



# **PEACE AIRSHED ZONE ASSOCIATION**

## **Air Quality Monitoring Network**

**March 2004**

Prepared by



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Edmonton, Alberta, T5K 2J6

**Re: Peace Airshed Zone Association – March PASZA Ambient Air Report**

Enclosed is PASZA Ambient Monitoring Report for the month of **March 2004**.

**Continuous Monitoring – Henry Pirker Station (Grande Prairie)**

Included in this report is a summary of the, monthly continuous sampling, detailed hourly average reports and multipoint calibration reports of all instruments. The measured ambient air quality was within the Provincial and Federal guidelines with no exceedences recorded. There were no significant events leading to emergency response for the month of March. All equipment operated above 90% uptime during the month of March.

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

The second passive station in Grande Prairie (#49) was moved to the Henry Pirker station to coincide with the continuous samplers there. There were no damaged or missing samples for the month and no exceedences of the Provincial Air Quality guidelines.

- Monthly average concentrations for SO<sub>2</sub> passives ranged from 0.1 ppb to 0.6 ppb.
- Monthly average concentrations for NO<sub>2</sub> passives ranged from 0.4 ppb to 9.2 ppb.
- Monthly average concentrations for O<sub>3</sub> passives ranged from 36.7 ppb to 56.8 ppb.

If you have any questions, please contact the Focus office at 1-888-869-2252 or 1-888-466-6555.

On Behalf of the,  
Peace Airshed Zone Association

A handwritten signature in black ink, appearing to read "Kevin Warren".

Kevin Warren  
PASZA Technical Program Manager

A handwritten signature in black ink, appearing to read "Kevin McCullum".

Kevin McCullum, M.Sc., P.Eng.  
AQM Environmental Engineer

## March 2004 Monthly Overall Summary Report

### Ambient Air Quality Data

Mar-2004 Peace Airshed Zone Association							Maximum Recorded Values						Operational Time (%)
Pollutant (units)	Guidelines		Station	Monthly Average	Exceedence		1-hr				24-hr		
	1-hr	24-hr			1-hr	24-hr	Conc	Day	WSPD (km/hr)	WDIR (Sector)	Conc	Day	
SO <sub>2</sub> (ppb)	172	57	Henry Pirker	1.1	0	0	12.5	Mar-17	23.3	NE	3.1	Mar-29	97.8%
NO (ppb)			Henry Pirker	4.5	0	0	88.2	Mar-04	2.4	E	18.7	Mar-26	99.9%
NO <sub>2</sub> (ppb)	212	106	Henry Pirker	12.1	0	0	45.3	Mar-29	3.5	WNW	22.3	Mar-29	99.9%
NO <sub>x</sub> (ppb)			Henry Pirker	16.6	0	0	123.8	Mar-04	2.4	E	38.2	Mar-26	99.9%
O <sub>3</sub> (ppb)	82		Henry Pirker	31.8	0	0	55.1	Mar-08	21.6	E	45.0	Mar-31	99.7%
CO (ppm)	13		Henry Pirker	0.32	0	0	0.86	Mar-04	2.4	E	0.45	Mar-08	99.7%
THC (ppm)			Henry Pirker	2.07	0	0	2.85	Mar-21	5.4	SE	2.41	Mar-21	99.9%
TRS (ppb)			Henry Pirker	0.3	0	0	1.1	Mar-26	5.2	WSW	0.6	Mar-26	99.9%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )		30 <sup>a</sup>	Henry Pirker	3.0	0	0	20.0	Mar-26	3.2	SSW	11.3	Mar-26	93.4%
RH (%)			Henry Pirker	65.6									99.2%
SR (W/m <sup>2</sup> )			Henry Pirker	127.0									99.2%
Temp (°C)			Henry Pirker	-1.5									99.6%
WSPD v (km/hr)			Henry Pirker	5.2									99.6%
WSPD s (km/hr)			Henry Pirker	11.7									99.6%
WDIR (Deg)			Henry Pirker	ENE*									98.3%

Note: <sup>a</sup> the 24-hr Canada Wide Standard level is considered as an absolute value

\* Wind Direction is the predominate direction for the Month

# Continuous Monitoring

## Ambient Air Monitoring Network

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### Henry Pirker Station

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#### General Station Issues

No reportable issues for the month of March

Parameter	Make	Model	Notes
SO <sub>2</sub>	TECO	43	During the mutipoint calibration on March 17, the time constant was increased to 60 seconds to reduce the noise level of the analyzer
NOx/NO/NO <sub>2</sub>	TECO	42	No operational problems observed
O <sub>3</sub>	API	400	No operational problems observed
CO	TECO	48	No operational problems observed
THC	TEI	51-CLT	Zero values were elevated prior to the multipoint calibration due to low pressure on the zero source. This was adjusted during the calibration.
TRS	TEI	42C	No operational problems observed
PM <sub>2.5</sub>	R&P	1400AB	Operational time dropped to 93% due to removed negative readings as per Alberta Environment requirements.
RH	Met One	083D	No operational problems observed
AT	Met One	083D	No operational problems observed
SR	Met One	096-1	No operational problems observed
WS	Met One	010C	No operational problems observed
WD	Met One	020C	Wind Vane was frozen for a period of 10hrs on March 13.

### PASZA - Henry Pirker AQI Monthly Summary

Station: Henry Pirker

Station Owner: PASZA

## Air Quality Index (AQI)

Monitoring Dates: March 1, 2004 to April 1, 2004

**Summary**

Number of 1-hr Good Readings:	678
Number of 1-hr Fair Readings:	20
Number of 1-hr Poor Readings:	0
Number of 1-hr Very Poor Readings:	0

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Percentile	99	95	75	50	25	5	1
	27.7	24.6	20.8	16.9	12.2	7.1	5.6

**Alberta's Air Quality Index**

Good	1	to	25
Fair	26	to	50
Poor	51	to	100
Very Poor	>		100

**Day Mountain Standard Time**

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	
1-Mar-04	12	A	A	18	17	17	16	13	11	14	15	15	16	16	15	15	15	15	12	12	7	7	7	7	6	
2-Mar-04	5	A	A	16	14	15	15	13	14	15	15	16	15	15	15	15	15	13	12	9	9	10	10	10	10	
3-Mar-04	10	A	11	12	11	12	12	11	12	14	16	16	17	17	16	16	15	13	12	14	14	14	15	15	16	
4-Mar-04	16	A	15	14	15	14	14	13	10	12	17	19	19	20	19	18	14	12	7	9	8	8	8	8	6	
5-Mar-04	6	A	7	5	8	5	7	7	6	6	7	9	11	13	11	13	18	19	11	8	12	19	21	24	24	
6-Mar-04	22	A	21	19	18	16	16	16	20	22	22	22	23	23	23	23	22	20	19	15	11	15	17	16	16	
7-Mar-04	A	A	18	22	19	18	10	15	17	16	22	24	25	26	26	28	28	25	24	24	28	28	28	29	29	
8-Mar-04	A	A	26	24	25	19	10	14	9	8	10	15	15	17	16	13	9	13	8	6	8	6	12	7	7	
9-Mar-04	12	11	A	19	21	21	22	20	22	25	25	24	25	23	22	22	23	22	21	18	17	17	22	21	21	
10-Mar-04	18	19	A	15	18	17	13	8	9	15	20	22	23	24	23	22	20	20	21	20	17	20	18	16	16	
11-Mar-04	18	20	A	25	25	23	18	8	8	19	23	24	25	24	22	22	21	21	19	17	7	9	8	9	9	
12-Mar-04	19	20	A	24	24	23	22	14	13	18	19	21	22	23	23	23	25	25	24	22	20	20	17	14	14	
13-Mar-04	16	9	A	7	7	6	7	7	7	14	16	18	19	19	25	26	27	22	14	13	18	19	19	20	20	
14-Mar-04	20	20	A	20	20	18	17	17	17	15	14	17	17	20	19	19	19	22	21	20	19	16	9	6	5	
15-Mar-04	12	15	A	11	15	18	20	17	18	21	23	22	22	23	24	23	23	22	22	21	20	20	20	20	18	
16-Mar-04	18	16	A	18	14	13	14	17	15	17	D	20	21	21	19	21	22	20	21	22	22	22	23	22	22	
17-Mar-04	22	23	A	21	22	21	19	20	20	21	22	23	24	N	25	24	C	C	C	C	C	C	C	C	C	
18-Mar-04	21	21	A	22	23	22	20	20	20	21	20	20	20	20	19	M	16	13	12	13	13	13	10	14	14	
19-Mar-04	13	13	A	17	13	17	20	19	18	19	20	21	21	21	21	21	20	20	18	14	16	16	18	18	18	
20-Mar-04	17	18	A	14	11	13	14	15	15	16	17	18	18	18	17	18	18	16	13	9	10	9	7	8	8	
21-Mar-04	6	9	A	6	6	7	7	8	11	13	11	15	16	18	19	19	18	17	14	9	10	7	7	6	6	
22-Mar-04	10	21	A	21	20	20	19	17	17	18	20	20	21	22	23	23	22	20	12	11	10	10	10	11	11	
23-Mar-04	11	7	A	8	8	9	10	8	8	14	10	14	15	18	24	24	23	23	23	24	20	19	19	15	15	
24-Mar-04	12	10	A	4	8	8	7	9	10	16	20	19	20	20	25	25	24	24	21	19	20	19	18	16	16	
25-Mar-04	15	13	A	11	9	9	8	9	9	10	11	11	11	12	13	13	14	13	11	7	5	7	7	6	6	
26-Mar-04	7	6	A	6	7	8	10	17	10	12	12	14	13	12	14	12	13	13	11	9	9	9	9	8	8	
27-Mar-04	9	9	A	9	12	15	17	16	16	16	16	16	17	17	18	19	19	19	17	12	20	19	21	21	19	
28-Mar-04	18	19	A	21	21	18	16	16	16	22	24	26	28	29	28	27	26	24	20	19	20	22	21	20	20	
29-Mar-04	15	8	A	15	11	11	11	10	10	14	10	15	16	17	16	17	22	22	18	15	18	14	16	16	16	
30-Mar-04	23	23	A	23	19	19	12	12	12	14	9	12	10	14	17	17	21	21	23	22	14	17	19	21	21	
31-Mar-04	24	24	A	23	24	23	22	23	23	24	25	25	25	26	25	26	26	26	24	23	18	15	16	17	16	16

### PASZA - Henry Pirker Sulphur Dioxide Monthly Summary

Station: Henry Pirker

#### HOURLY AVERAGE TABLE

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

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004

**Summary**

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	12.5 ppb 17-Mar 5:00 6:00
Maximum 24-hr Average:	3.1 ppb 29-Mar

Guideline Limit: Alberta Environment: 1-hr 172 ppb 24-hr 57 ppb

AIC Time:	35 hrs	Operational Time:	688 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	97.8%
Percentile	99	95	75
	5.6	3.1	1.6
		50	0.8
		25	0.1
		5	0.0
		1	0.0
	Average		
	1.1 ppb		

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00		
1-Mar-04	2	A	A	1	0	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	1	1	1	1	0.5	1.8
2-Mar-04	1	A	A	1	3	2	3	2	2	1	2	2	2	3	2	3	3	1	1	1	1	1	1	1	1.8	2.9
3-Mar-04	0	A	0	0	0	1	0	0	1	2	2	2	1	1	1	1	1	1	1	0	1	0	0	0	0.7	1.9
4-Mar-04	0	A	1	0	0	0	1	0	1	1	1	1	1	1	0	1	2	1	1	1	1	1	1	1	0.8	1.5
5-Mar-04	1	A	1	1	1	1	1	1	1	2	1	1	1	2	2	3	2	1	1	1	2	2	1	1	1.2	2.7
6-Mar-04	0	A	0	1	2	2	1	1	1	1	2	1	1	0	3	2	1	1	1	1	3	0	1	0	1.2	3.1
7-Mar-04	A	A	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0.2	1.0
8-Mar-04	A	A	0	0	0	0	0	1	0	1	2	2	1	1	2	2	1	0	1	2	2	1	2	1	1.0	2.2
9-Mar-04	1	0	A	1	1	1	1	1	2	2	2	2	2	2	2	1	1	2	1	1	2	1	2	1	1.5	2.1
10-Mar-04	2	1	A	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.9
11-Mar-04	0	0	A	0	1	2	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.2	1.8
12-Mar-04	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	1	2	1	0	0	0	0.5	2.2
13-Mar-04	0	0	A	0	1	0	0	0	0	0	1	1	1	1	1	0	0	1	1	1	2	2	1	1	0.6	1.9
14-Mar-04	0	0	A	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	1	1	0	1	1	1	0.4	1.0
15-Mar-04	2	0	A	0	0	0	1	1	1	1	1	1	0	0	0	0	0	1	0	0	1	1	0	0	0.5	1.6
16-Mar-04	0	0	A	0	0	0	0	0	D	D	D	D	0	0	0	0	0	0	0	0	0	0	1	3	0.2	2.6
17-Mar-04	0	0	A	7	3	13	3	9	3	1	4	0	1	N	M	M	M	M	M	C	C	C	C	C	N	12.5
18-Mar-04	2	2	A	0	0	1	3	3	1	0	0	1	1	1	0	M	2	0	0	0	0	0	1	0	0.8	3.1
19-Mar-04	1	1	A	2	0	0	0	0	0	0	0	2	3	2	1	2	3	3	3	3	4	1	1	2	1.5	4.0
20-Mar-04	3	1	A	1	2	1	0	1	2	3	3	3	2	1	2	3	3	4	2	2	2	1	1	2	1.9	3.6
21-Mar-04	0	0	A	1	1	1	0	0	0	0	0	1	3	2	1	0	0	0	1	0	0	0	D	D	0.5	2.7
22-Mar-04	D	0	A	0	0	0	0	0	D	D	0	1	0	0	0	0	0	0	0	1	2	2	2	2	0.5	1.9
23-Mar-04	1	1	A	1	2	1	1	1	1	2	1	0	0	2	2	1	0	1	0	1	0	0	1	0	0.9	2.4
24-Mar-04	0	0	A	0	0	0	0	1	2	2	0	0	0	0	1	1	0	1	1	1	1	1	1	1	0.7	2.5
25-Mar-04	0	1	A	0	1	0	0	0	0	0	1	0	0	1	1	1	1	2	3	2	1	2	1	1	0.9	3.3
26-Mar-04	0	0	A	1	1	0	1	1	1	1	1	1	2	1	1	2	4	3	1	2	3	4	7	4	1.9	7.0
27-Mar-04	2	1	A	2	0	1	1	1	2	3	3	3	3	3	3	3	2	3	1	1	2	0	2	2	1.9	3.4
28-Mar-04	1	0	A	0	1	1	0	3	4	3	4	2	1	2	2	2	1	1	1	3	1	1	1	0	1.5	4.0
29-Mar-04	1	1	A	0	1	2	2	1	3	3	2	3	3	3	4	4	6	3	3	4	6	6	6	5	3.1	6.1
30-Mar-04	2	2	A	1	0	0	1	1	1	1	2	2	3	3	3	2	2	2	2	4	2	0	1	1	1.6	4.0
31-Mar-04	0	0	A	0	1	2	1	2	2	1	2	1	2	2	1	2	1	2	2	2	2	2	1	1	1.4	2.5
Hourly Avg	0.8	N	N	0.7	0.7	1.0	0.8	1.0	1.1	1.1	1.3	1.2	1.1	1.1	1.2	1.3	1.3	1.2	1.2	1.2	1.3	1.1	1.3	1.1	1.1	
Hourly Max	3.4	1.9	1.2	7.4	2.9	12.5	3.1	8.5	4.0	3.5	3.9	3.5	3.2	3.4	3.9	4.1	5.7	3.6	4.0	3.6	6.1	5.6	7.0	4.5		

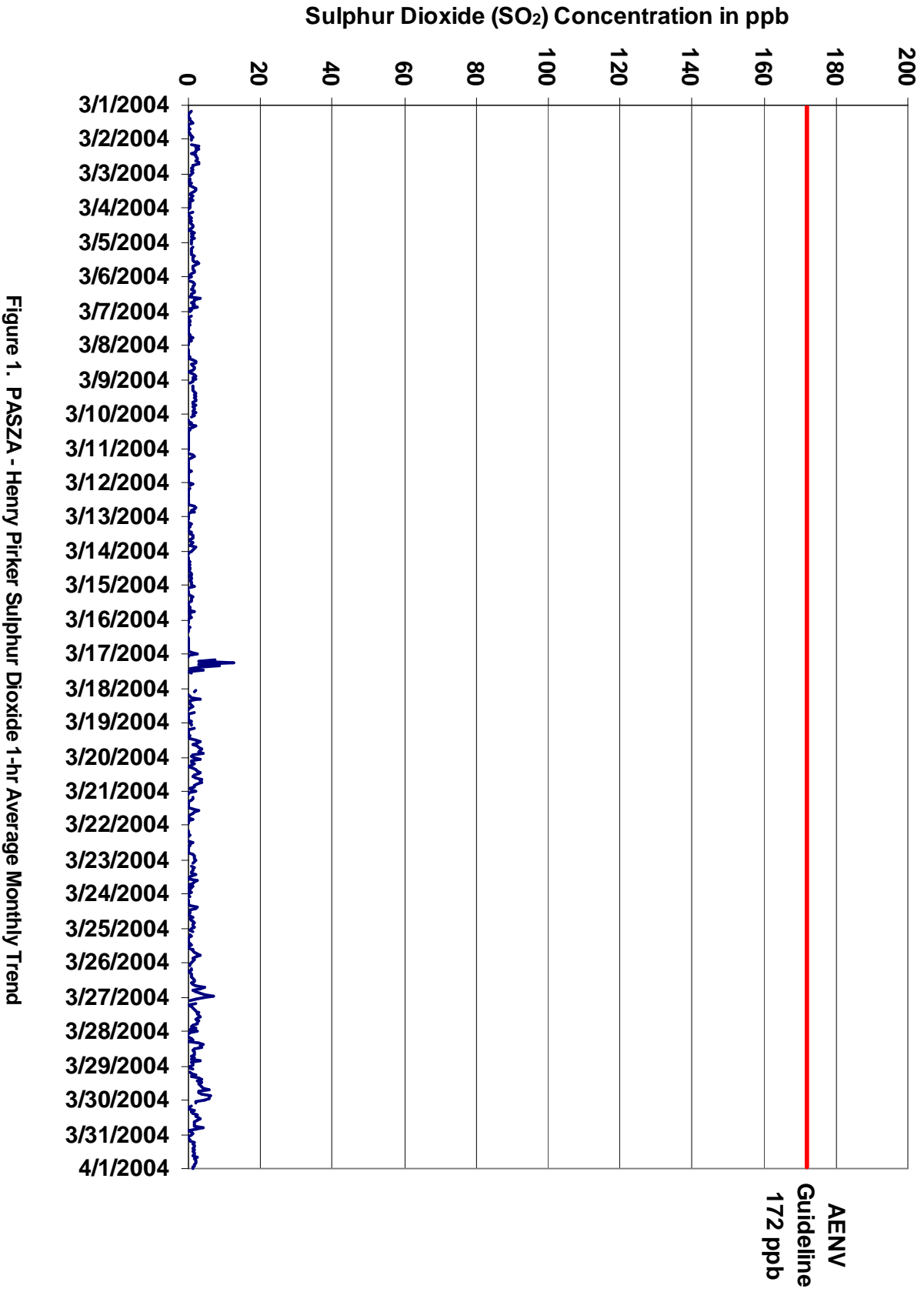


Figure 1. PASZA - Henry Pirkler Sulphur Dioxide 1-hr Average Monthly Trend

Station: Henry Pirker

**HOURLY MAXIMUM TABLE**

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

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004

**Summary**

Maximum 1-hr Value:	27.2	ppb	17-Mar	3:00 4:00
Maximum 24-hr Value:	5.8	ppb	2-Mar	

AIC Time:	35 hrs	Operational Time:	697 hrs					
Calibration Time:	5 hrs	AMD Operational Uptime:	99.1%					
Percentile	99	95	75	50	25	5	1	Average
	9.9	7.0	5.2	4.2	3.2	1.9	0.0	4.3 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00		
1-Mar-04	5	A	A	4	4	3	3	2	4	4	5	6	3	3	5	5	4	3	5	5	5	4	6	4	4.4	6.0
2-Mar-04	5	A	A	5	7	6	7	6	6	4	6	6	6	6	6	8	7	6	5	5	5	4	5	5	5.8	8.4
3-Mar-04	5	A	4	5	4	3	4	4	6	6	7	7	5	4	4	7	4	4	6	4	5	4	5	4	4.9	7.1
4-Mar-04	3	A	5	5	5	4	4	4	5	5	4	5	6	5	6	4	5	4	6	5	5	5	4	4	4.6	5.8
5-Mar-04	5	A	5	4	5	4	4	6	5	6	5	5	6	7	8	6	6	5	6	5	6	5	5	5	5.2	7.9
6-Mar-04	4	A	4	5	6	6	6	4	5	9	6	5	5	4	8	7	6	8	7	6	8	6	4	3	5.7	9.4
7-Mar-04	A	A	5	3	3	4	4	3	4	5	3	4	4	4	4	4	5	4	5	6	5	3	4	3	4.2	5.6
8-Mar-04	A	A	3	4	3	3	5	5	5	5	5	6	4	4	7	5	5	3	6	5	6	5	6	5	4.9	6.8
9-Mar-04	6	3	A	6	5	7	5	5	6	6	6	6	5	7	6	5	5	6	6	5	5	6	6	4	5.5	7.4
10-Mar-04	5	4	A	3	3	4	5	6	5	3	4	3	3	4	3	4	3	4	4	2	3	3	4	3	3.7	5.7
11-Mar-04	3	5	A	4	6	5	6	4	4	3	2	2	2	4	2	4	4	4	3	4	3	2	3	3	3.6	5.8
12-Mar-04	4	4	A	4	4	3	3	3	6	4	4	2	3	3	4	5	6	5	6	5	4	4	3	4	4.1	5.9
13-Mar-04	4	4	A	4	5	3	4	3	3	4	5	4	6	5	5	4	4	6	4	6	7	5	4	6	4.7	6.7
14-Mar-04	3	3	A	2	3	5	4	4	4	4	4	3	4	4	5	7	5	3	4	6	5	7	4	4	4.2	7.1
15-Mar-04	7	4	A	3	5	4	5	5	6	5	4	3	4	4	4	3	5	3	5	4	5	4	3	4	4.3	7.5
16-Mar-04	4	3	A	4	4	5	5	3	1	0	0	0	1	2	1	5	2	3	3	2	1	2	8	13	3.1	12.8
17-Mar-04	2	4	A	27	12	24	11	13	10	4	10	3	4	N	M	M	M	M	M	C	C	C	C	C	N	27.2
18-Mar-04	6	4	A	2	3	5	5	6	4	3	3	3	3	4	3	M	4	4	4	1	0	1	3	3	3.3	6.4
19-Mar-04	4	3	A	5	2	1	1	3	3	3	4	4	5	4	5	5	5	6	6	6	7	4	4	4	4.0	6.8
20-Mar-04	7	3	A	3	4	4	2	4	5	5	5	5	4	3	5	6	5	5	6	4	5	3	4	4	4.5	6.9
21-Mar-04	2	1	A	4	3	2	3	4	1	2	2	5	4	4	4	2	2	4	3	2	2	3	0	0	2.6	4.9
22-Mar-04	0	1	A	3	1	3	3	2	0	2	2	4	2	3	3	3	3	2	0	3	4	4	3	4	2.5	4.3
23-Mar-04	4	3	A	3	4	3	4	3	5	6	4	2	2	6	5	4	4	5	3	4	3	2	3	5	3.7	6.2
24-Mar-04	1	3	A	3	3	2	2	3	5	5	3	3	2	2	2	4	2	3	3	4	3	3	4	4	3.0	5.4
25-Mar-04	2	4	A	3	3	2	2	2	2	2	4	3	3	3	3	3	4	5	5	4	3	4	3	4	3.1	5.1
26-Mar-04	2	3	A	3	3	2	3	3	3	3	3	4	4	3	4	5	7	6	3	5	7	8	10	9	4.5	10.2
27-Mar-04	5	3	A	6	2	5	4	4	4	5	5	5	5	6	6	6	5	6	5	4	2	5	2	7	4.6	6.5
28-Mar-04	3	2	A	2	4	3	2	7	6	7	6	6	4	5	4	4	4	5	4	7	4	4	3	3	4.3	7.3
29-Mar-04	3	3	A	4	4	5	4	2	6	7	4	6	6	7	8	7	10	7	5	7	8	8	8	7	5.8	9.6
30-Mar-04	5	5	A	3	2	2	4	3	3	6	5	5	6	6	4	4	4	4	7	5	2	4	3	3	4.1	7.0
31-Mar-04	3	3	A	2	4	4	3	4	4	4	4	3	4	4	4	6	4	4	5	5	6	4	4	4	3.9	5.6
Hourly Avg	3.9	N	N	4.4	4.0	4.4	4.1	4.2	4.4	4.4	4.3	4.2	4.1	4.4	4.5	4.8	4.6	4.6	4.6	4.5	4.4	4.2	4.4	4.4		
Hourly Max	7.5	5.0	5.1	27.2	11.9	23.8	10.6	13.2	9.9	9.4	9.6	6.6	6.3	7.0	7.9	8.4	9.6	7.7	7.0	7.3	7.8	7.6	10.2	12.8		



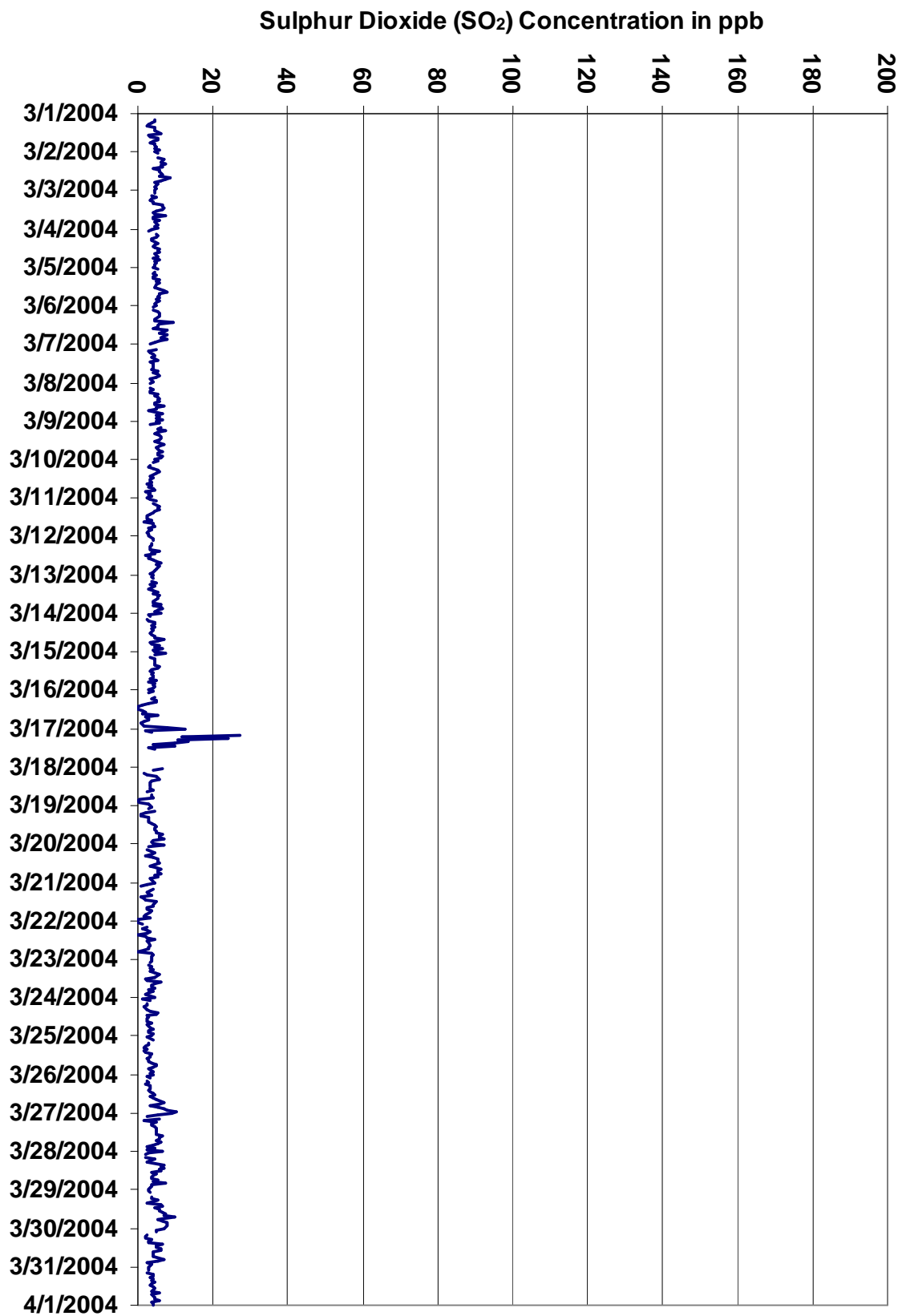
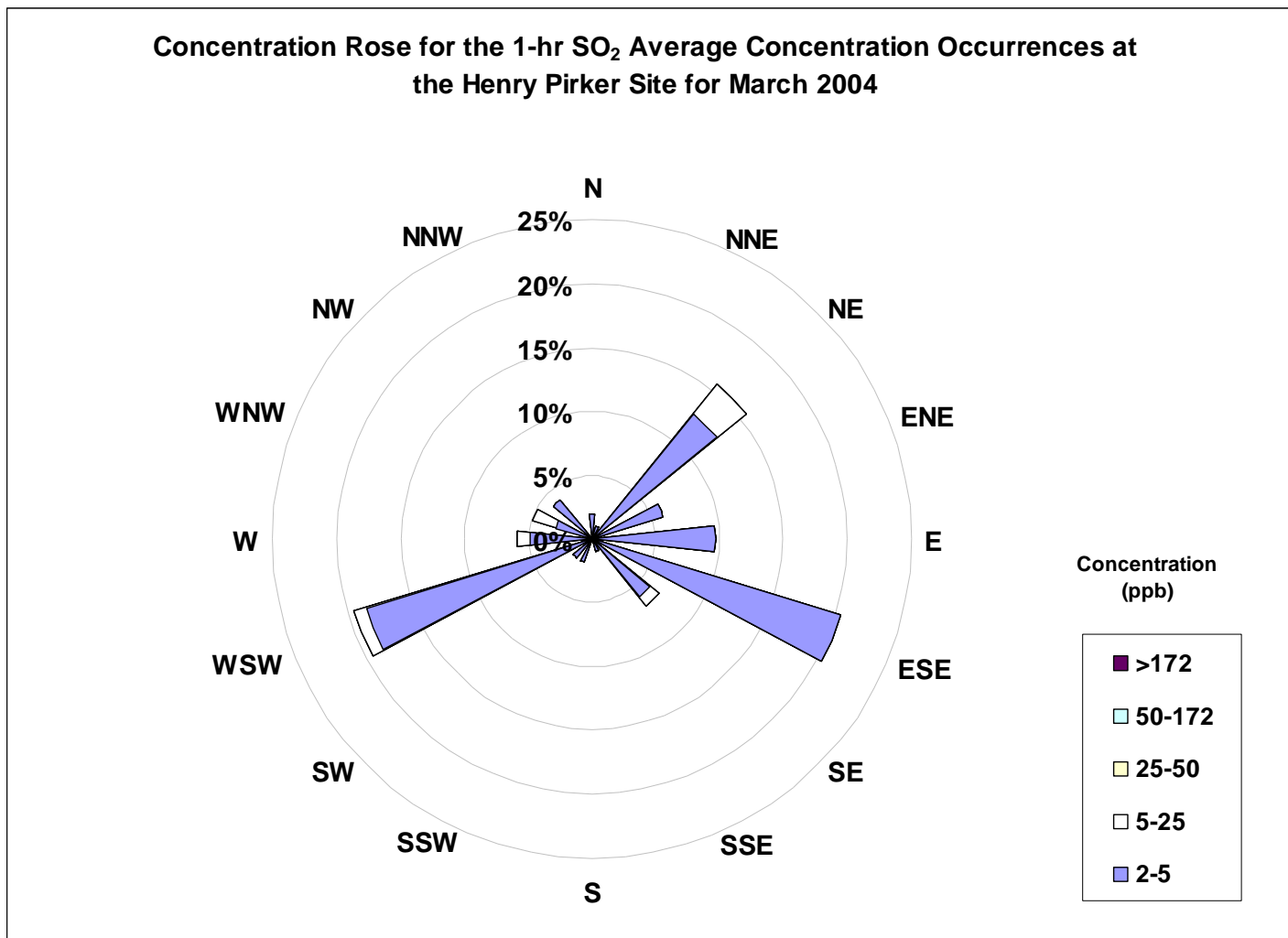


Figure 2. PASZA - Henry Pirker Sulphur Dioxide 1-hr Maximum Value Monthly Trend



Frequency Distribution of SO <sub>2</sub> in ppb			
Range	Frequency (hrs)		
0 < 2	585		
2 to 5	95		
5 to 25	8		
25 to 50	0		
50 to 172	0		
> 172	0		
<b>Total Non-Zero Values</b>	<b>688</b>		

### PASZA - Henry Pirker Oxides of Nitrogen Monthly Summary

Station: Henry Pirker

#### HOURLY AVERAGE TABLE

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

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004

**Summary**

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	45 ppb 29-Mar 6:00 7:00
Maximum 24-hr Average:	22 ppb 29-Mar

Guideline Limit: Alberta Environment: 1-hr 212 ppb 24-hr 106 ppb

AIC Time:	36 hrs	Operational Time:	700 hrs
Calibration Time:	7 hrs	AMD Operational Uptime:	99.9%
Percentile	99	95	75
	40	31	17
	50	25	5
	1	3	2
	Average		
	12.1 ppb		

**Status Flag Characters**

C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

**Day Mountain Standard Time**

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum	
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Mar-04	18	A	A	5	7	7	8	11	12	7	6	6	5	5	5	6	7	9	12	12	20	31	28	26	11.4	30.7	
2-Mar-04	23	A	A	5	9	8	8	9	9	5	5	3	2	2	3	5	5	6	9	12	13	12	11	9	7.9	22.7	
3-Mar-04	10	A	8	7	7	7	7	9	10	7	5	5	4	4	4	6	8	12	14	11	11	9	10	8	7.9	13.8	
4-Mar-04	6	A	10	10	7	9	10	10	17	14	6	3	6	3	5	8	15	19	29	38	35	34	33	22	15.1	38.1	
5-Mar-04	22	A	29	22	14	22	30	28	27	21	16	19	19	26	21	17	13	13	26	30	23	11	6	3	19.9	30.4	
6-Mar-04	5	A	7	5	5	7	8	7	6	4	4	4	3	3	3	4	5	7	10	18	23	15	10	13	7.7	22.7	
7-Mar-04	A	A	11	4	10	12	26	14	10	13	4	2	2	2	3	3	3	5	8	8	4	4	4	2	7.0	25.9	
8-Mar-04	A	A	3	6	5	14	30	21	37	34	30	20	19	17	15	19	28	13	21	26	32	27	16	24	20.8	37.4	
9-Mar-04	16	16	A	5	3	3	5	7	4	3	2	2	1	4	6	6	4	6	7	11	14	13	6	6	6.5	16.1	
10-Mar-04	11	9	A	15	10	11	19	25	26	16	7	6	6	6	8	8	11	11	8	10	15	11	13	16	12.1	25.8	
11-Mar-04	13	11	A	5	4	6	15	29	31	14	7	7	6	7	9	9	11	11	12	15	31	37	34	24	15.0	37.3	
12-Mar-04	10	8	A	2	2	3	5	16	19	9	7	6	5	4	4	4	3	3	4	6	9	8	11	13	7.0	18.7	
13-Mar-04	9	18	A	29	27	26	30	28	20	11	7	5	4	7	3	2	2	8	18	20	12	10	11	7	13.6	29.7	
14-Mar-04	6	5	A	6	5	6	7	7	7	10	11	6	7	4	5	5	3	4	6	7	10	16	24	20	8.1	23.6	
15-Mar-04	10	6	A	13	8	5	4	9	8	5	4	5	5	3	2	3	4	4	4	5	6	4	5	6	5.6	12.8	
16-Mar-04	7	10	A	7	11	16	17	13	16	13	6	6	5	4	5	5	4	8	6	5	5	5	4	4	7.8	17.4	
17-Mar-04	4	3	A	6	4	4	8	6	8	6	4	4	2	N	2	4	2	9	14	30	20	14	13	8	7.9	29.5	
18-Mar-04	5	4	A	3	3	3	6	6	6	4	C	C	C	C	C	C	C	19	20	18	19	16	21	10	N	21.4	
19-Mar-04	11	11	A	A	13	6	4	4	4	3	2	2	2	2	2	3	3	4	7	13	9	8	5	5	5.6	13.3	
20-Mar-04	5	5	10	A	15	10	9	6	7	6	4	4	6	7	8	8	10	14	20	38	41	36	29	32	14.3	40.9	
21-Mar-04	22	18	19	A	18	18	18	15	12	9	15	9	8	6	5	7	8	12	15	36	41	29	31	25	17.2	41.1	
22-Mar-04	19	6	5	A	6	8	9	13	14	10	7	8	6	5	4	6	8	13	26	27	29	44	43	23	14.7	43.8	
23-Mar-04	16	24	14	A	35	37	40	32	30	33	26	16	18	15	9	10	10	11	10	8	13	14	13	20	19.7	40.3	
24-Mar-04	28	32	20	A	35	27	31	31	42	21	11	14	12	13	5	6	7	7	5	6	5	6	5	3	16.2	42.2	
25-Mar-04	3	3	2	A	4	4	6	6	6	4	3	3	3	3	4	5	5	8	12	17	21	30	31	27	9.0	30.6	
26-Mar-04	28	25	25	A	28	28	29	27	21	19	15	14	13	9	7	9	10	14	17	20	25	22	23	22	19.5	28.5	
27-Mar-04	14	18	17	A	9	7	6	7	7	6	6	6	6	6	6	5	5	7	19	7	12	8	7	11	8.7	19.4	
28-Mar-04	14	12	6	A	7	13	19	16	24	12	6	3	3	3	5	8	10	14	19	21	17	15	14	13	11.9	23.7	
29-Mar-04	19	29	15	A	24	23	45	40	26	16	26	14	15	15	17	20	15	16	21	26	19	26	22	23	22.3	45.3	
30-Mar-04	7	7	7	A	13	12	30	33	39	15	25	22	24	35	15	19	9	10	8	7	22	16	10	6	17.0	38.6	
31-Mar-04	2	2	2	A	3	3	5	5	5	3	3	3	2	4	3	4	4	5	6	8	17	21	19	15	17	7.0	20.9
Hourly Avg	12.6	N	N	N	11.3	11.8	15.9	15.8	16.3	11.4	9.3	7.6	7.3	7.8	6.5	7.4	7.8	9.8	13.5	17.0	18.5	17.7	16.3	14.4			
Hourly Max	28.5	32.0	29.3	28.8	35.2	36.6	45.3	40.0	42.2	34.0	30.4	22.1	23.8	35.2	20.6	19.7	28.4	19.2	28.7	38.1	41.1	43.8	42.7	31.5			

