



# **PEACE AIRSHED ZONE ASSOCIATION**

## **Air Quality Monitoring Network**

### **August 2004**

Prepared by



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Enforcement and Monitoring Division  
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Edmonton, Alberta, T5K 2J6

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

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

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

There were no damaged or missing passive samples; in addition there were no exceedences of the Provincial Air Quality guidelines.

- Monthly average concentrations for SO<sub>2</sub> passives ranged from 0.1 ppb to 0.4 ppb.
- Monthly average concentrations for NO<sub>2</sub> passives ranged from <0.1 ppb to 4.4 ppb.
- Monthly average concentrations for O<sub>3</sub> passives ranged from 15.8 ppb to 32.6 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, Ph.D., P.Eng.  
AQM Environmental Engineer

# PASZA Monthly Continuous Data Summary

## August 2004 Monthly Overall Summary Report Ambient Air Quality Data

Aug-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	0.3	0	0	5.0	Aug-11	5.1	SW	0.9	Aug-11	100.0%
NO (ppb)			Henry Pirker	2.1	0	0	43.4	Aug-13	4.1	NW	6.2	Aug-10	100.0%
NO <sub>2</sub> (ppb)	212	106	Henry Pirker	4.6	0	0	28.5	Aug-09	1.6	ENE	8.5	Aug-12	100.0%
NO <sub>x</sub> (ppb)			Henry Pirker	6.7	0	0	56.7	Aug-13	4.1	NW	13.7	Aug-09	100.0%
O <sub>3</sub> (ppb)	82		Henry Pirker	19.8	0	0	64.6	Aug-11	4.6	SSE	29.5	Aug-13	100.0%
CO (ppm)	13		Henry Pirker	0.31	0	0	0.99	Aug-09	2.5	E	0.45	Aug-16	100.0%
THC (ppm)			Henry Pirker	1.97	0	0	2.85	Aug-09	2.5	E	2.14	Aug-12	100.0%
TRS (ppb)			Henry Pirker	0.6	0	0	1.9	Aug-16	6.8	NNE	1.0	Aug-12	100.0%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )		30 <sup>a</sup>	Henry Pirker	8.6	0	0	86.2	Aug-13	8.6	NE	27.7	Aug-13	99.1%
RH (%)			Henry Pirker	73.0									100.0%
SR (W/m <sup>2</sup> )			Henry Pirker	187.9									100.0%
Temp (°C)			Henry Pirker	15.7									100.0%
WSPD v (km/hr)			Henry Pirker	1.8									100.0%
WSPD s (km/hr)			Henry Pirker	6.8									100.0%
WDIR (Deg)			Henry Pirker	NE*									100.0%

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

Overall station was operating well

Parameter	Make	Model	Notes
SO <sub>2</sub>	TECO	43	No operational problems observed
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	No operational problems observed
TRS	TEI	42C	No operational problems observed
PM <sub>2.5</sub>	R&P	1400AB	No operational problems observed
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	No operational problems observed

### PASZA - Henry Pirker AQI Monthly Summary

Station: Henry Pirker

Station Owner: PASZA

## Air Quality Index (AQI)

Monitoring Dates: August 1, 2004 to September 1, 2004

**Summary**

Number of 1-hr Good Readings:	672
Number of 1-hr Fair Readings:	32
Number of 1-hr Poor Readings:	2
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
	32.6	25.3	17.7	11.2	6.6	3.0	1.5

**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
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-Aug-04	2	2	4	2	1	2	4	4	6	8	13	17	18	18	17	16	A	15	15	15	12	10	10	11
2-Aug-04	11	12	11	11	10	8	7	8	8	11	15	18	16	15	17	A	18	19	18	17	16	18	19	18
3-Aug-04	18	17	15	14	13	10	9	11	11	12	13	13	16	20	A	19	16	17	11	15	14	14	12	11
4-Aug-04	10	9	8	8	6	4	6	6	N	N	A	A	19	A	25	26	8	6	A	20	18	14	14	13
5-Aug-04	13	12	11	12	8	8	11	15	16	18	19	18	17	A	16	16	13	13	14	12	9	6	5	5
6-Aug-04	5	6	7	7	7	6	5	5	6	7	7	7	A	8	9	9	10	10	9	8	8	7	7	7
7-Aug-04	7	6	5	5	4	3	3	4	5	6	6	7	7	9	10	11	11	10	9	9	10	7	4	5
8-Aug-04	4	5	7	8	7	6	7	8	7	8	A	14	15	15	16	16	17	16	15	14	10	9	7	6
9-Aug-04	6	5	1	4	2	4	5	7	8	A	8	16	19	21	22	23	23	22	21	20	15	13	17	22
10-Aug-04	11	7	7	5	6	8	11	11	A	9	14	17	18	19	20	20	20	21	22	20	14	12	16	16
11-Aug-04	16	12	5	6	6	5	6	A	12	15	12	18	23	26	32	37	35	26	20	15	11	11	11	11
12-Aug-04	10	10	7	11	8	9	A	14	15	18	19	25	31	28	29	31	28	28	22	20	16	19	27	23
13-Aug-04	17	11	13	16	12	A	22	25	23	16	21	27	33	27	24	22	22	21	18	52	53	42	30	25
14-Aug-04	19	18	17	19	A	15	17	18	14	16	18	19	20	20	20	20	20	19	18	17	19	18	17	17
15-Aug-04	17	16	14	A	12	13	18	22	21	21	18	17	17	19	18	18	19	20	19	16	14	16	20	22
16-Aug-04	27	23	A	17	15	16	20	22	20	18	16	18	18	20	22	23	22	19	18	19	21	21	20	28
17-Aug-04	27	A	14	13	13	16	24	21	20	20	21	19	20	20	21	23	22	22	20	18	26	27	20	14
18-Aug-04	A	12	13	12	12	11	21	21	19	18	21	22	25	28	28	29	26	22	21	24	31	37	35	A
19-Aug-04	22	20	21	19	18	19	20	18	14	15	18	19	21	21	30	18	18	20	22	26	24	24	A	19
20-Aug-04	15	13	12	11	11	12	12	15	18	23	20	13	16	17	12	11	12	12	11	10	10	A	9	9
21-Aug-04	8	A	12	12	11	10	9	8	7	8	9	10	11	11	10	10	9	10	12	8	A	6	7	6
22-Aug-04	6	5	5	6	6	5	6	6	6	6	7	8	9	11	11	11	12	12	12	A	12	12	12	12
23-Aug-04	12	11	10	10	9	7	6	5	5	5	6	8	9	9	9	9	10	A	8	5	6	7	5	5
24-Aug-04	4	3	1	1	1	1	2	4	4	7	9	10	12	12	12	11	13	A	9	6	5	5	5	7
25-Aug-04	5	2	2	3	6	3	3	3	5	6	8	11	13	14	16	16	A	14	12	10	8	8	9	9
26-Aug-04	7	7	5	3	4	5	3	3	3	3	4	5	5	7	9	A	13	14	12	8	7	6	4	3
27-Aug-04	3	3	4	2	1	4	4	8	5	8	12	15	14	15	A	14	13	12	11	10	8	6	4	4
28-Aug-04	6	5	4	7	8	5	8	7	6	9	9	13	15	A	13	13	12	10	9	7	5	3	2	3
29-Aug-04	3	5	5	5	5	4	4	4	4	4	5	6	A	8	9	10	10	10	8	8	7	6	5	6
30-Aug-04	7	5	5	5	4	2	2	4	6	5	6	A	7	9	9	11	11	9	7	5	4	5	4	4
31-Aug-04	2	2	2	3	3	3	2	6	4	7	A	9	7	8	7	8	8	8	10	9	6	5	3	3

### PASZA - Henry Pirker Sulphur Dioxide Monthly Summary

Station: Henry Pirker

#### HOURLY AVERAGE TABLE

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

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004

**Summary**

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	5.0 ppb 11-Aug 12:00 13:00
Maximum 24-hr Average:	0.9 ppb 11-Aug

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

AIC Time:	33 hrs	Operational Time:	709 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%
Percentile	99	95	75
	1.8	1.0	0.3
	50	25	5
	0.2	0.1	0.0
	1	0.0	0.0
Average	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**

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-Aug-04	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	A	0	0	0	0	0	0	0.2	0.6
2-Aug-04	0	0	0	0	0	0	0	0	0	2	2	2	3	1	1	1	1	A	1	1	1	1	1	1	1	0.8	2.7
3-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0.5	1.1
4-Aug-04	0	0	0	0	0	0	0	0	0	C	C	A	0	0	0	0	A	0	0	0	0	0	0	0	0	0.0	0.3
5-Aug-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.2
6-Aug-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.3
7-Aug-04	0	0	0	0	0	0	0	0	2	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	1.8
8-Aug-04	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	1	0	0	0.2	0.6
9-Aug-04	0	0	0	0	0	0	0	0	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
10-Aug-04	0	0	0	0	0	0	0	0	0	1	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
11-Aug-04	0	0	0	0	0	0	0	0	1	A	0	1	1	5	4	2	2	1	1	0	0	0	0	0	0	0.9	5.0
12-Aug-04	0	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	0.8	2.3
13-Aug-04	0	0	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	1	1	0.6	1.4
14-Aug-04	0	0	0	0	0	A	0	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.3	1.4
15-Aug-04	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
16-Aug-04	0	0	0	A	0	0	0	1	1	2	1	0	0	1	1	1	1	1	0	1	1	1	1	0	0	0.6	1.7
17-Aug-04	0	0	A	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	0	0	0.6	1.2
18-Aug-04	0	A	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0.4	0.9
19-Aug-04	A	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	A	0.3	0.8
20-Aug-04	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0.2	1.0
21-Aug-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3
22-Aug-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.3
23-Aug-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.3
24-Aug-04	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.7
25-Aug-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.4
26-Aug-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	1	1	0	0	0	0	0.3	1.0
27-Aug-04	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.5
28-Aug-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.2	0.3
29-Aug-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.4
30-Aug-04	0	0	0	0	0	0	0	0	0	0	1	0	1	A	1	1	0	0	0	0	0	0	0	0	0	0.2	0.9
31-Aug-04	0	0	0	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
Hourly Avg	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.4	0.5	0.5	0.5	0.5	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2		
Hourly Max	1.0	0.7	0.8	0.7	0.8	0.7	1.0	1.8	1.8	1.9	1.8	2.7	5.0	3.6	2.1	1.5	1.0	1.1	1.1	1.1	1.1	2.3	1.4	0.7	0.8		

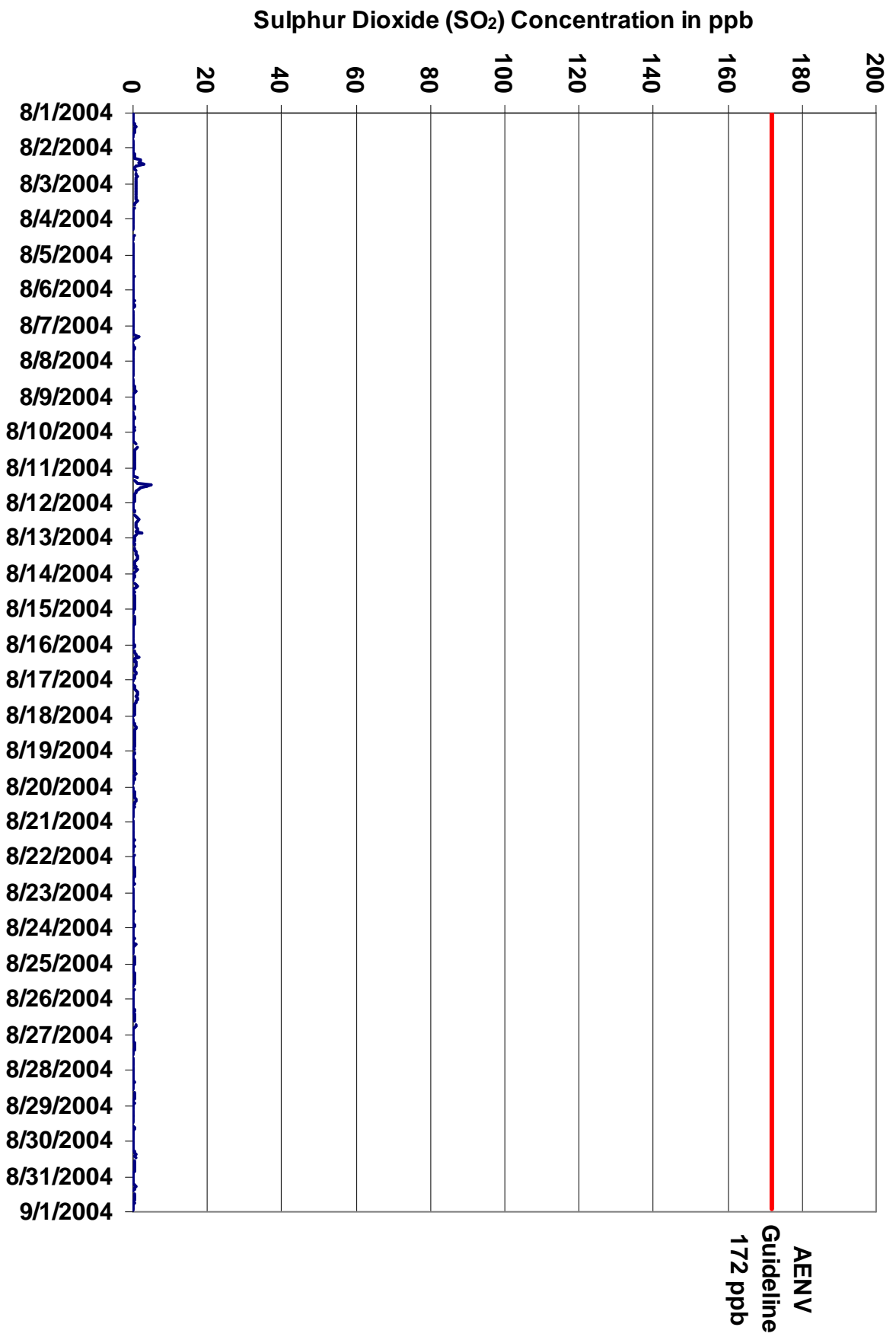


Figure 1. PASZA - Henry Pirker Sulphur Dioxide 1-hr Average Monthly Trend

Station: Henry Pirker

**HOURLY MAXIMUM TABLE**

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

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004  
Summary

Maximum 1-hr Value:	8.6	ppb	11-Aug	12:00 13:00
Maximum 24-hr Value:	1.9	ppb	11-Aug	

AIC Time:	33 hrs	Operational Time:	709 hrs					
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	3.3	1.8	1.0	0.8	0.6	0.4	0.0	0.9 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**

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-Aug-04	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.8	2.4	
2-Aug-04	1	1	1	1	1	1	1	1	3	3	3	3	3	1	1	1	A	2	2	2	1	1	1	1	1.5	3.4	
3-Aug-04	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	A	1	1	0	0	0	0	0	0	1.0	1.7	
4-Aug-04	0	0	0	0	0	0	0	0	C	C	A	1	1	1	0	A	0	0	0	0	0	0	0	0	0.2	0.8	
5-Aug-04	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	A	1	1	1	1	1	1	0	1	0.5	0.8	
6-Aug-04	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	1	1	1	1	1	1	1	0.7	1.2	
7-Aug-04	1	1	1	1	1	1	1	1	8	5	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.3	7.7	
8-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4	
9-Aug-04	1	1	0	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.2	
10-Aug-04	1	1	1	0	1	1	1	1	1	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.8	
11-Aug-04	1	1	1	1	1	1	1	2	A	1	2	3	9	6	3	3	1	2	1	1	1	1	1	1	1.9	8.6	
12-Aug-04	1	1	1	1	1	1	1	A	1	1	2	2	2	2	1	1	2	2	2	1	5	2	2	1	1.5	4.7	
13-Aug-04	1	1	1	1	1	1	A	1	1	1	2	1	2	2	2	1	1	1	1	1	2	1	2	2	1.3	2.5	
14-Aug-04	1	1	1	1	1	A	1	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	3.2	
15-Aug-04	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.8	1.4	
16-Aug-04	1	1	0	A	1	1	1	2	3	2	1	1	2	2	1	1	1	1	1	1	2	2	1	1	1.3	2.5	
17-Aug-04	1	1	A	1	1	1	1	1	2	2	2	2	2	2	1	2	1	2	1	1	1	1	1	1	1.2	2.0	
18-Aug-04	1	A	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.6	
19-Aug-04	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	A	0.9	1.8	
20-Aug-04	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0	1	A	0.8	1.7	
21-Aug-04	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	1.1	
22-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.0	
23-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.7	1.0	
24-Aug-04	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.9	
25-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.8	1.0	
26-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	2	1	1	1	1	1	0.9	1.6	
27-Aug-04	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.5	
28-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.8	1.2	
29-Aug-04	1	1	1	1	1	1	0	1	0	1	1	1	1	A	1	1	2	1	1	1	1	1	1	1	0.7	1.6	
30-Aug-04	1	1	0	1	1	1	1	1	1	2	1	2	A	1	1	1	1	1	1	1	1	1	0	1	0.9	1.9	
31-Aug-04	1	1	1	1	1	1	1	1	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.8	1.5	
Hourly Avg	0.7	0.7	0.7	0.6	0.7	0.7	0.8	1.3	1.4	1.2	1.1	1.2	1.3	1.1	0.9	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.7		
Hourly Max	1.5	1.2	1.2	1.2	1.4	1.1	1.9	7.7	5.3	3.3	2.7	3.4	8.6	6.3	3.2	2.8	1.6	1.9	1.7	1.7	4.7	2.5	2.0	1.4			



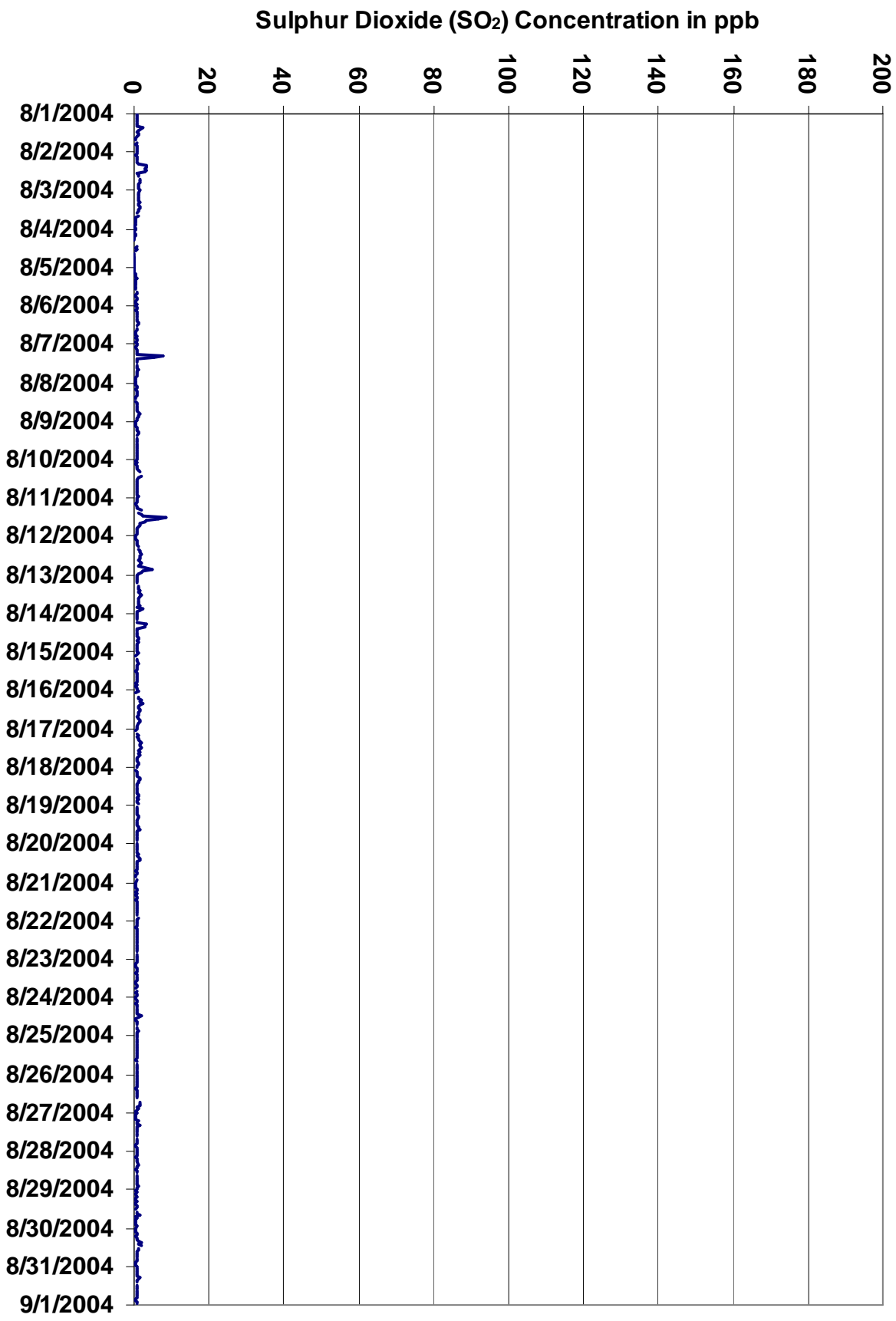
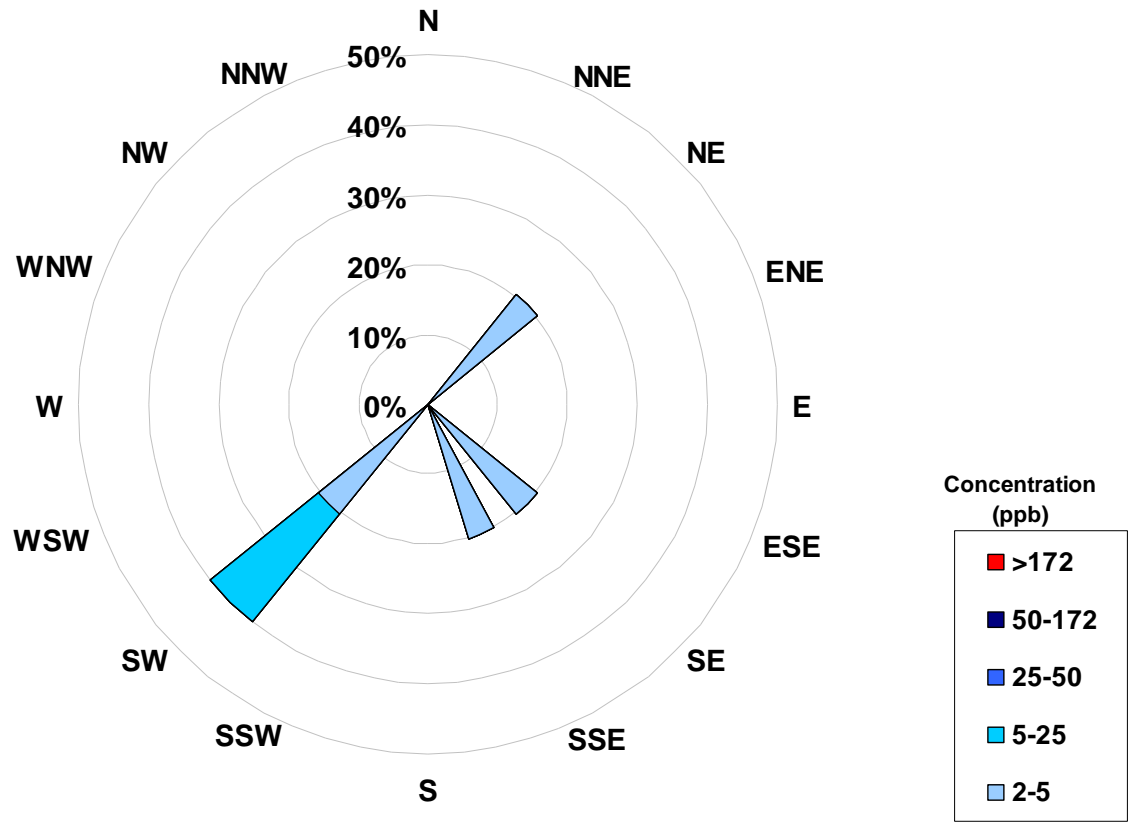


Figure 2. PASZA - Henry Pirker Sulphur Dioxide 1-hr Maximum Value Monthly Trend

**Concentration Rose for the 1-hr SO<sub>2</sub> Average Concentration Occurrences at the Henry Pirker Site for August 2004**



Frequency Distribution of SO <sub>2</sub> in ppb			
Range		Frequency (hrs)	
0	< 2	704	
2	to 5	4	
5	to 25	1	
25	to 50	0	
50	to 172	0	
	> 172	0	
Total Non-Zero Values			709

Calms	
Range	
ppb	
2-5	0.0%
5-25	0.0%
25-50	0.0%
50-172	0.0%
>172	0.0%

### 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: August 1, 2004 to September 1, 2004

**Summary**

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	28.5 ppb 9-Aug 22:00 23:00
Maximum 24-hr Average:	8.5 ppb 12-Aug

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

AIC Time:	33 hrs	Operational Time:	707 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%
Percentile	99	95	75
	17	12	6
	50	25	5
	3	2	1
	1	1	1
Average	4.6 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**

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-Aug-04	9	8	3	5	5	6	4	2	2	4	2	1	1	1	0	1	0	1	2	3	A	6	5	3	3.3	8.7	
2-Aug-04	3	2	2	2	3	4	4	2	3	3	3	3	1	1	1	1	2	2	3	A	6	5	3	3	2.6	5.7	
3-Aug-04	2	2	3	3	4	7	9	5	5	3	2	5	4	4	3	4	5	8	A	5	6	5	6	5	4.6	8.7	
4-Aug-04	4	5	6	5	7	11	7	C	C	C	C	A	5	4	4	2	3	2	A	6	6	5	4	4	5.0	10.5	
5-Aug-04	3	4	6	5	8	9	11	5	4	4	3	3	3	3	3	2	3	A	3	2	2	1	1	1	3.8	11.4	
6-Aug-04	1	0	1	1	0	2	3	3	2	1	1	1	1	1	1	1	A	2	1	2	2	2	1	1	1.3	3.0	
7-Aug-04	1	1	1	1	1	1	1	1	0	1	2	1	2	1	2	1	A	3	3	3	4	4	5	8	3	2.2	8.1
8-Aug-04	2	1	1	1	3	4	5	5	3	1	1	1	1	1	1	A	1	1	1	3	9	13	11	11	3.6	13.4	
9-Aug-04	10	15	5	5	6	4	5	9	9	7	5	2	2	A	2	2	2	2	2	2	12	21	29	27	7.9	28.5	
10-Aug-04	16	11	11	6	6	11	10	9	14	8	3	1	A	2	1	1	2	2	3	6	14	17	9	7	7.3	16.6	
11-Aug-04	3	3	7	9	6	11	9	11	9	11	8	A	8	7	6	5	4	2	4	7	15	17	11	12	8.1	17.5	
12-Aug-04	10	9	7	4	7	15	16	9	11	12	A	8	4	3	2	4	3	3	4	6	10	19	17	14	8.5	18.8	
13-Aug-04	7	6	3	4	5	10	13	9	4	A	6	7	5	3	2	3	4	4	4	5	5	4	3	3	5.1	13.1	
14-Aug-04	3	3	3	4	4	7	14	12	A	3	2	2	1	1	1	1	1	1	2	4	8	8	4	5	4.0	14.3	
15-Aug-04	5	7	10	6	4	7	8	A	8	7	2	1	1	1	1	1	1	1	2	5	9	10	5	3	4.5	9.8	
16-Aug-04	2	2	1	1	3	7	A	11	5	3	2	2	2	2	2	2	2	3	3	5	11	10	9	13	4.6	13.4	
17-Aug-04	9	7	6	4	6	A	9	11	9	8	7	2	2	1	2	3	4	4	4	7	16	27	9	5	7.0	26.7	
18-Aug-04	5	4	8	8	A	15	16	18	12	8	10	6	4	2	2	2	2	2	3	7	12	14	15	14	8.3	17.7	
19-Aug-04	7	5	5	A	11	10	10	7	5	3	4	3	2	1	2	3	3	3	4	6	7	5	5	6	5.1	11.3	
20-Aug-04	3	2	A	3	4	5	5	6	8	12	10	5	3	3	4	4	3	3	2	3	4	5	2	1	4.4	12.1	
21-Aug-04	2	A	2	1	1	2	2	2	2	2	2	2	1	2	2	2	2	2	1	4	4	3	2	2	2.0	4.0	
22-Aug-04	A	2	1	1	1	1	1	2	2	2	1	2	2	2	1	2	2	2	2	2	1	1	1	A	1.6	2.2	
23-Aug-04	1	1	0	0	1	2	4	4	4	4	4	2	2	2	1	2	1	1	1	3	14	14	A	13	3.6	14.2	
24-Aug-04	11	8	4	3	4	5	7	6	5	3	2	2	1	1	1	2	2	8	5	8	14	A	15	12	5.6	14.6	
25-Aug-04	9	8	8	7	3	7	12	8	5	2	2	1	1	2	2	2	1	2	3	4	A	5	3	3	4.4	11.6	
26-Aug-04	3	2	5	7	4	3	3	1	1	1	1	1	1	1	2	2	3	2	4	A	8	4	5	4	2.9	8.0	
27-Aug-04	3	3	2	3	4	6	7	8	8	3	2	2	2	2	2	1	2	2	A	6	6	9	11	10	4.5	11.0	
28-Aug-04	5	4	4	3	4	8	6	6	9	4	2	1	1	1	1	1	1	A	2	3	4	6	8	5	3.8	8.5	
29-Aug-04	4	3	2	1	1	2	2	2	1	1	1	1	1	1	1	1	A	2	3	4	5	5	4	2	2.2	5.0	
30-Aug-04	2	2	2	2	4	7	9	8	9	4	4	3	3	3	4	A	3	3	6	7	10	8	5	4	4.8	9.6	
31-Aug-04	5	4	4	5	6	7	8	8	8	6	4	5	6	4	A	5	4	4	3	4	7	6	6	5	5.3	8.2	
Hourly Avg	5.0	4.4	4.2	3.7	4.2	6.6	7.3	6.5	5.8	4.5	3.4	2.6	2.4	2.0	2.0	2.1	2.4	2.7	2.9	4.6	7.9	8.6	7.2	6.7			
Hourly Max	15.7	14.7	10.8	9.1	11.3	15.1	16.1	17.7	14.0	12.1	10.3	7.7	8.1	6.5	6.3	5.3	5.4	8.5	5.8	8.4	16.1	26.7	28.5	26.6			

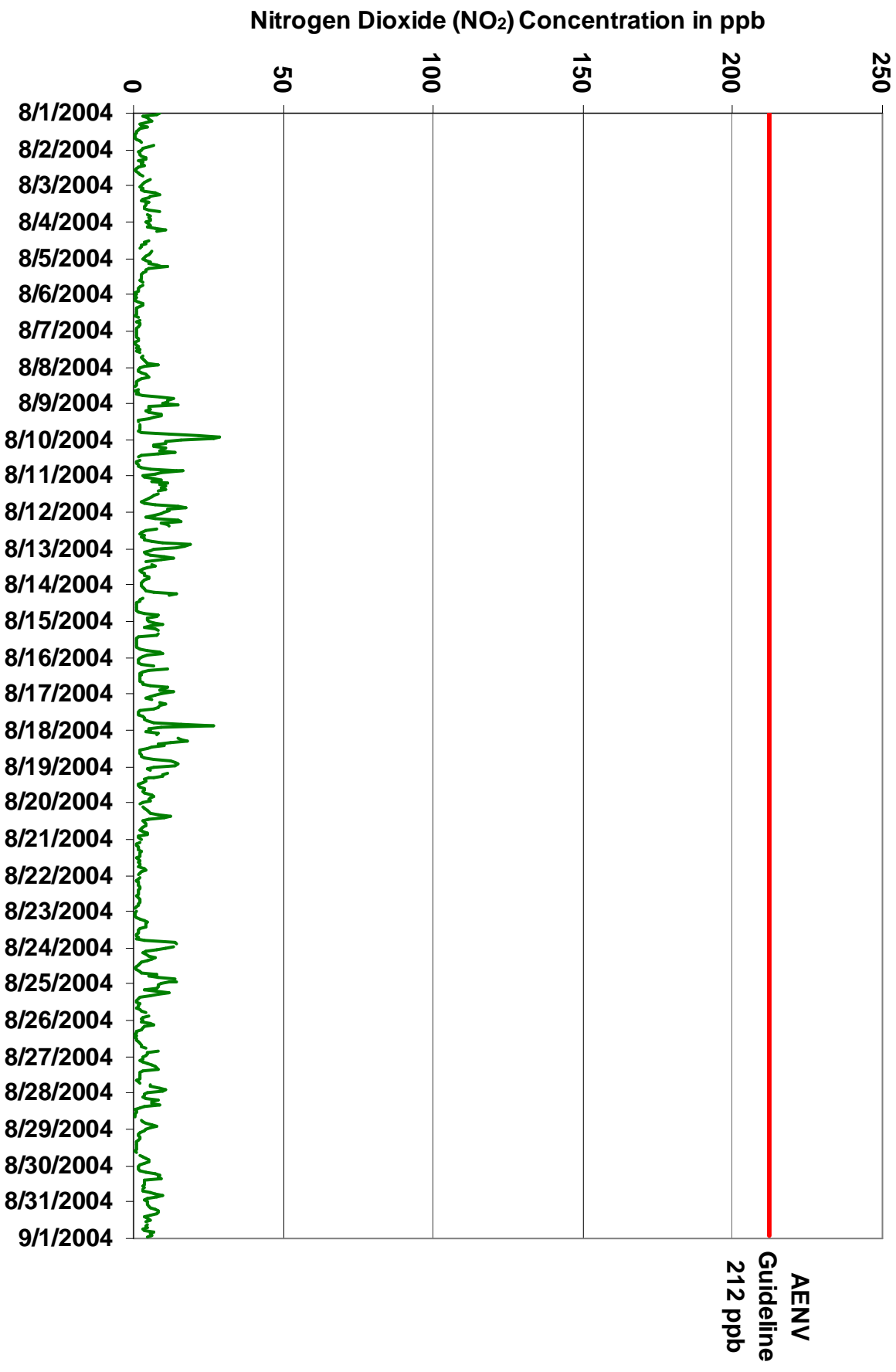


Figure 3. PASZA - Henry Pirkner Nitrogen Dioxide 1-hr Average Monthly Trend

Station: Henry Pirker

### HOURLY MAXIMUM TABLE

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

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004

**Summary**

Maximum 1-hr Value:	41.9	ppb	11-Aug	12:00 13:00
Maximum 24-hr Value:	12.9	ppb	11-Aug	

AIC Time:	33 hrs	Operational Time:	707 hrs					
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	25	17	10	6	4	2	1	7.4 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																								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-Aug-04	12	9	6	7	8	7	6	3	3	7	3	2	2	2	1	1	1	3	4	4	A	8	7	4	4.9	12.3
2-Aug-04	5	3	5	4	4	7	6	4	4	4	3	4	3	2	1	3	4	4	5	A	7	6	4	3	4.3	7.4
3-Aug-04	3	4	3	4	6	11	13	6	7	5	3	4	7	6	5	9	9	16	A	6	10	7	10	8	7.3	15.5
4-Aug-04	7	7	8	9	11	14	10	C	C	C	C	A	7	6	7	5	6	3	A	16	10	17	7	5	8.7	17.0
5-Aug-04	5	7	10	7	9	13	19	12	6	13	6	6	6	5	6	4	6	A	8	5	3	3	2	3	7.1	18.9
6-Aug-04	2	1	2	2	1	3	6	7	4	3	2	3	2	3	2	3	A	3	2	3	3	3	2	2	2.8	6.7
7-Aug-04	2	1	1	1	2	2	2	2	2	5	7	3	4	4	4	A	6	10	5	7	7	8	11	7	4.6	10.6
8-Aug-04	3	2	3	2	5	6	7	7	4	2	2	3	2	1	A	3	2	4	3	5	12	18	15	17	5.7	18.3
9-Aug-04	15	19	11	6	9	6	9	13	12	8	7	5	3	A	5	4	6	6	3	4	22	29	33	31	11.5	33.3
10-Aug-04	24	13	13	9	10	14	15	12	16	15	5	2	A	5	2	3	4	5	6	10	22	21	14	13	11.1	24.5
11-Aug-04	5	7	9	11	10	14	13	16	14	13	13	A	42	9	8	8	6	4	8	12	23	23	15	16	12.9	41.9
12-Aug-04	14	11	12	6	14	18	22	18	17	14	A	11	6	5	3	7	5	6	6	9	17	26	24	18	12.5	26.1
13-Aug-04	11	8	5	7	8	14	17	14	6	A	19	25	7	7	4	9	6	9	6	8	6	7	5	5	9.2	24.7
14-Aug-04	4	4	6	6	6	13	16	17	A	5	4	4	2	2	3	2	3	3	4	8	13	14	7	15	7.0	17.4
15-Aug-04	9	12	12	8	5	9	10	A	10	12	5	2	3	2	2	3	3	3	4	9	13	12	6	8	7.0	12.6
16-Aug-04	5	2	2	2	6	9	A	15	10	4	4	4	3	3	4	3	5	6	6	10	17	14	17	18	7.3	18.1
17-Aug-04	11	9	10	6	9	A	13	14	10	11	10	4	3	8	5	5	7	9	10	14	30	32	25	7	11.3	31.8
18-Aug-04	11	6	11	11	A	17	19	21	19	17	15	8	7	5	4	3	4	5	6	13	18	20	19	18	11.9	20.6
19-Aug-04	12	6	11	A	14	12	12	9	8	8	8	6	4	3	7	7	5	4	6	12	9	7	7	10	8.1	14.2
20-Aug-04	6	3	A	5	6	6	9	7	11	14	16	9	5	6	7	6	5	5	4	7	8	8	3	2	7.0	16.3
21-Aug-04	4	A	4	2	2	4	3	4	6	4	3	3	2	5	5	3	3	4	4	7	9	5	4	3	4.0	8.6
22-Aug-04	A	7	3	2	3	5	3	3	3	4	4	3	4	3	3	3	7	4	3	7	5	3	5	A	4.0	7.4
23-Aug-04	4	2	2	2	3	5	7	7	7	7	9	5	4	3	6	2	2	4	3	7	17	17	A	15	6.1	17.4
24-Aug-04	13	10	6	4	5	8	9	9	8	7	4	4	3	2	4	6	8	14	9	12	18	A	17	16	8.5	17.5
25-Aug-04	12	10	10	10	5	11	16	11	9	5	3	3	2	8	3	5	3	5	4	7	A	8	4	4	6.7	15.6
26-Aug-04	5	5	8	9	6	6	5	2	2	2	2	2	2	2	2	3	3	5	9	A	12	6	7	7	4.8	12.1
27-Aug-04	4	5	4	4	6	8	8	11	12	6	4	4	4	5	5	3	6	4	A	10	13	16	14	14	7.3	15.8
28-Aug-04	6	4	4	6	10	12	9	8	13	9	4	3	3	3	2	2	2	A	5	6	8	10	10	9	6.4	13.0
29-Aug-04	6	5	3	2	2	3	8	2	2	3	2	2	2	3	2	2	A	4	5	7	7	8	8	3	4.0	8.3
30-Aug-04	4	2	4	3	6	10	11	11	11	8	5	6	8	5	6	A	4	6	8	12	12	12	7	5	7.2	11.9
31-Aug-04	6	6	7	9	10	11	11	12	11	9	11	11	8	7	A	9	7	10	5	6	9	7	8	6	8.6	11.8
Hourly Avg	7.6	6.4	6.5	5.6	6.7	9.2	10.5	9.5	8.6	7.7	6.3	5.3	5.3	4.3	4.1	4.4	4.8	5.6	5.4	8.4	12.4	12.5	10.6	9.8		
Hourly Max	24.5	19.4	13.0	10.9	14.2	18.1	21.5	20.6	18.9	16.9	18.9	24.7	41.9	8.7	8.0	9.4	8.9	15.5	9.6	16.5	30.1	31.8	33.3	30.7		

