	31	33	36	48	43	33	25	28	24	20	26.8	48.4
Dir	250	255	257	257	257	262	265	265	329	279	265	275	272	276	278	279	270	264	261	257	238	239	243	236	263.2	264.0
18 Spd	22	21	18	10	10	4	1	6	20	24	30	28	25	28	32	25	23	27	18	7	1	1	2	2	14.6	32.1
Dir	228	223	224	258	238	50	354	250	257	253	261	274	274	269	270	277	271	272	265	265	108	131	158	176	259.3	269.6
19 Spd	3	2	1	4	2	1	1	2	2	1	11	11	12	18	15	16	20	22	23	16	13	13	17	16	8.3	23.1
Dir	161	136	123	181	189	149	52	76	60	238	267	296	265	266	287	286	279	283	283	271	266	287	331	334	283.5	283.0
20 Spd	16	21	24	23	23	23	20	18	16	21	21	16	16	14	13	12	11	11	14	8	2	1	0	1	14.1	23.8
Dir	21	42	39	35	36	46	47	50	52	56	58	49	38	20	29	33	12	36	43	43	39	60	41	55	40.7	39.3
21 Spd	1	5	6	7	9	9	8	9	16	15	13	11	12	15	14	11	11	13	11	3	3	6	1	1	8.6	15.6
Dir	18	58	61	56	48	52	50	50	56	57	54	60	37	27	47	51	44	39	47	45	59	66	67	22	49.1	56.4
22 Spd	2	4	5	6	5	7	8	10	9	12	11	15	21	21	23	20	24	18	15	10	6	7	3	3	10.8	23.9
Dir	55	63	73	73	73	70	76	78	59	63	51	51	52	54	52	49	40	47	43	40	37	42	2	356	51.9	40.0

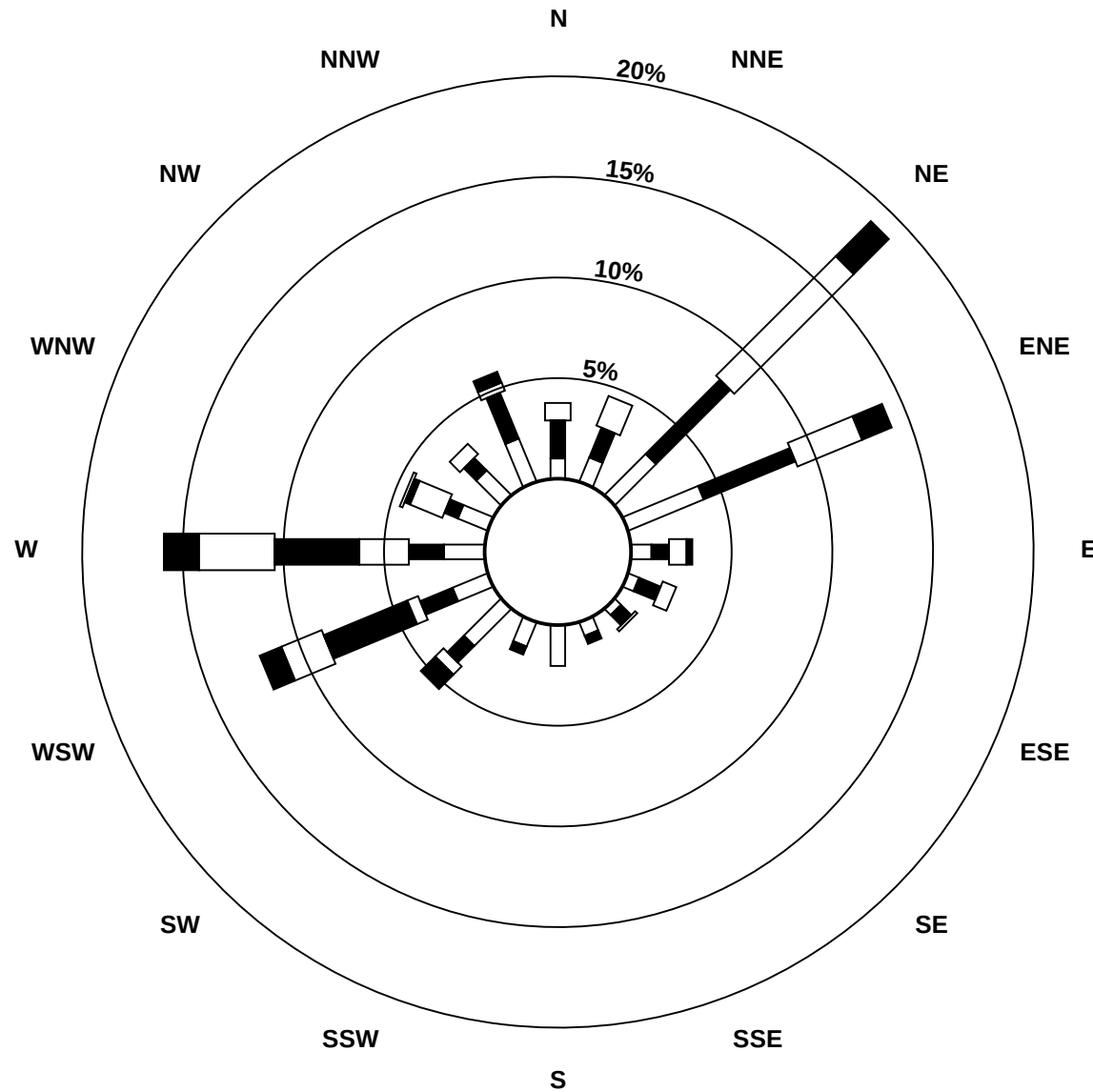
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Evergreen Park - March 2014

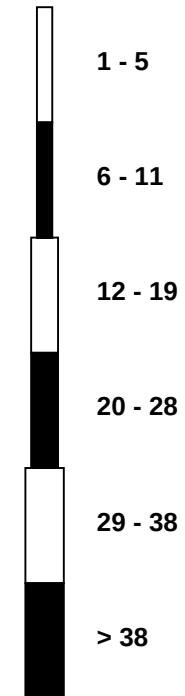
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	7	8	8	6	6	6	7	10	8	14	15	19	17	16	15	22	25	23	18	9	4	6	8	8	11.1	24.6
Dir	336	337	340	327	338	340	345	345	319	315	282	279	295	301	294	328	331	334	320	318	323	307	313	351	318.4	331.1
24 Spd	9	5	3	1	0	4	4	6	9	9	5	15	16	17	18	17	21	18	15	12	13	11	12	11	9.9	21.0
Dir	349	337	41	35	355	57	63	54	69	105	67	54	49	57	54	59	57	54	60	70	68	64	65	63	57.3	56.6
25 Spd	8	6	6	6	4	7	8	7	10	11	16	15	13	14	12	14	15	17	7	3	4	6	9	14	9.6	16.5
Dir	62	62	44	36	55	55	39	40	45	51	45	39	32	31	34	32	42	51	58	42	36	42	43	47	43.3	51.1
26 Spd	21	21	21	18	19	17	17	16	15	14	15	17	18	19	16	13	13	14	11	6	1	1	0	0	13.3	21.3
Dir	52	50	52	56	52	51	46	45	41	40	36	48	35	39	44	46	43	48	52	43	20	245	10	23	46.1	51.6
27 Spd	2	3	3	2	1	1	2	3	5	9	7	14	15	16	16	19	15	17	14	6	1	1	3	2	5.3	18.9
Dir	326	311	328	252	344	308	270	291	296	261	343	351	16	40	55	30	41	51	50	55	53	222	50	62	23.1	30.1
28 Spd	0	1	3	0	0	1	0	1	3	4	5	11	10	13	14	12	11	9	10	8	6	4	0	1	4.4	14.3
Dir	111	12	42	2	27	222	243	215	227	251	333	346	3	2	355	2	20	21	37	45	48	22	297	297	7.3	354.9
29 Spd	3	4	4	3	2	3	4	7	9	10	12	9	5	12	10	8	8	8	10	4	1	3	18	23	3.9	23.1
Dir	318	339	327	319	322	309	287	260	276	295	273	308	299	286	279	296	320	335	60	68	98	66	63	53	328.4	52.9
30 Spd	22	18	20	18	18	16	17	16	18	16	13	16	19	18	19	18	16	16	16	12	8	4	3	1	14.7	21.7
Dir	61	65	56	52	58	59	58	56	58	57	47	54	52	55	50	49	44	39	47	45	48	41	3	352	52.7	60.7
31 Spd	0	2	2	2	1	2	2	7	8	4	6	11	9	13	12	10	9	8	7	3	1	5	2	1	3.4	13.0
Dir	354	215	220	217	217	226	210	234	253	261	333	351	7	350	9	4	22	10	30	30	344	335	347	292	345.6	349.7
Spd	2.8	2.6	2.4	2.7	1.7	0.9	1.3	1.0	2.1	3.9	6.4	6.4	7.0	7.8	6.7	6.6	6.4	7.0	4.7	3.7	4.0	4.3	4.0	3.9	Diurnal Average	
Dir	270.8	269.6	277.4	276.2	285.8	337.3	4.9	308.6	293.6	278.0	279.7	307.2	325.5	332.1	319.1	326.3	326.6	313.1	310.6	291.2	263.9	260.2	267.3	268.7	Diurnal Maximum	
Spd	37.9	38.8	35.6	36.7	34.1	28.3	32.4	29.1	24.3	33.4	44.5	41.3	35.5	40.5	54.1	62.8	58.5	61.7	43.2	43.5	49.2	46.0	38.2	36.6	Diurnal Maximum	
Dir	261.2	259.4	262.0	263.8	247.4	264.0	265.0	264.5	267.6	258.7	258.6	266.8	270.0	270.0	253.4	250.4	257.1	249.0	260.6	264.1	258.8	259.0	266.0	261.6		
Maximum Speed Value: 63 km/h on Mar 12 16:00							Minimum Speed Value: 0 km/h on Mar 28 23:00													Hours in Service: 744						
Maximum Daily Speed Average: 28.1 km/h on Mar 12							Minimum Daily Speed Average: 0.3 km/h on Mar 8													Hours of Data: 744						
Maximum Diurnal Speed Average: 7.8 km/h at hour 14							Minimum Diurnal Speed Average: 0.9 km/h at hour 6													Hours of Missing Data: 0						
Monthly Average Velocity: 3.77 km/h 300.92 deg							Speed Percentiles: P ₁ = 0.2 P ₁₀ = 1.4 Q ₁ = 3.7 Median = 9.5 Q ₃ = 18.2 P ₉₀ = 26.3 P ₉₉ = 48.2													Percent Operational Time: 100.0						
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
Speed Range (km/h)																										
Direction	0 to 5		5 to 11		11 to 19		19 to 28		28 to 38		> 38		Total													
North	33		31		11		0		0		0		75													
NorthEast	54		50		84		30		0		0		218													
East	14		35		15		4		0		0		68													
SouthEast	8		10		4		0		0		0		22													
South	22		2		0		0		0		0		24													
SouthWest	39		18		5		20		6		1		89													
West	30		22		26		49		38		20		185													
NorthWest	26		20		13		4		0		0		63													
Total	226		188		158		107		44		21		744													

Wind Rose

Wind Speed (WS) (km/h)
Evergreen Park - March 2014



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Evergreen Park - March 2014

Maximum Speed: 63 km/h on Mar 12 16:00																					Maximum Daily Speed Average: 29.4 km/h on Mar 12					Hours in Service: 744	
Minimum Speed: 0 km/h on Mar 20 23:00																					Minimum Daily Speed Average: 3.6 km/h on Mar 8					Hours of Data: 744	
Maximum Diurnal Speed Average: 19.4 km/h at hour 15																					Minimum Diurnal Speed Average: 7.5 km/h at hour 7					Hours of Missing Data: 0	
Monthly Average Speed: 12.90 km/h																					Percentiles: P ₁ = 0.6 P ₁₀ = 2.0 Q ₁ = 4.4 Median = 10.0 Q ₃ = 18.9 P ₉₀ = 26.7 P ₉₉ = 48.5					Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Mar	3	0	2	7	7	6	5	8	9	8	12	15	20	24	25	22	24	22	18	15	15	11	10	9	12.4	25.4	
2-Mar	9	8	10	7	8	9	8	10	9	14	19	18	17	22	23	22	21	19	15	12	16	16	15	15	14.2	22.7	
3-Mar	13	11	11	10	11	10	9	7	7	8	8	10	9	7	7	7	8	7	5	9	10	10	5	6	8.6	13.2	
4-Mar	5	8	9	7	6	4	2	4	11	16	15	14	16	17	14	9	7	6	5	5	2	3	2	5	8.0	16.7	
5-Mar	1	2	2	2	1	2	1	1	3	5	7	8	10	10	11	9	9	9	4	4	3	1	1	1	4.5	10.8	
6-Mar	1	1	1	2	1	3	3	3	2	4	8	10	13	19	20	20	18	14	11	7	8	8	4	2	7.7	20.3	
7-Mar	2	4	4	5	5	5	4	2	3	6	7	9	8	11	11	11	9	7	5	5	5	3	3	2	5.6	11.2	
8-Mar	4	4	4	4	3	3	4	5	2	7	4	9	4	2	4	5	3	6	3	2	2	1	0	2	3.6	8.9	
9-Mar	3	3	3	2	3	2	2	5	21	29	45	42	36	30	33	44	47	49	37	34	30	26	25	31	24.2	48.6	
10-Mar	34	23	22	30	34	21	7	11	22	27	31	28	25	21	22	18	18	19	17	14	20	20	21	20	21.9	34.4	
11-Mar	7	6	6	2	1	1	2	19	24	34	33	29	30	22	27	17	20	23	13	7	23	23	27	20	17.4	33.6	
12-Mar	7	5	24	32	24	15	11	5	4	4	4	9	22	41	54	63	59	62	43	44	50	46	38	37	29.4	63.4	
13-Mar	38	39	36	37	32	28	27	26	24	23	22	24	19	23	16	8	6	4	2	3	3	2	2	1	18.6	39.0	
14-Mar	2	3	5	3	3	3	3	2	1	4	8	3	4	4	4	6	13	29	27	20	29	27	23	28	10.6	29.5	
15-Mar	29	32	31	23	11	9	3	2	3	5	8	11	13	10	9	15	14	7	12	12	2	3	9	8	11.7	32.1	
16-Mar	5	8	7	1	3	6	6	5	10	14	41	30	31	34	45	40	31	25	23	18	19	23	19	22	19.4	45.2	
17-Mar	21	23	20	21	22	24	33	30	17	22	32	29	26	33	31	33	37	49	43	33	26	28	24	20	28.2	48.7	
18-Mar	22	21	18	10	10	4	2	7	20	24	30	29	25	28	33	26	23	28	19	8	2	2	3	3	16.4	32.6	
19-Mar	3	2	1	5	3	2	2	5	3	2	11	13	12	19	16	17	21	23	24	16	13	13	18	16	10.8	23.5	
20-Mar	21	21	24	24	23	23	20	19	17	22	21	17	17	15	14	13	12	12	14	8	3	1	0	1	15.1	24.1	
21-Mar	1	5	6	7	9	10	8	9	16	15	14	12	13	16	15	12	12	14	11	3	4	6	1	2	9.3	16.3	
22-Mar	2	4	5	6	6	7	8	10	10	13	12	16	21	22	24	21	24	19	15	10	6	7	3	4	11.4	24.4	
23-Mar	7	8	8	6	6	7	8	10	9	15	16	20	19	19	17	23	26	24	18	10	4	6	8	9	12.6	25.7	
24-Mar	9	5	3	1	0	5	4	6	10	10	9	16	17	17	19	18	21	18	16	12	13	11	12	11	11.0	21.4	
25-Mar	9	6	6	6	5	7	8	7	10	12	17	16	14	15	13	15	16	17	8	3	4	6	9	15	10.2	17.2	
26-Mar	22	21	21	18	19	17	17	16	15	14	16	18	19	20	17	14	14	15	11	6	1	1	1	0	13.9	21.7	
27-Mar	2	4	3	2	1	2	2	3	6	9	8	14	15	17	16	19	15	17	14	6	1	1	3	2	7.6	19.4	
28-Mar	2	2	3	0	0	1	1	1	3	4	7	12	11	14	15	13	12	10	10	8	7	4	2	3	6.0	15.0	
29-Mar	4	4	4	3	3	3	5	7	9	11	13	11	9	13	13	10	10	10	11	4	2	3	18	23	8.5	23.5	
30-Mar	22	18	20	18	19	16	17	16	19	17	14	17	20	19	20	18	16	16	17	13	8	4	3	1	15.3	22.2	
31-Mar	1	2	2	2	1	2	2	7	8	5	7	12	11	14	13	11	10	8	7	3	2	5	2	1	5.6	13.5	
10.0 9.8 10.4 9.9 9.1 8.2 7.5 8.7 10.5 12.9 16.1 16.7 17.0 18.6 19.4 18.8 18.6 18.9 15.4 11.5 10.7 10.4 10.1 10.4																									Diurnal Average		
38.1 39.0 35.8 36.9 34.4 28.5 32.5 29.7 24.4 33.6 45.1 41.6 35.8 41.0 54.5 63.4 58.9 62.2 43.5 44.3 49.7 46.4 38.4 36.8																									Diurnal Maximum		
All monthly, daily, and diurnal averages have been calculated using scalar methods																											

Hourly Standard Deviations

Wind Direction (WD) - deg
Evergreen Park - March 2014

Maximum Value: 98.8 deg on Mar 28 23:00																				Hours in Service: 744					
Minimum Value: 3.8 deg on Mar 18 01:00																				Hours of Data: 744					
Percentiles: P ₁ = 5.1 P ₁₀ = 7.1 Q ₁ = 11.0 Median = 19.1 Q ₃ = 35.6 P ₉₀ = 62.1 P ₉₉ = 91.4																				Hours of Missing Data: 0					
																				Hours of Calibration: 0					
																				Percent Operational Time: 100.0					
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Mar	39	48	40	9	6	6	11	7	8	27	22	25	16	15	13	16	12	9	10	10	9	9	7	7	48.5
2-Mar	8	9	8	11	8	6	7	4	7	21	23	28	32	24	22	15	16	11	12	18	14	16	18	11	32.3
3-Mar	12	14	18	22	23	20	31	20	25	39	50	37	39	58	52	61	36	21	19	26	9	13	17	21	61.2
4-Mar	15	13	11	9	7	11	67	17	9	9	13	14	26	16	24	25	47	31	13	27	61	67	28	19	67.2
5-Mar	64	16	52	38	50	65	78	55	23	54	15	15	49	23	23	22	22	16	33	35	89	76	74	57	88.7
6-Mar	66	46	66	59	87	87	83	87	73	27	26	29	26	15	14	14	14	13	10	10	10	10	32	24	87.3
7-Mar	41	28	20	16	36	30	40	76	29	13	23	52	22	23	23	25	19	20	15	21	20	38	59	76	75.9
8-Mar	86	52	34	57	46	65	45	66	70	41	68	57	56	77	57	93	41	29	32	61	60	87	68	43	93.4
9-Mar	63	70	89	78	73	94	62	28	8	9	9	6	8	8	9	7	7	7	6	5	7	7	6	6	94.1
10-Mar	5	7	10	9	7	33	81	29	6	7	7	10	11	19	9	19	10	8	9	7	4	6	5	5	80.7
11-Mar	16	7	37	77	64	83	71	16	8	7	7	6	8	15	15	14	9	11	28	44	13	9	13	8	82.6
12-Mar	41	40	7	6	13	7	14	22	44	47	17	17	10	8	7	8	7	7	7	11	8	7	6	6	46.8
13-Mar	5	6	6	6	6	6	5	6	7	10	13	10	20	19	21	39	36	50	78	38	41	63	43	96	95.9
14-Mar	51	26	71	52	21	61	73	23	56	36	25	16	53	35	57	42	24	8	7	5	6	8	6	5	72.9
15-Mar	5	6	6	7	15	18	50	93	42	25	37	23	19	29	55	42	20	36	14	25	81	74	37	97	97.2
16-Mar	33	52	69	77	75	91	54	92	29	31	9	15	11	10	8	8	10	8	7	7	12	10	8	6	92.2
17-Mar	8	5	5	6	5	6	6	14	17	30	6	10	10	10	11	9	10	6	7	7	9	7	7	6	29.6
18-Mar	4	7	9	27	8	42	75	57	6	7	7	11	9	10	10	11	11	8	9	44	61	46	74	48	74.9
19-Mar	22	53	64	39	82	69	87	71	76	91	30	29	12	16	24	25	17	14	11	6	7	17	11	11	91.4
20-Mar	40	14	10	11	12	10	12	13	13	13	14	20	23	27	26	28	24	27	13	12	21	29	83	25	83.4
21-Mar	27	12	14	13	16	13	13	16	15	18	32	36	31	22	35	41	37	19	13	9	13	10	60	45	59.8
22-Mar	51	13	19	17	13	13	17	27	24	25	22	18	13	17	18	19	11	12	12	9	19	18	29	20	50.9
23-Mar	14	13	16	18	27	20	18	15	30	21	23	18	24	29	29	24	18	15	15	12	28	12	19	16	29.8
24-Mar	15	28	31	20	71	38	30	12	18	31	57	19	21	17	17	21	12	14	13	13	13	16	17	15	71.0
25-Mar	20	21	14	29	20	17	16	15	22	22	22	22	21	24	27	17	21	15	29	28	13	10	8	10	29.3
26-Mar	11	13	10	12	12	12	11	11	12	19	20	21	20	20	18	23	22	16	16	14	34	65	62	32	64.7
27-Mar	37	20	15	34	42	39	38	24	34	19	35	13	18	21	18	14	18	14	11	8	60	62	15	40	61.9
28-Mar	81	66	61	65	62	67	80	82	27	32	51	18	20	20	19	22	26	21	13	10	7	18	99	63	98.8
29-Mar	36	30	28	23	43	47	20	18	20	26	22	38	66	28	50	45	48	39	20	22	60	13	14	10	65.8
30-Mar	13	15	12	10	11	14	12	13	15	18	24	21	18	20	17	18	20	16	12	9	6	6	14	42	41.6
31-Mar	51	32	21	29	39	29	9	20	16	38	39	18	35	18	22	24	24	22	23	16	26	14	50	58	58.3
85.9 70.4 89.1 77.9 87.2 94.1 86.9 93.0 75.8 91.4 67.6 57.4 65.8 77.4 56.8 93.4 47.8 49.5 77.7 60.9 88.7 86.7 98.8 97.2																									

PAZA
Smoky Heights Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

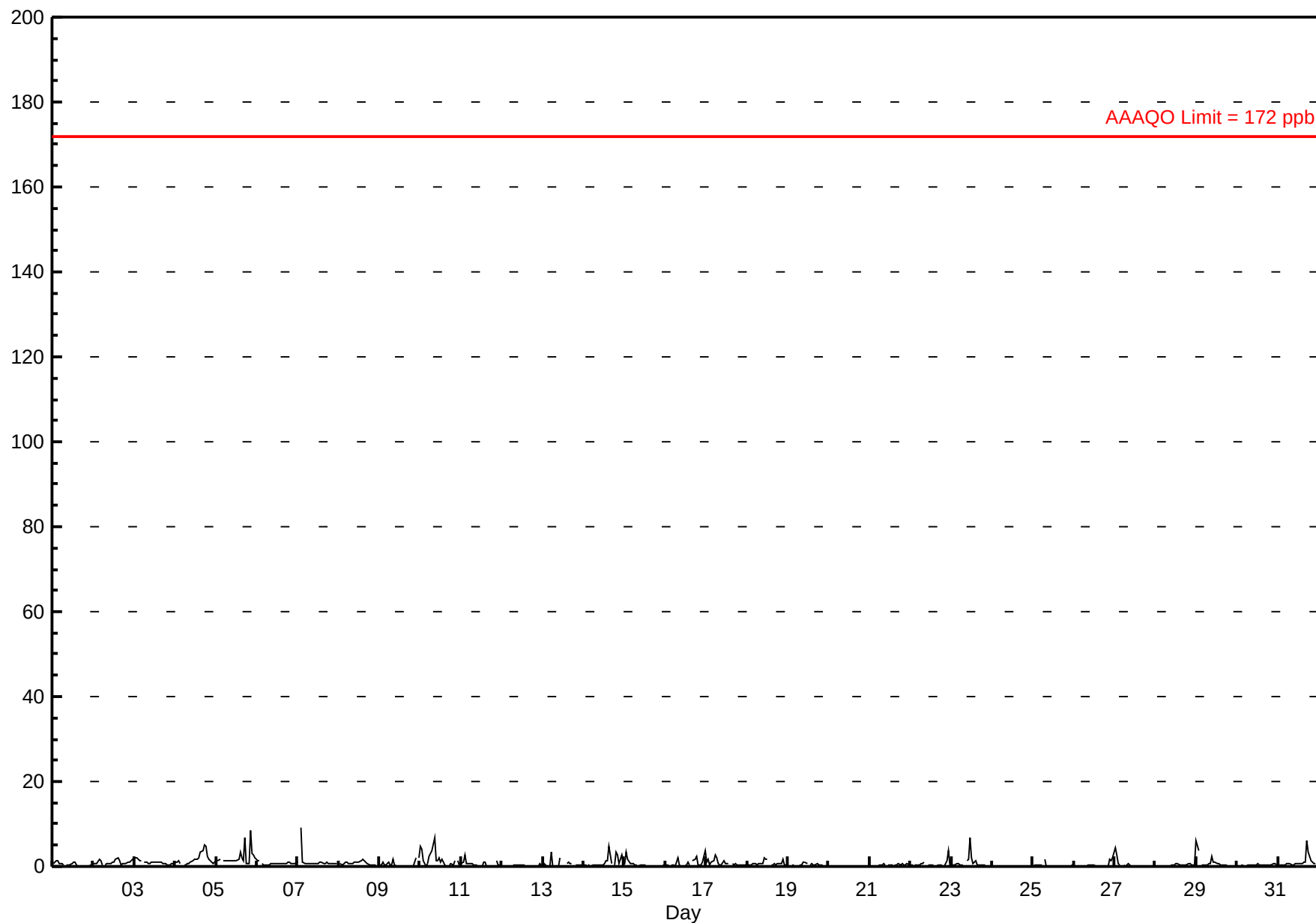
Sulphur Dioxide (SO₂) - ppb

Smoky Heights - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 9.0 ppb on Mar 7 03:00 Maximum Daily Average: 2.1 ppb on Mar 5																			Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0							
Minimum Value: 0 ppb on Mar 12 21:00 Minimum Daily Average: 0.0 ppb on Mar 24 Maximum Diurnal Average: 1.0 ppb at hour 1 Minimum Diurnal Average: 0.5 ppb at hour 4 Monthly Average: 0.70 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.4 Q ₃ = 0.8 P ₉₀ = 1.6 P ₉₉ = 6.0																										
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-Mar	1	1	1	1	1	1	0	A	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.5	1.3
2-Mar	1	1	1	2	2	0	A	0	1	1	1	1	1	2	2	1	0	1	1	1	1	1	1	2	0.9	2.0
3-Mar	2	2	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1.0	2.0
4-Mar	1	1	1	1	A	0	0	1	1	1	1	2	2	2	2	4	4	5	5	2	2	1	1	1	1.7	5.2
5-Mar	1	1	2	A	1	1	1	1	1	1	1	1	1	2	3	2	1	7	1	1	8	3	3	2	2.1	8.5
6-Mar	1	1	A	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.4
7-Mar	1	A	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	9.0
8-Mar	A	1	0	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	0	0	0	0	0	A	0.8	1.8
9-Mar	0	0	1	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	A	2	0.5	2.2
10-Mar	5	4	1	0	1	2	3	4	7	1	1	2	1	2	1	0	0	0	1	0	1	A	1	0	1.7	6.6
11-Mar	1	1	3	1	1	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	A	1	0	0	0.5	2.6
12-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0.2	0.6
13-Mar	0	1	0	0	0	3	0	0	0	0	2	C	C	C	1	1	1	1	A	0	0	0	0	0	0.5	3.2
14-Mar	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	5	1	A	0	3	3	1	3	1	1.0	4.7
15-Mar	1	3	2	1	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.5	3.2
16-Mar	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	A	1	2	2	0	0	0	1	4	0.7	3.7
17-Mar	1	2	0	1	1	3	2	1	0	0	1	1	1	1	A	1	0	1	0	0	0	0	0	0	0.8	2.6
18-Mar	1	0	0	1	1	1	0	1	1	1	2	2	2	A	0	0	1	0	1	1	1	2	0	0	0.7	1.9
19-Mar	0	0	0	0	0	0	0	0	0	1	1	1	A	0	1	0	0	1	0	0	0	0	0	0	0.3	1.1
20-Mar	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
21-Mar	0	0	0	0	0	0	0	0	1	0	A	0	0	0	0	0	0	1	0	1	0	0	1	0	0.3	0.6
22-Mar	0	0	0	0	0	0	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0.5	3.7
23-Mar	0	0	0	1	1	0	0	0	A	1	2	7	2	1	1	0	0	0	0	0	0	0	0	0	0.8	6.9
24-Mar	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
25-Mar	0	0	0	0	0	0	A	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.7
26-Mar	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	2	0.4	2.1	
27-Mar	4	3	1	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	4.3
28-Mar	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0.3	0.6
29-Mar	6	4	A	0	0	0	0	1	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.9	6.0
30-Mar	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	0.3	0.7
31-Mar	A	0	0	0	0	1	1	1	0	0	1	1	1	1	1	1	1	6	3	1	1	1	1	A	1.0	6.0
																									Diurnal Average	
																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - March 2014



Hourly Maximums

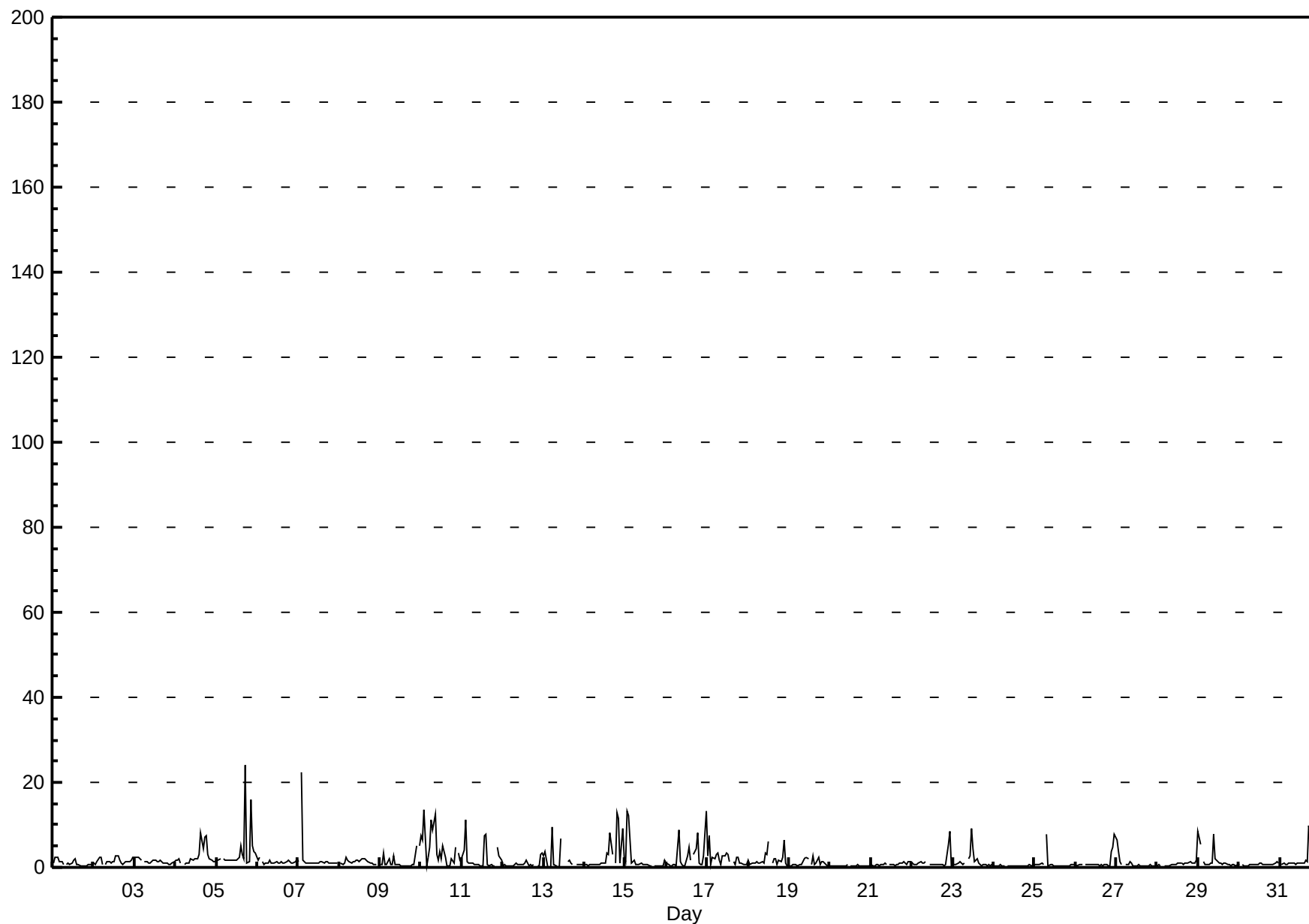
Sulphur Dioxide (SO₂) - ppb

Smoky Heights - March 2014

Maximum Value: 23.9 ppb on Mar 5 18:00																				Maximum Daily Average: 4.3 ppb on Mar 10										Hours in Service: 744									
Minimum Value: 0 ppb on Mar 13 03:00																				Minimum Daily Average: 0.4 ppb on Mar 24										Hours of Data: 708									
Maximum Diurnal Average: 2.9 ppb at hour 3																				Minimum Diurnal Average: 1.0 ppb at hour 4										Hours of Missing Data: 36									
Monthly Average: 1.61 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.4 Q ₁ = 0.5 Median = 0.9 Q ₃ = 1.6 P ₉₀ = 3.1 P ₉₉ = 12.7										Hours of Calibration: 36									
																				Percent Operational Time: 100.0																			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Mar	1	2	2	2	1	1	1	A	1	1	1	1	2	3	1	1	0	0	0	0	0	1	1	1	1.0	2.3													
2-Mar	1	1	1	2	2	1	A	1	1	1	1	1	1	2	3	2	1	1	1	1	1	1	2	2	1.4	2.6													
3-Mar	2	2	2	2	2	A	1	1	1	1	1	2	2	1	1	2	1	1	1	1	1	1	1	2	1.4	2.4													
4-Mar	2	2	2	1	A	1	1	1	1	2	2	2	2	2	3	8	4	7	7	3	2	2	1	1	2.6	8.1													
5-Mar	2	2	2	A	2	2	2	2	2	2	2	2	2	2	5	3	2	24	1	1	16	5	4	3	3.9	23.9													
6-Mar	2	2	A	1	1	1	1	2	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	2	1.3	2.2													
7-Mar	1	A	23	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2.1	22.5													
8-Mar	A	1	1	1	2	2	1	1	1	1	2	2	1	2	2	2	2	1	1	1	1	1	1	A	1.3	2.3													
9-Mar	1	1	3	1	1	2	1	1	3	1	1	1	0	0	0	0	0	0	0	1	1	5	A	5	1.2	5.0													
10-Mar	8	6	14	0	2	5	11	9	13	3	2	4	2	5	2	0	0	0	2	1	5	A	3	2	4.3	13.6													
11-Mar	2	4	11	1	1	1	1	1	1	1	0	0	7	8	1	0	1	0	0	A	5	3	2		2.3	11.3													
12-Mar	0	1	0	0	0	0	0	1	1	1	1	1	1	1	2	0	1	0	1	A	0	0	3	4	0.8	3.5													
13-Mar	3	4	0	0	0	9	1	0	0	0	7	C	C	C	1	2	1	1	A	1	1	1	1	1	1.6	9.3													
14-Mar	1	1	0	1	1	1	1	1	1	1	1	1	1	3	3	8	3	A	1	13	12	1	9	2	2.8	12.9													
15-Mar	1	13	12	1	1	2	1	1	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0	2	1.8	13.3													
16-Mar	1	1	0	0	1	1	0	9	1	1	0	0	3	5	2	A	3	4	8	1	1	1	3	13	2.6	13.1													
17-Mar	3	7	1	2	2	3	3	2	1	3	3	3	3	1	A	2	1	2	2	1	1	1	1	1	2.1	7.3													
18-Mar	2	1	1	1	1	1	1	1	1	1	3	3	6	A	1	2	2	1	2	1	2	6	1	0	1.8	6.3													
19-Mar	0	0	1	1	1	0	1	1	1	2	2	2	A	1	3	1	1	2	1	1	2	1	0	0	1.1	2.7													
20-Mar	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	1	0	0	0	0	0	1	0	0.4	0.7													
21-Mar	1	0	0	1	1	0	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	1	0.8	1.5													
22-Mar	1	1	1	1	1	1	1	1	2	A	1	1	1	1	1	1	1	1	1	1	1	5	8	1	1.3	8.4													
23-Mar	1	1	1	1	1	1	1	1	A	2	3	9	4	1	2	1	1	0	1	1	0	1	0	1	1.5	9.2													
24-Mar	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.4	0.5													
25-Mar	1	1	1	1	1	1	A	8	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0.8	7.8													
26-Mar	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	0	1	1	0	0	4	5	8	1.2	7.7													
27-Mar	7	4	1	1	A	1	1	1	1	1	0	0	0	1	0	0	0	0	1	0	1	0	0	0	1.0	6.5													
28-Mar	0	1	1	A	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2		0.8	1.6													
29-Mar	9	5	A	1	1	1	1	1	1	8	2	2	1	1	1	1	1	1	1	0	1	1	0	1	1.7	8.6													
30-Mar	1	A	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.3													
31-Mar	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	10	7	2	2	1	1	A	1.8	10.0													
1.8		2.2	2.9	1.0	1.0	1.4	1.2	1.7	1.4	1.3	1.4	1.5	1.4	1.7	1.6	1.5	1.1	2.2	1.5	1.3	1.9	1.7	1.9	2.0	Diurnal Average														
8.6		13.3	22.5	2.3	2.4	9.3	11.0	8.9	12.7	7.9	6.6	9.2	6.2	7.3	8.0	8.1	4.3	23.9	8.3	12.9	16.0	6.3	9.2	13.1	Diurnal Maximum														
C - Calibration		A - Automated Daily Zero Span																																					

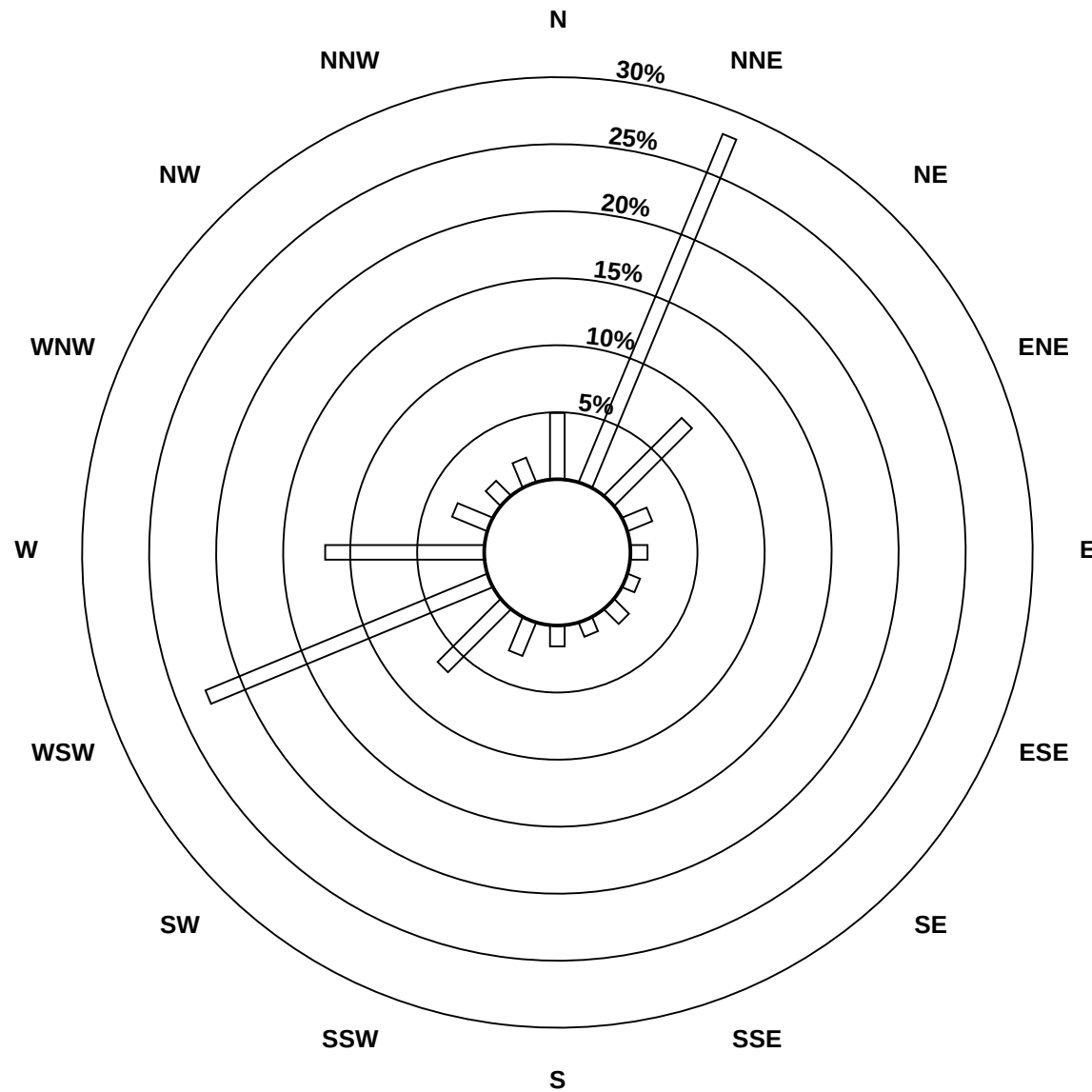
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - March 2014

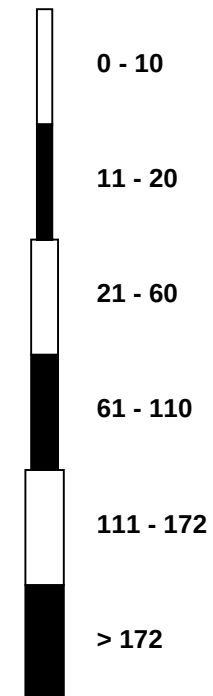


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Smoky Heights - March 2014

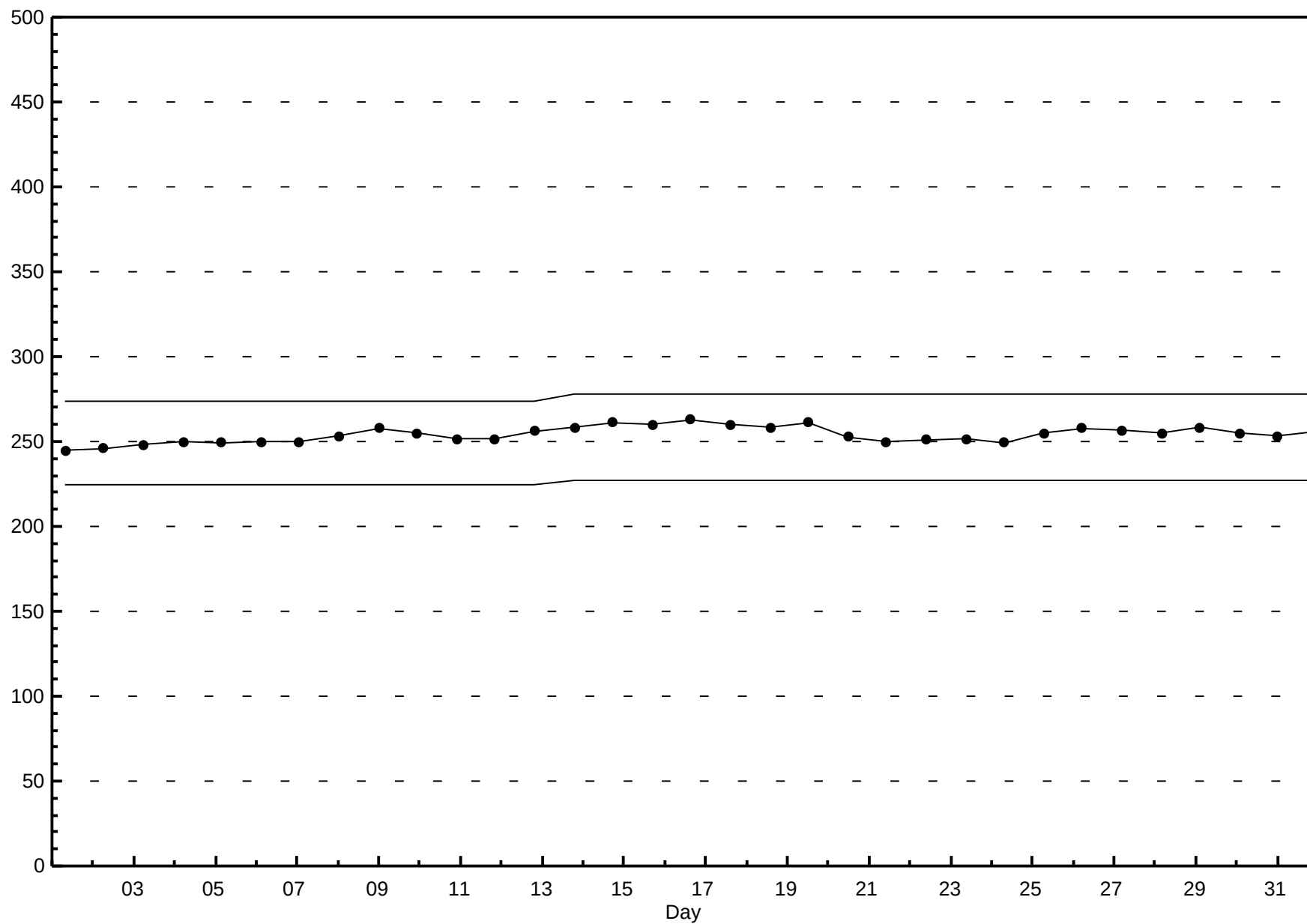


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Smoky Heights - March 2014



Hourly Averages

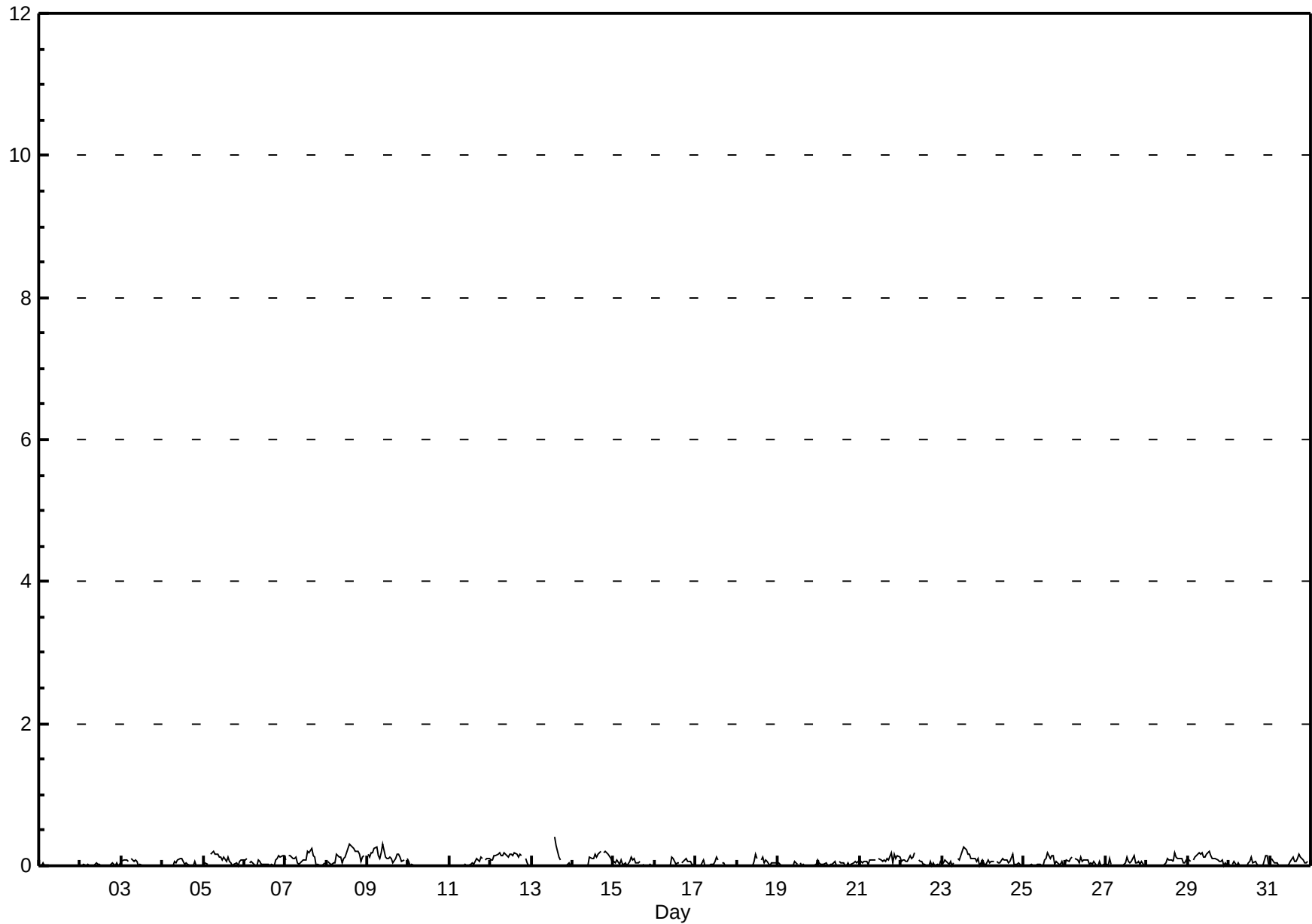
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 744						
Maximum Value: 0.4 ppb on Mar 13 14:00																				Maximum Daily Average: 0.1 ppb on Mar 9		Hours of Data: 707				
Minimum Value: 0 ppb on Mar 1 01:00																				Minimum Daily Average: 0.0 ppb on Mar 1		Hours of Missing Data: 37				
Maximum Diurnal Average: 0.1 ppb at hour 14																				Minimum Diurnal Average: 0.0 ppb at hour 2		Hours of Calibration: 37				
Monthly Average: 0.06 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 = 0.3		Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	0	0	0	0	0	0	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
2-Mar	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	0.0
3-Mar	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
4-Mar	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
5-Mar	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
6-Mar	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
7-Mar	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
8-Mar	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
9-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3
10-Mar	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
11-Mar	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	0.1
12-Mar	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	0.2
13-Mar	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	A	0	0	0	0	0	0.1	0.4
14-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.2
15-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.0	0.1
16-Mar	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	0.1
17-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.1
18-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.0	0.2
19-Mar	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
20-Mar	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
21-Mar	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	0.2
22-Mar	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
23-Mar	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
24-Mar	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
25-Mar	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	0.2
26-Mar	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
27-Mar	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
28-Mar	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
29-Mar	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
30-Mar	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
31-Mar	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.2
0.0 0.0 0.0 0.0 0.1 0.0 0.1 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.0 0.0 0.0 0.0																								Diurnal Average		
0.2 0.1 0.2 0.2 0.3 0.3 0.2 0.2 0.2 0.3 0.1 0.2 0.2 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1																								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 - March 2014



Hourly Maximums

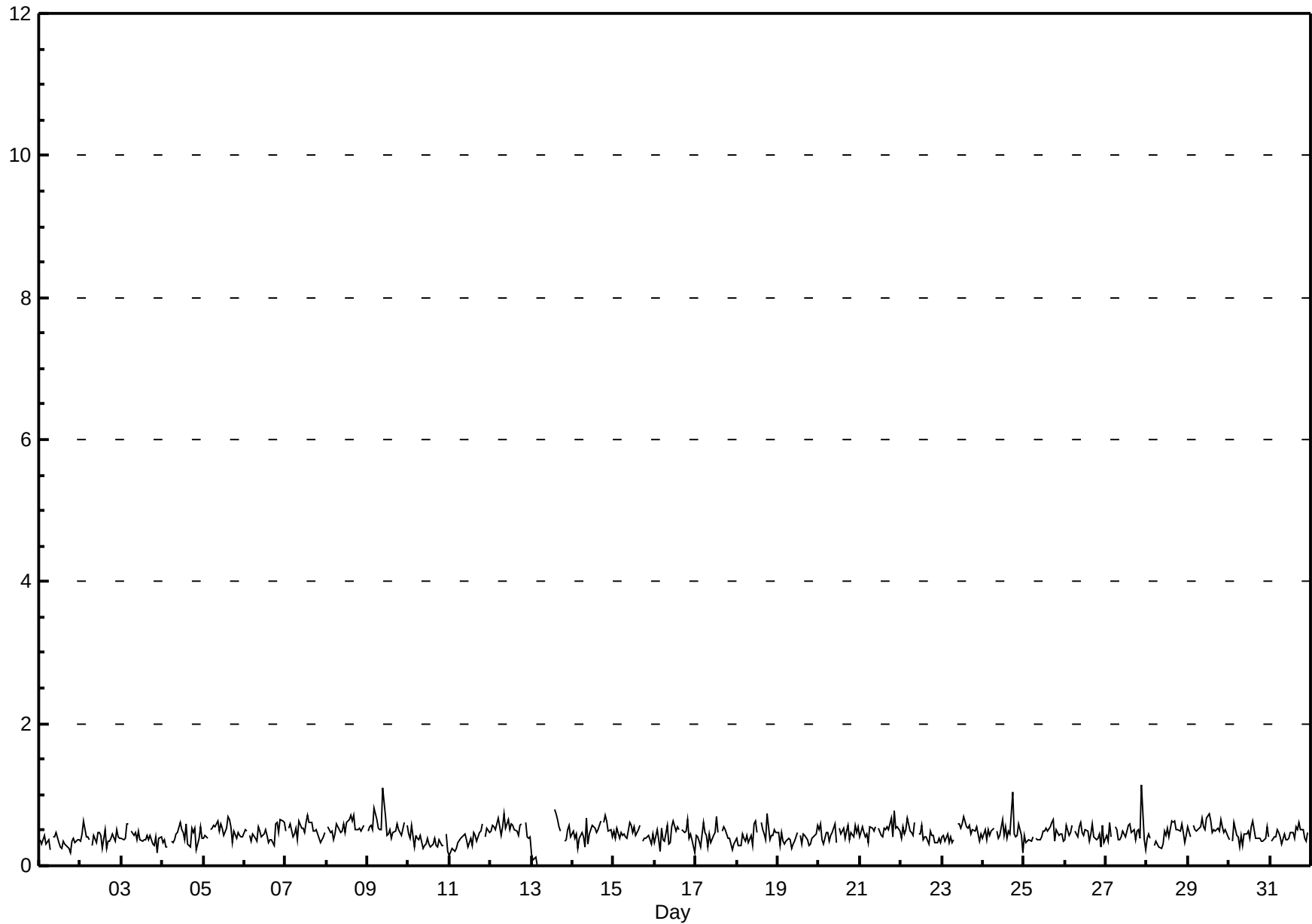
Total Reduced Sulphur (TRS) - ppb

Smoky Heights - March 2014

Maximum Value: 1.1 ppb on Mar 27 22:00																				Maximum Daily Average: 0.6 ppb on Mar 9										Hours in Service: 744									
Minimum Value: 0 ppb on Mar 13 04:00																				Minimum Daily Average: 0.3 ppb on Mar 13										Hours of Data: 707									
Maximum Diurnal Average: 0.5 ppb at hour 15																				Minimum Diurnal Average: 0.4 ppb at hour 8										Hours of Missing Data: 37									
Monthly Average: 0.45 ppb																				Percentiles: P ₁ = 0.1 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.4 Q ₃ = 0.5 P ₉₀ = 0.6 P ₉₉ = 0.7										Hours of Calibration: 37									
																				Percent Operational Time: 100.0																			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Mar	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	0.5													
2-Mar	0	0	1	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0.4	0.6													
3-Mar	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6													
4-Mar	0	0	0	0	A	0	0	0	0	0	1	1	0	0	1	0	0	1	0	1	0	0	1	0	0.4	0.6													
5-Mar	0	0	0	A	0	1	1	1	1	0	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0.5	0.7													
6-Mar	1	0	A	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	1	0	1	1	1	0.5	0.7													
7-Mar	0	A	1	1	0	0	1	0	1	1	1	0	1	1	1	1	0	0	1	0	0	0	0	0	0.5	0.7													
8-Mar	A	1	0	0	0	0	1	1	0	0	1	0	1	1	1	1	1	1	1	1	0	1	1	A	0.5	0.7													
9-Mar	0	1	1	0	1	1	1	1	1	1	1	0	0	1	0	0	0	1	1	0	0	1	A	1	0.6	1.1													
10-Mar	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.6													
11-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	1	0	0.4	0.6													
12-Mar	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	1	1	A	1	0	0	0	0.5	0.7													
13-Mar	0	0	0	0	0	0	0	0	0	C	C	C	C	1	1	1	1	0	A	0	0	1	1	0	0.3	0.8													
14-Mar	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	1	1	A	1	1	1	0	1	0	0.5	0.7													
15-Mar	0	0	1	0	0	0	0	0	0	1	1	0	1	0	0	1	A	0	0	0	0	0	0	0	0.4	0.6													
16-Mar	0	1	0	0	1	0	0	1	0	0	1	1	0	1	1	A	1	0	0	1	0	0	0	0	0.4	0.7													
17-Mar	0	0	0	0	1	0	0	0	0	0	0	0	1	0	A	0	1	1	0	0	0	0	0	0	0.4	0.7													
18-Mar	0	0	0	0	0	0	0	0	0	0	1	1	0	A	1	1	0	0	1	0	0	0	0	0	0.4	0.7													
19-Mar	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0.4	0.6													
20-Mar	1	1	0	0	0	0	0	0	0	1	0	A	1	0	1	0	0	1	0	0	0	1	0	1	0.5	0.6													
21-Mar	0	1	0	0	0	0	1	1	0	1	A	1	0	0	1	1	1	1	1	0	1	1	1	0	0.5	0.8													
22-Mar	0	1	0	1	1	0	0	0	1	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7													
23-Mar	0	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	0	1	0	1	0	0	0	0.5	0.7													
24-Mar	0	1	0	1	0	0	1	A	0	0	0	1	0	1	0	0	0	1	0	0	0	1	0	0	0.5	1.0													
25-Mar	0	0	0	0	0	0	A	0	0	0	0	0	0	1	0	1	1	1	0	1	0	0	0	0	0.4	0.6													
26-Mar	0	1	0	0	1	A	0	0	1	1	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0.5	0.6													
27-Mar	0	0	1	0	A	1	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0.5	1.1													
28-Mar	0	0	0	A	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	0	1	0	0	0	0.4	0.6													
29-Mar	1	0	A	1	1	0	1	1	1	1	1	1	1	1	0	1	0	1	0	1	1	0	1	0	0.5	0.7													
30-Mar	0	A	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0.4	0.6													
31-Mar	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0	A	0.4	0.6													
0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.4 0.5 0.4 0.4																									Diurnal Average														
0.5 0.6 0.6 0.6 0.8 0.7 0.6 0.6 0.7 1.1 0.7 0.7 0.7 0.8 0.7 0.7 0.7 0.7 1.0 0.7 0.7 0.8 1.1 0.6 0.6																									Diurnal Maximum														
C - Calibration A - Automated Daily Zero Span																																							

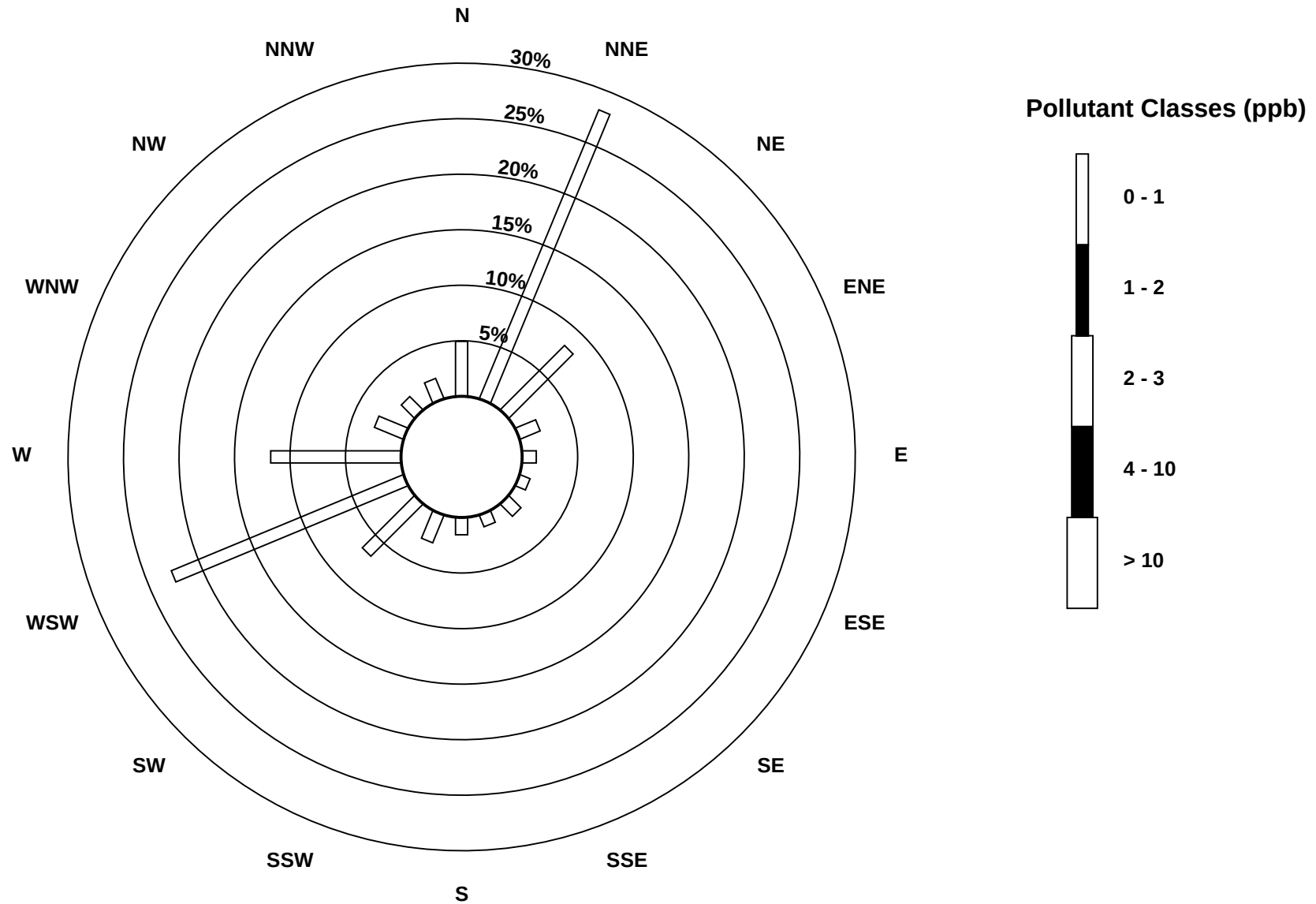
Hourly Maximums

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - March 2014



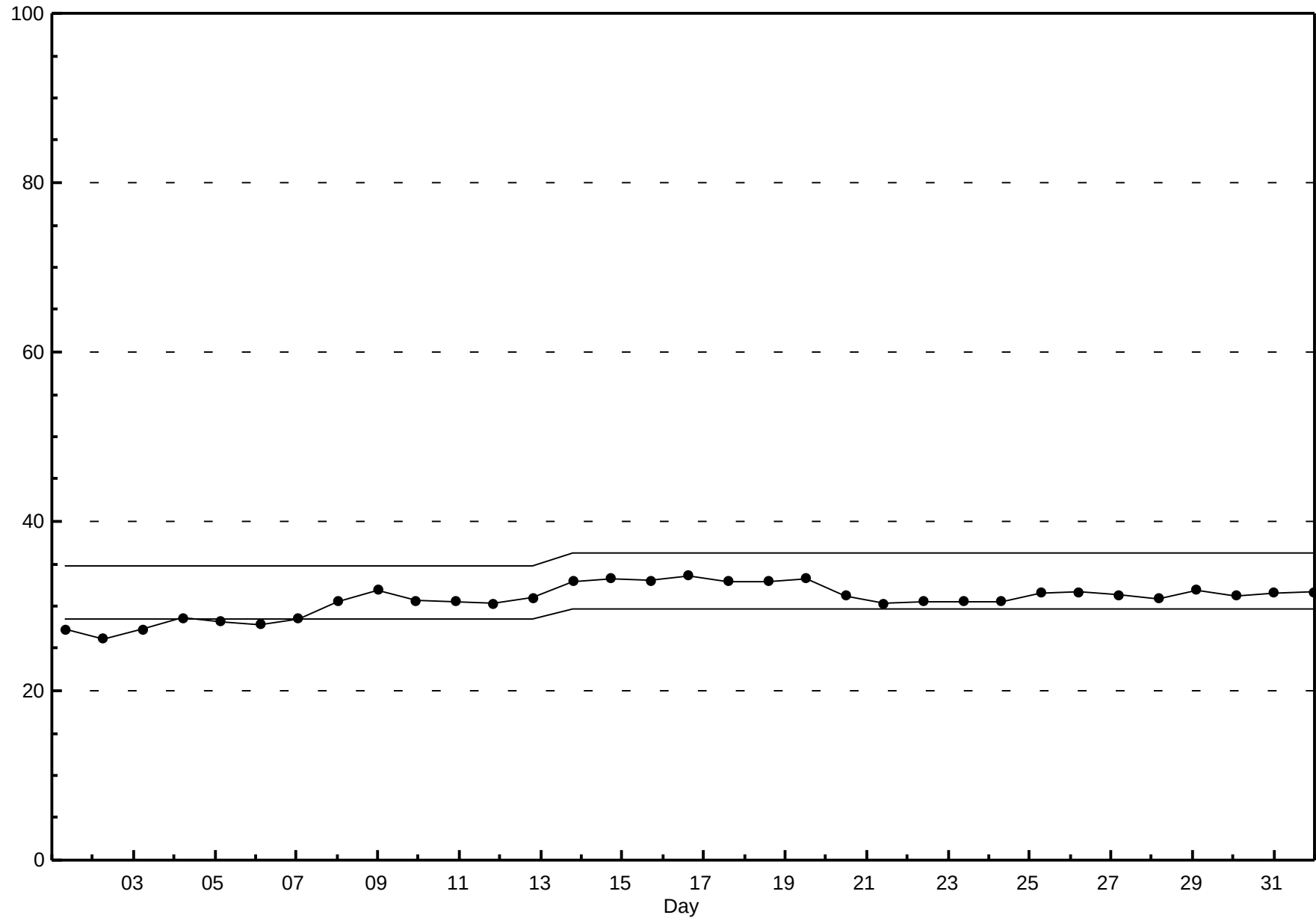
Pollutant Rose

Total Reduced Sulphur (TRS) - ppb
Smoky Heights - March 2014



Span Responses

Total Reduced Sulphur (TRS)
Smoky Heights - March 2014

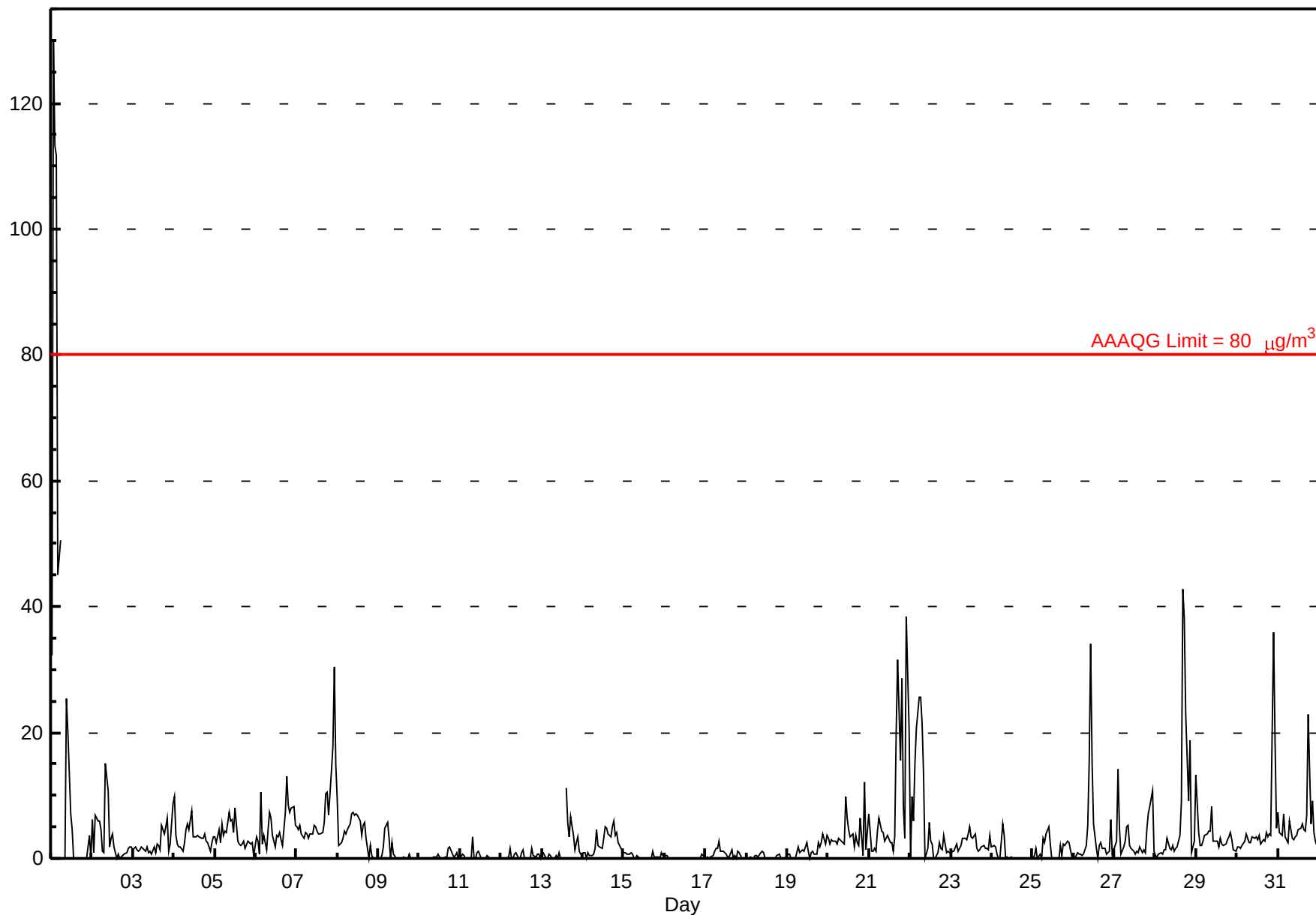


Hourly Averages

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

Smoky Heights - March 2014

Number of Exceedences: 1-hr: 3 24-hr: 0 Maximum Value: 130.1 µg/m³ on Mar 1 02:00 Minimum Value: 0 µg/m³ on Mar 1 09:00 Maximum Diurnal Average: 6.0 µg/m³ at hour 4 Monthly Average: 3.68 µg/m³																							Maximum Daily Average: 24.7 µg/m³ on Mar 1 Minimum Daily Average: 0.1 µg/m³ on Mar 16 Minimum Diurnal Average: 1.8 µg/m³ at hour 14 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.3 Median = 1.7 Q ₃ = 3.7 P ₉₀ = 6.9 P ₉₉ = 34.5																							Hours in Service: 744 Hours of Data: 740 Hours of Missing Data: 4 Hours of Calibration: 0 Percent Operational Time: 99.5	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum																					
1-Mar	32	130	113	112	45	51	N	N	0	26	20	7	5	0	0	0	0	0	0	0	0	4	0	24.7	130.1																						
2-Mar	6	1	7	6	6	5	1	1	15	11	2	3	4	2	0	1	0	0	0	1	1	2	2	2	3.2	15.1																					
3-Mar	1	2	1	1	1	2	2	1	2	1	1	1	2	1	2	2	1	5	4	5	6	1	2	9	2.4	8.8																					
4-Mar	10	4	2	2	2	1	3	5	5	4	8	4	3	4	4	3	3	3	4	3	2	1	3	3	3.6	9.8																					
5-Mar	4	3	4	3	6	4	4	4	7	6	6	4	8	3	2	2	2	3	2	3	2	2	3	0	3.6	8.0																					
6-Mar	3	3	1	11	2	4	1	5	7	6	4	2	4	3	4	3	2	7	13	9	7	8	8	5	5.1	13.0																					
7-Mar	5	5	5	4	3	4	4	3	4	4	5	5	4	4	4	6	10	10	7	14	18	30	15	7.4	30.5																						
8-Mar	9	2	3	3	4	4	5	6	7	7	7	7	7	6	4	5	6	3	0	2	0	0	0	0	4.0	9.5																					
9-Mar	0	0	0	2	5	6	3	0	3	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.8	5.8																					
10-Mar	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	2	1	0	1	1	0	0.3	1.9																					
11-Mar	0	1	0	0	0	0	0	3	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	3.4																					
12-Mar	0	0	0	0	0	2	0	0	1	1	0	0	1	1	0	0	0	0	2	0	0	1	1	0	0.4	1.6																					
13-Mar	1	1	0	0	1	0	0	0	0	0	1	0	M	M	11	6	4	7	4	1	2	3	1	1	2.0	11.3																					
14-Mar	1	1	0	1	0	0	1	2	5	2	2	2	3	5	5	4	4	5	6	4	4	3	2	1	2.5	5.9																					
15-Mar	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0.4	1.1																					
16-Mar	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.1	0.6																					
17-Mar	0	0	0	0	0	1	2	2	3	1	1	1	1	0	0	1	0	0	0	1	1	0	0	0	0.7	2.9																					
18-Mar	0	0	0	0	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0.2	1.2																					
19-Mar	1	1	0	0	0	0	2	1	1	1	1	3	1	0	1	1	1	1	2	2	2	4	2	4	1.3	3.9																					
20-Mar	3	2	3	3	3	2	3	3	3	2	10	6	5	4	4	2	4	3	2	6	0	12	1	4	3.8	12.1																					
21-Mar	7	1	1	2	1	4	6	4	4	3	3	4	3	2	1	3	20	32	16	29	8	3	38	20	9.0	38.4																					
22-Mar	0	10	6	15	21	26	26	21	14	0	2	6	3	2	0	0	1	3	2	1	4	1	1	1	6.8	25.7																					
23-Mar	1	1	1	2	1	2	2	3	3	3	4	5	4	3	4	2	1	1	2	2	2	2	1	4	2.3	5.0																					
24-Mar	2	2	2	1	0	0	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	5.4																					
25-Mar	0	0	2	0	1	0	3	3	4	5	2	0	0	0	0	0	2	0	2	2	3	3	1	0	1.4	5.0																					
26-Mar	0	0	1	1	1	1	1	2	5	15	34	15	6	2	0	2	3	2	2	1	1	1	6	1	4.2	34.1																					
27-Mar	2	3	14	5	1	2	3	5	5	2	2	1	1	1	1	2	1	1	5	7	8	11	1	3.5	14.2																						
28-Mar	1	0	1	1	1	1	1	3	2	1	2	1	2	2	4	9	43	38	23	9	19	1	2	3	7.0	42.8																					
29-Mar	13	4	2	2	3	4	4	4	4	8	3	3	3	2	3	2	2	2	3	3	4	3	1	1	3.5	13.2																					
30-Mar	2	2	2	2	3	4	3	3	3	3	3	3	3	4	2	3	3	4	3	4	4	36	19	5	5.1	36.0																					
31-Mar	7	4	4	7	3	3	2	6	3	3	3	4	5	5	5	5	4	7	23	5	9	4	3	2	5.3	22.8																					
3.6 5.9 5.7 6.0 3.7 4.3 2.9 3.1 3.6 3.9 4.1 2.8 2.5 1.8 2.0 2.0 3.6 4.5 4.1 3.4 3.4 3.8 4.7 2.7 32.2 130.1 113.3 111.7 45.0 50.6 25.7 21.5 15.1 25.5 34.1 15.4 8.0 6.0 11.3 8.9 42.8 38.1 22.8 28.7 18.7 36.0 38.4 20.5 Diurnal Average Diurnal Maximum																																															
M - Maintenance N - Not Valid Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m³																																															

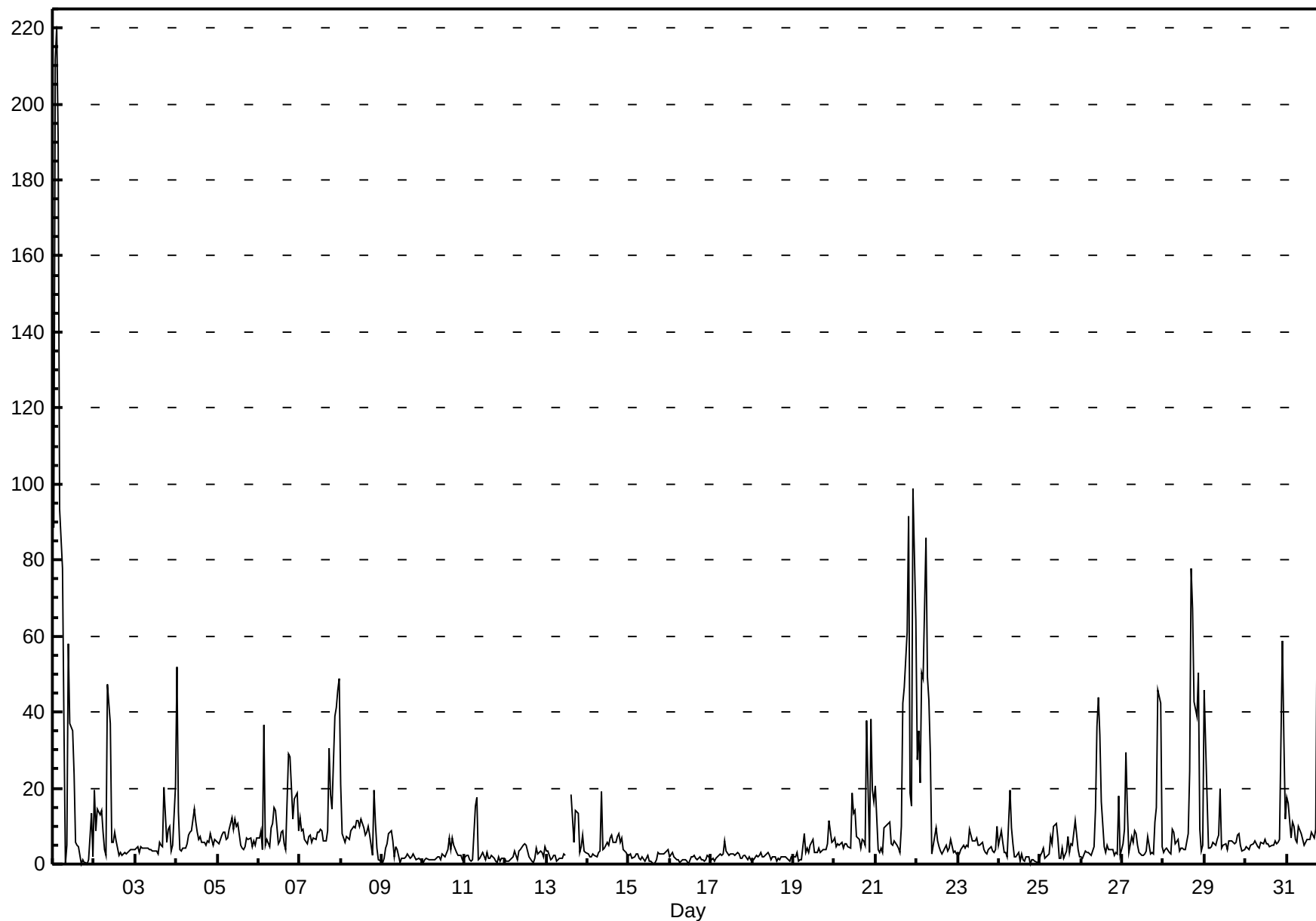


Hourly Maximums

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

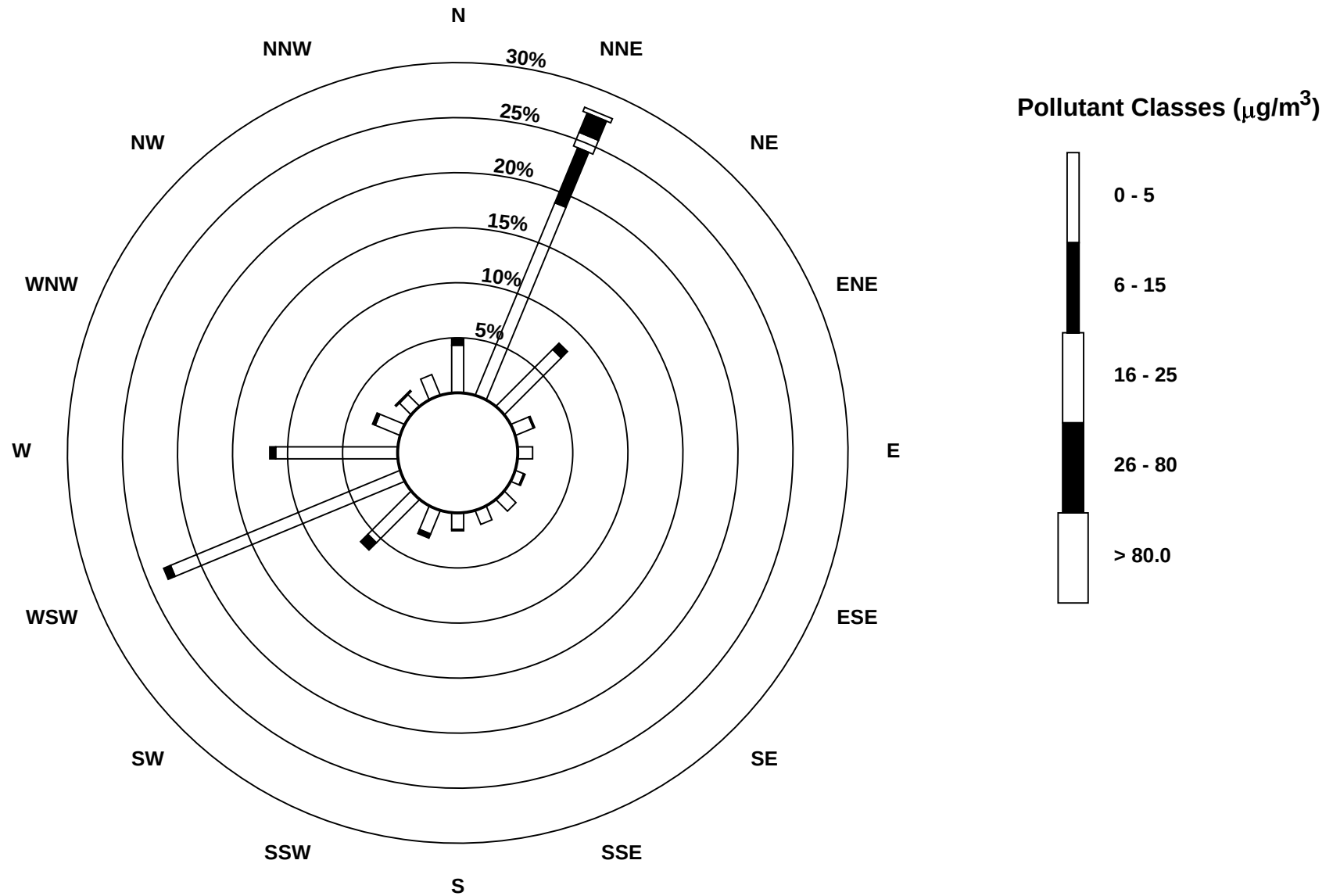
Smoky Heights - March 2014

Maximum Value: 220.6 μg/m ³ on Mar 1 03:00																				Maximum Daily Average: 46.3 μg/m ³ on Mar 1										Hours in Service: 744	
Minimum Value: 0 μg/m ³ on Mar 1 08:00																				Minimum Daily Average: 1.4 μg/m ³ on Mar 16										Hours of Data: 742	
Maximum Diurnal Average: 13.0 μg/m ³ at hour 2																				Minimum Diurnal Average: 4.5 μg/m ³ at hour 14										Hours of Missing Data: 2	
Monthly Average: 8.93 μg/m ³																				Percentiles: P ₁ = 0.3 P ₁₀ = 1.3 Q ₁ = 2.3 Median = 4.2 Q ₃ = 7.6 P ₉₀ = 17.2 P ₉₉ = 85.3										Hours of Calibration: 0	
																														Percent Operational Time: 99.7	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Mar	88	212	221	191	94	78	37	0	5	58	37	35	23	6	5	5	0	1	1	0	0	1	13	2	46.3	220.6					
2-Mar	20	9	14	13	14	8	4	2	47	37	6	6	8	6	2	3	2	3	3	3	3	4	4	4	9.4	47.2					
3-Mar	4	4	3	4	4	4	4	4	4	4	3	3	4	3	6	5	4	20	6	9	10	3	5	21	5.9	20.5					
4-Mar	52	14	4	3	4	4	5	8	9	9	15	11	8	6	7	6	6	5	6	6	8	5	6	6	8.9	51.8					
5-Mar	6	5	8	8	9	7	7	9	12	9	12	10	11	5	4	4	5	7	6	7	5	6	5	7	7.2	12.0					
6-Mar	7	9	4	37	5	7	5	9	11	15	14	5	6	9	9	5	4	29	28	20	12	17	19	9	12.2	36.7					
7-Mar	12	9	9	6	5	7	8	6	7	6	8	8	9	9	6	6	9	30	18	14	39	41	46	49	15.4	48.7					
8-Mar	21	8	6	7	7	6	9	10	10	12	12	10	12	10	8	8	10	8	2	20	11	4	1	1	8.7	20.8					
9-Mar	1	1	4	5	8	9	6	2	5	4	1	2	2	1	2	3	2	2	3	2	1	1	1	1	2.8	8.6					
10-Mar	0	1	1	1	1	1	1	1	2	2	1	3	2	2	4	7	4	7	5	3	2	2	2	1	2.4	6.9					
11-Mar	2	2	2	1	1	1	15	17	1	1	2	3	1	3	1	1	2	1	1	0	2	1	2	2	2.8	17.4					
12-Mar	1	1	1	1	2	3	2	1	3	4	5	5	5	3	2	1	0	1	4	3	3	3	2	5	2.6	5.5					
13-Mar	3	3	1	1	2	2	1	2	2	2	3	2	M	M	18	12	6	14	14	3	4	8	3	3	5.0	18.3					
14-Mar	3	2	2	3	2	2	3	3	19	4	4	6	5	7	8	6	6	7	8	6	7	4	3	2	5.0	19.2					
15-Mar	2	3	2	2	3	3	2	1	2	1	1	2	1	1	0	1	1	3	3	3	3	3	4	4	2.0	3.7					
16-Mar	2	3	2	2	1	1	0	1	1	1	1	0	2	2	2	1	1	2	1	1	1	1	2	2	1.4	3.2					
17-Mar	1	2	1	2	2	3	2	3	6	4	2	3	3	3	2	3	2	2	1	2	2	1	2	1	2.3	6.1					
18-Mar	1	1	2	2	2	3	2	2	3	3	2	1	2	2	1	2	1	2	2	2	1	1	1	2	1.8	3.2					
19-Mar	2	2	3	1	1	1	8	3	4	3	5	6	3	3	3	4	3	4	4	4	5	11	6	6	3.9	11.3					
20-Mar	7	5	5	5	6	4	5	5	5	4	19	13	14	7	6	4	7	6	5	38	3	38	19	16	10.3	38.1					
21-Mar	21	4	3	4	3	10	10	11	11	6	5	6	5	4	3	10	43	47	61	92	19	15	99	64	23.1	98.9					
22-Mar	28	35	22	50	49	86	49	43	29	3	7	10	6	5	3	3	4	5	3	4	6	3	3	3	19.2	85.8					
23-Mar	3	3	4	5	4	5	4	9	6	6	6	7	5	5	6	4	3	3	4	4	3	3	4	10	4.8	9.8					
24-Mar	5	9	6	3	3	2	19	10	5	2	2	3	1	3	1	1	2	2	0	1	1	1	1	1	3.4	19.3					
25-Mar	2	3	4	2	2	3	7	5	10	11	7	1	2	4	2	4	7	3	5	5	11	8	4	2	4.7	11.3					
26-Mar	2	2	3	3	3	3	2	4	15	36	44	34	16	5	3	5	4	4	4	2	3	3	18	2	9.2	43.8					
27-Mar	5	9	29	14	3	7	6	9	8	5	3	2	2	3	3	7	3	3	3	11	15	46	43	5	10.2	45.9					
28-Mar	3	4	4	3	3	9	9	5	7	4	4	4	4	4	8	25	78	67	43	39	50	9	3	5	16.4	77.8					
29-Mar	46	18	4	4	5	6	5	6	8	20	4	5	5	4	6	6	6	6	6	8	8	5	3	4	8.2	45.9					
30-Mar	5	4	4	5	5	6	5	5	4	6	5	6	5	6	5	5	5	6	5	6	6	59	33	12	8.9	58.7					
31-Mar	17	16	7	11	10	6	6	10	8	6	5	6	7	7	9	8	7	9	66	10	34	14	5	5	12.1	66.2					
																									Diurnal Average						
																									Diurnal Maximum						
M - Maintenance																															



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Smoky Heights - March 2014



Hourly Averages

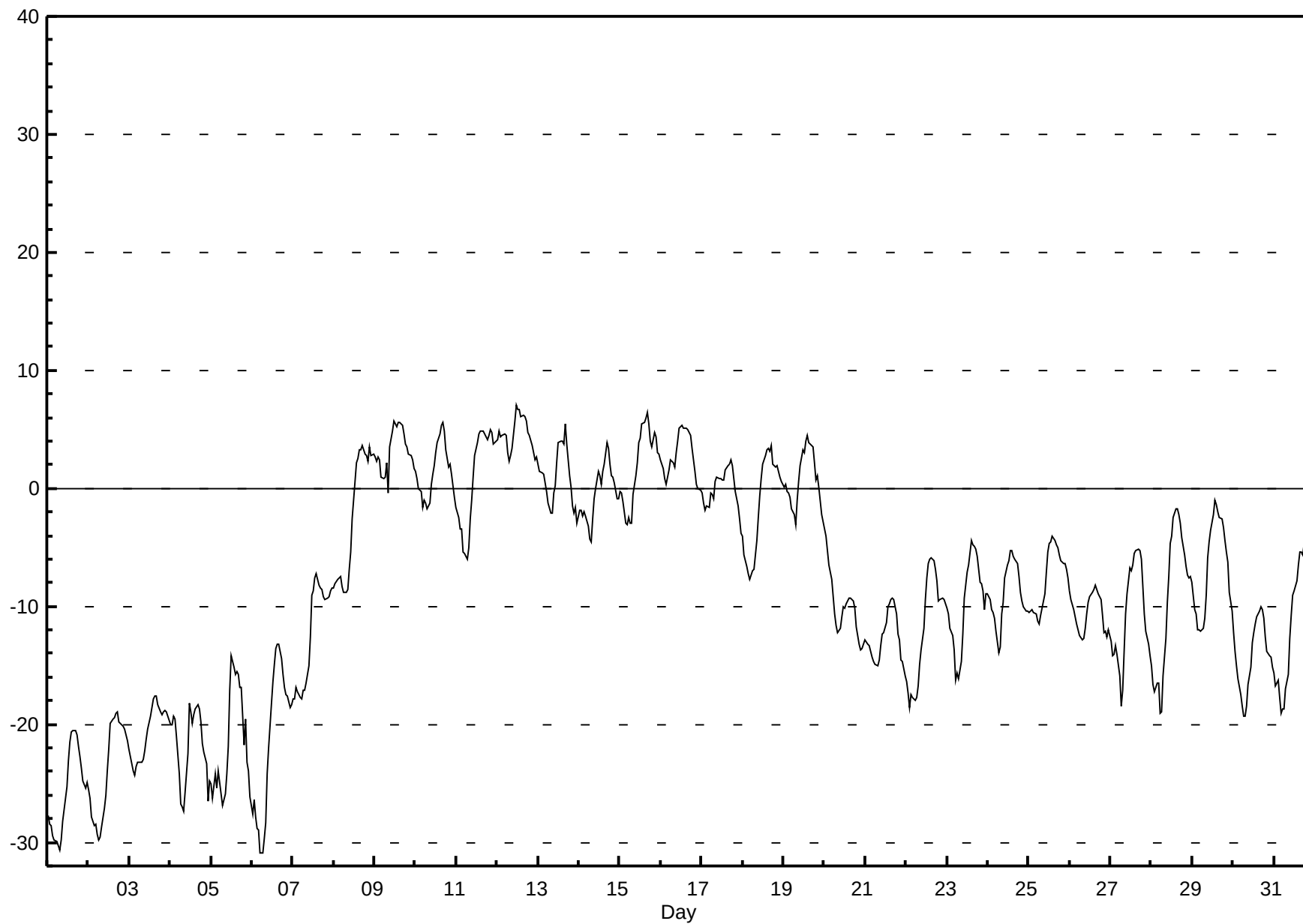
External Temperature (ET) - °C

Smoky Heights - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 7.1 °C on Mar 12 12:00 Maximum Daily Average: 4.6 °C on Mar 12																				Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0						
Minimum Value: -31 °C on Mar 6 06:00 Maximum Diurnal Average: -4.3 °C at hour 17 Monthly Average: -8.38 °C										Minimum Daily Average: -25.7 °C on Mar 1 Minimum Diurnal Average: -12.8 °C at hour 7 Percentiles: P ₁ = -29.8 P ₁₀ = -22.0 Q ₁ = -15.2 Median = -8.1 Q ₃ = 0.3 P ₉₀ = 3.6 P ₉₉ = 6.1																
Day	Hourly Period Ending At (MST)																				Daily Average	Daily Maximum				
1-Mar	-28	-29	-29	-29	-30	-30	-30	-31	-30	-28	-27	-25	-23	-21	-21	-21	-21	-22	-23	-24	-25	-25	-25.7	-20.5		
2-Mar	-26	-26	-28	-29	-28	-29	-30	-30	-29	-27	-26	-24	-22	-20	-20	-19	-19	-20	-20	-20	-21	-21	-23.9	-18.9		
3-Mar	-22	-23	-24	-24	-24	-23	-23	-23	-23	-22	-21	-20	-19	-19	-18	-18	-18	-19	-19	-19	-19	-20	-20.7	-17.6		
4-Mar	-20	-20	-19	-20	-21	-24	-27	-27	-27	-26	-22	-18	-19	-20	-19	-19	-18	-19	-20	-22	-22	-23	-27	-21.8	-18.2	
5-Mar	-25	-26	-24	-25	-24	-25	-26	-27	-26	-24	-22	-17	-14	-15	-16	-16	-16	-17	-17	-22	-20	-23	-24	-21.5	-14.2	
6-Mar	-28	-26	-28	-29	-29	-31	-31	-30	-28	-24	-22	-18	-16	-15	-14	-13	-13	-14	-16	-17	-17	-18	-19	-21.4	-13.2	
7-Mar	-18	-18	-17	-17	-18	-18	-17	-17	-17	-15	-13	-9	-9	-8	-7	-8	-8	-9	-9	-9	-9	-8	-12.3	-7.3		
8-Mar	-8	-8	-8	-8	-7	-8	-9	-9	-9	-7	-5	-3	-1	2	3	3	4	3	3	2	3	3	3	-2.4	3.6	
9-Mar	3	2	3	2	1	1	1	2	0	3	5	6	5	5	6	6	5	5	4	3	3	2	2	3.2	5.7	
10-Mar	1	1	0	0	-2	-1	-1	-2	-1	0	1	2	3	4	5	5	6	5	3	2	2	1	0	1.4	5.6	
11-Mar	-2	-2	-4	-3	-5	-6	-6	-5	-3	-1	1	3	4	5	5	5	5	4	4	5	5	5	4	0.9	4.9	
12-Mar	4	5	4	5	5	4	3	2	3	3	6	7	7	7	6	6	6	6	5	4	4	3	2	4.6	7.1	
13-Mar	2	1	1	1	0	0	-1	-2	-2	0	0	2	4	4	4	4	6	4	1	0	-1	-2	-2	0.9	5.5	
14-Mar	-2	-2	-2	-2	-2	-3	-4	-5	-3	-1	0	1	1	0	1	2	4	3	2	1	1	0	-1	-0.4	3.9	
15-Mar	0	0	-1	-3	-3	-2	-3	-3	-1	1	2	4	4	5	6	6	6	5	4	4	5	4	3	1.9	6.4	
16-Mar	2	2	1	0	1	2	2	2	2	3	4	5	5	5	5	5	5	4	3	2	1	0	0	2.6	5.3	
17-Mar	0	-1	-2	-1	-2	0	-1	-1	1	1	1	1	1	1	1	2	2	2	2	1	0	-1	-3	-0.1	2.4	
18-Mar	-4	-6	-7	-7	-8	-7	-7	-7	-4	-3	-1	1	2	3	3	3	3	4	2	2	2	1	1	-1.3	3.6	
19-Mar	0	0	0	0	-1	-2	-2	-3	-1	1	2	3	3	4	4	4	4	3	2	1	1	0	-2	0.8	4.5	
20-Mar	-3	-4	-5	-7	-8	-9	-11	-12	-12	-12	-11	-10	-10	-10	-9	-9	-9	-10	-10	-12	-13	-14	-14	-9.9	-3.5	
21-Mar	-13	-13	-13	-14	-14	-15	-15	-15	-15	-13	-12	-12	-11	-10	-10	-9	-9	-9	-11	-12	-13	-15	-15	-16	-12.7	-9.3
22-Mar	-16	-17	-19	-18	-18	-18	-18	-17	-15	-14	-12	-9	-8	-6	-6	-6	-6	-7	-8	-9	-9	-9	-10	-11.8	-5.9	
23-Mar	-10	-11	-12	-13	-14	-16	-16	-16	-15	-12	-9	-8	-7	-6	-4	-5	-5	-5	-6	-8	-8	-9	-10	-9	-9.8	-4.4
24-Mar	-9	-9	-10	-11	-11	-12	-14	-13	-11	-10	-8	-6	-6	-5	-5	-6	-6	-6	-7	-9	-10	-10	-10	-9.0	-5.3	
25-Mar	-11	-10	-10	-11	-11	-11	-11	-11	-10	-9	-7	-5	-5	-5	-4	-4	-5	-5	-6	-6	-6	-6	-7	-8	-7.7	-4.1
26-Mar	-9	-9	-10	-11	-12	-12	-12	-13	-13	-12	-11	-10	-9	-9	-8	-9	-9	-9	-11	-12	-12	-13	-12	-10.6	-8.2	
27-Mar	-13	-14	-14	-13	-14	-16	-18	-17	-14	-11	-9	-7	-7	-7	-5	-5	-5	-5	-6	-8	-11	-12	-13	-14	-10.8	-5.1
28-Mar	-15	-17	-17	-16	-17	-19	-19	-16	-13	-10	-7	-5	-4	-2	-2	-2	-2	-3	-4	-6	-7	-7	-8	-7	-9.3	-1.7
29-Mar	-8	-10	-11	-12	-12	-12	-12	-11	-9	-6	-4	-4	-2	-1	-1	-2	-2	-3	-3	-4	-5	-6	-9	-10	-6.7	-1.0
30-Mar	-12	-14	-15	-16	-17	-18	-19	-19	-18	-17	-15	-13	-12	-12	-11	-10	-10	-10	-11	-13	-14	-14	-14	-15	-14.2	-10.0
31-Mar	-16	-17	-16	-18	-19	-19	-19	-17	-16	-13	-11	-9	-9	-8	-7	-5	-5	-6	-5	-6	-10	-12	-11	-13	-11.9	-4.7
																							Diurnal Average			
																							Diurnal Maximum			

Hourly Averages

External Temperature (ET) - °C
Smoky Heights - March 2014



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - March 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	8	11	12	10	9	10	10	9	8	10	9	10	12	17	20	19	21	20	19	16	14	12	9	8	12.2	20.8
Dir	25	31	29	25	29	30	22	19	19	28	29	31	33	37	39	44	54	53	51	49	47	55	56	80	40.0	54.0
2 Spd	5	7	7	7	8	11	10	13	12	12	13	12	13	15	22	25	23	18	13	15	13	15	17	15	11.7	25.4
Dir	58	63	29	32	27	28	22	21	23	29	33	28	28	35	54	55	54	52	59	72	80	110	123	115	53.2	55.0
3 Spd	17	13	9	5	10	10	7	9	9	10	9	14	11	10	5	5	4	8	7	6	7	7	7	5	6.8	17.3
Dir	114	108	100	57	71	86	60	47	42	52	56	87	88	105	155	159	82	50	27	23	14	6	15	22	71.0	113.6
4 Spd	1	2	1	5	3	3	3	4	4	6	3	1	5	11	9	8	9	6	5	2	1	3	3	9	3.1	10.8
Dir	16	55	88	143	165	161	188	228	218	217	205	239	265	269	270	250	261	264	255	304	329	333	214	267	245.9	269.1
5 Spd	12	6	8	5	6	6	5	4	4	4	4	0	0	3	6	6	7	7	6	6	8	0	1	3	3.4	11.6
Dir	274	253	268	236	233	219	187	218	241	214	257	126	107	268	267	262	273	310	355	357	351	225	320	11	270.1	273.6
6 Spd	4	4	2	4	2	3	2	1	0	2	6	9	11	12	13	13	14	12	10	12	13	10	10	11	6.7	13.6
Dir	223	288	328	36	25	268	343	48	179	38	29	32	27	31	29	30	42	36	13	19	23	20	27	19	24.0	42.4
7 Spd	11	10	6	1	1	1	1	3	3	4	2	1	1	1	0	0	3	1	6	5	7	9	10	6	2.6	10.9
Dir	21	26	31	70	127	87	138	185	154	183	143	74	267	298	277	212	286	21	32	35	30	28	28	15	32.3	21.4
8 Spd	5	1	6	8	9	12	8	13	15	15	15	10	3	3	3	2	4	5	2	4	1	3	7	8	5.3	15.2
Dir	26	305	212	219	230	227	228	236	238	234	239	230	208	247	262	280	268	294	263	17	7	144	175	193	232.0	239.3
9 Spd	6	7	8	12	10	9	15	18	17	21	31	34	29	30	31	29	28	27	25	25	22	24	26	23	20.9	34.2
Dir	249	252	240	224	252	225	214	242	255	245	239	241	242	244	248	244	246	243	244	247	244	257	254	248	244.0	241.0
10 Spd	21	22	24	23	17	18	21	21	22	26	28	27	26	23	20	16	17	15	12	12	16	16	14	15	19.3	28.4
Dir	254	253	243	247	265	257	258	253	260	256	253	248	243	247	260	271	291	278	251	257	244	240	245	245	254.3	253.0
11 Spd	16	16	17	14	10	9	11	5	14	14	26	26	31	35	38	30	23	19	26	36	44	42	31	27	23.1	43.7
Dir	254	259	266	239	247	248	256	267	243	231	249	249	256	259	259	244	248	238	245	246	251	254	243	242	249.9	251.3
12 Spd	27	25	14	17	19	15	5	8	15	12	8	13	11	22	27	31	36	39	31	36	40	35	30	30	21.8	40.3
Dir	244	250	219	220	226	236	237	234	198	199	178	191	257	246	238	239	243	242	242	244	245	251	255	262	239.4	245.2
13 Spd	25	16	16	21	21	24	25	26	24	28	22	16	21	16	11	8	0	4	2	0	1	2	3	1	12.8	28.5
Dir	258	274	258	264	265	265	262	266	262	258	262	275	315	320	297	230	150	25	176	288	287	261	268	243	269.6	258.1
14 Spd	3	4	4	5	5	1	2	1	2	5	3	3	12	15	7	5	1	3	8	14	18	18	18	19	6.0	19.5
Dir	221	235	245	266	238	222	25	13	37	25	28	181	223	254	222	230	262	249	267	246	247	254	270	260	251.8	259.9
15 Spd	20	21	17	12	15	17	14	16	3	5	10	8	8	7	8	9	9	7	2	11	20	20	11	15	9.3	20.8
Dir	258	263	265	251	241	221	211	218	210	216	192	160	137	141	141	156	156	142	207	199	214	243	244	248	220.5	263.1
16 Spd	16	16	17	17	18	19	32	30	26	23	26	27	34	25	18	19	18	15	14	14	13	15	18	20	19.6	33.9
Dir	232	205	202	202	239	243	248	250	240	237	239	240	256	259	242	241	246	242	238	243	251	264	265	264	242.6	255.5
17 Spd	21	21	21	20	17	18	16	9	13	9	13	20	17	13	13	19	24	18	32	24	23	19	17	13	17.6	31.7
Dir	261	264	260	249	249	253	256	263	286	268	258	257	244	239	253	273	278	276	258	249	246	247	247	251	257.5	257.7
18 Spd	13	9	12	10	12	10	13	16	19	16	18	20	19	13	19	15	15	14	19	14	13	12	8	4	13.7	20.0
Dir	246	246	262	247	257	255	253	261	263	261	245	243	245	255	252	255	228	230	238	256	246	242	231	235	248.6	242.9
19 Spd	5	6	8	5	6	9	0	7	7	8	5	9	12	12	14	14	15	18	16	16	12	15	17	17	6.7	18.3
Dir	246	258	214	240	251	215	241	223	255	267	248	243	255	258	242	239	236	254	266	278	327	12	33	23	265.7	253.9
20 Spd	22	23	22	23	24	24	27	23	23	23	19	13	12	11	12	11	11	10	7	2	3	3	5	6	14.7	26.5
Dir	30	30	16	22	20	21	31	36	35	30	33	21	11	13	28	15	19	23	21	10	3	16	355	7	24.4	31.4
21 Spd	7	8	11	9	9	9	9	9	11	12	11	12	11	7	9	9	9	9	10	9	6	5	5	4	8.8	12.0
Dir	23	28	35	24	19	24	17	19	26	27	24	27	31	29	13	22	24	24	34	27	19	14	19	16	24.3	27.0
22 Spd	4	4	3	4	5	8	9	12	11	13	11	11	11	11	12	12	11	11	12	9	10	8	7	6	8.6	12.8
Dir	15	16	11	19	29	30	29	26	26	35	35	27	21	26	357	357	12	17	12	18	13	359	342	333	16.5	35.1

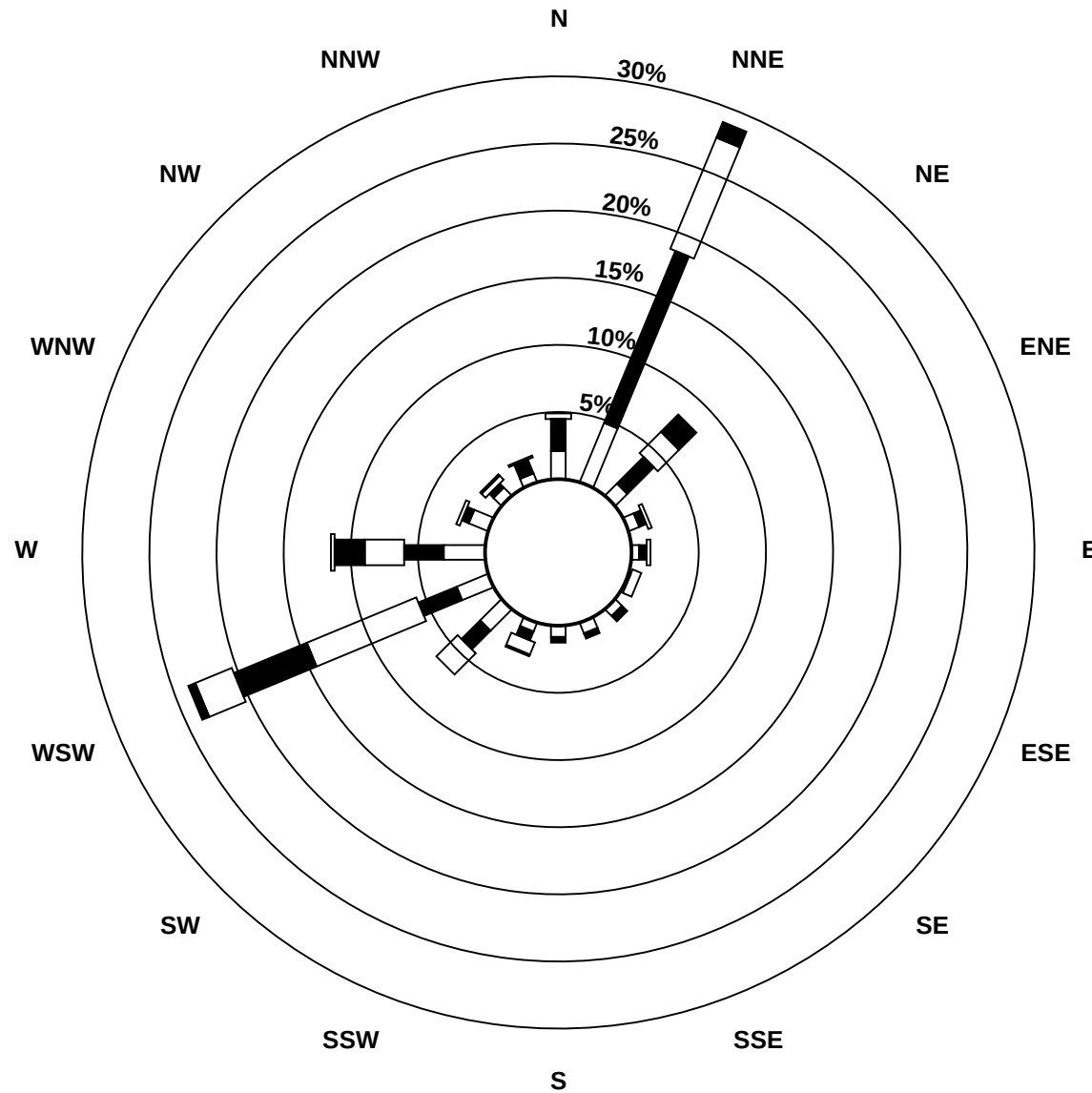
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Smoky Heights - March 2014

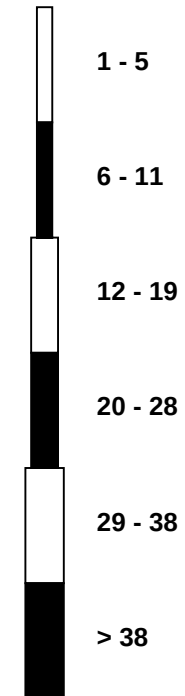
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
23 Spd	3	2	1	0	8	5	11	11	10	10	9	12	13	14	3	12	15	11	9	8	10	7	4	8	6.2	15.1	
Dir	320	360	263	291	286	279	273	249	241	259	245	242	239	241	60	316	320	335	337	319	321	328	298	358	288.3	320.4	
24 Spd	13	7	9	8	9	6	3	4	3	4	0	2	2	1	2	2	4	6	11	11	11	12	11	12	5.8	12.7	
Dir	31	34	23	35	42	41	46	31	67	138	222	255	258	279	79	356	25	28	42	45	44	47	36	34	37.9	31.5	
25 Spd	8	12	12	13	12	13	9	9	16	15	14	13	11	10	11	10	9	11	8	4	6	11	16	23	11.5	22.6	
Dir	28	28	25	31	32	26	20	19	25	23	23	30	22	12	21	27	25	25	21	8	8	13	29	34	24.6	34.1	
26 Spd	21	20	18	19	16	17	16	15	16	17	18	17	16	13	12	13	10	9	4	4	6	6	6	9	12.8	20.9	
Dir	35	32	27	27	26	29	31	23	24	25	28	29	21	26	31	25	23	25	2	333	329	341	0	342	23.0	34.8	
27 Spd	6	6	7	9	9	5	2	2	1	7	6	2	3	3	2	2	5	5	5	5	4	3	1	2	3.5	9.4	
Dir	6	26	19	17	10	13	30	38	37	39	34	291	240	258	297	309	31	25	22	23	30	32	50	277	14.2	17.3	
28 Spd	5	4	7	8	3	0	2	3	7	6	5	2	5	3	2	5	10	12	12	9	7	5	7	8	4.3	11.8	
Dir	280	293	266	271	297	31	26	25	31	28	30	301	357	354	347	10	24	24	23	19	15	3	2	6	1.6	22.9	
29 Spd	8	0	2	4	4	1	3	5	2	3	1	3	4	1	11	12	10	9	6	4	11	19	23	25	4.8	25.1	
Dir	15	350	251	274	265	231	217	265	268	34	83	236	262	252	33	17	10	3	37	69	58	46	38	37	24.3	37.2	
30 Spd	22	19	17	16	13	15	15	14	14	11	11	12	14	12	12	13	13	12	11	10	8	9	9	7	12.7	21.9	
Dir	39	37	33	35	30	23	22	27	31	36	32	30	33	26	23	23	25	18	11	11	11	20	19	17	27.0	38.7	
31 Spd	6	5	5	4	0	0	0	1	5	8	3	4	6	7	7	7	10	7	2	1	5	8	5	2	2.6	10.0	
Dir	21	24	18	23	21	179	169	200	200	188	155	262	258	267	285	269	267	269	325	3	281	292	315	312	282.7	267.2	
Spd	3.7	3.3	3.3	2.9	3.6	2.9	3.4	4.0	3.6	3.2	3.6	4.1	5.2	5.5	4.6	4.4	4.4	4.1	4.1	4.2	4.9	4.8	3.7	4.1	Diurnal Average		
Dir	304.3	309.5	297.5	290.4	294.1	287.6	287.8	285.9	291.1	287.5	277.1	267.5	280.6	281.6	289.2	289.5	301.6	310.1	299.8	286.4	284.3	291.6	299.7	304.9	Diurnal Maximum		
Spd	27.0	25.3	23.6	23.4	23.8	23.8	32.5	29.6	25.6	28.5	31.3	34.2	33.9	35.2	38.0	30.9	35.8	39.0	31.7	36.5	43.7	42.4	30.8	30.1	Diurnal Maximum		
Dir	244.0	250.0	242.9	22.1	19.9	21.4	248.4	250.3	240.4	258.1	239.0	241.0	255.5	258.6	259.4	239.3	243.1	242.2	257.7	243.6	251.3	254.2	242.8	261.8			
Maximum Speed Value: 44 km/h on Mar 11 21:00																									Hours in Service: 744		
Maximum Daily Speed Average: 23.1 km/h on Mar 11																									Hours of Data: 744		
Maximum Diurnal Speed Average: 5.5 km/h at hour 14																									Hours of Missing Data: 0		
Minimum Speed Value: 0 km/h on Mar 29 02:00																											
Minimum Daily Speed Average: 2.6 km/h on Mar 7																											
Minimum Diurnal Speed Average: 2.9 km/h at hour 4																											
Monthly Average Velocity: 3.92 km/h 291.24 deg																									Percent Operational Time: 100.0		
Speed Percentiles: P ₁ = 0.3 P ₁₀ = 2.4 Q ₁ = 5.3 Median = 10.0 Q ₃ = 15.7 P ₉₀ = 22.6 P ₉₉ = 35.7																											
All monthly, daily, and diurnal averages have been calculated using vector methods																											
Frequency Distribution																											
Speed Range (km/h)																											
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																				
North	29	63	17	4	0	0	113																				
NorthEast	30	74	80	21	0	0	205																				
East	9	6	5	0	0	0	20																				
SouthEast	9	8	3	0	0	0	20																				
South	12	8	6	0	0	0	26																				
SouthWest	31	26	51	28	12	2	150																				
West	37	38	50	37	12	3	177																				
NorthWest	18	9	5	1	0	0	33																				
Total	175	232	217	91	24	5	744																				

Wind Rose

Wind Speed (WS) (km/h)
Smoky Heights - March 2014



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Smoky Heights - March 2014

Maximum Speed: 44 km/h on Mar 11 21:00																					Maximum Daily Speed Average: 23.9 km/h on Mar 11										Hours in Service: 744	
Minimum Speed: 0 km/h on Mar 13 20:00																					Minimum Daily Speed Average: 4.1 km/h on Mar 7										Hours of Data: 744	
Maximum Diurnal Speed Average: 12.8 km/h at hour 15																					Minimum Diurnal Speed Average: 10.2 km/h at hour 6										Hours of Missing Data: 0	
Monthly Average Speed: 11.56 km/h																					Percentiles: P ₁ = 0.4 P ₁₀ = 2.9 Q ₁ = 5.5 Median = 10.1 Q ₃ = 15.9 P ₉₀ = 22.6 P ₉₉ = 35.8										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24								
1-Mar	8	11	12	10	9	10	10	9	8	10	9	10	13	17	20	19	21	20	19	16	14	12	9	8	12.6	20.8						
2-Mar	5	7	7	7	9	11	10	13	12	12	13	12	13	15	23	25	24	18	13	15	13	16	17	15	13.6	25.5						
3-Mar	17	13	9	5	10	10	7	9	9	10	9	14	11	10	6	5	5	9	7	6	7	7	7	5	8.7	17.5						
4-Mar	1	3	2	5	3	3	4	4	4	6	3	1	5	11	9	8	9	6	5	3	1	3	3	9	4.6	10.9						
5-Mar	12	6	8	5	6	6	6	4	4	4	4	0	0	3	7	6	7	8	6	6	8	1	2	4	5.2	11.6						
6-Mar	5	5	2	4	3	5	3	4	0	3	6	9	11	12	13	13	14	12	10	12	13	10	10	11	8.0	13.8						
7-Mar	11	10	7	1	1	2	1	3	3	4	3	1	1	1	0	1	3	1	6	6	7	9	10	6	4.1	11.0						
8-Mar	5	1	6	8	9	12	9	14	15	15	16	10	4	3	4	3	4	5	3	5	3	4	7	9	7.2	15.5						
9-Mar	6	8	9	12	11	9	15	19	17	21	31	34	29	30	31	29	28	27	25	25	22	24	26	23	21.2	34.3						
10-Mar	21	22	24	23	17	19	21	22	22	26	28	27	26	23	20	16	17	15	13	12	16	16	14	15	19.8	28.5						
11-Mar	16	16	18	14	11	10	13	12	14	14	26	26	32	35	38	30	23	19	26	36	44	42	31	27	23.9	43.8						
12-Mar	27	25	14	17	19	15	5	10	15	12	9	14	12	23	27	31	36	39	31	37	40	35	30	30	23.0	40.3						
13-Mar	25	17	16	21	21	24	25	26	24	29	22	18	21	17	12	8	1	4	2	0	2	3	3	1	14.2	28.5						
14-Mar	3	4	4	5	6	1	2	1	2	5	3	4	13	15	7	5	1	4	8	14	18	18	18	20	7.5	19.5						
15-Mar	20	21	17	12	15	17	14	16	4	6	10	9	8	7	8	9	9	7	2	12	20	21	12	15	12.2	20.8						
16-Mar	16	16	17	17	18	20	33	30	26	23	26	27	34	25	18	19	18	15	14	14	13	15	18	20	20.5	34.4						
17-Mar	21	21	21	20	17	18	16	9	13	9	13	20	17	13	14	19	25	19	32	24	23	19	17	13	18.1	31.7						
18-Mar	13	9	12	10	12	10	13	16	19	16	18	20	19	13	20	16	15	14	19	14	13	13	8	5	14.0	20.0						
19-Mar	5	6	9	5	6	9	3	7	7	8	6	9	12	12	15	15	15	18	16	17	13	17	17	17	11.0	18.5						
20-Mar	22	23	22	24	24	24	27	23	23	23	19	14	13	11	12	11	11	10	7	2	3	4	5	6	15.1	26.8						
21-Mar	7	8	11	9	9	9	9	9	11	12	11	12	11	8	10	9	9	10	10	9	6	5	5	4	8.9	12.1						
22-Mar	4	4	4	4	5	8	9	12	11	13	11	11	11	11	12	12	11	11	12	9	10	8	7	6	9.0	12.8						
23-Mar	4	2	1	1	8	5	11	11	10	10	9	12	13	14	7	13	16	12	9	8	10	7	5	10	8.7	15.8						
24-Mar	13	7	9	8	9	6	4	4	4	4	2	2	2	2	3	3	5	6	11	11	11	12	11	12	6.7	12.8						
25-Mar	9	12	12	13	12	13	9	9	16	15	14	14	11	11	12	10	9	11	8	4	6	11	17	23	11.6	22.6						
26-Mar	21	20	18	19	16	17	16	15	16	17	18	18	16	14	13	13	10	9	4	5	6	6	6	9	13.3	20.9						
27-Mar	7	6	7	9	9	5	2	2	1	7	6	3	4	4	4	3	5	6	5	5	4	3	1	2	4.6	9.4						
28-Mar	5	4	7	8	4	0	2	3	7	6	5	3	6	4	4	6	11	12	12	9	7	6	7	8	6.0	11.9						
29-Mar	8	2	2	4	4	1	4	5	3	3	5	3	4	4	11	12	10	9	6	4	11	19	23	25	7.6	25.2						
30-Mar	22	19	17	16	13	15	15	14	14	11	11	12	14	13	12	13	13	12	12	10	8	9	9	7	12.9	22.0						
31-Mar	6	5	5	4	0	0	0	1	5	8	4	4	6	7	7	7	10	7	3	1	5	8	5	2	4.6	10.0						
11.7 10.7 10.6 10.5 10.3 10.2 10.2 10.9 10.9 11.7 11.9 11.9 12.5 12.5 12.8 12.6 12.7 12.1 11.5 11.2 12.2 12.4 11.5 11.9																									Diurnal Average							
27.0 25.4 23.7 23.6 24.0 24.0 32.6 29.6 25.7 28.5 31.3 34.3 34.4 35.3 38.1 31.0 36.0 39.0 31.7 36.5 43.8 42.5 31.0 30.2																									Diurnal Maximum							
All monthly, daily, and diurnal averages have been calculated using scalar methods																																

Hourly Standard Deviations

Wind Direction (WD) - deg
Smoky Heights - March 2014

Maximum Value: 91.9 deg on Mar 7 12:00																		Hours in Service: 744							
Minimum Value: 2.3 deg on Mar 13 08:00																		Hours of Data: 744							
Percentiles: P ₁ = 2.8 P ₁₀ = 4.0 Q ₁ = 5.2 Median = 8.1 Q ₃ = 15.3 P ₉₀ = 39.7 P ₉₉ = 76.4																		Hours of Missing Data: 0							
																		Hours of Calibration: 0							
																		Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Maximum
1-Mar	5	7	4	4	5	4	6	6	5	5	4	5	6	6	5	7	4	4	3	4	4	7	12	13	13.0
2-Mar	16	13	9	9	5	4	6	5	5	6	4	5	5	13	5	5	5	4	8	6	8	15	7	10	15.6
3-Mar	7	4	8	13	13	9	11	8	8	7	7	14	9	20	31	33	64	30	5	5	7	7	7	14	64.2
4-Mar	47	23	45	8	13	16	11	8	9	14	24	67	12	4	5	12	10	9	8	51	19	59	32	5	67.5
5-Mar	4	10	4	9	20	14	15	13	11	30	14	66	62	50	8	6	7	24	9	8	23	61	83	60	83.2
6-Mar	34	28	77	38	53	65	47	70	54	62	19	6	5	6	9	7	8	13	5	5	5	6	13	5	76.6
7-Mar	5	10	14	43	34	65	42	30	24	12	36	92	66	57	49	76	27	57	8	8	5	10	6	15	91.9
8-Mar	24	66	11	15	19	10	23	18	11	10	13	8	48	34	18	77	11	12	53	43	71	46	6	20	76.7
9-Mar	16	12	14	9	15	16	9	16	10	4	3	3	3	3	4	3	3	3	4	3	3	5	4	3	16.2
10-Mar	5	5	5	5	5	6	4	5	4	5	3	4	3	6	6	11	10	9	8	9	6	5	5	5	10.6
11-Mar	4	8	16	9	15	19	33	73	6	13	6	5	5	5	4	6	5	7	3	3	4	3	5	5	73.2
12-Mar	3	6	10	13	5	11	29	39	11	6	11	11	15	6	6	4	4	3	4	3	3	3	4	6	38.7
13-Mar	4	14	5	4	3	3	3	2	3	3	4	25	10	10	21	12	59	18	49	56	64	63	27	23	63.9
14-Mar	13	19	15	21	17	70	22	41	39	9	52	32	25	8	10	16	33	32	11	5	3	7	4	5	70.4
15-Mar	4	4	5	6	8	4	5	6	34	32	10	18	8	12	9	10	27	9	42	15	9	12	15	7	42.3
16-Mar	7	6	4	11	6	5	4	4	6	4	4	3	10	8	4	3	6	7	6	3	6	7	3	3	11.2
17-Mar	3	3	3	3	4	4	4	5	11	20	5	5	4	4	20	7	10	17	4	6	3	3	3	8	19.8
18-Mar	10	5	6	8	5	12	5	4	2	7	3	3	7	12	10	16	2	4	3	10	7	7	15	28	28.1
19-Mar	30	17	16	20	17	11	78	6	18	12	26	9	11	9	7	6	7	7	4	14	16	24	6	7	77.6
20-Mar	8	7	8	8	8	8	7	5	4	7	8	20	14	16	9	17	12	11	7	22	10	9	11	13	21.8
21-Mar	5	4	4	8	6	5	6	6	4	6	7	7	6	19	13	16	9	8	5	7	5	9	5	5	19.0
22-Mar	9	18	18	6	7	5	5	4	7	4	6	8	9	9	15	14	13	7	6	9	9	12	7	6	18.4
23-Mar	15	23	40	54	5	12	4	10	12	7	17	5	5	7	74	29	18	13	8	9	4	9	29	32	73.8
24-Mar	8	11	8	12	6	7	6	13	23	25	83	28	19	68	49	47	16	23	10	6	5	7	5	4	83.4
25-Mar	5	5	5	5	4	5	7	8	5	5	5	7	10	13	9	6	7	7	9	7	8	10	6	4	13.2
26-Mar	5	5	5	5	5	5	5	5	6	6	6	6	6	7	9	8	6	7	16	11	6	9	14	4	16.4
27-Mar	22	8	5	6	5	5	30	52	63	6	12	49	16	28	75	48	11	17	7	4	9	12	72	10	74.7
28-Mar	12	12	5	7	54	41	14	14	5	6	7	54	35	66	60	75	8	6	4	5	4	6	7	8	74.5
29-Mar	14	74	52	14	20	53	16	15	21	58	74	13	22	72	7	10	13	18	16	17	7	7	5	3	74.0
30-Mar	4	3	3	4	5	6	7	8	5	9	8	11	11	9	9	9	8	8	7	6	6	5	5	6	10.9
31-Mar	7	6	9	5	54	19	40	22	7	8	71	10	10	10	12	7	3	5	54	37	9	6	9	59	71.5
46.7 74.0 76.6 54.1 54.1 70.4 77.6 73.2 62.5 62.1 83.4 91.9 65.8 71.7 74.7 76.7 64.2 56.8 53.8 55.9 71.4 62.9 83.2 59.9																									