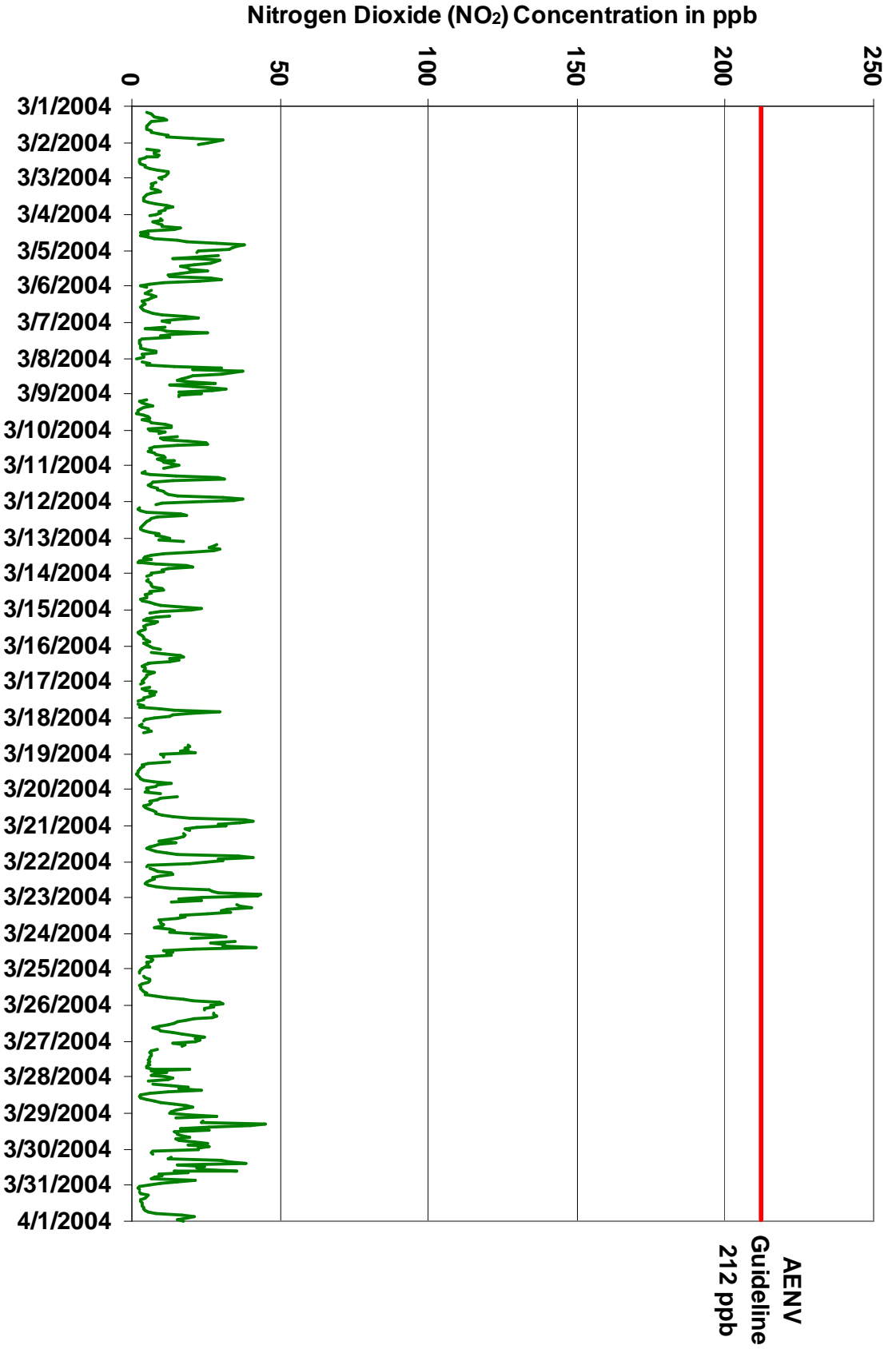


Figure 3. PASZA - Henry Pirkner Nitrogen Dioxide 1-hr Average Monthly Trend

Station: Henry Pirker

**HOURLY MAXIMUM TABLE**

**Nitrogen Dioxide (NO<sub>2</sub>)**

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004  
 Summary

Maximum 1-hr Value:	59.1	ppb	29-Mar	6:00 7:00
Maximum 24-hr Value:	32.5	ppb	29-Mar	

AIC Time:	36 hrs	Operational Time:	700 hrs					
Calibration Time:	7 hrs	AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	Average
	51	41	26	14	9	5	4	18.2 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Mar-04	25	A	A	7	10	10	14	16	16	10	8	8	10	9	8	12	10	12	18	17	30	33	35	31	15.9	34.5
2-Mar-04	28	A	A	9	19	14	12	16	15	12	12	5	5	5	6	16	8	10	12	19	17	14	19	12	12.9	28.4
3-Mar-04	13	A	18	9	10	13	9	16	14	10	8	7	6	8	6	9	13	15	19	17	16	15	14	13	12.2	18.5
4-Mar-04	10	A	16	14	11	12	14	18	23	20	9	9	9	4	11	13	29	24	40	44	39	39	35	30	20.5	44.1
5-Mar-04	28	A	39	33	23	30	33	33	34	35	20	22	22	34	31	25	18	18	38	37	40	14	17	4	27.4	40.1
6-Mar-04	13	A	11	10	7	10	16	9	8	5	6	6	5	5	5	7	7	9	21	33	39	26	15	18	12.6	38.6
7-Mar-04	A	A	21	6	14	24	32	24	15	21	7	4	3	3	5	5	6	10	14	14	10	10	8	6	11.9	32.2
8-Mar-04	A	A	7	12	11	33	46	37	42	39	42	30	27	23	23	39	18	34	34	37	37	19	33	29.3	46.3	
9-Mar-04	25	26	A	10	5	5	7	14	6	6	3	3	3	13	10	10	5	8	10	19	26	27	9	12	11.4	27.5
10-Mar-04	22	17	A	28	15	18	29	35	36	21	13	9	9	8	13	14	17	16	14	15	32	29	25	28	20.1	36.3
11-Mar-04	25	18	A	7	7	12	23	41	44	20	9	9	7	11	13	12	15	21	25	27	41	43	40	32	21.9	44.0
12-Mar-04	18	12	A	6	4	5	8	33	28	14	9	11	9	6	6	7	5	5	7	13	11	11	21	23	11.8	33.1
13-Mar-04	14	35	A	36	33	31	35	31	26	16	10	7	6	10	5	5	7	18	26	30	18	13	14	10	18.9	35.8
14-Mar-04	9	7	A	7	7	10	10	11	13	14	16	8	13	6	7	8	5	5	19	12	19	26	29	23	12.4	29.4
15-Mar-04	14	8	A	19	10	9	7	14	14	7	5	6	6	6	4	4	5	6	7	8	8	7	11	15	8.6	19.4
16-Mar-04	17	18	A	13	21	36	29	20	21	18	8	10	7	6	10	10	6	13	9	9	18	15	10	5	14.3	35.5
17-Mar-04	6	5	A	7	6	11	11	8	10	8	6	6	4	N	6	18	5	22	24	40	42	19	18	12	13.4	42.2
18-Mar-04	6	5	A	4	4	5	7	8	9	7	C	C	C	C	C	C	C	36	33	25	44	26	39	16	N	44.2
19-Mar-04	16	13	A	A	29	10	5	9	9	5	4	4	3	4	3	4	5	8	11	20	15	16	12	9	9.8	28.7
20-Mar-04	8	8	19	A	25	20	14	11	11	10	7	7	8	13	10	10	15	19	32	42	45	39	33	36	19.2	45.1
21-Mar-04	31	25	24	A	23	22	23	20	18	14	17	15	9	9	7	11	12	17	32	44	45	35	33	32	22.5	45.5
22-Mar-04	33	10	9	A	8	14	17	21	19	17	11	18	9	7	8	11	17	19	39	35	50	53	50	34	22.2	53.1
23-Mar-04	32	40	20	A	38	43	44	45	36	42	38	25	23	21	12	14	12	15	13	9	26	21	18	28	26.7	44.6
24-Mar-04	41	55	35	A	41	41	47	42	54	33	17	21	21	25	13	12	16	11	8	8	10	14	9	7	25.2	55.2
25-Mar-04	6	5	4	A	8	9	13	11	9	7	10	6	6	7	10	9	8	13	18	28	27	41	39	34	14.2	40.6
26-Mar-04	37	27	34	A	37	32	33	35	24	22	18	19	15	13	10	13	16	22	23	27	38	29	32	29	25.4	38.2
27-Mar-04	19	29	30	A	11	9	7	8	8	8	8	8	8	8	8	8	7	19	31	9	20	11	13	17	13.3	31.4
28-Mar-04	19	16	9	A	11	29	31	38	34	20	11	6	4	9	7	13	14	21	29	33	30	20	22	19	19.4	37.9
29-Mar-04	28	37	23	A	33	51	59	46	47	22	33	21	22	20	22	33	20	20	29	48	28	40	34	32	32.5	59.1
30-Mar-04	19	9	9	A	19	46	59	51	58	28	32	31	37	46	28	43	17	23	12	12	33	28	16	14	29.1	59.0
31-Mar-04	4	4	4	A	4	6	9	7	7	5	5	7	6	7	7	6	7	9	12	25	27	28	24	27	10.7	28.5
Hourly Avg	19.6	N	N	N	16.3	19.9	22.7	23.5	22.8	16.6	13.4	11.6	10.7	11.9	10.5	12.8	12.1	15.5	21.3	24.4	28.5	25.2	23.0	20.7		
Hourly Max	40.6	55.2	38.7	35.8	41.3	50.5	59.1	51.2	57.5	41.6	41.9	31.1	37.0	46.5	31.2	43.0	39.1	36.2	39.7	48.4	50.3	53.1	49.8	36.0		

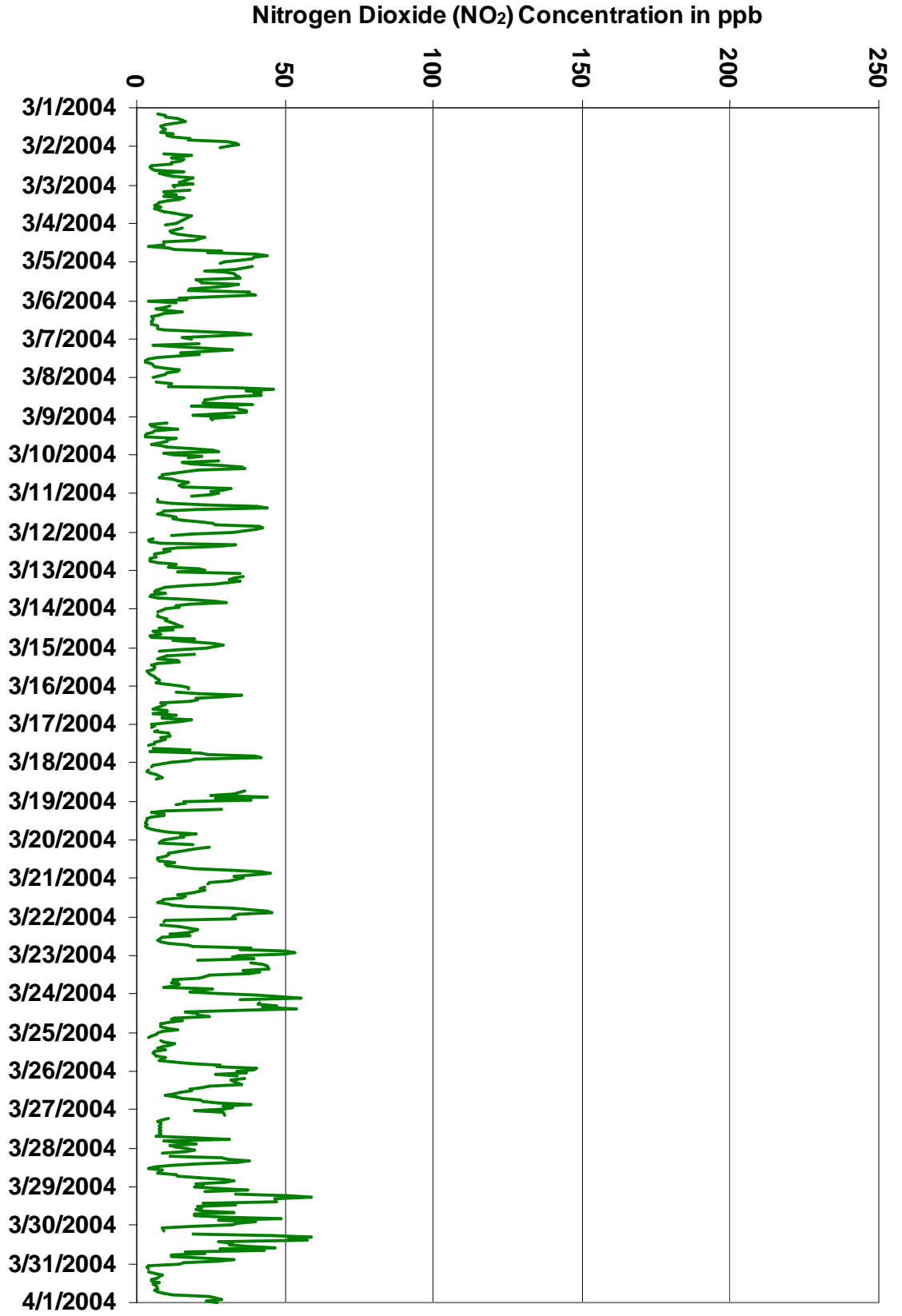
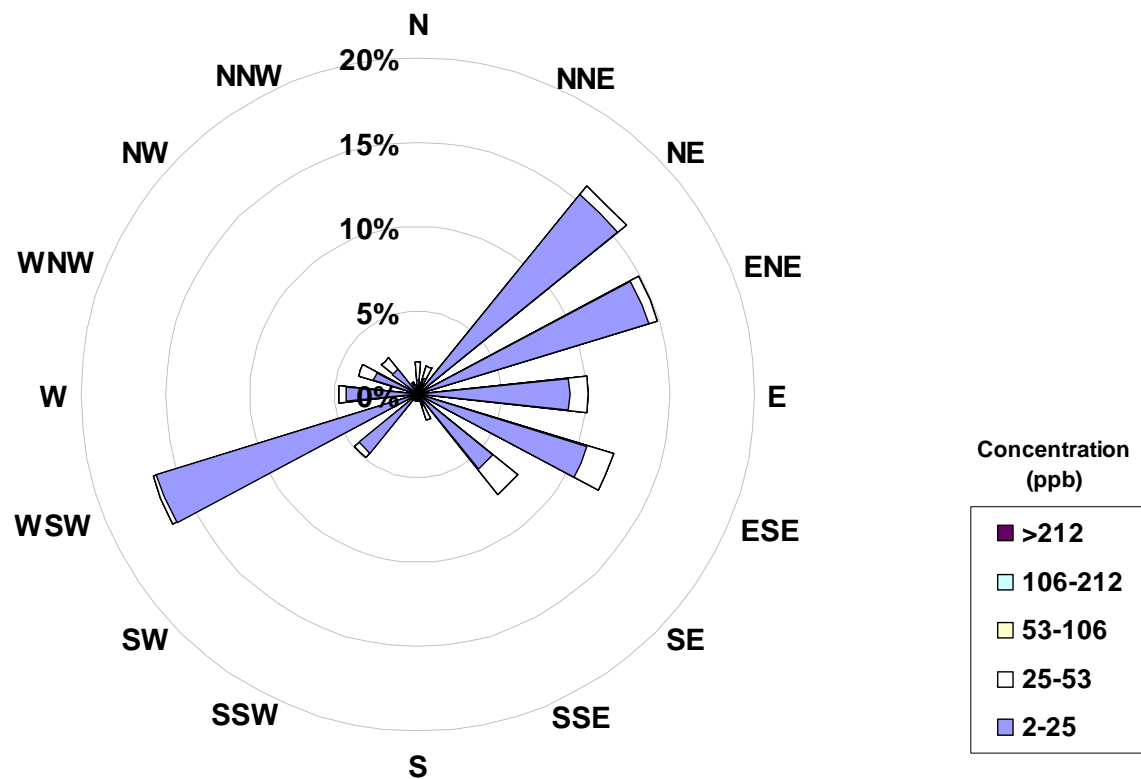


Figure 4. PASZA - Henry Pirker Nitrogen Dioxide 1-hr Maximum Value Monthly Trend

**Concentration Rose for the 1-hr NO<sub>2</sub> Average Concentration Occurrences at the Henry Pirker Site for March 2004**



Frequency Distribution of NO <sub>2</sub> in ppb			
Range	Frequency (hrs)		
0 < 2	7		
2 to 25	609		
25 to 53	84		
53 to 106	0		
106 to 212	0		
> 212	0		
Total Non-Zero Values	700		

Station: Henry Pirker

**HOURLY AVERAGE TABLE**

**Nitrogen Oxide (NO)**

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004

**Summary**

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	88	ppb	4-Mar	20:00 21:00
Maximum 24-hr Average:	19	ppb	26-Mar	

Guideline Limit: Alberta Environment: **1-hr na ppb** **24-hr na ppb**

AIC Time:	36 hrs		Operational Time:	700 hrs				
Calibration Time:	7 hrs		AMD Operational Uptime:	99.9%				
Percentile	99	95	75	50	25	5	1	Average
	46	18	4	2	1	0	0	4.5 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00			
1-Mar-04	1	A	A	1	1	1	1	2	4	3	3	4	5	4	4	4	3	3	3	1	2	24	13	12	4.5	24.3	
2-Mar-04	3	A	A	1	1	1	2	3	4	4	4	3	4	3	4	4	3	4	4	3	2	2	2	1	2.8	4.4	
3-Mar-04	1	A	1	1	1	1	2	2	4	4	4	4	4	4	4	5	9	6	4	3	3	3	2	1	3.2	9.0	
4-Mar-04	1	A	1	1	0	1	1	1	8	13	5	4	7	4	6	7	13	9	8	25	88	53	30	2	12.5	88.2	
5-Mar-04	2	A	6	5	2	5	15	17	31	29	20	32	31	50	36	20	7	3	3	2	3	0	0	0	13.9	50.2	
6-Mar-04	0	A	0	0	0	0	0	1	1	1	2	3	3	3	3	2	2	2	1	1	2	0	0	0	1.2	2.9	
7-Mar-04	A	A	0	0	0	0	1	0	2	11	2	1	1	1	2	1	1	1	1	0	0	0	0	0	1.2	11.1	
8-Mar-04	A	A	0	0	0	0	2	1	13	16	20	13	12	9	8	11	31	4	4	6	23	17	0	1	8.6	30.9	
9-Mar-04	0	0	A	0	0	0	0	0	1	1	1	1	1	2	2	2	2	1	1	1	0	0	0	0	0.8	2.3	
10-Mar-04	0	0	A	0	0	0	1	4	11	9	4	4	4	3	4	4	4	2	0	0	1	0	0	0	2.5	10.9	
11-Mar-04	0	0	A	0	0	0	0	8	17	3	3	3	2	3	3	3	3	2	1	1	4	16	7	1	3.4	16.6	
12-Mar-04	1	0	A	1	0	0	0	1	4	2	2	2	2	2	1	1	1	0	0	0	0	0	0	0	1.0	4.5	
13-Mar-04	0	2	A	6	5	3	8	10	14	7	6	4	3	6	1	1	1	2	1	1	0	0	1	0	3.6	14.4	
14-Mar-04	0	0	A	0	1	1	1	0	1	3	6	3	4	2	3	2	1	1	0	0	0	1	1	0	1.4	5.7	
15-Mar-04	0	0	A	0	0	0	0	1	2	1	2	2	2	2	1	2	2	1	1	0	0	0	0	0	0.9	2.4	
16-Mar-04	0	0	A	0	0	1	1	1	2	3	2	2	2	2	3	2	2	2	1	0	0	0	0	0	1.1	2.7	
17-Mar-04	0	0	A	0	0	0	0	1	1	2	2	2	2	1	N	1	3	1	1	1	6	4	0	1	0	1.3	6.1
18-Mar-04	0	0	A	0	0	0	1	1	2	2	C	C	C	C	C	C	C	7	2	0	3	0	1	0	N	6.8	
19-Mar-04	0	0	A	A	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.9	1.4	
20-Mar-04	0	0	0	A	1	0	0	1	3	4	4	5	6	7	8	6	5	5	4	8	16	22	3	5	5.0	22.0	
21-Mar-04	2	1	1	A	1	1	2	3	4	4	4	17	9	6	4	3	3	3	3	2	16	40	4	7	3	6.1	39.7
22-Mar-04	4	1	1	A	1	2	2	4	4	4	3	4	3	3	2	3	4	4	5	2	3	11	14	1	3.7	13.6	
23-Mar-04	0	2	0	A	5	18	46	30	43	56	35	16	16	10	4	4	3	2	1	0	0	0	0	0	12.8	56.0	
24-Mar-04	1	3	0	A	3	2	4	7	35	11	4	6	5	6	2	2	2	1	1	1	1	2	2	2	4.5	34.7	
25-Mar-04	2	2	2	A	3	3	4	4	6	5	4	6	5	6	6	6	4	6	4	5	5	9	9	8	4.9	9.1	
26-Mar-04	15	8	10	A	40	51	68	74	30	31	20	22	16	8	4	6	5	4	4	4	4	2	2	1	18.7	74.5	
27-Mar-04	0	1	2	A	0	0	0	1	1	2	3	3	3	2	2	2	2	2	4	0	1	0	0	0	1.3	3.6	
28-Mar-04	0	0	0	A	0	0	1	3	9	5	3	1	1	1	2	3	2	3	2	1	1	0	0	0	1.7	9.3	
29-Mar-04	0	0	0	A	1	2	43	37	15	8	26	9	8	5	6	9	4	3	3	2	0	1	1	1	8.1	43.3	
30-Mar-04	0	0	0	A	0	0	4	3	11	4	7	10	10	17	4	8	2	1	1	0	0	1	0	0	3.7	16.7	
31-Mar-04	0	0	0	A	0	0	0	1	2	1	1	2	2	2	2	2	2	2	1	1	1	1	0	0	1.0	2.0	
Hourly Avg	1.2	N	N	N	2.2	3.1	6.8	7.2	9.3	8.1	7.2	6.0	5.6	5.9	4.4	4.3	4.1	2.9	2.2	3.0	6.7	5.6	3.1	1.4			
Hourly Max	14.8	8.5	9.9	6.4	40.1	51.2	68.4	74.5	43.4	56.0	35.2	32.1	31.3	50.2	35.9	20.4	30.9	9.3	7.6	25.3	88.2	53.0	29.8	11.6			



Station: Henry Pirker

**HOURLY MAXIMUM TABLE**

**Nitrogen Oxide (NO)**

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004

**Summary**

Maximum 1-hr Value:	144.3	ppb	4-Mar	20:00 21:00
Maximum 24-hr Value:	33.7	ppb	26-Mar	

AIC Time:	36 hrs	Operational Time:	700 hrs					
Calibration Time:	7 hrs	AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	Average
	90	45	12	5	2	0	0	10.9 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00			
1-Mar-04	3	A	A	8	4	14	7	12	12	10	7	9	13	11	11	10	8	13	10	4	12	68	44	36	14.7	67.6	
2-Mar-04	11	A	A	7	3	4	6	14	10	11	12	14	15	9	14	15	7	13	13	8	3	3	5	3	9.1	15.5	
3-Mar-04	2	A	7	3	2	7	7	6	13	13	6	6	18	14	9	12	19	16	12	9	10	9	8	9	9.4	18.7	
4-Mar-04	6	A	3	2	1	2	2	4	18	22	11	34	12	6	12	15	20	19	15	57	144	109	57	9	25.3	144.3	
5-Mar-04	7	A	25	14	9	21	26	41	88	89	28	45	42	81	69	42	17	6	10	8	12	1	1	0	29.7	89.4	
6-Mar-04	1	A	0	0	0	2	1	1	2	1	2	4	5	11	4	4	3	4	2	2	8	1	0	0	2.7	11.2	
7-Mar-04	A	A	1	0	1	1	3	1	5	83	4	2	2	2	3	2	2	2	1	0	1	0	0	0	5.4	83.1	
8-Mar-04	A	A	0	0	0	2	11	8	22	29	38	23	25	14	15	14	57	9	13	42	57	45	1	3	19.4	57.4	
9-Mar-04	2	2	A	0	1	0	1	1	2	2	2	2	2	10	4	4	3	3	2	3	2	3	0	0	2.3	10.4	
10-Mar-04	2	0	A	0	0	0	3	20	22	12	8	6	6	13	7	9	6	4	1	1	3	3	2	1	5.6	21.6	
11-Mar-04	1	0	A	0	0	0	2	33	37	6	5	4	4	5	6	4	5	5	2	3	26	33	27	3	9.2	36.9	
12-Mar-04	3	8	A	6	5	0	0	12	19	4	4	6	5	4	2	3	2	1	1	1	0	0	1	2	4.0	19.0	
13-Mar-04	3	22	A	19	12	8	19	28	26	11	9	6	5	9	4	2	3	7	7	2	2	1	1	1	9.1	28.3	
14-Mar-04	1	2	A	1	6	13	4	3	12	6	9	4	10	3	4	3	2	2	2	2	1	5	5	2	4.5	12.9	
15-Mar-04	0	0	A	1	0	0	1	3	4	2	2	4	3	3	2	2	2	2	1	0	1	0	0	0	1.6	3.7	
16-Mar-04	1	0	A	0	1	6	2	2	4	4	3	4	3	3	5	5	3	3	2	1	1	2	0	0	2.5	5.7	
17-Mar-04	1	0	A	0	0	1	1	1	2	3	4	3	2	N	3	19	2	4	4	4	25	33	1	2	1	5.1	32.8
18-Mar-04	1	1	A	2	1	1	1	2	3	4	C	C	C	C	C	C	C	24	14	4	28	4	4	0	N	28.2	
19-Mar-04	1	1	A	A	2	1	1	2	2	2	2	2	3	3	2	2	2	3	3	3	1	5	1	2	2.2	4.7	
20-Mar-04	1	0	1	A	4	1	1	3	5	6	6	9	9	20	11	10	9	10	8	18	48	36	8	10	10.1	48.3	
21-Mar-04	5	3	3	A	5	3	5	5	7	11	20	20	9	6	6	7	5	5	7	72	73	11	18	9	13.8	73.4	
22-Mar-04	19	7	8	A	3	12	15	13	11	13	8	14	16	7	4	11	9	13	12	8	22	39	31	4	13.0	38.7	
23-Mar-04	4	29	1	A	11	49	117	116	68	82	65	28	24	16	6	6	4	4	2	1	3	1	1	1	27.7	116.6	
24-Mar-04	5	31	1	A	11	12	26	23	62	21	8	10	11	13	7	4	7	5	3	5	3	12	12	8	13.0	62.3	
25-Mar-04	11	8	9	A	10	8	18	12	11	9	12	18	11	19	19	15	13	16	11	15	15	22	22	18	14.0	22.1	
26-Mar-04	38	15	36	A	54	75	117	133	53	50	25	32	22	14	6	13	10	18	15	15	12	5	9	6	33.7	133.3	
27-Mar-04	1	3	8	A	1	1	1	2	2	4	5	4	5	4	3	3	3	5	9	1	2	1	1	1	2.9	8.8	
28-Mar-04	1	1	1	A	1	1	5	20	16	9	5	3	2	4	4	7	4	7	2	8	5	2	3	0	4.8	20.1	
29-Mar-04	1	3	0	A	6	19	128	75	80	16	37	17	17	7	12	20	7	5	6	6	1	4	2	3	20.6	128.1	
30-Mar-04	0	0	1	A	0	9	39	11	71	15	13	18	30	46	9	47	4	5	2	1	2	2	1	0	14.1	70.8	
31-Mar-04	1	1	1	A	1	1	1	2	3	2	3	4	4	4	4	3	3	3	2	1	1	2	1	1	1.9	4.0	
Hourly Avg	4.5	N	N	N	5.1	8.8	18.3	19.7	22.3	17.8	12.1	11.8	11.1	12.4	8.9	10.4	8.0	7.5	6.4	10.6	17.2	14.0	8.7	4.4			
Hourly Max	38.0	30.8	35.7	18.7	54.1	74.9	128.1	133.3	88.5	89.4	65.4	45.3	41.7	80.6	69.3	46.8	57.4	23.7	15.4	72.3	144.3	108.6	57.3	35.8			

Station: Henry Pirker

### HOURLY AVERAGE TABLE

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

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004

<b>Summary</b>				
Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	124	ppb	4-Mar	20:00 21:00
Maximum 24-hr Average:	38	ppb	26-Mar	

Guideline Limit: Alberta Environment: 

1-hr	na	ppm
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24-hr	na	ppm
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AIC Time:	36 hrs		Operational Time:	700 hrs				
Calibration Time:	7 hrs		AMD Operational Uptime:	99.9%				
Percentile	99	95	75	50	25	5	1	Average
	81	51	20	11	7	4	3	16.6 ppb

Status Flag Characters		
C	Calibration	A AIC - Zero / Span Check
S	Instrument out of Service	X Filter Exchange
N	No Data	M Equipment Maintenance
D	Excessive Instrument Drift	P Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00		
1-Mar-04	18	A	A	6	8	8	9	13	16	10	9	9	10	9	10	11	10	13	16	13	22	55	42	37	16.1	55.2
2-Mar-04	26	A	A	6	10	9	10	12	13	9	9	6	6	6	7	9	8	10	12	15	14	14	13	11	10.8	26.0
3-Mar-04	12	A	9	8	8	8	9	11	14	11	9	9	8	9	8	11	17	18	18	15	15	13	12	10	11.4	18.2
4-Mar-04	8	A	10	11	8	9	11	12	25	27	11	8	13	7	12	15	28	28	37	64	124	87	63	25	27.9	123.8
5-Mar-04	24	A	36	28	16	27	45	45	58	50	36	51	51	76	57	37	20	16	30	32	26	11	7	3	34.0	76.0
6-Mar-04	6	A	7	6	5	7	9	8	7	5	6	7	6	6	6	6	8	9	11	19	24	15	11	13	8.9	24.3
7-Mar-04	A	A	11	4	10	12	27	14	12	24	5	4	4	4	5	4	4	6	9	9	4	4	4	2	8.2	26.7
8-Mar-04	A	A	4	6	5	15	32	21	51	51	51	34	31	26	24	30	60	17	25	31	55	44	16	25	29.6	59.6
9-Mar-04	17	16	A	5	3	4	5	8	5	4	3	3	2	6	8	9	6	7	8	12	14	14	6	6	7.3	16.6
10-Mar-04	12	10	A	15	10	11	20	29	37	25	12	10	11	9	12	13	15	13	9	11	15	11	13	16	14.7	36.8
11-Mar-04	14	11	A	5	4	6	15	37	48	17	10	9	8	10	12	11	15	13	13	16	34	54	42	24	18.6	54.0
12-Mar-04	11	9	A	3	3	3	6	18	23	10	9	8	7	6	5	5	4	3	4	6	9	8	11	13	8.0	23.3
13-Mar-04	9	20	A	35	32	29	38	38	35	18	12	9	7	13	4	3	3	10	20	21	13	11	11	7	17.3	38.2
14-Mar-04	7	6	A	6	6	7	7	7	8	13	17	9	11	6	8	7	4	4	6	8	10	17	25	20	9.5	24.8
15-Mar-04	10	6	A	13	8	5	4	10	9	6	5	7	7	5	3	4	5	5	5	5	6	4	5	6	6.3	13.0
16-Mar-04	7	10	A	7	11	17	18	14	18	15	7	8	7	5	7	7	6	9	6	6	5	5	4	4	8.8	18.3
17-Mar-04	4	3	A	6	4	5	9	7	9	8	6	6	3	N	3	7	3	11	15	36	25	14	13	8	9.3	35.9
18-Mar-04	5	4	A	4	3	4	6	7	8	6	C	C	C	C	C	C	C	26	22	18	22	16	22	10	N	26.1
19-Mar-04	11	11	A	A	13	6	4	5	5	4	4	3	3	3	3	4	4	5	9	14	9	9	5	5	6.3	14.4
20-Mar-04	6	5	10	A	16	10	9	7	9	10	8	9	12	15	16	15	16	19	24	46	57	58	32	36	19.3	58.4
21-Mar-04	23	19	20	A	19	19	19	18	16	13	32	18	14	10	8	10	11	14	17	52	81	33	38	28	23.2	80.9
22-Mar-04	23	7	6	A	7	9	11	17	18	14	10	12	9	7	6	9	12	17	31	29	32	54	56	24	18.3	56.5
23-Mar-04	16	25	14	A	40	55	86	62	74	89	61	32	34	26	13	13	13	13	11	8	13	14	13	21	32.5	89.3
24-Mar-04	30	35	20	A	38	29	35	38	77	32	15	20	17	19	7	9	9	8	6	7	6	8	7	5	20.7	77.2
25-Mar-04	5	4	5	A	7	8	11	11	12	8	7	9	8	9	10	11	9	14	17	22	25	39	40	35	14.1	39.6
26-Mar-04	43	33	35	A	68	79	97	102	51	49	35	37	28	17	11	15	15	18	21	24	28	23	25	23	38.2	101.9
27-Mar-04	14	19	18	A	9	7	6	7	8	9	9	9	9	8	8	7	7	9	23	7	13	8	7	11	10.1	23.1
28-Mar-04	14	12	6	A	7	14	20	19	33	18	9	4	4	4	7	11	12	17	20	22	18	15	14	13	13.6	33.2
29-Mar-04	19	29	15	A	25	26	89	77	42	25	52	24	24	20	23	29	19	19	24	28	19	27	23	23	30.5	88.9
30-Mar-04	7	7	7	A	14	13	34	36	50	19	32	32	34	52	19	27	12	12	8	7	22	16	10	7	20.8	52.2
31-Mar-04	3	2	3	A	3	3	6	6	6	4	4	5	5	5	6	6	6	8	10	17	21	19	16	18	7.9	21.5
Hourly Avg	13.8	N	N	N	13.5	14.9	22.8	23.1	25.7	19.5	16.5	13.7	13.1	13.7	10.9	11.8	12.0	12.6	15.7	20.0	25.2	23.3	19.5	15.8		
Hourly Max	42.5	35.2	35.7	35.3	68.0	79.2	97.0	101.9	77.2	89.3	61.0	51.2	50.9	76.0	56.8	37.2	59.6	28.1	36.6	63.8	123.8	86.9	62.7	37.4		

Station: Henry Pirker

**HOURLY MAXIMUM TABLE**

**Oxides of Nitrogen (NO<sub>x</sub>)**

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004

**Summary**

Maximum 1-hr Value:	184.7	ppb	29-Mar	6:00 7:00
Maximum 24-hr Value:	57.1	ppb	26-Mar	

AIC Time:	36 hrs	Operational Time:	700 hrs					
Calibration Time:	7 hrs	AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	Average
	129	80	35	20	12	6	5	28.4 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	Daily
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	Average	Maximum
1-Mar-04	26	A	A	15	14	23	17	24	27	18	15	17	19	21	15	23	18	26	24	19	41	99	76	63	29.0	99.3
2-Mar-04	39	A	A	11	21	16	18	29	25	24	21	14	18	15	20	31	15	23	22	24	20	17	24	15	21.0	39.1
3-Mar-04	15	A	25	11	11	21	16	23	27	21	13	13	24	17	14	18	30	29	29	26	27	24	18	18	20.5	30.4
4-Mar-04	16	A	17	15	12	13	15	23	41	41	20	27	21	10	23	28	49	44	54	98	181	148	91	39	44.7	181.5
5-Mar-04	36	A	62	48	31	48	57	74	123	124	48	67	64	115	101	62	35	23	47	45	52	15	18	5	56.6	124.1
6-Mar-04	14	A	11	10	7	12	17	11	9	7	8	10	10	12	9	11	10	13	22	35	47	27	16	19	15.0	47.3
7-Mar-04	A	A	22	6	15	25	35	24	20	68	11	7	5	5	8	7	8	12	16	15	10	10	8	6	15.6	68.3
8-Mar-04	A	A	7	12	11	35	57	45	64	68	80	53	52	36	38	36	96	27	46	75	93	78	19	35	48.4	96.1
9-Mar-04	27	28	A	10	5	5	7	14	7	7	5	5	5	24	13	14	8	11	13	21	27	30	9	12	13.4	30.1
10-Mar-04	23	18	A	28	15	18	31	55	57	33	21	15	14	17	20	22	22	20	15	16	35	33	26	28	25.3	56.7
11-Mar-04	26	19	A	8	7	12	24	73	80	24	14	13	11	16	20	17	20	26	27	28	67	73	67	36	30.8	80.2
12-Mar-04	20	20	A	11	9	5	9	45	46	16	13	17	13	9	9	9	5	6	8	14	12	11	21	24	15.3	46.4
13-Mar-04	15	56	A	53	44	37	54	57	52	27	19	13	11	19	9	7	10	26	32	33	19	14	15	10	27.5	56.6
14-Mar-04	9	9	A	8	12	22	14	13	24	20	25	12	22	8	11	11	7	6	22	14	20	29	32	24	16.2	31.6
15-Mar-04	14	8	A	20	10	9	7	17	18	9	7	9	9	9	5	6	6	7	7	8	8	7	11	15	9.9	20.4
16-Mar-04	18	18	A	13	22	41	31	21	24	21	10	14	11	8	16	15	8	16	10	9	19	17	10	5	16.4	41.2
17-Mar-04	7	5	A	7	7	11	12	9	11	11	10	9	5	N	9	37	6	26	28	60	74	20	19	13	18.0	74.4
18-Mar-04	7	5	A	5	5	5	8	10	11	10	C	C	C	C	C	C	C	60	47	27	73	31	42	16	N	72.5
19-Mar-04	17	13	A	A	30	11	6	11	11	7	6	6	5	6	5	6	7	10	14	23	16	21	13	12	11.6	30.0
20-Mar-04	9	8	19	A	29	21	15	13	16	16	13	16	16	31	21	19	23	29	37	57	91	73	41	46	28.6	90.6
21-Mar-04	35	28	27	A	26	24	28	25	25	25	35	35	17	15	13	18	16	21	36	113	118	44	50	39	35.4	118.0
22-Mar-04	50	16	17	A	12	26	29	32	30	28	18	29	20	14	12	18	26	29	46	38	73	91	76	38	33.4	91.3
23-Mar-04	36	68	21	A	48	92	160	159	103	124	103	53	47	36	19	20	16	18	14	10	27	22	18	29	53.9	160.0
24-Mar-04	45	86	35	A	46	52	65	65	116	55	25	30	31	38	20	16	20	15	11	12	13	24	21	15	37.2	115.6
25-Mar-04	17	14	13	A	18	18	23	20	20	15	22	21	15	24	23	24	18	25	28	43	40	63	58	48	26.6	62.8
26-Mar-04	67	40	69	A	91	103	144	164	75	72	42	48	36	26	15	25	26	32	35	42	51	33	38	36	57.1	164.4
27-Mar-04	20	31	36	A	11	9	8	9	10	12	13	12	13	12	11	11	10	24	38	10	21	12	14	17	16.0	38.4
28-Mar-04	19	17	9	A	11	29	35	58	50	29	17	9	5	12	11	19	17	29	31	41	32	22	25	20	23.8	58.2
29-Mar-04	28	39	23	A	39	70	185	117	127	39	70	38	38	28	34	50	26	23	36	55	29	44	35	35	52.5	184.7
30-Mar-04	19	9	9	A	19	55	98	63	129	42	45	48	67	93	37	84	21	28	13	12	35	29	16	15	42.9	128.9
31-Mar-04	4	4	4	A	4	7	9	9	10	7	8	11	9	10	11	9	10	12	14	25	28	30	24	28	12.5	29.6
Hourly Avg	23.3	N	N	N	20.6	28.2	39.8	42.4	44.8	32.9	25.3	22.4	21.2	23.7	19.1	22.5	19.6	22.5	26.6	33.8	45.1	38.4	30.7	24.5		
Hourly Max	67.4	86.0	69.2	53.4	90.8	103.0	184.7	164.4	128.9	124.1	102.9	66.8	66.7	115.0	101.0	84.4	96.1	60.2	54.3	112.5	181.5	147.9	90.8	63.0		

