Air Quality Monitoring Network

June 2005

Prepared by
FOCUS
AMBIENT AIR MONITORING

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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 (PASZA) – June Ambient Air Report

Enclosed is the PASZA Ambient Monitoring Network Report for the month of **June 2005**.

Continuous Monitoring: **4 Stations including Henry Pirker (Grande Prairie), Evergreen Park, Smoky Heights and Beaverlodge**

Included in this report is a summary of the monthly continuous monitoring, detailed hourly average reports and multipoint calibration reports of all instruments. Operational summaries can be found on the "Monthly Summary" and "Continuous Monitoring" pages of the report. The measured ambient air quality was within the Provincial and Federal guidelines with no exceedences recorded.

Three of the four continuous monitoring stations operated without any problems. The air conditioning unit at the Smoky Heights Station is not equipped with an automatic restart switch. After a power interruption near the start of the month, there was no cooling of the station and as a result the air quality analyzers operated outside of their performance specifications. Much of the data collected until the air conditioner was restarted manually was invalidated. This downtime has previously been reported to Alberta Environment and assigned Reference No. 161425. At this time there is no remote communication with the station as we are waiting for the connection of the telephone line by the local utility service provider. Weekly site visits will be made until remote communication, that will allow for remote and timely diagnosis of problems, is established. The air conditioning unit is being replaced by one that does have an automatic restart feature.

Problems were also experienced with the operation of the TEOM $PM_{2.5}$ monitor after a filter change on June 23. This resulted in additional downtime which was reported previously to Alberta Environment and assigned Ref. No. 163013 The two letters sent to AENV describing the reported incidents at the Smoky Heights School are attached.

As reported previously there was no daily zero and span of the NO2 monitor at the Henry Pirker Station until a zero/span unit was installed on June 21 and 22.

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

There were no missing passives during the month of May. A summary of the passive data collected are reported as follows.

- Monthly average concentrations for SO_2 passives ranged from 0.1 ppb to 0.4 ppb.
- Monthly average concentrations for NO_2 passives ranged from 0.5 ppb to 5.3 ppb.
- Monthly average concentrations for O_3 passives ranged from 18.7 ppb to 31.6 ppb.

If you have any questions, please contact the Focus office at 1-888-869-2252 (Gary Cross) or 1-888-466-6555 (Kevin McCullum).

On Behalf of the,
Peace Airshed Zone Association

Kevin Warren
PASZA Technical Program Manager

Kevin McCullum, Ph.D., P.Eng.
AQM Environmental Engineer

August 12, 2005

Standards & Approvals Division
Alberta Environment
4th Floor, Oxbridge Place
9820 – 106 Street
Edmonton, Alberta T5K 2J6

ATTENTION: Director

RE: PASZA Air Monitoring Directive Non-compliance Report Ref # 163013

A non-compliance of the Alberta Air Monitoring Directive was recently reported by Focus to Alberta Environment (AENV) on behalf of the Peace Airshed Zone Association (PASZA). The non-compliance was less than ninety (90%) percent uptime for the month of June for the $PM_{2.5}$ parameter at the Smoky Heights School Air Monitoring Station located NE of Grande Prairie, Alberta. The station is owned by PASZA and operated on their behalf by Focus. The non-compliance has been assigned AENV reference number 163013.

The cause of the non-compliance was due to a main filter that was not properly seated. This caused the monitor to read incorrectly until the problem was corrected. As a result of this issue the following actions have and will be taken:

1. A new filter was installed during the routine visit to the site on July 12.
2. Weekly site visits will be made until remote communications are established.
3. Remote access to data through a cell modem system will be installed, which will allow for alarms to identify potential problems or issues.

If there are any questions or concerns please call me at your convenience.

Sincerely,
THE FOCUS CORPORATION

Gary Cross
AQM Technical Manager

July 26, 2005

Standards & Approvals Division
Alberta Environment
4th Floor, Oxbridge Place
9820 – 106 Street
Edmonton, Alberta T5K 2J6

ATTENTION: Director

RE: PASZA Air Monitoring Directive Contravention Report Ref # 161425

A contravention of the Alberta Air Monitoring Directive was recently reported by Focus to Alberta Environment (AENV) on behalf of the Peace Airshed Zone Association (PASZA). The contravention was less than ninety (90%) percent uptime for the month of June for all monitored parameters at the Smoky Heights School Air Monitoring Station located NE of Grande Prairie, Alberta. The station is owned by PASZA and operated on their behalf by Focus. The contravention has been assigned AENV reference number 161425.

The cause of the contravention was due to data removed after the QA/QC processes which identified problems from a failed air conditioning unit, resulting in erratic readings for all station monitors. As a result of this issue the following actions have and will be taken:

4. An air conditioning service personal was brought in to fix the air conditioning unit.
5. Remote access to data through a cell modem system will be installed, which will allow for alarms to identify potential problems or issues.

If there are any questions or concerns please call me at your convenience.

Sincerely,
THE FOCUS CORPORATION

Kevin McCullum, Ph.D., P.Eng.
AQM Environmental Engineer

PASZA Monthly Continuous Data Summary

Jun-2005	Peace Airshed Zone Assocation						Maximum Recorded Values						
							1-hr				24-hr / 8-hr		
Pollutant	Objectives		Station	Monthly	Exceedence		Conc	Day	WSPD	WDIR	Conc	Day	Operational
(units)	1-hr	24-hr		Average	1-hr	24-hr			(km/hr)	(Sector)			Time (%)
SO_2 (**ppb**)	172	57	Henry Pirker	0.3	0	0	2.4	Jun-08 07:00	3.6	WSW	0.6	Jun-08	100.0%
SO_2 (**ppb**)	172	57	Evergreen Park	0.4	0	0	8.2	Jun-20 16:00	5.1	SSE	1.5	Jun-02	99.6%
SO_2 (**ppb**)	172	57	Smoky Heights	0.4	0	0	3.2	Jun-23 13:00	10.1	N	1.5	Jun-30	87.2%
SO_2 (**ppb**)	172	57	Beaverlodge	0.2	0	0	2.0	Jun-02 14:00	9.8	WNW	0.6	Jun-06	100.0%
NO (**ppb**)			Henry Pirker	1.6	-	-	33.3	Jun-09 06:00	6.0	SW	4.9	Jun-24	99.6%
NO_2 (**ppb**)	212	106	Henry Pirker	5.2	0	0	33.9	Jun-18 00:00	4.5	SSE	11.6	Jun-10	99.6%
NO_X (**ppb**)			Henry Pirker	6.7	-	-	54.5	Jun-09 06:00	6.0	SW	14.7	Jun-09	99.6%
NO (**ppb**)			Beaverlodge	0.2	-	-	9.1	Jun-09 06:00	3.8	SW	0.9	Jun-28	100.0%
NO_2 (**ppb**)	212	106	Beaverlodge	2.5	0	0	12.2	Jun-15 08:00	9.2	NW	4.2	Jun-09	100.0%
NO_X (**ppb**)			Beaverlodge	2.2	-	-	18.3	Jun-09 06:00	3.8	SW	4.0	Jun-29	100.0%
O_3 (**ppb**)	82		Henry Pirker	23.8	0	-	59.0	Jun-01 15:00	7.3	E	36.4	Jun-06	100.0%
O_3 (**ppb**) - **8-hr**	65		Henry Pirker		0						52.6	Jun-01	
O_3 (**ppb**)	82		Beaverlodge	29.5	0	-	56.7	Jun-09 16:00	18.4	NE	40.2	Jun-06	100.0%
O_3 (**ppb**) - **8-hr**	65		Beaverlodge	0.0	0						53.0	Jun-09	
CO (**ppm**)	13		Henry Pirker	0.22	0	-	0.8	Jun-18 00:00	4.5	SSE	0.3	Jun-30	100.0%
CO (**ppm**) - **8-hr**	5		Henry Pirker		0						0.5	Jun-19	
THC (**ppm**)			Henry Pirker	2.00	-	-	2.9	Jun-19 05:00	3.7	SSW	2.2	Jun-19	100.0%
TRS (**ppb**)			Henry Pirker	0.2	-	-	1.2	Jun-21 03:00	4.5	SE	0.3	Jun-21	100.0%
TRS (**ppb**)			Evergreen Park	0.5	-	-	1.2	Jun-05 06:00	2.5	SSE	0.7	Jun-22	99.6%
TRS (**ppb**)			Smoky Heights	0.3	-	-	1.3	Jun-29 05:00	3.6	W	0.5	Jun-29	53.3%
$PM_{2.5}$ (**µg/m^3**)		30 [a]	Henry Pirker	3.8	0	0	33.0	Jun-18 00:00	4.5	SSE	8.1	Jun-09	98.9%
$PM_{2.5}$ (**µg/m^3**)		30 [a]	Evergreen Park	3.8	0	0	21.7	Jun-10 06:00	5.5	W	8.9	Jun-01	98.6%
$PM_{2.5}$ (**µg/m^3**)		30 [a]	Smoky Heights	2.3	0	0	32.4	Jun-21 19:00	4.8	W	5.4	Jun-21	26.9%
$PM_{2.5}$ (**µg/m^3**)		30 [a]	Beaverlodge	3.0	0	0	17.6	Jun-01 22:00	5.4	NW	8.2	Jun-01	99.6%
RH (**%**)			Henry Pirker	70.5	-	-	-	-	-	-	-	-	100.0%
RH (**%**)			Beaverlodge	68.8	-	-	-	-	-	-	-	-	100.0%
SR (**W/m^2**)			Henry Pirker	222.1	-	-	-	-	-	-	-	-	100.0%
Temp (**°C**)			Henry Pirker	14.3	-	-	-	-	-	-	-	-	100.0%
Temp (**°C**)			Evergreen Park	13.5	-	-	-	-	-	-	-	-	99.6%
Temp (**°C**)			Smoky Heights	12.3	-	-	-	-	-	-	-	-	87.4%
Temp (**°C**)			Beaverlodge	13.9	-	-	-	-	-	-	-	-	100.0%
WSPD v (**km/hr**)			Henry Pirker	8.4	-	-	-	Jun-21 12:00	28.7	W	12.4	22-Jun	100.0%
WSPD v (**km/hr**)			Evergreen Park	5.7	-	-	-	Jun-15 16:00	23.8	NNW	8.6	23-Jun	99.6%
WSPD v (**km/hr**)			Smoky Heights	7.8	-	-	-	Jun-21 13:00	29.7	W	12.0	14-Jun	87.4%
WSPD v (**km/hr**)			Beaverlodge	Not calculated this month									
WSPD s (**km/hr**)			Henry Pirker	9.2	-	-	-	Jun-21 12:00	29.1	W	13.1	23-Jun	100.0%
WSPD s (**km/hr**)			Evergreen Park	6.3	-	-	-	Jun-15 16:00	24.4	NNW	10.4	23-Jun	99.6%
WSPD s (**km/hr**)			Smoky Heights	8.2	-	-	-	Jun-21 13:00	30.2	W	13.1	14-Jun	87.4%
WSPD s (**km/hr**)			Beaverlodge	8.1	-	-	-	Jun-21 10:00	28.7	WSW	12.0	21-Jun	100.0%
WDIR (**Deg**)			Henry Pirker	N	-	-	-	-	-	-	-	-	100.0%
WDIR (**Deg**)			Evergreen Park	N	-	-	-	-	-	-	-	-	99.6%
WDIR (**Deg**)			Smoky Heights	8.2	-	-	-	Jun-21 13:00	30.2	W	13.1	38517	87.4%
WDIR (**Deg**)			Beaverlodge	N	-	-	-	-	-	-	-	-	100.0%

Note: [a] the draft 1-hr Alberta Ambient Air Quality Objective

* Wind Direction is the predominate direction for the Month

Continuous Network Equipment Summary

PASZA – Henry Pirker Station

General Station Issues

There were no general operational issues noted during the month.

Parameter	Make	Model	Notes
SO_2	TECO	43	No operational problems observed
$NOx/NO/NO_2$	TECO	42	Three hours of data were flagged for maintenance on June 22 due to the installation of a span oven in the analyzer.
O_3	API	400	No operational problems observed
CO	TECO	48	No operational problems observed
THC	TEI	51-CLT	No operational problems observed
TRS	TEI	42C	No operational problems observed
$PM_{2.5}$	R&P	1400AB	8 hours were removed due to excessive drift
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 – Evergreen Park Station

General Station Issues

Two power failures reslted in three hours of missing data during the month. The first was on June 9 from 14:00 to 16:00, the second was on June 30 at 23:00.

Parameter	Make	Model	Notes
SO_2	API	100	No operational problems observed
TRS	TEI	42C	No operational problems observed
$PM_{2.5}$	R&P	1400AB	7 hours were removed due to excessive drift
AT	Met One	083D	No operational problems observed
WS	Met One	010C	No operational problems observed
WD	Met One	020C	No operational problems observed

PASZA – Smoky Heights School Station

General Station Issues

Significant data loss during the month of June was caused by a power failure that caused the air conditioner to fail. The excessive station temperature caused uncorrectable analyzer drift on the TRS and $PM_{2.5}$ monitors. The $PM_{2.5}$ analyzer also lost the last days of the month due to a faulty main filter.

Parameter	Make	Model	Notes
SO_2	API	100A	Daily AIC's were not available until June 24 from the problem reported previously for the month of May (see attached letter)
TRS	TEI	42C	Data was removed from June 1 to 15 due to uncorrectable drift due to excessive station temperature.
$PM_{2.5}$	R&P	1400AB	Data was removed from June 1 to 15 due to uncorrectable drift due to excessive station temperature. Data was also removed after the calibration on June 23 to the end of the month due to a main filter that did not stabilize
AT	Met One	083D	The excessive station temperature caused the data system to fail resulting in data loss from June 2 to 6.
WS	Met One	010C	The excessive station temperature caused the data system to fail resulting in data loss from June 2 to 6.
WD	Met One	020C	The excessive station temperature caused the data system to fail resulting in data loss from June 2 to 6.

PASZA – Beaverlodge Station

General Station Issues

There were no general operational issues noted during the month. No maximum tables are available for the Month of June as ESC data was used to generate the monthly data tables.

Parameter	Make	Model	Notes
SO_2	API	100A	No operational problems observed
TRS	TEI	42C	No operational problems observed
$PM_{2.5}$	R&P	1400AB	3 hours were removed due to excessive drift
AT	Met One	083D	No operational problems observed
WS	Met One	010C	No operational problems observed
WD	Met One	020C	No operational problems observed

PASZA - Henry Pirker Station

Monthly Summary Tables, Graphs, and Roses

PASZA - Henry Pirker Sulphur Dioxide Monthly Summary

HOURLY AVERAGE TABLE

Sulphur Dioxide (SO_2)

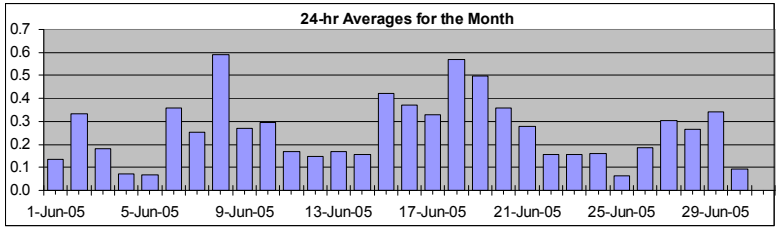
Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: June 1, 2005 to July 1, 2005

Objective Limit: **Alberta Environment:** 1-hr 172 ppb | 24-hr 57 ppb

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	2.4	ppb	8-Jun	7:00 8:00
Maximum 24-hr Average:	0.6	ppb	8-Jun	



AIC Time:	32 hrs	Operational Time:	686 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	1.4	0.8	0.3	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**

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-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.1	0.5
2-Jun-05	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	A	0	0	0	0	0	0	0	0.3	0.8
3-Jun-05	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.2	0.6
4-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.4
5-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.4
6-Jun-05	0	0	0	0	1	1	0	1	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0.4	1.4
7-Jun-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	C	C	A	1	0	0	0	0.3	1.4
8-Jun-05	0	1	1	1	1	A	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	2.4
9-Jun-05	0	0	0	0	A	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
10-Jun-05	0	0	0	A	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
11-Jun-05	0	0	A	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
12-Jun-05	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
13-Jun-05	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.3
14-Jun-05	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	0.3
15-Jun-05	0	0	0	0	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	A	0	0	0.4	1.4
16-Jun-05	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	A	1	0	0	0.4	2.1
17-Jun-05	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	A	0	0	0	0	0.3	1.5
18-Jun-05	0	0	0	1	1	1	1	2	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.6	2.1
19-Jun-05	0	0	0	0	0	0	0	1	0	0	0	0	0	2	1	1	0	A	1	1	1	0	0	0	0.5	1.6
20-Jun-05	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	A	0	0	1	0	0	0	0	0.4	1.3
21-Jun-05	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	0.7
22-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
23-Jun-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
24-Jun-05	0	0	0	0	A	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.8
25-Jun-05	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
26-Jun-05	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	1.4
27-Jun-05	1	A	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.4
28-Jun-05	A	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0.3	1.1
29-Jun-05	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0	0	1	0	0	0	1	0	A	0	0.3	1.0
30-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0.1	0.5
																									N	0.0
Hourly Avg	0.2	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2		
Hourly Max	1.4	0.7	0.7	1.5	1.2	1.4	1.9	2.4	1.6	2.1	1.4	1.3	1.2	1.6	0.7	1.2	1.0	0.5	0.9	1.0	1.4	0.7	0.4	1.4		

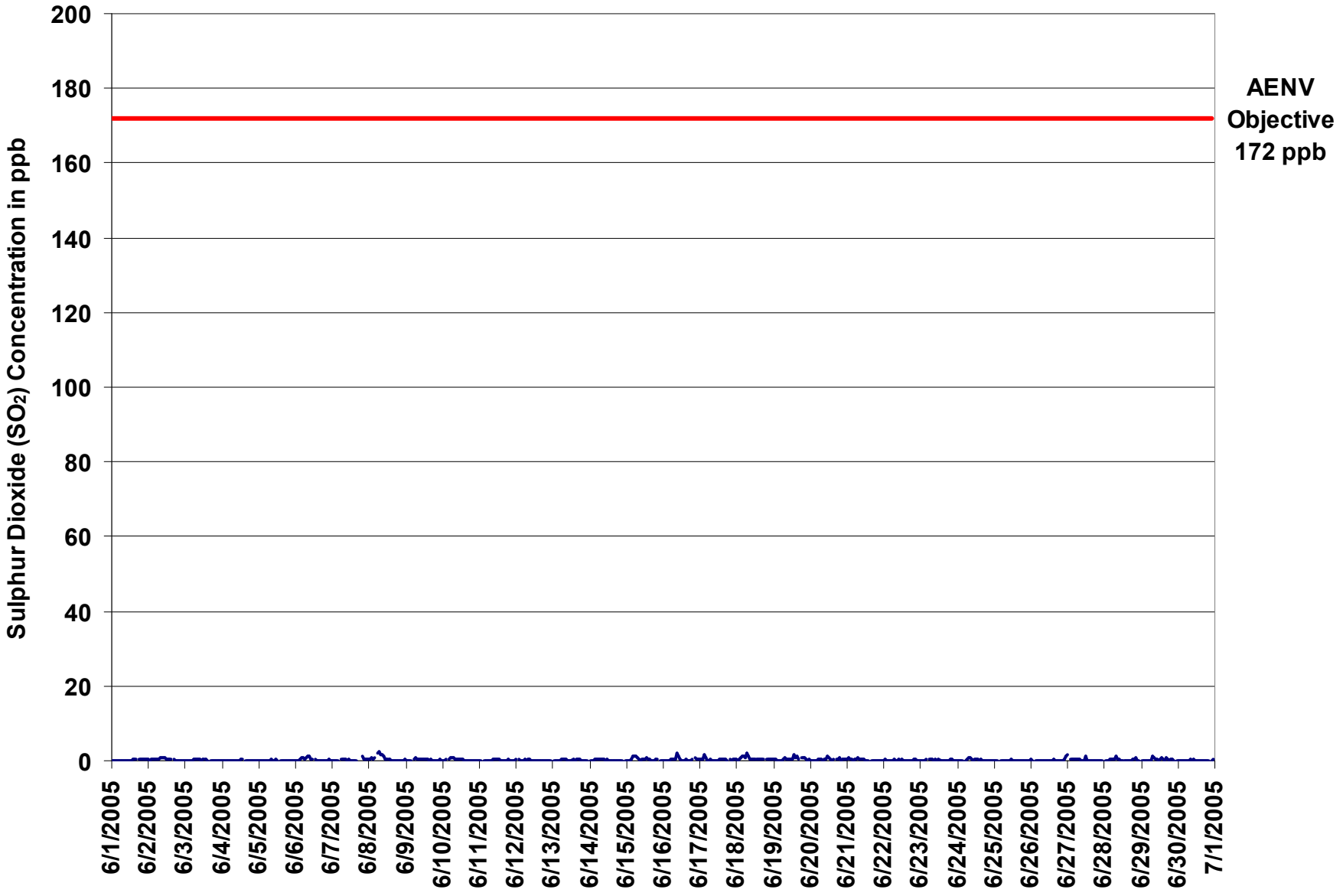


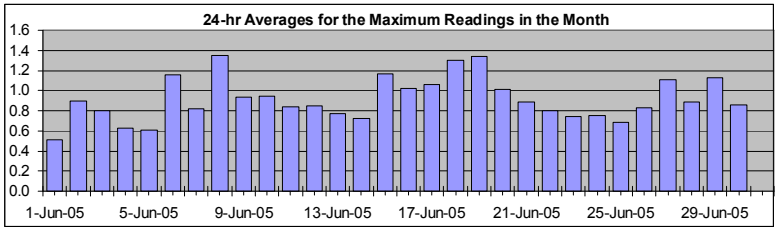
Figure 1. PASZA - Henry Pirker Sulphur Dioxide 1-hr Average Monthly Trend

Station: Henry Pirker
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Sulphur Dioxide (SO_2)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Value:	4.7	ppb	27-Jun	12:00 13:00
Maximum 24-hr Value:	1.3	ppb	8-Jun	

AIC Time:	32 hrs	Operational Time:	686 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	3.3	1.9	1.0	0.8	0.6	0.5	0.2	0.9 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / 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-Jun-05	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	A	1	1	1	1	1	1	0.5	1.1
2-Jun-05	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	A	1	0	1	1	1	1	1	0.9	1.5
3-Jun-05	0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.8	1.7
4-Jun-05	1	1	1	1	1	0	1	1	1	1	1	1	1	1	A	1	0	1	1	1	0	1	1	1	0.6	1.3
5-Jun-05	0	0	0	1	1	0	0	1	1	1	0	1	1	A	1	1	1	1	1	1	1	1	1	1	0.6	0.9
6-Jun-05	1	1	1	1	2	1	2	1	3	3	2	1	A	1	1	1	1	1	1	1	1	1	2	1	1.2	3.3
7-Jun-05	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	C	C	A	2	1	1	1	0.8	1.9
8-Jun-05	1	1	1	1	1	A	3	4	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	3.6
9-Jun-05	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.4
10-Jun-05	1	1	1	A	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	2.4
11-Jun-05	1	1	A	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	0.8	1.7
12-Jun-05	2	A	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.8
13-Jun-05	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	A	0.8	1.1
14-Jun-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.7	0.9
15-Jun-05	1	1	1	1	2	2	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	A	1	1	1.2	2.4
16-Jun-05	1	1	1	1	1	1	1	1	1	4	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1.0	3.7
17-Jun-05	1	1	1	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.1	3.2
18-Jun-05	1	1	1	1	2	2	2	3	3	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.3	3.4
19-Jun-05	1	1	1	1	1	1	1	2	1	1	1	1	1	3	3	3	1	A	2	2	1	1	1	1	1.3	2.9
20-Jun-05	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	A	1	1	2	1	1	1	1	1.0	1.9
21-Jun-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.9	1.4
22-Jun-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
23-Jun-05	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.3
24-Jun-05	1	1	0	1	A	1	1	1	2	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.8	1.6
25-Jun-05	1	0	1	A	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0.7	1.0
26-Jun-05	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	0.8	3.1
27-Jun-05	3	A	1	1	1	1	1	1	2	1	1	1	5	1	1	1	1	1	1	1	1	1	1	1	1.1	4.7
28-Jun-05	A	0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	2	1	1	A	0.9	1.8
29-Jun-05	1	1	1	1	1	1	1	2	2	1	1	1	1	2	1	1	2	1	1	1	2	1	A	1	1.1	2.2
30-Jun-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	A	3	4	0.9	4.0
																									N	0.0
Hourly Avg	0.8	0.7	0.8	0.8	0.9	1.0	1.1	1.2	1.2	1.2	1.0	0.9	1.0	0.9	0.9	0.9	0.8	0.7	0.8	0.8	0.9	0.8	0.9	1.0		
Hourly Max	3.1	1.4	1.4	3.2	2.4	2.5	3.3	3.6	3.4	3.7	2.4	1.9	4.7	2.6	2.9	2.7	2.2	1.3	2.4	1.9	1.9	1.3	2.5	4.0		

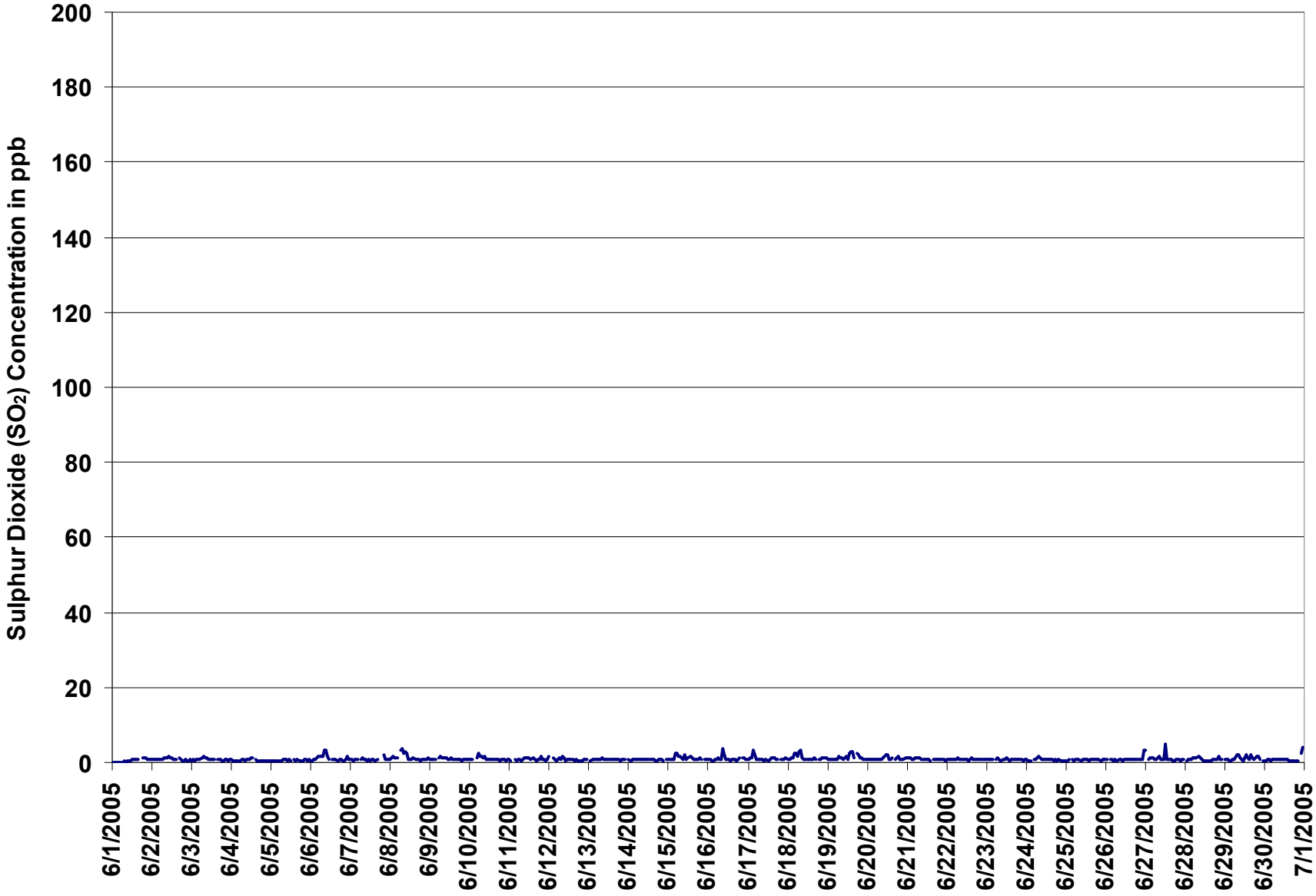
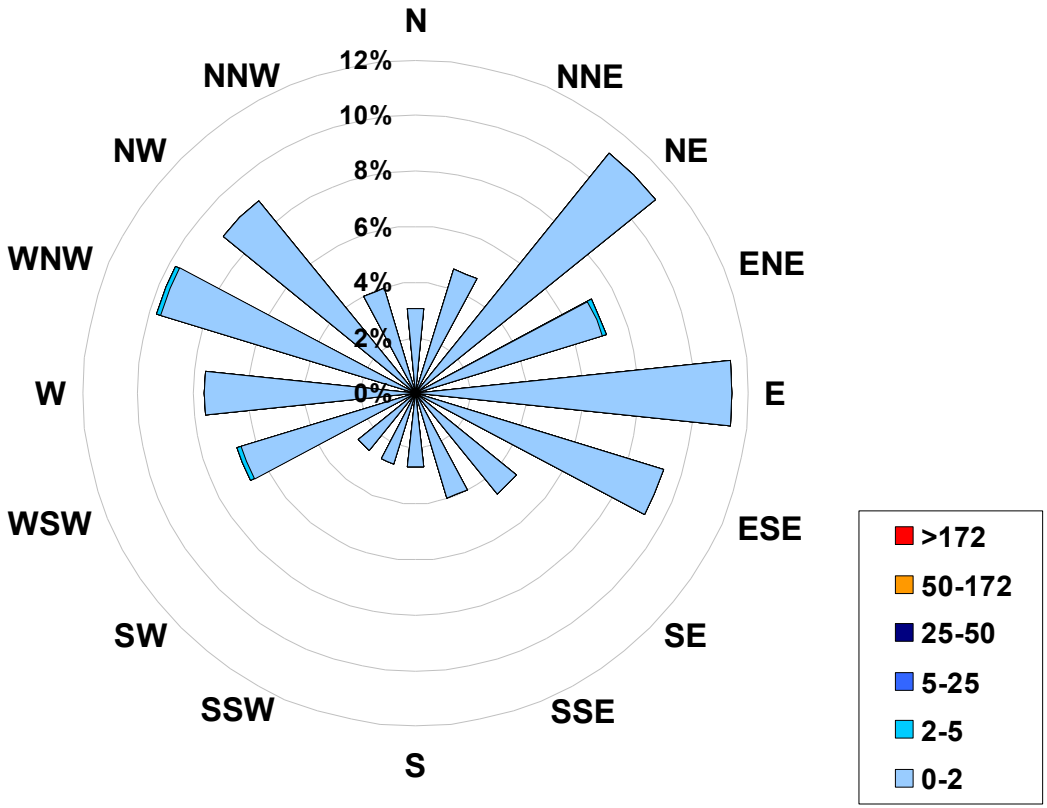


Figure 2. PASZA - Henry Pirker Sulphur Dioxide 1-hr Maximum Value Monthly Trend

1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Henry Pirker Site for June 2005



Calms: 0%

Frequency Distribution of SO_2 in ppb			
Range			Frequency (hrs)
0.0	<	2	683
2	to	5	3
5	to	25	0
25	to	50	0
50	to	172	0
	>	172	0
Total Non-Zero Values			686

PASZA - Henry Pirker Nitrogen Dioxide Monthly Summary

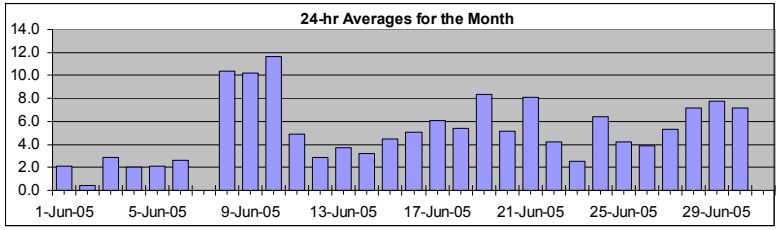
Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Nitrogen Dioxide (NO_2)

Monitoring Dates: June 1, 2005 to July 1, 2005

Objective Limit: **Alberta Environment:** 1-hr 212 ppb | 24-hr 106 ppb



Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	33.9	ppb	19-Jun	0:00 1:00
Maximum 24-hr Average:	11.6	ppb	10-Jun	

AIC Time:	35 hrs	Operational Time:	677 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	99.6%

Percentile	99	95	75	50	25	5	1	Average
	22.8	14.8	6.5	3.8	2.0	0.0	0.0	5.2 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-Jun-05	0	0	0	2	3	8	1	0	0	0	0	1	3	0	1	0	0	A	0	0	2	12	10	8	2.1	11.7
2-Jun-05	6	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	5.7
3-Jun-05	0	0	0	0	4	6	5	9	10	3	0	0	0	0	0	A	0	13	1	2	3	4	4	3	2.8	12.7
4-Jun-05	5	2	3	1	3	5	7	4	3	1	0	0	0	0	A	0	0	0	1	1	2	3	2	3	2.0	7.1
5-Jun-05	3	2	1	2	6	4	5	2	1	1	1	0	0	A	0	1	0	0	1	4	6	4	3	2	2.1	6.0
6-Jun-05	1	2	2	3	5	11	12	17	3	2	1	0	A	1	0	0	0	0	0	0	0	0	0	0	2.6	17.0
7-Jun-05	0	0	0	0	0	A	2	0	C	C	C	C	C	A	A	0	6	3	2	3	6	12	10	19	N	19.2
8-Jun-05	26	24	13	9	12	A	14	24	29	9	3	2	2	2	2	2	3	2	2	4	8	14	15	18	10.4	28.5
9-Jun-05	21	17	17	13	A	19	21	13	10	9	7	3	3	5	11	4	4	4	4	5	6	12	11	15	10.2	21.1
10-Jun-05	19	14	14	A	15	21	23	18	11	10	8	14	19	9	4	5	6	6	8	10	8	9	9	7	11.6	22.6
11-Jun-05	8	10	A	7	5	8	8	3	3	4	4	4	5	5	3	4	4	5	5	4	4	4	4	3	4.9	9.8
12-Jun-05	3	A	3	3	5	7	2	2	1	2	1	1	2	2	2	1	2	2	2	3	4	5	5	4	2.8	6.5
13-Jun-05	A	3	3	3	4	5	6	4	3	1	2	2	3	3	4	5	5	3	4	4	5	6	4	A	3.7	5.9
14-Jun-05	4	5	4	4	6	8	8	5	3	2	2	2	2	1	2	2	1	1	2	2	2	4	A	5	3.2	7.8
15-Jun-05	7	6	6	5	5	6	7	4	3	3	3	2	2	1	6	3	2	2	2	4	7	A	9	8	4.4	9.4
16-Jun-05	11	12	13	11	7	9	6	4	2	2	2	2	1	1	1	2	3	3	3	3	A	6	7	6	5.1	12.6
17-Jun-05	5	5	5	3	3	4	6	7	3	5	5	5	5	4	4	5	6	8	6	A	10	12	14	11	6.1	13.8
18-Jun-05	4	4	3	4	5	5	6	3	3	2	2	2	2	1	2	2	2	2	A	2	4	16	20	27	5.4	27.4
19-Jun-05	34	26	19	18	18	15	10	4	2	2	2	2	2	2	1	2	2	A	2	4	5	5	7	7	8.3	33.9
20-Jun-05	7	5	5	5	7	8	9	6	3	3	3	4	4	3	3	3	A	2	2	3	5	13	11	7	5.2	13.0
21-Jun-05	6	6	8	13	12	12	20	18	12	5	3	3	3	3	2	A	2	4	5	5	10	3	17	14	8.1	19.8
22-Jun-05	5	7	8	5	4	3	4	3	2	2	2	M	M	M	A	A	4	3	4	4	9	5	6	0	4.2	8.6
23-Jun-05	0	2	2	2	4	A	8	3	0	0	0	0	0	2	3	4	4	3	2	2	5	5	6	5	2.5	7.6
24-Jun-05	4	4	5	6	A	11	11	14	18	9	5	4	3	3	4	5	4	3	2	4	6	10	8	6	6.4	18.0
25-Jun-05	4	5	4	A	7	6	6	4	6	6	4	4	3	3	2	2	2	3	3	3	3	5	5	6	4.2	6.7
26-Jun-05	4	4	A	5	5	4	2	2	2	2	3	3	4	4	3	3	6	4	5	5	7	5	4	3	3.9	7.0
27-Jun-05	2	A	4	4	5	7	9	9	8	4	2	5	8	3	4	3	3	4	4	4	5	8	9	8	5.3	9.0
28-Jun-05	A	9	6	7	8	15	11	12	13	9	4	3	3	2	2	2	3	3	4	4	8	17	14	A	7.1	16.6
29-Jun-05	11	9	13	12	10	13	13	14	6	5	4	3	4	6	5	3	4	3	2	4	9	7	A	21	7.8	21.2
30-Jun-05	4	5	8	8	12	12	12	12	8	6	6	2	2	3	6	7	5	3	3	4	11	A	10	15	7.2	14.7
																									N	0.0
Hourly Avg	7.3	6.6	6.0	5.4	6.3	8.6	8.6	7.2	5.9	3.7	2.7	2.6	3.1	2.6	2.8	2.6	3.1	3.2	2.8	3.3	5.4	7.4	8.0	8.3		
Hourly Max	33.9	26.4	19.4	18.1	17.7	20.6	22.6	24.4	28.5	10.0	8.5	14.4	19.2	8.8	10.6	7.0	6.5	12.7	7.6	10.2	11.1	16.6	20.3	27.4		

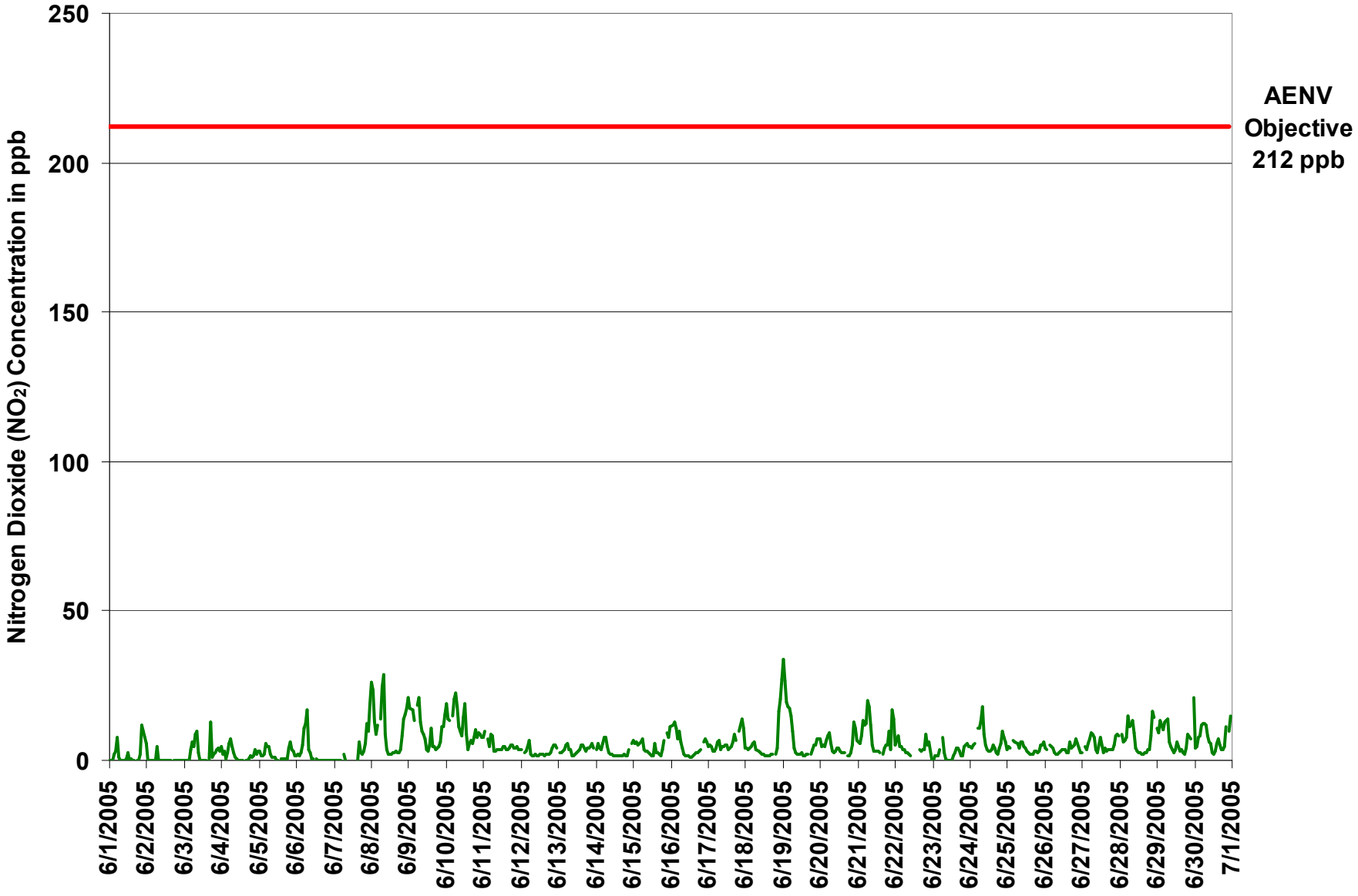


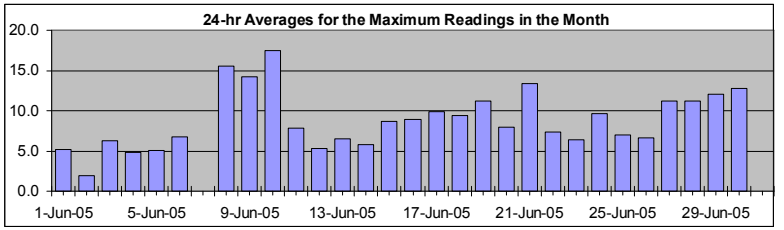
Figure 3. PASZA - Henry Pirker Nitrogen Dioxide 1-hr Average Monthly Trend

Station: Henry Pirker
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Nitrogen Dioxide (NO_2)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Value:	50.9	ppb	27-Jun	8:00 9:00
Maximum 24-hr Value:	17.4	ppb	10-Jun	

AIC Time:	35 hrs	Operational Time:	677 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	99.6%

Percentile	99	95	75	50	25	5	1	Average
	32.5	23.2	11.1	7.2	4.5	0.8	0.0	8.8 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Jun-05	2	3	1	5	6	14	5	3	1	0	0	4	6	1	2	2	2	A	2	2	6	20	17	15	5.2	20.3
2-Jun-05	10	6	0	0	5	9	9	5	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1.9	10.2
3-Jun-05	0	0	0	1	9	10	9	14	14	11	0	0	0	0	2	A	3	22	6	8	7	10	10	8	6.2	21.9
4-Jun-05	9	4	5	2	7	8	18	6	9	3	1	1	1	1	A	2	2	4	3	3	4	8	5	5	4.9	17.7
5-Jun-05	6	5	3	3	9	9	13	4	3	2	3	1	1	A	3	7	4	1	4	9	10	10	5	3	5.1	12.7
6-Jun-05	3	7	14	4	11	16	17	29	7	6	3	3	A	7	3	2	4	6	1	3	4	0	3	1	6.7	29.0
7-Jun-05	2	0	0	0	5	A	9	3	C	C	C	C	C	A	A	1	12	7	4	5	16	19	18	27	N	27.2
8-Jun-05	34	36	19	11	16	A	18	33	33	24	6	4	4	4	5	5	8	5	5	6	14	23	20	23	15.5	36.1
9-Jun-05	29	19	19	18	A	24	25	18	13	11	9	7	4	10	20	8	7	6	7	8	12	15	17	20	14.2	29.2
10-Jun-05	28	16	17	A	19	26	28	22	20	14	12	30	32	14	5	9	15	10	13	17	13	11	14	15	17.4	32.0
11-Jun-05	12	12	A	12	8	13	13	4	6	5	7	6	7	8	5	6	7	7	7	6	8	7	8	6	7.9	13.5
12-Jun-05	7	A	5	4	11	10	6	3	3	6	3	3	6	6	3	3	4	4	4	5	7	7	7	5	5.3	11.5
13-Jun-05	A	5	4	4	7	7	7	8	5	3	4	4	5	8	6	10	9	5	8	9	8	11	7	A	6.5	11.0
14-Jun-05	7	8	5	7	9	12	9	8	5	5	4	4	5	3	4	4	3	3	4	3	4	10	A	8	5.8	12.0
15-Jun-05	9	8	7	8	6	10	10	6	5	4	23	13	6	3	10	7	5	4	4	8	12	A	15	17	8.7	23.2
16-Jun-05	23	16	16	14	9	13	8	9	5	3	5	5	4	3	4	5	6	6	11	8	A	9	13	8	8.9	23.3
17-Jun-05	8	7	7	4	7	7	11	11	6	8	10	9	8	7	7	7	12	12	12	A	14	17	18	19	9.8	18.5
18-Jun-05	6	10	5	10	9	11	10	7	5	3	4	5	3	3	4	5	7	4	A	4	7	30	29	36	9.5	35.5
19-Jun-05	37	34	24	22	24	17	18	7	6	3	3	4	4	3	3	3	3	A	3	6	7	8	11	9	11.3	36.9
20-Jun-05	9	9	10	6	9	11	13	10	6	4	5	5	6	8	4	4	A	3	4	5	9	18	17	9	7.9	17.6
21-Jun-05	9	8	13	16	16	23	24	24	16	9	5	6	6	9	6	A	4	9	10	15	19	6	32	25	13.4	31.6
22-Jun-05	8	9	15	7	9	5	7	6	4	4	3	M	M	M	A	A	5	5	7	10	12	9	13	1	7.4	15.4
23-Jun-05	0	8	6	10	14	A	14	8	3	2	2	2	4	4	6	8	8	7	4	5	8	7	8	9	6.4	14.3
24-Jun-05	6	6	8	8	A	12	14	17	24	14	7	5	5	7	6	10	8	6	7	8	9	15	12	9	9.6	23.5
25-Jun-05	5	7	6	A	9	8	8	7	8	11	8	9	7	5	4	6	5	6	6	5	5	7	9	8	7.0	11.1
26-Jun-05	6	9	A	6	7	6	4	4	4	3	5	5	6	5	4	6	10	7	9	10	19	8	6	4	6.6	19.2
27-Jun-05	5	A	6	10	9	11	12	11	51	11	6	16	17	5	8	6	6	9	6	8	7	11	12	14	11.2	50.9
28-Jun-05	A	12	8	9	12	18	16	14	16	15	10	6	5	6	3	5	5	4	7	6	13	26	26	A	11.2	26.5
29-Jun-05	15	13	16	18	13	16	18	18	11	7	7	5	8	24	9	6	6	5	3	8	12	11	A	27	12.1	27.5
30-Jun-05	11	8	10	11	15	16	17	17	16	10	11	6	7	6	13	13	12	8	7	10	22	A	19	28	12.8	28.5
																									N	0.0
Hourly Avg	10.9	10.2	8.8	8.2	10.3	12.6	13.0	11.2	10.5	7.1	5.8	6.0	6.2	6.0	5.6	5.6	6.5	6.3	5.8	6.8	10.0	12.0	13.3	12.8		
Hourly Max	36.9	36.1	24.4	22.0	23.9	26.3	27.8	32.7	50.9	24.4	23.2	29.8	32.0	24.5	20.4	13.3	14.6	21.9	13.4	17.4	21.6	30.5	31.6	35.5		

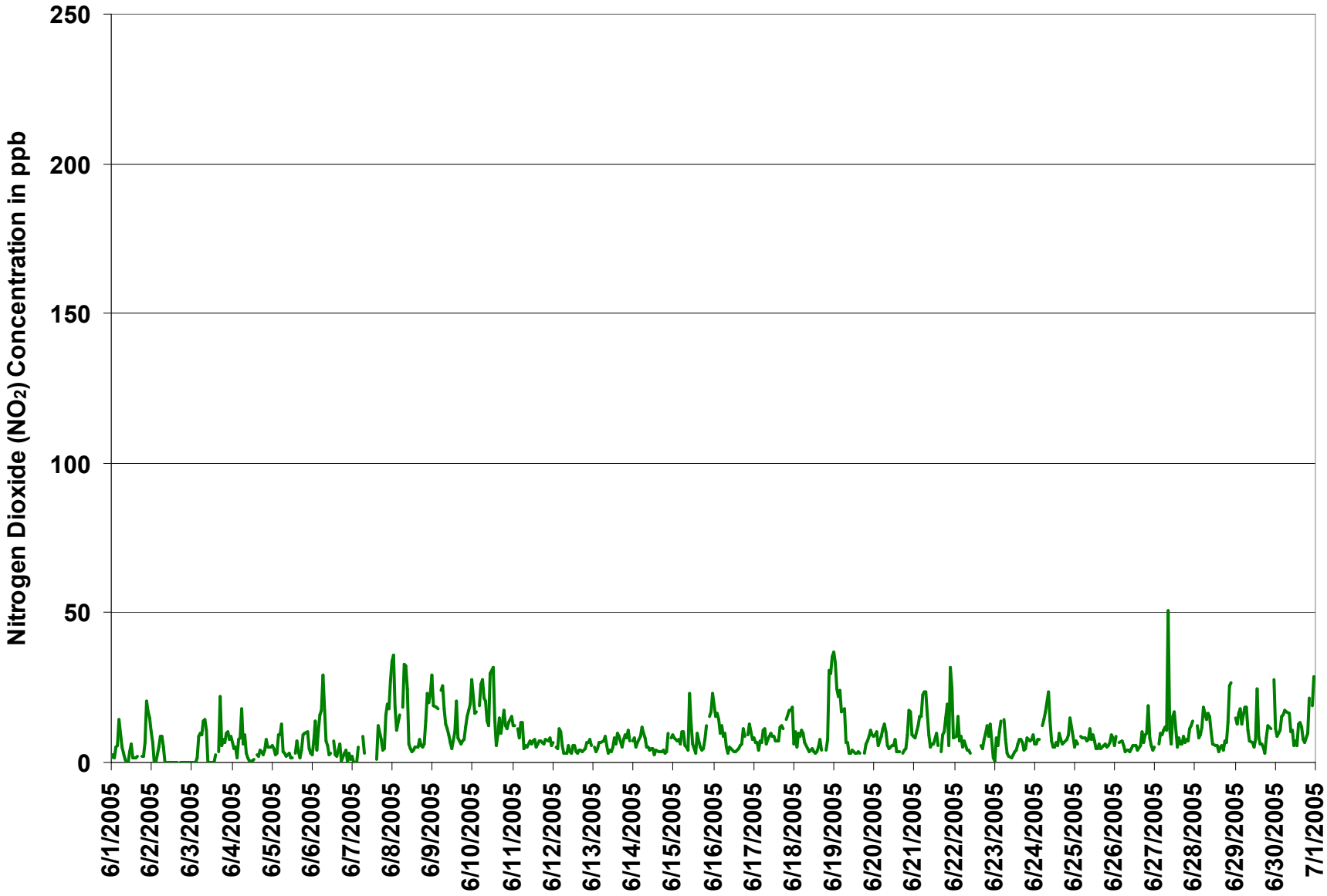
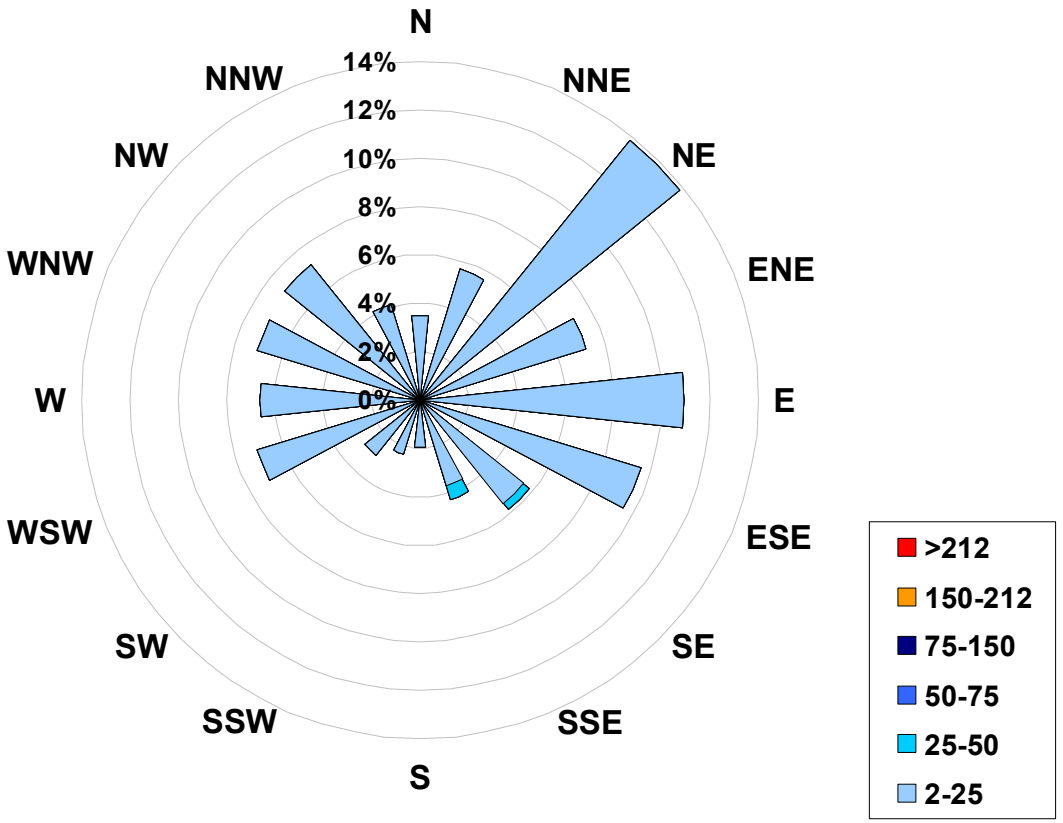


Figure 4. PASZA - Henry Pirker Nitrogen Dioxide 1-hr Maximum Value Monthly Trend

1-hr Average Concentration Rose for Nitrogen Dioxide (in ppb) Located at the Henry Pirker Site for June 2005



Calms:	0%

Frequency Distribution of NO_2 in ppb			
Range			Frequency (hrs)
2.0	<	25	672
25	to	50	5
50	to	75	0
75	to	150	0
150	to	212	0
	>	212	0
Total Non-Zero Values			677

PASZA - Henry Pirker Nitric Oxide Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

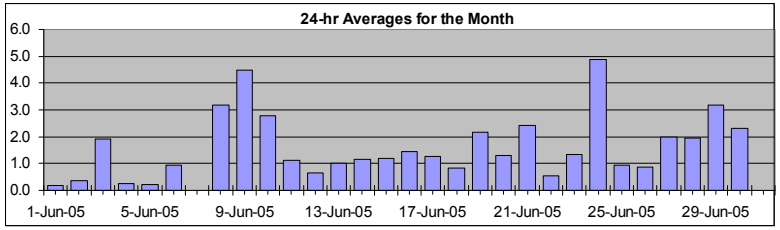
Nitric Oxide (NO)

Monitoring Dates: June 1, 2005 to July 1, 2005

Guideline Limit: 1-hr na ppb | 24-hr na ppb

Summary

Maximum 1-hr Average:	33.3	ppb	9-Jun	6:00 7:00
Maximum 24-hr Average:	4.9	ppb	24-Jun	



AIC Time:	35 hrs	Operational Time:	677 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	99.6%

Percentile	99	95	75	50	25	5	1	Average
	20.8	6.0	1.3	0.7	0.3	0.0	0.0	1.6 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

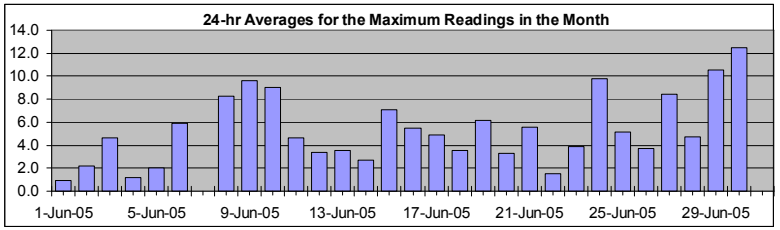
Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Jun-05	0	0	0	0	0	2	1	0	0	0	0	0	1	0	0	0	0	A	0	0	0	0	0	0	0.2	1.7
2-Jun-05	0	0	0	0	0	1	6	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	5.9
3-Jun-05	0	0	0	0	0	4	6	11	12	6	1	0	0	0	0	A	0	3	0	0	0	0	0	0	1.9	12.4
4-Jun-05	0	0	0	0	0	0	1	1	2	1	1	0	0	0	A	0	0	0	0	0	0	0	0	0	0.3	1.8
5-Jun-05	0	0	0	0	0	1	2	1	0	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0.2	1.6
6-Jun-05	0	0	0	0	0	2	5	12	1	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1.0	12.0
7-Jun-05	0	0	0	0	0	A	3	2	C	C	C	C	C	A	A	1	2	1	0	1	0	1	0	1	N	2.7
8-Jun-05	4	2	0	0	1	A	8	24	23	4	1	1	0	1	1	1	1	0	0	0	0	1	0	1	3.2	23.7
9-Jun-05	4	3	2	1	A	29	33	10	6	4	2	1	0	1	3	1	1	1	1	1	0	0	0	0	4.5	33.3
10-Jun-05	1	0	0	A	1	15	14	6	3	2	1	4	6	3	1	1	1	1	1	1	0	0	0	0	2.8	14.8
11-Jun-05	0	0	A	1	0	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1	1	1	1	0	1.1	2.0
12-Jun-05	0	A	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.1
13-Jun-05	A	0	0	0	1	1	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	0	0	A	1.0	3.2
14-Jun-05	0	0	0	0	1	3	5	3	2	2	1	1	1	1	1	1	1	1	1	0	0	0	A	0	1.1	5.1
15-Jun-05	0	0	0	1	1	2	3	2	1	2	3	3	1	1	2	1	1	1	1	1	1	A	0	0	1.2	3.1
16-Jun-05	1	0	2	2	3	7	5	3	1	1	1	1	1	1	1	1	1	1	1	1	A	0	0	0	1.5	6.8
17-Jun-05	0	0	0	0	1	1	1	3	2	2	2	2	2	2	2	1	2	1	1	A	1	1	1	1	1.3	2.5
18-Jun-05	0	1	0	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	A	0	0	0	0	2	0.8	2.0
19-Jun-05	11	2	1	1	4	7	8	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0	0	2.2	11.2
20-Jun-05	0	0	0	0	1	2	3	3	2	1	2	3	3	2	1	1	A	0	0	1	1	2	1	0	1.3	3.5
21-Jun-05	0	0	0	1	2	2	15	17	6	2	1	1	1	1	1	A	1	1	1	1	1	0	1	0	2.4	17.3
22-Jun-05	0	0	0	0	0	0	1	1	1	1	1	M	M	M	A	A	1	1	1	1	1	1	1	0	0.5	1.0
23-Jun-05	0	0	0	0	0	A	10	6	2	1	1	1	1	2	2	2	1	1	1	0	1	0	0	0	1.3	10.0
24-Jun-05	0	0	0	1	A	17	20	30	26	6	3	1	1	1	1	1	1	1	1	1	1	1	0	0	4.9	29.5
25-Jun-05	0	0	0	A	0	0	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	0	1	1	0.9	2.2
26-Jun-05	0	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	0	0	0.9	1.7
27-Jun-05	0	A	0	0	1	2	5	8	9	3	1	3	5	1	2	1	1	1	1	1	0	0	0	0	2.0	8.6
28-Jun-05	A	0	0	0	0	3	9	10	9	4	1	1	1	1	1	0	0	0	1	0	0	1	0	A	2.0	10.1
29-Jun-05	0	0	1	1	1	7	17	28	5	3	1	1	1	2	1	0	1	0	0	0	0	0	A	0	3.2	27.9
30-Jun-05	0	0	0	0	1	6	5	7	4	3	3	1	1	1	2	2	1	1	1	0	1	A	0	12	2.3	12.3
																									N	0.0
Hourly Avg	0.9	0.4	0.3	0.4	0.8	4.5	6.4	6.5	4.3	1.9	1.2	1.2	1.3	1.0	1.0	0.8	0.8	0.7	0.6	0.5	0.6	0.5	0.4	0.8		
Hourly Max	11.2	3.2	1.7	2.5	3.7	29.1	33.3	29.5	25.7	5.9	3.3	4.1	5.8	2.7	2.8	2.5	1.8	2.8	1.2	1.4	1.7	1.9	1.1	12.3		

Station: Henry Pirker
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Nitric Oxide (NO)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Value:	172.2	ppb	30-Jun	23:00 0:00
Maximum 24-hr Value:	12.5	ppb	30-Jun	

AIC Time:	35 hrs	Operational Time:		677 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:		99.6%

Percentile	99	95	75	50	25	5	1	Average
	54.4	16.4	5.5	2.5	1.3	0.0	0.0	5.3 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 / 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-Jun-05	0	0	0	0	0	5	1	3	2	0	1	3	2	0	0	0	0	A	0	0	0	3	0	0	0.9	4.6
2-Jun-05	2	1	0	0	1	9	10	11	1	0	5	4	4	2	1	1	A	0	0	0	0	0	0	0	2.2	10.6
3-Jun-05	0	0	0	1	3	10	10	19	21	16	2	2	0	4	2	A	0	8	1	0	2	2	3	0	4.6	20.7
4-Jun-05	0	0	0	0	0	0	3	2	4	3	2	1	0	0	A	3	2	4	2	0	0	0	0	0	1.1	4.4
5-Jun-05	0	0	0	0	6	1	8	2	2	3	1	1	1	A	1	4	0	1	0	5	2	6	1	1	2.1	7.6
6-Jun-05	0	6	17	0	3	8	9	53	8	4	2	1	A	5	3	1	2	6	1	1	5	0	0	0	5.9	53.4
7-Jun-05	0	0	0	0	1	A	7	4	C	C	C	C	C	A	A	1	5	2	1	1	1	2	1	5	N	6.6
8-Jun-05	18	13	0	1	11	A	18	41	39	15	2	2	2	2	2	1	2	1	2	1	1	7	3	4	8.2	41.2
9-Jun-05	21	5	3	3	A	52	57	21	9	8	3	2	1	3	7	3	3	1	4	1	2	1	1	7	9.6	57.5
10-Jun-05	8	1	3	A	4	61	26	12	7	5	3	24	12	6	2	2	2	2	7	8	1	0	1	5	9.0	61.3
11-Jun-05	2	1	A	9	1	4	2	6	5	7	7	8	5	10	3	4	3	6	2	2	5	3	9	2	4.7	9.9
12-Jun-05	3	A	1	1	8	3	4	1	2	14	2	1	4	3	2	1	2	2	2	2	3	5	6	1	3.4	13.5
13-Jun-05	A	4	1	2	15	4	7	8	7	2	2	2	3	7	1	2	1	1	1	2	1	1	1	A	3.5	15.3
14-Jun-05	1	1	1	1	2	7	7	7	3	3	3	3	4	2	3	2	2	3	2	1	1	1	A	0	2.7	7.5
15-Jun-05	1	1	0	2	1	5	6	3	3	3	63	42	5	4	4	3	3	2	1	1	2	A	0	6	7.1	62.8
16-Jun-05	5	0	13	14	6	13	8	8	3	2	8	6	2	5	3	3	3	2	6	3	A	2	5	2	5.5	14.4
17-Jun-05	4	0	0	1	5	6	8	7	5	9	7	7	3	5	5	6	9	3	2	A	4	3	7	4	4.9	9.5
18-Jun-05	0	7	2	9	4	3	4	5	3	2	3	3	2	2	3	3	5	2	A	1	0	1	5	11	3.5	10.8
19-Jun-05	32	6	2	5	14	11	26	3	8	1	1	2	2	3	2	3	1	A	3	3	4	5	1	0	6.2	32.1
20-Jun-05	0	1	1	1	4	7	5	7	2	2	3	5	6	6	1	1	A	0	1	1	2	7	7	1	3.3	7.4
21-Jun-05	1	1	1	3	3	7	26	28	10	3	2	2	3	10	2	A	1	2	3	4	4	2	4	2	5.5	28.2
22-Jun-05	0	0	0	0	0	1	2	2	2	2	1	M	M	M	A	A	2	2	2	2	2	3	3	1	1.5	3.2
23-Jun-05	0	2	1	1	2	A	20	15	6	3	3	2	4	3	4	6	3	4	2	1	2	1	1	5	3.8	19.8
24-Jun-05	1	1	1	3	A	30	41	45	42	12	5	2	2	7	2	2	3	3	5	2	3	3	6	1	9.7	45.2
25-Jun-05	1	0	1	A	5	1	4	6	3	13	8	8	10	4	10	6	8	3	5	6	3	2	7	7	5.2	12.5
26-Jun-05	2	10	A	3	5	2	1	3	2	2	6	5	5	2	2	1	2	1	4	8	12	3	1	1	3.7	11.6
27-Jun-05	3	A	1	10	5	8	10	12	61	16	6	15	18	2	5	2	2	3	3	2	1	1	3	2	8.4	60.8
28-Jun-05	A	5	3	1	1	7	18	17	15	9	4	3	2	2	1	3	1	1	1	2	1	4	2	A	4.7	17.6
29-Jun-05	1	1	5	16	7	16	61	66	13	6	3	4	2	32	3	1	2	1	1	1	1	1	A	2	10.5	65.5
30-Jun-05	1	1	1	1	5	15	10	15	12	6	10	3	7	3	6	6	5	2	2	1	5	A	2	172	12.5	172.2
																									N	0.0
Hourly Avg	3.9	2.5	2.2	3.2	4.4	11.1	14.1	14.4	10.4	5.9	5.8	5.8	4.1	5.0	3.0	2.7	2.7	2.4	2.3	2.2	2.5	2.6	2.9	8.7		
Hourly Max	32.1	12.8	17.3	16.0	15.3	61.3	61.3	65.5	60.8	16.3	62.8	42.0	17.8	31.8	10.5	6.2	9.2	7.6	7.3	8.2	11.6	7.4	9.3	172.2		

PASZA - Henry Pirker Oxides of Nitrogen Monthly Summary

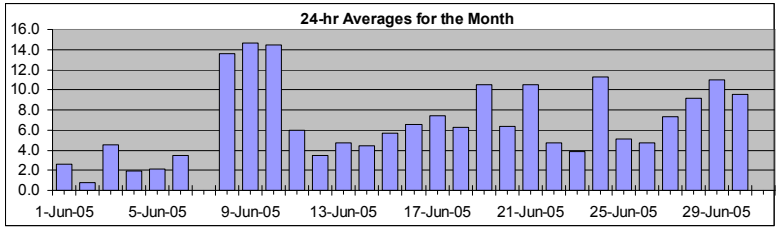
Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Oxides of Nitrogen (NO_x)

Monitoring Dates: June 1, 2005 to July 1, 2005

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



Summary

Maximum 1-hr Average:	54.5	ppb	9-Jun	6:00 7:00
Maximum 24-hr Average:	14.7	ppb	9-Jun	

AIC Time:	35 hrs	Operational Time:	677 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	99.6%

Percentile	99	95	75	50	25	5	1	Average
	42.1	20.5	7.9	4.7	2.8	0.0	0.0	6.7 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Jun-05	1	1	1	3	4	10	3	1	0	0	0	2	4	0	1	0	0	A	0	0	1	11	9	7	2.6	11.4
2-Jun-05	5	0	0	0	0	1	10	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.7	10.5
3-Jun-05	0	0	0	0	4	10	10	19	22	9	0	0	0	0	0	A	0	15	1	2	2	3	3	2	4.5	22.2
4-Jun-05	4	1	2	0	2	5	8	5	4	2	1	0	0	0	A	0	0	0	1	1	1	3	1	2	1.9	7.6
5-Jun-05	2	1	1	1	6	5	6	3	1	1	1	0	0	A	0	1	0	0	0	5	6	4	3	1	2.1	6.3
6-Jun-05	1	2	2	2	4	13	17	29	4	3	1	0	A	1	0	0	0	0	0	0	0	0	0	0	3.5	28.7
7-Jun-05	0	0	0	0	0	A	5	1	C	C	C	C	C	A	A	0	8	3	2	3	6	13	10	20	N	19.7
8-Jun-05	30	25	13	9	13	A	21	48	52	13	4	3	3	3	3	3	4	3	3	4	8	15	16	18	13.6	52.0
9-Jun-05	25	21	18	14	A	48	54	23	15	13	9	4	4	6	13	5	5	5	5	5	7	12	11	16	14.7	54.5
10-Jun-05	20	14	14	A	16	36	37	24	15	12	10	19	25	11	4	6	7	7	9	11	8	9	9	8	14.4	36.8
11-Jun-05	8	10	A	8	5	9	9	4	5	5	6	6	7	7	5	5	5	6	6	5	5	5	4	4	6.0	10.2
12-Jun-05	4	A	3	3	5	7	3	2	2	3	2	2	3	3	3	2	3	3	3	4	5	6	6	4	3.5	7.5
13-Jun-05	A	3	3	3	5	6	9	7	6	2	2	3	4	4	4	6	6	3	5	5	5	6	4	A	4.7	9.1
14-Jun-05	4	6	4	4	6	11	13	8	5	4	3	3	3	2	3	3	2	2	3	2	2	4	A	6	4.4	12.7
15-Jun-05	7	6	6	6	6	8	10	5	5	5	5	5	3	2	8	4	4	3	2	5	7	A	10	8	5.7	10.3
16-Jun-05	12	12	14	13	10	16	11	7	3	2	2	2	2	2	2	3	4	3	4	4	A	7	8	6	6.6	16.4
17-Jun-05	5	5	5	4	4	5	7	9	5	7	6	7	7	5	6	6	8	10	8	A	11	13	15	12	7.4	14.9
18-Jun-05	4	5	4	5	5	7	8	5	5	3	3	3	2	2	2	2	3	2	A	2	4	17	21	29	6.2	29.3
19-Jun-05	45	29	20	20	21	22	18	6	3	3	3	3	3	3	2	3	3	A	3	5	6	6	7	8	10.5	45.1
20-Jun-05	7	5	6	5	8	10	12	8	4	4	5	7	8	4	4	3	A	2	2	3	6	15	12	7	6.4	14.8
21-Jun-05	6	6	8	14	13	14	35	35	18	7	4	4	4	4	3	A	2	5	6	6	11	4	17	14	10.5	35.4
22-Jun-05	5	7	8	5	4	4	4	3	3	3	2	M	M	M	A	A	5	4	5	4	10	6	7	0	4.8	9.6
23-Jun-05	0	1	1	2	4	A	18	8	3	0	0	0	0	3	4	6	5	4	2	2	5	6	6	5	3.8	18.1
24-Jun-05	5	4	5	7	A	28	31	43	44	14	9	5	4	5	4	6	5	4	3	5	6	10	8	6	11.3	43.8
25-Jun-05	4	4	4	A	7	7	7	5	7	8	6	6	5	4	3	3	3	4	4	3	4	5	6	7	5.2	8.5
26-Jun-05	5	4	A	5	5	5	3	3	3	3	4	5	5	5	3	3	8	5	6	6	9	6	4	3	4.7	8.6
27-Jun-05	3	A	5	4	6	10	14	16	16	6	4	8	13	4	6	4	4	5	5	4	6	9	9	9	7.4	16.5
28-Jun-05	A	9	6	7	8	18	20	22	22	13	5	5	3	3	3	2	3	3	4	4	9	17	15	A	9.2	22.2
29-Jun-05	11	9	14	13	11	20	31	42	11	8	5	3	5	9	6	3	4	3	2	4	9	8	A	22	11.0	41.8
30-Jun-05	4	5	8	8	13	18	17	19	12	9	9	3	3	4	8	10	7	4	4	5	12	A	10	27	9.5	27.1
																									N	0.0
Hourly Avg	8.1	7.0	6.3	5.8	7.1	13.1	15.1	13.7	10.2	5.7	3.8	3.8	4.4	3.6	3.8	3.4	3.9	3.9	3.4	3.8	5.9	7.8	8.3	9.0		
Hourly Max	45.1	28.6	20.1	19.5	21.4	47.7	54.5	48.2	52.0	14.3	9.8	18.6	25.0	11.5	13.4	9.6	8.1	15.2	8.6	11.5	11.8	17.4	20.7	29.3		

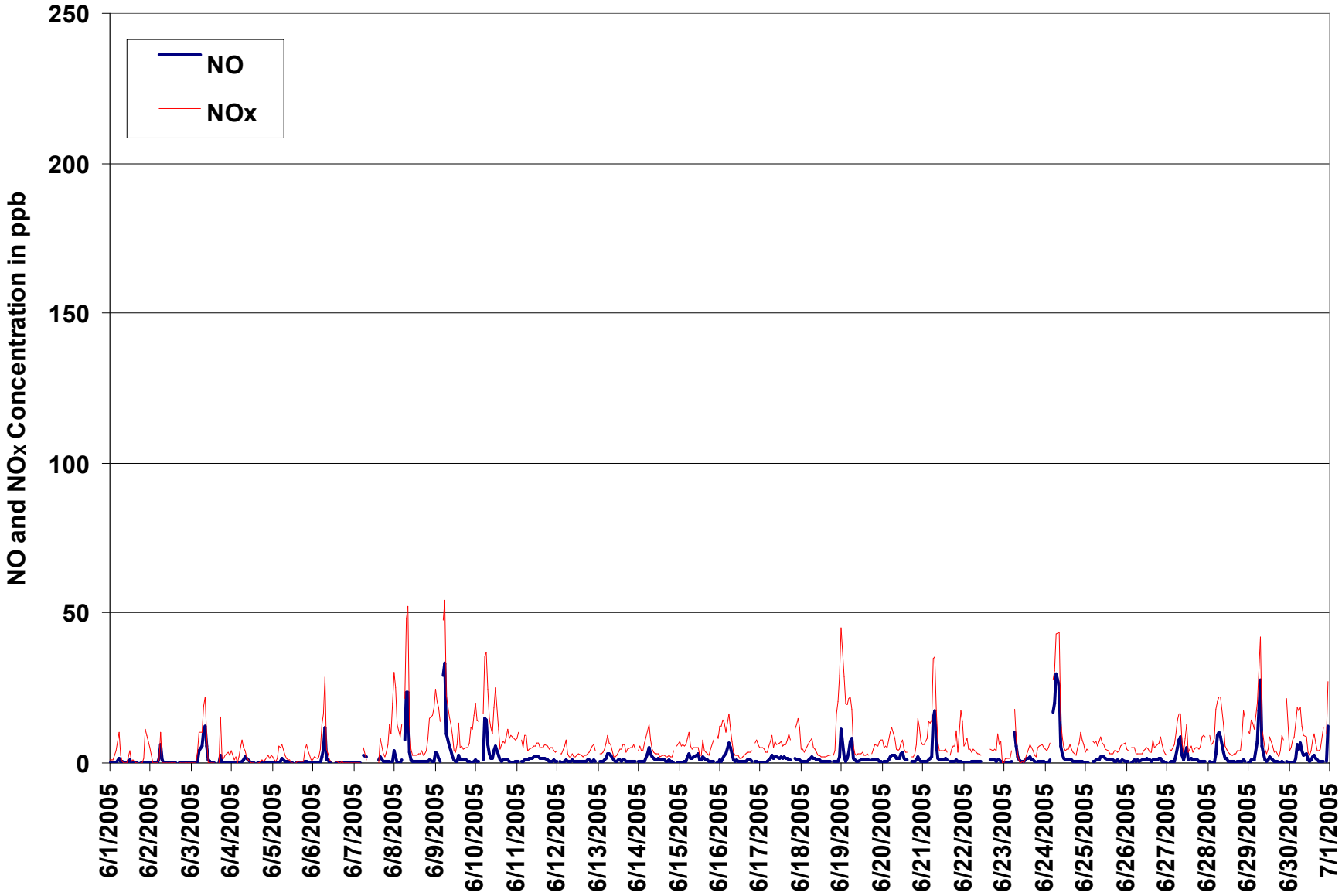


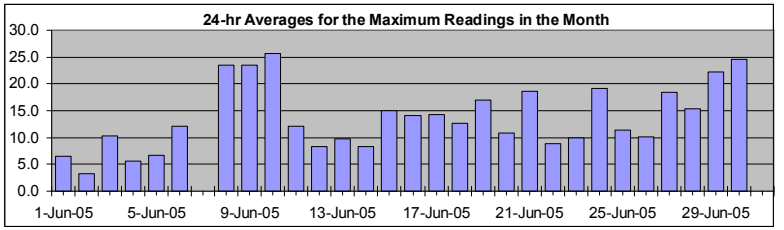
Figure 5. PASZA - Henry Pirker Oxides of Nitrogen 1-hr Average Monthly Trend

Station: Henry Pirker
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Oxides of Nitrogen (NO_x)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Value:	191.4	ppb	30-Jun	23:00 0:00
Maximum 24-hr Value:	25.7	ppb	10-Jun	

AIC Time:	35 hrs	Operational Time:	677 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	99.6%

Percentile	99	95	75	50	25	5	1	Average
	78.8	35.7	16.0	9.7	6.3	1.1	0.0	13.6 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Jun-05	2	4	2	6	7	20	7	7	4	1	1	7	8	3	2	2	2	A	1	2	6	23	18	14	6.4	22.8
2-Jun-05	12	6	0	0	5	18	18	16	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	3.2	18.0
3-Jun-05	0	0	0	2	11	20	19	32	35	26	0	1	0	3	4	A	3	29	7	7	8	9	12	7	10.3	34.6
4-Jun-05	8	4	5	1	7	8	21	7	13	6	3	1	0	1	A	4	3	8	4	2	4	8	5	5	5.5	20.5
5-Jun-05	5	4	2	3	14	10	20	4	5	4	4	2	3	A	4	11	4	2	4	13	11	16	6	3	6.7	20.0
6-Jun-05	2	14	31	4	14	23	25	79	15	9	4	4	A	12	5	2	5	11	2	4	10	0	3	1	12.1	78.5
7-Jun-05	2	0	0	0	6	A	15	5	C	C	C	C	C	A	A	0	17	9	5	6	17	20	18	32	N	31.7
8-Jun-05	50	48	19	12	26	A	36	74	70	40	8	7	5	6	7	6	10	7	7	7	14	30	23	25	23.4	73.9
9-Jun-05	50	25	21	19	A	74	83	38	22	20	12	9	5	11	26	11	11	7	11	9	14	16	18	27	23.4	82.9
10-Jun-05	36	18	20	A	23	88	51	33	28	19	15	47	44	20	7	10	17	12	19	26	13	12	14	20	25.7	87.8
11-Jun-05	14	13	A	21	9	15	16	9	11	12	14	13	12	17	8	9	10	12	8	8	13	10	18	7	12.1	20.7
12-Jun-05	10	A	6	5	19	13	8	4	6	17	5	4	9	9	5	4	7	6	5	7	8	12	14	6	8.3	18.7
13-Jun-05	A	10	4	7	22	10	13	16	11	5	5	5	9	13	6	12	10	6	8	12	9	11	7	A	9.7	21.6
14-Jun-05	8	9	5	8	11	19	18	15	8	8	7	7	7	4	7	5	5	6	6	4	5	10	A	8	8.4	19.3
15-Jun-05	9	8	8	9	8	15	16	8	8	8	84	43	8	5	13	10	8	6	6	9	14	A	16	23	15.0	84.5
16-Jun-05	29	16	27	29	15	24	16	18	8	5	14	8	5	7	8	8	9	8	18	12	A	10	17	10	14.0	29.0
17-Jun-05	12	7	7	4	12	12	18	17	10	16	17	16	12	12	12	11	21	14	14	A	18	20	23	22	14.2	23.1
18-Jun-05	6	16	7	19	12	14	13	11	7	5	6	7	6	6	6	8	13	6	A	5	8	31	34	45	12.7	44.6
19-Jun-05	69	38	26	27	37	26	44	10	14	4	5	6	6	6	5	6	4	A	5	9	11	12	11	9	17.0	69.4
20-Jun-05	9	10	11	6	12	18	17	16	8	7	8	10	12	14	5	5	A	4	5	5	11	24	24	10	10.9	24.1
21-Jun-05	10	9	14	18	18	28	49	52	25	12	7	8	9	20	8	A	5	11	13	16	23	8	36	27	18.6	52.0
22-Jun-05	9	9	16	7	9	6	9	8	5	5	5	M	M	M	A	A	7	7	9	12	15	12	16	1	8.8	15.6
23-Jun-05	1	10	6	11	16	A	30	22	9	5	4	4	8	8	9	13	10	10	6	6	9	8	9	14	9.9	30.4
24-Jun-05	8	6	8	11	A	42	55	62	65	26	13	7	6	13	7	12	9	9	12	9	12	17	19	10	19.1	65.2
25-Jun-05	5	7	6	A	14	9	10	12	10	23	14	17	16	8	10	12	11	8	11	9	8	9	16	14	11.3	22.6
26-Jun-05	7	19	A	10	12	7	5	8	6	6	11	11	10	7	6	7	13	8	12	16	29	11	6	5	10.1	28.7
27-Jun-05	8	A	6	20	11	19	21	23	97	28	12	30	33	7	13	8	8	11	9	10	8	13	15	16	18.5	96.5
28-Jun-05	A	17	11	10	13	25	31	31	30	24	15	10	8	8	5	7	6	4	8	8	14	28	29	A	15.4	30.9
29-Jun-05	16	13	20	34	18	32	80	83	24	13	9	9	10	55	12	7	7	5	3	8	14	12	A	29	22.3	83.2
30-Jun-05	12	9	10	12	19	31	27	32	28	15	21	8	14	8	19	19	17	10	8	10	25	A	20	191	24.6	191.4
																									N	0.0
Hourly Avg	14.7	12.4	10.6	11.3	14.2	23.3	26.5	25.1	20.0	12.6	11.1	10.8	9.9	10.6	8.2	7.8	9.0	8.6	7.9	8.6	12.1	14.0	15.9	20.7		
Hourly Max	69.4	48.5	30.8	34.1	37.2	87.8	82.9	83.2	96.5	39.5	84.5	46.9	43.9	55.3	26.5	18.8	20.6	29.2	19.0	25.7	28.7	31.4	36.0	191.4		

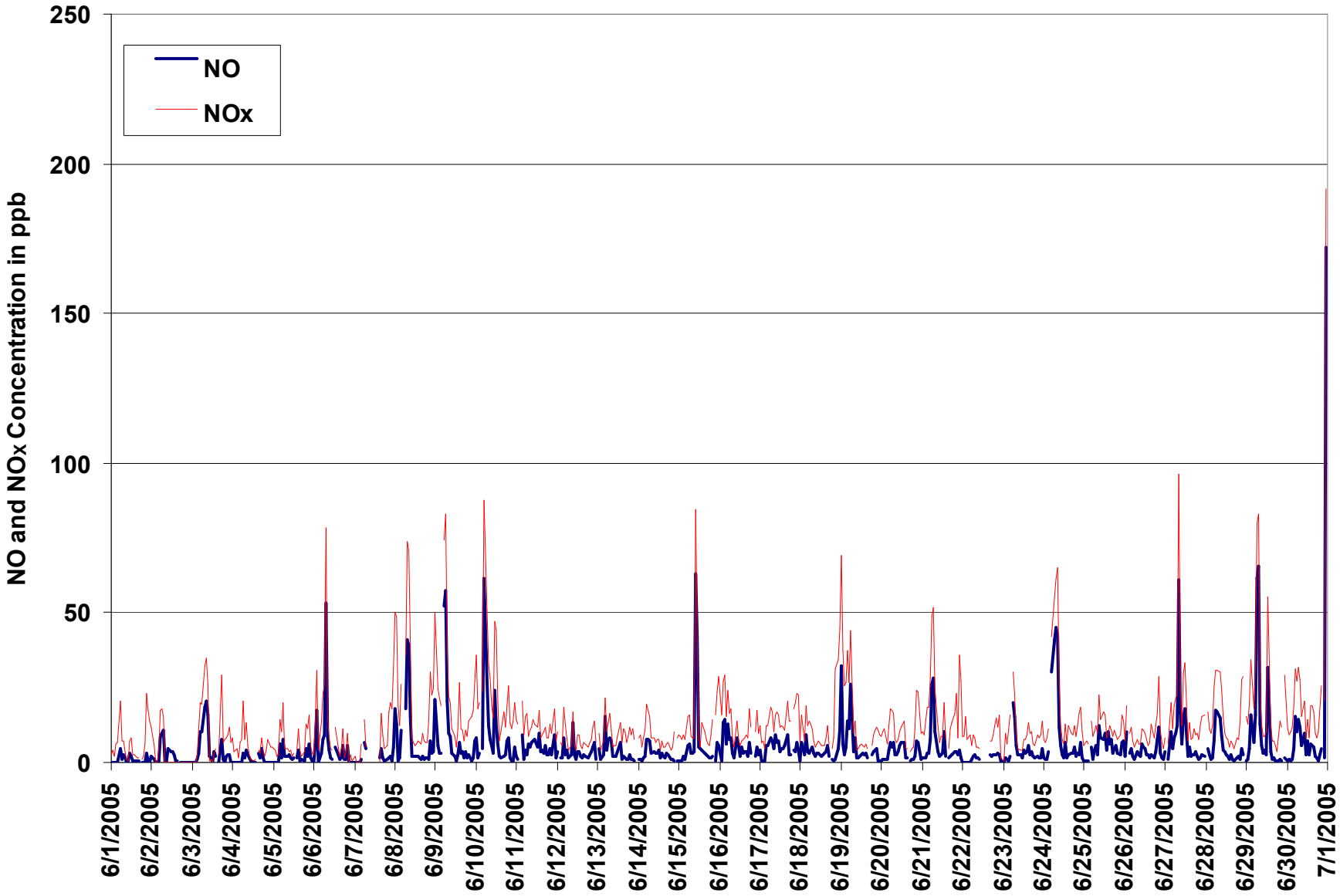


Figure 6. PASZA - Henry Pirker Oxides of Nitrogen 1-hr Maximum Value Monthly Trend

PASZA - Henry Pirker Ozone Monthly Summary

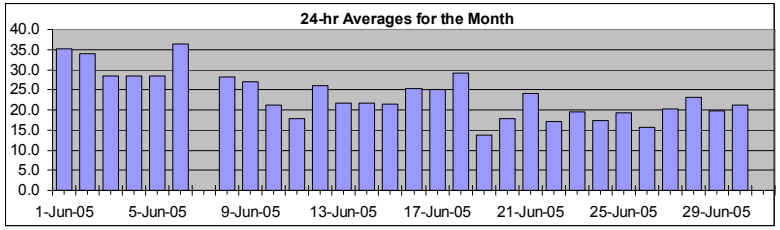
HOURLY AVERAGE TABLE

Ozone (O_3)

Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: June 1, 2005 to July 1, 2005

Objective Limit: **Alberta Environment:** 1-hr 82 ppb | 24-hr na ppb



Summary

Number of 1-hr Exceedances:	0			
Maximum 1-hr Average:	59.0	ppb	1-Jun	15:00 16:00
Maximum 24-hr Average:	36.4	ppb	6-Jun	

AIC Time:	33 hrs	Operational Time:	683 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	53.5	43.5	30.7	22.9	15.9	6.6	2.6	23.8 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Jun-05	32	28	24	18	15	13	25	31	36	38	42	46	50	57	58	59	53	A	46	41	37	19	19	19	35.1	59.0
2-Jun-05	16	20	27	25	20	15	10	27	33	39	43	47	52	54	56	48	A	42	43	40	39	31	27	25	33.9	56.0
3-Jun-05	21	19	18	15	8	7	11	10	10	26	42	47	53	56	55	A	39	28	38	35	32	31	27	27	28.5	56.1
4-Jun-05	22	26	27	31	27	23	23	24	18	21	25	31	34	37	A	39	37	37	35	32	29	25	27	23	28.4	38.6
5-Jun-05	18	19	21	17	10	8	11	15	21	25	30	31	37	A	46	47	47	40	42	35	33	32	33	33	28.3	47.1
6-Jun-05	31	30	31	29	24	15	16	14	30	34	39	40	A	44	47	48	50	49	50	48	45	45	40	38	36.4	49.9
7-Jun-05	35	31	29	28	26	A	21	25	30	37	42	43	44	C	C	C	C	A	A	38	34	25	27	13	N	43.9
8-Jun-05	7	9	19	18	13	A	12	10	14	34	40	40	38	39	40	43	42	43	43	41	35	27	24	15	28.1	43.5
9-Jun-05	2	2	3	9	A	1	4	11	16	24	33	42	48	45	40	50	46	43	43	43	37	30	27	19	26.9	50.4
10-Jun-05	11	11	11	A	6	2	4	10	18	21	22	19	22	36	45	39	33	33	30	25	26	24	21	19	21.2	44.7
11-Jun-05	16	13	A	11	16	15	17	17	16	14	14	16	19	19	19	18	18	18	18	26	30	23	20	19	17.9	29.9
12-Jun-05	19	A	24	24	20	22	24	26	28	28	31	32	31	31	29	32	32	30	28	26	24	20	18	18	26.0	32.4
13-Jun-05	A	17	16	16	14	13	12	13	17	25	29	28	28	28	27	26	26	27	26	26	22	19	19	A	21.6	28.7
14-Jun-05	15	12	12	16	13	11	13	18	22	24	25	25	26	27	27	28	28	27	26	27	27	27	A	23	21.7	27.6
15-Jun-05	19	21	15	10	11	14	13	17	19	21	25	26	26	24	21	23	29	32	34	31	25	A	17	19	21.4	33.8
16-Jun-05	13	9	4	3	3	5	11	18	23	28	31	32	32	35	38	39	40	42	42	40	A	35	31	29	25.3	41.7
17-Jun-05	30	29	28	24	21	20	20	20	24	23	24	24	26	29	31	33	31	29	30	A	26	22	17	16	25.1	32.6
18-Jun-05	25	25	24	22	21	20	20	23	23	26	29	31	33	37	39	42	42	42	A	43	41	28	21	11	29.1	43.0
19-Jun-05	2	6	9	5	4	5	8	23	26	20	21	19	16	16	16	15	17	A	16	15	13	15	19	13	13.8	25.5
20-Jun-05	14	14	13	11	10	12	13	13	19	15	14	15	19	23	27	29	A	32	29	28	21	11	13	17	18.0	32.3
21-Jun-05	18	17	11	4	4	15	5	10	22	33	36	31	34	38	40	A	41	37	34	34	25	31	15	16	24.1	40.6
22-Jun-05	22	19	22	24	21	19	15	17	17	17	18	18	17	17	17	18	19	18	16	15	11	12	9	13	17.1	24.0
23-Jun-05	16	15	15	15	13	A	7	12	16	21	24	25	27	27	26	24	23	23	26	27	21	17	14	12	19.5	27.3
24-Jun-05	11	11	8	6	A	2	3	3	8	16	18	23	25	28	33	29	27	27	28	24	21	14	18	16	17.3	32.5
25-Jun-05	20	16	14	A	15	16	16	20	18	16	17	18	21	23	24	24	26	24	24	23	21	18	16	12	19.2	25.7
26-Jun-05	13	13	A	11	10	10	12	13	16	15	17	19	19	20	22	22	18	21	19	18	14	13	14	15	15.7	22.3
27-Jun-05	15	A	15	17	13	11	10	10	19	22	24	22	21	26	25	26	26	25	27	26	26	22	18	18	20.2	27.0
28-Jun-05	A	17	17	15	13	6	3	5	10	21	24	25	32	35	35	36	36	37	36	37	30	18	17	A	23.1	37.3
29-Jun-05	17	15	7	6	7	5	5	5	12	17	24	26	27	30	35	31	36	35	31	28	23	21	A	11	19.7	35.7
30-Jun-05	31	22	12	11	7	5	8	9	15	17	19	28	30	29	28	27	31	36	33	33	26	A	19	14	21.2	36.0
																									N	0.0
Hourly Avg	18.3	17.3	17.0	15.8	13.8	11.5	12.5	15.7	19.7	23.9	27.4	29.0	30.6	32.6	33.8	33.1	33.1	32.6	32.0	31.2	27.4	23.5	20.9	18.7		
Hourly Max	35.0	30.8	31.4	31.3	27.5	23.1	25.2	31.0	35.9	39.2	43.1	47.4	53.4	56.8	57.5	59.0	53.2	49.4	49.6	47.7	44.9	45.0	40.2	37.8		