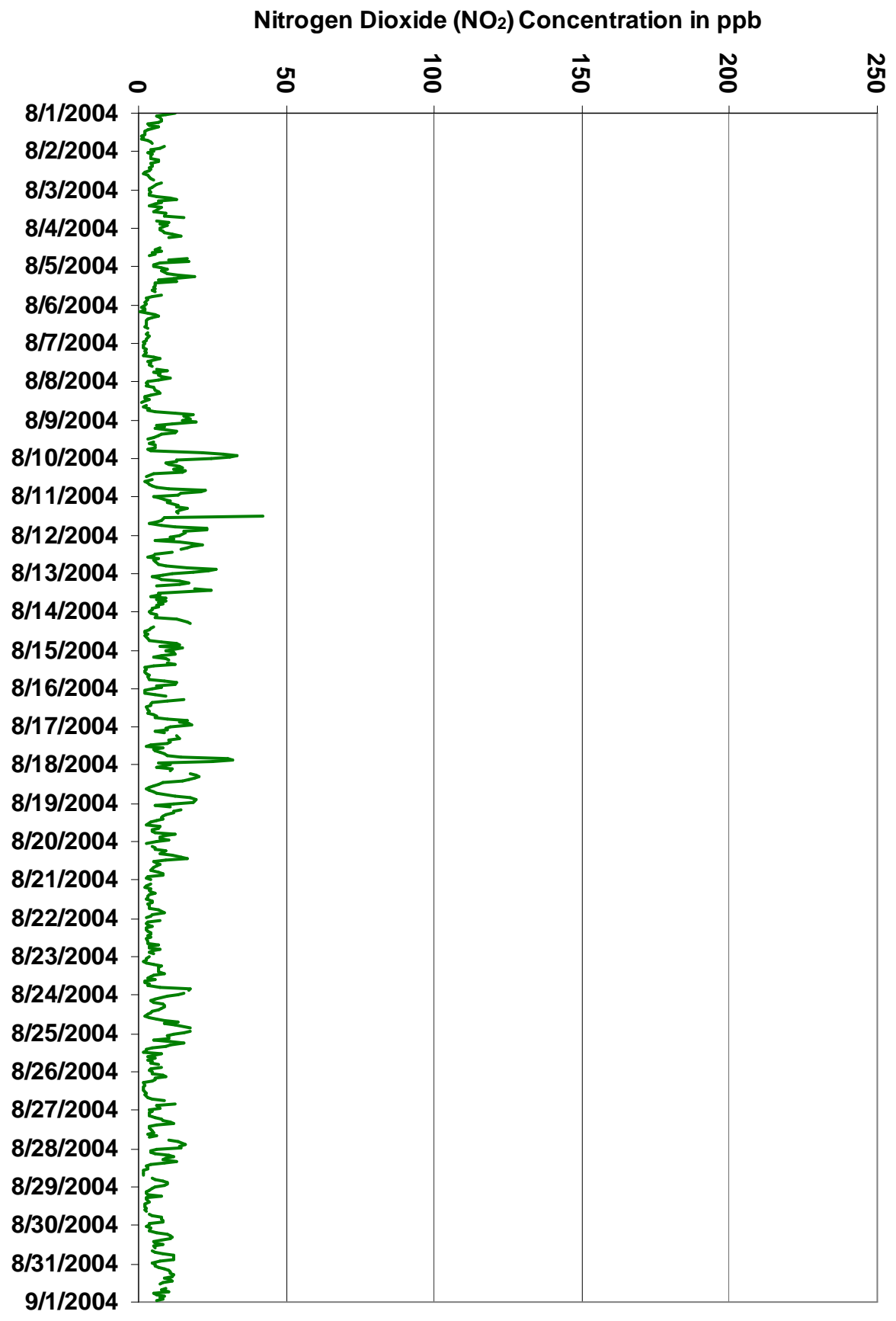
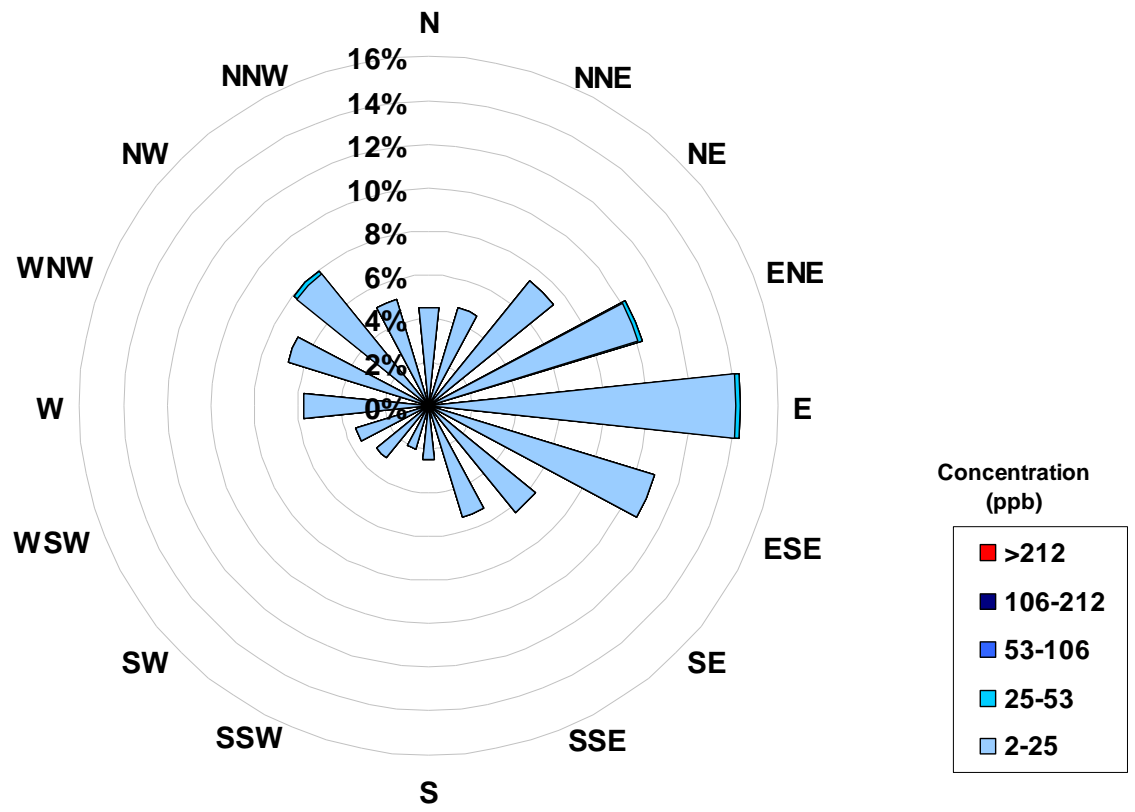


Figure 4. PASZA - Henry Pirker Nitrogen Dioxide 1-hr Maximum Value Monthly Trend

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



Frequency Distribution of NO <sub>2</sub> in ppb			
Range		Frequency (hrs)	
0	< 2	216	
2	to 25	488	
25	to 53	3	
53	to 106	0	
106	to 212	0	
	> 212	0	
Total Non-Zero Values			707

Calms	
Range	
ppb	
2-25	0.0%
25-53	0.0%
53-106	0.0%
106-212	0.0%
>212	0.0%

Station: Henry Pirker

**HOURLY AVERAGE TABLE**

**Nitric Oxide (NO)**

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004

**Summary**

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	43	ppb	13-Aug	6:00 7:00
Maximum 24-hr Average:	6	ppb	10-Aug	

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

AIC Time:	33 hrs		Operational Time:	707 hrs				
Calibration Time:	4 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	Average
	25	10	1	1	0	0	0	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**

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-Aug-04	3	1	0	0	1	9	6	3	3	4	1	0	0	0	0	0	0	1	1	1	A	1	0	0	1.6	8.6	
2-Aug-04	0	0	0	0	0	1	1	1	2	2	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0.6	2.0	
3-Aug-04	0	0	0	0	0	1	2	1	1	1	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0.6	1.8	
4-Aug-04	0	0	1	0	1	3	7	C	C	C	C	A	2	1	1	0	0	0	A	0	0	1	1	1	1.1	7.5	
5-Aug-04	1	1	0	1	1	2	3	2	1	1	0	1	1	1	1	1	1	A	1	1	1	1	0	0	0.9	2.6	
6-Aug-04	1	0	0	0	0	1	1	2	2	1	1	2	2	2	2	2	A	1	1	1	1	0	0	0	0.9	2.1	
7-Aug-04	0	0	0	0	0	1	1	1	1	2	2	2	2	1	1	A	1	2	1	1	1	0	1	1	0.8	1.9	
8-Aug-04	1	1	0	0	0	0	1	1	1	1	1	1	1	0	A	0	0	1	0	1	0	0	0	0	0.6	1.2	
9-Aug-04	0	2	1	1	2	7	13	32	22	16	6	1	0	A	0	0	0	0	0	0	0	0	5	21	5.7	31.9	
10-Aug-04	11	7	11	9	9	8	25	19	29	9	1	1	A	0	0	1	0	0	0	0	0	0	0	0	6.2	28.7	
11-Aug-04	0	0	1	4	1	3	3	13	9	8	8	A	4	1	1	1	0	0	0	0	1	1	0	1	2.6	12.8	
12-Aug-04	1	0	0	0	0	15	23	13	10	7	A	2	0	0	0	1	0	1	1	0	0	1	5	1	3.6	22.9	
13-Aug-04	0	0	0	0	1	14	43	17	3	A	1	1	0	1	0	1	1	0	0	0	0	0	0	0	3.6	43.4	
14-Aug-04	0	0	0	0	0	0	6	7	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	7.1	
15-Aug-04	0	0	1	2	1	8	8	A	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.4	8.3	
16-Aug-04	0	0	0	0	0	1	A	7	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0.7	7.0	
17-Aug-04	4	1	1	0	1	A	17	25	10	5	2	0	0	0	0	0	1	1	1	0	0	0	17	3	3.9	25.1	
18-Aug-04	0	0	1	4	A	2	26	31	13	5	4	1	1	0	0	0	0	0	0	0	0	1	1	2	4.1	31.5	
19-Aug-04	0	0	0	A	2	2	4	2	1	0	0	0	0	0	0	1	1	1	1	1	1	0	0	1	0.8	3.9	
20-Aug-04	0	0	A	0	0	1	3	5	8	17	10	3	1	1	1	1	1	1	0	0	0	0	0	0	2.4	16.5	
21-Aug-04	0	A	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	0.7	1.4	
22-Aug-04	A	1	1	0	0	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.8	
23-Aug-04	0	0	0	0	0	1	1	1	1	2	3	2	1	1	1	0	0	1	1	1	1	5	4	A	20	2.1	20.0
24-Aug-04	6	2	1	1	3	10	24	22	10	4	2	2	1	1	1	1	1	3	2	2	5	A	7	17	5.6	23.9	
25-Aug-04	9	5	4	1	1	2	17	11	8	5	2	1	1	2	1	1	1	1	2	1	A	1	1	0	3.4	16.7	
26-Aug-04	0	0	1	1	1	1	2	2	2	1	2	2	3	2	2	2	2	1	1	A	1	0	1	0	1.2	2.5	
27-Aug-04	0	0	0	0	1	7	21	35	22	2	1	1	1	0	1	0	0	0	A	0	0	1	1	0	4.2	35.1	
28-Aug-04	0	0	0	0	0	1	0	1	3	1	1	1	1	1	1	0	0	A	1	1	1	1	3	1	0.8	2.8	
29-Aug-04	1	1	0	1	0	1	1	1	1	2	2	1	1	1	1	1	A	0	0	1	1	1	1	0	0.9	1.7	
30-Aug-04	0	0	1	0	0	1	5	7	9	2	2	2	2	1	2	A	0	1	1	1	1	1	1	0	1.9	9.4	
31-Aug-04	0	0	1	1	1	2	4	2	3	2	3	2	3	2	A	2	1	2	0	0	0	0	1	1	1.4	4.0	
Hourly Avg	1.3	0.8	0.9	1.0	1.0	3.4	9.0	9.2	6.4	3.7	2.1	1.1	1.0	0.8	0.7	0.7	0.6	0.7	0.6	0.5	0.8	1.2	1.1	2.5			
Hourly Max	11.1	7.1	11.2	8.8	9.1	14.8	43.4	35.1	28.7	16.5	10.5	2.6	3.7	2.3	2.3	1.8	1.8	3.3	2.3	2.1	4.9	16.8	7.3	20.9			



Station: Henry Pirker

**HOURLY MAXIMUM TABLE**

**Nitric Oxide (NO)**

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004

**Summary**

Maximum 1-hr Value:	89.2	ppb	11-Aug	10:00 11:00
Maximum 24-hr Value:	13.7	ppb	11-Aug	

AIC Time:	33 hrs	Operational Time:	707 hrs					
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	45	24	6	3	1	0	0	5.8 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**

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-Aug-04	7	4	0	2	4	16	13	5	5	14	1	0	0	1	1	1	1	1	2	2	A	1	1	1	3.7	15.7	
2-Aug-04	2	2	2	0	1	2	2	3	3	4	1	1	1	1	1	1	2	1	1	A	1	0	0	0	1.6	3.7	
3-Aug-04	0	0	0	0	0	4	5	1	2	1	1	2	3	2	3	3	2	1	A	1	0	0	2	1	1.7	5.1	
4-Aug-04	1	1	1	1	4	5	17	C	C	C	C	A	2	2	2	1	3	1	A	11	2	31	2	1	4.9	30.6	
5-Aug-04	1	1	1	1	1	6	7	5	2	20	2	2	1	1	2	2	3	A	3	4	5	2	2	2	3.4	19.7	
6-Aug-04	1	1	1	1	1	1	4	3	4	3	3	3	4	5	3	4	A	4	2	3	2	1	1	1	2.3	4.8	
7-Aug-04	0	1	1	1	1	2	2	3	2	18	7	6	8	5	12	A	10	17	3	3	7	0	5	4	5.1	17.9	
8-Aug-04	2	1	1	0	0	1	1	2	2	2	3	2	2	1	A	1	1	4	2	3	1	5	2	7	2.0	6.6	
9-Aug-04	2	5	6	4	7	16	34	47	38	21	11	3	1	A	1	1	3	2	0	0	0	2	12	33	10.9	47.2	
10-Aug-04	25	18	20	14	11	17	38	29	37	24	3	1	A	2	1	1	2	1	1	2	3	4	3	0	11.2	37.6	
11-Aug-04	2	6	2	13	6	7	12	35	19	17	89	A	74	2	2	2	1	1	1	1	9	7	1	6	13.7	89.2	
12-Aug-04	5	1	2	0	4	26	36	54	25	12	A	3	1	1	1	1	4	1	1	1	1	2	9	16	5	9.2	54.2
13-Aug-04	0	1	0	1	2	28	62	39	5	A	12	15	1	5	2	6	3	4	2	0	2	0	1	1	8.5	62.2	
14-Aug-04	0	0	1	0	0	2	12	15	A	2	2	1	0	1	1	2	0	2	0	2	1	1	0	4	2.2	15.1	
15-Aug-04	1	0	3	6	3	21	18	A	9	7	2	2	1	1	2	1	1	2	1	1	0	1	2	4	3.9	21.2	
16-Aug-04	4	0	1	0	0	8	A	17	8	2	0	0	0	0	0	0	1	2	1	2	2	2	5	12	3.0	16.7	
17-Aug-04	11	2	7	2	6	A	37	57	17	8	5	2	1	9	2	2	2	3	2	2	6	38	25	0	10.7	57.0	
18-Aug-04	5	1	3	6	A	8	45	41	24	24	8	2	1	1	0	0	0	0	0	0	1	8	11	8	8.6	44.8	
19-Aug-04	1	2	2	A	4	4	6	5	2	5	1	0	3	0	2	3	3	2	1	10	5	2	1	6	3.0	9.6	
20-Aug-04	3	1	A	1	4	3	18	7	12	21	19	7	3	2	3	3	3	2	2	0	2	2	14	1	5.6	21.3	
21-Aug-04	0	A	2	1	3	2	4	6	5	6	3	3	4	4	3	1	2	3	2	16	14	3	6	8	4.3	15.9	
22-Aug-04	A	8	5	3	5	13	9	6	3	11	5	3	5	2	4	4	7	3	2	6	8	7	10	A	5.8	12.7	
23-Aug-04	5	8	3	6	2	3	5	3	3	5	17	5	4	2	4	2	2	3	2	2	13	12	A	27	5.9	26.9	
24-Aug-04	16	5	2	2	4	33	33	29	23	13	6	5	4	2	3	4	3	6	5	12	13	A	35	26	12.2	34.7	
25-Aug-04	15	13	9	4	3	8	32	16	16	14	5	2	1	12	2	6	2	6	4	4	A	2	1	2	7.8	31.7	
26-Aug-04	1	9	1	6	3	5	5	3	4	2	3	4	5	5	2	2	2	3	1	A	3	1	3	2	3.3	9.5	
27-Aug-04	1	1	0	1	4	18	33	48	38	7	3	6	3	2	3	1	3	1	A	1	2	3	2	1	8.0	47.6	
28-Aug-04	0	0	1	1	1	1	2	2	5	3	1	3	2	2	1	1	1	A	2	1	2	4	11	8	2.5	10.7	
29-Aug-04	1	2	1	2	1	2	10	4	3	6	3	3	2	2	2	2	A	1	2	3	7	11	8	3	3.5	11.2	
30-Aug-04	3	1	6	1	1	3	10	15	14	7	3	5	8	22	4	A	1	1	3	4	4	3	2	1	5.3	21.7	
31-Aug-04	2	0	18	3	3	5	11	6	5	5	14	16	7	9	A	6	5	9	2	2	1	2	2	5	6.0	18.3	
Hourly Avg	4.0	3.2	3.5	2.8	3.1	9.0	17.4	17.4	11.6	9.7	8.0	3.7	5.1	3.5	2.3	2.2	2.6	3.0	1.9	3.4	4.1	5.5	6.2	6.0			
Hourly Max	25.3	18.3	19.7	14.2	11.3	33.0	62.2	57.0	38.4	24.0	89.2	16.1	74.0	21.7	11.5	6.5	10.0	16.8	5.2	15.9	14.4	38.1	34.7	33.3			

Station: Henry Pirker

### HOURLY AVERAGE TABLE

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

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004

**Summary**

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	57	ppb	13-Aug	6:00 7:00
Maximum 24-hr Average:	14	ppb	9-Aug	

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

AIC Time:	33 hrs							Operational Time:	707 hrs		
Calibration Time:	4 hrs							AMD Operational Uptime:	100.0%		
Percentile	99	95	75	50	25	5	1	Average			
	41	21	8	4	2	1	1	6.7 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**

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-Aug-04	11	9	3	5	6	15	10	5	5	9	3	1	1	1	1	1	1	2	3	A	7	5	3	4.8	15.0	
2-Aug-04	3	2	2	2	2	5	5	3	5	4	3	4	2	1	1	2	2	4	A	6	5	3	3	2.9	5.8	
3-Aug-04	2	2	3	3	4	8	10	7	6	4	3	6	5	5	4	4	6	9	A	5	5	5	6	5.2	10.4	
4-Aug-04	4	6	7	5	8	13	15	C	C	C	C	A	7	5	6	2	3	3	A	6	6	6	5	6.2	15.3	
5-Aug-04	4	5	7	6	9	11	14	7	5	5	3	3	3	3	3	5	A	4	3	2	2	2	1	4.8	14.3	
6-Aug-04	2	0	1	1	1	2	4	4	4	2	2	2	2	3	2	3	A	3	2	2	2	1	1	0	2.1	4.5
7-Aug-04	0	1	1	1	1	2	2	2	1	3	4	3	4	2	3	A	5	4	4	5	5	5	9	3.1	9.0	
8-Aug-04	3	2	2	1	3	5	6	6	4	3	2	2	2	1	A	2	1	2	1	4	9	14	12	4.2	14.0	
9-Aug-04	10	17	7	6	8	11	18	41	31	22	11	3	2	A	2	2	3	2	2	2	12	22	33	48	13.7	47.6
10-Aug-04	27	18	22	15	16	19	34	28	43	17	4	2	A	2	1	2	2	2	3	6	15	17	10	7	13.6	42.7
11-Aug-04	3	4	8	13	7	14	12	24	19	19	16	A	12	8	8	6	4	3	4	8	16	19	11	13	10.9	23.7
12-Aug-04	12	9	7	4	8	30	39	22	22	18	A	9	5	3	2	4	3	4	5	7	10	20	22	16	12.3	38.6
13-Aug-04	7	6	4	4	7	24	57	27	7	A	7	8	5	4	3	4	4	4	4	5	5	4	3	3	9.0	56.7
14-Aug-04	2	3	3	4	4	7	20	19	A	3	2	2	1	1	1	1	1	2	4	8	8	4	5	4.6	19.9	
15-Aug-04	5	6	11	8	4	15	16	A	14	11	2	1	1	1	1	1	1	2	5	9	10	5	4	5.8	16.3	
16-Aug-04	2	1	1	1	3	8	A	18	8	4	1	2	1	1	1	1	2	3	3	5	11	10	9	19	5.0	18.7
17-Aug-04	13	8	6	4	8	A	26	36	19	14	9	2	1	2	2	4	4	4	5	7	16	44	12	5	10.9	43.8
18-Aug-04	6	4	9	12	A	18	42	49	25	14	14	7	5	2	2	2	2	4	7	12	15	16	16	12.5	49.5	
19-Aug-04	7	5	6	A	13	12	14	9	6	4	4	2	1	1	2	4	5	4	4	8	8	6	5	6	5.9	13.7
20-Aug-04	4	2	A	3	4	6	8	11	16	29	21	8	4	4	5	6	5	3	2	3	5	5	2	1	6.8	28.5
21-Aug-04	2	A	2	1	1	2	2	3	4	3	3	3	2	3	3	2	3	3	2	5	5	3	3	3	2.8	5.2
22-Aug-04	A	3	2	2	2	3	2	3	3	4	3	3	3	3	2	3	3	3	3	3	2	2	A	A	2.6	4.0
23-Aug-04	2	1	1	1	1	3	5	6	6	6	8	4	3	2	2	1	2	2	2	4	19	18	A	33	5.7	33.2
24-Aug-04	16	10	5	4	7	15	31	28	15	7	4	4	2	1	2	3	3	11	8	11	19	A	22	29	11.3	30.9
25-Aug-04	19	14	12	9	4	10	28	19	14	7	4	2	2	4	3	3	2	3	5	6	A	6	4	3	8.0	28.3
26-Aug-04	4	3	6	8	4	4	5	3	3	2	2	2	3	3	3	3	4	3	5	A	9	5	6	5	4.2	9.3
27-Aug-04	3	3	2	4	5	13	28	43	30	5	3	3	3	2	3	1	2	2	A	6	6	10	12	10	8.7	42.8
28-Aug-04	4	4	4	4	4	9	7	7	11	4	3	2	2	2	1	1	1	A	3	4	5	8	11	7	4.7	11.2
29-Aug-04	5	4	3	2	2	3	4	3	3	3	3	2	2	2	2	2	A	2	4	5	7	6	4	2	3.2	6.7
30-Aug-04	2	2	2	3	4	8	14	16	18	6	6	6	6	4	6	A	3	4	7	9	11	8	5	4	6.7	18.5
31-Aug-04	5	5	6	6	7	9	12	10	11	8	6	7	8	6	A	6	6	6	3	4	7	6	7	6	6.8	12.1
Hourly Avg	6.3	5.2	5.2	4.7	5.3	10.1	16.4	15.8	12.3	8.3	5.4	3.7	3.4	2.8	2.7	2.8	3.0	3.4	3.5	5.2	8.8	9.9	8.3	9.2		
Hourly Max	26.9	18.2	22.0	15.3	15.7	29.9	56.7	49.5	42.7	28.5	20.7	9.4	12.0	8.0	7.7	6.3	5.7	11.1	7.9	10.8	18.9	43.8	33.3	47.6		

Station: Henry Pirker

### HOURLY MAXIMUM TABLE

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

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004

Summary

Maximum 1-hr Value:	76.6	ppb	13-Aug	6:00 7:00
Maximum 24-hr Value:	22.6	ppb	11-Aug	

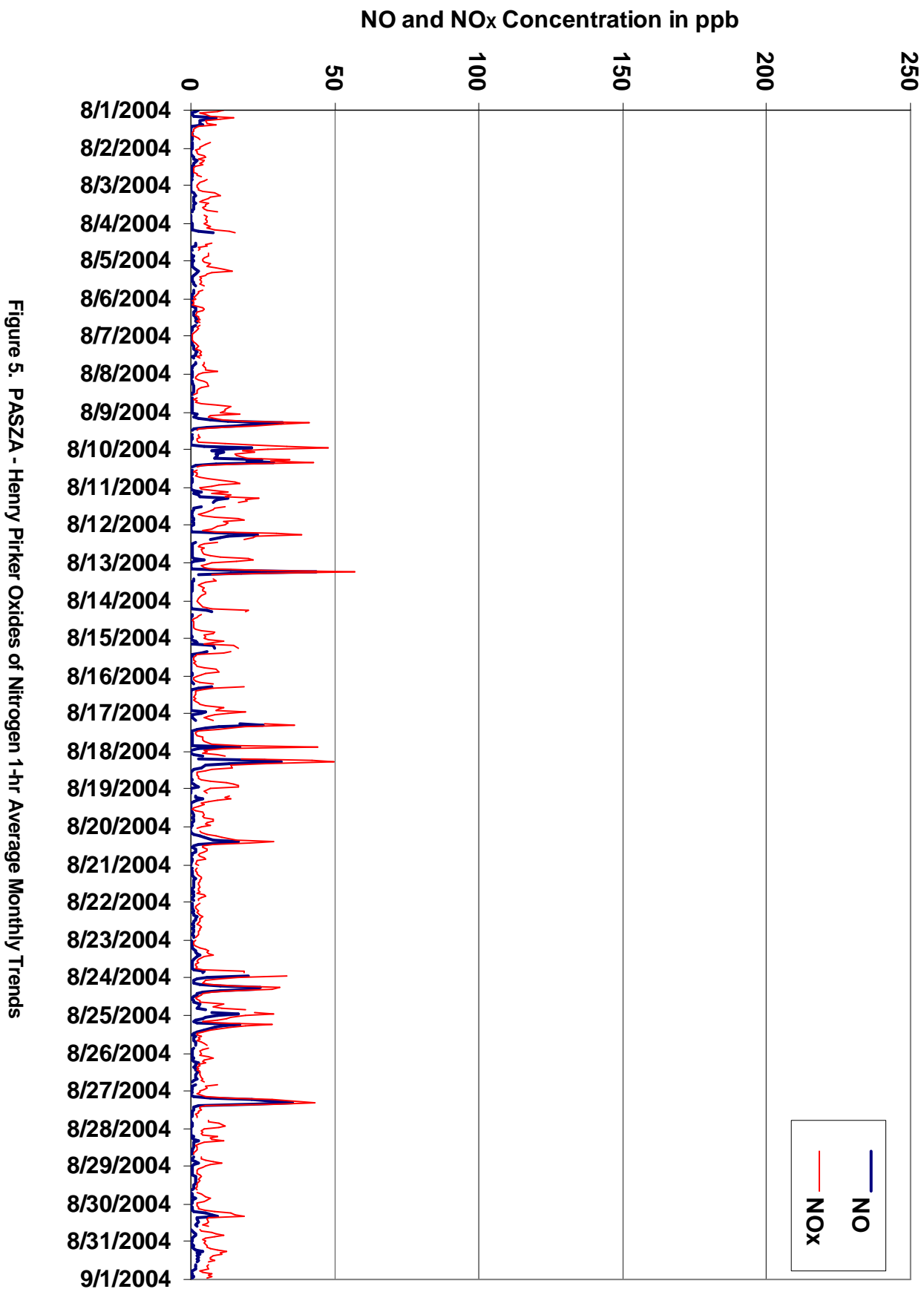
AIC Time:	33 hrs	Operational Time:	707 hrs					
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	61	40	15	8	6	3	2	12.6 ppb

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 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-Aug-04	19	13	7	9	12	22	19	8	8	19	4	2	2	3	2	2	2	3	6	5	A	9	8	5	8.2	22.0
2-Aug-04	8	5	7	4	5	8	8	7	8	8	4	5	5	2	2	3	6	5	5	A	8	6	4	4	5.4	8.1
3-Aug-04	4	4	3	4	6	14	18	8	10	6	4	9	10	8	8	11	10	17	A	7	10	7	12	8	8.6	17.9
4-Aug-04	8	8	9	9	15	18	27	C	C	C	C	A	10	10	10	5	9	4	A	27	12	48	10	6	13.7	48.3
5-Aug-04	6	8	11	8	11	18	26	15	9	31	7	8	7	6	7	6	8	A	11	8	8	5	4	4	10.0	31.3
6-Aug-04	3	2	3	3	1	5	8	10	7	7	5	6	6	8	5	7	A	7	4	6	4	3	2	2	4.9	10.0
7-Aug-04	2	1	2	2	3	4	4	5	4	23	14	7	10	9	16	A	17	27	7	11	12	8	15	11	9.3	26.9
8-Aug-04	6	4	4	3	6	7	8	9	6	4	3	5	4	3	A	3	2	6	4	8	13	22	17	23	7.4	23.3
9-Aug-04	15	24	17	11	14	22	43	57	50	28	18	8	4	A	7	5	9	7	4	4	22	31	44	60	21.9	60.5
10-Aug-04	43	28	30	21	18	27	50	40	52	38	8	4	A	6	3	4	6	6	7	12	26	22	14	14	20.9	52.4
11-Aug-04	7	11	11	22	14	21	25	52	32	30	64	A	70	11	10	10	7	4	9	13	30	29	16	21	22.6	69.8
12-Aug-04	18	12	13	6	18	42	58	71	42	24	A	14	7	6	4	8	9	7	8	11	17	31	35	24	21.0	71.5
13-Aug-04	12	9	5	8	9	41	77	53	12	A	32	39	7	13	6	15	9	14	9	8	7	8	6	6	17.6	76.6
14-Aug-04	4	4	6	6	6	14	27	32	A	7	5	5	3	3	4	4	3	6	4	9	13	14	8	18	8.8	32.1
15-Aug-04	10	12	14	12	8	30	27	A	18	18	6	3	3	2	3	4	5	5	4	9	13	13	7	12	10.4	29.6
16-Aug-04	8	2	2	2	6	16	A	27	17	6	4	4	3	3	4	3	6	8	7	11	17	15	20	28	9.5	27.6
17-Aug-04	22	11	17	7	13	A	49	70	28	18	14	5	4	18	6	8	9	11	10	16	36	70	49	7	21.6	69.9
18-Aug-04	16	6	15	15	A	24	61	62	41	41	23	10	8	6	4	3	4	5	6	13	18	26	30	26	20.2	61.6
19-Aug-04	13	8	13	A	18	14	17	14	11	13	10	7	7	3	9	10	8	6	7	15	13	8	8	16	10.6	18.0
20-Aug-04	8	4	A	6	10	8	27	14	23	35	35	16	8	8	10	9	8	6	5	7	10	9	14	3	12.2	34.9
21-Aug-04	5	A	6	3	5	6	7	10	9	7	6	6	7	9	6	4	5	6	6	22	23	7	10	11	8.1	23.0
22-Aug-04	A	14	7	5	7	17	12	7	6	11	9	6	10	4	7	8	14	6	6	13	11	11	14	A	9.1	16.8
23-Aug-04	8	8	6	7	4	8	12	10	10	12	25	10	8	5	10	4	4	6	4	9	30	29	A	41	11.7	41.0
24-Aug-04	28	14	7	5	9	40	41	36	30	20	10	9	7	4	7	11	11	20	14	23	30	A	52	36	20.2	52.4
25-Aug-04	26	22	18	13	6	18	44	26	25	13	8	5	3	17	5	11	5	10	8	10	A	9	6	5	13.7	43.9
26-Aug-04	5	9	9	14	8	9	8	5	6	4	5	5	7	7	4	5	6	7	10	A	14	7	8	8	7.4	14.5
27-Aug-04	5	6	4	4	9	25	41	58	49	13	6	6	7	6	9	4	9	5	A	10	15	18	14	15	14.8	57.7
28-Aug-04	6	5	5	6	10	13	10	10	18	11	6	5	5	5	3	3	3	A	7	7	10	13	19	15	8.5	18.6
29-Aug-04	6	7	4	4	4	5	18	5	6	9	5	4	4	5	4	4	A	5	6	8	12	19	16	6	7.3	19.4
30-Aug-04	6	3	10	4	7	13	19	25	24	15	8	11	16	20	9	A	5	6	11	15	14	15	9	5	11.8	24.8
31-Aug-04	8	6	23	10	14	16	21	17	17	14	24	27	12	12	A	15	11	19	7	9	10	9	11	10	13.9	26.6
Hourly Avg	11.1	8.9	9.6	7.8	9.2	17.5	27.1	26.3	19.9	16.8	12.8	8.7	8.7	7.4	6.3	6.5	7.1	8.4	7.0	11.2	15.9	17.4	16.1	15.0		
Hourly Max	43.2	27.9	29.8	22.0	18.0	41.9	76.6	71.5	52.4	41.3	64.0	39.5	69.8	20.2	16.1	15.1	16.6	26.9	13.8	27.0	36.1	69.9	52.4	60.5		



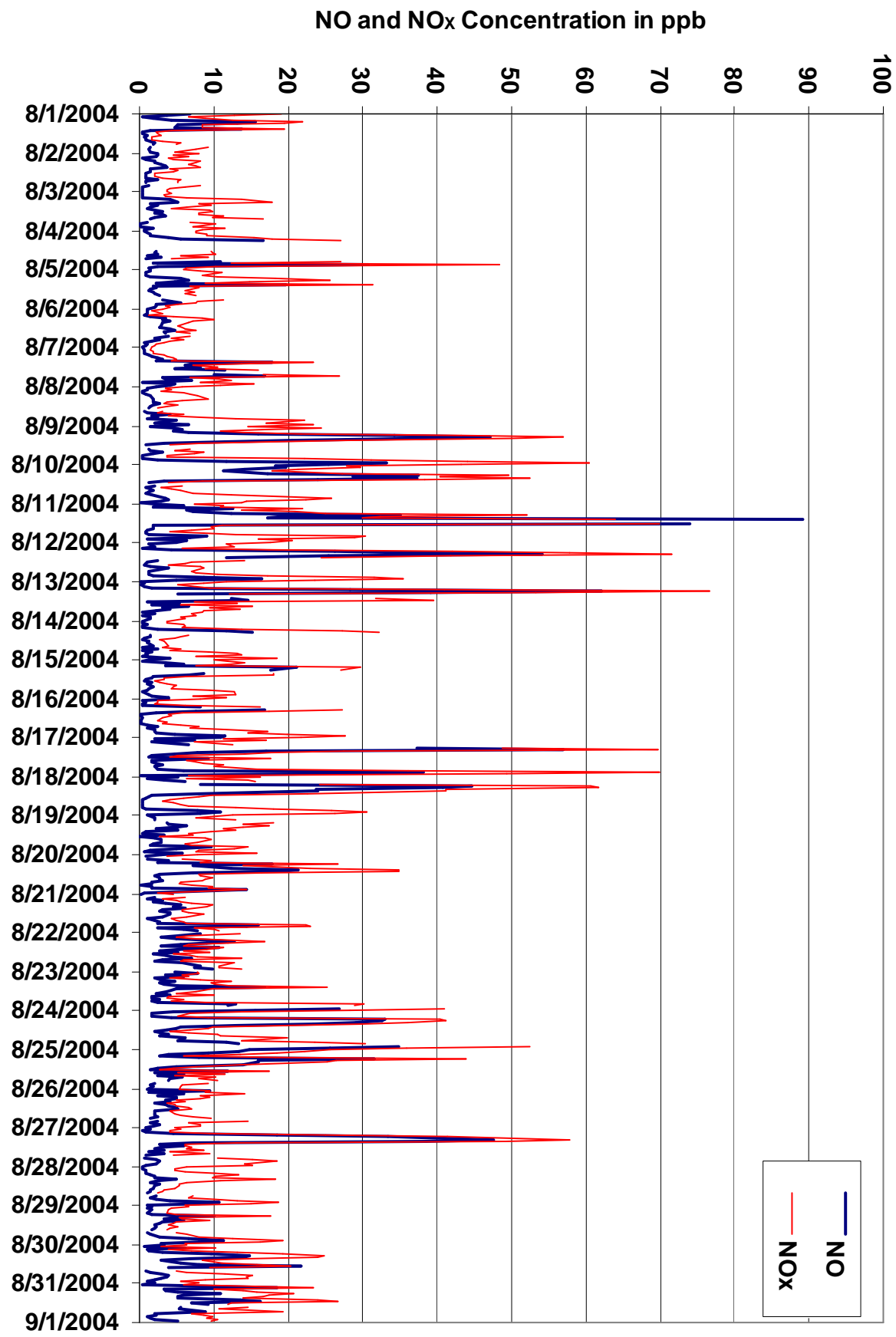


Figure 6. PASZA - Henry Pirkler Oxides of Nitrogen 1-hr Maximum Value Monthly Trends

### PASZA - Henry Pirker Ozone Monthly Summary

Station: Henry Pirker

#### HOURLY AVERAGE TABLE

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

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004

**Summary**

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	64.6	ppb	11-Aug	15:00 16:00
Maximum 24-hr Average:	29.5	ppb	13-Aug	

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

AIC Time:	33 hrs							Operational Time:	709 hrs		
Calibration Time:	2 hrs							AMD Operational Uptime:	100.0%		
Percentile	99	95	75	50	25	5	1	Average			
	54	44	28	17	10	2	0	19.8 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**