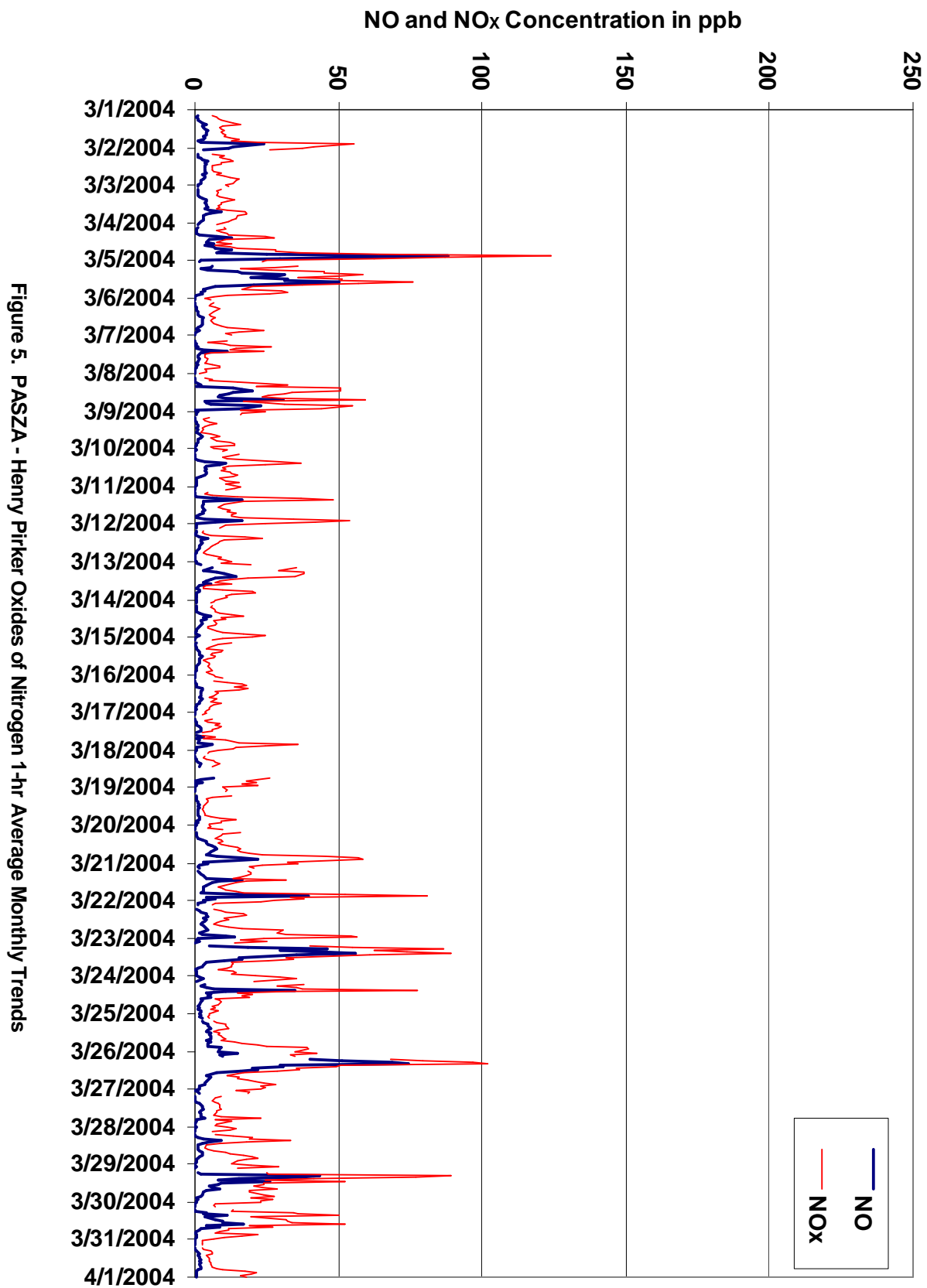


Figure 5. PASZA - Henry Pirkker Oxides of Nitrogen 1-hr Average Monthly Trends

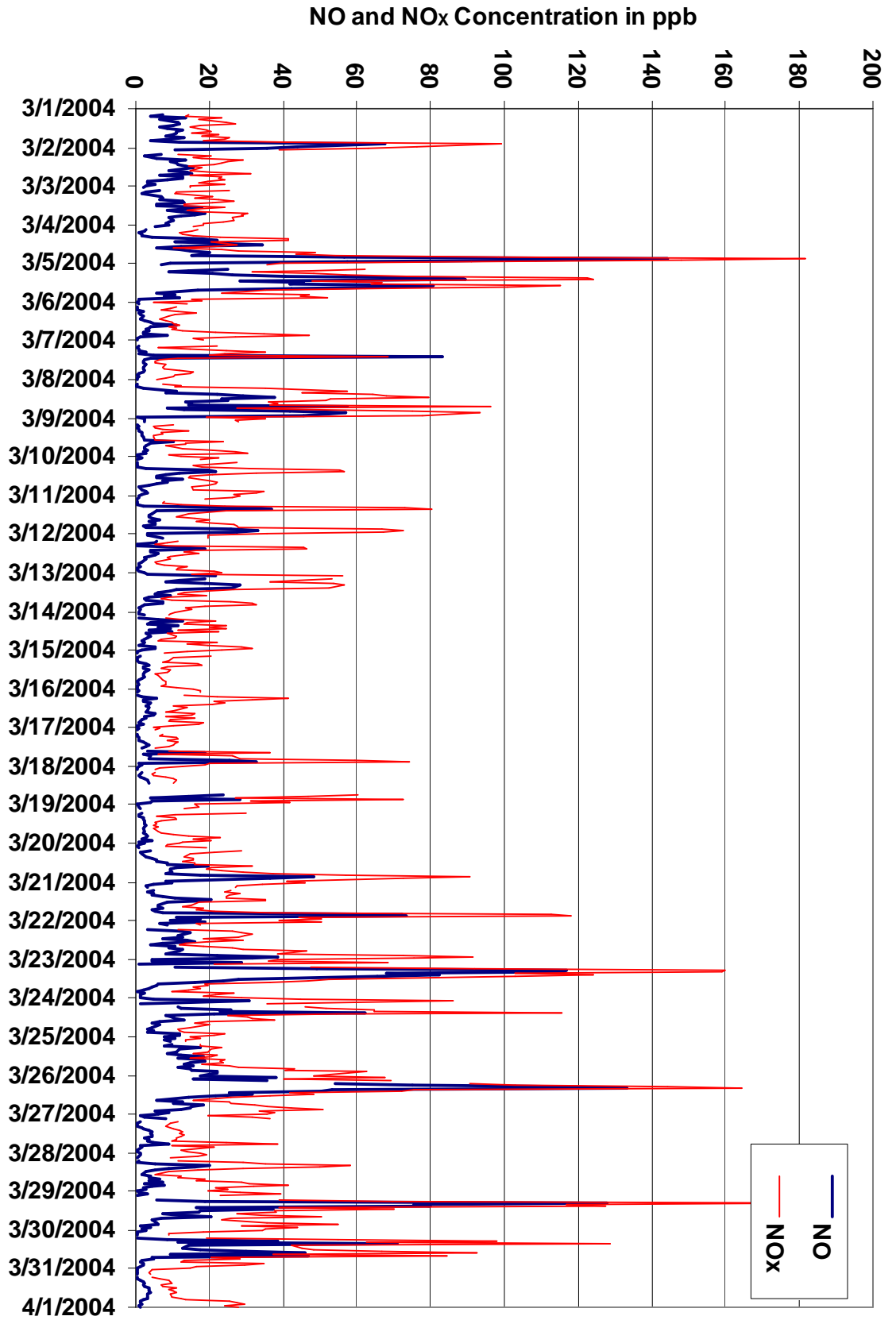


Figure 6. PASZA - Henry Pirkler Oxides of Nitrogen 1-hr Maximum Value Monthly Trends

### PASZA - Henry Pirker Ozone Monthly Summary

Station: Henry Pirker

#### HOURLY AVERAGE TABLE

**Ozone (O<sub>3</sub>)**

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004

**Summary**

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	55 ppb 7-Mar 23:00 0:00
Maximum 24-hr Average:	45 ppb 31-Mar

Guideline Limit: Alberta Environment: 1-hr 82 ppb 24-hr na ppb

AIC Time:	35 hrs							Operational Time:	703 hrs						
Calibration Time:	4 hrs							AMD Operational Uptime:	99.7%						
Percentile	99	95	75	50	25	5	1	Average							
	53	49	42	34	24	5	1	31.8 ppb							

**Status Flag Characters**

C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00			23:00 0:00
1-Mar-04	3	A	A	37	34	33	32	26	23	28	30	30	31	32	31	30	30	29	24	24	13	1	3	2	23.9	36.5	
2-Mar-04	6	A	A	33	29	30	29	26	28	30	30	31	30	30	31	30	29	27	23	18	18	19	20	21	25.8	32.6	
3-Mar-04	19	A	A	22	24	23	23	23	25	29	31	32	33	33	33	31	30	27	25	27	27	28	29	31	27.4	33.2	
4-Mar-04	33	A	A	30	28	30	29	27	27	20	23	34	38	38	40	38	36	28	24	12	2	1	1	1	12	24.0	39.7
5-Mar-04	11	A	A	6	11	16	8	1	2	6	11	15	14	17	16	22	25	36	37	21	16	23	38	43	48	19.2	47.5
6-Mar-04	45	A	A	41	38	36	31	31	32	40	44	43	44	46	46	46	46	44	41	37	29	22	30	35	32	38.2	46.3
7-Mar-04	A	A	A	37	45	38	36	20	31	34	32	45	48	49	51	52	54	54	50	48	48	54	53	55	55	44.8	55.1
8-Mar-04	A	A	A	52	48	50	38	19	28	10	14	19	30	30	34	32	25	17	26	16	9	2	8	24	14	24.9	51.7
9-Mar-04	24	22	A	38	41	41	44	41	43	49	50	49	49	46	44	43	47	43	42	36	34	33	44	42	41.2	49.8	
10-Mar-04	36	39	A	30	36	35	25	16	18	30	41	44	45	47	46	45	41	40	43	41	34	39	36	33	36.5	47.4	
11-Mar-04	37	41	A	49	50	46	35	17	17	38	46	48	50	48	45	45	42	41	39	34	14	3	5	17	35.1	49.7	
12-Mar-04	37	40	A	49	48	47	43	28	25	36	39	42	44	47	46	46	49	50	47	44	39	39	34	29	41.1	49.6	
13-Mar-04	31	19	A	5	4	5	3	5	14	28	32	35	38	38	49	52	52	44	29	27	36	38	37	41	28.8	51.9	
14-Mar-04	39	40	A	40	39	37	35	34	35	31	29	35	34	39	38	39	43	42	40	37	32	19	10	11	33.7	43.2	
15-Mar-04	23	30	A	22	29	37	41	34	37	43	46	45	44	47	48	47	45	44	44	42	40	41	39	36	39.3	48.0	
16-Mar-04	36	31	A	35	28	26	27	33	30	33	41	41	42	42	39	42	44	39	42	43	43	44	45	45	37.9	45.2	
17-Mar-04	45	45	A	42	44	43	38	41	40	42	45	45	48	N	50	48	50	C	C	C	C	31	31	38	42.6	50.1	
18-Mar-04	42	42	A	44	45	44	40	40	40	43	40	40	41	40	38	M	31	25	24	27	25	25	20	28	35.7	45.4	
19-Mar-04	27	27	A	34	26	35	39	38	37	38	41	43	42	42	41	41	41	40	36	28	33	33	37	36	36.1	42.6	
20-Mar-04	35	35	A	28	22	27	27	29	29	31	34	35	35	35	35	35	35	32	26	7	3	0	6	6	25.6	35.5	
21-Mar-04	13	17	A	13	13	13	14	16	23	27	22	30	32	35	39	37	35	33	28	8	0	6	2	7	20.3	38.6	
22-Mar-04	21	42	A	41	41	39	38	34	33	37	40	40	43	44	45	45	43	39	25	22	20	5	3	21	33.1	45.4	
23-Mar-04	23	15	A	16	2	3	0	7	9	13	21	29	31	37	48	48	47	46	46	47	41	39	39	31	27.7	48.2	
24-Mar-04	23	20	A	8	4	15	15	18	15	33	41	38	40	40	49	50	49	47	43	39	40	38	36	32	31.8	49.8	
25-Mar-04	29	26	A	21	19	18	17	17	18	20	23	22	23	24	26	26	27	26	21	15	11	7	6	3	19.3	29.4	
26-Mar-04	2	1	A	0	0	0	0	3	9	12	15	16	19	23	29	25	26	27	23	18	14	18	17	15	13.6	28.6	
27-Mar-04	17	13	A	18	23	30	34	32	32	31	32	33	33	36	38	38	37	35	24	41	39	42	41	37	32.0	41.6	
28-Mar-04	36	37	A	42	42	37	32	33	32	43	48	51	54	55	53	53	51	47	40	38	41	43	43	40	43.1	54.7	
29-Mar-04	31	16	A	29	22	21	5	5	20	28	20	29	32	33	32	34	43	43	36	31	36	29	32	31	27.7	43.0	
30-Mar-04	46	46	A	46	38	39	24	23	17	28	19	23	21	14	35	35	42	42	46	44	29	34	39	41	33.5	46.3	
31-Mar-04	49	48	A	47	47	47	45	46	46	49	49	50	51	51	51	51	51	49	46	36	30	31	34	32	45.0	51.0	
Hourly Avg	28.2	N	N	31.0	29.7	29.4	26.0	25.3	25.9	31.4	34.1	36.5	37.6	38.2	40.3	40.0	40.0	37.9	33.2	29.3	26.4	26.4	27.2	28.0			
Hourly Max	48.8	48.1	51.7	49.4	50.5	46.5	44.7	46.1	46.4	49.1	49.8	51.0	54.1	54.7	53.5	53.6	53.5	49.9	47.5	48.5	54.1	53.3	53.1	55.1			

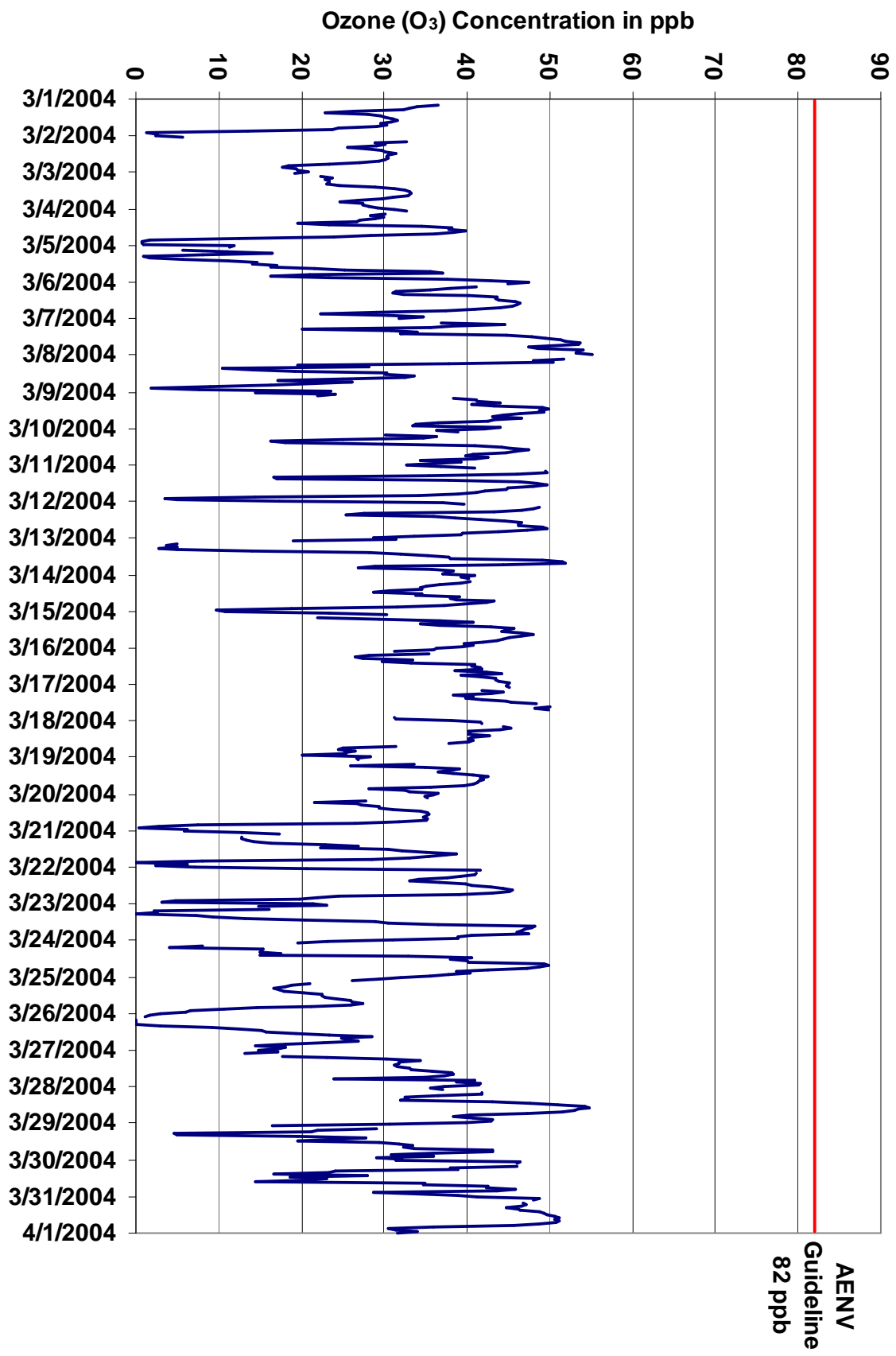


Figure 7. PASZA - Henry Pirkler Ozone 1-hr Average Monthly Trend

Station: Henry Pirker

**HOURLY MAXIMUM TABLE**

**Ozone (O<sub>3</sub>)**

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004  
 Summary

Maximum 1-hr Value:	57.1	ppb	7-Mar	20:00 21:00
Maximum 24-hr Value:	48.5	ppb	7-Mar	

AIC Time:	35 hrs	Operational Time:	703 hrs					
Calibration Time:	4 hrs	AMD Operational Uptime:	99.7%					
Percentile	99	95	75	50	25	5	1	Average
	56	52	46	39	31	13	3	36.7 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Day	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum	
1-Mar-04	30	A	A	39	37	36	36	30	29	30	32	32	33	33	33	32	33	33	29	29	21	6	7	9	28.7	39.0	
2-Mar-04	13	A	A	35	35	33	32	28	31	32	33	33	32	32	33	34	32	30	27	23	23	22	24	25	29.1	35.0	
3-Mar-04	22	A	26	26	25	26	26	26	29	31	33	35	35	35	34	33	32	30	27	32	31	32	33	33	30.1	35.0	
4-Mar-04	34	A	33	33	32	31	31	31	24	33	38	41	40	41	40	40	35	29	22	4	2	2	5	19	27.9	41.2	
5-Mar-04	19	A	12	23	21	17	3	3	12	17	20	17	20	20	25	31	43	41	35	25	40	43	48	49	25.3	48.6	
6-Mar-04	49	A	44	44	38	35	36	35	44	45	45	46	48	48	47	47	46	43	43	39	33	38	39	37	42.2	48.6	
7-Mar-04	A	A	44	46	45	41	25	38	38	39	47	49	50	53	54	55	55	54	52	54	57	56	56	56	48.5	57.1	
8-Mar-04	A	A	54	55	56	52	36	37	18	26	33	38	43	39	40	33	39	33	32	18	10	29	29	30	35.4	55.8	
9-Mar-04	32	31	A	43	45	46	47	45	45	53	52	51	51	50	47	49	49	48	47	44	45	42	47	47	46.0	53.4	
10-Mar-04	45	45	A	39	42	44	33	23	26	34	45	47	49	51	50	48	47	47	47	48	48	48	46	47	43.3	51.0	
11-Mar-04	43	49	A	52	53	50	45	32	39	44	50	51	51	51	50	48	47	46	46	45	22	19	15	32	42.5	52.8	
12-Mar-04	41	46	A	50	50	48	47	41	34	40	41	46	47	49	50	48	51	51	50	48	44	42	42	38	45.3	51.5	
13-Mar-04	36	33	A	11	14	13	7	9	23	31	35	39	39	47	53	54	54	54	42	33	41	41	40	44	34.4	53.7	
14-Mar-04	43	42	A	42	42	39	37	37	38	36	34	37	40	41	40	44	45	45	45	41	41	27	22	19	38.1	45.3	
15-Mar-04	30	34	A	30	35	42	44	42	42	46	48	48	46	49	50	48	46	47	48	45	43	42	44	43	43.1	49.6	
16-Mar-04	44	37	A	41	42	38	33	39	35	39	43	44	45	44	42	47	48	45	46	52	49	49	47	47	43.4	51.9	
17-Mar-04	47	48	A	43	46	46	42	43	42	44	47	48	50	N	52	53	52	C	C	C	C	36	36	43	45.4	53.2	
18-Mar-04	43	43	A	45	47	46	42	42	43	45	42	42	43	43	42	M	36	34	31	33	35	32	34	33	39.9	46.6	
19-Mar-04	30	29	A	36	32	40	41	41	38	40	43	43	43	43	43	43	42	42	38	34	37	36	39	38	38.7	43.3	
20-Mar-04	37	37	A	32	33	32	32	32	32	35	36	37	37	37	38	36	36	38	34	33	14	7	4	12	10	29.3	38.2
21-Mar-04	17	22	A	19	18	19	20	22	27	29	24	34	34	38	42	40	39	36	36	20	4	17	6	15	25.2	41.5	
22-Mar-04	41	44	A	43	43	41	40	37	37	41	42	44	45	47	47	47	46	45	34	32	36	20	24	33	39.5	47.2	
23-Mar-04	30	22	A	22	8	12	1	14	14	16	25	33	34	44	51	50	49	50	50	49	46	43	43	36	32.3	51.0	
24-Mar-04	32	31	A	24	9	29	28	28	24	38	44	41	47	48	53	53	52	50	47	40	43	42	38	35	38.1	53.2	
25-Mar-04	31	29	A	23	20	20	18	19	20	23	24	24	24	26	27	28	29	28	25	20	16	14	12	11	22.1	31.2	
26-Mar-04	8	4	A	1	1	1	1	9	13	17	17	18	22	29	32	28	30	31	27	21	21	25	23	20	17.4	31.6	
27-Mar-04	20	20	A	20	26	35	36	34	34	32	33	34	34	38	40	41	39	39	40	44	44	45	45	39	35.3	45.3	
28-Mar-04	40	43	A	45	45	42	42	41	37	46	51	53	56	57	55	56	54	51	50	44	46	46	48	44	47.5	56.6	
29-Mar-04	41	26	A	39	30	29	22	16	27	32	24	35	39	39	38	38	47	46	41	40	43	41	41	39	35.3	46.7	
30-Mar-04	51	48	A	50	42	45	33	35	34	32	26	27	30	26	44	45	49	49	49	50	39	43	44	48	40.9	50.5	
31-Mar-04	51	49	A	48	49	48	48	48	49	51	51	52	52	53	53	53	54	52	49	44	37	38	38	37	48.0	53.7	
Hourly Avg	34.5	N	N	35.5	34.2	34.8	31.0	31.0	31.5	35.4	37.3	39.3	40.7	41.7	43.4	43.4	43.9	42.0	39.6	35.5	33.4	33.0	33.1	34.0			
Hourly Max	50.7	49.4	54.5	54.6	55.8	52.2	47.7	48.0	48.6	53.4	51.7	52.8	56.2	56.6	55.1	56.5	54.9	53.6	52.1	54.1	57.1	56.2	56.4	56.4			



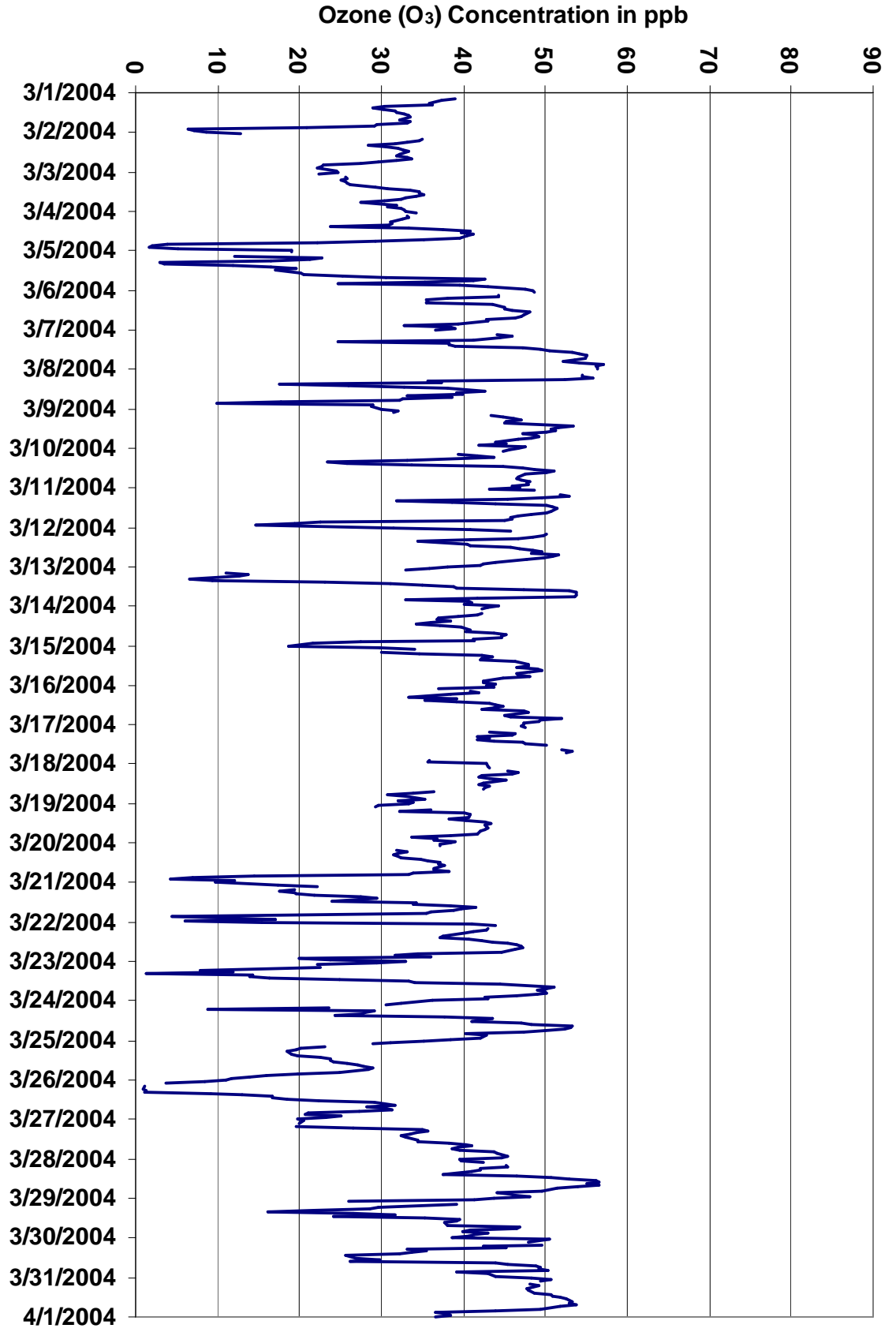


Figure 8. PASZA - Henry Pirkker Ozone 1-hr Maximum Value Monthly Trend

Station: Henry Pirker

**EIGHT HOUR RUNNING AVERAGE TABLE**

**Ozone (O<sub>3</sub>)**

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004  
**Summary**

Number of 8-hr Exceedances:	0			
Maximum 8-hr Average:	52.6	ppb	8-Mar	2:00 3:00

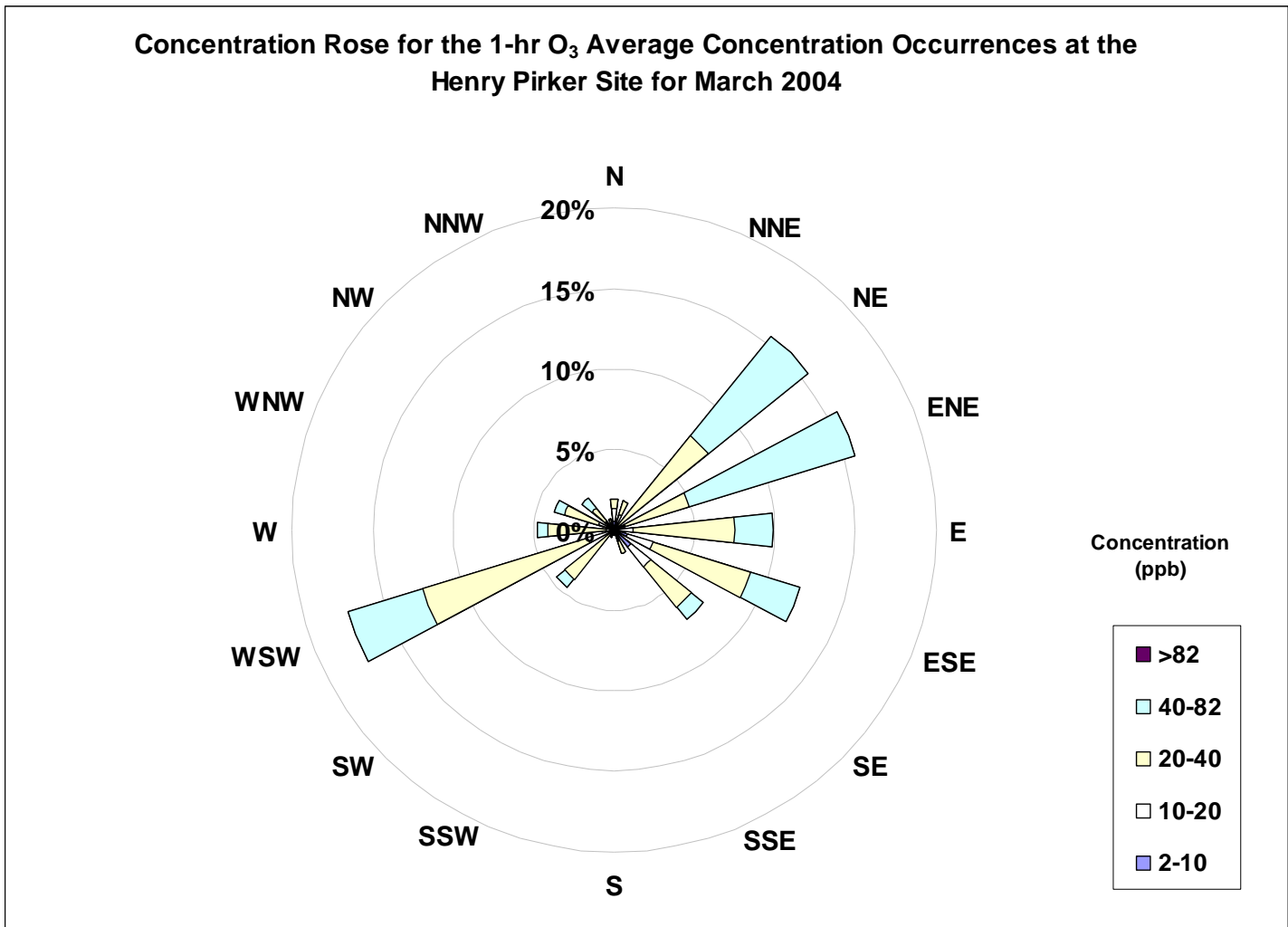
Guideline Limit: Canada Wide Standard 8-hr 65 ppb

Percentile	99	95	75	50	25	5	1
	51.6	46.8	39.9	33.8	24.1	10.1	4.8

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00		
1-Mar-04	24	14	13	12	11	15	28	31	31	30	30	29	29	29	29	30	30	30	29	27	23	19	16	24.6	31.0	
2-Mar-04	13	11	8	10	12	17	21	25	29	29	29	29	29	30	30	30	30	30	29	27	26	24	23	22	23.5	30.3
3-Mar-04	21	20	20	20	21	22	22	23	23	24	25	26	27	29	30	31	32	31	30	30	29	28	28	28	25.9	31.6
4-Mar-04	28	29	29	30	30	30	30	29	27	27	27	29	29	31	32	33	35	35	32	27	23	18	13	10	27.6	34.6
5-Mar-04	8	6	5	6	8	9	9	8	7	8	9	9	10	13	16	19	23	23	24	25	27	30	33	14.3	32.7	
6-Mar-04	34	33	36	39	41	40	39	36	36	37	37	38	39	41	43	44	45	44	44	42	39	37	36	34	38.9	44.8
7-Mar-04	32	31	31	33	36	37	34	34	34	34	35	35	37	39	43	46	48	50	51	51	52	52	52	40.7	51.9	
8-Mar-04	52	52	53	53	52	49	44	39	35	33	28	26	24	23	25	24	25	27	26	24	20	17	16	14	32.5	52.6
9-Mar-04	15	15	15	19	24	29	32	36	39	43	43	45	46	46	46	47	47	46	46	44	42	40	40	40	36.9	47.2
10-Mar-04	39	38	38	37	37	38	35	31	28	27	29	31	32	33	36	39	42	44	44	43	42	41	40	38	36.8	43.8
11-Mar-04	38	38	37	39	41	42	42	39	36	36	37	37	37	37	39	42	45	46	45	43	39	33	28	25	38.3	45.7
12-Mar-04	24	24	22	24	28	35	40	42	40	39	39	38	38	38	41	44	45	46	47	46	45	44	41	37.8	46.6	
13-Mar-04	39	35	34	28	23	18	14	10	8	9	12	16	20	24	30	36	40	42	42	41	41	41	39	38	28.3	42.5
14-Mar-04	36	36	37	39	39	39	39	38	37	36	35	34	33	34	34	35	36	37	39	39	39	36	33	29	36.2	39.3
15-Mar-04	27	25	23	21	21	23	28	31	33	35	36	39	41	42	43	44	45	46	45	45	44	44	43	41	36.0	45.6
16-Mar-04	40	39	38	37	35	33	32	31	30	31	32	32	34	36	37	39	40	41	41	42	42	42	43	43	37.1	43.3
17-Mar-04	43	44	44	44	44	44	43	43	42	41	42	42	43	43	44	45	47	48	48	49	49	45	40	38	44.0	49.4
18-Mar-04	36	37	37	38	39	41	42	43	42	42	42	42	41	41	40	40	39	37	34	32	30	28	25	26	37.3	42.5
19-Mar-04	25	25	26	27	27	28	31	32	34	35	36	37	39	40	40	41	41	41	41	39	38	37	36	35	34.5	41.3
20-Mar-04	34	34	34	34	32	31	30	29	28	28	28	29	31	32	33	34	34	35	34	30	26	22	18	14	29.8	34.6
21-Mar-04	12	10	8	8	10	12	13	14	16	17	18	20	22	25	28	31	32	33	34	31	27	23	19	15	19.9	33.8
22-Mar-04	13	14	12	17	23	28	33	36	38	38	38	38	38	39	40	41	42	43	41	38	35	30	25	22	31.7	42.5
23-Mar-04	20	17	16	15	12	12	11	9	7	7	9	10	14	18	24	29	34	38	41	44	45	44	42	23.6	45.3	
24-Mar-04	39	36	34	29	23	20	17	15	14	15	19	22	27	30	34	38	42	44	45	45	45	44	43	40	31.6	44.6
25-Mar-04	38	35	34	32	29	26	23	21	19	19	19	19	20	21	22	23	24	25	24	23	22	20	17	14	23.7	38.0
26-Mar-04	11	8	6	4	3	2	1	1	2	3	5	7	9	12	16	19	21	22	23	24	23	22	21	20	11.9	23.6
27-Mar-04	19	17	16	16	17	19	22	24	26	29	29	31	32	33	33	34	35	35	34	35	36	37	37	37	28.5	37.1
28-Mar-04	37	37	39	39	40	39	38	37	36	37	39	40	41	43	46	49	51	52	51	49	47	46	45	43	42.5	51.6
29-Mar-04	40	37	36	35	32	29	23	18	17	18	19	19	20	21	25	28	31	33	35	35	36	35	35	35	28.9	40.4
30-Mar-04	36	36	36	38	38	40	39	38	33	31	29	26	24	21	22	24	27	29	32	35	36	38	39	40	32.8	39.8
31-Mar-04	40	41	40	41	44	45	46	47	47	47	47	47	48	48	49	50	50	50	50	48	46	43	41	39	45.6	50.2
Hourly Avg	29.5	28.2	27.6	27.8	28.2	28.8	29.0	28.7	28.2	28.5	29.1	29.8	30.8	31.9	33.7	35.5	37.3	38.1	38.1	37.3	36.0	34.3	32.6	31.1		
Hourly Max	51.6	51.9	52.6	52.5	51.9	49.4	46.2	46.9	46.5	46.6	47.0	47.3	47.8	48.3	49.1	49.7	51.0	51.6	50.7	50.7	51.3	51.5	51.7	51.9		



Frequency Distribution of O <sub>3</sub> in ppb			
Range		Frequency (hrs)	
0	< 2	17	
2	to 10	40	
10	to 20	76	
20	to 40	349	
40	to 82	221	
	> 82	0	
Total Non-Zero Values		703	

### PASZA - Henry Pirker Carbon Monoxide Monthly Summary

Station: Henry Pirker

#### HOURLY AVERAGE TABLE

Carbon Monoxide (CO)

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004

Summary				
Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	0.86	ppm	4-Mar	20:00 21:00
Maximum 24-hr Average:	0.45	ppm	8-Mar	

Guideline Limit: Alberta Environment: 1-hr 13 ppm 24-hr na ppm

AIC Time:	35 hrs		Operational Time:	702 hrs	
Calibration Time:	5 hrs		AMD Operational Uptime:	99.7%	
Percentile	99	95	75	50	25
	0.7	0.6	0.4	0.3	0.2
				5	1
				Average	
				0.3 ppm	

Status Flag Characters		
C	Calibration	A AIC - Zero / Span Check
S	Instrument out of Service	X Filter Exchange
N	No Data	M Equipment Maintenance
D	Excessive Instrument Drift	P Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00			23:00 0:00
1-Mar-04	0.3	A	A	0.3	0.2	0.2	0.3	0.4	0.5	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.5	0.4	0.36	0.62
2-Mar-04	0.3	A	A	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.29	0.41
3-Mar-04	0.2	A	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.29	0.46
4-Mar-04	0.2	A	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.8	0.9	0.3	0.3	0.3	0.3	0.39	0.86
5-Mar-04	0.3	A	0.4	0.4	0.3	0.3	0.5	0.6	0.6	0.6	0.5	0.5	0.6	0.7	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.43	0.72	
6-Mar-04	0.2	A	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.25	0.39	
7-Mar-04	A	A	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.24	0.34	
8-Mar-04	A	A	0.2	0.2	0.3	0.4	0.4	0.5	0.5	0.7	0.5	0.6	0.5	0.5	0.6	0.7	0.4	0.4	0.4	0.4	0.6	0.5	0.3	0.5	0.45	0.67	
9-Mar-04	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.22	0.36	
10-Mar-04	0.2	0.2	A	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.27	0.42	
11-Mar-04	0.3	0.2	A	0.2	0.2	0.2	0.3	0.5	0.5	0.3	0.2	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.7	0.7	0.5	0.34	0.74	
12-Mar-04	0.3	0.3	A	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.28	0.44	
13-Mar-04	0.3	0.4	A	0.4	0.4	0.3	0.4	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.5	0.4	0.3	0.3	0.3	0.3	0.35	0.59	
14-Mar-04	0.3	0.3	A	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.4	0.4	0.32	0.43	
15-Mar-04	0.3	0.2	A	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.24	0.27	
16-Mar-04	0.2	0.2	A	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.27	0.36	
17-Mar-04	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	N	0.3	0.4	0.4	0.5	0.5	C	C	C	C	C	N	0.54	
18-Mar-04	0.1	0.2	A	0.1	0.1	0.2	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.3	M	0.3	0.3	0.3	0.2	0.3	0.4	0.4	0.3	0.29	0.44	
19-Mar-04	0.4	0.3	A	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.27	0.40	
20-Mar-04	0.3	0.2	A	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.6	0.7	0.6	0.6	0.5	0.4	0.3	0.3	0.37	0.71	
21-Mar-04	0.3	0.3	A	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.6	0.6	0.4	0.4	0.3	0.32	0.64	
22-Mar-04	0.3	0.2	A	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.3	0.33	0.50	
23-Mar-04	0.3	0.3	A	0.3	0.3	0.4	0.8	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.36	0.80	
24-Mar-04	0.3	0.3	A	0.3	0.4	0.3	0.4	0.5	0.8	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	0.80	
25-Mar-04	0.2	0.2	A	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.5	0.5	0.6	0.6	0.6	0.32	0.63	
26-Mar-04	0.3	0.3	A	0.4	0.5	0.5	0.6	0.8	0.6	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.42	0.77	
27-Mar-04	0.3	0.3	A	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.2	0.2	0.27	0.40	
28-Mar-04	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	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.27	0.42	
29-Mar-04	0.3	0.3	A	0.3	0.3	0.3	0.7	0.6	0.5	0.4	0.4	0.3	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.5	0.4	0.5	0.4	0.4	0.41	0.67	
30-Mar-04	0.2	0.2	A	0.2	0.3	0.4	0.5	0.6	0.6	0.3	0.4	0.4	0.4	0.6	0.4	0.5	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.2	0.38	0.62	
31-Mar-04	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	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.25	0.36	
Hourly Avg	0.27	N	N	0.25	0.25	0.26	0.34	0.38	0.39	0.31	0.30	0.29	0.32	0.32	0.31	0.32	0.33	0.33	0.36	0.36	0.37	0.36	0.33	0.30			
Hourly Max	0.40	0.36	0.38	0.41	0.46	0.47	0.80	0.77	0.80	0.58	0.67	0.53	0.56	0.72	0.54	0.57	0.67	0.71	0.64	0.76	0.86	0.74	0.67	0.58			

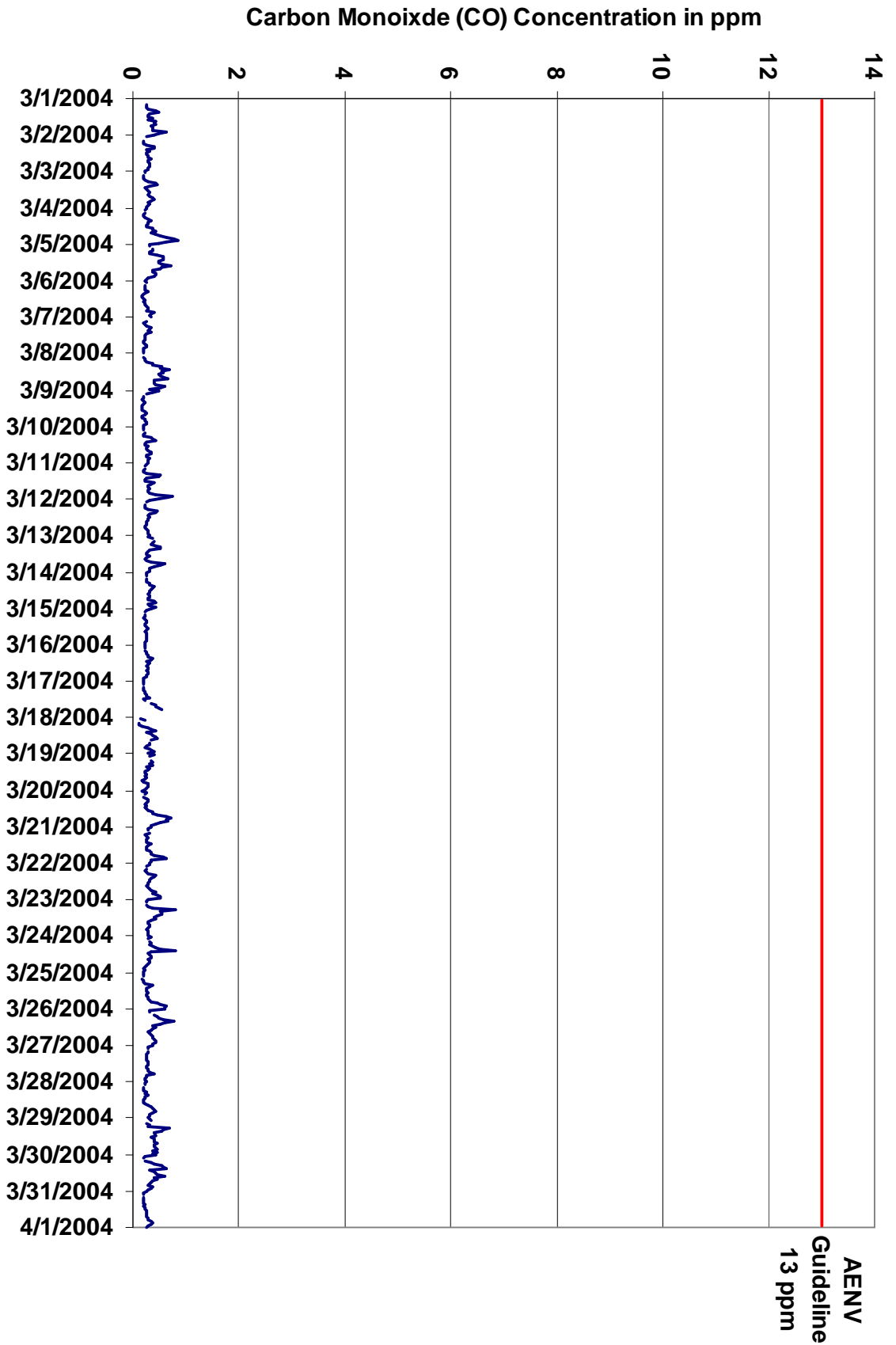


Figure 9. PASZA - Henry Pirker Carbon Monoxide 1-hr Average Monthly Trend

Station: Henry Pirker

**HOURLY MAXIMUM TABLE**

**Carbon Monoxide (CO)**

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004  
 Summary

Maximum 1-hr Value:	2.5	ppm	20-Mar	19:00 20:00
Maximum 24-hr Value:	1.0	ppm	20-Mar	

