



PEACE AIRSHED ZONE ASSOCIATION

Air Quality Monitoring Network

December 2004

Prepared by



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

Re: Peace Airshed Zone Association – December PASZA Ambient Air Report

Enclosed is PASZA Ambient Monitoring Report for the month of **December 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 was one significant event which lead to a follow-up investigation. The event was on December 31, 2004 (22:00 to 23:00) when the AQI was calculated at 120 (Very Poor). It was determined that during this period the City of Grande Prairie was shooting fireworks in the park near the air monitoring trailer, this resulted in elevated hourly averages of PM_{2.5} (220 µg/m³), SO₂ (2 ppb), and TRS (5 ppb) during this period. Alberta Environment Guidelines were not exceeded during this period; therefore an incident report was not required.

Passive Monitoring – 43 Stations throughout the PASZA zone:

There were no missing or damaged passives during the month of December. A summary of the passives are reported as follows.

- Monthly average concentrations for SO₂ passives ranged from 0.2 ppb to 0.8 ppb.
- Monthly average concentrations for NO₂ passives ranged from 0.6 ppb to 10.4 ppb.
- Monthly average concentrations for O₃ passives ranged from 20.3 ppb to 38.2 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

December 2004 Monthly Overall Summary Report Ambient Air Quality Data

Dec-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 ₂ (ppb)	172	57	Henry Pirker	0.6	0	0	3.7	Dec-04	9.1	NE	1.4	Dec-09	100.0%
NO (ppb)			Henry Pirker	15.9	0	0	342.4	Dec-12	1.9	S	68.0	Dec-15	100.0%
NO ₂ (ppb)	212	106	Henry Pirker	15.0	0	0	57.6	Dec-12	1.9	S	35.2	Dec-15	100.0%
NO _x (ppb)			Henry Pirker	33.8	0	0	396.1	Dec-12	1.9	S	125.8	Dec-15	100.0%
O ₃ (ppb)	82		Henry Pirker	16.8	0	0	38.3	Dec-24	31.1	W	33.4	Dec-24	100.0%
CO (ppm)	13		Henry Pirker	0.36	0	0	3.60	Dec-12	1.9	S	1.02	Dec-15	100.0%
THC (ppm)			Henry Pirker	2.22	0	0	3.97	Dec-12	1.9	S	2.74	Dec-28	100.0%
TRS (ppb)			Henry Pirker	0.3	0	0	4.6	Dec-31	3.8	NW	0.8	Dec-15	100.0%
PM _{2.5} (µg/m ³)		30 ^a	Henry Pirker	4.2	0	0	220.1	Dec-31	3.8	NW	13.5	Dec-08	99.1%
RH (%)			Henry Pirker	72.7									100.0%
SR (W/m ²)			Henry Pirker	21.6									100.0%
Temp (°C)			Henry Pirker	-8.9									100.0%
WSPD v (km/hr)			Henry Pirker	5.7									100.0%
WSPD s (km/hr)			Henry Pirker	10.6									100.0%
WDIR (Deg)			Henry Pirker	W*									100.0%

Note: ^a 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

Henry Pirker Station

General Station Issues

On December 31, 2004 (22:00 to 23:00) the AQI was calculated at 120 (Very Poor). During this period the City of Grande Prairie was shooting fireworks in the park near the air monitoring trailer, this resulted in elevated hourly averages of PM_{2.5} (220 µg/m³), SO₂ (2 ppb), and TRS (5 ppb) during this period.

Parameter	Make	Model	Notes
SO ₂	TECO	43	No operational problems observed
NOx/NO/NO ₂	TECO	42	No operational problems observed
O ₃	API	400	No operational problems observed
CO	TECO	48	The Auto Span experienced problems with the pressure regulator, from Dec 14, 2005 - Jan 9, 2005. Comparison of the two calibrations (Dec and Jan) did not demonstrate a change in sensitivity
THC	TEI	51-CLT	No operational problems observed
TRS	TEI	42C	No operational problems observed
PM _{2.5}	R&P	1400AB	The TEOM was taken down on December 14 (13:00 - 17:00) for four hours of maintenance
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: December 1, 2004 to January 1, 2005

Summary

Number of 1-hr Good Readings:	704
Number of 1-hr Fair Readings:	1
Number of 1-hr Poor Readings:	0
Number of 1-hr Very Poor Readings:	1

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
	19.1	17.9	13.8	10.9	7.3	5.0	4.1

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-Dec-04	6	7	10	11	12	10	7	5	7	A	10	8	6	9	7	10	6	8	10	11	12	13	14	15
2-Dec-04	16	17	17	16	16	17	17	16	A	15	15	14	14	13	15	14	14	16	15	15	15	17	18	18
3-Dec-04	16	17	18	18	18	18	17	A	14	13	10	12	17	15	15	14	9	11	10	14	10	8	9	10
4-Dec-04	10	11	11	11	12	12	A	12	12	12	12	12	12	13	12	12	12	13	13	13	13	14	14	13
5-Dec-04	13	13	14	14	14	A	13	13	13	13	12	13	14	14	14	13	8	7	9	10	13	13	13	13
6-Dec-04	13	13	12	10	A	12	11	8	9	9	13	14	13	12	14	11	6	7	8	7	8	8	8	7
7-Dec-04	5	6	6	A	5	4	5	5	6	7	7	10	11	8	9	12	13	13	10	9	6	7	14	28
8-Dec-04	24	9	A	10	12	20	18	21	18	14	14	11	5	6	5	8	8	8	9	8	7	9	9	7
9-Dec-04	6	A	5	5	5	6	6	6	9	9	11	14	12	11	12	9	9	11	8	11	12	14	13	10
10-Dec-04	A	10	13	13	12	7	9	10	9	9	7	6	6	7	5	8	6	7	12	13	9	8	10	A
11-Dec-04	11	13	12	14	14	12	11	10	12	11	10	11	14	11	7	6	5	6	8	13	13	8	A	12
12-Dec-04	11	12	12	12	15	13	6	6	11	6	12	16	12	12	8	6	9	12	14	13	7	7	7	7
13-Dec-04	6	5	4	A	4	5	6	8	8	12	N	N	A	A	9	N	A	7	7	7	9	9	8	8
14-Dec-04	6	6	6	A	7	7	8	12	14	17	16	11	5	5	6	7	6	11	13	13	13	13	14	12
15-Dec-04	14	8	A	8	9	8	8	7	9	9	15	14	10	9	11	13	15	15	13	10	10	13	11	7
16-Dec-04	6	A	7	8	14	15	10	6	8	10	7	7	6	6	10	12	8	8	17	17	18	17	17	18
17-Dec-04	A	19	18	18	18	18	17	16	15	16	15	15	15	14	13	6	6	10	10	7	6	7	9	A
18-Dec-04	5	5	4	4	6	7	5	5	5	5	6	4	4	4	5	10	8	5	5	7	12	7	A	9
19-Dec-04	7	5	6	6	4	5	5	7	12	17	18	18	18	18	18	18	18	18	18	17	17	A	17	15
20-Dec-04	14	13	13	13	13	13	13	13	12	12	11	12	10	9	9	9	8	7	6	6	A	6	5	6
21-Dec-04	6	5	6	7	11	12	12	11	12	11	11	12	12	11	11	10	9	8	9	A	8	9	9	9
22-Dec-04	9	10	11	12	12	13	12	11	11	11	10	11	11	11	11	10	7	5	A	9	7	6	7	6
23-Dec-04	4	5	6	6	6	5	3	4	5	8	15	14	13	9	15	16	17	A	18	18	18	18	19	19
24-Dec-04	19	19	19	19	19	19	18	18	18	17	17	17	15	16	15	15	A	16	16	16	15	14	14	14
25-Dec-04	12	5	5	5	6	6	6	10	13	13	14	14	14	14	14	A	14	14	14	15	15	15	15	15
26-Dec-04	15	14	15	15	15	15	14	14	12	8	11	13	15	14	A	11	7	9	12	8	6	6	4	5
27-Dec-04	6	6	5	5	4	5	6	6	6	6	7	8	13	A	14	10	7	11	10	9	7	7	6	7
28-Dec-04	7	8	8	8	7	7	7	8	9	8	6	6	A	11	17	19	14	12	9	7	7	6	6	6
29-Dec-04	5	11	11	11	11	11	10	8	8	9	10	A	13	14	14	14	13	13	14	15	15	15	15	15
30-Dec-04	15	15	16	16	16	15	15	13	14	15	A	15	15	15	14	12	10	9	7	6	9	14	13	13
31-Dec-04	13	14	13	14	14	14	14	13	12	A	12	13	14	14	14	12	9	6	6	8	6	7	120	5

PASZA - Henry Pirker Sulphur Dioxide Monthly Summary

Station: Henry Pirker

HOURLY AVERAGE TABLE

Sulphur Dioxide (SO₂)

Station Owner: PASZA

Monitoring Dates: December 1, 2004 to January 1, 2005

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	3.7 ppb 4-Dec 22:00 23:00
Maximum 24-hr Average:	1.4 ppb 9-Dec

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 2.4	95 1.8	75 0.9
	50 0.4	25 0.2	5 0.1
	1 0.0	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																								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-Dec-04	0	0	0	0	0	0	0	0	1	A	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.8
2-Dec-04	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
3-Dec-04	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
4-Dec-04	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	2	0	0.4	3.7	
5-Dec-04	1	1	1	1	1	A	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	2	2	0	1.0	2.4	
6-Dec-04	2	3	2	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.8	
7-Dec-04	0	1	0	A	0	0	1	1	1	1	1	1	1	1	2	1	1	1	0	1	1	1	1	0	0	0.8	1.8	
8-Dec-04	1	0	A	0	0	0	0	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1	1.1	1.9	
9-Dec-04	1	A	1	1	1	1	1	1	1	1	1	2	1	2	3	3	2	2	1	1	1	1	1	1	1	1.4	2.9	
10-Dec-04	A	0	0	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	0	0	0	A	0	0.6	1.3	
11-Dec-04	0	1	1	1	1	1	1	1	1	2	2	2	2	2	1	1	1	1	0	0	0	0	A	0	0	0.9	1.8	
12-Dec-04	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	3	3	1	0	1	1	0	0.8	3.0	
13-Dec-04	1	0	0	A	0	1	1	2	2	2	C	C	A	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.1	
14-Dec-04	1	1	1	A	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.9	1.9	
15-Dec-04	0	0	A	0	1	0	1	1	1	1	2	2	2	1	1	2	2	2	2	1	1	1	1	1	1	1.2	2.3	
16-Dec-04	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0.7	1.3	
17-Dec-04	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0.2	0.7	
18-Dec-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	1	1	A	1	0	0.4	1.0	
19-Dec-04	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0.4	1.2	
20-Dec-04	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	A	1	0	1	0.4	0.9	
21-Dec-04	0	0	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	1	1	1	0	0.5	1.0	
22-Dec-04	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.4	0.8	
23-Dec-04	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	A	0	0	0	0	0	0	0	0	0.6	1.3	
24-Dec-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.3	
25-Dec-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0.3	1.0	
26-Dec-04	0	1	0	0	0	0	0	0	0	0	1	1	1	1	A	1	1	1	1	0	0	0	0	0	0	0.4	1.1	
27-Dec-04	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	0.5	1.1	
28-Dec-04	1	1	1	1	1	1	1	1	2	1	1	A	2	2	2	2	2	2	1	1	1	1	1	1	1	1.2	2.1	
29-Dec-04	1	1	1	1	1	1	1	1	2	2	2	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0.6	2.0	
30-Dec-04	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7	
31-Dec-04	0	0	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0	0	1	2	1	0	0	2	0	0.5	2.1	
Hourly Avg	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.6	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.6	0.5	0.5	0.7	0.6			
Hourly Max	1.8	2.8	1.7	1.3	1.0	1.0	1.3	2.1	2.0	2.0	1.8	2.3	2.4	1.9	2.8	2.9	2.5	2.2	3.0	2.6	1.4	1.4	3.7	1.8				

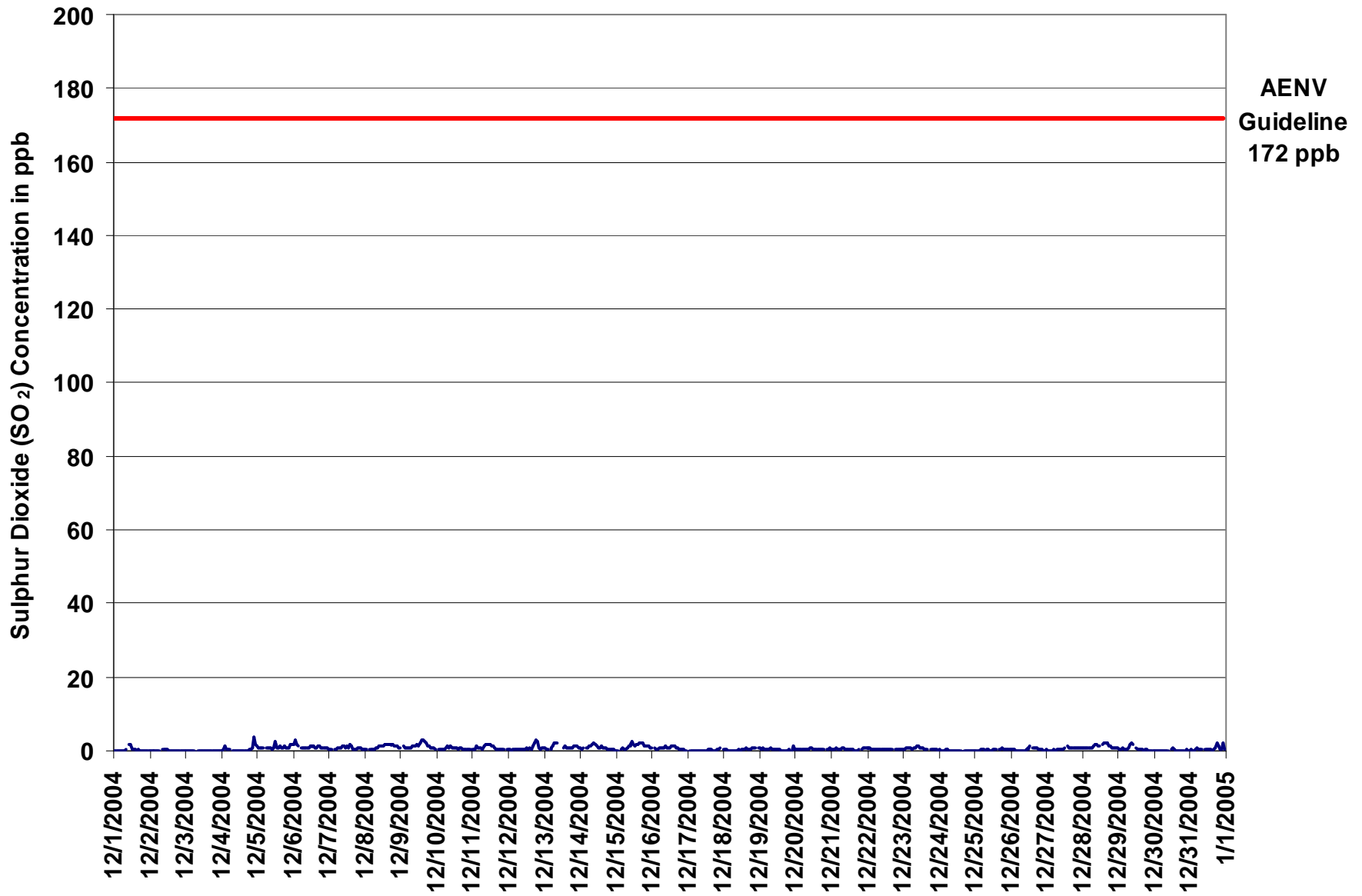


Figure 1. PASZA - Henry Pirker Sulphur Dioxide 1-hr Average Monthly Trend

Station: Henry Pirker

HOURLY MAXIMUM TABLE

Sulphur Dioxide (SO₂)

Station Owner: PASZA

Monitoring Dates: December 1, 2004 to January 1, 2005

Summary

Maximum 1-hr Value:	12.9	ppb	31-Dec	22:00 23:00
Maximum 24-hr Value:	2.1	ppb	15-Dec	

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
	3.9	2.8	1.5	1.1	0.8	0.6	0.4	1.3 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

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-Dec-04	1	1	0	0	1	1	0	1	1	A	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.9
2-Dec-04	1	1	1	1	1	1	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.8
3-Dec-04	1	1	1	0	1	1	1	A	0	1	1	1	0	1	0	1	1	1	0	0	0	1	0	0	0	0.5	0.9
4-Dec-04	1	2	3	2	1	1	A	1	1	0	0	1	1	0	0	0	1	1	1	1	2	4	7	5	1.5	6.7	
5-Dec-04	2	2	1	1	1	A	1	1	1	1	1	1	1	6	1	1	2	1	2	2	1	1	2	3	3	1.7	5.6
6-Dec-04	3	4	3	4	A	1	1	1	1	1	1	2	2	2	2	1	1	2	2	1	2	1	1	2	1.8	4.2	
7-Dec-04	1	1	1	A	1	1	1	1	2	2	2	2	2	2	3	2	1	1	1	1	2	2	1	1	1.4	2.8	
8-Dec-04	1	1	A	1	1	1	1	1	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	1.7	2.6	
9-Dec-04	2	A	2	2	2	2	1	2	2	2	2	2	2	3	4	4	3	3	2	2	2	2	1	1	2.0	3.7	
10-Dec-04	A	1	1	1	1	1	1	1	3	2	2	2	2	1	2	2	1	1	1	1	1	1	1	1	A	1.3	2.8
11-Dec-04	1	1	1	3	2	1	2	1	2	2	3	2	2	2	2	2	1	1	1	1	1	1	1	A	1	1.6	3.0
12-Dec-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	4	4	3	1	1	2	1.5	3.9	
13-Dec-04	1	1	1	A	1	1	3	3	3	3	C	C	A	2	2	1	2	1	2	1	2	2	2	2	1.7	2.8	
14-Dec-04	1	1	1	A	1	1	2	2	2	3	5	2	2	1	2	2	2	1	1	1	1	1	1	1	1.7	4.9	
15-Dec-04	1	1	A	1	2	1	1	1	2	2	3	3	2	2	2	4	3	2	3	2	2	2	2	1	2.1	3.5	
16-Dec-04	1	A	1	1	1	1	1	1	2	2	2	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1.4	2.4
17-Dec-04	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	1.4
18-Dec-04	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	2	1.0	1.6
19-Dec-04	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	2	1.0	2.3
20-Dec-04	2	1	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	1.8
21-Dec-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	1	1.1	1.5
22-Dec-04	1	2	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	1.6
23-Dec-04	1	1	1	1	2	1	1	1	1	2	2	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1.2	2.1
24-Dec-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	1	0.7	0.9
25-Dec-04	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	2	1	1	1	1	1	1	0.9	1.8
26-Dec-04	1	2	1	1	1	1	1	1	1	1	1	1	1	2	A	1	1	1	1	1	1	1	1	1	1	1.0	2.3
27-Dec-04	1	1	1	1	1	1	1	1	1	1	1	1	2	A	2	2	1	2	2	1	2	1	1	1	1	1.2	1.7
28-Dec-04	1	1	1	1	1	2	1	2	2	2	2	2	A	3	3	3	3	3	2	2	2	1	1	1	1	1.9	3.3
29-Dec-04	1	1	1	1	1	1	1	2	2	2	3	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	2.6
30-Dec-04	1	1	1	1	1	1	1	1	1	1	A	1	2	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.6
31-Dec-04	1	1	1	1	1	2	2	1	1	1	A	1	1	1	1	1	1	1	2	4	4	1	3	13	1	1.8	12.9
Hourly Avg	1.1	1.1	1.1	1.2	1.0	1.0	1.1	1.3	1.3	1.4	1.5	1.4	1.5	1.3	1.4	1.4	1.4	1.3	1.4	1.3	1.2	1.3	1.8	1.3			
Hourly Max	2.8	3.5	3.2	4.2	1.6	1.6	2.5	2.8	2.8	3.0	4.9	3.0	5.6	3.3	3.6	3.7	3.5	3.2	4.2	3.9	2.8	3.6	12.9	5.3			

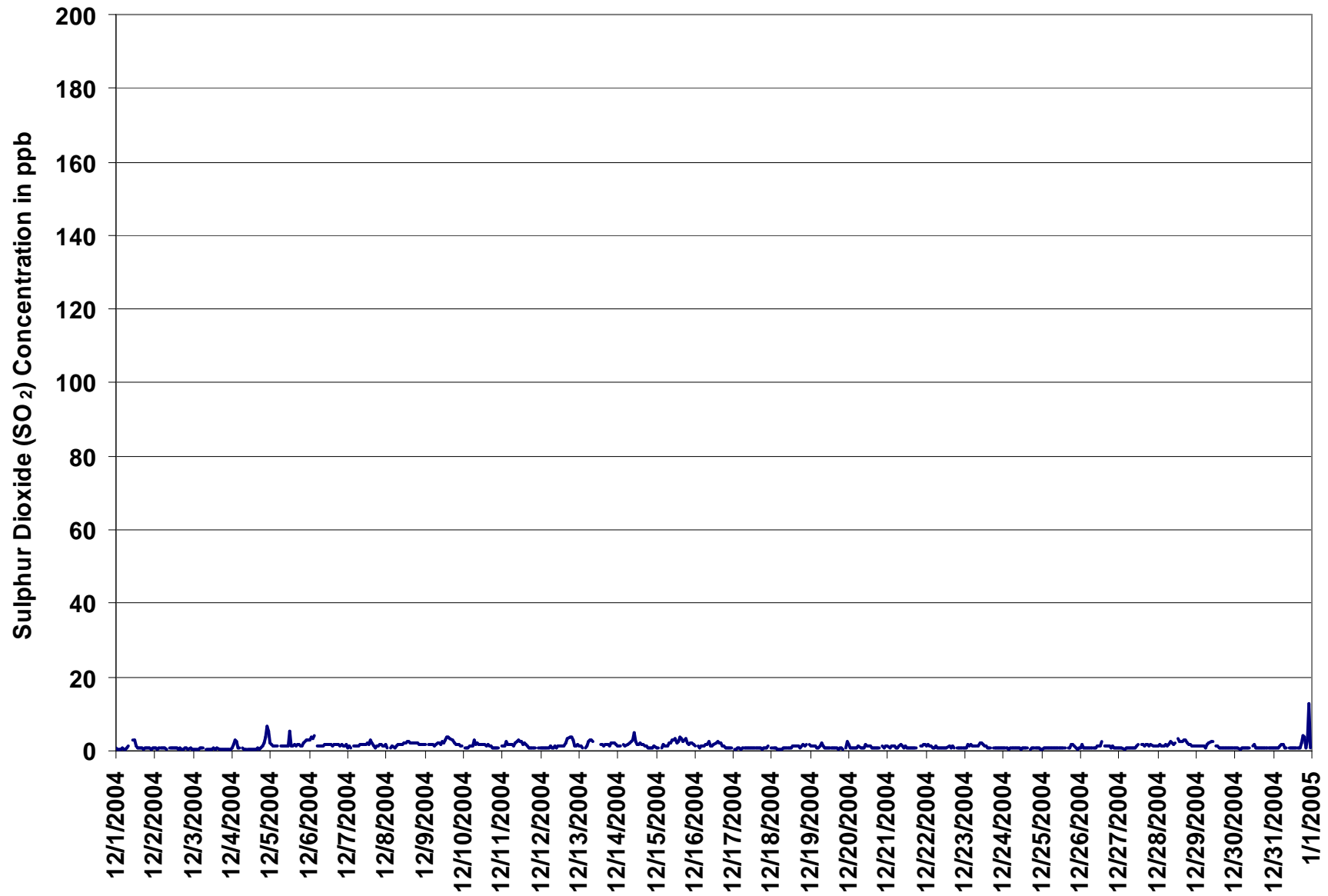
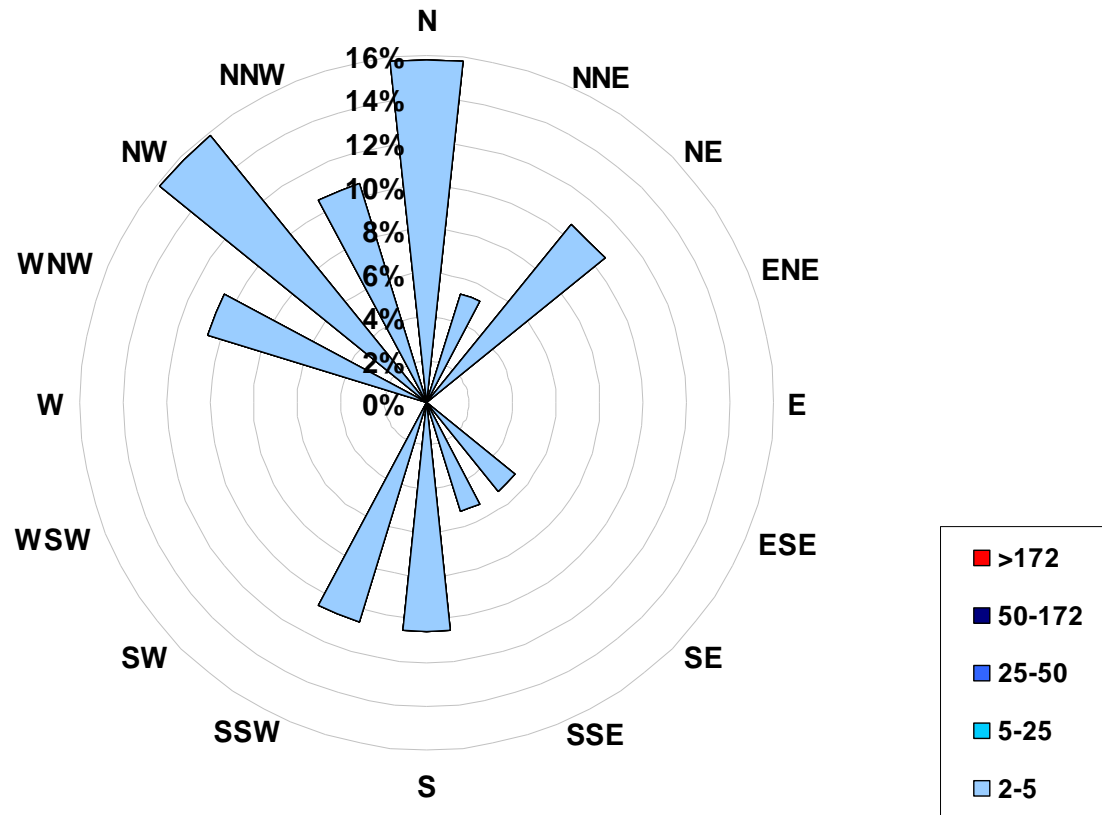


Figure 2. PASZA - Henry Pirker Sulphur Dioxide 1-hr Maximum Value Monthly Trend

Concentration Rose for the 1-hr SO₂ Average Concentration Occurrences at the Henry Pirker Site for December 2004



Frequency Distribution of SO ₂ in ppb			
Range	Frequency (hrs)		
0 < 2	690		
2 to 5	19		
5 to 25	0		
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 (NO₂)

Station Owner: PASZA

Monitoring Dates: December 1, 2004 to January 1, 2005

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	57.6 ppb 12-Dec 18:00 19:00
Maximum 24-hr Average:	35.2 ppb 15-Dec

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
	45	36	24
	50	25	5
	1	2	1
Average	15.0 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	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-Dec-04	13	10	5	4	4	7	12	23	29	A	43	34	16	9	14	10	18	13	10	7	5	3	2	3	12.7	43.2
2-Dec-04	2	1	1	4	2	1	2	3	A	5	5	6	6	7	5	6	6	4	5	6	6	4	3	2	4.1	7.0
3-Dec-04	3	2	1	2	1	1	3	A	6	7	12	10	4	6	7	9	18	15	15	7	13	5	3	3	6.6	17.8
4-Dec-04	3	2	2	2	2	2	A	4	4	5	5	5	5	5	5	6	8	7	7	7	8	5	4	5	4.7	7.7
5-Dec-04	5	5	5	4	4	A	6	5	5	5	6	5	2	2	3	4	14	16	13	10	5	4	4	3	5.8	15.6
6-Dec-04	2	2	3	6	A	6	8	18	14	14	4	2	4	5	4	10	25	28	34	31	35	33	32	29	15.3	35.4
7-Dec-04	22	26	24	A	19	17	19	23	25	24	28	33	31	18	19	25	23	23	20	29	27	29	29	27	24.3	32.9
8-Dec-04	28	25	A	26	23	21	22	31	31	29	27	19	14	13	18	23	24	30	26	22	20	21	21	18	23.1	31.1
9-Dec-04	18	A	17	18	18	21	22	23	27	25	21	20	17	22	34	37	39	45	32	17	14	11	13	18	22.8	45.3
10-Dec-04	A	16	12	10	11	28	38	42	36	38	30	25	24	29	21	34	27	19	11	9	13	13	10	A	22.5	42.2
11-Dec-04	9	5	4	3	4	5	7	7	5	5	9	9	5	14	20	25	21	17	14	6	7	17	A	9	9.9	25.0
12-Dec-04	10	9	8	8	3	8	23	23	13	22	10	5	13	14	25	27	39	49	58	53	30	28	31	29	22.3	57.6
13-Dec-04	25	22	19	A	19	21	27	36	33	C	C	C	C	A	37	33	31	29	28	28	32	32	31	29	28.3	36.6
14-Dec-04	25	24	25	A	31	31	32	36	37	44	40	33	23	20	18	19	25	12	10	9	11	10	9	9	23.2	43.6
15-Dec-04	6	14	A	32	39	33	35	31	39	37	45	47	41	38	42	48	47	46	42	35	32	29	27	25	35.2	47.8
16-Dec-04	24	A	24	14	6	6	15	26	35	40	30	29	26	24	34	36	33	23	6	5	4	5	4	2	19.6	39.9
17-Dec-04	A	2	1	2	2	2	4	6	8	6	7	8	8	8	12	24	24	15	14	23	27	31	37	A	12.3	36.9
18-Dec-04	22	12	16	12	7	5	10	19	19	10	8	11	16	17	22	26	23	17	19	23	26	22	A	22	16.6	25.6
19-Dec-04	21	22	26	23	19	20	22	31	12	4	3	3	3	3	3	3	3	3	2	2	2	A	2	2	10.2	30.9
20-Dec-04	1	1	1	1	1	1	2	3	4	4	7	5	7	11	10	9	11	15	16	17	A	25	21	27	8.7	26.9
21-Dec-04	24	21	19	12	6	6	6	7	7	7	8	6	6	8	7	9	12	14	10	A	13	11	8	6	10.2	24.3
22-Dec-04	6	7	5	5	5	4	6	8	9	9	8	7	8	9	10	19	21	A	12	14	14	11	13		9.5	21.4
23-Dec-04	16	20	25	23	25	20	14	17	20	19	6	7	9	19	7	5	5	A	4	2	2	2	2	1	11.8	25.5
24-Dec-04	1	1	1	1	0	1	1	1	2	3	3	4	5	4	5	4	A	3	2	2	3	4	5	3	2.6	5.1
25-Dec-04	8	21	22	21	25	27	25	7	1	2	1	2	2	2	3	A	5	3	4	4	4	4	4	4	8.7	27.2
26-Dec-04	3	5	3	2	3	3	5	6	10	12	9	6	3	7	A	11	23	37	36	30	26	23	14	17	12.8	37.2
27-Dec-04	26	24	21	21	19	22	26	27	26	19	9	16	30	A	32	30	27	30	29	28	31	28	26	22	24.7	31.8
28-Dec-04	29	32	34	33	30	30	29	32	39	34	26	23	A	33	41	45	43	41	32	30	29	24	25	26	32.2	44.5
29-Dec-04	19	2	2	2	2	2	3	8	12	11	10	A	8	7	7	7	9	8	6	5	4	4	4	4	6.4	19.2
30-Dec-04	3	2	2	2	2	3	4	8	7	5	A	6	4	6	7	12	18	20	23	27	17	8	11	7	8.8	26.8
31-Dec-04	5	5	7	5	4	4	5	7	8	A	9	8	6	6	6	8	15	23	22	16	21	29	31	20	11.8	31.0
Hourly Avg	13.2	11.8	11.6	10.5	11.1	12.0	14.3	17.2	17.4	15.9	14.9	13.6	11.9	12.6	15.8	18.5	21.2	20.9	18.3	16.7	16.0	15.9	14.6	13.2		
Hourly Max	29.3	31.9	34.5	33.0	39.1	33.0	37.8	42.2	39.2	43.6	45.2	46.7	40.7	37.8	41.9	47.8	46.9	48.7	57.6	53.0	35.4	33.2	36.9	29.2		

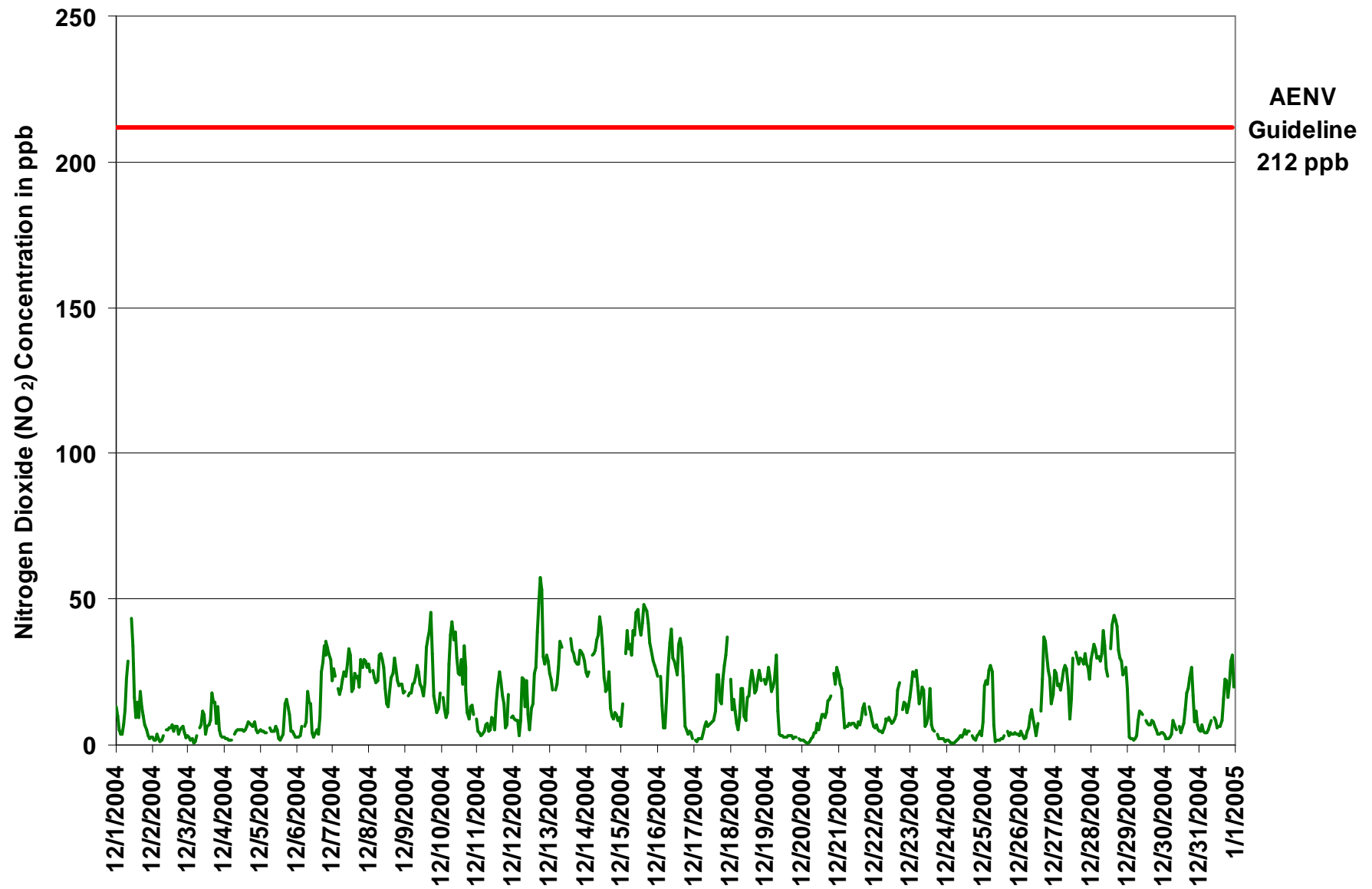


Figure 3. PASZA - Henry Pirker Nitrogen Dioxide 1-hr Average Monthly Trend

Station: Henry Pirker

HOURLY MAXIMUM TABLE

Nitrogen Dioxide (NO₂)

Station Owner: PASZA

Monitoring Dates: December 1, 2004 to January 1, 2005

Summary

Maximum 1-hr Value:	84.1	ppb	15-Dec	15:00 16:00
Maximum 24-hr Value:	45.9	ppb	15-Dec	

