Air Quality Monitoring Network for July 2006

Prepared by
FOCUS
AMBIENT AIR MONITORING

September 12, 2006

Environmental Service Response Centre
Alberta Environment
#111 Twin Atria Building
4999-98th Avenue
Edmonton, Alberta T6B 2X3

Re: Peace Airshed Zone Association (PASZA) – July Ambient Air Report

Enclosed is the PASZA Ambient Monitoring Network Report for the month of **July 2006**.

Continuous Monitoring: **Four (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 objectives.

On July 4th, an alert was reported by Focus to Alberta Environment (AENV) on behalf of the PASZA. The alert was elevated readings of $PM_{2.5}$ observed at Evergreen Park (located SE of Grande Prairie). It should be noted that elevated readings were observed at Henry Pirker, Smoky Heights and Beaverlodge stations during the same time period. Based on local reports of haze, the readings were likely a result of forest fire smoke from the west and north. This incident was assigned AENV Reference #173552. The Air Quality Index at the Beaverlodge Station on July 4th indicated Poor to Very Poor air quality during that time period and Alberta Environment was in contact with Focus during this time.

During the month of July the following events were noted:

An Alberta Environment Audit of the network was conducted July 18th, 19th and 20th. For specific questions regarding the audit results contact Kevin Warren, PASZA Technical Program Manager.

Henry Pirker Station:

- On July 5th and 10th, maintenance activities to check the span stability (after perm tube installation) resulted in two (2) hours of downtime for the SO_2 analyzer.
- On July 16th a power bump resulted in two (2) hours of invalid data for all analyzers and sensors (SO_2, TRS, NO_X, THC, CO, O_3, $PM_{2.5}$, wind speed, wind direction, relative humidity, solar radittion and temperature).
- There were no spans on July 17, 18 and 19, for both the CO and THC analyzers; the cylinder regulators' pressures were adjusted to restore the spans on July 19th.
- On July 19th, the O_3 analyzer sample inlet line was disconnected from the back of the analyzer during the AENV audit at 14:11. During routine calibrations on August 4th this error was discovered. All data was removed during this period resulting in less than 90% uptime. The non-compliance has been assigned AENV Reference #176014.
- All other analyzers / sensors at the Henry Pirker station were above 90% uptime.
- The AQI for the month resulted in 656 hours of Good readings and 30 hours of Fair readings.

Evergreen Park Station:

- On July 5th, an attempt to calibrate the SO_2 analyzer was discontinued due to concerns about the permeation rate. The rate was confirmed at the Henry Pirker station and the calibration was completed on July 6th.
- The SO_2 analyzer was down for nine (9) hours on July 14th due to an intermittent problem with the analyzer. This diagnosis of the problem is ongoing due to its intermittent nature.
- There was an increase in SO_2 with the highest readings from the west and south-southwest. This is an industrialized area near Grande Prairie which contains a number of operations such as gravel operations, asphalt plant, a landfill, wastewater treatment and oilfield services which may contribute to SO_2. Overall there were no SO_2 exceedences.
- All analyzers / sensors at the Evergreen Park station were above 90% uptime

Smoky Heights Station:

- On July 6th a power bump resulted in one (1) hour of invalid data for the $PM_{2.5}$ analyzer.
- On July 24th a power bump resulted in two (2) hours of invalid data for all analyzers and sensors (SO_2, TRS, $PM_{2.5}$, wind speed, wind direction and temperature).
- All analyzers / sensors at the Smoky Heights station were above 90% uptime

Beaverlodge Station:

- All analyzers / sensors at the Beaverlodge station were above 90% uptime.
- The AQI for the month resulted in 652 hours of Good readings, 26 hours of Fair readings, 3 hours of Poor readings and 2 hours of Very Poor readings. The 5 hours of Poor and Very Poor occurred on July 4th between 9:00 and 14:00.

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

No problems were observed with any of the sampling sites for the month of July 2006.
A summary of the passive data collected are reported as follows.

- Monthly average concentrations for SO_2 passives ranged from 0.1 ppb to 0.5 ppb.
- Monthly average concentrations for NO_2 passives ranged from <0.1 ppb to 3.3 ppb.
- Monthly average concentrations for O_3 passives ranged from 15.7 ppb to 27.7 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

July 10, 2006

Alberta Environment
Environmental Service Response Centre
111, Twin Atria Building
4999 - 98 Avenue
Edmonton, Alberta, T6B 2X3

RE: PASZA Air Monitoring Directive Non-compliance Report Ref # 173552

An alert was recently reported by Focus to Alberta Environment (AENV) on behalf of the Peace Airshed Zone Association (PASZA). The alert was elevated readings of $PM_{2.5}$ observed at Evergreen Park (located SE of Grande Prairie). The elevated readings are listed below. It should be noted that elevated readings were observed at the Henry Pirker station in Grande Prairie and the Beaverlodge station during the same time period. Based on local reports of haze, the readings were likely a result of forest fire smoke from the west and north. This incident was assigned AENV reference #173552.

DATE	WS (km/hr)	WD (degrees)	$PM_{2.5}$ ($\mu g/m^3$)
7/4/2006 10:00	5.2	284.4	97.6
7/4/2006 11:00	4.9	253.9	97.3
7/4/2006 12:00	2.7	273	91.8
7/4/2006 13:00	3.3	16.8	83.8

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

Sincerely,

THE FOCUS CORPORATION

Gary Cross
AQM Technical Manager

August 22, 2006

Alberta Environment
Environmental Service Response Centre
111, Twin Atria Building
4999 - 98 Avenue
Edmonton, Alberta, T6B 2X3

RE: PASZA Air Monitoring Directive Non-compliance Report Ref # 176014

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 July and August, 2006 for the Ozone analyzer (API 400) at the Henry Pirker station located in Muskoseepi Park, Grande Prairie. The sample inlet line was disconnected from the back of the analyzer during the AENV audit on July 19th 14:00 MST. It was discovered on August 14th, 2006 during routine calibrations that the line had not been re-connected. All data was removed during this period. This station is owned by PASZA and operated on their behalf by Focus. The non-compliance has been assigned AENV reference number 176014.

Operating protocols that involve station checks to ensure this does not happen have been reviewed with all FOCUS technicians.

If there are any questions or concerns please call me at your convenience at (403) 269-2252.

Sincerely,

THE FOCUS CORPORATION

Sharon Whiteley
AQM Data Specialist

PASZA Monthly Continuous Data Summary

Jul-2006	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	0.4	0	0	16.7	Jul-27 03:00	7.4	WSW	1.6	Jul-27	99.5%
SO_2 (**ppb**)	172	57	Evergreen Park	2.6	0	0	79.3	Jul-07 10:00	15.4	W	11.7	Jul-13	98.8%
SO_2 (**ppb**)	172	57	Smoky Heights	0.6	0	0	7.1	Jul-17 07:00	12.3	WSW	2.2	Jul-29	99.7%
SO_2 (**ppb**)	172	57	Beaverlodge	0.4	0	0	12.3	Jul-26 13:00	16.8	W	1.2	Jul-12	100.0%
NO (**ppb**)			Henry Pirker	1.4	-	-	26.6	Jul-21 23:00	3.3	WNW	3.7	Jul-21	99.7%
NO_2 (**ppb**)	212	106	Henry Pirker	5.3	0	0	26.6	Jul-01 22:00	2.5	ENE	11.1	Jul-04	99.7%
NO_X (**ppb**)			Henry Pirker	6.7	-	-	51.6	Jul-04 07:00	3.7	WNW	14.4	Jul-04	99.7%
NO (**ppb**)			Beaverlodge	0.2	-	-	4.0	Jul-23 06:00	2.3	NNW	0.4	Jul-08	100.0%
NO_2 (**ppb**)	212	106	Beaverlodge	1.9	0	0	9.9	Jul-04 03:00	9.3	NNW	4.9	Jul-04	100.0%
NO_X (**ppb**)			Beaverlodge	2.1	-	-	11.4	Jul-04 07:00	2.0	ESE	5.2	Jul-04	100.0%
O_3 (**ppb**)	82		Henry Pirker	14.6	0	-	37.1	Jul-04 15:00	6.4	NNE	21.0	Jul-16	59.7%
O_3 (**ppb**) - **8-hr**	65		Henry Pirker		0						33.9	Jul-04	
O_3 (**ppb**)	82		Beaverlodge	26.6	0	-	61.0	Jul-04 13:00	6.5	N	42.5	Jul-03	100.0%
O_3 (**ppb**) - **8-hr**	65		Beaverlodge		0						53.9	Jul-04	
CO (**ppm**)	13		Henry Pirker	0.17	0	-	0.9	Jul-02 10:00	5.8	SSW	0.3	Jul-04	99.7%
CO (**ppm**) - **8-hr**	5		Henry Pirker		0						0.5	Jul-02	
THC (**ppm**)			Henry Pirker	1.92	-	-	3.3	Jul-15 05:00	9.5	W	2.1	Jul-04	99.7%
TRS (**ppb**)			Henry Pirker	0.2	-	-	0.9	Jul-01 01:00	5.4	SSE	0.4	Jul-06	99.6%
TRS (**ppb**)			Evergreen Park	0.5	-	-	1.5	Jul-07 09:00	20.9	W	1.1	Jul-03	100.0%
TRS (**ppb**)			Smoky Heights	0.4	-	-	6.4	Jul-08 22:00	6.6	SW	0.8	Jul-08	99.7%
$PM_{2.5}$ ($\mu g/m^3$)		30 [a]	Henry Pirker	6.2	0	1	69.4	Jul-02 10:00	5.8	SSW	36.4	Jul-04	98.0%
$PM_{2.5}$ ($\mu g/m^3$)		30 [a]	Evergreen Park	7.5	0	1	97.6	Jul-04 10:00	6.3	WNW	42.3	Jul-04	100.0%
$PM_{2.5}$ ($\mu g/m^3$)		30 [a]	Smoky Heights	5.0	0	0	59.1	Jul-03 21:00	6.3	SW	25.9	Jul-05	98.4%
$PM_{2.5}$ ($\mu g/m^3$)		30 [a]	Beaverlodge	6.6	0	1	267.6	Jul-04 10:00	5.3	NNW	66.8	Jul-04	97.2%
RH (**%**)			Henry Pirker	59.0	-	-	-	-	-	-	-	-	99.7%
RH (**%**)			Beaverlodge	55.8	-	-	-	-	-	-	-	-	100.0%
SR (W/m^2)			Henry Pirker	222.5	-	-	-	-	-	-	-	-	99.7%
Temp (^oC)			Henry Pirker	19.0	-	-	-	-	-	-	-	-	99.7%
Temp (^oC)			Evergreen Park	18.3	-	-	-	-	-	-	-	-	100.0%
Temp (^oC)			Smoky Heights	18.2	-	-	-	-	-	-	-	-	99.7%
Temp (^oC)			Beaverlodge	18.3	-	-	-	-	-	-	-	-	100.0%
WSPD v (**km/hr**)			Henry Pirker	7.0	-	-	31.6	Jul-07 16:00	31.6	W	19.0	Jul-07	99.7%
WSPD v (**km/hr**)			Evergreen Park	5.9	-	-	26.8	Jul-26 17:00	26.8	W	16.2	Jul-07	100.0%
WSPD v (**km/hr**)			Smoky Heights	8.5	-	-	43.2	Jul-07 10:00	43.2	WSW	26.6	Jul-07	99.7%
WSPD v (**km/hr**)			Beaverlodge	5.8	-	-	34.8	Jul-07 12:00	34.8	W	21.4	Jul-07	100.0%
WSPD s (**km/hr**)			Henry Pirker	10.6	-	-	32.0	Jul-07 16:00	32.0	W	19.4	Jul-07	99.7%
WSPD s (**km/hr**)			Evergreen Park	8.9	-	-	27.2	Jul-26 17:00	27.2	W	16.6	Jul-07	100.0%
WSPD s (**km/hr**)			Smoky Heights	13.7	-	-	43.4	Jul-07 10:00	43.4	WSW	26.9	Jul-07	99.7%
WSPD s (**km/hr**)			Beaverlodge	10.2	-	-	35.1	Jul-07 12:00	35.1	W	21.8	Jul-07	100.0%
WDIR (**Deg**)			Henry Pirker	W	-	-	-	-	-	-	-	-	99.7%
WDIR (**Deg**)			Evergreen Park	W	-	-	-	-	-	-	-	-	100.0%
WDIR (**Deg**)			Smoky Heights	W	-	-	-	-	-	-	-	-	99.7%
WDIR (**Deg**)			Beaverlodge	WNW	-	-	-	-	-	-	-	-	100.0%

Note: [a] the draft 24-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

A power bump on July 16th resulted in two (2) hours of invalid data for all analyzers and sensors. Calibrations were performed on July 4th (CO), July 10th (THC), July 13th (SO_2, TRS) and July 15th (O_3, NO_X and $PM_{2.5}$). An Alberta Environment Audit was conducted on July 19th.

Parameter	Make	Model	Notes
SO_2	TECO	43	Two (2) hours of downtime were attributed to maintenance: July 5th and July 10th (span stability after perm tube installation).
NOx/NO/NO_2	TECO	42C	No operational problems observed.
O_3	API	400	The sample inlet line was disconnected resulting in two hundred and ninety-eight (298) hours of downtime. Reconnected August 4th.
CO	TECO	48C	There were no spans on July 17, 18 and 19, cylinder regulator pressure was adjusted to restore spans on July 19th.
THC	TEI	51-CLT	There were no spans on July 17, 18 and 19, cylinder regulator pressure was adjusted to restore spans on July 19th.
TRS	TEI	42C	One (1) hour of downtime were attributed to maintenance on July 10th.
$PM_{2.5}$	R&P	1400AB	Thirteen (13) hours were removed due to baseline drift. No other operational problems observed.
RH	Met One	083D	No operational problems observed.
AT	Met One	083D	No operational problems observed.
SR	Met One	096-1	No operational problems observed.
WS	Met One	010C	No operational problems observed.
WD	Met One	020C	No operational problems observed.

PASZA – Evergreen Park Station

General Station Issues

Calibrations were performed on July 5th (TRS), July 6th (SO_2, $PM_{2.5}$), July 13th (SO_2, TRS) and July 15th (SO_2, TRS). An Alberta Environment Audit was conducted on July 18th.

Parameter	Make	Model	Notes
SO_2	API	100	On July 5th, an attempt to calibrate the SO_2 analyzer was discontinued due to concerns about the permeation rate, rate was confirmed at Henry Pirker and calibration completed July 6th. Nine (9) hours of downtime occurred on July 14th due to an intermittent problem with the analyzer. This diagnosis is ongoing due to its intermittent nature.
TRS	TEI	42C	On July 13th the lamp and socket was replaced.
$PM_{2.5}$	R&P	1400AB	No operational problems observed.
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 Station

General Station Issues

Calibrations were performed on July 10th ($PM_{2.5}$), July 11th (SO_2, TRS) and July 16th (SO_2). An Alberta Environment Audit was conducted on July 20th. On July 24th a power bump resulted in two (2) hours of invalid data for all analyzers and sensors (SO_2, TRS, $PM_{2.5}$, wind speed, wind direction and temperature).

Parameter	Make	Model	Notes
SO_2	API	100A	On July 11th, an attempt to calibrate the SO_2 analyzer was discontinued due to perm tube too low. A second calibration was performed on July 16th and the UV lamp was changed out
TRS	TEI	42C	No operational problems observed.
$PM_{2.5}$	R&P	1400AB	A power bump on July 6th resulted in one (1) hour of invalid data. Nine (9) hours were removed due to baseline 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 – Beaverlodge Station

General Station Issues

Calibrations were performed on July 16th (SO_2, NO_X, O_3 and $PM_{2.5}$). An Alberta Environment Audit was conducted on July 18th.

Parameter	Make	Model	Notes
SO_2	TECO	43CTL	No operational problems observed.
NOx/NO/NO_2	TECO	42C	No operational problems observed.
O_3	API	400	No operational problems observed.
$PM_{2.5}$	R&P	1400AB	Twenty-one (21) hours were removed due to baseline drift. No other operational problems were observed.
AT	n/a	n/a	No operational problems observed.
RH	n/a	n/a	No operational problems observed.
WS	Blue Sky	857	One (1) hour of calm observed. No operational problems were observed.
WD	Blue Sky	857	No operational problems observed.

PASZA - Henry Pirker Station

Monthly Summary Tables, Graphs, and Roses

PASZA - Henry Pirker - AQI Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

Air Quality Index (AQI)

Monitoring Dates: July 1, 2006 to August 1, 2006

Alberta's Air Quality Index

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

Summary

Number of 1-hr Good Readings:	656
Number of 1-hr Fair Readings:	30
Number of 1-hr Poor Readings:	0
Number of 1-hr Very Poor Readings:	0

Status Flag Characters

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

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
1-Jul-06	7	10	11	15	10	13	12	11	6	10	12	12	11	11	10	11	11	11	11	12	N	9	18	26
2-Jul-06	36	28	18	9	5	7	5	18	37	44	45	27	15	17	15	14	14	17	14	N	13	11	10	6
3-Jul-06	9	8	8	4	4	8	7	7	7	9	11	12	13	12	12	13	13	13	N	18	26	30	28	28
4-Jul-06	28	24	28	29	25	27	27	30	28	27	36	39	42	34	30	24	18	26	18	22	24	33	26	26
5-Jul-06	26	27	16	22	20	N	20	20	18	15	20	25	20	18	17	15	13	15	13	20	19	19	19	24
6-Jul-06	19	17	16	18	17	N	11	9	7	7	9	11	13	15	14	13	11	9	11	7	17	N	10	8
7-Jul-06	7	5	4	4	N	3	2	N	N	6	6	N	N	8	9	9	9	9	9	9	8	8	8	7
8-Jul-06	6	6	5	N	4	3	3	4	4	6	8	9	9	9	8	8	8	8	8	8	7	5	7	6
9-Jul-06	5	4	N	4	2	2	3	4	6	8	8	8	7	N	7	7	8	9	9	8	10	5	3	2
10-Jul-06	2	N	3	3	3	3	4	4	5	5	6	6	7	7	8	9	8	8	8	7	4	3	3	3
11-Jul-06	2	2	2	1	1	N	2	4	6	5	5	6	7	7	7	7	7	6	6	6	10	3	4	4
12-Jul-06	4	3	2	3	N	3	2	4	5	2	3	4	7	8	9	9	9	7	6	6	5	5	6	2
13-Jul-06	2	2	3	N	2	3	2	N	4	N	6	N	7	7	N	N	8	9	9	9	7	7	6	6
14-Jul-06	6	5	6	6	5	N	3	3	6	7	7	8	8	8	N	9	9	9	9	8	7	6	8	9
15-Jul-06	8	6	6	6	N	6	7	7	7	9	6	8	N	N	N	N	N	N	14	13	13	11	11	11
16-Jul-06	11	11	11	10	9	N	8	9	10	11	12	12	12	12	13	N	N	13	13	12	9	7	8	8
17-Jul-06	6	6	5	5	4	N	4	10	9	10	13	15	16	15	13	13	13	14	14	15	13	10	11	12
18-Jul-06	12	11	10	11	N	6	5	5	6	13	13	13	12	12	12	14	12	13	12	11	8	6	7	8
19-Jul-06	8	8	7	N	3	4	3	3	N	N	N	N	N	N	N	1	0	0	1	1	2	2	1	1
20-Jul-06	2	1	2	2	3	N	4	3	2	1	1	1	1	1	1	0	1	1	1	1	2	4	3	2
21-Jul-06	1	2	2	2	N	4	5	7	5	4	2	1	1	0	1	3	3	1	1	4	8	8	13	21
22-Jul-06	14	9	6	N	16	17	9	8	9	5	4	3	0	0	0	0	1	1	2	5	9	18	11	16
23-Jul-06	13	9	N	4	6	9	7	7	7	2	1	0	1	1	1	1	3	2	3	6	9	11	10	11
24-Jul-06	9	N	4	3	4	3	5	6	4	3	3	2	0	0	0	1	1	3	3	3	11	10	14	19
25-Jul-06	N	5	3	3	5	10	10	15	12	10	8	4	4	3	3	3	4	4	3	3	4	4	4	N
26-Jul-06	3	3	3	4	4	6	7	9	6	4	4	5	4	5	2	1	1	1	1	1	1	1	N	1
27-Jul-06	2	1	3	4	3	5	4	13	8	4	0	0	0	0	1	1	1	1	1	3	4	N	3	2
28-Jul-06	3	3	1	2	2	3	4	7	4	4	3	3	4	2	2	5	5	4	4	3	N	2	3	4
29-Jul-06	3	2	1	1	1	2	3	5	5	6	5	5	4	4	5	3	2	2	3	N	1	2	1	1
30-Jul-06	1	1	2	1	2	1	0	0	1	1	1	1	1	0	1	1	1	1	N	2	2	2	3	3
31-Jul-06	1	1	1	1	1	2	2	2	2	1	1	0	0	3	1	1	2	N	1	3	1	1	1	1

PASZA - Henry Pirker - Sulphur Dioxide Monthly Summary

HOURLY AVERAGE TABLE

Sulphur Dioxide (SO_2)

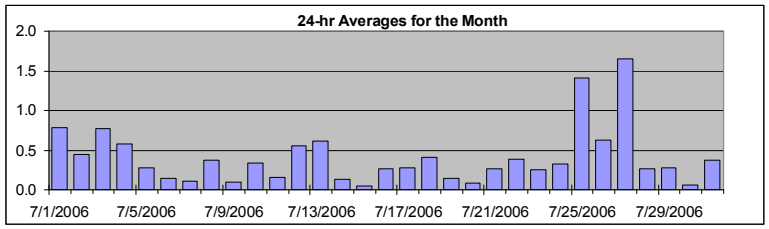
Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: July 1, 2006 to August 1, 2006

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:	16.7	ppb	27-Jul	3:00 4:00
Maximum 24-hr Average:	1.6	ppb	27-Jul	



AIC Time:	32 hrs	Operational Time:	702 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	99.5%

Percentile	99	95	75	50	25	5	1	Average	Median
	3.7	1.2	0.4	0.2	0.1	0.0	0.0	0.4 ppb	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-Jul-06	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1	A	1	1	0	0.8	1.3
2-Jul-06	0	0	0	0	0	0	1	1	1	1	1	1	1	2	1	0	0	0	0	A	0	0	0	0	0.5	1.6
3-Jul-06	0	0	0	0	0	0	0	0	0	4	5	1	1	0	1	1	1	1	A	0	1	1	0	0	0.8	5.0
4-Jul-06	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	1	2	1	1	1	1	0	0.6	2.3
5-Jul-06	0	0	0	0	0	A	0	0	0	1	1	0	0	0	M	0	0	0	0	0	0	0	0	0	0.3	0.6
6-Jul-06	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.1	0.7
7-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
8-Jul-06	0	0	0	A	0	0	0	0	0	0	2	2	0	0	0	1	0	0	0	0	0	0	0	0	0.4	2.0
9-Jul-06	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
10-Jul-06	0	A	0	0	1	1	0	0	0	1	1	M	0	0	0	1	0	0	0	0	0	0	0	0	0.3	1.0
11-Jul-06	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.2	0.6
12-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	1	2	2	3	1	1	1	0	0	0	0	0.6	2.7
13-Jul-06	0	0	0	A	0	0	1	2	1	1	C	C	C	C	A	0	1	2	0	0	0	0	1	1	0.6	2.0
14-Jul-06	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.7
15-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
16-Jul-06	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	P	P	0	0	0	0	0	2	1	0.3	1.6
17-Jul-06	0	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
18-Jul-06	0	0	0	0	A	0	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.2
19-Jul-06	0	0	0	A	0	0	0	0	C	C	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1	0.7
20-Jul-06	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	0.3
21-Jul-06	0	0	0	0	A	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0.3	0.8
22-Jul-06	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	0	0.4	1.2
23-Jul-06	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0.3	0.7
24-Jul-06	1	A	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
25-Jul-06	A	0	0	0	1	1	3	11	2	0	0	0	1	1	1	0	0	0	1	1	0	0	6	A	1.4	11.2
26-Jul-06	3	0	0	0	0	0	0	0	0	1	1	0	2	1	1	1	0	1	0	0	0	0	A	0	0.6	2.5
27-Jul-06	0	0	4	17	4	1	1	2	3	4	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1.6	16.7
28-Jul-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.3	0.5
29-Jul-06	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.9
30-Jul-06	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	0.4
31-Jul-06	0	0	0	1	1	1	0	1	1	1	0	0	0	1	0	0	0	A	0	0	0	0	0	0	0.4	1.5
Hourly Avg	0.3	0.2	0.3	0.8	0.4	0.3	0.5	0.8	0.6	0.6	0.6	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.2	0.2	0.5	0.2		
Hourly Max	2.5	0.7	3.7	16.7	4.1	1.4	3.4	11.2	3.2	3.8	5.0	1.6	1.6	1.6	1.8	2.4	2.7	1.8	2.3	0.9	0.6	1.1	6.0	0.8		

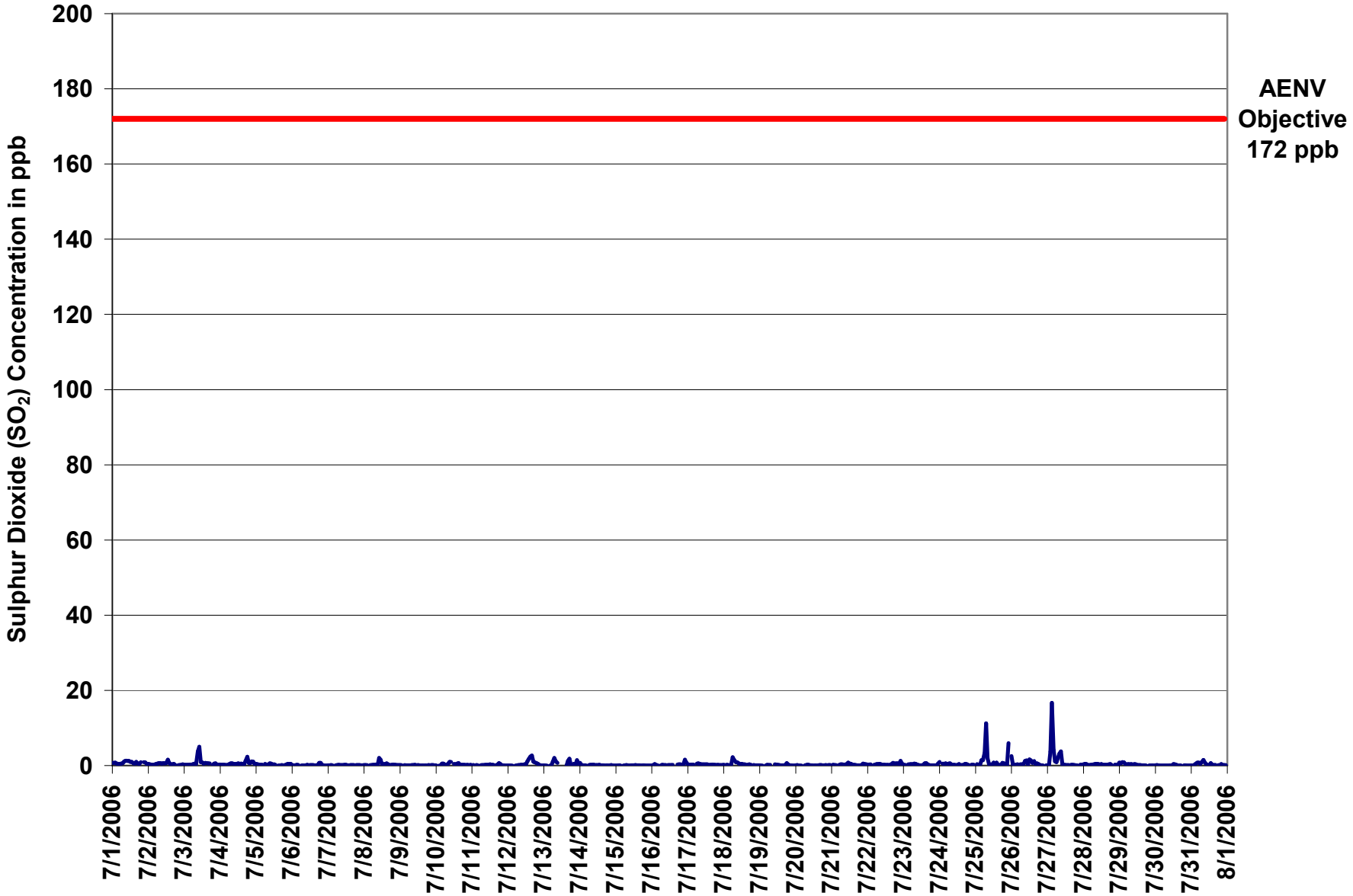


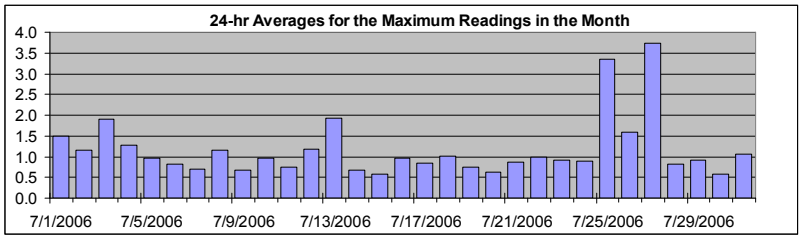
Figure 1. PASZA - Henry Pirker Sulphur Dioxide 1-hr Average Monthly Trend

Station: Henry Pirker
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Sulphur Dioxide (SO_2)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Value:	24.0	ppb	27-Jul	3:00 4:00
Maximum 24-hr Value:	3.7	ppb	27-Jul	

AIC Time:	32 hrs	Operational Time:	702 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	99.5%

Percentile	99	95	75	50	25	5	1	Average	Median
	6.8	2.7	1.1	0.8	0.6	0.5	0.4	1.2 ppb	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-Jul-06	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1	3	1	1	2	A	2	2	1	1.5	3.2
2-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	2	3	1	1	1	1	1	A	1	1	1	1	1.2	2.8
3-Jul-06	1	1	1	1	1	1	1	1	1	10	10	2	1	1	1	1	1	1	A	1	2	1	1	1	1.9	9.9
4-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	4	2	1	2	2	1	1.3	3.5
5-Jul-06	1	1	1	1	1	A	1	1	1	1	1	1	1	1	M	1	1	1	1	1	1	1	1	1	1.0	1.3
6-Jul-06	1	1	1	1	1	A	1	1	1	0	1	1	1	1	1	1	1	1	2	2	1	1	1	1	0.8	2.1
7-Jul-06	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0.7	0.9
8-Jul-06	1	1	1	A	1	1	1	1	1	1	6	5	1	1	1	1	1	1	1	1	1	1	1	1	1.2	5.7
9-Jul-06	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
10-Jul-06	1	A	1	0	1	1	1	1	1	2	2	M	1	1	1	2	1	1	1	1	1	1	1	1	1.0	1.9
11-Jul-06	1	1	1	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3
12-Jul-06	0	1	1	1	A	1	1	1	1	1	1	1	1	2	3	3	3	2	2	1	1	1	1	0	1.2	3.4
13-Jul-06	1	1	1	A	1	1	4	3	3	2	C	C	C	C	A	1	3	4	1	1	1	1	6	2	1.9	6.0
14-Jul-06	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	0	1	0.7	1.7
15-Jul-06	1	0	1	0	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0.6	0.8
16-Jul-06	1	1	2	1	1	A	1	1	1	1	0	1	1	1	1	P	P	1	1	1	1	1	3	1	1.0	3.5
17-Jul-06	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	1.3
18-Jul-06	1	1	1	1	A	2	4	2	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1.0	3.6
19-Jul-06	1	1	1	A	1	1	1	1	C	C	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0.7	1.4
20-Jul-06	1	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	0.8
21-Jul-06	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
22-Jul-06	1	1	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1.0	1.9
23-Jul-06	1	1	A	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	0	1	1	1	2	0.9	2.1
24-Jul-06	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0.9	2.1
25-Jul-06	A	1	1	1	3	3	6	22	7	1	1	2	2	1	3	1	1	1	4	2	1	1	12	A	3.3	21.7
26-Jul-06	5	1	1	1	1	1	1	1	1	3	3	1	2	3	1	4	2	2	1	1	1	1	A	1	1.6	5.4
27-Jul-06	1	1	22	24	11	2	2	3	6	6	1	1	1	1	1	1	1	1	1	1	1	A	1	1	3.7	24.0
28-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.3
29-Jul-06	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0	0.9	2.4
30-Jul-06	1	1	1	1	1	0	0	0	0	1	1	0	1	1	1	1	0	0	A	1	1	1	1	0	0.6	0.9
31-Jul-06	1	0	1	1	1	1	1	2	2	2	1	1	1	3	1	1	1	A	1	1	1	1	1	1	1.1	2.9
Hourly Avg	1.0	0.7	1.6	1.7	1.3	1.0	1.2	1.8	1.4	1.5	1.4	1.1	1.0	1.1	1.0	1.0	1.1	1.0	1.1	0.9	0.8	0.8	1.5	0.8		
Hourly Max	5.4	1.3	22.1	24.0	10.9	2.5	5.6	21.7	6.8	9.8	9.9	4.6	2.4	2.9	3.0	4.3	3.4	3.8	3.5	2.1	1.7	2.0	12.5	2.1		

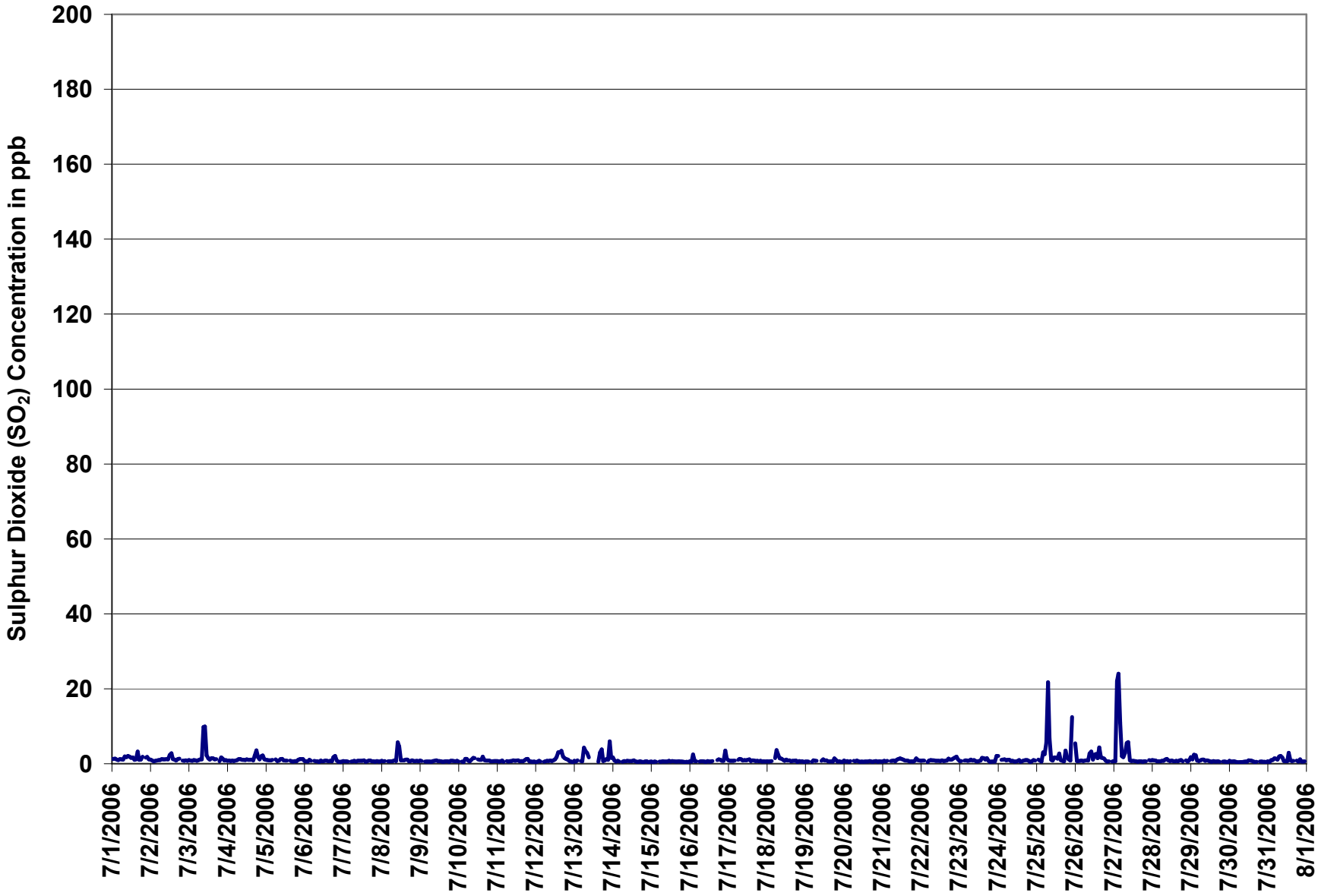
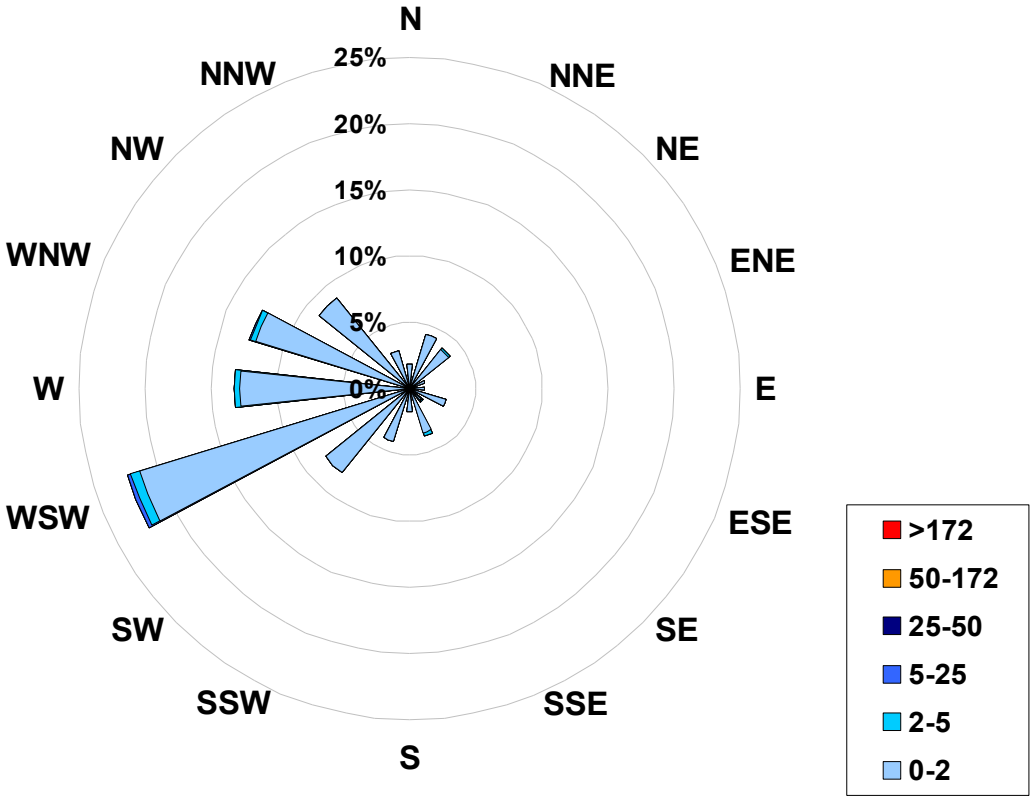


Figure 2. PASZA - Henry Pirker Sulphur Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Henry Pirker Site for July 2006



Calms:	0%

Frequency Distribution of SO_2 in ppb			
Range			Frequency (hrs)
0.0	<	2	684
2	to	5	15
5	to	25	3
25	to	50	0
50	to	172	0
	>	172	0
Total Non-Zero Values			702

PASZA - Henry Pirker - Nitrogen Dioxide Monthly Summary

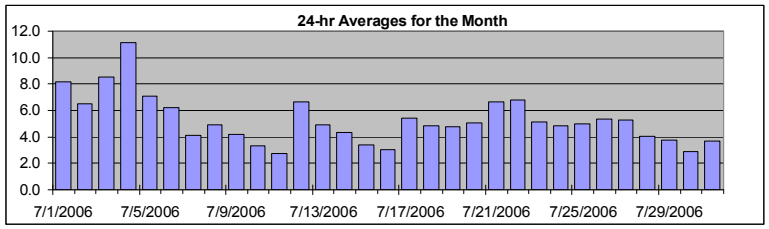
Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Nitrogen Dioxide (NO_2)

Monitoring Dates: July 1, 2006 to August 1, 2006

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:	26.6	ppb	1-Jul	22:00 23:00
Maximum 24-hr Average:	11.1	ppb	4-Jul	

AIC Time:	32 hrs	Operational Time:	702 hrs
Calibration Time:	8 hrs	AMD Operational Uptime:	99.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	19.3	13.2	6.8	4.0	2.5	1.4	1.2	5.3 ppb	4.0 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-Jul-06	12	12	14	15	14	12	9	9	5	4	6	2	2	1	1	1	1	1	1	2	A	11	27	23	8.2	26.6
2-Jul-06	19	13	9	6	6	12	9	5	5	4	6	3	2	2	2	1	1	2	3	A	6	7	9	15	6.5	19.0
3-Jul-06	11	9	10	9	10	15	16	11	8	7	6	3	3	2	2	2	3	4	A	8	11	25	11	11	8.5	25.2
4-Jul-06	18	10	11	12	10	18	25	25	20	13	11	8	7	4	4	4	3	6	7	8	10	13	10	8	11.1	25.4
5-Jul-06	8	5	5	4	5	A	16	22	12	5	9	9	5	5	4	4	5	5	5	5	6	8	7	6	7.1	22.3
6-Jul-06	5	4	4	3	5	A	13	10	8	5	9	8	4	3	5	5	7	9	10	7	8	3	3	4	6.2	13.0
7-Jul-06	4	7	7	4	A	7	7	5	4	3	3	3	3	3	3	3	3	3	2	2	4	5	4	6	4.1	7.4
8-Jul-06	6	7	5	A	14	12	12	9	6	4	3	3	2	2	2	1	1	2	2	2	4	8	4	3	4.9	13.6
9-Jul-06	5	5	A	7	6	6	7	4	3	2	2	3	3	2	1	1	2	2	2	4	6	5	11	6	4.2	11.2
10-Jul-06	4	A	6	5	6	6	7	5	4	3	3	3	3	2	2	2	2	2	2	2	2	2	2	3	3.3	7.0
11-Jul-06	4	3	2	2	3	A	6	2	2	2	2	1	1	1	1	1	2	2	2	3	5	9	4	2	2.7	8.5
12-Jul-06	3	6	6	6	A	9	9	11	11	9	8	6	5	5	4	5	3	7	7	8	6	7	6	5	6.6	11.0
13-Jul-06	4	5	3	A	8	10	10	5	4	4	3	3	4	5	4	4	3	3	3	4	7	7	6	4	4.9	10.1
14-Jul-06	4	5	3	4	6	A	13	9	4	3	3	3	2	3	3	2	2	2	3	3	7	7	3	3	4.3	13.1
15-Jul-06	3	5	4	3	A	7	5	4	3	C	C	C	C	A	4	3	2	2	2	2	3	3	3	3	3.4	7.3
16-Jul-06	2	3	3	2	3	A	6	3	2	2	1	1	1	1	1	P	P	1	1	2	6	10	7	7	3.1	9.7
17-Jul-06	9	8	8	7	8	A	12	8	10	6	3	3	4	3	2	3	5	3	3	3	4	6	3	2	5.4	12.0
18-Jul-06	2	2	2	2	A	11	13	13	9	3	3	2	2	2	5	3	5	3	3	4	7	7	5	5	4.8	13.0
19-Jul-06	4	4	3	A	10	15	13	C	C	C	C	4	2	2	2	2	2	2	2	3	7	9	3	3	4.8	14.8
20-Jul-06	3	5	7	7	13	A	18	13	6	4	3	2	3	2	2	2	2	2	2	3	4	6	4	4	5.0	18.0
21-Jul-06	4	4	4	4	A	12	14	11	7	5	2	2	2	2	2	2	3	3	3	4	9	18	19	18	6.7	19.3
22-Jul-06	16	13	9	A	11	12	10	6	5	5	3	3	2	2	1	1	2	2	2	3	7	14	12	14	6.8	16.1
23-Jul-06	8	9	A	15	14	12	8	7	4	2	1	1	1	1	1	1	2	2	2	2	3	7	6	8	5.1	15.3
24-Jul-06	5	A	4	3	5	7	9	6	6	4	2	2	2	2	1	1	2	2	2	3	4	12	17	13	4.9	17.2
25-Jul-06	A	7	6	6	9	10	13	9	6	6	4	3	2	3	3	2	2	2	2	3	4	3	3	A	5.0	13.1
26-Jul-06	4	5	4	4	7	12	11	9	6	5	3	6	4	5	6	5	3	3	3	3	4	4	A	6	5.3	12.4
27-Jul-06	4	4	7	4	7	14	14	17	15	7	1	1	1	1	2	1	1	2	2	3	6	A	5	3	5.3	16.8
28-Jul-06	5	4	3	4	4	7	7	6	4	3	4	3	3	2	2	3	4	4	4	4	A	6	5	4	4.1	7.2
29-Jul-06	3	3	3	3	3	3	4	4	4	5	4	6	5	6	4	4	4	4	3	A	6	4	3	2	3.8	5.9
30-Jul-06	2	2	1	2	2	2	2	2	2	2	2	2	2	1	1	2	1	1	A	6	5	7	10	8	2.9	9.7
31-Jul-06	3	3	3	3	4	9	8	6	4	3	2	2	2	2	3	3	3	A	4	3	6	4	3	2	3.7	8.8
Hourly Avg	6.2	5.9	5.3	5.4	7.4	10.1	10.4	8.5	6.3	4.4	3.9	3.4	2.8	2.7	2.7	2.6	2.7	2.9	3.2	3.7	5.6	7.9	7.2	6.7		
Hourly Max	19.0	13.4	14.1	15.3	14.5	18.0	25.4	25.2	20.1	13.1	11.1	9.0	7.4	5.9	6.2	5.0	7.2	8.7	10.1	8.0	10.7	25.2	26.6	22.7		

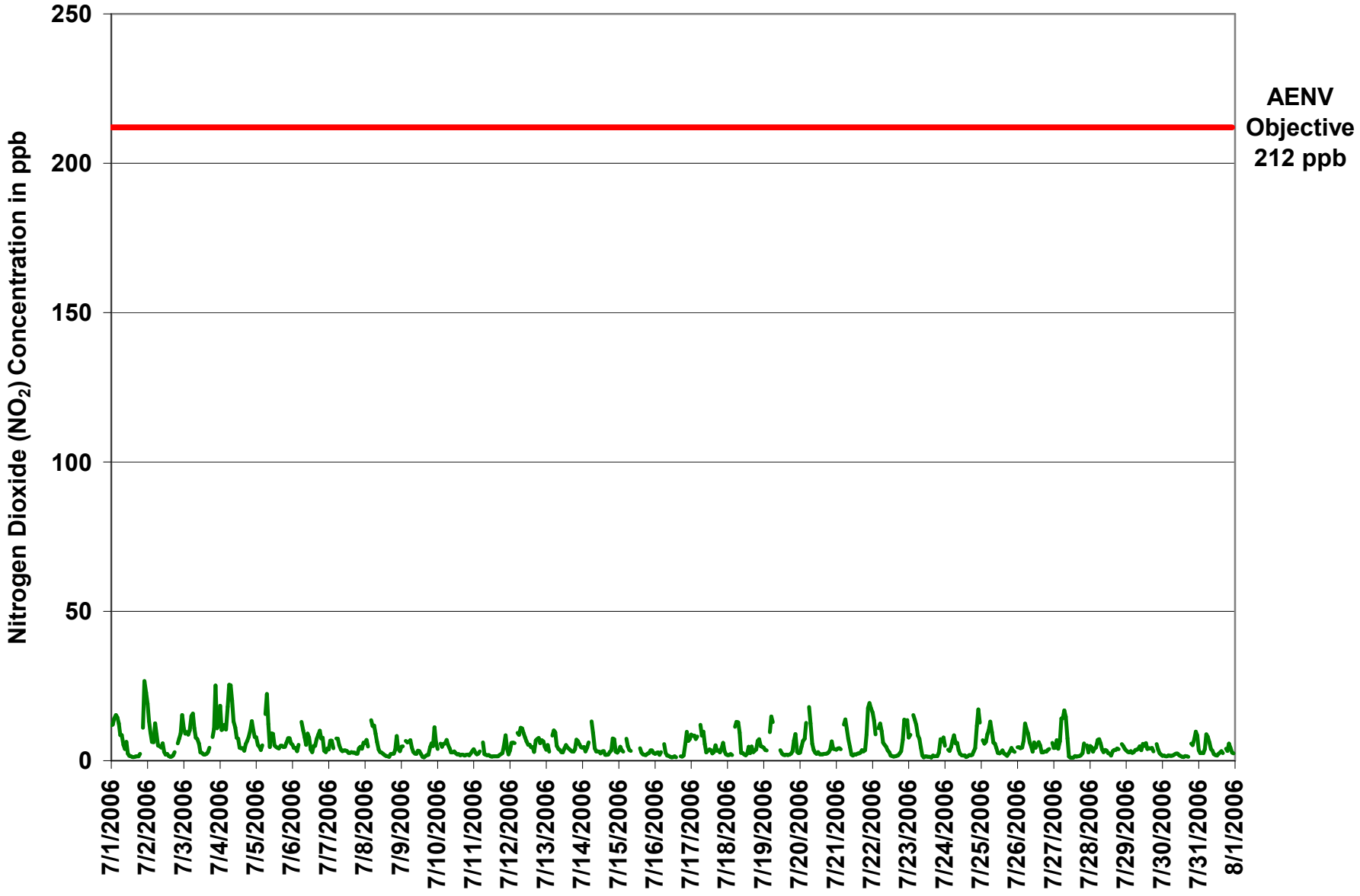


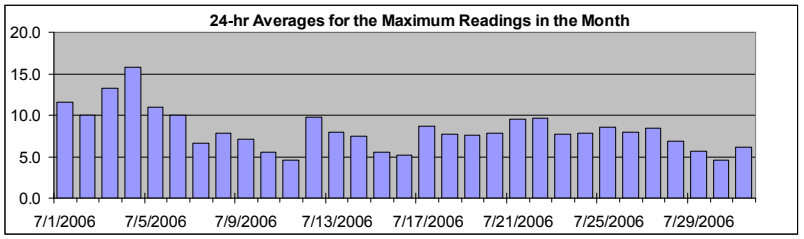
Figure 3. PASZA - Henry Pirker Nitrogen Dioxide 1-hr Average Monthly Trend

Station: Henry Pirker
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Nitrogen Dioxide (NO_2)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Value:	38.2	ppb	1-Jul	22:00 23:00
Maximum 24-hr Value:	15.8	ppb	4-Jul	

AIC Time:	32 hrs	Operational Time:	702 hrs
Calibration Time:	8 hrs	AMD Operational Uptime:	99.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	27.1	18.7	10.9	6.4	4.5	2.5	2.0	8.2 ppb	6.4 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-Jul-06	16	14	23	18	16	15	12	11	9	4	11	6	3	3	2	3	2	5	2	6	A	15	38	28	11.5	38.2
2-Jul-06	23	19	12	8	10	16	12	6	6	6	14	4	6	3	2	3	2	7	4	A	9	11	19	28	10.0	28.0
3-Jul-06	17	13	13	11	17	21	19	21	12	10	10	4	5	3	4	4	6	7	A	12	18	36	26	16	13.3	35.9
4-Jul-06	28	19	13	15	14	27	30	28	27	18	13	9	11	6	6	11	6	9	11	12	14	22	20	10	15.8	30.1
5-Jul-06	12	8	5	4	12	A	22	27	26	6	12	13	7	8	7	6	10	9	8	12	10	10	12	8	11.0	26.7
6-Jul-06	7	5	11	4	8	A	20	18	13	9	12	12	7	4	9	9	14	14	13	11	12	5	5	6	9.9	20.2
7-Jul-06	5	8	10	7	A	9	11	10	6	5	10	7	5	4	5	5	5	4	4	4	5	6	5	11	6.6	11.1
8-Jul-06	8	10	9	A	18	14	14	13	11	5	4	4	4	3	2	2	2	4	5	4	6	17	9	10	7.9	17.7
9-Jul-06	10	8	A	8	8	10	9	7	4	3	3	5	6	4	3	2	3	4	3	7	13	8	17	13	7.1	16.8
10-Jul-06	6	A	9	7	10	8	12	10	6	5	5	7	5	4	3	2	3	3	3	3	2	2	7	5	5.6	11.8
11-Jul-06	6	4	3	3	4	A	10	3	3	3	4	2	3	2	3	2	3	3	4	6	10	13	5	3	4.6	12.7
12-Jul-06	5	8	7	8	A	15	10	14	13	12	11	10	6	6	6	9	6	9	14	13	9	13	11	8	9.8	14.9
13-Jul-06	5	13	6	A	10	15	11	7	6	6	4	4	7	9	7	6	7	5	4	6	14	10	11	7	8.0	14.7
14-Jul-06	6	7	6	5	11	A	19	14	9	6	6	5	5	6	7	4	5	5	5	5	11	14	4	5	7.5	19.0
15-Jul-06	5	6	8	4	A	13	7	5	6	C	C	C	C	A	8	5	4	4	3	5	4	5	5	4	5.5	12.9
16-Jul-06	4	4	5	3	5	A	8	4	2	2	2	2	2	4	2	P	P	3	3	3	11	14	11	11	5.2	14.4
17-Jul-06	12	11	13	9	13	A	17	13	17	8	5	7	6	6	5	7	10	5	5	5	5	8	5	4	8.7	17.5
18-Jul-06	3	3	3	3	A	15	18	15	15	4	5	4	3	5	8	8	8	5	6	8	11	9	8	6	7.7	18.3
19-Jul-06	6	4	4	A	14	18	15	C	C	C	C	5	6	3	3	5	3	3	4	5	11	13	12	6	7.5	18.5
20-Jul-06	6	6	9	9	16	A	21	18	8	6	5	4	6	4	4	4	4	5	4	5	5	10	13	6	7.8	21.2
21-Jul-06	8	6	6	5	A	15	17	14	10	7	4	4	4	4	6	4	5	5	5	5	14	24	25	19	9.5	24.8
22-Jul-06	18	17	10	A	13	15	13	7	7	7	5	5	3	3	3	2	3	3	5	5	16	19	20	20	9.7	20.4
23-Jul-06	12	11	A	17	15	13	12	12	6	4	2	3	3	4	3	2	3	3	3	2	4	19	11	11	7.7	19.5
24-Jul-06	7	A	5	4	7	9	12	11	9	6	4	4	4	6	3	4	5	4	3	7	7	18	23	17	7.9	22.6
25-Jul-06	A	8	8	9	17	15	18	13	9	8	8	6	7	7	6	6	5	4	4	9	11	6	5	A	8.6	18.5
26-Jul-06	6	6	6	6	10	16	14	12	9	9	4	9	8	10	9	9	6	5	5	4	5	6	A	8	8.0	16.0
27-Jul-06	5	8	11	6	16	19	18	18	20	13	3	2	2	3	4	3	4	6	5	6	10	A	8	4	8.4	19.8
28-Jul-06	7	8	5	6	6	10	8	9	5	5	12	7	4	6	3	6	6	6	6	7	A	11	8	6	6.8	12.0
29-Jul-06	5	4	4	5	3	5	6	6	6	7	5	7	7	8	5	6	8	7	5	A	8	6	4	3	5.7	8.1
30-Jul-06	2	3	2	2	3	2	2	3	3	4	4	3	6	3	2	3	3	3	A	9	7	12	12	11	4.5	12.0
31-Jul-06	6	3	3	4	7	12	11	8	6	5	5	4	4	5	6	6	5	A	7	5	14	8	4	4	6.2	14.0
Hourly Avg	8.9	8.5	7.9	7.1	11.0	13.6	14.0	12.1	9.7	6.7	6.7	5.7	5.3	4.9	4.8	5.0	5.3	5.3	5.4	6.6	9.7	12.4	12.1	10.1		
Hourly Max	28.2	19.3	22.7	18.4	17.7	27.1	30.1	28.4	26.7	17.7	13.7	12.6	11.5	10.0	9.3	10.9	14.0	13.9	13.8	12.5	18.2	35.9	38.2	28.0		