AIC Time:	35 hrs	Operational Time:	702 hrs					
Calibration Time:	5 hrs	AMD Operational Uptime:	99.7%					
Percentile	99	95	75	50	25	5	1	Average
	2.0	1.3	0.7	0.5	0.4	0.3	0.3	0.6 ppm

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																							24-hour Average	Daily Maximum		
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Mar-04	0.9	A	A	0.3	0.4	0.3	0.5	1.2	1.7	0.5	0.6	0.6	1.0	0.5	1.0	0.8	1.5	0.5	1.1	0.7	0.6	1.2	0.9	0.8	0.81	1.74	
2-Mar-04	0.4	A	A	0.3	0.3	0.3	0.7	0.9	1.8	0.5	0.5	0.4	0.5	0.6	0.4	0.8	0.5	0.5	0.8	0.5	0.6	0.4	0.5	0.3	0.57	1.84	
3-Mar-04	0.3	A	0.3	0.6	0.3	0.4	0.7	1.1	1.5	1.2	0.3	0.5	0.5	0.4	0.5	0.7	0.5	0.6	0.5	0.4	0.6	0.6	0.4	0.4	0.58	1.48	
4-Mar-04	0.5	A	0.3	0.4	0.3	0.4	0.5	0.7	0.6	0.4	0.3	0.4	0.5	0.5	0.7	0.9	0.7	1.3	1.5	1.4	1.6	0.9	0.9	0.5	0.70	1.61	
5-Mar-04	0.5	A	1.4	0.5	0.4	0.4	2.5	2.0	0.9	1.1	0.7	0.7	1.0	0.8	1.2	0.6	0.6	0.6	0.6	0.7	0.4	0.5	0.3	0.82	2.48		
6-Mar-04	0.4	A	0.4	0.4	0.3	0.3	0.7	0.4	0.3	0.3	0.3	0.3	0.7	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.7	0.5	0.4	0.5	0.39	0.70	
7-Mar-04	A	A	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.35	0.49	
8-Mar-04	A	A	0.3	0.3	0.3	0.4	0.6	0.7	0.8	0.7	1.0	0.7	0.9	0.7	0.7	0.7	1.1	0.5	0.6	0.7	1.2	0.9	0.4	0.8	0.68	1.15	
9-Mar-04	1.1	0.4	A	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.6	0.3	0.4	0.3	0.4	0.3	0.4	0.6	0.3	0.3	0.38	1.08	
10-Mar-04	0.3	0.3	A	0.3	0.3	0.3	0.9	0.9	0.7	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.5	0.5	0.4	0.5	0.5	0.44	0.91	
11-Mar-04	0.4	0.3	A	0.3	0.3	0.3	0.7	1.5	0.9	0.4	0.3	0.3	1.2	1.2	0.4	0.4	0.4	0.4	0.4	0.5	0.8	1.2	1.1	0.7	0.64	1.54	
12-Mar-04	0.5	0.4	A	0.3	0.3	0.4	0.5	1.1	0.8	0.5	0.5	1.0	0.8	0.5	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.6	0.49	1.07	
13-Mar-04	0.8	0.5	A	0.7	0.6	0.4	0.6	1.3	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	1.0	0.9	0.7	0.5	0.5	0.4	0.58	1.30	
14-Mar-04	0.4	0.4	A	0.3	0.4	0.4	0.5	2.0	0.5	0.9	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.3	1.3	0.6	0.5	0.7	0.5	0.61	2.04	
15-Mar-04	0.4	0.3	A	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.36	0.44	
16-Mar-04	0.3	0.3	A	0.4	0.4	0.5	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.5	0.4	0.4	0.3	0.3	0.40	0.53	
17-Mar-04	0.3	0.3	A	0.3	0.3	0.3	0.3	0.3	0.4	0.8	0.8	0.4	0.6	N	0.7	0.8	0.9	1.3	1.4	C	C	C	C	C	N	1.42	
18-Mar-04	0.8	1.0	A	0.9	1.0	0.9	1.0	0.8	1.8	1.1	0.8	0.8	0.9	1.2	0.9	M	0.5	0.5	0.4	0.3	1.0	0.9	1.2	0.8	0.90	1.80	
19-Mar-04	1.6	1.1	A	1.0	1.2	0.8	1.0	0.9	1.1	0.9	1.0	0.8	1.0	0.8	0.9	1.0	0.5	0.7	1.3	0.7	0.9	1.1	1.0	0.3	0.93	1.64	
20-Mar-04	0.9	0.8	A	0.6	0.9	0.9	0.9	0.7	0.6	1.2	0.7	0.8	0.8	1.1	1.1	1.2	1.3	1.4	1.6	2.5	0.8	0.7	0.5	0.5	0.98	2.52	
21-Mar-04	0.4	0.4	A	0.6	0.4	0.4	0.5	0.4	0.3	0.4	0.9	0.4	0.4	0.4	0.4	1.2	0.5	0.4	0.9	1.2	1.2	0.5	0.5	0.4	0.57	1.23	
22-Mar-04	0.5	0.3	A	0.3	0.3	0.3	0.5	1.5	0.7	0.8	0.9	0.5	0.5	0.5	0.4	0.6	0.5	0.6	0.7	1.2	1.1	0.8	0.8	0.4	0.64	1.46	
23-Mar-04	0.4	0.4	A	0.3	0.4	0.7	2.2	1.1	1.9	0.8	0.7	0.6	0.6	0.5	0.4	0.4	0.9	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.64	2.19	
24-Mar-04	0.4	0.4	A	0.4	0.4	0.4	0.7	0.8	2.0	0.4	0.4	0.5	0.5	0.5	0.4	0.6	0.6	0.6	0.3	0.3	0.3	0.5	0.3	0.3	0.53	2.01	
25-Mar-04	0.3	0.2	A	0.3	0.3	0.3	0.5	0.6	0.7	0.6	0.4	0.4	0.6	0.5	0.4	0.6	0.5	0.5	0.4	0.9	1.3	1.4	1.3	1.6	0.63	1.57	
26-Mar-04	0.4	0.7	A	0.6	0.7	1.1	1.0	1.5	0.9	0.9	0.6	2.1	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.8	0.6	0.8	0.75	2.12	
27-Mar-04	0.4	0.4	A	0.6	0.3	0.4	0.3	0.3	0.4	0.4	0.6	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.6	0.3	0.4	0.4	0.3	0.4	0.39	0.59	
28-Mar-04	0.3	0.3	A	0.3	0.3	0.3	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.7	0.5	0.8	1.2	0.6	0.6	0.4	0.4	0.44	1.20	
29-Mar-04	0.4	0.5	A	0.4	0.5	0.4	1.7	0.8	0.8	0.6	0.6	0.4	0.6	0.8	0.8	0.8	0.6	0.6	0.6	0.7	0.5	0.7	0.5	0.7	0.65	1.72	
30-Mar-04	0.8	0.3	A	0.8	1.2	1.2	1.5	2.0	0.9	0.4	0.8	0.7	0.7	0.8	0.6	1.2	0.5	0.5	0.4	0.4	0.5	0.5	0.4	0.4	0.76	1.95	
31-Mar-04	0.3	0.3	A	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.35	0.51	
Hourly Avg	0.54	N	N	0.45	0.45	0.47	0.77	0.85	0.89	0.59	0.56	0.54	0.57	0.57	0.53	0.63	0.58	0.56	0.69	0.69	0.68	0.64	0.56	0.50			
Hourly Max	1.64	1.09	1.39	1.00	1.22	1.18	2.48	1.95	2.04	1.21	1.03	2.12	1.23	1.25	1.05	1.22	1.51	1.35	1.56	2.52	1.61	1.43	1.33	1.57			

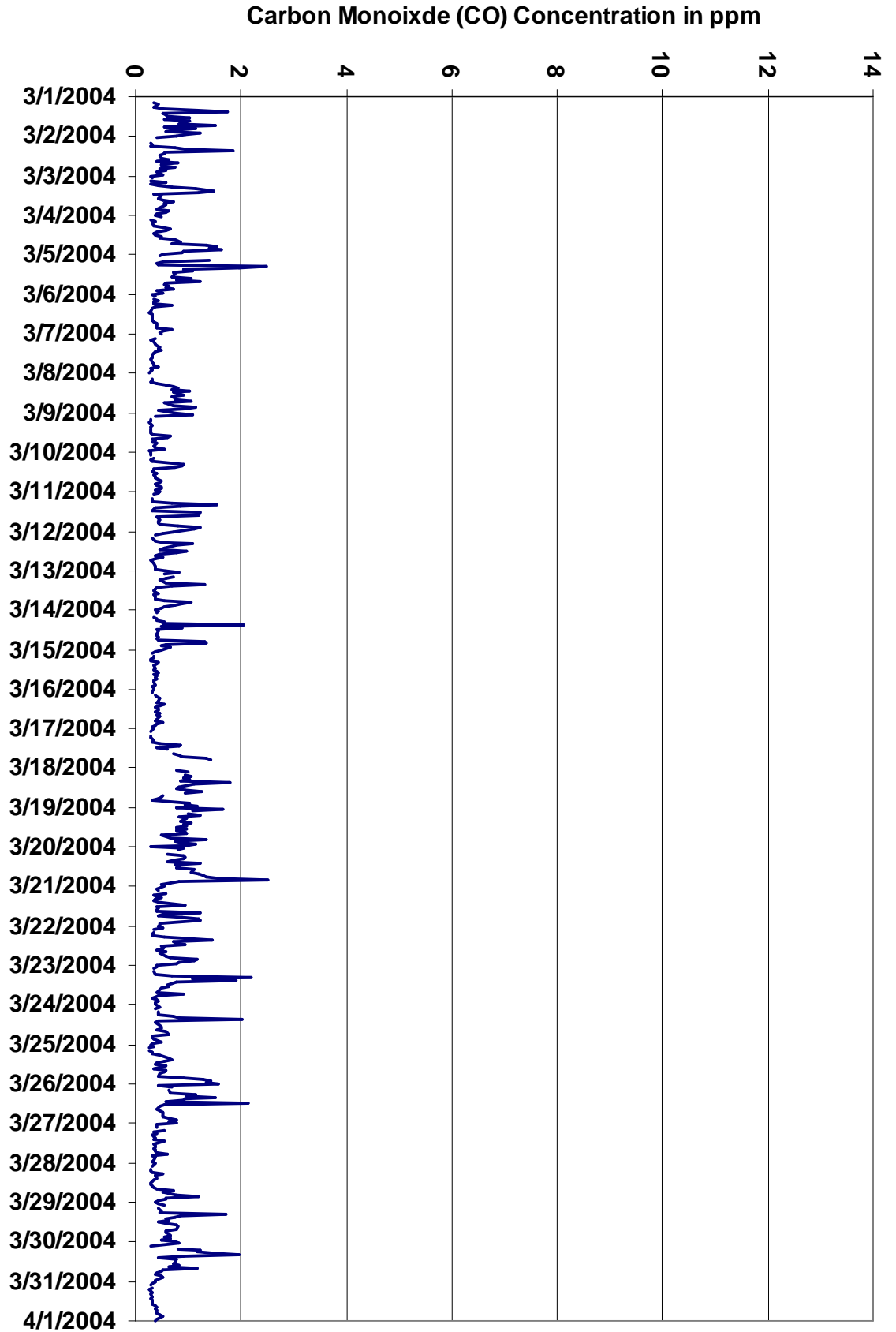


Figure 10. PASZA - Henry Pirker Carbon Monoixide 1-hr Maximum Value Monthly Trend

Station: Henry Pirker

**EIGHT HOUR RUNNING AVERAGE TABLE**

**Carbon Monoxide (CO)**

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004

**Summary**

Number of 8-hr Exceedances:	0			
Maximum 8-hr Average:	0.58	ppm	4-Mar	22:00 23:00

Guideline Limit: Alberta Environment: **8-hr 5 ppm**

Percentile	99	95	75	50	25	5	1
	0.55	0.49	0.36	0.30	0.25	0.21	0.19

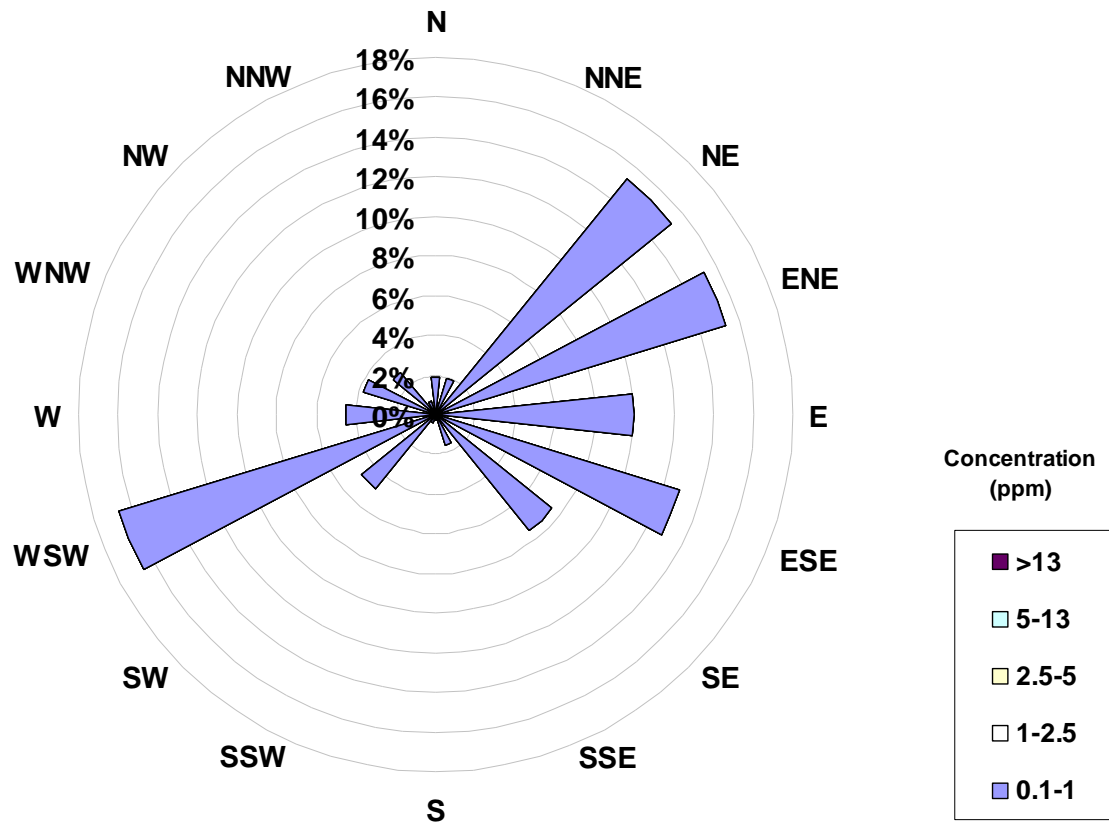
**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Mar-04	0.3	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.37	0.48
2-Mar-04	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.31	0.42
3-Mar-04	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	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.29	0.33
4-Mar-04	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.34	0.58
5-Mar-04	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.47	0.57
6-Mar-04	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.25	0.33
7-Mar-04	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26	0.32
8-Mar-04	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.40	0.57
9-Mar-04	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25	0.44
10-Mar-04	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.26	0.30
11-Mar-04	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.31	0.44
12-Mar-04	0.4	0.4	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.32	0.46
13-Mar-04	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.34	0.42
14-Mar-04	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.32	0.37
15-Mar-04	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.26	0.34
16-Mar-04	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	0.3	0.2	0.27	0.30
17-Mar-04	0.2	0.2	0.2	0.2	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	0.4	0.4	0.4	0.4	0.5	0.5	0.29	0.48
18-Mar-04	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.28	0.39
19-Mar-04	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29	0.35
20-Mar-04	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.33	0.55
21-Mar-04	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.33	0.49
22-Mar-04	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.33	0.41
23-Mar-04	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.38	0.51
24-Mar-04	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.33	0.44	
25-Mar-04	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	0.4	0.4	0.5	0.27	0.46	
26-Mar-04	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.44	0.54
27-Mar-04	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.29	0.38
28-Mar-04	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.26	0.35
29-Mar-04	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.39	0.46
30-Mar-04	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.40	0.49
31-Mar-04	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.25	0.30
Hourly Avg	0.34	0.33	0.32	0.31	0.29	0.27	0.27	0.29	0.30	0.31	0.31	0.32	0.33	0.33	0.33	0.32	0.31	0.32	0.32	0.33	0.34	0.34	0.35	0.35			
Hourly Max	0.56	0.57	0.54	0.48	0.46	0.44	0.44	0.46	0.51	0.54	0.52	0.52	0.51	0.55	0.56	0.56	0.57	0.55	0.52	0.51	0.54	0.57	0.58	0.58			



**Concentration Rose for the 1-hr CO Average Concentration Occurrences at the Henry Pirker Site for March 2004**



Frequency Distribution of CO in ppm			
Range	Frequency (hrs)		
0 < 0.1	0		
0.1 to 1	702		
1 to 2.5	0		
2.5 to 5	0		
5 to 13	0		
> 13	0		
Total Non-Zero Values	702		

### PASZA - Henry Pirker Total Hydrocarbon Monthly Summary

Station: Henry Pirker

#### HOURLY AVERAGE TABLE

Total HydroCarbons (THC)

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004

Summary				
Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	2.8	ppm	21-Mar	6:00 7:00
Maximum 24-hr Average:	2.4	ppm	21-Mar	

Guideline Limit: Alberta Environment: 1-hr na ppm 24-hr na ppm

AIC Time:	35 hrs		Operational Time:	702 hrs				
Calibration Time:	6 hrs		AMD Operational Uptime:	99.9%				
Percentile	99	95	75	50	25	5	1	Average
	2.7	2.4	2.2	2.1	2.0	1.8	1.6	2.1 ppb

Status Flag Characters		
C	Calibration	A AIC - Zero / Span Check
S	Instrument out of Service	X Filter Exchange
N	No Data	M Equipment Maintenance
D	Excessive Instrument Drift	P Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum		
	Hour Start	Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00			22:00	23:00
1-Mar-04	2.6	A	A	2.2	2.3	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.29	2.55
2-Mar-04	2.4	A	A	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.31	2.40
3-Mar-04	2.2	A	2.2	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.06	2.25
4-Mar-04	1.9	A	1.9	1.9	2.0	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.2	2.1	2.2	2.3	2.3	2.2	2.1	2.2	2.13	2.34	
5-Mar-04	2.2	A	2.2	2.1	1.9	2.0	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.2	2.1	1.8	1.6	1.6	1.6	1.6	1.7	1.6	1.6	1.6	1.6	1.91	2.25	
6-Mar-04	1.6	A	1.7	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.0	1.9	2.0	1.89	2.05	
7-Mar-04	A	A	1.9	1.8	1.9	1.9	1.9	1.9	1.9	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	1.9	1.9	1.85	1.94	
8-Mar-04	A	A	2.0	2.0	2.1	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.3	1.9	2.0	2.2	2.1	2.2	2.0	2.1	2.15	2.32		
9-Mar-04	2.0	2.0	A	1.8	1.7	1.8	1.8	1.8	1.8	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	1.97	2.16	
10-Mar-04	2.2	2.2	A	2.2	2.2	2.2	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.19	2.37	
11-Mar-04	2.1	2.1	A	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.3	2.2	2.2	2.10	2.26	
12-Mar-04	2.0	1.9	A	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	1.97	2.17	
13-Mar-04	2.2	2.3	A	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.3	2.2	2.2	2.2	2.1	2.0	2.0	2.25	2.41	
14-Mar-04	2.0	2.0	A	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.3	2.03	2.25	
15-Mar-04	2.1	2.0	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.92	2.10	
16-Mar-04	2.0	2.0	A	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.6	1.8	1.8	1.9	1.86	2.05	
17-Mar-04	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	C	C	C	C	C	C	2.2	2.4	2.2	2.1	2.1	2.1	N	2.38		
18-Mar-04	2.1	2.0	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	M	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	1.91	2.08	
19-Mar-04	2.2	2.3	A	2.1	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	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.1	2.06	2.26	
20-Mar-04	2.1	2.1	A	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.3	2.4	2.3	2.3	2.3	2.3	2.24	2.38	
21-Mar-04	2.5	2.5	A	2.6	2.8	2.8	2.8	2.8	2.7	2.5	2.6	2.3	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.41	2.85	
22-Mar-04	2.3	2.1	A	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.10	2.29	
23-Mar-04	2.2	2.2	A	2.4	2.6	2.7	2.8	2.8	2.8	2.7	2.5	2.3	2.3	2.1	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.26	2.83	
24-Mar-04	2.0	2.0	A	2.1	2.4	2.2	2.3	2.3	2.3	2.3	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.00	2.35	
25-Mar-04	2.0	2.0	A	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.07	2.19	
26-Mar-04	2.1	2.1	A	2.3	2.4	2.5	2.4	2.4	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.21	2.49	
27-Mar-04	2.2	2.3	A	2.4	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.03	2.36	
28-Mar-04	2.0	2.0	A	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.04	2.12	
29-Mar-04	2.1	2.1	A	2.2	2.3	2.2	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.1	2.09	2.39	
30-Mar-04	2.0	1.9	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.96	2.16	
31-Mar-04	1.9	1.9	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.02	2.17	
Hourly Avg	2.10	N	N	2.09	2.11	2.11	2.14	2.14	2.13	2.10	2.09	2.07	2.06	2.05	2.02	2.01	2.01	2.00	2.03	2.06	2.07	2.08	2.07	2.08	2.08			
Hourly Max	2.55	2.47	2.25	2.60	2.76	2.84	2.85	2.81	2.80	2.73	2.55	2.34	2.33	2.31	2.30	2.31	2.30	2.28	2.31	2.38	2.35	2.44	2.41	2.42				

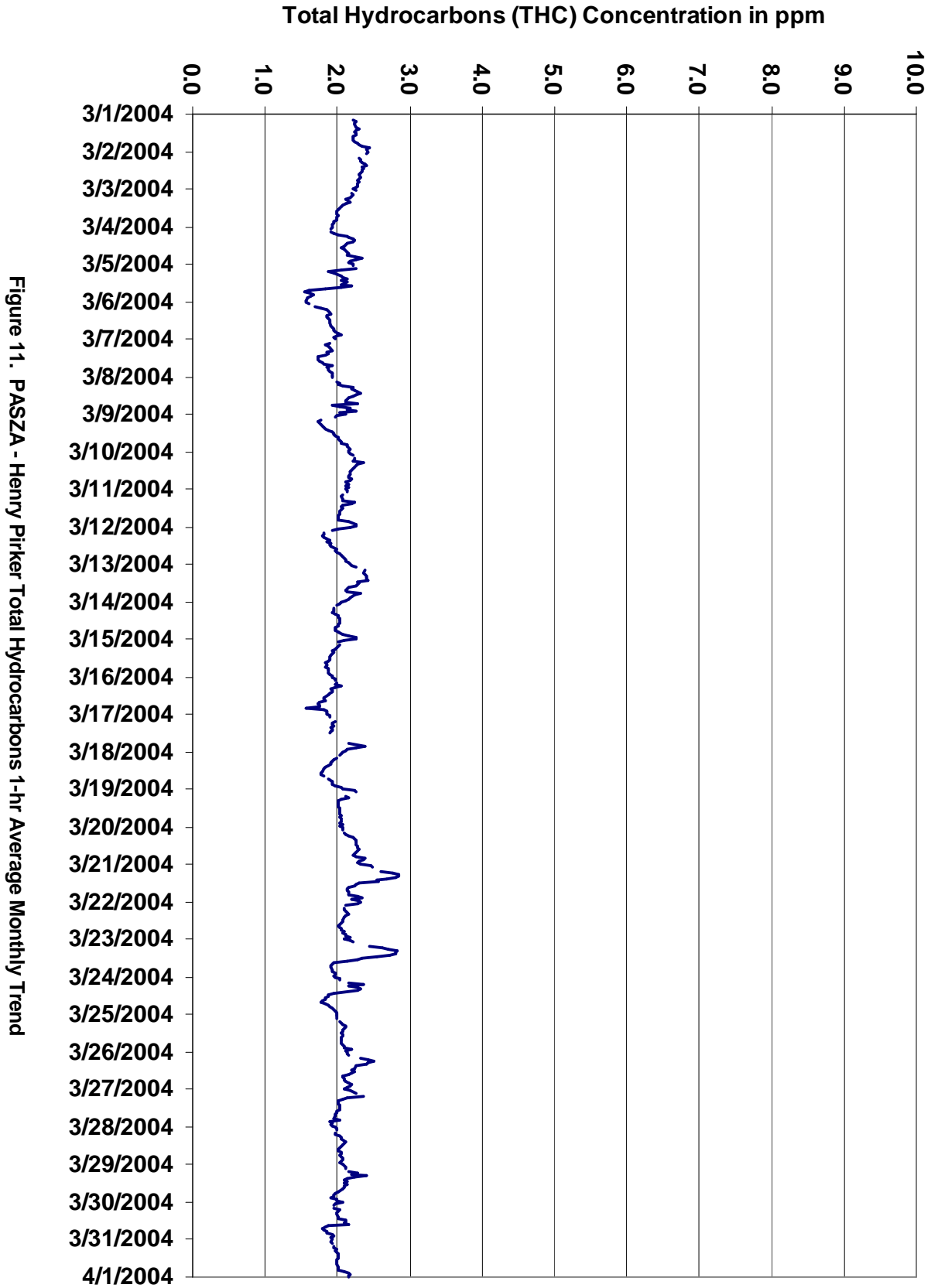


Figure 11. PASZA - Henry Pirker Total Hydrocarbons 1-hr Average Monthly Trend

Station: Henry Pirker

### HOURLY MAXIMUM TABLE

Total HydroCarbons (THC)

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004  
Summary

Maximum 1-hr Value:	3.5	ppm	26-Mar	11:00 12:00
Maximum 24-hr Value:	2.5	ppm	21-Mar	

AIC Time:	35 hrs					Operational Time:	702 hrs					
Calibration Time:	6 hrs					AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	Average				
	2.9	2.5	2.2	2.0	1.8	1.6	1.5	2.0 ppm				

Status Flag Characters

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day Mountain Standard Time

Day	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum																					
1-Mar-04	Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	2.15	2.47																					
2-Mar-04	2.5	A	A	2.0	2.1	2.0	2.1	2.2	2.3	2.0	2.2	2.0	2.2	2.0	2.1	2.0	2.0	2.0	2.2	2.1	2.2	2.1	2.2	2.3	2.3	2.4	2.14	2.64																				
3-Mar-04	2.2	A	A	2.0	2.1	2.1	2.1	2.2	2.2	2.6	2.2	2.2	2.1	2.1	2.1	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	1.87	2.19																					
4-Mar-04	2.0	A	2.0	2.0	2.0	2.0	1.9	2.1	2.2	2.1	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.7	1.7	1.7	2.00	2.57																						
5-Mar-04	1.7	A	1.7	1.7	1.8	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.8	2.3	2.6	2.0	2.0	2.3	2.2	2.2	2.1	2.0	2.0	2.00	2.57																					
6-Mar-04	2.0	A	2.2	2.0	1.7	1.8	2.8	2.0	2.1	2.1	2.2	2.0	1.9	2.4	2.0	1.7	1.6	1.4	1.5	1.5	1.5	1.4	1.4	1.3	1.85	2.84																						
7-Mar-04	1.4	A	1.5	1.6	1.6	1.7	1.9	1.7	1.7	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.9	2.0	1.8	1.8	1.8	1.70	1.97																						
8-Mar-04	A	A	1.7	1.6	1.6	1.7	1.7	1.7	1.8	1.7	1.5	1.5	1.5	1.5	1.6	1.8	2.1	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.67	2.08																						
9-Mar-04	A	A	1.8	1.9	1.8	1.9	2.1	2.2	2.2	2.3	2.4	2.1	2.1	2.1	2.0	2.0	2.4	1.8	2.2	2.3	2.4	2.2	1.8	2.1	2.09	2.37																						
10-Mar-04	2.1	2.0	A	1.6	1.5	1.5	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.9	1.8	1.8	1.8	1.9	1.9	2.0	1.9	2.0	1.9	1.9	1.79	2.05																						
11-Mar-04	2.0	2.0	A	2.0	2.0	2.0	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	1.9	1.9	2.0	1.9	2.0	2.00	2.32																						
12-Mar-04	2.0	2.0	A	1.9	1.8	1.8	1.9	2.2	2.1	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.8	2.0	2.4	2.2	2.0	1.93	2.36																						
13-Mar-04	1.8	1.7	A	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.8	1.7	1.7	2.6	1.8	1.8	1.8	1.8	1.8	2.0	1.9	1.9	1.9	2.1	1.81	2.57																						
14-Mar-04	2.2	2.2	A	2.3	2.2	2.3	2.2	2.3	2.5	2.8	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	2.4	2.0	2.0	2.0	1.9	1.8	2.14	2.76																						
15-Mar-04	1.9	1.8	A	1.7	1.7	1.7	1.7	1.8	3.0	1.8	1.8	2.0	1.8	1.8	1.8	1.7	1.7	1.7	1.8	1.8	1.9	2.2	2.2	2.2	1.90	3.02																						
16-Mar-04	2.0	1.8	A	1.9	1.8	1.8	1.7	1.8	1.7	1.7	1.7	1.7	1.6	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.8	1.71	2.00																					
17-Mar-04	1.9	1.8	A	1.8	1.8	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.67	1.89																						
18-Mar-04	1.7	1.7	A	1.7	1.7	1.7	1.8	1.7	1.8	1.8	1.8	1.8	1.8	C	C	C	C	C	C	2.2	2.5	2.7	2.2	2.2	2.1	N	2.68																					
19-Mar-04	2.1	2.1	A	2.0	2.0	2.0	2.0	2.0	2.1	1.9	2.0	1.8	1.8	1.9	2.0	M	2.1	2.0	2.0	2.0	2.0	2.1	2.4	2.3	2.02	2.38																						
20-Mar-04	2.4	2.3	A	2.2	2.2	2.2	2.2	2.0	2.1	2.0	2.0	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	2.35																						
21-Mar-04	2.1	2.1	A	2.2	2.2	2.2	2.8	2.3	2.3	2.4	2.3	2.3	2.3	2.4	2.8	2.3	2.3	2.3	2.3	2.3	2.6	2.4	2.4	2.3	2.33	2.77																						
22-Mar-04	2.6	2.6	A	2.7	2.8	2.9	2.9	2.9	2.8	2.6	2.6	2.5	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.7	2.5	2.2	2.3	2.51	2.92																						
23-Mar-04	2.5	2.1	A	2.2	2.1	2.2	2.2	2.5	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.1	2.1	2.1	2.2	2.2	2.3	2.2	2.4	2.2	2.19	2.51																					
24-Mar-04	2.2	2.3	A	2.5	2.8	3.0	3.4	3.0	2.9	2.8	2.8	2.5	2.3	2.2	2.0	2.0	1.9	1.9	1.9	2.0	2.2	2.0	2.0	2.0	2.37	3.36																						
25-Mar-04	2.1	2.1	A	2.3	2.7	2.3	2.4	2.4	2.6	2.0	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	2.0	2.0	2.1	2.0	2.0	2.09	2.70																						
26-Mar-04	2.0	2.0	A	2.1	2.1	2.1	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	2.2	2.5	2.3	2.3	2.15	2.50																					
27-Mar-04	2.2	2.2	A	2.5	2.5	2.6	2.5	2.7	2.3	2.4	2.4	3.5	2.3	2.3	2.1	2.1	2.3	2.2	2.2	2.5	2.3	2.4	2.2	2.1	2.39	3.52																						
28-Mar-04	2.4	2.4	A	2.5	2.2	2.1	2.0	2.0	2.0	2.0	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	1.9	2.0	1.9	2.0	2.10	2.48																						
29-Mar-04	2.0	2.1	A	2.0	2.0	2.1	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.1	2.1	2.2	2.11	2.26																						
30-Mar-04	2.2	2.2	A	2.3	2.4	2.3	2.6	2.4	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.2	2.2	2.1	2.0	2.1	2.0	2.0	2.2	2.2	2.2	2.20	2.62																					
31-Mar-04	2.3	2.0	A	2.0	2.2	2.2	2.1	2.1	2.4	2.1	2.4	2.3	2.2	3.0	2.2	2.0	1.9	1.8	1.9	1.9	2.2	2.1	1.9	2.1	2.15	3.00																						
Hourly Avg	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	2.1	2.2	2.2	2.2	2.2	2.06	2.24																						
Hourly Max	2.08	N	N	2.03	2.03	2.05	2.15	2.11	2.19	2.06	2.04	2.04	1.98	2.05	1.97	1.97	1.96	1.91	2.00	2.04	2.07	2.05	2.03	2.04	2.57	2.56	2.19	2.71	2.81	2.97	3.36	2.95	3.02	2.82	2.76	3.52	2.43	3.00	2.34	2.57	2.37	2.25	2.38	2.65	2.68	2.50	2.38	2.44

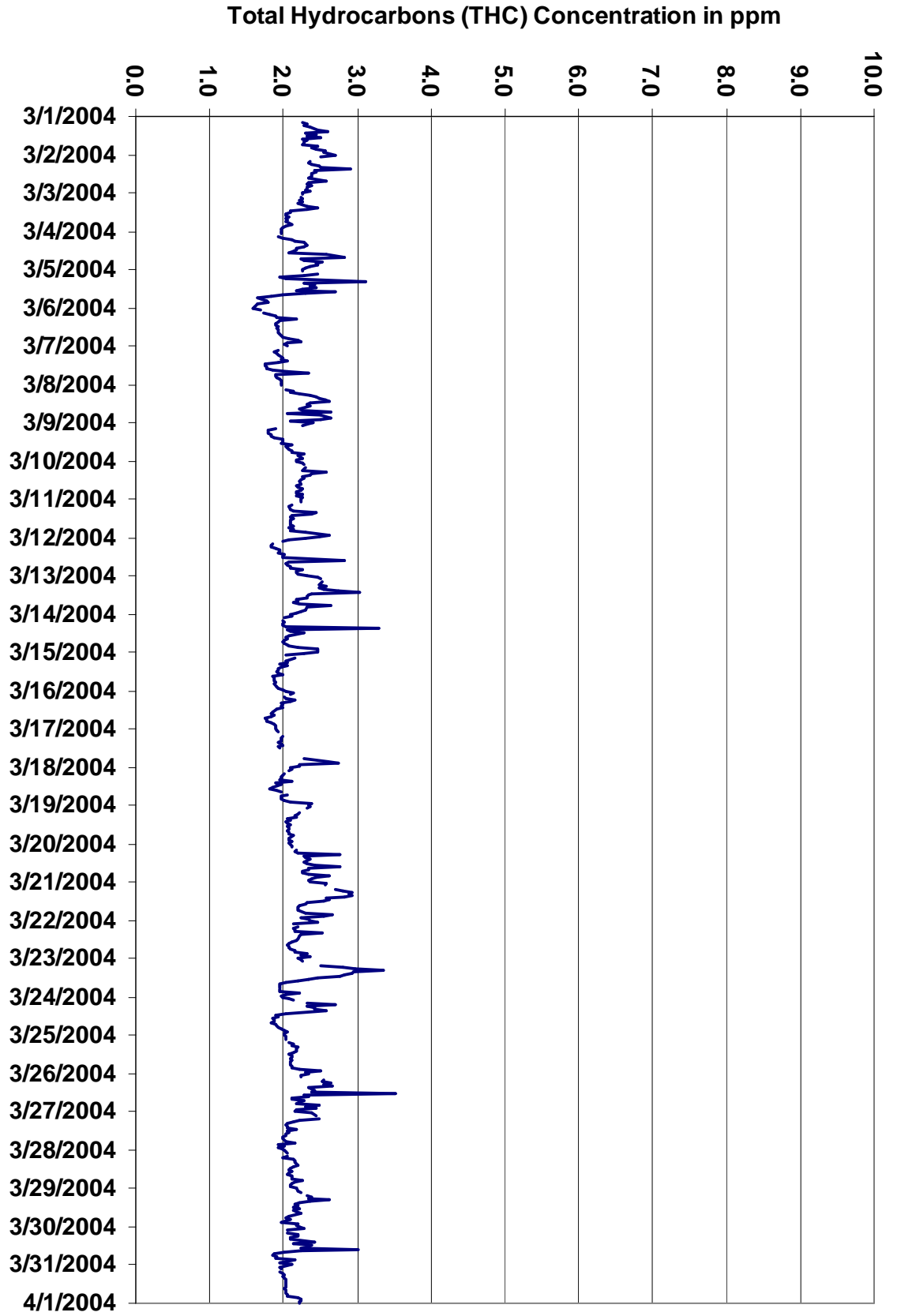


Figure 12. PASZA - Henry Pirkker Total Hydrocarbons 1-hr Maximum Value Monthly Trend

### PASZA - Henry Pirker Total Reduced Sulphur Monthly Summary

Station: Henry Pirker

#### HOURLY AVERAGE TABLE

Total Reduced Sulphur (TRS)

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004

**Summary**

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	1.1 ppb 26-Mar 20:00 21:00
Maximum 24-hr Average:	0.6 ppb 26-Mar

H<sub>2</sub>S Guideline Limit: Alberta Environment: 1-hr 10 ppb 24-hr 3 ppb

AIC Time:	35 hrs	Operational Time:	702 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	99.9%
Percentile	99 95 75 50 25 5 1	Average	
	0.7 0.5 0.4 0.3 0.3 0.2 0.2	0.3 ppb	

**Status Flag Characters**

C Calibration	A AIC - Zero / Span Check
S Instrument out of Service	X Filter Exchange
N No Data	M Equipment Maintenance
D Excessive Instrument Drift	P Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00		
1-Mar-04	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.3	0.5
2-Mar-04	0	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
3-Mar-04	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	0.3
4-Mar-04	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.4	0.8
5-Mar-04	0	A	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.4	0.6
6-Mar-04	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.4
7-Mar-04	A	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
8-Mar-04	A	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
9-Mar-04	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
10-Mar-04	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
11-Mar-04	0	0	A	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
12-Mar-04	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
13-Mar-04	0	0	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
14-Mar-04	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
15-Mar-04	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
16-Mar-04	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
17-Mar-04	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
18-Mar-04	0	0	A	0	0	0	0	0	0	0	0	C	C	C	C	C	1	0	0	0	0	0	0	0	N	0.6
19-Mar-04	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
20-Mar-04	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
21-Mar-04	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.4	0.6
22-Mar-04	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
23-Mar-04	0	0	A	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
24-Mar-04	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
25-Mar-04	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0.4	0.8
26-Mar-04	1	1	A	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	0.6	1.1
27-Mar-04	1	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
28-Mar-04	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.3
29-Mar-04	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
30-Mar-04	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
31-Mar-04	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.4
Hourly Avg	0.3	N	N	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4		
Hourly Max	0.6	0.6	0.5	0.7	0.7	0.7	0.7	0.8	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.8	0.6	1.1	0.7	0.7	0.6		