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-Aug-04	2	3	8	5	3	1	4	7	12	17	27	34	37	37	35	33	A	31	31	30	25	20	19	21	19.1	36.9
2-Aug-04	22	24	22	22	21	17	15	16	16	22	29	36	31	30	33	A	37	37	36	33	33	37	37	37	28.0	37.3
3-Aug-04	36	33	30	28	26	20	18	22	22	25	27	26	32	40	A	37	32	21	18	30	27	27	25	22	27.1	39.5
4-Aug-04	21	17	17	17	13	8	3	8	6	13	21	30	38	A	50	51	C	C	A	40	35	27	27	27	23.4	50.8
5-Aug-04	25	24	22	24	15	17	22	30	32	36	37	36	35	A	32	31	25	26	28	24	17	12	10	11	24.8	37.3
6-Aug-04	10	12	13	14	14	12	11	11	12	14	14	14	A	16	17	17	19	20	19	16	15	14	14	14	14.5	19.8
7-Aug-04	13	12	11	10	8	6	6	9	10	11	13	A	14	18	20	22	22	19	17	18	19	15	8	9	13.5	22.2
8-Aug-04	9	9	15	15	14	12	14	15	14	16	A	28	31	30	32	33	33	31	31	28	21	14	15	12	20.5	33.2
9-Aug-04	12	3	3	3	2	1	2	3	6	A	16	32	38	42	45	47	47	44	42	40	29	16	4	1	20.7	46.7
10-Aug-04	0	1	0	0	1	1	2	5	A	18	29	34	37	38	40	40	41	43	43	40	28	23	31	31	22.9	43.1
11-Aug-04	32	24	4	2	10	6	10	A	11	13	22	35	45	52	58	65	62	52	41	30	18	16	21	14	27.8	64.6
12-Aug-04	4	5	15	23	15	1	A	8	14	22	36	51	57	54	54	57	54	54	45	40	31	16	3	5	28.7	56.9
13-Aug-04	14	14	12	10	5	A	1	5	15	32	42	52	59	53	49	45	45	41	37	39	30	26	27	26	29.5	59.2
14-Aug-04	27	25	24	15	A	13	6	11	28	31	35	38	40	40	40	40	38	36	31	23	23	24	22	22	28.2	40.5
15-Aug-04	20	14	2	A	3	1	3	8	14	25	34	34	35	37	37	37	38	39	38	32	24	21	22	18	23.3	39.4
16-Aug-04	14	14	A	16	15	10	4	8	15	21	27	30	37	40	44	45	45	39	34	28	18	16	1	1	23.4	45.2
17-Aug-04	1	A	7	4	4	2	2	3	10	19	32	38	39	39	42	45	44	44	40	36	22	2	21	22	22.6	45.3
18-Aug-04	A	20	8	1	1	5	1	4	11	20	32	43	50	53	54	54	51	45	43	36	18	10	4	A	25.7	54.3
19-Aug-04	12	13	9	2	3	4	4	13	21	30	36	39	42	39	37	31	29	28	29	23	19	19	A	15	21.6	41.8
20-Aug-04	19	19	17	14	11	8	6	5	5	7	15	25	31	33	24	22	23	25	23	21	16	A	17	19	17.7	33.1
21-Aug-04	15	15	23	23	22	20	18	16	14	16	17	19	23	22	21	19	19	20	24	17	A	13	13	11	18.3	24.0
22-Aug-04	12	11	9	12	12	10	12	12	12	15	15	18	22	21	22	25	23	23	A	24	24	25	24	24	17.1	24.9
23-Aug-04	23	22	21	20	17	15	13	11	10	9	9	13	16	19	19	18	19	19	A	17	5	2	1	0	13.7	23.2
24-Aug-04	1	1	1	0	0	0	0	2	8	15	18	21	23	24	24	22	27	A	18	13	5	4	2	0	9.9	27.0
25-Aug-04	0	2	2	6	12	6	2	6	9	12	16	22	26	29	32	32	A	29	24	20	16	17	18	17	15.5	32.4
26-Aug-04	15	13	9	7	8	8	5	6	6	7	7	9	11	13	19	A	26	27	24	16	14	12	8	6	11.9	27.1
27-Aug-04	6	6	7	5	2	0	1	1	5	17	24	29	29	29	A	28	26	25	22	19	17	11	7	8	14.1	29.5
28-Aug-04	12	11	8	13	17	11	16	14	12	18	19	25	30	A	26	25	24	19	19	14	11	6	5	6	15.7	30.0
29-Aug-04	6	9	11	10	10	9	8	8	8	9	10	12	A	15	17	21	20	20	15	15	15	13	10	11	12.3	20.6
30-Aug-04	13	10	11	10	9	5	4	4	5	10	13	A	14	18	18	23	22	18	15	11	8	9	9	8	11.6	23.0
31-Aug-04	5	4	3	7	6	6	4	12	8	13	A	19	14	17	14	16	16	17	20	17	11	10	7	7	11.1	20.3
Hourly Avg	13.4	13.0	11.4	11.2	9.9	7.8	7.2	9.4	12.3	17.8	23.2	28.9	32.1	32.2	32.9	33.8	32.5	30.8	28.8	25.8	19.7	15.9	15.0	14.2		
Hourly Max	36.0	33.2	29.6	27.6	25.8	20.0	21.8	30.1	31.7	36.2	42.1	52.4	59.2	54.1	57.9	64.6	62.4	53.7	45.0	40.3	35.3	36.5	37.3	36.6		

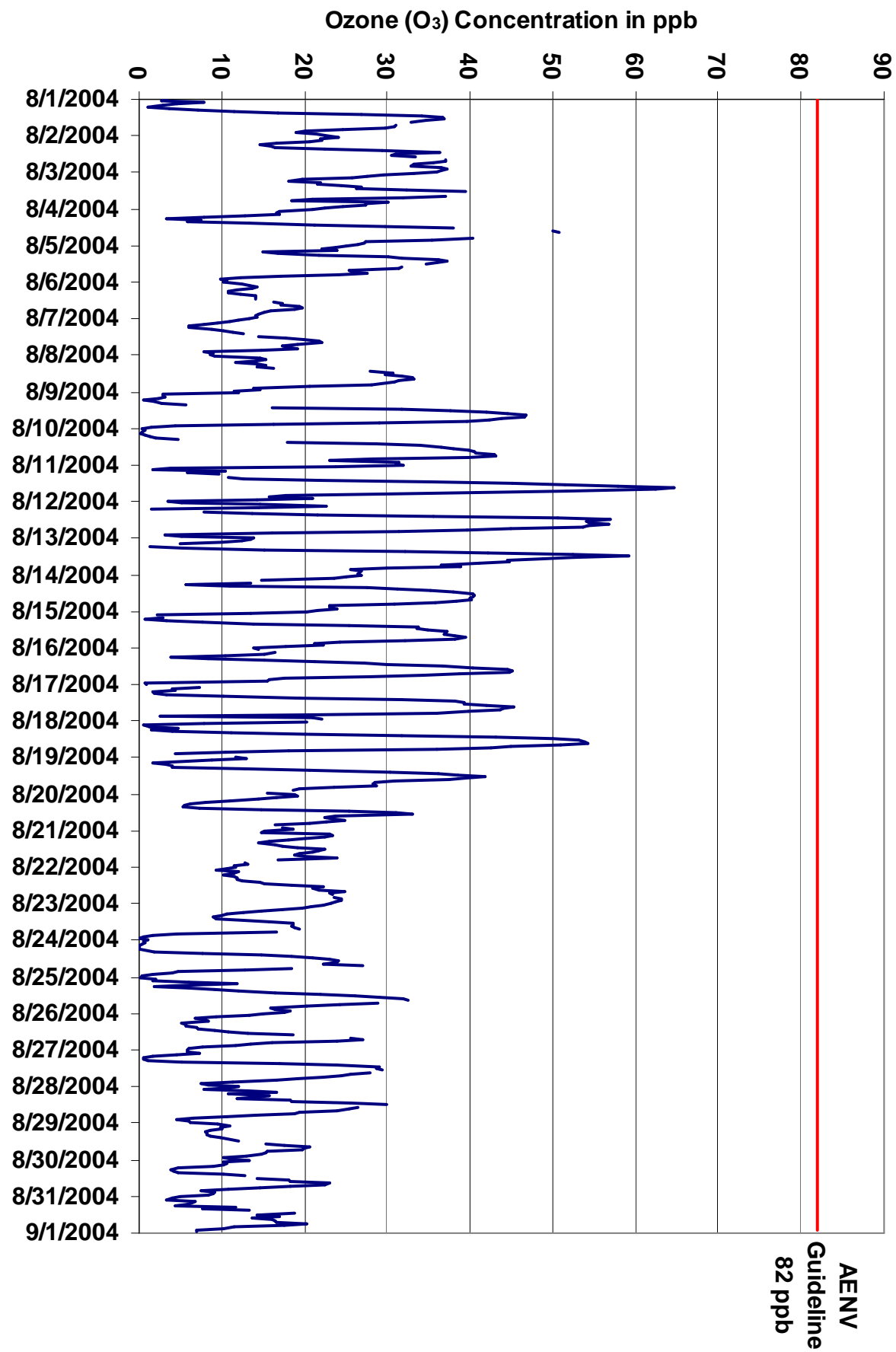


Figure 7. PASZA - Henry Pirkker Ozone 1-hr Average Monthly Trend

Station: Henry Pirker

**HOURLY MAXIMUM TABLE**

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

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004  
Summary

Maximum 1-hr Value:	68.2	ppb	11-Aug	16:00 17:00
Maximum 24-hr Value:	34.4	ppb	12-Aug	

AIC Time:	33 hrs	Operational Time:	709 hrs					
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	60	47	31	21	13	4	1	23.0 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-Aug-04	6	6	10	7	5	4	5	11	16	24	32	37	40	38	37	34	A	32	33	32	29	23	22	22	22.0	39.6
2-Aug-04	24	27	23	24	22	20	16	17	18	26	34	38	37	33	35	A	39	39	38	35	35	39	40	38	30.3	39.8
3-Aug-04	38	35	31	29	28	24	21	24	24	27	28	30	37	44	A	41	38	35	28	33	31	31	30	28	31.2	44.3
4-Aug-04	24	19	22	20	16	15	7	11	10	17	25	36	44	A	52	53	C	C	A	44	42	31	29	29	27.3	53.2
5-Aug-04	27	25	27	26	21	24	29	34	35	41	42	40	39	A	34	34	28	28	30	27	21	15	11	12	28.4	42.4
6-Aug-04	11	13	15	16	16	14	13	13	14	16	15	16	A	18	19	19	20	21	21	18	17	16	15	15	16.1	21.4
7-Aug-04	14	13	12	11	9	8	8	12	11	13	14	A	17	20	22	24	24	24	21	21	22	19	11	13	15.8	24.0
8-Aug-04	11	14	16	19	20	15	17	18	17	20	A	29	34	32	33	34	34	34	33	30	27	18	19	18	23.6	34.5
9-Aug-04	17	9	5	5	4	2	4	4	7	A	23	36	41	45	47	49	49	47	47	43	38	20	11	6	24.3	48.6
10-Aug-04	2	3	1	1	2	3	3	6	A	24	34	36	39	40	42	43	43	45	46	45	37	31	35	35	25.9	45.7
11-Aug-04	34	30	8	4	16	11	12	A	13	17	28	43	51	56	63	68	68	55	49	37	26	26	25	23	33.2	68.2
12-Aug-04	6	7	26	27	19	6	A	15	18	25	44	56	59	60	57	61	65	66	47	45	35	26	11	11	34.4	65.7
13-Aug-04	17	15	15	15	7	A	3	13	26	38	48	60	63	56	54	47	47	44	42	45	33	28	29	28	33.6	63.3
14-Aug-04	28	27	26	16	A	16	10	30	29	35	37	40	42	42	42	41	41	40	39	34	29	26	27	23	31.3	42.1
15-Aug-04	23	20	6	A	4	3	7	10	17	35	35	36	37	39	39	40	42	41	41	38	29	27	27	20	26.6	41.6
16-Aug-04	16	17	A	17	17	13	8	12	19	24	31	35	41	44	46	47	47	46	38	32	25	20	19	4	26.8	46.9
17-Aug-04	2	A	13	6	7	3	4	5	18	24	39	41	40	42	45	48	47	48	44	40	32	9	29	25	26.5	48.4
18-Aug-04	A	21	20	2	5	10	4	7	19	31	39	47	53	55	56	56	55	47	46	43	31	20	10	A	30.8	56.3
19-Aug-04	15	15	13	4	6	6	9	18	26	33	38	43	44	41	42	34	31	30	31	26	22	21	A	20	24.7	44.2
20-Aug-04	21	20	19	16	13	10	8	7	7	10	22	29	34	37	27	25	26	27	26	24	21	A	20	21	20.4	37.2
21-Aug-04	18	19	27	27	27	22	20	17	16	18	19	21	26	25	24	22	21	25	28	22	A	14	15	13	20.9	27.7
22-Aug-04	13	13	11	13	13	12	13	13	13	15	16	18	24	27	23	25	27	25	25	A	25	26	25	24	19.2	27.5
23-Aug-04	24	23	22	21	19	17	14	13	12	11	12	15	18	21	20	20	20	21	A	19	12	4	3	2	15.9	24.1
24-Aug-04	3	2	1	1	1	1	1	4	14	19	21	23	25	26	26	25	35	A	23	18	9	9	5	3	12.8	35.1
25-Aug-04	1	7	7	13	13	9	4	11	12	13	20	25	28	33	33	35	A	32	27	23	19	18	20	19	18.4	34.7
26-Aug-04	18	15	14	10	11	11	8	7	7	8	8	12	12	16	22	A	28	29	28	23	17	13	11	9	14.6	28.6
27-Aug-04	8	8	9	6	3	1	1	2	11	24	27	31	30	32	A	30	28	27	25	23	20	20	13	14	17.1	31.5
28-Aug-04	14	14	9	23	20	16	20	17	16	22	22	30	32	A	29	28	29	22	22	17	14	10	8	8	19.2	31.9
29-Aug-04	9	11	13	11	11	10	9	10	9	10	12	14	A	17	20	24	23	23	19	19	17	16	14	14	14.6	24.1
30-Aug-04	15	11	12	12	12	8	6	8	7	14	16	A	17	22	22	25	24	21	17	14	10	12	10	10	14.1	25.3
31-Aug-04	7	5	7	9	10	9	6	17	10	20	A	22	18	20	18	19	20	22	23	21	15	13	10	9	14.3	22.9
Hourly Avg	15.5	15.6	14.6	13.7	12.6	10.8	9.6	12.8	15.8	21.8	26.9	32.4	35.3	35.0	35.4	36.3	35.6	34.4	32.2	29.7	24.7	20.0	18.4	17.1		
Hourly Max	37.9	35.0	31.3	28.9	28.5	24.3	28.9	33.5	35.2	41.2	47.6	60.3	63.3	60.0	63.1	68.2	68.2	65.7	49.1	45.2	42.2	39.4	39.8	37.7		



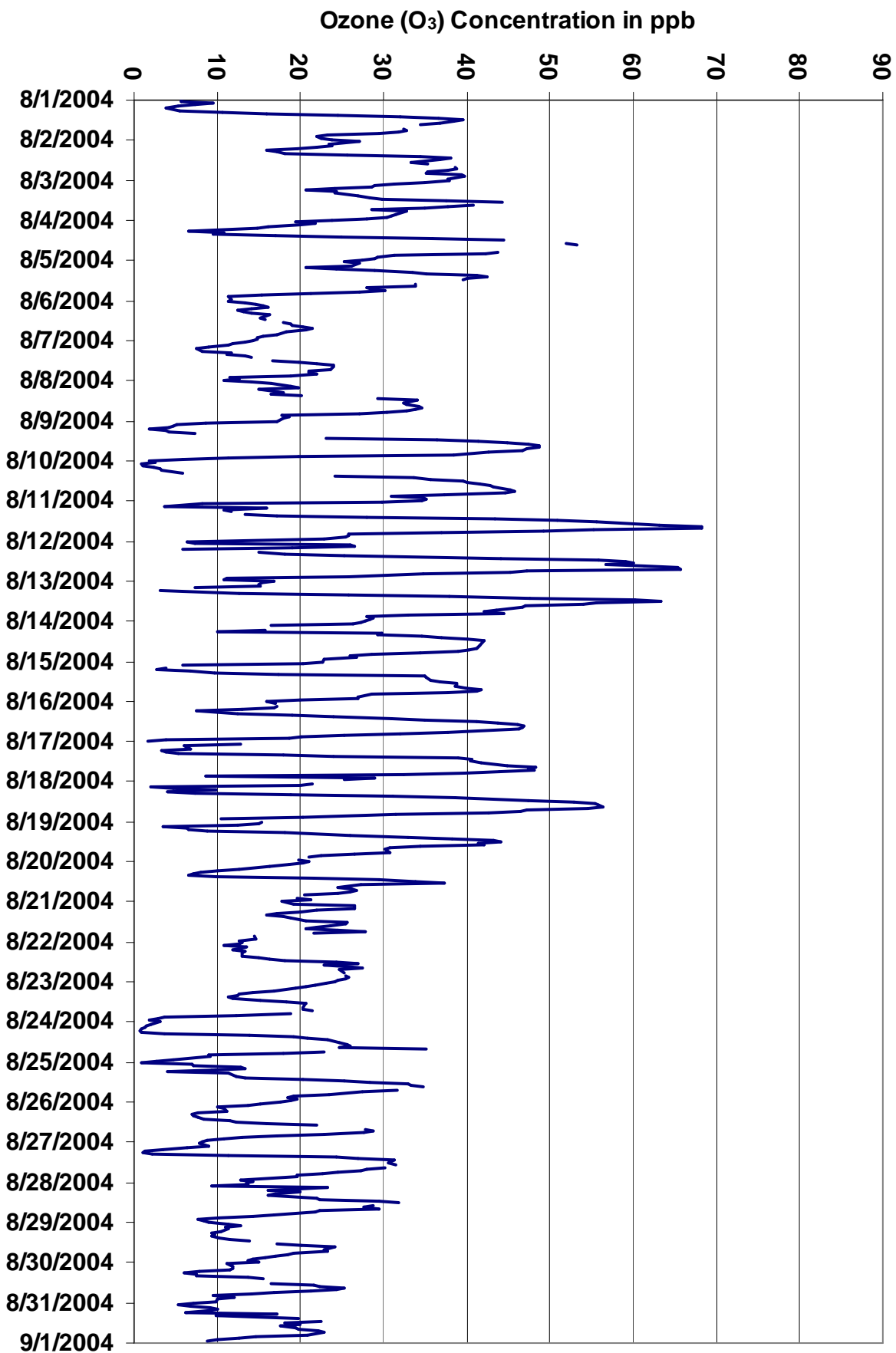


Figure 8. PASZA - Henry Piker Ozone 1-hr Maximum Value Monthly Trend

Station: Henry Pirker

### EIGHT HOUR RUNNING AVERAGE TABLE

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

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004

**Summary**

Number of 8-hr Exceedances:	0					
Maximum 8-hr Average:	53.2	ppb	12-Aug	18:00	19:00	

Guideline Limit: Canada Wide Standard 8-hr 65 ppb

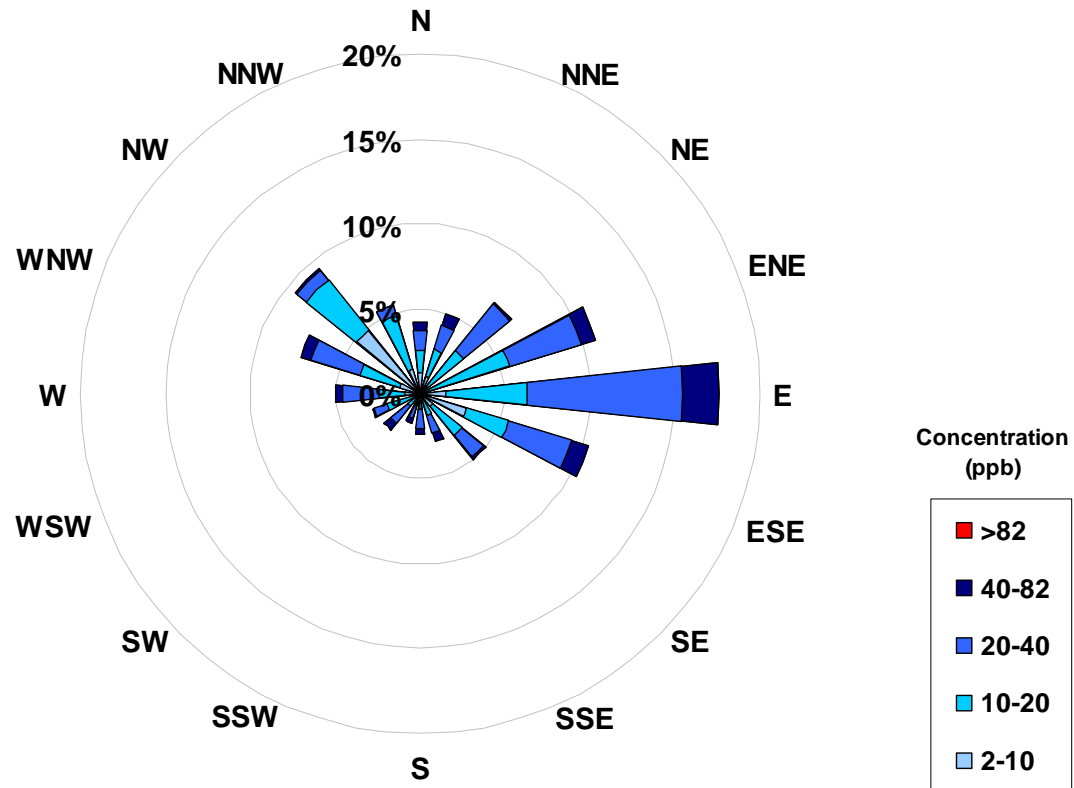
Percentile	99	95	75	50	25	5	1
	48.5	39.0	26.2	17.9	11.8	4.9	1.3

**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-Aug-04	3	10	8	7	5	4	4	4	5	7	9	13	17	22	26	29	31	33	34	33	32	29	27	25	17.4	33.9	
2-Aug-04	25	24	23	22	21	21	20	20	19	19	20	22	23	25	27	28	31	34	34	34	34	35	36	36	26.3	35.8	
3-Aug-04	36	35	34	34	33	31	28	27	25	24	23	24	26	28	30	31	31	29	30	29	28	27	25	28.8	35.6		
4-Aug-04	24	24	23	22	20	17	15	13	11	11	11	13	16	17	24	30	N	N	N	N	N	N	N	N	N	29.8	
5-Aug-04	N	29	28	26	24	23	22	22	23	25	27	28	31	33	34	34	33	32	30	29	26	24	22	19	27.1	34.2	
6-Aug-04	17	16	14	12	12	12	12	12	12	13	13	13	13	13	14	15	16	17	18	18	17	17	17	16	14.5	17.8	
7-Aug-04	16	15	14	13	12	11	10	9	9	9	9	9	10	12	14	15	17	18	19	19	19	19	18	16	13.8	19.4	
8-Aug-04	14	13	13	12	12	11	12	13	14	14	16	19	21	24	26	29	31	31	31	30	28	26	23	19.9	31.1		
9-Aug-04	20	17	13	10	8	6	5	4	3	3	5	9	14	20	26	32	38	39	42	43	42	39	34	28	20.7	42.9	
10-Aug-04	22	17	12	7	3	1	1	1	1	4	8	13	18	23	29	34	34	38	39	40	39	37	36	35	20.5	40.2	
11-Aug-04	34	32	27	22	20	17	15	12	9	8	10	15	20	27	34	37	44	49	51	50	47	43	38	32	28.8	51.1	
12-Aug-04	24	18	15	14	14	12	11	10	11	14	17	21	27	34	37	43	48	52	53	52	49	44	37	31	28.7	53.2	
13-Aug-04	26	21	17	13	10	9	9	9	9	12	16	22	30	33	38	43	47	48	47	46	42	39	36	34	27.3	48.2	
14-Aug-04	32	30	28	25	24	22	19	17	17	18	20	23	25	29	33	37	38	39	39	38	36	34	32	30	28.5	39.2	
15-Aug-04	27	24	20	18	15	12	9	7	6	8	13	15	19	24	28	32	35	36	37	37	35	33	32	29	23.0	36.9	
16-Aug-04	26	23	21	19	17	16	13	12	12	13	15	16	19	23	28	33	36	38	39	39	37	34	30	24	24.3	39.3	
17-Aug-04	19	16	12	9	7	5	3	3	5	7	10	14	18	23	28	33	37	40	41	41	39	34	32	29	21.1	41.4	
18-Aug-04	27	23	19	14	11	11	8	6	6	6	9	15	21	27	33	40	45	48	49	48	44	39	33	30	25.4	49.1	
19-Aug-04	24	19	15	10	8	7	7	7	9	11	14	19	24	28	32	34	35	35	34	32	30	27	25	23	21.2	35.4	
20-Aug-04	22	20	19	17	16	15	14	12	11	9	9	10	13	16	18	20	23	25	26	25	23	22	21	21	17.9	25.9	
21-Aug-04	19	18	18	18	19	19	19	19	19	19	18	18	18	18	19	19	20	20	21	21	20	19	18	17	18.9	20.8	
22-Aug-04	16	14	12	12	12	11	11	11	11	11	12	12	13	15	16	17	19	20	21	22	23	23	24	24	16.0	23.9	
23-Aug-04	24	24	23	23	22	21	19	18	16	14	13	12	12	12	13	14	15	16	17	18	16	14	11	9	16.5	23.7	
24-Aug-04	6	4	3	1	1	0	0	1	1	3	5	8	11	14	17	19	22	23	23	22	19	16	13	10	10.1	22.8	
25-Aug-04	6	6	3	3	3	4	4	4	4	6	7	9	11	12	15	19	22	24	27	28	28	26	24	22	20	13.9	27.8
26-Aug-04	20	18	16	14	13	12	10	9	8	7	7	7	7	8	10	10	13	16	18	19	20	19	18	16	13.1	19.7	
27-Aug-04	14	11	9	8	6	5	4	3	3	5	7	10	13	17	19	23	26	27	27	25	24	21	19	17	14.3	27.0	
28-Aug-04	15	14	12	11	11	11	12	13	13	14	15	16	18	19	21	22	24	24	24	23	20	18	15	13	16.5	24.2	
29-Aug-04	11	10	9	8	8	8	9	9	9	9	9	9	10	11	13	15	16	17	18	17	17	17	16	15	11.8	17.7	
30-Aug-04	14	13	12	12	11	10	9	8	7	7	7	7	8	10	12	14	17	18	18	17	17	15	14	12	12.2	18.4	
31-Aug-04	10	9	7	7	6	6	5	6	6	7	8	10	11	12	14	14	16	16	17	16	16	15	14	13	11.0	16.6	
Hourly Avg	19.8	18.2	16.1	14.2	13.0	12.0	11.0	10.4	10.2	10.8	12.3	14.5	17.1	20.1	23.3	26.3	28.7	30.2	30.9	30.5	29.0	26.9	24.8	22.4			
Hourly Max	35.6	35.2	34.4	33.7	32.8	30.7	28.3	26.5	24.7	24.7	26.6	28.1	30.6	34.3	38.5	43.4	48.0	52.0	53.2	51.8	48.6	43.9	37.9	35.8			

**Concentration Rose for the 1-hr O<sub>3</sub> Average Concentration Occurrences at the Henry Pirker Site for August 2004**



Frequency Distribution of O <sub>3</sub> in ppb			
Range		Frequency (hrs)	
0	< 2	43	
2	to 10	127	
10	to 20	237	
20	to 40	245	
40	to 82	57	
	> 82	0	
Total Non-Zero Values			709

Calms	
Range	
ppb	
2-10	0.0%
10-20	0.0%
20-40	0.0%
40-82	0.0%
>82	0.0%



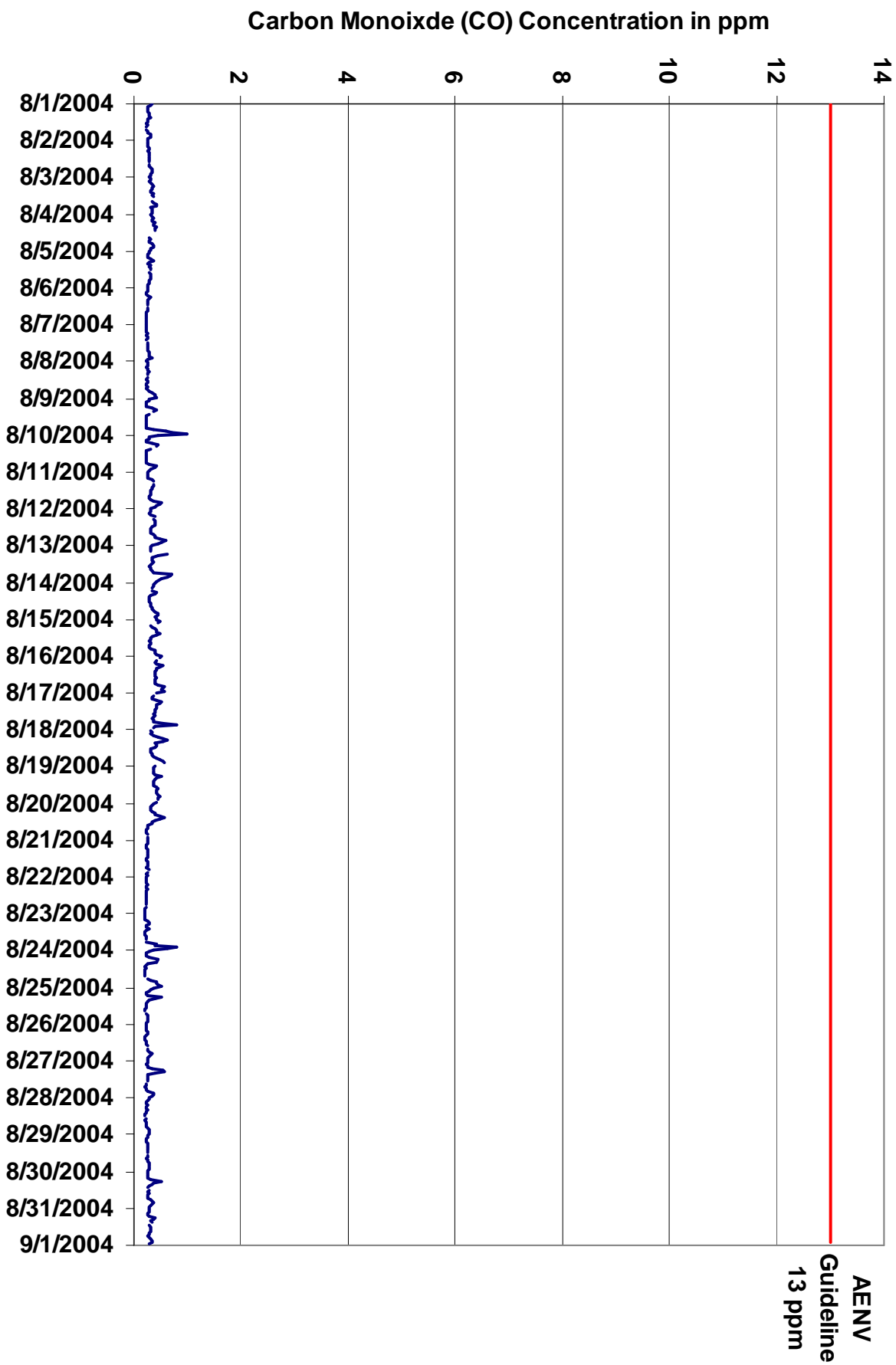


Figure 9. PASZA - Henry Pirkker Carbon Monoxide 1-hr Average Monthly Trend

Station: Henry Pirker

### HOURLY MAXIMUM TABLE

**Carbon Monoxide (CO)**

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004

**Summary**

Maximum 1-hr Value:	2.7	ppm	25-Aug	6:00	7:00
Maximum 24-hr Value:	0.6	ppm	17-Aug		

AIC Time:	33 hrs	Operational Time:	709 hrs					
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	1.5	0.8	0.5	0.4	0.3	0.3	0.3	0.4 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		
1-Aug-04	0.4	0.4	0.3	0.3	0.3	0.5	0.3	0.3	0.3	0.5	0.3	0.3	0.3	0.3	0.4	0.3	A	0.3	0.4	0.3	0.4	0.4	0.6	0.3	0.36	0.58
2-Aug-04	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.3	A	0.3	0.3	0.4	0.4	0.5	0.4	0.4	0.3	0.35	0.47	
3-Aug-04	0.3	0.3	0.3	0.3	0.3	0.5	0.5	0.4	0.5	0.4	0.4	1.5	0.4	A	0.5	0.7	0.6	0.7	0.4	0.4	0.4	0.5	0.4	0.49	1.50	
4-Aug-04	0.4	0.4	0.5	0.4	0.4	0.8	0.5	0.4	0.6	0.5	0.5	C	C	A	A	0.4	0.4	0.3	0.4	0.5	0.6	1.3	0.4	0.3	0.50	1.34
5-Aug-04	0.4	0.3	0.3	0.3	0.3	0.4	1.8	0.6	0.3	0.9	0.4	0.4	A	A	0.4	0.4	0.4	0.4	0.4	0.5	0.3	0.3	0.3	0.46	1.77	
6-Aug-04	0.3	0.3	0.3	0.3	0.3	0.3	0.8	0.4	0.3	0.4	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	0.34	0.82	
7-Aug-04	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.4	A	A	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.35	0.63	
8-Aug-04	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	A	0.3	0.3	0.7	0.8	0.5	0.3	1.0	0.3	0.5	0.5	0.8	0.8	0.45	1.01	
9-Aug-04	0.3	0.4	0.3	0.3	0.3	0.3	0.7	0.5	0.5	A	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.5	1.2	0.9	1.4	0.46	1.43	
10-Aug-04	0.8	0.4	0.3	0.3	0.3	0.5	0.9	0.6	A	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.6	1.0	0.5	0.5	0.44	0.95	
11-Aug-04	0.4	0.3	0.3	0.3	0.3	0.4	0.6	A	0.5	1.2	0.4	0.4	1.0	0.5	0.4	0.4	0.4	0.4	0.7	0.7	0.6	0.6	0.5	0.50	1.18	
12-Aug-04	0.4	0.4	0.4	0.3	0.4	0.6	A	0.6	1.3	0.7	0.5	1.6	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.8	0.8	0.8	0.58	1.58	
13-Aug-04	0.4	0.4	0.4	0.4	0.4	A	1.0	0.9	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.5	0.4	0.7	0.7	0.8	0.8	0.6	0.5	0.54	1.01	
14-Aug-04	0.5	0.4	0.4	0.4	A	0.5	0.5	0.5	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.44	0.56	
15-Aug-04	0.5	0.6	0.6	A	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.48	0.62	
16-Aug-04	0.6	0.6	A	0.5	0.5	0.7	1.0	0.7	0.5	0.5	0.5	0.6	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.7	0.6	0.7	0.8	0.58	0.96
17-Aug-04	0.5	A	0.5	0.4	0.4	0.8	1.6	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.8	0.6	0.8	1.1	0.8	0.4	0.62	1.56
18-Aug-04	A	0.4	0.4	0.4	0.5	0.7	0.7	0.8	0.7	0.5	0.5	0.6	0.5	0.4	0.4	0.4	0.4	0.5	0.4	0.6	0.6	1.1	0.7	A	0.55	1.05
19-Aug-04	0.5	0.4	0.4	0.5	0.4	0.5	1.5	0.5	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	A	0.5	0.54	1.48	
20-Aug-04	0.5	0.4	0.4	0.4	0.4	0.5	0.8	0.5	0.6	0.7	0.6	0.5	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	A	0.4	0.3	0.43	0.78	
21-Aug-04	0.3	0.3	0.3	0.3	0.3	0.3	0.9	0.3	0.8	0.7	0.6	0.8	0.5	0.3	0.3	0.3	0.3	0.4	0.4	0.5	A	0.3	0.3	0.3	0.43	0.89
22-Aug-04	0.3	0.3	0.3	0.3	0.3	1.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.4	A	0.3	0.3	0.3	0.35	1.37	
23-Aug-04	0.2	0.3	0.3	0.2	0.3	0.4	0.5	0.5	0.3	0.4	1.3	0.3	0.3	0.3	0.3	0.3	0.3	A	0.3	0.7	0.5	1.3	0.8	0.44	1.32	
24-Aug-04	0.5	0.4	0.3	0.3	0.3	0.5	0.8	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	A	0.3	0.4	0.6	0.8	0.7	0.43	0.78	
25-Aug-04	0.5	0.5	0.4	0.3	0.3	0.4	2.7	0.7	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	A	0.3	0.4	0.4	0.3	0.4	0.4	0.3	0.47	2.70
26-Aug-04	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	A	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.33	0.47
27-Aug-04	0.3	0.3	0.3	0.3	0.3	0.6	1.0	0.7	0.6	0.3	0.3	0.3	0.3	0.3	A	0.3	0.3	0.3	0.3	0.3	0.4	0.7	0.5	0.4	0.41	1.04
28-Aug-04	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	A	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.31	0.40
29-Aug-04	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.4	0.4	0.5	A	0.4	0.3	0.3	0.3	0.3	0.5	0.4	0.4	0.4	0.3	0.36	0.53	
30-Aug-04	0.3	0.3	0.3	0.3	0.4	0.9	1.7	0.5	0.5	0.4	0.4	A	A	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.4	0.4	0.45	1.66
31-Aug-04	0.3	0.4	0.3	0.3	0.3	0.4	0.7	2.7	0.4	0.5	A	A	0.4	0.6	0.4	0.4	0.5	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.52	2.70
Hourly Avg	0.40	0.36	0.34	0.32	0.33	0.50	0.81	0.58	0.47	0.48	0.43	0.47	0.39	0.37	0.38	0.37	0.37	0.41	0.42	0.44	0.50	0.59	0.54	0.48		
Hourly Max	0.79	0.62	0.56	0.51	0.48	1.37	2.70	2.70	1.28	1.18	1.26	1.58	0.99	0.66	0.81	0.54	0.74	1.01	0.78	0.77	0.81	1.34	1.32	1.43		

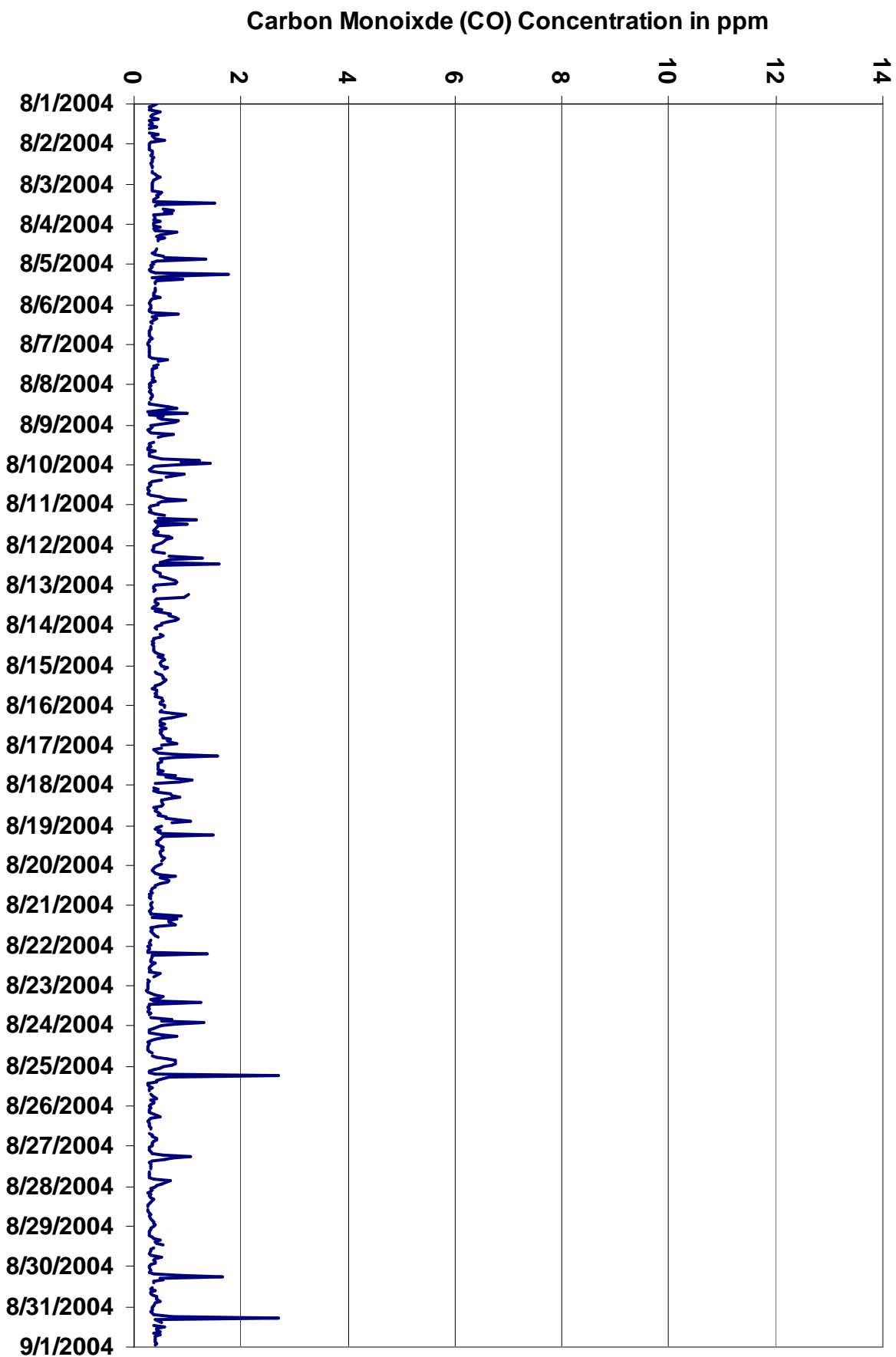


Figure 10. PASZA - Henry Pirkner Carbon Monoxide 1-hr Maximum Value Monthly Trend