PAZA
Beaverlodge Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

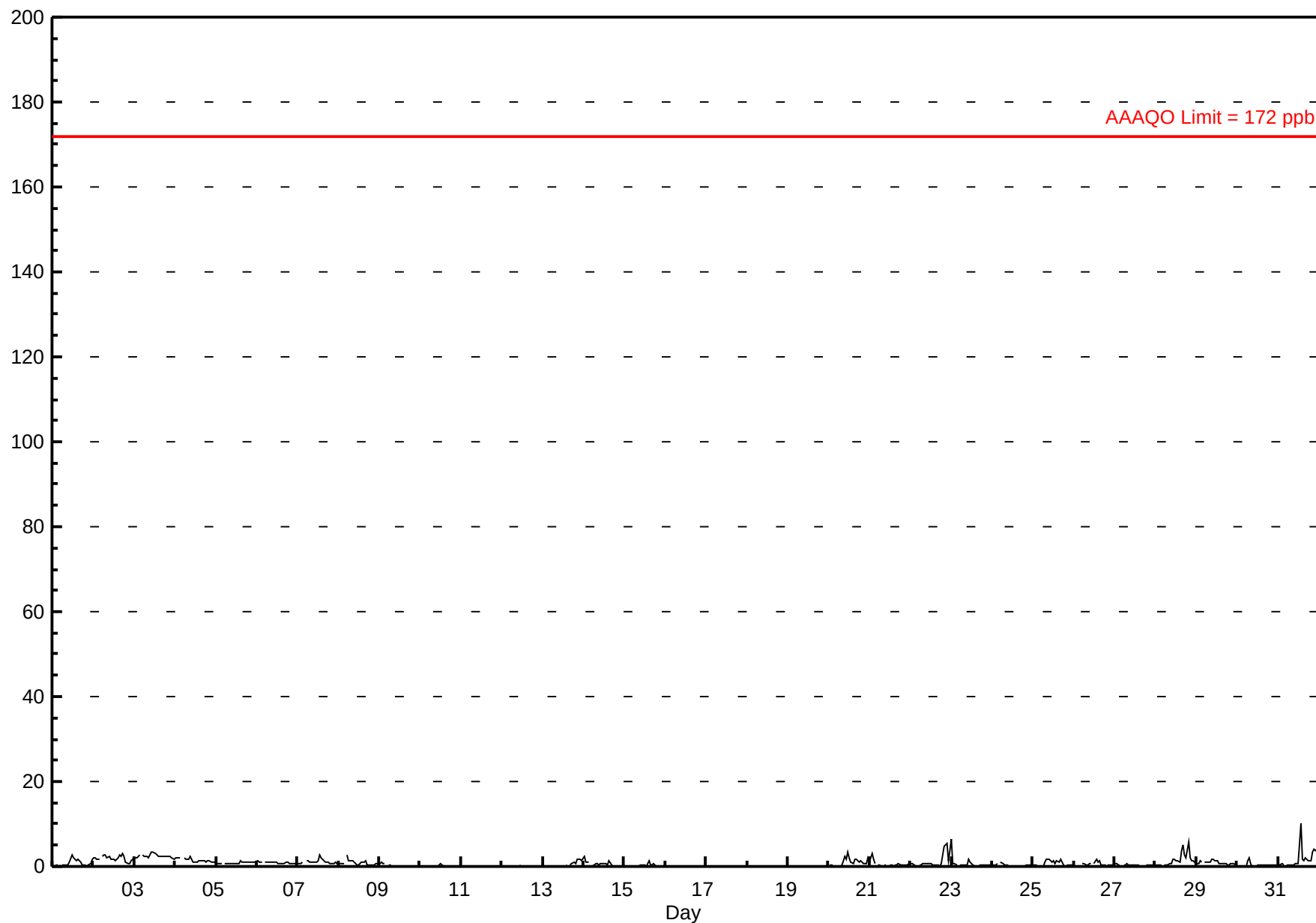
Sulphur Dioxide (SO₂) - ppb

Beaverlodge - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 10.1 ppb on Mar 31 14:00 Maximum Daily Average: 2.5 ppb on Mar 3																								Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 34 Percent Operational Time: 99.7		
Minimum Value: 0 ppb on Mar 18 02:00 Maximum Diurnal Average: 1.0 ppb at hour 14 Monthly Average: 0.71 ppb												Minimum Daily Average: 0.0 ppb on Mar 18 Minimum Diurnal Average: 0.5 ppb at hour 4 Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.4 Q ₃ = 1.0 P ₉₀ = 1.8 P ₉₉ = 3.9														
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Mar	0	0	0	0	A	0	0	0	0	0	1	3	2	2	1	2	1	0	0	0	0	0	1	2	0.8	2.6
2-Mar	2	2	2	2	A	2	3	3	2	2	2	2	2	1	2	3	2	3	2	1	1	1	1	2	1.9	2.9
3-Mar	2	2	2	3	A	3	2	2	2	3	3	4	3	3	3	3	3	2	2	2	2	2	2	2	2.5	3.5
4-Mar	2	2	2	2	A	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.5	2.3
5-Mar	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4
6-Mar	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	1.2
7-Mar	1	1	1	1	A	1	1	1	1	1	1	1	1	3	2	1	1	1	1	1	1	1	1	1	1.1	2.7
8-Mar	1	1	1	1	A	3	1	1	1	1	1	0	0	1	1	1	0	0	0	0	0	1	1	1	0.9	2.6
9-Mar	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
10-Mar	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
11-Mar	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
12-Mar	0	0	0	0	A	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
13-Mar	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	N	0	1	1	1	2	2	2	1	0.5	1.8
14-Mar	3	1	1	1	A	0	0	1	1	0	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0.6	2.5
15-Mar	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0.2	1.4
16-Mar	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
17-Mar	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
18-Mar	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
19-Mar	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
20-Mar	0	0	0	0	A	0	0	0	0	2	2	3	2	1	1	2	2	1	1	1	1	1	1	2	1.0	3.5
21-Mar	1	3	2	1	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.5	3.1
22-Mar	1	1	0	0	A	0	0	1	1	1	1	1	1	0	0	0	0	0	1	3	5	5	1	4	1.1	5.3
23-Mar	6	1	1	0	A	0	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0.7	6.4
24-Mar	0	0	0	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
25-Mar	0	0	0	0	A	0	0	1	2	2	1	1	1	1	1	2	1	0	0	0	0	0	0	0	0.7	1.8
26-Mar	0	0	0	0	A	1	1	0	0	1	1	P	1	2	1	1	0	0	0	0	0	0	0	0	0.5	1.8
27-Mar	1	1	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
28-Mar	0	0	0	0	A	0	0	0	1	1	2	2	1	1	1	4	5	3	2	6	2	1	1	1	1.5	5.8
29-Mar	1	1	1	1	A	1	1	1	1	2	2	1	1	1	1	1	1	1	0	0	1	1	1	0	0.9	1.6
30-Mar	0	0	0	0	A	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.9
31-Mar	0	0	1	0	A	0	0	0	0	0	1	1	1	10	2	2	2	2	2	1	3	4	4	4	1.8	10.1
0.8 0.6 0.6 0.5 -- 0.6 0.6 0.6 0.6 0.7 0.7 0.8 0.7 1.0 0.7 0.9 0.8 0.7 0.6 0.7 0.7 0.8 0.6 0.8 Diurnal Average 6.4 3.1 2.4 2.6 -- 2.7 2.7 2.7 2.2 2.6 3.3 3.5 3.2 10.1 2.5 3.8 5.1 2.9 2.4 5.8 4.6 5.3 3.6 4.2 Diurnal Maximum																										
C - Calibration P - Power Failure N - Not Valid A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - March 2014



Hourly Maximums

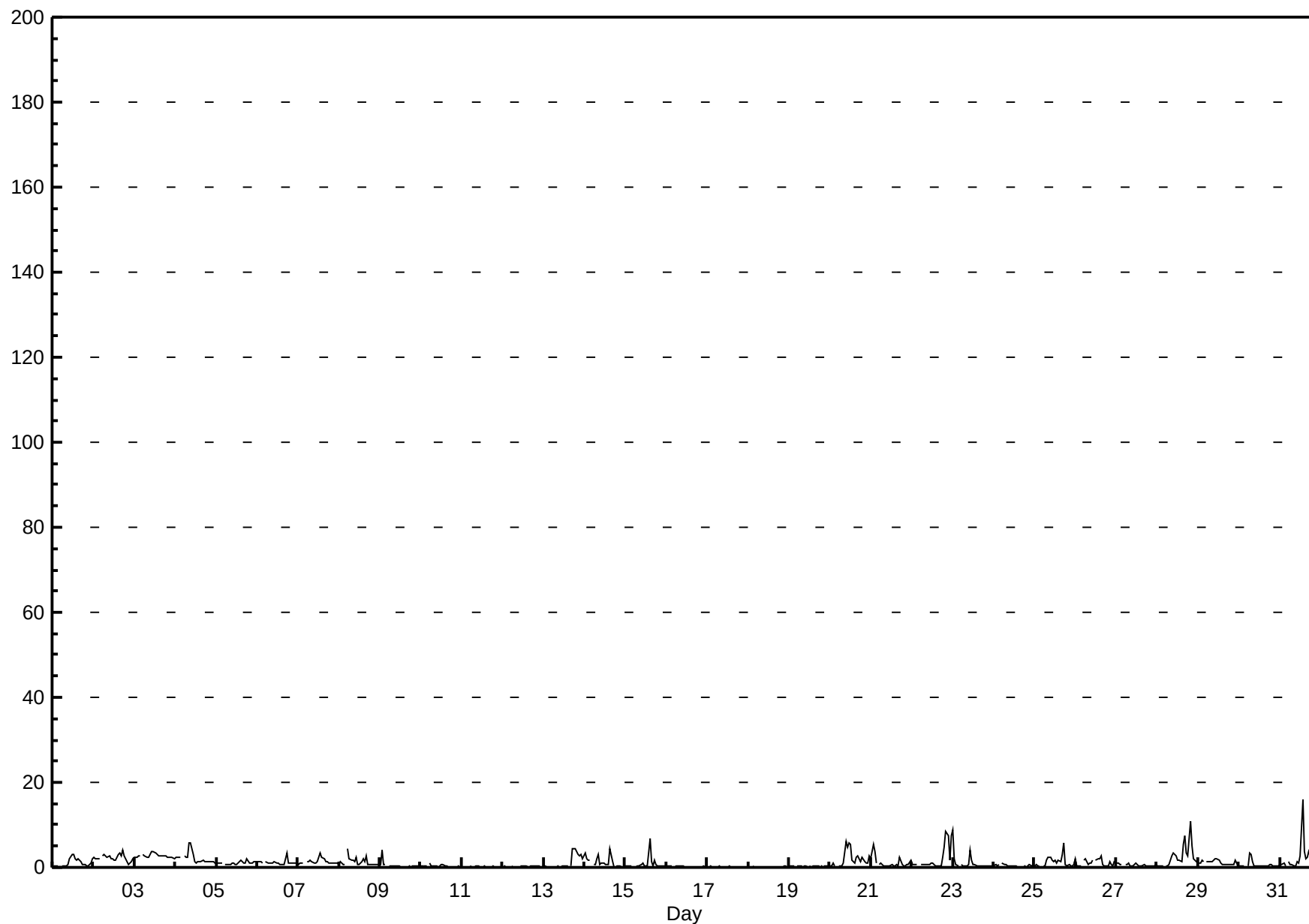
Sulphur Dioxide (SO₂) - ppb

Beaverlodge - March 2014

Maximum Value: 15.8 ppb on Mar 31 14:00		Maximum Daily Average: 3.0 ppb on Mar 31		Hours in Service: 744																							
Minimum Value: 0 ppb on Mar 18 19:00		Minimum Daily Average: 0.1 ppb on Mar 18		Hours of Data: 708																							
Maximum Diurnal Average: 1.4 ppb at hour 14		Minimum Diurnal Average: 0.7 ppb at hour 4		Hours of Missing Data: 36																							
Monthly Average: 1.12 ppb		Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.6 Q ₃ = 1.4 P ₉₀ = 2.7 P ₉₉ = 7.3		Hours of Calibration: 34																							
				Percent Operational Time: 99.7																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
1-Mar	0	0	0	0	A	0	0	0	0	1	2	3	3	2	2	2	1	1	1	1	0	0	1	2	1.1	3.2	
2-Mar	2	2	2	2	A	3	3	3	2	3	2	2	2	3	3	3	4	3	2	1	1	2	2	2.3	3.9		
3-Mar	2	2	3	3	A	3	3	2	2	3	4	4	4	3	3	3	3	3	2	2	2	2	2	2.7	3.7		
4-Mar	2	2	2	2	A	3	2	2	6	6	3	1	1	1	1	2	2	1	1	1	1	1	1	2.1	5.7		
5-Mar	1	1	1	1	A	1	1	1	1	1	1	1	1	2	1	1	1	1	2	1	1	1	1	1.1	2.1		
6-Mar	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1.2	3.5		
7-Mar	1	1	1	1	A	1	1	2	1	1	1	1	2	3	3	2	1	1	1	1	1	1	1	1.4	3.4		
8-Mar	1	1	1	1	A	4	2	2	2	1	2	1	1	1	2	1	3	1	1	1	1	1	1	1.3	4.4		
9-Mar	1	4	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	4.1		
10-Mar	0	0	0	0	A	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.3	0.9		
11-Mar	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	0.2		
12-Mar	0	0	0	0	A	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4		
13-Mar	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	N	0	4	4	4	3	3	3	1.2	4.3		
14-Mar	3	2	2	2	A	1	1	2	3	1	1	1	1	1	1	4	1	0	0	0	0	0	0	1.2	4.5		
15-Mar	0	0	0	0	A	0	0	0	0	1	1	0	0	0	7	1	0	2	1	0	0	0	0	0.7	6.8		
16-Mar	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	0.2		
17-Mar	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3		
18-Mar	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2		
19-Mar	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3		
20-Mar	0	1	1	0	A	0	0	0	1	6	5	6	5	2	1	2	3	2	1	2	1	1	1	3	1.9	6.0	
21-Mar	2	5	4	1	A	1	1	0	0	0	0	0	1	0	0	1	0	2	1	0	0	1	1	2	1.1	5.4	
22-Mar	1	1	1	1	A	1	1	1	1	1	1	1	1	0	0	0	0	2	5	8	8	2	7	1.9	8.3		
23-Mar	9	2	1	0	A	1	0	0	0	1	4	2	1	1	0	0	0	0	0	0	0	0	0	1.1	8.8		
24-Mar	0	1	0	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.4	1.1		
25-Mar	0	1	0	0	A	0	0	2	2	2	2	1	2	1	3	6	1	0	1	0	0	1	1	1.2	5.6		
26-Mar	2	0	0	0	A	2	2	1	1	1	2	P	2	2	2	3	1	0	0	0	1	1	0	1.1	2.6		
27-Mar	1	1	1	1	A	1	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	0	1	0.5	1.0		
28-Mar	0	0	0	0	A	0	0	1	3	3	3	3	2	2	1	5	7	3	3	11	5	2	1	2.5	10.9		
29-Mar	1	1	2	1	A	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	2	0	1.2	2.0		
30-Mar	0	0	0	0	A	0	3	3	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.7	3.3		
31-Mar	1	1	1	0	A	1	1	1	0	1	1	1	3	16	4	2	2	4	3	4	8	5	6	6	3.0	15.8	
1.1		1.1	0.9	0.7	--	0.9	0.9	0.9	1.1	1.2	1.3	1.1	1.2	1.4	1.2	1.3	1.2	1.4	1.0	1.3	1.3	1.1	1.0	1.2	Diurnal Average		
8.8		5.4	3.8	2.8	--	4.4	3.3	3.0	5.7	6.0	4.6	5.7	5.4	15.8	6.8	5.5	7.3	5.6	4.3	10.9	8.3	7.6	5.8	7.4	Diurnal Maximum		
C - Calibration		P - Power Failure				N - Not Valid				A - Automated Daily Zero Span																	

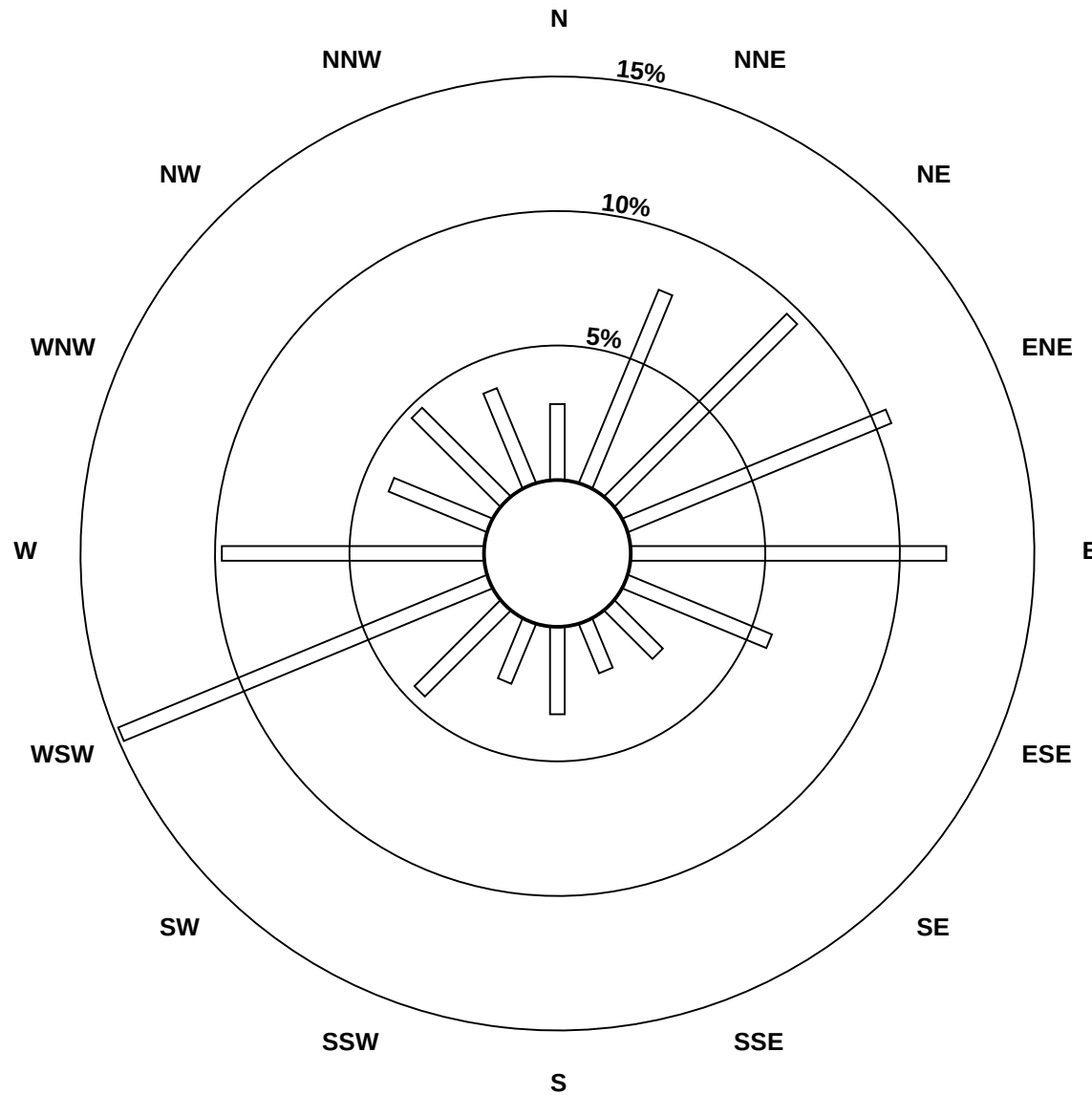
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - March 2014

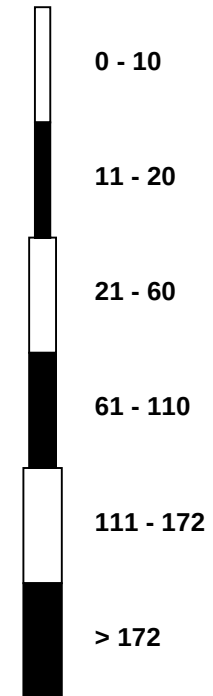


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Beaverlodge - March 2014

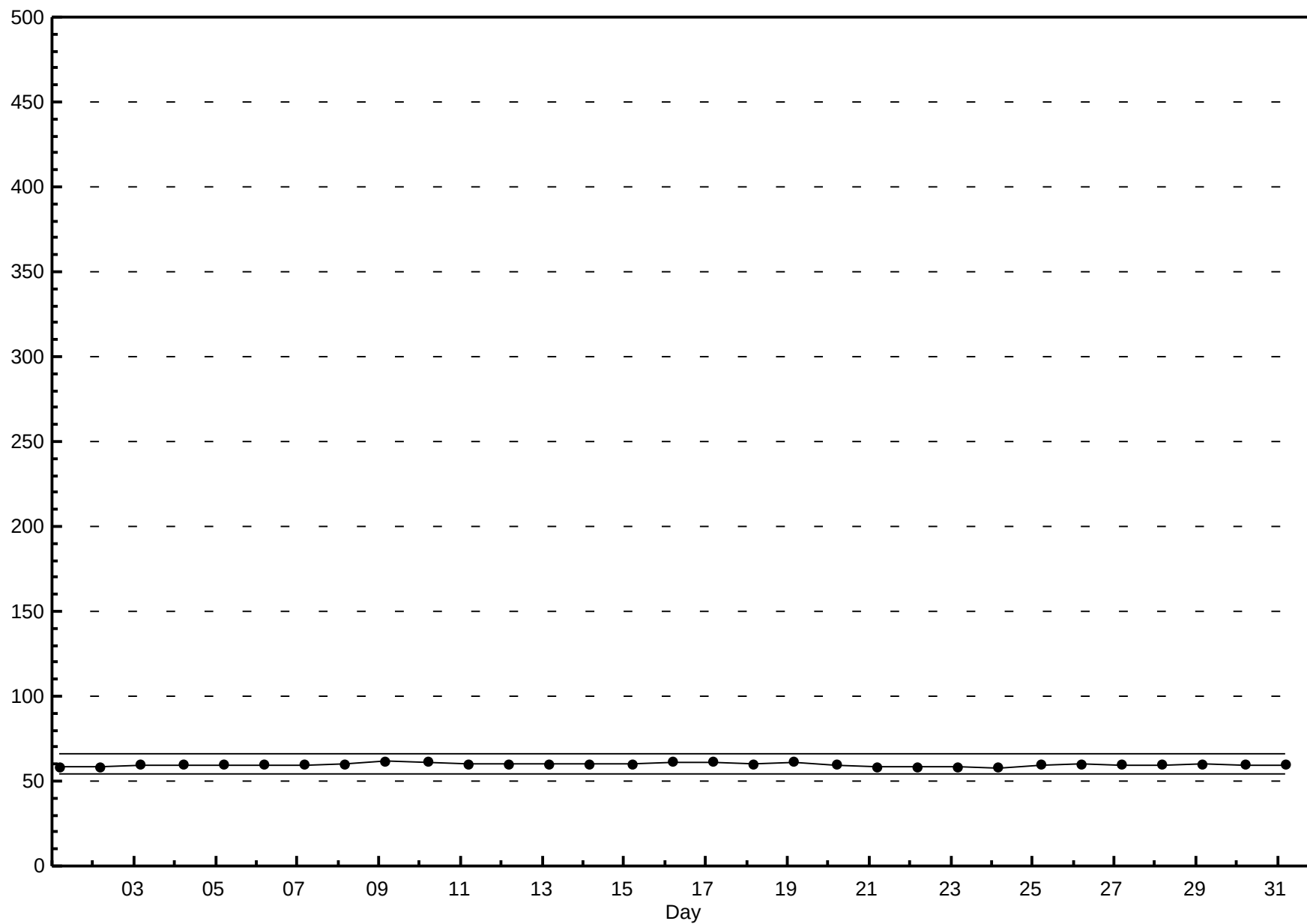


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Beaverlodge - March 2014



Hourly Averages

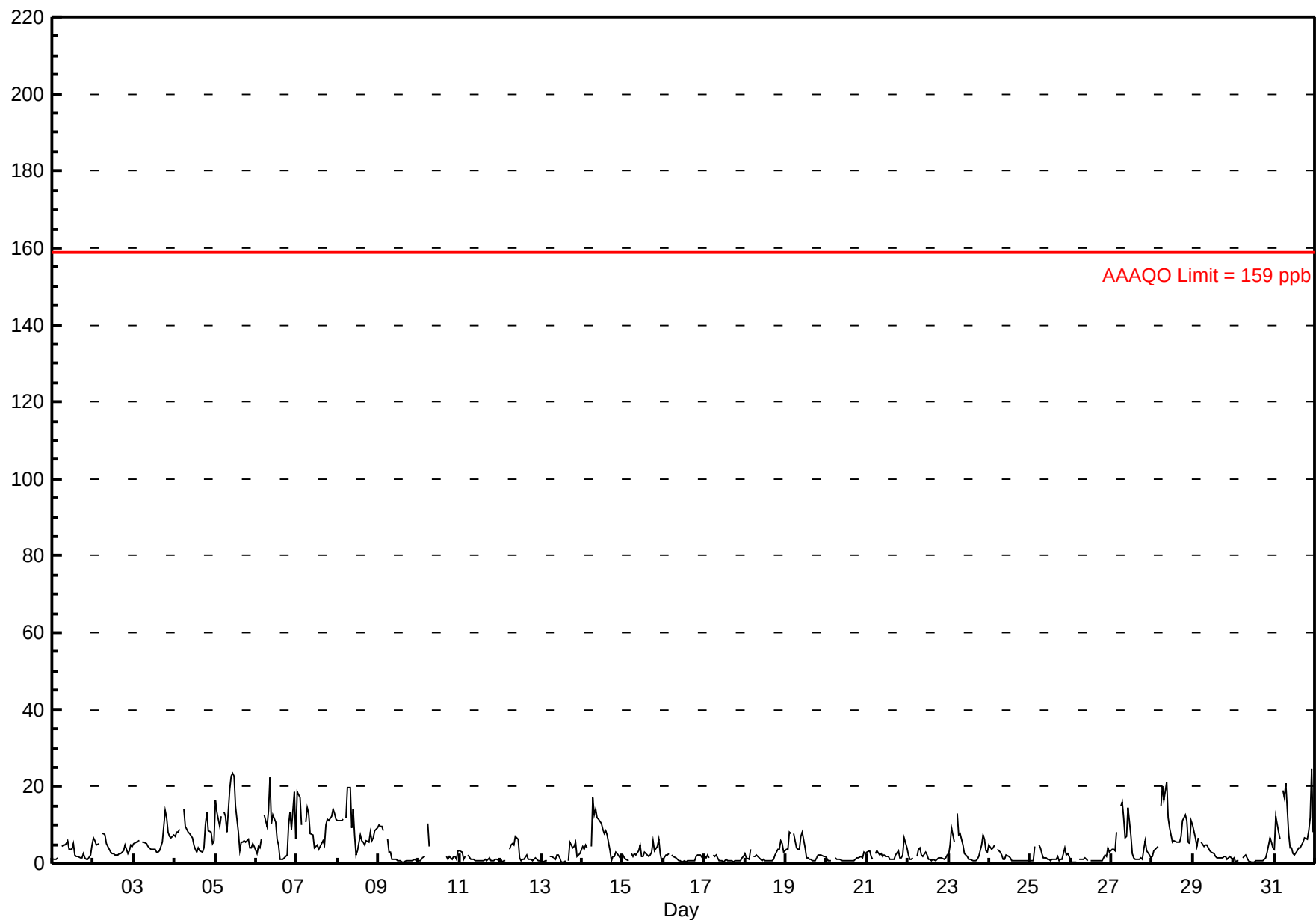
Nitrogen Dioxide (NO₂) - ppb

Beaverlodge - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 24.7 ppb on Mar 31 23:00 Maximum Daily Average: 10.7 ppb on Mar 5																				Hours in Service: 744 Hours of Data: 702 Hours of Missing Data: 42 Hours of Calibration: 40 Percent Operational Time: 99.7						
Minimum Value: 0 ppb on Mar 9 15:00 Maximum Diurnal Average: 6.8 ppb at hour 6 Monthly Average: 4.17 ppb										Minimum Daily Average: 1.2 ppb on Mar 17 Minimum Diurnal Average: 2.0 ppb at hour 17 Percentiles: P ₁ = 0.5 P ₁₀ = 0.7 Q ₁ = 1.1 Median = 2.4 Q ₃ = 5.6 P ₉₀ = 10.1 P ₉₉ = 20.7																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	1	1	1	2	A	4	5	5	5	6	4	4	5	2	2	2	2	3	3	1	1	1	2	5	2.8	6.0
2-Mar	7	6	5	5	A	8	8	7	5	4	3	3	2	2	2	3	3	3	4	5	3	3	5	5	4.4	8.0
3-Mar	5	5	6	6	A	6	6	5	5	4	4	4	4	3	3	3	4	6	14	12	8	7	7	7	5.8	13.8
4-Mar	7	8	8	9	A	14	10	9	8	8	7	5	4	3	4	3	3	4	10	13	9	8	5	6	7.2	14.3
5-Mar	16	13	10	12	A	14	12	8	19	23	24	23	15	8	4	6	5	6	6	6	4	4	5	4	10.7	23.5
6-Mar	3	4	4	6	A	13	10	14	22	11	13	11	7	5	1	1	1	2	2	10	13	9	18	7	8.1	22.2
7-Mar	18	18	17	10	A	11	15	13	8	7	4	5	5	4	4	6	5	10	12	11	12	14	13	12	10.2	18.5
8-Mar	11	11	11	12	A	12	20	20	9	14	8	2	3	7	6	6	5	6	6	8	6	7	9	9	9.0	19.8
9-Mar	10	10	10	9	A	6	3	3	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	2.7	10.0
10-Mar	1	1	1	2	A	10	4	C	C	C	C	C	C	C	C	C	2	1	2	1	2	2	1	3	--	10.3
11-Mar	3	3	1	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	3.5
12-Mar	1	1	1	1	A	4	5	5	5	7	6	1	1	1	1	2	1	1	1	1	2	1	1	1	2.2	7.0
13-Mar	0	1	1	1	A	2	2	1	1	2	2	1	1	1	1	N	1	6	4	4	6	2	2	2	2.0	5.8
14-Mar	4	4	5	4	A	4	17	13	14	12	11	10	9	8	9	7	3	1	2	2	3	2	1	2	6.5	17.3
15-Mar	2	2	1	1	A	3	2	3	2	3	5	2	2	3	2	2	2	3	6	3	5	6	3	1	2.7	6.2
16-Mar	1	2	2	3	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1.4	2.7
17-Mar	2	1	2	1	A	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.2	2.2
18-Mar	3	2	1	4	A	2	2	2	2	1	1	1	1	1	1	1	1	1	2	4	4	6	5	3	2.1	6.1
19-Mar	4	4	8	8	A	8	4	4	4	7	8	4	2	1	1	1	1	1	1	2	2	2	2	2	3.5	8.1
20-Mar	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	3	3	1.2	2.9
21-Mar	3	3	2	1	A	2	3	2	2	2	2	2	2	1	1	1	1	2	3	1	2	2	7	4	2.3	6.9
22-Mar	2	1	1	1	A	2	4	4	2	2	3	2	1	1	1	1	1	1	1	1	1	1	2	2	1.7	4.0
23-Mar	2	5	9	6	A	13	8	8	5	3	2	2	1	1	1	1	1	1	2	5	8	6	3	3	4.1	12.9
24-Mar	5	4	4	5	A	4	3	2	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1.8	4.7
25-Mar	1	1	1	5	A	5	4	2	2	1	1	1	1	1	1	1	2	1	1	1	4	2	3	2	1.9	4.8
26-Mar	1	1	0	0	A	1	1	1	1	1	1	P	1	1	1	1	1	1	1	2	2	2	4	3	1.2	4.2
27-Mar	4	4	3	8	A	15	16	12	7	7	15	7	3	2	1	1	1	1	1	4	6	3	2	1	5.4	15.9
28-Mar	2	3	4	4	A	15	20	16	21	12	9	7	6	6	5	5	6	7	11	13	11	6	5	11	9.0	21.4
29-Mar	10	7	5	7	A	6	4	5	5	4	3	3	3	2	1	2	2	2	2	2	1	2	2	1	3.4	10.0
30-Mar	2	1	1	1	A	1	2	2	1	1	0	0	0	1	1	1	1	1	1	1	3	7	5	4	1.6	6.6
31-Mar	4	12	8	6	A	19	17	21	8	4	4	3	2	4	4	4	5	5	7	6	9	12	25	8	8.6	24.7
4.4 4.5 4.3 4.6 -- 6.8 6.8 6.4 5.7 5.0 4.9 3.8 2.8 2.4 2.1 2.2 2.0 2.6 3.5 4.1 4.3 4.1 4.7 3.8																								Diurnal Average		
18.5 17.8 17.1 12.2 -- 19.2 20.1 21.0 22.2 22.9 23.5 22.8 14.9 8.1 8.7 7.3 5.5 10.1 13.8 13.3 13.4 14.1 24.7 11.7																								Diurnal Maximum		
C - Calibration P - Power Failure N - Not Valid A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb																										

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - March 2014



Hourly Maximums

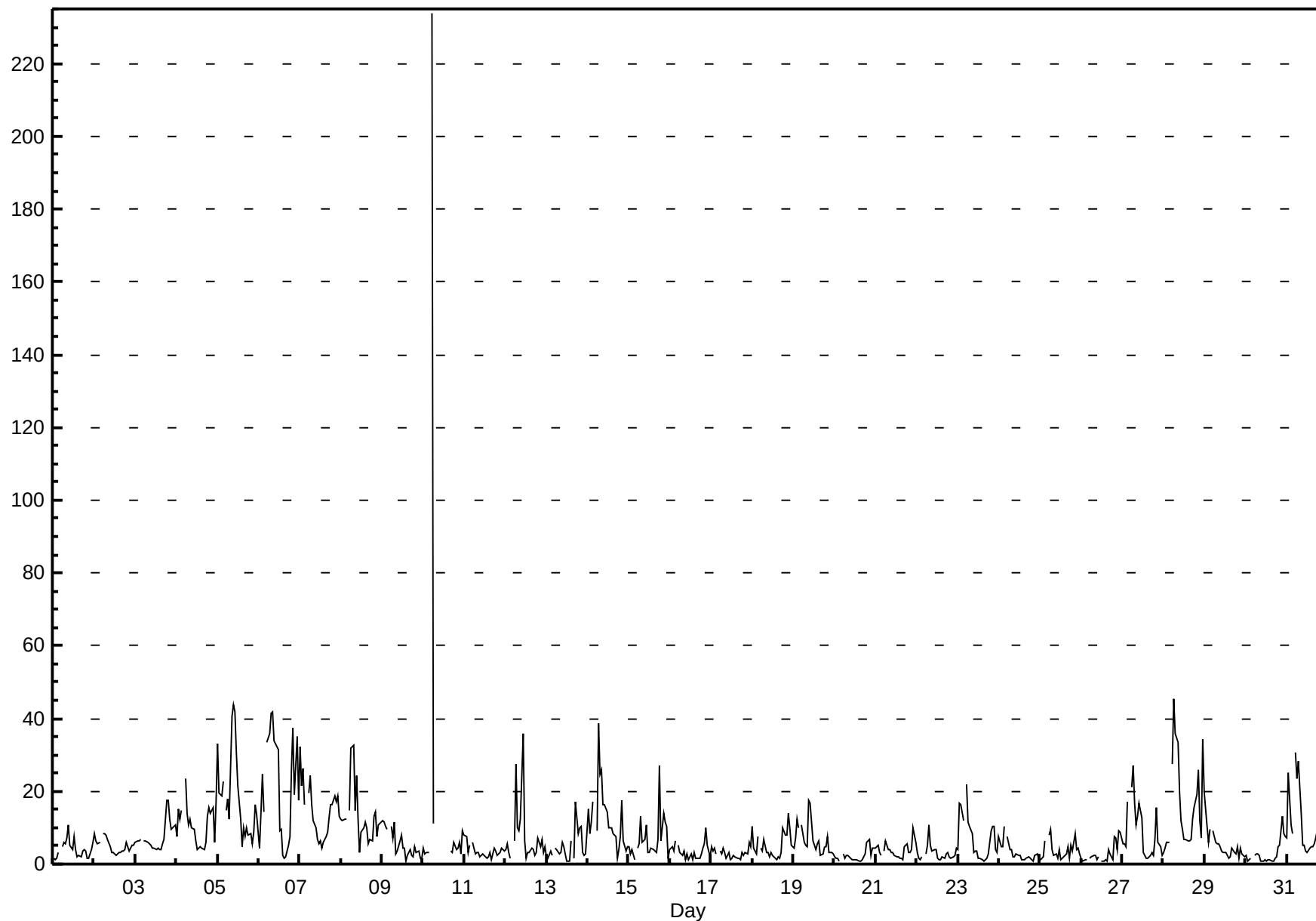
Nitrogen Dioxide (NO₂) - ppb

Beaverlodge - March 2014

Maximum Value: 233.8 ppb on Mar 10 06:00																								Hours in Service: 744		
Maximum Daily Average: 20.9 ppb on Mar 6																								Hours of Data: 702		
Minimum Value: 1 ppb on Mar 30 13:00																								Hours of Missing Data: 42		
Maximum Diurnal Average: 18.1 ppb at hour 6																								Hours of Calibration: 40		
Monthly Average: 7.81 ppb																								Percent Operational Time: 99.7		
Minimum Daily Average: 2.3 ppb on Mar 20																								Daily Average		
Minimum Diurnal Average: 3.4 ppb at hour 15																										
Percentiles: P ₁ = 0.8 P ₁₀ = 1.6 Q ₁ = 2.7 Median = 4.6 Q ₃ = 9.5 P ₉₀ = 16.5 P ₉₉ = 41.6																								Daily Maximum		
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		
1-Mar	2	1	2	3	A	5	6	6	7	11	5	4	7	4	2	3	2	4	4	4	2	2	4	6	4.1	
2-Mar	8	7	5	6	A	8	8	8	7	5	3	3	3	3	3	3	4	4	4	6	4	4	5	5	5.1	
3-Mar	6	6	7	7	A	7	6	6	5	5	4	4	4	4	4	4	6	7	18	17	12	10	10	11	7.4	
4-Mar	8	15	12	15	A	24	14	11	12	10	9	6	4	4	5	4	4	6	13	16	14	16	6	17	10.7	
5-Mar	33	20	19	23	A	15	18	12	40	44	42	31	21	12	5	10	8	10	8	8	6	9	17	14	18.4	
6-Mar	4	14	25	15	A	33	36	42	42	34	33	31	9	9	2	2	2	5	7	26	38	19	35	18	20.9	
7-Mar	32	22	26	16	A	19	24	16	12	10	7	6	6	5	6	7	9	13	16	16	19	17	19	13	14.6	
8-Mar	12	12	12	13	A	15	32	33	15	24	12	3	9	10	11	10	6	7	6	13	14	7	11	12	13.0	
9-Mar	12	12	10	10	A	10	7	12	3	4	6	8	4	4	1	2	4	3	2	5	3	4	1	2	5.6	
10-Mar	5	3	3	3	A	234	11	C	C	C	C	C	C	C	C	C	3	3	6	4	4	6	3	9	--	
11-Mar	8	8	3	5	A	6	3	3	3	2	2	3	2	1	2	3	1	5	4	3	3	3	4	3	3.5	
12-Mar	4	5	3	2	A	6	28	10	9	12	36	6	2	3	3	4	4	2	3	7	5	7	3	5	7.4	
13-Mar	2	2	3	2	A	5	4	3	3	6	5	3	1	1	7	N	2	17	8	10	11	3	3	3	4.6	
14-Mar	15	8	12	17	A	9	39	25	26	16	16	14	10	10	10	8	8	2	4	8	17	7	4	5	12.6	
15-Mar	5	3	4	1	A	4	5	13	6	7	11	3	3	4	4	3	3	7	27	6	14	12	10	2	6.8	
16-Mar	4	5	4	6	A	5	3	2	3	1	3	1	3	1	3	2	1	2	3	4	6	10	5	2	3.5	
17-Mar	5	4	4	3	A	4	3	5	3	1	3	1	2	2	2	2	2	1	3	2	3	3	6	5	3.0	
18-Mar	10	4	3	8	A	4	4	7	3	3	2	3	2	1	1	2	2	3	10	8	8	14	10	5	5.1	
19-Mar	4	7	12	10	A	11	6	5	5	18	17	6	5	4	6	6	2	3	5	5	8	3	3	3	6.7	
20-Mar	2	2	2	1	A	3	2	2	3	2	1	1	1	1	1	1	1	2	3	6	7	3	4	4	2.3	
21-Mar	4	5	3	2	A	4	7	4	4	3	3	3	2	2	1	1	1	5	6	3	3	4	10	6	3.8	
22-Mar	3	2	1	2	A	3	5	11	5	4	4	4	2	1	1	2	2	3	3	2	2	2	2	4	3.1	
23-Mar	4	17	16	12	A	22	12	10	8	3	4	4	1	2	1	1	1	2	3	9	10	10	4	3	6.9	
24-Mar	7	5	5	10	A	7	4	4	2	2	3	2	2	1	1	1	1	2	1	1	1	2	3	1	3.1	
25-Mar	1	2	2	6	A	8	9	4	2	3	2	4	1	2	2	3	5	2	5	4	8	4	5	3	3.7	
26-Mar	2	1	1	1	A	2	2	2	2	1	2	P	1	1	1	1	4	3	1	7	7	4	9	9	2.9	
27-Mar	6	5	5	17	A	21	27	17	11	13	17	13	3	2	2	2	2	3	2	7	16	6	5	2	8.8	
28-Mar	3	5	6	6	A	28	45	36	33	20	12	10	7	7	6	6	7	12	16	19	26	12	7	34	15.7	
29-Mar	20	10	6	10	A	9	6	6	6	5	4	3	3	2	2	2	4	3	3	5	2	4	3	2	5.2	
30-Mar	3	1	1	2	A	2	3	3	2	1	1	1	1	1	1	1	1	2	2	5	5	13	8	8	2.9	
31-Mar	7	25	11	8	A	31	24	28	14	5	5	4	3	4	5	5	6	7	9	9	17	44	42	17	14.3	
7.8 7.6 7.4 7.8 -- 18.1 13.0 11.5 9.9 9.1 9.1 6.4 4.2 3.7 3.4 3.5 3.4 4.7 6.6 7.9 9.4 8.5 8.4 7.4																									Diurnal Average	
32.9 25.0 26.2 22.7 -- 233.8 45.4 41.6 41.7 43.7 41.8 31.4 21.3 12.4 11.5 9.9 8.6 17.0 26.9 26.1 37.6 43.5 42.3 34.2																										Diurnal Maximum
C - Calibration P - Power Failure N - Not Valid A - Automated Daily Zero Span																										

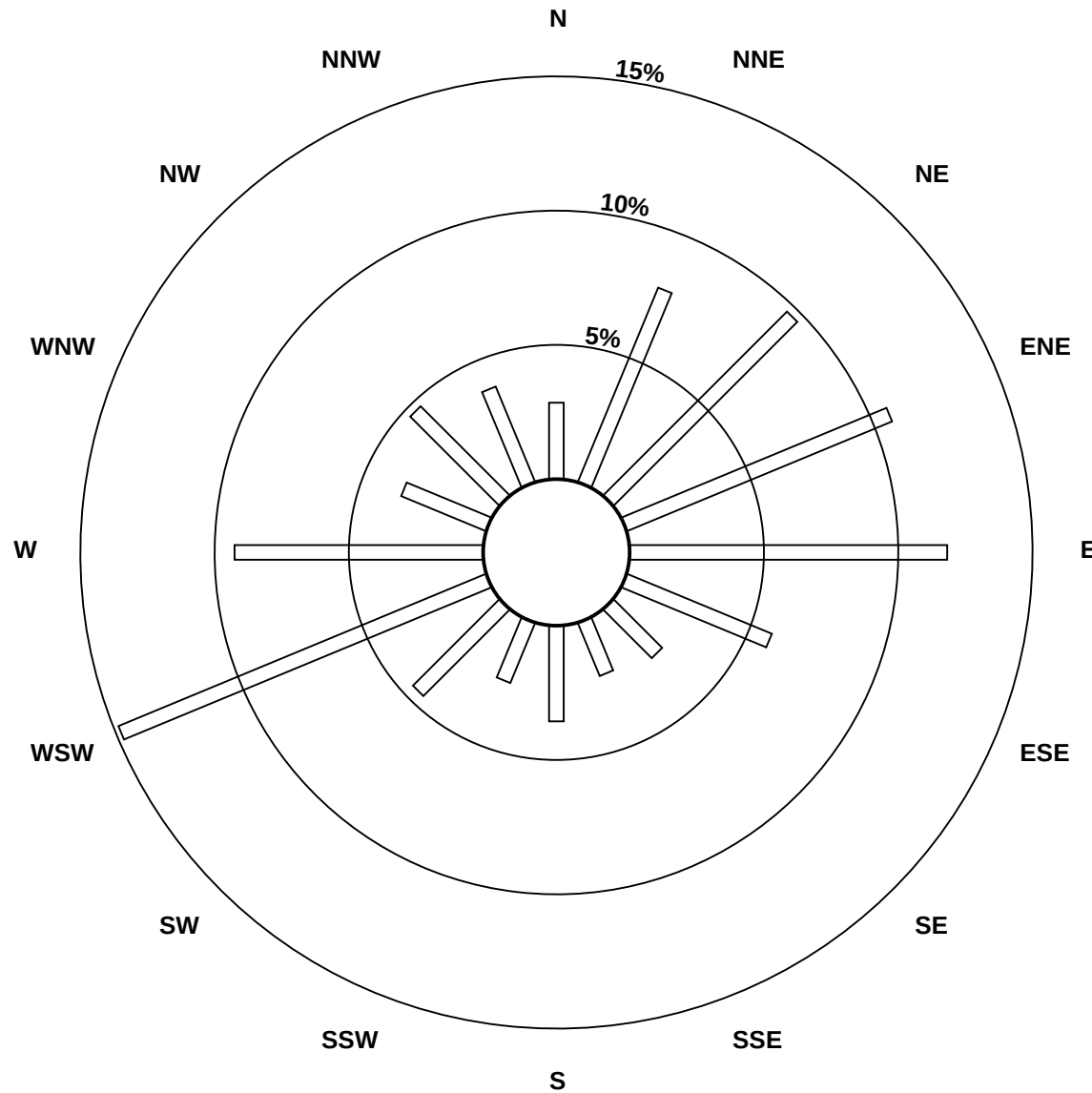
Hourly Maximums

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - March 2014

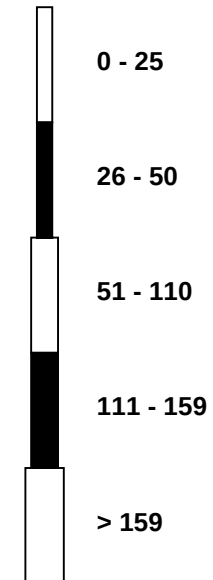


Pollutant Rose

Nitrogen Dioxide (NO₂) - ppb
Beaverlodge - March 2014

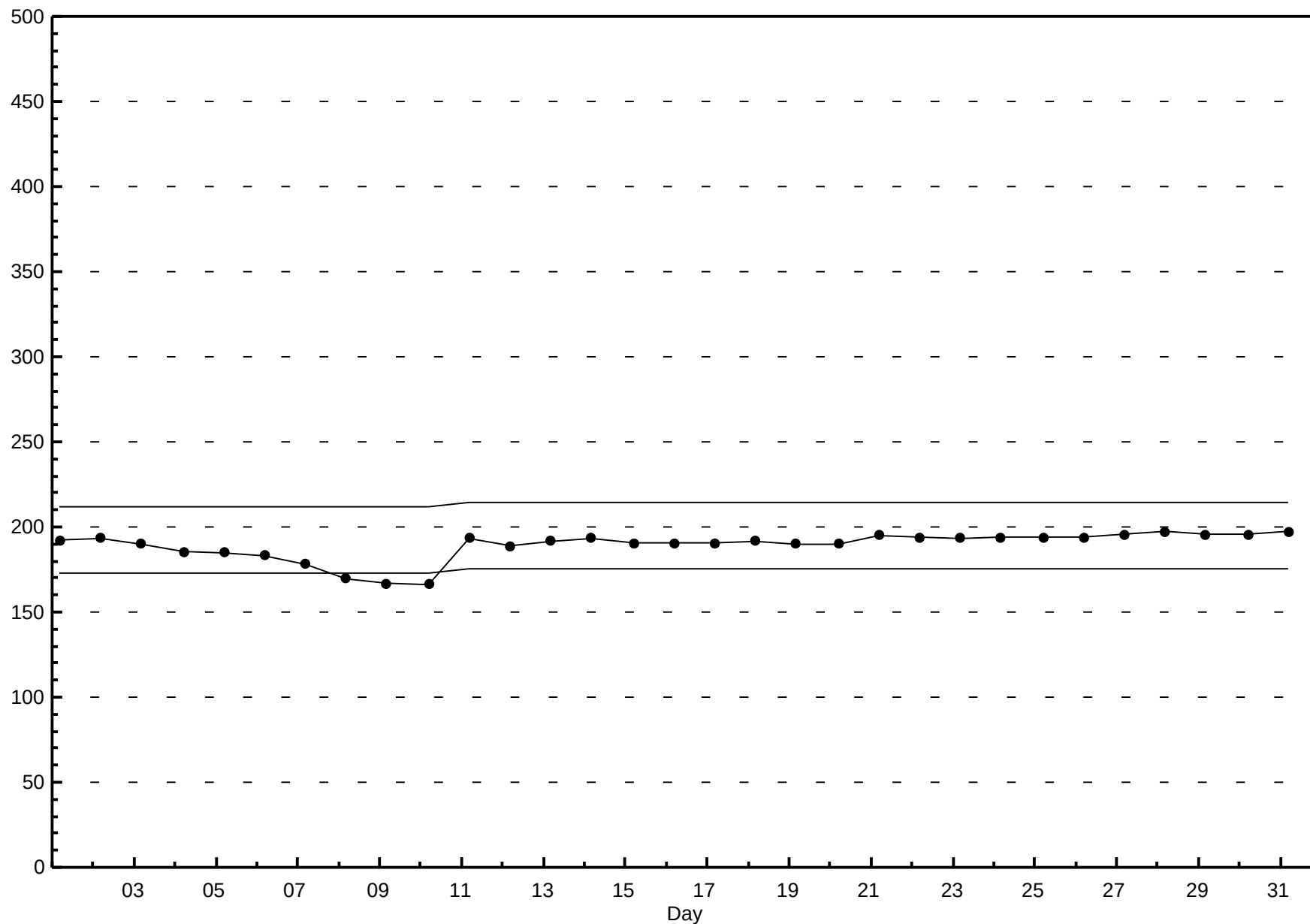


Pollutant Classes (ppb)



Span Responses

Nitrogen Dioxide (NO₂)
Beaverlodge - March 2014



Hourly Averages

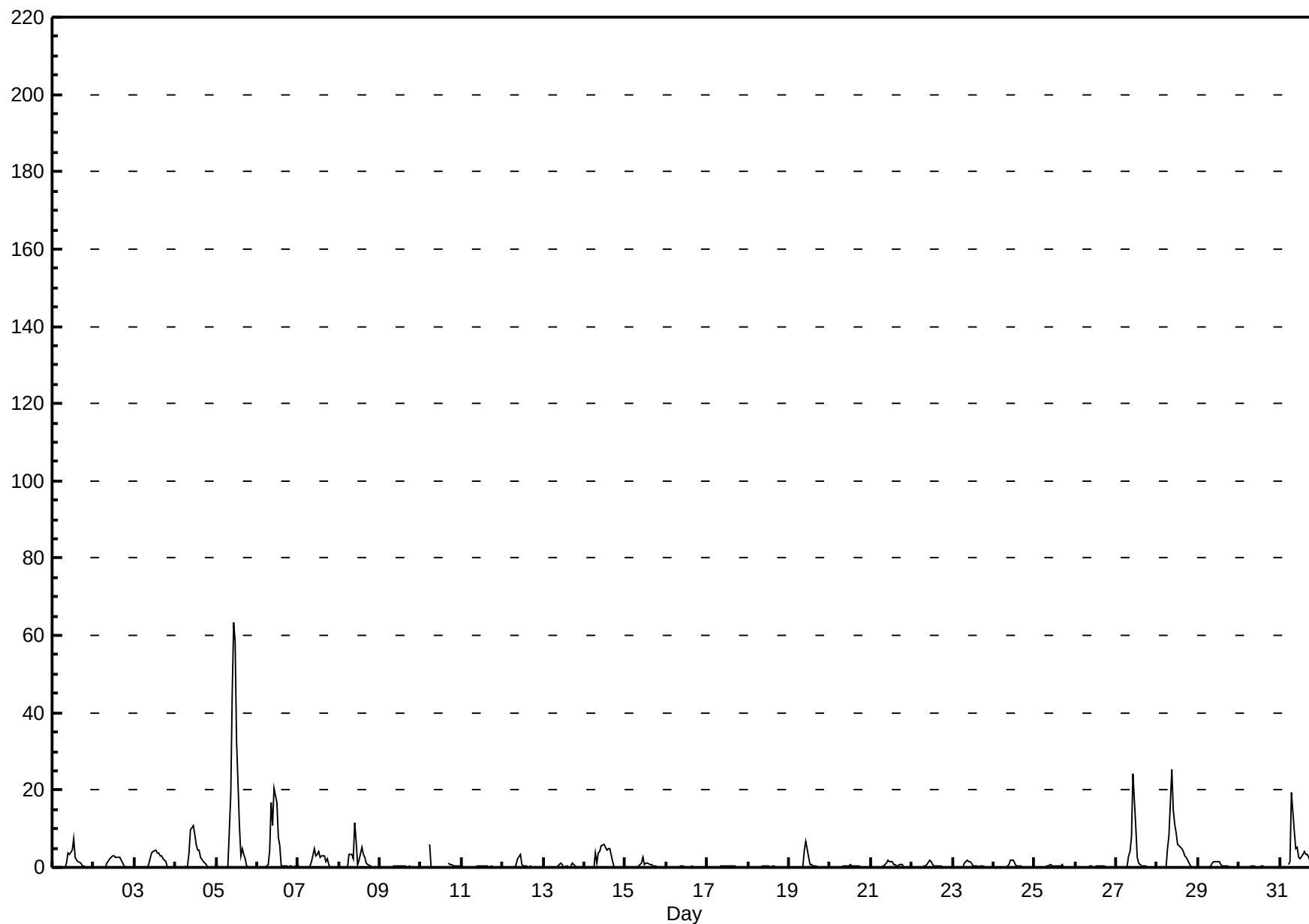
Nitrogen Oxide (NO) - ppb

Beaverlodge - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 63.5 ppb on Mar 5 11:00 Maximum Daily Average: 10.7 ppb on Mar 5																								Hours in Service: 744 Hours of Data: 702 Hours of Missing Data: 42 Hours of Calibration: 40 Percent Operational Time: 99.7		
Minimum Value: 0 ppb on Mar 1 22:00 Minimum Daily Average: 0.1 ppb on Mar 16 Maximum Diurnal Average: 6.2 ppb at hour 11 Minimum Diurnal Average: 0.0 ppb at hour 4 Monthly Average: 1.35 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.2 Q ₃ = 0.6 P ₉₀ = 3.5 P ₉₉ = 18.4																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	0	0	0	0	A	0	0	0	1	4	4	4	7	3	2	2	1	0	0	0	0	0	0	0	1.2	7.3
2-Mar	0	0	0	0	A	0	0	0	1	2	3	3	3	3	3	3	2	1	0	0	0	0	0	0	1.0	2.9
3-Mar	0	0	0	0	A	0	0	0	1	2	4	4	4	4	4	3	3	2	2	0	0	0	0	0	1.5	4.3
4-Mar	0	0	0	0	A	0	0	0	4	10	11	9	6	4	4	2	2	1	1	0	0	0	0	0	2.4	10.8
5-Mar	1	0	0	0	A	0	0	0	19	45	63	59	33	11	3	5	4	2	0	0	0	0	0	0	10.7	63.5
6-Mar	0	0	0	0	A	0	1	4	17	11	20	17	8	5	1	0	0	0	0	0	0	0	0	0	3.7	20.5
7-Mar	0	0	0	0	A	0	0	0	2	5	3	3	4	3	3	3	2	2	1	0	0	0	0	0	1.4	4.7
8-Mar	0	0	0	0	A	0	4	3	2	12	7	1	2	5	3	3	1	1	0	0	0	0	0	0	1.9	11.5
9-Mar	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-Mar	0	0	0	0	A	6	0	C	C	C	C	C	C	C	C	C	1	1	1	0	0	0	0	0	--	6.1
11-Mar	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
12-Mar	0	0	0	0	A	0	0	0	1	2	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.5
13-Mar	0	0	0	0	A	0	0	0	0	1	1	1	0	0	0	N	0	1	0	0	0	0	0	0	0.3	1.1
14-Mar	0	0	0	0	A	0	4	1	4	4	6	6	5	4	5	5	2	0	0	0	0	0	0	0	2.0	5.8
15-Mar	0	0	0	0	A	0	0	0	0	1	3	1	1	1	1	1	0	0	0	0	0	0	0	0	0.4	2.5
16-Mar	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
17-Mar	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
18-Mar	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
19-Mar	0	0	0	0	A	0	0	0	1	5	7	3	1	1	0	0	0	0	0	0	0	0	0	0	0.8	6.8
20-Mar	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
21-Mar	0	0	0	0	A	0	0	0	1	1	2	2	2	1	1	1	0	1	1	0	0	0	0	0	0.5	1.7
22-Mar	0	0	0	0	A	0	0	0	0	1	2	1	1	0	0	1	0	0	0	0	0	0	0	0	0.3	2.0
23-Mar	0	0	0	0	A	0	0	1	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.8
24-Mar	0	0	0	0	A	0	0	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.8
25-Mar	0	0	0	0	A	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0.2	0.6
26-Mar	0	0	0	0	A	0	0	0	0	0	1	P	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
27-Mar	0	0	0	0	A	0	1	3	4	8	24	10	3	1	1	0	1	0	0	0	0	0	0	0	2.5	24.4
28-Mar	0	0	0	0	A	0	5	8	25	15	11	9	6	5	5	4	3	3	2	0	0	0	0	0	4.5	25.4
29-Mar	0	0	0	0	A	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	1.5
30-Mar	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
31-Mar	0	0	0	0	A	1	1	19	9	5	5	3	2	3	4	3	3	3	1	0	0	0	0	0	2.8	19.4
0.1 0.0 0.0 0.0 -- 0.3 0.5 1.5 3.2 4.6 6.2 4.9 3.1 2.0 1.4 1.3 0.9 0.7 0.4 0.1 0.1 0.1 0.1 0.0																								Diurnal Average		
1.0 0.2 0.2 0.1 -- 6.1 4.7 19.4 25.4 45.2 63.5 58.6 32.9 10.7 4.8 5.0 3.5 2.7 2.0 0.5 0.4 0.4 0.3 0.2																								Diurnal Maximum		
C - Calibration P - Power Failure N - Not Valid A - Automated Daily Zero Span																										

Hourly Averages

Nitrogen Oxide (NO) - ppb
Beaverlodge - March 2014



Hourly Maximums

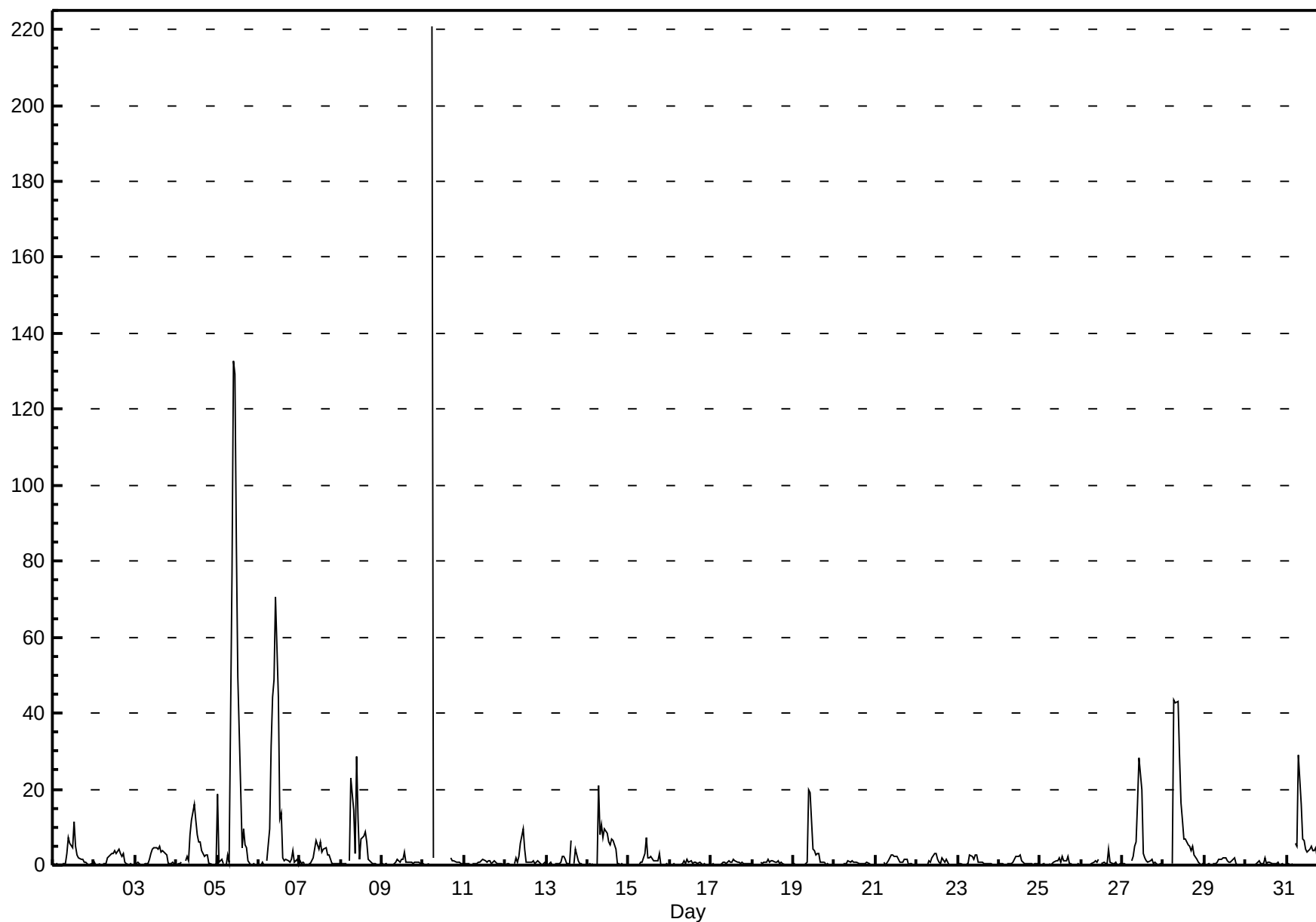
Nitrogen Oxide (NO) - ppb

Beaverlodge - March 2014

Maximum Value: 220.9 ppb on Mar 10 06:00																								Hours in Service: 744		
Maximum Daily Average: 23.7 ppb on Mar 5																								Hours of Data: 702		
Minimum Value: 0 ppb on Mar 26 06:00																								Hours of Missing Data: 42		
Maximum Diurnal Average: 12.2 ppb at hour 11																								Hours of Calibration: 40		
Monthly Average: 3.32 ppb																								Percent Operational Time: 99.7		
Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.2 Median = 0.6 Q ₃ = 1.8 P ₉₀ = 5.7 P ₉₉ = 38.9																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Mar	0	0	0	0	A	0	0	0	3	7	6	5	11	5	3	2	2	1	1	1	0	0	0	0	2.1	11.4
2-Mar	1	0	0	0	A	0	0	0	2	3	3	3	4	3	4	3	2	3	1	0	0	0	0	0	1.5	4.2
3-Mar	0	1	0	0	A	0	0	0	2	3	4	5	5	4	5	4	4	3	3	0	1	1	1	0	2.0	4.8
4-Mar	0	0	0	1	A	1	2	1	8	12	16	12	8	6	6	4	2	3	2	0	0	0	0	0	3.8	16.1
5-Mar	19	1	1	0	A	0	3	1	77	133	129	85	50	20	4	10	5	4	1	0	0	0	0	0	23.7	132.7
6-Mar	0	0	1	0	A	1	10	31	44	49	70	44	12	14	2	1	2	1	1	1	4	1	2	0	12.7	70.4
7-Mar	1	0	1	0	A	0	0	1	2	6	5	4	6	3	4	5	3	3	2	0	0	0	0	0	2.1	6.4
8-Mar	0	0	0	0	A	1	23	15	3	28	12	1	7	8	9	6	1	1	0	0	0	0	0	0	5.1	28.5
9-Mar	0	0	0	0	A	0	0	0	1	2	1	2	1	4	1	1	1	1	0	1	1	1	0	0	0.8	3.6
10-Mar	0	0	0	0	A	221	2	C	C	C	C	C	C	C	C	C	2	1	1	1	1	1	0	0	--	220.9
11-Mar	0	0	0	0	A	0	1	1	1	1	1	2	1	1	1	1	0	1	1	1	0	0	0	0	0.7	1.6
12-Mar	0	0	0	0	A	0	2	1	2	6	9	4	1	1	1	1	1	1	1	1	0	0	0	1	1.5	9.4
13-Mar	0	0	1	0	A	0	0	0	1	2	2	2	0	1	6	N	0	4	1	0	0	0	0	0	1.0	6.3
14-Mar	0	0	0	0	A	0	21	8	11	7	10	8	6	5	7	6	4	0	0	0	0	0	0	0	4.2	20.8
15-Mar	0	0	0	0	A	0	0	1	1	3	7	2	2	2	1	1	1	1	3	0	0	0	0	0	1.2	7.4
16-Mar	0	0	0	0	A	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.5	1.4
17-Mar	0	0	0	0	A	0	0	1	1	0	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0.5	1.4
18-Mar	0	0	0	0	A	1	0	1	1	2	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.6	1.7
19-Mar	0	0	0	0	A	0	0	0	1	20	19	4	4	3	3	3	1	1	1	0	0	0	0	0	2.7	20.0
20-Mar	0	0	0	0	A	0	0	0	1	1	1	1	1	1	0	1	0	0	0	1	0	0	0	0	0.5	1.1
21-Mar	0	0	0	0	A	1	0	1	2	3	3	2	2	2	1	1	1	2	2	0	0	0	0	0	1.0	2.6
22-Mar	0	0	0	0	A	0	0	1	1	2	3	3	1	1	1	2	1	1	1	0	0	0	0	0	0.9	3.2
23-Mar	0	0	0	0	A	0	0	3	2	2	3	3	1	1	1	0	1	0	0	0	0	0	0	0	0.8	2.6
24-Mar	0	0	0	0	A	0	0	0	1	1	2	2	3	1	1	1	1	1	0	0	0	0	0	0	0.7	2.6
25-Mar	0	0	0	0	A	0	0	0	1	1	1	2	1	2	1	1	2	1	0	0	0	0	0	0	0.7	2.3
26-Mar	0	0	0	0	A	0	0	1	1	1	1	P	0	1	1	1	4	1	0	0	1	0	0	0	0.6	4.3
27-Mar	0	0	0	0	A	1	2	5	6	16	28	20	3	2	1	1	1	2	1	1	0	0	0	0	4.0	28.2
28-Mar	0	0	0	0	A	0	43	43	43	28	16	12	7	7	5	5	4	5	3	2	1	0	0	0	9.8	43.4
29-Mar	0	0	0	0	A	0	0	1	1	2	2	2	2	1	1	1	1	2	0	0	0	0	0	0	0.8	2.1
30-Mar	0	0	0	0	A	0	0	1	1	0	0	2	0	1	1	0	0	1	0	1	0	0	0	0	0.5	1.8
31-Mar	0	0	0	0	A	6	5	29	16	7	7	4	3	4	5	4	4	4	2	1	0	6	4	0	4.9	29.0
0.8 0.2 0.3 0.2 -- 7.7 3.8 4.9 7.9 11.7 12.2 8.2 4.8 3.5 2.6 2.3 1.7 1.6 1.0 0.5 0.4 0.5 0.4 0.2																									Diurnal Average	
18.7 0.8 1.3 0.7 -- 220.9 43.4 42.9 77.1 132.7 129.3 84.8 49.7 19.8 8.6 9.5 5.5 5.0 3.0 1.5 3.9 6.1 4.2 0.7																									Diurnal Maximum	
C - Calibration P - Power Failure N - Not Valid A - Automated Daily Zero Span																										

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Beaverlodge - March 2014



Hourly Averages

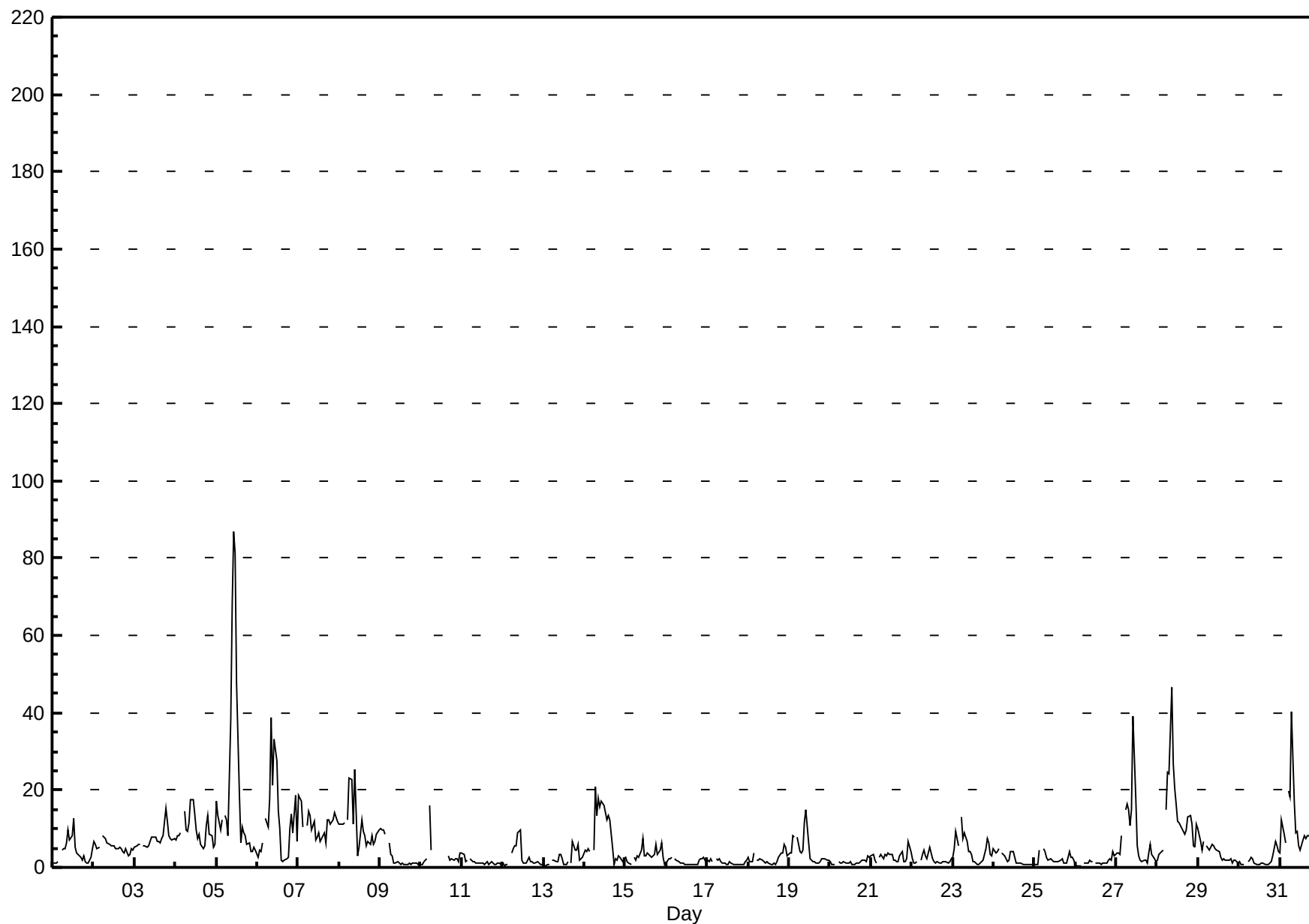
Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 87.0 ppb on Mar 5 11:00 Maximum Daily Average: 21.4 ppb on Mar 5																								Hours in Service: 744 Hours of Data: 702 Hours of Missing Data: 42 Hours of Calibration: 40 Percent Operational Time: 99.7		
Minimum Value: 0 ppb on Mar 26 04:00 Minimum Daily Average: 1.3 ppb on Mar 20 Maximum Diurnal Average: 11.1 ppb at hour 11 Minimum Diurnal Average: 2.9 ppb at hour 17 Monthly Average: 5.52 ppb Percentiles: P ₁ = 0.6 P ₁₀ = 0.9 Q ₁ = 1.4 Median = 3.0 Q ₃ = 6.8 P ₉₀ = 12.5 P ₉₉ = 38.4																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Mar	1	1	1	2	A	4	5	5	6	10	7	8	13	5	4	3	3	2	3	1	1	1	2	5	4.1	12.6
2-Mar	7	6	5	5	A	8	8	8	6	6	6	6	5	5	5	5	5	4	4	5	3	3	5	5	5.4	8.0
3-Mar	5	5	6	6	A	6	6	5	5	7	8	8	8	7	7	6	7	8	15	12	8	7	7	7	7.3	15.4
4-Mar	7	8	8	9	A	15	10	9	12	17	17	14	10	8	9	6	5	5	11	13	9	8	5	6	9.6	17.5
5-Mar	17	13	10	12	A	13	12	8	38	68	87	81	48	19	7	10	9	8	6	6	4	4	5	4	21.4	87.0
6-Mar	3	4	4	6	A	13	10	18	39	21	33	28	14	10	2	2	2	2	3	10	14	9	19	7	11.8	38.8
7-Mar	19	18	17	10	A	11	15	14	10	12	7	8	9	7	8	9	7	12	12	11	12	14	13	12	11.6	18.6
8-Mar	11	11	11	12	A	12	23	23	11	26	14	3	5	12	9	8	6	7	6	8	6	7	9	10	10.9	25.5
9-Mar	10	10	10	9	A	7	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2.9	10.1
10-Mar	1	1	1	2	A	16	4	C	C	C	C	C	C	C	C	C	3	2	2	2	2	2	2	4	--	16.1
11-Mar	4	3	1	2	A	2	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1.4	3.7
12-Mar	1	1	1	1	A	4	5	6	6	9	10	2	1	1	1	2	1	1	1	1	2	1	1	1	2.6	9.8
13-Mar	1	1	1	1	A	2	2	1	2	3	3	2	1	1	1	N	1	7	4	5	6	2	2	3	2.3	6.8
14-Mar	4	4	5	4	A	4	21	13	18	16	17	16	14	12	14	12	5	1	2	2	3	2	1	2	8.5	20.9
15-Mar	2	2	1	1	A	3	2	3	3	5	7	3	3	4	3	3	3	3	6	3	5	6	3	1	3.2	7.3
16-Mar	1	2	2	3	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1.4	2.7
17-Mar	2	2	2	1	A	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.3	2.3
18-Mar	3	2	1	4	A	2	2	2	2	2	1	1	1	1	1	1	1	1	2	4	4	6	5	3	2.2	6.1
19-Mar	4	4	8	8	A	8	4	4	4	12	15	6	2	2	2	2	1	1	2	2	2	2	2	2	4.3	14.9
20-Mar	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	3	3	1.3	2.9
21-Mar	3	3	2	1	A	2	3	2	3	3	4	4	3	2	2	2	1	3	4	1	2	2	7	4	2.8	6.8
22-Mar	2	1	1	1	A	2	4	4	3	2	5	4	2	1	1	2	1	1	1	1	1	1	2	2	2.1	5.1
23-Mar	2	5	9	6	A	13	8	9	7	4	4	3	2	2	1	1	1	1	2	5	8	6	3	3	4.5	13.0
24-Mar	5	4	4	5	A	4	3	2	1	2	4	4	3	1	1	1	1	1	1	1	1	1	1	1	2.2	4.7
25-Mar	1	1	1	5	A	5	4	3	2	2	2	1	1	1	1	2	2	1	1	1	4	2	3	2	2.1	4.9
26-Mar	1	1	0	0	A	1	1	1	2	2	1	P	1	1	1	1	1	1	1	2	2	2	4	3	1.4	4.2
27-Mar	4	4	3	8	A	15	16	15	11	15	39	18	5	3	2	1	2	2	1	4	6	3	2	2	7.8	39.0
28-Mar	2	3	4	4	A	15	25	24	47	27	20	16	12	11	10	9	9	10	13	13	11	6	5	11	13.4	46.7
29-Mar	10	7	5	7	A	6	4	5	6	6	5	4	4	3	2	2	2	2	2	2	1	2	2	1	3.9	10.0
30-Mar	2	1	1	1	A	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	3	7	5	4	1.8	6.7
31-Mar	4	12	8	6	A	20	18	40	17	9	9	5	5	7	8	7	8	8	8	7	9	12	25	8	11.4	40.3
4.5 4.5 4.4 4.6 -- 7.1 7.3 7.9 9.0 9.7 11.1 8.7 5.9 4.4 3.5 3.6 2.9 3.3 3.9 4.2 4.4 4.1 4.8 3.8 18.6 17.8 17.2 12.1 -- 19.9 24.6 40.3 46.7 68.1 87.0 81.4 47.9 18.7 13.6 12.3 8.9 12.2 15.4 13.3 13.8 14.2 24.7 11.8																									Diurnal Average	Diurnal Maximum
C - Calibration P - Power Failure N - Not Valid A - Automated Daily Zero Span																										

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb
Beaverlodge - March 2014



Hourly Maximums

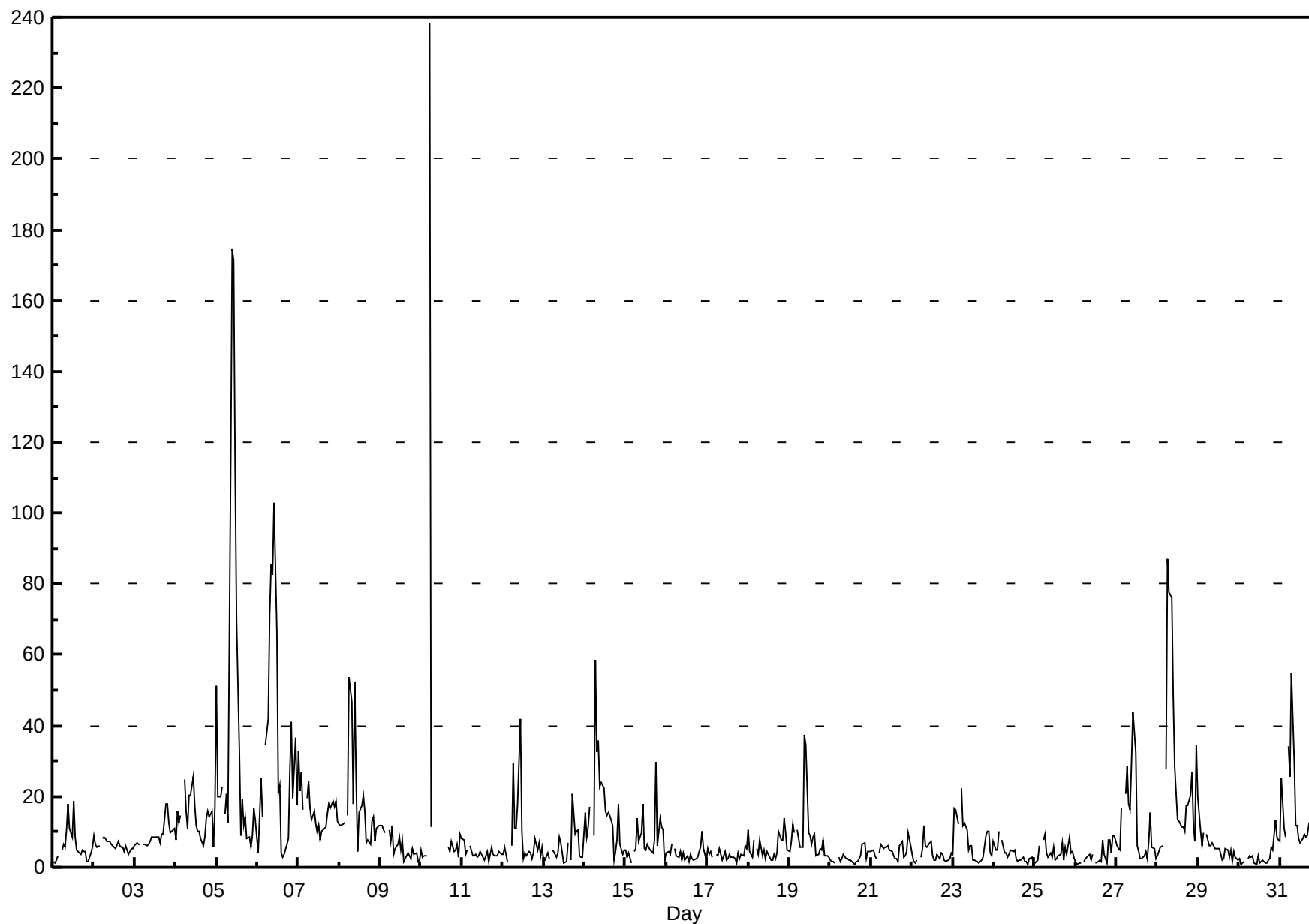
Oxides of Nitrogen (NO_x) - ppb

Beaverlodge - March 2014

Maximum Value: 238.6 ppb on Mar 10 06:00		Maximum Daily Average: 41.5 ppb on Mar 5		Hours in Service: 744																						
Minimum Value: 1 ppb on Mar 26 02:00		Minimum Daily Average: 2.7 ppb on Mar 20		Hours of Data: 702																						
Maximum Diurnal Average: 21.0 ppb at hour 11		Minimum Diurnal Average: 5.0 ppb at hour 17		Hours of Missing Data: 42																						
Monthly Average: 10.60 ppb		Percentiles: P ₁ = 1.0 P ₁₀ = 2.0 Q ₁ = 3.3 Median = 5.8 Q ₃ = 10.9 P ₉₀ = 20.5 P ₉₉ = 78.8		Hours of Calibration: 40																						
				Percent Operational Time: 99.7																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Mar	2	1	2	3	A	5	7	6	11	18	11	9	19	9	5	5	4	5	5	4	2	2	4	6	6.1	18.7
2-Mar	9	7	6	6	A	8	9	8	7	7	6	6	6	5	7	6	6	6	5	6	4	4	5	5	6.3	8.9
3-Mar	6	7	7	7	A	7	7	6	6	7	9	9	9	8	9	7	9	10	18	18	12	10	10	11	9.0	18.0
4-Mar	8	16	13	15	A	25	16	11	20	20	26	18	12	10	10	8	6	8	14	16	14	16	6	17	14.1	25.6
5-Mar	51	20	20	23	A	15	21	13	116	174	171	114	70	32	9	19	12	14	8	8	6	9	16	14	41.5	174.4
6-Mar	4	14	25	14	A	34	42	71	85	83	103	66	21	23	4	3	4	7	8	27	41	20	37	18	32.8	102.9
7-Mar	33	22	27	16	A	19	24	16	14	16	12	10	12	8	10	11	11	15	18	17	19	17	19	13	16.5	33.2
8-Mar	12	12	12	13	A	15	54	47	18	53	24	4	15	18	20	16	7	8	7	13	14	7	11	12	17.9	53.8
9-Mar	12	12	11	10	A	10	7	12	4	5	6	9	5	8	2	2	4	3	2	5	4	4	2	2	6.1	12.0
10-Mar	5	3	3	3	A	239	11	C	C	C	C	C	C	C	C	C	6	4	7	5	5	7	3	9	--	238.6
11-Mar	8	8	3	5	A	6	3	3	4	3	3	5	3	2	3	4	2	6	4	3	3	3	4	3	4.0	8.3
12-Mar	4	6	4	2	A	6	29	11	11	18	42	10	3	4	3	4	4	3	4	8	5	7	3	6	8.5	41.8
13-Mar	2	2	4	3	A	5	4	3	4	8	7	4	1	2	7	N	2	21	10	10	11	3	3	3	5.3	20.9
14-Mar	15	8	12	17	A	9	59	33	36	23	24	22	16	15	15	15	12	2	4	8	18	7	4	5	16.4	58.7
15-Mar	5	3	4	1	A	4	5	14	7	10	18	5	5	7	5	4	4	8	30	6	14	11	10	2	7.9	29.8
16-Mar	4	5	4	7	A	5	3	3	5	2	4	2	3	2	4	3	2	2	3	5	6	10	5	2	3.8	10.1
17-Mar	5	4	4	3	A	4	3	5	4	2	4	2	2	4	3	3	2	1	4	2	4	3	6	5	3.5	6.0
18-Mar	10	4	3	8	A	5	4	8	3	5	3	4	4	2	2	4	2	4	10	8	8	14	10	5	5.6	13.8
19-Mar	4	7	12	10	A	11	6	6	6	38	34	10	9	7	9	9	3	3	5	5	8	3	3	3	9.1	37.6
20-Mar	2	1	2	1	A	3	2	3	4	2	2	2	2	2	1	1	2	2	3	7	7	2	4	5	2.7	7.1
21-Mar	4	5	3	2	A	4	7	5	6	6	6	5	4	3	2	2	2	6	7	3	3	4	10	6	4.7	10.0
22-Mar	3	2	1	2	A	3	5	12	6	6	7	7	3	2	2	3	3	4	4	2	2	2	2	4	3.8	12.0
23-Mar	4	17	16	12	A	22	12	13	11	5	6	6	2	2	2	1	2	2	3	9	10	10	4	3	7.6	22.3
24-Mar	8	5	5	10	A	8	4	4	3	3	5	5	5	2	2	2	2	3	2	2	1	2	3	1	3.7	10.2
25-Mar	1	2	2	6	A	8	9	4	3	4	3	6	2	3	3	4	7	2	6	4	8	4	5	3	4.3	9.4
26-Mar	2	1	1	1	A	2	2	3	4	2	3	P	1	2	2	1	8	3	1	8	8	4	9	9	3.5	8.9
27-Mar	6	5	5	17	A	21	29	18	16	29	44	33	6	4	3	2	3	5	3	7	16	6	5	2	12.4	43.7
28-Mar	3	4	6	6	A	28	87	78	76	48	28	21	13	13	12	11	10	17	17	20	27	12	7	34	25.2	87.0
29-Mar	20	10	6	10	A	9	6	6	7	6	5	5	5	4	2	3	5	5	3	5	2	4	3	2	5.8	20.0
30-Mar	3	1	1	2	A	2	3	3	3	1	1	3	1	2	2	1	1	2	3	6	5	13	9	8	3.3	13.4
31-Mar	7	25	11	8	A	34	26	55	30	12	12	8	7	8	9	9	9	12	10	9	17	49	46	16	18.7	54.8
		8.5	7.7	7.6	7.8	--	18.6	16.3	15.9	17.6	20.6	21.0	14.1	8.9	7.0	5.6	5.7	5.0	6.3	7.3	8.2	9.7	8.8	8.7	7.5	Diurnal Average
		51.5	25.2	26.7	22.8	--	238.6	87.0	77.5	115.7	174.4	171.1	114.0	70.1	32.0	20.2	19.1	12.0	20.9	29.8	27.2	41.2	49.3	46.3	34.4	Diurnal Maximum
C - Calibration		P - Power Failure				N - Not Valid				A - Automated Daily Zero Span																

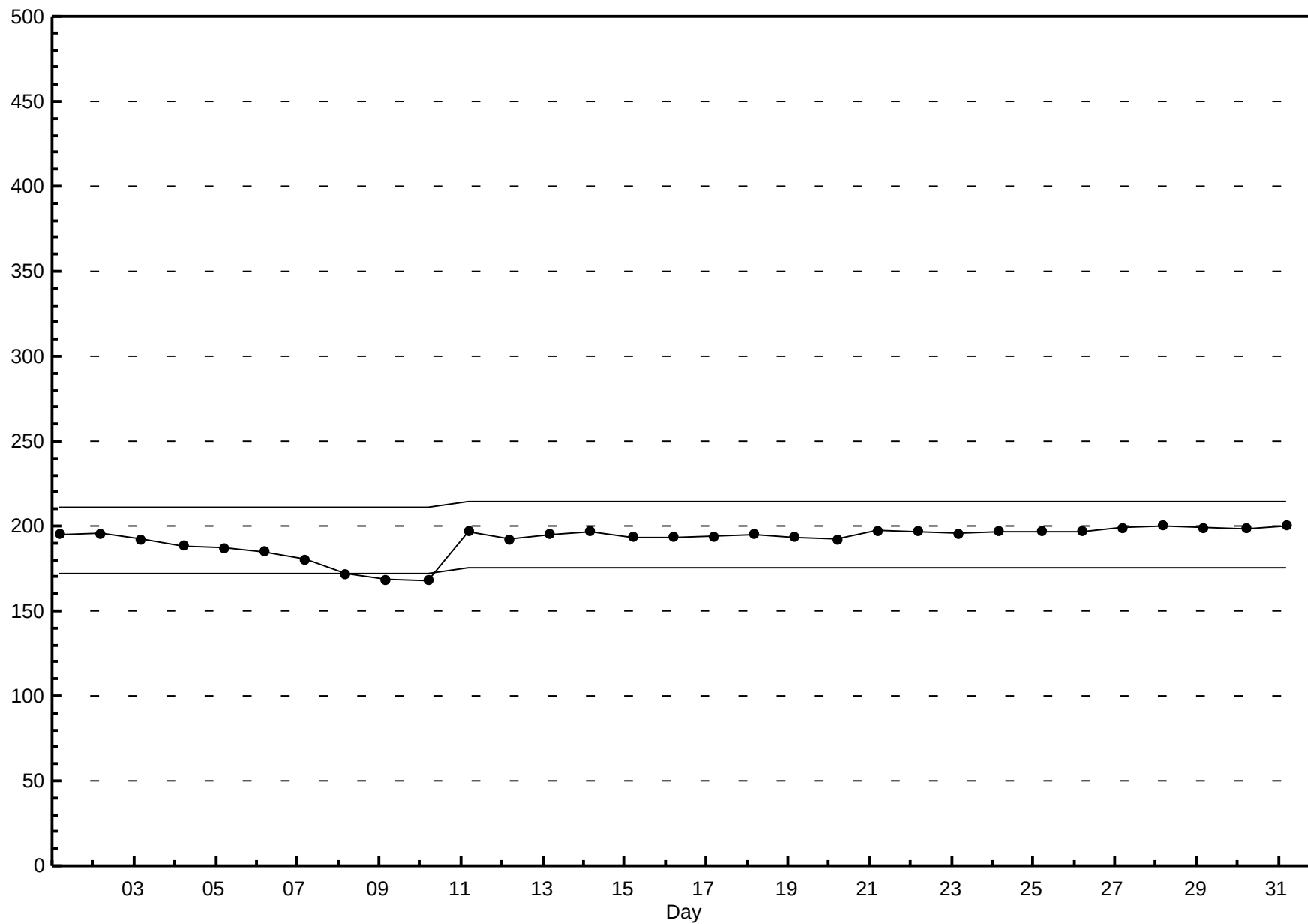
Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb
Beaverlodge - March 2014



Span Responses

Oxides of Nitrogen (NO_x)
Beaverlodge - March 2014



Hourly Averages

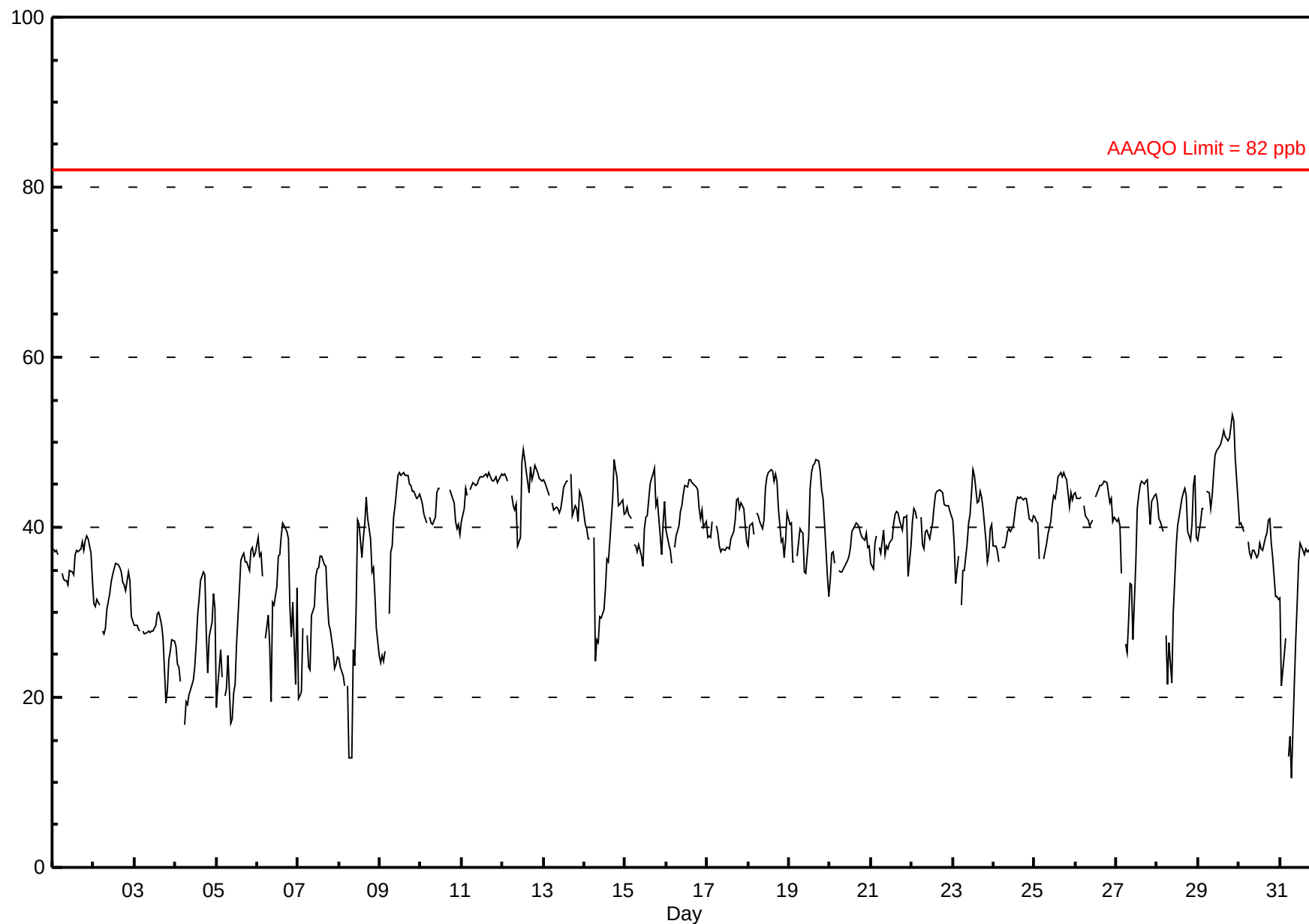
Ozone (O₃) - ppb

Beaverlodge - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 53.2 ppb on Mar 29 21:00 Maximum Daily Average: 47.1 ppb on Mar 29																								Hours in Service: 744 Hours of Data: 706 Hours of Missing Data: 38 Hours of Calibration: 36 Percent Operational Time: 99.7		
Minimum Value: 10 ppb on Mar 31 08:00 Minimum Daily Average: 26.0 ppb on Mar 4 Maximum Diurnal Average: 42.3 ppb at hour 17 Minimum Diurnal Average: 33.2 ppb at hour 7 Monthly Average: 37.82 ppb Percentiles: P ₁ = 17.0 P ₁₀ = 26.8 Q ₁ = 34.7 Median = 39.4 Q ₃ = 43.2 P ₉₀ = 45.6 P ₉₉ = 50.5																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Mar	37	37	37	37	A	35	34	34	34	33	35	35	34	37	37	37	37	38	37	38	39	39	37	34	36.2	38.9
2-Mar	31	31	32	31	A	28	27	28	30	32	33	34	35	36	36	35	35	34	33	33	35	34	29	29	32.2	35.8
3-Mar	28	28	28	28	A	28	27	28	28	28	28	28	29	30	30	29	28	27	19	21	24	25	27	27	27.1	30.0
4-Mar	26	24	24	22	A	17	20	19	20	21	22	23	26	30	32	34	35	34	28	23	27	29	32	30	26.0	34.7
5-Mar	19	21	26	22	A	20	21	25	17	17	21	22	26	33	36	37	37	36	36	35	37	38	37	37	28.5	37.6
6-Mar	39	37	37	34	A	27	30	26	20	31	31	33	37	37	39	41	40	40	39	31	27	31	22	33	33.0	40.6
7-Mar	20	20	21	28	A	27	24	23	30	31	34	35	35	37	37	36	35	32	29	28	26	23	24	25	28.6	36.6
8-Mar	25	24	23	21	A	21	13	13	26	24	31	41	40	36	39	41	44	41	39	35	35	32	28	25	30.2	43.6
9-Mar	24	25	24	25	A	30	37	38	41	43	46	46	46	46	46	46	46	45	45	44	44	43	44	44	40.0	46.4
10-Mar	43	43	42	40	A	41	40	40	41	44	45	45	C	C	C	C	C	44	44	43	41	40	40	39	42.0	44.7
11-Mar	41	42	45	44	A	44	45	45	45	45	46	46	46	46	46	46	46	45	46	46	45	46	46	46	45.1	46.4
12-Mar	46	46	46	46	A	44	43	42	43	38	39	48	49	48	47	44	47	46	46	47	46	46	46	45	45.1	49.2
13-Mar	46	45	44	44	A	43	42	42	42	42	42	43	45	45	45	N	46	41	43	42	41	44	44	43	43.4	46.3
14-Mar	40	40	39	39	A	39	24	27	27	30	29	30	33	36	36	38	43	48	47	46	43	43	43	41	37.4	47.9
15-Mar	42	42	42	41	A	38	38	37	38	37	35	40	41	41	45	46	46	47	42	43	39	37	41	43	40.9	46.9
16-Mar	40	38	37	36	A	38	39	40	42	43	44	45	45	46	46	45	45	45	44	42	41	42	40	41	41.8	45.6
17-Mar	39	39	39	41	A	40	39	38	37	37	37	38	38	38	39	39	41	43	43	42	43	42	40	38	39.6	43.4
18-Mar	38	40	41	39	A	42	41	41	40	41	44	46	46	47	47	45	46	45	42	38	39	36	39	42	42.0	46.8
19-Mar	40	41	36	36	A	37	40	39	39	35	35	39	45	46	47	47	48	48	47	44	43	41	34	32	40.8	47.9
20-Mar	34	37	37	36	A	35	35	35	35	36	36	37	38	39	40	40	40	40	39	39	39	39	38	38	37.5	40.4
21-Mar	36	35	38	39	A	38	37	40	37	38	38	38	39	41	42	42	42	41	40	41	41	41	34	38	38.8	41.9
22-Mar	41	42	42	41	A	41	38	37	39	40	39	40	41	42	44	44	44	44	44	43	43	42	42	41	41.5	44.3
23-Mar	41	38	33	37	A	31	35	35	38	41	42	44	47	46	43	43	44	44	42	39	36	37	40	40	39.8	46.8
24-Mar	38	38	37	36	A	38	38	38	39	40	39	40	41	43	44	43	44	43	43	43	42	41	41	41	40.5	43.5
25-Mar	41	41	40	36	A	36	37	38	39	41	42	44	43	44	46	46	46	46	46	46	42	44	43	44	42.3	46.4
26-Mar	44	43	43	44	A	43	41	41	40	40	41	P	43	44	45	45	45	45	45	44	43	43	41	41	43.0	45.5
27-Mar	41	41	40	35	A	26	25	29	33	33	27	36	42	44	45	45	45	45	46	43	40	43	44	44	38.8	45.6
28-Mar	43	41	41	39	A	27	22	26	22	30	34	38	40	41	43	44	45	44	39	39	40	45	46	39	37.7	46.1
29-Mar	38	41	42	42	A	44	44	42	44	46	48	49	49	50	51	51	51	50	51	52	53	53	48	43	47.1	53.2
30-Mar	40	40	40	39	A	38	37	36	37	37	37	37	38	37	37	39	39	41	41	38	36	32	32	32	37.5	41.1
31-Mar	32	21	25	27	A	13	15	10	21	27	31	36	38	37	37	37	37	37	37	38	35	32	18	33	29.4	38.2
36.5 36.2 36.1 35.6 -- 33.8 33.2 33.4 34.3 35.4 36.5 38.5 39.9 40.8 41.5 41.6 42.3 42.0 40.7 39.5 38.9 38.8 37.3 37.7 46.1 46.3 46.0 45.5 -- 44.4 45.3 45.1 45.0 46.3 48.5 49.0 49.5 49.9 50.6 51.4 50.7 50.2 50.5 51.8 53.2 52.5 48.2 46.3																								Diurnal Average		
																								Diurnal Maximum		
C - Calibration P - Power Failure N - Not Valid A - Automated Daily Zero Span Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82 ppb 24-hr na																										

Hourly Averages

Ozone (O₃) - ppb
Beaverlodge - March 2014



Hourly Maximums

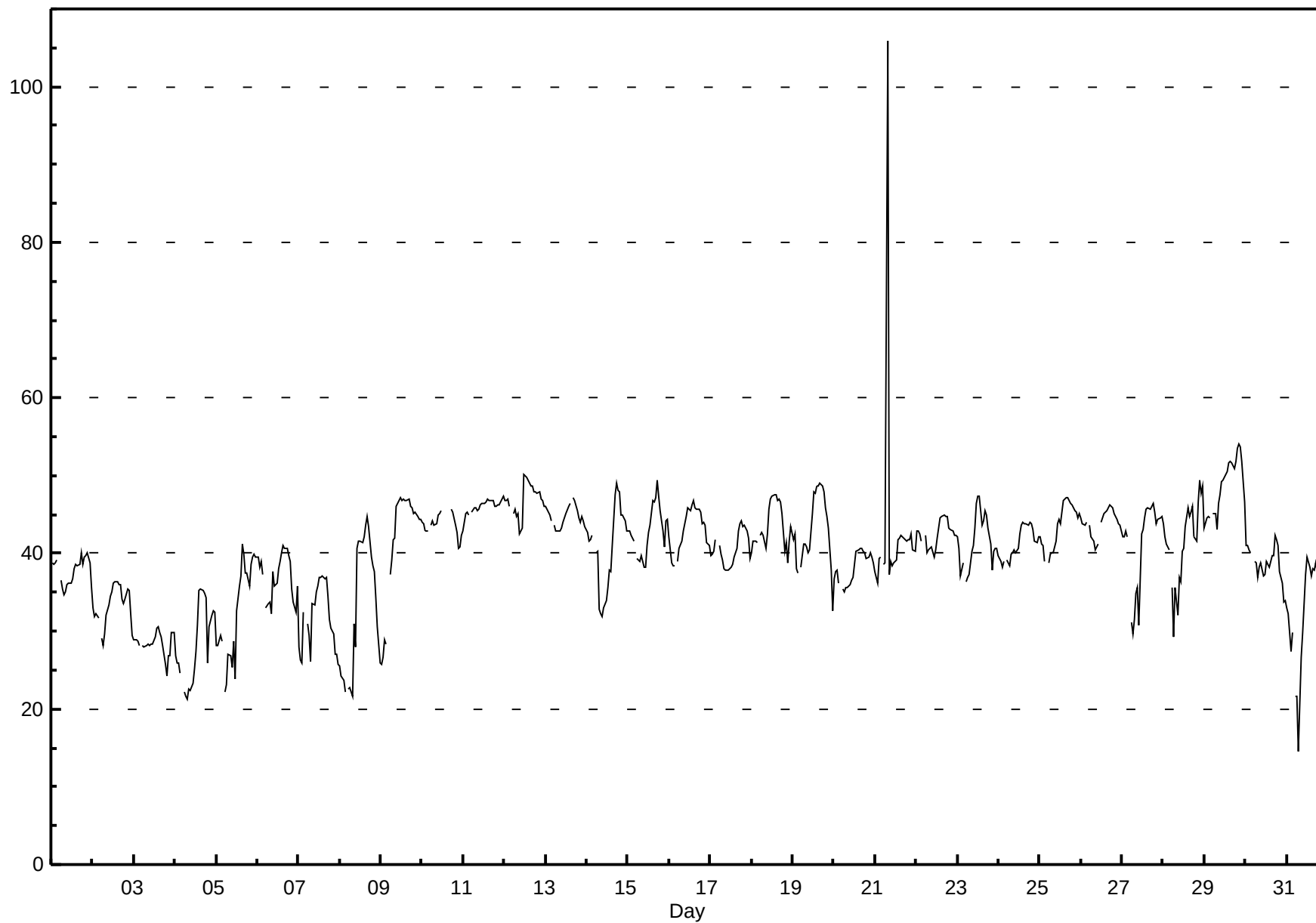
Ozone (O₃) - ppb

Beaverlodge - March 2014

Maximum Value: 105.9 ppb on Mar 21 08:00																					Maximum Daily Average: 48.8 ppb on Mar 29					Hours in Service: 744	
Minimum Value: 15 ppb on Mar 31 08:00																					Minimum Daily Average: 28.2 ppb on Mar 4					Hours of Data: 706	
Maximum Diurnal Average: 43.3 ppb at hour 17																					Minimum Diurnal Average: 36.1 ppb at hour 7					Hours of Missing Data: 38	
Monthly Average: 39.85 ppb																					Percentiles: P ₁ = 22.2 P ₁₀ = 29.4 Q ₁ = 36.7 Median = 40.8 Q ₃ = 44.6 P ₉₀ = 46.8 P ₉₉ = 51.7					Hours of Calibration: 36	
																					Percent Operational Time: 99.7						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Mar	39	39	39	39	A	36	35	35	35	36	36	36	37	38	39	38	39	40	39	40	40	40	39	36	37.8	40.1	
2-Mar	33	32	32	32	A	29	28	30	32	33	35	35	36	36	36	36	36	34	34	34	35	35	32	29	33.3	36.4	
3-Mar	29	29	29	28	A	28	28	28	28	28	28	28	29	30	31	30	29	28	26	24	27	27	30	30	28.4	30.5	
4-Mar	27	26	26	25	A	22	22	21	22	22	23	25	27	31	35	35	35	35	34	26	31	32	33	32	28.2	35.4	
5-Mar	28	28	29	29	A	22	23	27	27	25	29	24	33	36	37	41	40	37	37	36	39	40	40	40	32.5	41.3	
6-Mar	40	38	39	37	A	33	34	34	32	38	36	36	38	39	40	41	41	41	40	39	35	34	32	36	37.0	41.1	
7-Mar	28	26	26	33	A	31	29	26	33	33	35	36	37	37	37	37	37	35	31	30	30	27	27	26	31.6	37.1	
8-Mar	26	24	24	22	A	23	23	22	31	28	41	42	42	41	42	44	45	43	40	38	38	34	30	26	33.4	44.8	
9-Mar	26	27	29	28	A	37	39	42	42	46	47	47	47	47	47	47	47	46	46	45	45	45	44	44	41.7	47.2	
10-Mar	44	44	43	43	A	44	44	44	44	45	45	46	C	C	C	C	C	46	45	44	43	41	41	42	43.6	45.8	
11-Mar	43	45	45	45	A	45	46	46	46	46	46	46	46	47	47	47	47	47	46	46	46	46	47	47	46.0	47.3	
12-Mar	47	47	47	46	A	45	46	45	45	43	43	50	50	50	49	49	49	48	48	48	48	47	47	46	47.0	50.2	
13-Mar	46	46	45	44	A	44	43	43	43	43	44	45	45	46	46	N	47	47	46	45	44	45	44	43	44.7	47.1	
14-Mar	43	42	42	42	A	40	40	33	32	32	33	34	36	38	38	41	48	49	48	48	45	45	44	43	40.6	49.0	
15-Mar	43	43	42	42	A	39	39	39	40	38	38	41	43	44	47	47	47	49	47	45	43	41	44	44	42.9	49.5	
16-Mar	42	39	38	38	A	39	41	42	43	44	45	46	46	46	47	46	46	46	45	44	44	44	41	41	43.1	46.8	
17-Mar	40	40	40	42	A	41	40	39	38	38	38	38	38	39	40	41	43	44	44	43	44	43	42	39	40.5	44.1	
18-Mar	40	42	42	41	A	42	43	42	41	43	46	47	47	47	47	47	47	47	45	40	41	39	42	44	43.5	47.5	
19-Mar	42	42	38	37	A	38	41	41	41	40	41	45	48	48	49	49	49	49	48	46	45	43	38	33	43.0	49.0	
20-Mar	37	38	38	36	A	35	35	36	36	36	37	37	39	40	40	41	41	40	40	39	40	40	40	39	38.2	40.7	
21-Mar	38	36	39	40	A	39	39	106	37	39	38	39	39	42	42	42	42	42	42	42	42	43	41	40	42.9	105.9	
22-Mar	43	43	42	42	A	42	40	40	41	41	40	40	42	43	45	45	45	45	45	43	43	43	42	42	42.5	45.0	
23-Mar	42	41	37	39	A	36	37	37	40	41	43	46	47	47	44	44	46	45	43	41	38	40	41	41	41.6	47.3	
24-Mar	40	39	38	39	A	39	38	40	40	40	40	41	42	44	44	44	44	44	44	44	43	42	41	42	41.4	44.0	
25-Mar	42	41	41	39	A	39	40	40	40	42	44	44	44	45	47	47	47	47	47	46	45	45	44	45	43.6	47.3	
26-Mar	45	44	44	44	A	44	42	42	41	41	41	P	44	45	45	45	46	46	46	45	45	44	44	44	43.9	46.3	
27-Mar	42	42	43	42	A	31	30	32	35	36	31	43	43	45	46	46	46	46	46	45	44	44	45	45	41.1	46.4	
28-Mar	44	42	41	40	A	36	29	36	32	37	36	40	41	43	46	45	45	46	42	42	47	49	48	49	41.6	49.4	
29-Mar	43	45	45	45	A	45	45	43	46	47	49	49	50	50	52	52	52	51	52	53	54	54	52	47	48.8	54.2	
30-Mar	41	41	40	40	A	39	39	37	38	39	37	37	39	39	38	40	40	42	42	41	38	36	34	34	38.7	42.3	
31-Mar	33	32	27	30	A	22	22	15	27	30	33	37	40	38	37	38	38	39	38	40	41	39	36	39	33.4	41.1	
38.5 38.1 37.8 37.7 -- 36.3 36.1 38.0 37.0 37.7 38.7 40.1 41.1 42.1 42.6 42.8 43.3 43.3 42.4 41.4 41.3 40.8 40.1 39.6																									Diurnal Average		
46.9 46.9 47.0 46.1 -- 45.4 45.9 105.9 46.4 47.5 49.2 50.2 50.2 50.5 51.6 51.7 51.6 50.8 51.9 53.5 54.2 53.8 51.8 48.7																									Diurnal Maximum		
C - Calibration P - Power Failure N - Not Valid A - Automated Daily Zero Span																											

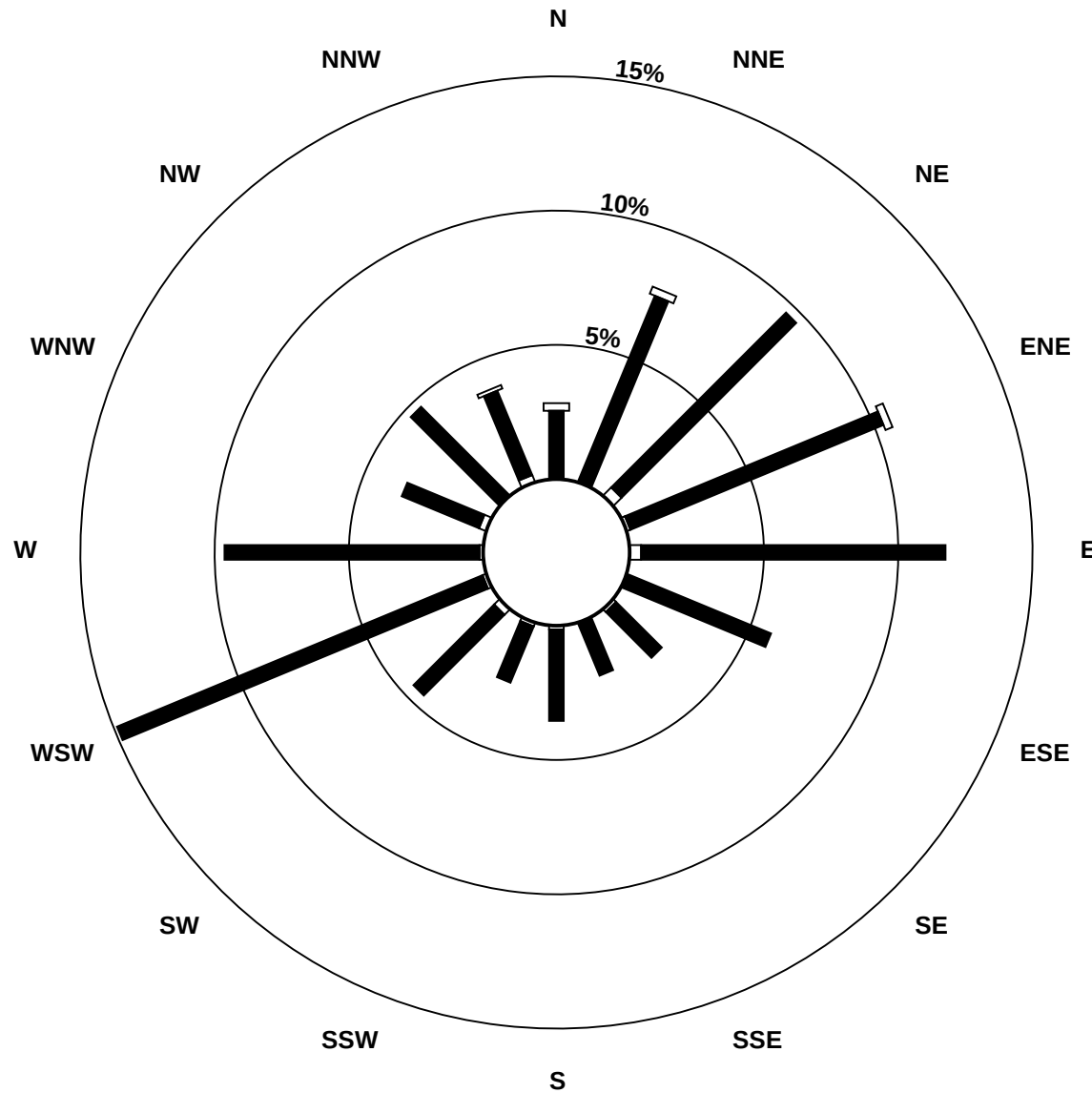
Hourly Maximums

Ozone (O₃) - ppb
Beaverlodge - March 2014

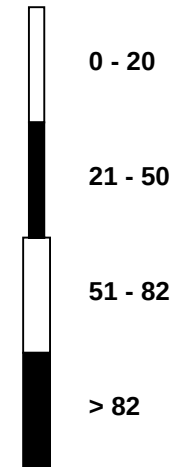


Pollutant Rose

Ozone (O₃) - ppb
Beaverlodge - March 2014



Pollutant Classes (ppb)



Eight Hour Running Averages

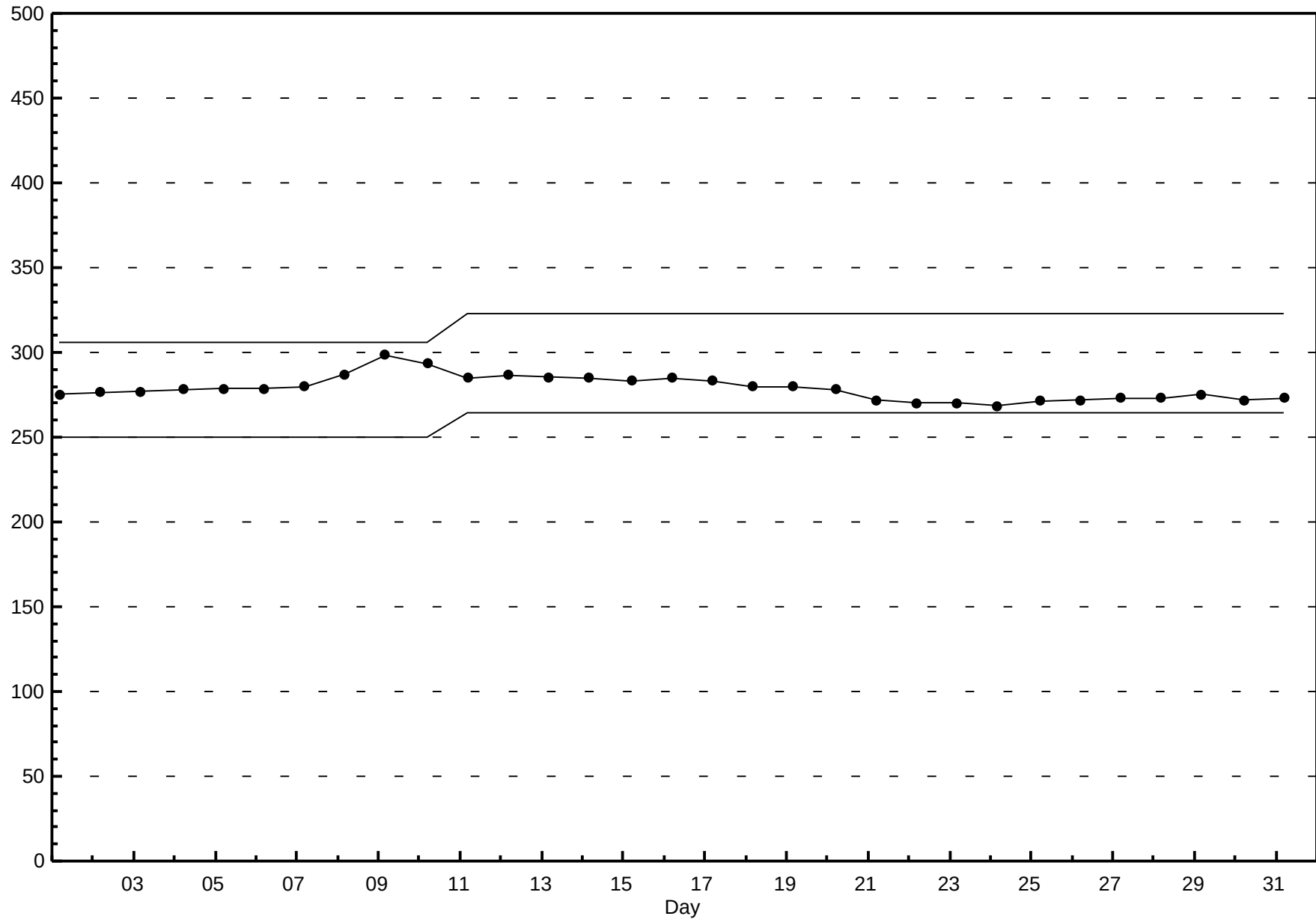
Ozone (O₃) - ppb

Beaverlodge - March 2014

Maximum Value: 51.4 ppb on Mar 29 22:00																								Hours in Service: 744	
Minimum Value: 19.1 ppb on Mar 31 09:00																								Hours of Data: 736	
Percentiles: P ₁ = 20.3 P ₁₀ = 27.7 Q ₁ = 34.4 Median = 39.2 Q ₃ = 42.7 P ₉₀ = 44.7 P ₉₉ = 49.9																								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-Mar	38	38	38	37	37	37	36	36	35	35	34	34	34	34	35	35	36	36	37	37	38	38	38	37	38.1
2-Mar	37	36	35	34	33	32	30	30	30	30	30	31	31	32	33	34	35	35	35	34	34	34	33	33	36.7
3-Mar	32	31	31	30	29	28	28	28	28	28	28	28	28	28	28	29	29	29	28	27	26	26	25	25	31.8
4-Mar	25	24	25	25	25	24	23	22	21	20	20	20	21	23	24	26	28	29	30	30	30	30	30	30	30.2
5-Mar	28	26	26	26	26	24	23	22	22	21	20	20	21	23	25	26	29	31	33	34	36	36	36	37	36.5
6-Mar	37	37	37	37	37	35	34	33	30	29	28	28	29	30	32	33	36	37	38	38	37	36	34	33	38.1
7-Mar	30	28	26	25	25	24	25	23	25	26	28	29	30	31	33	34	35	35	34	33	32	31	29	28	35.0
8-Mar	26	25	25	24	23	23	22	20	20	20	21	24	26	28	31	35	37	39	40	39	39	38	37	35	40.0
9-Mar	32	30	29	27	26	26	27	29	31	34	37	40	41	43	44	45	46	46	46	46	45	45	45	44	46.1
10-Mar	44	44	43	43	43	42	42	41	41	41	42	42	42	43	N	N	N	N	N	N	N	N	42	42	44.1
11-Mar	41	41	41	41	41	42	43	44	44	45	45	45	45	46	46	46	46	46	46	46	46	46	46	46	46.0
12-Mar	46	46	46	46	46	46	45	45	44	43	42	42	43	44	44	44	45	46	47	47	46	46	46	46	46.8
13-Mar	46	46	46	45	45	45	44	44	43	43	42	42	43	43	43	44	44	44	44	44	43	43	43	43	46.0
14-Mar	42	42	42	41	41	40	38	35	33	32	31	29	30	29	31	32	34	37	39	41	42	43	44	44	44.2
15-Mar	44	43	43	42	42	41	41	40	39	39	38	37	38	38	39	40	41	43	44	44	44	43	43	42	44.0
16-Mar	41	40	40	39	39	39	39	38	39	39	40	41	42	43	44	44	45	45	45	45	44	44	43	43	45.1
17-Mar	42	41	40	40	40	40	40	39	39	39	39	38	38	38	38	38	38	39	40	40	41	42	42	42	41.8
18-Mar	41	41	41	40	40	40	40	40	40	41	41	42	43	43	44	45	45	46	46	45	44	42	41	41	45.9
19-Mar	40	40	39	39	38	39	39	38	38	37	37	38	38	40	41	42	43	44	46	47	46	46	44	42	46.6
20-Mar	40	39	38	37	36	35	35	35	36	35	35	35	36	36	37	38	38	39	39	40	40	40	39	39	40.3
21-Mar	38	38	38	38	38	37	37	37	38	38	38	38	38	38	39	39	40	40	40	41	41	41	40	40	41.2
22-Mar	40	40	40	40	40	40	40	40	40	40	39	39	39	40	40	41	42	42	43	43	44	44	43	43	43.6
23-Mar	42	42	40	40	39	38	37	36	35	36	37	38	39	41	42	43	44	44	44	43	42	41	41	40	44.1
24-Mar	39	39	38	38	38	38	38	37	38	38	38	39	39	40	41	41	42	42	43	43	43	43	43	42	43.2
25-Mar	42	42	41	41	40	40	39	39	38	38	39	40	40	41	42	43	44	45	45	45	45	45	45	45	45.5
26-Mar	44	44	44	43	44	43	43	43	42	42	41	41	41	42	42	43	43	44	45	45	45	44	44	43	44.8
27-Mar	43	42	42	41	40	38	36	34	33	32	30	30	31	34	36	38	40	41	44	44	44	44	44	44	44.4
28-Mar	43	43	42	42	42	40	37	34	31	30	29	28	30	32	34	36	39	41	42	42	42	43	42	42	43.5
29-Mar	41	41	41	42	42	42	42	42	43	44	44	45	46	47	47	49	49	50	50	51	51	51	51	50	51.4
30-Mar	49	48	46	45	43	41	40	39	38	38	37	37	37	37	37	37	38	38	39	39	39	38	37	36	48.7
31-Mar	35	33	31	30	29	26	24	21	19	20	21	22	24	27	30	33	35	36	37	37	37	36	34	33	37.3
48.7 47.5 46.2 45.9 45.9 45.7 45.2 44.6 44.3 44.7 44.9 45.4 45.9 46.6 47.5 48.6 49.5 50.0 50.2 50.6 51.0 51.4 51.1 50.0																									
Diurnal Maximums																									
N - Not Valid																									