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	48	30	18	9	3	2	20.9 ppb

Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00		
1-Dec-04	20	18	15	6	10	15	22	33	42	A	61	53	26	14	20	18	27	16	12	12	8	4	3	3	20.0	60.8
2-Dec-04	3	3	5	8	6	2	3	4	A	6	7	9	9	10	7	9	11	6	7	9	9	6	5	4	6.5	10.9
3-Dec-04	7	7	4	5	3	2	5	A	10	15	22	24	5	11	11	14	26	20	22	11	23	9	5	9	11.7	25.7
4-Dec-04	5	4	4	6	5	7	A	7	7	8	11	9	8	12	10	12	11	14	12	11	10	9	7	12	8.8	13.9
5-Dec-04	8	9	9	7	13	A	10	7	7	9	14	9	5	3	5	6	28	29	18	16	10	7	5	3	10.3	28.8
6-Dec-04	3	3	5	26	A	17	23	29	28	24	9	4	11	10	7	18	34	37	40	40	40	38	38	35	22.7	40.4
7-Dec-04	27	31	28	A	27	23	26	28	32	30	39	42	48	21	22	33	28	28	24	34	31	38	34	33	30.8	47.7
8-Dec-04	32	28	A	28	29	29	25	36	36	36	33	27	18	15	25	25	29	34	30	25	22	22	23	21	27.2	36.2
9-Dec-04	21	A	20	20	20	23	23	30	30	33	25	24	21	29	40	47	46	51	43	22	19	16	18	25	28.1	51.0
10-Dec-04	A	26	15	20	22	41	51	61	48	47	37	33	37	34	27	49	34	29	16	13	20	21	16	A	31.7	60.7
11-Dec-04	22	8	6	7	10	10	11	14	6	7	16	14	14	28	26	28	29	20	20	8	14	31	A	13	15.6	31.2
12-Dec-04	14	16	13	15	6	18	33	29	22	32	30	9	20	21	30	33	48	58	66	66	51	33	36	35	30.6	66.3
13-Dec-04	33	27	23	A	22	25	41	47	40	C	C	C	C	A	40	38	35	33	30	34	40	39	39	35	34.5	46.7
14-Dec-04	28	26	28	A	35	40	37	50	44	59	51	59	28	33	26	29	33	23	12	14	21	17	19	17	31.6	59.1
15-Dec-04	12	24	A	42	49	42	41	36	67	45	61	56	50	41	55	84	57	54	52	43	44	38	36	28	45.9	84.1
16-Dec-04	28	A	31	25	17	10	20	39	44	54	40	33	32	29	50	45	49	42	9	7	5	7	7	6	27.3	53.9
17-Dec-04	A	3	2	3	3	3	6	9	10	9	9	11	10	11	19	37	37	23	23	35	38	38	44	A	17.3	43.6
18-Dec-04	38	16	25	21	11	8	22	24	27	15	13	15	19	19	24	33	29	21	23	33	35	25	A	28	22.7	37.5
19-Dec-04	26	28	42	28	22	24	28	39	38	6	5	5	5	4	5	5	5	4	4	4	A	A	4	3	14.8	42.3
20-Dec-04	3	2	2	2	1	3	5	7	8	11	13	9	12	16	14	16	17	24	26	29	A	30	25	31	13.2	30.7
21-Dec-04	31	26	29	17	15	9	10	16	11	11	11	14	11	15	14	16	25	21	15	A	20	13	13	11	16.3	31.0
22-Dec-04	8	9	8	9	10	6	9	11	13	14	12	11	11	12	15	15	24	26	A	15	19	18	16	17	13.5	25.9
23-Dec-04	24	24	26	28	28	25	20	21	23	28	10	10	15	29	9	9	8	A	6	3	3	4	5	3	15.8	29.3
24-Dec-04	3	5	3	1	2	1	2	3	4	5	4	5	9	5	8	7	A	4	3	2	5	7	11	6	4.7	11.4
25-Dec-04	16	35	29	26	31	32	31	27	3	4	3	3	6	5	6	A	9	6	14	9	10	10	7	8	14.3	34.8
26-Dec-04	5	9	7	4	5	8	7	10	15	22	14	9	6	12	A	15	44	41	40	36	29	28	17	22	17.6	43.7
27-Dec-04	28	29	24	29	22	27	27	30	28	27	12	31	33	A	36	33	31	34	31	33	36	40	36	34	30.0	40.2
28-Dec-04	36	35	39	38	33	50	32	37	48	42	29	28	A	63	47	51	55	48	41	36	36	29	29	31	39.7	62.7
29-Dec-04	28	3	3	3	2	4	6	17	17	16	18	A	12	16	12	19	13	12	12	12	8	7	11	15	11.4	28.0
30-Dec-04	6	5	3	3	4	4	6	15	14	18	A	9	9	12	12	17	28	30	32	36	27	18	21	10	14.8	36.2
31-Dec-04	9	12	17	8	10	10	8	18	12	A	16	20	13	12	11	17	23	27	27	20	25	33	73	42	20.2	73.5
Hourly Avg	18.0	16.2	16.0	15.6	15.7	17.3	19.6	24.4	24.5	22.7	21.5	20.2	17.3	18.7	21.0	25.9	29.1	27.1	23.6	22.3	22.2	21.3	20.9	18.6		
Hourly Max	37.5	34.8	42.3	42.1	48.5	50.1	50.8	60.7	67.4	58.8	60.8	59.1	50.4	62.7	55.3	84.1	57.0	57.8	66.3	66.1	50.9	40.2	73.5	42.0		

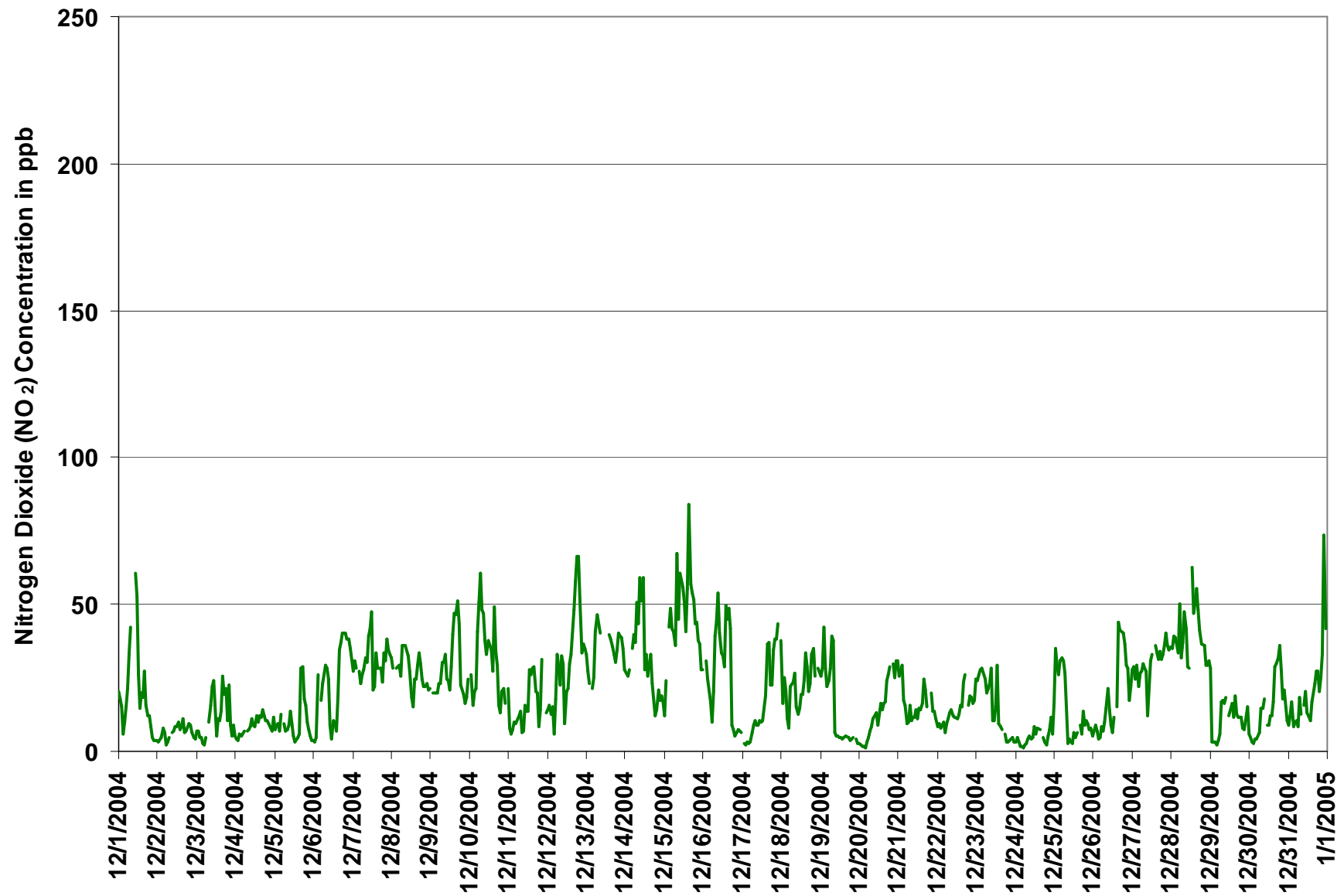
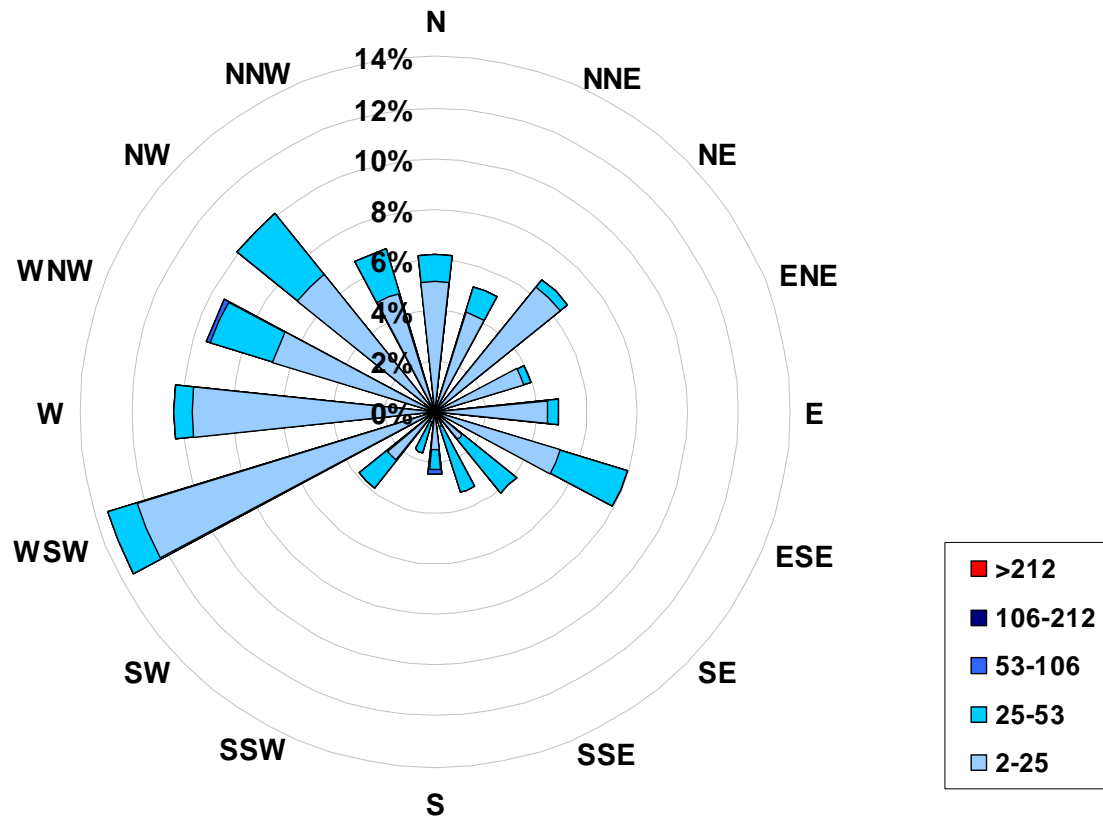


Figure 4. PASZA - Henry Pirker Nitrogen Dioxide 1-hr Maximum Value Monthly Trend

Concentration Rose for the 1-hr NO₂ Average Concentration Occurrences at the Henry Pirker Site for December 2004



Frequency Distribution of NO ₂ in ppb			
Range		Frequency (hrs)	
0	< 2	47	
2	to 25	499	
25	to 53	159	
53	to 106	2	
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: December 1, 2004 to January 1, 2005

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	342	ppb	12-Dec	18:00 19:00
Maximum 24-hr Average:	68	ppb	15-Dec	

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
	140	77	15	3	1	0	0	15.9 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	
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-Dec-04	2	1	0	0	0	1	2	12	52	A	169	92	17	6	8	3	5	2	1	1	1	0	0	0	16.3	169.3	
2-Dec-04	0	0	0	0	1	0	0	1	A	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	0.9	2.0	
3-Dec-04	1	1	1	1	1	0	1	A	1	1	3	4	1	2	2	1	2	1	1	0	0	1	1	1	1.2	3.7	
4-Dec-04	1	0	0	1	0	1	A	1	1	2	3	3	3	2	2	2	3	2	2	1	1	1	2	1	1.6	3.4	
5-Dec-04	1	1	1	0	1	A	1	1	0	1	3	3	1	1	2	2	3	3	1	1	0	1	1	1	1.3	3.4	
6-Dec-04	1	1	1	1	1	A	1	1	6	4	5	1	1	4	4	3	5	13	16	35	24	61	56	43	44	14.3	61.3
7-Dec-04	11	27	15	A	10	22	33	37	73	86	92	98	77	27	17	22	7	7	5	27	20	36	32	20	34.9	97.5	
8-Dec-04	19	10	A	24	16	11	23	68	84	86	85	41	15	14	27	29	23	46	22	8	4	4	6	4	29.1	86.1	
9-Dec-04	4	A	4	5	4	6	23	39	66	59	46	44	37	51	105	72	62	65	17	3	2	1	1	1	31.1	105.1	
10-Dec-04	A	1	1	1	1	7	39	122	63	67	28	17	24	46	7	41	15	4	2	2	1	2	1	A	22.3	121.8	
11-Dec-04	0	0	0	0	0	0	0	1	0	0	2	4	3	12	17	27	15	4	3	0	0	2	A	1	4.1	26.8	
12-Dec-04	1	1	1	2	1	2	5	4	2	9	6	3	9	8	16	12	88	237	342	294	80	44	66	85	55.0	342.4	
13-Dec-04	54	18	11	A	4	6	42	98	84	C	C	C	C	A	62	39	26	22	28	38	72	68	78	66	45.4	98.1	
14-Dec-04	39	25	20	A	39	46	63	96	121	140	112	72	23	18	11	5	7	1	0	0	0	0	0	0	36.5	140.2	
15-Dec-04	0	0	A	16	56	22	41	49	77	67	106	90	69	55	88	117	151	158	150	76	41	38	59	35	68.0	158.3	
16-Dec-04	14	A	13	1	0	0	1	9	24	59	18	15	12	15	47	55	28	7	0	0	0	1	1	0	14.0	58.9	
17-Dec-04	A	0	0	0	0	0	0	0	0	0	0	1	2	3	2	7	6	1	1	3	6	10	44	A	4.0	44.1	
18-Dec-04	11	2	4	2	1	1	1	5	6	2	3	4	11	12	32	42	36	21	22	46	71	46	A	46	18.5	70.7	
19-Dec-04	46	39	45	28	12	16	28	64	14	0	0	1	1	1	1	0	0	0	0	0	0	A	0	0	12.9	64.4	
20-Dec-04	0	0	1	1	1	1	1	1	1	1	2	2	3	3	3	2	2	3	2	4	A	7	4	8	2.4	8.2	
21-Dec-04	9	5	5	1	2	2	2	1	1	1	2	2	2	4	4	3	3	3	3	A	3	2	1	1	2.6	9.2	
22-Dec-04	1	1	1	1	1	1	2	1	1	2	3	4	4	5	5	3	5	6	A	2	2	2	1	1	2.4	5.9	
23-Dec-04	2	2	8	5	12	6	2	6	13	11	2	2	3	4	2	1	1	A	1	0	0	0	0	0	3.6	13.2	
24-Dec-04	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0	0	0	0	0	0	0	0.1	0.6	
25-Dec-04	0	2	1	3	10	13	15	1	0	0	0	0	0	1	1	A	1	1	1	1	1	1	0	0	2.2	14.5	
26-Dec-04	0	0	0	0	1	1	0	0	0	1	2	2	1	3	A	3	7	19	14	22	12	10	0	0	4.3	21.7	
27-Dec-04	3	4	0	0	0	0	3	6	7	4	1	12	42	A	43	37	27	36	36	24	14	8	4	5	13.8	43.1	
28-Dec-04	15	12	24	28	19	16	12	27	75	64	20	18	A	62	94	104	126	138	70	65	45	10	9	24	46.8	138.3	
29-Dec-04	4	0	0	0	0	1	1	1	2	2	2	A	3	3	3	2	2	2	2	2	2	1	1	3	1.7	4.3	
30-Dec-04	1	1	1	1	0	0	1	1	1	3	A	2	2	3	3	4	4	3	3	6	1	2	4	1	2.1	6.1	
31-Dec-04	1	1	1	1	1	1	2	3	3	A	6	5	5	5	4	4	4	6	5	3	4	9	25	5	4.4	25.5	
Hourly Avg	8.4	5.3	5.5	4.4	6.5	6.1	11.4	22.1	26.0	24.1	24.8	18.7	13.0	12.8	20.3	21.5	22.6	27.2	25.7	21.7	14.8	12.2	13.3	12.3			
Hourly Max	54.0	38.8	44.8	28.4	55.9	46.5	63.0	121.8	121.4	140.2	169.3	97.5	77	61.5	105.1	116.9	150.9	236.6	342.4	294.0	80.4	67.6	78.3	85.1			

Station: Henry Pirker

HOURLY MAXIMUM TABLE

Nitric Oxide (NO)

Station Owner: PASZA

Monitoring Dates: December 1, 2004 to January 1, 2005

Summary

Maximum 1-hr Value:	387.1	ppb	12-Dec	19:00 20:00
Maximum 24-hr Value:	119.2	ppb	15-Dec	

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
	236	127	34	8	2	1	0	29.6 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-Dec-04	9	3	3	1	2	6	10	32	138	A	226	190	40	10	16	11	13	3	2	2	2	1	1	1	31.3	225.5
2-Dec-04	1	1	1	1	1	1	1	1	A	2	2	3	3	3	3	2	2	2	1	2	2	1	1	1	1.6	3.1
3-Dec-04	1	1	1	1	1	1	2	A	3	5	8	12	2	4	3	2	6	3	3	0	4	11	14	7	4.1	14.4
4-Dec-04	6	6	3	9	5	9	A	7	5	10	16	9	9	7	8	7	10	7	8	6	4	7	8	5	7.5	15.5
5-Dec-04	4	11	6	2	11	A	2	10	1	7	12	5	4	2	4	3	13	14	4	11	2	3	2	1	5.8	13.9
6-Dec-04	1	2	2	10	A	6	10	14	14	20	4	4	12	9	6	9	28	39	59	51	83	77	65	100	27.2	99.6
7-Dec-04	23	43	28	A	27	60	60	83	97	121	121	134	143	41	21	50	12	13	11	55	51	79	65	41	60.0	142.8
8-Dec-04	31	27	A	32	36	28	58	112	113	119	108	72	26	16	49	40	40	66	40	18	7	9	14	9	46.5	118.7
9-Dec-04	6	A	6	12	6	20	36	75	93	91	64	57	50	88	142	168	119	102	41	4	3	2	2	3	51.8	168.3
10-Dec-04	A	2	1	1	3	31	117	243	143	104	98	48	99	93	12	106	42	12	7	4	5	7	5	A	53.8	242.5
11-Dec-04	2	2	1	1	1	1	1	3	1	2	6	7	8	36	29	39	36	6	4	1	2	8	A	3	8.6	38.7
12-Dec-04	2	2	2	3	1	3	15	11	4	45	27	6	17	17	28	60	200	341	384	387	293	74	108	124	89.7	387.1
13-Dec-04	110	34	23	A	10	21	118	158	122	C	C	C	C	A	76	70	39	33	35	122	120	91	131	98	78.3	157.8
14-Dec-04	59	28	36	A	52	61	76	142	170	208	152	149	40	59	29	13	18	3	1	1	2	0	1	1	56.5	208.4
15-Dec-04	2	4	A	58	108	90	79	81	131	110	151	129	107	69	156	237	273	206	240	164	88	107	104	48	119.2	272.6
16-Dec-04	33	A	38	3	1	1	2	37	55	162	46	26	18	24	120	103	74	26	1	1	1	2	1	1	33.8	161.5
17-Dec-04	A	1	0	0	0	0	0	2	1	2	1	2	3	4	4	24	23	5	7	15	24	39	81	A	10.9	81.4
18-Dec-04	69	12	15	13	3	2	8	10	29	11	5	8	19	18	38	72	59	36	33	102	95	67	A	66	34.3	101.7
19-Dec-04	58	60	72	50	28	34	45	81	82	0	1	1	1	1	1	1	1	1	0	1	1	A	1	1	22.7	81.9
20-Dec-04	1	1	1	1	1	2	2	2	2	2	4	4	10	6	11	5	3	9	6	16	A	18	10	17	5.8	18.5
21-Dec-04	22	14	17	3	6	8	8	11	2	2	3	7	6	12	20	18	10	15	12	A	7	3	7	7	9.6	22.4
22-Dec-04	2	2	7	4	4	3	9	3	3	6	4	8	6	14	12	6	12	9	A	3	6	5	4	4	5.9	14.3
23-Dec-04	5	3	13	18	18	10	4	13	27	28	3	4	15	10	3	2	1	A	1	1	1	1	1	1	8.0	27.7
24-Dec-04	0	1	0	0	0	0	0	0	1	0	0	1	2	1	1	1	A	0	0	0	0	2	1	0	0.6	1.9
25-Dec-04	1	27	7	11	17	19	45	19	3	3	1	1	4	2	3	A	6	6	5	7	8	7	2	2	8.9	45.3
26-Dec-04	1	3	3	1	2	3	2	2	11	6	4	3	2	5	A	5	25	29	28	42	24	21	2	2	9.8	42.1
27-Dec-04	9	11	1	2	0	3	6	10	23	12	3	39	52	A	51	53	40	54	48	30	42	38	19	27	24.9	54.0
28-Dec-04	37	20	42	35	27	37	20	50	109	114	34	34	A	172	120	164	156	169	125	91	99	27	23	42	76.0	172.4
29-Dec-04	13	0	1	1	1	2	2	3	4	7	11	A	7	8	14	7	5	7	6	11	4	5	9	21	6.5	20.8
30-Dec-04	2	1	1	1	1	1	2	4	6	56	A	8	5	11	18	11	13	7	10	22	3	11	10	4	9.1	56.5
31-Dec-04	3	5	3	4	11	7	8	9	17	A	21	10	12	14	8	11	10	13	12	7	6	16	159	32	17.3	159.2
Hourly Avg	17.7	11.3	11.5	9.9	12.8	15.6	24.9	40.9	47.0	44.7	39.2	33.8	24.9	26.2	33.6	43.3	42.9	41.2	37.8	39.2	32.9	24.6	29.4	23.0		
Hourly Max	109.6	60.0	72.0	57.5	108.5	90.0	118.0	242.5	169.8	208.4	225.5	190.4	143	172.4	156.1	237.1	272.6	340.5	383.9	387.1	292.6	107.1	159.2	124.3		

Station: Henry Pirker

Station Owner: PASZA

HOURLY AVERAGE TABLE

Oxides of Nitrogen (NOx)

Monitoring Dates: December 1, 2004 to January 1, 2005

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	396	ppb	12-Dec	18:00 19:00
Maximum 24-hr Average:	126	ppb	15-Dec	

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							
	224	120	43	14	6	2	1	33.8 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-Dec-04	16	11	6	4	4	7	14	35	80	A	211	126	34	15	23	12	24	15	11	8	6	4	2	3	29.1	211.0
2-Dec-04	3	2	2	4	3	1	2	4	A	6	7	7	8	9	6	8	8	5	6	7	7	5	4	3	5.1	8.9
3-Dec-04	4	3	2	3	1	1	4	A	7	8	15	14	5	8	8	10	21	16	16	7	14	7	4	4	8.0	20.7
4-Dec-04	3	2	2	3	2	3	A	6	6	8	8	9	9	7	8	8	11	10	9	8	9	7	6	6	6.5	10.8
5-Dec-04	6	6	6	5	5	A	7	6	5	6	9	8	4	3	4	6	18	19	15	12	6	6	5	3	7.3	19.3
6-Dec-04	3	3	4	8	A	7	10	25	18	19	6	3	9	9	6	15	39	44	69	55	97	89	75	73	29.9	96.7
7-Dec-04	33	54	40	A	30	39	52	60	97	109	120	130	108	46	37	47	31	31	26	57	47	65	62	47	59.4	129.8
8-Dec-04	48	36	A	50	39	33	46	99	114	115	111	60	30	27	46	53	48	76	49	30	25	25	27	22	52.6	114.7
9-Dec-04	23	A	20	23	22	27	44	63	93	85	66	63	54	73	138	109	102	111	49	20	16	12	14	19	54.2	138.1
10-Dec-04	A	17	13	11	12	36	78	163	100	106	59	43	49	75	29	76	43	23	13	11	15	16	12	A	45.3	163.4
11-Dec-04	10	5	5	4	4	5	7	8	5	6	12	13	8	26	38	52	37	21	17	6	8	20	A	11	14.3	52.2
12-Dec-04	12	10	10	10	4	10	29	28	16	31	17	9	22	22	42	39	127	283	396	344	110	72	97	114	77.2	396.1
13-Dec-04	79	41	30	A	23	27	69	133	116	C	C	C	C	A	119	84	66	58	65	78	128	122	135	117	82.7	134.8
14-Dec-04	76	57	52	A	83	93	116	163	199	231	189	129	54	44	33	27	34	14	10	9	11	10	8	9	71.8	230.5
15-Dec-04	6	15	A	53	114	62	89	97	142	127	186	167	133	112	159	204	248	257	242	137	87	79	106	72	125.8	256.7
16-Dec-04	43	A	42	14	6	7	16	38	67	118	54	48	42	44	96	109	71	33	7	6	4	5	5	3	38.1	118.3
17-Dec-04	A	2	1	2	2	2	4	7	9	7	7	9	10	12	15	33	32	16	15	27	34	44	96	A	17.5	95.6
18-Dec-04	37	15	20	14	8	6	11	26	27	12	12	16	31	33	64	81	71	45	49	83	120	84	A	84	41.3	119.8
19-Dec-04	83	74	86	60	35	41	59	117	30	4	4	4	4	4	4	3	4	3	2	2	3	A	3	2	27.3	116.7
20-Dec-04	2	2	2	2	2	2	4	4	6	5	10	8	11	15	15	12	14	19	19	21	A	35	25	38	11.9	37.8
21-Dec-04	37	28	26	13	8	9	8	9	7	8	10	10	9	13	12	12	16	18	14	A	17	13	10	7	13.6	36.5
22-Dec-04	7	8	7	6	6	8	8	9	11	11	13	13	13	14	16	15	26	29	A	15	17	16	13	15	12.7	29.2
23-Dec-04	18	22	36	29	41	28	17	25	37	34	9	9	13	25	9	7	6	A	4	2	2	2	2	1	16.4	41.1
24-Dec-04	1	2	1	1	1	1	1	1	2	3	3	4	6	5	5	5	A	3	2	1	3	4	5	2	2.6	6.0
25-Dec-04	7	23	23	24	38	44	44	8	1	1	1	1	3	3	5	A	6	4	6	5	5	5	4	4	11.5	44.4
26-Dec-04	3	5	3	3	4	3	5	6	10	14	11	8	4	11	A	15	32	62	53	59	41	36	15	17	18.4	62.4
27-Dec-04	29	29	20	20	17	22	29	35	36	24	11	32	85	A	89	79	64	78	78	59	50	39	31	30	42.9	89.2
28-Dec-04	50	47	66	71	55	51	44	67	139	120	53	48	A	115	166	184	211	225	125	117	88	38	38	58	94.6	225.2
29-Dec-04	25	2	2	2	2	3	4	10	14	14	13	A	12	11	11	10	11	11	9	7	6	5	6	8	8.6	24.9
30-Dec-04	5	3	3	3	3	3	4	9	8	9	A	9	6	9	11	17	24	23	27	35	18	11	16	8	11.4	34.5
31-Dec-04	6	6	8	5	5	6	8	11	12	A	16	15	12	12	11	13	21	31	28	20	25	40	65	26	17.5	64.6
Hourly Avg	23.3	18.2	18.5	16.0	19.3	19.5	27.7	42.4	47.2	44.3	42.8	35.0	27.1	27.7	40.8	44.9	48.7	52.9	47.7	41.6	33.9	30.5	30.6	27.8		
Hourly Max	82.5	74.0	86.0	70.9	113.6	93.1	116.3	163.4	199.3	230.5	211.0	166.9	133	114.8	166.1	203.5	248.1	283.0	396.1	343.7	128.1	121.7	134.8	117.1		

Station: Henry Pirker

HOURLY MAXIMUM TABLE

Oxides of Nitrogen (NO_x)

Station Owner: PASZA

Monitoring Dates: December 1, 2004 to January 1, 2005

Summary

Maximum 1-hr Value:	446.0	ppb	12-Dec	19:00 20:00
Maximum 24-hr Value:	201.1	ppb	15-Dec	

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
	333	193	69	26	13	4	2	54.4 ppb

Status Flag Characters

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

Day Mountain Standard Time

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-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-Dec-04	30	20	18	6	12	20	27	66	175	A	269	241	66	25	36	30	40	18	13	14	9	5	4	4	50.0	268.6
2-Dec-04	4	4	6	9	8	2	4	6	A	8	9	11	11	13	11	10	13	8	8	11	10	8	6	5	8.1	13.1
3-Dec-04	8	8	6	6	3	3	7	A	12	20	31	37	7	15	14	16	32	23	25	11	25	17	19	15	15.7	37.1
4-Dec-04	11	10	6	15	10	15	A	13	13	14	25	15	16	19	18	16	19	19	18	16	14	14	16	16	15.1	24.5
5-Dec-04	12	18	14	8	24	A	12	12	9	13	26	15	10	5	9	8	41	43	19	24	11	10	7	5	15.5	43.0
6-Dec-04	5	5	8	37	A	23	32	44	43	45	13	8	22	19	12	28	63	77	97	91	121	113	102	134	49.6	134.0
7-Dec-04	46	72	55	A	54	80	81	104	124	150	158	173	190	63	43	83	40	42	32	86	79	117	98	74	89.0	190.0
8-Dec-04	64	50	A	60	65	56	81	145	149	145	136	96	44	31	75	64	70	98	69	43	30	31	37	30	72.5	149.2
9-Dec-04	27	A	26	32	26	43	58	105	122	120	86	80	72	116	179	214	161	152	85	27	23	18	21	28	79.2	214.1
10-Dec-04	A	28	16	21	23	71	161	291	186	151	135	80	135	126	40	150	75	41	22	15	24	28	22	A	83.8	291.4
11-Dec-04	24	8	7	8	11	11	13	17	7	8	22	22	22	64	55	66	65	26	24	9	15	39	A	16	24.3	66.3
12-Dec-04	16	18	14	18	7	21	48	40	26	76	57	16	37	39	58	90	245	387	437	446	340	103	138	152	118.0	446.0
13-Dec-04	142	56	45	A	32	45	158	201	156	C	C	C	C	A	140	131	85	77	74	193	197	160	211	162	125.7	210.9
14-Dec-04	104	61	74	A	104	112	137	231	269	334	251	250	79	110	64	46	57	26	13	15	22	18	19	17	104.9	333.9
15-Dec-04	12	28	A	118	193	160	142	143	232	182	260	221	192	132	259	397	416	326	369	253	153	172	173	90	201.1	416.2
16-Dec-04	69	A	79	26	18	11	22	85	115	267	101	67	56	61	202	169	141	75	9	8	6	9	9	8	70.1	267.4
17-Dec-04	A	3	2	3	3	3	6	10	12	10	10	13	14	16	24	68	67	30	29	54	63	87	150	A	30.8	150.3
18-Dec-04	127	31	42	37	14	10	33	36	66	27	20	25	43	43	75	129	108	67	62	165	160	114	A	113	67.2	165.0
19-Dec-04	101	104	123	92	55	68	86	144	141	7	6	6	6	6	5	5	6	5	4	4	5	A	5	4	43.0	144.5
20-Dec-04	4	3	3	2	2	5	6	9	11	14	18	15	20	24	26	23	21	34	35	50	A	53	34	53	20.2	53.4
21-Dec-04	57	42	52	19	18	18	15	30	13	14	15	22	17	30	38	38	38	41	30	A	24	18	20	18	27.3	56.6
22-Dec-04	10	12	14	14	13	10	21	14	16	22	17	22	19	27	28	23	36	38	A	18	22	25	22	20	20.0	38.0
23-Dec-04	31	28	43	52	52	38	24	38	58	63	14	15	21	41	13	10	9	A	7	4	3	5	6	4	25.1	62.9
24-Dec-04	4	6	4	2	2	1	2	3	5	5	4	5	11	7	9	9	A	5	3	2	5	10	12	6	5.3	12.3
25-Dec-04	16	67	38	39	51	55	86	51	6	7	4	3	11	7	10	A	14	14	18	18	19	16	9	11	24.8	85.8
26-Dec-04	6	13	11	5	7	13	8	12	27	29	20	13	9	19	A	21	77	78	74	90	59	55	20	22	29.8	89.8
27-Dec-04	38	43	24	31	21	31	35	41	58	42	14	83	102	A	103	103	83	104	94	66	89	88	60	68	61.8	104.5
28-Dec-04	83	61	93	80	66	99	51	104	190	190	73	71	A	283	202	269	255	266	207	152	168	62	59	85	137.7	282.7
29-Dec-04	45	4	4	4	3	5	8	20	19	23	33	A	19	26	21	28	19	20	20	26	11	14	18	39	18.6	44.8
30-Dec-04	7	6	4	4	5	5	9	18	22	78	A	14	16	21	34	27	40	37	41	65	30	33	33	13	24.4	78.0
31-Dec-04	11	16	19	12	23	19	18	29	33	A	33	34	29	29	20	26	32	43	41	27	33	54	277	69	40.3	277.1
Hourly Avg	38.4	28.5	29.3	27.2	30.9	35.1	46.3	68.7	77.2	73.7	64.1	57.8	44.7	48.8	60.7	76.6	79.0	74.1	66.0	66.8	59.1	49.9	55.4	44.2		
Hourly Max	141.9	103.8	122.6	118.3	193.1	160.3	161.4	291.4	269.1	333.9	268.6	250.2	192	282.7	259.1	397.5	416.2	387.3	437.1	446.0	340.4	172.1	277.1	161.9		

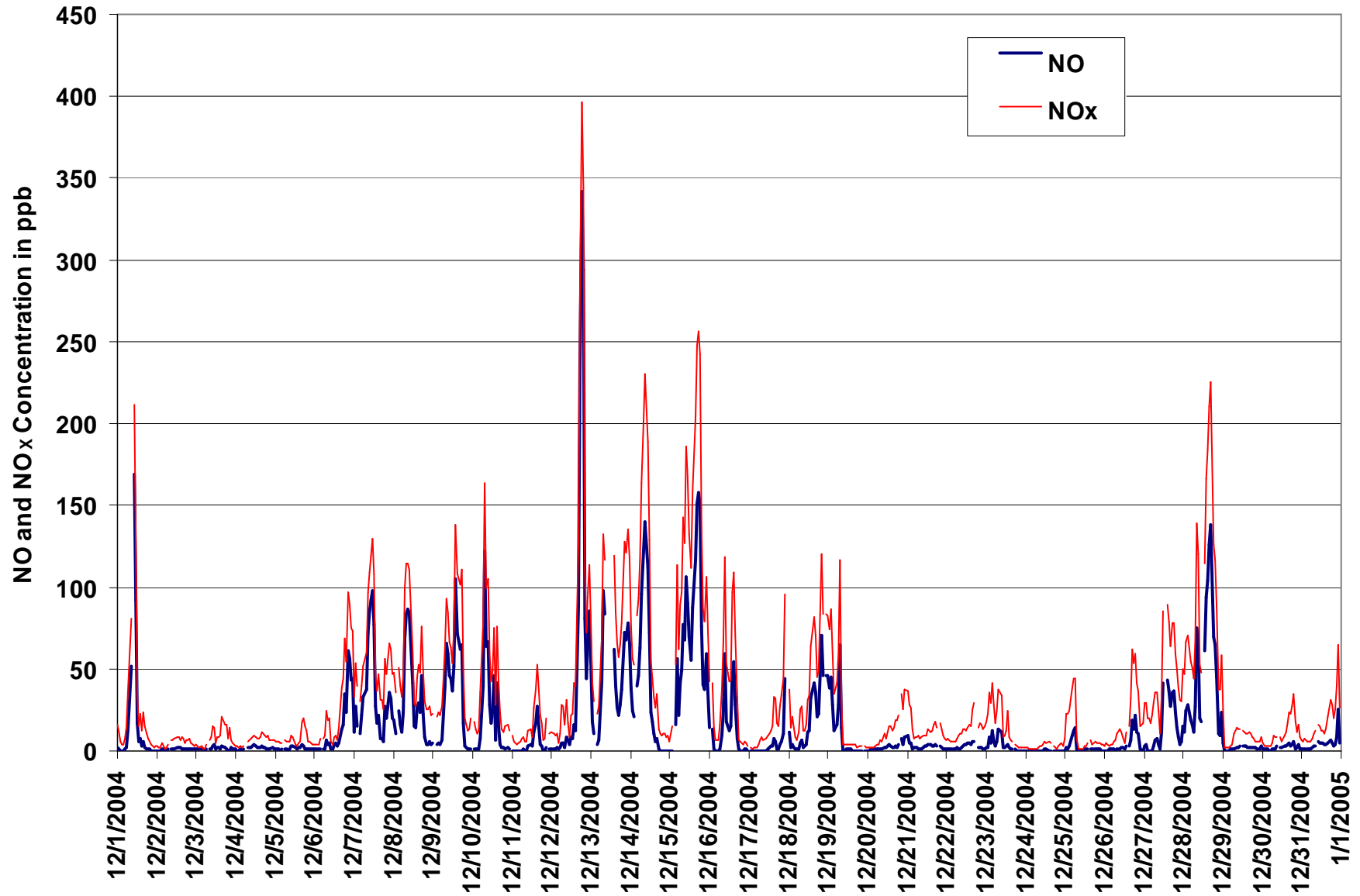


Figure 5. PASZA - Henry Pirker Oxides of Nitrogen 1-hr Average Monthly Trends

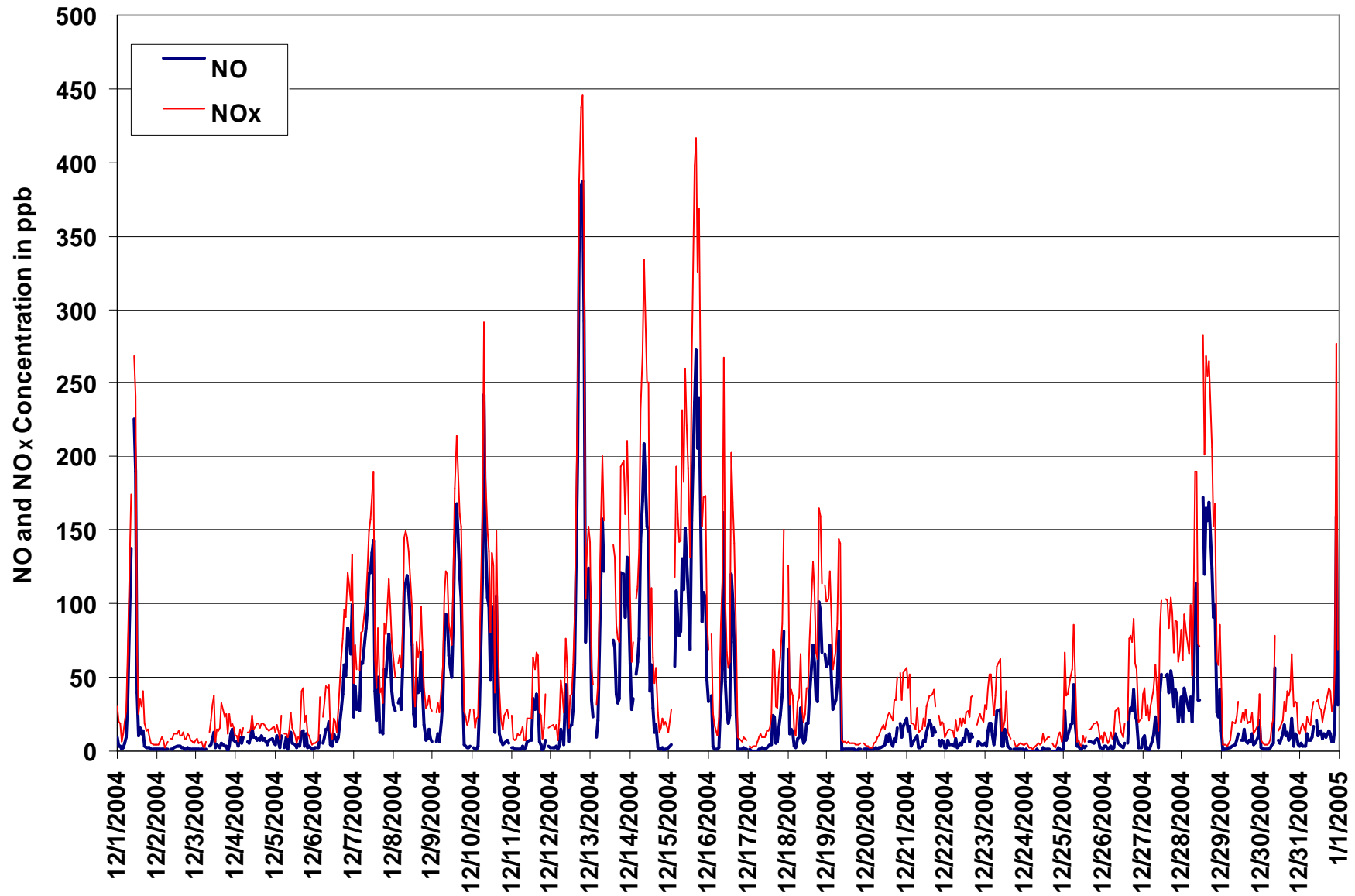


Figure 6. PASZA - Henry Pirker Oxides of Nitrogen 1-hr Maximum Value Monthly Trends