Station: Henry Pirker

### EIGHT HOUR RUNNING AVERAGE TABLE

Carbon Monoxide (CO)

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004

**Summary**

Number of 8-hr Exceedances:	0						
Maximum 8-hr Average:	0.51	ppm	14-Aug	2:00	3:00		

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

**Status Flag Characters**

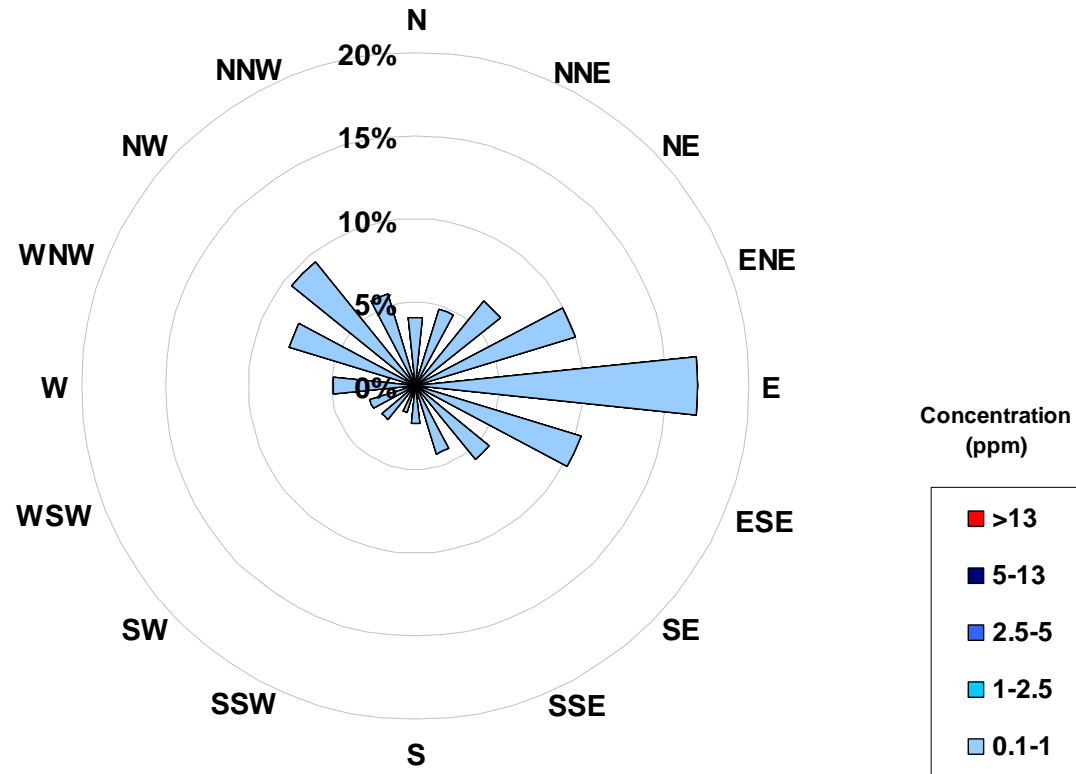
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Percentile	99	95	75	50	25	5	1
	0.48	0.45	0.37	0.30	0.25	0.23	0.21

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-Aug-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	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.28	0.35
2-Aug-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	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.28	0.32
3-Aug-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	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.34	0.38	
4-Aug-04	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	N	N	N	N	N	N	N	N	N	0.3	0.3	N	0.39	
5-Aug-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	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.30	0.32
6-Aug-04	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25	0.28
7-Aug-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	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.24	0.28
8-Aug-04	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.26	0.32
9-Aug-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	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.29	0.44
10-Aug-04	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.33	0.49
11-Aug-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	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.32	0.38	
12-Aug-04	0.4	0.4	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	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.37	0.44
13-Aug-04	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.40	0.49
14-Aug-04	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.37	0.51
15-Aug-04	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.38	0.44
16-Aug-04	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.43	0.48
17-Aug-04	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	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.43	0.49
18-Aug-04	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.42	0.47
19-Aug-04	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.42	0.45
20-Aug-04	0.4	0.4	0.4	0.4	0.4	0.3	0.4	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	0.2	0.2	0.2	0.35	0.44
21-Aug-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	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.25	0.25
22-Aug-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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	0.25
23-Aug-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	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.24	0.41
24-Aug-04	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.31	0.44
25-Aug-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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29	0.40
26-Aug-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	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.24	0.28
27-Aug-04	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	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.29	0.36
28-Aug-04	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.25	0.30
29-Aug-04	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.26	0.27
30-Aug-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	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.29	0.34
31-Aug-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	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.31	0.33
Hourly Avg	0.34	0.34	0.34	0.34	0.32	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.32	0.30	0.29	0.29	0.28	0.28	0.29	0.30	0.31	0.33	0.34		
Hourly Max	0.50	0.51	0.51	0.48	0.47	0.44	0.46	0.47	0.46	0.45	0.46	0.47	0.47	0.46	0.43	0.41	0.41	0.41	0.42	0.43	0.44	0.45	0.48	0.49		



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



Frequency Distribution of CO in ppm			
Range		Frequency (hrs)	
0	< 0.1	0	
0.1	to 1	709	
1	to 2.5	0	
2.5	to 5	0	
5	to 13	0	
	> 13	0	
Total Non-Zero Values			709

Calms	
Range	
ppm	
0.1-1	0.0%
1-2.5	0.0%
2.5-5	0.0%
5-13	0.0%
>13	0.0%

### PASZA - Henry Pirker Total Hydrocarbon Monthly Summary

Station: Henry Pirker

#### HOURLY AVERAGE TABLE

Total HydroCarbons (THC)

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	2.8	ppm	9-Aug	23:00 0:00
Maximum 24-hr Average:	2.1	ppm	12-Aug	

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

AIC Time:	32 hrs							Operational Time:	710 hrs			
Calibration Time:	2 hrs							AMD Operational Uptime:	100.0%			
Percentile	99	95	75	50	25	5	1	Average				
	2.5	2.3	2.0	1.9	1.9	1.8	1.8	2.0 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

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-Aug-04	2.2	2.2	2.1	2.2	2.2	2.2	2.3	2.2	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.03	2.28	
2-Aug-04	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.86	1.91	
3-Aug-04	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.8	A	1.9	2.0	1.9	1.8	1.9	1.9	1.9	1.9	1.87	1.96	
4-Aug-04	1.9	2.0	1.9	1.9	1.9	2.0	2.1	2.1	2.0	1.9	1.9	1.8	1.8	1.8	C	C	A	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.89	2.11	
5-Aug-04	1.8	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.87	2.00	
6-Aug-04	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.86	1.90	
7-Aug-04	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.91	1.97	
8-Aug-04	2.0	1.9	1.9	1.9	2.0	1.9	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.2	1.94	2.17	
9-Aug-04	2.1	2.3	2.2	2.2	2.2	2.4	2.4	2.4	2.3	2.1	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.3	2.8	2.12	2.85	
10-Aug-04	2.5	2.4	2.5	2.5	2.5	2.2	2.3	2.3	2.2	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.11	2.54	
11-Aug-04	2.0	2.0	2.4	2.3	2.1	2.1	2.0	2.1	A	2.3	2.2	2.1	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.1	2.2	2.08	2.37	
12-Aug-04	2.4	2.4	2.2	2.0	2.1	2.3	2.5	A	2.3	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.3	2.4	2.3	2.14	2.49	
13-Aug-04	2.1	2.1	2.2	2.3	2.5	2.5	A	2.5	2.4	2.2	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	2.08	2.53	
14-Aug-04	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.89	2.01	
15-Aug-04	2.0	2.1	2.4	2.4	A	2.3	2.3	2.2	2.2	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.03	2.42	
16-Aug-04	2.0	2.0	1.9	A	2.0	2.0	2.1	2.2	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.1	2.4	1.99	2.40	
17-Aug-04	2.4	2.3	A	2.3	2.2	2.2	2.4	2.5	2.3	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	2.5	2.1	2.0	2.12	2.49	
18-Aug-04	2.0	A	2.3	2.4	2.4	2.2	2.3	2.2	2.2	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.8	1.9	1.9	2.1	2.2	2.4	2.3	2.10	2.42	
19-Aug-04	A	2.2	2.2	2.6	2.4	2.3	2.3	2.2	2.1	2.0	2.0	2.0	1.9	1.9	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	A	A	2.08	2.57	
20-Aug-04	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.2	2.1	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.92	2.22	
21-Aug-04	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.89	1.93	
22-Aug-04	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.90	1.92	
23-Aug-04	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.3	2.3	1.93	2.34
24-Aug-04	2.2	2.1	2.3	2.3	2.1	2.2	2.3	2.3	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.0	2.0	2.1	2.2	2.3	2.06	2.32	
25-Aug-04	2.3	2.3	2.3	2.2	2.0	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	2.0	1.9	1.9	2.00	2.29	
26-Aug-04	2.0	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	A	1.9	1.9	2.0	2.0	1.9	2.0	2.0	1.98	2.05	
27-Aug-04	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	1.9	1.9	1.9	1.9	1.9	1.9	A	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.94	2.16	
28-Aug-04	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.9	1.9	2.0	2.0	2.0	2.0	1.88	2.01	
29-Aug-04	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.89	1.98	
30-Aug-04	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.88	1.94	
31-Aug-04	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.94	2.04	
Hourly Avg	2.01	2.03	2.04	2.07	2.05	2.07	2.07	2.07	2.03	1.98	1.94	1.92	1.90	1.88	1.88	1.88	1.88	1.87	1.88	1.90	1.95	1.99	2.01	2.03			
Hourly Max	2.48	2.38	2.48	2.57	2.54	2.53	2.49	2.52	2.44	2.32	2.19	2.14	2.05	1.99	1.96	1.97	1.94	1.96	1.96	1.98	2.23	2.49	2.38	2.85			

### Total Hydrocarbons (THC) Concentration in ppm

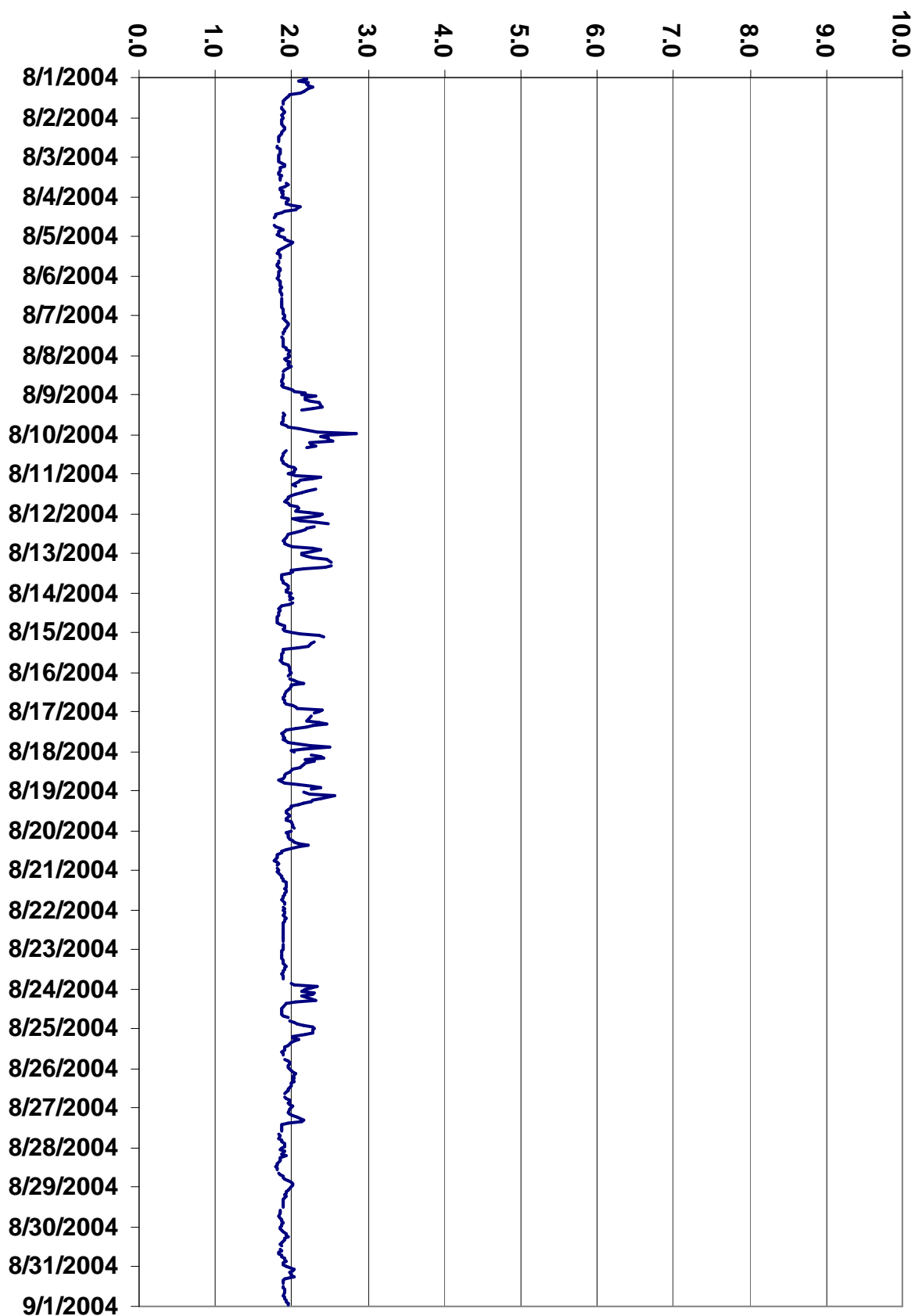


Figure 11. PASZA - Henry Pirker Total Hydrocarbons 1-hr Average Monthly Trend

Station: Henry Pirker

## HOURLY MAXIMUM TABLE

Total HydroCarbons (THC)

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004  
Summary

Maximum 1-hr Value:	3.9	ppm	4-Aug	19:00 20:00
Maximum 24-hr Value:	2.3	ppm	12-Aug	

AIC Time:	32 hrs	Operational Time:	710 hrs					
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	2.8	2.5	2.1	2.0	1.9	1.9	1.8	2.1 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-Aug-04	2.2	2.3	2.2	2.3	2.3	2.3	2.4	2.3	2.2	2.3	2.0	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.09	2.37
2-Aug-04	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	1.95
3-Aug-04	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	2.2	1.9	1.9	1.9	1.9	A	2.2	2.1	2.0	1.9	1.9	1.9	2.0	2.2	1.95	2.19	
4-Aug-04	2.0	2.1	2.1	2.0	2.0	2.1	2.2	2.2	2.3	1.9	2.0	1.9	1.8	1.8	C	C	A	1.8	1.9	3.9	3.0	2.0	1.9	1.8		2.12	3.89	
5-Aug-04	1.9	2.0	2.0	2.2	2.1	2.1	2.1	1.9	2.0	2.1	1.9	1.9	2.2	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8		1.97	2.22	
6-Aug-04	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	1.94	
7-Aug-04	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	A	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.1	2.0	1.97	2.13	
8-Aug-04	2.0	2.0	1.9	2.0	2.1	2.0	2.1	2.1	2.0	2.0	1.9	A	1.9	2.0	2.0	1.9	1.9	1.9	2.1	1.9	1.9	2.0	2.1	2.2	2.3	2.01	2.32	
9-Aug-04	2.2	2.5	2.5	2.3	2.4	2.4	2.5	2.5	2.4	2.2	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.0	2.4	2.6	3.1		2.23	3.08	
10-Aug-04	2.9	2.6	2.6	2.6	2.7	2.5	2.4	2.4	2.3	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.1	2.1	2.1	2.2		2.21	2.87	
11-Aug-04	2.0	2.4	2.5	2.4	2.4	2.2	2.1	2.1	A	2.4	2.4	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.2	2.2	2.6		2.20	2.63	
12-Aug-04	2.5	2.5	2.7	2.1	2.3	2.4	3.4	A	2.6	2.3	2.2	2.2	2.1	2.0	2.1	1.9	1.9	2.2	1.9	2.0	2.1	3.0	2.7	2.3		2.34	3.41	
13-Aug-04	2.2	2.2	2.3	2.4	2.5	2.7	A	2.6	2.5	2.3	2.1	2.1	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.15	2.70	
14-Aug-04	2.1	2.0	2.0	2.1	2.0	A	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	2.0	2.0	1.9	1.9		1.94	2.11	
15-Aug-04	2.1	2.3	2.5	2.5	A	2.4	2.3	2.3	2.3	2.3	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0		2.10	2.51	
16-Aug-04	2.0	2.0	2.0	A	2.0	2.1	2.3	2.4	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.5	2.6		2.09	2.62	
17-Aug-04	2.5	2.4	A	2.3	2.3	2.3	2.6	2.7	2.4	2.3	2.1	2.0	1.9	1.9	1.9	1.9	2.0	1.9	2.1	2.0	2.7	2.8	2.7	2.1		2.26	2.83	
18-Aug-04	2.1	A	2.4	2.5	2.6	2.4	2.6	2.4	2.7	2.4	2.5	2.1	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.1	2.4	2.5	2.6	2.6		2.30	2.66	
19-Aug-04	A	2.2	2.5	2.7	2.5	2.4	2.4	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.2	2.0	2.0	2.1	2.0	2.1	2.0	2.1	A		2.17	2.70	
20-Aug-04	2.2	2.0	2.1	2.0	2.0	2.0	2.5	2.1	2.1	2.5	2.7	2.0	2.0	2.0	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.8	A	1.8		2.03	2.68	
21-Aug-04	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.2	1.9	A	1.9	1.9		1.96	2.18	
22-Aug-04	2.0	1.9	1.9	1.9	1.9	2.2	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0		1.95	2.17	
23-Aug-04	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.1	2.1	2.9	2.4		2.01	2.88	
24-Aug-04	2.3	2.2	2.5	2.5	2.2	2.3	2.3	2.4	2.4	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	A	2.0	2.3	2.2	2.4	2.4		2.17	2.46	
25-Aug-04	2.4	2.4	2.6	2.3	2.1	2.1	2.4	2.1	2.0	2.3	2.0	1.9	1.9	2.0	1.9	2.0	2.0	A	1.9	2.0	2.0	2.0	2.0	2.0		2.10	2.60	
26-Aug-04	2.0	2.0	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	A	1.9	2.0	2.2	2.0	2.0	2.0	2.1			2.04	2.19	
27-Aug-04	2.1	2.1	2.0	2.0	2.1	2.1	2.3	2.2	2.3	2.2	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.1	2.0	2.1		2.02	2.31	
28-Aug-04	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	A	1.8	1.9	1.9	1.9	1.9	2.0	2.1	2.1	2.1		1.93	2.11	
29-Aug-04	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.9	1.9		1.95	2.02	
30-Aug-04	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.0		1.94	2.13	
31-Aug-04	2.0	2.1	2.1	2.0	2.0	2.0	2.2	2.3	1.9	2.0	2.0	A	1.9	2.0	2.0	2.0	2.0	2.0	2.3	2.0	2.0	2.0	2.0	2.0		2.04	2.28	
Hourly Avg	2.09	2.10	2.16	2.15	2.14	2.16	2.23	2.16	2.13	2.09	2.03	1.98	1.95	1.94	1.94	1.92	1.93	1.94	1.94	2.05	2.08	2.11	2.14	2.14				
Hourly Max	2.87	2.55	2.73	2.70	2.72	2.70	3.41	2.69	2.66	2.52	2.68	2.24	2.17	2.07	2.05	2.15	2.19	2.17	2.25	3.89	2.98	3.03	2.88	3.08				

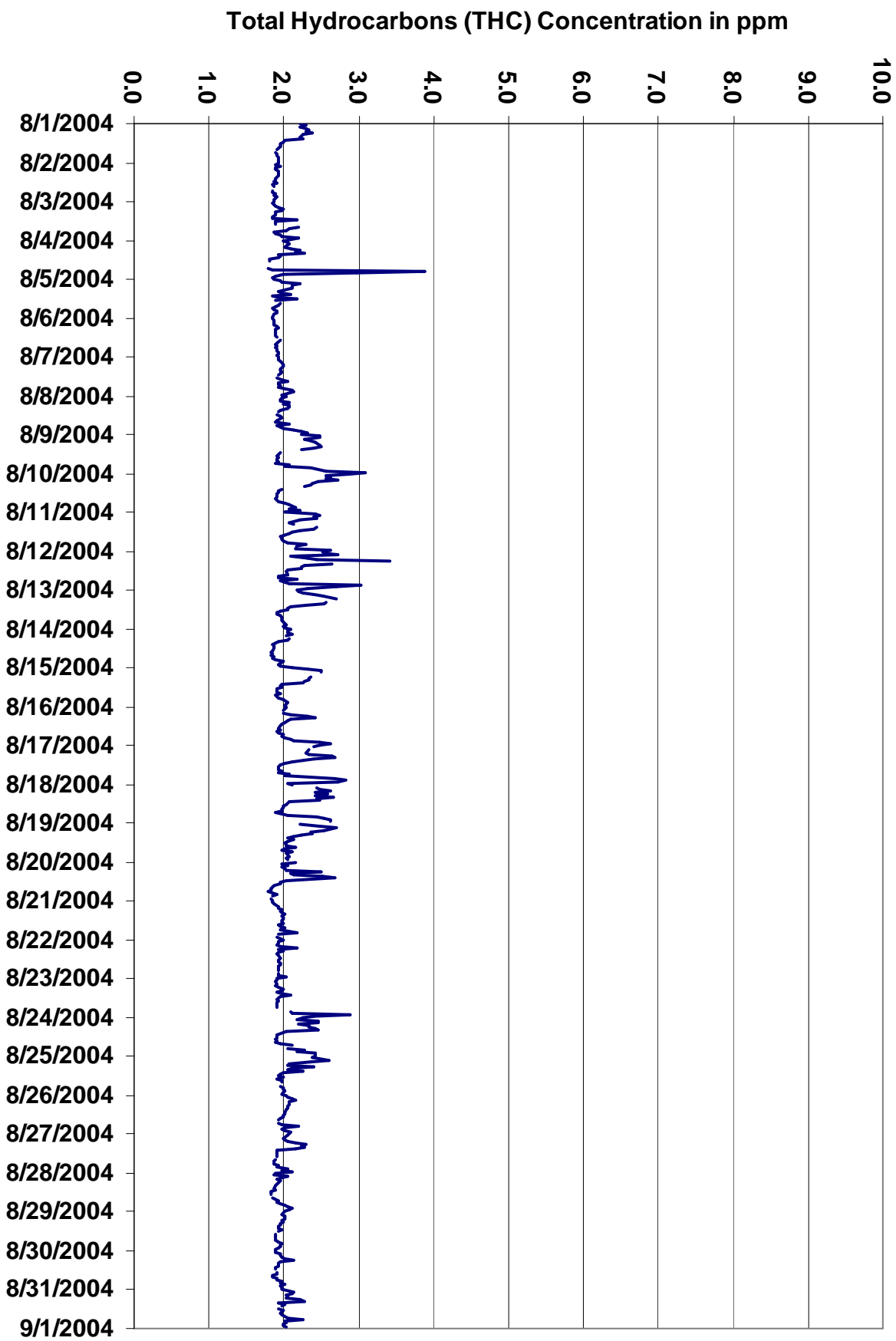


Figure 12. PASZA - Henry Pirker Total Hydrocarbons 1-hr Maximum Value Monthly Trend

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

Station: Henry Pirker

#### HOURLY AVERAGE TABLE

Total Reduced Sulphur (TRS)

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004

**Summary**

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	2.6 ppb 31-Aug 7:00 8:00
Maximum 24-hr Average:	1.0 ppb 12-Aug

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

AIC Time:	32 hrs	Operational Time:	708 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%
Percentile	99	95	75
	1.6	1.1	0.7
	50	25	5
	0.5	0.4	0.3
	1	0.2	Average
	0.6 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 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-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	0	1	0	1	1	0.7	1.2	
2-Aug-04	1	0	0	0	0	1	0	1	1	0	1	1	1	0	1	A	1	1	0	1	1	1	0	1	0.5	0.6	
3-Aug-04	0	1	0	1	1	1	1	0	1	1	0	1	1	1	A	0	1	1	1	1	0	0	0	0	0.5	0.7	
4-Aug-04	0	0	0	0	0	1	1	1	1	0	C	C	C	C	A	1	1	1	1	1	1	1	1	1	0.6	0.8	
5-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	1.1	
6-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0	0	0	0	0	0	1	0	1	0.6	0.8	
7-Aug-04	0	0	0	0	0	1	1	0	0	0	0	0	A	0	0	1	0	0	1	1	0	0	0	1	0.5	0.9	
8-Aug-04	1	1	0	0	0	0	0	0	0	0	A	0	0	1	1	0	1	0	0	1	1	1	1	1	0.5	1.0	
9-Aug-04	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0.7	1.1	
10-Aug-04	1	1	1	1	1	1	1	1	A	1	0	0	0	0	0	1	1	0	0	1	1	1	1	1	0.6	1.1	
11-Aug-04	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0.6	0.9	
12-Aug-04	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1.0	1.6	
13-Aug-04	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4	
14-Aug-04	1	1	1	1	A	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.5	
15-Aug-04	1	1	1	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.6	1.3	
16-Aug-04	1	1	A	1	1	1	2	1	2	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	0.9	1.9	
17-Aug-04	2	A	1	1	2	1	1	2	2	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0.8	1.6	
18-Aug-04	A	0	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	1	1	1	1	A	0.6	1.3	
19-Aug-04	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	A	1	0.8	1.3	
20-Aug-04	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	A	1	1	0.5	0.7	
21-Aug-04	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0.4	0.8	
22-Aug-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.4	0.5	
23-Aug-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	1	1	1	0.4	0.6	
24-Aug-04	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	1	1	0.4	1.0	
25-Aug-04	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	1.1	
26-Aug-04	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	1	1	1	0.5	0.7	
27-Aug-04	0	1	0	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.6	0.8	
28-Aug-04	1	1	1	1	1	1	1	1	1	0	1	1	1	1	A	1	0	0	0	0	0	1	0	0	0.5	0.7	
29-Aug-04	1	1	0	1	0	0	1	0	0	0	0	0	A	0	0	1	1	1	1	1	1	1	1	1	0.5	0.6	
30-Aug-04	1	1	1	1	1	1	1	1	1	1	1	A	1	0	1	1	0	0	1	1	1	1	1	1	0.6	0.7	
31-Aug-04	1	1	1	1	1	1	2	3	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.6	
Hourly Avg	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.6	0.7		
Hourly Max	1.6	1.3	1.1	1.3	1.6	1.4	2.0	2.6	1.9	1.3	1.0	0.9	0.9	0.8	0.9	0.8	0.9	0.9	0.8	0.9	1.6	1.6	1.5	1.5			

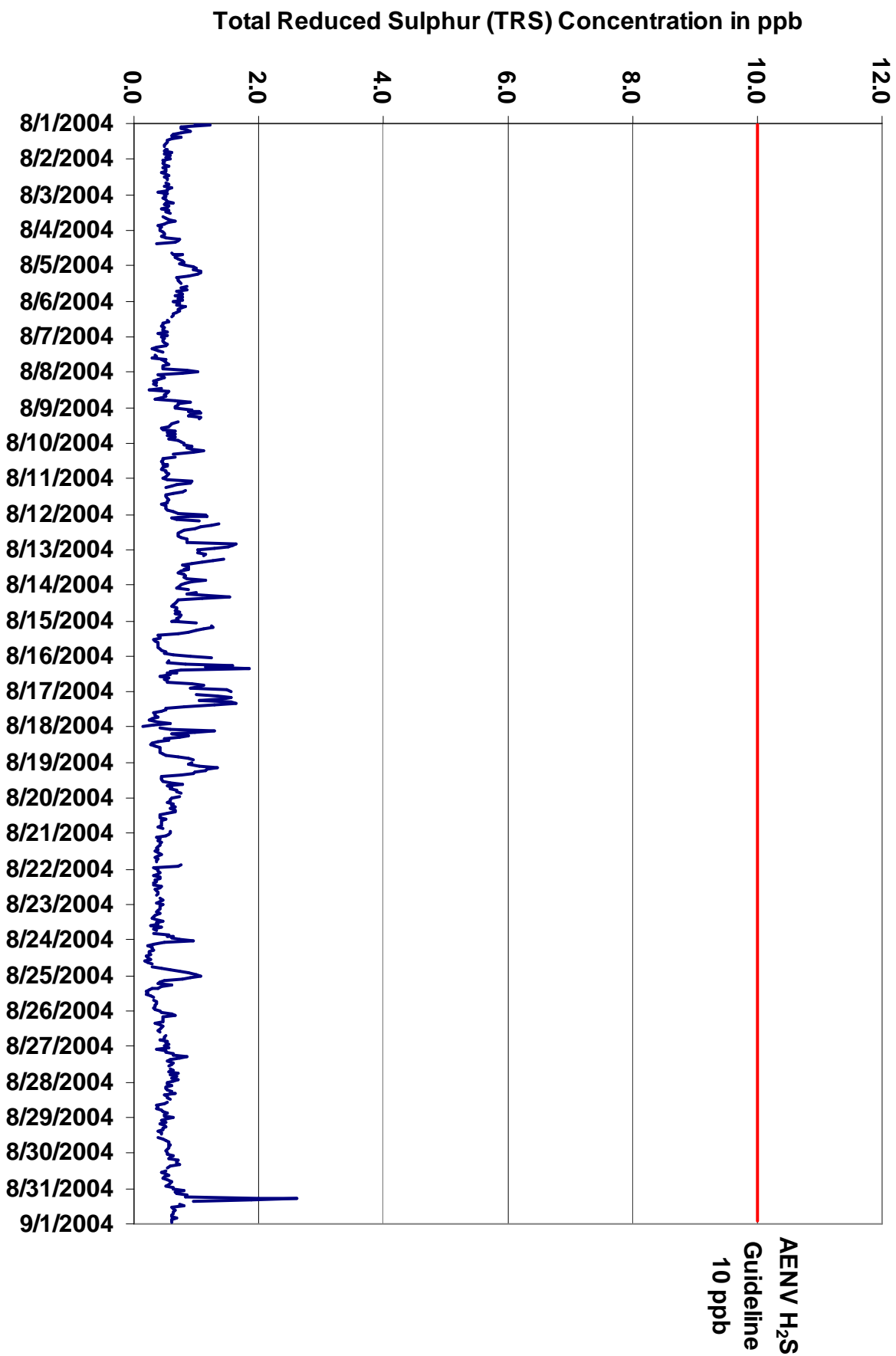


Figure 13. PASZA - Henry Pirker Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Henry Pirker

### HOURLY MAXIMUM TABLE

Total Reduced Sulphur (TRS)

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004

Summary

Maximum 1-hr Value:	3.6	ppb	4-Aug	17:00 18:00
Maximum 24-hr Value:	1.4	ppb	12-Aug	

AIC Time:	32 hrs	Operational Time:	708 hrs					
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	2.5	1.6	1.1	0.9	0.8	0.7	0.6	1.0 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-Aug-04	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1.1	2.4	
2-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.9	1.1	
3-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1.0	1.3	
4-Aug-04	1	1	1	1	1	1	1	1	1	1	1	C	C	C	C	A	1	1	4	1	1	1	1	1	1.2	3.6	
5-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.2	1.5	
6-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.0	1.3	
7-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	1.1	
8-Aug-04	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5	
9-Aug-04	1	1	1	1	1	1	1	1	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.6	
10-Aug-04	1	1	1	1	1	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.6	
11-Aug-04	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4	
12-Aug-04	2	2	1	1	1	1	A	2	2	1	1	1	1	1	1	1	1	1	1	1	3	2	2	2	1.4	2.5	
13-Aug-04	1	2	1	2	1	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	1.8	
14-Aug-04	1	1	1	1	A	2	2	1	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	2.9	
15-Aug-04	1	1	1	A	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.7	
16-Aug-04	1	2	A	1	1	1	2	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.3	2.5	
17-Aug-04	2	A	1	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1.2	2.2	
18-Aug-04	A	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.0	1.7	
19-Aug-04	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.1	1.8	
20-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	1.0	
21-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2	2	1	0.9	1.9
22-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.0	
23-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.8	1.1	
24-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	A	1	1	1	1	1	1	0.8	1.4	
25-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.4	
26-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.2	
27-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.0	1.3	
28-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.9	1.1	
29-Aug-04	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1	
30-Aug-04	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1	
31-Aug-04	1	1	1	1	1	1	3	3	3	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	3.2	
Hourly Avg	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.0	0.9	0.9	0.9	0.8	0.9	0.9	0.9	1.0	0.9	0.9	1.0	1.1	1.0	1.0			
Hourly Max	1.9	2.4	1.7	1.8	1.9	1.8	3.0	3.2	2.9	2.2	1.3	1.2	1.4	1.2	1.2	1.1	1.2	3.6	1.3	1.3	2.5	2.1	2.1	1.8			



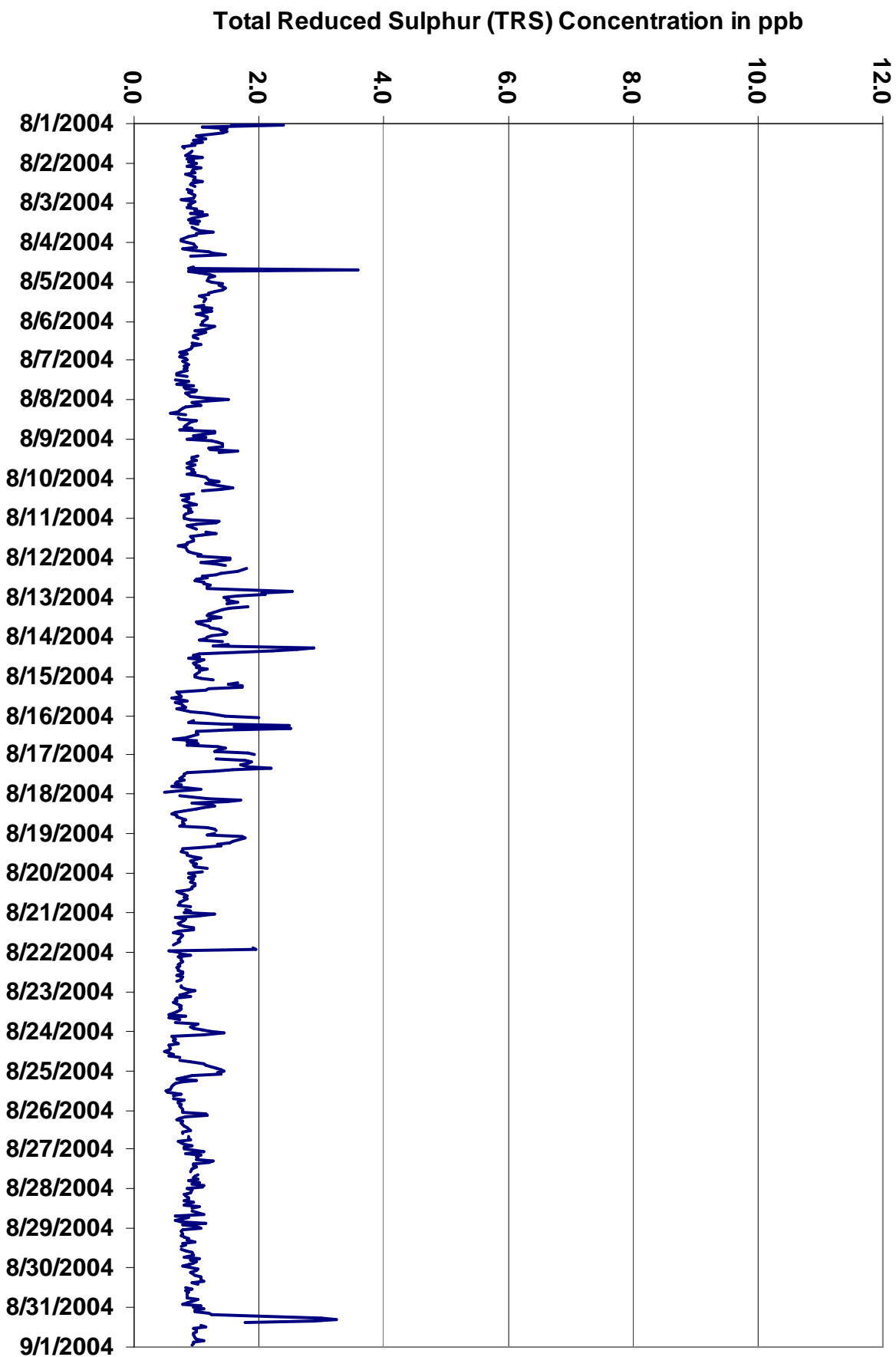


Figure 14. PASZA - Henry Pirker Total Reduced Sulphur 1-hr Maximum Value Monthly Trend

### 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: August 1, 2004 to September 1, 2004

**Summary**

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	86.2	µg/m <sup>3</sup>	13-Aug	20:00 21:00
Maximum 24-hr Average:	27.7	µg/m <sup>3</sup>	13-Aug	