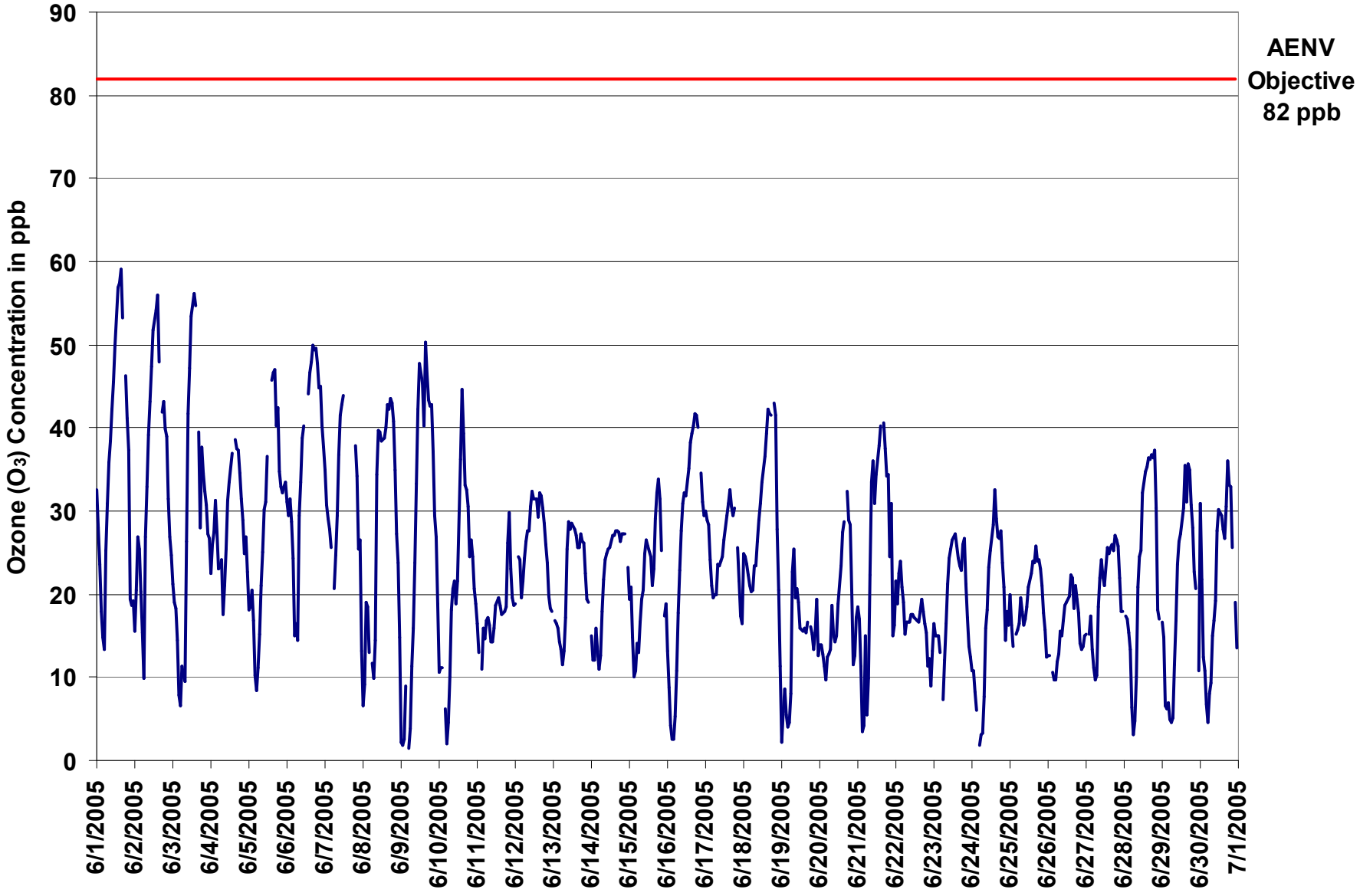


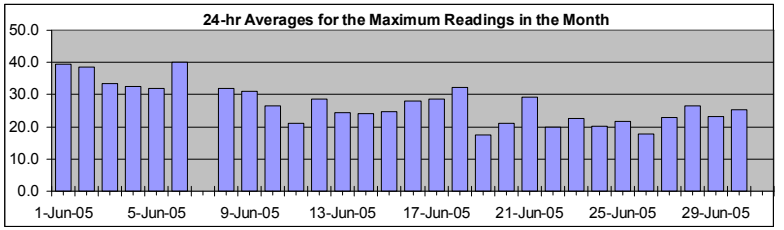
Figure 7. PASZA - Henry Pirker Ozone 1-hr Average Monthly Trend

Station: Henry Pirker
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Ozone (O_3)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Value:	61.5	ppb	1-Jun	15:00 16:00
Maximum 24-hr Value:	40.1	ppb	6-Jun	

AIC Time:	33 hrs	Operational Time:	683 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	58.4	47.1	34.0	26.3	18.9	11.3	5.1	27.2 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-Jun-05	35	31	27	20	17	19	29	35	39	42	45	48	56	60	60	62	59	A	52	43	45	31	23	25	39.3	61.5
2-Jun-05	22	28	30	30	25	20	13	31	37	43	47	51	53	57	59	58	A	47	48	45	44	39	31	31	38.6	58.7
3-Jun-05	26	23	21	21	14	14	19	17	13	36	47	51	57	59	59	A	43	34	42	41	36	35	32	31	33.5	58.9
4-Jun-05	29	31	32	35	30	30	29	30	21	24	30	35	37	40	A	41	40	39	39	34	35	29	31	25	32.5	41.3
5-Jun-05	24	21	23	22	16	12	14	18	24	31	33	34	41	A	48	49	50	46	46	37	37	34	36	36	31.9	49.9
6-Jun-05	33	31	33	32	27	20	22	29	34	39	43	42	A	47	49	51	55	54	52	50	48	48	43	42	40.1	54.8
7-Jun-05	37	33	31	31	28	A	25	30	35	42	45	46	46	C	C	C	C	A	A	40	39	31	31	19	N	45.9
8-Jun-05	13	14	23	22	15	A	15	12	20	42	42	42	40	41	42	45	45	46	46	44	40	32	27	25	31.8	45.7
9-Jun-05	5	4	5	14	A	3	9	14	20	28	39	47	51	50	45	57	49	47	46	47	41	34	32	23	30.9	56.6
10-Jun-05	16	15	13	A	12	4	11	20	25	25	26	26	35	43	48	46	38	36	36	29	32	27	24	23	26.5	48.2
11-Jun-05	20	19	A	14	20	19	23	19	18	16	16	19	22	22	21	19	20	21	21	34	35	26	22	21	21.2	35.3
12-Jun-05	22	A	29	29	21	25	26	29	30	30	35	35	35	35	31	34	34	32	31	28	26	23	19	19	28.6	35.2
13-Jun-05	A	18	18	17	16	15	14	16	24	30	31	30	31	30	30	30	30	31	30	29	28	22	21	A	24.5	31.4
14-Jun-05	18	14	15	18	16	14	16	22	24	27	26	28	28	29	29	29	29	30	28	30	29	30	A	27	24.1	30.2
15-Jun-05	24	24	20	12	16	17	16	18	21	25	27	29	27	26	25	26	36	35	36	34	32	A	23	22	24.8	36.4
16-Jun-05	18	12	8	5	6	9	14	21	28	30	33	34	33	38	40	42	43	44	43	43	A	37	33	32	28.1	43.9
17-Jun-05	32	32	31	28	24	22	23	24	26	26	26	27	29	32	34	35	33	33	34	A	29	24	26	25	28.5	34.7
18-Jun-05	26	26	25	24	23	23	23	25	26	29	30	33	35	39	42	45	44	45	A	45	44	38	24	24	32.1	45.2
19-Jun-05	8	14	12	11	11	6	15	28	30	22	23	22	19	17	18	17	19	A	19	17	16	21	23	14	17.5	29.8
20-Jun-05	17	17	15	13	11	16	16	16	21	18	17	16	22	27	30	31	A	35	31	30	25	17	20	19	20.9	35.3
21-Jun-05	21	19	17	6	16	23	7	14	30	39	39	34	38	40	42	A	43	42	38	40	32	34	30	27	29.1	42.6
22-Jun-05	27	22	27	26	26	25	18	19	19	18	19	19	19	19	18	21	22	20	19	18	16	14	13	14	19.8	27.2
23-Jun-05	21	20	19	18	17	A	12	16	20	24	26	27	28	29	28	27	27	25	30	29	25	20	15	15	22.6	29.6
24-Jun-05	12	13	11	8	A	3	5	5	13	20	20	26	28	33	35	33	29	30	31	27	24	20	20	18	20.1	34.5
25-Jun-05	22	20	16	A	18	18	19	21	21	19	19	20	23	25	27	26	28	26	27	25	23	20	17	15	21.5	27.8
26-Jun-05	14	14	A	11	11	11	14	15	17	16	20	20	21	22	24	24	23	24	22	20	18	17	15	17	17.9	24.1
27-Jun-05	16	A	17	20	15	13	11	14	22	24	27	26	27	27	27	28	29	28	30	30	28	25	20	20	22.9	30.0
28-Jun-05	A	19	19	18	16	10	6	6	17	27	28	29	34	38	37	38	38	40	39	40	40	23	21	A	26.5	40.5
29-Jun-05	20	19	10	10	10	7	6	8	17	19	29	28	29	35	38	35	39	37	36	31	26	24	A	18	23.1	38.8
30-Jun-05	38	29	18	14	11	9	10	13	19	20	25	29	32	32	33	31	34	38	37	36	33	A	24	21	25.4	38.3
																									N	0.0
Hourly Avg	22.0	20.8	20.1	18.9	17.5	15.1	16.0	19.5	23.7	27.7	30.4	31.8	33.8	35.5	36.5	36.3	36.2	35.6	35.3	34.3	32.0	27.6	25.0	23.1		
Hourly Max	37.8	33.3	33.3	35.4	30.4	29.7	29.0	35.2	39.1	42.9	47.4	51.3	56.8	59.9	60.0	61.5	58.7	53.7	52.3	50.0	47.6	47.6	43.4	41.7		

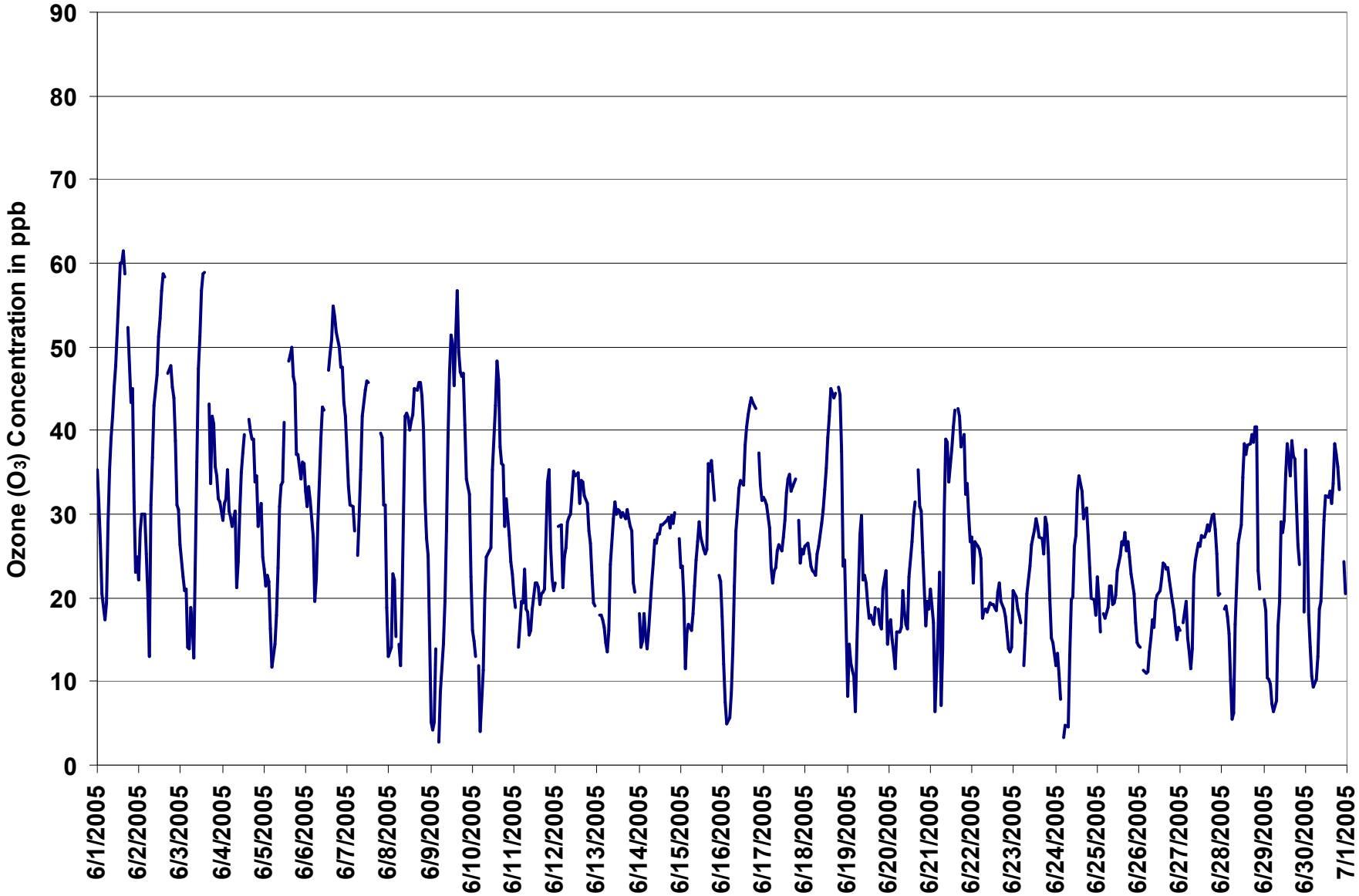
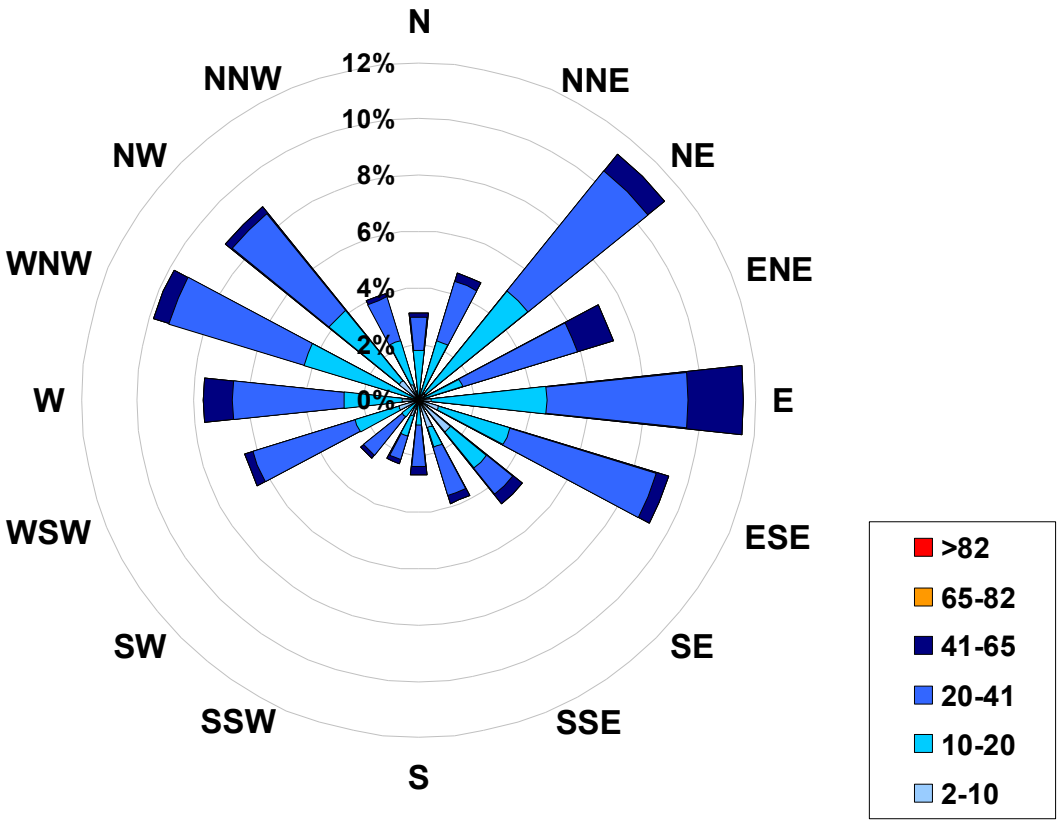


Figure 8. PASZA - Henry Pirker Ozone 1-hr Maximum Value Monthly Trend

1-hr Average Concentration Rose for Ozone (in ppb) Located at the Henry Pirker Site for June 2005



Calms:	0%

Frequency Distribution of O_3 in ppb			
Range			Frequency (hrs)
2.0	<	10	58
10	to	20	231
20	to	41	336
41	to	65	58
65	to	82	0
	>	82	0
Total Non-Zero Values			683

PASZA - Henry Pirker Ozone Monthly Summary

EIGHT HOUR RUNNING AVERAGE TABLE

Ozone (O_3)

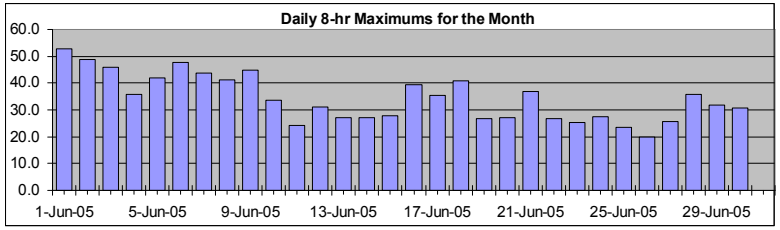
Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: June 1, 2005 to July 1, 2005

Objective Limit: **Alberta Environment:** 8-hr 65 ppb

Summary

Number of 8-hr Exceedances:	0			
Maximum 8-hr Average:	52.6	ppb	1-Jun	18:00 19:00



Percentile	99	95	75	50	25	5	1
	48.5	41.8	29.2	22.9	16.4	11.0	7.6

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	Daily Maximum
1-Jun-05	46	44	40	36	32	28	25	23	24	25	27	31	35	41	45	48	50	52	53	52	50	45	39	34	52.6
2-Jun-05	28	27	25	23	21	20	19	20	22	25	27	29	33	38	44	47	48	49	49	48	46	43	39	35	48.9
3-Jun-05	34	31	28	24	20	17	15	14	12	13	16	20	26	32	37	41	46	46	45	43	40	37	33	32	45.8
4-Jun-05	30	30	28	28	27	26	26	26	25	24	24	24	25	27	27	29	32	34	36	36	35	33	33	31	35.7
5-Jun-05	28	26	24	22	20	18	16	15	15	16	17	19	22	24	29	34	37	40	41	42	41	40	39	37	41.9
6-Jun-05	35	34	32	32	30	28	26	24	24	24	25	27	27	31	35	40	43	45	47	48	48	48	47	46	47.9
7-Jun-05	44	41	39	36	34	32	30	28	27	28	30	32	34	34	N	N	N	N	N	N	N	N	N	N	43.7
8-Jun-05	N	22	22	19	16	15	13	13	14	17	20	23	27	28	32	36	40	41	41	41	41	39	37	34	41.2
9-Jun-05	29	24	19	15	12	8	5	5	7	10	14	19	22	28	33	37	41	44	45	45	44	42	40	36	44.9
10-Jun-05	31	27	24	21	16	12	9	8	9	10	12	13	15	19	24	28	30	31	32	33	33	32	29	26	33.4
11-Jun-05	24	22	21	19	17	16	15	15	15	15	15	16	16	17	17	17	17	18	18	19	21	21	21	21	24.3
12-Jun-05	22	22	23	23	21	21	22	23	24	24	25	26	28	29	30	30	31	31	31	30	29	28	26	25	31.2
13-Jun-05	23	22	20	18	17	16	15	15	15	16	17	19	21	22	24	26	27	27	27	27	26	25	24	24	27.3
14-Jun-05	22	20	18	17	15	14	13	14	15	16	18	19	20	22	24	25	26	27	27	27	27	27	27	27	27.3
15-Jun-05	25	25	23	20	18	16	16	15	15	15	16	18	20	21	22	23	24	26	27	28	28	28	27	27	28.0
16-Jun-05	25	21	17	13	10	9	8	8	9	12	15	19	22	26	30	32	34	36	38	39	39	39	38	37	39.5
17-Jun-05	35	34	32	29	28	27	25	24	23	23	22	22	23	24	25	27	28	28	29	30	30	29	27	24	35.5
18-Jun-05	24	23	22	22	21	21	22	23	22	23	23	24	26	28	30	33	35	37	38	40	41	40	37	32	40.8
19-Jun-05	27	22	20	15	11	8	6	8	11	12	14	16	17	18	19	18	17	17	16	16	15	15	16	16	26.8
20-Jun-05	15	15	15	14	14	13	12	12	13	13	13	14	15	16	18	20	20	23	25	27	27	25	23	22	27.1
21-Jun-05	21	19	17	14	12	12	12	11	11	13	16	20	23	26	31	34	36	37	37	37	36	35	31	29	37.0
22-Jun-05	27	24	23	22	21	20	20	20	19	19	18	17	17	17	17	17	17	18	17	17	16	16	15	14	26.8
23-Jun-05	14	14	13	13	14	14	14	13	13	14	16	17	19	20	22	24	25	25	25	25	25	23	22	20	25.4
24-Jun-05	19	17	15	13	11	9	8	6	6	7	8	10	12	16	19	23	25	26	28	28	27	25	23	22	27.6
25-Jun-05	21	20	18	17	16	16	16	17	16	16	17	17	18	19	20	20	21	22	23	23	24	23	22	20	23.5
26-Jun-05	19	17	16	15	13	12	11	11	12	12	13	14	15	16	17	19	19	20	20	20	19	19	17	17	20.1
27-Jun-05	16	16	15	15	15	14	14	13	14	15	16	16	17	19	21	23	24	24	25	25	26	25	25	24	25.8
28-Jun-05	23	22	21	19	17	15	13	11	11	11	12	14	16	19	23	27	31	33	34	36	35	33	31	30	35.7
29-Jun-05	27	24	20	16	12	10	9	8	8	8	10	13	15	18	22	25	28	31	31	32	31	30	29	26	31.7
30-Jun-05	26	24	21	19	16	14	13	13	11	10	11	13	16	19	22	24	26	28	30	31	30	30	29	27	30.8
																									0.0
Hourly Max	46.3	43.7	40.4	36.3	33.9	32.3	29.5	27.7	26.9	27.7	29.5	31.7	35.2	40.6	44.7	48.2	50.3	52.1	52.6	52.0	50.2	47.6	46.8	45.6	

PASZA - Henry Pirker Carbon Monoxide Monthly Summary

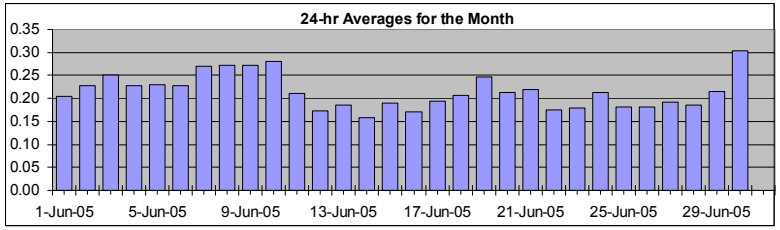
Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Carbon Monoxide (CO)

Monitoring Dates: June 1, 2005 to July 1, 2005

Objective Limit: **Alberta Environment:** 1-hr 13 ppm 24-hr na ppm



Summary

Number of 1-hr Exceedances:	0			
Maximum 1-hr Average:	0.8	ppm	19-Jun	0:00 1:00
Maximum 24-hr Value:	0.3	ppm	30-Jun	

AIC Time:	35 hrs	Operational Time:	681 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	0.5	0.3	0.2	0.2	0.2	0.1	0.1	0.2 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**

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-Jun-05	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.3	0.3	0.20	0.29
2-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.23	0.27
3-Jun-05	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.25	0.33
4-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	0.25
5-Jun-05	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	0.27
6-Jun-05	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	C	C	C	A	A	0.1	0.3	0.3	0.23	0.41
7-Jun-05	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	0.2	C	A	A	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.27	0.42
8-Jun-05	0.4	0.3	0.2	0.2	0.3	A	0.3	0.5	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.27	0.51
9-Jun-05	0.3	0.2	0.2	0.2	A	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.27	0.48
10-Jun-05	0.3	0.3	0.2	A	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.28	0.40
11-Jun-05	0.2	0.2	A	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.27
12-Jun-05	0.2	A	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.22
13-Jun-05	A	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.19	0.28
14-Jun-05	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.16	0.19
15-Jun-05	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.19	0.25
16-Jun-05	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	A	0.2	0.2	0.2	0.17	0.23
17-Jun-05	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.2	0.20	0.33
18-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.4	0.5	0.6	0.21	0.63
19-Jun-05	0.8	0.5	0.4	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.1	0.2	0.2	0.2	0.2	0.2	0.25	0.85
20-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.21	0.36
21-Jun-05	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.1	A	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.22	0.39
22-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.17	0.21
23-Jun-05	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.18	0.25
24-Jun-05	0.2	0.2	0.2	0.2	A	0.2	0.3	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.44
25-Jun-05	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.23
26-Jun-05	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.21
27-Jun-05	0.1	A	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.19	0.27
28-Jun-05	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.3	0.3	A	0.19	0.31
29-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.4	0.22	0.40
30-Jun-05	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	A	0.4	0.6	0.30	0.58
																									N	0.00
Hourly Avg	0.23	0.21	0.19	0.19	0.20	0.22	0.25	0.25	0.22	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.23	0.24	0.26	0.26		
Hourly Max	0.85	0.54	0.39	0.35	0.38	0.34	0.39	0.51	0.45	0.28	0.29	0.37	0.40	0.33	0.48	0.35	0.34	0.32	0.34	0.34	0.44	0.38	0.47	0.63		

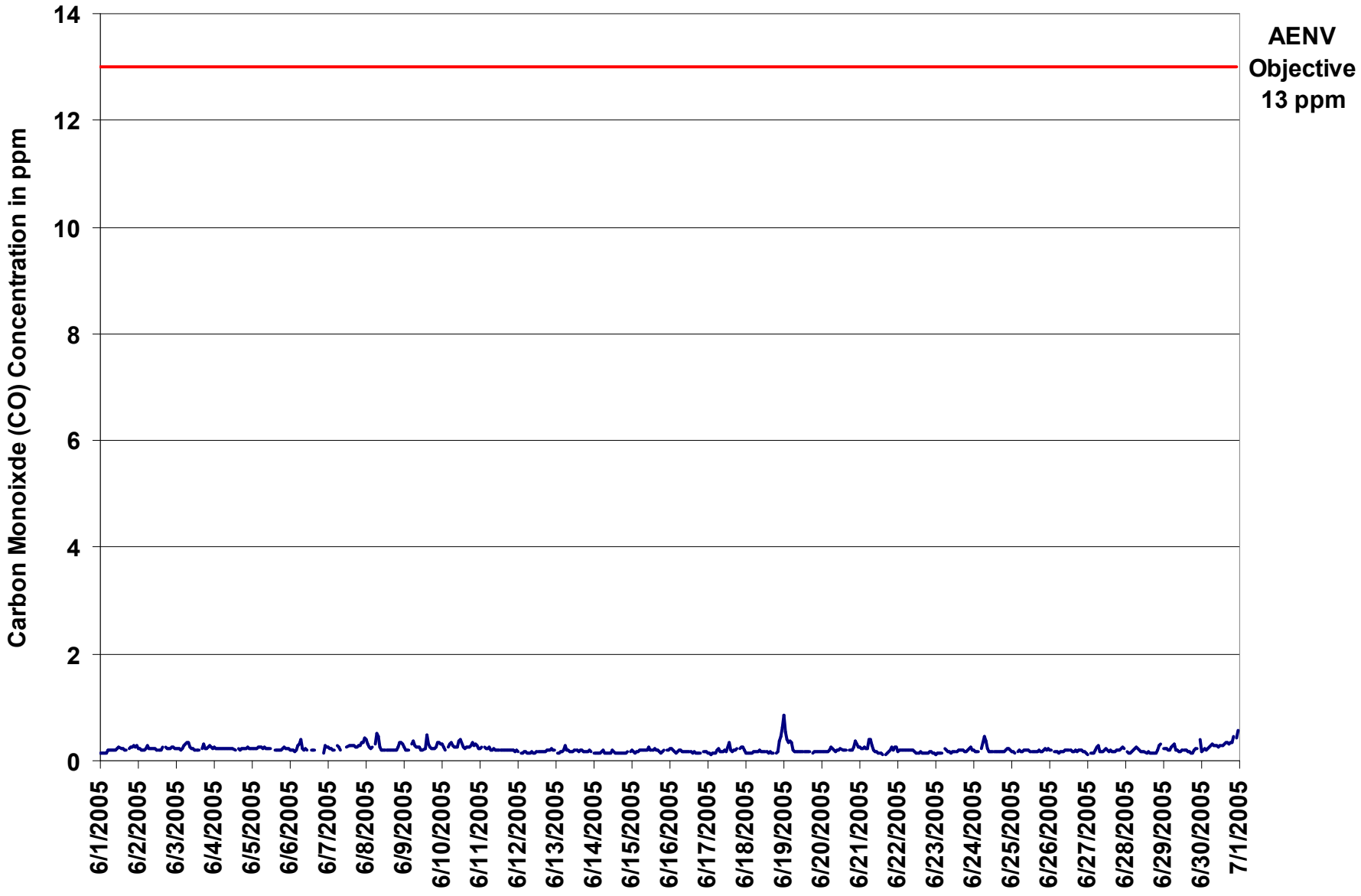


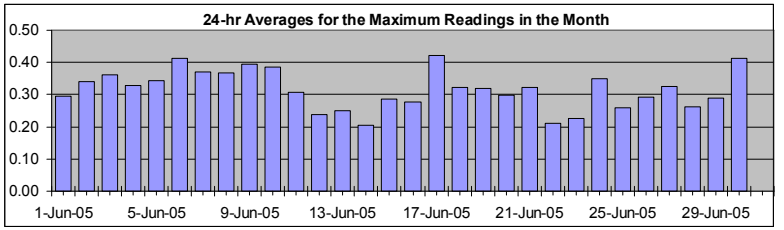
Figure 9. PASZA - Henry Pirker Carbon Monoxide 1-hr Average Monthly Trend

Station: Henry Pirker
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Carbon Monoxide (CO)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Value:	2.1	ppm	17-Jun	13:00 14:00
Maximum 24-hr Value:	0.4	ppm	17-Jun	

AIC Time:	35 hrs	Operational Time:	681 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	1.1	0.6	0.3	0.3	0.2	0.2	0.2	0.3 ppm

Status Flag Characters

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

Day **Mountain Standard Time**

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-Jun-05	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.5	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	A	0.3	0.3	0.3	0.4	0.3	0.4	0.30	0.52
2-Jun-05	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.5	0.3	0.3	0.4	0.4	0.4	A	0.3	0.5	0.4	0.3	0.4	0.3	0.3	0.34	0.55
3-Jun-05	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.5	A	0.3	0.5	0.3	0.3	0.5	0.4	0.5	0.3	0.36	0.53
4-Jun-05	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	A	0.5	0.3	0.3	0.6	0.3	0.3	0.4	0.3	0.4	0.33	0.56
5-Jun-05	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.6	0.4	0.3	0.3	0.3	A	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.4	0.5	0.4	0.34	0.60
6-Jun-05	0.3	0.3	0.2	0.2	0.3	0.5	0.4	1.9	0.3	0.4	0.6	0.3	A	0.3	0.3	0.3	C	C	C	A	A	0.1	0.3	0.4	0.41	1.91
7-Jun-05	0.7	0.3	0.2	0.2	0.3	A	0.6	0.4	0.3	C	A	A	0.3	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.37	0.66
8-Jun-05	0.4	0.4	0.4	0.3	0.6	A	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.4	0.37	0.60
9-Jun-05	0.3	0.3	0.3	0.3	A	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.2	0.4	1.2	0.6	0.4	0.3	0.4	0.3	0.3	0.4	0.5	0.5	0.40	1.25
10-Jun-05	0.5	0.4	0.3	A	0.3	0.4	0.4	0.3	0.3	0.4	0.4	0.9	0.6	0.3	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.3	0.38	0.89
11-Jun-05	0.3	0.3	A	0.9	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.2	0.3	0.2	0.3	0.31	0.93
12-Jun-05	0.2	A	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.24	0.34
13-Jun-05	A	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.2	0.2	0.3	0.4	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	A	0.25	0.43
14-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.21	0.54
15-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	1.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.3	0.4	0.29	1.31
16-Jun-05	0.7	0.3	0.3	0.2	0.2	0.4	0.3	0.4	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.4	0.3	0.2	0.2	0.3	A	0.2	0.3	0.2	0.28	0.73
17-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.3	0.3	0.2	0.3	0.3	0.2	2.1	0.4	0.2	0.3	0.3	0.7	A	0.4	0.7	1.3	0.3	0.42	2.07
18-Jun-05	0.2	0.2	0.3	0.2	0.2	0.5	0.3	0.6	0.3	0.2	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.2	A	0.2	0.2	0.6	0.6	1.0	0.32	0.98
19-Jun-05	0.9	0.7	0.5	0.5	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.2	0.3	0.3	0.3	0.2	0.3	0.32	0.94
20-Jun-05	0.2	0.2	0.2	0.2	0.2	0.3	1.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	A	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.30	1.03
21-Jun-05	0.3	0.3	0.3	0.3	0.3	0.5	0.8	0.6	0.4	0.2	0.2	0.2	0.3	0.2	0.2	A	0.2	0.2	0.3	0.4	0.4	0.2	0.3	0.4	0.32	0.83
22-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.21	0.26
23-Jun-05	0.1	0.2	0.1	0.1	0.2	A	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.3	0.2	0.23	0.37
24-Jun-05	0.2	0.2	0.3	0.2	A	0.3	0.5	0.5	0.5	2.0	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.35	1.97
25-Jun-05	0.2	0.2	0.2	A	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.5	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.26	0.54
26-Jun-05	0.2	0.3	A	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.4	0.2	0.3	0.2	0.3	0.2	0.3	0.6	0.8	0.3	0.2	0.2	0.29	0.83
27-Jun-05	0.2	A	0.2	0.2	0.2	0.9	0.6	0.5	0.3	0.3	0.2	0.3	0.6	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.32	0.87
28-Jun-05	A	0.2	0.2	0.2	0.2	0.3	0.5	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.4	A	0.26	0.47
29-Jun-05	0.3	0.3	0.3	0.2	0.3	0.3	0.4	0.4	0.3	0.3	0.2	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	A	0.6	0.29	0.60
30-Jun-05	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.6	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.5	A	0.6	1.3	0.41	1.26
																									N	0.00
Hourly Avg	0.31	0.28	0.24	0.25	0.26	0.35	0.40	0.40	0.31	0.34	0.28	0.34	0.30	0.34	0.29	0.29	0.27	0.25	0.29	0.29	0.34	0.34	0.39	0.39		
Hourly Max	0.94	0.74	0.48	0.93	0.59	0.87	1.03	1.91	0.60	1.97	0.60	1.31	0.62	2.07	1.25	0.64	0.45	0.47	0.71	0.55	0.83	0.72	1.31	1.26		

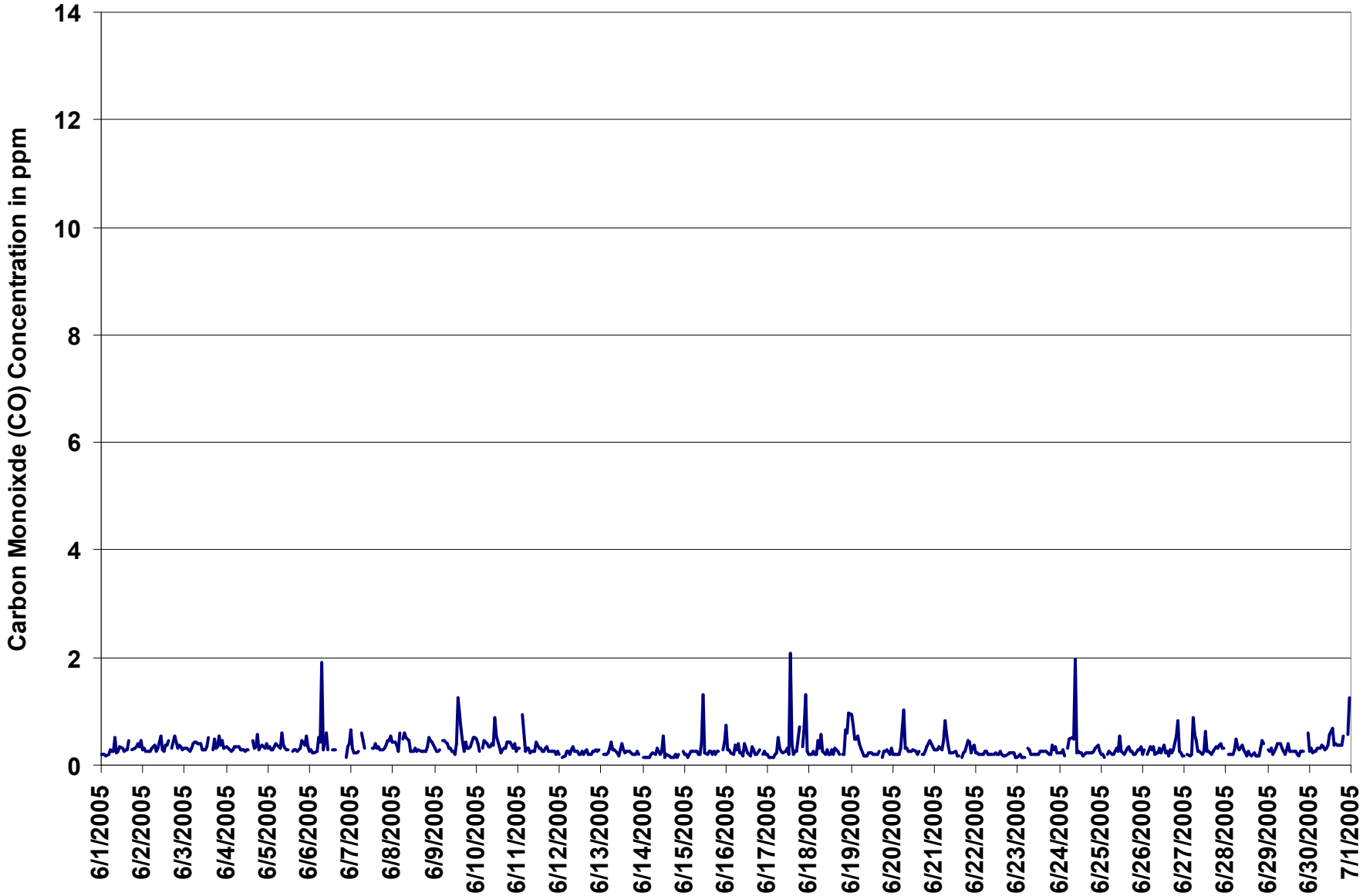
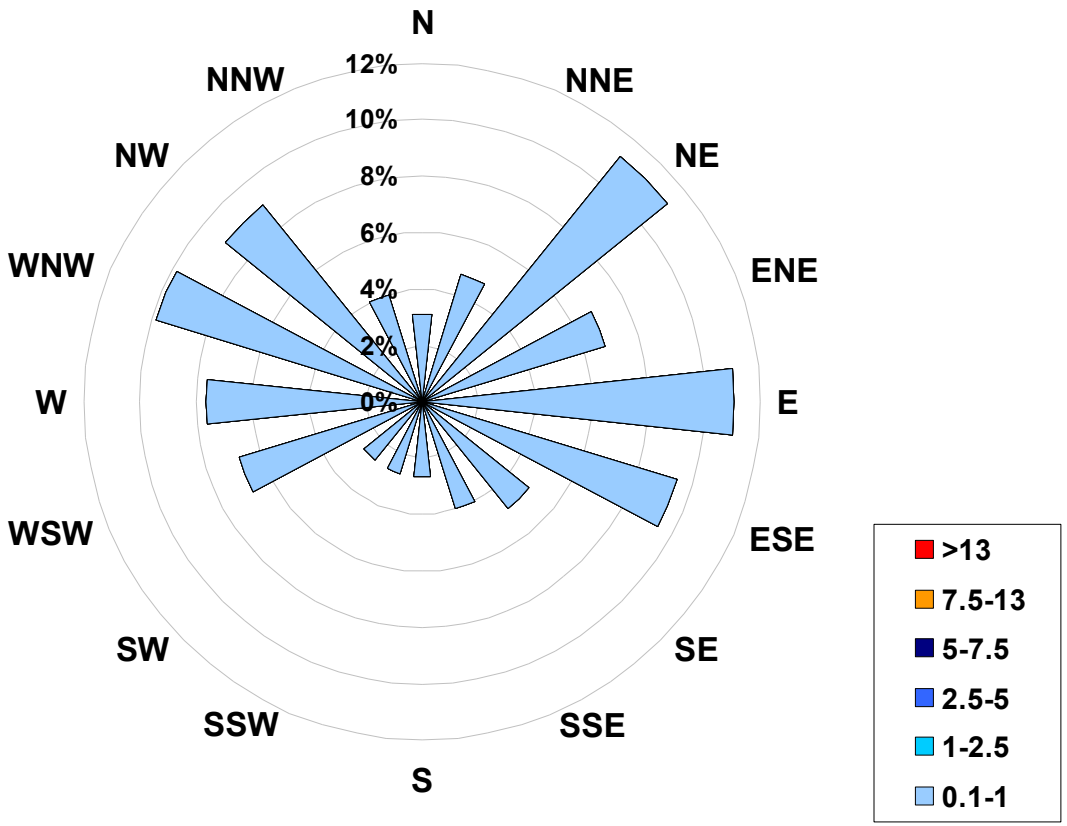


Figure 10. PASZA - Henry Pirker Carbon Monoxide 1-hr Maximum Value Monthly Trend

1-hr Average Concentration Rose for Carbon Monoxide (in ppm) Located at the Henry Pirker Site for June 2005



Calms:	0%

Frequency Distribution of CO in ppm			
Range			Frequency (hrs)
0.1	<	1	681
1	to	2.5	0
2.5	to	5	0
5	to	7.5	0
7.5	to	13	0
	>	13	0
Total Non-Zero Values			681

PASZA - Henry Pirker Carbon Monoxide Monthly Summary

EIGHT HOUR RUNNING AVERAGE TABLE

Carbon Monoxide (CO)

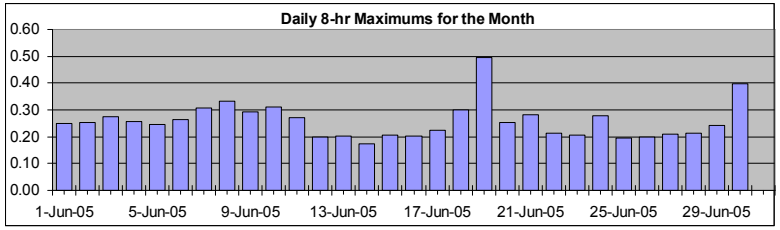
Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: June 1, 2005 to July 1, 2005

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

Summary

Number of 8-hr Exceedances:	0			
Maximum 8-hr Average:	0.5	ppm	19-Jun	4:00 5:00



Percentile	99	95	75	50	25	5	1
	0.4	0.3	0.2	0.2	0.2	0.2	0.1

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

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	Daily Maximum
1-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
2-Jun-05	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
3-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.27
4-Jun-05	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26
5-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
6-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	N	N	N	N	N	N	N	N	0.27
7-Jun-05	N	N	N	0.2	0.2	0.2	0.2	0.2	0.2	N	N	N	N	N	N	N	N	N	0.3	0.3	0.3	0.3	0.3	0.3	0.31
8-Jun-05	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.33
9-Jun-05	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.29
10-Jun-05	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.31
11-Jun-05	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27
12-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
13-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
14-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17
15-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
16-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
17-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
18-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.30
19-Jun-05	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.50
20-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.25
21-Jun-05	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.28
22-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.21
23-Jun-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
24-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.28
25-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
26-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
27-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
28-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.21
29-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
30-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.40
																									0.00
Hourly Max	0.40	0.45	0.44	0.47	0.50	0.49	0.46	0.40	0.33	0.32	0.32	0.32	0.31	0.30	0.29	0.29	0.30	0.31	0.31	0.32	0.34	0.35	0.36	0.40	

PASZA - Henry Pirker Total Hydrocarbons Monthly Summary

HOURLY AVERAGE TABLE

Total Hydrocarbons (THC)

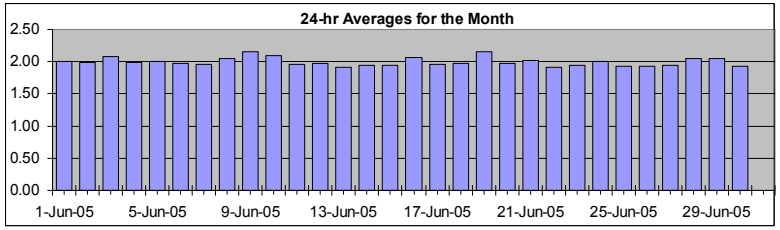
Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: June 1, 2005 to July 1, 2005

Objective Limit: **Alberta Environment:** 1-hr na ppm | 24-hr na ppm

Summary

Maximum 1-hr Average:	2.9	ppm	19-Jun	5:00 6:00
Maximum 24-hr Value:	2.2	ppm	19-Jun	



AIC Time:	32 hrs	Operational Time:	685 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	2.6	2.3	2.0	2.0	1.9	1.9	1.8	2.0 ppm

Status Flag Characters

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

Day **Mountain Standard Time**

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-Jun-05	1.9	1.9	2.0	2.0	2.0	2.3	2.0	2.0	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	2.1	2.1	2.2	2.00	2.25
2-Jun-05	2.2	2.2	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.99	2.25
3-Jun-05	2.2	2.2	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.1	2.0	2.0	2.0	1.9	1.9	A	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.07	2.31
4-Jun-05	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	A	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0	2.0	1.98	2.06
5-Jun-05	2.0	2.1	2.0	2.0	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.01	2.19
6-Jun-05	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.0	2.0	2.0	1.9	A	1.9	1.9	1.9	C	C	C	A	1.8	1.8	1.9	1.9	1.97	2.17
7-Jun-05	1.9	1.9	1.9	2.0	2.0	A	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.2	1.96	2.22
8-Jun-05	2.2	2.2	2.1	2.1	2.2	A	2.2	2.4	2.3	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.3	2.05	2.39
9-Jun-05	2.4	2.4	2.5	2.3	A	2.6	2.8	2.4	2.3	2.2	2.1	2.0	2.0	2.0	2.1	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.15	2.76
10-Jun-05	2.3	2.3	2.2	A	2.4	2.6	2.5	2.3	2.1	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.10	2.60
11-Jun-05	2.0	2.1	A	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.96	2.12
12-Jun-05	2.0	A	1.9	2.0	2.1	2.0	2.0	1.9	1.9	2.0	2.0	1.9	2.0	2.0	2.0	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.97	2.08
13-Jun-05	A	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.92	1.96
14-Jun-05	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	1.94	2.07
15-Jun-05	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.1	2.1	1.95	2.11
16-Jun-05	2.2	2.3	2.3	2.4	2.3	2.2	2.1	2.1	2.0	2.0	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.06	2.44
17-Jun-05	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.1	2.0	1.96	2.10
18-Jun-05	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.1	2.1	2.3	1.98	2.26
19-Jun-05	2.5	2.7	2.6	2.6	2.6	2.9	2.5	2.1	1.9	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	2.16	2.94
20-Jun-05	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.98	2.09
21-Jun-05	2.0	2.0	2.1	2.2	2.3	2.1	2.3	2.2	2.1	2.1	1.9	1.9	1.9	1.9	1.9	A	1.8	1.9	1.9	1.9	1.9	1.9	2.1	2.0	2.02	2.33
22-Jun-05	2.0	2.0	2.0	1.9	1.9	2.0	1.9	2.0	1.9	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.91	2.05
23-Jun-05	1.9	1.9	1.9	1.9	2.0	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.94	2.03
24-Jun-05	2.0	2.0	2.0	2.0	A	2.2	2.2	2.2	2.3	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.8	1.9	2.0	2.0	2.0	1.9	2.00	2.27
25-Jun-05	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.93	2.00
26-Jun-05	2.0	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.92	1.96
27-Jun-05	1.9	A	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.94	2.02
28-Jun-05	A	2.0	2.2	2.2	2.3	2.3	2.5	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.1	2.1	A	2.05	2.48
29-Jun-05	2.1	2.1	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.1	2.06	2.30
30-Jun-05	1.9	1.9	2.1	2.0	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	A	2.0	2.0	1.93	2.10
																									N	0.00
Hourly Avg	2.06	2.08	2.08	2.08	2.10	2.15	2.12	2.07	2.02	1.98	1.96	1.95	1.93	1.92	1.92	1.91	1.91	1.91	1.91	1.91	1.93	1.97	2.01	2.03		
Hourly Max	2.52	2.71	2.59	2.57	2.59	2.94	2.76	2.41	2.31	2.19	2.13	2.11	2.03	2.02	2.08	1.95	1.98	2.01	2.02	2.04	2.01	2.07	2.14	2.26		

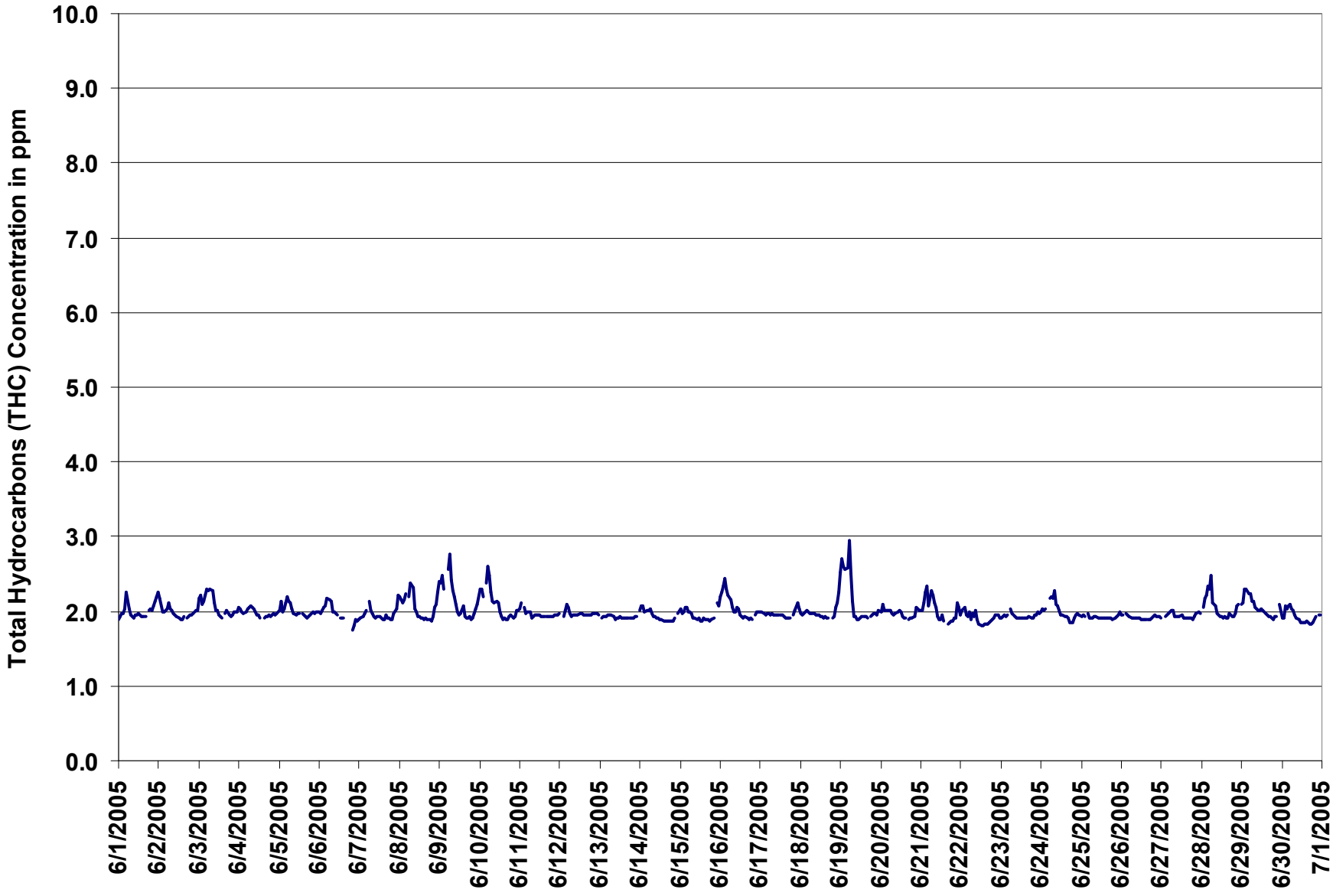


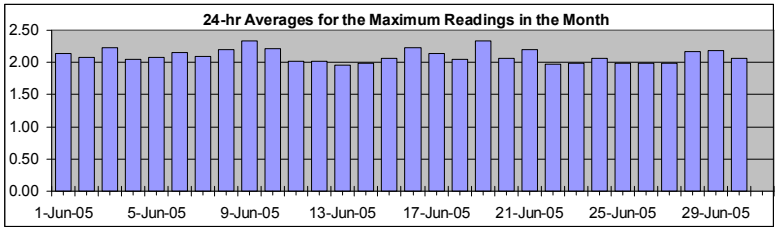
Figure 11. PASZA - Henry Pirker Total Hydrocarbons 1-hr Average Monthly Trend

Station: Henry Pirker
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Total Hydrocarbons (THC)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Value:	3.8	ppm	1-Jun	5:00 6:00
Maximum 24-hr Value:	2.3	ppm	9-Jun	

AIC Time:	32 hrs	Operational Time:	685 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	3.1	2.6	2.1	2.0	2.0	1.9	1.9	2.1 ppm

Status Flag Characters

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

Day **Mountain Standard Time**

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-Jun-05	1.9	2.0	2.1	2.0	2.1	3.8	2.2	2.2	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.2	2.3	2.1	2.2	2.2	2.3	2.15	3.77
2-Jun-05	2.3	2.4	2.0	2.0	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.1	A	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.07	2.37
3-Jun-05	2.6	2.5	2.2	2.2	2.3	2.4	2.4	2.6	3.2	2.2	2.0	2.1	2.0	2.0	1.9	A	2.1	2.2	2.0	2.0	2.0	2.0	2.1	2.1	2.22	3.21
4-Jun-05	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	A	2.1	2.0	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.05	2.15
5-Jun-05	2.1	2.4	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.1	2.1	2.08	2.41
6-Jun-05	2.0	2.0	2.1	2.1	2.1	2.6	2.3	3.0	2.0	2.1	2.1	2.0	A	1.9	1.9	2.8	C	C	C	A	1.8	2.0	2.1	1.9	2.15	3.02
7-Jun-05	2.1	2.0	2.0	2.0	2.1	A	2.3	2.1	2.1	2.0	1.9	2.0	2.0	1.9	2.0	1.9	2.1	2.5	1.9	1.9	1.9	2.2	2.4	2.8	2.09	2.80
8-Jun-05	2.7	2.5	2.2	2.2	3.1	A	2.3	2.5	2.5	2.3	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.2	2.1	2.4	2.20	3.11
9-Jun-05	2.5	2.5	2.7	2.4	A	2.9	2.9	2.6	2.7	2.3	2.1	2.1	2.0	2.0	3.3	2.5	2.0	1.9	2.2	1.9	2.0	2.0	2.1	2.2	2.34	3.29
10-Jun-05	2.7	2.4	2.3	A	2.6	2.8	2.7	2.5	2.2	2.2	2.2	2.3	2.1	2.0	1.9	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.2	2.1	2.21	2.80
11-Jun-05	2.2	2.2	A	2.2	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.02	2.23
12-Jun-05	2.0	A	2.0	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.0	2.0	2.02	2.19
13-Jun-05	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	2.0	1.9	2.0	2.0	1.9	1.9	2.0	1.9	2.0	2.0	2.0	A	1.96	2.02
14-Jun-05	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	2.1	1.99	2.11
15-Jun-05	2.2	2.2	2.0	2.1	2.1	2.0	2.0	2.0	1.9	1.9	2.0	2.5	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	2.6	2.5	2.06	2.63
16-Jun-05	3.0	2.7	2.6	2.6	2.4	2.3	2.2	2.3	2.0	2.0	2.9	2.4	2.0	2.0	1.9	1.9	1.9	2.0	1.9	1.9	A	2.0	2.0	2.0	2.22	2.99
17-Jun-05	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	1.9	1.9	1.9	2.1	A	2.1	3.0	3.6	2.1	2.14	3.59
18-Jun-05	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	1.9	2.0	1.9	1.9	A	1.9	2.1	2.4	2.4	2.5	2.05	2.46
19-Jun-05	2.9	3.3	3.1	2.8	3.0	3.2	3.0	2.4	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	1.9	A	2.0	2.3	2.1	2.0	2.0	2.2	2.34	3.27
20-Jun-05	2.2	2.3	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	1.9	1.9	A	2.0	2.1	2.1	2.0	2.2	2.1	2.1	2.06	2.27
21-Jun-05	2.1	2.1	2.6	2.5	2.8	2.4	2.5	2.6	2.2	2.2	2.0	1.9	2.0	2.2	1.9	A	1.9	1.9	1.9	2.1	2.0	2.0	2.6	2.3	2.20	2.80
22-Jun-05	2.0	2.1	2.2	2.0	2.0	2.2	2.0	2.1	2.0	2.1	2.0	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.98	2.18
23-Jun-05	1.9	2.0	2.0	2.0	2.0	A	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	2.1	2.0	2.0	2.0	1.99	2.08
24-Jun-05	2.0	2.1	2.1	2.1	A	2.3	2.3	2.2	2.4	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.07	2.43
25-Jun-05	2.0	2.0	2.0	A	2.1	1.9	2.0	1.9	2.0	2.0	1.9	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.0	2.1	2.1	1.99	2.14
26-Jun-05	2.0	2.0	A	2.0	2.4	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.0	2.0	2.0	1.99	2.38
27-Jun-05	2.0	A	2.0	2.0	2.0	2.1	2.2	2.1	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.0	2.0	2.0	1.99	2.21
28-Jun-05	A	2.1	2.3	2.3	2.4	2.4	3.6	2.2	2.2	2.1	2.0	2.0	2.0	1.9	2.0	2.0	1.9	2.3	2.1	2.0	2.0	2.2	2.2	A	2.17	3.56
29-Jun-05	2.3	2.2	2.7	2.5	2.4	2.7	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	A	2.3	2.19	2.70
30-Jun-05	2.5	2.2	2.3	2.1	2.4	2.2	2.1	2.2	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.2	2.1	2.06	2.52
																									N	0.00
Hourly Avg	2.23	2.22	2.20	2.17	2.24	2.33	2.26	2.20	2.13	2.04	2.04	2.03	1.98	1.97	2.00	2.01	1.96	1.99	1.99	1.98	2.01	2.08	2.19	2.15		
Hourly Max	2.99	3.27	3.08	2.85	3.11	3.77	3.56	3.02	3.21	2.28	2.90	2.45	2.13	2.22	3.29	2.79	2.15	2.52	2.21	2.34	2.19	3.02	3.59	2.80		

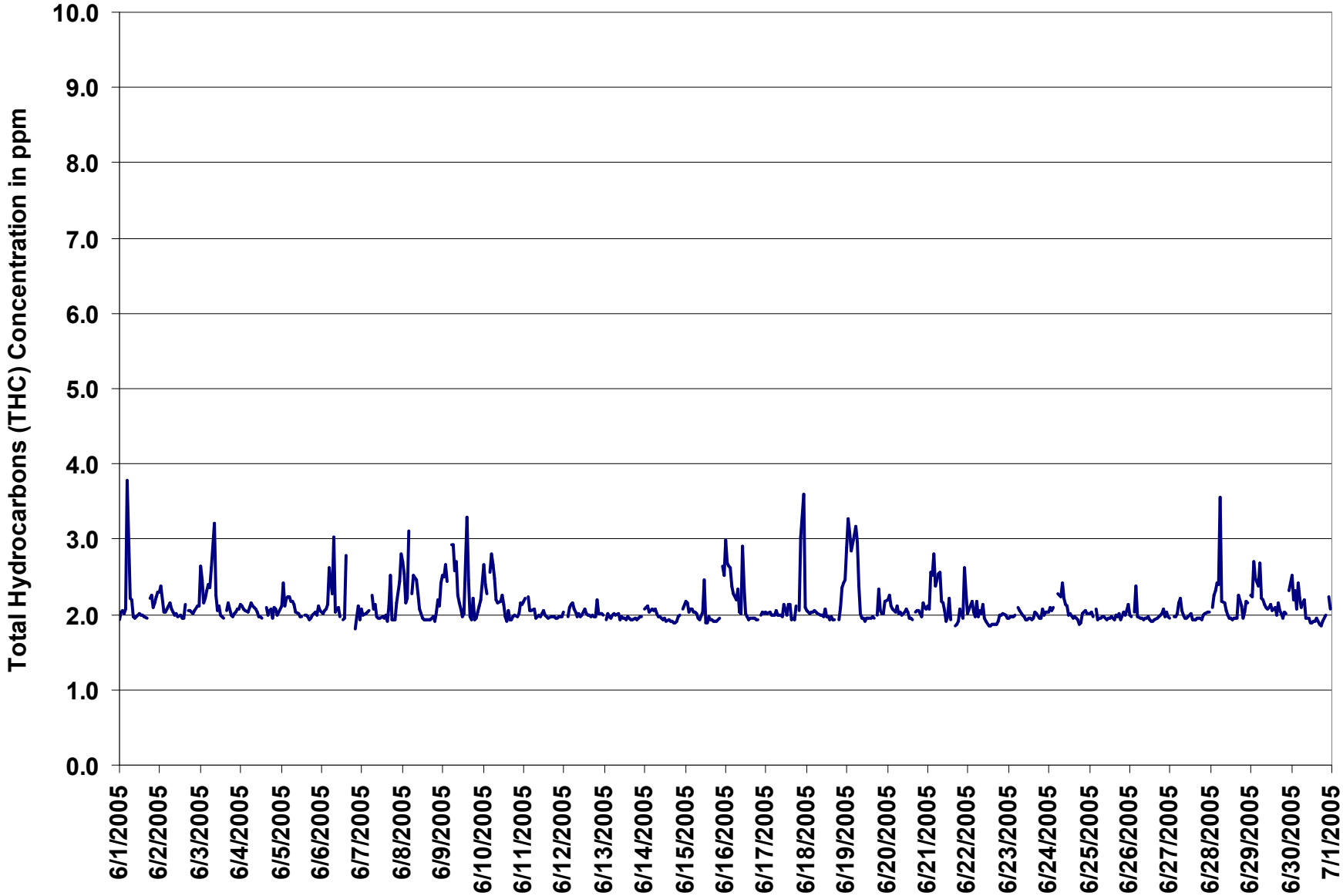
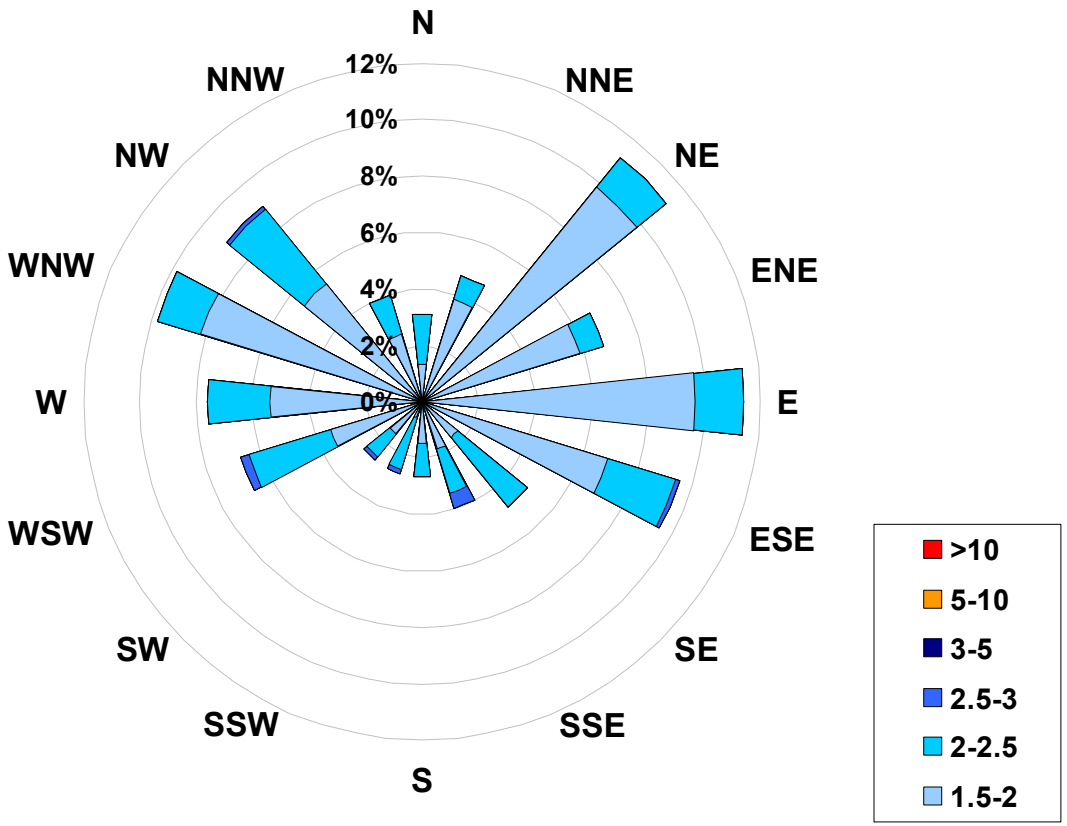


Figure 12. PASZA - Henry Pirker Total Hydrocarbons 1-hr Maximum Value Monthly Trend

1-hr Average Concentration Rose for Total Hydrocarbons (in ppm)
Located at the Henry Pirker Site for June 2005



Calms:	0%

Frequency Distribution of THC in ppm			
Range			Frequency (hrs)
1.5	<	2	472
2	to	2.5	203
2.5	to	3	10
3	to	5	0
5	to	10	0
	>	10	0
Total Non-Zero Values			685

PASZA - Henry Pirker Total Reduced Sulphur Monthly Summary

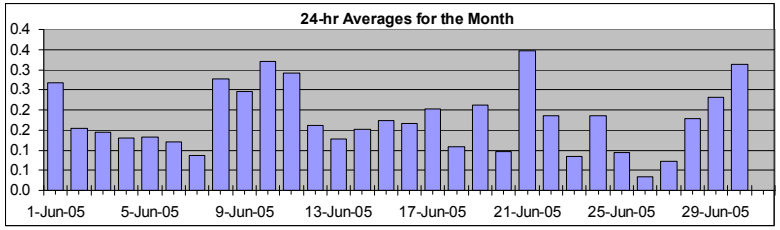
Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Total Reduced Sulphur (TRS)

Monitoring Dates: June 1, 2005 to July 1, 2005

Objective Limit: **Alberta Environment:** 1-hr na ppb | 24-hr na ppb



Summary

Maximum 1-hr Average:	1.2	ppb	21-Jun	3:00 4:00
Maximum 24-hr Value:	0.3	ppb	21-Jun	

AIC Time:	32 hrs	Operational Time:	686 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	0.7	0.4	0.2	0.2	0.1	0.0	0.0	0.2 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-Jun-05	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.3	0.5
2-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.2	0.3
3-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.1	0.3
4-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0.1	0.2
5-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0.1	0.3
6-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
7-Jun-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	C	C	A	0	0	0	0	0.1	0.2
8-Jun-05	0	0	1	1	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
9-Jun-05	0	0	0	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
10-Jun-05	0	0	0	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
11-Jun-05	0	0	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
12-Jun-05	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
13-Jun-05	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	0.2
14-Jun-05	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	0.3
15-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.3
16-Jun-05	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	0.3
17-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.4
18-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.3
19-Jun-05	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.6
20-Jun-05	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
21-Jun-05	0	0	1	1	1	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0.3	1.2
22-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
23-Jun-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
24-Jun-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
25-Jun-05	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
26-Jun-05	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
27-Jun-05	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
28-Jun-05	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.2	0.3
29-Jun-05	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
30-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0.3	0.8
																									N	0.0
Hourly Avg	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2		
Hourly Max	0.5	0.4	0.8	1.2	0.8	0.7	0.7	0.7	0.7	0.8	0.7	0.4	0.3	0.3	0.2	0.4	0.3	0.2	0.3	0.2	0.3	0.3	0.4	0.8		

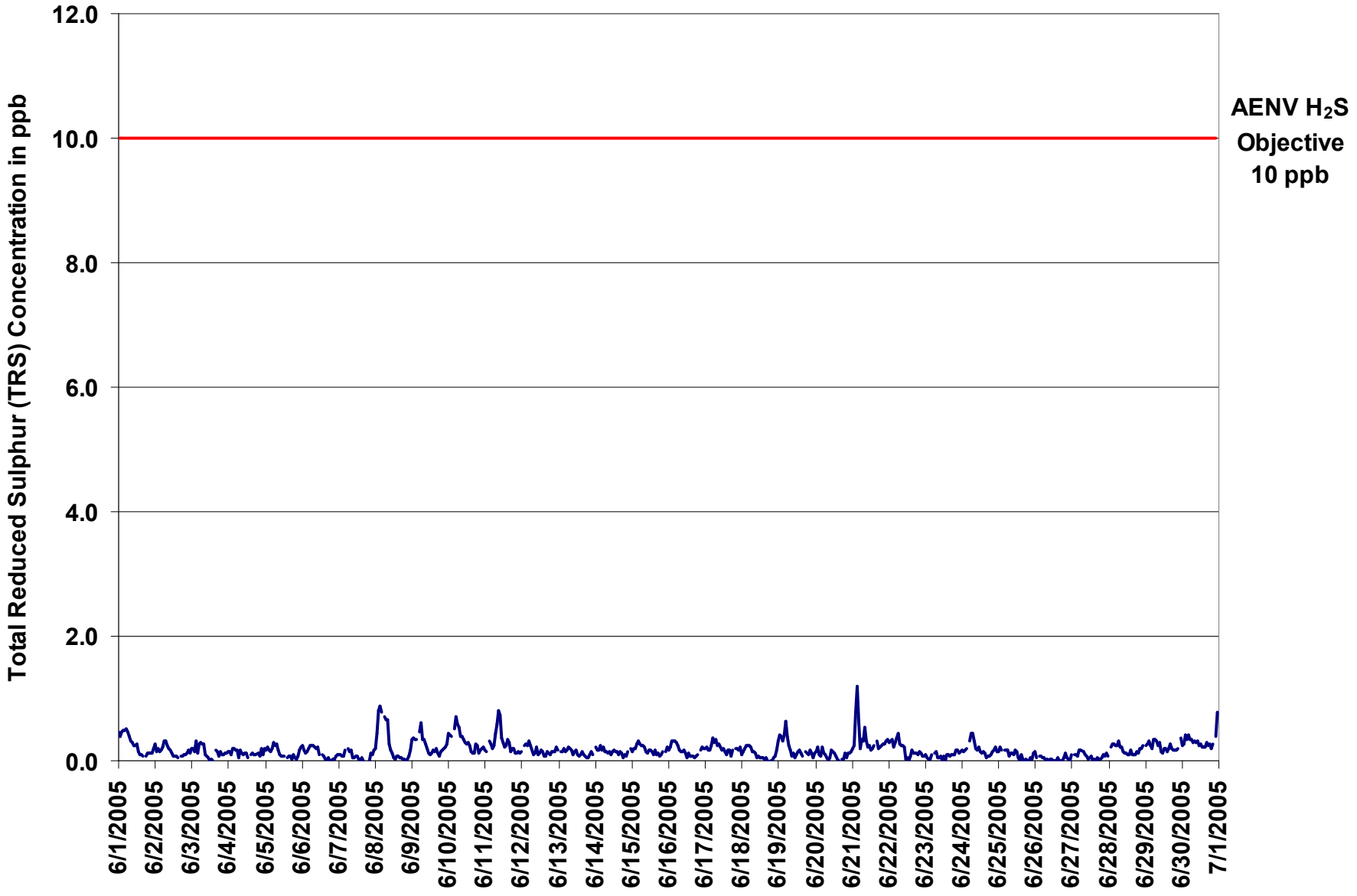


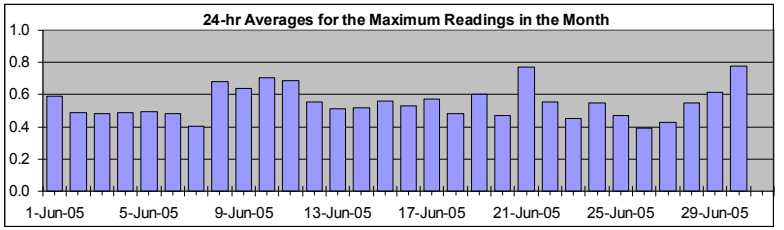
Figure 13. PASZA - Henry Pirker Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Henry Pirker
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Total Reduced Sulphur (TRS)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Value:	2.6	ppb	30-Jun	23:00 0:00
Maximum 24-hr Value:	0.8	ppb	30-Jun	

AIC Time:	32 hrs	Operational Time:	686 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	1.2	0.8	0.6	0.5	0.4	0.3	0.3	0.6 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / 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-Jun-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	A	0	0	0	0	0	1	0.6	0.9
2-Jun-05	1	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.5	0.8
3-Jun-05	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	A	0	1	0	1	0	0	0	0	0.5	0.7
4-Jun-05	0	1	0	1	1	0	0	0	1	1	0	0	1	0	A	1	1	0	1	0	0	1	0	0	0.5	0.7
5-Jun-05	1	0	1	0	1	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	1	1	0.5	0.8
6-Jun-05	1	1	1	0	1	1	1	1	0	1	1	0	A	0	0	0	0	0	0	0	0	0	1	0	0.5	0.6
7-Jun-05	0	0	0	0	0	A	0	0	0	0	1	0	0	0	0	0	0	C	C	A	0	0	0	1	0.4	0.7
8-Jun-05	1	1	1	1	1	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0.7	1.4
9-Jun-05	1	1	1	1	A	1	1	1	1	1	1	1	0	1	1	1	1	0	0	0	0	1	1	1	0.6	1.1
10-Jun-05	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	0	1	1	0.7	1.2
11-Jun-05	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0.7	1.1
12-Jun-05	1	A	1	1	1	1	1	1	0	1	0	1	0	1	1	0	1	0	0	0	0	1	1	1	0.6	0.8
13-Jun-05	A	1	1	1	0	1	1	1	1	0	1	1	0	0	0	1	0	0	1	0	0	1	1	A	0.5	0.6
14-Jun-05	1	1	0	1	1	1	1	0	0	1	0	1	0	1	1	0	1	0	0	1	0	1	A	1	0.5	0.6
15-Jun-05	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	0	1	1	0	1	A	0	1	0.6	0.8
16-Jun-05	1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	0	0	0	1	0	A	1	1	1	0.5	0.8
17-Jun-05	1	1	0	1	1	1	1	1	1	1	1	1	0	1	0	0	1	0	1	A	1	1	1	1	0.6	0.8
18-Jun-05	1	0	0	1	1	1	0	1	1	1	0	0	0	0	1	0	0	0	A	1	0	0	0	1	0.5	0.8
19-Jun-05	1	1	1	1	1	1	1	0	1	1	0	0	0	0	1	0	0	A	0	0	1	1	0	0	0.6	1.0
20-Jun-05	0	1	0	0	1	1	0	0	0	0	1	1	1	1	0	0	A	0	0	1	0	0	1	1	0.5	0.6
21-Jun-05	0	1	2	2	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	1	1	1	1	0.8	1.7
22-Jun-05	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	1	1	1	0	0	1	0	0	0.6	0.8
23-Jun-05	0	1	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0.4	0.7
24-Jun-05	1	0	1	0	A	1	1	1	1	1	1	1	0	1	0	1	0	0	0	1	0	1	1	1	0.5	0.9
25-Jun-05	1	1	0	A	1	1	1	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0.5	0.7
26-Jun-05	1	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0.4	0.6
27-Jun-05	0	A	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.4	0.5
28-Jun-05	A	1	1	1	1	1	1	0	1	0	0	0	1	1	1	0	0	1	1	1	0	1	1	A	0.5	0.7
29-Jun-05	1	1	1	1	0	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	A	1	0.6	0.8
30-Jun-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	3	0.8	2.6
																									N	0.0
Hourly Avg	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6		
Hourly Max	0.8	1.1	1.6	1.7	1.2	1.2	1.2	1.0	1.0	1.1	1.1	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.8	0.7	0.7	2.6		

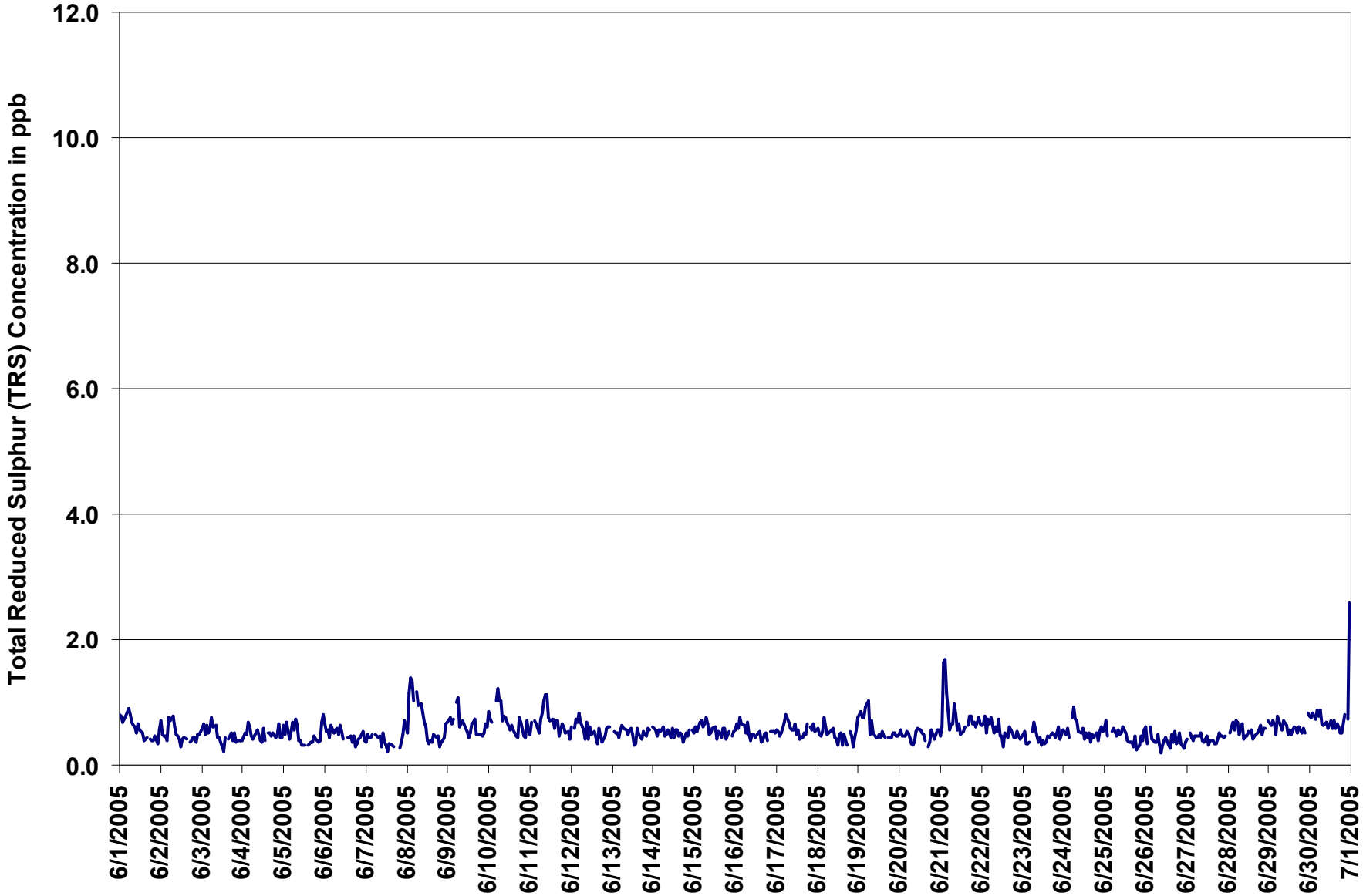
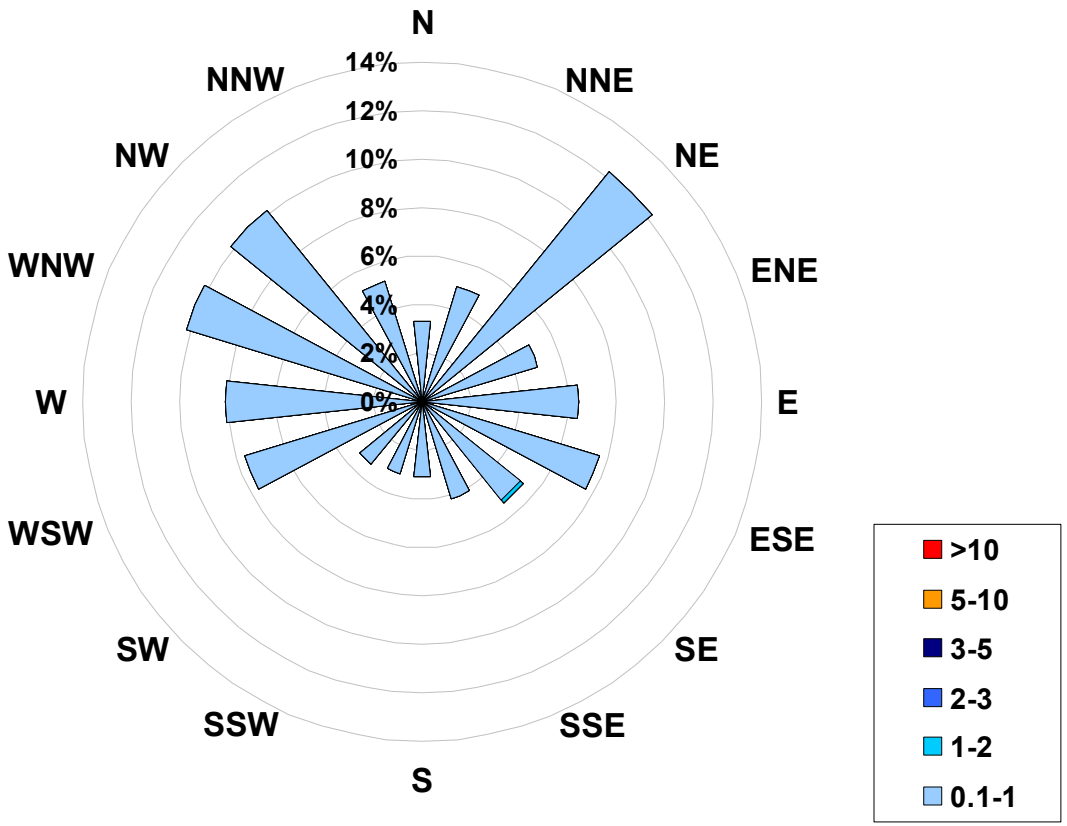


Figure 14. PASZA - Henry Pirker Total Reduced Sulphur 1-hr Maximum Value Monthly Trend

1-hr Average Concentration Rose for Total Reduced Sulphur (in ppb)
Located at the Henry Pirker Site for June 2005



Calms:	0%

Frequency Distribution of TRS in ppb			
Range			Frequency (hrs)
0.1	<	1	685
1	to	2	1
2	to	3	0
3	to	5	0
5	to	10	0
	>	10	0
Total Non-Zero Values			686

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

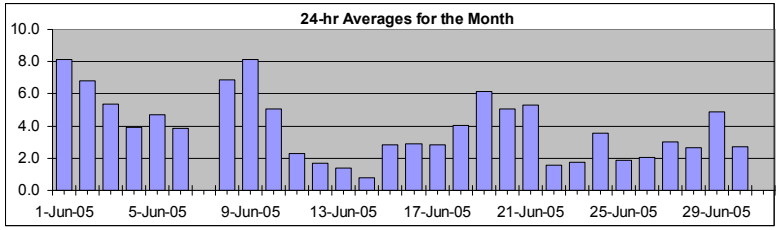
Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Particulate Matter ($PM_{2.5}$)

Monitoring Dates: June 1, 2005 to July 1, 2005

Draft Objective Limit: **Alberta Environment:** 1-hr - µg/m³ | 24-hr 30 µg/m³



Summary

Number of 24-hr Exceedances (draft):	0			
Maximum 1-hr Average:	33.0	µg/m³	19-Jun	0:00 1:00
Maximum 24-hr Value:	8.1	µg/m³	9-Jun	

AIC Time:	0 hrs	Operational Time:	707 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	98.9%

Percentile	99	95	75	50	25	5	1	Average	Geomean
	16.1	10.3	5.4	3.0	1.4	0.0	0.0	3.8 µg/m³	3.3 µg/m³

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-Jun-05	6	6	6	6	6	10	10	6	7	8	10	11	12	11	9	5	4	2	12	12	8	10	8	9	8.1	11.9
2-Jun-05	9	10	5	5	7	8	9	8	8	8	9	7	5	3	7	10	10	3	3	5	5	6	7	6	6.8	9.8
3-Jun-05	7	6	6	6	7	8	7	12	13	7	3	5	1	2	1	12	4	5	3	1	3	3	3	3	5.4	13.0
4-Jun-05	3	5	3	3	4	5	5	4	7	7	4	4	5	0	5	1	2	3	7	3	7	4	1	2	3.9	7.3
5-Jun-05	3	2	2	3	6	3	5	6	4	5	6	9	5	3	5	2	3	5	0	3	3	3	8	16	4.7	16.1
6-Jun-05	2	2	1	2	3	6	6	8	6	4	5	1	2	5	4	3	6	4	2	3	6	6	3	4	3.9	8.0
7-Jun-05	3	2	1	1	2	4	4	4	3	0	0	2	0	C	C	C	C	C	D	D	0	5	4	8	N	8.0
8-Jun-05	5	6	7	6	7	7	11	18	17	3	4	1	4	3	2	1	6	5	5	5	6	11	10	15	6.9	17.9
9-Jun-05	15	9	10	7	7	10	18	14	12	12	9	4	6	7	12	0	9	5	1	4	4	6	7	7	8.1	17.6
10-Jun-05	10	6	4	4	6	9	11	10	9	8	6	7	4	4	0	6	2	2	4	2	2	3	2	1	5.1	10.7
11-Jun-05	1	2	2	4	2	4	3	0	3	5	0	1	3	3	2	3	4	4	3	0	2	3	2	2	2.3	4.7
12-Jun-05	1	0	0	0	0	1	0	0	1	1	0	2	3	3	3	1	3	2	3	2	4	3	4	3	1.7	4.4
13-Jun-05	1	1	0	0	0	0	1	1	0	0	1	2	3	3	4	4	3	4	3	0	2	0	0	0	1.4	4.1
14-Jun-05	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	1	0	5	5	3	1	0.8	5.4
15-Jun-05	3	1	0	2	3	2	4	4	3	4	3	3	2	3	5	2	5	D	1	1	2	2	5	5	2.8	5.4
16-Jun-05	4	3	2	1	1	5	6	2	1	4	3	3	0	1	2	3	4	2	2	2	3	5	5	7	2.9	6.6
17-Jun-05	2	2	3	5	4	1	1	1	0	2	2	3	3	2	2	2	2	3	7	2	7	4	4	3	2.8	7.0
18-Jun-05	1	2	2	1	1	2	3	3	3	3	0	1	2	1	1	1	3	3	2	0	3	15	20	23	4.0	22.9
19-Jun-05	33	20	13	10	11	14	12	7	7	4	1	1	2	0	1	2	0	0	2	1	4	1	2	2	6.2	33.0
20-Jun-05	2	2	3	3	3	1	2	2	2	4	5	9	9	7	5	8	4	6	5	5	9	12	7	7	5.0	12.0
21-Jun-05	8	7	8	10	6	1	10	9	5	2	2	0	0	0	5	2	1	7	7	4	15	6	6	5	5.3	15.0
22-Jun-05	3	0	0	6	5	2	1	1	0	0	1	2	3	3	2	1	0	1	2	1	2	1	0	0	1.6	6.1
23-Jun-05	0	0	0	0	0	1	3	3	2	0	0	0	0	2	3	3	4	2	0	0	8	4	5	1	1.7	8.5
24-Jun-05	0	0	0	0	0	3	10	4	8	5	7	0	4	0	2	10	3	1	D	6	5	7	4	3	3.5	9.6
25-Jun-05	2	3	2	3	3	2	2	2	1	3	0	2	2	1	2	0	1	2	2	1	3	3	2	2	1.9	3.5
26-Jun-05	3	0	0	1	2	2	2	3	1	3	1	3	4	0	0	6	2	3	4	4	3	0	2	0	2.1	6.1
27-Jun-05	0	0	4	5	3	3	6	8	3	5	3	8	1	4	0	5	0	2	1	3	1	3	3	1	3.0	7.8
28-Jun-05	1	0	0	0	2	4	2	5	7	3	3	3	0	0	1	0	0	0	3	2	8	8	8	4	2.7	8.1
29-Jun-05	3	2	2	3	2	5	8	6	6	5	0	4	8	8	0	5	0	6	7	7	8	13	6	3	4.9	12.7
30-Jun-05	D	5	3	0	1	1	2	5	2	3	2	D	D	0	6	3	0	0	0	0	13	4	5	D	2.7	13.4
																									N	0.0
Hourly Avg	4.6	3.4	3.1	3.3	3.5	4.1	5.4	5.3	4.7	4.0	3.0	3.3	3.1	2.7	3.1	3.5	2.9	3.0	3.2	2.7	5.1	5.2	4.9	4.9		
Hourly Max	33.0	20.2	13.2	9.8	11.3	13.7	17.6	17.9	16.8	12.0	10.1	10.8	11.7	10.6	12.3	11.5	9.8	7.4	11.9	11.9	15.0	15.4	20.5	22.9		