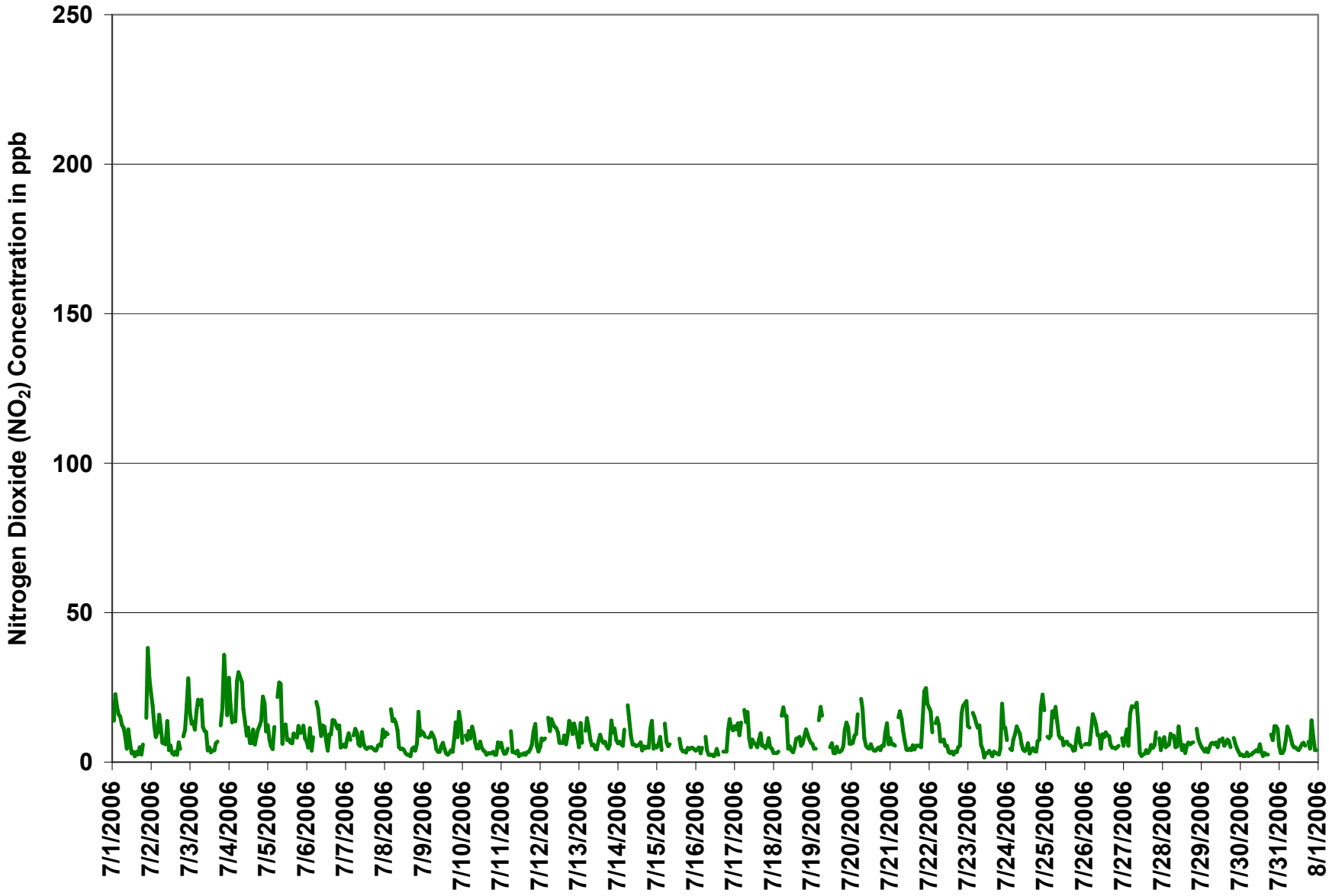
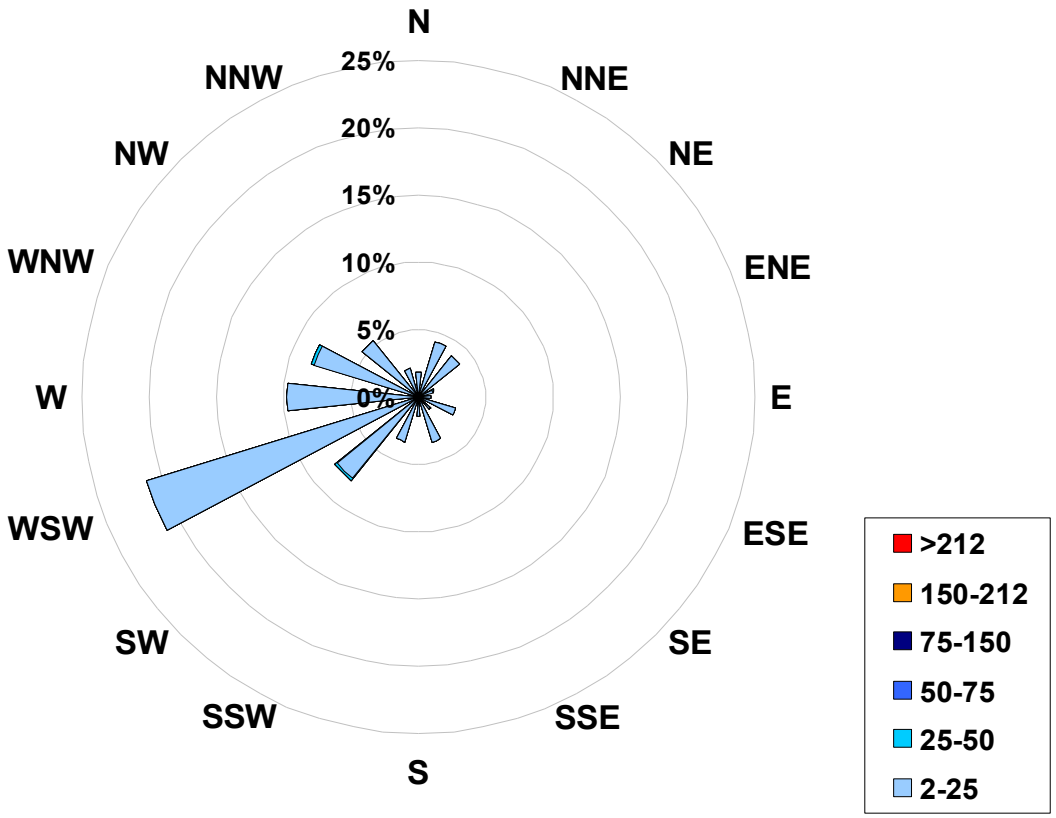


Figure 4. PASZA - Henry Pirker Nitrogen Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

1-hr Average Concentration Rose for Nitrogen Dioxide (in ppb) Located at the Henry Pirker Site for July 2006



Calms:	0%

Frequency Distribution of NO_2 in ppb			
Range			Frequency (hrs)
2.0	<	25	700
25	to	50	2
50	to	75	0
75	to	150	0
150	to	212	0
	>	212	0
Total Non-Zero Values			702

PASZA - Henry Pirker - Nitric Oxide Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

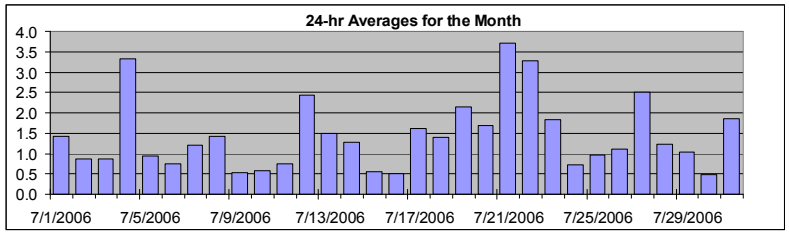
Nitric Oxide (NO)

Monitoring Dates: July 1, 2006 to August 1, 2006

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

Summary

Maximum 1-hr Average:	26.6	ppb	21-Jul	23:00 0:00
Maximum 24-hr Average:	3.7	ppb	21-Jul	



AIC Time:	32 hrs	Operational Time:	702 hrs
Calibration Time:	8 hrs	AMD Operational Uptime:	99.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	15.6	5.8	1.2	0.6	0.3	0.0	0.0	1.4 ppb	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**

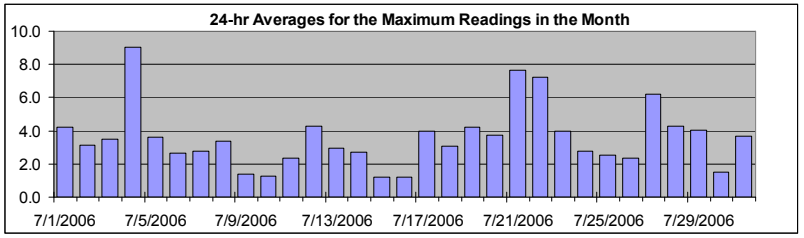
Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Jul-06	0	0	0	0	1	7	5	5	2	1	1	0	0	0	0	0	0	0	0	0	A	0	1	7	1.4	7.0
2-Jul-06	6	3	1	0	1	2	2	1	1	0	1	0	0	0	0	0	0	0	0	A	0	0	0	0	0.9	6.2
3-Jul-06	0	0	0	0	1	4	4	2	2	2	1	0	0	0	0	0	0	0	A	0	0	1	0	0	0.9	4.3
4-Jul-06	1	0	0	0	0	7	21	26	13	4	1	0	0	0	0	0	0	1	1	1	0	0	0	0	3.3	26.4
5-Jul-06	0	0	0	0	0	A	1	5	4	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0.9	4.7
6-Jul-06	0	0	0	0	0	A	2	1	1	1	2	1	1	0	1	1	1	1	1	1	0	0	0	0	0.7	2.2
7-Jul-06	0	0	0	0	A	1	3	3	2	2	3	2	2	1	1	2	1	1	1	1	0	0	0	0	1.2	2.9
8-Jul-06	0	0	0	A	1	4	10	6	3	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	1.4	10.3
9-Jul-06	0	0	A	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0.5	1.4
10-Jul-06	0	A	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0.6	1.0
11-Jul-06	0	0	0	0	1	A	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0.7	3.0
12-Jul-06	0	0	0	0	A	4	7	11	9	8	4	3	2	1	1	1	0	0	1	1	1	0	0	0	2.4	11.4
13-Jul-06	0	1	0	A	1	3	7	3	2	2	1	1	2	2	2	2	2	1	1	1	1	0	0	0	1.5	6.6
14-Jul-06	0	0	0	0	0	A	5	6	2	2	2	2	1	2	1	1	1	1	1	1	1	1	0	0	1.3	5.6
15-Jul-06	0	0	0	0	A	0	1	1	1	C	C	C	C	A	1	1	1	1	1	1	0	0	0	0	0.5	1.2
16-Jul-06	0	0	0	0	0	A	1	1	1	1	1	1	1	1	1	P	P	1	1	0	1	1	0	0	0.5	1.1
17-Jul-06	0	0	0	0	1	A	7	7	9	3	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1.6	8.8
18-Jul-06	0	0	0	0	A	2	6	5	5	1	1	1	1	1	2	1	2	1	1	1	1	1	0	0	1.4	5.8
19-Jul-06	0	0	0	A	1	16	16	C	C	C	C	1	1	1	1	1	1	0	0	0	0	0	0	0	2.1	16.1
20-Jul-06	0	0	0	0	1	A	13	10	3	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1.7	12.5
21-Jul-06	0	0	0	0	A	3	11	8	4	2	1	0	1	1	1	1	1	1	1	1	1	6	14	27	3.7	26.6
22-Jul-06	16	4	0	A	6	20	10	4	2	2	1	1	1	1	0	1	1	1	1	1	1	2	1	2	3.3	19.9
23-Jul-06	1	1	A	5	11	9	4	4	1	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1.8	10.8
24-Jul-06	0	A	0	0	0	1	3	2	2	1	1	0	0	0	0	0	1	1	1	0	0	0	1	0	0.7	3.3
25-Jul-06	A	0	0	0	0	1	5	4	2	1	1	1	1	0	1	1	1	0	0	0	0	0	0	A	1.0	5.2
26-Jul-06	0	0	0	0	0	2	3	3	2	1	1	1	1	2	2	2	1	1	1	1	0	0	A	0	1.1	3.1
27-Jul-06	0	0	0	0	0	4	8	19	14	5	1	0	0	0	1	1	1	1	1	0	0	A	0	0	2.5	19.1
28-Jul-06	0	0	0	0	1	3	6	4	2	1	2	1	1	1	1	1	1	1	1	1	A	0	1	0	1.2	5.7
29-Jul-06	0	0	0	0	0	1	1	1	1	2	2	2	2	2	2	1	1	1	1	A	1	1	1	0	1.0	2.4
30-Jul-06	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	1	0	A	1	0	0	0	0	0.5	0.9
31-Jul-06	0	0	0	0	1	6	9	8	4	3	1	1	1	1	2	1	1	A	1	1	1	0	0	0	1.9	8.8
Hourly Avg	0.9	0.4	0.2	0.3	1.2	4.3	5.7	5.1	3.2	1.8	1.2	1.0	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.6	0.5	0.6	0.8	1.3		
Hourly Max	16.5	4.1	0.8	5.0	10.8	19.9	21.0	26.4	13.8	7.9	3.7	2.8	2.3	2.1	2.1	1.6	1.9	1.4	1.2	1.1	1.2	5.6	14.4	26.6		

Station: Henry Pirker
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Nitric Oxide (NO)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Value:	60.3	ppb	4-Jul	5:00 6:00
Maximum 24-hr Value:	9.1	ppb	4-Jul	

AIC Time:	32 hrs	Operational Time:	702 hrs
Calibration Time:	8 hrs	AMD Operational Uptime:	99.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	30.0	13.8	3.5	1.9	1.0	0.5	0.0	3.6 ppb	1.9 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-Jul-06	1	0	5	1	8	14	11	9	4	1	3	2	1	2	1	1	1	6	1	1	A	0	4	18	4.2	18.3
2-Jul-06	10	7	1	1	17	4	4	2	1	0	4	1	2	1	0	1	1	2	1	A	3	2	1	4	3.1	17.2
3-Jul-06	2	4	2	0	3	10	8	5	3	3	3	1	1	1	1	1	1	1	A	2	0	28	1	0	3.5	28.2
4-Jul-06	9	0	0	1	1	60	35	47	28	7	2	0	1	0	1	6	1	2	2	2	3	2	3	1	9.1	60.3
5-Jul-06	1	0	1	0	1	A	2	15	12	1	1	4	2	8	2	1	5	2	4	7	3	3	2	3	3.6	14.7
6-Jul-06	2	1	3	2	3	A	4	3	5	3	4	2	2	1	2	2	7	3	2	5	1	0	0	0	2.7	6.7
7-Jul-06	0	1	0	1	A	2	5	7	4	4	15	4	3	3	2	3	3	2	1	1	1	1	1	0	2.8	15.1
8-Jul-06	0	0	2	A	9	11	16	14	8	2	1	1	1	1	1	1	1	1	2	1	0	1	1	1	3.4	15.8
9-Jul-06	1	1	A	0	0	2	2	2	1	1	1	1	2	2	1	1	1	1	1	1	1	1	5	1	1.4	4.9
10-Jul-06	1	A	1	1	1	1	2	2	1	2	2	1	1	1	2	1	1	1	1	1	1	1	1	0	1.2	2.5
11-Jul-06	1	0	1	1	2	A	10	3	3	2	2	1	2	2	2	2	2	3	4	4	5	1	0	1	2.3	10.1
12-Jul-06	1	1	0	1	A	5	11	18	11	10	6	5	3	2	1	1	1	1	7	6	1	1	1	1	4.3	17.8
13-Jul-06	1	3	2	A	1	9	8	6	3	4	3	2	3	3	3	3	4	2	1	1	2	0	0	1	3.0	9.4
14-Jul-06	1	1	0	0	1	A	8	10	5	4	4	3	4	3	3	2	3	2	2	1	2	2	1	0	2.7	9.9
15-Jul-06	0	0	0	0	A	1	1	1	2	C	C	C	C	A	2	2	2	2	2	2	1	1	1	1	1.2	2.5
16-Jul-06	0	1	1	1	1	A	2	1	1	1	1	1	2	2	1	P	P	2	1	1	1	1	1	1	1.2	2.2
17-Jul-06	0	1	0	0	2	A	13	26	19	5	2	2	2	2	2	2	4	1	1	1	1	1	0	1	4.0	25.6
18-Jul-06	1	0	0	0	A	3	11	7	11	2	3	2	1	7	4	2	5	2	2	1	2	2	1	1	3.1	11.2
19-Jul-06	1	1	1	A	10	31	22	C	C	C	C	2	4	1	1	2	1	1	1	1	1	1	0	0	4.2	30.6
20-Jul-06	0	0	1	0	3	A	28	18	5	2	2	2	3	2	2	2	2	3	2	3	1	2	1	1	3.7	28.4
21-Jul-06	1	1	1	1	A	6	18	14	7	4	2	1	2	2	2	2	3	2	3	2	4	30	31	37	7.7	36.9
22-Jul-06	29	16	2	A	16	30	16	6	3	3	2	2	1	1	2	1	2	1	2	2	5	8	7	8	7.2	30.0
23-Jul-06	2	4	A	10	17	15	10	8	2	1	1	1	1	2	1	1	1	1	1	1	1	8	1	1	4.0	17.4
24-Jul-06	1	A	0	1	1	2	8	7	4	2	1	1	1	2	1	2	2	2	7	1	1	1	13	2	2.8	13.2
25-Jul-06	A	0	0	0	7	3	12	7	3	2	3	1	2	2	2	2	2	1	1	1	2	1	1	A	2.5	11.5
26-Jul-06	0	1	0	0	1	6	7	4	3	4	2	3	3	4	3	4	2	2	2	1	1	1	A	1	2.3	6.5
27-Jul-06	0	1	1	1	3	17	18	28	33	12	2	1	1	1	2	2	4	5	3	2	1	A	4	2	6.2	32.6
28-Jul-06	1	1	2	1	2	8	9	9	6	4	13	4	2	3	1	5	3	7	2	8	A	1	3	5	4.3	12.7
29-Jul-06	3	4	1	2	1	8	4	3	3	4	4	9	4	5	5	4	5	3	3	A	4	2	8	1	4.0	8.8
30-Jul-06	1	1	1	1	1	1	1	1	1	1	2	3	4	8	1	1	1	1	A	4	1	0	1	1	1.5	8.0
31-Jul-06	1	1	1	1	2	14	15	12	7	5	4	3	2	3	4	3	3	A	2	2	2	1	1	1	3.7	14.5
Hourly Avg	2.4	1.9	1.1	1.1	4.4	11.0	10.3	9.8	6.8	3.4	3.3	2.3	2.2	2.6	2.0	2.1	2.4	2.2	2.3	2.2	1.8	3.5	3.2	3.2		
Hourly Max	29.2	16.4	5.2	10.0	17.4	60.3	34.5	47.1	32.6	11.9	15.1	8.8	4.4	8.0	5.5	5.5	6.7	6.7	7.3	7.6	5.5	29.9	30.6	36.9		

PASZA - Henry Pirker - Oxides of Nitrogen Monthly Summary

HOURLY AVERAGE TABLE

Oxides of Nitrogen (NO_x)

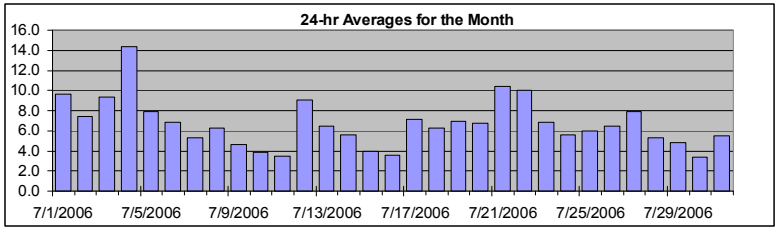
Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: July 1, 2006 to August 1, 2006

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

Summary

Maximum 1-hr Average:	51.6	ppb	4-Jul	7:00 8:00
Maximum 24-hr Average:	14.4	ppb	4-Jul	



AIC Time:	32 hrs	Operational Time:	702 hrs
Calibration Time:	8 hrs	AMD Operational Uptime:	99.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	32.3	18.6	7.8	4.6	3.1	1.9	1.5	6.7 ppb	4.6 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

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-Jul-06	12	12	15	16	16	19	13	14	7	4	7	3	2	2	2	2	2	2	2	3	A	11	28	29	9.6	29.2
2-Jul-06	25	16	10	7	7	14	11	6	6	5	7	3	2	2	2	2	2	2	3	A	6	8	9	16	7.4	25.2
3-Jul-06	11	9	10	9	11	19	20	13	9	9	7	3	3	2	2	3	3	4	A	8	11	26	11	11	9.3	26.1
4-Jul-06	19	10	11	12	11	25	46	52	33	17	12	8	8	4	4	5	4	6	7	8	11	13	11	8	14.4	51.6
5-Jul-06	8	5	5	4	5	A	17	27	16	5	10	10	6	6	5	5	6	6	5	5	6	8	8	6	7.9	26.9
6-Jul-06	6	4	4	3	5	A	15	11	9	6	11	9	4	3	6	6	8	9	11	8	8	3	3	4	6.9	14.8
7-Jul-06	4	7	7	4	A	8	10	8	6	5	6	5	5	4	4	4	4	4	3	3	5	5	4	6	5.3	10.3
8-Jul-06	6	7	5	A	14	16	22	16	9	5	4	3	3	2	2	2	2	3	3	3	4	8	4	3	6.3	22.0
9-Jul-06	5	5	A	7	6	7	8	6	4	3	3	4	4	3	2	1	2	2	2	5	6	5	12	6	4.6	12.3
10-Jul-06	4	A	6	5	6	6	8	6	5	4	4	4	3	3	3	2	3	2	2	2	2	2	3	3	3.9	7.8
11-Jul-06	4	3	2	3	4	A	9	3	3	3	3	2	2	2	2	2	2	3	3	3	5	9	4	2	3.5	9.2
12-Jul-06	4	6	6	6	A	13	15	22	19	17	12	9	8	7	5	5	3	7	8	9	6	7	7	5	9.1	22.5
13-Jul-06	4	6	3	A	9	14	16	8	6	6	4	4	6	7	6	6	5	4	4	5	8	7	6	5	6.4	16.2
14-Jul-06	5	5	3	5	7	A	18	15	6	5	5	5	4	5	5	3	3	3	4	4	8	8	3	3	5.6	18.3
15-Jul-06	4	5	4	3	A	8	6	4	4	C	C	C	C	A	5	4	3	3	3	3	3	4	4	3	3.9	7.8
16-Jul-06	2	3	3	2	3	A	7	3	3	2	2	2	2	2	2	P	P	2	2	2	6	10	7	7	3.6	10.4
17-Jul-06	9	9	9	7	9	A	19	16	19	9	4	4	5	4	3	4	7	4	4	3	4	6	3	2	7.1	19.4
18-Jul-06	2	2	2	2	A	13	19	18	15	3	3	3	2	3	7	3	7	4	4	4	8	8	5	5	6.2	18.9
19-Jul-06	4	4	4	A	11	30	29	C	C	C	C	5	3	3	3	3	2	2	3	3	7	9	3	3	6.9	30.5
20-Jul-06	3	5	7	7	14	A	31	22	8	5	4	3	4	3	3	3	3	3	4	4	4	7	4	4	6.8	30.7
21-Jul-06	4	4	5	4	A	16	25	18	11	7	3	2	3	3	3	3	4	5	4	4	10	23	34	44	10.4	44.3
22-Jul-06	33	18	9	A	17	32	19	10	8	6	4	3	2	2	2	2	2	2	3	4	8	16	13	15	10.0	32.7
23-Jul-06	9	10	A	20	25	21	12	11	6	2	1	2	2	2	2	1	2	2	2	2	3	8	7	8	6.9	24.5
24-Jul-06	5	A	4	3	5	8	12	8	8	4	3	2	2	2	2	2	2	2	2	3	4	12	18	13	5.6	18.3
25-Jul-06	A	7	6	6	9	12	18	13	8	7	5	3	3	3	4	3	3	2	3	4	5	4	3	A	6.0	18.3
26-Jul-06	5	5	4	5	7	15	14	12	8	6	4	8	6	7	8	7	4	4	4	4	4	4	A	6	6.5	14.8
27-Jul-06	4	5	7	4	7	19	22	36	29	13	2	1	1	1	2	2	2	2	2	3	6	A	6	3	7.9	36.0
28-Jul-06	5	5	3	4	5	10	13	10	5	4	5	5	3	3	2	4	5	5	5	5	A	6	5	4	5.3	12.9
29-Jul-06	4	3	3	3	3	3	5	5	5	7	5	8	7	8	6	5	5	5	4	A	6	4	3	2	4.9	8.0
30-Jul-06	2	2	2	2	2	2	2	2	3	3	3	3	2	2	2	2	2	2	A	6	6	7	10	9	3.4	10.0
31-Jul-06	4	3	3	3	4	15	17	14	8	6	4	3	2	3	4	4	4	A	5	4	6	5	3	3	5.5	16.9
Hourly Avg	7.1	6.3	5.5	5.8	8.5	14.4	16.1	13.6	9.5	6.2	5.0	4.3	3.6	3.5	3.5	3.3	3.5	3.6	3.9	4.3	6.1	8.5	8.0	8.0		
Hourly Max	32.7	17.6	14.5	20.4	24.5	32.4	46.3	51.6	33.5	17.1	12.4	10.2	7.7	8.0	8.2	6.7	7.8	9.5	11.0	8.6	10.7	26.1	33.9	44.3		

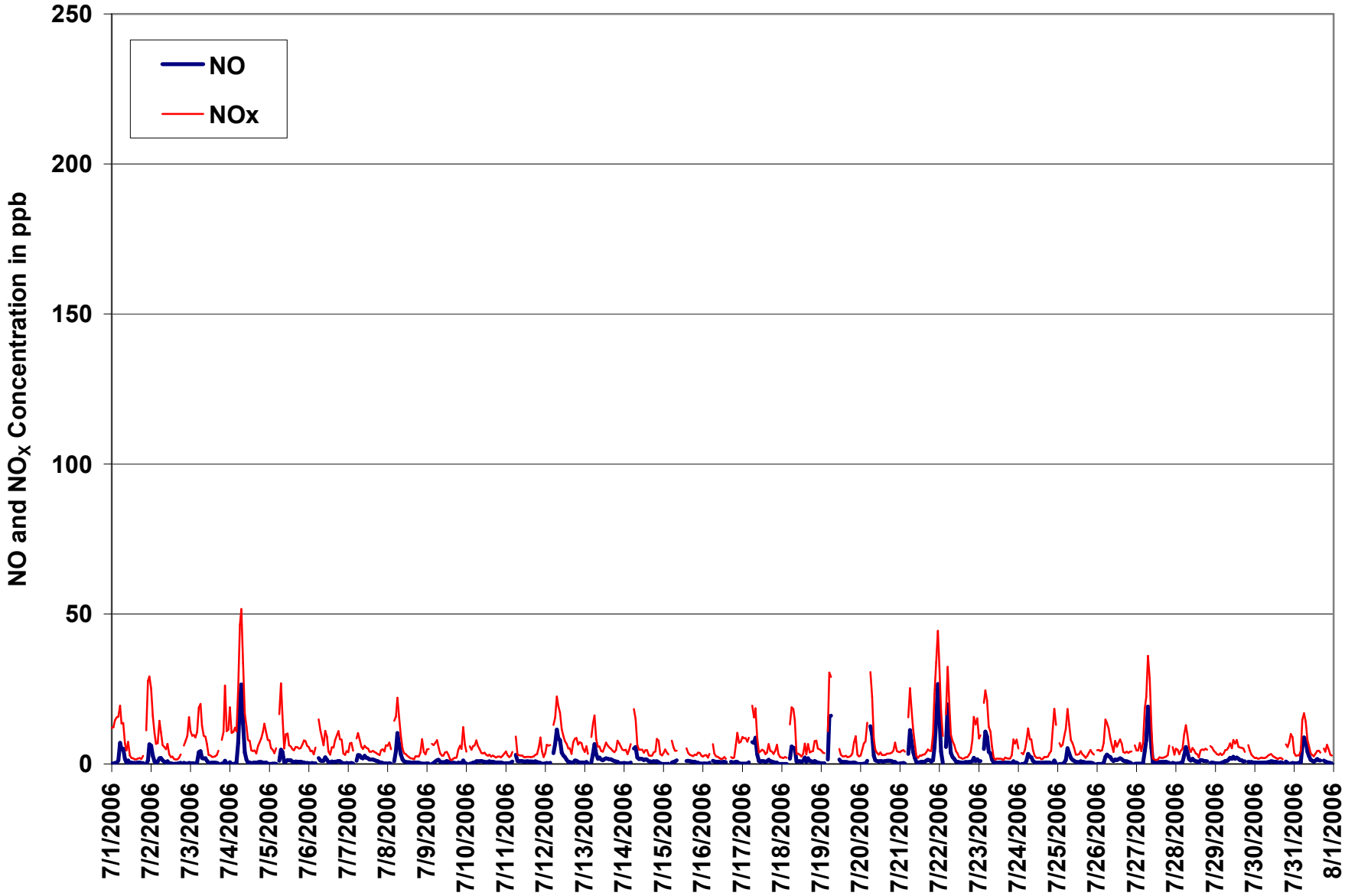


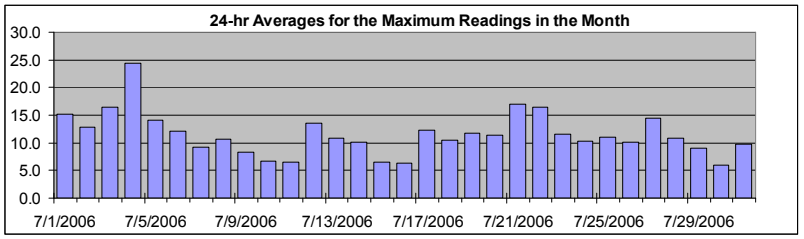
Figure 5. PASZA - Henry Pirker Oxides of Nitrogen 1-hr Average Monthly Trend

Station: Henry Pirker
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Oxides of Nitrogen (NO_x)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Value:	87.4	ppb	4-Jul	5:00 6:00
Maximum 24-hr Value:	24.4	ppb	4-Jul	

AIC Time:	32 hrs	Operational Time:	702 hrs
Calibration Time:	8 hrs	AMD Operational Uptime:	99.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	52.6	29.6	13.4	8.6	5.8	3.5	2.8	11.6 ppb	8.6 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-Jul-06	17	14	26	19	22	29	23	21	13	5	14	8	4	5	3	5	3	10	3	7	A	15	40	42	15.1	41.8
2-Jul-06	31	23	14	9	27	20	15	8	8	6	17	4	7	3	2	4	3	9	5	A	11	13	20	32	12.8	32.3
3-Jul-06	18	16	14	11	20	30	27	26	15	13	13	4	5	4	4	5	7	7	A	14	18	64	26	16	16.4	64.0
4-Jul-06	37	20	13	16	15	87	64	74	54	25	15	9	13	6	7	16	7	10	13	14	17	22	23	11	24.4	87.4
5-Jul-06	12	8	6	4	12	A	24	41	37	7	13	17	10	16	9	7	14	10	11	18	12	12	13	11	14.1	41.2
6-Jul-06	9	5	14	6	8	A	24	21	17	12	15	14	9	5	11	11	20	17	15	16	13	5	5	6	12.1	23.9
7-Jul-06	5	8	10	7	A	10	16	17	10	9	25	11	8	7	7	8	8	6	5	5	6	6	6	11	9.2	25.2
8-Jul-06	9	10	11	A	21	24	29	27	19	7	6	6	5	4	3	3	2	6	5	4	7	17	9	11	10.7	28.9
9-Jul-06	11	9	A	8	8	12	11	10	5	4	4	6	8	6	4	3	4	5	4	8	15	9	22	15	8.3	21.7
10-Jul-06	7	A	9	8	11	9	13	12	7	7	6	9	6	5	5	4	4	4	4	4	3	3	7	5	6.7	13.3
11-Jul-06	6	4	3	3	6	A	21	6	6	5	6	3	5	4	6	4	6	5	8	8	12	14	6	4	6.5	20.7
12-Jul-06	5	9	7	8	A	18	21	32	24	22	16	14	9	9	7	10	6	10	20	18	10	14	11	9	13.6	32.1
13-Jul-06	5	17	8	A	11	23	20	14	9	10	7	6	10	12	10	9	10	8	6	7	16	10	12	8	10.8	23.5
14-Jul-06	7	7	6	6	12	A	26	24	14	10	10	9	9	8	9	6	8	7	7	6	13	16	5	6	10.0	25.6
15-Jul-06	5	6	9	4	A	14	8	6	9	C	C	C	C	A	9	7	5	5	4	6	5	5	5	4	6.6	13.8
16-Jul-06	4	4	5	3	6	A	10	5	4	4	4	3	4	6	4	P	P	5	5	4	13	16	13	11	6.3	16.0
17-Jul-06	13	12	13	9	16	A	30	31	36	14	8	10	9	8	7	10	14	7	6	5	6	9	5	5	12.3	35.8
18-Jul-06	3	3	3	4	A	18	30	23	27	7	7	5	5	9	12	10	12	8	8	9	13	11	8	6	10.5	29.6
19-Jul-06	6	5	5	A	23	49	38	C	C	C	C	7	10	4	4	7	4	4	5	6	11	14	12	6	11.7	49.3
20-Jul-06	6	6	10	10	19	A	48	36	13	8	7	6	9	7	6	6	7	8	6	8	7	12	14	7	11.4	48.2
21-Jul-06	9	7	7	6	A	22	35	29	18	11	6	6	6	6	7	6	9	8	8	7	18	53	51	56	16.9	55.5
22-Jul-06	44	32	11	A	26	44	28	13	10	10	7	7	5	4	5	4	6	5	7	7	21	27	26	28	16.4	44.4
23-Jul-06	14	16	A	26	31	28	21	20	8	6	2	4	4	5	4	3	4	4	4	3	5	27	12	13	11.6	31.0
24-Jul-06	7	A	4	4	8	11	20	17	13	8	6	4	6	9	4	5	7	5	10	8	8	20	35	20	10.3	34.6
25-Jul-06	A	8	8	9	24	18	30	20	12	10	11	7	9	8	7	7	7	4	5	10	13	7	6	A	11.0	30.5
26-Jul-06	6	7	6	6	11	22	21	16	12	12	6	12	11	14	12	11	8	7	6	5	6	6	A	8	10.1	22.3
27-Jul-06	6	10	12	6	19	35	35	46	53	25	4	3	4	4	6	5	7	10	8	8	11	A	11	6	14.5	52.6
28-Jul-06	7	9	7	7	8	17	18	18	11	8	25	11	6	9	4	11	9	13	8	14	A	12	10	10	10.9	24.8
29-Jul-06	8	9	5	6	4	13	10	8	8	9	8	16	11	12	11	9	13	9	6	A	12	7	12	5	9.1	16.2
30-Jul-06	3	3	2	3	4	3	3	3	4	5	6	6	10	11	3	4	4	3	A	13	9	12	12	12	5.9	13.0
31-Jul-06	6	4	4	5	9	26	25	21	13	9	9	7	6	8	9	9	8	A	9	6	16	10	5	5	9.8	25.5
Hourly Avg	11.0	10.1	8.8	7.9	14.7	24.3	23.9	21.5	16.3	9.9	9.8	7.9	7.4	7.3	6.5	6.9	7.6	7.3	7.3	8.6	11.2	15.6	14.7	13.0		
Hourly Max	44.4	32.1	26.5	26.2	31.0	87.4	64.1	74.4	53.8	25.3	25.2	16.6	12.7	15.7	12.0	16.3	20.4	17.1	19.9	18.2	21.0	64.0	51.4	55.5		

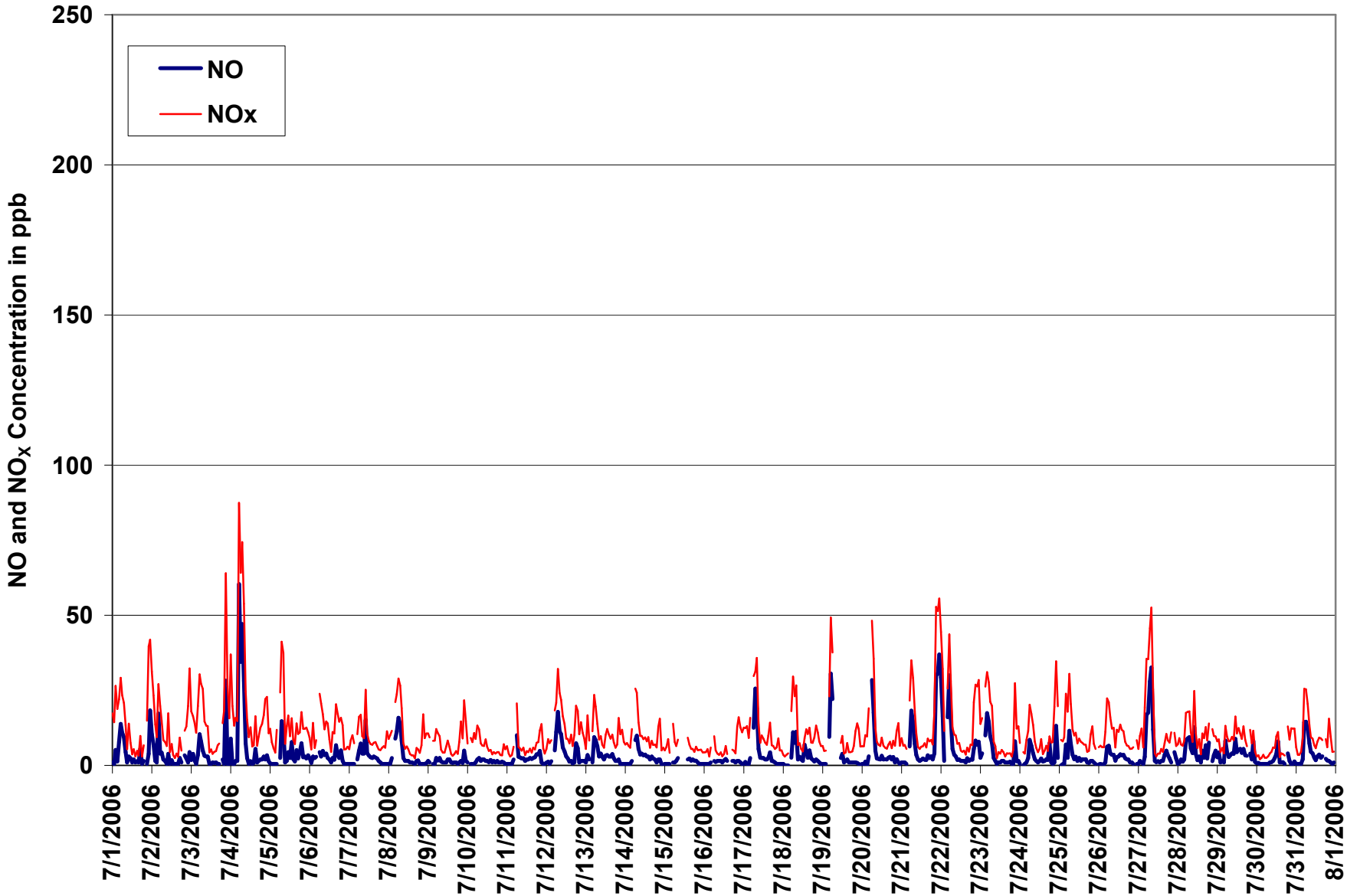


Figure 6. PASZA - Henry Pirker Oxides of Nitrogen Instantaneous (30 Second) Maximum Value Monthly Trend

PASZA - Henry Pirker - Ozone Monthly Summary

HOURLY AVERAGE TABLE

Ozone (O_3)

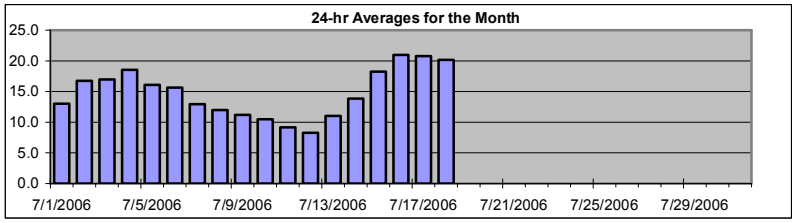
Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: July 1, 2006 to August 1, 2006

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

Summary

Number of 1-hr Exceedances:	0			
Maximum 1-hr Average:	37.1	ppb	4-Jul	15:00 16:00
Maximum 24-hr Average:	21.0	ppb	16-Jul	



AIC Time:	19 hrs	Operational Time:	419 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	59.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	34.5	28.4	20.1	14.3	8.8	2.1	0.0	14.6 ppb	14.3 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-Jul-06	6	6	4	1	0	0	1	3	11	20	24	24	21	22	21	21	22	22	22	23	A	18	7	0	13.0	24.0
2-Jul-06	0	0	0	1	3	2	4	9	13	18	21	26	29	34	31	28	29	29	27	A	25	23	20	12	16.8	33.9
3-Jul-06	16	7	9	5	6	5	4	11	15	18	22	23	26	24	24	25	26	25	A	27	28	13	17	16	17.0	27.6
4-Jul-06	9	12	13	6	4	2	0	0	1	11	20	30	36	35	36	37	36	32	29	25	21	16	16	18	18.5	37.1
5-Jul-06	15	17	16	16	14	A	8	3	5	16	17	16	16	20	23	23	23	23	22	21	18	15	13	11	16.1	23.0
6-Jul-06	9	9	8	7	6	A	5	8	11	14	18	22	27	30	27	26	22	19	12	13	11	20	20	17	15.6	30.5
7-Jul-06	15	10	8	8	A	6	5	6	9	11	11	12	13	16	17	18	18	18	17	17	16	16	16	13	12.9	17.9
8-Jul-06	12	11	11	A	3	2	2	4	7	13	17	18	18	17	16	16	16	15	16	15	14	10	10	13	12.0	18.2
9-Jul-06	10	8	A	7	5	5	5	8	13	16	17	15	13	13	14	15	16	18	18	14	11	8	4	4	11.2	18.3
10-Jul-06	5	A	6	6	6	7	7	9	9	10	13	13	13	14	16	18	16	16	16	14	8	6	6	6	10.5	17.6
11-Jul-06	4	4	3	3	3	A	4	9	11	10	10	11	14	14	14	13	13	13	12	12	10	7	7	9	9.2	14.2
12-Jul-06	8	5	3	3	A	1	1	1	1	2	7	9	13	16	18	17	18	14	13	11	10	9	6	4	8.3	18.1
13-Jul-06	4	3	6	A	4	2	1	5	8	12	11	17	15	14	14	15	17	18	18	17	15	13	12	12	11.0	18.4
14-Jul-06	11	11	12	11	10	A	6	6	11	14	15	15	16	16	16	18	19	19	17	16	14	12	17	17	13.9	18.7
15-Jul-06	15	13	12	12	A	12	13	14	14	18	12	15	15	C	C	C	A	32	28	27	26	23	22	23	18.2	32.0
16-Jul-06	22	21	21	20	18	A	16	18	20	21	23	24	24	25	25	P	P	26	25	25	19	14	17	16	21.0	25.8
17-Jul-06	13	11	10	9	9	A	8	10	13	20	26	29	31	31	26	26	26	29	29	29	26	20	23	24	20.8	31.4
18-Jul-06	23	21	20	21	A	12	10	9	13	26	25	26	25	24	23	28	24	27	25	22	16	12	14	16	20.2	28.4
19-Jul-06	15	15	13	A	7	1	4	7	11	15	21	C	C	C	N	N	N	N	N	N	N	N	N	N	N	20.7
20-Jul-06	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
21-Jul-06	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
22-Jul-06	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
23-Jul-06	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
24-Jul-06	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-Jul-06	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-Jul-06	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-Jul-06	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-Jul-06	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-Jul-06	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-Jul-06	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
31-Jul-06	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
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	23.0	21.5	21.0	21.3	17.8	12.3	16.0	18.4	20.0	25.6	25.9	29.8	36.3	34.6	36.4	37.1	35.7	32.1	29.2	29.4	27.6	23.0	22.8	23.7		

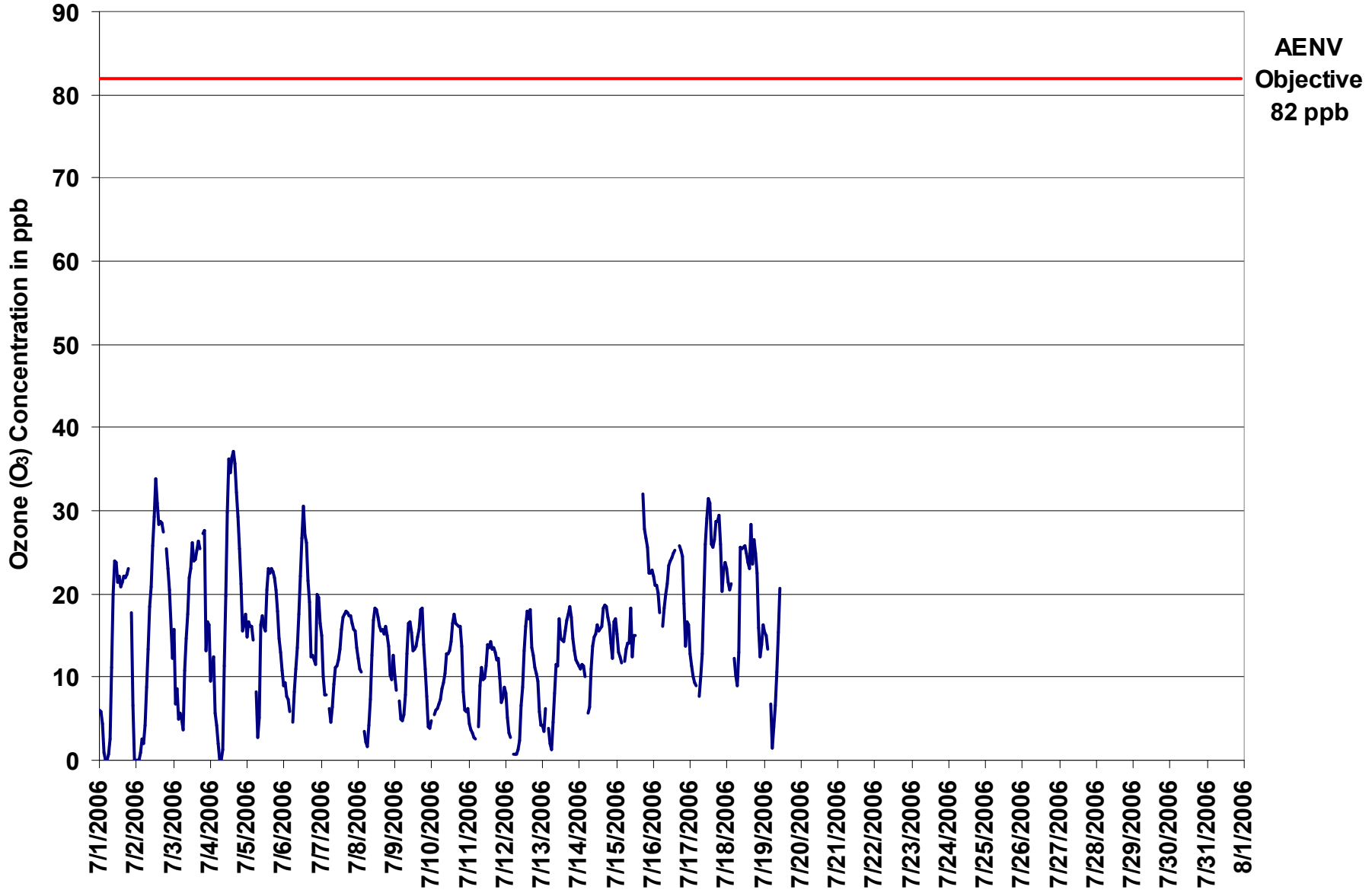


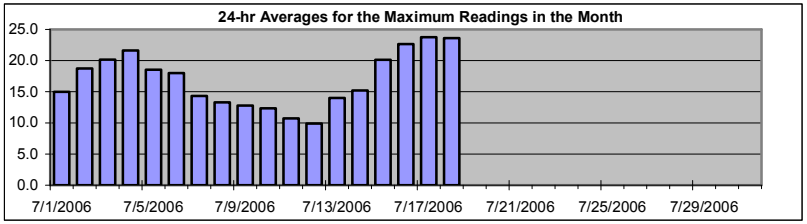
Figure 7. PASZA - Henry Pirker Ozone 1-hr Average Monthly Trend

Station: Henry Pirker
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Ozone (O_3)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Value:	40.7	ppb	4-Jul	14:00 15:00
Maximum 24-hr Value:	23.7	ppb	17-Jul	

AIC Time:	19 hrs	Operational Time:	419 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	59.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	37.1	30.6	22.4	16.6	10.8	3.8	0.9	16.8 ppb	16.6 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

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-Jul-06	7	7	7	2	1	1	2	5	16	22	26	26	23	23	22	22	23	23	23	24	A	20	15	2	15.0	26.4
2-Jul-06	0	0	1	2	4	4	7	12	16	20	22	29	33	36	33	29	29	29	29	A	27	25	22	18	18.7	36.4
3-Jul-06	20	11	15	7	8	9	7	15	18	19	26	25	28	26	25	27	27	26	A	30	32	22	21	20	20.2	31.7
4-Jul-06	13	16	16	7	6	4	0	1	5	22	26	32	39	38	41	39	37	35	30	29	23	20	20	19	21.6	40.7
5-Jul-06	18	19	17	18	16	A	11	6	11	19	19	18	18	25	27	24	25	24	24	23	20	17	14	13	18.5	26.5
6-Jul-06	11	11	10	9	7	A	8	11	12	19	20	25	28	36	30	28	24	20	17	14	14	22	21	18	18.0	36.1
7-Jul-06	17	14	9	9	A	7	6	9	11	12	13	13	15	17	18	19	19	19	18	18	18	17	17	16	14.3	18.9
8-Jul-06	13	12	12	A	4	3	3	6	10	15	18	19	19	18	17	16	16	16	18	16	15	12	12	14	13.3	19.0
9-Jul-06	12	10	A	9	6	6	7	10	15	18	18	16	15	15	15	16	17	19	20	17	13	9	7	6	12.8	19.6
10-Jul-06	6	A	8	7	9	8	9	11	11	14	19	14	14	16	21	19	18	17	17	16	10	7	8	8	12.4	21.1
11-Jul-06	6	5	4	4	4	A	8	10	16	11	11	14	15	15	17	14	14	14	13	13	12	8	9	10	10.7	16.7
12-Jul-06	10	8	4	4	A	2	2	2	2	5	8	11	15	18	19	19	19	17	15	13	12	11	7	5	9.9	18.9
13-Jul-06	6	5	9	A	5	4	2	7	9	23	17	29	20	22	16	17	18	19	19	18	17	15	14	13	14.0	29.4
14-Jul-06	13	12	13	12	11	A	7	9	13	15	16	17	17	16	18	19	20	19	18	17	17	15	17	18	15.2	20.0
15-Jul-06	16	14	13	12	A	13	14	15	15	27	14	17	16	C	C	C	A	34	32	28	28	25	24	24	20.1	34.0
16-Jul-06	23	22	22	21	20	A	17	20	21	22	25	25	25	26	26	P	P	27	27	26	24	17	19	20	22.6	27.0
17-Jul-06	16	14	16	12	12	A	10	12	18	24	28	33	34	32	30	27	30	31	32	33	28	24	26	25	23.7	33.9
18-Jul-06	24	23	22	23	A	15	14	12	26	27	27	27	26	27	30	32	28	29	30	26	20	17	18	18	23.6	32.1
19-Jul-06	17	17	15	A	10	3	6	9	14	19	24	C	C	C	N	N	N	N	N	N	N	N	N	N	N	23.8
20-Jul-06	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
21-Jul-06	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
22-Jul-06	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
23-Jul-06	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
24-Jul-06	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-Jul-06	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-Jul-06	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-Jul-06	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-Jul-06	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-Jul-06	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-Jul-06	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
31-Jul-06	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
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	24.5	22.8	22.3	22.7	19.8	15.3	16.8	20.0	25.9	27.3	28.0	32.5	39.0	38.1	40.7	38.8	37.2	35.0	32.5	32.9	31.7	24.7	25.7	25.4		

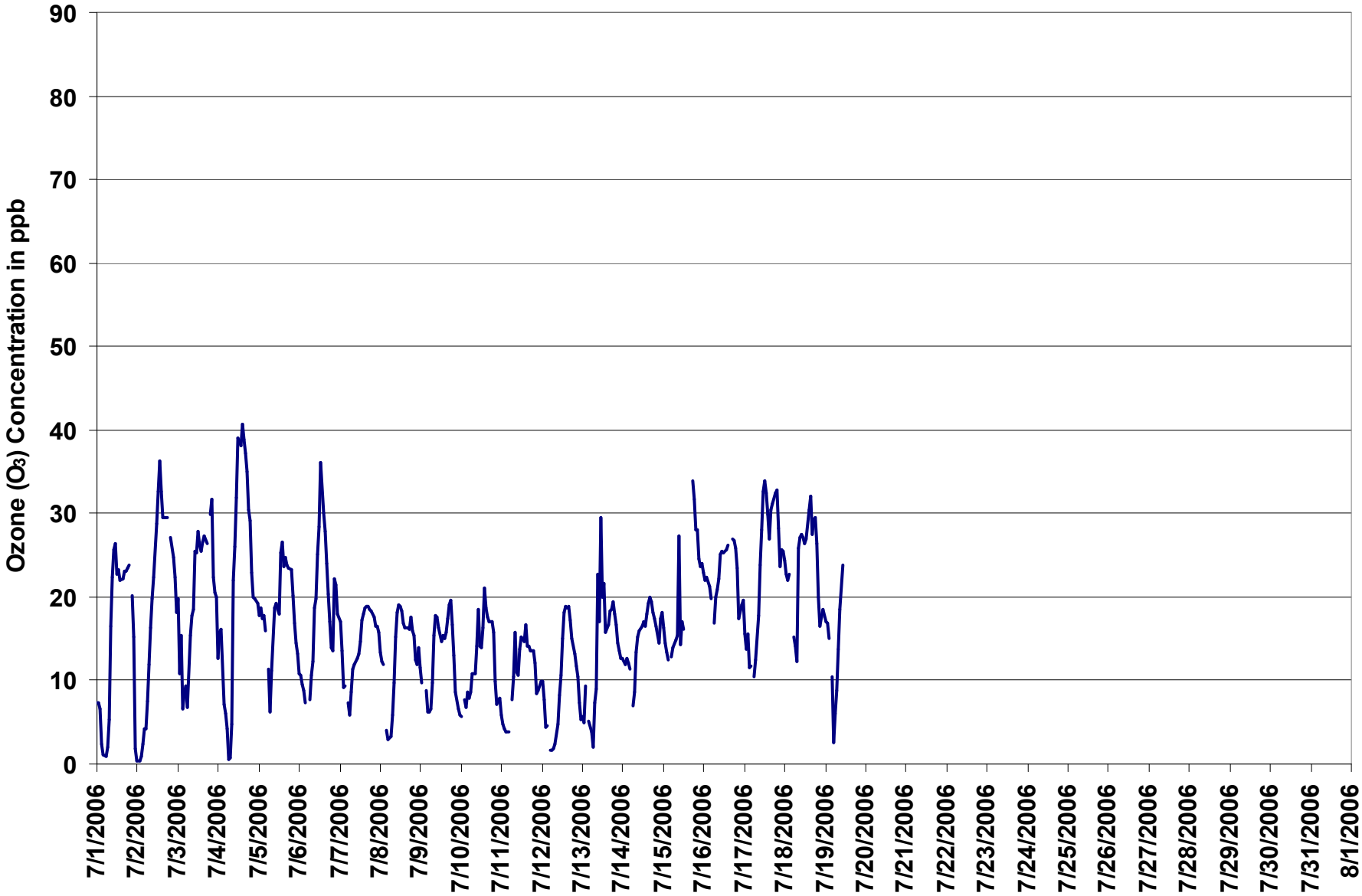
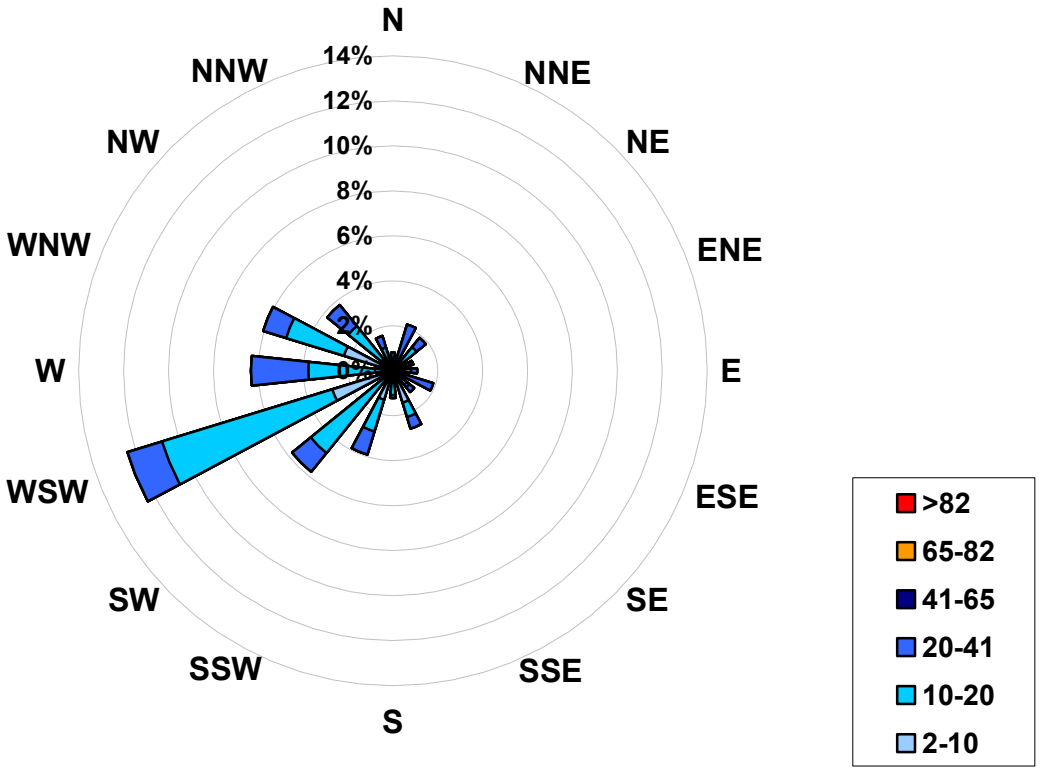


Figure 8. PASZA - Henry Pirker Ozone Instantaneous (30 Second) Maximum Value Monthly Trend

1-hr Average Concentration Rose for Ozone (in ppb) Located at the Henry Pirker Site for July 2006



Calms:	0%

Frequency Distribution of O_3 in ppb			
Range			Frequency (hrs)
2.0	<	10	119
10	to	20	194
20	to	41	106
41	to	65	0
65	to	82	0
	>	82	0
Total Non-Zero Values			419

PASZA - Henry Pirker - Ozone Monthly Summary

EIGHT HOUR RUNNING AVERAGE TABLE

Ozone (O_3)

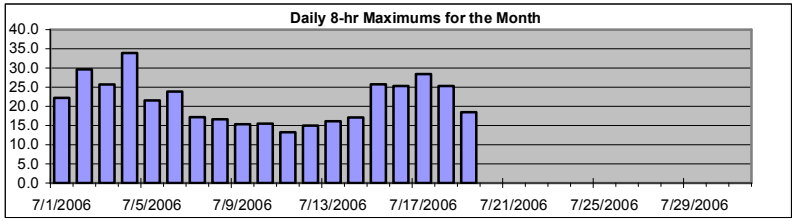
Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: July 1, 2006 to August 1, 2006

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

Summary

Number of 8-hr Exceedances:	0			
Maximum 8-hr Average:	33.9	ppb	4-Jul	18:00 19:00



Percentile	99	95	75	50	25	5	1
	30.0	25.8	18.7	13.9	9.7	4.3	2.2

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-Jul-06	18	16	14	11	9	6	4	3	3	5	7	10	13	16	18	21	22	22	22	22	22	21	19	16	22.2
2-Jul-06	13	10	7	4	3	2	1	2	4	6	9	12	15	19	23	25	27	28	29	30	29	28	26	24	29.6
3-Jul-06	22	19	16	15	12	10	8	8	8	9	11	13	15	18	20	22	24	25	25	25	26	24	23	22	25.7
4-Jul-06	19	17	17	14	11	10	8	6	5	5	6	9	13	17	21	26	30	33	34	33	31	29	27	24	33.9
5-Jul-06	22	20	18	17	16	16	15	13	11	11	11	11	12	13	15	17	19	20	21	21	22	21	20	18	21.5
6-Jul-06	16	15	13	11	10	9	8	7	8	8	10	12	15	17	20	22	23	24	23	22	20	19	18	17	23.8
7-Jul-06	16	15	14	14	14	12	10	8	7	8	8	9	9	10	12	13	15	15	16	17	17	17	17	16	17.2
8-Jul-06	16	15	14	14	12	10	8	6	6	6	7	8	10	12	14	15	16	17	17	16	16	15	14	14	16.6
9-Jul-06	13	12	11	10	9	8	8	7	7	8	10	11	12	13	14	15	15	15	15	15	15	14	13	12	15.3
10-Jul-06	10	9	7	6	5	5	6	6	7	8	8	9	10	11	12	13	14	15	15	16	15	14	13	11	15.5
11-Jul-06	10	8	6	5	4	4	4	4	5	6	7	8	10	10	12	12	12	13	13	13	13	12	11	10	13.2
12-Jul-06	10	9	8	7	6	5	4	3	2	2	2	3	4	6	8	10	13	14	15	15	15	14	12	11	15.0
13-Jul-06	9	8	7	6	5	4	4	4	4	5	6	7	9	10	12	13	14	15	16	16	16	16	16	15	16.1
14-Jul-06	15	14	13	12	12	11	10	10	10	10	10	11	12	12	14	15	16	17	17	17	17	16	16	16	17.1
15-Jul-06	16	15	15	14	14	14	14	13	13	14	14	14	14	15	N	N	N	N	N	N	N	N	N	26	25.8
16-Jul-06	25	24	23	22	21	21	20	19	19	19	20	20	21	22	23	23	N	N	N	N	N	N	N	20	25.3
17-Jul-06	19	17	16	14	12	12	11	10	10	11	13	16	20	21	23	25	27	28	28	28	28	26	26	26	28.4
18-Jul-06	25	24	23	22	22	21	19	17	15	16	17	17	18	20	21	24	25	25	25	25	24	22	21	20	25.3
19-Jul-06	18	17	16	15	13	12	10	9	8	8	9	9	N	N	N	N	N	N	N	N	N	N	N	N	18.5
20-Jul-06	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
21-Jul-06	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
22-Jul-06	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
23-Jul-06	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
24-Jul-06	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-Jul-06	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-Jul-06	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-Jul-06	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-Jul-06	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-Jul-06	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-Jul-06	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
31-Jul-06	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
Hourly Max	25.3	24.4	23.4	22.4	21.9	21.1	20.1	19.5	19.2	19.2	19.6	20.1	21.0	21.5	23.2	25.8	30.1	32.7	33.9	33.4	31.5	29.1	26.6	25.8	