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:	734 hrs	
Calibration Time:	3 hrs							AMD Operational Uptime:	99.1%	
Percentile	99	95	75	50	25	5	1	Average	Geomean	
	39.2	25.7	14.3	4.7	1.1	0.0	0.0	8.6 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	
1-Aug-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			
1-Aug-04		3	2	1	1	2	3	4	4	3	4	2	0	1	2	1	1	1	2	3	5	5	4	2		2.3	5.1	
2-Aug-04		3	2	2	3	4	5	5	6	6	7	9	7	4	6	4	7	7	9	12	10	11	9	11		6.5	11.6	
3-Aug-04		9	10	9	9	11	10	11	10	10	11	11	15	15	17	15	15	18	20	14	3	7	5	3	8		11.0	19.8
4-Aug-04		6	6	5	5	6	5	7	7	7	10	11	12	11	9	9	10	10	8	7	C	C	0	0	0		6.9	11.6
5-Aug-04		1	0	2	3	2	4	3	4	0	C	0	1	7	9	1	8	11	9	2	2	1	2	0	0		3.1	10.8
6-Aug-04		0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	1	2		0.5	2.0
7-Aug-04		1	2	1	0	0	1	1	0	0	0	0	0	3	2	1	4	2	5	1	5	4	5	4	1		1.9	4.8
8-Aug-04		1	1	4	1	0	4	2	4	2	3	2	0	1	2	4	0	0	3	2	5	6	11	8	7		3.0	10.9
9-Aug-04		3	6	0	5	2	5	5	9	9	8	6	0	3	3	4	3	5	4	4	5	6	15	20	27		6.5	26.6
10-Aug-04		13	9	9	6	7	10	13	13	14	10	4	3	2	3	3	3	2	2	4	4	6	7	6	7		6.6	13.6
11-Aug-04		7	6	6	7	7	7	7	12	15	19	15	17	18	16	17	14	11	13	9	11	13	13	11	13		11.7	18.6
12-Aug-04		12	12	9	8	9	11	16	17	18	21	22	18	17	10	13	10	15	22	16	19	18	22	34	28		16.6	34.0
13-Aug-04		21	14	15	19	14	17	26	30	28	19	18	26	18	10	13	14	17	18	21	84	86	64	41	31		27.7	86.2
14-Aug-04		23	22	21	23	20	18	21	22	12	9	8	8	9	14	15	15	17	17	19	21	23	21	21	20		17.4	23.0
15-Aug-04		20	19	17	15	15	15	22	27	25	25	21	10	13	9	7	9	8	9	11	14	17	19	24	26		16.6	26.7
16-Aug-04		33	27	27	21	18	19	24	26	24	22	19	21	21	21	25	22	19	19	21	22	25	25	24	36		23.4	35.8
17-Aug-04		35	27	16	15	16	19	28	25	23	24	25	19	16	16	18	25	17	16	13	15	32	35	24	17		21.6	35.0
18-Aug-04		16	14	16	14	14	14	25	26	23	22	25	23	18	6	13	19	17	21	23	29	42	54	50	35		23.3	54.0
19-Aug-04		26	23	26	23	21	23	23	22	17	11	15	16	19	25	41	21	21	23	26	32	29	29	24	23		23.3	40.9
20-Aug-04		18	16	15	13	14	14	15	18	21	28	24	16	15	15	D	11	6	2	6	1	12	1	3	3		12.4	27.7
21-Aug-04		0	D	D	1	0	0	1	3	2	1	3	4	0	5	5	5	6	0	0	6	6	4	0	3		2.6	6.1
22-Aug-04		2	2	2	1	3	2	1	3	3	1	2	0	1	3	0	0	0	D	0	0	0	0	0	0		1.2	3.4
23-Aug-04		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	1	6	7	8	7		1.4	8.4
24-Aug-04		4	3	0	0	1	0	2	4	0	0	1	0	0	1	0	3	1	7	5	6	6	6	6	8		2.8	8.0
25-Aug-04		7	2	2	0	1	1	3	3	4	4	1	0	1	0	2	1	3	5	4	3	4	1	2	2		2.4	6.6
26-Aug-04		3	4	3	4	4	5	0	0	0	0	1	2	2	2	2	3	5	8	6	6	5	4	3	2		3.1	7.6
27-Aug-04		3	0	2	3	1	5	5	9	6	1	1	1	6	3	2	2	0	3	2	0	10	6	4	0		3.1	9.6
28-Aug-04		3	4	5	D	0	0	0	1	0	0	0	D	D	4	3	1	0	2	0	4	3	2	0	0		1.6	5.0
29-Aug-04		0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	2	1	2	4	2	1	1	0		0.7	4.1
30-Aug-04		0	1	0	0	0	1	1	5	8	5	3	4	6	4	6	0	3	3	2	2	0	2	3	2		2.6	7.7
31-Aug-04		3	2	1	0	0	0	1	0	2	0	0	0	2	1	0	0	0	0	0	0	1	1	0	0		0.6	2.5
Hourly Avg		8.9	8.0	7.2	6.6	6.1	7.0	8.8	10.0	9.1	8.9	8.2	7.5	7.7	7.0	7.6	7.3	7.3	8.4	7.5	10.7	12.9	12.3	10.9	10.3			
Hourly Max		34.7	27.2	26.7	22.6	21.1	23.0	28.4	30.1	27.7	27.7	25.5	25.7	21.2	24.6	40.9	25.5	21.4	23.4	25.8	84.4	86.2	63.9	49.8	35.8			

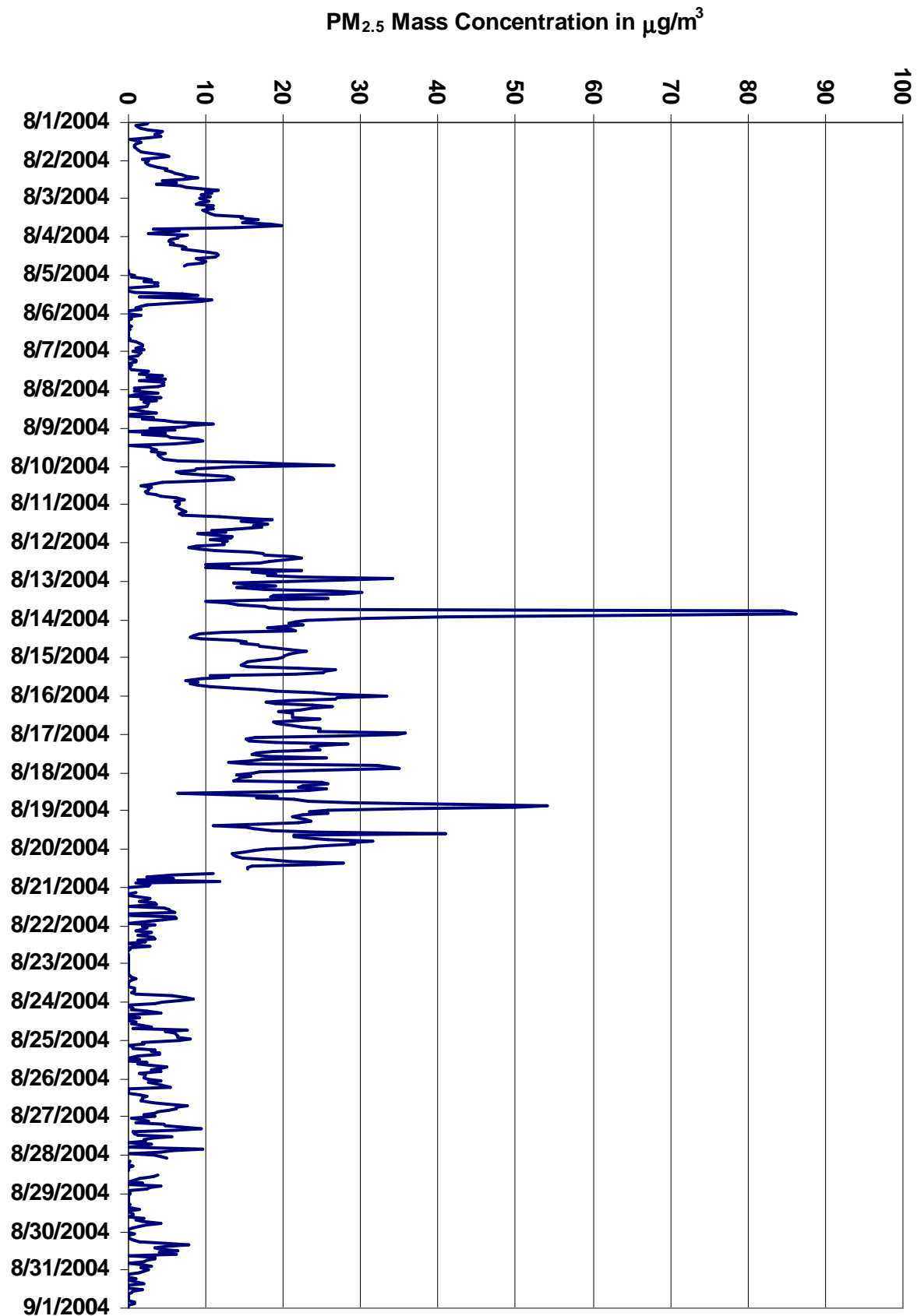


Figure 15. PASZA - Henry Pirker Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Henry Pirker

### HOURLY MAXIMUM TABLE

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

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004  
Summary

Maximum 1-hr Value:	102.3	µg/m <sup>3</sup>	13-Aug	19:00 20:00
Maximum 24-hr Value:	37.6	µg/m <sup>3</sup>	18-Aug	

AIC Time:	0 hrs	Operational Time:	741 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Geomean
	69.3	34.9	20.8	10.1	5.3	1.8	0.5	14.3 µg/m <sup>3</sup>	11.3 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

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	23:00	0:00	24-hour Average	Daily Maximum
1-Aug-04	4	4	3	2	3	4	8	7	6	7	5	5	3	5	4	3	3	3	3	5	6	6	5	3		4.5	7.9	
2-Aug-04	5	4	5	5	5	6	6	7	8	9	10	11	11	8	9	10	10	10	12	13	13	13	11	13		8.9	13.2	
3-Aug-04	12	13	10	11	14	13	13	11	13	12	15	19	19	21	21	19	21	29	22	10	10	7	5	12		14.6	28.6	
4-Aug-04	12	10	9	8	8	7	10	10	11	16	15	17	20	14	13	17	14	12	12	C	C	0	0	1		10.7	20.1	
5-Aug-04	2	4	4	5	5	6	7	8	4	C	5	18	18	24	12	38	33	18	8	5	5	8	1	3		10.6	38.2	
6-Aug-04	2	8	3	4	1	1	2	4	5	1	8	4	4	7	4	5	4	4	5	7	4	3	4	9		4.2	9.1	
7-Aug-04	3	8	7	3	2	4	7	4	3	3	11	6	10	6	7	10	7	10	9	18	19	13	20	8		8.3	19.7	
8-Aug-04	5	3	12	3	6	9	10	10	10	14	9	8	18	15	17	9	5	11	15	15	15	28	19	21		11.9	27.6	
9-Aug-04	7	22	9	17	3	18	10	13	12	12	9	5	7	5	6	5	7	6	6	7	9	37	32	32		12.3	37.5	
10-Aug-04	25	12	11	7	9	13	18	17	17	14	11	7	7	6	6	5	5	6	5	6	10	12	9	13		10.4	24.7	
11-Aug-04	9	9	9	10	10	8	9	18	19	21	19	24	37	22	27	18	16	22	15	15	19	18	12	26		17.1	36.7	
12-Aug-04	19	15	13	16	16	14	22	23	23	27	25	26	25	22	27	22	50	40	21	23	27	46	43	33		25.8	49.7	
13-Aug-04	23	18	18	24	18	19	32	34	36	25	24	44	26	19	19	26	26	22	38	102	89	80	59	35		35.7	102.3	
14-Aug-04	26	24	23	24	23	21	25	25	16	19	13	14	17	18	22	20	25	24	23	23	28	27	22	23		21.9	27.6	
15-Aug-04	22	23	21	21	17	20	27	30	32	32	33	22	18	18	16	15	15	19	18	21	20	22	28	35		22.7	34.7	
16-Aug-04	35	30	31	24	20	20	37	36	27	25	23	26	27	28	31	29	28	28	28	24	28	27	29	48		28.8	48.1	
17-Aug-04	47	31	21	19	20	22	35	33	29	27	31	32	24	28	28	32	22	23	18	18	82	63	50	19		31.5	81.8	
18-Aug-04	26	17	39	23	18	17	47	42	33	31	30	32	35	25	37	25	26	28	32	45	79	78	73	64		37.6	79.0	
19-Aug-04	34	26	34	33	26	26	30	34	25	19	30	33	27	35	90	30	27	31	34	35	34	34	27	25		32.5	90.0	
20-Aug-04	22	18	18	15	15	16	16	22	26	34	35	28	24	25	14	36	40	12	23	7	21	8	13	9		20.7	39.6	
21-Aug-04	4	2	1	4	5	6	6	5	7	6	8	10	10	13	13	13	13	18	9	10	11	9	4	5		8.0	17.6	
22-Aug-04	4	4	4	3	5	4	3	7	6	5	6	8	9	13	4	4	2	0	1	2	1	2	1	0		4.1	12.9	
23-Aug-04	2	1	0	0	1	1	2	3	3	3	4	3	3	6	5	7	6	6	9	9	12	12	14	9		5.0	14.4	
24-Aug-04	6	5	0	2	2	3	4	16	6	7	7	5	5	8	7	13	21	16	10	9	9	15	23		8.6	23.0		
25-Aug-04	13	10	9	3	2	15	17	8	8	7	6	6	5	14	11	10	11	9	6	6	4	4	3		8.0	17.2		
26-Aug-04	4	11	5	6	7	12	4	1	2	3	3	7	6	8	9	7	11	12	10	10	7	6	8	5		6.7	12.3	
27-Aug-04	6	6	6	5	3	7	15	18	13	10	10	11	12	9	11	10	13	6	7	7	17	13	10	6		9.6	18.1	
28-Aug-04	6	8	7	6	6	1	7	4	6	7	5	12	5	18	16	11	17	8	7	9	9	4	3	2		7.8	18.2	
29-Aug-04	3	1	2	0	2	2	1	2	2	2	5	5	5	9	8	4	6	9	5	12	7	3	2	1		4.0	11.9	
30-Aug-04	2	2	3	2	2	4	11	10	8	8	11	11	16	14	10	14	15	8	6	5	5	6	3		7.3	15.8		
31-Aug-04	4	4	5	1	1	2	3	2	3	4	7	5	9	7	5	7	4	3	2	3	3	3	3	2		3.8	8.9	
Hourly Avg	12.7	11.3	11.0	9.8	8.8	9.9	14.0	15.3	13.6	13.7	13.9	15.0	14.7	14.9	16.6	15.1	15.9	15.1	13.9	16.1	20.1	19.4	17.2	15.9				
Hourly Max	46.5	30.9	39.2	33.5	25.6	25.9	46.6	42.4	36.3	33.6	34.9	44.5	36.7	34.6	90.0	38.2	49.7	40.5	37.6	102.3	89.1	80.0	72.5	64.4				

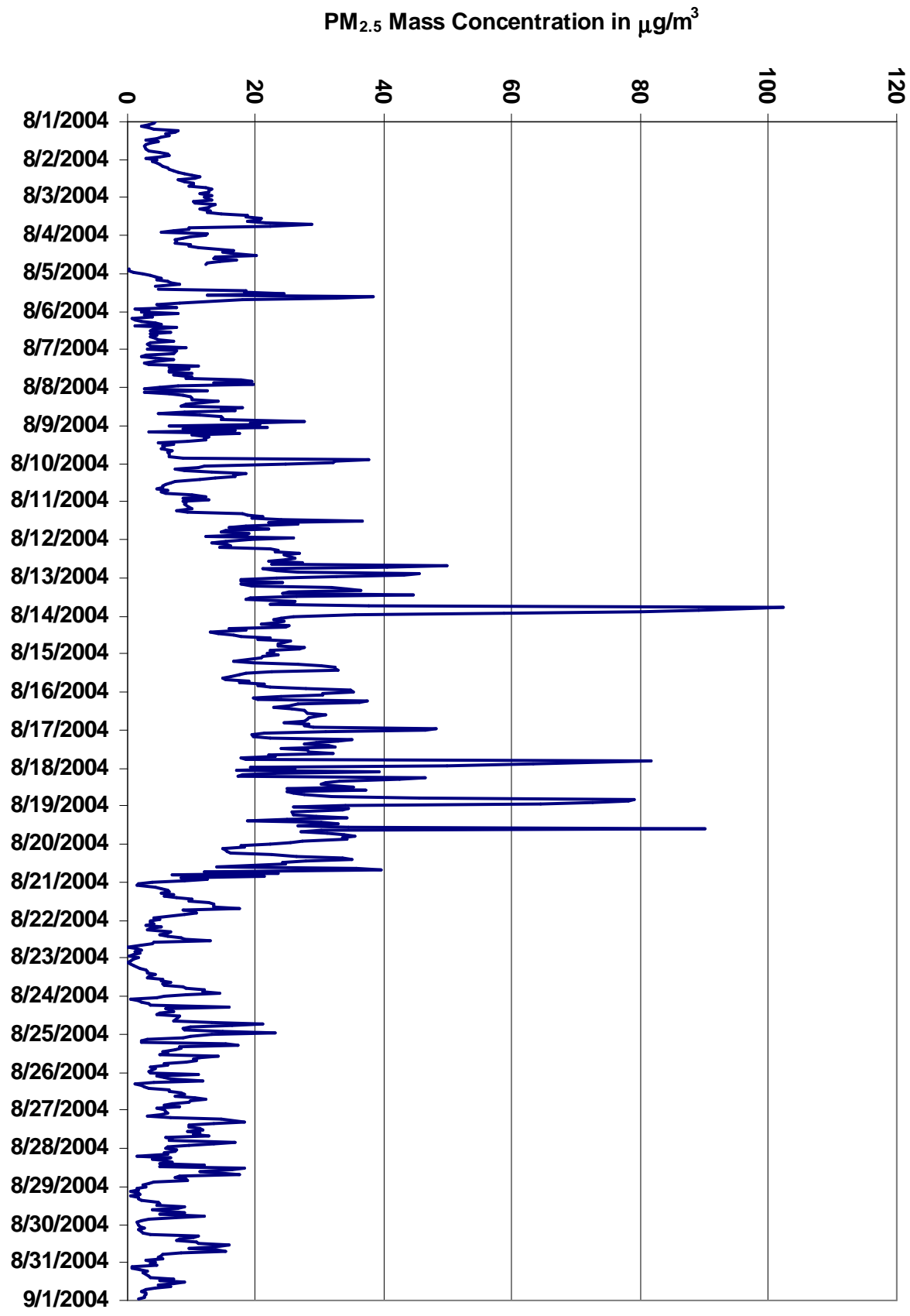
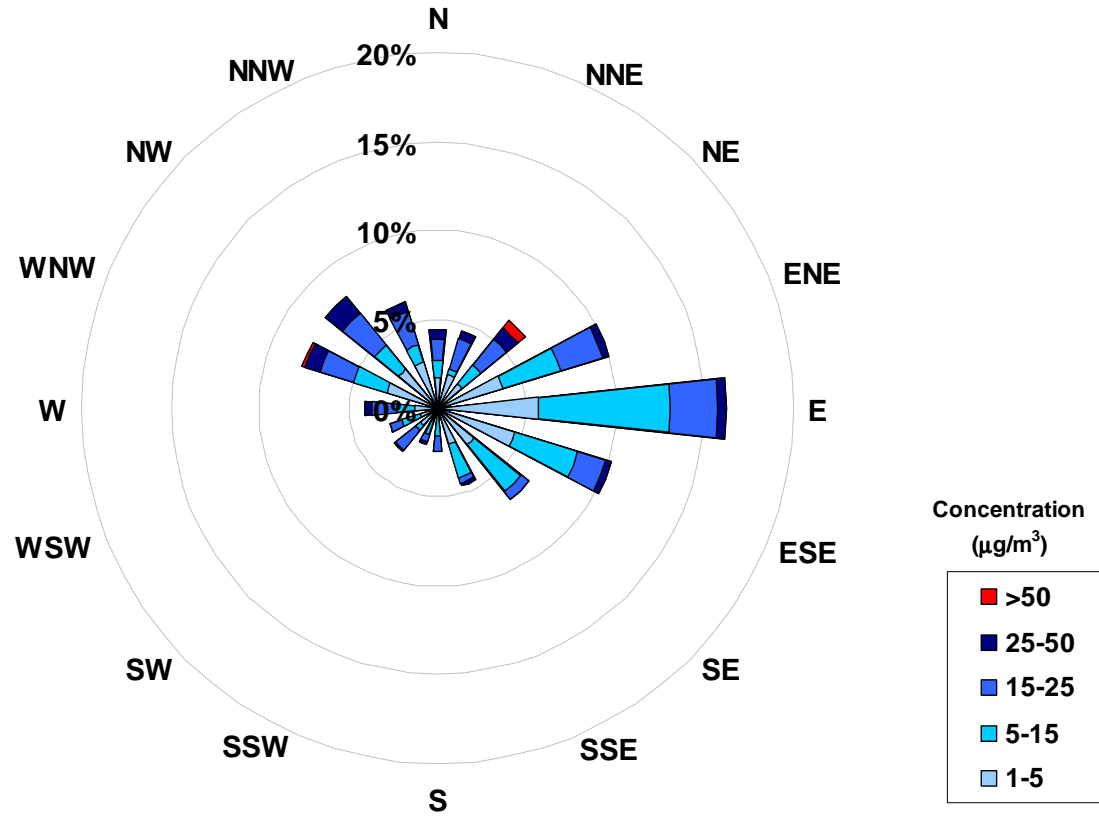


Figure 16. PASZA - Henry Pirkker Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly

**Concentration Rose for the 1-hr PM<sub>2.5</sub> Average Concentration Occurrences at the Henry Pirker Site for August 2004**



Frequency Distribution of PM <sub>2.5</sub> in µg/m <sup>3</sup>			
Range	Frequency (hrs)		
0 < 1	168		
1 to 5	211		
5 to 15	181		
15 to 25	132		
25 to 50	38		
> 50	4		
Total Non-Zero Values			
			734

Calms	
Range	µg/m <sup>3</sup>
1-5	0.0%
5-15	0.0%
15-25	0.0%
25-50	0.0%
>50	0.0%

### PASZA - Henry Pirker Meteorological Parameters Monthly Summary

Station: Henry Pirker

#### HOURLY AVERAGE TABLE

Relative Humidity (RH - %)

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004

**Summary**

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	96.7 % 31-Aug 23:00 0:00
Maximum 24-hr Average:	92.8 % 31-Aug

AIC Time:	0 hrs	Operational Time:	744 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%
Percentile	99	95	75
	96.0	94.5	88.9
	50	25	5
	77.5	59.7	37.7
	1	33.1	Average
	73.0 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**

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-Aug-04	89	93	90	93	96	96	90	78	72	64	57	46	42	39	37	35	35	38	39	42	51	61	66	67	63	96
2-Aug-04	67	68	73	73	75	78	78	76	73	65	59	55	53	46	44	41	42	43	49	57	64	69	71	75	62	78
3-Aug-04	76	81	84	85	87	89	85	83	82	77	71	69	66	60	59	63	69	86	87	83	83	84	87	90	78	90
4-Aug-04	90	92	91	92	92	93	94	93	91	85	79	68	57	53	50	55	63	62	61	66	73	84	87	89	78	94
5-Aug-04	91	92	94	93	94	93	89	81	80	75	76	69	64	66	64	57	61	68	69	76	80	90	92	92	79	94
6-Aug-04	94	94	94	95	95	96	95	94	94	90	88	83	78	76	69	71	70	68	70	76	78	81	83	86	84	96
7-Aug-04	87	89	91	93	93	93	92	83	78	80	80	75	77	72	71	67	66	71	75	74	75	82	88	93	81	93
8-Aug-04	95	95	94	94	94	91	90	88	82	67	61	55	57	52	47	45	47	45	51	59	65	70	76	71	71	95
9-Aug-04	75	82	92	93	94	93	86	77	73	70	62	42	37	35	34	32	34	36	38	42	47	57	67	77	62	94
10-Aug-04	86	87	89	92	93	95	90	77	69	61	54	45	40	36	33	33	33	32	33	36	43	51	52	60	59	95
11-Aug-04	64	75	89	91	93	92	85	81	78	79	65	57	47	41	37	34	35	39	45	51	56	66	68	76	64	93
12-Aug-04	89	91	87	82	89	92	86	78	71	66	64	54	46	40	37	33	30	44	49	55	62	72	86	87	66	92
13-Aug-04	86	86	87	91	94	95	90	81	75	61	50	49	45	41	38	39	40	43	47	53	65	71	70	71	65	95
14-Aug-04	71	75	78	86	87	87	85	75	68	62	55	51	46	44	43	42	42	44	48	54	61	66	71	75	63	87
15-Aug-04	79	85	90	93	94	93	87	79	68	60	52	41	38	36	34	33	33	32	34	39	49	57	67	77	60	94
16-Aug-04	86	87	84	83	84	87	85	80	74	66	61	61	57	53	54	51	48	47	50	57	64	69	74	86	69	87
17-Aug-04	89	89	88	92	89	91	90	82	71	62	56	50	45	41	36	39	37	36	35	39	54	72	61	67	63	92
18-Aug-04	72	75	83	90	87	88	86	77	72	63	55	52	45	37	33	35	36	40	44	51	65	75	87	82	64	90
19-Aug-04	80	82	87	89	89	90	87	77	69	55	44	42	38	38	41	51	53	54	55	63	70	77	81	85	67	90
20-Aug-04	84	82	84	86	89	92	93	89	85	76	65	56	51	53	46	48	55	54	63	70	80	87	88	95	74	95
21-Aug-04	95	94	94	94	94	92	92	92	89	83	78	72	63	66	68	75	80	78	66	75	79	84	86	87	82	95
22-Aug-04	87	88	89	88	89	89	86	85	86	83	80	78	80	82	85	87	84	83	83	87	89	91	92	93	86	93
23-Aug-04	93	93	94	94	94	95	95	94	93	93	90	83	78	71	70	73	72	71	68	75	81	89	90	93	85	95
24-Aug-04	94	94	95	95	96	96	94	86	73	61	56	49	44	42	43	47	50	55	50	61	69	73	79	85	70	96
25-Aug-04	89	89	91	90	92	93	92	80	78	74	67	61	53	48	44	44	43	49	53	60	67	70	72	74	70	93
26-Aug-04	77	81	82	84	86	89	91	88	85	83	80	75	68	64	61	56	58	60	66	70	76	82	86	89	76	91
27-Aug-04	91	92	93	94	95	96	96	89	77	67	59	50	50	49	47	48	50	53	58	60	70	86	88	89	73	96
28-Aug-04	89	91	94	87	88	87	84	88	87	84	80	66	55	62	69	74	73	73	70	77	82	86	85	88	80	94
29-Aug-04	91	92	93	93	93	93	93	93	94	90	87	82	80	77	75	73	75	76	80	84	93	92	92	92	87	94
30-Aug-04	93	94	95	95	95	95	95	93	92	91	88	83	82	82	81	75	77	82	83	86	87	88	92	93	88	95
31-Aug-04	95	96	97	96	97	97	96	95	96	95	92	90	91	90	90	88	87	87	87	89	92	93	96	97	93	97
Hourly Avg	85	87	89	90	91	92	90	84	80	74	68	62	57	55	53	53	54	57	58	63	70	76	80	83		
Hourly Max	95	96	97	96	97	97	96	95	96	95	92	90	91	90	90	88	87	87	87	89	93	93	96	97		

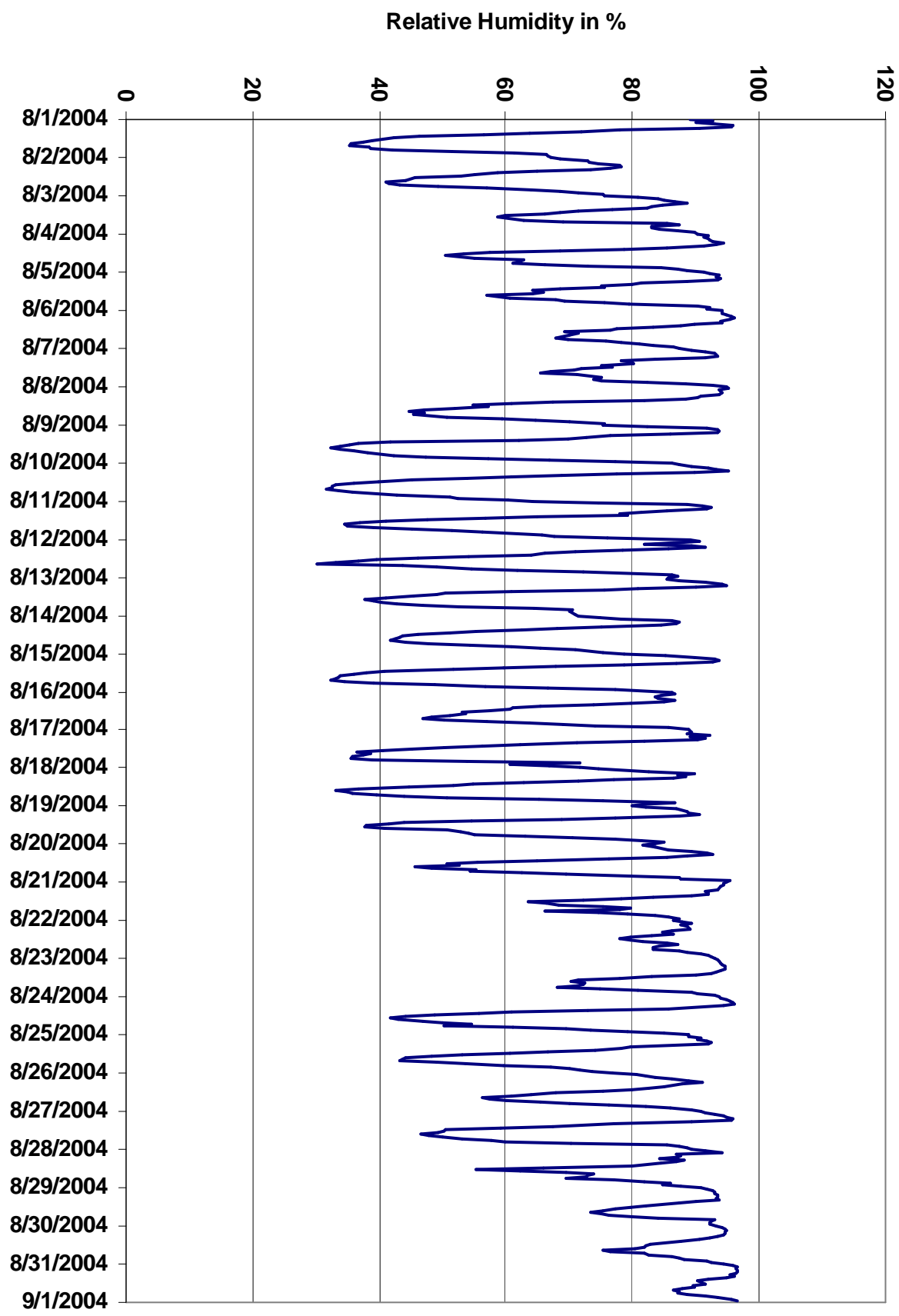


Figure 17. PASZA - Henry Pirkler Relative Humidity 1-hr Average Monthly Trend



Station: Henry Pirker

### HOURLY AVERAGE TABLE

Ambient Temperature (AT - °C)

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004

**Summary**

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	31.9	°C	12-Aug	16:00 17:00
Maximum 24-hr Average:	22.1	°C	13-Aug	

AIC Time:	0 hrs	Operational Time:	744 hrs					
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	29.9	26.5	20.0	14.5	11.3	7.0	4.2	15.7 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
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-Aug-04	11	10	10	9	8	8	10	14	16	19	20	22	22	23	23	24	24	22	22	21	19	17	16	16	17.0	23.6	
2-Aug-04	15	15	14	13	13	12	13	14	16	19	21	22	23	25	26	26	26	26	25	24	22	20	19	18	19.4	26.3	
3-Aug-04	18	17	16	16	15	14	16	16	17	19	21	22	23	25	25	23	22	20	19	17	17	16	16	15	18.5	25.1	
4-Aug-04	15	14	14	14	14	14	14	15	15	16	18	20	23	24	25	24	22	22	22	21	20	18	17	16	18.3	25.0	
5-Aug-04	16	15	14	15	15	15	16	18	19	20	19	20	21	21	21	23	22	20	20	17	16	14	14	14	17.7	23.2	
6-Aug-04	13	12	12	11	11	11	11	11	11	12	13	14	15	15	16	15	14	15	14	12	12	11	11	10	12.6	16.1	
7-Aug-04	10	10	10	9	10	10	10	10	12	13	12	13	13	13	14	14	15	15	14	13	13	13	12	12	11	12.1	15.1
8-Aug-04	11	11	11	10	11	11	11	11	12	14	17	18	19	18	20	21	21	20	20	18	16	15	14	12	15.1	21.1	
9-Aug-04	12	10	8	7	6	5	7	12	15	17	19	20	21	22	22	22	22	22	21	19	17	15	13	11	15.3	22.5	
10-Aug-04	9	8	7	6	6	6	8	11	14	17	19	21	23	24	25	25	25	25	24	23	21	19	18	16	16.6	25.2	
11-Aug-04	16	15	11	10	10	11	12	14	15	16	20	22	25	27	28	29	29	28	26	24	22	20	20	18	19.4	28.9	
12-Aug-04	14	13	14	14	13	12	13	16	19	21	23	26	29	30	31	32	32	30	29	27	24	21	18	17	21.6	31.9	
13-Aug-04	17	16	15	15	14	13	14	18	21	25	28	29	30	30	31	30	30	29	28	24	21	19	18	18	22.1	30.6	
14-Aug-04	17	16	16	14	13	13	13	17	19	21	23	24	25	26	27	27	27	26	25	23	21	20	18	17	20.2	26.8	
15-Aug-04	16	15	13	11	10	9	11	15	20	22	23	25	26	27	27	26	27	26	26	24	21	19	18	17	19.7	26.8	
16-Aug-04	16	15	15	14	13	12	12	14	17	20	21	22	24	25	25	26	26	25	24	22	20	19	18	15	19.2	26.0	
17-Aug-04	13	13	13	11	11	11	11	15	18	22	24	25	26	26	27	27	26	25	24	23	20	17	17	15	19.1	26.7	
18-Aug-04	14	14	12	10	10	11	11	14	16	19	22	24	26	26	27	28	29	28	27	25	21	19	16	17	19.4	28.6	
19-Aug-04	17	16	15	16	15	15	16	18	20	22	25	26	27	27	27	25	24	23	22	20	19	17	16	15	20.1	27.3	
20-Aug-04	14	14	14	13	13	12	12	13	15	18	21	24	25	25	24	23	22	22	20	18	17	16	15	14	17.6	24.8	
21-Aug-04	14	14	12	11	11	10	10	10	11	11	12	13	15	14	14	14	13	13	14	13	12	11	10	9	12.2	15.2	
22-Aug-04	10	9	9	9	8	8	8	9	9	10	10	10	9	9	8	8	8	8	7	6	6	6	6	6	8.1	10.2	
23-Aug-04	6	6	6	6	6	6	6	6	7	7	7	8	9	10	11	10	10	10	10	10	8	6	5	4	4	7.3	10.6
24-Aug-04	4	4	4	3	3	3	3	5	9	12	13	15	16	18	17	16	14	15	17	14	13	12	11	10	10.4	17.6	
25-Aug-04	9	9	8	7	6	6	6	9	10	12	14	15	18	19	20	20	20	18	17	15	13	12	11	11	12.7	20.1	
26-Aug-04	10	9	9	9	9	9	9	9	8	8	8	9	12	14	15	16	17	17	17	15	14	13	12	11	10	11.6	17.2
27-Aug-04	10	10	10	9	9	9	9	11	14	16	18	19	20	19	19	20	19	18	17	16	15	13	13	12	14.3	19.6	
28-Aug-04	12	12	12	12	12	11	11	11	12	12	13	16	17	16	15	14	14	14	14	13	12	12	11	10	12.9	16.9	
29-Aug-04	10	9	9	9	9	9	9	9	9	10	11	12	13	13	14	14	14	13	13	12	11	11	11	11	11.0	13.9	
30-Aug-04	11	11	10	10	10	10	10	11	11	12	12	13	14	14	15	16	15	15	15	14	13	13	13	13	12.5	15.7	
31-Aug-04	12	12	12	12	12	12	12	11	12	12	13	12	13	13	13	13	14	13	13	13	12	12	11	11	12.3	13.6	
Hourly Avg	12.7	12.1	11.4	10.8	10.5	10.2	10.8	12.5	14.1	15.8	17.5	18.9	20.1	20.6	21.0	21.0	20.7	20.0	19.5	17.9	16.3	14.9	14.0	13.2			
Hourly Max	17.7	16.8	16.0	15.6	15.0	15.0	16.2	18.3	20.9	24.9	27.7	28.9	29.5	30.4	31.2	31.5	31.9	30.2	28.6	26.7	24.1	21.4	19.5	17.9			

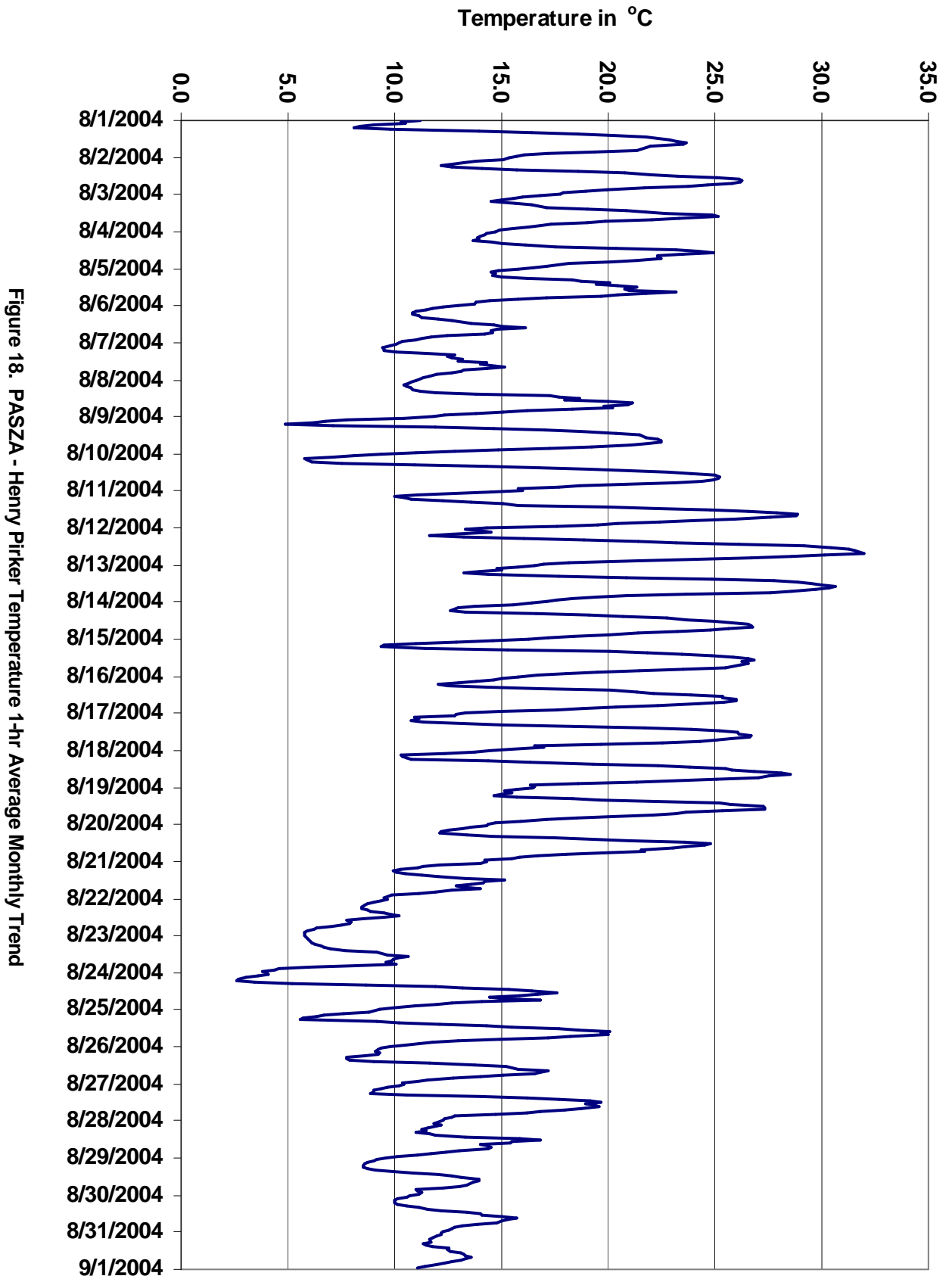


Figure 18. PASZA - Henry Pirkler Temperature 1-hr Average Monthly Trend

Station: Henry Pirker

### HOURLY AVERAGE TABLE

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

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004

**Summary**

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	803.8	W/m <sup>2</sup>	4-Aug	13:00 14:00
Maximum 24-hr Average:	295.1	W/m <sup>2</sup>	10-Aug	