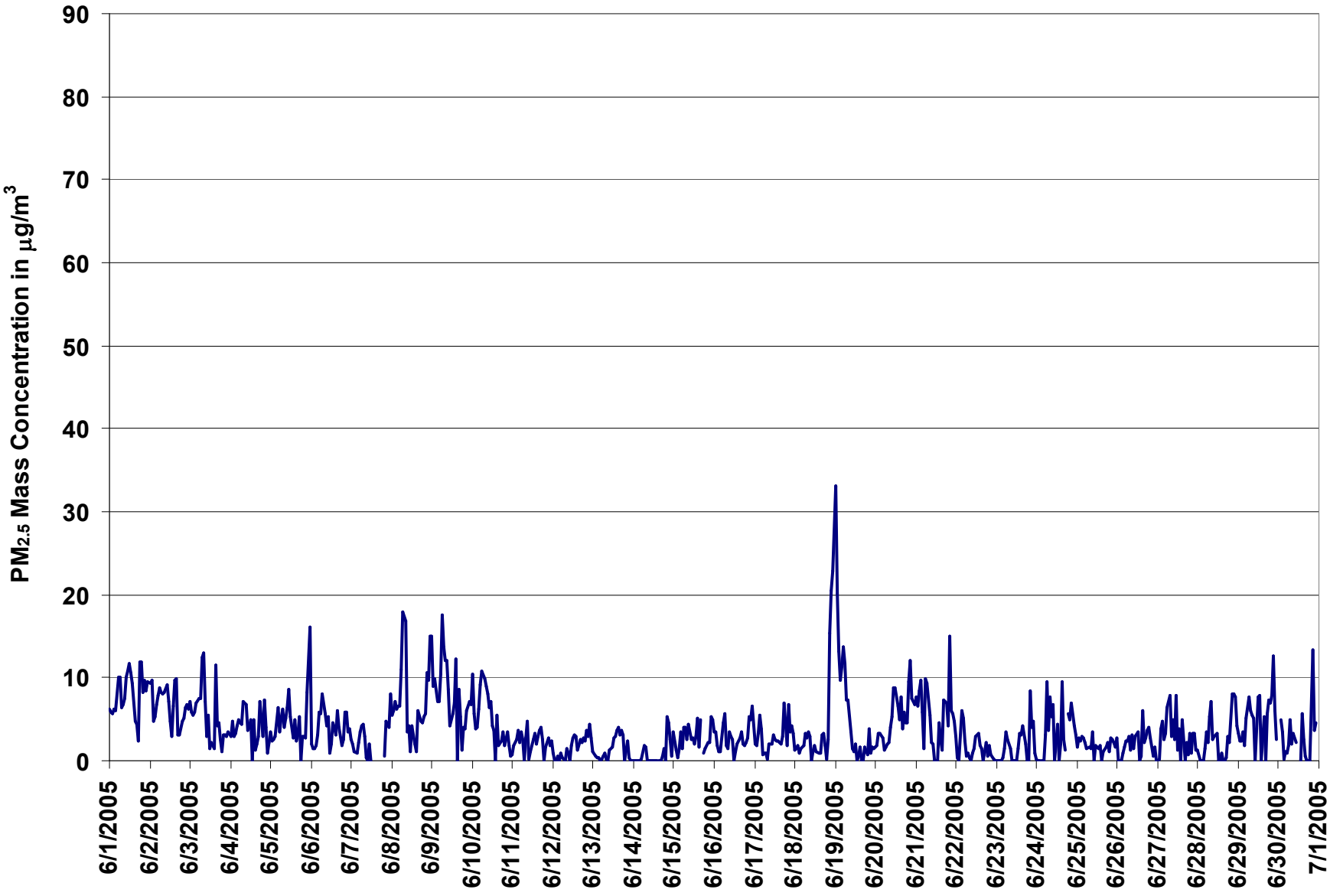


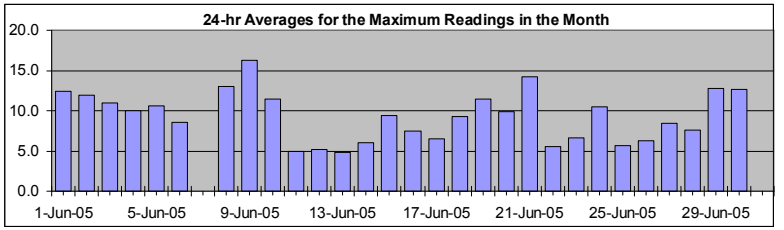
Figure 15. PASZA - Henry Pirker Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Particulate Matter ($PM_{2.5}$)

Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Average:	37.0	µg/m³	19-Jun	0:00 1:00
Maximum 24-hr Value:	16.3	µg/m³	9-Jun	

AIC Time:	0 hrs	Operational Time:		707 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:		98.9%

Percentile	99	95	75	50	25	5	1	Average	Geomean
	31.6	19.3	11.6	8.1	5.3	2.4	1.0	9.2 µg/m˘	8.8 µg/m˘

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-Jun-05	8	8	7	8	9	14	16	11	10	11	16	14	16	14	14	14	15	7	20	15	13	12	13	16	12.4	19.5
2-Jun-05	15	17	6	8	9	10	11	13	11	13	15	11	9	8	15	28	18	11	6	8	10	10	11	11	11.9	28.3
3-Jun-05	13	9	7	9	9	11	10	18	19	13	14	13	10	13	8	33	7	10	9	5	7	6	6	7	11.0	32.8
4-Jun-05	6	9	5	6	5	7	7	9	11	10	13	15	14	8	17	9	6	15	20	12	19	8	4	4	9.9	20.2
5-Jun-05	5	5	5	5	9	6	9	9	7	8	9	18	12	9	12	8	10	13	10	11	6	5	27	35	10.6	35.2
6-Jun-05	3	3	3	5	7	10	9	13	10	9	10	11	10	13	11	9	12	10	6	4	16	9	7	6	8.6	16.3
7-Jun-05	5	4	3	4	6	7	6	7	8	5	6	7	5	C	C	C	C	C	D	D	4	7	13	17	N	17.3
8-Jun-05	12	11	11	8	9	11	17	25	21	18	12	9	10	11	10	9	11	11	10	10	9	15	13	31	13.0	30.9
9-Jun-05	32	19	11	11	14	17	22	16	16	18	17	16	15	28	34	15	18	15	7	9	7	9	10	13	16.3	34.3
10-Jun-05	17	11	9	11	10	15	14	15	13	16	10	11	10	13	8	26	7	10	19	6	7	6	6	5	11.4	26.1
11-Jun-05	3	4	5	5	4	7	5	2	6	7	3	4	5	6	5	5	6	10	5	2	4	5	5	6	5.0	9.5
12-Jun-05	3	1	1	3	1	2	4	3	4	5	6	6	8	11	8	7	6	6	7	5	6	6	9	7	5.2	10.7
13-Jun-05	2	2	2	2	1	2	2	3	6	6	7	6	9	6	7	9	8	7	13	3	5	4	2	0	4.8	13.3
14-Jun-05	0	1	4	4	2	3	4	4	4	2	8	4	9	5	15	5	6	7	8	6	18	14	7	6	6.0	17.7
15-Jun-05	9	8	3	4	6	3	8	9	7	11	10	11	10	9	23	12	11	D	6	7	8	18	12	12	9.4	23.1
16-Jun-05	9	8	7	4	4	6	9	6	7	12	11	10	7	8	7	10	9	5	6	5	6	7	8	8	7.5	12.3
17-Jun-05	5	5	10	8	6	2	5	3	3	4	4	7	7	6	6	6	4	7	15	5	12	7	9	9	6.5	15.1
18-Jun-05	3	5	5	3	4	4	6	5	7	9	5	3	9	8	6	13	8	11	7	5	7	26	32	31	9.2	32.2
19-Jun-05	37	33	19	16	16	17	19	14	12	10	6	5	5	4	7	9	4	3	7	6	7	7	8	4	11.4	37.0
20-Jun-05	5	6	9	7	5	4	7	5	5	7	9	15	13	12	10	13	15	14	12	10	12	19	15	9	9.8	19.0
21-Jun-05	11	8	11	14	14	16	16	24	12	12	9	11	4	5	16	7	8	20	16	33	27	8	20	22	14.3	32.8
22-Jun-05	12	6	4	10	10	8	5	4	4	3	4	6	7	9	7	4	2	5	7	4	5	4	2	0	5.6	12.2
23-Jun-05	1	2	3	3	3	5	6	7	5	5	6	3	4	12	13	12	11	7	9	5	20	8	8	3	6.7	19.6
24-Jun-05	2	2	1	2	2	8	17	13	14	15	16	9	10	8	7	30	17	9	D	15	10	15	9	9	10.5	29.9
25-Jun-05	4	5	5	5	6	4	4	4	4	6	6	6	4	7	11	5	6	7	9	7	6	6	4	5	5.6	11.2
26-Jun-05	5	1	2	4	4	4	4	5	6	6	4	10	9	9	5	15	13	7	9	14	6	4	4	2	6.3	15.2
27-Jun-05	1	2	8	8	5	5	11	12	7	10	10	21	11	16	11	11	8	9	8	9	4	6	6	4	8.5	21.3
28-Jun-05	4	1	2	1	3	5	6	11	11	7	7	7	9	6	9	10	13	11	10	6	13	12	12	6	7.6	13.3
29-Jun-05	5	4	9	9	5	8	16	21	11	9	8	8	23	19	14	12	12	13	20	11	10	28	14	14	12.7	28.3
30-Jun-05	D	13	8	7	7	5	6	13	9	12	11	D	D	15	30	18	10	10	10	7	27	17	19	D	12.7	29.9
																									N	0.0
Hourly Avg	8.1	7.1	6.1	6.5	6.5	7.5	9.4	10.2	9.0	9.3	9.0	9.5	9.5	10.3	12.0	12.5	9.7	9.7	10.3	8.5	10.4	10.2	10.5	10.4		
Hourly Max	37.0	32.6	18.7	16.4	16.2	16.9	21.9	24.8	21.3	18.0	17.2	21.3	23.0	27.7	34.3	32.8	18.2	19.9	20.2	32.8	27.3	28.3	32.2	35.2		

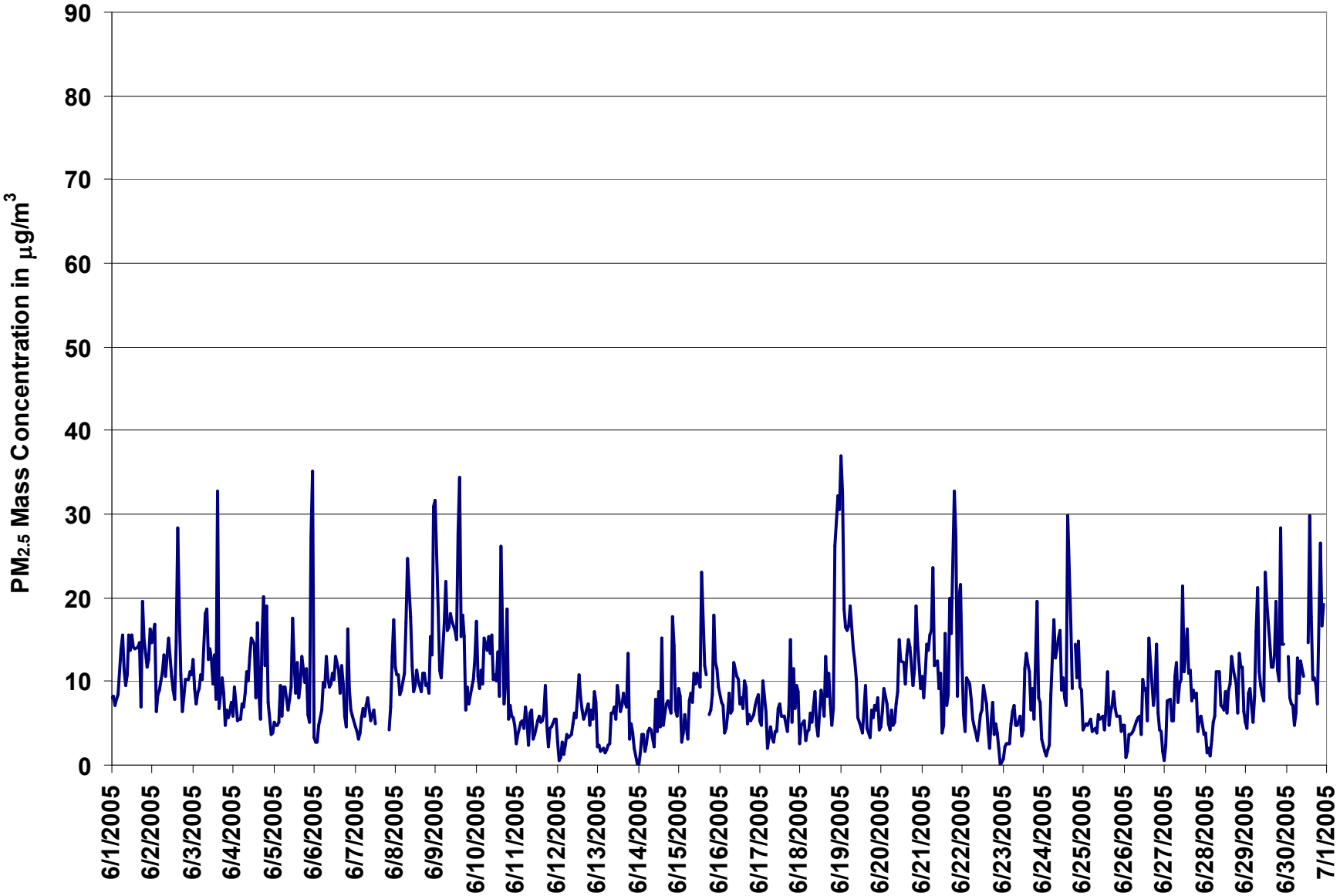
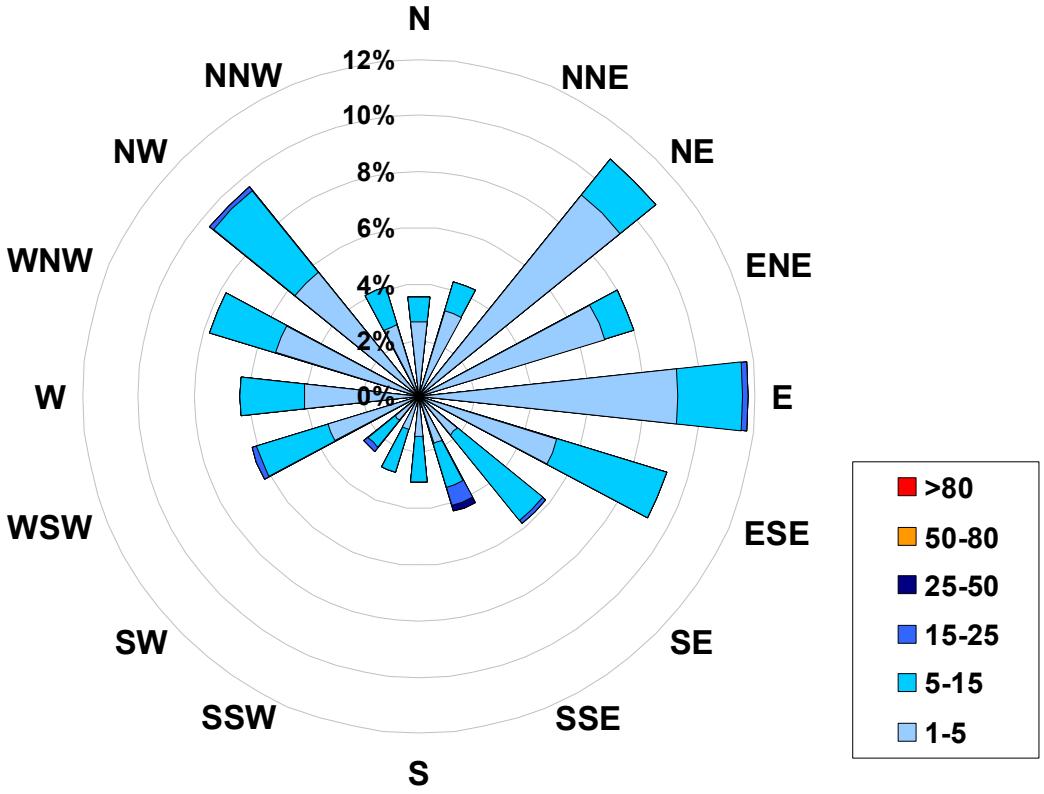


Figure 16. PASZA - Henry Pirker Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly Trend

1-hr Average Concentration Rose for Particulate Matter (less than 2.5 microns) (in micrograms per cubic meter) Located at the Henry Pirker Site for June 2005



Calms:	0%

Frequency Distribution of $PM_{2.5}$ in $\mu g/m^3$			
Range			Frequency (hrs)
1.0	<	5	508
5	to	15	189
15	to	25	9
25	to	50	1
50	to	80	0
	>	80	0
Total Non-Zero Values			707

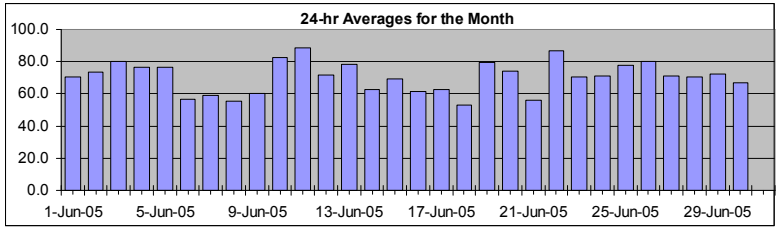
PASZA - Henry Pirker Relative Humidity Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Relative Humidity (RH)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Average:	96.9	%	5-Jun	6:00 7:00
Maximum 24-hr Value:	88.5	%	11-Jun	

AIC Time:	0 hrs	Operational Time:	720 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	95.9	93.4	85.5	73.3	57.1	39.3	32.2	70.5 %

Status Flag Characters

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

Day **Mountain Standard Time**

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-Jun-05	93	93	95	96	97	96	90	82	78	74	68	58	57	55	49	42	41	38	51	59	62	69	73	76	70.5	96.7
2-Jun-05	82	85	79	81	84	86	83	77	70	63	59	55	48	44	40	54	80	83	79	80	80	86	89	92	73.2	91.7
3-Jun-05	94	95	95	95	95	94	89	85	83	69	59	57	54	48	45	66	91	87	82	84	86	88	89	90	80.0	95.5
4-Jun-05	91	91	91	92	93	93	90	85	83	75	66	61	65	51	54	51	50	50	60	75	84	94	92	93	76.3	93.6
5-Jun-05	94	95	95	96	96	96	97	97	95	90	86	79	68	61	58	55	51	57	52	61	61	65	66	65	76.5	96.9
6-Jun-05	68	72	71	73	77	80	72	68	66	63	58	52	44	41	32	30	32	39	39	40	48	62	67	68	56.7	80.1
7-Jun-05	70	76	80	80	81	81	75	71	67	56	51	51	46	47	46	44	48	42	40	39	45	53	60	71	59.2	81.4
8-Jun-05	76	78	77	82	85	88	76	65	58	50	46	43	43	41	37	33	37	36	36	37	42	50	56	64	55.6	88.0
9-Jun-05	79	83	80	78	84	85	76	72	70	58	48	39	35	39	56	37	39	43	44	47	55	59	65	71	60.1	84.9
10-Jun-05	76	83	82	82	86	85	80	78	78	82	86	91	85	73	61	70	87	86	85	88	89	90	91	91	82.7	91.1
11-Jun-05	92	94	95	96	96	96	94	93	92	92	90	86	86	85	83	85	85	86	86	81	80	82	85	86	88.5	95.8
12-Jun-05	86	84	83	84	88	83	78	73	70	68	60	59	62	61	65	61	59	61	63	64	70	76	81	85	71.9	88.1
13-Jun-05	87	87	88	90	92	91	90	85	77	66	61	65	63	64	65	66	67	66	76	82	85	86	89	91	78.2	91.6
14-Jun-05	90	91	92	89	89	86	79	73	66	58	54	52	48	43	41	40	39	38	40	37	49	66	72	73	62.6	92.2
15-Jun-05	74	76	82	86	90	88	88	85	83	72	66	59	56	53	64	57	65	55	51	50	60	62	69	72	69.2	89.9
16-Jun-05	76	84	88	92	93	88	85	76	68	65	60	57	50	46	44	42	41	39	39	40	43	48	53	58	61.4	93.3
17-Jun-05	58	58	60	69	79	80	77	76	70	68	66	64	61	56	55	51	52	50	50	50	54	60	65	72	62.5	80.3
18-Jun-05	66	68	73	75	77	74	66	61	60	56	52	48	44	41	37	33	35	34	36	34	36	46	55	60	52.8	76.7
19-Jun-05	71	74	81	87	89	92	83	72	66	76	76	75	78	76	73	77	78	77	78	77	83	89	89	92	79.5	91.6
20-Jun-05	92	93	91	92	92	90	88	87	82	85	84	78	69	64	59	55	53	49	51	50	59	68	72	75	74.1	92.5
21-Jun-05	78	82	86	88	87	70	74	65	57	47	40	36	30	27	27	30	29	33	40	41	54	69	73	79	55.8	87.8
22-Jun-05	78	81	75	77	85	92	93	89	87	85	85	83	83	91	92	92	89	88	88	89	88	88	90	89	86.6	93.2
23-Jun-05	88	88	88	87	87	86	81	76	72	64	59	56	51	53	56	57	60	63	52	50	62	79	87	91	70.6	90.9
24-Jun-05	93	94	95	95	95	95	90	80	65	57	58	54	56	50	43	53	65	62	52	60	68	71	74	81	71.1	95.2
25-Jun-05	82	86	88	87	87	90	87	85	85	86	84	79	75	71	65	66	61	65	64	63	69	74	79	83	77.8	89.8
26-Jun-05	85	86	88	90	91	90	86	83	78	78	74	72	74	69	61	66	80	77	79	83	84	82	83	80	79.9	90.5
27-Jun-05	79	80	83	86	86	86	81	77	66	65	60	67	69	65	65	61	57	57	57	62	65	70	78	81	70.9	85.9
28-Jun-05	83	84	86	87	87	88	90	89	83	75	73	71	66	61	56	50	49	49	49	48	56	66	73	78	70.6	89.8
29-Jun-05	85	88	92	94	95	95	95	89	80	69	61	57	55	57	48	50	46	44	51	62	67	83	88	89	72.5	95.4
30-Jun-05	76	85	92	93	93	90	82	78	74	70	67	53	45	46	47	56	53	46	48	45	55	68	72	76	67.0	92.9
																									N	0.0
Hourly Avg	81.3	83.7	85.1	86.7	88.6	87.8	83.8	79.0	74.3	69.4	65.1	61.8	59.0	55.9	54.1	54.3	57.3	56.7	57.2	59.4	64.6	71.6	75.8	79.1		
Hourly Max	94.2	95.1	95.4	96.3	96.7	96.4	96.9	96.9	94.8	92.4	89.7	91.1	86.0	91.2	92.1	92.5	90.8	87.7	88.1	88.8	89.1	93.6	92.1	93.4		

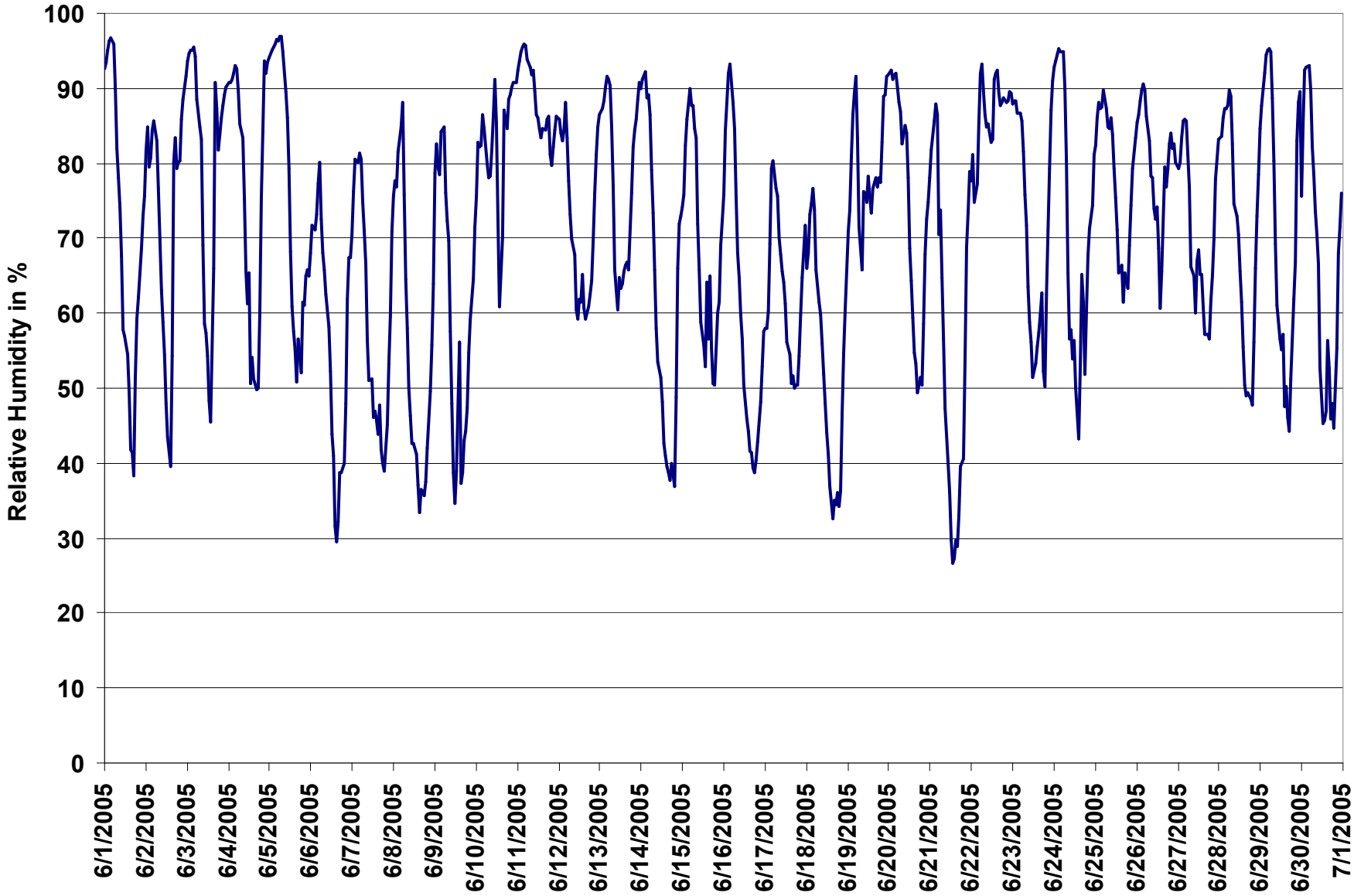


Figure 17. PASZA - Henry Pirker Relative Humidity 1-hr Average Monthly Trend

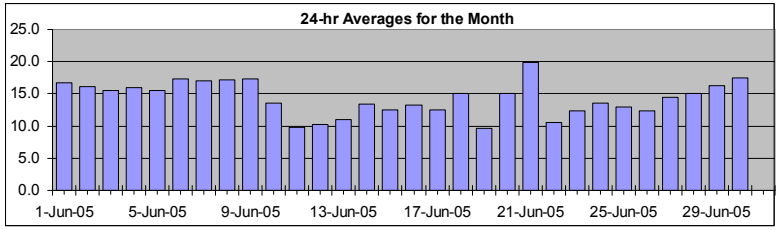
PASZA - Henry Pirker Temperature Monthly Summary

HOURLY AVERAGE TABLE

Ambient Temperature (T)

Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Average:	25.9	°C	21-Jun	15:00 16:00
Maximum 24-hr Value:	19.9	°C	21-Jun	

AIC Time:	0 hrs	Operational Time:	720 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	24.8	22.4	17.5	13.7	10.9	8.1	6.0	14.3 °C

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-Jun-05	12	12	11	10	10	10	13	15	16	16	18	21	22	22	23	23	22	22	20	19	18	17	16	15	16.8	23.3
2-Jun-05	14	13	13	13	12	12	13	15	17	19	21	22	23	24	25	20	15	14	15	15	14	14	13	13	16.2	25.2
3-Jun-05	13	12	12	11	11	12	14	14	15	18	21	21	22	23	23	17	12	14	15	14	14	14	13	13	15.4	23.3
4-Jun-05	13	13	13	12	12	12	13	14	15	17	19	20	19	21	21	21	21	21	19	15	14	13	13	12	16.0	21.5
5-Jun-05	12	12	12	11	11	11	11	12	12	13	14	16	19	20	20	21	22	20	20	18	17	17	15	15	15.5	21.5
6-Jun-05	14	13	13	12	11	11	13	15	16	18	20	20	21	22	23	23	23	22	22	21	19	17	15	15	17.4	23.1
7-Jun-05	15	14	12	11	11	12	13	15	16	18	20	19	20	20	21	21	19	22	22	21	19	17	15	13	17.0	21.7
8-Jun-05	12	11	11	10	9	9	12	16	18	19	20	21	21	21	22	23	22	23	23	22	20	18	16	14	17.2	22.8
9-Jun-05	12	10	10	11	9	10	13	14	16	19	22	25	25	22	20	24	24	23	21	20	19	17	15	14	17.3	24.8
10-Jun-05	13	12	12	11	11	12	13	14	15	14	13	13	14	17	19	17	13	14	15	13	13	13	13	13	13.6	19.3
11-Jun-05	12	12	12	12	12	12	12	11	10	9	9	9	9	9	9	9	9	9	8	9	9	8	8	8	9.8	12.4
12-Jun-05	8	8	8	7	6	7	8	9	10	11	12	12	12	13	12	13	14	13	13	12	11	9	8	8	10.2	13.8
13-Jun-05	8	8	8	8	8	8	8	10	12	14	15	14	14	14	14	14	14	14	12	11	10	10	10	9	11.1	14.6
14-Jun-05	8	8	7	7	7	7	9	11	13	14	15	16	17	18	19	19	19	19	19	19	16	13	11	11	13.5	19.1
15-Jun-05	11	11	9	8	8	8	8	10	10	14	15	16	17	16	14	16	14	15	16	16	14	13	11	10	12.5	16.7
16-Jun-05	10	8	7	6	4	6	9	11	13	14	15	16	16	17	18	18	18	19	18	18	16	15	14	13	13.3	18.6
17-Jun-05	13	12	12	11	9	9	9	10	10	11	11	12	13	15	15	16	15	15	15	15	15	14	12	10	12.4	16.0
18-Jun-05	10	10	9	8	8	8	11	13	15	17	17	18	19	19	21	21	21	21	20	20	18	15	13	11	15.1	21.2
19-Jun-05	9	9	7	6	6	6	7	12	14	11	11	12	11	11	12	11	10	10	10	11	10	9	8	9	9.7	13.6
20-Jun-05	9	9	9	9	9	9	9	10	12	12	12	14	17	19	20	22	23	23	23	23	21	19	17	16	15.1	22.8
21-Jun-05	16	15	14	14	14	16	16	19	21	23	24	25	25	25	26	26	26	24	22	22	20	16	15	14	19.9	25.9
22-Jun-05	14	13	13	13	12	11	10	10	10	10	10	10	10	10	10	9	9	10	10	10	10	10	9	8	10.5	13.7
23-Jun-05	7	7	7	7	7	7	9	11	12	14	15	15	16	16	16	16	15	16	18	18	15	12	11	10	12.4	17.9
24-Jun-05	9	8	8	7	6	6	8	10	14	16	17	18	17	19	20	18	16	17	18	16	15	15	14	13	13.6	20.1
25-Jun-05	12	11	11	11	11	11	11	12	12	12	12	13	14	15	16	16	16	15	15	16	14	13	12	10	12.9	16.4
26-Jun-05	10	10	9	8	9	9	11	12	13	13	14	14	15	15	17	16	13	14	14	13	13	13	12	12	12.3	16.8
27-Jun-05	11	11	10	10	10	10	11	13	16	16	18	16	17	17	17	18	18	18	17	17	16	15	13	12	14.4	18.0
28-Jun-05	11	11	10	10	10	10	10	11	13	15	16	17	17	18	20	21	20	19	20	20	18	16	15	13	15.1	21.1
29-Jun-05	12	11	9	9	9	9	10	12	15	18	20	20	21	22	23	22	23	23	22	19	18	16	15	15	16.3	23.0
30-Jun-05	15	14	13	13	12	12	14	15	16	17	19	21	23	22	22	20	20	22	22	21	19	17	16	15	17.5	22.7
																									N	0.0
Hourly Avg	11.5	10.9	10.3	9.9	9.4	9.7	11.0	12.5	13.8	15.1	16.2	16.9	17.6	18.1	18.7	18.3	17.6	17.7	17.5	16.8	15.5	14.1	13.0	12.2		
Hourly Max	15.5	14.8	14.1	13.7	13.6	15.7	16.0	18.9	21.0	22.7	24.4	24.8	24.9	25.2	25.7	25.9	25.8	23.9	22.7	22.8	20.8	18.6	17.2	16.4		

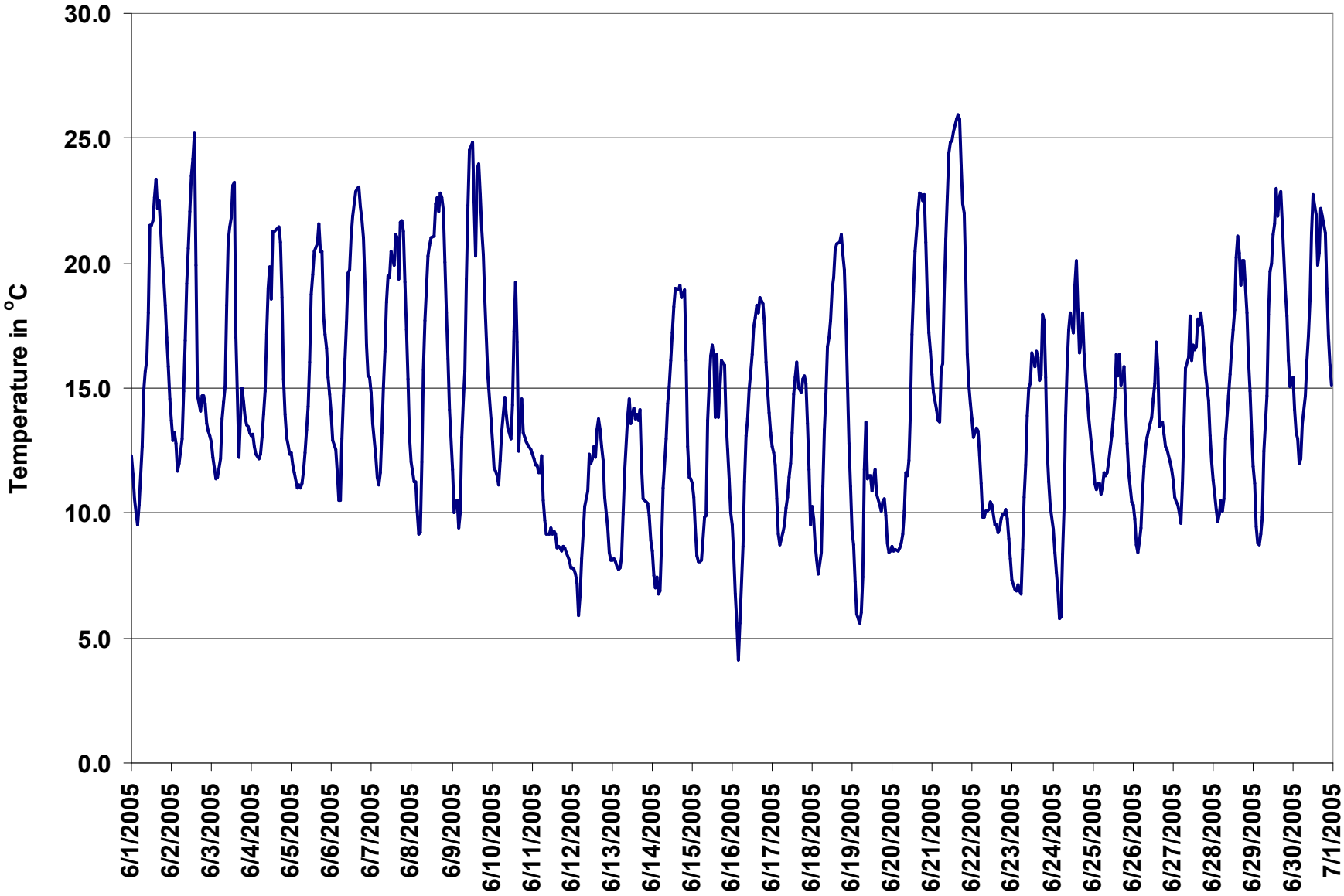


Figure 18. PASZA - Henry Pirker Temperature 1-hr Average Monthly Trend

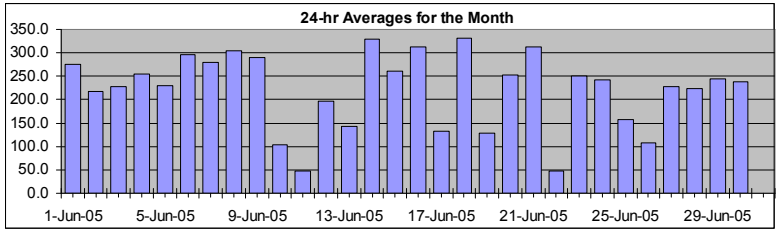
PASZA - Henry Pirker Solar Radiation Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Solar Radiation (SR)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Average:	933.3	W/m^2	16-Jun	13:00 14:00
Maximum 24-hr Value:	332.0	W/m^2	18-Jun	

AIC Time:	0 hrs	Operational Time:	720 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	872.1	789.7	386.8	100.7	1.1	0.0	0.0	222.1 W/m^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**

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-Jun-05	0	0	0	1	11	55	197	297	365	278	522	926	827	880	707	633	367	327	105	68	19	2	0	0	274.5	926.5
2-Jun-05	0	0	0	1	9	36	93	206	386	521	487	779	793	821	729	82	35	70	79	62	26	2	0	0	217.5	821.4
3-Jun-05	0	0	0	0	5	31	192	175	212	560	768	820	821	884	659	31	14	127	134	35	9	2	0	0	228.5	884.4
4-Jun-05	0	0	0	0	4	29	85	170	303	467	686	520	407	840	862	672	596	318	81	73	6	1	0	0	255.1	861.9
5-Jun-05	0	0	0	1	7	27	70	125	173	210	201	653	816	674	710	603	577	397	245	27	17	6	0	0	230.8	815.8
6-Jun-05	0	0	0	1	8	39	180	227	413	571	638	628	818	656	661	667	597	391	348	202	52	5	1	1	296.0	817.6
7-Jun-05	0	0	0	1	8	35	171	291	451	597	731	589	653	471	816	464	381	447	359	197	36	7	0	0	279.5	816.2
8-Jun-05	0	0	0	0	9	44	206	300	494	642	750	778	648	615	685	653	410	459	335	203	43	7	0	0	303.4	777.5
9-Jun-05	0	0	0	1	10	47	195	285	413	628	706	818	685	198	545	789	627	481	288	178	37	5	0	0	289.0	817.9
10-Jun-05	0	0	0	1	12	39	98	105	153	71	88	48	219	551	516	168	79	170	108	53	22	4	0	0	104.5	550.6
11-Jun-05	0	0	1	0	1	18	58	101	77	73	106	106	88	128	130	71	59	30	23	36	12	2	0	0	46.8	129.6
12-Jun-05	0	1	0	1	8	60	109	158	295	296	491	319	288	353	377	587	455	420	247	181	55	7	0	0	196.2	586.6
13-Jun-05	1	0	0	0	5	30	101	283	409	667	537	253	240	173	137	170	94	144	73	63	31	10	0	1	142.7	666.9
14-Jun-05	0	0	0	0	6	38	212	320	504	640	676	769	793	893	797	589	574	374	321	283	87	16	1	0	328.9	893.4
15-Jun-05	0	0	0	1	8	34	84	177	224	629	795	788	799	438	163	630	456	517	325	165	39	7	0	0	261.6	798.9
16-Jun-05	0	0	0	1	9	39	203	324	464	496	625	668	696	933	756	601	518	489	373	218	70	9	0	0	312.2	933.3
17-Jun-05	0	0	0	0	9	35	30	144	188	179	228	191	335	475	465	336	141	101	125	106	63	11	0	0	131.8	475.3
18-Jun-05	0	0	0	1	9	41	182	289	448	650	531	682	850	893	831	762	650	513	361	218	48	9	0	0	332.0	893.1
19-Jun-05	0	0	0	1	9	33	154	338	348	194	146	184	128	262	343	247	188	155	203	101	24	1	0	0	127.5	348.2
20-Jun-05	0	0	0	0	2	12	60	144	295	221	282	423	798	847	807	673	621	332	315	200	48	6	1	0	253.7	847.3
21-Jun-05	0	0	0	0	3	34	141	316	479	634	764	813	860	866	821	746	625	195	80	78	14	17	1	0	312.0	865.6
22-Jun-05	0	0	0	0	2	11	18	58	66	86	149	145	61	95	91	75	90	78	64	29	16	8	0	0	47.7	148.8
23-Jun-05	0	0	0	0	0	24	176	322	425	513	666	421	796	715	545	409	197	214	367	185	43	4	0	0	250.9	795.5
24-Jun-05	0	0	0	0	0	29	207	212	376	469	619	564	409	780	672	191	439	382	333	79	38	5	0	0	241.8	780.0
25-Jun-05	0	0	0	0	0	12	57	92	50	135	177	302	351	433	732	416	423	155	148	216	52	3	0	0	156.4	732.2
26-Jun-05	0	0	0	0	0	35	136	178	185	225	169	168	269	226	395	193	101	117	106	45	30	1	0	0	107.3	395.0
27-Jun-05	0	0	0	0	7	45	168	241	440	542	845	286	514	456	461	384	303	326	251	132	61	19	0	0	228.3	845.5
28-Jun-05	0	0	0	0	1	12	32	86	204	283	327	449	461	623	878	827	446	185	324	202	33	4	0	0	224.1	878.2
29-Jun-05	0	0	0	0	4	43	180	304	450	631	516	373	375	546	654	300	542	389	418	99	27	1	0	0	243.9	653.8
30-Jun-05	0	0	0	0	3	37	67	146	231	250	415	827	874	640	528	383	367	456	320	140	21	2	0	0	237.7	873.6
																									N	0.0
Hourly Avg	0.3	0.3	0.3	0.4	5.7	33.6	128.7	213.8	317.4	411.9	488.0	509.6	555.8	578.9	582.5	445.0	365.7	292.0	228.6	129.2	35.9	6.1	0.3	0.3		
Hourly Max	1.1	1.1	1.1	1.5	12.2	60.1	211.6	337.9	503.7	666.9	845.5	926.5	873.6	933.3	878.2	827.5	649.6	516.8	418.3	283.1	87.3	18.8	1.3	1.1		

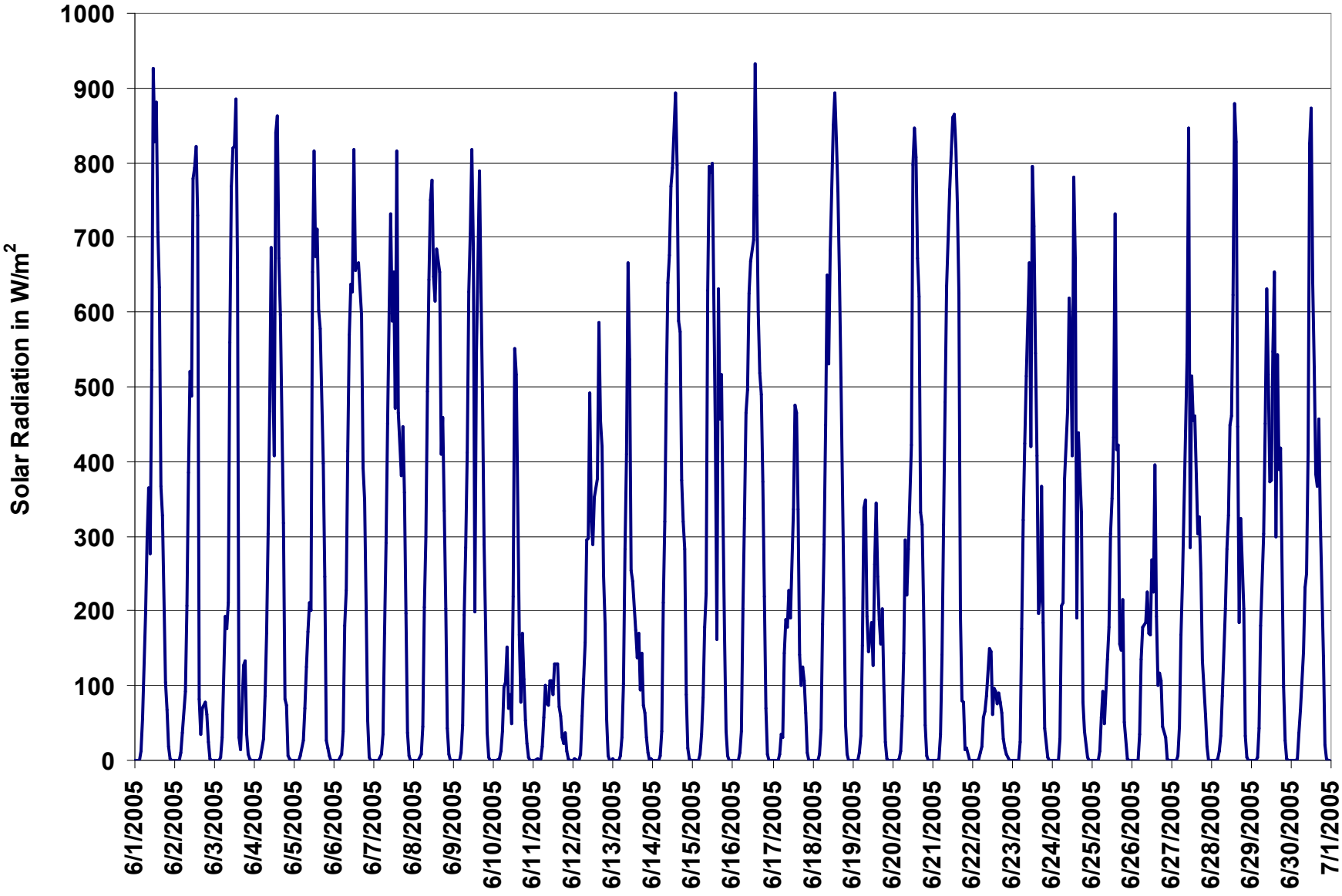


Figure 19. PASZA - Henry Pirker Solar Radiation 1-hr Average Monthly Trend

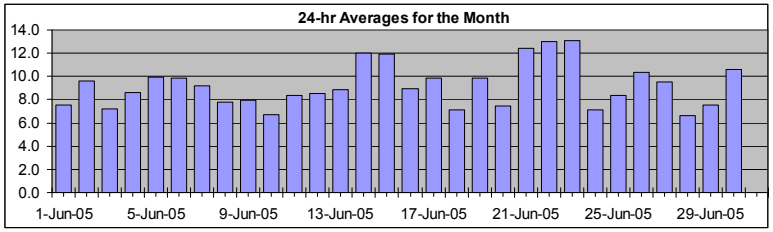
PASZA - Henry Pirker Scalar Wind Speed Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSs)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Average:	29.1	km/hr	21-Jun	12:00 13:00
Maximum 24-hr Value:	13.1	km/hr	23-Jun	

Calm Time:	0 hrs	**0%** calms	Operational Time:	720 hrs
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	AverageS
	20.7	16.3	11.2	8.5	6.4	4.4	3.7	9.2 km/hr

Status Flag Characters

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

Day — **Mountain Standard Time**

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-hr Scalar Average	Daily Max
1-Jun-05	11	8	6	7	7	6	10	9	8	6	6	6	7	8	7	7	10	10	9	8	8	6	6	6	7.5	10.8
2-Jun-05	7	10	14	9	7	7	9	14	13	9	8	11	10	8	8	12	13	13	13	8	9	7	5	6	9.6	13.9
3-Jun-05	5	6	6	5	4	4	5	7	4	5	5	7	8	8	10	19	16	7	12	6	7	5	6	6	7.2	19.5
4-Jun-05	4	7	5	8	6	5	5	6	8	7	5	7	9	10	13	10	11	11	12	18	14	10	8	6	8.6	18.1
5-Jun-05	4	7	6	5	4	6	5	8	10	9	11	12	11	14	14	16	18	16	16	9	9	10	9	10	10.0	17.6
6-Jun-05	10	9	8	7	5	4	5	6	8	8	8	13	14	11	14	13	15	14	16	16	12	9	5	7	9.9	16.2
7-Jun-05	7	8	7	8	5	5	7	8	11	10	12	14	15	13	12	11	9	9	10	12	10	8	6	3	9.2	15.0
8-Jun-05	5	5	7	5	4	4	5	4	5	7	7	12	12	13	13	13	12	10	9	10	9	6	5	4	7.8	13.3
9-Jun-05	4	6	4	6	4	4	6	9	10	7	5	6	6	10	11	10	13	16	15	13	9	7	6	5	8.0	15.9
10-Jun-05	6	5	7	5	4	4	6	6	8	9	5	7	6	5	4	13	16	11	7	6	5	4	6	5	6.7	16.2
11-Jun-05	5	3	4	4	6	4	4	11	11	10	12	12	12	12	13	12	12	9	9	10	9	7	6	6	8.4	12.9
12-Jun-05	6	7	7	8	7	7	7	5	7	6	7	6	7	8	12	9	11	13	14	13	11	9	9	10	8.6	13.6
13-Jun-05	8	10	10	9	9	9	9	10	8	9	7	7	6	5	6	7	7	6	19	13	9	8	10	11	8.9	18.8
14-Jun-05	11	7	8	14	11	9	10	13	16	20	20	16	15	14	13	12	12	11	10	10	15	10	6	5	12.0	20.2
15-Jun-05	5	6	8	9	10	12	10	13	13	12	15	14	17	17	18	13	29	21	11	11	7	4	6	4	11.9	28.7
16-Jun-05	7	4	6	7	6	9	13	10	9	11	8	12	12	11	12	8	10	10	10	12	8	7	6	7	9.0	13.0
17-Jun-05	7	7	10	11	12	11	9	11	13	11	11	11	11	12	11	11	11	10	9	9	7	9	7	7	9.8	12.6
18-Jun-05	10	9	8	8	6	5	5	6	6	6	7	8	9	10	8	8	8	7	7	7	7	5	5	4	7.1	10.1
19-Jun-05	5	5	4	4	3	4	10	18	18	19	16	14	14	13	14	13	12	11	10	5	6	7	6	5	9.8	18.7
20-Jun-05	5	10	5	6	6	7	9	11	11	10	9	6	6	7	8	6	8	7	8	7	9	6	7	8	7.5	11.0
21-Jun-05	6	7	6	5	7	8	5	6	6	9	14	21	29	28	23	21	21	16	13	6	13	13	6	9	12.4	29.1
22-Jun-05	10	7	7	10	12	16	12	15	15	15	16	17	16	15	16	18	16	12	12	10	11	11	11	11	13.0	17.8
23-Jun-05	13	13	14	12	10	7	8	13	14	15	19	17	18	19	19	19	20	11	8	8	9	10	9	8	13.1	20.1
24-Jun-05	6	7	5	6	4	3	5	5	4	6	8	8	9	7	8	10	13	12	9	7	7	6	8	8	7.1	13.5
25-Jun-05	9	6	7	9	7	7	10	10	8	8	9	9	9	9	10	9	9	7	7	10	10	7	8	6	8.4	10.5
26-Jun-05	8	7	6	6	9	9	12	12	12	13	12	12	9	11	12	13	11	13	10	11	10	10	11	10	10.4	13.1
27-Jun-05	9	8	8	7	7	6	5	6	10	13	14	12	9	17	10	11	13	9	12	11	9	7	7	6	9.5	17.0
28-Jun-05	5	5	5	5	4	4	7	7	6	6	7	8	8	9	9	8	7	5	6	7	7	6	8	6	6.6	9.2
29-Jun-05	5	5	4	4	4	5	7	6	8	8	7	6	6	7	8	8	10	8	20	13	10	12	4	7	7.6	19.9
30-Jun-05	14	7	6	7	6	6	8	8	11	12	12	15	13	12	17	15	14	12	12	9	8	11	9	11	10.6	17.1
																									N	0.0
1-hr Average	7.3	7.1	6.8	7.1	6.6	6.6	7.5	9.1	9.7	9.9	10.2	10.9	11.1	11.5	11.8	12.0	12.9	10.9	11.1	9.8	9.1	7.9	7.0	6.9		
Hourly Max	14.0	13.3	13.9	13.6	12.3	15.6	13.0	18.0	18.5	20.2	20.1	21.1	29.1	28.0	22.6	20.9	28.7	20.8	19.9	18.1	14.6	13.0	10.8	11.1		

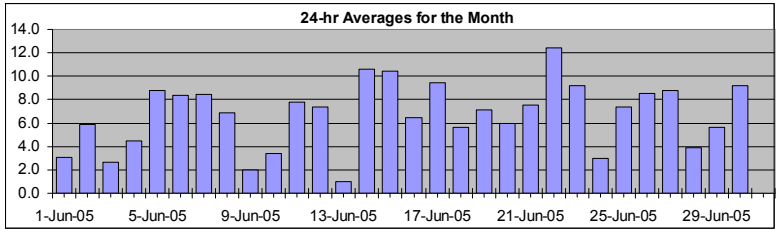
PASZA - Henry Pirker Vector Wind Speed Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSv)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Average:	28.7	km/hr	21-Jun	12:00 13:00
Maximum 24-hr Value:	12.4	km/hr	22-Jun	

Calm Time:	0 hrs	**0%** calms				Operational Time:			720 hrs	
Calibration Time:	0 hrs					AMD Operational Uptime:			100.0%	
Percentile	99	95	75	50	25	5	1			AverageV
	20.3	16.0	10.7	7.7	5.5	3.0	2.0			1.3 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**

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-hr Vector Average	Daily Max
1-Jun-05	11	7	5	7	7	6	10	9	7	5	5	3	3	6	5	4	9	9	9	7	7	5	6	5	3.0	10.7
2-Jun-05	6	9	14	9	7	7	9	14	13	8	7	10	8	7	3	11	12	10	12	7	7	6	4	4	5.9	13.8
3-Jun-05	4	5	5	4	4	2	4	6	4	4	5	6	7	6	6	16	16	6	11	6	5	1	5	5	2.7	15.7
4-Jun-05	1	6	4	7	5	4	4	6	7	6	4	6	8	8	11	10	10	10	2	18	10	10	7	6	4.5	17.8
5-Jun-05	3	7	6	4	3	5	4	7	9	9	11	11	10	14	14	16	17	16	15	9	9	9	9	10	8.7	17.0
6-Jun-05	10	9	8	7	4	3	4	5	7	8	7	13	13	9	13	13	14	14	16	15	9	9	5	7	8.4	15.7
7-Jun-05	7	8	7	8	5	3	7	8	10	10	11	13	14	12	11	9	7	7	10	12	10	8	5	3	8.4	14.2
8-Jun-05	5	5	7	5	4	4	5	3	3	6	6	10	11	12	12	13	11	10	7	9	8	6	5	3	6.9	12.5
9-Jun-05	3	5	4	6	2	3	5	8	10	6	4	4	4	7	11	9	12	15	14	13	9	7	5	3	2.0	15.2
10-Jun-05	5	4	6	2	3	3	5	5	8	8	3	6	4	4	2	11	16	10	5	5	5	4	5	5	3.4	15.7
11-Jun-05	4	3	2	4	5	2	3	10	11	9	12	11	11	12	13	11	11	8	9	10	9	6	6	6	7.8	12.7
12-Jun-05	6	6	6	8	6	7	7	5	5	5	4	4	5	6	11	8	11	13	13	13	11	8	9	10	7.4	13.2
13-Jun-05	8	10	10	9	9	9	9	9	8	8	5	6	4	2	4	3	7	6	18	13	8	7	10	11	1.0	18.4
14-Jun-05	11	7	7	13	11	8	9	13	16	20	20	15	14	13	12	11	11	10	9	9	10	10	5	4	10.6	19.7
15-Jun-05	2	5	8	9	10	12	10	13	13	12	14	13	17	17	17	13	28	21	11	11	7	3	6	3	10.5	28.2
16-Jun-05	7	3	3	6	5	8	13	10	8	10	6	12	11	9	11	7	9	9	9	11	8	7	6	7	6.4	12.9
17-Jun-05	6	7	9	11	12	11	9	10	12	11	11	11	11	11	11	10	10	10	8	9	6	8	7	6	9.5	12.3
18-Jun-05	10	9	8	8	6	3	2	6	5	4	6	7	6	5	6	5	6	5	5	6	6	5	5	3	5.6	10.0
19-Jun-05	4	5	1	3	2	3	9	18	17	18	16	14	14	13	14	12	12	10	9	4	5	7	5	3	7.2	18.5
20-Jun-05	4	9	2	5	6	7	9	10	10	9	8	4	4	5	6	4	6	6	8	6	9	6	7	8	6.0	10.4
21-Jun-05	6	7	6	4	6	5	3	6	6	9	12	20	29	27	22	21	21	16	11	4	13	12	4	8	7.5	28.7
22-Jun-05	10	6	5	10	12	15	12	15	15	15	16	17	16	15	16	18	16	12	12	10	11	11	11	11	12.4	17.6
23-Jun-05	13	13	14	12	10	6	7	13	14	14	18	17	18	19	19	19	20	10	7	7	2	10	9	8	9.2	19.8
24-Jun-05	6	7	5	6	4	1	5	4	4	5	6	7	9	4	7	5	12	12	8	7	6	5	7	8	2.9	12.2
25-Jun-05	8	6	7	9	7	7	9	9	8	8	9	8	8	9	9	8	8	7	7	10	10	7	7	6	7.4	10.1
26-Jun-05	8	6	6	6	9	9	12	12	12	13	12	12	9	10	11	10	11	13	7	11	10	10	11	10	8.6	13.0
27-Jun-05	9	8	7	7	7	6	5	5	9	12	14	12	7	17	9	11	13	8	11	11	9	7	7	6	8.8	16.6
28-Jun-05	5	5	5	5	4	4	7	7	6	6	7	7	7	8	6	5	5	3	3	7	7	6	8	6	3.9	8.3
29-Jun-05	5	5	1	3	3	4	6	5	7	7	6	4	3	6	7	7	9	7	20	13	10	11	3	4	5.7	19.7
30-Jun-05	12	6	5	7	6	5	8	8	10	12	12	14	12	11	16	15	13	11	12	9	7	10	8	11	9.2	16.5
																									N	0.0
1-hr Vector	0.9	0.5	0.8	1.4	1.7	1.7	1.0	1.6	1.8	1.7	2.0	2.3	2.7	2.5	1.2	1.5	1.7	2.3	1.4	1.8	2.2	0.9	1.8	1.0		
Hourly Max	13.4	13.2	13.8	13.5	12.0	15.5	12.9	17.7	17.3	19.7	19.7	20.5	28.7	27.4	21.7	20.6	28.2	20.6	19.7	17.8	12.5	12.3	10.6	11.0		

PASZA - Henry Pirker Wind Direction Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

Calm Time:	0 hrs	**0%** calms				Operational Time:			720 hrs																
Calibration Time:		0 hrs				AMD Operational Uptime:			100.0%																
Percentile	99	95	75	50	25	5	1	Average																	
	352.9	328.4	275.7	145.1	80.2	31.4	6.7	12 deg																	

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	WD Sector
1-Jun-05	254	282	309	298	310	316	317	313	321	281	286	277	152	173	244	85	98	93	167	193	251	312	291	292	277	W
2-Jun-05	291	212	259	274	328	294	267	292	298	306	304	284	301	329	271	89	125	240	264	236	235	135	202	307	272	W
3-Jun-05	182	197	242	315	31	147	175	218	210	258	259	268	292	316	351	124	173	226	262	303	356	293	340	288	251	WSW
4-Jun-05	273	234	288	260	270	273	239	246	236	248	264	285	287	294	6	9	1	27	111	252	199	229	287	339	278	W
5-Jun-05	162	172	209	167	85	127	112	95	93	85	106	123	117	102	99	88	90	80	96	65	63	71	65	86	98	E
6-Jun-05	100	85	66	47	77	132	181	28	37	18	66	101	95	65	74	65	76	66	73	83	110	171	149	104	81	E
7-Jun-05	106	106	102	111	116	72	88	88	108	92	87	90	100	112	152	99	200	121	130	100	109	103	122	135	108	ESE
8-Jun-05	124	110	126	120	94	146	131	240	146	144	118	116	101	111	101	125	105	106	94	87	92	71	80	357	109	ESE
9-Jun-05	314	310	352	340	262	249	228	236	240	229	242	265	261	30	53	53	22	48	72	97	112	122	67	13	36	NE
10-Jun-05	316	340	330	325	146	252	247	262	314	327	320	352	68	342	230	252	301	290	13	74	120	151	199	254	302	WNW
11-Jun-05	298	38	99	89	117	69	34	49	56	49	45	47	49	37	44	47	51	40	38	47	66	68	55	32	50	NE
12-Jun-05	31	24	24	357	1	35	67	77	33	26	51	93	56	55	91	109	92	96	88	80	82	80	79	85	67	ENE
13-Jun-05	84	83	93	87	75	85	83	108	82	107	125	103	61	353	217	237	326	294	254	280	260	261	242	244	118	ESE
14-Jun-05	248	235	259	253	255	263	251	267	264	254	265	260	267	261	259	255	283	290	321	289	188	181	187	205	256	WSW
15-Jun-05	174	253	289	291	315	322	317	290	292	277	305	286	315	308	270	288	316	329	296	310	294	277	193	165	298	WNW
16-Jun-05	8	193	317	320	308	339	327	337	336	303	318	317	298	314	316	15	19	52	40	68	46	47	48	39	349	NNW
17-Jun-05	41	39	35	35	45	43	53	60	60	61	53	51	46	55	42	42	36	28	45	43	24	6	355	4	41	NE
18-Jun-05	33	43	48	50	26	2	46	67	77	75	56	28	72	62	44	41	75	73	96	125	130	155	168	166	65	ENE
19-Jun-05	161	153	162	118	153	197	312	313	331	316	315	318	323	331	329	323	316	334	343	33	25	337	360	211	325	NW
20-Jun-05	177	189	209	96	50	68	93	100	110	140	147	141	82	109	119	118	136	186	169	150	98	76	100	114	122	ESE
21-Jun-05	115	116	126	146	199	307	156	138	145	171	240	259	260	260	270	287	291	308	290	328	316	341	354	262	270	W
22-Jun-05	320	319	241	229	292	295	298	290	289	293	295	294	291	307	304	297	310	309	290	283	262	275	290	303	293	WNW
23-Jun-05	301	289	289	290	280	258	253	253	261	294	306	314	312	250	241	248	255	255	259	264	135	110	105	117	271	W
24-Jun-05	114	108	111	114	119	212	137	149	280	294	264	308	314	319	285	246	288	302	348	322	1	326	27	332	310	NW
25-Jun-05	348	314	328	343	15	38	32	41	42	34	19	37	53	38	43	31	34	48	62	61	71	65	63	51	35	NE
26-Jun-05	63	51	50	76	89	80	94	93	93	95	93	90	93	88	80	122	132	110	76	353	358	22	32	40	78	ENE
27-Jun-05	49	56	56	43	38	46	49	56	78	87	97	81	50	104	112	96	99	93	86	99	102	101	83	79	82	E
28-Jun-05	60	55	43	30	28	342	324	334	4	15	60	78	100	109	116	157	127	155	167	119	111	113	108	114	85	E
29-Jun-05	106	103	141	113	84	131	124	137	117	136	130	165	246	280	118	142	181	186	176	163	159	232	110	138	154	SSE
30-Jun-05	176	304	210	248	244	257	270	267	258	267	270	286	286	260	239	223	222	224	261	238	297	274	297	277	255	WSW
																									N	-
Hourly Avg	48	79	343	349	6	347	349	328	350	329	335	336	341	353	353	78	13	27	69	66	96	73	60	21		

PASZA - Henry Pirker Standard Deviation of Wind Direction Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	**0%** calms	Operational Time: 720 hrs
Calibration Time:	0 hrs		AMD Operational Uptime: 100.0%

Percentile	99	95	75	50	25	5	1
	57.1	46.0	24.2	15.2	10.4	6.4	5.2

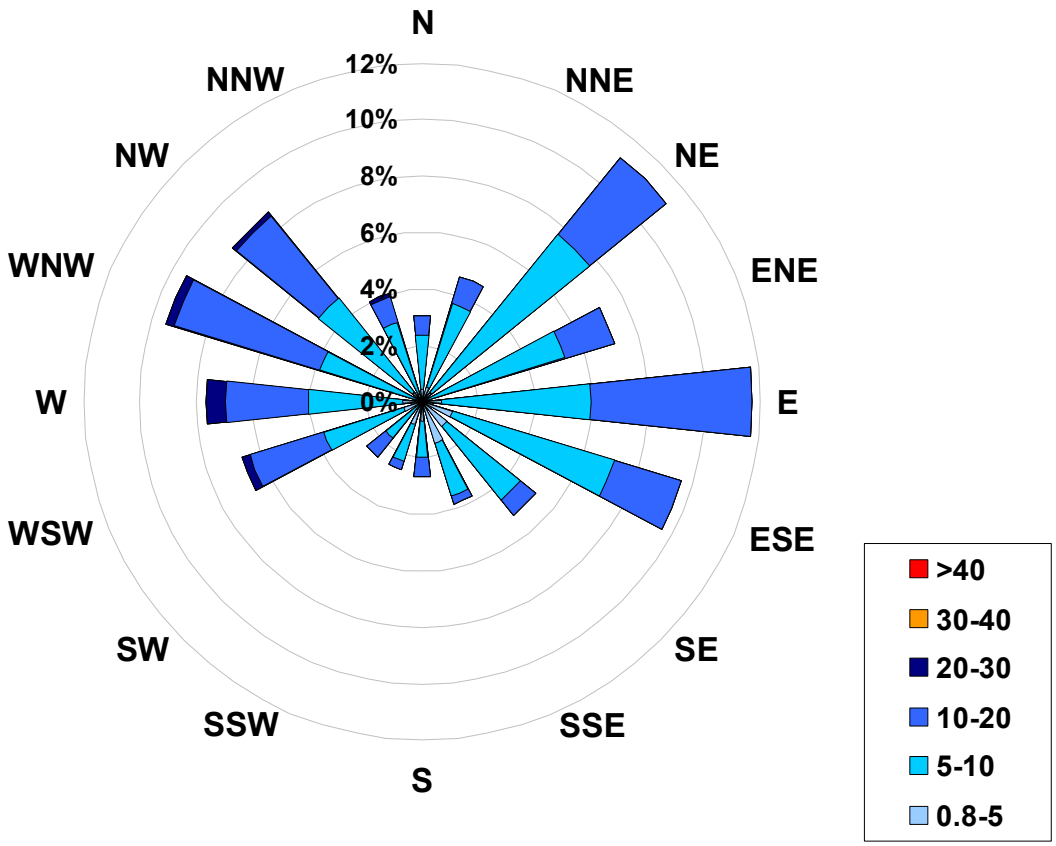
Status Flag Characters

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**

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	Daily Maximum
1-Jun-05	6	19	18	11	5	10	8	11	27	32	43	59	41	45	41	57	27	20	10	9	12	13	6	17	59.3
2-Jun-05	14	45	6	9	12	11	9	7	11	27	31	25	30	36	59	26	9	24	22	22	22	17	36	36	59.0
3-Jun-05	47	14	15	26	20	18	21	19	32	29	36	28	42	55	31	14	6	17	9	19	19	38	14	13	54.6
4-Jun-05	38	11	18	13	19	23	17	15	32	31	38	45	21	21	20	24	22	20	38	9	21	10	13	9	45.0
5-Jun-05	40	16	12	16	27	16	32	18	14	15	12	17	20	14	15	14	14	9	10	10	12	7	8	8	40.3
6-Jun-05	7	6	7	9	28	24	33	21	18	25	28	15	17	27	17	16	13	14	11	9	21	8	15	8	32.9
7-Jun-05	8	6	6	11	13	37	14	13	14	18	17	16	16	19	24	33	16	30	18	10	9	11	27	28	36.9
8-Jun-05	7	5	6	14	22	16	19	46	55	28	40	29	22	19	20	16	19	17	28	15	8	8	7	32	54.9
9-Jun-05	25	13	30	21	32	29	27	14	12	51	54	34	55	38	12	16	18	11	10	9	9	8	14	38	55.0
10-Jun-05	20	37	12	33	46	42	18	19	15	23	32	23	30	49	63	22	7	11	16	16	19	14	13	18	62.9
11-Jun-05	19	12	27	17	12	37	35	14	12	14	11	13	14	12	12	11	14	18	14	14	11	20	15	16	37.1
12-Jun-05	13	14	13	8	6	12	18	29	36	31	36	59	33	36	15	26	25	13	12	9	8	8	7	6	59.2
13-Jun-05	8	6	7	9	9	9	9	13	21	32	42	38	56	36	20	25	15	13	14	8	17	23	7	8	55.8
14-Jun-05	7	12	15	7	6	13	10	11	11	13	12	17	15	22	20	23	22	33	20	20	31	17	14	23	33.4
15-Jun-05	36	22	9	7	7	5	7	6	9	16	13	20	13	12	9	11	8	9	11	9	18	27	17	48	47.8
16-Jun-05	11	59	27	16	23	17	7	14	24	19	41	22	25	33	27	41	24	25	31	12	13	13	19	13	59.1
17-Jun-05	13	13	9	10	12	10	15	14	12	13	14	15	15	17	20	21	18	11	16	13	16	6	10	15	21.1
18-Jun-05	10	10	11	13	20	45	63	25	43	55	34	32	38	56	51	55	44	52	54	31	11	13	20	20	62.8
19-Jun-05	12	11	21	24	48	42	11	7	12	8	7	10	8	10	13	11	11	11	16	32	28	16	22	34	47.9
20-Jun-05	16	9	54	15	16	12	9	10	17	19	21	51	56	45	48	51	51	35	23	19	9	8	8	7	55.7
21-Jun-05	14	6	14	29	20	53	40	22	23	20	24	14	9	11	13	10	9	7	13	42	8	10	20	13	53.3
22-Jun-05	15	12	19	10	7	5	6	6	5	5	6	6	6	8	7	5	6	6	8	6	7	5	5	4	19.3
23-Jun-05	5	5	4	5	7	14	18	9	10	11	11	9	13	9	11	10	7	14	20	18	24	7	7	10	24.3
24-Jun-05	10	16	11	8	38	51	19	34	27	30	26	30	15	38	24	33	13	10	16	13	10	12	15	8	51.0
25-Jun-05	10	13	6	6	13	16	15	15	16	15	15	18	21	24	29	21	25	18	19	16	12	13	10	12	29.5
26-Jun-05	11	13	14	14	7	7	7	9	9	11	10	10	13	12	16	18	11	8	15	7	7	9	9	13	18.0
27-Jun-05	12	13	20	11	11	18	30	20	16	15	14	16	25	10	23	21	13	16	12	10	10	10	7	10	29.5
28-Jun-05	11	10	14	15	23	18	8	11	20	27	28	26	22	25	51	35	39	42	43	17	10	7	6	14	51.4
29-Jun-05	8	11	59	38	40	18	24	18	21	26	32	51	52	43	40	31	19	23	8	9	14	15	43	38	58.9
30-Jun-05	31	29	14	11	19	26	7	10	12	9	11	13	17	17	13	11	10	17	16	11	9	12	10	9	31.3
																									0.0
Hourly Max	47	59	59	38	48	53	63	46	55	55	54	59	56	56	63	57	51	52	54	42	31	38	43	48	

1-hr Average Wind Rose (in km/hr) Located at the Henry Pirker Site for June 2005



Calms:	0%

Frequency Distribution of Wind in km/hr			
Range			Frequency (hrs)
0.8	<	5	71
5	to	10	395
10	to	20	243
20	to	30	11
30	to	40	0
	>	40	0
Total Non-Zero Values			720

PASZA - Evergreen Park Station

Monthly Summary Tables, Graphs, and Roses

PASZA - Evergreen Park Sulphur Dioxide Monthly Summary

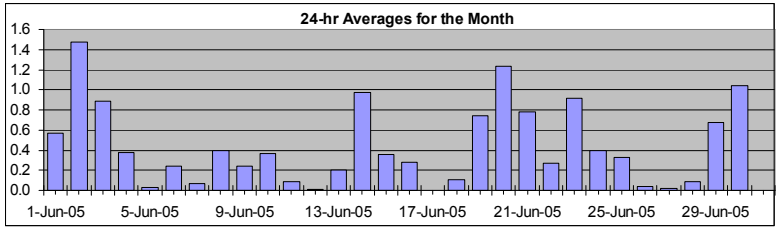
Station: Evergreen Park
Station Owner: PASZA

HOURLY AVERAGE TABLE

Sulphur Dioxide (SO_2)

Monitoring Dates: June 1, 2005 to July 1, 2005

Objective Limit: **Alberta Environment:** 1-hr 172 ppb | 24-hr 57 ppb



Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	8.2	ppb	20-Jun	16:00 17:00
Maximum 24-hr Average:	1.5	ppb	2-Jun	

AIC Time:	32 hrs	Operational Time:	680 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	99.6%

Percentile	99	95	75	50	25	5	1	Average
	3.6	1.8	0.6	0.2	0.0	0.0	0.0	0.4 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 / 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-Jun-05	0	0	0	0	0	0	1	1	0	0	0	0	1	1	2	1	A	1	1	1	1	1	1	1	0.6	1.6
2-Jun-05	1	1	1	1	1	1	2	3	2	3	2	2	3	1	2	A	1	1	1	1	1	1	1	1	1.5	3.0
3-Jun-05	1	1	1	0	0	0	0	0	1	2	2	1	1	0	A	0	0	1	1	1	1	1	1	1	0.9	2.4
4-Jun-05	1	1	1	1	0	0	0	0	0	0	0	1	1	A	1	1	0	0	0	0	0	0	0	0	0.4	1.2
5-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0.0	0.6
6-Jun-05	0	0	0	0	0	0	0	1	1	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.9
7-Jun-05	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
8-Jun-05	0	0	0	0	0	0	1	2	2	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.4
9-Jun-05	0	0	0	0	0	0	1	1	A	1	0	0	0	0	N	N	1	1	0	0	0	0	0	0	0.2	1.4
10-Jun-05	0	0	0	0	0	1	1	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	1.1
11-Jun-05	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4
12-Jun-05	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
13-Jun-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.2	1.2
14-Jun-05	0	0	0	A	0	0	5	4	1	4	3	0	3	0	0	0	0	0	0	0	0	0	0	0	1.0	5.2
15-Jun-05	0	0	A	0	0	1	1	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0.4	2.4
16-Jun-05	0	A	0	0	0	0	1	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.8
17-Jun-05	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.0
18-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0.1	0.7
19-Jun-05	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0	0	1	1	1	A	0	0	0.7	1.4
20-Jun-05	0	0	0	0	0	0	0	0	1	2	C	C	C	C	C	A	8	5	3	1	0	0	0	0	1.2	8.2
21-Jun-05	0	0	0	0	0	A	0	0	1	1	1	1	4	6	1	1	1	1	0	0	0	0	0	0	0.8	5.6
22-Jun-05	0	0	0	0	A	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0.3	0.7
23-Jun-05	0	0	0	A	0	0	3	3	1	1	3	0	0	0	1	2	4	2	0	0	0	1	0	0	0.9	3.9
24-Jun-05	0	0	A	0	0	0	0	0	2	1	1	2	2	0	0	0	0	0	0	0	0	0	0	1	0.4	2.1
25-Jun-05	0	A	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0.3	0.7
26-Jun-05	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.3
27-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.2
28-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	A	0	0	0.1	0.9
29-Jun-05	0	0	0	0	0	0	0	1	2	1	2	3	0	1	0	0	0	1	1	1	A	1	0	1	0.7	2.8
30-Jun-05	1	1	1	1	1	1	1	1	1	1	3	3	2	1	1	1	1	0	0	A	0	0	0	N	1.0	2.7
																									N	0.0
Hourly Avg	0.2	0.2	0.2	0.2	0.2	0.3	0.7	0.8	0.6	0.7	0.9	0.6	0.7	0.5	0.4	0.4	0.7	0.4	0.4	0.3	0.2	0.2	0.2	0.3		
Hourly Max	1.3	1.2	1.0	1.1	1.2	1.4	5.2	4.5	2.3	3.6	3.3	2.8	4.0	5.6	1.8	2.4	8.2	5.0	2.9	1.2	1.3	1.4	1.4	1.4		

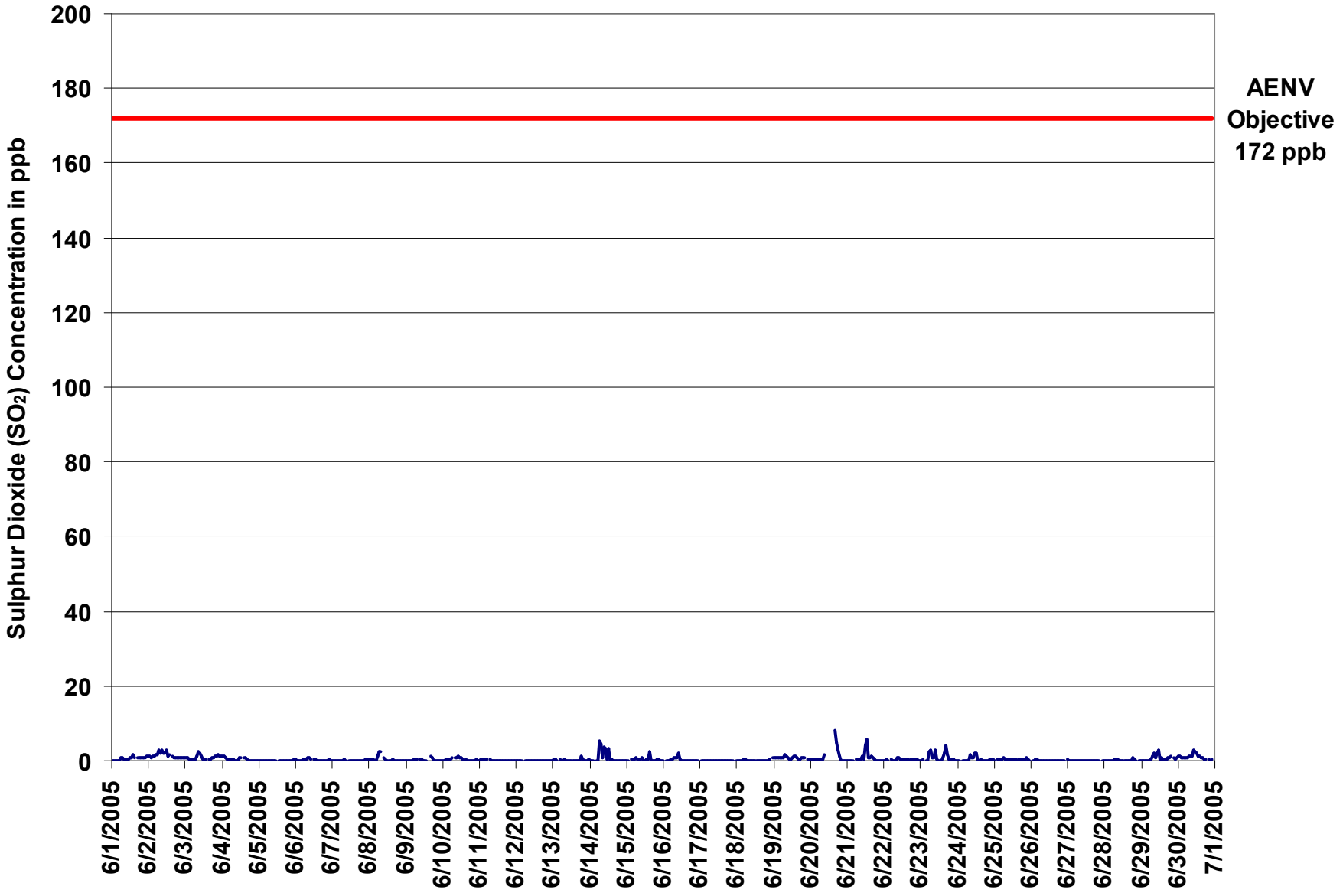


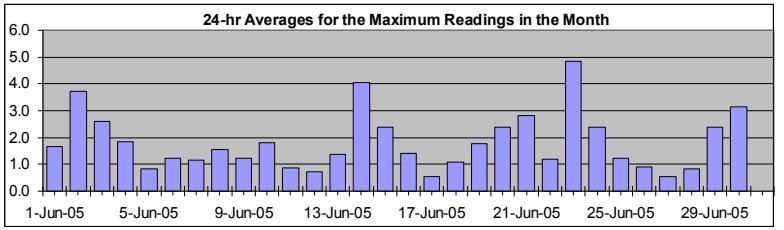
Figure 20. PASZA - Evergreen Park Sulphur Dioxide 1-hr Average Monthly Trend

Station: Evergreen Park
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Sulphur Dioxide (SO_2)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Value:	22.5	ppb	23-Jun	15:00 16:00
Maximum 24-hr Value:	4.8	ppb	23-Jun	

AIC Time:	32 hrs	Operational Time:	680 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	99.6%

Percentile	99	95	75	50	25	5	1	Average
	14.8	6.7	1.7	1.2	0.8	0.3	0.0	1.8 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Jun-05	0	1	0	0	1	1	2	2	2	1	1	1	4	2	6	2	A	2	2	2	2	2	2	2	1.7	6.2
2-Jun-05	3	2	2	2	2	3	3	9	6	10	4	8	8	2	6	A	3	2	2	2	2	2	2	2	3.7	10.0
3-Jun-05	1	2	2	1	1	1	1	2	4	9	9	3	2	1	A	1	1	2	2	3	3	3	2	2	2.6	9.5
4-Jun-05	2	2	2	1	1	1	1	2	1	1	4	9	3	A	2	2	1	2	0	1	1	0	1	1	1.8	9.1
5-Jun-05	1	1	1	1	1	1	1	0	1	1	1	1	A	1	1	1	1	1	1	0	1	1	1	2	0.8	1.7
6-Jun-05	1	1	1	1	1	1	1	2	2	2	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1.2	2.1
7-Jun-05	1	1	1	1	1	2	1	1	1	1	A	1	2	1	1	1	1	1	1	1	1	1	1	1	1.2	1.6
8-Jun-05	1	1	1	1	1	1	2	7	3	A	3	1	1	1	1	2	1	1	1	1	1	1	1	1	1.6	6.7
9-Jun-05	1	2	1	1	2	1	1	2	A	1	1	1	1	1	N	N	3	3	1	0	1	1	1	1	1.2	3.4
10-Jun-05	1	1	1	1	1	2	2	A	2	2	2	2	2	2	1	12	1	1	1	1	1	1	1	1	1.8	12.5
11-Jun-05	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	0.9	1.5
12-Jun-05	0	1	0	1	1	A	1	0	1	0	1	0	1	1	1	1	0	1	1	1	1	1	1	1	0.7	1.3
13-Jun-05	1	1	1	1	A	2	1	1	1	1	1	1	1	1	1	1	1	1	7	2	1	1	1	1	1.4	7.1
14-Jun-05	1	1	1	A	1	1	12	14	2	16	12	1	18	1	1	1	1	1	1	1	1	1	1	1	4.0	17.5
15-Jun-05	1	1	A	2	2	1	2	1	1	1	7	1	2	1	1	21	1	1	1	1	1	1	2	1	2.4	21.1
16-Jun-05	1	A	1	1	1	1	2	2	2	3	6	2	1	1	1	0	1	0	1	0	0	1	1	1	1.4	6.3
17-Jun-05	A	0	1	1	1	1	1	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	A	0.6	0.9
18-Jun-05	1	1	1	1	1	2	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.1	1.9
19-Jun-05	2	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	1	1	2	2	2	A	1	1	1.8	2.5
20-Jun-05	1	1	1	1	1	2	1	1	3	3	C	C	C	C	C	A	12	7	4	3	1	0	0	0	2.4	11.6
21-Jun-05	0	0	0	0	0	A	2	2	1	1	8	1	13	16	6	2	2	2	6	1	1	1	0	1	2.8	15.6
22-Jun-05	1	1	1	1	A	1	1	0	0	2	1	1	1	2	1	1	1	2	1	2	1	1	2	1	1.2	2.3
23-Jun-05	1	1	2	A	1	1	10	8	2	5	13	1	1	1	4	22	19	11	1	2	1	2	1	1	4.8	22.5
24-Jun-05	1	1	A	1	1	1	1	2	8	2	2	15	11	1	1	1	1	0	0	0	1	2	1	1	2.4	14.8
25-Jun-05	1	A	1	2	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	2	1	1	1.2	1.8
26-Jun-05	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	A	0.9	1.4
27-Jun-05	1	1	1	1	1	0	0	0	0	0	0	0	1	2	1	0	0	0	1	1	1	1	A	1	0.5	1.6
28-Jun-05	1	1	1	0	1	1	1	1	1	1	1	0	0	0	0	1	1	0	3	3	1	A	1	0	0.8	2.7
29-Jun-05	0	0	1	1	0	1	1	4	5	2	9	10	1	2	1	2	2	2	2	3	A	2	2	2	2.4	10.5
30-Jun-05	2	2	2	2	2	2	2	2	2	2	7	10	15	5	2	2	2	1	2	A	1	1	2	N	3.1	14.8
																									N	0.0
Hourly Avg	1.1	1.0	1.1	1.1	1.1	1.3	2.0	2.6	2.0	2.6	3.7	2.8	3.4	1.8	1.7	3.1	2.2	1.6	1.6	1.3	1.1	1.2	1.2	1.1		
Hourly Max	2.5	2.1	2.3	2.4	2.1	2.7	12.2	14.3	7.9	15.7	13.3	14.8	17.5	15.6	6.4	22.5	18.5	11.1	7.1	3.2	2.8	2.9	2.3	2.4		

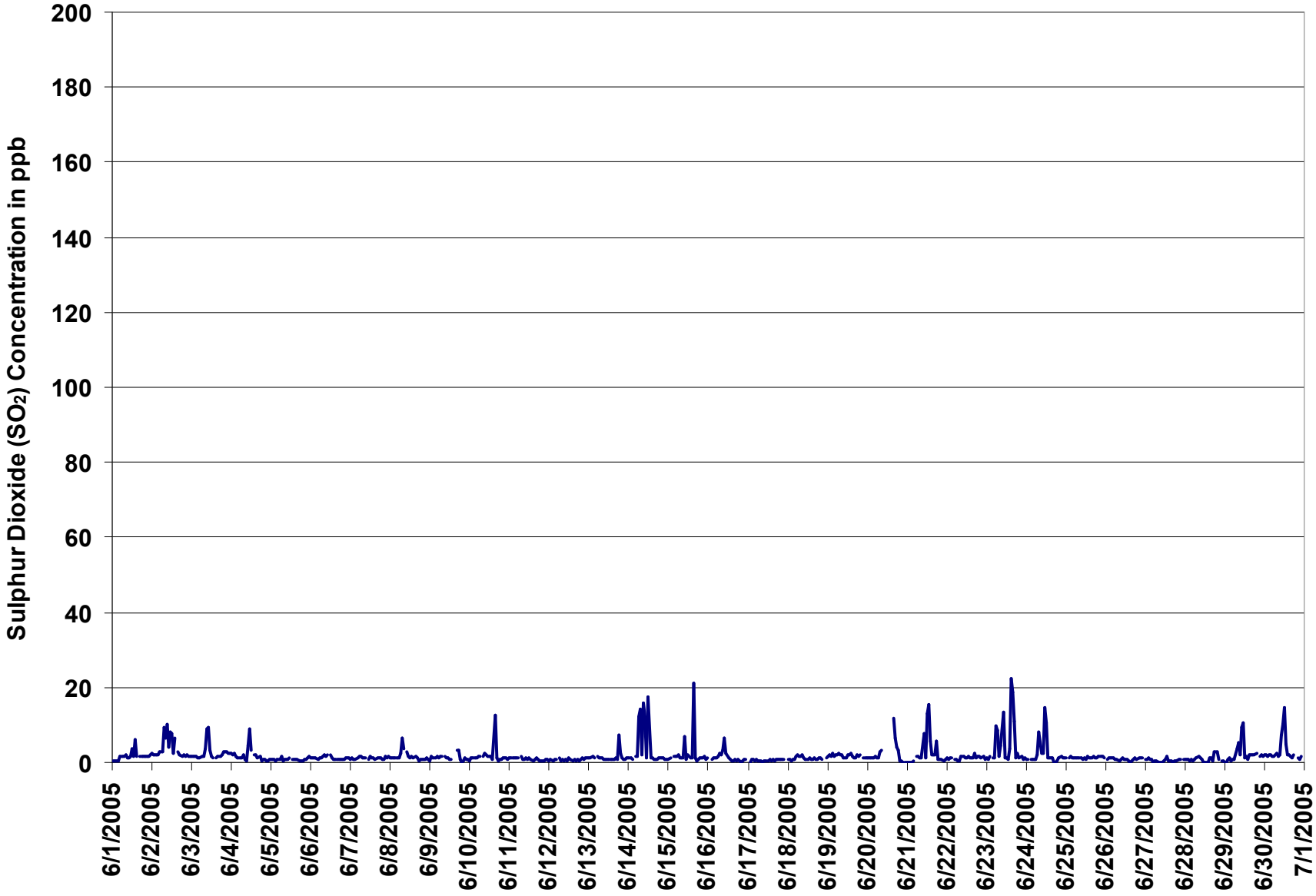
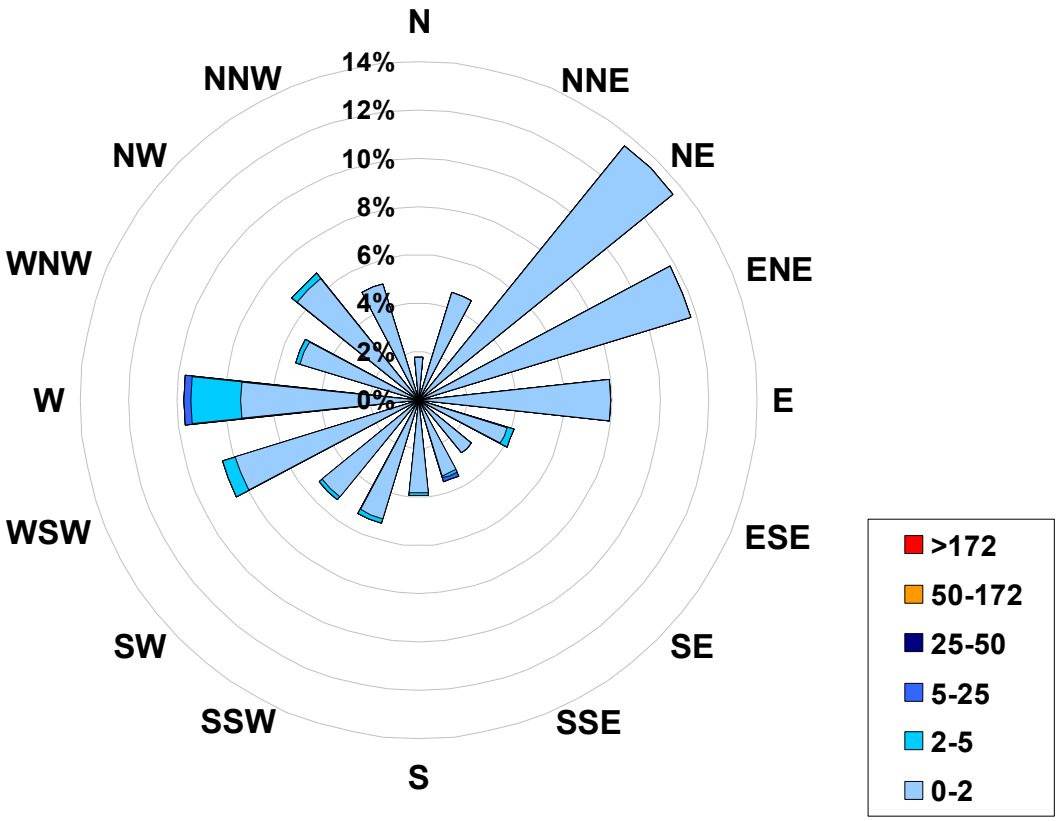


Figure 21. PASZA - Evergreen Park Sulphur Dioxide 1-hr Maximum Value Monthly Trend