PASZA - Henry Pirker Ozone Monthly Summary

Station: Henry Pirker

HOURLY AVERAGE TABLE

Ozone (O₃)

Station Owner: PASZA

Monitoring Dates: December 1, 2004 to January 1, 2005

Number of 1-hr Exceedances:		0			
Number of 24-hr Exceedances:		0			
Maximum 1-hr Average:	38.3	ppb	24-Dec	4:00 5:00	
Maximum 24-hr Average:	33.4	ppb	24-Dec		

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

AIC Time:	33 hrs	Operational Time:	708 hrs					
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	37	35	27	19	4	1	0	

Status Flag Characters

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

Day Mountain Standard Time

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-Dec-04	2	14	19	22	23	20	15	4	1	A	3	4	12	19	14	21	12	17	19	23	23	26	29	29	16.1	29.4	
2-Dec-04	32	34	34	31	32	35	34	33	A	30	29	28	28	27	29	28	28	31	30	29	30	34	35	36	31.2	35.9	
3-Dec-04	33	35	36	35	36	37	33	A	28	26	21	25	34	31	31	28	18	21	21	28	20	16	18	19	27.4	36.8	
4-Dec-04	19	21	22	23	23	24	A	24	23	23	24	24	25	25	24	24	24	25	26	26	25	27	28	27	24.3	27.6	
5-Dec-04	27	27	27	27	27	A	26	26	26	26	25	26	29	29	28	27	16	14	18	20	26	25	25	26	25.0	29.0	
6-Dec-04	26	25	24	20	A	23	21	16	18	18	25	27	26	25	27	22	8	6	2	3	1	1	1	0	15.9	27.2	
7-Dec-04	3	1	1	A	2	1	1	1	1	1	1	4	6	8	11	13	8	8	6	9	2	3	2	3	4.3	12.8	
8-Dec-04	2	2	A	1	3	5	2	3	3	3	4	7	11	12	9	5	2	1	1	1	1	1	2	4	3.6	11.6	
9-Dec-04	4	A	6	4	4	1	0	1	1	2	4	7	6	6	4	3	1	1	8	21	24	27	25	19	7.8	27.3	
10-Dec-04	A	21	25	26	25	9	1	1	1	1	4	8	9	4	10	1	5	15	25	26	18	16	21	A	12.3	26.3	
11-Dec-04	22	25	24	29	28	24	22	19	24	22	20	22	28	21	13	5	6	12	16	25	26	15	A	23	20.6	28.8	
12-Dec-04	23	24	24	24	30	25	12	11	22	12	24	31	25	24	16	12	3	3	4	3	1	1	2	2	15.0	31.2	
13-Dec-04	2	1	2	A	3	4	1	2	2	2	4	5	6	C	C	C	A	2	2	2	2	2	2	2	2.5	5.7	
14-Dec-04	1	1	1	A	1	1	1	2	2	2	2	2	5	7	13	14	10	22	26	27	26	26	27	25	10.5	27.0	
15-Dec-04	27	17	A	2	0	1	0	1	1	1	2	4	4	4	2	2	1	1	1	0	1	1	0	0	3.1	27.2	
16-Dec-04	0	A	5	16	28	29	20	10	2	1	5	5	7	8	3	2	5	16	34	34	36	35	35	37	16.3	36.6	
17-Dec-04	A	37	37	36	36	36	34	31	29	32	30	29	29	28	25	13	13	20	21	13	9	4	1	A	24.9	37.4	
18-Dec-04	7	10	4	7	12	14	10	2	2	9	11	9	5	4	2	1	0	0	0	0	0	0	A	0	4.8	14.3	
19-Dec-04	0	0	0	0	1	0	0	0	23	34	36	36	36	36	37	36	35	35	36	34	35	A	35	30	22.5	36.7	
20-Dec-04	28	27	27	27	27	26	26	26	24	24	21	23	21	17	17	18	16	13	12	11	A	3	6	1	19.2	28.4	
21-Dec-04	1	2	6	14	23	23	23	22	23	23	22	23	24	22	23	21	17	16	19	A	17	17	18	18	18.2	23.7	
22-Dec-04	19	19	22	23	23	25	24	23	22	21	19	22	22	22	21	20	13	10	A	17	14	13	14	11	19.2	25.2	
23-Dec-04	8	4	0	1	1	2	6	4	1	11	29	28	26	17	30	33	34	A	36	37	37	37	36	37	19.8	37.0	
24-Dec-04	37	37	38	38	38	37	36	36	35	35	35	33	31	32	31	30	A	31	32	33	30	28	27	28	33.4	38.3	
25-Dec-04	23	10	6	5	1	0	1	20	25	26	27	28	28	28	28	A	28	28	28	30	30	31	30	30	21.4	30.6	
26-Dec-04	30	29	31	30	30	30	29	28	23	17	22	27	30	27	A	22	13	1	2	0	0	2	9	8	19.2	30.5	
27-Dec-04	1	3	8	8	8	5	1	1	1	6	14	11	6	A	7	5	3	2	2	2	3	7	10	14	5.6	14.0	
28-Dec-04	5	2	2	2	2	2	1	2	3	2	4	5	A	3	2	2	1	1	0	0	0	1	1	0	1.9	5.4	
29-Dec-04	6	21	21	22	22	22	21	17	16	18	21	A	27	28	28	29	27	27	28	30	30	30	30	30	23.9	30.3	
30-Dec-04	30	30	31	32	32	31	30	27	28	30	A	29	31	30	29	24	20	17	14	9	17	28	25	27	26.1	31.7	
31-Dec-04	27	27	25	27	29	29	28	27	25	A	24	25	27	27	27	25	19	13	13	17	12	4	5	11	21.4	28.8	
Hourly Avg	15.4	17.5	17.5	19.1	18.4	17.4	15.4	14.0	14.5	15.8	17.2	18.7	20.2	19.8	18.7	16.5	13.3	13.6	16.1	16.8	16.6	15.4	17.2	17.2			
Hourly Max	37.0	37.4	37.6	38.2	38.3	37.2	36.2	35.9	35.1	34.6	36.4	35.9	36.3	36.3	36.7	35.9	35.3	35.0	35.9	36.5	36.9	36.7	35.9	37.0			

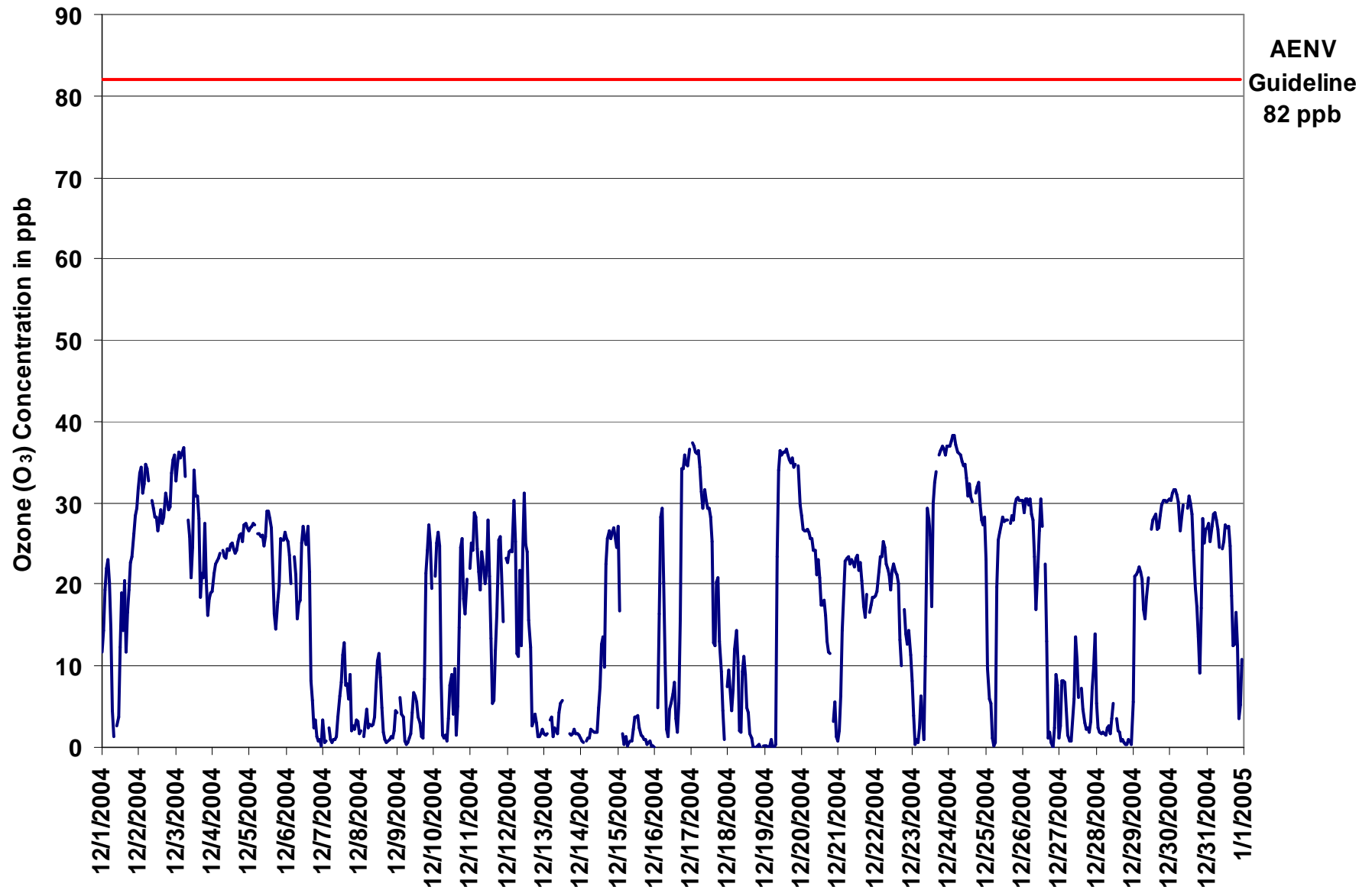


Figure 7. PASZA - Henry Pirker Ozone 1-hr Average Monthly Trend

Station: Henry Pirker

HOURLY MAXIMUM TABLE

Ozone (O₃)

Station Owner: PASZA

Monitoring Dates: December 1, 2004 to January 1, 2005

Summary

Maximum 1-hr Value:	39.7	ppb	24-Dec	4:00 5:00
Maximum 24-hr Value:	35.1	ppb	24-Dec	

AIC Time:	33 hrs	Operational Time:	708 hrs					
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	38	37	30	24	8	2	1	20.1 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

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-Dec-04	19	20	23	25	26	26	19	15	3	A	4	6	18	23	20	24	20	20	22	25	27	29	30	31	20.7	31.3	
2-Dec-04	34	36	37	34	35	36	35	34	A	32	31	30	30	29	31	29	32	33	32	31	32	36	37	38	33.2	37.7	
3-Dec-04	37	37	38	38	38	38	36	A	31	29	26	33	36	35	35	32	25	27	26	29	29	19	20	20	31.1	38.4	
4-Dec-04	21	24	23	24	25	25	A	26	25	25	26	27	27	28	27	26	28	28	28	29	27	30	29	29	26.5	29.5	
5-Dec-04	29	29	29	29	29	A	28	28	28	28	27	29	30	30	30	29	28	23	23	24	28	27	29	28	27.9	30.4	
6-Dec-04	27	26	25	23	A	26	26	24	23	23	27	29	29	29	30	26	22	12	8	11	3	2	3	1	19.7	29.6	
7-Dec-04	18	3	2	A	9	4	2	2	3	3	3	6	8	10	15	16	12	15	12	12	6	7	4	5	4	7.7	17.9
8-Dec-04	3	4	A	3	7	8	4	4	3	4	6	11	12	14	12	7	4	2	1	2	2	2	4	6	5.5	13.6	
9-Dec-04	5	A	8	7	6	2	1	2	2	3	7	8	8	7	5	4	2	4	23	26	29	29	29	26	10.6	29.1	
10-Dec-04	A	31	29	30	32	25	14	4	6	3	10	14	14	11	16	4	11	23	28	29	23	22	25	A	18.3	32.0	
11-Dec-04	26	27	27	32	31	27	25	24	26	25	25	28	30	33	17	9	14	15	21	27	29	25	A	27	24.9	32.5	
12-Dec-04	26	28	27	28	33	30	18	14	28	24	31	35	30	27	21	16	14	10	11	13	3	3	3	3	19.8	34.9	
13-Dec-04	4	3	4	A	6	8	2	3	3	3	8	7	10	C	C	C	A	3	2	3	4	3	4	3	4.3	9.8	
14-Dec-04	2	2	2	A	2	3	2	8	4	3	4	4	8	12	17	18	18	26	28	30	31	30	31	30	13.6	31.0	
15-Dec-04	30	22	A	6	3	5	2	5	2	2	4	6	6	5	4	3	3	2	3	3	2	2	2	1	5.3	30.0	
16-Dec-04	1	A	14	21	33	33	29	21	10	5	14	9	10	11	9	5	17	33	37	36	37	37	37	38	21.5	38.2	
17-Dec-04	A	38	38	37	37	38	37	34	32	34	32	32	31	31	28	24	25	26	27	24	18	11	2	A	28.9	38.5	
18-Dec-04	13	13	10	11	15	16	14	6	6	12	13	13	6	6	4	2	1	1	1	1	2	1	A	2	7.4	16.3	
19-Dec-04	1	7	1	1	5	1	1	11	36	37	37	39	38	39	38	38	38	37	37	37	37	A	37	31	25.3	38.9	
20-Dec-04	30	29	27	27	28	28	28	28	26	27	25	26	24	21	20	22	20	19	16	18	A	6	9	3	22.1	30.2	
21-Dec-04	2	7	16	18	26	26	26	25	25	25	26	28	26	24	25	25	22	19	22	A	21	22	21	20	21.6	27.7	
22-Dec-04	20	23	24	25	27	28	27	26	25	24	23	24	25	24	24	23	19	13	A	20	19	16	16	14	22.0	27.5	
23-Dec-04	13	6	2	4	1	9	10	9	3	30	32	30	29	27	32	38	36	A	38	38	38	38	38	39	23.4	38.7	
24-Dec-04	38	38	39	39	40	39	37	38	37	36	36	35	33	34	33	33	A	33	33	34	32	30	30	30	35.1	39.7	
25-Dec-04	27	21	12	18	9	1	9	25	27	28	28	29	29	29	29	A	29	30	30	32	32	33	32	32	24.9	32.9	
26-Dec-04	33	31	33	32	32	33	31	29	27	26	27	29	33	31	A	25	23	4	5	2	2	11	15	13	22.9	33.2	
27-Dec-04	4	9	11	14	11	8	3	3	2	12	18	17	7	A	9	6	5	3	4	4	4	10	15	16	35	9.7	35.2
28-Dec-04	20	8	3	3	3	4	3	6	6	3	7	7	A	8	4	4	2	4	2	2	2	5	3	2	4.8	20.1	
29-Dec-04	21	23	22	23	23	23	22	21	20	22	25	A	30	31	31	32	30	31	31	33	32	32	32	33	27.0	33.0	
30-Dec-04	32	32	33	33	33	32	32	30	31	32	A	32	33	32	32	28	26	22	21	19	28	31	28	29	29.6	33.2	
31-Dec-04	29	30	29	29	30	31	30	30	28	A	28	28	30	29	29	28	23	16	18	19	17	7	12	17	24.6	30.5	
Hourly Avg	19.5	20.9	20.2	21.9	21.2	20.4	18.4	17.9	17.6	19.3	20.5	21.7	22.7	23.2	21.7	19.8	19.0	17.6	19.7	20.2	20.0	18.6	19.9	20.2			
Hourly Max	38.5	38.5	38.7	39.2	39.7	39.0	37.4	37.7	36.7	36.8	37.5	38.9	38.1	38.6	38.2	38.3	37.7	36.7	37.6	37.5	37.9	38.2	37.6	38.7			

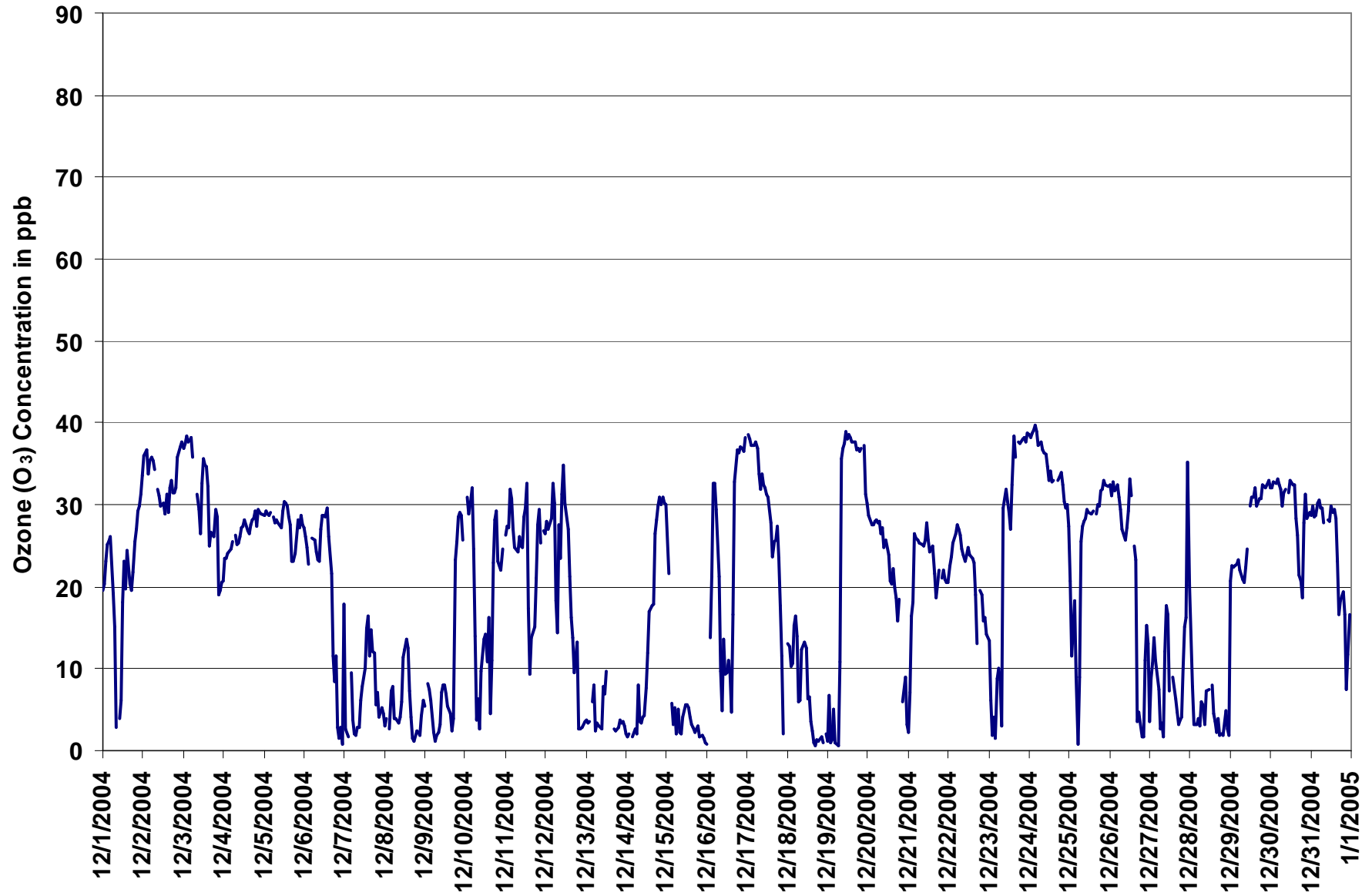


Figure 8. PASZA - Henry Pirker Ozone 1-hr Maximum Value Monthly Trend

Station: Henry Pirker

EIGHT HOUR RUNNING AVERAGE TABLE

Ozone (O₃)

Station Owner: PASZA

Monitoring Dates: December 1, 2004 to January 1, 2005

Summary

Number of 8-hr Exceedances:	0						
Maximum 8-hr Average:	37.3	ppb	24-Dec	6:00	7:00		

Guideline Limit: Canada Wide Standard 8-hr 65 ppb

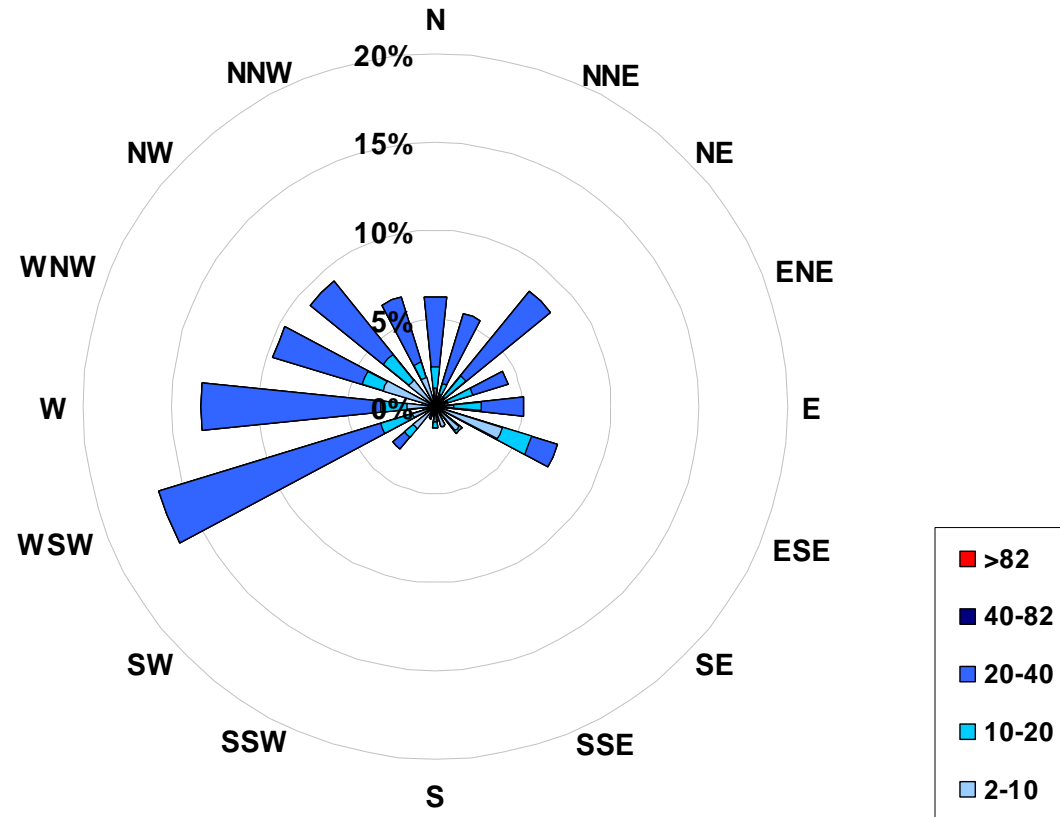
Percentile	99	95	75	50	25	5	1
	36.6	34.3	26.1	18.8	5.7	1.4	0.2

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-Dec-04	12	15	15	16	16	17	17	16	15	15	13	10	8	8	8	11	12	13	15	17	18	19	21	22	14.5	22.2
2-Dec-04	25	27	29	30	31	32	33	33	33	33	32	32	31	30	29	29	28	29	29	29	29	30	31	32	30.1	33.3
3-Dec-04	32	33	33	34	35	35	35	35	34	33	31	29	29	28	28	27	26	26	26	25	23	21	20	20	29.5	35.4
4-Dec-04	20	20	21	20	20	21	22	22	23	23	24	24	24	24	24	24	24	24	25	25	25	25	26	26	23.2	26.1
5-Dec-04	26	27	27	27	27	27	27	27	27	27	26	26	26	27	27	27	26	24	23	23	22	22	22	21	25.4	27.1
6-Dec-04	23	24	25	25	25	24	24	22	21	20	20	21	22	22	23	23	22	21	18	15	12	9	5	3	19.5	24.7
7-Dec-04	2	2	1	1	1	1	1	1	1	1	2	2	3	4	6	7	7	8	9	8	7	6	5	5	3.8	8.6
8-Dec-04	4	3	2	2	2	3	3	3	3	3	3	4	5	5	6	7	6	6	6	5	4	3	2	2	3.8	6.5
9-Dec-04	2	2	3	3	4	4	3	3	2	2	2	2	3	3	4	4	4	4	5	6	9	11	14	16	4.8	16.0
10-Dec-04	18	21	23	24	24	21	18	15	14	11	8	6	4	4	5	5	5	7	10	12	13	14	16	18	13.2	24.2
11-Dec-04	20	22	22	22	24	25	25	24	24	24	24	23	23	22	21	19	17	16	15	16	16	15	15	18	20.5	24.9
12-Dec-04	20	22	23	23	23	25	23	22	22	20	20	21	20	20	21	21	18	17	15	11	8	5	4	2	17.8	24.8
13-Dec-04	2	2	2	2	2	2	2	2	2	2	3	3	3	3	N	N	N	N	N	N	N	N	N	2	N	3.3
14-Dec-04	2	2	1	1	1	1	1	1	1	1	2	2	2	3	4	6	7	9	12	15	18	20	22	24	6.6	23.5
15-Dec-04	26	25	25	21	18	14	10	7	3	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	7.2	25.7
16-Dec-04	1	0	1	3	7	11	14	16	16	14	14	13	10	7	5	4	5	6	10	14	17	21	25	29	11.0	28.9
17-Dec-04	32	35	36	36	36	36	36	36	35	34	33	32	32	31	29	27	25	24	22	20	18	15	12	12	28.5	36.3
18-Dec-04	11	9	7	6	7	8	9	8	8	8	9	9	8	7	6	5	5	4	3	2	1	0	0	0	5.8	10.9
19-Dec-04	0	0	0	0	0	0	0	0	0	3	7	12	16	21	25	30	34	36	36	36	36	35	35	34	18.1	36.0
20-Dec-04	33	32	31	30	29	28	27	27	26	25	25	25	24	23	22	21	20	18	17	16	15	13	11	9	22.8	33.2
21-Dec-04	7	5	4	5	7	10	12	14	17	20	22	23	23	23	23	22	22	21	20	20	19	18	18	18	16.4	23.0
22-Dec-04	18	18	19	19	20	21	22	22	23	23	23	23	22	22	22	21	20	19	19	18	17	15	14	13	19.7	23.0
23-Dec-04	13	12	10	8	7	5	4	3	2	3	7	10	14	15	18	22	26	28	29	30	32	35	35	36	16.9	36.1
24-Dec-04	37	37	37	37	37	37	37	37	37	37	36	36	35	34	33	33	32	32	31	31	31	31	30	30	34.4	37.3
25-Dec-04	29	26	23	20	16	13	9	8	8	11	13	16	19	23	26	27	28	28	28	28	29	29	29	29	21.5	29.4
26-Dec-04	30	30	30	30	30	30	30	30	29	27	26	26	26	25	25	24	23	20	18	14	9	6	6	4	22.8	30.2
27-Dec-04	3	3	4	5	6	6	5	4	4	5	5	6	6	6	6	7	7	7	5	4	3	4	4	5	5.1	7.3
28-Dec-04	6	6	6	6	6	5	4	2	2	2	2	3	3	3	3	3	3	3	2	1	1	1	1	1	3.0	5.8
29-Dec-04	1	4	6	9	12	14	17	19	20	20	20	19	20	21	22	24	25	27	28	28	28	29	29	29	19.6	29.1
30-Dec-04	30	30	30	31	31	31	31	30	30	30	30	30	29	29	29	29	27	26	24	22	20	20	19	20	27.4	30.9
31-Dec-04	20	22	23	25	27	27	27	27	27	27	27	27	26	26	26	26	25	23	22	21	19	16	13	12	23.4	27.4
Hourly Avg	16.2	16.6	16.8	16.8	17.1	17.3	17.1	16.7	16.6	16.5	16.6	16.7	16.8	17.0	17.8	18.0	17.9	17.6	17.4	17.2	16.8	16.4	16.2	15.8		
Hourly Max	36.6	36.6	36.8	37.0	37.2	37.3	37.3	37.2	36.9	36.6	36.3	35.6	34.7	34.1	33.4	34.4	35.9	36.0	35.9	35.7	35.5	35.4	35.5	36.1		

Concentration Rose for the 1-hr O₃ Average Concentration Occurrences at the Henry Pirker Site for December 2004



Frequency Distribution of O ₃ in ppb			
Range	Frequency (hrs)		
0 < 2	129		
2 to 10	136		
10 to 20	98		
20 to 40	345		
40 to 82	0		
> 82	0		
Total Non-Zero Values			
			708

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

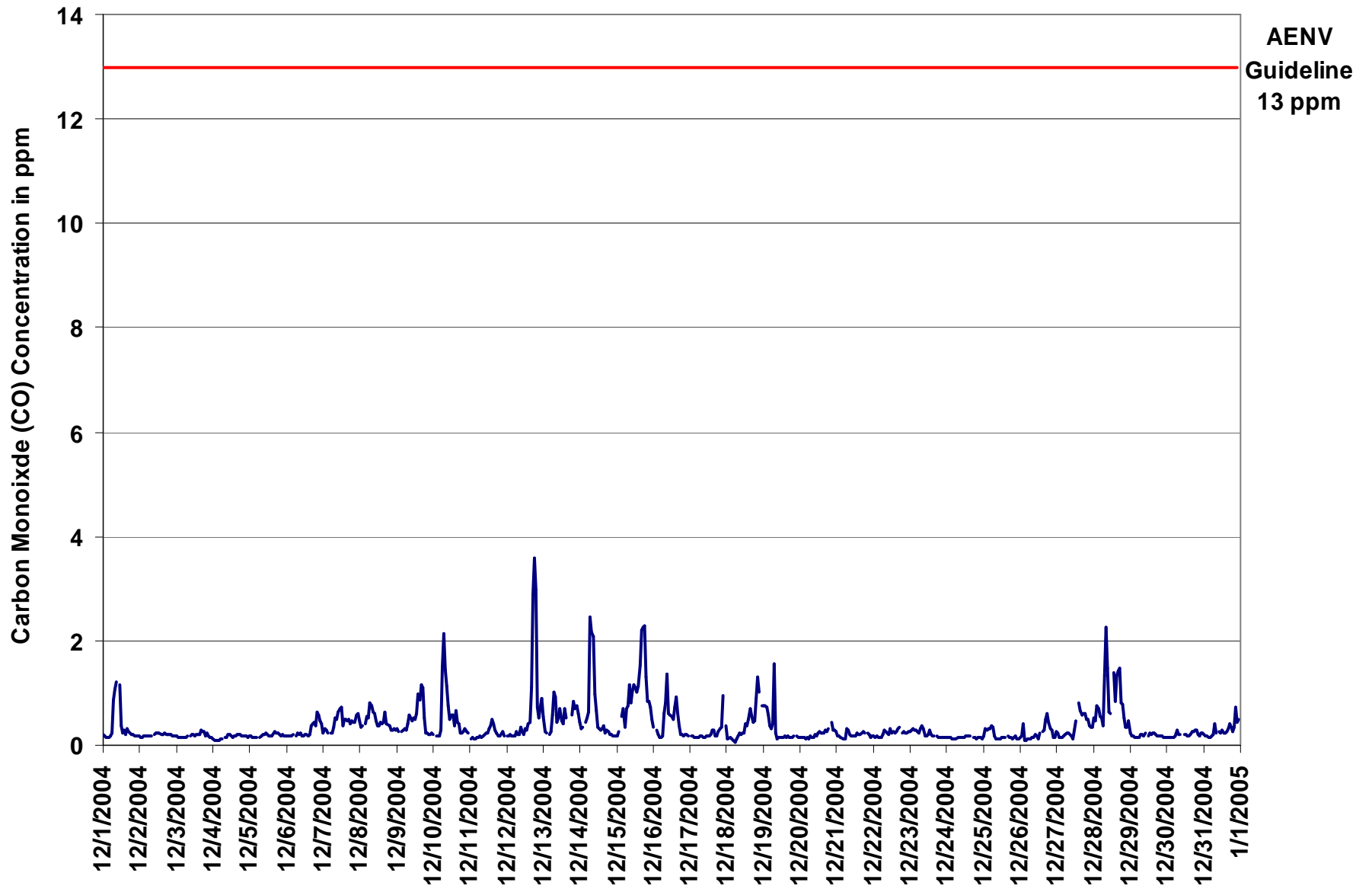


Figure 9. PASZA - Henry Pirker Carbon Monoxide 1-hr Average Monthly Trend

Station: Henry Pirker

HOURLY MAXIMUM TABLE

Carbon Monoxide (CO)

Station Owner: PASZA

Monitoring Dates: December 1, 2004 to January 1, 2005

Summary

Maximum 1-hr Value:	15.5	ppm	10-Dec	6:00 7:00
Maximum 24-hr Value:	2.1	ppm	15-Dec	

AIC Time:	34 hrs	Operational Time:	709 hrs					
Calibration Time:	1 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	5.2	2.3	0.7	0.4	0.3	0.2	0.2	0.8 ppm

Status Flag Characters

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

Day Mountain Standard Time

Day	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-Dec-04	0.4	0.3	0.3	0.2	0.3	0.5	0.4	5.5	2.5	2.5	A	2.1	0.6	0.3	0.4	0.3	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.84	5.49
2-Dec-04	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.2	A	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.29	0.36
3-Dec-04	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	A	0.3	0.4	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.4	0.31	0.43
4-Dec-04	0.3	0.2	0.2	0.2	0.2	0.2	0.4	A	0.5	0.3	0.4	0.5	0.4	0.3	0.3	0.4	0.3	0.4	0.7	0.3	0.3	0.4	0.3	0.3	0.33	0.74
5-Dec-04	0.3	0.9	0.2	0.2	0.2	0.3	A	0.2	0.3	0.4	0.3	0.6	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.35	0.90
6-Dec-04	0.3	0.3	0.3	0.3	0.3	A	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.7	0.6	0.6	0.7	1.3	1.0	0.8	0.7	0.48	1.32
7-Dec-04	0.4	0.4	0.4	0.4	A	0.3	0.4	0.8	2.9	2.1	1.0	1.0	1.2	0.6	1.2	0.7	0.6	0.7	0.6	0.6	0.6	0.8	0.8	0.7	0.84	2.90
8-Dec-04	0.7	1.2	0.5	A	0.5	0.8	0.7	1.7	1.0	0.8	0.8	0.6	0.6	0.5	0.6	0.5	0.6	0.8	0.5	0.7	0.4	0.4	0.6	0.4	0.69	1.69
9-Dec-04	0.7	0.3	A	0.4	0.6	0.4	0.4	0.7	0.9	0.7	0.6	0.6	0.6	0.7	1.0	1.3	1.4	2.1	1.6	1.2	0.3	0.3	0.3	0.3	0.75	2.08
10-Dec-04	0.3	A	0.3	0.3	0.4	1.3	15.5	4.4	3.4	1.3	5.3	0.8	1.4	0.9	0.6	1.6	0.5	0.6	0.4	0.4	0.4	0.5	0.4	0.4	1.80	15.48
11-Dec-04	A	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.7	0.6	0.6	0.7	0.4	0.4	0.3	0.3	0.5	0.3	A	0.37	0.73
12-Dec-04	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.6	1.0	0.4	0.5	0.4	0.6	1.3	1.9	4.8	5.5	9.0	2.2	1.0	1.2	2.2	1.47	8.96
13-Dec-04	1.0	0.5	0.3	A	0.3	0.6	1.7	1.5	1.7	0.7	0.9	1.4	0.7	0.6	0.9	0.8	C	A	A	1.7	2.2	1.1	2.3	0.9	1.09	2.33
14-Dec-04	0.6	0.4	0.6	A	0.6	1.7	0.9	9.9	3.2	5.7	2.3	1.1	0.5	0.7	0.6	0.5	0.6	0.4	0.4	0.4	0.4	0.3	0.3	0.4	1.41	9.92
15-Dec-04	0.5	0.7	A	1.2	1.8	0.8	3.4	4.0	2.5	1.8	1.5	1.9	2.0	1.2	1.7	2.7	4.0	3.2	4.0	2.9	1.2	2.0	1.4	0.7	2.05	4.01
16-Dec-04	0.5	A	0.6	0.6	0.3	0.3	0.3	2.9	1.5	2.7	1.5	1.4	1.0	0.7	1.2	2.3	1.1	0.7	0.3	0.3	0.3	0.3	0.3	0.3	0.92	2.91
17-Dec-04	A	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.6	0.6	0.3	0.3	0.5	0.6	1.0	1.5	A	0.41	1.50
18-Dec-04	1.2	0.3	0.3	0.3	0.2	0.2	0.7	0.4	0.5	0.5	0.6	0.9	0.9	0.5	0.7	0.9	1.8	0.7	1.2	2.0	1.7	2.1	A	1.1	0.86	2.11
19-Dec-04	0.9	1.1	1.1	0.9	0.6	0.5	0.7	6.6	0.7	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.3	A	0.3	0.2	0.72	6.55
20-Dec-04	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.4	0.6	1.1	0.7	1.1	0.5	0.8	0.4	0.8	0.4	1.8	A	1.1	0.5	0.5	0.56	1.76
21-Dec-04	0.4	0.3	0.4	0.2	0.2	0.2	1.7	1.9	0.6	0.4	1.0	0.6	0.4	1.1	0.4	0.4	0.4	0.6	0.6	A	0.4	0.5	0.3	0.4	0.58	1.88
22-Dec-04	0.3	0.2	1.2	0.2	0.2	0.9	0.6	0.7	0.7	0.5	0.5	1.2	0.4	0.5	0.4	0.5	0.4	0.7	A	0.4	0.4	0.3	0.3	0.4	0.52	1.22
23-Dec-04	0.4	0.4	0.4	0.4	0.4	0.3	0.3	1.1	0.6	0.6	0.3	0.3	0.3	0.4	0.3	0.3	0.3	A	0.3	0.2	0.2	0.3	0.2	0.2	0.37	1.11
24-Dec-04	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	A	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.24	0.32
25-Dec-04	0.3	0.5	0.4	0.6	0.6	0.5	0.5	0.4	0.2	0.3	0.3	0.4	0.5	0.3	0.3	A	0.4	0.2	0.6	0.2	0.4	1.3	0.7	0.3	0.45	1.26
26-Dec-04	0.5	1.1	2.3	0.2	0.2	0.4	0.2	0.3	0.4	0.3	0.4	0.3	0.2	1.6	A	1.2	0.6	0.7	1.9	0.8	0.5	0.4	0.3	0.3	0.65	2.31
27-Dec-04	0.7	0.3	0.2	0.3	0.2	0.3	0.3	0.4	0.3	0.3	0.2	0.6	0.6	A	0.9	0.9	1.4	1.2	0.8	0.7	2.5	0.9	0.6	0.8	0.67	2.45
28-Dec-04	0.9	0.7	1.2	1.0	0.7	1.2	0.9	5.1	3.8	2.8	1.1	1.6	A	3.1	1.2	2.2	1.9	3.3	1.6	2.0	0.9	0.7	0.8	1.4	1.75	5.09
29-Dec-04	0.4	0.2	0.3	0.3	0.3	0.2	0.3	0.9	0.6	0.3	2.7	A	0.3	0.4	0.4	0.4	0.9	0.5	0.7	0.5	0.4	0.4	0.2	0.3	0.52	2.71
30-Dec-04	0.3	0.3	0.3	0.2	0.2	0.2	0.4	0.7	0.6	0.4	A	0.3	0.4	0.4	0.4	0.5	0.4	0.5	0.8	0.5	0.6	0.5	0.4	1.1	0.45	1.14
31-Dec-04	0.3	0.3	0.3	0.2	0.3	0.3	0.4	1.2	0.4	A	0.7	0.5	0.9	0.5	0.4	0.6	0.4	0.6	0.7	0.4	0.5	4.9	1.5	1.8	0.78	4.93
Hourly Avg	0.47	0.43	0.48	0.37	0.38	0.47	1.11	1.79	1.07	0.96	0.89	0.73	0.59	0.67	0.60	0.81	0.86	0.91	0.91	0.98	0.69	0.82	0.60	0.60		
Hourly Max	1.21	1.16	2.31	1.20	1.83	1.67	15.48	9.92	3.81	5.65	5.26	2.07	2.04	3.14	1.69	2.70	4.00	4.81	5.46	8.96	2.45	4.93	2.33	2.18		