PASZA - Henry Pirker - Carbon Monoxide Monthly Summary

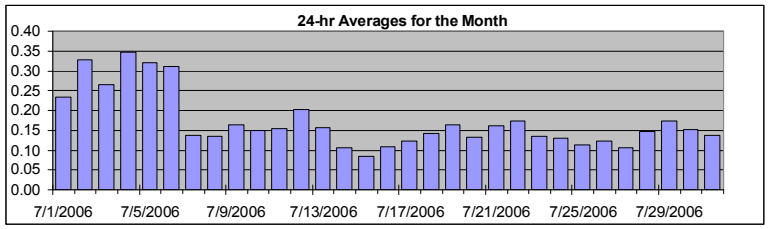
Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Carbon Monoxide (CO)

Monitoring Dates: July 1, 2006 to August 1, 2006

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



Summary

Number of 1-hr Exceedances:	0			
Maximum 1-hr Average:	0.9	ppm	2-Jul	10:00 11:00
Maximum 24-hr Value:	0.3	ppm	4-Jul	

AIC Time:	32 hrs	Operational Time:	702 hrs
Calibration Time:	8 hrs	AMD Operational Uptime:	99.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.2 ppm	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-Jul-06	0.2	0.3	0.4	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	0.2	0.2	0.2	A	0.3	0.4	0.5	0.23	0.50
2-Jul-06	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.6	0.8	0.9	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.33	0.86
3-Jul-06	0.3	0.3	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	0.3	A	0.3	0.4	0.5	0.4	0.27	0.52
4-Jul-06	0.5	0.4	0.3	0.3	0.3	0.4	0.5	0.5	0.4	0.4	C	C	C	A	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.35	0.47
5-Jul-06	0.3	0.3	0.3	0.3	0.3	A	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.32	0.43
6-Jul-06	0.4	0.4	0.3	0.3	0.4	A	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.2	0.2	0.31	0.38
7-Jul-06	0.3	0.3	0.3	0.3	A	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.26
8-Jul-06	0.1	0.1	0.1	A	0.1	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	0.2	0.2	0.2	0.13	0.20
9-Jul-06	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	0.16	0.21
10-Jul-06	0.2	A	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	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	0.15	0.19
11-Jul-06	0.2	0.2	0.1	0.1	0.2	A	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.16	0.21
12-Jul-06	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.27
13-Jul-06	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.16	0.22
14-Jul-06	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.11	0.14
15-Jul-06	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.09	0.11
16-Jul-06	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	P	P	0.2	0.1	0.1	0.1	0.2	0.1	0.11	0.16
17-Jul-06	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.12	0.16
18-Jul-06	0.1	0.1	0.1	0.1	A	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.14	0.20
19-Jul-06	0.2	0.2	0.1	A	0.1	0.2	0.2	0.2	0.2	0.1	C	C	C	C	C	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.16	0.23
20-Jul-06	0.2	0.2	0.2	0.2	0.2	A	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	0.1	0.13	0.22
21-Jul-06	0.1	0.1	0.1	0.1	A	0.1	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	0.3	0.4	0.16	0.53
22-Jul-06	0.4	0.3	0.2	A	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.17	0.40
23-Jul-06	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.14	0.20
24-Jul-06	0.2	A	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.13	0.21
25-Jul-06	A	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.11	0.17
26-Jul-06	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.12	0.17
27-Jul-06	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.2	0.1	0.11	0.24
28-Jul-06	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	A	0.2	0.15	0.18
29-Jul-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.17	0.22
30-Jul-06	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.2	0.2	0.15	0.22
31-Jul-06	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	A	0.1	0.1	0.2	0.1	0.1	0.14	0.18
Hourly Avg	0.19	0.18	0.17	0.17	0.17	0.19	0.20	0.20	0.19	0.18	0.17	0.16	0.14	0.14	0.14	0.14	0.14	0.15	0.15	0.16	0.17	0.20	0.20	0.20	
Hourly Max	0.46	0.37	0.37	0.35	0.35	0.42	0.47	0.47	0.57	0.82	0.86	0.51	0.34	0.31	0.33	0.29	0.32	0.34	0.38	0.36	0.37	0.52	0.43	0.53	

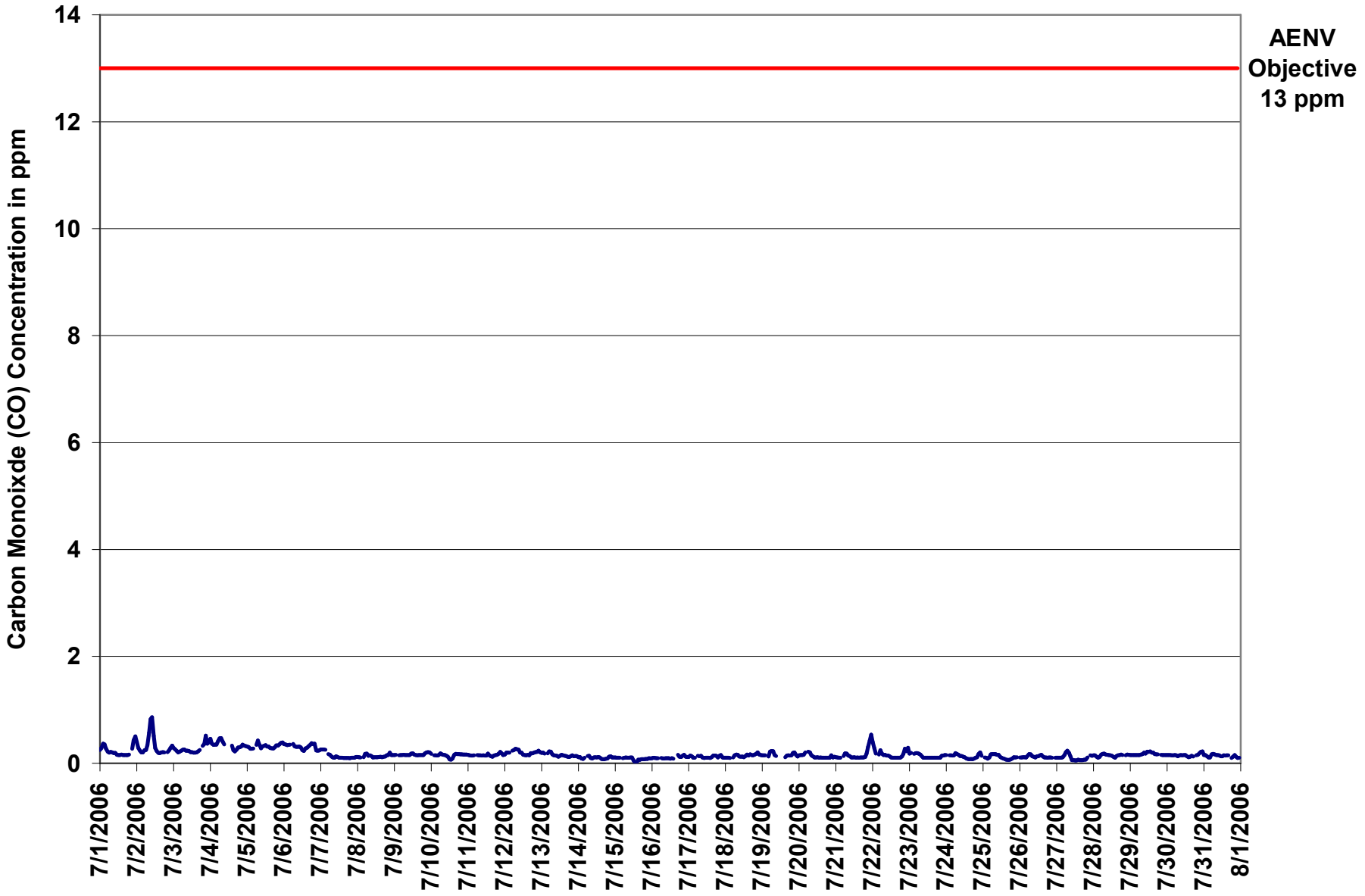


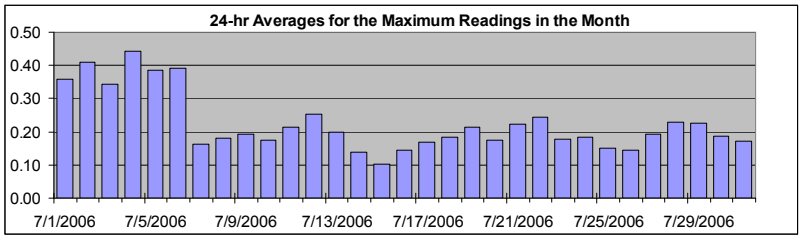
Figure 9. PASZA - Henry Pirker Carbon Monoxide 1-hr Average Monthly Trend

Station: Henry Pirker
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Carbon Monoxide (CO)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Value:	1.0	ppm	1-Jul	23:00 0:00
Maximum 24-hr Value:	0.4	ppm	4-Jul	

AIC Time:	32 hrs	Operational Time:	702 hrs
Calibration Time:	8 hrs	AMD Operational Uptime:	99.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	0.7	0.5	0.3	0.2	0.2	0.1	0.1	0.2 ppm	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-Jul-06	0.3	0.4	0.9	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.6	0.2	0.2	0.2	0.2	0.4	A	0.4	0.7	1.0	0.36	1.04
2-Jul-06	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.7	0.9	0.9	0.7	0.4	0.3	0.2	0.2	0.2	0.3	0.2	A	0.3	0.4	0.7	0.4	0.41	0.93
3-Jul-06	0.4	0.4	0.4	0.2	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	A	0.4	0.5	0.6	0.5	0.4	0.34	0.60
4-Jul-06	0.6	0.4	0.4	0.3	0.4	0.6	0.6	0.6	0.5	0.4	C	C	C	A	0.4	0.3	0.8	0.3	0.4	0.3	0.4	0.5	0.4	0.3	0.44	0.84
5-Jul-06	0.3	0.3	0.3	0.3	0.3	A	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.7	0.5	0.4	0.4	0.4	0.4	0.39	0.65
6-Jul-06	0.4	0.6	0.4	0.3	0.4	A	0.4	0.3	0.6	0.6	0.3	0.3	0.3	0.2	0.3	0.4	0.4	0.4	0.5	0.4	0.5	0.3	0.3	0.3	0.39	0.59
7-Jul-06	0.3	0.3	0.3	0.3	A	0.2	0.2	0.2	0.2	0.1	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.16	0.27
8-Jul-06	0.2	0.2	0.2	A	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.18	0.26
9-Jul-06	0.2	0.2	A	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	0.3	0.2	0.3	0.3	0.19	0.25
10-Jul-06	0.2	A	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	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	0.18	0.24
11-Jul-06	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	0.8	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.3	0.2	0.2	0.21	0.79
12-Jul-06	0.2	0.2	0.2	0.2	A	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.25	0.39
13-Jul-06	0.2	0.2	0.2	A	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.2	0.5	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.20	0.52
14-Jul-06	0.1	0.1	0.1	0.1	0.1	A	0.3	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	0.2	0.1	0.1	0.14	0.28
15-Jul-06	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.10	0.16
16-Jul-06	0.1	0.2	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	P	P	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.15	0.22
17-Jul-06	0.2	0.2	0.2	0.2	0.1	A	0.3	0.2	0.2	0.2	0.1	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	0.17	0.29
18-Jul-06	0.1	0.2	0.1	0.1	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.18	0.29
19-Jul-06	0.2	0.2	0.2	A	0.2	0.3	0.3	0.3	0.2	0.2	C	C	C	C	C	0.1	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.21	0.34
20-Jul-06	0.2	0.2	0.2	0.2	0.3	A	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.17	0.30
21-Jul-06	0.2	0.2	0.1	0.1	A	0.2	0.3	0.3	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	0.5	0.7	0.7	0.22	0.73
22-Jul-06	0.5	0.4	0.2	A	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.5	0.8	0.24	0.84
23-Jul-06	0.3	0.3	A	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.18	0.30
24-Jul-06	0.2	A	0.2	0.2	0.1	0.2	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.5	0.2	0.18	0.50
25-Jul-06	A	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	A	0.15	0.21
26-Jul-06	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	A	0.2	0.15	0.21
27-Jul-06	0.1	0.1	0.1	0.1	0.2	0.3	0.5	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.7	0.2	0.2	A	0.2	0.2	0.19	0.67
28-Jul-06	0.2	0.2	0.2	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.6	0.2	0.2	0.2	0.3	0.2	0.2	A	0.2	0.3	0.2	0.23	0.64
29-Jul-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.3	A	0.3	0.2	0.3	0.2	0.22	0.40
30-Jul-06	0.2	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	A	0.3	0.2	0.2	0.3	0.3	0.19	0.34
31-Jul-06	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	0.1	A	0.1	0.2	0.2	0.2	0.2	0.2	0.17	0.25
Hourly Avg	0.23	0.23	0.21	0.19	0.22	0.25	0.27	0.26	0.24	0.23	0.20	0.20	0.18	0.23	0.19	0.18	0.19	0.19	0.21	0.21	0.23	0.25	0.29	0.28		
Hourly Max	0.58	0.59	0.86	0.44	0.41	0.60	0.60	0.60	0.71	0.91	0.93	0.71	0.42	0.79	0.60	0.38	0.84	0.38	0.67	0.48	0.51	0.60	0.73	1.04		

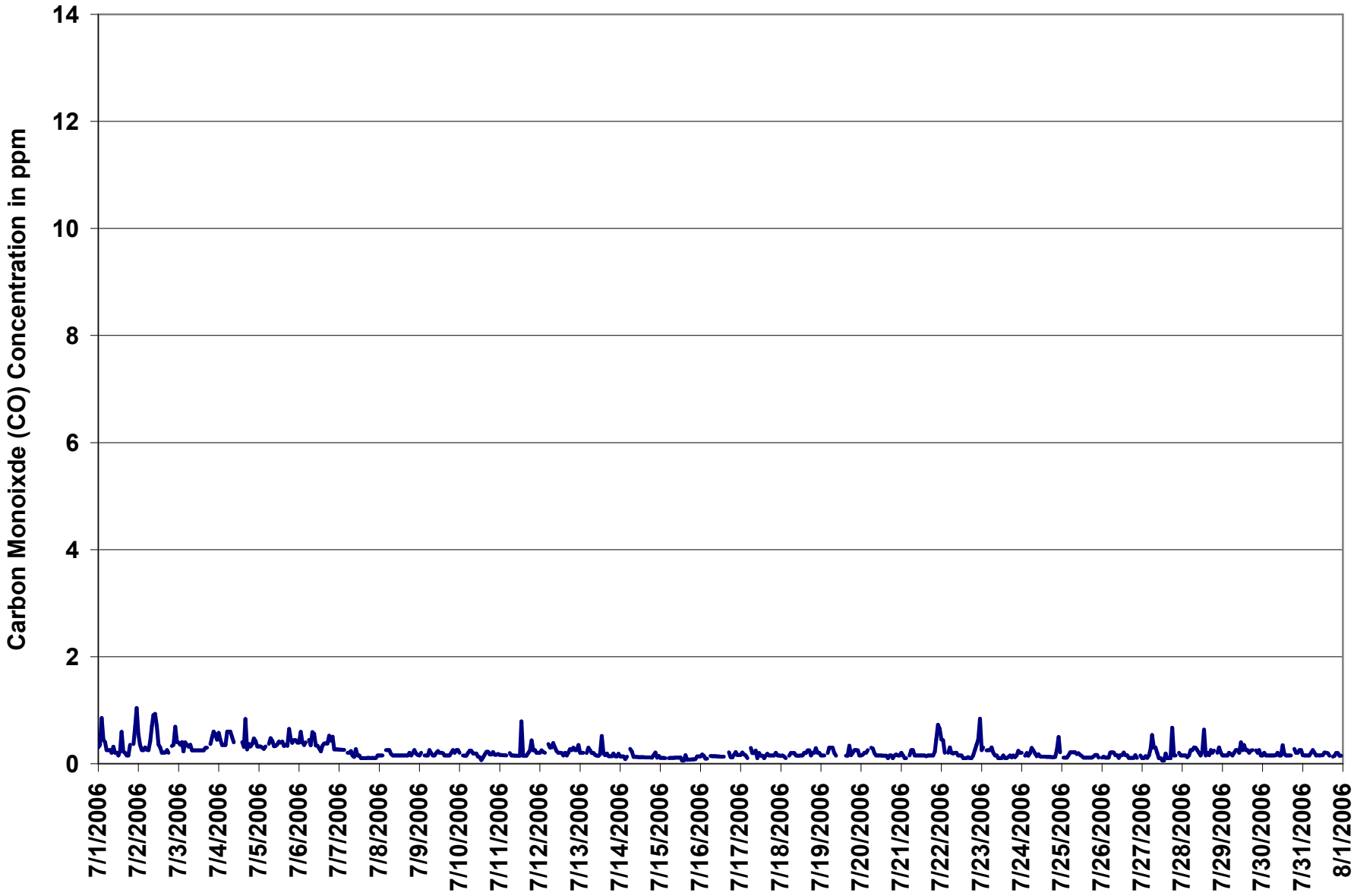
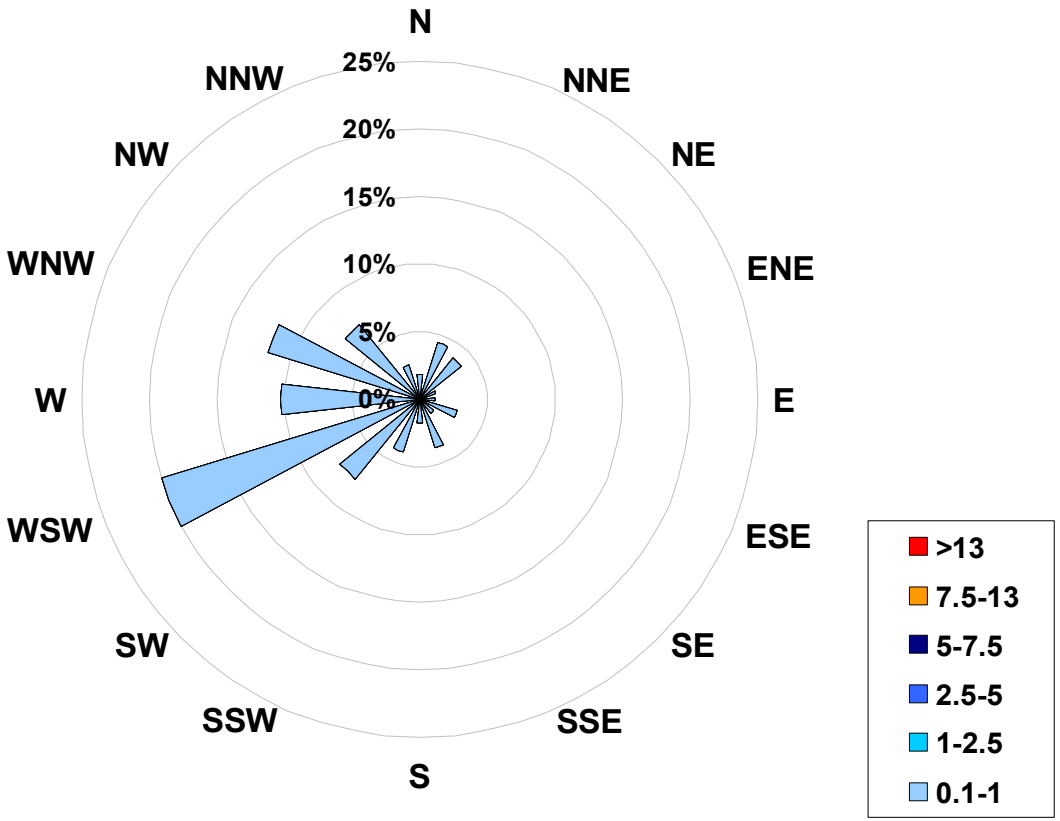


Figure 10. PASZA - Henry Pirker Carbon Monoxide Instantaneous (30 Second) Maximum Value Monthly Trend

1-hr Average Concentration Rose for Carbon Monoxide (in ppm) Located at the Henry Pirker Site for July 2006



Calms:	0%

Frequency Distribution of CO in ppm			
Range			Frequency (hrs)
0.1	<	1	702
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			702

PASZA - Henry Pirker - Carbon Monoxide Monthly Summary

EIGHT HOUR RUNNING AVERAGE TABLE

Carbon Monoxide (CO)

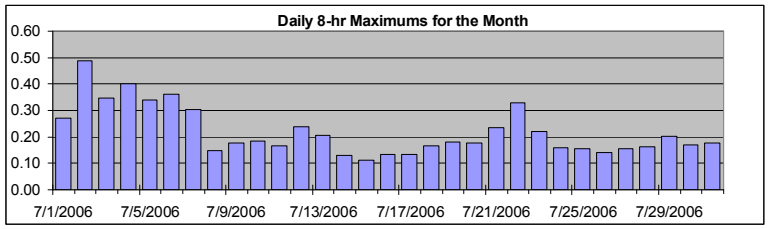
Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: July 1, 2006 to August 1, 2006

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

Summary

Number of 8-hr Exceedances:	0			
Maximum 8-hr Average:	0.5	ppm	2-Jul	12:00 13:00



Percentile	99	95	75	50	25	5	1
	0.4	0.3	0.2	0.1	0.1	0.1	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-Jul-06	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	0.2	0.2	0.2	0.3	0.27
2-Jul-06	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.49
3-Jul-06	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.35
4-Jul-06	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	N	N	N	N	N	N	N	N	N	0.3	0.3	0.3	0.3	0.40
5-Jul-06	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	0.34
6-Jul-06	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.36
7-Jul-06	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.30
8-Jul-06	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
9-Jul-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
10-Jul-06	0.2	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.18
11-Jul-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.17
12-Jul-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
13-Jul-06	0.2	0.2	0.2	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.21
14-Jul-06	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13
15-Jul-06	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.11
16-Jul-06	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	N	N	N	N	N	N	N	0.1	0.13
17-Jul-06	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13
18-Jul-06	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.17
19-Jul-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	N	N	N	N	N	N	N	N	N	N	N	0.2	0.2	0.2	0.18
20-Jul-06	0.2	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.18
21-Jul-06	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.24
22-Jul-06	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.33
23-Jul-06	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.22
24-Jul-06	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16
25-Jul-06	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
26-Jul-06	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14
27-Jul-06	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.16
28-Jul-06	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.16
29-Jul-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
30-Jul-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.17
31-Jul-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	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	0.18
Hourly Max	0.38	0.40	0.39	0.40	0.39	0.38	0.39	0.40	0.40	0.39	0.44	0.48	0.49	0.48	0.48	0.46	0.41	0.34	0.30	0.31	0.32	0.32	0.32	0.35	

PASZA - Henry Pirker - Total Hydrocarbons Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

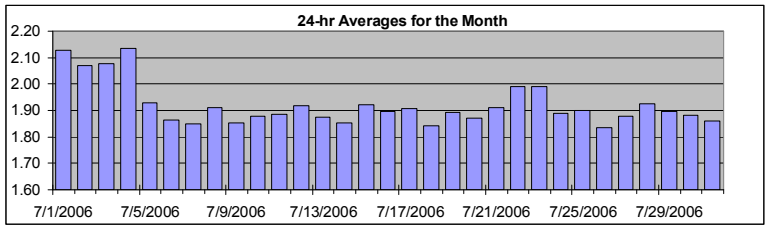
Total Hydrocarbons (THC)

Monitoring Dates: July 1, 2006 to August 1, 2006

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

Summary

Maximum 1-hr Average:	3.3	ppm	15-Jul	5:00 6:00
Maximum 24-hr Value:	2.1	ppm	4-Jul	



AIC Time:	32 hrs	Operational Time:	703 hrs
Calibration Time:	7 hrs	AMD Operational Uptime:	99.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	2.5	2.2	1.9	1.9	1.8	1.8	1.8	1.9 ppm	1.9 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-Jul-06	2.6	2.6	2.3	2.3	2.3	2.4	2.4	2.3	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	A	2.0	2.3	2.4	2.13	2.61
2-Jul-06	2.4	2.3	2.3	2.3	2.2	2.4	2.2	2.1	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	2.1	2.07	2.37
3-Jul-06	2.1	2.2	2.2	2.3	2.2	2.3	2.3	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	A	1.9	2.0	2.2	2.1	2.2	2.08	2.34
4-Jul-06	2.2	2.1	2.2	2.4	2.5	2.4	2.6	2.5	2.3	2.2	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.0	2.0	2.13	2.61
5-Jul-06	2.1	2.0	2.0	2.0	1.9	A	1.9	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0	1.93	2.15
6-Jul-06	2.0	1.9	1.9	1.9	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.8	1.8	1.8	1.86	1.97
7-Jul-06	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.85	1.89
8-Jul-06	1.9	1.9	1.9	A	2.0	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.8	1.91	2.05
9-Jul-06	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.0	1.9	1.85	1.99
10-Jul-06	1.9	A	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.8	C	C	C	C	A	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.88	1.94
11-Jul-06	1.9	1.9	2.0	2.0	1.9	A	1.9	1.9	1.9	1.9	1.8	1.9	1.8	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.98
12-Jul-06	1.9	1.9	1.9	2.0	A	2.0	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.0	2.0	1.92	2.10
13-Jul-06	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	2.0	1.88	1.95
14-Jul-06	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.85	1.91
15-Jul-06	1.8	1.9	1.9	1.9	A	3.3	2.0	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.8	1.8	1.9	1.9	1.92	3.33
16-Jul-06	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	P	P	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.90	2.03
17-Jul-06	2.0	2.1	2.0	2.1	2.2	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.91	2.16
18-Jul-06	1.8	1.8	1.9	1.9	A	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.84	1.94
19-Jul-06	1.9	1.9	1.9	A	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	C	C	C	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.89	2.02
20-Jul-06	1.8	1.9	2.0	2.0	2.0	A	2.1	2.1	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.87	2.06
21-Jul-06	1.9	1.9	1.8	1.9	A	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.1	2.4	2.5	1.91	2.47
22-Jul-06	2.6	2.4	2.2	A	2.2	2.3	2.1	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.1	2.1	2.2	1.99	2.56
23-Jul-06	2.1	2.3	A	2.6	2.5	2.5	2.6	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.0	1.99	2.59
24-Jul-06	2.0	A	1.9	1.9	2.0	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.2	2.1	1.89	2.21
25-Jul-06	A	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.90	2.09
26-Jul-06	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.9	1.84	1.91
27-Jul-06	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.9	1.8	1.88	2.05
28-Jul-06	1.9	2.0	1.9	1.9	2.1	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.93	2.15
29-Jul-06	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	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.8	1.90	1.97
30-Jul-06	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	A	1.9	1.9	1.9	1.9	2.2	1.88	2.18
31-Jul-06	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.86	1.93
Hourly Avg	1.99	2.00	1.97	2.00	2.04	2.11	2.03	1.99	1.95	1.92	1.89	1.87	1.86	1.85	1.84	1.84	1.83	1.83	1.83	1.84	1.86	1.91	1.95	1.97		
Hourly Max	2.61	2.58	2.32	2.59	2.50	3.33	2.61	2.48	2.30	2.20	2.12	2.03	2.02	1.97	1.95	1.93	1.94	1.96	1.92	1.93	1.97	2.15	2.37	2.47		

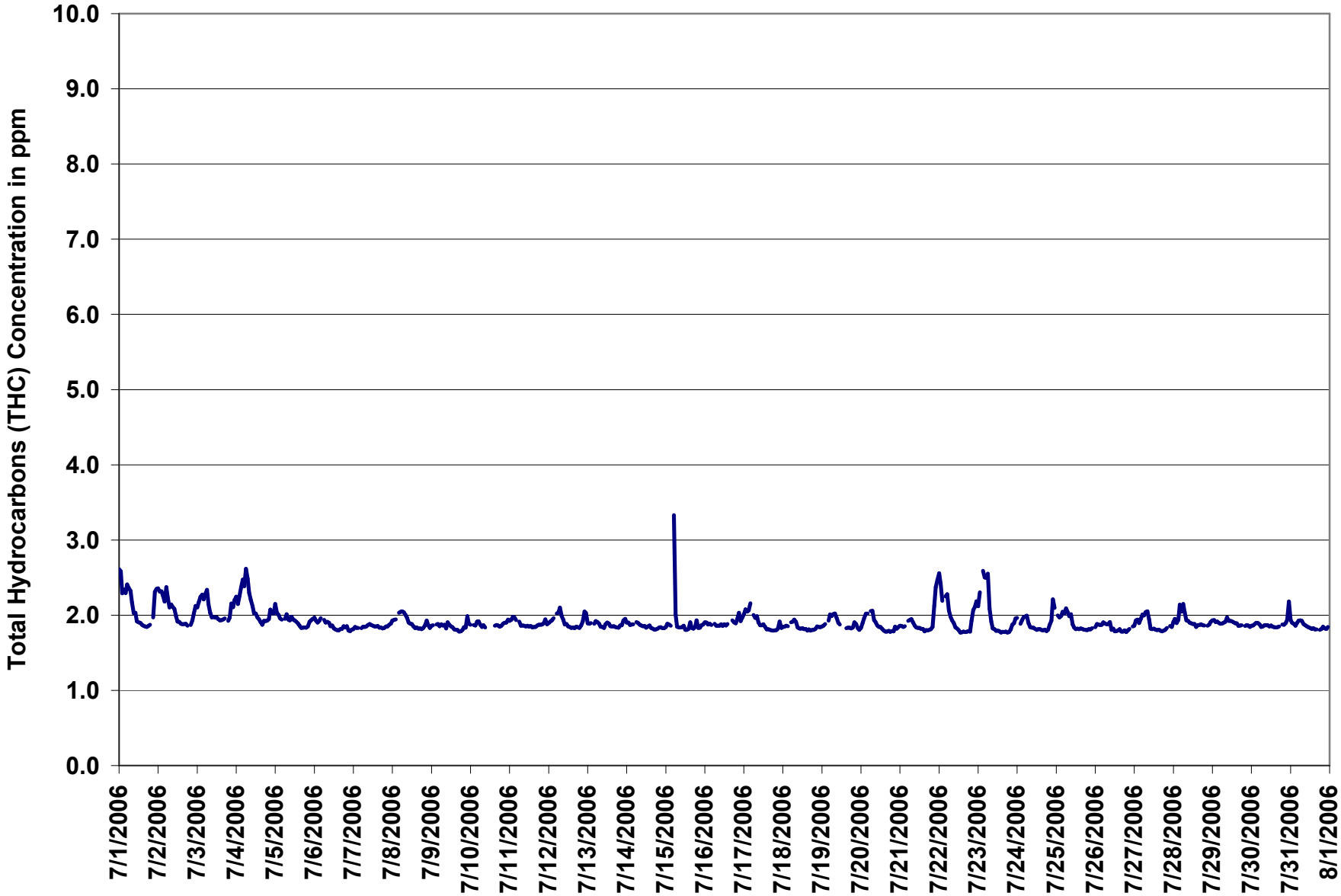


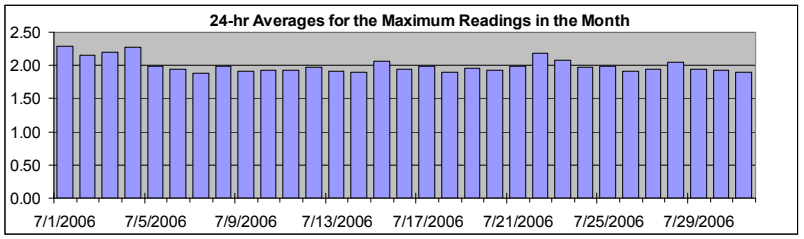
Figure 11. PASZA - Henry Pirker Total Hydrocarbons 1-hr Average Monthly Trend

Station: Henry Pirker
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Total Hydrocarbons (THC)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Value:	3.9	ppm	15-Jul	5:00 6:00
Maximum 24-hr Value:	2.3	ppm	1-Jul	

AIC Time:	32 hrs	Operational Time:	703 hrs
Calibration Time:	7 hrs	AMD Operational Uptime:	99.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	2.8	2.5	2.0	1.9	1.9	1.8	1.8	2.0 ppm	1.9 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-Jul-06	2.8	2.8	2.6	2.5	2.5	2.7	2.4	2.4	2.3	2.1	2.1	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	A	2.0	3.3	2.6	2.28	3.35
2-Jul-06	2.4	2.5	2.4	2.4	2.3	2.6	2.4	2.1	2.4	2.2	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.1	2.3	2.15	2.57
3-Jul-06	2.4	2.3	2.4	2.4	2.4	2.4	2.5	2.3	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.4	2.5	2.2	2.5	2.21	2.51
4-Jul-06	2.3	2.2	2.5	2.5	2.6	2.6	2.8	2.6	2.5	2.3	2.3	2.1	2.0	2.4	2.0	1.9	2.0	2.0	2.0	2.1	2.0	2.6	2.1	2.1	2.27	2.77
5-Jul-06	2.4	2.2	2.1	2.0	2.0	A	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.99	2.35
6-Jul-06	2.0	2.0	1.9	2.1	2.0	A	2.0	1.9	2.0	2.1	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	2.2	1.8	1.8	1.8	1.94	2.23
7-Jul-06	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.95
8-Jul-06	2.0	2.0	2.0	A	2.2	2.1	2.1	2.1	2.1	2.1	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.8	2.1	1.9	2.0	1.9	1.9	1.98	2.17
9-Jul-06	1.9	1.9	A	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.2	2.0	1.92	2.16
10-Jul-06	2.0	A	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	C	C	C	C	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.92	2.03
11-Jul-06	2.0	2.0	2.0	2.0	2.0	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.94	2.10
12-Jul-06	2.0	2.0	2.0	2.0	A	2.1	2.1	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	2.0	2.2	2.2	1.97	2.19
13-Jul-06	1.9	2.0	2.0	A	1.9	2.0	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	2.0	1.9	2.0	2.0	1.92	2.00
14-Jul-06	2.0	1.9	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.89	2.04
15-Jul-06	1.9	1.9	1.9	1.9	A	3.9	2.4	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	2.3	1.9	1.8	2.2	2.8	1.9	1.9	1.9	1.9	2.06	3.91
16-Jul-06	1.9	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	P	P	2.0	1.9	1.9	2.0	2.2	2.0	2.0	1.95	2.16
17-Jul-06	2.1	2.2	2.2	2.2	2.3	A	2.1	2.0	2.2	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	2.1	1.9	1.98	2.31
18-Jul-06	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	2.3	1.9	1.9	1.9	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.90	2.26
19-Jul-06	1.9	1.9	2.0	A	2.0	2.1	2.0	2.1	2.2	2.0	1.9	1.9	C	C	C	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.8	1.96	2.22
20-Jul-06	1.9	1.9	2.1	2.1	2.1	A	2.1	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.93	2.18
21-Jul-06	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	2.4	2.7	2.8	1.99	2.76
22-Jul-06	2.9	2.7	2.6	A	2.4	2.4	2.2	2.0	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.9	1.8	1.8	1.8	1.8	2.7	2.8	2.5	2.9	2.19	2.90
23-Jul-06	2.2	2.4	A	2.7	2.7	2.6	2.7	2.5	2.0	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.0	2.0	2.1	2.07	2.75
24-Jul-06	2.0	A	1.9	2.0	2.1	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	2.0	2.1	2.5	2.4	1.97	2.45
25-Jul-06	A	2.0	2.0	2.1	2.2	2.2	2.2	2.1	2.3	2.3	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	A	1.99	2.31
26-Jul-06	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.2	2.4	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	A	1.9	1.92	2.43
27-Jul-06	1.9	2.0	2.0	1.9	2.1	2.1	2.1	2.1	2.2	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	A	1.9	1.9	1.94	2.17
28-Jul-06	2.0	2.0	2.0	2.1	2.2	2.1	2.2	2.3	2.0	2.1	2.0	1.9	1.9	3.0	1.9	1.9	1.9	2.0	1.9	2.0	A	1.9	1.9	1.9	2.05	2.99
29-Jul-06	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.3	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.95	2.25
30-Jul-06	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.1	2.3	1.93	2.31
31-Jul-06	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.8	1.8	A	1.8	1.9	1.9	1.8	1.9	1.9	1.90	1.98
Hourly Avg	2.08	2.08	2.05	2.07	2.13	2.22	2.12	2.07	2.05	2.02	1.94	1.92	1.90	1.95	1.88	1.88	1.87	1.88	1.88	1.91	1.96	2.02	2.08	2.07		
Hourly Max	2.90	2.83	2.60	2.75	2.67	3.91	2.77	2.62	2.46	2.43	2.27	2.07	2.05	2.99	2.04	2.26	2.00	2.04	2.23	2.79	2.73	2.76	3.35	2.87		

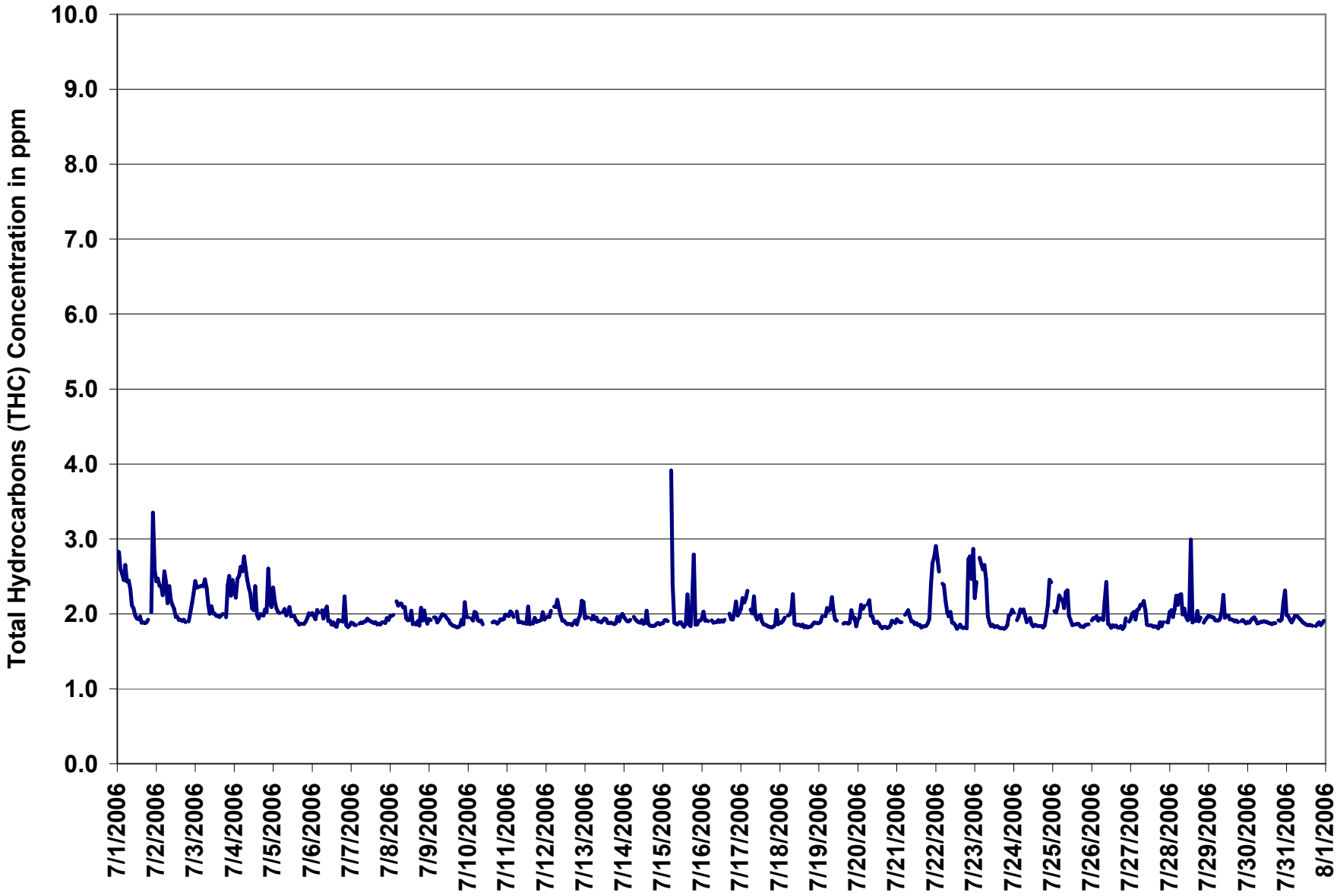
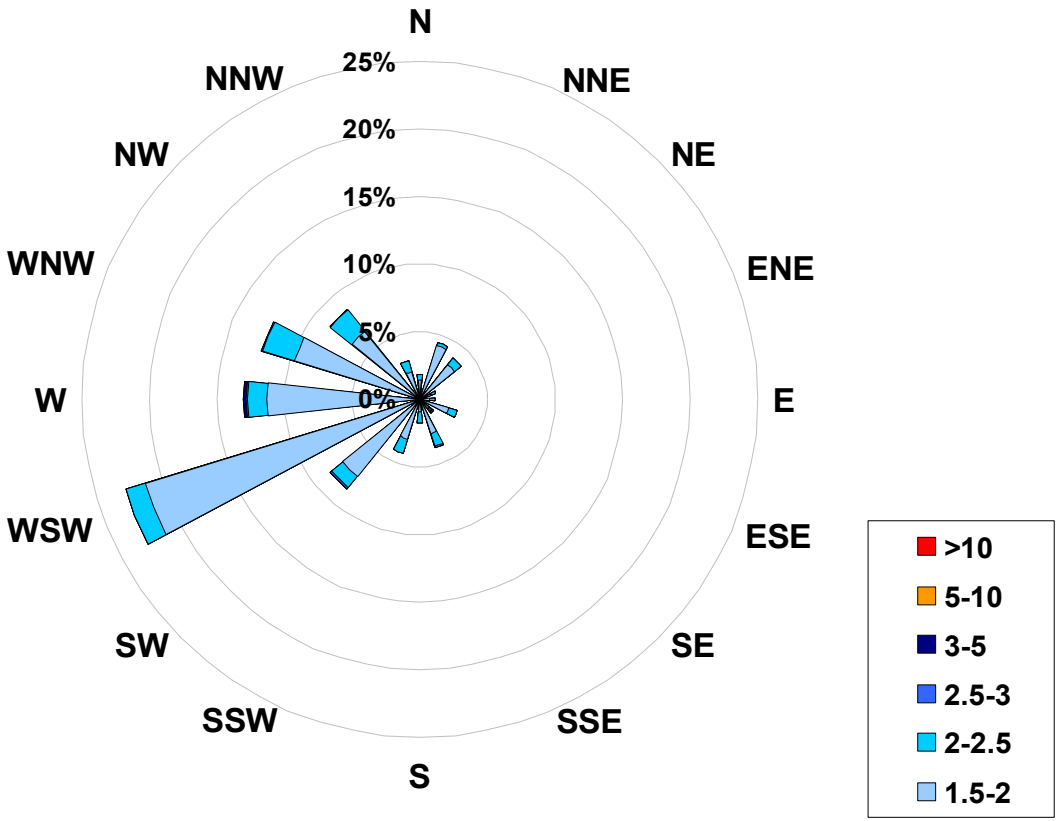


Figure 12. PASZA - Henry Pirker Total Hydrocarbons Instantaneous (30 Second) Maximum Value Monthly Trend

1-hr Average Concentration Rose for Total Hydrocarbons (in ppm)
Located at the Henry Pirker Site for July 2006



Calms:	0%

Frequency Distribution of THC in ppm			
Range			Frequency (hrs)
1.5	<	2	585
2	to	2.5	110
2.5	to	3	7
3	to	5	1
5	to	10	0
	>	10	0
Total Non-Zero Values			703

PASZA - Henry Pirker - Total Reduced Sulphur Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

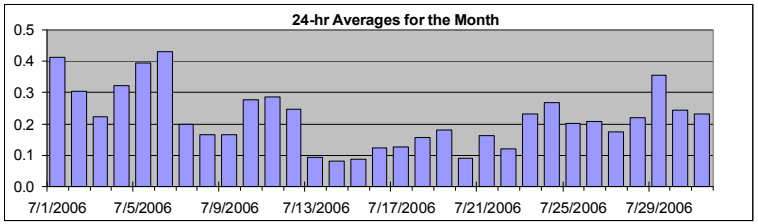
Total Reduced Sulphur (TRS)

Monitoring Dates: July 1, 2006 to August 1, 2006

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

Summary

Maximum 1-hr Average:	0.9	ppb	1-Jul	1:00 2:00
Maximum 24-hr Value:	0.4	ppb	6-Jul	



AIC Time:	32 hrs	Operational Time:	703 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	99.6%

Percentile	99	95	75	50	25	5	1	Average	Median
	0.6	0.5	0.3	0.2	0.1	0.0	0.0	0.2 ppb	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-Jul-06	1	1	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.4	0.9
2-Jul-06	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	0.6
3-Jul-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.4
4-Jul-06	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
5-Jul-06	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.4	0.6
6-Jul-06	1	0	0	0	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.7
7-Jul-06	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
8-Jul-06	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.4
9-Jul-06	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
10-Jul-06	0	A	0	0	0	0	0	0	0	0	0	M	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4
11-Jul-06	0	0	0	1	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6
12-Jul-06	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6
13-Jul-06	0	0	0	A	0	0	0	0	0	0	C	C	C	C	A	0	0	0	0	0	0	0	0	0	0.1	0.3
14-Jul-06	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
15-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
16-Jul-06	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	P	P	0	0	0	0	0	0	0	0.1	0.3
17-Jul-06	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	0.3
18-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
19-Jul-06	0	0	0	A	0	1	1	0	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.5
20-Jul-06	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
21-Jul-06	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	0.5
22-Jul-06	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
23-Jul-06	0	0	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
24-Jul-06	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.5
25-Jul-06	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	0.4
26-Jul-06	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	0.5
27-Jul-06	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.2	0.6
28-Jul-06	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
29-Jul-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.4	0.5
30-Jul-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.2	0.4
31-Jul-06	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.6
Hourly Avg	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2		
Hourly Max	0.7	0.9	0.6	0.6	0.6	0.7	0.7	0.8	0.7	0.6	0.5	0.5	0.4	0.5	0.5	0.4	0.4	0.3	0.5	0.5	0.4	0.4	0.6	0.6		

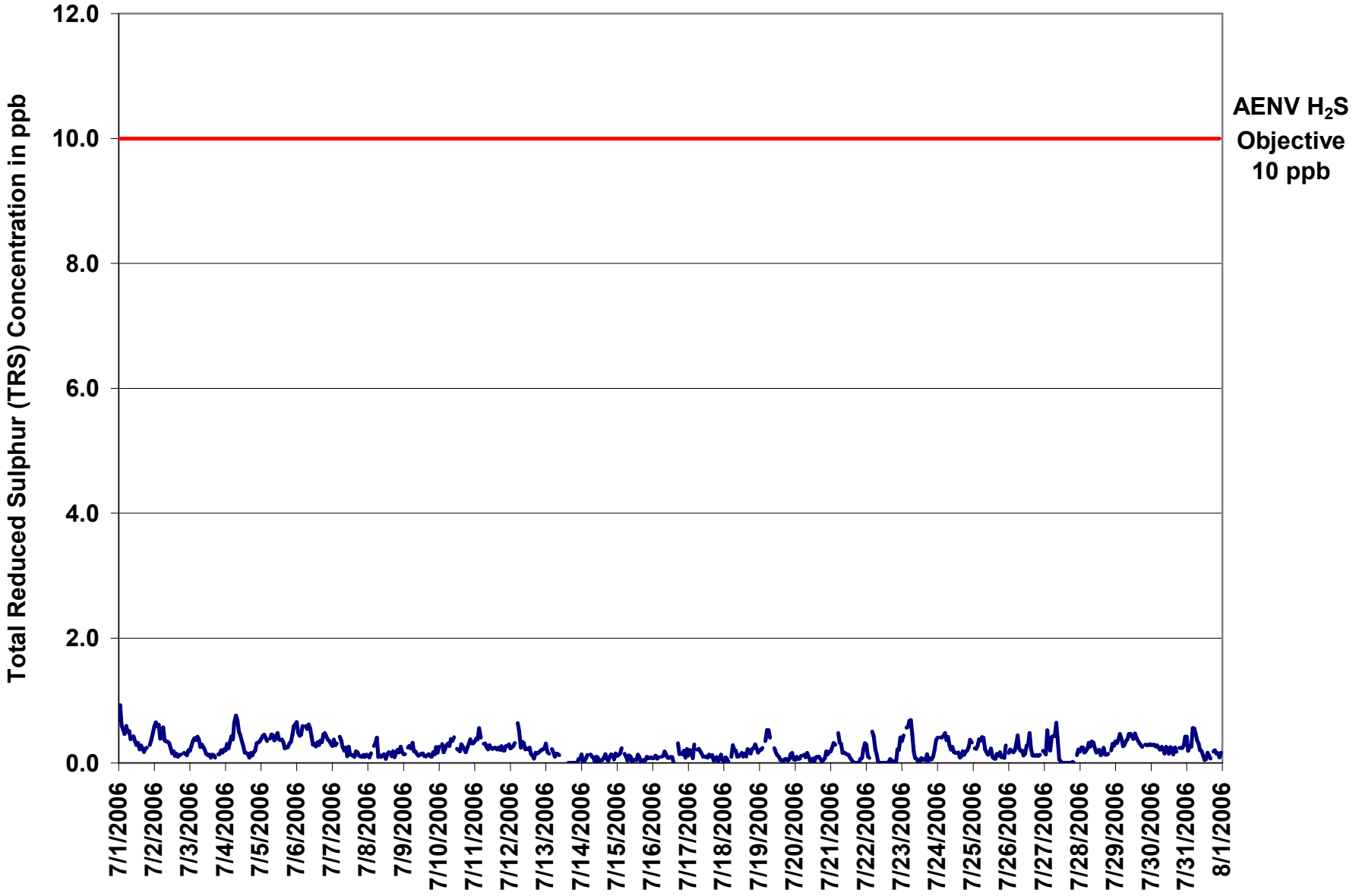


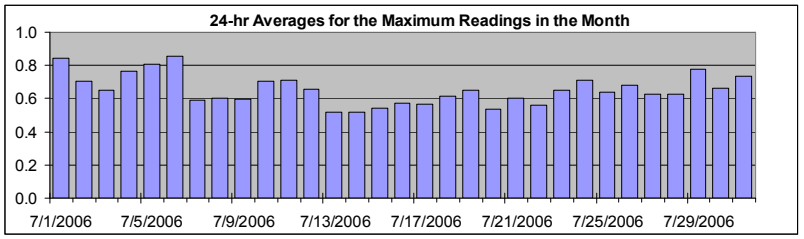
Figure 13. PASZA - Henry Pirker Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Henry Pirker
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Total Reduced Sulphur (TRS)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Value:	1.7	ppb	1-Jul	1:00 2:00
Maximum 24-hr Value:	0.9	ppb	6-Jul	

AIC Time:	32 hrs	Operational Time:	703 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	99.6%

Percentile	99	95	75	50	25	5	1	Average	Median
	1.2	1.0	0.8	0.6	0.5	0.4	0.3	0.7 ppb	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-Jul-06	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	1.7
2-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	A	1	1	0	1	0.7	1.1
3-Jul-06	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	0	A	1	1	1	1	1	0.6	0.9
4-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	0.8	1.2
5-Jul-06	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.2
6-Jul-06	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	1.2
7-Jul-06	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	0	0	1	0.6	0.8
8-Jul-06	0	1	1	A	1	1	1	0	0	0	1	1	1	0	1	1	0	1	1	1	1	1	1	1	0.6	0.9
9-Jul-06	0	0	A	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	0.6	0.9
10-Jul-06	1	A	1	1	1	1	1	1	1	1	1	M	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
11-Jul-06	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.0
12-Jul-06	1	1	1	1	A	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0.7	1.2
13-Jul-06	1	0	1	A	1	1	1	1	1	1	C	C	C	C	A	0	0	0	0	0	0	1	1	1	0.5	0.8
14-Jul-06	1	1	0	1	1	A	1	0	1	0	0	1	0	0	0	0	0	1	0	0	1	1	0	1	0.5	0.7
15-Jul-06	1	1	1	1	A	1	1	1	0	1	0	0	0	0	1	1	1	0	1	0	1	0	1	1	0.5	0.8
16-Jul-06	1	1	1	0	0	A	1	0	1	0	0	1	1	0	1	P	P	1	0	1	1	1	1	1	0.6	0.8
17-Jul-06	1	1	1	1	1	A	1	1	1	0	0	0	1	1	1	0	1	0	1	1	1	1	1	1	0.6	0.7
18-Jul-06	0	0	0	1	A	1	1	1	1	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	0.6	1.4
19-Jul-06	1	1	1	A	1	1	1	1	C	C	1	1	1	1	0	0	1	0	1	1	0	1	0	0	0.7	1.2
20-Jul-06	1	1	1	1	1	A	1	1	1	0	1	0	0	1	0	1	0	1	1	0	1	1	0	1	0.5	0.8
21-Jul-06	1	1	1	1	A	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	1	0	1	1	0.6	1.0
22-Jul-06	1	0	1	A	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1	0.6	1.1
23-Jul-06	1	1	A	1	1	1	1	1	1	0	0	0	0	0	1	0	1	0	0	1	0	0	1	1	0.6	1.1
24-Jul-06	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0.7	1.2
25-Jul-06	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0	1	0	1	A	0.6	1.0
26-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	A	1	0.7	1.0
27-Jul-06	1	0	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	1	A	0	1	0.6	1.2
28-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	A	1	1	1	0.6	0.8
29-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	0.9
30-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	0.9
31-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	A	1	1	1	0	0	1	0.7	1.2
Hourly Avg	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.7		
Hourly Max	1.2	1.7	1.1	1.2	1.2	1.2	1.4	1.2	1.2	1.1	0.9	0.9	0.8	0.9	1.0	0.9	0.9	0.8	1.1	0.8	0.8	1.1	1.1	1.2		

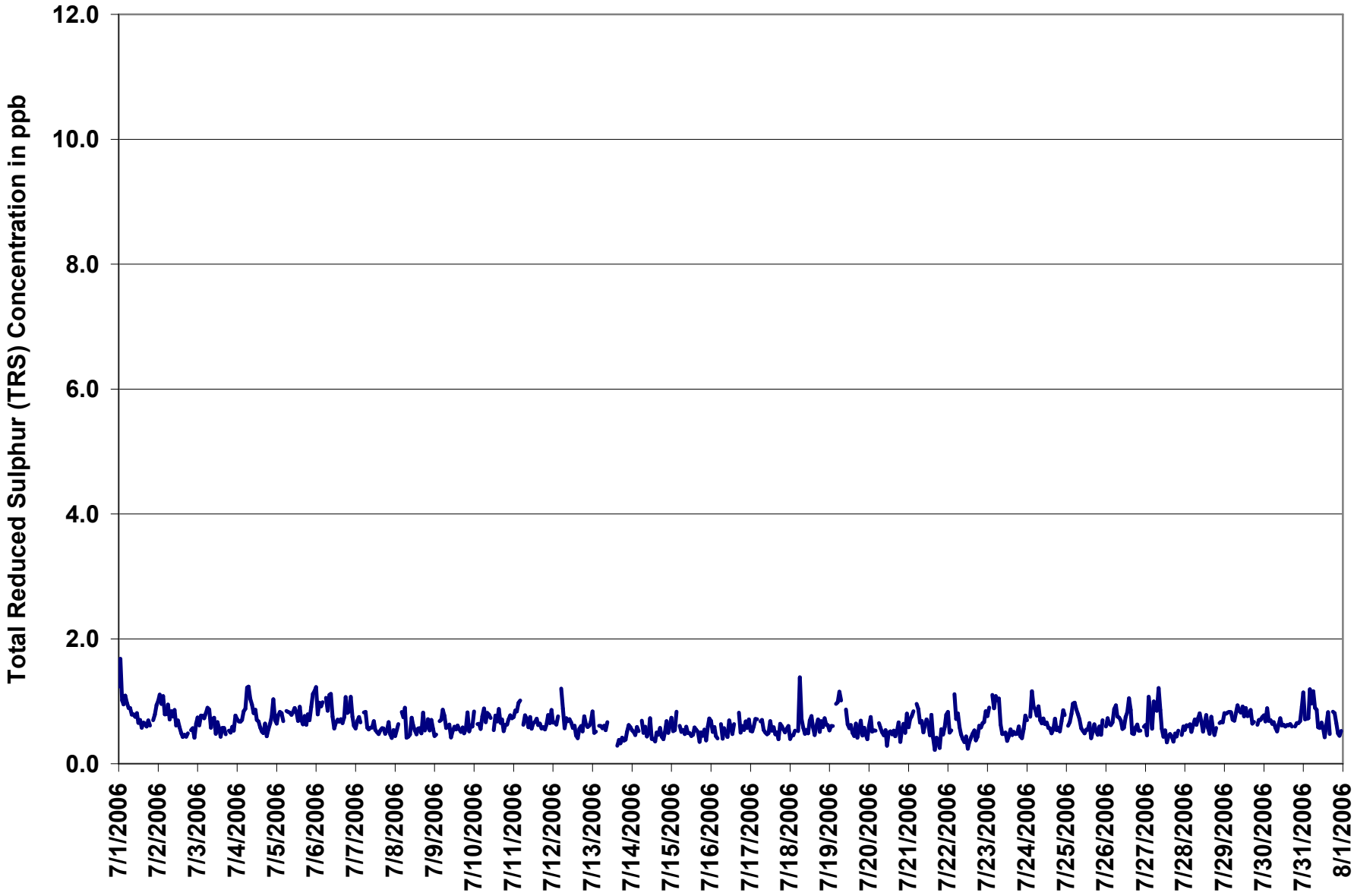
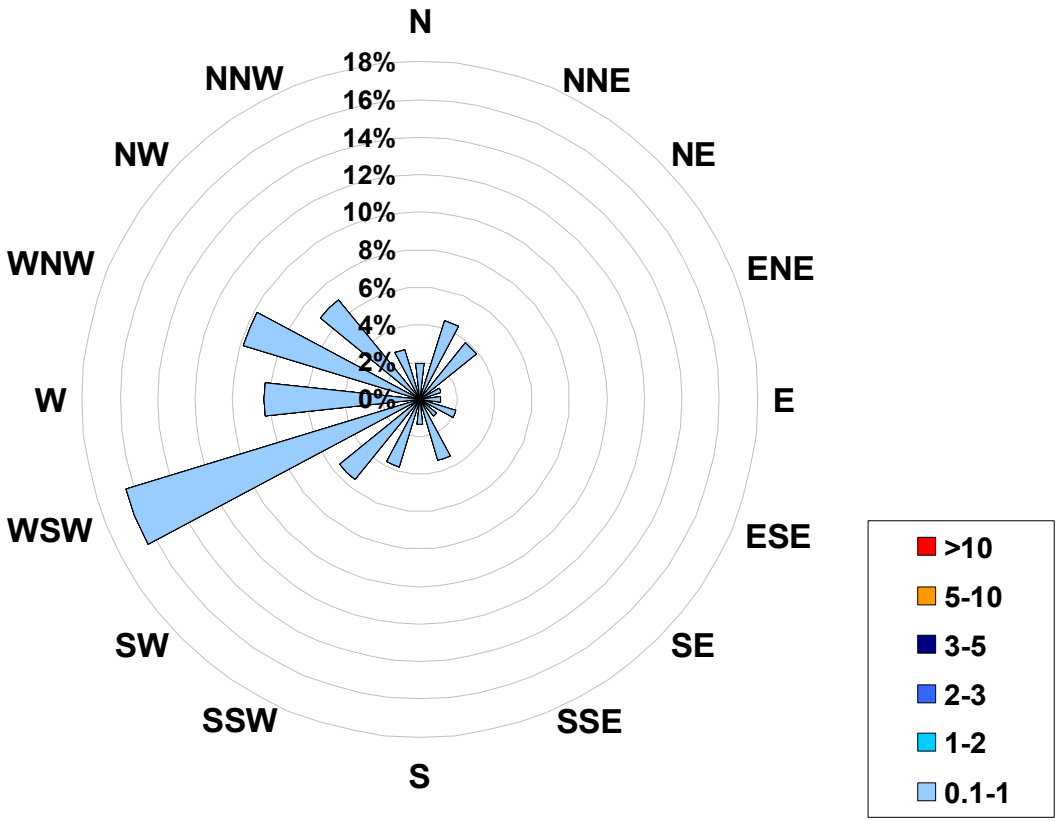