1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Evergreen Park Site for June 2005



Calms:	0%

Frequency Distribution of SO_2 in ppb			
Range			Frequency (hrs)
0.0	<	2	650
2	to	5	27
5	to	25	3
25	to	50	0
50	to	172	0
	>	172	0
Total Non-Zero Values			680

PASZA - Evergreen Park Total Reduced Sulphur Monthly Summary

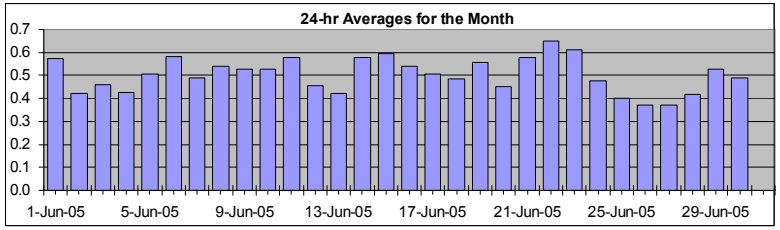
Station: Evergreen Park
Station Owner: PASZA

HOURLY AVERAGE TABLE

Total Reduced Sulphur (TRS)

Monitoring Dates: June 1, 2005 to July 1, 2005

Objective Limit: **Alberta Environment:** 1-hr na ppb | 24-hr na ppb



Summary

Maximum 1-hr Average:	1.2	ppb	5-Jun	6:00 7:00
Maximum 24-hr Value:	0.7	ppb	22-Jun	

AIC Time:	32 hrs	Operational Time:	683 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	99.6%

Percentile	99	95	75	50	25	5	1	Average
	0.9	0.7	0.6	0.5	0.4	0.3	0.3	0.5 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Jun-05	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0.6	0.9
2-Jun-05	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0.4	0.6
3-Jun-05	0	0	0	0	0	0	1	1	1	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0.5	0.8
4-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1	0	0	0	0	0	0	0	0	1	0.4	0.5
5-Jun-05	0	0	0	0	0	1	1	1	0	0	0	0	A	1	0	0	1	0	1	1	0	0	1	0	0.5	1.2
6-Jun-05	0	0	0	0	0	0	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.7
7-Jun-05	1	0	1	0	0	0	1	1	0	0	A	0	0	0	0	0	1	1	0	0	0	1	1	1	0.5	0.5
8-Jun-05	0	1	1	1	1	0	1	1	1	A	1	1	1	0	0	1	0	1	0	0	0	0	0	0	0.5	0.9
9-Jun-05	0	1	1	1	1	1	1	1	A	1	0	1	1	1	N	N	0	0	1	0	1	0	1	1	0.5	0.6
10-Jun-05	1	1	1	1	1	0	1	A	1	1	1	1	0	1	1	0	1	0	1	0	0	0	0	0	0.5	0.7
11-Jun-05	0	0	0	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.6	1.0
12-Jun-05	0	0	1	1	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.6
13-Jun-05	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
14-Jun-05	0	0	0	A	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.6	0.8
15-Jun-05	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	0.6	0.8
16-Jun-05	0	A	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.7
17-Jun-05	A	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	A	0.5	0.7
18-Jun-05	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	1	1	0	1	1	1	A	1	0.5	0.6
19-Jun-05	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	A	0	0	0.6	0.7
20-Jun-05	0	1	1	0	0	0	0	0	0	1	1	0	0	C	C	A	1	0	0	0	0	0	0	0	0.5	0.7
21-Jun-05	0	0	1	1	1	A	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
22-Jun-05	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.7	0.9
23-Jun-05	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0.6	0.7
24-Jun-05	0	0	A	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0.5	0.7
25-Jun-05	0	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
26-Jun-05	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.4	0.5
27-Jun-05	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.5
28-Jun-05	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	1	0	A	1	0	0.4	0.9
29-Jun-05	0	0	0	0	0	0	0	1	1	1	1	1	0	1	1	1	1	1	0	1	A	1	0	1	0.5	1.0
30-Jun-05	0	1	1	0	0	0	0	0	1	1	1	0	1	1	0	0	0	0	0	A	0	0	1	N	0.5	0.7
																									N	0.0
Hourly Avg	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		
Hourly Max	0.8	0.8	0.7	0.8	0.8	0.9	1.2	1.0	0.8	1.0	0.9	0.8	0.7	0.8	0.7	0.7	0.7	0.6	0.7	0.7	0.8	0.7	0.7	0.8		

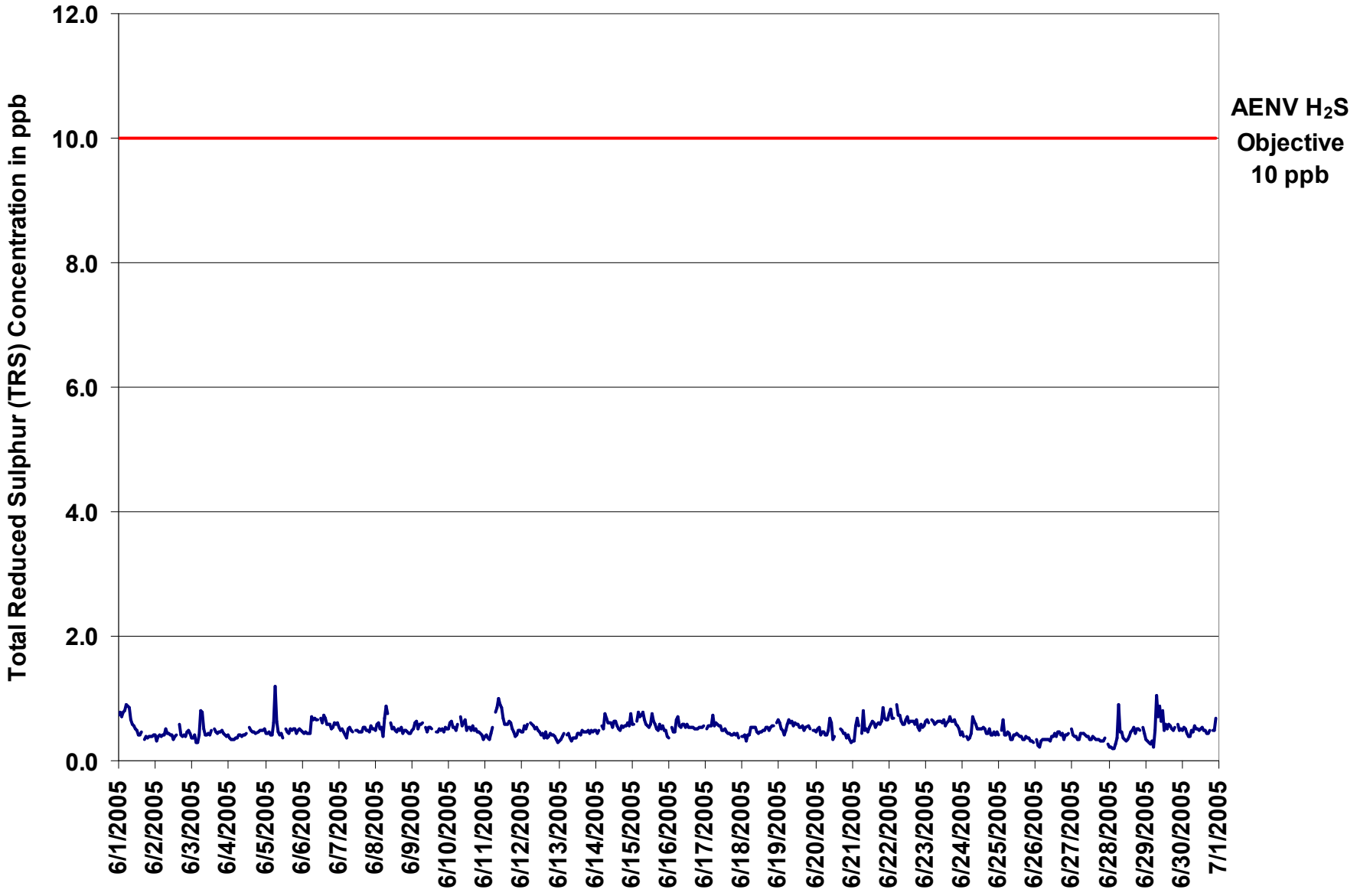


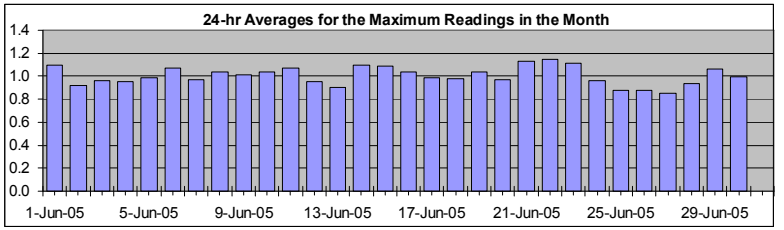
Figure 22. PASZA - Evergreen Park Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Evergreen Park
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Total Reduced Sulphur (TRS)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Value:	2.1	ppb	21-Jun	20:00 21:00
Maximum 24-hr Value:	1.1	ppb	22-Jun	

AIC Time:	32 hrs	Operational Time:	683 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	99.6%

Percentile	99	95	75	50	25	5	1	Average
	1.6	1.3	1.1	1.0	0.9	0.8	0.7	1.0 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

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-Jun-05	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1.1	1.7
2-Jun-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	0.9	1.2
3-Jun-05	1	1	1	1	1	1	2	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1.0	1.6
4-Jun-05	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1.0	1.3
5-Jun-05	1	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1.0	1.9
6-Jun-05	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.4
7-Jun-05	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.2
8-Jun-05	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.5
9-Jun-05	1	1	1	1	1	1	1	1	A	1	1	1	1	1	N	N	1	1	1	1	1	1	1	1	1.0	1.2
10-Jun-05	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.2
11-Jun-05	1	1	1	1	1	1	A	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.6
12-Jun-05	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.2
13-Jun-05	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.1
14-Jun-05	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.4
15-Jun-05	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.4
16-Jun-05	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3
17-Jun-05	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.0	1.2
18-Jun-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1.0	1.2
19-Jun-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.0	1.2
20-Jun-05	1	1	1	1	1	1	1	1	1	1	1	1	1	C	C	A	1	1	1	1	1	1	1	1	1.0	1.4
21-Jun-05	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1.1	2.1
22-Jun-05	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.4
23-Jun-05	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.4
24-Jun-05	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.3
25-Jun-05	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.2
26-Jun-05	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.1
27-Jun-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	1.2
28-Jun-05	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.9	1.9
29-Jun-05	1	1	1	1	1	1	1	2	2	2	2	2	1	1	1	1	1	1	1	1	A	1	1	1	1.1	1.8
30-Jun-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	N	1.0	1.4
																									N	0.0
Hourly Avg	1.0	1.0	1.0	0.9	1.0	1.0	1.2	1.2	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	0.9		
Hourly Max	1.3	1.3	1.3	1.4	1.4	1.4	1.9	1.7	1.6	1.6	1.8	1.7	1.3	1.3	1.2	1.3	1.2	1.1	1.2	1.2	2.1	1.3	1.4	1.4		

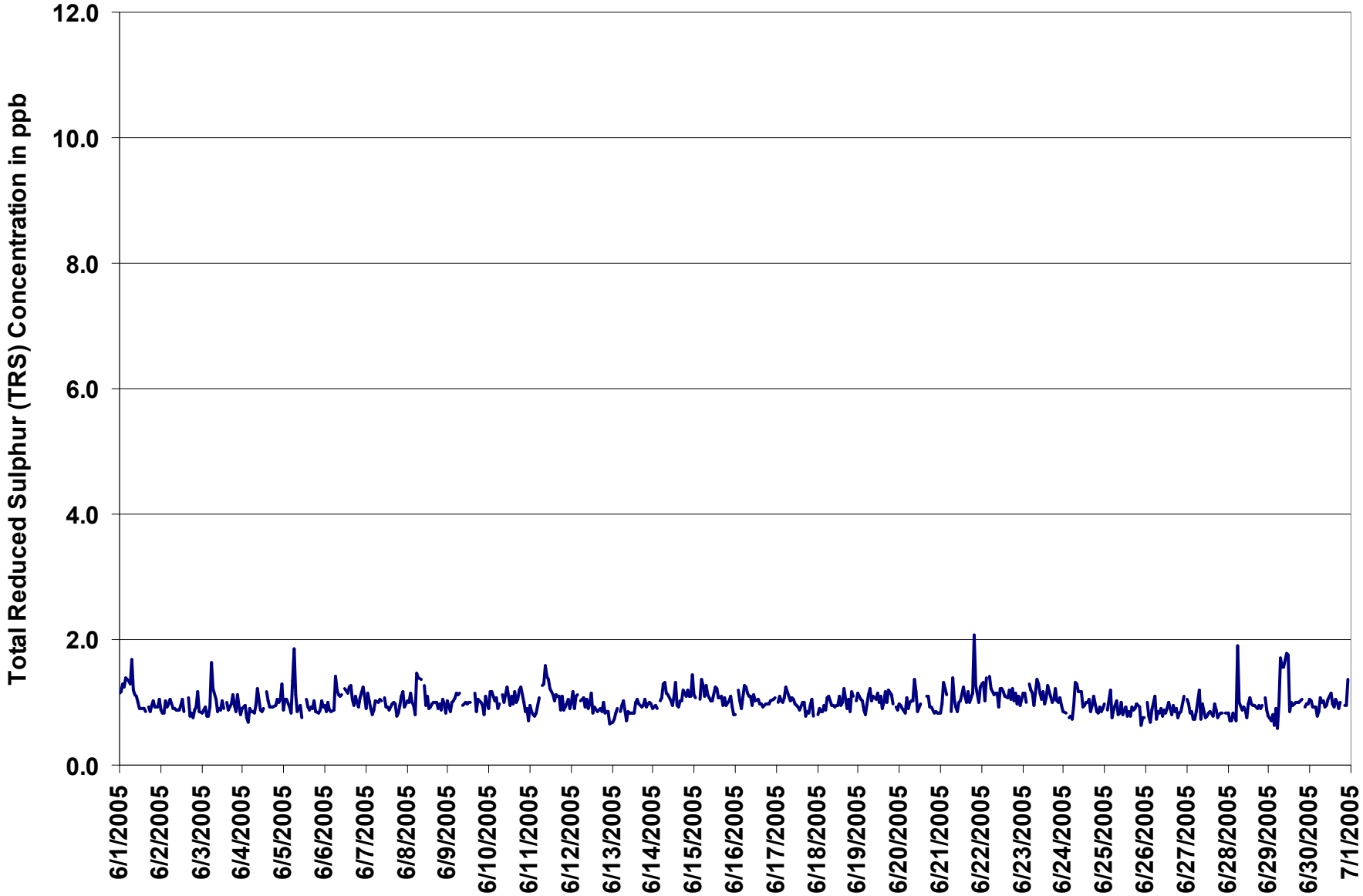
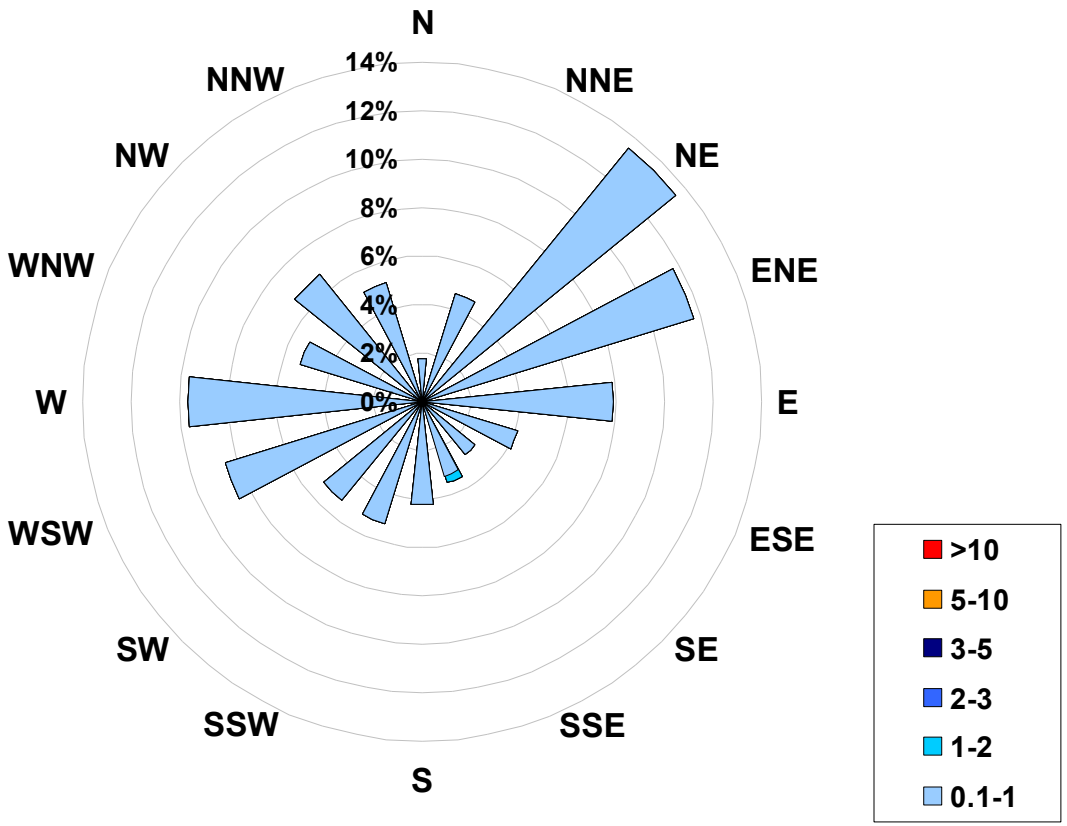


Figure 23. PASZA - Evergreen Park Total Reduced Sulphur 1-hr Maximum Value Monthly Trend

1-hr Average Concentration Rose for Total Reduced Sulphur (in ppb)
Located at the Evergreen Park Site for June 2005



Calms:	0%

Frequency Distribution of TRS in ppb			
Range			Frequency (hrs)
0.1	<	1	681
1	to	2	2
2	to	3	0
3	to	5	0
5	to	10	0
	>	10	0
Total Non-Zero Values			683

PASZA - Evergreen Park Particulate Matter (less than 2.5 microns) Monthly Summary

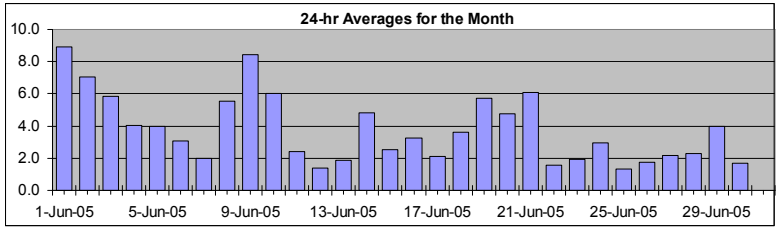
Station: Evergreen Park
Station Owner: PASZA

HOURLY AVERAGE TABLE

Particulate Matter ($PM_{2.5}$)

Monitoring Dates: June 1, 2005 to July 1, 2005

Draft Objective Limit: **Alberta Environment:** 1-hr - µg/m³ | 24-hr 30 µg/m³



Summary

Number of 24-hr Exceedances (draft):	0			
Maximum 1-hr Average:	21.7	µg/m³	10-Jun	6:00 7:00
Maximum 24-hr Value:	8.9	µg/m³	1-Jun	

AIC Time:	0 hrs	Operational Time:	710 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	98.6%

Percentile	99	95	75	50	25	5	1	Average	Geomean
	16.2	10.7	5.5	2.7	1.1	0.0	0.0	3.8 µg/m³	3.2 µg/m³

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-Jun-05	6	7	10	9	9	14	11	11	7	7	10	11	11	8	10	7	2	7	12	6	10	9	10	10	8.9	13.7
2-Jun-05	9	6	5	5	6	7	9	12	10	8	10	8	9	5	8	12	7	3	4	4	4	5	6	7	7.0	12.4
3-Jun-05	6	3	3	4	6	10	15	8	12	11	3	4	4	4	5	10	11	6	1	1	3	4	3	6	5.9	15.1
4-Jun-05	6	4	3	5	5	6	6	5	6	5	4	2	5	0	7	1	2	2	5	6	5	3	1	2	4.0	6.9
5-Jun-05	3	3	3	2	7	5	8	8	3	5	6	8	5	5	4	2	0	3	0	3	5	3	2	2	4.0	8.3
6-Jun-05	1	0	1	1	2	11	10	2	5	6	4	1	0	5	2	5	5	1	0	3	5	1	1	4	3.1	10.6
7-Jun-05	2	0	0	2	3	4	3	2	0	0	0	0	0	6	0	3	4	0	D	1	3	5	3	5	2.0	5.6
8-Jun-05	0	9	4	5	0	9	6	10	8	1	3	3	2	3	0	3	6	4	7	7	10	12	11	11	5.5	12.2
9-Jun-05	8	8	7	7	9	17	11	15	10	14	10	6	8	2	N	N	15	9	3	6	4	5	7	5	8.4	16.6
10-Jun-05	8	6	8	4	5	10	22	16	12	9	5	9	5	3	5	4	0	4	1	1	3	2	2	1	6.0	21.7
11-Jun-05	2	1	3	3	4	5	10	0	2	3	2	0	1	3	2	1	3	2	3	1	1	2	1	1	2.4	9.8
12-Jun-05	1	1	0	0	0	1	0	0	0	1	0	1	3	1	4	2	2	2	3	2	4	2	1	3	1.4	3.9
13-Jun-05	3	2	1	1	1	1	1	0	1	0	1	2	2	2	4	2	4	4	8	0	1	0	1	2	1.8	8.3
14-Jun-05	2	19	18	17	0	14	9	4	1	4	3	0	4	0	2	0	0	0	1	0	8	1	4	4	4.8	19.4
15-Jun-05	2	0	0	1	2	2	4	2	3	3	1	1	3	4	5	7	5	0	2	2	4	5	3	1	2.5	6.7
16-Jun-05	2	2	3	2	2	10	6	1	3	3	5	2	2	1	2	4	3	2	2	2	3	5	7	4	3.3	10.1
17-Jun-05	5	3	2	3	4	2	1	0	0	1	2	2	2	2	0	2	1	2	4	2	3	4	3	1	2.1	5.3
18-Jun-05	1	2	1	0	1	9	4	0	1	3	1	1	0	1	0	1	2	1	3	1	4	10	16	21	3.6	21.4
19-Jun-05	15	10	14	14	12	17	10	6	5	5	2	2	6	0	0	2	4	0	0	3	5	3	2	0	5.7	17.3
20-Jun-05	2	2	1	2	3	D	6	2	D	6	13	7	7	9	6	0	2	5	4	5	8	8	5	2	4.8	13.1
21-Jun-05	6	6	10	7	10	6	5	5	6	2	3	3	5	9	5	6	3	4	11	5	11	6	7	8	6.1	11.3
22-Jun-05	2	3	3	4	6	6	0	3	0	0	D	D	0	1	0	0	0	1	1	1	2	0	2	0	1.6	5.7
23-Jun-05	0	0	0	0	0	1	6	2	0	0	0	0	2	3	0	3	10	1	5	2	7	2	0	0	1.9	10.3
24-Jun-05	0	0	0	0	0	8	5	3	7	3	2	3	6	2	0	5	2	0	0	5	7	7	2	3	3.0	8.1
25-Jun-05	2	2	3	3	3	2	1	1	1	1	0	0	0	0	1	0	0	2	1	1	3	3	0	0	1.3	3.3
26-Jun-05	1	0	1	0	1	4	4	0	2	3	2	2	0	2	0	6	3	3	2	2	1	1	1	0	1.7	5.9
27-Jun-05	0	0	2	2	2	6	1	6	2	3	2	2	0	6	0	3	1	3	3	1	1	4	1	0	2.2	6.0
28-Jun-05	0	0	0	1	3	3	3	4	4	1	2	2	0	1	0	1	0	3	4	3	8	3	9	1	2.3	8.9
29-Jun-05	0	0	0	2	3	7	15	1	6	7	2	3	4	3	2	1	0	6	8	6	4	12	3	1	4.0	15.1
30-Jun-05	D	0	0	0	0	11	0	1	2	0	2	0	0	0	6	2	0	0	D	0	10	0	0	N	1.7	11.4
																									N	0.0
Hourly Avg	3.3	3.3	3.4	3.6	3.7	7.1	6.5	4.3	4.1	3.9	3.3	2.9	3.2	3.0	2.8	3.3	3.3	2.7	3.5	2.8	4.9	4.3	3.8	3.6		
Hourly Max	14.9	19.4	18.3	17.0	11.9	17.3	21.7	16.1	12.5	14.0	13.1	10.8	10.8	8.9	10.0	12.4	15.3	8.6	11.9	7.0	10.6	12.4	16.3	21.4		

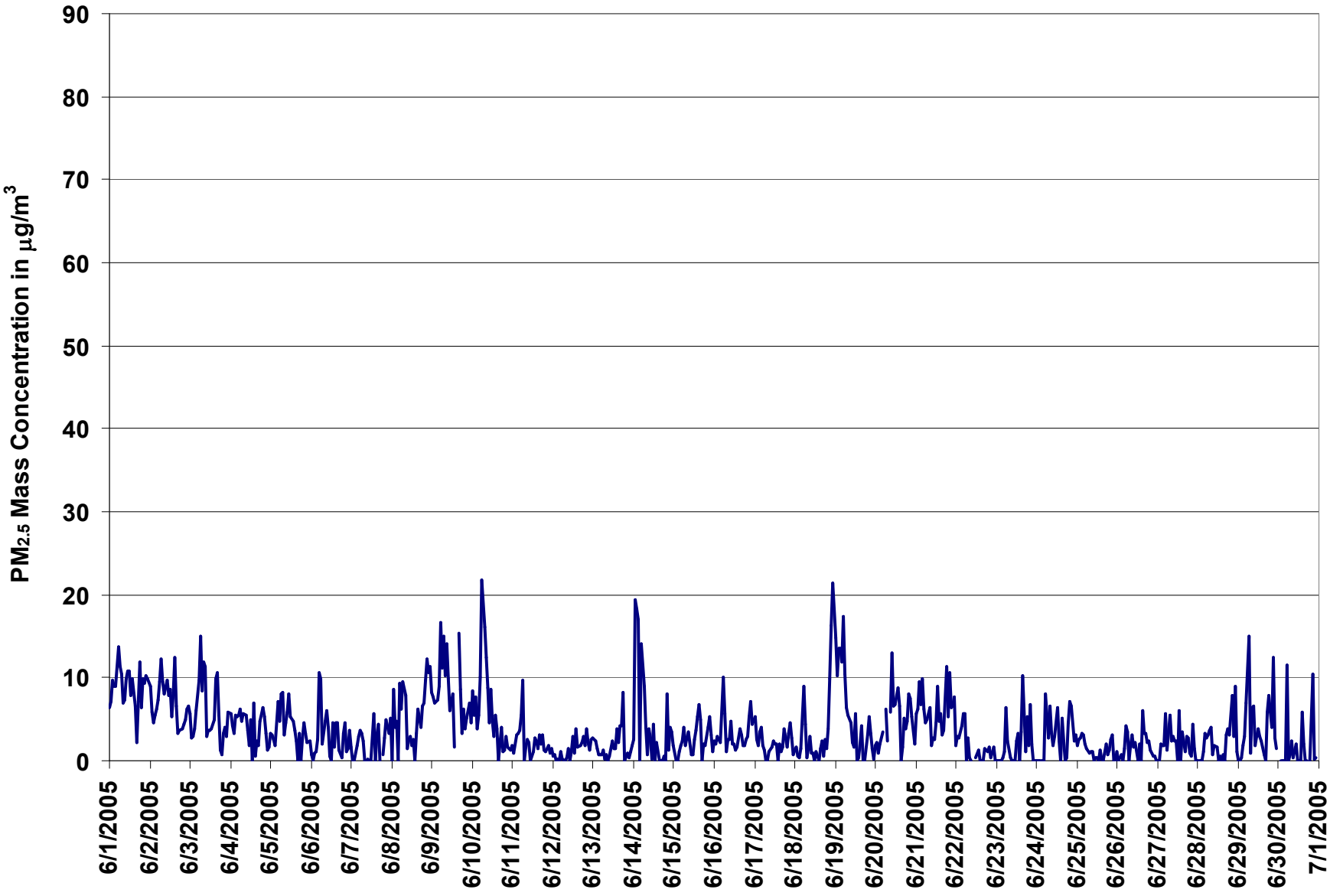


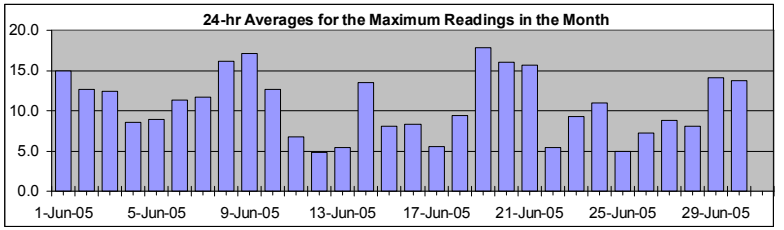
Figure 24. PASZA - Evergreen Park Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

HOURLY MAXIMUM TABLE

Particulate Matter ($PM_{2.5}$)

Station: Evergreen Park
Station Owner: PASZA

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Average:	55.6	µg/m³	20-Jun	10:00 11:00
Maximum 24-hr Value:	17.8	µg/m³	19-Jun	

AIC Time:	0 hrs	Operational Time:	710 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	98.6%

Percentile	99	95	75	50	25	5	1	Average	Geomean
	38.4	26.4	13.7	8.7	5.4	2.3	0.7	10.6 µg/m˘	9.9 µg/m˘

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-Jun-05	8	11	12	11	11	18	14	13	11	11	16	49	16	16	15	12	14	22	16	12	15	14	12	12	14.9	48.9
2-Jun-05	11	10	9	8	8	10	12	24	19	16	15	11	16	10	20	26	16	11	10	9	9	8	8	9	12.7	26.5
3-Jun-05	8	5	5	7	8	13	24	13	25	23	11	12	10	14	15	26	16	18	10	5	6	8	6	9	12.4	26.3
4-Jun-05	8	6	5	7	8	8	10	12	9	9	13	9	10	8	15	8	7	7	11	11	10	7	3	4	8.5	15.3
5-Jun-05	5	5	5	7	10	8	10	12	8	9	9	13	10	11	10	11	11	11	11	12	9	6	4	6	8.9	13.2
6-Jun-05	5	2	2	3	5	29	28	10	8	29	15	8	7	13	20	15	10	13	8	9	12	10	3	8	11.4	28.9
7-Jun-05	6	3	3	5	16	15	14	7	5	4	25	4	8	27	12	27	25	10	D	5	7	10	9	25	11.7	27.4
8-Jun-05	20	28	38	40	14	17	17	13	13	7	8	10	16	16	6	9	14	9	14	13	17	17	15	15	16.2	40.3
9-Jun-05	10	10	8	9	12	28	21	22	15	19	19	15	34	14	N	N	22	18	9	33	20	13	15	11	17.1	33.6
10-Jun-05	17	15	14	8	9	15	26	21	17	15	12	11	15	9	18	11	4	12	33	6	5	5	5	2	12.7	33.0
11-Jun-05	4	10	21	7	6	13	14	18	5	5	5	2	4	5	5	3	5	4	5	4	3	8	2	2	6.7	20.8
12-Jun-05	2	2	2	2	1	4	4	3	3	5	6	4	8	8	9	5	7	6	8	6	7	5	3	5	4.8	8.8
13-Jun-05	4	4	2	2	2	2	3	3	4	8	5	7	4	5	9	8	9	7	15	10	3	4	5	5	5.4	14.9
14-Jun-05	17	28	31	30	5	31	18	13	8	14	11	4	20	5	10	7	4	8	5	12	17	6	9	11	13.5	31.4
15-Jun-05	10	1	2	4	4	4	9	7	7	8	11	9	9	8	13	26	8	5	7	7	9	12	8	6	8.1	25.8
16-Jun-05	5	6	7	6	6	16	12	5	5	7	15	7	9	6	7	13	10	6	6	5	10	8	11	10	8.3	15.6
17-Jun-05	10	5	8	8	7	3	4	3	3	5	3	7	6	8	2	5	5	5	8	6	5	6	6	3	5.6	10.0
18-Jun-05	3	3	3	2	3	18	12	5	5	6	8	6	7	8	4	10	8	8	8	7	14	17	28	32	9.3	31.7
19-Jun-05	31	14	16	17	14	23	16	12	8	11	6	17	30	42	44	9	30	5	25	17	15	12	6	5	17.8	43.7
20-Jun-05	6	5	4	5	10	D	38	9	D	9	56	21	15	17	12	39	15	12	9	20	19	14	11	7	16.0	55.6
21-Jun-05	14	13	14	10	15	11	16	13	16	16	12	16	13	16	9	15	12	15	20	19	55	10	13	13	15.6	55.0
22-Jun-05	13	11	7	9	8	8	3	5	3	0	D	D	6	7	2	5	2	9	5	5	3	2	3	2	5.4	12.9
23-Jun-05	1	1	1	1	1	3	16	7	5	3	8	2	12	19	7	23	27	23	25	11	17	8	2	1	9.3	27.1
24-Jun-05	0	1	0	1	2	26	27	14	20	8	9	13	15	7	10	14	9	8	6	14	17	19	15	8	11.0	26.7
25-Jun-05	5	5	6	7	6	3	3	4	4	4	4	4	5	6	7	6	4	7	6	5	6	5	3	3	4.9	7.4
26-Jun-05	4	4	6	3	4	8	8	10	5	8	6	11	8	11	7	18	8	10	7	13	7	2	4	1	7.2	18.3
27-Jun-05	1	3	4	4	4	19	7	11	8	9	13	11	14	26	7	13	11	10	8	9	6	10	4	2	8.8	26.3
28-Jun-05	1	0	1	4	5	4	7	7	8	6	8	10	6	13	14	10	8	10	12	9	22	9	16	3	8.1	22.2
29-Jun-05	1	1	3	5	7	10	24	19	12	14	19	16	30	12	15	12	12	23	24	31	8	27	8	6	14.1	30.8
30-Jun-05	D	6	6	6	9	31	8	8	13	21	11	16	16	18	18	14	19	11	D	14	28	9	6	N	13.7	31.1
																									N	0.0
Hourly Avg	7.9	7.3	8.2	8.0	7.4	13.7	14.0	10.8	9.4	10.3	12.4	11.2	12.6	12.8	11.8	13.9	11.7	10.7	11.7	11.3	12.7	9.8	8.0	7.8		
Hourly Max	31.1	27.9	38.5	40.3	16.2	31.4	37.8	23.7	24.6	28.9	55.6	48.9	33.6	42.4	43.7	39.5	30.5	23.4	33.0	32.6	55.0	26.8	27.6	31.7		

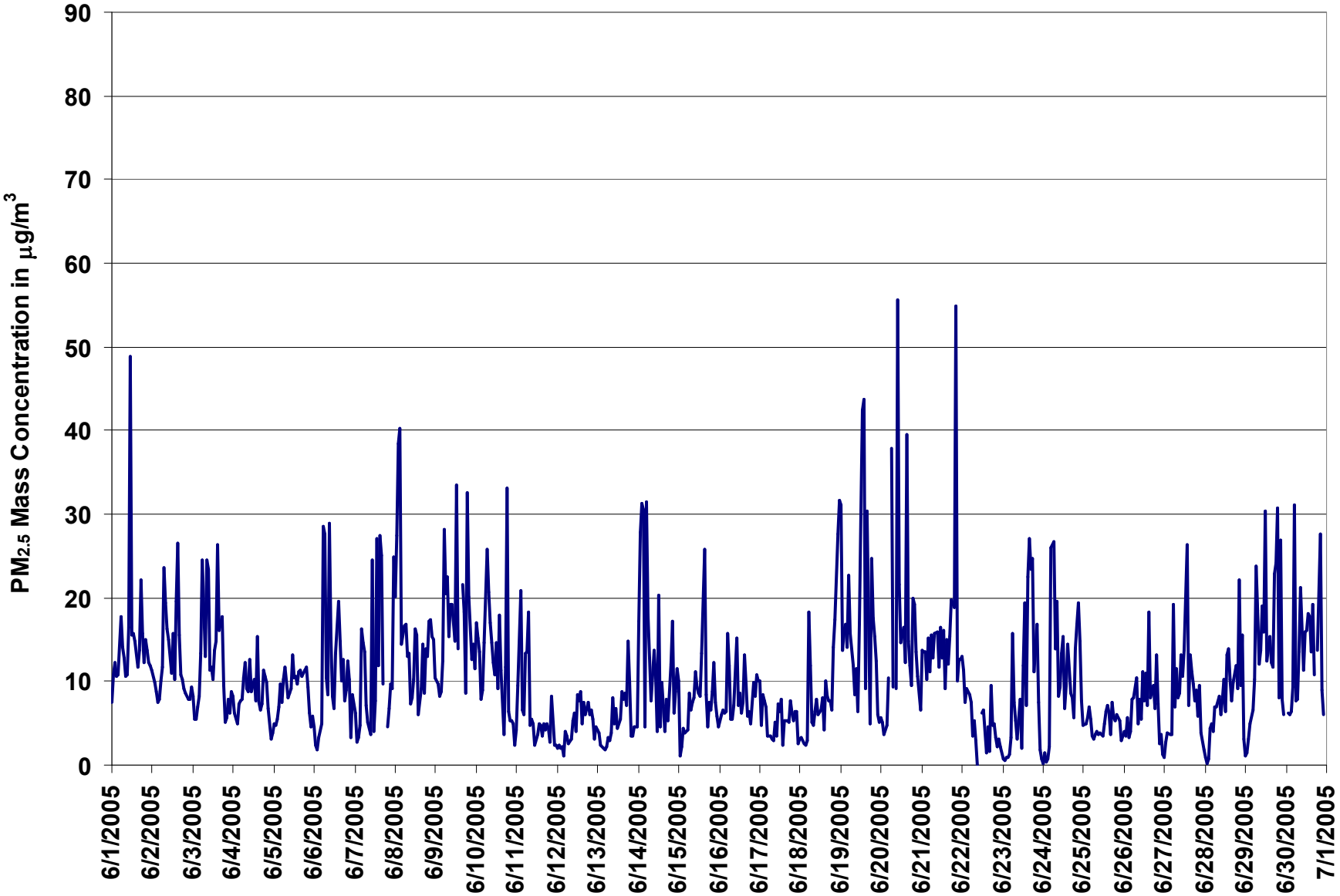
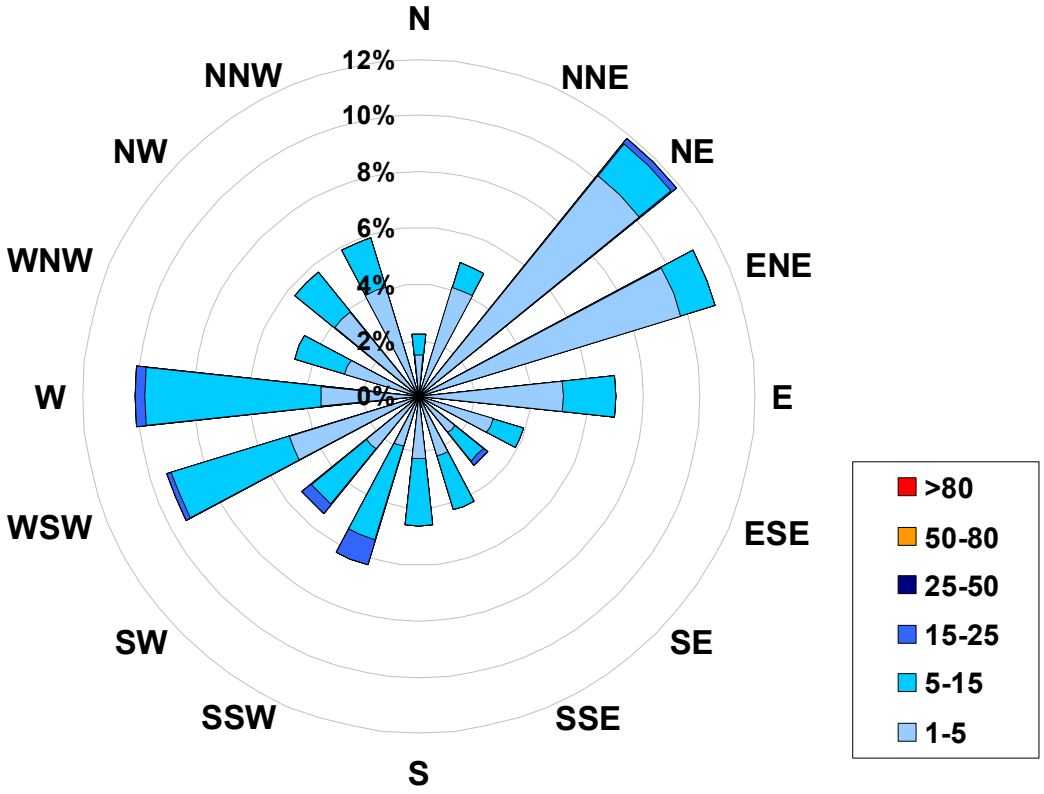


Figure 25. PASZA - Evergreen Park Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly Trend

1-hr Average Concentration Rose for Particulate Matter (less than 2.5 microns) (in micrograms per cubic meter) Located at the Evergreen Park Site for June 2005



Calms:	0%

Frequency Distribution of $PM_{2.5}$ in $\mu g/m^3$			
Range			Frequency (hrs)
1.0	<	5	506
5	to	15	192
15	to	25	12
25	to	50	0
50	to	80	0
	>	80	0
Total Non-Zero Values			710

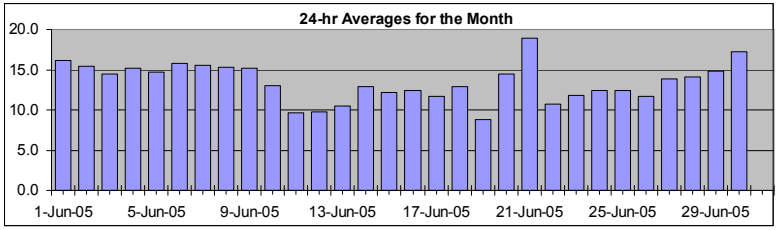
PASZA - Evergreen Park Temperature Monthly Summary

Station: Evergreen Park
Station Owner: PASZA

HOURLY AVERAGE TABLE

Ambient Temperature (T)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Average:	25.9	°C	21-Jun	15:00 16:00
Maximum 24-hr Value:	18.9	°C	21-Jun	

AIC Time:	0 hrs	Operational Time:	717 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	99.6%

Percentile	99	95	75	50	25	5	1	Average
	24.0	22.0	16.7	12.9	10.1	6.5	3.5	13.5 °C

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-Jun-05	12	12	11	11	10	11	13	14	15	16	17	18	19	20	21	21	22	22	20	19	18	15	14	14	16.1	22.3
2-Jun-05	14	13	13	13	12	12	13	14	16	18	19	21	22	23	24	16	13	14	14	14	14	13	13	13	15.4	24.0
3-Jun-05	12	11	10	9	10	11	12	14	14	17	19	20	21	21	21	14	12	14	15	14	14	13	13	13	14.4	21.5
4-Jun-05	12	12	12	12	12	12	13	13	14	16	17	18	19	20	20	20	20	20	17	15	13	13	13	12	15.2	20.3
5-Jun-05	11	11	11	10	10	10	11	12	13	13	14	16	18	19	20	20	21	21	20	19	15	14	12	11	14.7	21.4
6-Jun-05	11	9	8	7	7	7	12	13	15	17	18	19	20	21	22	22	23	22	22	21	19	16	15	13	15.8	22.7
7-Jun-05	12	11	9	8	8	9	12	14	17	18	19	19	20	19	20	21	18	21	22	21	20	15	12	10	15.5	22.0
8-Jun-05	8	7	6	5	5	6	10	13	16	18	19	20	21	22	22	23	23	22	23	22	20	15	12	10	15.3	22.7
9-Jun-05	9	8	8	7	6	8	11	13	14	18	20	22	22	23	N	N	24	22	21	20	19	15	12	11	15.2	23.7
10-Jun-05	10	10	10	9	9	9	12	13	14	14	14	13	14	16	17	16	15	15	16	14	14	13	12	12	13.0	17.1
11-Jun-05	12	11	11	11	11	11	12	12	10	10	9	10	9	9	9	9	9	9	8	8	8	8	8	8	9.7	11.9
12-Jun-05	7	8	7	7	7	7	9	9	10	11	11	12	12	12	12	13	13	13	13	13	11	8	6	6	9.8	13.4
13-Jun-05	6	7	7	7	7	7	8	9	11	13	13	13	14	14	14	14	14	14	12	11	10	10	10	8	10.5	14.4
14-Jun-05	8	7	6	6	7	7	9	11	13	14	15	15	17	17	17	17	19	18	19	19	15	12	11	11	12.8	18.8
15-Jun-05	9	9	8	8	8	8	9	10	11	13	14	15	16	16	14	17	15	15	16	16	14	12	11	8	12.2	16.9
16-Jun-05	7	6	5	4	3	5	9	11	13	13	14	15	16	16	17	18	18	18	18	17	16	14	13	12	12.4	18.4
17-Jun-05	11	11	11	11	9	9	9	10	10	10	11	11	12	13	14	15	14	14	15	15	15	12	9	8	11.7	15.5
18-Jun-05	7	6	5	3	3	5	9	11	13	15	16	17	18	19	19	20	20	20	20	20	19	13	8	6	12.9	20.2
19-Jun-05	5	4	3	2	1	3	8	11	13	11	12	11	11	12	12	11	11	11	11	11	10	9	9	8	8.8	13.0
20-Jun-05	8	8	8	8	8	8	9	10	11	11	12	14	16	18	20	21	23	23	23	23	21	17	14	12	14.5	23.3
21-Jun-05	11	11	11	11	12	13	14	18	21	23	24	24	25	25	26	26	26	24	23	22	19	17	15	14	18.9	25.9
22-Jun-05	15	14	13	13	13	12	10	10	10	10	10	11	10	10	10	9	9	10	10	10	10	10	9	9	10.7	14.5
23-Jun-05	8	7	7	7	7	7	7	10	11	13	15	15	16	13	16	16	15	15	15	17	16	12	10	8	11.8	17.1
24-Jun-05	7	6	5	4	3	4	8	10	12	14	16	16	17	18	19	17	16	17	17	17	15	13	13	12	12.4	18.8
25-Jun-05	11	11	11	11	11	11	11	11	11	12	12	13	14	14	14	15	15	15	15	15	14	12	10	9	12.4	15.3
26-Jun-05	8	8	7	7	8	8	10	12	12	13	14	14	14	15	17	14	13	12	13	13	13	12	11	11	11.7	17.3
27-Jun-05	11	10	10	10	9	10	11	12	15	16	16	17	17	16	17	18	17	17	17	16	16	14	11	10	13.9	17.7
28-Jun-05	9	9	8	8	9	10	11	11	13	14	16	16	17	18	19	19	20	21	21	20	18	13	11	9	14.1	20.7
29-Jun-05	8	7	6	5	5	6	9	12	15	16	19	19	20	20	22	22	22	23	20	18	17	16	14	14	14.9	22.7
30-Jun-05	15	13	13	12	11	11	13	14	16	17	18	20	21	22	21	20	21	22	22	21	18	17	16	N	17.2	22.3
																									N	0.0
Hourly Avg	9.9	9.2	8.7	8.2	8.0	8.6	10.3	11.9	13.3	14.5	15.4	16.2	16.9	17.4	17.8	17.5	17.4	17.5	17.2	16.7	15.3	13.1	11.5	10.4		
Hourly Max	14.6	13.9	13.4	13.2	12.9	12.8	14.2	17.8	20.6	22.7	23.6	24.5	24.8	25.3	25.6	25.9	25.6	24.1	22.8	23.3	21.3	17.5	15.9	14.3		

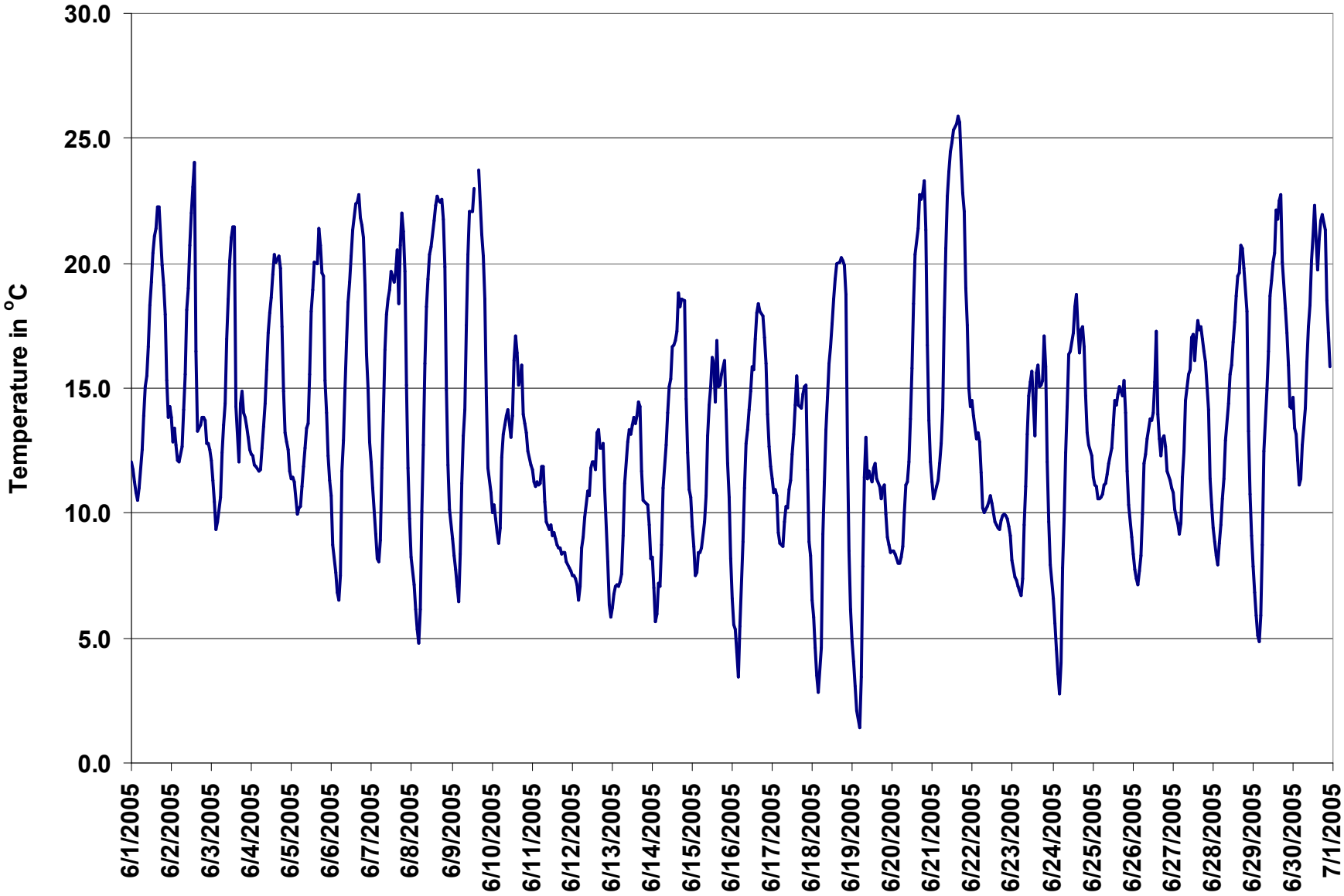


Figure 26. PASZA - Evergreen Park Temperature 1-hr Average Monthly Trend

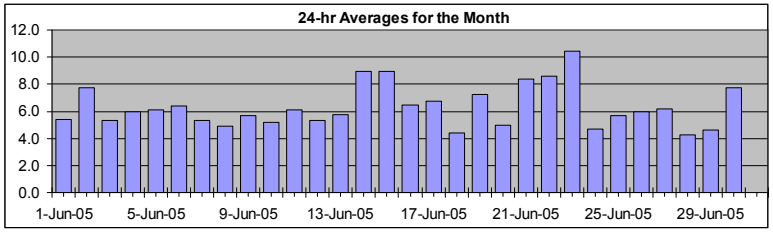
PASZA - Evergreen Park Scalar Wind Speed Monthly Summary

Station: Evergreen Park
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSs)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Average:	24.4	km/hr	15-Jun	16:00 17:00
Maximum 24-hr Value:	10.4	km/hr	23-Jun	

Calm Time:	0 hrs	**0%** calms		Operational Time:			717 hrs	
Calibration Time:	0 hrs			AMD Operational Uptime:			99.6%	
Percentile	99	95	75	50	25	5	1	AverageS
	16.3	12.2	8.1	5.8	4.0	2.1	1.5	6.3 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**

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-hr Scalar Average	Daily Max
1-Jun-05	7	5	6	5	5	4	5	7	6	5	5	5	6	7	7	5	5	8	5	6	5	2	3	5	5.4	8.3
2-Jun-05	6	8	8	8	6	6	7	10	10	10	8	9	10	9	10	10	9	8	9	8	5	5	4	4	7.7	10.4
3-Jun-05	4	4	4	3	2	3	4	5	4	5	5	5	7	8	8	12	10	7	8	4	4	5	4	4	5.3	11.5
4-Jun-05	4	4	3	5	3	2	5	5	7	5	5	5	8	8	9	7	7	7	11	10	8	7	4	3	6.0	10.8
5-Jun-05	5	4	4	2	3	2	3	3	5	6	7	7	8	10	9	10	12	11	10	8	5	4	5	5	6.1	11.6
6-Jun-05	3	2	2	2	2	2	2	5	6	7	7	8	9	10	11	11	13	13	11	9	7	5	3	3	6.4	12.9
7-Jun-05	3	3	3	2	2	3	4	5	6	8	9	11	9	8	6	7	6	5	5	7	6	4	2	2	5.3	11.2
8-Jun-05	1	1	2	2	2	2	3	4	3	5	7	9	9	10	10	9	9	7	6	6	4	3	2	2	4.9	10.3
9-Jun-05	2	2	1	3	3	6	6	7	10	6	5	6	5	6	N	N	10	14	12	9	4	3	4	3	5.7	13.9
10-Jun-05	4	2	2	2	4	3	6	7	6	5	8	6	4	4	4	10	12	9	8	5	3	4	3	2	5.1	12.2
11-Jun-05	1	2	2	3	3	2	4	6	8	9	10	9	10	10	11	10	10	7	8	6	5	4	4	3	6.1	10.8
12-Jun-05	4	3	4	4	5	5	5	4	5	6	5	4	6	5	7	8	6	8	9	8	5	4	4	5	5.4	9.0
13-Jun-05	5	5	5	5	5	5	5	5	6	5	6	6	5	4	3	3	5	6	15	9	7	7	6	5	5.7	14.8
14-Jun-05	6	5	6	6	9	6	11	11	14	17	14	14	12	10	8	7	9	8	8	6	11	8	3	4	8.9	16.6
15-Jun-05	3	4	3	5	6	9	7	9	9	10	13	11	15	11	13	12	24	16	9	7	6	6	5	2	9.0	24.4
16-Jun-05	3	5	5	4	3	5	6	7	6	8	9	8	9	10	8	8	9	9	9	8	6	4	3	3	6.5	10.3
17-Jun-05	3	4	5	7	8	8	8	7	8	8	10	8	8	9	9	8	8	7	6	5	6	5	4	4	6.8	9.9
18-Jun-05	2	2	2	2	2	2	2	4	5	6	7	8	7	7	7	7	7	6	6	4	4	2	2	1	4.4	8.1
19-Jun-05	2	2	1	2	2	3	7	11	14	16	14	13	12	10	11	10	10	7	5	4	4	4	4	4	7.3	15.8
20-Jun-05	4	6	4	4	4	5	6	5	7	6	6	5	6	6	6	8	5	7	4	4	5	4	2	2	4.9	7.5
21-Jun-05	2	2	3	3	5	4	3	5	5	6	9	15	19	21	19	16	14	12	9	5	8	10	3	5	8.4	20.6
22-Jun-05	6	5	5	9	9	8	10	8	9	9	11	12	10	10	12	12	10	8	8	6	7	6	6	8	8.6	12.2
23-Jun-05	9	9	9	8	8	8	9	12	14	13	14	13	14	14	16	17	19	14	7	7	6	5	3	3	10.4	18.7
24-Jun-05	2	2	2	1	2	2	2	3	4	3	7	9	8	7	6	10	11	9	5	3	3	2	4	3	4.7	10.8
25-Jun-05	4	4	4	4	4	4	5	7	7	6	7	7	8	9	8	8	7	6	5	7	6	3	3	4	5.6	8.8
26-Jun-05	3	4	4	4	5	5	5	6	7	7	6	7	7	8	9	6	8	8	4	4	5	5	6	7	5.9	8.8
27-Jun-05	7	5	5	4	4	4	6	5	7	8	8	9	10	10	7	8	8	8	5	6	5	4	4	3	6.2	10.2
28-Jun-05	2	3	1	2	2	2	4	5	4	5	7	7	5	5	5	8	7	7	6	6	3	2	2	2	4.3	7.9
29-Jun-05	2	2	1	3	2	1	3	4	4	6	6	5	5	4	5	7	5	7	10	7	5	9	4	5	4.6	10.0
30-Jun-05	8	6	4	4	4	4	4	6	8	8	9	11	10	11	15	12	12	10	10	7	4	6	6	N	7.7	15.0
																									N	0.0
1-hr Average	4.0	3.9	3.7	3.9	4.2	4.2	5.2	6.3	7.2	7.5	8.0	8.4	8.6	8.6	9.0	9.1	9.5	8.6	7.8	6.4	5.4	4.7	3.8	3.6		
Hourly Max	9.0	8.9	9.2	9.1	9.2	8.9	11.3	11.6	14.3	16.6	14.0	14.9	18.9	20.6	18.7	16.8	24.4	16.3	14.8	10.3	11.4	9.8	6.2	7.5		

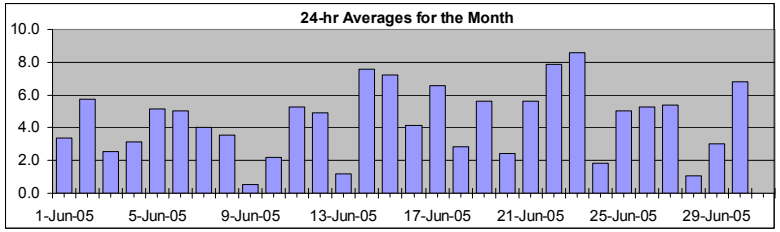
PASZA - Evergreen Park Vector Wind Speed Monthly Summary

Station: Evergreen Park
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSv)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Average:	23.8	km/hr	15-Jun	16:00 17:00
Maximum 24-hr Value:	8.6	km/hr	23-Jun	

Calm Time:	28 hrs	**4%** calms			Operational Time:			689 hrs	
Calibration Time:	0 hrs				AMD Operational Uptime:			99.6%	
Percentile	99	95	75	50	25	5	1		AverageV
	15.9	11.7	7.4	5.1	3.3	1.2	0.9		1.0 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**

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-hr Vector Average	Daily Max
1-Jun-05	7	5	6	5	5	4	5	6	5	3	3	2	3	6	5	3	4	6	5	6	5	2	3	4	3.4	6.7
2-Jun-05	4	7	8	7	5	6	7	9	10	10	7	8	9	7	9	8	7	7	7	7	2	3	3	1	5.7	9.8
3-Jun-05	3	4	3	1	1	2	3	5	3	3	3	2	5	5	7	9	10	6	8	3	calm	3	calm	3	2.6	10.2
4-Jun-05	2	3	1	4	3	1	5	4	6	4	3	3	7	6	7	6	7	6	7	10	6	7	4	1	3.2	10.1
5-Jun-05	5	4	4	1	2	2	2	3	4	5	7	6	7	9	8	10	11	11	10	7	5	4	5	5	5.1	10.8
6-Jun-05	2	1	2	1	1	2	1	4	5	6	6	8	8	9	10	10	12	12	11	9	5	4	3	2	5.0	12.3
7-Jun-05	2	3	2	1	1	2	4	4	5	7	8	10	7	6	5	5	6	5	3	7	6	4	1	1	4.0	10.3
8-Jun-05	1	1	1	calm	1	calm	3	3	2	3	5	7	8	8	9	8	8	6	4	6	4	2	calm	1	3.5	9.1
9-Jun-05	calm	1	calm	1	1	6	6	7	10	5	2	3	3	1	N	N	9	13	11	8	4	2	3	calm	0.5	13.3
10-Jun-05	1	1	calm	1	3	calm	5	7	6	3	8	4	3	1	3	9	11	8	6	5	2	4	2	calm	2.2	11.3
11-Jun-05	calm	2	calm	1	2	2	3	5	8	9	9	9	9	10	11	10	9	7	7	6	5	4	4	2	5.2	10.5
12-Jun-05	4	3	4	4	5	5	5	4	3	4	4	2	6	3	7	5	5	7	8	7	5	4	4	5	4.9	8.4
13-Jun-05	5	5	5	5	4	5	5	5	5	4	4	6	5	4	3	1	5	5	14	8	6	6	6	5	1.2	14.4
14-Jun-05	6	5	5	6	9	6	11	11	14	16	13	13	11	9	7	7	7	7	7	5	11	6	2	2	7.6	16.1
15-Jun-05	calm	2	calm	4	6	9	7	9	8	9	11	10	13	11	13	10	24	16	8	6	4	3	5	1	7.2	23.8
16-Jun-05	2	4	4	3	3	4	5	7	5	7	7	7	7	9	7	6	7	8	8	7	6	4	3	3	4.1	9.5
17-Jun-05	3	4	5	7	8	8	7	7	8	8	10	8	8	8	8	7	7	6	6	5	6	5	4	4	6.6	9.7
18-Jun-05	2	calm	1	2	2	2	1	3	4	5	5	5	5	5	4	5	4	4	5	3	4	2	2	1	2.9	5.4
19-Jun-05	2	2	calm	calm	calm	3	6	10	13	16	13	13	12	10	11	10	9	7	4	4	3	2	3	2	5.6	15.6
20-Jun-05	3	6	2	3	4	5	5	5	7	5	5	2	3	5	4	6	3	6	3	3	5	3	1	calm	2.4	7.0
21-Jun-05	1	1	1	calm	2	1	2	5	4	6	7	14	18	20	18	14	13	12	8	3	8	9	1	5	5.6	19.7
22-Jun-05	5	4	5	8	9	8	9	8	9	9	11	11	10	9	11	12	10	8	8	6	6	6	6	7	7.9	11.8
23-Jun-05	9	9	9	8	8	8	9	11	13	13	12	12	12	14	16	16	19	13	6	7	3	4	3	1	8.6	18.6
24-Jun-05	calm	2	1	1	1	calm	1	1	4	2	5	9	6	3	3	10	10	8	4	2	2	1	4	3	1.8	9.8
25-Jun-05	3	4	3	4	4	4	5	7	7	6	7	7	7	8	7	7	6	5	5	7	5	2	3	3	5.0	8.1
26-Jun-05	3	4	4	4	5	5	5	6	7	7	6	7	6	7	8	5	7	8	3	4	5	5	6	7	5.3	8.1
27-Jun-05	7	5	5	4	4	4	5	5	6	7	8	8	8	9	6	8	7	7	5	6	5	3	4	2	5.4	9.2
28-Jun-05	2	2	calm	2	1	2	4	5	4	4	6	5	4	3	3	7	5	5	5	6	3	1	calm	1	1.1	6.5
29-Jun-05	calm	1	1	1	calm	calm	2	2	3	5	4	1	4	1	3	7	3	7	10	6	5	7	3	4	3.0	9.8
30-Jun-05	5	6	4	4	4	2	3	5	8	8	8	10	8	9	14	11	12	9	10	7	2	5	5	N	6.8	14.3
																									N	0.0
1-hr Vector	0.8	0.8	0.8	0.7	0.5	1.0	1.4	1.4	1.7	1.9	2.3	2.8	2.9	2.2	1.2	0.3	1.6	1.8	1.0	1.3	0.9	0.1	0.9	0.3		
Hourly Max	8.6	8.8	8.9	8.3	8.8	8.7	11.1	11.3	13.5	16.1	13.2	14.2	18.0	19.7	17.9	16.5	23.8	15.9	14.4	10.1	10.9	9.4	5.8	7.3		

PASZA - Evergreen Park Wind Direction Monthly Summary

HOURLY AVERAGE TABLE

Wind Direction (WD)

Station: Evergreen Park
Station Owner: PASZA

Monitoring Dates: **June 1, 2005** **to** **July 1, 2005**

Summary

Calm Time:	0 hrs	**0%** calms			Operational Time:		717 hrs	
Calibration Time:	0 hrs				AMD Operational Uptime:		99.6%	
Percentile	99	95	75	50	25	5	1	Average
	346.9	330.0	264.8	172.7	68.2	32.5	10.9	333 deg

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour	
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	WD Sector
1-Jun-05	256	273	305	277	277	270	273	267	316	305	294	313	240	212	260	46	69	164	174	216	253	319	270	257	265	W
2-Jun-05	252	224	269	273	282	272	278	276	281	269	295	278	278	280	259	89	157	247	228	242	218	141	228	278	259	WSW
3-Jun-05	192	230	232	46	115	197	196	214	212	264	250	352	293	290	6	168	195	266	257	314	345	258	16	224	248	WSW
4-Jun-05	213	206	257	236	197	173	218	253	242	248	244	279	296	316	5	43	19	41	265	261	187	252	306	248	267	W
5-Jun-05	183	187	212	152	140	92	156	82	68	76	90	102	106	99	75	74	85	76	97	82	60	57	66	73	92	E
6-Jun-05	77	40	31	72	230	208	246	50	42	17	33	68	80	66	76	59	72	65	72	72	156	171	129	92	70	ENE
7-Jun-05	101	125	62	188	54	64	65	89	113	105	107	109	115	116	167	32	337	39	151	105	112	95	197	86	101	E
8-Jun-05	188	156	104	51	68	344	197	218	181	156	170	124	107	111	146	158	137	132	73	55	67	62	80	355	125	SE
9-Jun-05	200	284	227	218	191	204	240	252	253	270	328	298	19	284	N	N	48	49	69	87	117	153	61	333	351	N
10-Jun-05	253	303	230	142	182	242	276	274	255	222	321	344	108	298	168	254	303	324	23	53	143	188	198	100	279	W
11-Jun-05	204	84	96	133	123	199	245	66	54	48	48	47	54	51	59	53	62	66	48	56	70	80	40	50	60	ENE
12-Jun-05	34	5	34	24	24	40	52	64	36	16	54	47	58	69	76	81	72	94	93	79	73	70	72	71	61	ENE
13-Jun-05	69	80	78	76	79	75	83	92	53	79	69	41	37	11	92	330	295	313	268	289	267	245	232	214	23	NNE
14-Jun-05	246	227	212	241	257	252	261	261	264	263	253	258	250	281	215	198	250	314	319	263	192	201	17	281	252	WSW
15-Jun-05	252	232	159	237	303	320	320	309	299	266	284	321	319	310	276	310	327	342	308	287	282	187	200	197	300	WNW
16-Jun-05	42	186	207	339	216	301	320	347	342	327	316	316	314	340	337	20	33	48	41	55	50	51	48	33	356	N
17-Jun-05	26	44	40	41	49	44	60	59	59	57	48	51	49	55	49	49	36	33	34	34	29	23	3	2	44	NE
18-Jun-05	345	358	260	222	236	247	349	53	62	56	49	41	32	25	36	55	22	44	35	62	157	175	197	205	41	NE
19-Jun-05	199	211	218	245	138	214	292	314	337	330	323	327	330	335	337	346	337	349	15	40	42	27	34	170	334	NNW
20-Jun-05	189	202	184	70	63	69	87	95	114	150	182	189	343	25	59	199	162	197	120	117	85	71	280	93	125	SE
21-Jun-05	168	81	129	31	233	199	141	185	186	191	244	273	268	260	273	276	295	321	317	333	326	340	90	281	275	W
22-Jun-05	302	283	218	240	298	308	313	299	296	309	312	317	299	309	309	309	302	290	272	272	244	264	271	287	294	WNW
23-Jun-05	296	295	286	281	272	263	266	271	271	274	305	315	320	237	247	247	256	255	226	250	244	95	96	97	270	W
24-Jun-05	92	101	61	185	79	50	128	149	255	310	271	256	270	317	56	223	256	314	346	36	2	253	29	351	293	WNW
25-Jun-05	358	336	302	320	19	27	40	50	51	50	44	53	50	48	50	68	44	46	63	66	65	46	61	57	44	NE
26-Jun-05	7	54	46	63	74	67	77	95	98	88	84	87	91	87	70	130	97	87	94	15	16	32	45	55	74	ENE
27-Jun-05	59	67	52	46	43	45	71	67	66	73	81	53	75	133	107	128	111	156	81	86	93	121	74	70	85	E
28-Jun-05	47	54	248	336	332	337	314	327	338	12	51	62	39	86	99	200	229	220	106	111	110	169	162	67	66	ENE
29-Jun-05	106	93	173	72	173	182	127	163	121	195	158	162	217	275	104	177	204	209	182	167	161	277	54	166	174	S
30-Jun-05	253	226	232	243	211	277	326	255	262	269	279	279	290	265	239	235	222	216	250	254	347	310	291	D	257	WSW
																									N	-
Hourly Avg	264	232	246	285	281	299	298	305	319	314	330	342	339	332	5	103	341	7	26	51	108	240	40	17		

PASZA - Evergreen Park Standard Deviation of Wind Direction Monthly Summary

Station: Evergreen Park
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	**0%** calms	Operational Time: 717 hrs
Calibration Time:	0 hrs		AMD Operational Uptime: 99.6%

Percentile	99	95	75	50	25	5	1
	65.7	57.0	36.8	22.7	15.6	9.7	6.9

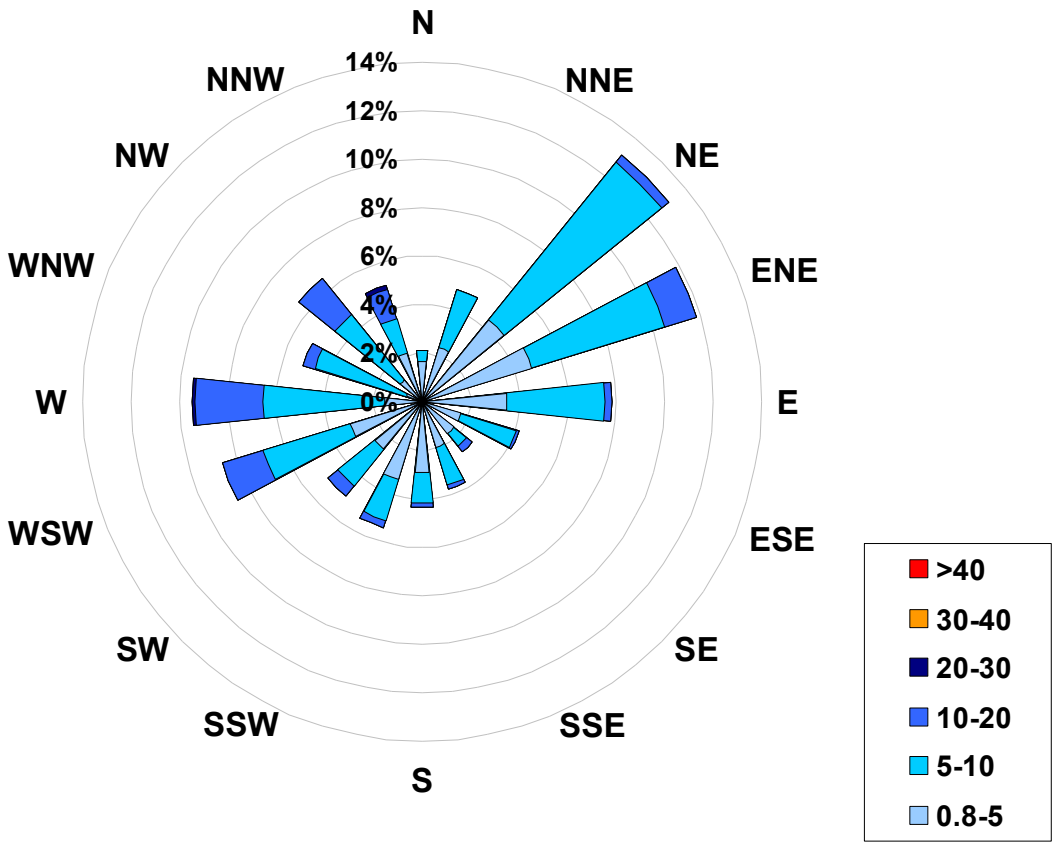
Status Flag Characters

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	Daily Maximum
1-Jun-05	10	16	16	17	16	12	18	17	37	51	59	68	57	33	44	44	47	33	16	10	12	27	22	17	68.3
2-Jun-05	17	9	11	10	17	13	13	12	16	22	29	30	23	35	28	32	21	15	15	17	26	25	59	41	59.3
3-Jun-05	34	20	16	31	52	22	21	14	29	38	64	72	44	33	34	16	9	32	15	41	26	51	43	23	72.0
4-Jun-05	42	41	65	15	35	41	12	40	24	38	38	53	38	28	33	27	19	23	38	16	27	14	21	41	65.3
5-Jun-05	11	16	15	27	44	47	33	46	26	23	20	34	36	22	29	22	23	16	16	15	8	6	7	10	47.2
6-Jun-05	50	29	30	45	65	15	20	17	28	25	21	23	25	20	29	22	17	17	17	24	25	13	18	22	65.3
7-Jun-05	28	18	40	39	37	52	23	27	33	25	28	24	35	29	28	39	27	26	52	20	14	10	45	56	56.4
8-Jun-05	12	21	21	38	33	66	36	24	64	58	45	38	27	38	30	34	25	28	36	21	12	33	60	59	65.8
9-Jun-05	54	34	54	47	39	9	11	13	8	40	62	66	50	58	N	N	22	15	16	16	14	29	47	43	66.2
10-Jun-05	25	50	48	57	52	54	16	16	14	30	16	36	27	58	47	15	17	18	21	22	18	12	40	63	62.8
11-Jun-05	41	21	22	39	30	44	21	44	18	16	16	19	16	17	15	19	18	19	19	20	25	19	21	22	44.4
12-Jun-05	14	20	19	18	12	13	26	25	58	57	48	76	26	48	20	38	32	18	19	19	18	7	6	6	75.7
13-Jun-05	7	10	13	13	15	16	22	29	32	55	38	23	25	49	30	44	43	22	13	15	17	15	9	15	54.6
14-Jun-05	24	13	7	18	8	17	9	13	14	11	17	16	24	27	30	31	35	30	18	44	12	43	60	34	60.5
15-Jun-05	58	51	56	12	12	8	10	13	18	18	24	24	26	21	17	23	12	14	20	22	36	43	4	23	58.2
16-Jun-05	37	30	37	22	31	18	23	24	45	28	40	45	45	24	39	44	37	26	21	20	20	14	12	13	45.4
17-Jun-05	9	6	10	13	14	14	16	20	21	19	14	17	18	19	18	25	18	14	12	14	8	8	9	9	24.8
18-Jun-05	39	43	26	25	38	32	53	36	51	38	51	44	47	47	64	46	51	49	36	28	16	31	15	14	63.6
19-Jun-05	16	31	45	35	49	24	25	20	16	9	14	14	12	16	14	21	14	20	33	32	38	54	41	49	53.7
20-Jun-05	25	14	29	21	13	14	18	23	19	28	44	59	47	44	52	39	56	30	42	41	12	13	21	60	59.6
21-Jun-05	51	70	43	47	29	22	41	16	27	23	33	18	16	15	15	21	21	14	22	32	22	17	42	16	70.3
22-Jun-05	27	16	19	8	12	12	15	14	10	14	13	14	15	15	14	13	13	12	13	18	11	10	12	11	26.6
23-Jun-05	12	9	13	12	11	10	8	13	11	18	21	17	19	12	10	10	7	10	14	14	11	14	21	62	62.3
24-Jun-05	57	37	63	46	64	58	58	49	29	31	40	13	38	56	71	16	20	21	27	51	43	35	44	37	70.8
25-Jun-05	21	16	22	14	18	17	22	20	22	25	20	21	23	25	25	23	32	18	23	19	23	21	12	28	31.9
26-Jun-05	21	6	5	12	11	11	24	22	18	24	22	18	19	21	26	36	14	14	50	19	17	10	10	10	49.9
27-Jun-05	12	15	11	9	12	11	19	23	26	26	24	28	26	21	34	27	26	22	28	24	16	14	11	21	34.2
28-Jun-05	14	23	28	35	47	33	17	13	36	34	30	37	44	49	58	33	43	36	39	14	17	25	51	39	58.4
29-Jun-05	42	34	40	42	71	63	57	49	35	35	44	58	41	45	51	20	46	21	12	19	18	45	52	25	70.7
30-Jun-05	31	14	16	10	11	38	25	31	13	16	19	23	28	29	15	12	14	17	18	18	40	36	26	N	39.9
																									0.0
Hourly Max	58	70	65	57	71	66	58	49	64	58	64	76	57	58	71	46	56	49	52	51	43	54	60	63	

1-hr Average Wind Rose (in km/hr) Located at the Evergreen Park Site for June 2005



Calms:	0%

Frequency Distribution of Wind in km/hr			
Range			Frequency (hrs)
0.8	<	5	281
5	to	10	348
10	to	20	86
20	to	30	2
30	to	40	0
	>	40	0
Total Non-Zero Values			717

PASZA - Smoky Heights Station

Monthly Summary Tables, Graphs, and Roses

PASZA - Smoky Heights Sulphur Dioxide Monthly Summary

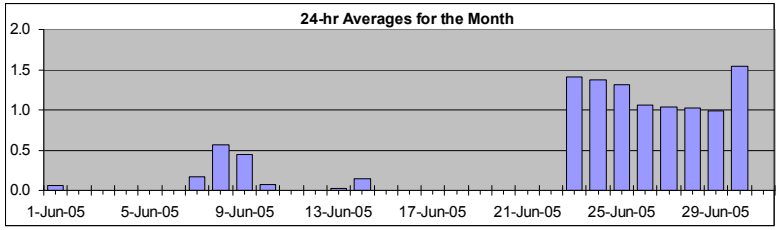
Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Sulphur Dioxide (SO_2)

Monitoring Dates: June 1, 2005 to July 1, 2005

Objective Limit: **Alberta Environment:** 1-hr 172 ppb | 24-hr 57 ppb



Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	3.2	ppb	23-Jun	13:00 14:00
Maximum 24-hr Average:	1.5	ppb	30-Jun	

AIC Time:	10 hrs	Operational Time:	615 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	87.2%

Percentile	99	95	75	50	25	5	1	Average
	2.4	1.6	1.0	0.0	0.0	0.0	0.0	0.4 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 / 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-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
2-Jun-05	0	0	0	1	0	0	0	0	0	1	3	3	2	1	1	N	N	N	N	N	N	N	N	N	N	3.1
3-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
4-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
5-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
6-Jun-05	N	N	N	N	N	N	N	N	N	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	0.5
7-Jun-05	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0.2	0.7
8-Jun-05	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	2	1	0	0	0	2	1	0	0	0.6	2.2
9-Jun-05	0	0	0	0	0	0	0	0	0	1	0	0	2	2	0	1	1	1	1	0	0	0	0	0	0.5	2.2
10-Jun-05	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
11-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
12-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
13-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.0	0.7
14-Jun-05	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	D	0	0	0.1	1.4
15-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
16-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
17-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
18-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
19-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
20-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
21-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
22-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
23-Jun-05	0	0	0	1	1	0	0	0	C	C	C	A	A	3	3	2	3	2	2	2	2	2	2	2	1.4	3.2
24-Jun-05	2	2	2	1	1	A	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	2	1	1.4	1.8
25-Jun-05	2	1	1	1	A	2	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1.3	1.6
26-Jun-05	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.4
27-Jun-05	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4
28-Jun-05	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.2
29-Jun-05	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.0	1.2
30-Jun-05	1	1	1	1	1	1	1	3	2	2	2	2	2	2	1	1	2	2	2	2	2	2	A	2	1.5	3.0
																									N	0.0
Hourly Avg	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.5	0.5	0.6	0.5	0.6	0.5	0.5	0.5	0.4	0.5	0.5	0.3	0.4		
Hourly Max	1.8	1.5	1.7	1.5	1.5	1.6	1.4	3.0	2.1	1.5	3.1	2.6	1.8	3.2	2.8	2.4	2.5	2.3	2.3	2.0	2.2	2.1	1.9	1.9		

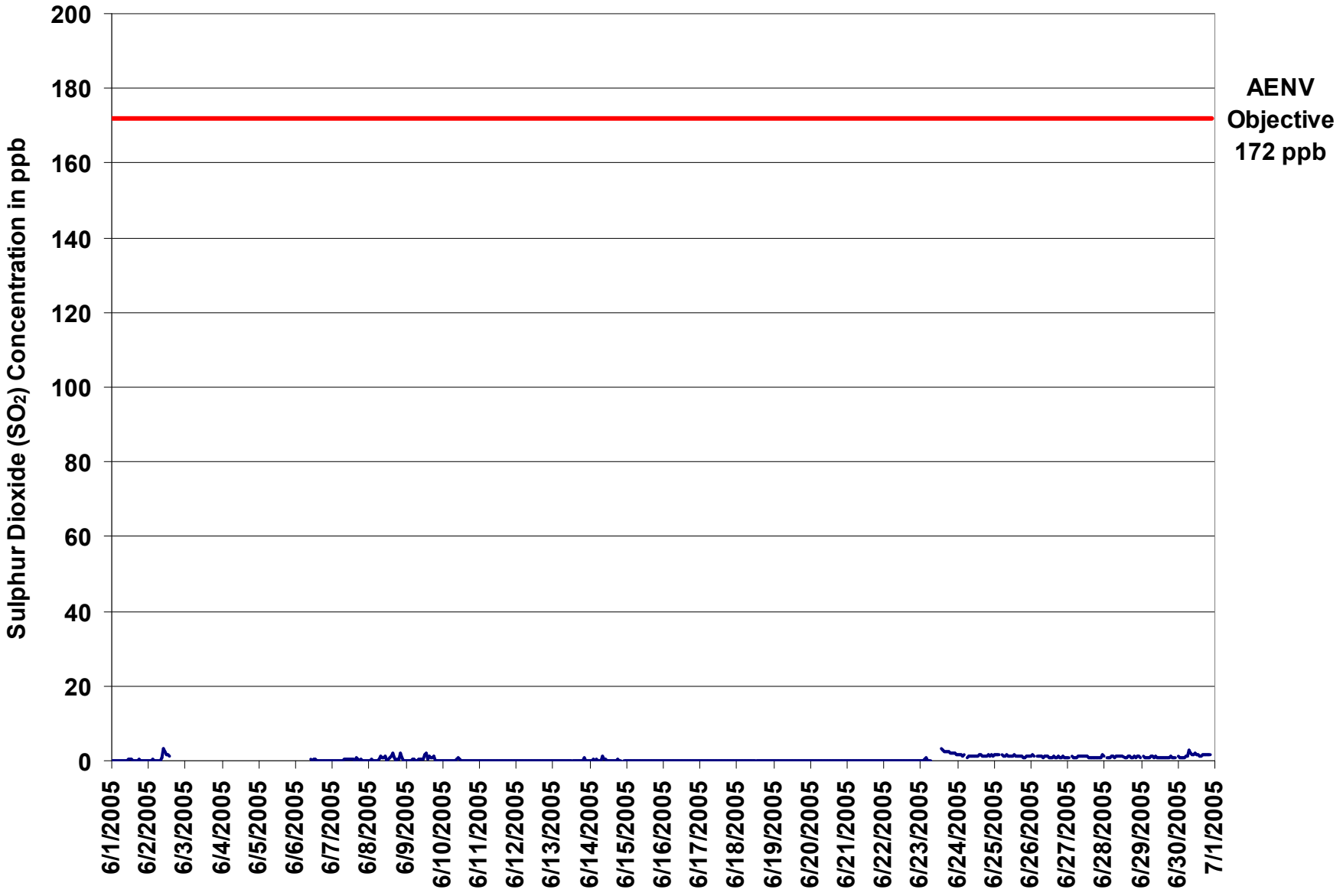


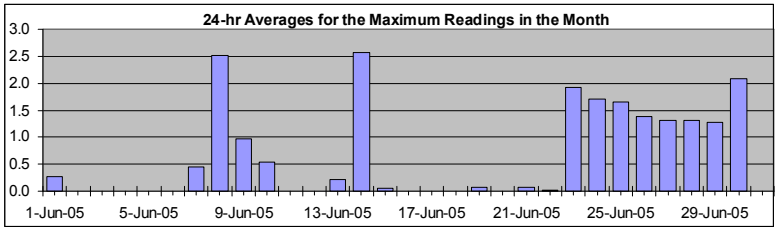
Figure 27. PASZA - Smoky Heights Sulphur Dioxide 1-hr Average Monthly Trend

Station: Smoky Heights
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Sulphur Dioxide (SO_2)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Value:	38.3	ppb	14-Jun	20:00 21:00
Maximum 24-hr Value:	2.6	ppb	14-Jun	

AIC Time:	10 hrs	Operational Time:	615 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	87.2%

Percentile	99	95	75	50	25	5	1	Average
	4.3	2.4	1.3	0.0	0.0	0.0	0.0	0.8 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Jun-05	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	1	0	0	0	0	0	0.3	1.0
2-Jun-05	0	0	0	3	0	0	0	0	1	2	4	3	3	2	2	N	N	N	N	N	N	N	N	N	N	4.3
3-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
4-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
5-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
6-Jun-05	N	N	N	N	N	N	N	N	N	N	1	1	1	1	1	1	0	0	0	0	0	0	0	0	N	1.2
7-Jun-05	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	1	0	1	0	0	0	0	0.5	1.3
8-Jun-05	0	0	2	1	0	0	0	1	2	1	2	2	1	1	9	12	2	0	1	13	7	2	1	1	2.5	13.3
9-Jun-05	0	0	1	0	1	1	0	0	1	1	1	1	3	3	2	2	2	2	2	0	0	0	0	0	1.0	3.1
10-Jun-05	0	0	0	0	1	0	0	0	0	1	1	1	1	0	0	0	7	0	0	0	0	0	0	0	0.5	6.8
11-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
12-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
13-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	1	0	0.2	2.5
14-Jun-05	0	1	2	0	4	4	0	2	2	2	1	1	0	0	0	0	1	1	1	0	38	D	0	0	2.6	38.3
15-Jun-05	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0
16-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
17-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
18-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
19-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.1	0.9
20-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
21-Jun-05	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0
22-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
23-Jun-05	0	0	0	3	4	0	0	1	C	C	C	A	A	3	3	3	3	3	3	2	2	3	2	2	1.9	3.6
24-Jun-05	2	2	2	2	2	A	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1.7	2.2
25-Jun-05	2	2	2	2	A	2	2	1	2	2	2	1	2	2	2	2	2	2	2	2	1	2	1	1	1.6	2.2
26-Jun-05	1	2	1	A	1	1	1	1	1	2	2	2	1	1	1	1	1	1	2	1	1	1	1	1	1.4	1.7
27-Jun-05	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.3	2.1
28-Jun-05	1	A	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.3	1.7
29-Jun-05	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.3	1.4
30-Jun-05	1	1	1	1	1	1	2	4	3	2	2	4	3	2	2	2	2	2	2	2	2	2	A	2	2.1	4.1
																									N	0.0
Hourly Avg	0.4	0.4	0.5	0.6	0.7	0.6	0.4	0.7	0.8	0.8	0.9	0.9	0.8	0.9	1.1	1.1	1.0	0.6	0.7	1.2	2.3	0.6	0.5	0.5		
Hourly Max	2.2	2.0	2.2	3.5	3.7	3.8	1.7	4.1	3.2	2.4	4.3	3.6	3.0	3.5	9.1	11.8	6.8	2.6	2.7	13.3	38.3	2.7	2.1	2.3		

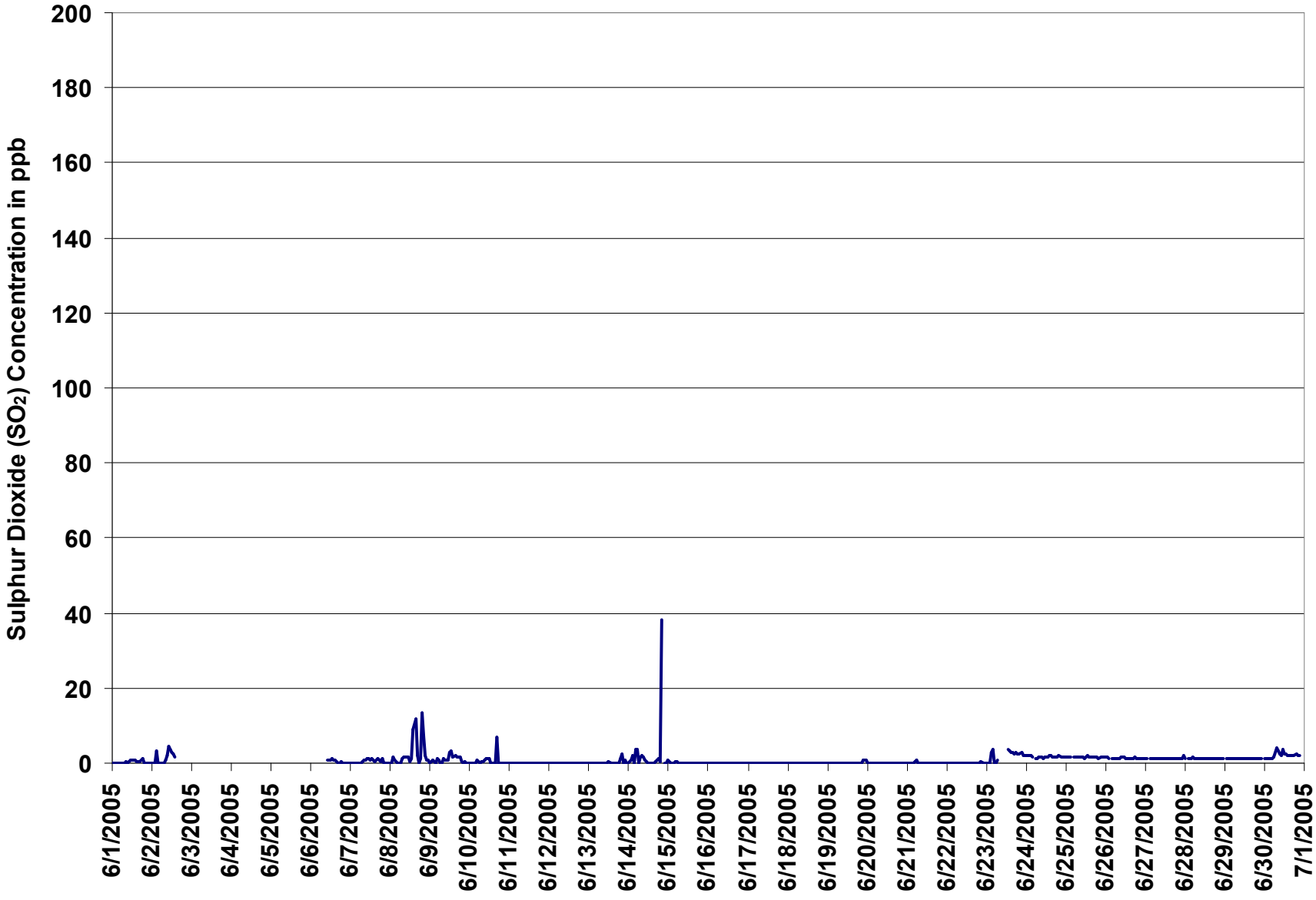
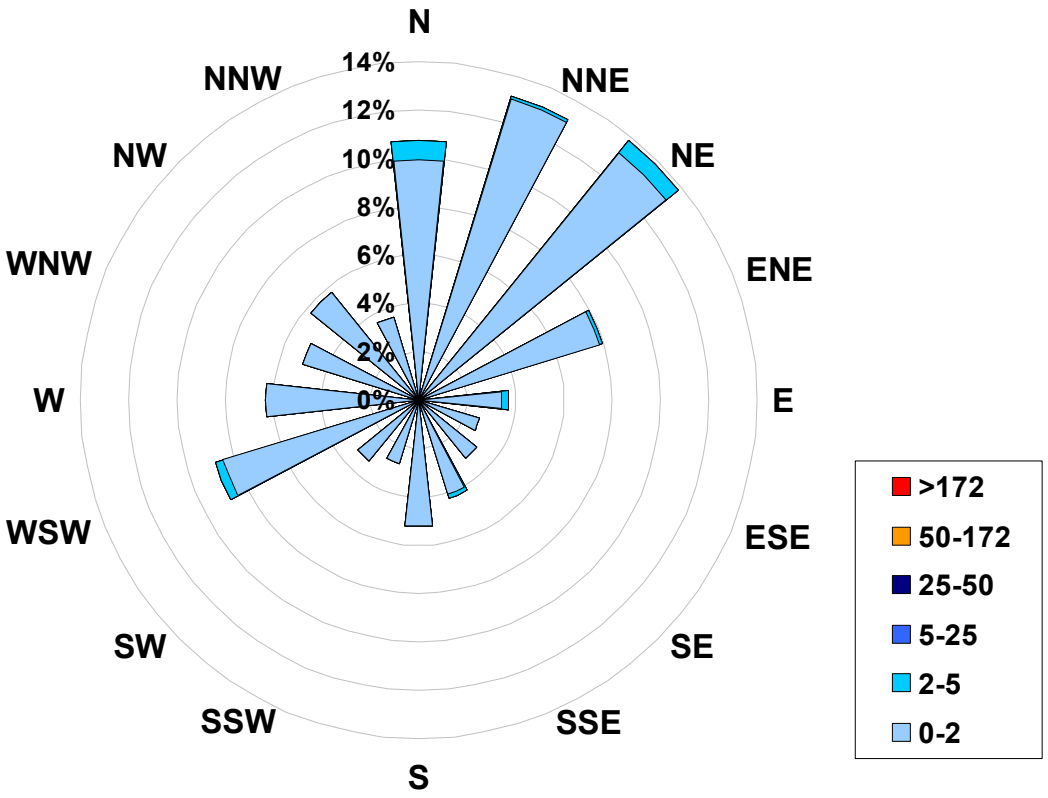