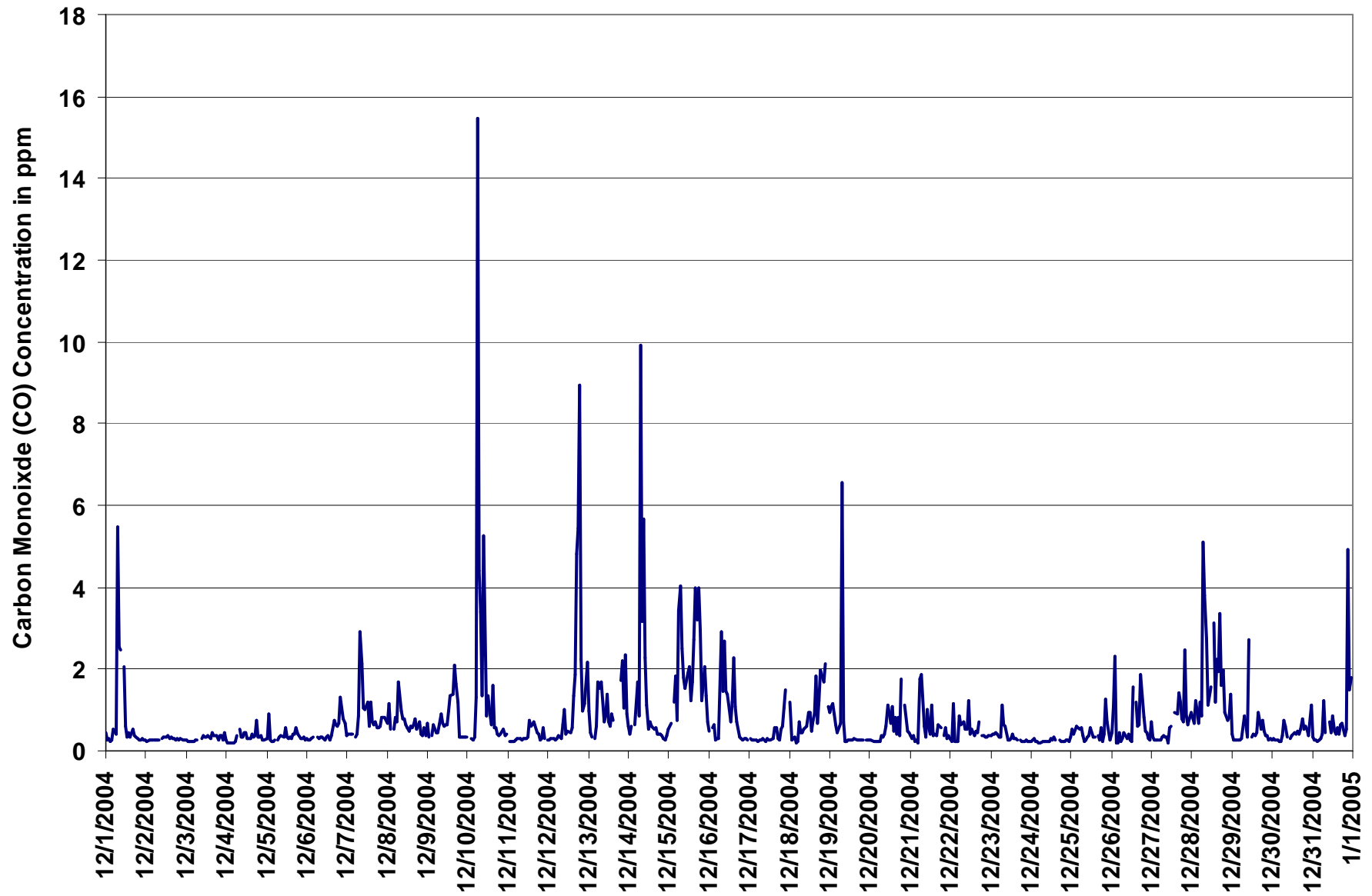
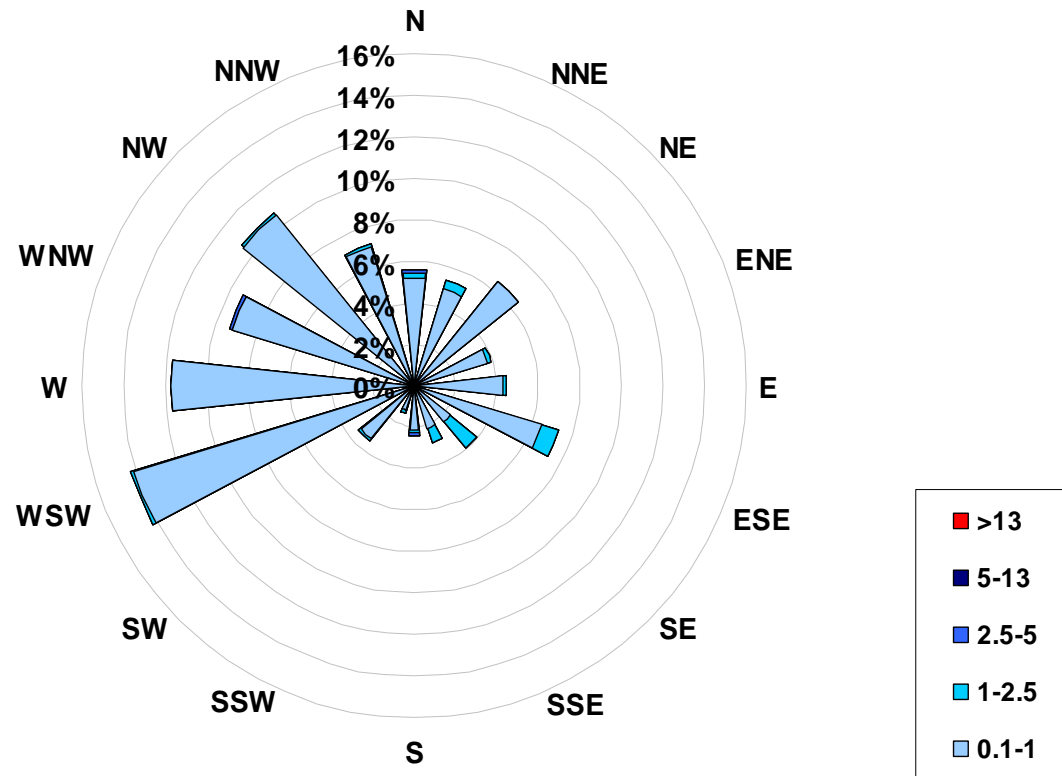


Figure 10. PASZA - Henry Pirker Carbon Monoxide 1-hr Maximum Value Monthly Trend

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



Frequency Distribution of CO in ppm			
Range		Frequency (hrs)	
0	< 0.1	8	
0.1	to 1	663	
1	to 2.5	35	
2.5	to 5	3	
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: December 1, 2004 to January 1, 2005

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	4.0	ppm	12-Dec	18:00 19:00
Maximum 24-hr Average:	2.7	ppm	28-Dec	

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

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	2.9	2.3	2.1	2.0	1.9	1.9	2.2	ppb			

Status Flag Characters

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

Day Mountain Standard Time

Hour Start 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-Dec-04	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.2	2.3	A	2.9	2.5	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.05	2.87	
2-Dec-04	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.05	1.99	
3-Dec-04	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	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.92	2.00	
4-Dec-04	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.05	2.09	
5-Dec-04	2.1	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.01	2.06	
6-Dec-04	2.0	2.0	2.0	2.1	A	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	1.9	1.9	2.1	2.1	2.2	2.2	2.4	2.4	2.4	2.3	2.09	2.38	
7-Dec-04	2.2	2.4	2.4	A	2.3	2.3	2.5	2.8	2.9	2.8	3.1	3.1	2.9	2.5	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.4	2.49	3.14	
8-Dec-04	2.4	2.3	A	2.4	2.3	2.3	2.3	2.6	2.5	2.5	2.6	2.5	2.3	2.3	2.3	2.4	2.4	2.5	2.5	2.4	2.4	2.4	2.4	2.3	2.41	2.60	
9-Dec-04	2.3	A	2.3	2.3	2.3	2.4	2.3	2.4	2.5	2.5	2.8	2.7	2.6	2.8	2.8	2.6	2.7	2.6	2.2	2.0	2.0	2.0	2.0	2.0	2.40	2.82	
10-Dec-04	A	2.0	2.0	2.1	2.1	2.2	2.6	2.8	2.5	2.4	2.3	2.2	2.2	2.3	2.2	2.4	2.2	2.1	1.9	1.9	2.0	2.0	2.0	A	2.20	2.83	
11-Dec-04	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.2	2.1	2.0	2.0	2.0	A	2.0	2.05	2.29		
12-Dec-04	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.2	2.3	2.4	2.4	2.7	3.5	4.0	3.7	2.6	2.5	2.6	2.7	2.45	3.97
13-Dec-04	2.6	2.6	2.6	A	2.8	2.8	2.8	3.0	2.8	2.5	2.6	2.6	2.6	2.5	2.7	2.6	2.6	2.6	2.7	2.8	2.9	2.9	2.9	2.9	2.71	2.97	
14-Dec-04	2.8	2.8	A	3.0	3.0	3.1	3.2	3.9	3.7	C	C	A	2.5	2.3	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.52	3.86	
15-Dec-04	2.0	2.0	A	2.5	2.7	2.3	2.3	2.4	2.5	2.4	2.9	3.0	2.7	2.8	2.9	3.0	3.3	3.3	3.3	2.8	2.5	2.5	2.6	2.5	2.66	3.30	
16-Dec-04	2.6	A	2.5	2.2	2.0	2.0	2.0	2.2	2.3	2.5	2.1	2.1	2.1	2.1	2.5	2.5	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.14	2.56	
17-Dec-04	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.5	A	2.02	2.48	
18-Dec-04	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.5	2.6	2.5	2.6	2.8	3.1	2.6	A	2.6	2.37	3.09	
19-Dec-04	2.6	2.6	2.6	2.4	2.3	2.2	2.3	2.9	1.9	1.7	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.08	2.95	
20-Dec-04	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.2	2.2	2.3	2.13	2.26	
21-Dec-04	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.2	2.14	2.23
22-Dec-04	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.1	A	2.1	2.1	2.1	2.1	2.1	2.15	2.24	
23-Dec-04	2.1	2.1	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.19	2.25	
24-Dec-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	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.95	
25-Dec-04	2.0	2.3	2.3	2.3	2.8	2.7	2.7	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.19	2.79	
26-Dec-04	2.1	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	A	2.1	2.2	2.4	2.3	2.3	2.3	2.3	2.5	2.6	2.23	2.61	
27-Dec-04	2.6	2.5	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.4	2.7	2.7	2.9	A	3.2	2.6	2.8	3.0	3.0	3.0	2.5	2.3	2.2	2.2	2.55	3.23	
28-Dec-04	2.4	2.4	2.7	2.7	2.6	2.5	2.7	3.3	3.3	2.9	2.4	2.4	A	2.8	3.1	3.2	3.1	2.9	2.7	2.6	2.6	2.5	2.6	2.6	2.74	3.28	
29-Dec-04	2.4	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.07	2.40	
30-Dec-04	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.1	2.1	2.0	2.1	2.1	2.05	2.16	
31-Dec-04	2.1	2.1	2.1	2.0	2.1	2.0	2.1	2.1	2.1	A	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.2	2.2	2.2	2.3	2.10	2.30	
Hourly Avg	2.19	2.16	2.16	2.16	2.21	2.19	2.24	2.33	2.29	2.20	2.24	2.23	2.19	2.18	2.23	2.24	2.27	2.28	2.25	2.23	2.19	2.17	2.18	2.19			
Hourly Max	2.81	2.77	2.65	2.97	3.02	3.06	3.24	3.86	3.73	2.90	3.08	3.14	2.89	2.82	3.23	3.22	3.28	3.52	3.97	3.71	3.09	2.85	2.93	2.89			

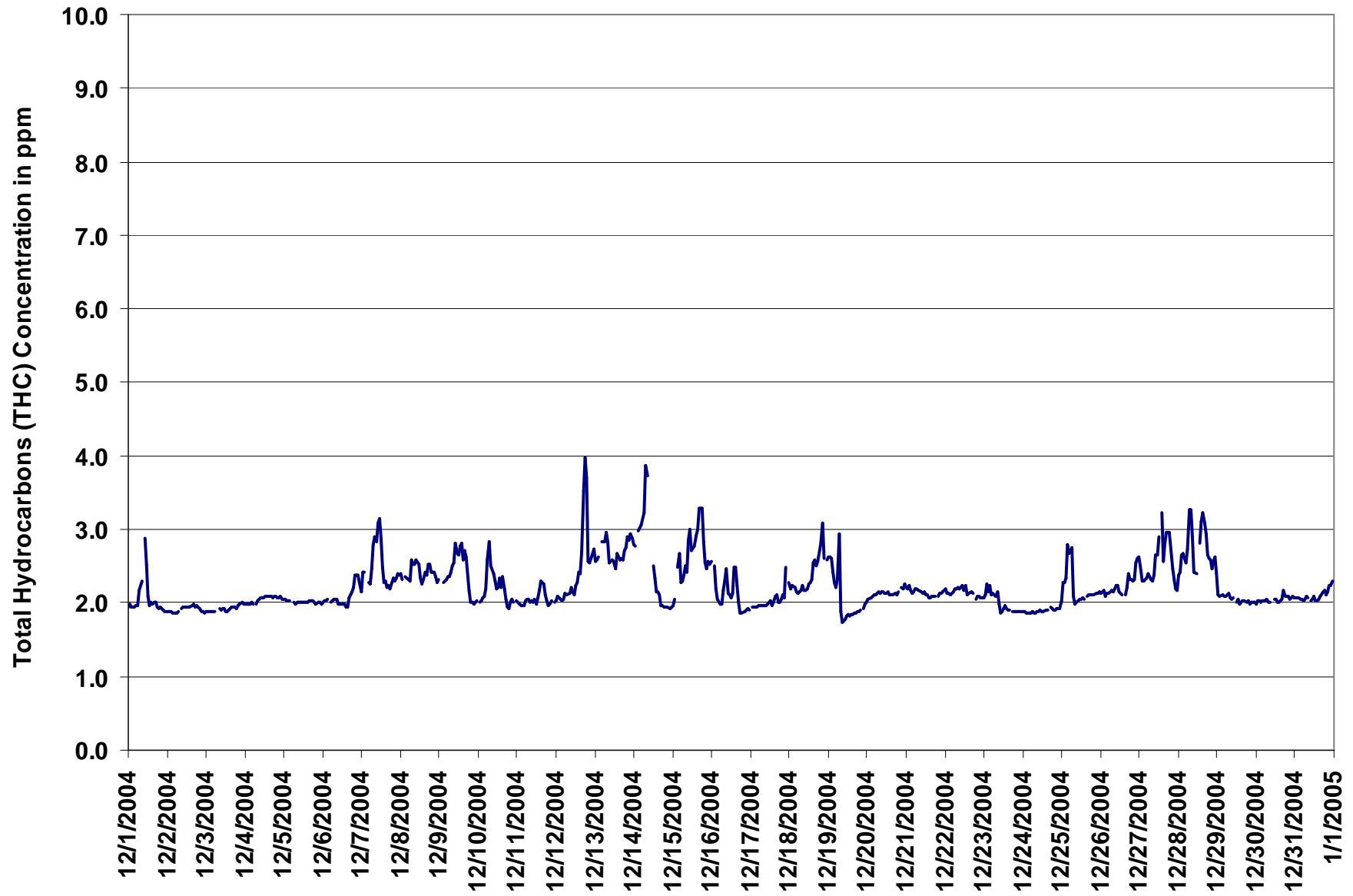


Figure 11. PASZA - Henry Pirker Total Hydrocarbons 1-hr Average Monthly Trend

Station: Henry Pirker

HOURLY MAXIMUM TABLE

Total HydroCarbons (THC)

Station Owner: PASZA

Monitoring Dates: December 1, 2004 to January 1, 2005

Summary

Maximum 1-hr Value:	9.4 ppm	19-Dec	7:00 8:00
Maximum 24-hr Value:	3.1 ppm	28-Dec	

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
	4.6	3.4	2.6	2.2	2.0	1.9	1.9	2.4 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

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-Dec-04	2.0	2.0	2.0	2.0	2.0	2.1	2.0	4.4	2.7	A	3.2	3.0	2.3	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.24	4.36
2-Dec-04	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.95	2.20
3-Dec-04	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	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	1.96	2.08
4-Dec-04	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.3	2.4	2.1	2.11	2.38
5-Dec-04	2.1	2.1	2.1	2.1	2.1	A	2.1	2.0	2.0	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.07	2.32
6-Dec-04	2.0	2.0	2.1	2.1	A	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.0	2.0	2.3	2.3	2.2	2.3	2.7	2.5	2.5	2.4	2.17	2.65
7-Dec-04	2.2	2.6	2.6	A	2.6	2.3	2.8	3.0	3.8	2.9	3.2	3.5	3.7	2.7	2.5	2.4	2.3	2.3	2.3	2.4	2.4	2.5	2.5	2.4	2.68	3.80
8-Dec-04	2.5	2.4	A	2.5	2.5	2.4	2.4	2.8	2.6	2.6	2.7	2.8	2.4	2.3	2.4	2.5	2.5	2.6	2.6	2.6	2.5	2.5	2.4	2.3	2.52	2.82
9-Dec-04	2.4	A	2.3	2.3	2.4	2.4	2.4	2.5	2.6	2.6	3.3	2.8	2.7	3.0	3.0	3.2	5.1	3.6	2.4	2.1	2.0	2.0	2.1	2.2	2.67	5.11
10-Dec-04	A	2.1	2.1	2.2	2.2	2.6	4.6	3.5	3.0	2.5	5.3	2.7	2.5	2.5	2.3	2.6	2.3	2.2	2.0	2.1	2.1	2.1	2.0	A	2.62	5.31
11-Dec-04	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.2	2.1	2.0	2.3	2.4	2.4	2.4	2.1	2.1	2.1	2.0	2.2	A	2.0	2.13	2.45
12-Dec-04	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.4	2.4	2.1	2.4	2.4	2.6	2.6	3.0	4.2	4.4	7.5	3.2	2.9	2.8	3.2	2.80	7.48
13-Dec-04	2.9	2.8	2.7	A	2.9	3.0	3.0	3.1	3.1	2.6	2.7	2.7	2.6	2.7	3.2	2.7	3.1	2.8	2.8	3.0	3.3	3.0	3.2	3.0	2.91	3.27
14-Dec-04	2.9	2.9	A	3.1	3.1	3.2	3.4	5.7	4.0	C	A	2.8	2.5	2.3	2.2	2.3	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.73	5.75
15-Dec-04	2.1	2.2	A	2.7	3.0	2.5	2.7	3.0	2.8	2.8	3.3	3.6	3.0	3.0	3.1	3.5	4.1	3.8	3.9	3.8	2.9	2.7	2.7	2.6	3.03	4.15
16-Dec-04	2.6	A	2.9	2.4	2.1	2.0	2.1	3.0	2.5	3.1	2.4	2.2	2.1	2.3	2.8	2.8	2.6	2.2	1.9	1.9	1.9	1.9	2.0	1.9	2.34	3.08
17-Dec-04	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.4	2.8	A	2.11	2.78
18-Dec-04	2.7	2.4	2.3	2.4	2.2	2.3	2.2	2.2	2.3	2.4	2.3	2.5	2.4	2.3	2.4	2.7	2.9	2.8	2.9	3.4	3.6	3.1	A	2.8	2.59	3.57
19-Dec-04	3.0	3.0	2.8	2.7	2.9	2.6	2.7	9.4	2.6	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.53	9.36
20-Dec-04	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.5	2.3	2.3	2.3	2.2	2.1	2.2	2.2	2.4	A	2.5	2.2	2.3	2.22	2.48
21-Dec-04	2.3	2.3	2.4	2.2	2.2	2.2	2.7	3.1	2.3	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.2	2.1	A	2.1	2.2	2.2	2.2	2.26	3.09
22-Dec-04	2.2	2.2	2.3	2.2	2.2	2.3	2.2	2.3	2.3	2.3	2.3	2.8	2.2	2.8	2.2	2.2	2.2	2.2	A	2.1	2.2	2.1	2.1	2.1	2.25	2.82
23-Dec-04	2.1	2.2	2.3	2.5	2.4	2.2	2.3	2.2	2.2	2.3	1.9	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	2.08	2.49
24-Dec-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	A	2.0	2.0	1.9	1.9	2.0	2.0	2.0	1.93	2.05
25-Dec-04	2.3	2.5	2.5	2.8	3.6	3.0	3.2	3.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.2	2.1	2.1	2.3	2.2	2.2	2.39	3.62
26-Dec-04	2.3	2.6	2.4	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2	A	2.3	2.5	2.6	2.7	2.5	2.4	2.4	2.7	2.7	2.37	2.72
27-Dec-04	2.7	2.7	2.3	2.4	2.4	2.5	2.4	2.4	2.3	2.6	2.7	3.0	3.1	A	4.0	2.7	3.1	3.0	3.1	4.9	3.4	2.7	2.5	2.6	2.85	4.92
28-Dec-04	2.6	2.5	2.9	2.8	2.8	2.8	3.6	4.9	4.0	3.4	2.6	2.5	A	3.6	3.5	3.6	3.4	3.4	3.1	2.8	2.7	2.6	2.8	2.8	3.13	4.90
29-Dec-04	2.6	2.1	2.1	2.1	2.1	2.1	2.1	2.6	2.2	2.2	3.6	A	2.1	2.2	2.1	2.1	2.2	2.3	2.1	2.1	2.0	2.0	2.1	2.0	2.23	3.63
30-Dec-04	2.1	2.0	2.1	2.0	2.1	2.1	2.0	2.2	2.1	2.1	A	2.1	2.1	2.0	2.0	2.1	2.1	2.7	2.1	2.1	2.2	2.1	2.1	2.5	2.13	2.66
31-Dec-04	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.2	A	2.2	2.1	2.4	2.1	2.1	2.2	2.1	2.2	2.3	2.1	2.3	2.8	2.4	2.4	2.21	2.78
Hourly Avg	2.30	2.26	2.26	2.26	2.33	2.29	2.45	2.95	2.48	2.34	2.52	2.40	2.32	2.33	2.39	2.37	2.52	2.47	2.38	2.55	2.34	2.32	2.29	2.30		
Hourly Max	3.02	2.99	2.92	3.10	3.62	3.22	4.63	9.36	4.04	3.45	5.31	3.58	3.70	3.63	4.04	3.63	5.11	4.22	4.35	7.48	3.57	3.08	3.23	3.17		

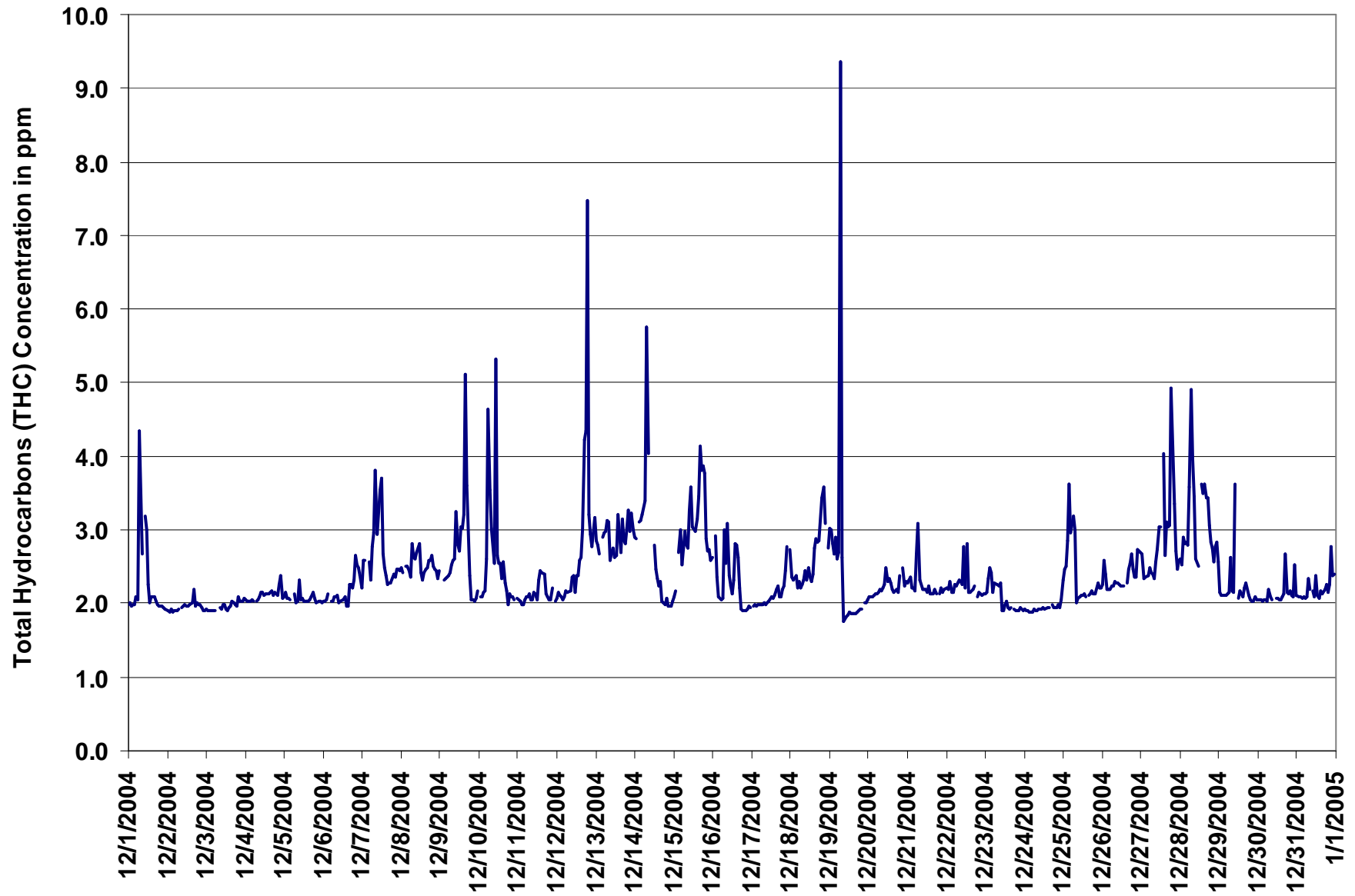


Figure 12. PASZA - Henry Pirker Total Hydrocarbons 1-hr Maximum Value Monthly Trend

PASZA - Henry Pirker Total Reduced Sulphur Monthly Summary

Station: Henry Pirker

HOURLY AVERAGE TABLE

Total Reduced Sulphur (TRS)

Station Owner: PASZA

Monitoring Dates: December 1, 2004 to January 1, 2005

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	4.6 ppb 31-Dec 22:00 23:00
Maximum 24-hr Average:	0.8 ppb 15-Dec

H₂S Guideline Limit: Alberta Environment: 1-hr 10 ppb 24-hr 3 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	
	1.5 0.9 0.5 0.2 0.1 0.0 0.0	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	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-Dec-04	0	0	0	0	0	0	0	0	0	A	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.6	
2-Dec-04	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
3-Dec-04	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4	
4-Dec-04	0	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.3	1.5	
5-Dec-04	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.2	
6-Dec-04	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.3	0.6	
7-Dec-04	0	0	0	A	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	0.5	0.9	
8-Dec-04	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0.6	0.9	
9-Dec-04	0	A	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.5	1.1	
10-Dec-04	A	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0.3	1.0	
11-Dec-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	0.2	0.4	
12-Dec-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	0	0	1	0.4	2.3	
13-Dec-04	0	0	0	A	0	0	1	1	1	1	C	C	A	1	1	1	1	0	0	0	1	1	1	1	0.6	1.0	
14-Dec-04	1	0	0	A	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.5	1.4	
15-Dec-04	0	0	A	0	1	0	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	0.8	1.7	
16-Dec-04	0	A	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.2	0.8	
17-Dec-04	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.5	
18-Dec-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	1	A	1	0.5	1.0	
19-Dec-04	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	0.9	
20-Dec-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	0.2	0.4	
21-Dec-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.2	0.4	
22-Dec-04	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	A	1	1	0	0	0	0.4	0.6	
23-Dec-04	0	0	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.6	
24-Dec-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.1	0.2	
25-Dec-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	0.2	0.3	
26-Dec-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	1	0	0	0	0	0	0.2	0.5	
27-Dec-04	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	1	1	1	1	1	1	0	0	0	0.4	0.9	
28-Dec-04	0	0	0	1	0	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	0.8	1.4	
29-Dec-04	0	1	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6	
30-Dec-04	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	
31-Dec-04	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	5	1	0.4	4.6	
Hourly Avg	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.5	0.3		
Hourly Max	1.2	0.9	0.8	0.6	0.7	0.7	0.8	1.2	1.3	1.4	1.6	0.9	0.9	1.1	1.1	1.4	1.4	1.7	2.3	2.0	1.0	1.0	4.6	1.0			

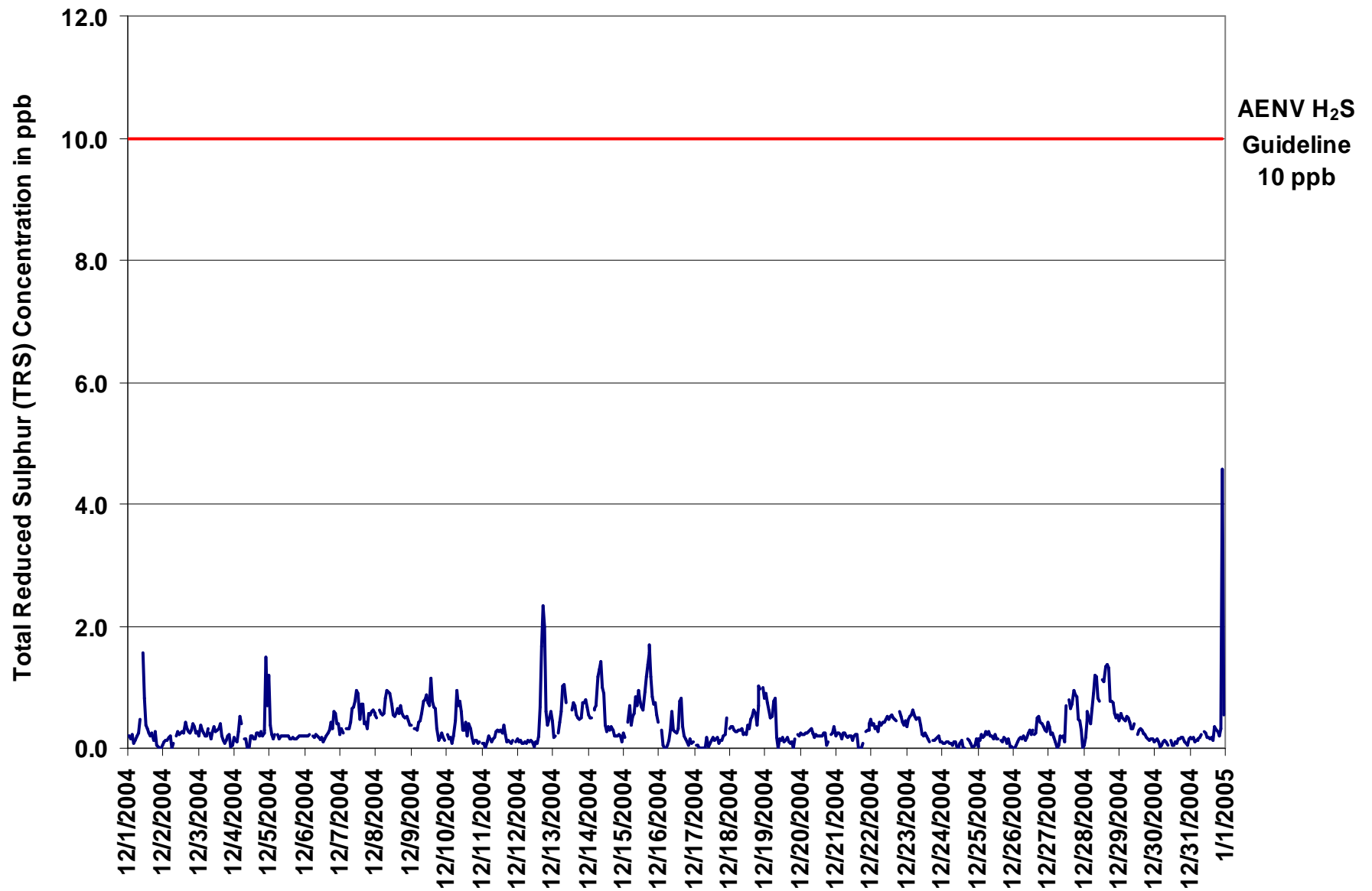


Figure 13. PASZA - Henry Pirker Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Henry Pirker

HOURLY MAXIMUM TABLE

Total Reduced Sulphur (TRS)

Station Owner: PASZA

Monitoring Dates: December 1, 2004 to January 1, 2005

Summary

Maximum 1-hr Value:	27.2	ppb	31-Dec	22:00 23:00
Maximum 24-hr Value:	1.9	ppb	31-Dec	

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
	2.3	1.5	1.0	0.7	0.6	0.5	0.4	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																								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-Dec-04	1	1	1	1	1	0	1	1	1	A	2	2	1	1	1	1	1	1	1	1	0	0	0	1	0.8	2.5	
2-Dec-04	1	1	1	1	1	1	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9	
3-Dec-04	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0	0.7	1.1	
4-Dec-04	1	1	1	1	1	1	A	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	4	2	0.9	4.3	
5-Dec-04	2	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0.7	1.8	
6-Dec-04	1	1	1	1	A	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	0.7	1.1	
7-Dec-04	1	1	1	A	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5	
8-Dec-04	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1.1	1.5	
9-Dec-04	1	A	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	0	1.0	1.8	
10-Dec-04	A	1	1	1	0	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	0.8	1.9	
11-Dec-04	0	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	A	1	0.6	0.8	
12-Dec-04	1	0	1	0	0	1	0	0	1	0	0	0	1	0	1	1	1	3	3	3	2	1	1	1	1.0	2.9	
13-Dec-04	1	1	1	A	1	1	1	1	2	1	C	C	A	1	1	1	1	1	1	1	1	1	1	1	1.1	1.6	
14-Dec-04	1	1	1	A	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.2	
15-Dec-04	1	1	A	1	1	1	1	1	1	1	2	1	1	1	1	2	3	2	2	2	2	1	1	1	1.4	2.7	
16-Dec-04	1	A	1	0	0	0	0	1	1	2	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0.7	1.5	
17-Dec-04	A	0	0	0	0	0	0	0	0	1	1	0	1	0	1	1	1	1	1	1	1	1	1	A	0.6	1.0	
18-Dec-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	A	1	1.0	1.7	
19-Dec-04	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	0	0	1	A	1	1	1	1	0.9	1.5	
20-Dec-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	1	0.7	0.9	
21-Dec-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	A	1	1	1	1	1	0.6	1.0	
22-Dec-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	0.9	1.3	
23-Dec-04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	1	1	1	1	0.8	1.1	
24-Dec-04	1	1	1	1	0	1	0	1	0	0	1	0	1	0	0	A	1	0	1	0	1	0	1	1	0.5	0.8	
25-Dec-04	1	1	1	1	1	1	1	1	1	1	1	1	1	0	A	1	1	1	1	1	0	1	1	1	0.6	0.8	
26-Dec-04	0	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0.7	1.1	
27-Dec-04	1	1	1	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.9	1.5	
28-Dec-04	1	1	1	1	1	1	1	1	2	2	1	1	A	2	2	2	2	2	1	2	2	1	1	1	1.4	2.1	
29-Dec-04	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	1	1	0.8	1.4	
30-Dec-04	1	1	1	1	1	0	0	0	1	1	A	1	0	1	1	1	1	1	1	1	1	0	0	1	0.5	0.7	
31-Dec-04	1	1	1	0	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	27	1	1.9	27.2	
Hourly Avg	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	1.8	0.8		
Hourly Max	1.8	1.2	1.4	1.1	1.3	1.3	1.3	1.9	1.8	2.2	2.5	2.2	1.5	2.1	1.7	2.2	2.7	2.6	2.8	2.9	2.0	1.4	27.2	1.5			