Figure 14. PASZA - Henry Pirker Total Reduced Sulphur Instantaneous (30 Second) Maximum Value Monthly Trend

1-hr Average Concentration Rose for Total Reduced Sulphur (in ppb)
Located at the Henry Pirker Site for July 2006



Calms:	0%

Frequency Distribution of TRS in ppb			
Range			Frequency (hrs)
0.1	<	1	703
1	to	2	0
2	to	3	0
3	to	5	0
5	to	10	0
	>	10	0
Total Non-Zero Values			703

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

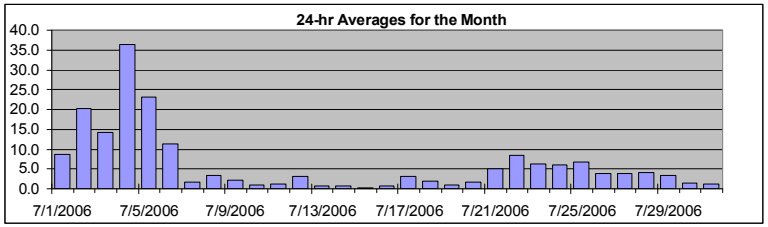
Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Particulate Matter ($PM_{2.5}$)

Monitoring Dates: July 1, 2006 to August 1, 2006

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



Summary

Number of 24-hr Exceedances (draft):	1			
Maximum 1-hr Average:	69.4	µg/m³	2-Jul	10:00 11:00
Maximum 24-hr Value:	36.4	µg/m³	4-Jul	

AIC Time:	0 hrs	Operational Time:	720 hrs
Calibration Time:	9 hrs	AMD Operational Uptime:	98.0%

Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	46.8	26.7	6.5	2.9	0.7	0.0	0.0	6.2 / 3 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-Jul-06	9	12	13	18	11	15	14	13	5	3	6	1	2	1	0	1	5	4	2	5	7	9	22	32	8.7	31.6
2-Jul-06	51	36	22	11	6	9	6	22	55	68	69	35	13	11	5	5	8	21	9	5	4	4	6	7	20.3	69.4
3-Jul-06	10	10	10	4	5	9	9	8	8	10	13	8	10	7	4	9	9	14	18	22	32	40	37	36	14.2	39.5
4-Jul-06	36	29	35	38	30	34	35	40	36	33	51	57	63	47	40	28	22	32	22	27	29	46	32	31	36.4	63.4
5-Jul-06	32	34	19	26	24	23	24	24	22	18	24	31	24	22	20	18	16	17	16	23	23	22	23	29	23.1	34.3
6-Jul-06	23	20	19	22	20	18	13	10	9	7	4	10	5	2	8	6	6	10	13	8	20	D	3	4	11.3	22.6
7-Jul-06	6	5	3	5	5	0	0	D	D	0	0	D	D	0	0	0	0	0	2	1	2	2	1	2	1.8	6.5
8-Jul-06	1	2	2	3	5	4	4	4	4	0	7	5	4	5	4	5	0	2	5	2	0	6	8	1	3.5	8.2
9-Jul-06	1	1	1	0	1	0	0	1	1	0	0	8	3	D	0	0	4	1	0	10	12	6	4	0	2.3	11.6
10-Jul-06	0	2	0	0	0	1	3	0	2	2	2	0	0	0	3	2	3	0	0	4	0	0	0	0	1.0	3.6
11-Jul-06	0	0	0	0	0	0	0	1	2	0	0	1	1	0	0	0	0	3	1	1	12	3	3	1	1.3	11.5
12-Jul-06	0	1	2	3	0	4	2	5	6	1	2	0	0	3	5	6	5	8	5	5	6	3	7	1	3.2	8.4
13-Jul-06	0	3	0	0	0	3	0	D	0	D	0	D	0	3	D	D	0	0	0	0	2	0	2	1	0.8	3.2
14-Jul-06	0	0	0	0	0	0	0	2	0	0	0	0	0	0	D	0	0	0	0	3	3	4	2	1	0.7	3.9
15-Jul-06	1	0	0	0	0	0	0	1	0	0	0	0	D	0	C	C	C	C	0	0	0	1	0	0	0.2	1.4
16-Jul-06	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	P	P	1	0	0	3	1	3	2	0.8	5.5
17-Jul-06	3	3	3	2	2	2	5	12	10	4	2	2	2	4	3	2	3	3	1	0	2	2	0	1	3.1	12.0
18-Jul-06	1	1	0	1	1	3	4	6	5	1	1	1	2	3	2	2	2	1	3	2	2	2	1	0	2.0	5.8
19-Jul-06	0	0	0	0	1	3	3	4	3	C	C	C	C	C	0	1	0	0	0	0	1	2	0	0	1.0	3.9
20-Jul-06	2	1	0	1	3	5	4	4	2	2	0	0	0	0	0	0	1	1	1	2	2	4	4	3	1.7	4.6
21-Jul-06	2	2	2	2	3	4	6	8	6	5	2	1	2	0	1	3	3	1	1	5	9	10	15	25	5.0	25.0
22-Jul-06	17	10	7	6	19	21	11	10	11	6	5	4	1	0	0	1	1	2	3	6	11	22	13	20	8.5	22.1
23-Jul-06	16	10	5	4	7	10	8	9	8	2	1	0	1	1	1	1	3	3	3	7	10	13	12	13	6.2	15.5
24-Jul-06	11	8	5	4	5	4	7	7	4	4	3	2	0	0	0	2	2	3	4	4	13	12	17	22	6.0	22.5
25-Jul-06	10	6	4	4	6	12	12	18	14	12	9	5	5	4	4	4	4	5	3	3	4	5	5	4	6.8	18.4
26-Jul-06	4	4	3	5	5	7	9	10	8	5	5	6	4	7	2	0	0	1	1	1	1	2	2	2	3.9	10.4
27-Jul-06	2	2	3	5	4	5	5	15	10	5	0	0	0	0	1	1	2	1	1	3	5	12	4	3	3.8	15.3
28-Jul-06	3	4	1	2	3	4	5	8	5	5	3	4	5	2	2	6	6	5	4	4	5	3	4	4	4.0	7.9
29-Jul-06	3	3	1	1	1	3	4	6	7	7	6	7	4	5	6	4	2	2	3	1	1	2	1	1	3.4	6.7
30-Jul-06	1	1	2	1	3	2	1	0	0	1	0	1	1	0	1	2	2	1	3	3	2	2	3	4	1.5	4.1
31-Jul-06	1	0	0	0	1	1	2	3	2	2	1	0	1	4	0	1	2	0	0	3	1	0	1	1	1.1	3.9
Hourly Avg	8.0	6.7	5.5	5.6	5.5	6.6	6.3	8.7	8.1	6.9	7.2	6.8	5.5	4.6	4.1	3.9	3.8	4.8	4.0	5.2	7.2	8.0	7.5	8.0		
Hourly Max	51.2	35.7	35.2	38.2	29.8	33.9	34.6	40.5	54.9	67.8	69.4	57.3	63.4	47.1	39.8	28.3	22.1	32.1	22.0	26.7	31.9	45.7	36.8	35.6		

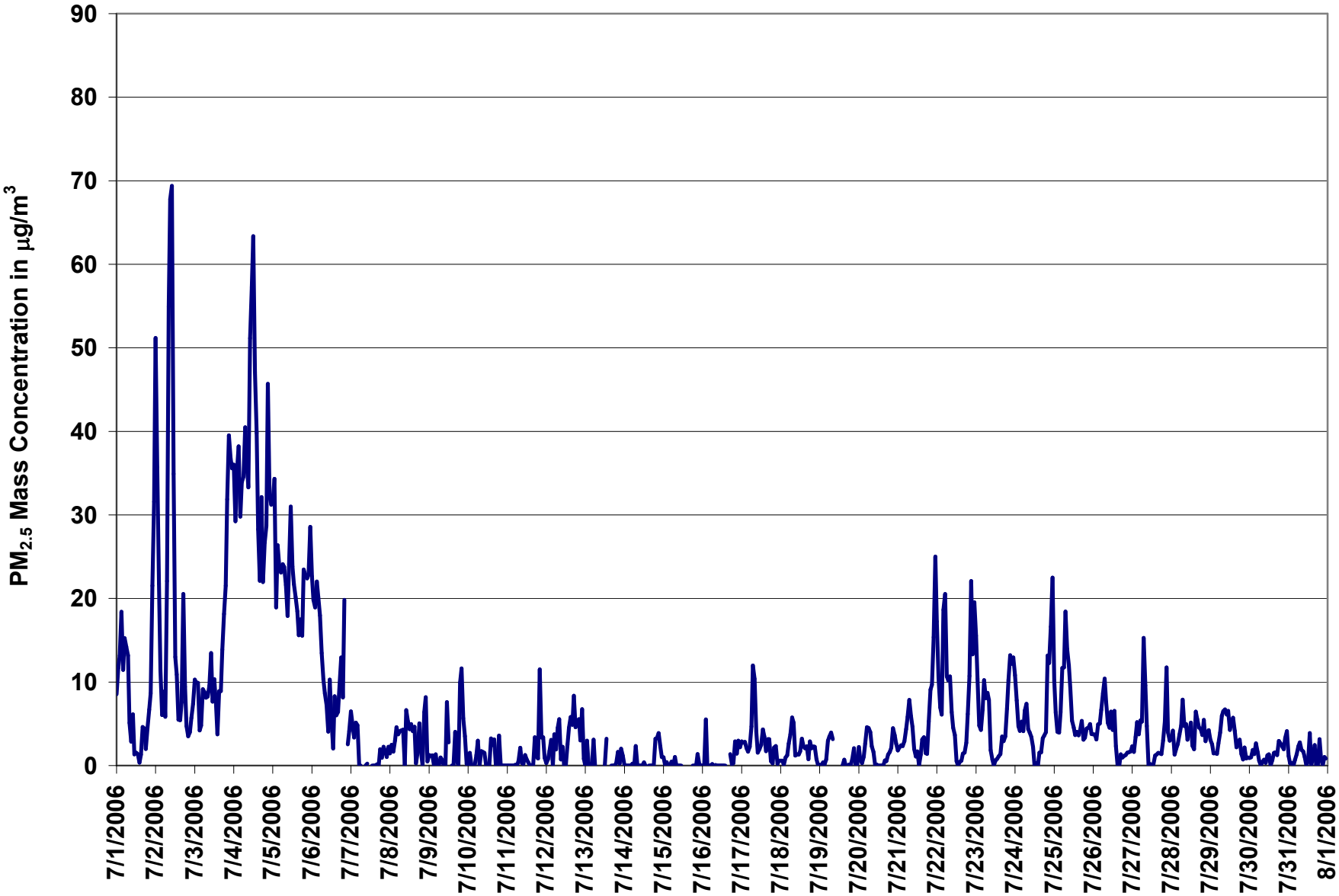


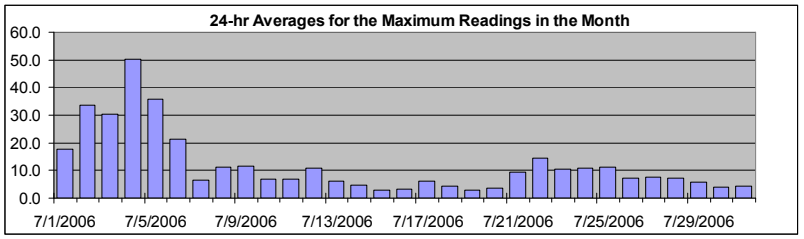
Figure 15. PASZA - Henry Pirker Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Henry Pirker
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Particulate Matter ($PM_{2.5}$)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Average:	112.9	µg/m³	3-Jul	21:00 22:00
Maximum 24-hr Value:	50.3	µg/m³	4-Jul	

AIC Time:	0 hrs	Operational Time:	720 hrs
Calibration Time:	9 hrs	AMD Operational Uptime:	98.0%

Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	73.2	41.5	13.6	6.7	3.9	1.6	0.7	12.1 / 7 µg/m³	8.7 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-Jul-06	12	15	20	32	21	20	21	18	11	8	15	7	5	8	6	7	13	12	5	8	10	12	62	75	17.7	75.1
2-Jul-06	67	57	33	25	10	14	13	33	103	77	77	55	23	19	14	13	12	66	35	10	5	7	9	29	33.6	103.1
3-Jul-06	35	28	22	16	21	17	19	13	11	15	20	14	25	17	12	17	14	22	34	36	71	113	91	47	30.3	112.9
4-Jul-06	47	42	66	55	46	52	54	57	49	39	73	64	73	57	57	37	43	60	27	31	38	66	40	35	50.3	73.3
5-Jul-06	76	56	41	35	34	37	29	30	31	27	31	60	36	45	34	34	20	34	24	33	27	25	26	31	35.7	76.2
6-Jul-06	25	22	21	29	24	20	26	17	16	25	27	23	17	24	42	19	11	16	21	13	39	D	8	9	21.4	42.3
7-Jul-06	10	8	7	7	10	3	5	D	D	5	7	D	D	10	3	7	7	6	5	6	6	5	5	7	6.5	10.4
8-Jul-06	5	6	7	9	16	15	12	8	10	5	17	14	13	12	12	13	9	14	16	10	5	13	18	7	11.1	17.6
9-Jul-06	7	3	5	3	9	3	4	10	8	8	12	18	25	D	10	8	22	18	6	30	32	16	6	4	11.5	31.9
10-Jul-06	1	7	7	2	1	5	7	7	8	13	11	6	5	16	11	13	16	8	5	6	2	1	1	2	6.7	16.1
11-Jul-06	2	2	0	0	0	4	4	4	5	5	6	7	5	6	6	9	7	12	3	4	29	19	14	13	6.9	29.1
12-Jul-06	3	6	3	6	2	11	6	11	16	12	11	9	8	13	14	17	15	18	24	20	17	8	10	2	11.0	24.5
13-Jul-06	2	12	12	4	3	10	6	D	7	D	8	D	8	8	D	D	6	4	4	7	5	4	4	5	6.2	11.6
14-Jul-06	2	1	1	1	2	3	5	6	3	6	7	4	7	5	D	9	7	6	4	9	7	8	5	4	4.8	9.1
15-Jul-06	3	3	3	2	2	4	3	5	4	5	3	5	D	5	C	C	C	C	0	1	1	3	1	1	2.9	5.2
16-Jul-06	1	0	29	0	1	2	1	1	1	2	1	1	1	1	1	P	P	4	2	2	6	4	5	4	3.2	29.0
17-Jul-06	5	6	5	4	3	4	7	22	19	7	4	4	4	12	5	4	6	6	2	2	5	5	2	2	6.1	22.5
18-Jul-06	2	2	2	3	3	4	6	8	7	3	4	4	3	7	5	7	6	4	9	5	4	4	3	1	4.3	9.0
19-Jul-06	2	2	2	2	3	5	5	6	5	C	C	C	C	C	1	3	2	1	2	2	3	4	7	3	3.0	7.0
20-Jul-06	5	3	2	3	4	6	6	6	5	5	3	1	2	2	3	1	2	3	3	3	4	7	5	5	3.6	7.0
21-Jul-06	4	3	4	5	5	6	8	11	9	7	4	5	5	2	11	12	13	6	5	10	14	13	28	40	9.5	40.0
22-Jul-06	28	15	16	11	28	23	18	13	13	10	10	10	4	2	3	3	4	3	5	9	23	38	19	34	14.3	37.7
23-Jul-06	28	19	9	11	10	14	13	12	12	6	3	2	3	4	4	6	7	9	6	11	17	17	16	17	10.6	28.0
24-Jul-06	15	14	7	6	8	6	11	11	6	9	7	9	2	4	3	4	4	6	6	8	19	24	24	49	10.9	48.7
25-Jul-06	24	9	5	6	9	17	16	33	22	15	13	10	7	7	9	8	8	9	5	7	10	8	6	6	11.2	33.0
26-Jul-06	5	6	5	13	7	9	11	13	11	8	9	18	10	17	7	2	2	4	3	3	2	3	3	3	7.3	17.7
27-Jul-06	4	3	6	7	6	8	8	28	24	11	3	2	2	4	5	3	3	4	4	6	7	23	8	5	7.5	28.3
28-Jul-06	7	10	4	5	5	5	8	11	6	8	5	6	7	6	8	11	11	7	7	8	11	6	6	6	7.2	11.4
29-Jul-06	5	4	3	4	3	5	6	9	9	8	8	9	7	7	8	6	5	5	6	6	2	5	2	2	5.6	9.4
30-Jul-06	3	3	4	4	5	3	5	2	2	3	3	4	4	3	6	5	6	4	5	6	4	4	5	6	4.1	5.9
31-Jul-06	3	2	2	2	2	3	4	4	3	3	3	2	3	13	8	10	10	4	1	8	4	2	3	2	4.3	12.6
Hourly Avg	14.1	11.9	11.4	9.9	9.8	10.9	11.1	14.0	14.6	12.1	13.5	13.4	11.2	11.6	11.1	10.2	10.0	12.4	9.2	10.3	13.9	15.5	14.3	14.7		
Hourly Max	76.2	57.2	65.8	55.3	45.6	51.8	53.6	56.9	103.1	77.2	77.5	64.0	73.3	57.5	56.9	37.2	42.9	66.3	34.6	35.7	70.8	112.9	91.1	75.1		

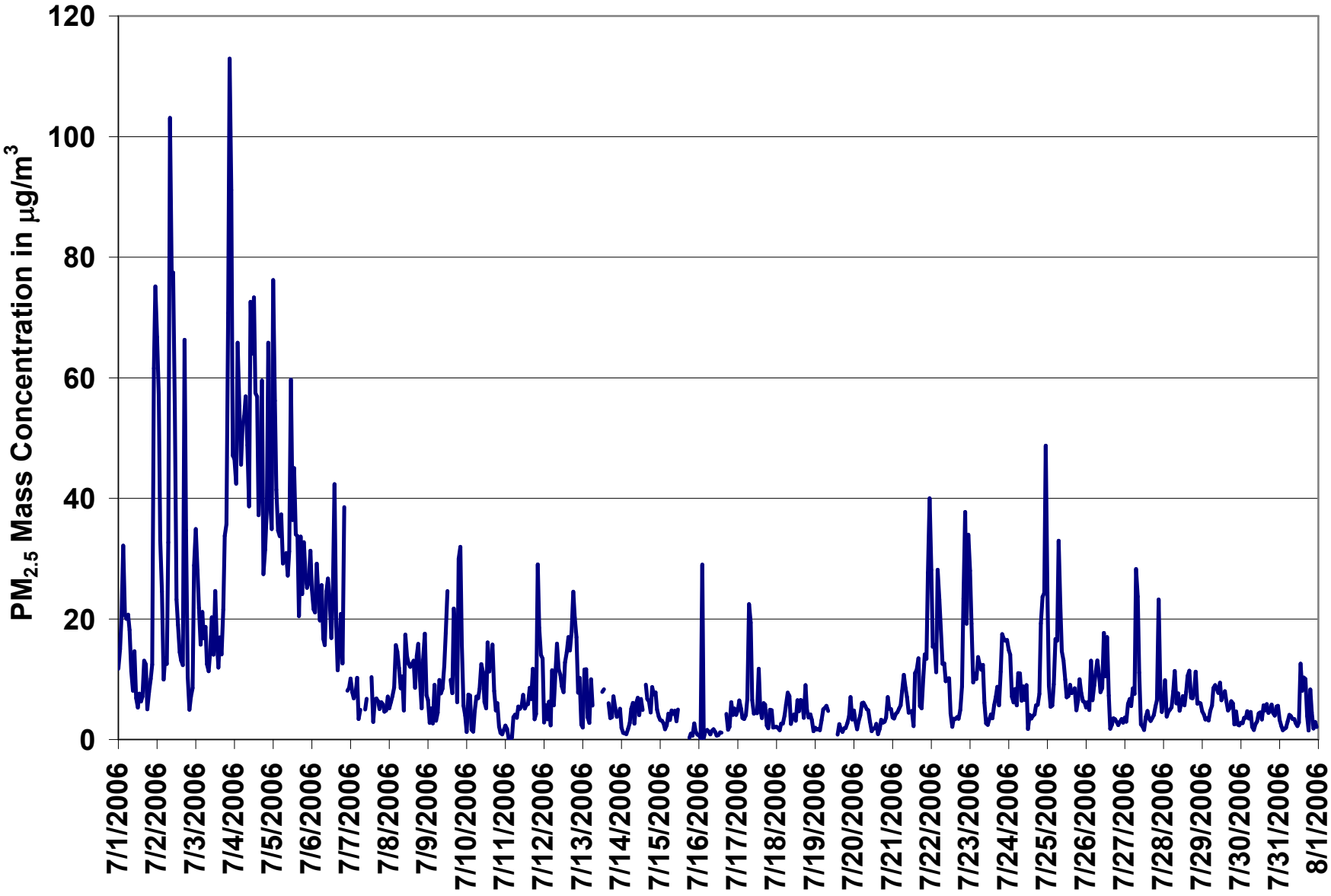
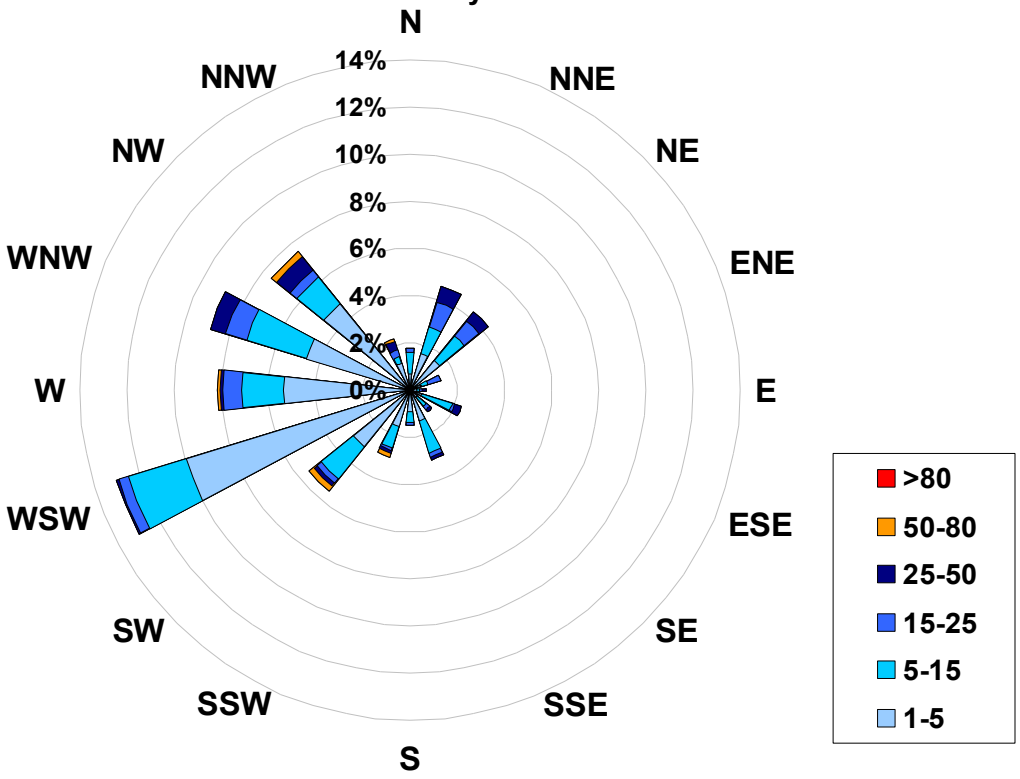


Figure 16. PASZA - Henry Pirker Particulate Matter (less than 2.5 microns) Instantaneous (30 Second) Maximum Value Monthly Trend

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 July 2006



Calms:	0%

Frequency Distribution of $PM_{2.5}$ in $\mu g/m^3$			
Range			Frequency (hrs)
1.0	<	5	492
5	to	15	142
15	to	25	48
25	to	50	31
50	to	80	7
	>	80	0
Total Non-Zero Values			720

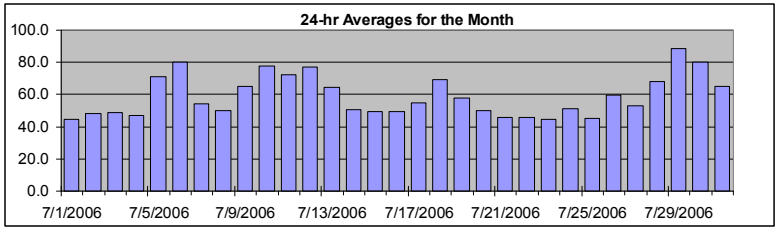
PASZA - Henry Pirker - Relative Humidity Monthly Summary

HOURLY AVERAGE TABLE

Relative Humidity (RH)

Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Average:	95.1	%	6-Jul	5:00 6:00
Maximum 24-hr Value:	88.5	%	29-Jul	

AIC Time:	0 hrs	Operational Time:	742 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	99.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	94.3	91.7	74.4	59.7	41.9	27.0	22.0	59.0 %	59.7 %

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-Jul-06	50	53	57	68	72	75	70	62	51	39	36	31	29	28	26	25	25	26	26	28	33	39	55	70	44.7	75.1
2-Jul-06	73	78	82	82	77	71	67	54	50	42	35	31	23	22	19	15	16	20	40	44	47	50	56	61	48.0	81.8
3-Jul-06	63	68	74	77	80	81	70	62	56	50	45	40	32	29	24	24	24	28	34	29	32	46	50	55	48.7	80.6
4-Jul-06	60	57	63	72	80	77	74	66	58	50	41	37	33	27	21	19	18	29	32	31	35	48	49	55	47.1	80.4
5-Jul-06	60	69	71	74	78	80	85	85	79	67	66	71	70	62	60	60	60	60	61	64	72	79	83	87	71.0	86.7
6-Jul-06	87	88	89	91	94	95	95	93	92	87	74	69	62	55	60	60	63	65	71	74	78	93	93	92	80.0	95.1
7-Jul-06	92	91	88	87	87	82	78	65	56	51	50	42	35	34	33	32	31	32	32	34	38	40	45	52	54.5	92.1
8-Jul-06	57	60	67	72	79	78	67	57	50	39	36	35	33	35	36	36	36	37	40	42	44	50	57	64	50.2	78.7
9-Jul-06	67	72	76	77	81	80	78	72	65	58	53	57	62	56	51	48	49	50	50	59	67	76	79	80	65.1	80.8
10-Jul-06	83	83	86	86	86	87	89	89	87	80	76	68	68	61	63	64	69	69	68	74	80	80	83	85	77.7	89.5
11-Jul-06	90	90	90	89	88	87	81	74	73	71	69	64	58	55	53	48	47	52	55	57	75	82	87	93	72.0	92.6
12-Jul-06	94	94	94	95	95	95	94	87	81	71	66	63	51	50	52	57	57	69	69	74	79	83	88	91	77.0	95.1
13-Jul-06	90	90	92	94	95	95	88	78	74	63	54	46	48	51	47	44	40	38	39	43	50	54	62	67	64.3	94.5
14-Jul-06	67	67	68	69	71	70	64	57	50	47	45	43	41	39	37	33	33	32	32	34	42	49	55	61	50.3	71.3
15-Jul-06	65	69	72	73	71	71	67	63	57	49	43	38	34	30	29	29	29	28	33	36	40	47	53	56	49.2	73.1
16-Jul-06	60	63	63	67	70	71	69	59	52	47	41	38	36	34	33	P	P	31	32	33	42	44	47	50	49.2	71.2
17-Jul-06	62	71	71	73	73	69	65	57	50	44	37	37	36	35	41	42	49	56	58	51	58	66	59	59	55.0	72.9
18-Jul-06	62	67	68	66	73	74	69	68	71	63	60	55	53	57	60	60	69	57	65	90	87	90	90	89	69.2	89.9
19-Jul-06	88	90	91	91	91	92	82	75	71	63	55	44	36	32	31	32	33	34	35	37	42	46	53	44	57.8	92.0
20-Jul-06	64	63	71	77	76	73	72	64	53	45	38	36	37	34	32	31	32	32	33	36	41	48	53	58	50.0	76.9
21-Jul-06	58	61	62	64	64	65	60	55	49	45	41	37	34	30	30	28	26	26	25	30	39	51	57	64	45.8	64.8
22-Jul-06	70	66	69	71	79	77	65	57	50	40	35	32	27	25	23	22	22	22	23	30	41	50	46	57	45.8	78.8
23-Jul-06	67	75	77	75	77	79	70	53	43	35	31	29	26	25	24	23	23	23	24	26	34	43	47	47	44.8	79.3
24-Jul-06	57	67	71	76	76	79	76	66	58	54	50	45	38	36	31	31	29	30	32	33	39	45	49	56	51.0	78.7
25-Jul-06	58	61	63	65	68	68	63	54	45	41	35	29	27	26	29	27	27	34	35	38	41	46	51	57	45.4	68.2
26-Jul-06	61	66	68	67	68	74	65	64	56	51	48	60	64	73	72	57	47	46	47	47	51	55	58	65	59.7	73.6
27-Jul-06	70	74	78	77	78	78	78	76	69	58	41	37	33	31	32	30	29	29	28	29	35	53	60	64	52.8	78.1
28-Jul-06	72	78	82	87	91	91	87	86	82	78	74	67	54	49	42	46	47	48	50	51	59	64	70	74	67.9	90.7
29-Jul-06	78	80	81	84	83	83	87	86	91	92	89	92	94	94	92	92	92	94	92	90	89	90	90	92	88.5	93.7
30-Jul-06	93	93	93	93	92	93	93	92	92	90	86	79	75	66	59	60	60	58	64	68	75	81	83	87	80.2	93.3
31-Jul-06	86	85	84	82	82	82	79	73	68	62	56	50	49	56	52	61	58	59	44	51	60	56	57	60	64.8	86.0
Hourly Avg	71.1	73.9	76.2	78.0	79.9	79.7	75.7	69.4	63.8	57.1	51.9	48.5	45.1	43.1	41.7	41.2	41.3	42.4	44.2	47.2	53.0	59.5	63.4	67.3		
Hourly Max	93.9	93.8	94.2	94.5	95.0	95.1	94.9	93.4	92.1	91.8	89.3	92.2	93.5	93.7	92.4	91.7	91.8	93.7	91.9	89.8	88.6	93.2	92.6	92.6		

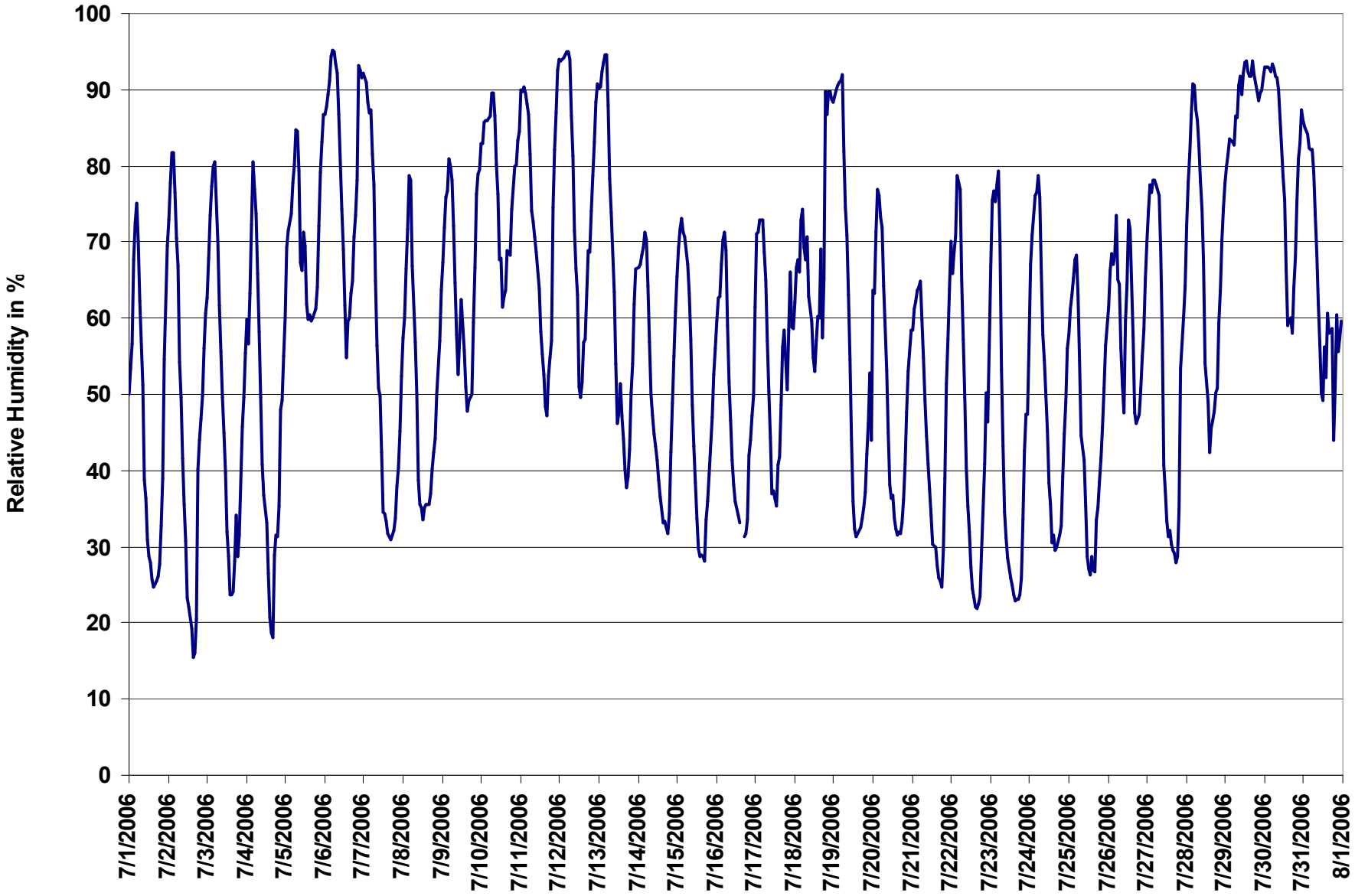


Figure 17. PASZA - Henry Pirker Relative Humidity 1-hr Average Monthly Trend

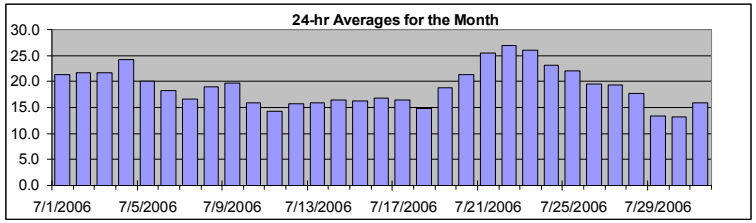
PASZA - Henry Pirker - Temperature Monthly Summary

HOURLY AVERAGE TABLE

Ambient Temperature (T)

Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Average:	35.1	°C	22-Jul	15:00 16:00
Maximum 24-hr Value:	27.0	°C	22-Jul	

AIC Time:	0 hrs	Operational Time:	742 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	99.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	34.1	30.5	22.5	18.3	14.3	11.0	9.5	19.0 °C	18.3 °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-Jul-06	17	17	16	14	13	12	14	17	20	24	24	26	26	27	27	28	28	28	27	26	25	22	19	16	21.3	27.8
2-Jul-06	15	13	12	12	14	16	16	18	21	24	26	28	30	30	31	32	31	30	24	23	21	20	18	16	21.7	31.7
3-Jul-06	16	15	13	12	11	11	14	17	19	22	24	27	29	30	31	32	31	29	27	27	25	22	20	19	21.7	31.6
4-Jul-06	18	18	16	15	13	13	15	18	20	24	28	30	31	33	34	34	34	32	30	29	27	24	24	23	24.2	34.2
5-Jul-06	22	20	19	18	18	17	16	17	18	21	21	20	22	23	24	23	23	23	23	22	20	19	17	17	20.0	23.7
6-Jul-06	16	16	16	16	16	16	16	16	16	17	20	21	24	25	23	22	21	21	21	20	19	14	14	14	18.3	24.7
7-Jul-06	14	13	13	13	13	14	14	16	16	17	18	19	20	20	20	20	20	19	19	19	18	17	15	13	16.6	19.8
8-Jul-06	12	11	10	9	8	9	12	15	18	20	21	23	25	25	26	27	26	25	25	25	23	22	21	19	19.0	26.8
9-Jul-06	18	17	17	16	16	16	16	18	20	22	22	21	21	22	23	23	24	23	22	21	20	19	18	18	19.6	23.7
10-Jul-06	16	16	15	15	14	14	14	14	15	16	17	19	19	20	20	19	18	17	17	16	14	13	12	11	15.9	20.1
11-Jul-06	10	10	9	9	9	10	11	13	13	14	15	16	18	18	19	20	20	18	18	17	15	14	13	12	14.2	19.8
12-Jul-06	12	12	12	12	12	12	12	14	15	17	18	18	21	21	20	19	19	17	17	16	16	15	15	14	15.7	21.0
13-Jul-06	14	14	13	13	13	12	13	15	15	17	18	18	18	18	18	18	20	20	20	18	16	15	13	12	15.9	20.0
14-Jul-06	12	11	10	10	9	10	11	15	16	17	18	19	20	21	21	22	22	22	22	21	19	17	15	14	16.4	22.3
15-Jul-06	13	12	12	11	11	11	12	14	16	17	18	19	20	21	21	21	21	21	20	18	17	16	14	13	16.2	21.0
16-Jul-06	12	11	11	10	10	10	11	14	16	18	20	21	22	22	23	P	P	23	23	22	20	18	17	16	16.8	23.3
17-Jul-06	13	11	10	10	9	10	12	16	18	21	22	22	22	23	21	21	19	18	17	19	17	15	15	14	16.4	22.6
18-Jul-06	14	13	12	12	10	10	12	13	14	16	17	18	19	18	18	18	17	19	17	13	14	13	13	12	14.8	18.6
19-Jul-06	12	11	11	11	10	10	12	15	16	18	20	23	24	25	25	26	25	25	24	23	22	21	19	20	18.7	25.6
20-Jul-06	17	16	14	13	13	14	15	17	20	22	23	24	25	26	27	28	28	28	28	27	25	23	21	20	21.4	28.0
21-Jul-06	20	19	19	18	18	18	19	22	24	26	28	29	31	31	32	33	33	33	33	31	28	25	23	21	25.5	33.3
22-Jul-06	20	20	19	18	16	17	20	23	26	29	30	32	34	34	35	35	35	35	34	33	30	26	25	22	27.0	35.1
23-Jul-06	19	19	18	17	17	16	19	23	26	29	30	31	32	33	34	34	34	33	32	31	28	24	22	23	26.0	33.9
24-Jul-06	20	19	18	17	17	16	17	21	23	24	26	26	27	28	29	29	29	29	28	27	25	22	20	18	23.1	29.2
25-Jul-06	18	16	15	15	14	14	16	19	22	23	26	28	29	29	28	28	28	25	25	24	23	23	22	20	22.0	28.9
26-Jul-06	19	18	17	17	17	15	18	18	21	23	24	21	20	19	19	21	22	22	22	22	21	19	18	17	19.5	23.6
27-Jul-06	15	14	13	13	13	13	13	14	16	19	22	23	24	24	24	25	25	25	25	24	23	21	19	18	19.4	25.1
28-Jul-06	16	15	14	12	11	11	12	14	15	16	16	18	22	23	24	24	23	22	22	21	20	18	16	16	17.6	24.0
29-Jul-06	15	15	15	14	14	14	13	14	13	13	14	13	13	13	14	13	13	12	13	13	13	12	12	12	13.4	15.5
30-Jul-06	11	11	11	11	11	11	11	11	11	12	13	14	14	15	17	17	18	17	16	15	14	13	12	12	13.1	17.7
31-Jul-06	12	12	12	11	10	10	11	13	15	17	19	20	20	19	20	18	19	19	21	19	17	17	16	15	16.0	20.5
Hourly Avg	15.5	14.7	14.0	13.4	12.9	12.9	14.2	16.1	17.9	19.9	21.3	22.2	23.2	23.8	24.1	24.3	24.1	23.5	22.8	22.0	20.4	18.6	17.4	16.4		
Hourly Max	21.8	20.4	19.4	18.1	17.7	17.5	19.7	23.5	26.1	28.9	30.3	32.4	33.5	34.2	34.7	35.1	34.9	34.5	34.2	32.7	29.6	26.4	25.2	22.9		

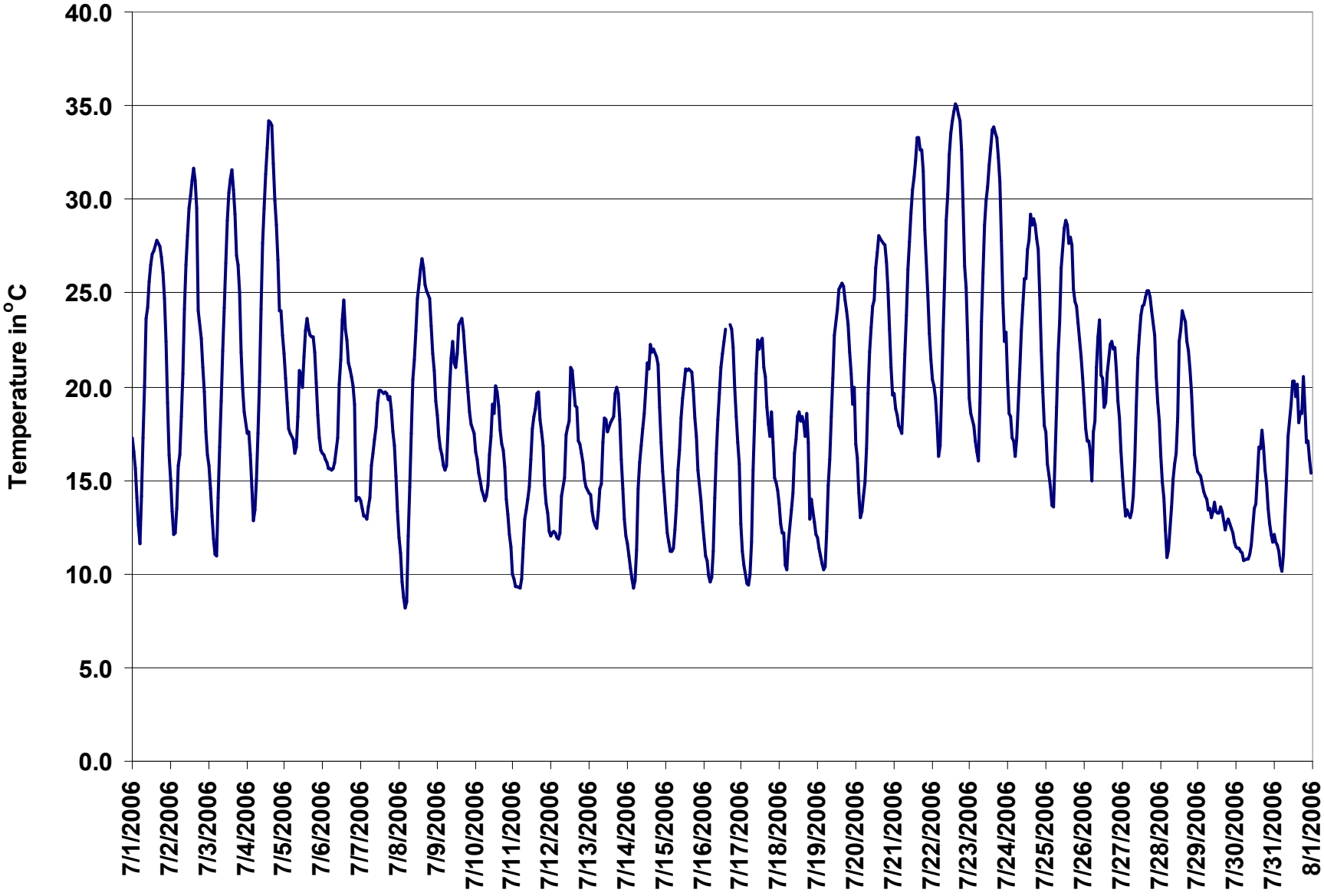


Figure 18. PASZA - Henry Pirker Temperature 1-hr Average Monthly Trend

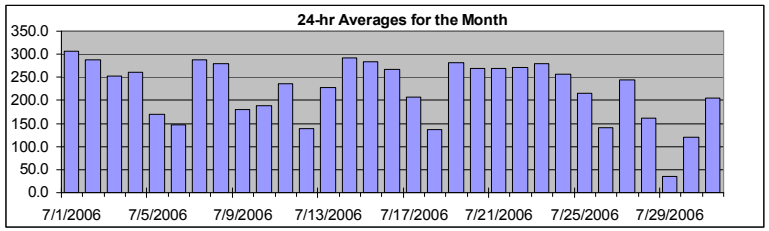
PASZA - Henry Pirker - Solar Radiation Monthly Summary

HOURLY AVERAGE TABLE

Solar Radiation (SR)

Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Average:	803.6	W/m²	11-Jul	12:00 13:00
Maximum 24-hr Value:	306.2	W/m²	1-Jul	

AIC Time:	0 hrs	Operational Time:	742 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	99.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	767.4	712.2	414.5	116.0	0.4	0.1	0.0	222.5 W/m²	116.0 W/m²

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-Jul-06	0	0	0	0	6	34	173	300	435	581	679	750	800	786	723	647	543	415	271	149	48	7	0	0	306.2	799.8
2-Jul-06	0	0	0	0	10	34	125	284	402	569	665	733	766	778	753	631	502	329	160	104	38	9	0	0	287.3	778.4
3-Jul-06	0	0	0	0	7	43	160	206	387	552	649	713	712	751	703	607	277	125	44	87	22	2	0	0	251.9	750.9
4-Jul-06	0	0	0	0	5	29	99	190	360	523	598	671	731	743	682	619	516	268	151	83	12	2	0	0	261.8	743.1
5-Jul-06	0	0	0	0	0	3	9	56	250	285	151	159	652	697	592	327	260	244	221	133	42	6	0	0	170.3	697.4
6-Jul-06	0	0	0	0	0	16	34	51	57	280	446	452	692	574	415	230	89	74	65	45	7	0	0	0	147.0	692.3
7-Jul-06	0	0	0	0	2	14	143	297	435	562	633	690	762	719	690	633	509	359	309	142	26	6	0	0	288.9	762.2
8-Jul-06	0	0	0	1	8	33	168	301	359	562	671	634	679	722	709	662	479	289	212	176	58	6	0	0	280.4	722.0
9-Jul-06	0	0	0	0	3	35	66	220	348	455	410	235	391	401	572	371	430	236	103	49	15	1	0	0	180.9	571.8
10-Jul-06	0	0	0	0	0	9	34	69	121	315	370	444	381	562	704	625	369	213	192	81	26	3	0	0	188.2	704.3
11-Jul-06	0	0	0	0	3	36	120	268	275	264	282	549	804	786	731	672	532	156	105	40	19	6	0	0	235.3	803.6
12-Jul-06	0	0	0	0	4	37	98	195	220	495	287	414	691	323	162	134	91	31	53	55	34	4	0	0	138.7	690.8
13-Jul-06	0	0	0	1	3	49	108	276	259	572	664	597	426	295	371	395	549	433	300	124	24	3	0	0	227.1	664.3
14-Jul-06	0	0	0	0	5	29	155	270	447	572	668	736	767	694	586	697	469	419	290	190	31	3	0	0	292.8	767.4
15-Jul-06	0	0	0	0	3	19	105	182	362	352	659	737	777	791	755	642	535	447	268	122	42	3	0	0	283.3	790.6
16-Jul-06	0	0	0	0	3	31	75	221	424	559	658	724	759	767	702	P	P	425	294	166	41	5	0	0	266.1	767.4
17-Jul-06	0	0	0	0	3	19	149	208	440	569	657	405	614	465	291	242	228	220	219	171	45	3	0	0	206.3	657.2
18-Jul-06	0	0	0	0	3	25	80	93	195	286	297	475	323	263	362	186	278	211	118	28	44	3	0	0	136.4	475.4
19-Jul-06	0	0	0	1	3	28	142	245	419	548	648	720	758	745	666	629	526	328	216	122	34	5	0	0	282.6	757.6
20-Jul-06	0	0	0	0	2	23	53	156	419	546	650	681	503	700	649	669	529	406	276	153	34	3	0	0	268.9	699.5
21-Jul-06	0	0	0	0	3	18	140	226	367	531	617	701	735	664	554	613	507	331	287	151	19	3	0	0	269.5	734.7
22-Jul-06	0	0	0	1	2	27	143	226	391	510	432	702	766	655	639	633	544	402	249	147	35	4	0	0	271.2	766.1
23-Jul-06	0	0	0	0	2	17	135	227	410	541	637	706	739	727	702	578	496	378	238	143	29	2	0	0	279.5	739.4
24-Jul-06	0	0	0	0	1	19	129	225	401	531	678	432	686	602	691	498	460	404	216	150	30	3	0	0	256.5	690.7
25-Jul-06	0	0	0	0	1	17	132	202	396	358	610	687	680	397	353	448	448	197	148	95	14	1	0	0	216.1	687.2
26-Jul-06	0	0	0	0	1	19	135	129	320	340	365	161	213	153	193	297	472	268	148	133	27	2	1	0	140.7	471.6
27-Jul-06	0	0	0	0	2	15	41	77	170	355	549	720	730	639	589	589	518	429	277	145	41	2	0	0	245.4	729.5
28-Jul-06	0	0	0	0	1	14	88	99	105	141	157	331	713	586	521	410	304	162	144	64	11	1	0	0	160.6	712.5
29-Jul-06	0	0	0	0	0	4	20	52	46	106	122	67	45	52	114	41	29	21	80	40	5	0	0	0	35.3	121.8
30-Jul-06	0	0	0	0	0	7	29	50	92	151	240	299	254	339	423	266	459	194	58	28	9	1	0	0	120.8	459.1
31-Jul-06	0	0	0	0	1	27	114	211	384	499	652	538	435	481	564	168	245	259	275	64	14	1	0	0	205.5	652.2
Hourly Avg	0.1	0.1	0.1	0.3	2.9	23.5	103.2	187.5	312.8	435.8	509.7	544.0	612.3	576.1	553.6	472.0	406.5	279.8	193.1	109.1	28.3	3.1	0.2	0.1		
Hourly Max	0.2	0.4	0.3	1.2	10.0	48.8	172.5	301.0	446.6	581.5	679.2	750.3	803.6	790.6	754.5	696.7	548.6	447.1	309.1	190.4	58.4	8.6	1.2	0.3		

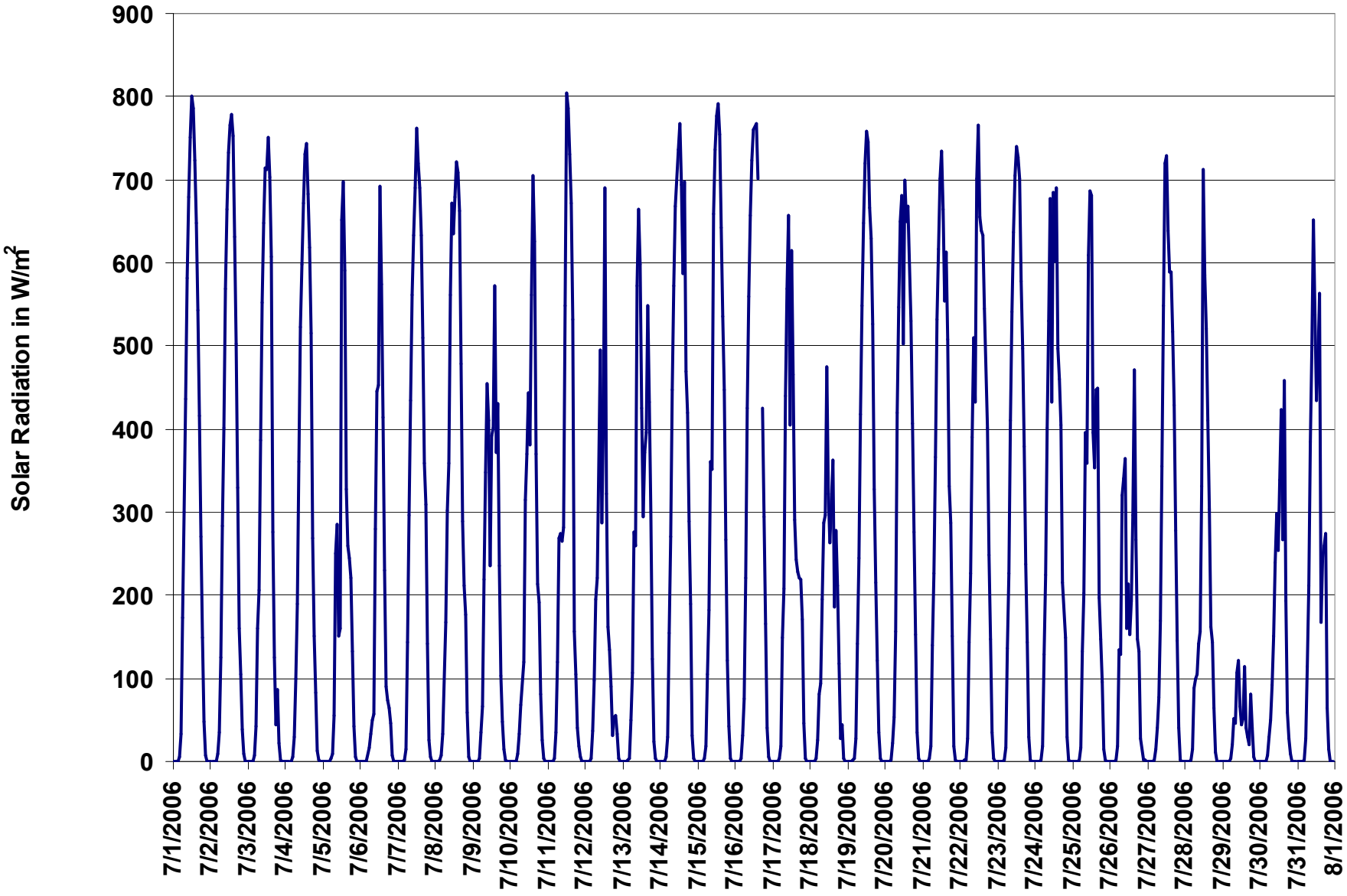


Figure 19. PASZA - Henry Pirker Solar Radiation 1-hr Average Monthly Trend

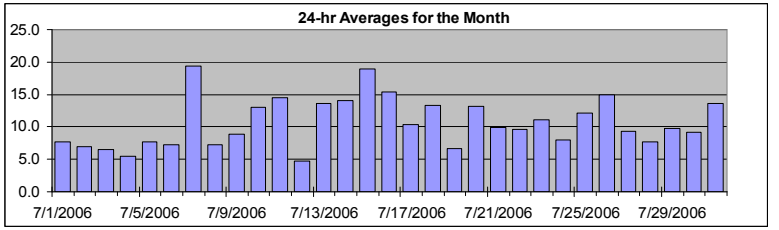
PASZA - Henry Pirker - Scalar Wind Speed Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSs)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Average:	32.0	km/hr	7-Jul	16:00 17:00
Maximum 24-hr Value:	19.4	km/hr	7-Jul	