AIC Time:	0 hrs		Operational Time:	744 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	Average
	780.8	693.0	319.5	61.8	0.0	0.0	0.0	187.9 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**

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-Aug-04	0	0	0	0	0	10	137	239	422	564	681	765	781	785	765	694	565	256	213	165	19	0	0	0	294	785	
2-Aug-04	0	0	0	0	0	20	98	231	362	555	671	687	800	796	693	555	467	351	172	114	20	0	0	0	275	800	
3-Aug-04	0	0	0	0	0	9	115	95	122	395	344	292	456	682	586	216	35	24	51	53	17	0	0	0	146	682	
4-Aug-04	0	0	0	0	0	9	66	98	154	312	283	626	664	804	741	351	214	253	158	78	14	0	0	0	201	804	
5-Aug-04	0	0	0	0	0	6	84	203	242	444	190	229	297	213	300	524	322	201	204	52	3	0	0	0	146	524	
6-Aug-04	0	0	0	0	0	1	11	48	129	196	218	252	526	485	548	270	369	390	276	43	6	0	0	0	157	548	
7-Aug-04	0	0	0	0	0	8	59	190	345	170	262	246	176	286	126	174	234	115	32	19	5	0	0	0	102	345	
8-Aug-04	0	0	0	0	0	1	22	72	133	334	580	401	594	469	781	710	541	359	290	92	14	0	0	0	225	781	
9-Aug-04	0	0	0	0	0	7	116	215	397	538	658	736	753	792	759	672	548	410	262	92	13	0	0	0	290	792	
10-Aug-04	0	0	0	0	0	6	117	220	400	544	665	751	798	803	764	681	562	417	250	92	11	0	0	0	295	803	
11-Aug-04	0	0	0	0	0	15	113	167	324	307	630	712	757	765	729	651	527	336	170	52	8	0	0	0	261	765	
12-Aug-04	0	0	0	0	0	4	83	192	359	499	615	705	752	756	719	589	505	352	211	63	5	0	0	0	267	756	
13-Aug-04	0	0	0	0	0	2	70	180	344	490	569	639	667	722	690	602	478	327	195	52	3	0	0	0	251	722	
14-Aug-04	0	0	0	0	0	4	58	175	329	467	582	668	717	723	691	609	488	312	205	67	5	0	0	0	254	723	
15-Aug-04	0	0	0	0	0	4	83	190	364	450	630	711	751	759	648	479	516	377	221	66	4	0	0	0	261	759	
16-Aug-04	0	0	0	0	0	3	55	155	326	471	569	654	704	689	603	596	416	304	169	50	3	0	0	0	240	704	
17-Aug-04	0	0	0	0	0	3	61	163	327	475	594	651	722	577	641	572	443	319	203	76	4	0	0	0	243	722	
18-Aug-04	0	0	0	0	0	2	54	173	338	481	599	655	659	676	604	571	461	314	180	65	3	0	0	0	243	676	
19-Aug-04	0	0	0	0	0	2	73	169	235	356	508	537	659	568	620	420	301	237	132	22	1	0	0	0	202	659	
20-Aug-04	0	0	0	0	0	1	43	142	168	375	540	517	408	268	129	218	257	169	51	14	0	0	0	0	137	540	
21-Aug-04	0	0	0	0	0	0	7	30	78	152	192	287	462	186	131	252	160	268	218	18	0	0	0	0	102	462	
22-Aug-04	0	0	0	0	0	0	18	37	91	163	156	180	170	138	144	137	98	33	23	3	0	0	0	0	58	180	
23-Aug-04	0	0	0	0	0	0	3	35	39	58	107	238	208	258	186	177	174	177	179	46	0	0	0	0	79	258	
24-Aug-04	0	0	0	0	0	0	16	163	280	496	443	590	639	692	293	143	99	129	192	25	0	0	0	0	175	692	
25-Aug-04	0	0	0	0	0	0	35	169	333	473	583	637	733	655	717	536	466	280	176	35	0	0	0	0	243	733	
26-Aug-04	0	0	0	0	0	0	13	59	103	152	194	490	641	597	544	570	443	292	79	24	0	0	0	0	175	641	
27-Aug-04	0	0	0	0	0	0	29	157	289	439	533	602	481	322	404	320	224	107	50	15	0	0	0	0	166	602	
28-Aug-04	0	0	0	0	0	0	6	28	60	86	248	465	527	398	544	206	272	196	121	11	0	0	0	0	132	544	
29-Aug-04	0	0	0	0	0	0	19	69	114	157	211	262	246	233	295	164	112	71	29	4	0	0	0	0	83	295	
30-Aug-04	0	0	0	0	0	0	24	66	102	105	140	213	221	173	331	306	131	101	44	11	0	0	0	0	82	331	
31-Aug-04	0	0	0	0	0	0	3	8	19	49	153	103	89	122	123	101	98	67	60	12	0	0	0	0	42	153	
Hourly Avg	0	0	0	0	0	4	55	133	236	347	431	500	550	529	511	421	340	243	155	49	5	0	0	0			
Hourly Max	0	0	0	0	0	20	137	239	422	564	681	765	800	804	781	710	565	417	290	165	20	0	0	0			

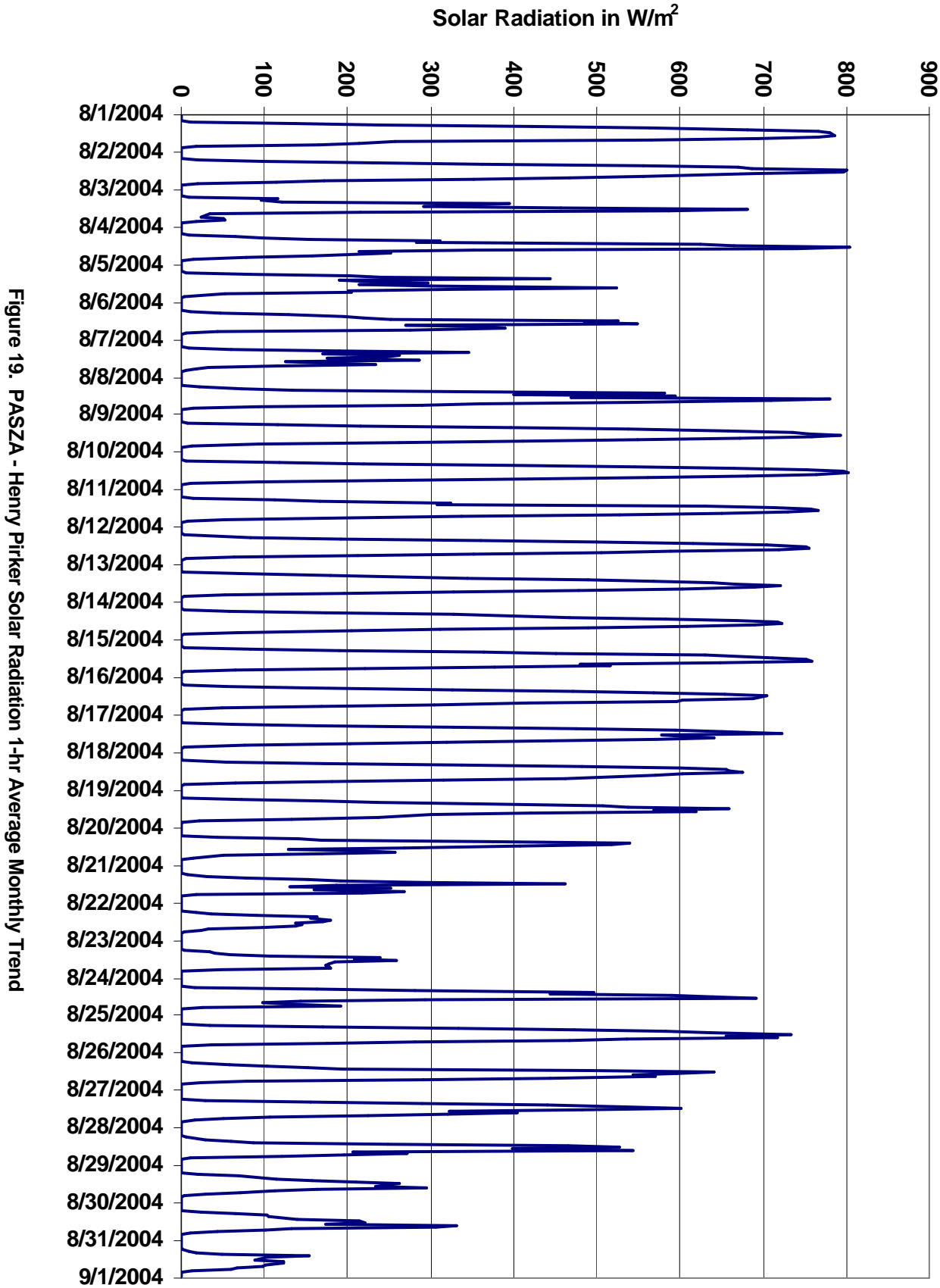


Figure 19. PASZA - Henry Pirkler Solar Radiation 1-hr Average Monthly Trend

Station: Henry Pirker

**HOURLY AVERAGE TABLE**

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

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004

**Summary**

Maximum 1-hr Average:	25.4	km/hr	20-Aug	14:00 15:00
Maximum 24-hr Average:	12.0	km/hr	22-Aug	

Calm Time:	3 hrs	0% calms	Operational Time:	741 hrs					
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	AverageS	AverageV
	21.0	15.3	8.6	5.9	4.0	2.0	1.1	6.8 km/hr	1.8 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 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		
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-Aug-04	4	4	8	6	3	5	4	4	3	4	4	2	5	4	6	6	7	8	9	9	9	10	10	10	2.5	10.5
2-Aug-04	8	10	9	8	7	5	6	9	6	6	5	7	9	7	6	7	10	12	11	11	11	11	13	12	8.7	12.7
3-Aug-04	15	11	6	8	7	6	8	12	9	9	2	4	3	2	7	9	5	4	11	10	9	6	1	3	2.1	14.8
4-Aug-04	3	3	2	1	2	5	6	6	9	6	6	4	3	4	3	5	9	6	7	7	6	7	7	8	1.7	8.8
5-Aug-04	5	5	6	4	2	4	6	4	3	4	8	5	7	8	11	11	12	14	16	17	16	12	11	9	7.8	16.7
6-Aug-04	11	7	6	8	8	6	8	10	10	8	10	12	13	17	17	18	20	16	15	12	12	9	9	12	10.5	20.1
7-Aug-04	13	12	10	6	7	5	6	7	8	7	9	8	8	5	6	5	6	8	4	5	2	3	2	5	5.1	13.3
8-Aug-04	5	4	3	2	3	5	5	5	7	6	4	1	3	5	6	6	10	7	4	7	5	5	4	3	1.8	9.7
9-Aug-04	2	2	4	3	3	5	4	3	4	4	5	5	5	4	calm	4	4	7	7	6	4	3	1	1	1.6	7.3
10-Aug-04	3	3	2	2	1	4	4	3	3	4	8	10	8	6	4	6	9	8	8	7	5	6	6	5	4.4	9.7
11-Aug-04	7	4	calm	1	4	2	4	5	4	4	3	3	4	4	2	1	4	7	10	7	5	5	4	2	3.0	9.7
12-Aug-04	3	3	4	4	1	3	2	4	4	3	5	4	3	5	5	5	9	11	7	4	2	4	4	4	0.8	11.0
13-Aug-04	6	5	7	6	4	4	4	5	6	5	2	4	2	8	8	10	12	11	11	10	8	6	8	7	5.4	12.0
14-Aug-04	6	7	4	4	4	4	3	2	4	4	1	4	4	3	2	4	4	6	8	8	6	7	8	6	4.1	8.3
15-Aug-04	4	2	2	3	4	3	4	4	2	2	6	7	8	9	9	9	9	7	9	8	8	6	7	6	4.6	9.4
16-Aug-04	7	9	9	5	5	4	4	6	6	3	4	6	5	6	6	6	5	6	7	6	5	4	3	3	4.9	9.3
17-Aug-04	4	4	2	4	4	2	4	5	4	3	3	5	5	6	8	9	9	8	7	5	2	3	7	5	3.4	9.2
18-Aug-04	3	4	2	2	2	4	1	2	5	5	4	5	6	9	6	5	6	8	7	7	5	4	3	4	2.4	8.8
19-Aug-04	6	5	5	4	5	5	4	7	7	3	2	5	5	4	7	10	12	10	10	7	8	8	6	4	3.1	11.6
20-Aug-04	7	10	7	8	7	8	7	4	2	3	4	7	9	10	25	23	21	23	15	10	9	7	11	11	4.5	25.4
21-Aug-04	9	7	12	13	14	16	15	11	11	12	10	7	6	7	6	8	6	9	8	6	6	7	9	9	6.8	15.6
22-Aug-04	10	9	8	9	8	9	10	11	11	11	13	14	15	15	16	14	15	16	14	15	13	12	12	13	12.0	15.9
23-Aug-04	12	12	11	10	10	10	8	6	6	7	9	10	11	12	16	16	16	13	12	7	4	3	3	3	2.2	16.1
24-Aug-04	4	5	6	4	3	4	4	5	9	14	20	20	23	22	19	17	14	5	5	4	4	3	2	3	5.6	22.6
25-Aug-04	2	1	2	4	4	2	1	4	5	6	6	6	3	2	2	4	3	8	11	8	8	9	9	9	4.6	11.3
26-Aug-04	5	7	4	5	5	8	11	13	12	12	8	8	6	4	1	1	5	5	4	4	11	9	4	3	3.0	13.3
27-Aug-04	calm	5	1	2	3	3	5	4	4	9	12	19	16	19	18	15	17	12	9	8	5	5	2	4	5.2	19.3
28-Aug-04	5	5	4	6	8	8	9	7	7	9	10	19	24	22	19	18	21	15	14	8	8	5	5	3	9.0	23.7
29-Aug-04	4	6	8	9	7	5	7	8	9	9	7	8	8	8	7	5	6	6	7	5	5	3	5	6	6.6	9.4
30-Aug-04	5	5	3	3	4	2	4	3	1	4	5	4	5	4	5	9	7	5	6	6	5	6	7	5	4.5	8.8
31-Aug-04	4	1	2	4	4	5	5	5	6	6	8	6	4	3	5	5	5	6	7	5	5	5	5	4	4.0	7.5
1-hr Vector	3.1	2.9	2.6	2.2	2.0	2.0	1.9	1.2	0.5	0.8	1.2	1.2	1.4	1.8	1.5	1.8	2.5	3.5	4.6	4.1	4.2	3.9	4.1	3.4		
Hourly Max	14.8	12.2	12.2	13.0	14.1	15.6	15.1	13.3	12.5	14.4	19.8	20.3	23.7	22.3	25.4	22.9	21.1	23.5	16.2	16.7	16.2	11.9	12.7	12.5		

Station: Henry Pirker

### HOURLY AVERAGE TABLE

Wind Direction (WD - Degrees)

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004

Summary


Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	Average
	353.6	334.6	283.8	123.9	80.5	26.1	7.1	42 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	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
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-Aug-04	306	276	275	318	277	297	320	294	274	226	211	147	82	109	124	95	80	89	85	88	81	81	90	96	87
2-Aug-04	96	99	89	86	88	108	111	119	131	133	140	136	138	116	131	124	93	92	84	96	94	98	97	105	106
3-Aug-04	98	114	94	86	66	54	79	94	96	103	185	274	351	295	351	2	56	182	303	294	166	219	302	222	80
4-Aug-04	172	186	264	297	352	321	296	296	169	164	165	211	258	252	76	97	104	102	82	81	48	48	65	102	112
5-Aug-04	89	42	34	15	300	42	15	62	178	128	81	71	87	74	92	68	46	53	56	57	70	59	36	46	61
6-Aug-04	33	78	40	353	323	308	319	325	328	336	314	313	317	315	329	320	302	314	309	323	330	317	328	334	326
7-Aug-04	331	327	323	309	320	319	315	320	329	348	1	3	11	58	39	25	38	63	73	86	71	139	212	335	354
8-Aug-04	333	325	339	316	242	249	217	197	230	245	251	250	227	214	231	289	307	341	30	70	105	108	95	70	267
9-Aug-04	38	13	319	357	306	302	320	285	238	240	209	189	242	158	121	161	122	116	130	167	153	154	75	82	171
10-Aug-04	282	332	293	278	136	136	159	175	187	128	108	116	103	112	104	96	90	93	88	85	75	81	80	80	102
11-Aug-04	82	68	322	200	117	105	129	140	161	180	214	171	231	216	154	157	120	103	98	97	77	79	79	27	124
12-Aug-04	310	343	69	114	163	341	321	284	246	229	197	227	293	284	261	70	65	88	84	74	46	13	307	331	25
13-Aug-04	334	339	336	335	317	312	319	304	298	292	265	89	78	6	44	11	17	14	38	41	51	40	25	7	8
14-Aug-04	21	9	10	312	336	354	319	345	58	91	80	111	76	106	85	53	87	94	123	106	91	95	110	112	75
15-Aug-04	90	46	311	292	326	332	330	316	273	121	109	91	91	84	80	83	78	81	83	92	92	89	57	50	75
16-Aug-04	43	35	35	22	25	21	357	12	26	35	123	132	100	87	80	113	63	48	41	57	68	63	47	303	55
17-Aug-04	334	353	336	306	353	324	287	268	274	248	228	297	299	341	352	26	24	31	35	56	49	311	50	109	350
18-Aug-04	72	67	280	277	84	111	255	166	171	233	204	181	205	185	198	247	276	316	294	298	296	302	278	315	244
19-Aug-04	328	342	304	296	317	321	311	315	314	303	262	264	285	330	8	59	69	72	79	67	70	107	107	71	12
20-Aug-04	82	89	89	88	92	89	102	133	129	215	224	236	274	291	267	241	241	260	299	292	315	328	335	314	271
21-Aug-04	267	309	31	14	360	2	351	346	356	7	14	29	42	19	74	142	134	98	82	74	49	44	47	52	24
22-Aug-04	74	66	71	79	71	61	73	83	86	88	94	96	88	103	105	94	87	86	83	75	61	59	62	57	81
23-Aug-04	65	65	68	77	87	93	106	117	142	209	251	269	288	287	287	300	304	315	305	309	327	161	138	153	323
24-Aug-04	127	160	162	163	149	155	137	156	238	246	255	263	273	275	288	288	265	284	0	78	101	54	111	337	260
25-Aug-04	316	109	360	13	51	29	21	97	134	134	120	138	157	24	60	348	46	80	83	71	72	79	80	91	78
26-Aug-04	94	344	348	349	334	316	319	310	289	296	292	312	303	319	245	96	180	138	131	95	96	93	359	26	330
27-Aug-04	1	112	105	155	160	135	113	145	231	250	268	270	266	283	277	301	293	294	304	269	307	108	113	129	274
28-Aug-04	131	155	187	257	261	242	266	298	276	296	300	300	280	287	317	302	324	328	324	297	283	308	357	92	296
29-Aug-04	122	113	101	100	95	72	80	86	92	91	106	111	106	101	112	137	134	136	96	102	78	73	75	80	100
30-Aug-04	81	91	75	91	110	97	89	112	105	136	134	146	132	146	159	169	168	160	119	128	116	112	111	121	125
31-Aug-04	137	197	328	9	40	18	48	31	27	60	61	35	57	51	29	43	62	83	105	112	108	108	117	96	63
Hourly Avg	52	52	30	22	24	13	5	11	255	217	206	234	292	316	353	19	30	53	53	65	68	73	61	61	

Station: Henry Pirker

**STANDARD DEVIATION TABLE**

**Wind Direction (WD - Degrees)**

Station Owner: PASZA

Monitoring Dates: August 1, 2004 to September 1, 2004

**Summary**


Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	744 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%			
Percentile	99	95	75	50	25	5	1
	63.0	50.5	28.4	15.6	10.1	6.8	5.5

**Status Flag Characters**

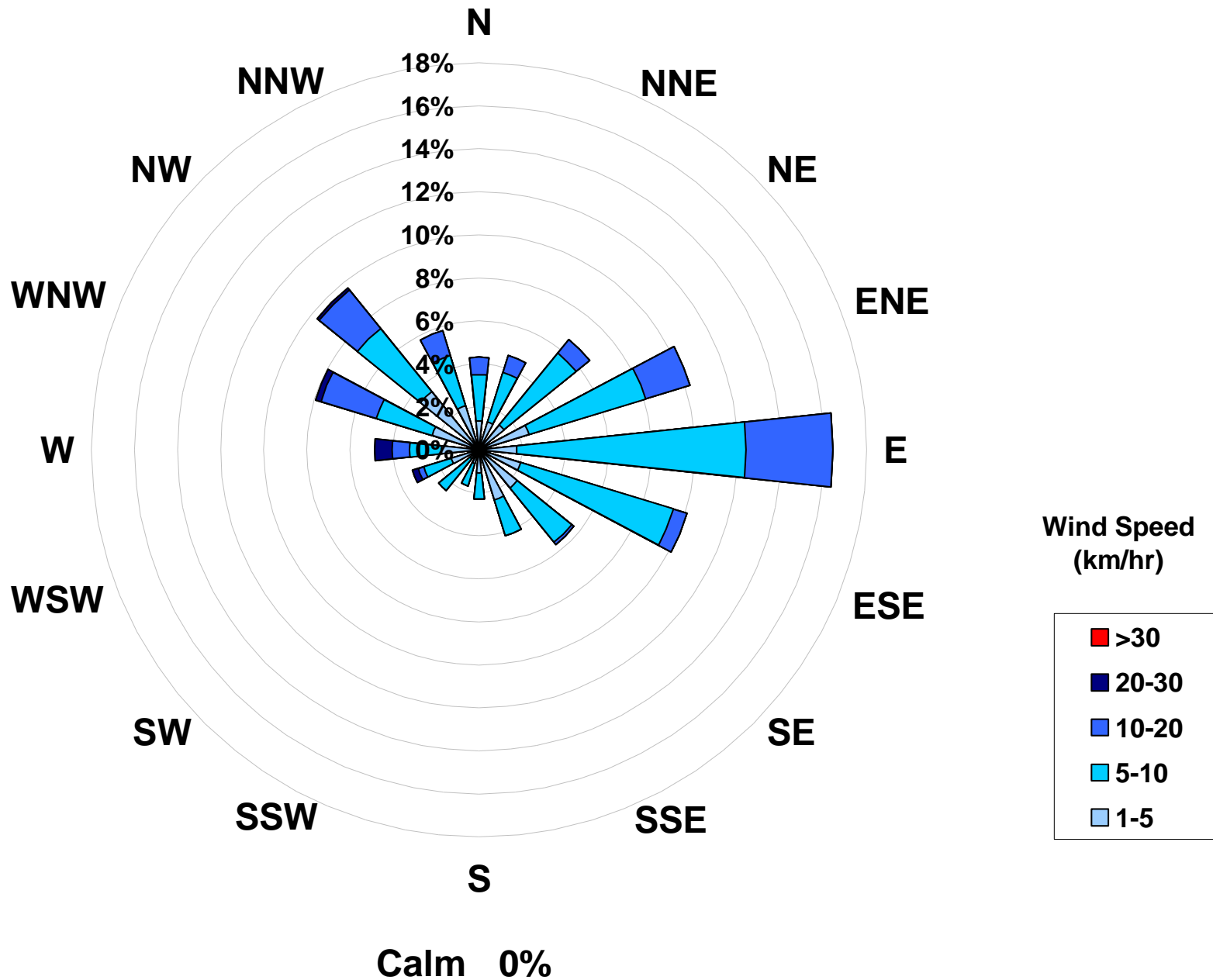
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

**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	23:00	0:00	Daily Maximum
1-Aug-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		53.4	
2-Aug-04		11	26	8	15	29	16	10	19	37	31	33	53	39	52	46	43	34	19	10	7	7	6	7	5		37.9	
3-Aug-04		13	8	6	11	8	16	11	11	19	27	38	32	21	25	34	30	22	12	8	7	6	6	7	7		61.9	
4-Aug-04		8	7	16	9	11	10	9	7	10	18	51	28	62	48	31	14	24	45	11	43	12	21	42	32		67.3	
5-Aug-04		36	33	50	44	30	23	9	43	14	18	17	33	51	46	67	38	16	27	23	13	14	12	10	8		48.7	
6-Aug-04		15	12	9	30	30	23	17	31	49	33	13	43	30	20	12	15	11	12	11	10	9	11	11	17		35.3	
7-Aug-04		11	35	19	12	8	8	7	8	9	16	10	10	13	9	13	8	11	10	9	7	7	10	10	6		43.0	
8-Aug-04		6	6	6	14	7	13	11	13	16	16	14	13	14	30	29	26	23	18	20	14	43	12	18	6		59.3	
9-Aug-04		6	10	13	30	24	16	14	14	14	22	41	59	49	29	42	41	19	21	42	18	7	8	13	20		64.5	
10-Aug-04		54	30	15	16	33	12	14	22	22	20	27	43	49	65	46	56	63	31	18	11	8	8	29	16		62.7	
11-Aug-04		33	29	38	32	23	10	16	15	31	36	18	21	26	40	63	39	17	19	13	11	7	7	8	19		68.5	
12-Aug-04		7	25	59	68	22	38	20	20	26	30	35	55	52	38	60	60	51	22	9	7	9	9	9	32		56.0	
13-Aug-04		23	35	45	27	48	17	28	20	18	42	30	35	56	42	27	47	42	17	11	14	17	42	16	22		57.5	
14-Aug-04		11	8	6	7	15	14	12	10	14	25	40	55	58	28	23	23	17	13	13	13	16	28	15	18		69.7	
15-Aug-04		12	9	16	10	12	28	16	20	34	32	54	49	55	56	70	49	40	29	18	9	7	5	7	5		52.9	
16-Aug-04		13	25	34	17	12	12	10	11	40	53	32	27	31	34	26	20	21	23	13	7	5	14	11	18		48.3	
17-Aug-04		11	11	11	23	17	19	18	18	20	40	48	38	36	30	32	44	37	25	19	11	12	11	22	30		49.8	
18-Aug-04		20	5	19	11	11	29	19	19	21	31	50	40	49	32	34	21	18	22	16	18	22	17	10	12		48.3	
19-Aug-04		48	22	39	20	18	15	33	25	21	26	41	34	41	21	40	46	30	15	10	5	8	20	18	20		58.6	
20-Aug-04		9	13	10	22	11	10	10	11	11	46	54	35	37	59	28	15	13	13	11	9	10	8	7	15		48.8	
21-Aug-04		6	7	10	8	8	9	12	17	49	44	35	26	17	19	8	10	9	8	11	6	8	9	6	6		34.8	
22-Aug-04		10	13	10	9	7	5	5	7	6	7	10	22	35	18	31	19	19	13	19	13	14	13	13	13		10.4	
23-Aug-04		9	10	10	10	10	10	9	9	7	10	9	9	9	9	8	8	8	8	7	7	10	10	9	10		16.0	
24-Aug-04		10	8	8	12	10	8	9	12	14	14	11	10	10	14	10	8	8	10	10	8	14	16	12	14		40.7	
25-Aug-04		9	17	9	22	41	10	12	12	28	11	8	12	11	13	9	7	17	14	22	13	12	20	36	29		70.6	
26-Aug-04		41	39	44	15	21	44	41	25	17	21	25	29	49	62	71	50	52	20	13	10	8	7	7	6		77.1	
27-Aug-04		11	27	16	12	21	9	8	8	10	8	12	17	37	49	71	77	35	40	20	26	6	8	37	29		60.4	
28-Aug-04		60	51	55	41	27	26	10	15	27	16	11	9	13	11	11	10	8	6	6	9	43	16	53	39		28.1	
29-Aug-04		13	17	28	28	14	10	10	11	12	12	8	10	9	10	7	7	8	7	8	7	10	12	17	18		31.1	
30-Aug-04		15	8	8	7	12	15	11	11	9	14	17	15	15	15	19	31	16	15	12	18	16	20	10	12		50.2	
31-Aug-04		11	10	24	25	11	50	20	36	50	29	27	31	22	20	21	12	11	14	15	11	9	8	6	14			
Hourly Max		11	40	20	13	16	11	12	20	13	19	14	18	28	33	17	19	19	17	11	13	16	12	13	14			

Hourly Max 60 51 59 68 48 50 41 43 50 53 54 59 62 65 71 77 63 45 42 43 43 42 53 39

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





# PEACE AIRSHED ZONE ASSOCIATION

## PASZA Monthly Passive Data Summary

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

PASZA					
Station Number	Station Name	SO <sub>2</sub> ppb	O <sub>3</sub> ppb	NO <sub>2</sub> ppb	Site Legal
<b>Duplicates</b>					
36a	Guy	0.2	20.6	0.6	
36b	Guy	0.1	21.6	0.5	
34a	Puskwaskau	0.1	16.2	0.0	
34b	Puskwaskau	0.1	16.1	0.1	
37a	Crooked Creek	0.2	24.7	0.9	
37b	Crooked Creek	0.1	23.9	1.0	
49a	Grande Prairie HP	0.2	28.2	4.6	
49b	Grande Prairie HP	0.2	26.8	4.2	
1	Silver Valley	0.2	23.7	1.1	08-27-081-11 W6M
2	Bay Tree	0.1	19.4	0.5	13-16-078-13 W6M
3	Forth Creek	0.1	28.3	0.6	04-13-082-07 W6M
4	Gordondale	0.2	23.1	0.7	04-34-078-10 W6M
5	Boone Creek	0.2	18.9	0.5	01-23-076-11 W6M
7	Steepprock Creek	0.1	27.2	0.4	09-35-072-13 W6M
9	Spirit River	0.1	18.3	0.3	08-12-079-07 W6M
10	Woking	0.1	20.4	0.7	01-13-076-07 W6M
11	Webber Creek	0.3	25.5	0.8	09-36-074-09 W6M
12	Hythe	0.2	21.4	1.5	14-36-072-11 W6M
14	Sylvester	0.1	na	0.9	08-06-069-12 W6M
16	Beaverlodge	0.2	27.2	1.6	15-36-071-10 W6M
17	Poplar	0.2	20.7	1.1	13-06-073-08 W6M

Table 1. PASZA Passive Stations for August 2004 (Continued)

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
18	Saddle Hills	0.3	27.1	0.6	04-25-074-07 W6M
19	Wanham	0.2	23.9	0.6	16-22-077-03 W6M
20	Shaftesbury	0.1	17.5	0.5	04-03-082-23 W5M
21	Eaglesham	0.1	20.3	0.4	16-21-079-25 W5M
23	Bear Lake	0.2	26.7	1.2	15-31-072-06 W6M
24	Wembley	0.2	23.1	1.2	12-31-070-08 W6M
25	Pinto Creek	0.1	18.0	0.7	04-24-069-11 W6M
26	Flyingshot	0.1	21.3	1.4	15-36-070-07 W6M
27	Grande Prairie I	0.2	25.0	4.1	08-15-071-06 W6M
28	Clairmont Lake	0.3	32.6	1.2	09-06-073-04 W6M
29	Smoky Heights	0.2	26.4	0.5	04-06-075-02 W6M
30	Fitzsimmons	0.1	26.4	0.6	15-36-072-03 W6M
32	Gold Creek	0.2	17.2	0.4	06-33-067-05 W6M
33	Wapiti	0.1	26.8	0.5	02-25-071-03 W6M
34	Puskwaskau	0.1	16.1	0.0	15-35-074-25 W5M
35	Jean Cote	0.2	20.4	0.9	12-35-079-21 W5M
36	Guy	0.1	21.1	0.5	03-04-076-22 W5M
37	Crooked Creek	0.2	24.3	0.9	16-01-071-26 W5M
38	Karr Creek	0.1	16.1	0.4	10-16-065-02 W6M
39	Clouston Creek	0.1	21.8	0.4	12-01-073-22 W5M
40	McLennan	0.4	20.0	0.6	03-29-077-19 W5M
41	Valleyview	0.2	26.2	0.6	09-30-069-22 W5M
42	Sunset House	0.2	24.3	0.4	05-32-070-19 W5M
43	High Prairie	0.1	17.9	0.7	16-13-074-17 W5M
44	Peavine	0.1	25.2	0.4	03-05-079-15 W5M
45	Gift Lake	0.1	15.8	0.5	10-07-079-12 W5M
46	Little Smoky	0.1	21.3	1.4	12-01-065-21 W5M
47	Kinuso	0.1	17.9	0.4	12-10-073-10 W5M
48	Deer Mountain	0.1	20.0	0.3	15-22-068-09 W5M
49	Grande Prairie HP	0.2	27.5	4.4	17-26-071-06 W6M

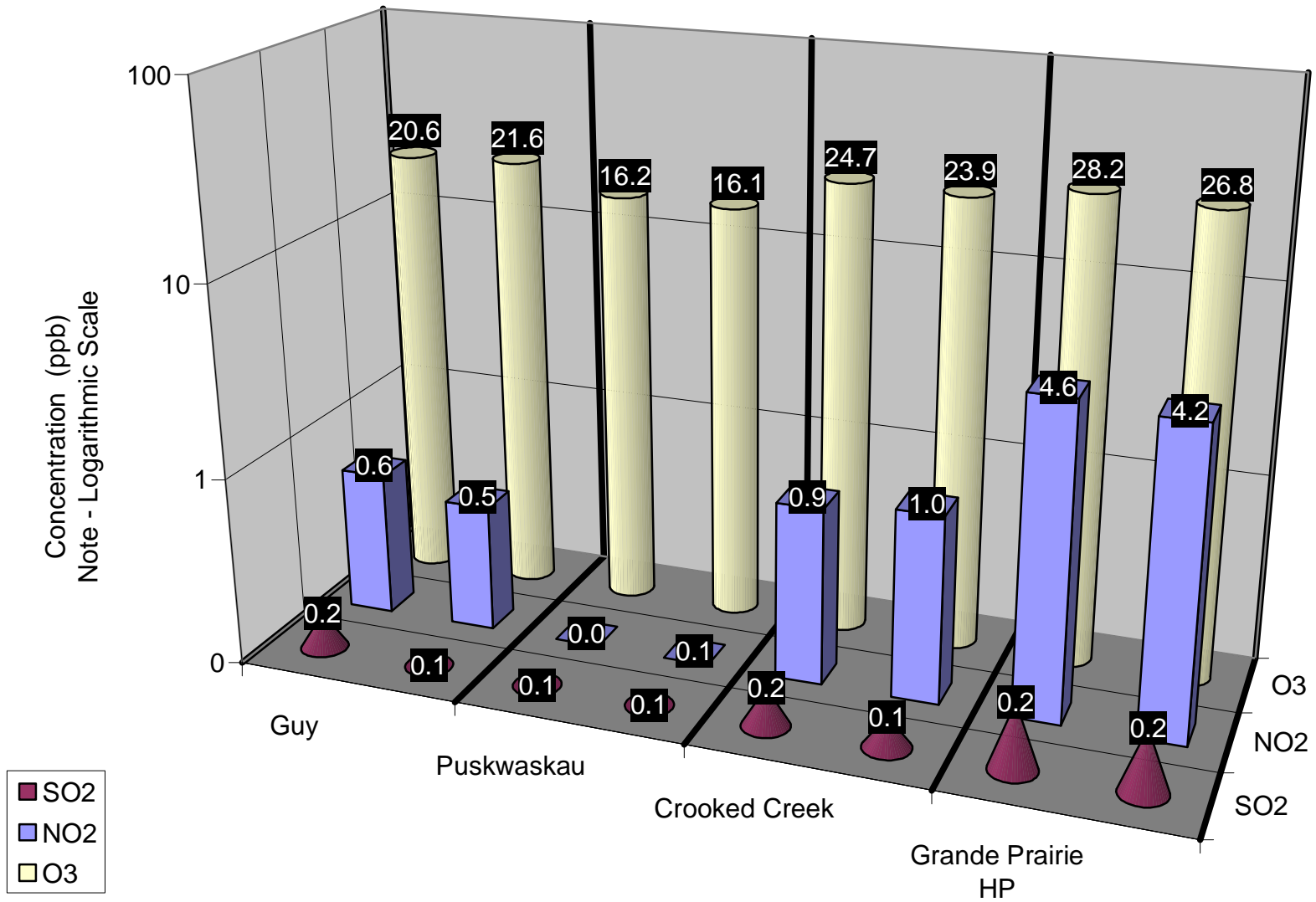


Figure 20. Duplicate Summary Chart

Table 2. Passive Summary Results for August 2004

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

Passive Summary for Aug 2004 (PASZA Zone)			
Mean	0.2	22.4	0.9
Standard Deviation	0.1	4.0	0.8
Minimum	0.1	15.8	0.0
	Little Smoky (#46)	Gift Lake (#45)	Puskwaskau (#34)
Maximum	0.4	32.6	4.4
	McLennan (#40)	Clairmont Lake (#28)	Grande Prairie HP (#49)

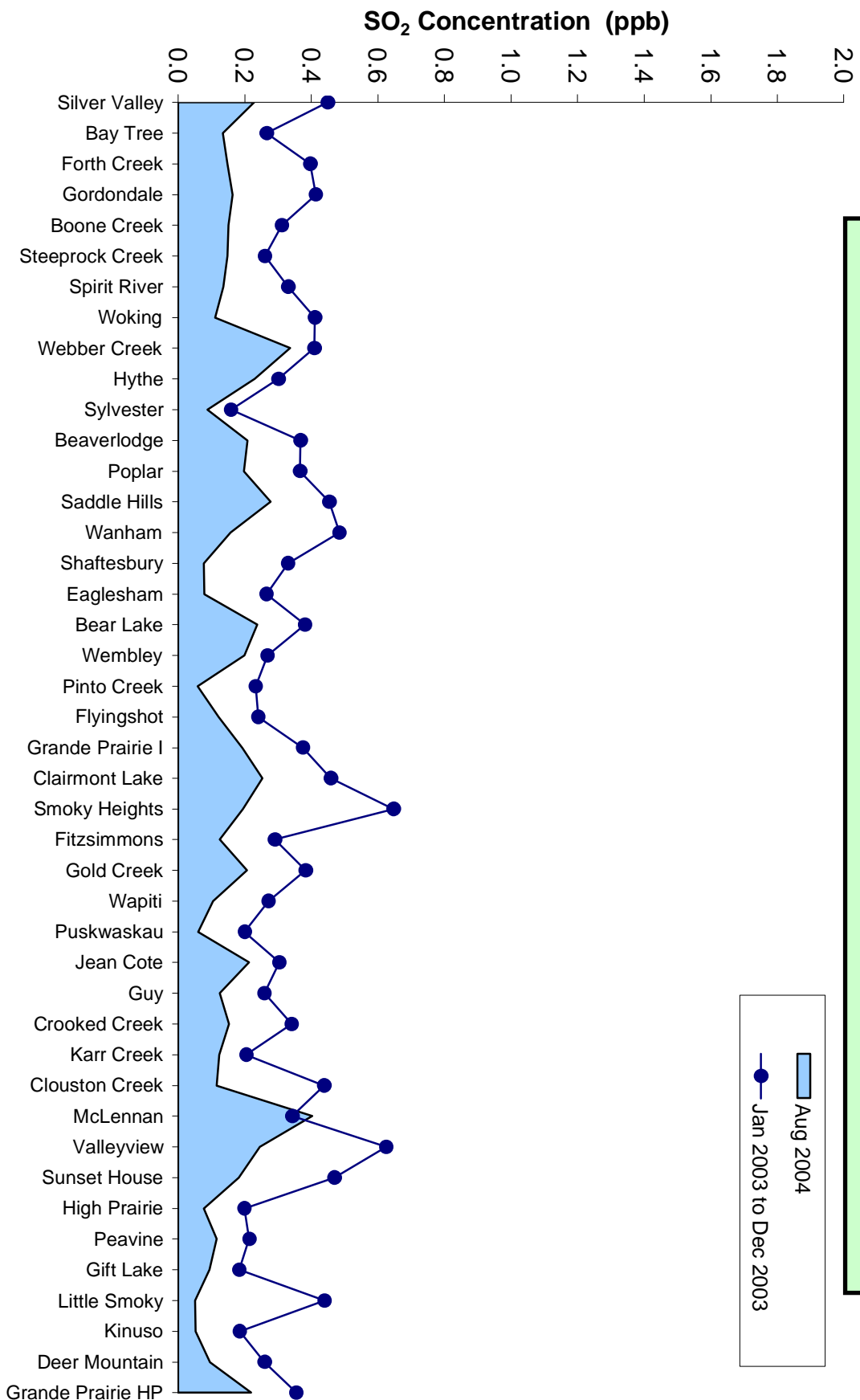
Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16 Beaverlodge)