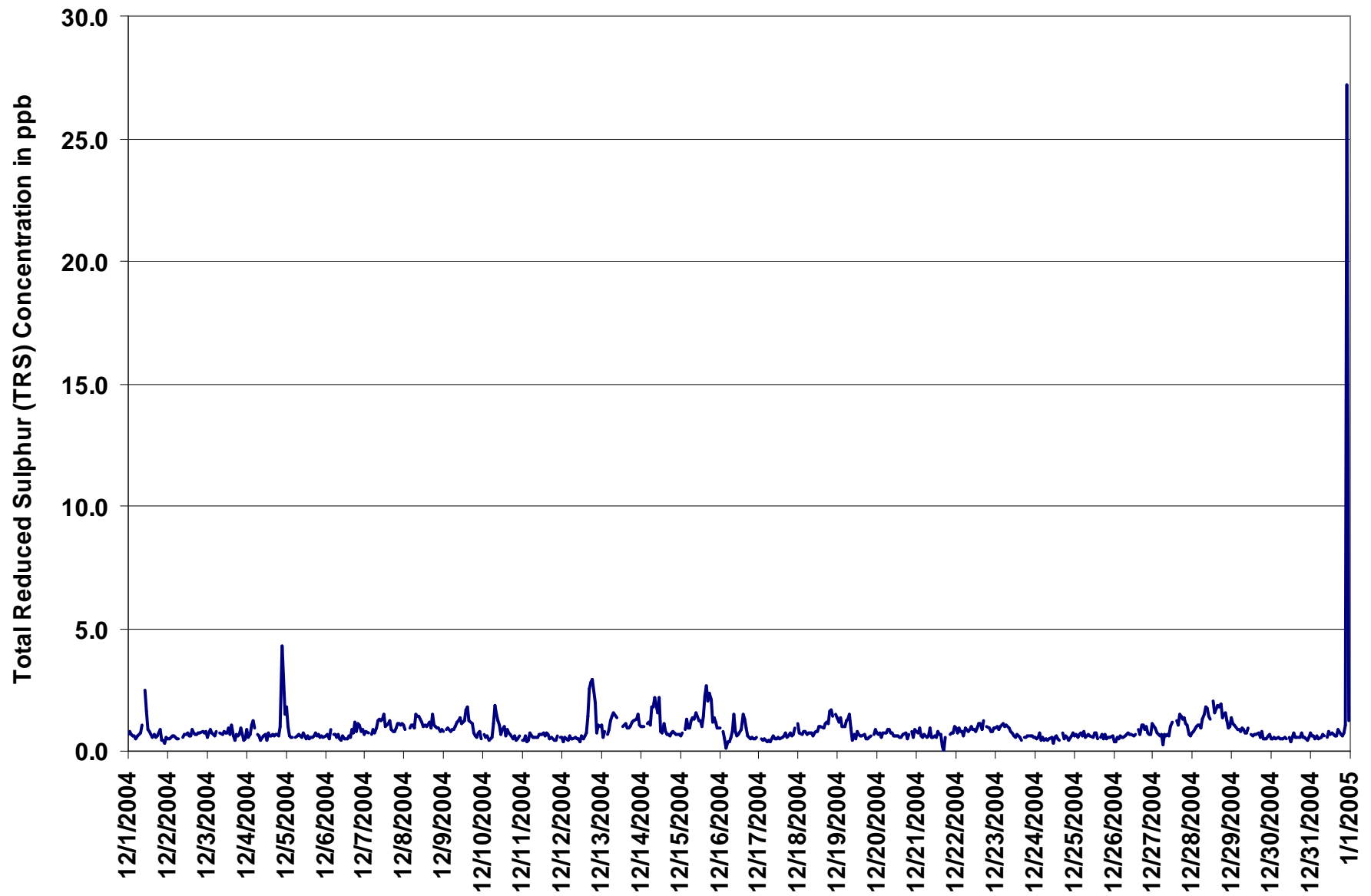


Figure 14. PASZA - Henry Pirker Total Reduced Sulphur 1-hr Maximum Value Monthly Trend

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

Station: Henry Pirker

HOURLY AVERAGE TABLE

Particulate Matter (PM_{2.5})

Station Owner: PASZA

Monitoring Dates: December 1, 2004 to January 1, 2005

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	220.1	µg/m ³	31-Dec	22:00 23:00
Maximum 24-hr Average:	13.5	µg/m ³	8-Dec	

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

AIC Time:	0 hrs							Operational Time:	735 hrs	
Calibration Time:	2 hrs							AMD Operational Uptime:	99.1%	
Percentile	99	95	75	50	25	5	1	Average	Geomean	
	21.6	14.0	5.4	2.4	0.8	0.0	0.0	4.2 µg/m ³	2.8 µg/m 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

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-Dec-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-Dec-04		0	1	1	1	1	1	1	1	4	5	8	6	2	0	0	0	0	0	0	0	0	0	0	0	0	1.3	7.8
2-Dec-04		0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	D	0	0	0	0	0.2	1.5
3-Dec-04		0	0	0	0	0	0	0	2	2	1	0	1	0	1	0	0	0	1	1	1	2	2	1	2	0.7	2.3	
4-Dec-04		3	2	1	2	2	2	1	1	2	2	3	2	1	1	2	1	1	1	0	1	1	1	1	1	1.4	3.0	
5-Dec-04		0	1	0	1	1	0	1	1	1	2	2	2	2	2	2	3	3	3	2	2	2	2	2	2	1.6	3.0	
6-Dec-04		1	2	2	3	2	1	1	2	1	3	0	1	1	1	1	2	2	4	4	4	6	5	6	5	2.4	6.3	
7-Dec-04		3	3	4	2	1	1	3	4	6	8	7	12	13	10	11	15	16	15	11	10	8	8	17	36	9.3	35.8	
8-Dec-04		29	11	15	11	14	24	22	25	22	17	7	13	6	4	6	10	9	10	11	10	9	11	11	9	13.5	28.5	
9-Dec-04		7	7	7	6	6	7	7	7	11	11	14	17	14	13	14	11	4	3	0	0	0	0	0	0	6.9	17.1	
10-Dec-04		0	0	0	0	0	0	1	3	3	2	2	0	0	3	0	0	2	1	0	0	1	0	1	3	0.8	3.0	
11-Dec-04		1	1	0	2	0	0	1	3	2	3	4	3	3	4	4	5	5	2	2	0	1	0	0	0	1.9	5.1	
12-Dec-04		0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	3	7	12	12	3	7	4	1	1	2.2	11.8	
13-Dec-04		1	0	0	0	3	0	0	3	4	14	1	0	2	0	6	X	X	6	6	7	11	10	10	9	4.4	14.4	
14-Dec-04		6	5	7	4	6	9	10	15	17	20	19	14	3	M	M	M	M	0	10	12	3	2	2	3	8.3	20.2	
15-Dec-04		1	2	2	4	6	3	3	7	8	7	18	16	12	11	13	16	17	17	15	12	12	15	13	8	9.9	17.8	
16-Dec-04		5	6	9	2	0	0	0	0	2	4	2	1	0	4	12	15	6	1	1	0	0	1	2	0	3.0	14.7	
17-Dec-04		2	2	2	2	2	1	1	1	1	1	2	2	2	2	1	2	3	2	1	2	4	2	7	11	2.3	11.0	
18-Dec-04		1	0	2	2	0	0	1	2	4	2	1	3	4	5	12	10	6	6	8	14	9	10	11	11	4.7	14.4	
19-Dec-04		8	6	5	3	0	0	0	4	8	D	0	0	D	0	0	0	0	1	1	1	0	1	2	3	2.0	8.3	
20-Dec-04		2	2	2	2	1	2	2	1	2	2	2	2	2	2	2	2	3	2	2	4	5	6	3	6	2.6	6.3	
21-Dec-04		6	6	7	5	3	2	3	3	3	2	2	3	1	2	2	2	3	4	4	4	5	6	4	5	3.6	7.3	
22-Dec-04		5	5	3	3	3	3	2	2	2	3	3	2	2	1	1	0	1	1	0	0	1	1	0	2	2.0	5.5	
23-Dec-04		1	4	6	5	5	4	3	4	5	10	1	0	0	1	0	0	0	0	0	0	0	1	1	0	0	2.2	9.5
24-Dec-04		1	0	1	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0.2	1.7
25-Dec-04		0	3	2	2	4	4	3	2	2	3	3	4	3	4	3	3	3	3	3	2	2	3	3	2	2.7	4.3	
26-Dec-04		4	2	3	4	4	4	5	5	5	5	8	6	4	6	5	6	8	11	14	10	8	7	4	6	5.9	14.0	
27-Dec-04		6	7	6	6	5	5	6	6	7	7	9	9	16	13	16	12	8	14	13	11	2	3	1	1	7.8	16.2	
28-Dec-04		6	6	8	6	7	5	2	4	7	7	7	4	6	13	21	23	16	14	10	9	7	4	3	7	8.4	23.1	
29-Dec-04		5	0	2	3	1	2	3	3	3	5	4	2	1	1	1	2	3	3	4	4	4	4	4	3	2.8	5.4	
30-Dec-04		3	2	2	2	1	2	2	4	2	3	2	2	2	1	2	3	3	4	4	5	3	3	4	4	2.7	5.0	
31-Dec-04		4	4	4	3	2	4	3	3	4	4	4	3	3	3	3	3	4	6	6	4	6	7	220	5	13.0	220.1	
Hourly Avg		3.6	2.8	3.3	2.7	2.5	2.7	2.9	3.8	4.6	5.1	4.7	4.2	3.4	3.5	4.4	5.1	4.6	4.5	4.7	4.3	4.0	3.9	10.8	4.7			
Hourly Max		28.5	11.3	15.1	11.5	13.9	23.7	22.1	24.6	22.0	20.2	18.7	17.1	15.6	13.5	20.8	23.1	17.5	17.5	15.5	12.4	14.4	15.3	220.1	35.8			

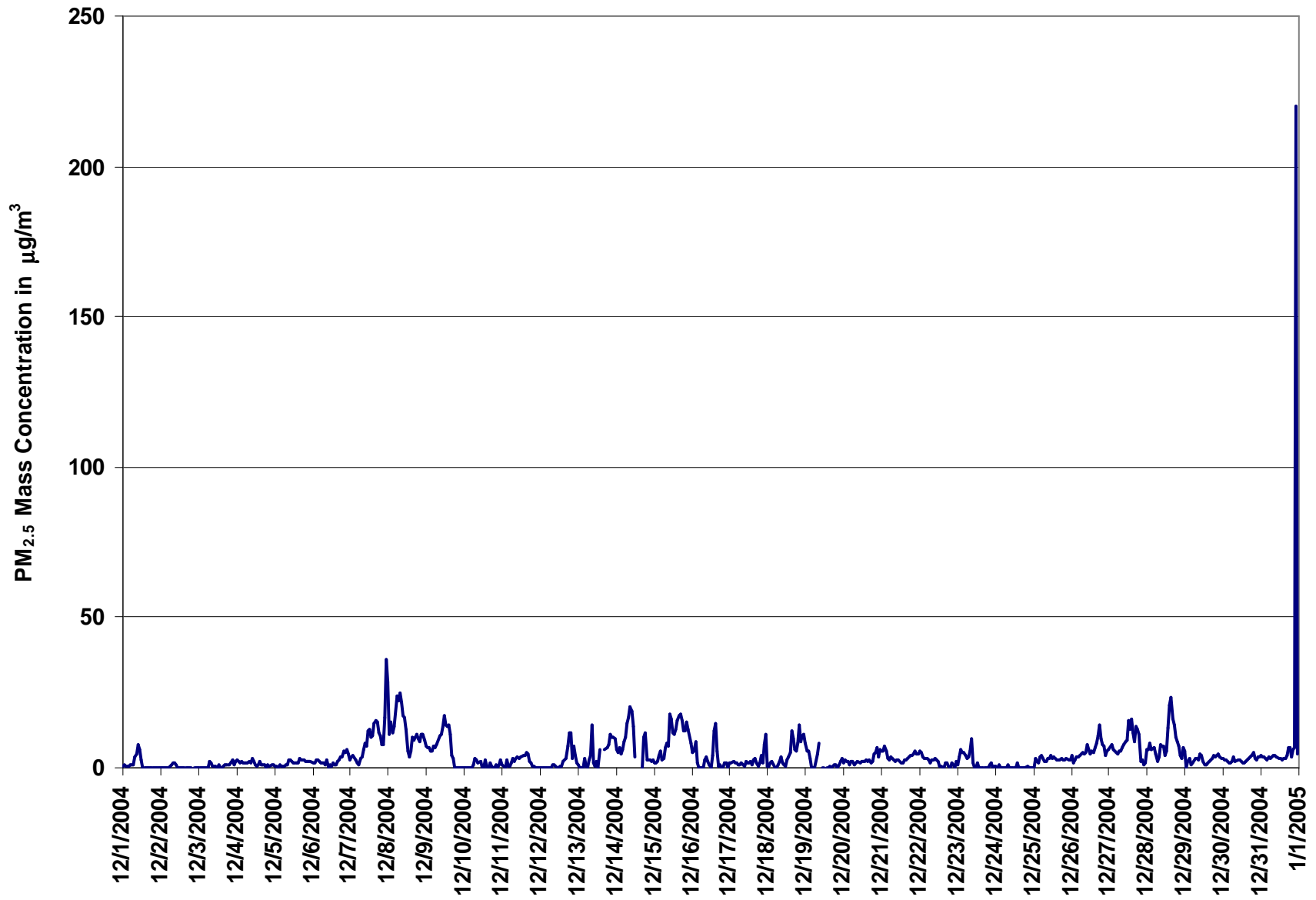


Figure 15. PASZA - Henry Pirker Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Henry Pirker

HOURLY MAXIMUM TABLE

Particulate Matter (PM_{2.5})

Station Owner: PASZA

Monitoring Dates: December 1, 2004 to January 1, 2005

Summary

Maximum 1-hr Value:	450.0	µg/m ³	31-Dec	22:00 23:00
Maximum 24-hr Value:	24.7	µg/m ³	31-Dec	

AIC Time:	0 hrs	Operational Time:	735 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	99.1%						
Percentile	99	95	75	50	25	5	1	Average	Geomean
	29.3	19.7	8.7	5.0	3.6	1.8	0.6	7.7 µg/m ³	6.5 µg/m 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

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-Dec-04	6	3	3	4	3	4	3	4	6	7	10	11	7	3	3	2	3	3	2	2	3	2	1	0	3.9	10.7	
2-Dec-04	1	1	5	2	2	2	4	5	4	4	4	3	3	4	3	2	2	2	3	2	D	1	2	4	2.8	4.6	
3-Dec-04	2	3	3	4	3	5	2	5	6	3	3	4	5	4	3	4	5	4	4	4	5	7	4	4	4.0	7.1	
4-Dec-04	5	5	4	5	3	4	5	6	5	5	8	5	5	5	4	6	4	4	4	3	5	4	3	4	4.6	8.1	
5-Dec-04	3	4	2	3	3	3	2	3	3	4	5	3	4	3	4	4	5	4	4	4	4	5	3	4	3	3.6	5.0
6-Dec-04	3	3	4	4	4	3	3	3	2	6	4	3	2	3	3	3	4	4	5	5	8	7	10	8	4.3	10.4	
7-Dec-04	6	6	7	5	5	5	8	7	10	12	17	15	17	18	14	18	18	17	14	14	11	11	29	39	13.4	39.4	
8-Dec-04	36	22	19	17	18	31	26	31	31	21	19	16	9	6	9	12	11	13	12	12	12	14	17	11	17.7	35.7	
9-Dec-04	11	9	9	8	7	9	9	10	15	13	17	20	17	18	19	14	7	7	2	1	1	1	1	2	9.4	19.9	
10-Dec-04	3	2	2	2	3	2	8	7	6	5	5	2	0	6	5	3	6	4	3	1	4	9	6	7	4.1	9.4	
11-Dec-04	6	3	3	6	3	4	4	5	5	6	7	5	6	7	7	10	9	5	5	3	4	4	2	2	5.1	10.4	
12-Dec-04	2	2	3	2	4	3	3	4	4	4	4	3	3	5	3	5	6	12	16	18	7	21	10	3	6.2	21.4	
13-Dec-04	3	2	3	3	6	3	5	9	22	30	11	7	12	8	18	X	X	11	9	10	18	16	15	15	10.7	30.2	
14-Dec-04	11	8	9	7	9	11	13	26	20	29	25	21	16	M	M	M	M	0	21	22	5	6	4	4	13.4	29.4	
15-Dec-04	3	5	5	8	9	7	5	20	12	12	24	20	14	15	19	20	22	22	19	15	16	18	21	11	14.2	23.7	
16-Dec-04	11	8	12	7	2	0	1	5	5	11	5	4	2	9	21	25	12	4	5	3	3	3	5	5	6.9	25.0	
17-Dec-04	4	3	5	4	4	3	3	3	3	4	4	4	3	4	3	4	7	4	3	4	7	4	15	17	5.0	16.8	
18-Dec-04	5	3	4	6	2	0	3	4	5	4	4	3	5	7	8	18	16	11	8	13	20	11	18	19	8.2	20.2	
19-Dec-04	10	10	8	7	1	2	2	7	13	D	2	3	D	1	2	3	0	2	3	2	2	3	4	5	4.2	13.1	
20-Dec-04	3	5	4	5	5	4	4	3	4	4	4	3	5	5	5	5	5	3	4	8	9	8	6	9	5.2	9.4	
21-Dec-04	9	9	10	7	6	4	6	6	6	4	4	5	5	4	5	5	6	7	7	6	9	9	6	8	6.4	10.5	
22-Dec-04	7	9	5	6	7	6	6	4	4	5	7	4	4	3	4	4	4	3	3	4	4	3	3	5	4.7	9.0	
23-Dec-04	4	7	9	9	8	8	5	6	8	16	4	2	3	4	2	2	2	6	2	3	5	5	1	2	5.0	15.8	
24-Dec-04	4	1	3	3	4	1	2	3	4	2	1	1	1	1	4	2	2	3	1	2	2	1	1	2	2.0	3.8	
25-Dec-04	3	6	5	5	5	6	6	5	4	7	6	7	5	7	7	4	4	5	6	5	5	6	4	4	5.3	7.3	
26-Dec-04	10	5	5	6	6	7	7	7	7	8	10	9	7	10	8	10	13	15	26	16	11	10	9	10	9.6	25.7	
27-Dec-04	9	10	9	8	7	7	8	8	9	10	11	13	19	19	20	15	12	20	16	19	8	10	4	5	11.4	20.4	
28-Dec-04	11	10	11	9	8	8	7	8	10	9	13	7	9	27	26	29	23	18	15	11	9	7	5	10	12.5	28.8	
29-Dec-04	10	3	5	5	4	4	4	6	6	7	7	5	3	4	4	4	4	6	6	6	6	6	5	6	5.3	10.0	
30-Dec-04	4	4	4	4	3	4	4	6	4	5	4	4	4	4	5	5	5	5	6	7	5	5	6	6	4.8	7.5	
31-Dec-04	5	7	6	5	5	6	5	6	5	6	6	5	5	5	6	6	8	9	7	10	10	450	6	24.7	450.0		
Hourly Avg	6.8	5.8	6.0	5.7	5.1	5.3	5.6	7.5	8.0	8.8	8.2	7.0	6.6	7.2	8.1	8.3	7.7	7.4	7.8	7.5	7.3	7.2	21.6	7.7			
Hourly Max	35.7	22.1	18.9	17.1	18.5	30.6	25.6	31.5	31.0	30.2	25.1	21.2	19.0	26.9	26.2	28.8	23.2	22.1	25.7	21.8	20.2	21.4	450.0	39.4			

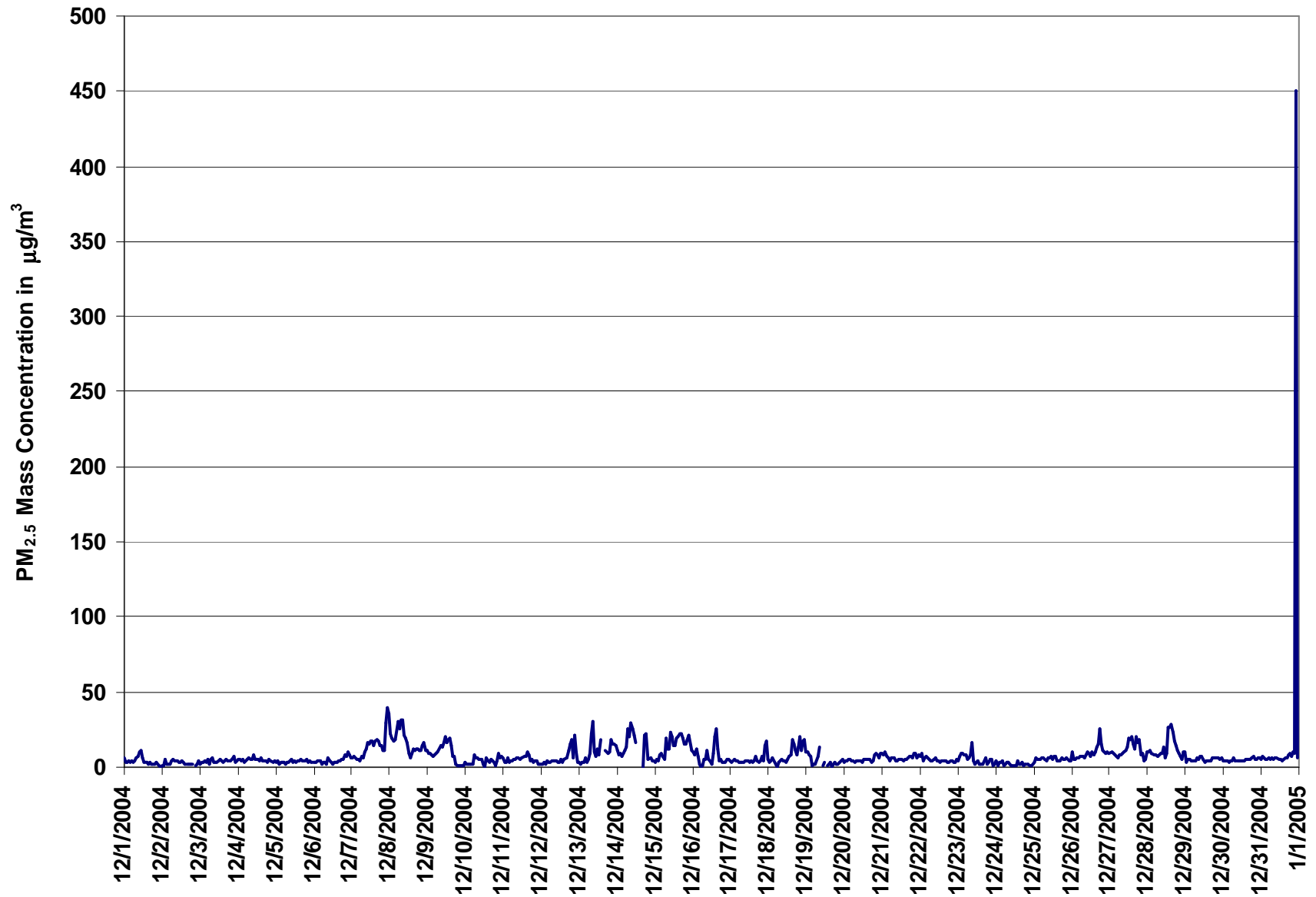
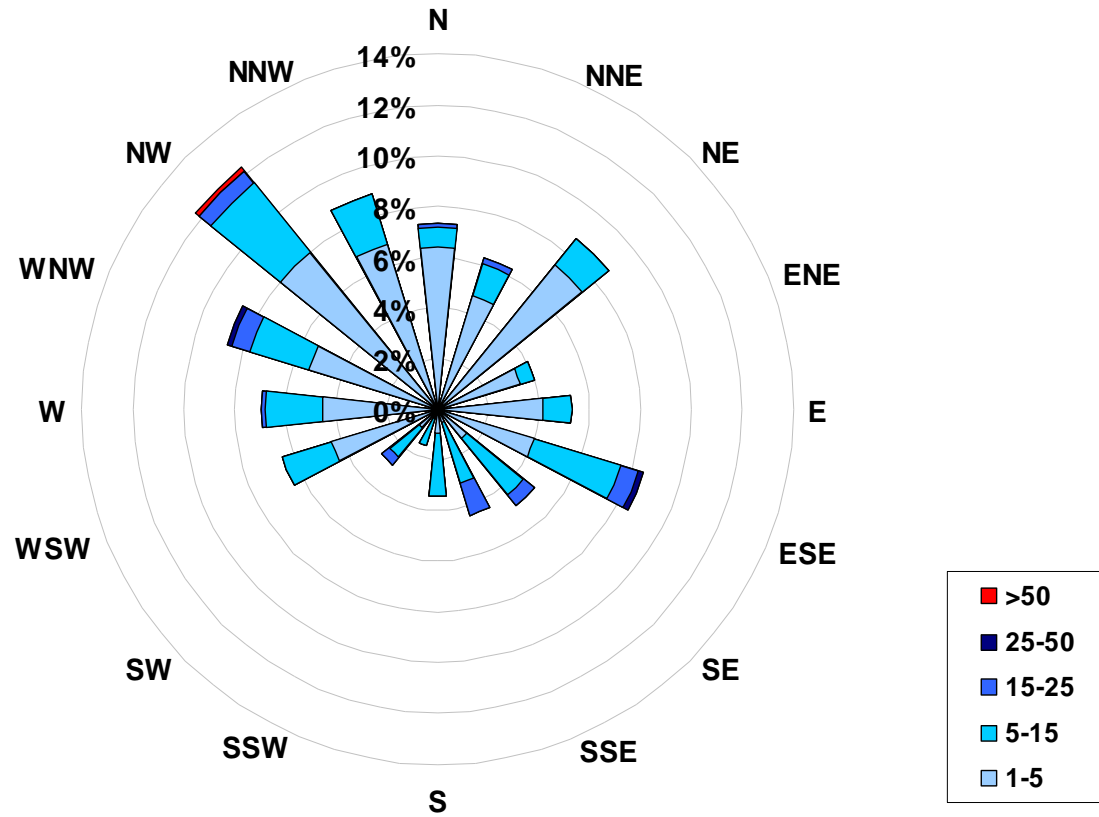


Figure 16. PASZA - Henry Pirker Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly

Concentration Rose for the 1-hr PM_{2.5} Average Concentration Occurrences at the Henry Pirker Site for December 2004



Frequency Distribution of PM _{2.5} in µg/m ³			
Range	Frequency (hrs)		
0 < 1	203		
1 to 5	336		
5 to 15	167		
15 to 25	26		
25 to 50	2		
> 50	1		
Total Non-Zero Values			
			735

Calms	
Range	µg/m ³
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: December 1, 2004 to January 1, 2005

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	94.8 % 19-Dec 1:00 2:00
Maximum 24-hr Average:	85.7 % 18-Dec

AIC Time:	0 hrs	Operational Time:	744 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%
Percentile	99	95	75
	93.1	88.6	78.4
	50	25	5
	67.0	57.1	54.9
Average			
	72.7 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-Dec-04	76	76	74	74	73	74	75	79	82	80	66	63	60	60	63	62	65	66	67	66	65	65	66	65	69	82
2-Dec-04	59	56	56	59	59	61	64	65	65	66	65	64	64	65	63	62	61	59	60	59	60	57	58	56	61	66
3-Dec-04	63	59	57	60	61	64	67	68	73	72	74	68	65	64	61	58	58	61	64	67	71	78	79	79	66	79
4-Dec-04	79	77	74	74	74	75	74	73	72	70	71	69	70	71	71	74	76	76	75	75	76	75	75	75	74	79
5-Dec-04	75	75	75	75	75	75	75	75	75	75	73	71	68	68	68	68	71	72	70	70	70	70	69	66	72	75
6-Dec-04	66	65	67	70	68	66	66	65	64	63	58	55	54	54	53	56	61	63	65	66	70	72	72	70	64	72
7-Dec-04	69	68	68	67	66	65	65	66	66	67	67	67	65	62	63	65	67	69	68	69	70	71	71	71	67	71
8-Dec-04	71	72	71	71	70	70	70	71	70	70	70	67	69	65	64	68	71	71	71	71	70	70	71	73	70	73
9-Dec-04	73	73	74	74	74	74	74	75	74	74	65	55	57	56	58	64	70	73	73	71	71	69	69	71	69	75
10-Dec-04	72	74	72	73	73	76	81	85	84	81	78	75	73	75	75	77	85	90	90	88	89	92	92	92	81	92
11-Dec-04	93	93	91	89	88	87	88	92	93	92	91	83	79	79	74	78	84	78	76	73	70	75	74	74	83	93
12-Dec-04	73	74	75	76	70	69	74	73	70	73	67	58	55	49	54	69	79	84	85	82	83	84	83	83	71	85
13-Dec-04	80	81	78	79	80	80	80	80	80	80	78	79	80	80	81	82	81	81	83	84	84	84	83	83	81	84
14-Dec-04	81	81	82	81	82	84	84	85	85	83	83	83	80	78	70	71	74	67	67	71	73	74	74	78	78	85
15-Dec-04	78	86	89	90	89	89	89	88	90	88	82	73	74	74	78	81	85	87	88	89	85	84	87	87	85	90
16-Dec-04	88	90	86	82	79	75	76	78	77	81	80	77	75	74	74	74	71	68	62	63	57	55	57	56	73	90
17-Dec-04	57	57	56	59	59	58	58	59	59	57	59	55	55	57	61	61	64	65	65	64	66	72	74	74	61	74
18-Dec-04	79	79	79	78	76	76	76	78	84	88	88	88	86	86	86	89	91	92	92	92	93	93	94	94	86	94
19-Dec-04	95	95	94	94	93	92	93	92	80	76	67	68	59	54	51	55	56	58	63	65	58	55	58	68	72	95
20-Dec-04	75	75	71	69	68	69	71	71	73	78	79	76	75	75	79	80	80	80	81	81	81	81	81	82	76	82
21-Dec-04	83	82	81	79	74	73	72	72	70	72	74	73	71	71	71	72	73	73	73	73	73	77	78	80	75	83
22-Dec-04	81	80	79	77	76	74	74	75	72	71	71	65	63	61	63	65	68	70	71	72	73	74	75	76	72	81
23-Dec-04	76	76	76	76	77	77	79	80	80	74	61	60	60	60	59	57	58	57	58	57	55	55	57	56	66	80
24-Dec-04	57	58	59	59	60	59	61	61	61	62	60	60	62	60	61	60	62	66	69	70	72	75	75	75	63	75
25-Dec-04	78	82	84	85	86	86	85	87	83	78	73	71	77	78	77	77	76	77	77	75	74	77	78	77	79	87
26-Dec-04	77	77	74	71	72	69	70	71	72	74	68	63	57	55	58	64	70	75	76	75	74	73	72	73	70	77
27-Dec-04	74	74	74	74	73	73	74	74	75	75	73	69	65	65	69	73	76	78	79	76	73	70	67	73	73	79
28-Dec-04	73	75	76	79	81	81	80	79	81	82	81	79	77	77	75	77	78	80	82	83	81	81	84	84	79	84
29-Dec-04	81	77	78	75	74	75	82	84	83	83	82	81	80	80	78	78	78	78	76	76	76	76	75	75	78	84
30-Dec-04	74	73	74	74	73	72	73	72	72	72	71	69	66	66	67	68	69	70	70	71	68	68	68	68	70	74
31-Dec-04	68	68	68	68	68	68	67	67	68	68	66	65	62	61	61	63	67	69	70	70	71	70	68	68	67	71
Hourly Avg	75	75	75	74	74	74	75	75	75	75	72	70	68	67	67	69	71	72	73	73	73	73	74	74		
Hourly Max	95	95	94	94	93	92	93	92	93	92	91	88	86	86	86	89	91	92	92	92	93	93	94	94		

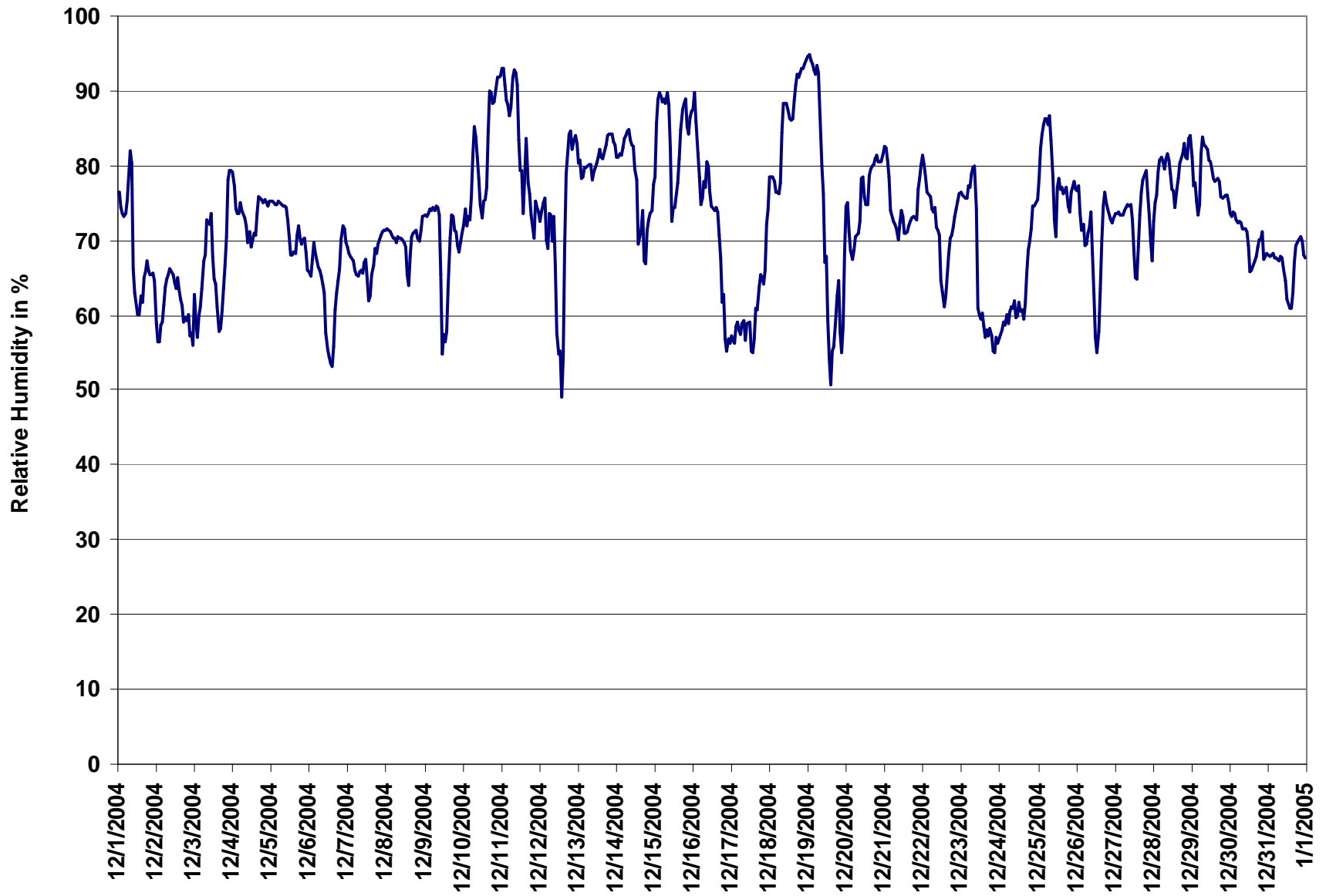


Figure 17. PASZA - Henry Pirker Relative Humidity 1-hr Average Monthly Trend

Station: Henry Pirker

HOURLY AVERAGE TABLE

Ambient Temperature (AT - °C)

Station Owner: PASZA

Monitoring Dates: December 1, 2004 to January 1, 2005

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	8.0	°C	2-Dec	23:00 0:00
Maximum 24-hr Average:	6.7	°C	2-Dec	