Calm Time:	0 hrs	**0%** calms		Operational Time:			742 hrs	
Calibration Time:	0 hrs			AMD Operational Uptime:			99.7%	
Percentile	99	95	75	50	25	5	1	AverageS
	28.3	22.6	14.2	9.1	6.0	3.6	2.7	10.6 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-Jul-06	4	5	3	3	4	5	5	6	7	4	6	8	13	11	16	14	16	14	13	10	6	4	3	3	7.7	16.4
2-Jul-06	3	4	3	4	6	5	7	8	7	6	6	6	7	8	7	7	8	9	18	14	12	7	3	3	7.0	17.6
3-Jul-06	3	4	3	3	4	3	3	4	4	5	6	9	9	11	16	14	13	10	9	8	3	3	7	4	6.5	15.5
4-Jul-06	3	6	4	4	4	4	4	4	5	6	5	5	5	6	5	6	7	10	9	8	5	6	6	5	5.5	9.9
5-Jul-06	8	12	13	11	9	11	7	3	8	5	4	5	9	9	8	8	8	9	8	7	6	6	6	7	7.7	12.5
6-Jul-06	7	6	5	6	5	5	9	9	7	5	5	5	6	5	7	6	7	7	6	9	6	24	9	8	7.3	23.9
7-Jul-06	8	8	9	9	11	15	14	18	23	23	17	19	25	28	31	31	32	30	28	27	19	17	14	9	19.4	32.0
8-Jul-06	7	7	4	3	3	4	5	6	4	6	9	8	6	9	11	11	11	10	7	8	6	4	13	13	7.3	12.9
9-Jul-06	9	6	7	8	7	13	8	8	9	10	12	12	15	13	9	9	9	9	10	9	6	6	5	6	8.9	15.0
10-Jul-06	6	7	11	8	8	7	8	7	10	11	9	11	15	17	23	24	22	19	18	17	17	15	14	11	13.1	24.3
11-Jul-06	9	11	13	15	15	15	17	25	23	23	20	19	20	20	19	17	16	11	10	9	6	5	5	5	14.5	25.3
12-Jul-06	2	3	3	4	4	5	5	3	4	4	4	5	5	5	4	6	6	5	4	5	7	6	7	7	4.7	7.3
13-Jul-06	6	6	9	5	5	5	10	16	15	16	21	26	21	14	19	21	19	18	19	16	14	11	9	10	13.7	26.1
14-Jul-06	10	10	9	9	9	9	11	7	12	18	19	20	21	18	19	19	18	16	18	14	12	13	17	12	14.1	20.8
15-Jul-06	9	7	8	12	12	9	9	12	17	27	28	27	27	26	28	27	26	27	26	24	21	17	14	14	18.9	28.3
16-Jul-06	11	11	12	14	13	13	14	23	24	23	23	20	19	18	17	P	P	17	15	13	9	10	10	9	15.4	23.7
17-Jul-06	3	3	4	6	6	5	4	3	5	7	9	9	15	15	19	15	17	19	14	14	13	11	14	17	10.4	19.2
18-Jul-06	14	11	9	10	9	9	11	9	10	15	18	19	19	18	18	18	17	21	19	11	10	7	9	8	13.3	21.5
19-Jul-06	5	7	6	4	3	4	5	6	7	6	7	6	6	6	7	7	8	7	7	9	7	7	16	8	6.7	15.7
20-Jul-06	8	6	4	4	4	5	5	7	10	13	16	17	18	21	19	21	21	22	23	22	17	13	13	8	13.2	22.6
21-Jul-06	9	12	12	12	11	8	7	6	7	8	11	10	11	15	13	14	16	16	15	10	5	4	2	3	9.9	16.3
22-Jul-06	3	5	4	4	3	3	5	8	11	15	17	14	16	16	17	18	16	15	11	10	5	5	4	5	9.6	17.7
23-Jul-06	6	5	4	4	5	4	4	5	11	16	17	19	17	17	15	16	17	17	16	15	10	8	7	9	11.1	19.1
24-Jul-06	8	9	10	6	7	8	6	4	4	6	9	10	11	10	11	11	10	12	10	8	7	6	4	4	8.0	12.2
25-Jul-06	6	4	5	4	3	4	4	6	9	10	10	12	15	14	18	24	28	21	19	19	15	15	14	14	12.1	28.1
26-Jul-06	11	9	8	9	9	8	10	7	10	15	22	19	15	12	13	21	30	27	24	23	18	15	14	8	14.9	30.2
27-Jul-06	7	6	5	7	7	6	4	4	5	7	15	15	16	14	14	14	14	13	12	8	6	8	8	8	9.3	16.0
28-Jul-06	4	7	8	6	7	7	6	6	6	6	6	5	7	9	8	11	10	11	10	10	10	10	9	7	7.7	11.1
29-Jul-06	7	6	6	7	8	7	8	8	10	10	11	10	9	9	12	10	10	13	14	11	12	11	11	12	9.7	14.2
30-Jul-06	13	14	12	13	13	15	14	13	11	10	10	9	10	5	5	7	9	8	7	6	4	3	4	4	9.2	14.8
31-Jul-06	10	10	9	7	7	7	7	7	10	12	13	16	18	21	21	13	18	14	25	20	11	17	18	17	13.6	25.3
1-hr Average	7.1	7.3	7.2	7.1	7.2	7.3	7.5	8.4	9.8	11.2	12.4	12.8	13.7	13.6	14.5	14.6	15.4	14.7	14.2	12.7	9.9	9.6	9.3	8.2		
Hourly Max	14.2	14.0	13.2	14.8	14.7	14.9	17.0	25.3	23.7	27.1	28.3	26.9	27.3	28.3	31.2	31.5	32.0	29.6	28.5	27.5	21.4	23.9	18.1	16.9		

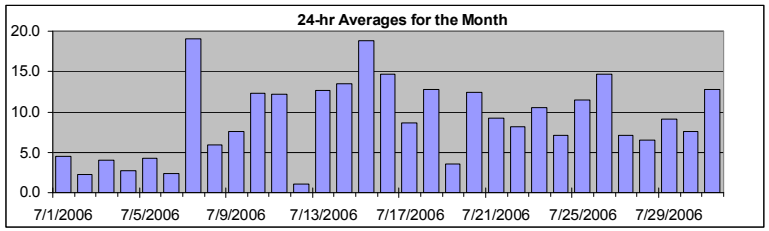
PASZA - Henry Pirker - Vector Wind Speed Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSv)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Average:	31.6	km/hr	7-Jul	16:00 17:00
Maximum 24-hr Value:	19.0	km/hr	7-Jul	

Calm Time:	2 hrs	**0%** calms	Operational Time: 740 hrs
Calibration Time:	0 hrs		AMD Operational Uptime: 99.7%

Percentile	99	95	75	50	25	5	1	AverageV
	27.8	22.3	13.9	8.7	5.3	2.5	1.4	7.0 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-Jul-06	4	5	2	2	3	4	4	6	7	3	4	5	12	10	16	13	16	14	12	9	5	4	2	2	4.5	15.8
2-Jul-06	2	4	3	3	2	4	6	8	6	5	5	6	6	6	5	4	7	4	17	14	12	7	3	3	2.3	17.3
3-Jul-06	3	3	2	2	3	2	2	3	3	5	5	7	8	11	15	13	13	10	7	7	3	3	5	2	4.0	14.9
4-Jul-06	2	6	1	3	3	2	3	3	5	5	4	2	2	5	3	3	6	9	9	8	4	4	6	4	2.8	9.4
5-Jul-06	7	11	12	10	8	8	7	1	8	3	3	5	8	8	7	6	7	8	7	7	5	6	6	6	4.2	12.3
6-Jul-06	6	6	5	4	2	3	7	9	6	5	1	5	4	4	7	6	7	6	5	8	1	23	8	8	2.4	23.4
7-Jul-06	7	8	9	8	11	15	14	17	23	22	17	18	24	28	31	31	32	29	28	27	19	17	14	9	19.0	31.6
8-Jul-06	7	6	4	2	1	4	4	5	4	5	9	5	3	7	10	9	10	9	6	8	6	4	13	13	5.9	12.6
9-Jul-06	8	6	6	8	7	13	6	7	9	9	11	12	15	13	9	8	8	8	9	8	6	6	5	6	7.6	14.7
10-Jul-06	6	6	11	8	8	7	8	7	10	10	9	11	15	16	22	24	22	18	17	17	17	15	14	10	12.3	24.0
11-Jul-06	9	11	13	15	15	15	16	25	23	23	20	18	20	19	18	17	15	11	9	9	3	5	5	5	12.2	25.2
12-Jul-06	2	2	3	4	4	4	4	1	calm	3	1	2	3	3	3	6	6	3	3	5	7	6	6	6	1.1	7.2
13-Jul-06	6	4	8	3	5	5	9	15	14	16	20	26	20	13	19	20	18	18	18	16	13	11	9	9	12.7	25.7
14-Jul-06	10	10	9	9	9	9	11	6	11	17	19	20	20	17	18	18	17	15	17	14	12	13	16	11	13.5	20.2
15-Jul-06	9	6	8	11	12	9	8	12	17	27	28	26	27	26	28	26	25	26	25	24	21	17	13	14	18.8	27.9
16-Jul-06	10	11	12	14	13	13	14	23	23	23	22	20	19	18	17	P	P	17	14	13	9	10	10	8	14.6	23.4
17-Jul-06	2	1	4	5	5	4	4	2	4	7	8	8	14	14	19	13	17	19	14	14	13	11	14	17	8.7	18.9
18-Jul-06	14	11	9	10	9	8	11	9	10	14	17	19	19	17	16	17	17	21	17	11	10	7	9	8	12.8	21.2
19-Jul-06	5	7	6	3	3	3	5	6	6	5	6	4	2	3	5	2	6	6	6	9	7	7	15	7	3.5	14.6
20-Jul-06	5	6	2	4	4	5	4	7	10	12	15	16	18	20	19	20	21	22	22	22	17	13	13	7	12.5	22.3
21-Jul-06	8	12	12	12	11	8	6	5	7	7	10	9	10	14	11	13	15	15	15	9	5	3	1	calm	9.2	15.5
22-Jul-06	3	4	3	3	2	2	5	8	11	15	17	12	15	15	17	17	16	15	11	10	5	5	3	3	8.2	17.1
23-Jul-06	5	4	4	4	5	4	3	5	11	15	17	19	16	16	14	15	16	17	15	15	10	8	6	9	10.6	18.6
24-Jul-06	7	9	10	6	7	8	6	3	2	6	8	8	10	9	8	11	8	12	10	8	6	6	3	3	7.1	11.8
25-Jul-06	5	3	5	4	3	4	4	5	8	10	9	10	14	13	18	23	28	21	18	19	15	15	14	13	11.5	27.7
26-Jul-06	10	8	7	9	9	8	10	7	9	15	22	19	15	12	13	21	30	27	24	22	18	15	14	8	14.7	29.8
27-Jul-06	7	5	4	7	7	5	3	4	5	6	14	15	16	12	14	13	14	12	11	7	5	8	8	7	7.1	15.6
28-Jul-06	3	6	7	6	7	7	6	5	5	6	5	4	5	8	6	11	10	10	10	10	9	10	8	7	6.5	10.7
29-Jul-06	7	6	6	7	8	7	7	8	10	10	11	10	9	9	11	9	10	12	14	11	12	11	10	11	9.1	14.0
30-Jul-06	13	14	12	13	13	15	14	13	11	10	10	9	10	4	3	5	8	7	6	4	3	3	4	4	7.6	14.7
31-Jul-06	10	10	9	7	7	7	7	7	9	12	13	16	18	20	20	11	16	12	25	18	10	17	18	17	12.8	25.1
1-hr Vector	4.0	4.4	4.8	4.9	5.4	5.1	5.8	6.6	7.7	8.9	9.4	9.5	10.0	10.2	10.4	10.6	10.2	9.3	8.7	6.6	4.6	5.2	4.6	4.5		
Hourly Max	14.1	13.9	13.1	14.7	14.5	14.8	16.2	25.2	23.4	26.7	27.9	26.4	26.8	27.8	30.8	31.0	31.6	29.2	28.2	27.3	21.2	23.4	18.0	16.9		

PASZA - Henry Pirker - Wind Direction Monthly Summary

HOURLY AVERAGE TABLE

Wind Direction (WD)

Station: Henry Pirker
Station Owner: PASZA

Monitoring Dates: July 1, 2006 to August 1, 2006

Summary

Calm Time:	0 hrs	**0%** calms		Operational Time:		742 hrs		
Calibration Time:	0 hrs			AMD Operational Uptime:		99.7%		
Percentile	99	95	75	50	25	5	1	Average
	343.3	320.0	282.7	250.4	207.9	32.2	9.8	266 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	WD
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	Sector
1-Jul-06	146	152	125	169	206	278	261	253	272	256	166	320	308	311	305	304	307	309	320	344	55	107	63	316	301	WNW
2-Jul-06	309	290	297	284	353	155	189	222	231	229	192	163	114	151	158	208	143	83	55	60	72	90	34	35	122	ESE
3-Jul-06	57	39	353	12	282	285	290	154	110	154	133	109	115	104	107	108	102	109	162	103	113	303	299	21	107	ESE
4-Jul-06	97	114	337	313	299	315	230	287	255	259	276	318	347	327	30	21	330	29	42	39	24	332	56	126	355	N
5-Jul-06	197	306	317	312	273	262	239	203	295	308	74	47	21	16	27	32	13	6	14	31	36	37	31	46	347	NNW
6-Jul-06	52	68	66	134	248	49	212	272	321	334	167	253	281	246	352	14	13	50	38	6	297	261	307	204	309	NW
7-Jul-06	218	226	219	252	254	249	249	251	249	249	246	231	233	264	263	261	259	255	253	252	250	247	251	256	250	WSW
8-Jul-06	234	238	283	314	238	152	189	176	150	159	158	178	247	247	237	241	231	239	302	219	196	204	210	211	219	SW
9-Jul-06	195	190	259	256	238	250	272	254	236	251	247	231	246	251	226	206	194	181	185	219	177	165	160	157	224	SW
10-Jul-06	159	224	291	285	313	297	309	303	288	292	295	270	287	297	307	298	297	291	296	294	292	294	280	270	291	WNW
11-Jul-06	274	250	245	253	257	270	271	285	284	285	286	296	305	309	317	309	320	327	343	329	157	145	162	288	288	WNW
12-Jul-06	341	151	145	128	112	118	156	102	167	94	251	5	196	274	315	303	296	256	336	68	110	100	98	99	112	ESE
13-Jul-06	101	147	195	253	211	203	241	249	256	239	241	256	244	224	245	250	242	234	241	234	245	251	233	232	239	WSW
14-Jul-06	227	220	226	230	231	221	211	222	226	250	243	251	260	234	250	271	277	269	248	223	239	246	247	249	244	WSW
15-Jul-06	256	235	235	248	253	261	238	259	258	258	256	249	251	253	257	257	263	265	264	261	256	248	241	240	255	WSW
16-Jul-06	231	223	222	226	228	235	242	248	258	263	271	279	270	270	263	P	P	269	277	286	272	259	256	257	257	WSW
17-Jul-06	319	286	196	172	206	299	320	288	209	223	207	194	186	223	286	267	200	213	223	210	218	225	242	245	227	SW
18-Jul-06	243	255	264	277	270	268	245	255	245	286	270	277	282	287	258	282	272	274	283	293	270	240	239	240	269	W
19-Jul-06	249	254	259	331	292	245	213	209	217	217	209	222	237	260	265	220	167	122	133	105	107	119	148	121	193	SSW
20-Jul-06	184	233	313	160	218	226	254	244	237	250	245	253	255	266	266	261	267	254	259	248	254	265	286	257	254	WSW
21-Jul-06	247	246	252	247	250	239	236	220	225	234	270	278	243	267	256	245	251	252	259	283	325	285	53	299	255	WSW
22-Jul-06	225	218	266	271	281	245	209	228	236	243	266	271	275	285	284	300	313	314	309	309	301	317	360	331	281	W
23-Jul-06	299	317	270	287	276	313	310	241	235	284	291	278	282	285	273	288	266	274	294	293	293	289	276	237	280	W
24-Jul-06	283	304	310	289	316	321	318	303	244	224	232	276	259	253	296	311	310	316	320	312	288	269	302	263	292	WNW
25-Jul-06	261	287	227	275	319	302	288	287	240	230	226	240	244	249	258	270	277	287	269	255	263	270	256	257	262	W
26-Jul-06	246	256	255	237	252	268	255	255	235	241	259	255	277	271	261	251	250	252	248	248	246	247	250	231	252	WSW
27-Jul-06	231	268	260	256	250	267	283	276	237	261	282	286	284	279	308	316	317	320	324	318	311	18	53	57	296	WNW
28-Jul-06	334	325	327	309	311	327	315	342	32	34	22	5	355	3	32	360	32	37	36	52	51	19	21	35	10	N
29-Jul-06	31	40	33	28	30	38	36	36	34	27	34	26	34	33	35	40	37	1	7	20	20	13	336	313	22	NNE
30-Jul-06	310	307	296	299	300	290	284	289	292	298	305	327	334	343	328	260	258	294	289	8	77	153	168	190	298	WNW
31-Jul-06	245	245	249	246	250	236	244	242	241	250	251	276	281	270	259	297	302	310	256	277	274	248	246	246	263	W
Hourly Avg	245	253	263	262	264	264	253	257	253	258	256	265	267	271	276	278	276	278	279	278	266	262	257	247		

PASZA - Henry Pirker - Standard Deviation of Wind Direction Monthly Summary

Station: Henry Pirker
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: July 1, 2006 to August 1, 2006

Summary

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	**0%** calms	Operational Time: 742 hrs
Calibration Time:	0 hrs		AMD Operational Uptime: 99.7%

Percentile	99	95	75	50	25	5	1
	58.7	44.2	20.4	13.0	9.0	5.6	4.4

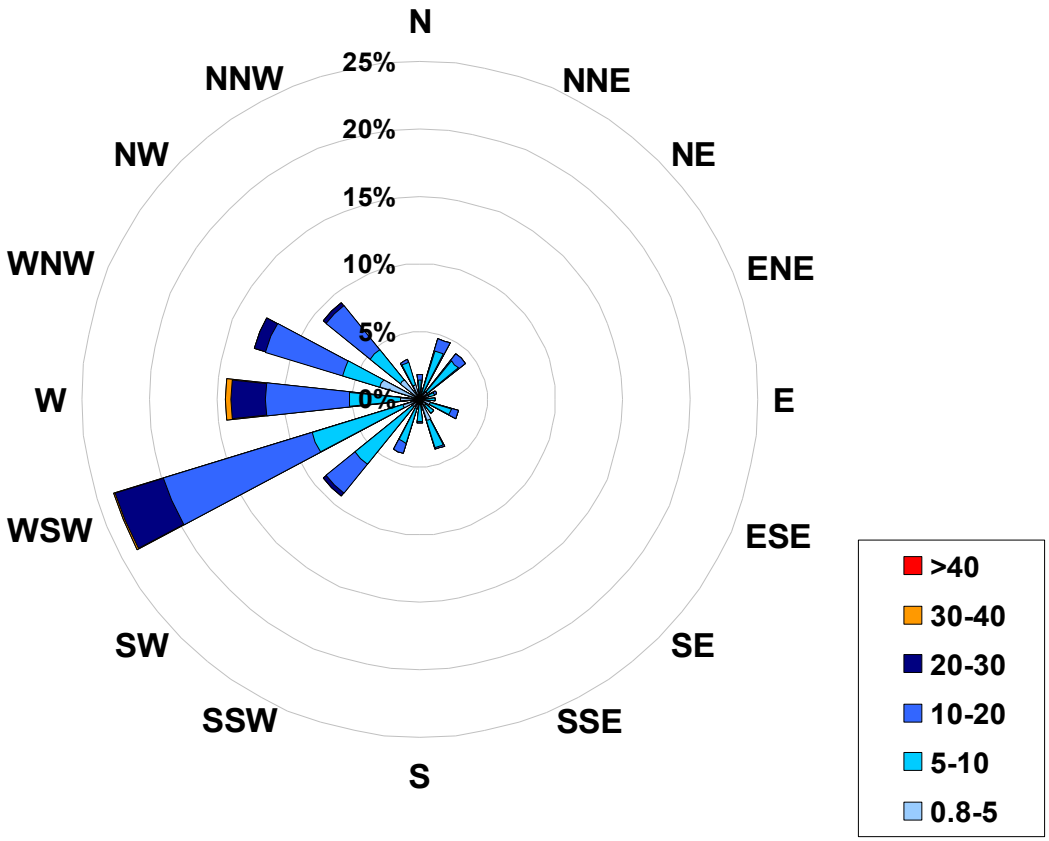
Status Flag Characters

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-Jul-06	12	4	45	54	34	23	20	13	13	39	49	53	16	37	13	17	13	12	11	15	16	9	21	43	53.6
2-Jul-06	29	24	22	23	76	44	13	13	15	23	31	30	50	41	57	55	31	39	9	9	7	12	20	15	76.3
3-Jul-06	25	14	26	32	41	17	21	17	25	24	41	27	26	18	14	16	11	10	20	40	47	28	60	36	60.0
4-Jul-06	41	20	54	27	26	49	30	32	15	19	35	60	58	41	53	45	45	17	11	14	20	16	11	20	59.8
5-Jul-06	19	19	6	8	28	31	16	44	8	40	44	30	20	23	29	31	24	19	20	19	21	15	16	13	44.2
6-Jul-06	15	15	20	24	23	45	36	9	9	33	48	29	39	51	22	30	17	18	18	11	47	6	30	12	50.8
7-Jul-06	12	9	9	11	8	8	8	9	8	9	13	13	14	9	9	10	8	9	8	6	5	4	5	7	13.7
8-Jul-06	14	10	23	33	31	11	17	17	30	25	16	47	62	41	29	30	24	20	31	18	15	16	7	14	62.4
9-Jul-06	24	14	27	11	13	7	20	26	13	14	18	12	11	11	22	20	24	26	15	16	12	10	12	9	26.7
10-Jul-06	8	18	7	7	8	12	12	9	7	12	15	14	10	13	8	8	7	7	7	6	6	6	4	8	17.8
11-Jul-06	9	7	6	5	6	7	9	5	6	8	7	9	10	11	12	12	13	17	11	11	26	17	9	27	27.2
12-Jul-06	20	36	11	13	12	12	17	33	34	61	45	43	54	53	36	23	21	43	24	21	10	12	10	10	60.9
13-Jul-06	9	25	13	29	16	13	10	7	10	9	12	8	9	10	11	10	14	11	9	8	5	6	11	8	28.6
14-Jul-06	6	8	9	9	7	9	9	17	18	16	10	12	10	16	13	14	11	15	9	9	8	6	5	11	17.9
15-Jul-06	10	14	10	9	9	11	14	11	11	9	9	10	10	10	9	11	11	10	9	6	7	4	6	6	14.3
16-Jul-06	7	6	6	5	5	7	7	7	8	10	10	12	14	13	13	P	P	9	15	6	6	5	5	15	14.8
17-Jul-06	28	44	13	9	14	14	19	38	31	21	23	23	14	13	8	11	14	10	9	10	8	7	6	5	44.5
18-Jul-06	6	6	10	7	5	8	6	9	15	10	10	9	7	11	19	13	8	8	12	8	10	10	9	10	19.4
19-Jul-06	16	11	13	15	21	13	11	14	21	28	29	48	63	59	33	40	45	41	27	14	9	13	12	21	63.2
20-Jul-06	17	11	42	18	13	13	19	13	12	14	13	19	14	15	12	12	12	9	8	6	5	5	5	16	41.7
21-Jul-06	15	6	4	5	5	6	11	20	18	23	22	21	23	15	26	20	17	16	11	9	8	19	49	41	49.4
22-Jul-06	26	15	16	21	18	25	15	12	8	8	8	20	14	13	13	11	11	9	10	7	17	20	38	36	38.0
23-Jul-06	23	30	27	11	11	12	22	18	10	11	8	13	15	21	17	15	17	13	11	7	5	4	13	8	29.6
24-Jul-06	12	6	5	13	7	7	16	50	64	29	21	37	20	26	27	20	35	16	13	15	6	10	29	32	64.2
25-Jul-06	14	29	13	23	18	16	10	15	14	13	17	27	22	22	13	12	8	5	10	10	6	7	7	6	28.5
26-Jul-06	5	9	14	6	8	9	8	11	13	11	12	9	7	12	9	9	8	7	8	6	5	5	6	8	14.0
27-Jul-06	8	18	29	16	9	31	38	16	17	20	14	18	13	33	18	16	15	13	17	14	8	22	15	13	38.1
28-Jul-06	28	14	8	9	10	9	8	20	22	22	43	40	47	25	27	18	18	16	13	13	13	13	11	18	46.7
29-Jul-06	14	16	15	13	12	15	16	16	13	11	12	12	13	13	11	12	17	16	8	12	9	10	9	8	17.1
30-Jul-06	5	5	6	7	6	4	4	5	6	7	9	12	13	39	54	20	18	24	9	23	31	10	9	13	54.2
31-Jul-06	9	7	7	9	7	9	10	12	13	15	11	13	11	11	10	16	11	20	7	12	7	5	5	4	20.2
Hourly Max	41	44	54	54	76	49	38	50	64	61	49	60	63	59	57	55	45	43	31	40	47	28	60	43	

1-hr Average Wind Rose (in km/hr) Located at the Henry Pirker Site for July 2006



Calms:	0%

Frequency Distribution of Wind in km/hr			
Range			Frequency (hrs)
0.8	<	5	117
5	to	10	306
10	to	20	258
20	to	30	57
30	to	40	4
	>	40	0
Total Non-Zero Values			742

PASZA – Evergreen Park Station

Monthly Summary Tables, Graphs, and Roses

PASZA - Evergreen Park - Sulphur Dioxide Monthly Summary

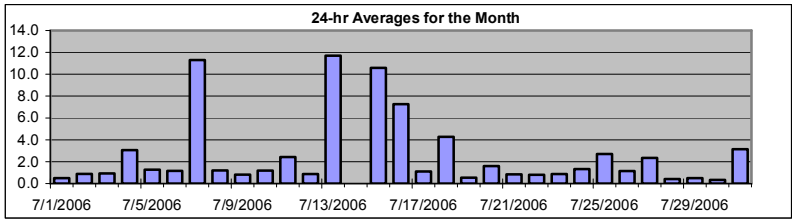
Station: Evergreen Park
Station Owner: PASZA

HOURLY AVERAGE TABLE

Sulphur Dioxide (SO_2)

Monitoring Dates: July 1, 2006 to August 1, 2006

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:	79.3	ppb	7-Jul	10:00 11:00
Maximum 24-hr Average:	11.7	ppb	13-Jul	

AIC Time:	36 hrs	Operational Time:	679 hrs
Calibration Time:	20 hrs	AMD Operational Uptime:	98.8%

Percentile	99	95	75	50	25	5	1	Average	Median
	35.9	11.6	1.4	0.7	0.4	0.2	0.0	2.6 ppb	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-Jul-06	1	1	0	0	0	A	1	1	1	0	1	1	1	0	0	0	1	0	0	0	0	0	1	0	0.5	1.0
2-Jul-06	1	1	1	1	A	1	0	1	2	2	2	2	2	1	1	1	1	1	0	0	0	0	0	0	0.9	2.5
3-Jul-06	0	0	0	A	0	1	0	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.7
4-Jul-06	1	1	A	1	1	1	5	8	15	2	3	8	4	3	2	2	2	2	2	2	2	2	2	2	3.1	14.5
5-Jul-06	2	A	1	1	1	1	1	1	1	1	1	C	C	C	1	1	1	1	1	1	2	1	1	1	1.3	1.7
6-Jul-06	1	1	1	1	1	A	1	1	1	C	C	C	C	A	1	1	1	1	1	1	2	1	1	1	1.2	1.6
7-Jul-06	1	1	1	1	1	A	34	62	33	2	79	14	1	5	14	5	1	1	1	0	1	0	0	0	11.3	79.3
8-Jul-06	4	0	0	0	A	0	0	0	A	2	4	2	1	1	1	1	3	1	1	1	1	1	2	0	1.2	4.2
9-Jul-06	0	0	1	A	6	1	0	1	0	0	0	1	1	1	1	1	1	0	0	1	1	1	1	1	0.8	6.5
10-Jul-06	1	0	A	1	1	A	2	2	2	2	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1.2	1.9
11-Jul-06	0	A	0	A	0	0	2	15	7	12	11	1	1	0	0	0	0	0	1	1	0	0	0	0	2.4	14.6
12-Jul-06	A	0	0	0	0	0	0	1	1	1	1	2	1	1	1	1	1	1	2	2	1	1	0	A	0.9	1.8
13-Jul-06	A	2	2	1	1	1	1	3	9	51	9	22	6	5	32	59	4	2	1	C	C	C	C	C	11.7	59.3
14-Jul-06	C	S	S	S	S	S	S	S	S	S	C	C	C	C	C	24	14	3	3	0	0	0	0	0	N	24.3
15-Jul-06	0	0	0	0	0	A	0	2	40	8	8	25	22	1	1	32	27	72	2	1	1	1	0	1	10.6	71.8
16-Jul-06	1	0	0	0	A	0	0	0	12	62	12	2	14	35	15	3	1	1	1	1	2	3	2	2	7.3	61.8
17-Jul-06	1	1	0	A	0	0	0	1	3	11	1	1	1	1	1	2	0	1	0	0	1	0	0	0	1.1	10.6
18-Jul-06	0	0	A	0	0	0	2	4	29	9	1	1	1	12	C	C	26	1	0	0	0	0	0	0	4.3	28.7
19-Jul-06	0	0	0	0	0	A	0	1	0	1	0	1	1	1	1	1	1	2	1	0	0	0	0	0	0.5	1.8
20-Jul-06	0	1	0	0	A	1	1	1	3	2	1	2	12	1	0	0	7	2	0	0	0	0	0	0	1.6	12.2
21-Jul-06	0	0	0	A	0	0	1	0	0	0	3	4	1	2	1	1	1	0	0	0	0	1	1	1	0.8	4.0
22-Jul-06	1	1	A	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0.8	1.2
23-Jul-06	0	A	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	2	1	2	1	1	1	1	0.9	2.0
24-Jul-06	A	1	1	1	1	1	1	1	1	3	2	0	3	4	1	2	1	1	1	1	1	1	1	A	1.3	4.4
25-Jul-06	1	1	0	0	0	0	4	2	2	8	1	7	1	1	7	17	2	0	1	1	1	2	A	0	2.7	17.0
26-Jul-06	0	0	0	0	1	1	1	1	1	6	2	1	3	2	3	1	0	0	0	0	0	A	0	0	1.1	6.4
27-Jul-06	0	0	0	1	0	1	1	6	16	8	1	1	2	5	7	0	0	1	0	0	A	1	0	0	2.3	15.8
28-Jul-06	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	A	0	0	1	0	0.4	0.9
29-Jul-06	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	A	1	0	0	0	0	0.5	0.8
30-Jul-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0.3	0.5
31-Jul-06	0	0	0	0	0	0	0	1	21	9	1	10	8	1	1	0	A	16	1	1	1	0	0	0	3.1	21.0
Hourly Avg	0.7	0.5	0.5	0.6	0.8	0.6	2.1	4.0	7.0	7.2	5.2	4.0	3.2	3.1	3.4	5.3	3.3	3.9	0.9	0.8	0.8	0.7	0.7	0.5		
Hourly Max	4.2	1.7	1.6	1.4	6.5	1.3	34.1	62.0	40.2	61.8	79.3	24.9	21.9	34.6	32.1	59.3	26.7	71.8	3.0	1.8	2.2	2.9	1.9	1.7		

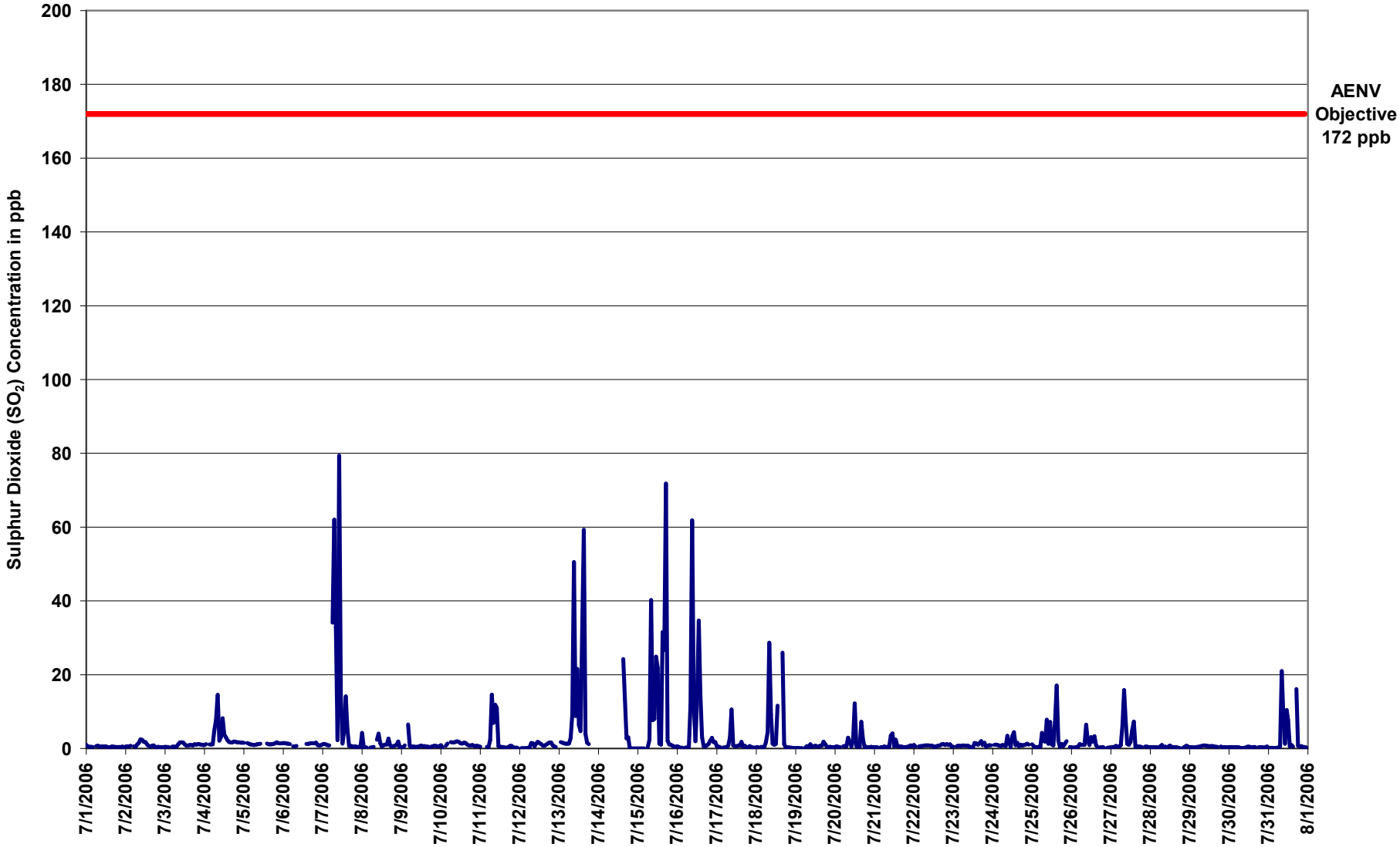


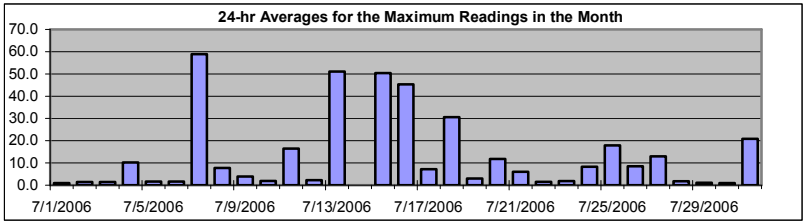
Figure 20. PASZA - Evergreen Park Sulphur Dioxide 1-hr Average Monthly Trend

Station: Evergreen Park
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Sulphur Dioxide (SO_2)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Value:	273.6	ppb	15-Jul	17:00 18:00
Maximum 24-hr Value:	58.9	ppb	7-Jul	

AIC Time:	36 hrs	Operational Time:	679 hrs
Calibration Time:	20 hrs	AMD Operational Uptime:	98.8%

Percentile	99	95	75	50	25	5	1	Average	Median
	187.6	94.1	3.0	1.4	1.0	0.7	0.4	13.3 ppb	1.4 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-Jul-06	2	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	2.1
2-Jul-06	1	1	1	1	A	1	1	2	2	4	3	2	3	2	1	1	1	1	1	1	1	1	1	1	1.4	3.6
3-Jul-06	1	1	1	A	1	1	1	2	2	3	2	3	2	1	1	1	1	1	2	2	2	2	1	1	1.4	2.9
4-Jul-06	1	2	A	2	2	2	18	44	93	3	4	33	7	4	3	2	2	2	2	2	2	2	2	2	10.2	92.7
5-Jul-06	2	A	2	2	2	2	1	1	2	2	2	C	C	C	2	2	2	1	2	2	2	2	2	2	1.7	2.1
6-Jul-06	2	2	2	2	1	A	1	1	1	C	C	C	C	A	2	2	2	2	2	2	2	2	1	1	1.6	2.1
7-Jul-06	2	2	1	1	1	A	205	235	195	10	185	158	9	69	168	102	1	1	1	1	2	1	1	1	58.9	235.2
8-Jul-06	63	1	1	1	A	1	1	1	A	6	14	6	1	1	2	2	20	3	1	1	5	2	37	2	7.8	63.2
9-Jul-06	2	1	4	A	54	3	1	2	1	1	1	1	8	1	3	1	1	1	1	1	1	1	1	1	3.9	53.7
10-Jul-06	3	1	A	2	3	A	2	2	2	2	2	2	2	2	2	3	2	1	1	1	1	1	2	1	1.9	3.3
11-Jul-06	1	A	1	A	1	1	17	144	38	94	55	2	1	1	1	1	1	1	1	1	1	1	1	1	16.5	143.7
12-Jul-06	A	1	0	0	0	1	1	17	4	1	2	2	2	2	2	1	2	2	3	2	2	1	1	A	2.3	16.9
13-Jul-06	A	2	2	2	2	2	2	5	15	248	35	106	49	42	183	203	8	5	9	C	C	C	C	C	51.1	248.1
14-Jul-06	C	S	S	S	S	S	S	S	S	S	C	C	C	C	C	136	95	89	79	24	2	0	0	0	N	136.2
15-Jul-06	0	0	0	0	1	A	2	44	136	125	61	109	139	5	5	140	99	274	7	3	3	2	2	2	50.4	273.6
16-Jul-06	2	2	1	1	A	1	1	2	162	244	145	14	111	162	117	56	1	1	2	2	5	5	3	3	45.3	244.1
17-Jul-06	1	1	1	A	1	1	1	1	21	74	2	1	1	3	4	30	4	6	1	1	6	1	1	1	7.2	74.3
18-Jul-06	1	1	A	1	1	1	6	28	160	157	3	2	5	98	C	C	167	3	1	4	1	1	1	1	30.6	167.4
19-Jul-06	1	1	1	0	1	A	1	11	1	21	1	1	2	1	1	6	2	12	2	1	1	1	1	1	3.0	20.9
20-Jul-06	1	1	1	1	A	1	1	1	47	30	1	31	67	1	1	1	47	29	1	3	1	1	1	1	11.8	67.2
21-Jul-06	1	1	1	A	1	1	1	2	1	1	36	46	3	21	5	2	4	1	1	2	1	2	4	1	6.0	46.3
22-Jul-06	2	1	A	1	1	1	1	2	1	1	2	1	1	1	1	1	1	2	2	2	2	2	3	1	1.5	3.0
23-Jul-06	1	A	1	1	1	1	1	1	1	1	1	1	1	5	2	2	3	5	3	3	1	1	1	2	1.9	5.4
24-Jul-06	A	2	1	1	1	1	1	1	1	40	18	1	27	35	2	14	1	15	1	5	3	6	2	A	8.3	40.4
25-Jul-06	2	1	1	1	1	1	22	27	23	59	3	41	7	2	45	121	26	2	4	12	3	8	A	1	17.9	120.8
26-Jul-06	1	1	1	1	1	6	2	4	5	68	9	11	58	4	4	4	2	3	5	4	1	A	1	1	8.5	67.5
27-Jul-06	1	1	1	2	1	1	7	28	53	47	5	7	21	43	67	1	3	1	5	1	A	1	1	1	13.0	67.4
28-Jul-06	1	1	1	1	1	1	2	5	1	1	1	1	15	1	1	1	1	1	1	A	1	1	1	1	1.8	15.4
29-Jul-06	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1.1	1.6
30-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	2	1.0	2.3
31-Jul-06	1	1	1	1	1	1	1	2	119	67	8	76	59	3	6	2	A	119	6	1	4	1	1	1	20.8	119.2
Hourly Avg	3.6	1.1	1.1	1.1	3.1	1.3	10.1	20.6	37.7	45.3	20.8	23.6	21.6	18.3	21.8	28.0	16.7	19.5	5.0	3.0	1.9	1.7	2.6	1.2		
Hourly Max	63.2	2.3	4.0	1.9	53.7	5.7	204.7	235.2	195.3	248.1	185.5	157.5	139.1	162.5	182.7	202.8	167.4	273.6	79.2	24.2	6.0	7.9	37.1	2.7		

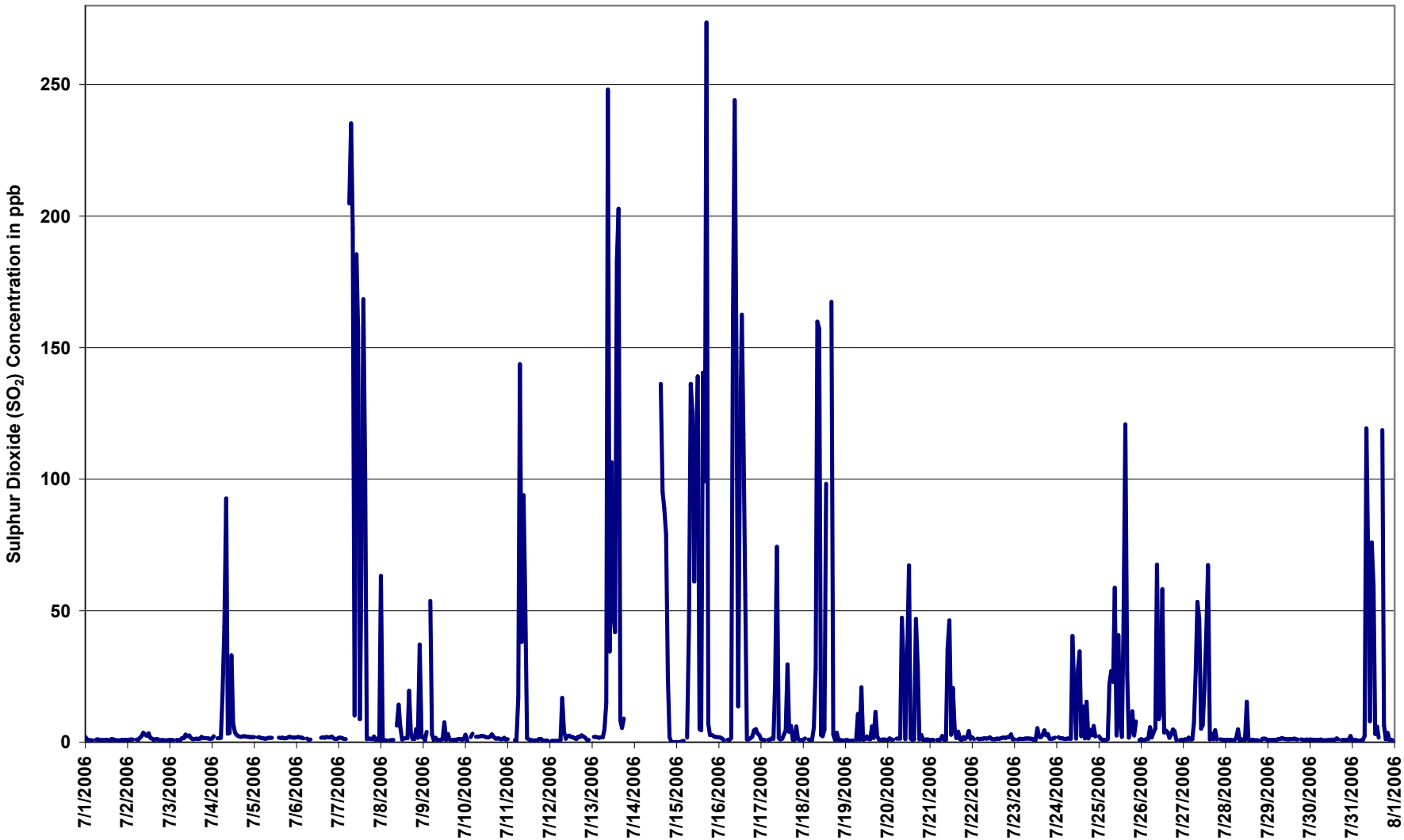
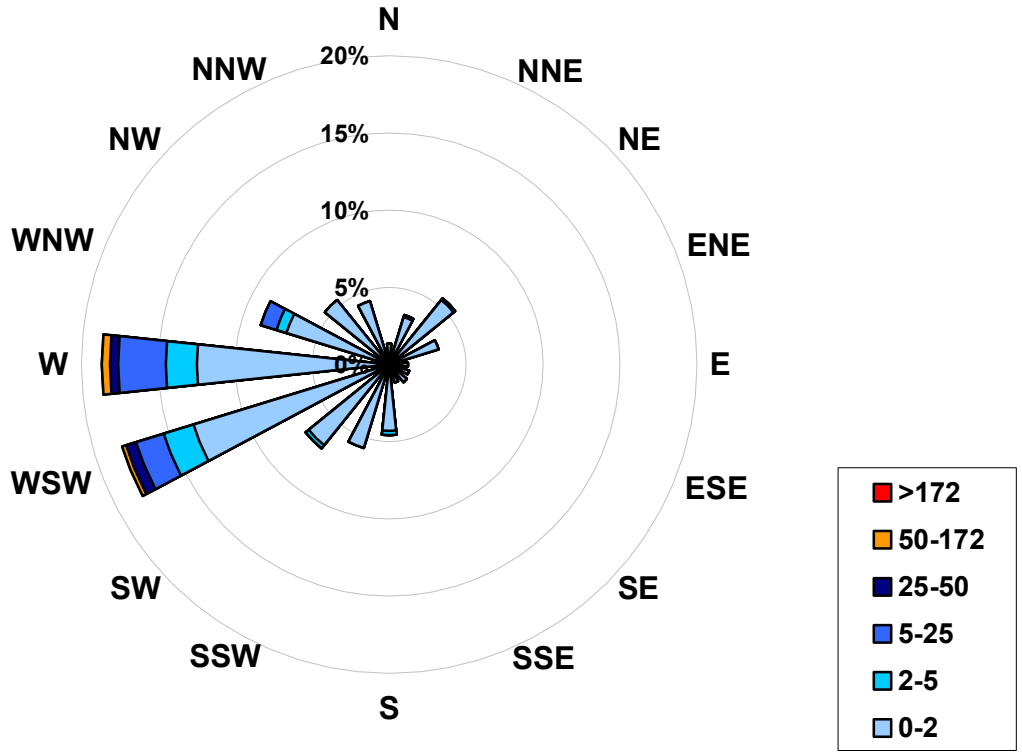


Figure 21. PASZA - Evergreen Park Sulphur Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Evergreen Park Site for July 2006



Calms:	0%

Frequency Distribution of SO_2 in ppb			
Range			Frequency (hrs)
0.0	<	2	578
2	to	5	41
5	to	25	45
25	to	50	9
50	to	172	6
	>	172	0
Total Non-Zero Values			679

PASZA - Evergreen Park - Total Reduced Sulphur Monthly Summary

HOURLY AVERAGE TABLE

Total Reduced Sulphur (TRS)

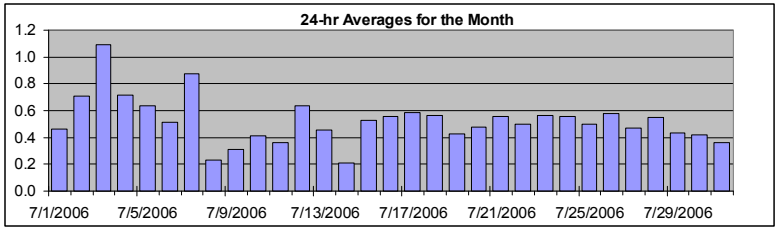
Station: Evergreen Park
Station Owner: PASZA

Monitoring Dates: July 1, 2006 to August 1, 2006

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

Summary

Maximum 1-hr Average:	1.5	ppb	7-Jul	9:00 10:00
Maximum 24-hr Value:	1.1	ppb	3-Jul	



AIC Time:	32 hrs	Operational Time:	702 hrs
Calibration Time:	10 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average	Median
	1.3	1.0	0.6	0.5	0.4	0.1	0.0	0.5 ppb	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-Jul-06	0	1	1	1	0	A	1	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0.5	0.8
2-Jul-06	1	0	0	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0.7	1.3
3-Jul-06	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	1.5
4-Jul-06	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	0	1	1	1	0.7	1.4
5-Jul-06	1	A	1	1	1	1	1	1	1	1	1	C	C	C	A	1	0	1	0	1	0	1	0	1	0.6	0.9
6-Jul-06	1	0	1	1	1	A	0	0	1	1	1	1	1	0	1	0	0	0	0	1	1	1	0	1	0.5	0.8
7-Jul-06	0	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.5
8-Jul-06	1	1	1	0	A	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.7
9-Jul-06	0	0	0	A	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.3	0.8
10-Jul-06	0	0	A	0	1	0	0	1	0	1	1	0	0	0	0	0	0	0	1	0	1	1	1	0	0.4	0.9
11-Jul-06	0	A	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	1	1	1	0.4	1.1
12-Jul-06	A	1	0	0	0	0	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	A	0.6	1.3
13-Jul-06	1	1	0	0	0	1	1	1	0	0	0	0	0	0	1	1	1	1	0	C	C	C	C	C	0.5	1.1
14-Jul-06	0	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
15-Jul-06	0	0	0	0	0	A	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0.5	0.7
16-Jul-06	0	0	0	0	A	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	1.0
17-Jul-06	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	0	0.6	0.9
18-Jul-06	0	1	A	1	0	1	1	1	1	1	1	1	1	1	C	C	1	1	0	1	1	1	0	0	0.6	0.9
19-Jul-06	0	0	0	0	0	A	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.4	0.5
20-Jul-06	0	1	0	0	A	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1	1	1	1	1	0.5	0.7
21-Jul-06	1	1	1	A	1	1	0	1	1	1	1	0	0	1	0	1	0	1	1	1	1	1	1	1	0.6	0.7
22-Jul-06	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	1	1	0.5	0.8
23-Jul-06	1	A	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	1	0.6	1.1
24-Jul-06	A	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0	A	0.6	0.9
25-Jul-06	0	0	0	0	1	0	1	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	A	1	0.5	0.7
26-Jul-06	1	0	0	0	0	1	1	1	0	1	1	1	0	1	1	1	1	0	0	0	0	A	1	0	0.6	1.3
27-Jul-06	0	1	1	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0.5	0.7
28-Jul-06	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	1	1	0.5	1.3
29-Jul-06	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.5
30-Jul-06	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	1	1	0	0	0	0	0.4	0.8
31-Jul-06	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.4	0.5
Hourly Avg	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.5	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	0.6		
Hourly Max	1.1	0.9	1.1	0.9	1.3	1.4	1.4	1.3	1.2	1.5	1.5	1.5	1.1	1.4	1.2	1.2	1.2	1.1	1.0	1.0	1.3	1.3	1.2	1.3		

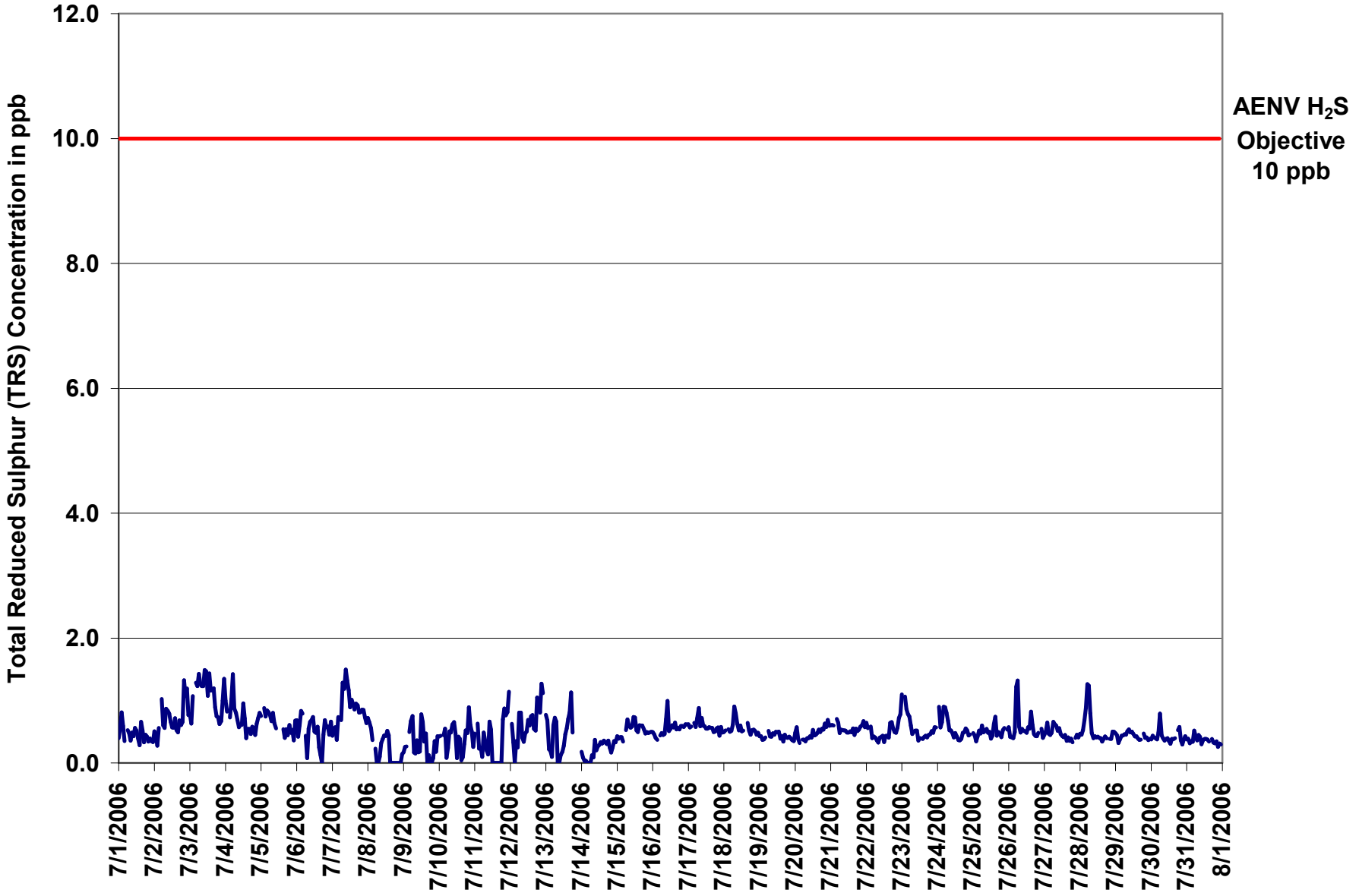


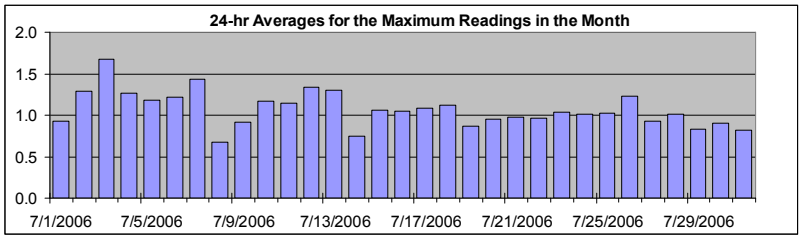
Figure 22. PASZA - Evergreen Park Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Evergreen Park
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Total Reduced Sulphur (TRS)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Value:	3.8	ppb	26-Jul	5:00 6:00
Maximum 24-hr Value:	1.7	ppb	3-Jul	

AIC Time:	32 hrs	Operational Time:	702 hrs
Calibration Time:	10 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average	Median
	2.2	1.8	1.2	1.0	0.9	0.7	0.4	1.1 ppb	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-Jul-06	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	1.2
2-Jul-06	1	1	1	1	A	2	1	1	1	1	1	1	1	1	2	1	1	1	1	1	2	2	2	2	1.3	2.3
3-Jul-06	2	1	2	A	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	2	2	1.7	2.1
4-Jul-06	1	1	A	1	2	2	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	2	1.3	2.0
5-Jul-06	1	A	2	1	1	1	1	1	1	1	1	C	C	C	A	1	1	1	1	1	1	1	1	1	1.2	1.6
6-Jul-06	1	1	1	2	1	A	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.2	1.7
7-Jul-06	1	1	1	1	1	A	1	2	2	2	3	2	1	2	1	1	1	1	1	1	1	1	1	1	1.4	2.6
8-Jul-06	1	1	1	1	A	1	0	1	0	1	1	1	1	1	1	0	0	0	1	1	0	1	0	1	0.7	1.1
9-Jul-06	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	1.3
10-Jul-06	1	1	A	1	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	2	1	1	1	1.2	1.7
11-Jul-06	1	A	1	1	1	1	1	2	1	1	1	1	1	0	1	1	0	1	1	2	2	2	2	2	1.1	2.1
12-Jul-06	A	1	1	0	1	1	2	1	1	1	2	1	1	1	2	2	1	1	1	2	2	2	2	A	1.3	2.0
13-Jul-06	1	1	1	2	1	2	1	1	1	1	1	1	1	1	2	1	2	2	1	C	C	C	C	C	1.3	1.9
14-Jul-06	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.3
15-Jul-06	1	1	1	1	1	A	1	2	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1.1	2.0
16-Jul-06	1	1	1	1	A	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.2
17-Jul-06	1	1	1	A	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.1	2.3
18-Jul-06	1	1	A	1	1	1	2	2	2	1	1	1	1	1	C	C	1	1	1	1	1	1	1	1	1.1	2.2
19-Jul-06	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	1.0
20-Jul-06	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.4
21-Jul-06	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.2
22-Jul-06	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.0	2.2
23-Jul-06	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	2.0
24-Jul-06	A	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1.0	1.6
25-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	A	1	1.0	2.3
26-Jul-06	1	1	1	1	1	4	3	1	1	1	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1.2	3.8
27-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.9	1.2
28-Jul-06	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.0	1.8
29-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.8	1.1
30-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	0.9	1.4
31-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0.8	1.1
Hourly Avg	1.1	1.0	1.0	1.0	1.1	1.2	1.2	1.2	1.1	1.1	1.2	1.0	1.1	1.0	1.1	1.1	1.0	1.0	1.0	1.0	1.1	1.1	1.0	1.1		
Hourly Max	2.0	1.6	1.7	1.6	1.9	3.8	3.2	2.3	2.2	2.4	2.6	2.0	2.0	2.0	1.9	2.3	1.9	1.9	1.5	1.8	2.3	2.0	1.8	2.2		