Span Responses

Ozone (O₃)
Beaverlodge - March 2014



Hourly Averages

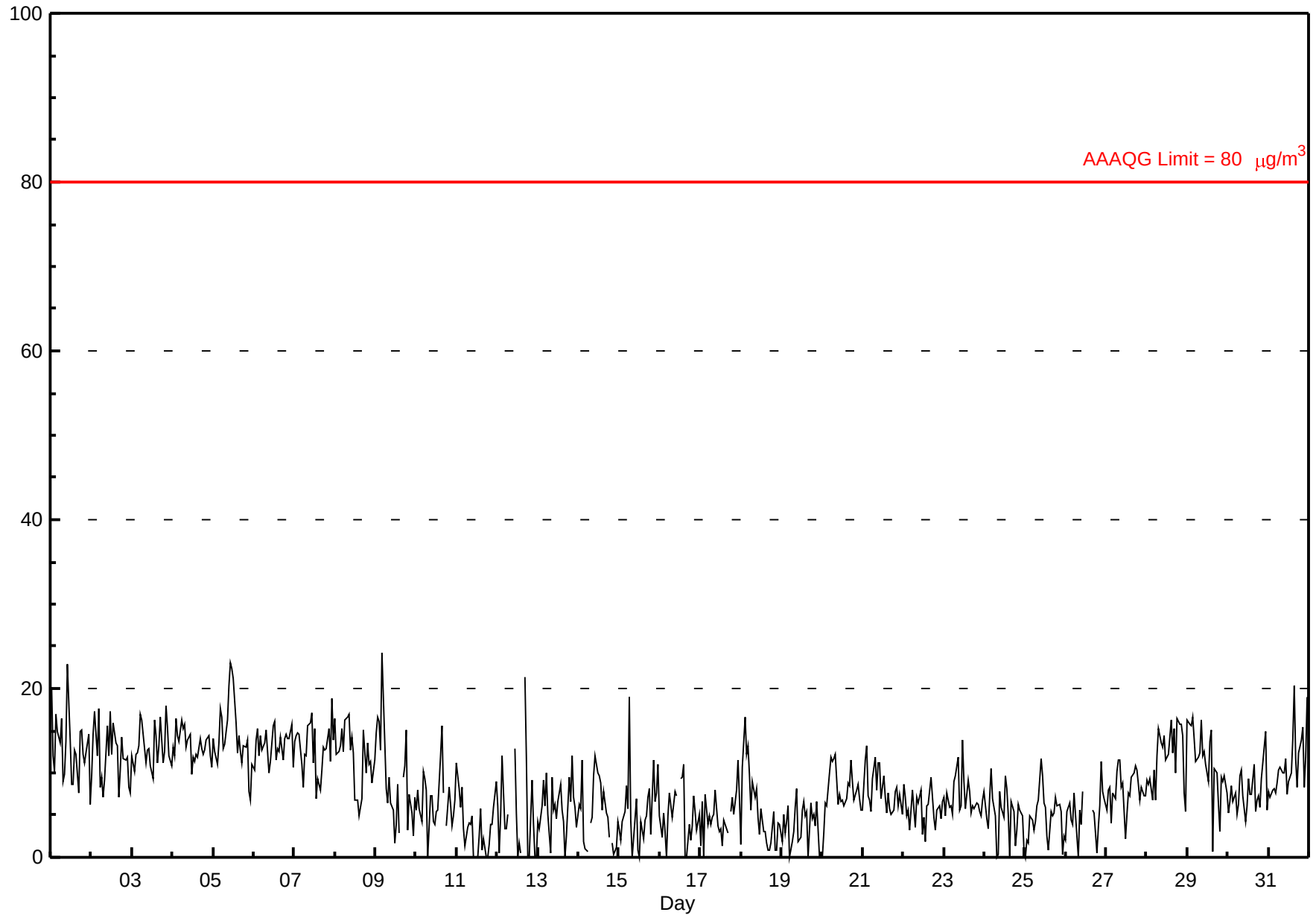
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Beaverlodge - March 2014

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 24.2 µg/m ³ on Mar 9 05:00 Minimum Value: 0 µg/m ³ on Mar 10 08:00 Maximum Diurnal Average: 9.7 µg/m ³ at hour 11 Monthly Average: 8.41 µg/m ³																								
Maximum Daily Average: 14.5 µg/m ³ on Mar 5 Minimum Daily Average: 3.9 µg/m ³ on Mar 11 Minimum Diurnal Average: 7.3 µg/m ³ at hour 24 Percentiles: P ₁ = 0.0 P ₁₀ = 2.5 Q ₁ = 5.1 Median = 7.8 Q ₃ = 12.0 P ₉₀ = 14.7 P ₉₉ = 19.8																								
Hours in Service:	744																							
Hours of Data:	727																							
Hours of Missing Data:	17																							
Hours of Calibration:	3																							
Percent Operational Time:	98.1																							
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
1-Mar	20	12	10	17	15	14	16	9	10	14	23	14	9	9	13	12	8	15	15	12	11	12	15	6
2-Mar	10	15	17	12	18	8	10	7	9	16	12	17	12	16	14	13	7	10	14	12	12	12	8	8
3-Mar	12	10	12	12	13	17	16	13	11	13	13	11	9	16	14	11	13	17	11	13	18	15	12	11
4-Mar	13	12	17	14	14	16	15	16	13	14	15	10	12	11	12	12	14	13	12	13	14	14	12	11
5-Mar	14	13	11	14	18	17	13	13	16	20	23	22	21	16	12	14	12	11	13	13	14	8	7	11
6-Mar	10	14	15	12	14	13	14	15	12	10	11	16	16	12	13	13	14	12	14	15	14	14	16	11
7-Mar	14	14	15	15	11	8	12	12	16	16	17	11	15	7	9	8	10	13	13	13	15	11	19	14
8-Mar	16	12	13	13	15	13	16	17	17	13	14	12	7	7	5	6	7	15	10	14	11	11	9	12
9-Mar	15	17	16	13	24	14	8	6	10	6	6	2	4	9	3	N	9	11	15	3	7	5	3	7
10-Mar	6	8	6	4	10	9	8	0	7	7	4	4	5	6	12	16	8	N	4	8	6	4	5	7
11-Mar	11	8	6	8	3	1	4	4	4	5	0	N	0	2	6	1	2	0	0	2	4	4	6	9
12-Mar	6	0	5	12	3	3	5	M	M	M	13	5	0	2	0	N	21	12	0	0	9	4	0	0
13-Mar	4	3	6	9	6	10	5	1	9	6	6	5	7	9	6	4	0	3	9	7	12	7	6	4
14-Mar	6	6	11	2	1	1	N	4	5	10	12	10	10	9	6	8	5	5	2	N	2	0	1	4
15-Mar	3	2	4	5	9	6	19	4	0	5	7	1	0	4	2	4	5	7	8	3	12	7	8	11
16-Mar	5	2	5	3	0	5	8	5	6	8	7	N	9	9	11	0	0	4	2	4	7	5	3	5
17-Mar	1	7	0	7	4	5	4	5	5	8	4	3	3	1	4	3	3	N	5	7	5	8	12	7
18-Mar	1	11	17	12	13	10	6	9	7	8	5	3	6	3	3	2	1	1	2	5	1	1	4	4
19-Mar	2	5	3	4	6	0	2	3	6	8	2	2	6	7	5	5	0	6	5	5	4	7	0	N
20-Mar	0	3	6	6	10	12	11	12	12	6	7	7	7	6	7	9	9	12	9	7	8	9	7	6
21-Mar	6	12	13	7	7	5	9	12	8	11	11	7	10	7	5	8	6	5	6	8	8	6	8	5
22-Mar	9	7	5	6	3	8	6	4	7	7	8	3	5	2	6	6	9	7	5	3	6	6	5	7
23-Mar	7	5	8	6	6	5	9	10	12	6	6	14	9	6	9	8	5	6	6	7	6	5	5	7
24-Mar	8	5	3	7	10	7	5	0	0	8	6	5	10	8	5	0	7	5	1	3	6	6	5	1
25-Mar	0	2	2	5	4	3	4	6	7	12	10	7	6	3	1	5	5	5	7	6	6	5	0	2
26-Mar	2	5	6	4	4	8	5	0	6	4	8	P	P	C	C	C	6	5	0	4	6	11	8	7
27-Mar	6	8	8	4	8	7	10	11	12	8	9	2	5	8	7	9	10	11	10	9	7	8	7	7
28-Mar	9	9	9	7	10	7	12	15	14	13	14	11	12	12	16	12	15	10	17	16	16	14	8	6
29-Mar	16	16	16	17	14	11	12	12	16	12	13	11	9	14	15	1	11	10	6	3	10	9	10	8
30-Mar	5	7	8	7	8	5	6	10	10	7	4	6	9	7	7	11	5	7	7	6	9	13	15	6
31-Mar	8	7	8	8	8	9	10	11	10	10	12	7	9	10	14	20	12	8	12	14	15	8	12	19
7.9 8.2 9.1 8.8 9.3 8.3 9.4 8.2 9.2 9.6 9.7 8.1 8.0 7.9 8.1 7.9 7.7 8.5 7.8 7.7 9.1 8.1 7.5 7.3 20.1 16.7 17.2 16.9 24.2 16.9 18.9 16.6 16.9 20.4 23.1 22.4 21.3 16.3 16.3 20.4 21.3 16.6 16.5 15.8 18.0 15.4 18.8 19.0																								
Diurnal Average Diurnal Maximum																								
C - Calibration P - Power Failure M - Maintenance N - Not Valid Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m ³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m ³																								

Hourly Averages

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Beaverlodge - March 2014



Hourly Maximums

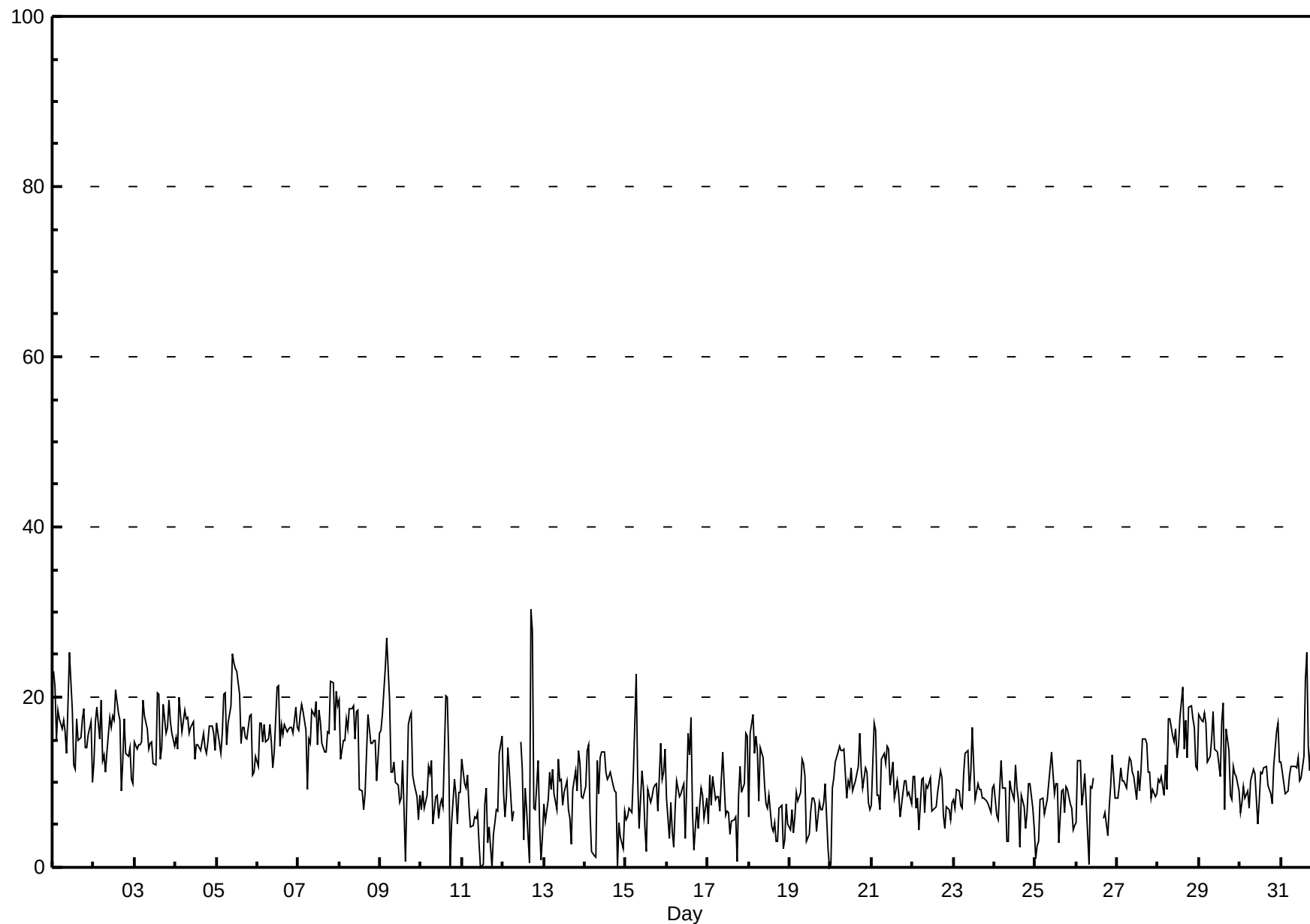
Particulate Matter 2.5 (PM_{2.5}) - µg/m³

Beaverlodge - March 2014

Maximum Value: 30.3 μg/m³ on Mar 12 17:00																					Maximum Daily Average: 17.4 μg/m³ on Mar 5					Hours in Service: 744	
Minimum Value: 0 μg/m³ on Mar 10 18:00																					Minimum Daily Average: 6.5 μg/m³ on Mar 11					Hours of Data: 736	
Maximum Diurnal Average: 12.5 μg/m³ at hour 10																					Minimum Diurnal Average: 10.2 μg/m³ at hour 24					Hours of Missing Data: 8	
Monthly Average: 11.29 μg/m³																					Percentiles: P ₁ = 0.3 P ₁₀ = 5.4 Q ₁ = 7.9 Median = 10.7 Q ₃ = 14.8 P ₉₀ = 17.8 P ₉₉ = 23.1					Hours of Calibration: 3	
																					Percent Operational Time: 99.3						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Mar	23	21	15	18	18	16	17	16	13	19	25	18	12	11	18	15	15	17	19	14	14	16	17	10	16.6	25.2	
2-Mar	12	17	19	15	20	13	13	11	14	18	16	18	17	21	18	17	9	12	17	13	13	14	10	10	14.9	20.9	
3-Mar	15	14	14	14	15	20	18	16	14	15	15	12	12	21	20	13	14	19	16	16	20	17	16	14	15.8	20.6	
4-Mar	15	14	20	18	16	18	18	18	16	17	17	13	14	14	14	14	16	14	13	15	17	17	16	14	15.7	20.1	
5-Mar	17	16	13	16	20	20	14	17	19	25	24	23	23	20	15	16	16	15	15	18	18	11	11	13	17.4	25.0	
6-Mar	12	17	17	15	17	15	15	17	15	12	13	21	21	14	17	16	17	16	16	16	17	16	19	16	16.1	21.3	
7-Mar	16	18	19	18	16	9	15	15	18	18	20	14	19	17	15	14	14	16	16	22	22	16	21	19	16.9	21.8	
8-Mar	20	13	15	15	18	16	19	19	19	15	18	18	9	9	7	9	13	18	15	15	15	10	16	16	14.7	19.7	
9-Mar	16	18	21	23	27	20	11	11	12	10	10	8	8	13	7	1	17	18	18	11	10	8	6	8	12.9	27.0	
10-Mar	7	9	7	9	12	11	13	5	8	8	6	7	8	7	20	20	13	0	5	10	8	5	9	9	9.0	20.1	
11-Mar	13	10	9	11	7	5	5	6	6	6	3	0	0	8	9	3	5	0	4	5	7	7	13	16	6.5	15.5	
12-Mar	9	6	8	14	9	5	7	M	M	M	15	12	3	9	7	0	30	28	7	7	13	5	1	4	9.4	30.3	
13-Mar	7	5	8	11	9	12	9	7	13	10	10	7	9	10	7	6	3	9	11	9	14	12	8	8	9.0	13.7	
14-Mar	10	14	14	6	2	1	1	12	9	13	14	14	11	10	11	11	10	9	9	0	5	4	2	7	8.3	14.4	
15-Mar	6	6	7	6	11	17	23	10	5	11	9	5	2	9	8	8	9	10	10	7	15	10	11	14	9.5	22.8	
16-Mar	8	3	8	4	2	7	10	8	9	9	10	3	16	13	18	7	2	7	5	7	9	8	6	8	7.9	17.6	
17-Mar	5	11	7	11	8	8	8	7	10	14	6	7	6	4	5	6	6	1	8	12	9	10	16	15	8.3	15.7	
18-Mar	6	16	18	13	15	14	8	14	13	10	7	7	8	5	4	5	3	3	7	7	2	3	8	5	8.4	18.0	
19-Mar	4	7	4	6	9	8	9	13	12	11	3	4	7	8	8	7	4	8	7	7	8	10	2	0	6.8	12.6	
20-Mar	0	9	11	12	14	14	14	14	14	8	10	9	12	9	10	11	12	16	12	9	12	11	8	7	10.7	15.7	
21-Mar	7	17	16	8	8	7	13	13	12	14	14	10	12	8	9	10	9	6	9	10	10	8	9	7	10.3	17.0	
22-Mar	11	11	7	8	4	10	10	6	10	9	11	7	7	7	7	9	11	11	6	5	7	7	6	8	8.1	11.3	
23-Mar	8	7	9	9	7	7	11	13	14	9	11	16	12	8	10	9	9	8	8	8	7	7	6	9	9.3	16.5	
24-Mar	10	6	6	9	13	9	9	3	3	10	9	8	12	9	8	2	8	7	5	6	10	10	7	5	7.7	12.5	
25-Mar	1	3	3	8	8	6	7	8	10	14	11	9	10	10	3	9	9	6	9	9	7	7	4	5	7.4	13.6	
26-Mar	5	13	12	7	9	11	8	0	9	9	11	P	P	C	C	C	6	6	4	7	10	13	11	8	8.4	13.2	
27-Mar	8	10	12	10	10	9	11	13	13	11	11	8	11	9	11	15	15	15	11	11	8	9	8	9	10.8	15.1	
28-Mar	10	10	11	8	12	9	17	18	15	15	16	13	14	18	21	14	17	13	19	19	17	16	12	12	14.5	21.2	
29-Mar	18	17	17	18	17	12	13	15	18	14	14	14	11	17	19	7	16	14	8	8	12	11	11	9	13.8	19.4	
30-Mar	6	8	9	8	9	7	10	11	12	11	5	8	11	11	12	12	10	9	9	7	12	16	17	12	10.1	17.0	
31-Mar	12	11	9	9	9	11	12	12	12	12	13	10	10	13	22	25	14	11	15	17	19	13	19	21	13.8	25.2	
10.3 11.5 11.8 11.6 11.9 11.2 11.9 11.6 12.2 12.5 12.2 10.8 11.0 11.5 12.0 10.4 11.4 11.0 10.7 10.6 11.8 10.7 10.3 10.2																										Diurnal Average	
23.1 21.3 20.7 23.4 27.0 20.5 22.8 18.7 19.0 25.0 25.2 23.5 23.0 20.9 22.1 25.2 30.3 27.9 18.9 21.8 21.8 17.1 20.7 20.9																										Diurnal Maximum	
C - Calibration P - Power Failure M - Maintenance																											

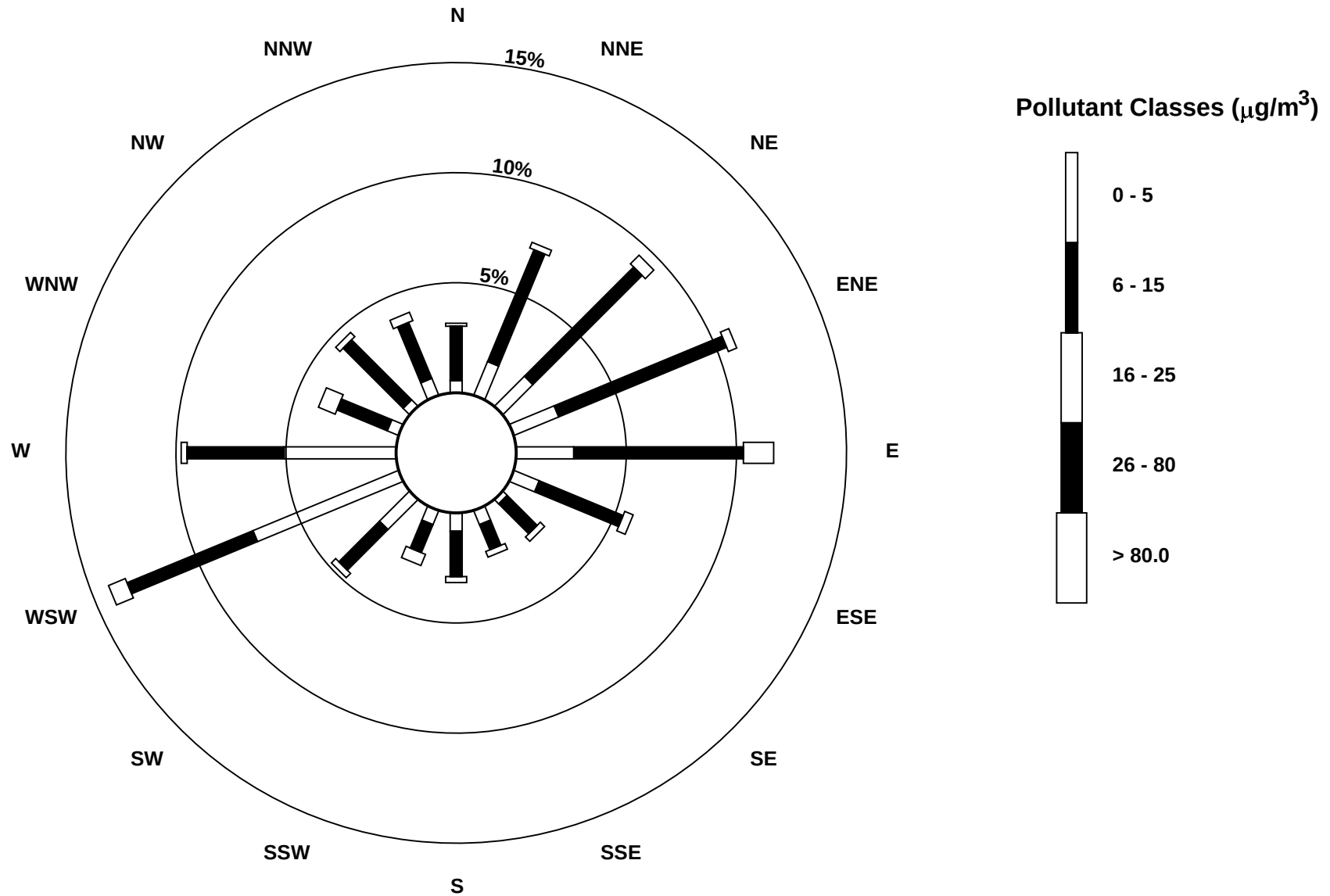
Hourly Maximums

Particulate Matter 2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Beaverlodge - March 2014



Pollutant Rose

Particulate Matter 2.5 (PM_{2.5}) - µg/m³
Beaverlodge - March 2014



Hourly Averages

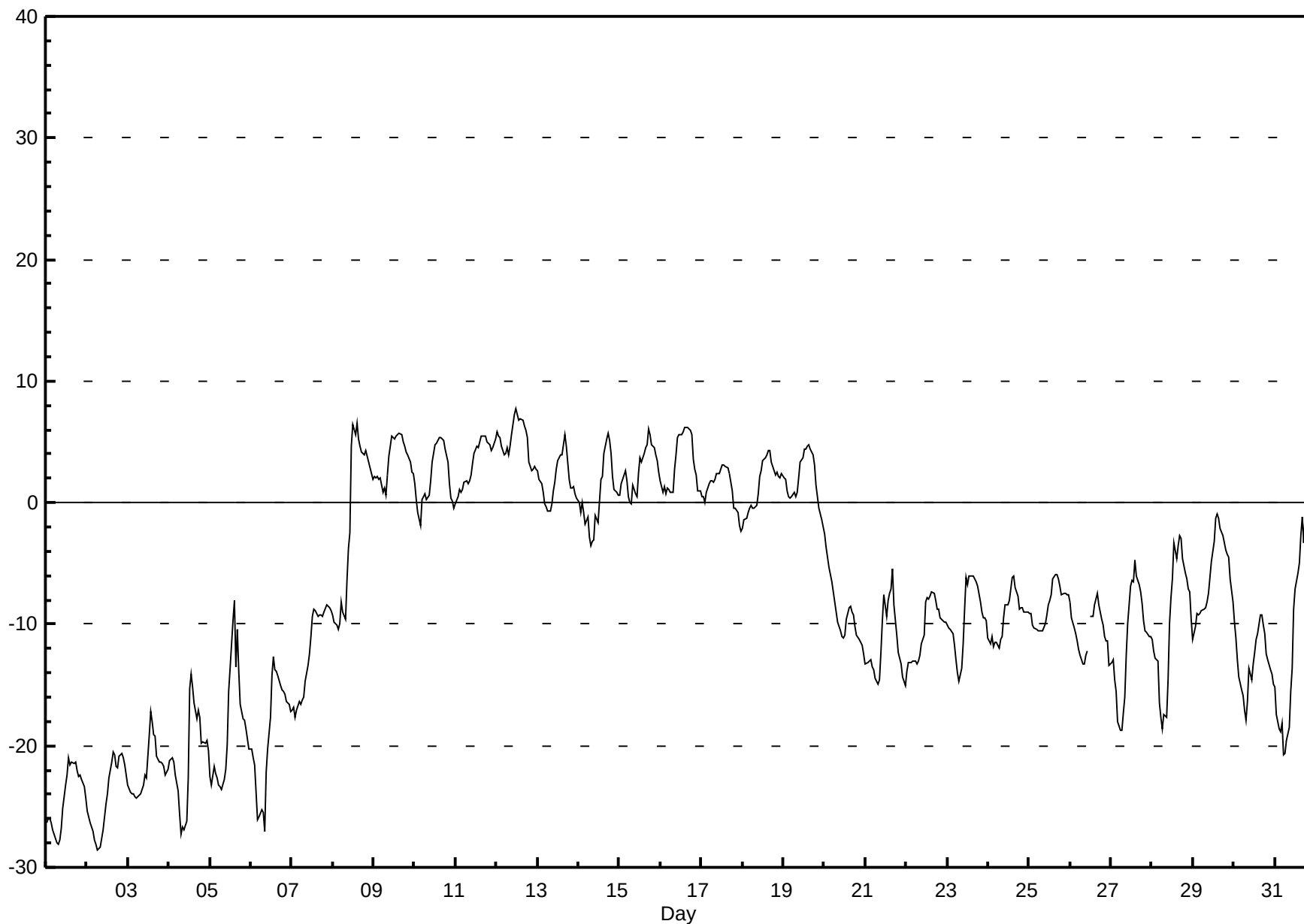
External Temperature (ET) - °C

Beaverlodge - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 7.7 °C on Mar 12 12:00 Maximum Daily Average: 5.1 °C on Mar 12																				Hours in Service: 744 Hours of Data: 743 Hours of Missing Data: 1 Hours of Calibration: 0 Percent Operational Time: 99.9						
Minimum Value: -29 °C on Mar 2 07:00 Maximum Diurnal Average: -4.0 °C at hour 17 Monthly Average: -7.59 °C										Minimum Daily Average: -24.4 °C on Mar 1 Minimum Diurnal Average: -11.1 °C at hour 8 Percentiles: P ₁ = -27.7 P ₁₀ = -21.7 Q ₁ = -13.8 Median = -8.1 Q ₃ = 1.3 P ₉₀ = 4.4 P ₉₉ = 6.3																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Mar	-26	-26	-26	-26	-27	-28	-28	-28	-28	-27	-25	-23	-22	-21	-22	-21	-21	-22	-23	-22	-23	-23	-24	-24.4	-20.9	
2-Mar	-25	-26	-26	-27	-28	-28	-29	-29	-28	-27	-26	-25	-24	-23	-21	-20	-21	-22	-22	-21	-21	-21	-22	-22	-24.3	-20.5
3-Mar	-23	-24	-24	-24	-24	-24	-24	-24	-24	-23	-22	-23	-19	-17	-18	-19	-19	-21	-21	-21	-21	-22	-22	-22	-22.0	-17.2
4-Mar	-21	-21	-21	-21	-22	-24	-26	-27	-27	-27	-26	-23	-15	-14	-15	-16	-18	-17	-18	-20	-20	-20	-20	-20	-20.8	-14.1
5-Mar	-22	-23	-22	-22	-23	-23	-23	-24	-23	-22	-20	-16	-14	-10	-8	-14	-10	-14	-17	-18	-18	-19	-19	-20	-18.4	-8.0
6-Mar	-20	-21	-22	-24	-26	-26	-25	-25	-27	-22	-20	-18	-14	-13	-14	-14	-14	-15	-15	-15	-16	-16	-17	-17	-19.0	-12.7
7-Mar	-17	-17	-18	-17	-16	-17	-16	-16	-15	-13	-12	-11	-9	-9	-9	-9	-9	-9	-9	-8	-8	-9	-9	-9	-12.2	-8.4
8-Mar	-9	-10	-10	-10	-10	-8	-9	-10	-6	-4	-3	5	6	6	7	5	5	4	4	4	3	3	2	-1.3	6.6	
9-Mar	2	2	2	2	2	1	1	1	2	4	5	5	5	6	6	6	5	5	5	4	4	3	3	2	3.5	5.7
10-Mar	2	0	-1	-2	0	0	1	0	1	2	3	4	5	5	5	5	5	5	4	3	2	0	0	0	2.1	5.4
11-Mar	0	0	1	1	1	2	2	2	2	2	3	4	5	5	5	5	5	5	5	5	4	5	5	3.3	5.5	
12-Mar	6	6	5	5	4	4	5	4	5	6	7	8	7	7	7	7	6	6	5	3	3	3	3	3	5.1	7.7
13-Mar	3	2	2	1	0	0	-1	-1	0	1	2	3	3	4	4	5	6	5	2	1	1	1	1	0	1.8	5.6
14-Mar	0	-1	0	-1	-2	-1	-3	-3	-3	-3	-1	-2	0	2	2	4	5	6	5	4	2	1	1	1	0.6	5.7
15-Mar	1	2	2	3	2	0	0	0	1	1	0	2	4	3	4	4	5	6	6	5	5	4	3	2	2.7	6.1
16-Mar	2	1	1	1	1	1	1	1	3	4	5	6	6	6	6	6	6	6	6	4	3	2	1	1	3.3	6.2
17-Mar	0	0	0	1	2	2	2	2	2	2	2	3	3	3	3	3	2	2	1	0	0	-1	-2	-2	1.2	3.1
18-Mar	-2	-1	-1	-1	0	0	0	0	0	1	2	3	3	4	4	4	4	3	3	2	3	2	2	2	1.5	4.3
19-Mar	2	2	1	1	0	1	1	0	1	2	3	4	4	4	5	5	4	4	3	1	0	-1	-1	-2	1.9	4.8
20-Mar	-3	-4	-4	-5	-6	-7	-8	-9	-10	-11	-11	-11	-11	-10	-9	-9	-9	-9	-10	-11	-11	-11	-12	-12	-8.9	-2.6
21-Mar	-13	-13	-13	-13	-13	-14	-14	-15	-15	-12	-10	-8	-9	-8	-7	-7	-5	-8	-11	-12	-13	-13	-14	-15	-11.6	-5.5
22-Mar	-14	-13	-13	-13	-13	-13	-13	-13	-13	-12	-11	-8	-8	-8	-8	-7	-7	-8	-9	-9	-9	-10	-10	-10	-10.5	-7.4
23-Mar	-10	-10	-10	-11	-12	-13	-14	-15	-14	-12	-9	-6	-7	-6	-6	-6	-6	-7	-7	-8	-9	-9	-9	-10	-9.4	-6.0
24-Mar	-11	-12	-11	-12	-11	-11	-12	-11	-11	-9	-8	-8	-8	-7	-6	-6	-7	-8	-9	-9	-9	-9	-9	-9	-9.3	-6.0
25-Mar	-9	-9	-10	-10	-10	-10	-11	-11	-11	-10	-9	-8	-8	-8	-6	-6	-6	-6	-7	-8	-7	-7	-8	-8	-8.5	-5.9
26-Mar	-8	-9	-10	-11	-11	-12	-13	-13	-13	-13	-12	P	-9	-9	-8	-8	-7	-8	-10	-10	-11	-11	-11	-13	-10.6	-7.5
27-Mar	-13	-13	-15	-16	-18	-19	-19	-17	-16	-13	-10	-7	-6	-7	-5	-6	-7	-7	-8	-10	-11	-11	-11	-11	-11.4	-4.7
28-Mar	-11	-12	-13	-13	-17	-18	-19	-17	-18	-15	-10	-8	-6	-3	-5	-4	-3	-3	-5	-6	-6	-7	-7	-10	-9.7	-2.7
29-Mar	-11	-10	-9	-9	-9	-9	-9	-9	-8	-7	-6	-5	-3	-1	-1	-1	-2	-3	-3	-4	-4	-4	-6	-8	-6.0	-0.9
30-Mar	-10	-11	-13	-14	-15	-16	-17	-18	-16	-14	-15	-13	-12	-11	-11	-9	-9	-10	-11	-12	-13	-14	-14	-15	-13.1	-9.2
31-Mar	-15	-17	-19	-19	-18	-21	-21	-20	-18	-16	-14	-9	-7	-6	-5	-3	-1	-3	-1	-5	-7	-7	-9	-9	-11.2	-0.8
-9.0 -9.3 -9.6 -10.0 -10.4 -10.7 -11.0 -11.1 -10.5 -9.2 -7.9 -6.2 -5.2 -4.4 -4.1 -4.1 -4.0 -4.6 -5.3 -6.2 -6.7 -7.1 -7.6 -8.1 Diurnal Average																										
5.8 5.5 5.4 4.6 3.9 4.1 4.5 3.9 4.6 5.6 7.3 7.7 7.2 6.8 6.9 6.8 6.3 6.1 5.7 4.9 4.8 4.3 4.6 5.3 Diurnal Maximum																										
P - Power Failure																										

Hourly Averages

External Temperature (ET) - °C
Beaverlodge - March 2014



Hourly Averages

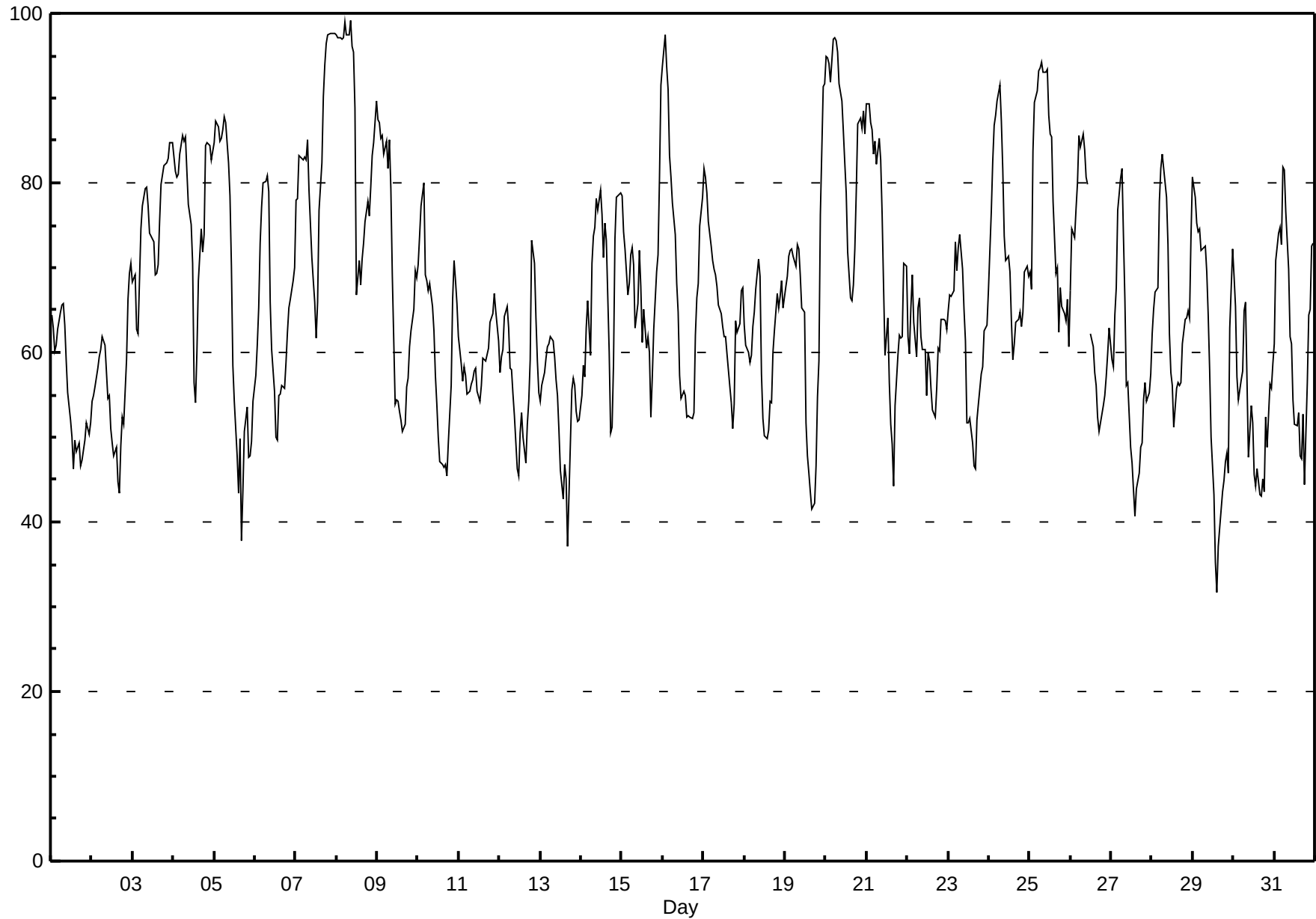
Relative Humidity (RH) - %

Beaverlodge - March 2014

Number of Exceedences (AAAQO): Maximum Value: 99.1 % on Mar 8 09:00																			1-hr: 0 24-hr: 0 Maximum Daily Average: 86.5 % on Mar 8																			Hours in Service: 744 Hours of Data: 743 Hours of Missing Data: 1 Hours of Calibration: 0 Percent Operational Time: 99.9			
Minimum Value: 32 % on Mar 29 15:00 Maximum Diurnal Average: 76.0 % at hour 7 Monthly Average: 66.21 %																			Minimum Daily Average: 53.4 % on Mar 13 Minimum Diurnal Average: 54.7 % at hour 17 Percentiles: P ₁ = 41.4 P ₁₀ = 49.5 Q ₁ = 55.8 Median = 64.7 Q ₃ = 75.3 P ₉₀ = 85.5 P ₉₉ = 97.5																						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																	
1-Mar	64	63	60	61	63	65	66	66	63	59	55	52	50	46	50	48	49	47	47	49	50	52	50	52	55.2	65.7															
2-Mar	54	55	56	58	60	60	62	61	61	55	55	51	49	48	49	45	43	49	52	52	59	66	69	70	55.8	70.5															
3-Mar	68	69	63	62	68	74	77	79	80	77	74	74	73	69	69	70	76	80	82	82	82	83	85	85	75.1	84.8															
4-Mar	83	81	81	81	83	86	85	85	81	77	75	71	56	54	60	68	75	72	74	84	85	84	83	84	77.1	85.6															
5-Mar	85	87	87	85	85	86	88	87	82	78	70	58	54	48	43	50	38	44	51	54	48	48	50	54	65.0	87.8															
6-Mar	57	61	65	73	77	80	80	81	79	66	60	55	50	50	55	55	56	56	59	62	65	66	69	70	64.5	80.9															
7-Mar	78	78	83	83	83	83	83	85	79	71	68	66	62	66	77	82	90	94	96	98	98	98	98	98	83.2	97.7															
8-Mar	98	97	97	97	97	99	97	97	99	96	95	89	67	71	68	71	73	75	78	76	80	83	85	90	86.5	99.1															
9-Mar	87	87	85	86	83	85	82	85	79	69	54	54	53	52	51	52	56	57	61	63	65	70	69	69	68.3	87.4															
10-Mar	70	74	77	80	69	68	67	68	65	63	57	54	50	47	47	47	47	45	49	56	66	71	68	66	61.4	80.0															
11-Mar	62	59	57	58	57	55	55	56	57	58	58	55	54	56	59	59	59	60	64	64	65	67	65	61	59.2	67.0															
12-Mar	58	60	60	64	65	63	58	58	55	52	46	45	50	53	50	47	52	54	59	73	70	64	59	55	57.2	73.2															
13-Mar	54	56	58	59	61	61	62	61	60	57	55	51	46	43	47	45	37	43	56	57	56	53	52	52	53.4	61.9															
14-Mar	55	59	57	63	66	60	71	74	75	78	77	79	76	71	75	73	60	50	51	59	73	78	79	79	68.2	79.2															
15-Mar	78	74	72	67	68	72	72	70	63	66	72	68	61	65	61	62	60	52	57	63	69	72	81	91	68.2	91.5															
16-Mar	94	98	94	91	83	81	78	74	68	65	57	55	55	55	52	53	52	52	53	62	67	68	75	78	69.1	97.5															
17-Mar	82	81	79	75	73	71	70	69	68	66	65	63	62	62	60	56	54	51	54	64	62	63	67	68	66.0	81.8															
18-Mar	63	61	60	59	60	63	65	67	71	69	57	52	50	50	51	54	54	60	63	67	65	67	68	65	60.9	71.0															
19-Mar	68	69	71	72	72	71	70	73	72	69	65	65	52	48	46	44	41	42	47	55	59	76	91	92	63.8	91.7															
20-Mar	95	95	94	92	97	97	97	95	92	90	86	82	79	72	67	66	68	72	79	87	88	86	89	86	85.4	97.2															
21-Mar	89	89	87	86	83	85	82	85	83	76	68	60	64	56	52	49	44	54	60	62	62	62	71	70	70.0	89.3															
22-Mar	62	60	65	69	64	59	65	66	62	60	60	55	60	59	56	53	52	56	60	60	64	64	64	63	60.8	69.1															
23-Mar	65	67	67	67	73	70	72	74	70	65	61	52	52	52	49	47	46	52	54	57	58	62	63	63	60.8	73.9															
24-Mar	67	77	83	87	88	90	92	87	82	74	71	71	69	64	59	61	64	64	65	63	65	69	70	69	72.9	91.5															
25-Mar	69	67	84	90	91	93	94	94	93	93	93	88	86	85	78	69	70	62	68	65	65	64	66	61	78.7	94.2															
26-Mar	67	75	74	77	80	86	84	86	84	81	80	P	62	61	58	56	52	51	53	54	55	57	60	63	67.5	85.7															
27-Mar	59	58	64	68	77	80	82	74	66	56	56	49	47	44	41	44	46	49	49	54	56	54	55	57	57.8	81.7															
28-Mar	62	65	67	68	78	82	83	82	78	73	62	58	56	51	56	56	56	56	61	64	64	65	64	74	65.9	83.3															
29-Mar	81	78	75	74	75	72	72	73	70	64	58	50	43	35	32	37	39	44	45	47	48	46	63	72	58.1	80.6															
30-Mar	69	65	57	54	57	58	65	66	57	48	54	52	46	44	46	43	43	45	44	52	49	56	56	59	53.5	69.0															
31-Mar	61	71	74	75	73	82	82	77	70	62	61	54	52	51	53	48	47	53	44	56	64	65	72	73	63.3	81.9															
Diurnal Average																																									
Diurnal Maximum																																									
P - Power Failure																																									

Hourly Averages

Relative Humidity (RH) - %
Beaverlodge - March 2014



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - March 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	14	16	13	7	10	12	10	11	13	6	7	6	3	6	16	22	28	25	23	25	25	29	29	26	15.1	28.8
Dir	85	76	65	82	95	102	112	98	103	111	109	108	285	73	82	71	63	59	56	66	74	88	92	92	81	88
2 Spd	24	20	18	19	19	16	18	18	22	28	27	23	21	18	20	25	27	22	21	22	21	18	20	21	20.4	27.9
Dir	87	83	77	78	78	81	83	80	86	93	95	88	88	81	82	73	60	36	34	56	69	86	100	93	78	93
3 Spd	19	16	12	13	10	10	7	5	6	12	12	9	2	1	3	2	2	4	4	5	6	7	9	10	4.5	18.7
Dir	84	83	74	74	78	82	81	86	89	97	109	119	125	123	194	132	269	285	296	321	347	328	331	321	71	84
4 Spd	9	11	8	6	7	1	2	2	2	4	4	2	1	1	1	3	5	4	2	3	1	4	8	3	1.8	11.0
Dir	312	301	294	273	275	38	180	84	68	69	57	57	82	145	131	36	50	39	127	71	347	324	318	8	338	301
5 Spd	4	4	3	0	1	2	3	3	1	1	2	2	1	1	1	3	4	4	5	6	6	0	3	1	1.1	6.0
Dir	205	47	43	41	208	88	56	38	277	136	247	233	249	179	171	202	170	92	82	58	51	352	86	131	86	58
6 Spd	1	2	1	1	1	1	1	1	1	2	2	2	1	4	11	15	11	9	6	2	5	3	6	1	1.8	14.6
Dir	164	257	28	42	167	87	58	284	258	75	191	205	56	111	86	91	82	69	49	308	282	225	299	347	76	91
7 Spd	1	1	3	3	2	2	1	4	2	5	4	2	2	2	4	5	8	10	5	4	2	3	3	4	1.5	10.3
Dir	342	90	295	341	168	261	332	41	81	181	167	117	112	56	79	146	113	108	138	138	217	268	243	220	133	108
8 Spd	3	0	2	2	2	5	1	1	2	3	3	7	5	4	5	6	8	8	7	5	11	9	4	3	2.2	11.1
Dir	235	144	146	69	17	27	297	53	277	223	69	258	219	134	116	85	102	75	81	111	117	115	189	190	114	117
9 Spd	1	1	3	2	2	7	11	12	19	27	45	43	41	34	37	40	40	30	36	25	27	20	23	27	22.3	44.6
Dir	214	37	142	80	194	227	249	231	232	245	254	255	251	255	256	260	259	256	261	250	253	251	244	237	251	254
10 Spd	17	12	14	7	20	15	14	14	11	20	28	26	19	20	21	20	24	33	22	21	16	15	13	7	17.0	33.2
Dir	245	237	228	225	251	265	273	270	256	263	271	277	287	291	294	286	279	274	274	261	246	244	247	234	266	274
11 Spd	11	16	16	10	15	25	30	28	33	32	32	34	36	33	26	24	35	30	38	32	23	18	21	22	25.5	38.0
Dir	271	277	276	276	263	257	251	253	256	253	246	245	247	249	243	238	250	254	243	257	251	242	242	252	252	243
12 Spd	21	23	21	22	18	15	10	3	3	3	5	36	41	42	46	54	44	47	43	31	21	22	31	29	25.7	53.8
Dir	259	248	235	237	225	237	238	181	172	151	203	252	245	240	241	244	241	236	245	245	239	253	256	264	243	244
13 Spd	30	28	23	21	16	23	24	23	17	15	14	14	13	11	9	4	3	5	5	5	4	5	5	6	8.9	29.8
Dir	262	261	257	260	259	262	263	265	267	278	286	295	324	338	22	75	71	148	88	91	92	71	72	84	273	262
14 Spd	3	4	3	5	3	8	5	4	7	7	2	4	2	2	4	5	19	34	19	17	13	9	12	12	4.3	33.9
Dir	75	65	41	57	114	82	271	297	317	333	185	177	89	116	87	102	241	260	270	263	233	213	202	223	247	260
15 Spd	5	9	9	3	10	10	5	2	1	3	10	12	10	12	17	14	9	7	4	8	8	1	15	20	3.2	19.8
Dir	215	234	221	257	261	258	250	287	207	98	106	99	98	109	114	100	97	228	171	245	240	65	231	249	185	249
16 Spd	12	2	5	7	15	9	4	10	26	23	25	37	40	38	44	41	34	32	26	15	15	10	9	13	19.8	43.9
Dir	229	105	188	209	229	227	193	222	240	240	242	251	251	254	255	254	256	262	260	245	248	244	233	247	247	255
17 Spd	11	9	3	15	21	26	26	24	26	31	31	30	29	26	29	33	41	40	29	20	22	21	16	14	23.4	40.9
Dir	242	250	257	270	269	270	270	271	270	270	272	269	270	277	264	262	260	256	252	237	236	240	244	245	261	260
18 Spd	9	11	14	13	12	30	26	20	19	21	27	24	21	28	32	22	29	21	12	7	3	3	3	2	16.4	31.7
Dir	241	251	251	266	265	260	270	260	243	245	266	280	267	258	256	253	269	267	257	239	187	162	143	178	259	256
19 Spd	3	3	3	4	3	2	2	0	2	2	7	8	18	23	26	30	31	27	23	19	13	10	14	16	9.6	30.9
Dir	177	147	102	83	78	125	173	97	70	285	239	204	271	284	279	275	261	263	270	265	272	321	321	312	274	261
20 Spd	13	19	16	20	20	19	20	17	19	19	20	18	16	9	6	6	6	5	5	7	5	2	2	4	11.8	20.3
Dir	343	24	23	17	9	15	12	30	38	38	40	42	45	50	18	20	28	34	17	49	48	43	321	14	26	9
21 Spd	9	9	6	5	8	11	10	10	10	1	3	2	4	3	3	3	2	5	7	6	8	5	5	4	3.5	11.2
Dir	27	28	62	56	50	59	49	36	39	167	195	173	201	209	158	185	176	147	118	58	43	39	242	53	61	59
22 Spd	3	6	8	9	11	8	3	2	5	3	6	2	16	19	19	16	12	12	11	11	12	11	3	6	7.1	19.4
Dir	61	78	88	97	88	71	50	187	167	126	293	83	74	70	69	65	34	24	32	35	30	29	333	341	58	70

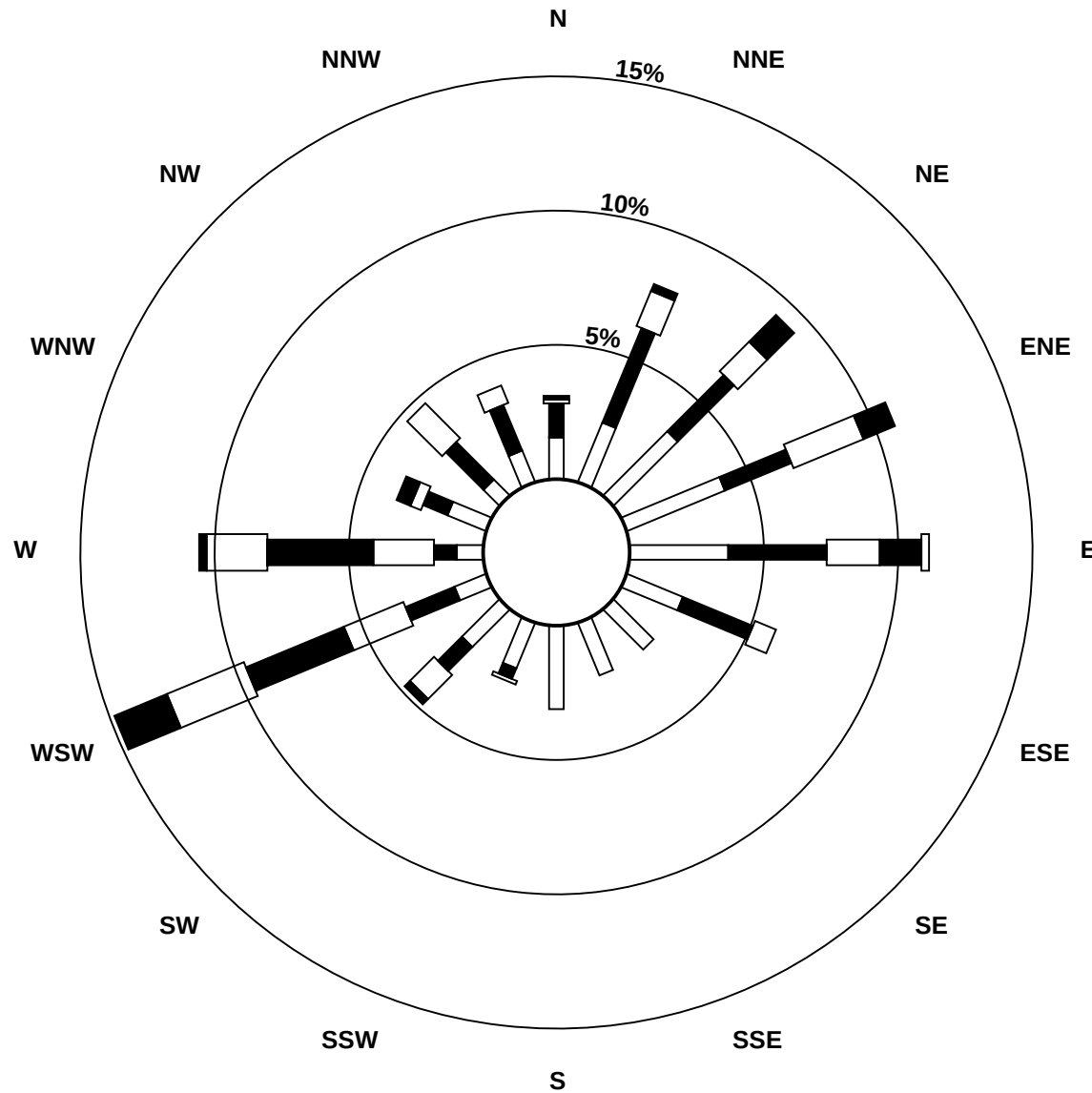
Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Beaverlodge - March 2014

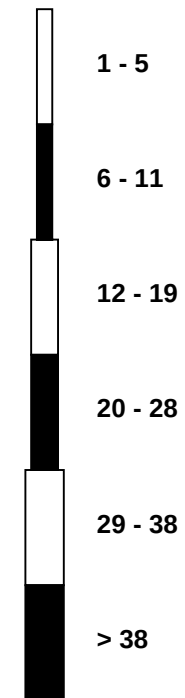
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	6	4	6	2	8	13	14	15	13	10	6	4	11	13	16	17	17	15	9	7	8	9	8	9	9.7	16.7
Dir	350	334	347	351	318	329	326	324	319	315	294	286	298	310	315	328	330	330	319	319	322	329	322	325	322	330
24 Spd	7	9	13	5	7	7	7	4	6	7	10	8	9	11	8	10	12	15	17	14	16	16	13	11	8.4	16.7
Dir	329	26	19	349	9	27	40	73	107	107	107	120	122	99	83	84	70	70	70	76	79	70	70	85	71	70
25 Spd	11	7	8	4	6	4	5	7	9	9	10	11	10	10	8	7	5	13	8	3	1	4	7	11	6.0	12.5
Dir	90	61	37	32	259	2	28	16	9	17	11	11	11	10	24	69	100	52	98	100	90	0	356	42	33	52
26 Spd	20	19	21	23	20	15	13	12	9	10	12	P	9	11	9	9	7	9	7	4	3	2	5	7	10.6	22.9
Dir	55	52	51	42	40	32	25	25	19	12	9	P	38	19	25	45	50	49	45	36	63	43	314	17	36	42
27 Spd	8	7	3	1	1	3	1	0	2	2	2	2	4	4	4	7	10	13	12	8	3	2	8	8	3.9	13.1
Dir	28	28	27	63	224	27	67	79	85	226	175	100	76	64	104	25	37	36	35	34	233	53	57	81	47	36
28 Spd	8	7	4	1	2	1	0	3	5	3	2	3	2	3	4	4	3	2	3	1	2	5	11	4	1.0	10.6
Dir	85	108	100	247	335	33	170	354	13	268	153	228	186	118	168	157	80	164	212	292	350	2	8	28	68	8
29 Spd	5	5	4	7	6	12	12	10	12	16	13	9	7	3	5	8	9	8	7	8	3	5	20	26	7.1	26.2
Dir	310	25	344	333	332	326	321	312	316	316	315	321	330	341	7	58	23	5	345	13	65	350	39	58	353	58
30 Spd	17	16	14	18	19	9	9	8	5	4	11	12	10	9	9	8	9	10	8	7	3	7	2	0	7.8	19.3
Dir	55	70	68	57	47	28	21	19	104	91	112	105	71	61	64	78	94	104	71	36	20	290	297	318	64	47
31 Spd	0	2	2	4	3	2	4	2	3	3	5	4	4	3	5	3	4	4	2	0	4	4	2	3	1.6	5.4
Dir	55	240	59	39	4	340	38	217	204	79	55	83	121	137	68	63	102	134	174	298	25	16	231	31	70	68
Spd	1.1	1.8	1.5	1.9	1.9	3.0	3.5	3.0	2.8	3.2	3.9	5.6	5.3	4.6	4.1	3.4	4.8	5.4	4.4	2.8	1.8	1.4	2.4	1.5	Diurnal Average	
Dir	346	19	18	6	311	306	300	300	277	269	262	257	266	272	266	265	272	276	277	281	262	284	274	287	Diurnal Maximum	
Spd	29.8	28.4	23.3	22.9	21.5	29.9	30.2	27.5	33.5	32.0	44.6	43.4	41.1	42.1	45.9	53.8	44.3	46.7	42.9	32.0	27.1	28.8	31.3	28.6	Diurnal Maximum	
Dir	262	261	257	42	269	260	251	253	256	253	254	255	245	240	241	244	241	236	245	257	253	88	256	264		
Maximum Speed Value: 54 km/h on Mar 12 16:00												Minimum Speed Value: 0 km/h on Mar 28 07:00												Hours in Service: 744		
Maximum Daily Speed Average: 25.7 km/h on Mar 12												Minimum Daily Speed Average: 1.0 km/h on Mar 5												Hours of Data: 743		
Maximum Diurnal Speed Average: 5.6 km/h at hour 12												Minimum Diurnal Speed Average: 1.1 km/h at hour 1												Hours of Missing Data: 1		
Monthly Average Velocity: 2.78 km/h 280.9 deg												Speed Percentiles: P ₁ = 0.5 P ₁₀ = 1.8 Q ₁ = 3.6 Median = 8.4 Q ₃ = 16.6 P ₉₀ = 26.2 P ₉₉ = 42.9												Percent Operational Time: 99.9		
All monthly, daily, and diurnal averages have been calculated using vector methods																										
P - Power Failure																										
Frequency Distribution																										
Speed Range (km/h)																										
Direction	0 to 5		5 to 11		11 to 19		19 to 28		28 to 38		> 38		Total													
North	24		25		6		4		0		0		59													
NorthEast	48		46		24		18		0		0		136													
East	52		51		37		17		2		0		159													
SouthEast	31		7		2		0		0		0		40													
South	41		1		1		0		0		0		43													
SouthWest	26		21		21		18		4		8		98													
West	20		12		23		43		35		11		144													
NorthWest	16		29		18		1		0		0		64													
Total	258		192		132		101		41		19		743													

Wind Rose

Wind Speed (WS) (km/h)
Beaverlodge - March 2014



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Beaverlodge - March 2014

Maximum Speed: 54 km/h on Mar 12 16:00																				Maximum Daily Speed Average: 26.5 km/h on Mar 12					Hours in Service: 744	
Minimum Speed: 1 km/h on Mar 5 14:00																				Minimum Daily Speed Average: 3.0 km/h on Mar 5					Hours of Data: 743	
Maximum Diurnal Speed Average: 16.5 km/h at hour 18																				Minimum Diurnal Speed Average: 9.0 km/h at hour 4					Hours of Missing Data: 1	
Monthly Average Speed: 11.87 km/h																				Percentiles: P ₁ = 1.3 P ₁₀ = 2.6 Q ₁ = 4.3 Median = 8.7 Q ₃ = 16.8 P ₉₀ = 26.3 P ₉₉ = 42.9					Percent Operational Time: 99.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	15	16	13	8	10	12	10	11	13	7	8	7	6	8	16	22	28	25	23	26	25	29	29	26	16.2	28.9
2-Mar	24	20	18	19	19	16	18	18	22	28	27	23	21	19	20	25	27	23	21	22	22	18	20	21	21.3	28.0
3-Mar	19	16	12	13	10	10	7	5	6	12	12	9	3	2	4	2	2	4	5	5	6	7	9	10	7.9	18.7
4-Mar	9	11	8	6	7	3	3	2	2	4	4	3	1	1	3	4	6	4	2	3	2	4	8	4	4.3	11.0
5-Mar	4	5	3	2	1	3	3	3	2	2	2	2	2	1	1	3	4	4	5	6	6	1	3	2	3.0	6.1
6-Mar	2	2	3	3	2	2	3	2	2	4	3	4	3	5	11	15	11	9	6	4	5	4	6	3	4.6	14.7
7-Mar	2	1	3	4	2	2	2	4	2	5	4	3	3	3	4	5	8	10	6	4	4	4	4	4	3.8	10.3
8-Mar	3	1	2	3	4	5	5	2	5	4	6	8	7	5	5	7	8	8	7	8	13	9	4	3	5.6	13.2
9-Mar	1	4	3	2	3	7	12	12	19	27	45	44	41	34	37	40	40	30	36	26	27	20	23	27	23.3	44.7
10-Mar	17	12	14	8	21	15	14	14	12	21	28	26	19	20	22	21	24	33	22	21	16	15	13	7	18.1	33.3
11-Mar	11	16	16	11	15	25	30	28	34	32	32	34	36	33	26	24	36	30	38	32	23	18	21	22	25.9	38.1
12-Mar	21	23	21	22	19	15	11	4	4	3	5	36	41	42	46	54	44	47	43	31	21	23	31	29	26.5	53.9
13-Mar	30	28	23	21	16	23	24	23	17	15	14	14	13	11	10	5	3	5	6	5	4	5	5	6	13.6	29.9
14-Mar	4	5	3	6	4	8	10	6	8	10	3	4	3	2	4	6	21	34	20	17	13	10	12	12	9.3	34.1
15-Mar	6	10	9	4	10	11	7	6	2	4	10	12	10	13	18	14	10	9	5	8	9	2	15	20	9.4	20.1
16-Mar	12	3	5	7	15	9	5	11	26	24	25	38	40	39	44	41	34	33	26	15	15	10	10	13	20.8	44.3
17-Mar	11	9	5	15	21	26	26	24	26	31	31	30	29	27	29	33	41	40	29	20	22	21	16	14	24.0	41.1
18-Mar	9	11	14	13	12	30	26	20	19	21	27	24	21	29	32	23	29	21	12	7	3	3	4	2	17.3	32.2
19-Mar	3	4	3	4	4	2	3	2	2	4	8	10	19	23	26	30	31	27	23	19	14	10	14	16	12.6	31.3
20-Mar	16	19	16	20	20	19	20	17	19	19	20	18	17	10	6	6	6	5	5	7	5	2	3	4	12.5	20.4
21-Mar	9	9	6	5	9	11	10	10	10	4	3	3	4	4	4	4	3	5	7	7	8	5	5	4	6.2	11.2
22-Mar	4	6	8	9	11	8	4	5	6	6	6	4	16	20	19	16	12	12	11	11	12	11	4	6	9.5	19.5
23-Mar	6	4	6	3	8	13	14	15	13	10	7	7	11	14	16	17	17	15	10	7	8	9	8	9	10.2	16.9
24-Mar	7	9	13	7	7	7	7	5	7	7	10	9	9	11	8	10	12	15	17	14	16	16	13	11	10.3	16.7
25-Mar	11	7	8	5	6	5	5	8	9	9	10	11	11	10	8	9	7	13	9	3	2	4	7	11	7.9	12.9
26-Mar	20	19	21	23	20	15	14	12	9	10	12	P	11	11	9	9	8	9	7	4	3	2	5	7	11.4	22.9
27-Mar	8	7	3	3	2	4	2	2	2	3	2	2	4	4	4	7	11	13	12	9	5	3	8	9	5.4	13.2
28-Mar	8	7	4	2	4	2	2	5	6	4	3	4	4	3	5	4	4	3	3	2	2	5	11	5	4.3	10.7
29-Mar	6	5	4	8	6	12	12	10	12	16	13	10	8	5	5	8	9	9	7	8	4	5	21	26	9.6	26.3
30-Mar	17	17	15	18	19	9	10	8	6	4	12	12	10	9	9	8	9	10	8	7	3	7	2	1	9.6	19.3
31-Mar	2	3	2	4	5	3	5	2	3	3	5	4	4	4	6	3	4	4	2	1	5	5	2	3	3.6	5.5
10.2 10.0 9.2 9.0 10.1 10.8 10.4 9.6 10.5 11.3 12.9 13.8 13.7 13.5 14.8 15.3 16.4 16.5 14.0 11.6 10.4 9.3 10.8 10.8																									Diurnal Average	
29.9 28.4 23.3 22.9 21.5 30.0 30.3 27.6 33.5 32.1 44.7 43.6 41.2 42.2 46.2 53.9 44.4 46.8 43.0 32.0 27.1 28.9 31.3 28.7																									Diurnal Maximum	
P - Power Failure																										
All monthly, daily, and diurnal averages have been calculated using scalar methods																										

Hourly Standard Deviations

Wind Direction (WD) - deg

Beaverlodge - March 2014

Maximum Value: 98.2 deg on Mar 31 01:00																				Hours in Service: 744					
Minimum Value: 1.6 deg on Mar 10 22:00																				Hours of Data: 743					
																				Hours of Missing Data: 1					
Percentiles: P ₁ = 2.3 P ₁₀ = 3.9 Q ₁ = 5.7 Median = 11.4 Q ₃ = 33.8 P ₉₀ = 65.3 P ₉₉ = 92.8																				Hours of Calibration: 0					
																				Percent Operational Time: 99.9					
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Mar	4	5	10	30	6	4	11	10	14	36	25	10	86	42	10	7	4	5	3	4	5	4	2	2	86.5
2-Mar	2	5	4	4	4	4	4	4	4	3	4	7	6	10	7	6	6	8	4	6	6	4	6	5	9.8
3-Mar	4	4	9	8	8	10	8	13	9	7	7	7	33	76	53	68	27	24	12	5	18	11	8	4	76.4
4-Mar	11	4	11	8	10	78	46	38	59	8	8	58	59	47	54	71	12	6	29	21	47	38	5	44	78.3
5-Mar	15	31	60	94	76	48	13	13	59	67	24	38	89	59	66	7	13	28	13	11	42	93	30	76	94.5
6-Mar	94	36	83	87	72	66	79	75	93	67	71	66	79	65	6	5	7	9	9	66	15	28	9	82	94.5
7-Mar	62	61	39	58	42	67	54	9	38	13	23	38	41	38	18	24	12	5	16	19	55	42	50	20	66.9
8-Mar	27	84	31	39	48	22	94	85	70	68	71	33	43	32	33	22	23	10	12	53	39	12	27	19	94.0
9-Mar	85	87	57	66	52	20	38	32	6	11	4	5	4	7	5	4	4	6	3	8	3	4	2	3	87.2
10-Mar	3	4	8	29	9	12	10	4	7	6	4	4	5	11	18	10	8	6	7	5	6	2	4	28	29.4
11-Mar	40	5	9	25	15	8	3	5	3	3	4	3	4	5	3	5	6	6	4	5	3	6	5	6	40.0
12-Mar	7	4	5	5	11	5	24	54	49	36	20	21	5	4	6	3	4	4	4	3	3	10	3	3	53.8
13-Mar	3	3	3	4	4	2	2	2	3	7	6	11	8	16	13	18	31	20	33	26	22	23	8	10	32.5
14-Mar	61	38	69	53	60	13	75	64	44	42	82	27	23	31	27	19	43	7	8	11	14	22	8	8	82.3
15-Mar	65	54	16	62	15	34	79	78	77	36	5	6	11	9	12	10	21	39	37	45	26	66	25	10	78.6
16-Mar	11	50	33	47	6	25	73	15	3	5	6	6	8	8	8	4	3	6	5	8	7	11	20	3	73.3
17-Mar	2	7	73	14	3	4	3	4	3	4	4	6	6	7	6	8	5	5	4	3	3	2	2	2	73.5
18-Mar	6	7	7	4	12	4	5	5	4	5	6	6	7	7	10	6	6	5	13	24	22	9	52	46	52.5
19-Mar	16	38	26	9	34	28	68	89	54	70	33	34	37	5	6	6	9	9	7	4	18	5	6	5	89.2
20-Mar	30	9	7	5	5	7	5	9	8	3	4	5	5	21	10	11	20	14	6	16	6	33	68	11	67.5
21-Mar	3	6	12	15	13	4	4	5	8	78	29	23	15	40	25	25	58	11	14	23	6	18	8	68	77.5
22-Mar	32	14	8	5	6	13	39	60	32	87	25	88	15	5	5	8	10	4	7	6	4	3	43	17	88.4
23-Mar	12	19	11	74	13	5	3	3	4	6	54	77	11	13	10	9	9	8	8	7	5	4	5	3	77.5
24-Mar	32	14	3	53	6	9	7	50	9	4	6	11	13	16	14	11	9	4	3	5	4	5	10	11	52.6
25-Mar	13	16	8	66	19	28	7	10	4	4	6	5	7	6	11	47	56	14	11	15	74	22	22	13	73.8
26-Mar	7	4	4	4	6	4	9	7	4	8	10	P	31	7	13	10	22	13	7	10	13	15	16	26	30.5
27-Mar	4	5	41	93	67	42	82	88	37	48	48	29	26	21	31	20	11	4	5	6	70	64	10	10	92.9
28-Mar	11	11	25	55	66	87	83	62	39	52	60	76	63	44	22	20	46	69	22	36	76	14	4	77	87.4
29-Mar	52	14	23	28	47	5	4	5	5	4	7	12	17	60	37	18	17	29	23	14	65	26	18	5	65.4
30-Mar	8	9	20	7	4	11	14	13	30	54	10	11	13	13	12	11	16	11	10	9	35	15	56	83	83.3
31-Mar	98	43	37	50	63	52	31	17	19	40	11	19	22	27	11	25	16	8	35	91	28	66	58	61	98.2
98.2 87.2 83.0 94.5 75.5 87.4 94.0 89.2 92.8 86.7 82.3 88.4 89.2 76.4 66.2 70.9 57.6 68.6 36.6 90.7 76.3 93.3 67.5 83.3																									
P - Power Failure																									

PAZA
Valleyview Station
Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

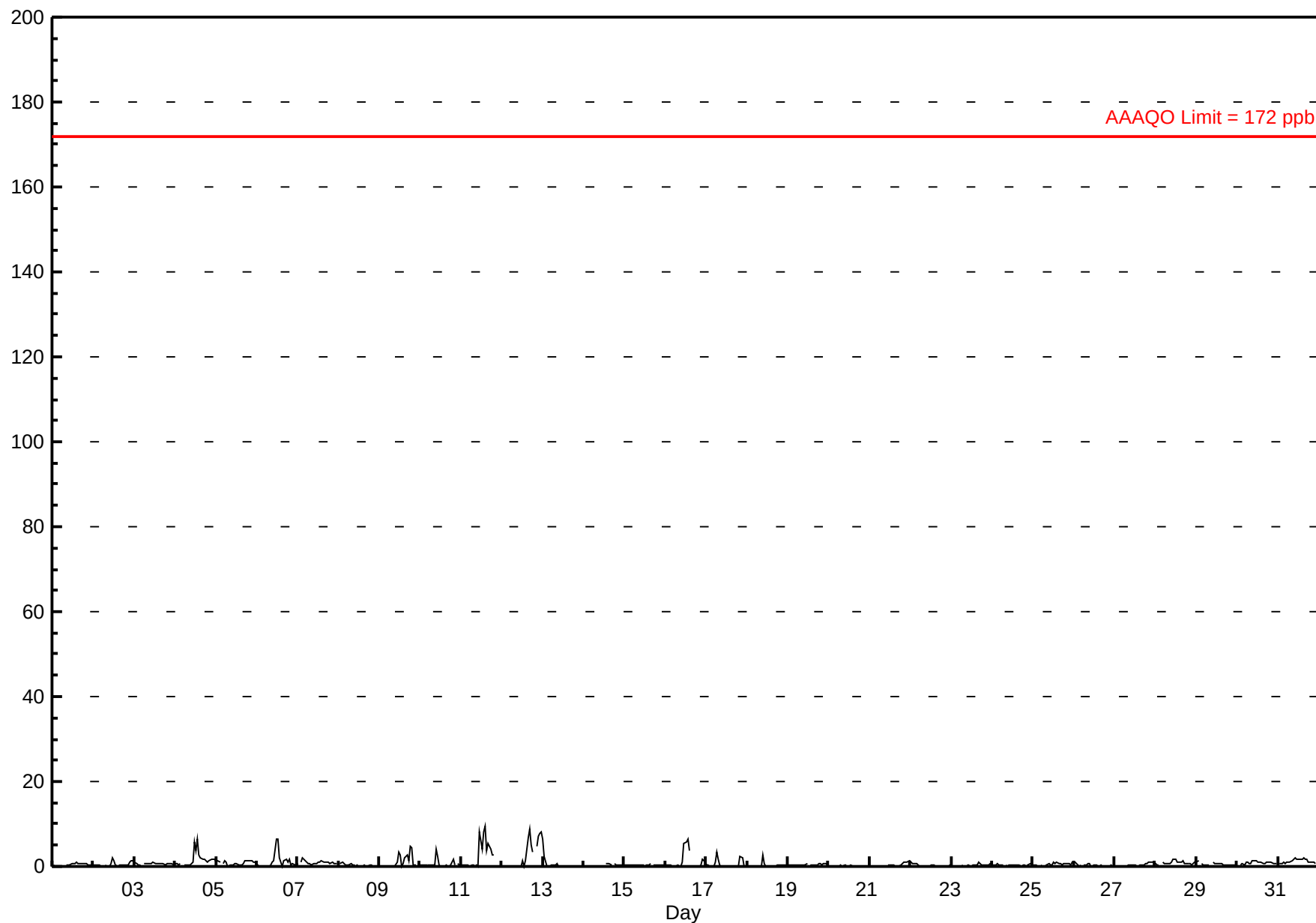
Valleyview - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 9.3 ppb on Mar 11 15:00 Maximum Daily Average: 2.3 ppb on Mar 12																				Hours in Service: 744 Hours of Data: 701 Hours of Missing Data: 43 Hours of Calibration: 35 Percent Operational Time: 98.9						
Minimum Value: 0 ppb on Mar 6 04:00 Maximum Diurnal Average: 1.5 ppb at hour 12 Monthly Average: 0.71 ppb																				Minimum Daily Average: 0.1 ppb on Mar 20 Minimum Diurnal Average: 0.3 ppb at hour 5 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.3 Q ₃ = 0.8 P ₉₀ = 1.4 P ₉₉ = 6.9						
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-Mar	0	0	0	0	0	0	0	A	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0.4	0.9
2-Mar	0	0	0	0	0	0	A	0	0	0	1	2	1	0	0	0	0	0	0	0	0	1	1	1	0.5	2.0
3-Mar	1	1	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0.6	1.1
4-Mar	1	1	0	1	A	0	0	0	0	0	1	6	4	6	3	2	2	2	1	1	1	2	2	2	1.7	6.5
5-Mar	1	1	1	A	1	1	1	0	0	0	0	1	1	0	0	0	1	1	1	2	1	1	1	1	0.9	1.5
6-Mar	0	0	A	0	0	0	0	0	0	1	1	7	6	2	1	0	1	2	1	2	0	1	0	0	1.2	6.6
7-Mar	1	A	1	2	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.9
8-Mar	A	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	0.9
9-Mar	0	0	0	0	0	0	0	0	0	0	1	3	3	0	1	2	3	1	5	4	0	0	A	0	1.1	4.7
10-Mar	0	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	0	0	0	2	0	A	1	0	0.6	4.0
11-Mar	0	0	0	0	0	0	0	0	0	0	0	8	4	8	9	4	5	4	3	3	A	0	0	0	2.2	9.3
12-Mar	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	7	9	5	3	A	5	7	8	8	2.3	8.7
13-Mar	6	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.5	6.4
14-Mar	0	0	0	0	0	0	0	0	0	0	C	C	C	1	1	1	0	A	1	0	0	0	0	0	0.2	0.8
15-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0.3	0.6
16-Mar	0	0	0	0	0	0	0	0	0	0	1	5	6	7	4	A	0	0	0	0	0	0	2	1	1.2	6.6
17-Mar	0	0	0	0	0	1	3	2	0	0	0	P	P	P	P	P	P	0	0	0	2	2	0	0	0.7	3.4
18-Mar	0	0	0	0	0	0	0	0	0	3	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0.3	2.8
19-Mar	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0	0	0	0	1	1	0	1	1	0	0.4	0.7
20-Mar	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
21-Mar	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	1	1	1	0.3	1.2
22-Mar	1	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
23-Mar	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0.3	0.9
24-Mar	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.3	0.5
25-Mar	0	0	0	0	0	0	A	0	0	1	0	0	1	1	1	1	1	0	1	1	1	1	0	1	0.5	1.1
26-Mar	1	1	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
27-Mar	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0.4	1.0
28-Mar	1	0	1	A	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	0	1	1	0.9	1.7
29-Mar	1	1	A	1	0	0	0	0	P	P	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.5	1.2
30-Mar	0	A	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
31-Mar	A	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	1	1	1	1	1	A	1.3	2.2
0.6 0.5 0.3 0.3 0.3 0.3 0.4 0.3 0.3 0.6 0.7 1.5 1.3 1.2 1.0 0.9 1.1 0.8 0.8 0.8 0.7 0.8 0.8 0.8																									Diurnal Average	
6.4 2.5 1.2 1.9 1.3 1.4 3.4 1.8 1.4 4.0 2.5 8.2 6.3 8.1 9.3 6.7 8.7 4.9 4.7 4.3 4.9 7.2 7.6 8.1																									Diurnal Maximum	
C - Calibration P - Power Failure A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																										

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

Valleyview - March 2014



Hourly Maximums

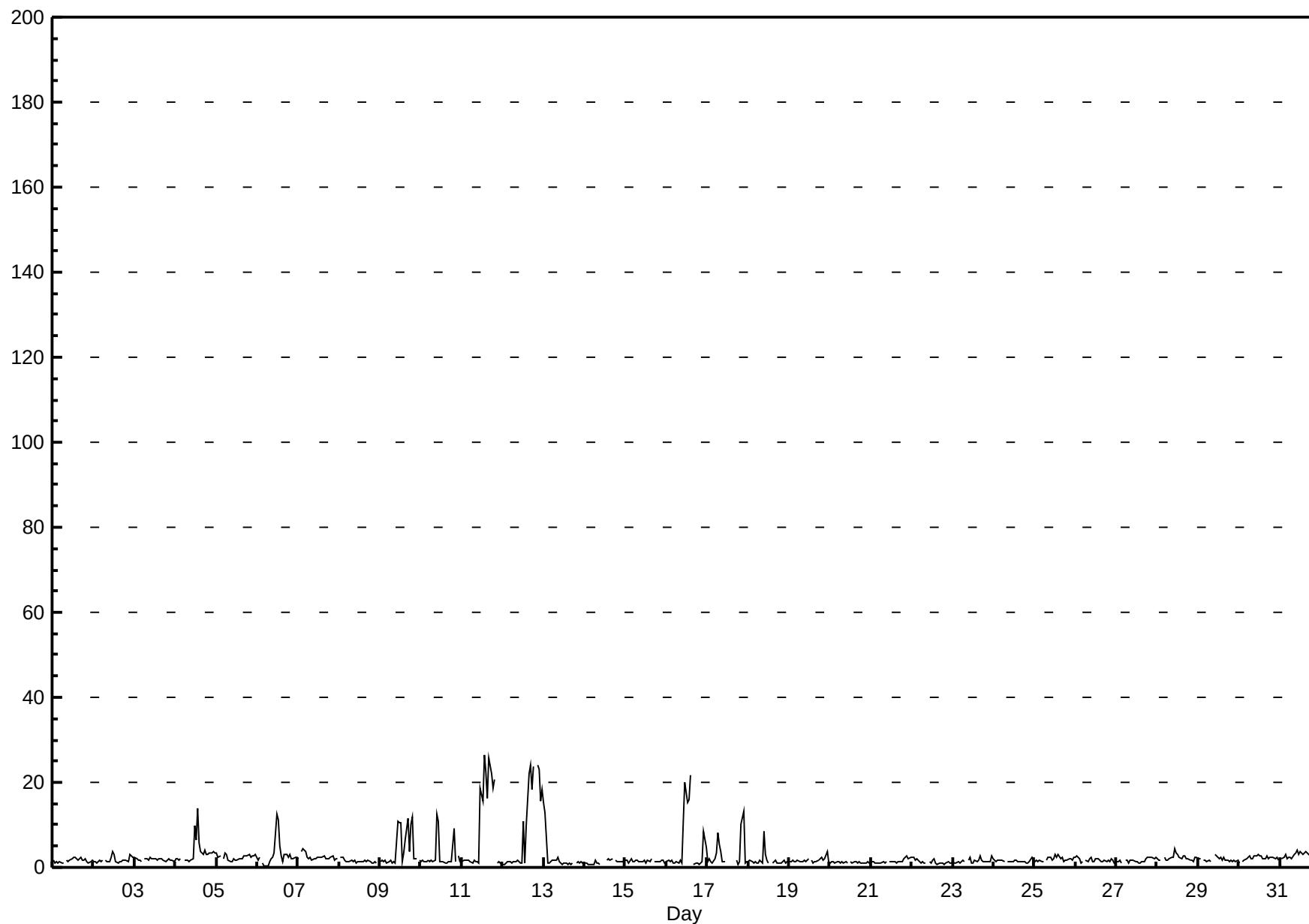
Sulphur Dioxide (SO₂) - ppb

Valleyview - March 2014

Maximum Value: 26.5 ppb on Mar 11 14:00																				Maximum Daily Average: 8.9 ppb on Mar 11					Hours in Service: 744	
Minimum Value: 0 ppb on Mar 6 06:00																				Minimum Daily Average: 1.2 ppb on Mar 20					Hours of Data: 701	
Maximum Diurnal Average: 4.1 ppb at hour 12																				Minimum Diurnal Average: 1.5 ppb at hour 5					Hours of Missing Data: 43	
Monthly Average: 2.63 ppb																				Percentiles: P ₁ = 0.7 P ₁₀ = 1.0 Q ₁ = 1.3 Median = 1.6 Q ₃ = 2.2 P ₉₀ = 3.5 P ₉₉ = 21.9					Hours of Calibration: 35	
																									Percent Operational Time: 98.9	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	2	1	1	1	1	1	2	A	2	1	2	2	2	2	2	2	2	2	2	2	2	1	2	2	1.6	2.4
2-Mar	2	1	1	2	1	2	A	2	1	1	2	4	3	2	1	1	1	2	2	2	2	3	3	2	1.8	3.6
3-Mar	2	2	2	2	1	A	2	2	2	3	2	2	2	2	2	2	2	2	1	2	2	2	2	1	1.9	2.5
4-Mar	2	2	2	2	A	2	2	2	1	2	2	10	6	14	6	4	3	4	3	3	3	4	4	4	3.7	13.9
5-Mar	3	3	3	A	2	3	3	2	1	2	2	2	2	2	2	2	3	3	3	3	2	3	3	3	2.4	3.5
6-Mar	2	2	A	1	0	0	0	1	2	2	4	12	11	5	3	1	3	3	3	3	2	2	2	2	3.0	12.4
7-Mar	2	A	4	4	4	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	3	2	2	2	2.4	4.3
8-Mar	A	2	3	2	1	1	1	2	1	2	1	1	1	1	1	2	1	2	1	1	1	1	1	A	1.5	2.5
9-Mar	1	2	1	2	1	2	2	1	1	1	11	10	11	1	3	6	12	4	10	12	2	2	A	2	4.3	11.8
10-Mar	1	2	1	1	2	1	2	1	2	13	11	1	1	1	1	1	1	1	1	9	1	A	3	1	2.6	12.5
11-Mar	1	2	2	2	2	1	1	2	1	1	1	19	15	26	22	16	26	22	19	21	A	1	1	1	8.9	26.5
12-Mar	1	1	1	1	1	1	1	1	1	2	1	1	11	1	10	22	24	18	24	A	24	23	16	18	8.9	24.2
13-Mar	15	13	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	2.3	15.1
14-Mar	1	1	1	1	1	1	2	1	1	1	C	C	C	2	2	2	2	A	2	1	1	1	1	2	1.3	2.0
15-Mar	2	2	1	2	2	1	2	2	1	1	1	2	1	2	1	2	A	1	1	2	1	2	2	1	1.5	2.2
16-Mar	1	2	1	2	1	1	1	1	2	1	11	20	15	16	22	A	1	1	1	1	1	1	8	5	5.0	21.6
17-Mar	2	2	1	1	2	3	8	5	4	1	2	P	P	P	P	P	P	2	1	1	10	13	1	1	3.4	13.3
18-Mar	1	2	1	1	1	1	1	2	1	8	3	2	1	A	1	1	2	1	1	1	1	2	1	1	1.7	8.3
19-Mar	2	1	2	1	1	2	1	1	1	2	1	2	A	2	1	1	1	2	2	3	2	2	4	1	1.7	3.6
20-Mar	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.5
21-Mar	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	2	2	3	2	2	1.4	2.7
22-Mar	2	2	2	2	2	1	1	1	1	A	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1.4	2.3
23-Mar	2	1	1	1	1	1	2	1	A	2	2	1	1	2	1	2	3	2	1	1	1	1	1	3	1.5	2.7
24-Mar	2	1	2	2	2	2	1	A	1	2	1	1	2	2	1	1	1	1	1	1	1	1	2	2	1.5	2.3
25-Mar	1	2	1	2	1	1	A	2	3	3	2	2	3	2	3	2	2	1	2	2	2	2	2	2	2.0	3.2
26-Mar	2	3	2	1	1	A	2	1	2	2	1	1	2	2	2	1	1	2	1	2	1	2	2	1	1.7	2.6
27-Mar	1	1	2	1	A	2	2	1	2	2	2	2	1	1	1	1	1	2	2	2	2	2	2	2	1.7	2.4
28-Mar	2	2	2	A	2	2	2	2	3	3	5	4	3	2	2	3	3	2	2	2	2	1	2	2	2.3	4.5
29-Mar	2	2	A	2	2	1	2	1	P	P	3	3	2	2	2	2	2	2	1	2	1	2	1	2	1.8	3.2
30-Mar	1	A	1	2	2	2	3	2	2	3	3	3	3	3	2	2	3	2	2	2	2	2	3	2	2.2	2.9
31-Mar	A	2	3	3	2	2	3	2	3	4	4	3	4	3	3	4	3	3	3	3	2	2	2	A	2.9	4.2
2.1 2.1 1.6 1.6 1.5 1.6 1.8 1.7 1.7 2.3 3.0 4.1 4.0 3.6 3.5 3.1 3.8 3.1 3.3 3.0 2.7 2.9 2.6 2.4																									Diurnal Average	
15.1 12.8 3.8 4.3 3.7 3.5 8.3 5.3 3.6 12.5 11.0 20.0 15.5 26.5 22.3 22.0 25.7 22.1 23.9 20.7 24.2 22.9 15.7 18.4																									Diurnal Maximum	
C - Calibration P - Power Failure A - Automated Daily Zero Span																										

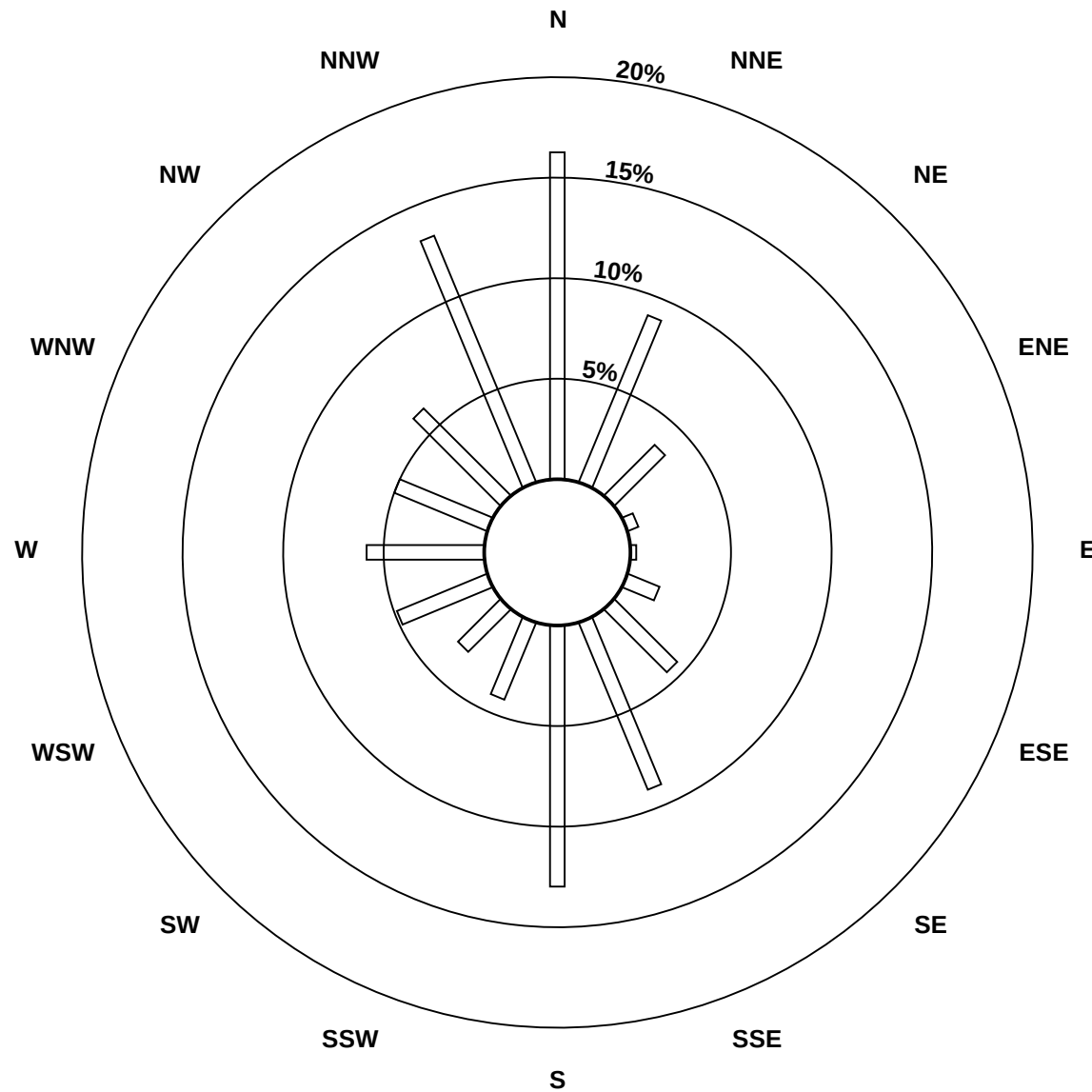
Hourly Maximums

Sulphur Dioxide (SO₂) - ppb
Valleyview - March 2014

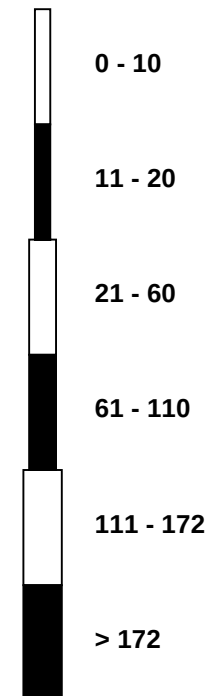


Pollutant Rose

Sulphur Dioxide (SO₂) - ppb
Valleyview - March 2014

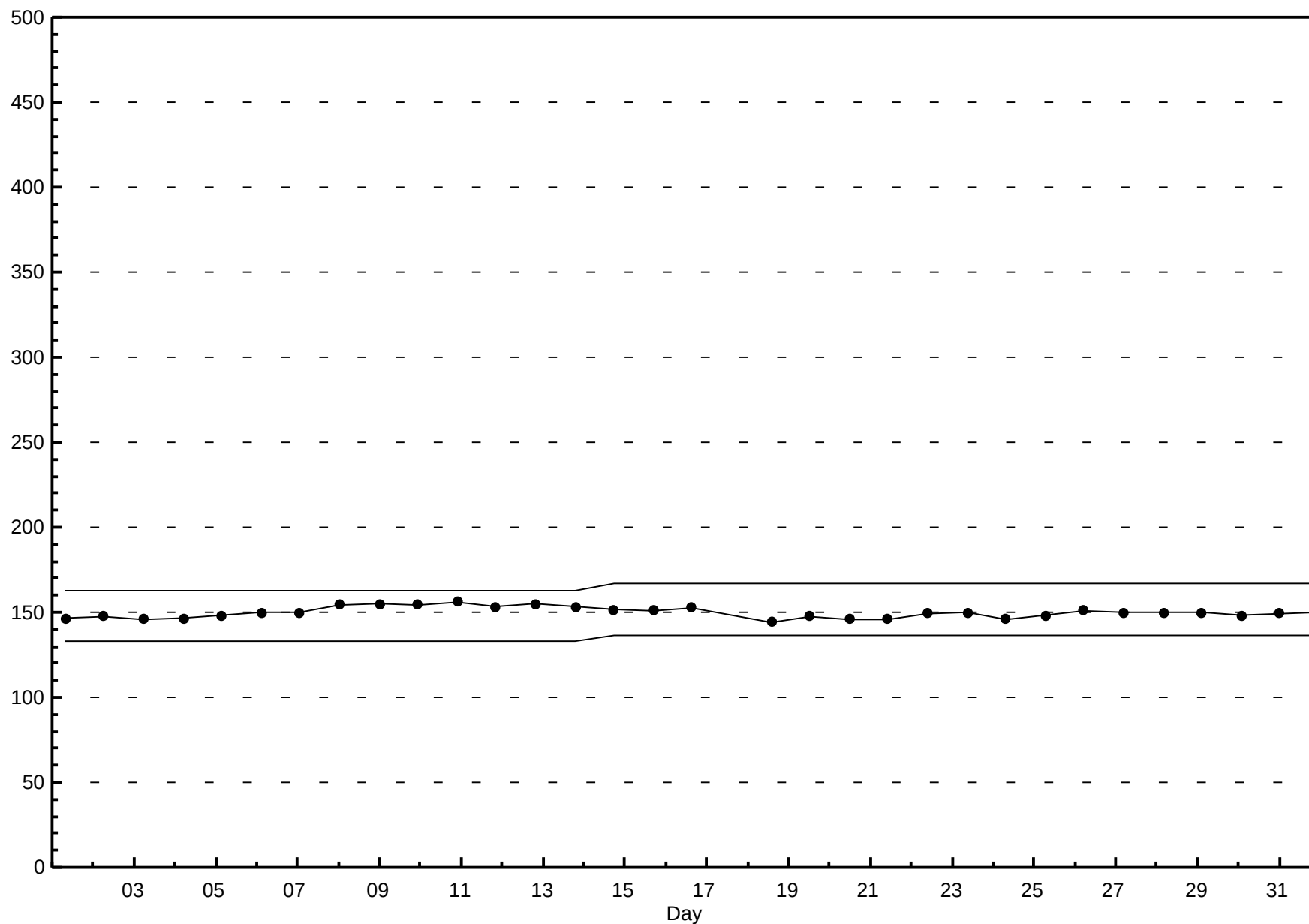


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Valleyview - March 2014



Hourly Averages

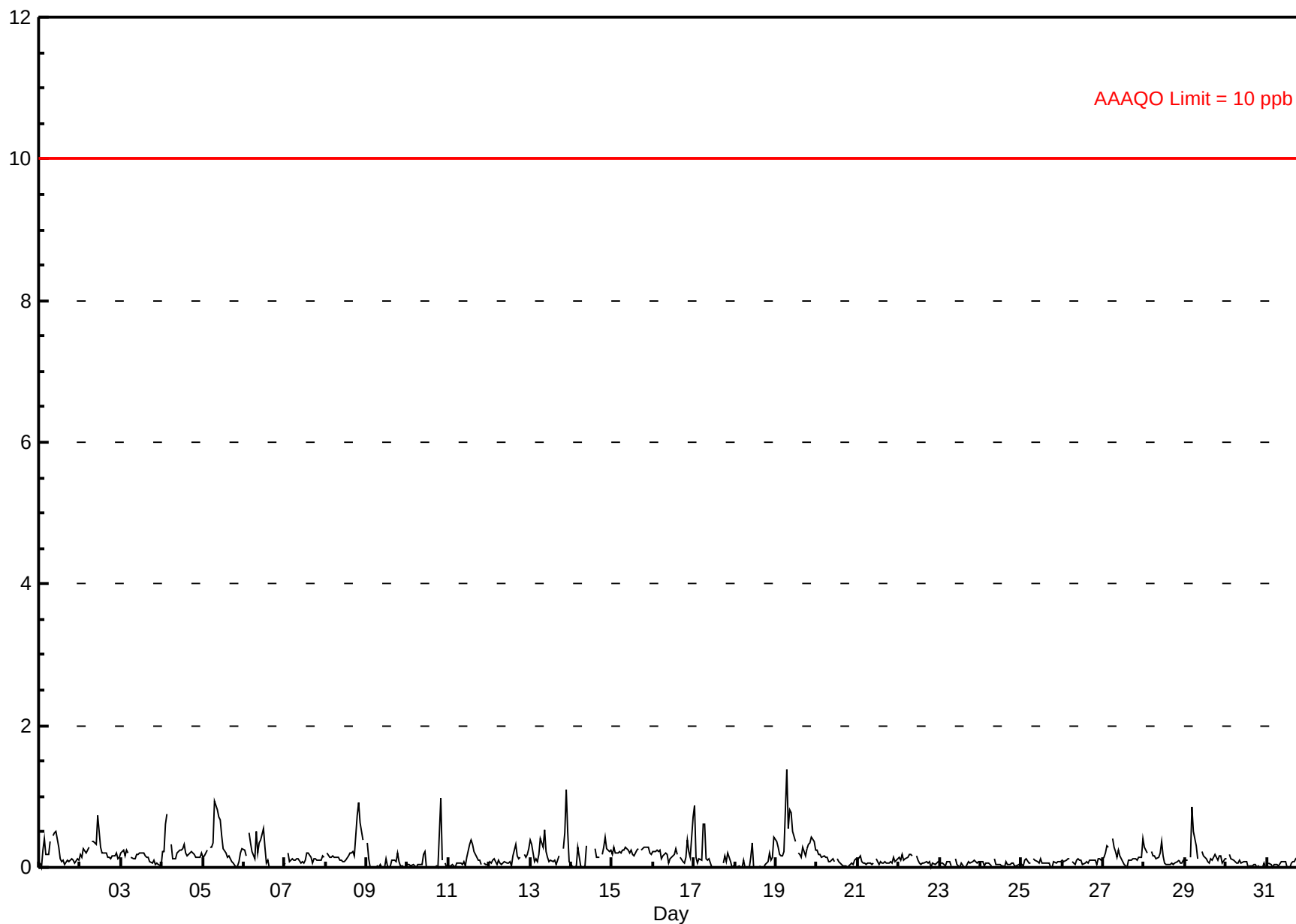
Hydrogen Sulphide (H₂S) - ppb

Valleyview - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 1.4 ppb on Mar 19 07:00 Maximum Daily Average: 0.4 ppb on Mar 19																				Hours in Service: 744 Hours of Data: 700 Hours of Missing Data: 44 Hours of Calibration: 36 Percent Operational Time: 98.9						
Minimum Value: 0 ppb on Mar 1 02:00 Maximum Diurnal Average: 0.2 ppb at hour 11 Monthly Average: 0.15 ppb																				Minimum Daily Average: 0.0 ppb on Mar 24 Minimum Diurnal Average: 0.1 ppb at hour 18 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.2 P ₉₀ = 0.3 P ₉₉ = 0.8						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	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
2-Mar	0	0	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
3-Mar	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
4-Mar	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
5-Mar	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
6-Mar	0	0	A	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
7-Mar	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
8-Mar	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	A	0.3	0.9
9-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3
10-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	A	0	0	0.1	1.0
11-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.4
12-Mar	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	0.3
13-Mar	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	1	1	0	0.3	1.1
14-Mar	0	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	A	0	0	0	0	0	0	0.2	0.4
15-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.3
16-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0.2	0.7
17-Mar	1	0	0	0	0	1	1	0	0	0	0	P	P	P	P	P	P	0	0	0	0	0	0	0	0.2	0.9
18-Mar	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	0.4
19-Mar	0	0	0	0	0	0	1	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0.4	1.4
20-Mar	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
21-Mar	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	0.2
22-Mar	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
23-Mar	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	0.1
24-Mar	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
25-Mar	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
26-Mar	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
27-Mar	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
28-Mar	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
29-Mar	0	0	A	0	1	1	0	0	P	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
30-Mar	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
31-Mar	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0.1	0.6
0.2 0.1 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.2 0.2 0.2 0.2																									Diurnal Average	
0.9 0.3 0.6 0.8 0.9 0.6 1.4 0.9 0.8 0.8 0.7 0.6 0.3 0.4 0.3 0.3 0.3 0.3 0.2 0.7 1.0 0.6 1.1 0.6 0.7																									Diurnal Maximum	
C - Calibration P - Power Failure A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Hydrogen Sulphide (H₂S) - ppb
Valleyview - March 2014



Hourly Maximums

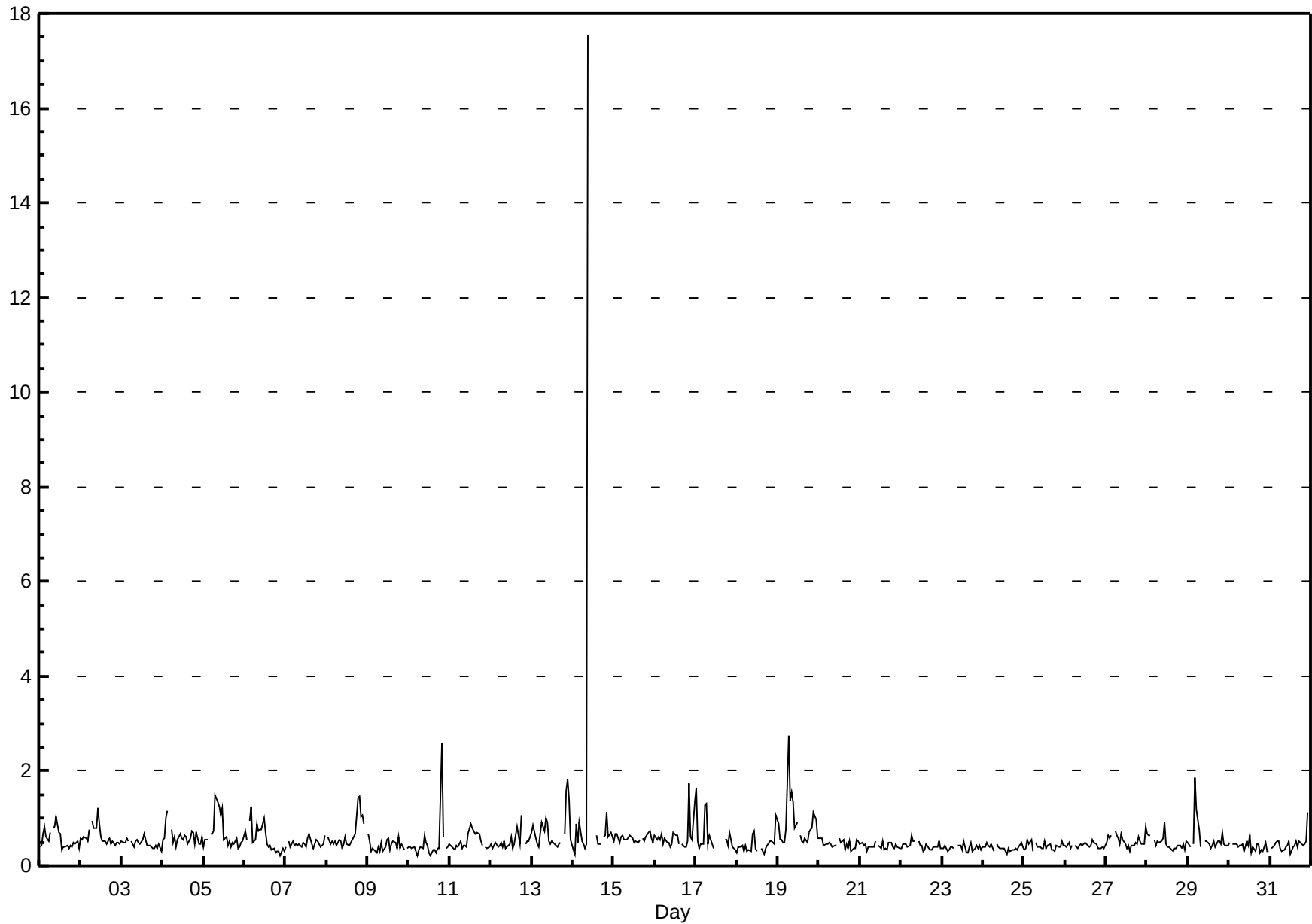
Hydrogen Sulphide (H₂S) - ppb

Valleyview - March 2014

Maximum Value: 17.5 ppb on Mar 14 10:00																				Maximum Daily Average: 1.5 ppb on Mar 14					Hours in Service: 744		
Minimum Value: 0 ppb on Mar 10 14:00																				Minimum Daily Average: 0.4 ppb on Mar 24					Hours of Data: 700		
Maximum Diurnal Average: 1.2 ppb at hour 10																				Minimum Diurnal Average: 0.4 ppb at hour 17					Hours of Missing Data: 44		
Monthly Average: 0.55 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.6 P ₉₀ = 0.7 P ₉₉ = 1.6					Hours of Calibration: 36		
																				Percent Operational Time: 98.9							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Mar	0	0	1	1	1	1	1	A	1	1	1	1	1	0	0	0	0	0	0	0	1	0	1	0	0.6	1.1	
2-Mar	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	0	1	1	0	1	0	0	0	0.6	1.2	
3-Mar	1	0	0	1	1	A	1	0	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0.5	0.7	
4-Mar	1	1	1	1	A	1	0	1	0	1	1	1	1	1	1	0	1	1	1	1	0	1	0	0	1	0.6	1.2
5-Mar	0	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	1	0	0	1	1	0.7	1.5	
6-Mar	1	1	A	1	1	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.6	1.3	
7-Mar	0	A	1	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0	0	1	0.5	0.7	
8-Mar	A	1	0	1	0	1	0	1	1	0	0	1	0	0	0	1	1	1	1	1	1	1	1	A	0.7	1.5	
9-Mar	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	1	0	0	0	A	0	0.4	0.7	
10-Mar	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	1	A	0	0	0.5	2.6	
11-Mar	0	0	0	0	0	0	1	0	0	0	0	1	1	1	1	1	1	1	1	0	A	0	0	0	0.5	0.9	
12-Mar	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	1	0	1	A	0	1	1	1	0.5	1.1	
13-Mar	1	1	1	0	0	1	1	1	1	1	1	0	1	0	0	0	0	0	A	1	2	2	1	1	0.7	1.8	
14-Mar	0	0	1	0	1	1	0	0	0	18	C	C	C	C	1	0	0	A	1	1	1	1	1	1	1.5	17.5	
15-Mar	1	1	1	0	1	1	1	1	1	1	1	1	0	1	0	1	A	1	1	1	1	1	1	1	0.6	0.7	
16-Mar	1	1	1	1	1	0	1	0	0	0	0	1	1	1	0	A	0	0	0	1	2	1	1	1	0.6	1.7	
17-Mar	2	1	0	0	0	1	1	0	1	1	0	P	P	P	P	P	P	1	1	0	1	0	0	0	0.6	1.6	
18-Mar	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	1	1	0	0	1	0.4	1.1	
19-Mar	1	1	1	0	0	1	3	1	2	1	1	1	A	1	1	0	1	0	1	1	1	1	1	1	0.9	2.8	
20-Mar	1	1	1	0	0	0	0	0	0	0	0	A	1	0	1	0	0	0	1	0	0	0	1	1	0.5	0.6	
21-Mar	0	0	0	0	0	0	0	0	0	1	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0.4	0.5	
22-Mar	0	0	0	0	0	0	1	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0.4	0.6	
23-Mar	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.4	0.5	
24-Mar	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.4	0.5	
25-Mar	0	0	1	0	1	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0.4	0.6	
26-Mar	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0.4	0.6	
27-Mar	0	1	1	1	A	1	1	1	0	1	1	0	0	0	0	0	0	1	0	1	1	0	0	1	0.5	0.8	
28-Mar	1	1	1	A	1	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5	0.9	
29-Mar	0	0	A	0	2	1	1	0	P	P	1	1	0	0	0	1	0	1	1	0	1	0	0	0	0.6	1.9	
30-Mar	1	A	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6	
31-Mar	A	0	0	0	1	1	0	0	0	0	0	1	0	0	0	1	0	1	1	0	0	1	1	A	0.5	1.1	
0.5 0.5 0.5 0.5 0.6 0.6 0.6 0.5 0.6 1.2 0.6 0.6 0.5 0.5 0.4 0.4 0.4 0.5 0.5 0.6 0.6 0.5 0.5 0.5																									Diurnal Average		
1.6 0.9 1.0 1.2 1.9 1.3 2.8 1.5 1.5 17.5 1.2 1.2 0.9 0.8 0.7 0.8 0.7 0.7 1.4 2.6 1.7 1.8 1.4 1.3																									Diurnal Maximum		
C - Calibration P - Power Failure A - Automated Daily Zero Span																											

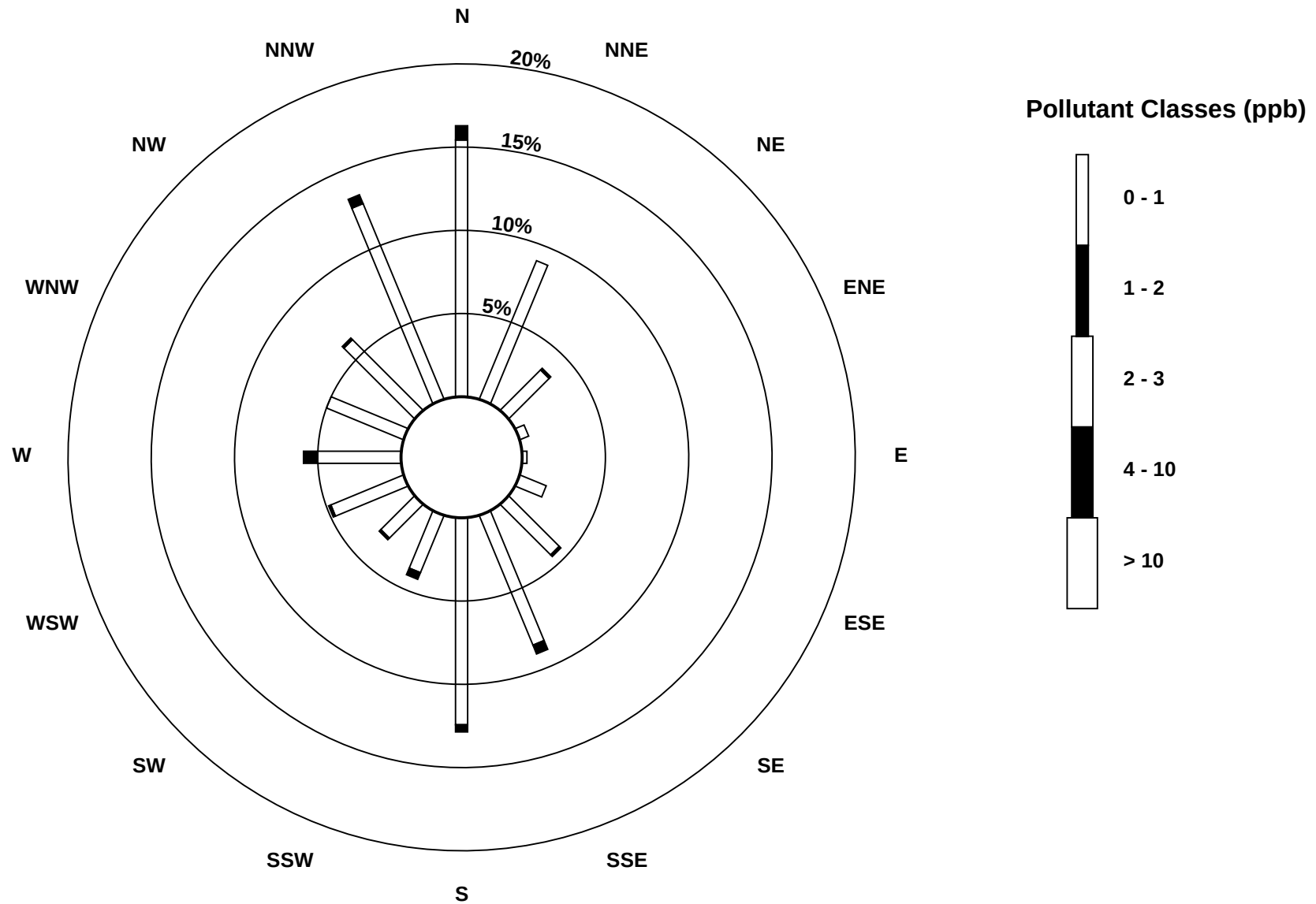
Hourly Maximums

Hydrogen Sulphide (H₂S) - ppb
Valleyview - March 2014



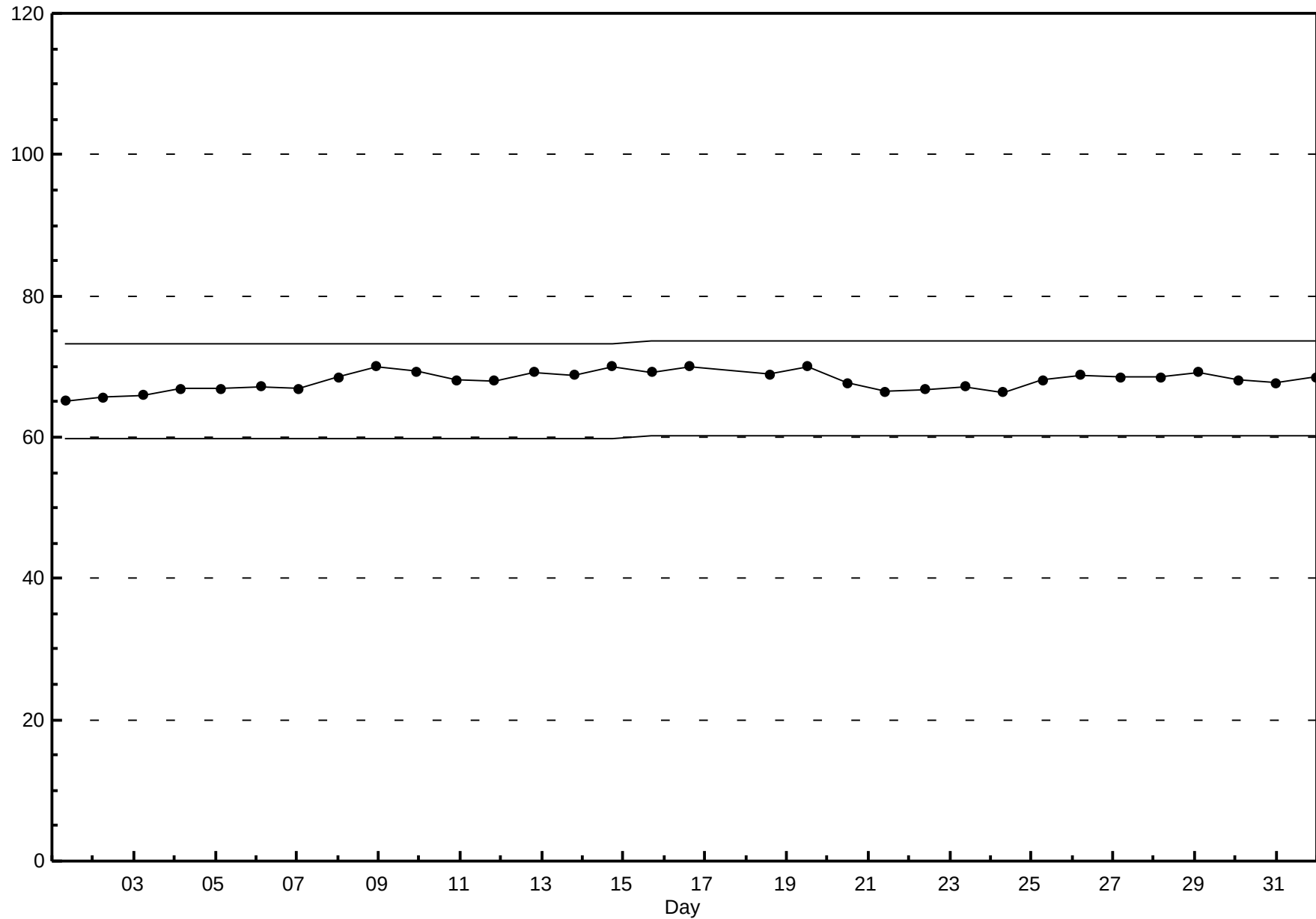
Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb
Valleyview - March 2014



Span Responses

Hydrogen Sulphide (H₂S)
Valleyview - March 2014



Hourly Averages

External Temperature (ET) - °C

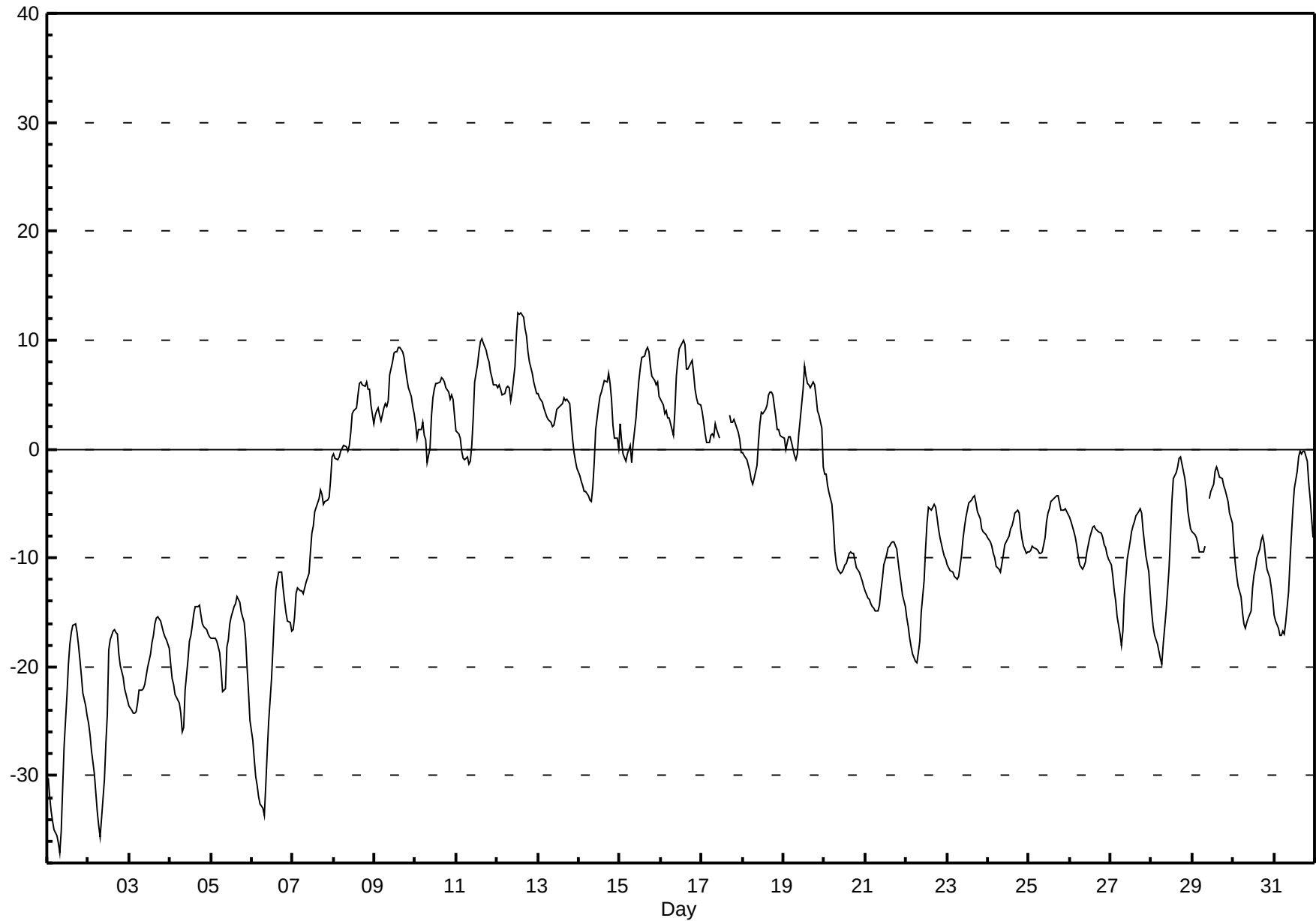
Valleyview - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 12.5 °C on Mar 12 15:00 Maximum Daily Average: 7.7 °C on Mar 12																								Hours in Service: 744 Hours of Data: 737 Hours of Missing Data: 7 Hours of Calibration: 0 Percent Operational Time: 99.1		
Minimum Value: -37 °C on Mar 1 08:00 Maximum Diurnal Average: -2.3 °C at hour 17 Monthly Average: -6.65 °C																								Minimum Daily Average: -25.9 °C on Mar 1 Minimum Diurnal Average: -11.3 °C at hour 8 Percentiles: P ₁ = -34.2 P ₁₀ = -19.8 Q ₁ = -13.9 Median = -6.4 Q ₃ = 2.3 P ₉₀ = 5.9 P ₉₉ = 10.2		
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-Mar	-30	-32	-33	-34	-35	-36	-36	-37	-35	-31	-27	-22	-20	-18	-17	-16	-16	-17	-18	-19	-21	-22	-24	-24	-25.9	-16.1
2-Mar	-25	-26	-28	-30	-32	-33	-35	-36	-34	-30	-27	-24	-18	-18	-17	-17	-17	-17	-19	-20	-21	-22	-23	-23	-24.6	-16.5
3-Mar	-24	-24	-24	-24	-24	-23	-22	-22	-22	-22	-21	-20	-19	-18	-17	-16	-16	-15	-16	-16	-17	-17	-18	-18	-19.8	-15.4
4-Mar	-20	-21	-22	-22	-23	-23	-24	-26	-26	-22	-19	-18	-17	-16	-15	-15	-14	-14	-15	-16	-16	-17	-17	-17	-19.0	-14.3
5-Mar	-17	-17	-17	-18	-18	-19	-20	-22	-22	-18	-18	-16	-15	-15	-14	-14	-14	-14	-15	-16	-17	-20	-22	-25	-17.7	-13.6
6-Mar	-27	-28	-30	-31	-32	-33	-33	-34	-31	-28	-25	-21	-18	-15	-13	-12	-11	-11	-13	-14	-15	-16	-16	-17	-21.8	-11.3
7-Mar	-17	-15	-13	-13	-13	-13	-13	-13	-12	-11	-9	-8	-7	-6	-5	-5	-4	-4	-5	-5	-5	-4	-3	-1	-8.5	-0.7
8-Mar	0	-1	-1	-1	0	0	0	0	0	0	2	3	3	4	5	6	6	6	6	6	5	5	4	2	2.6	6.2
9-Mar	3	3	4	3	3	4	4	4	4	7	8	9	9	9	9	9	9	8	7	6	6	5	4	3	5.9	9.4
10-Mar	2	1	2	2	3	1	1	-1	0	3	5	6	6	6	6	7	6	6	6	5	5	5	5	3	3.7	6.6
11-Mar	2	1	1	0	-1	-1	-1	-1	-1	0	3	6	8	9	10	10	10	9	8	8	7	7	6	6	4.4	10.1
12-Mar	6	6	6	5	5	6	6	6	4	5	8	11	12	12	13	12	11	10	9	8	7	6	6	5	7.7	12.5
13-Mar	5	5	4	4	3	3	3	2	2	2	3	4	4	4	4	5	4	5	4	3	1	0	-1	-2	2.9	5.2
14-Mar	-2	-3	-3	-4	-4	-4	-5	-5	-3	-1	2	4	5	5	6	6	6	7	6	5	2	1	1	0	0.9	7.0
15-Mar	2	1	0	-1	0	0	0	-1	0	3	5	6	7	8	9	9	9	9	8	7	6	6	6	5	4.3	9.4
16-Mar	5	4	3	4	3	3	2	1	4	7	8	9	10	10	10	7	7	8	8	7	5	5	4	4	5.7	10.0
17-Mar	3	2	1	1	1	1	1	1	2	2	1	P	P	P	P	P	3	2	3	3	2	2	1	0	1.7	3.4
18-Mar	0	-1	-1	-2	-2	-3	-3	-3	-2	1	2	3	3	4	4	5	5	5	5	3	2	2	1	1	1.3	5.3
19-Mar	1	0	1	1	1	1	1	-1	-1	0	1	3	6	8	7	6	6	6	6	5	4	3	2	-2	2.8	7.6
20-Mar	-2	-2	-3	-4	-5	-7	-9	-11	-11	-11	-11	-11	-11	-10	-10	-9	-10	-10	-10	-11	-11	-12	-12	-13	-9.0	-2.3
21-Mar	-13	-14	-14	-14	-14	-15	-15	-15	-14	-13	-12	-11	-10	-9	-9	-9	-8	-8	-9	-10	-11	-12	-13	-15	-12.0	-8.5
22-Mar	-15	-16	-17	-18	-19	-20	-20	-19	-18	-15	-12	-9	-7	-5	-5	-6	-5	-5	-6	-7	-8	-9	-10	-10	-11.8	-5.1
23-Mar	-11	-11	-11	-11	-12	-12	-12	-12	-10	-8	-7	-6	-6	-5	-5	-4	-4	-5	-6	-6	-7	-8	-8	-8	-8.1	-4.3
24-Mar	-8	-9	-9	-10	-10	-11	-11	-11	-10	-10	-9	-8	-8	-7	-7	-7	-6	-6	-6	-7	-8	-9	-10	-10	-8.6	-5.6
25-Mar	-9	-9	-9	-9	-9	-9	-10	-10	-9	-8	-7	-6	-5	-5	-5	-4	-4	-4	-5	-6	-6	-6	-6	-6	-6.9	-4.3
26-Mar	-6	-7	-8	-8	-9	-10	-11	-11	-11	-10	-9	-9	-8	-7	-7	-7	-7	-8	-8	-8	-9	-9	-10	-10	-8.6	-6.2
27-Mar	-11	-12	-13	-14	-15	-17	-18	-17	-13	-12	-10	-9	-8	-7	-7	-6	-6	-6	-6	-7	-9	-10	-11	-13	-10.6	-5.5
28-Mar	-15	-16	-17	-18	-19	-19	-20	-18	-15	-13	-11	-8	-5	-3	-2	-2	-1	-1	-3	-4	-6	-7	-7	-7	-9.5	-0.8
29-Mar	-8	-8	-8	-9	-9	-9	-9	-9	P	P	-5	-4	-3	-2	-2	-2	-3	-3	-3	-4	-4	-5	-6	-7	-5.5	-1.6
30-Mar	-9	-10	-12	-13	-14	-15	-16	-16	-16	-16	-15	-13	-12	-11	-10	-9	-8	-8	-9	-10	-11	-12	-13	-14	-12.1	-8.0
31-Mar	-15	-16	-16	-17	-17	-17	-17	-16	-13	-10	-8	-5	-4	-2	-1	0	0	0	0	-1	-3	-5	-6	-8	-8.3	-0.1
																									Diurnal Average	
																									Diurnal Maximum	
P - Power Failure																										