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
	7.4	6.4	0.0	-9.3	-18.1	-25.2	-29.5	-8.9 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-Dec-04		-1	-2	-1	-1	0	0	-1	-2	-3	-2	2	3	5	6	5	5	4	4	4	4	5	5	5	5	2.0	5.8
2-Dec-04		6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	8	8	7	7	8	8	8	8	6.7	8.0
3-Dec-04		6	7	7	7	7	7	6	6	5	4	4	5	6	6	5	4	4	3	3	2	-3	-6	-7	3.9	7.5	
4-Dec-04		-8	-9	-10	-11	-11	-12	-13	-13	-14	-14	-15	-14	-15	-15	-15	-16	-16	-16	-16	-17	-17	-18	-18	-14.1	-8.3	
5-Dec-04		-18	-19	-19	-19	-19	-19	-19	-19	-20	-20	-19	-18	-19	-19	-19	-20	-20	-19	-20	-20	-20	-20	-20	-19.2	-18.4	
6-Dec-04		-20	-21	-24	-25	-25	-25	-26	-26	-26	-24	-23	-23	-22	-22	-22	-24	-24	-25	-25	-26	-26	-27	-27	-28	-24.3	-20.5
7-Dec-04		-29	-29	-29	-30	-31	-31	-32	-31	-31	-31	-27	-24	-22	-23	-22	-23	-24	-24	-24	-24	-24	-25	-25	-25	-26.7	-21.9
8-Dec-04		-25	-26	-26	-26	-27	-27	-27	-26	-26	-26	-24	-22	-21	-20	-20	-21	-21	-21	-21	-20	-20	-20	-20	-21	-23.0	-19.6
9-Dec-04		-21	-21	-21	-21	-21	-21	-21	-21	-20	-20	-18	-15	-15	-12	-7	-3	-2	-2	-2	-1	-1	0	-1	-2	-12.0	-0.4
10-Dec-04		-2	-3	-2	-3	-3	-3	-5	-7	-5	-5	-4	-3	-2	-2	-2	-2	-2	-2	-1	-1	-1	-2	-1	-1	-2.7	-0.8
11-Dec-04		-2	-2	-2	-2	-2	-2	-2	-2	-3	-3	-3	-2	-1	-1	-1	-2	-3	-2	-3	-3	-3	-6	-6	-5	-2.6	-0.8
12-Dec-04		-5	-6	-7	-8	-6	-6	-7	-8	-6	-7	-5	-1	0	0	2	1	-3	-6	-8	-10	-13	-14	-14	-15	-6.4	2.2
13-Dec-04		-17	-17	-19	-19	-18	-17	-17	-16	-16	-18	-15	-14	-14	-12	-11	-10	-9	-10	-11	-11	-11	-12	-13	-13	-14.2	-9.3
14-Dec-04		-14	-14	-12	-11	-11	-10	-11	-11	-10	-9	-7	-3	0	1	4	4	3	5	5	4	3	3	2	1	-3.6	5.1
15-Dec-04		0	-2	-4	-4	-5	-5	-6	-8	-8	-7	-4	0	1	1	0	-1	-2	-3	-3	-3	-2	-1	-3	-3	-3.0	1.1
16-Dec-04		-3	-4	-2	-1	2	4	4	3	3	2	2	3	4	4	4	5	6	7	6	6	6	6	6	6	3.3	6.9
17-Dec-04		5	5	5	5	5	5	5	4	4	5	4	4	5	6	5	4	4	3	3	3	2	2	1	0	3.9	5.6
18-Dec-04		-2	-4	-5	-5	-6	-6	-6	-6	-4	-4	-4	-3	-3	-3	-2	-2	-1	0	1	2	2	2	1	0	-2.4	1.6
19-Dec-04		0	1	1	1	1	0	-1	-1	4	5	5	4	5	5	4	3	3	3	3	2	3	3	2	-2	2.3	4.9
20-Dec-04		-4	-6	-8	-10	-11	-11	-11	-12	-12	-12	-12	-13	-12	-12	-12	-12	-12	-12	-13	-13	-12	-12	-13	-14	-11.2	-3.7
21-Dec-04		-15	-16	-14	-13	-13	-13	-14	-15	-15	-15	-15	-14	-14	-14	-14	-15	-15	-15	-15	-15	-15	-15	-14	-14.6	-12.7	
22-Dec-04		-13	-14	-15	-16	-16	-17	-17	-17	-18	-17	-16	-16	-14	-15	-16	-17	-17	-16	-16	-16	-15	-15	-15	-15	-15.9	-13.4
23-Dec-04		-14	-13	-12	-11	-11	-10	-10	-10	-9	-2	5	5	5	5	6	6	7	7	7	7	7	7	6	7	-0.6	7.0
24-Dec-04		7	7	6	7	6	6	6	6	6	6	6	6	6	6	6	6	5	5	4	3	3	2	1	1	5.1	6.7
25-Dec-04		0	-1	-2	-2	-2	-2	-2	-2	-5	-7	-9	-11	-11	-12	-13	-13	-13	-14	-15	-15	-15	-16	-16	-16	-8.9	0.1
26-Dec-04		-16	-16	-16	-17	-17	-18	-19	-20	-20	-22	-21	-19	-17	-16	-17	-18	-20	-21	-21	-23	-24	-25	-25	-24	-19.7	-15.5
27-Dec-04		-24	-24	-23	-23	-23	-23	-22	-21	-21	-20	-19	-16	-14	-12	-10	-10	-11	-10	-9	-7	-3	-3	-2	0	-14.7	-0.4
28-Dec-04		-2	-2	-2	-3	-3	-3	-4	-4	-4	-4	-4	-3	-3	-2	-2	-2	-3	-4	-4	-5	-4	-5	-6	-7	-3.5	-1.6
29-Dec-04		-6	-8	-9	-10	-11	-11	-11	-11	-11	-12	-12	-12	-12	-13	-14	-15	-15	-16	-16	-17	-17	-18	-18	-18	-13.1	-5.8
30-Dec-04		-19	-19	-20	-20	-21	-21	-21	-22	-21	-21	-21	-21	-21	-21	-21	-22	-22	-23	-23	-23	-23	-22	-23	-23	-21.4	-18.8
31-Dec-04		-23	-23	-23	-24	-24	-24	-24	-24	-24	-24	-24	-24	-23	-23	-23	-23	-24	-25	-25	-26	-27	-28	-29	-30	-24.7	-22.7
Hourly Avg		-9.0	-9.5	-9.8	-10.0	-10.0	-10.0	-10.4	-10.6	-10.4	-10.3	-9.3	-8.3	-7.5	-7.1	-6.8	-7.1	-7.7	-7.8	-7.9	-8.1	-8.3	-8.7	-9.1	-9.5		
Hourly Max		6.7	7.0	7.5	7.0	7.0	7.0	6.2	6.0	6.0	6.0	6.3	6.7	7.2	7.0	7.0	7.3	7.5	7.9	7.6	7.4	7.2	7.6	7.8	8.0		

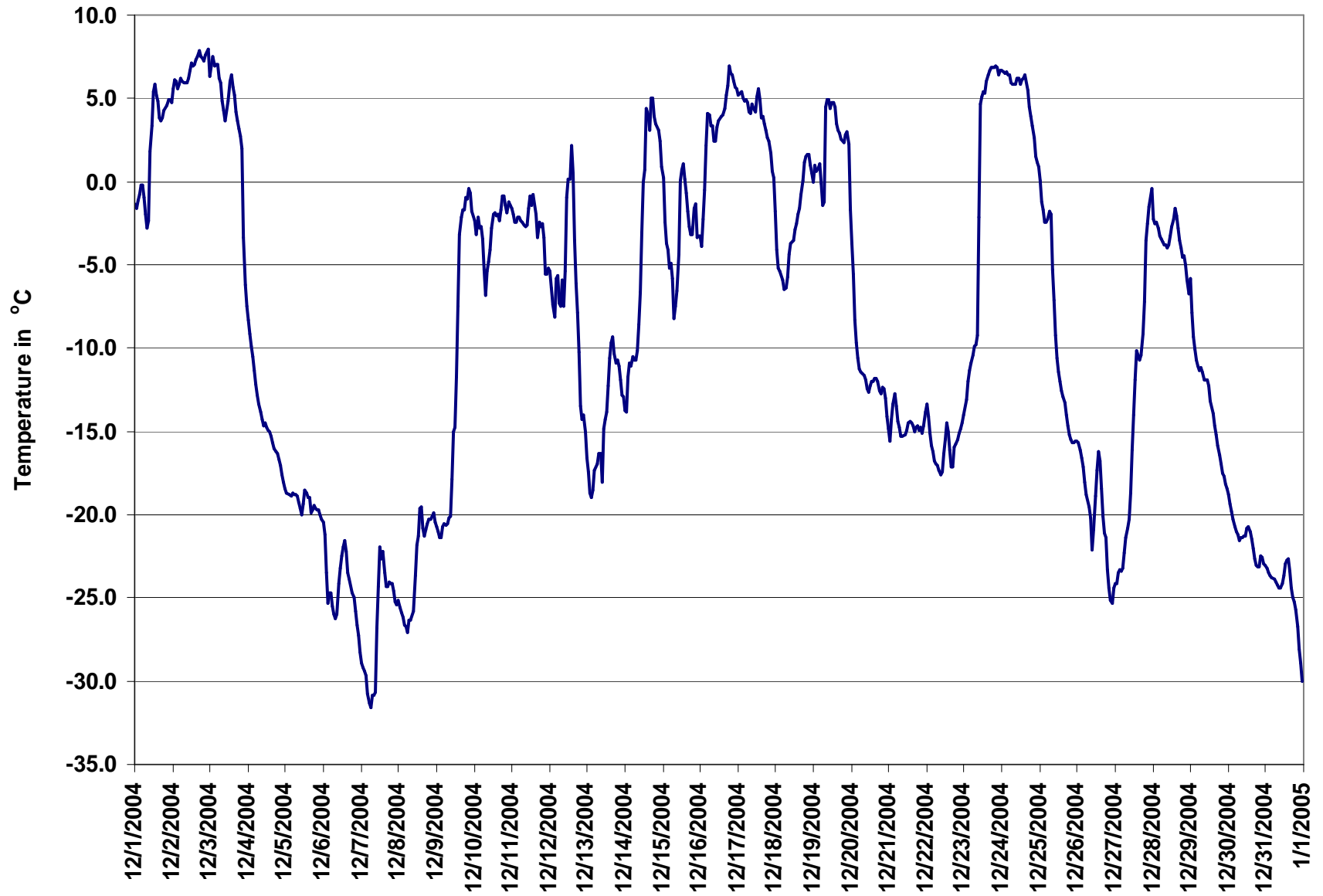


Figure 18. PASZA - Henry Pirker Temperature 1-hr Average Monthly Trend

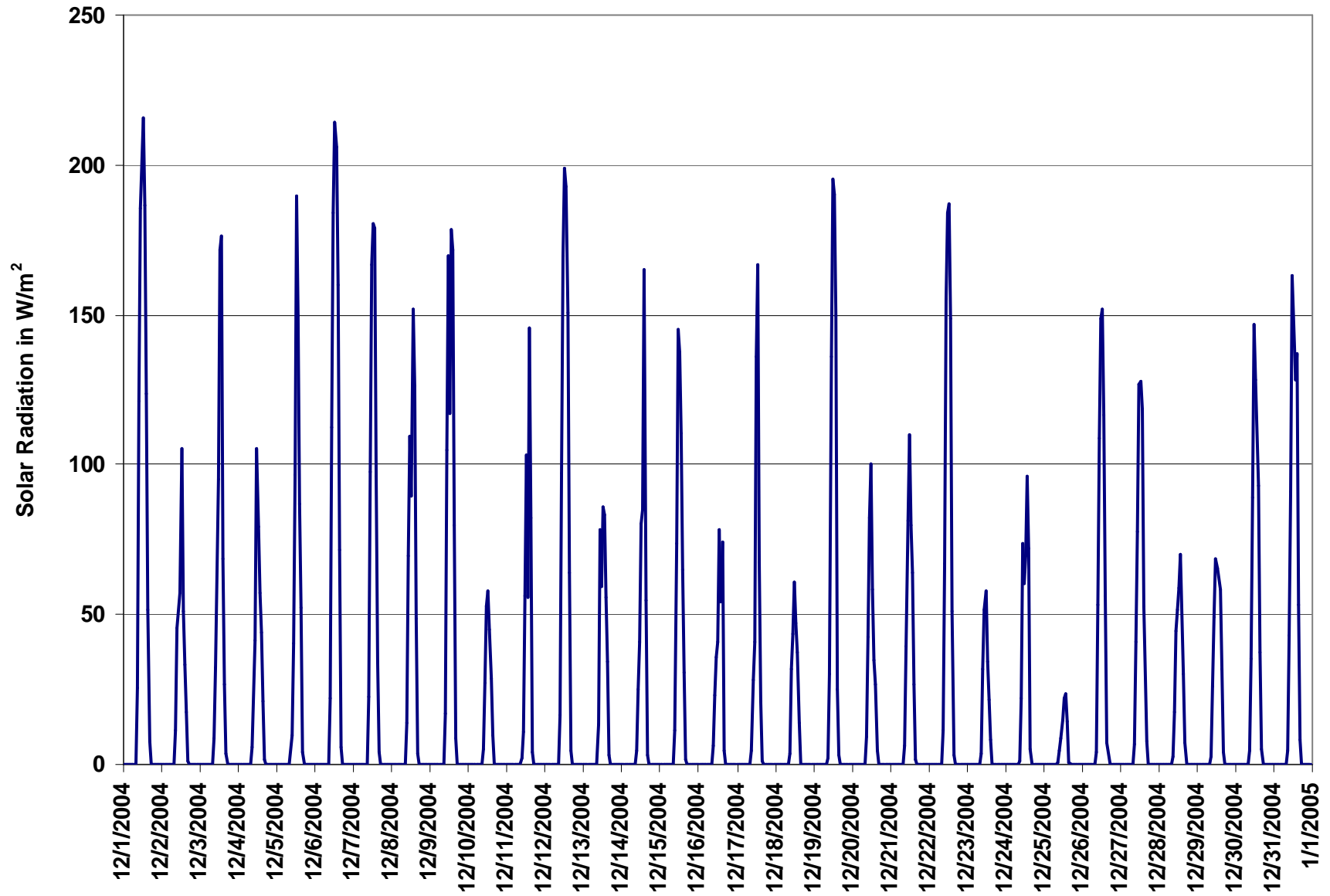


Figure 19. PASZA - Henry Pirker Solar Radiation 1-hr Average Monthly Trend

Station: Henry Pirker

HOURLY AVERAGE TABLE

Wind Speed (WSv - Km/hr)

Station Owner: PASZA

Monitoring Dates: December 1, 2004 to January 1, 2005

Summary

Maximum 1-hr Average:	50.7	km/hr	19-Dec	14:00 15:00
Maximum 24-hr Average:	31.2	km/hr	2-Dec	

Calm Time:	14 hrs	2% calms	Operational Time:	730 hrs					
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	AverageS	AverageV
	44.6	32.6	13.0	7.4	3.8	1.7	1.0	10.6 km/hr	5.7 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	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	Average		
1-Dec-04	7	8	10	8	13	10	6	3	3	2	1	4	5	11	10	17	15	19	16	21	23	29	24	22	10.6	29.4	
2-Dec-04	32	42	34	20	21	42	48	43	37	35	32	32	31	23	26	26	33	44	34	25	21	21	23	25	31.2	47.5	
3-Dec-04	16	19	17	16	27	40	35	34	23	13	10	19	27	23	25	19	15	17	14	14	10	10	13	11	16.8	40.2	
4-Dec-04	9	10	11	9	9	10	10	11	10	11	9	9	11	11	10	9	9	8	9	9	10	10	9	8	9.9	11.3	
5-Dec-04	8	8	8	9	9	9	8	8	10	10	9	8	11	10	9	11	6	6	5	4	7	11	11	11	7.2	11.3	
6-Dec-04	13	14	11	10	13	13	13	12	13	13	13	17	16	13	11	10	7	7	7	7	4	4	3	2	10.1	16.8	
7-Dec-04	3	3	3	1	2	3	2	2	3	3	2	4	4	5	4	3	4	4	4	2	2	3	3	3	1.1	4.8	
8-Dec-04	calm	1	1	calm	1	4	2	calm	2	2	3	3	7	6	4	8	8	5	5	5	5	5	5	6	1.7	7.9	
9-Dec-04	6	7	7	4	4	1	3	2	calm	4	5	5	4	1	1	6	5	8	13	18	16	17	13	10	5.3	17.8	
10-Dec-04	11	9	10	11	3	calm	2	5	6	5	4	4	calm	3	3	5	6	8	10	10	4	5	3	calm	1.2	11.1	
11-Dec-04	7	7	8	8	9	11	8	9	9	10	8	10	9	4	8	7	11	16	18	19	17	5	10	17	9.4	19.5	
12-Dec-04	16	13	7	10	13	11	7	9	11	5	11	9	5	6	3	2	1	1	1	1	5	1	1	3	5.5	15.6	
13-Dec-04	4	2	3	4	5	3	1	2	3	3	3	4	4	4	3	4	4	4	4	1	2	1	4	2	2.5	5.1	
14-Dec-04	4	1	3	2	calm	1	5	2	calm	2	2	3	8	12	11	14	13	24	25	15	13	15	15	10	7.4	24.7	
15-Dec-04	8	3	1	calm	4	6	5	6	7	2	2	2	4	2	1	3	2	2	4	3	4	2	4	3	0.9	8.0	
16-Dec-04	3	2	6	4	11	15	12	2	3	5	6	5	8	7	2	2	10	16	29	28	29	32	31	31	10.4	31.6	
17-Dec-04	35	30	31	31	32	34	32	28	28	33	29	21	18	19	17	11	11	13	11	5	5	4	2	4	19.3	34.5	
18-Dec-04	4	4	3	3	5	8	3	3	3	9	8	4	3	2	1	3	4	5	4	5	4	3	4	4	3.3	9.1	
19-Dec-04	5	3	4	4	5	2	3	3	31	30	40	41	46	46	51	44	39	39	37	29	31	36	28	22	23.1	50.7	
20-Dec-04	23	21	18	19	18	16	13	10	10	4	8	8	7	6	6	6	6	5	6	4	4	3	4	1	4.8	22.9	
21-Dec-04	1	1	2	1	8	7	7	7	8	8	9	8	8	6	8	8	7	5	6	6	6	7	5	4	4.9	8.6	
22-Dec-04	4	6	9	9	9	10	9	9	9	8	9	8	9	8	7	8	9	8	7	6	7	5	5	3	7.4	9.5	
23-Dec-04	3	2	calm	2	4	4	7	6	5	13	21	22	20	13	27	32	45	44	46	49	48	37	30	34	21.0	49.3	
24-Dec-04	32	30	29	27	31	40	35	36	30	29	35	31	26	30	24	23	28	23	24	16	11	10	9	9	25.4	40.0	
25-Dec-04	3	2	3	calm	2	2	3	13	18	16	15	15	13	15	10	9	8	9	7	7	7	7	6	5	7.7	17.6	
26-Dec-04	6	4	8	10	10	10	7	6	5	6	5	5	5	4	3	5	4	1	2	4	4	5	4	2	4.4	10.1	
27-Dec-04	2	3	4	2	2	2	1	calm	3	5	4	2	3	3	4	4	5	4	5	5	3	4	3	5	1.8	5.0	
28-Dec-04	1	2	3	2	3	3	4	2	3	3	4	4	1	1	3	calm	1	2	3	4	4	5	3	4	0.8	4.8	
29-Dec-04	6	21	18	17	17	16	13	9	12	11	11	13	14	15	16	16	13	15	15	15	15	14	14	14	13.6	21.2	
30-Dec-04	13	14	13	13	13	15	13	9	11	10	11	10	10	12	10	9	8	7	6	5	5	9	7	6	9.9	14.7	
31-Dec-04	5	7	7	6	6	6	7	7	7	8	9	7	9	7	7	6	5	5	5	5	2	3	4	6	5.8	8.7	
1-hr Vector	5.4	5.4	5.5	4.8	5.9	7.2	6.3	5.2	5.5	4.6	4.7	4.9	5.3	5.3	6.3	5.6	5.9	7.2	7.0	6.5	6.8	6.0	5.7	5.7			
Hourly Max	34.5	42.3	33.9	31.1	31.7	41.6	47.5	43.5	37.2	34.6	40.1	41.4	46.1	46.3	50.7	43.9	44.8	44.1	46.3	49.3	48.4	36.9	31.4	33.6			

Station: Henry Pirker

HOURLY AVERAGE TABLE

Wind Direction (WD - Degrees)

Station Owner: PASZA

Monitoring Dates: December 1, 2004 to January 1, 2005

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
	357.4	341.0	294.6	254.3	109.1	26.6	7.0	280 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

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
	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-Dec-04	284	307	288	316	288	302	321	331	23	65	34	132	228	272	279	266	252	255	258	257	255	254	256	257	269	
2-Dec-04	255	254	256	242	259	258	254	255	255	255	255	253	252	252	256	262	256	256	255	255	255	245	243	244	250	254
3-Dec-04	265	254	265	267	273	256	249	255	266	280	271	264	261	257	256	256	252	252	249	264	260	56	66	64	261	
4-Dec-04	45	39	37	49	40	36	40	40	34	30	40	38	23	12	18	29	45	41	37	33	27	39	50	41	36	
5-Dec-04	34	35	40	22	9	11	1	344	342	343	341	331	301	292	301	300	313	322	354	325	303	311	305	305	335	
6-Dec-04	312	316	310	293	286	286	286	278	280	281	288	292	289	282	289	288	281	269	287	286	317	319	321	310	291	
7-Dec-04	301	312	354	173	215	325	290	307	315	311	280	285	240	319	11	130	116	108	86	27	76	228	303	297	314	
8-Dec-04	118	156	325	243	251	313	291	222	307	289	299	93	116	126	261	275	256	232	219	182	178	176	118	108	208	
9-Dec-04	110	110	110	107	112	228	287	219	235	174	181	259	276	185	205	164	170	211	220	237	233	225	220	223	209	
10-Dec-04	219	235	231	238	298	288	155	137	119	130	121	117	346	139	79	16	27	43	69	80	42	77	36	20	98	
11-Dec-04	325	335	326	301	302	317	303	295	307	300	281	280	310	277	269	254	252	250	255	257	280	265	261	249	280	
12-Dec-04	257	249	297	294	281	260	231	268	268	315	300	300	205	208	221	183	250	349	189	290	329	110	211	331	269	
13-Dec-04	328	301	331	320	325	358	288	333	328	329	329	333	307	293	242	224	210	163	163	142	284	276	304	316	302	
14-Dec-04	325	308	322	313	192	82	163	121	215	166	166	246	234	246	264	257	248	255	254	287	269	257	261	298	257	
15-Dec-04	321	332	339	73	15	351	324	329	355	295	153	143	123	148	133	152	126	154	124	127	126	105	309	310	18	
16-Dec-04	280	240	262	322	306	266	265	300	322	125	122	122	122	139	289	264	243	246	260	257	266	277	279	263	265	
17-Dec-04	255	260	263	255	255	254	255	254	254	255	259	263	258	259	254	259	268	283	324	326	304	92	47	259		
18-Dec-04	60	68	36	88	99	105	73	9	93	116	108	110	66	6	260	180	162	185	180	144	130	123	164	134	112	
19-Dec-04	154	145	115	108	122	314	135	6	266	255	254	252	252	254	254	256	256	255	256	263	274	277	291	332	261	
20-Dec-04	326	324	316	308	307	306	304	313	335	330	110	102	99	105	92	102	99	78	109	84	37	38	41	302	341	
21-Dec-04	160	104	101	57	38	44	85	111	120	110	121	111	100	74	76	88	78	57	45	48	25	15	338	311	75	
22-Dec-04	13	100	97	88	91	89	87	108	103	93	87	89	100	77	74	85	81	82	95	107	95	105	115	101	91	
23-Dec-04	138	331	300	252	192	266	298	312	314	268	268	270	270	241	271	261	254	255	255	255	255	268	273	271	262	
24-Dec-04	271	276	276	263	271	258	258	259	258	262	263	260	259	258	259	265	262	268	256	255	272	301	317	287	265	
25-Dec-04	321	18	288	228	355	191	342	44	47	43	33	27	32	27	40	47	44	43	48	45	42	33	20	14	34	
26-Dec-04	17	43	24	8	11	9	15	18	349	312	333	333	281	304	292	340	5	53	128	314	339	329	312	269	352	
27-Dec-04	207	210	226	217	171	186	237	111	294	301	298	185	166	179	149	116	119	138	158	197	221	359	288	285	208	
28-Dec-04	142	120	130	155	154	156	149	112	96	128	121	130	50	17	8	119	19	316	339	341	327	327	311	280	86	
29-Dec-04	311	324	323	319	317	321	318	337	4	356	357	359	5	0	358	359	360	357	359	355	354	354	355	357	345	
30-Dec-04	349	341	336	340	334	344	337	334	344	336	341	335	334	352	355	0	356	344	350	334	329	14	27	34	346	
31-Dec-04	39	31	27	31	39	47	51	58	53	66	71	69	67	60	57	57	53	61	50	39	28	326	318	327	46	
Hourly Avg	289	292	298	293	295	286	278	286	292	283	276	277	272	273	278	269	262	263	260	268	277	285	289	290		

Station: Henry Pirker

STANDARD DEVIATION TABLE

Wind Direction (WD - Degrees)

Station Owner: PASZA

Monitoring Dates: December 1, 2004 to January 1, 2005

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
	65.3	48.7	22.0	12.1	5.6	3.5	2.8

Status Flag Characters

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

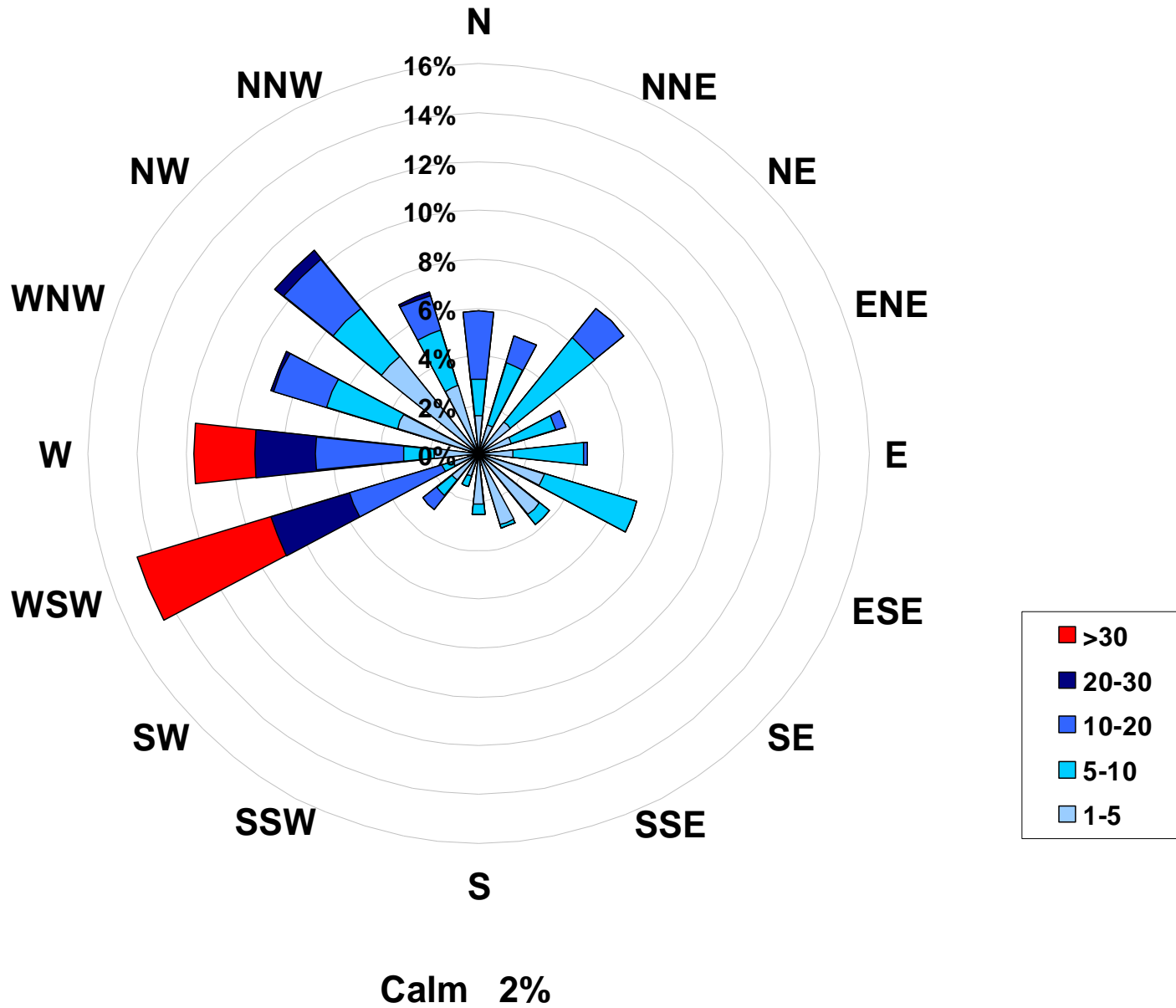
Day Mountain Standard Time

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	24:00
1-Dec-04	11	12	7	7	7	14	14	42	54	30	44	15	26	19	4	5	5	3	6	5	4	3	4	4	4
2-Dec-04	3	4	3	5	6	4	3	3	3	3	3	3	3	4	4	4	4	3	3	3	5	5	5	4	4
3-Dec-04	6	5	10	13	4	4	4	4	9	6	7	5	5	5	5	5	4	4	4	5	39	11	8	12	12
4-Dec-04	12	14	12	16	15	13	13	10	15	12	15	14	13	12	13	13	13	14	13	14	12	12	14	18	18
5-Dec-04	20	18	15	14	10	12	8	8	7	7	5	6	9	8	10	6	6	10	16	18	9	7	6	5	5
6-Dec-04	6	5	5	4	4	4	4	4	5	3	4	4	6	8	5	3	6	6	5	5	13	12	20	19	19
7-Dec-04	13	15	12	19	23	22	28	18	21	22	25	14	21	20	17	48	17	17	41	43	49	20	13	22	22
8-Dec-04	41	38	35	67	47	22	29	22	25	23	23	37	14	16	25	9	8	13	13	12	11	15	20	10	10
9-Dec-04	14	10	10	20	23	53	20	28	61	26	17	18	32	64	71	28	26	8	6	4	4	4	5	7	7
10-Dec-04	6	5	6	7	45	38	45	15	11	12	16	29	49	29	46	12	12	11	9	7	19	24	45	61	61
11-Dec-04	10	6	7	10	11	6	6	4	5	4	4	6	5	20	9	11	11	4	4	5	7	29	8	4	4
12-Dec-04	4	5	18	7	13	7	14	6	7	13	7	8	15	11	21	23	11	40	31	33	8	32	29	31	31
13-Dec-04	14	48	32	17	24	28	48	51	33	22	31	28	20	20	20	22	24	18	44	62	50	70	22	59	59
14-Dec-04	26	69	36	52	77	38	12	52	53	50	42	55	18	8	10	5	7	3	4	7	12	5	6	9	9
15-Dec-04	13	25	44	63	29	8	11	7	3	29	46	28	17	15	58	35	31	34	27	25	42	29	26	39	39
16-Dec-04	22	39	19	35	6	5	6	33	52	14	11	17	7	19	27	43	11	9	4	5	5	4	3	5	5
17-Dec-04	4	4	4	3	3	3	3	2	3	3	2	4	4	4	4	5	8	6	8	16	12	15	25	24	24
18-Dec-04	21	19	33	42	25	14	38	23	36	8	10	19	29	32	53	41	26	15	33	8	17	25	27	21	21
19-Dec-04	20	33	27	26	14	70	31	44	13	4	3	4	4	4	4	4	4	3	4	5	5	4	6	5	5
20-Dec-04	4	5	7	5	8	7	7	11	9	37	11	11	13	15	13	20	14	17	12	17	21	21	18	66	66
21-Dec-04	44	33	40	35	14	15	14	14	12	10	13	15	12	16	12	10	12	16	19	16	14	10	21	22	22
22-Dec-04	17	18	8	9	9	8	8	10	10	9	7	9	12	13	10	9	7	7	11	10	16	18	14	25	25
23-Dec-04	26	63	48	24	14	16	11	9	15	16	4	4	6	11	4	6	3	3	3	3	3	4	4	4	4
24-Dec-04	4	3	4	6	6	5	4	4	4	5	4	4	4	4	4	5	4	5	4	5	8	5	6	8	8
25-Dec-04	24	39	22	42	47	33	50	11	9	10	11	12	10	10	16	12	15	11	15	13	15	13	14	16	16
26-Dec-04	13	17	10	7	8	6	9	11	9	9	8	9	17	21	43	10	8	52	24	16	9	9	10	22	22
27-Dec-04	29	26	19	33	38	35	62	71	39	15	23	31	22	29	15	16	14	16	36	16	44	59	36	39	39
28-Dec-04	35	59	19	46	17	16	17	51	44	28	20	16	47	59	34	57	60	38	47	17	17	40	34	26	26
29-Dec-04	35	5	5	5	5	5	6	9	6	5	6	5	6	4	3	5	5	3	4	4	5	4	5	4	4
30-Dec-04	5	5	5	5	5	5	5	6	6	7	7	6	9	7	6	5	5	7	10	11	10	9	15	18	18
31-Dec-04	17	15	13	13	16	17	14	17	13	14	11	13	12	17	17	13	20	19	15	19	35	25	17	6	6

Daily Maximum
53.7
6.0
38.6
17.6
19.7
20.1
48.7
67.4
71.1
61.1
29.1
40.5
69.9
77.0
63.0
52.0
25.0
52.9
69.9
66.3
43.9
25.2
62.7
8.0
49.7
51.8
71.4
59.9
35.2
17.6
35.4

Hourly Max	44	69	48	67	77	70	62	71	61	50	46	55	49	64	71	57	60	52	47	62	50	70	45	66	66
------------	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

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



PEACE AIRSHED ZONE ASSOCIATION

PASZA Monthly Passive Data Summary

Table 1. PASZA Passive Stations for December 2004

PASZA					
Station Number	Station Name	SO ₂ ppb	O ₃ ppb	NO ₂ ppb	Site Legal
Duplicates					
26a	Flyingshot	0.2	31.0	2.7	
26b	Flyingshot	0.2	28.8	2.7	
32a	Gold Creek	0.2	23.1	2.0	
32b	Gold Creek	0.3	25.3	1.9	
38a	Karr Creek	0.3	22.8	0.7	
38b	Karr Creek	0.2	26.9	0.5	
49a	Grande Prairie HP	0.3	20.2	11.4	
49b	Grande Prairie HP	0.4	20.3	9.4	
1	Silver Valley	0.6	30.2	2.0	08-27-081-11 W6M
2	Bay Tree	0.3	36.8	1.0	13-16-078-13 W6M
3	Forth Creek	0.5	36.1	1.5	04-13-082-07 W6M
4	Gordondale	0.5	36.6	1.5	04-34-078-10 W6M
5	Boone Creek	0.3	32.7	1.8	01-23-076-11 W6M
7	Steepprock Creek	0.3	33.6	1.0	09-35-072-13 W6M
9	Spirit River	0.4	38.2	2.1	08-12-079-07 W6M
10	Woking	0.5	33.3	0.9	01-13-076-07 W6M
11	Webber Creek	0.4	29.3	1.4	09-36-074-09 W6M
12	Hythe	0.3	29.3	2.1	14-36-072-11 W6M
14	Sylvester	0.3	31.3	0.8	08-06-069-12 W6M
16	Beaverlodge	0.4	34.7	3.4	15-36-071-10 W6M
17	Poplar	0.4	33.7	2.2	13-06-073-08 W6M

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

PASZA					
Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
18	Saddle Hills	0.5	32.4	1.3	04-25-074-07 W6M
19	Wanham	0.5	37.8	1.2	16-22-077-03 W6M
20	Shaftesbury	0.3	31.1	1.6	04-03-082-23 W5M
21	Eaglesham	0.3	26.9	1.4	16-21-079-25 W5M
23	Bear Lake	0.4	28.0	2.4	15-31-072-06 W6M
24	Wembley	0.2	26.9	2.5	12-31-070-08 W6M
25	Pinto Creek	0.2	28.6	1.4	04-24-069-11 W6M
26	Flyingshot	0.2	29.9	2.7	15-36-070-07 W6M
27	Grande Prairie I	0.3	24.8	7.1	08-15-071-06 W6M
28	Clairmont Lake	0.5	30.7	2.2	09-06-073-04 W6M
29	Smoky Heights	0.8	33.7	1.5	04-06-075-02 W6M
30	Fitzsimmons	0.3	29.6	1.9	15-36-072-03 W6M
32	Gold Creek	0.2	24.2	1.9	06-33-067-05 W6M
33	Wapiti	0.2	28.9	1.5	02-25-071-03 W6M
34	Puskwaskau	0.2	34.1	0.6	15-35-074-25 W5M
35	Jean Cote	0.4	33.1	1.6	12-35-079-21 W5M
36	Guy	0.4	36.1	1.3	03-04-076-22 W5M
37	Crooked Creek	0.4	28.1	2.4	16-01-071-26 W5M
38	Karr Creek	0.2	24.9	0.6	10-16-065-02 W6M
39	Clouston Creek	0.4	33.9	1.7	12-01-073-22 W5M
40	McLennan	0.4	33.0	1.4	03-29-077-19 W5M
41	Valleyview	0.6	31.3	1.5	09-30-069-22 W5M
42	Sunset House	0.5	34.9	0.9	05-32-070-19 W5M
43	High Prairie	0.2	29.2	1.9	16-13-074-17 W5M
44	Peavine	0.3	31.7	1.1	03-05-079-15 W5M
45	Gift Lake	0.2	28.0	1.8	10-07-079-12 W5M
46	Little Smoky	0.4	28.5	0.6	12-01-065-21 W5M
47	Kinuso	0.2	26.4	1.5	12-10-073-10 W5M
48	Deer Mountain	0.3	31.4	0.7	15-22-068-09 W5M
49	Grande Prairie HP	0.4	20.3	10.4	17-26-071-06 W6M

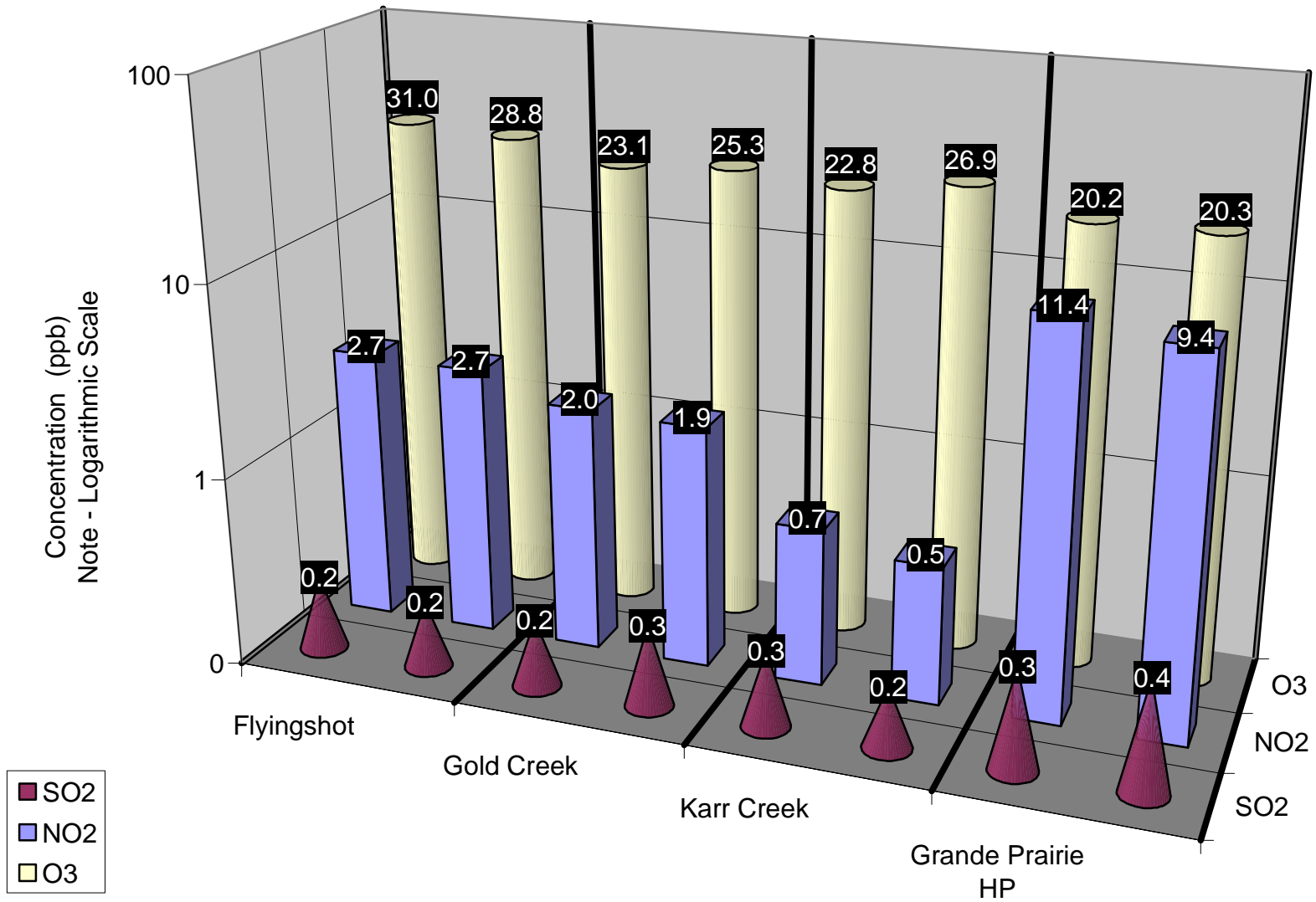


Figure 20. Duplicate Summary Chart

Table 2. Passive Summary Results for December 2004

Stats	Sulphur Dioxide SO ₂	Ozone O ₃	Nitrogen Dioxide NO ₂
	ppb	ppb	ppb
Passive Summary for November 2004 (PASZA Zone)			
Mean	0.4	31.0	1.9
Standard Deviation	0.1	3.9	1.7
Minimum	0.2	20.3	0.6
Maximum	Kinuso (#47)	Grande Prairie HP (#49)	Karr Creek (#38)
	0.8 Smoky Heights (#29)	38.2 Spirit River (#9)	10.4 Grande Prairie HP (#49)
Comparison between Continuous and Passive monitoring at Beaverlodge (passive #16 Beaverlodge)			
	SO ₂	O ₃	NO ₂
AENV Beaverlodge station	0.6	26.1	6.4
PASZA Beaverlodge passive	0.4	34.7	3.4
Comparison between Continuous and Passive monitoring at Henry Pirker (passive #49 Grande Prairie HP)			
	SO ₂	O ₃	NO ₂
PASZA Henry Pirker station	0.6	16.6	15.1
PASZA Grande Prairie passive	0.4	20.3	10.4