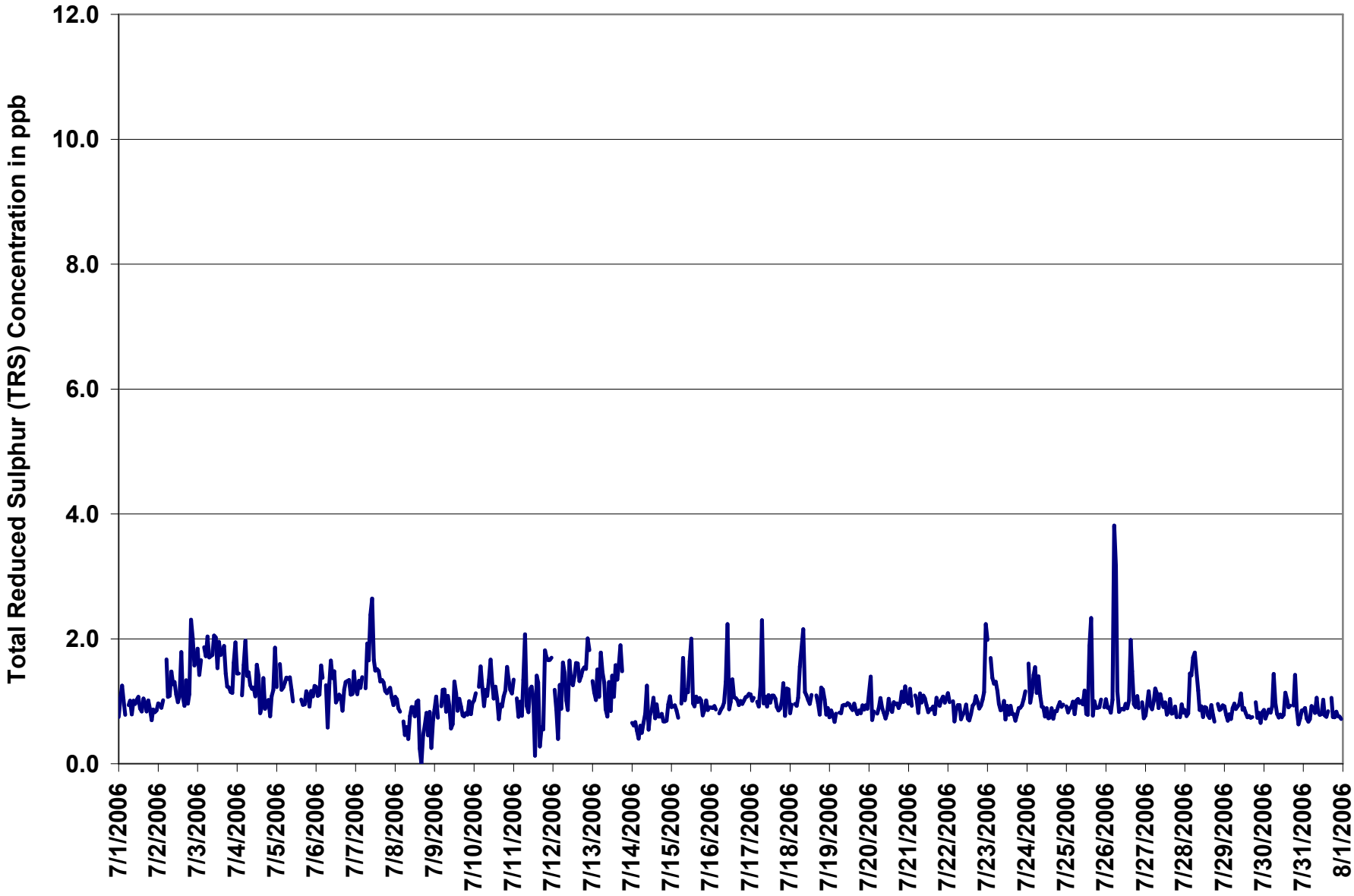
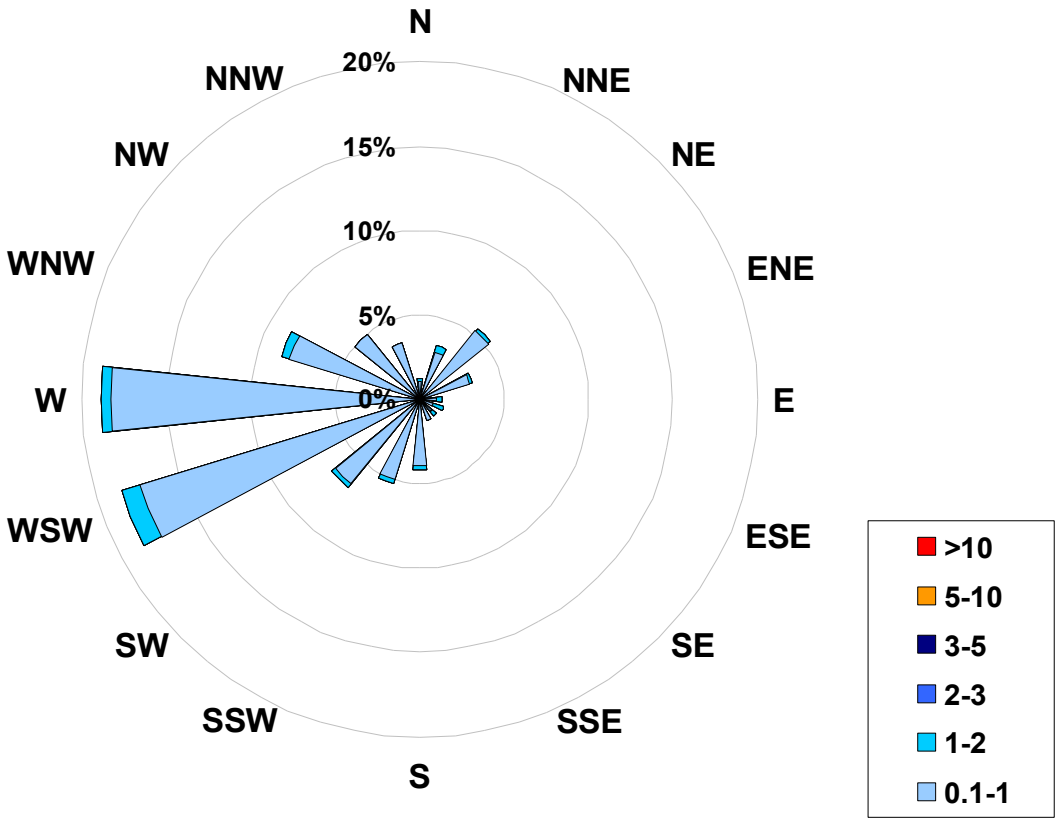


Figure 23. PASZA - Evergreen Park Total Reduced Sulphur Instantaneous (30 Second) Maximum Value Monthly Trend

1-hr Average Concentration Rose for Total Reduced Sulphur (in ppb)
Located at the Evergreen Park Site for July 2006



Calms:	0%

Frequency Distribution of TRS in ppb			
Range			Frequency (hrs)
0.1	<	1	663
1	to	2	39
2	to	3	0
3	to	5	0
5	to	10	0
	>	10	0
Total Non-Zero Values			702

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

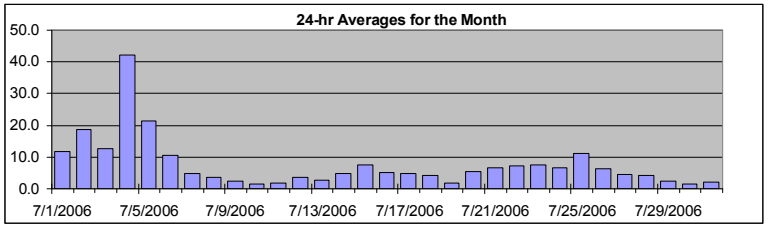
Station: Evergreen Park
Station Owner: PASZA

HOURLY AVERAGE TABLE

Particulate Matter ($PM_{2.5}$)

Monitoring Dates: July 1, 2006 to August 1, 2006

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



Summary

Number of 24-hr Exceedances (draft):	1			
Maximum 1-hr Average:	97.6	µg/m³	4-Jul	10:00 11:00
Maximum 24-hr Value:	42.3	µg/m³	4-Jul	

AIC Time:	0 hrs	Operational Time:	738 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	47.8	25.4	8.5	4.4	2.0	0.0	0.0	7.5 / 4 µg/m³	5.3 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-Jul-06	14	14	26	25	13	14	17	20	17	12	7	8	7	5	3	5	6	9	5	7	8	10	18	11	11.7	26.4
2-Jul-06	16	19	16	27	19	11	10	18	41	77	67	36	13	13	1	5	7	14	16	7	2	7	4	5	18.8	76.8
3-Jul-06	6	6	6	5	4	12	13	7	9	14	15	12	11	6	4	7	9	12	14	19	29	32	24	26	12.6	32.2
4-Jul-06	23	26	27	26	25	29	45	45	47	53	98	97	92	84	48	21	22	27	19	23	27	44	32	35	42.3	97.6
5-Jul-06	27	34	19	22	25	24	26	23	19	17	29	25	16	18	13	16	16	16	20	19	22	21	19	27	21.5	34.1
6-Jul-06	22	20	19	21	18	11	5	6	10	10	5	C	C	8	7	6	7	9	10	9	14	3	6	5	10.6	22.0
7-Jul-06	9	9	8	7	6	5	7	9	3	0	9	3	3	6	4	6	4	5	4	4	3	2	1	1	5.0	9.3
8-Jul-06	1	2	3	2	2	3	4	3	5	7	3	3	3	5	5	4	5	4	4	3	5	9	3	0	3.6	8.6
9-Jul-06	1	1	3	1	3	2	0	3	2	0	2	5	5	3	1	3	1	0	2	5	4	4	2	2	2.3	5.1
10-Jul-06	1	0	1	0	1	1	1	2	2	2	3	3	2	0	5	3	3	2	2	1	1	0	0	1	1.6	5.0
11-Jul-06	0	0	0	0	0	1	4	4	3	3	6	0	0	1	1	0	0	2	2	4	6	2	3	1	1.8	5.9
12-Jul-06	1	1	1	1	2	4	5	6	7	4	4	3	2	3	6	5	5	7	5	5	4	3	3	2	3.6	7.3
13-Jul-06	2	3	3	1	0	3	1	1	3	8	0	5	3	4	8	10	0	1	0	2	1	4	1	0	2.7	10.4
14-Jul-06	0	0	0	0	0	1	1	1	9	7	6	6	8	9	9	16	11	6	6	4	3	4	6	2	4.8	16.0
15-Jul-06	1	1	1	0	0	1	2	4	15	5	25	24	13	8	12	20	14	16	5	3	2	4	1	1	7.5	25.4
16-Jul-06	1	1	1	1	1	3	6	4	11	18	6	7	7	17	8	3	3	2	2	2	4	10	5	3	5.2	17.8
17-Jul-06	3	4	5	3	2	4	7	13	10	17	4	2	2	3	7	7	3	3	4	1	4	2	0	1	4.7	16.8
18-Jul-06	2	1	1	1	2	5	10	20	14	4	2	3	3	8	C	C	C	C	0	4	4	1	0	0	4.3	20.4
19-Jul-06	0	0	0	0	0	2	2	2	3	3	1	0	1	2	1	3	1	3	3	2	3	4	4	1	1.7	4.0
20-Jul-06	5	1	2	2	3	7	5	7	5	9	1	5	10	6	7	5	10	5	6	6	4	6	6	5	5.3	10.4
21-Jul-06	4	4	4	4	5	4	9	5	6	6	8	8	5	6	4	3	7	5	4	6	9	14	20	13	6.8	19.6
22-Jul-06	14	8	7	5	6	7	9	8	10	8	5	9	2	3	5	4	3	4	4	5	8	26	9	8	7.4	25.5
23-Jul-06	14	11	7	7	7	6	8	10	9	7	4	3	4	3	2	3	4	5	6	9	9	16	15	9	7.4	16.1
24-Jul-06	9	8	6	4	4	6	8	8	6	6	5	1	3	7	1	4	3	3	4	6	11	21	16	9	6.6	20.8
25-Jul-06	9	4	3	3	5	6	30	26	17	20	14	12	9	7	15	31	9	5	4	7	7	14	8	5	11.3	30.8
26-Jul-06	3	3	2	4	5	11	19	14	13	16	14	10	6	6	5	0	0	7	4	3	2	2	2	2	6.3	18.5
27-Jul-06	2	3	4	3	3	5	5	11	17	9	0	2	1	4	6	1	2	2	1	2	5	9	7	3	4.4	17.3
28-Jul-06	3	2	2	2	2	2	7	10	5	5	4	4	6	2	5	3	7	4	3	7	6	1	3	5	4.1	10.4
29-Jul-06	3	2	2	2	1	2	3	4	5	5	5	3	3	4	4	1	2	2	2	1	0	1	1	1	2.5	5.2
30-Jul-06	1	1	1	1	2	2	0	0	1	0	0	2	1	1	0	1	2	2	3	3	4	3	3	4	1.6	3.7
31-Jul-06	2	0	0	0	0	0	2	2	8	2	1	2	3	3	1	1	10	6	0	1	4	0	0	0	2.0	9.8
Hourly Avg	6.4	6.1	5.8	5.9	5.3	6.3	8.8	9.6	10.6	11.4	11.4	10.1	8.1	8.2	6.6	6.7	5.8	6.4	5.3	5.9	6.9	9.0	7.1	6.0		
Hourly Max	27.1	34.1	27.0	26.9	24.9	28.5	45.1	44.8	47.3	76.8	97.6	97.3	91.8	83.8	48.1	30.8	22.3	26.9	20.4	22.8	29.2	43.9	31.6	34.7		

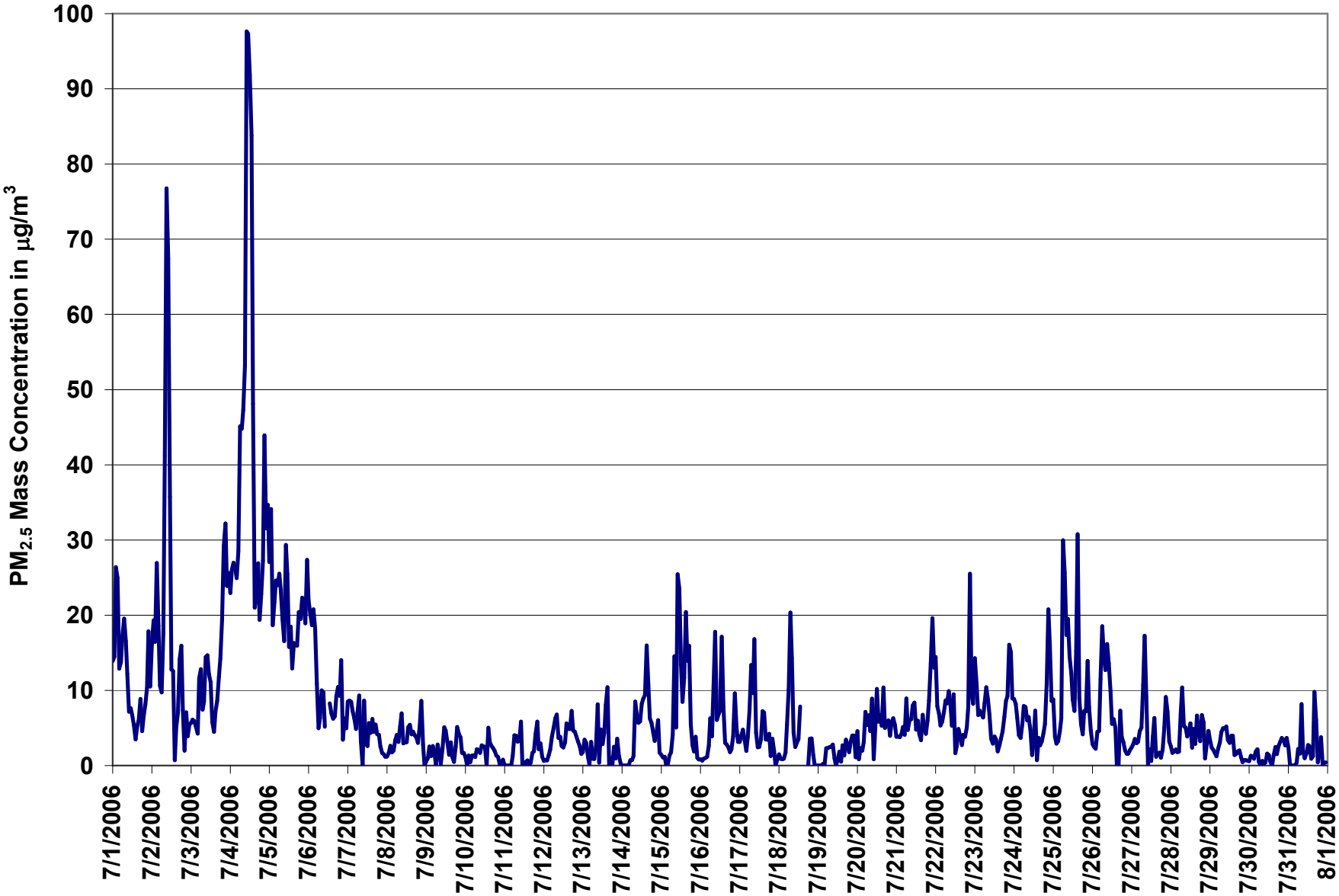


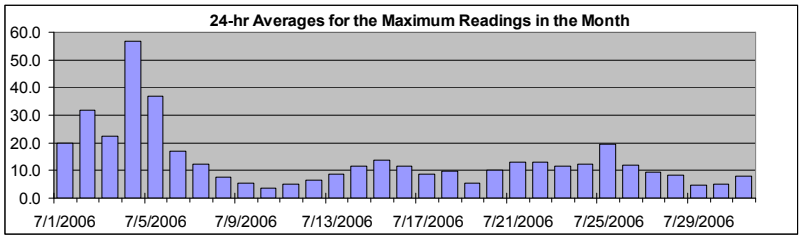
Figure 24. PASZA - Evergreen Park Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Evergreen Park
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Particulate Matter ($PM_{2.5}$)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Average:	115.3	µg/m³	4-Jul	13:00 14:00
Maximum 24-hr Value:	56.8	µg/m³	4-Jul	

AIC Time:	0 hrs	Operational Time:	738 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	76.0	38.6	17.4	8.4	4.8	2.0	0.7	13.6 8 µg/m³	10.9 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-Jul-06	24	20	38	36	18	23	21	24	20	19	20	16	13	11	12	14	13	19	13	14	20	27	29	16	19.9	37.9
2-Jul-06	24	29	28	31	35	15	14	34	62	84	81	62	30	20	16	20	14	51	57	10	5	17	13	9	31.7	83.8
3-Jul-06	8	9	7	10	7	19	19	12	13	23	28	21	25	15	18	15	16	17	54	45	46	39	39	35	22.4	53.5
4-Jul-06	34	32	35	29	32	33	57	57	60	80	115	114	101	115	63	35	39	52	28	29	50	83	44	44	56.8	115.3
5-Jul-06	38	69	30	30	38	43	32	29	38	39	58	54	41	43	24	36	37	35	37	29	30	24	23	33	37.0	69.0
6-Jul-06	25	24	21	24	23	18	24	13	20	25	23	C	C	16	9	8	9	11	15	14	25	13	9	8	17.1	24.8
7-Jul-06	10	10	11	9	8	7	21	26	17	3	33	15	9	14	28	31	8	9	7	6	4	3	4	2	12.3	33.0
8-Jul-06	2	3	4	3	4	6	6	5	12	18	7	5	7	7	9	7	13	12	9	6	9	16	8	1	7.6	17.8
9-Jul-06	3	2	4	4	8	4	2	5	4	2	6	8	10	6	5	6	3	3	12	11	6	5	4	3	5.3	11.6
10-Jul-06	2	2	3	1	4	4	3	4	4	3	5	5	6	3	9	6	5	4	4	6	3	2	0	2	3.8	8.6
11-Jul-06	1	1	1	0	1	3	7	10	9	15	16	2	3	2	3	2	3	5	4	9	11	4	4	3	4.9	15.8
12-Jul-06	2	2	2	3	4	6	7	12	11	7	7	4	7	7	10	8	7	13	10	6	6	5	5	3	6.4	12.5
13-Jul-06	4	7	9	3	2	7	8	3	8	25	4	22	10	8	22	27	3	4	2	13	3	6	3	2	8.5	27.3
14-Jul-06	1	1	2	1	1	4	4	4	21	21	9	12	15	24	27	34	23	18	14	13	7	9	8	3	11.4	33.8
15-Jul-06	3	3	3	1	1	3	5	8	24	16	43	46	27	15	18	31	23	26	15	5	5	7	4	3	13.9	46.3
16-Jul-06	2	2	3	2	3	6	9	7	32	38	21	15	20	39	18	7	5	6	5	4	6	15	8	6	11.5	38.7
17-Jul-06	5	7	7	6	4	7	13	20	17	26	14	6	5	6	11	15	6	6	7	4	7	4	1	2	8.5	25.8
18-Jul-06	3	4	2	2	3	8	25	29	25	18	6	6	6	16	C	C	C	C	9	10	13	3	3	1	9.7	29.3
19-Jul-06	1	1	1	2	1	4	7	5	5	5	5	3	7	6	3	9	4	6	7	3	6	14	16	7	5.3	15.6
20-Jul-06	8	6	4	4	6	10	13	18	8	12	4	12	22	9	11	14	20	14	8	9	6	7	8	9	10.1	21.6
21-Jul-06	5	6	6	6	9	7	19	8	12	8	16	21	11	11	7	7	16	13	7	10	17	31	32	30	13.1	31.9
22-Jul-06	17	12	9	8	8	10	13	13	13	12	9	14	7	8	20	10	7	8	9	10	13	45	22	16	13.0	45.1
23-Jul-06	20	15	10	8	8	8	11	15	10	9	7	7	6	8	7	6	8	10	11	14	21	20	21	12	11.5	21.3
24-Jul-06	14	16	9	6	6	8	12	12	12	13	12	7	12	12	5	11	7	7	8	13	25	29	21	15	12.1	29.4
25-Jul-06	15	7	6	5	6	19	40	37	29	32	25	20	15	20	27	65	21	8	6	10	10	20	12	9	19.4	65.1
26-Jul-06	4	4	3	7	6	16	30	18	18	30	35	34	12	15	9	2	3	11	6	5	5	3	4	3	11.9	35.0
27-Jul-06	4	4	6	5	5	9	10	22	23	18	3	6	6	13	21	5	5	7	5	6	10	14	12	5	9.3	22.7
28-Jul-06	4	3	3	6	6	5	10	18	12	8	8	6	9	6	9	11	12	9	6	19	12	8	6	8	8.5	19.1
29-Jul-06	5	4	4	4	3	4	6	6	7	7	7	6	5	6	7	5	3	4	7	4	3	1	3	2	4.6	7.3
30-Jul-06	2	3	2	3	3	3	2	2	3	2	4	8	8	5	3	6	6	6	8	15	8	8	6	8	5.1	14.6
31-Jul-06	7	2	1	1	1	2	5	4	25	17	3	16	13	10	9	8	27	22	4	5	7	0	3	2	8.0	26.6
Hourly Avg	9.7	10.0	8.8	8.4	8.5	10.4	14.6	15.5	18.5	20.5	20.4	19.2	15.6	16.0	14.7	15.4	12.2	13.8	12.6	11.5	12.9	15.6	12.1	9.7		
Hourly Max	37.9	69.0	37.9	36.1	37.8	43.5	56.6	57.3	62.5	83.8	114.9	114.3	101.5	115.3	63.4	65.1	38.7	52.1	56.8	44.5	49.6	83.2	43.8	44.1		

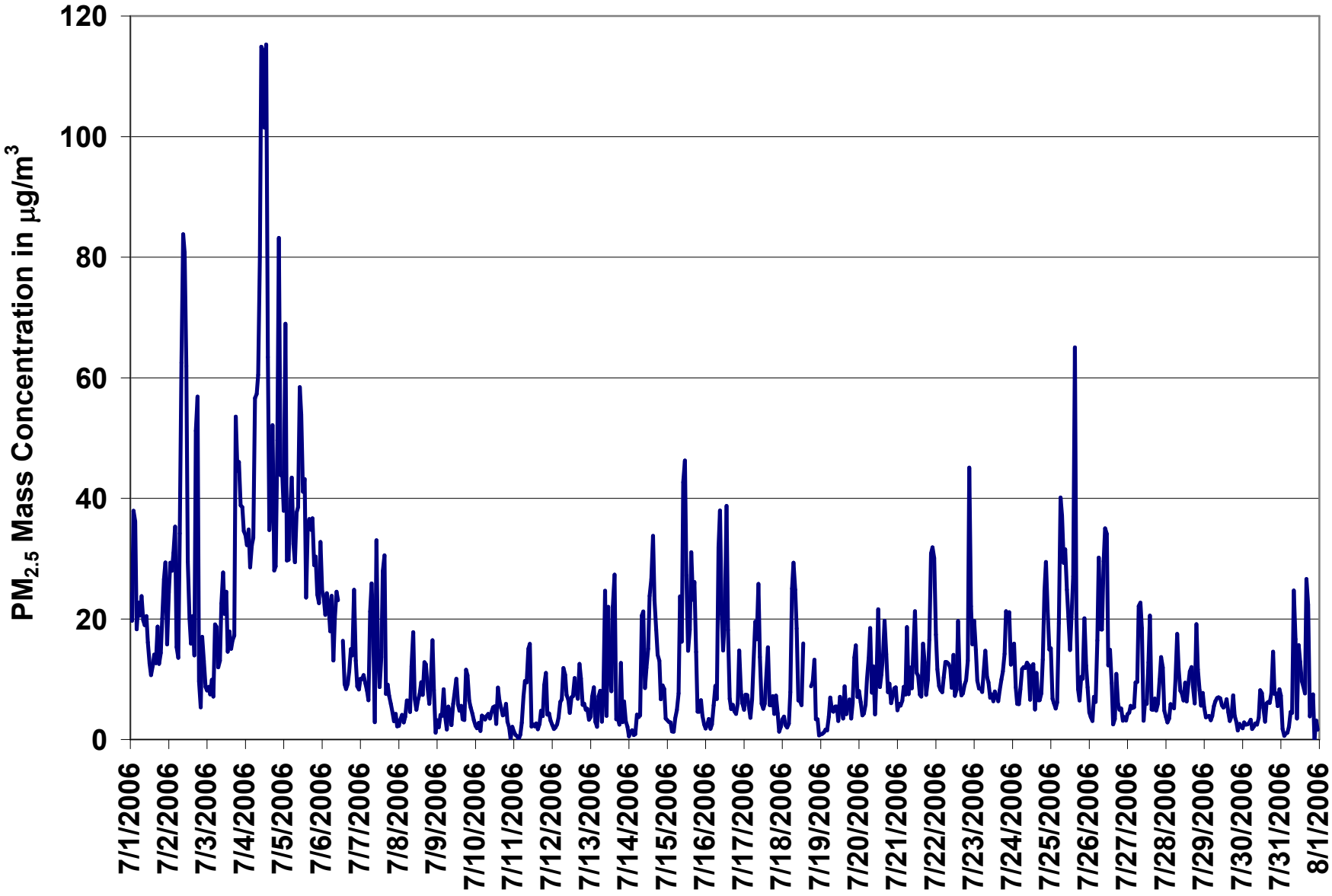
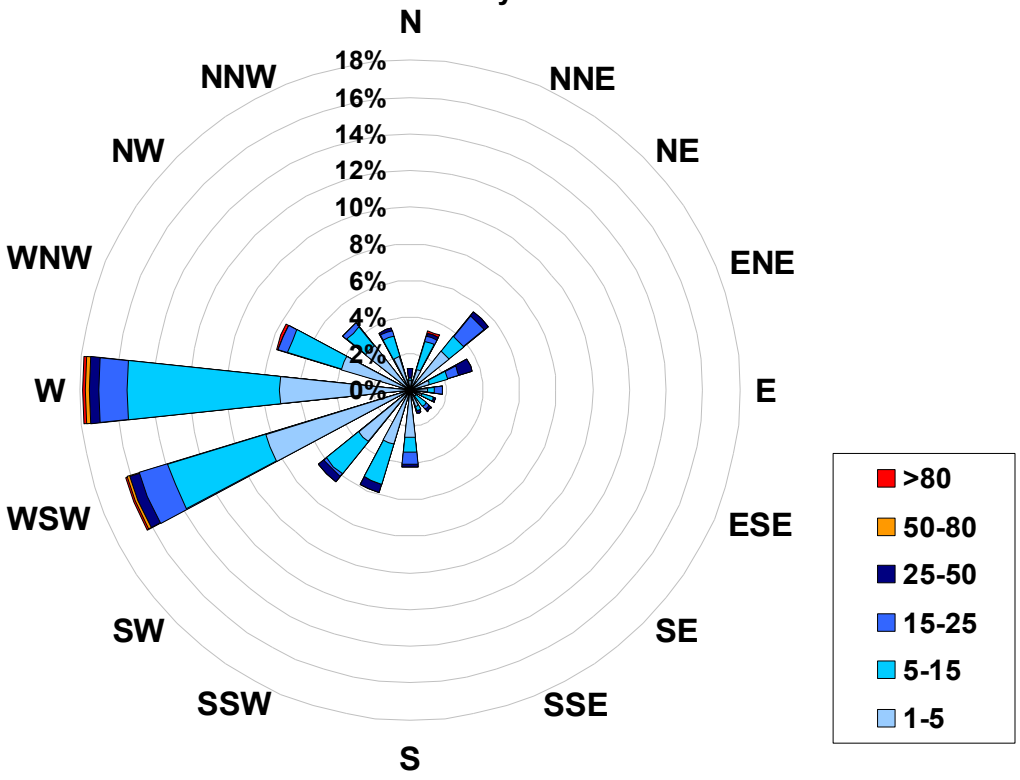


Figure 25. PASZA - Evergreen Park Particulate Matter (less than 2.5 microns) Instantaneous (30 Second) Maximum Value Monthly Trend

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 July 2006



Calms:	0%

Frequency Distribution of $PM_{2.5}$ in $\mu g/m^3$			
Range			Frequency (hrs)
1.0	<	5	410
5	to	15	230
15	to	25	60
25	to	50	31
50	to	80	3
	>	80	4
Total Non-Zero Values			738

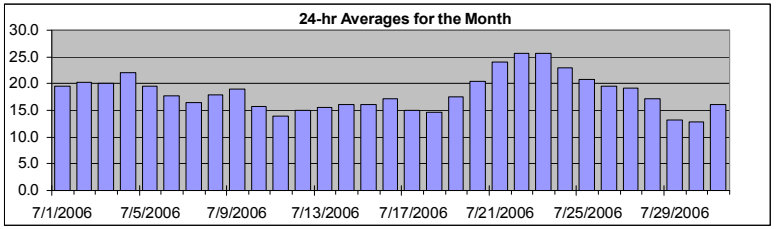
PASZA - Evergreen Park - Temperature Monthly Summary

Station: Evergreen Park
Station Owner: PASZA

HOURLY AVERAGE TABLE

Ambient Temperature (T)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Average:	34.4	°C	22-Jul	15:00 16:00
Maximum 24-hr Value:	25.6	°C	23-Jul	

AIC Time:	0 hrs	Operational Time:	744 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average	Median
	33.0	29.8	21.7	17.6	13.7	10.4	8.0	18.3 °C	17.6 °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-Jul-06	14	13	12	11	10	12	13	15	18	20	23	24	25	26	26	27	27	27	27	26	24	19	15	13	19.5	26.9
2-Jul-06	12	11	10	11	12	14	14	16	19	22	25	27	28	29	30	30	30	30	24	22	21	19	15	13	20.2	30.3
3-Jul-06	11	10	9	8	8	9	12	15	18	21	23	26	28	30	30	31	30	28	26	26	24	20	20	16	20.0	31.3
4-Jul-06	14	14	13	12	11	11	14	16	18	21	24	27	29	31	32	33	33	32	29	28	25	22	21	21	22.1	32.9
5-Jul-06	21	20	20	19	18	17	16	16	18	20	20	19	21	21	22	23	23	23	22	21	20	18	16	16	19.5	23.1
6-Jul-06	16	16	16	16	15	15	15	15	16	17	19	20	21	23	22	22	21	20	20	20	18	14	14	14	17.7	23.3
7-Jul-06	13	13	12	13	13	13	14	15	16	17	17	18	19	20	19	19	19	20	19	19	18	17	16	14	16.5	19.6
8-Jul-06	12	11	8	6	6	7	11	13	17	19	21	22	23	24	24	25	25	25	24	24	23	19	19	18	17.8	24.9
9-Jul-06	17	17	16	16	15	16	16	17	19	20	21	20	21	21	22	22	22	23	22	20	19	18	17	17	19.0	22.8
10-Jul-06	16	16	16	15	15	14	14	15	15	16	16	17	18	20	19	18	17	17	17	16	15	14	13	12	15.8	19.5
11-Jul-06	11	10	10	10	9	9	10	12	13	14	15	16	17	17	18	19	19	18	18	16	14	13	13	13	13.9	19.0
12-Jul-06	12	12	12	12	11	11	12	13	14	15	16	17	19	20	19	19	19	17	17	16	16	15	14	13	15.1	19.6
13-Jul-06	13	13	13	13	12	12	13	14	15	16	18	18	17	17	18	18	19	20	19	18	16	15	14	13	15.6	19.5
14-Jul-06	12	11	11	10	10	10	11	13	15	17	17	18	20	20	21	21	22	21	21	21	19	17	15	14	16.2	21.8
15-Jul-06	13	10	9	11	11	11	12	13	15	17	18	19	20	20	21	21	21	21	20	19	18	16	15	14	16.0	21.0
16-Jul-06	13	12	11	10	11	11	12	14	16	18	19	20	21	22	22	23	23	23	23	22	21	18	15	13	17.1	22.8
17-Jul-06	10	8	7	7	6	6	10	14	15	19	20	21	21	22	21	20	18	17	17	19	17	15	15	15	14.9	21.6
18-Jul-06	14	13	13	13	12	11	12	13	13	15	17	18	19	17	16	17	18	19	17	14	14	13	13	12	14.6	18.8
19-Jul-06	12	11	10	10	9	9	10	12	15	17	19	21	23	23	24	24	25	24	25	24	21	19	17	16	17.4	24.7
20-Jul-06	14	15	12	11	10	11	13	16	19	21	22	23	25	25	27	27	28	28	27	27	25	23	22	20	20.5	27.6
21-Jul-06	19	18	18	17	15	14	17	20	22	24	26	28	29	30	31	32	33	32	32	32	28	22	20	19	24.1	32.6
22-Jul-06	18	17	15	15	14	16	18	22	24	28	30	31	32	33	34	34	34	34	34	33	31	25	23	21	25.6	34.4
23-Jul-06	19	19	18	18	16	17	20	22	24	27	29	30	31	32	33	33	33	33	32	31	29	25	23	22	25.6	33.1
24-Jul-06	22	20	20	19	18	17	18	20	21	22	24	25	26	27	28	28	28	28	28	27	26	22	20	20	23.0	28.2
25-Jul-06	16	16	13	12	11	10	14	17	20	22	24	27	28	28	28	27	26	25	24	24	23	23	22	20	20.8	28.0
26-Jul-06	19	19	18	17	16	14	17	18	20	21	23	20	20	19	19	20	22	23	22	22	21	20	19	18	19.5	23.5
27-Jul-06	17	15	13	14	14	13	14	14	16	18	21	22	23	23	24	24	24	25	25	24	23	20	19	17	19.2	24.6
28-Jul-06	16	15	15	14	12	11	12	13	15	16	16	18	20	21	22	23	23	22	21	20	18	17	16	15	17.2	23.1
29-Jul-06	15	14	14	14	14	14	13	13	13	13	14	13	13	13	14	13	13	12	13	13	12	12	12	12	13.2	14.8
30-Jul-06	12	12	11	11	11	11	11	11	11	12	12	13	14	14	16	16	17	16	15	15	13	12	11	11	12.8	16.7
31-Jul-06	11	12	12	11	10	10	11	12	14	16	18	19	20	19	20	20	21	21	20	20	18	17	17	16	16.0	21.0
Hourly Avg	14.7	13.9	13.1	12.7	12.2	12.2	13.5	15.2	16.9	18.7	20.2	21.1	22.2	22.8	23.2	23.6	23.6	23.3	22.6	21.9	20.3	18.1	16.7	15.7		
Hourly Max	21.7	20.4	19.6	18.8	18.0	17.0	19.6	21.9	24.4	27.7	29.7	30.5	32.4	33.2	33.9	34.4	34.2	34.1	33.9	33.2	30.8	24.8	22.7	22.3		

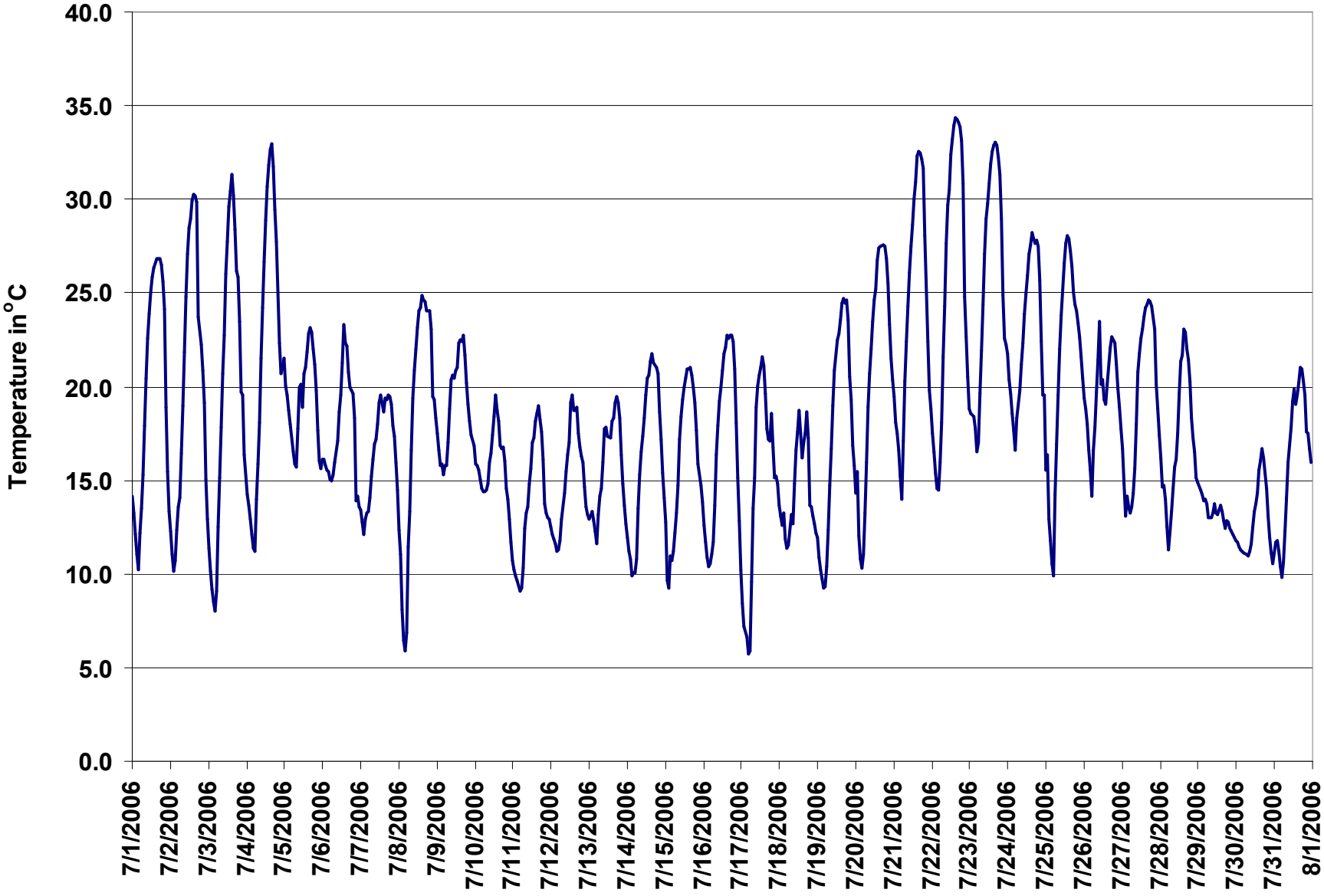


Figure 26. PASZA - Evergreen Park Temperature 1-hr Average Monthly Trend

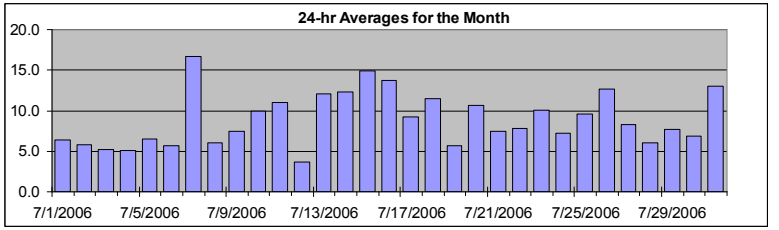
PASZA - Evergreen Park - Scalar Wind Speed Monthly Summary

Station: Evergreen Park
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSs)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Average:	27.2	km/hr	26-Jul	17:00 18:00
Maximum 24-hr Value:	16.6	km/hr	7-Jul	

Calm Time:	0 hrs	**0%** calms		Operational Time:			744 hrs	
Calibration Time:	0 hrs			AMD Operational Uptime:			100.0%	
Percentile	99	95	75	50	25	5	1	AverageS
	22.1	18.4	12.1	7.6	5.0	2.6	2.0	8.9 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-Jul-06	2	2	2	3	5	6	8	9	7	6	5	6	7	7	13	11	12	13	10	7	4	3	1	3	6.4	13.5
2-Jul-06	3	3	2	4	5	6	6	9	9	7	4	5	7	7	7	5	5	6	15	10	7	5	3	2	5.8	14.6
3-Jul-06	2	3	2	3	2	1	2	3	3	5	6	6	7	9	11	10	9	6	9	12	4	3	5	3	5.3	11.5
4-Jul-06	3	2	2	2	3	3	4	8	7	7	6	6	5	5	6	7	6	8	9	6	4	4	4	4	5.1	8.9
5-Jul-06	6	9	10	10	8	10	5	2	5	4	3	4	8	9	9	7	7	7	6	7	5	4	4	5	6.5	10.4
6-Jul-06	4	5	5	6	4	4	8	7	4	3	5	5	6	5	7	6	4	4	3	5	8	17	7	5	5.7	16.6
7-Jul-06	8	5	8	12	12	13	14	15	18	21	15	23	26	22	22	22	22	22	23	21	18	17	13	10	16.6	25.7
8-Jul-06	9	6	3	3	3	4	5	5	6	7	8	6	7	8	7	5	5	7	7	6	4	3	12	10	6.1	12.1
9-Jul-06	7	5	5	5	5	9	6	9	9	9	11	11	13	12	8	8	8	8	6	6	5	5	4	5	7.5	12.7
10-Jul-06	5	7	6	6	4	6	6	6	8	8	6	9	12	15	19	20	18	14	11	13	12	9	11	9	10.0	20.2
11-Jul-06	10	10	12	12	12	11	12	15	16	15	15	16	17	15	14	14	13	9	6	5	3	4	4	4	11.0	17.1
12-Jul-06	2	2	2	3	2	2	3	3	4	3	5	5	4	4	6	6	6	6	4	3	4	3	3	3	3.6	5.8
13-Jul-06	3	4	5	4	5	5	10	14	14	15	18	19	17	15	16	16	19	17	18	17	12	9	9	9	12.1	18.9
14-Jul-06	12	12	10	9	11	7	5	8	11	16	17	18	17	17	16	16	15	12	15	14	10	11	9	7	12.3	18.3
15-Jul-06	5	3	6	8	12	9	9	11	13	17	22	22	22	22	22	21	19	19	20	18	14	15	14	15	14.9	21.9
16-Jul-06	11	12	11	13	15	17	17	16	20	20	18	20	19	18	15	16	15	15	12	9	8	6	5	4	13.8	20.0
17-Jul-06	3	2	2	5	2	2	2	5	7	6	8	8	10	13	13	13	18	17	14	16	14	11	15	15	9.3	17.6
18-Jul-06	14	10	8	13	7	6	7	9	10	11	13	15	15	17	14	21	16	17	14	12	7	5	7	6	11.5	21.3
19-Jul-06	6	6	3	3	4	6	5	5	5	6	5	6	5	7	7	6	6	5	5	6	4	5	15	7	5.7	15.2
20-Jul-06	6	7	3	3	4	3	5	4	9	11	14	15	17	17	18	16	16	17	18	16	14	10	7	9	10.7	18.2
21-Jul-06	6	7	7	6	4	4	5	4	5	7	10	10	11	11	11	12	16	15	11	7	3	2	3	4	7.5	15.9
22-Jul-06	3	2	2	2	3	5	5	8	11	13	14	13	14	14	13	12	11	9	10	8	4	2	4	4	7.8	14.2
23-Jul-06	4	4	5	4	4	6	7	11	14	15	14	16	15	12	12	16	17	16	16	11	6	4	5	7	10.1	16.5
24-Jul-06	7	9	10	7	6	5	5	6	5	7	9	9	11	12	8	10	10	8	8	4	6	6	5	6	7.3	11.6
25-Jul-06	4	6	3	3	2	2	4	6	10	12	11	12	14	11	15	17	18	14	11	13	10	10	13	11	9.6	18.4
26-Jul-06	8	10	8	6	6	4	9	10	8	12	16	13	12	10	9	16	23	27	23	20	17	15	12	10	12.6	27.2
27-Jul-06	8	5	4	8	5	6	6	6	8	9	12	15	13	14	12	11	10	11	8	6	4	5	6	5	8.3	14.7
28-Jul-06	3	3	6	6	6	4	3	4	3	5	6	5	9	7	6	7	11	10	9	9	6	7	5	4	6.0	10.7
29-Jul-06	4	4	4	5	7	6	6	6	7	7	8	9	8	6	9	11	10	11	12	10	8	8	8	10	7.7	11.5
30-Jul-06	11	10	9	11	10	9	9	9	7	7	8	8	6	4	5	5	7	7	6	4	2	3	3	4	6.9	10.8
31-Jul-06	5	8	9	6	6	5	4	9	11	14	15	16	15	15	19	18	22	22	19	15	9	15	16	16	13.0	22.1
1-hr Average	6.0	5.9	5.6	6.1	6.0	6.0	6.4	7.8	8.8	9.8	10.6	11.4	11.9	11.7	11.9	12.3	12.7	12.2	11.5	10.1	7.6	7.3	7.5	7.0		
Hourly Max	14.2	12.0	11.9	13.0	15.3	17.5	17.1	16.1	20.0	20.9	21.6	23.1	25.7	22.5	21.9	22.1	23.1	27.2	23.1	21.0	17.9	16.9	15.8	15.9		

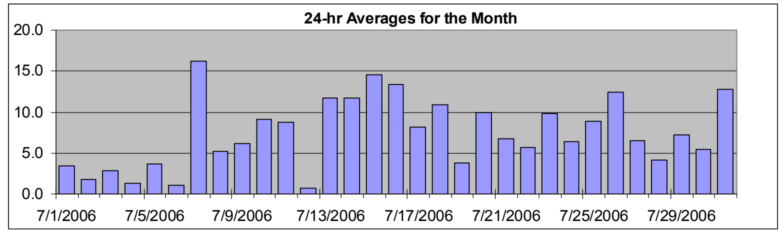
PASZA - Evergreen Park - Vector Wind Speed Monthly Summary

HOURLY AVERAGE TABLE

Wind Speed (WSv)

Station: Evergreen Park
Station Owner: PASZA

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Average:	26.8	km/hr	26-Jul	17:00 18:00
Maximum 24-hr Value:	16.2	km/hr	7-Jul	

Calm Time:	12 hrs	2% calms	Operational Time:	732 hrs
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	AverageV
	21.4	17.8	11.7	7.1	4.1	1.6	1.0	5.9 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-Jul-06	2	2	calm	1	5	5	7	9	7	4	4	3	5	4	12	10	12	12	10	6	4	1	1	2	3.5	12.2
2-Jul-06	calm	1	calm	2	calm	5	5	8	9	7	1	3	4	4	2	1	3	3	14	9	7	4	2	2	1.7	14.3
3-Jul-06	2	3	2	1	2	1	1	calm	2	3	3	5	6	8	10	9	8	6	9	9	3	1	4	2	2.8	9.7
4-Jul-06	calm	1	1	calm	1	2	4	7	7	7	5	5	3	3	5	4	4	7	9	6	3	2	3	3	1.3	8.6
5-Jul-06	6	6	9	9	6	8	4	1	5	3	2	4	7	9	8	6	6	6	6	7	5	4	4	5	3.6	9.4
6-Jul-06	4	4	5	3	2	3	8	6	4	2	4	4	3	2	6	5	4	4	2	4	3	15	5	5	1.1	15.5
7-Jul-06	7	5	8	11	11	13	14	15	17	21	15	23	25	21	21	21	21	21	22	21	18	17	13	9	16.2	25.2
8-Jul-06	9	5	1	calm	3	3	5	5	5	5	6	5	3	5	6	1	3	7	7	6	3	3	12	10	5.2	11.9
9-Jul-06	7	5	4	4	4	9	5	8	9	8	10	11	12	11	7	8	8	8	6	6	5	5	4	5	6.2	12.4
10-Jul-06	4	6	5	6	3	6	5	6	7	7	6	8	11	14	18	20	18	13	10	12	12	9	10	9	9.1	19.6
11-Jul-06	10	10	12	12	12	11	11	15	15	15	14	15	16	15	14	13	12	8	5	3	2	4	3	3	8.8	16.0
12-Jul-06	1	2	2	2	2	2	2	1	3	2	4	4	4	1	5	5	5	4	1	2	3	2	3	3	0.7	5.4
13-Jul-06	3	1	5	4	4	4	10	14	14	14	18	18	17	15	16	16	19	17	17	17	11	9	8	9	11.7	18.6
14-Jul-06	12	12	9	9	11	6	5	8	10	16	17	18	17	15	15	15	14	12	15	14	10	11	9	7	11.7	17.5
15-Jul-06	3	1	5	8	12	9	9	11	13	17	21	21	21	21	21	21	18	19	19	18	14	15	14	15	14.5	21.3
16-Jul-06	11	12	11	13	15	17	17	16	20	19	17	19	18	17	13	15	14	14	11	9	8	6	4	4	13.4	19.6
17-Jul-06	3	calm	1	5	1	1	calm	4	6	6	8	7	10	12	12	10	17	17	14	15	13	11	15	15	8.2	17.5
18-Jul-06	14	10	8	13	6	5	6	8	10	11	12	15	15	16	14	21	16	16	13	11	6	5	7	6	10.9	20.9
19-Jul-06	5	6	3	1	4	6	5	5	4	5	4	3	1	4	3	2	4	2	3	6	4	4	13	6	3.7	12.5
20-Jul-06	4	6	1	3	4	2	5	3	9	10	13	15	16	16	18	15	15	16	18	15	14	9	7	9	10.0	17.7
21-Jul-06	6	7	7	6	4	4	4	3	4	7	9	9	10	10	9	11	15	14	11	6	3	2	2	3	6.7	15.4
22-Jul-06	2	2	1	1	3	4	4	8	11	13	14	13	13	12	12	10	10	8	10	8	2	calm	3	2	5.6	13.8
23-Jul-06	3	3	5	4	4	6	6	11	13	14	13	15	13	11	11	15	16	15	15	10	6	4	5	7	9.8	15.9
24-Jul-06	7	8	10	7	6	4	4	5	3	5	7	7	10	10	6	7	8	5	7	3	6	5	5	5	6.4	10.0
25-Jul-06	3	6	2	2	calm	2	4	6	9	12	10	12	13	10	14	16	18	14	11	12	10	10	13	11	8.9	17.6
26-Jul-06	8	10	8	6	6	4	9	10	7	11	15	12	11	10	9	16	23	27	23	19	17	15	12	10	12.4	26.8
27-Jul-06	8	5	3	8	4	4	5	6	8	8	11	13	12	12	10	10	9	9	8	6	3	3	6	5	6.5	13.0
28-Jul-06	3	3	6	5	6	4	3	4	1	2	5	3	7	5	5	5	10	9	8	8	5	7	5	4	4.1	10.1
29-Jul-06	4	3	3	5	7	6	6	6	7	7	8	8	8	6	9	11	10	9	11	10	8	8	7	10	7.2	11.2
30-Jul-06	11	9	9	10	10	9	9	9	7	7	8	7	5	3	3	3	7	6	5	2	1	2	1	4	5.4	10.6
31-Jul-06	5	8	9	6	5	4	4	9	11	14	14	15	15	14	19	16	21	22	19	15	7	15	16	16	12.8	21.5
1-hr Vector	3.8	3.8	3.5	4.1	4.5	4.2	4.9	6.2	7.3	8.4	8.0	8.7	8.7	8.5	8.0	8.0	8.2	7.9	6.8	5.1	3.9	4.3	4.4	4.1		
Hourly Max	14.2	11.9	11.8	12.8	15.2	17.4	17.0	16.0	19.6	20.5	21.3	22.6	25.2	21.4	21.1	21.4	22.9	26.8	22.7	20.8	17.7	16.9	15.7	15.8		

PASZA - Evergreen Park - Wind Direction Monthly Summary

Station:	Evergreen Park
Station Owner:	PASZA

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: July 1, 2006 to August 1, 2006

Summary

Calm Time:	0 hrs	0% calms			Operational Time:		744 hrs		
Calibration Time:	0 hrs				AMD Operational Uptime:		100.0%		
Percentile	99	95	75	50	25	5	1	Average	
	346.0	328.1	274.3	252.2	195.1	39.1	14.9	267	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-Jul-06	197	197	104	83	213	262	267	257	265	255	223	269	250	301	320	342	336	340	347	20	71	142	178	50	301	WNW
2-Jul-06	132	143	185	212	289	189	200	250	252	269	247	195	157	214	239	235	197	77	65	72	81	106	47	36	188	S
3-Jul-06	31	41	24	41	202	202	26	104	9	220	185	137	131	119	107	127	119	129	201	188	134	358	321	66	132	SE
4-Jul-06	82	160	355	359	243	215	257	264	259	273	282	252	271	16	40	37	60	70	51	47	20	358	58	176	351	N
5-Jul-06	229	331	331	331	289	261	234	92	300	324	52	57	48	39	46	47	42	17	17	42	53	54	48	62	8	N
6-Jul-06	64	72	68	184	226	88	228	302	334	105	162	221	255	213	20	42	25	72	24	19	254	275	304	200	280	W
7-Jul-06	223	221	218	243	254	250	257	253	258	259	259	247	250	272	282	273	265	268	263	263	259	258	257	240	258	WSW
8-Jul-06	221	224	306	181	201	194	205	196	218	188	180	199	280	255	265	314	248	226	225	228	226	210	226	228	226	SW
9-Jul-06	207	198	297	261	246	255	289	252	256	278	263	234	252	262	260	213	214	212	187	177	171	192	174	172	236	WSW
10-Jul-06	188	231	299	287	285	304	328	313	297	309	318	292	299	286	331	329	320	309	316	312	308	309	280	270	305	NW
11-Jul-06	262	260	260	265	265	263	272	285	288	284	293	309	324	337	342	341	332	338	9	275	58	166	193	256	296	WNW
12-Jul-06	169	169	178	126	119	143	188	16	64	39	54	4	63	14	211	197	216	300	288	13	93	91	87	87	93	E
13-Jul-06	87	220	228	238	209	224	246	248	262	251	246	250	249	243	253	259	255	254	242	247	250	254	253	233	248	WSW
14-Jul-06	229	234	240	232	228	229	220	219	255	254	248	261	258	277	284	269	269	274	249	232	230	246	267	224	251	WSW
15-Jul-06	252	220	219	237	242	226	239	253	258	258	263	264	257	264	261	263	266	271	281	273	264	254	249	246	258	WSW
16-Jul-06	243	236	234	246	247	249	249	252	262	267	267	260	265	261	279	267	268	271	280	291	273	253	232	216	259	W
17-Jul-06	196	105	180	195	187	151	293	263	221	279	193	189	209	213	282	254	219	223	242	228	228	240	253	251	231	SW
18-Jul-06	250	256	265	257	284	302	279	276	253	254	251	272	273	265	255	255	273	283	279	331	259	248	246	243	267	W
19-Jul-06	237	220	229	285	211	208	189	200	197	220	222	265	331	256	173	161	185	159	124	120	104	158	172	99	191	S
20-Jul-06	200	246	156	200	197	213	217	231	254	243	251	259	260	258	276	281	274	274	272	275	267	269	273	254	260	W
21-Jul-06	263	252	251	248	234	191	198	182	264	260	269	256	255	252	297	255	259	266	279	298	319	191	176	224	257	WSW
22-Jul-06	204	233	207	173	210	207	201	244	241	250	258	250	280	292	293	304	322	324	335	336	299	192	11	32	278	W
23-Jul-06	240	309	284	298	296	303	286	260	258	264	277	280	283	276	279	277	267	268	261	275	280	253	255	251	273	W
24-Jul-06	274	314	325	314	319	327	315	305	274	258	259	297	282	257	322	310	327	332	332	326	258	256	252	268	297	WNW
25-Jul-06	290	251	174	244	149	219	245	244	248	251	254	253	266	259	281	278	292	304	285	253	260	263	260	262	265	W
26-Jul-06	254	249	246	240	248	262	252	252	264	251	266	277	285	287	262	253	257	262	260	257	252	250	250	244	258	WSW
27-Jul-06	241	234	273	255	266	278	297	268	257	280	292	284	303	289	286	311	326	318	338	340	332	29	62	65	296	WNW
28-Jul-06	23	345	331	290	295	300	304	305	67	319	35	27	335	10	60	43	42	56	57	82	86	49	36	30	22	NNE
29-Jul-06	48	30	54	49	54	58	37	45	53	50	55	52	54	51	57	53	46	15	29	39	46	38	351	330	40	NE
30-Jul-06	329	308	300	307	304	292	293	300	300	306	328	354	25	15	357	280	278	274	280	336	68	184	174	203	308	NW
31-Jul-06	255	254	264	271	285	311	304	270	264	269	269	270	283	267	269	259	267	267	261	263	276	258	255	251	266	W
Hourly Avg	241	252	265	260	255	253	257	260	263	264	262	265	273	273	288	281	279	282	282	278	264	256	254	245		

PASZA - Evergreen Park - Standard Deviation of Wind Direction Monthly Summary

Station: Evergreen Park
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: July 1, 2006 to August 1, 2006

Summary

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	**0%** calms	Operational Time: 744 hrs
Calibration Time:	0 hrs		AMD Operational Uptime: 100.0%