Hourly Averages

External Temperature (ET) - °C

Valleyview - March 2014



Hourly Averages

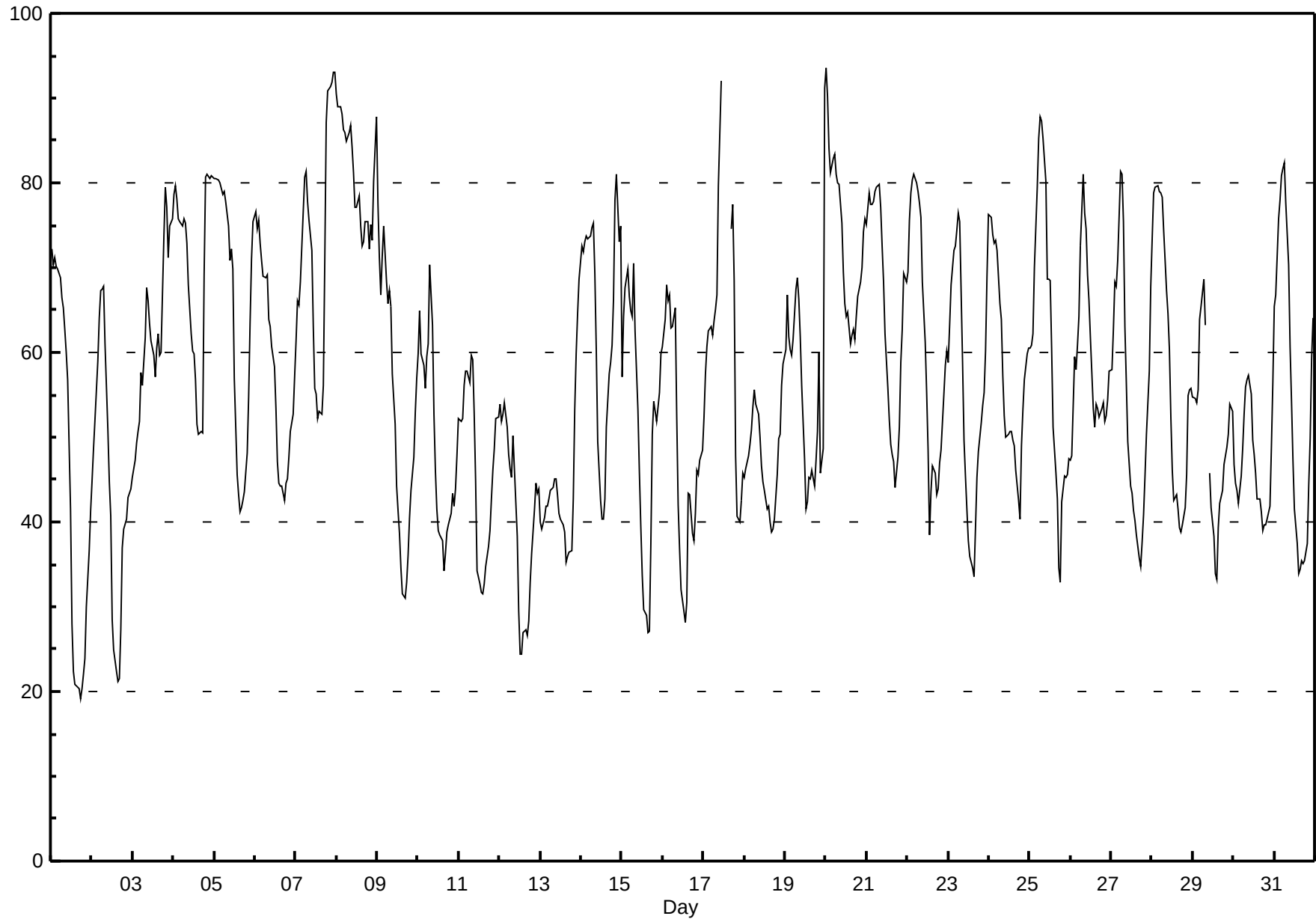
Relative Humidity (RH) - %

Valleyview - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 744						
Maximum Value: 93.6 % on Mar 20 01:00																				Maximum Daily Average: 81.0 % on Mar 8		Hours of Data: 737				
Minimum Value: 19 % on Mar 1 18:00																				Minimum Daily Average: 40.3 % on Mar 12		Hours of Missing Data: 7				
Maximum Diurnal Average: 69.6 % at hour 8																				Minimum Diurnal Average: 42.1 % at hour 15		Hours of Calibration: 0				
Monthly Average: 56.68 %																				Percentiles: P ₁ = 22.0 P ₁₀ = 37.8 Q ₁ = 44.1 Median = 55.7 Q ₃ = 69.1 P ₉₀ = 78.7 P ₉₉ = 91.0		Percent Operational Time: 99.1				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	72	70	71	70	70	69	66	65	63	60	57	41	28	22	21	21	20	19	20	22	24	30	37	41	45.0	72.2
2-Mar	45	49	52	59	64	67	67	68	61	51	45	41	29	25	22	21	21	27	37	39	40	43	43	44	44.2	67.8
3-Mar	45	47	49	51	52	58	56	62	68	66	63	61	60	57	60	62	60	60	74	79	77	71	75	76	62.1	79.4
4-Mar	79	80	78	76	75	75	76	75	73	68	62	60	60	57	51	50	51	51	69	81	81	81	81	81	69.6	80.9
5-Mar	81	80	80	80	79	79	79	78	75	71	72	70	57	46	43	41	42	43	44	48	55	64	71	75	64.7	80.6
6-Mar	77	75	76	73	71	69	69	69	64	63	61	58	53	47	45	44	44	43	45	45	48	51	53	57	58.2	76.6
7-Mar	61	66	66	68	77	81	81	78	76	72	63	56	55	52	53	53	56	71	87	91	91	92	93	93	72.1	93.1
8-Mar	90	89	89	88	86	86	85	86	87	84	81	77	77	78	75	72	73	75	75	72	75	73	80	88	81.0	90.5
9-Mar	78	71	67	71	75	68	66	67	65	57	52	44	41	39	35	31	31	33	36	41	44	48	53	57	52.9	77.7
10-Mar	60	65	60	58	56	60	61	70	63	53	46	42	39	38	38	34	36	39	40	41	43	42	44	48	49.0	70.3
11-Mar	52	52	52	56	58	58	56	60	59	53	45	34	33	32	31	33	35	37	39	43	46	49	52	52	46.5	59.6
12-Mar	54	52	53	54	51	48	46	45	50	46	38	29	24	24	27	27	27	28	33	36	42	45	43	44	40.3	54.0
13-Mar	40	39	41	42	42	43	44	44	45	45	43	41	40	40	39	35	36	36	37	43	53	60	65	69	44.2	68.7
14-Mar	73	72	73	74	73	74	75	75	69	60	49	43	40	40	43	51	57	59	61	66	78	81	73	75	63.9	81.0
15-Mar	57	64	68	70	67	65	64	71	63	53	46	40	34	30	29	27	27	37	50	54	52	54	55	60	51.5	70.6
16-Mar	61	64	68	66	67	63	63	65	53	42	37	32	30	28	31	43	43	39	38	41	46	46	47	49	48.3	68.0
17-Mar	52	57	61	63	63	62	64	65	67	80	92	P	P	P	P	P	75	77	68	48	41	40	43	46	61.2	92.1
18-Mar	45	46	48	49	51	54	56	54	53	50	47	45	44	42	42	40	39	39	40	46	50	50	56	59	47.6	58.7
19-Mar	60	67	62	60	60	62	67	69	66	62	56	47	42	42	45	45	46	44	47	51	60	46	49	91	56.1	91.2
20-Mar	94	90	84	81	83	83	81	80	80	75	69	66	64	65	61	62	63	61	64	67	68	70	74	76	73.4	93.6
21-Mar	75	79	77	77	78	79	79	80	77	72	68	62	56	52	49	48	47	44	48	51	59	63	69	68	65.0	79.8
22-Mar	70	76	79	80	81	80	79	78	76	68	61	55	48	38	44	47	46	43	44	47	48	55	58	60	60.9	81.1
23-Mar	59	63	68	72	72	74	76	75	59	50	45	42	38	36	35	34	39	45	48	52	54	55	60	69	55.0	76.4
24-Mar	76	76	74	73	73	72	66	64	57	53	50	50	51	51	50	49	46	42	40	49	53	57	60	60	58.0	76.2
25-Mar	60	61	62	70	79	85	88	87	85	80	69	69	68	61	51	46	43	35	33	42	45	45	46	47	60.8	87.9
26-Mar	47	48	59	58	61	64	73	81	76	74	69	66	62	53	51	54	53	52	53	54	52	53	54	58	59.5	81.0
27-Mar	58	63	68	68	71	81	81	75	63	57	50	44	43	41	40	38	36	35	38	41	45	50	58	68	54.7	81.4
28-Mar	73	79	80	80	79	79	78	74	67	65	60	52	46	43	43	41	39	39	40	42	46	55	56	56	58.8	79.7
29-Mar	55	55	54	56	64	66	69	63	P	P	46	42	38	34	33	39	42	44	47	48	49	50	54	53	50.0	68.6
30-Mar	47	45	44	42	45	49	53	56	57	57	55	50	48	46	43	43	41	39	40	40	40	42	49	56	46.9	57.4
31-Mar	65	67	76	78	81	82	82	78	70	61	54	47	42	37	34	34	36	35	35	37	44	50	59	64	56.2	82.3
63.3 64.7 65.7 66.6 67.9 68.8 69.3 69.6 66.2 61.6 56.5 50.2 46.3 43.2 42.1 42.3 43.6 44.3 47.4 50.2 53.2 55.1 58.4 62.6																									Diurnal Average	
93.6 90.3 89.0 88.1 86.2 85.9 87.9 87.4 86.8 84.3 92.1 77.2 77.1 78.4 75.0 72.5 74.6 77.5 87.1 90.8 91.4 91.9 93.0 93.1																									Diurnal Maximum	
P - Power Failure																										

Hourly Averages

Relative Humidity (RH) - %
Valleyview - March 2014



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Valleyview - March 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	1	0	1	0	3	1	0	1	2	1	2	2	7	8	8	8	8	11	8	7	6	6	5	4	3.4	11.3
Dir	135	9	28	345	351	358	326	185	173	348	331	229	127	133	131	134	127	121	127	126	134	150	157	134	132	121
2 Spd	2	1	1	1	0	0	0	0	0	0	2	4	8	14	14	14	14	11	11	10	8	7	5	3	4.7	13.9
Dir	125	50	21	349	13	134	16	345	166	153	340	355	128	123	126	126	124	133	140	134	133	146	130	115	127	126
3 Spd	3	3	1	0	1	1	6	6	5	5	6	6	7	5	7	5	5	4	2	4	3	3	2	1	3.3	7.1
Dir	122	124	149	172	161	127	127	126	126	118	119	117	124	88	57	78	117	148	161	155	156	149	122	109	120	57
4 Spd	1	0	0	0	1	0	1	1	1	1	2	1	4	4	4	6	5	6	10	8	6	6	5	3	2.5	9.6
Dir	355	340	140	156	173	207	184	163	198	160	180	305	354	354	347	317	348	3	341	353	360	359	356	340	347	341
5 Spd	2	2	1	0	2	0	0	0	1	0	1	3	4	5	11	9	10	8	6	4	4	0	0	0	2.8	10.8
Dir	310	336	345	269	296	310	172	352	341	156	4	347	341	319	339	347	351	8	29	30	351	246	147	107	350	339
6 Spd	0	1	1	0	1	0	1	0	0	1	3	2	4	5	6	12	10	7	6	5	4	3	2	1	2.7	11.9
Dir	176	358	323	192	161	180	340	2	167	7	341	356	338	333	336	338	352	15	25	33	4	1	3	10	355	338
7 Spd	1	0	1	4	3	2	3	3	3	3	3	3	1	2	3	3	3	2	2	1	0	0	1	5	0.8	5.3
Dir	329	274	155	175	172	173	163	182	173	172	176	192	298	351	348	28	49	35	346	2	236	184	181	165	165	165
8 Spd	7	7	7	7	7	6	5	3	3	3	3	0	4	3	2	1	2	2	1	1	1	1	0	1	2.1	7.5
Dir	172	171	169	171	172	172	178	181	181	186	181	49	343	328	321	328	350	323	182	166	154	223	196	149	179	171
9 Spd	3	2	2	1	2	2	2	2	3	13	13	13	12	16	16	18	23	18	15	10	9	4	2	1	7.3	22.7
Dir	163	178	176	288	160	183	172	176	186	245	252	275	281	288	281	276	277	279	271	258	243	227	207	135	264	277
10 Spd	2	2	3	5	8	4	3	2	3	8	17	16	14	13	12	13	11	9	7	6	6	9	8	2	6.4	16.5
Dir	157	164	220	229	243	240	230	146	188	264	278	286	296	311	314	300	311	301	291	269	250	260	250	224	278	278
11 Spd	2	6	8	2	3	3	3	2	2	3	3	10	12	6	12	13	12	7	8	10	12	17	16	16	7.3	17.1
Dir	230	244	245	219	211	200	200	186	179	165	191	262	279	270	270	279	261	251	252	254	250	249	248	246	251	249
12 Spd	10	4	3	4	4	4	4	3	1	2	4	3	2	8	12	18	20	20	19	15	14	19	21	17	8.3	21.0
Dir	242	226	184	182	173	186	183	180	175	186	185	185	304	300	287	273	266	261	254	262	260	263	266	270	256	266
13 Spd	18	18	13	17	16	15	15	14	15	12	12	12	13	12	10	11	6	2	0	1	1	0	1	0	9.4	18.4
Dir	273	275	287	288	287	281	279	281	277	287	304	305	302	297	295	323	323	331	332	168	354	206	174	187	289	273
14 Spd	0	0	0	1	1	0	1	0	1	1	1	3	4	4	2	2	2	3	3	1	1	1	1	1	1.2	4.4
Dir	201	232	177	334	236	49	323	248	282	234	206	184	181	182	185	185	178	185	166	197	189	191	171	218	192	181
15 Spd	5	2	1	3	4	3	2	2	3	3	4	6	6	6	7	7	8	6	3	2	4	3	3	3	3.7	7.9
Dir	242	196	157	151	154	160	188	158	180	175	164	167	156	161	150	154	163	178	177	188	179	198	202	189	171	163
16 Spd	2	2	3	4	4	4	2	3	5	13	17	16	16	17	11	10	6	6	4	3	2	6	9	6	5.2	17.3
Dir	169	158	162	169	166	162	169	175	220	247	256	262	264	268	295	343	311	312	319	308	254	255	258	277	263	268
17 Spd	6	2	2	3	6	9	4	3	12	14	13	P	P	P	P	P	6	9	9	11	12	10	9	3	6.7	13.7
Dir	268	225	197	221	243	265	259	233	286	287	287	P	P	P	P	P	301	313	316	297	277	255	241	223	276	287
18 Spd	9	9	2	2	3	3	3	3	2	7	12	13	12	9	8	3	4	3	1	2	2	1	0	1	3.0	12.9
Dir	249	244	212	188	182	195	203	207	201	264	280	294	302	311	325	343	8	40	134	173	207	170	164	166	274	294
19 Spd	0	1	3	3	2	1	0	1	0	0	2	1	2	11	11	9	5	1	1	2	2	4	7	13	2.2	13.4
Dir	226	188	176	176	175	162	264	324	345	42	351	4	11	348	346	338	337	306	201	271	248	265	309	12	336	12
20 Spd	14	13	18	19	20	23	24	22	18	21	21	18	16	17	13	12	11	10	9	5	3	2	1	2	13.5	24.1
Dir	9	5	355	357	358	356	354	357	352	350	355	355	354	348	14	8	25	27	22	32	35	309	295	286	359	354
21 Spd	1	1	2	2	2	1	1	2	2	4	5	7	8	10	11	9	9	8	8	6	4	2	1	3	4.4	11.0
Dir	312	15	18	17	23	14	36	29	39	1	334	338	338	348	344	346	360	346	358	9	10	8	7	346	354	344
22 Spd	2	0	0	0	1	1	1	1	3	4	5	7	7	6	12	15	13	12	11	7	6	4	3	1	4.7	14.7
Dir	341	334	341	177	30	15	322	355	356	346	335	336	336	44	359	344	358	16	29	29	25	15	9	358	3	344

Hourly Averages

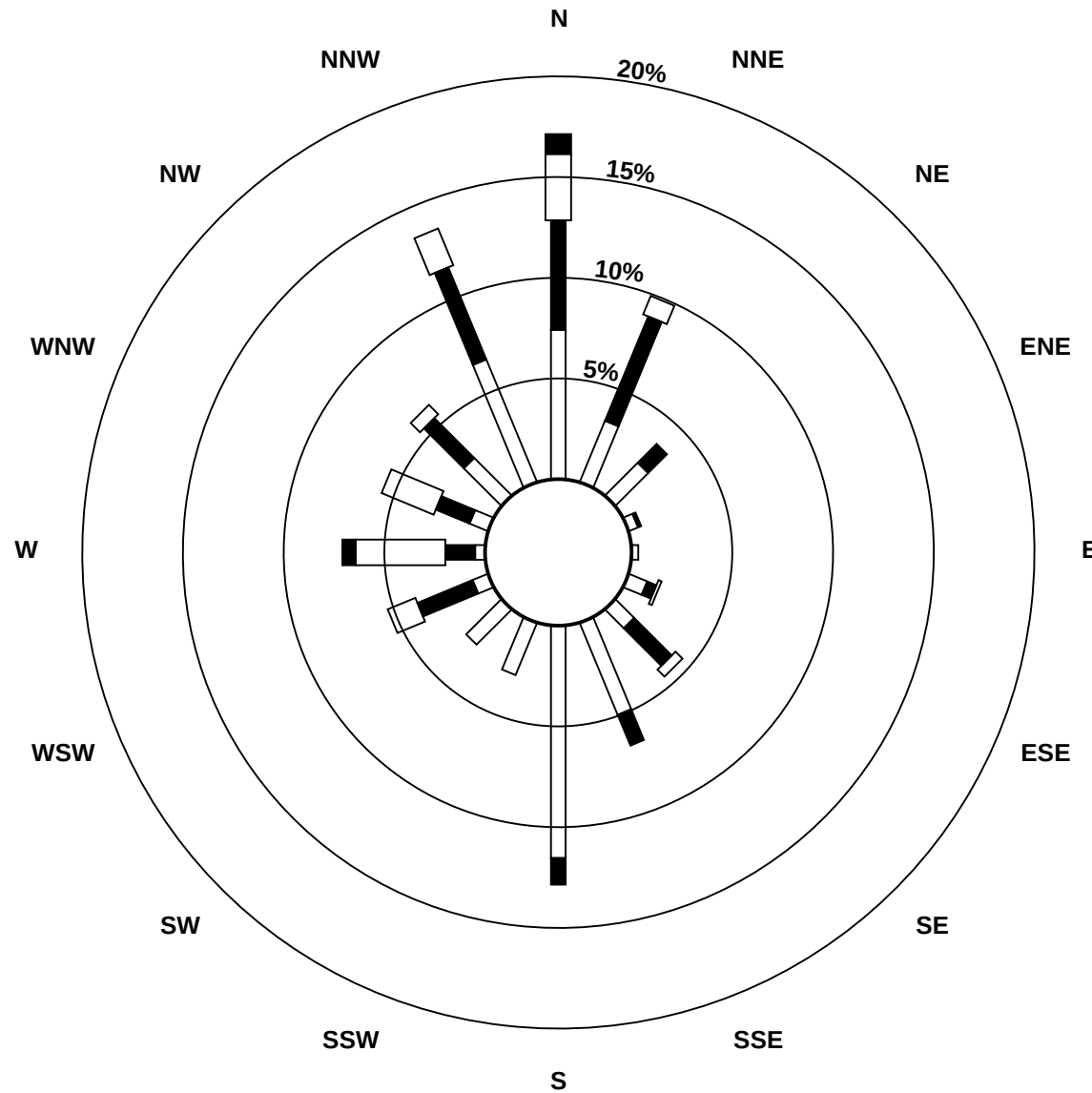
Wind Speed (km/h)
Wind Direction (deg)
Valleyview - March 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	2	0	0	0	1	1	1	1	2	6	9	9	11	10	10	10	11	13	7	4	5	5	8	3	5.0	13.0
Dir	336	32	253	150	148	160	169	170	281	312	303	306	310	301	301	297	308	326	324	312	302	327	337	326	311	326
24 Spd	4	6	5	5	5	6	5	5	3	4	2	4	5	5	7	7	6	5	4	6	6	6	5	4	4.1	7.3
Dir	323	354	4	0	11	36	37	38	69	98	111	338	319	329	328	340	0	27	71	54	36	22	8	6	13	340
25 Spd	3	3	2	3	2	3	4	4	5	7	10	12	14	13	14	14	13	13	11	9	6	3	3	4	7.3	14.4
Dir	9	14	350	13	355	27	351	19	18	351	355	346	345	351	349	352	357	1	2	4	3	6	7	9	357	352
26 Spd	8	8	8	10	10	10	10	9	9	10	11	10	11	11	12	16	15	13	10	9	8	3	2	1	9.0	15.5
Dir	25	33	50	32	23	23	23	20	25	14	9	10	5	19	358	349	348	349	356	5	8	358	321	351	11	349
27 Spd	2	0	0	1	0	1	1	0	0	2	3	4	7	11	10	8	6	5	5	6	3	2	0	0	2.7	10.7
Dir	1	5	157	342	325	165	179	157	129	342	351	340	324	343	341	338	340	359	52	44	34	5	317	177	353	343
28 Spd	0	0	1	1	1	1	0	0	0	1	4	6	7	8	11	10	9	9	6	6	6	8	6	6	4.0	10.7
Dir	162	199	194	191	201	190	315	210	311	326	346	339	333	332	340	345	356	3	22	24	12	2	3	357	353	340
29 Spd	3	4	2	2	1	0	1	1	P	P	5	8	8	4	6	9	9	7	7	4	5	8	13	14	5.0	13.7
Dir	5	12	31	341	208	201	212	177	P	P	327	341	348	2	7	10	15	27	47	37	26	12	8	25	11	25
30 Spd	14	13	10	8	9	10	10	8	9	11	12	13	15	16	16	16	12	10	9	7	6	3	2	0	9.4	16.3
Dir	24	27	37	24	21	19	22	22	11	356	342	342	338	341	345	348	357	7	9	21	21	41	42	56	5	341
31 Spd	1	0	0	0	0	1	2	2	5	7	7	6	5	3	2	1	5	5	3	2	3	2	0	1	0.8	7.3
Dir	42	309	171	170	161	158	169	185	166	168	167	173	181	174	187	343	347	345	353	8	346	326	180	330	176	168
Spd	1.4	0.9	0.7	0.8	0.7	0.8	0.8	0.6	0.9	2.3	3.7	4.5	4.9	5.1	6.0	6.3	5.1	4.0	2.8	2.0	1.6	1.9	2.0	1.3	Diurnal Average	
Dir	306	317	337	328	311	327	334	352	315	298	304	312	319	328	332	332	336	343	346	348	321	285	287	313	Diurnal Maximum	
Spd	18.4	17.7	18.3	19.3	20.5	23.1	24.1	21.8	18.2	21.5	20.5	18.0	15.9	17.4	16.4	18.2	22.7	20.3	19.0	14.7	13.8	18.7	21.0	16.5	Diurnal Maximum	
Dir	273	275	355	357	358	356	354	357	352	350	355	355	264	348	281	276	277	261	254	262	260	263	266	270		
Maximum Speed Value: 24 km/h on Mar 20 07:00								Minimum Speed Value: 0 km/h on Mar 13 19:00												Hours in Service: 744						
Maximum Daily Speed Average: 13.5 km/h on Mar 20								Minimum Daily Speed Average: 0.8 km/h on Mar 14												Hours of Data: 737						
Maximum Diurnal Speed Average: 6.3 km/h at hour 16								Minimum Diurnal Speed Average: 0.6 km/h at hour 8												Hours of Missing Data: 7						
Monthly Average Velocity: 2.43 km/h 323.7 deg								Speed Percentiles: P ₁ = 0.1 P ₁₀ = 0.5 Q ₁ = 1.7 Median = 4.1 Q ₃ = 8.8 P ₉₀ = 13.0 P ₉₉ = 20.1												Percent Operational Time: 99.1						
All monthly, daily, and diurnal averages have been calculated using vector methods																										
P - Power Failure																										
Frequency Distribution																										
Speed Range (km/h)																										
Direction	0 to 5		5 to 11		11 to 19		19 to 28		28 to 38		> 38		Total													
North	102		77		35		7		0		0		221													
NorthEast	29		28		4		0		0		0		61													
East	8		0		0		0		0		0		8													
SouthEast	38		23		6		0		0		0		67													
South	140		16		0		0		0		0		156													
SouthWest	36		8		3		0		0		0		47													
West	14		20		43		4		0		0		81													
NorthWest	46		36		14		0		0		0		96													
Total	413		208		105		11		0		0		737													

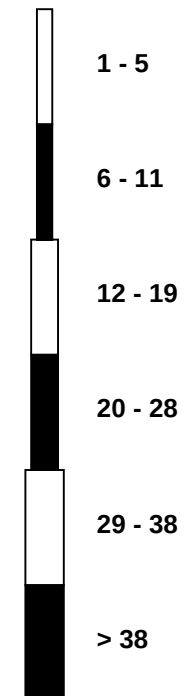
Wind Rose

Wind Speed (WS) (km/h)

Valleyview - March 2014



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Valleyview - March 2014

Maximum Speed: 24 km/h on Mar 20 07:00																				Maximum Daily Speed Average: 14.1 km/h on Mar 20										Hours in Service: 744	
Minimum Speed: 0 km/h on Mar 4 03:00																				Minimum Daily Speed Average: 1.6 km/h on Mar 14										Hours of Data: 737	
Maximum Diurnal Speed Average: 9.8 km/h at hour 16																				Minimum Diurnal Speed Average: 3.4 km/h at hour 3										Hours of Missing Data: 7	
Monthly Average Speed: 5.85 km/h																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.7 Q ₁ = 1.9 Median = 4.3 Q ₃ = 8.9 P ₉₀ = 13.3 P ₉₉ = 20.3										Percent Operational Time: 99.1	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Mar	1	0	1	1	3	1	0	2	3	1	2	3	8	8	9	8	8	11	8	7	6	6	5	4	4.4	11.4					
2-Mar	2	1	1	1	0	0	0	0	0	1	2	5	8	14	14	14	14	11	11	10	8	7	5	3	5.6	14.1					
3-Mar	3	3	1	1	1	1	7	6	5	5	6	6	7	6	7	6	5	5	2	4	3	3	2	1	3.9	7.3					
4-Mar	1	0	0	0	1	0	1	1	1	1	3	2	4	4	4	6	6	6	10	8	6	6	5	3	3.3	9.6					
5-Mar	2	2	1	0	2	0	0	1	1	0	2	3	5	5	11	9	10	8	6	4	4	1	0	0	3.2	10.8					
6-Mar	1	1	2	1	1	1	1	1	0	1	3	2	4	5	6	12	10	7	6	5	4	3	2	2	3.3	11.9					
7-Mar	1	1	1	4	4	2	3	3	3	4	3	3	3	2	3	3	3	2	2	1	1	1	1	5	2.5	5.5					
8-Mar	7	8	7	7	7	6	5	3	3	4	3	1	4	3	2	1	3	2	2	1	1	1	0	1	3.5	7.6					
9-Mar	3	2	3	2	2	2	2	2	3	13	13	14	13	16	17	19	23	19	15	11	9	4	2	1	8.7	22.9					
10-Mar	2	2	3	5	8	4	3	2	3	9	17	16	14	13	12	14	11	9	7	6	6	9	9	2	7.8	16.7					
11-Mar	2	7	8	2	3	3	3	2	2	3	4	10	13	6	12	13	13	7	9	10	12	17	16	16	8.0	17.2					
12-Mar	10	5	3	4	4	4	4	3	1	2	4	3	3	8	12	18	20	21	19	15	14	19	21	17	9.7	21.3					
13-Mar	19	18	14	18	16	16	15	15	15	13	12	12	13	12	10	11	6	2	0	1	1	0	1	0	10.0	18.6					
14-Mar	0	0	0	2	1	0	2	0	1	1	2	4	4	4	2	2	3	3	3	1	2	1	1	2	1.6	4.5					
15-Mar	5	2	2	3	4	3	3	2	3	3	4	6	7	6	7	7	8	6	3	2	4	3	4	3	4.1	8.0					
16-Mar	2	2	3	4	4	4	2	3	5	13	17	17	16	18	13	10	7	6	4	3	2	7	9	6	7.3	17.7					
17-Mar	6	2	2	3	6	9	5	4	12	14	13	P	P	P	P	P	7	10	9	12	12	10	9	3	7.7	14.0					
18-Mar	10	9	2	2	3	3	3	3	2	7	13	13	12	10	9	3	4	3	1	2	2	1	1	2	4.9	13.2					
19-Mar	0	1	3	3	2	2	0	2	1	1	3	1	3	11	11	10	5	1	1	2	2	4	8	14	3.8	13.7					
20-Mar	14	13	19	20	21	23	24	22	18	22	21	18	16	18	13	12	12	10	9	6	3	2	1	2	14.1	24.2					
21-Mar	1	1	2	2	2	1	1	2	2	4	6	7	8	10	11	10	9	8	9	6	4	2	1	3	4.7	11.2					
22-Mar	2	0	0	1	1	1	1	1	3	4	5	7	8	7	12	15	13	12	11	7	6	4	3	1	5.2	14.8					
23-Mar	2	1	0	0	1	1	1	1	2	6	9	10	11	11	11	11	12	13	7	4	5	5	8	3	5.5	13.2					
24-Mar	4	6	5	5	5	6	6	5	4	5	2	4	5	5	7	8	6	5	5	7	6	6	5	4	5.3	7.6					
25-Mar	3	3	2	3	2	3	4	5	5	7	10	12	14	13	14	14	13	13	11	9	6	3	3	4	7.5	14.5					
26-Mar	9	8	9	10	10	11	10	9	9	11	11	10	11	11	12	16	15	13	10	10	9	3	2	1	9.6	15.7					
27-Mar	2	0	0	1	0	1	1	0	1	2	3	4	7	11	10	8	7	6	5	6	3	2	1	0	3.3	10.8					
28-Mar	0	1	1	1	1	1	0	1	1	2	4	6	7	8	11	10	9	9	7	6	6	8	6	6	4.6	10.7					
29-Mar	3	4	2	2	1	0	1	1	P	P	5	9	8	5	6	9	9	7	7	4	5	8	14	14	5.7	13.9					
30-Mar	14	13	10	8	9	10	10	8	9	11	12	13	15	16	16	16	13	11	9	7	6	3	2	0	10.1	16.4					
31-Mar	1	0	0	0	1	2	2	2	5	7	7	6	5	4	3	3	6	5	4	2	3	2	1	1	3.0	7.4					
4.3 3.8 3.4 3.7 3.9 3.9 3.8 3.5 4.1 5.8 7.1 7.6 8.5 9.0 9.6 9.8 9.3 8.2 6.8 5.8 5.2 4.9 4.7 4.1																									Diurnal Average						
18.6 18.0 18.5 19.5 20.6 23.3 24.2 22.0 18.3 21.6 20.8 18.3 16.1 17.8 16.5 18.5 22.9 20.7 19.2 14.9 14.0 18.9 21.3 16.7																									Diurnal Maximum						
P - Power Failure																															
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Valleyview - March 2014

Maximum Value: 95.1 deg on Mar 19 10:00																		Hours in Service: 744							
Minimum Value: 2.9 deg on Mar 6 16:00																		Hours of Data: 737							
																		Hours of Missing Data: 7							
Percentiles: P ₁ = 5.0 P ₁₀ = 7.5 Q ₁ = 9.5 Median = 13.4 Q ₃ = 28.2 P ₉₀ = 59.0 P ₉₉ = 88.4																		Hours of Calibration: 0							
																		Percent Operational Time: 99.1							
Day	Hourly Period Ending At (MST)																								Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1-Mar	54	48	24	43	10	41	91	65	64	83	25	50	31	15	15	14	15	9	9	10	11	9	10	9	91.2
2-Mar	26	40	32	39	87	73	84	70	88	72	40	42	21	11	11	10	7	11	9	9	9	10	13	25	88.2
3-Mar	6	9	20	46	37	24	9	9	11	12	16	18	15	43	19	38	19	28	19	13	14	13	11	56	55.7
4-Mar	50	56	80	69	40	23	26	31	16	26	49	55	9	8	8	8	9	11	9	9	7	14	8	12	80.3
5-Mar	11	21	12	76	18	86	65	90	59	73	63	10	12	16	7	8	9	10	15	8	15	52	73	85	89.6
6-Mar	26	89	87	85	51	50	59	77	69	61	17	17	8	8	8	3	14	10	9	16	18	14	23	59	88.6
7-Mar	67	74	81	10	9	11	14	17	16	18	27	26	56	52	21	21	16	28	14	47	52	67	67	14	80.7
8-Mar	9	8	7	6	6	7	8	64	17	8	39	92	26	17	33	69	85	51	54	26	49	59	53	57	91.6
9-Mar	11	23	52	74	43	12	9	7	15	7	14	17	20	10	8	11	8	9	8	10	12	27	16	46	74.1
10-Mar	43	32	11	14	15	18	34	32	9	27	9	9	11	10	7	10	10	10	10	13	7	9	14	15	42.6
11-Mar	13	13	7	9	6	5	6	6	6	16	25	14	11	19	10	11	14	26	20	8	11	6	4	5	25.9
12-Mar	7	23	8	5	9	12	9	9	33	6	7	35	50	11	13	11	11	12	8	9	8	8	9	9	49.5
13-Mar	9	10	11	11	9	8	7	8	6	11	10	12	9	9	8	13	9	62	89	28	74	50	25	26	88.9
14-Mar	54	18	42	44	54	82	71	55	56	41	34	27	11	10	21	33	16	15	10	86	39	33	26	22	86.5
15-Mar	11	8	48	12	10	14	8	21	13	15	9	9	11	11	10	10	8	9	13	11	16	18	18	7	48.2
16-Mar	21	13	12	13	12	16	16	19	24	7	9	11	10	13	34	11	16	11	10	7	27	10	12	13	33.8
17-Mar	12	28	9	10	8	9	36	32	11	13	10	P	P	P	P	P	13	15	11	15	14	11	9	18	36.2
18-Mar	8	6	14	5	7	10	6	5	10	24	10	13	11	11	10	31	25	23	33	20	22	24	82	69	81.9
19-Mar	63	24	8	8	22	73	84	69	42	95	54	50	36	12	5	12	19	45	18	45	29	19	33	10	95.1
20-Mar	12	12	8	7	7	7	6	7	6	7	8	10	12	13	13	13	12	13	11	9	10	18	13	11	17.8
21-Mar	33	14	20	11	19	38	20	14	17	21	11	12	11	18	11	11	16	11	15	7	6	62	43	11	62.2
22-Mar	61	83	66	76	39	31	47	32	10	14	7	6	25	20	15	6	11	10	11	6	11	10	17	32	83.0
23-Mar	21	73	86	54	27	15	16	22	56	24	12	13	18	11	12	12	23	9	7	19	10	7	9	17	86.2
24-Mar	12	15	12	7	19	7	10	14	31	28	59	23	26	26	14	17	17	22	17	14	7	9	7	8	58.6
25-Mar	10	11	15	18	14	13	13	14	13	12	10	9	8	10	8	7	7	7	8	8	8	29	26	11	29.5
26-Mar	13	8	15	12	11	10	8	9	9	12	11	14	15	15	18	9	8	6	9	13	9	23	15	13	23.3
27-Mar	18	80	77	19	90	55	15	12	82	13	11	13	26	10	10	11	15	31	24	7	12	28	61	45	89.8
28-Mar	54	76	52	32	53	54	59	61	88	54	7	6	7	9	4	13	11	8	13	10	9	4	5	5	87.9
29-Mar	8	11	10	24	29	73	55	25	P	P	19	14	9	26	28	13	12	15	14	12	16	8	7	9	72.6
30-Mar	8	8	10	10	8	7	9	10	10	14	10	9	7	6	8	8	14	10	10	9	8	29	50	50	49.8
31-Mar	56	68	53	83	79	15	6	16	10	9	11	13	18	39	74	87	36	6	12	17	13	42	81	66	87.2
66.7 88.6 87.4 84.7 89.8 85.9 91.2 89.6 88.2 95.1 63.4 91.6 56.4 52.3 74.1 87.2 84.7 62.0 88.9 86.5 73.7 67.3 81.9 84.6																									
P - Power Failure																									

PAZA

Portable – Reno Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

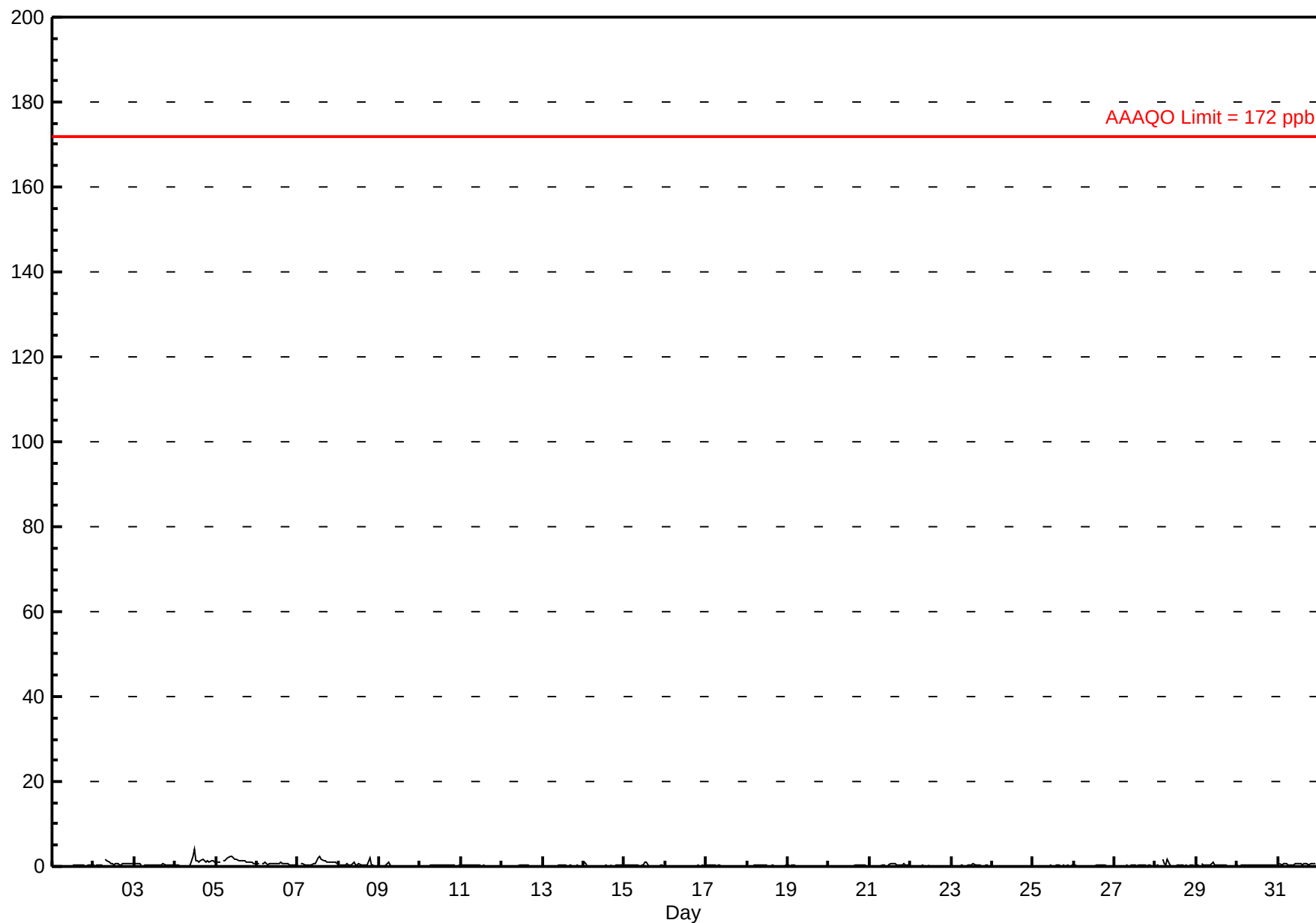
Sulphur Dioxide (SO₂) - ppb

Portable Reno - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.1 ppb on Mar 4 12:00 Maximum Daily Average: 1.4 ppb on Mar 5																			Hours in Service: 744 Hours of Data: 707 Hours of Missing Data: 37 Hours of Calibration: 37 Percent Operational Time: 100.0							
Minimum Value: 0 ppb on Mar 9 02:00 Minimum Daily Average: 0.0 ppb on Mar 24 Maximum Diurnal Average: 0.5 ppb at hour 12 Minimum Diurnal Average: 0.2 ppb at hour 3 Monthly Average: 0.33 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.4 P ₉₀ = 0.8 P ₉₉ = 2.0																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	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	0.4
2-Mar	0	0	0	0	0	0	A	2	1	1	1	1	0	1	1	0	0	1	1	1	1	1	1	1	0.6	1.7
3-Mar	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.4	0.6
4-Mar	0	0	0	0	A	0	0	0	0	0	2	4	1	1	1	1	2	1	1	1	1	1	1	1	1.0	4.1
5-Mar	1	1	1	A	1	1	2	2	2	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1.4	2.5
6-Mar	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0.6	1.0
7-Mar	0	A	1	1	0	0	0	0	0	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	0.9	2.4
8-Mar	A	0	0	0	0	1	0	0	1	1	0	0	1	0	0	0	0	0	2	0	0	0	0	A	0.5	1.9
9-Mar	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.9
10-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.5
11-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.5
12-Mar	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	0.2
13-Mar	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
14-Mar	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.9
15-Mar	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0.3	1.1
16-Mar	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	0.2
17-Mar	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	0.4
18-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.4
19-Mar	0	0	0	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
20-Mar	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	0.5
21-Mar	0	0	0	0	0	0	0	0	0	0	A	0	1	1	1	1	0	0	0	0	1	0	0	0	0.3	0.8
22-Mar	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
23-Mar	0	0	0	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.7
24-Mar	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
25-Mar	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	0.2
26-Mar	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
27-Mar	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
28-Mar	0	0	0	A	2	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.6
29-Mar	0	0	A	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
30-Mar	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	0.5
31-Mar	A	1	0	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.6	0.8
		0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	Diurnal Average
		1.0	1.0	1.0	0.7	1.6	1.4	1.6	2.2	2.4	2.5	2.3	4.1	2.1	2.4	1.8	1.4	1.6	1.4	1.9	1.2	1.2	1.2	1.2	1.2	Diurnal Maximum
C - Calibration		A - Automated Daily Zero Span																								
Alberta Ambient Air Quality Objectives (AAAQO):		1-hr 172 ppb		24-hr 48 ppb		30-day 11 ppb																				

Hourly Averages

Sulphur Dioxide (SO₂) - ppb
Portable Reno - March 2014



Hourly Maximums

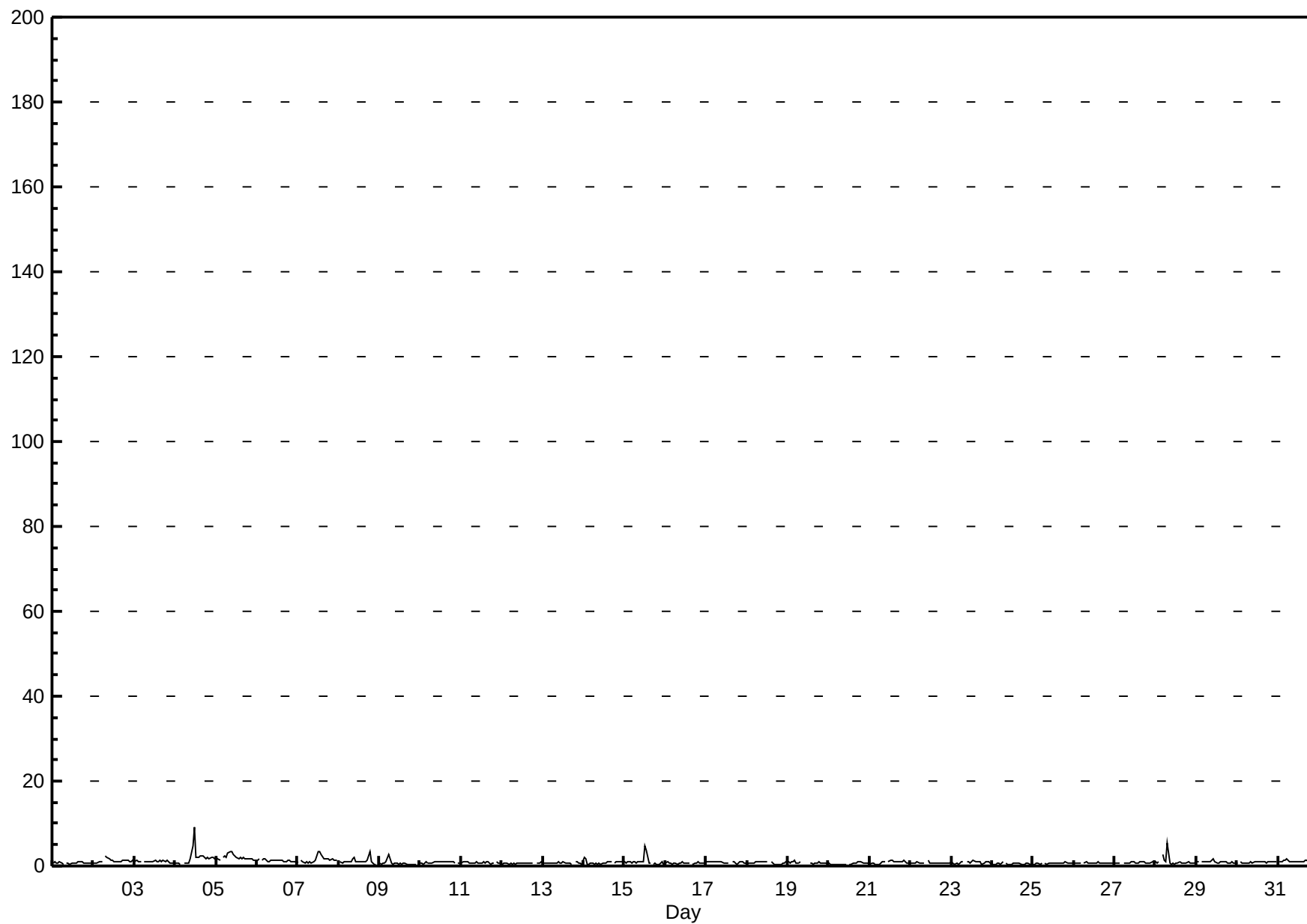
Sulphur Dioxide (SO₂) - ppb

Portable Reno - March 2014

Maximum Value: 9.3 ppb on Mar 4 12:00																				Maximum Daily Average: 2.0 ppb on Mar 5					Hours in Service: 744	
Minimum Value: 0 ppb on Mar 20 09:00																				Minimum Daily Average: 0.5 ppb on Mar 24					Hours of Data: 707	
Maximum Diurnal Average: 1.2 ppb at hour 12																				Minimum Diurnal Average: 0.7 ppb at hour 3					Hours of Missing Data: 37	
Monthly Average: 0.94 ppb																				Percentiles: P ₁ = 0.3 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.8 Q ₃ = 1.0 P ₉₀ = 1.4 P ₉₉ = 3.4					Hours of Calibration: 37	
																									Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	1	1	1	1	1	1	0	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
2-Mar	1	1	1	1	1	1	A	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.2
3-Mar	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4
4-Mar	1	1	1	0	A	1	1	1	1	2	5	9	2	2	2	2	2	2	2	2	2	2	2	2	1.9	9.3
5-Mar	2	2	1	A	2	2	2	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	1	1	2.0	3.4
6-Mar	1	2	A	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	1.6
7-Mar	1	A	1	1	1	1	1	1	1	1	1	2	3	3	3	2	2	2	2	1	2	1	1	1	1.5	3.2
8-Mar	A	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	3	1	1	0	1	A	1.1	3.3
9-Mar	1	1	1	1	1	3	2	1	0	1	1	0	1	0	1	1	0	0	0	0	0	0	A	1	0.7	2.6
10-Mar	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.1
11-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	0.8	1.1
12-Mar	0	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.6	0.9
13-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	1	0	0.7	1.0
14-Mar	2	2	1	0	1	1	0	1	0	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	0.8	1.9
15-Mar	1	1	1	1	1	1	1	1	1	1	1	5	4	1	1	A	1	1	1	0	0	1	1	0	1.1	4.6
16-Mar	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	A	0	1	1	1	1	1	1	1	0.7	1.0
17-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	1	1	1	1	0.8	1.1
18-Mar	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	1	0	0	1	1	1	0.8	1.1
19-Mar	1	1	1	1	1	1	1	1	C	C	C	C	C	1	1	0	1	1	1	1	1	1	1	0	0.8	1.5
20-Mar	1	0	0	0	0	0	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	1	1	1	0.5	1.0
21-Mar	0	1	1	0	0	0	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3
22-Mar	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	1.2
23-Mar	1	1	0	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0.8	1.3
24-Mar	0	0	0	1	1	0	1	A	1	0	0	0	1	1	1	1	1	0	0	0	1	1	0	1	0.5	0.9
25-Mar	0	0	1	1	0	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9
26-Mar	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	1.1
27-Mar	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	1.0
28-Mar	1	1	1	A	3	1	1	5	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1.0	5.5
29-Mar	1	1	A	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.6
30-Mar	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.0
31-Mar	A	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.2	1.6
0.8 0.8 0.7 0.8 0.9 0.9 0.8 1.1 0.9 1.0 1.1 1.2 1.1 1.1 1.0 1.0 1.0 0.9 1.0 0.9 0.9 0.9 0.8 0.8																									Diurnal Average	
1.9 1.6 1.4 1.4 2.7 2.6 2.1 5.5 3.4 3.4 4.8 9.3 4.6 3.8 2.7 2.3 2.4 2.0 3.3 1.9 1.7 1.9 2.1 1.7																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Maximums

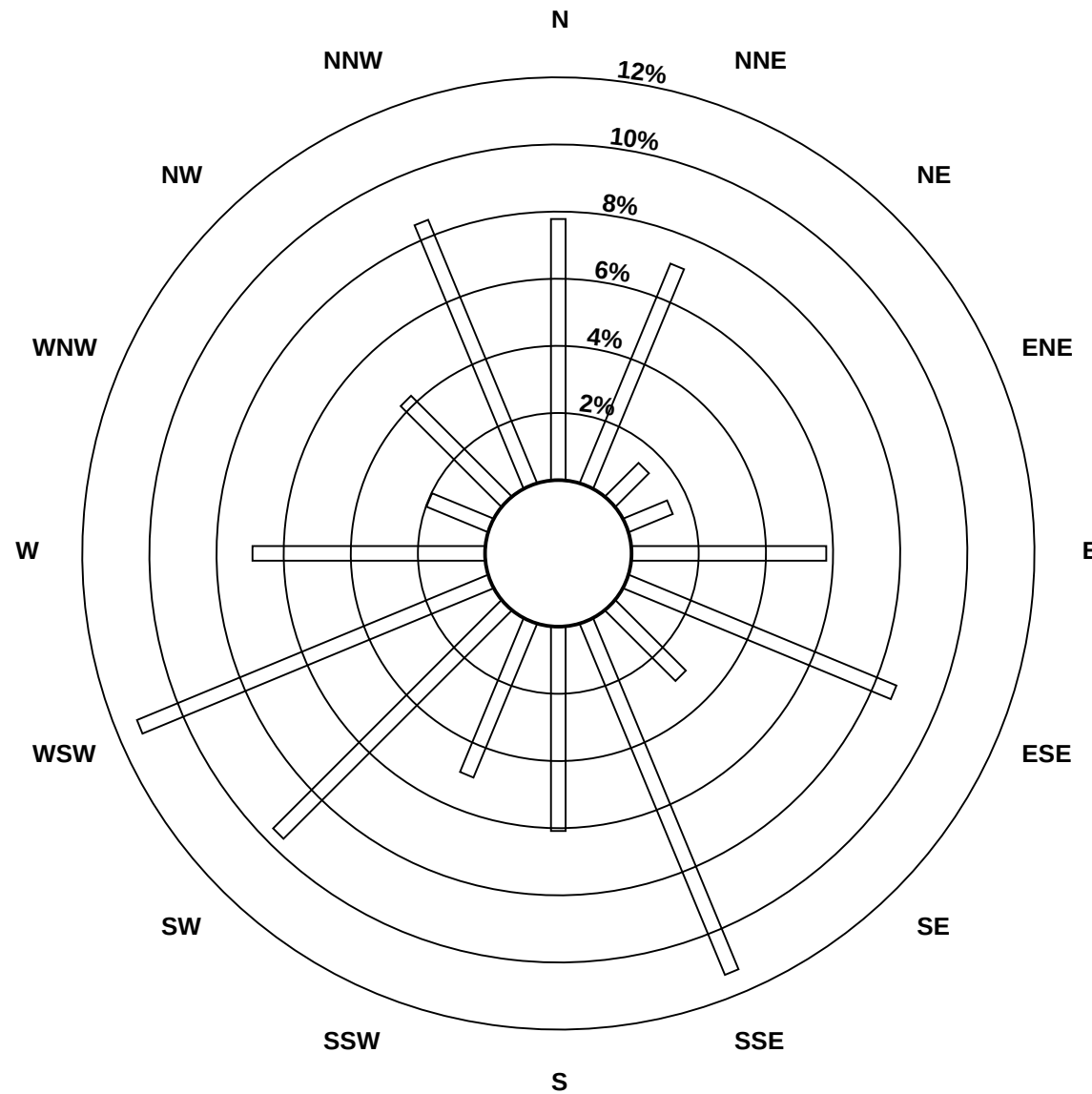
Sulphur Dioxide (SO₂) - ppb
Portable Reno - March 2014



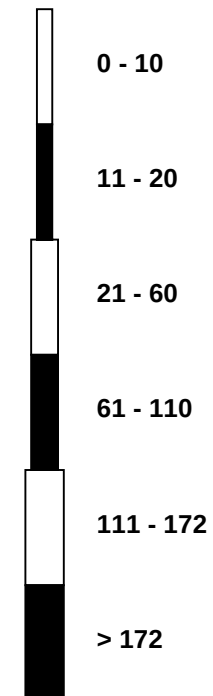
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb

Portable Reno - March 2014

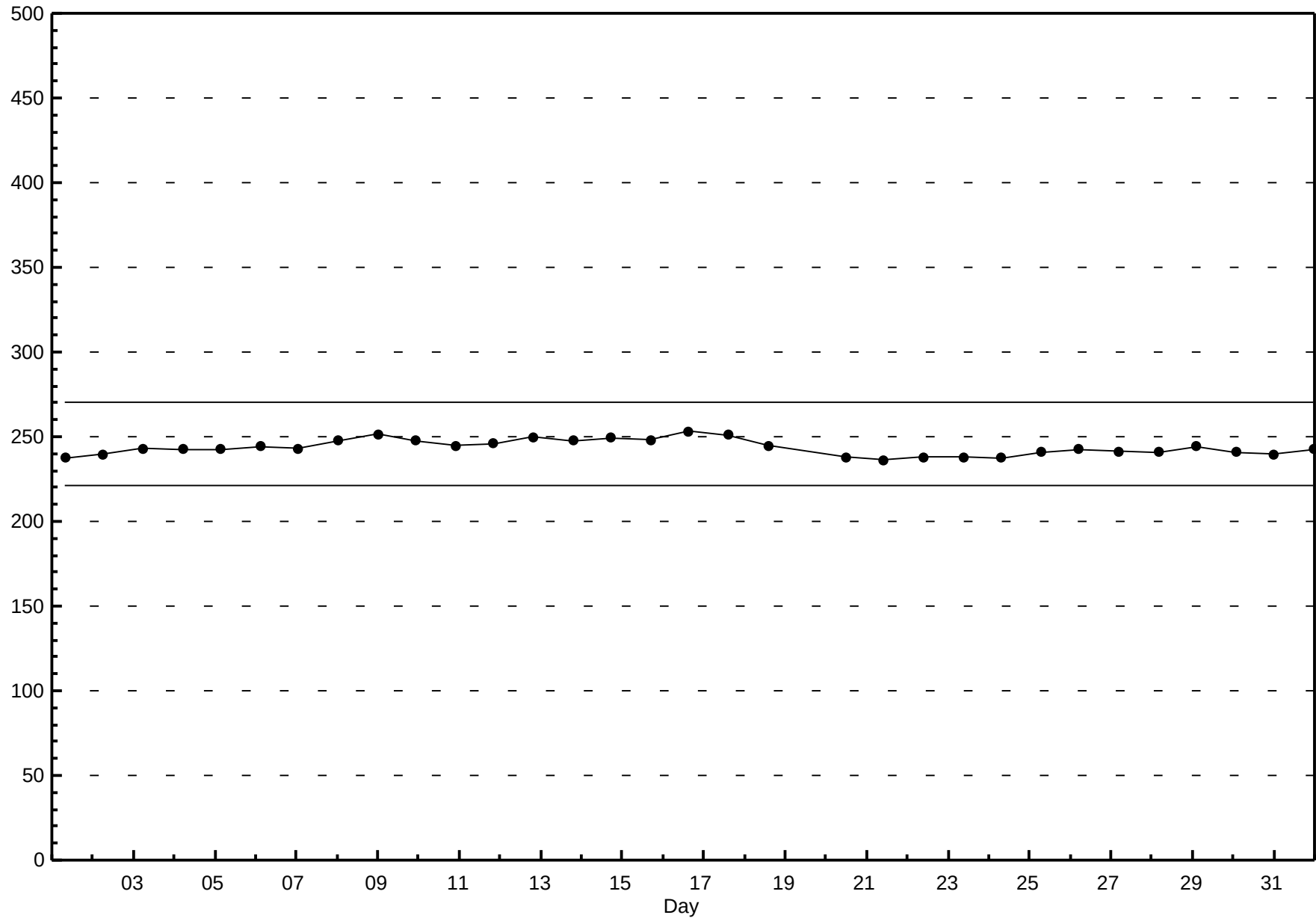


Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)
Portable Reno - March 2014



Hourly Averages

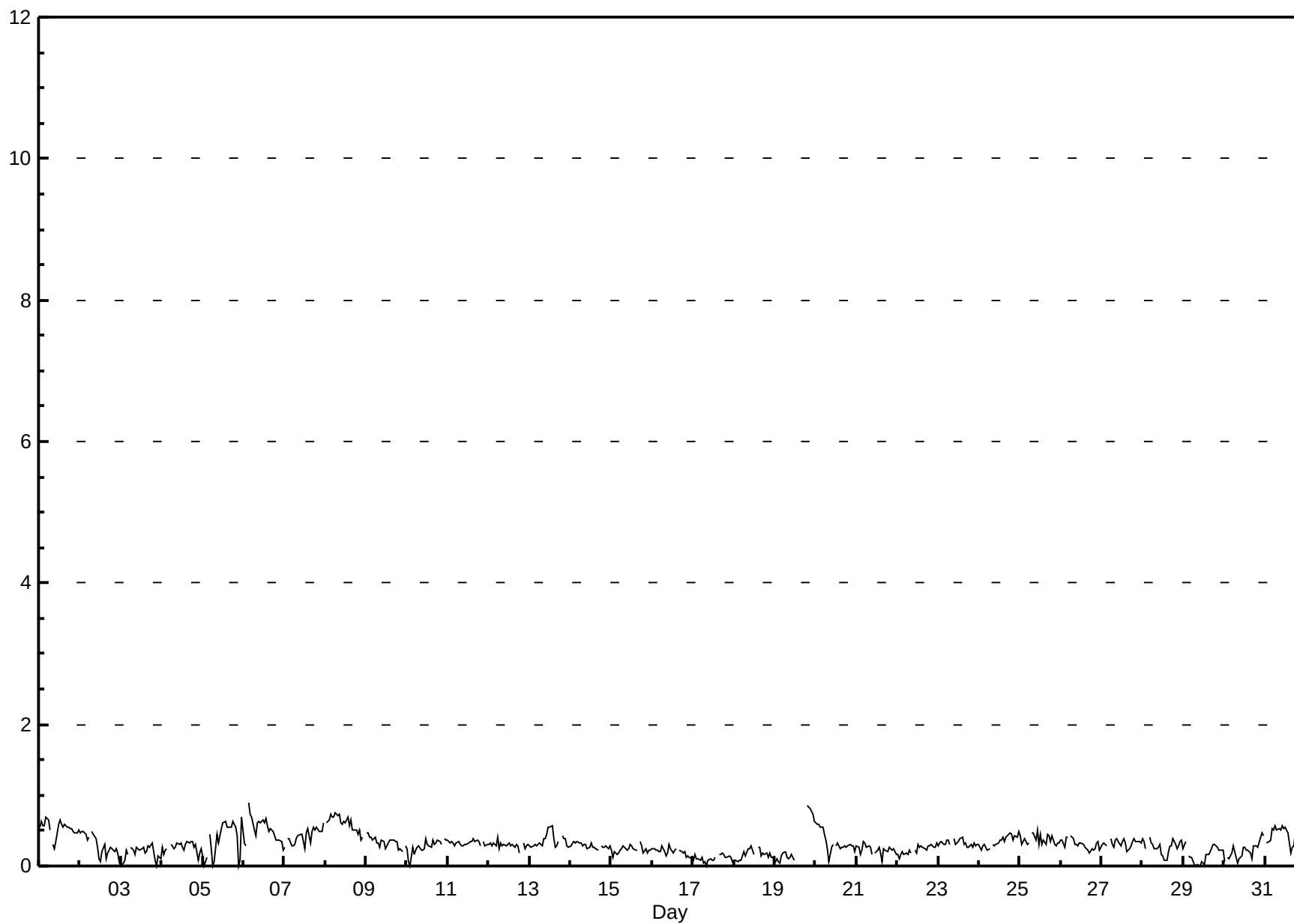
Total Reduced Sulphur (TRS) - ppb

Portable Reno - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 0.9 ppb on Mar 6 04:00 Maximum Daily Average: 0.6 ppb on Mar 8																			Hours in Service: 744 Hours of Data: 706 Hours of Missing Data: 38 Hours of Calibration: 38 Percent Operational Time: 100.0							
Minimum Value: 0 ppb on Mar 3 01:00 Minimum Daily Average: 0.1 ppb on Mar 17 Maximum Diurnal Average: 0.3 ppb at hour 14 Minimum Diurnal Average: 0.3 ppb at hour 3 Monthly Average: 0.31 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.2 Median = 0.3 Q ₃ = 0.4 P ₉₀ = 0.5 P ₉₉ = 0.7																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	1	1	1	1	1	1	1	A	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	1	0.5	0.7
2-Mar	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-Mar	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
4-Mar	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-Mar	0	0	0	A	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	1	0.4	0.7
6-Mar	0	0	A	1	1	1	1	0	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0.5	0.9
7-Mar	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	0	1	0.4	0.6
8-Mar	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	A	0.6	0.8
9-Mar	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
10-Mar	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
11-Mar	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
12-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.4
13-Mar	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	A	0	0	0	0	0	0.4	0.6
14-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.3
15-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.3
16-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.3
17-Mar	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	0.2
18-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.2	0.3
19-Mar	0	0	0	0	0	0	0	0	0	0	0	0	A	0	C	C	C	C	C	1	1	1	1	1	0.3	0.9
20-Mar	1	1	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
21-Mar	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
22-Mar	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
23-Mar	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
24-Mar	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	0.5
25-Mar	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
26-Mar	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
27-Mar	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
28-Mar	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
29-Mar	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
30-Mar	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
31-Mar	A	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0	0	A	0.4	0.6
0.3 0.3																									Diurnal Average	
0.6 0.6 0.7 0.9 0.7 0.7 0.8 0.7 0.7 0.6 0.6 0.6 0.6 0.7 0.6 0.6 0.6 0.6 0.6 0.6 0.9 0.8 0.8 0.7 0.7																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																										

Hourly Averages

Total Reduced Sulphur (TRS) - ppb
Portable Reno - March 2014



Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

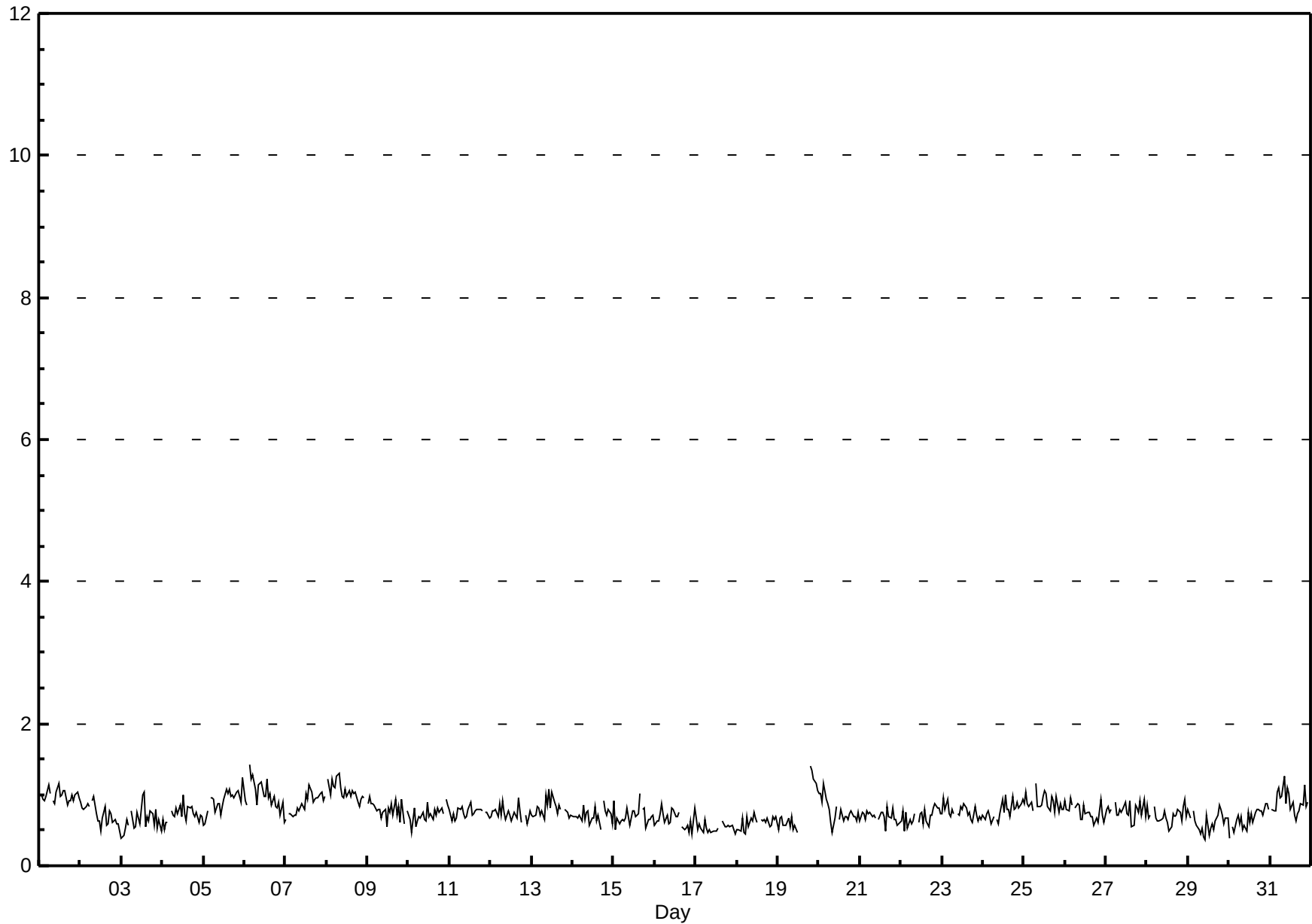
Portable Reno - March 2014

Maximum Value: 1.4 ppb on Mar 6 04:00																			Maximum Daily Average: 1.0 ppb on Mar 8										Hours in Service: 744	
Minimum Value: 0 ppb on Mar 29 11:00																			Minimum Daily Average: 0.5 ppb on Mar 17										Hours of Data: 706	
Maximum Diurnal Average: 0.8 ppb at hour 14																			Minimum Diurnal Average: 0.7 ppb at hour 3										Hours of Missing Data: 38	
Monthly Average: 0.76 ppb																			Percentiles: P ₁ = 0.5 P ₁₀ = 0.6 Q ₁ = 0.6 Median = 0.7 Q ₃ = 0.9 P ₉₀ = 1.0 P ₉₉ = 1.3										Hours of Calibration: 38	
																			Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1-Mar	1	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	1.2				
2-Mar	1	1	1	1	1	1	A	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0				
3-Mar	0	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.6	1.0				
4-Mar	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				
5-Mar	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2				
6-Mar	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4				
7-Mar	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	1.1				
8-Mar	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.0	1.3				
9-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.0				
10-Mar	1	1	0	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				
11-Mar	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				
12-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	1.0				
13-Mar	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	1.1				
14-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.7	0.9				
15-Mar	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				
16-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	1	0	1	0.7	0.9				
17-Mar	1	0	1	1	0	1	1	0	1	0	0	0	0	1	A	1	1	1	1	1	1	1	1	0	0.5	0.7				
18-Mar	1	1	0	1	0	0	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.6	0.8				
19-Mar	1	1	1	1	1	1	1	1	1	1	1	0	A	1	C	C	C	C	C	1	1	1	1	1	0.8	1.4				
20-Mar	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2				
21-Mar	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	1	0.7	0.8				
22-Mar	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9				
23-Mar	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	1.0				
24-Mar	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0				
25-Mar	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	1.2				
26-Mar	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	0.9				
27-Mar	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	0.9				
28-Mar	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.7	0.9				
29-Mar	1	1	A	1	1	1	1	0	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	0.6	0.9				
30-Mar	0	A	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9				
31-Mar	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.3				
																									Diurnal Average					
																									Diurnal Maximum					
C - Calibration																									A - Automated Daily Zero Span					

Hourly Maximums

Total Reduced Sulphur (TRS) - ppb

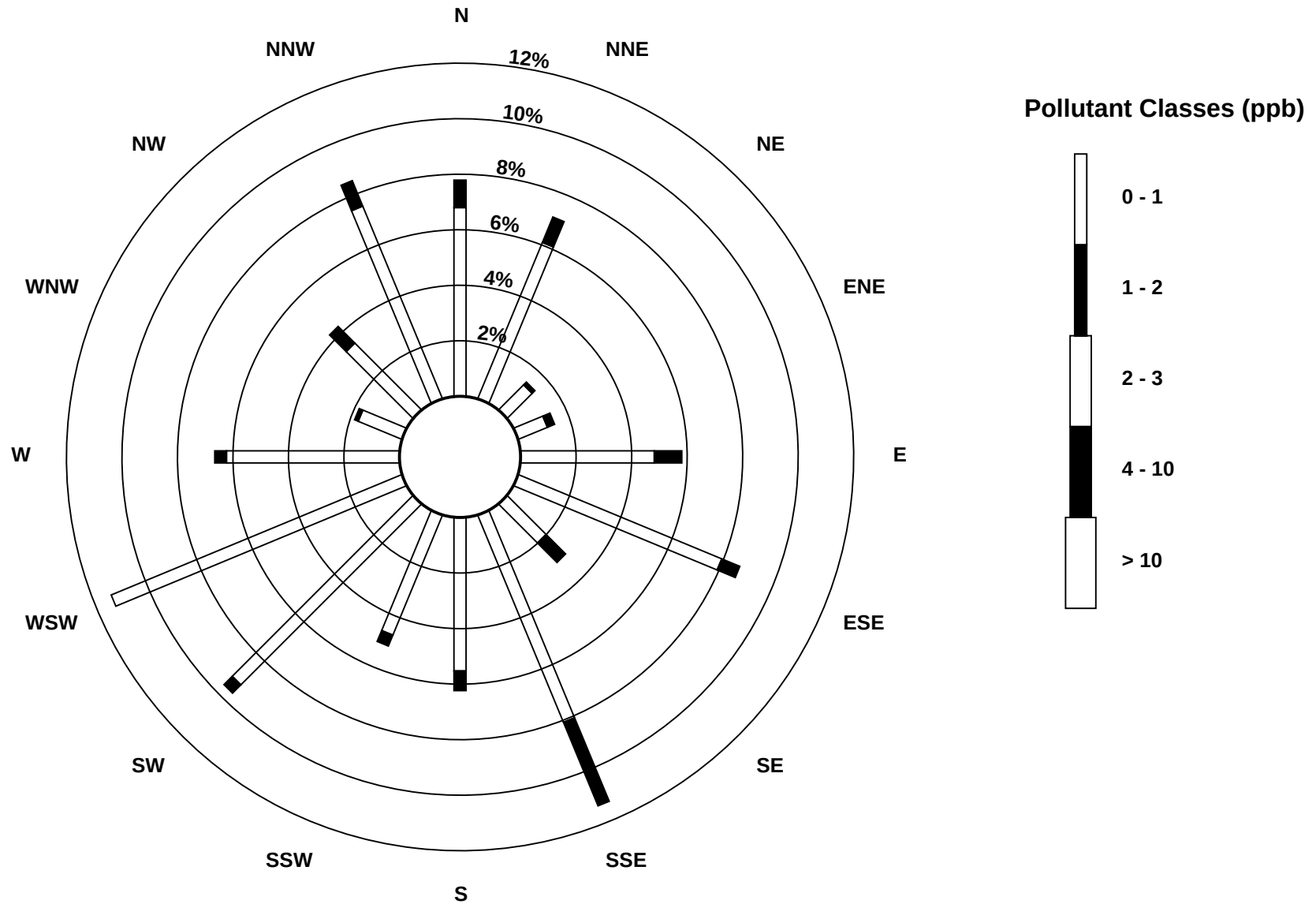
Portable Reno - March 2014



Pollutant Rose

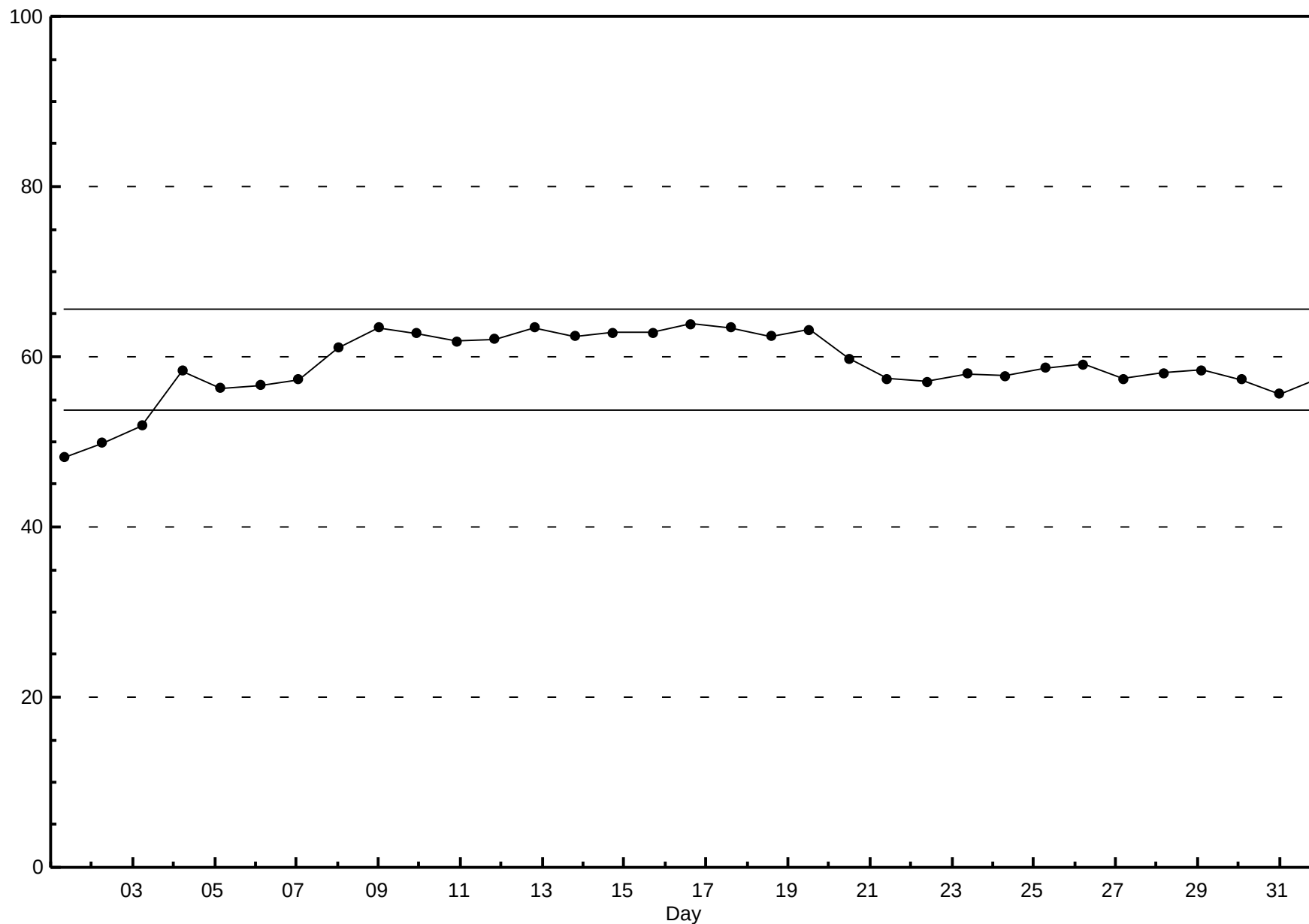
Total Reduced Sulphur (TRS) - ppb

Portable Reno - March 2014



Span Responses

Total Reduced Sulphur (TRS)
Portable Reno - March 2014



Hourly Averages

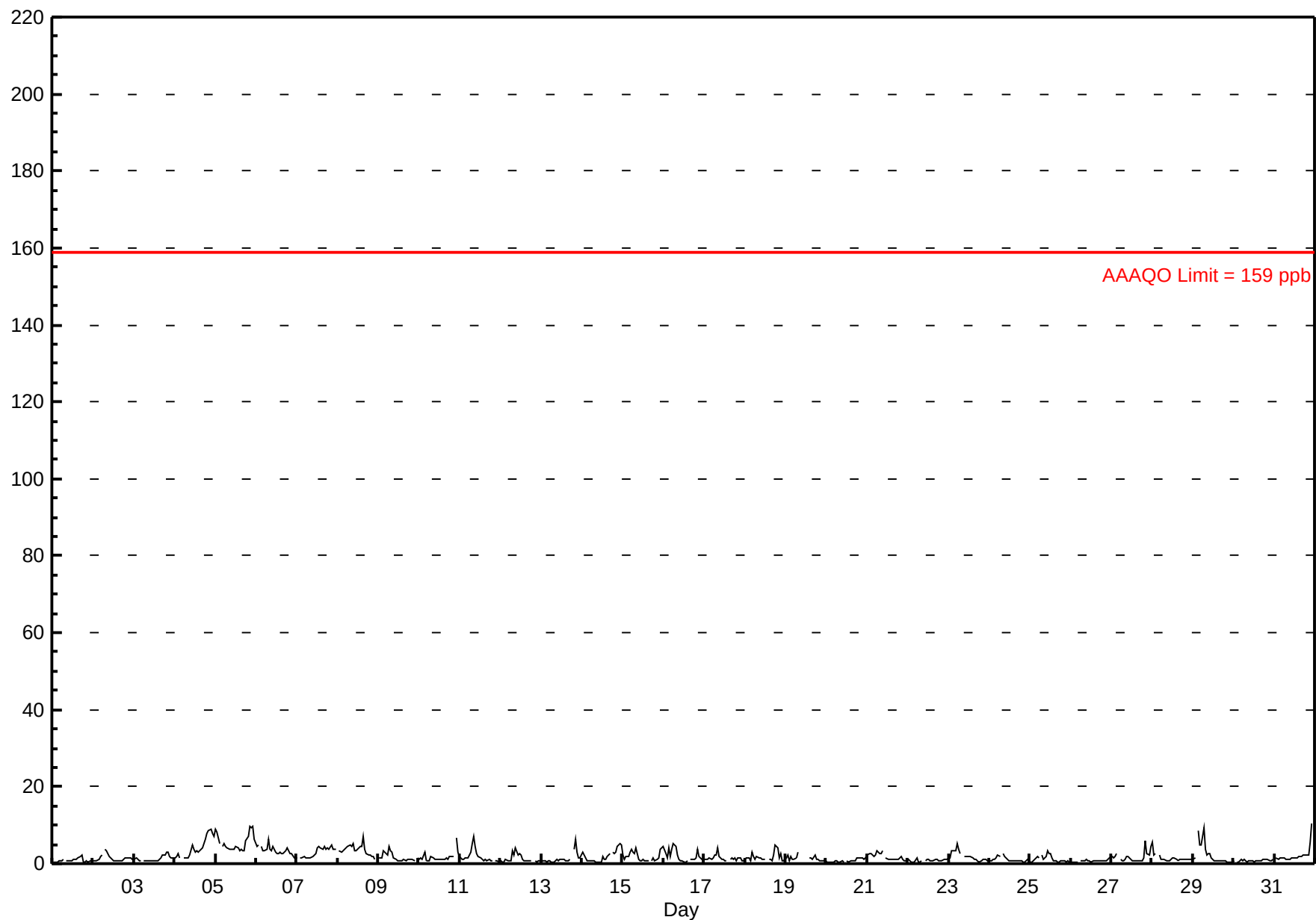
Nitrogen Dioxide (NO₂) - ppb

Portable Reno - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 10.5 ppb on Mar 31 23:00 Maximum Daily Average: 5.5 ppb on Mar 5																				Hours in Service: 744 Hours of Data: 706 Hours of Missing Data: 38 Hours of Calibration: 38 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Mar 26 03:00 Maximum Diurnal Average: 2.4 ppb at hour 21 Monthly Average: 1.86 ppb										Minimum Daily Average: 0.7 ppb on Mar 26 Minimum Diurnal Average: 1.4 ppb at hour 15 Percentiles: P ₁ = 0.4 P ₁₀ = 0.6 Q ₁ = 0.8 Median = 1.2 Q ₃ = 2.4 P ₉₀ = 4.0 P ₉₉ = 8.8																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	1	0	0	1	1	1	1	A	1	1	1	1	1	1	1	1	2	2	0	0	1	1	1	1	0.9	2.4
2-Mar	1	1	1	1	2	2	A	4	3	2	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1.4	3.7
3-Mar	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	2	2	2	3	3	2	1	1	1.3	2.8
4-Mar	1	2	3	2	A	2	2	2	1	2	5	4	3	4	3	3	4	5	6	8	9	9	8	7	4.1	8.9
5-Mar	9	8	5	A	4	5	4	4	4	4	4	4	5	4	3	4	3	3	6	7	10	9	10	6	5.5	9.8
6-Mar	4	5	A	4	3	3	4	6	4	3	4	3	3	3	3	2	2	3	4	3	3	3	2	1	3.3	6.2
7-Mar	1	A	1	2	2	2	2	2	2	2	2	3	4	5	4	4	5	4	4	4	5	4	4	4	3.0	4.9
8-Mar	A	3	3	3	4	4	4	5	4	5	3	3	4	4	4	7	4	2	2	2	2	2	1	A	3.6	7.2
9-Mar	2	1	1	3	3	2	4	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.7	4.5
10-Mar	1	2	1	3	1	1	1	2	2	1	1	1	1	1	1	1	1	1	2	2	2	A	7	3	1.7	6.8
11-Mar	2	1	1	2	1	1	3	5	7	5	3	2	1	1	1	1	1	1	1	1	A	1	1	1	1.8	7.2
12-Mar	1	0	1	1	1	1	1	3	2	4	2	3	2	1	1	1	1	1	1	A	1	1	1	1	1.3	4.1
13-Mar	1	1	1	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	A	4	6	3	1	2	1.3	6.5
14-Mar	3	2	1	1	1	1	1	1	0	0	0	1	2	1	1	2	3	A	3	3	3	5	5	5	1.9	5.2
15-Mar	2	1	2	2	3	4	3	2	4	1	1	1	1	1	1	1	A	1	1	1	1	2	4	4	1.9	4.2
16-Mar	5	3	2	4	2	4	5	5	2	1	1	1	1	1	1	A	1	1	1	2	4	2	1	1	2.1	5.3
17-Mar	1	1	1	1	1	1	2	2	4	2	1	1	1	1	1	A	1	2	1	2	1	2	1	1	1.4	4.1
18-Mar	1	1	1	1	3	2	1	2	2	1	1	1	1	A	1	1	1	2	5	4	1	3	1	1	1.7	5.0
19-Mar	2	2	1	2	1	1	1	3	C	C	C	C	C	C	2	1	1	2	1	1	1	1	1	1	1.4	2.9
20-Mar	1	1	0	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	2	1	1	1	2	0.8	1.6
21-Mar	2	3	3	2	2	2	3	3	2	3	A	2	1	1	1	1	1	1	1	2	2	1	1	1	1.8	3.5
22-Mar	1	1	0	1	0	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4
23-Mar	1	1	3	4	3	5	4	3	A	2	2	2	2	2	2	1	1	1	0	1	1	1	1	1	1.9	5.3
24-Mar	1	1	1	1	2	2	2	A	3	2	2	1	1	1	1	1	1	1	1	1	0	0	1	1	1.0	2.6
25-Mar	0	0	1	1	2	1	A	2	1	2	3	3	3	1	1	1	0	1	1	1	1	1	1	1	1.2	3.2
26-Mar	0	0	0	0	0	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	2	0.7	1.5	
27-Mar	2	1	2	3	A	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	6	3	2	4	1.7	5.9
28-Mar	6	2	3	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.5	5.5
29-Mar	1	2	A	9	5	5	9	4	2	3	2	2	1	1	1	1	1	1	1	1	0	0	1	0	2.2	9.2
30-Mar	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
31-Mar	A	1	1	1	2	2	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	6	10	A	2.2	10.5
1.8 1.7 1.5 1.9 1.8 2.1 2.3 2.4 2.1 1.9 1.7 1.6 1.5 1.4 1.4 1.5 1.5 1.6 1.9 2.0 2.4 2.2 2.4 1.9																								Diurnal Average		
8.8 8.2 5.3 8.5 4.9 5.3 9.2 6.2 7.2 5.4 4.9 3.9 4.6 4.5 4.3 7.2 4.6 5.1 6.5 7.8 9.8 9.5 10.5 7.0																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb																										

Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
Portable Reno - March 2014



Hourly Maximums

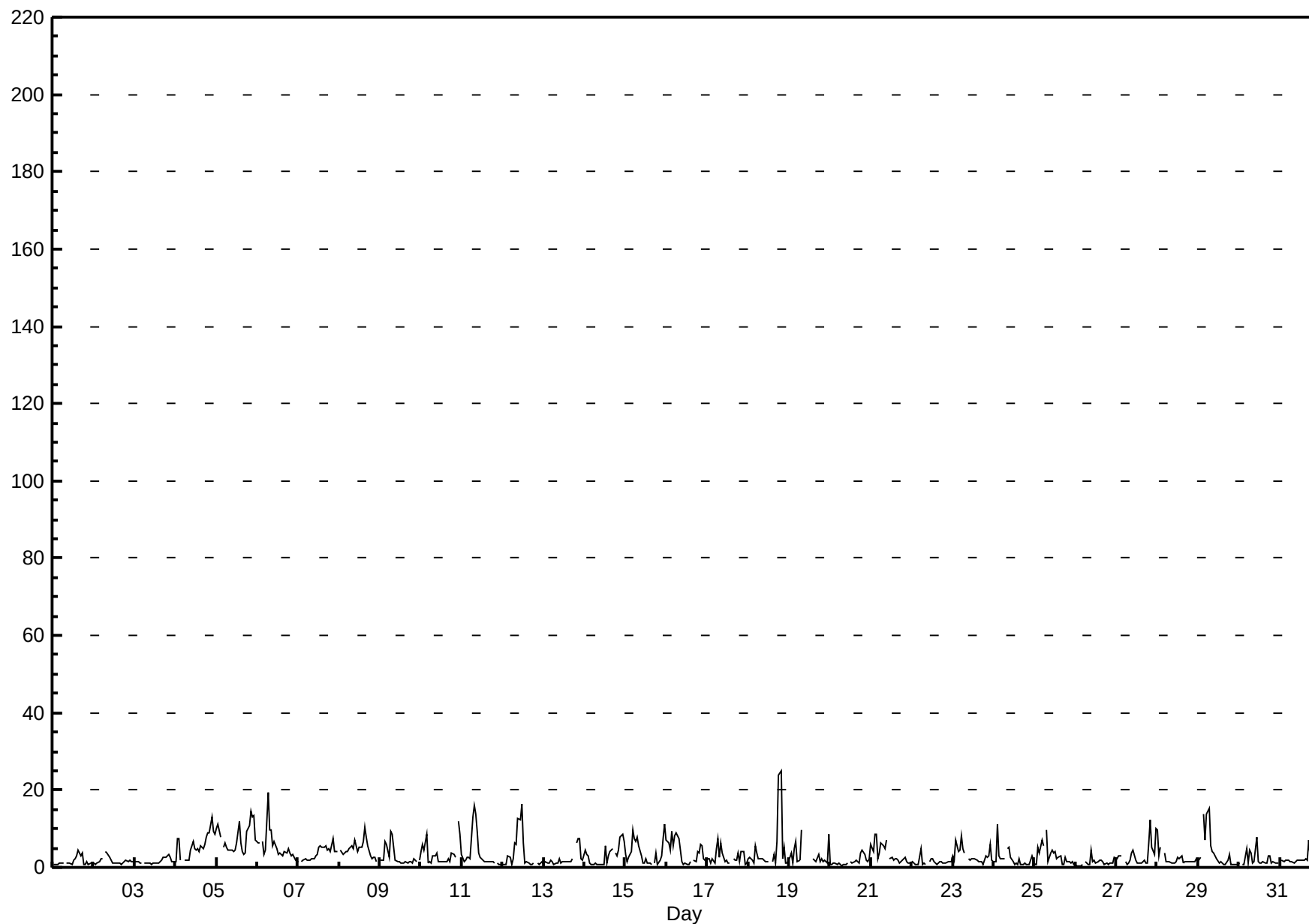
Nitrogen Dioxide (NO₂) - ppb

Portable Reno - March 2014

Maximum Value: 46.1 ppb on Mar 31 23:00																				Maximum Daily Average: 7.5 ppb on Mar 5					Hours in Service: 744				
Minimum Value: 0 ppb on Mar 26 02:00																				Minimum Daily Average: 1.3 ppb on Mar 26					Hours of Data: 706				
Maximum Diurnal Average: 4.7 ppb at hour 23																				Minimum Diurnal Average: 2.2 ppb at hour 17					Hours of Missing Data: 38				
Monthly Average: 3.25 ppb																				Percentiles: P ₁ = 0.6 P ₁₀ = 0.9 Q ₁ = 1.2 Median = 1.9 Q ₃ = 4.1 P ₉₀ = 7.1 P ₉₉ = 15.9					Hours of Calibration: 38				
																									Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Mar	1	1	1	1	1	1	1	A	1	1	1	1	2	2	3	5	3	4	1	1	1	1	1	1	1.5	4.6			
2-Mar	1	1	1	2	2	2	A	4	4	2	2	1	1	1	1	1	1	1	2	2	2	2	2	1	1.7	4.0			
3-Mar	1	2	2	1	1	A	1	1	1	1	1	1	1	1	1	1	2	2	3	3	3	3	2	2	1.6	3.3			
4-Mar	2	8	7	2	A	2	2	2	2	4	7	5	4	5	4	6	5	6	8	9	9	13	9	8	5.6	13.1			
5-Mar	10	11	8	A	5	6	5	5	4	4	4	4	6	12	6	4	3	4	9	11	15	13	13	7	7.5	14.7			
6-Mar	6	6	A	7	3	4	19	10	10	6	7	5	3	4	3	3	4	4	5	4	3	3	2	2	5.3	19.4			
7-Mar	1	A	2	2	2	2	2	2	2	2	3	3	5	6	5	5	6	4	5	4	7	4	4	4	3.6	7.5			
8-Mar	A	5	3	4	4	4	5	5	5	7	5	4	5	5	7	10	8	6	3	2	2	3	1	A	4.8	10.3			
9-Mar	2	2	2	7	6	3	9	8	5	2	1	1	1	1	1	1	1	1	1	1	2	1	A	2	2.8	9.2			
10-Mar	4	6	5	9	1	1	1	3	3	4	1	2	1	1	1	1	2	2	4	3	3	A	12	9	3.5	12.0			
11-Mar	3	2	2	3	3	2	13	16	14	9	4	2	2	1	1	2	1	1	1	1	A	1	1	1	3.8	16.1			
12-Mar	1	1	1	3	3	1	2	6	6	13	12	16	6	1	2	1	1	1	1	A	1	1	1	1	3.6	16.3			
13-Mar	1	1	1	1	2	1	1	1	1	2	1	2	1	1	1	2	1	2	A	6	8	7	2	2	2.2	7.6			
14-Mar	4	4	3	1	1	1	1	1	1	1	1	1	6	1	3	4	5	A	4	3	4	8	8	7	3.1	8.5			
15-Mar	4	2	3	4	10	8	7	8	6	3	1	1	2	1	1	1	A	1	4	1	2	3	8	11	3.9	11.1			
16-Mar	7	6	5	9	5	8	9	8	5	2	1	1	1	1	1	A	2	2	4	4	6	5	2	2	4.1	9.4			
17-Mar	2	2	1	2	1	5	7	3	6	4	1	2	1	1	1	A	2	2	2	4	1	4	4	1	1	2.7	7.3		
18-Mar	2	3	2	1	5	4	2	2	2	2	1	2	1	A	1	3	1	7	24	25	2	5	1	1	4.4	25.1			
19-Mar	3	4	1	5	7	1	2	10	C	C	C	C	C	C	2	2	2	3	1	2	2	2	1	8	3.2	9.9			
20-Mar	1	1	1	1	1	1	1	1	1	1	1	A	1	1	2	2	1	1	4	4	3	2	1	2	1.5	4.5			
21-Mar	6	4	9	9	2	4	6	5	5	7	A	2	3	2	2	2	2	1	2	2	2	2	1	1	3.6	8.7			
22-Mar	2	1	1	1	1	5	1	1	1	A	1	2	2	2	1	1	1	2	1	1	1	2	1	2	1.4	4.8			
23-Mar	3	2	7	4	4	8	5	4	A	2	2	2	2	2	2	2	1	1	1	3	3	3	6	2	3.1	8.4			
24-Mar	1	1	11	3	2	2	2	A	5	5	3	1	1	1	1	2	1	1	1	1	1	1	3	2	2.3	11.4			
25-Mar	1	1	5	4	7	6	A	10	1	4	5	4	4	2	2	3	1	1	3	1	2	1	1	1	3.0	9.7			
26-Mar	1	0	0	1	1	A	1	1	1	4	1	2	1	2	2	2	1	1	1	1	1	1	1	2	1.3	4.3			
27-Mar	2	3	3	3	A	1	1	1	2	4	4	2	1	1	1	1	2	1	1	6	12	5	3	10	3.2	12.4			
28-Mar	10	3	5	A	4	2	1	2	1	1	1	2	2	2	3	1	1	1	1	1	1	1	1	2	2.3	9.7			
29-Mar	2	3	A	14	7	14	15	6	4	4	3	2	1	1	1	1	1	2	4	1	1	1	1	1	3.8	15.5			
30-Mar	1	A	1	1	5	1	4	4	1	1	8	1	1	1	1	1	1	3	3	1	1	1	1	1	2.0	7.8			
31-Mar	A	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	7	3	3	2	16	46	A	4.8	46.1			
2.9 2.9 3.2 3.6 3.4 3.6 4.5 4.5 3.5 3.5 3.0 2.7 2.5 2.3 2.2 2.5 2.2 2.5 3.6 3.7 3.6 3.9 4.7 3.3																									Diurnal Average				
9.9 11.2 11.4 13.9 9.6 13.8 19.4 16.1 13.8 12.6 12.3 16.3 6.5 11.9 6.8 10.3 8.0 7.3 24.0 25.1 14.7 16.3 46.1 11.1																									Diurnal Maximum				
C - Calibration A - Automated Daily Zero Span																													

Hourly Maximums

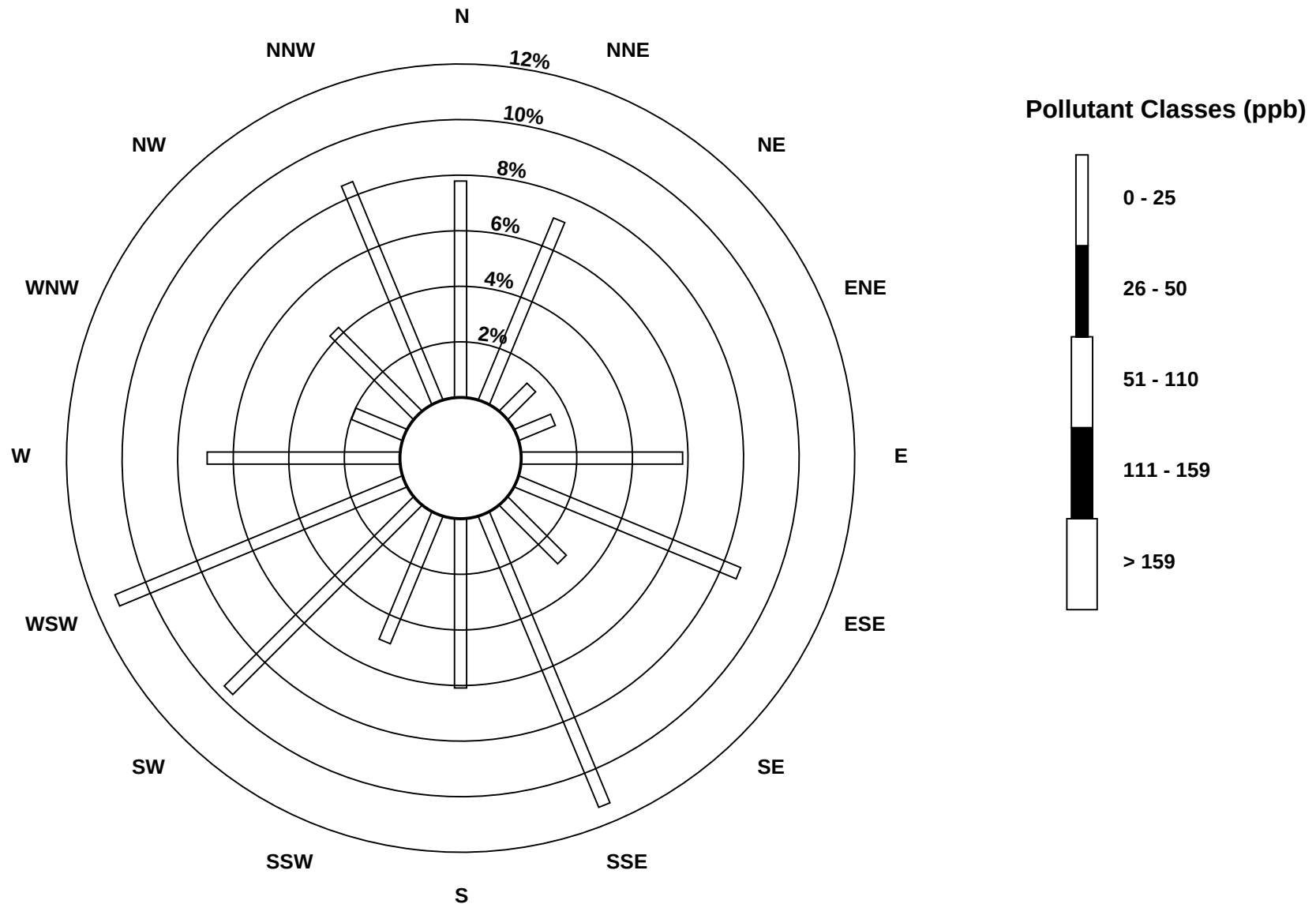
Nitrogen Dioxide (NO₂) - ppb
Portable Reno - March 2014



Pollutant Rose

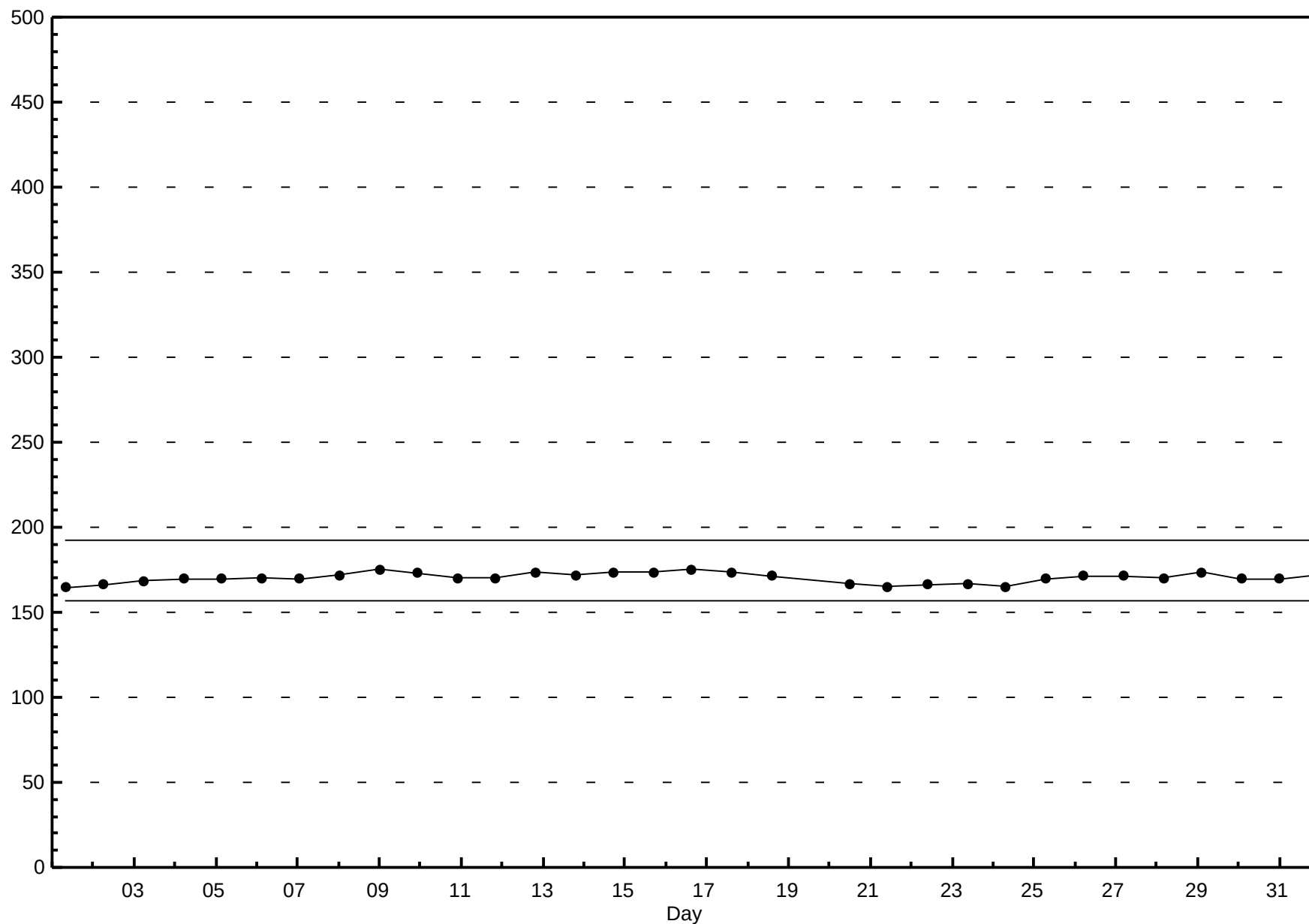
Nitrogen Dioxide (NO₂) - ppb

Portable Reno - March 2014



Span Responses

Nitrogen Dioxide (NO₂)
Portable Reno - March 2014



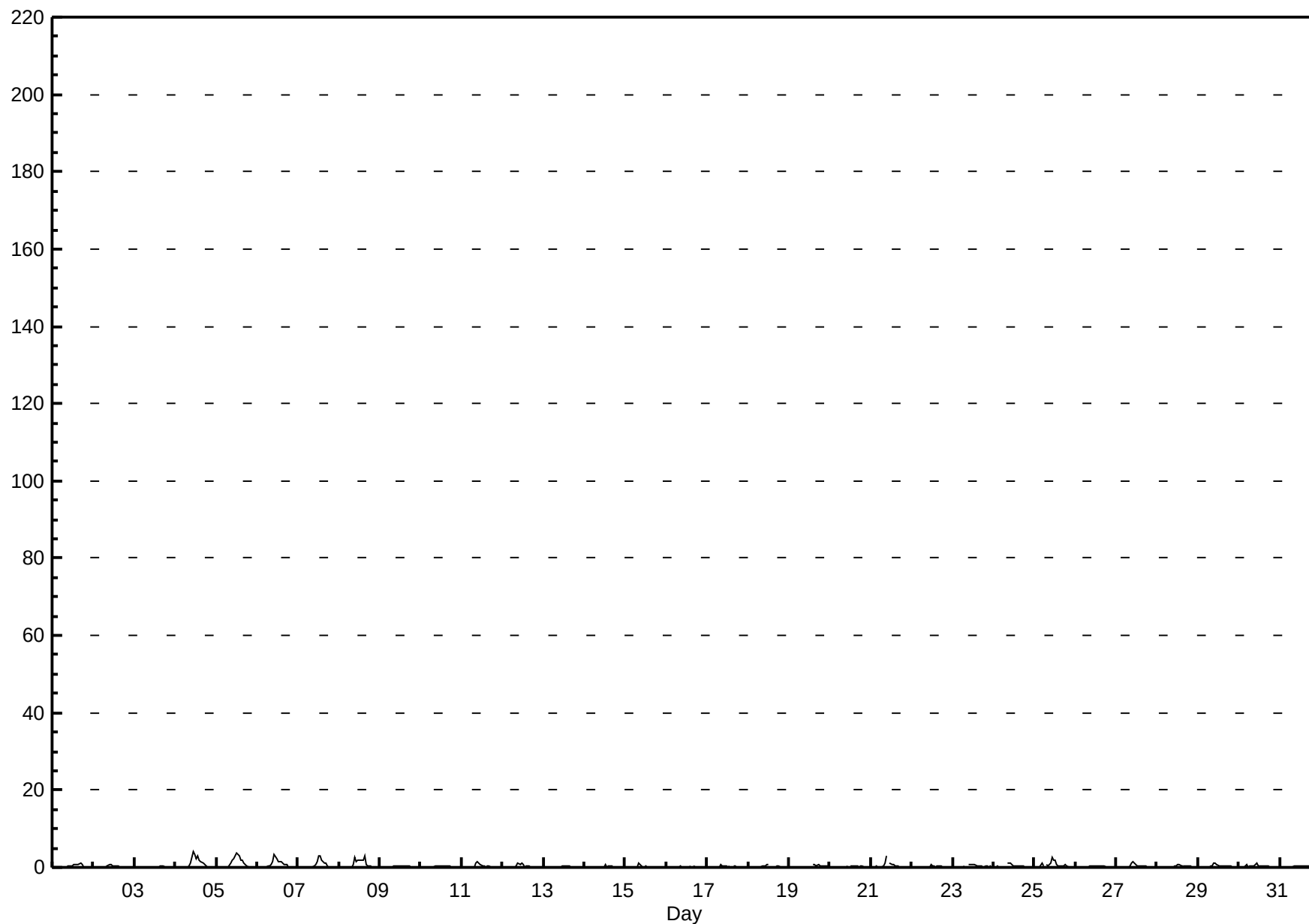
Hourly Averages

Nitrogen Oxide (NO) - ppb Portable Reno - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 4.2 ppb on Mar 4 11:00 Maximum Daily Average: 0.9 ppb on Mar 5																			Hours in Service: 744 Hours of Data: 706 Hours of Missing Data: 38 Hours of Calibration: 38 Percent Operational Time: 100.0							
Minimum Value: 0 ppb on Mar 2 01:00 Minimum Daily Average: 0.1 ppb on Mar 16 Maximum Diurnal Average: 0.9 ppb at hour 11 Minimum Diurnal Average: 0.0 ppb at hour 2 Monthly Average: 0.30 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.9 P ₉₉ = 2.9																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	0	0	0	0	0	0	0	A	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0.3	0.9
2-Mar	0	0	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
3-Mar	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
4-Mar	0	0	0	0	A	0	0	0	0	1	4	3	2	3	2	2	1	1	0	0	0	0	0	0	0.9	4.2
5-Mar	0	0	0	A	0	0	0	0	1	2	2	3	4	3	2	2	1	1	0	0	0	0	0	0	0.9	3.8
6-Mar	0	0	A	0	0	0	0	0	1	1	3	2	2	2	2	1	1	1	0	0	0	0	0	0	0.7	3.3
7-Mar	0	A	0	0	0	0	0	0	0	0	1	2	3	3	2	1	1	0	0	0	0	0	0	0	0.6	3.1
8-Mar	A	0	0	0	0	0	0	0	1	2	2	2	2	2	3	1	0	0	0	0	0	0	0	A	0.8	2.9
9-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	A	0.2	0.4
10-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0.2	0.5
11-Mar	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	A	0	0	0	0.3	1.5
12-Mar	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	A	0	0	0	0	0.2	1.1
13-Mar	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	0.4
14-Mar	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0.1	0.6
15-Mar	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.9
16-Mar	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	0.2
17-Mar	0	0	0	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.9
18-Mar	0	0	0	0	0	0	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0	0	0.1	0.6
19-Mar	0	0	0	0	0	0	0	0	C	C	C	C	C	C	1	1	0	1	0	0	0	0	0	0	0.2	0.8
20-Mar	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	0.4
21-Mar	0	0	0	0	0	0	0	0	1	3	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	2.8
22-Mar	0	0	0	0	0	0	0	0	0	A	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
23-Mar	0	0	0	0	0	0	0	0	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.3	0.9
24-Mar	0	0	0	0	0	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
25-Mar	0	0	0	0	1	0	A	1	0	1	3	2	2	1	0	0	0	0	1	0	0	0	0	0	0.6	2.8
26-Mar	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
27-Mar	0	0	0	0	A	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4
28-Mar	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.2	0.7
29-Mar	0	0	A	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
30-Mar	0	A	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
31-Mar	A	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	A	0.2	0.6
0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.1 0.4 0.8 0.9 0.8 0.8 0.7 0.6 0.6 0.4 0.3 0.2 0.1 0.1 0.0 0.1 0.0																									Diurnal Average	
0.1 0.1 0.3 0.3 1.1 0.3 0.4 0.7 1.3 2.8 4.2 3.5 3.8 3.1 2.0 2.9 1.3 0.9 0.6 0.4 0.4 0.4 0.6 0.1																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Nitrogen Oxide (NO) - ppb
Portable Reno - March 2014



Hourly Maximums

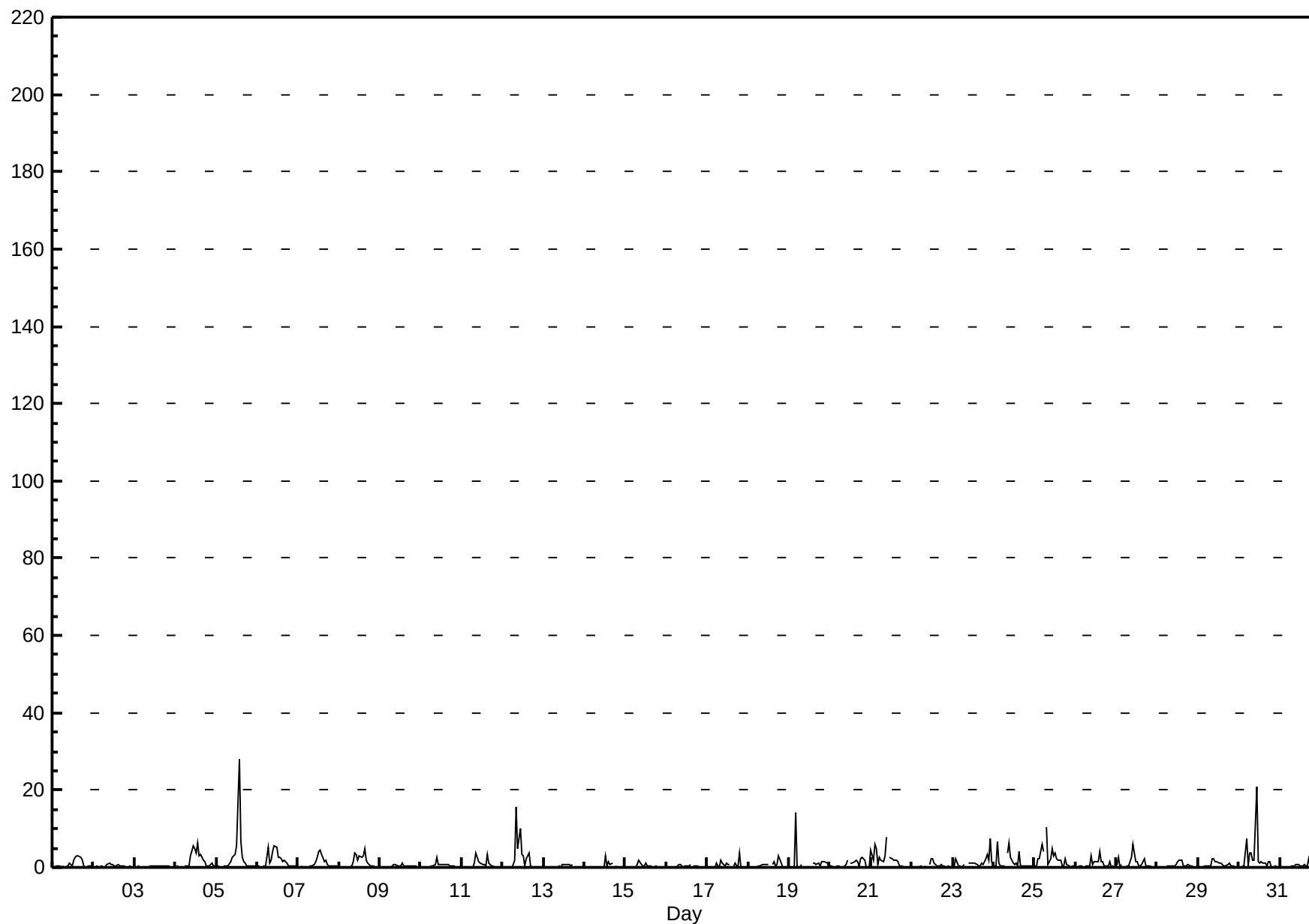
Nitrogen Oxide (NO) - ppb

Portable Reno - March 2014

Maximum Value: 28.0 ppb on Mar 5 14:00																				Maximum Daily Average: 2.6 ppb on Mar 5										Hours in Service: 744	
Minimum Value: 0 ppb on Mar 11 06:00																				Minimum Daily Average: 0.2 ppb on Mar 16										Hours of Data: 706	
Maximum Diurnal Average: 2.7 ppb at hour 11																				Minimum Diurnal Average: 0.2 ppb at hour 24										Hours of Missing Data: 38	
Monthly Average: 1.01 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.2 Median = 0.3 Q ₃ = 1.1 P ₉₀ = 2.6 P ₉₉ = 9.8										Hours of Calibration: 38	
																				Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Mar	0	0	0	0	0	0	0	A	0	0	1	1	2	2	3	3	3	2	0	0	0	0	0	0	0.9	3.1					
2-Mar	0	0	0	0	0	0	A	0	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0.3	1.0					
3-Mar	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					
4-Mar	0	0	0	0	A	0	0	0	0	3	6	5	4	6	3	3	2	1	1	0	0	1	0	0	1.6	6.2					
5-Mar	0	0	0	A	0	0	0	1	1	3	3	3	5	28	7	3	1	1	1	0	0	0	0	0	2.6	28.0					
6-Mar	0	0	A	0	0	0	5	1	2	4	6	5	3	3	2	1	2	1	0	0	0	0	0	0	1.6	5.5					
7-Mar	0	A	0	0	0	0	0	0	0	1	2	2	4	5	3	2	2	1	0	0	0	0	0	0	1.0	4.6					
8-Mar	A	0	0	0	0	0	0	0	1	4	3	2	3	3	3	5	2	1	0	0	0	0	0	A	1.4	4.7					
9-Mar	0	0	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	A	0	0.4	1.1					
10-Mar	0	0	0	0	0	0	0	0	1	3	1	1	1	1	1	1	1	0	0	0	0	A	0	0	0.5	2.6					
11-Mar	0	0	0	0	0	0	0	1	4	2	2	1	1	1	0	4	1	0	0	0	A	0	0	0	0.8	3.9					
12-Mar	0	0	0	0	0	0	1	2	16	5	10	3	3	0	2	4	0	0	0	A	0	0	0	0	2.0	15.6					
13-Mar	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	1	A	0	0	0	0	0	0.3	0.9					
14-Mar	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	1	1	A	0	0	0	0	0	0	0.3	3.1					
15-Mar	0	0	0	0	0	0	0	1	2	1	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0.3	1.7					
16-Mar	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0.2	0.7					
17-Mar	0	0	0	0	0	1	0	0	2	1	1	1	1	1	A	0	1	0	0	4	0	0	0	0	0.6	3.7					
18-Mar	0	0	0	0	0	0	0	0	1	1	1	1	1	A	1	2	0	1	3	1	0	0	0	0	0.5	2.9					
19-Mar	0	0	0	0	14	0	0	1	C	C	C	C	C	C	1	1	1	1	0	1	2	2	1	1	1.4	14.1					
20-Mar	0	0	0	0	0	0	0	0	0	1	2	A	1	1	1	2	1	0	2	3	2	0	0	0	0.8	2.8					
21-Mar	5	2	6	5	1	2	2	2	3	8	A	3	2	2	2	2	2	0	0	0	0	0	0	0	2.1	7.8					
22-Mar	0	0	0	0	0	0	0	0	0	A	1	2	2	1	1	0	1	1	0	0	0	0	0	0	0.5	2.3					
23-Mar	0	0	2	0	0	0	0	1	A	1	1	1	1	1	1	1	0	1	1	2	3	2	8	2	1.3	7.6					
24-Mar	0	0	7	1	0	0	0	A	4	6	3	1	1	1	1	4	0	0	0	0	0	0	0	0	1.4	6.7					
25-Mar	0	0	2	2	6	4	A	10	1	2	5	3	4	2	2	2	0	0	2	1	0	0	0	0	2.2	10.5					
26-Mar	0	0	0	0	0	A	0	0	0	3	1	1	2	2	4	2	1	0	0	0	1	0	0	0	0.9	4.0					
27-Mar	1	3	0	1	A	0	0	0	2	3	6	1	2	0	0	1	2	1	0	0	0	0	0	0	1.0	5.8					
28-Mar	0	0	0	A	0	0	0	0	0	0	0	1	1	2	2	1	0	0	1	1	0	0	0	0	0.5	2.0					
29-Mar	0	0	A	0	0	0	0	0	2	2	1	2	1	1	1	0	0	1	1	0	0	0	0	0	0.7	2.3					
30-Mar	0	A	0	0	7	0	4	4	2	2	21	2	1	1	1	1	1	2	2	0	0	0	0	0	2.2	21.0					
31-Mar	A	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	2	0	0	0	0	11	A	0.9	11.1					
0.3 0.3 0.7 0.4 1.1 0.4 0.5 0.9 1.6 2.0 2.7 1.6 1.8 2.3 1.6 1.5 1.0 0.7 0.6 0.6 0.4 0.3 0.8 0.2																									Diurnal Average						
4.5 2.8 6.7 4.9 14.1 4.1 5.2 10.5 15.6 7.8 21.0 5.0 5.4 28.0 6.5 4.7 2.6 2.2 2.9 3.7 3.2 1.8 11.1 1.6																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