Alberta Ambient Air Quality Guidelines - Annual SO₂ Guideline is 11 ppb

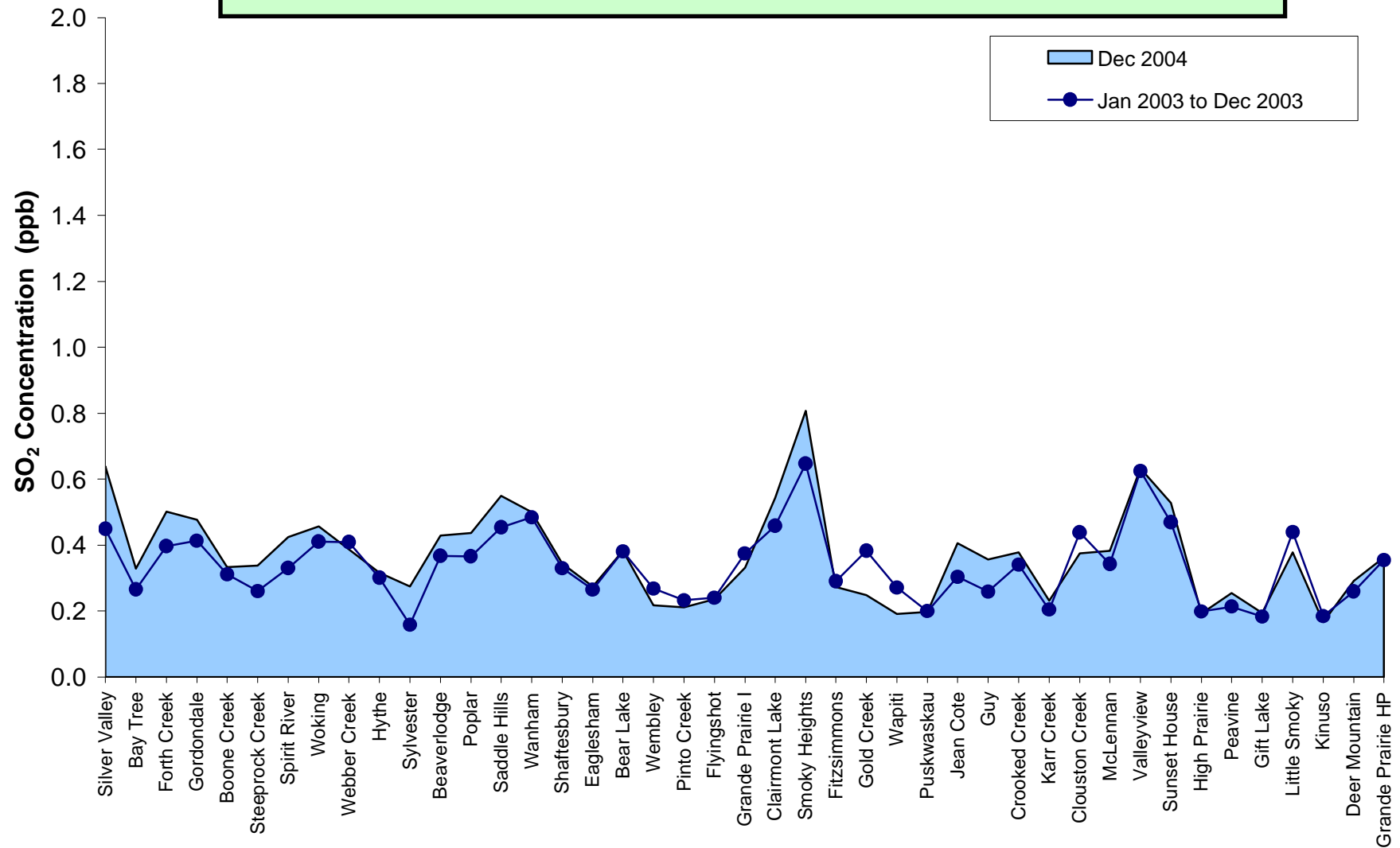


Figure 22. SO₂ Summary Chart

PASZA Passive O₃ Stations - Dec 2004
Average Concentrations in ppb

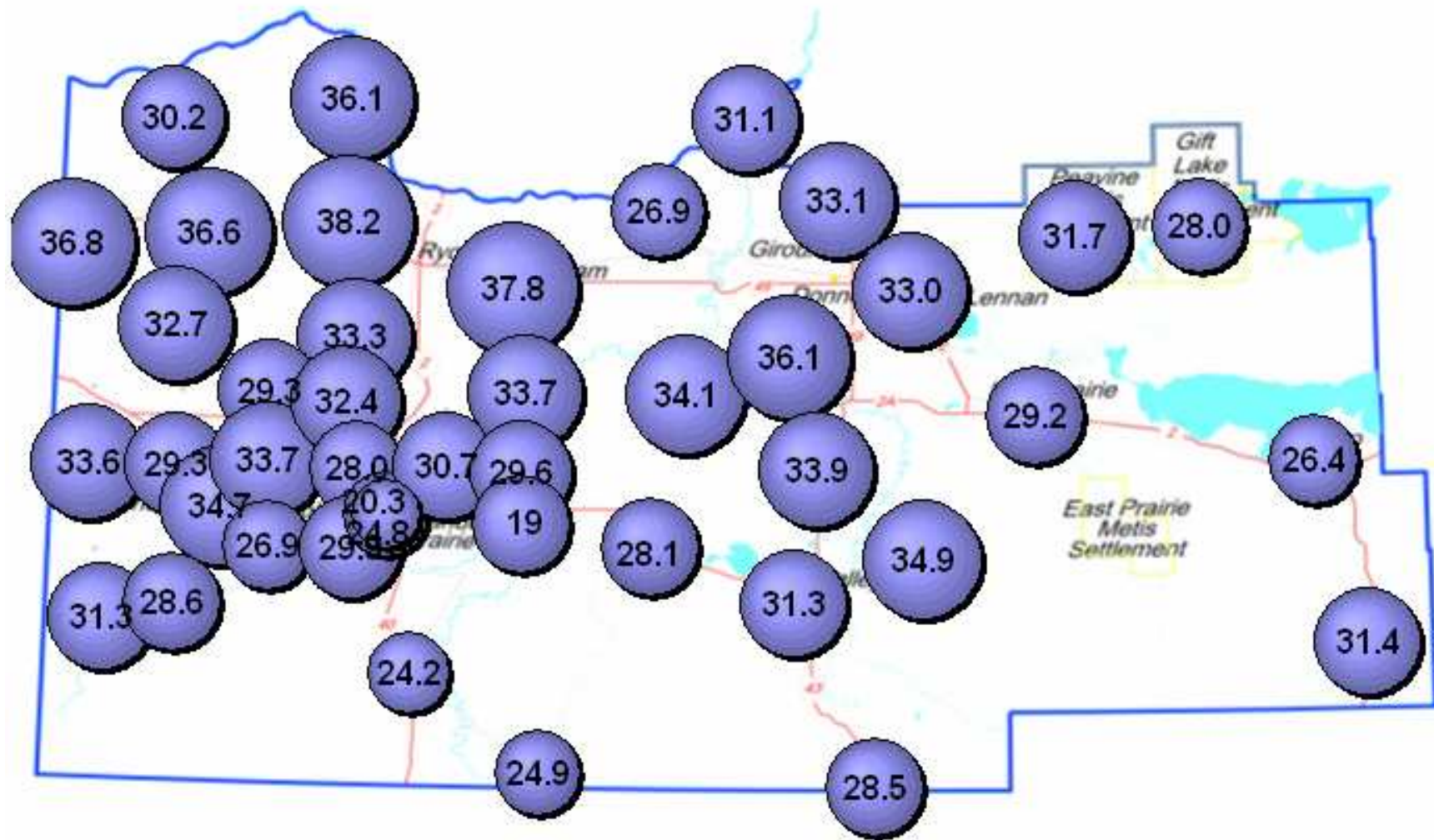


Figure 23. O₃ Bubble Chart

Alberta Ambient Air Quality Guidelines - No Annual O₃ Guideline

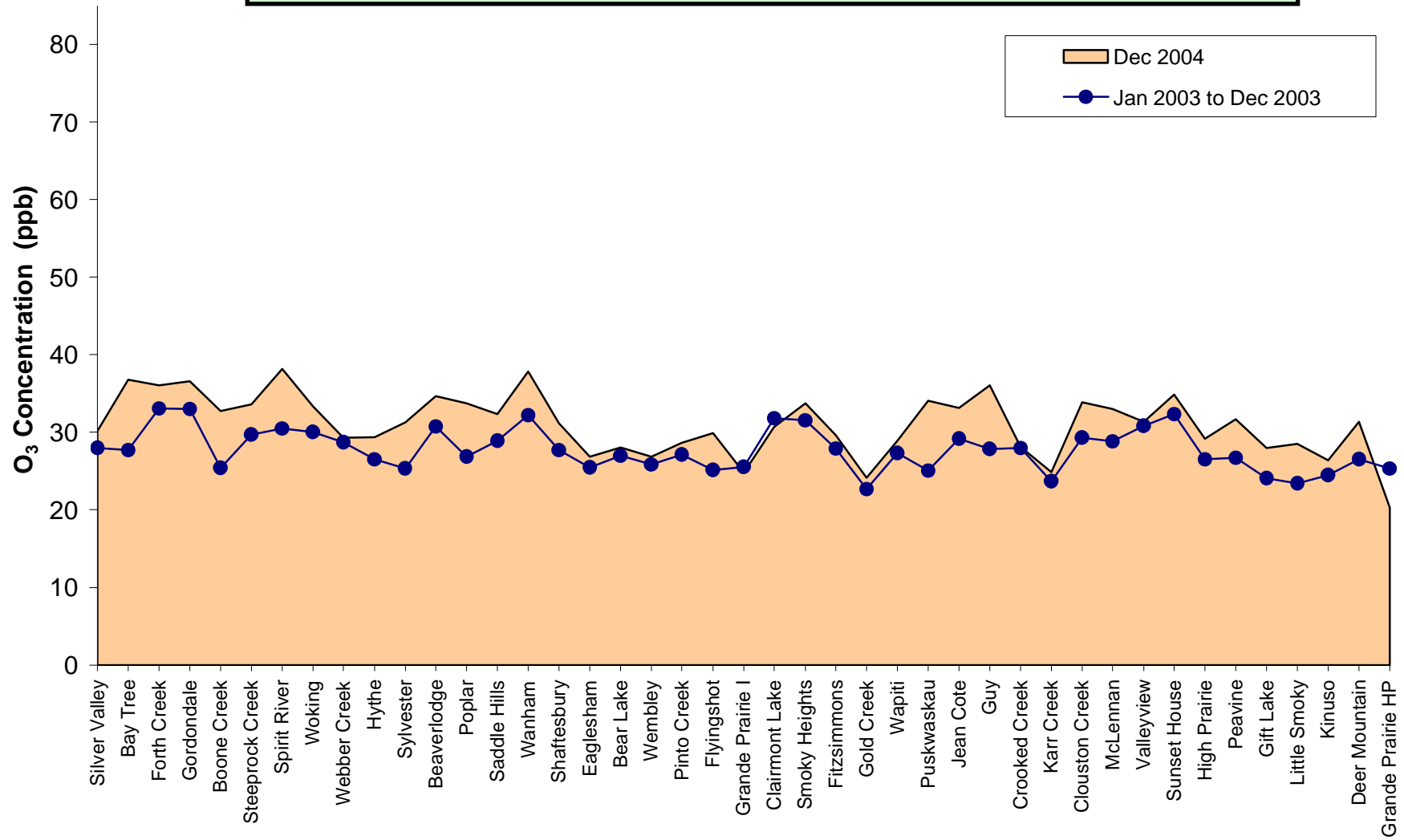


Figure 24. O₃ Summary Chart

PASZA Passive NO₂ Stations - Dec 2004
Average Concentrations in ppb

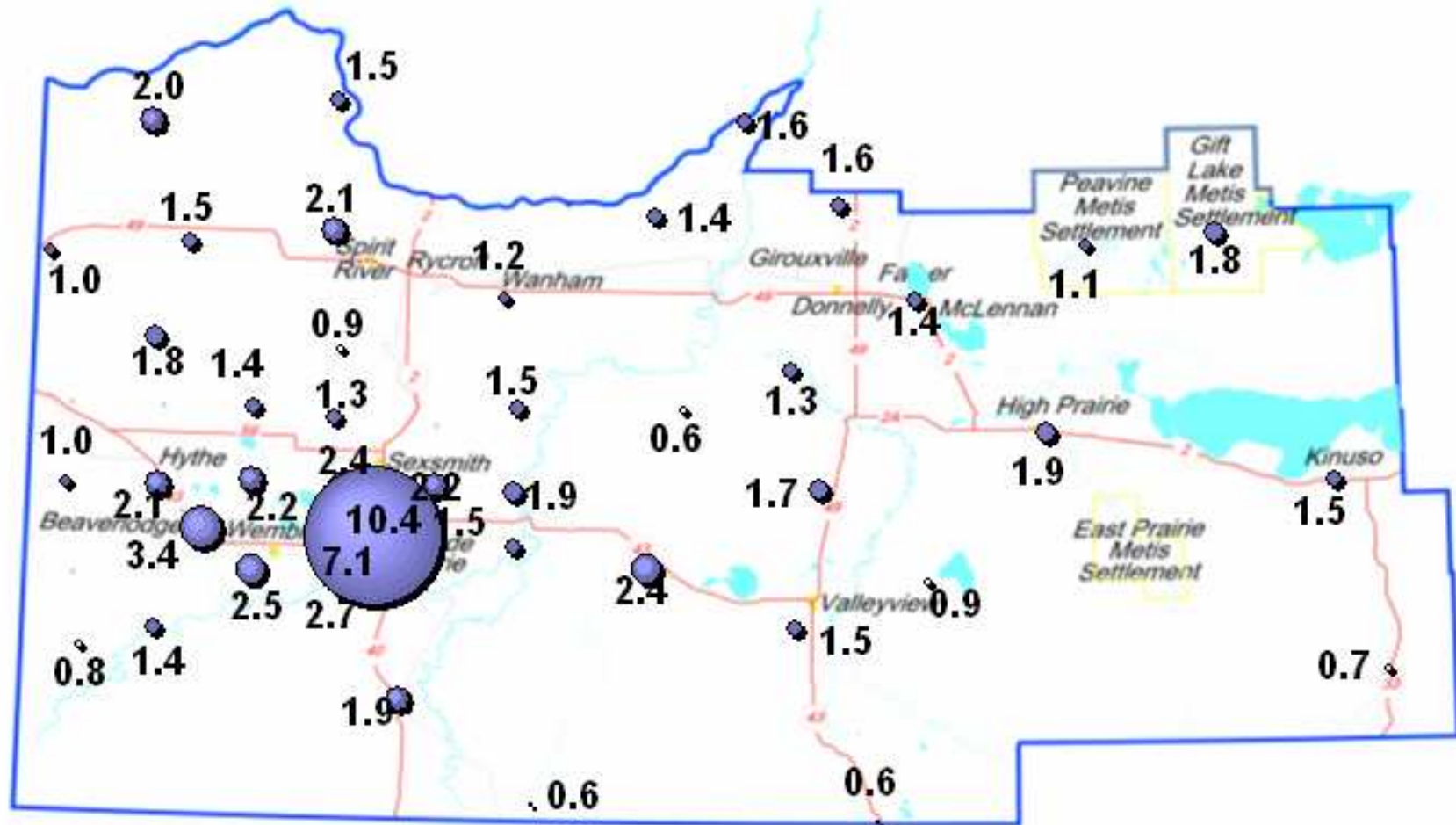


Figure 25. NO₂ Bubble Chart

Alberta Ambient Air Quality Guidelines - Annual NO₂ Guideline is 32 ppb

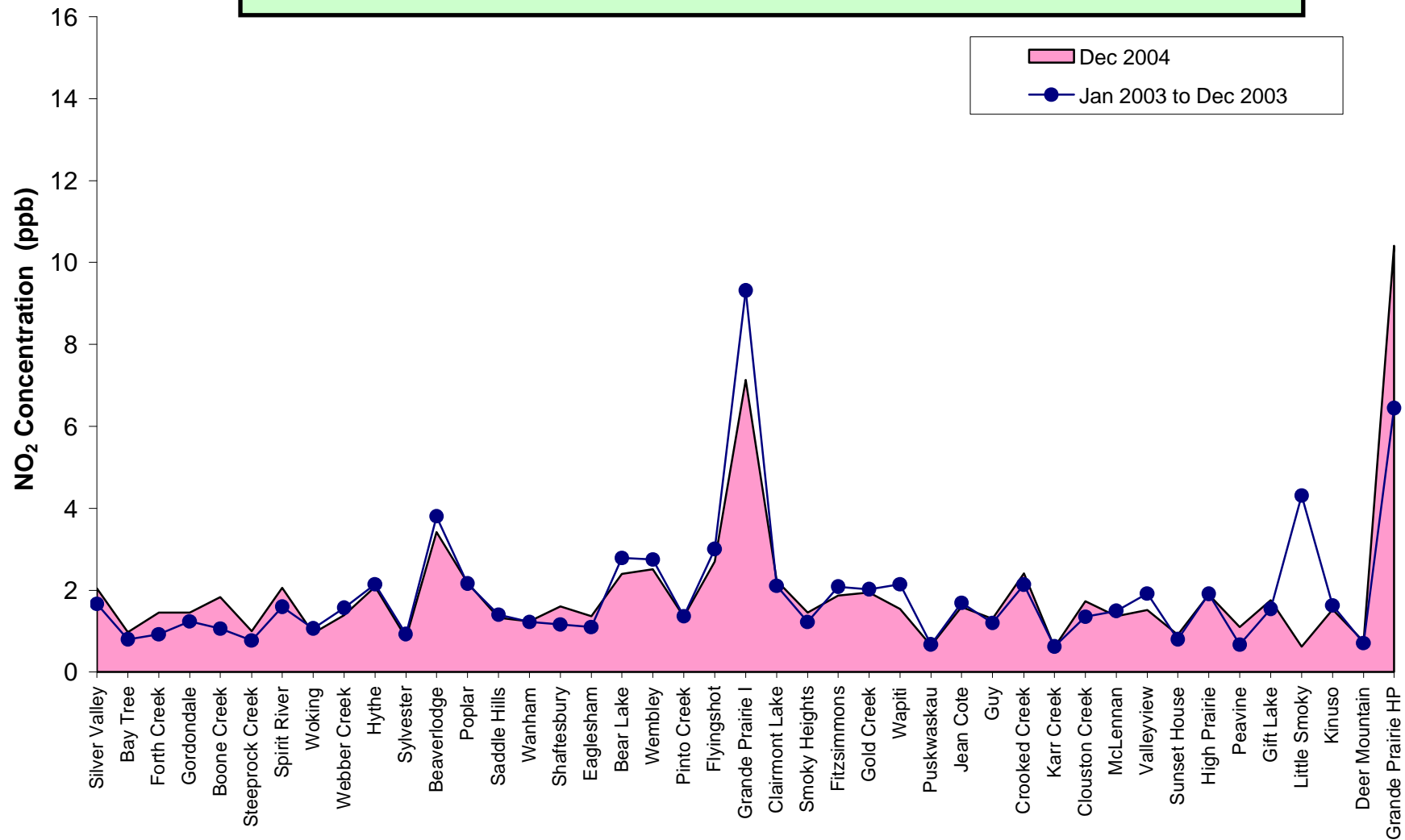


Figure 26. NO₂ Summary Chart

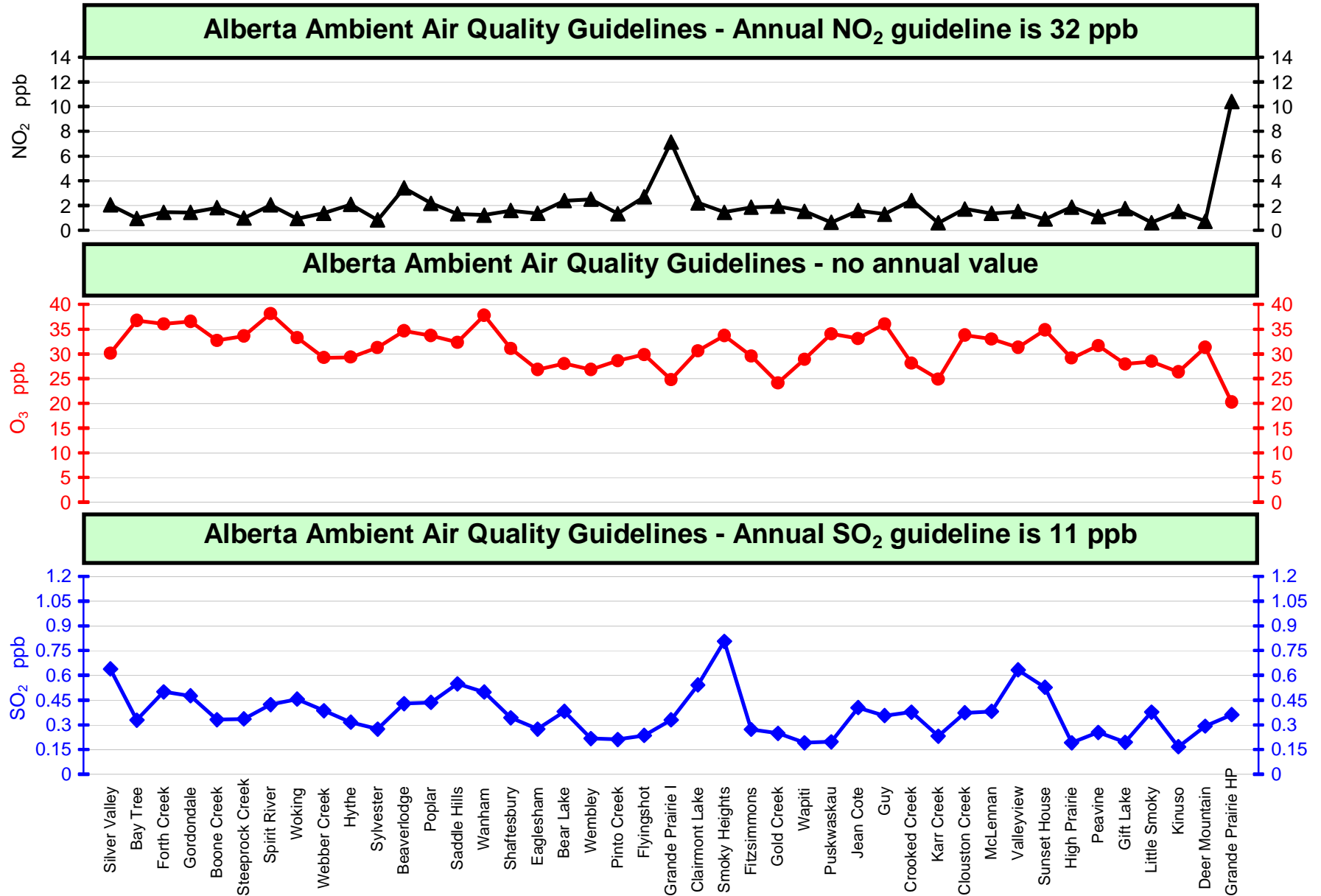


Figure 27. Overview Summary

December 2004 Calibration Reports

PASZA - Henry Pirker Station with the following calibrations:

SO₂, NO, NO₂, NO_x, O₃, CO, THC, TRS, PM_{2.5}

Calibration Report

Parameter SO2Air Monitoring Network PASZA

Station Information

Calibration Date	<u>December 13, 2004</u>	Previous Calibration	<u>November 9, 2004</u>
Station Number	<u>1</u>	Station Location	<u>Muskoseepi Park</u>
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	<u>10:00</u>	End Time (MST)	<u>12:45</u>
Barometric Pressure	<u>27.7</u> inches Hg	Station Temperature	<u>21.0</u> Deg C
Calibrator	<u>VICI Metronics</u>	Serial Number	<u>111-1695</u>
Perm-tube Conc	<u>2,452</u> ng/min	Perm-tube Expiry Date	
Correction factor	<u>0.938737</u>	Perm-tube Cert #	<u>19-18743</u>
DACS make	<u>Focus AP1000</u>	DACS serial No.	<u>1</u>
DACS voltage range	<u>0 - 10 volt</u>	DACS channel #	<u>8</u>
	<u>Before</u>		<u>After</u>
DACS slope	<u>0.005000</u>	DACS slope	<u>0.005000</u>
DACS intercept	<u>0.000000</u>	DACS intercept	<u>0.000000</u>
Calculated slope	<u>0.996379</u>	Calculated slope	<u>1.001496</u>
Calculated intercept	<u>1.061675</u>	Calculated intercept	<u>-0.806544</u>
Analyzer make	<u>TEI Model 43A</u>	Analyzer serial #	<u>43A-21120-195</u>

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
SO2 zero pot	177		177	
SO2 span pot	089		129	
UV Lamp voltage	932	V	922	V
Sample Flow	450	ccm	450	ccm

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	2393.8	0.0	-0.2	N/A
2550	2393.8	391.0	390.7	1.0006
6010	5641.8	165.9	167.3	0.9918
14940	14024.7	66.7	68.1	0.9799
zero	2393.8	0.0	-0.2	As Found Zero
2550	2393.8	391.0	383.2	As Found Span
Average Correction Factor				0.9908

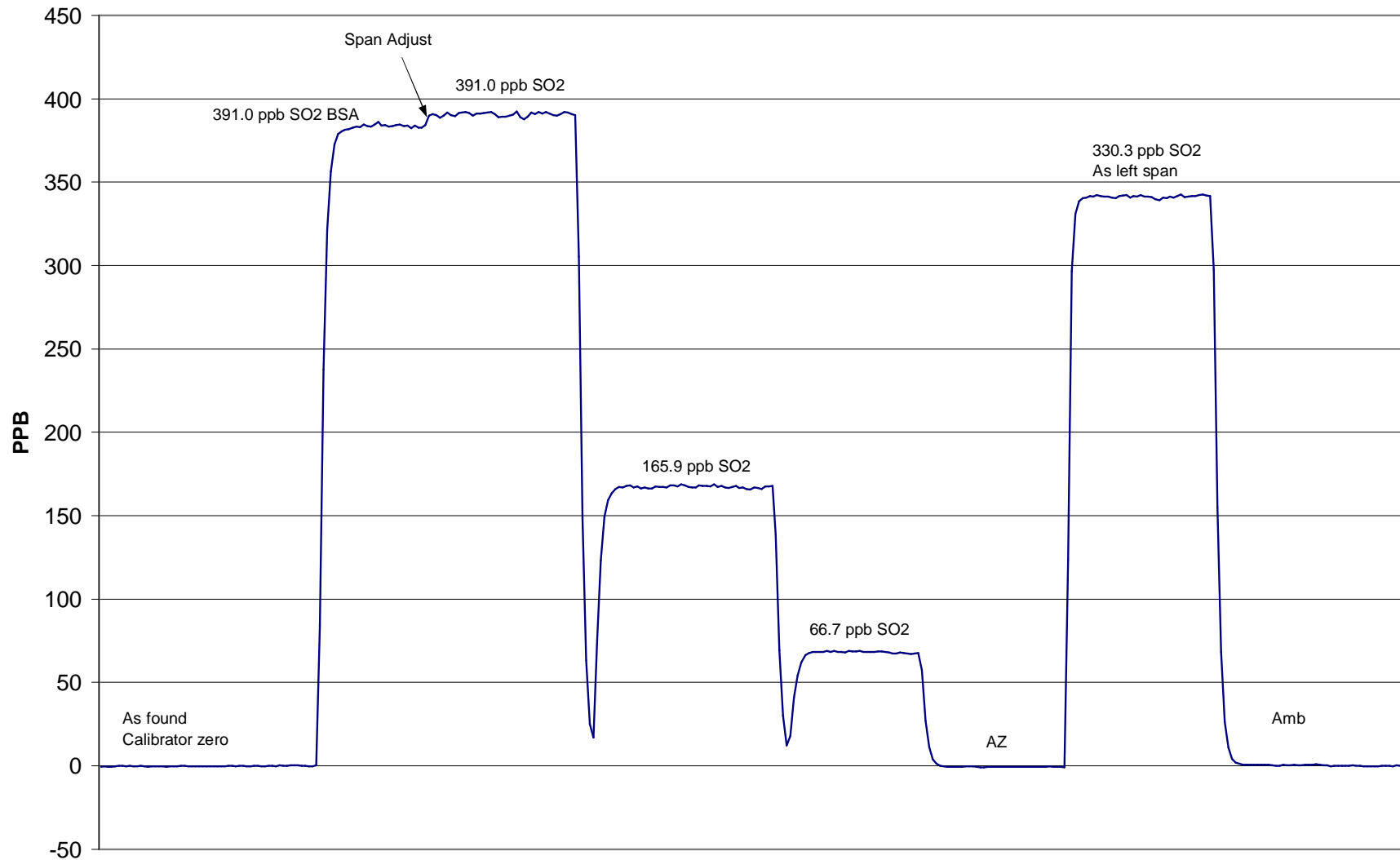
Calculated value of As Found Response: 383.129 ppm Percent Change of As Found: 2.0%

	before calibration		after calibration	
Auto zero	-0.6	ppm	-1.4	ppm
Auto span	331.2	ppm	341.1	ppm

Notes: _____

Calibration Performed By: Gary Cross

SO2 Calibration



December 13, 2004

Calibration Report

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



Station Information

Calibration Date	<u>December 13, 2004</u>	Previous Calibration	<u>November 9, 2004</u>
Station Number	<u>1</u>	Station Location	<u>Muskoseepi Park</u>

Reason: Routine Installation Removal Other: _____

Start Time (MST)	<u>9:00</u>	End Time (MST)	_____
Barometric Pressure	<u>0.926</u> <u>Atm</u>	Station Temperature	<u>20.0</u> <u>Deg C</u>
Calibrator	<u>EnviroNics 6100</u>	Serial Number	<u>3016</u>
NO Cal Gas Conc	<u>50.3</u> <u>ppm</u>	Cal Gas Expiry Date	<u>19-Jan-06</u>
NOx Cal Gas Conc	<u>50.5</u> <u>ppm</u>	Cal Gas Serial #	<u>ALM025793</u>

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	1.011832	1.036385	1.053030
	Data Offset	-1.118532	-3.764964	-3.865877
After	Data Slope	0.994088	0.978541	0.988761
	Data Offset	-1.160713	0.732464	-0.204782
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	9.8	ppb	9.8	mV
NOx background	10.2	ppb	10.2	mV
NO coefficient	1.148		1.148	
NOx coefficient	1.003		1.003	
Chamber Temp	49.9	Deg C	49.9	Deg C
Cooler Temp	1.9	Deg C	2.9	Deg C
Converter Temp	323.0	Deg C	324.0	Deg C
Vacuum	21.8	inches Hg	22.4	inches Hg
Box temp	30.0	ccm	29.5	ccm

Notes: High percent change is a result of a slight drop in Vacuum, and no span adjustments during last month's calibration. The analyzer was inspected, and no other problems are evident.

Calibration Report

Parameter **NO_x-NO-NO₂**
Air Monitoring Network **PASZA**



Station Information

Calibration Date: December 13, 2004 Station Location: Muskoseepi Park

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NO _x conc (ppb)	Calculated NO conc (ppb)	Calculated NO ₂ conc (ppb)	Indicated NO _x conc (ppb)	Indicated NO conc (ppb)	Indicated NO ₂ conc (ppb)	NO _x Correction factor	NO Correction factor
zero	4993	0.00	0.0	0.0	0.0	-0.4	-0.2	-0.2	N/A	N/A
1	4993	39.97	401.1	399.5	1.6	409.4	404.1	5.1	0.9795	0.9885
2	4993	19.98	201.3	200.5	0.8	204.3	202.9	1.3	0.9854	0.9881
3	4993	9.99	100.8	100.4	0.4	102.3	102.4	-0.3	0.9853	0.9813
AFZ	4993	0.00	0.0	0.0	0.0	3.3	1.1	2.3	0.0000	0.0000
AFS	4993	39.97	401.1	399.5	1.6	349.8	339.2	10.6	1.1464	1.1776
Average Correction Factor									0.9834	0.9860

As Found Concentrations: NO_x= 342.6 NO= 334.2 As Found Percent Change NO_x= -14.6% NO= -16.3%

GPT Calibration Data

Dilution Flow 4993 ccm Source Gas Flow 39.97 ccm

O3 Setpoint (ppb)	Calculated NO _x conc (ppb)	Calculated NO conc (ppb)	Calculated NO ₂ conc (ppb)	Indicated NO _x conc (ppb)	Indicated NO conc (ppb)	Indicated NO ₂ conc (ppb)	NO _x Correction factor	NO Correction factor	NO ₂ Correction factor	Converter Efficiency
0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A	N/A
0	401.8	404.1	-2.3	411.0	408.9	1.8	0.9777	0.9883	N/A	N/A
350	401.8	74.3	329.5	407.4	75.4	331.7	0.9864	0.9860	0.9935	100.7%
200	401.8	216.1	188.8	410.7	218.7	192.1	0.9785	0.9878	0.9828	101.7%
100	401.8	311.1	93.8	411.7	314.8	96.8	0.9762	0.9881	0.9685	103.3%
Average Correction Factor							0.9803	0.9873	0.9816	101.9%

AIC Data

Parameter	Previous calibration				Current calibration			
	NO _x	NO ₂	NO	ppb	NO _x	NO ₂	NO	ppb
Auto zero	4.2	2.1	2.2	ppb	1.3	-2.2	1.3	ppb
Auto span	376.3	3.3	372.6	ppb	418.3	419.1	3.6	ppb

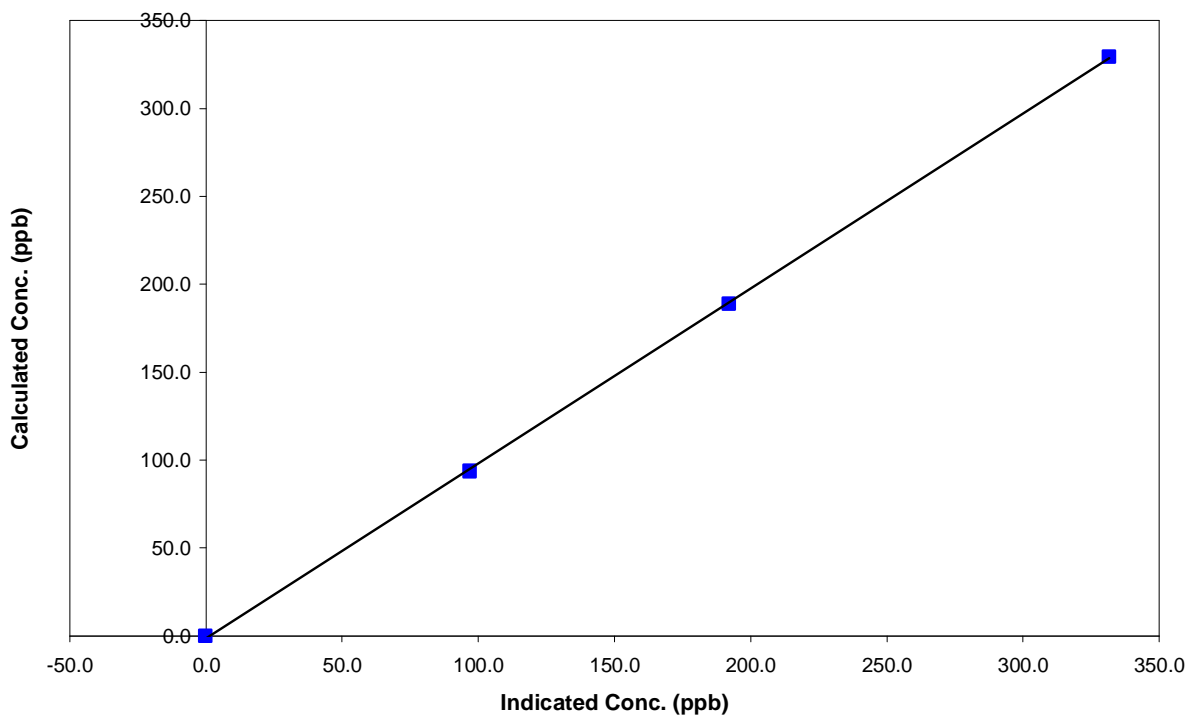
Calibration Performed By: Gary Cross

Calibration SummaryParameter NO₂Air Monitoring Network PASZA**Station Information**

Calibration Date	December 13, 2004	Previous Calibration	November 9, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	9:00	End Time (MST)	0:00
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	0.0000	Correlation Coefficient	0.999907
329.5	331.7	0.9935		
188.8	192.1	0.9828		
93.8	96.8	0.9685		
			Slope	0.994088
			Intercept	-1.160713