Figure 28. PASZA - Smoky Heights Sulphur Dioxide 1-hr Maximum Value Monthly Trend

1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Smoky Heights Site for June 2005



Calms:	0%

Frequency Distribution of SO_2 in ppb			
Range			Frequency (hrs)
0.0	<	2	599
2	to	5	16
5	to	25	0
25	to	50	0
50	to	172	0
	>	172	0
Total Non-Zero Values			615

PASZA - Smoky Heights Total Reduced Sulphur Monthly Summary

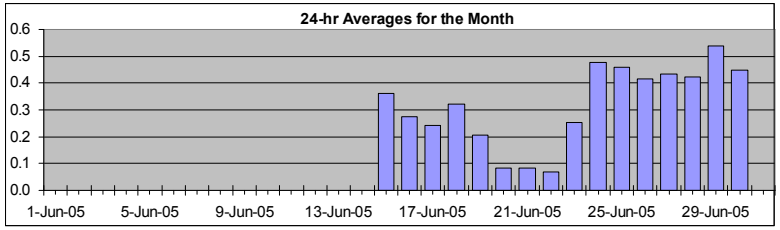
Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Total Reduced Sulphur (TRS)

Monitoring Dates: June 1, 2005 to July 1, 2005

Objective Limit: **Alberta Environment:** 1-hr na ppb | 24-hr na ppb



Summary

Maximum 1-hr Average:	1.3	ppb	29-Jun	5:00 6:00
Maximum 24-hr Value:	0.5	ppb	29-Jun	

AIC Time:	10 hrs	Operational Time:	371 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	53.3%

Percentile	99	95	75	50	25	5	1	Average
	0.8	0.5	0.4	0.4	0.2	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**

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-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
2-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
3-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
4-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
5-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
6-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
7-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
8-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
9-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
10-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
12-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
13-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
14-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
15-Jun-05	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	0.6
16-Jun-05	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.3	0.6
17-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
18-Jun-05	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	1.0
19-Jun-05	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
20-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
21-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
22-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
23-Jun-05	0	0	0	0	0	0	0	0	C	C	C	A	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
24-Jun-05	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	0.5	0.6
25-Jun-05	0	1	0	1	A	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.6
26-Jun-05	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.5
27-Jun-05	0	0	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.6
28-Jun-05	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4	0.6
29-Jun-05	A	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.5	1.3
30-Jun-05	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.4	0.6
																									N	0.0
Hourly Avg	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
Hourly Max	0.7	0.8	0.8	0.7	1.1	1.3	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0		

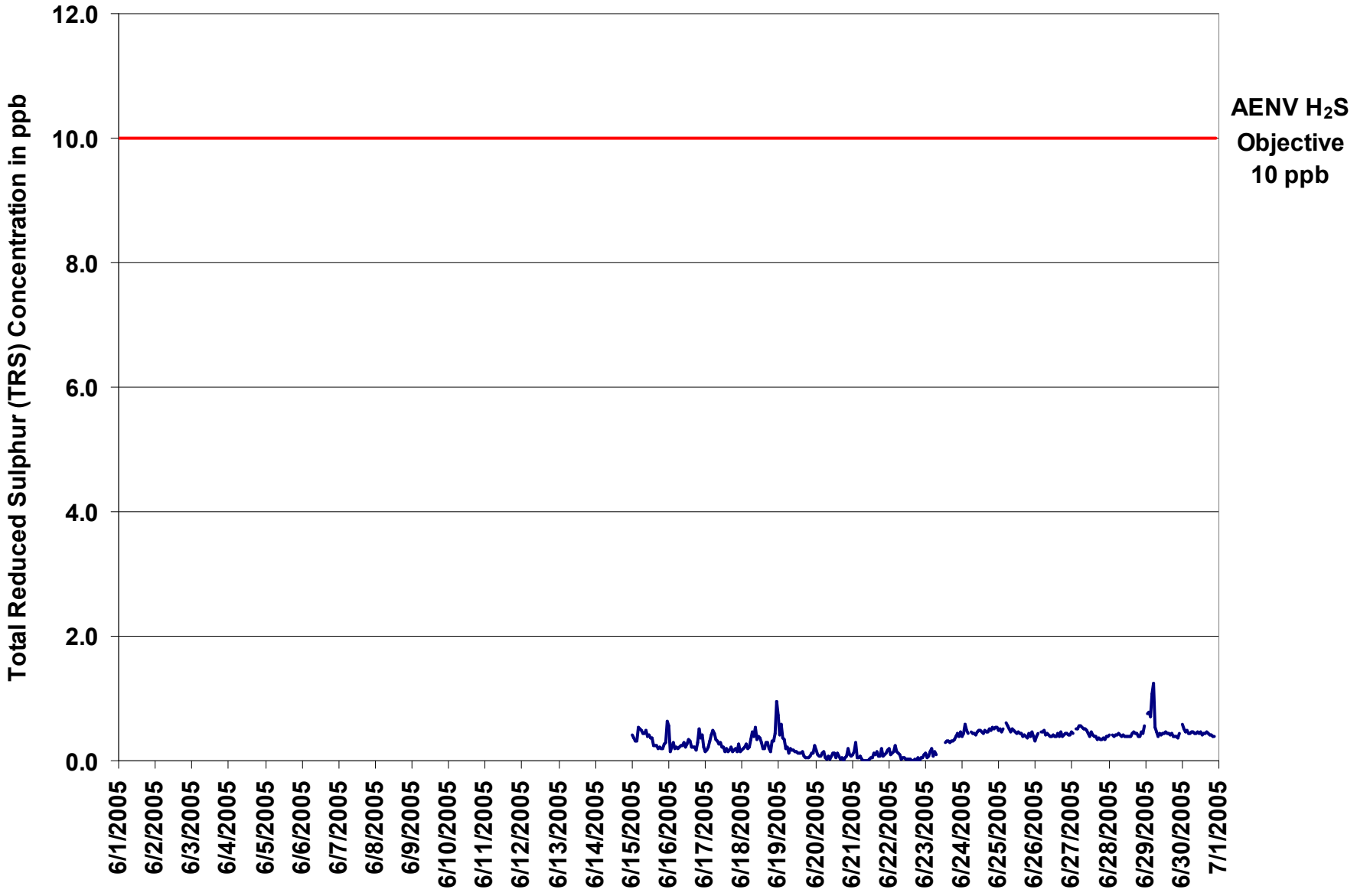


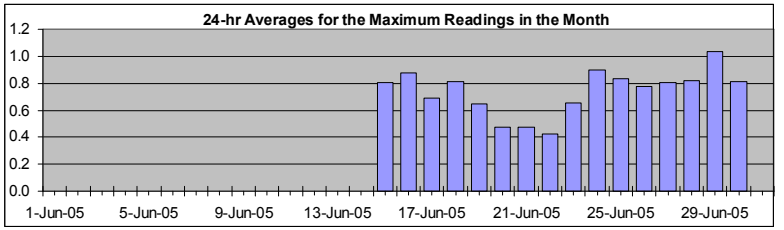
Figure 29. PASZA - Smoky Heights Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Smoky Heights
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Total Reduced Sulphur (TRS)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Value:	4.4	ppb	16-Jun	20:00 21:00
Maximum 24-hr Value:	1.0	ppb	29-Jun	

AIC Time:	10 hrs	Operational Time:	371 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	53.3%

Percentile	99	95	75	50	25	5	1	Average
	2.0	1.2	0.8	0.7	0.5	0.4	0.3	0.7 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

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-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
2-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
3-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
4-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
5-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
6-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
7-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
8-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
9-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
10-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
12-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
13-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
14-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
15-Jun-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.4
16-Jun-05	2	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	4	1	1	1	0.9	4.4
17-Jun-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0.7	1.3
18-Jun-05	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	0.8	2.2
19-Jun-05	2	1	1	1	1	1	1	0	1	1	0	0	0	0	1	0	0	1	1	0	0	0	1	1	0.6	1.8
20-Jun-05	0	1	0	1	0	1	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0.5	0.7
21-Jun-05	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	0	1	0.5	0.8
22-Jun-05	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
23-Jun-05	0	0	0	1	1	0	0	1	C	C	C	A	A	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
24-Jun-05	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5
25-Jun-05	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1
26-Jun-05	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
27-Jun-05	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
28-Jun-05	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	0.8	1.7
29-Jun-05	A	2	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.0	2.5
30-Jun-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.8	1.1
																									N	0.0
Hourly Avg	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
Hourly Max	1.8	2.5	1.4	1.3	2.0	2.0	1.3	1.0	1.0	2.2	1.0	1.0	0.9	0.9	0.9	1.0	0.9	0.8	1.0	0.9	4.4	1.2	1.3	1.7		

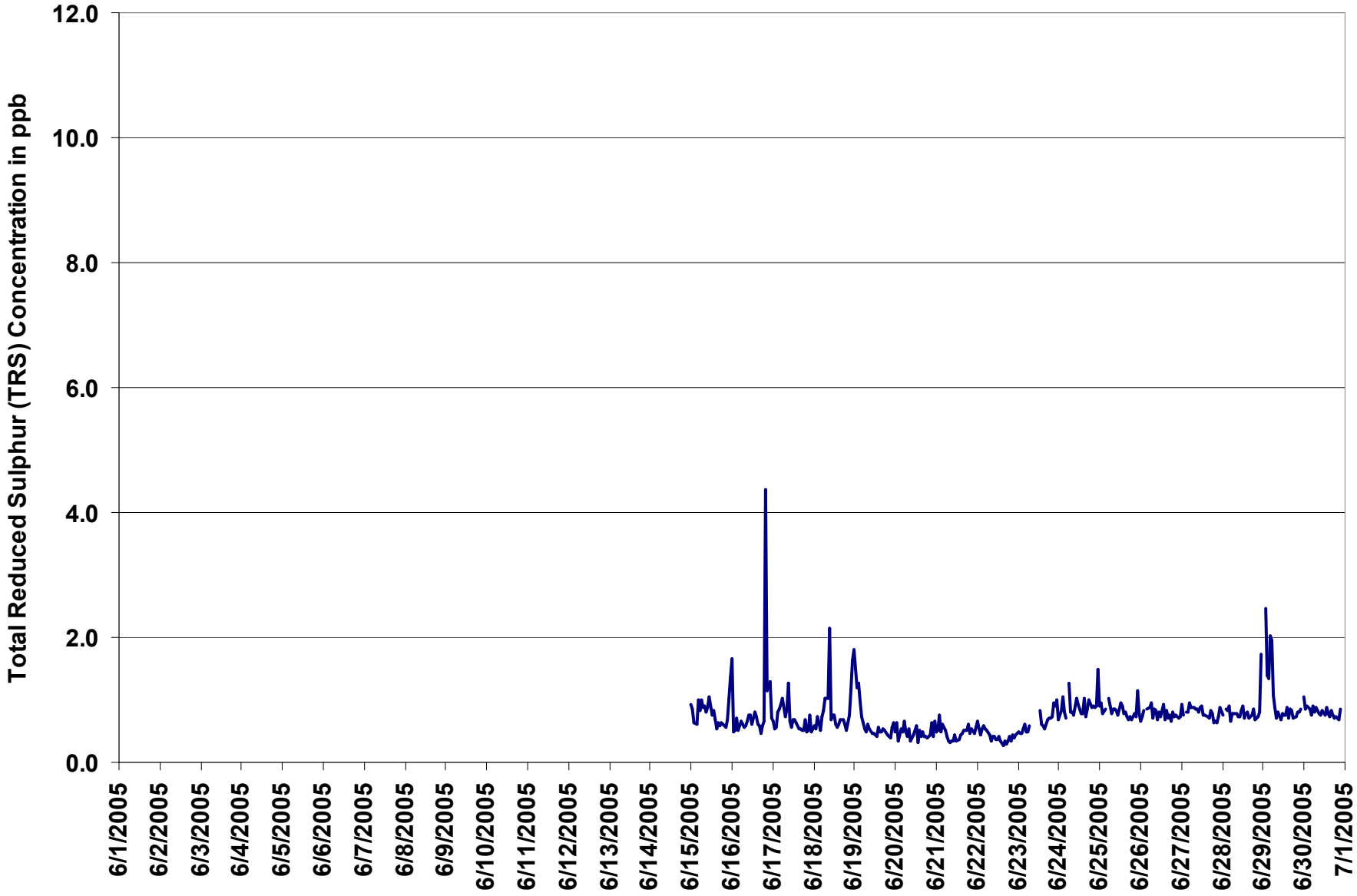
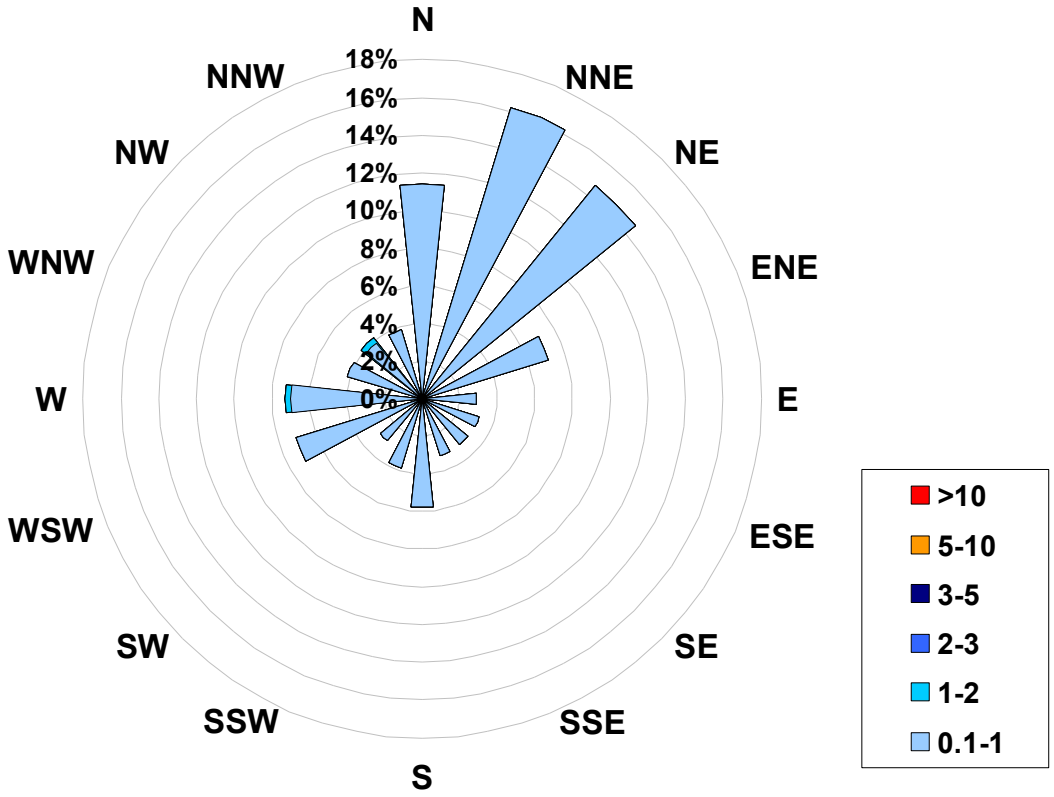


Figure 30. PASZA - Smoky Heights Total Reduced Sulphur 1-hr Maximum Value Monthly Trend

1-hr Average Concentration Rose for Total Reduced Sulphur (in ppb)
Located at the Smoky Heights Site for June 2005



Calms:	0%

Frequency Distribution of TRS in ppb			
Range			Frequency (hrs)
0.1	<	1	369
1	to	2	2
2	to	3	0
3	to	5	0
5	to	10	0
	>	10	0
Total Non-Zero Values			371

PASZA - Smoky Heights Particulate Matter (less than 2.5 microns) Monthly Summary

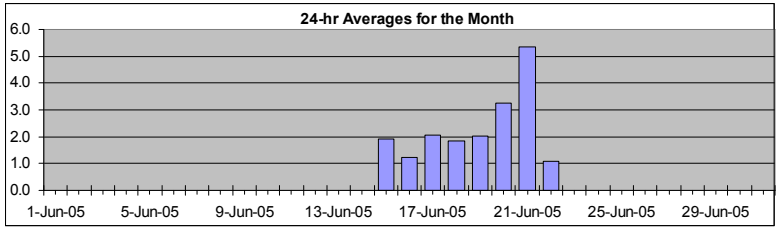
Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Particulate Matter ($PM_{2.5}$)

Monitoring Dates: June 1, 2005 to July 1, 2005

Draft Objective Limit: **Alberta Environment:** 1-hr - µg/m³ | 24-hr 30 µg/m³



Summary

Number of 24-hr Exceedances (draft):	0			
Maximum 1-hr Average:	32.4	µg/m³	21-Jun	19:00 20:00
Maximum 24-hr Value:	5.4	µg/m³	21-Jun	

AIC Time:	0 hrs	Operational Time:	190 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	26.9%

Percentile	99	95	75	50	25	5	1	Average	Geomean
	13.3	7.1	3.3	1.0	0.0	0.0	0.0	2.3 µg/m³	2.1 µg/m³

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-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
2-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
3-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
4-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
5-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
6-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
7-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
8-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
9-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
10-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
12-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
13-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
14-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
15-Jun-05	D	D	0	1	3	5	0	1	1	0	3	0	4	0	1	2	1	9	0	1	3	2	4	0	1.9	9.0
16-Jun-05	1	D	1	0	4	3	3	1	2	0	0	0	1	0	0	0	0	0	1	2	5	2	1	1	1.2	5.4
17-Jun-05	2	3	3	2	0	0	0	0	0	2	1	1	0	1	3	0	0	0	1	1	1	2	25	3	2.1	24.7
18-Jun-05	1	1	0	1	0	1	3	3	5	3	1	0	4	0	0	1	0	0	1	1	5	1	2	9	1.8	8.8
19-Jun-05	1	0	0	0	4	9	6	4	8	4	2	0	1	0	0	0	0	0	0	0	4	2	1	1	2.0	9.5
20-Jun-05	0	1	1	0	1	0	0	0	3	1	3	5	7	6	5	5	6	3	1	8	6	5	4	7	3.3	8.2
21-Jun-05	3	5	4	8	6	7	7	2	4	1	0	D	D	D	2	5	2	1	12	32	3	0	4	5	5.4	32.4
22-Jun-05	0	D	6	3	3	2	6	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	D	1.1	6.5
23-Jun-05	0	D	0	0	0	0	2	C	C	C	C	N	N	N	N	N	N	N	N	N	N	N	N	N	N	1.7
24-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
25-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
26-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
27-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
28-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
29-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
30-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
																									N	0.0
Hourly Avg	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Hourly Max	2.9	4.9	6.5	8.2	6.0	9.5	6.6	4.3	7.7	4.3	3.3	5.1	6.5	5.5	5.3	5.4	6.3	9.0	11.9	32.4	5.8	5.0	24.7	8.8		

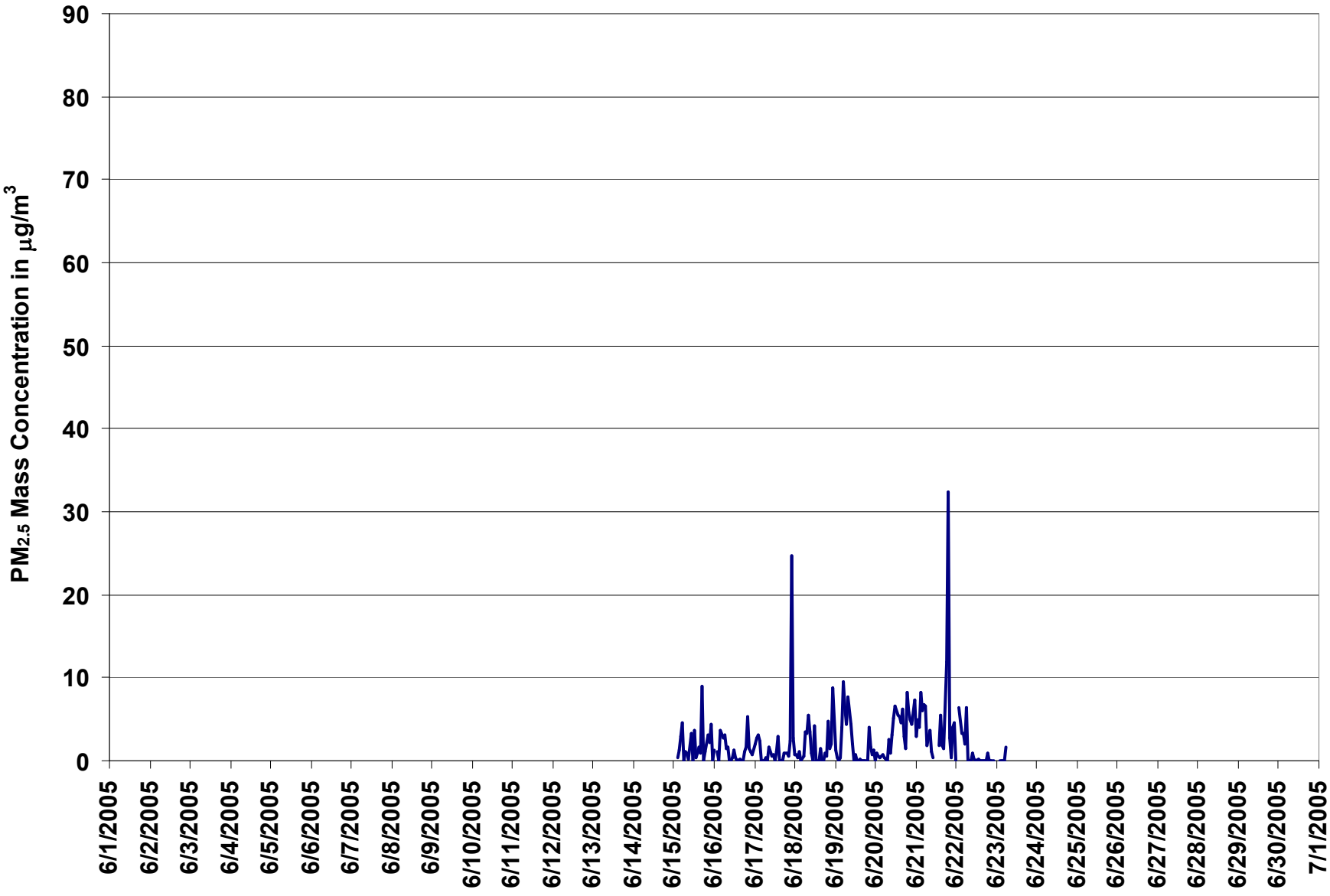


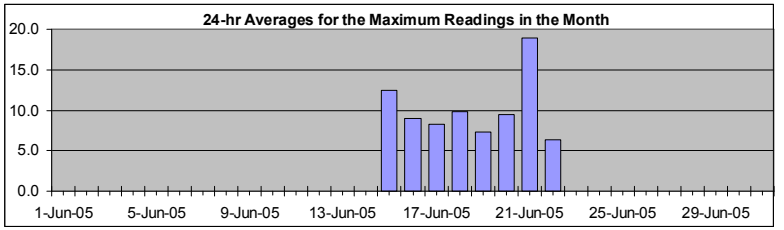
Figure 31. PASZA - Smoky Heights Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Smoky Heights
Station Owner: PASZA

HOURLY MAXIMUM TABLE

Particulate Matter ($PM_{2.5}$)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Average:	72.9	µg/m³	21-Jun	19:00 20:00
Maximum 24-hr Value:	19.0	µg/m³	21-Jun	

AIC Time:	0 hrs	Operational Time:	190 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	26.9%

Percentile	99	95	75	50	25	5	1	Average	Geomean
	47.4	21.4	11.9	8.1	5.0	1.8	0.7	9.8 µg/m˘	9.7 µg/m˘

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-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
2-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
3-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
4-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
5-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
6-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
7-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
8-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
9-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
10-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
12-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
13-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
14-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
15-Jun-05	D	D	7	6	12	10	8	10	9	11	16	23	14	13	12	11	9	25	7	11	11	8	34	5	12.4	33.9
16-Jun-05	8	D	8	1	7	11	7	7	8	9	9	7	15	11	7	15	11	9	7	13	13	8	8	9	9.0	15.5
17-Jun-05	5	7	6	5	3	1	2	5	3	6	5	5	6	8	9	7	10	5	8	5	4	4	69	10	8.2	68.9
18-Jun-05	6	5	3	8	1	5	7	8	10	9	13	12	14	9	15	11	13	6	10	9	26	12	12	12	9.8	26.2
19-Jun-05	5	4	3	9	8	16	22	13	15	8	5	3	7	3	4	6	4	4	2	3	11	5	9	6	7.4	22.5
20-Jun-05	3	4	2	2	2	2	2	4	5	6	8	12	13	15	19	21	21	13	10	16	13	15	7	14	9.5	21.1
21-Jun-05	9	13	12	17	9	11	19	8	11	15	13	D	D	D	15	22	12	21	45	73	41	9	8	15	19.0	72.9
22-Jun-05	12	D	16	9	13	8	12	7	5	6	9	7	4	5	3	5	6	2	3	5	1	1	1	D	6.3	16.0
23-Jun-05	2	D	3	2	0	1	8	C	C	C	C	N	N	N	N	N	N	N	N	N	N	N	N	N	N	7.9
24-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
25-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
26-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
27-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
28-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
29-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
30-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
																									N	0.0
Hourly Avg	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
Hourly Max	12.0	12.9	16.0	17.1	13.0	16.4	22.5	13.3	14.7	15.4	15.7	22.9	15.4	15.1	19.4	21.6	20.7	25.0	44.7	72.9	40.9	15.3	68.9	15.0		

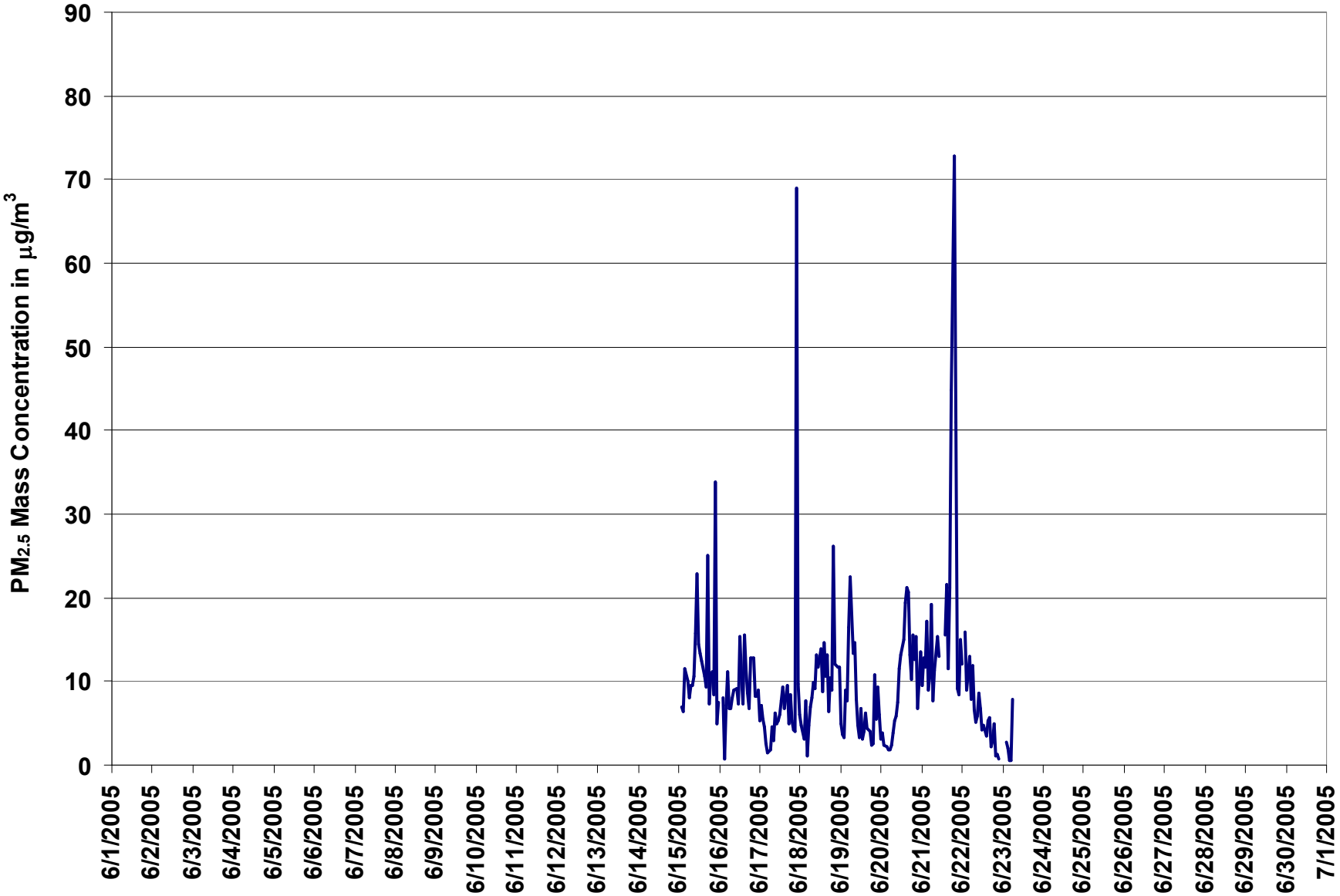
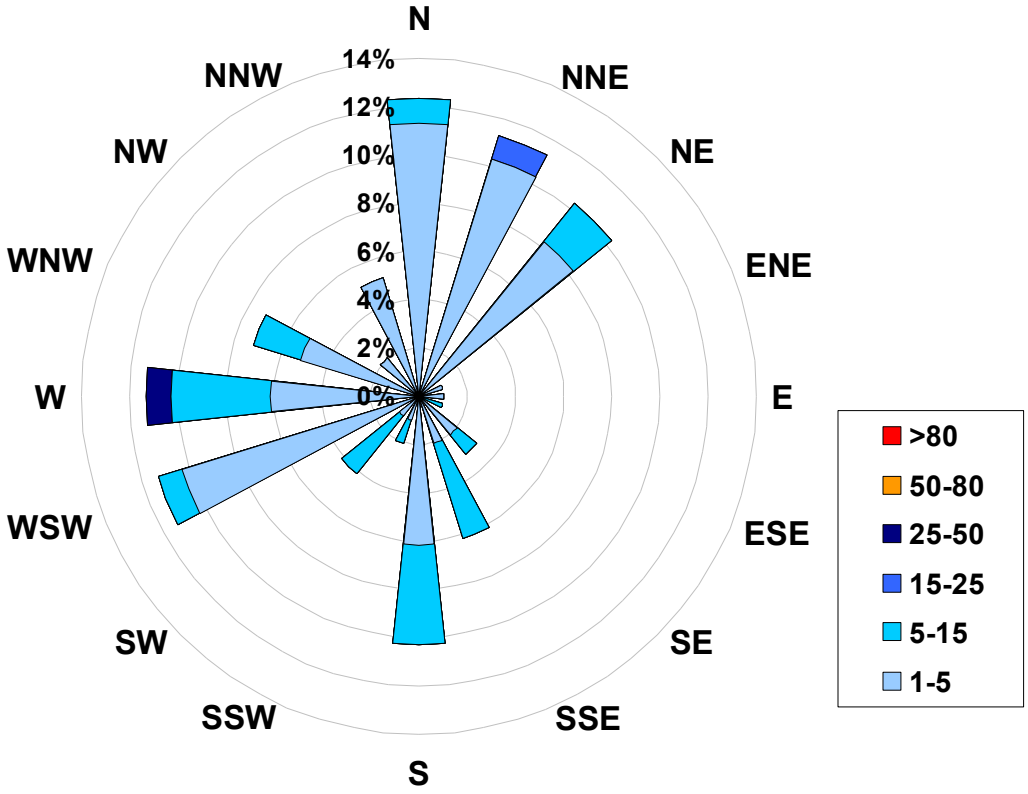


Figure 32. PASZA - Smoky Heights Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly Trend

1-hr Average Concentration Rose for Particulate Matter (less than 2.5 microns) (in micrograms per cubic meter) Located at the Smoky Heights Site for June 2005



Calms:	0%

Frequency Distribution of $PM_{2.5}$ in $\mu g/m^3$			
Range			Frequency (hrs)
1.0	<	5	164
5	to	15	24
15	to	25	1
25	to	50	1
50	to	80	0
	>	80	0
Total Non-Zero Values			190

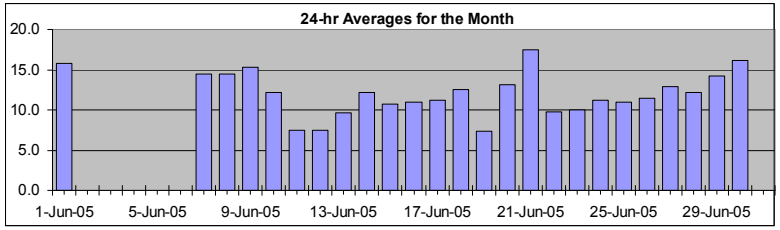
PASZA - Smoky Heights Temperature Monthly Summary

Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Ambient Temperature (T)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Average:	24.1	°C	21-Jun	14:00 15:00
Maximum 24-hr Value:	17.4	°C	21-Jun	

AIC Time:	0 hrs	Operational Time:	629 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	87.4%

Percentile	99	95	75	50	25	5	1	Average
	22.6	20.6	15.9	11.4	8.6	5.9	3.7	12.3 °C

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-Jun-05	11	10	11	11	11	11	13	14	15	15	16	17	18	19	19	20	20	21	21	20	18	17	17	16	15.8	21.1
2-Jun-05	15	13	11	11	11	11	12	15	17	18	20	21	22	23	21	N	N	N	N	N	N	N	N	N	N	22.6
3-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
4-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
5-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
6-Jun-05	N	N	N	N	N	N	N	N	N	N	17	19	20	21	21	21	20	20	19	18	17	16	15	13	N	21.1
7-Jun-05	11	10	8	7	7	9	11	13	16	17	18	18	18	19	19	20	19	19	19	18	16	13	11	10	14.4	19.8
8-Jun-05	8	8	8	7	7	7	10	12	14	17	18	19	18	20	21	21	20	20	20	20	19	14	11	9	14.5	20.7
9-Jun-05	10	11	10	11	8	9	10	12	15	18	20	22	22	20	21	22	20	19	19	18	17	14	10	9	15.3	22.1
10-Jun-05	9	9	10	9	9	10	12	12	13	15	17	15	15	15	15	17	14	12	11	11	11	11	10	10	12.2	17.4
11-Jun-05	10	9	9	9	9	8	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	6	7.5	9.7
12-Jun-05	6	6	6	5	5	5	6	7	8	9	8	8	8	9	9	10	10	9	9	9	9	7	7	6	7.5	10.2
13-Jun-05	5	6	6	6	6	6	7	8	9	10	11	13	13	14	13	13	13	13	12	12	10	9	9	8	9.7	13.9
14-Jun-05	9	8	8	7	7	7	7	9	11	13	14	14	15	16	16	17	17	17	16	16	15	13	10	10	12.1	17.0
15-Jun-05	9	9	9	8	8	8	8	10	11	12	11	12	14	14	15	15	15	10	14	14	12	9	7	6	10.8	15.1
16-Jun-05	7	6	4	4	4	7	9	9	10	12	12	13	14	15	15	16	16	16	16	15	14	10	9	9	10.9	16.4
17-Jun-05	10	10	8	8	7	8	8	8	9	10	11	12	12	13	14	16	15	15	15	15	14	12	10	10	11.2	15.7
18-Jun-05	9	8	7	7	7	8	9	10	11	13	15	15	17	17	18	18	19	19	18	18	17	11	7	6	12.5	18.6
19-Jun-05	5	4	2	2	2	4	7	9	11	10	10	9	9	9	9	8	8	9	9	10	8	8	7	7	7.3	10.6
20-Jun-05	7	7	7	7	7	7	7	8	9	11	12	13	15	17	18	19	20	20	20	20	19	16	14	14	13.1	20.1
21-Jun-05	12	11	10	11	11	12	13	14	17	19	21	23	23	24	24	24	23	23	21	20	19	17	14	12	17.4	24.1
22-Jun-05	13	14	12	12	12	11	10	10	9	10	10	10	10	9	9	9	9	8	8	8	8	8	7	7	9.7	13.6
23-Jun-05	7	7	6	5	5	6	6	8	10	11	12	13	13	15	13	15	14	13	13	13	12	10	7	6	10.1	14.8
24-Jun-05	5	5	3	4	3	5	7	9	11	14	16	16	17	17	17	15	16	16	13	14	13	12	11	11	11.2	17.5
25-Jun-05	10	10	10	10	9	9	9	10	9	9	10	10	11	11	13	14	14	13	13	14	13	11	11	8	10.9	14.0
26-Jun-05	8	7	6	6	7	8	8	10	11	13	14	14	16	16	16	16	15	15	13	13	12	10	10	9	11.4	16.4
27-Jun-05	9	9	9	7	7	8	10	11	12	15	16	16	17	17	17	16	16	17	16	15	15	12	11	10	12.8	17.1
28-Jun-05	8	8	7	7	7	8	9	9	10	11	13	14	15	17	17	17	18	19	17	17	17	12	9	7	12.2	18.7
29-Jun-05	6	5	6	5	4	6	10	12	14	16	18	19	19	20	21	21	21	21	20	19	17	15	14	14	14.2	21.3
30-Jun-05	12	11	11	11	11	11	12	15	17	18	17	19	21	21	22	22	21	21	18	18	16	15	13	13	16.1	22.2
																									N	0.0
Hourly Avg	8.9	8.5	7.8	7.5	7.4	7.9	9.2	10.5	11.8	13.2	14.2	14.8	15.4	16.1	16.3	16.4	16.2	15.8	15.4	15.1	14.0	11.8	10.3	9.5		
Hourly Max	15.2	13.6	12.4	11.8	11.6	11.7	12.9	15.2	16.9	19.4	21.2	22.6	23.3	24.0	24.1	23.7	23.5	22.6	21.5	20.0	18.9	17.1	16.7	15.6		

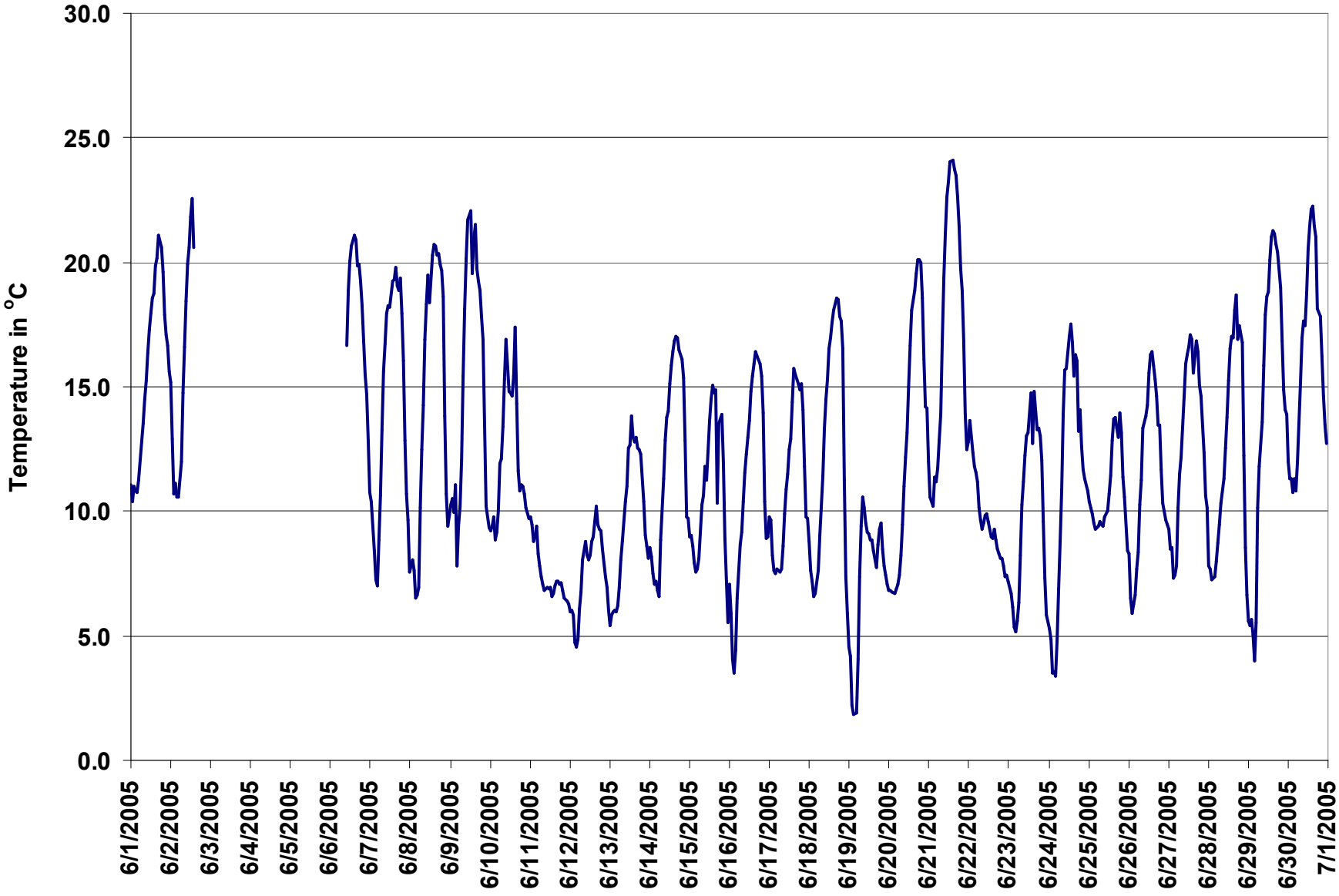


Figure 33. PASZA - Smoky Heights Temperature 1-hr Average Monthly Trend

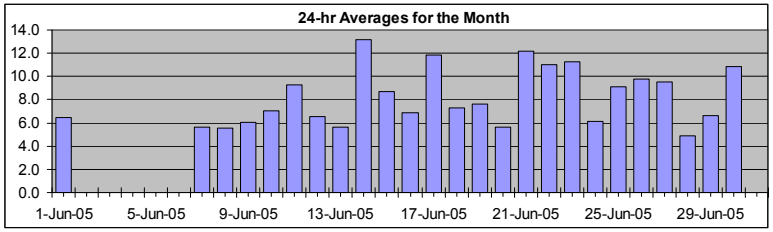
PASZA - Smoky Heights Scalar Wind Speed Monthly Summary

Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSs)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Average:	30.2	km/hr	21-Jun	13:00 14:00
Maximum 24-hr Value:	13.1	km/hr	14-Jun	

Calm Time:	0 hrs	**0%** calms	Operational Time: 629 hrs
Calibration Time:	0 hrs		AMD Operational Uptime: 87.4%

Percentile	99	95	75	50	25	5	1	AverageS
	22.6	16.8	10.3	7.5	5.0	2.6	1.5	8.2 km/hr

Status Flag Characters

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

Day — **Mountain Standard Time**

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-hr Scalar Average	Daily Max
1-Jun-05	7	3	10	9	6	6	7	7	4	7	6	8	10	8	8	5	4	4	4	5	4	7	8	8	6.5	10.5
2-Jun-05	6	5	5	12	5	4	2	3	5	6	7	7	8	7	11	N	N	N	N	N	N	N	N	N	N	12.0
3-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
4-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
5-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
6-Jun-05	N	N	N	N	N	N	N	N	N	N	8	8	12	15	20	18	20	18	17	18	10	7	8	3	N	20.2
7-Jun-05	3	4	1	2	2	3	4	5	4	6	6	11	11	10	9	9	9	5	10	6	5	3	4	3	5.7	11.2
8-Jun-05	1	2	3	5	5	4	6	4	5	4	5	6	7	6	9	10	11	15	9	5	2	3	2	3	5.6	14.5
9-Jun-05	4	3	5	5	4	5	5	6	3	3	4	6	7	10	6	12	16	16	9	4	4	1	2	3	6.1	16.4
10-Jun-05	5	5	5	5	6	6	10	8	3	6	8	14	14	13	11	6	15	9	6	3	4	4	3	2	7.0	15.4
11-Jun-05	1	3	3	2	6	12	10	12	12	13	14	14	16	15	16	13	11	12	9	9	7	4	4	5	9.3	16.3
12-Jun-05	5	6	6	7	7	7	5	7	7	6	8	7	5	7	7	9	9	9	7	6	6	6	6	3	6.6	9.2
13-Jun-05	4	4	5	5	5	4	4	4	4	3	4	4	4	6	6	4	5	5	5	9	12	10	10	10	5.7	12.0
14-Jun-05	11	10	13	14	11	9	11	11	17	20	16	17	18	19	19	17	12	11	11	10	6	11	14	9	13.1	19.9
15-Jun-05	9	9	5	5	4	5	1	3	9	8	10	9	12	15	18	17	18	21	7	7	6	3	4	4	8.7	21.2
16-Jun-05	8	3	4	2	6	6	9	10	8	7	7	9	10	8	9	8	9	9	9	7	5	4	3	4	6.9	10.4
17-Jun-05	4	9	13	15	16	11	13	14	15	15	15	13	14	12	13	15	13	13	12	9	8	7	7	9	11.8	15.6
18-Jun-05	8	8	8	8	9	10	10	9	9	9	8	8	8	8	9	8	5	5	6	4	1	3	4	7	7.3	10.1
19-Jun-05	5	5	5	4	5	5	3	8	16	16	13	11	11	12	11	8	9	6	4	3	5	4	6	4	7.6	15.8
20-Jun-05	6	2	2	3	2	2	5	4	5	10	11	8	6	5	5	6	5	6	8	8	7	4	3	9	5.6	11.4
21-Jun-05	3	4	5	5	7	9	8	9	8	8	9	16	27	30	29	26	24	18	5	5	7	17	5	8	12.1	30.2
22-Jun-05	9	8	4	8	13	10	7	7	7	9	13	12	12	13	13	15	22	22	15	12	10	8	6	11	11.0	22.3
23-Jun-05	11	12	11	12	11	15	10	11	16	17	23	23	13	10	13	12	10	9	8	7	5	4	3	3	11.2	23.4
24-Jun-05	2	1	4	5	5	6	7	6	5	5	7	10	5	6	6	10	9	7	11	3	7	7	7	7	6.2	10.8
25-Jun-05	7	6	8	8	8	9	11	12	11	10	11	12	10	10	9	9	9	8	9	10	11	7	7	7	9.1	11.8
26-Jun-05	8	6	5	6	5	7	7	6	9	9	15	15	16	15	15	14	13	12	6	10	8	8	9	9	9.7	16.5
27-Jun-05	9	7	8	6	5	5	10	9	9	12	15	15	14	13	10	14	12	10	9	6	8	8	5	7	9.5	15.4
28-Jun-05	4	5	5	5	4	5	7	8	6	7	6	7	7	6	7	6	6	5	3	3	2	1	3	2	4.9	7.9
29-Jun-05	2	2	3	4	3	4	4	7	7	9	10	7	6	5	7	9	9	9	9	12	10	6	9	6	6.6	12.4
30-Jun-05	4	6	5	4	8	5	6	10	11	16	13	12	10	12	19	18	22	19	15	11	6	8	8	12	10.9	21.8
																									N	0.0
1-hr Average	5.7	5.4	5.9	6.4	6.4	6.6	6.9	7.6	8.4	9.2	10.1	10.7	10.9	11.0	11.7	11.4	11.9	10.9	8.5	7.4	6.4	6.0	5.8	6.0		
Hourly Max	10.8	12.3	13.3	14.8	15.6	14.8	13.0	13.8	17.0	19.9	23.4	22.7	27.2	30.2	28.9	25.8	24.4	21.9	16.9	17.6	12.0	16.8	13.7	11.9		

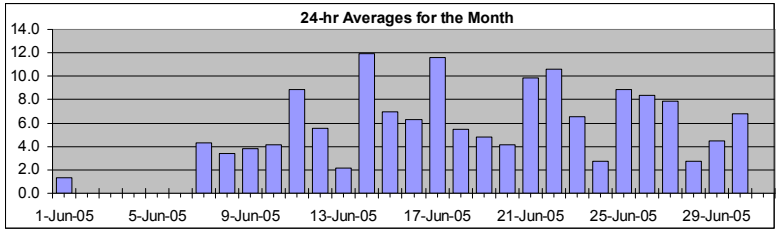
PASZA - Smoky Heights Vector Wind Speed Monthly Summary

Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSv)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Average:	29.7	km/hr	21-Jun	13:00 14:00
Maximum 24-hr Value:	12.0	km/hr	14-Jun	

Calm Time:	5 hrs	**1%** calms	Operational Time:	624 hrs
Calibration Time:	0 hrs		AMD Operational Uptime:	87.4%

Percentile	99	95	75	50	25	5	1	AverageV
	22.3	16.2	10.1	7.0	4.4	2.0	1.1	2.2 km/hr

Status Flag Characters

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

Day — **Mountain Standard Time**

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-hr Vector Average	Daily Max
1-Jun-05	7	3	10	9	6	6	7	6	3	6	5	8	9	7	8	4	4	3	2	5	4	7	8	7	1.3	10.2
2-Jun-05	5	3	4	12	5	4	1	1	5	5	6	6	7	5	5	N	N	N	N	N	N	N	N	N	N	12.0
3-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
4-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
5-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
6-Jun-05	N	N	N	N	N	N	N	N	N	N	8	8	10	14	20	17	19	17	17	17	10	7	7	2	N	19.7
7-Jun-05	2	4	1	2	2	3	3	4	3	5	5	11	10	9	8	8	6	5	9	6	5	3	4	3	4.3	10.5
8-Jun-05	calm	2	3	5	5	4	5	3	5	4	3	5	6	3	5	9	10	14	9	4	2	3	2	3	3.4	13.9
9-Jun-05	4	2	5	5	4	5	4	4	3	2	2	5	3	8	5	8	14	16	8	4	4	1	2	3	3.8	15.5
10-Jun-05	5	5	3	4	6	6	10	7	2	5	7	13	14	13	11	4	15	8	5	1	3	3	2	1	4.1	15.2
11-Jun-05	1	3	3	2	6	12	10	11	12	12	14	14	16	15	16	13	11	12	9	9	7	3	4	5	8.9	16.2
12-Jun-05	5	6	6	7	7	7	4	7	7	6	8	7	4	6	7	8	9	8	7	6	6	6	6	3	5.6	8.7
13-Jun-05	4	4	5	5	4	4	4	3	3	2	3	3	3	5	5	4	5	5	5	9	12	10	10	9	2.2	11.9
14-Jun-05	11	10	13	14	11	9	11	11	17	20	16	16	17	18	19	16	9	10	10	5	6	10	13	7	12.0	19.6
15-Jun-05	8	9	2	3	4	5	calm	calm	8	8	9	7	11	14	18	17	16	20	7	7	6	3	3	4	6.9	20.4
16-Jun-05	6	2	4	1	6	6	9	10	8	6	6	8	9	7	8	4	9	9	8	7	5	4	3	4	6.3	10.2
17-Jun-05	4	9	13	15	15	11	13	14	15	15	14	13	13	11	13	15	13	12	12	9	8	7	6	9	11.6	15.4
18-Jun-05	8	8	8	8	9	10	10	9	9	8	7	8	7	8	8	6	4	5	6	4	1	3	4	7	5.5	9.9
19-Jun-05	4	5	4	4	5	1	2	7	15	16	13	11	11	11	11	8	9	6	4	3	4	3	5	2	4.8	15.5
20-Jun-05	6	1	2	1	2	2	5	4	5	9	11	7	5	4	3	4	5	6	7	8	7	4	3	9	4.1	11.0
21-Jun-05	3	4	5	4	6	7	5	8	8	8	9	13	27	30	29	26	24	18	4	4	7	17	3	7	9.9	29.7
22-Jun-05	9	7	3	8	12	10	6	6	7	9	12	11	12	13	13	14	22	22	15	11	10	8	6	11	10.6	22.1
23-Jun-05	11	12	10	12	11	15	10	11	16	17	23	22	12	10	12	11	9	9	8	6	5	4	3	1	6.5	23.0
24-Jun-05	calm	calm	4	5	5	6	7	6	5	5	7	9	4	4	6	7	8	3	11	1	7	7	7	7	2.7	10.7
25-Jun-05	7	6	8	8	8	9	10	11	11	10	11	12	9	10	9	8	9	8	9	10	11	7	7	7	8.9	11.6
26-Jun-05	8	6	5	6	5	7	7	6	8	8	14	14	16	14	14	14	13	12	1	10	8	8	9	9	8.4	16.0
27-Jun-05	9	7	8	6	5	5	10	9	9	11	15	15	13	12	9	14	12	9	8	6	7	8	5	6	7.8	15.1
28-Jun-05	3	5	5	5	4	5	7	8	6	6	5	6	6	5	6	6	4	3	2	3	2	1	3	2	2.8	7.9
29-Jun-05	2	2	3	3	2	4	4	6	7	8	9	7	5	4	5	9	9	8	9	12	9	6	9	5	4.4	12.0
30-Jun-05	2	3	4	4	8	5	6	10	11	16	12	12	9	10	18	18	21	19	13	11	6	5	7	12	6.8	21.4
																									N	0.0
1-hr Vector	2.9	2.7	2.3	2.6	2.6	2.7	2.1	3.2	2.7	2.6	2.8	3.0	3.2	2.9	2.4	2.2	2.9	1.7	1.8	2.2	2.2	1.7	1.4	2.1		
Hourly Max	10.7	12.3	13.2	14.8	15.4	14.8	13.0	13.7	16.8	19.6	23.0	22.4	26.9	29.7	28.6	25.5	24.1	21.8	16.6	17.3	11.9	16.6	12.8	11.8		

PASZA - Smoky Heights Wind Direction Monthly Summary

HOURLY AVERAGE TABLE

Wind Direction (WD)

Station: Smoky Heights
Station Owner: PASZA

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

Calm Time:	0 hrs	0% calms					Operational Time:		629 hrs
Calibration Time:	0 hrs						AMD Operational Uptime:		87.4%
Percentile	99	95	75	50	25	5	1	Average	
	355.9	338.8	256.6	133.1	37.8	7.2	2.4	360 deg	

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour	
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	WD Sector
1-Jun-05	28	3	359	354	355	8	9	46	102	134	141	147	167	173	191	214	211	213	325	313	328	340	339	349	11	N
2-Jun-05	3	129	239	269	263	263	151	14	8	17	4	3	18	24	163	N	N	N	N	N	N	N	N	N	N	-
3-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	-
4-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	-
5-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	-
6-Jun-05	N	N	N	N	N	N	N	N	N	N	34	40	79	64	70	71	74	71	86	88	79	78	105	134	N	-
7-Jun-05	126	158	189	290	345	28	49	40	76	103	62	61	68	81	106	98	171	54	78	74	51	18	32	19	75	ENE
8-Jun-05	228	242	225	251	249	217	198	176	151	159	189	96	73	111	126	165	144	151	168	133	25	5	325	292	160	SSE
9-Jun-05	304	275	0	350	282	282	174	49	90	95	103	32	23	2	10	332	51	26	62	85	95	322	301	332	21	NNE
10-Jun-05	16	11	328	352	19	21	33	45	282	309	318	306	299	294	291	357	49	229	254	222	220	273	17	92	329	NNW
11-Jun-05	201	260	28	24	36	51	36	37	39	33	37	29	36	38	39	41	35	32	44	44	53	42	8	16	37	NE
12-Jun-05	10	9	5	354	356	352	7	351	351	23	69	66	47	72	77	63	58	79	64	53	56	66	64	47	40	NE
13-Jun-05	24	30	40	45	40	48	56	58	160	36	31	17	58	42	16	320	5	321	284	261	257	267	263	250	335	NNW
14-Jun-05	244	243	251	255	262	239	238	244	252	253	257	246	240	242	250	242	248	257	236	344	35	210	249	284	250	WSW
15-Jun-05	286	309	178	129	20	26	210	74	294	264	272	300	319	313	311	311	317	275	285	293	277	267	355	261	299	WNW
16-Jun-05	340	359	7	12	12	1	359	2	7	6	315	313	336	347	349	7	45	4	28	39	37	24	9	11	2	N
17-Jun-05	17	24	28	34	52	35	31	34	45	40	37	36	35	36	33	28	44	34	33	29	6	358	11	6	32	NNE
18-Jun-05	5	7	8	8	7	5	17	35	43	34	53	52	55	71	52	53	77	92	104	88	133	237	278	282	34	NE
19-Jun-05	244	261	229	211	209	174	129	0	0	340	338	340	328	326	339	346	314	320	303	241	243	235	230	244	314	NW
20-Jun-05	195	58	151	82	63	51	43	62	81	125	147	169	148	170	172	245	197	173	176	162	146	120	151	156	150	SSE
21-Jun-05	242	250	248	229	232	253	216	191	189	175	178	237	255	259	264	273	284	287	302	262	348	313	191	275	258	WSW
22-Jun-05	288	329	270	258	288	302	276	284	307	304	305	307	318	311	322	315	300	306	311	280	280	286	283	311	301	WNW
23-Jun-05	295	291	274	253	257	266	257	268	298	302	318	317	340	6	5	36	34	50	75	98	84	44	46	147	317	NW
24-Jun-05	193	280	255	238	233	218	205	187	164	171	198	181	159	177	232	218	127	187	255	334	20	18	7	25	204	SSW
25-Jun-05	1	345	356	4	10	15	24	32	28	29	27	24	28	35	21	43	28	28	32	33	33	27	37	21	24	NNE
26-Jun-05	18	25	21	27	36	48	46	41	40	54	79	82	93	95	62	66	62	43	258	48	30	22	18	11	53	NE
27-Jun-05	17	33	45	21	12	23	41	41	41	43	58	63	57	76	103	135	122	116	119	94	77	95	78	70	69	ENE
28-Jun-05	25	18	21	3	3	11	6	7	15	40	30	66	78	117	135	106	108	179	128	187	195	321	12	306	50	NE
29-Jun-05	341	268	274	273	304	279	203	161	183	144	153	168	186	295	76	136	141	168	179	180	187	199	234	228	182	S
30-Jun-05	246	266	160	205	184	206	227	254	247	266	261	245	256	260	243	244	250	252	49	71	70	112	175	214	240	WSW
																									N	-
Hourly Avg	328	331	333	320	332	341	11	20	5	6	11	5	12	4	4	3	34	348	48	56	35	350	334	316		

PASZA - Smoky Heights Standard Deviation of Wind Direction Monthly Summary

Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	**0%** calms	Operational Time: 629 hrs
Calibration Time:	0 hrs		AMD Operational Uptime: 87.4%

Percentile	99	95	75	50	25	5	1
	60.3	43.9	21.4	12.4	7.9	5.0	3.8

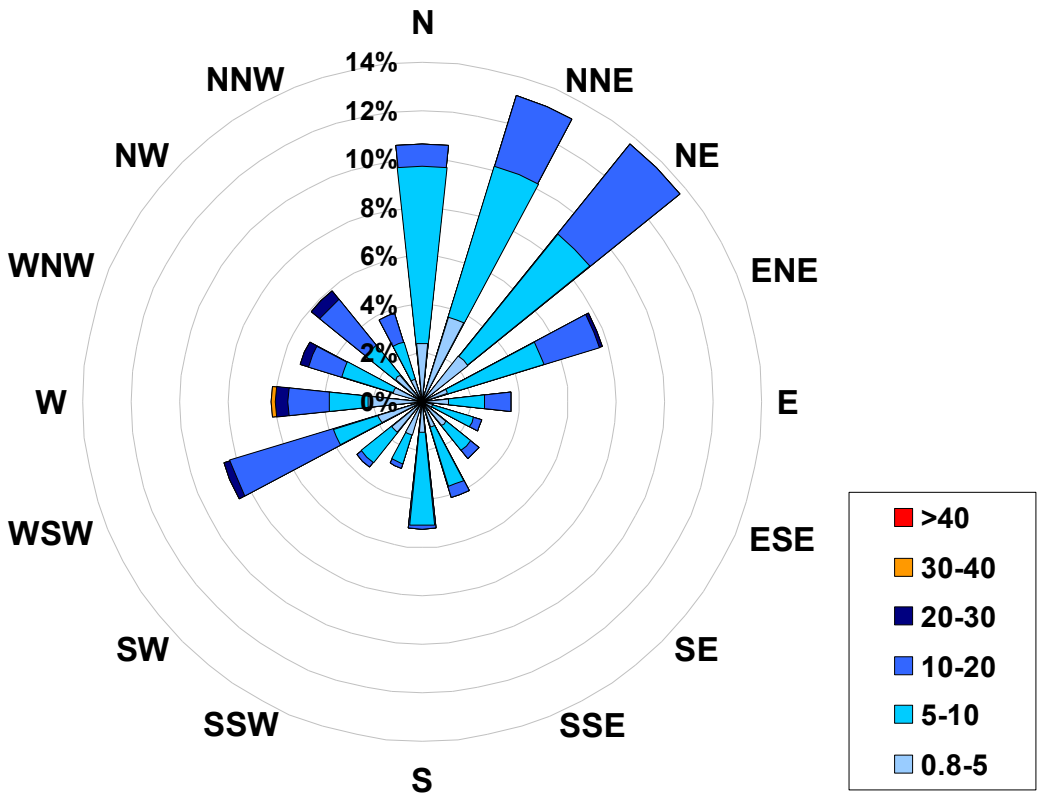
Status Flag Characters

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**

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	Daily Maximum
1-Jun-05	13	31	14	11	13	10	10	15	37	24	39	25	21	22	18	34	36	32	52	11	6	4	7	22	52.0
2-Jun-05	15	27	17	3	27	12	27	30	20	29	35	30	26	56	52	N	N	N	N	N	N	N	N	N	55.5
3-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
4-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
5-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
6-Jun-05	N	N	N	N	N	N	N	N	N	N	20	21	21	20	12	12	9	10	10	9	5	7	9	46	45.7
7-Jun-05	16	23	57	19	23	12	12	14	33	30	42	14	20	24	21	19	25	21	12	7	5	10	5	11	57.2
8-Jun-05	35	16	11	9	10	13	8	31	14	30	60	40	25	72	22	22	12	19	12	22	14	7	20	8	72.3
9-Jun-05	20	33	21	9	9	8	17	23	46	53	54	44	58	17	19	19	15	9	12	11	14	31	23	21	58.5
10-Jun-05	16	8	22	12	7	8	6	36	64	27	28	11	8	7	8	39	9	35	20	22	15	44	30	29	64.2
11-Jun-05	32	12	30	30	20	8	7	6	8	6	7	6	6	5	6	8	7	6	6	7	6	13	9	7	31.7
12-Jun-05	8	8	5	6	5	6	10	9	14	17	11	10	32	18	18	17	15	11	8	8	7	5	6	8	31.7
13-Jun-05	6	4	4	7	8	11	11	28	26	40	39	55	48	43	21	31	18	11	11	9	5	10	5	15	55.1
14-Jun-05	4	6	4	3	6	9	5	8	8	10	17	9	12	11	13	12	20	20	11	31	10	48	14	43	48.2
15-Jun-05	6	8	47	38	30	8	40	42	15	15	18	29	17	14	11	11	18	14	11	10	5	10	18	25	46.7
16-Jun-05	15	39	9	43	12	21	7	10	15	35	33	32	21	26	27	38	22	18	19	15	7	7	5	7	42.9
17-Jun-05	9	6	5	5	7	7	5	7	7	9	9	9	11	11	8	13	13	10	9	7	5	5	6	5	12.9
18-Jun-05	5	5	4	6	4	4	6	9	14	16	21	28	38	26	28	36	60	37	14	15	47	13	10	3	60.3
19-Jun-05	22	12	14	29	15	54	33	34	7	9	12	9	12	11	12	13	9	14	18	24	11	27	21	61	60.5
20-Jun-05	16	23	27	33	16	15	8	13	12	13	13	29	59	57	63	49	45	32	11	11	5	8	14	6	63.2
21-Jun-05	41	16	11	17	11	11	16	10	15	16	18	25	7	9	7	8	9	9	26	20	12	9	30	45	45.2
22-Jun-05	14	18	25	18	6	4	12	14	10	8	7	11	9	11	10	9	5	5	7	8	6	5	5	6	25.4
23-Jun-05	6	6	6	3	3	4	5	8	8	10	10	9	16	18	9	18	15	12	13	12	9	12	36	40	39.9
24-Jun-05	23	34	25	11	8	9	7	12	22	30	28	15	59	61	29	18	19	30	5	37	5	7	7	9	60.9
25-Jun-05	6	6	6	8	6	7	5	7	8	9	8	7	13	14	15	19	16	11	7	10	6	6	8	5	18.6
26-Jun-05	5	5	7	7	6	9	12	11	9	15	12	11	12	15	13	11	8	11	37	8	6	4	4	4	37.1
27-Jun-05	5	7	13	18	13	8	7	8	10	13	11	11	14	20	18	11	14	21	21	8	8	6	6	11	21.3
28-Jun-05	13	6	6	6	7	7	7	8	12	15	19	21	29	33	31	32	56	62	37	13	29	42	16	29	61.5
29-Jun-05	30	7	7	7	14	14	14	15	13	16	19	24	26	33	45	20	17	18	10	9	6	6	8	14	44.7
30-Jun-05	32	31	19	43	6	10	6	8	12	10	10	14	31	24	14	12	8	10	19	9	17	15	10	7	42.6
																									0.0
Hourly Max	41	39	57	43	30	54	40	42	64	53	60	55	59	72	63	49	60	62	52	37	47	48	36	61	

1-hr Average Wind Rose (in km/hr) Located at the Smoky Heights Site for June 2005



Calms:	0%

Frequency Distribution of Wind in km/hr			
Range			Frequency (hrs)
0.8	<	5	161
5	to	10	296
10	to	20	160
20	to	30	11
30	to	40	1
	>	40	0
Total Non-Zero Values			629

PASZA - Beaverlodge Station

Monthly Summary Tables, Graphs, and Roses

PASZA - Beaverlodge Sulphur Dioxide Monthly Summary

HOURLY AVERAGE TABLE

Sulphur Dioxide (SO_2)

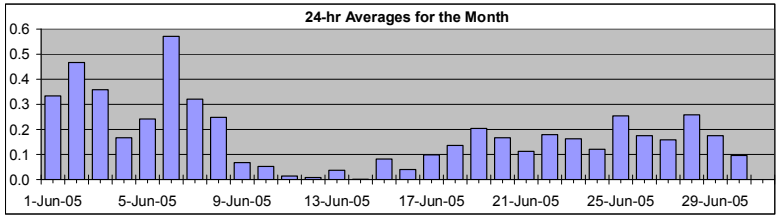
Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: June 1, 2005 to July 1, 2005

Objective Limit: **Alberta Environment:** 1-hr 172 ppb | 24-hr 57 ppb

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	2.0	ppb	2-Jun	14:00 15:00
Maximum 24-hr Average:	0.6	ppb	6-Jun	



AIC Time:	0 hrs	Operational Time:	716 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	1.2	0.7	0.2	0.1	0.0	0.0	0.0	0.2 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-Jun-05	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.9
2-Jun-05	0	0	0	1	1	0	0	0	1	1	1	1	1	1	2	1	0	0	0	0	0	0	0	0	0.5	2.0
3-Jun-05	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0.4	1.0
4-Jun-05	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
5-Jun-05	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	0.7
6-Jun-05	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.6	1.3
7-Jun-05	0	0	0	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.3
8-Jun-05	0	0	0	0	0	1	1	1	1	1	1	0	C	C	C	C	0	0	0	0	0	0	0	0	0.2	0.8
9-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
10-Jun-05	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
11-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
12-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
13-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.4
14-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
15-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1	0.7
16-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.0	0.5
17-Jun-05	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.1	1.1
18-Jun-05	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6
19-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.2	0.8
20-Jun-05	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
21-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
22-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	0.5
23-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
24-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
25-Jun-05	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.8
26-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0.2	0.9
27-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
28-Jun-05	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9
29-Jun-05	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
30-Jun-05	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
																									N	0.0
Hourly Avg	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2		
Hourly Max	0.6	0.7	1.3	1.1	0.9	0.9	0.8	1.8	1.2	1.3	1.2	0.8	1.0	1.4	2.0	1.0	0.4	0.3	0.7	0.8	1.1	0.4	0.7	0.9		

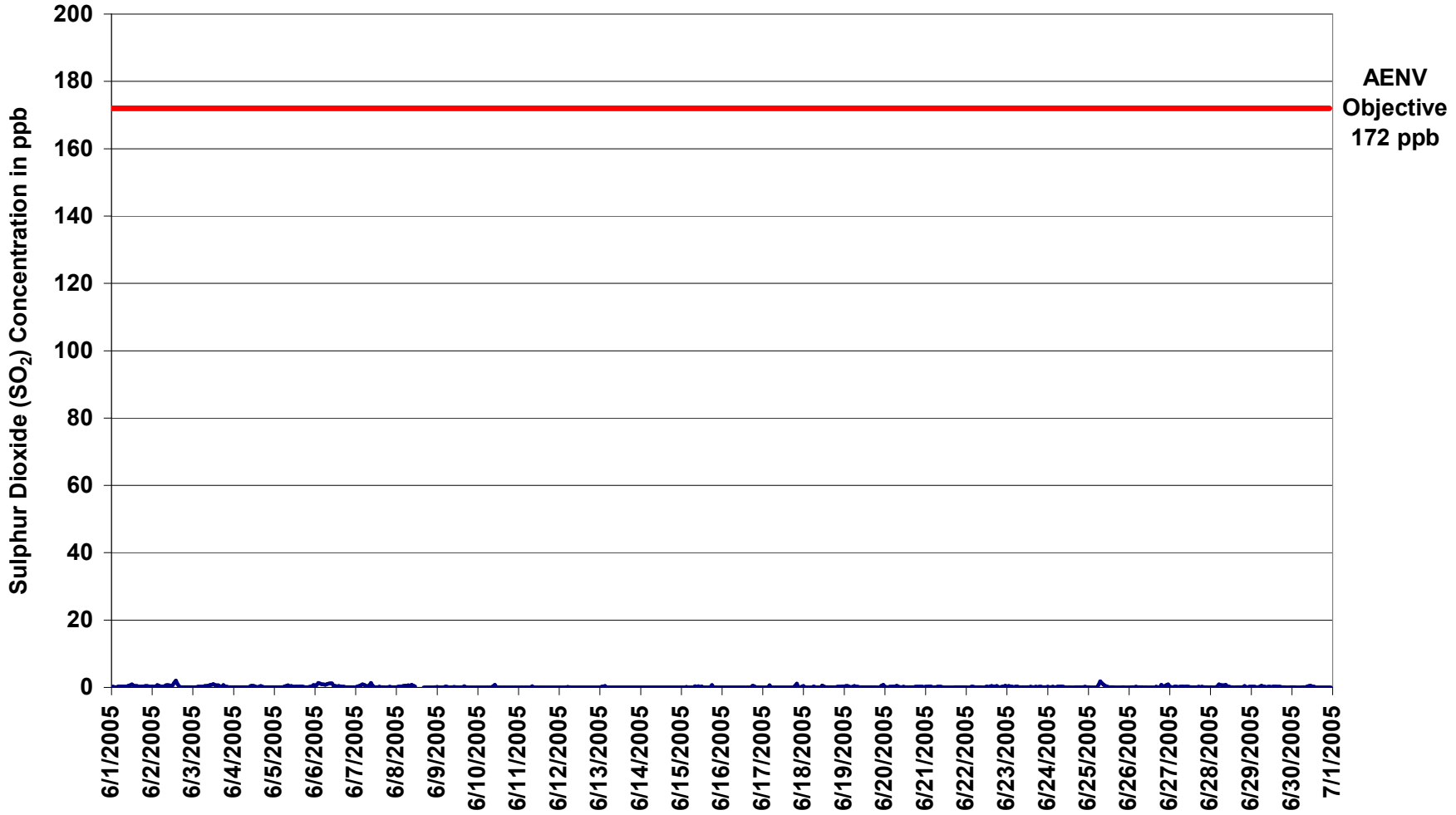
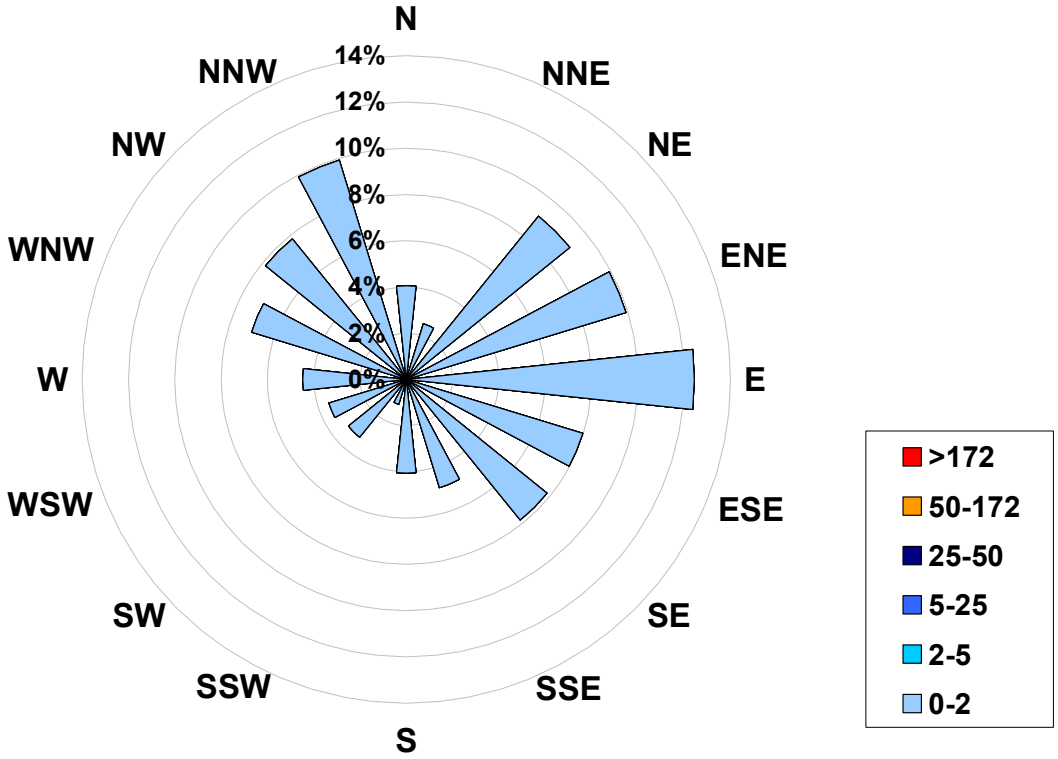


Figure 34. PASZA - Beaverlodge Sulphur Dioxide 1-hr Average Monthly Trend

1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Beaverlodge Site for June 2005



Calms:	0%

Frequency Distribution of SO_2 in ppb			
Range			Frequency (hrs)
0.0	<	2	715
2	to	5	0
5	to	25	0
25	to	50	0
50	to	172	0
	>	172	0
Total Non-Zero Values			716

PASZA - Beaverlodge Oxides of Nitrogen Monthly Summary

HOURLY AVERAGE TABLE

Nitrogen Dioxide (NO_2)

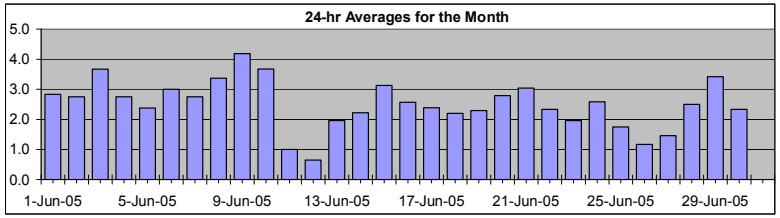
Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: June 1, 2005 to July 1, 2005

Objective Limit: **Alberta Environment:** 1-hr 212 ppb | 24-hr 106 ppb

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	12.2	ppb	15-Jun	8:00 9:00
Maximum 24-hr Average:	4.2	ppb	9-Jun	



AIC Time:	1 hrs	Operational Time:	715 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	8.0	5.3	3.0	2.0	1.1	1.0	0.4	2.5 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Jun-05	3	4	3	3	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	4	5	4	7	4	2.8	7.0
2-Jun-05	4	5	3	2	2	3	3	2	2	1	2	2	2	2	2	2	2	3	3	4	3	4	4	4	2.8	5.0
3-Jun-05	4	4	4	5	5	6	5	4	3	4	3	3	3	3	2	2	3	3	3	4	4	4	4	4	3.7	6.0
4-Jun-05	3	3	5	5	5	5	4	3	2	2	2	1	1	1	2	2	2	3	2	3	3	3	2	2	2.8	5.0
5-Jun-05	2	3	3	2	2	2	3	3	2	3	3	2	2	2	2	2	2	2	2	2	3	3	3	2	2.4	3.0
6-Jun-05	3	3	3	3	4	7	8	5	3	3	3	2	2	2	2	2	2	2	2	2	2	3	2	2	3.0	8.0
7-Jun-05	2	2	3	3	3	3	6	4	3	4	3	2	2	2	2	2	2	2	2	2	2	4	3	3	2	2.8	6.0
8-Jun-05	2	2	3	5	6	7	8	10	C	C	C	C	A	2	1	1	1	1	2	2	3	3	3	2	3.4	10.0
9-Jun-05	3	4	5	5	5	8	9	7	5	4	4	2	2	2	2	2	2	2	2	2	3	7	6	7	4.2	9.3
10-Jun-05	5	4	5	3	7	7	9	6	5	4	4	3	2	2	2	3	3	1	2	2	2	2	2	1	3.7	8.5
11-Jun-05	1	1	1	0	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1.0	1.5
12-Jun-05	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0.6	1.3
13-Jun-05	0	1	1	1	1	1	0	1	2	2	2	2	2	2	2	2	2	2	3	3	4	5	3	3	2.0	4.8
14-Jun-05	3	3	4	4	4	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	3	4	4	2.2	4.4
15-Jun-05	3	3	4	4	4	4	3	2	12	2	2	1	2	3	3	2	1	1	2	2	3	5	4	4	3.1	12.2
16-Jun-05	3	6	8	5	5	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	3	4	5	2.6	7.7
17-Jun-05	5	5	4	4	3	2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	3	3	3	2	2.4	5.4
18-Jun-05	3	3	2	2	2	3	4	3	2	1	1	1	1	1	1	1	1	1	1	2	3	5	5	4	2.2	5.0
19-Jun-05	4	4	5	5	4	8	3	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	2	3	2.3	8.0
20-Jun-05	3	4	4	4	4	4	4	3	3	2	2	2	2	2	2	1	1	1	2	2	4	5	3	3	2.8	5.0
21-Jun-05	4	5	6	8	5	5	5	3	3	2	1	1	1	1	1	1	1	1	1	2	3	4	7	2	3.0	8.0
22-Jun-05	2	3	2	4	2	2	2	3	2	2	1	2	2	3	3	2	2	2	2	2	2	4	2	3	2.3	4.0
23-Jun-05	3	3	2	2	3	2	3	1	1	1	1	1	1	1	1	1	1	1	1	2	5	3	4	3	2.0	5.0
24-Jun-05	3	6	4	4	4	4	6	5	3	3	2	1	1	1	1	1	1	1	1	2	1	2	2	3	2.6	6.0
25-Jun-05	2	4	3	3	3	3	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1.8	4.0
26-Jun-05	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	2	1	1	2		1.2	2.0
27-Jun-05	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	2	3	3	2	3	1.5	3.0
28-Jun-05	3	3	2	3	3	5	6	6	5	3	1	2	1	1	1	1	1	1	1	1	2	2	3	3	2.5	6.0
29-Jun-05	3	2	4	4	5	6	10	6	5	3	3	4	3	2	2	2	1	1	2	3	3	2	2	4	3.4	10.0
30-Jun-05	5	3	3	2	4	4	6	4	3	2	1	1	1	1	1	1	2	1	2	2	3	1	1	2	2.3	6.0
																									N	0.0
Hourly Avg	2.8	3.2	3.3	3.3	3.4	3.8	4.1	3.2	2.8	2.1	1.8	1.6	1.5	1.5	1.6	1.5	1.5	1.5	1.6	2.0	2.7	3.1	2.9	2.9		
Hourly Max	5.1	6.0	7.7	8.0	7.1	8.0	10.0	10.0	12.2	4.2	4.4	4.0	3.0	3.0	3.0	3.4	3.0	3.0	3.0	4.0	5.0	7.1	7.0	6.9		

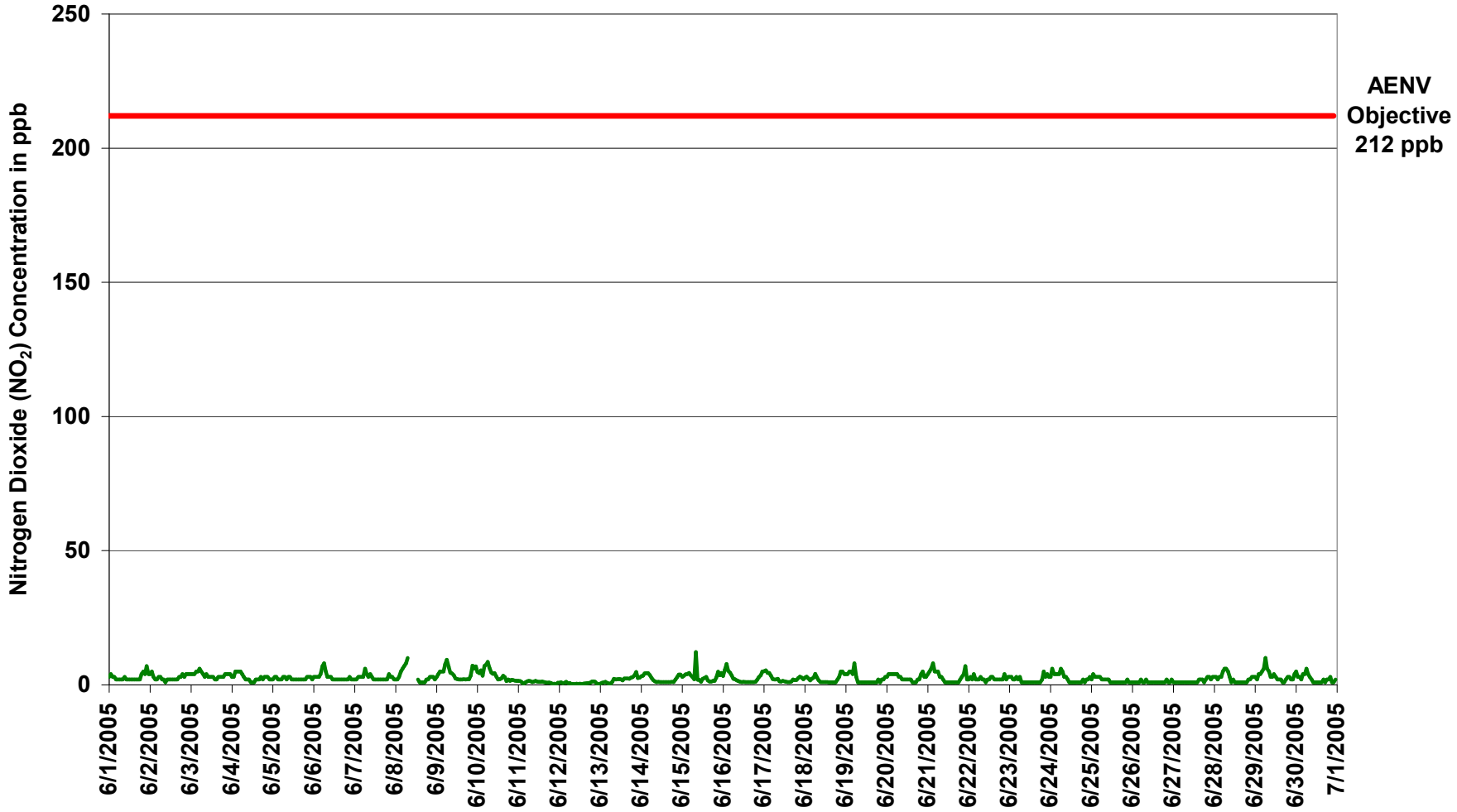
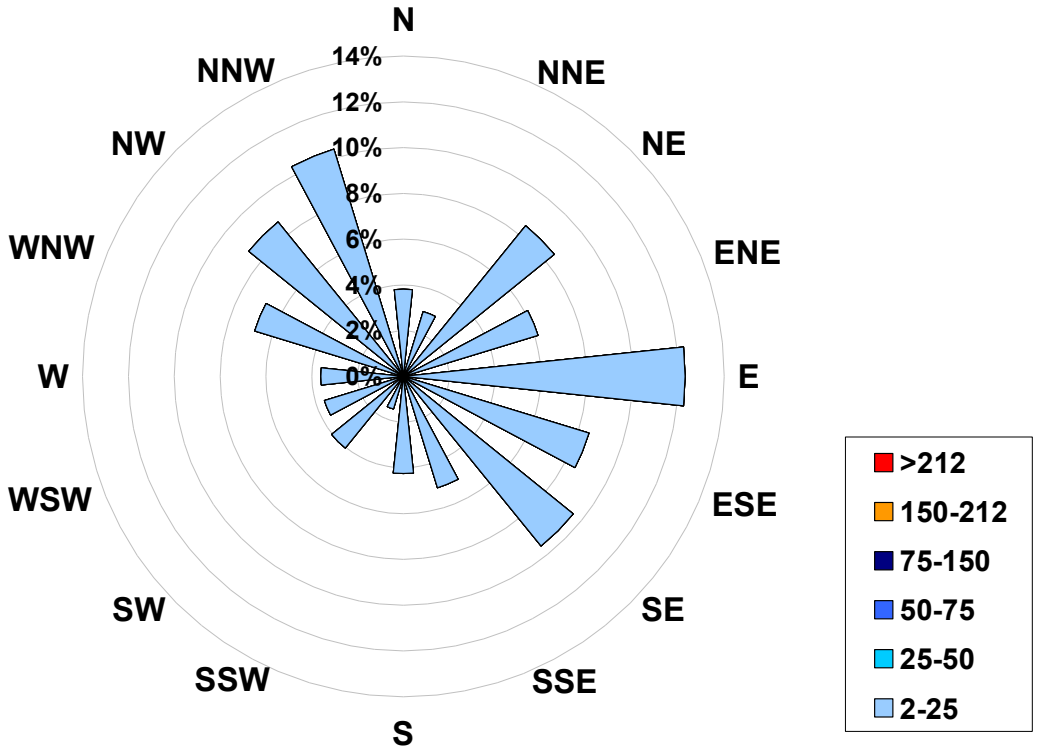


Figure 35. PASZA - Beaverlodge Nitrogen Dioxide 1-hr Average Monthly Trend

1-hr Average Concentration Rose for Nitrogen Dioxide (in ppb) Located at the Beaverlodge Site for June 2005



Calms:	0%

Frequency Distribution of NO_2 in ppb			
Range			Frequency (hrs)
2.0	<	25	715
25	to	50	0
50	to	75	0
75	to	150	0
150	to	212	0
	>	212	0
Total Non-Zero Values			715

HOURLY AVERAGE TABLE

Nitric Oxide (NO)

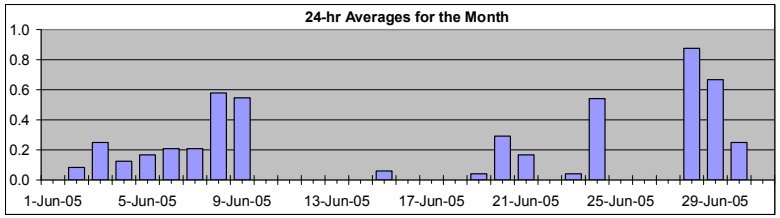
Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: June 1, 2005 to July 1, 2005

Guideline Limit: 1-hr na ppb | 24-hr na ppb

Summary

Maximum 1-hr Average:	9.1	ppb	9-Jun	6:00 7:00
Maximum 24-hr Average:	0.9	ppb	28-Jun	



AIC Time:	1 hrs	Operational Time:	715 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.2 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-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
2-Jun-05	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	2.0
3-Jun-05	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
4-Jun-05	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0
5-Jun-05	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
6-Jun-05	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.2	2.0
7-Jun-05	0	0	0	0	0	0	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.0
8-Jun-05	0	0	0	0	0	1	4	6	C	C	C	C	A	0	0	0	0	0	0	0	0	0	0	0	0.6	6.0
9-Jun-05	0	0	0	0	0	2	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	9.1
10-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
11-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
12-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
13-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
14-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
15-Jun-05	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.4
16-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
17-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
18-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
19-Jun-05	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	1.0
20-Jun-05	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
21-Jun-05	0	0	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.0
22-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
23-Jun-05	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	1.0
24-Jun-05	0	0	0	0	0	1	4	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	4.0
25-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
26-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
27-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
28-Jun-05	0	0	0	0	0	3	7	7	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	7.0
29-Jun-05	0	0	0	0	0	1	6	3	3	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0.7	6.0
30-Jun-05	0	0	0	0	0	0	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.0
																									N	0.0
Hourly Avg	0.0	0.0	0.0	0.0	0.0	0.3	1.4	1.0	0.5	0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Hourly Max	0.0	0.0	0.0	0.0	0.0	3.0	9.1	7.0	3.0	2.0	1.4	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

HOURLY AVERAGE TABLE

Oxides of Nitrogen (NO_x)

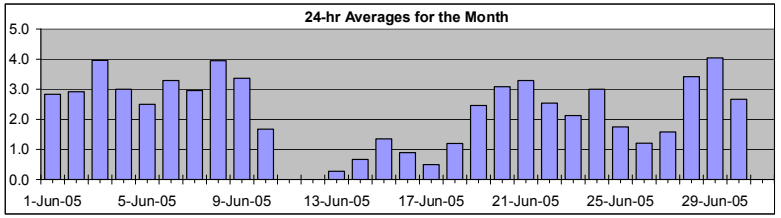
Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: June 1, 2005 to July 1, 2005