Hourly Maximums

Nitrogen Oxide (NO) - ppb
Portable Reno - March 2014



Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

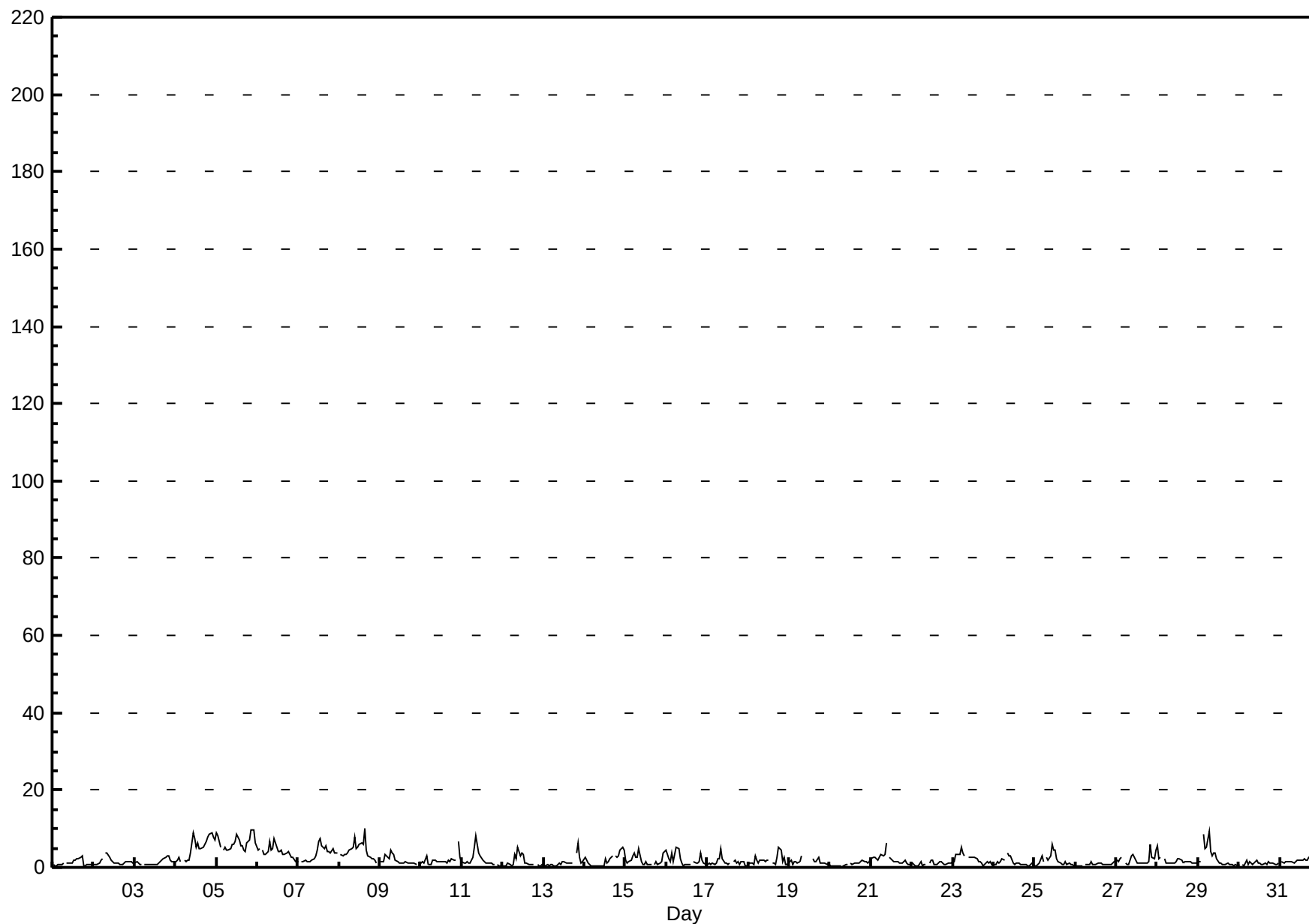
Portable Reno - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 11.2 ppb on Mar 31 23:00 Maximum Daily Average: 6.5 ppb on Mar 5																				Hours in Service: 744 Hours of Data: 706 Hours of Missing Data: 38 Hours of Calibration: 38 Percent Operational Time: 100.0						
Minimum Value: 0 ppb on Mar 20 08:00 Minimum Daily Average: 0.8 ppb on Mar 26 Maximum Diurnal Average: 2.7 ppb at hour 10 Minimum Diurnal Average: 1.5 ppb at hour 3 Monthly Average: 2.12 ppb Percentiles: P ₁ = 0.3 P ₁₀ = 0.6 Q ₁ = 0.9 Median = 1.4 Q ₃ = 2.7 P ₉₀ = 4.9 P ₉₉ = 9.0																										
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-Mar	1	1	1	1	1	1	1	A	1	1	1	1	2	2	2	2	3	3	0	1	1	1	1	1	1.1	3.1
2-Mar	1	1	1	1	2	2	A	4	4	3	2	1	1	1	1	1	1	1	1	2	1	2	1	1	1.5	3.8
3-Mar	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	2	2	2	2	3	3	2	1	1	1.4	2.9
4-Mar	1	2	3	2	A	2	2	2	2	4	9	7	5	6	5	5	5	6	7	8	9	9	8	7	5.0	9.1
5-Mar	9	8	5	A	4	5	4	4	5	6	6	7	8	7	5	6	4	4	6	7	10	10	10	6	6.5	9.9
6-Mar	4	5	A	4	3	3	4	7	5	5	8	5	4	4	4	3	3	4	4	3	3	3	2	1	4.0	7.6
7-Mar	1	A	1	2	2	2	2	2	2	2	3	4	7	8	6	5	6	4	4	4	5	4	4	4	3.5	7.6
8-Mar	A	3	3	3	3	4	4	5	5	8	5	5	6	6	6	10	4	3	3	2	2	2	1	A	4.3	10.2
9-Mar	2	2	2	3	3	2	4	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.8	4.4
10-Mar	1	1	1	3	1	1	1	2	2	1	1	1	2	2	2	1	2	1	2	2	2	A	7	3	1.8	6.8
11-Mar	2	1	1	1	1	1	3	5	8	6	4	3	2	1	1	1	1	1	1	1	A	1	1	0	2.1	8.3
12-Mar	1	0	0	1	1	1	1	3	2	5	3	4	3	1	1	1	1	1	1	A	1	0	1	1	1.4	5.1
13-Mar	0	0	1	0	1	1	0	0	1	1	1	1	2	1	1	1	1	1	A	4	6	3	1	1	1.3	6.4
14-Mar	3	2	1	1	0	1	1	0	0	0	0	0	2	1	2	2	3	A	3	3	3	4	5	5	1.8	5.1
15-Mar	2	1	2	2	3	4	3	2	5	1	1	1	1	1	1	1	A	1	2	1	1	1	4	4	1.9	4.9
16-Mar	4	2	1	4	1	3	5	5	2	1	1	1	1	1	1	A	1	1	1	2	4	2	1	1	2.0	5.0
17-Mar	1	1	1	1	1	1	2	2	5	2	1	1	1	1	1	A	1	2	1	2	1	1	1	1	1.4	5.0
18-Mar	1	1	1	1	3	2	1	2	2	2	1	2	2	A	1	1	1	3	5	4	1	3	1	1	1.8	5.3
19-Mar	2	2	1	2	1	1	1	3	C	C	C	C	C	C	2	2	1	3	1	1	1	1	1	1	1.5	3.1
20-Mar	0	0	0	0	0	0	0	0	0	1	1	A	1	1	1	1	1	1	2	2	1	1	1	2	0.9	2.0
21-Mar	2	3	3	2	2	2	3	3	4	6	A	3	2	2	1	2	1	1	1	2	2	1	1	1	2.1	6.2
22-Mar	1	1	1	1	0	1	1	1	1	A	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1.0	1.8
23-Mar	1	1	3	4	3	5	4	3	A	3	3	3	3	2	2	2	1	1	1	1	1	1	1	1	2.2	5.3
24-Mar	1	1	1	1	2	2	2	A	4	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	3.9
25-Mar	1	0	1	1	3	2	A	3	2	3	6	5	5	2	1	1	1	1	1	1	1	1	1	1	1.8	5.9
26-Mar	0	0	0	0	0	A	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	2	0.8	1.6	
27-Mar	2	2	2	3	A	1	1	1	2	3	3	2	1	1	1	1	1	1	1	1	6	3	2	4	1.9	5.9
28-Mar	6	2	3	A	2	1	1	1	1	1	1	1	2	2	2	1	1	2	1	1	1	1	1	1	1.7	5.6
29-Mar	1	2	A	9	5	5	9	4	3	4	4	2	1	1	1	1	1	1	1	1	1	1	0	2.5	9.4	
30-Mar	1	A	1	1	2	1	1	1	1	1	2	1	1	1	1	1	1	2	1	1	1	1	1	1	1.0	1.8
31-Mar	A	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	2	6	11	A	2.4	11.2
1.8 1.7 1.5 1.9 1.9 2.0 2.2 2.5 2.5 2.7 2.6 2.4 2.4 2.2 2.0 2.0 1.9 1.9 2.0 2.1 2.5 2.2 2.4 1.9																								Diurnal Average		
8.9 8.3 5.3 8.6 4.9 5.3 9.4 6.6 8.3 7.9 9.1 7.3 8.4 7.6 6.1 10.2 5.7 6.1 6.7 7.9 9.9 9.6 11.2 7.1																								Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																										

Hourly Averages

Oxides of Nitrogen (NO_x) - ppb

Portable Reno - March 2014



Hourly Maximums

Oxides of Nitrogen (NO_x) - ppb

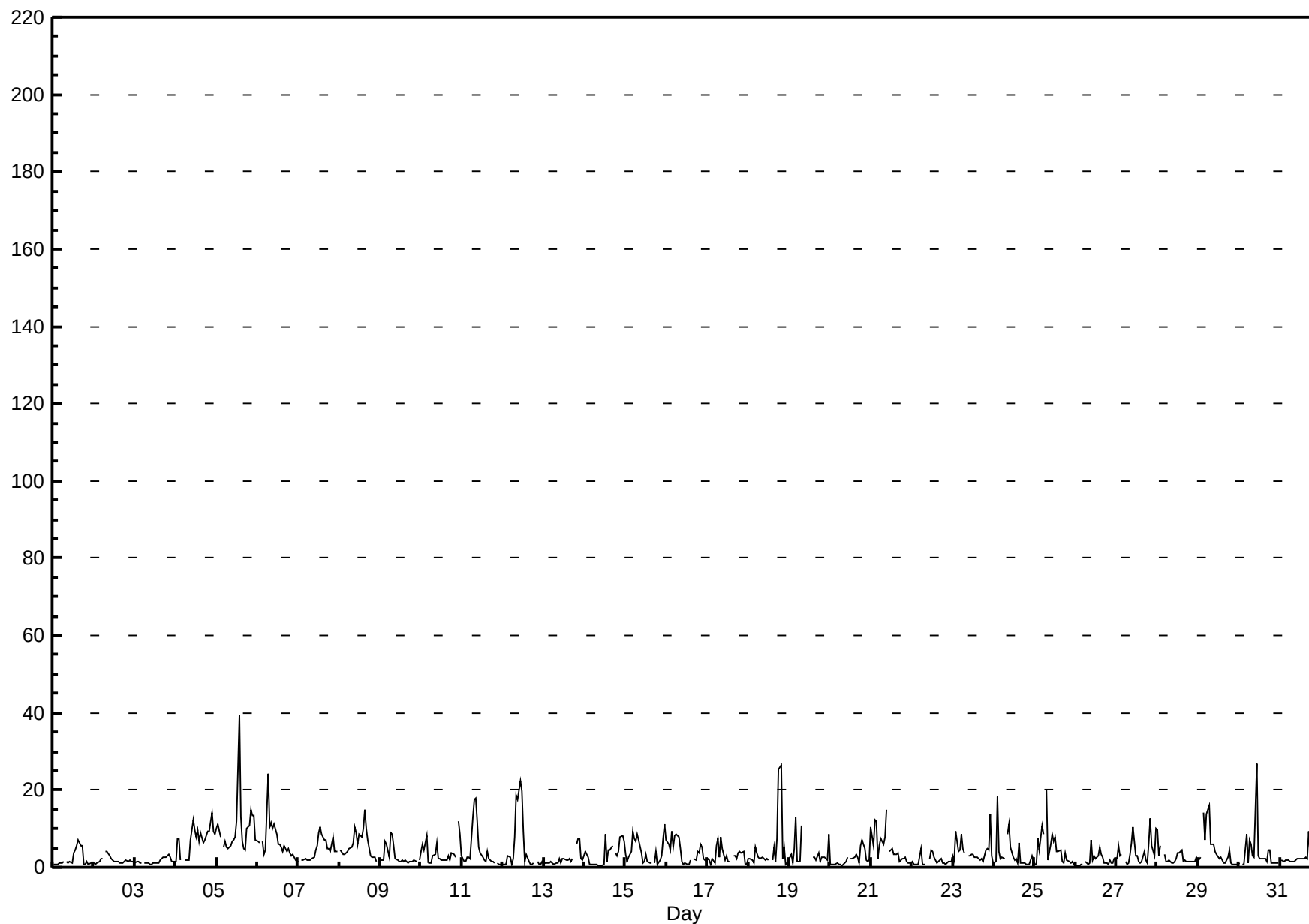
Portable Reno - March 2014

Maximum Value: 57.6 ppb on Mar 31 23:00																				Maximum Daily Average: 9.9 ppb on Mar 5					Hours in Service: 744				
Minimum Value: 0 ppb on Mar 20 08:00																				Minimum Daily Average: 1.6 ppb on Mar 3					Hours of Data: 706				
Maximum Diurnal Average: 5.4 ppb at hour 10																				Minimum Diurnal Average: 3.0 ppb at hour 2					Hours of Missing Data: 38				
Monthly Average: 4.02 ppb																				Percentiles: P ₁ = 0.6 P ₁₀ = 0.9 Q ₁ = 1.4 Median = 2.4 Q ₃ = 5.2 P ₉₀ = 8.7 P ₉₉ = 21.3					Hours of Calibration: 38				
																									Percent Operational Time: 100.0				
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Mar	1	1	1	1	1	1	1	A	1	1	2	1	4	4	5	7	6	5	1	1	1	1	1	1	2.1	7.0			
2-Mar	1	1	1	2	2	2	A	4	4	3	2	2	1	1	1	1	1	1	2	2	2	2	2	1	1.8	4.2			
3-Mar	1	2	2	1	1	A	1	1	1	1	1	1	1	1	1	2	2	3	3	3	3	3	2	2	1.6	3.3			
4-Mar	2	8	7	2	A	2	2	2	2	7	12	10	8	10	7	9	6	7	8	9	9	14	9	9	7.0	14.2			
5-Mar	10	11	8	A	5	7	5	5	5	7	7	8	12	40	13	7	5	4	10	11	15	13	14	7	9.9	39.7			
6-Mar	7	6	A	7	3	4	24	10	12	10	11	9	6	6	5	4	6	4	5	4	3	3	2	2	6.7	24.4			
7-Mar	2	A	2	2	2	2	2	2	2	3	4	6	9	10	9	7	7	5	5	4	8	4	4	4	4.5	10.3			
8-Mar	A	4	3	3	4	4	5	5	6	11	9	6	8	8	10	15	10	7	3	3	3	3	1	A	6.0	15.0			
9-Mar	2	2	2	7	6	3	9	8	6	2	2	2	1	2	1	2	1	2	1	1	2	1	A	2	2.9	9.0			
10-Mar	4	6	5	8	1	1	1	3	3	6	2	2	2	2	2	2	3	2	4	4	3	A	12	9	3.8	12.0			
11-Mar	3	1	2	3	3	2	13	17	18	12	5	4	2	2	2	4	2	2	2	1	A	1	1	1	4.4	17.8			
12-Mar	1	1	1	3	3	1	2	8	19	17	22	20	9	2	3	1	1	1	1	A	1	1	1	1	5.2	22.4			
13-Mar	1	1	1	1	2	1	1	1	1	2	1	2	2	2	2	2	2	2	A	6	8	7	2	2	2.3	7.5			
14-Mar	4	3	3	1	1	1	1	1	0	0	0	1	9	1	4	5	6	A	4	3	4	8	8	7	3.2	8.6			
15-Mar	3	1	3	4	9	7	7	9	7	4	1	2	3	2	1	1	A	1	4	1	2	3	8	11	4.1	11.0			
16-Mar	7	6	4	9	5	8	9	8	5	2	1	1	1	1	2	A	2	2	4	4	6	5	2	1	4.1	9.3			
17-Mar	2	2	1	2	1	6	7	3	8	5	2	3	2	1	A	3	3	2	4	4	4	4	1	1	3.0	8.0			
18-Mar	2	2	2	1	5	4	3	2	2	2	2	2	2	A	2	5	1	7	25	26	2	5	1	1	4.7	26.3			
19-Mar	3	4	1	5	13	2	2	11	C	C	C	C	C	C	3	3	2	4	2	3	3	3	2	9	3.9	13.2			
20-Mar	1	1	1	1	1	1	1	0	1	1	3	A	2	2	2	3	3	1	6	7	5	2	1	2	2.1	7.1			
21-Mar	11	6	12	12	2	5	7	6	8	15	A	4	5	3	3	3	4	1	2	2	3	2	1	1	5.2	14.9			
22-Mar	2	1	1	1	1	5	1	1	1	A	2	5	4	3	2	1	2	2	1	1	1	2	1	2	1.7	4.7			
23-Mar	3	2	9	4	4	8	5	4	A	3	3	3	3	3	3	2	2	2	1	5	5	5	14	3	4.2	13.7			
24-Mar	1	1	18	4	2	2	2	A	9	11	5	3	2	2	1	6	1	1	1	1	1	1	3	2	3.5	18.2			
25-Mar	1	1	8	4	11	8	A	20	2	6	8	7	8	4	4	5	1	1	4	2	1	1	1	1	4.7	20.3			
26-Mar	1	0	0	1	1	A	1	1	1	7	2	3	2	3	5	3	3	1	1	1	2	1	1	2	1.9	7.1			
27-Mar	2	6	3	3	A	1	1	1	3	6	10	3	3	1	1	1	4	2	1	6	13	5	3	10	4.0	12.6			
28-Mar	10	3	6	A	3	1	1	2	1	1	1	2	4	4	5	2	2	2	2	2	1	1	1	2	2.6	9.7			
29-Mar	2	3	A	14	7	14	16	6	6	6	4	3	2	2	2	1	1	3	4	1	1	1	1	1	4.4	15.9			
30-Mar	1	A	1	1	9	1	7	6	3	3	27	3	2	2	2	2	2	5	4	1	1	1	1	1	3.7	26.9			
31-Mar	A	2	1	2	2	2	2	1	2	2	2	2	2	2	2	3	2	9	3	3	2	17	58	A	5.6	57.6			
3.0 3.0 3.7 3.7 3.8 3.7 4.8 5.1 4.8 5.4 5.4 4.0 4.1 4.4 3.5 3.7 3.0 3.1 3.9 4.0 3.8 4.0 5.3 3.3																									Diurnal Average				
10.6 11.3 18.2 14.0 13.2 14.0 24.4 20.3 18.5 17.5 26.9 19.7 11.8 39.7 13.0 15.0 10.1 9.5 25.3 26.3 14.8 16.6 57.6 11.0																									Diurnal Maximum				
C - Calibration A - Automated Daily Zero Span																													

Hourly Maximums

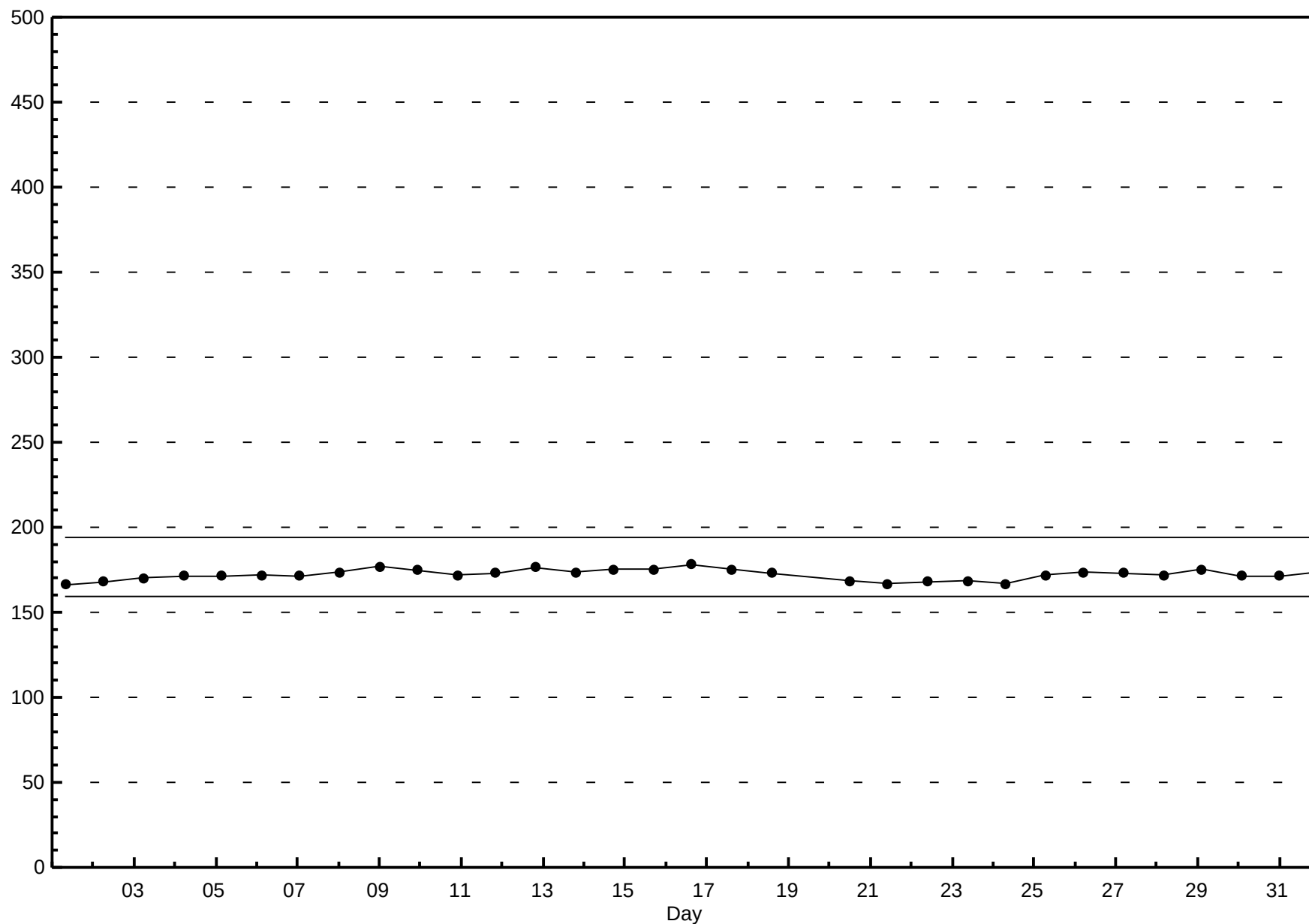
Oxides of Nitrogen (NO_x) - ppb

Portable Reno - March 2014



Span Responses

Oxides of Nitrogen (NO_x)
Portable Reno - March 2014



Hourly Averages

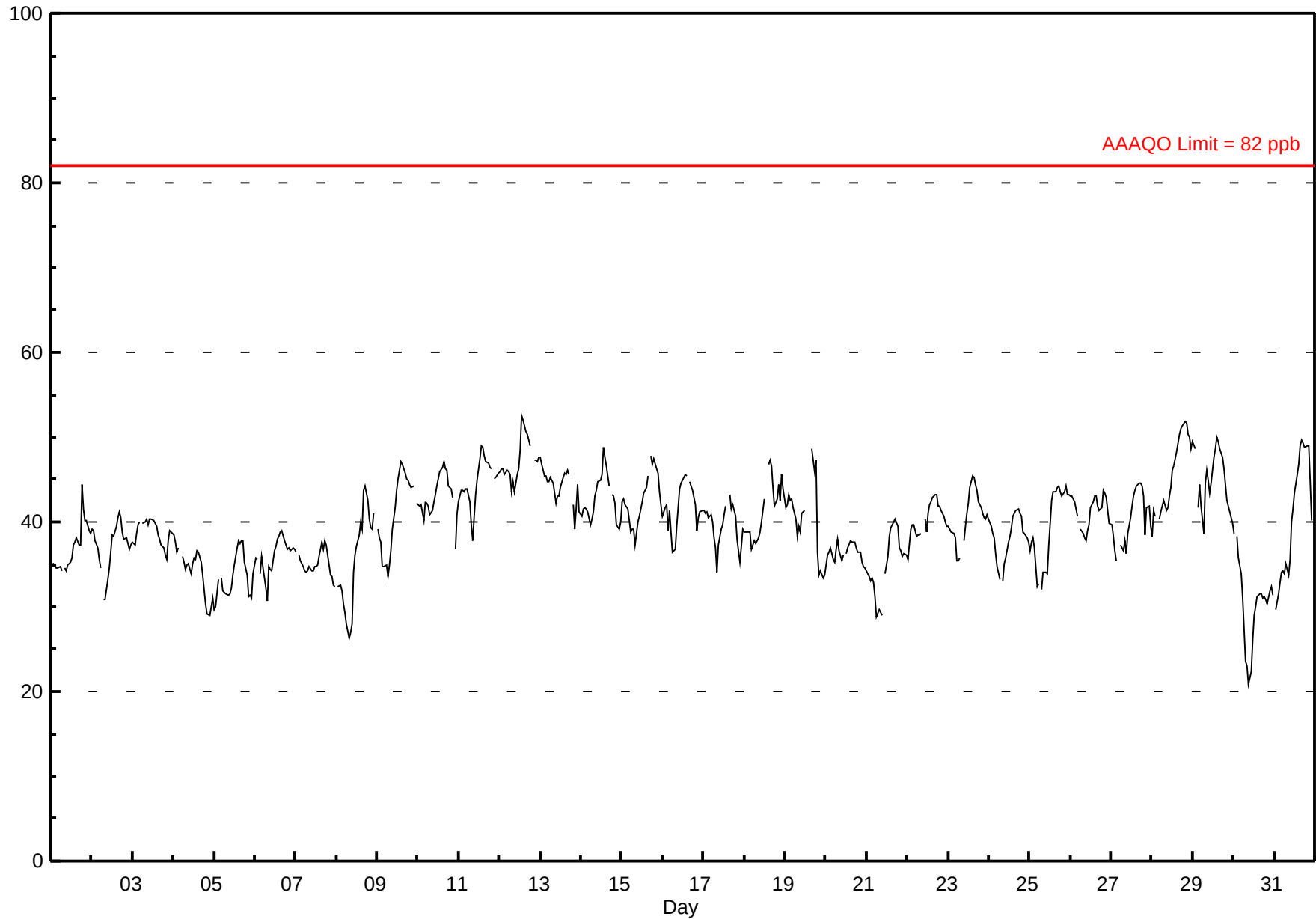
Ozone (O₃) - ppb

Portable Reno - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 52.5 ppb on Mar 12 14:00 Maximum Daily Average: 47.3 ppb on Mar 12																					Hours in Service: 744 Hours of Data: 708 Hours of Missing Data: 36 Hours of Calibration: 36 Percent Operational Time: 100.0					
Minimum Value: 21 ppb on Mar 30 10:00 Maximum Diurnal Average: 42.9 ppb at hour 17 Monthly Average: 39.63 ppb										Minimum Daily Average: 30.1 ppb on Mar 30 Minimum Diurnal Average: 36.4 ppb at hour 8 Percentiles: P ₁ = 27.0 P ₁₀ = 33.6 Q ₁ = 36.3 Median = 39.6 Q ₃ = 43.2 P ₉₀ = 46.1 P ₉₉ = 50.5																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
1-Mar	35	35	35	35	35	35	34	A	35	34	35	35	36	37	38	38	37	37	44	41	40	40	39	39	36.9	44.4
2-Mar	39	39	38	37	36	35	A	31	31	33	35	36	38	38	39	40	41	41	39	38	38	37	37	37	37.1	41.2
3-Mar	38	37	39	40	40	A	40	40	40	40	40	40	40	40	39	39	38	37	37	36	36	38	39	39	38.7	40.3
4-Mar	38	38	37	37	A	36	35	34	35	35	34	35	36	36	37	36	35	34	32	30	29	29	30	31	34.3	38.4
5-Mar	30	30	33	A	33	32	32	32	31	31	32	34	35	37	38	38	38	38	35	34	31	31	31	34	33.4	37.8
6-Mar	36	36	A	34	36	35	32	31	35	34	34	37	37	38	38	39	39	38	37	37	37	37	37	37	36.0	39.0
7-Mar	36	A	36	35	35	34	34	34	35	34	34	35	35	35	36	38	37	38	37	36	34	34	33	32	35.1	37.9
8-Mar	A	32	33	32	30	29	28	26	27	28	34	36	37	38	40	39	44	44	43	40	39	39	41	A	35.5	44.2
9-Mar	39	38	38	35	35	35	34	35	37	39	42	44	45	46	47	47	46	45	45	44	44	44	A	42	41.1	47.1
10-Mar	42	42	42	40	42	42	42	41	41	42	43	44	45	46	46	47	46	46	44	44	43	A	37	41	43.0	47.1
11-Mar	42	44	44	44	44	44	42	40	38	41	43	45	48	49	49	48	47	47	46	46	A	45	45	46	44.6	49.0
12-Mar	46	46	46	46	46	46	46	44	45	44	46	46	48	52	52	51	50	50	49	A	47	47	47	48	47.3	52.5
13-Mar	48	47	45	45	45	45	45	45	43	42	43	43	44	45	46	46	46	46	A	42	39	42	44	41	44.2	47.6
14-Mar	41	42	42	42	41	40	40	41	43	44	45	45	46	49	48	47	44	A	43	43	42	40	39	40	42.8	48.8
15-Mar	42	43	42	42	40	39	39	39	37	40	41	42	42	43	44	45	A	48	47	48	46	46	44	42	42.6	47.9
16-Mar	41	42	42	39	41	39	36	37	39	42	44	45	45	46	45	A	45	44	43	42	39	41	41	41	41.6	45.6
17-Mar	41	41	41	40	41	40	38	37	34	37	39	40	41	42	A	43	41	42	41	41	38	35	37	39	39.6	43.2
18-Mar	39	39	39	39	37	37	38	38	38	39	40	41	43	A	47	47	47	44	42	43	44	43	46	44	41.4	47.3
19-Mar	42	42	43	43	43	42	40	38	39	39	41	41	C	C	C	C	49	46	47	37	34	34	33	34	40.3	48.7
20-Mar	35	36	36	37	36	35	37	38	37	35	36	A	36	37	38	38	38	38	37	37	36	35	35	35	36.4	38.0
21-Mar	34	34	33	33	33	31	29	30	29	29	A	34	36	38	39	40	40	40	40	37	37	36	36	36	35.0	40.3
22-Mar	36	37	39	40	40	38	39	38	39	A	40	39	41	42	42	43	43	43	42	42	41	41	40	39	40.2	43.2
23-Mar	39	39	39	39	38	35	35	36	A	38	40	41	42	44	45	45	44	44	42	42	41	41	40	41	40.5	45.4
24-Mar	40	39	39	38	36	35	33	A	33	35	36	38	38	39	41	41	41	42	41	41	39	39	38	38	38.2	41.5
25-Mar	37	38	38	37	32	33	A	32	34	34	34	37	40	43	44	44	44	44	43	43	44	44	43	43	39.3	44.2
26-Mar	43	43	42	41	41	A	39	39	38	38	39	40	42	42	43	43	42	41	42	44	43	43	41	40	41.3	43.7
27-Mar	40	38	37	35	A	37	37	37	38	36	39	41	42	43	44	44	45	45	44	43	38	42	42	40	40.2	44.6
28-Mar	38	41	41	A	40	41	42	43	41	42	43	44	46	47	48	49	50	51	51	52	52	50	50	49	45.8	51.8
29-Mar	50	49	A	42	44	42	39	45	46	45	43	45	48	49	50	49	49	48	46	44	43	42	41	40	45.1	50.0
30-Mar	39	A	38	36	34	31	27	24	23	21	22	26	29	30	31	31	32	31	31	31	30	32	32	31	30.1	38.7
31-Mar	A	30	32	33	34	34	34	35	34	36	40	42	43	46	47	49	50	49	49	49	49	45	40	A	40.8	49.7
39.5 39.2 38.9 38.4 38.2 37.1 36.8 36.4 36.5 36.9 38.6 39.6 40.8 42.0 42.8 42.9 42.9 42.6 42.0 40.8 39.8 39.7 39.3 39.2																									Diurnal Average	
49.5 48.7 46.2 45.6 46.1 46.0 45.6 44.6 46.1 45.0 45.5 46.3 48.4 52.5 52.0 50.7 50.4 51.1 51.4 51.8 51.6 50.4 50.1 48.7																									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 (O₃) - ppb
Portable Reno - March 2014



Hourly Maximums

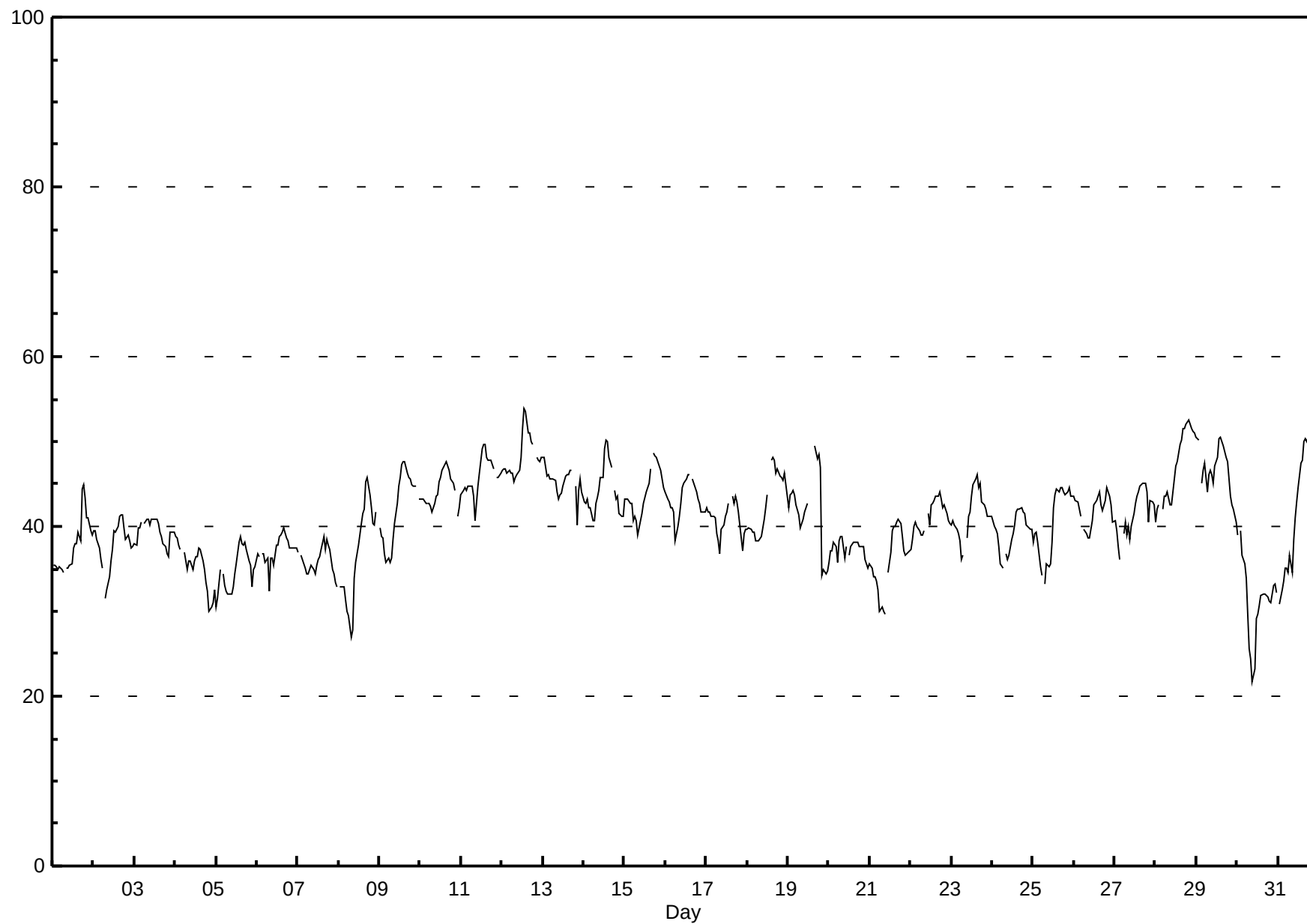
Ozone (O₃) - ppb

Portable Reno - March 2014

Maximum Value: 53.9 ppb on Mar 12 14:00																					Maximum Daily Average: 48.2 ppb on Mar 12				Hours in Service: 744	
Minimum Value: 22 ppb on Mar 30 10:00																					Minimum Daily Average: 31.2 ppb on Mar 30				Hours of Data: 708	
Maximum Diurnal Average: 43.7 ppb at hour 16																					Minimum Diurnal Average: 37.7 ppb at hour 8				Hours of Missing Data: 36	
Monthly Average: 40.76 ppb																					Percentiles: P ₁ = 29.4 P ₁₀ = 34.5 Q ₁ = 37.4 Median = 40.8 Q ₃ = 44.2 P ₉₀ = 47.1 P ₉₉ = 51.6				Hours of Calibration: 36	
																					Percent Operational Time: 100.0					
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	35	35	35	35	35	35	35	A	35	35	36	36	38	38	38	39	38	44	45	43	41	41	39	39	37.9	44.9
2-Mar	39	39	38	38	36	35	A	32	33	34	36	37	39	39	40	41	41	41	40	38	39	38	37	38	37.9	41.4
3-Mar	38	38	40	40	40	A	40	41	41	40	41	41	41	41	40	39	39	38	38	37	36	39	39	39	39.4	40.9
4-Mar	39	39	38	37	A	37	36	35	36	36	35	36	36	36	37	37	36	35	33	32	30	31	31	32	35.3	38.9
5-Mar	30	31	35	A	34	33	32	32	32	32	33	34	36	38	39	38	38	38	37	36	35	33	35	35	34.7	38.9
6-Mar	37	36	A	37	37	36	36	32	36	36	35	38	38	39	39	39	40	39	38	37	37	37	37	37	37.2	39.8
7-Mar	37	A	37	36	35	34	34	35	35	35	34	35	36	36	37	39	37	38	38	37	35	34	33	33	35.8	38.9
8-Mar	A	33	33	33	31	30	29	27	28	34	36	37	38	40	42	42	45	46	44	42	40	40	42	A	36.9	45.7
9-Mar	40	39	39	37	36	36	36	36	39	40	43	45	46	47	48	48	46	46	46	45	45	45	A	43	42.1	47.7
10-Mar	43	43	43	43	43	43	42	42	43	44	44	45	46	47	47	48	47	47	46	45	44	A	41	42	44.2	47.6
11-Mar	44	44	45	44	45	45	45	44	41	43	45	46	49	50	50	48	48	48	47	47	A	46	46	46	45.8	49.7
12-Mar	47	47	47	46	47	46	46	45	46	46	47	48	52	54	54	51	51	50	50	A	48	48	48	48	48.2	53.9
13-Mar	48	48	46	46	46	46	46	45	44	43	44	44	45	46	46	46	47	47	A	45	40	44	46	44	45.2	48.1
14-Mar	43	43	43	42	42	41	41	43	43	44	46	46	49	50	50	48	47	A	44	43	44	42	41	41	44.2	50.2
15-Mar	43	43	43	43	43	41	41	41	39	41	42	43	43	44	45	47	A	49	48	48	47	47	46	45	43.9	48.6
16-Mar	44	43	43	42	42	42	38	40	41	43	45	45	46	46	46	A	46	45	44	43	43	42	42	42	43.1	46.2
17-Mar	42	42	42	41	41	41	39	38	37	40	40	41	42	43	A	44	43	44	43	42	40	37	39	40	40.8	43.6
18-Mar	40	40	40	39	39	38	38	38	39	40	41	42	44	A	48	48	48	46	47	46	46	45	46	45	42.7	48.2
19-Mar	42	44	44	44	44	43	41	40	40	41	42	43	C	C	C	C	50	48	48	47	34	35	34	35	41.9	49.5
20-Mar	36	37	37	38	38	36	38	39	39	36	38	A	37	38	38	38	38	38	38	38	38	36	36	35	37.3	38.8
21-Mar	36	35	34	34	34	33	30	31	30	30	A	35	37	40	40	40	41	41	40	39	37	37	37	37	35.8	40.9
22-Mar	37	38	40	41	40	40	39	39	40	A	42	40	43	43	43	44	44	44	43	42	43	42	41	40	41.1	44.1
23-Mar	40	41	40	40	39	38	36	37	A	39	41	42	44	45	46	46	45	45	43	43	42	41	41	41	41.4	46.1
24-Mar	41	40	40	39	38	36	35	A	37	36	37	39	39	40	42	42	42	42	42	42	40	40	40	40	39.4	42.2
25-Mar	38	39	39	38	35	34	A	33	36	35	36	38	42	44	44	44	45	45	44	44	44	45	44	44	40.4	44.7
26-Mar	44	43	43	42	41	A	40	39	39	39	40	41	43	43	44	44	43	42	43	45	44	44	43	41	42.0	44.6
27-Mar	41	40	38	36	A	39	41	39	40	39	40	42	43	44	44	45	45	45	45	44	41	43	43	43	41.6	45.0
28-Mar	41	42	43	A	42	44	44	44	43	43	44	46	47	48	50	50	52	52	52	53	52	52	51	51	47.0	52.6
29-Mar	50	50	A	45	47	47	44	46	47	46	45	47	48	50	51	50	50	48	48	46	44	43	42	41	46.7	50.6
30-Mar	39	A	40	37	36	34	30	26	24	22	23	29	30	31	32	32	32	32	32	32	31	31	33	33	31.2	39.6
31-Mar	A	31	33	34	35	35	35	37	35	39	41	43	44	47	48	50	50	50	50	49	50	49	49	A	42.4	50.4
40.5 40.1 39.8 39.5 39.3 38.5 38.2 37.7 37.8 38.3 39.6 40.7 41.9 43.0 43.7 43.7 43.7 43.7 43.2 42.3 41.0 40.9 40.7 40.3																									Diurnal Average	
50.5 50.1 46.7 46.2 46.7 47.5 46.2 46.1 46.6 46.2 46.7 48.2 51.6 53.9 53.6 51.1 51.6 51.6 52.1 52.6 52.1 51.6 51.1 51.1																									Diurnal Maximum	
C - Calibration A - Automated Daily Zero Span																										

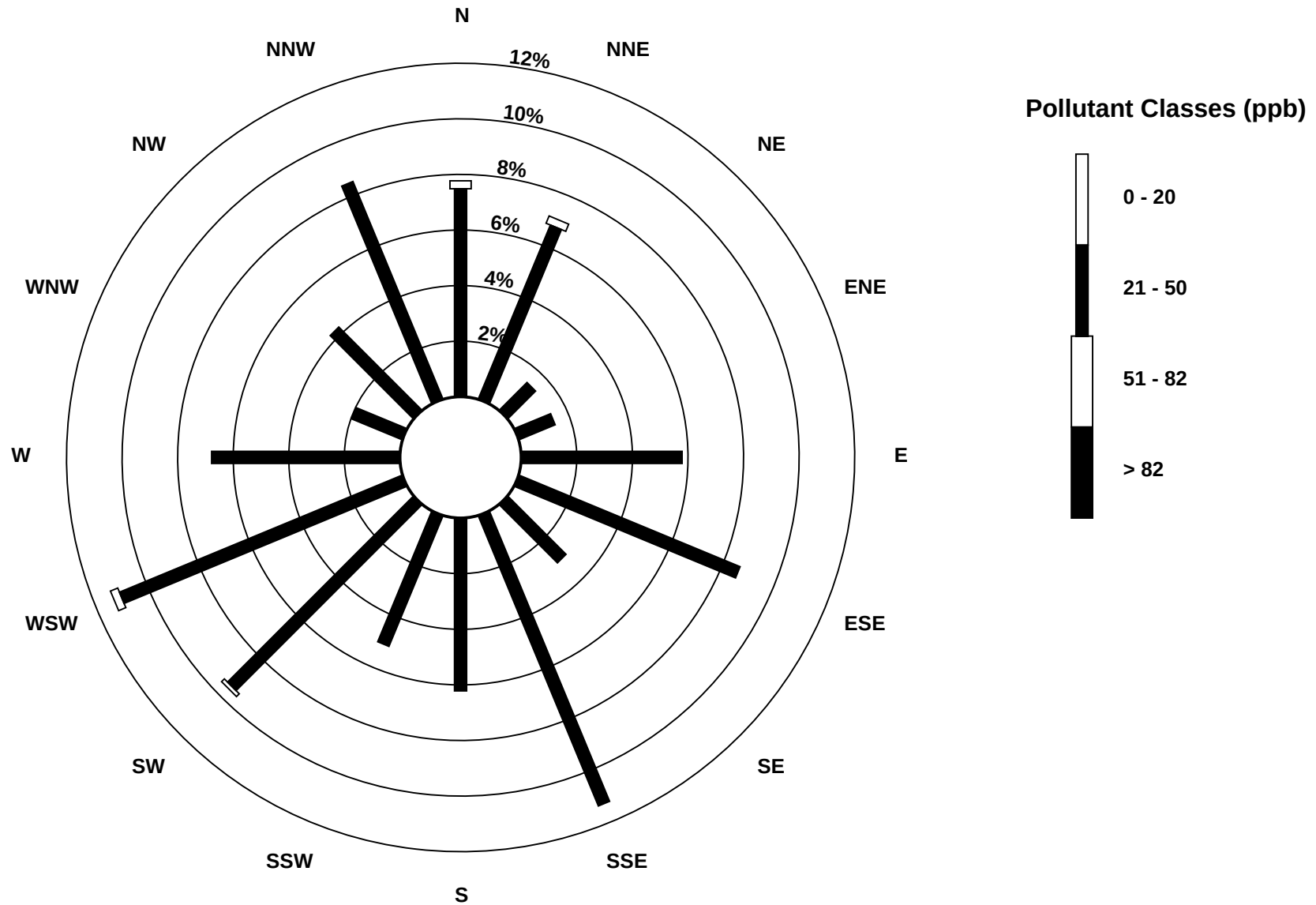
Hourly Maximums

Ozone (O₃) - ppb
Portable Reno - March 2014



Pollutant Rose

Ozone (O₃) - ppb
Portable Reno - March 2014



Eight Hour Running Averages

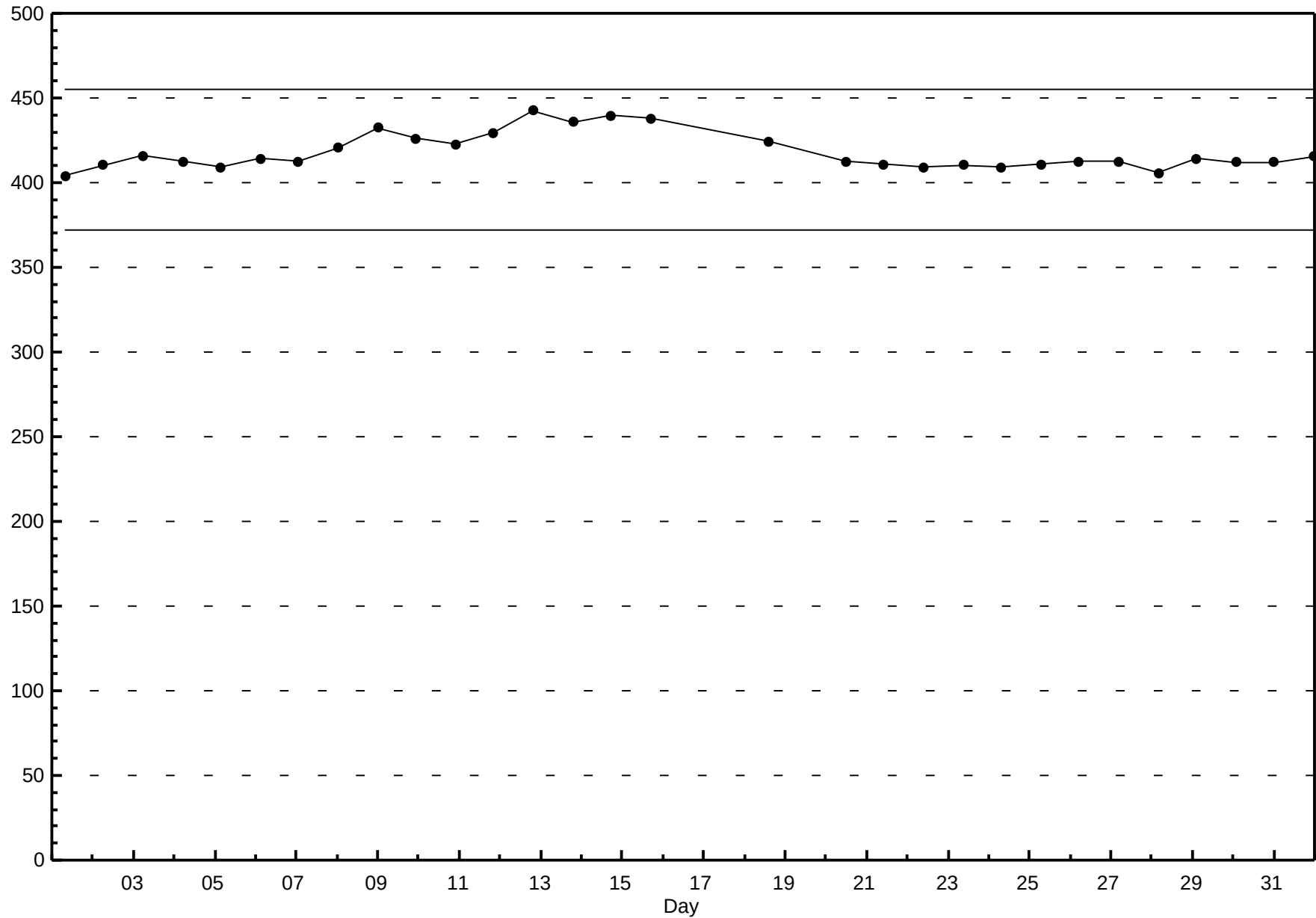
Ozone (O₃) - ppb

Portable Reno - March 2014

Maximum Value: 50.8 ppb on Mar 28 23:00																								Hours in Service: 744	
Minimum Value: 25.3 ppb on Mar 30 14:00																								Hours of Data: 737	
																								Hours of Missing Data: 7	
Percentiles: P ₁ = 29.1 P ₁₀ = 33.7 Q ₁ = 36.3 Median = 39.7 Q ₃ = 42.9 P ₉₀ = 45.6 P ₉₉ = 50.1																								Hours of Calibration: 7	
																								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-Mar	34	34	34	34	35	35	35	35	35	35	35	35	35	35	36	36	36	37	38	39	39	40	40	40	39.8
2-Mar	40	40	39	39	38	38	37	36	35	34	34	34	34	35	35	36	38	39	39	39	39	39	39	39	40.2
3-Mar	38	38	38	38	38	38	39	39	39	40	40	40	40	40	40	40	40	39	39	38	38	37	37	37	40.1
4-Mar	37	38	37	38	38	38	37	36	36	36	35	35	35	35	35	35	35	35	35	34	34	33	32	31	37.8
5-Mar	31	30	30	30	31	31	32	32	32	32	32	32	32	33	34	34	35	36	36	36	36	35	34	34	36.4
6-Mar	34	33	33	33	34	34	35	34	34	34	34	34	34	35	36	37	37	37	38	38	38	38	38	37	37.9
7-Mar	37	37	37	36	36	36	35	35	35	35	34	34	34	34	35	35	35	36	36	36	36	36	36	35	37.0
8-Mar	35	34	33	33	32	32	31	30	30	29	30	31	32	33	35	37	39	40	41	41	41	41	41	41	41.5
9-Mar	41	40	39	38	38	37	36	36	36	36	36	37	39	40	42	43	44	45	46	46	46	45	45	44	45.7
10-Mar	44	43	43	42	42	42	42	42	42	42	42	42	43	43	44	44	45	46	46	46	45	45	44	43	45.7
11-Mar	42	42	42	42	42	42	43	43	42	42	42	42	43	43	44	45	46	47	47	47	47	47	46	46	47.5
12-Mar	46	46	46	46	46	46	46	46	46	45	45	45	45	46	47	48	49	49	50	50	50	49	49	48	50.4
13-Mar	48	48	47	47	46	46	46	46	45	44	44	44	44	44	44	44	44	45	45	45	44	44	44	43	47.9
14-Mar	42	42	42	41	42	42	41	41	41	42	42	42	43	44	45	46	46	46	46	46	45	44	43	42	46.1
15-Mar	41	42	41	41	41	41	41	41	40	40	40	40	40	40	41	42	42	44	44	45	46	46	46	46	46.2
16-Mar	45	44	44	43	42	41	40	40	39	39	40	40	41	42	43	44	44	45	45	44	43	43	42	42	45.1
17-Mar	41	41	41	41	41	41	41	40	39	39	38	38	38	38	39	39	40	41	41	42	41	40	40	39	41.6
18-Mar	39	39	38	38	38	38	38	38	38	38	38	38	39	39	41	42	43	44	44	45	45	45	44	44	44.8
19-Mar	43	43	43	43	43	43	42	42	41	41	41	40	40	40	N	N	N	N	N	N	N	41	40	39	43.4
20-Mar	37	36	35	35	35	35	36	36	36	36	36	36	36	37	37	37	37	37	37	37	37	37	37	36	37.5
21-Mar	36	35	35	34	34	33	33	32	31	31	31	31	31	32	34	35	37	38	38	39	39	39	38	38	38.8
22-Mar	37	37	37	37	37	38	38	38	39	39	39	39	39	40	40	41	42	42	42	42	42	42	42	41	42.4
23-Mar	41	40	40	40	39	39	38	38	37	37	37	38	38	39	41	42	42	43	44	44	43	43	42	42	43.6
24-Mar	41	41	40	40	39	39	38	37	36	36	35	35	35	36	37	38	39	39	40	40	41	40	40	40	41.3
25-Mar	39	39	38	38	37	36	36	35	35	34	34	34	35	36	37	39	40	41	42	43	44	44	44	44	43.7
26-Mar	44	43	43	43	43	42	42	41	40	40	39	39	39	40	40	41	41	42	42	42	43	43	42	42	43.5
27-Mar	42	41	41	40	39	38	38	37	37	37	37	38	38	39	40	41	42	43	43	44	43	43	43	42	43.7
28-Mar	41	41	41	40	41	40	40	41	41	41	42	42	43	43	44	45	46	47	48	49	50	51	51	51	50.8
29-Mar	51	50	50	49	48	46	45	44	44	43	43	44	44	45	46	47	47	48	48	48	47	46	45	44	50.6
30-Mar	43	42	41	40	38	37	35	33	30	29	27	26	25	25	26	27	28	29	30	31	31	31	31	31	42.8
31-Mar	31	31	31	31	32	32	33	33	33	34	35	36	37	39	40	42	44	46	47	48	48	48	47	47	48.4
50.6 50.3 50.1 48.7 47.6 46.4 45.9 45.6 45.5 45.2 45.1 45.2 45.5 46.3 47.1 48.0 48.7 49.4 49.9 50.4 50.2 50.5 50.8 50.7																									
Diurnal Maximums																									
N - Not Valid																									

Span Responses

Ozone (O₃)
Portable Reno - March 2014



Hourly Averages

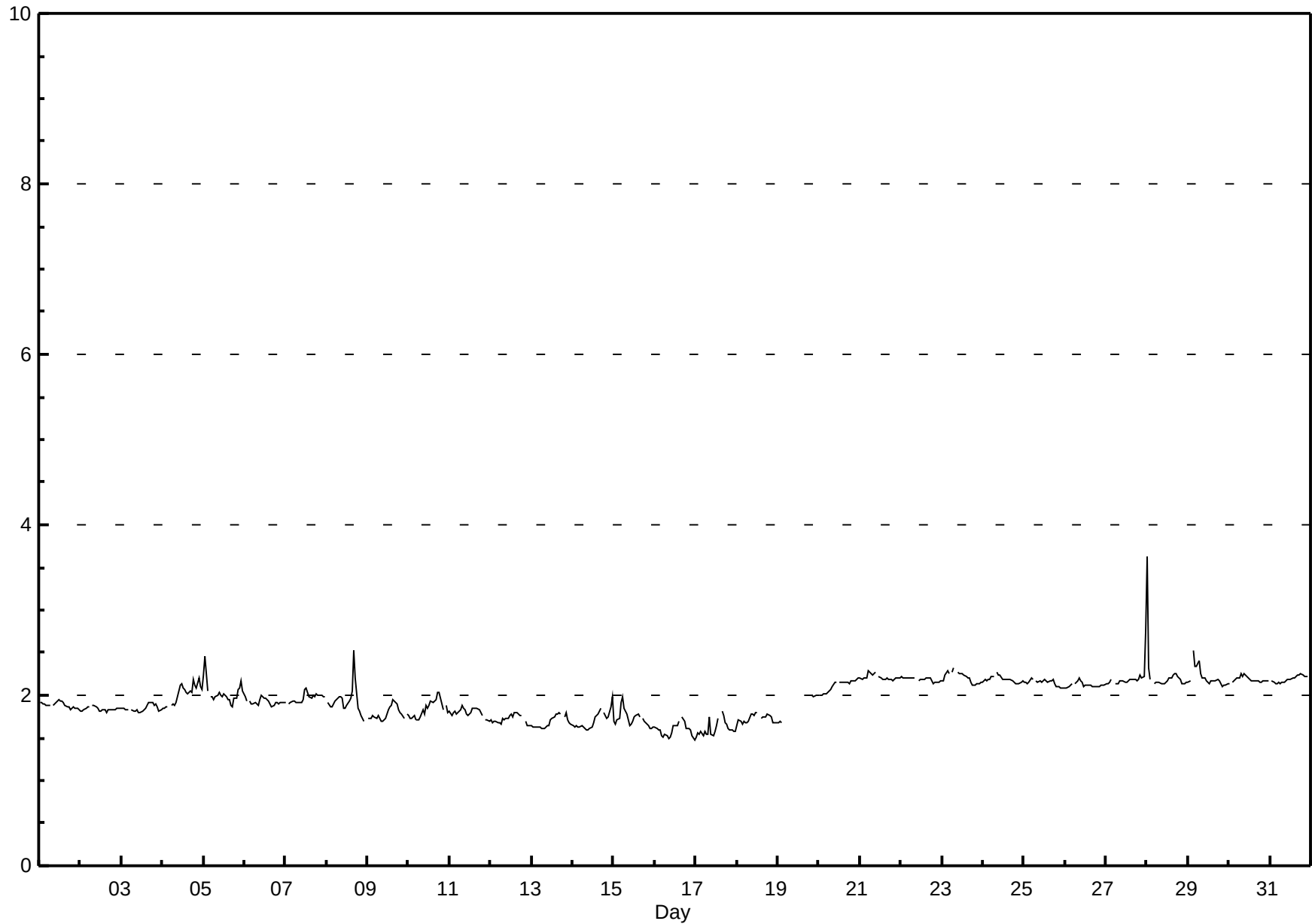
Total Hydrocarbons (THC) - ppm

Portable Reno - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 3.62 ppm on Mar 28 01:00 Maximum Daily Average: 2.24 ppm on Mar 28																					Hours in Service: 744 Hours of Data: 694 Hours of Missing Data: 50 Hours of Calibration: 42 Percent Operational Time: 98.9					
Minimum Value: 1.5 ppm on Mar 17 00:00 Maximum Diurnal Average: 2.02 ppm at hour 17 Monthly Average: 1.958 ppm										Minimum Daily Average: 1.59 ppm on Mar 16 Minimum Diurnal Average: 1.91 ppm at hour 3 Percentiles: P ₁ = 1.52 P ₁₀ = 1.65 Q ₁ = 1.78 Median = 1.95 Q ₃ = 2.16 P ₉₀ = 2.20 P ₉₉ = 2.32																
Day	Hourly Period Ending At (MST)																				Daily Average	Daily Maximum				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.8	1.8	1.89	1.94
2-Mar	1.8	1.8	1.8	1.9	1.9	1.9	A	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.84	1.88
3-Mar	1.8	1.9	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.85	1.92
4-Mar	1.8	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.2	2.1	2.1	2.2	2.1	2.1	2.01	2.21
5-Mar	2.2	2.5	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	1.9	1.9	2.0	2.0	2.1	2.1	2.2	2.1	2.03	2.45
6-Mar	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	2.00
7-Mar	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	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	1.97	2.08
8-Mar	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.8	1.8	1.9	1.9	2.0	2.1	2.5	2.2	1.8	1.8	1.8	1.7	1.7	A	1.93	2.53
9-Mar	1.7	1.7	1.7	1.8	1.7	1.7	1.8	1.7	1.7	1.7	1.7	1.8	1.8	1.9	1.9	2.0	1.9	1.9	1.8	1.8	1.8	1.7	A	1.8	1.78	1.95
10-Mar	1.8	1.7	1.7	1.8	1.7	1.7	1.7	1.7	1.8	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.8	A	1.9	1.8	1.84	2.03
11-Mar	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	A	1.7	1.7	1.7	1.80	1.87
12-Mar	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.7	1.6	1.7	1.7	1.72	1.80
13-Mar	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8	A	1.7	1.8	1.7	1.7	1.7	1.69	1.80
14-Mar	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.8	1.8	1.8	A	1.8	1.8	1.7	1.7	1.9	2.0	1.70	1.99
15-Mar	1.7	1.7	1.7	1.7	1.9	2.0	1.9	1.8	1.8	1.6	1.7	1.7	1.7	1.8	1.8	1.7	A	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.73	1.98
16-Mar	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.7	A	1.7	1.7	1.6	1.6	1.6	1.6	1.5	1.5	1.59	1.75
17-Mar	1.5	1.6	1.5	1.6	1.5	1.6	1.5	1.5	1.7	1.5	1.5	1.6	1.6	1.7	A	1.8	1.8	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.61	1.81
18-Mar	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	A	1.7	1.7	1.7	1.7	1.8	1.8	1.7	1.7	1.7	1.7	1.72	1.80
19-Mar	1.7	1.7	1.7	N	N	N	N	N	N	N	C	C	C	C	C	C	C	C	C	C	2.0	2.0	2.0	2.0	--	2.00
20-Mar	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	A	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.11	2.21
21-Mar	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.3	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.21	2.28
22-Mar	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.19	2.22
23-Mar	2.2	2.2	2.2	2.3	2.3	N	2.3	2.3	A	2.3	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.21	2.33
24-Mar	2.2	2.2	2.2	2.2	2.2	2.2	2.2	A	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.18	2.26
25-Mar	2.1	2.1	2.1	2.1	2.2	2.2	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.15	2.20
26-Mar	2.1	2.1	2.1	2.1	2.1	A	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.12	2.20
27-Mar	2.1	2.1	2.2	2.2	A	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.8	2.20	2.78	
28-Mar	3.6	2.3	2.2	A	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.24	3.62
29-Mar	2.1	2.2	A	2.5	2.3	2.3	2.4	2.3	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.21	2.53
30-Mar	2.1	A	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.19	2.26
31-Mar	A	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	A	2.19	2.25	
1.97 1.93 1.91 1.93 1.93 1.93 1.94 1.94 1.95 1.94 1.94 1.96 1.97 1.99 1.99 2.00 2.02 2.00 1.98 1.96 1.96 1.94 1.95 1.96																								Diurnal Average		
3.62 2.45 2.24 2.53 2.35 2.34 2.40 2.33 2.26 2.27 2.25 2.25 2.26 2.23 2.22 2.23 2.53 2.25 2.25 2.24 2.23 2.22 2.22 2.78																								Diurnal Maximum		
C - Calibration N - Not Valid A - Automated Daily Zero Span																										

Hourly Averages

Total Hydrocarbons (THC) - ppm
Portable Reno - March 2014



Hourly Maximums

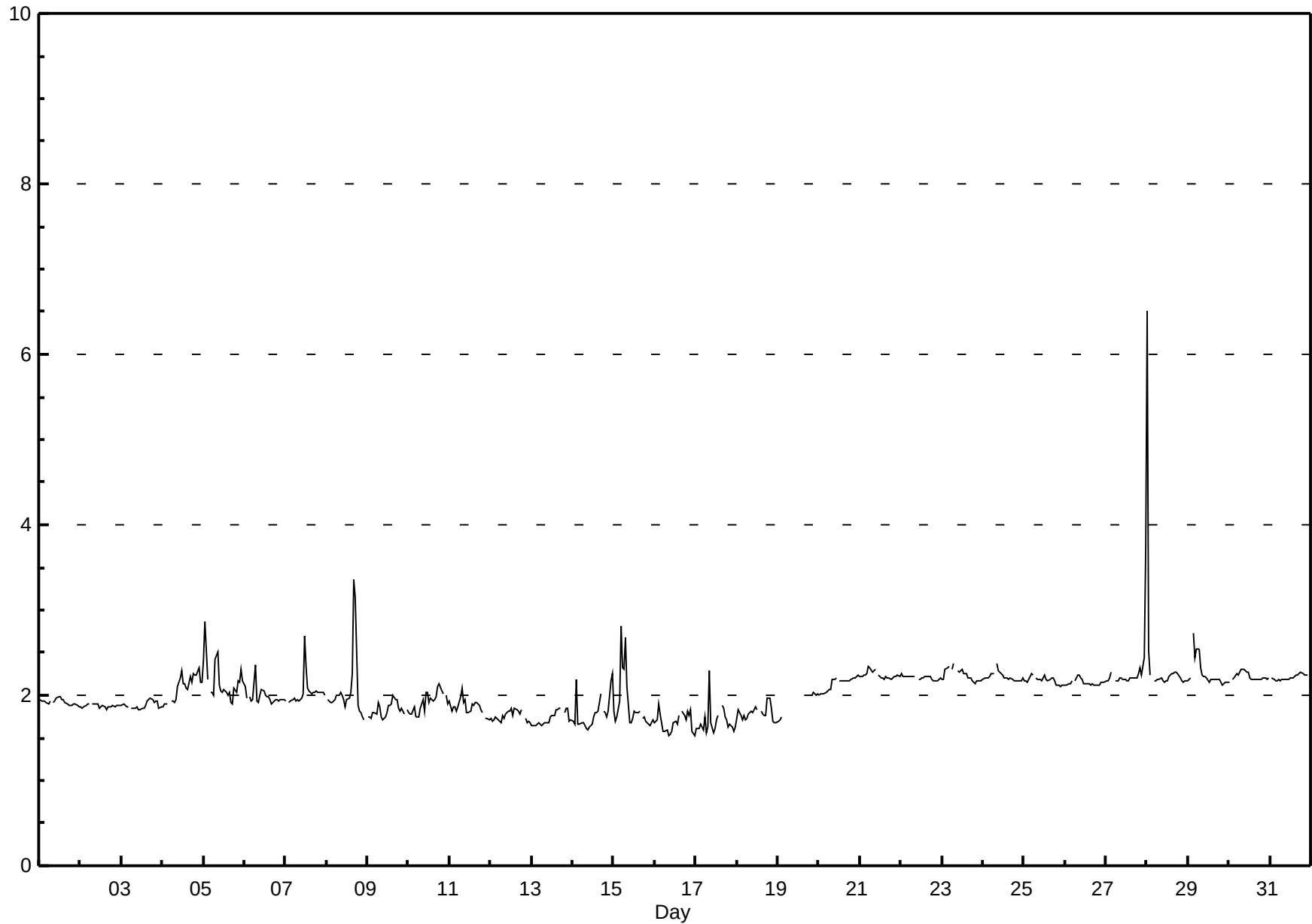
Total Hydrocarbons (THC) - ppm

Portable Reno - March 2014

Maximum Value: 6.51 ppm on Mar 28 01:00																					Maximum Daily Average: 2.40 ppm on Mar 28					Hours in Service: 744	
Minimum Value: 1.5 ppm on Mar 17 00:00																					Minimum Daily Average: 1.69 ppm on Mar 16					Hours of Data: 694	
Maximum Diurnal Average: 2.11 ppm at hour 1																					Minimum Diurnal Average: 1.98 ppm at hour 3					Hours of Missing Data: 50	
Monthly Average: 2.020 ppm																					Percentiles: P ₁ = 1.58 P ₁₀ = 1.71 Q ₁ = 1.84 Median = 2.01 Q ₃ = 2.19 P ₉₀ = 2.25 P ₉₉ = 2.69					Hours of Calibration: 42	
																					Percent Operational Time: 98.9						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Mar	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.92	1.98	
2-Mar	1.9	1.8	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.87	1.91	
3-Mar	1.9	1.9	1.9	1.9	1.9	A	1.9	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.88	1.96	
4-Mar	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.1	2.2	2.3	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.2	2.2	2.3	2.2	2.1	2.09	2.32	
5-Mar	2.4	2.9	2.2	A	2.0	2.0	2.0	2.4	2.5	2.1	2.0	2.0	2.1	2.0	2.0	2.0	1.9	1.9	2.1	2.0	2.2	2.1	2.3	2.2	2.15	2.86	
6-Mar	2.1	2.0	A	2.0	1.9	2.0	2.4	1.9	1.9	2.0	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.0	1.99	2.36	
7-Mar	1.9	A	1.9	1.9	2.0	2.0	1.9	2.0	1.9	2.0	2.0	2.7	2.3	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.04	2.69	
8-Mar	A	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.3	3.4	3.1	1.9	1.8	1.8	1.8	1.7	A	2.05	3.36	
9-Mar	1.8	1.7	1.7	1.8	1.8	1.8	1.9	1.9	1.7	1.7	1.7	1.8	1.9	1.9	1.9	2.0	1.9	2.0	1.8	1.8	1.8	1.8	A	1.8	1.83	2.01	
10-Mar	1.8	1.8	1.8	1.9	1.7	1.7	1.8	1.9	1.9	1.8	2.0	2.0	1.9	2.0	1.9	1.9	2.0	2.1	2.1	2.0	2.0	A	2.0	1.9	1.92	2.13	
11-Mar	1.9	1.8	1.9	1.9	1.8	1.9	2.0	2.1	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.8	1.8	A	1.7	1.7	1.7	1.86	2.09	
12-Mar	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.7	1.8	1.8	1.8	1.9	1.8	1.9	1.8	1.8	1.8	1.8	A	1.7	1.7	1.7	1.7	1.76	1.85	
13-Mar	1.6	1.7	1.6	1.7	1.7	1.7	1.6	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.9	1.8	1.7	1.7	1.73	1.85	
14-Mar	1.7	1.7	2.2	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.7	1.7	1.8	1.8	1.8	2.0	A	1.8	1.8	1.7	1.8	2.2	2.3	1.79	2.25	
15-Mar	1.8	1.7	1.7	1.9	2.8	2.3	2.3	2.7	2.1	1.7	1.7	1.7	1.8	1.8	1.8	1.8	A	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.89	2.82	
16-Mar	1.7	1.7	1.9	1.8	1.7	1.6	1.6	1.6	1.5	1.5	1.6	1.7	1.7	1.7	1.8	A	1.8	1.8	1.7	1.8	1.8	1.8	1.6	1.5	1.69	1.90	
17-Mar	1.6	1.6	1.6	1.7	1.6	1.7	1.6	1.6	2.3	1.7	1.6	1.6	1.7	1.8	A	1.9	1.8	1.8	1.8	1.7	1.6	1.7	1.6	1.6	1.69	2.29	
18-Mar	1.7	1.8	1.8	1.7	1.8	1.7	1.7	1.8	1.8	1.8	1.8	1.9	1.8	A	1.8	1.8	1.8	1.8	2.0	2.0	1.8	1.7	1.7	1.7	1.79	1.97	
19-Mar	1.7	1.7	1.7	N	N	N	N	N	N	N	C	C	C	C	C	C	C	C	C	C	2.0	2.0	2.0	2.0	--	2.03	
20-Mar	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.14	2.24	
21-Mar	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.24	2.34	
22-Mar	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.21	2.25	
23-Mar	2.2	2.2	2.3	2.3	2.3	N	2.3	2.4	A	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.24	2.38	
24-Mar	2.2	2.2	2.2	2.2	2.2	2.2	2.3	A	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.21	2.37	
25-Mar	2.2	2.2	2.2	2.2	2.2	2.2	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.18	2.25	
26-Mar	2.1	2.1	2.1	2.1	2.2	A	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.15	2.24	
27-Mar	2.2	2.2	2.2	2.3	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.4	3.7	2.28	3.72	
28-Mar	6.5	2.5	2.2	A	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.40	6.51	
29-Mar	2.2	2.2	A	2.7	2.4	2.5	2.5	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.25	2.73	
30-Mar	2.2	A	2.2	2.2	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.22	2.31	
31-Mar	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	A	2.21	2.27	
2.11 1.98 1.98 1.99 2.01 1.99 2.02 2.04 2.03 1.99 1.99 2.02 2.02 2.02 2.03 2.04 2.09 2.06 2.03 2.01 2.01 1.99 2.00 2.04																									Diurnal Average		
6.51 2.86 2.31 2.73 2.82 2.54 2.54 2.68 2.52 2.31 2.28 2.69 2.34 2.26 2.26 2.26 3.36 3.14 2.27 2.26 2.33 2.32 2.45 3.72																									Diurnal Maximum		
C - Calibration N - Not Valid A - Automated Daily Zero Span																											

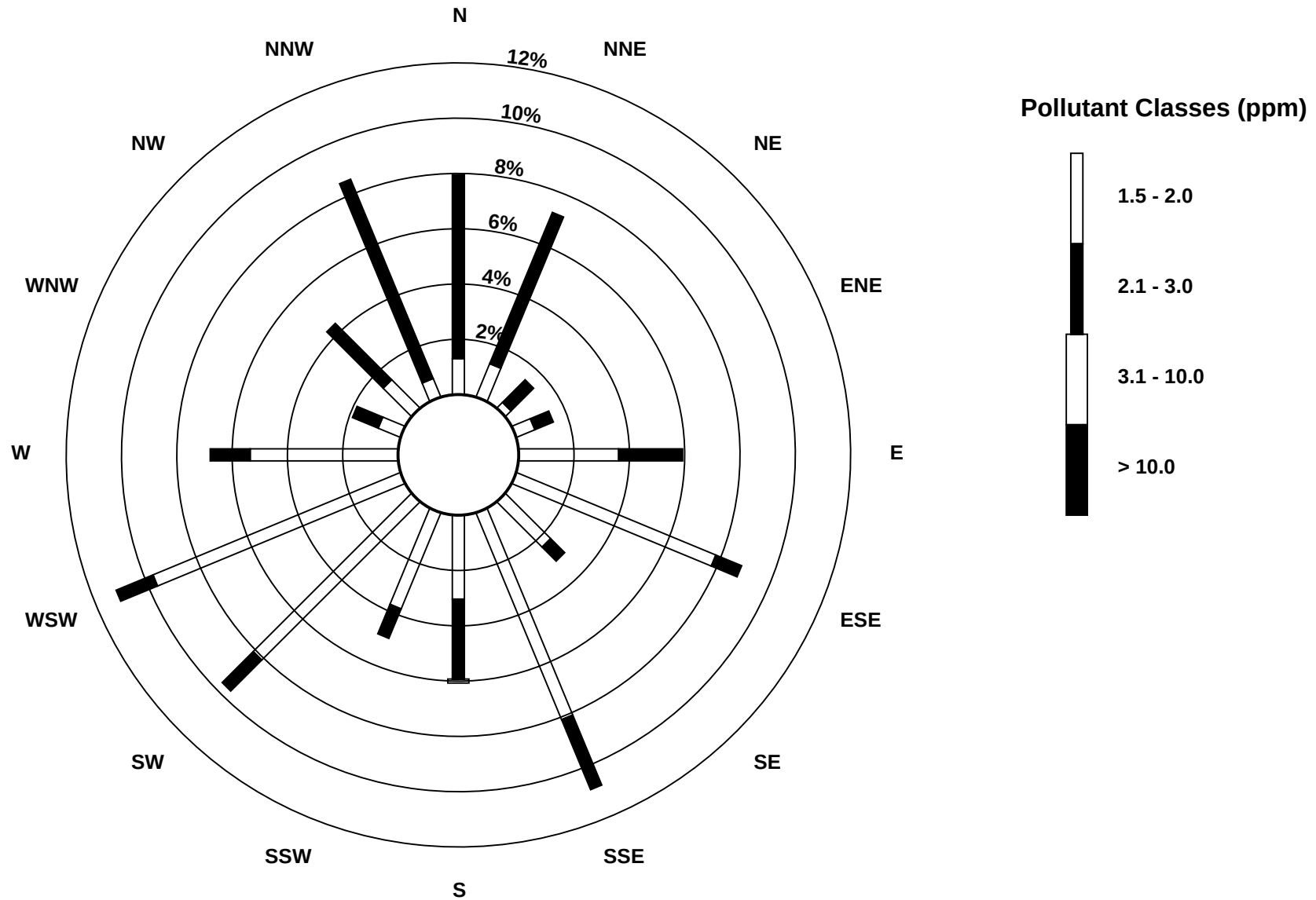
Hourly Maximums

Total Hydrocarbons (THC) - ppm
Portable Reno - March 2014



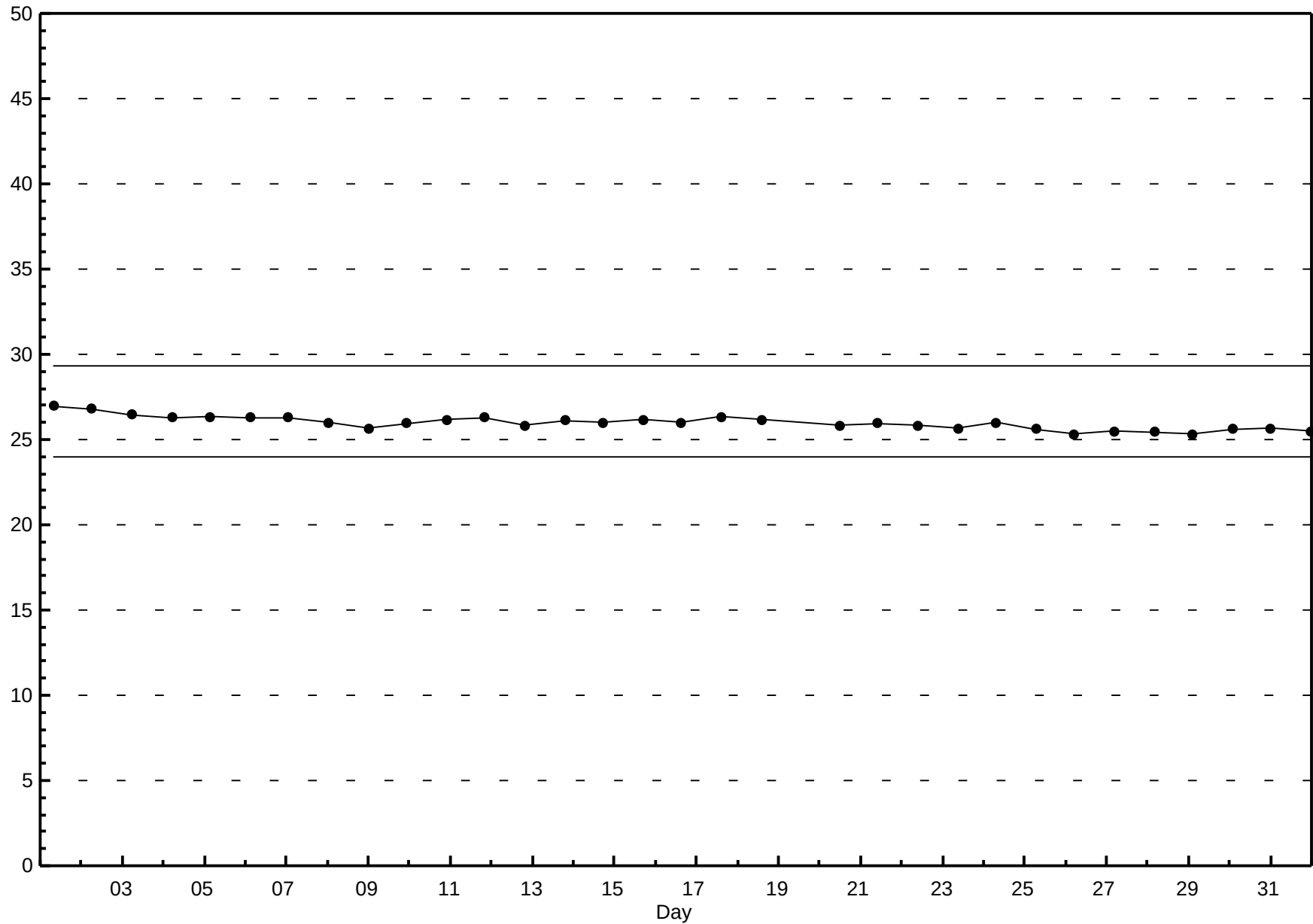
Pollutant Rose

Total Hydrocarbons (THC) - ppm
Portable Reno - March 2014



Span Responses

Total Hydrocarbons (THC)
Portable Reno - March 2014



Hourly Averages

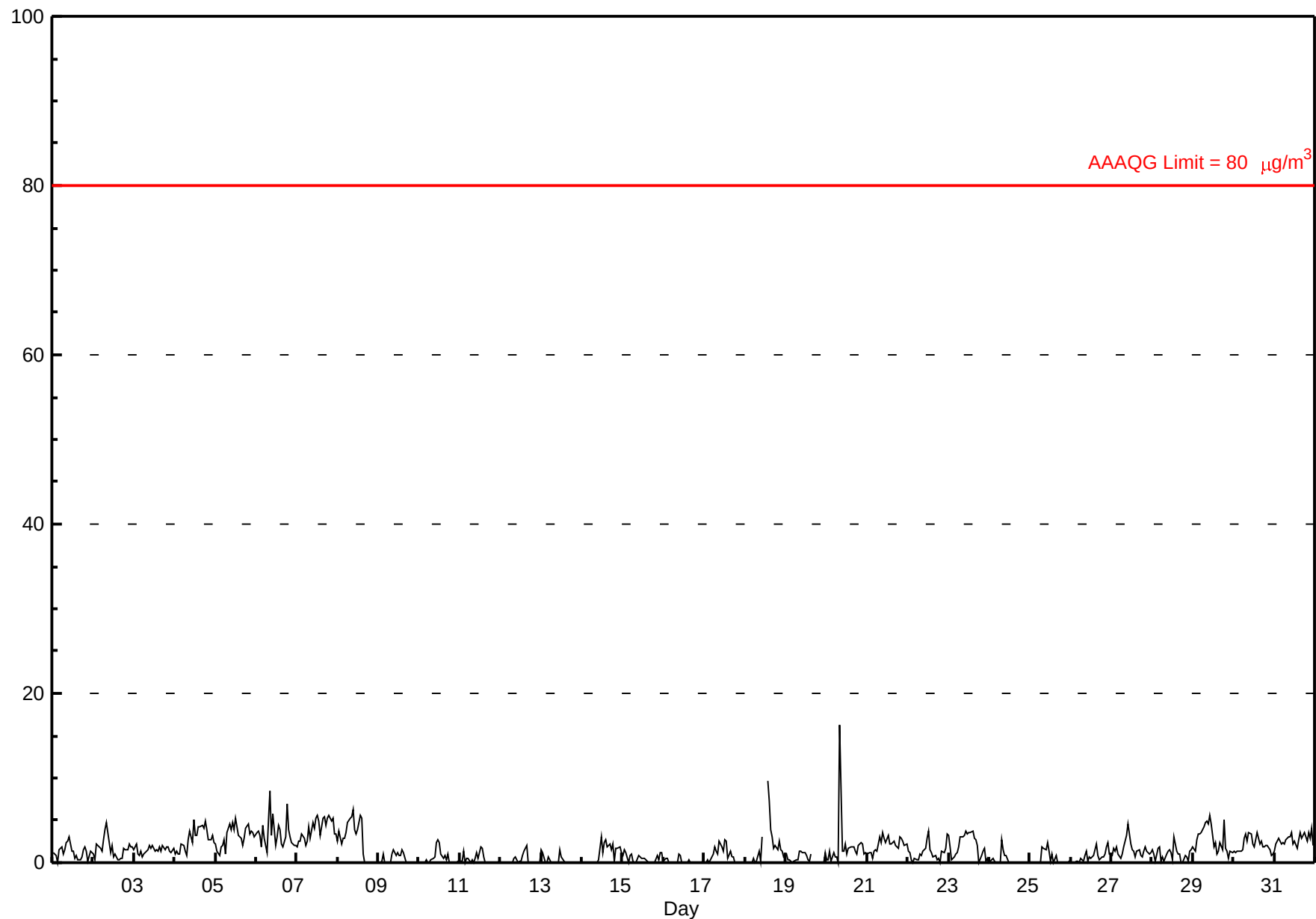
PM2.5 (PM_{2.5}) - µg/m³

Portable Reno - March 2014

Number of Exceedences: 1-hr: 0 24-hr: 0 Maximum Value: 16.2 µg/m ³ on Mar 20 09:00																								
Maximum Daily Average: 4.0 µg/m ³ on Mar 7																								
Minimum Value: 0 µg/m ³ on Mar 1 04:00 Maximum Diurnal Average: 2.5 µg/m ³ at hour 9 Monthly Average: 1.49 µg/m ³																								
Minimum Daily Average: 0.1 µg/m ³ on Mar 16 Minimum Diurnal Average: 0.9 µg/m ³ at hour 4 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 1.2 Q ₃ = 2.2 P ₉₀ = 3.5 P ₉₉ = 5.2																								
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
1-Mar	1	1	1	0	1	2	1	1	2	2	3	1	1	1	1	0	0	1	2	2	1	0	1	1
2-Mar	1	0	2	2	2	1	3	4	5	2	1	2	1	1	0	0	0	1	2	2	1	2	2	2
3-Mar	2	2	1	1	1	1	1	1	2	2	2	2	1	1	1	2	1	2	2	2	2	1	1	2
4-Mar	1	1	1	1	2	2	1	1	3	4	2	5	3	3	4	4	4	4	5	4	3	3	3	2
5-Mar	2	1	1	2	2	3	1	4	5	4	5	4	5	3	3	3	2	3	4	5	3	4	4	3
6-Mar	4	4	3	2	4	3	1	5	8	3	6	2	3	4	4	2	2	3	7	4	3	2	2	2
7-Mar	2	2	2	3	3	2	2	4	3	5	4	5	6	5	3	5	5	4	5	6	5	5	3	3
8-Mar	3	4	2	3	3	4	5	5	5	6	4	3	4	6	5	1	0	0	0	0	0	0	0	0
9-Mar	0	0	0	1	0	0	0	0	1	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0
10-Mar	0	0	0	0	0	0	0	0	1	1	2	3	2	1	1	1	0	1	0	0	0	0	0	0
11-Mar	0	0	1	0	1	1	0	0	0	1	1	0	2	2	1	0	0	0	0	0	0	0	0	0
12-Mar	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	2	0	0	0	0	0	0	0	0
13-Mar	2	1	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
14-Mar	0	0	0	0	0	0	0	0	0	0	0	3	1	2	3	2	2	1	2	0	2	2	2	1
15-Mar	1	2	1	0	1	1	0	0	0	1	1	1	0	1	0	0	0	0	0	0	1	0	1	1
16-Mar	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Mar	0	0	0	0	1	1	2	1	1	2	2	1	3	3	1	1	1	1	0	0	0	0	0	0
18-Mar	0	0	0	0	0	1	0	0	1	0	3	M	M	10	7	4	3	2	2	1	2	1	1	1
19-Mar	1	0	0	0	0	0	0	0	1	1	1	1	1	0	0	1	C	C	C	0	0	0	0	1
20-Mar	0	0	1	0	1	1	1	0	16	1	1	2	1	2	2	2	2	1	1	2	2	2	1	1
21-Mar	1	1	1	0	1	2	1	3	2	4	3	2	3	2	2	2	3	2	2	3	3	3	2	2
22-Mar	1	1	0	0	1	0	0	1	1	1	2	3	4	2	1	1	1	0	1	0	1	1	2	3
23-Mar	3	2	0	1	1	1	2	3	3	3	4	3	4	4	4	3	3	2	0	1	1	2	0	1
24-Mar	0	0	0	0	0	0	0	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Mar	0	0	0	0	0	0	0	2	2	2	2	1	0	1	0	1	0	0	0	0	0	0	0	0
26-Mar	0	0	0	0	0	0	1	0	1	1	0	1	0	1	1	2	1	0	1	1	1	2	2	1
27-Mar	1	2	1	2	1	0	1	2	3	3	5	2	2	1	1	1	2	1	1	1	2	1	1	1
28-Mar	1	1	0	2	2	0	1	0	1	1	2	1	0	3	1	1	1	0	0	1	1	0	1	1
29-Mar	2	1	3	3	3	4	4	5	5	5	6	4	2	2	1	1	2	2	5	2	1	0	1	1
30-Mar	1	1	1	1	1	1	3	3	2	4	3	2	2	3	4	2	3	2	2	2	2	2	1	1
31-Mar	1	2	3	2	2	2	2	3	3	3	4	2	3	2	3	4	3	3	3	3	4	3	4	2
1.0 1.0 1.0 0.9 1.2 1.1 1.1 1.7 2.5 2.2 2.3 2.1 1.9 2.1 1.8 1.6 1.4 1.2 1.5 1.3 1.4 1.2 1.2 1.1 3.5 3.8 3.2 3.4 4.4 3.6 4.8 5.2 16.2 6.2 5.7 5.3 5.6 9.7 7.3 5.2 5.4 4.4 6.9 5.6 4.9 5.2 4.1 3.4																								
C - Calibration M - Maintenance Alberta Ambient Air Quality Guideline (AAAQG): 1-hr 80 µg/m ³ Alberta Ambient Air Quality Objective (AAAQO): 24-hr 30 µg/m ³																								

Hourly Averages

PM2.5 (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Reno - March 2014



Hourly Maximums

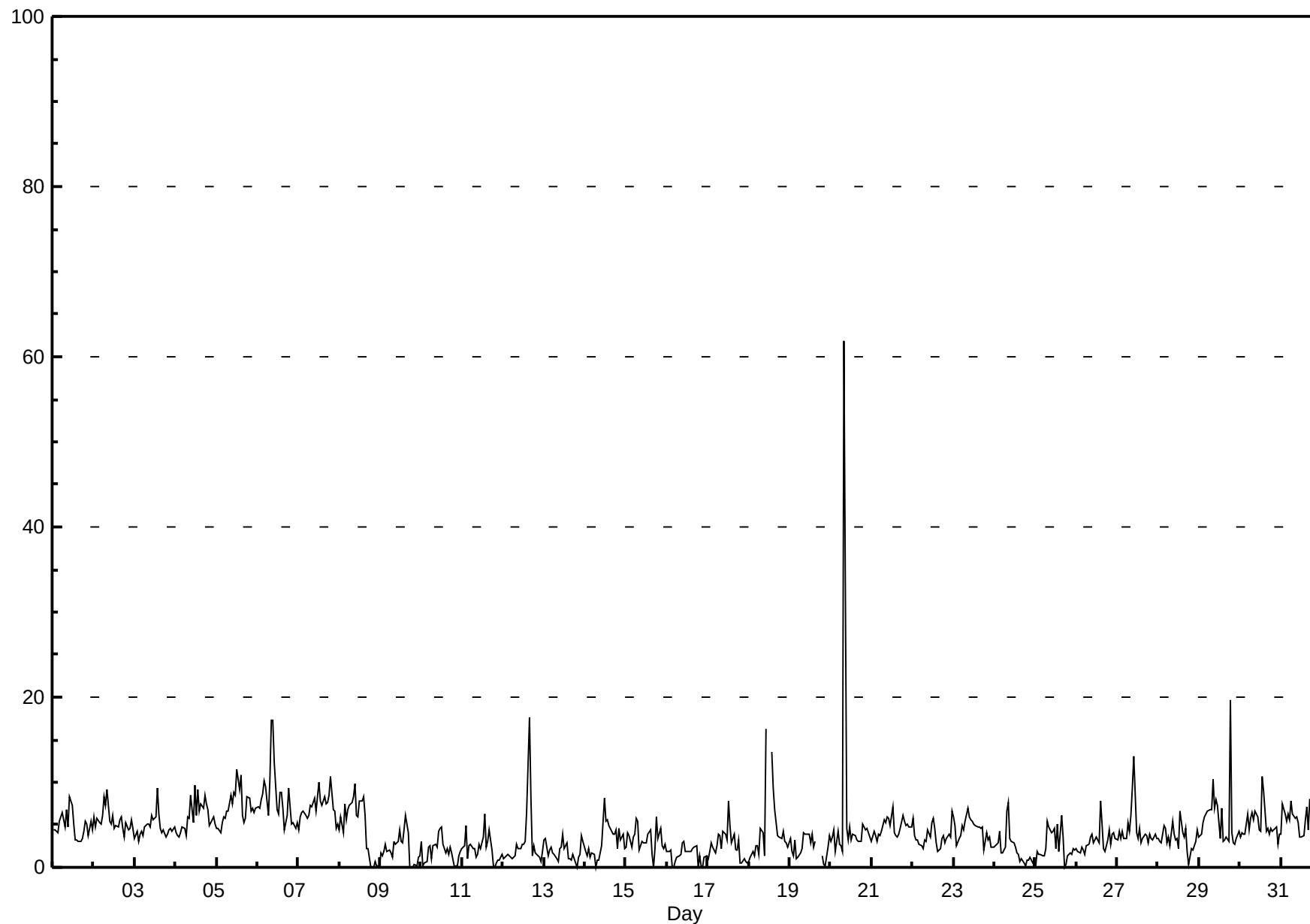
PM2.5 (PM_{2.5}) - µg/m³

Portable Reno - March 2014

Maximum Value: 61.8 μg/m³ on Mar 20 09:00																								Maximum Daily Average: 8.3 μg/m³ on Mar 6				Hours in Service: 744	
Minimum Value: 0 μg/m³ on Mar 8 19:00																								Minimum Daily Average: 1.5 μg/m³ on Mar 16				Hours of Data: 739	
Maximum Diurnal Average: 7.1 μg/m³ at hour 9																								Minimum Diurnal Average: 3.0 μg/m³ at hour 22				Hours of Missing Data: 5	
Monthly Average: 4.12 μg/m³																								Percentiles: P ₁ = 0.0 P ₁₀ = 1.2 Q ₁ = 2.2 Median = 3.8 Q ₃ = 5.4 P ₉₀ = 7.2 P ₉₉ = 11.2				Hours of Calibration: 3	
Percent Operational Time: 99.7																													
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1-Mar	4	4	4	4	5	6	6	5	7	5	8	7	5	3	3	3	3	3	4	5	5	4	5	4	4.8	8.3			
2-Mar	6	5	6	5	5	6	8	7	9	5	5	6	5	5	5	6	6	5	4	5	4	5	6	5	5.5	9.1			
3-Mar	3	4	3	4	4	4	5	5	5	5	6	6	6	9	6	5	4	4	4	4	4	5	4	5	4.8	9.3			
4-Mar	4	4	4	4	5	5	4	6	6	8	5	10	6	9	7	7	7	8	8	7	5	6	6	5	6.0	9.7			
5-Mar	5	5	4	5	6	6	7	7	8	7	9	8	11	9	11	6	5	6	8	8	7	7	6	7	7.0	11.5			
6-Mar	7	7	8	9	10	10	6	10	17	17	12	7	6	9	9	7	4	6	9	7	5	5	5	5	8.3	17.3			
7-Mar	4	6	6	7	6	6	6	7	7	8	7	8	10	8	7	8	8	8	8	11	7	7	5	5	7.1	10.6			
8-Mar	4	6	4	7	6	7	7	8	8	10	6	6	8	8	8	6	2	2	0	0	0	1	0	0	4.8	9.9			
9-Mar	2	1	2	3	2	2	2	1	3	3	3	4	3	3	4	6	4	0	0	0	0	0	1	1	2.1	6.1			
10-Mar	3	0	1	1	2	2	1	3	3	2	4	5	5	3	2	2	2	2	2	0	0	0	1	2	2.0	4.8			
11-Mar	2	3	5	1	2	3	2	2	1	2	3	2	4	6	2	3	4	2	0	0	1	1	1	1	2.2	6.2			
12-Mar	1	1	1	2	1	1	1	1	3	2	2	3	3	3	6	18	8	1	3	2	1	1	1	2	2.8	17.7			
13-Mar	3	3	1	2	2	2	2	1	1	2	2	4	2	3	1	1	1	2	1	0	1	2	4	3	1.9	3.9			
14-Mar	2	1	2	1	2	2	0	1	1	2	3	8	5	6	5	5	4	4	4	2	5	3	4	2	3.0	8.2			
15-Mar	2	4	4	2	4	4	6	5	2	3	3	3	3	4	4	1	0	2	6	3	4	2	2	3	3.3	6.0			
16-Mar	2	2	2	0	0	1	1	1	1	3	3	2	2	2	2	2	2	2	0	1	0	0	1	1	1.5	3.1			
17-Mar	1	2	3	2	2	3	4	4	2	4	4	3	8	5	3	4	2	2	3	0	1	1	1	1	2.7	7.8			
18-Mar	1	1	2	1	3	3	2	5	4	1	16	M	M	14	9	7	5	4	4	3	4	3	3	2	4.4	16.3			
19-Mar	3	2	1	3	1	1	2	2	4	4	4	4	3	4	2	3	C	C	C	1	0	0	2	4	2.5	4.1			
20-Mar	3	3	4	2	4	3	2	2	62	5	3	5	3	4	4	3	3	3	3	5	4	5	4	4	6.0	61.8			
21-Mar	3	4	4	3	4	4	4	6	5	6	6	5	7	4	4	4	4	5	6	5	5	5	5	5	4.6	7.0			
22-Mar	6	4	3	3	3	3	2	3	3	4	4	5	6	5	3	2	2	3	4	3	3	4	4	7	3.7	6.6			
23-Mar	6	5	2	3	4	5	4	5	7	6	6	5	5	5	5	5	5	5	2	4	3	4	2	2	4.4	6.9			
24-Mar	2	3	3	4	2	2	2	7	8	3	3	3	2	2	2	1	1	1	0	1	1	1	0	0	2.2	7.6			
25-Mar	0	2	1	2	1	1	2	5	5	4	4	5	2	5	2	6	4	0	0	1	2	2	2	2	2.5	6.1			
26-Mar	2	2	2	2	2	2	2	3	4	4	3	3	4	3	8	5	2	2	3	4	3	4	4	3	3.2	7.7			
27-Mar	3	4	3	4	3	3	5	4	6	9	13	4	3	5	3	3	4	4	3	4	3	3	4	3	4.4	13.0			
28-Mar	3	3	3	5	5	3	4	2	5	4	3	3	2	7	4	4	5	2	0	2	2	3	3	4	3.4	6.6			
29-Mar	4	4	5	6	6	7	7	7	10	7	8	7	3	7	3	3	4	3	20	4	3	3	3	4	5.7	19.7			
30-Mar	4	4	4	4	6	4	6	6	6	7	6	4	4	11	9	4	5	4	5	4	4	5	3	4	5.1	10.6			
31-Mar	4	7	6	5	6	6	8	6	6	6	5	4	4	4	6	7	4	8	8	5	6	5	7	7	5.8	8.0			
3.3 3.5 3.4 3.5 3.7 3.6 3.9 4.5 7.1 5.1 5.5 5.0 4.7 5.5 4.8 4.7 3.8 3.4 4.1 3.4 3.1 3.0 3.2 3.4																								Diurnal Average					
7.2 7.5 8.0 8.7 10.3 9.5 8.2 10.3 61.8 17.3 16.3 9.7 11.5 13.6 10.8 17.7 8.2 8.4 19.7 10.6 6.8 6.9 7.0 6.9																								Diurnal Maximum					
C - Calibration M - Maintenance																													

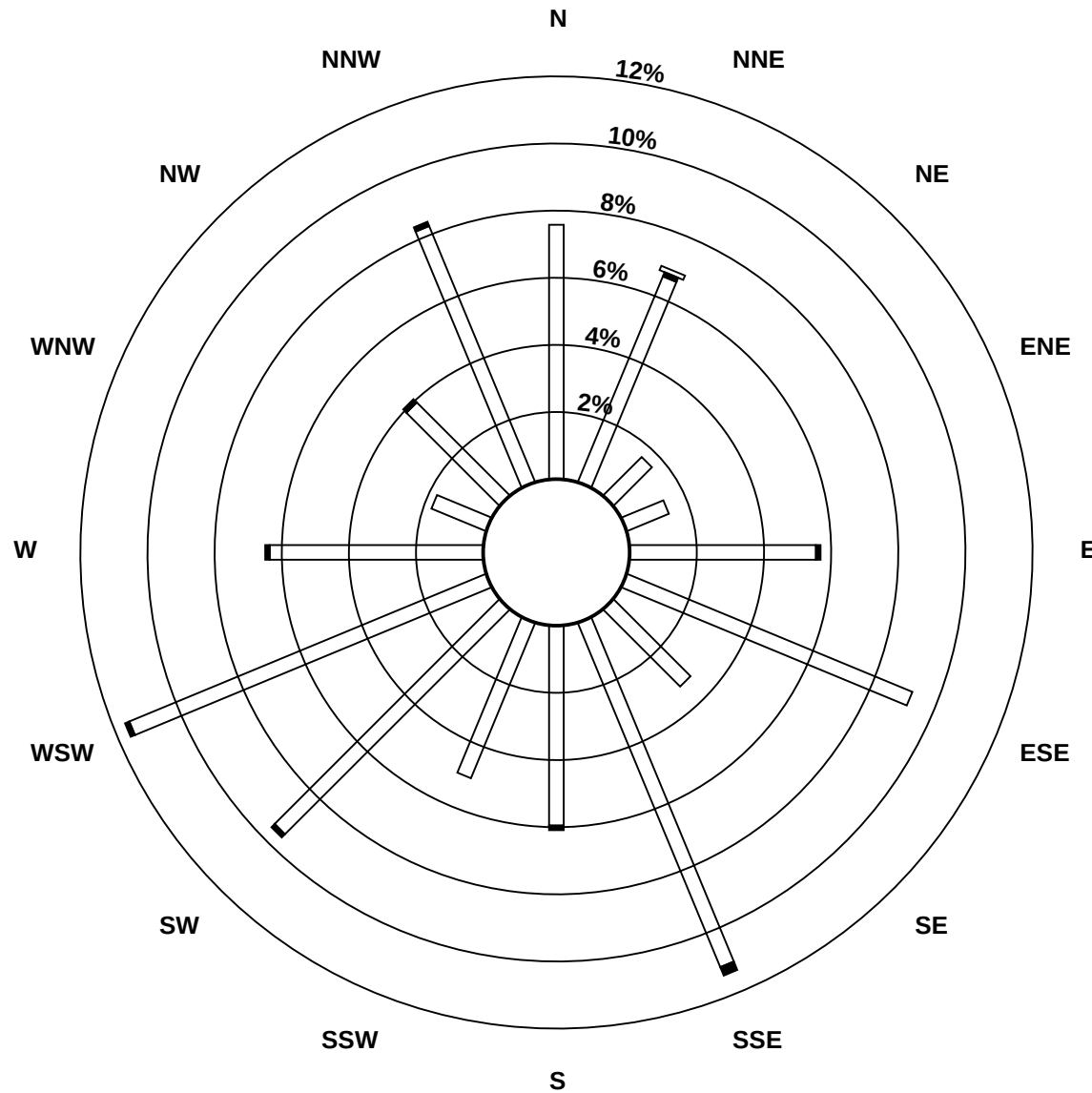
Hourly Maximums

PM_{2.5} (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Reno - March 2014

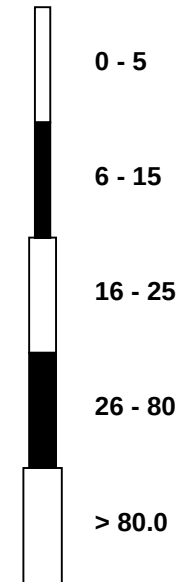


Pollutant Rose

PM_{2.5} (PM_{2.5}) - $\mu\text{g}/\text{m}^3$
Portable Reno - March 2014

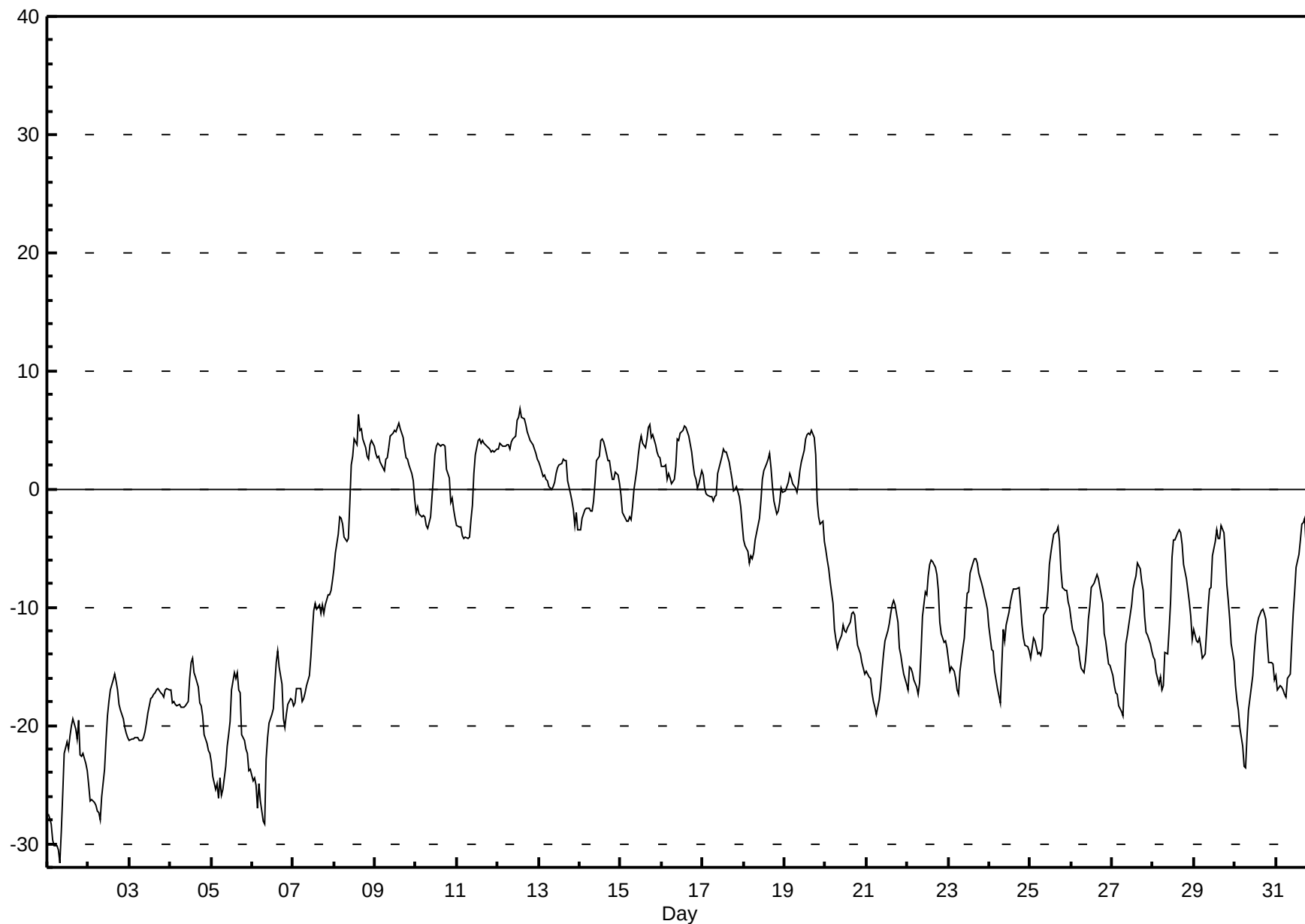


Pollutant Classes ($\mu\text{g}/\text{m}^3$)



Hourly Averages

External Temperature (ET) - °C
Portable Reno - March 2014



Hourly Averages

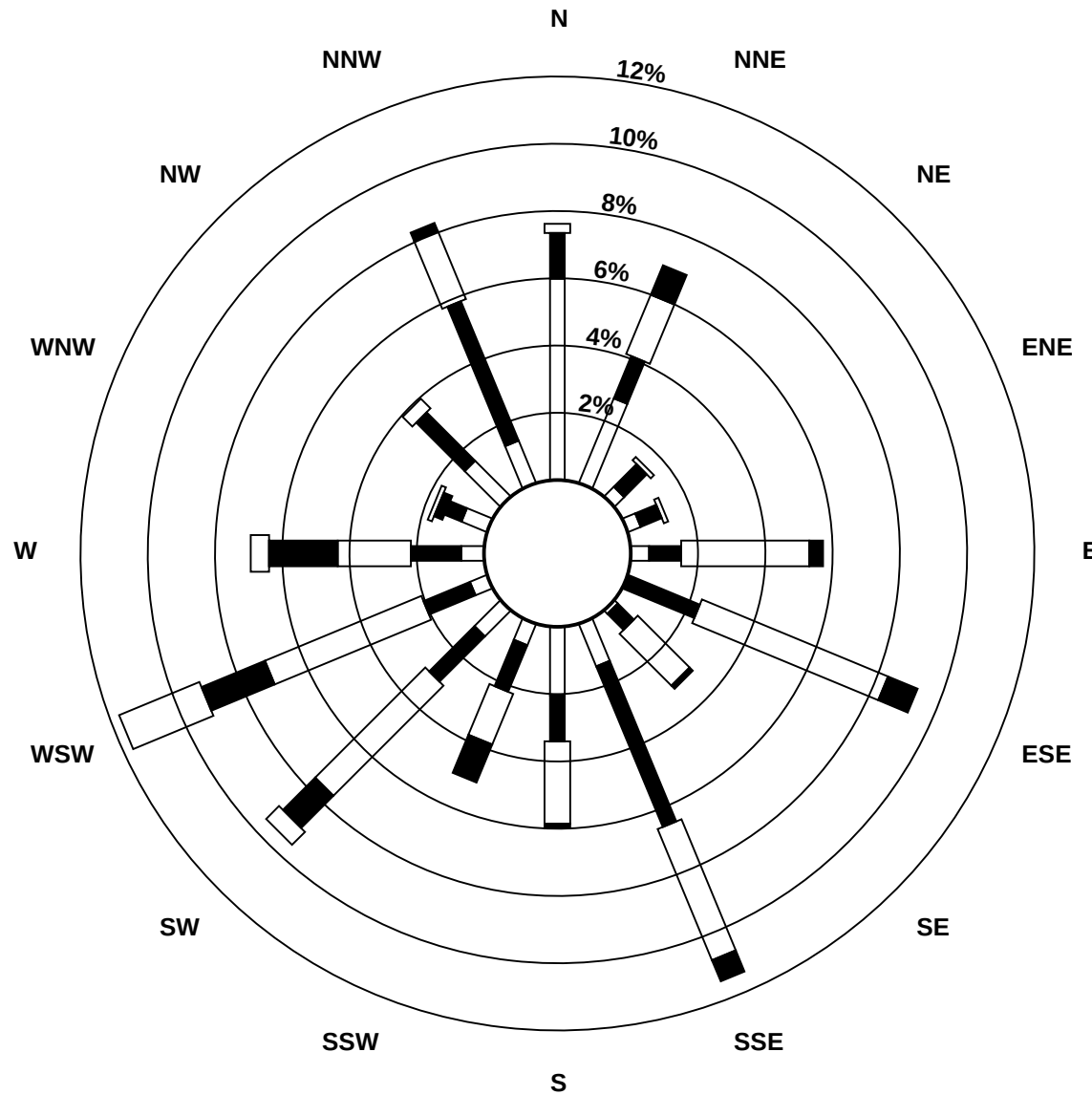
Wind Speed (km/h)
Wind Direction (deg)
Portable Reno - March 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	18	16	16	12	12	12	11	9	14	10	4	4	9	10	7	7	6	5	12	12	16	15	16	16	7.5	18.1
Dir	97	98	100	108	125	117	135	133	119	128	177	317	324	322	317	326	340	6	94	87	93	108	109	109	100.1	97.5
2 Spd	12	12	15	18	18	17	17	12	13	23	21	18	20	18	19	21	27	25	17	16	20	17	15	13	17.5	26.6
Dir	117	129	109	97	100	102	103	102	106	109	114	118	118	105	104	100	91	98	103	105	104	102	104	99	105.1	90.8
3 Spd	14	16	14	15	15	14	13	13	14	15	15	14	15	16	17	19	18	16	13	9	6	11	14	12	13.8	18.9
Dir	96	95	100	104	99	100	100	103	106	102	109	104	96	86	85	85	86	81	72	75	78	106	113	111	95.7	84.7
4 Spd	10	8	10	10	8	8	8	9	7	8	9	7	7	9	9	8	6	7	2	2	2	1	2	2	3.8	10.3
Dir	113	116	116	121	118	114	115	125	156	178	172	186	202	215	240	261	272	268	263	287	251	250	171	186	164.3	120.7
5 Spd	2	5	6	6	5	5	6	4	5	5	5	8	7	5	5	1	4	2	5	2	3	3	3	5	3.5	7.6
Dir	183	175	162	166	168	167	163	166	167	160	162	162	165	235	286	348	23	140	163	178	184	183	180	175	172.0	162.1
6 Spd	6	6	4	4	5	5	7	10	6	5	4	6	6	4	2	3	4	4	3	8	11	10	9	16	3.0	15.7
Dir	164	160	159	69	52	94	154	159	154	355	322	344	1	358	5	354	357	325	24	52	76	107	110	108	87.6	108.3
7 Spd	18	17	16	12	12	12	12	10	13	12	10	7	4	7	9	6	6	7	4	4	6	8	15	21	8.7	20.7
Dir	116	117	119	113	116	125	128	158	164	171	170	182	236	209	204	189	169	166	161	86	117	112	112	110	138.1	109.5
8 Spd	25	23	21	25	24	22	21	20	19	18	22	19	9	8	5	7	5	7	9	14	17	18	16	15	14.3	24.8
Dir	112	114	140	153	155	162	162	162	168	185	213	224	220	168	203	163	167	159	150	147	158	157	144	135	159.2	153.0
9 Spd	17	18	16	15	17	18	21	24	28	29	31	32	27	27	24	29	30	20	19	21	21	17	12	10	18.4	32.3
Dir	158	155	158	182	162	183	203	213	224	235	240	246	246	248	257	262	260	260	248	254	244	236	255	234	230.3	245.8
10 Spd	10	18	16	18	19	19	18	16	17	18	15	19	17	20	24	22	18	15	12	5	12	16	15	17	15.6	24.2
Dir	220	233	228	224	239	241	236	242	242	252	264	278	272	261	268	272	265	260	258	251	218	227	214	234	247.2	267.8
11 Spd	16	17	19	16	17	19	16	16	14	16	14	16	16	21	18	27	27	32	31	30	30	35	33	35	21.3	35.0
Dir	240	242	243	249	245	246	233	211	200	207	214	198	218	246	251	244	245	243	246	244	251	251	249	246	239.6	251.4
12 Spd	29	34	24	17	22	29	30	23	20	16	19	22	23	29	27	35	35	31	36	38	35	35	34	29	27.0	38.1
Dir	244	250	241	231	230	230	226	220	212	191	211	205	218	231	242	242	247	248	243	243	245	251	255	266	237.5	242.5
13 Spd	32	27	28	26	28	29	26	20	20	21	25	20	22	26	23	20	16	14	6	6	5	9	7	10	17.2	31.8
Dir	283	278	272	278	273	271	283	251	247	275	288	264	268	267	262	260	258	246	219	187	171	167	157	160	264.1	282.5
14 Spd	12	10	11	12	13	14	19	19	17	19	19	14	10	13	12	12	9	5	11	11	15	14	17	21	11.0	20.8
Dir	154	148	126	126	121	109	114	117	120	124	130	148	166	176	188	199	231	194	155	156	162	185	217	223	153.5	223.2
15 Spd	18	10	7	10	14	17	16	16	16	20	19	17	14	15	18	18	17	16	13	14	19	20	20	18	13.9	20.5
Dir	223	226	219	209	213	219	216	221	215	224	230	227	212	175	167	155	151	143	150	138	169	183	204	216	196.5	224.5
16 Spd	15	19	22	20	28	22	21	15	13	8	19	20	19	21	24	18	19	19	12	10	12	13	12	16	15.5	28.0
Dir	209	219	231	210	216	210	203	190	156	197	248	256	256	253	262	266	262	267	270	235	215	231	234	234	232.7	216.4
17 Spd	14	13	10	7	8	4	3	3	6	5	12	11	9	12	11	13	14	19	12	13	21	19	21	18	10.4	20.9
Dir	234	244	240	223	259	283	278	231	279	305	312	313	297	257	253	246	240	251	266	245	224	227	235	238	250.8	234.5
18 Spd	17	18	15	12	10	12	15	16	15	15	17	16	15	16	12	8	11	13	10	10	11	14	16	16	11.1	17.7
Dir	239	242	243	223	193	210	232	235	243	249	260	265	267	262	252	247	242	224	202	168	155	161	153	161	226.2	241.5
19 Spd	13	9	14	14	13	17	17	16	13	13	15	10	12	17	16	11	7	8	5	10	13	11	17	16	5.0	16.9
Dir	171	151	159	191	161	161	167	165	176	205	238	242	244	252	269	259	258	276	282	345	344	345	17	12	218.7	166.8
20 Spd	18	26	23	20	17	16	17	25	17	11	14	17	21	20	17	16	17	12	10	6	4	4	5	11	14.0	26.0
Dir	20	25	22	17	4	2	12	21	16	357	343	334	331	327	327	328	329	331	336	341	353	16	20	38	357.8	25.2
21 Spd	7	5	4	4	3	3	3	4	4	5	8	9	11	10	10	9	7	8	5	2	3	2	2	3	5.0	10.6
Dir	27	14	13	356	4	6	354	6	351	337	333	331	323	323	326	326	325	319	307	280	347	8	11	16	339.4	322.9
22 Spd	6	17	18	18	18	18	18	18	15	16	10	8	10	9	8	10	9	6	4	4	1	2	3	2	5.0	18.4
Dir	88	99	99	102	99	101	100	100	106	116	105	328	326	317	304	271	275	300	353	14	313	353	3	355	85.8	99.3

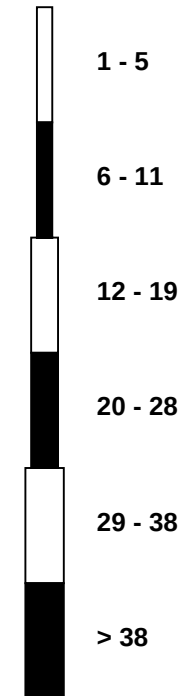
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24									
23 Spd	2	2	2	2	4	6	7	6	6	8	6	9	11	12	16	20	19	8	7	8	7	5	4	8	5.1	19.8							
Dir	279	226	231	194	205	191	210	228	221	225	234	241	247	247	245	256	262	318	351	338	348	353	1	14	260.4	256.4							
24 Spd	11	6	3	2	2	3	1	1	1	4	4	4	4	4	5	6	2	2	1	5	8	9	10	10	2.4	11.1							
Dir	19	24	359	1	13	18	38	124	296	327	317	331	355	313	284	278	3	220	74	72	74	85	87	87	28.3	18.8							
25 Spd	14	6	5	4	5	3	3	2	1	5	7	7	10	11	11	11	8	7	7	6	9	17	18	22	6.4	21.7							
Dir	89	93	90	29	357	7	2	313	217	356	332	334	330	325	330	335	341	343	344	359	19	25	25	32	7.4	31.6							
26 Spd	17	16	14	11	12	10	5	5	8	6	7	8	9	12	14	15	17	14	8	5	4	3	5	13	8.7	17.1							
Dir	32	33	28	29	37	24	6	7	18	16	359	341	340	330	321	326	327	332	341	13	15	4	17	32	2.7	31.6							
27 Spd	8	4	4	3	6	4	2	3	3	3	5	4	5	6	8	5	7	9	5	4	6	7	6	6	1.0	8.6							
Dir	55	357	9	3	51	56	87	183	331	336	328	322	318	284	260	234	247	260	248	194	161	159	163	174	267.7	259.9							
28 Spd	6	7	7	12	10	7	8	11	10	13	10	6	4	5	6	5	5	4	2	3	2	2	0	0	3.1	12.7							
Dir	170	160	169	156	155	150	157	155	158	165	168	196	253	322	336	1	358	357	4	13	16	24	284	173	160.7	165.5							
29 Spd	1	4	5	4	1	1	2	3	3	5	6	6	12	10	10	7	6	7	6	8	14	22	19	20	6.1	22.4							
Dir	342	169	185	260	14	176	328	4	358	333	344	346	340	343	3	6	353	342	348	6	16	28	29	29	5.9	28.0							
30 Spd	13	10	11	11	7	6	5	3	7	6	10	12	13	14	16	14	10	8	6	2	4	8	8	8	6.1	15.6							
Dir	27	43	44	37	21	354	352	2	69	331	329	330	332	334	326	319	312	313	327	359	55	102	108	104	0.3	326.3							
31 Spd	13	15	13	14	16	14	17	19	14	15	16	14	13	13	12	12	10	4	3	5	5	6	8	6	9.3	18.6							
Dir	108	121	133	144	154	133	135	146	169	167	166	161	183	175	181	206	200	222	354	28	61	88	85	110	149.7	146.1							
Spd	3.1	3.4	4.0	4.2	4.6	4.8	5.5	5.9	5.6	5.0	5.4	5.8	6.1	7.3	7.5	7.2	6.4	5.4	3.1	1.9	2.8	3.2	2.9	2.5	Diurnal Average								
Dir	150.0	158.4	161.6	163.0	167.7	174.9	177.4	176.0	178.5	196.4	230.2	247.1	261.9	260.0	264.2	261.3	263.7	261.3	248.5	223.4	189.0	182.7	174.6	163.2	Diurnal Maximum								
Spd	31.8	33.5	27.7	26.2	28.0	29.0	30.4	24.9	27.6	29.3	31.3	32.3	27.1	29.4	27.4	35.3	34.6	32.1	35.9	38.1	35.5	35.1	34.1	34.8	Diurnal Maximum								
Dir	282.5	249.8	271.8	277.7	273.2	230.1	226.3	20.7	224.2	234.7	239.7	245.8	246.5	230.6	242.3	242.2	246.6	242.9	243.4	242.5	244.8	251.5	255.4	245.7	Diurnal Maximum								
Maximum Speed Value: 38 km/h on Mar 12 20:00																								Minimum Speed Value: 0 km/h on Mar 28 23:00				Hours in Service:				744	
Maximum Daily Speed Average: 27.0 km/h on Mar 12																								Minimum Daily Speed Average: 1.0 km/h on Mar 5				Hours of Data:				744	
Maximum Diurnal Speed Average: 7.5 km/h at hour 15																								Minimum Diurnal Speed Average: 1.9 km/h at hour 20				Hours of Missing Data:				0	
Monthly Average Velocity: 3.49 km/h 213.79 deg																								Speed Percentiles: P ₁ = 1.0 P ₁₀ = 3.6 Q ₁ = 6.1 Median = 11.7 Q ₃ = 16.9 P ₉₀ = 21.3 P ₉₉ = 34.6				Percent Operational Time:				100.0	
All monthly, daily, and diurnal averages have been calculated using vector methods																																	
Frequency Distribution																																	
		Speed Range (km/h)																															
Direction	0 to 5		5 to 11		11 to 19		19 to 28		28 to 38		> 38		Total																				
North	54		40		13		3		0		0		110																				
NorthEast	9		10		11		4		0		0		34																				
East	6		20		58		8		0		0		92																				
SouthEast	2		25		44		8		0		0		79																				
South	24		46		39		5		0		0		114																				
SouthWest	8		29		64		29		15		1		146																				
West	14		16		30		24		13		0		97																				
NorthWest	16		36		18		2		0		0		72																				
Total	133		222		277		83		28		1		744																				