	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
AENV Beaverlodge station	0.3	25.6	2.8
PASZA Beaverlodge passive	0.2	27.2	1.6

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

	SO <sub>2</sub>	O <sub>3</sub>	NO <sub>2</sub>
PASZA Henry Pirker station	0.3	20.1	4.6
PASZA Grande Prairie passive	0.2	27.5	4.4

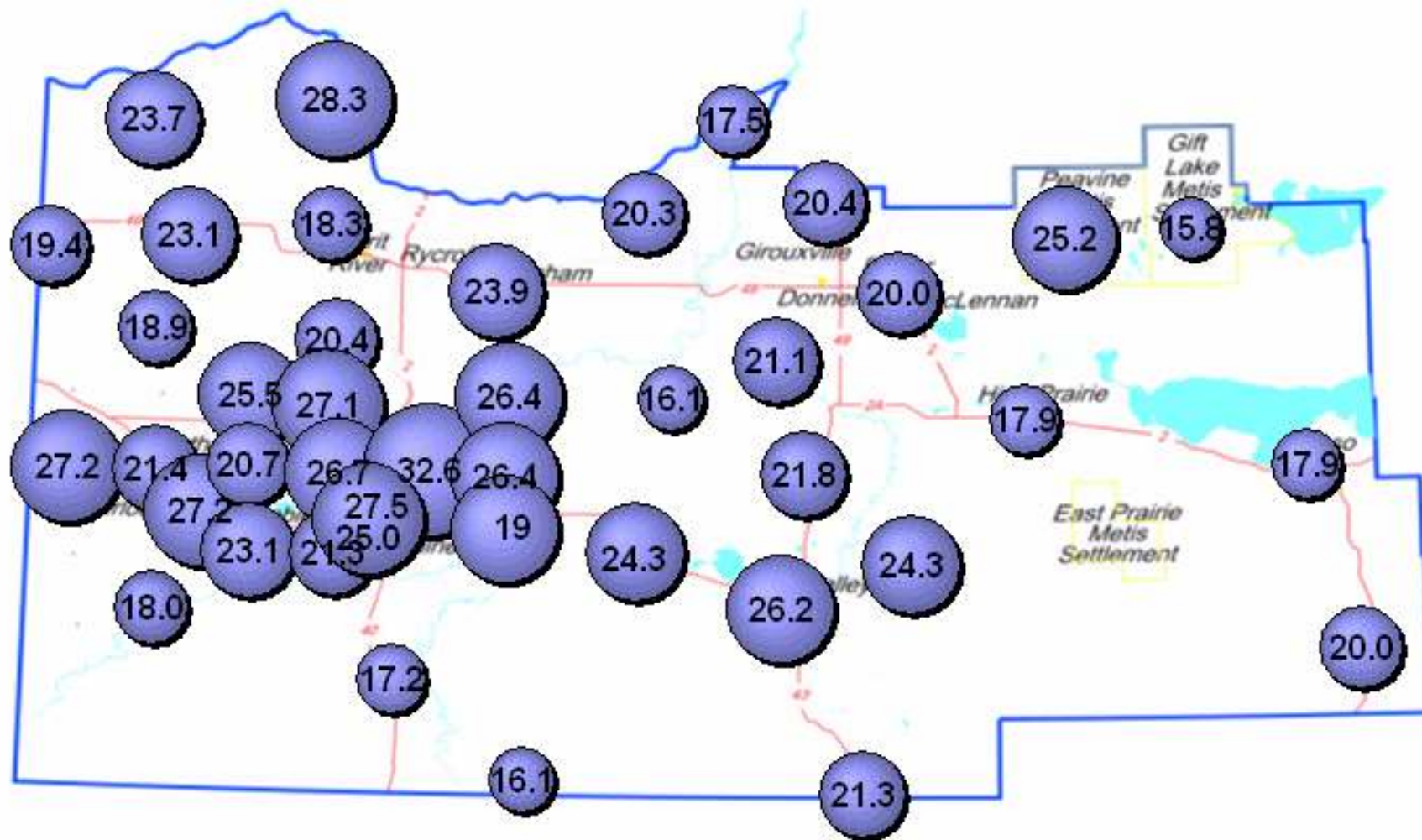




**Alberta Ambient Air Quality Guidelines - Annual SO<sub>2</sub> Guideline is 11 ppb**

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

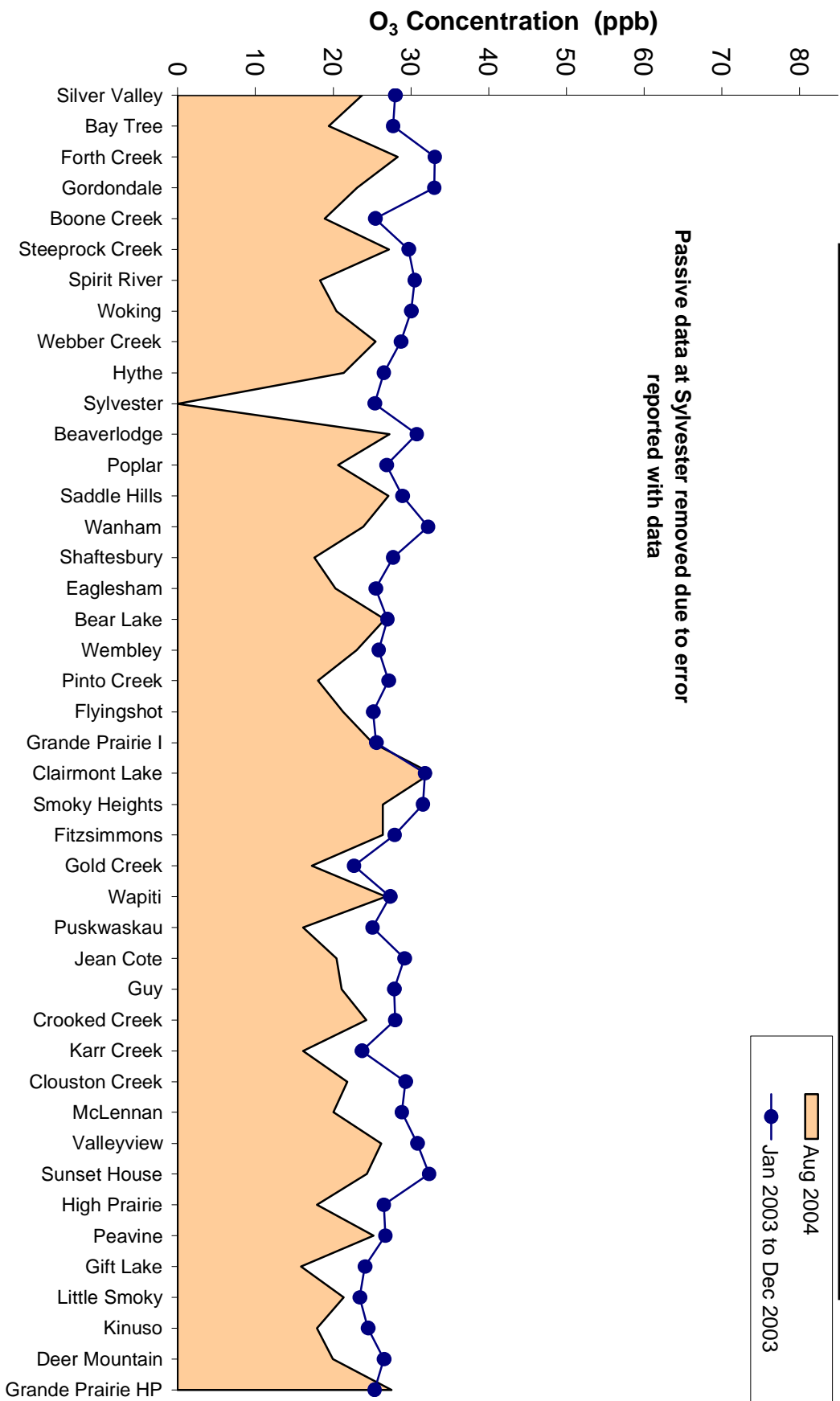
PASZA Passive O<sub>3</sub> Stations - Aug 2004  
Average Concentrations in ppb



Passive data at Sylvester removed due to error reported with data

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

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



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





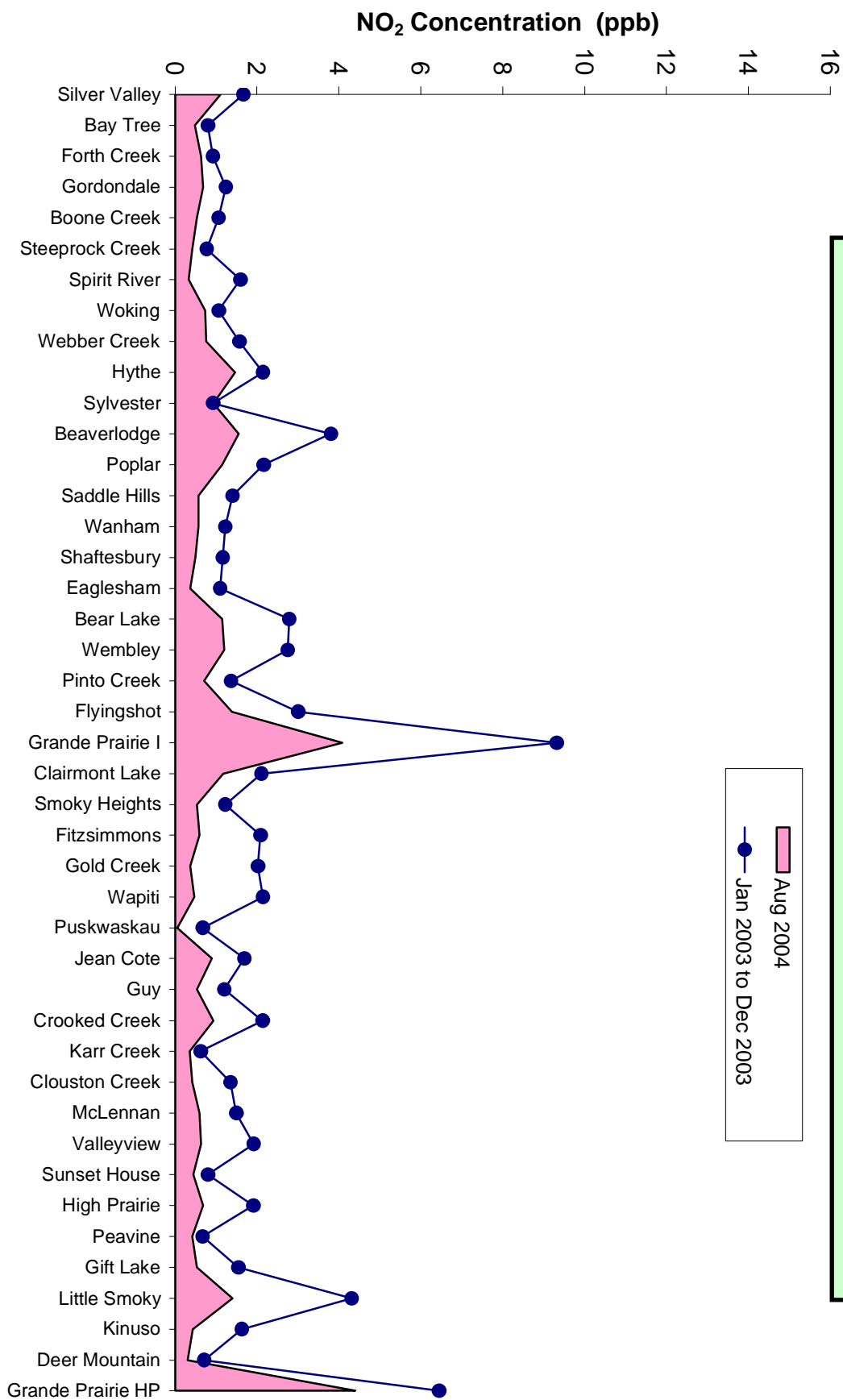


Figure 26. NO<sub>2</sub> Summary Chart

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

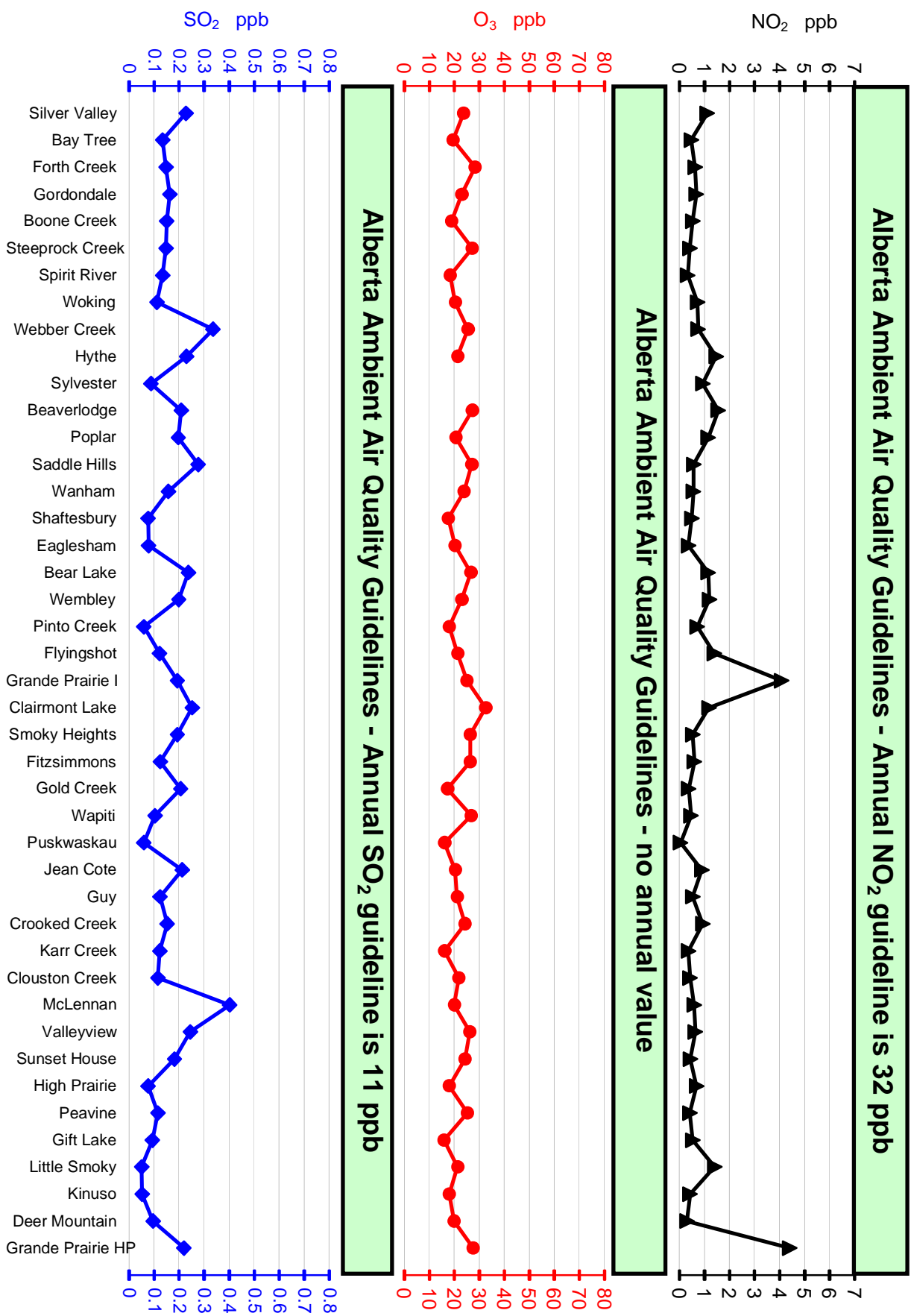


Figure 27. Overview Summary

## **August 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, PM<sub>2.5</sub>**

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

Calibration Date	August 4, 2004	Previous Calibration	July 8, 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)	8:25	End Time (MST)	11:00
Barometric Pressure	27.6 inches Hg	Station Temperature	20.5 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	2,995 ng/min	Perm-tube Expiry Date	12/10/2005
Correction factor	0.936603	Perm-tube Cert #	19-13334
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	1.000074	Calculated slope	0.998233
Calculated intercept	-0.152523	Calculated intercept	0.731486
Analyzer make	TEI Model 43A	Analyzer serial #	43A-21120-195

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
SO2 zero pot	177		178	
SO2 span pot	199		199	
UV Lamp voltage	902		902	
Vacuum	22.2	in Hg	22.2	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	2837.9	0.0	-0.3	N/A
3030	2837.9	402.8	403.1	0.9993
6100	5713.3	200.1	199.2	1.0046
12270	11492.1	99.5	98.7	1.0074
zero	2854.8	0.0	-0.3	As Found Zero
3048	2854.8	400.5	403.3	As Found Span
Average Correction Factor				1.0038

Calculated value of As Found Response: 403.479 ppm Percent Change of As Found: -0.8%

	before calibration		after calibration	
Auto zero	0.4	ppm	0.6	ppm
Auto span	359.3	ppm	338.9	ppm

Notes: No maintenance performed. All analyzer functions appear normal.Calibration Performed By: Kelly Baragar

## Calibration Summary

Parameter SO2  
Air Monitoring Network PASZA

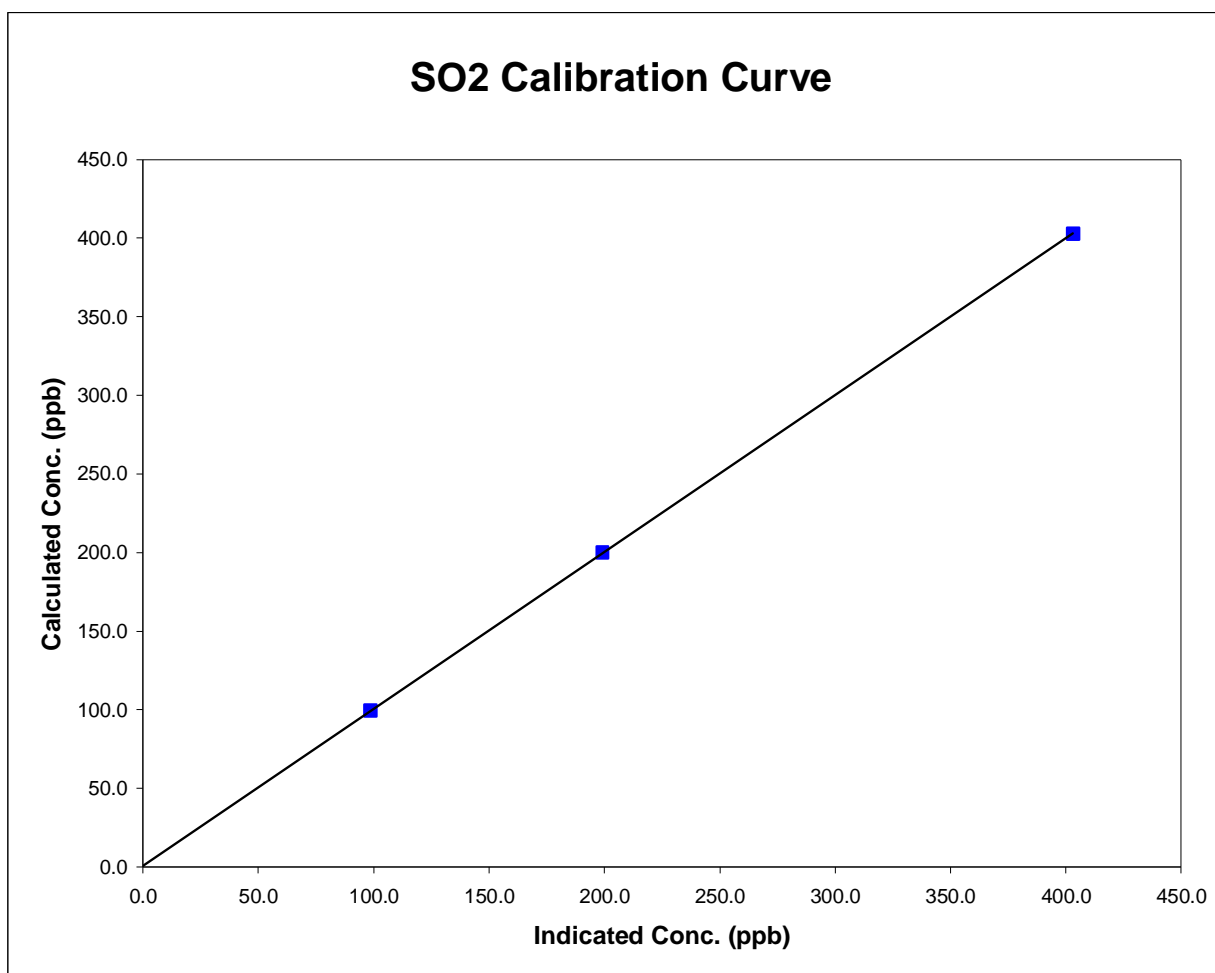


### Station Information

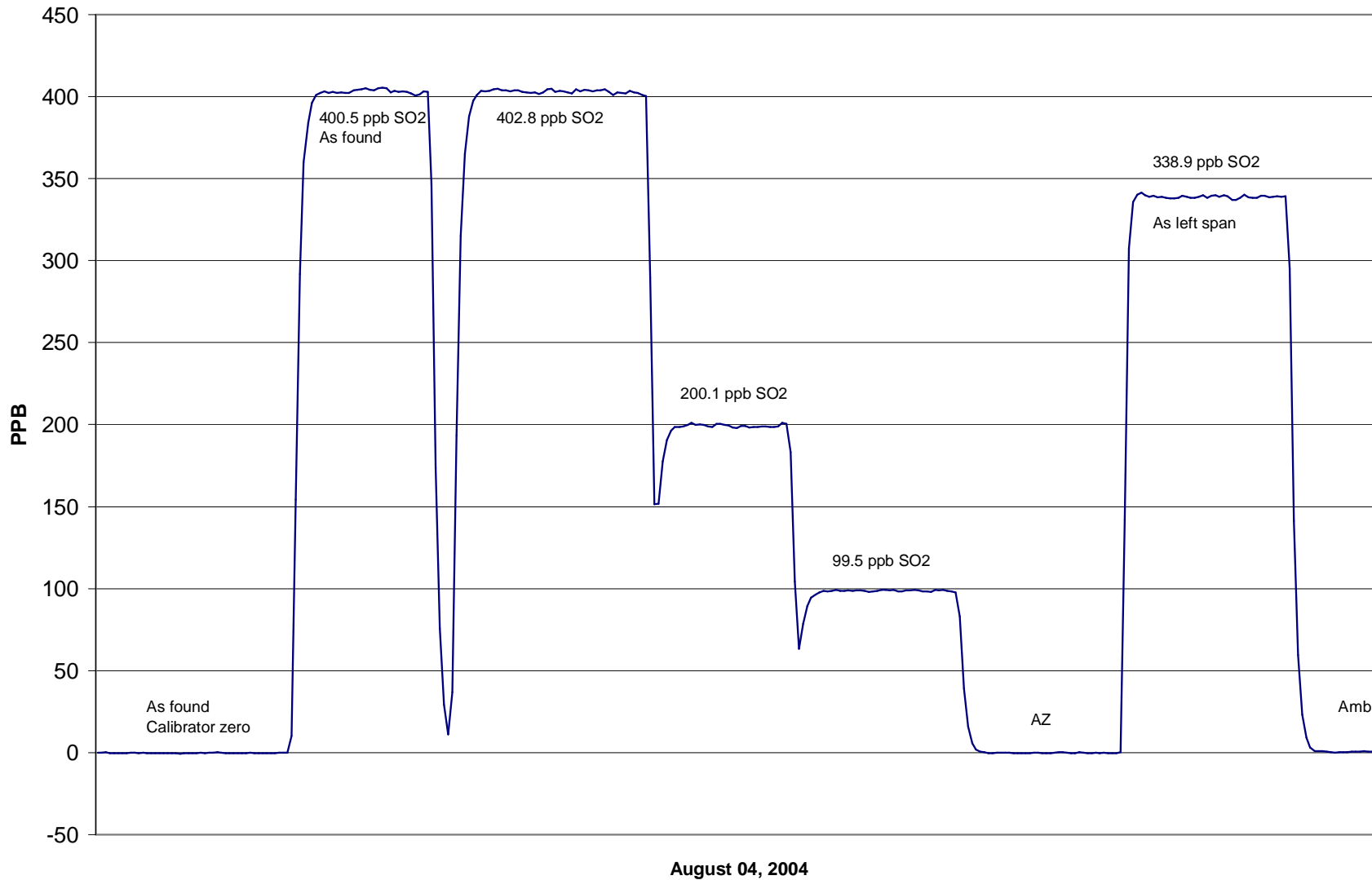
Calibration Date	August 4, 2004	Previous Calibration	July 8, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	8:25	End Time (MST)	11:00
Analyzer make/model	TEI Model 43A	Analyzer serial #	43A-21120-195

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.3	N/A		
402.8	403.1	0.9993	Correlation Coefficient	0.999994
200.1	199.2	1.0046		
99.5	98.7	1.0074		
			Slope	0.998233
			Intercept	0.731486



### SO2 Calibration



# Calibration Report

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



## Station Information

Calibration Date August 4, 2004 Previous Calibration July 8, 2004  
 Station Number 1 Station Location Muskoseepi Park

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

Start Time (MST) 7:20 End Time (MST) 12:05  
 Barometric Pressure 0.925 Atm Station Temperature 20.5 Deg C  
 Calibrator EnviroNics 6100 Serial Number 3016  
 NO Cal Gas Conc 50.3 ppm Cal Gas Expiry Date 19-Jan-06  
 NOx Cal Gas Conc 50.5 ppm Cal Gas Serial # ALM025793

## DACS Information

DACS make FOCUS AP1000 DACS serial No. 45269

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	1.011004	1.006049	1.003997
	Data Offset	-0.250492	-0.623168	-0.547564
After	Data Slope	1.000348	1.003328	1.003475
	Data Offset	-0.116947	-0.735798	-0.791541
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

## Analyzer Information

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

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO background	6.1	ppb	5.7	mV
NOx background	6.3	ppb	6.0	mV
NO coefficient	1.111		1.050	
NOx coefficient	1.003		1.003	
Chamber Temp	49.9	Deg C	49.9	Deg C
Cooler Temp	-2.0	Deg C	-0.4	Deg C
Converter Temp	324.0	Deg C	324.0	Deg C
Perm Temp	NA	Deg C	NA	Deg C
Vacuum	20.8	inches Hg	22.6	inches Hg
Sample Flow	NA	ccm	NA	ccm

Notes: All analyzer functions appear normal; little as found change noted. Analyzer was span adjusted and cal continued. Replaced silica dessicant for O3 generator.  
Span box flows balanced to bring span into range, but unable to balance flows enough to stabilize span



# Calibration Report

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



## Station Information

Calibration Date: August 4, 2004 Station Location: Muskoseepi Park

## Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NO <sub>x</sub> conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NO <sub>x</sub> conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NO <sub>x</sub> Correction factor	NO Correction factor
zero	4993	0.00	0.0	0.0	0.0	1.1	1.1	0.0	N/A	N/A
1	4993	39.97	401.1	399.5	1.6	400.8	399.1	1.6	1.0006	1.0008
2	4993	19.98	201.3	200.5	0.8	200.6	200.0	0.7	1.0032	1.0022
3	4993	9.99	100.8	100.4	0.4	101.2	100.8	0.3	0.9959	0.9960
AFZ	4993	0.00	0.0	0.0	0.0	1.1	1.1	0.0	0.0000	0.0000
AFS	4993	39.97	401.1	399.5	1.6	414.0	413.2	0.9	0.9688	0.9669
Average Correction Factor									0.9999	0.9997

As Found Concentrations: NO<sub>x</sub>= 412.3 NO= 411.5 As Found Percent Change NO<sub>x</sub>= 2.8% NO= 3.0%

## GPT Calibration Data

Dilution Flow 4993 ccm Source Gas Flow 39.97 ccm

O3 Setpoint (ppb)	Calculated NO <sub>x</sub> conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NO <sub>x</sub> conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NO <sub>x</sub> Correction factor	NO Correction factor	NO <sub>2</sub> Correction factor	Converter Efficiency
0	400.1	398.2	1.9	399.0	397.6	0.0	N/A	N/A	N/A	N/A
350	400.1	91.2	308.8	400.8	91.7	308.8	0.9981	0.9948	1.0001	100.0%
200	400.1	223.3	176.7	400.0	223.4	176.8	1.0002	0.9999	0.9998	100.0%
100	400.1	311.6	88.4	399.9	311.4	88.6	1.0003	1.0009	0.9975	100.2%
Average Correction Factor							0.9995	0.9986	0.9991	100.1%

## AIC Data

Parameter	Previous calibration				Current calibration			
	NO <sub>x</sub>	NO <sub>2</sub>	NO		NO <sub>x</sub>	NO <sub>2</sub>	NO	
Auto zero	-0.2	0.3	-0.5	ppb	2.3	1.4	1.0	ppb
Auto span	349.2	345.8	4.3	ppb	305.6	294.4	9.6	ppb

Calibration Performed By: Kelly Baragar

## Calibration Summary

Parameter NO<sub>2</sub>  
 Air Monitoring Network PASZA

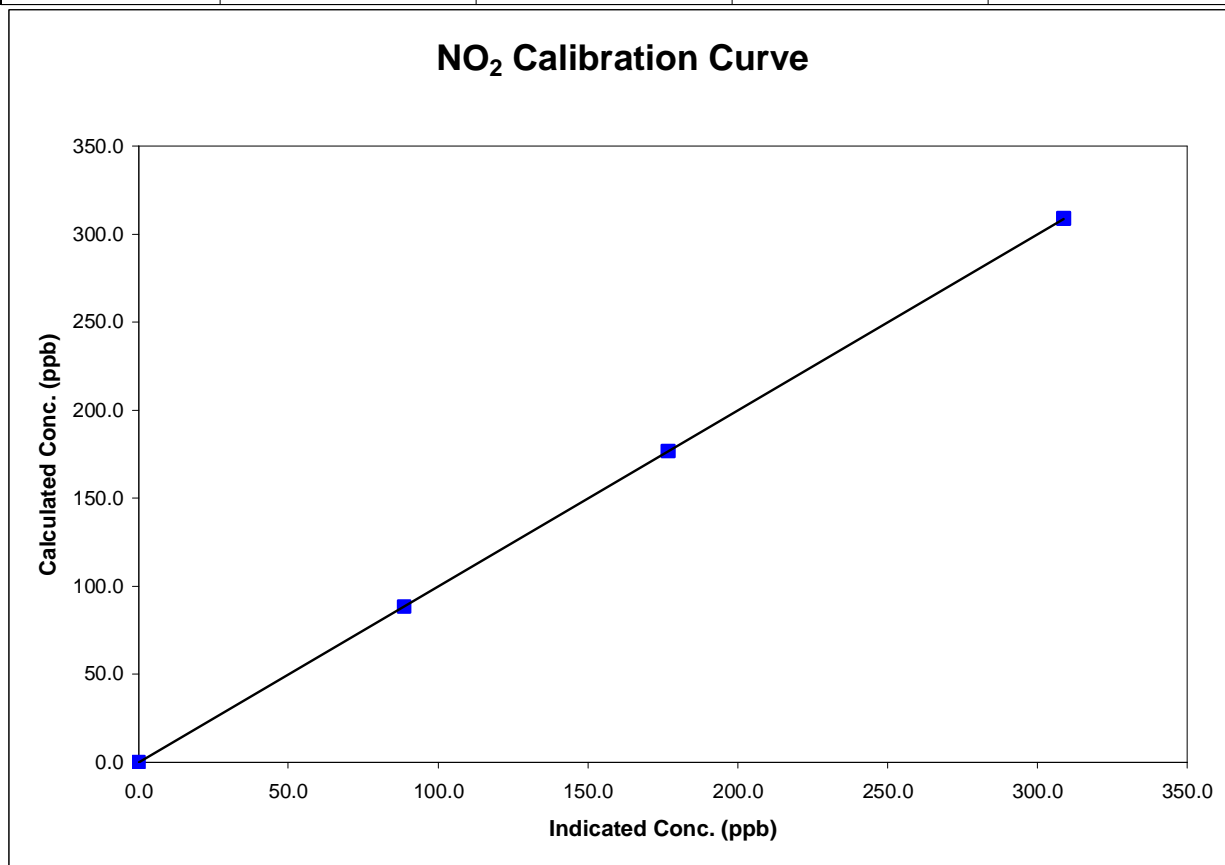


### Station Information

Calibration Date	August 4, 2004	Previous Calibration	July 8, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	7:20	End Time (MST)	12:05
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	0.0000		
308.8	308.8	1.0001	Correlation Coefficient	0.999999
176.7	176.8	0.9998		
88.4	88.6	0.9975	Slope	1.000348
			Intercept	-0.116947



## Calibration Summary

Parameter NO<sub>x</sub>  
 Air Monitoring Network PASZA

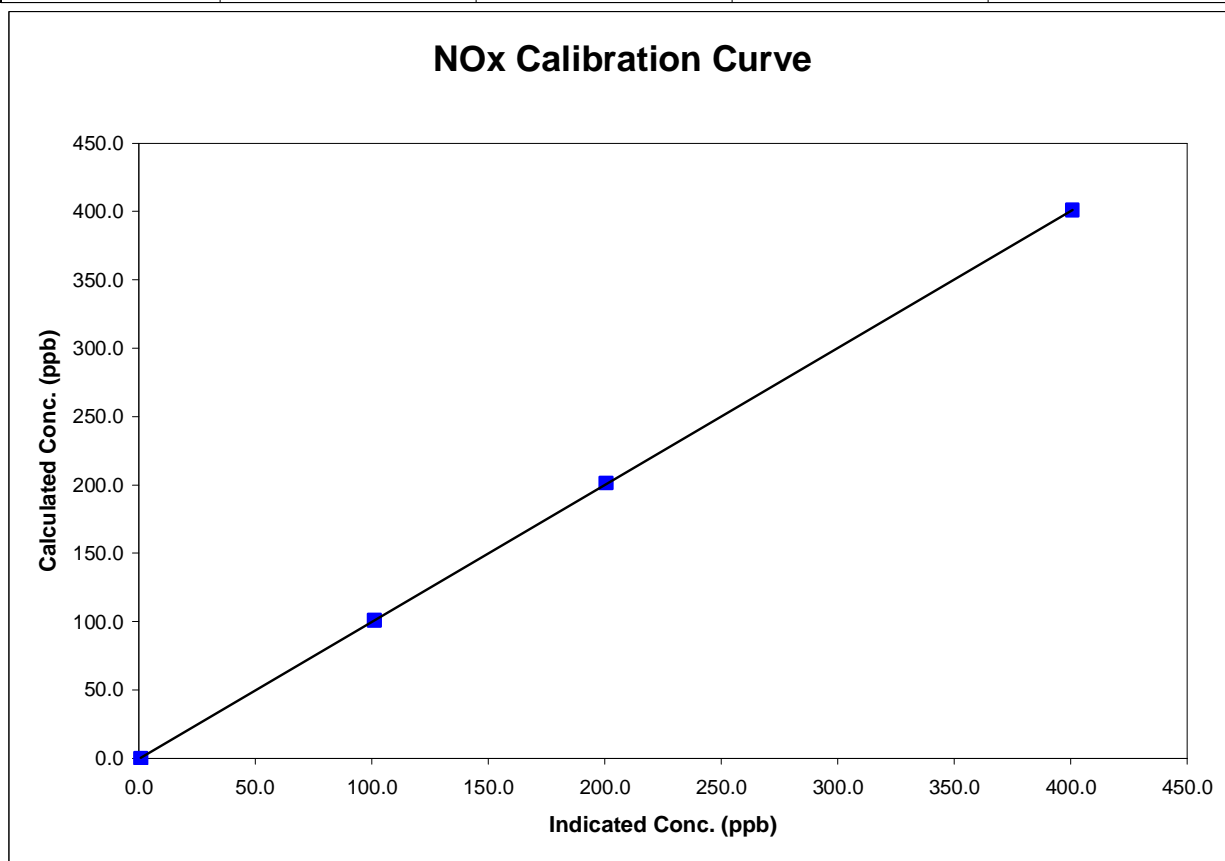


### Station Information

Calibration Date	August 4, 2004	Previous Calibration	July 8, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	7:20	End Time (MST)	12:05
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	1.1	0.0000	Correlation Coefficient	0.999991
401.1	400.8	1.0006		
201.3	200.6	1.0032		
100.8	101.2	0.9959		
			Slope	1.003328
			Intercept	-0.735798