Percentile	99	95	75	50	25	5	1
	64.1	51.3	27.2	16.5	11.9	7.1	5.5

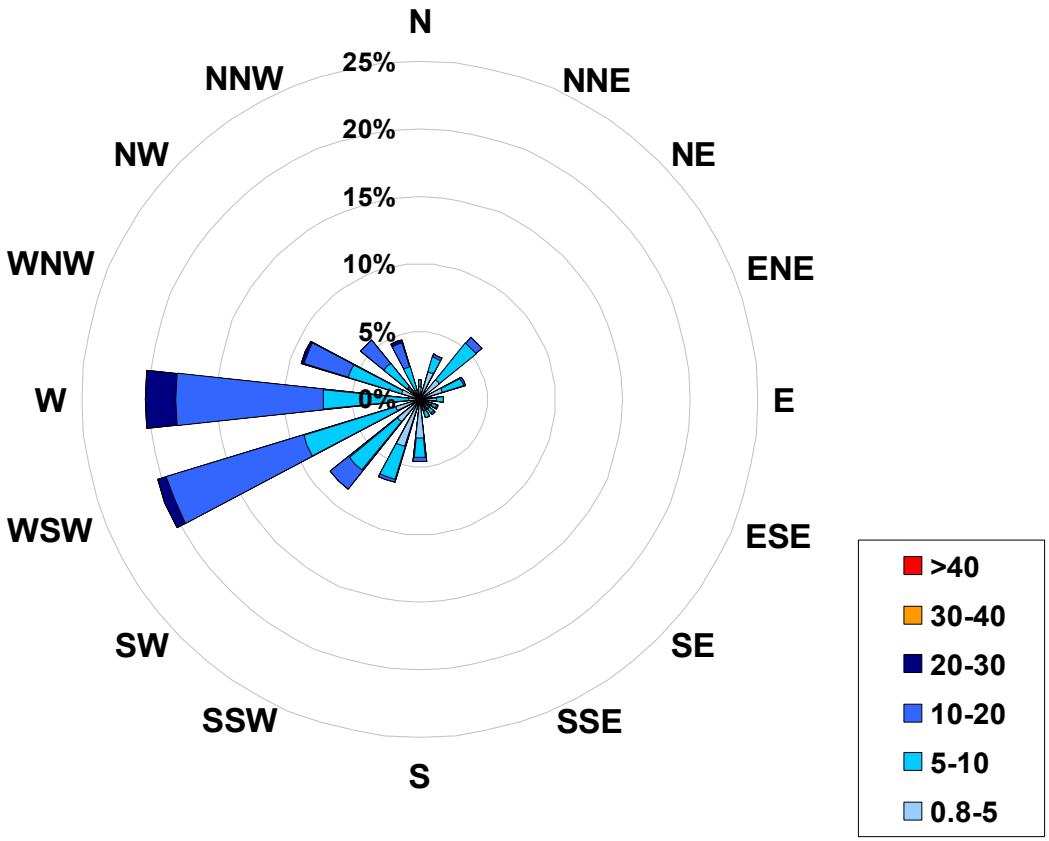
Status Flag Characters

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

Day — **Mountain Standard Time**

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-Jul-06	10	15	51	43	9	24	13	16	23	44	48	69	46	63	23	27	21	19	21	17	14	22	32	41	69.1
2-Jul-06	64	50	41	55	64	37	28	15	13	14	66	59	62	57	48	72	51	42	11	16	15	17	18	26	72.3
3-Jul-06	52	12	12	34	16	8	23	29	38	59	32	31	39	21	26	27	19	13	22	32	57	61	49	42	60.9
4-Jul-06	42	54	37	65	41	29	21	13	17	20	38	35	67	59	41	49	51	27	13	13	18	34	22	37	66.6
5-Jul-06	32	53	12	16	23	31	47	37	22	57	30	21	25	20	20	30	27	27	20	13	13	13	9	12	56.9
6-Jul-06	17	19	16	54	34	44	14	14	22	43	29	36	46	42	34	32	14	16	45	20	24	13	34	15	54.0
7-Jul-06	11	7	5	7	8	7	9	10	10	10	14	11	11	15	14	13	12	11	11	8	7	6	7	6	14.9
8-Jul-06	5	36	57	40	38	17	14	16	16	36	36	46	35	35	26	70	30	16	12	11	16	39	6	10	70.1
9-Jul-06	14	18	25	40	36	11	26	13	14	24	16	13	11	15	27	20	19	24	11	13	12	14	11	10	39.9
10-Jul-06	18	9	18	14	55	27	16	16	19	31	21	27	19	18	15	13	14	15	16	13	13	15	12	10	55.3
11-Jul-06	9	7	6	8	9	11	11	15	14	14	15	18	18	14	22	22	18	22	32	39	31	12	11	19	38.8
12-Jul-06	34	17	18	12	15	24	43	53	37	57	25	29	30	60	13	18	22	19	29	32	20	40	23	17	59.5
13-Jul-06	15	43	16	22	18	15	9	8	12	13	10	10	10	9	11	11	10	12	12	8	10	7	9	8	42.6
14-Jul-06	5	7	8	9	6	32	54	16	18	13	12	14	16	18	19	19	18	17	11	9	8	9	9	10	54.0
15-Jul-06	25	55	7	8	8	11	13	11	15	16	10	15	16	14	12	13	17	15	13	10	9	6	6	7	54.9
16-Jul-06	7	6	6	6	5	4	5	7	9	12	13	14	15	17	18	18	21	19	21	14	9	8	12	11	20.7
17-Jul-06	18	51	40	11	33	33	40	25	22	34	20	20	14	13	22	16	6	7	12	9	7	7	6	6	51.2
18-Jul-06	6	9	11	9	24	18	15	14	8	13	13	16	18	17	10	9	10	14	19	12	13	18	8	9	23.6
19-Jul-06	11	7	45	54	30	4	10	17	24	27	38	59	63	44	65	51	44	41	41	19	11	15	30	22	64.7
20-Jul-06	24	17	46	21	16	18	11	52	14	16	17	15	14	19	11	18	17	14	12	11	9	8	11	8	52.3
21-Jul-06	13	11	9	9	15	11	20	46	50	28	28	24	26	21	23	25	14	15	14	15	20	41	51	49	51.1
22-Jul-06	47	29	26	24	17	46	10	18	9	9	11	13	24	19	23	25	21	26	19	13	16	57	31	34	57.4
23-Jul-06	50	28	23	18	15	13	21	9	10	12	16	18	24	28	30	20	15	13	12	13	13	9	10	6	50.2
24-Jul-06	16	9	8	14	15	13	31	31	51	40	27	32	27	31	45	43	29	32	18	47	12	9	12	13	51.3
25-Jul-06	20	9	27	50	37	28	17	17	12	10	14	19	20	29	17	17	15	16	14	11	12	9	8	8	49.6
26-Jul-06	9	6	6	8	7	14	8	9	17	12	18	12	18	16	16	9	8	9	10	8	6	6	7	8	18.5
27-Jul-06	9	14	26	7	34	37	27	23	14	18	20	24	23	30	28	25	34	24	27	29	20	25	17	18	37.0
28-Jul-06	28	28	12	14	14	17	26	27	48	50	23	49	40	44	25	38	19	17	17	17	17	13	16	14	50.4
29-Jul-06	13	21	12	10	13	20	13	11	14	14	21	18	17	16	15	14	12	20	14	14	15	12	17	11	21.3
30-Jul-06	9	12	14	12	13	12	12	13	15	14	15	19	24	57	49	57	28	19	24	37	45	27	37	20	57.4
31-Jul-06	22	6	10	16	14	14	23	16	13	13	14	17	20	23	13	47	16	12	9	10	14	6	7	6	47.1
Hourly Max	64	55	57	65	64	46	54	53	51	59	66	69	67	63	65	72	51	42	45	47	57	61	51	49	

1-hr Average Wind Rose (in km/hr) Located at the Evergreen Park Site for July 2006



Calms:	0%

Frequency Distribution of Wind in km/hr			
Range			Frequency (hrs)
0.8	<	5	189
5	to	10	289
10	to	20	242
20	to	30	24
30	to	40	0
	>	40	0
Total Non-Zero Values			744

PASZA – Smoky Heights Station

Monthly Summary Tables, Graphs, and Roses

PASZA - Smoky Heights - Sulphur Dioxide Monthly Summary

HOURLY AVERAGE TABLE

Sulphur Dioxide (SO_2)

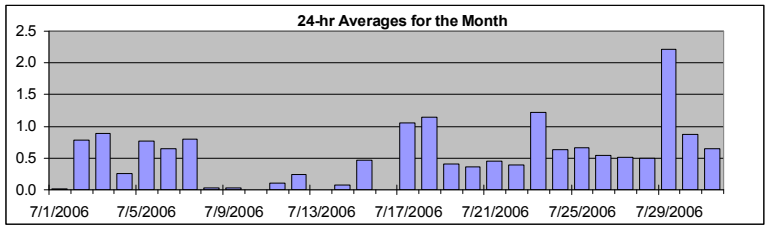
Station: Smoky Heights
Station Owner: PASZA

Monitoring Dates: July 1, 2006 to August 1, 2006

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:	7.1	ppb	17-Jul	7:00 8:00
Maximum 24-hr Average:	2.2	ppb	29-Jul	



AIC Time:	33 hrs	Operational Time:	699 hrs
Calibration Time:	10 hrs	AMD Operational Uptime:	99.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	4.4	2.6	0.8	0.1	0.0	0.0	0.0	0.6 ppb	0.1 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / 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-Jul-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.0	0.4
2-Jul-06	0	0	0	0	0	0	0	1	1	0	1	2	0	2	2	1	A	1	1	1	1	2	1	2	0.8	2.0
3-Jul-06	1	1	1	1	1	1	0	0	0	1	1	1	5	4	0	A	0	1	0	0	0	0	0	0	0.9	5.3
4-Jul-06	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	1	0	0	1	0	0	0.2	1.3
5-Jul-06	0	0	1	1	1	2	1	0	0	2	0	0	1	A	2	1	1	1	0	0	1	1	0	1	0.8	2.1
6-Jul-06	1	0	1	3	0	0	3	0	0	0	1	0	A	1	1	0	0	1	0	0	0	0	3	0	0.6	2.9
7-Jul-06	0	0	3	2	3	3	2	1	1	1	1	A	1	0	0	0	0	1	0	0	0	0	0	0	0.8	2.6
8-Jul-06	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	0.8
9-Jul-06	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
10-Jul-06	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
11-Jul-06	0	0	0	0	0	0	0	A	0	C	C	0	0	0	0	0	0	0	0	0	1	0	0	1	0.1	1.2
12-Jul-06	1	0	0	1	2	A	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.6
13-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
14-Jul-06	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.1	1.8
15-Jul-06	1	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	6	0	0.5	5.6
16-Jul-06	0	A	0	0	0	2	5	3	C	C	C	C	C	C	A	1	1	0	1	1	0	0	0	0	N	5.3
17-Jul-06	0	0	0	0	0	A	3	7	4	2	1	1	0	1	0	0	0	0	0	1	0	1	0	1	1.1	7.1
18-Jul-06	6	4	2	5	A	2	1	1	1	1	0	1	0	0	0	0	1	0	0	0	2	0	0	0	1.1	5.6
19-Jul-06	0	0	0	A	0	0	0	0	0	1	2	2	3	1	0	0	0	0	0	0	0	0	0	0	0.4	2.9
20-Jul-06	0	0	A	0	0	1	1	0	C	C	0	0	0	0	0	0	0	0	0	0	1	3	0	1	0.4	3.0
21-Jul-06	1	3	1	0	1	A	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0.4	2.9
22-Jul-06	0	1	0	0	A	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0	1	0	1	1	0.4	1.9
23-Jul-06	0	1	1	A	1	2	1	3	4	5	2	1	1	1	0	1	0	0	1	0	0	1	1	1	1.2	4.8
24-Jul-06	1	1	A	0	1	0	P	P	0	4	1	0	1	2	0	0	0	1	0	0	0	0	1	1	0.6	3.8
25-Jul-06	0	A	0	1	1	0	1	1	0	0	2	1	0	0	1	1	0	0	1	0	0	3	1	0	0.7	2.9
26-Jul-06	A	1	0	1	0	1	0	3	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	A	0.5	3.5
27-Jul-06	2	2	2	1	0	1	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.5	2.4
28-Jul-06	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	1	1	1	1	A	1	2	0.5	1.7
29-Jul-06	1	1	2	1	2	1	2	2	3	3	1	3	3	2	3	1	3	4	3	1	A	3	3	3	2.2	3.8
30-Jul-06	3	3	2	2	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	A	0	0	0	0	0.9	3.0
31-Jul-06	0	0	0	0	1	1	2	1	1	1	3	2	1	0	0	0	0	0	A	0	0	0	0	1	0.6	2.9
Hourly Avg	0.7	0.7	0.6	0.8	0.6	0.6	0.8	1.0	0.8	1.0	0.7	0.6	0.6	0.5	0.3	0.2	0.3	0.4	0.3	0.2	0.3	0.6	0.7	0.6		
Hourly Max	5.6	4.1	2.6	5.4	2.5	2.5	5.3	7.1	4.4	4.8	2.9	3.1	5.3	3.9	2.8	1.1	2.7	3.8	3.0	1.5	1.6	3.0	5.6	3.1		

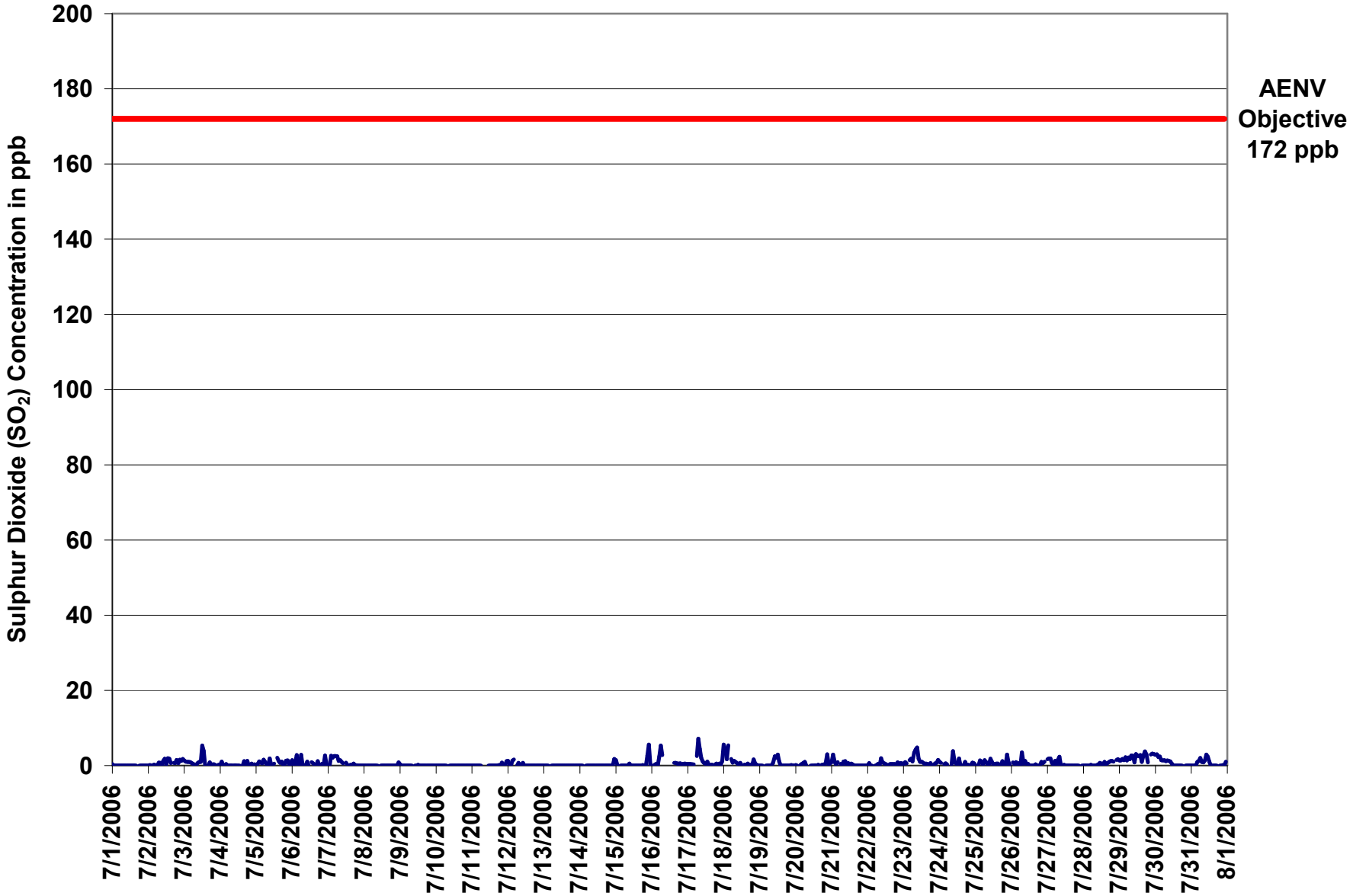


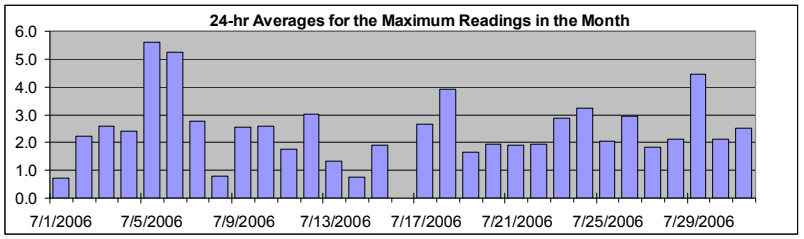
Figure 27. PASZA - Smoky Heights Sulphur Dioxide 1-hr Average Monthly Trend

Station: Smoky Heights
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Sulphur Dioxide (SO_2)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Value:	21.3	ppb	24-Jul	9:00 10:00
Maximum 24-hr Value:	5.6	ppb	5-Jul	

AIC Time:	33 hrs	Operational Time:	699 hrs
Calibration Time:	10 hrs	AMD Operational Uptime:	99.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	10.7	6.0	3.3	2.0	1.0	0.0	0.0	2.5 ppb	2.0 ppb

Status Flag Characters

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

Day — **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Jul-06	1	1	1	1	0	1	1	1	1	1	1	1	0	0	0	1	1	A	0	0	0	0	1	1	0.7	1.5
2-Jul-06	0	1	0	1	1	1	2	3	3	3	5	5	2	3	3	2	A	2	2	3	2	3	3	3	2.2	5.0
3-Jul-06	2	2	2	2	2	2	2	2	2	3	3	6	7	7	1	A	1	2	1	2	2	2	2	2	2.6	7.3
4-Jul-06	2	2	1	2	2	1	2	2	2	2	3	3	0	0	A	3	4	4	4	3	3	4	4	4	2.4	4.0
5-Jul-06	5	6	6	5	5	6	6	6	7	7	5	5	5	A	6	5	6	6	6	5	5	6	5	6	5.6	7.3
6-Jul-06	6	1	6	6	4	5	7	7	5	5	7	5	A	5	5	4	6	6	5	5	5	7	7	2	5.2	7.5
7-Jul-06	2	3	7	6	6	6	6	6	5	3	2	A	2	1	1	1	1	1	2	1	1	0	0	0	2.8	6.7
8-Jul-06	0	1	0	0	0	1	0	0	0	0	A	0	0	1	2	2	1	2	1	0	0	1	3	4	0.8	4.2
9-Jul-06	3	2	3	3	3	3	2	3	2	A	4	3	4	3	3	2	2	2	1	0	2	2	2	3	2.6	3.6
10-Jul-06	2	3	4	5	1	3	3	2	A	4	2	3	2	3	3	3	3	2	2	2	2	2	1	2	2.6	5.0
11-Jul-06	2	1	2	1	1	1	2	A	1	C	C	0	0	2	2	2	2	3	3	1	3	3	1	4	1.8	4.2
12-Jul-06	4	2	1	4	4	A	2	5	5	4	5	2	3	4	3	2	2	2	3	2	2	4	3	2	3.0	5.4
13-Jul-06	2	1	0	1	A	3	0	4	3	2	1	1	0	0	0	0	0	0	0	0	0	2	4	5	1.3	4.6
14-Jul-06	2	0	0	A	0	0	0	1	0	1	1	0	0	1	1	0	0	0	0	0	0	1	1	7	0.8	7.4
15-Jul-06	3	2	A	0	1	1	1	1	2	2	2	1	0	2	0	0	0	1	0	0	0	9	11	3	1.9	11.5
16-Jul-06	2	A	1	1	1	12	18	8	C	C	C	C	C	C	A	2	2	2	1	1	1	1	1	1	N	18.5
17-Jul-06	1	1	1	1	1	A	10	14	10	3	2	2	2	2	1	1	1	1	1	1	1	1	1	5	2.7	14.2
18-Jul-06	12	10	11	14	A	3	1	2	3	2	2	2	2	2	2	2	2	2	2	2	5	2	2	2	3.9	13.9
19-Jul-06	1	0	1	A	1	1	1	1	3	4	5	5	5	4	1	1	1	1	0	1	1	1	1	1	1.6	4.8
20-Jul-06	1	1	A	1	2	2	5	1	C	C	0	0	0	2	2	1	1	1	2	2	3	8	2	2	2.0	7.8
21-Jul-06	3	6	2	2	2	A	3	2	4	4	2	2	1	1	1	1	1	0	0	0	1	2	2	3	1.9	5.6
22-Jul-06	3	3	3	2	A	2	3	3	2	3	2	1	1	1	0	1	1	1	1	1	2	2	3	3	2.0	3.4
23-Jul-06	3	4	3	A	4	4	4	6	7	7	4	1	2	1	1	1	1	1	1	1	1	2	3	3	2.9	6.7
24-Jul-06	3	2	A	3	2	3	P	P	1	21	5	2	2	4	1	1	1	3	2	2	2	2	3	2	3.2	21.3
25-Jul-06	2	A	2	2	2	2	4	3	2	2	4	4	1	2	1	1	1	2	2	1	1	6	2	1	2.1	5.6
26-Jul-06	A	3	2	2	2	2	5	10	2	3	3	2	2	2	3	3	3	1	2	1	3	6	4	A	2.9	10.3
27-Jul-06	6	5	4	2	2	3	2	4	5	2	1	2	0	0	1	1	0	0	0	0	0	0	A	0	1.8	5.9
28-Jul-06	1	1	2	1	0	1	1	2	2	2	2	2	2	2	3	2	3	3	3	3	3	A	3	3	2.1	3.2
29-Jul-06	4	3	4	3	4	3	4	4	5	5	3	5	5	6	6	3	5	6	6	3	A	6	5	5	4.5	5.9
30-Jul-06	5	5	4	4	3	3	3	3	3	3	3	3	1	2	1	1	1	0	0	A	0	1	1	0	2.1	4.8
31-Jul-06	0	0	0	2	2	3	4	3	3	3	5	5	4	1	1	1	2	2	A	2	1	1	2	9	2.5	8.7
Hourly Avg	2.8	2.6	2.5	2.8	2.0	2.8	3.5	3.8	3.2	3.6	3.0	2.5	2.0	2.2	1.9	1.6	1.8	1.9	1.8	1.6	1.8	3.0	2.8	3.0		
Hourly Max	12.0	10.5	10.7	13.9	6.0	12.0	18.5	14.2	10.1	21.3	7.1	5.9	7.3	7.3	5.7	4.9	6.0	5.9	5.6	5.1	4.9	9.2	11.5	8.7		

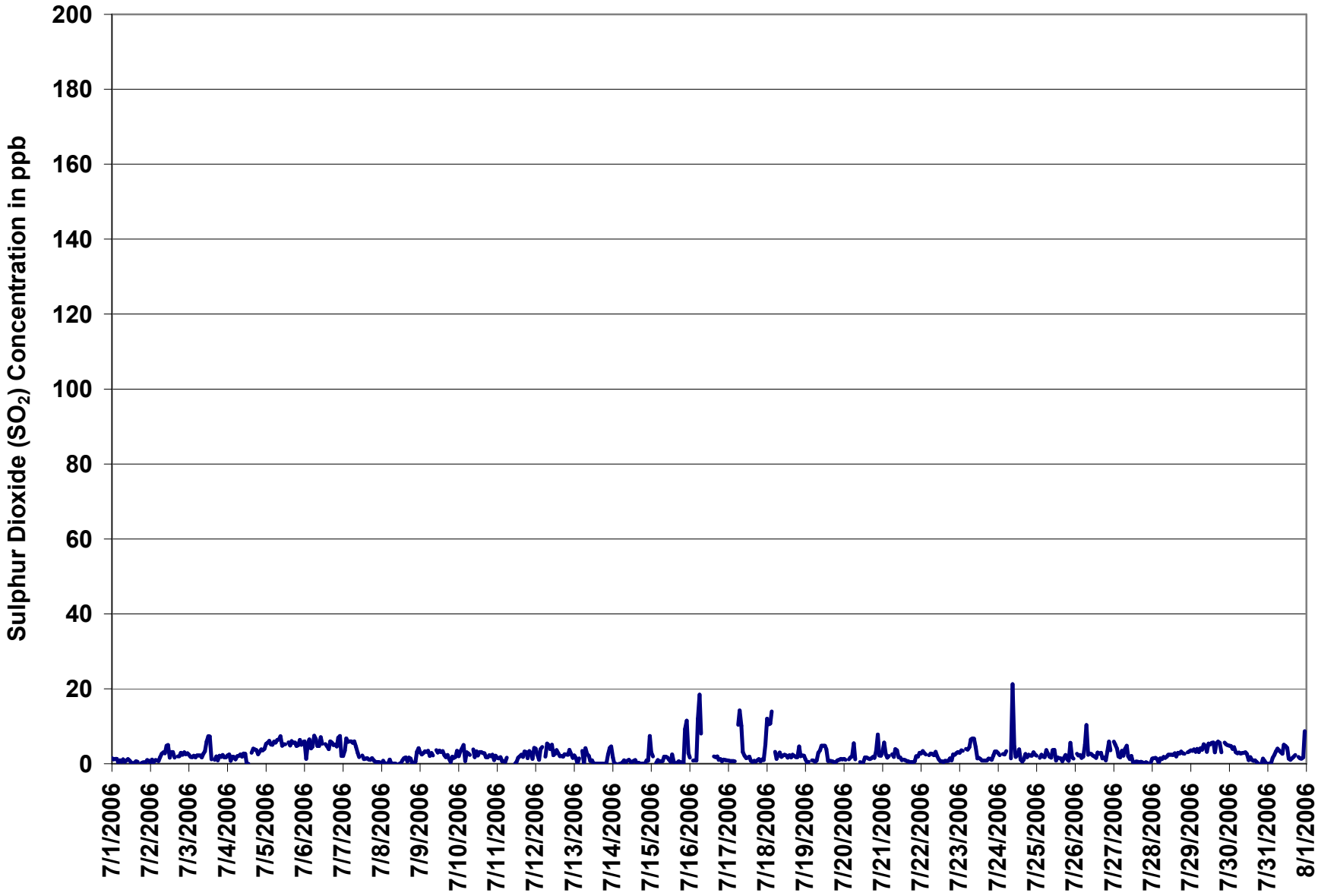
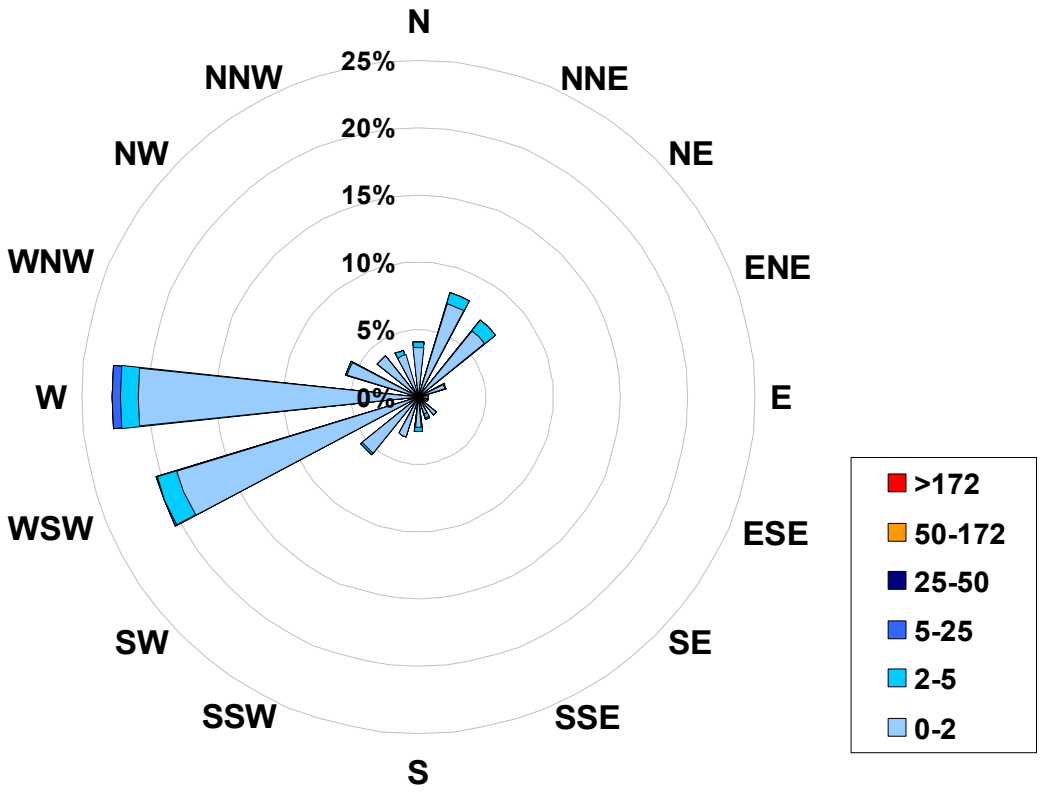


Figure 28. PASZA - Smoky Heights Sulphur Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Smoky Heights Site for July 2006



Calms:	0%

Frequency Distribution of SO_2 in ppb			
Range			Frequency (hrs)
0.0	<	2	645
2	to	5	48
5	to	25	6
25	to	50	0
50	to	172	0
	>	172	0
Total Non-Zero Values			699

PASZA - Smoky Heights - Total Reduced Sulphur Monthly Summary

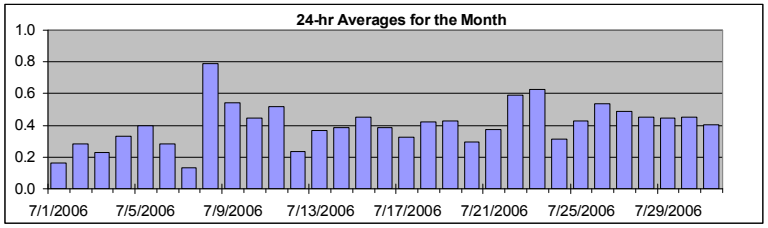
Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Total Reduced Sulphur (TRS)

Monitoring Dates: July 1, 2006 to August 1, 2006

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



Summary

Maximum 1-hr Average:	6.4	ppb	8-Jul	22:00 23:00
Maximum 24-hr Value:	0.8	ppb	8-Jul	

AIC Time:	33 hrs	Operational Time:	703 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	99.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	1.7	0.9	0.5	0.4	0.2	0.0	0.0	0.4 ppb	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-Jul-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0.2	0.4
2-Jul-06	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0.3	1.0
3-Jul-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	1	0.2	0.7
4-Jul-06	1	0	1	0	0	0	0	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0.3	1.0
5-Jul-06	1	0	0	1	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	1	1	1	0.4	0.7
6-Jul-06	0	0	0	0	0	1	0	0	0	1	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.3	0.7
7-Jul-06	0	0	0	0	0	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5
8-Jul-06	0	0	1	1	1	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	4	6	4	0.8	6.4
9-Jul-06	2	2	1	1	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.3
10-Jul-06	0	0	0	0	1	0	0	0	A	1	1	0	0	0	0	0	1	1	1	1	0	0	0	0	0.4	0.7
11-Jul-06	0	0	0	0	0	0	0	A	0	C	C	C	C	A	1	1	1	1	1	1	1	1	0	0	0.5	0.9
12-Jul-06	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	1.2
13-Jul-06	2	3	2	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.5
14-Jul-06	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.4	0.6
15-Jul-06	0	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.5	0.6
16-Jul-06	1	A	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.4	0.8
17-Jul-06	1	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.8
18-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	1	0.4	0.6
19-Jul-06	1	1	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0.4	1.6
20-Jul-06	1	1	A	1	1	0	0	0	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.6
21-Jul-06	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.4	1.3
22-Jul-06	1	1	1	1	A	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.6	1.3
23-Jul-06	1	1	1	A	2	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.6	2.5
24-Jul-06	1	0	A	0	0	0	P	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.3	0.9
25-Jul-06	1	A	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	1.2
26-Jul-06	A	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.5	1.3
27-Jul-06	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	A	1	0.5	0.8
28-Jul-06	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.5	0.6
29-Jul-06	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	A	1	0	0	0.4	0.6
30-Jul-06	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	A	1	1	1	1	0.5	0.8
31-Jul-06	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.4	0.9
Hourly Avg	0.6	0.6	0.6	0.5	0.6	0.6	0.5	0.4	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	0.5	0.7	0.7		
Hourly Max	2.3	2.5	1.9	1.1	2.5	1.7	1.3	0.8	0.6	0.5	0.7	0.5	0.5	0.5	0.6	0.7	0.9	0.9	0.8	0.7	0.6	3.6	6.4	3.7		

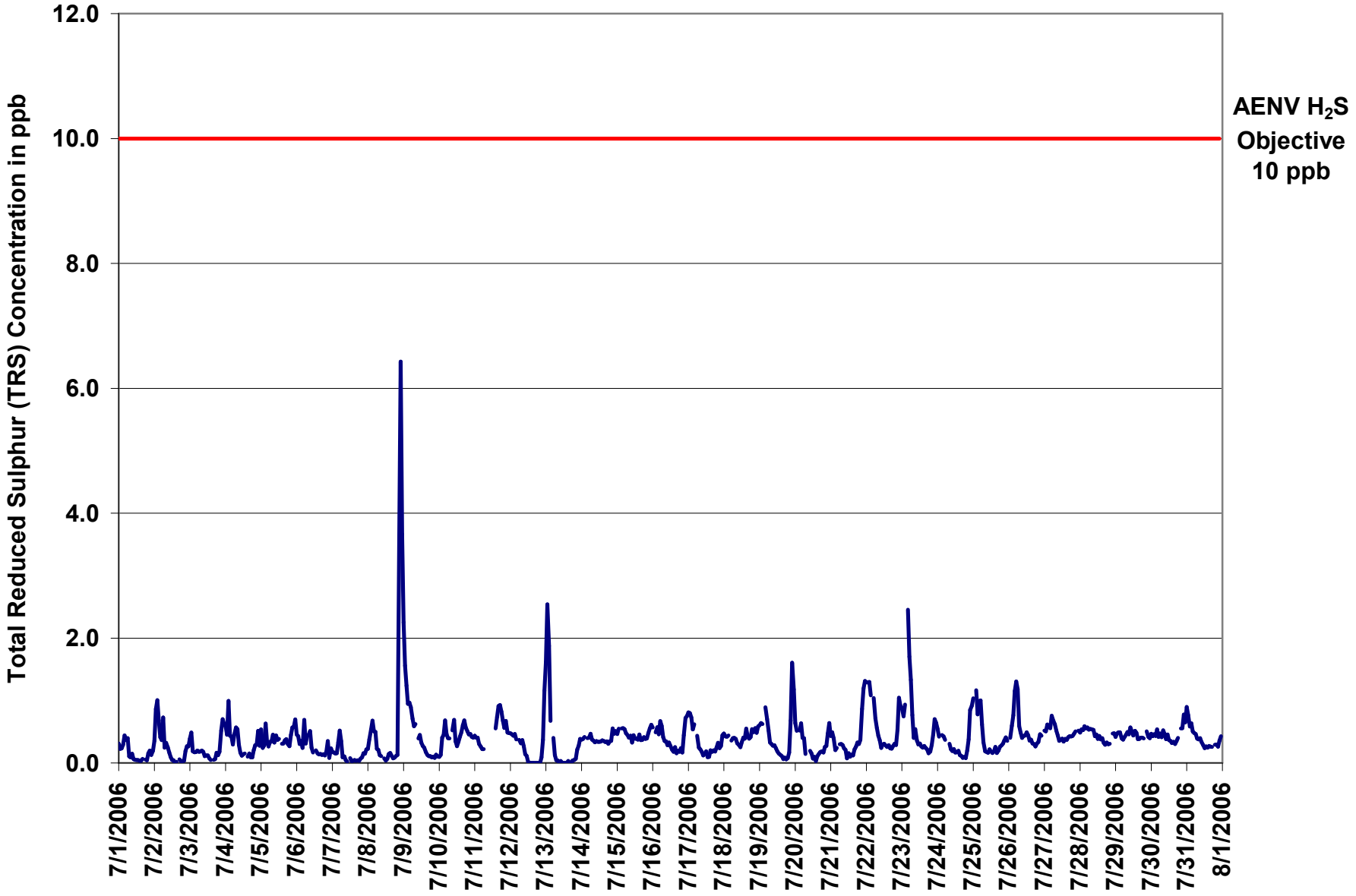


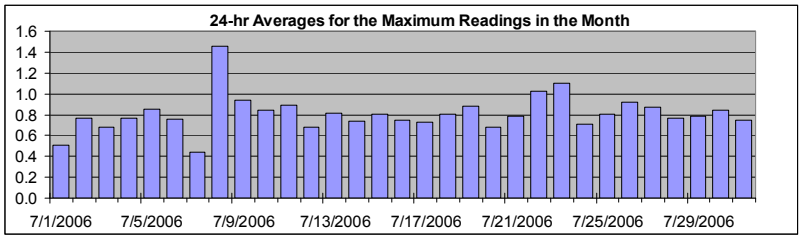
Figure 29. PASZA - Smoky Heights Total Reduced Sulphur 1-hr Average Monthly Trend

Station: Smoky Heights
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Total Reduced Sulphur (TRS)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Value:	8.2	ppb	8-Jul	22:00 23:00
Maximum 24-hr Value:	1.5	ppb	8-Jul	

AIC Time:	33 hrs	Operational Time:	703 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	99.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	3.0	1.6	0.9	0.7	0.6	0.3	0.3	0.8 ppb	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-Jul-06	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	A	0	0	1	0	0	1	0.5	1.2
2-Jul-06	1	2	2	1	1	1	1	1	1	1	0	1	0	0	0	0	A	0	0	0	0	1	1	1	0.8	2.3
3-Jul-06	1	1	0	1	0	0	0	0	1	1	0	1	0	0	0	A	0	0	1	1	2	1	2	1	0.7	1.7
4-Jul-06	1	1	2	1	1	1	1	1	1	1	0	1	0	0	A	0	0	0	0	1	1	1	1	1	0.8	1.8
5-Jul-06	1	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.8	2.0
6-Jul-06	1	1	1	1	1	3	1	1	1	1	1	0	A	1	0	0	0	1	0	0	1	1	0	1	0.8	2.9
7-Jul-06	1	0	1	1	1	1	1	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1	0.4	0.9
8-Jul-06	1	1	1	1	1	1	1	1	0	0	A	0	0	0	1	1	0	0	0	0	1	8	8	5	1.5	8.2
9-Jul-06	3	2	2	1	1	1	1	1	1	A	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0.9	3.1
10-Jul-06	0	0	1	2	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.6
11-Jul-06	1	1	1	1	1	1	0	A	1	C	C	C	C	A	1	1	1	1	1	1	1	2	1	1	0.9	1.5
12-Jul-06	1	1	1	1	1	A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	3	2	0.7	2.5
13-Jul-06	3	3	3	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.8	3.5
14-Jul-06	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9
15-Jul-06	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	1.1
16-Jul-06	1	A	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	0.7	1.2
17-Jul-06	1	1	1	1	1	A	1	1	1	1	1	1	0	0	0	0	1	1	0	1	1	1	1	1	0.7	1.3
18-Jul-06	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0
19-Jul-06	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1	1	2	2	0.9	2.3
20-Jul-06	1	1	A	1	1	1	1	0	C	C	0	0	0	0	0	1	0	1	1	1	1	1	1	1	0.7	1.1
21-Jul-06	1	1	1	1	1	A	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	2	2	2	0.8	2.1
22-Jul-06	2	2	2	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1.0	1.7
23-Jul-06	1	1	2	A	4	3	2	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1.1	3.6
24-Jul-06	1	1	A	1	1	1	P	P	1	1	1	1	1	0	1	1	0	1	0	0	1	1	2	1	0.7	1.6
25-Jul-06	2	A	2	1	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1	1	1	1	1	1	0.8	1.7
26-Jul-06	A	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.9
27-Jul-06	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-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	0.9
29-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	0.8	0.9
30-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.8	1.4
31-Jul-06	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.8	1.3
Hourly Avg	1.1	1.0	1.1	1.0	1.0	1.1	0.9	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	1.1	1.3	1.1		
Hourly Max	3.1	3.5	3.0	2.0	3.6	3.3	1.9	1.1	1.0	1.0	1.1	0.8	0.8	1.0	0.9	1.3	1.2	1.3	1.2	1.1	1.7	8.1	8.2	5.0		

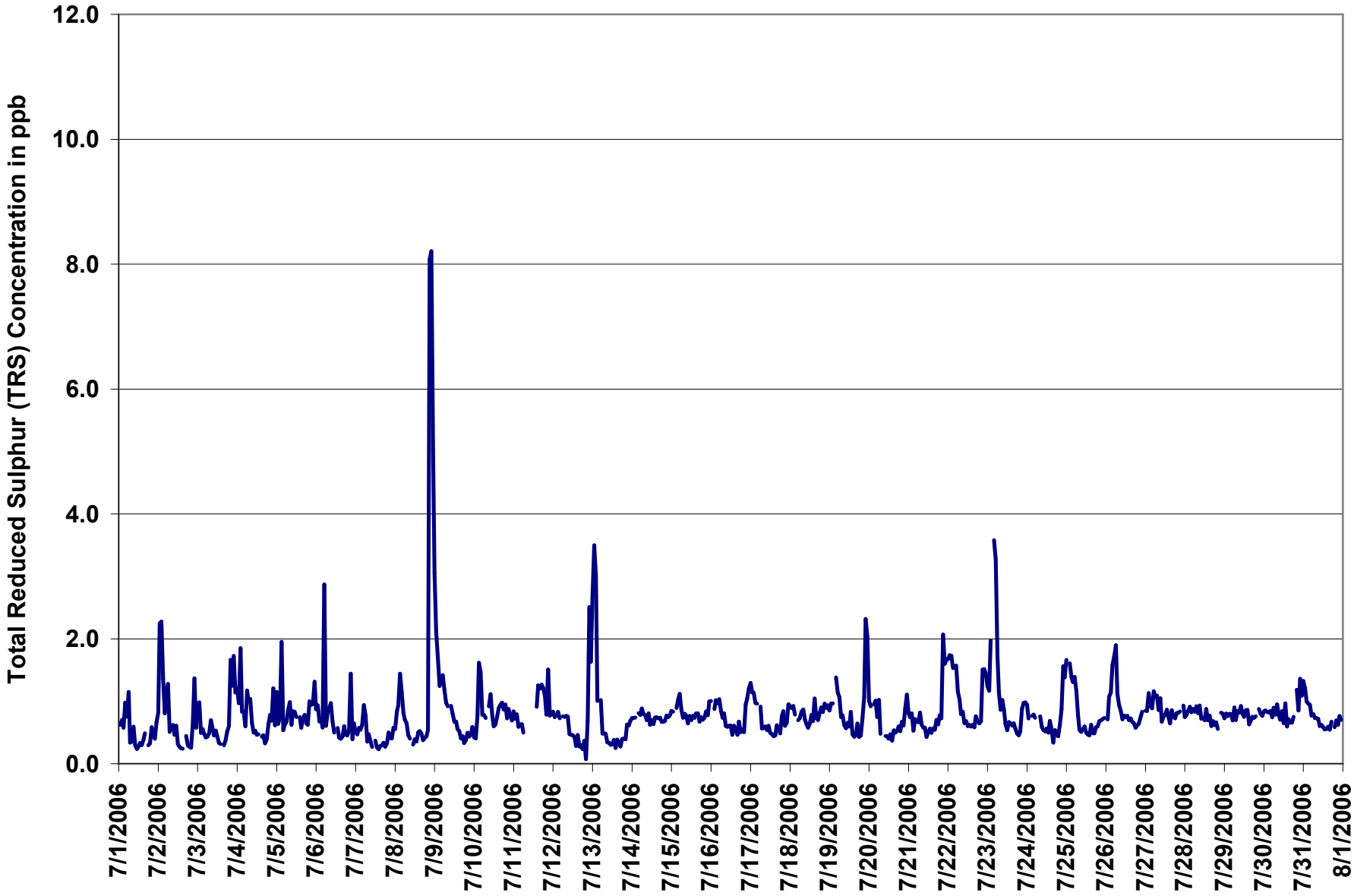
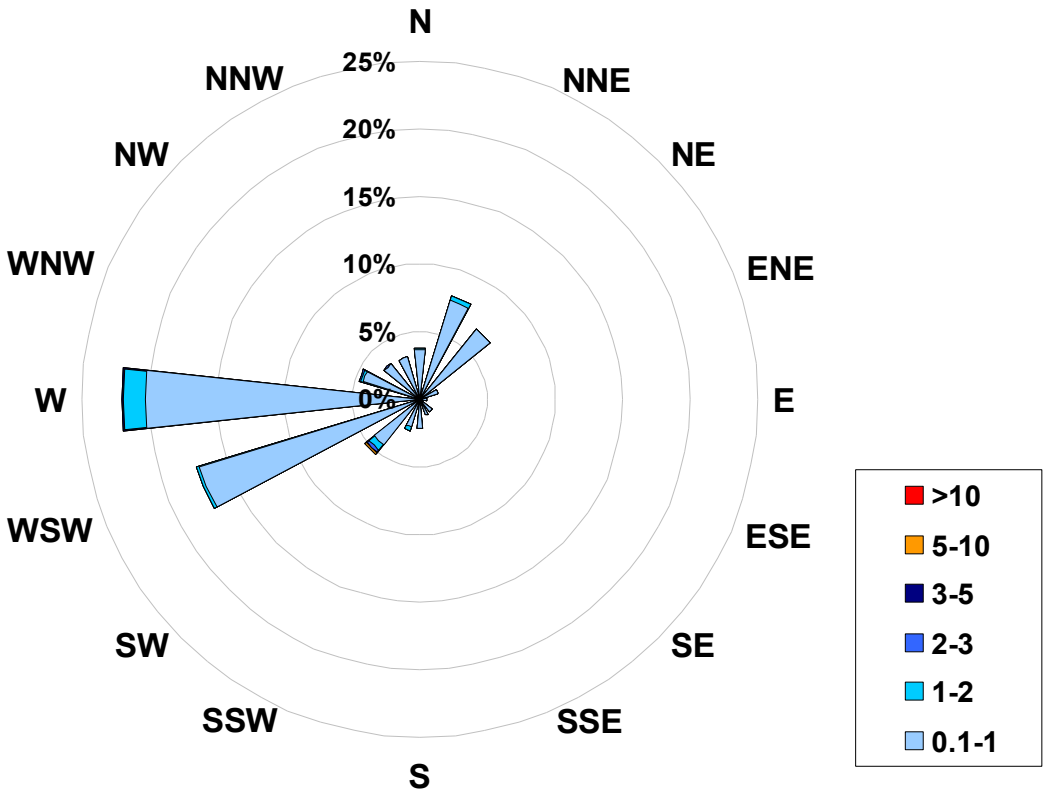


Figure 30. PASZA - Smoky Heights Total Reduced Sulphur Instantaneous (30 Second) Maximum Value Monthly Trend

1-hr Average Concentration Rose for Total Reduced Sulphur (in ppb)
Located at the Smoky Heights Site for July 2006



Calms: 0%

Frequency Distribution of TRS in ppb			
Range			Frequency (hrs)
0.1	<	1	674
1	to	2	23
2	to	3	3
3	to	5	2
5	to	10	1
	>	10	0
Total Non-Zero Values			703

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

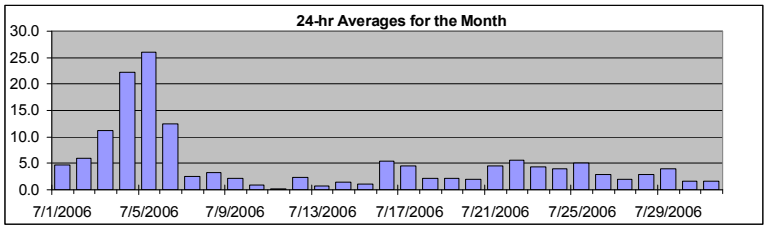
Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Particulate Matter ($PM_{2.5}$)

Monitoring Dates: July 1, 2006 to August 1, 2006

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:	59.1	µg/m³	3-Jul	21:00 22:00
Maximum 24-hr Value:	25.9	µg/m³	5-Jul	

AIC Time:	0 hrs	Operational Time:	723 hrs
Calibration Time:	9 hrs	AMD Operational Uptime:	98.4%

Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	30.5	22.7	5.3	2.4	1.1	0.0	0.0	5.0 / 2 µg/m³	3.1 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-Jul-06	6	4	2	3	25	6	7	4	4	2	1	0	3	3	2	2	3	6	2	2	9	7	6	5	4.8	24.8
2-Jul-06	3	4	1	2	2	6	8	9	14	13	8	2	2	6	6	6	9	12	3	3	2	17	5	2	6.0	17.4
3-Jul-06	2	2	4	2	3	5	5	4	5	7	11	11	8	6	7	8	8	13	13	13	26	59	23	26	11.3	59.1
4-Jul-06	19	20	21	20	20	28	26	21	23	21	23	14	25	22	17	18	19	23	28	30	26	25	23	24	22.3	30.1
5-Jul-06	29	17	15	19	32	32	37	28	31	34	32	29	15	27	26	29	29	25	28	21	24	26	20	17	25.9	37.5
6-Jul-06	17	15	16	18	19	P	13	16	16	14	13	10	7	9	5	6	7	4	16	17	21	16	D	1	12.5	21.1
7-Jul-06	4	7	6	7	9	8	2	D	D	0	0	0	1	0	0	0	1	1	2	1	1	2	2	3	2.6	8.9
8-Jul-06	1	2	2	1	1	3	4	5	4	1	2	2	2	3	3	2	2	2	2	3	6	19	5	0	3.2	19.1
9-Jul-06	0	4	2	0	1	2	0	3	0	D	0	0	0	3	D	D	1	0	8	8	5	5	3	1	2.1	8.1
10-Jul-06	0	1	2	0	D	0	3	2	2	3	1	0	0	3	0	0	0	0	0	1	1	0	0	0	0.8	3.4
11-Jul-06	0	0	0	0	D	2	0	0	0	1	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0.2	1.9
12-Jul-06	1	1	1	2	2	2	2	2	3	3	1	1	2	4	4	3	4	4	5	3	2	2	2	1	2.3	4.6
13-Jul-06	1	2	3	2	1	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.7	3.0
14-Jul-06	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	4	2	2	14	3	3	1.4	14.4
15-Jul-06	2	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	2	2	2	3	2	1.1	2.6
16-Jul-06	2	2	1	1	2	2	3	3	2	3	2	1	1	2	2	1	3	2	2	2	8	24	41	17	5.4	40.5
17-Jul-06	7	5	4	4	9	11	5	4	4	3	1	1	1	4	5	11	5	3	5	4	2	3	3	3	4.5	11.1
18-Jul-06	2	1	2	2	2	3	5	6	4	3	1	2	1	1	2	2	0	0	3	3	2	2	2	1	2.3	6.4
19-Jul-06	0	0	2	1	0	2	3	2	3	3	2	0	1	1	1	0	1	1	3	4	4	5	6	4	2.1	5.8
20-Jul-06	1	2	2	3	3	4	5	5	C	C	C	C	C	C	0	0	0	0	0	1	1	3	3	1	1.9	4.7
21-Jul-06	0	0	1	1	1	3	3	5	3	1	0	1	4	0	1	14	2	4	2	3	9	13	29	8	4.5	28.7
22-Jul-06	6	11	6	8	8	8	9	9	9	11	7	2	2	1	3	0	1	2	2	2	3	4	11	7	5.6	11.3
23-Jul-06	5	4	4	4	4	17	3	5	4	7	4	2	0	1	1	3	2	2	1	5	7	4	6	11	4.4	17.0
24-Jul-06	6	5	6	5	3	3	P	P	3	2	2	1	5	0	1	1	2	3	4	5	5	14	8	4	3.9	14.0
25-Jul-06	3	3	3	3	4	6	6	7	5	8	3	2	7	4	10	5	6	9	5	2	3	3	8	5	5.0	10.4
26-Jul-06	3	3	3	4	6	7	5	5	5	2	2	8	3	0	4	0	D	0	0	1	2	2	2	1	3.0	7.7
27-Jul-06	2	2	2	2	3	2	2	2	1	0	0	0	0	1	1	1	4	2	3	8	4	2	2	2	2.1	8.3
28-Jul-06	1	1	1	1	1	2	3	3	3	5	5	6	4	4	8	3	1	0	4	4	2	1	2	4	2.9	7.8
29-Jul-06	2	2	2	2	2	4	6	7	7	7	6	6	7	7	7	3	2	5	4	3	2	1	0	0	4.0	7.4
30-Jul-06	0	0	1	2	4	3	4	4	4	3	2	2	0	0	0	0	1	2	1	3	1	1	0	1	1.6	4.4
31-Jul-06	1	1	1	2	2	1	3	3	2	2	2	0	0	0	1	3	0	3	6	2	0	1	2	0	1.6	6.0
Hourly Avg	4.1	3.9	3.8	3.9	5.8	5.8	5.8	5.7	5.6	5.4	4.4	3.6	3.5	3.9	3.9	4.1	3.8	4.2	5.1	5.2	5.9	9.0	7.4	5.1		
Hourly Max	29.4	19.6	21.5	19.7	31.8	32.2	37.5	27.5	30.6	33.6	32.4	28.7	24.8	27.0	25.8	28.7	28.8	25.5	27.8	30.1	26.2	59.1	40.5	25.7		

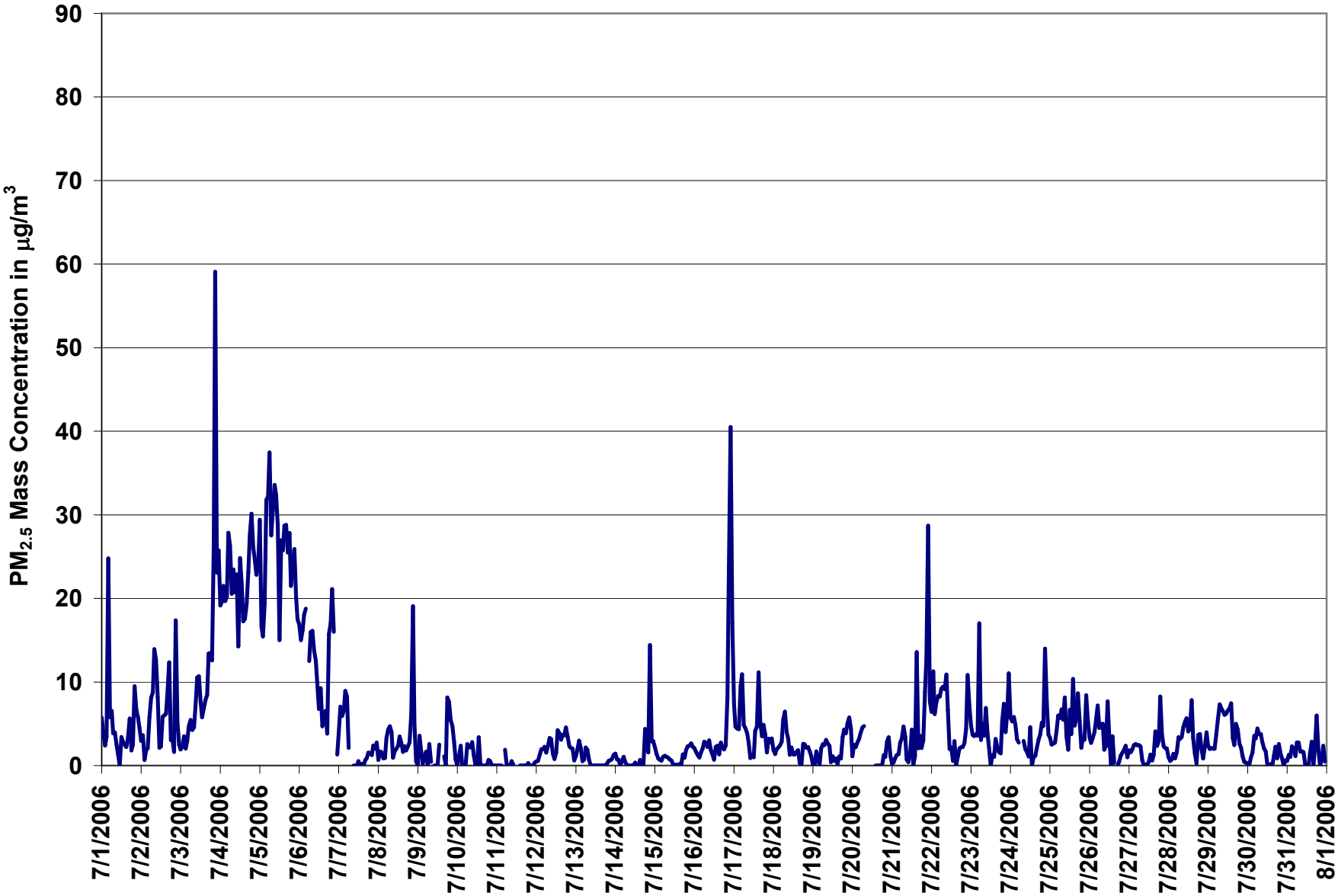


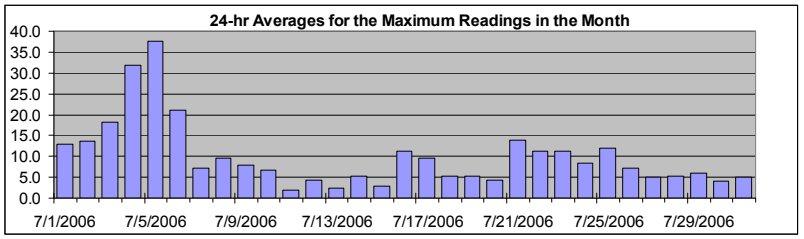
Figure 31. PASZA - Smoky Heights Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Smoky Heights
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Particulate Matter ($PM_{2.5}$)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Average:	90.0	µg/m³	3-Jul	21:00 22:00
Maximum 24-hr Value:	37.6	µg/m³	5-Jul	

AIC Time:	0 hrs	Operational Time:	723 hrs
Calibration Time:	9 hrs	AMD Operational Uptime:	98.4%

Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	57.2	35.1	10.6	5.9	3.5	1.7	0.9	10.1 6 µg/m³	7.8 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-Jul-06	14	10	6	6	89	11	11	7	7	10	4	3	15	6	11	10	6	14	4	5	25	13	8	17	13.0	88.6
2-Jul-06	11	8	3	6	8	10	11	11	18	17	13	8	7	10	11	11	31	30	9	5	4	60	19	6	13.6	60.5
3-Jul-06	5	5	7	6	6	6	7	7	9	10	15	14	13	15	16	15	12	19	23	21	51	90	32	35	18.3	90.0
4-Jul-06	26	22	25	22	29	56	35	25	28	23	28	29	65	33	27	27	38	36	37	36	32	29	26	28	31.7	65.3
5-Jul-06	39	36	37	36	42	52	52	49	40	41	46	40	26	34	37	44	46	36	32	30	31	32	23	22	37.6	52.0
6-Jul-06	20	17	20	19	22	P	17	20	19	20	22	25	29	24	21	33	21	10	22	25	27	28	D	4	21.1	33.0
7-Jul-06	7	9	11	10	11	11	6	D	D	8	10	2	13	3	11	7	5	3	6	5	4	4	4	6	7.1	12.6
8-Jul-06	3	5	3	2	4	8	9	8	7	7	9	7	6	9	9	9	8	10	7	18	22	41	14	7	9.6	40.6
9-Jul-06	4	11	4	2	3	7	3	8	9	D	9	6	6	16	D	D	10	6	19	13	8	7	8	7	7.9	18.5
10-Jul-06	2	3	5	4	D	6	8	9	6	9	6	10	12	20	13	9	11	5	5	3	4	2	1	1	6.7	20.4
11-Jul-06	4	2	0	2	D	3	2	1	3	3	5	C	C	C	1	0	1	1	2	3	2	1	2	2	1.9	4.5
12-Jul-06	2	2	3	3	4	4	3	4	5	5	3	3	6	7	6	5	5	5	7	7	4	4	4	2	4.4	7.0
13-Jul-06	2	3	5	4	2	3	5	4	3	1	3	3	1	2	2	1	2	2	1	2	2	2	3	2	2.4	5.1
14-Jul-06	3	2	2	1	3	3	2	2	1	1	2	2	2	2	2	5	1	3	12	4	3	60	4	5	5.2	60.1
15-Jul-06	4	4	2	3	2	3	2	3	3	3	2	3	2	2	1	1	1	4	3	4	4	4	4	4	2.9	4.3
16-Jul-06	4	3	3	2	3	4	6	5	4	8	3	3	3	11	7	3	8	6	4	4	12	78	57	29	11.3	77.8
17-Jul-06	16	6	6	6	29	35	7	7	7	5	3	3	4	10	15	19	13	5	8	6	4	6	4	5	9.7	35.3
18-Jul-06	3	3	3	3	4	5	11	17	6	12	3	4	4	6	4	4	3	3	6	5	5	5	4	4	5.3	17.2
19-Jul-06	1	2	4	3	2	9	8	5	5	5	4	3	3	3	4	2	3	3	7	6	10	11	11	12	5.3	11.6
20-Jul-06	3	6	4	4	6	6	6	8	C	C	C	C	C	C	1	1	2	5	2	4	3	6	9	3	4.4	9.0
21-Jul-06	2	2	3	3	3	4	5	6	6	3	7	4	17	4	8	56	7	19	8	8	25	64	55	17	14.0	64.0
22-Jul-06	17	25	9	10	10	11	13	13	13	13	21	7	5	8	15	4	4	5	9	8	5	16	18	10	11.3	25.2
23-Jul-06	7	5	7	8	20	36	5	7	7	10	8	4	5	6	6	17	7	5	11	19	18	6	11	34	11.2	36.3
24-Jul-06	14	8	7	7	5	5	P	P	6	5	5	5	8	4	6	5	5	7	14	10	12	31	10	7	8.4	30.5
25-Jul-06	6	4	6	4	8	8	9	10	8	12	8	8	13	8	43	19	19	18	23	5	6	18	19	7	11.9	42.5
26-Jul-06	5	5	6	6	16	14	8	7	7	5	9	31	10	3	10	5	D	2	3	3	3	3	4	2	7.2	30.6
27-Jul-06	3	4	4	5	5	4	5	4	3	2	2	2	2	6	4	7	12	7	6	17	7	4	3	3	5.0	17.3
28-Jul-06	4	2	3	3	2	3	5	5	6	6	6	10	7	9	12	6	5	4	7	7	4	3	4	6	5.4	12.5
29-Jul-06	4	3	3	4	5	6	8	9	9	8	9	8	8	9	9	5	4	6	7	5	4	4	3	1	5.9	9.4
30-Jul-06	1	1	3	3	5	6	6	5	5	4	4	5	3	5	5	3	8	5	3	4	4	4	3	4	4.1	8.3
31-Jul-06	3	3	3	4	4	4	5	5	3	4	4	4	4	5	8	10	6	7	10	6	3	5	9	3	5.0	10.5
Hourly Avg	7.7	7.1	6.6	6.5	12.2	11.4	9.2	9.4	8.8	9.0	9.1	8.8	10.3	9.6	10.7	11.4	10.2	9.4	10.2	9.6	11.2	20.7	12.6	9.5		
Hourly Max	38.5	36.4	36.6	35.8	88.6	55.6	51.6	49.0	39.7	41.4	45.8	39.6	65.3	34.2	42.5	56.1	45.9	35.8	37.3	35.7	51.3	90.0	57.5	35.1		