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

Summary

Maximum 1-hr Average:	18.3	ppb	9-Jun	6:00 7:00
Maximum 24-hr Average:	4.0	ppb	29-Jun	



AIC Time:	1 hrs	Operational Time:	715 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	10.0	5.1	3.0	2.0	1.0	0.0	0.0	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-Jun-05	3	4	3	3	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	4	5	4	7	4	2.8	7.0
2-Jun-05	4	5	3	2	2	3	4	2	3	3	2	2	2	2	2	2	2	3	3	4	3	4	4	4	2.9	5.0
3-Jun-05	4	4	4	5	5	7	6	5	4	4	4	4	4	3	2	2	3	3	3	3	4	4	4	4	4.0	7.0
4-Jun-05	3	3	5	5	5	5	5	4	3	3	2	2	2	1	2	2	2	3	2	3	3	3	2	2	3.0	5.0
5-Jun-05	2	3	3	2	2	3	3	3	3	4	3	2	2	2	2	2	2	2	2	2	3	3	3	2	2.5	4.0
6-Jun-05	3	3	3	3	4	8	10	7	4	3	3	2	2	2	2	3	2	2	2	2	2	3	2	2	3.3	10.0
7-Jun-05	2	2	3	3	3	3	8	5	4	5	3	2	2	2	2	2	2	2	2	2	4	3	3	2	3.0	8.0
8-Jun-05	2	2	3	5	7	7	12	16	C	C	C	C	A	2	1	1	1	1	2	2	3	3	3	2	3.9	16.0
9-Jun-05	3	3	5	5	5	10	18	9	4	3	3	0	0	0	0	0	0	0	0	0	1	5	4	4	3.4	18.3
10-Jun-05	2	2	3	1	5	5	7	5	3	2	2	1	0	0	0	1	1	0	0	0	0	0	0	0	1.7	6.6
11-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
12-Jun-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
13-Jun-05	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	3	0	0	0.3	2.6
14-Jun-05	1	1	2	2	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.7	3.3
15-Jun-05	0	1	2	2	2	2	1	0	11	0	3	0	1	0	2	0	0	0	0	0	0	3	1	2	1.3	11.2
16-Jun-05	1	3	5	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0.9	5.4
17-Jun-05	3	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.5	3.0
18-Jun-05	0	1	0	0	0	0	3	1	0	0	0	0	0	0	1	1	1	1	1	1	3	5	5	4	1.2	5.0
19-Jun-05	4	4	5	5	4	9	4	2	1	1	1	1	1	1	1	2	1	1	1	2	1	2	2	3	2.5	9.0
20-Jun-05	3	4	4	4	4	4	4	4	4	3	2	3	3	2	2	2	1	1	2	3	4	5	3	3	3.1	5.0
21-Jun-05	4	5	6	8	5	5	7	4	4	3	1	1	1	1	1	1	1	1	1	2	3	4	8	2	3.3	8.0
22-Jun-05	2	3	2	4	2	2	3	3	3	2	2	2	2	3	3	2	2	3	2	3	2	4	2	3	2.5	4.0
23-Jun-05	2	3	2	2	3	2	4	1	1	1	1	1	2	2	2	1	1	1	1	2	6	3	4	3	2.1	6.0
24-Jun-05	3	6	4	3	4	4	10	7	5	5	3	1	1	1	1	1	1	1	1	2	1	2	2	3	3.0	10.0
25-Jun-05	2	4	3	3	3	3	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1.8	4.0
26-Jun-05	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	2	2	1	1	2	1.2	2.0
27-Jun-05	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	2	2	2	1	2	3	3	2	3	1.6	3.0
28-Jun-05	3	3	2	3	3	8	14	13	8	3	2	2	1	1	1	1	1	1	1	1	2	2	3	3	3.4	14.0
29-Jun-05	3	2	3	3	5	7	15	9	7	4	3	5	4	3	2	2	1	2	3	3	3	2	2	4	4.0	15.0
30-Jun-05	5	3	3	2	4	4	8	5	5	3	1	1	1	1	1	2	2	2	2	2	3	1	1	2	2.7	8.0
																									N	0.0
Hourly Avg	2.2	2.6	2.7	2.7	2.9	3.7	5.1	3.7	2.9	2.1	1.6	1.3	1.2	1.1	1.2	1.2	1.1	1.2	1.2	1.6	2.1	2.5	2.4	2.3		
Hourly Max	5.0	6.0	6.0	8.0	7.0	9.6	18.3	16.0	11.2	5.0	4.0	5.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	6.0	5.0	8.0	4.5		

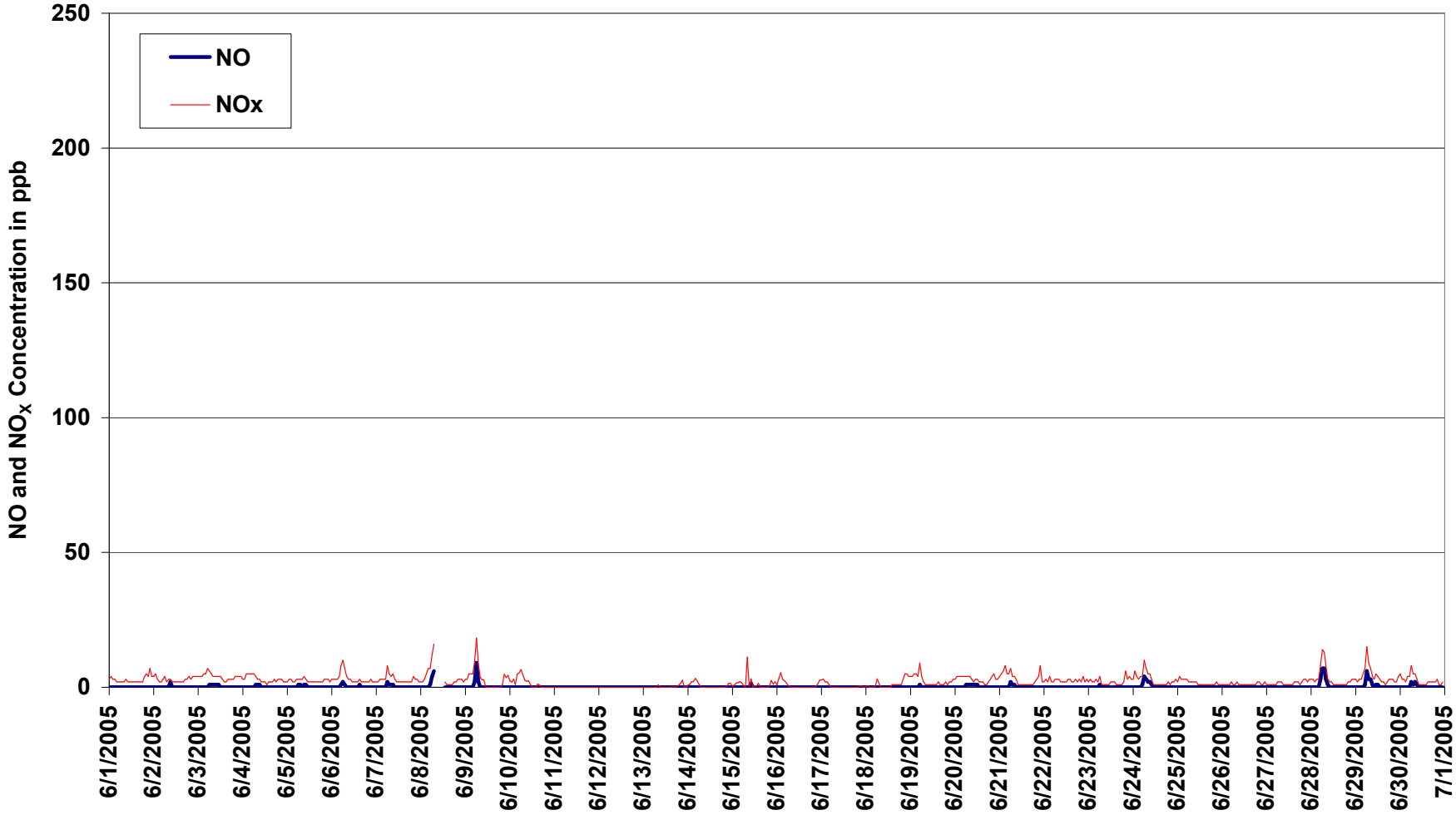


Figure 30. PASZA - Beaverlodge Nitrogen Oxide and Oxides of Nitrogen 1-hr Average Monthly Trend

PASZA - Beaverlodge Ozone Monthly Summary

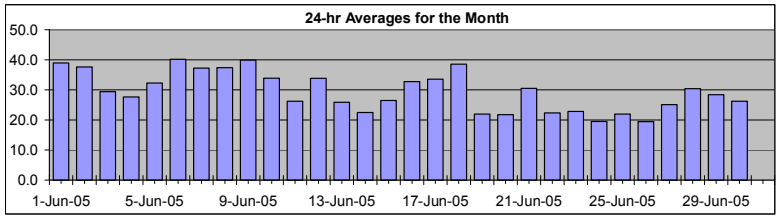
Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

Ozone (O_3)

Monitoring Dates: June 1, 2005 to July 1, 2005

Objective Limit: **Alberta Environment:** 1-hr 82 ppb | 24-hr na ppb



Summary

Number of 1-hr Exceedances:	0			
Maximum 1-hr Average:	56.7	ppb	9-Jun	16:00 17:00
Maximum 24-hr Average:	40.2	ppb	6-Jun	

AIC Time:	1 hrs	Operational Time:	717 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	52.0	47.0	36.3	29.0	21.0	14.0	10.0	29.5 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Jun-05	36	29	30	29	28	31	38	38	34	35	37	39	43	44	48	50	51	53	56	44	39	43	29	31	39.0	56.0
2-Jun-05	25	20	26	31	31	30	28	32	36	38	40	43	45	44	46	48	50	51	47	43	46	37	35	31	37.6	51.0
3-Jun-05	27	22	23	20	20	15	15	19	20	22	25	33	39	44	48	46	41	42	38	37	31	30	26	23	29.4	48.0
4-Jun-05	28	28	28	26	23	21	18	16	17	17	23	32	32	35	36	37	33	29	36	34	31	28	29	27	27.7	37.0
5-Jun-05	24	19	17	18	15	17	18	22	30	33	35	38	37	41	45	48	47	45	41	39	36	36	36	38	32.3	48.0
6-Jun-05	35	33	36	36	35	27	23	29	32	40	42	43	46	48	47	48	49	50	50	48	45	41	41	40	40.2	50.0
7-Jun-05	40	39	33	28	26	27	17	28	37	39	43	44	43	45	44	46	45	46	45	43	35	34	31	35	37.2	46.0
8-Jun-05	38	36	32	28	27	24	17	18	25	42	46	46	47	45	45	C	C	A	50	49	44	41	41	44	37.4	50.1
9-Jun-05	43	42	36	27	29	19	8	16	28	36	46	50	51	54	53	54	57	54	52	49	45	38	38	33	39.9	56.7
10-Jun-05	38	38	33	37	24	24	27	29	33	34	32	42	51	50	47	36	37	40	38	37	29	21	18	21	33.9	50.8
11-Jun-05	15	20	24	28	28	25	20	21	18	19	19	23	29	32	31	30	30	28	28	31	33	33	34	31	26.2	33.5
12-Jun-05	30	28	31	31	30	31	31	33	33	35	36	37	39	40	41	42	42	42	38	35	30	27	26	26	33.9	42.2
13-Jun-05	25	21	19	19	21	20	22	22	24	30	32	31	32	34	32	32	32	32	30	29	26	19	18	17	25.9	33.6
14-Jun-05	15	11	9	9	7	10	17	21	24	27	26	27	28	29	29	29	30	31	32	31	28	24	21	23	22.5	31.7
15-Jun-05	25	20	16	16	16	17	22	25	25	26	30	30	28	28	30	36	37	40	36	35	31	23	23	22	26.5	40.0
16-Jun-05	25	16	12	13	14	15	19	25	30	32	35	35	37	41	45	50	51	48	46	46	43	39	36	34	32.7	50.5
17-Jun-05	34	31	31	32	28	27	28	31	32	33	33	33	32	34	36	39	38	36	38	37	36	34	36	37	33.5	39.0
18-Jun-05	34	32	33	34	30	27	23	26	31	38	44	45	44	45	44	44	46	48	50	50	44	38	37	39	38.6	50.0
19-Jun-05	38	34	31	26	22	16	22	22	24	24	20	17	17	17	19	20	19	21	21	19	19	21	21	17	22.0	38.0
20-Jun-05	14	11	12	11	12	11	16	19	19	20	19	21	26	29	32	31	31	32	32	33	25	21	23	22	21.8	33.0
21-Jun-05	20	17	15	11	13	14	17	26	27	33	35	42	45	43	43	44	44	42	41	38	36	30	18	38	30.5	45.0
22-Jun-05	35	28	32	29	21	21	20	19	21	23	23	22	22	21	21	23	24	23	22	20	19	14	17	16	22.3	35.0
23-Jun-05	16	15	15	16	14	14	15	20	24	26	28	28	29	29	29	29	28	29	30	30	22	23	18	21	22.8	30.0
24-Jun-05	18	12	14	15	15	13	7	9	14	14	19	29	30	32	29	28	27	27	23	22	21	18	17	15	19.5	32.0
25-Jun-05	19	13	11	12	13	13	21	23	22	21	21	23	26	28	31	32	30	30	29	26	22	20	20	21	22.0	32.0
26-Jun-05	18	17	17	17	16	16	14	14	16	20	20	21	23	23	25	25	24	25	23	20	22	20	16	15	19.5	25.0
27-Jun-05	17	18	18	20	24	26	21	20	22	27	30	31	30	28	29	29	32	30	29	26	23	22	25	25	25.1	32.0
28-Jun-05	24	24	24	22	21	12	8	11	16	26	31	32	39	40	42	43	44	44	45	44	37	35	33	33	30.4	45.0
29-Jun-05	32	32	28	23	20	14	11	17	22	27	30	31	33	37	38	37	36	34	32	29	29	32	30	27	28.4	38.0
30-Jun-05	21	23	23	26	16	14	13	14	16	22	27	30	31	32	34	35	35	34	30	29	27	32	36	29	26.2	36.0
																									N	0.0
Hourly Avg	27.0	24.3	23.6	22.9	21.3	19.7	19.2	22.1	25.1	28.6	30.9	33.3	35.1	36.3	37.3	37.6	37.6	37.5	37.0	35.1	31.8	29.1	27.6	27.7		
Hourly Max	42.7	41.8	36.2	36.5	35.0	31.3	38.0	38.0	37.0	42.0	46.0	50.2	51.4	53.6	52.5	53.5	56.7	54.2	56.0	50.0	46.0	43.0	41.1	44.3		

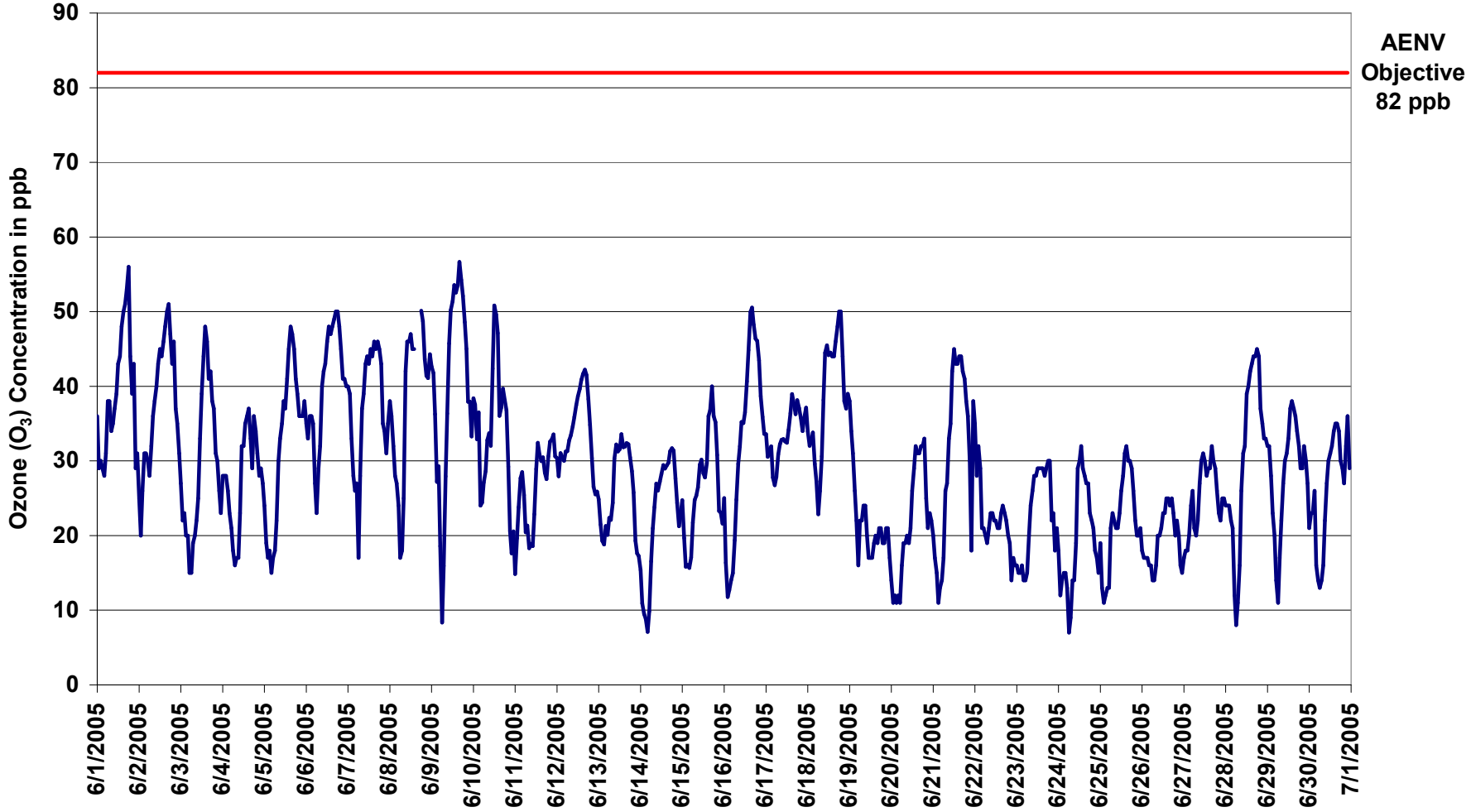


Figure 36. PASZA – Beaverlodge Ozone 1-hr Average Monthly Trend

EIGHT HOUR RUNNING AVERAGE TABLE

Ozone (O_3)

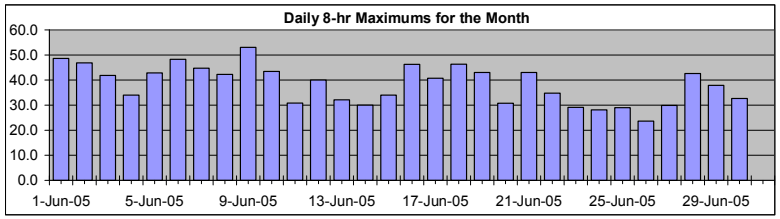
Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: June 1, 2005 to July 1, 2005

Objective Limit: **Alberta Environment:** 8-hr 65 ppb

Summary

Number of 8-hr Exceedances:	0			
Maximum 8-hr Average:	53.0	ppb	9-Jun	18:00 19:00



Status Flag Characters

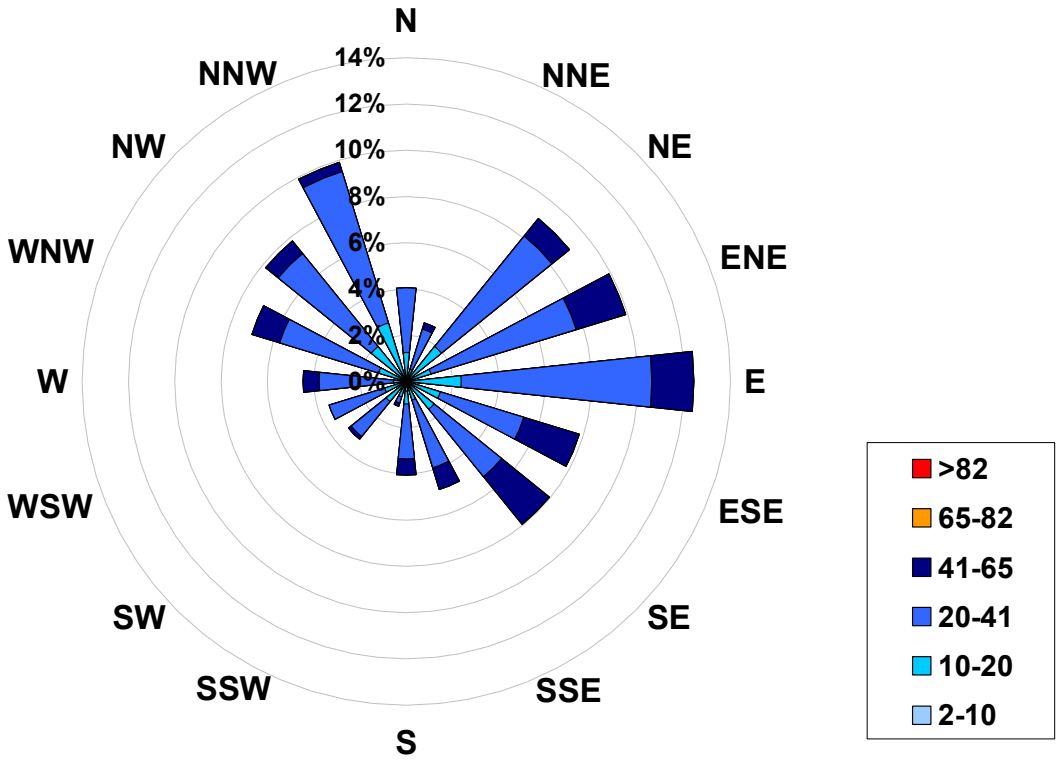
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Percentile	99	95	75	50	25	5	1
	48.3	45.0	35.2	29.1	22.0	16.2	13.2

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	Daily Maximum
1-Jun-05	N	N	N	N	N	N	32	32	32	33	34	35	37	39	40	41	43	46	48	49	48	48	46	43	48.6
2-Jun-05	40	36	32	31	30	28	28	28	29	32	33	35	37	38	41	43	44	46	47	47	47	46	45	43	46.9
3-Jun-05	40	36	33	30	27	24	22	20	19	19	20	21	24	27	31	35	37	40	41	42	41	39	36	34	41.9
4-Jun-05	32	30	29	28	27	25	24	24	22	21	20	21	22	24	26	29	31	32	34	34	34	33	32	31	34.0
5-Jun-05	30	29	26	24	22	21	19	19	20	21	24	26	29	32	35	38	41	42	43	43	43	42	41	40	42.9
6-Jun-05	38	37	36	36	36	35	33	32	31	32	33	34	35	38	41	43	45	47	48	48	48	47	47	46	48.3
7-Jun-05	44	43	41	38	36	34	31	30	29	29	31	33	35	37	40	43	44	45	45	45	44	42	41	39	44.8
8-Jun-05	38	37	36	34	33	31	30	28	26	27	28	31	33	36	39	42	N	N	N	N	N	N	N	N	42.3
9-Jun-05	45	44	42	40	38	35	31	28	26	25	26	29	32	36	42	46	50	52	53	53	52	50	48	46	53.0
10-Jun-05	43	41	39	37	35	33	32	31	30	30	30	31	34	37	40	41	41	42	43	42	39	36	32	30	43.4
11-Jun-05	27	25	23	22	22	22	23	23	23	23	22	22	22	23	24	25	27	28	29	30	30	30	31	31	30.8
12-Jun-05	31	31	31	31	31	31	30	31	31	32	32	33	34	35	37	38	39	40	40	40	39	37	35	33	40.0
13-Jun-05	31	28	26	24	23	22	22	21	21	22	24	26	27	28	30	31	32	32	32	32	31	29	27	25	32.1
14-Jun-05	23	21	18	16	13	12	12	12	13	15	18	20	22	25	26	28	28	29	30	30	30	29	28	28	30.0
15-Jun-05	27	25	23	22	20	19	19	19	20	20	22	24	25	27	28	29	31	32	33	34	34	33	33	31	34.0
16-Jun-05	29	26	23	21	18	17	17	17	18	20	23	26	28	32	35	38	41	43	44	45	46	46	45	43	46.3
17-Jun-05	41	39	37	35	33	31	30	30	30	30	30	30	31	32	33	34	35	35	36	36	37	37	37	36	40.7
18-Jun-05	36	35	35	34	34	33	31	30	29	30	32	33	35	37	40	42	44	45	46	46	46	46	45	44	46.3
19-Jun-05	43	41	39	36	33	30	29	26	25	23	22	21	20	20	20	20	19	19	19	19	19	20	20	20	43.0
20-Jun-05	19	18	17	16	15	14	13	13	14	15	16	17	19	21	23	25	26	28	29	31	31	30	29	27	30.8
21-Jun-05	26	24	22	19	18	17	16	17	18	20	22	26	30	34	37	39	41	42	43	43	41	40	37	36	43.0
22-Jun-05	35	33	32	31	29	28	28	26	24	23	22	21	21	21	22	22	22	22	22	22	22	21	20	19	34.8
23-Jun-05	18	17	17	16	15	15	15	16	17	18	20	21	23	25	27	28	28	29	29	29	28	28	26	25	29.1
24-Jun-05	24	22	20	18	17	16	14	13	12	13	13	15	17	19	22	24	26	28	28	27	26	24	23	21	28.1
25-Jun-05	20	19	17	16	15	14	15	16	16	17	18	20	21	23	24	26	27	28	29	29	29	28	26	25	29.0
26-Jun-05	23	22	20	19	18	18	17	16	16	16	17	17	18	19	20	22	23	23	24	24	23	23	22	21	23.6
27-Jun-05	20	19	18	18	19	19	20	21	21	22	24	25	26	26	27	28	30	30	30	29	28	28	27	27	29.9
28-Jun-05	26	25	24	24	23	22	20	18	17	18	18	20	22	25	30	34	37	39	41	43	42	42	41	39	42.6
29-Jun-05	38	36	34	32	30	27	24	22	21	20	21	22	23	26	29	32	34	35	35	35	34	33	32	31	37.9
30-Jun-05	29	28	27	26	25	23	20	19	18	18	19	19	21	23	26	28	31	32	33	33	32	32	32	32	32.6
																									0.0
Hourly Max	44.6	44.2	42.5	39.8	38.0	35.1	32.9	32.4	32.1	32.9	33.8	35.0	36.9	38.5	41.7	46.4	50.0	52.2	53.0	52.8	52.0	50.1	48.3	45.7	

1-hr Average Concentration Rose for Ozone (in ppb) Located at the Beaverlodge Site for June 2005



Calms:	0%

Frequency Distribution of O_3 in ppb			
Range			Frequency (hrs)
2.0	<	10	8
10	to	20	145
20	to	41	453
41	to	65	111
65	to	82	0
	>	82	0
Total Non-Zero Values			717

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

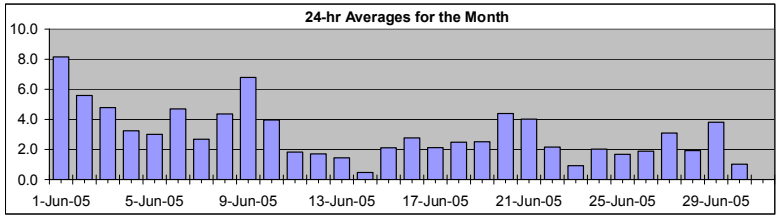
Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

Particulate Matter ($PM_{2.5}$)

Monitoring Dates: June 1, 2005 to July 1, 2005

Draft Objective Limit: **Alberta Environment:** 1-hr - µg/m³ | 24-hr 30 µg/m³



Summary

Number of 24-hr Exceedances (draft):	0			
Maximum 1-hr Average:	17.6	µg/m³	1-Jun	22:00 23:00
Maximum 24-hr Value:	8.2	µg/m³	1-Jun	

AIC Time:	0 hrs	Operational Time:		715 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:		99.6%

Percentile	99	95	75	50	25	5	1	Average	Geomean
	10.8	8.0	4.5	2.4	1.1	0.0	0.0	3.0 µg/m³	2.6 µg/m³

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-Jun-05	5	7	8	6	7	8	8	8	7	8	10	8	11	13	9	6	4	2	6	13	10	7	18	9	8.2	17.6
2-Jun-05	7	10	1	3	5	8	6	6	7	7	9	7	5	7	2	3	9	9	5	4	2	5	4	6	5.6	9.9
3-Jun-05	5	4	3	6	6	8	8	7	7	7	5	6	8	2	2	4	7	3	3	1	3	3	4	4	4.8	8.2
4-Jun-05	1	2	2	3	3	6	3	3	3	6	0	D	4	0	0	2	9	10	D	1	3	8	2	1	3.2	10.1
5-Jun-05	3	2	3	0	1	6	6	4	2	6	7	5	6	5	1	4	1	2	5	3	0	0	0	0	3.0	7.2
6-Jun-05	4	2	2	4	2	5	6	5	8	0	7	5	1	7	14	8	2	2	11	4	4	7	3	1	4.7	14.4
7-Jun-05	1	2	5	6	3	2	7	1	3	0	0	1	0	0	3	0	1	0	2	7	14	3	2	0	2.7	13.9
8-Jun-05	0	2	3	2	2	6	7	13	7	0	1	0	6	7	C	C	0	1	3	10	10	7	5	6	4.4	13.0
9-Jun-05	5	5	6	7	7	8	10	9	8	10	8	7	7	5	6	6	5	5	7	8	5	6	7	8	6.8	10.4
10-Jun-05	6	5	6	4	7	7	6	6	6	6	7	5	4	5	5	0	1	0	1	3	2	2	0	0	4.0	7.4
11-Jun-05	1	1	1	0	0	1	1	3	4	2	1	1	2	2	3	4	4	3	3	3	2	2	0	1	1.8	4.0
12-Jun-05	1	1	1	0	1	1	2	0	1	1	1	1	1	2	2	2	3	3	4	3	3	3	3	2	1.7	3.8
13-Jun-05	1	2	3	2	1	2	1	0	1	1	2	2	2	2	3	3	3	2	1	0	0	0	0	0	1.4	3.2
14-Jun-05	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	3	2	0.5	2.8
15-Jun-05	1	1	2	2	2	2	4	3	4	4	3	3	3	1	2	3	1	1	2	2	1	3	2	1	2.1	4.0
16-Jun-05	1	2	2	2	2	4	4	4	3	3	2	2	3	2	3	2	2	3	3	2	3	3	4	6	2.8	5.7
17-Jun-05	4	4	2	3	4	2	1	0	1	1	2	2	2	2	1	1	2	2	3	4	2	2	1	2	2.1	3.8
18-Jun-05	2	1	2	1	2	2	3	3	2	0	0	2	3	2	2	2	1	1	1	2	6	7	8	5	2.5	7.9
19-Jun-05	4	5	5	5	6	7	7	4	4	3	1	0	1	1	1	0	0	0	0	1	2	0	3	1	2.5	7.1
20-Jun-05	1	2	0	1	2	3	4	3	3	3	5	7	7	7	6	6	4	5	7	5	8	6	6	6	4.4	7.7
21-Jun-05	7	8	6	5	3	4	4	3	4	2	0	0	2	3	2	1	3	5	6	7	8	5	6	D	4.0	8.3
22-Jun-05	2	3	1	5	2	0	2	2	1	0	1	2	2	3	3	3	1	2	3	2	7	6	1	0	2.2	6.5
23-Jun-05	0	0	1	1	1	2	2	1	0	0	0	1	1	1	2	2	1	0	1	1	4	1	1	0	0.9	3.5
24-Jun-05	1	2	2	1	3	3	4	4	3	5	3	0	2	2	2	0	0	5	0	2	0	2	1	1	2.0	5.4
25-Jun-05	2	2	1	2	2	3	2	3	2	2	2	2	1	1	0	1	2	1	2	3	3	2	1	0	1.7	2.9
26-Jun-05	1	1	0	1	2	3	3	3	2	2	4	3	1	3	1	1	5	2	3	2	0	2	1	1	1.9	4.7
27-Jun-05	0	0	1	3	6	5	5	6	5	3	4	4	5	4	5	3	3	4	4	4	3	0	0	1	3.1	5.7
28-Jun-05	2	1	1	0	0	2	3	4	3	2	2	3	0	1	0	0	1	1	1	3	9	2	3	4	1.9	9.3
29-Jun-05	4	4	3	2	4	4	7	8	7	5	3	5	3	2	7	3	4	4	9	3	3	0	0	0	3.8	8.7
30-Jun-05	1	1	0	0	1	2	4	4	3	0	0	0	0	1	2	1	0	0	2	0	1	1	0	1	1.0	3.6
																									N	0.0
Hourly Avg	2.4	2.6	2.3	2.6	2.9	3.9	4.3	3.9	3.6	3.0	2.9	2.8	3.1	3.0	3.0	2.4	2.5	2.6	3.3	3.4	4.0	3.1	3.0	2.4		
Hourly Max	7.3	9.9	7.6	6.8	7.2	8.4	10.4	13.0	8.0	10.1	9.9	8.1	11.0	13.0	14.4	7.6	9.1	10.1	10.9	12.7	13.9	8.4	17.6	8.7		

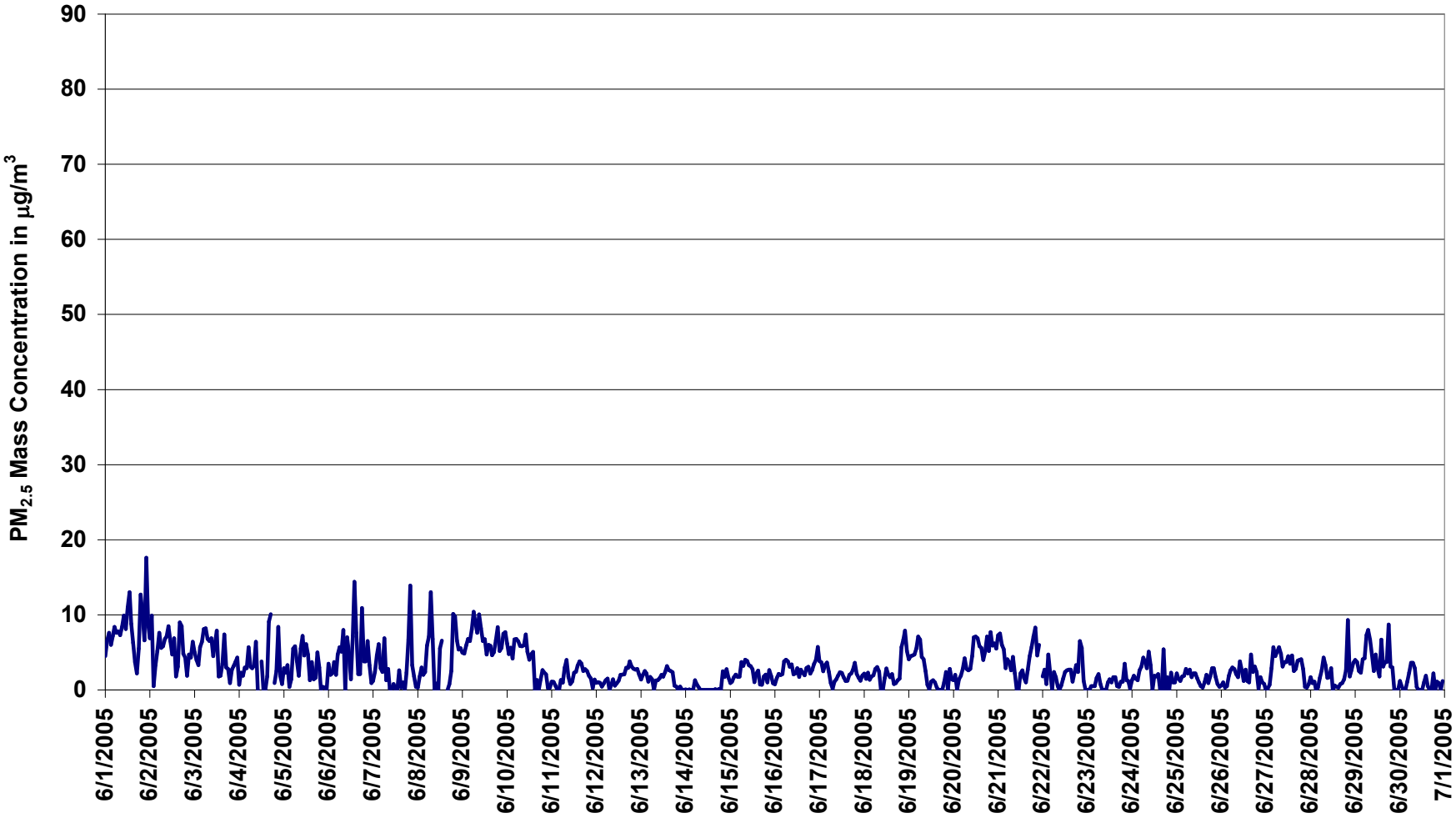
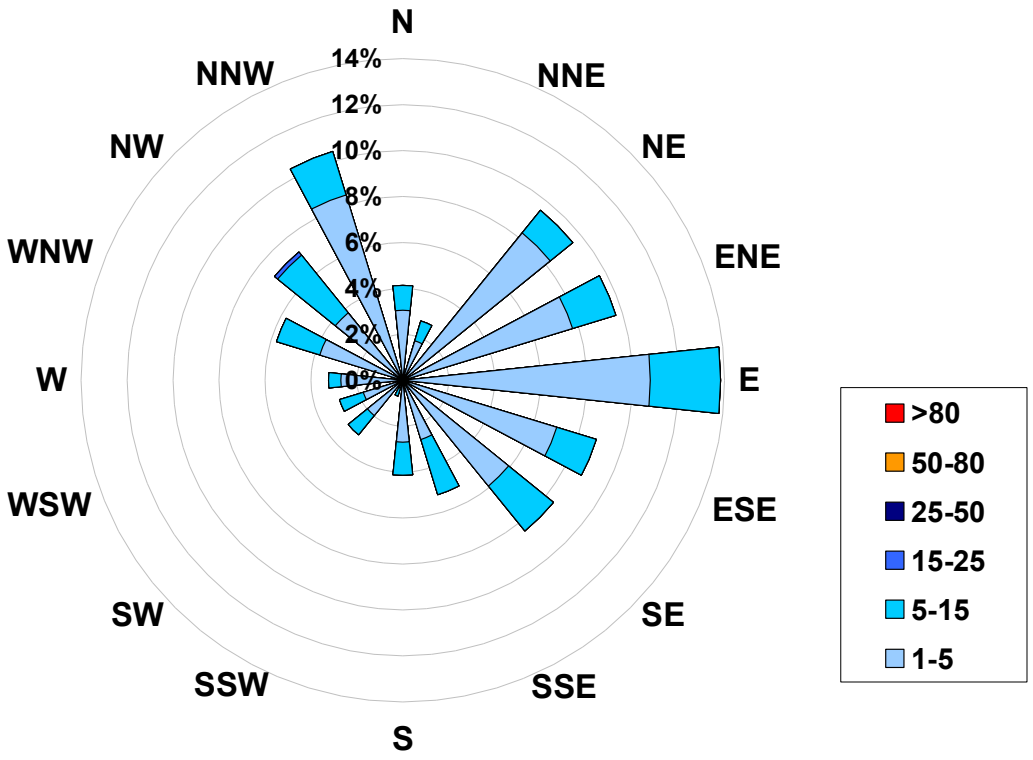


Figure 37. PASZA - Beaverlodge Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

1-hr Average Concentration Rose for Particulate Matter (less than 2.5 microns) (in micrograms per cubic meter) Located at the Beaverlodge Site for June 2005



Calms:	0%

Frequency Distribution of $PM_{2.5}$ in $\mu g/m^3$			
Range			Frequency (hrs)
1.0	<	5	562
5	to	15	150
15	to	25	1
25	to	50	0
50	to	80	0
	>	80	0
Total Non-Zero Values			715

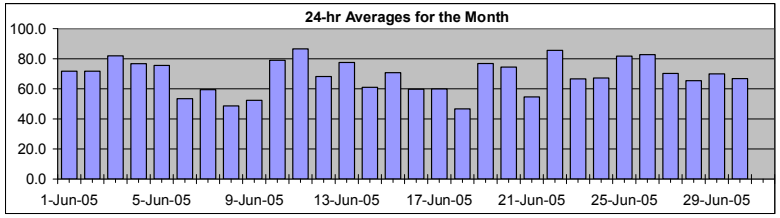
PASZA - Beaverlodge Relative Humidity Monthly Summary

HOURLY AVERAGE TABLE

Relative Humidity (RH)

Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Average:	96.0	%	1-Jun	1:00 2:00
Maximum 24-hr Value:	86.5	%	11-Jun	

AIC Time:	0 hrs	Operational Time:	720 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	96.0	94.0	84.0	71.0	55.0	35.0	29.0	68.8 %

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**

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-Jun-05	95	96	96	96	95	93	91	88	82	82	74	67	57	55	52	47	44	43	44	56	62	60	71	75	71.7	96.0
2-Jun-05	80	84	82	78	80	78	75	69	61	61	58	53	48	48	44	38	57	86	89	90	88	91	91	92	71.7	92.0
3-Jun-05	95	96	94	94	93	93	90	82	84	75	68	63	58	58	51	55	79	92	91	88	88	92	93	95	82.0	96.0
4-Jun-05	94	94	94	95	96	96	96	95	78	76	65	48	49	43	39	41	50	64	85	81	84	91	94	94	76.8	96.0
5-Jun-05	94	95	96	96	96	95	89	84	78	80	80	78	78	66	58	56	55	54	58	63	68	67	67	63	75.6	96.0
6-Jun-05	66	70	70	70	70	69	64	59	62	53	51	48	45	36	36	33	29	29	37	41	49	61	65	70	53.5	70.0
7-Jun-05	73	75	80	88	88	84	79	68	62	60	52	50	49	44	45	41	39	38	36	40	51	60	63	62	59.5	88.0
8-Jun-05	59	64	70	75	73	67	65	60	51	45	41	38	36	37	33	33	31	29	28	32	44	51	53	51	48.6	75.0
9-Jun-05	53	55	61	76	72	71	77	69	60	50	38	38	38	30	34	35	36	38	39	44	50	60	63	70	52.4	77.0
10-Jun-05	69	74	79	78	84	87	85	82	77	75	75	71	62	65	67	90	82	77	75	77	86	91	94	93	79.0	94.0
11-Jun-05	93	93	93	94	91	90	92	87	93	93	89	87	85	82	82	82	82	83	82	80	80	81	81	82	86.5	94.0
12-Jun-05	83	84	83	84	85	80	72	70	66	59	64	58	53	53	50	51	52	55	60	62	70	77	82	82	68.1	85.0
13-Jun-05	84	86	88	89	88	90	84	82	74	63	60	63	62	59	63	63	60	73	90	86	79	87	93	94	77.5	94.0
14-Jun-05	95	95	96	95	95	88	80	73	65	57	57	50	45	40	39	35	37	33	32	32	40	52	63	70	61.0	96.0
15-Jun-05	71	74	84	89	90	87	93	91	80	71	62	54	52	75	57	55	59	52	47	57	60	74	81	82	70.7	93.0
16-Jun-05	75	86	90	92	89	88	87	76	70	64	55	52	49	41	41	35	34	36	37	36	42	50	53	56	59.8	92.0
17-Jun-05	56	60	60	61	70	75	74	69	64	63	62	63	62	59	54	49	52	53	49	53	55	59	58	58	59.9	75.0
18-Jun-05	62	64	61	59	67	66	66	57	50	41	34	33	35	35	34	35	34	31	29	29	39	50	55	55	46.7	67.0
19-Jun-05	59	67	73	80	81	81	78	78	76	75	77	74	73	74	71	73	76	73	73	77	83	90	90	92	76.8	92.0
20-Jun-05	94	96	95	95	94	93	90	88	85	85	80	75	67	60	57	55	51	50	55	52	60	69	69	71	74.4	96.0
21-Jun-05	76	80	79	81	78	79	68	58	59	47	32	29	28	29	29	27	27	31	33	42	71	79	87	62	54.6	87.0
22-Jun-05	77	84	76	84	92	91	89	87	86	83	80	82	86	92	91	88	86	85	83	84	82	87	89	90	85.6	92.0
23-Jun-05	90	91	92	91	91	85	78	71	63	56	53	58	65	56	49	54	53	46	46	46	57	64	75	69	66.6	92.0
24-Jun-05	77	84	81	79	78	75	81	79	66	68	61	53	49	49	50	50	46	62	55	61	65	75	81	88	67.2	88.0
25-Jun-05	89	93	94	94	94	93	92	92	90	88	87	86	81	74	64	62	67	65	67	71	77	80	80	81	81.7	94.0
26-Jun-05	84	86	88	89	90	88	90	87	81	76	76	78	80	76	68	63	68	84	88	90	89	89	89	89	82.8	90.0
27-Jun-05	83	80	80	79	82	84	79	75	71	65	60	53	56	63	66	66	57	62	61	66	68	73	77	79	70.2	84.0
28-Jun-05	82	84	87	88	88	84	80	75	72	64	65	63	58	55	48	46	45	44	41	42	53	66	68	71	65.4	88.0
29-Jun-05	76	78	84	90	92	83	82	77	64	64	64	63	62	54	52	52	49	49	59	67	83	77	78	79	69.9	92.0
30-Jun-05	87	86	81	77	86	83	80	80	77	68	55	47	43	44	58	57	55	52	56	59	61	63	71	77	66.8	87.0
																									N	0.0
Hourly Avg	79.0	81.8	82.9	84.5	85.6	83.9	81.5	76.9	71.6	66.9	62.5	59.2	57.0	55.1	52.7	52.2	53.1	55.6	57.5	60.1	66.1	72.2	75.8	76.4		
Hourly Max	95.0	96.0	96.0	96.0	96.0	96.0	96.0	95.0	93.0	93.0	89.0	87.0	86.0	92.0	91.0	90.0	86.0	92.0	91.0	90.0	89.0	92.0	94.0	95.0		

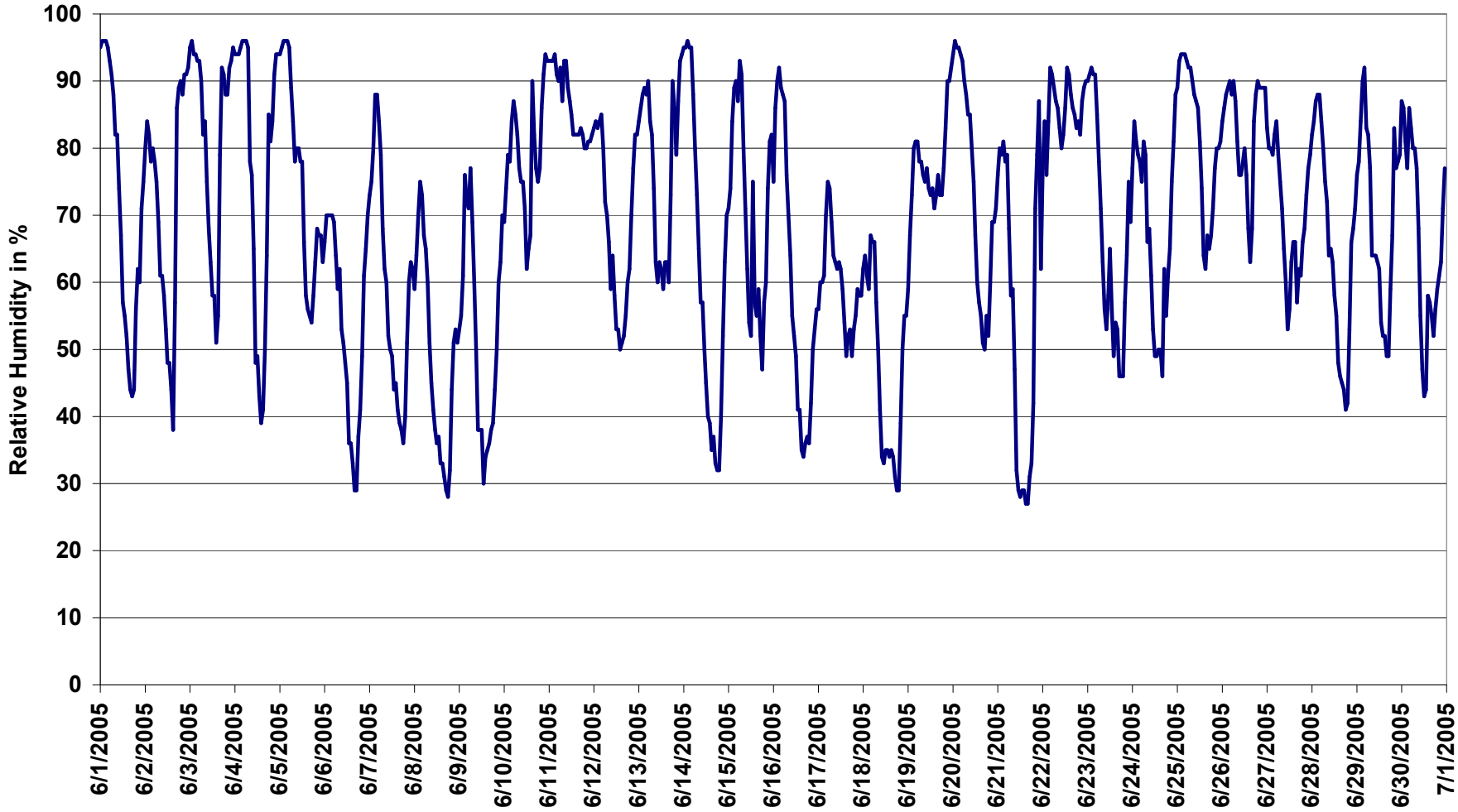


Figure 38. PASZA - Beaverlodge Relative Humidity 1-hr Average Monthly Trend

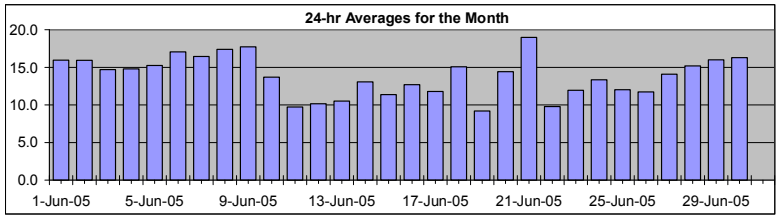
PASZA - Beaverlodge Temperature Monthly Summary

Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

Ambient Temperature (T)

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Average:	24.7	°C	21-Jun	15:00 16:00
Maximum 24-hr Value:	19.0	°C	21-Jun	

AIC Time:	0 hrs	Operational Time:	720 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average
	23.7	21.4	16.9	13.2	10.7	7.7	6.1	13.9 °C

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-Jun-05	11	11	11	10	10	11	12	13	14	14	16	17	20	20	21	22	22	21	21	19	18	17	16	16	16.0	22.3
2-Jun-05	14	13	13	13	12	13	14	16	18	18	19	21	22	22	23	24	18	12	13	13	13	13	12	12	15.9	24.0
3-Jun-05	12	12	12	12	12	12	13	15	15	17	18	19	21	20	21	19	15	12	13	13	13	13	13	13	14.7	21.0
4-Jun-05	12	12	12	12	11	11	11	12	15	16	18	20	20	21	22	21	20	17	13	13	13	12	12	12	14.8	21.6
5-Jun-05	12	12	12	12	11	12	13	15	15	15	15	15	16	18	19	19	19	20	19	17	16	15	15	15	15.3	19.8
6-Jun-05	14	13	13	12	12	12	15	16	17	18	19	20	20	21	21	21	22	22	21	20	18	16	15	14	17.1	21.8
7-Jun-05	13	13	12	11	11	12	14	16	17	17	18	19	18	20	20	20	20	20	21	21	19	16	15	15	16.4	20.7
8-Jun-05	14	13	12	10	11	13	14	16	19	18	19	20	20	21	21	21	22	22	22	22	20	17	16	16	17.4	22.4
9-Jun-05	16	14	13	11	11	12	12	14	16	20	23	22	22	24	23	23	22	22	21	20	18	16	15	14	17.7	23.9
10-Jun-05	14	13	12	12	11	12	12	13	14	15	15	16	17	17	17	11	13	14	15	15	14	13	12	12	13.7	17.4
11-Jun-05	12	12	12	11	11	11	11	12	10	10	10	9	9	9	9	9	9	8	9	8	8	8	8	8	9.7	12.3
12-Jun-05	8	7	7	7	6	7	9	9	10	12	10	11	13	13	14	14	13	13	13	12	10	9	8	8	10.2	13.6
13-Jun-05	8	8	8	8	8	8	9	9	11	13	13	13	13	14	13	14	14	12	9	10	11	9	8	8	10.5	14.3
14-Jun-05	8	7	7	6	5	7	9	11	13	14	14	16	16	17	17	19	18	18	18	18	17	14	12	11	13.1	18.7
15-Jun-05	11	10	8	7	7	7	7	7	10	12	14	16	16	10	14	14	13	15	17	14	14	11	10	9	11.4	16.6
16-Jun-05	10	8	7	6	6	7	8	10	11	13	14	15	15	17	17	18	18	17	17	17	15	14	13	13	12.7	17.9
17-Jun-05	12	12	12	11	10	9	9	10	10	10	10	11	12	13	14	14	14	14	15	14	14	12	11	11	11.8	14.6
18-Jun-05	10	10	10	10	9	10	10	13	16	16	17	18	19	19	20	20	19	19	20	20	18	15	13	12	15.1	19.8
19-Jun-05	11	9	8	7	7	7	9	10	10	10	10	10	10	10	11	10	10	10	10	10	9	8	8	8	9.2	10.8
20-Jun-05	8	8	8	8	8	8	9	10	11	11	12	14	17	19	20	21	22	22	21	22	21	18	17	16	14.4	21.9
21-Jun-05	15	15	15	14	14	14	16	18	18	22	23	24	24	24	24	25	25	24	23	21	16	15	13	15	19.0	24.7
22-Jun-05	13	12	13	12	10	9	9	9	9	9	10	9	9	9	9	9	9	10	10	10	11	9	9	8	9.8	13.0
23-Jun-05	7	6	5	5	5	7	9	11	13	14	15	14	13	15	17	16	16	17	16	17	16	13	11	11	11.9	17.1
24-Jun-05	9	9	9	8	8	10	9	10	13	13	16	16	18	18	18	18	18	16	17	16	14	13	12	11	13.3	18.3
25-Jun-05	11	11	10	10	10	10	10	10	11	11	11	11	12	13	15	15	15	15	15	14	13	12	12	11	12.0	15.1
26-Jun-05	11	10	10	9	9	10	11	11	12	13	13	13	12	14	15	15	15	12	12	12	11	11	11	11	11.7	15.4
27-Jun-05	11	11	11	11	11	11	13	14	15	16	16	17	17	15	15	15	17	16	17	16	16	14	13	11	14.1	17.2
28-Jun-05	11	11	10	10	9	10	11	13	15	16	16	17	18	18	20	20	20	20	20	20	18	15	14	13	15.2	20.4
29-Jun-05	13	13	11	10	10	11	12	14	18	18	18	18	19	20	21	21	21	22	20	18	15	15	15	14	16.0	21.8
30-Jun-05	13	13	13	13	11	12	14	14	16	17	19	21	22	21	19	19	19	19	19	17	17	16	14	13	16.3	21.8
																									N	0.0
Hourly Avg	11.4	10.9	10.4	9.9	9.6	10.2	11.1	12.3	13.6	14.6	15.4	16.0	16.6	17.0	17.7	17.6	17.2	16.7	16.5	15.9	14.8	13.3	12.4	12.0		
Hourly Max	15.5	14.6	14.9	14.2	14.0	13.9	16.1	17.9	18.6	21.7	23.1	23.5	23.9	24.1	24.4	24.7	24.6	23.8	23.3	22.0	20.7	17.7	16.7	16.0		

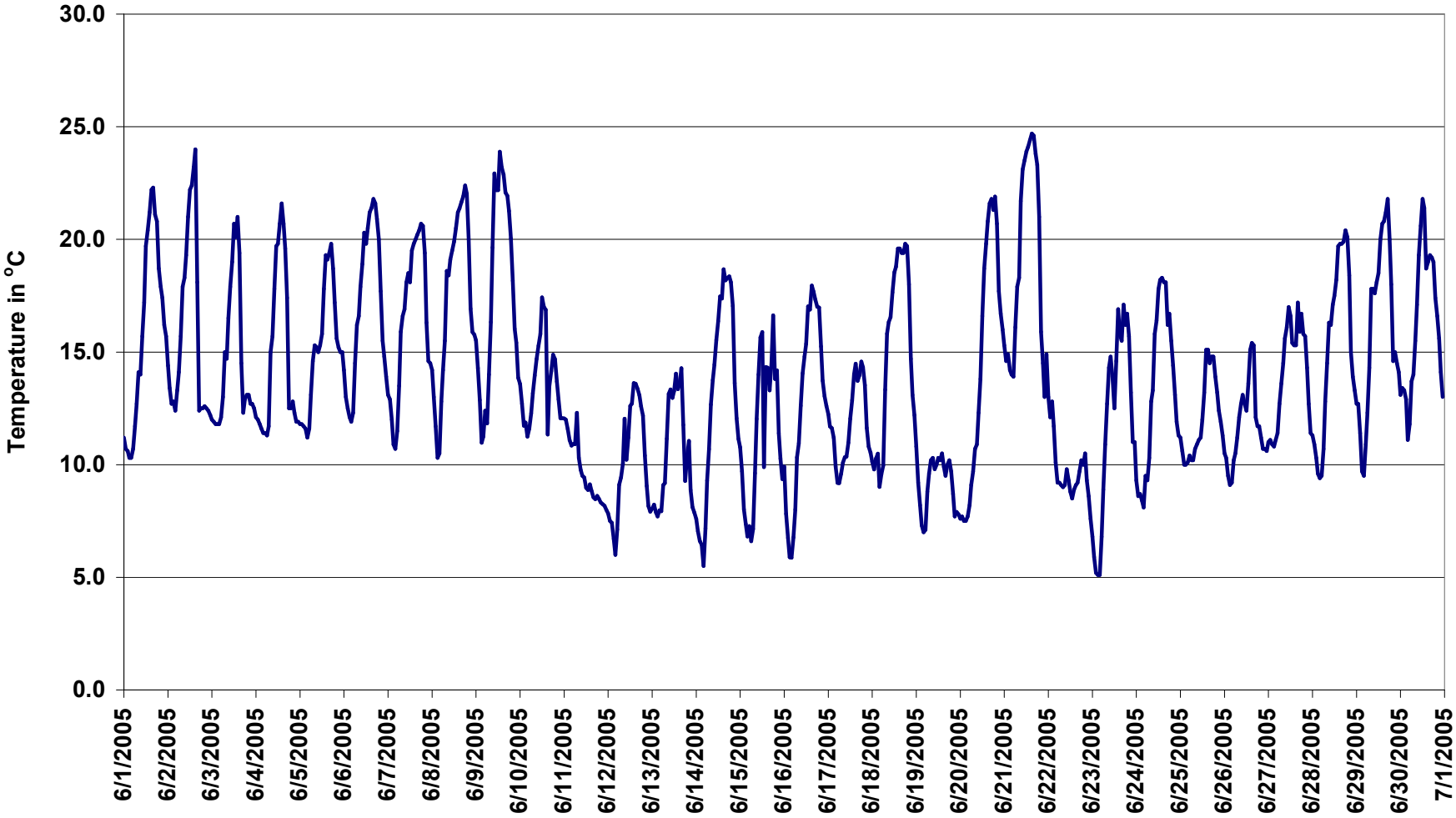


Figure 39. PASZA - Beaverlodge Temperature 1-hr Average Monthly Trend

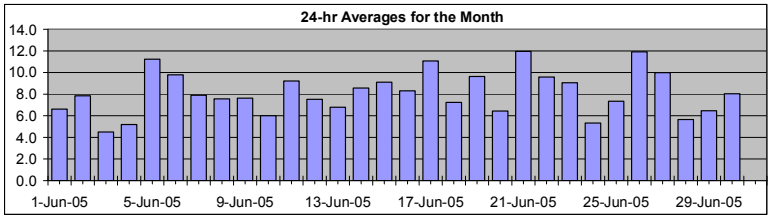
PASZA Beaverlodge Scalar Wind Speed Monthly Summary

HOURLY AVERAGE TABLE

Wind Speed (WSs)

Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: June 1, 2005 to July 1, 2005



Summary

Maximum 1-hr Average:	28.7	km/hr	21-Jun	10:00 11:00
Maximum 24-hr Value:	12.0	km/hr	21-Jun	

Calm Time:	2 hrs	**0%** calms	Operational Time:	718 hrs
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	AverageS
	20.6	15.8	10.6	7.3	5.0	2.7	1.8	8.1 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**

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-hr Scalar Average	Daily Max
1-Jun-05	1	3	7	9	13	14	13	9	9	9	8	7	4	4	5	4	4	7	5	3	3	2	5	7	6.6	13.5
2-Jun-05	6	7	11	8	6	6	8	6	4	6	7	8	8	11	10	7	13	14	5	10	10	7	7	4	7.9	13.7
3-Jun-05	4	3	3	1	2	2	3	3	4	2	2	4	5	8	6	4	14	9	11	5	3	3	4	2	4.5	14.3
4-Jun-05	4	6	4	2	2	3	5	5	3	6	4	6	6	6	6	4	7	5	12	6	5	9	3	8	5.2	11.9
5-Jun-05	5	3	3	3	3	4	6	5	6	10	12	14	14	13	17	18	18	21	19	16	13	16	16	16	11.2	20.6
6-Jun-05	12	9	9	8	6	3	3	4	7	7	7	6	12	15	16	16	16	16	17	17	13	7	5	5	9.8	17.3
7-Jun-05	5	4	6	6	4	2	2	4	8	11	12	12	14	13	13	13	11	10	9	7	5	6	7	7	7.9	13.7
8-Jun-05	7	6	4	4	3	calm	2	3	2	6	9	13	15	14	13	11	10	11	7	8	7	7	7	6	7.6	15.5
9-Jun-05	6	3	2	3	5	4	4	4	5	4	3	6	7	7	16	16	18	17	19	15	7	6	3	4	7.6	19.0
10-Jun-05	6	5	9	7	7	6	6	6	5	5	5	9	7	4	8	11	6	11	4	3	4	4	3	3	6.0	11.4
11-Jun-05	3	6	6	3	6	4	7	5	12	13	14	15	17	19	16	15	13	10	7	10	6	5	5	5	9.2	19.2
12-Jun-05	8	5	6	7	8	6	4	5	4	5	7	5	4	6	6	8	8	10	12	15	13	11	10	9	7.5	14.8
13-Jun-05	8	7	8	8	9	9	10	10	10	8	4	4	4	4	3	4	3	10	10	6	7	6	6	4	6.8	10.2
14-Jun-05	3	3	4	3	5	2	6	9	12	16	15	14	14	12	12	13	11	11	11	10	6	5	4	3	8.6	16.2
15-Jun-05	5	10	12	12	9	9	12	10	9	8	9	10	11	13	7	14	16	8	6	9	5	5	4	6	9.1	15.8
16-Jun-05	6	4	5	9	12	7	8	9	7	7	8	9	9	8	8	7	9	12	12	11	9	7	8	7	8.3	11.9
17-Jun-05	9	10	11	12	14	15	15	13	13	16	16	12	13	13	14	13	8	5	4	6	7	9	10	10	11.1	15.9
18-Jun-05	10	9	10	7	6	7	8	5	3	9	11	9	8	8	8	10	9	7	6	7	6	4	4	3	7.2	11.2
19-Jun-05	4	3	3	3	2	9	17	21	18	14	15	11	12	13	11	10	8	8	7	8	9	11	10	3	9.6	21.2
20-Jun-05	4	6	4	2	9	6	5	9	9	9	6	6	6	5	7	10	8	6	7	5	7	6	6	5	6.4	10.4
21-Jun-05	4	4	4	4	6	4	4	7	7	8	29	27	24	23	21	21	19	17	10	11	11	8	6	10	12.0	28.7
22-Jun-05	7	6	7	9	12	11	8	11	13	13	13	15	12	8	11	12	11	9	10	8	7	6	8	7	9.6	15.2
23-Jun-05	7	7	6	6	6	5	7	9	13	13	14	12	9	12	14	21	16	11	10	3	5	3	5	5	9.1	21.1
24-Jun-05	5	4	3	4	2	3	3	3	3	5	6	6	4	5	9	8	7	8	4	8	5	9	8	8	5.3	9.0
25-Jun-05	8	8	9	9	8	7	10	5	5	6	8	10	11	9	8	6	7	5	6	5	6	7	9	9	7.3	10.5
26-Jun-05	11	11	9	7	6	7	8	10	11	13	12	13	13	16	16	15	13	12	12	14	14	15	16	15	11.9	15.9
27-Jun-05	14	12	9	11	9	9	8	10	9	11	16	17	17	14	17	8	10	11	8	5	3	3	5	6	10.0	17.2
28-Jun-05	6	6	5	6	8	3	5	5	4	3	5	7	8	7	7	7	6	7	5	7	6	6	6	5	5.7	8.3
29-Jun-05	5	5	4	calm	2	2	3	3	3	4	7	4	6	10	10	11	9	10	12	10	15	7	6	3	6.5	14.7
30-Jun-05	3	1	5	5	3	2	4	3	8	11	12	11	8	12	16	12	16	9	7	7	6	11	15	8	8.0	15.5
																									N	0.0
1-hr Average	6.1	5.8	6.3	6.1	6.4	5.9	6.8	7.0	7.5	8.5	9.8	10.1	10.1	10.3	11.0	10.9	10.8	10.1	9.1	8.5	7.4	7.0	6.9	6.4		
Hourly Max	14.0	11.6	12.3	12.4	14.2	15.2	17.2	21.2	17.6	16.2	28.7	26.9	23.9	23.2	21.2	21.1	18.9	20.6	19.0	16.8	14.7	16.3	15.7	15.5		

PASZA - Beaverlodge Wind Direction Monthly Summary

Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

Calm Time:	0 hrs	**0%** calms		Operational Time:		720 hrs	
Calibration Time:	0 hrs			AMD Operational Uptime:		100.0%	
Percentile	99	95	75	50	25	5	1	Average
	352.4	342.9	287.9	142.0	82.8	37.2	6.6	48 deg

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	WD Sector
1-Jun-05	227	286	320	341	337	335	336	353	354	325	317	324	292	276	227	168	123	105	100	187	76	333	306	340	332	NNW
2-Jun-05	314	236	269	308	350	328	302	303	334	311	311	309	302	296	303	287	137	147	283	330	337	307	109	160	302	WNW
3-Jun-05	238	100	146	91	86	208	131	220	181	286	284	302	304	303	313	307	178	194	275	348	186	239	166	180	235	SW
4-Jun-05	233	130	136	214	165	182	243	275	27	271	273	325	352	313	305	8	22	353	335	225	161	156	185	337	299	WNW
5-Jun-05	61	275	286	299	46	27	39	110	119	133	117	113	124	119	110	110	102	94	95	83	79	77	81	88	97	E
6-Jun-05	106	101	77	51	49	89	265	20	35	76	52	91	108	113	114	105	95	96	104	98	87	100	95	88	93	E
7-Jun-05	84	101	96	102	101	92	125	131	144	133	135	120	118	134	103	122	137	135	137	133	85	68	80	80	118	ESE
8-Jun-05	95	98	126	122	128	247	256	245	283	167	138	137	133	137	20	109	119	142	126	96	79	61	69	62	113	ESE
9-Jun-05	54	37	356	41	28	74	232	249	217	228	160	81	89	63	62	58	42	65	88	91	112	125	252	326	71	ENE
10-Jun-05	345	342	313	27	292	292	308	327	323	48	81	126	143	74	309	287	300	277	330	289	291	258	211	282	313	NW
11-Jun-05	71	4	317	63	351	311	295	341	45	54	54	58	60	56	51	63	66	65	62	63	72	77	68	36	49	NE
12-Jun-05	41	51	48	52	33	40	61	140	167	162	177	179	146	151	158	122	107	129	111	111	106	101	84	85	104	ESE
13-Jun-05	93	97	97	94	79	76	91	118	105	118	144	18	37	332	299	281	276	257	288	288	296	268	255	235	89	E
14-Jun-05	227	87	213	182	211	174	218	244	254	269	259	266	285	272	292	284	304	290	297	318	343	1	75	138	275	W
15-Jun-05	343	347	333	336	349	342	342	345	318	328	331	314	339	283	311	324	357	347	280	333	7	223	260	41	331	NNW
16-Jun-05	29	310	323	353	341	330	338	346	344	340	340	346	347	337	37	51	62	69	61	61	63	52	51	46	16	NNE
17-Jun-05	45	38	44	45	48	59	62	65	69	79	78	74	57	54	62	59	59	39	76	53	35	37	39	37	57	ENE
18-Jun-05	33	23	45	87	6	3	351	6	105	78	61	45	28	74	92	145	149	138	174	159	179	151	86	101	74	ENE
19-Jun-05	115	106	124	120	96	317	331	344	349	342	334	345	349	347	1	358	351	29	48	44	27	46	55	52	2	N
20-Jun-05	187	233	190	99	54	63	128	130	142	157	166	157	149	141	153	152	173	177	176	180	149	104	97	103	145	SE
21-Jun-05	128	105	143	142	242	87	138	197	240	221	252	262	268	278	281	283	300	323	312	353	15	14	252	338	280	W
22-Jun-05	349	311	321	288	334	348	329	322	314	329	339	322	330	338	331	337	333	324	302	301	299	312	325	322	325	NW
23-Jun-05	318	312	300	308	307	330	298	290	300	305	306	328	258	281	268	258	289	322	305	281	263	233	88	99	294	WNW
24-Jun-05	102	120	103	93	99	89	182	140	285	310	302	258	216	177	291	294	285	77	343	339	349	331	344	5	328	NNW
25-Jun-05	13	337	330	331	345	2	45	43	31	69	60	67	67	72	78	80	49	98	130	108	79	100	105	89	54	NE
26-Jun-05	76	80	71	95	90	86	102	117	102	116	118	109	94	89	89	82	78	71	45	45	48	48	47	50	79	E
27-Jun-05	65	66	54	79	91	67	47	61	85	103	86	91	100	93	135	126	130	124	43	107	149	106	73	68	89	E
28-Jun-05	64	62	59	39	34	48	329	318	306	44	97	147	156	160	170	183	163	133	129	114	101	82	100	98	105	ESE
29-Jun-05	88	79	323	151	158	141	211	165	238	174	140	139	170	142	161	177	180	161	161	137	180	101	112	209	155	SSE
30-Jun-05	96	130	260	268	168	113	164	187	234	258	274	280	275	231	233	235	239	250	260	250	224	335	350	253	255	WSW
																									N	-
Hourly Avg	57	49	16	33	20	21	354	1	2	46	27	36	64	71	49	79	82	93	68	67	69	58	62	51		

PASZA - Beaverlodge Standard Deviation of Wind Direction Monthly Summary

Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	**0%** calms	Operational Time: 720 hrs
Calibration Time:	0 hrs		AMD Operational Uptime: 100.0%

Percentile	99	95	75	50	25	5	1
	48.6	30.0	15.0	10.0	7.8	4.0	3.0

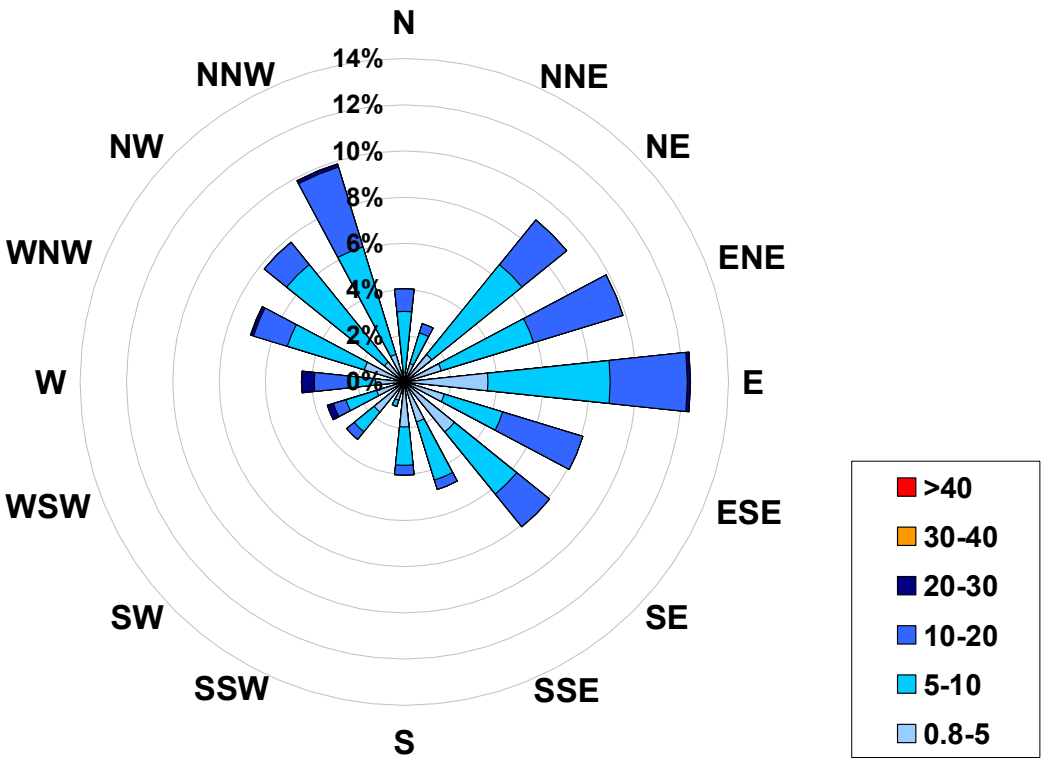
Status Flag Characters

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

Day — **Mountain Standard Time**

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	Daily Maximum
1-Jun-05	17	5	11	13	10	10	13	21	18	11	13	15	31	26	25	28	30	17	9	6	7	4	3	4	31.0
2-Jun-05	7	9	6	7	14	13	6	15	18	14	13	22	18	12	14	23	20	10	10	8	15	10	8	4	23.0
3-Jun-05	3	10	8	4	4	7	11	14	12	22	22	22	21	13	20	13	9	8	6	11	6	6	9	5	22.0
4-Jun-05	7	7	8	6	4	13	6	8	23	11	22	25	20	19	19	21	13	10	11	6	9	8	7	8	25.0
5-Jun-05	9	6	4	4	3	7	7	11	11	9	8	9	9	10	10	9	9	9	9	7	6	6	6	6	11.0
6-Jun-05	8	8	6	7	7	11	14	16	11	12	15	18	10	10	11	9	9	8	9	9	6	6	8	7	18.0
7-Jun-05	15	7	7	8	8	7	13	11	10	10	10	11	10	10	11	9	11	10	9	9	4	6	8	7	15.0
8-Jun-05	9	8	5	7	7	6	8	14	29	24	21	20	12	16	27	19	15	19	19	8	3	2	7	7	29.0
9-Jun-05	4	20	43	22	37	34	32	14	19	36	69	34	18	25	24	9	5	8	5	5	7	19	48	35	68.6
10-Jun-05	11	24	8	38	15	50	6	9	18	14	13	9	25	47	33	11	25	9	22	24	6	17	8	10	50.2
11-Jun-05	17	11	9	44	9	18	6	22	7	5	6	5	7	6	7	6	6	7	9	7	7	7	8	7	44.3
12-Jun-05	6	9	8	4	3	5	17	22	30	45	16	26	39	24	31	18	27	12	7	6	4	4	3	3	44.6
13-Jun-05	4	4	4	4	5	4	8	9	15	26	41	31	34	50	51	13	40	17	6	11	9	11	6	9	50.7
14-Jun-05	15	23	13	12	9	29	12	8	10	7	14	10	14	14	16	14	17	14	12	11	9	27	31	31	31.4
15-Jun-05	21	5	4	3	6	6	7	11	12	16	18	25	17	14	15	13	9	14	22	36	15	17	35	8	35.9
16-Jun-05	10	59	46	20	5	15	9	10	15	27	19	22	25	37	24	49	30	15	10	6	5	5	3	4	59.0
17-Jun-05	4	3	3	7	5	4	4	6	8	8	6	6	10	10	11	13	8	10	14	8	4	2	3	3	14.3
18-Jun-05	3	4	6	22	10	6	5	21	49	49	24	29	48	28	21	16	15	19	13	8	5	5	10	11	49.1
19-Jun-05	8	22	15	12	11	9	13	22	24	20	16	19	20	19	19	20	17	15	11	8	12	8	9	12	24.0
20-Jun-05	9	5	3	6	6	6	10	8	8	8	13	16	23	27	16	12	14	15	10	6	7	10	12	9	27.0
21-Jun-05	8	8	6	7	10	8	11	10	9	14	9	8	8	9	9	9	9	12	11	19	9	4	12	13	19.0
22-Jun-05	10	7	9	7	13	17	12	10	9	14	17	10	13	16	13	17	14	11	8	8	8	7	12	9	17.0
23-Jun-05	8	7	4	5	5	11	9	9	9	10	10	15	12	10	9	8	9	14	13	7	2	8	6	8	15.0
24-Jun-05	8	9	12	11	16	6	8	9	21	12	17	15	29	28	15	17	15	16	13	15	13	10	15	14	29.0
25-Jun-05	11	13	5	8	16	12	9	11	14	6	8	9	9	9	14	11	10	10	9	8	6	8	9	6	16.0
26-Jun-05	6	7	8	9	12	8	9	9	9	9	10	9	9	8	9	8	9	9	8	9	8	7	7	8	12.0
27-Jun-05	8	8	9	9	8	7	9	9	9	10	9	10	9	8	9	10	11	9	12	12	14	6	5	6	14.0
28-Jun-05	7	8	6	6	6	12	9	11	16	29	15	16	13	20	23	17	24	15	15	9	7	7	9	10	29.0
29-Jun-05	10	9	10	10	5	11	9	16	22	21	12	17	18	11	11	10	11	11	8	8	7	12	13	5	22.0
30-Jun-05	6	11	17	13	9	11	11	10	8	8	9	10	17	11	8	8	8	8	6	7	12	17	23	17	23.0
																									0.0
Hourly Max	21	59	46	44	37	50	32	22	49	49	69	34	48	50	51	49	40	19	22	36	15	27	48	35	

1-hr Average Wind Rose (in km/hr) Located at the Beaverlodge Site for June 2005



Calms:	0%

Frequency Distribution of Wind in km/hr			
Range			Frequency (hrs)
0.8	<	5	179
5	to	10	335
10	to	20	190
20	to	30	9
30	to	40	0
	>	40	0
Total Non-Zero Values			718

PEACE AIRSHED ZONE ASSOCIATION

PASZA Monthly Passive Data Summary

Table 1. PASZA Passive Stations for June 2005

Station Number	Station Name	PASZA SO2 ppb	PASZA O3 ppb	PASZA NO2 ppb	Site Legal
Duplicates					
20a	Shaftesbury	**0.2**	**23.2**	**0.7**	
20b	Shaftesbury	**0.2**	**20.8**	**0.8**	
35a	Jean Cote	**0.3**	**27.5**	**2.2**	
35b	Jean Cote	**0.3**	**26.0**	**2.4**	
40a	McLennan	**0.3**	**25.6**	**2.7**	
40b	McLennan	**0.2**	**25.9**	**2.9**	
49a	Grande Prairie HP	**0.2**	**30.9**	**4.6**	
49b	Grande Prairie HP	**0.2**	**30.7**	**4.7**	
1	Silver Valley	**0.3**	**25.7**	**1.8**	08-27-081-11 W6M
2	Bay Tree	**0.2**	**24.0**	**0.8**	13-16-078-13 W6M
3	Forth Creek	**0.2**	**30.6**	**0.8**	04-13-082-07 W6M
4	Gordondale	**0.2**	**25.3**	**1.3**	04-34-078-10 W6M
5	Boone Creek	**0.3**	**20.8**	**0.6**	01-23-076-11 W6M
7	Steeprock Creek	**0.2**	**25.9**	**1.0**	09-35-072-13 W6M
9	Spirit River	**0.2**	**23.6**	**2.1**	08-12-079-07 W6M
10	Woking	**0.2**	**22.8**	**1.0**	01-13-076-07 W6M
11	Webber Creek	**0.3**	**25.5**	**2.3**	09-36-074-09 W6M
12	Hythe	**0.3**	**24.8**	**2.1**	14-36-072-11 W6M
14	Sylvester	**0.2**	**20.1**	**1.0**	08-06-069-12 W6M
16	Beaverlodge	**0.2**	**31.6**	**1.8**	15-36-071-10 W6M
17	Poplar	**0.2**	**25.0**	**2.1**	13-06-073-08 W6M
18	Saddle Hills	**0.3**	**26.3**	**0.9**	04-25-074-07 W6M

Table 1. PASZA Passive Stations for May 2005 (Continued)

		PASZA			
Station Number	**Station Name**	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
19	Wanham	**0.2**	**26.8**	**1.1**	16-22-077-03 W6M
20	Shaftesbury	**0.2**	**22.0**	**0.7**	04-03-082-23 W5M
21	Eaglesham	**0.2**	**23.7**	**1.4**	16-21-079-25 W5M
23	Bear Lake	**0.2**	**27.1**	**2.9**	15-31-072-06 W6M
24	Wembley	**0.2**	**24.3**	**1.9**	12-31-070-08 W6M
25	Pinto Creek	**0.2**	**22.3**	**1.0**	04-24-069-11 W6M
26	Flyingshot	**0.2**	**22.9**	**1.7**	15-36-070-07 W6M
27	Grande Prairie I	**0.3**	**26.2**	**5.3**	08-15-071-06 W6M
28	Clairmont Lake	**0.4**	**26.2**	**1.7**	09-06-073-04 W6M
29	Smoky Heights	**0.2**	**31.6**	**1.8**	04-06-075-02 W6M
30	Fitzsimmons	**0.4**	**26.8**	**1.1**	15-36-072-03 W6M
32	Gold Creek	**0.4**	**21.6**	**0.8**	06-33-067-05 W6M
33	Wapiti	**0.2**	**26.0**	**1.2**	02-25-071-03 W6M
34	Puskwaskau	**0.2**	**21.4**	**0.6**	15-35-074-25 W5M
35	Jean Cote	**0.3**	**26.8**	**2.3**	12-35-079-21 W5M
36	Guy	**0.2**	**24.9**	**1.9**	03-04-076-22 W5M
37	Crooked Creek	**0.2**	**27.4**	**1.4**	16-01-071-26 W5M
38	Karr Creek	**0.1**	**18.7**	**0.7**	10-16-065-02 W6M
39	Clouston Creek	**0.2**	**25.5**	**1.1**	12-01-073-22 W5M
40	McLennan	**0.3**	**25.8**	**2.8**	03-29-077-19 W5M
41	Valleyview	**0.3**	**27.3**	**1.0**	09-30-069-22 W5M
42	Sunset House	**0.2**	**30.7**	**0.6**	05-32-070-19 W5M
43	High Prairie	**0.1**	**23.9**	**2.0**	16-13-074-17 W5M
44	Peavine	**0.2**	**23.7**	**0.5**	03-05-079-15 W5M
45	Gift Lake	**0.2**	**21.2**	**1.2**	10-07-079-12 W5M
46	Little Smoky	**0.2**	**22.6**	**1.6**	12-01-065-21 W5M
47	Kinuso	**0.2**	**20.7**	**1.0**	12-10-073-10 W5M
48	Deer Mountain	**0.2**	**20.0**	**0.7**	15-22-068-09 W5M
49	Grande Prairie HP	**0.2**	**30.8**	**4.6**	17-26-071-06 W6M

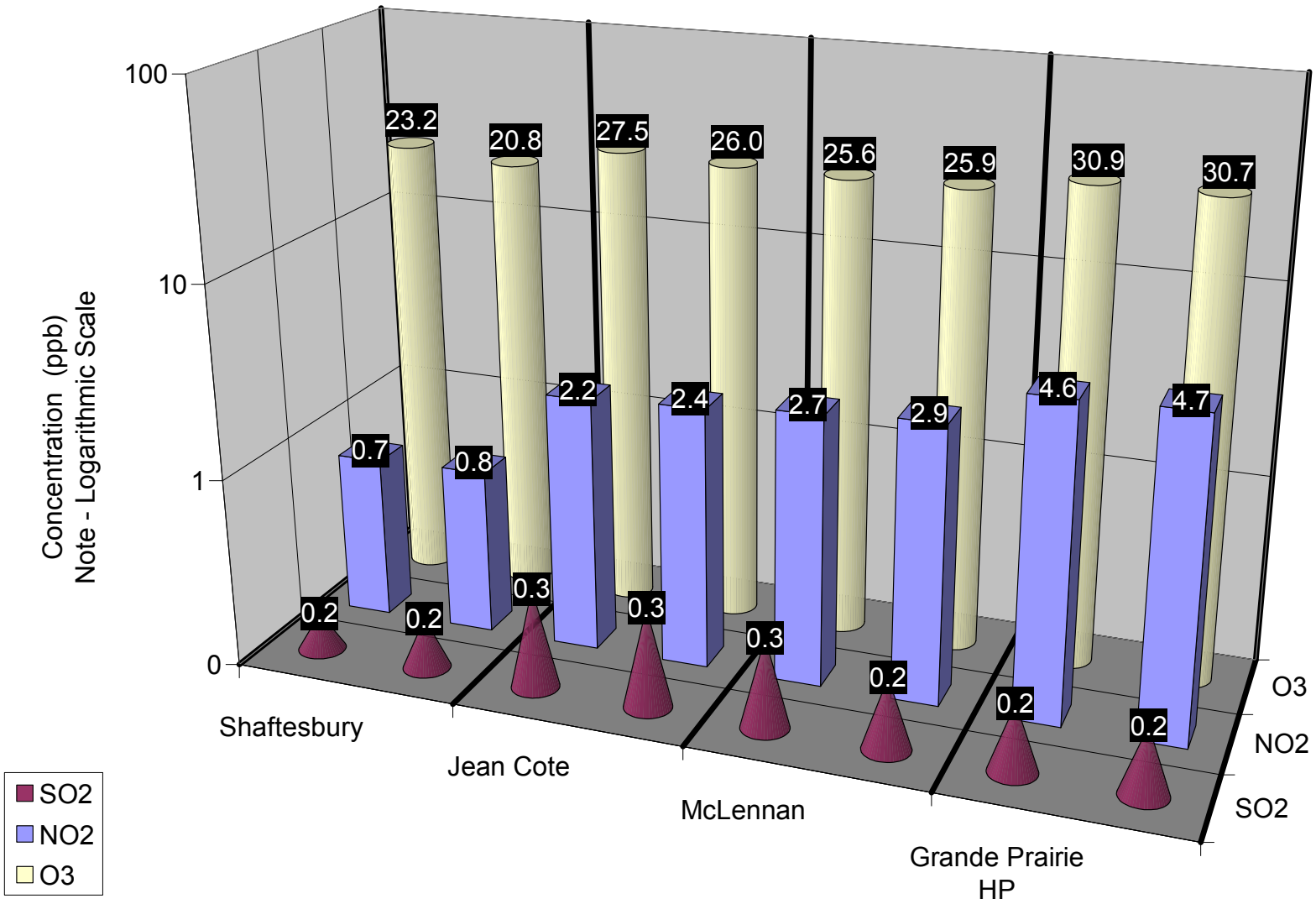


Figure 40. Duplicate Summary Chart

Table 2. Passive Summary Results for June 2005

Stats	Sulphur Dioxide SO_2	Ozone O_3	Nitrogen Dioxide NO_2
	ppb	ppb	ppb
	Passive Summary for June 2005 (PASZA Zone)		
Mean	**0.2**	**24.9**	**1.5**
Standard Deviation	**0.1**	**3.2**	**1.0**
Minimum	**0.1**	**18.7**	**0.5**
	Karr Creek (#38)	**Karr Creek (#38)**	**Peavine (#44)**
Maximum	**0.4**	**31.6**	**5.3**
	Gold Creek (#32)	**Smoky Heights (#29)**	**Grande Prairie I (#27)**

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

	SO_2	O_3	NO_2
AENV Beaverlodge station	**0.2**	**29.5**	**2.5**
PASZA Beaverlodge passive	**0.2**	**31.6**	**1.8**

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

	SO_2	O_3	NO_2
PASZA Henry Pirker station	**0.3**	**23.8**	**5.2**
PASZA Grande Prairie passive	**0.2**	**30.8**	**4.6**