Wind Rose

Wind Speed (WS) (km/h)
Portable Reno - March 2014



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Portable Reno - March 2014

Maximum Speed: 38 km/h on Mar 12 20:00																				Maximum Daily Speed Average: 28.2 km/h on Mar 12										Hours in Service: 744	
Minimum Speed: 1 km/h on Mar 24 08:00																				Minimum Daily Speed Average: 4.5 km/h on Mar 5										Hours of Data: 744	
Maximum Diurnal Speed Average: 13.7 km/h at hour 14																				Minimum Diurnal Speed Average: 9.6 km/h at hour 20										Hours of Missing Data: 0	
Monthly Average Speed: 12.42 km/h																				Percentiles: P ₁ = 1.8 P ₁₀ = 3.8 Q ₁ = 6.3 Median = 11.8 Q ₃ = 17.1 P ₉₀ = 21.3 P ₉₉ = 34.7										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Mar	18	16	16	12	12	12	11	9	14	11	4	4	9	10	7	7	6	7	12	13	16	15	16	16	11.5	18.1					
2-Mar	12	12	15	18	18	17	18	12	13	23	21	18	20	18	20	22	27	25	17	16	20	17	15	14	17.9	26.8					
3-Mar	14	16	14	15	15	14	13	13	14	15	15	15	15	16	17	19	18	16	13	9	6	11	14	12	14.2	19.1					
4-Mar	10	8	10	10	8	8	8	9	8	8	9	7	8	9	9	8	6	7	2	2	2	1	2	2	6.7	10.3					
5-Mar	2	5	6	6	5	5	6	4	5	5	5	8	7	5	5	3	4	2	5	2	3	3	3	5	4.5	7.6					
6-Mar	6	6	4	4	5	6	8	10	6	5	4	6	6	4	3	3	4	4	3	8	11	10	9	16	6.4	15.7					
7-Mar	19	17	16	12	12	12	12	11	13	12	10	7	5	7	9	6	6	7	4	4	6	8	15	21	10.4	20.7					
8-Mar	25	23	22	25	24	22	21	20	19	19	22	19	9	8	6	8	6	8	9	14	17	18	16	16	16.4	24.9					
9-Mar	17	18	16	15	17	18	21	24	28	29	31	32	27	27	24	29	30	21	19	21	21	17	14	10	22.0	32.4					
10-Mar	10	18	16	18	19	19	18	16	17	18	16	19	17	20	24	22	18	15	12	6	12	16	16	17	16.5	24.2					
11-Mar	16	17	19	16	17	19	16	16	14	16	15	16	16	21	18	27	27	32	31	30	31	35	33	35	22.2	35.1					
12-Mar	29	34	24	18	22	29	30	23	20	16	20	22	23	30	27	35	35	31	36	38	36	35	34	29	28.2	38.2					
13-Mar	32	27	28	26	28	29	26	20	20	21	25	20	22	26	23	20	16	14	7	6	6	9	7	10	19.6	32.0					
14-Mar	12	10	11	12	14	14	19	19	17	19	19	14	10	13	12	12	9	6	11	11	15	14	17	21	13.9	20.8					
15-Mar	18	10	7	10	14	17	16	16	16	21	20	17	15	15	18	18	17	16	14	15	20	21	20	18	16.2	20.7					
16-Mar	15	19	22	20	28	22	21	15	14	10	19	21	19	21	24	18	19	19	12	10	12	13	12	16	17.5	28.1					
17-Mar	14	13	10	7	8	4	3	3	6	5	12	11	10	12	11	13	14	19	12	13	21	19	21	18	11.6	21.2					
18-Mar	17	18	15	12	11	12	15	16	15	15	17	16	15	16	12	8	11	14	10	10	11	14	16	16	13.8	17.8					
19-Mar	13	9	15	15	13	17	17	16	13	14	15	10	12	17	16	11	8	8	6	11	13	11	17	16	13.1	17.3					
20-Mar	18	26	23	20	17	16	17	25	17	11	15	18	21	20	17	16	17	12	10	6	4	4	5	11	15.3	26.1					
21-Mar	7	5	4	4	3	3	3	4	4	5	8	9	11	10	10	9	7	8	5	3	3	2	2	3	5.6	10.6					
22-Mar	7	17	18	18	18	18	18	18	15	16	11	8	10	9	8	10	9	6	4	4	2	2	3	2	10.5	18.4					
23-Mar	2	2	2	3	4	6	7	7	6	8	6	9	11	12	16	20	19	10	7	8	7	5	4	8	7.8	19.9					
24-Mar	11	7	3	2	2	3	1	1	2	4	4	4	5	5	6	6	3	2	1	5	8	9	10	10	4.8	11.2					
25-Mar	14	6	5	5	5	4	3	2	2	5	7	7	10	11	12	11	8	7	7	6	9	17	18	22	8.4	21.8					
26-Mar	17	16	14	12	12	10	5	5	8	6	7	8	9	12	14	15	17	14	8	5	4	3	5	13	9.9	17.1					
27-Mar	9	4	4	3	6	5	3	3	3	3	5	5	5	7	8	6	7	9	5	4	6	7	6	6	5.4	8.9					
28-Mar	6	7	7	12	10	7	8	11	11	13	10	6	5	5	6	5	5	4	2	3	2	2	2	2	6.3	12.7					
29-Mar	2	5	5	4	2	3	2	3	4	5	6	6	12	10	10	7	6	7	6	8	14	23	19	20	7.9	22.5					
30-Mar	13	10	11	11	8	6	5	4	8	6	10	12	13	14	16	14	10	8	6	3	4	8	8	8	9.0	15.7					
31-Mar	13	15	13	14	16	14	17	19	14	15	16	14	13	13	12	12	10	5	3	5	6	7	8	7	11.8	18.8					
13.5 13.4 12.7 12.3 12.7 12.6 12.6 12.1 11.7 12.2 13.0 12.6 12.6 13.7 13.5 13.6 12.9 11.7 9.7 9.6 11.1 12.2 12.5 13.5																								Diurnal Average							
32.0 33.6 27.8 26.2 28.1 29.0 30.4 25.1 27.7 29.4 31.4 32.4 27.1 29.5 27.5 35.3 34.7 32.1 36.0 38.2 35.5 35.1 34.1 34.9																								Diurnal Maximum							
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Portable Reno - March 2014

Maximum Value: 93.1 deg on Mar 29 06:00																		Hours in Service: 744							
Minimum Value: 1.4 deg on Mar 31 07:00																		Hours of Data: 744							
Percentiles: P ₁ = 2.4 P ₁₀ = 3.3 Q ₁ = 4.7 Median = 7.1 Q ₃ = 12.0 P ₉₀ = 22.7 P ₉₉ = 71.6																		Hours of Missing Data: 0							
																		Hours of Calibration: 0							
																		Percent Operational Time: 100.0							
Day	Hourly Period Ending At (MST)																								Daily Maximum
1-Mar	3	3	3	16	3	7	13	9	4	10	71	10	6	6	11	15	21	47	8	4	5	6	4	5	71.5
2-Mar	17	7	9	4	3	5	5	6	6	4	7	11	14	15	13	15	7	7	6	7	6	6	5	7	17.4
3-Mar	5	5	6	7	6	6	6	7	7	9	9	10	15	11	9	9	6	7	5	6	11	14	6	6	14.8
4-Mar	6	3	3	3	5	3	7	5	18	5	3	16	10	9	15	9	8	7	12	17	24	44	11	12	44.1
5-Mar	6	4	4	4	4	4	3	7	8	4	4	3	20	10	26	75	9	50	12	17	17	19	14	20	75.1
6-Mar	6	4	10	36	14	28	30	7	12	35	16	23	9	16	45	36	10	22	12	6	4	10	5	3	45.1
7-Mar	3	2	3	4	5	6	5	14	5	6	5	9	38	30	10	20	6	4	21	12	12	9	5	4	38.5
8-Mar	4	6	9	4	4	4	3	3	4	10	5	5	15	16	46	23	8	12	7	8	3	3	5	4	45.5
9-Mar	10	7	6	10	6	5	7	6	3	5	4	3	3	4	3	3	3	6	3	3	3	5	37	13	37.3
10-Mar	6	6	6	6	5	3	4	4	3	5	6	4	5	3	3	3	3	3	13	30	11	7	7	4	29.7
11-Mar	5	5	6	8	4	4	11	5	5	3	7	7	8	5	5	5	3	3	4	3	4	4	3	3	11.5
12-Mar	4	4	9	7	3	3	3	2	8	12	8	5	16	5	4	3	3	3	3	3	2	3	3	6	15.9
13-Mar	6	12	4	3	3	4	11	5	5	11	7	6	3	3	3	3	4	7	22	14	12	7	7	7	22.3
14-Mar	5	5	5	4	6	5	4	5	4	3	3	15	11	10	9	9	10	37	11	4	5	9	6	2	37.0
15-Mar	2	4	15	9	6	3	7	5	6	3	5	5	17	7	3	5	5	9	26	17	11	9	10	7	25.7
16-Mar	4	5	6	6	6	4	3	7	19	37	4	5	4	3	3	7	4	6	7	9	9	6	4	5	37.0
17-Mar	10	4	5	9	10	25	28	36	20	14	8	7	22	4	5	3	5	10	9	11	13	5	3	3	36.1
18-Mar	5	5	3	7	8	12	7	4	3	3	5	3	5	4	6	11	6	8	12	8	3	6	7	5	12.4
19-Mar	10	10	7	24	11	3	3	3	11	13	7	10	6	9	7	9	8	11	23	16	11	11	15	7	23.6
20-Mar	6	6	7	6	10	9	9	7	13	9	15	9	6	5	6	5	5	4	5	6	12	6	7	7	14.5
21-Mar	16	8	8	14	8	9	10	7	17	11	7	9	7	7	6	6	8	5	12	18	16	7	6	13	17.8
22-Mar	37	3	3	4	3	3	3	4	5	7	44	13	7	12	15	5	4	19	15	6	73	65	10	16	72.7
23-Mar	32	42	34	39	14	10	10	8	10	13	13	9	8	5	4	6	5	35	11	10	13	12	12	8	41.5
24-Mar	5	6	23	50	10	9	67	56	77	18	25	35	25	50	18	16	43	45	41	10	4	6	4	2	76.8
25-Mar	3	44	43	32	14	17	28	56	67	19	9	13	8	6	9	9	10	11	8	10	5	5	5	4	67.1
26-Mar	3	4	4	4	4	9	8	7	8	7	12	12	12	13	4	5	5	5	9	9	7	8	5	7	12.6
27-Mar	37	12	7	12	21	31	36	28	25	14	11	31	17	26	16	16	10	8	8	25	7	5	7	7	37.0
28-Mar	9	5	6	2	4	9	6	5	9	5	4	19	31	12	19	10	12	12	19	11	13	22	76	91	91.0
29-Mar	72	52	8	18	66	93	67	7	16	12	19	16	11	12	11	9	15	10	10	10	8	5	7	6	93.1
30-Mar	5	8	6	4	21	6	10	25	34	10	9	9	7	9	6	5	6	6	9	15	21	11	5	11	34.2
31-Mar	5	5	6	3	5	7	1	8	5	5	4	5	8	6	15	9	7	33	23	11	11	12	5	33	33.3
72.1 52.5 43.5 50.2 65.9 93.1 67.1 56.5 76.8 37.0 71.5 35.4 38.5 49.5 45.5 75.1 42.9 49.6 41.2 29.7 72.7 65.1 75.6 91.0																									

PAZA

Falher Station

Monthly Summary Tables, Graphs and
Roses

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

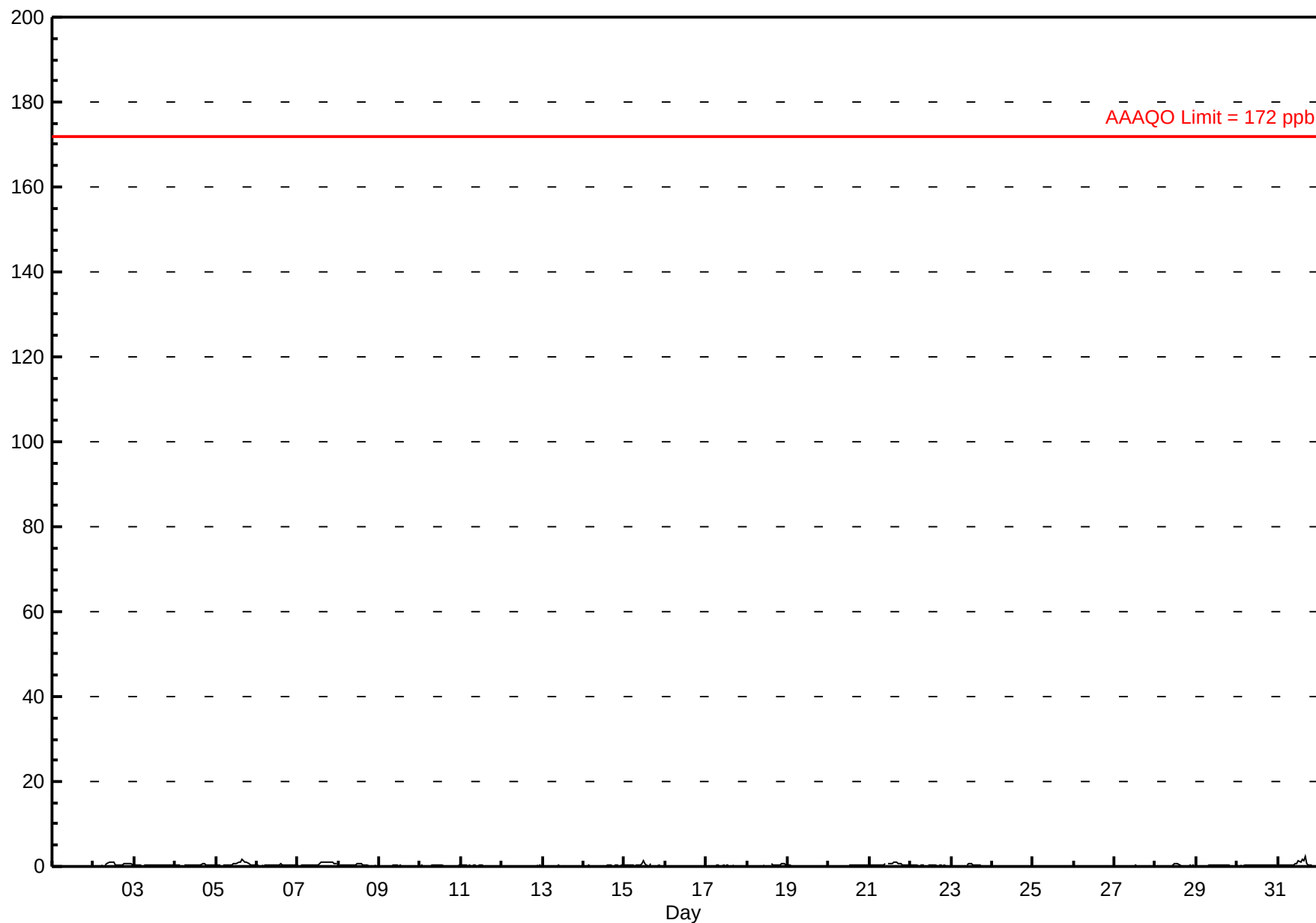
Falher - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																				Hours in Service: 744							
Maximum Value: 2.4 ppb on Mar 31 17:00																				Maximum Daily Average: 0.6 ppb on Mar 31				Hours of Data: 709			
Minimum Value: 0 ppb on Mar 1 02:00																				Minimum Daily Average: 0.0 ppb on Mar 1				Hours of Missing Data: 35			
Maximum Diurnal Average: 0.4 ppb at hour 13																				Minimum Diurnal Average: 0.1 ppb at hour 7				Hours of Calibration: 35			
Monthly Average: 0.23 ppb																				Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.5 P ₉₉ = 1.4				Percent Operational Time: 100.0			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Mar	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	0.0	0.1
2-Mar	0	0	0	0	0	0	A	0	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	0	0.5	1.0
3-Mar	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	
4-Mar	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0.3	0.6	
5-Mar	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	2	1	1	1	1	0	0	0	0	0.6	1.6	
6-Mar	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.3	0.7	
7-Mar	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0.6	1.2	
8-Mar	A	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	A	0.3	0.7	
9-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.2	
10-Mar	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	0.3	
11-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.3	
12-Mar	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	0.2	
13-Mar	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	0.2	
14-Mar	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	
15-Mar	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	A	0	0	0	0	0	0	0	0.3	1.5	
16-Mar	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	0.1	
17-Mar	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	0.3	
18-Mar	0	0	0	0	0	0	0	0	0	0	0	C	C	C	1	0	0	0	0	0	1	1	1	0	0.2	0.7	
19-Mar	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	0.3	
20-Mar	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
21-Mar	0	0	0	0	0	0	0	0	0	1	A	1	1	1	1	1	1	1	1	0	0	0	0	0	0.5	1.0	
22-Mar	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
23-Mar	0	0	0	0	0	0	0	0	A	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.2	0.8	
24-Mar	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
25-Mar	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	0.2	
26-Mar	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	
27-Mar	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	
28-Mar	0	0	0	A	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0.2	0.7	
29-Mar	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	0.5	
30-Mar	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	
31-Mar	A	0	0	0	0	0	0	0	0	0	1	1	1	1	2	1	2	1	0	0	0	0	0	A	0.6	2.4	
0.1 0.1 0.1 0.2 0.1 0.1 0.1 0.2 0.2 0.2 0.3 0.3 0.4 0.3 0.4 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2																									Diurnal Average		
0.4 0.4 0.4 0.3 0.3 0.4 0.4 0.4 0.7 1.0 0.9 1.5 1.4 1.2 1.7 1.6 2.4 1.2 0.9 0.9 0.9 0.7 0.6 0.6																									Diurnal Maximum		
C - Calibration A - Automated Daily Zero Span																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb 30-day 11 ppb																											

Hourly Averages

Sulphur Dioxide (SO₂) - ppb

Falher - March 2014



Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

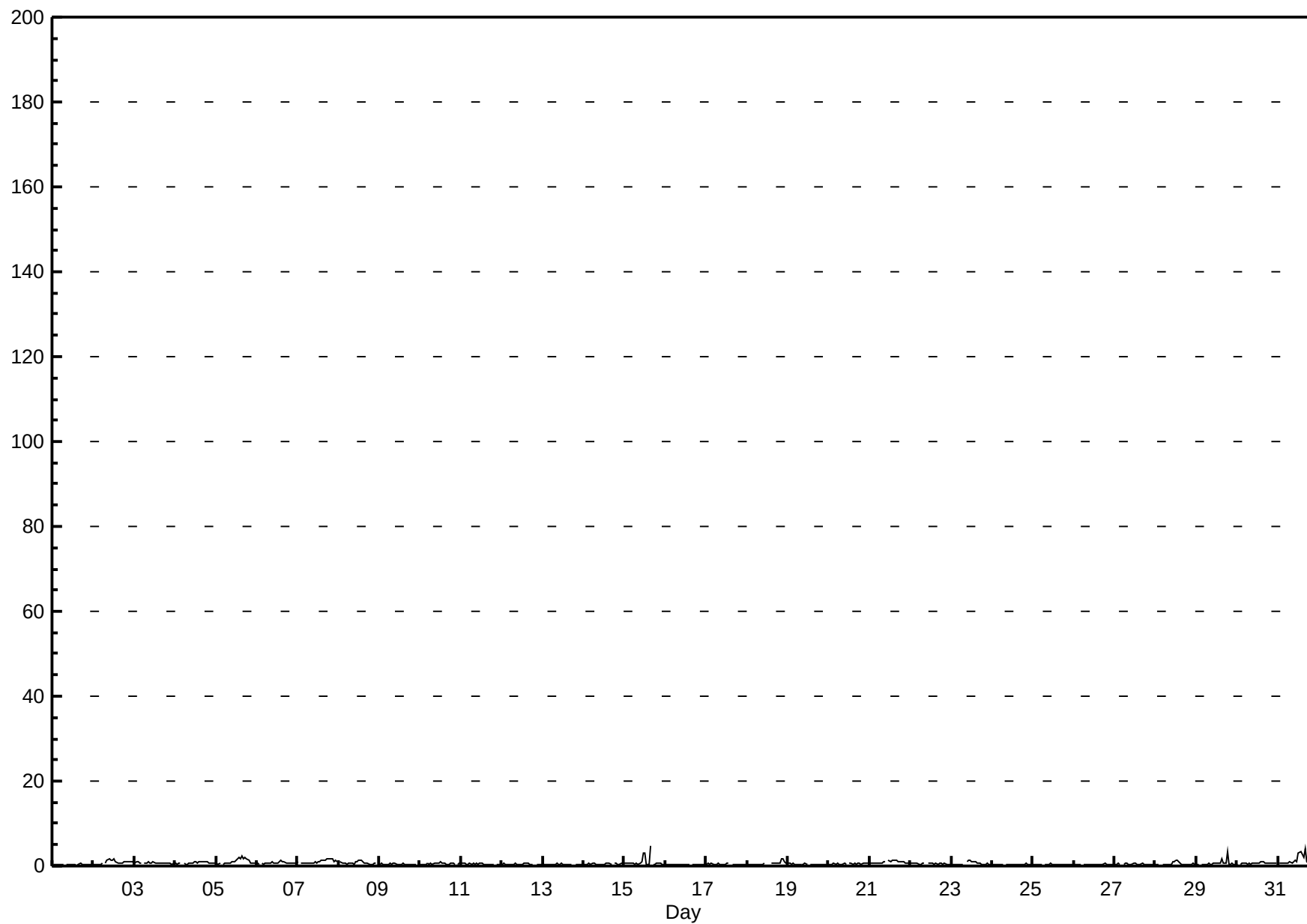
Falher - March 2014

Maximum Value: 4.8 ppb on Mar 15 16:00																				Maximum Daily Average: 1.3 ppb on Mar 31										Hours in Service: 744									
Minimum Value: 0 ppb on Mar 1 15:00																				Minimum Daily Average: 0.3 ppb on Mar 1										Hours of Data: 709									
Maximum Diurnal Average: 0.9 ppb at hour 16																				Minimum Diurnal Average: 0.5 ppb at hour 6										Hours of Missing Data: 35									
Monthly Average: 0.62 ppb																				Percentiles: P ₁ = 0.2 P ₁₀ = 0.3 Q ₁ = 0.4 Median = 0.5 Q ₃ = 0.7 P ₉₀ = 1.0 P ₉₉ = 3.0										Hours of Calibration: 35									
																				Percent Operational Time: 100.0																			
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
1-Mar	0	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.3	0.5													
2-Mar	0	0	0	0	0	1	A	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0.9	1.7													
3-Mar	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.7	1.0													
4-Mar	1	0	1	1	A	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0													
5-Mar	1	0	1	A	0	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	1	1	1	1	1.0	2.2													
6-Mar	1	0	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.3													
7-Mar	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	2	2	2	2	1	1	1	1.1	1.8													
8-Mar	A	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	0	0	0	1	1	A	0.7	1.3													
9-Mar	0	1	0	0	0	1	1	0	1	1	1	1	0	0	1	0	0	0	0	0	0	0	A	A	0.5	0.6													
10-Mar	0	0	1	0	1	0	1	0	1	1	1	1	1	1	1	0	0	0	1	1	0	A	0	1	0.5	0.9													
11-Mar	1	1	1	0	0	1	0	1	0	1	0	1	1	0	0	0	0	0	0	0	A	0	0	0	0.5	0.8													
12-Mar	0	1	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0	1	A	0	0	0	0	0.5	0.7													
13-Mar	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.6													
14-Mar	0	0	0	1	0	1	1	0	0	0	0	0	0	1	1	1	1	A	1	1	1	0	1	1	0.5	0.7													
15-Mar	1	1	1	1	1	1	0	1	0	1	1	3	3	1	0	5	A	0	0	1	1	1	0	0	1.0	4.8													
16-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.4	0.5													
17-Mar	0	1	0	1	0	0	0	1	0	0	0	0	0	1	1	A	0	0	0	0	0	0	0	0	0.5	0.7													
18-Mar	0	0	0	0	0	0	0	0	0	0	1	C	C	C	1	1	1	1	1	1	2	2	1	1	0.7	1.8													
19-Mar	1	1	0	1	1	0	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0.5	0.6													
20-Mar	0	0	0	1	0	1	0	0	0	1	0	A	1	1	0	1	0	1	1	1	1	1	1	1	0.5	0.6													
21-Mar	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5													
22-Mar	1	1	1	1	1	0	0	1	1	A	1	1	1	1	0	1	0	1	1	0	1	0	0	0	0.5	0.7													
23-Mar	0	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	0.6	1.4													
24-Mar	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.3	0.6													
25-Mar	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5													
26-Mar	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0.4	0.5													
27-Mar	0	0	1	0	A	0	1	1	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0.4	0.6													
28-Mar	0	0	0	A	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	1	0	1	0	0.5	1.4													
29-Mar	0	0	A	0	0	0	0	1	0	0	1	1	1	1	1	2	1	1	3	0	0	1	0	0	0.7	3.4													
30-Mar	0	A	0	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0													
31-Mar	A	1	1	1	1	1	1	1	1	1	1	1	3	3	3	2	4	1	1	1	0	0	0	A	1.3	4.0													
0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.6 0.6 0.7 0.8 0.9 0.8 0.8 0.9 0.8 0.6 0.7 0.6 0.6 0.6 0.5 0.5																									Diurnal Average														
0.9 1.0 0.9 0.8 0.8 0.8 0.7 0.9 1.3 1.7 1.5 3.0 3.2 3.3 2.7 4.8 4.0 1.9 3.4 1.7 1.8 1.8 1.2 1.1																									Diurnal Maximum														
C - Calibration																									A - Automated Daily Zero Span														

Hourly Maximums

Sulphur Dioxide (SO₂) - ppb

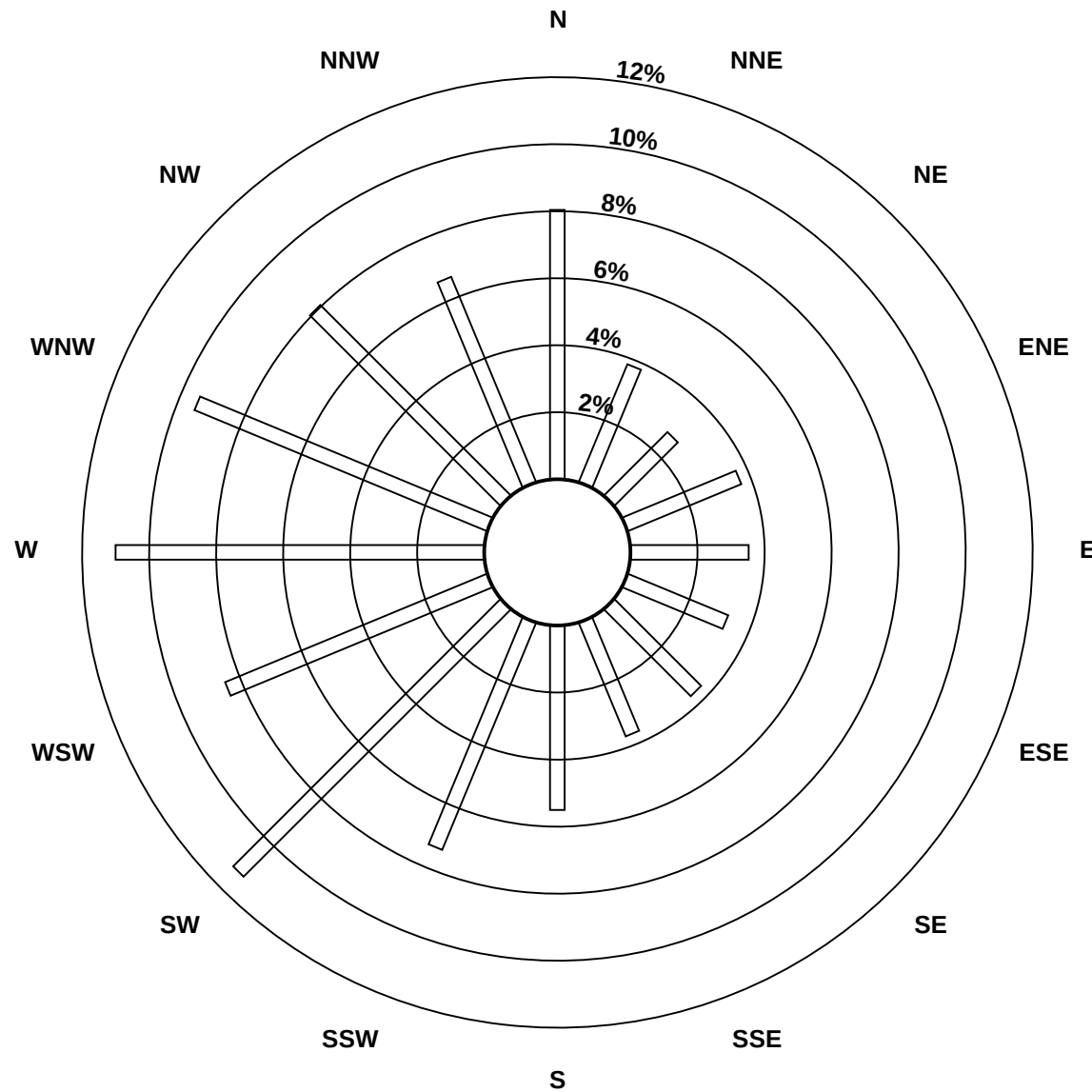
Falher - March 2014



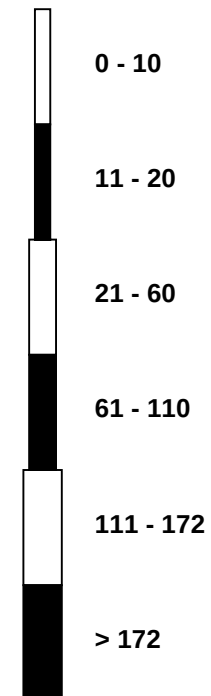
Pollutant Rose

Sulphur Dioxide (SO₂) - ppb

Falher - March 2014



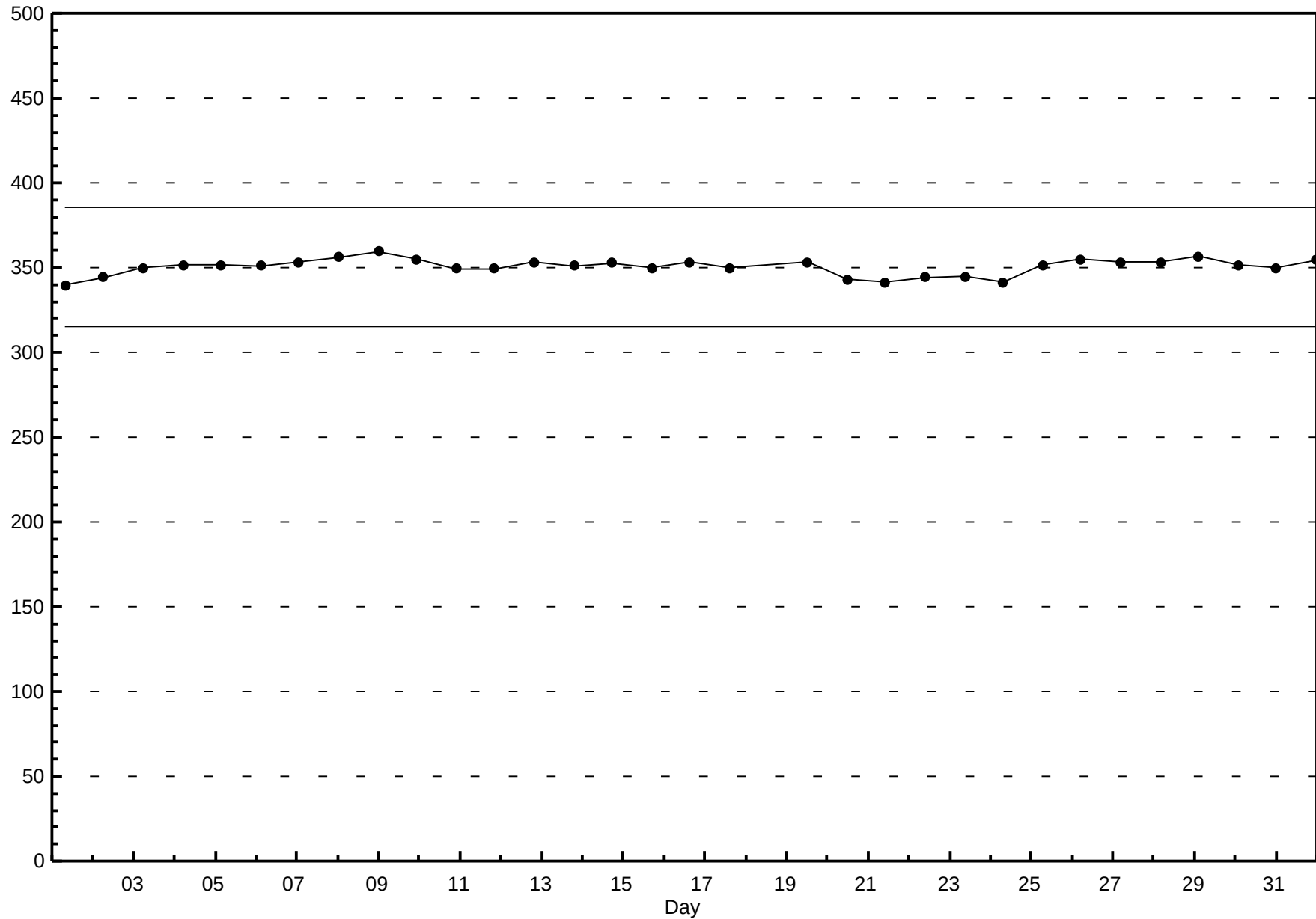
Pollutant Classes (ppb)



Span Responses

Sulphur Dioxide (SO₂)

Falher - March 2014



Hourly Averages

Hydrogen Sulphide (H₂S) - ppb

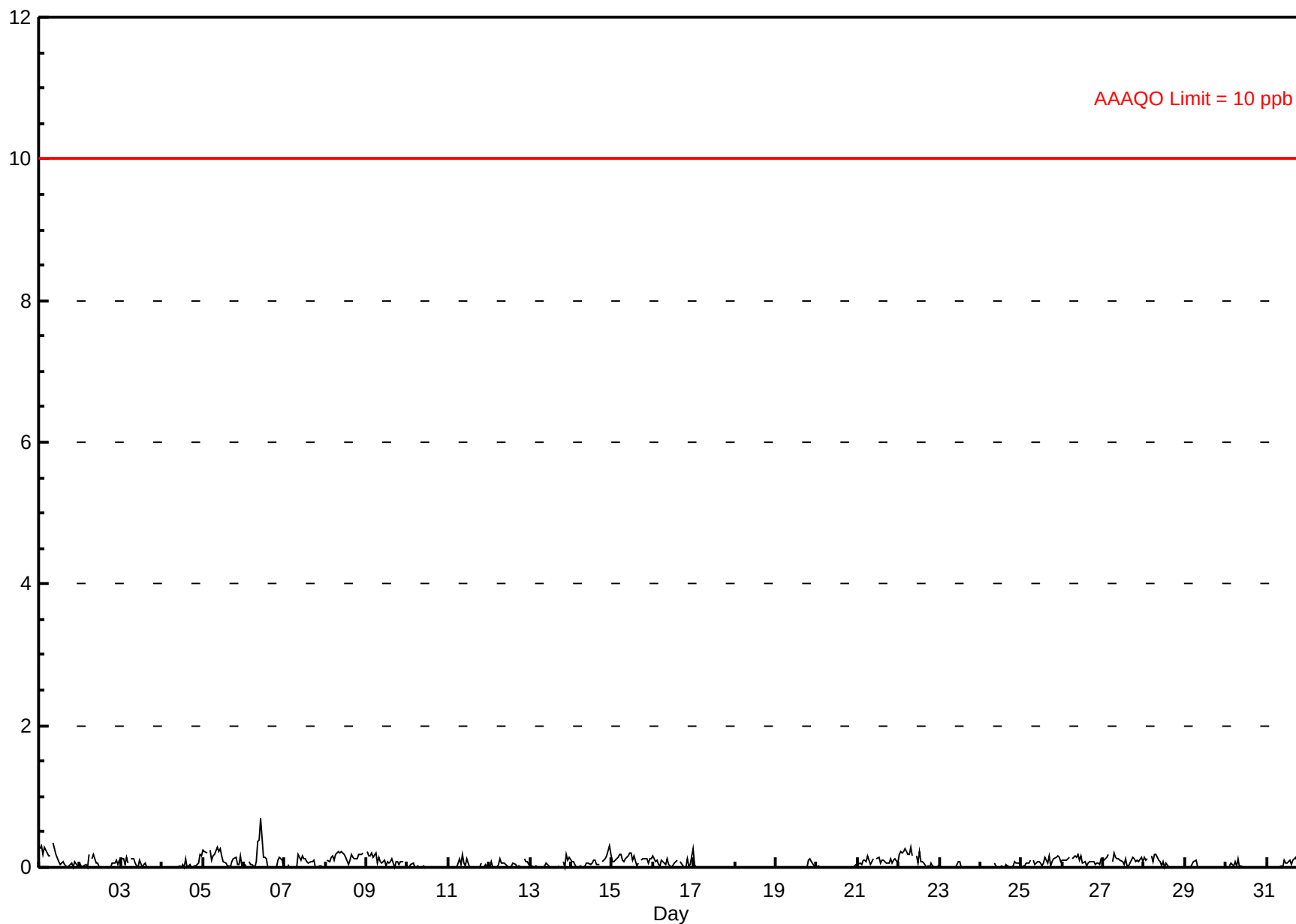
Falher - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0																			Hours in Service: 744								
Maximum Value: 0.7 ppb on Mar 6 11:00																			Maximum Daily Average: 0.2 ppb on Mar 8		Hours of Data: 707						
Minimum Value: 0 ppb on Mar 1 21:00																			Minimum Daily Average: 0.0 ppb on Mar 18		Hours of Missing Data: 37						
Maximum Diurnal Average: 0.1 ppb at hour 9																			Minimum Diurnal Average: 0.0 ppb at hour 17		Hours of Calibration: 37						
Monthly Average: 0.06 ppb																			Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.1 P ₉₀ = 0.2 P ₉₉ = 0.3		Percent Operational Time: 100.0						
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Mar	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
2-Mar	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	0.2	
3-Mar	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	
4-Mar	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	
5-Mar	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
6-Mar	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7	
7-Mar	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	
8-Mar	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	0.2	
9-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.2	
10-Mar	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	
11-Mar	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	0.2	
12-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.0	0.1	
13-Mar	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	0.2	
14-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.3	
15-Mar	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	
16-Mar	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	
17-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.0	0.0	
18-Mar	0	0	0	0	0	0	0	0	0	C	C	C	C	A	0	0	0	0	0	0	0	0	0	0	0.0	0.0	
19-Mar	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	
20-Mar	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	
21-Mar	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	0.2	
22-Mar	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
23-Mar	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	0.1	
24-Mar	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
25-Mar	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	0.2	
26-Mar	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
27-Mar	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	
28-Mar	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	
29-Mar	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	
30-Mar	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
31-Mar	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.2	
		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	Diurnal Average		
		0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.4	0.4	0.7	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.3	Diurnal Maximum	
C - Calibration		A - Automated Daily Zero Span																									
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																											

Hourly Averages

Hydrogen Sulphide (H₂S) - ppb

Falher - March 2014



Hourly Maximums

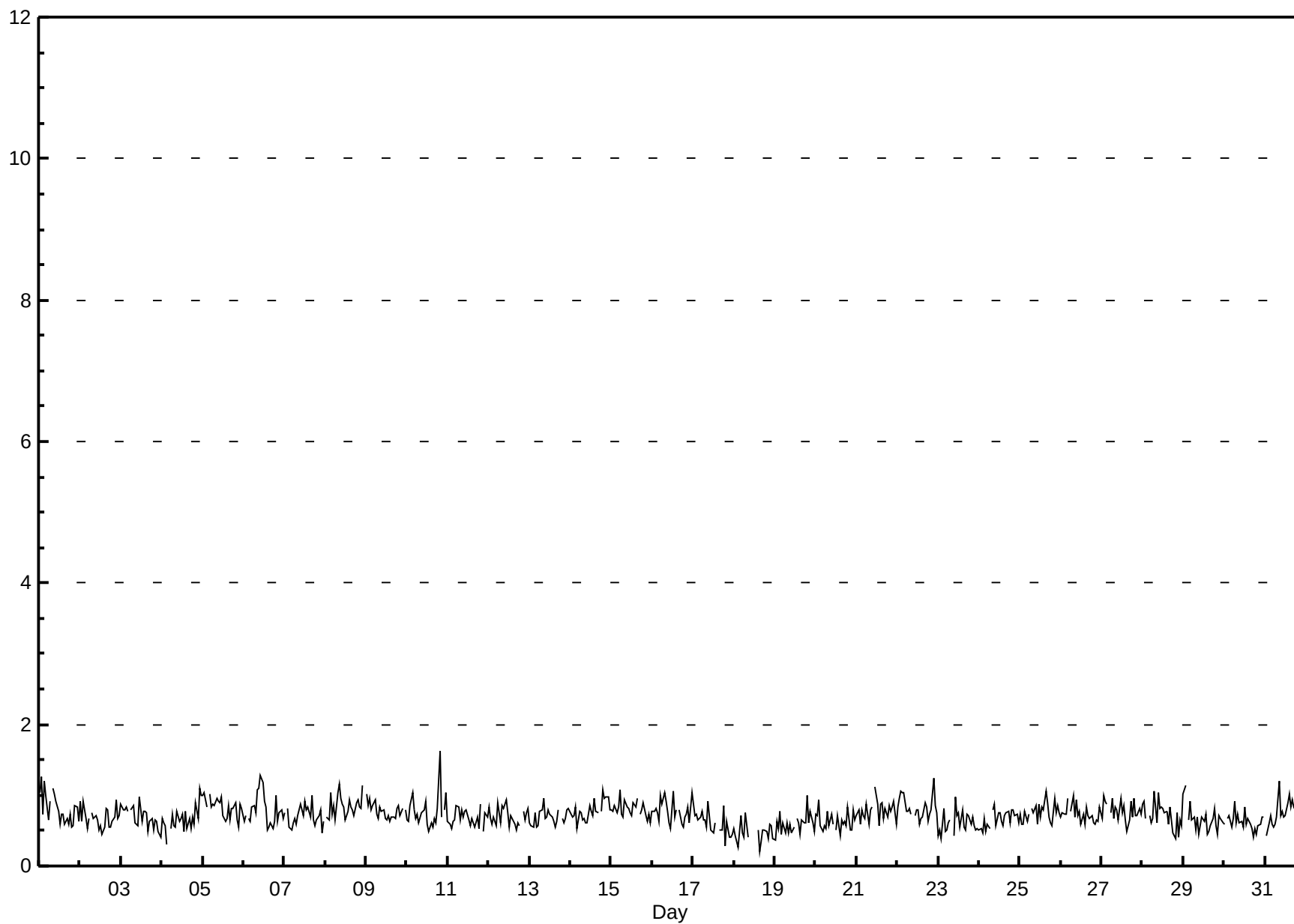
Hydrogen Sulphide (H₂S) - ppb

Falher - March 2014

Maximum Value: 1.6 ppb on Mar 10 20:00																				Maximum Daily Average: 0.9 ppb on Mar 8										Hours in Service: 744	
Minimum Value: 0 ppb on Mar 18 16:00																				Minimum Daily Average: 0.5 ppb on Mar 18										Hours of Data: 707	
Maximum Diurnal Average: 0.8 ppb at hour 10																				Minimum Diurnal Average: 0.7 ppb at hour 16										Hours of Missing Data: 37	
Monthly Average: 0.72 ppb																				Percentiles: P ₁ = 0.4 P ₁₀ = 0.5 Q ₁ = 0.6 Median = 0.7 Q ₃ = 0.8 P ₉₀ = 0.9 P ₉₉ = 1.2										Hours of Calibration: 37	
																				Percent Operational Time: 100.0											
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Mar	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3					
2-Mar	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.7	0.9					
3-Mar	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	0	0	0.7	1.0					
4-Mar	1	1	1	0	A	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.7	1.1					
5-Mar	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0					
6-Mar	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	1.3					
7-Mar	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0.7	1.0					
8-Mar	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					
9-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.0					
10-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	2	1	A	1	1	0.8	1.6					
11-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0	1	1	0.7	0.9					
12-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	0.9					
13-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.0					
14-Mar	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	1.1					
15-Mar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.1					
16-Mar	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					
17-Mar	1	1	1	1	1	1	1	1	1	1	1	0	0	1	A	1	1	0	1	0	1	0	0	0	0.6	0.9					
18-Mar	1	0	0	0	1	0	0	1	0	C	C	C	C	A	1	0	0	0	0	0	0	1	1	0	0.5	0.7					
19-Mar	0	1	1	1	0	1	0	1	0	1	0	1	A	1	1	0	1	1	1	1	1	1	1	0	0.6	1.0					
20-Mar	1	1	1	1	0	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	1	0	1	1	0.6	0.9					
21-Mar	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1					
22-Mar	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					
23-Mar	0	1	0	1	0	1	1	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0					
24-Mar	1	1	0	1	0	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9					
25-Mar	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1					
26-Mar	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.7	1.0					
27-Mar	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.8	1.0					
28-Mar	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	0.7	1.1					
29-Mar	1	1	A	1	1	1	1	0	1	0	1	1	1	1	0	0	1	1	1	1	0	1	1	1	0.7	1.1					
30-Mar	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	0.6	0.9					
31-Mar	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.2					
0.7 0.7 0.7 0.8 0.7 0.7 0.7 0.7 0.8 0.8 0.7 0.8 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.8 0.7 0.7 0.7 0.7																									Diurnal Average						
1.0 1.3 1.0 1.2 1.0 1.1 1.0 1.1 1.2 1.1 1.3 1.2 1.0 0.9 1.0 1.1 1.0 0.9 0.9 1.6 1.0 1.2 1.1 1.0																									Diurnal Maximum						
C - Calibration																									A - Automated Daily Zero Span						

Hourly Maximums

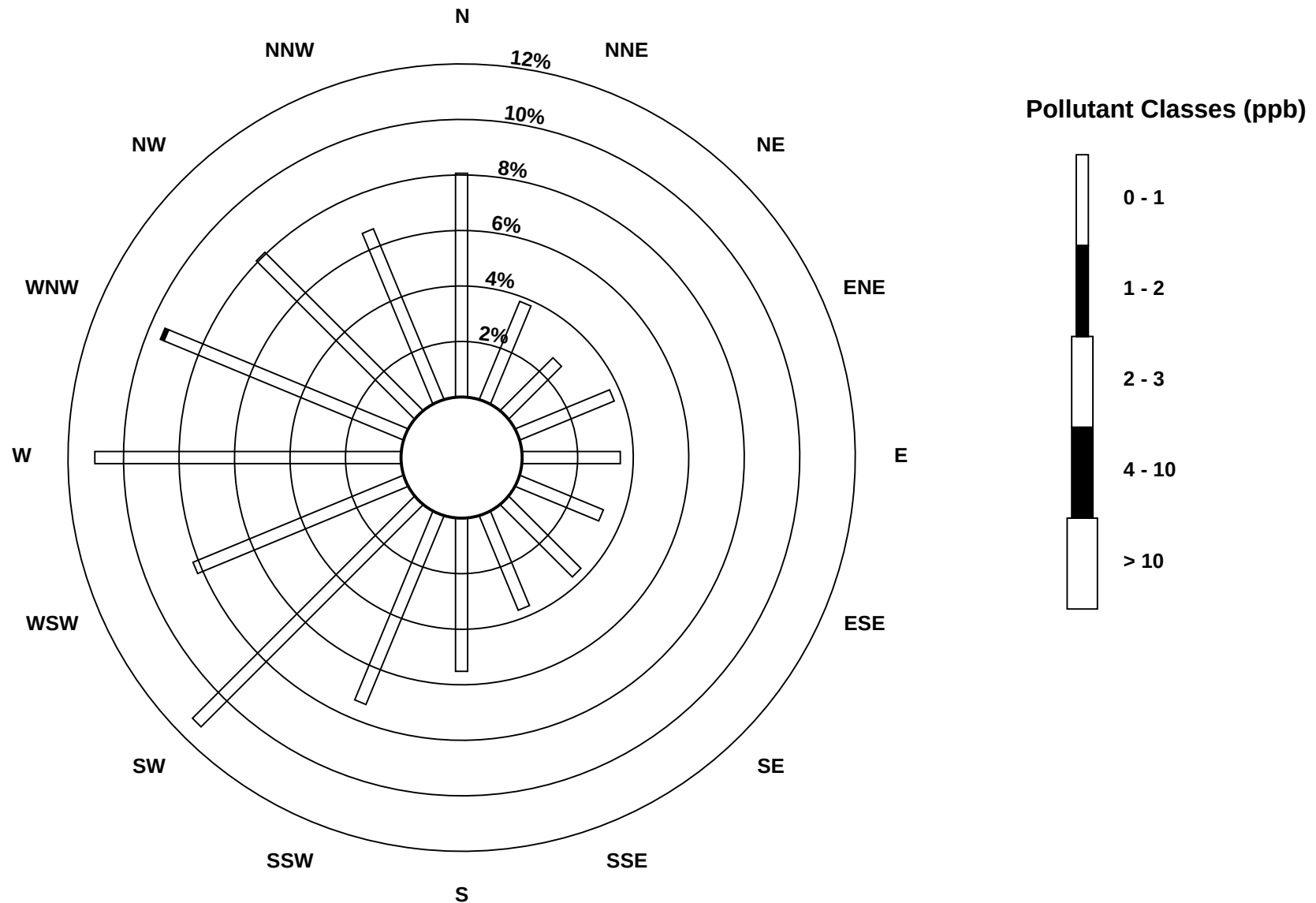
Hydrogen Sulphide (H₂S) - ppb
Falher - March 2014



Pollutant Rose

Hydrogen Sulphide (H₂S) - ppb

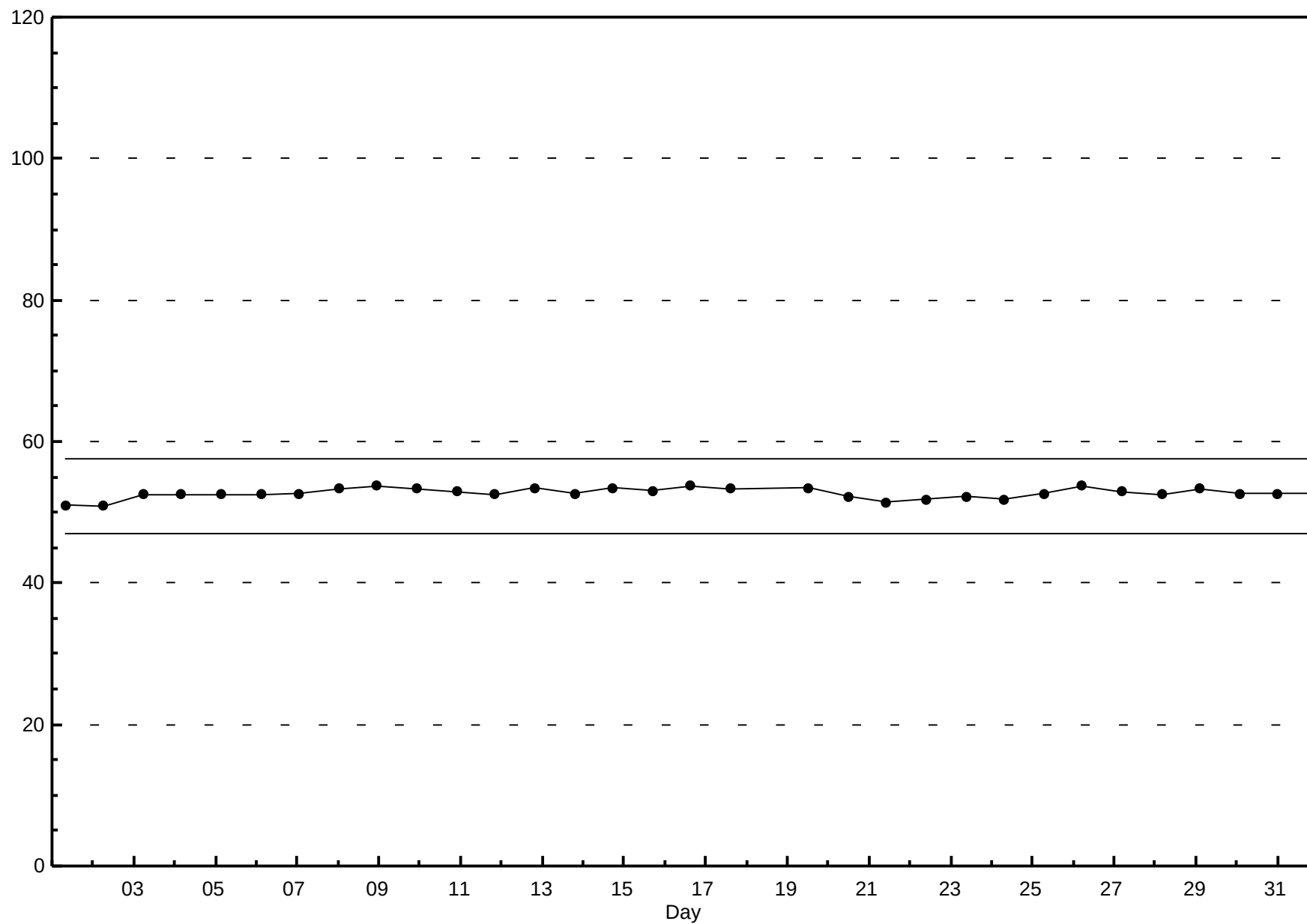
Falher - March 2014



Span Responses

Hydrogen Sulphide (H₂S)

Falher - March 2014



Hourly Averages

External Temperature (ET) - °C

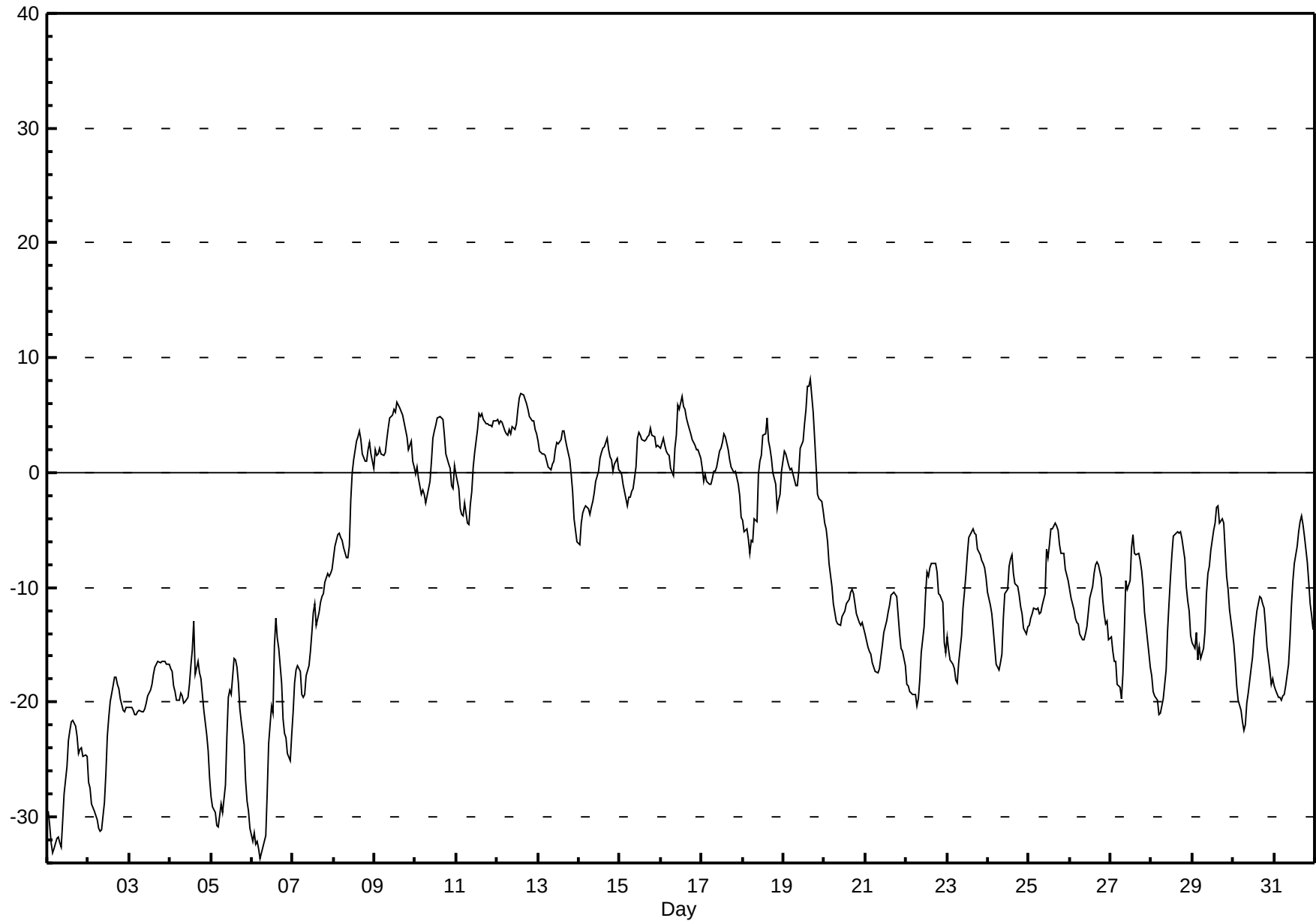
Falher - March 2014

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0 Maximum Value: 8.1 °C on Mar 19 17:00 Maximum Daily Average: 4.7 °C on Mar 12																					Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0					
Minimum Value: -34 °C on Mar 6 06:00 Maximum Diurnal Average: -4.8 °C at hour 15 Monthly Average: -9.23 °C										Minimum Daily Average: -27.1 °C on Mar 1 Minimum Diurnal Average: -13.3 °C at hour 7 Percentiles: P ₁ = -32.2 P ₁₀ = -21.5 Q ₁ = -16.8 Median = -9.1 Q ₃ = 0.3 P ₉₀ = 3.3 P ₉₉ = 6.4																
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Mar	-29	-31	-32	-33	-33	-32	-32	-32	-33	-30	-28	-26	-23	-22	-22	-22	-23	-24	-24	-24	-25	-25	-25	-27.1	-21.6	
2-Mar	-27	-28	-29	-29	-30	-30	-31	-31	-31	-29	-26	-23	-21	-20	-19	-18	-18	-18	-19	-20	-21	-21	-20	-21	-24.1	-17.8
3-Mar	-20	-20	-21	-21	-21	-21	-21	-21	-21	-21	-20	-19	-19	-18	-18	-17	-17	-16	-17	-16	-16	-16	-17	-17	-18.8	-16.4
4-Mar	-17	-17	-19	-19	-20	-20	-19	-19	-20	-20	-20	-18	-17	-15	-13	-18	-16	-17	-18	-19	-21	-23	-24	-27	-19.0	-12.9
5-Mar	-28	-29	-30	-31	-31	-30	-29	-30	-27	-23	-20	-19	-19	-16	-16	-17	-18	-21	-22	-24	-27	-29	-29	-31	-24.8	-16.2
6-Mar	-32	-31	-32	-32	-33	-34	-33	-32	-32	-28	-24	-20	-21	-15	-13	-14	-15	-18	-21	-23	-23	-24	-25	-23	-24.9	-12.7
7-Mar	-21	-18	-17	-17	-17	-19	-20	-19	-18	-17	-16	-14	-12	-11	-13	-12	-11	-11	-11	-10	-9	-9	-9	-8	-14.1	-8.4
8-Mar	-7	-6	-5	-5	-6	-6	-7	-7	-7	-6	-2	0	1	3	3	4	3	2	1	1	2	3	2	0	-1.8	3.6
9-Mar	2	1	2	2	2	2	2	3	4	5	5	6	5	6	6	6	5	4	4	3	2	3	1	0	3.3	6.1
10-Mar	0	1	-1	-2	-2	-2	-3	-2	-1	1	3	4	4	5	5	5	5	3	2	1	0	-1	-1	1	1.0	4.9
11-Mar	0	-1	-3	-4	-4	-3	-4	-5	-3	-2	0	2	4	5	5	5	5	4	4	4	4	4	5	4	1.2	5.2
12-Mar	5	4	5	4	4	3	3	4	3	4	4	4	6	6	7	7	6	6	6	5	5	4	4	3	4.7	6.9
13-Mar	3	2	2	2	1	1	0	0	1	1	2	3	3	3	4	4	3	2	1	0	-2	-4	-5	-6	0.8	3.7
14-Mar	-6	-4	-4	-3	-3	-3	-4	-3	-2	-2	-1	0	1	2	2	2	3	2	1	1	0	1	1	0	-0.8	3.0
15-Mar	0	0	-1	-2	-3	-2	-2	-2	-1	1	3	4	3	3	3	3	3	3	4	3	3	2	2	2	1.2	3.9
16-Mar	2	3	2	2	2	1	0	0	2	3	6	6	7	6	6	5	4	3	3	3	2	2	2	1	3.0	6.6
17-Mar	0	-1	0	-1	-1	-1	0	0	0	0	2	2	3	3	3	2	1	0	0	0	0	-1	-2	-4	0.3	3.4
18-Mar	-4	-5	-5	-6	-7	-6	-6	-4	-4	0	1	2	3	3	5	3	2	1	0	-1	-3	-2	-2	0	-1.5	4.7
19-Mar	2	2	1	1	0	0	-1	-1	-1	0	2	3	4	5	7	8	8	5	3	1	-2	-2	-3	-3	1.6	8.1
20-Mar	-4	-5	-6	-8	-10	-11	-12	-13	-13	-13	-13	-12	-12	-11	-11	-10	-10	-11	-11	-12	-13	-13	-13	-13	-11.0	-4.4
21-Mar	-14	-15	-16	-16	-17	-17	-17	-17	-17	-16	-15	-14	-13	-12	-12	-11	-11	-10	-11	-12	-14	-15	-16	-17	-14.3	-10.5
22-Mar	-19	-19	-19	-19	-19	-19	-20	-20	-18	-16	-13	-11	-9	-9	-8	-8	-8	-8	-9	-11	-11	-11	-15	-16	-13.9	-7.9
23-Mar	-14	-15	-16	-17	-17	-18	-18	-17	-14	-12	-10	-9	-7	-6	-5	-5	-5	-5	-7	-7	-8	-8	-8	-9	-10.8	-4.9
24-Mar	-10	-12	-12	-14	-15	-17	-17	-17	-16	-13	-11	-10	-8	-7	-7	-9	-10	-10	-11	-12	-12	-14	-14	-13	-12.1	-7.2
25-Mar	-13	-13	-12	-12	-12	-12	-12	-12	-12	-11	-7	-7	-6	-5	-5	-4	-5	-5	-6	-7	-7	-8	-9	-9	-8.8	-4.4
26-Mar	-10	-11	-12	-13	-13	-13	-14	-15	-15	-14	-13	-12	-11	-10	-9	-8	-8	-8	-9	-11	-12	-13	-13	-15	-11.7	-7.8
27-Mar	-14	-16	-16	-16	-18	-19	-20	-18	-14	-9	-10	-9	-7	-5	-7	-7	-7	-8	-9	-10	-12	-13	-16	-17	-12.4	-5.3
28-Mar	-18	-19	-19	-20	-21	-21	-20	-20	-17	-14	-11	-9	-7	-6	-5	-5	-5	-5	-6	-7	-10	-11	-12	-14	-12.7	-5.1
29-Mar	-15	-15	-14	-16	-15	-16	-15	-14	-11	-9	-8	-7	-5	-4	-3	-3	-4	-4	-4	-7	-9	-10	-12	-14	-9.8	-2.9
30-Mar	-15	-17	-19	-20	-21	-22	-23	-22	-20	-19	-17	-16	-14	-13	-12	-11	-11	-11	-12	-13	-15	-17	-18	-18	-16.5	-10.8
31-Mar	-19	-19	-20	-20	-20	-19	-19	-19	-17	-14	-12	-9	-8	-6	-5	-4	-4	-5	-5	-8	-10	-11	-12	-14	-12.4	-3.8
-11.1 -11.5 -11.9 -12.4 -12.9 -13.1 -13.3 -13.0 -12.1 -10.4 -8.6 -7.5 -6.3 -5.3 -4.8 -4.9 -5.1 -5.7 -6.5 -7.5 -8.4 -9.2 -9.8 -10.3 Diurnal Average 4.6 4.3 4.6 4.4 3.7 3.4 3.3 3.8 3.9 4.7 5.9 5.5 6.6 6.5 7.5 7.6 8.1 6.0 5.5 4.9 4.5 4.5 4.5 4.4 Diurnal Maximum																										

Hourly Averages

External Temperature (ET) - °C

Falher - March 2014



Hourly Averages

Wind Speed (km/h)
Wind Direction (deg)
Falher - March 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1 Spd	16	12	11	11	10	17	17	16	14	15	16	11	5	6	6	8	9	11	12	17	20	19	23	23	12.4	23.2
Dir	311	315	338	312	326	321	317	320	321	327	335	343	32	39	324	280	261	273	278	316	321	331	335	333	321	333
2 Spd	14	15	11	14	17	18	10	8	11	12	14	20	22	19	20	27	27	24	26	25	22	24	28	27	17.8	28.2
Dir	342	324	321	317	301	305	312	336	307	350	5	352	359	7	13	9	7	350	340	335	337	337	342	343	343	342
3 Spd	27	27	22	16	20	22	17	14	14	16	18	22	22	23	23	19	14	13	15	18	19	20	18	18	18.4	27.3
Dir	343	344	345	326	329	334	341	338	346	356	4	9	12	9	13	13	8	350	349	354	4	8	11	15	355	344
4 Spd	13	12	10	4	1	1	3	7	8	9	5	4	2	2	1	6	2	3	3	0	0	0	1	3	2.5	13.4
Dir	7	15	14	33	18	322	37	50	68	108	128	107	111	150	355	331	305	244	216	223	225	332	49	22	38	7
5 Spd	1	3	3	3	3	4	3	4	2	2	3	4	5	3	3	3	4	6	7	5	5	4	3	3	2.5	7.0
Dir	42	356	358	348	350	7	15	13	342	39	70	90	85	182	70	14	85	66	16	355	324	36	13	326	26	16
6 Spd	7	7	7	5	5	6	5	6	7	4	0	3	4	3	2	3	5	10	9	8	6	8	8	13	4.7	13.1
Dir	321	328	353	320	336	16	23	310	307	345	286	289	172	226	258	253	302	280	277	311	352	306	326	342	318	342
7 Spd	18	18	17	16	14	11	6	4	2	3	5	3	1	3	5	5	7	9	7	8	15	19	22	28	8.4	27.6
Dir	350	350	356	9	5	8	68	139	100	130	124	165	122	330	356	3	6	6	10	19	44	44	42	47	22	47
8 Spd	28	25	23	19	15	4	5	2	3	11	14	15	12	9	11	9	7	8	11	14	15	15	15	17	9.6	28.4
Dir	51	63	68	69	77	112	158	246	134	136	155	171	173	172	163	153	132	122	142	146	134	134	104	89	113	51
9 Spd	16	11	10	14	14	16	10	17	27	32	30	28	24	24	25	22	24	23	19	15	12	16	15	14	15.3	31.6
Dir	110	84	118	157	133	161	168	205	214	218	221	224	218	233	234	240	239	236	235	229	197	221	209	209	211	218
10 Spd	15	16	15	15	18	18	18	18	17	18	23	22	21	20	21	18	17	14	11	8	8	12	13	18	15.5	22.7
Dir	210	228	193	191	204	202	201	215	223	238	250	246	241	244	244	243	242	233	229	238	213	189	208	215	224	250
11 Spd	18	17	17	17	18	18	14	15	17	17	16	16	18	23	21	26	29	31	27	31	40	32	33	26	21.5	39.7
Dir	215	209	202	194	194	203	183	167	177	186	190	192	223	239	236	234	216	212	210	208	214	219	225	229	211	214
12 Spd	30	21	23	25	21	23	22	21	22	20	14	18	15	24	32	35	31	30	34	35	30	36	33	37	24.8	36.5
Dir	227	220	216	208	181	187	184	184	189	181	162	170	202	221	225	222	223	223	218	212	217	227	230	240	212	240
13 Spd	33	27	26	30	32	23	15	12	19	23	24	18	20	20	16	14	13	12	10	7	5	8	10	11	15.1	32.9
Dir	249	233	233	231	230	251	268	213	219	237	258	245	236	242	245	235	224	220	222	207	150	104	91	89	234	249
14 Spd	9	9	11	12	17	19	19	20	17	17	19	16	14	12	6	7	4	8	11	8	12	16	19	20	9.6	20.1
Dir	67	54	64	57	66	67	65	67	73	83	81	85	87	98	172	148	150	103	113	105	135	185	187	189	96	67
15 Spd	20	19	11	6	13	17	17	17	15	18	17	12	12	17	15	15	16	14	8	12	16	17	16	9	10.9	20.3
Dir	190	196	216	206	187	186	190	194	194	202	223	215	138	128	128	94	92	101	95	102	126	154	179	191	167	190
16 Spd	8	18	17	19	15	20	19	12	17	20	4	10	18	21	16	17	14	11	10	10	12	9	12	12	12.8	20.5
Dir	155	206	211	200	195	185	167	160	211	218	205	232	252	243	246	239	247	242	220	227	223	197	202	209	214	243
17 Spd	11	12	13	12	10	11	12	9	11	10	11	14	12	11	8	11	12	12	14	10	18	20	13	13	11.0	20.2
Dir	217	214	212	215	220	237	249	254	257	264	248	246	233	240	231	216	219	249	258	169	184	196	209	195	225	196
18 Spd	13	10	7	6	11	17	16	18	16	10	13	16	14	16	12	11	13	5	8	10	12	14	14	13	8.2	18.0
Dir	198	196	189	165	172	186	187	194	200	238	248	245	245	242	247	233	220	189	119	94	108	94	103	159	194	194
19 Spd	9	12	17	15	13	17	16	17	16	13	12	13	11	14	7	9	7	11	6	10	23	25	25	31	4.2	30.6
Dir	194	141	141	139	129	133	131	137	156	170	209	197	218	258	262	265	258	273	305	304	312	313	305	321	226	321
20 Spd	28	30	29	31	32	37	33	27	25	28	22	22	22	20	19	17	14	12	11	10	12	12	12	12	20.3	37.1
Dir	331	324	307	287	275	271	267	266	268	268	274	255	268	269	268	266	276	291	276	257	263	269	278	285	279	271
21 Spd	10	11	12	12	12	11	13	12	12	12	13	13	11	12	10	8	9	8	5	4	3	6	6	4	9.2	13.3
Dir	284	279	274	274	273	275	265	260	264	263	273	279	276	246	255	262	265	261	230	205	209	270	265	248	266	265
22 Spd	5	6	11	14	14	12	8	7	7	12	8	8	3	7	8	11	13	10	8	9	9	9	6	5	5.1	14.2
Dir	300	345	6	3	18	33	14	19	40	59	72	57	349	322	320	318	311	301	274	245	250	254	257	267	342	3

Hourly Averages

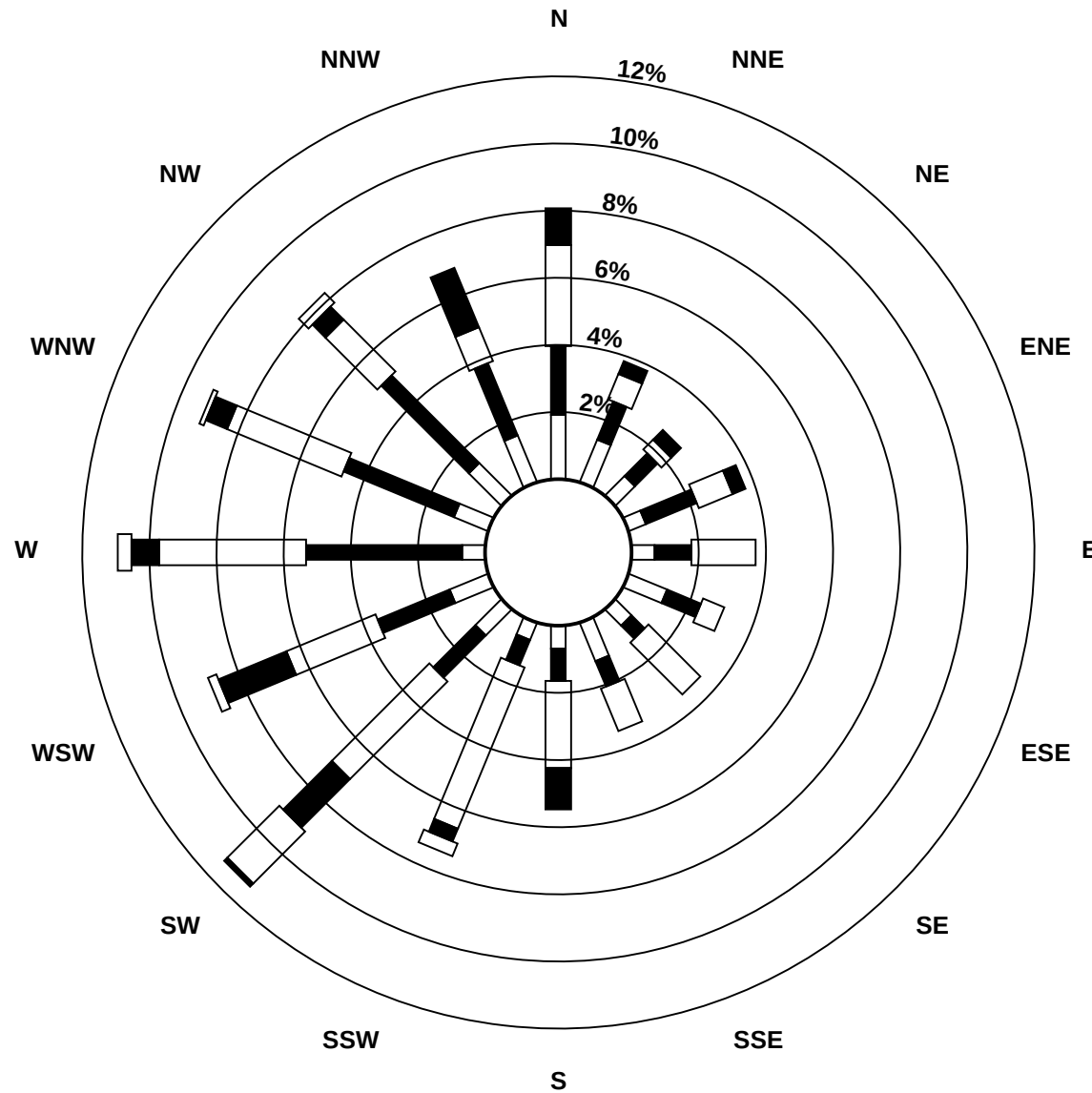
Wind Speed (km/h)
Wind Direction (deg)
Falher - March 2014

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	5	4	3	5	5	4	5	11	12	12	15	13	12	14	15	19	20	15	10	5	8	10	12	7	7.9	19.8
Dir	216	237	190	171	161	119	148	184	211	222	217	218	224	228	223	224	219	222	289	283	303	288	296	296	229	219
24 Spd	11	13	11	8	7	3	0	5	6	1	3	3	1	1	1	5	7	6	7	5	3	5	6	6	3.7	13.2
Dir	299	294	291	284	277	243	199	305	325	227	319	343	134	110	126	360	8	7	53	40	7	360	339	340	324	294
25 Spd	7	5	9	10	9	5	10	5	6	8	6	13	11	10	12	11	12	14	16	18	17	16	19	21	11.1	20.6
Dir	336	332	324	325	315	313	305	310	310	287	280	307	300	295	304	286	316	309	302	296	303	306	300	301	305	301
26 Spd	20	15	14	13	13	14	17	15	16	17	16	18	18	17	15	15	17	15	12	8	8	11	15	14	14.4	20.0
Dir	301	299	287	283	283	293	295	291	283	287	289	286	286	291	284	274	262	264	270	282	283	266	270	270	283	301
27 Spd	13	11	9	11	7	3	3	3	2	1	4	4	3	3	2	3	3	4	3	7	6	8	5	5	1.5	12.6
Dir	286	278	284	287	339	7	155	227	288	319	296	306	230	245	89	114	111	154	109	94	54	59	68	359	314	286
28 Spd	5	5	9	7	6	8	7	7	7	7	7	5	7	6	8	10	9	8	6	8	7	2	2	2	4.8	9.8
Dir	355	12	8	12	299	330	6	12	47	58	76	64	4	1	336	326	325	314	296	294	291	319	334	279	349	326
29 Spd	2	1	6	1	6	2	1	2	5	8	13	11	10	10	10	5	4	1	4	16	23	22	21	17	7.0	22.8
Dir	278	282	223	161	124	212	286	219	243	253	255	256	274	298	266	272	29	115	280	294	289	294	289	279	277	289
30 Spd	14	13	14	16	13	12	14	6	6	8	10	12	11	12	11	8	10	11	9	8	7	6	5	6	9.6	15.5
Dir	285	263	260	260	263	266	263	291	283	284	265	265	269	275	270	276	264	262	267	264	274	296	341	341	272	260
31 Spd	7	11	10	16	17	13	16	18	14	10	12	16	13	12	9	9	6	8	8	9	9	7	5	2	7.8	18.3
Dir	346	5	0	11	5	355	0	14	39	64	94	101	91	96	92	89	61	13	345	332	326	339	52	37	30	14
Spd	5.3	4.8	3.9	4.1	3.6	4.1	3.4	3.4	4.9	5.2	4.9	5.4	5.4	6.5	6.3	6.3	5.8	5.8	5.2	4.2	4.1	4.4	4.6	4.9	Diurnal Average	
Dir	288	287	280	265	254	251	244	233	235	235	244	244	248	254	257	258	257	259	262	264	263	266	274	284	Diurnal Maximum	
Spd	32.9	30.4	28.8	30.5	32.4	37.1	32.6	26.9	27.1	31.6	29.7	28.1	24.1	24.1	31.6	35.3	31.4	30.9	34.4	35.3	39.7	35.8	33.2	36.5	Diurnal Maximum	
Dir	249	324	307	287	230	271	267	266	214	218	221	224	218	233	225	222	223	212	218	212	214	227	225	240		
Maximum Speed Value: 40 km/h on Mar 11 21:00																								Hours in Service: 744		
Maximum Daily Speed Average: 24.8 km/h on Mar 12																								Hours of Data: 744		
Maximum Diurnal Speed Average: 6.5 km/h at hour 14																								Hours of Missing Data: 0		
Minimum Speed Value: 0 km/h on Mar 4 21:00																								Percent Operational Time: 100.0		
Minimum Daily Speed Average: 1.5 km/h on Mar 5																										
Minimum Diurnal Speed Average: 3.4 km/h at hour 7																										
Monthly Average Velocity: 4.69 km/h 258.6 deg																										
Speed Percentiles: P ₁ = 0.8 P ₁₀ = 3.5 Q ₁ = 7.0 Median = 11.9 Q ₃ = 16.9 P ₉₀ = 22.5 P ₉₉ = 33.5																										
All monthly, daily, and diurnal averages have been calculated using vector methods																										
Frequency Distribution																										
Speed Range (km/h)																										
Direction	0 to 5		5 to 11		11 to 19		19 to 28		28 to 38		> 38		Total													
North	22		37		31		19		1		0		110													
NorthEast	8		19		9		5		1		0		42													
East	14		15		23		1		0		0		53													
SouthEast	14		13		21		0		0		0		48													
South	10		12		46		11		0		0		79													
SouthWest	18		19		65		29		21		1		153													
West	13		53		61		12		6		0		145													
NorthWest	16		46		32		17		3		0		114													
Total	115		214		288		94		32		1		744													

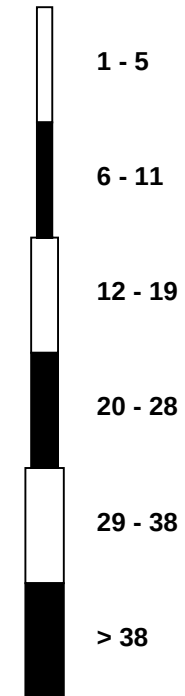
Wind Rose

Wind Speed (WS) (km/h)

Falher - March 2014



Wind Speed Classes (km/h)



Hourly Averages - Wind Speed (Scalar)

Wind Speed (km/h)

Falher - March 2014

Maximum Speed: 40 km/h on Mar 11 21:00																				Maximum Daily Speed Average: 26.5 km/h on Mar 12										Hours in Service: 744	
Minimum Speed: 0 km/h on Mar 4 21:00																				Minimum Daily Speed Average: 3.7 km/h on Mar 5										Hours of Data: 744	
Maximum Diurnal Speed Average: 14.2 km/h at hour 23																				Minimum Diurnal Speed Average: 11.5 km/h at hour 19										Hours of Missing Data: 0	
Monthly Average Speed: 12.86 km/h																				Percentiles: P ₁ = 1.1 P ₁₀ = 3.9 Q ₁ = 7.4 Median = 12.1 Q ₃ = 17.0 P ₉₀ = 22.7 P ₉₉ = 33.7										Percent Operational Time: 100.0	
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
1-Mar	16	12	11	11	10	17	17	16	14	15	16	11	6	6	7	8	9	11	12	17	20	19	23	23	13.6	23.2					
2-Mar	14	15	11	14	17	18	11	8	11	12	14	20	22	19	20	27	27	25	26	25	22	24	28	27	19.1	28.2					
3-Mar	27	27	22	16	20	22	17	14	15	16	18	22	22	23	23	19	14	13	15	18	19	20	18	18	19.1	27.3					
4-Mar	13	12	10	4	1	1	3	7	8	9	6	4	2	2	2	6	3	3	3	0	0	0	1	3	4.3	13.5					
5-Mar	1	3	3	3	3	4	3	4	2	2	3	4	5	4	3	4	4	6	7	5	5	4	3	3	3.7	7.4					
6-Mar	8	7	8	5	6	7	6	6	7	4	2	3	5	3	3	3	6	10	9	8	7	9	8	13	6.3	13.2					
7-Mar	18	18	17	16	14	12	6	4	3	3	5	3	2	4	5	5	7	9	7	8	15	19	22	28	10.4	27.6					
8-Mar	28	25	23	19	15	6	6	4	4	11	15	15	12	9	11	9	8	8	11	14	16	15	15	17	13.2	28.4					
9-Mar	16	11	12	15	14	16	11	18	27	32	30	28	24	24	25	22	24	23	20	15	12	16	15	14	19.3	31.6					
10-Mar	15	16	16	16	18	18	18	18	17	18	23	22	21	20	21	18	17	14	11	9	8	12	14	18	16.5	22.7					
11-Mar	18	17	17	17	18	18	14	15	17	18	16	16	19	23	21	27	29	31	27	31	40	32	33	26	22.6	39.8					
12-Mar	30	22	23	25	21	23	22	21	22	20	14	19	16	24	32	35	31	30	34	35	31	36	33	37	26.5	36.5					
13-Mar	33	27	26	30	32	23	15	13	19	23	24	18	20	20	16	14	13	12	10	8	7	8	10	11	18.0	33.0					
14-Mar	10	9	11	12	17	19	19	20	17	17	19	16	14	12	8	7	4	9	11	8	12	16	19	20	13.5	20.1					
15-Mar	20	19	11	6	13	17	17	17	16	18	17	13	12	17	15	15	16	15	8	13	17	17	17	10	14.8	20.3					
16-Mar	8	18	17	19	15	20	19	13	18	20	5	11	18	21	16	17	14	12	11	11	12	9	12	12	14.5	20.6					
17-Mar	11	12	13	12	11	11	12	9	11	10	11	15	12	11	9	11	12	12	14	10	18	20	13	13	12.2	20.3					
18-Mar	13	10	7	6	11	17	16	18	17	10	13	16	14	16	12	12	13	5	8	10	12	14	14	14	12.4	18.0					
19-Mar	9	12	17	15	13	17	16	17	16	13	12	13	12	15	7	9	7	11	6	12	23	25	25	31	14.7	30.7					
20-Mar	28	30	29	31	32	37	33	27	25	28	23	22	22	20	19	17	15	12	11	10	12	12	12	12	21.7	37.1					
21-Mar	10	11	12	12	12	11	13	12	12	12	13	13	11	12	11	8	9	8	5	4	3	6	6	4	9.6	13.3					
22-Mar	5	6	11	14	14	12	8	7	7	12	8	8	4	7	8	11	13	10	8	9	9	9	6	5	8.8	14.4					
23-Mar	6	4	3	5	5	4	5	11	12	13	15	13	13	14	15	19	20	15	12	5	9	10	12	7	10.2	19.8					
24-Mar	11	13	11	8	8	3	1	5	7	2	4	3	2	1	1	5	8	7	8	5	3	5	6	6	5.5	13.2					
25-Mar	7	5	9	10	10	5	10	5	6	8	6	13	12	11	12	12	12	14	16	18	17	16	19	21	11.5	20.6					
26-Mar	20	15	14	13	13	14	17	15	16	17	16	18	18	17	15	15	17	15	12	8	8	11	15	14	14.7	20.0					
27-Mar	13	11	9	11	7	4	4	4	2	2	4	4	3	3	3	4	3	4	3	7	7	8	6	5	5.5	12.9					
28-Mar	5	5	9	8	6	8	7	7	7	7	8	5	7	6	8	10	9	8	6	8	7	2	3	2	6.6	9.9					
29-Mar	2	2	6	3	7	3	2	2	5	8	13	11	10	10	10	6	4	2	4	16	23	22	21	17	8.7	22.9					
30-Mar	14	13	14	16	13	12	14	6	6	8	10	12	12	13	11	8	10	11	9	8	7	6	5	6	10.1	15.5					
31-Mar	7	11	10	16	17	13	16	18	14	10	13	16	13	12	9	9	7	8	8	9	9	7	6	2	10.9	18.4					
14.1 13.6 13.3 13.1 13.4 13.3 12.2 11.7 12.2 12.9 12.7 13.2 12.4 12.8 12.2 12.7 12.4 11.9 11.5 11.7 13.2 13.9 14.2 14.1																									Diurnal Average						
33.0 30.5 29.0 31.2 32.5 37.1 32.7 27.0 27.1 31.6 29.8 28.2 24.2 24.1 31.7 35.3 31.5 30.9 34.5 35.4 39.8 35.8 33.3 36.5																									Diurnal Maximum						
All monthly, daily, and diurnal averages have been calculated using scalar methods																															

Hourly Standard Deviations

Wind Direction (WD) - deg

Falher - March 2014

Maximum Value: 88.4 deg on Mar 29 04:00																		Hours in Service: 744							
Minimum Value: 1.1 deg on Mar 15 06:00																		Hours of Data: 744							
																		Hours of Missing Data: 0							
Percentiles: P ₁ = 1.7 P ₁₀ = 2.6 Q ₁ = 3.9 Median = 7.1 Q ₃ = 12.6 P ₉₀ = 25.1 P ₉₉ = 61.7																		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-Mar	5	6	10	8	16	2	3	3	3	2	5	10	21	9	32	12	8	4	11	7	3	4	3	2	32.0
2-Mar	9	5	6	5	3	3	19	20	11	15	12	4	4	6	3	3	4	8	3	2	2	3	2	2	20.2
3-Mar	2	2	5	2	3	4	4	8	9	7	5	4	5	4	3	3	6	11	7	5	4	3	3	2	11.0
4-Mar	3	6	4	22	41	10	34	5	5	18	9	11	15	14	73	9	26	22	10	2	1	51	25	8	73.4
5-Mar	43	8	4	5	8	10	8	9	27	27	10	10	42	42	57	43	17	18	17	10	19	27	21	23	56.7
6-Mar	18	7	18	9	31	20	18	15	11	29	62	13	21	30	56	41	11	11	8	20	27	6	6	8	62.4
7-Mar	2	2	4	3	2	23	18	13	45	24	15	26	59	35	17	8	7	7	9	7	3	2	2	2	58.9
8-Mar	2	3	2	3	8	47	53	53	56	18	10	2	2	5	8	7	21	8	13	6	6	4	10	4	55.8
9-Mar	7	7	25	15	9	13	10	25	3	2	4	3	6	3	3	3	2	3	3	7	7	3	3	7	25.3
10-Mar	7	6	17	10	6	4	4	5	4	6	2	3	2	2	4	2	4	2	7	28	7	8	10	2	27.8
11-Mar	2	3	3	6	5	4	6	5	6	8	4	7	8	5	4	4	4	2	3	3	3	3	3	2	8.5
12-Mar	2	9	4	6	7	2	3	4	3	7	3	11	19	9	6	4	4	5	4	4	5	2	4	2	19.4
13-Mar	5	6	6	3	3	15	6	23	5	7	4	5	3	5	4	5	6	3	6	31	41	19	13	12	41.4
14-Mar	13	6	4	6	2	4	4	2	7	3	3	3	7	7	43	8	20	19	7	6	14	8	2	1	43.1
15-Mar	1	5	5	14	2	1	2	6	10	9	6	19	14	2	6	6	2	14	30	26	13	11	6	14	29.7
16-Mar	20	9	5	3	3	6	6	13	17	4	48	19	5	3	5	3	5	13	15	19	11	11	7	5	48.5
17-Mar	8	4	3	4	8	4	9	8	8	9	9	6	4	4	8	6	8	8	22	11	10	4	4	7	22.0
18-Mar	4	6	16	7	10	3	5	5	10	13	4	3	2	3	7	11	3	22	14	6	11	9	3	22	22.5
19-Mar	23	9	5	12	9	1	2	5	5	10	14	8	23	8	16	6	2	20	6	40	6	6	4	5	40.1
20-Mar	4	4	6	12	3	4	4	3	3	3	7	8	6	7	7	7	13	5	9	7	5	3	3	4	13.2
21-Mar	5	4	2	3	2	4	3	4	6	5	10	6	12	10	10	11	9	6	19	9	15	10	8	17	18.8
22-Mar	18	5	8	9	4	10	8	11	5	9	13	6	33	7	5	5	3	7	11	8	6	4	9	10	33.2
23-Mar	17	9	19	6	13	8	8	9	6	6	4	6	10	6	4	3	2	3	35	12	9	10	6	9	35.2
24-Mar	3	2	5	6	14	27	58	51	13	68	31	10	61	63	58	23	11	17	21	17	10	11	7	5	67.6
25-Mar	10	11	7	5	6	12	4	10	9	10	16	6	16	19	13	12	6	4	3	2	3	3	2	2	18.7
26-Mar	2	2	4	2	3	5	4	5	3	4	5	6	5	4	7	9	4	3	6	8	24	16	7	4	23.7
27-Mar	12	8	7	10	20	38	44	30	20	28	13	23	11	34	49	22	27	41	6	13	28	19	42	14	49.5
28-Mar	13	19	9	40	13	15	7	13	12	11	8	13	8	11	13	5	3	9	6	4	5	60	47	14	59.7
29-Mar	14	85	35	88	34	64	57	25	10	8	7	8	9	22	18	51	12	57	32	6	4	3	5	3	88.4
30-Mar	7	8	3	3	3	4	5	10	10	8	9	8	10	9	10	14	9	3	3	2	7	6	18	5	17.9
31-Mar	9	10	9	2	3	3	5	6	11	4	10	5	5	12	15	10	29	9	8	4	5	9	28	55	55.1
43.4 84.8 35.4 88.4 40.8 64.4 57.7 52.7 55.8 67.6 62.4 26.2 61.0 63.1 73.4 50.9 28.9 57.4 35.2 40.1 41.4 59.7 47.5 55.1																									

PAZA

Monthly Passive Data Summary

[illegible]

PAZA Passive Results for March 2014

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	H2S ppb	Site Legal
Duplicates						
2a	Bay Tree	0.4	39.3	BDL		
2b	Bay Tree	0.4	43.0	0.3		
30a	Fitzsimmons	0.3	40.9	BDL		
30b	Fitzsimmons	0.3	40.1	BDL		
33a	Wapiti	0.4	45.2	0.2		
33b	Wapiti	0.5	50.8	0.1		
42a	Sunset House	0.3	40.2	BDL		
42b	Sunset House	0.3	39.4	BDL		
64a	Girouxville 4				0.1	
64b	Girouxville 4				0.2	

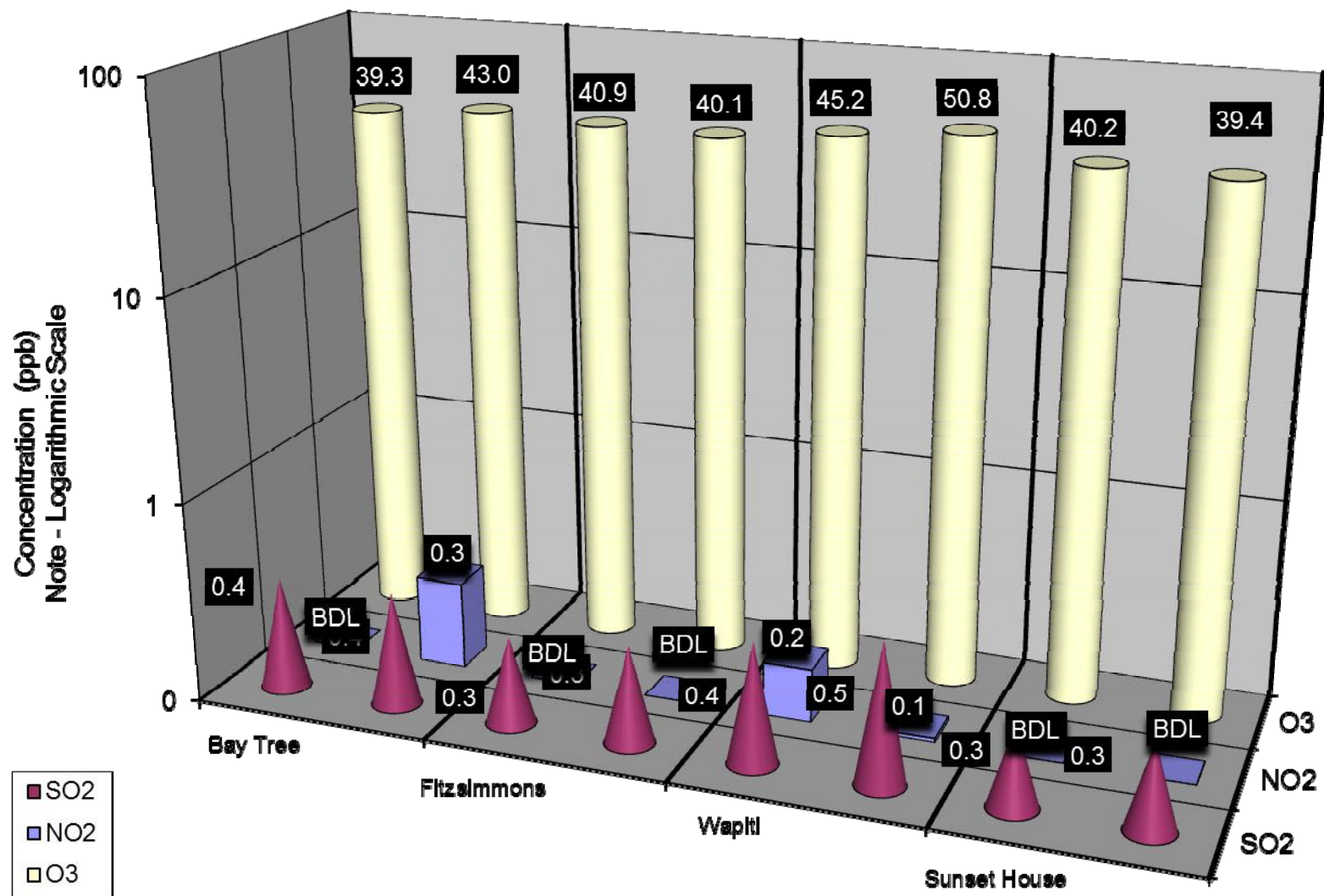
1	Silver Valley	0.6	48.9	BDL		08-27-081-11 W6M
2	Bay Tree	0.4	41.1	0.3		13-16-078-13 W6M
3	Fourth Creek	0.6	39.8	BDL		04-13-082-07 W6M
4	Gordondale	0.5	48.5	BDL		04-34-078-10 W6M
5	Boone Creek	0.6	42.3	BDL		16-36-074-11 W6M
7	Steeprock Creek	0.5	43.6	BDL		09-35-072-13 W6M
9	Spirit River	0.4	38.0	0.1		08-12-079-07 W6M
10	Woking	0.4	43.3	BDL		01-13-076-07 W6M
11	Webber Creek	0.6	45.0	BDL		09-36-074-09 W6M
12	Hythe	0.4	42.8	0.2		14-36-072-11 W6M
14	Sylvester	0.3	38.5	BDL		08-06-069-12 W6M
16	Beaverlodge	0.6	46.3	0.6		15-36-071-10 W6M
17	Poplar	0.6	39.5	0.3		13-06-073-08 W6M
18	Saddle Hills	0.5	44.1	BDL		04-25-074-07 W6M
19	Wanham	0.4	35.4	BDL		16-22-077-03 W6M
20	Shaftesbury	0.3	40.6	0.4		04-03-082-23 W5M
21	Eaglesham	0.2	41.1	BDL		16-21-079-25 W5M
23	Bear Lake	0.4	48.0	0.1		15-31-072-06 W6M
24	Wembley	0.4	47.0	0.6		12-31-070-08 W6M
25	Pinto Creek	0.4	41.8	BDL		04-24-069-11 W6M
26	Flyingshot	0.3	39.0	0.9		15-36-070-07 W6M
27	Grande Prairie I	0.4	36.9	2.9		08-15-071-06 W6M

PAZA Passive Results for March 2014 (Continued)

28	Clairmont Lake	0.3	49.5	BDL	09-06-073-04 W6M
29	Smoky Heights	0.6	46.5	0.4	04-06-075-02 W6M
30	Fitzsimmons	0.3	40.5	BDL	15-36-072-03 W6M
32	Gold Creek	0.5	38.2	0.7	06-33-067-05 W6M
33	Wapiti	0.5	48.0	0.1	02-25-071-03 W6M
34	Puskwaskau	0.2	37.9	BDL	15-35-074-25 W5M
35	Jean Cote	0.3	48.2	BDL	12-35-079-21 W5M
36	Guy	0.3	40.8	BDL	03-04-076-22 W5M
37	Crooked Creek	0.5	46.6	BDL	16-01-071-26 W5M
38	Karr Creek	0.4	36.3	BDL	10-16-065-02 W6M
39	Clouston Creek	0.2	37.8	0.2	12-01-073-22 W5M
40	McLennan	0.4	44.1	BDL	03-29-077-19 W5M
41	Valleyview	0.4	37.5	0.2	09-30-069-22 W5M
42	Sunset House	0.3	39.8	BDL	05-32-070-19 W5M
43	High Prairie	0.2	42.9	0.4	16-13-074-17 W5M
44	Peavine	0.3	38.0	BDL	03-05-079-15 W5M
45	Gift Lake	0.2	36.3	BDL	0.2 10-07-079-12 W5M
46	Little Smoky	0.5	34.6	0.6	12-01-065-21 W5M
47	Kinuso	0.3	35.7	BDL	12-10-073-10 W5M
48	Deer Mountain	0.3	34.6	BDL	15-22-068-09 W5M
49	Grande Prairie HP	0.4	38.5	4.0	17-26-071-06 W6M
50	East Prairie	0.2	36.4	BDL	13-02-072-15 W5M
63	Girouxville 3			BDL	14-02-077-23 W5M
64	Girouxville 4			0.2	4-08-077-22 W5M

*BDL = Below Detection Level

*N/S - No sample



Duplicate Summary Chart

Passive Summary for March 2014

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

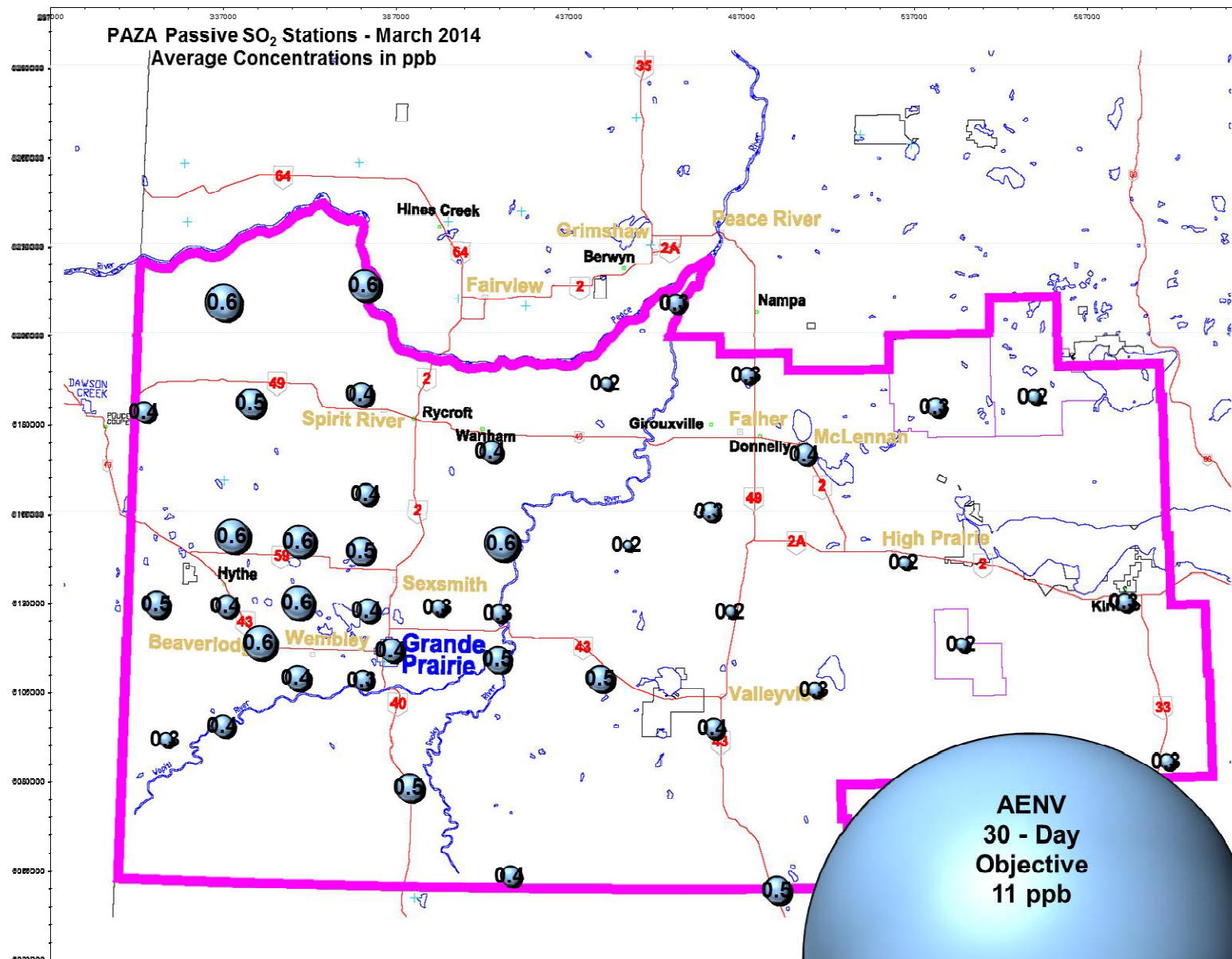
Passive Summary for March 2014 (PAZA Zone)				
Mean	0.4	41.4	0.7	0.2
Standard Deviation	0.1	4.4	1.0	0.0
Minimum	0.2	34.6	0.1	0.2
Minimum At	Puskwaskau (#34)	Deer Mountain (#48)	Spirit River (#9)	Girouxville 4 (#64)
Maximum	0.6	49.5	4.0	0.2
Maximum At	Silver Valley (#1)	Clairmont Lake (#28)	Grande Prairie HP	Gift Lake (#45)

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

	SO ₂	O ₃	NO ₂
PAZA Beaverlodge station	0.7	37.8	4.2
PAZA Beaverlodge passive	0.6	46.3	0.6

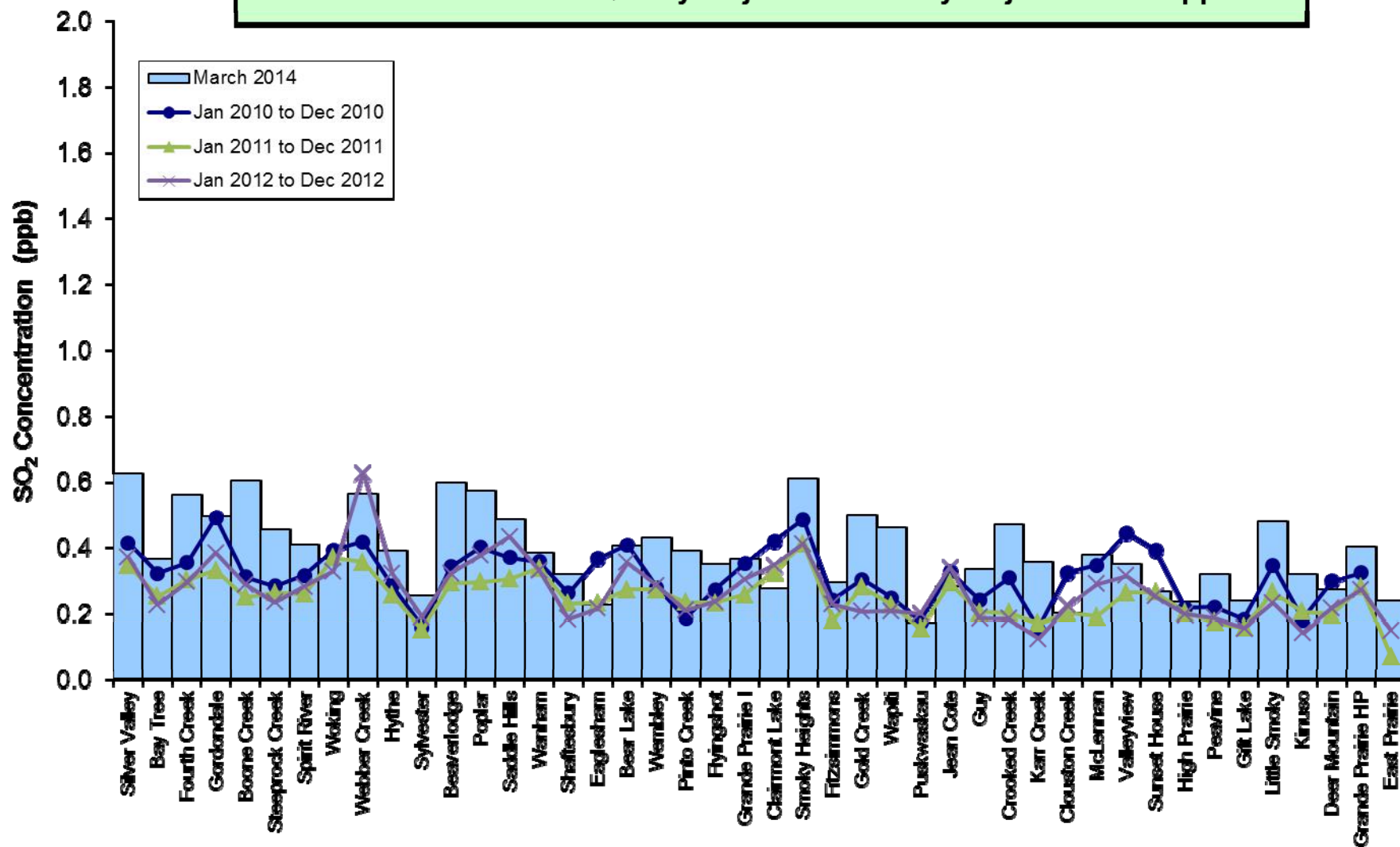
Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49 Grande Prairie HP)

	SO ₂	O ₃	NO ₂
PAZA Henry Pirker station	0.6	21.1	12.3
PAZA Grande Prairie passive	0.4	38.5	4.0

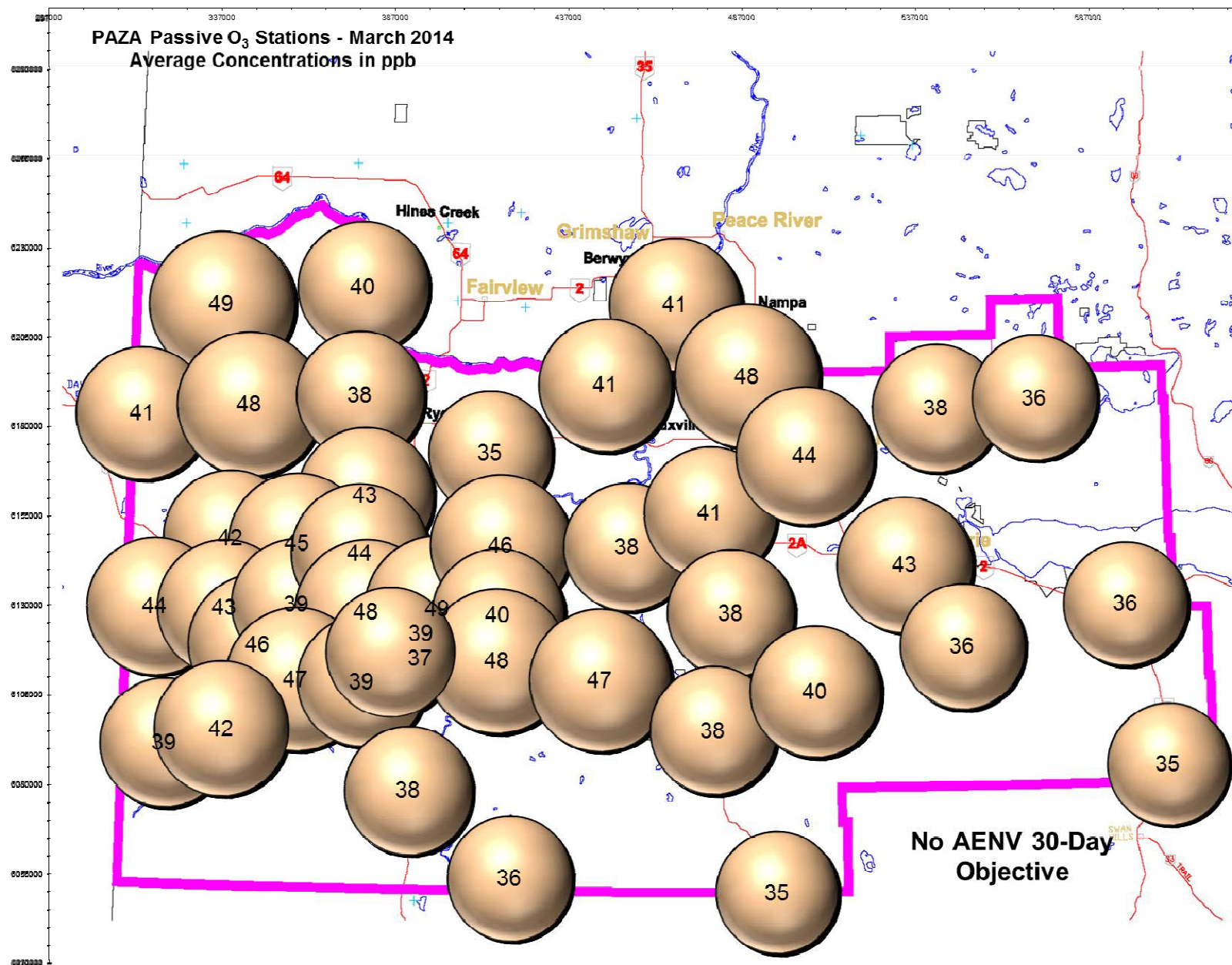


SO₂ Bubble Chart

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

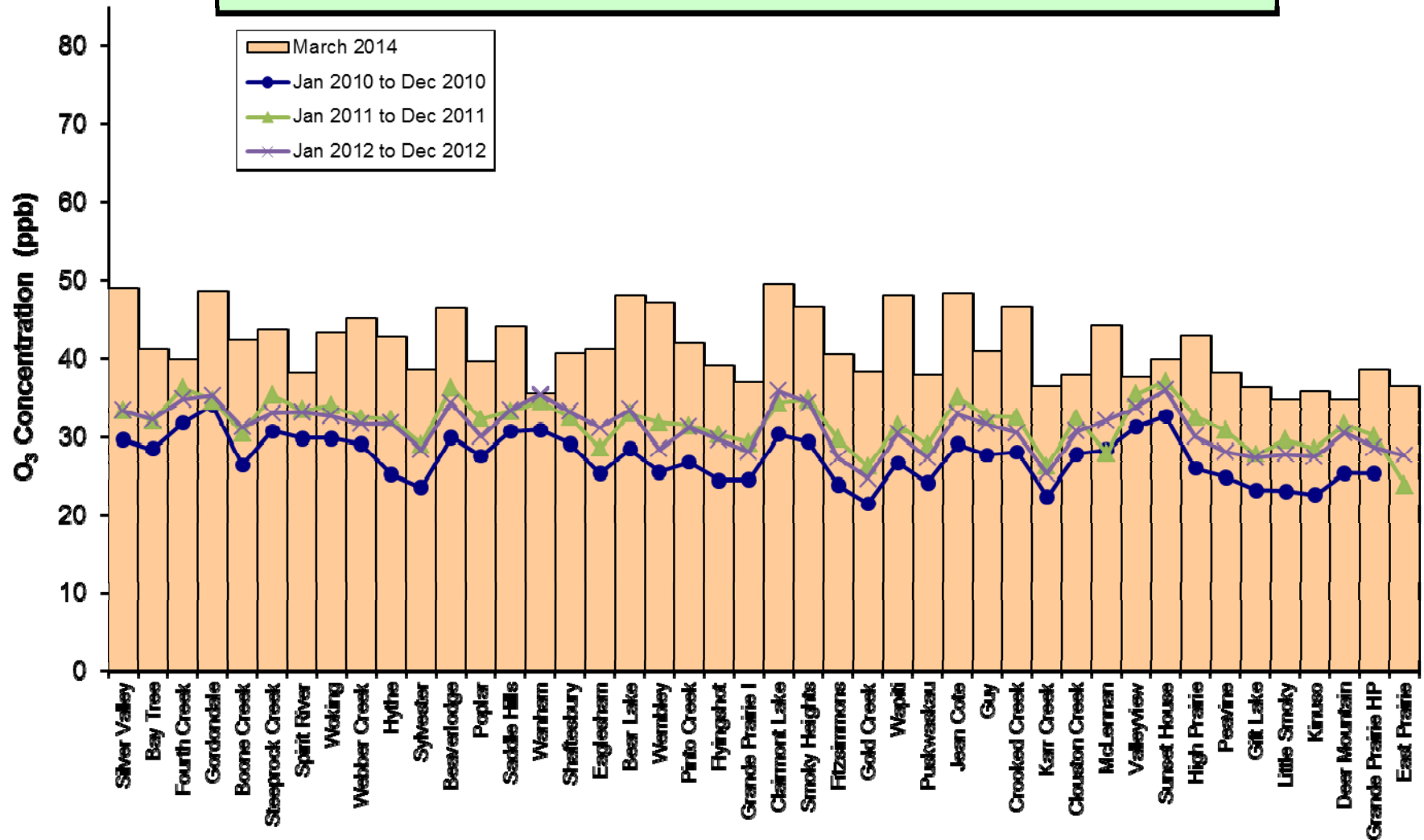


SO₂ Summary Chart



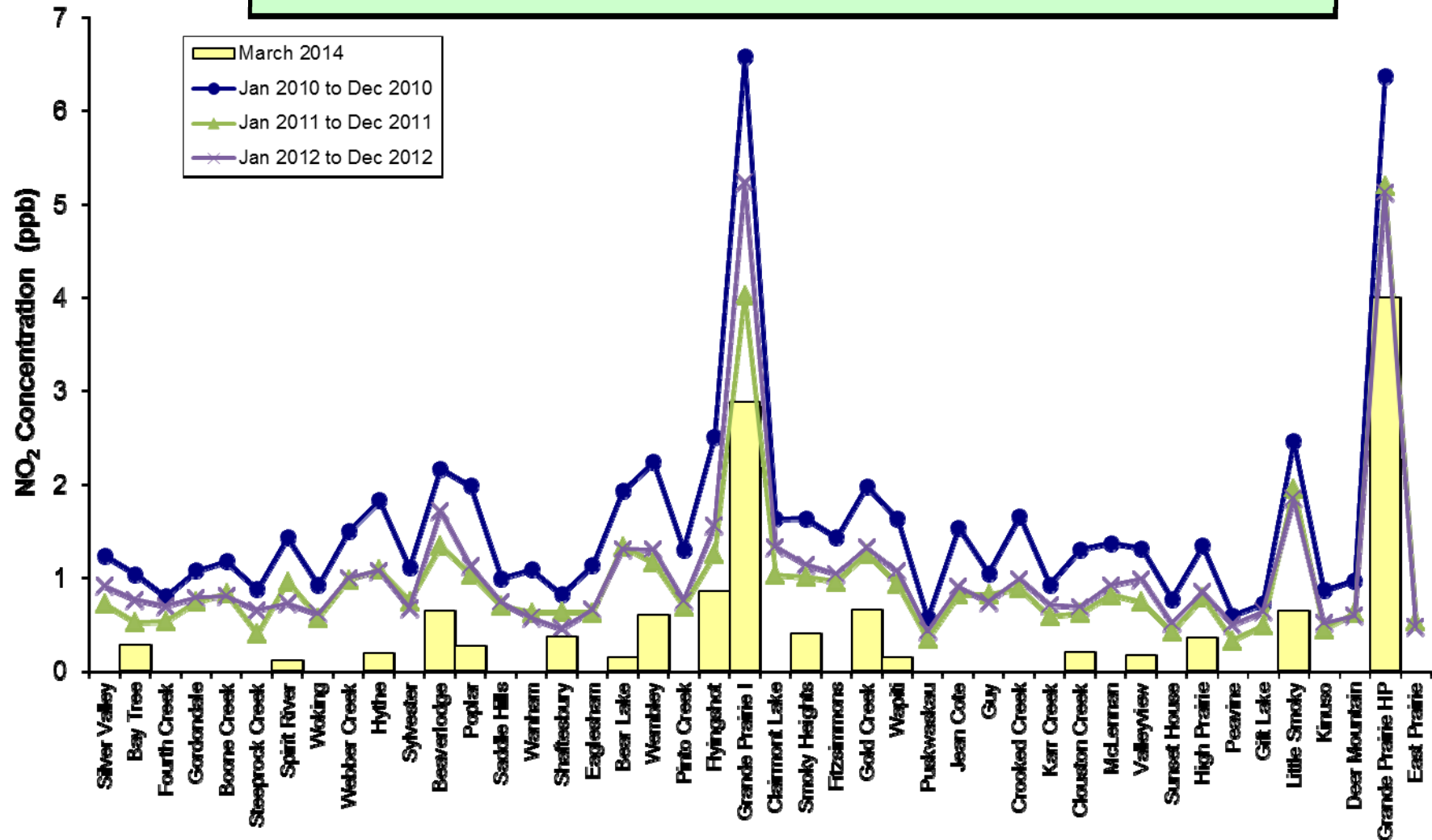
O₃ Bubble Chart

Alberta Ambient Air Quality Objective - No Annual O₃ Objective

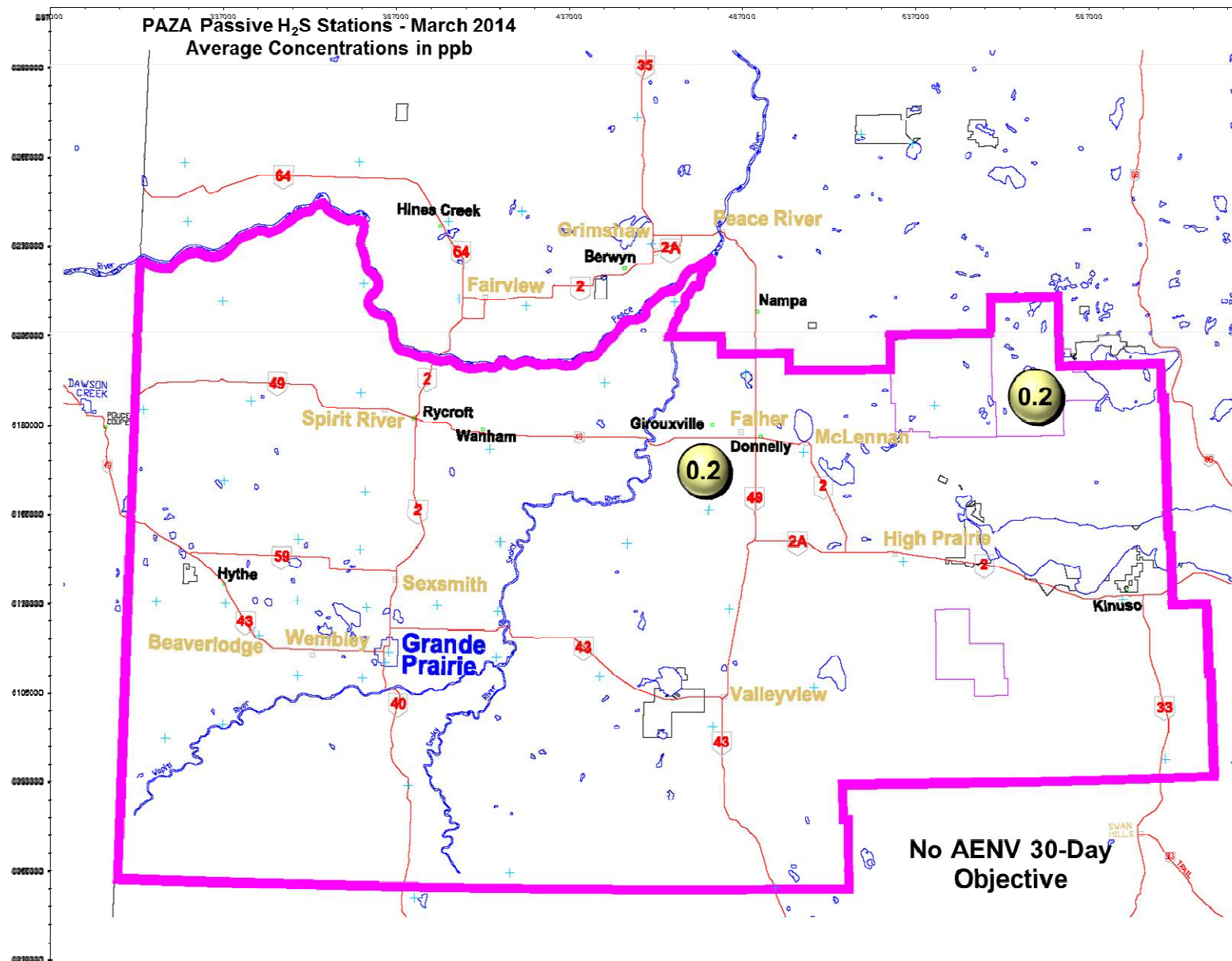


O₃ Summary Chart

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



NO₂ Summary Chart



H₂S Bubble Chart

PAZA

ALBERTA ENVIRONMENT AND SUSTAINABLE RESOURCES INCIDENT REPORT

March 2014

Air Monitoring Directive Exceedence Report

Alberta Environment and Sustainable Resource Development 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:	280972	Reported To (AESRD Contact):	Steven																														
Date & Time Incident Reported to AESRD:	February 28, 2014 23:30 MST	Reported By:	Dmytro Dolotii																														
Reported on Behalf of:	PAZA	Approval Number (if applicable):	NA																														
Location(s) of Incident:	Smoky Heights Air Quality Monitoring station																																
Start Date & Time of Incident:	February 28, 2014 21:00 MST	End Date & Time of Incident:	March 1, 2014 04:00 MST																														
Reason or Nature of Incident:																																	
The PM2.5 monitor exceeded the one hour limit of 80 µg/m ³ for several hours on Feb28th and continued on March 1 st , details as follows:																																	
<table border="0"> <tr> <td>21:00-22:00 MST</td> <td>Feb 28, 2014</td> <td>PM 2.5</td> <td>101.4 µg/m³</td> <td>WS=10.8 km/hr</td> <td>WD=34.4 deg</td> </tr> <tr> <td>23:00-00:00 MST</td> <td>Feb 28, 2014</td> <td>PM 2.5</td> <td>173.9 µg/m³</td> <td>WS=11.9 km/hr</td> <td>WD=28.5 deg</td> </tr> <tr> <td>01:00-02:00 MST</td> <td>March 1, 2014</td> <td>PM 2.5</td> <td>130.1 µg/m³</td> <td>WS=10.6 km/hr</td> <td>WD=25.3 deg</td> </tr> <tr> <td>02:00-03:00 MST</td> <td>March 1, 2014</td> <td>PM 2.5</td> <td>113.3 µg/m³</td> <td>WS=11.9 km/hr</td> <td>WD=29.2 deg</td> </tr> <tr> <td>03:00-04:00 MST</td> <td>March 1, 2014</td> <td>PM 2.5</td> <td>111.7 µg/m³</td> <td>WS=10.1 km/hr</td> <td>WD=25.3 deg</td> </tr> </table>				21:00-22:00 MST	Feb 28, 2014	PM 2.5	101.4 µg/m ³	WS=10.8 km/hr	WD=34.4 deg	23:00-00:00 MST	Feb 28, 2014	PM 2.5	173.9 µg/m ³	WS=11.9 km/hr	WD=28.5 deg	01:00-02:00 MST	March 1, 2014	PM 2.5	130.1 µg/m ³	WS=10.6 km/hr	WD=25.3 deg	02:00-03:00 MST	March 1, 2014	PM 2.5	113.3 µg/m ³	WS=11.9 km/hr	WD=29.2 deg	03:00-04:00 MST	March 1, 2014	PM 2.5	111.7 µg/m ³	WS=10.1 km/hr	WD=25.3 deg
21:00-22:00 MST	Feb 28, 2014	PM 2.5	101.4 µg/m ³	WS=10.8 km/hr	WD=34.4 deg																												
23:00-00:00 MST	Feb 28, 2014	PM 2.5	173.9 µg/m ³	WS=11.9 km/hr	WD=28.5 deg																												
01:00-02:00 MST	March 1, 2014	PM 2.5	130.1 µg/m ³	WS=10.6 km/hr	WD=25.3 deg																												
02:00-03:00 MST	March 1, 2014	PM 2.5	113.3 µg/m ³	WS=11.9 km/hr	WD=29.2 deg																												
03:00-04:00 MST	March 1, 2014	PM 2.5	111.7 µg/m ³	WS=10.1 km/hr	WD=25.3 deg																												
Immediate Actions Taken:																																	
The real time data was reviewed and confirmed as valid, proceeded to call it in to AESRD																																	
Investigation Details:																																	
Real time data was reviewed and it was deemed as valid.																																	
Actions Taken to Prevent Reoccurrence (if any):																																	
N/A																																	
Additional Actions Required (if any):																																	
N/A																																	
Report Completed By:	Dmytro Dolotii	Date Report Submitted:	March 05, 2014																														
7-Day Letter Due Date:	March 08, 2014																																