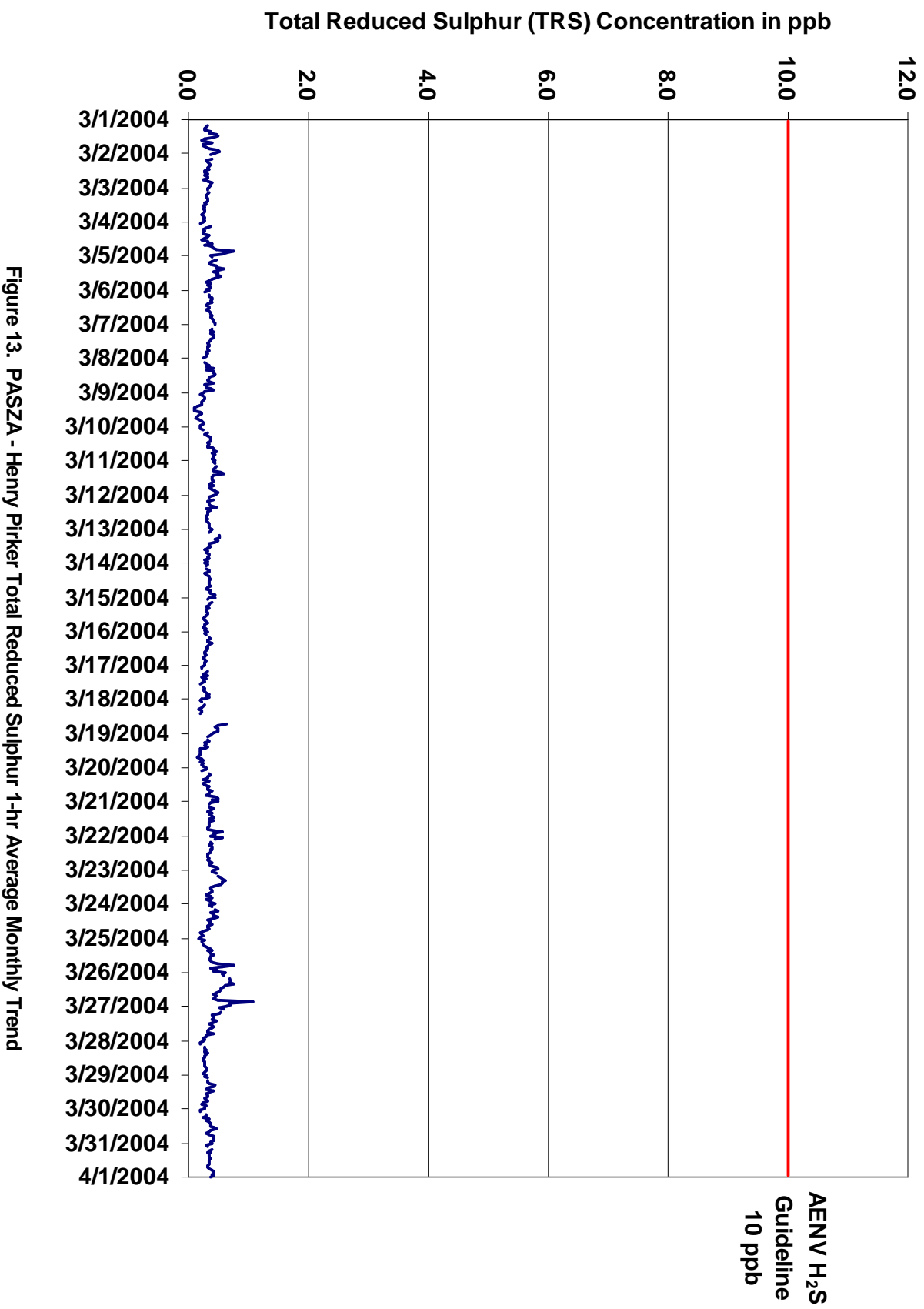


Figure 13. PASZA - Henry Pirker Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Henry Pirker

**HOURLY MAXIMUM TABLE**

**Total Reduced Sulphur (TRS)**

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004  
 Summary

Maximum 1-hr Value:	1.5	ppb	26-Mar	20:00 21:00
Maximum 24-hr Value:	1.0	ppb	26-Mar	

AIC Time:	35 hrs	Operational Time:	702 hrs					
Calibration Time:	6 hrs	AMD Operational Uptime:	99.9%					
Percentile	99	95	75	50	25	5	1	Average
	1.2	0.9	0.7	0.7	0.6	0.5	0.4	0.7 ppb

**Status Flag Characters**

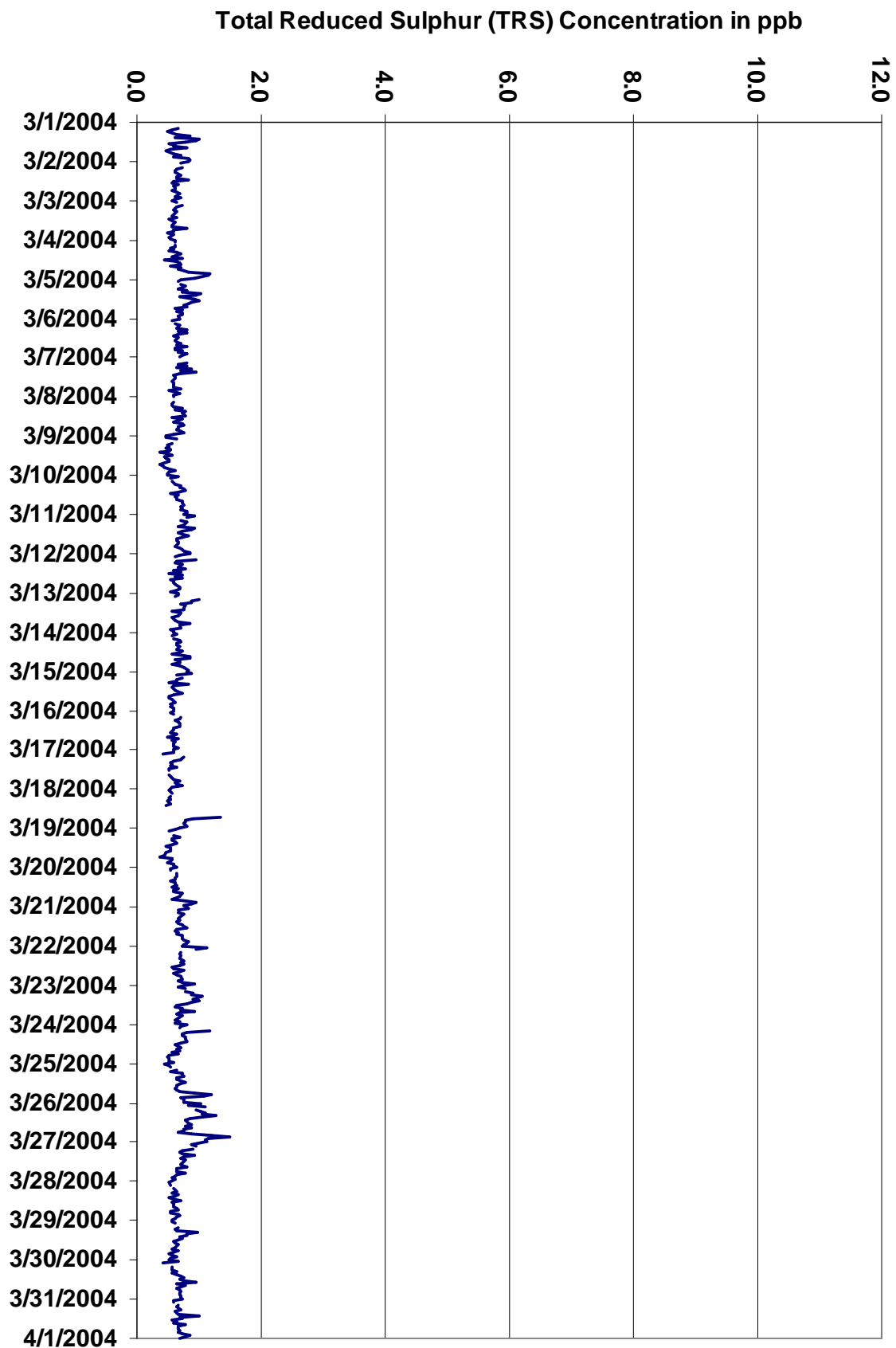
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Day	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum	
1-Mar-04	Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	0.7	1.0	
2-Mar-04	1	A	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8	
3-Mar-04	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0.6	0.8	
4-Mar-04	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2	
5-Mar-04	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0	
6-Mar-04	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8	
7-Mar-04	A	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0	
8-Mar-04	A	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.7	0.8	
9-Mar-04	0	1	A	1	0	1	0	1	1	0	0	1	0	0	1	1	0	0	0	1	1	1	1	0	0	0.5	0.6	
10-Mar-04	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	0.7	0.8	
11-Mar-04	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	0.8	0.9	
12-Mar-04	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	0.7	1.0	
13-Mar-04	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	0.7	1.0	
14-Mar-04	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	0.7	0.8	
15-Mar-04	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	0.6	0.9	
16-Mar-04	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.6	0.7	
17-Mar-04	1	0	A	1	1	1	1	1	1	1	1	1	1	1	N	1	1	1	1	1	1	1	1	1	1	0.6	0.8	
18-Mar-04	1	1	A	1	1	1	0	1	1	0	C	C	C	C	C	C	1	1	1	1	1	1	1	1	1	N	1.3	
19-Mar-04	1	1	A	1	1	1	1	1	1	1	0	1	1	1	0	0	0	1	1	1	1	0	1	1	1	0.5	0.7	
20-Mar-04	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	0.7	1.0	
21-Mar-04	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	0.7	0.8	
22-Mar-04	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	0.7	1.1	
23-Mar-04	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	0.8	1.0	
24-Mar-04	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0.7	1.2	
25-Mar-04	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	0.7	1.2	
26-Mar-04	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	1.0	1.5	
27-Mar-04	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	0.7	0.9	
28-Mar-04	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	0.6	0.7	
29-Mar-04	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	0.6	1.0	
30-Mar-04	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9	
31-Mar-04	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	0.7	1.0	
Hourly Avg		0.7	N	N	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.6	0.6	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7		
Hourly Max		1.1	1.1	0.8	1.2	1.0	1.1	1.1	1.3	1.0	1.0	0.9	0.9	1.0	0.9	0.9	0.9	1.3	0.9	1.2	1.2	1.5	1.2	1.1	1.1			



Figure 14. PASZA - Henry Piker Total Reduced Sulphur 1-hr Maximum Value Monthly Trend



## PASZA - Henry Pirker Particulate Matter (less than 2.5 microns) Monthly Summary

Station: Henry Pirker

### HOURLY AVERAGE TABLE

### Particulate Matter (PM<sub>2.5</sub>)

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004

**Summary**

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	20.0	µg/m <sup>3</sup>	26-Mar	7:00 8:00
Maximum 24-hr Average:	11.3	µg/m <sup>3</sup>	26-Mar	

Guideline Limit	Canada Wide Standard	1-hr	-	µg/m <sup>3</sup>	24-hr	30	µg/m <sup>3</sup>
(considered as an absolute value)							

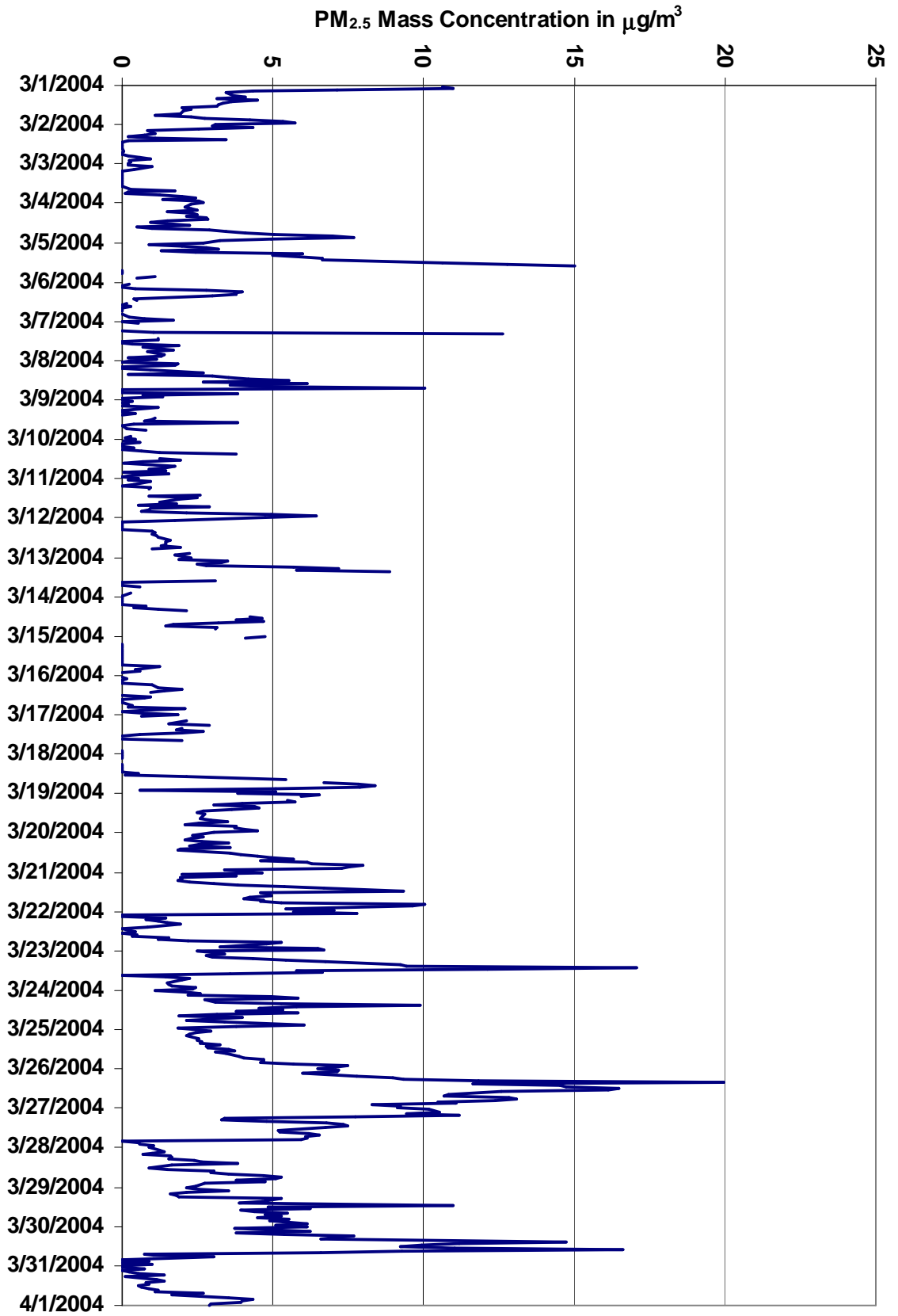
AIC Time:	0 hrs							Operational Time:	690 hrs						
Calibration Time:	5 hrs							AMD Operational Uptime:	93.4%						
Percentile	99	95	75	50	25	5	1	Average	Geomean						
	14.7	9.8	4.5	2.1	0.6	0.0	0.0	3.0 µg/m <sup>3</sup>	2.2 µg/m <sup>3</sup>						

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00			23:00 0:00
1-Mar-04	11	11	7	4	3	4	4	3	4	4	3	3	3	2	2	2	2	1	2	3	4	5	6	3	4.1	11.0	
2-Mar-04	3	4	3	1	1	1	0	1	3	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.8	4.3	
3-Mar-04	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	2	2	1	3	3	0.7	2.7	
4-Mar-04	2	2	2	2	2	2	2	2	3	3	2	1	2	0	1	3	3	4	5	7	8	5	3	3	2.9	7.7	
5-Mar-04	1	2	3	3	1	2	6	5	6	7	7	11	13	15	D	D	0	0	0	D	1	0	D	D	4.4	15.0	
6-Mar-04	0	0	0	0	3	4	4	4	3	0	1	D	0	0	0	0	0	0	D	0	0	1	2	0	1.0	4.0	
7-Mar-04	1	D	D	D	D	0	1	13	D	1	1	0	0	0	2	1	1	2	1	1	1	0	1	0	1.5	12.6	
8-Mar-04	0	2	2	0	0	1	3	0	3	4	4	6	3	6	4	5	10	0	0	4	1	1	0	0	2.4	10.1	
9-Mar-04	0	0	0	0	1	0	0	0	0	D	1	1	1	4	0	0	0	1	D	D	0	0	0	0	0.6	3.8	
10-Mar-04	0	1	0	0	0	0	1	1	4	D	D	1	2	1	0	2	1	1	1	0	2	0	0	1	0.8	3.8	
11-Mar-04	0	1	0	0	1	1	D	D	D	3	1	2	2	1	2	1	3	1	1	1	2	5	6	5	1.8	6.4	
12-Mar-04	2	0	0	0	0	0	0	1	1	1	1	1	2	1	1	1	1	2	1	D	D	2	2	2	1.1	2.3	
13-Mar-04	2	4	3	2	3	6	7	6	9	D	D	D	3	0	0	0	0	1	D	D	0	0	0	0	N	8.9	
14-Mar-04	0	0	0	0	0	1	0	1	2	D	D	D	4	5	4	5	3	2	1	3	3	D	D	D	5	2.1	4.7
15-Mar-04	4	D	D	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	D	D	0.3	4.1	
16-Mar-04	0	0	0	0	0	1	1	2	1	1	D	0	1	1	0	0	0	0	0	2	1	0	1	2	0.6	2.1	
17-Mar-04	1	D	D	2	2	3	D	2	2	3	2	1	0	N	0	2	C	C	C	C	C	0	0	0	N	2.9	
18-Mar-04	0	0	0	D	D	0	0	0	0	0	0	1	0	2	5	M	7	8	8	8	5	1	5	4	2.6	8.4	
19-Mar-04	7	6	N	5	6	4	3	4	5	4	3	2	3	3	3	3	4	3	2	4	4	4	4	3	3.8	6.5	
20-Mar-04	2	3	2	2	3	4	3	2	4	2	2	4	4	5	5	6	5	6	6	8	8	7	3	5	4.1	8.0	
21-Mar-04	2	4	2	2	2	2	3	4	5	7	9	5	5	5	4	4	5	5	5	10	10	5	7	6	4.9	10.0	
22-Mar-04	8	0	0	1	1	1	2	2	1	0	0	0	0	1	0	2	1	2	5	5	3	6	7	3	2.1	7.8	
23-Mar-04	3	3	3	3	4	5	7	9	9	17	12	6	7	4	0	1	2	2	1	2	2	2	2	1	4.5	17.0	
24-Mar-04	2	3	2	5	6	3	3	5	10	6	5	5	4	6	3	2	4	2	3	5	6	4	2	2	4.1	9.9	
25-Mar-04	3	2	2	2	3	3	3	3	3	3	3	4	4	3	3	4	4	5	5	5	6	7	7	6	3.8	7.5	
26-Mar-04	7	7	6	8	9	9	12	20	12	15	15	16	16	13	11	11	13	13	12	10	11	8	9	9	11.3	20.0	
27-Mar-04	10	11	9	11	8	3	3	5	7	7	7	7	5	5	6	7	6	6	6	0	1	1	1	1	5.5	11.2	
28-Mar-04	1	1	1	1	2	2	2	2	3	4	2	1	2	3	3	4	5	5	5	4	5	3	2	2	2.6	5.3	
29-Mar-04	3	4	2	2	2	2	5	5	5	4	11	5	6	4	4	6	5	5	5	6	5	6	5	6	4.6	11.0	
30-Mar-04	4	5	6	4	5	8	7	7	15	11	10	9	11	17	9	7	1	1	3	0	1	0	1	0	5.9	16.6	
31-Mar-04	0	1	0	0	1	1	0	1	1	1	1	1	1	1	1	1	3	2	4	4	4	4	3	3	1.6	4.3	
Hourly Avg	2.5	2.7	2.1	2.2	2.3	2.3	2.8	3.7	4.2	3.9	3.8	3.3	3.3	3.6	2.6	2.6	2.9	2.6	3.3	3.6	3.6	2.7	3.0	2.6			
Hourly Max	10.6	11.0	9.4	11.2	9.0	9.3	11.8	20.0	14.7	17.0	14.7	16.5	16.1	16.6	10.8	10.7	12.8	13.1	12.4	10.5	11.1	8.3	9.2	9.1			

Figure 15. PASZA - Henry Pirkker Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend



Station: Henry Pirker

**HOURLY MAXIMUM TABLE**

**Particulate Matter (PM<sub>2.5</sub>)**

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004

**Summary**

Maximum 1-hr Value:	27.7	µg/m <sup>3</sup>	30-Mar	8:00 9:00
Maximum 24-hr Value:	14.2	µg/m <sup>3</sup>	26-Mar	

AIC Time:	0 hrs	Operational Time:	693 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	93.8%						
Percentile	99	95	75	50	25	5	1	Average	Geomean
	20.8	13.6	7.0	4.4	2.6	0.6	0.0	5.4 µg/m <sup>3</sup>	4.8 µg/m <sup>3</sup>

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Day	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Mar-04	14	15	9	7	5	5	9	5	6	5	5	5	5	5	4	4	3	3	3	3	5	6	8	8	6	6.1	14.9
2-Mar-04	7	6	6	2	3	2	1	2	9	1	1	4	1	1	1	2	2	0	1	1	3	4	2	2	2	2.7	9.2
3-Mar-04	2	2	2	1	1	0	0	0	0	0	0	0	0	1	1	2	3	1	2	3	4	4	2	4	5	1.7	4.6
4-Mar-04	4	4	4	4	3	5	4	4	5	4	3	2	4	2	4	5	5	7	8	9	12	8	8	6	5.2	11.6	
5-Mar-04	3	5	5	5	3	6	8	10	11	14	11	15	15	26	D	D	4	0	2	D	5	2	D	D	7.7	25.5	
6-Mar-04	1	1	1	3	5	6	5	5	8	2	3	D	1	1	3	1	1	1	D	2	5	5	6	1	3.1	8.3	
7-Mar-04	3	D	D	D	D	3	5	16	D	8	4	1	1	3	6	3	3	3	3	4	3	2	3	2	4.1	16.5	
8-Mar-04	2	4	3	3	1	3	5	3	5	5	8	11	5	9	6	7	17	0	3	9	4	4	2	2	5.1	17.0	
9-Mar-04	5	3	4	2	5	0	0	6	6	3	4	7	6	19	2	3	3	5	D	D	D	2	2	2	4.3	18.6	
10-Mar-04	2	3	1	2	4	1	2	3	8	D	D	3	5	3	2	4	3	2	3	2	3	2	1	3	2.8	7.7	
11-Mar-04	2	2	2	3	3	3	D	D	D	4	4	5	4	3	4	2	5	3	4	2	4	10	9	8	4.2	10.3	
12-Mar-04	7	1	1	1	0	1	2	3	3	2	3	2	3	3	3	3	4	3	2	D	D	3	3	4	2.5	7.4	
13-Mar-04	3	6	6	4	5	7	9	10	11	D	D	D	D	6	1	1	1	4	D	D	D	2	2	1	N	11.3	
14-Mar-04	1	0	0	0	2	3	1	3	4	D	D	6	7	5	7	7	4	2	5	5	D	D	D	8	3.7	8.1	
15-Mar-04	14	D	D	D	1	2	0	0	1	0	1	1	1	1	1	2	1	1	1	4	2	2	0	D	D	1.8	13.6
16-Mar-04	0	3	0	1	1	3	3	3	3	3	D	1	3	3	2	0	1	1	2	19	3	3	2	4	2.9	19.0	
17-Mar-04	3	D	D	5	4	5	D	3	4	4	4	3	2	N	2	5	C	C	C	C	C	9	1	0	N	8.6	
18-Mar-04	0	0	0	0	0	0	0	3	1	1	0	3	3	7	12	M	10	11	11	11	8	5	9	7	4.5	11.8	
19-Mar-04	8	8	D	7	8	6	5	6	6	5	5	5	5	4	5	5	5	5	4	5	6	5	6	4	5.6	8.1	
20-Mar-04	3	4	4	4	4	5	4	4	5	4	3	6	6	7	7	7	7	8	8	11	10	11	7	7	6.1	10.9	
21-Mar-04	5	6	4	3	5	5	5	6	7	9	11	10	7	8	6	5	8	7	8	16	12	7	9	7	7.4	16.3	
22-Mar-04	11	3	3	4	2	3	3	5	4	3	2	3	1	3	2	3	4	5	8	8	5	11	11	5	4.7	11.3	
23-Mar-04	5	5	4	5	6	7	10	12	14	21	21	9	9	6	2	4	4	4	3	3	3	4	3	2	7.0	21.1	
24-Mar-04	3	4	5	8	8	6	5	7	12	10	9	7	7	10	7	7	6	6	5	7	10	6	5	4	6.8	12.3	
25-Mar-04	4	4	4	5	5	4	5	5	5	4	5	5	6	6	6	7	7	7	7	6	8	10	9	9	5.9	9.5	
26-Mar-04	10	9	8	10	12	11	16	24	18	21	17	19	20	18	13	14	15	14	14	12	13	11	12	12	14.2	24.2	
27-Mar-04	12	14	12	13	12	5	5	7	9	8	9	8	7	7	9	8	8	8	10	2	3	2	2	2	7.5	13.9	
28-Mar-04	3	4	2	2	3	3	3	4	5	6	4	4	6	10	7	8	6	7	9	5	7	4	5	4	5.1	10.1	
29-Mar-04	5	5	4	4	5	5	9	7	8	7	15	12	10	7	8	10	8	7	7	8	7	9	8	10	7.8	14.6	
30-Mar-04	6	7	10	8	8	10	9	9	28	23	14	14	17	26	15	14	7	6	8	5	3	2	3	1	10.5	27.7	
31-Mar-04	2	3	1	1	3	4	2	4	4	4	3	3	4	4	4	6	5	7	5	6	6	7	5	5	4	4.1	6.8
Hourly Avg	4.8	4.7	3.9	4.1	4.3	4.1	4.7	6.1	7.2	6.6	6.2	6.0	5.7	7.0	5.2	5.1	5.2	4.6	5.5	6.6	6.0	5.3	5.3	4.7			
Hourly Max	13.7	14.9	11.5	12.9	12.3	10.7	16.1	24.2	27.7	23.2	21.1	19.0	19.8	25.6	14.9	13.6	17.0	14.4	14.0	19.0	13.2	10.9	12.3	12.3			

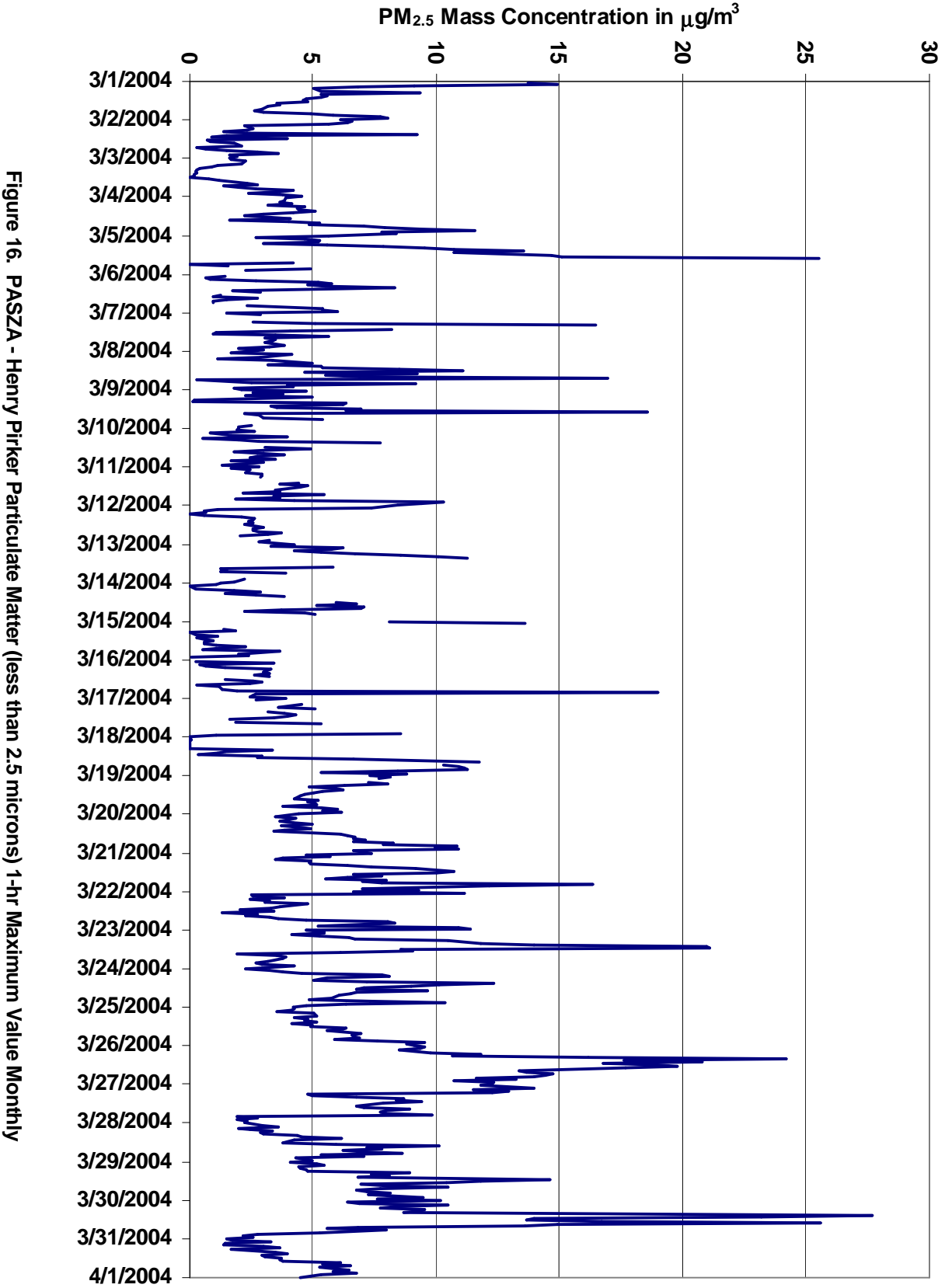
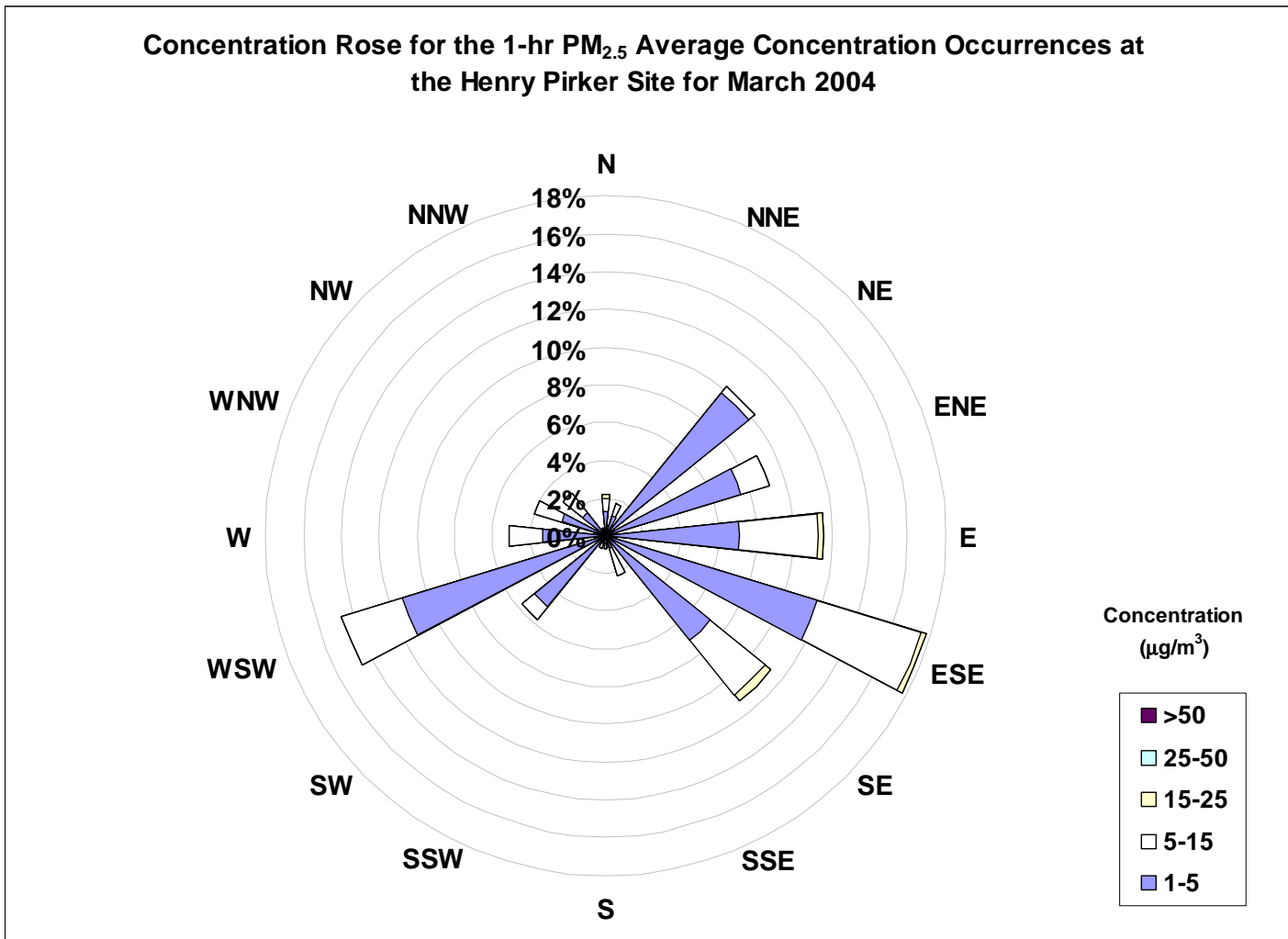


Figure 16. PASZA - Henry Pirkler Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly



Frequency Distribution of PM <sub>2.5</sub> in µg/m <sup>3</sup>			
Range			Frequency (hrs)
0	<	1	229
1	to	5	324
5	to	15	131
15	to	25	6
25	to	50	0
	>	50	0
Total Non-Zero Values			690

### PASZA - Henry Pirker Meteorological Parameters Monthly Summary

Station: Henry Pirker **HOURLY AVERAGE TABLE**

**Relative Humidity (RH - %)**

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004

<b>Summary</b>				
Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	95.2	%	12-Mar	7:00 8:00
Maximum 24-hr Average:	85.9	%	12-Mar	

AIC Time:	0 hrs		Operational Time:	738 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	99.2%				
Percentile	99	95	75	50	25	5	1	Average
	94.0	90.3	77.2	65.7	54.7	41.9	26.6	65.6 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour	Daily
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	Average	Maximum
1-Mar-04	83	82	81	83	84	85	86	85	82	80	79	77	74	72	74	76	77	80	82	82	83	85	87	87	81	87
2-Mar-04	84	83	81	79	79	79	78	78	75	71	68	61	58	54	52	54	60	64	67	67	66	68	69	70	69	84
3-Mar-04	72	74	75	75	74	74	74	73	67	65	62	59	58	56	59	61	60	60	66	71	77	79	80	79	69	80
4-Mar-04	78	77	77	77	78	79	79	79	77	68	63	55	48	49	55	55	59	58	66	73	75	77	77	77	69	79
5-Mar-04	76	77	78	81	81	81	81	81	79	75	69	68	66	59	52	49	50	55	60	64	69	74	84	84	71	84
6-Mar-04	84	79	78	81	81	80	77	74	66	60	58	52	47	46	47	46	46	45	49	49	52	47	50	53	60	84
7-Mar-04	52	52	51	50	54	58	64	67	61	48	44	43	42	42	43	44	42	50	51	51	51	46	50	53	50	67
8-Mar-04	49	49	53	54	55	58	60	57	56	53	49	43	43	43	43	43	42	44	51	53	55	53	46	51	50	60
9-Mar-04	54	64	69	68	76	77	66	68	71	47	D	D	D	60	61	49	46	51	51	56	56	56	50	53	59	77
10-Mar-04	58	58	62	64	62	63	63	65	61	52	48	48	45	44	43	44	45	49	55	54	59	59	59	58	55	65
11-Mar-04	59	58	62	54	57	59	61	65	52	49	44	42	41	41	41	42	43	45	49	53	57	60	63	59	52	65
12-Mar-04	65	65	72	82	91	94	95	95	95	94	91	89	93	92	92	92	86	82	80	77	81	84	86	88	86	95
13-Mar-04	89	92	92	91	92	92	92	90	79	69	66	63	62	55	48	46	46	51	59	59	57	59	60	56	69	92
14-Mar-04	58	59	61	64	66	68	70	70	70	69	68	68	73	69	65	64	63	66	70	74	77	79	78	83	69	83
15-Mar-04	81	74	70	71	67	66	64	66	64	64	62	59	57	54	53	54	54	55	65	76	83	79	72	72	66	83
16-Mar-04	70	72	72	69	69	65	65	78	87	90	89	85	84	82	72	58	54	61	64	78	94	72	69	67	74	94
17-Mar-04	63	66	66	64	63	64	64	64	63	61	56	54	49	N	45	48	48	47	49	55	69	75	76	75	60	76
18-Mar-04	74	75	74	69	65	65	64	70	76	83	84	88	90	88	83	M	91	89	91	93	94	94	94	92	82	94
19-Mar-04	92	92	N	91	91	88	85	84	83	81	79	74	71	69	70	69	74	77	74	76	75	76	81	84	80	92
20-Mar-04	83	83	83	84	84	82	80	79	77	73	64	56	54	62	64	63	65	64	68	74	76	80	82	81	73	84
21-Mar-04	81	82	83	83	83	82	82	81	80	80	66	59	64	68	70	69	73	75	77	81	85	87	87	87	78	87
22-Mar-04	83	69	68	69	69	71	72	77	75	72	68	64	60	57	54	53	55	56	62	67	71	73	78	76	68	83
23-Mar-04	80	83	86	86	86	87	86	81	67	59	60	55	53	49	43	44	47	47	50	54	60	61	63	62	65	87
24-Mar-04	62	65	67	74	76	75	73	70	59	57	58	60	59	55	47	45	58	63	61	64	71	77	69	68	64	77
25-Mar-04	69	69	70	71	71	72	72	71	70	68	63	59	58	60	58	58	59	59	61	65	67	69	71	78	66	78
26-Mar-04	79	81	82	83	84	84	84	77	69	63	65	66	65	63	60	60	57	61	63	66	68	69	70	75	71	84
27-Mar-04	80	84	90	91	92	94	95	94	92	92	91	90	88	84	83	80	76	76	75	67	70	68	69	69	83	95
28-Mar-04	67	67	65	66	65	66	65	62	54	50	46	43	42	40	39	41	39	41	45	50	53	52	52	57	53	67
29-Mar-04	61	71	61	66	69	72	75	74	62	56	56	47	45	46	44	40	35	33	29	28	23	26	23	25	49	75
30-Mar-04	22	24	25	24	30	30	31	31	35	57	60	52	51	53	59	63	66	66	66	75	76	66	69	67	50	76
31-Mar-04	46	47	49	50	49	51	50	46	45	42	40	38	36	35	34	33	32	33	38	47	51	53	55	56	44	56
Hourly Avg	70	70	70	71	72	73	73	73	69	66	64	60	59	58	56	55	56	58	61	64	68	68	68	69		
Hourly Max	92	92	92	91	92	94	95	95	95	94	91	90	93	92	92	92	91	89	91	93	94	94	94	92		

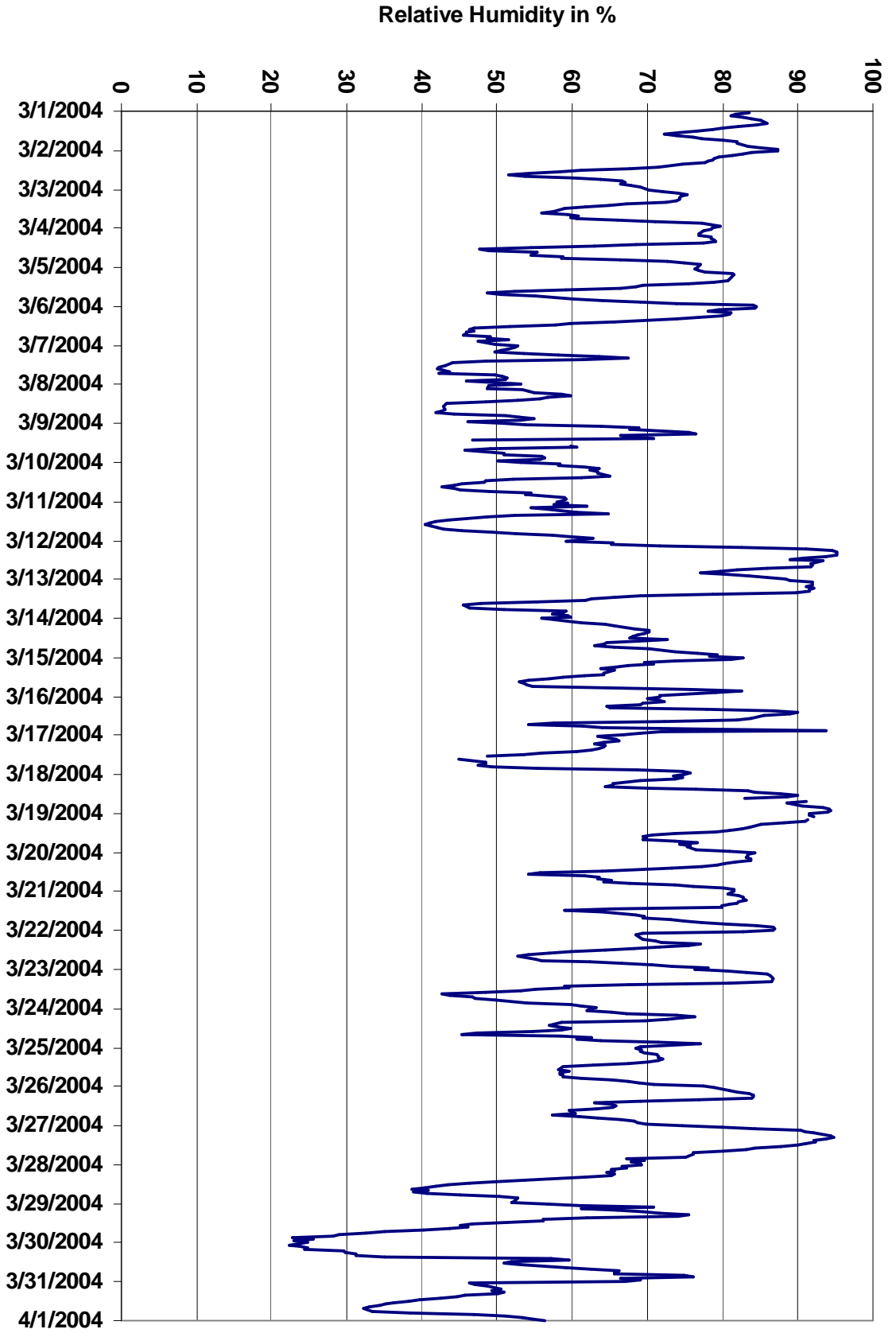


Figure 17. PASZA - Henry Pirkner Relative Humidity 1-hr Average Monthly Trend



Station: Henry Pirker

**HOURLY AVERAGE TABLE**

**Ambient Temperature (AT - °C)**

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004

**Summary**

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	17.0 °C 29-Mar 17:00 18:00
Maximum 24-hr Average:	8.8 °C 29-Mar