NO₂ Calibration Curve

Calibration Summary

Parameter NO
 Air Monitoring Network PASZA

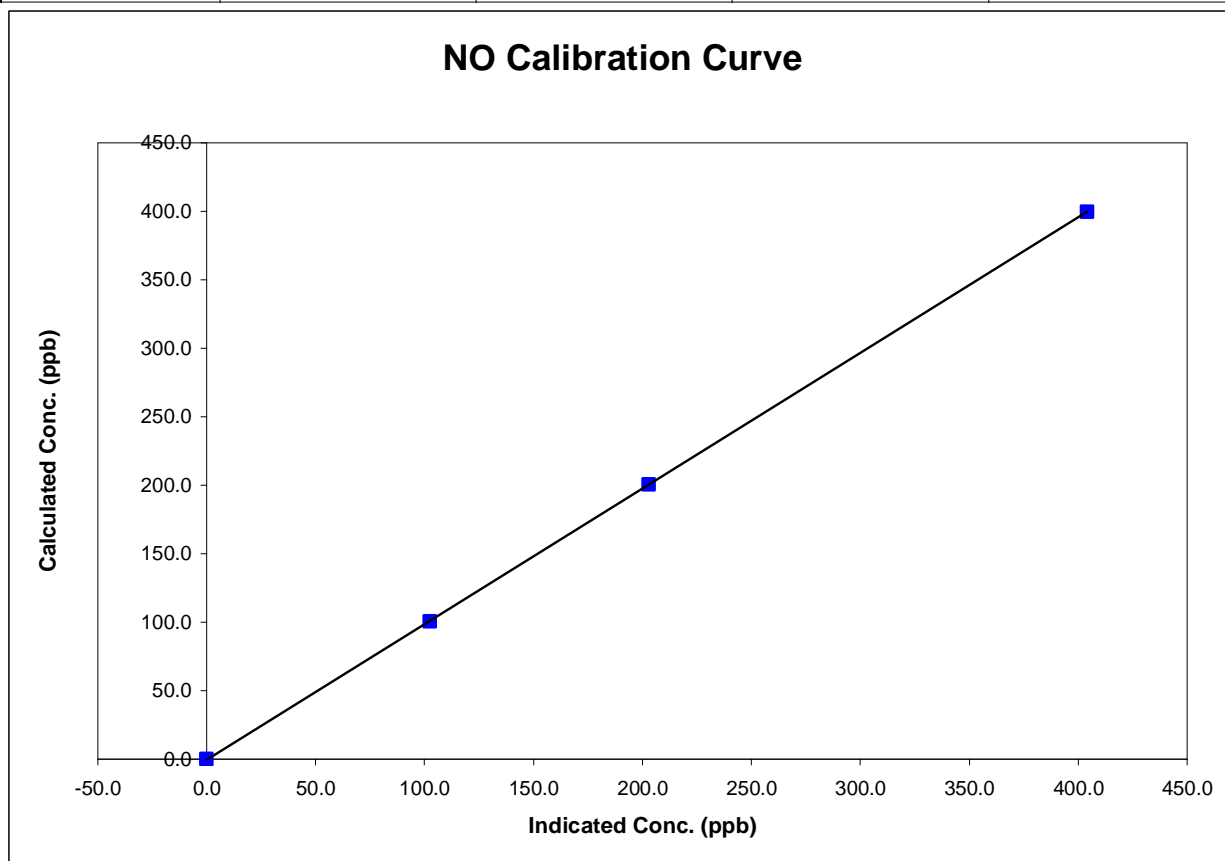


Station Information

Calibration Date	December 13, 2004	Previous Calibration	November 9, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	9:00	End Time (MST)	0:00
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
399.5	404.1	0.9885	Correlation Coefficient	0.999994
200.5	202.9	0.9881		
100.4	102.4	0.9813	Slope	0.988761
			Intercept	-0.204782



Calibration Summary

Parameter NO_x
 Air Monitoring Network PASZA

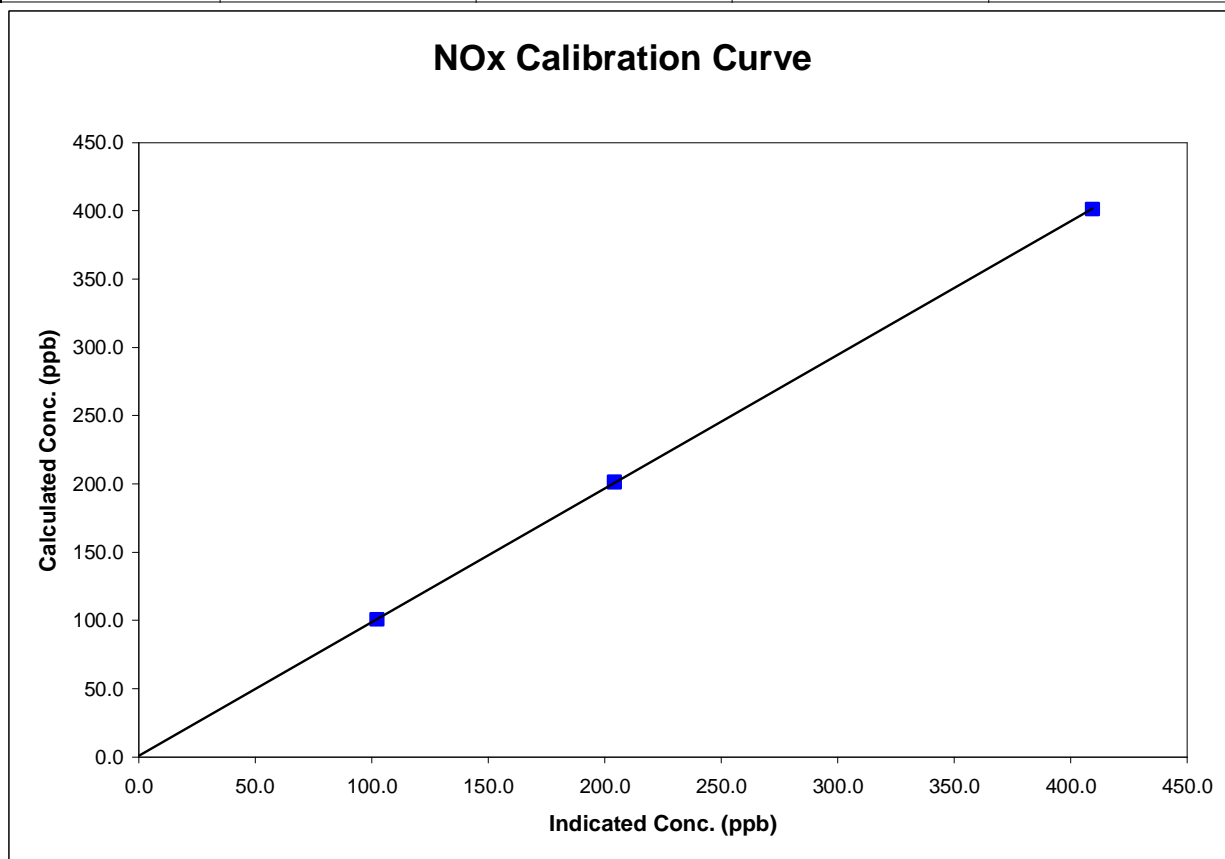


Station Information

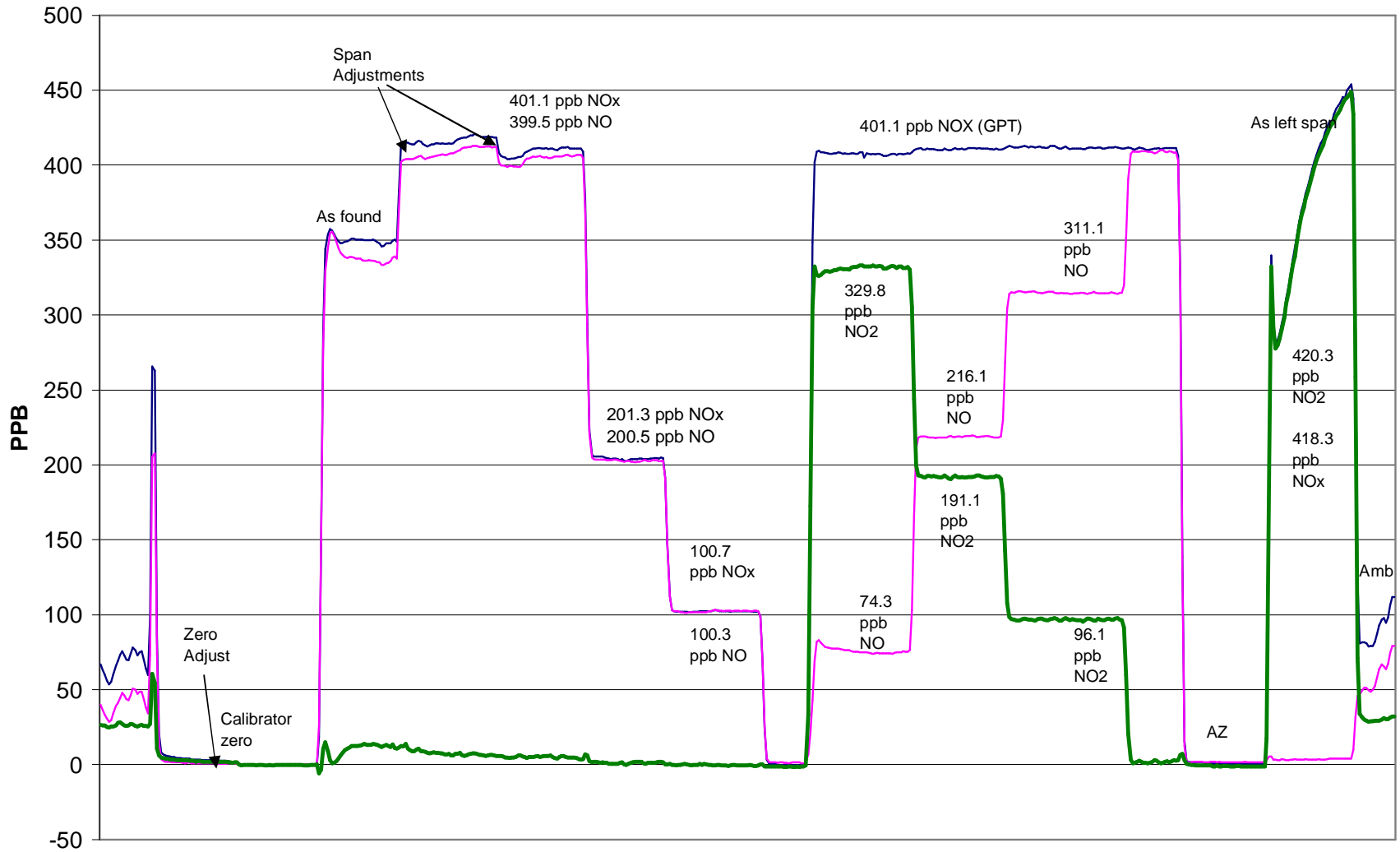
Calibration Date	December 13, 2004	Previous Calibration	November 9, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	9:00	End Time (MST)	0:00
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	0.0000	Correlation Coefficient	0.999993
401.1	409.4	0.9795		
201.3	204.3	0.9854	Slope	0.978541
100.8	102.3	0.9853		
			Intercept	0.732464

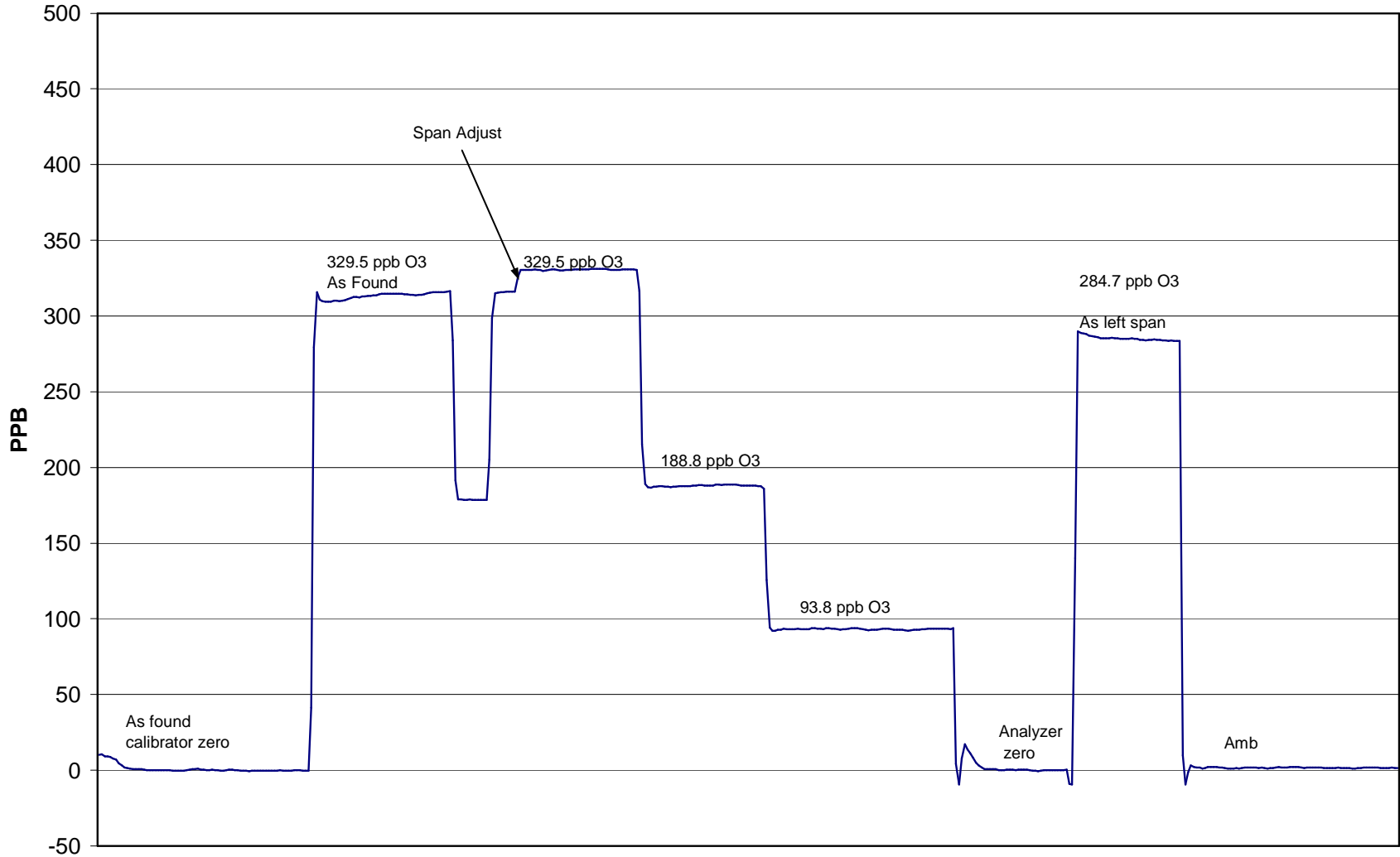


NOx Calibration



December 13, 2004

O3 Calibration



December 13, 2004

Calibration Report

Parameter CO
Air Monitoring Network PASZA



Station Information

Calibration Date	December 13, 2004	Previous Calibration	November 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)	15:50	End Time (MST)	19:00
Barometric Pressure	0.927 ATM	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Conc	3000 ppm	Cal Gas Expiry Date	12/10/2005
		Cal Gas Cylinder #	ALM 005412
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
DACS slope	0.005000	DACS slope	0.005000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	0.998491	Calculated slope	1.010736
Calculated intercept	0.102617	Calculated intercept	-0.008250
Analyzer make	TEI Model 48	Analyzer serial #	ACM-13989-143

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
CO span setting	755		755	
CO zero setting	527		527	
Sample pressure	691	mm Hg	691	mm Hg
Sample Flow	1.15	LPM	1.15	LPM

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4993	0.00	0.00	0.06	N/A
4993	39.97	23.82	23.61	1.0091
4993	19.96	11.95	11.79	1.0134
4993	9.97	5.98	5.88	1.0172
4993	0.00	0.00	0.06	As Found Zero
4993	39.97	23.82	23.61	As Found Span
Average Correction Factor				1.0132

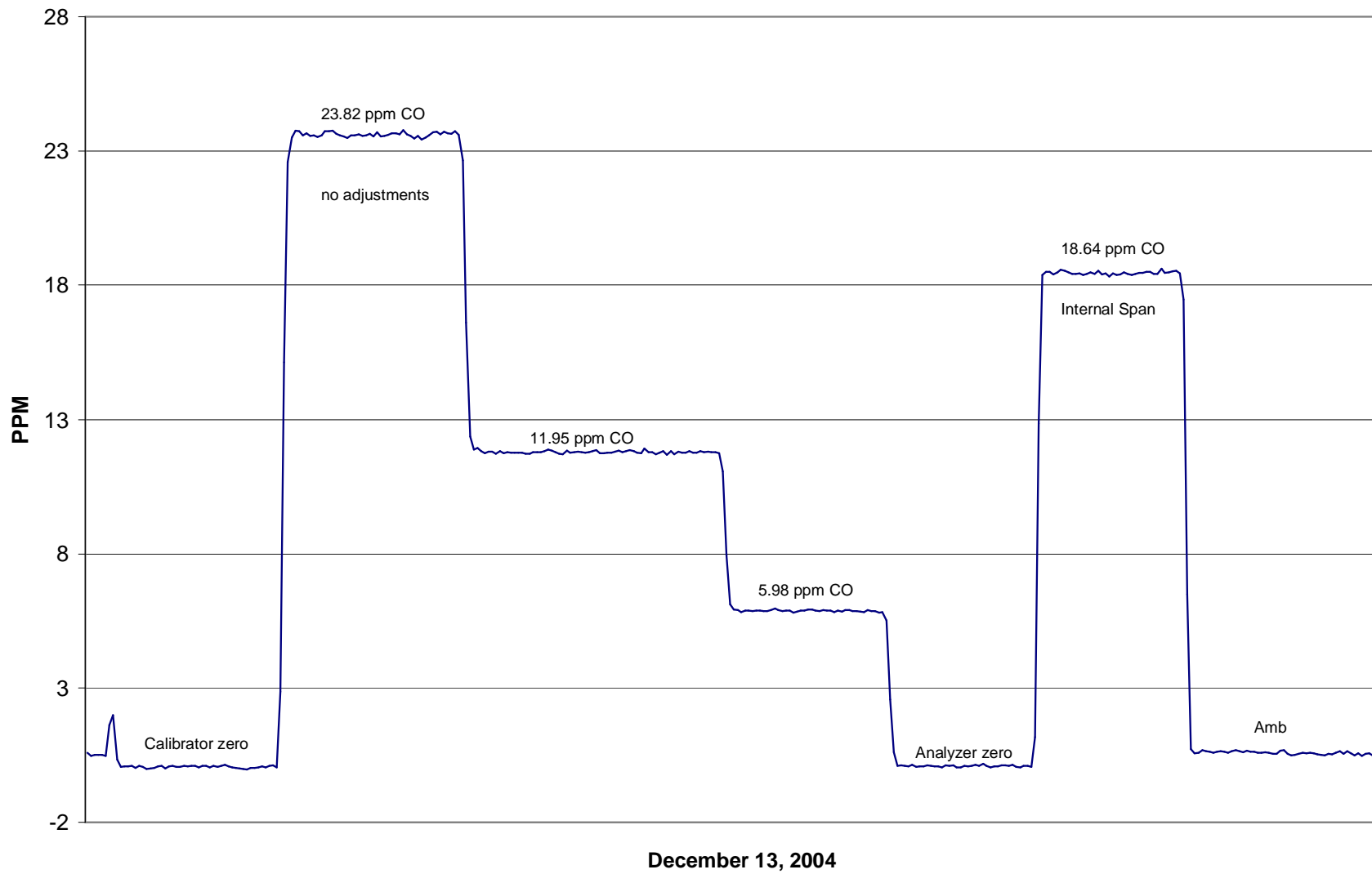
Calculated value of As Found Response: 23.616 ppm Percent Change of As Found: 0.9%

	before calibration		after calibration	
Auto zero	0.05	ppm	0.09	ppm
Auto span	29.47	ppm	18.64	ppm

Notes: no adjustments were made

Calibration Performed By: Gary Cross

CO Calibration



Calibration Report

Parameter THCAir Monitoring Network PASZA

Station Information

Calibration Date	December 14, 2004	Previous Calibration	November 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)	9:00	End Time (MST)	12:00
Barometric Pressure	0.919 ATM	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 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	1.004178	Calculated slope	0.999525
Calculated intercept	0.043824	Calculated intercept	0.052283
Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.10	psi	6.11	psi
THC span counts	6876	capture	6876	capture
THC zero counts	1259	capture	1259	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	-0.03	N/A
4993	64.97	19.55	19.54	1.0007
4993	34.96	10.58	10.48	1.0100
4993	9.97	3.03	2.99	1.0137
4993	0.00	0.00	-0.03	As Found Zero
4993	64.97	19.55	19.32	As Found Span
Average Correction Factor				1.0081

Calculated value of As Found Response: 19.482 ppm Percent Change of As Found: 0.4%

	before calibration		after calibration	
Auto zero	-0.01	ppm	0.03	ppm
Auto span	22.08	ppm	22.33	ppm

Notes: No zero adjust, slight span adjustment was made.

Calibration Performed By: Gary Cross

Calibration Summary

Parameter THC
 Air Monitoring Network PASZA

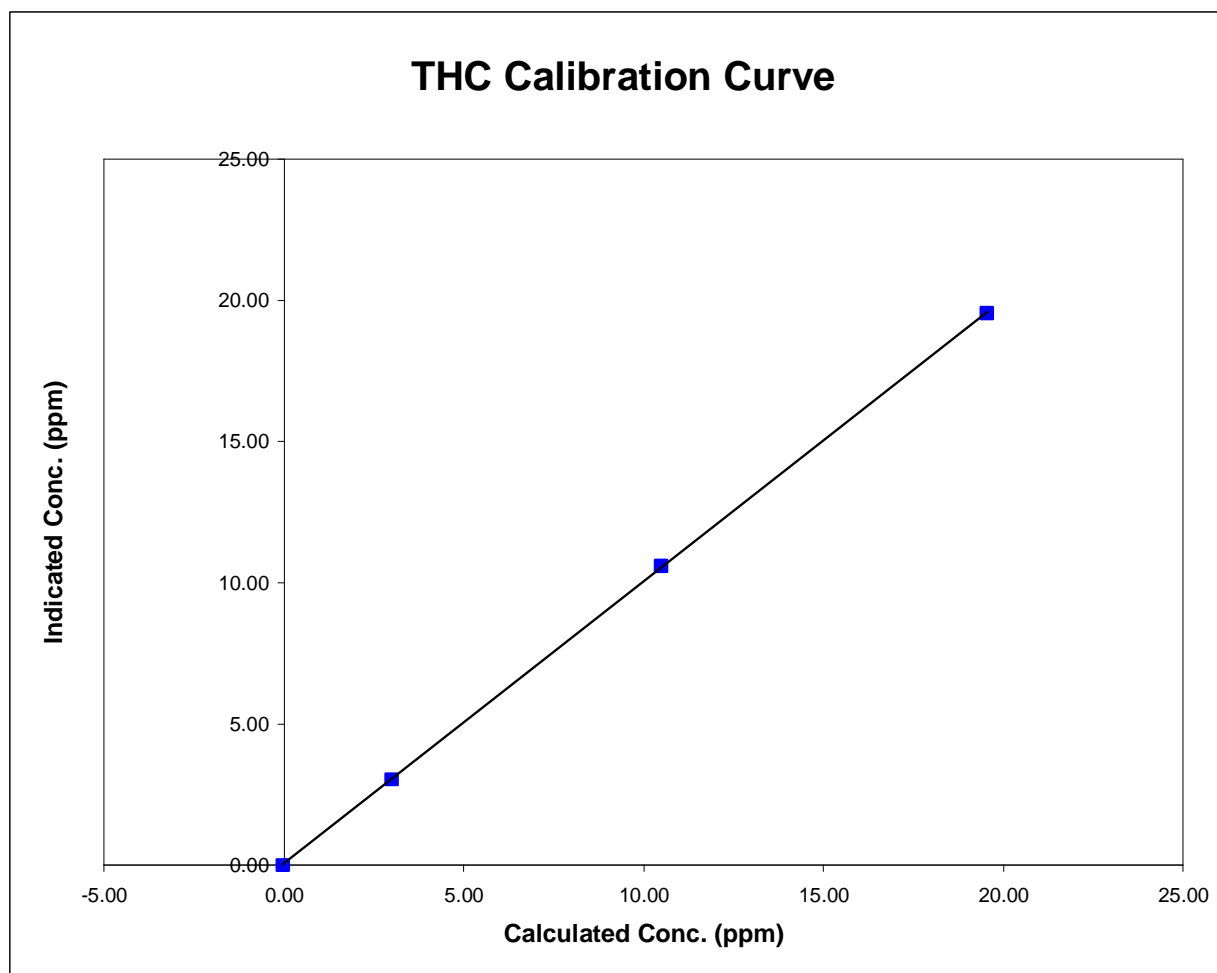


Station Information

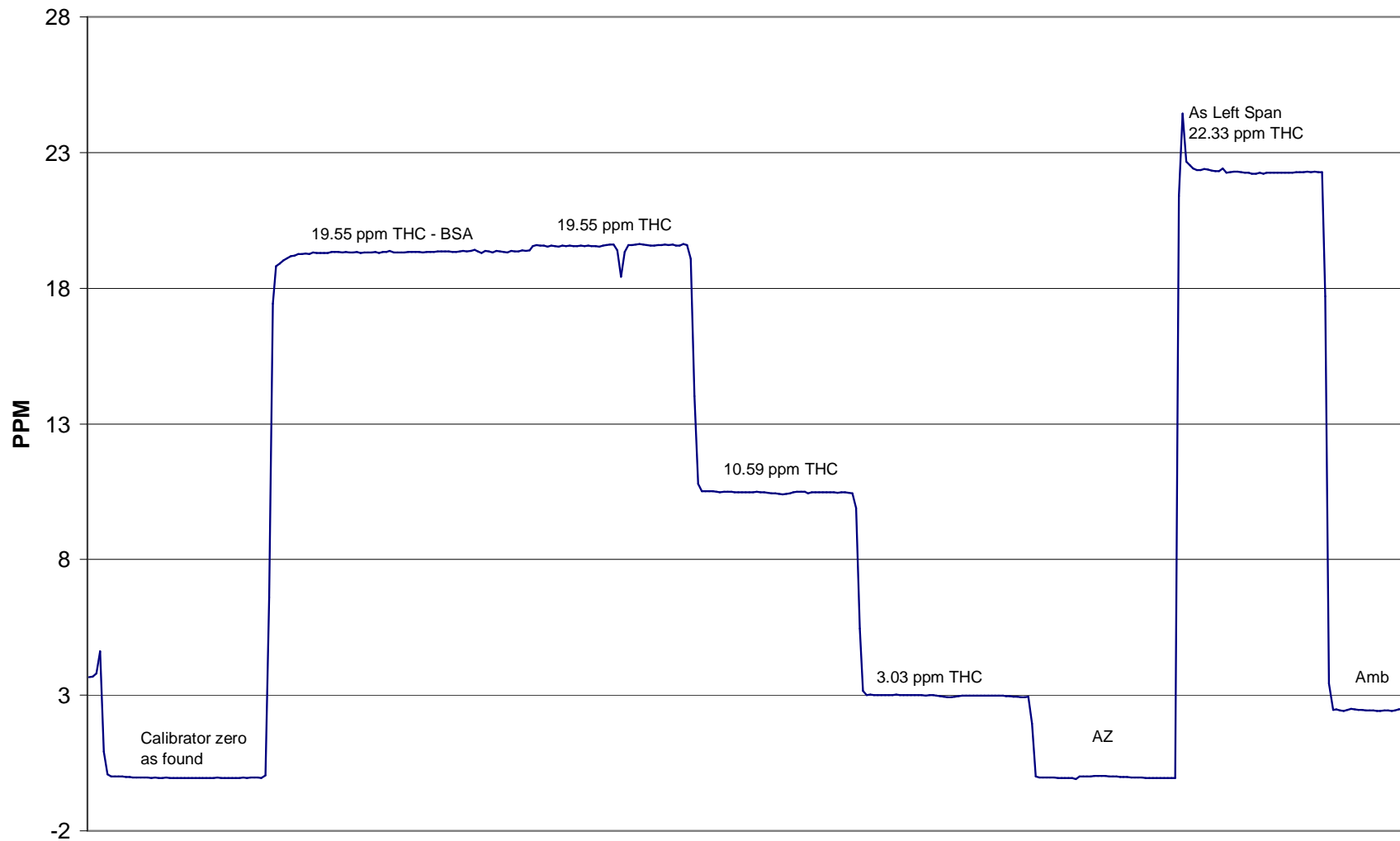
Calibration Date	December 14, 2004	Previous Calibration	November 8, 2004
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	9:00	End Time (MST)	12:00
Analyzer make/model	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.034	N/A		
19.553	19.540	1.0007	Correlation Coefficient	0.999980
10.584	10.479	1.0100		
3.034	2.993	1.0137	Slope	0.999525
			Intercept	0.052283



THC Calibration



December 14, 2004

Calibration Summary

Parameter
 Air Monitoring Network

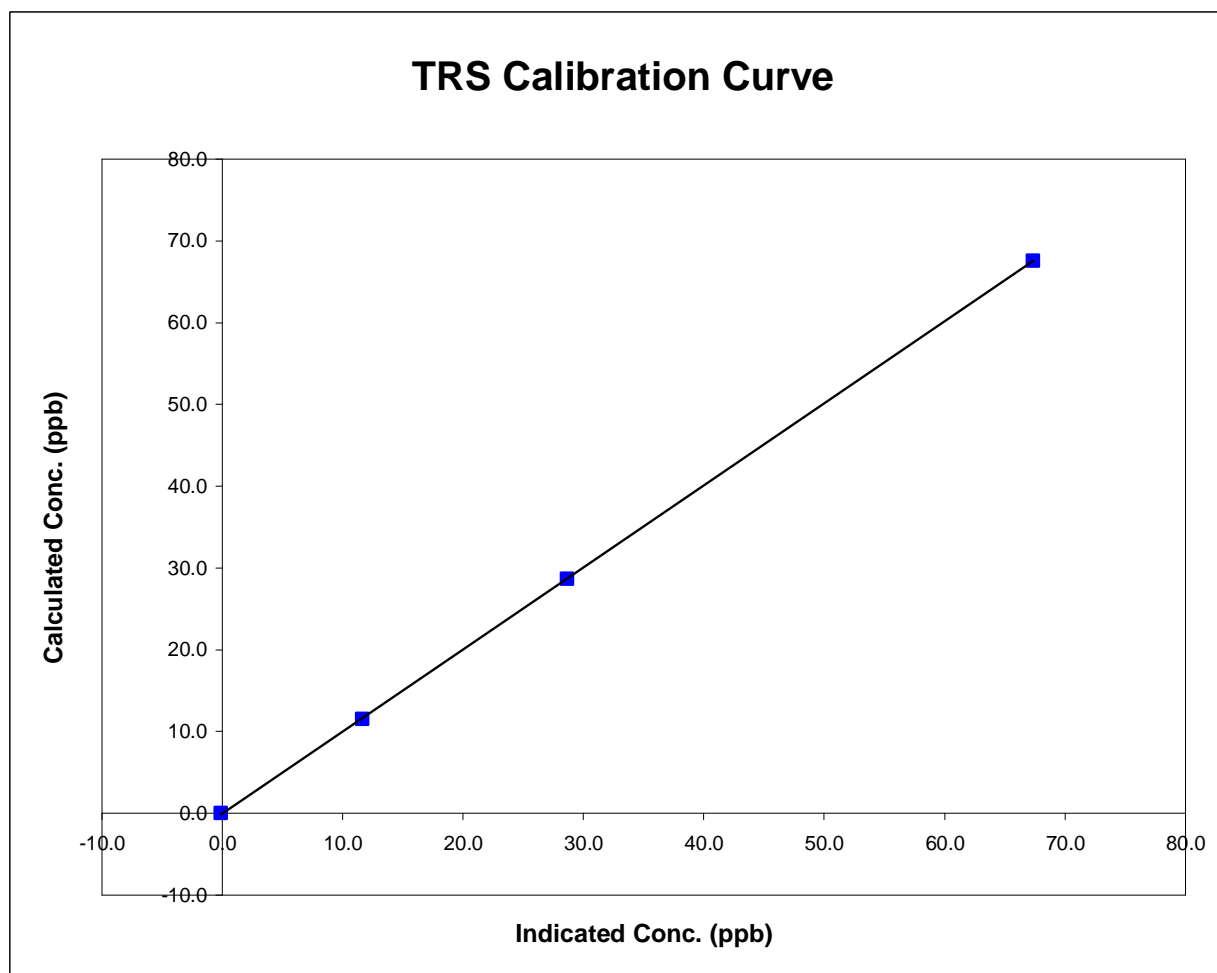


Station Information

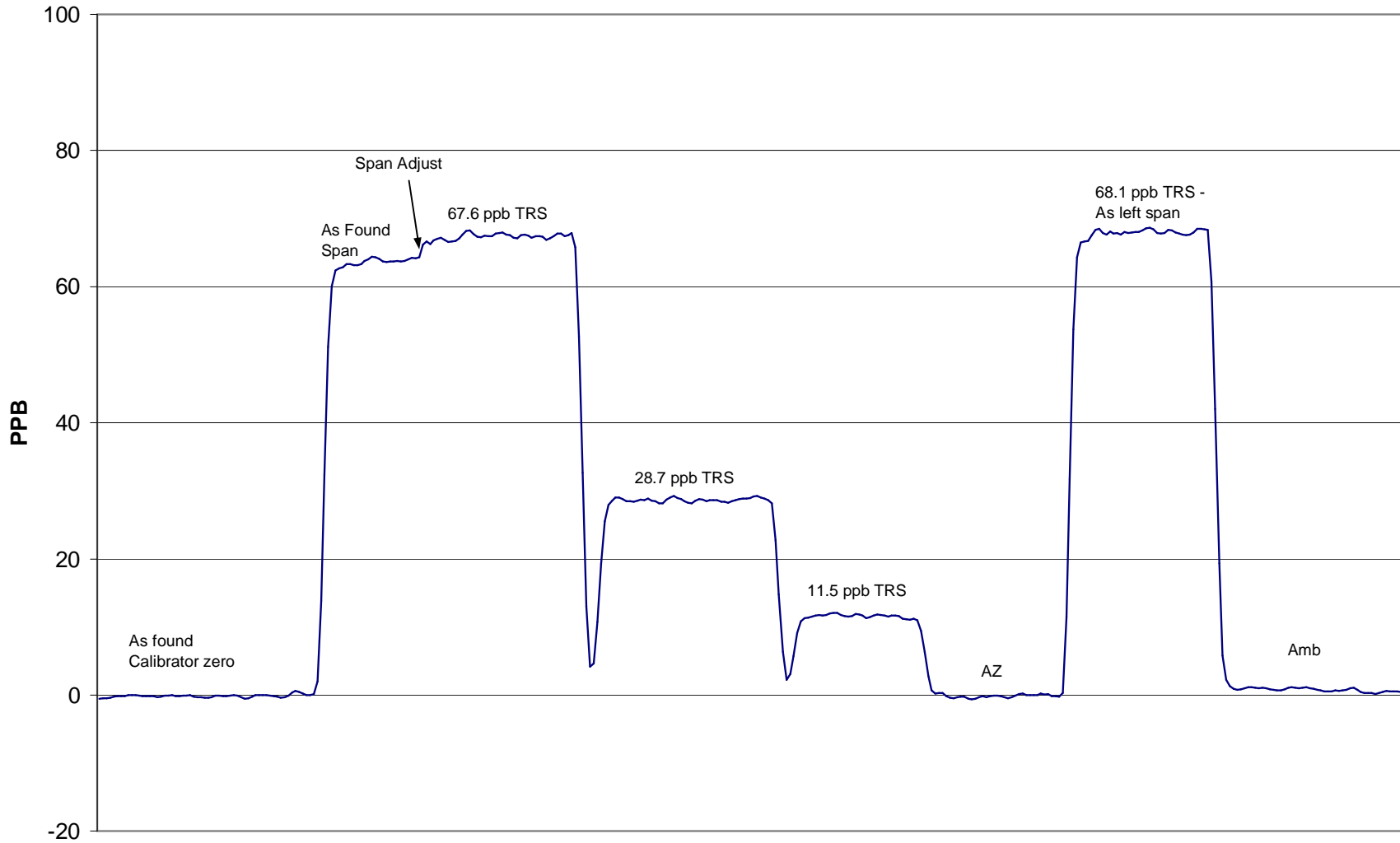
Calibration Date	<u>December 13, 2004</u>	Previous Calibration	<u>November 9, 2004</u>
Station Number	<u>1</u>	Station Location	<u>Muskoseepi Park</u>
Start Time (MST)	<u>10:00</u>	End Time (MST)	<u>12:45</u>
Analyzer make/model	<u>TEI Model 43C</u>	Analyzer serial #	<u>31990000000491</u>

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
67.6	67.4	1.0034	Correlation Coefficient	0.999986
28.7	28.7	1.0005		
11.5	11.6	0.9925	Slope	1.002748
			Intercept	-0.003361



TRS Calibration



December 13, 2004

Calibration ReportParameter PM2.5

Air Monitoring Network

PASZA**Station Information**

Calibration Date	<u>December 13, 2004</u>	Previous Calibration	<u>June 10, 2004</u>
Station Number	<u>1</u>	Station Location	<u>Muskoseepi Park</u>
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	<u>15:00</u>	End Time (MST)	<u>15:30</u>
Barometric Pressure	<u>0.9</u> inches Hg	Station Temperature	<u>21.0</u> Deg C
Flow Calibrator	<u>BIOS Drycal DCL-MH</u>	Serial Number	<u>101780</u>
DACS make	<u>AP 1000</u>	DACS serial No.	<u>45269</u>
DACS voltage range	<u>0 - 1 V</u>	DACS channel #	<u>15</u>
	<u>Before</u>		<u>After</u>
DACS slope	<u>0.050000</u>	DACS slope	<u>0.050000</u>
DACS intercept	<u>-50.000000</u>	DACS intercept	<u>-50.000000</u>

Analyzer Information

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

	before		after	
Main Flow Set Point	3.000	SLPM	3.000	SLPM
Aux Flow Set Point	16.67	SLPM	16.67	SLPM
Filter Load	70	%	17	%
Ko Factor	12122		12122	
Temperature	21	Deg C	21	Deg C
Pressure	0.927	ATM	0.927	ATM
Main Fadj	0.985		0.980	
Aux Fadj	0.985		0.980	

Calibration Data

Parameter	Set Point	Indicated Reading	Tolerance	New Reading
zero flow - main	0.0	0.05		0.05
zero flow - auxillary	0.0	0.04		0.04
flow recovery - main	45 - 60 Seconds	>45	45 - 60 Seconds	>45
flow recovery - aux	46 - 60 Seconds	>45	46 - 60 Seconds	>45
Temperature	measured	-10.2	+/- 1.0 Deg C	-9.8000
Pressure	measured	0.9	+/- 1.5% ΔATM	0.9270
Total Flow	16.67 SLPM	17.48		16.84
Main Flow	13.67 SLPM	14.24	+/- 1.0 SLPM	13.68
Auxillary Flow	3.0 SLPM	3.240	+/- 0.2 SLPM	3.160
Leak Check - main	0.0	0.06	<0.15 SLPM	0.06
Leak Check - aux	0.0	0.04	<0.15 SLPM	0.04
Ko Factor	measured	NA		NA

Notes: flows were adjusted with the Fadj parameter. Connector on the top of the sensor stack was taped to help keep it in place. A connector should be installed next trip.

Calibration Performed By: Gary Cross