March 2014 Calibration Reports

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

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

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

PAZA – Beaverlodge Station with the following calibrations:
SO₂, NO, NO₂, NO_x, O₃, PM_{2.5}

PAZA – Valleyview Station with the following calibrations:
SO₂ & H₂S

PAZA – Reno Station with the following calibrations:
SO₂, NO, NO₂, NO_x, O₃, TRS, PM_{2.5}

PAZA – Falher Station with the following calibrations:
SO₂ & H₂S

Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	March 4, 2014	Previous Calibration	February 5, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	9:20	End Time (MST)	13:00:00 PM
Barometric Pressure	717.000 mm	Station Temperature	20.5 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Conc	51.5 ppm	Cal Gas Cert Date	March 12, 2014
		Cal Gas Cylinder #	LL105159
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	10
	Before		After
Calculated slope	1.008166	Calculated slope	1.001416
Calculated intercept	1.232702	Calculated intercept	1.926454
Analyzer make	TEI 43C	Analyzer serial #	610816292

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	9.3		9.3	
Coefficient	0.781		0.781	
Pressure	647.5	mm Hg	647.2	mm Hg
Flow	0.479	lpm	0.477	lpm
Lamp intensity	43499	Hz	44184	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)
4995	0.00	0.0	0.0	N/A
4995	39.93	408.4	406.9	1.0037
4995	19.97	205.1	201.7	1.0166
4995	9.97	102.6	98.7	1.0395
4995	0.00	0.0	0.0	As Found Zero
4995	39.93	408.4	406.9	As Found Span
Average Correction Factor				1.0199

Calculated value of As Found Response: 411.5 ppb Percent Change of As Found: -0.7%

	before calibration		after calibration	
Auto zero	0.1	ppb	0.1	ppb
Auto span	250.7	ppb	252.9	ppb

Notes: No adjustments made

Calibration Performed By: Grover Christiansen,Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



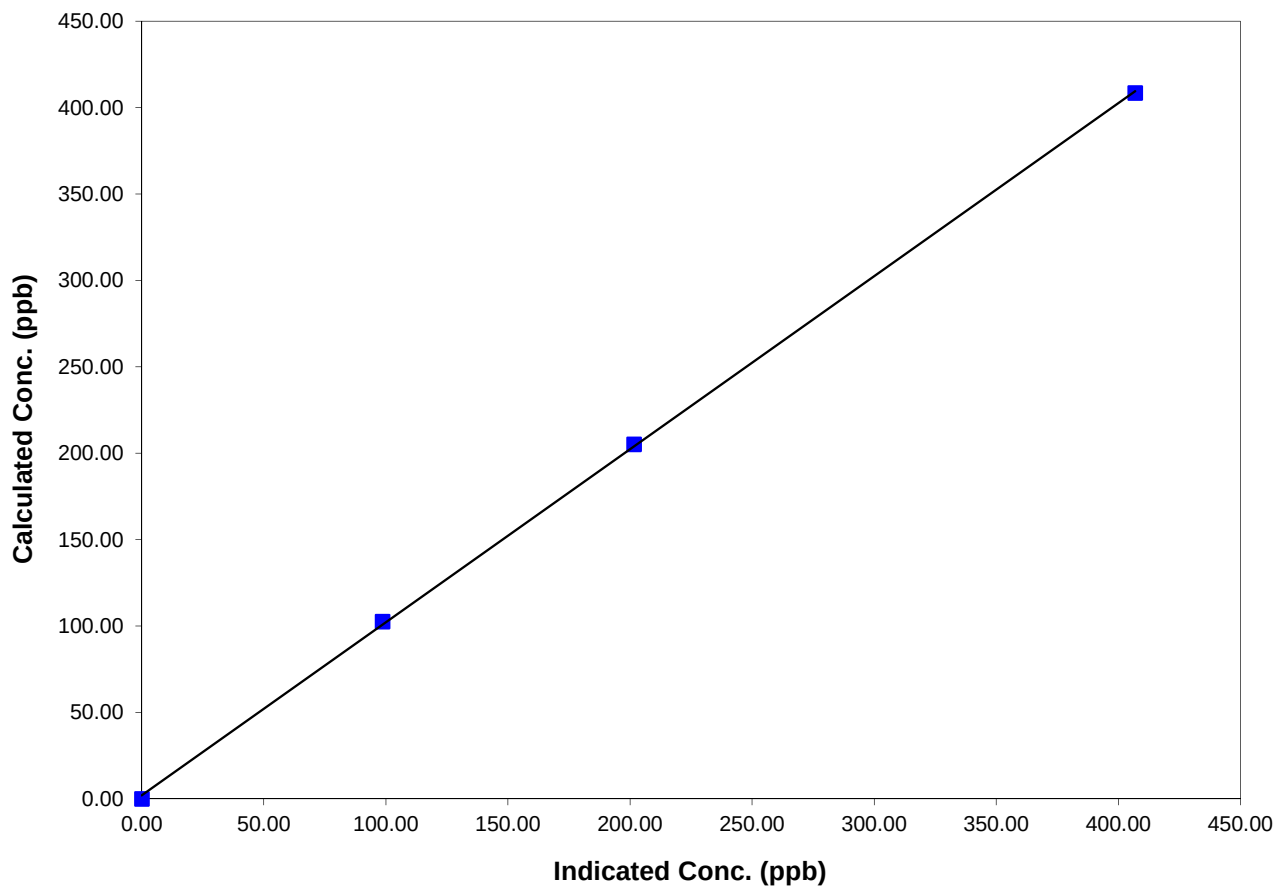
Station Information

Calibration Date	March 4, 2014	Previous Calibration	February 5, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:20	End Time (MST)	13:00:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	610816292

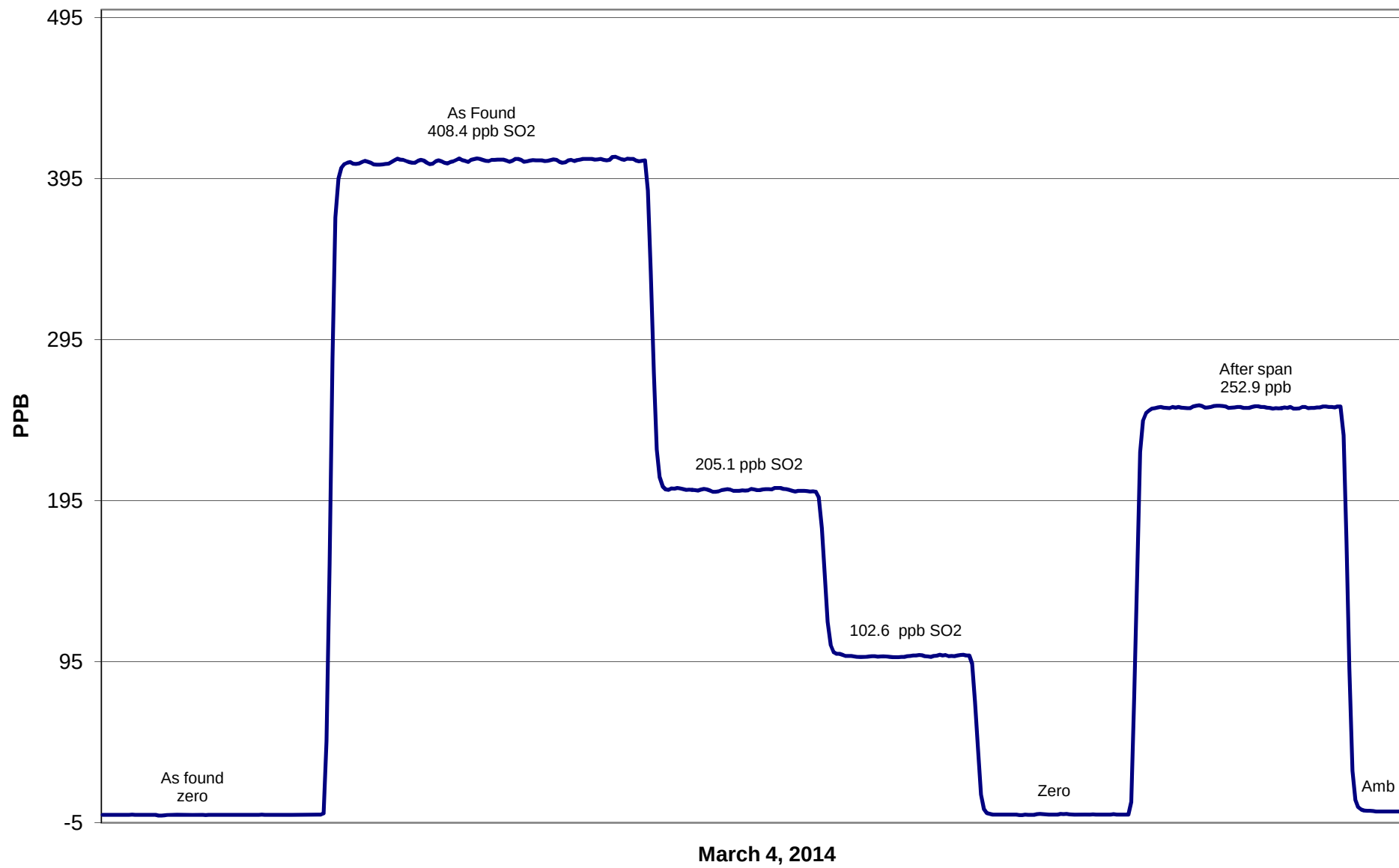
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999895
408.4	406.9	1.0037		
205.1	201.7	1.0166		
102.6	98.7	1.0395	Slope	1.001416
			Intercept	1.926454

SO2 Calibration Curve



SO2 Calibration



Calibration Report

Parameter

NO_x-NO-NO₂

Air Monitoring Network

PAZA



Station Information

Calibration Date	March 4, 2014	Previous Calibration	February 5, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Installation	Removal
Start Time (MST)	9:18	End Time (MST)	14:40:00 PM
Barometric Pressure	717.000 mm	Station Temperature	20.5 Deg C
Calibrator	EnviroNics	Serial Number	3016
NO Cal Gas Conc	51.3 ppm	Cal Gas Expiry Date	March 12, 2014
NOx Cal Gas Conc	51.4 ppm	Cal Gas Serial #	LL105159

DACS Information

DACS make	CR3000	DACS serial No.	5408
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Parameter	NO2	NOx	NO
Before			
Data Slope	1.002085	0.997970	0.996679
Data Offset	0.226132	1.218787	1.375201
After			
Data Slope	1.010383	1.002779	0.999255
Data Offset	0.872505	1.698581	1.875250
Channel #	8	6	7
Voltage Range	0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	TEI 42C	Analyzer serial #	508011073
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Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	13.7	mV	13.2	mV
NOx bkgnd	14.1	mV	13.6	mV
NO coefficient	1.115		1.075	
NOx coefficient	1.000		1.000	
NO2 conv temp	318.0	Deg C	318.0	Deg C
Cooler	-2.5	Deg C	-2.5	Deg C
PMT Volt	-774.0	mV	-774.0	mV
R Cell Press	197.7	in Hg	199.5	in Hg

Calibration Report

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



Calibration Date: March 4, 2014 Station Location: Henry Pirker

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4995	0.00	0.0	0.0	0.0	0.0	0.0	-0.2	N/A	N/A
1	4995	39.93	407.6	406.8	0.8	405.7	406.2	-0.6	1.0047	1.0015
2	4995	19.97	204.7	204.3	0.4	201.3	201.5	-0.2	1.0168	1.0140
3	4995	9.97	102.4	102.2	0.2	98.9	98.7	0.1	1.0352	1.0352
AFZ	4995	0.00	0.0	0.0	0.0	0.0	0.0	-0.2	0.0000	0.0000
AFS	4995	39.93	407.6	406.8	0.8	422.2	423.7	-1.6	0.9655	0.9602
Average Correction Factor									1.0189	1.0169

As Found Concentrations: NO_x= 423.4 NO= 425.1 As Found Percent Change NO_x= 3.9% NO= 4.5%

Dilution Flow		4995	ccm	Source Gas Flow		39.93	ccm			
O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	0.0	0.0	0.0	0.0	0.0	-0.2	N/A	N/A	N/A	N/A
NO point	405.7	405.7	0.0	405.0	405.7	-0.8	1.0017	1.0000	N/A	N/A
300	405.7	94.5	311.2	402.1	94.5	307.8	1.0089	1.0000	1.0112	98.9%
200	405.7	194.1	211.6	402.1	194.1	208.0	1.0091	1.0000	1.0171	98.3%
100	405.7	294.7	111.0	402.9	294.7	108.2	1.0070	1.0000	1.0254	97.5%
Average Correction Factor							1.0083	1.0000	1.0179	98.2%

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.0	0.0	-0.1	ppb	-0.1	-0.3	-0.1	ppb
Auto span	329.9	327.5	2.4	ppb	332.3	330.9	1.4	ppb

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



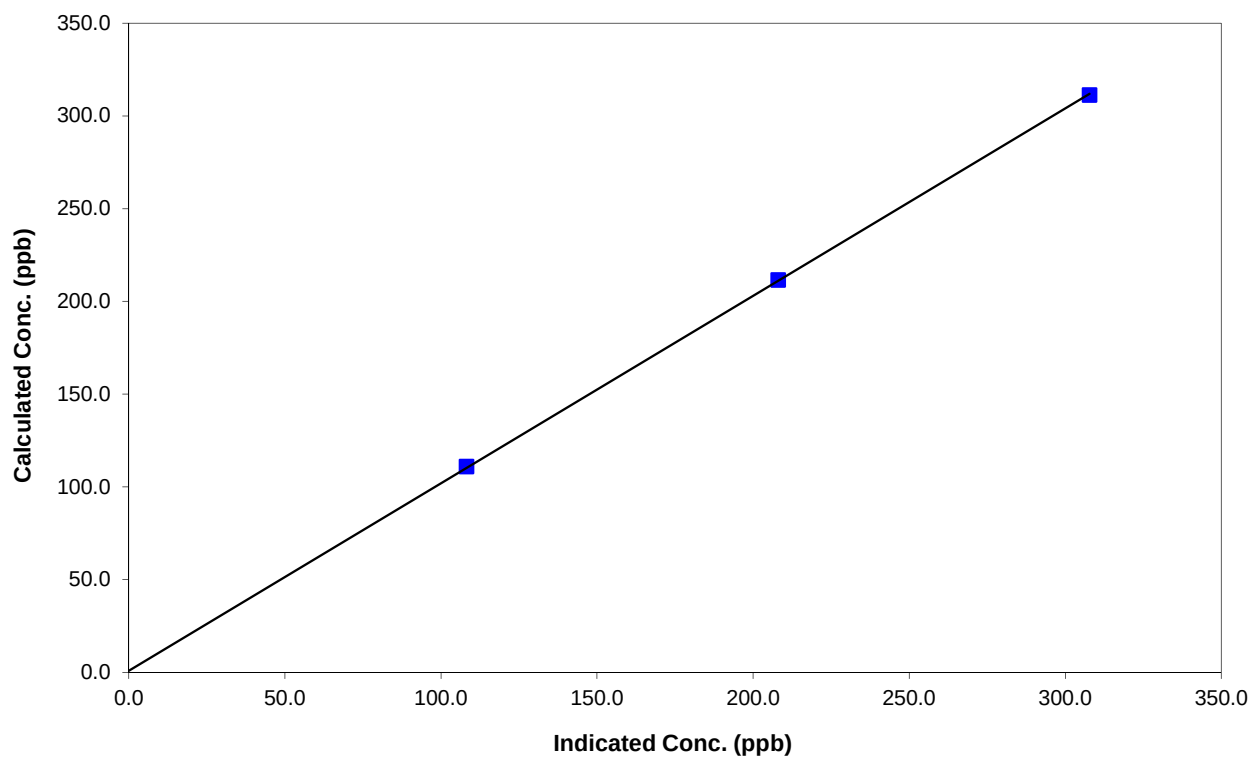
Station Information

Calibration Date	March 4, 2014	Previous Calibration	February 5, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:18	End Time (MST)	14:40:00 PM
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	-0.2	N/A	Correlation Coefficient	0.999968
311.2	307.8	1.0112		
211.6	208.0	1.0171		
111.0	108.2	1.0254	Slope	1.010383
			Intercept	0.872505

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



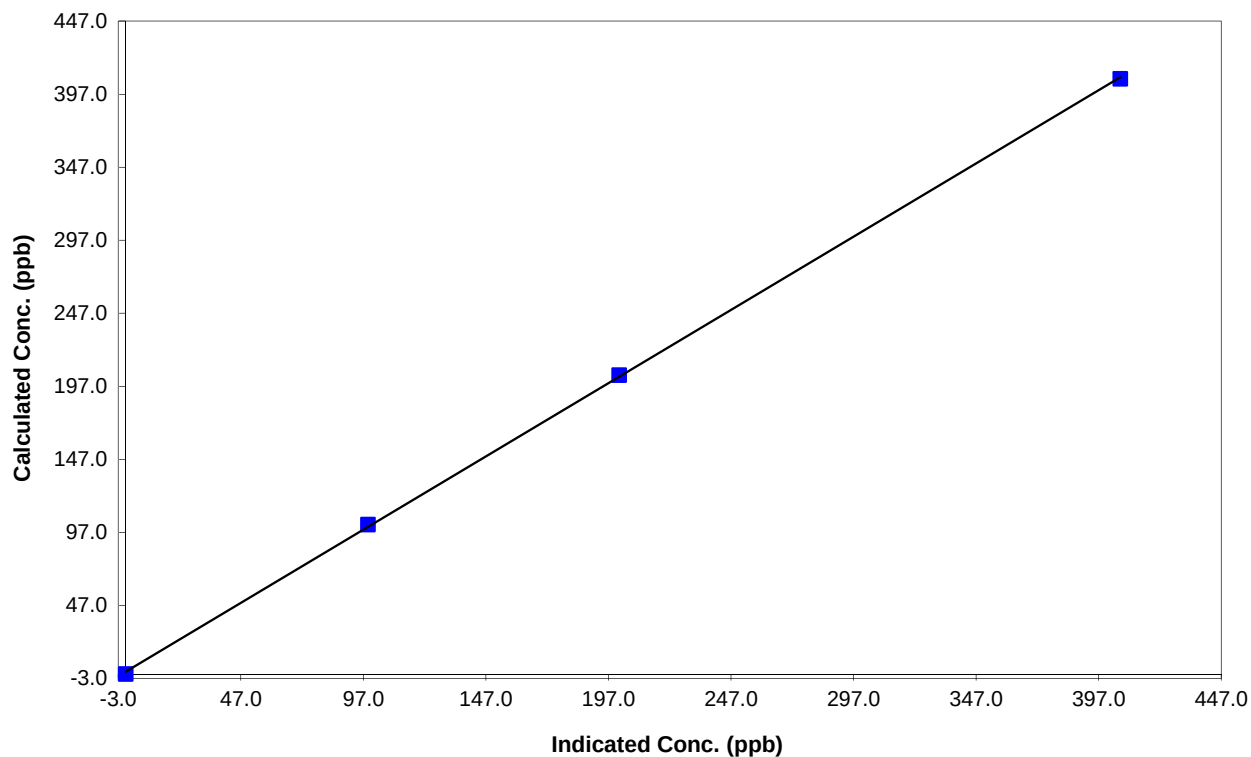
Station Information

Calibration Date	March 4, 2014	Previous Calibration	February 5, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:18	End Time (MST)	14:40:00 PM
Analyzer make	TEI 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999919
407.6	405.7	1.0047		
204.7	201.3	1.0168		
102.4	98.9	1.0352	Slope	1.002779
			Intercept	1.698581

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



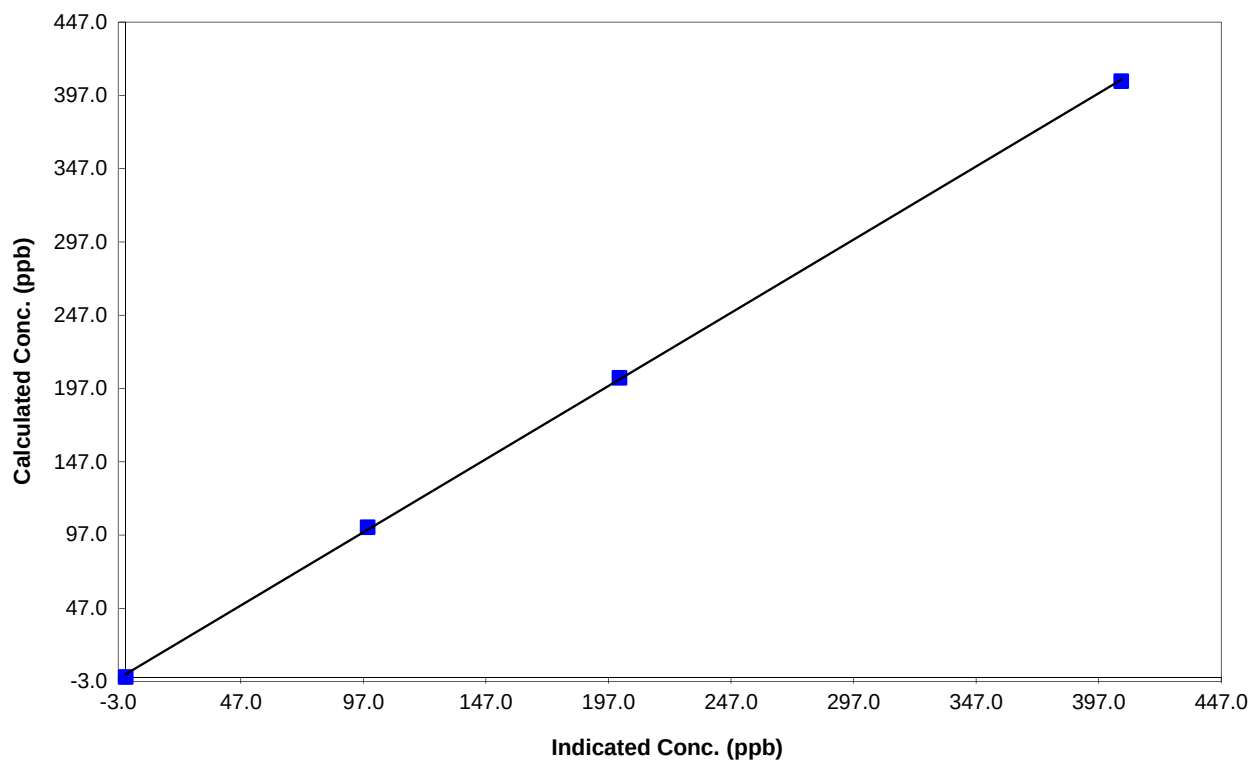
Station Information

Calibration Date	March 4, 2014	Previous Calibration	February 5, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:18	End Time (MST)	14:40:00 PM
Analyzer make	TEI 42C	Analyzer serial #	508011073

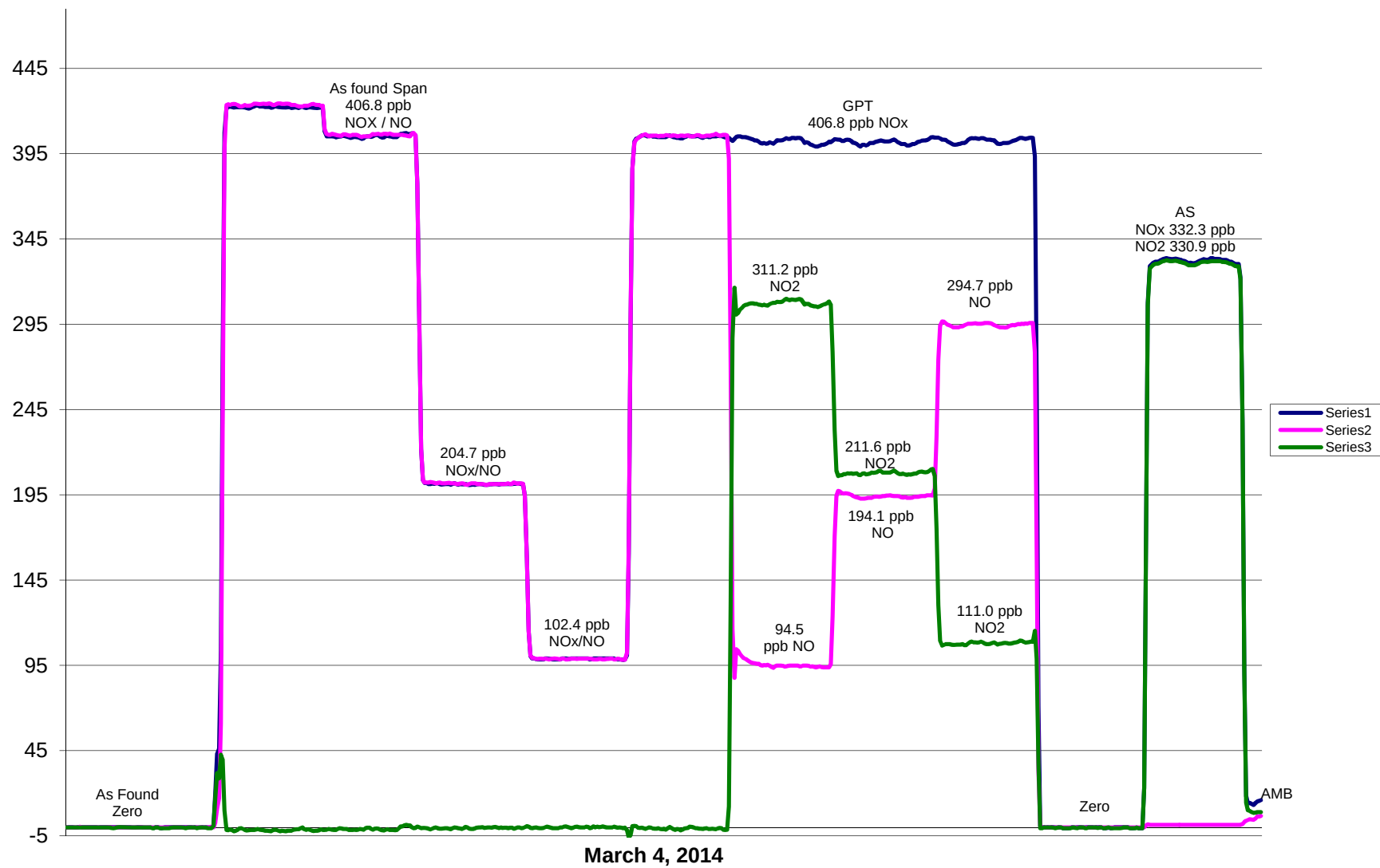
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999908
406.8	406.2	1.0015		
204.3	201.5	1.0140		
102.2	98.7	1.0352	Slope	0.999255
			Intercept	1.875250

NO Calibration Curve



PAZA NO_x Calibration



Calibration Report



Parameter 03

Air Monitoring Network PAZA

Station Information

Calibration Date	March 4, 2014	Previous Calibration	February 5, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	13:31:00 PM	End Time (MST)	16:12:00 PM
Barometric Pressure	717.000 mm	Station Temperature	20.5 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA

DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.004473	Calculated slope	1.006368
Calculated intercept	0.217811	Calculated intercept	0.593735

Analyzer make	Teco 49C	Analyzer serial #	607415761
---------------	----------	-------------------	-----------

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.60	ppb	-0.50	ppb
slope	1.011		1.011	
Lamp temp	57	mV	57	mV
Lamp Intensity A/B	107484/95078	mV	110598/98774	mV
Pressure	677.4	mm Hg	678.1	mm Hg
Flow A	0.757	ccm	0.76	ccm
Flow B	0.723	ccm	0.725	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)
5035	0.0	0.0	0.3	N/A
5035	0.3	311.2	309.7	1.0049
5035	0.2	211.6	208.6	1.0144
5035	0.1	111.0	108.8	1.0199
5035	0.0	0.0	0.3	As found zero
5035	0.3	311.2	309.7	As found span
Average Correction Factor				1.0131

Calculated value of As Found Response: 310.9 ppm Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	1.0	ppb	2.0	ppb
Auto span	355.0	ppb	344.9	ppb

Notes: No adjustments made, switching valves need replacement, span data for graph was taken from the next daily span.

Calibration Performed By: Grover Christiansen, Dmytro Dolotii

Calibration Summary

Parameter 03

Air Monitoring Network PAZA



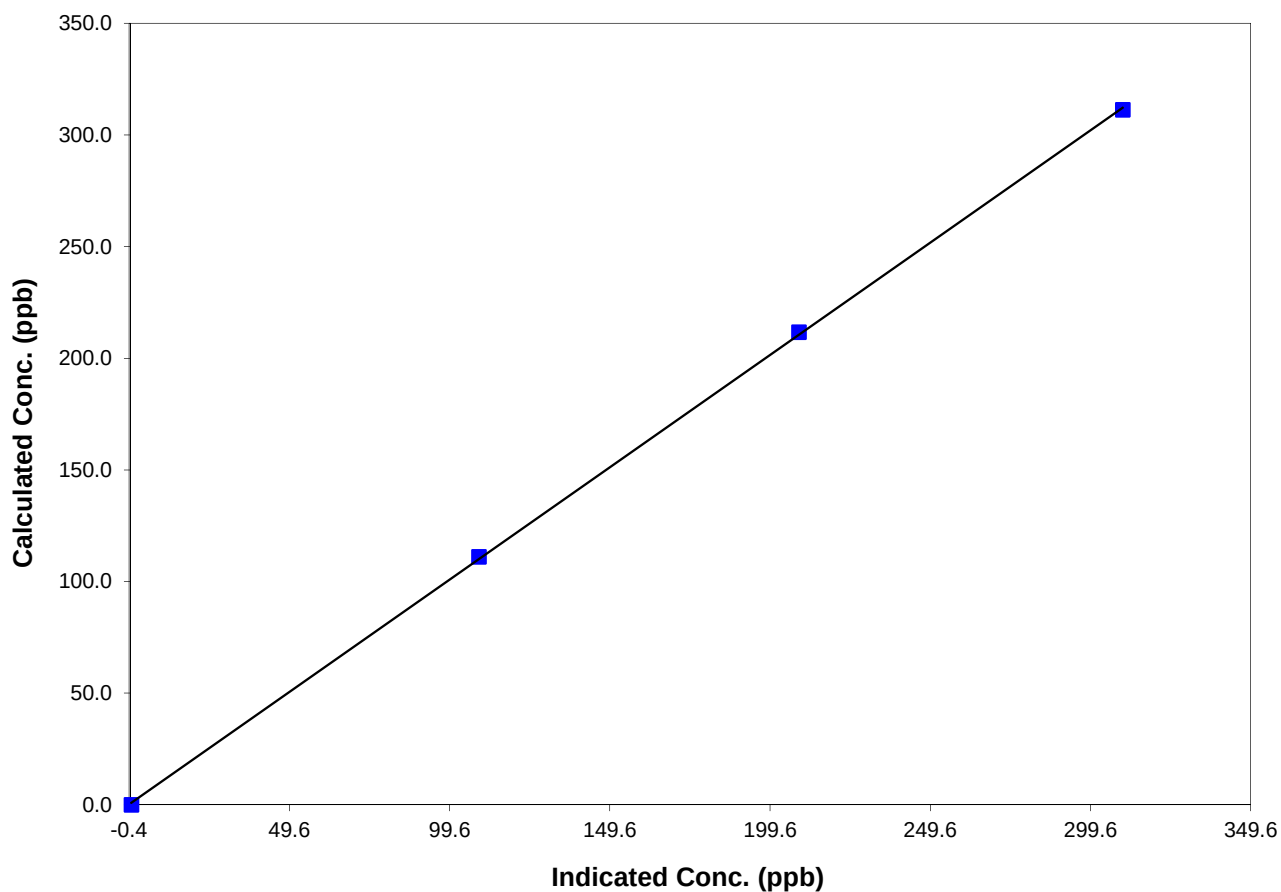
Station Information

Calibration Date	March 4, 2014	Previous Calibration	February 5, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	13:31:00 PM	End Time (MST)	16:12:00 PM
Analyzer make/model	Teco 49C	Analyzer serial #	607415761

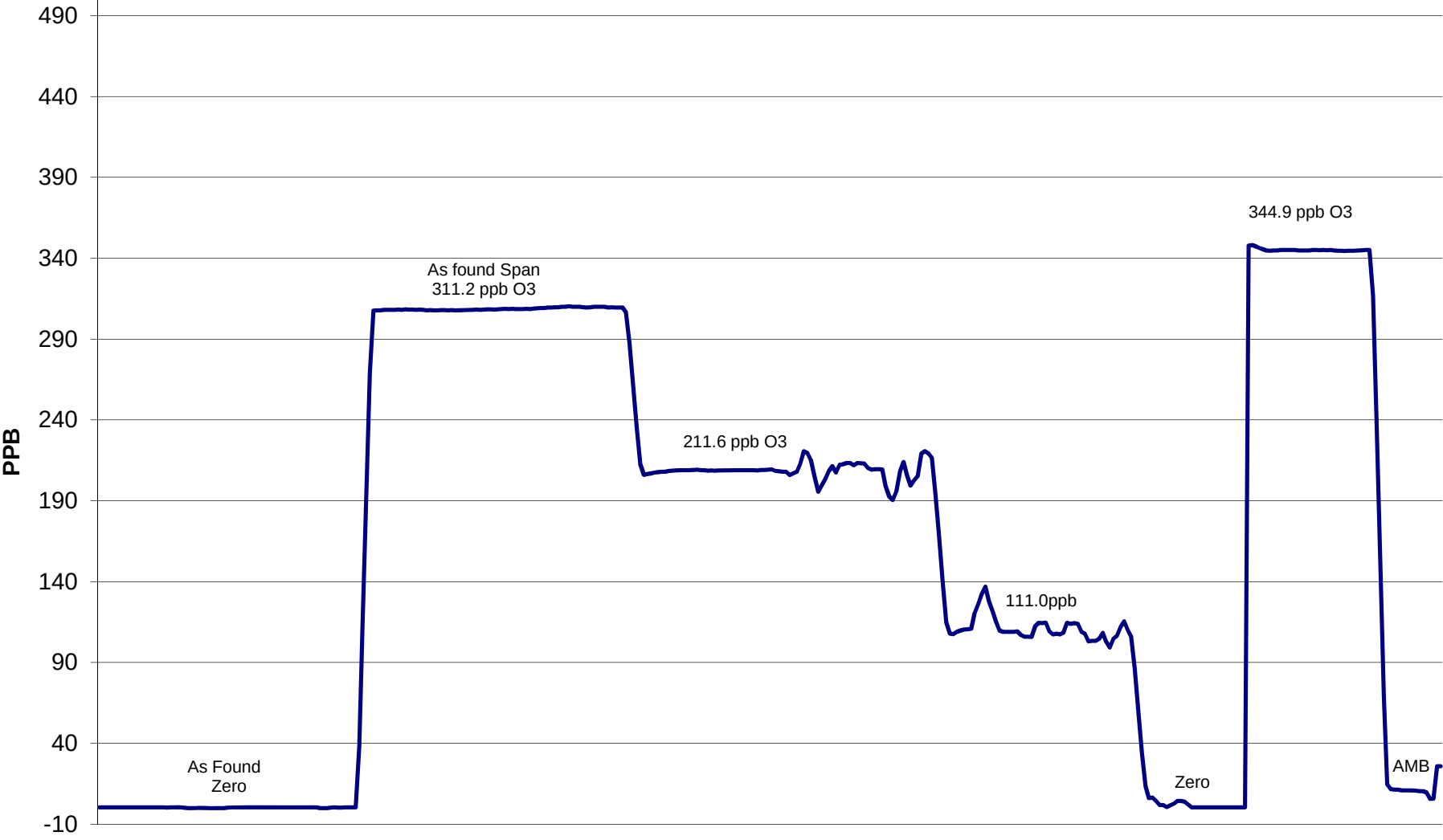
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	NA	Correlation Coefficient	0.999927
311.2	309.7	1.0049		
211.6	208.6	1.0144		
111.0	108.8	1.0199	Slope	1.006368
			Intercept	0.593735

O3 Calibration Curve



O3 Calibration



March 4, 2014

Calibration Report



Parameter 03

Air Monitoring Network PAZA

Station Information

Calibration Date	March 5, 2014	Previous Calibration	March 4, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	8:30	End Time (MST)	14:18:00 PM
Barometric Pressure	717.000 mm	Station Temperature	20.5 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA

DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.004473	Calculated slope	1.004245
Calculated intercept	0.217811	Calculated intercept	1.103744

Analyzer make	Teco 49C	Analyzer serial #	607415761
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	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.60	ppb	-0.20	ppb
slope	1.011		1.052	
Lamp temp	57	mV	57	mV
Lamp Intensity A/B	110598/98774	mV	107522/97474	mV
Pressure	678.1	mm Hg	681	mm Hg
Flow A	0.76	ccm	0.722	ccm
Flow B	0.725	ccm	0.726	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)
5035	0.0	0.0	-0.1	N/A
5035	0.3	311.2	309.8	1.0044
5035	0.2	211.6	208.6	1.0145
5035	0.1	111.0	108.4	1.0241
5035	0.0	0.0	-0.1	As found zero
5035	0.3	311.2	309.8	As found span
Average Correction Factor				1.0143

Calculated value of As Found Response: 311.5 ppm Percent Change of As Found: 0.1%

	before calibration		after calibration	
Auto zero	1.0	ppb	1.0	ppb
Auto span	355.0	ppb	354.5	ppb

Notes: Switching valves replaced, cells cleaned and leak check performed.

Calibration Performed By: Grover Christiansen, Dmytro Dolotii

Calibration Summary

Parameter 03

Air Monitoring Network PAZA



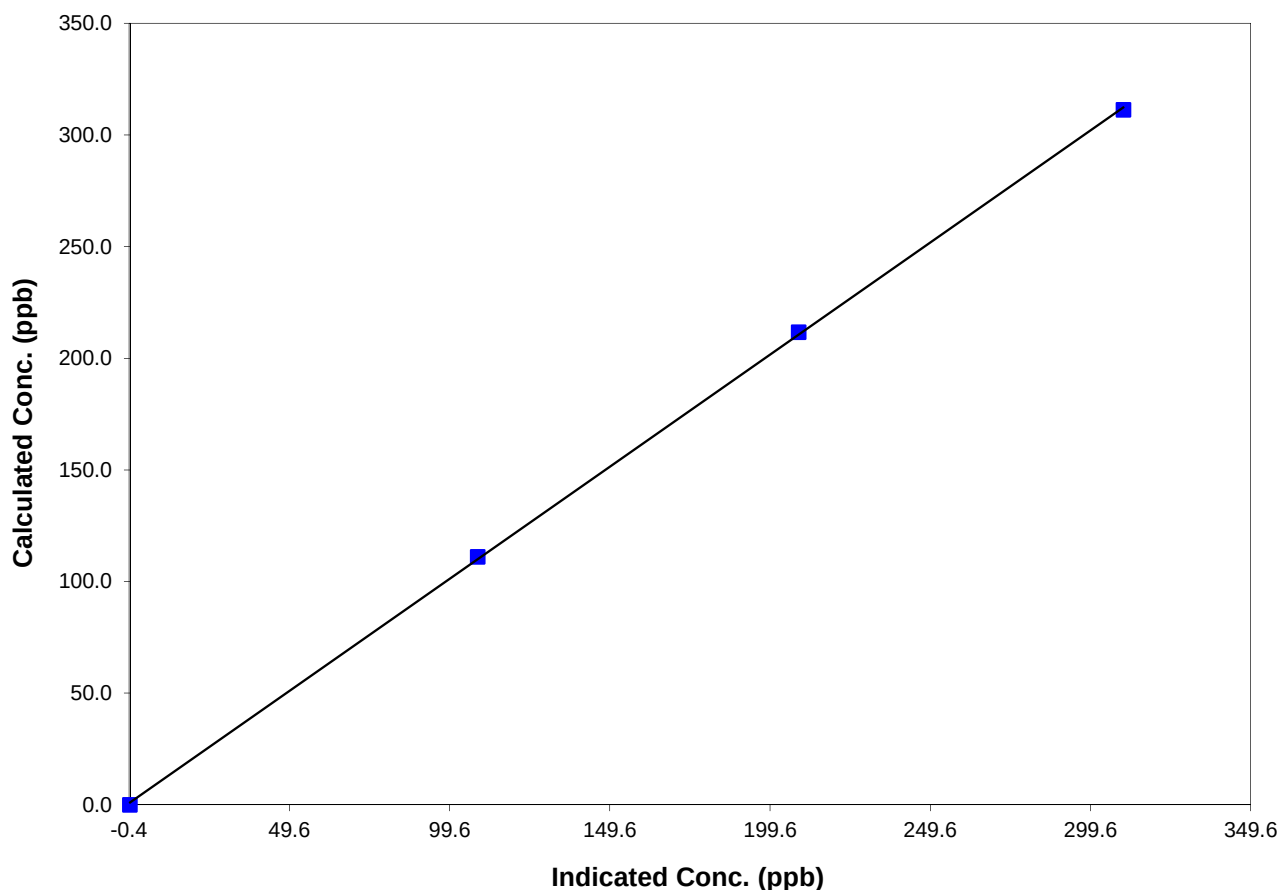
Station Information

Calibration Date	March 5, 2014	Previous Calibration	March 4, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	8:30	End Time (MST)	14:18:00 PM
Analyzer make/model	Teco 49C	Analyzer serial #	607415761

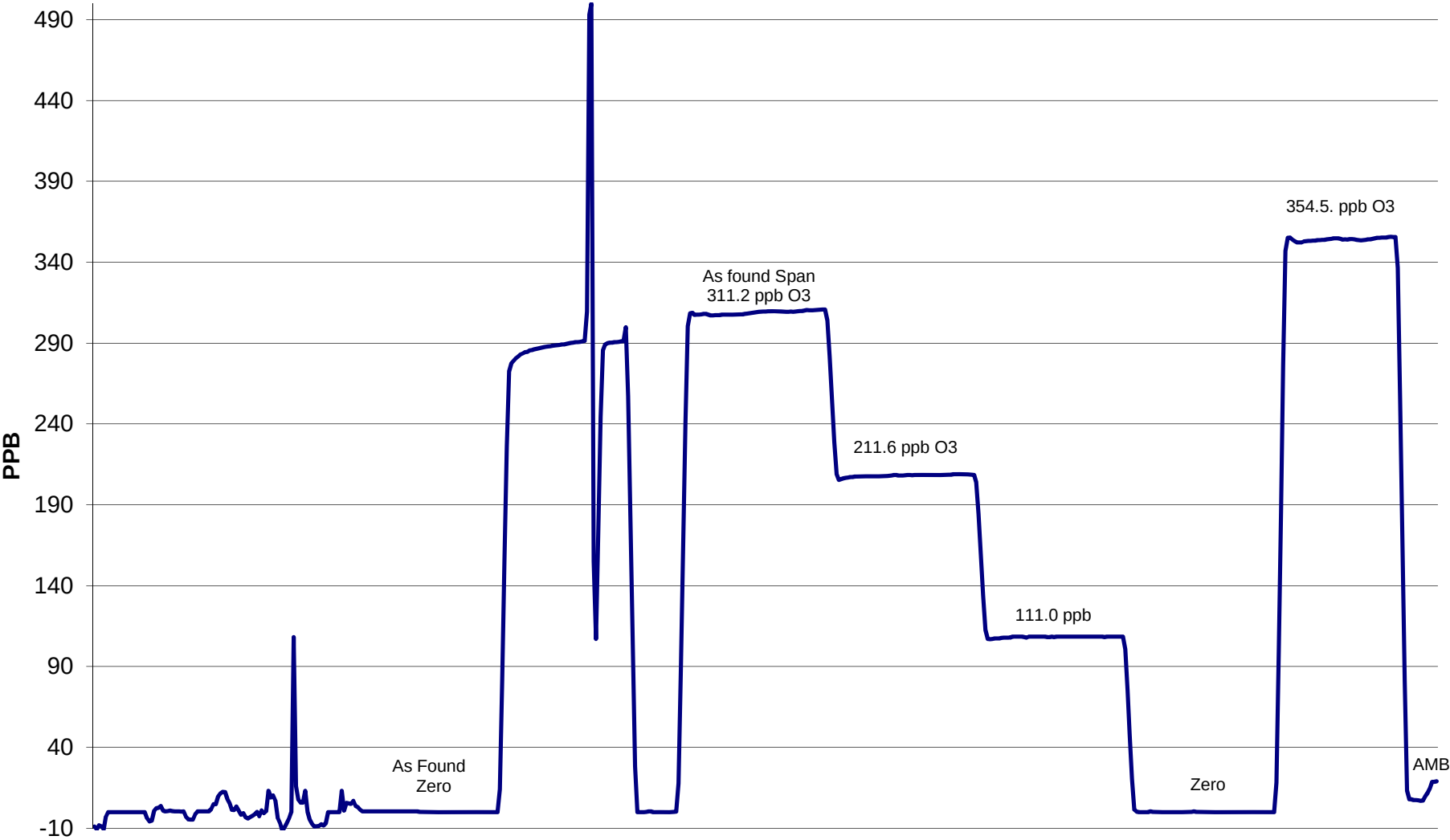
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	NA	Correlation Coefficient	0.999919
311.2	309.8	1.0044		
211.6	208.6	1.0145		
111.0	108.4	1.0241	Slope	1.004245
			Intercept	1.103744

O3 Calibration Curve



O3 Calibration



March 5, 2014

Calibration Report

Parameter CO

Air Monitoring Network PAZA



Station Information

Calibration Date	March 17, 2014	Previous Calibration	February 4, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	12:59	End Time (MST)	15:50:00 PM
Barometric Pressure	704.0 mm/hg	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Conc	2898 ppm	Cal Gas Expiry Date	04/02/2013
		Cal Gas Cylinder #	LL83909
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.002473	Calculated slope	1.012718
Calculated intercept	-0.120755	Calculated intercept	0.133269
Analyzer make	TEI Model 48C	Analyzer serial #	508011062

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO span setting	0.011		0.654	
CO zero setting	1.005		1.005	
Sample pressure	682	mm Hg	682.9	mm Hg
Sample Flow	1.118	LPM	1.119	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)
4995	0.00	0.00	0.01	N/A
4995	69.94	40.02	39.46	1.0140
4995	34.96	20.14	19.66	1.0247
4995	17.96	10.38	10.00	1.0383
4995	0.00	0.00	0.01	As Found Zero
4995	69.94	40.02	39.46	As Found Span
Average Correction Factor				1.0257

Calculated value of As Found Response: 39.432 ppm Percent Change of As Found: 1.5%

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	19.81	ppm	20.10	ppm

Notes: Slight zero adjustment, second point was interrupted with daily span.

Calibration Performed By: Grover Christiansen, Dmytro Dolotii

Calibration Summary

Parameter CO

Air Monitoring Network PAZA



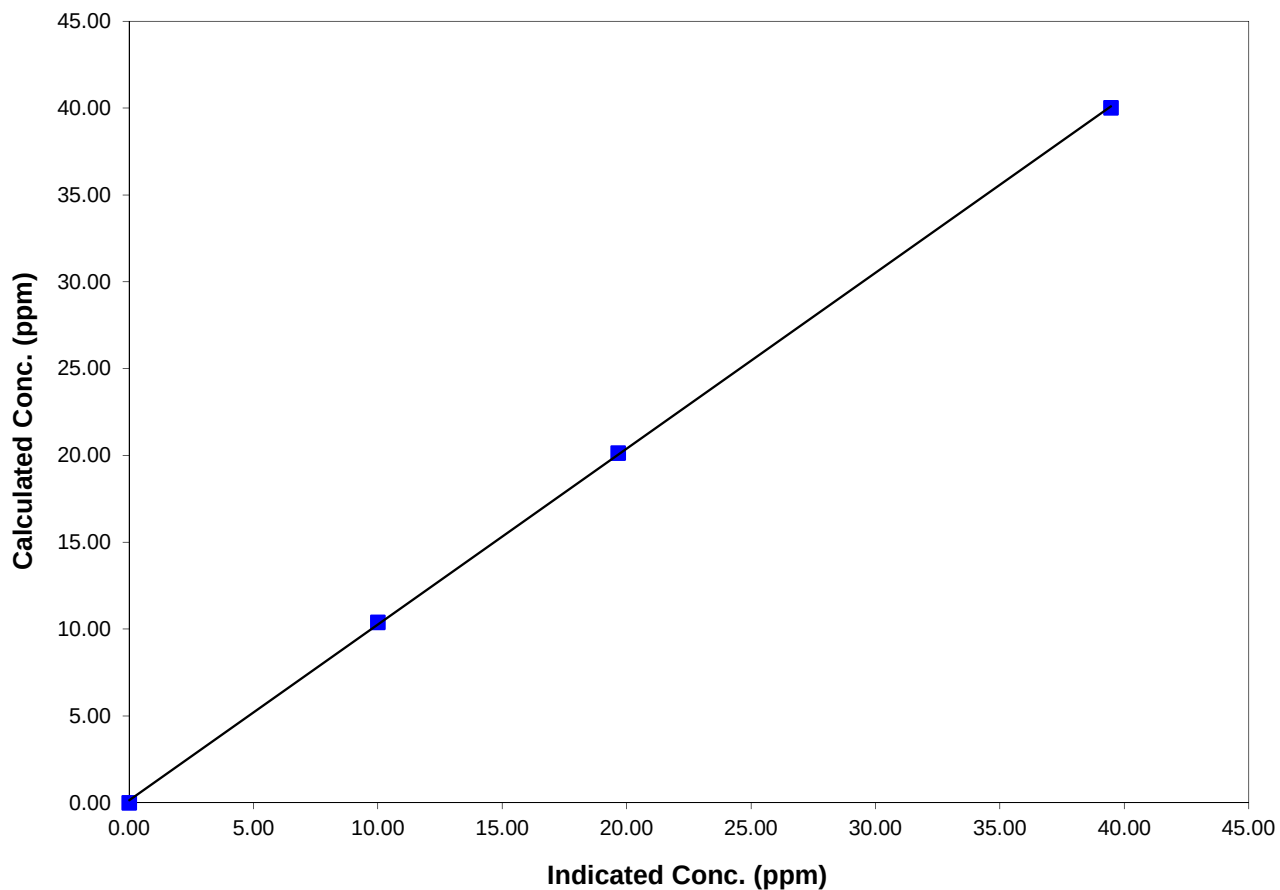
Station Information

Calibration Date	March 17, 2014	Previous Calibration	February 4, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	12:59	End Time (MST)	15:50:00 PM
Analyzer make/model	TEI Model 48C	Analyzer serial #	508011062

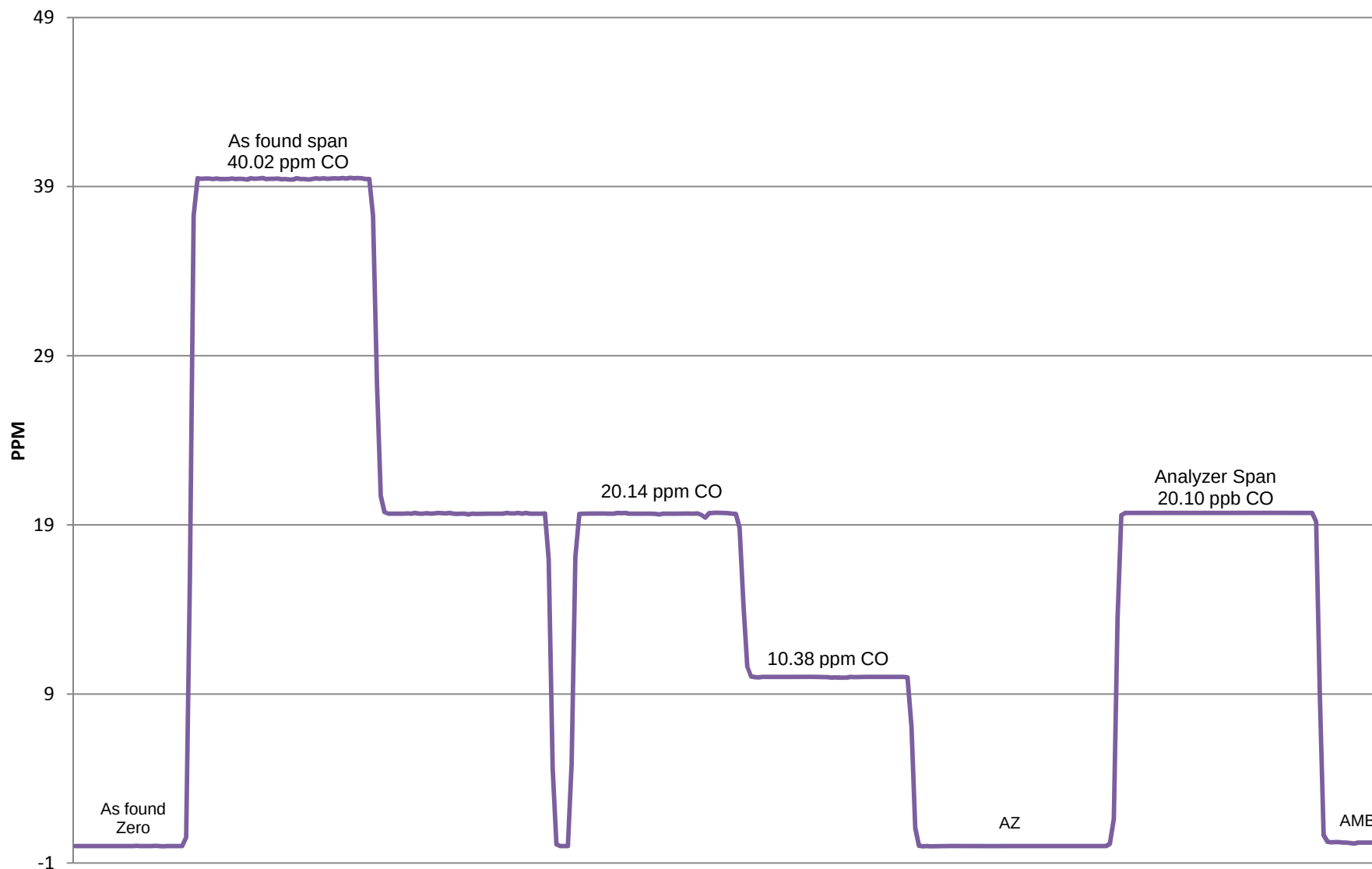
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.010	N/A	Correlation Coefficient	0.999939
40.017	39.464	1.0140		
20.142	19.656	1.0247		
10.383	10.000	1.0383	Slope	1.012718
			Intercept	0.133269

CO Calibration Curve



CO Calibration



March 17, 2014

Calibration Report

Parameter CH4 / NMHC / THC

Air Monitoring Network

PAZA



Station Information

Calibration Date	March 17, 2014	Previous Calibration	February 4, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	☐ Routine	☐ Install	☐ Removal
			☐ Other:

Start Time (MST)	14:55:00 PM	End Time (MST)	18:15:00 PM
Barometric Pressure	NA inches Hg	Station Temperature	20.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas CH4 Conc	386 ppm CH4	Cal Gas Expiry Date	28/03/2014
Cal Gas C3H8 Conc	207 569.25 ppm CH4	Cal Gas Cylinder #	LL34318
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 5 volt	DACS channel #	SE 11,12,13

Analyzer make	TEI 55I	Analyzer serial #	1134650658
---------------	---------	-------------------	------------

	before		after	
Concentration range	0-20 (CH4, NMHC); 0-40 (THC)	ppm	0-20 (CH4, NMHC); 0-40 (THC)	ppm
Air pressure	27.8	PSI	27.9	PSI
Fuel pressure	42.1	PSI	42.3	PSI
Carrier pressure	30.3	PSI	30.2	PSI
CH4 cal factor	5.68		5.68	E ⁻⁴
NMHC cal factor	1.64		1.64	E ⁻⁴
Rt	12.60	Sec	12.60	Sec
Pk Index	23.00		23.00	

CH4 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)
1996	0.00	0.00	0.02	N/A
1996	68.96	12.89	12.94	0.9962
1996	40.96	7.76	7.73	1.0038
1996	15.99	3.07	3.02	1.0148
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	12.89	12.49	As Found Span
Average Correction Factor				1.0049

Calculated value of As Found Response: 12.532 ppm Percent Change of As Found: 2.7%

	Before		After
Calculated slope	1.005458	Calculated slope	0.996771
Calculated intercept	-0.009749	Calculated intercept	0.020823

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.03	ppm	0.03	ppm
Auto span	9.11	ppm	9.16	ppm

NMHC 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)
1996	0.00	0.00	0.02	N/A
1996	68.96	19.01	18.96	1.0027
1996	40.96	11.45	11.49	0.9958
1996	15.99	4.52	4.51	1.0036
1996	0.00	0.00	0.02	As Found Zero
1996	68.93	19.00	18.21	As Found Span
Average Correction Factor				1.0007

Calculated value of As Found Response: 19.711 ppm Percent Change of As Found: -3.7%

	Before		After
Calculated slope	1.086218	Calculated slope	1.002353
Calculated intercept	-0.043708	Calculated intercept	-0.020405

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	12.55	ppm	12.62	ppm

THC 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)
1996	0.00	0.00	0.03	N/A
1996	68.96	31.90	31.87	1.0008
1996	40.96	19.21	19.21	0.9999
1996	15.99	7.59	7.52	1.0097
1996	0.00	0.00	0.03	As Found Zero
1996	68.93	31.89	30.68	As Found Span
Average Correction Factor				1.0035

Calculated value of As Found Response: 32.208 ppm Percent Change of As Found: -1.0%

	Before		After
Calculated slope	1.052578	Calculated slope	1.000680
Calculated intercept	-0.048222	Calculated intercept	0.006569

Final Zero/Span Data

	before calibration		after calibration	
Auto zero	0.02	ppm	0.02	ppm
Auto span	21.66	ppm	21.78	ppm

Notes: Span adjustment made, run adjustment point.

Calibration Performed By: Grover Christiansen, Dmytro Dolotii

Calibration Summary

Parameter CH4

Air Monitoring Network PAZA



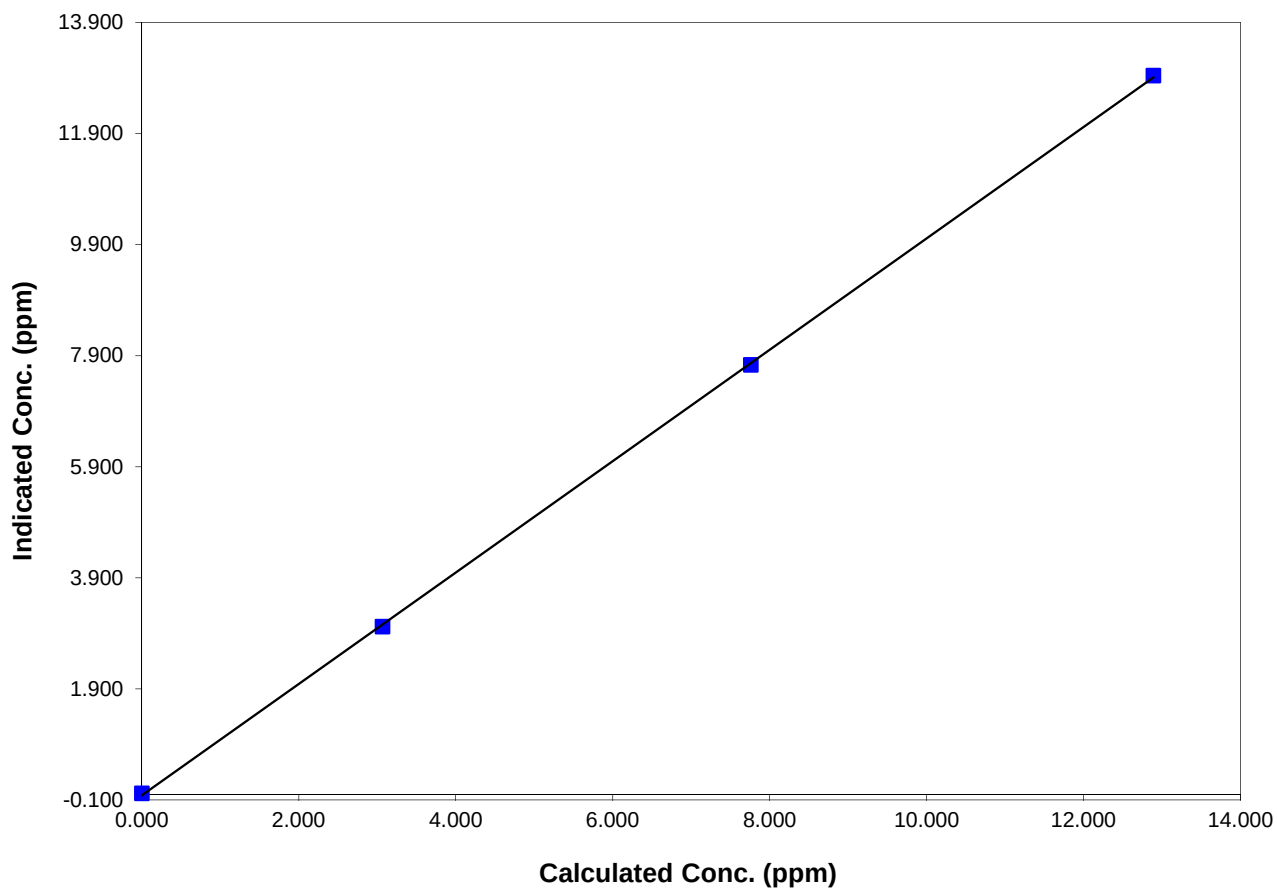
Station Information

Calibration Date	March 17, 2014	Previous Calibration	February 4, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	14:55:00 PM	End Time (MST)	18:15:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.019	N/A	Correlation Coefficient	0.999952
12.891	12.939	0.9962		
7.762	7.733	1.0038		
3.068	3.023	1.0148	Slope	0.996771
			Intercept	0.020823

CH4 Calibration Data



Calibration Summary

Parameter NMHC

Air Monitoring Network PAZA



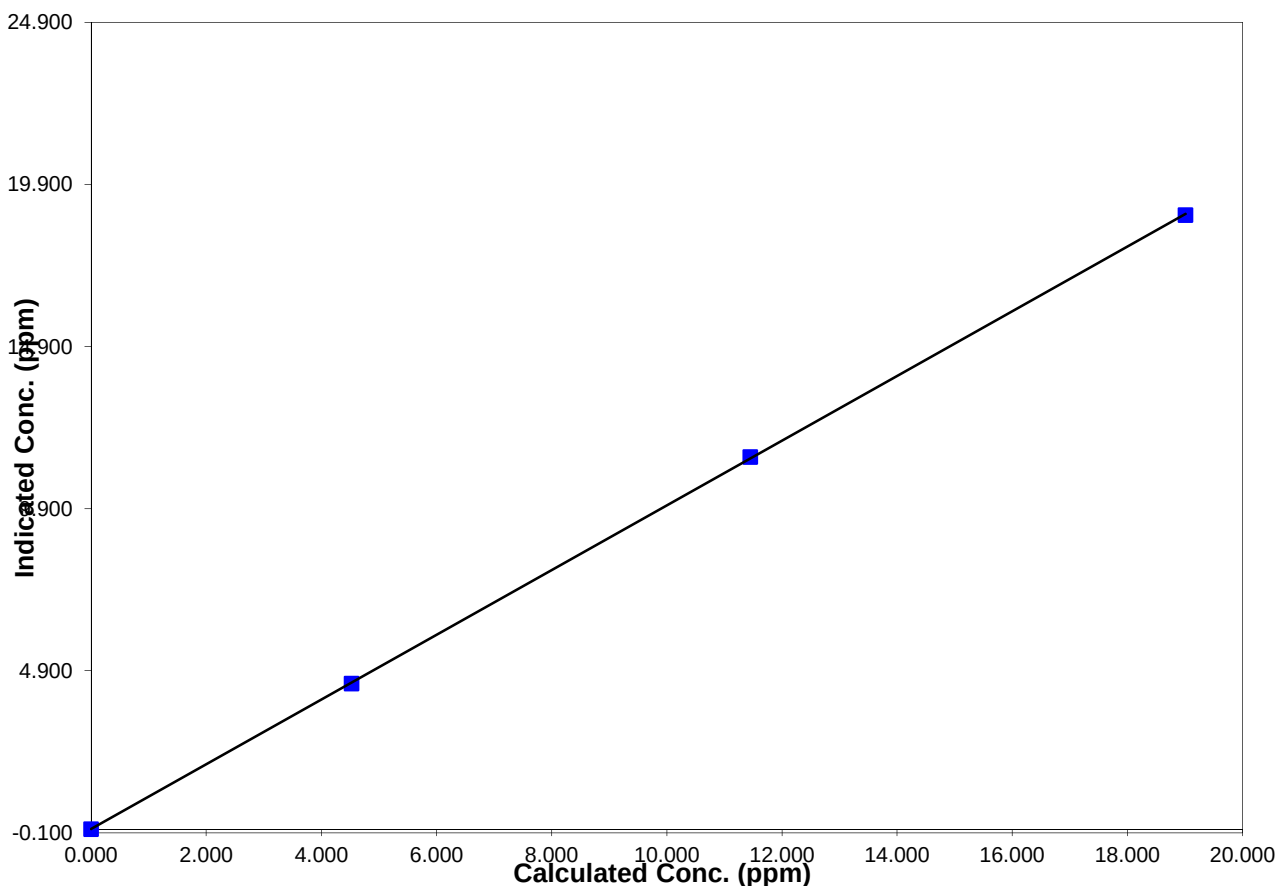
Station Information

Calibration Date	March 17, 2014	Previous Calibration	February 4, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	14:55:00 PM	End Time (MST)	18:15:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.019	N/A	Correlation Coefficient	0.999979
19.010	18.959	1.0027		
11.447	11.495	0.9958		
4.524	4.508	1.0036	Slope	1.002353
			Intercept	-0.020405

NMHC Calibration Data



Calibration Summary

Parameter THC

Air Monitoring Network PAZA



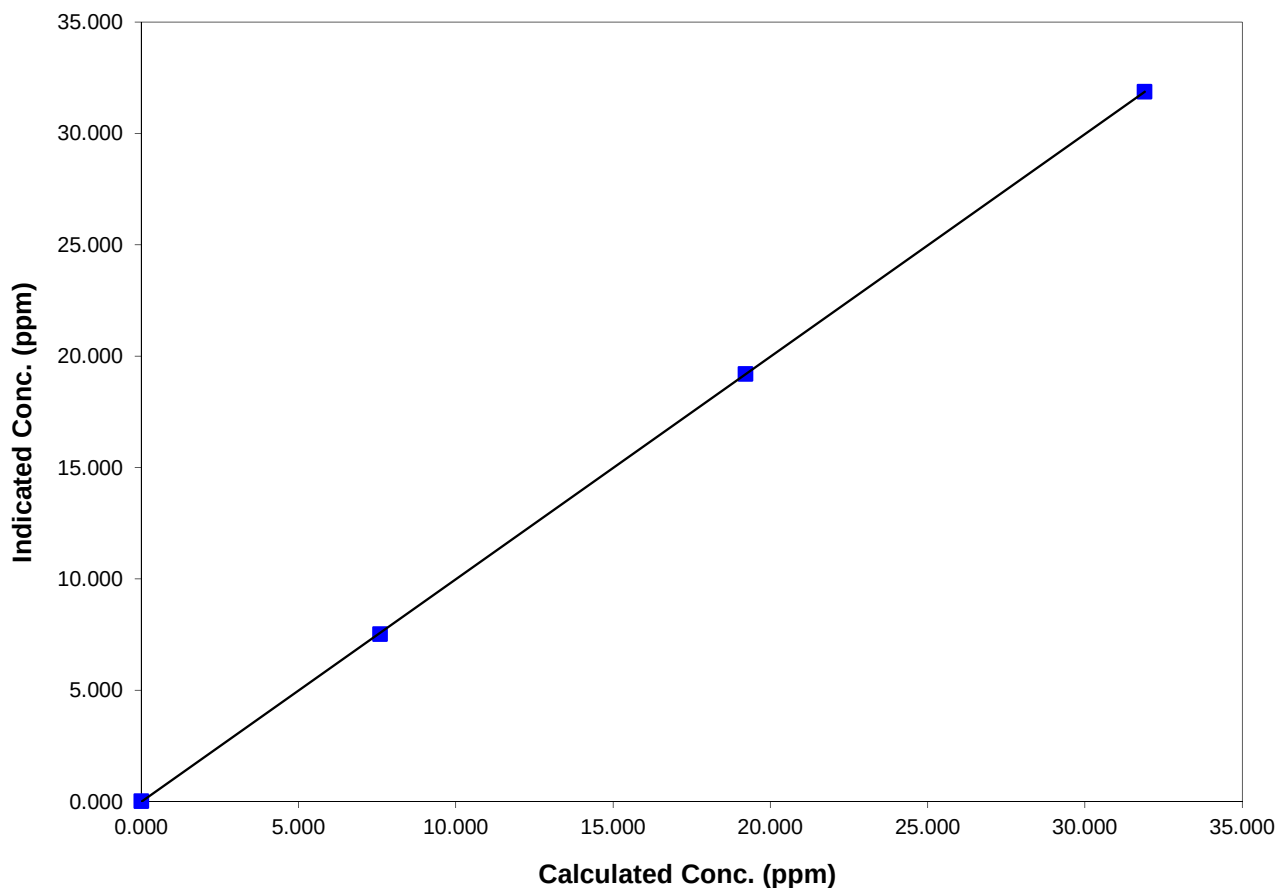
Station Information

Calibration Date	March 17, 2014	Previous Calibration	February 4, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	14:55:00 PM	End Time (MST)	18:15:00 PM
Analyzer make/model	TEI 55I	Analyzer serial #	1134650658

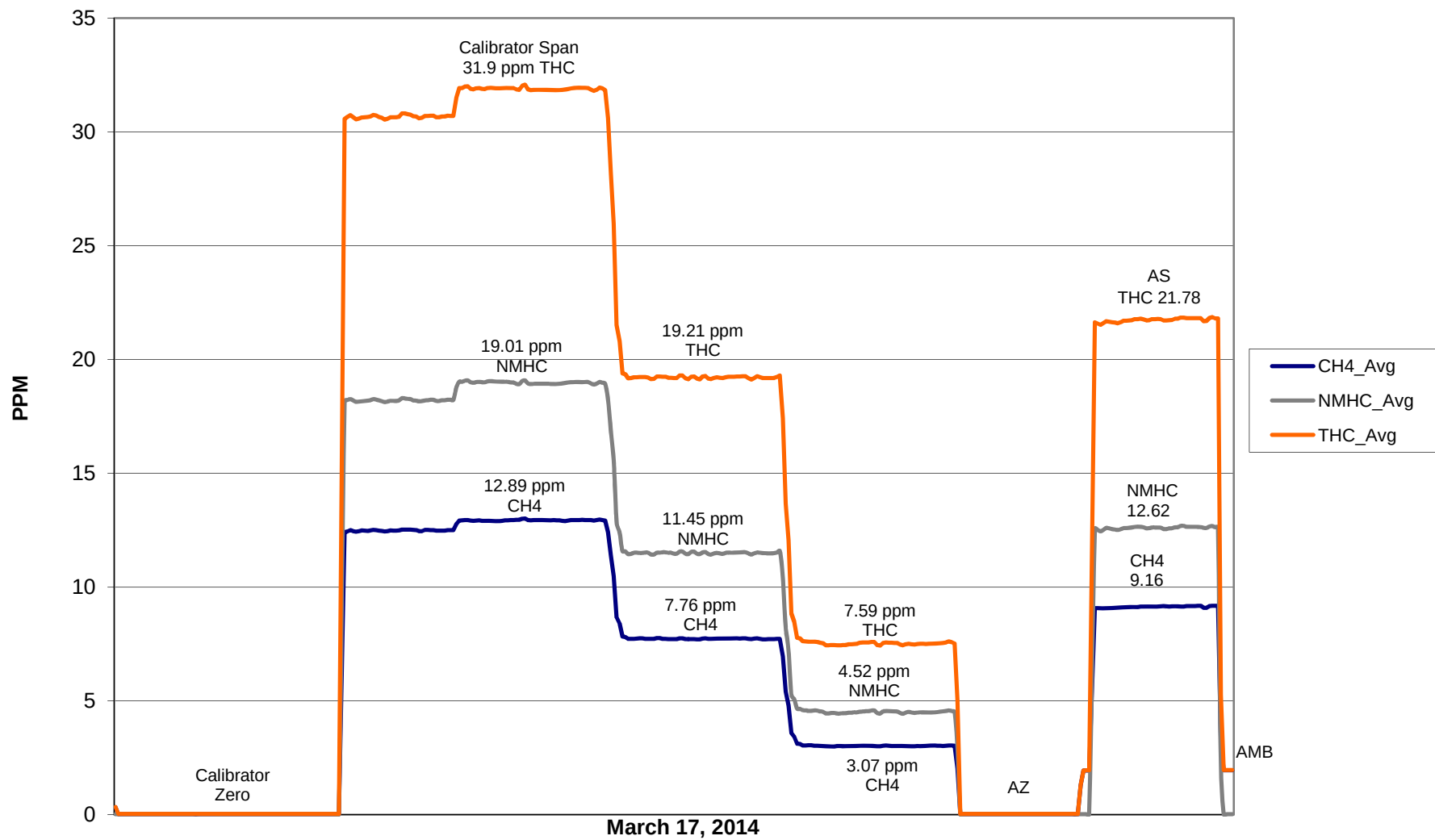
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.032	N/A	Correlation Coefficient	0.999990
31.901	31.875	1.0008		
19.209	19.210	0.9999		
7.592	7.519	1.0097	Slope	1.000680
			Intercept	0.006569

THC Calibration Data



THC/CH₄/NMHC Calibration



Calibration Report

Parameter TR5

Air Monitoring Network PAZA



Station Information

Calibration Date	March 17, 2014	Previous Calibration	February 4, 2014
Station Number	1	Station Location	Henry Pirker
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	9:50	End Time (MST)	13:35:00 PM
Barometric Pressure	704.00 mm/Hg	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Conc	10.4 ppb	Cal Gas Expiry Date	08/07/2016
		Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5408
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.005092	Calculated slope	1.020112
Calculated intercept	0.331613	Calculated intercept	0.256412
Analyzer make	TEI 45C	Analyzer serial #	630718528

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Coefficient	0.988		0.988	
Background	17.6		17.7	
Pressure	657.1	mm Hg	654.4	mm Hg
Flow	0.452	ccm	0.45	ccm
Lamp Voltage	884	v	884	v

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.00	-0.10	N/A
4995	39.93	82.48	80.66	1.0226
4995	19.95	41.37	40.22	1.0286
8995	8.95	10.34	9.76	1.0592
4995	0.00	0.00	-0.10	As Found Zero
4995	39.93	82.48	80.66	As Found Span
Average Correction Factor				1.0368

Calculated value of As Found Response: 81.5 ppb Percent Change of As Found: 1.2%

	before calibration		after calibration	
Auto zero	-0.92	ppb	-0.02	ppb
Auto span	33.06	ppb	39.43	ppb

Notes: No adjustment made, Sox scrubber check was performed

Calibration Performed By: Grover Christiansen, Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



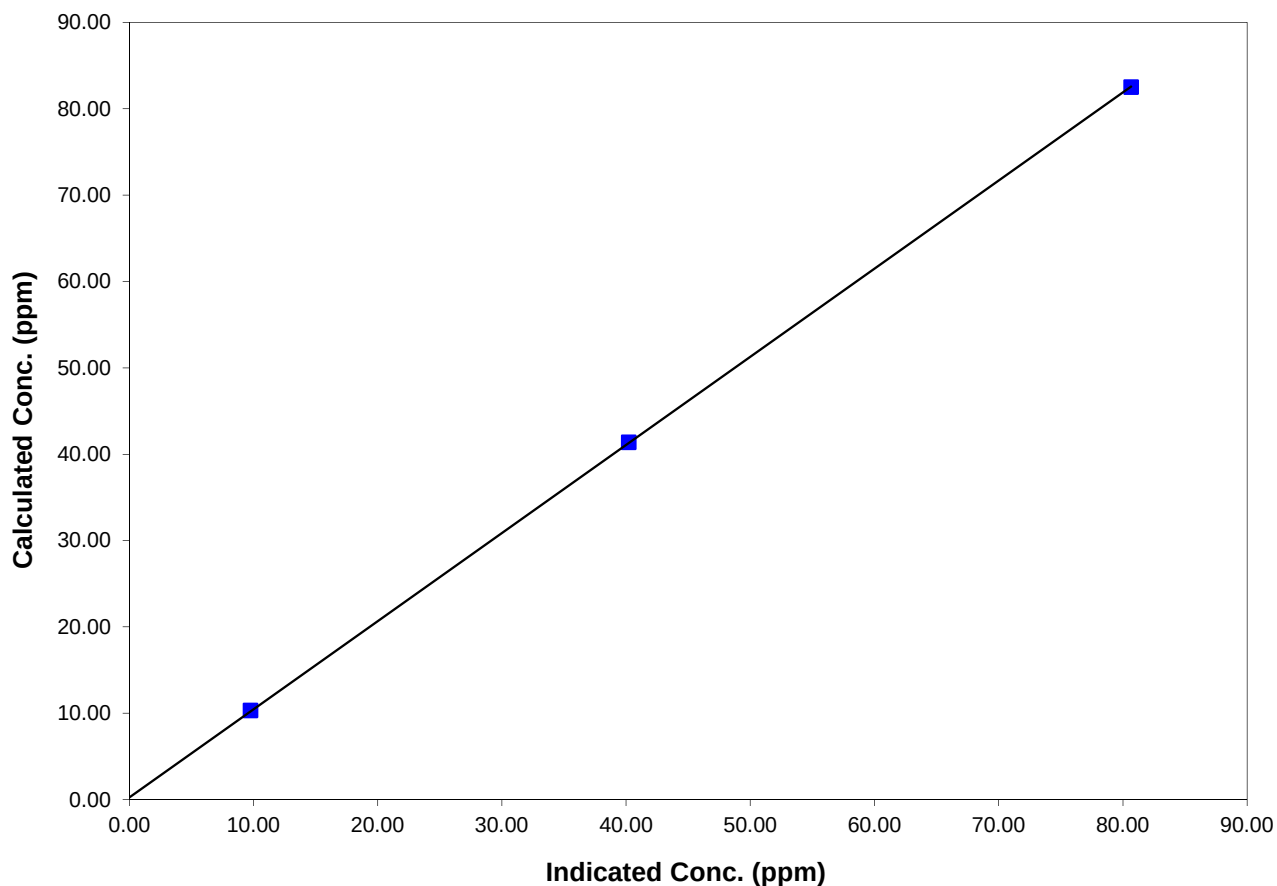
Station Information

Calibration Date	March 17, 2014	Previous Calibration	February 4, 2014
Station Number	1	Station Location	Henry Pirker
Start Time (MST)	9:50	End Time (MST)	13:35:00 PM
Analyzer make/model	TEI 45C	Analyzer serial #	630718528

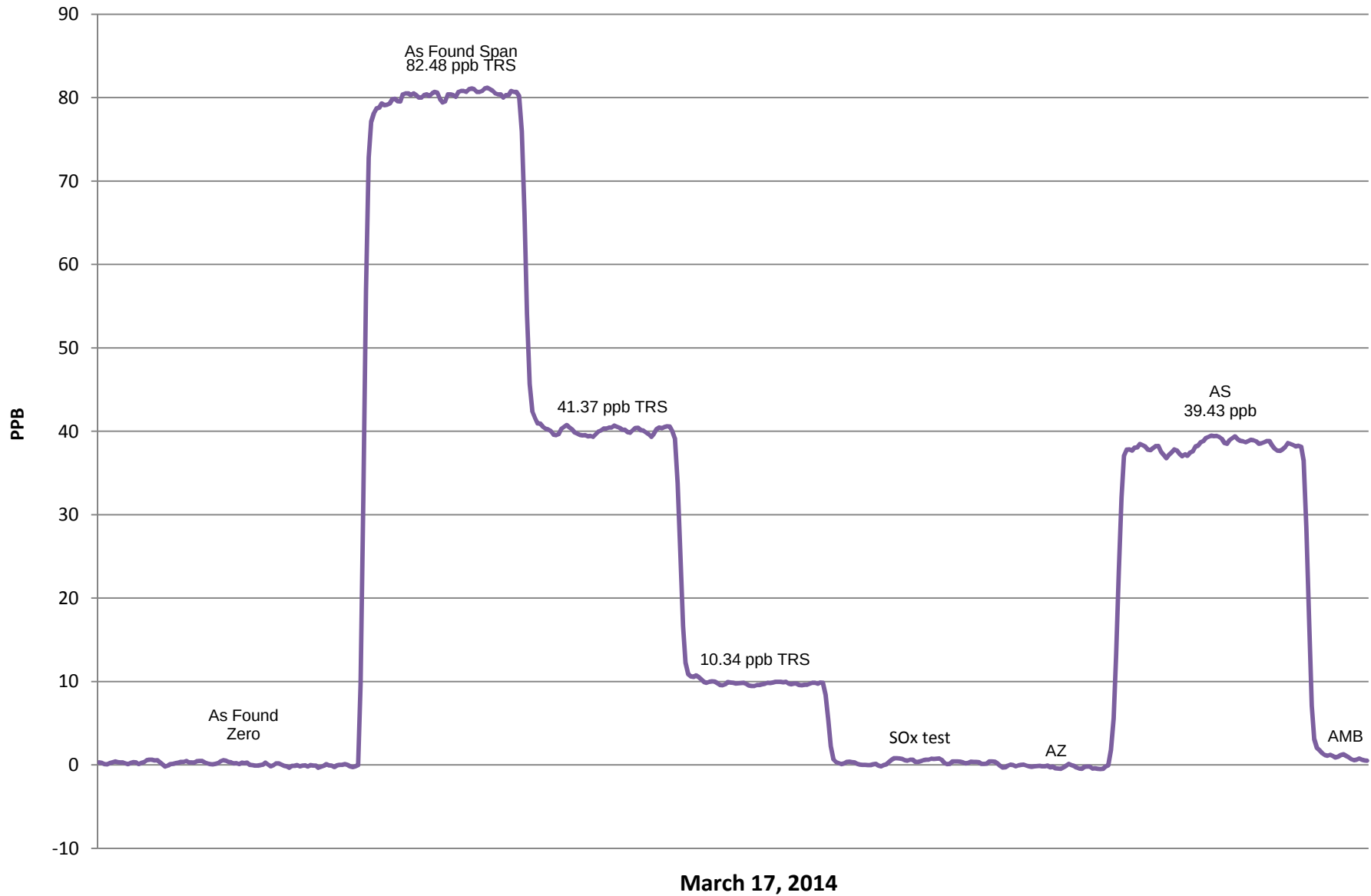
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.102	N/A		
82.478	80.658	1.0226	Correlation Coefficient	0.999988
41.372	40.221	1.0286		
10.338	9.760	1.0592	Slope	1.020112
			Intercept	0.256412

TRS Calibration Curve



TRS Calibration



Calibration Report



Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	March 06 2014	Previous Calibration	February 06 2014
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	11:50	End Time (MST)	14:40:00 PM
Barometric Pressure	0.924 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	51.5 ppm	Cal Gas Expiry Date	25/02/2025
Correction factor	0.031409	Cal Gas Cylinder #	LL105159
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	6
	<u>Before</u>		<u>After</u>
Calculated slope	1.010134	Calculated slope	1.001442
Calculated intercept	0.563226	Calculated intercept	0.509676
Analyzer make	Teco 43i	Analyzer serial #	701120008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.4		11.4	
coefficient	1.203		1.22	
Lamp Voltage	831	volts	830	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	44.99	Deg C	45	Deg C
Pressure	668.3	mm Hg	670.7	mm Hg
Sample Flow	0.45	ccm	0.454	ccm
Lamp Intensity	89	%	89	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.6	N/A
4995	39.93	408.4	407.9	1.0012
4995	19.97	205.1	203.6	1.0075
4995	9.97	102.6	100.9	1.0169
4995	0.0	0.0	0.6	As Found Zero
4995	39.93	408.4	402.6	As Found Span
Average Correction Factor				1.0085

Calculated value of As Found Response: 406.582 ppm Percent Change of As Found: 0.4%

	before calibration		after calibration	
Auto zero	1.8	ppm	0.7	ppm
Auto span	290.1	ppm	281.4	ppm

Notes: Span adjustment made.

Calibration Performed By: Grover Christiansen,Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



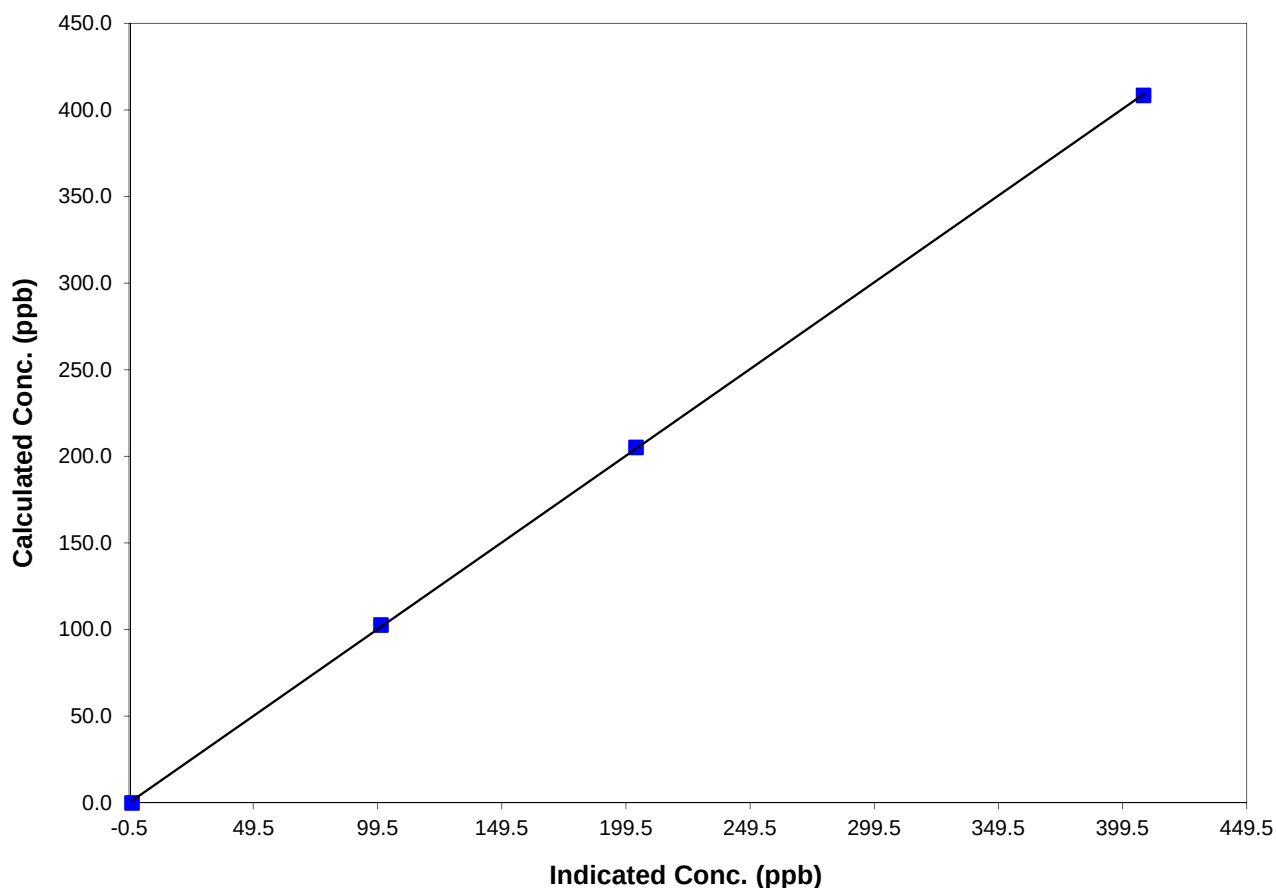
Station Information

Calibration Date	March 06 2014	Previous Calibration	February 06 2014
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	11:50	End Time (MST)	14:40:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120008

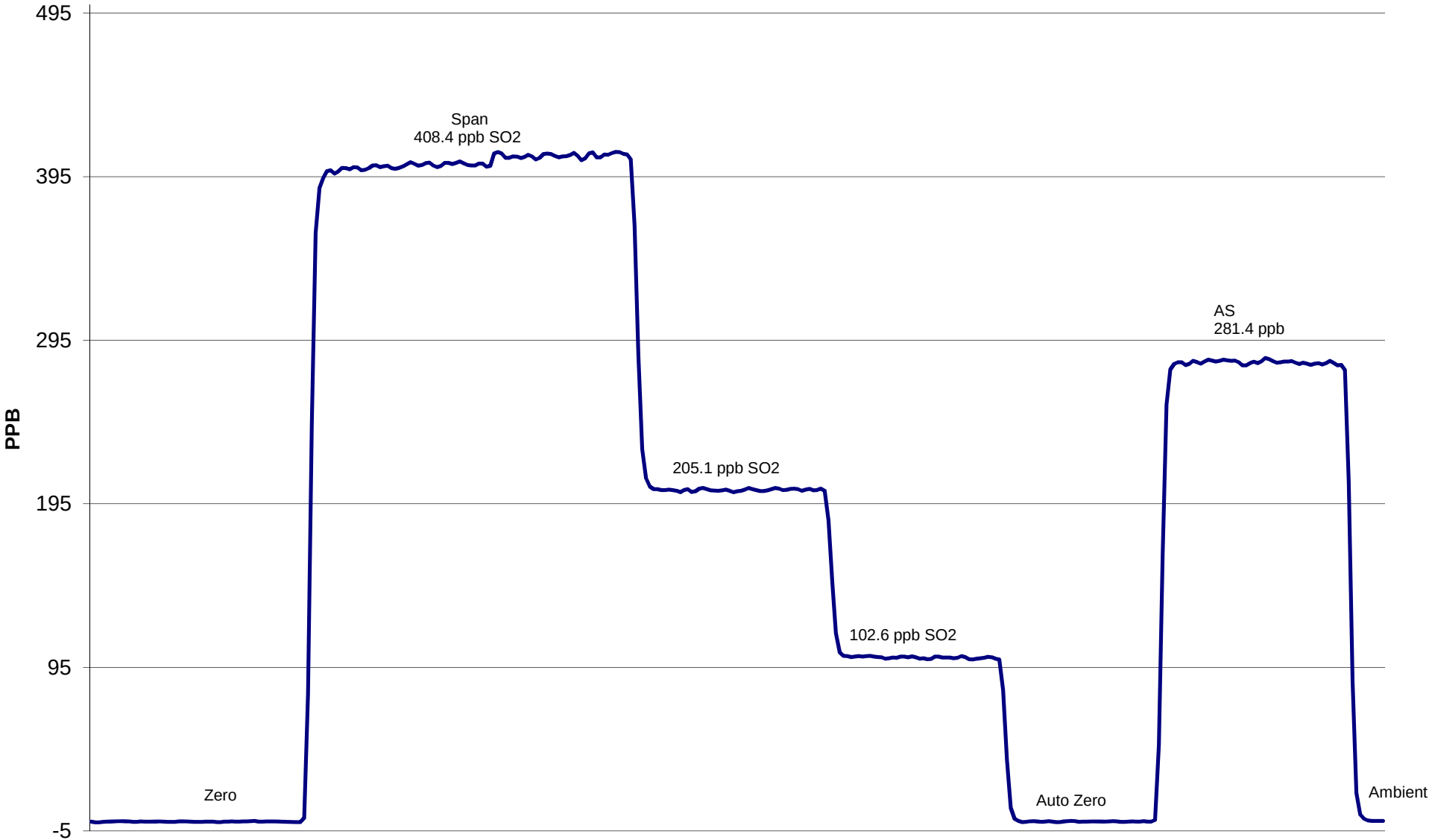
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A	Correlation Coefficient	0.999963
408.4	407.9	1.0012		
205.1	203.6	1.0075		
102.6	100.9	1.0169	Slope	1.001442
			Intercept	0.509676

SO2 Calibration Curve



SO2 Calibration



March 06 2014

Calibration Report



Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	March 06 2014	Previous Calibration	February 06 2014
Station Number	2	Station Location	Evergreen Park
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	8:40	End Time (MST)	13:20:00 PM
Barometric Pressure	0.907 ATM	Station Temperature	22.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Conc	10.4 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.030622	Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5236
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	1.021491	Calculated slope	1.032504
Calculated intercept	-0.573779	Calculated intercept	-0.656430

Analyzer make TEI Model 43C Analyzer serial # 3.199E+13

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	38.7	ppb	37.9	ppb
coefficient	1.043		1.043	
Lamp Voltage	1048	volts	1046	volts
Chamber Temp	44.2	Deg C	44.3	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	642	mm Hg	636.1	mm Hg
Sample Flow	0.604	ccm	0.645	ccm
Lamp Intensity	31,735	mv	31,606	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)
4995	0.00	0.00	0.8	N/A
4995	39.93	82.48	80.5	1.0251
4995	19.97	41.41	40.9	1.0117
8995	8.97	10.36	10.4	0.9988
4995	9.97	102.79	1.2	Sox Test
4995	0.00	0.00	0.2	As Found Zero
4995	39.93	82.48	79.7	As Found Span
Average Correction Factor				1.0119

Calculated value of As Found Response: 80.59 ppm Percent Change of As Found: **2.3%**

	before calibration		after calibration	
Auto zero	-0.2	ppm	-0.1	ppm
Auto span	82.2	ppm	71.1	ppm

Notes: No adjustments made.
 Sox scrubber check performed
 Sample pump replaced.

Calibration Performed By: Grover Christiansen,Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



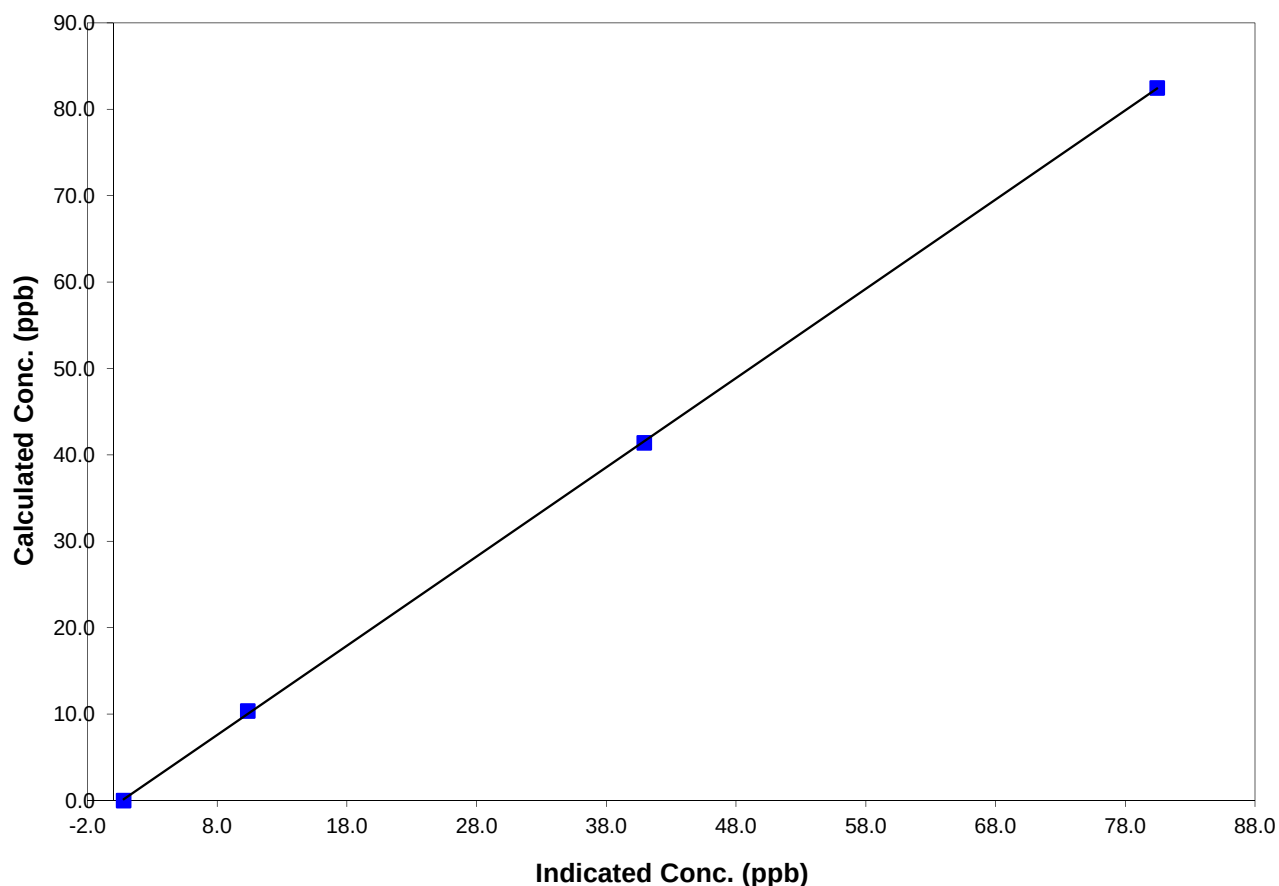
Station Information

Calibration Date	March 06 2014	Previous Calibration	February 06 2014
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	8:40	End Time (MST)	13:20:00 PM
Analyzer make/model	TEI Model 43C	Analyzer serial #	31990000000491

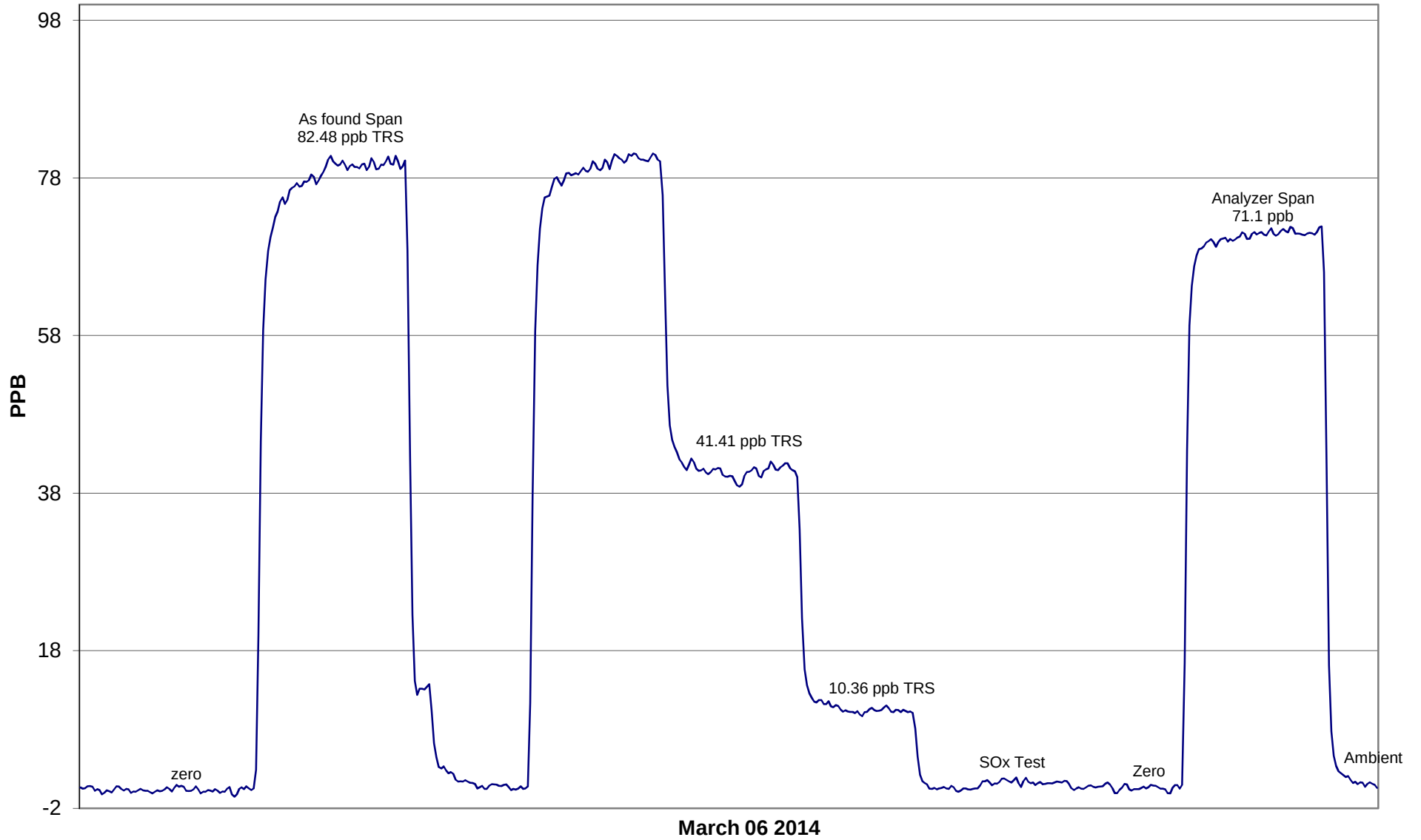
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.8	N/A	Correlation Coefficient	0.999960
82.5	80.5	1.0251		
41.4	40.9	1.0117		
10.4	10.4	0.9988	Slope	1.032504
			Intercept	-0.656430

TRS Calibration Curve



TRS Calibration



Calibration Report



Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	March 13, 2014	Previous Calibration	February 25, 2014
Station Number	3	Station Location	Smokey Heights
Reason:	☒ Routine	☐ Install	☐ Removal
			☐ Other:
Start Time (MST)	10:55	End Time (MST)	13:55 PM
Barometric Pressure	0.935 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Concentration	51.5 ppm	Cal Gas Cert Date	20/01/2016
Correction factor	0.031783	Cal Gas Cylinder #	LL1105159
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	1.012954	Calculated slope	1.013478
Calculated intercept	-2.932180	Calculated intercept	1.433417
Analyzer make	Teco 43i	Analyzer serial #	701120009

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	11.2		11.1	
coefficient	0.959		0.959	
Lamp Voltage	928	volts	928	volts
Chamber Temp	45.2	Deg C	45.1	Deg C
Perm Gas Temp	45	Deg C	44.99	Deg C
Pressure	665.1	mm Hg	667.5	mm Hg
Sample Flow	0.444	lpm	0.447	lpm
Lamp Intensity	87	%	87	%

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.6	N/A
4995	39.93	408.43	402.6	1.0145
4995	19.97	205.08	199.9	1.0261
4995	9.97	102.59	97.9	1.0481
4995	0.0	0.00	0.6	As Found Zero
4995	39.93	408.43	402.6	As Found Span
Average Correction Factor				1.0296

Calculated value of As Found Response: 404.277 ppm Percent Change of As Found: 1.0%

	before calibration		after calibration	
Auto zero	1.6	ppb	0.6	ppb
Auto span	248.2	ppb	253.0	ppb

Notes: No adjustments made.

Calibration Performed By: Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



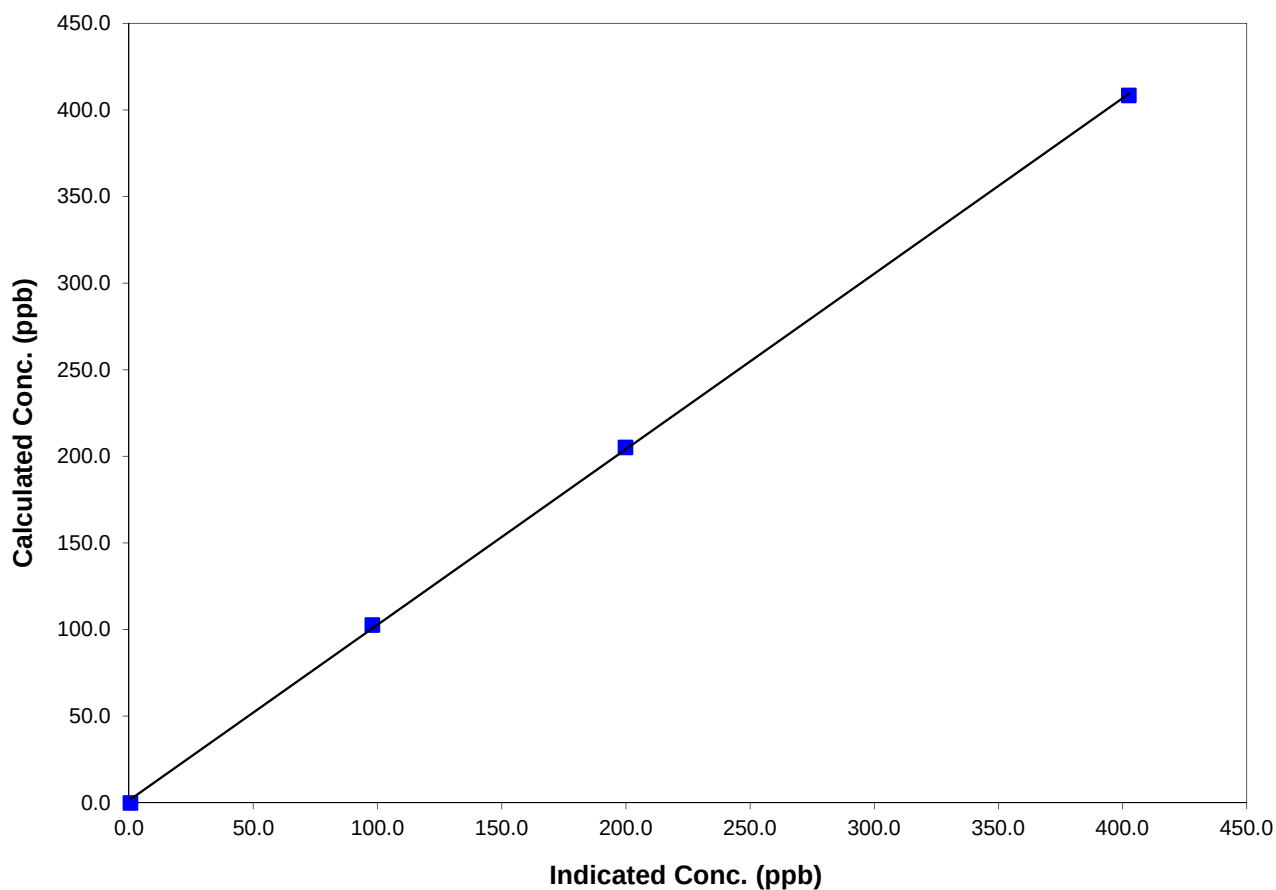
Station Information

Calibration Date	March 13, 2014	Previous Calibration	February 25, 2014
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	10:55	End Time (MST)	13:55 PM
Analyzer make/model	Teco 43i	Analyzer serial #	701120009

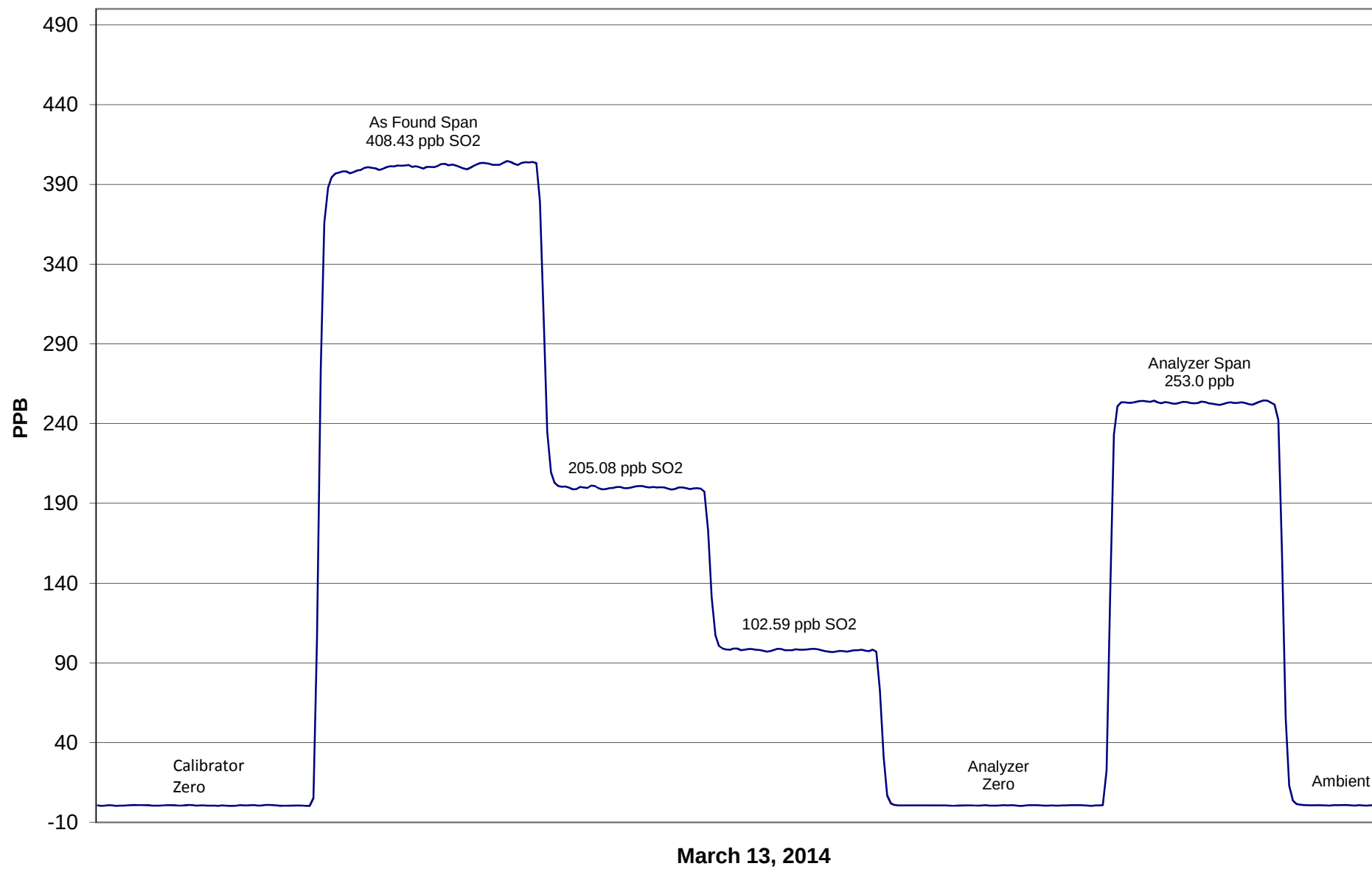
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	N/A	Correlation Coefficient	0.999889
408.4	402.6	1.0145		
205.1	199.9	1.0261		
102.6	97.9	1.0481	Slope	1.013478
			Intercept	1.433417

SO2 Calibration Curve



Smokey Heights SO₂ Calibration



Calibration Report



Parameter TRS

Air Monitoring Network PAZA

Station Information

Calibration Date	March 13, 2014	Previous Calibration	February 25, 2014
Station Number	3	Station Location	Smokey Heights
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	9:00	End Time (MST)	12:25
Barometric Pressure	0.935 ATM	Station Temperature	20.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Conc	10.4 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031783	Cal Gas Cylinder #	LL110781
DACS make	CR3000	DACS serial No.	5238
DACS voltage range	0 - 5 volt	DACS channel #	5
	Before		After
Calculated slope	0.987206	Calculated slope	1.011887
Calculated intercept	-1.060078	Calculated intercept	0.198558

Analyzer make TEI Model 43C Analyzer serial # 0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	18.2	ppb	18.2	ppb
coefficient	0.960		0.960	
Lamp Voltage	835	volts	837	volts
Chamber Temp	43.9	Deg C	44.1	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	602.9	mm Hg	602.8	mm Hg
Sample Flow	0.639	lpm	0.643	lpm
Lamp Intensity	34,890	mv	34,833	mv

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.4	N/A
4995	39.93	82.48	81.7	1.0100
4995	19.97	41.41	40.1	1.0333
8995	8.97	10.36	9.7	1.0635
4995	9.97	102	0.9	Sox test
4995	0.0	0.00	0.4	As Found Zero
4995	39.93	82.48	81.7	As Found Span
Average Correction Factor				1.0356

Calculated value of As Found Response: 79.16 ppm Percent Change of As Found: 4.0%

	before calibration		after calibration	
Auto zero	0.5	ppm	0.6	ppm
Auto span	29.5	ppm	32.7	ppm

Notes: No adjustments made

Calibration Performed By: Dmytro Dolotii, Grover Christiansen

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



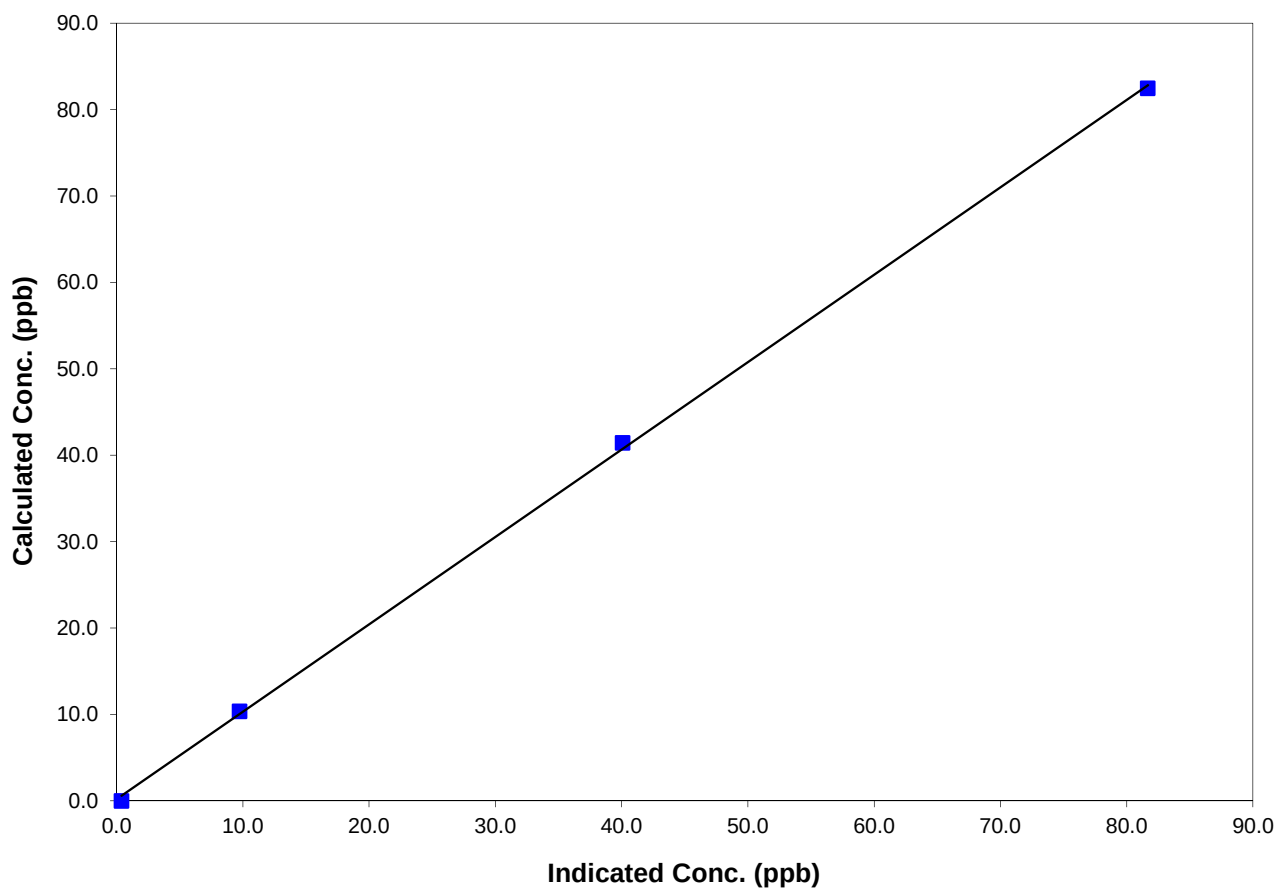
Station Information

Calibration Date	March 13, 2014	Previous Calibration	February 25, 2014
Station Number	3	Station Location	Smokey Heights
Start Time (MST)	9:00	End Time (MST)	12:25
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

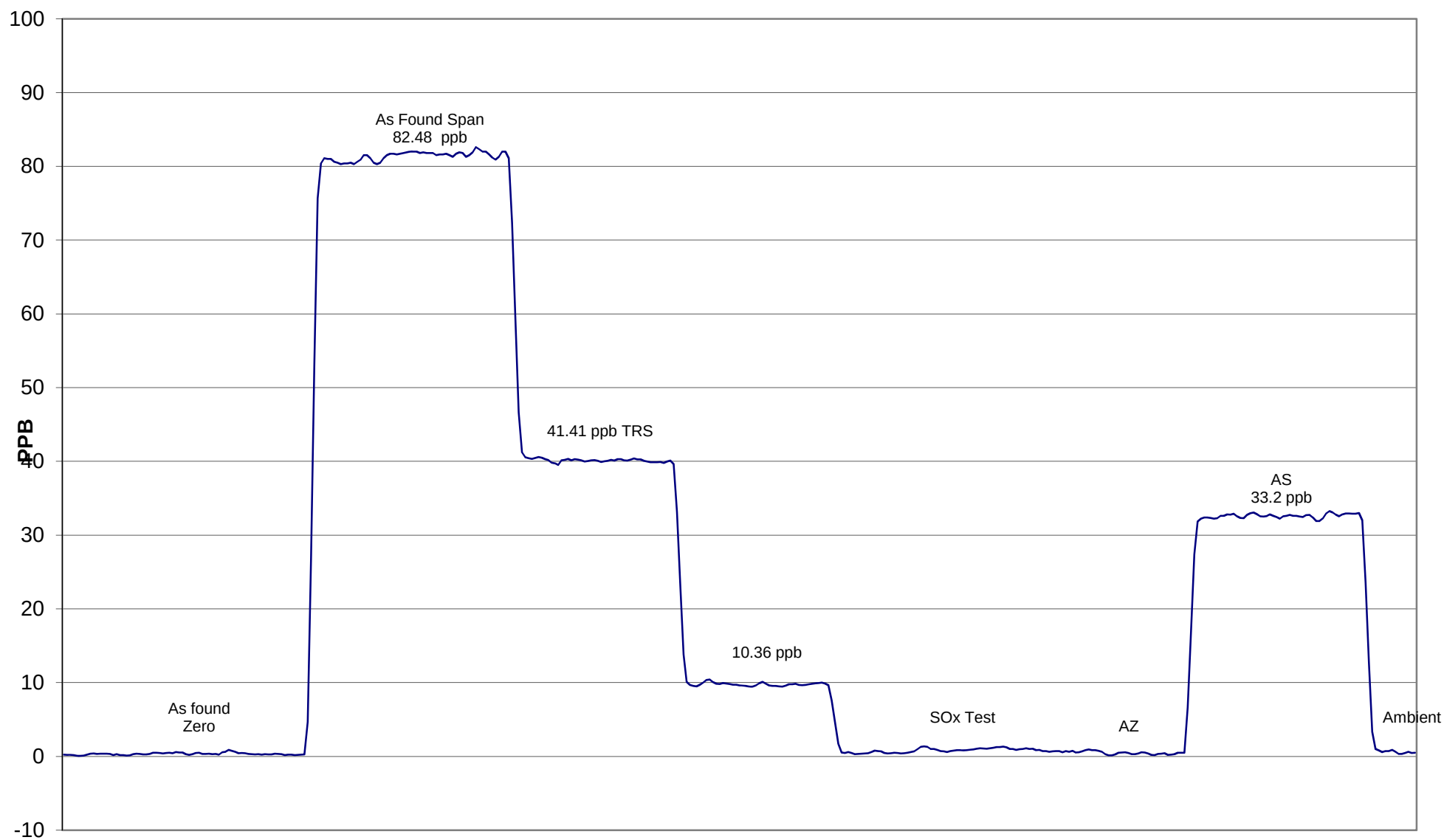
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A	Correlation Coefficient	0.999752
82.5	81.7	1.0100		
41.4	40.1	1.0333		
10.4	9.7	1.0635	Slope	1.011887
			Intercept	0.198558

TRS Calibration Curve



Smokey Heights TRS Calibration



March 13, 2014

Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	March 12, 2014	Previous Calibration	February 13, 2014
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	7:30	End Time (MST)	10:00
Barometric Pressure	0.908 atm	Station Temperature	20.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Concentration	10.8 ppm	Cal Gas Expiry Date	28/09/2012
Gas Cert Reference	FF14871		
DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.026841	Calculated slope	1.017408
Calculated intercept	-0.071524	Calculated intercept	0.035916
Analyzer make	TEI Model 43i-TLE	Analyzer serial #	713021137

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.72		2.71	
Coefficient	1.042		1.042	
PMT	-767.8	V	-767.4	V
UV Lamp Voltage	1067	V	1067	V
Chamber Temp	44.8	Deg C	45	Deg C
Pressure	663.4	mm Hg	665.5	mm Hg
Sample Flow	0.481	LPM	0.483	LPM
Lamp Intensity	96	%	96	%

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.1	N/A
4995	39.93	85.7	84.2	1.0176
4995	19.97	43.0	42.3	1.0177
4995	9.97	21.5	21.0	1.0260
4995	0.00	0.0	0.1	As found zero
4995	39.93	85.7	84.2	As found span
Average Correction Factor				1.0204

Calculated value of As Found Response: 86.300 ppm Percent Change of As Found: -0.8%

	before calibration		after calibration	
Auto zero	0.2	ppb	0.1	ppb
Auto span	59.9	ppb	60.1	ppb

Notes: No adjustments made.