AIC Time:	0 hrs	Operational Time:	741 hrs					
Calibration Time:	0 hrs	AMD Operational Uptime:	99.6%					
Percentile	99	95	75	50	25	5	1	Average
	14.1	10.2	3.4	-0.3	-6.2	-15.1	-18.2	-1.5 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum	
1-Mar-04	-8	-6	-6	-6	-7	-7	-8	-8	-8	-7	-7	-7	-6	-6	-6	-6	-7	-8	-8	-9	-10	-11	-13	-7.5	-5.6		
2-Mar-04	-15	-15	-13	-13	-13	-13	-14	-14	-14	-14	-13	-11	-11	-11	-10	-11	-13	-14	-15	-15	-15	-16	-16	-16	-13.5	-9.9	
3-Mar-04	-16	-16	-16	-17	-17	-17	-17	-18	-17	-16	-15	-15	-13	-12	-11	-11	-10	-12	-13	-13	-13	-13	-14	-14	-14.3	-9.9	
4-Mar-04	-14	-14	-14	-15	-15	-15	-15	-16	-16	-14	-13	-11	-8	-9	-9	-9	-10	-10	-12	-15	-17	-20	-21	-21	-13.9	-8.5	
5-Mar-04	-20	-19	-18	-14	-12	-13	-12	-11	-10	-9	-7	-7	-6	-3	0	3	4	2	1	0	0	1	0	0	-6.3	3.9	
6-Mar-04	-1	-1	-2	-4	-5	-5	-5	-6	-3	-1	-1	1	2	2	2	2	2	0	-1	-2	-1	-1	-1	-1.1	2.5		
7-Mar-04	-1	0	0	1	0	-1	-2	-1	1	6	9	9	9	9	8	8	8	6	6	5	5	6	5	5	4.2	9.0	
8-Mar-04	6	6	5	5	5	4	4	4	5	6	7	10	11	12	13	14	15	14	11	11	9	9	10	8	8.5	14.9	
9-Mar-04	8	5	4	6	5	5	5	5	4	4	3	3	3	2	3	3	3	2	1	0	-1	-1	-1	-1	2.9	7.7	
10-Mar-04	-2	-3	-4	-5	-5	-5	-5	-5	-4	-1	1	2	4	5	6	6	6	5	4	3	2	2	2	2	0.6	6.4	
11-Mar-04	2	3	3	4	3	2	1	-1	1	3	5	6	7	7	7	7	8	7	6	5	4	4	3	3	4.2	7.6	
12-Mar-04	4	4	4	2	1	0	0	0	0	1	1	1	0	1	1	1	1	0	0	0	0	-1	-2	-4	0.6	3.9	
13-Mar-04	-4	-5	-6	-6	-7	-6	-6	-6	-3	-1	0	1	1	1	4	4	4	2	0	0	0	0	-1	-1	-1.5	4.2	
14-Mar-04	-2	-2	-2	-2	-2	-2	-2	-2	-1	-1	0	1	1	2	3	4	4	3	2	1	0	0	-1	-1	0.2	4.3	
15-Mar-04	-1	0	0	0	1	1	2	1	2	2	3	3	4	4	5	5	5	4	3	2	1	1	0	0	1.9	5.1	
16-Mar-04	-1	-2	-2	-2	-2	-1	-1	-1	-1	-1	0	1	2	3	5	7	7	5	5	3	0	2	2	1	1.1	6.6	
17-Mar-04	1	0	0	1	1	0	0	0	0	1	2	3	3	D	4	4	4	3	1	0	-1	-1	-2	-2	1.0	4.1	
18-Mar-04	-2	-3	-2	-2	-2	-2	-2	-2	-2	-2	-2	-1	-1	0	1	D	0	1	0	-1	-2	-5	-5	-6	-1.7	1.1	
19-Mar-04	-5	-4	D	-5	-5	-4	-4	-5	-5	-5	-5	-5	-5	-5	-6	-6	-7	-7	-8	-9	-10	-9	-9	-10	-6.3	-4.0	
20-Mar-04	-10	-10	-12	-12	-13	-12	-11	-11	-10	-9	-8	-5	-4	-4	-4	-4	-5	-5	-6	-8	-9	-12	-13	-13	-8.7	-3.7	
21-Mar-04	-13	-14	-14	-15	-15	-14	-13	-12	-10	-8	-3	-2	-3	-2	-2	-2	-3	-3	-4	-5	-6	-9	-9	-9	-7.9	-1.6	
22-Mar-04	-7	-4	-5	-5	-5	-6	-6	-6	-6	-5	-4	-3	-2	-1	0	2	1	1	-1	-2	-3	-4	-5	-5	-3.4	1.7	
23-Mar-04	-6	-7	-8	-9	-9	-9	-10	-9	-5	0	3	5	7	9	10	10	9	8	7	6	4	4	3	3	0.7	10.2	
24-Mar-04	2	1	1	-1	-1	-1	-1	1	5	7	7	7	7	9	11	11	5	-2	-6	-9	-11	-12	-13	-14	0.1	11.0	
25-Mar-04	-15	-16	-17	-18	-18	-18	-18	-18	-17	-16	-13	-10	-8	-7	-6	-5	-4	-4	-4	-6	-7	-8	-8	-9	-11.3	-3.5	
26-Mar-04	-10	-10	-10	-10	-11	-11	-11	-8	-5	-2	-2	-1	0	1	2	2	3	2	2	1	1	0	0	0	-3.2	3.4	
27-Mar-04	-1	-1	-1	-1	-1	-1	-1	-1	0	0	1	1	1	1	1	2	3	4	5	5	5	4	4	3	3	1.5	5.0
28-Mar-04	2	2	2	2	2	1	1	2	5	6	7	8	9	10	12	12	12	11	10	7	6	6	5	4	6.0	12.3	
29-Mar-04	2	0	2	1	0	0	0	0	4	6	8	12	13	12	13	15	17	17	17	15	16	14	14	12	8.8	17.0	
30-Mar-04	12	12	12	12	10	10	9	10	10	6	6	9	10	11	11	11	10	9	8	5	4	4	3	3	8.7	12.5	
31-Mar-04	3	2	1	1	1	0	0	1	2	2	3	4	5	5	6	6	6	6	5	3	2	1	1	0	2.8	6.3	
Hourly Avg	-3.6	-3.8	-3.9	-4.1	-4.4	-4.5	-4.6	-4.4	-3.1	-2.0	-0.8	0.3	1.1	1.6	2.5	2.9	2.6	1.7	0.5	-0.6	-1.5	-2.2	-2.5	-3.1			
Hourly Max	12.5	12.0	12.0	12.3	10.0	9.9	9.5	10.0	10.2	6.9	9.0	11.5	12.6	12.3	13.5	15.1	16.9	17.0	16.8	15.4	16.1	14.0	13.7	12.2			

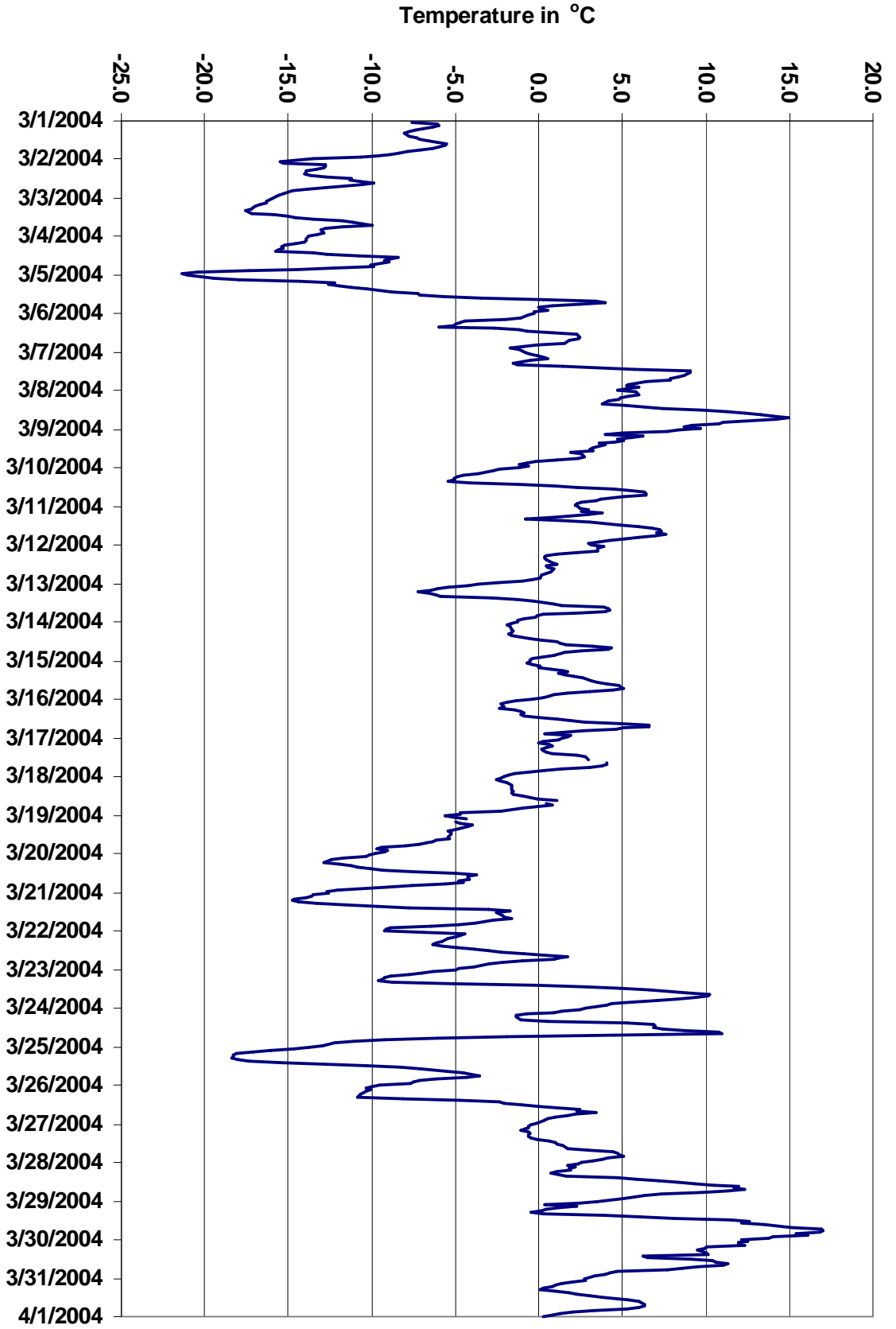


Figure 18. PASZA - Henry Pirkler Temperature 1-hr Average Monthly Trend

Station: Henry Pirker

**HOURLY AVERAGE TABLE**

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

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004

**Summary**

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	692.0	W/m <sup>2</sup>	31-Mar	12:00 13:00
Maximum 24-hr Average:	226.8	W/m <sup>2</sup>	31-Mar	

AIC Time:	0 hrs		Operational Time:	738 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	99.2%				
Percentile	99	95	75	50	25	5	1	Average
	645.1	531.7	229.7	3.0	0.0	0.0	0.0	127.0 ppb

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00		
1-Mar-04	0	0	0	0	0	0	0	2	35	71	133	189	274	269	258	161	98	39	4	0	0	0	0	0	64	274
2-Mar-04	0	0	0	0	0	0	0	1	22	71	152	340	423	412	427	255	126	58	6	0	0	0	0	0	96	427
3-Mar-04	0	0	0	0	0	0	0	3	48	112	211	270	316	342	307	260	216	79	6	0	0	0	0	0	91	342
4-Mar-04	0	0	0	0	0	0	0	2	50	160	261	383	516	535	483	393	270	129	13	0	0	0	0	0	133	535
5-Mar-04	0	0	0	0	0	0	0	2	39	112	166	225	278	301	474	414	221	88	7	0	0	0	0	0	97	474
6-Mar-04	0	0	0	0	0	0	0	4	61	134	210	429	543	548	512	414	248	145	17	0	0	0	0	0	136	548
7-Mar-04	0	0	0	0	0	0	0	9	116	261	390	486	530	525	502	322	109	45	12	0	0	0	0	0	138	530
8-Mar-04	0	0	0	0	0	0	0	5	38	80	146	366	308	330	359	259	300	123	10	0	0	0	0	0	97	366
9-Mar-04	0	0	0	0	0	0	0	2	119	274	D	D	D	270	312	245	352	186	26	0	0	0	0	0	85	352
10-Mar-04	0	0	0	0	0	0	0	9	90	265	391	488	539	533	486	403	266	100	17	0	0	0	0	0	149	539
11-Mar-04	0	0	0	0	0	0	0	21	61	158	399	423	414	445	296	229	263	78	15	0	0	0	0	0	117	445
12-Mar-04	0	0	0	0	0	0	0	1	29	59	104	139	147	165	190	165	135	56	11	0	0	0	0	0	50	190
13-Mar-04	0	0	0	0	0	0	0	25	154	302	428	527	582	597	539	443	304	93	14	0	0	0	0	0	167	597
14-Mar-04	0	0	0	0	0	0	0	9	64	120	206	288	258	247	276	223	263	59	19	0	0	0	0	0	85	288
15-Mar-04	0	0	0	0	0	0	0	15	69	148	226	292	264	364	532	420	304	121	35	0	0	0	0	0	116	532
16-Mar-04	0	0	0	0	0	0	0	10	46	79	198	222	306	338	447	342	338	94	34	0	0	0	0	0	102	447
17-Mar-04	0	0	0	0	0	0	0	13	84	191	448	462	409	N	575	466	291	90	20	0	0	0	0	0	133	575
18-Mar-04	0	0	0	0	0	0	0	10	44	132	161	174	244	164	183	M	50	98	35	0	0	0	0	0	56	244
19-Mar-04	0	0	N	0	0	0	0	15	52	161	320	367	443	514	310	255	174	148	42	0	0	0	0	0	122	514
20-Mar-04	0	0	0	0	0	0	0	27	81	185	444	573	628	613	563	494	295	185	71	1	0	0	0	0	173	628
21-Mar-04	0	0	0	0	0	0	1	27	89	163	425	512	545	621	532	358	190	121	42	1	0	0	0	0	151	621
22-Mar-04	0	0	0	0	0	0	0	14	60	153	197	208	292	382	443	486	337	210	52	1	0	0	0	0	118	486
23-Mar-04	0	0	0	0	0	0	1	76	230	377	506	599	647	646	600	507	377	229	80	2	0	0	0	0	203	647
24-Mar-04	0	0	0	0	0	0	2	73	225	380	366	317	345	437	605	505	138	80	44	2	0	0	0	0	147	605
25-Mar-04	0	0	0	0	0	0	1	25	107	248	464	588	656	657	613	521	392	244	89	4	0	0	0	0	192	657
26-Mar-04	0	0	0	0	0	0	3	95	231	353	384	503	536	446	432	282	270	110	42	3	0	0	0	0	154	536
27-Mar-04	0	0	0	0	0	0	2	24	81	132	203	220	251	231	163	338	380	213	108	6	0	0	0	0	98	380
28-Mar-04	0	0	0	0	0	0	4	103	256	404	527	615	662	661	606	515	369	230	68	4	0	0	0	0	209	662
29-Mar-04	0	0	0	0	0	0	4	102	190	347	486	565	496	284	358	395	412	254	87	4	0	0	0	0	166	565
30-Mar-04	0	0	0	0	0	0	3	24	58	109	85	227	151	103	231	181	135	66	11	3	0	0	0	0	58	231
31-Mar-04	0	0	0	0	0	0	9	126	283	434	557	644	692	690	641	549	421	271	117	8	0	0	0	0	227	692
Hourly Avg	0	0	0	0	0	0	1	28	100	199	306	388	423	422	428	360	259	130	37	1	0	0	0	0		
Hourly Max	0	0	0	0	0	0	9	126	283	434	557	644	692	690	641	549	421	271	117	8	0	0	0	0		

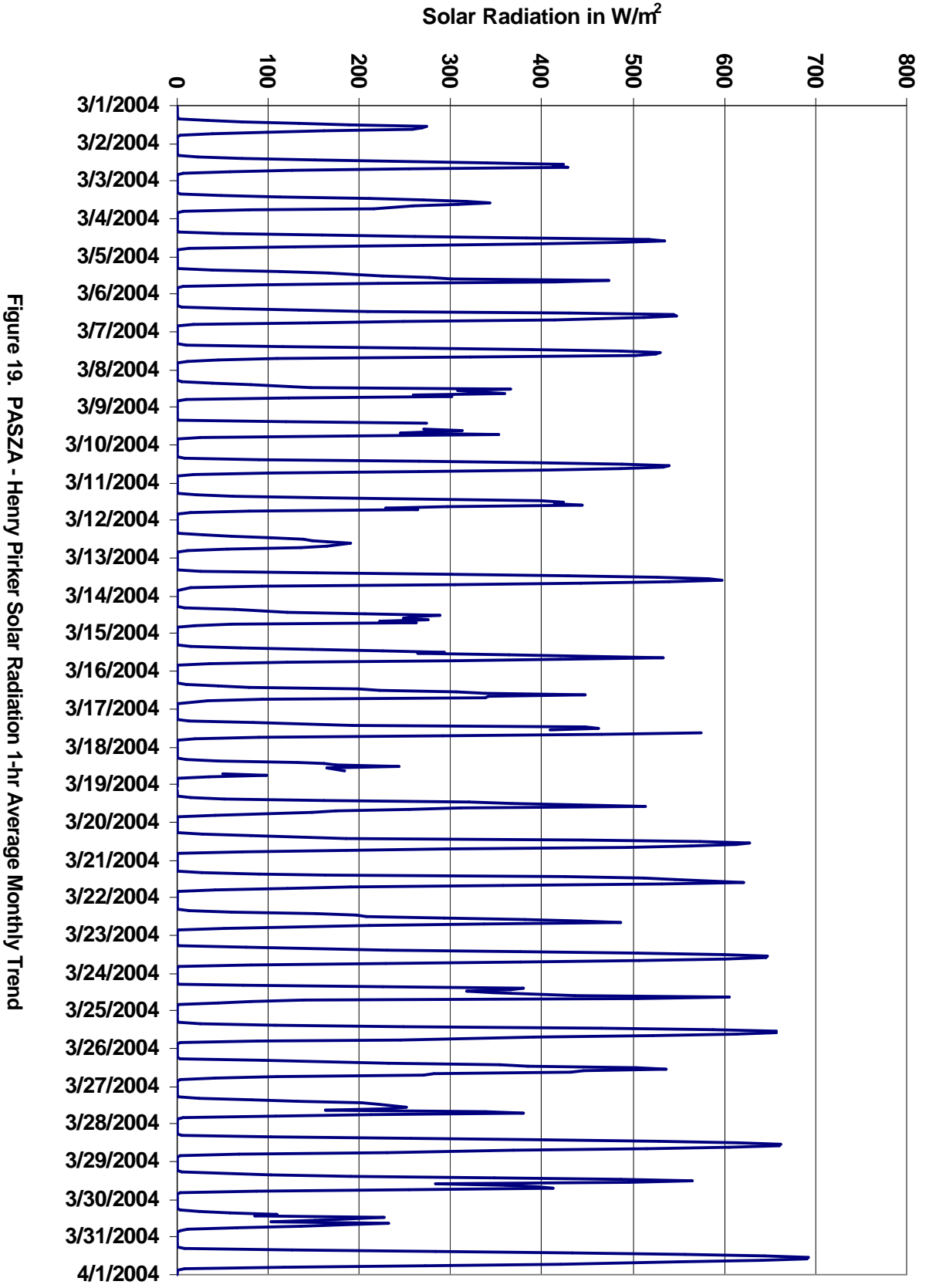


Figure 19. PASZA - Henry Pirkker Solar Radiation 1-hr Average Monthly Trend

Station: Henry Pirker

**HOURLY AVERAGE TABLE**

**Wind Speed (WS - Km/hr)**

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004  
Summary

Maximum 1-hr Average:	49.5	km/hr	9-Mar	10:00 11:00
Maximum 24-hr Average:	24.7	km/hr	9-Mar	

Calm Time:	0 hrs	0% calms	Operational Time:	741 hrs					
Calibration Time:	0 hrs		AMD Operational Uptime:	99.6%					
Percentile	99	95	75	50	25	5	1	AverageS	AverageV
	36.9	28.2	15.1	9.0	6.2	3.7	2.6	11.7 km/hr	5.2 km/hr

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								24-hr Scalar Average	24-hr Vector Average	Daily Max	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
1-Mar-04	4	6	9	7	5	5	6	6	6	8	9	9	10	9	10	8	7	7	6	4	2	4	4	3	6.3	4.4	9.9	
2-Mar-04	2	2	7	7	7	9	7	7	10	9	8	10	10	8	7	5	6	9	9	7	7	8	8	7	7.3	5.8	10.4	
3-Mar-04	6	6	7	8	7	8	9	9	10	10	12	13	14	12	11	12	9	8	7	8	8	8	7	6	8.9	8.4	14.1	
4-Mar-04	6	7	6	6	6	7	7	9	7	6	8	7	6	7	8	6	8	4	4	3	2	5	4	5	6.0	3.7	8.5	
5-Mar-04	4	4	2	5	4	4	4	4	5	7	5	8	7	5	5	5	14	17	10	7	10	16	19	23	8.0	5.1	23.0	
6-Mar-04	18	18	11	7	7	9	10	13	22	27	28	26	26	31	31	30	30	22	19	11	6	11	10	8	18.0	14.5	31.0	
7-Mar-04	9	10	12	12	9	9	8	12	10	7	23	36	39	40	38	36	35	20	20	20	23	29	26	22	21.1	14.7	40.3	
8-Mar-04	34	33	24	12	12	9	8	9	9	6	5	4	5	6	7	7	8	11	12	7	6	8	7	6	10.6	6.7	34.4	
9-Mar-04	8	5	6	16	28	35	35	29	34	43	50	47	40	22	8	20	35	27	25	16	14	17	19	15	24.7	23.1	49.5	
10-Mar-04	13	14	7	6	8	6	7	7	7	10	12	17	15	16	15	15	14	20	19	23	14	15	10	7	12.4	11.8	23.2	
11-Mar-04	9	11	10	22	21	17	11	6	8	10	16	23	23	22	14	11	13	19	13	14	7	5	5	5	13.2	11.8	23.3	
12-Mar-04	6	6	13	14	15	14	9	4	8	12	14	16	16	18	14	18	20	22	16	15	14	14	9	7	13.1	7.0	22.0	
13-Mar-04	5	4	3	4	3	4	5	4	4	8	8	6	7	6	8	7	6	6	4	7	8	9	9	14	6.1	1.8	13.5	
14-Mar-04	10	9	8	10	9	6	7	4	5	4	8	10	11	8	5	11	18	14	10	7	5	5	4	5	8.0	1.8	17.5	
15-Mar-04	6	8	7	6	9	20	31	22	24	31	35	37	29	31	37	34	28	27	26	28	26	22	18	16	23.3	22.8	37.1	
16-Mar-04	13	8	8	8	7	8	10	12	10	8	8	9	10	12	12	24	27	22	24	27	12	24	21	21	14.3	11.2	26.5	
17-Mar-04	22	16	15	21	25	23	21	24	24	24	20	21	N	17	14	10	5	4	4	4	9	9	8	11	16.0	11.2	24.6	
18-Mar-04	12	12	12	14	15	15	13	16	18	19	18	17	17	15	12	M	7	5	7	6	7	3	5	7	11.7	8.5	18.8	
19-Mar-04	8	7	N	8	7	12	16	16	17	19	20	22	22	22	21	19	18	15	11	9	9	11	10	10	14.2	14.1	22.5	
20-Mar-04	8	8	6	6	5	5	6	6	5	7	8	7	7	8	10	10	10	7	7	5	4	5	4	5	6.6	5.6	9.8	
21-Mar-04	5	6	5	4	5	6	5	6	5	5	3	6	7	10	9	7	7	6	4	4	4	4	3	3	5.5	4.9	9.8	
22-Mar-04	6	10	10	9	8	9	8	10	9	9	10	9	11	11	11	8	7	5	7	6	3	3	4	5	7.8	5.5	11.1	
23-Mar-04	4	5	5	4	3	3	3	5	4	3	4	5	6	7	11	16	22	23	22	22	15	14	12	8	9.5	8.2	22.7	
24-Mar-04	8	7	7	4	7	7	7	6	3	10	11	13	13	9	8	10	16	18	19	16	15	11	10	11	10.4	2.3	18.7	
25-Mar-04	12	13	13	12	10	10	10	12	13	12	11	9	9	9	9	9	9	8	6	7	5	5	6	4	9.3	7.5	13.3	
26-Mar-04	4	3	3	3	2	3	3	3	4	5	6	8	9	8	11	11	8	7	6	6	5	3	5	6	5.6	2.3	10.7	
27-Mar-04	5	6	9	8	13	11	13	13	15	16	16	18	18	17	17	18	15	8	8	23	23	23	20	18	14.6	13.5	22.9	
28-Mar-04	14	16	15	14	16	12	10	7	7	10	9	8	9	8	4	8	5	6	6	8	9	9	8	4	9.3	3.6	16.1	
29-Mar-04	5	4	6	4	5	4	4	3	5	5	6	5	6	6	5	8	12	13	12	12	13	9	9	7	6.9	5.2	12.9	
30-Mar-04	11	12	12	8	6	9	9	8	8	10	6	3	3	5	12	11	15	16	26	17	9	16	16	19	11.1	4.5	25.6	
31-Mar-04	26	22	21	21	25	23	25	30	31	33	32	30	29	26	27	27	26	25	20	13	12	13	14	11	23.4	23.1	33.3	
1-hr Scalar	9.8	9.6	9.4	9.4	9.9	10.4	10.6	10.4	11.2	12.6	14.0	14.8	14.7	13.8	13.3	14.1	15.0	13.6	12.5	11.7	9.9	10.9	10.1	9.6				
1-hr Vector	3.9	3.2	1.8	2.0	3.3	3.4	3.6	3.5	4.8	6.4	7.9	8.4	7.6	6.2	6.2	7.9	8.3	7.2	6.8	5.8	4.3	5.2	4.6	4.0				
Hourly Max	34.4	33.2	23.5	21.9	28.2	35.1	34.8	29.8	34.1	43.4	49.5	46.9	39.9	40.3	37.6	36.5	35.5	26.9	26.4	28.5	26.1	29.3	25.9	23.0				

Station: Henry Pirker

**HOURLY AVERAGE TABLE**

**Wind Direction (WD - Degrees)**

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004

**Summary**


Calm Time:	0 hrs	0% calms	Operational Time:	731 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	98.3%				
Percentile	99	95	75	50	25	5	1	Average
	351.0	300.8	243.2	113.6	63.9	46.0	12.7	70 deg

**Status Flag Characters**

C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average
1-Mar-04	153	230	241	241	237	236	247	249	246	260	268	249	233	245	235	253	252	230	236	234	171	137	151	123	237
2-Mar-04	155	229	256	274	312	311	267	257	232	231	238	243	249	247	245	235	243	239	233	241	258	265	267	251	249
3-Mar-04	243	241	242	250	259	247	242	246	239	240	251	249	247	237	236	239	242	261	247	235	234	234	244	250	244
4-Mar-04	257	280	93	144	113	117	120	123	100	90	83	83	90	87	147	138	148	251	247	233	88	130	122	130	119
5-Mar-04	105	134	289	244	244	122	103	103	31	296	337	116	137	358	354	133	59	57	53	51	49	46	55	60	58
6-Mar-04	67	74	72	108	114	116	119	127	76	62	55	54	63	57	55	55	52	52	44	12	298	311	302	299	59
7-Mar-04	284	274	296	306	285	297	294	318	346	46	51	59	57	60	72	79	69	88	73	76	83	72	75	100	60
8-Mar-04	72	67	73	43	51	34	12	331	10	353	314	297	269	260	269	301	15	50	26	357	38	339	318	300	31
9-Mar-04	2	133	144	63	72	52	51	59	60	67	73	78	87	111	118	59	70	64	74	73	57	56	65	64	69
10-Mar-04	53	62	100	55	69	94	90	91	77	55	57	50	42	52	57	58	45	48	54	62	63	68	50	49	59
11-Mar-04	51	55	27	53	75	79	76	88	58	61	63	52	51	48	52	60	66	58	55	65	48	189	309	288	57
12-Mar-04	239	261	269	251	235	249	250	124	139	134	141	145	146	140	115	111	110	107	104	79	62	62	86	93	128
13-Mar-04	S	S	S	S	S	S	S	S	S	S	70	96	83	84	69	98	119	229	278	269	254	260	255	254	N
14-Mar-04	256	245	254	256	250	246	235	249	246	321	47	52	73	93	91	123	131	117	102	110	94	79	31	356	129
15-Mar-04	9	29	358	22	38	54	51	45	46	50	50	50	52	55	55	54	54	59	61	50	51	57	63	53	51
16-Mar-04	46	50	52	62	77	43	58	54	36	4	326	303	297	318	348	58	63	55	59	80	96	77	54	64	51
17-Mar-04	68	59	53	51	52	51	53	52	52	51	54	65	92	N	111	137	126	120	90	251	248	270	252	248	64
18-Mar-04	250	249	242	243	245	251	250	249	245	246	242	242	242	238	240	M	274	75	73	91	117	99	97	92	241
19-Mar-04	123	114	N	113	100	111	114	112	112	108	107	106	103	101	105	104	108	113	116	124	121	119	110	111	110
20-Mar-04	110	105	88	93	94	99	114	119	110	100	85	82	95	141	142	143	149	124	123	142	148	119	124	125	116
21-Mar-04	113	129	128	107	102	128	127	113	128	68	96	82	125	145	138	132	98	122	134	146	135	105	124	105	120
22-Mar-04	229	237	235	234	238	230	236	231	233	235	238	240	238	244	235	248	285	232	148	128	99	113	139	134	227
23-Mar-04	115	125	100	131	142	153	119	131	109	87	96	76	80	77	61	55	52	57	54	54	51	38	34	29	63
24-Mar-04	30	64	39	26	352	325	317	324	27	57	61	69	72	81	99	123	247	272	278	313	111	246	272	266	10
25-Mar-04	235	233	233	234	239	232	236	248	247	246	249	246	243	248	256	259	246	247	271	256	268	96	148	136	240
26-Mar-04	102	137	175	311	325	224	159	195	8	108	138	132	140	248	242	240	250	257	240	241	238	210	142	119	207
27-Mar-04	97	91	89	104	94	102	100	98	99	100	99	101	105	109	104	95	98	96	44	63	53	53	53	51	85
28-Mar-04	47	46	53	69	73	49	76	82	39	48	51	85	96	104	112	248	257	246	250	258	267	267	254	253	55
29-Mar-04	267	281	276	238	226	197	295	0	287	294	78	257	267	248	248	237	246	247	250	267	282	278	283	271	263
30-Mar-04	308	309	310	288	295	301	272	293	358	108	109	116	47	117	122	139	118	79	68	85	38	47	47	55	54
31-Mar-04	66	54	54	59	64	60	53	56	56	59	62	66	57	58	60	62	71	66	55	48	48	47	48	45	59
Hourly Avg	62	65	39	56	71	62	68	69	64	66	67	73	80	81	84	84	79	73	65	65	62	56	56	65	

Station: Henry Pirker

**STANDARD DEVIATION TABLE**

**Wind Direction (WD - Degrees)**

Station Owner: PASZA

Monitoring Dates: March 1, 2004 to April 1, 2004  
 Summary

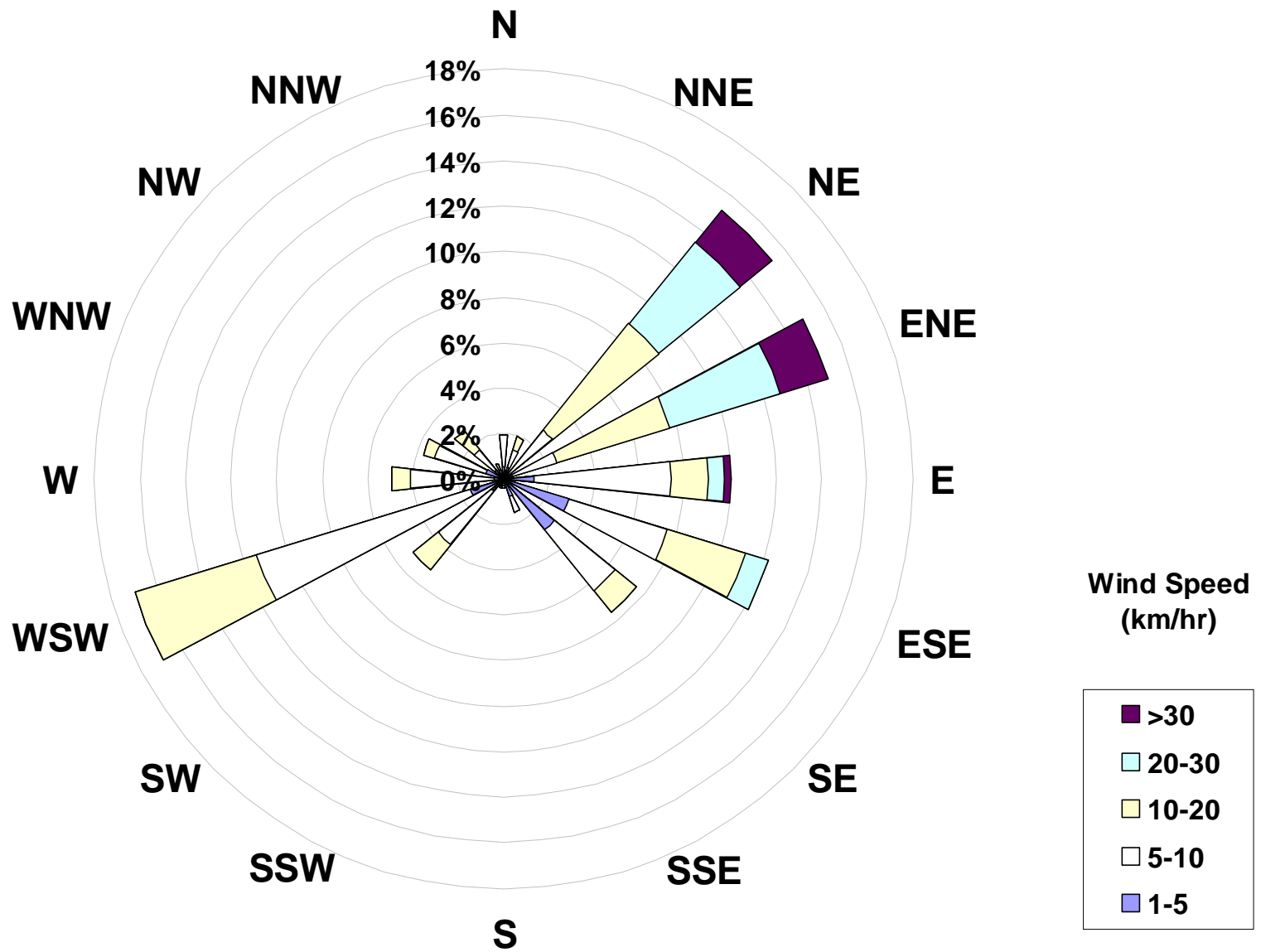

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	731 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	98.3%			
Percentile	99	95	75	50	25	5	1
	73.1	55.7	22.6	9.5	5.5	3.7	3.0

Status Flag Characters			
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day	Mountain Standard Time																								Daily Maximum
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	
1-Mar-04	73	57	27	20	52	58	38	43	46	47	52	43	17	41	25	51	52	20	41	49	47	8	36	16	73.1
2-Mar-04	26	45	37	68	61	65	42	53	22	15	26	20	11	21	36	79	32	11	11	11	9	8	9	10	78.8
3-Mar-04	11	15	11	9	15	12	9	7	7	9	10	8	8	12	12	11	33	43	38	31	17	27	40	43	43.2
4-Mar-04	56	68	70	32	9	7	7	7	9	10	3	9	9	8	32	33	47	77	55	38	71	27	14	21	76.5
5-Mar-04	36	39	53	54	53	58	39	61	42	13	20	10	17	33	22	53	29	4	10	11	15	6	6	4	61.0
6-Mar-04	5	5	7	8	9	8	13	8	9	4	3	4	6	5	4	4	3	4	5	7	29	5	6	7	29.0
7-Mar-04	8	9	7	8	8	8	7	4	11	15	6	5	4	4	4	3	3	8	4	4	4	4	4	4	15.5
8-Mar-04	6	4	4	14	12	9	18	10	9	12	14	17	14	9	8	9	15	10	12	14	21	15	8	13	21.4
9-Mar-04	31	34	39	7	5	4	3	7	4	4	5	4	4	19	64	25	5	6	3	5	10	4	4	4	64.5
10-Mar-04	9	6	43	12	11	9	10	9	8	6	11	5	7	6	6	6	6	4	5	5	9	7	7	12	42.9
11-Mar-04	8	6	11	5	4	4	6	23	8	10	6	4	4	5	6	5	9	5	10	11	27	47	19	24	47.2
12-Mar-04	29	41	38	33	13	5	8	28	10	6	4	5	7	6	7	5	4	4	4	5	5	5	7	6	41.3
13-Mar-04	S	S	S	S	S	S	S	S	S	S	S	14	16	9	7	18	40	79	63	37	7	6	6	6	79.2
14-Mar-04	6	6	8	7	24	21	16	42	33	25	12	11	11	11	12	12	7	6	9	9	16	30	39	12	41.5
15-Mar-04	15	7	8	12	8	6	4	4	5	3	3	3	4	4	4	4	4	4	6	4	3	4	4	7	14.7
16-Mar-04	8	8	11	9	13	14	8	6	8	11	11	12	14	10	13	6	4	4	5	12	8	7	4	4	13.9
17-Mar-04	4	5	3	3	3	3	3	3	3	4	5	8	5	N	6	12	15	42	31	42	8	7	6	5	42.2
18-Mar-04	4	4	5	5	5	6	6	5	6	6	6	7	7	8	36	M	16	44	15	14	14	56	41	11	55.6
19-Mar-04	7	8	N	8	8	5	4	4	4	5	5	5	5	5	6	5	6	6	5	6	9	5	6	5	8.7
20-Mar-04	6	7	6	6	7	11	8	12	10	7	11	7	14	23	17	12	33	73	60	41	25	7	9	8	73.2
21-Mar-04	6	8	6	16	16	13	9	13	12	14	26	23	14	28	13	12	12	14	26	57	14	13	12	18	56.5
22-Mar-04	42	28	16	14	16	17	25	18	16	22	15	40	20	16	14	46	71	80	38	10	47	37	29	16	80.5
23-Mar-04	24	19	12	11	17	37	18	11	13	17	19	13	5	8	8	6	4	5	4	4	4	5	4	7	36.8
24-Mar-04	9	9	14	23	6	5	4	10	34	14	8	5	5	12	18	44	41	41	44	57	75	44	42	54	75.4
25-Mar-04	20	15	15	20	14	19	16	9	11	12	15	22	33	42	44	54	33	41	56	45	73	70	14	31	73.0
26-Mar-04	17	16	50	26	48	49	41	57	56	50	48	46	64	36	15	17	41	42	34	31	26	74	52	12	73.6
27-Mar-04	10	7	7	7	4	4	4	3	4	3	4	3	4	4	5	4	6	10	12	4	3	3	3	3	12.1
28-Mar-04	4	4	4	4	4	7	9	14	9	7	13	11	10	28	65	45	34	12	9	7	4	4	9	59	64.8
29-Mar-04	29	42	14	43	43	56	55	74	38	25	23	42	50	42	57	49	5	4	4	4	4	8	5	9	73.5
30-Mar-04	6	5	6	14	9	6	6	8	19	12	40	60	23	18	6	24	7	9	7	5	10	5	4	5	59.9
31-Mar-04	4	3	4	5	4	4	4	5	5	6	6	9	7	10	7	8	7	7	6	5	5	3	3	6	10.2
Hourly Max	73	68	70	68	61	65	55	74	56	50	52	60	64	42	65	79	79	80	60	57	75	74	52	59	