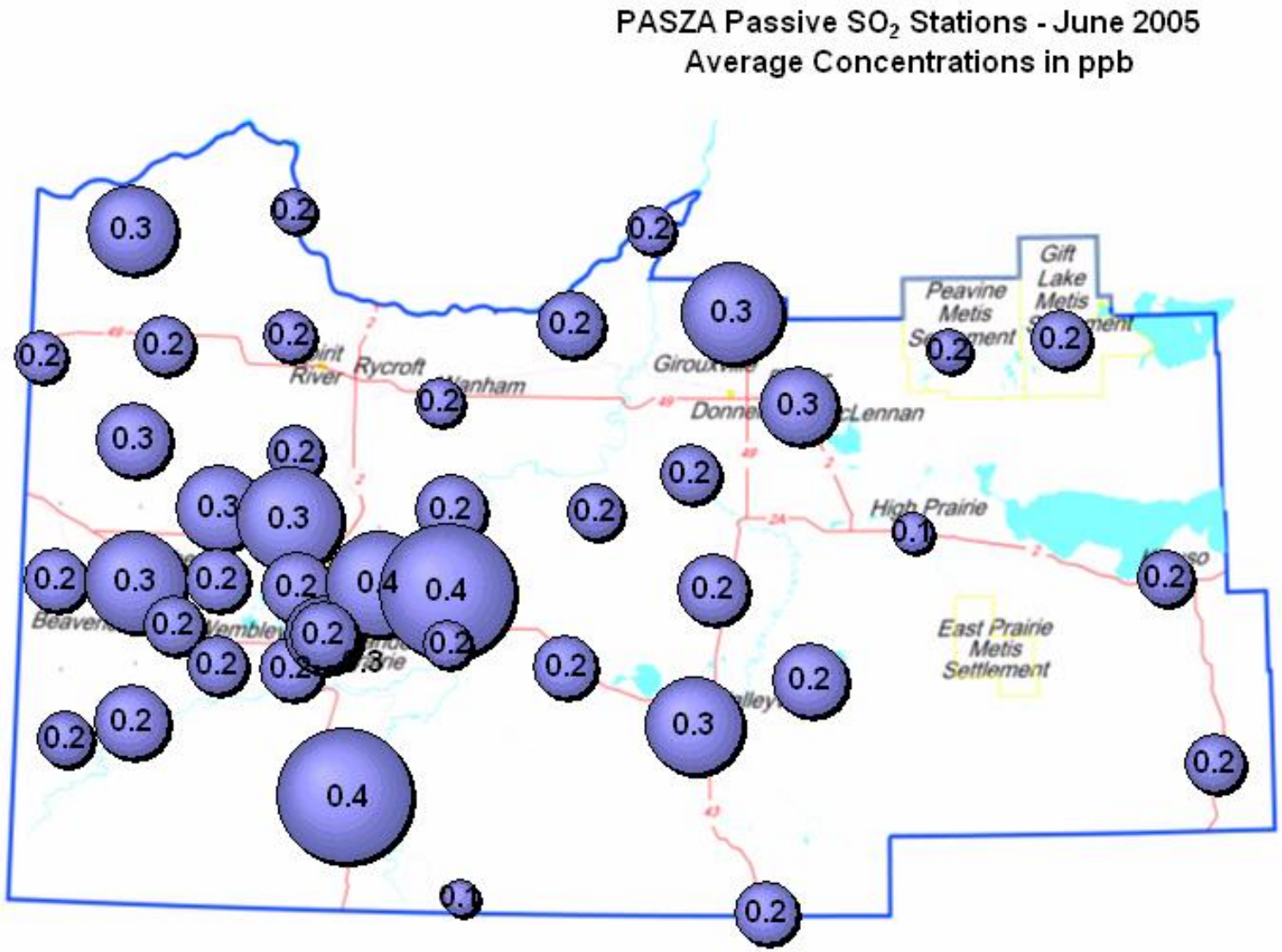


Figure 34. SO_2 Bubble Chart

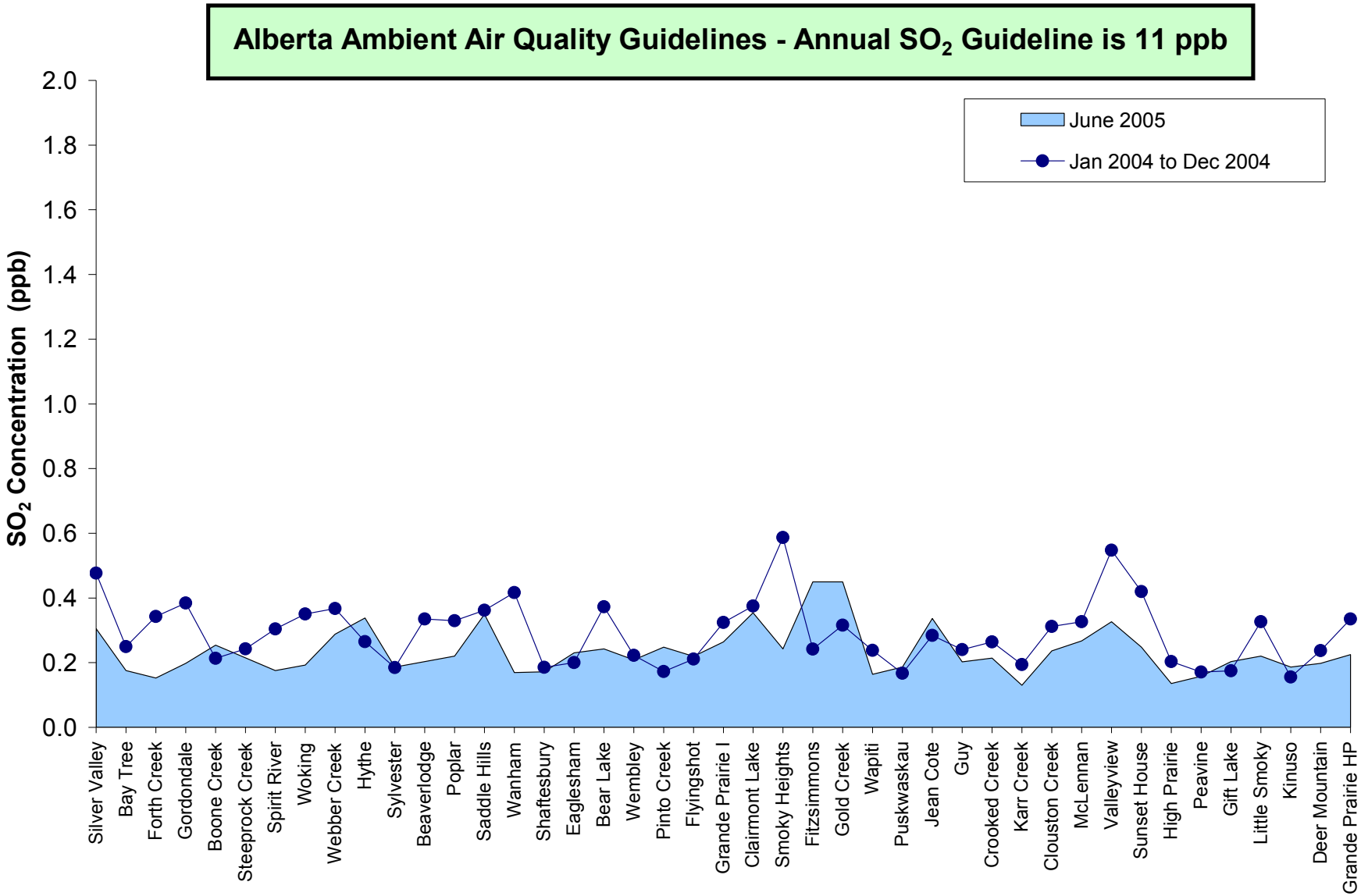


Figure 35. SO_2 Summary Chart

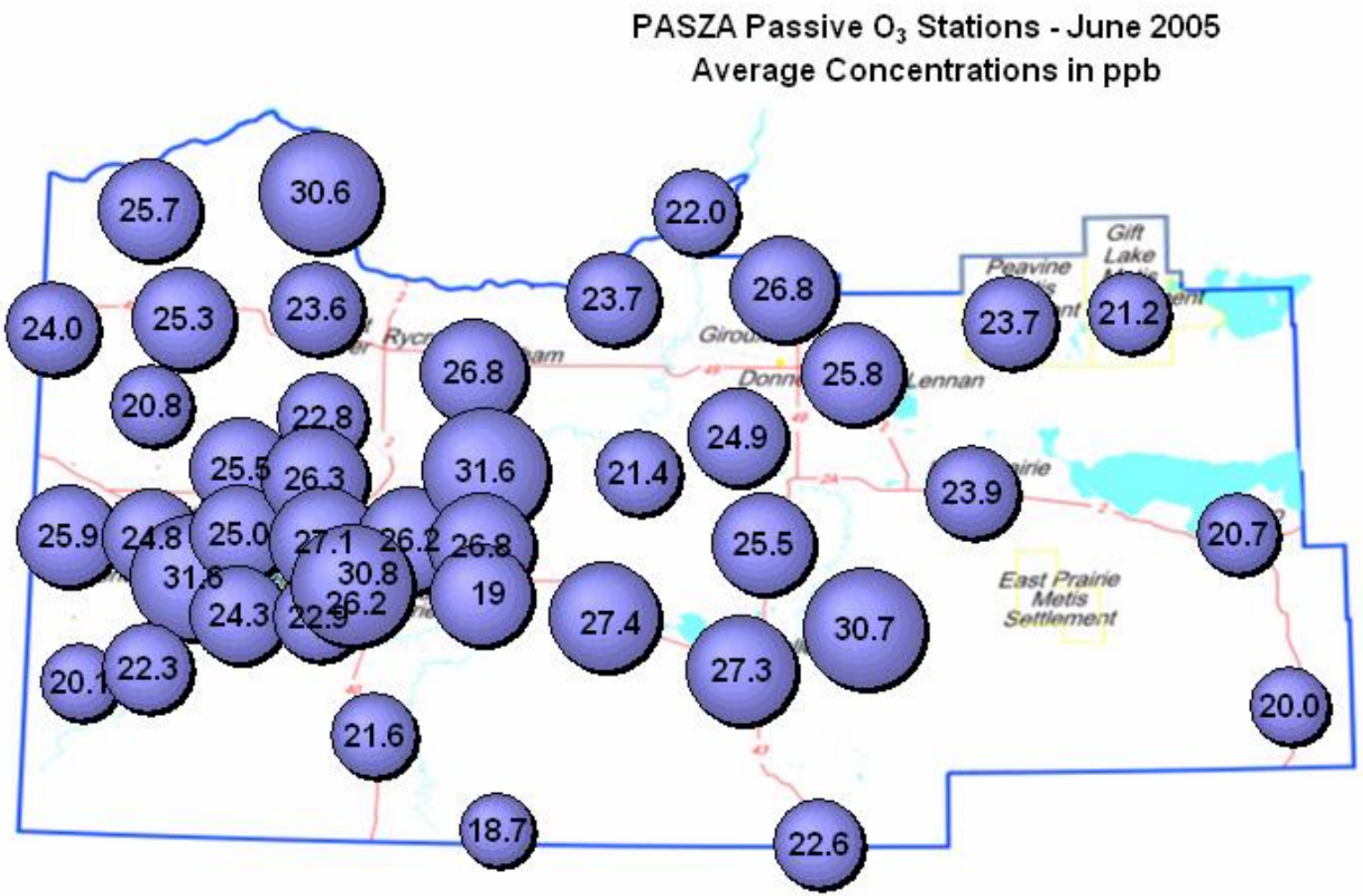


Figure 36. O_3 Bubble Chart

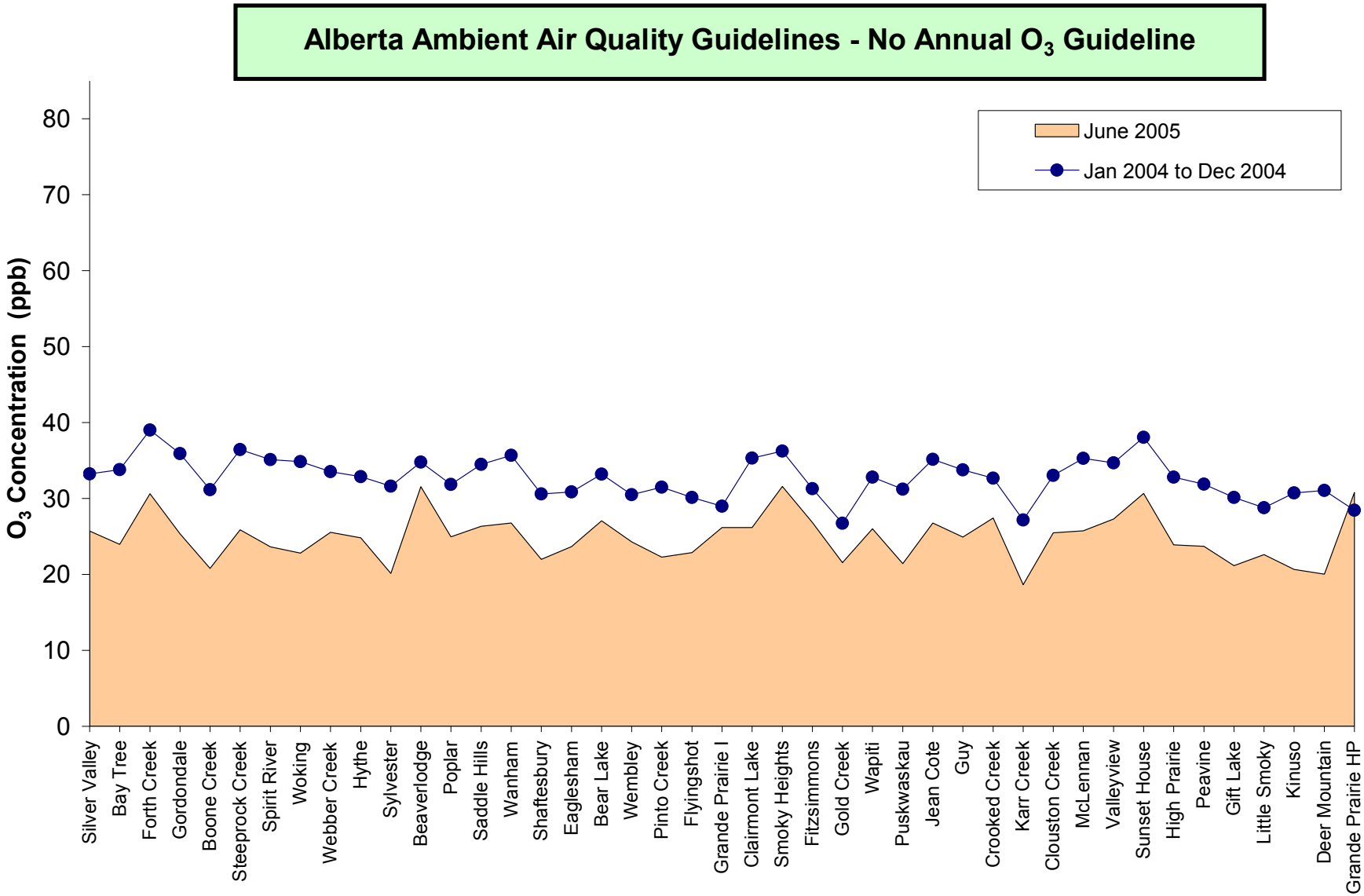


Figure 37. O_3 Summary Chart

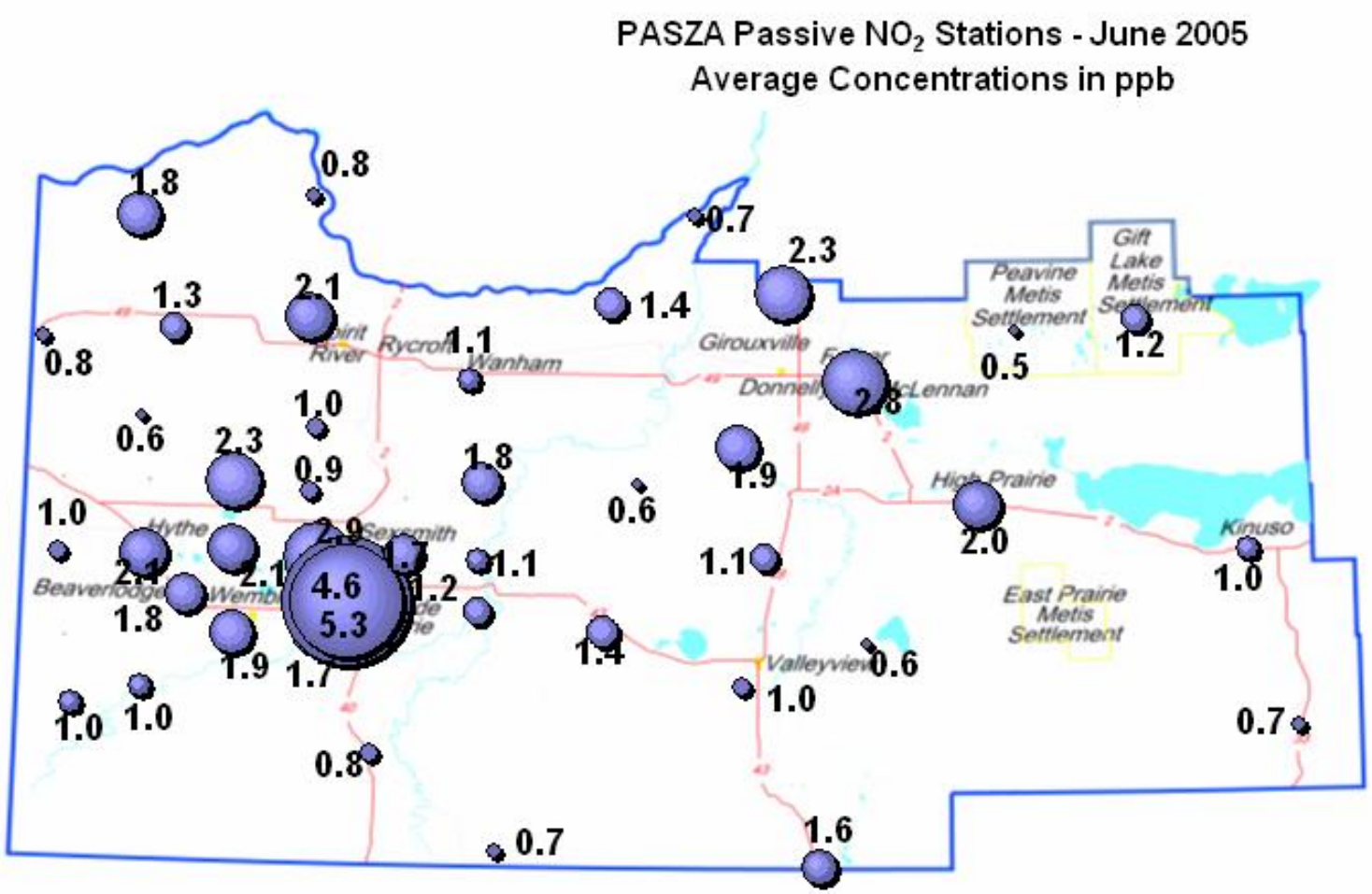


Figure 38. NO_2 Bubble Chart

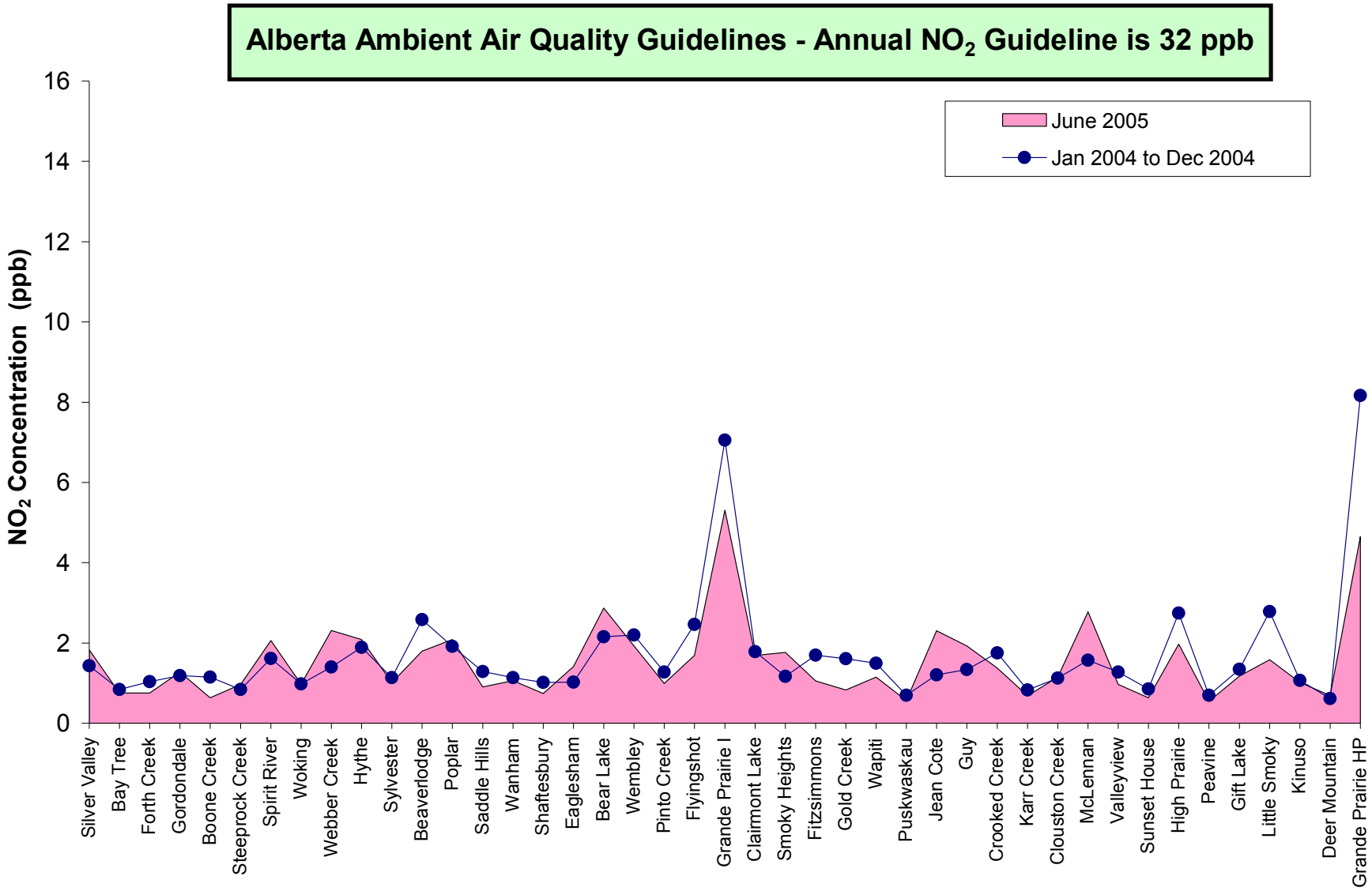


Figure 39. NO_2 Summary Chart

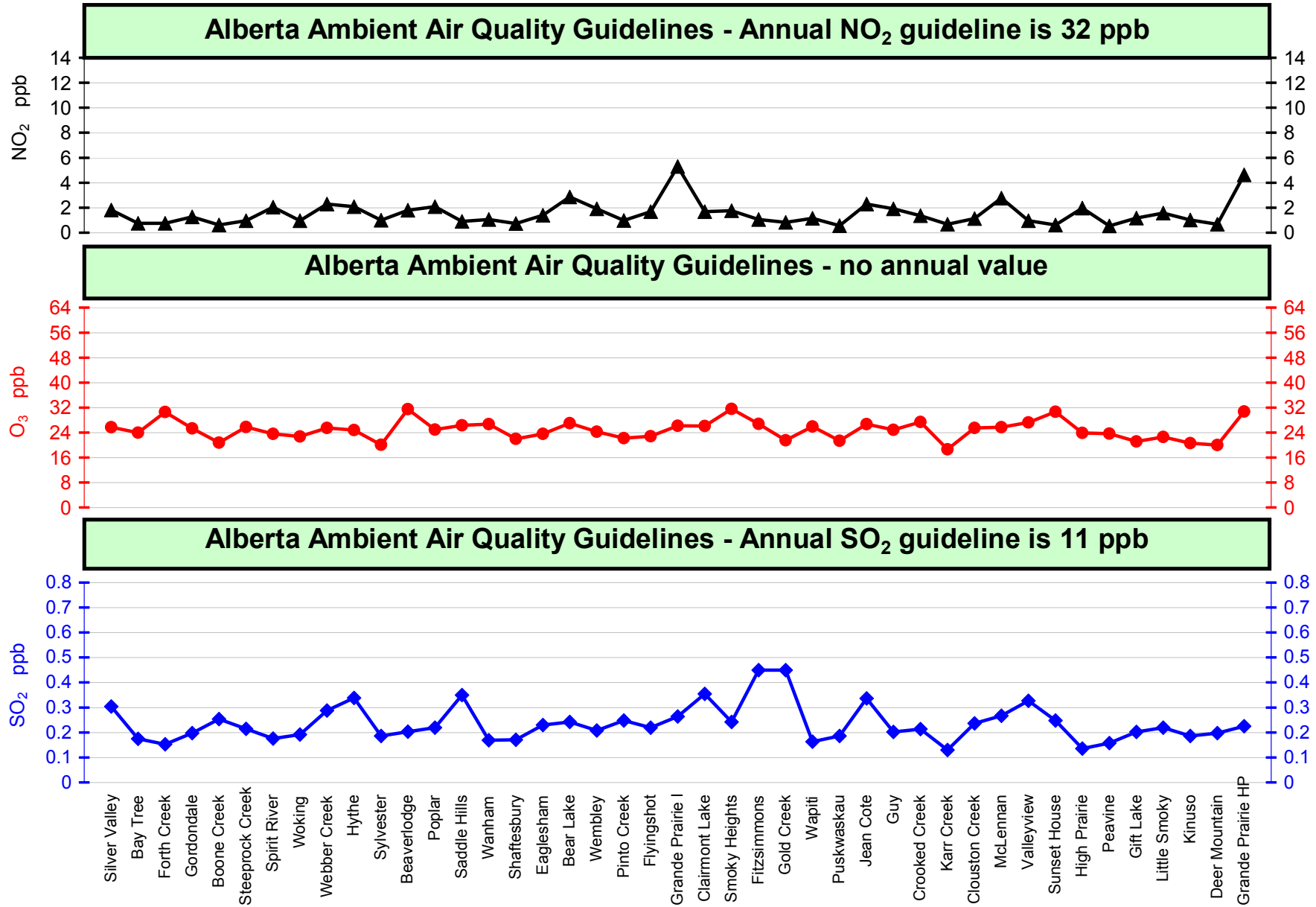


Figure 40. Overview Summary

June 2005 Calibration Reports

PASZA - Henry Pirker Station with the following calibrations:

SO_2, NO, NO_2, NO_x, O_3, CO, THC, TRS, $PM_{2.5}$

PASZA – Evergreen Park Station with the following calibrations:

SO_2, TRS, $PM_{2.5}$

PASZA – Smoky Heights Station with the following calibrations:

SO_2, TRS, $PM_{2.5}$

PASZA – Beaverlodge Station with the following calibrations:

SO_2, NO, NO_2, NO_x, O_3, $PM_{2.5}$

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **SO_2**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	June 7, 2005	Previous Calibration	May 18, 2005
Station Number	1	Station Location	Muskoseepi Park

Reason: [Routine] [Install] [Removal] [Other:]

Start Time (MST)	17:15	End Time (MST)	20:00
Barometric Pressure	27.7 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	2,452 ng/min	Perm-tube Expiry Date	
Correction factor	0.941601	Perm-tube Cert #	19-18743
DACS make	Focus AP1000	DACS serial No.	45266
DACS voltage range	0 - 10 volt	DACS channel #	4
	Before		After
DACS slope	0.005000	DACS slope	0.005000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	0.976237	Calculated slope	1.013480
Calculated intercept	-1.837460	Calculated intercept	-0.586528

Analyzer make	TEI Model 43A		Analyzer serial #	43A-21120-195

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
SO2 zero pot	171		171	
SO2 span pot	286		350	
UV Lamp voltage	933	V	932	V
Vacuum	19.0	" Hg	19.3	" Hg
Sample Flow	425	ccm	425	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	2142.1	0.0	-0.1	N/A
2275	2142.1	436.9	431.3	1.0129
4985	4693.9	199.4	197.9	1.0076
14900	14029.9	66.7	66.9	0.9973
zero	2330.5	0.0	-0.1	As Found Zero
2475	2330.5	401.6	397.6	As Found Span
			Average Correction Factor	1.0059

Calculated value of As Found Response: 386.453 ppm Percent Change of As Found: 3.8%

	before calibration		after calibration	
Auto zero	-4.0	ppm	-1.0	ppm
Auto span	238.5	ppm	358.6	ppm

Notes: Analyzer was span adjusted. No other maintenance performed.

Calibration Performed By: Kelly Baragar

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

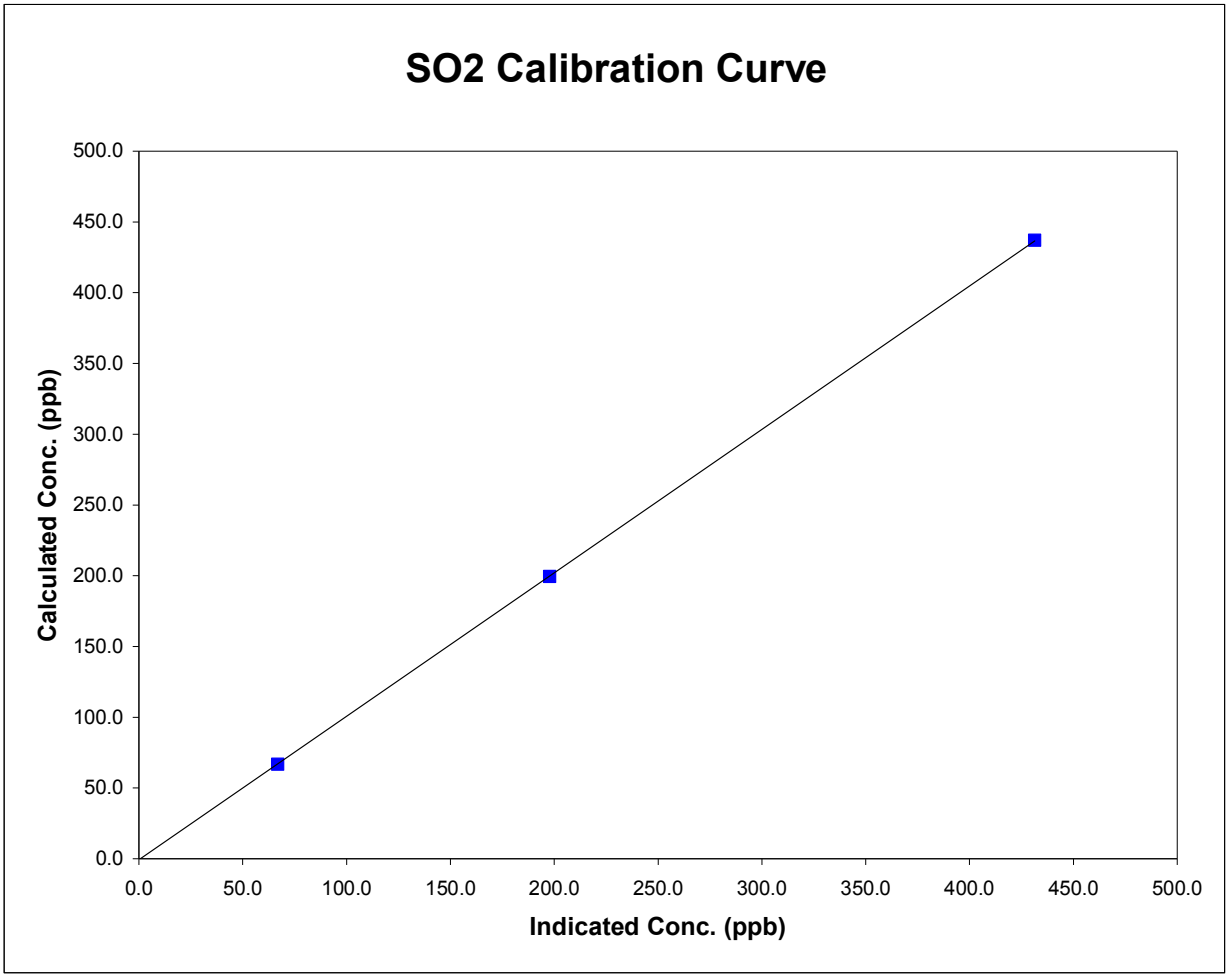
FOCUS AIR QUALITY MONITORING

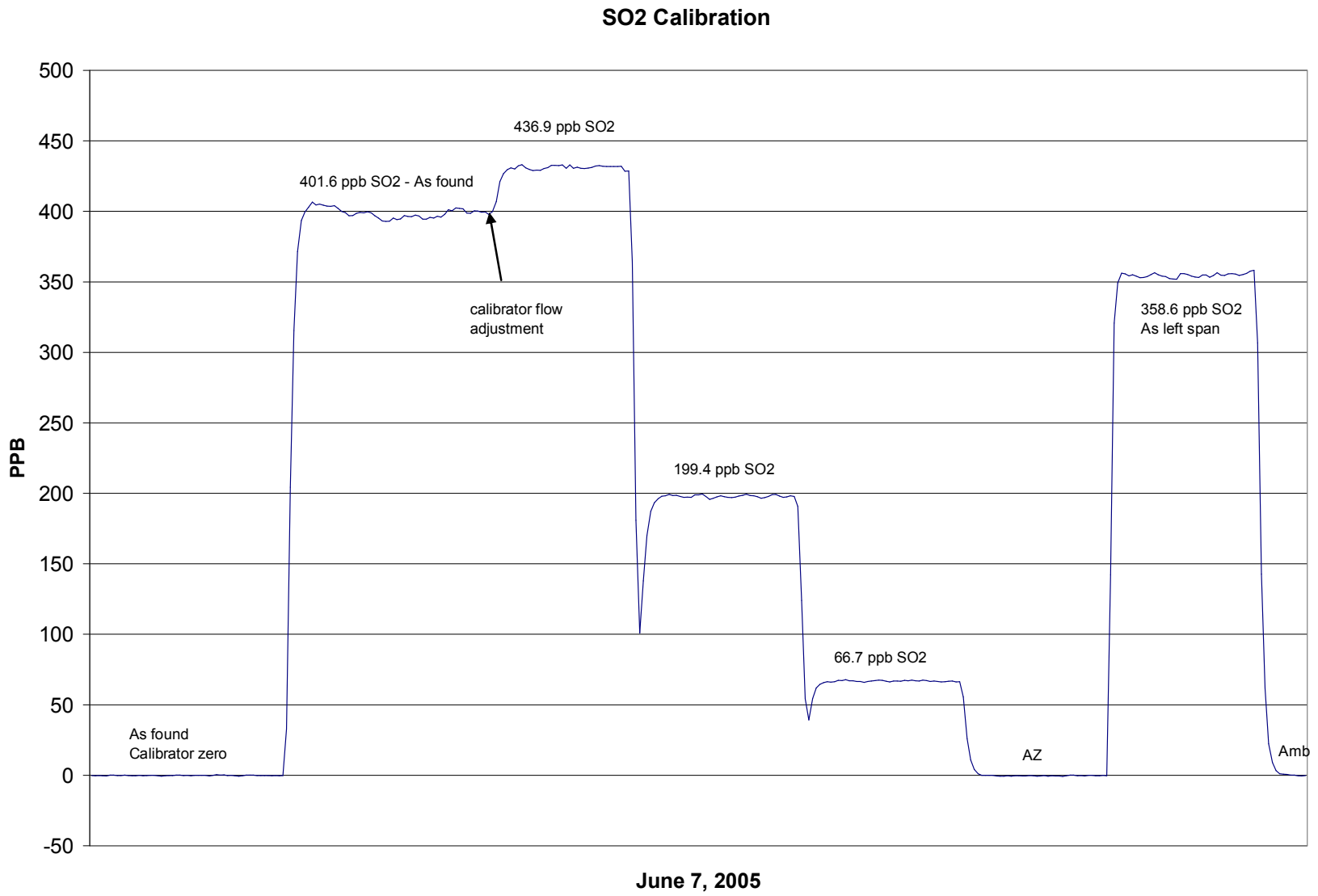
Station Information

Calibration Date	June 7, 2005	Previous Calibration	May 18, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	17:15	End Time (MST)	20:00
Analyzer make/model	TEI Model 43A	Analyzer serial #	43A-21120-195

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
436.9	431.3	1.0129	Correlation Coefficient	0.999989
199.4	197.9	1.0076		
66.7	66.9	0.9973	Slope	1.013480
			Intercept	-0.586528




SO2 Calibration
500
450
400
350
300
250
200
150
100
50
0
-50
PPB
436.9 ppb SO2
401.6 ppb SO2 - As found
calibrator flow
adjustment
358.6 ppb SO2
As left span
199.4 ppb SO2
66.7 ppb SO2
As found
Calibrator zero
AZ
Amb
June 7, 2005

Calibration Report

Parameter **NOx-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	June 7, 2005	Previous Calibration	May 20, 2005
Station Number	1	Station Location	Muskoseepi Park

Reason: Routine | Installation | Removal | Other: Install Span/zero Board and Ribbon Cable

Start Time (MST)	7:48		End Time (MST)	14:30	
Barometric Pressure	0.927	Atm	Station Temperature	20.0	Deg C
Calibrator	Environics 6100		Serial Number	3474	
NO Cal Gas Conc	50.3	ppm	Cal Gas Expiry Date	19-Jan-06	
NOx Cal Gas Conc	50.5	ppm	Cal Gas Serial #	ALM025793	

DACS Information

DACS make	FOCUS AP1000	DACS serial No.	45269

Parameter		NO2	NOx	NO
Before	DACS slope	0.050000	0.050000	0.050000
	DACS offset	0.000000	0.000000	0.000000
After	DACS slope	0.050000	0.050000	0.050000
	DACS offset	0.000000	0.000000	0.000000
Before	Data Slope	1.014650	0.997462	0.996245
	Data Offset	-2.751560	-0.474953	-0.347097
After	Data Slope	1.001403	1.002140	1.000219
	Data Offset	0.199782	0.075497	0.099497
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

Analyzer Information

Analyzer make/model	Teco 42C	Analyzer serial #	508011073

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO background	7.2	ppb	6.3	mV
NOx background	7.5	ppb	6.5	mV
NO coefficient	1.120		1.058	
NOx coefficient	1.002		1.002	
Chamber Temp	49.8	Deg C	49.9	Deg C
Cooler Temp	-2.4	Deg C	-2.4	Deg C
Converter Temp	318.0	Deg C	318.0	Deg C
Vacuum	213.6	mm Hg	214.9	mm Hg
Box temp	31.6	Deg C	33.0	Deg C

Notes: Installation of Zero/Span Board and Ribbon Cable.
Zero and Span Adjustment.
No internal span system installed to date. Awaiting new span cylinder. Installed relay/solenoid control.

Calibration Report

Parameter **NOx-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: June 7, 2005 Station Location: Muskoseepi Park

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4993	0.00	0.0	0.0	0.0	0.1	0.0	0.0	N/A	N/A
1	4993	39.97	401.1	399.5	1.6	400.2	399.3	0.8	1.0022	1.0003
2	4993	19.98	201.3	200.5	0.8	200.7	200.2	0.5	1.0027	1.0013
3	4993	9.99	100.8	100.4	0.4	100.4	100.3	0.2	1.0044	1.0014
AFZ	4993	0.00	0.0	0.0	0.0	-0.4	-0.5	0.0	0.0000	0.0000
AFS	4993	39.97	401.1	399.5	1.6	400.5	398.7	1.8	1.0014	1.0020
							Average Correction Factor		1.0031	1.0010

As Found Concentrations: NO_X= 400.4 NO= 398.8 As Found Percent Change NO_X= -0.2% NO= -0.2%

GPT Calibration Data

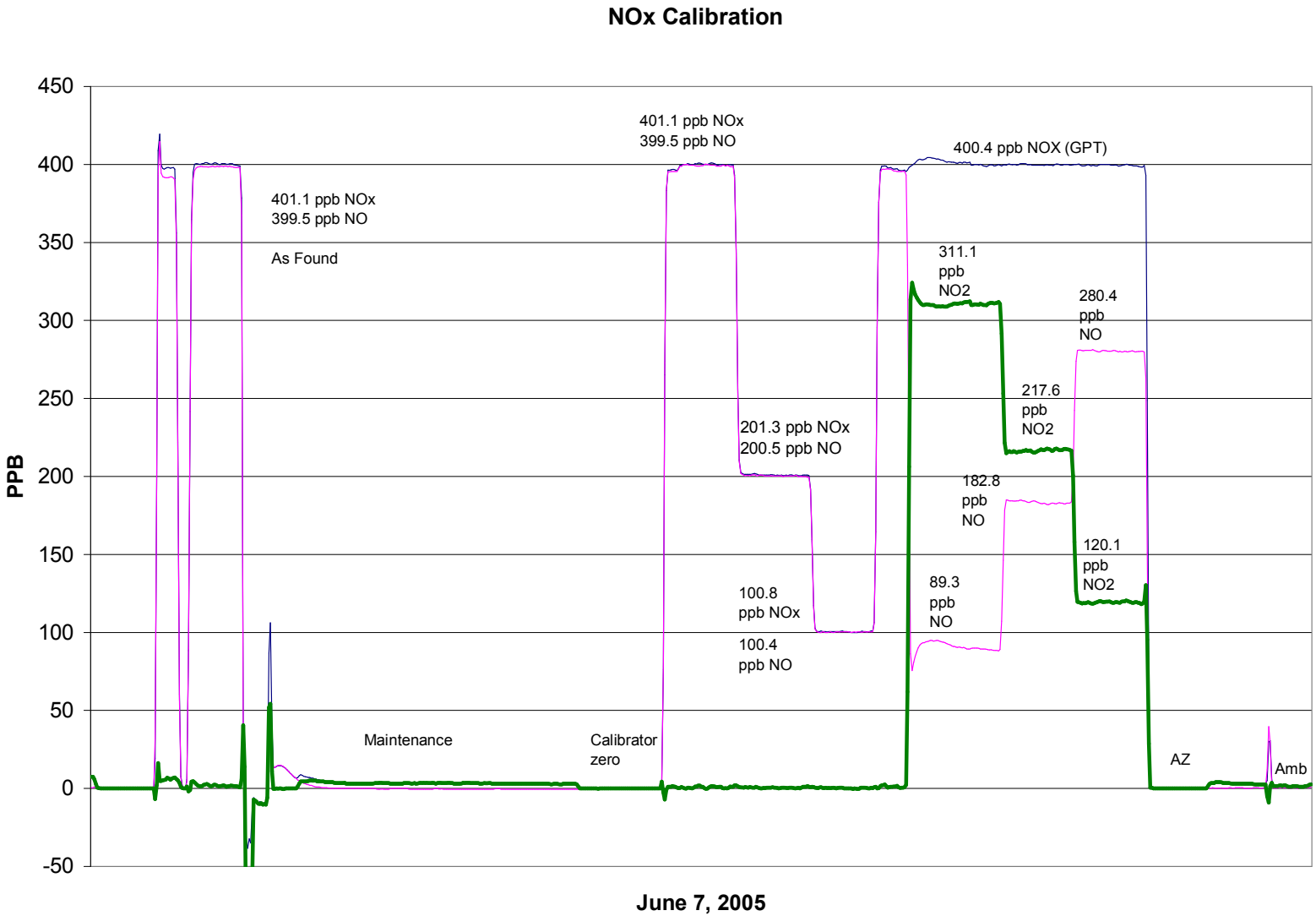
Dilution Flow 4993 ccm Source Gas Flow 39.97 ccm

O3 Setpoint (ppb)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 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
NO point	400.4	-0.4	400.9	397.4	-0.5	3.5	1.0077	0.8117	N/A	N/A
300	400.4	89.3	311.1	399.5	89.2	310.6	1.0023	1.0013	1.0018	99.8%
200	400.4	182.8	217.6	399.7	182.7	217.2	1.0017	1.0008	1.0019	99.8%
100	400.4	280.4	120.1	399.3	280.2	119.3	1.0029	1.0006	1.0065	99.4%
					Average Correction Factor		1.0023	1.0009	1.0034	99.7%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	NA	NA	NA	ppb	0.1	0.2	0.1	ppb
Auto span	NA	NA	NA	ppb	NA	NA	NA	ppb

Calibration Performed By: Kelly Baragar


NOx Calibration
PPB
450
400
350
300
250
200
150
100
50
0
-50
401.1 ppb NOx
399.5 ppb NO
As Found
401.1 ppb NOx
399.5 ppb NO
400.4 ppb NOX (GPT)
311.1
ppb
NO2
280.4
ppb
NO
217.6
ppb
NO2
201.3 ppb NOx
200.5 ppb NO
182.8
ppb
NO
120.1
ppb
NO2
89.3
ppb
NO
100.8
ppb NOx
100.4
ppb NO
Maintenance
Calibrator
zero
AZ
Amb
June 7, 2005

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PASZA**

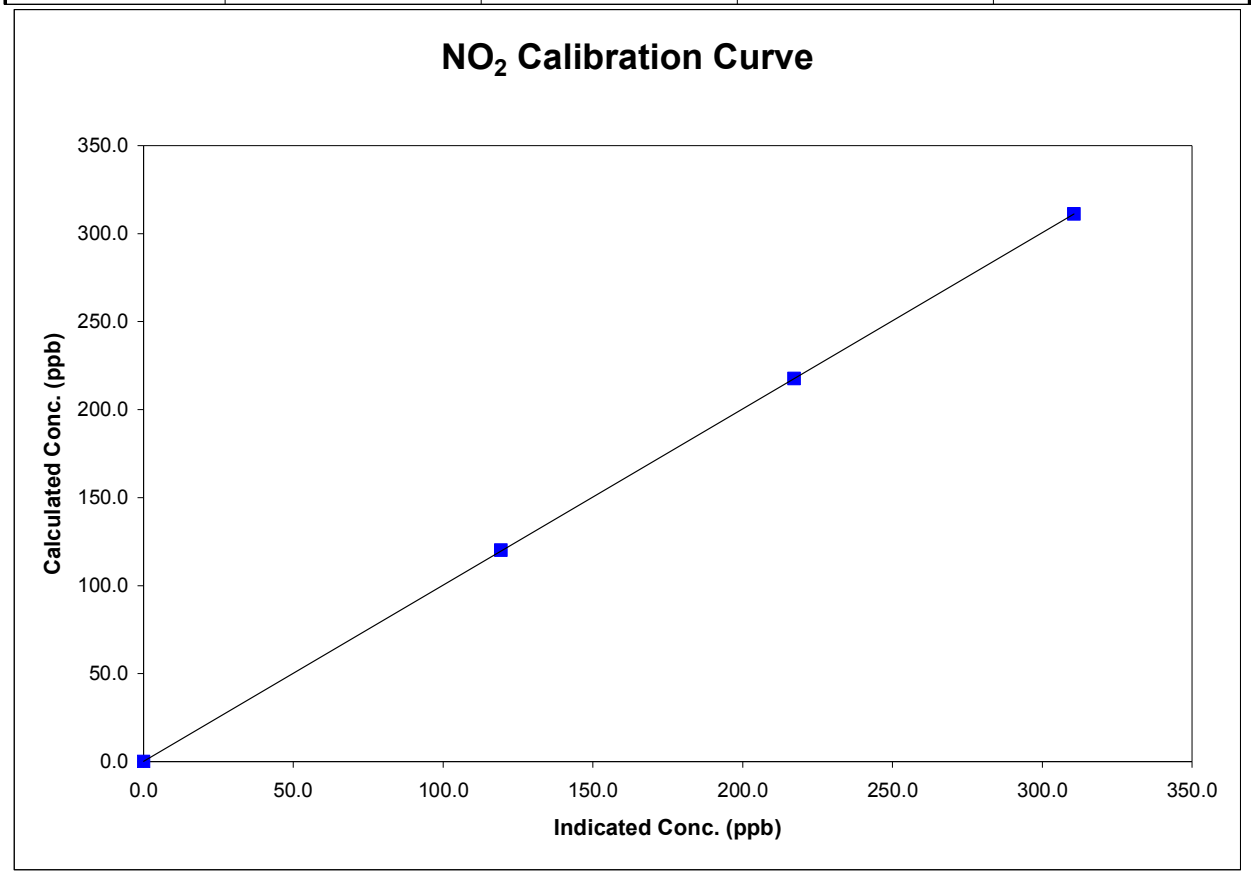
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	June 7, 2005	Previous Calibration	May 20, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	7:48	End Time (MST)	14:30
Analyzer make	Teco 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	0.0000		
311.1	310.6	1.0018	Correlation Coefficient	0.999996
217.6	217.2	1.0019		
120.1	119.3	1.0065	Slope	1.001403
			Intercept	0.199782



Calibration Summary

Parameter **NO**

Air Monitoring Network **PASZA**

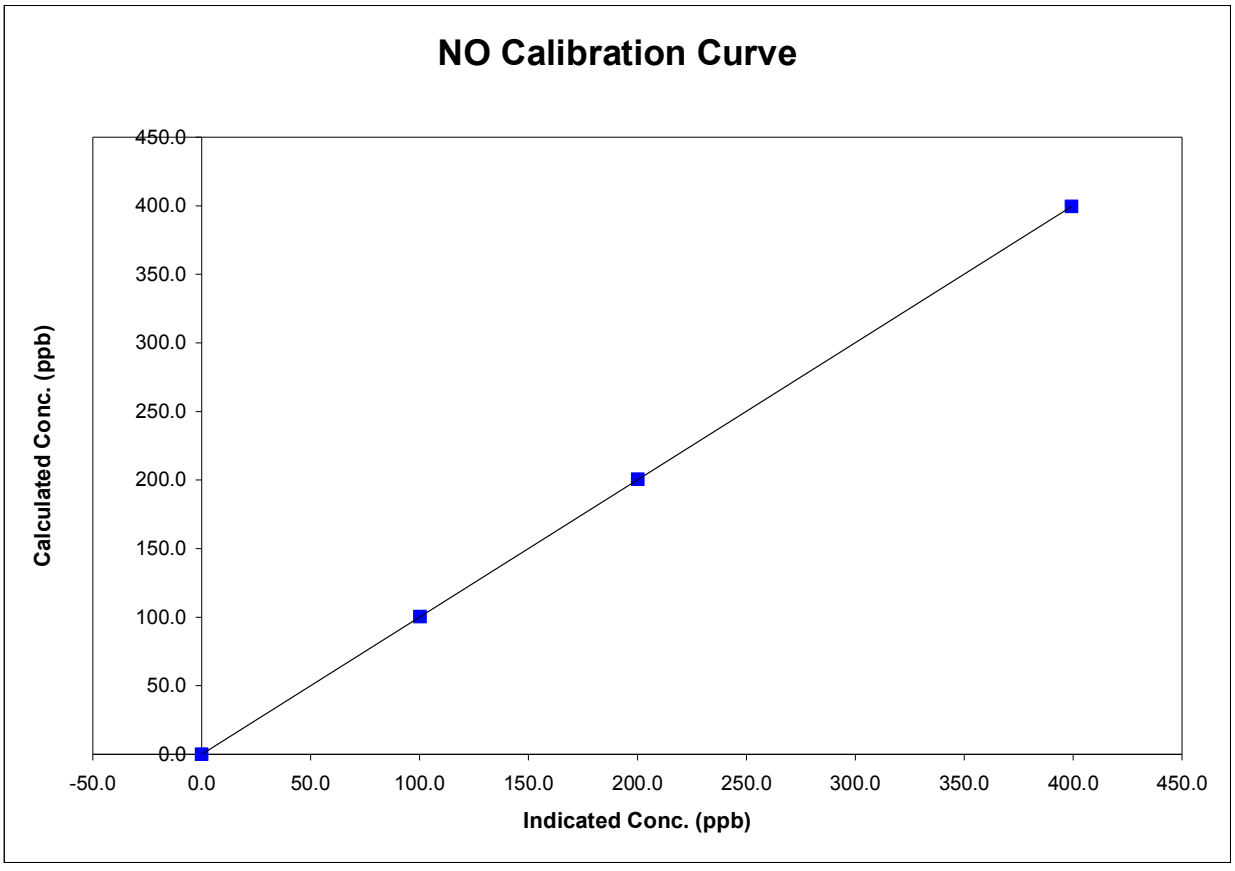
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	June 7, 2005	Previous Calibration	May 20, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	7:48	End Time (MST)	14:30
Analyzer make	Teco 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
399.5	399.3	1.0003	Correlation Coefficient	1.000000
200.5	200.2	1.0013		
100.4	100.3	1.0014	Slope	1.000219
			Intercept	0.099497



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PASZA**

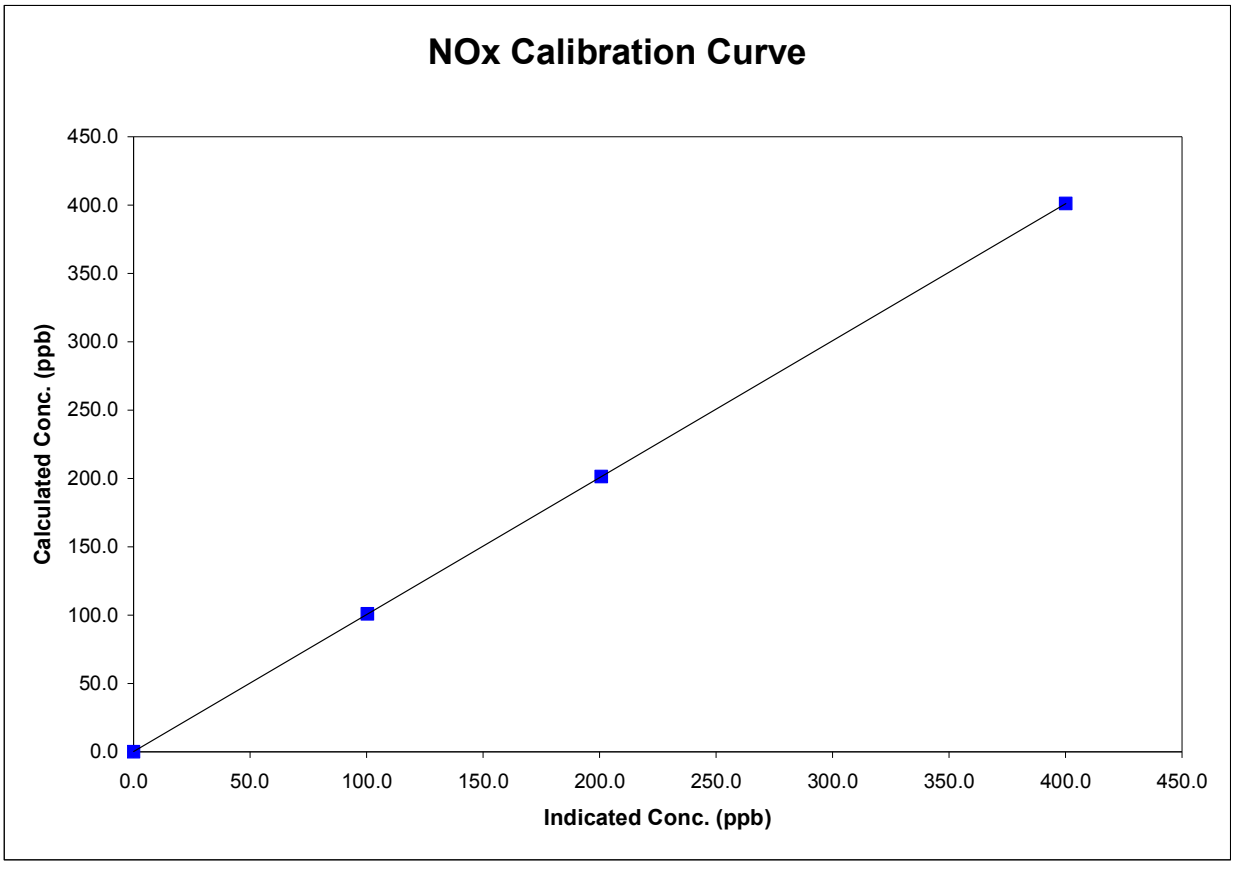
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	June 7, 2005	Previous Calibration	May 20, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	7:48	End Time (MST)	14:30
Analyzer make	Teco 42C	Analyzer serial #	508011073

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	0.0000		
401.1	400.2	1.0022	Correlation Coefficient	0.999999
201.3	200.7	1.0027		
100.8	100.4	1.0044	Slope	1.002140
			Intercept	0.075497



Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **O3**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	June 7, 2005	Previous Calibration	May 19, 2005
Station Number	1	Station Location	Muskoseepi Park

Reason: [Routine] [Install] [Removal] [Other:]

Start Time (MST)	13:35	End Time (MST)	18:00
Barometric Pressure	0.926 atm	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	45269
DACS voltage range	0 - 1 volt	DACS channel #	5
	Before		After
DACS slope	0.050000	DACS slope	0.050000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	1.047905	Calculated slope	0.996105
Calculated intercept	-2.690889	Calculated intercept	-0.959518
Analyzer make	API Model 400	Analyzer serial #	383

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-1.2	ppb	NA	ppb
slope	1.048		NA	
Lamp measure	2632	mV	2600	mV
Lamp Reference	2633	mV	2597	mV
Pressure	26.9	inches Hg	26.8	inches Hg
Sample Flow	664	ccm	664	ccm
Lamp temp	52	Deg C	52	Deg C

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.8	N/A
4995	0.00	311.1	313.7	0.9917
4995	0.00	217.6	218.4	0.9963
4995	0.00	120.1	122.2	0.9826
4995	0.00	0.0	0.8	As found zero
4995	0.00	311.1	334.6	As found span
			Average Correction Factor	0.9902

Calculated value of As Found Response: 347.1 ppm Percent Change of As Found: 11.6%

	before calibration		after calibration	
Auto zero	1.5	ppb	0.0	ppb
Auto span	272.9	ppb	244.8	ppb

Notes: A span adjustment was performed.

Calibration Performed By: Kelly Baragar

Calibration Summary

Parameter **O3**

Air Monitoring Network **PASZA**

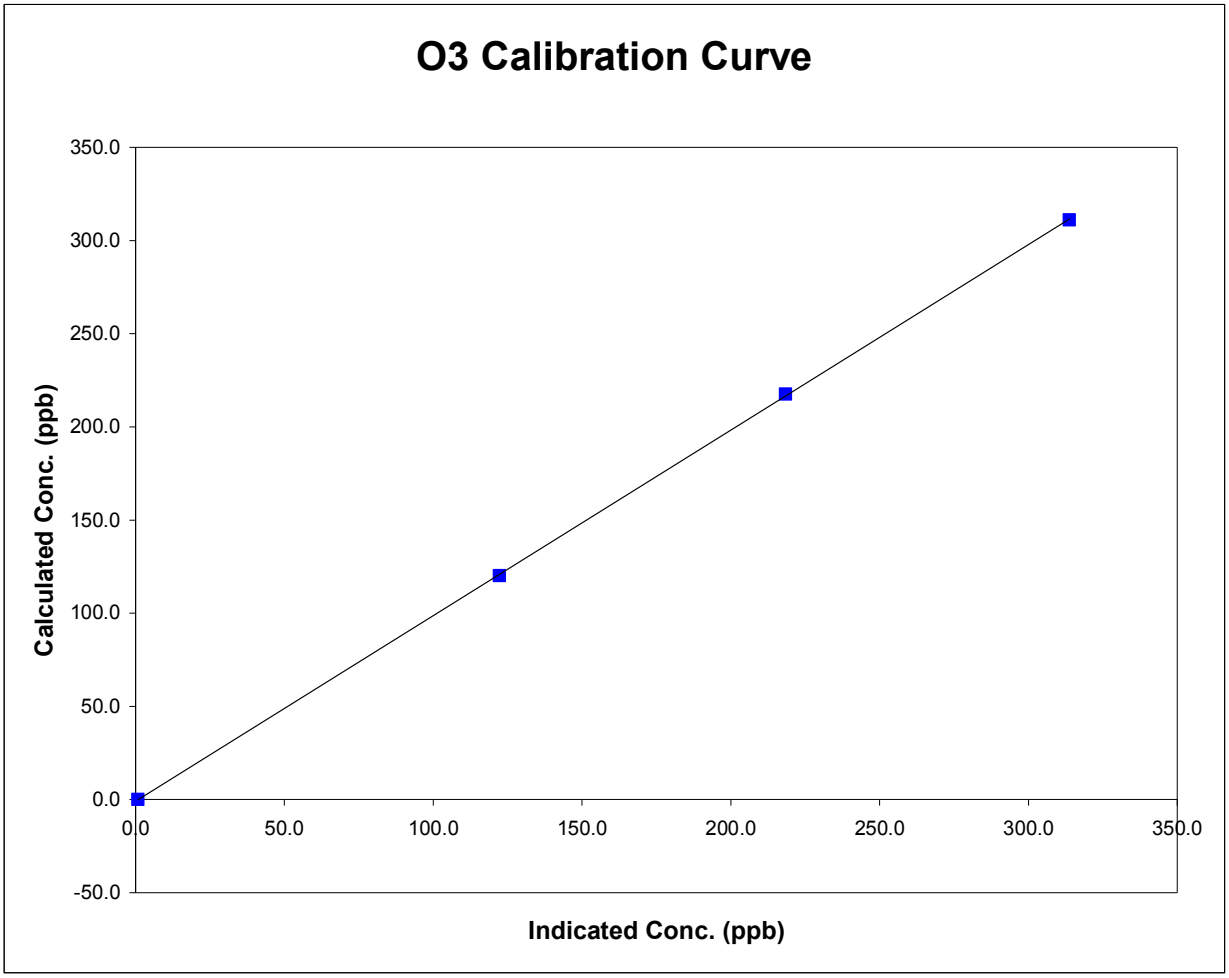
FOCUS AIR QUALITY MONITORING

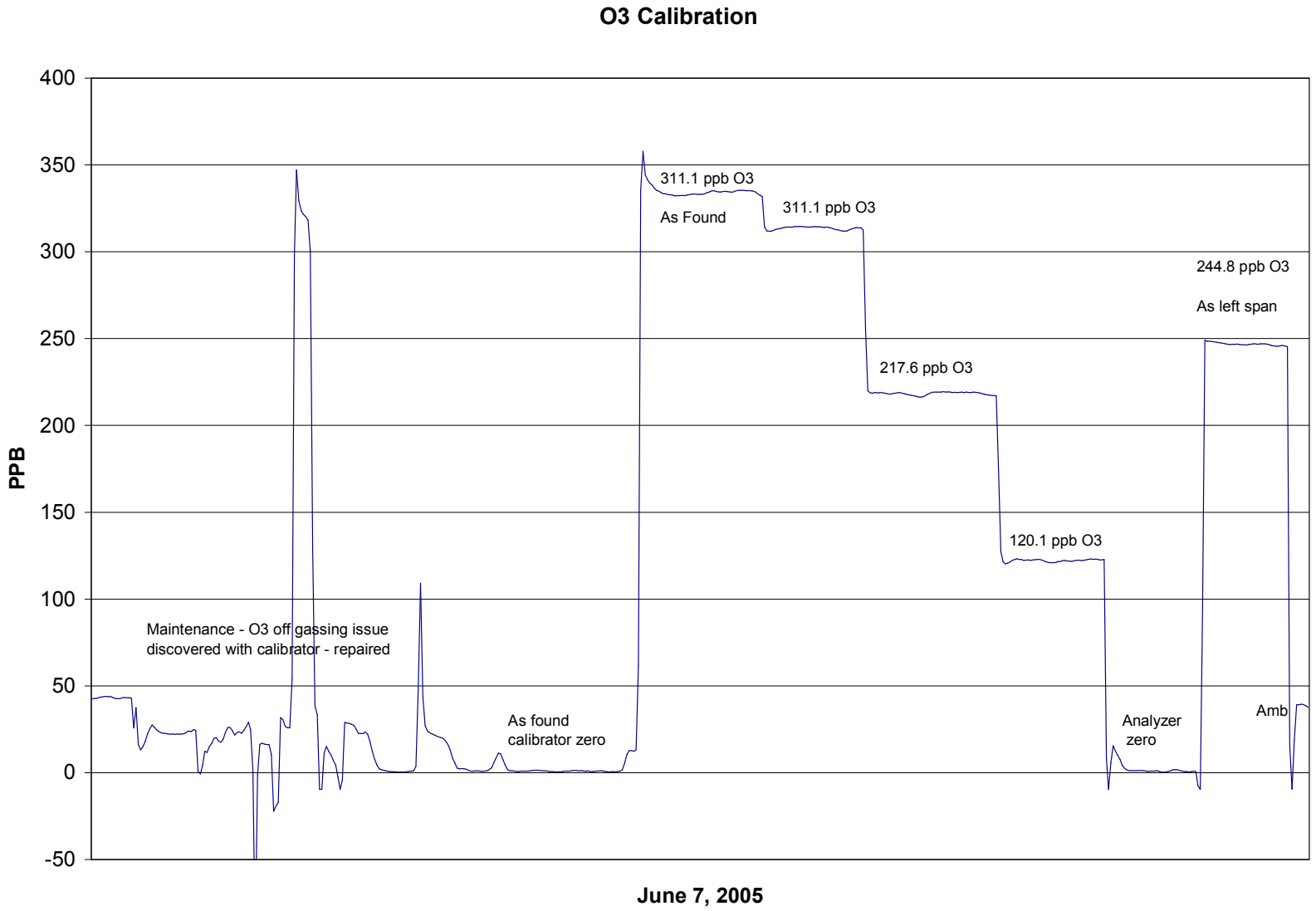
Station Information

Calibration Date	June 7, 2005	Previous Calibration	May 19, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	13:35	End Time (MST)	18:00
Analyzer make/model	API Model 400	Analyzer serial #	383

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.8	NA		
311.1	313.7	0.9917	Correlation Coefficient	0.999969
217.6	218.4	0.9963		
120.1	122.2	0.9826	Slope	0.996105
			Intercept	-0.959518




O3 Calibration
400
350
300
250
200
150
100
50
0
-50
PPB
311.1 ppb O3
As Found
311.1 ppb O3
244.8 ppb O3
As left span
217.6 ppb O3
120.1 ppb O3
Maintenance - O3 off gassing issue
discovered with calibrator - repaired
As found
calibrator zero
Analyzer
zero
Amb
June 7, 2005

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **CO**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	June 6, 2005	Previous Calibration	May 17, 2005
Station Number	1	Station Location	Muskoseepi Park
Reason:	Routine / Install / Removal / Other:		
Start Time (MST)	15:45	End Time (MST)	16:59
Barometric Pressure	0.926 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	3000 ppm	Cal Gas Expiry Date	12/10/2005
		Cal Gas Cylinder #	ALM 005412
DACS make	Focus AP1000	DACS serial No.	45266
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
DACS slope	0.005000	DACS slope	0.005000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	1.007826	Calculated slope	N/A
Calculated intercept	-0.123014	Calculated intercept	N/A
Analyzer make	TEI Model 48	Analyzer serial #	ACM-13989-143

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
CO span setting	767		n/a	
CO zero setting	516		n/a	
Sample pressure	682	mm Hg	n/a	mm Hg
Sample Flow	1.15	LPM	n/a	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	0.23	As Found Zero
4993	39.97	23.82	23.97	As Found Span
			Average Correction Factor	

Calculated value of As Found Response: 23.811 ppm Percent Change of As Found: 0.1%

	before calibration		after calibration	
Auto zero	0.12	ppm	NA	ppm
Auto span	20.39	ppm	NA	ppm

Notes: Shut Down of Teco Model 48 S/N ACM-13989-143 to replace with new Teco 48C S/N 0508011062

Calibration Performed By: Kelly Baragar & Dawn Ewan

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **CO**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	June 6, 2005	Previous Calibration	May 17, 2005
Station Number	1	Station Location	Muskoseepi Park

Reason: Routine | **Install** | Removal | Other:

Start Time (MST)	19:04	End Time (MST)	20:25
Barometric Pressure	0.926 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	3000 ppm	Cal Gas Expiry Date	12/10/2005
		Cal Gas Cylinder #	ALM 005412
DACS make	Focus AP1000	DACS serial No.	45266
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
DACS slope	0.005000	DACS slope	0.005000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	NA	Calculated slope	1.007974
Calculated intercept	NA	Calculated intercept	0.344151

Analyzer make	TEI Model 48	Analyzer serial #	508011062

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
CO span setting	NA		1.018	
CO zero setting	NA		0.429	
Sample pressure	NA	mm Hg	677.8	mm Hg
Sample Flow	NA	LPM	1.067	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	-0.34	N/A
4993	39.97	23.82	23.30	1.0227
				As Found Zero
				As Found Span
			Average Correction Factor	1.0227

Calculated value of As Found Response: NA ppm Percent Change of As Found: NA

	before calibration		after calibration	
Auto zero	NA	ppm	0.06	ppm
Auto span	NA	ppm	20.12	ppm

Notes: Shut Down of Teco Model 48 S/N ACM-13989-143 to replace with new Teco 48C S/N 0508011062
Installed analyzer with single point; full calibration performed June 7th.

Calibration Performed By: Kelly Baragar & Dawn Ewan

Calibration Summary

Parameter **CO**

Air Monitoring Network **PASZA**

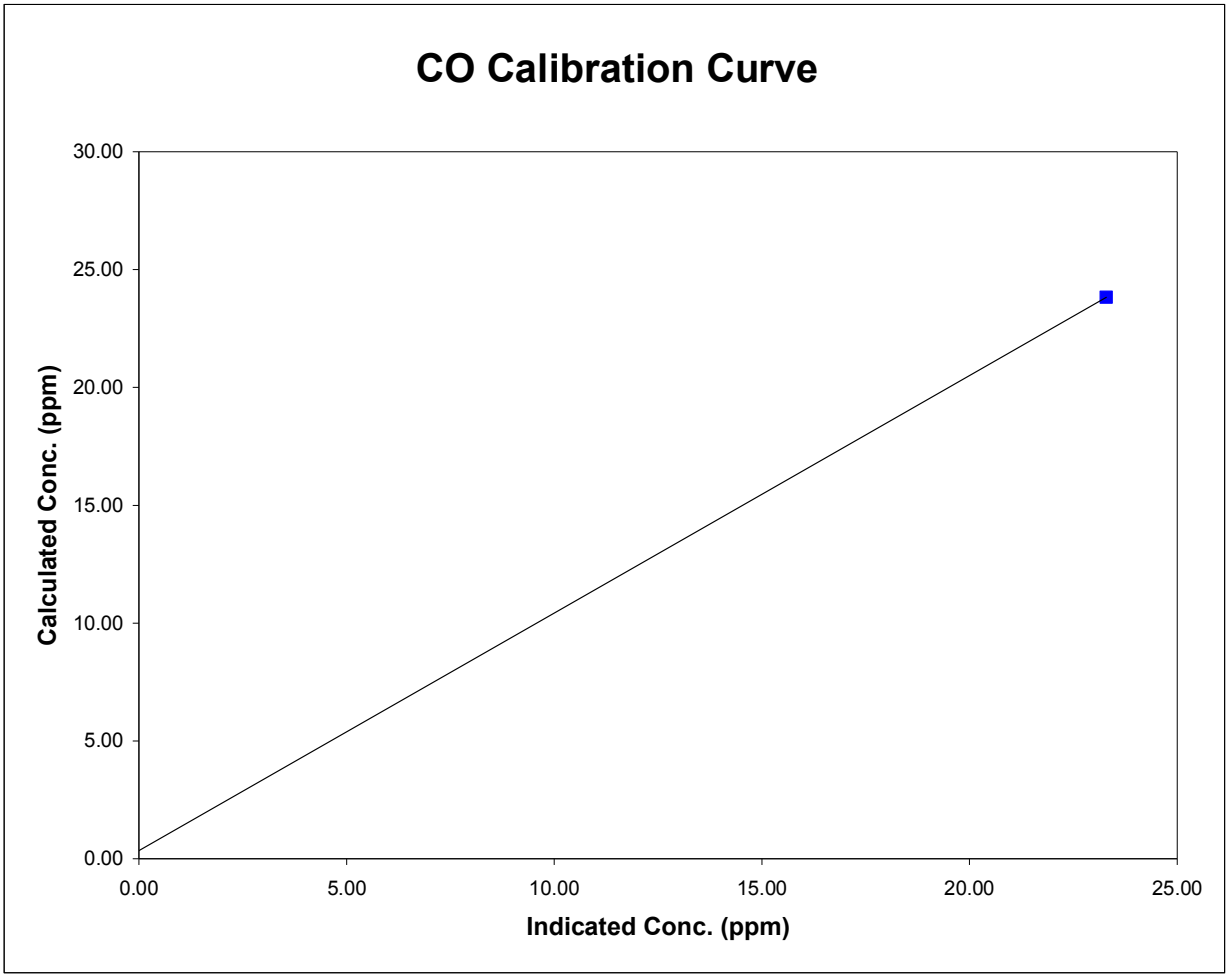
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	June 6, 2005	Previous Calibration	May 17, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	19:04	End Time (MST)	20:25
Analyzer make/model	TEI Model 48	Analyzer serial #	508011062

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.341	N/A		
23.825	23.295	1.0227	Correlation Coefficient	1.000000
			Slope	1.007974
			Intercept	0.344151



Calibration Report

Parameter **CO**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	June 7, 2005	Previous Calibration	June 6, 2005
Station Number	1	Station Location	Muskoseepi Park
Reason: Routine	Install	Removal	Other:
Start Time (MST)	9:00	End Time (MST)	11:25
Barometric Pressure	0.926 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
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
	Before		After
DACS slope	0.005000	DACS slope	0.005000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	1.007974	Calculated slope	1.004957
Calculated intercept	0.344151	Calculated intercept	0.418846
Analyzer make	TEI Model 48C	Analyzer serial #	508011062

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
CO span setting	1.018		1.018	
CO zero setting	0.429		0.429	
Sample pressure	677.8	mm Hg	677.8	mm Hg
Sample Flow	1.067	LPM	1.067	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	-0.33	N/A
4993	39.97	23.82	23.34	1.0207
4993	19.96	11.95	11.40	1.0479
4993	9.97	5.98	5.47	1.0931
4993	0.00	0.00	-0.33	As Found Zero
4993	39.97	23.82	23.34	As Found Span
			Average Correction Factor	1.0539

Calculated value of As Found Response: 24.208 ppm Percent Change of As Found: -1.6%

	before calibration		after calibration	
Auto zero	0.12	ppm	0.13	ppm
Auto span	20.39	ppm	20.13	ppm

Notes: Analyzer was span adjusted. All pertinent analyzer functions appear fine.

Calibration Performed By: Kelly Baragar

Calibration Summary

Parameter **CO**

Air Monitoring Network **PASZA**

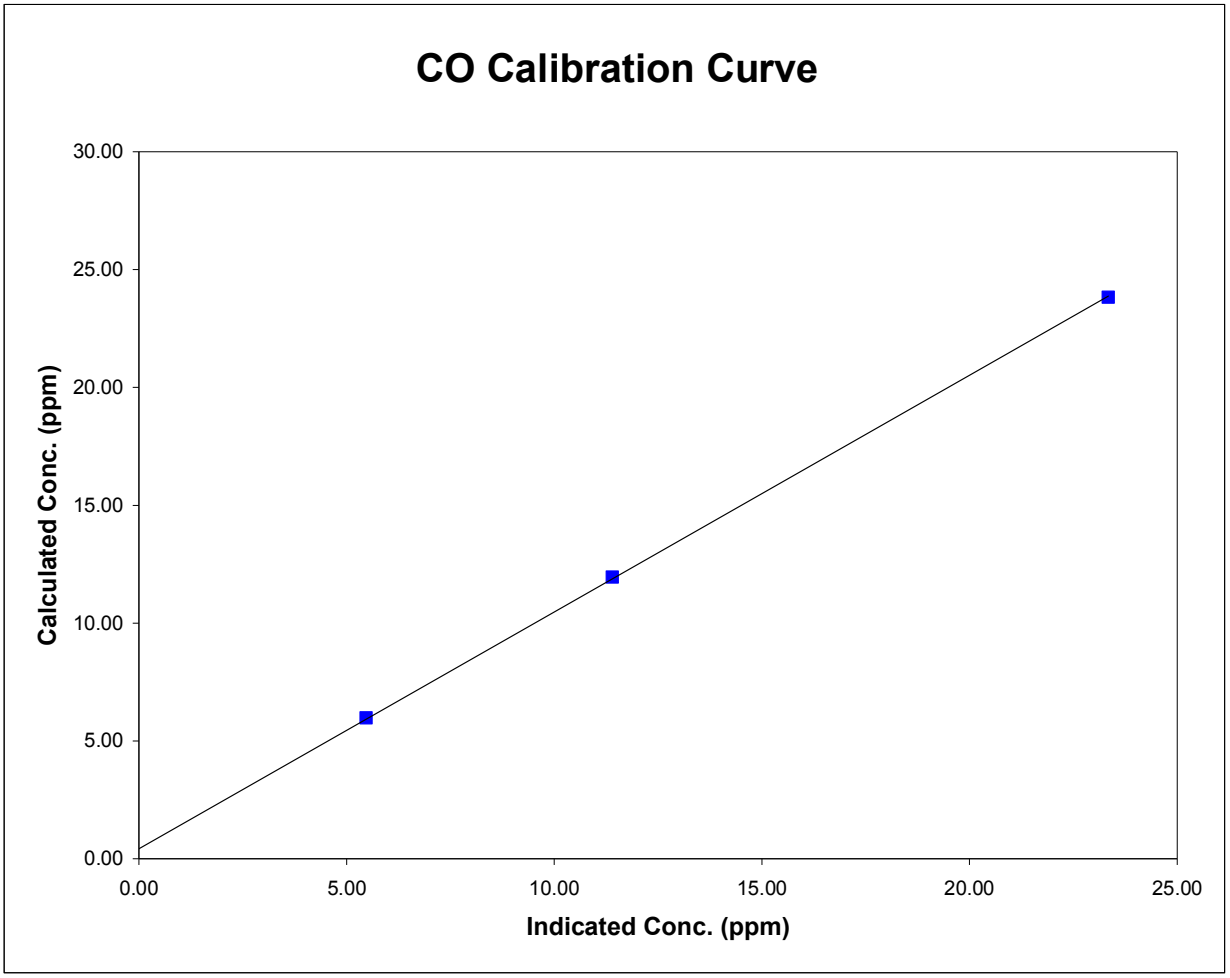
FOCUS AIR QUALITY MONITORING

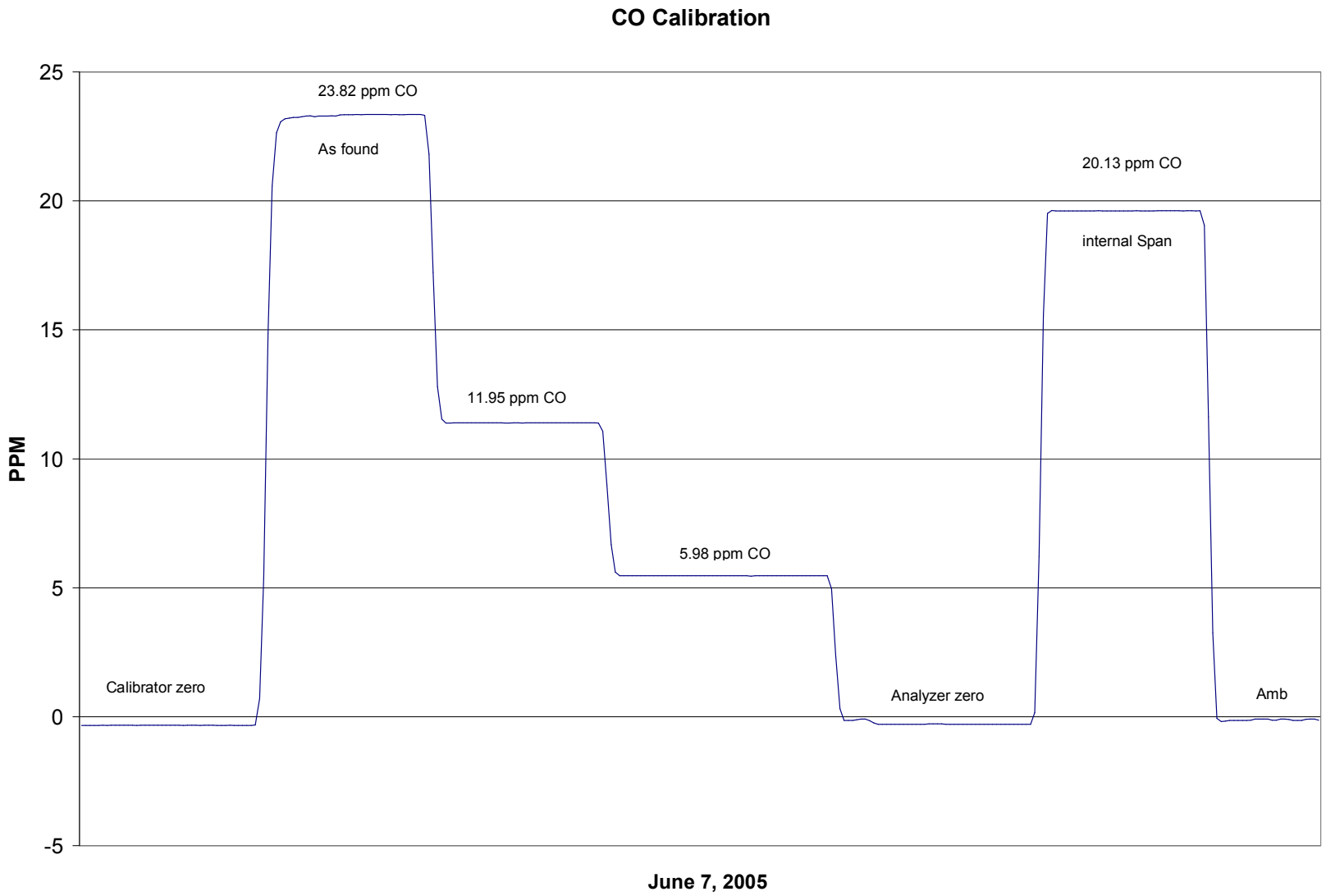
Station Information

Calibration Date	June 7, 2005	Previous Calibration	June 6, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	9:00	End Time (MST)	11:25
Analyzer make/model	TEI Model 48C	Analyzer serial #	508011062

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.334	N/A		
23.825	23.341	1.0207	Correlation Coefficient	0.999940
11.945	11.399	1.0479		
5.978	5.469	1.0931	Slope	1.004957
			Intercept	0.418846




CO Calibration
25
20
15
10
5
0
-5
PPM
23.82 ppm CO
As found
20.13 ppm CO
internal Span
11.95 ppm CO
5.98 ppm CO
Calibrator zero
Analyzer zero
Amb
June 7, 2005

Calibration Report

Parameter **THC**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	June 6, 2005	Previous Calibration	May 17, 2005
Station Number	1	Station Location	Muskoseepi Park
Reason:	Routine / Install / Removal / Other:		
Start Time (MST)	16:30	End Time (MST)	19:55
Barometric Pressure	0.926 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
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
	Before		After
DACS slope	0.005000	DACS slope	0.005000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	1.002447	Calculated slope	0.993977
Calculated intercept	-0.006018	Calculated intercept	0.004913
Analyzer make	TEI Model 51C-LT	Analyzer serial #	51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.11	psi	6.11	psi
THC span counts	6791	capture	6847	capture
THC zero counts	1249	capture	1297	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	19.70	0.9927
4993	34.96	10.58	10.59	0.9995
4993	9.97	3.03	3.04	0.9994
4993	0.00	0.00	0.18	As Found Zero
4993	64.97	19.55	19.83	As Found Span
			Average Correction Factor	0.9972

Calculated value of As Found Response: 19.689 ppm Percent Change of As Found: -0.7%

	before calibration		after calibration	
Auto zero	0.13	ppm	0.04	ppm
Auto span	21.63	ppm	21.40	ppm

Notes: Zero and span adjusted analyzer.
Span cylinder pressure low. Cylinder was replaced June 7th.

Calibration Performed By: Kelly Baragar

Calibration Summary

FOCUS AIR QUALITY MONITORING

Parameter **THC**

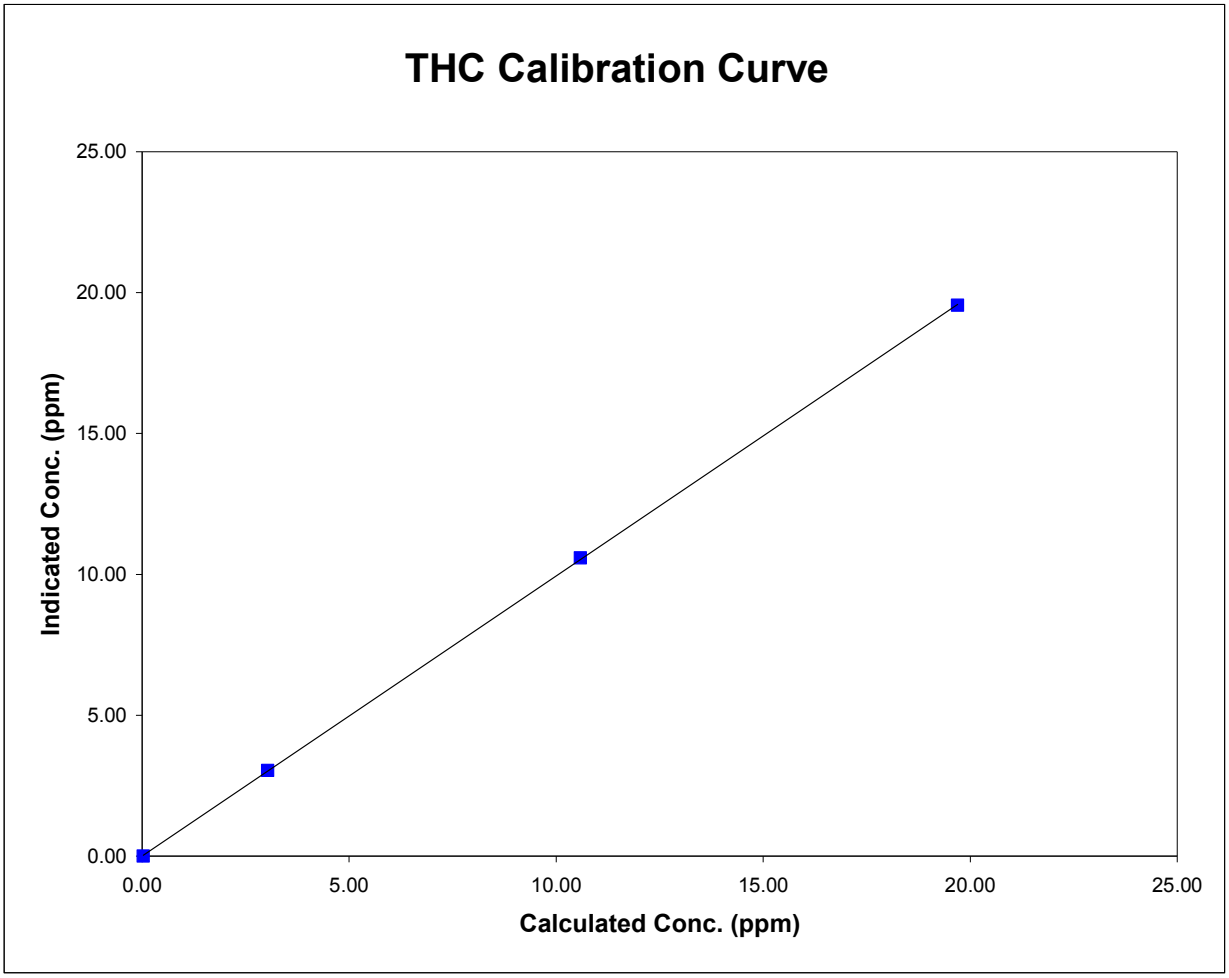
Air Monitoring Network **PASZA**

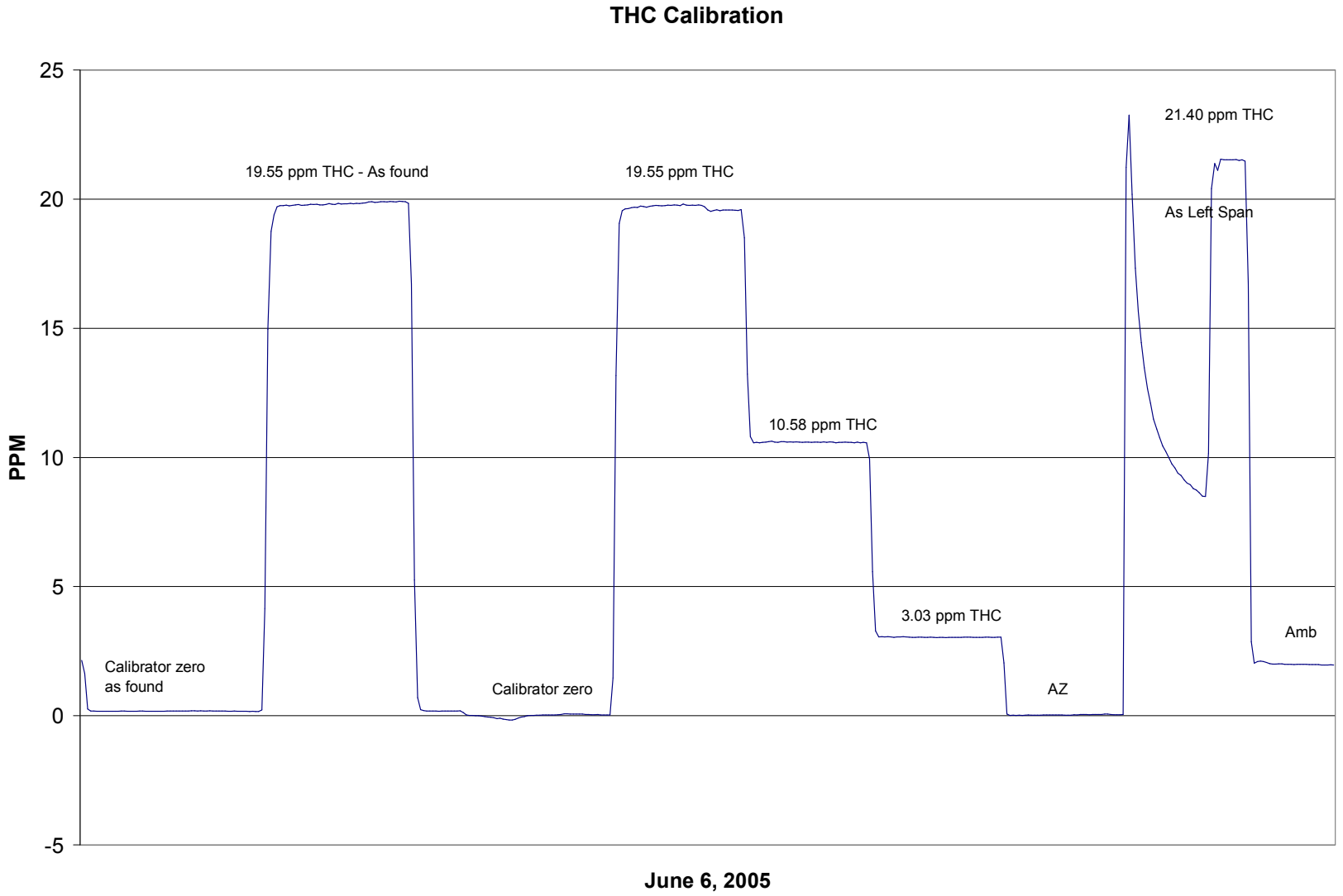
Station Information

Calibration Date	June 6, 2005	Previous Calibration	May 17, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	16:30	End Time (MST)	19:55
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	0.030	N/A		
19.553	19.698	0.9927	Correlation Coefficient	0.999978
10.584	10.590	0.9995		
3.034	3.035	0.9994	Slope	0.993977
			Intercept	0.004913




THC Calibration
25
20
15
10
5
0
-5
PPM
19.55 ppm THC - As found
19.55 ppm THC
10.58 ppm THC
3.03 ppm THC
21.40 ppm THC
As Left Span
Amb
Calibrator zero
as found
Calibrator zero
AZ
June 6, 2005

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter: **TRS**

Air Monitoring Network: **PASZA**

Station Information

Calibration Date	June 7, 2005	Previous Calibration	May 17, 2005
Station Number	1	Station Location	Muskoseepi Park
Reason:	Routine (selected) / Install / Removal	Other:	

Start Time (MST)	17:15	End Time (MST)	20:00
Barometric Pressure	27.7 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	225 ng/min	Perm-tube Expiry Date	12/10/2005
Correction factor	0.941601	Perm-tube Cert #	03-13509
DACS make	Focus AP1000	DACS serial No.	45266
DACS voltage range	0 - 10 volt	DACS channel #	9
	Before		After
DACS slope	0.005000	DACS slope	0.005000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	0.994951	Calculated slope	1.008653
Calculated intercept	0.355748	Calculated intercept	0.303026

Analyzer make	TEI Model 43C	Analyzer serial #	31990000000491

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	19.1	ppb	20.4	ppb
coefficient	1.127		1.215	
Lamp Voltage	880	volts	869	volts
Chamber Temp	44.4	Deg C	44.4	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	633.3	mm Hg	635	mm Hg
Sample Flow	675	ccm	675	ccm
Lamp Intesity	39,000	mv	39,500	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
zero	2142.1	0.0	-0.3	N/A
2275	2142.1	75.5	74.6	1.0127
4985	4693.9	34.5	33.9	1.0173
14900	14029.9	11.5	11.1	1.0376
zero	2330.5	0.0	-0.3	As Found Zero
2475	2330.5	69.4	65.2	As Found Span
			Average Correction Factor	1.0225

Calculated value of As Found Response: 65.52 ppm   Percent Change of As Found: 5.6%

	before calibration		after calibration	
Auto zero	0.0	ppm	-0.1	ppm
Auto span	80.7	ppm	68.9	ppm

Notes:

Calibration Performed By: Kelly Baragar

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PASZA**

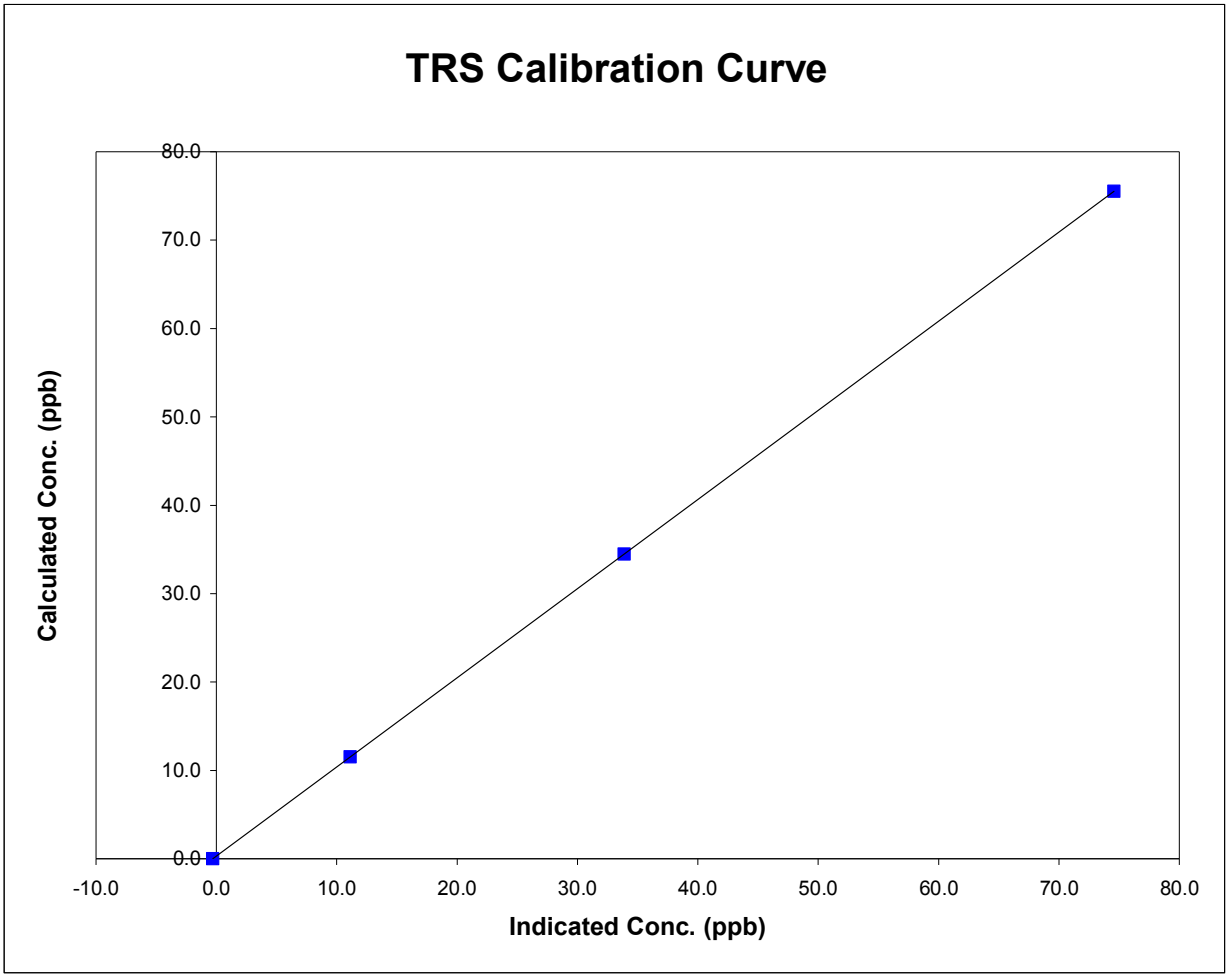
FOCUS AIR QUALITY MONITORING

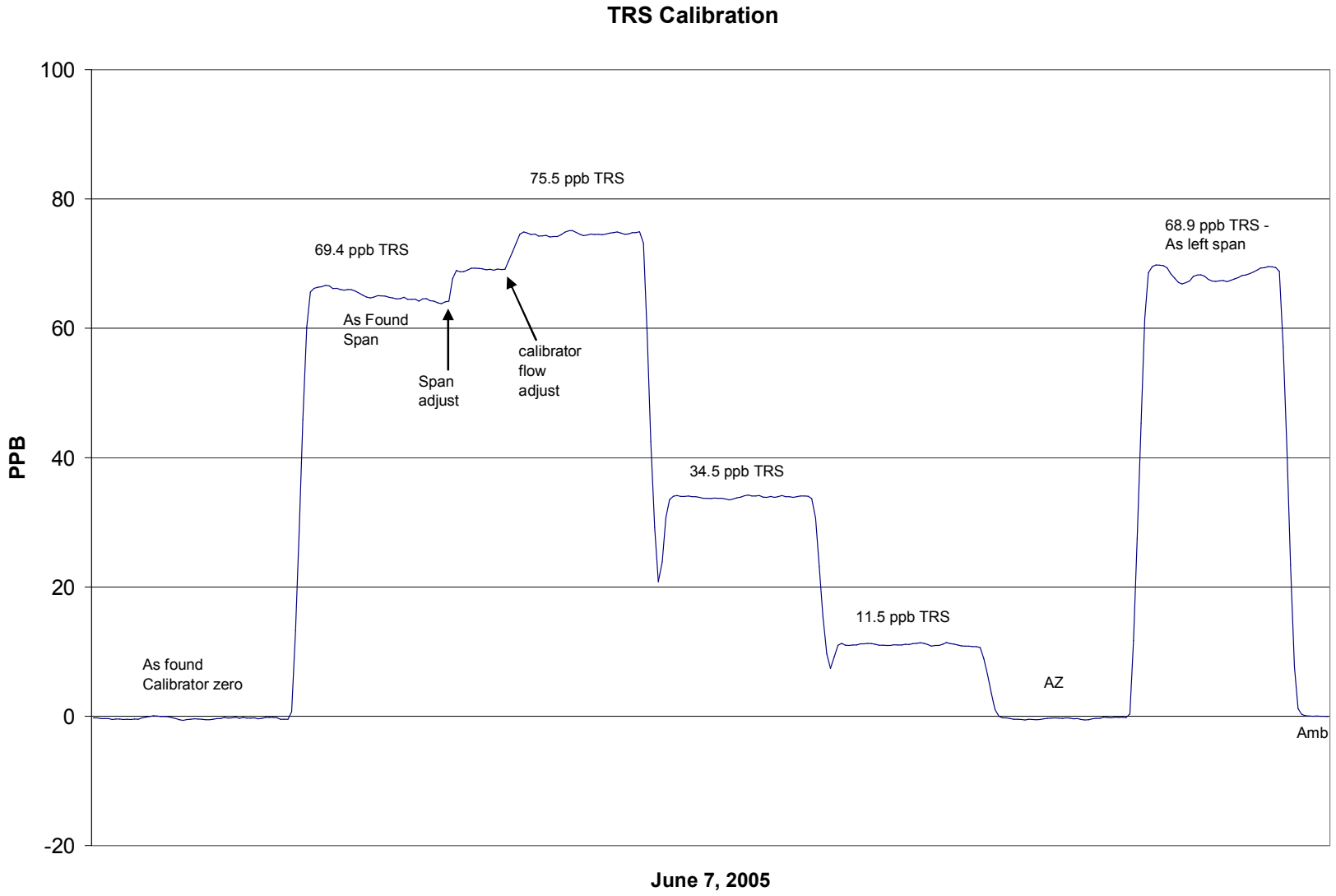
Station Information

Calibration Date	June 7, 2005	Previous Calibration	May 17, 2005
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	17:15	End Time (MST)	20:00
Analyzer make/model	TEI Model 43C	Analyzer serial #	31990000000491

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.3	N/A		
75.5	74.6	1.0127	Correlation Coefficient	1.000000
34.5	33.9	1.0173		
11.5	11.1	1.0376	Slope	1.008653
			Intercept	0.303026




TRS Calibration
100
80
60
40
20
0
-20
PPB
75.5 ppb TRS
69.4 ppb TRS
68.9 ppb TRS -
As left span
As Found
Span
Span
adjust
calibrator
flow
adjust
34.5 ppb TRS
11.5 ppb TRS
As found
Calibrator zero
AZ
Amb
June 7, 2005

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **PM2.5**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	June 7, 2005	Previous Calibration	May 18, 2005
Station Number	1	Station Location	Muskoseepi Park
Reason:	Routine ☒	Install ☐	Removal ☐	Other: ☐
Start Time (MST)	13:20	End Time (MST)	16:45
Barometric Pressure	0.927 ATM	Station Temperature	20.0 Deg C
Flow Calibrator	BIOS Drycal DCL-MH	Serial Number	101780
DACS make	AP 1000	DACS serial No.	45269
DACS voltage range	0 - 1 V	DACS channel #	15
	Before		After
DACS slope	0.050000	DACS slope	0.050000
DACS intercept	-50.000000	DACS intercept	-50.000000

Analyzer Information

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

	before		after	
Main Flow Set Point	3.000	SLPM	3.000	SLPM
Aux Flow Set Point	16.67	SLPM	16.67	SLPM
Filter Load	33	%	42	%
Ko Factor	12122		12122	
Temperature	20.3	Deg C	20.3	Deg C
Pressure	0.927	ATM	0.927	ATM

Calibration Data

Parameter	Set Point	Indicated Reading (measured externally)	Tolerance	TEOM Reading
zero flow - main	0.0	0.00		0.01
zero flow - auxillary	0.0	0.00		0.02
flow recovery - main	45 - 60 Seconds	na	45 - 60 Seconds	40
flow recovery - aux	46 - 60 Seconds	na	46 - 60 Seconds	40
Temperature	measured	20.0	+/- 1.0 Deg C	20.3
Pressure	measured	0.927	+/- 1.5% Δ_{ATM}	0.927
Total Flow	16.67 SLPM	16.03		16.60
Main Flow	13.67 SLPM	13.45	+/- 1.0 SLPM	13.65
Auxillary Flow	3.0 SLPM	2.970	+/- 0.2 SLPM	3.005
Leak Check - main	0.0	0.00	<0.15 SLPM	0.02
Leak Check - aux	0.0	0.00	<0.15 SLPM	0.08
Ko Factor (w/o filter)	measured	324.858	filter weight (g)	0.11112
Ko Factor (w/ filter)	measured	231.512	% Ko difference	0.2%

Notes: After as found flows captured performed pump restart test, leak test, and filter confirmation.
Performed zero adjustments and software flow adjustments on MFC's. All confirmed OK.
Cleaned inlet heads.