Calibration Performed By: Grover Christiansen,Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



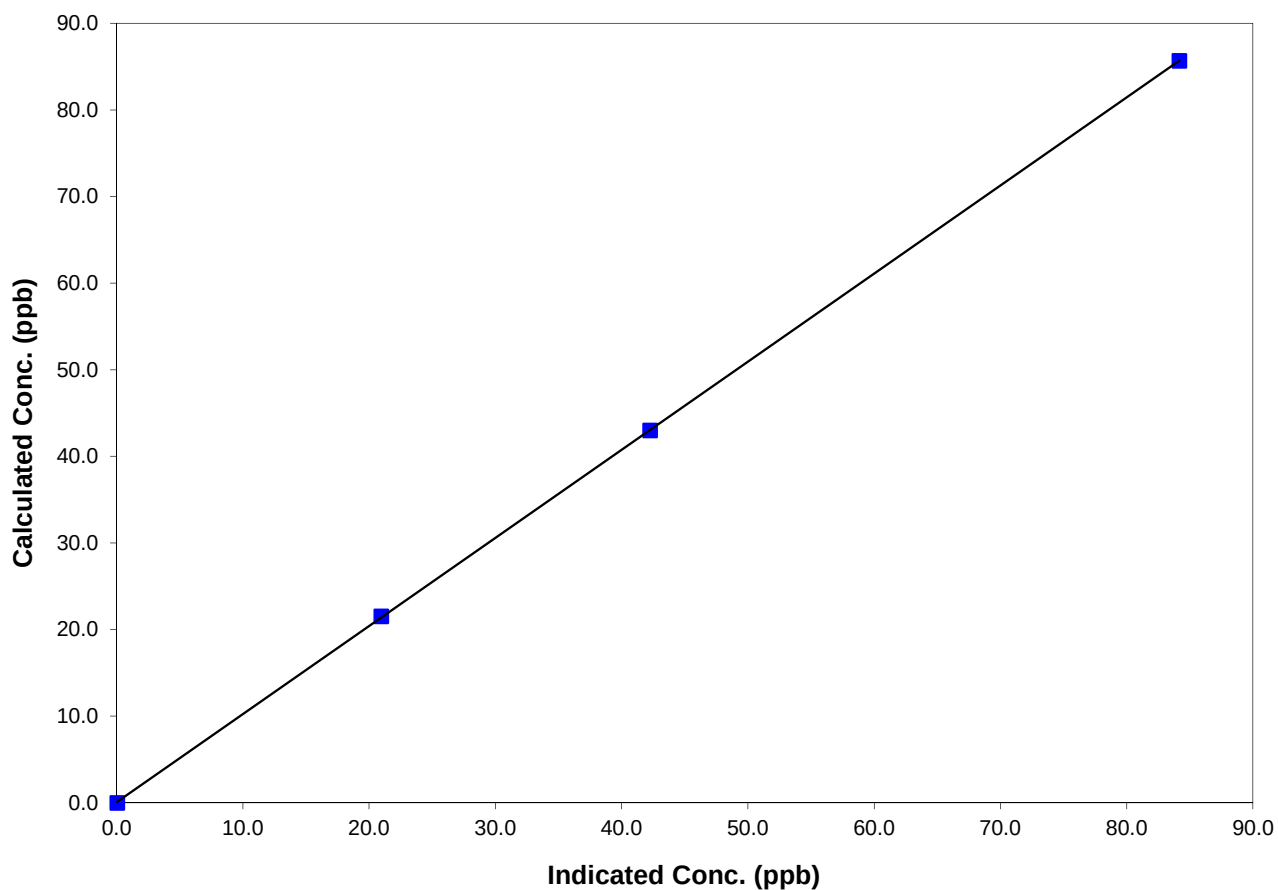
Station Information

Calibration Date	March 12, 2014	Previous Calibration	February 13, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	7:30	End Time (MST)	10:00
Analyzer make/model	TEI Model 43i-TLE	Analyzer serial #	713021137

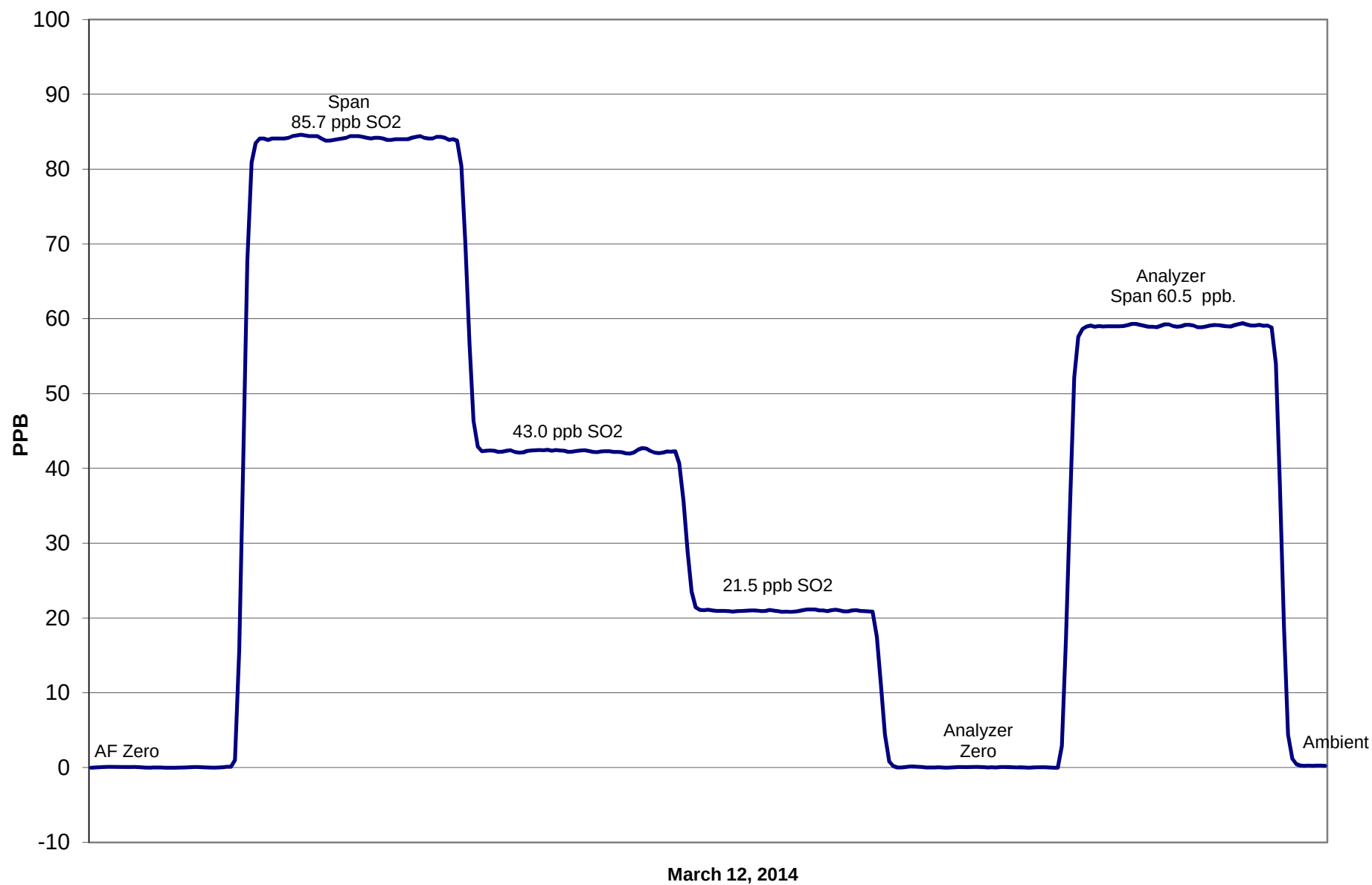
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999992
85.7	84.2	1.0176		
43.0	42.3	1.0177		
21.5	21.0	1.0260	Slope	1.017408
			Intercept	0.035916

SO2 Calibration Curve



SO2 Calibration



Calibration Report

Parameter

NO_x-NO-NO₂

Air Monitoring Network

PAZA



Station Information

Calibration Date	March 10, 2014	Previous Calibration	February 13, 2014
Station Number	4	Station Location	Beaverlodge
Reason:	☒ Routine	☐ Installation	☐ Removal
Start Time (MST)	8:30	End Time (MST)	13:56
Barometric Pressure	0.904	Station Temperature	20.0
Calibrator	EnviroNics	Serial Number	3016
NO Cal Gas Conc	51.3	Cal Gas Expiry Date	February 25, 2021
NOx Cal Gas Conc	51.4	Cal Gas Serial #	LL105159

DACS Information

DACS make	CR3000	DACS serial No.	5237
Parameter	NO2	NOx	NO
Before	Data Slope	1.001238	1.003193
	Data Offset	0.427803	0.653400
After	Data Slope	1.001238	1.003193
	Data Offset	0.427803	0.653400
Channel #	8	6	7
Voltage Range	0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	906535068
Test Point	before	after	
Concentration range	0-500	ppb	0-500
NO offset	2.9	mV	2.9
NOx bkgnd	3.1	mV	3.1
NO coefficient	1.001		1.001
NOx coefficient	1.000		1.000
NO2 conv temp	326.0	Deg C	326.0
PMT Temp	-3.1	Deg C	-3.1
PMT Volt	-738.5	mV	-750.4
R Cell Press	212.4	in Hg	213.3
Sample Flow	0.690	LPM	0.683

Notes: PMT adjustment made, run adjustment point.

Calibration Report

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



Station Information

Calibration Date: March 10, 2014 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	4995	0.00	0.0	0.0	0.0	-0.3	-0.3	0.0	N/A	N/A
1	4995	39.93	407.6	406.8	0.8	406.9	406.1	0.1	1.0017	1.0019
2	4995	19.97	204.7	204.3	0.4	202.4	201.3	0.3	1.0112	1.0149
3	4995	9.97	102.4	102.2	0.2	99.3	98.7	0.4	1.0316	1.0352
AFZ	4995	0.00	0.0	0.0	0.0	-0.3	-0.3	0.0	0.0000	0.0000
AFS	4995	39.93	407.6	406.8	0.8	361.0	360.4	-0.1	1.1293	1.1289
Average Correction Factor									1.0148	1.0173

As Found Concentrations: NO_x= 361.9 NO= 361.7 As Found Percent Change NO_x= -11.2% NO= -11.1%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	-0.3	-0.3	0.0	-0.3	-0.3	0.0	N/A	N/A	N/A	N/A
NO point	402.9	402.9	0.0	403.2	402.9	-0.4	0.9992	1.0000	N/A	N/A
300	402.9	117.7	285.2	403.4	117.7	284.9	0.9987	1.0000	1.0011	99.9%
200	402.9	211.6	191.3	402.7	211.6	190.4	1.0004	1.0000	1.0048	99.5%
100	402.9	304.9	98.0	404.2	304.9	99.0	0.9966	1.0000	0.9900	101.0%
Average Correction Factor							0.9985	1.0000	0.9986	100.1%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.1	-0.1	-0.1	ppb	0.1	-0.1	0.0	ppb
Auto span	168.3	166.9	1.1	ppb	193.2	191.6	1.0	ppb

Calibration Performed By: Grover Christiansen,Dmytro Dolotii

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



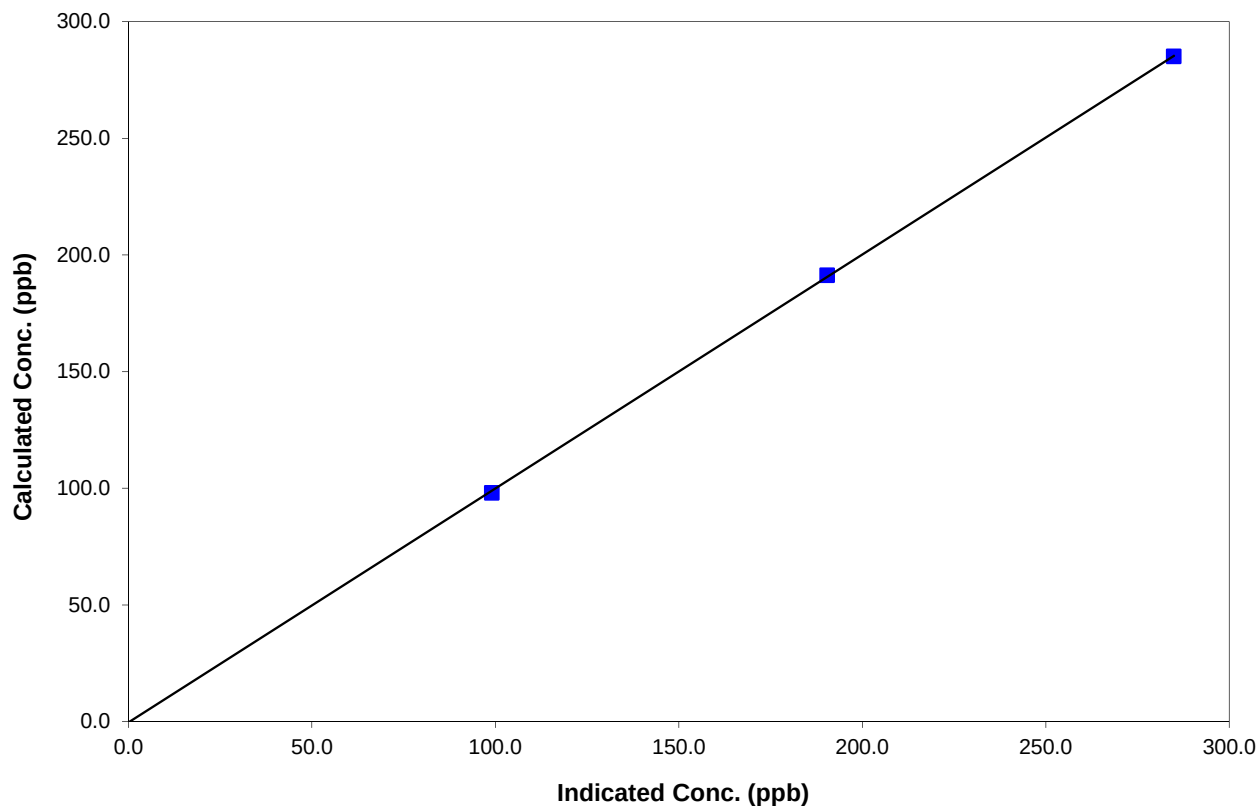
Station Information

Calibration Date	March 10, 2014	Previous Calibration	February 13, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:30	End Time (MST)	13:56
Analyzer make	TEI 42i	Analyzer serial #	906535068

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999966
285.2	284.9	1.0011		
191.3	190.4	1.0048		
98.0	99.0	0.9900	Slope	1.002843
			Intercept	-0.346729

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



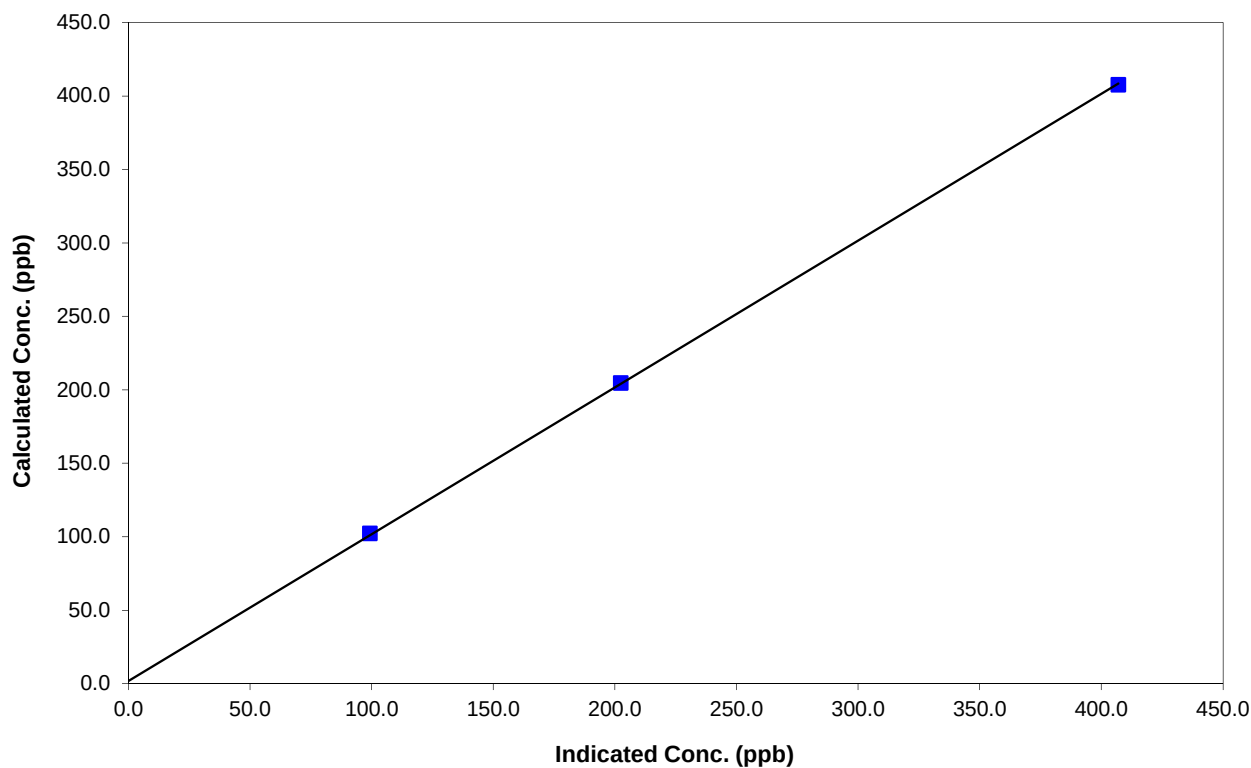
Station Information

Calibration Date	March 10, 2014	Previous Calibration	February 13, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:30	End Time (MST)	13:56
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	-0.3	N/A	Correlation Coefficient	0.999941
407.6	406.9	1.0017		
204.7	202.4	1.0112		
102.4	99.3	1.0316	Slope	0.999191
			Intercept	1.734663

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



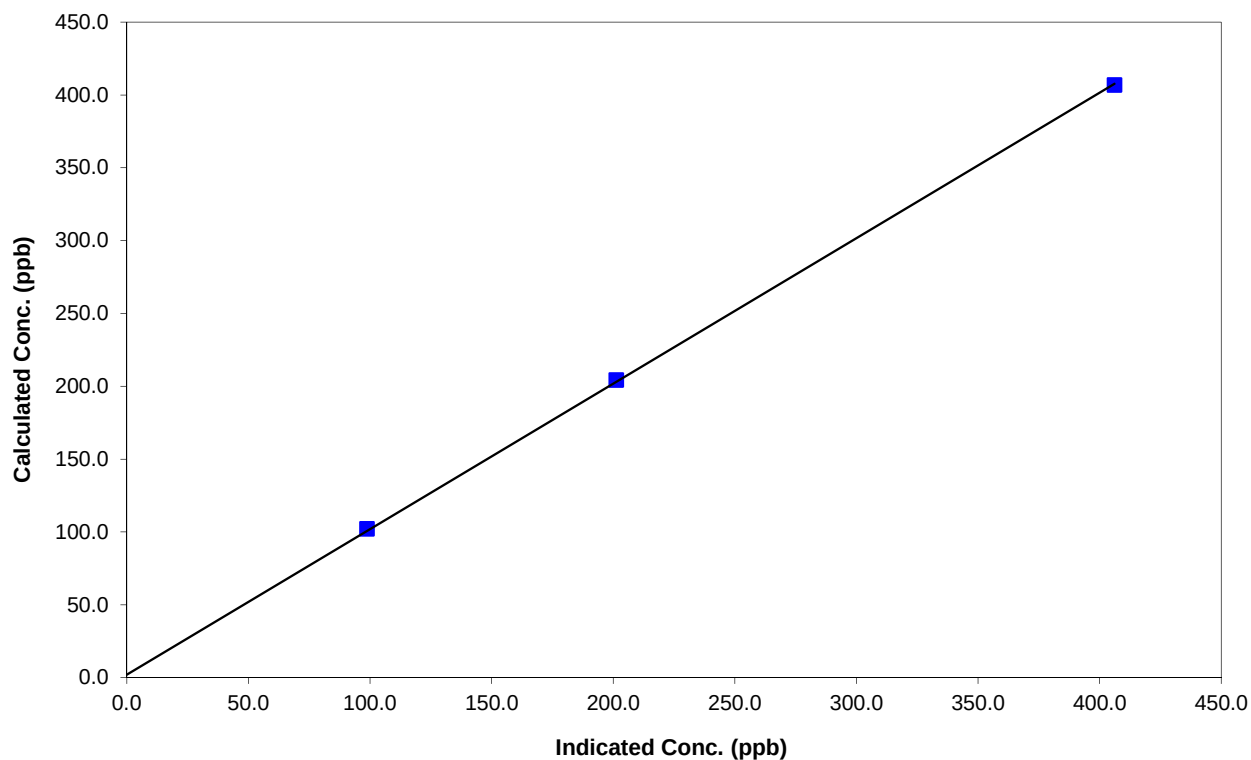
Station Information

Calibration Date	March 10, 2014	Previous Calibration	February 13, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	8:30	End Time (MST)	13:56
Analyzer make	TEI 42i	Analyzer serial #	906535068

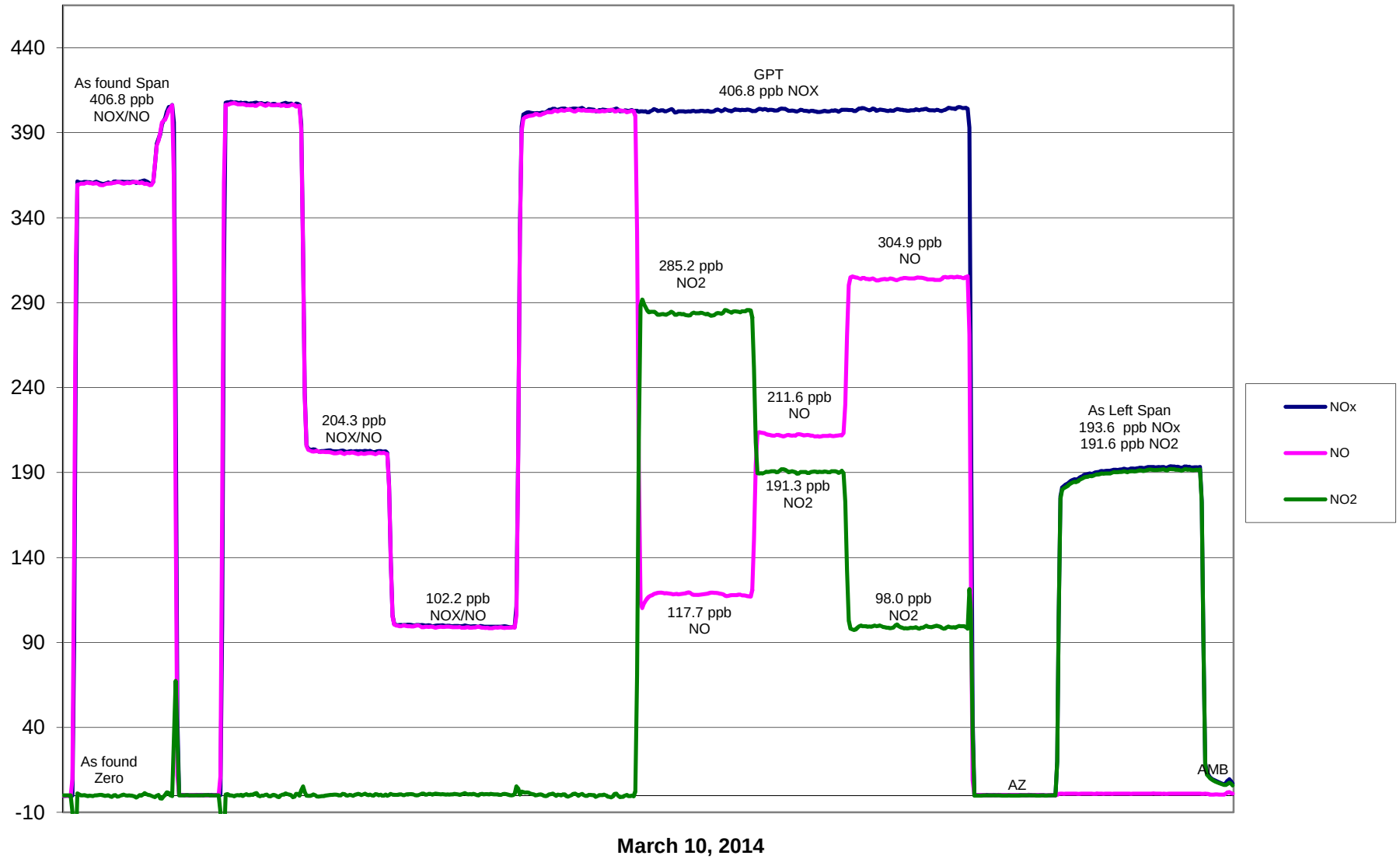
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.3	N/A	Correlation Coefficient	0.999919
406.8	406.1	1.0019		
204.3	201.3	1.0149		
102.2	98.7	1.0352	Slope	0.999076
			Intercept	2.055862

NO Calibration Curve



PAZA Beaverlodge NO_x Calibration



Calibration Report



Parameter 03

Air Monitoring Network PAZA

Station Information

Calibration Date	March 10, 2014	Previous Calibration	February 13, 2014
Station Number	4	Station Location	Beaverlodge
Reason:	Routine	Install	Removal
		Other:	

Start Time (MST)	12:55	End Time (MST)	16:30
Barometric Pressure	0.904 atm	Station Temperature	20.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA

DACS make	CR3000	DACS serial No.	5237
DACS voltage range	0 - 5 volt	DACS channel #	9
	Before		After
Calculated slope	1.040050	Calculated slope	0.987214
Calculated intercept	-0.143190	Calculated intercept	-0.879746

Analyzer make	Teco 49i	Analyzer serial #	1136451236
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	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.40	ppb	0.00	ppb
slope	1.036		1.084	
Lamp temp	53.8	mV	53.9	mV
Lamp Intensity A/B	64034/66513	mV	89036/92410	mV
Pressure	674.5	mm Hg	682	mm Hg
Flow A	0.744	LPM	0.759	LPM
Flow B	0.737	LPM	0.744	LPM

Calibration Data

Dilution air flow rate (cc/min)	Calibrator Setting	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5035	0.00	0.0	0.6	N/A
5035	0.30	285.2	290.5	0.9819
5035	0.20	191.3	192.9	0.9917
5035	0.10	98.0	101.6	0.9646
5035	0.00	0.0	0.2	As found zero
5035	0.30	285.2	289.0	As found span
Average Correction Factor				0.9794

Calculated value of As Found Response: 300.2 ppm Percent Change of As Found: 5.3%

	before calibration		after calibration	
Auto zero	-1.2	ppb	-0.4	ppb
Auto span	277.9	ppb	290.3	ppb

Notes: Intensities were adjusted up. Slight span adjust. Seems more stable now.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter 03

Air Monitoring Network PAZA



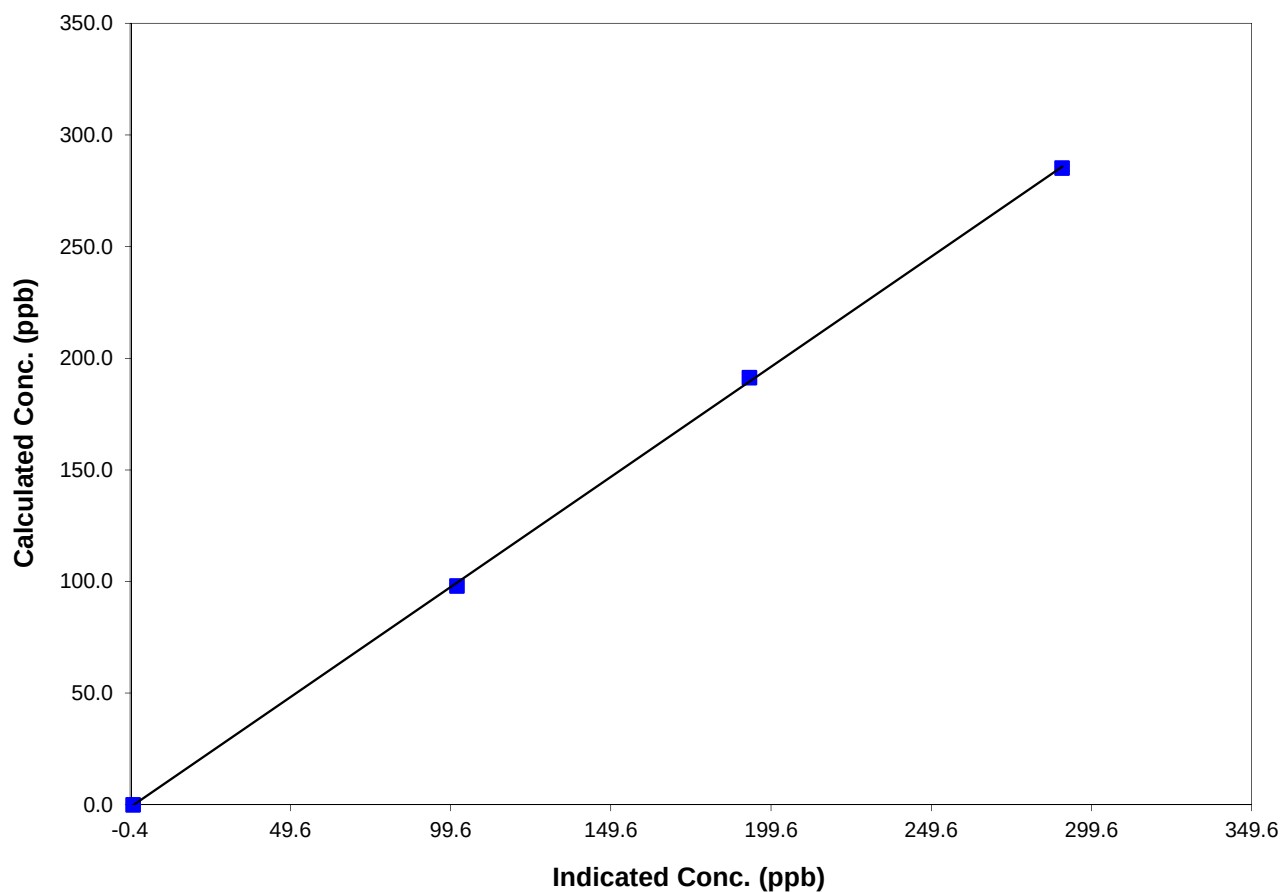
Station Information

Calibration Date	March 10, 2014	Previous Calibration	February 13, 2014
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:55	End Time (MST)	16:30
Analyzer make/model	Teco 49i	Analyzer serial #	1136451236

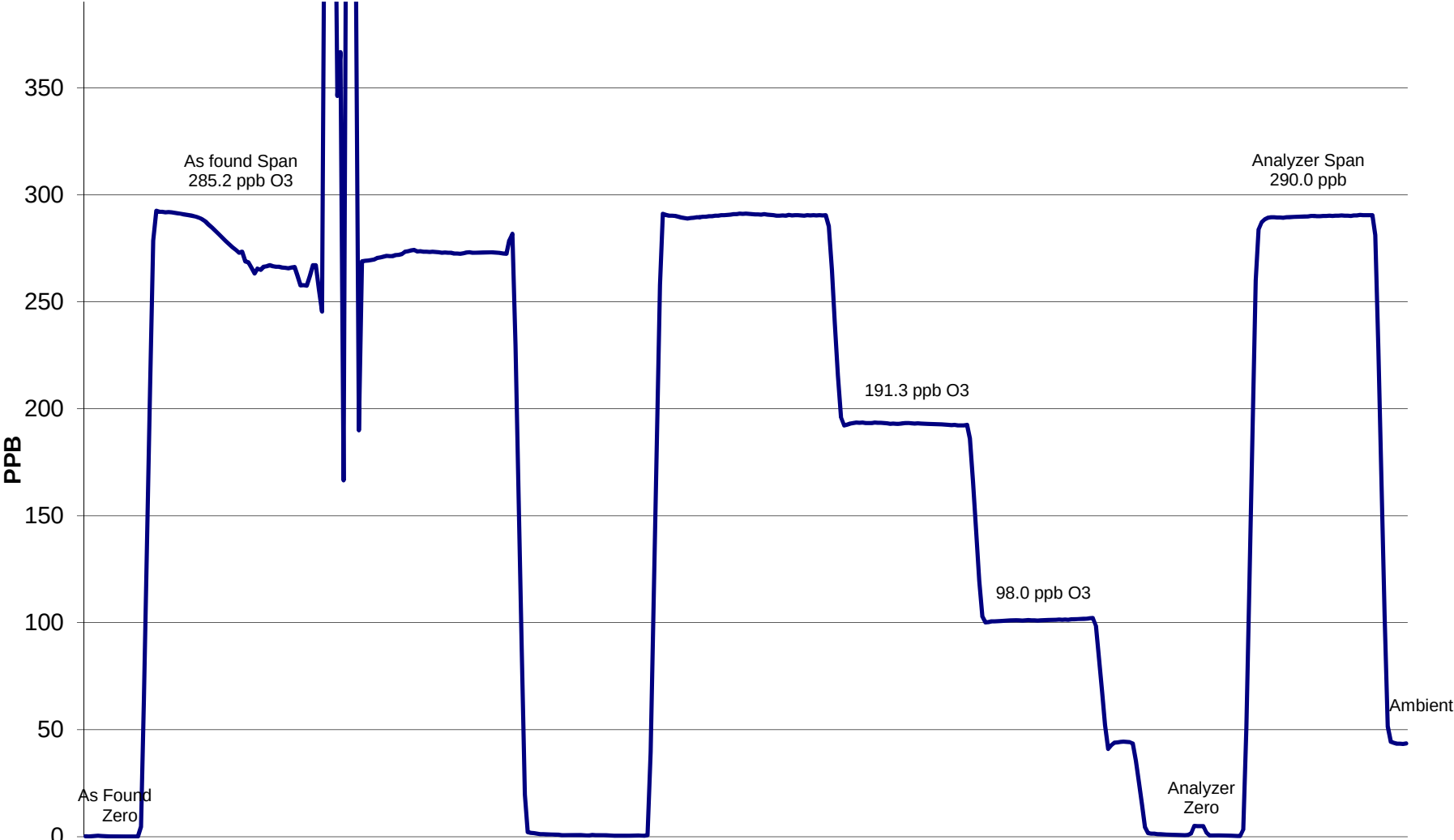
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.6	NA	Correlation Coefficient	0.999875
285.2	290.5	0.9819		
191.3	192.9	0.9917		
98.0	101.6	0.9646	Slope	0.987214
			Intercept	-0.879746

O3 Calibration Curve



O3 Calibration



March 10, 2014

FDMS TEOM PM2.5 AUDIT



STATION: BeaverLodge
 LOCATION: PASZA - Grande Prairie

OPERATOR: Grover Christiansen
 DATE: 26-Mar-14

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	AMU1649
Site Number	4
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	1.000
T-Case Indicated / Set Point	30/30
T-Air Indicated / Set Point	30/30
T-Cap Indicated / Set Point	30/30
Splitter Assembly Alignment (cm)	15.5
(vs. specified depth of 15.5 cm from top of flow tube to top of concentric 1/2 in. tube)	

RECENT CALIBRATION AND AUDIT HISTORY

Previous Audit	09-Jan-14
Previous Calibration	

PUMP CAPACITY CHECK *	PASS
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* 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	-0.01	0.04
PUMP OFF	0.00	0.00
NET	-0.01	0.04
LIMITS	<0.15	<0.60

	Ambient Temp. (^o C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT (S)	na	na	15818	13.67	3.00
INDICATED (I)	-9.0	0.907		13.68	3.00
MEASURED (AF)	-8.8	0.908		13.54	3.00
MEASURED (M)	-8.8	0.908	15988	13.67	3.00
DIFFERENCE (M-I)	0.2	0.001	1.1%	-0.01	0.00
LIMITS	± 2^o C	± 0.005 atm	± 2.5 %	± 1.0 L/min	± 0.2 L/min

As Found Data
 Adjusted Data

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

COMMENTS:

Sample heads were cleaned.

Base leak check: Main:- 0.01 Aux: 0.04.

Referense leak check: Main:- 0.01 Aux: 0.04.

Replace V-seals and O-ring in FDMS switching valve and lubricate.

Sample Head Inspection Or Cleaning: TEOM / FDMS IN LINE FILTER INSPECTION OR REPLACI

Calibration Report

Parameter SO2

Air Monitoring Network PAZA



Station Information

Calibration Date	March 14 2014	Previous Calibration	February 28 2014
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
		Other:	
Start Time (MST)	9:40	End Time (MST)	12:35
Barometric Pressure	702.00 mmHg	Station Temperature	20.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Concentration	51.5 ppm	Cal Gas Exp Date	February 25, 2021
Gas Cylinder Num.	LL105159		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	4
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.999365	Calculated slope	0.998502
Calculated intercept	0.623055	Calculated intercept	1.232593
Analyzer make	TEI 45C	Analyzer serial #	45C-57531-313

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	62		61.3	
Coefficient	1.054		1.038	
UV Lamp Voltage	831	LPM	832	LPM
Chamber Temp	44.6	V	44.6	V
Perm Gas Temp	37	C	37	C
Pressure	602.2	in Hg	597.8	in Hg
Sample Flow	0.541	LPM	0.539	LPM
Lamp Intensity	41933	Hz	41762	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)
4995	0.00	0.0	0.7	N/A
4995	39.93	408.4	408.8	0.9992
4995	19.97	205.1	203.2	1.0095
4995	9.97	102.6	99.6	1.0297
4995	0.00	0.0	0.7	As found zero
4995	39.93	408.4	415.5	As found span
Average Correction Factor				1.0128

Calculated value of As Found Response: 415.2 ppm Percent Change of As Found: -1.6%

	before calibration		after calibration	
Auto zero	0.0	ppm	1.4	ppm
Auto span	150.2	ppm	151.3	ppm

Notes: Span adjust. Run adjustment point

Calibration Performed By: Grover Christiansen, Dmytro Dolotii.

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



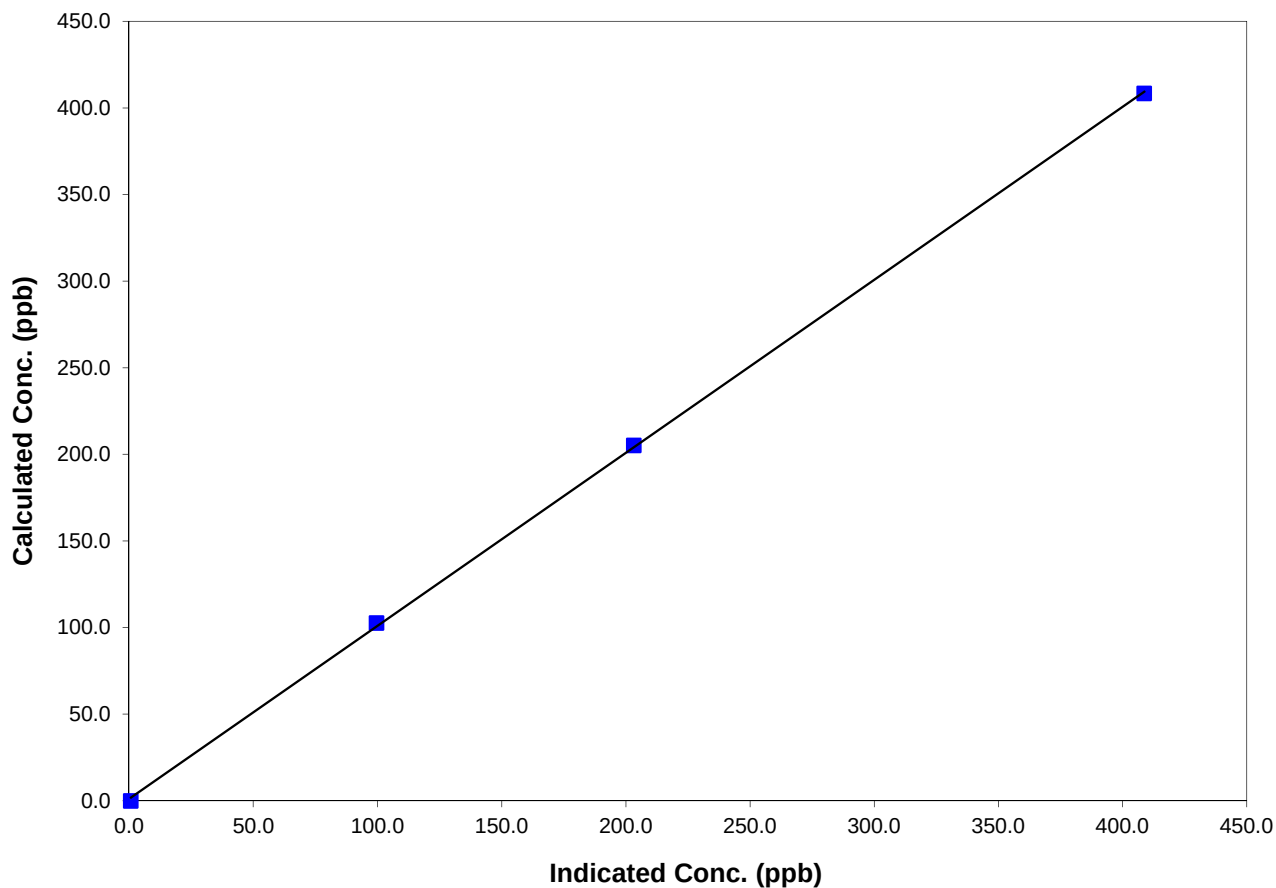
Station Information

Calibration Date	March 14 2014	Previous Calibration	February 28 2014
Station Number	6	Station Location	Valleyview
Start Time (MST)	9:40	End Time (MST)	12:35
Analyzer make/model	TEI 45C	Analyzer serial #	45C-57531-313

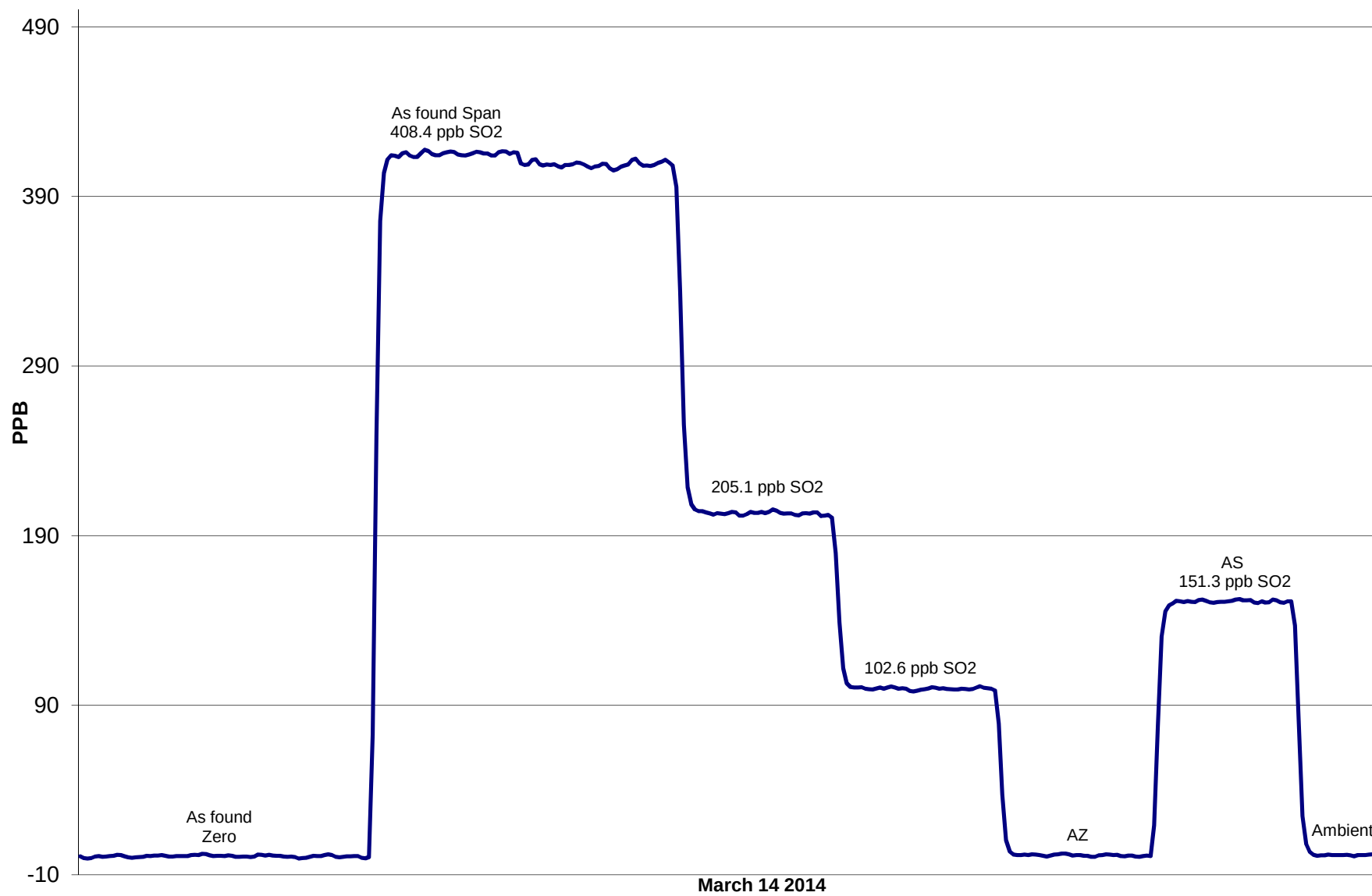
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	N/A	Correlation Coefficient	0.999900
408.4	408.8	0.9992		
205.1	203.2	1.0095		
102.6	99.6	1.0297	Slope	0.998502
			Intercept	1.232593

SO2 Calibration Curve



SO2 Calibration



Calibration Report

Parameter H2S
Air Monitoring Network

PAZA



Station Information

Calibration Date	March 14 2014	Previous Calibration	February 28 2014
Station Number	6	Station Location	Valleyview
Reason:	Routine	Install	Removal
Start Time (MST)	11:30	End Time (MST)	14:20:00 PM
Barometric Pressure	702.00 mm	Station Temperature	20.0 Deg C
Calibrator	Envionics	Serial Number	3016
Cal Gas Concentration	10.4 ppm	Cal Gas Expiry Date	July 03 2016
Gas Cert Reference	LL110781		
DACS make	CR3000	DACS serial No.	5409
DACS voltage range	0 - 5 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	1.025413	Calculated slope	1.023205
Calculated intercept	-0.164659	Calculated intercept	0.637958
Analyzer make	TEI Model 43i - APSCB	Analyzer serial #	701120010

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Back Ground	7.7	ppb	7.8	ppb
Coefficient	0.915		0.915	
Lamp Voltage	790	v	792	v
Chamber Temp	45.1	c	45.2	c
Perm Oven Temp	45	c	45	c
Pressure	582.00	mm Hg	583.20	mm Hg
Sample Flow	0.397	ccm	0.397	lpm
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)
4995	0.00	0.0	-0.2	N/A
4995	39.93	82.5	80.2	1.0290
4995	19.97	41.4	39.6	1.0465
8995	8.97	10.4	9.2	1.1235
4995	9.97	102.5	0.5	Sox Test
4995	0.00	0.0	-0.2	As found zero
4995	39.93	82.5	80.2	As found span
Average Correction Factor				1.0663

Calculated value of As Found Response: 82.27 ppm Percent Change of As Found: 0.3%

	before calibration		after calibration	
Auto zero	0.5	ppm	0.5	ppm
Auto span	67.3	ppm	69.0	ppm

Notes: No adjustment made. Spike noted on the after span- orifice will be ordered

Calibration Performed By: Grover Christiansen, Dmytro Dolotii.

Calibration Summary

Parameter H2S

Air Monitoring Network PAZA



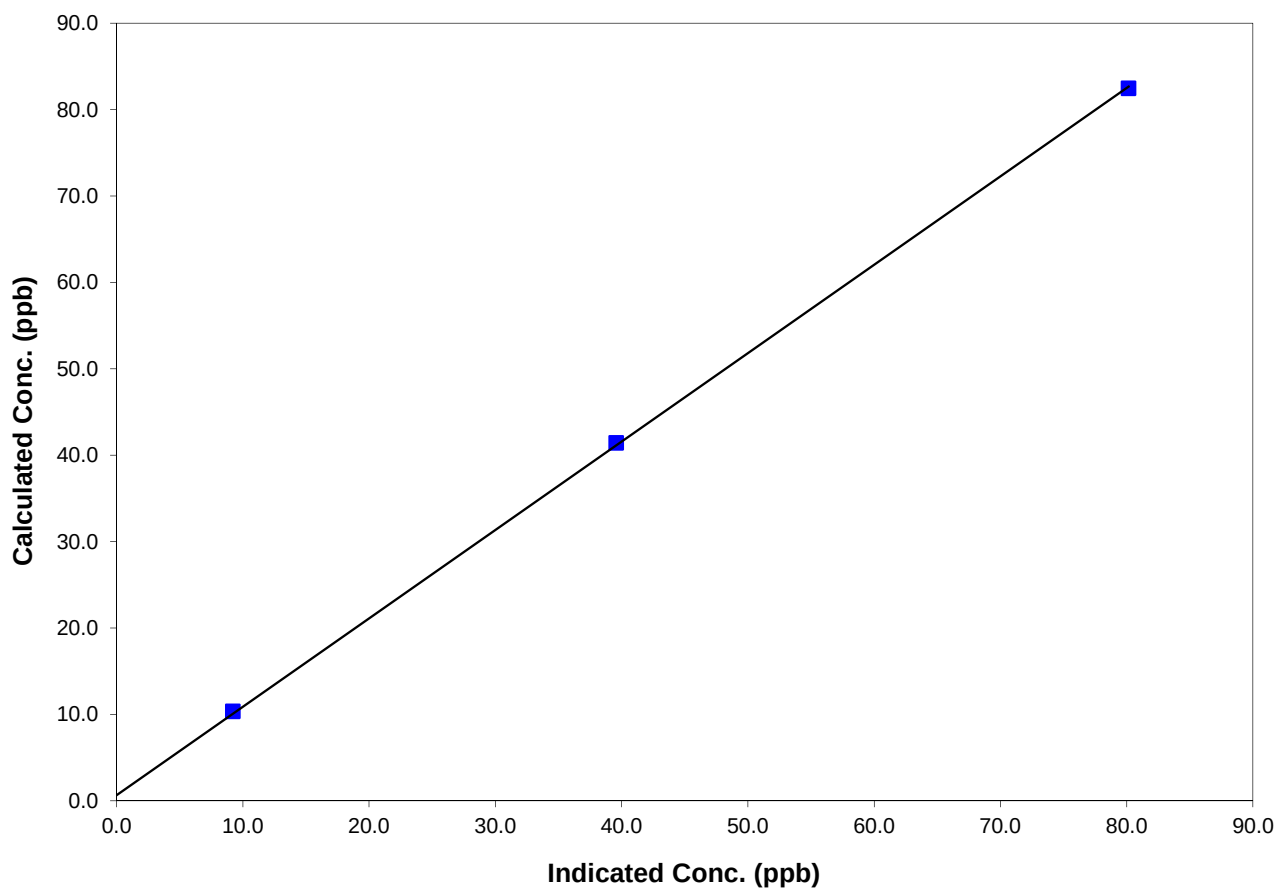
Station Information

Calibration Date	March 14 2014	Previous Calibration	February 28 2014
Station Number	6	Station Location	Valleyview
Start Time (MST)	11:30	End Time (MST)	14:20:00 PM
Analyzer make/model	TEI Model 43i - APSCB	Analyzer serial #	701120010

Calibration Data

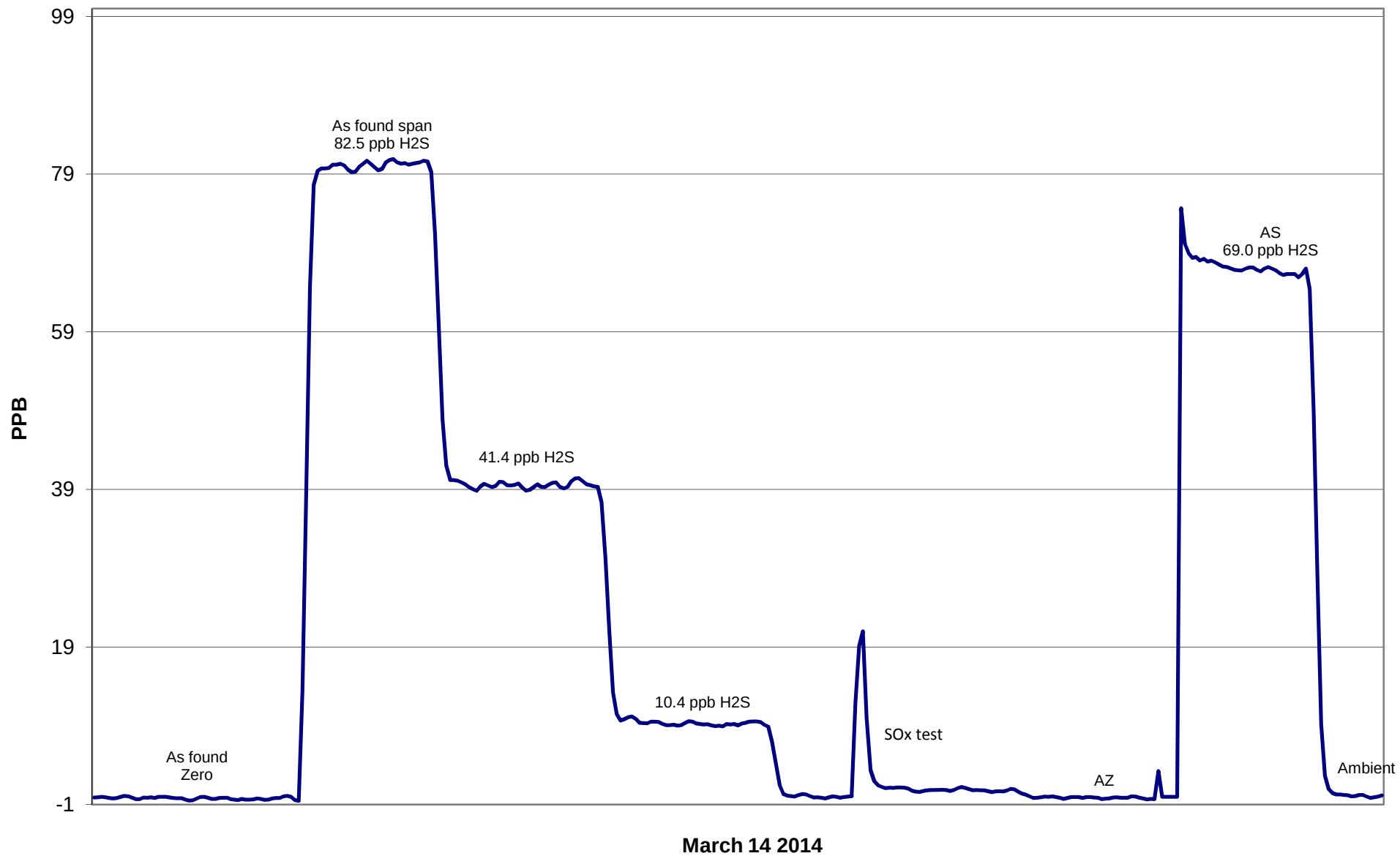
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
82.5	80.2	1.0290	Correlation Coefficient	0.999915
41.4	39.6	1.0465		
10.4	9.2	1.1235	Slope	1.023205
			Intercept	0.637958

H2S Calibration Curve



10.4 ppb H2S

H2S Calibration



Calibration Report

Parameter SO2
Air Monitoring Network PAZA



Station Information

Calibration Date	March 19, 2014	Previous Calibration	February 11, 2014
Station Number	10	Station Location	Reno
Reason:	Routine	Install	Removal
Start Time (MST)	8:15	End Time (MST)	12:05
Barometric Pressure	0.921 Atm	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Concentration	51.5 ppm	Cal Gas Expiry Date	12/03/2014
Gas Cert Reference	LL105159		
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volt	DACS channel #	2
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.997084	Calculated slope	1.003438
Calculated intercept	1.306889	Calculated intercept	1.156172
Analyzer make	TEI 43C	Analyzer serial #	436610005

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Background	20.5		20.1	
Coefficient	1.079		1.059	
UV Lamp Voltage	871	V	871	V
Chamber Temp	45.1	C	45	C
Perm Gas Temp	45	C	45.03	C
Pressure	667.6	mm Hg	667.4	mm Hg
Sample Flow	0.462	LPM	0.462	LPM
Lamp Intesity	30622	Hz	30582	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)
4995	0.00	0.0	0.4	N/A
4995	39.93	408.4	406.6	1.0044
4995	19.97	205.1	202.4	1.0130
4995	9.97	102.6	99.5	1.0308
4995	0.00	0.0	0.4	As found zero
4995	39.93	408.4	413.7	As found span
Average Correction Factor				1.0161

Calculated value of As Found Response: 413.414 ppm Percent Change of As Found: -1.2%

	before calibration		after calibration	
Auto zero	0.3	ppm	0.3	ppm
Auto span	259.1	ppm	244.4	ppm

Notes: Slight span adjustment,run adjustment point.

Calibration Performed By: Grover Christiansen,Dmytro Dolotii.

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



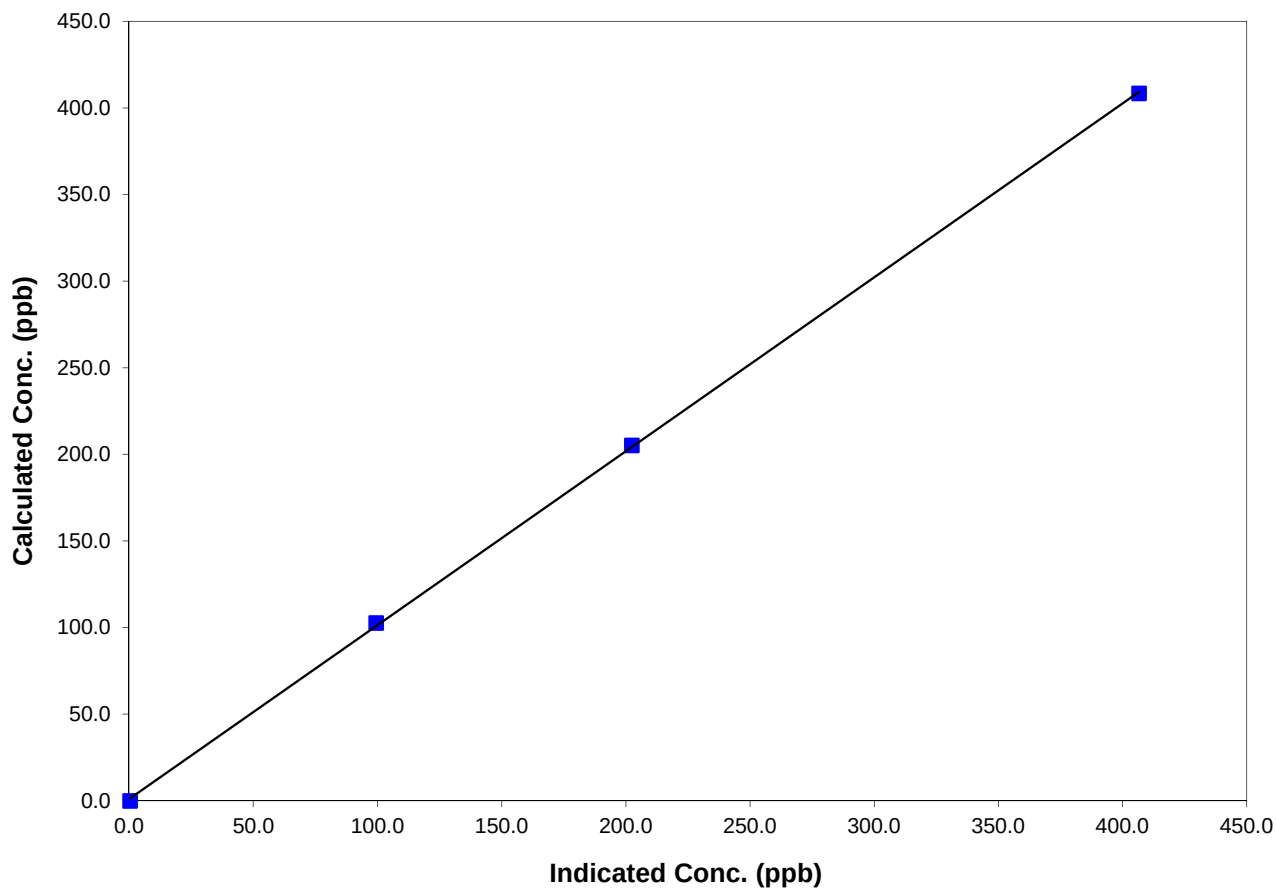
Station Information

Calibration Date	March 19, 2014	Previous Calibration	February 11, 2014
Station Number	10	Station Location	Reno
Start Time (MST)	8:15	End Time (MST)	12:05
Analyzer make/model	TEI 43C	Analyzer serial #	436610005

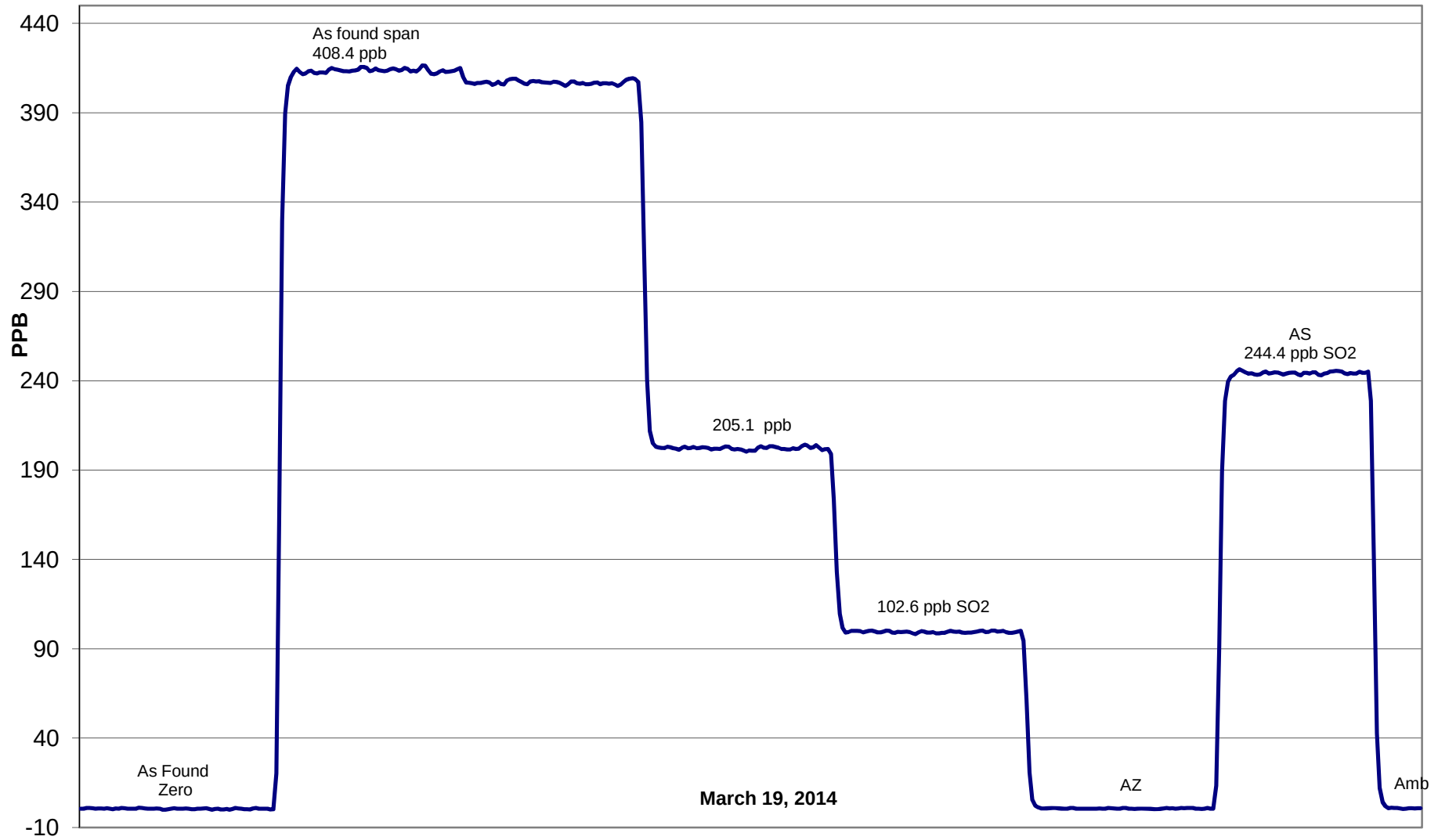
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	N/A	Correlation Coefficient	0.999932
408.4	406.6	1.0044		
205.1	202.4	1.0130		
102.6	99.5	1.0308	Slope	1.003438
			Intercept	1.156172

SO2 Calibration Curve



SO2 Calibration



Calibration Report

Parameter

NO_x-NO-NO₂

Air Monitoring Network

PAZA



Station Information

Calibration Date	March 19, 2014	Previous Calibration	February 11, 2014
Station Number	10	Station Location	Reno
Reason:	Routine	Install	Removal
Other:			
Start Time (MST)	9:15	End Time (MST)	13:40:00 PM
Barometric Pressure	0.921	Atm	Station Temperature
Calibrator	EnviroNics	Serial Number	3016
NO Cal Gas Conc	51.3	ppm	Cal Gas Expiry Date
NOx Cal Gas Conc	51.4	ppm	Cal Gas Serial #
			March 12, 2014
			LL105159

DACS Information

DACS make	CR3000	DACS serial No.	5407
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Parameter		NO2	NOx	NO
Before	Data Slope	1.002014	0.995827	0.999451
	Data Offset	-0.238120	0.961973	0.913433
After	Data Slope	1.003473	0.997446	0.998915
	Data Offset	0.442057	1.563537	1.553933
Channel #		5	3	4
Voltage Range		0 - 5 VDC	0 - 5 VDC	0 - 5 VDC

Analyzer Information

Analyzer make/model	TEI 42i	Analyzer serial #	0701120011
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Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO offset	6.4	mV	6.2	mV
NOx bkgnd	6.5	mV	6.3	mV
NO coefficient	1.093		1.091	
NOx coefficient	1.002		0.999	
NO2 conv temp	323.4	Deg C	325.3	Deg C
Cooler Temp	-2.9	Deg C	-2.6	Deg C
PMT Volt	845.8	mV	845.8	mV
R Cell Press	201.7	in Hg	202.3	in Hg
Sample Flow	0.696	ccm	0.702	ccm

NOTES: Slight span adjustment, run adjustment point.
Second GPT point NOx was interrupted by daily span.

Calibration Report

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



Station Information

Calibration Date: March 19, 2014 Station Location: Reno

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	4995	0.00	0.0	0.0	0.0	-0.1	0.0	0.1	N/A	N/A
1	4995	39.93	407.6	406.8	0.8	407.8	406.5	-0.3	0.9995	1.0007
2	4995	19.97	204.7	204.3	0.4	202.9	202.0	0.1	1.0089	1.0113
3	4995	9.97	102.4	102.2	0.2	99.7	99.3	0.4	1.0274	1.0286
AFZ	4995	0.00	0.0	0.0	0.0	-0.1	0.0	0.1	0.0000	0.0000
AFS	4995	39.93	407.6	406.8	0.8	410.9	407.8	1.4	0.9920	0.9976
Average Correction Factor									1.0119	1.0136

As Found Concentrations: NO_x= 412.0 NO= 408.7 As Found Percent Change NO_x= 1.1% NO= 0.5%

GPT Calibration Data

Dilution Flow 4995 ccm Source Gas Flow 39.93 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	0.1	N/A	N/A	N/A	N/A
NO point	404.7	404.7	0.0	406.1	404.7	-0.5	0.9963	1.0000	N/A	N/A
300	404.7	101.9	302.7	404.9	101.9	301.5	0.9993	1.0000	1.0041	99.6%
200	404.7	199.6	205.1	405.4	199.6	203.9	0.9981	1.0000	1.0055	99.4%
100	404.7	297.9	106.8	404.9	297.9	105.2	0.9994	1.0000	1.0152	98.5%
Average Correction Factor							0.9989	1.0000	1.0083	99.2%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.8	0.9	0.0	ppb	0.2	0.0	0.3	ppb
Auto span	166.3	164.3	1.4	ppb	173.4	171.3	1.3	ppb

Calibration Performed By: Grover Christiansen, Dmytro Dolotii.

Calibration Summary

Parameter NO₂

Air Monitoring Network PAZA



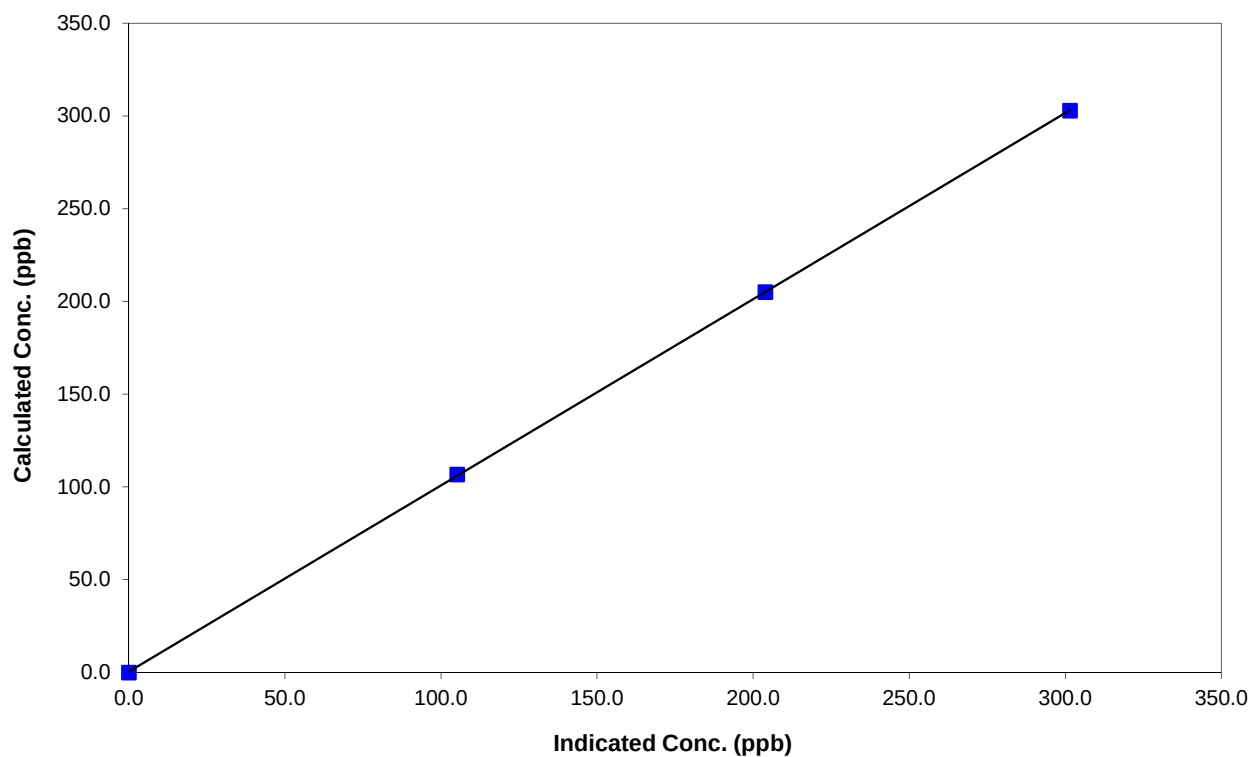
Station Information

Calibration Date	March 19, 2014	Previous Calibration	February 11, 2014
Station Number	10	Station Location	Reno
Start Time (MST)	9:15	End Time (MST)	13:40:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A	Correlation Coefficient	0.999981
302.7	301.5	1.0041		
205.1	203.9	1.0055		
106.8	105.2	1.0152	Slope	1.003473
			Intercept	0.442057

NO₂ Calibration Curve



Calibration Summary

Parameter NO_x

Air Monitoring Network PAZA



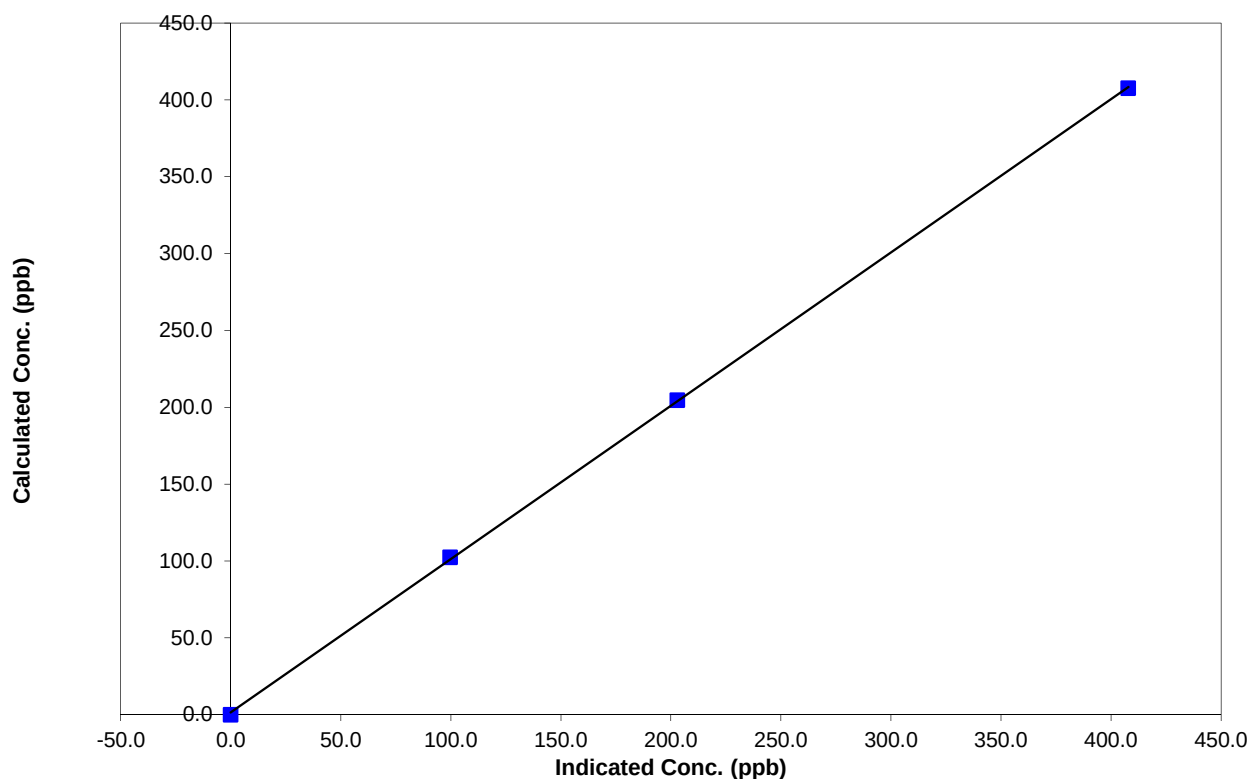
Station Information

Calibration Date	March 19, 2014	Previous Calibration	February 11, 2014
Station Number	10	Station Location	Reno
Start Time (MST)	9:15	End Time (MST)	13:40:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A	Correlation Coefficient	0.999942
407.6	407.8	0.9995		
204.7	202.9	1.0089		
102.4	99.7	1.0274	Slope	0.997446
			Intercept	1.563537

NO_x Calibration Curve



Calibration Summary

Parameter NO

Air Monitoring Network PAZA



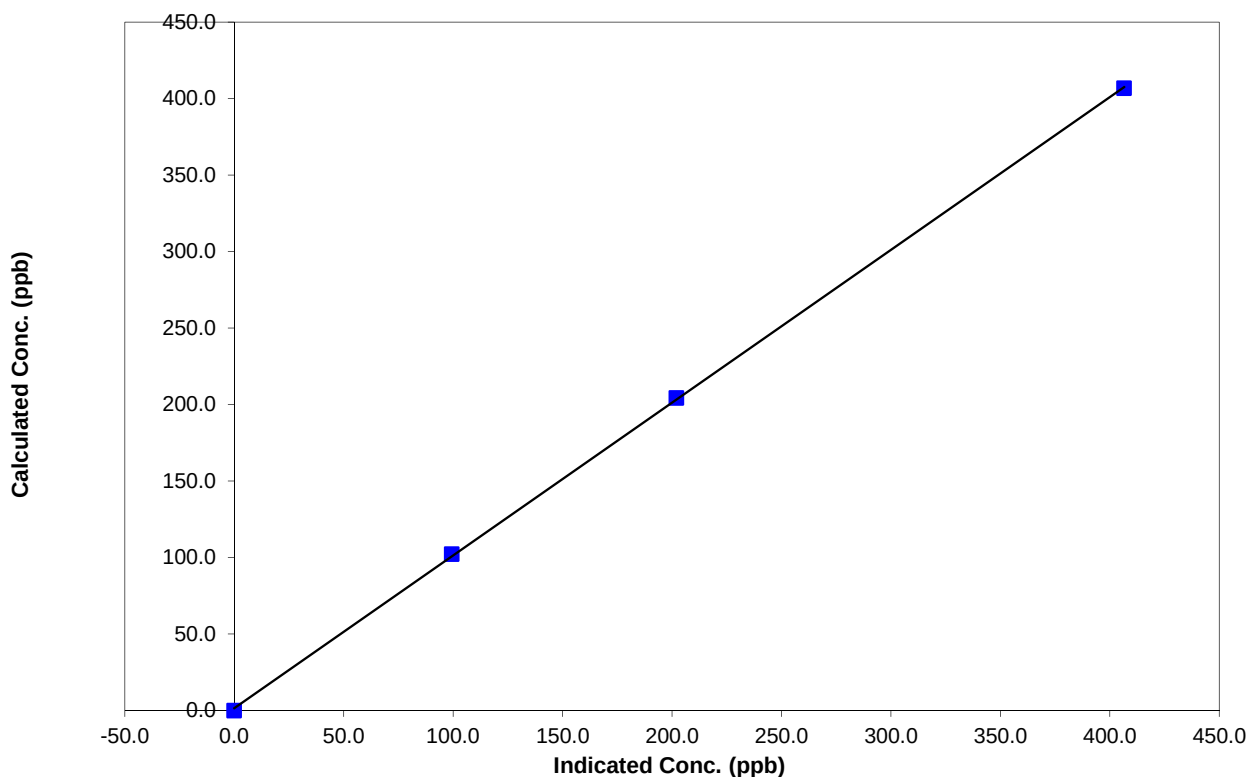
Station Information

Calibration Date	March 19, 2014	Previous Calibration	February 11, 2014
Station Number	10	Station Location	Reno
Start Time (MST)	9:15	End Time (MST)	13:40:00 PM
Analyzer make	TEI 42i	Analyzer serial #	0701120011

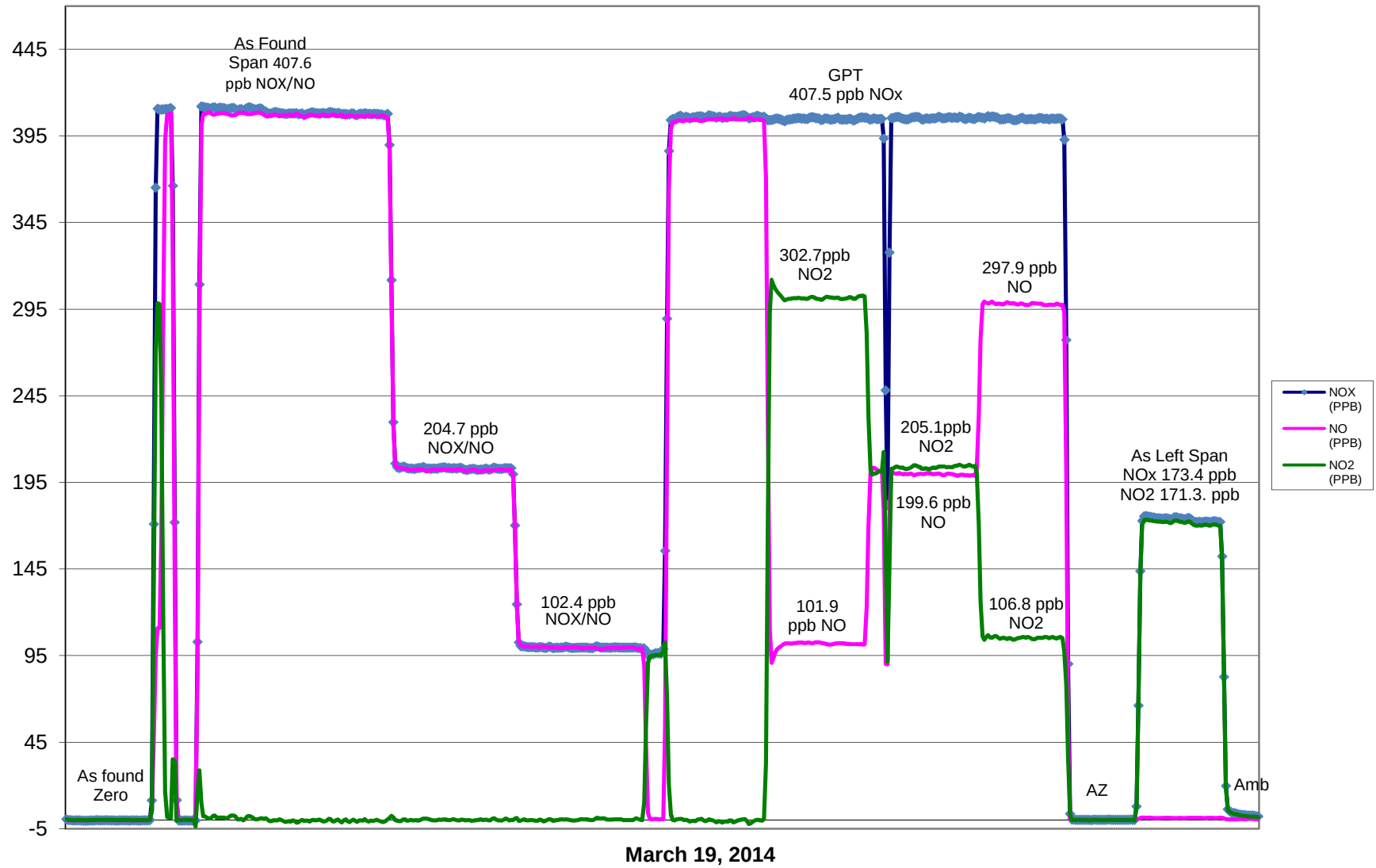
Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A	Correlation Coefficient	0.999935
406.8	406.5	1.0007		
204.3	202.0	1.0113		
102.2	99.3	1.0286	Slope	0.998915
			Intercept	1.553933

NO Calibration Curve



PAZA Reno NO_x Calibration



Calibration Report



Parameter O3

Air Monitoring Network PAZA

Station Information

Calibration Date	March 19 2014	Previous Calibration	February 11 2014
Station Number	10	Station Location	Reno
Reason:	Routine	☐ Install	☐ Removal remove ☐ Other:
Start Time (MST)	12:45	End Time (MST)	15:35:00 PM
Barometric Pressure	0.921 atm	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3016
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 5 Volts	DACS channel #	6
	Before		After
Calculated slope	1.014854	Calculated slope	0.995304
Calculated intercept	0.609696	Calculated intercept	1.466703
Analyzer make	TEI Model 49C	Analyzer serial #	49C-0609716240

	before		after	
Concentration range	0-500	ppb	0-500	ppb
Offset	0	ppb	0	ppb
Span	0.988		0.988	
Cell A intensity	113261	Hz	113584	Hz
Cell B intensity	109565	Hz	109812	Hz
Pressure	662.10	in Hg	664.10	in Hg
CellA Flow	0.699	ccm	0.697	ccm
Cell B Flow	0.694	cmm	0.696	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)
5035	0.00	0.0	-0.6	N/A
5035	0.30	302.7	303.6	0.9969
5035	0.20	205.1	203.6	1.0074
5035	0.10	106.8	104.9	1.0178
5035	0.00	0.0	-0.6	As found zero
5035	0.30	302.7	303.6	As found span
Average Correction Factor				1.0074

Calculated value of As Found Response: 309.3 ppm Percent Change of As Found: 2.2%

	before calibration		after calibration	
Auto zero	-0.1	ppb	1.5	ppb
Auto span	403.2	ppb	434.2	ppb

Notes: No adjustments made.
Static charge caused a spike on the second dilution point O3.

Calibration Performed By: Grover Christiansen, Dmytro Dolotii.

Calibration Summary

Parameter 03

Air Monitoring Network PAZA



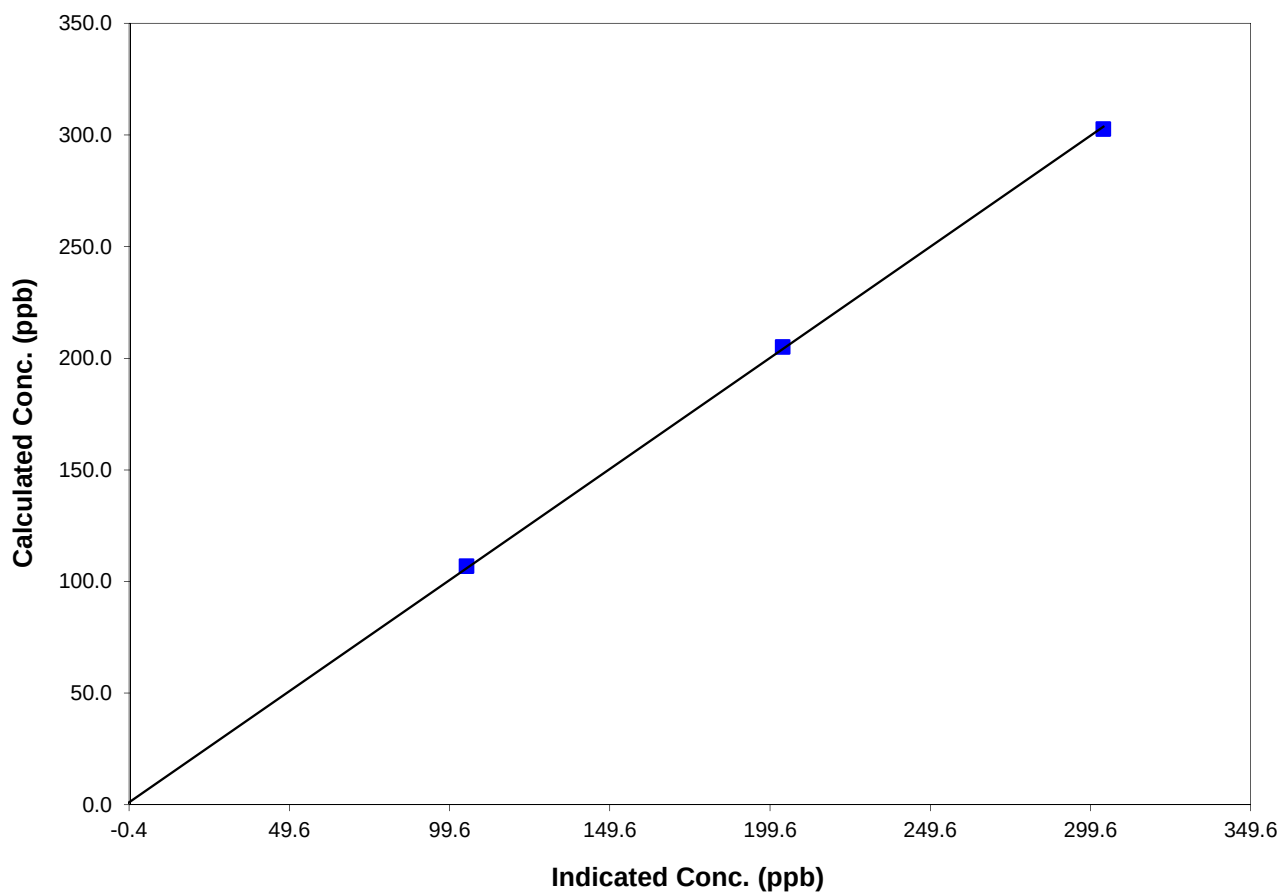
Station Information

Calibration Date	March 19 2014	Previous Calibration	February 11 2014
Station Number	10	Station Location	Reno
Start Time (MST)	12:45	End Time (MST)	15:35:00 PM
Analyzer make/model	TEI Model 49C	Analyzer serial #	49C-0609716240

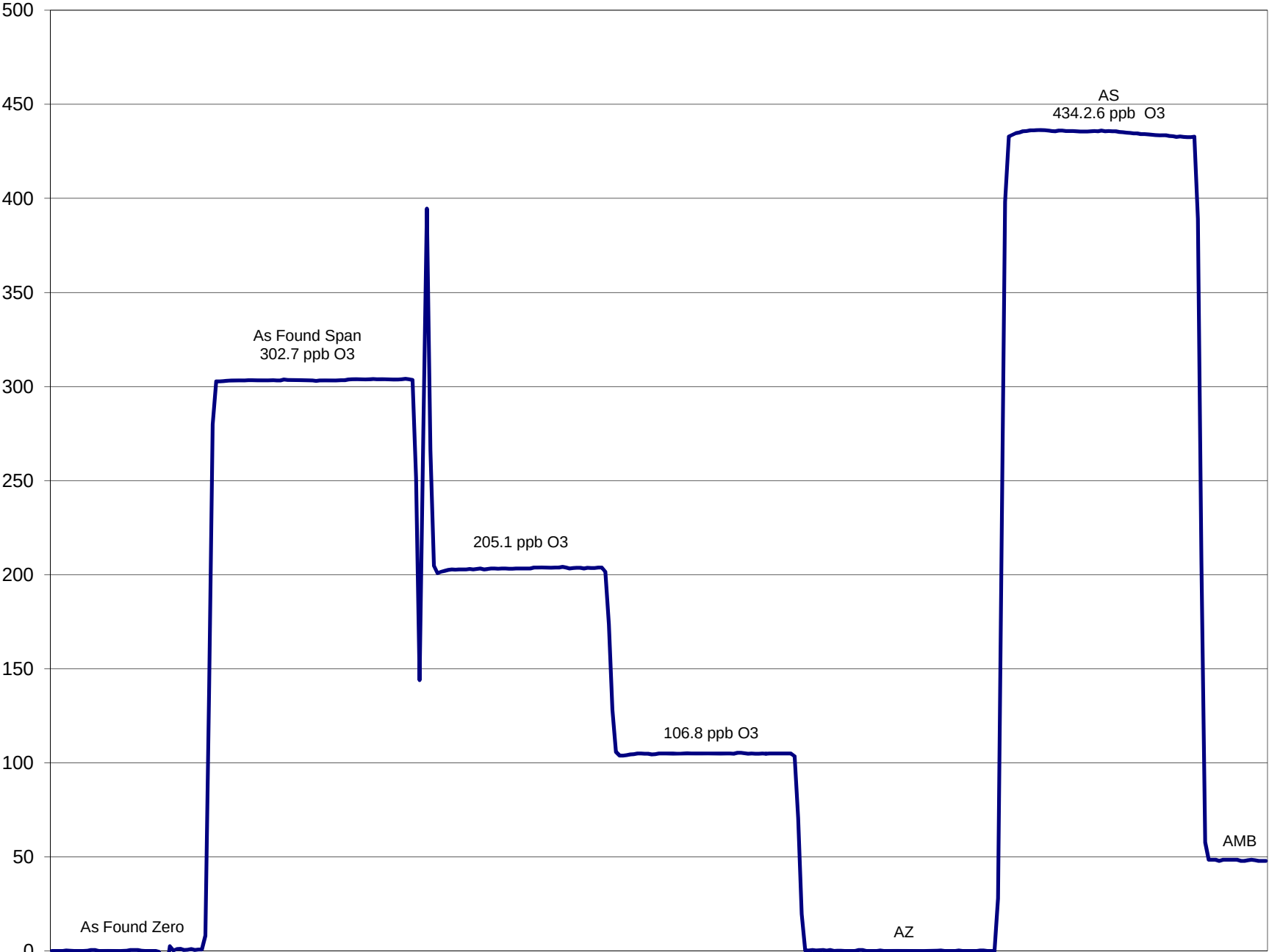
Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.6	NA	Correlation Coefficient	0.999929
302.7	303.6	0.9969		
205.1	203.6	1.0074		
106.8	104.9	1.0178	Slope	0.995304
			Intercept	1.466703

O3 Calibration Curve



O3 (PPB)



March 19 2014

Calibration Report

Parameter THC

Air Monitoring Network PASZA



Station Information

Calibration Date	March 19, 2014	Previous Calibration	February 24, 2014
Station Number	10	Station Location	Rover Reno
Reason:	☐ Routine ☒ Install ☐ Removal ☐ Other:		
Start Time (MST)	16:30:00 PM	End Time (MST)	
Barometric Pressure	0.923 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3474
Cal Gas Concentration	404 ppm CH4/ 201 ppm C3H8	Cal Gas Expiry Date	28/03/2014
Cal Gas CH4 equiv	956.75 ppm	Cal Gas Cylinder #	LL34989
DACS make	CR3000	DACS serial No.	5407
DACS voltage range	0 - 1 volt	DACS channel #	12
	<u>Before</u>		<u>After</u>
Calculated slope	0.989106	Calculated slope	0.999951
Calculated intercept	0.165040	Calculated intercept	0.071158
Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.51	psi	6.50	psi
THC span counts	2170	capture	2370	capture
THC zero counts	907	capture	907	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)
2996	0.00	0.00	-0.02	N/A
2996	69.93	21.82	21.78	1.0020
2996	29.96	9.47	9.35	1.0133
2996	9.97	3.17	3.08	1.0314
2996	0.00	0.00	-0.02	As Found Zero
2996	69.93	21.82	20.06	As Found Span
Average Correction Factor				1.0156

Calculated value of As Found Response: 20.028 ppm Percent Change of As Found: 8.2%

	before calibration		after calibration	
Auto zero	0.10	ppm	0.07	ppm
Auto span	21.83	ppm	25.18	ppm

Notes: Slight span adjust, run adjustment point
Replaced empty Hydrogen cylinder. New cylinder showing 1900 psi.

Calibration Performed By: Grover Christiansen

Calibration Summary

Parameter THC

Air Monitoring Network PASZA



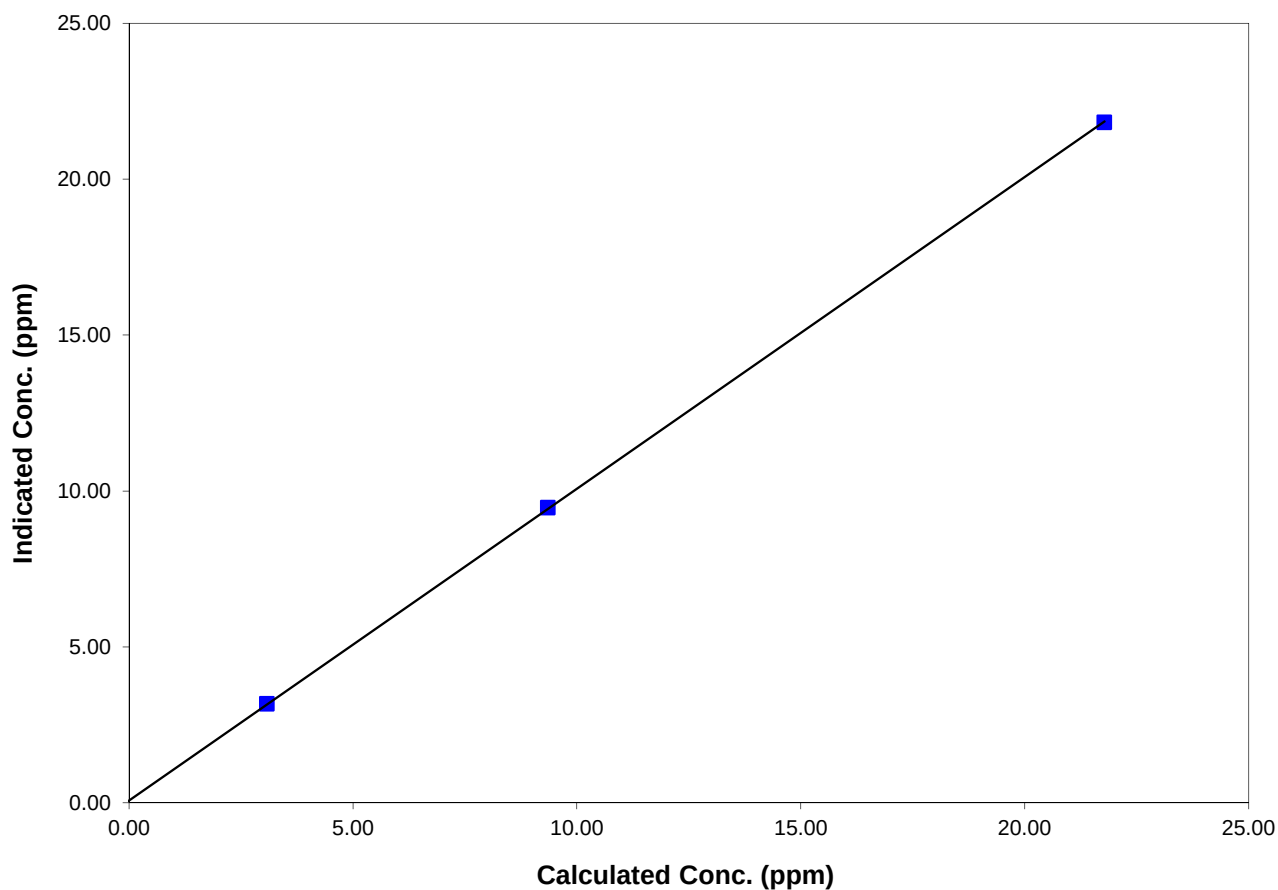
Station Information

Calibration Date	March 19, 2014	Previous Calibration	February 24, 2014
Station Number	10	Station Location	Rover Reno
Start Time (MST)	16:30:00 PM	End Time (MST)	0:00
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	-0.019	N/A		
21.82	21.78	1.0020	Correlation Coefficient	0.999975
9.47	9.35	1.0133		
3.17	3.08	1.0314	Slope	0.999951
			Intercept	0.071158

THC Calibration Curve



THC Calibration



March 19, 2014

FOCUS
AIR QUALITY MONITORING

Air Monitoring Network **PAZA**

Calibration Date		March 19 2014		Previous Calibration		February 11 2014	
Station Name		PAZA Rover		Station Location		Reno	
Reason:		Routine		Install		Removal	
Start Time (MST)		14:20:00 PM		End Time (MST)		17:40:00 PM	
Barometric Pressure		0.923 Atm		Station Temperature		20.0 Deg C	
Calibrator		Environics		Serial Number		3016	
Cal Gas Concentration		10.44 ppm		Cal Gas Expiry Date		July/08/2016	
Gas Cert Reference		LL110781					
DACS make		CR3000		DACS serial No.		5407	
DACS voltage range		0 - 5 Volt		DACS channel #		1	
		<u>Before</u>				<u>After</u>	
DACS Scale High		100		DACS slope		100	
DACS Scale Low		0		DACS intercept		0	
Calculated slope		1.026742		Calculated slope		1.012795	
Calculated intercept		-0.231606		Calculated intercept		0.373808	
Analyzer make		TEI 43C		Analyzer serial #		609716238	

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	16.5	ppb	16.5	ppb
Coefficient	1.015		1.015	
Lamp Voltage	776	V	779	V
Chamber Temp	43.9	C	44.1	C
Perm gas Temp	45	C	45	C
Pressure	651.5	mmHg	662.0	mmHg
Sample Flow	0.440	lpm	0.445	lpm
Lamp Intensity	39007	Hz	39083	Hz

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.0	-0.1	N/A
4995	39.93	82.8	81.6	1.0145
4995	19.97	41.6	40.2	1.0333
8995	8.97	10.4	9.8	1.0614
4995	9.97	102.8	1.0	Sox Test
4995	0.00	0.0	-0.1	As found zero
4995	39.93	82.8	81.6	As found span
Average Correction Factor				1.0364

	before calibration		after calibration	
Auto zero	0.1	ppm	0.4	ppm
Auto span	65.4	ppm	63.3	ppm

Calibration Performed By: Grover Christiansen, Dmytro Dolotii

Calibration Summary

Parameter TRS

Air Monitoring Network PAZA



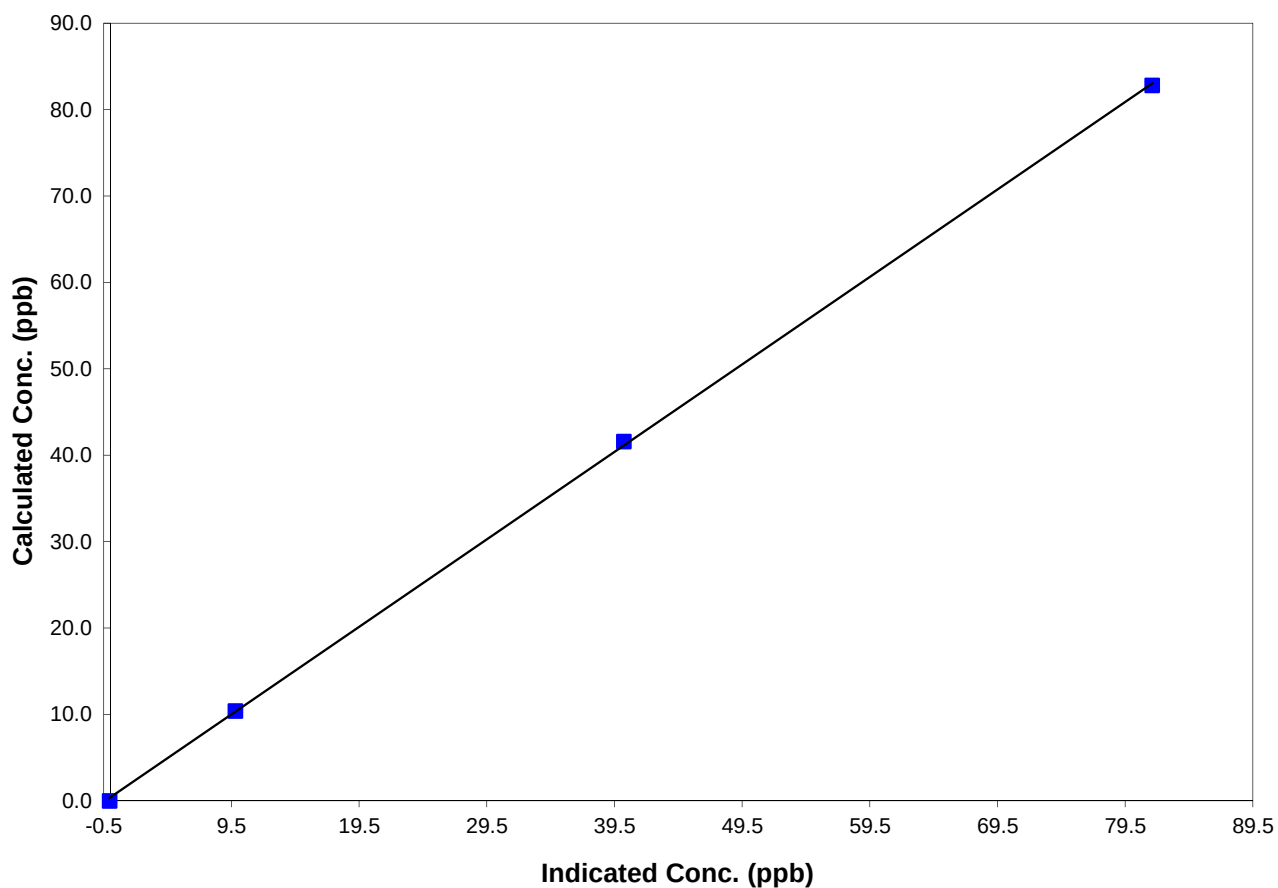
Station Information

Calibration Date	March 19 2014	Previous Calibration	February 11 2014
Station Number	PAZA Rover	Station Location	Reno
Start Time (MST)	14:20:00 PM	End Time (MST)	17:40:00 PM
Analyzer make/model	TEI 43C	Analyzer serial #	609716238

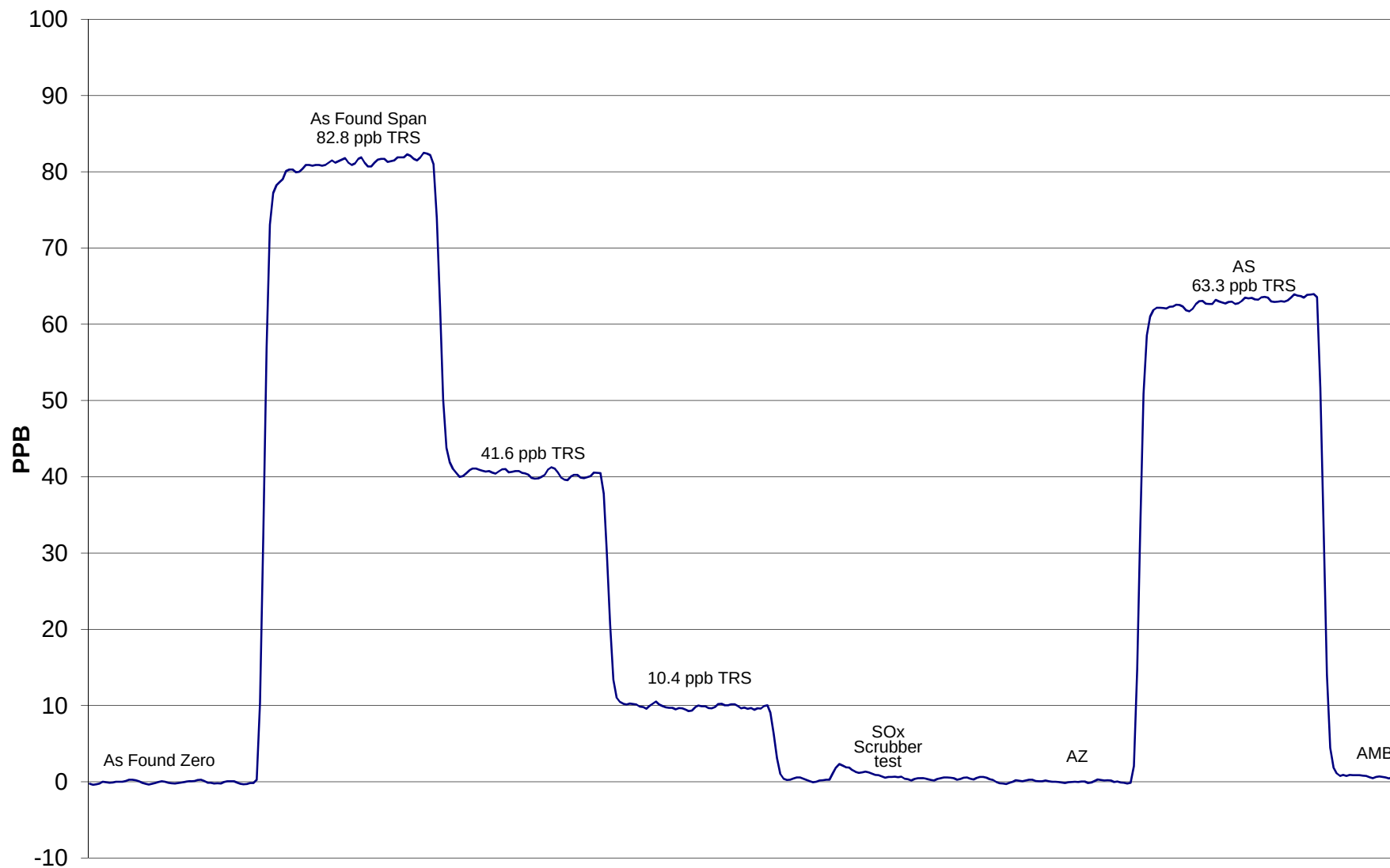
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
82.8	81.6	1.0145	Correlation Coefficient	0.999911
41.6	40.2	1.0333		
10.4	9.8	1.0614	Slope	1.012795
			Intercept	0.373808

TRS Calibration Curve



TRS Calibration



March 19 2014

AB TEOM PM2.5 Calibration



STATION: **Rover-Reno**
 LOCATION: PAZA - Grande Prairie

OPERATOR: Grover Christiansen
 DATE: 19-Mar-14

MONITOR INFO / PARAMETER VALUES:

Make/Model	TEOM AB
Configuration	PM2.5
Serial Number	21551
Site Number	10
Inlet Type	PM 10 / SCC
FAdj. Main Setting	1.000
FAdj. Aux. Setting	0.990
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	11-Feb-14
Previous Calibration	

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

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

"FAIL" indicates that pump requires service.

LEAK CHECK	Indicated Flow (lpm)	
	Main	Auxiliary
PUMP ON	0.140	0.090
PUMP OFF	0.130	0.090
NET	0.010	0.000
LIMITS	<0.15	<0.60

	Ambient Temp. (^o C)	Ambient Pres. (atm)	Ko *	Bypass flow (lpm)	Sample flow (lpm)
SET POINT (S)	na	na	12893	13.67	3.000
INDICATED (I)	5.6	0.920		13.67	2.990
MEASURED (AF)	6.2	0.919		13.68	3.010
MEASURED (M)	6.2	0.919	13086	13.68	3.010
DIFFERENCE (M-I)	0.6	-0.001	1.5%	0.01	0.01
LIMITS	± 2^o C	± 0.005 atm	± 2.5 %	± 1.0 L/min	± 0.2 L/min

As Found Data
 Adjusted Data

Ko Audit Filter data

Weight: 0.11251

Serial #: CVK 3316

COMMENTS: Pass

Full audit was performed.

Pump needs rebuild soon.

TEOM control unit S/N: 140AB215519705. New mass transducer installed March 18, S/N: 1200C144019804

TEOM sensor unit S/N: 1200C158380009 was replaced with original S/N: 140AB215549705

Sample Head Inspection/Cleaning:

Large In Line Filter Inspection & Or Cleaning:

Calibration Report



Parameter SO₂

Air Monitoring Network PAZA

Station Information

Calibration Date	March 18, 2014	Previous Calibration	February 10, 2014
Station Number	1	Station Location	Falher
Reason:	☒ Routine	☐ Install	☐ Removal
			☐ Other:
Start Time (MST)	11:25	End Time (MST)	14:00:00 PM
Barometric Pressure	0.931 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3474
Cal Gas Concentration	51.5 ppm	Cal Gas Expiry Date	25/02/2025
Correction factor	0.031647	Cal Gas Cylinder #	LL105159
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	6
	Before		After
Calculated slope	0.993083	Calculated slope	0.995674
Calculated intercept	0.427400	Calculated intercept	0.970044
Analyzer make	Teco 43i	Analyzer serial #	1207452008

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	7.1		7	
coefficient	0.892		0.892	
Lamp Voltage	860	volts	862	volts
Chamber Temp	45.1	Deg C	45.2	Deg C
Perm Gas Temp	44.9	Deg C	45	Deg C
Pressure	682.3	mm Hg	682.6	mm Hg
Sample Flow	0.417	ccm	0.421	ccm
Lamp Intensity	96	%	97	%

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.0	0.00	0.3	N/A
4995	39.93	408.4	409.9	0.9964
4995	19.96	205.0	204.2	1.0038
4995	9.97	102.6	100.8	1.0178
4995	0.0	0.0	0.3	As Found Zero
4995	39.93	408.4	409.9	As Found Span
Average Correction Factor				1.0060

Calculated value of As Found Response: 407.145 ppm Percent Change of As Found: 0.3%

	before calibration		after calibration	
Auto zero	0.5	ppm	0.4	ppm
Auto span	359.4	ppm	351.1	ppm

Notes: No adjustment made

Calibration Performed By: Grover Christiansen, Dmytro Dolotii

Calibration Summary

Parameter SO2

Air Monitoring Network PAZA



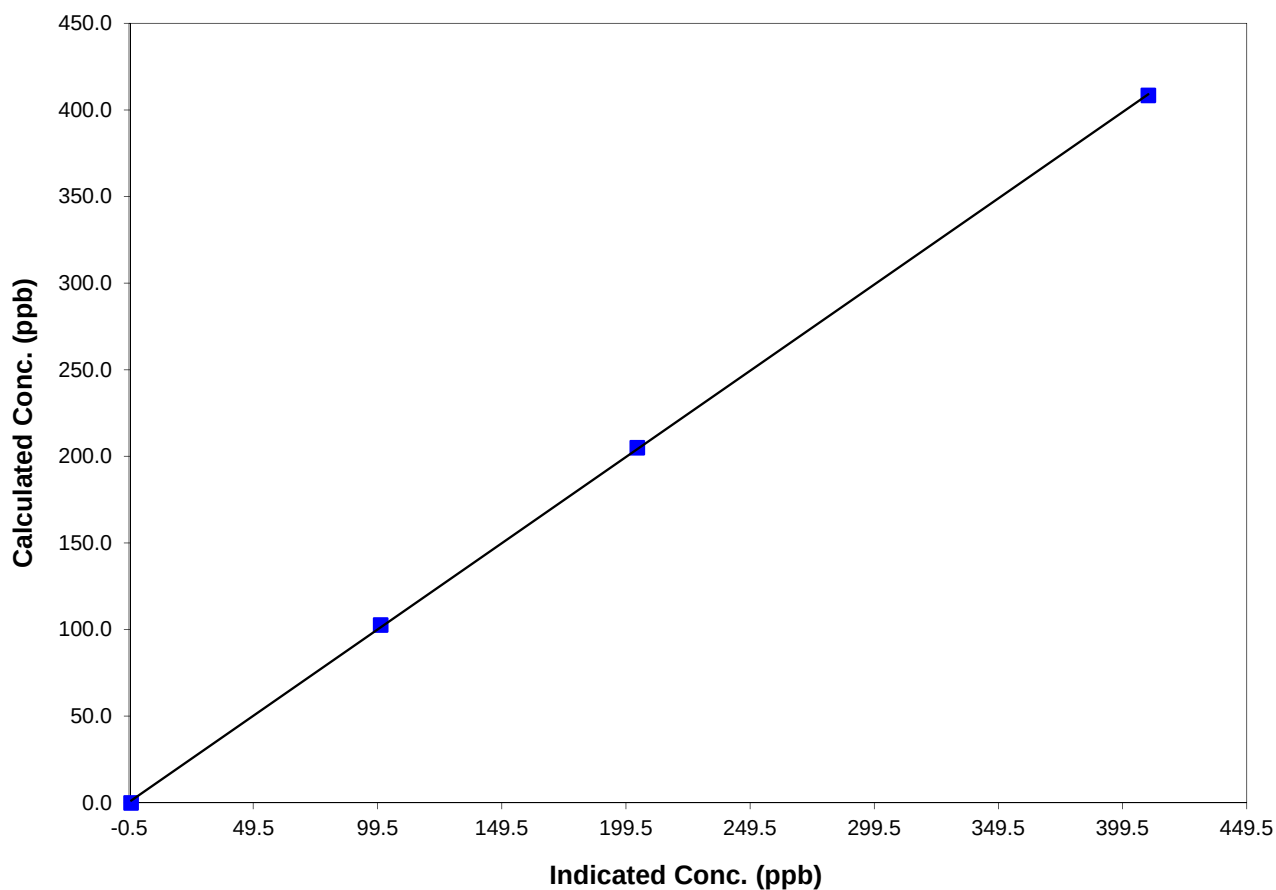
Station Information

Calibration Date	March 18, 2014	Previous Calibration	February 10, 2014
Station Number	1	Station Location	Falher
Start Time (MST)	11:25	End Time (MST)	14:00:00 PM
Analyzer make/model	Teco 43i	Analyzer serial #	1207452008

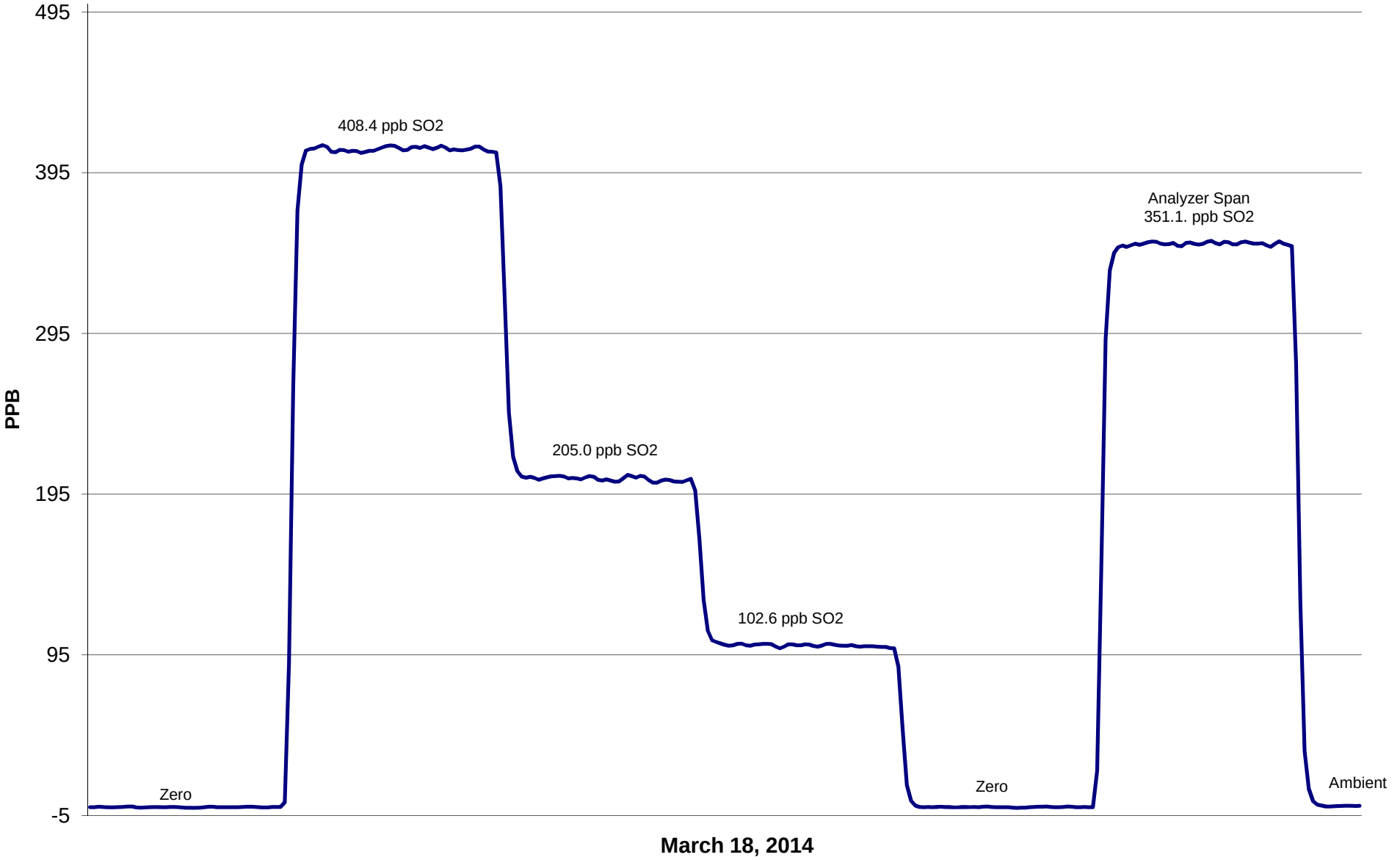
Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A	Correlation Coefficient	0.999954
408.4	409.9	0.9964		
205.0	204.2	1.0038		
102.6	100.8	1.0178	Slope	0.995674
			Intercept	0.970044

SO2 Calibration Curve



SO2 Calibration



Calibration Report



Parameter H2S

Air Monitoring Network PAZA

Station Information

Calibration Date	March 18, 2014	Previous Calibration	February 10, 2014
Station Number	1	Station Location	Falher
Reason:	☒ Routine	☐ Install	☐ Removal
		☐ Other:	
Start Time (MST)	9:10	End Time (MST)	12:35
Barometric Pressure	0.931 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics	Serial Number	3016
Cal Gas Conc	10.4 ppm	Cal Gas Expiry Date	08/07/2016
Correction factor	0.031647	Cal Gas Cylinder #	LL110781
DACS make	CR1000	DACS serial No.	3980
DACS voltage range	0 - 5 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
Calculated slope	0.967712	Calculated slope	0.965754
Calculated intercept	-0.373059	Calculated intercept	-0.303982
Analyzer make	Thermo 450i	Analyzer serial #	1207452006

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	13.5	ppb	13.5	ppb
coefficient	1.169		1.169	
Lamp Voltage	807	volts	807	volts
Chamber Temp	45	Deg C	45	Deg C
Perm Gas Temp	44.9	Deg C	45	Deg C
Pressure	567.3	mm Hg	568.2	mm Hg
Sample Flow	0.911	lpm	0.912	lpm
Lamp Intensity	90	mv	90	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)
4995	0.00	0.00	0.7	N/A
4995	39.93	82.48	85.8	0.9610
4995	19.96	41.39	43.0	0.9618
8994	8.97	10.36	10.7	0.9684
4995	0.00	0.00	0.7	As Found Zero
4995	39.93	82.48	85.8	As Found Span
Average Correction Factor				0.9637

Calculated value of As Found Response: 82.02 ppm Percent Change of As Found: 0.6%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.3	ppm
Auto span	51.2	ppm	55.6	ppm

Notes: No adjustment made, Sox scrubber test performed.

Calibration Performed By: Grover Christiansen, Dmytro Dolotii

Calibration Summary

Parameter H2S

Air Monitoring Network PAZA



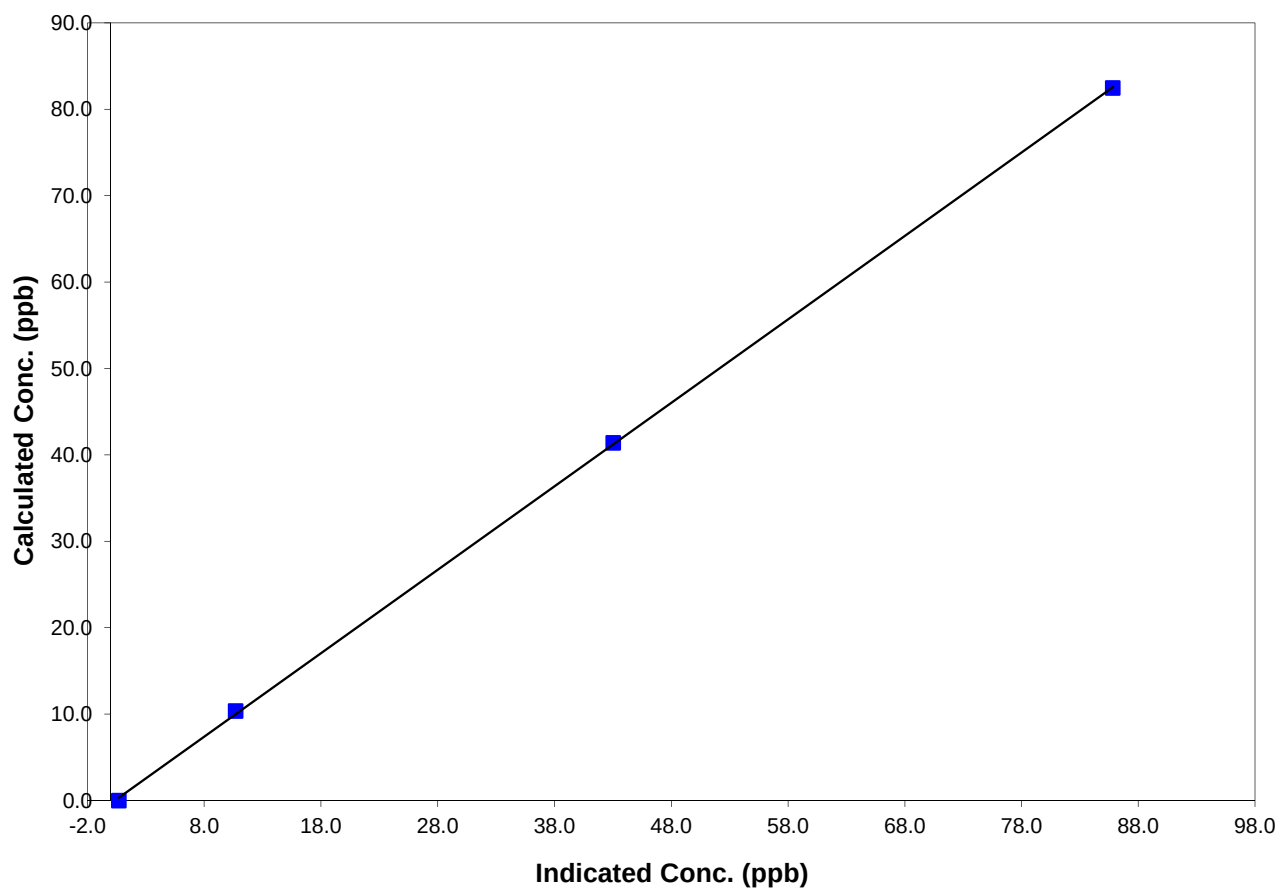
Station Information

Calibration Date	March 18, 2014	Previous Calibration	February 10, 2014
Station Number	1	Station Location	Falher
Start Time (MST)	9:10	End Time (MST)	12:35
Analyzer make/model	Thermo 450i	Analyzer serial #	1207452006

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	N/A	Correlation Coefficient	0.999935
82.5	85.8	0.9610		
41.4	43.0	0.9618		
10.4	10.7	0.9684	Slope	0.965754
			Intercept	-0.303982

TRS Calibration Curve



H2S Calibration