### Wind Rose for the 1-hr Average Meterological Data at the Henry Pirker Site for March 2004





## PEACE AIRSHED ZONE ASSOCIATION

# PASZA Monthly Passive Data Summary

**Table 1. PASZA Passive Stations for March 2004**

Station Number	Station Name	SO <sub>2</sub> ppb	O <sub>3</sub> ppb	NO <sub>2</sub> ppb	Site Legal
<b>Duplicates</b>					
9a	Spirit River	0.4	46.2	1.1	
9b	Spirit River	0.3	47.2	1.6	
19a	Wanham	0.4	44.5	0.8	
19b	Wanham	0.1	49.3	0.9	
21a	Eaglesham	0.3	49.3	0.4	
21b	Eaglesham	0.3	45.4	0.5	
49a	Grande Prairie HP	0.4	38.1	9.4	
49b	Grande Prairie HP	0.5	35.3	9.0	
1	Silver Valley	0.5	46.5	0.9	08-27-081-11 W6M
2	Bay Tree	0.4	41.8	0.6	13-16-078-13 W6M
3	Forth Creek	0.4	41.6	0.6	04-13-082-07 W6M
4	Gordondale	0.4	40.6	1.0	04-34-078-10 W6M
5	Boone Creek	0.4	45.0	1.0	01-23-076-11 W6M
7	Steeprock Creek	0.4	44.7	0.6	09-35-072-13 W6M
9	Spirit River	0.4	46.7	1.4	08-12-079-07 W6M
10	Woking	0.5	47.0	0.8	01-13-076-07 W6M
11	Webber Creek	0.5	53.9	0.9	09-36-074-09 W6M
12	Hythe	0.3	47.5	1.5	14-36-072-11 W6M
14	Sylvester	0.1	38.9	0.7	08-06-069-12 W6M
16	Beaverlodge	0.5	46.0	2.4	15-36-071-10 W6M
17	Poplar	0.4	42.9	1.5	13-06-073-08 W6M
18	Saddle Hills	0.5	46.6	1.2	04-25-074-07 W6M

**Table 1. PASZA Passive Stations for March 2004  
(Continued)**

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
19	Wanham	0.2	46.9	0.8	16-22-077-03 W6M
20	Shaftesbury	0.3	42.6	0.6	04-03-082-23 W5M
21	Eaglesham	0.3	47.3	0.4	16-21-079-25 W5M
23	Bear Lake	0.5	48.7	2.1	15-31-072-06 W6M
24	Wembley	0.4	48.4	1.7	12-31-070-08 W6M
25	Pinto Creek	0.2	41.3	1.1	04-24-069-11 W6M
26	Flyingshot	0.3	44.6	0.6	15-36-070-07 W6M
27	Grande Prairie 1	0.5	39.6	6.8	08-15-071-06 W6M
28	Clairmont Lake	0.3	48.5	1.0	09-06-073-04 W6M
29	Smoky Heights	0.6	52.2	0.5	04-06-075-02 W6M
30	Fitzsimmons	0.3	44.2	1.1	15-36-072-03 W6M
32	Gold Creek	0.4	38.9	1.6	06-33-067-05 W6M
33	Wapiti	0.4	40.8	1.4	02-25-071-03 W6M
34	Puskwaskau	0.2	52.1	0.5	15-35-074-25 W5M
35	Jean Cote	0.3	56.8	0.8	12-35-079-21 W5M
36	Guy	0.4	47.8	0.7	03-04-076-22 W5M
37	Crooked Creek	0.3	40.3	1.1	16-01-071-26 W5M
38	Karr Creek	0.3	40.4	2.4	10-16-065-02 W6M
39	Clouston Creek	0.3	45.0	0.9	12-01-073-22 W5M
40	McLennan	0.3	55.8	1.1	03-29-077-19 W5M
41	Valleyview	0.5	51.2	1.1	09-30-069-22 W5M
42	Sunset House	0.5	51.4	0.4	05-32-070-19 W5M
43	High Prairie	0.3	51.5	1.1	16-13-074-17 W5M
44	Peavine	0.2	48.8	0.5	03-05-079-15 W5M
45	Gift Lake	0.2	47.3	1.6	10-07-079-12 W5M
46	Little Smoky	0.5	45.8	3.3	12-01-065-21 W5M
47	Kinuso	0.2	52.3	1.2	12-10-073-10 W5M
48	Deer Mountain	0.4	46.5	0.6	15-22-068-09 W5M
49	Grande Prairie 2	0.5	36.7	9.2	17-26-071-06 W6M

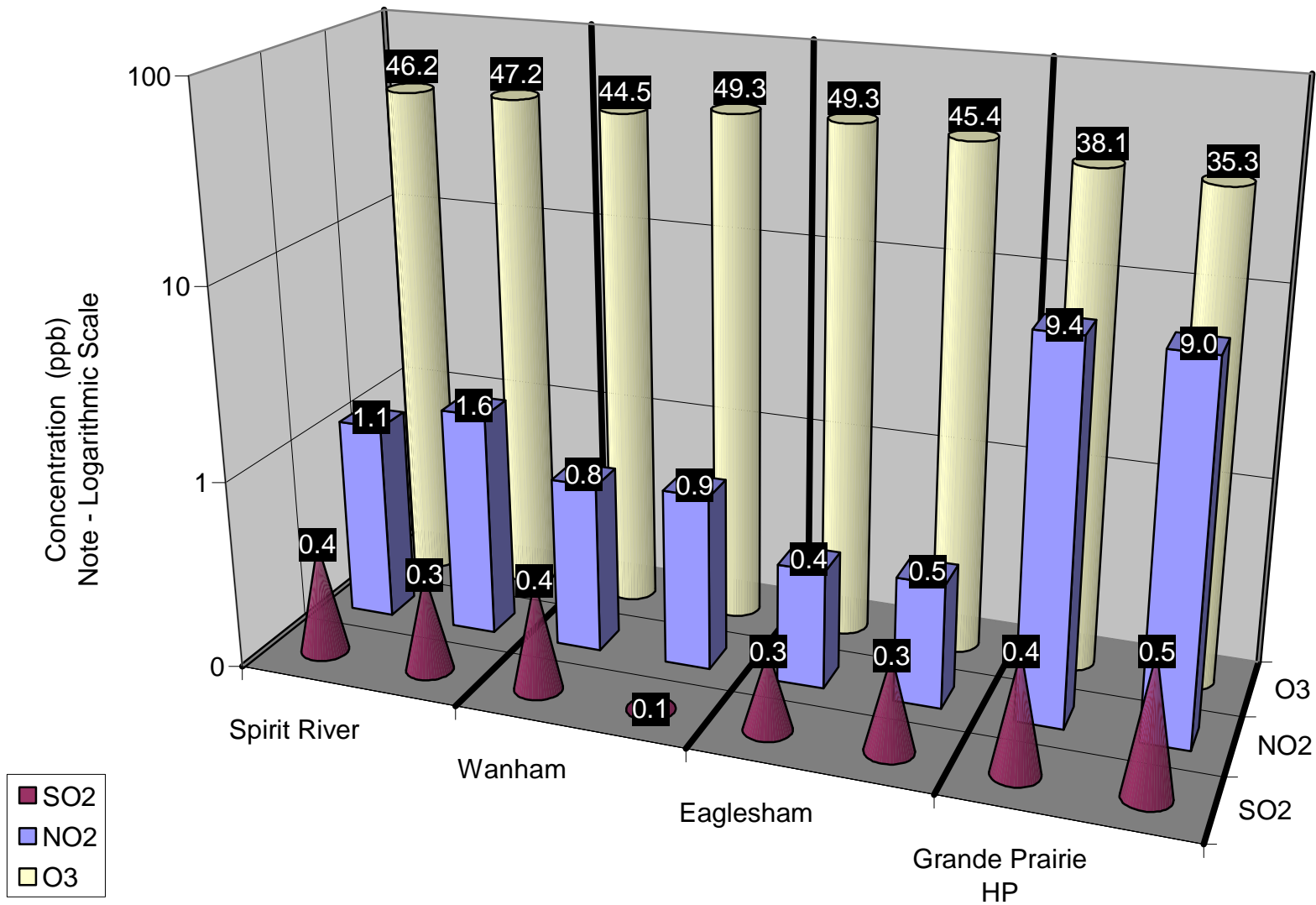
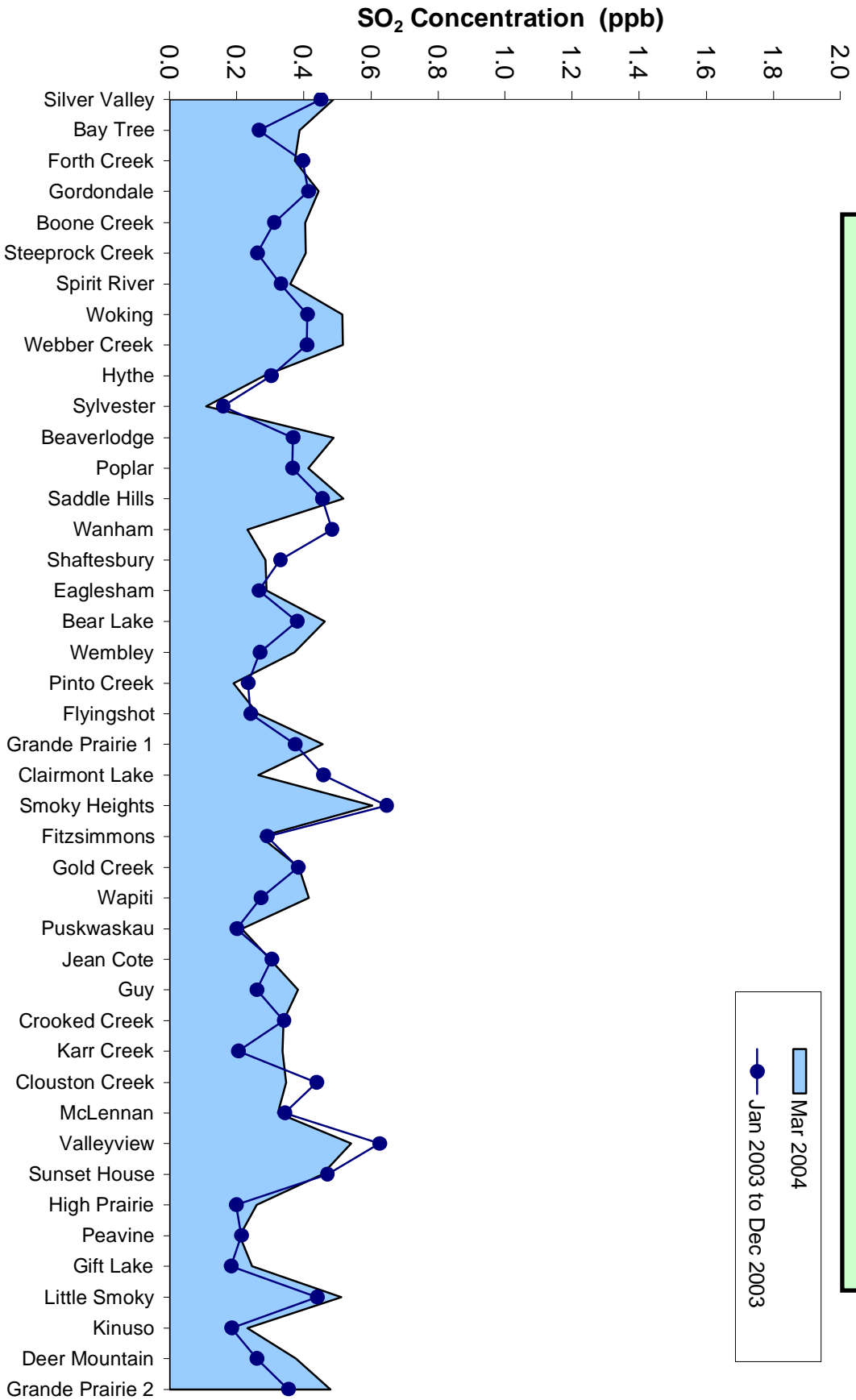


Figure 20. Duplicate Summary Chart

**Table 2. Passive Summary Results for March 2004**

Stats	Sulphur Dioxide SO <sub>2</sub>	Ozone O <sub>3</sub>	Nitrogen Dioxide NO <sub>2</sub>
	ppb	ppb	ppb
<b>Passive Summary for March 2004 (PASZA Zone)</b>			
<b>Mean</b>	<b>0.4</b>	<b>46.1</b>	<b>1.4</b>
<b>Standard Deviation</b>	<b>0.1</b>	<b>4.7</b>	<b>1.6</b>
<b>Minimum</b>	<b>0.1</b>	<b>36.7</b>	<b>0.4</b>
	<b>Sylvester (#14)</b>	<b>Grande Prairie 2 (#49)</b>	<b>Sunset House (#42)</b>
<b>Maximum</b>	<b>0.6</b>	<b>56.8</b>	<b>9.2</b>
	<b>Smoky Heights (#29)</b>	<b>Jean Cote (#35)</b>	<b>Grande Prairie 2 (#49)</b>
<b>Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16)</b>			
	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
<b>AENV Beaverlodge station</b>	<b>0.7</b>	<b>38.8</b>	<b>6.1</b>
<b>PASZA Beaverlodge passive</b>	<b>0.5</b>	<b>46.0</b>	<b>2.4</b>
<b>Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49)</b>			
	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
<b>PASZA Henry Pirker station</b>	<b>1.1</b>	<b>31.8</b>	<b>12.2</b>
<b>PASZA Grande Prairie passive</b>	<b>0.5</b>	<b>36.7</b>	<b>9.2</b>





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

Figure 22. SO<sub>2</sub> Summary Chart

PASZA Passive O<sub>3</sub> Stations - March 2004  
Average Concentrations in ppb

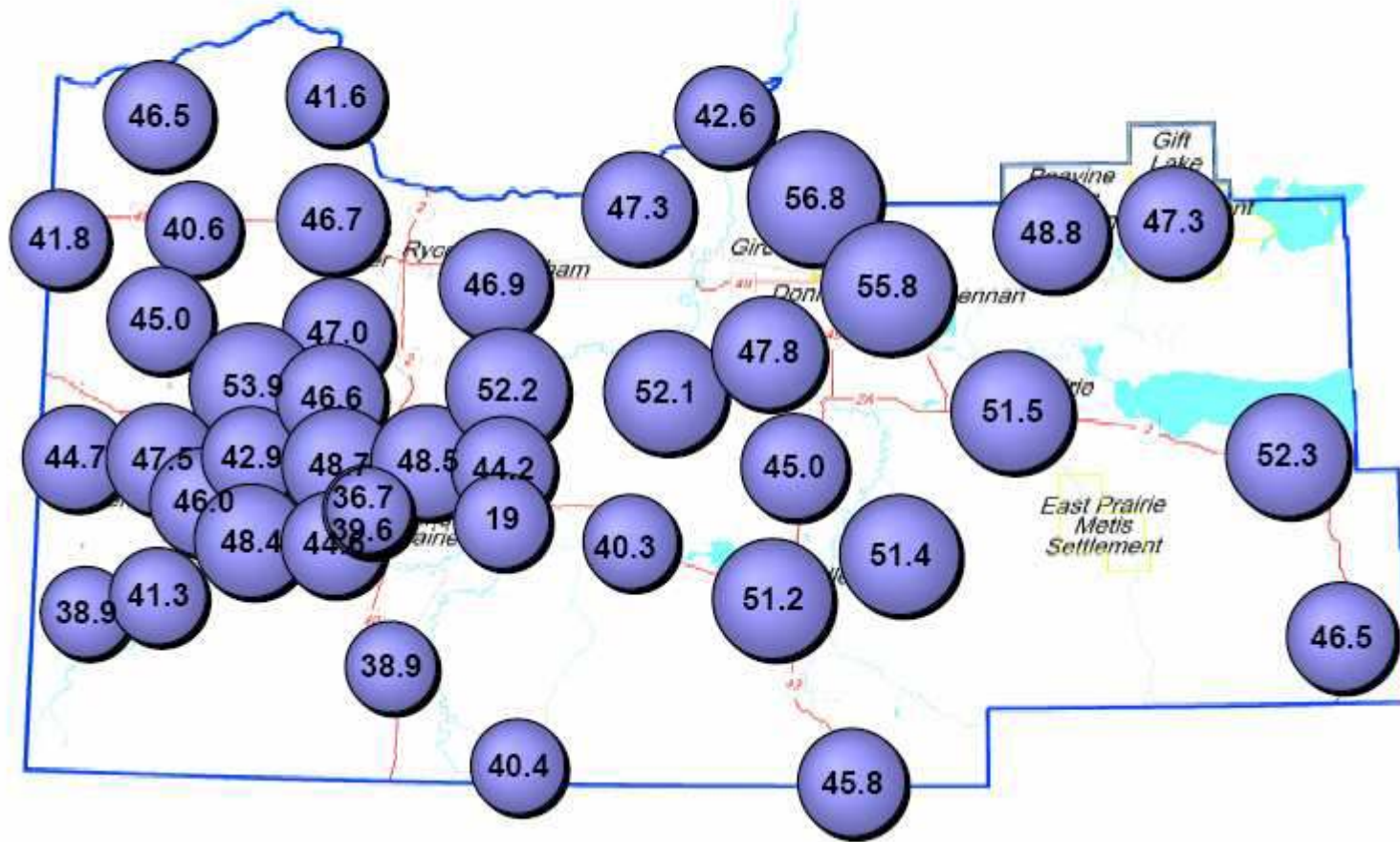


Figure 23. O<sub>3</sub> Bubble Chart

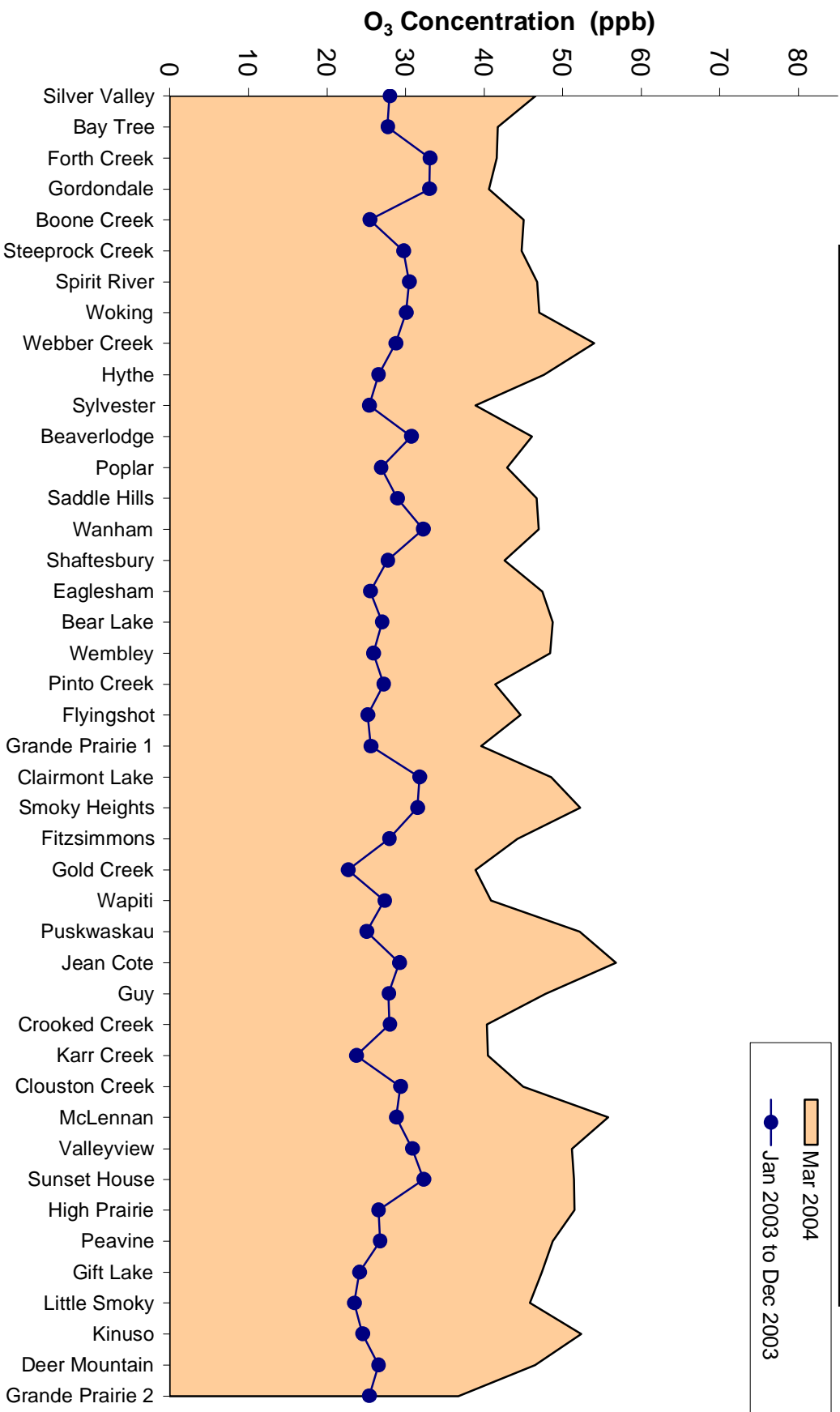


Figure 24. O<sub>3</sub> Summary Chart

Alberta Ambient Air Quality Guidelines - No Annual O<sub>3</sub> Guideline







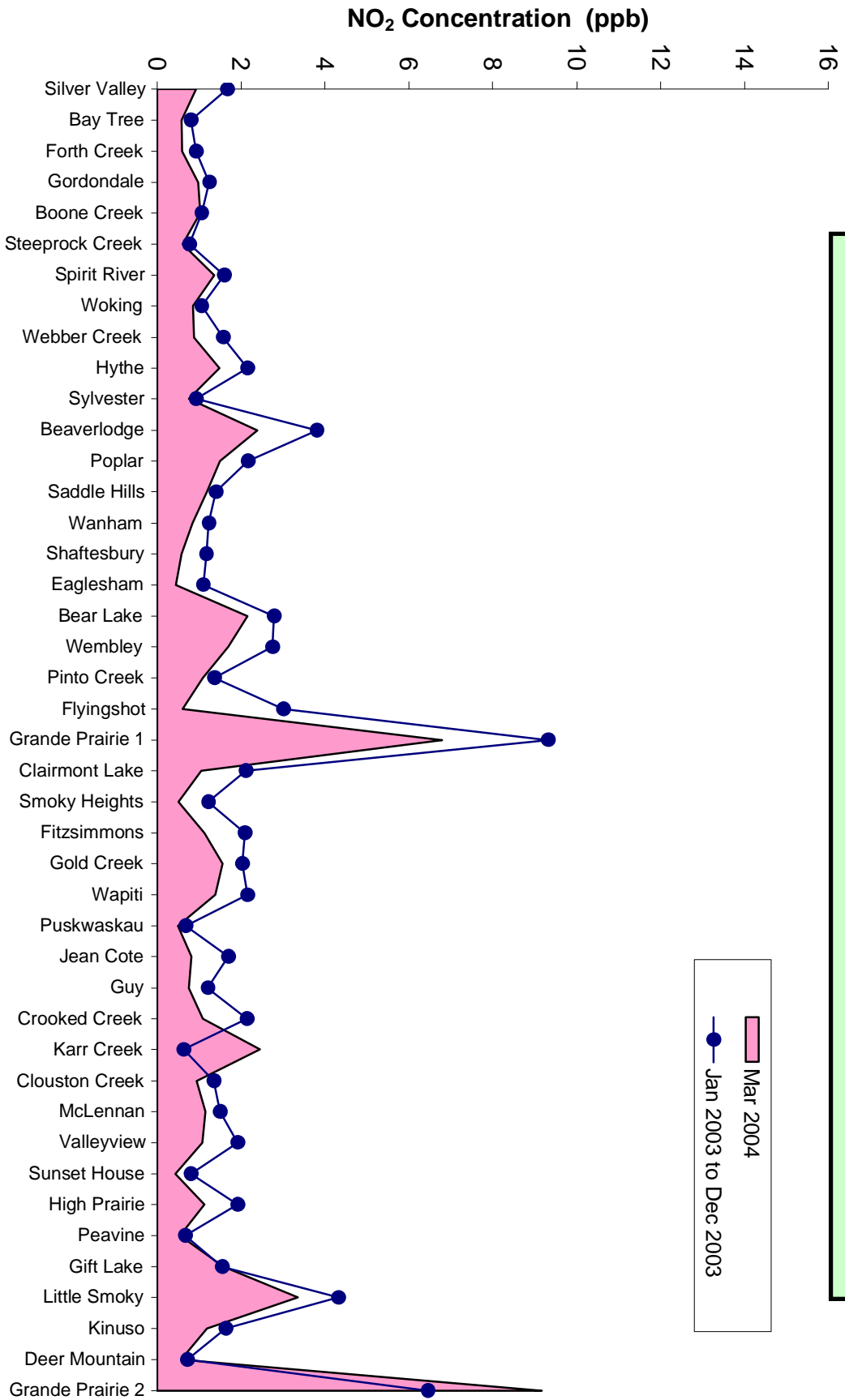


Figure 26. NO<sub>2</sub> Summary Chart

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

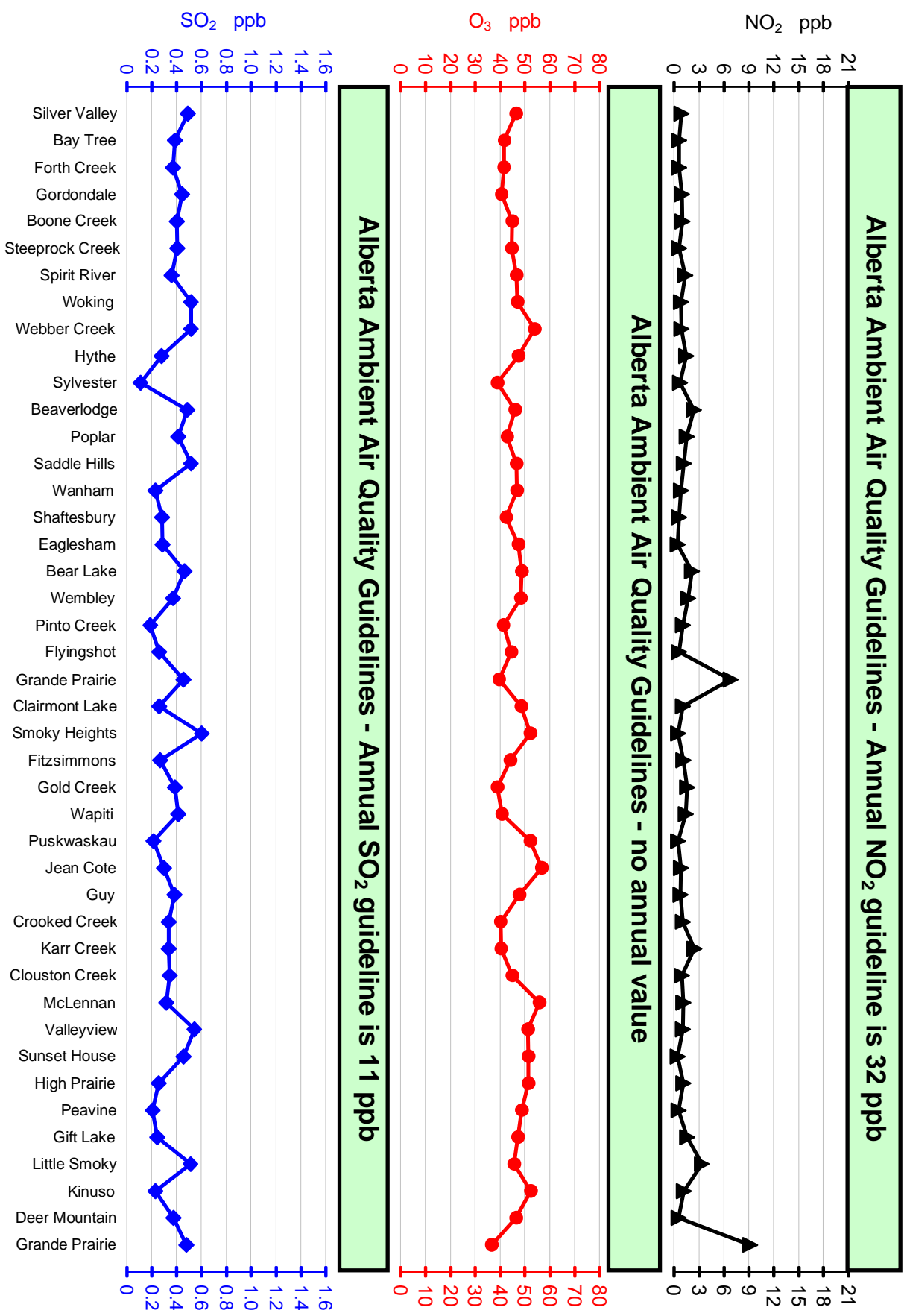


Figure 27. Overview Summary

## **March 2004 Calibration Reports**

**PASZA - Henry Pirker Station with the following calibrations:**

**SO<sub>2</sub>, NO, NO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>, CO, THC, TRS**

**Calibration Report**Parameter SO2Air Monitoring Network PASZA**Station Information**

Calibration Date	March 17, 2004	Previous Calibration	February 25, 2004
Station Number	1	Station Location	Muskoseepi Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	19:20	End Time (MST)	23:25
Barometric Pressure	27.6 inches Hg	Station Temperature	21.0 Deg C
Calibrator	VICI Metronics	Serial Number	NA
Perm-tube Conc	2,995 ng/min	Perm-tube Expiry Date	12/10/2005
Correction factor	0.935010	Perm-tube Cert #	NA
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 10 volt	DACS channel #	8
	<u>Before</u>		<u>After</u>
DACS slope	0.005000	DACS slope	0.005000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	1.011295	Calculated slope	1.002541
Calculated intercept	-2.070660	Calculated intercept	0.157999
Analyzer make	TEI Model 43	Analyzer serial #	43-16099-159

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
SO2 zero pot	651		699	
SO2 span pot	636		649	
Vacuum	10.1	in Hg	10.2	in Hg

**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)
zero	2847.1	0.0	-1.5	N/A
3045	2847.1	401.5	399.6	1.0048
5755	5381.0	212.5	212.1	1.0017
10150	9490.4	120.5	121.8	0.9893
zero	2847.1	0.0	-1.4	As Found Zero
3045	2847.1	401.5	407.1	As Found Span
Average Correction Factor				0.9986

Calculated value of As Found Response: 411.0 ppm Percent Change of As Found: -2.4%

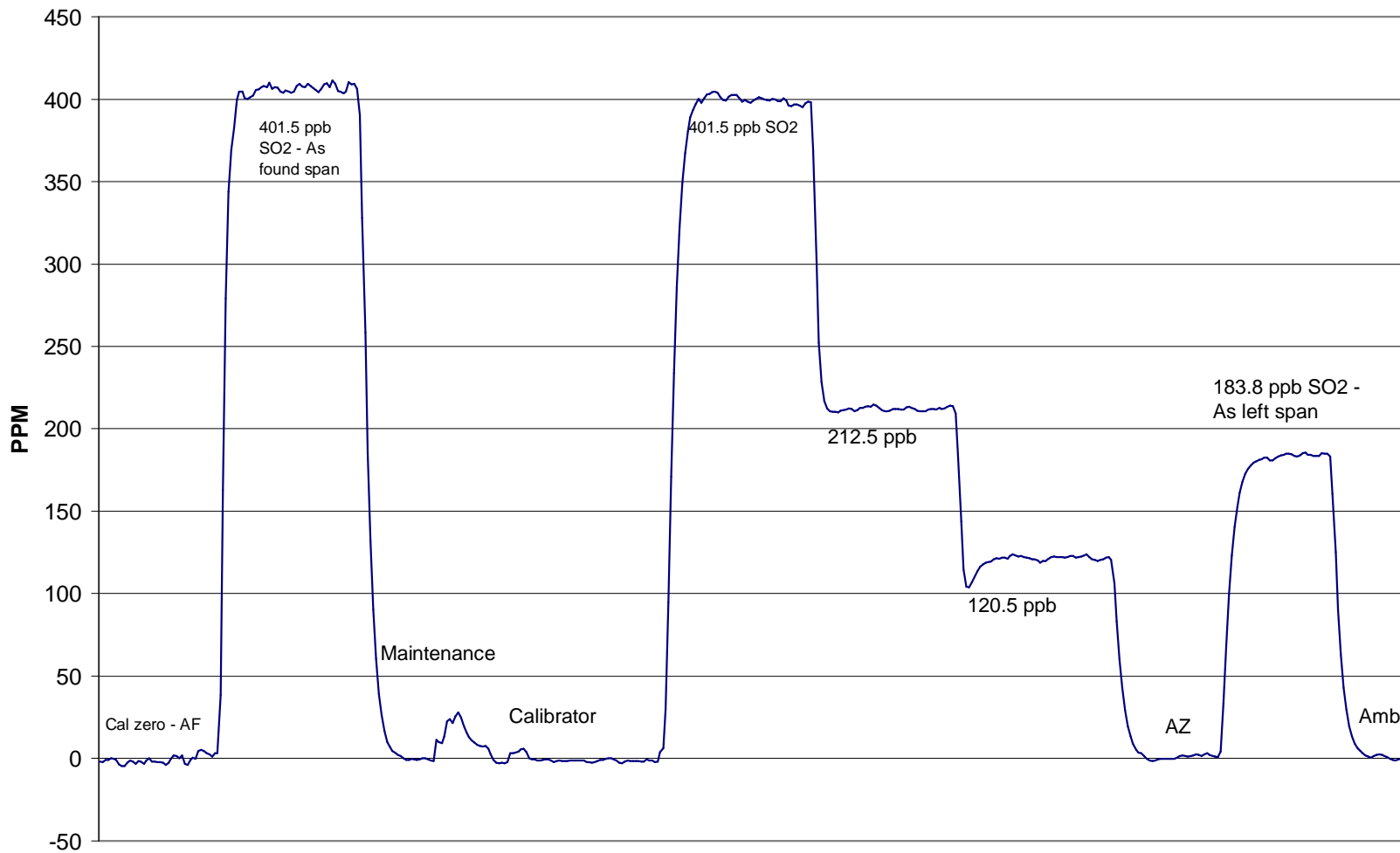
	before calibration		after calibration	
Auto zero	1.6	ppm	0.6	ppm
Auto span	218.1	ppm	183.8	ppm

Notes: After as found located time constant switch setting; noted the constant switch was too fast.  
Zero and span adjustments performed; some noise reduction evident after switch selection changed.

Calibration Performed By: Kelly Baragar



### SO2 Calibration



March 17, 2004

# Calibration Report

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



## Station Information

Calibration Date March 18 2004 Previous Calibration February 25 2004  
 Station Number 1 Station Location Muskoseepi Park

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

Start Time (MST) 10:15 End Time (MST) 16:45  
 Barometric Pressure 686.0 mmHg Station Temperature 22.0 Deg C  
 Calibrator Envionics 6100 Serial Number 3016  
 NO Cal Gas Conc 50.3 ppm Cal Gas Expiry Date 19-Jan-06  
 NOx Cal Gas Conc 50.3 ppm Cal Gas Serial # ALM025793

## DACS Information

DACS make FOCUS AP1000 DACS serial No. N/A

Parameter		NO2	NOx	NO
Before	DACS slope	0.050000	0.050000	0.050000
	DACS offset	0.000000	0.000000	0.000000
After	DACS slope	0.050000	0.050000	0.050000
	DACS offset	0.000000	0.000000	0.000000
Before	Data Slope	1.074983	1.056940	0.998806
	Data Offset	-1.006401	-1.598541	-0.634697
After	Data Slope	0.995928	0.995642	0.997077
	Data Offset	-0.003725	-2.914019	-2.833229
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

## Analyzer Information

Analyzer make/model TEI Model 42 Analyzer serial # NA

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO background	5.8	ppb	6.8	mV
NOx background	4.9	ppb	7.0	mV
NO coefficient	1.490		2.203	
NOx coefficient	0.944		0.995	
Chamber Temp	50.0	Deg C	50.0	Deg C
Cooler Temp	-3.4	Deg C	-3.4	Deg C
Converter Temp	341.0	Deg C	341.0	Deg C
Perm Temp	NA	Deg C	NA	Deg C
Pressure	22.2	mm Hg	22.9	mm Hg
Sample Flow	NA	ccm	NA	ccm

Notes: Before calibrating high point NO: 349, NO2: -18.3, NOX: 330 (SWITCHED TO 379 RIGHT AFTER ENTERING HIGH POINT FOR NO.)