Calibration Performed By: Kelly Baragar

Calibration Report

Parameter **SO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	June 20, 2005	Previous Calibration	May 19, 2005
Station Number	2	Station Location	Evergreen Park

Reason: [Routine] [Install] [Removal] [Other:]

Start Time (MST)	11:00	End Time (MST)	16:00
Barometric Pressure	27.8 inches Hg	Station Temperature	23.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	2,452 ng/min	Perm-tube Expiry Date	
Correction factor	0.933740	Perm-tube Cert #	19-18743
DACS make	Focus AP1000	DACS serial No.	45274
DACS voltage range	0 - 10 volt	DACS channel #	4
	Before		After
Calculated slope	0.986232	Calculated slope	0.994217
Calculated intercept	-1.856274	Calculated intercept	-4.022449

Analyzer make	API 100	Analyzer serial # 32

	before		after	
Concentration range	500	ppb	500	ppb
Sample Flow	563	ccm	553	ccm
UV Lamp Voltage	3273	mv	3150	mv
Lamp Ratio	93	%	90	%
Rx Cell Temp	49	Deg C	50	Deg C
PMT Temp	29	Deg C	10	Deg C
IZS Temp	40	Deg C	40	Deg C
Slope	8.85		9.78	
Intercept	189		211.8	

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	2325.0	0.0	-0.6	N/A
2490	2325.0	402.5	405.6	0.9925
5060	4724.7	198.1	208.3	0.9508
10770	10056.4	93.1	100.6	0.9251
zero	2352.1	0.0	-5.2	As Found Zero
2519	2352.1	397.9	341.2	As Found Span
			Average Correction Factor	0.9561

Calculated value of As Found Response: 339.732 ppm Percent Change of As Found: 14.6%

	before calibration		after calibration	
Auto zero	-5.6	ppm	-1.6	ppm
Auto span	237.0	ppm	227.5	ppm

Notes: The PMT cooler and relay assembly was replaced after the as found was completed.

Calibration Performed By: Gary Cross & Dawn Ewan

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

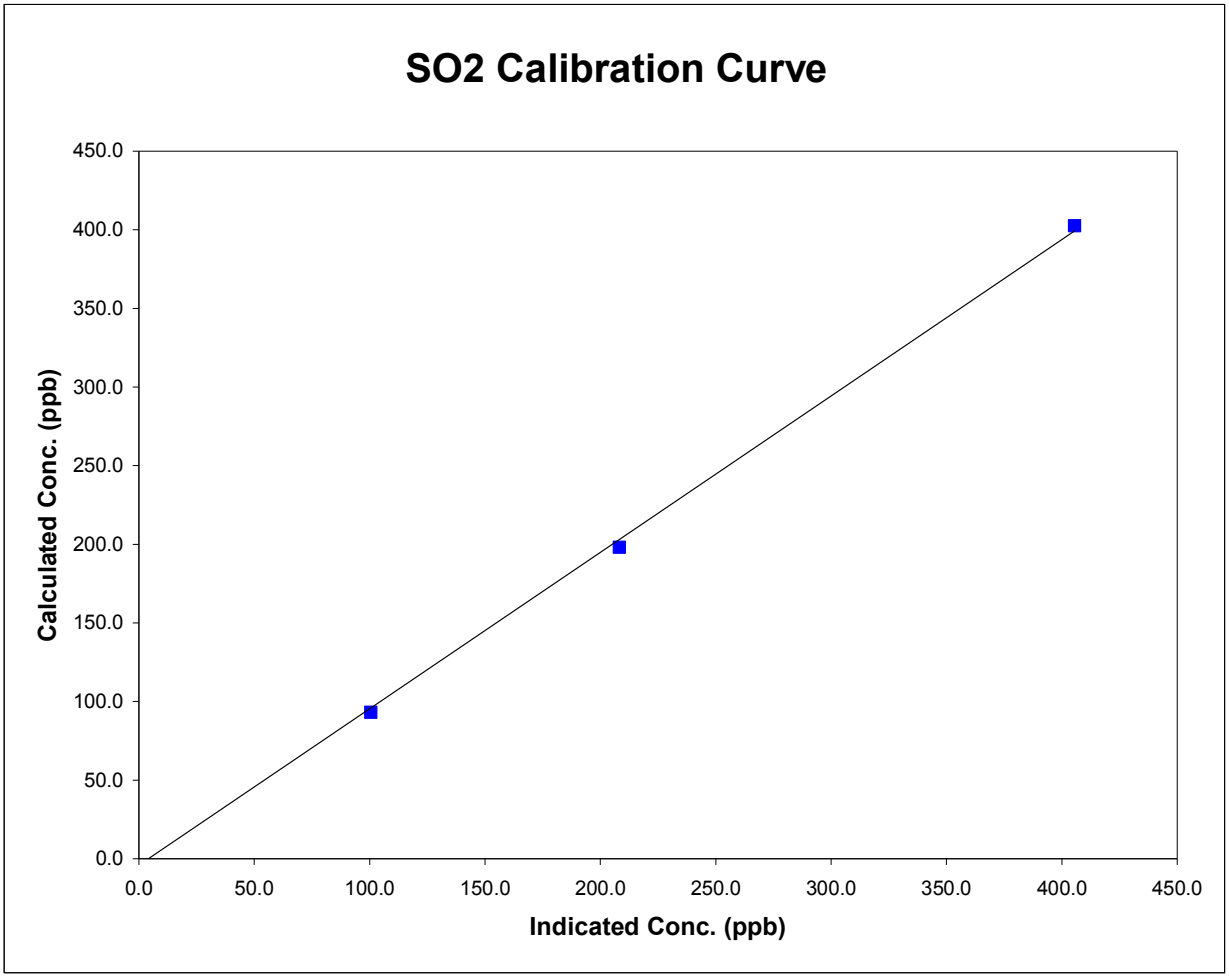
FOCUS AIR QUALITY MONITORING

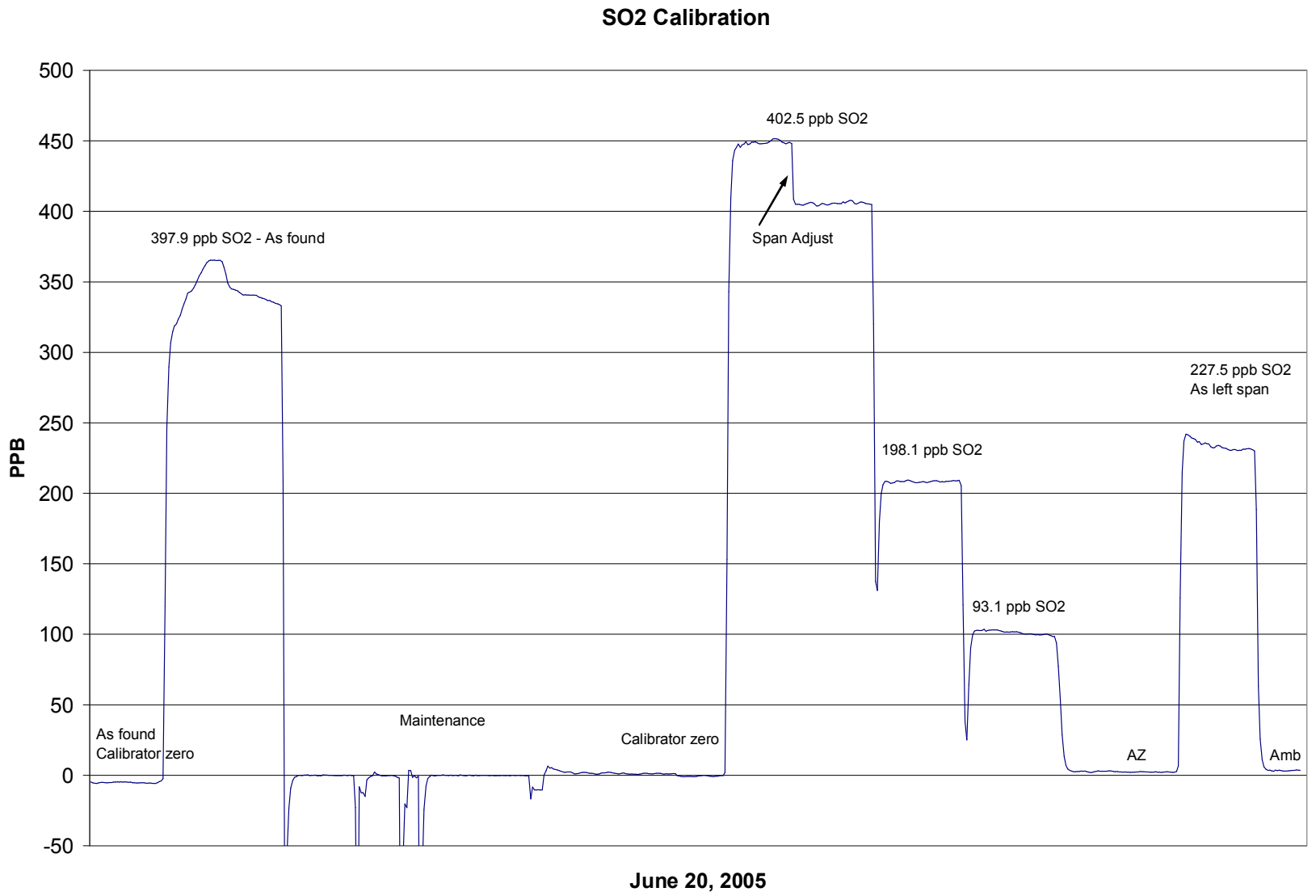
Station Information

Calibration Date	June 20, 2005	Previous Calibration	May 19, 2005
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	11:00	End Time (MST)	16:00
Analyzer make/model	API 100	Analyzer serial #	32

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.6	N/A		
402.5	405.6	0.9925	Correlation Coefficient	0.999260
198.1	208.3	0.9508		
93.1	100.6	0.9251	Slope	0.994217
			Intercept	-4.022449




SO2 Calibration
500
450
400
350
300
250
200
150
100
50
0
-50
PPB
402.5 ppb SO2
397.9 ppb SO2 - As found
Span Adjust
227.5 ppb SO2
As left span
198.1 ppb SO2
93.1 ppb SO2
As found
Calibrator zero
Maintenance
Calibrator zero
AZ
Amb
June 20, 2005

Calibration Report

Parameter: **TRS**

Air Monitoring Network: **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	June 20, 2005	Previous Calibration	May 19, 2005
Station Number	2	Station Location	Evergreen Park
Reason:	Routine (selected) / Install / Removal	Other:	
Start Time (MST)	13:00	End Time (MST)	16:00
Barometric Pressure	27.8 inches Hg	Station Temperature	23.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	225 ng/min	Perm-tube Expiry Date	12/10/2005
Correction factor	0.935422	Perm-tube Cert #	03-13509
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 10 volt	DACS channel #	9
	Before		After
Calculated slope	1.015384	Calculated slope	0.984290
Calculated intercept	0.363054	Calculated intercept	0.313464
Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	13.3	ppb	13.3	ppb
coefficient	1.224		1.224	
Lamp Voltage	753	volts	753	volts
Chamber Temp	44.4	Deg C	44.5	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	633.8	mm Hg	633.8	mm Hg
Sample Flow	463	ccm	463	ccm
Lamp Intesity	32,400	mv	32,400	mv

Calibration Data

Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
zero	2329.2	0.0	-0.2	N/A
2490	2329.2	69.5	70.3	0.9887
5060	4733.2	34.2	34.5	0.9920
10770	10074.5	16.1	15.9	1.0124
zero	2329.2	0.0	-0.2	As Found Zero
2490	2329.2	69.5	70.3	As Found Span
			Average Correction Factor	0.9977

Calculated value of As Found Response: 71.94 ppm   Percent Change of As Found: -3.6%

	before calibration		after calibration	
Auto zero	-0.3	ppm	0.1	ppm
Auto span	73.5	ppm	73.8	ppm

Notes: No adjustments or maintenance performed.

Calibration Performed By: Gary Cross & Dawn Ewan

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PASZA**

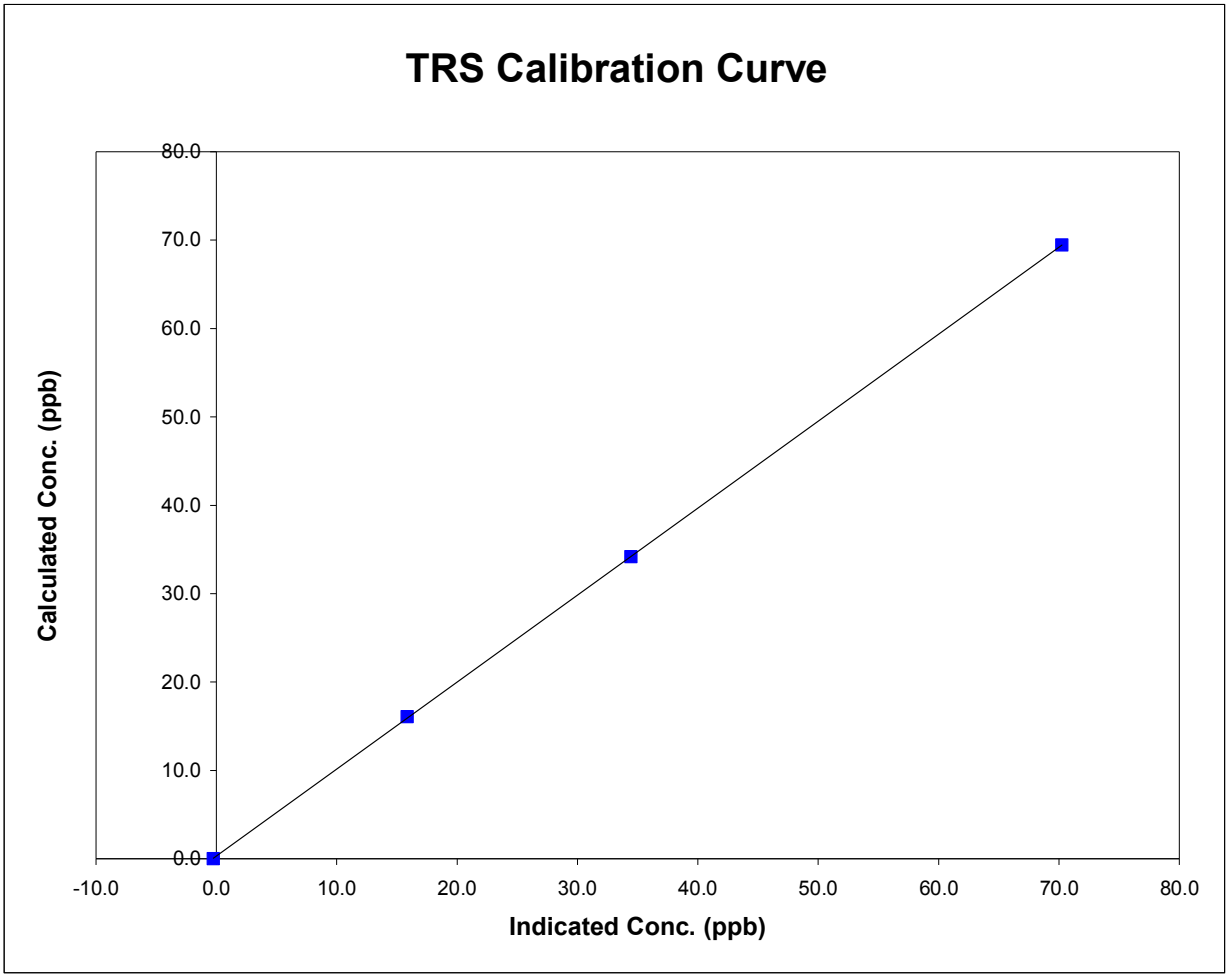
FOCUS AIR QUALITY MONITORING

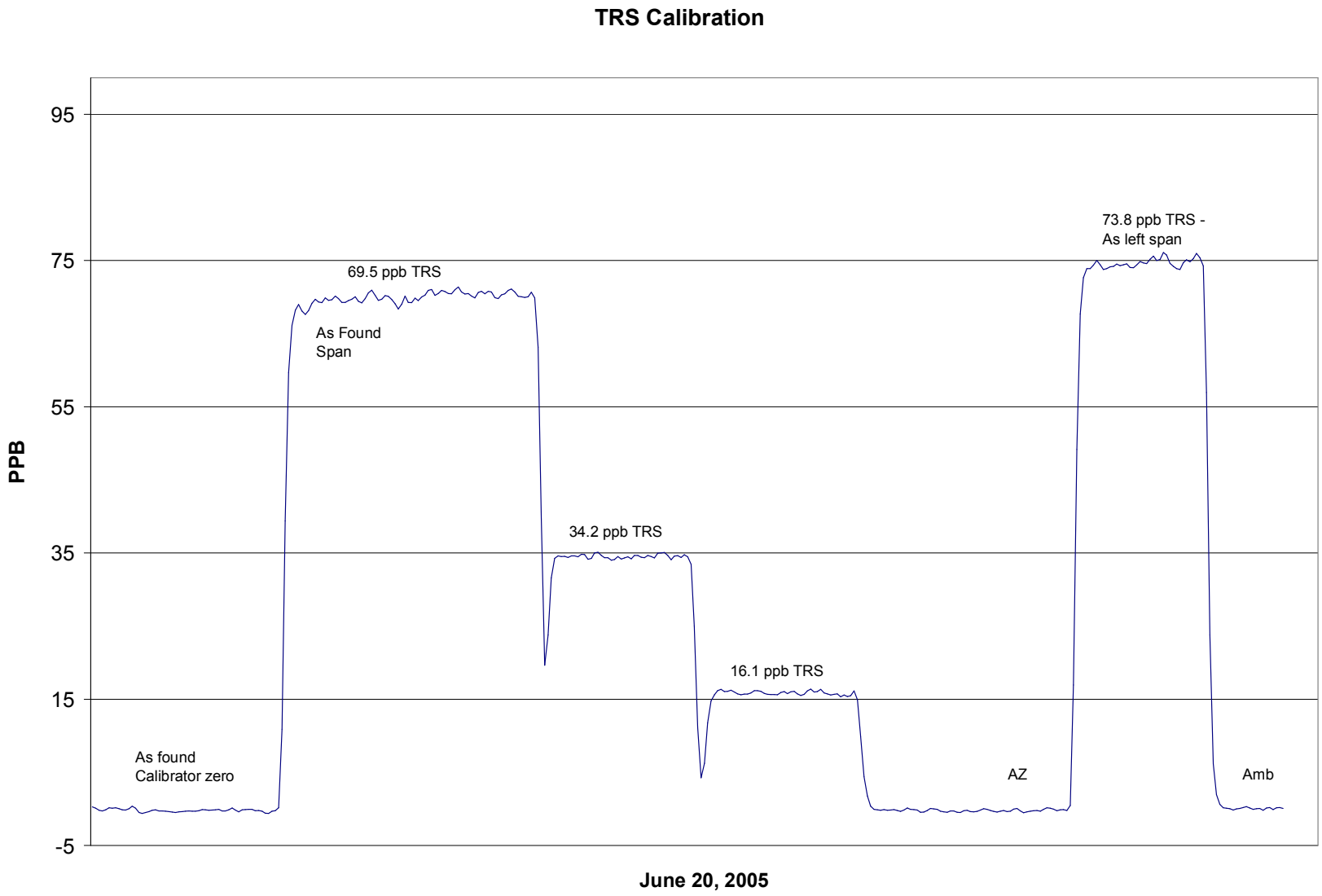
Station Information

Calibration Date	June 20, 2005	Previous Calibration	May 19, 2005
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	13:00	End Time (MST)	16:00
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.2	N/A		
69.5	70.3	0.9887	Correlation Coefficient	0.999990
34.2	34.5	0.9920		
16.1	15.9	1.0124	Slope	0.984290
			Intercept	0.313464




TRS Calibration
95
75
55
35
15
-5
PPB
69.5 ppb TRS
As Found
Span
34.2 ppb TRS
16.1 ppb TRS
73.8 ppb TRS -
As left span
As found
Calibrator zero
AZ
Amb
June 20, 2005

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **PM2.5**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	June 22, 2005	Previous Calibration	May 17, 2005
Station Number	1	Station Location	Muskoseepi Park
Reason:	Routine ☒	Install ☐	Removal ☐	Other: ☐
Start Time (MST)	8:45	End Time (MST)	
Barometric Pressure	0.917 ATM	Station Temperature	21.0 Deg C
Flow Calibrator	BIOS Drycal DCL-MH	Serial Number	101780
DACS make	AP 1000	DACS serial No.	45269
DACS voltage range	0 - 1 V	DACS channel #	15
	Before		After
DACS slope	0.050000	DACS slope	0.050000
DACS intercept	-50.000000	DACS intercept	-50.000000

Analyzer Information

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

	before		after	
Main Flow Set Point	3.000	SLPM	3.000	SLPM
Aux Flow Set Point	16.67	SLPM	13.67	SLPM
Filter Load	45	%		%
Ko Factor	12122		12122	
Temperature	8.1	Deg C	10.2	Deg C
Pressure	0.925	ATM	0.925	ATM

Calibration Data

Parameter	Set Point	Indicated Reading (measured externally)	Tolerance	TEOM Reading
zero flow - main	0.0	0.00		0.01
zero flow - auxillary	0.0	0.00		0.01
flow recovery - main	45 - 60 Seconds	30.0	45 - 60 Seconds	30
flow recovery - aux	46 - 60 Seconds	30.0	46 - 60 Seconds	30
Temperature	measured	10.1	+/- 1.0 Deg C	10.2
Pressure	measured	0.921	+/- 1.5% Δ_{ATM}	0.925
Total Flow	16.67 SLPM	17.04		16.70
Main Flow	13.67 SLPM	14.49	+/- 1.0 SLPM	13.66
Auxillary Flow	3.0 SLPM	3.160	+/- 0.2 SLPM	3.000
Leak Check - main	0.0	0.01	<0.15 SLPM	0.01
Leak Check - aux	0.0	0.10	<0.15 SLPM	0.10
Ko Factor (w/o filter)	measured	NA	filter weight (g)	0.11112
Ko Factor (w/ filter)	measured	NA	% Ko difference	N/A

Notes: changed V seal on the sensor unit. Completed flow checks, leak test, recovery, all OK.
reset temperature on TEOM unit

Calibration Performed By: Dawn Ewan

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **SO_2**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	June 23, 2005	Previous Calibration	May 18, 2005
Station Number	3	Station Location	Smoky Heights
Reason:	Routine ☒ Install ☐	Removal ☐	Other: ☐
Start Time (MST)	8:25	End Time (MST)	12:45
Barometric Pressure	27.67 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	2,452 ng/min	Perm-tube Expiry Date	
Correction factor	0.940581	Perm-tube Cert #	19-18743
DACS make	Focus AP1000	DACS serial No.	45274
DACS voltage range	0 - 10 volt	DACS channel #	4
	Before		After
Calculated slope	1.008286	Calculated slope	0.991832
Calculated intercept	-1.434974	Calculated intercept	1.532871
Analyzer make	API 102A	Analyzer serial #	212

	before		after	
Concentration range	500	ppb	500	ppb
Sample Flow	574	ccm	524	ccm
UV Lamp Voltage	3390	mv	3390	mv
Lamp Ratio	93.1	%	93	%
Rx Cell Temp	51	Deg C	51	Deg C
PMT Temp	7.1	Deg C	7.1	Deg C
IZS Temp	45.2	Deg C	45	Deg C
Slope	0.834		0.817	
Intercept	20.60		20.6	

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	2348.6	0.0	0.7	N/A
2497	2348.6	398.5	399.9	0.9964
5070	4768.7	196.3	198.8	0.9874
11190	10525.1	88.9	83.8	1.0617
zero	2348.6	0.0	0.7	As Found Zero
2497	2348.6	398.5	405.8	As Found Span
			Average Correction Factor	1.0152

Calculated value of As Found Response: 406.999 ppm Percent Change of As Found: -2.1%

	before calibration		after calibration	
Auto zero	na	ppm	2.1	ppm
Auto span	na	ppm	232.5	ppm

Notes: No Zero Adj Necessary
Adjusted Span

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

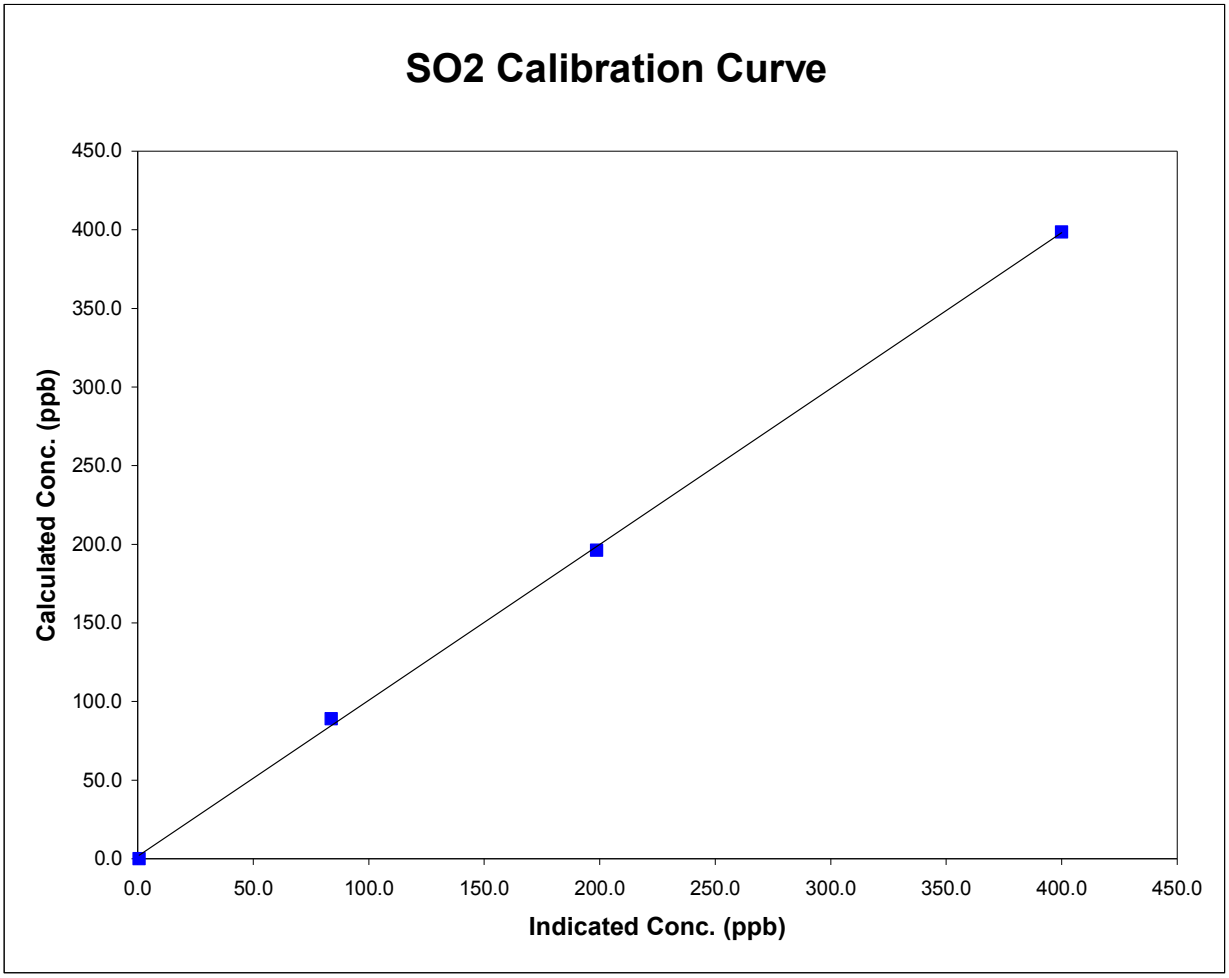
FOCUS AIR QUALITY MONITORING

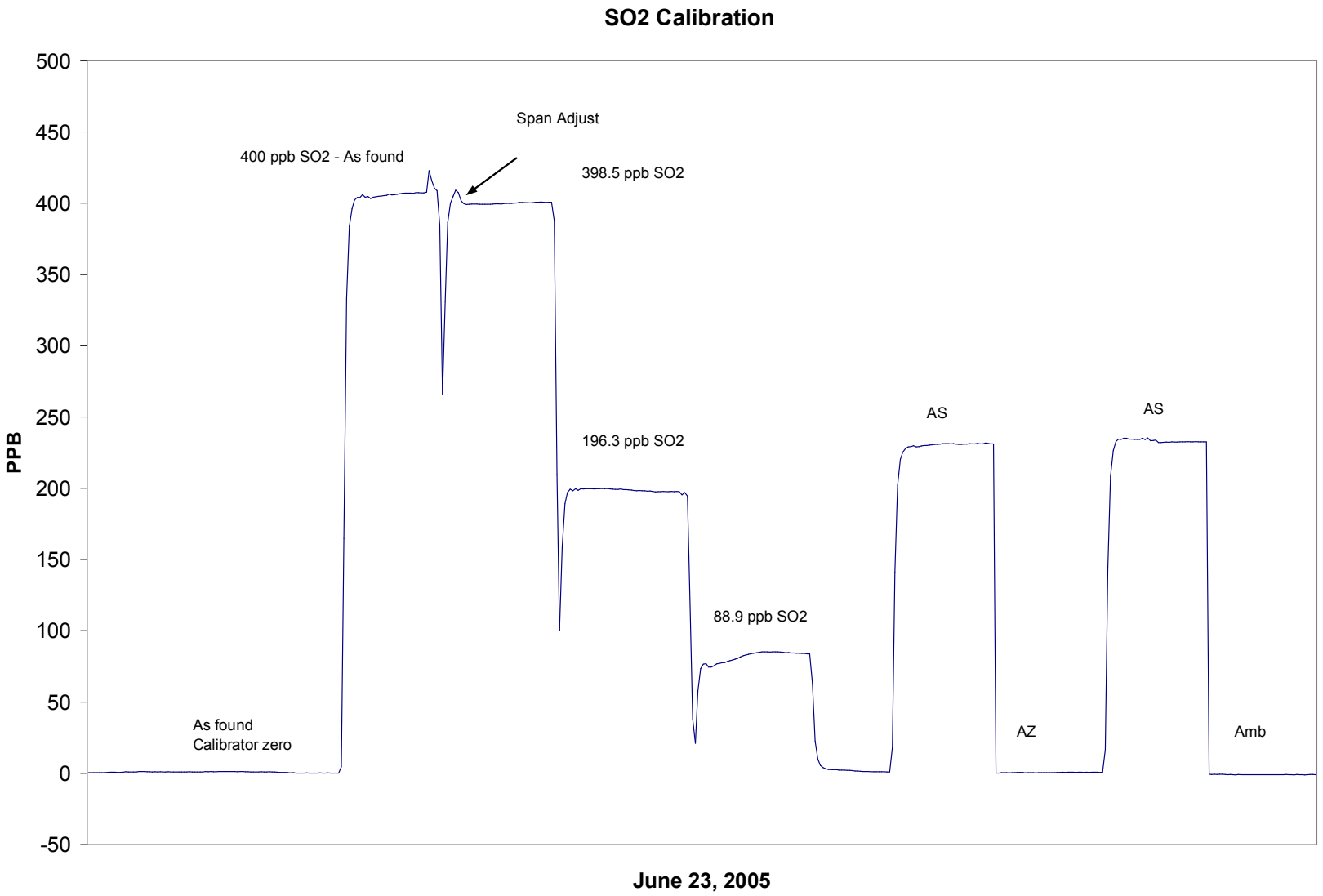
Station Information

Calibration Date	June 23, 2005	Previous Calibration	May 18, 2005
Station Number	3	Station Location	Smoky Heights
Start Time (MST)	8:25	End Time (MST)	12:45
Analyzer make/model	API 102A	Analyzer serial #	212

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	N/A		
398.5	399.9	0.9964	Correlation Coefficient	0.999667
196.3	198.8	0.9874		
88.9	83.8	1.0617	Slope	0.991832
			Intercept	1.532871




SO2 Calibration
500
450
400
350
300
250
200
150
100
50
0
-50
PPB
Span Adjust
400 ppb SO2 - As found
398.5 ppb SO2
196.3 ppb SO2
88.9 ppb SO2
AS
AS
As found
Calibrator zero
AZ
Amb
June 23, 2005

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **TRS**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	June 23, 2005	Previous Calibration	May 18, 2005
Station Number	3	Station Location	Smoky Heights
Reason:	Routine: No / Install: No / Removal: No / Other:		
Start Time (MST)	8:25	End Time (MST)	
Barometric Pressure	27.67 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	225 ng/min	Perm-tube Expiry Date	12/10/2005
Correction factor	0.940581	Perm-tube Cert #	03-13509
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 10 volt	DACS channel #	9
	Before		After
Calculated slope	1.032342369	Calculated slope	0.994967
Calculated intercept	-0.392375916	Calculated intercept	-0.170310
Analyzer make	TEI Model 43C	Analyzer serial #	436610004

	before		after	
Concentration range	100	ppb	100	ppb
Background	9.7	ppb	9.4	ppb
coefficient	1.193		1.154	
Lamp Voltage	779	volts	779	volts
Chamber Temp	44	Deg C	44	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	642.6	mm Hg	642.1	mm Hg
Sample Flow	466	ccm	466	ccm
Lamp Intesity	32,200	mv	32,200	mv

Calibration Data

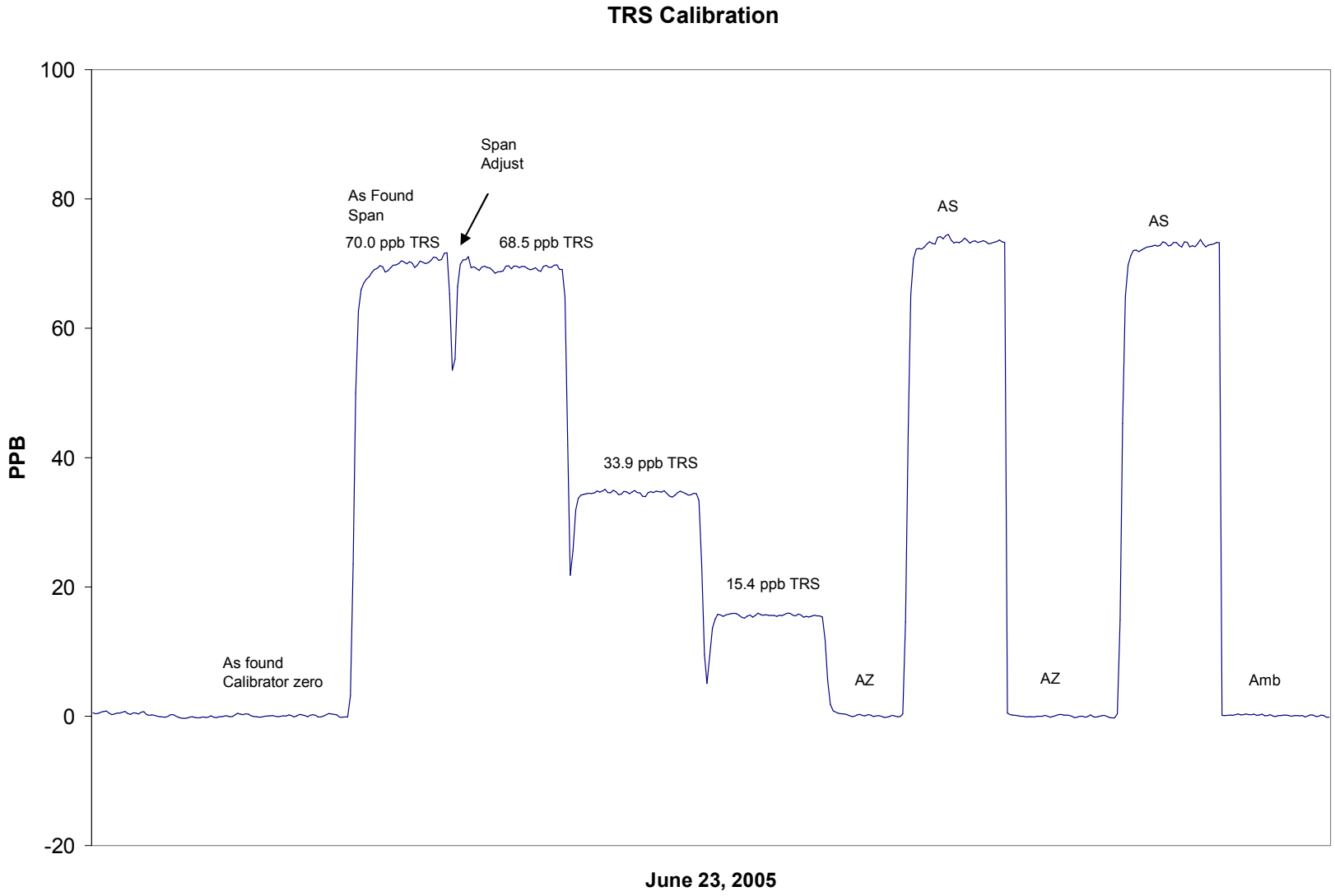
Dilution air flow rate (cc/min)	Corrected gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
zero	2348.6	0.0	0.1	N/A
2497	2348.6	68.9	69.3	0.9940
5070	4768.7	33.9	34.5	0.9835
11190	10525.1	15.4	15.6	0.9867
zero	2360.9	0.0	0.1	As Found Zero
2510	2360.9	68.5	70.0	As Found Span
			Average Correction Factor	0.9880

Calculated value of As Found Response: 71.80 ppm Percent Change of As Found: -4.8%

	before calibration		after calibration	
Auto zero	na	ppm	-0.2	ppm
Auto span	na	ppm	72.3	ppm

Notes: No Zero adjustment necessary.
Span Adjustment made.

Calibration Performed By: Dawn Ewan


TRS Calibration
100
80
60
40
20
0
-20
PPB
Span
Adjust
As Found
Span
70.0 ppb TRS
68.5 ppb TRS
33.9 ppb TRS
15.4 ppb TRS
As found
Calibrator zero
AZ
AS
AZ
AS
Amb
June 23, 2005

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **PM2.5**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	June 23, 2005	Previous Calibration	
Station Number	3	Station Location	Smoky Heights
Reason:	Routine ☒	Install ☐	Removal ☐	Other: ☐
Start Time (MST)	7:10	End Time (MST)	8:10
Barometric Pressure	0.9 inches Hg	Station Temperature	21.0 Deg C
Flow Calibrator	BIOS Drycal DCL-MH	Serial Number	101780
DACS make	AP 1000	DACS serial No.	45272
DACS voltage range	0 - 1 V	DACS channel #	7
	Before		After
DACS slope	0.050000	DACS slope	0.050000
DACS intercept	-50.000000	DACS intercept	-50.000000

Analyzer Information

Analyzer make	R&P	Control Unit serial #	140AB215549705
Analyzer model	TEOM 1400AB	Sensor Unit serial #	140AB215549705

	before		after	
Main Flow Set Point	3.000	SLPM	3.000	SLPM
Aux Flow Set Point	16.67	SLPM	16.67	SLPM
Filter Load	54	%	54	%
Ko Factor	10997		10997	
Temperature	14.6	Deg C	10.6	Deg C
Pressure	0.928	ATM	0.928	ATM
Main Fadj				
Aux Fadj				

Calibration Data

Parameter	Set Point	Indicated Reading	Tolerance	New Reading
zero flow - main	0.0	0.09		0.02
zero flow - auxillary	0.0	0.19		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	10.49 measured	14.6	+/- 1.0 Deg C	10.6
Pressure	0.924 measured	0.928	+/- 1.5% Δ_{ATM}	0.928
Total Flow	16.67 SLPM	16.01		16.69
Main Flow	13.67 SLPM	13.54	+/- 1.0 SLPM	13.70
Auxillary Flow	3.0 SLPM	2.920	+/- 0.2 SLPM	2.992
Leak Check - main	0.0	0.13	<0.15 SLPM	0.05
Leak Check - aux	0.0	0.25	<0.15 SLPM	0.10
Ko Factor	measured	NA		NA

Notes: Flows on Auxillary and Main were adjusted at zero and span pot.
Temperature adjusted.
Leak Check Performed; OK.
Pressure Checked OK.

Calibration Performed By: Dawn Ewan

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **SO_2**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	June 8, 2005	Previous Calibration	May 17, 2005
Station Number	4	Station Location	Beaverlodge

Reason: [Routine] [Install] [Removal] [Other:]

Start Time (MST)	12:05	End Time (MST)	15:20
Barometric Pressure	0.916 atm	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Make	Scott	Cal Gas Expiry Date	N/A
Cal Gas Conc.	50.8 ppm	Cal Gas Cylinder #	
DACS make	Focus AP1000	DACS serial No.	45271
DACS voltage range	0 - 10 volt	DACS channel #	3
	Before		After
DACS slope	0.001000	DACS slope	0.001000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	1.000000	Calculated slope	0.993381
Calculated intercept	0.000000	Calculated intercept	-0.310987

Analyzer make	TEI Model 43CTL	Analyzer serial #	43CTL-74200-376

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.97	ppb	NA	ppb
Coefficient	1.359		NA	
Lamp Voltage	997	Volts	997	Volts
Chamber Temp	44.1	Deg C	44.0	Deg C
Sample Flow	602	ccm	602	ccm

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
9493	0.00	0.00	-0.05	N/A
9493	14.95	79.88	80.37	0.9938
9493	9.97	53.30	54.28	0.9818
9493	4.96	26.53	27.41	0.9677
9493	0.00	0.00	-0.05	As Found Zero
9493	14.95	79.88	105.20	As Found Span
			Average Correction Factor	0.9811

Calculated value of As Found Response: 105.251 ppm Percent Change of As Found: -31.8%

	before calibration		after calibration	
Auto zero	N/A	ppm	-0.29	ppm
Auto span	N/A	ppm	NA	ppm

Notes: Unable to determine cause of SO2 response change. Span adjusted analyzer.
Response variation to be closely followed in the following months.

Calibration Performed By: Kelly Baragar

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

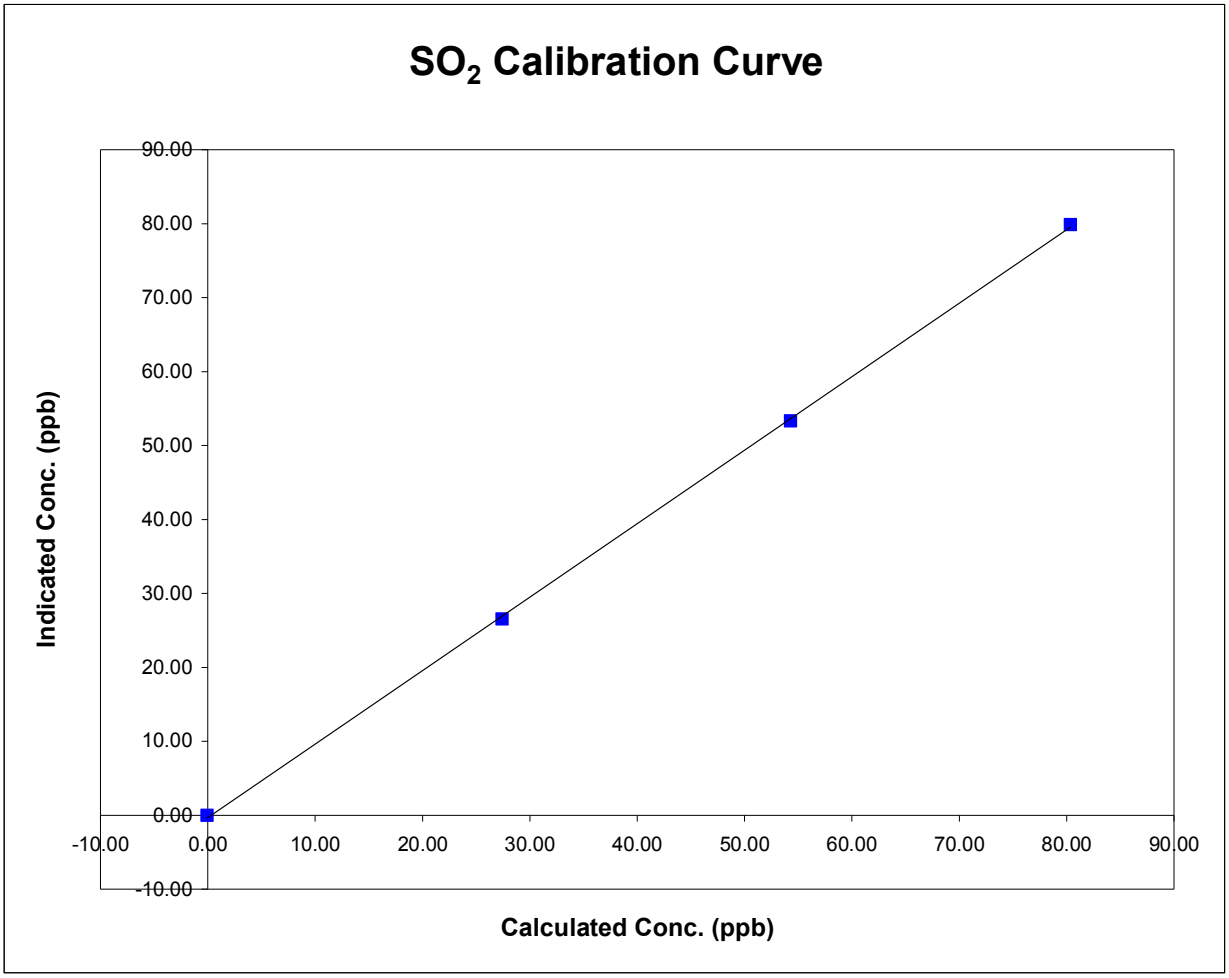
FOCUS AIR QUALITY MONITORING

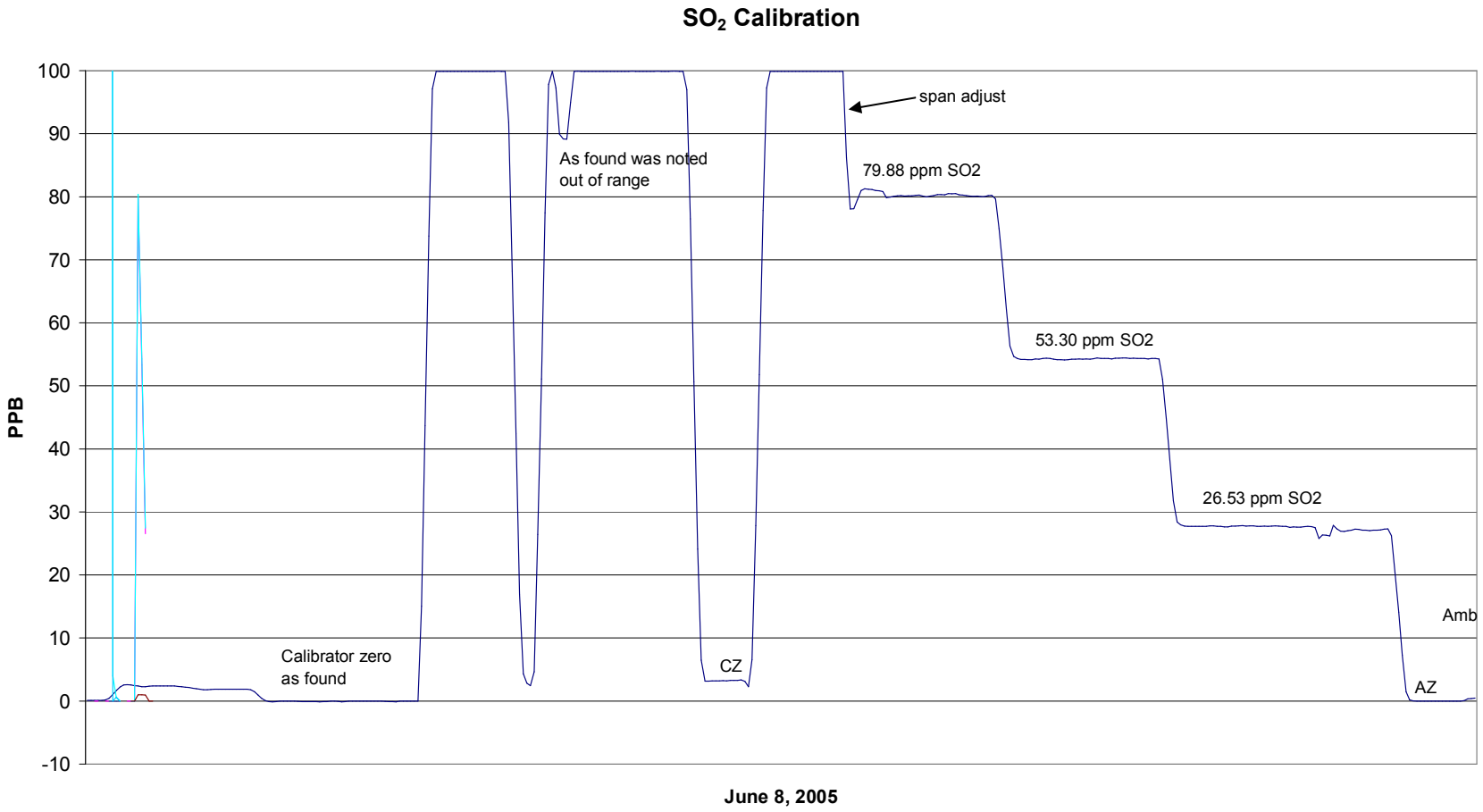
Station Information

Calibration Date	June 8, 2005	Previous Calibration	May 17, 2005
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	12:05	End Time (MST)	15:20
Analyzer make/model	TEI Model 43CTL	Analyzer serial #	43CTL-74200-376

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.051	N/A		
79.876	80.371	0.9938	Correlation Coefficient	0.999857
53.297	54.283	0.9818		
26.529	27.415	0.9677	Slope	0.993381
			Intercept	-0.310987




SO2 Calibration
100
90
80
70
60
50
40
30
20
10
0
-10
PPB
span adjust
As found was noted
out of range
79.88 ppm SO2
53.30 ppm SO2
26.53 ppm SO2
Amb
Calibrator zero
as found
CZ
AZ
June 8, 2005

Calibration Report

Parameter **NOx-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	June 8, 2005	Previous Calibration	May 17, 2005
Station Number	4	Station Location	AG Canada Research Station

Reason: Routine | Installation | Removal | Other:

Start Time (MST)	8:45		End Time (MST)	12:40	
Barometric Pressure	0.916	Atm	Station Temperature	20.0	Deg C
Calibrator	Environics 6100		Serial Number	3016	
NO Cal Gas Conc	50.5	ppm	Cal Gas Expiry Date	19-Jan-06	
NOx Cal Gas Conc	50.5	ppm	Cal Gas Serial #	ALM025793	

DACS Information

DACS make	FOCUS AP1000	DACS serial No.	45269

Parameter		NO2	NOx	NO
Before	DACS slope	0.100000	0.100000	0.100000
	DACS offset	0.000000	0.000000	0.000000
After	DACS slope	0.100000	0.100000	0.100000
	DACS offset	0.000000	0.000000	0.000000
Before	Data Slope	1.000540	1.103444	1.112623
	Data Offset	0.432747	1.166436	2.470571
After	Data Slope	1.000323	1.012447	1.013664
	Data Offset	0.449577	-2.090985	-1.785209
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

Analyzer Information

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

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO background	1.0	ppb	1.1	mV
NOx background	1.1	ppb	1.2	mV
NO coefficient	0.855		0.922	
NOx coefficient	1.005		1.005	
Chamber Temp	49.2	Deg C	49.1	Deg C
Cooler Temp	-2.2	Deg C	-2.2	Deg C
Converter Temp	324.0	Deg C	324.0	Deg C
Sample flow	0.8	LPM	0.8	LPM
Pressure	155.0	inches Hg	155.5	inches Hg
Box temp	32.6	ccm	32.6	ccm

Notes: Analyzer was span adjusted. All pertinent analyzer diagnostics appear normal.

Calibration Report

Parameter **NOx-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: June 8, 2005 Station Location: AG Canada Research Station

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4993	0.00	0.0	0.0	0.0	-0.3	-0.4	-0.4	N/A	N/A
1	4993	79.94	795.8	795.8	0.0	786.4	785.2	0.3	1.0119	1.0135
2	4993	39.97	401.1	401.1	0.0	401.2	400.5	0.1	0.9997	1.0015
3	4993	9.99	100.8	100.8	0.0	102.7	102.0	0.1	0.9816	0.9885
AFZ	4993	0.00	0.0	0.0	0.0	-0.3	-0.4	-0.4	0.0000	0.0000
AFS	4993	39.97	401.1	401.1	0.0	371.0	370.4	0.0	1.0809	1.0828
							Average Correction Factor		0.9978	1.0012

As Found Concentrations: NO_X= 410.9 NO= 415.0 As Found Percent Change NO_X= 2.5% NO= 3.5%

GPT Calibration Data

Dilution Flow 4993 ccm Source Gas Flow 79.94 ccm

O3 Setpoint (ppb)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 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	795.8	788.1	1.0	789.1	788.1	0.0	N/A	N/A	N/A	N/A
350	795.8	472.5	317.8	790.3	472.5	317.3	1.0070	1.0000	1.0016	99.8%
200	795.8	608.2	181.8	789.9	608.2	181.2	1.0074	1.0000	1.0033	99.7%
100	795.8	698.3	91.0	789.3	698.3	90.5	1.0083	1.0000	1.0053	99.5%
					Average Correction Factor		1.0076	1.0000	1.0034	99.7%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	0.7	0.3	2.3	ppb	-2.4	0.0	-2.2	ppb
Auto span	253.1	13.8	241.0	ppb	249.5	14.1	236.0	ppb

Calibration Performed By: Kelly Baragar

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PASZA**

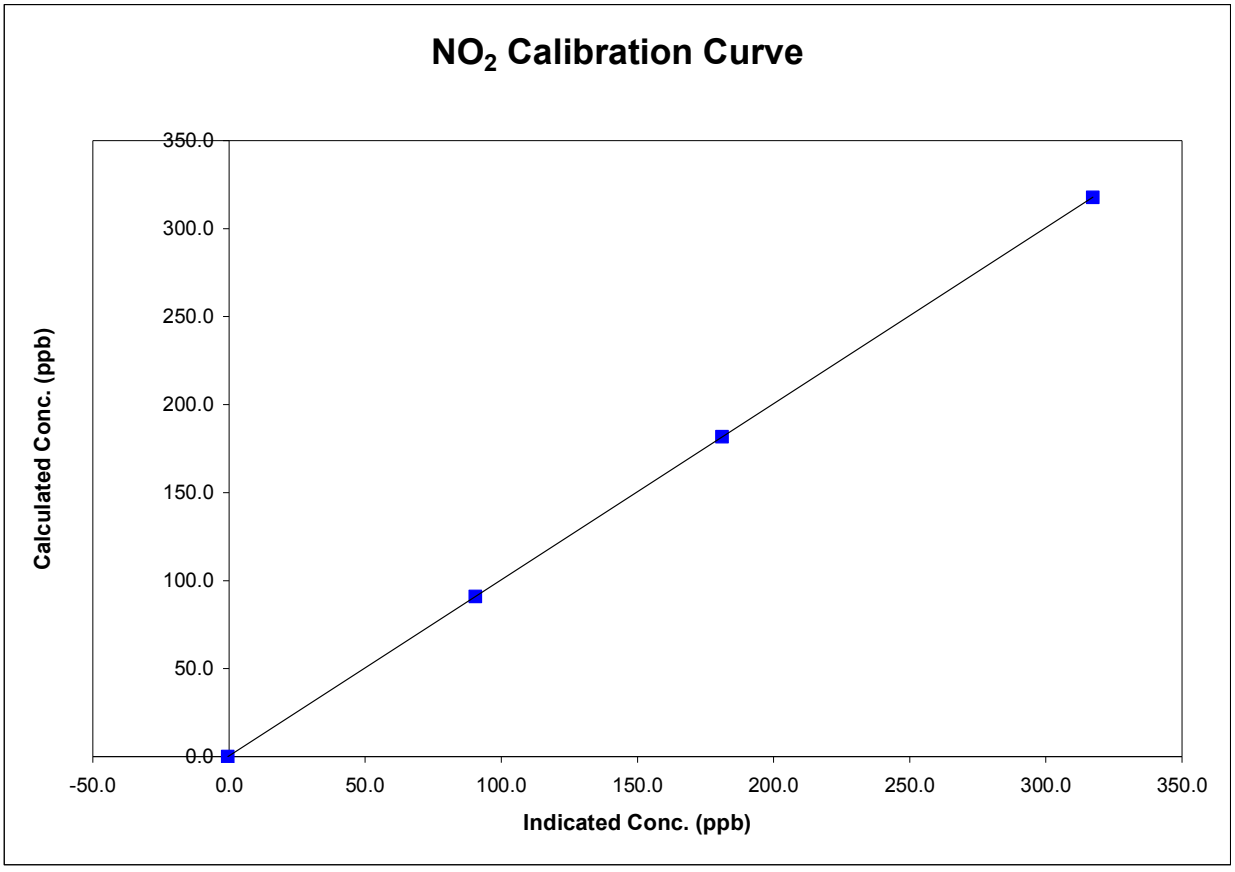
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	June 8, 2005	Previous Calibration	May 17, 2005
Station Number	4	Station Location	AG Canada Research Station
Start Time (MST)	8:45	End Time (MST)	12:40
Analyzer make	TEI Model 42C	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		
317.8	317.3	1.0016	Correlation Coefficient	1.000000
181.8	181.2	1.0033		
91.0	90.5	1.0053	Slope	1.000323
			Intercept	0.449577



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PASZA**

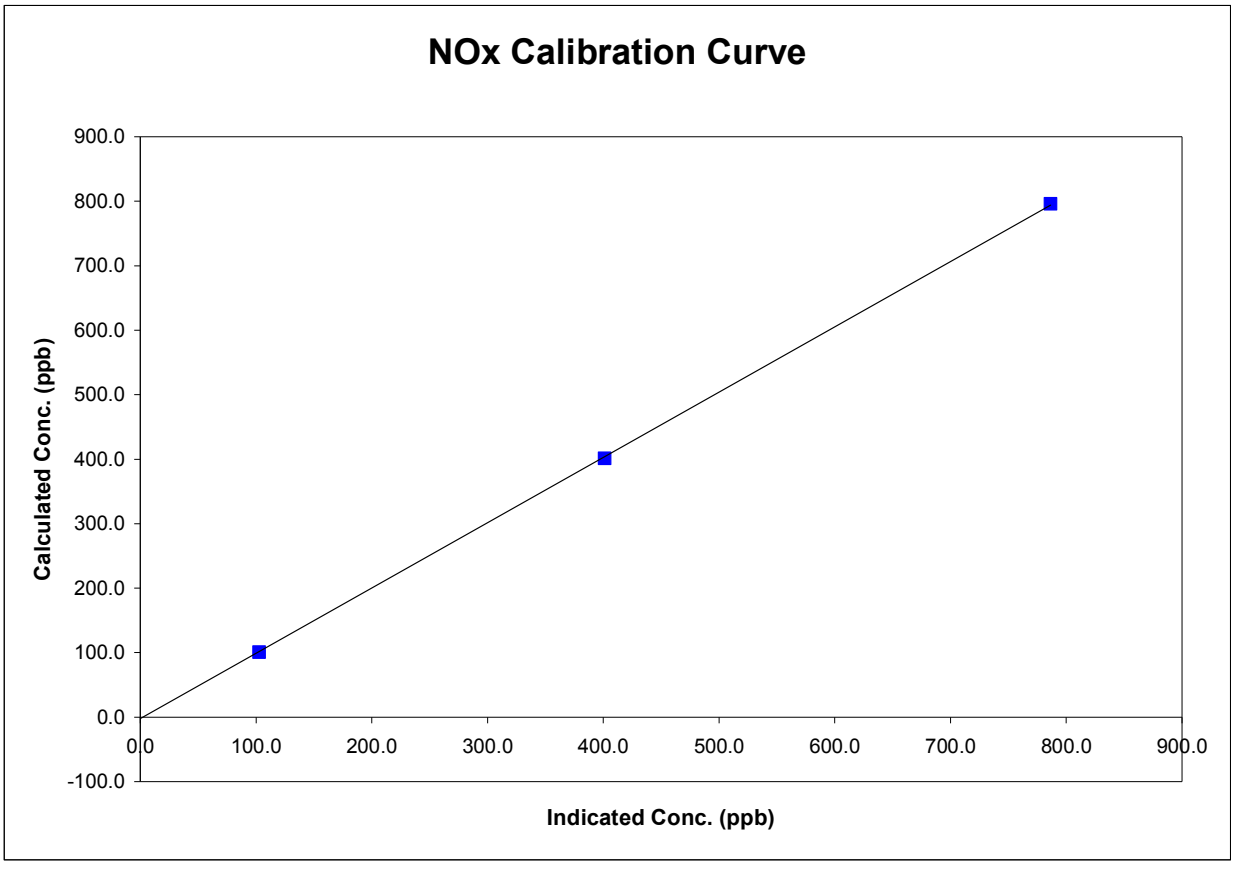
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	June 8, 2005	Previous Calibration	May 17, 2005
Station Number	4	Station Location	AG Canada Research Station
Start Time (MST)	8:45	End Time (MST)	12:40
Analyzer make	TEI Model 42C	Analyzer serial #	42-28486-231

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.3	0.0000		
795.8	786.4	1.0119	Correlation Coefficient	0.999951
401.1	401.2	0.9997		
100.8	102.7	0.9816	Slope	1.012447
			Intercept	-2.090985



Calibration Summary

Parameter **NO**

Air Monitoring Network **PASZA**

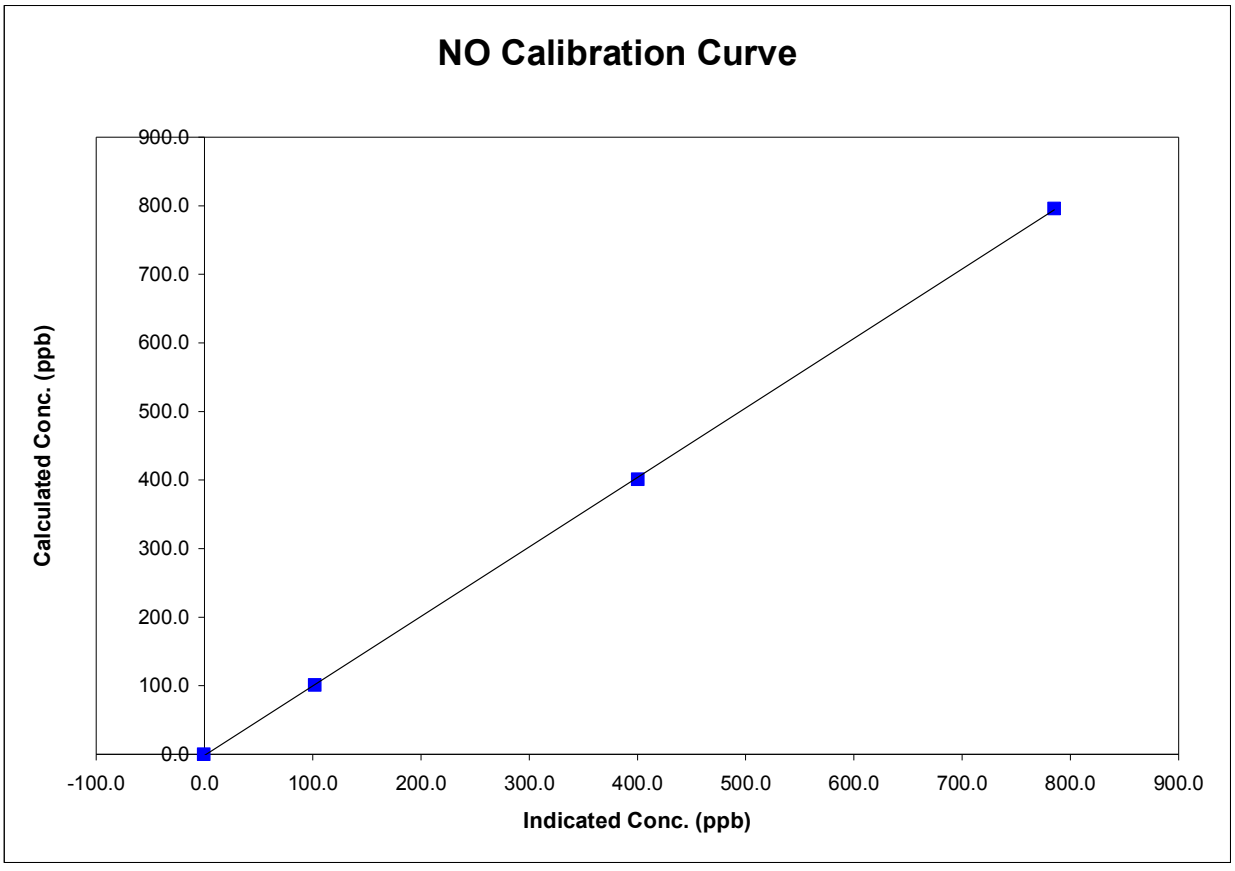
FOCUS AIR QUALITY MONITORING

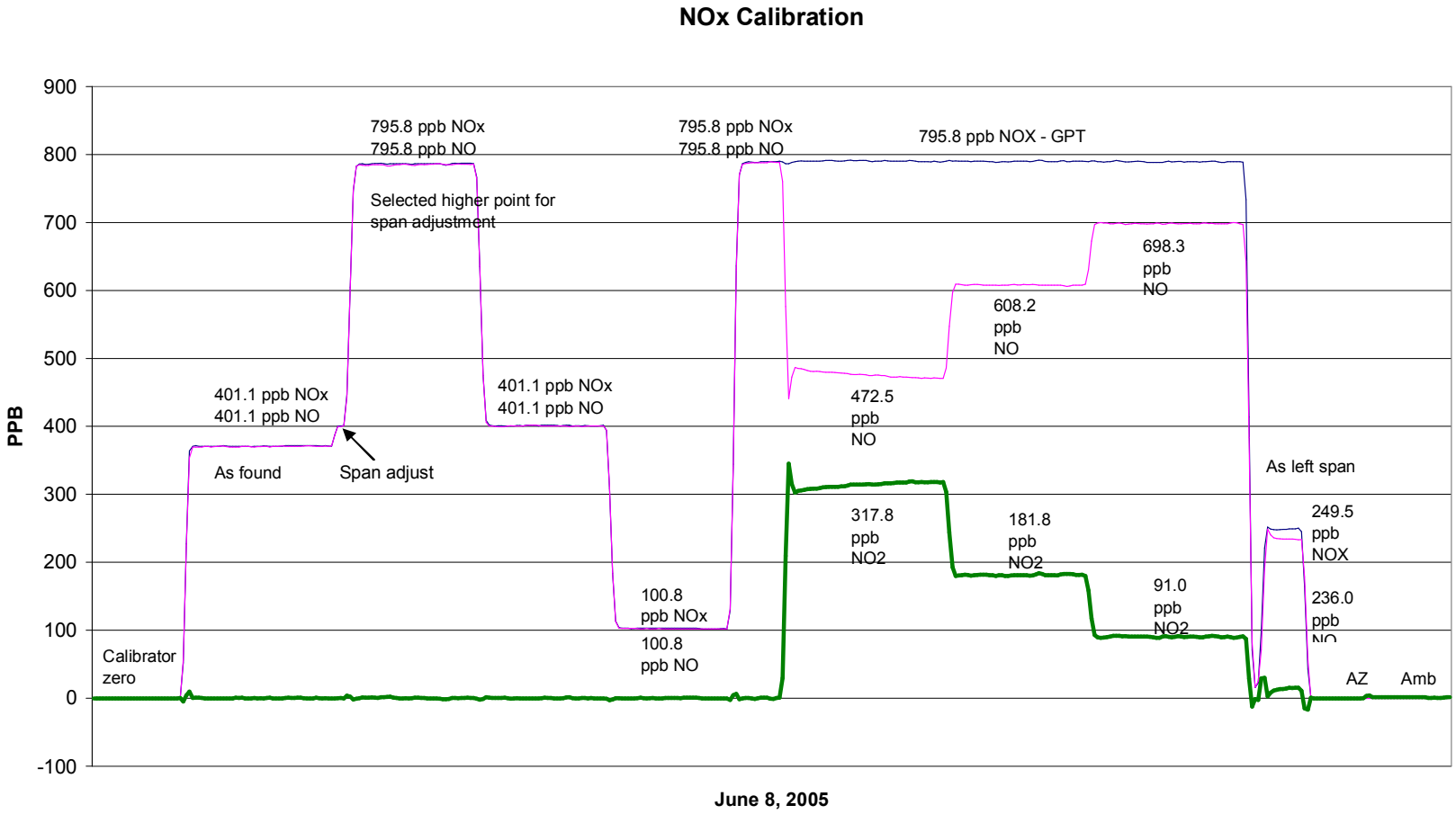
Station Information

Calibration Date	June 8, 2005	Previous Calibration	May 17, 2005
Station Number	4	Station Location	AG Canada Research Station
Start Time (MST)	8:45	End Time (MST)	12:40
Analyzer make	TEI Model 42C	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	N/A		
795.8	785.2	1.0135	Correlation Coefficient	0.999953
401.1	400.5	1.0015		
100.8	102.0	0.9885	Slope	1.013664
			Intercept	-1.785209




NOx Calibration
PPB
900
800
700
600
500
400
300
200
100
0
-100
795.8 ppb NOx
795.8 ppb NO
795.8 ppb NOx
795.8 ppb NO
795.8 ppb NOX - GPT
Selected higher point for span adjustment
698.3 ppb NO
608.2 ppb NO
401.1 ppb NOx
401.1 ppb NO
401.1 ppb NOx
401.1 ppb NO
472.5 ppb NO
As found
Span adjust
As left span
317.8 ppb NO2
181.8 ppb NO2
249.5 ppb NOX
91.0 ppb NO2
236.0 ppb NO
100.8 ppb NOx
100.8 ppb NO
Calibrator zero
AZ
Amb
June 8, 2005

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **O3**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	June 8, 2005	Previous Calibration	May 17, 2005
Station Number	4	Station Location	AG Canada Research Station
Reason:	Routine ☐	Install ☐	Removal ☐	Other: ☐
Start Time (MST)	15:00	End Time (MST)	17:05
Barometric Pressure	0.916 atm	Station Temperature	20.0 Deg C
Calibrator	Environics 6100	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	45271
DACS voltage range	0 - 10 volt	DACS channel #	7
	Before		After
DACS slope	0.050000	DACS slope	0.050000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	1.068774	Calculated slope	1.002787
Calculated intercept	1.885497	Calculated intercept	1.434988
Analyzer make	TEI 49C	Analyzer serial #	49C-76443-383

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	-0.1	ppb	-0.1	ppb
Coefficient	1.043		1.043	
Bench Temp	29.0	Deg C	29.0	Deg C
Lamp Temp	56.3	Deg C	56.3	Deg C
Ozone Lamp	70.9	Deg C	70.9	Deg C
Sample Flow A	708	ccm	708	ccm
Sample Flow B	669	ccm	669	ccm

Calibration Data

Dilution air flow rate (cc/min)	Ozone Set Point (ppb)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0	0.0	-0.4	N/A
4995	350	317.8	316.1	1.0054
4995	200	181.8	179.4	1.0137
4995	100	91.0	88.1	1.0324
4995	0	0.0	-0.4	As found zero
4995	350	317.8	316.1	As found span
			Average Correction Factor	1.0171

Calculated value of As Found Response: 340.1 ppm Percent Change of As Found: 7.0%

	before calibration		after calibration	
Auto zero	N/A	ppb	1.8	ppb
Auto span	N/A	ppb	120.0	ppb

Notes: No analyzer adjustments performed. All diagnostics appear normal.

Calibration Performed By: Kelly Baragar

Calibration Summary

Parameter **O3**

Air Monitoring Network **PASZA**

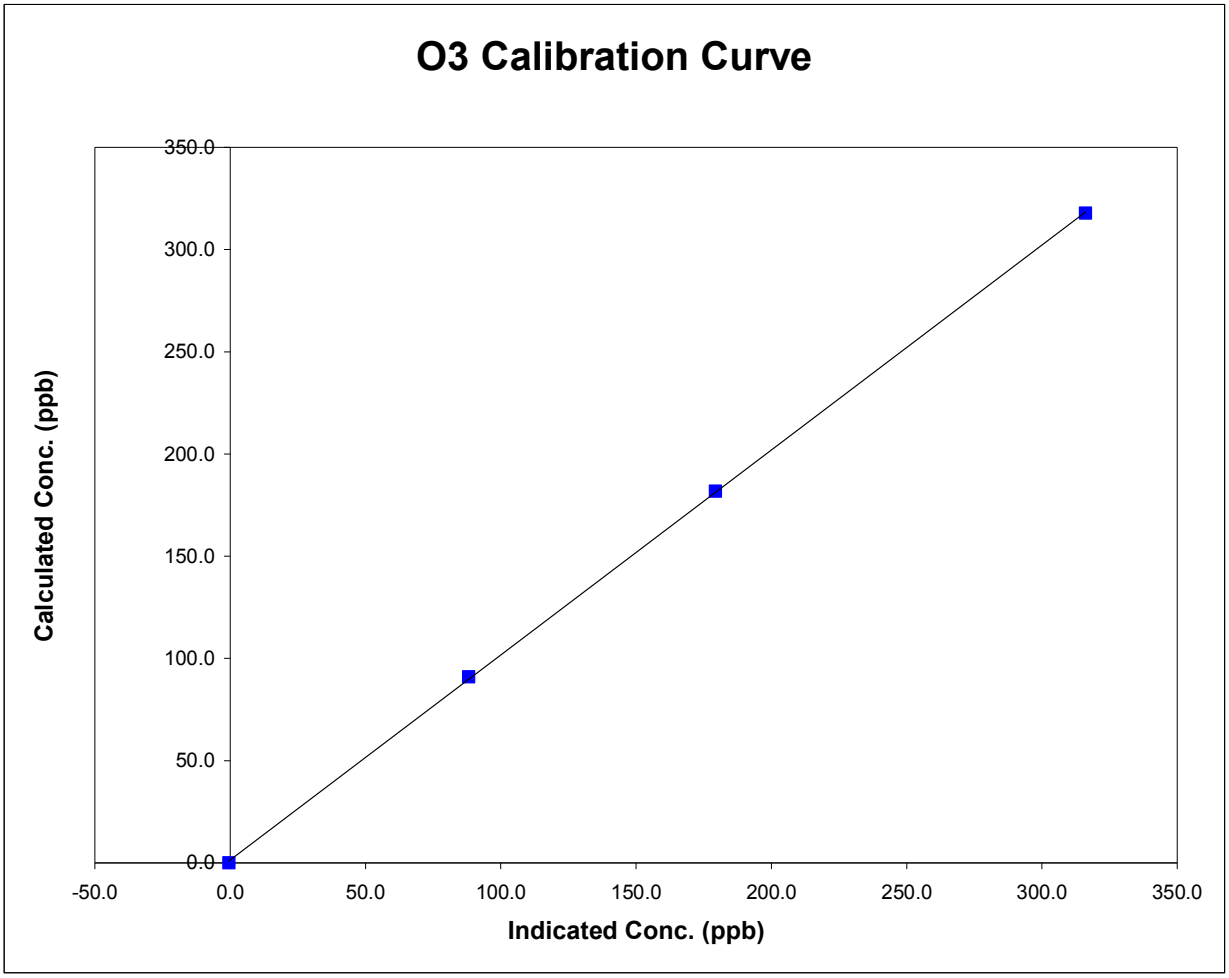
FOCUS AIR QUALITY MONITORING

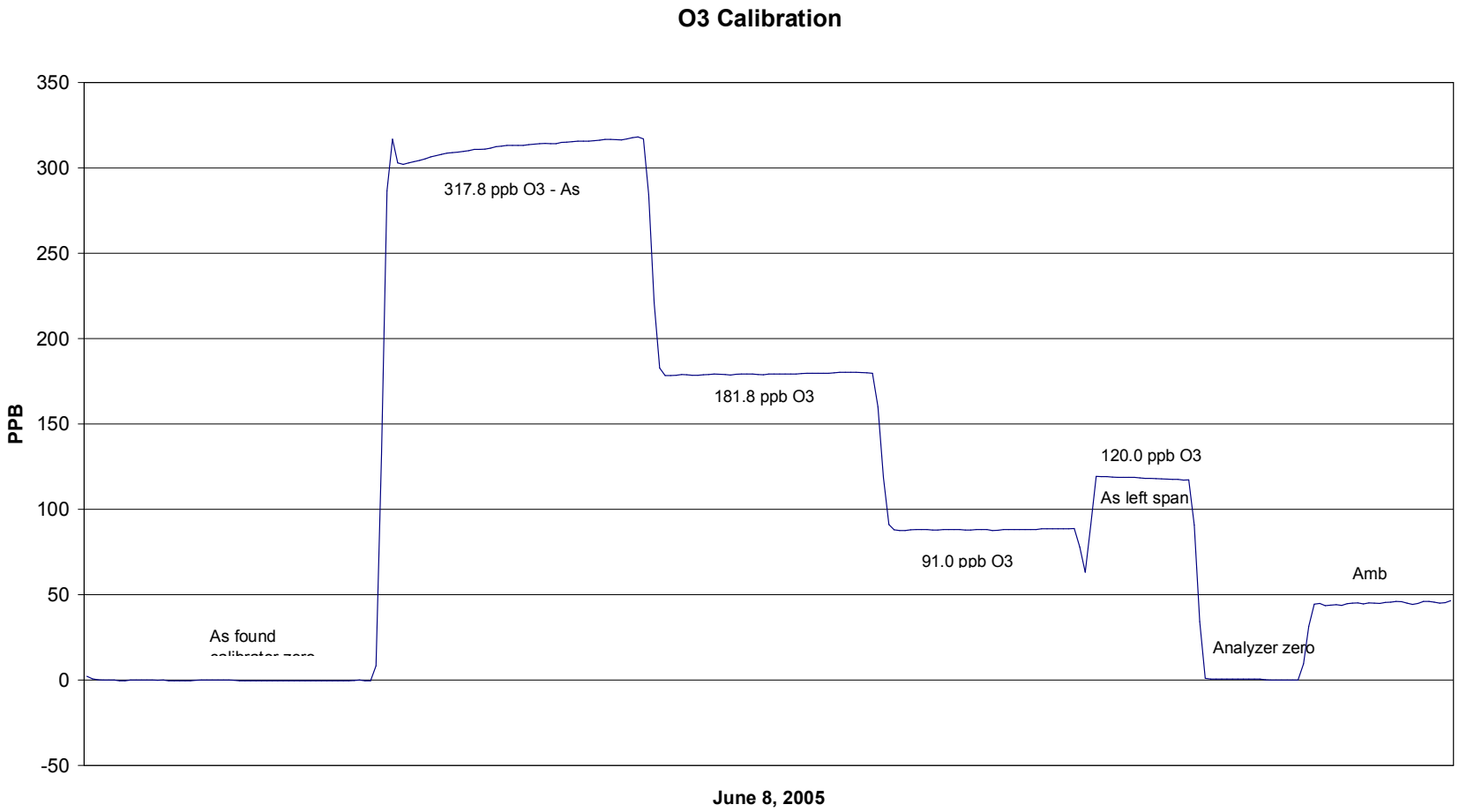
Station Information

Calibration Date	June 8, 2005	Previous Calibration	May 17, 2005
Station Number	4	Station Location	AG Canada Research Station
Start Time (MST)	15:00	End Time (MST)	17:05
Analyzer make/model	TEI 49C	Analyzer serial #	49C-76443-383

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	NA		
317.8	316.1	1.0054	Correlation Coefficient	0.999942
181.8	179.4	1.0137		
91.0	88.1	1.0324	Slope	1.002787
			Intercept	1.434988




O3 Calibration
350
300
250
200
150
100
50
0
-50
PPB
317.8 ppb O3 - As
181.8 ppb O3
120.0 ppb O3
As left span
91.0 ppb O3
Amb
As found
Analyzer zero
June 8, 2005

Calibration Report

Parameter **PM2.5**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	June 8, 2005	Previous Calibration	NA
Station Number	4	Station Location	Beaverlodge
Reason:	Routine ☒	Install ☐	Removal ☐	Other: ☐
Start Time (MST)	14:20	End Time (MST)	16:30
Barometric Pressure	0.916 ATM	Station Temperature	20.0 Deg C
Flow Calibrator	BIOS Drycal DCL-MH	Serial Number	101780
DACS make	AP 1000	DACS serial No.	NA
DACS voltage range	0 - 1 V	DACS channel #	15
	Before		After
DACS slope	0.045000	DACS slope	0.045000
DACS intercept	-50.000000	DACS intercept	-50.000000

Analyzer Information

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

	before		after	
Main Flow Set Point	3.000	SLPM	3.000	SLPM
Aux Flow Set Point	16.67	SLPM	16.67	SLPM
Filter Load	31	%	31	%
Ko Factor	NA		NA	
Temperature	21.3	Deg C	21.3	Deg C
Pressure	0.906	ATM	0.916	ATM

Calibration Data

Parameter	Set Point	Indicated Reading (measured externally)	Tolerance	TEOM Reading
zero flow - main	0.0	0.00		0.02
zero flow - auxillary	0.0	0.00		0.05
flow recovery - main	45 - 60 Seconds	na	45 - 60 Seconds	40
flow recovery - aux	46 - 60 Seconds	na	46 - 60 Seconds	40
Temperature	measured	21.3	+/- 1.0 Deg C	21.3
Pressure	measured	0.916	+/- 1.5% Δ_{ATM}	0.916
Total Flow	16.67 SLPM	16.20		16.70
Main Flow	13.67 SLPM	13.20	+/- 1.0 SLPM	13.70
Auxillary Flow	3.0 SLPM	3.000	+/- 0.2 SLPM	3.000
Leak Check - main	0.0	0.00	<0.15 SLPM	-0.07
Leak Check - aux	0.0	0.00	<0.15 SLPM	0.05
Ko Factor (w/o filter)	measured	NA	filter weight (g)	NA
Ko Factor (w/ filter)	measured	NA	% Ko difference	N/A

Notes: After as found flows captured performed pump restart test and leak test.
Performed zero adjustment on the auxiliary MFC and adjusted barometric pressure. All confirmed OK.
Inlet heads were clean.

Calibration Performed By: Kelly Baragar