## Calibration Summary

Parameter NO  
 Air Monitoring Network PASZA

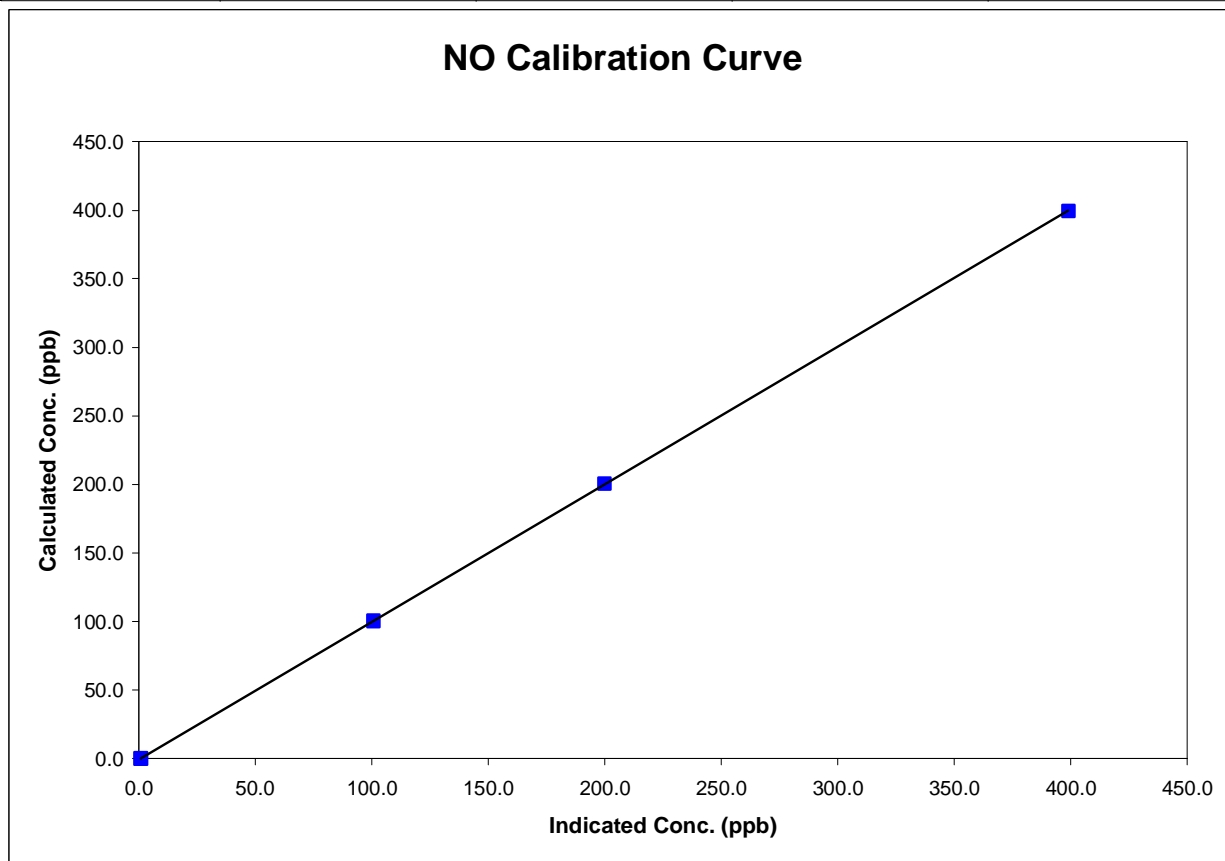


### Station Information

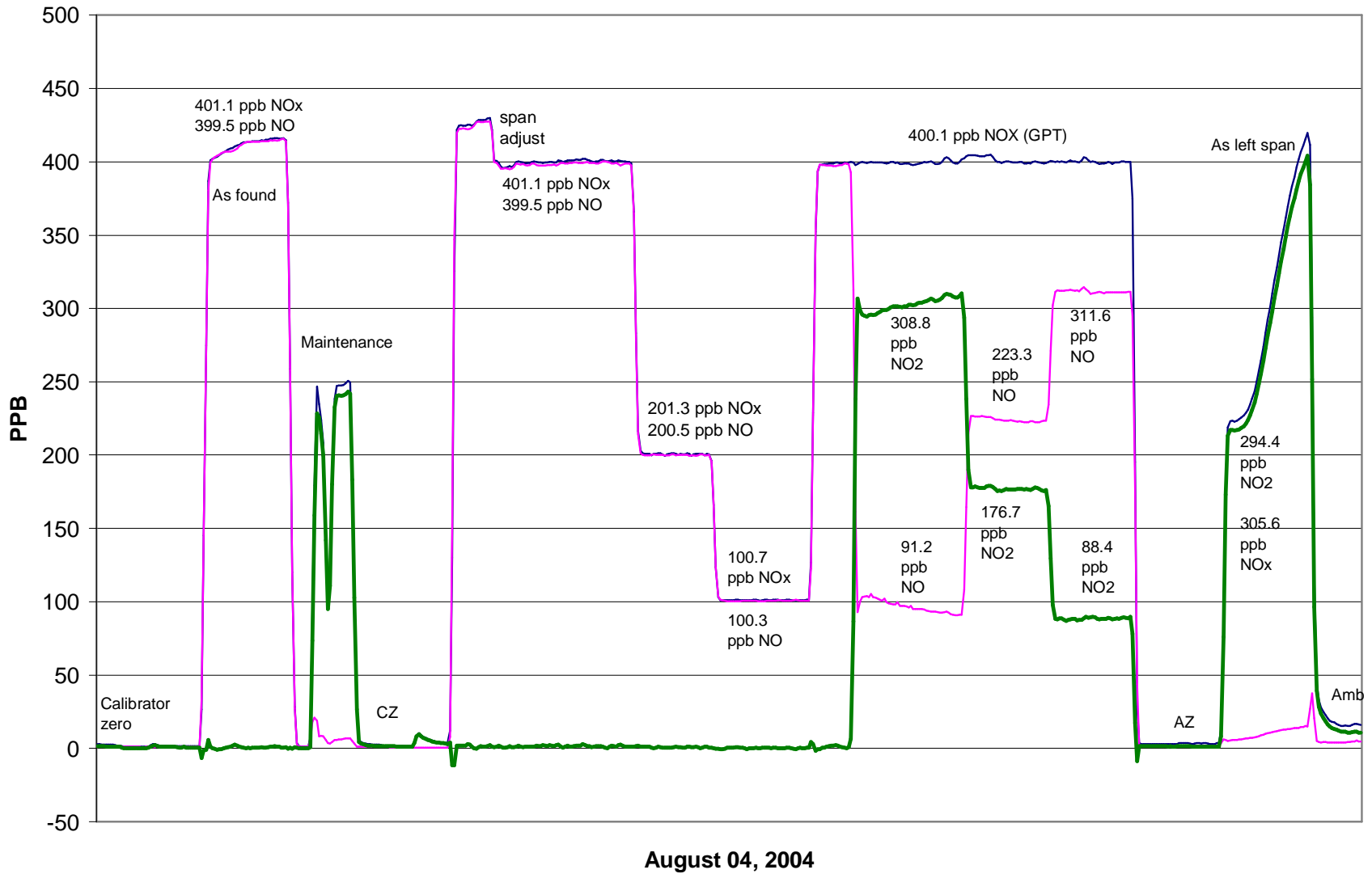
Calibration Date	August 4, 2004	Previous Calibration	July 8, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	7:20	End Time (MST)	12:05
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	1.1	N/A	Correlation Coefficient	0.999995
399.5	399.1	1.0008		
200.5	200.0	1.0022		
100.4	100.8	0.9960		
			Slope	1.003475
			Intercept	-0.791541



### NOx Calibration





**Calibration Summary**

Parameter           O3          

Air Monitoring Network                                   PASZA                                  

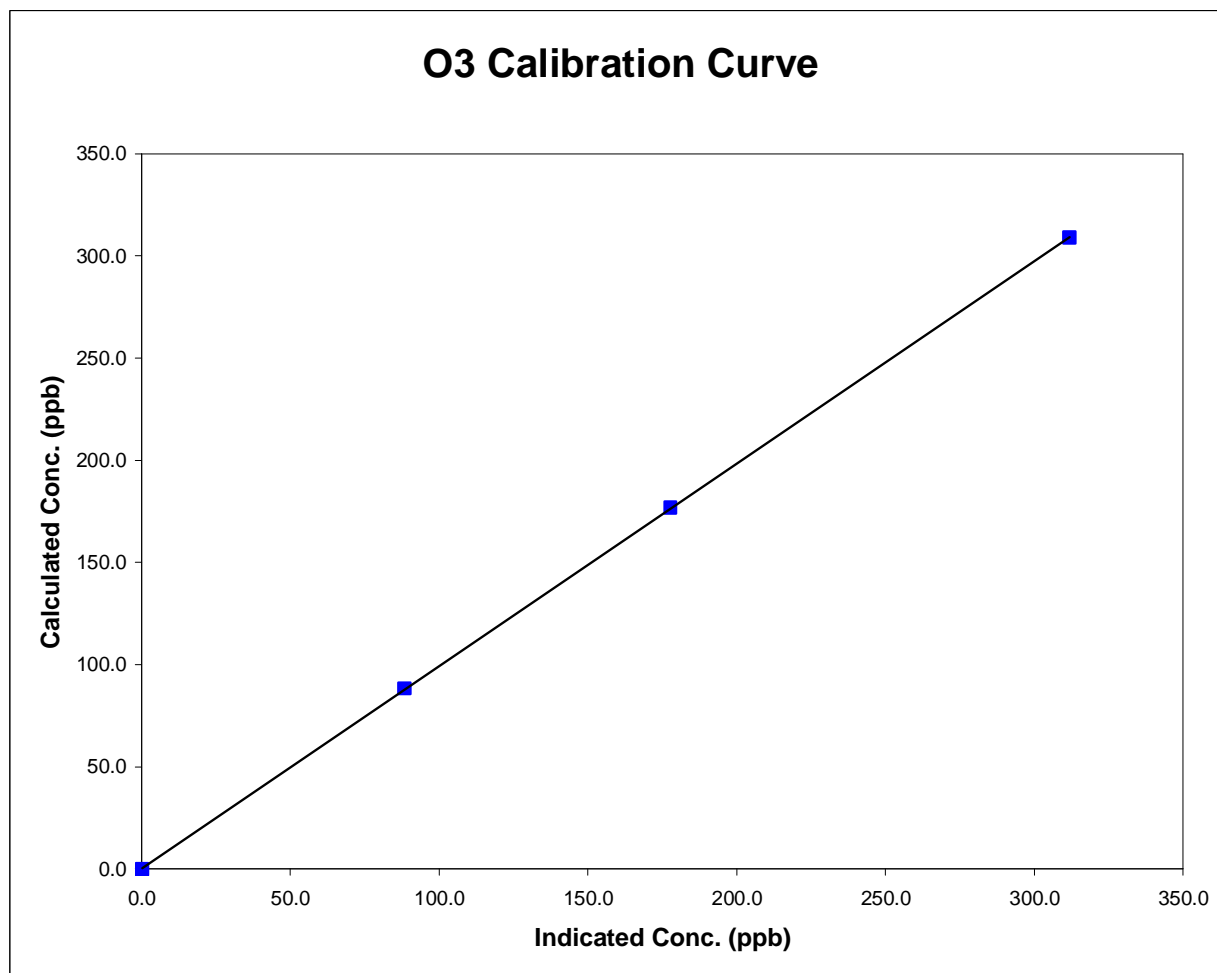


**Station Information**

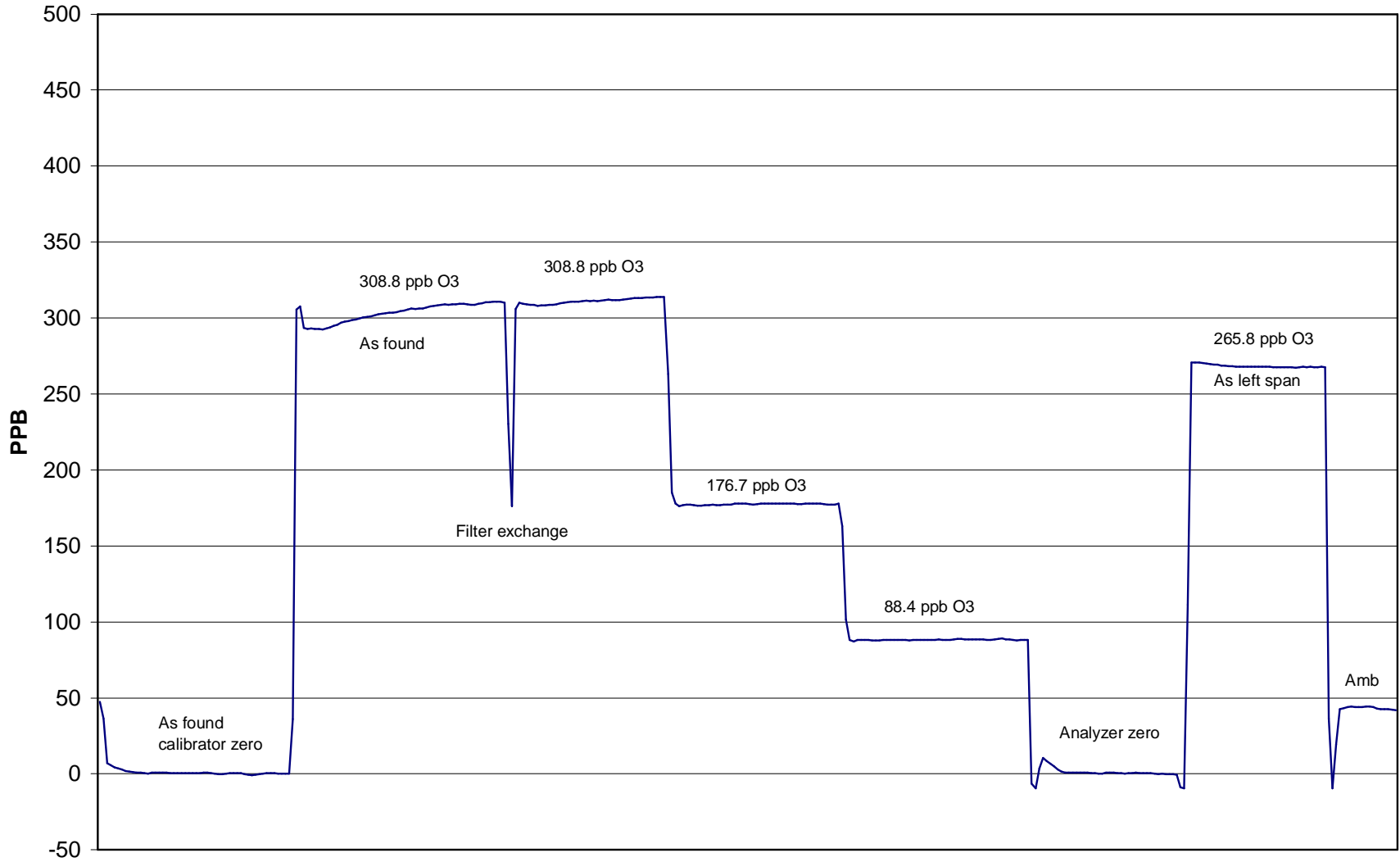
Calibration Date	<u>          August 4, 2004          </u>	Previous Calibration	<u>          July 8, 2004          </u>
Station Number	<u>          1          </u>	Station Location	<u>          Muskoseepi Park          </u>
Start Time (MST)	<u>          16:05          </u>	End Time (MST)	<u>          19:00          </u>
Analyzer make/model	<u>          API Model 400          </u>	Analyzer serial #	<u>          383          </u>

**Calibration Data**

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	NA	Correlation Coefficient	0.999982
308.8	311.8	0.9902		
176.7	177.6	0.9947		
88.4	88.3	1.0010	Slope	0.990135
			Intercept	0.409534



### O3 Calibration



August 04, 2004



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

Calibration Date	August 4, 2004	Previous Calibration	July 6, 2004
Station Number	1	Station Location	Muskoseepi Park
Reason:	<input type="checkbox"/> Routine	<input checked="" type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	11:15	End Time (MST)	13:45
Barometric Pressure	0.925 mb	Station Temperature	19.9 Deg C
Calibrator	Envionics 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	1.007972	Calculated slope	1.005698
Calculated intercept	-0.064136	Calculated intercept	-0.149880
Analyzer make	TEI Model 48	Analyzer serial #	ACM-13989-143

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
CO span setting	758		718	
CO zero setting	536		536	
Sample pressure	699	mm Hg	691	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	0.00	0.20	N/A
4993	39.97	23.82	23.87	0.9980
4993	19.96	11.95	11.97	0.9978
4993	9.97	5.98	6.07	0.9851
4993	0.00	0.00	0.20	As Found Zero
4993	39.97	23.82	24.43	As Found Span
Average Correction Factor				0.9937

Calculated value of As Found Response: 24.363 ppm Percent Change of As Found: -2.3%

	before calibration		after calibration	
Auto zero	0.10	ppm	0.01	ppm
Auto span	30.04	ppm	29.43	ppm

Notes: Span adjustment was performed. All other analyzer parameters appear fine.Calibration Performed By: Kelly Baragar

## Calibration Summary

Parameter CO  
 Air Monitoring Network PASZA

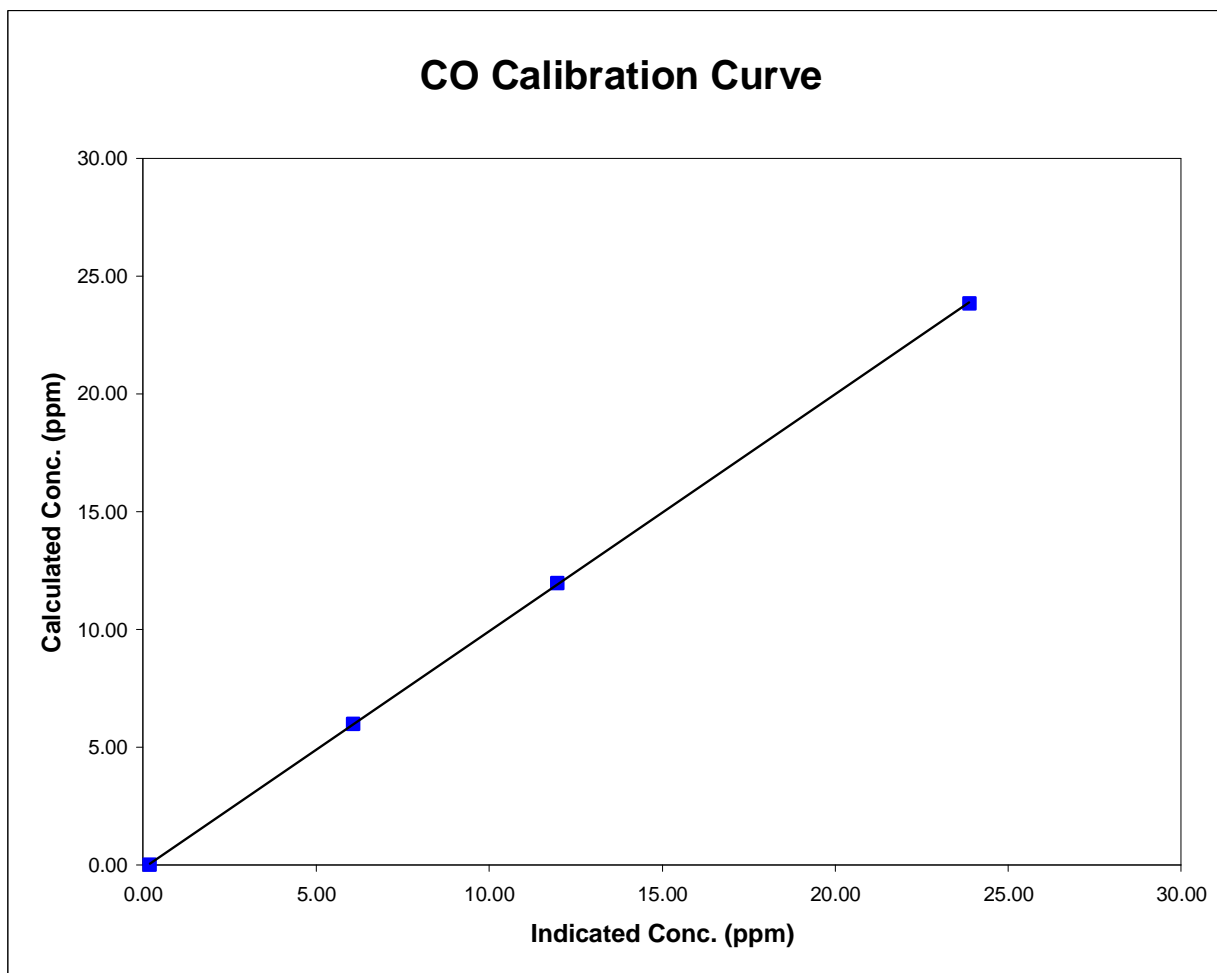


### Station Information

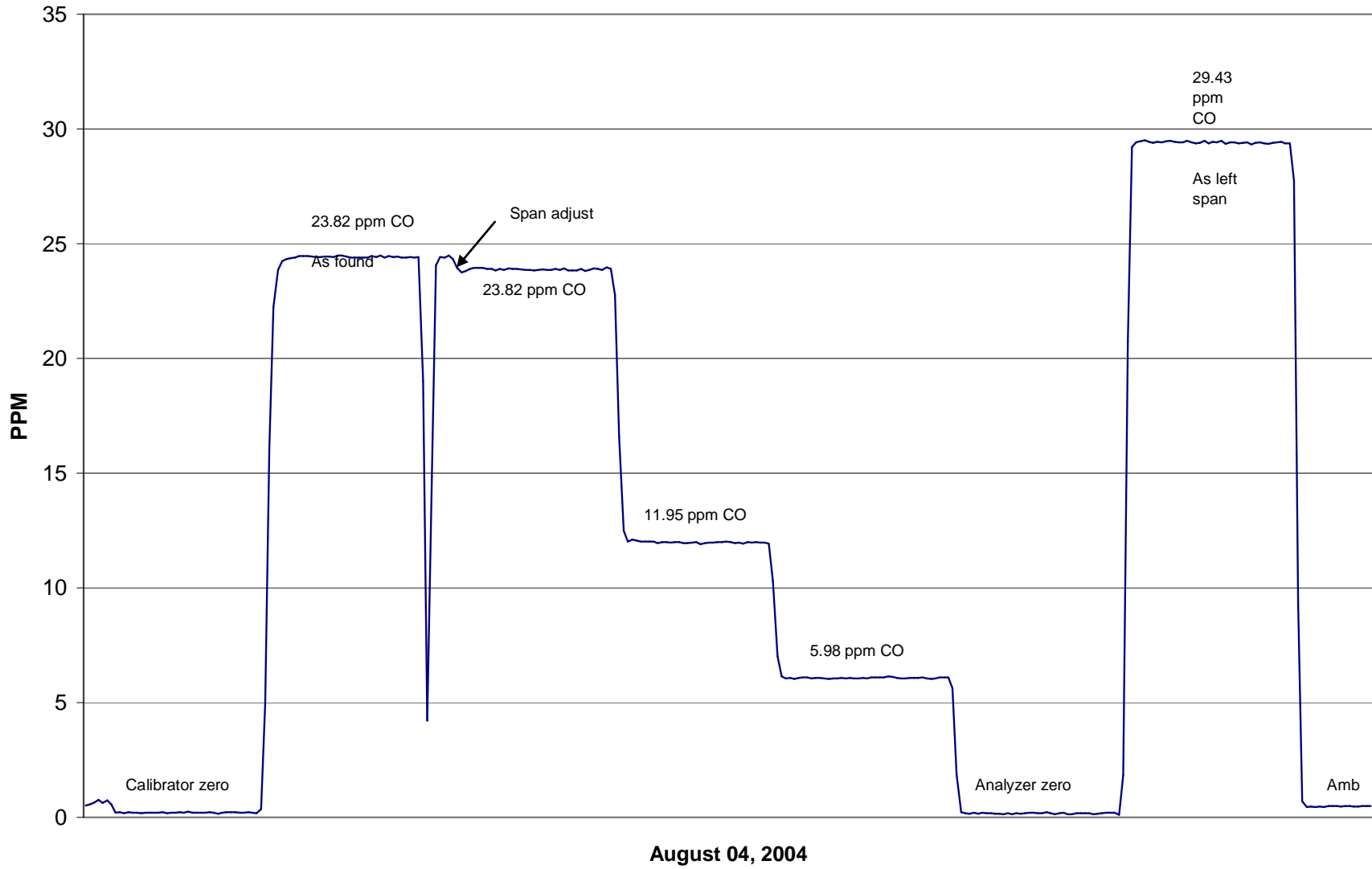
Calibration Date	August 4, 2004	Previous Calibration	July 6, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	11:15	End Time (MST)	13:45
Analyzer make/model	TEI Model 48	Analyzer serial #	ACM-13989-143

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.196	N/A		
23.825	23.873	0.9980	Correlation Coefficient	0.999977
11.945	11.971	0.9978		
5.978	6.069	0.9851	Slope	1.005698
			Intercept	-0.149880



### CO Calibration



# Calibration Report

Parameter THCAir Monitoring Network PASZA

## Station Information

Calibration Date	August 4, 2004	Previous Calibration	July 6, 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)	14:00	End Time (MST)	16:45
Barometric Pressure	27.60 inches Hg	Station Temperature	20.0 Deg C
Calibrator	Envionics 6100	Serial Number	3016
Cal Gas Concentration	700 ppm CH4/ 299 ppm C3H8	Cal Gas Expiry Date	12/10/2005
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	1.002050	Calculated slope	0.997963
Calculated intercept	0.022832	Calculated intercept	0.015623
Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.09	psi	6.09	psi
THC span counts	6891	capture	6876	capture
THC zero counts	1293	capture	1291	capture

## Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4993	0.00	0.00	0.00	N/A
4993	64.97	19.55	19.61	0.9970
4993	34.98	10.59	10.53	1.0059
4993	9.97	3.03	3.04	0.9974
4993	0.00	0.00	-0.09	As Found Zero
4993	64.97	19.55	19.47	As Found Span
Average Correction Factor				1.0001

Calculated value of As Found Response: 19.621 ppm      Percent Change of As Found: -0.3%

	before calibration		after calibration	
Auto zero	0.01	ppm	-0.03	ppm
Auto span	22.17	ppm	20.74	ppm

Notes: Span adjusted analyzer. All relative analyzer test values are within normal specs.  
Span cylinder was replaced.

Calibration Performed By: Kelly Baragar

## Calibration Summary

Parameter THC  
 Air Monitoring Network PASZA

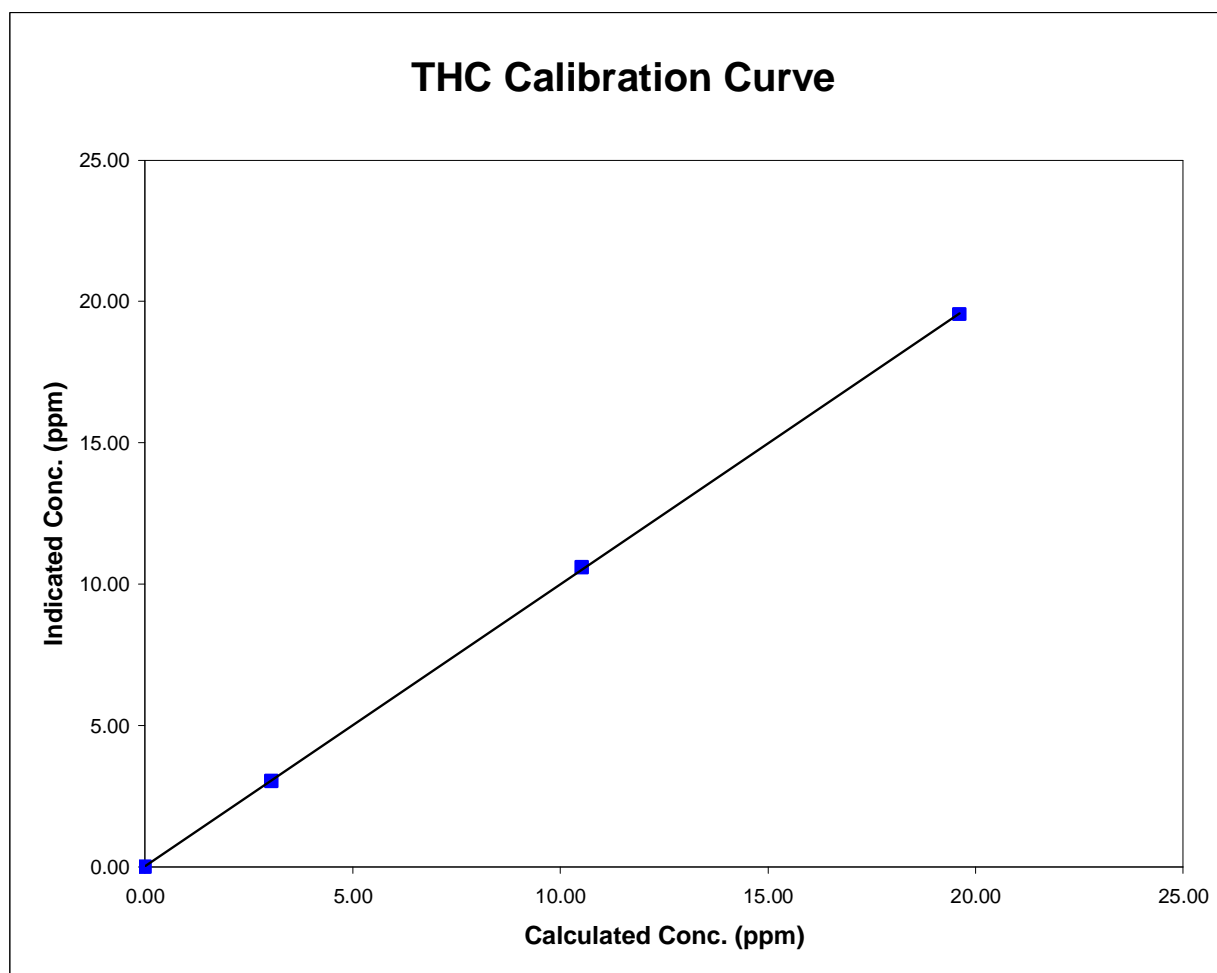


### Station Information

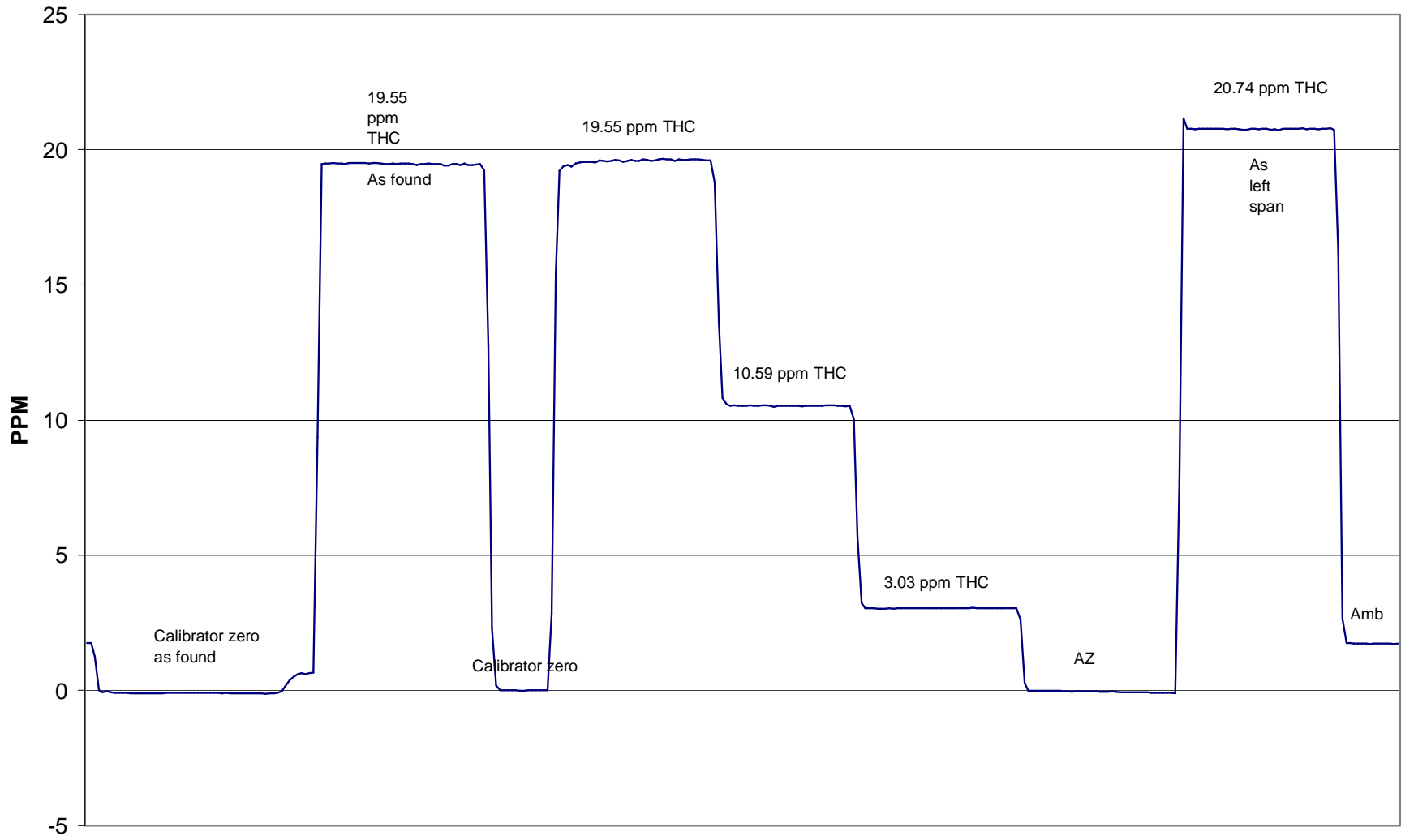
Calibration Date	August 4, 2004	Previous Calibration	July 6, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	14:00	End Time (MST)	16:45
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.001	N/A		
19.553	19.612	0.9970	Correlation Coefficient	0.999972
10.590	10.528	1.0059		
3.034	3.042	0.9974	Slope	0.997963
			Intercept	0.015623



### THC Calibration



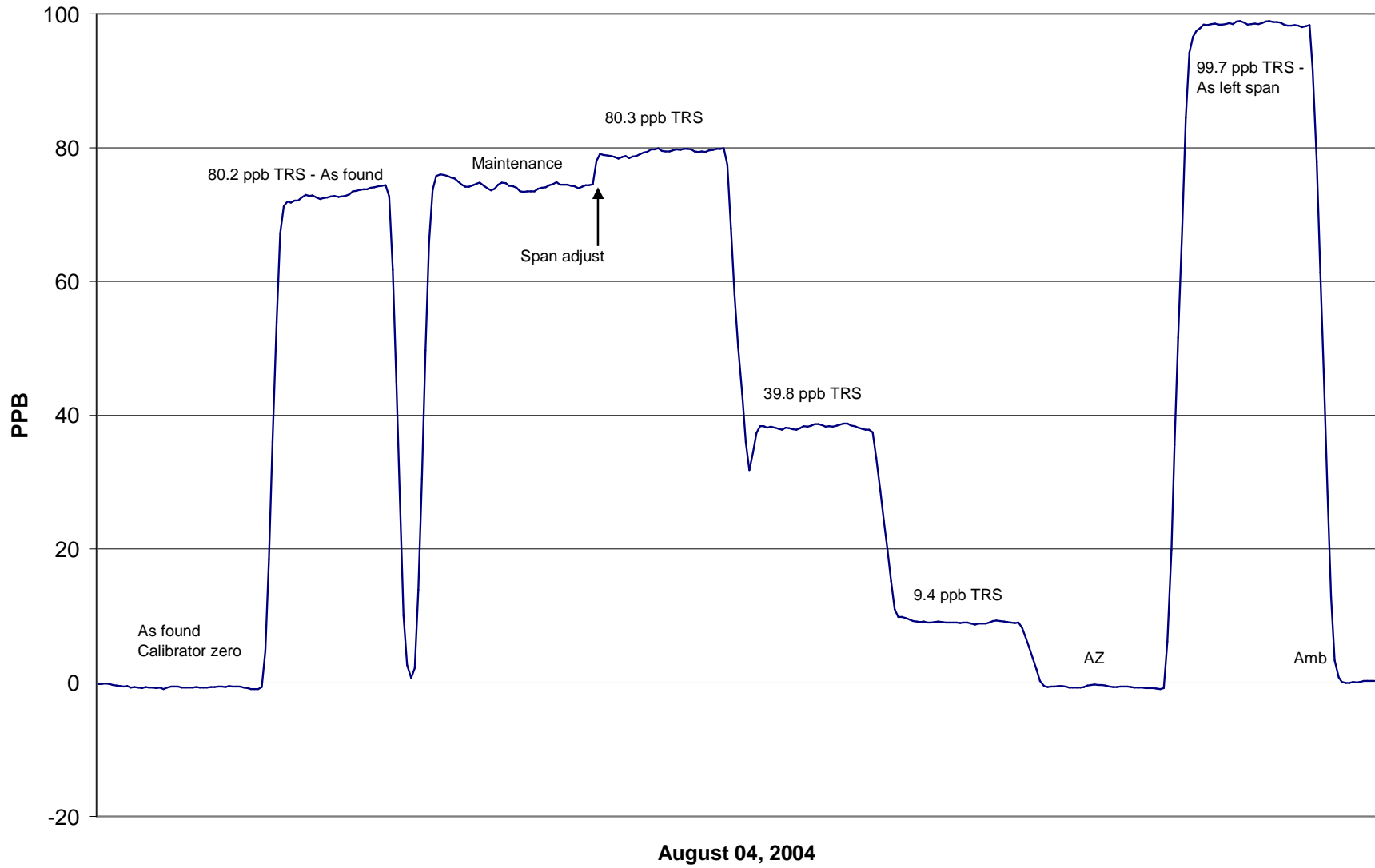
August 04, 2004







### TRS Calibration



## Calibration Report

Parameter PM2.5Air Monitoring Network PASZA

### Station Information

Calibration Date	August 4th & 5th, 2004	Previous Calibration	June 10, 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)	19:00 - 20:25 Aug-04	End Time (MST)	9:00 - 10:00 Aug-05
Barometric Pressure	0.922 atm	Station Temperature	22.0 Deg C
Flow Calibrator	BIOS Drycal DCL-MH	Serial Number	101780
DACS make	AP 1000	DACS serial No.	45269
DACS voltage range	0 - 1 V	DACS channel #	15
	<u>Before</u>		<u>After</u>
DACS slope	0.050000	DACS slope	0.050000
DACS intercept	-50.000000	DACS intercept	-50.000000

### Analyzer Information

Analyzer make	R&P	Control Unit serial #	140AB246340305
Analyzer model	TEOM 1400AB	Sensor Unit serial #	140AB246340305

	before		after	
Main Flow Set Point	3.000	SLPM	3.000	SLPM
Aux Flow Set Point	16.67	SLPM	16.67	SLPM
Filter Load	19	%	19	%
Ko Factor	12122		12122	
Temperature	21.4	Deg C	21.4	Deg C
Pressure	0.922	ATM	0.922	ATM

### Calibration Data

Parameter	Set Point	Indicated Reading	Tolerance	New Reading
zero flow - main	0.0	0.07		0.07
zero flow - auxillary	0.0	0.03		0.03
flow recovery - main	45 - 60 Seconds	>45	45 - 60 Seconds	>45
flow recovery - aux	46 - 60 Seconds	>45	46 - 60 Seconds	>45
Temperature	measured	21.4	+/- 1.0 Deg C	21.3
Pressure	measured	0.918	+/- 1.5% ΔATM	0.9180
Total Flow	16.67 SLPM	16.40		16.40
Main Flow	13.67 SLPM	13.77	+/- 1.0 SLPM	13.77
Auxillary Flow	3.0 SLPM	3.020	+/- 0.2 SLPM	3.020
Leak Check - main	0.0	0.10	<0.15 SLPM	0.10
Leak Check - aux	0.0	-0.09	<0.15 SLPM	-0.09
Ko Factor (w/o filter)	measured	324.809	filter weight (g)	0.11112
Ko Factor (w/ filter)	measured	231.194	% Ko difference	0.7%

Notes: All leak testing and flow verifications performed August 4th. K0 confirmation performed on Aug 5th.  
 All TEOM parameters are within normal operating specifications.  
 Utilized reference weight filter S/N 1965.

Calibration Performed By: Kelly Baragar