## Calibration Summary

 Parameter           NO<sub>2</sub>          

 Air Monitoring Network                           PASZA                          

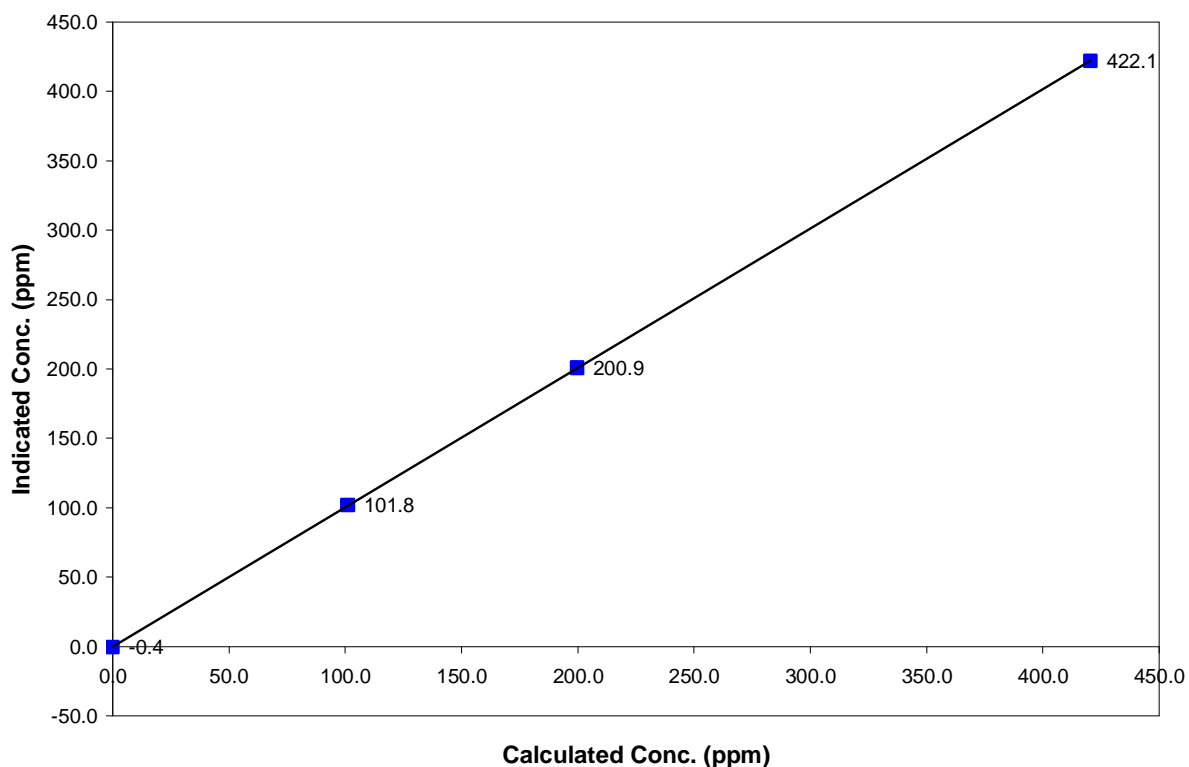

### Station Information

Calibration Date	March 18 2004	Previous Calibration	February 25 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	10:15	End Time (MST)	16:45
Analyzer make	TEI Model 42	Analyzer serial #	NA

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	0.0000	Correlation Coefficient	0.999995
101.1	101.8	0.9929		
199.7	200.9	0.9940		
420.6	422.1	0.9965		
			Slope	0.995928
			Intercept	-0.003725

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



## Calibration Summary

 Parameter NO<sub>x</sub>

 Air Monitoring Network PASZA

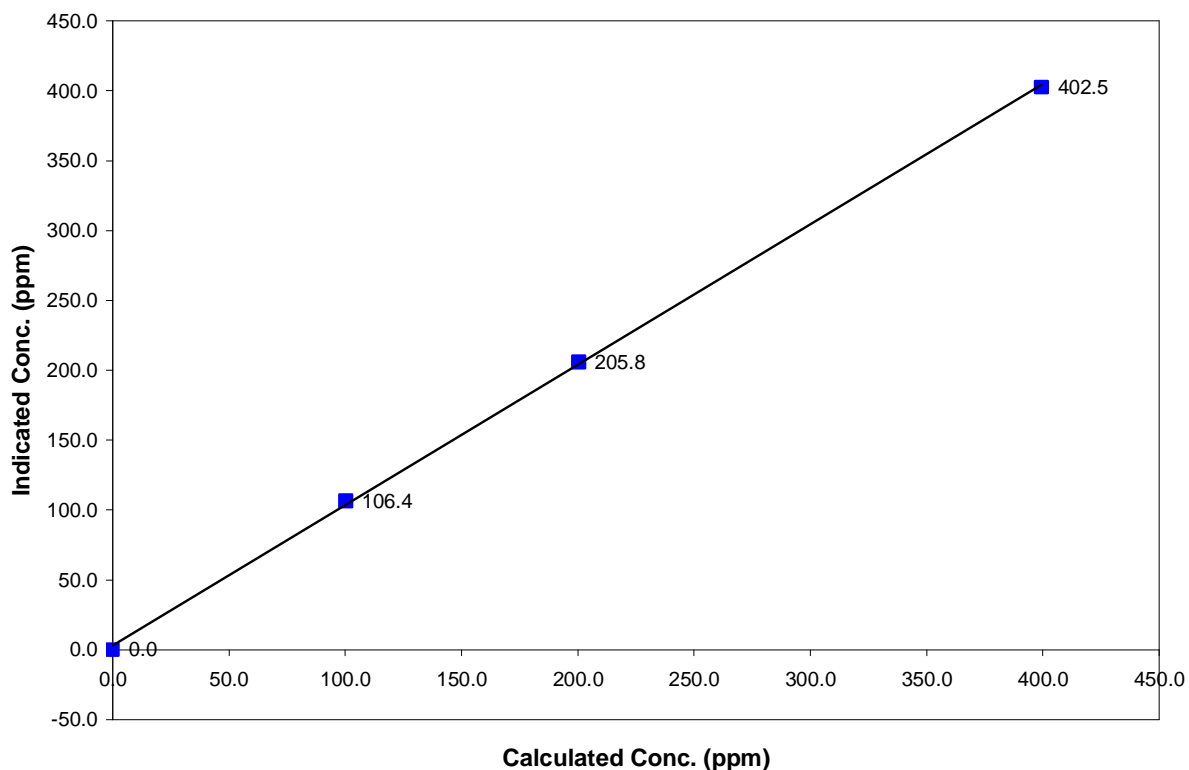

### Station Information

Calibration Date	March 18 2004	Previous Calibration	February 25 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	10:15	End Time (MST)	16:45
Analyzer make	TEI Model 42	Analyzer serial #	NA

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	0.0000		
399.5	402.5	0.9924	Correlation Coefficient	0.999743
200.4	205.8	0.9736		
100.1	106.4	0.9408	Slope	0.995642
			Intercept	-2.914019

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



## Calibration Summary

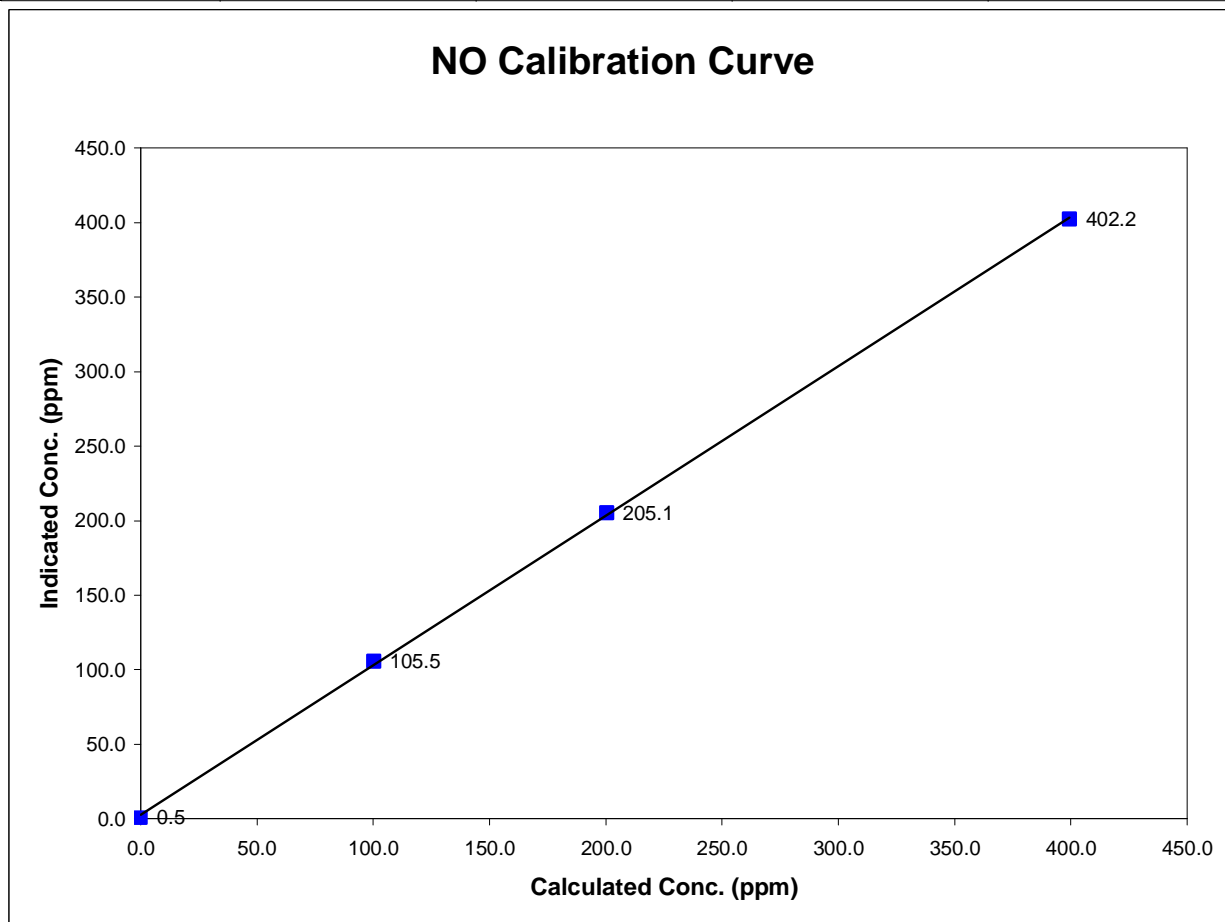
Parameter NOAir Monitoring Network PASZA

### Station Information

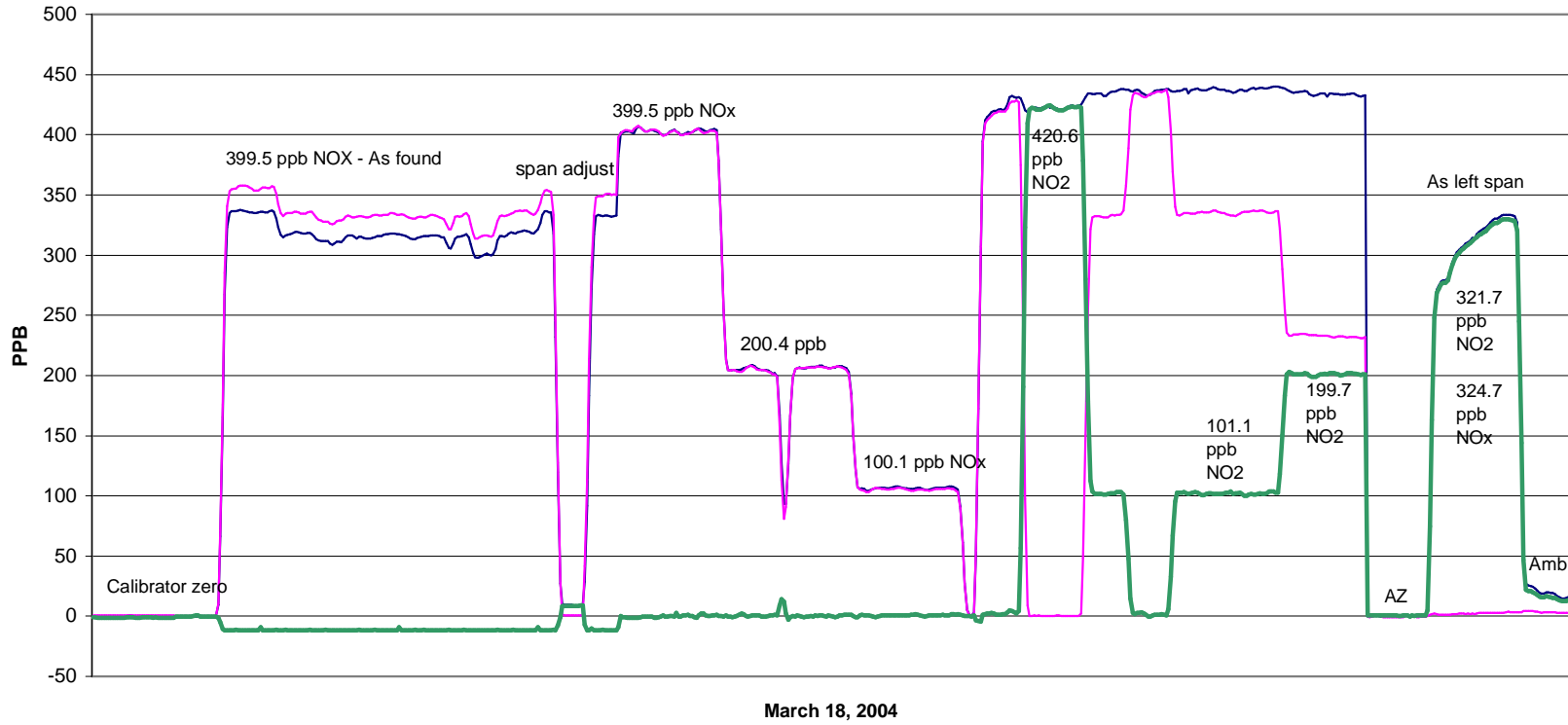
Calibration Date	March 18 2004	Previous Calibration	February 25 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	10:15	End Time (MST)	16:45
Analyzer make	TEI Model 42	Analyzer serial #	NA

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.5	N/A		
399.5	402.2	0.9932	Correlation Coefficient	0.999843
200.4	205.1	0.9768		
100.1	105.5	0.9490		
			Slope	0.997077
			Intercept	-2.833229



### NOx Calibration





## Calibration Summary

**FOCUS INTEC**  
Air Quality Monitoring

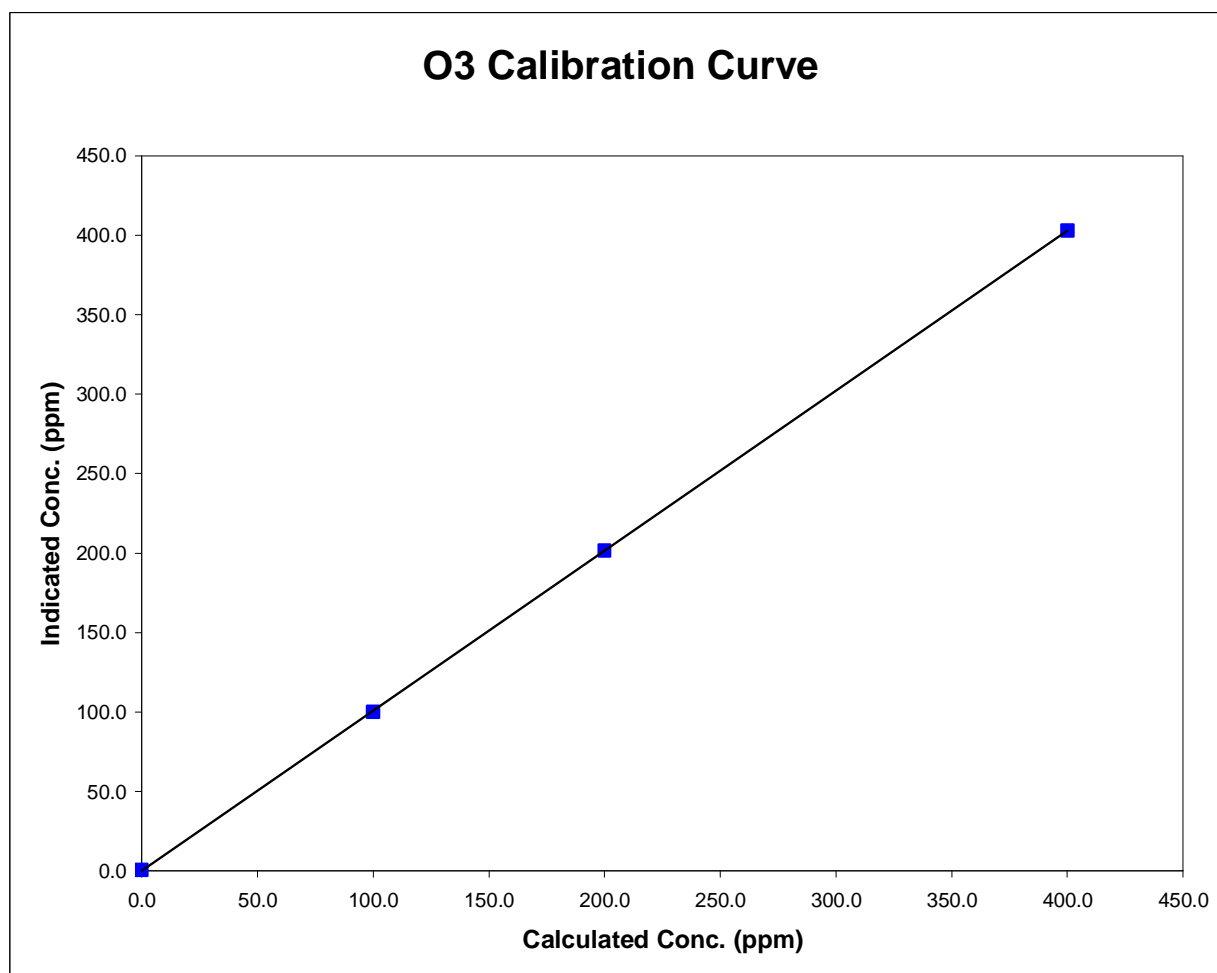
Parameter                     O3                      
Air Monitoring Network                                     PASZA                                    

### Station Information

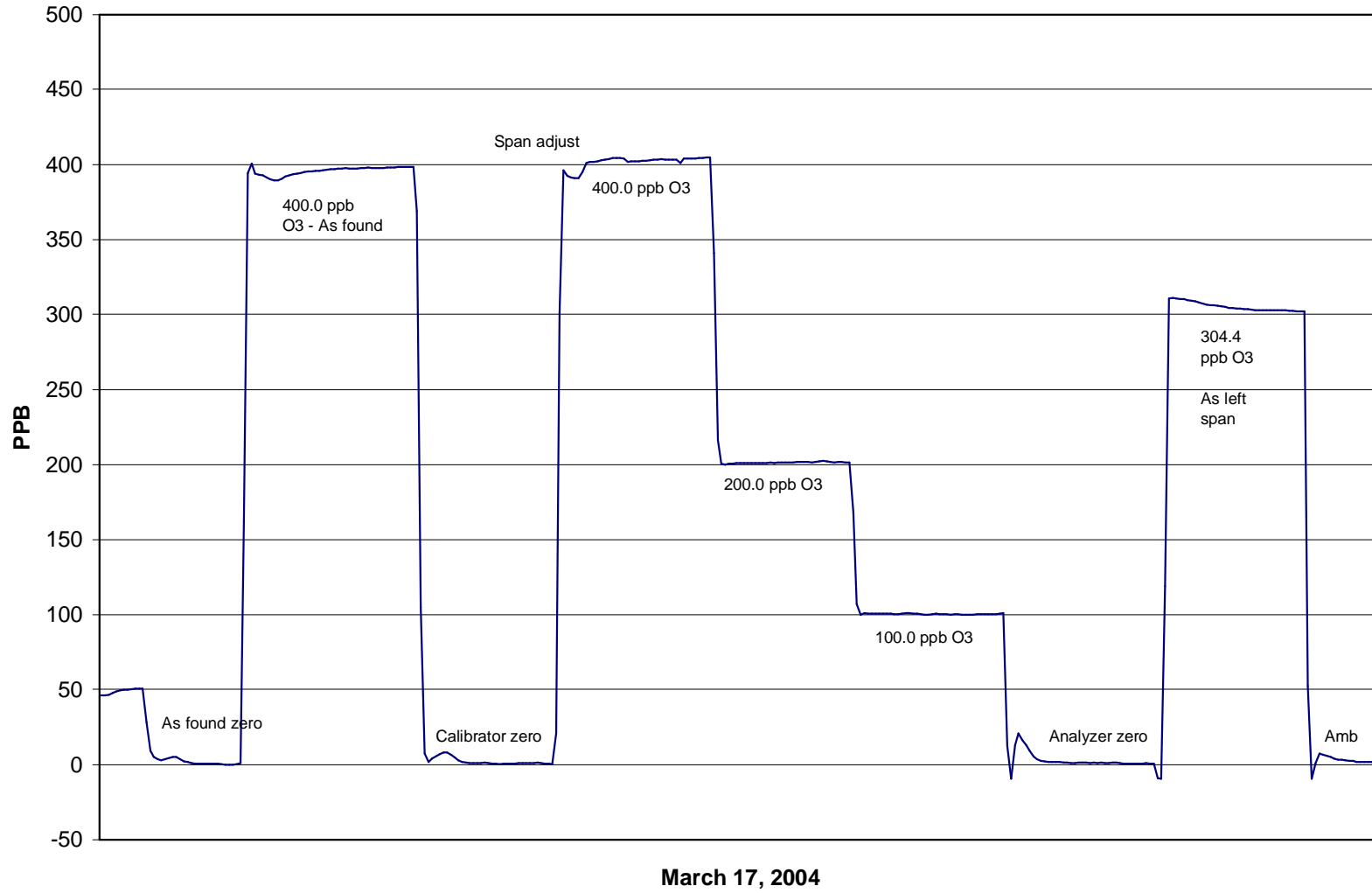
Calibration Date	March 17, 2004	Previous Calibration	February 25, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	17:10	End Time (MST)	20:00
Analyzer make/model	API Model 400	Analyzer serial #	383

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.8	0.0000		
400.0	403.1	0.9924	Correlation Coefficient	0.999992
200.0	201.4			
100.0	100.3		Slope	0.993477
			Intercept	-0.219825



### O3 Calibration





# Calibration Report



Parameter CO  
Air Monitoring Network PASZA

## Station Information

Calibration Date	March 17, 2004	Previous Calibration	February 24-25, 2004
Station Number	1	Station Location	Muskoseepi Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	19:13	End Time (MST)	23:34
Barometric Pressure	0.922 mb	Station Temperature	3.5 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Conc	3000 ppm	Cal Gas Expiry Date	12/10/2005
		Cal Gas Cylinder #	ALM 005412
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
DACS slope	0.005000	DACS slope	0.005000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	1.038102	Calculated slope	1.016773
Calculated intercept	-0.246912	Calculated intercept	-0.241679
Analyzer make	TEI Model 48	Analyzer serial #	ACM-13989-143

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
CO span setting	598		622	
CO zero setting	611		605	
Sample pressure	667	mm Hg	667	mm Hg

## 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)
4993	0.00	0.000	0.238	N/A
4993	29.94	17.882	17.801	1.0045
4993	19.96	11.945	12.033	0.9927
4993	9.97	5.978	6.093	0.9811
4993	0.00	0.000	0.535	As Found Zero
4993	29.94	17.882	18.259	As Found Span
Average Correction Factor				0.9928

Calculated value of As Found Response: 18.153 ppm Percent Change of As Found: -1.5%

	before calibration		after calibration	
Auto zero	0.237	ppm	0.209	ppm
Auto span	29.881	ppm	30.145	ppm

Notes: Analyzer was zero and span adjusted.

Calibration Performed By: Kelly Baragar

## Calibration Summary

**FOCUS INTEC**  
Air Quality Monitoring

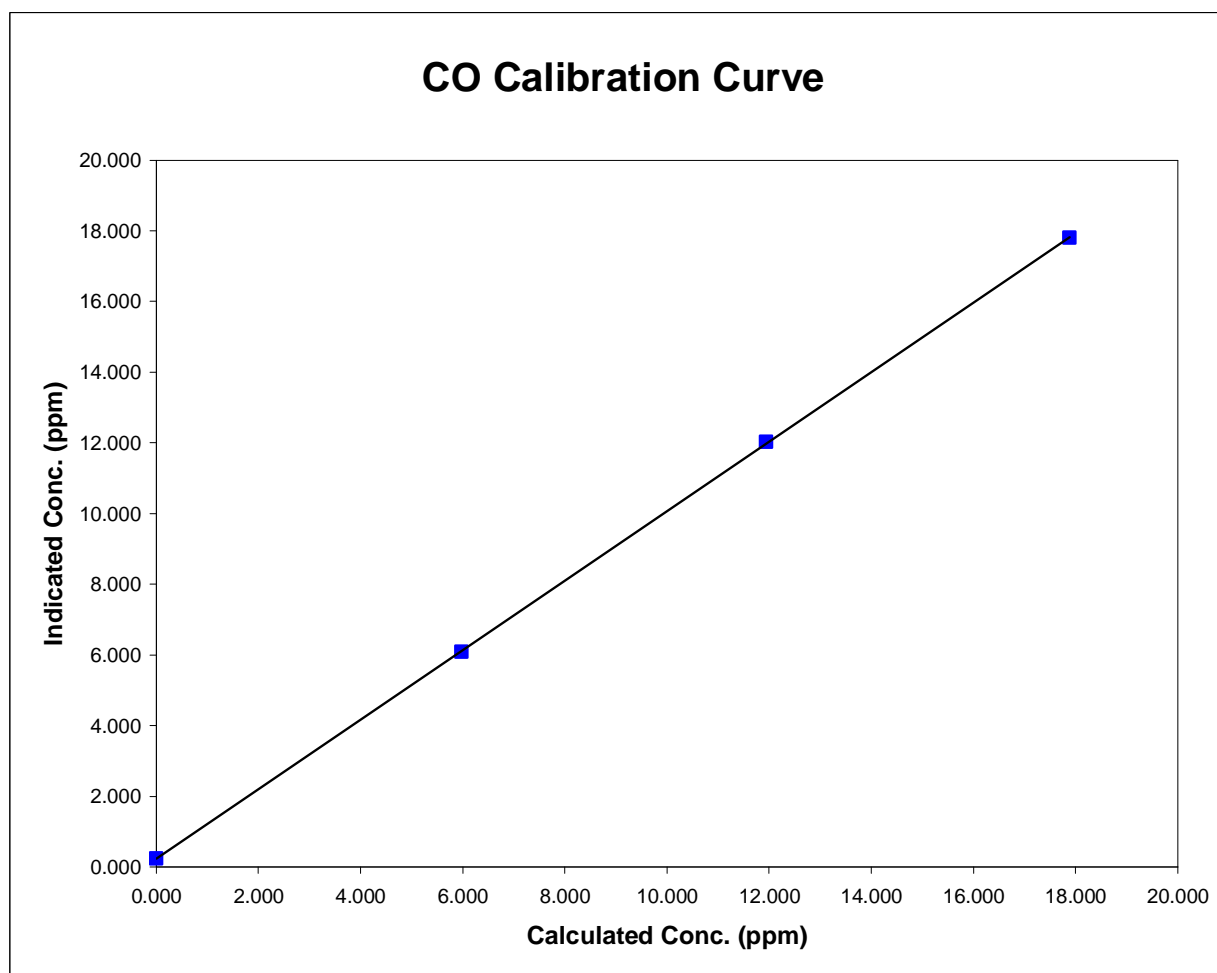
Parameter CO  
Air Monitoring Network PASZA

### Station Information

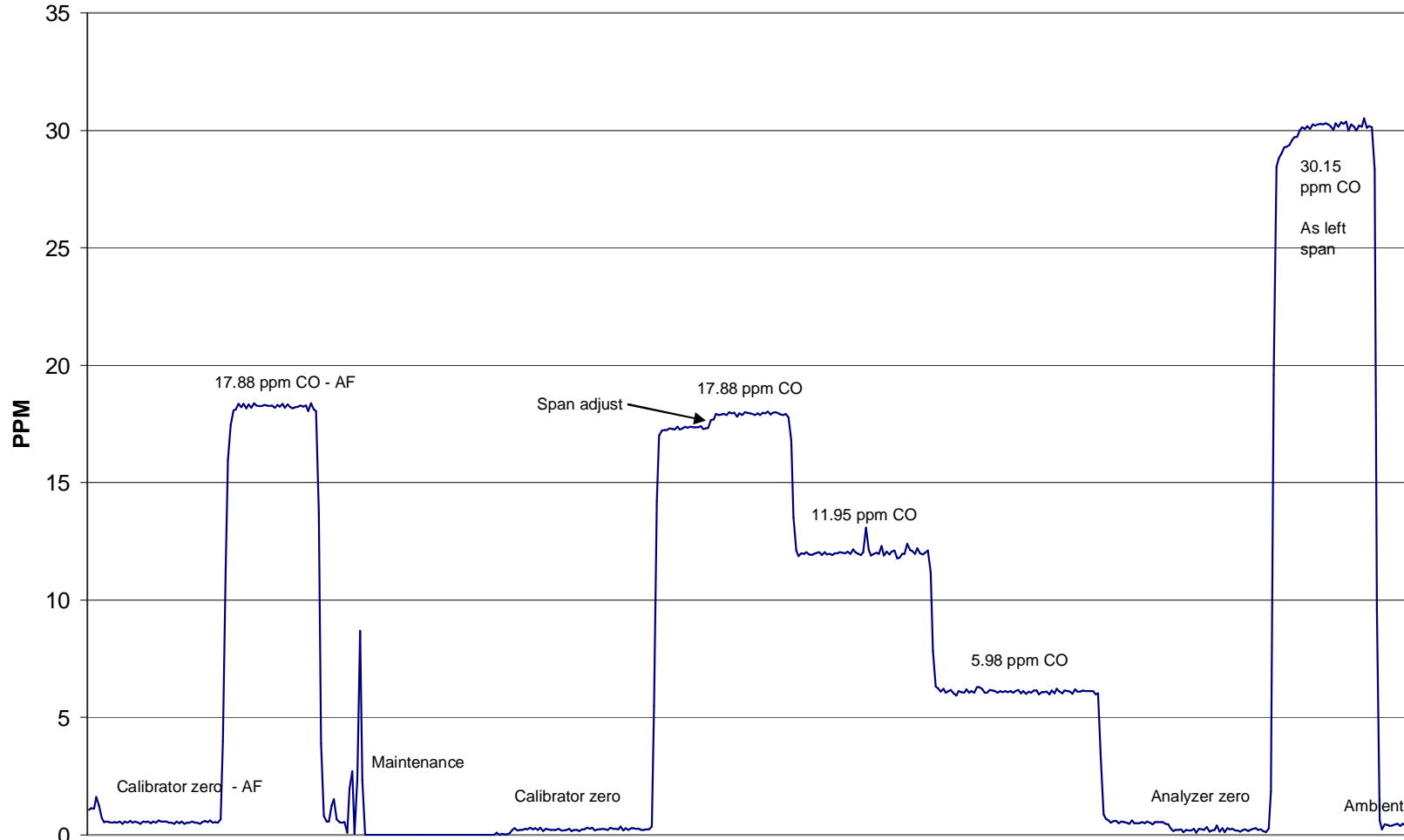
Calibration Date	March 17, 2004	Previous Calibration	February 24-25, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	19:13	End Time (MST)	23:34
Analyzer make/model	TEI Model 48	Analyzer serial #	ACM-13989-143

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.238	N/A		
17.882	17.801	1.0045	Correlation Coefficient	0.999981
11.945	12.033			
5.978	6.093		Slope	1.016773
			Intercept	-0.241679



### CO Calibration



March 17, 2004

# Calibration Report



Parameter THC  
Air Monitoring Network PASZA

## Station Information

Calibration Date	March 17, 2004	Previous Calibration	February 24, 2004
Station Number	1	Station Location	Muskoseepi Park
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	12:20	End Time (MST)	17:45
Barometric Pressure	0.922 mb	Station Temperature	3.5 Deg C
Calibrator	Envionics 6100	Serial Number	3016
Cal Gas Concentration	700 ppm CH4/ 299 ppm C3H8	Cal Gas Expiry Date	NA
Cal Gas CH4 equiv	1522.25 ppm	Cal Gas Cylinder #	ALM 030358
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
DACS slope	0.005000	DACS slope	0.005000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	1.002818	Calculated slope	0.991117
Calculated intercept	0.276193	Calculated intercept	0.020520
Analyzer make	TEI Model 51C-LT	Analyzer serial #	NA

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC slope	NA		NA	
THC bkg	NA		NA	

## 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)
2994	0.00	0.000	0.000	N/A
2994	39.96	20.049	20.239	0.9906
2994	19.96	10.081	10.080	1.0002
2994	9.97	5.052	5.097	0.9912
2994	0.00	0.000	-0.263	As Found Zero
2994	39.95	20.044	19.958	As Found Span
Average Correction Factor				0.9940

Calculated value of As Found Response: 20.554 ppm      Percent Change of As Found: -2.5%

	before calibration		after calibration	
Auto zero	-0.275	ppm	0.050	ppm
Auto span	20.466	ppm	20.798	ppm

Notes: As found internal zero/span captured before calibrator zero/span.  
Zero and span adjustments performed; no other maintenance appears necessary.  
Internal zero/span switching operates OK permitting the span cylinder pressure is at 25.0 psi.

Calibration Performed By: Kelly Baragar

## Calibration Summary

**FOCUS INTEC**  
Air Quality Monitoring

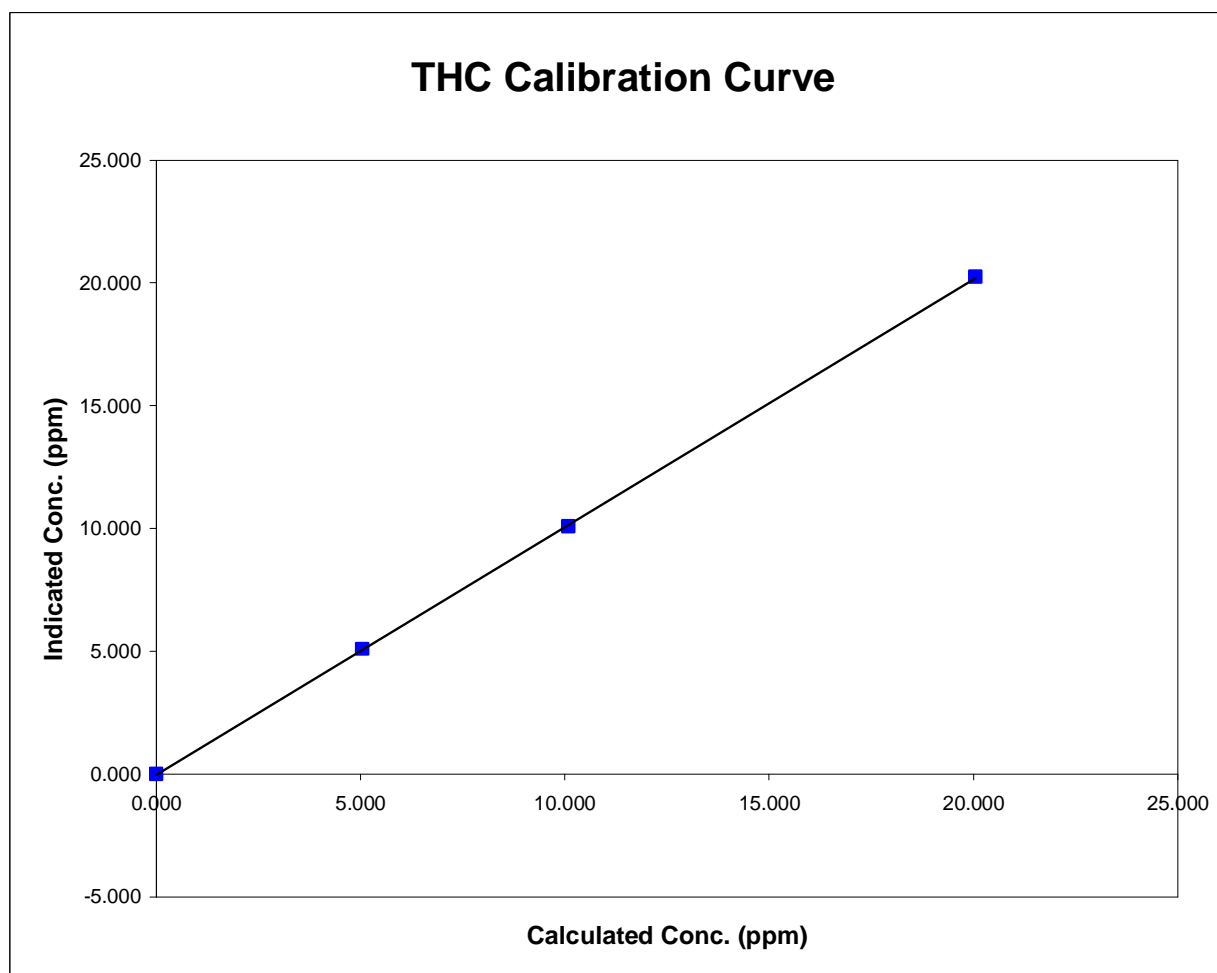
Parameter THC  
Air Monitoring Network PASZA

### Station Information

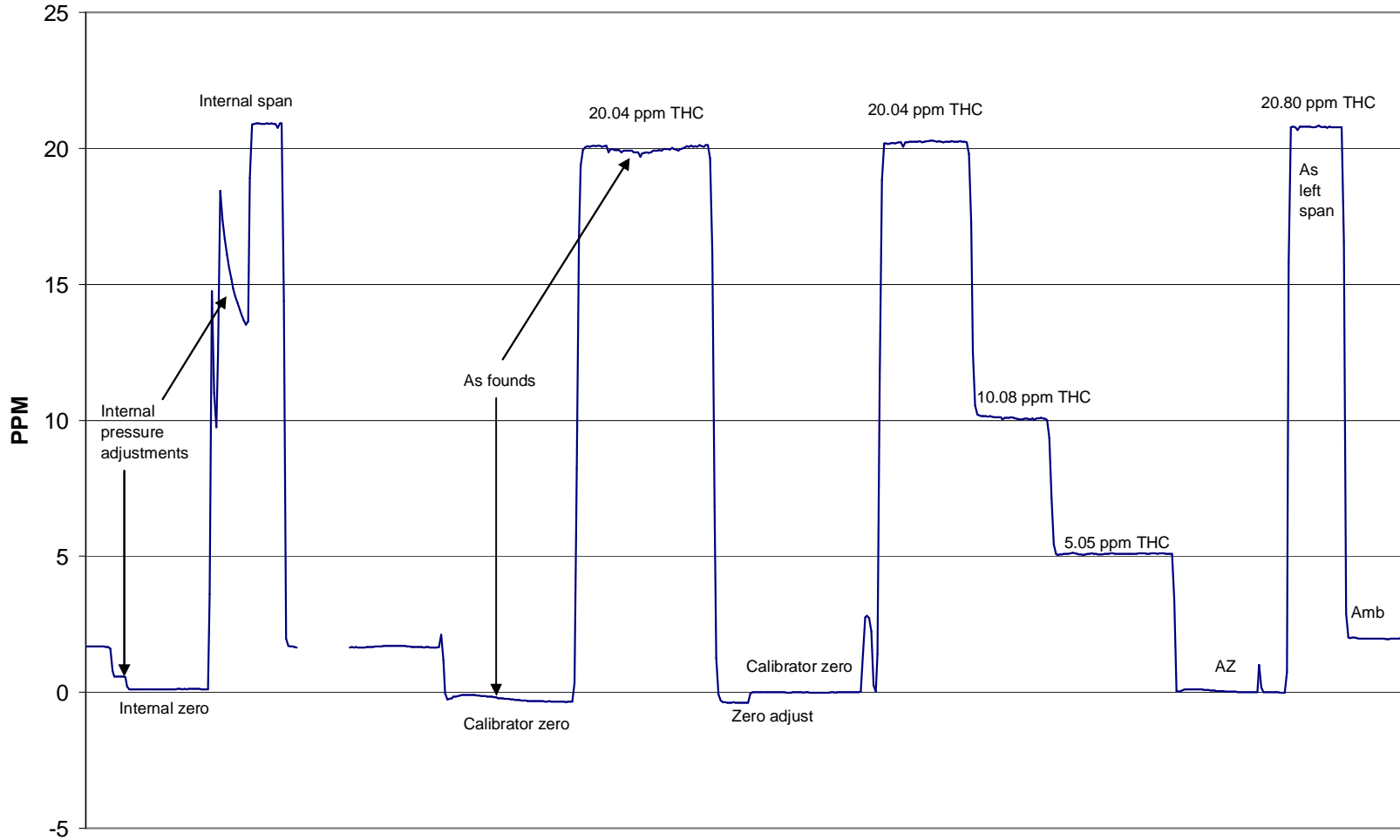
Calibration Date	March 17, 2004	Previous Calibration	February 24, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	12:20	End Time (MST)	17:45
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	NA

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.000	N/A		
5.052	5.097	0.9912	Correlation Coefficient	0.999969
10.081	10.080	1.0002		
20.049	20.239	0.9906	Slope	0.991117
			Intercept	0.020520



## THC Calibration



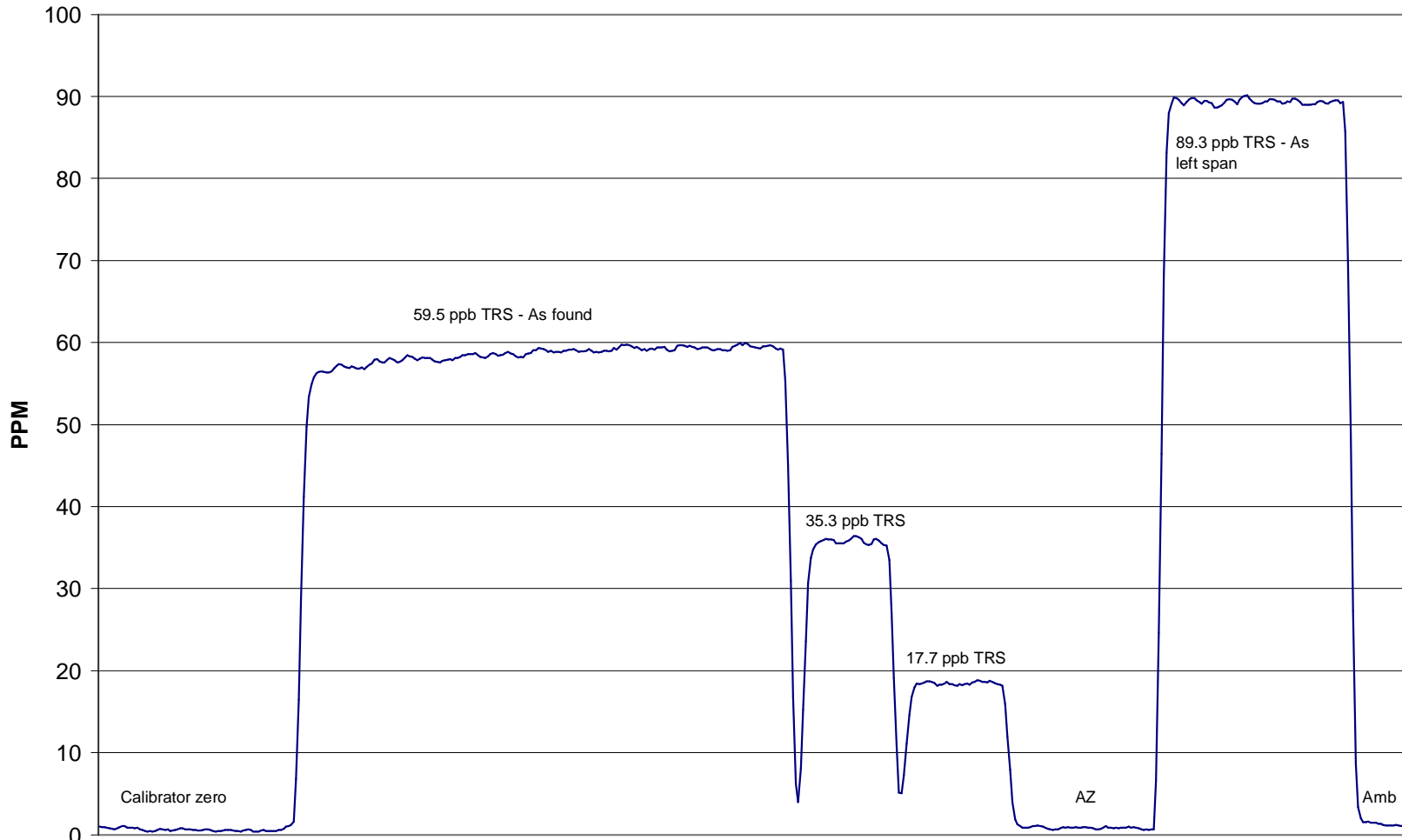
March 17, 2004 12:20 - 17:45 MST







### TRS Calibration



March 18, 2004