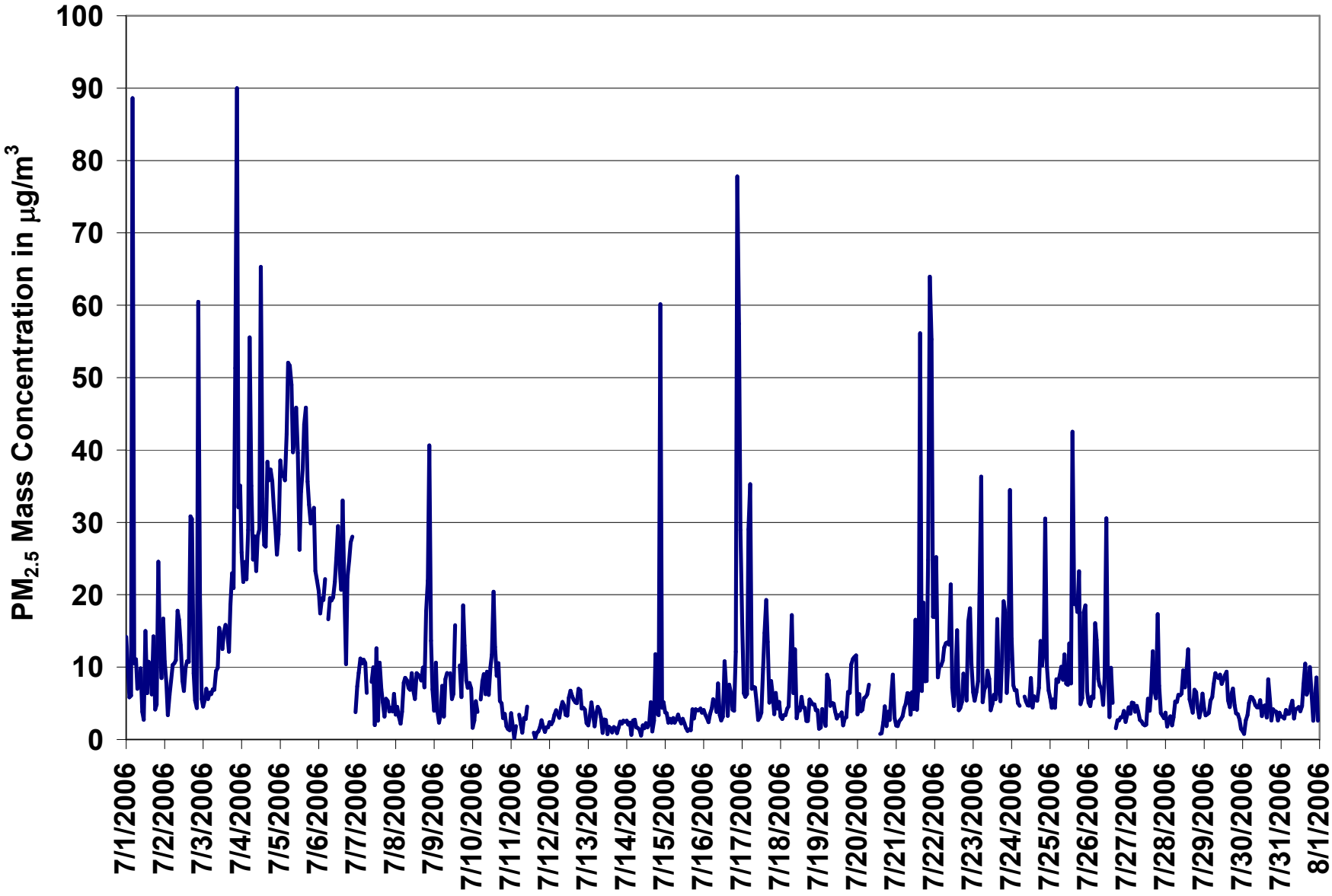
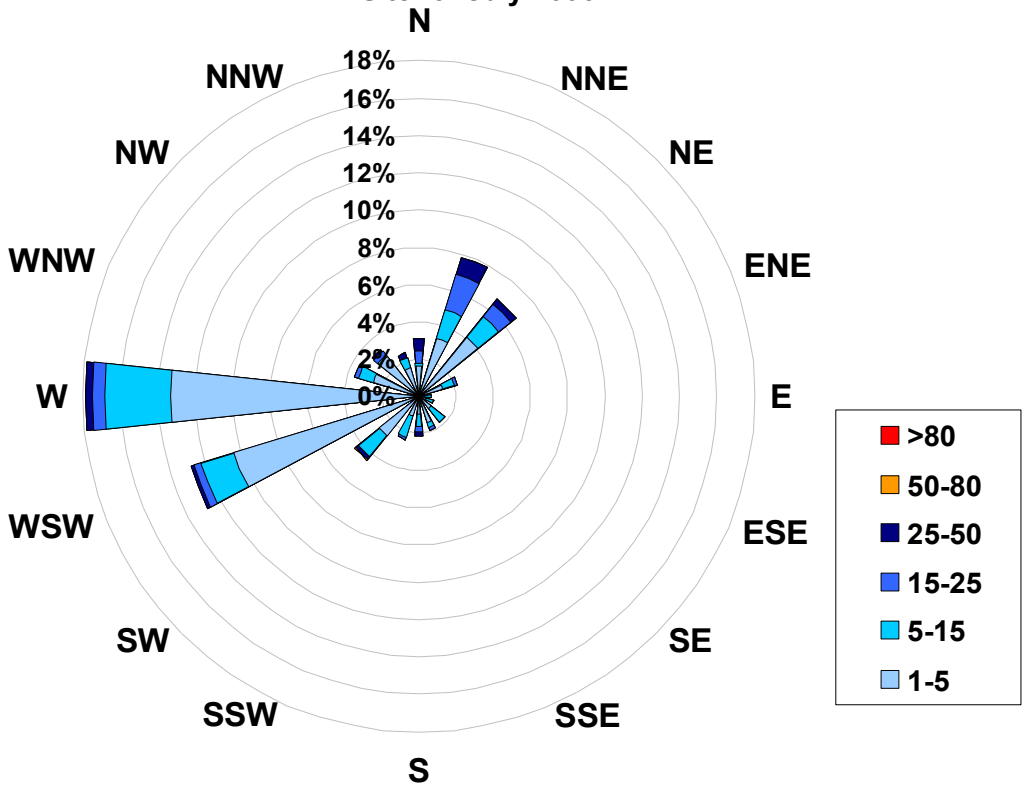


Figure 32. PASZA - Smoky Heights Particulate Matter (less than 2.5 microns) Instantaneous (30 Second) Maximum Value Monthly Trend

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 July 2006



Calms:	0%

Frequency Distribution of $PM_{2.5}$ in $\mu g/m^3$			
Range			Frequency (hrs)
1.0	<	5	534
5	to	15	120
15	to	25	43
25	to	50	25
50	to	80	1
	>	80	0
Total Non-Zero Values			723

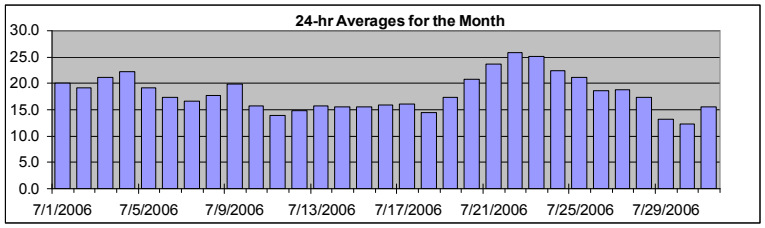
PASZA - Smoky Heights - Temperature Monthly Summary

Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Ambient Temperature (T)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Average:	34.3	°C	22-Jul	16:00 17:00
Maximum 24-hr Value:	25.9	°C	22-Jul	

AIC Time:	0 hrs	Operational Time:	742 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	99.7%

Percentile	99	95	75	50	25	5	1	Average	Median
	32.5	29.4	21.7	17.4	13.9	10.5	7.6	18.2 °C	17.4 °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-Jul-06	14	14	14	13	12	12	15	18	20	22	23	24	25	25	26	26	27	27	26	26	24	19	16	14	20.1	26.6
2-Jul-06	11	10	9	9	8	11	15	17	20	23	25	27	28	29	29	29	29	24	22	21	20	17	15	13	19.2	29.4
3-Jul-06	11	9	11	11	11	12	15	18	20	22	24	27	29	31	31	31	31	29	28	26	24	20	18	17	21.1	31.4
4-Jul-06	14	13	13	14	13	14	15	17	19	22	25	28	30	31	31	31	31	30	29	26	24	21	20	20	22.2	31.4
5-Jul-06	19	19	19	19	19	19	17	17	17	18	18	19	20	21	22	22	22	22	21	20	19	17	16	15	19.1	22.1
6-Jul-06	15	15	14	15	15	15	15	15	15	16	17	20	21	20	21	22	21	21	20	20	18	17	14	14	17.3	22.4
7-Jul-06	14	14	13	13	13	13	14	15	16	17	18	18	19	20	20	20	19	19	19	18	18	17	16	15	16.6	19.7
8-Jul-06	11	9	8	7	7	8	10	13	16	19	20	22	23	23	24	25	25	25	25	24	23	20	19	19	17.8	25.3
9-Jul-06	19	18	17	16	16	16	17	17	18	21	22	23	24	23	23	24	23	24	23	21	20	19	18	17	19.9	23.9
10-Jul-06	17	16	15	15	14	14	14	15	15	15	15	16	17	17	18	19	18	18	17	16	15	14	13	12	15.7	18.5
11-Jul-06	12	12	11	12	12	12	12	12	13	13	14	14	15	16	17	17	18	18	17	16	14	13	13	12	13.9	17.9
12-Jul-06	12	11	11	11	11	11	12	12	14	14	16	17	19	19	20	19	18	18	17	15	15	14	14	13	14.8	19.5
13-Jul-06	13	12	13	13	13	12	13	14	16	17	18	19	18	18	18	19	19	20	19	19	17	14	13	12	15.8	19.5
14-Jul-06	11	10	9	8	8	9	11	13	15	16	17	18	19	20	21	21	21	21	21	21	18	15	15	14	15.6	21.4
15-Jul-06	13	10	9	9	9	9	11	13	15	17	18	19	20	21	21	21	21	21	20	19	17	15	13	11	15.6	21.1
16-Jul-06	11	10	10	7	7	8	10	12	15	17	19	20	21	22	22	23	23	23	22	22	20	16	11	10	15.9	22.7
17-Jul-06	9	9	7	7	7	8	12	16	18	20	22	23	23	24	22	21	21	20	19	17	18	16	14	13	16.1	23.6
18-Jul-06	13	13	13	13	12	11	13	13	14	15	15	15	16	17	18	15	18	19	17	15	14	14	13	13	14.5	18.6
19-Jul-06	12	11	11	11	10	9	12	14	15	17	19	21	22	23	23	24	25	25	25	22	20	17	14	17	17.4	24.7
20-Jul-06	17	16	16	15	14	13	16	16	18	21	22	23	24	25	26	26	27	27	27	27	25	21	19	17	20.8	27.3
21-Jul-06	18	15	16	15	15	16	17	19	22	25	26	27	29	30	31	31	32	32	32	31	28	23	20	20	23.7	32.4
22-Jul-06	19	18	17	16	16	16	18	22	25	27	30	31	32	33	34	34	34	34	34	33	30	25	23	21	25.9	34.3
23-Jul-06	21	20	19	16	14	14	18	22	26	27	29	30	31	31	32	32	33	32	32	31	29	25	21	21	25.2	32.5
24-Jul-06	20	21	20	19	17	17	P	P	21	22	23	25	25	26	27	27	28	27	28	26	22	19	17	16	22.5	28.0
25-Jul-06	15	15	14	13	12	12	15	19	21	23	25	27	28	27	28	28	28	27	25	24	23	21	20	20	21.2	28.2
26-Jul-06	19	17	14	14	13	13	14	18	20	22	23	21	18	19	18	20	22	23	22	22	21	19	17	16	18.6	23.4
27-Jul-06	14	15	14	13	12	12	13	15	17	20	21	22	23	24	24	25	25	24	24	23	20	18	16	16	18.7	25.0
28-Jul-06	15	15	13	13	12	12	13	14	15	16	16	19	21	22	23	22	23	23	21	20	19	17	16	16	17.3	23.1
29-Jul-06	15	15	15	14	14	14	14	13	13	13	13	13	14	14	13	13	13	13	13	12	12	12	12	11	13.3	15.2
30-Jul-06	11	11	11	11	11	11	11	11	11	11	12	12	13	15	15	15	15	14	13	13	12	12	11	11	12.3	15.4
31-Jul-06	11	11	11	11	11	10	11	13	14	16	18	19	20	21	20	20	20	18	19	18	18	16	15	15	15.6	20.9
Hourly Avg	14.4	13.7	13.2	12.7	12.2	12.4	13.7	15.4	17.3	18.8	20.2	21.3	22.1	22.7	23.2	23.4	23.6	23.1	22.5	21.4	19.9	17.6	15.9	15.2		
Hourly Max	21.0	20.9	20.2	18.8	18.7	18.6	17.8	22.1	25.6	27.1	29.9	31.0	31.9	33.2	33.9	34.1	34.3	33.9	34.0	32.9	29.8	25.2	22.9	21.4		

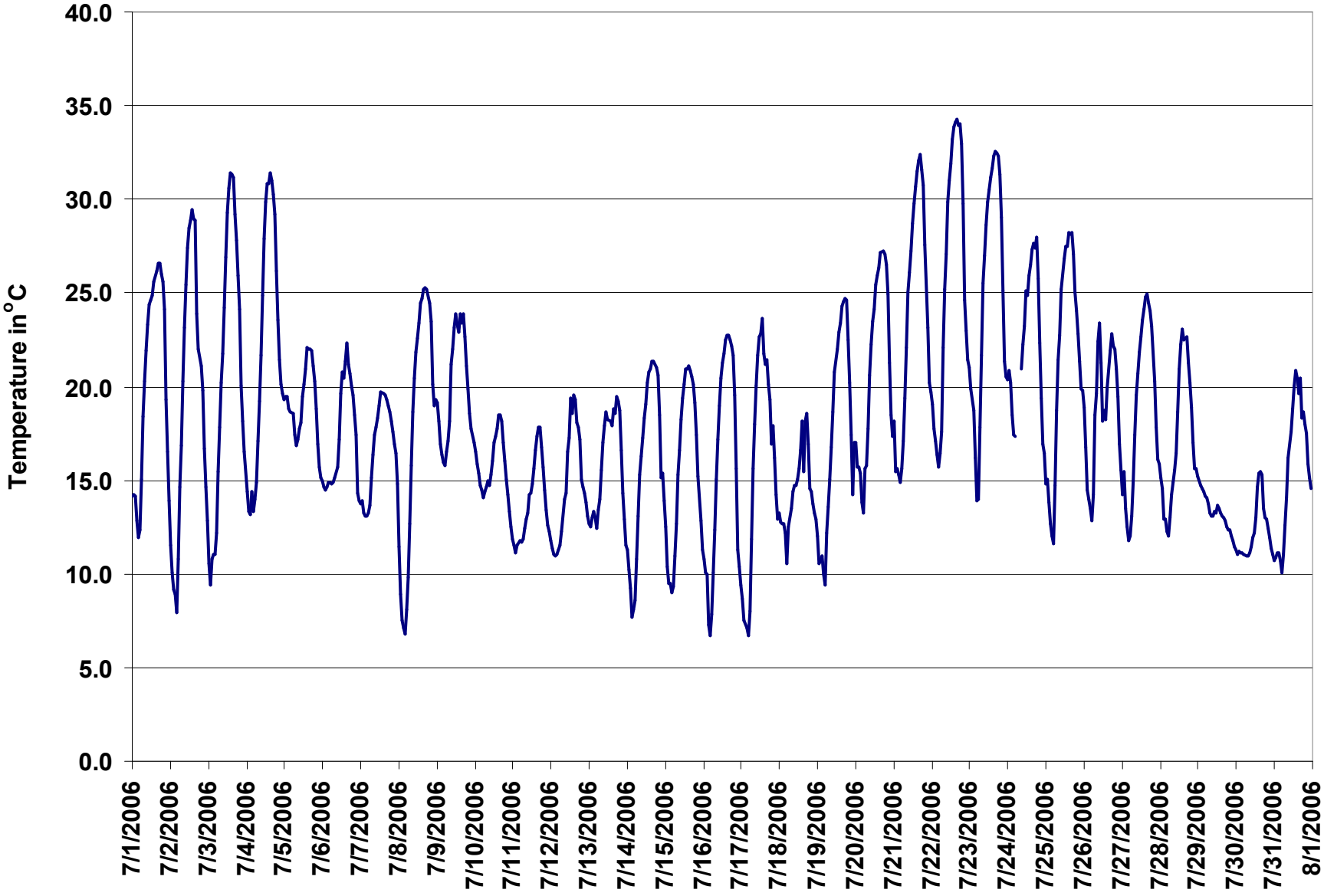


Figure 33. PASZA - Smoky Heights Temperature 1-hr Average Monthly Trend

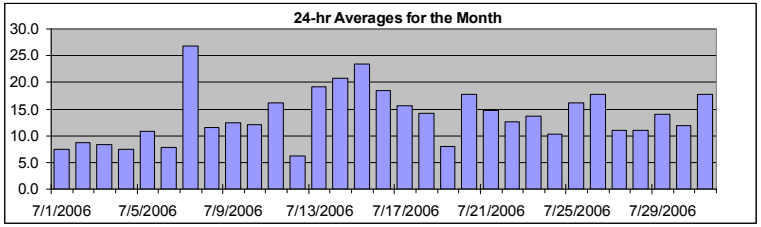
PASZA - Smoky Heights - Scalar Wind Speed Monthly Summary

Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSs)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Average:	43.4	km/hr	7-Jul	10:00 11:00
Maximum 24-hr Value:	26.9	km/hr	7-Jul	

Calm Time:	0 hrs	**0%** calms	Operational Time: 742 hrs
Calibration Time:	0 hrs		AMD Operational Uptime: 99.7%

Percentile	99	95	75	50	25	5	1	AverageS
	36.0	27.9	17.9	11.9	8.2	4.7	3.3	13.7 km/hr

Status Flag Characters

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

Day **Mountain Standard Time**

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-Jul-06	10	5	4	5	3	4	5	3	4	5	7	9	15	14	11	11	11	12	12	9	3	6	6	5	7.5	14.7
2-Jul-06	4	4	4	5	7	7	6	9	7	7	6	6	9	8	7	7	8	28	26	20	9	4	5	6	8.7	27.7
3-Jul-06	4	4	6	6	8	8	8	6	5	7	7	9	8	11	14	15	17	11	8	10	7	6	9	4	8.4	16.9
4-Jul-06	4	4	6	9	11	8	5	6	8	8	6	7	6	7	12	12	11	11	8	7	6	6	7	6	7.5	11.9
5-Jul-06	8	15	13	9	25	18	10	10	8	7	10	13	12	13	12	9	11	11	9	10	8	7	7	6	10.8	25.2
6-Jul-06	7	7	7	7	7	5	9	7	3	4	5	5	6	7	6	6	9	9	9	11	7	9	25	8	7.8	24.5
7-Jul-06	17	9	9	14	14	14	16	25	34	43	43	42	33	42	42	39	41	36	31	27	23	18	17	16	26.9	43.4
8-Jul-06	14	10	12	14	12	8	8	9	9	8	11	12	11	12	16	20	16	15	13	11	9	6	7	15	11.5	20.0
9-Jul-06	12	12	11	13	10	7	16	8	5	10	15	15	21	26	19	15	14	12	12	12	10	9	7	9	12.5	26.4
10-Jul-06	8	6	5	5	9	11	4	5	8	7	5	8	13	14	15	15	20	21	22	20	20	17	16	15	12.1	21.9
11-Jul-06	12	15	20	19	24	19	21	23	24	22	21	22	20	18	18	17	14	12	11	10	9	7	6	6	16.2	24.0
12-Jul-06	5	5	4	5	4	4	3	4	5	8	7	7	11	13	11	9	8	8	6	7	5	4	3	5	6.2	12.5
13-Jul-06	3	3	7	11	9	8	14	17	22	25	25	27	32	26	23	31	27	28	27	23	19	18	18	17	19.3	31.7
14-Jul-06	16	15	12	13	17	10	11	18	27	32	34	30	29	29	28	25	26	25	23	19	12	11	18	18	20.7	33.6
15-Jul-06	14	11	13	12	12	15	16	21	27	33	32	33	32	32	33	32	32	30	28	27	22	20	18	17	23.5	33.5
16-Jul-06	18	19	17	11	14	18	24	24	24	25	24	25	23	21	21	22	22	20	20	17	11	7	8	9	18.5	25.0
17-Jul-06	9	9	8	8	8	10	11	12	14	15	16	16	18	18	23	26	26	22	27	18	15	15	14	16	15.6	26.6
18-Jul-06	18	15	19	20	18	11	13	12	13	15	12	10	15	12	14	17	21	19	19	12	13	10	8	7	14.2	20.9
19-Jul-06	10	7	5	6	7	7	6	7	8	11	10	8	9	9	9	9	10	8	7	8	7	2	4	18	8.1	18.1
20-Jul-06	11	11	15	11	13	12	15	12	15	19	23	26	24	27	25	23	25	28	24	19	17	14	6	10	17.8	27.7
21-Jul-06	13	11	14	13	14	11	8	10	13	18	20	16	17	22	22	22	17	23	21	16	8	5	9	8	14.6	23.0
22-Jul-06	10	10	12	9	8	9	9	9	13	15	18	19	15	20	22	22	18	17	13	9	7	5	8	7	12.6	21.7
23-Jul-06	7	7	6	7	5	8	9	7	10	17	21	17	21	21	24	25	21	22	21	19	8	8	9	12	13.7	25.2
24-Jul-06	13	16	20	14	9	7	P	P	9	11	15	13	10	9	11	12	11	9	5	10	7	5	5	6	10.4	19.9
25-Jul-06	6	12	14	14	12	9	7	12	17	16	19	19	17	16	21	24	30	32	18	18	14	13	13	13	16.1	32.1
26-Jul-06	12	12	10	8	12	9	11	16	16	20	25	26	11	15	13	18	31	36	31	28	19	16	17	15	17.8	35.7
27-Jul-06	14	16	15	13	14	15	6	6	7	8	8	13	13	12	9	10	10	10	12	13	13	11	7	8	11.0	15.5
28-Jul-06	9	7	8	10	14	11	9	10	9	10	9	11	12	11	14	17	16	18	15	13	11	6	6	8	11.0	17.6
29-Jul-06	9	8	10	11	12	11	12	13	12	14	15	14	15	15	15	19	21	19	18	16	13	15	14	14	14.0	21.4
30-Jul-06	13	14	18	20	19	18	17	17	15	16	14	13	12	9	7	6	11	10	7	6	7	5	4	8	11.8	19.6
31-Jul-06	10	7	11	14	12	11	9	10	11	13	13	21	22	24	25	29	33	33	24	21	19	15	19	22	17.8	32.8
1-hr Average	10.3	9.9	10.9	10.9	11.5	10.4	10.5	11.6	13.0	15.1	16.1	16.5	16.5	17.2	17.5	18.3	19.0	19.2	17.0	15.0	11.6	9.7	10.3	10.8		
Hourly Max	18.1	19.0	19.9	19.6	25.2	18.7	23.6	24.6	33.9	42.7	43.4	41.6	32.7	42.0	42.4	39.2	40.7	36.2	31.2	28.0	23.4	19.7	24.5	21.6		

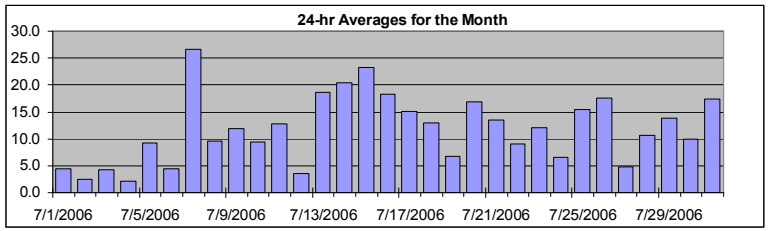
PASZA - Smoky Heights - Vector Wind Speed Monthly Summary

Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSv)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Average:	43.2	km/hr	7-Jul	10:00 11:00
Maximum 24-hr Value:	26.6	km/hr	7-Jul	

Calm Time:	1 hrs	**0%** calms	Operational Time: 741 hrs
Calibration Time:	0 hrs		AMD Operational Uptime: 99.7%

Percentile	99	95	75	50	25	5	1	AverageV
	35.6	27.3	17.4	11.4	7.3	3.5	2.2	8.5 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-Jul-06	9	5	4	5	2	calm	4	2	3	4	4	6	14	13	8	10	10	11	12	9	3	6	6	4	4.4	13.8
2-Jul-06	4	3	3	4	6	7	5	9	6	7	5	2	6	4	4	5	2	27	26	20	9	2	4	6	2.4	27.0
3-Jul-06	4	3	6	6	8	8	8	6	4	7	7	8	7	10	13	14	17	11	8	9	6	3	9	3	4.3	16.5
4-Jul-06	3	3	5	9	11	8	3	6	8	7	5	5	3	6	11	11	11	10	8	6	6	6	7	6	2.2	11.4
5-Jul-06	4	3	11	9	24	15	5	2	6	7	10	12	12	12	11	8	10	10	9	10	8	7	7	6	9.2	24.4
6-Jul-06	7	7	7	7	2	1	9	6	3	2	5	4	5	6	5	5	8	9	9	11	7	5	24	4	4.4	24.3
7-Jul-06	17	9	9	14	13	13	16	25	34	42	43	41	32	41	42	39	40	36	30	27	23	18	17	16	26.6	43.2
8-Jul-06	14	10	12	13	12	7	8	9	9	8	11	11	9	10	14	19	15	14	12	11	9	6	5	15	9.6	19.5
9-Jul-06	10	11	11	13	10	5	16	7	3	8	15	14	21	26	19	14	14	11	11	12	10	9	7	9	11.8	25.9
10-Jul-06	8	5	4	3	9	11	3	4	8	6	5	8	12	13	14	15	19	20	21	19	20	17	16	15	9.4	21.4
11-Jul-06	12	15	20	19	24	19	21	22	23	22	20	22	20	18	17	16	14	11	10	10	9	7	6	6	12.7	23.9
12-Jul-06	4	5	4	5	4	4	1	3	4	7	6	5	3	12	10	9	8	8	4	6	5	2	2	5	3.5	12.3
13-Jul-06	3	3	6	11	8	8	14	17	22	25	25	27	32	26	23	31	27	27	27	23	19	18	18	17	18.6	31.5
14-Jul-06	16	15	12	12	16	10	11	18	27	32	33	29	29	28	27	25	25	24	22	19	12	11	18	18	20.5	33.1
15-Jul-06	14	11	13	12	12	15	16	20	27	33	32	33	31	31	32	32	32	29	28	27	22	20	18	17	23.2	32.9
16-Jul-06	18	19	17	11	14	18	24	24	24	25	24	24	22	20	20	21	21	20	19	17	11	7	8	9	18.3	24.8
17-Jul-06	9	8	7	8	8	10	11	12	14	14	16	15	17	16	23	26	25	22	26	17	15	15	14	16	15.1	26.2
18-Jul-06	18	14	19	20	18	11	13	12	13	14	11	9	14	11	12	17	21	19	18	11	13	10	8	7	12.9	20.6
19-Jul-06	10	7	5	6	6	7	6	7	8	10	10	7	7	7	6	5	7	6	5	8	6	2	3	18	6.7	17.8
20-Jul-06	10	11	15	11	13	12	14	12	15	18	23	25	23	26	24	22	24	27	24	19	17	14	5	10	16.9	27.2
21-Jul-06	12	11	14	13	14	10	8	9	10	18	19	16	16	21	21	21	17	22	21	16	8	4	9	7	13.5	21.9
22-Jul-06	9	10	12	9	8	9	9	8	12	15	18	18	13	19	21	20	18	17	10	9	7	4	8	6	9.1	20.8
23-Jul-06	7	7	5	6	4	8	8	7	9	16	19	16	20	19	24	24	20	21	19	17	7	6	8	11	12.1	24.3
24-Jul-06	12	16	20	14	9	7	P	P	8	10	14	12	7	6	10	11	9	7	1	10	6	2	5	5	6.6	19.6
25-Jul-06	5	12	14	14	11	9	7	11	17	16	19	18	16	15	20	23	29	32	17	18	13	12	13	13	15.4	31.6
26-Jul-06	12	12	10	8	12	9	11	16	16	20	24	25	10	15	13	18	30	35	31	28	19	16	17	14	17.6	35.4
27-Jul-06	14	15	14	13	14	15	6	5	6	7	7	11	12	10	8	6	6	9	11	11	13	11	7	8	4.8	15.5
28-Jul-06	8	7	8	10	14	11	8	10	9	9	9	10	11	10	13	17	15	17	15	13	11	6	6	8	10.6	17.2
29-Jul-06	9	8	10	11	12	11	11	13	12	14	15	14	15	15	15	19	21	19	18	16	13	15	13	14	13.8	21.4
30-Jul-06	13	14	18	20	19	18	17	17	15	16	14	12	12	9	6	4	9	10	5	5	7	4	3	7	9.9	19.5
31-Jul-06	10	7	11	14	12	11	9	10	11	13	12	20	22	23	24	29	33	32	23	21	19	15	19	22	17.3	32.6
1-hr Vector	6.7	6.8	7.2	7.0	8.1	6.6	6.1	7.7	8.6	10.6	11.0	11.8	11.3	11.8	11.5	11.8	11.1	11.1	8.8	7.0	5.5	5.8	6.9	6.9		
Hourly Max	18.0	18.8	19.6	19.6	24.4	18.5	23.5	24.5	33.8	42.4	43.2	41.2	32.3	41.4	42.0	38.8	40.3	35.8	31.0	27.8	23.3	19.7	24.3	21.6		

PASZA - Smoky Heights - Wind Direction Monthly Summary

HOURLY AVERAGE TABLE

Wind Direction (WD)

Station: Smoky Heights
Station Owner: PASZA

Monitoring Dates: **July 1, 2006** to **August 1, 2006**

Summary

Calm Time:	0 hrs	**0%** calms		Operational Time:	742 hrs			
Calibration Time:	0 hrs			AMD Operational Uptime:	99.7%			
Percentile	99	95	75	50	25	5	1	Average
	353.8	330.3	269.4	252.7	155.2	19.7	4.6	272 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-Jul-06	282	241	240	48	39	285	223	229	132	116	110	317	283	322	298	284	326	327	334	346	5	21	26	342	316	NW
2-Jul-06	344	347	283	242	225	202	198	190	187	178	140	115	156	209	190	184	83	39	62	61	63	322	336	29	98	E
3-Jul-06	351	27	4	24	28	30	32	51	130	141	144	139	155	150	134	115	118	122	133	126	191	217	283	305	114	ESE
4-Jul-06	20	33	250	278	272	269	175	193	181	180	168	267	30	53	68	53	42	40	42	39	23	23	27	25	30	NNE
5-Jul-06	264	319	8	14	337	351	43	227	341	2	12	356	3	2	15	31	15	20	10	3	10	23	20	14	359	N
6-Jul-06	20	21	30	21	244	338	59	20	5	15	84	68	13	18	26	50	65	52	31	23	36	257	283	250	13	NNE
7-Jul-06	228	248	216	253	263	255	262	266	265	255	253	255	254	257	263	257	256	257	255	258	261	257	254	252	256	WSW
8-Jul-06	257	272	279	275	267	210	192	191	185	197	165	176	233	255	260	248	237	260	265	272	279	272	222	234	242	WSW
9-Jul-06	230	224	231	241	243	221	247	258	184	238	238	236	228	257	266	250	245	239	212	208	193	202	218	224	235	SW
10-Jul-06	202	215	228	81	357	356	20	306	355	337	288	200	271	332	342	331	309	305	299	298	301	289	293	288	306	NW
11-Jul-06	261	262	259	266	278	267	266	284	289	296	294	285	286	299	307	335	330	341	9	16	33	57	55	53	295	WNW
12-Jul-06	51	49	30	39	53	54	209	219	95	158	164	194	147	24	42	37	53	68	130	140	72	10	63	29	77	ENE
13-Jul-06	356	323	191	217	253	219	239	258	264	261	260	249	252	256	246	252	256	250	251	246	247	257	257	253	252	WSW
14-Jul-06	248	255	255	259	240	250	248	242	252	254	252	259	246	252	260	260	258	261	274	274	269	250	248	266	256	WSW
15-Jul-06	257	253	238	228	251	256	254	254	261	265	264	256	255	245	243	249	248	251	258	255	252	263	265	266	254	WSW
16-Jul-06	267	258	247	257	253	265	266	260	260	267	270	270	269	280	265	260	260	259	268	271	275	289	254	273	265	W
17-Jul-06	247	264	249	232	242	267	273	257	248	238	239	249	258	258	280	278	267	246	245	247	242	249	250	268	255	WSW
18-Jul-06	269	256	253	264	262	254	253	263	288	295	276	261	298	292	319	305	317	303	332	277	266	271	260	238	281	W
19-Jul-06	253	250	227	250	253	219	198	208	172	171	169	172	186	185	198	228	232	252	136	152	165	220	259	197	203	SSW
20-Jul-06	164	280	261	261	275	267	257	240	243	254	247	249	250	266	271	273	268	271	263	267	267	275	243	262	260	W
21-Jul-06	260	269	269	257	262	248	168	167	190	258	266	266	265	249	262	263	251	255	266	271	270	248	264	257	255	WSW
22-Jul-06	268	261	269	231	223	218	204	193	217	234	249	258	254	277	266	263	270	283	334	17	24	16	13	21	264	W
23-Jul-06	8	19	16	313	296	269	259	245	252	245	292	311	268	272	273	290	282	286	289	290	339	323	280	277	286	WNW
24-Jul-06	288	312	341	359	8	352	D	D	237	244	252	284	1	10	311	335	310	333	352	99	142	289	245	285	316	NW
25-Jul-06	273	279	277	269	257	236	224	213	237	233	255	256	265	271	271	267	270	281	280	255	253	260	278	276	263	W
26-Jul-06	276	273	269	264	274	269	260	256	247	257	270	266	276	272	264	244	258	267	269	265	258	254	262	264	263	W
27-Jul-06	267	266	279	265	270	271	267	218	240	319	288	273	254	305	277	288	44	61	92	48	55	62	40	37	297	WNW
28-Jul-06	41	48	20	1	7	19	41	42	38	42	64	74	57	28	38	52	44	44	54	50	46	41	42	43	41	NE
29-Jul-06	33	27	29	24	26	35	36	39	38	33	33	39	38	35	36	36	36	28	34	28	15	16	11	6	30	NNE
30-Jul-06	358	343	330	327	321	325	320	315	308	304	314	317	337	355	42	332	58	44	348	273	285	232	294	252	327	NNW
31-Jul-06	275	253	261	268	267	260	261	238	227	231	244	268	271	278	277	260	279	271	271	277	276	262	262	263	266	W
Hourly Avg	271	280	277	278	281	276	258	251	253	257	259	262	264	277	277	276	279	285	287	282	281	278	278	273		

PASZA - Smoky Heights - Standard Deviation of Wind Direction Monthly Summary

Station: Smoky Heights
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: July 1, 2006 to August 1, 2006

Summary

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	**0%** calms	Operational Time: 742 hrs
Calibration Time:	0 hrs		AMD Operational Uptime: 99.7%

Percentile	99	95	75	50	25	5	1
	52.1	39.3	16.3	9.7	5.9	3.3	2.6

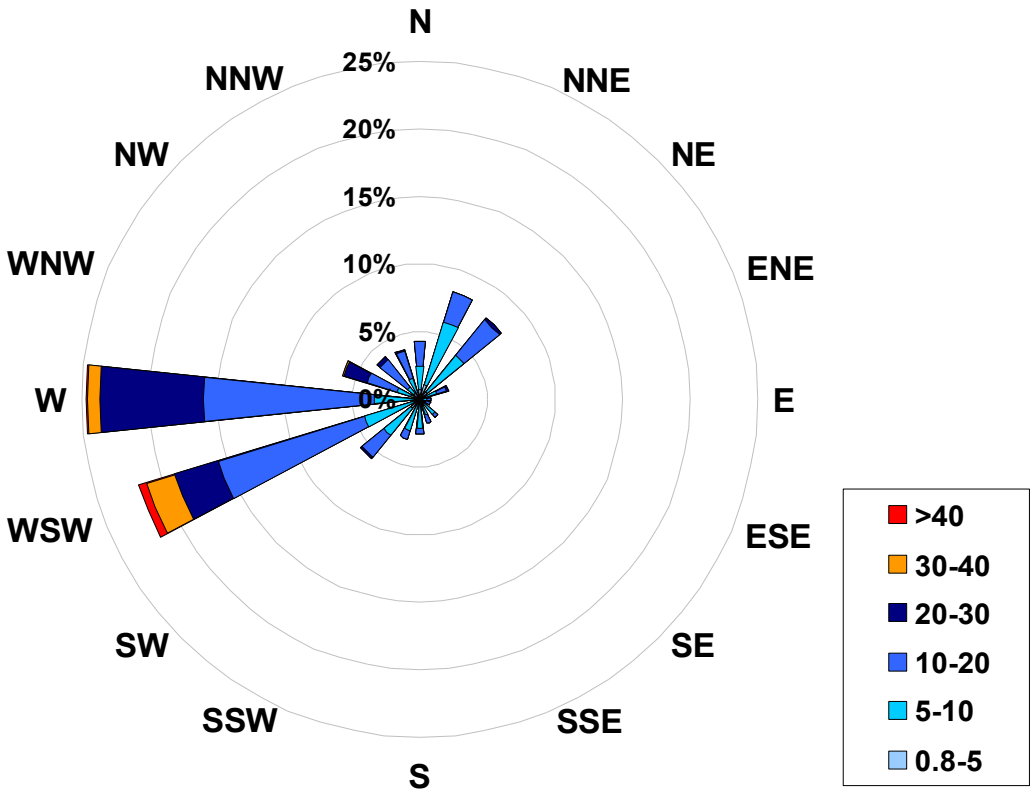
Status Flag Characters

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-Jul-06	5	10	21	25	44	28	19	57	46	35	51	56	18	24	33	25	30	21	14	10	10	10	4	7	57.3
2-Jul-06	27	47	39	12	9	22	15	9	35	22	36	71	39	42	57	33	53	10	5	7	11	28	14	8	70.6
3-Jul-06	24	25	10	7	5	4	6	12	43	21	23	23	37	32	20	19	11	6	5	15	20	46	7	47	46.7
4-Jul-06	51	17	21	6	12	7	23	8	9	17	27	43	39	34	18	16	13	11	8	11	7	10	8	9	50.9
5-Jul-06	33	22	34	26	10	41	49	31	11	13	10	12	13	10	14	18	14	12	11	8	8	6	9	6	49.4
6-Jul-06	5	5	8	10	42	22	9	11	34	37	29	50	28	27	23	38	10	9	10	8	9	29	4	33	49.8
7-Jul-06	4	10	12	6	5	6	5	6	6	5	5	7	8	8	7	8	7	6	6	5	4	4	4	3	12.3
8-Jul-06	3	5	4	4	7	12	13	10	15	18	19	29	30	24	26	13	16	20	23	8	5	4	41	6	40.9
9-Jul-06	24	19	7	9	5	43	5	29	28	27	13	18	14	9	15	16	9	17	17	4	4	4	6	6	43.1
10-Jul-06	5	8	46	28	7	10	39	24	12	10	16	19	16	13	13	17	12	10	7	7	6	5	7	7	45.8
11-Jul-06	7	4	3	4	4	5	5	8	9	6	10	9	10	11	15	15	16	14	12	8	7	6	7	8	16.2
12-Jul-06	14	10	11	12	11	14	55	37	39	17	28	30	43	10	16	15	12	10	14	11	14	33	47	15	55.3
13-Jul-06	8	22	18	5	6	7	5	5	5	10	8	8	6	8	8	8	8	9	7	6	3	3	3	4	21.5
14-Jul-06	5	4	5	5	4	10	9	8	8	8	8	11	8	11	10	13	10	12	9	5	2	6	3	4	13.0
15-Jul-06	11	9	5	8	4	3	3	5	7	6	9	9	11	10	8	31	10	11	7	4	3	3	2	3	31.3
16-Jul-06	3	3	3	4	5	3	3	3	6	8	10	11	14	13	15	12	13	14	12	6	4	5	10	11	15.3
17-Jul-06	6	10	12	12	8	4	4	5	8	11	14	15	20	21	6	8	10	8	7	5	6	3	3	3	21.0
18-Jul-06	3	4	4	3	3	4	6	7	11	10	13	11	10	12	19	7	10	6	9	9	4	6	8	10	19.2
19-Jul-06	5	5	22	9	29	6	15	17	19	17	17	32	45	46	39	48	49	38	42	13	8	23	31	8	48.6
20-Jul-06	20	23	3	4	6	3	4	3	7	12	10	14	15	13	12	13	14	10	7	6	4	4	19	9	23.0
21-Jul-06	5	5	4	6	6	9	11	11	15	12	13	14	16	13	19	14	12	12	6	5	7	24	17	26	25.9
22-Jul-06	6	6	7	8	6	12	5	15	7	11	12	13	34	18	16	18	14	13	22	10	4	14	6	29	33.6
23-Jul-06	13	7	27	14	21	5	8	12	16	12	16	19	14	14	12	15	13	12	24	25	22	22	12	9	26.5
24-Jul-06	8	6	6	6	8	10	P	P	21	24	15	23	42	46	29	24	33	27	53	11	13	26	14	17	52.7
25-Jul-06	34	6	3	3	14	9	6	8	7	8	13	16	21	13	12	12	9	7	8	7	4	2	8	3	33.7
26-Jul-06	3	2	8	7	4	4	5	5	8	9	9	9	9	5	7	9	9	7	6	5	3	4	2	3	9.4
27-Jul-06	3	3	6	7	4	4	24	17	15	23	33	26	22	27	40	65	29	18	14	20	5	5	7	5	65.0
28-Jul-06	18	13	7	7	6	7	8	9	10	15	16	14	23	33	18	13	12	10	9	8	8	13	10	5	32.6
29-Jul-06	6	7	5	6	6	6	7	5	5	5	6	7	7	7	8	5	5	6	6	6	9	6	7	6	8.8
30-Jul-06	7	7	5	4	5	5	5	5	4	5	7	8	11	20	36	35	23	9	14	8	12	19	14	6	35.6
31-Jul-06	4	6	3	3	4	3	8	10	11	13	17	16	11	11	12	8	6	5	5	5	4	4	6	3	16.7
Hourly Max	51	47	46	28	44	43	55	57	46	37	51	71	45	46	57	65	53	38	53	25	22	46	47	47	

1-hr Average Wind Rose (in km/hr) Located at the Smoky Heights Site for July 2006



Calms:	0%

Frequency Distribution of Wind in km/hr			
Range			Frequency (hrs)
0.8	<	5	47
5	to	10	234
10	to	20	327
20	to	30	104
30	to	40	24
	>	40	6
Total Non-Zero Values			742

PASZA - Beaverlodge Station

Monthly Summary Tables, Graphs, and Roses

PASZA - Beaverlodge - AQI Monthly Summary

Station: Beaverlodge
Station Owner: PASZA

Air Quality Index (AQI)

Monitoring Dates: July 1, 2006 to August 1, 2006

Alberta's Air Quality Index

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

Summary

Number of 1-hr Good Readings:	652
Number of 1-hr Fair Readings:	26
Number of 1-hr Poor Readings:	3
Number of 1-hr Very Poor Readings:	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
1-Jul-06	13	13	9	10	N	10	7	10	15	19	20	18	17	17	18	18	18	18	17	17	17	17	16	18
2-Jul-06	18	16	13	13	N	10	10	9	16	19	23	22	21	22	22	23	23	23	22	23	23	22	21	22
3-Jul-06	22	22	21	19	N	9	10	15	15	20	24	28	29	27	28	26	23	20	24	28	28	29	26	21
4-Jul-06	20	21	24	25	N	22	25	24	31	87	144	121	85	71	48	30	28	26	22	27	28	40	35	37
5-Jul-06	29	27	23	19	N	15	16	17	18	19	21	23	24	23	26	25	23	21	21	26	24	19	21	22
6-Jul-06	26	17	19	20	N	13	16	16	15	17	22	22	24	24	26	26	25	25	23	17	18	19	18	15
7-Jul-06	13	10	8	9	N	N	N	13	N	N	N	16	16	16	16	17	16	16	15	15	15	14	15	14
8-Jul-06	11	11	9	9	N	9	5	8	10	13	16	16	15	15	16	16	15	15	16	14	11	10	11	11
9-Jul-06	12	10	9	8	N	N	15	14	15	13	N	15	N	N	16	16	15	14	15	12	10	8	5	5
10-Jul-06	5	N	N	10	N	8	9	11	13	15	15	15	15	14	12	15	14	14	12	9	8	9	7	N
11-Jul-06	6	N	3	4	N	6	8	10	10	10	12	13	13	13	13	13	12	12	12	10	9	8	8	8
12-Jul-06	7	6	6	6	N	5	4	5	7	9	N	15	16	16	16	15	13	15	14	14	11	9	8	9
13-Jul-06	9	7	7	6	N	5	N	9	N	N	N	15	N	17	16	17	18	18	17	16	14	13	13	12
14-Jul-06	10	9	9	8	N	9	10	13	13	14	14	15	16	16	16	17	17	17	16	15	13	15	16	15
15-Jul-06	13	12	13	13	N	13	13	14	15	15	15	15	16	16	17	17	17	15	15	15	15	13	13	12
16-Jul-06	11	9	10	10	N	9	10	11	11	12	13	13	13	13	14	14	14	14	14	N	0	N	N	N
17-Jul-06	12	11	9	8	N	5	5	8	10	12	14	15	14	13	14	15	15	17	16	14	13	13	13	11
18-Jul-06	11	10	10	10	N	8	5	9	N	N	N	N	N	14	14	13	13	14	12	11	10	12	8	8
19-Jul-06	9	8	7	7	N	6	5	5	6	9	13	15	15	15	15	17	18	18	17	15	16	12	11	10
20-Jul-06	8	9	9	9	N	7	7	11	14	16	15	15	15	16	15	14	14	13	12	12	12	11	10	9
21-Jul-06	9	9	8	7	N	7	7	9	11	12	13	12	13	13	12	11	12	11	11	10	10	7	10	8
22-Jul-06	7	7	7	5	N	7	10	18	12	12	12	12	13	13	13	13	13	13	13	12	11	10	10	10
23-Jul-06	8	7	6	6	N	6	8	9	12	13	15	15	14	15	15	15	16	16	15	14	12	12	10	11
24-Jul-06	11	12	10	12	N	11	11	14	15	17	18	17	18	17	18	17	18	18	19	19	17	15	14	14
25-Jul-06	14	12	12	11	N	11	9	13	15	17	19	18	18	19	20	20	19	21	17	17	15	14	13	12
26-Jul-06	11	10	11	11	N	9	8	11	12	14	13	11	10	14	17	18	17	16	16	15	14	13	12	11
27-Jul-06	11	11	11	9	N	6	6	7	10	N	14	14	15	15	15	15	15	16	16	16	13	12	12	11
28-Jul-06	11	11	9	7	N	7	7	7	7	9	12	13	15	16	18	18	18	N	18	17	16	15	14	12
29-Jul-06	10	9	9	8	N	9	9	9	10	10	10	11	10	10	11	11	11	14	12	12	13	15	14	12
30-Jul-06	13	13	15	15	N	15	14	14	14	16	16	16	16	16	15	17	18	17	17	14	10	9	10	8
31-Jul-06	7	7	6	6	N	5	4	4	8	12	13	13	13	12	13	11	11	10	10	10	8	8	8	7

PASZA - Beaverlodge - Sulphur Dioxide Monthly Summary

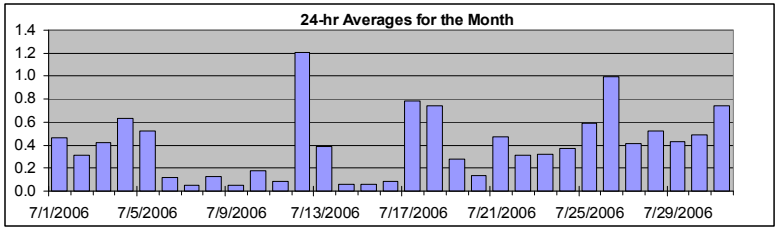
Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

Sulphur Dioxide (SO_2)

Monitoring Dates: July 1, 2006 to August 1, 2006

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:	12.3	ppb	26-Jul	13:00 14:00
Maximum 24-hr Average:	1.2	ppb	12-Jul	

AIC Time:	32 hrs	Operational Time:	708 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average	Median
	3.1	1.3	0.4	0.2	0.1	0.0	0.0	0.4 ppb	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-Jul-06	1	0	0	0	A	0	0	1	1	1	1	1	0	0	1	0	0	0	0	0	1	0	0	1	0.5	1.1
2-Jul-06	1	1	0	0	A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0.3	0.7
3-Jul-06	1	0	1	1	A	0	0	0	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0.4	0.9
4-Jul-06	0	0	0	0	A	0	0	0	0	0	2	3	2	1	1	0	0	0	1	1	0	0	0	1	0.6	3.0
5-Jul-06	1	0	0	3	A	0	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0.5	2.8
6-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
7-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
8-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3
9-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
10-Jul-06	0	0	0	0	A	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.7
11-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
12-Jul-06	0	0	0	0	A	1	1	1	2	2	1	2	2	1	1	0	0	0	0	6	3	1	1	2	1.2	6.5
13-Jul-06	1	2	2	2	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.0
14-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
15-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1
16-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C	C	A	0.1	0.3
17-Jul-06	0	0	0	1	A	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	2.5
18-Jul-06	1	1	1	1	A	1	1	1	C	C	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1.5
19-Jul-06	1	1	1	0	A	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.7
20-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.1	0.7
21-Jul-06	0	0	0	0	A	0	0	0	0	4	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0.5	4.4
22-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	1	0	0	0.3	0.9
23-Jul-06	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
24-Jul-06	0	0	0	0	A	0	0	1	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.1
25-Jul-06	0	0	0	5	A	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	4.7
26-Jul-06	0	0	0	0	A	0	1	1	1	2	0	0	0	12	2	0	2	0	0	0	0	0	0	0	1.0	12.3
27-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0	3	0	0	0	0.4	2.7
28-Jul-06	0	1	0	0	A	0	1	0	1	0	1	0	0	0	0	1	1	0	0	0	0	1	3	1	0.5	2.6
29-Jul-06	0	1	1	1	A	0	2	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0.4	1.8
30-Jul-06	0	0	0	0	A	0	0	0	0	0	3	1	0	0	1	0	0	0	0	1	1	1	0	2	0.5	2.5
31-Jul-06	1	0	0	10	A	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	10.3
Hourly Avg	0.3	0.3	0.3	0.8	N	0.5	0.5	0.4	0.4	0.6	0.6	0.4	0.4	0.6	0.3	0.3	0.3	0.2	0.2	0.5	0.4	0.2	0.3	0.3		
Hourly Max	1.0	1.6	1.6	10.3	0.0	4.7	2.5	1.8	2.0	4.4	3.1	3.0	1.9	12.3	2.3	0.7	2.0	1.5	1.2	6.5	3.2	1.3	2.6	2.2		

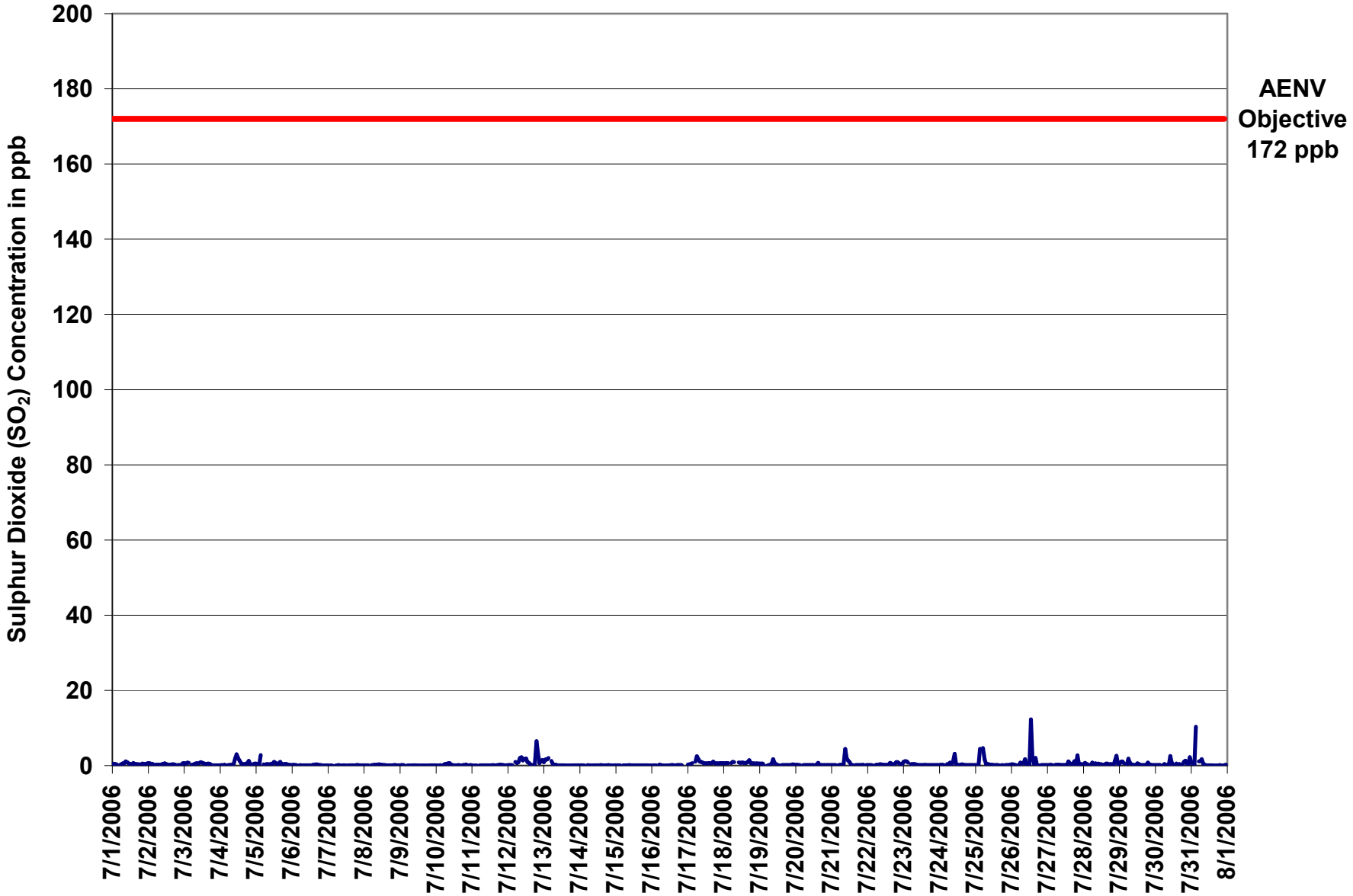


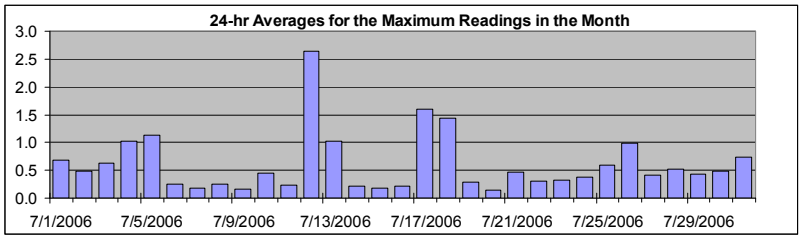
Figure 34. PASZA - Beaverlodge Sulphur Dioxide 1-hr Average Monthly Trend

Station: Beaverlodge
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Sulphur Dioxide (SO_2)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Value:	20.3	ppb	12-Jul	19:00 20:00
Maximum 24-hr Value:	2.6	ppb	12-Jul	

AIC Time:	32 hrs	Operational Time:	708 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average	Median
	5.7	2.0	0.6	0.2	0.1	0.1	0.0	0.6 ppb	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-Jul-06	1	1	1	1	A	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	0.7	1.5
2-Jul-06	1	1	1	1	A	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0.5	1.0
3-Jul-06	1	1	1	1	A	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0.6	1.2
4-Jul-06	0	0	0	1	A	0	0	0	0	1	3	4	3	2	1	0	1	1	1	2	1	0	1	1	1.0	3.5
5-Jul-06	1	0	0	8	A	1	0	1	1	0	1	1	1	4	1	1	1	1	1	1	1	0	0	0	1.1	7.9
6-Jul-06	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	0.5
7-Jul-06	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	0.5
8-Jul-06	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	0.5
9-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
10-Jul-06	0	0	0	0	A	0	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	0	0	0	0.5	1.2
11-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.2	0.8
12-Jul-06	0	0	0	0	A	1	1	1	3	3	2	4	4	1	1	0	0	0	6	20	6	1	2	2	2.6	20.3
13-Jul-06	1	7	5	4	A	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0	6.8
14-Jul-06	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.1
15-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3
16-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C	C	A	0.2	0.4
17-Jul-06	0	0	1	1	A	3	4	3	1	1	1	1	1	1	1	1	1	11	1	1	1	1	1	1	1.6	11.4
18-Jul-06	1	1	1	1	A	1	2	1	C	C	1	1	1	1	1	1	1	12	1	1	1	1	1	1	1.4	11.7
19-Jul-06	1	1	1	0	A	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.7
20-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.1	0.7
21-Jul-06	0	0	0	0	A	0	0	0	0	4	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0.5	4.4
22-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	1	0	0	0.3	0.9
23-Jul-06	1	1	1	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.2
24-Jul-06	0	0	0	0	A	0	0	1	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.1
25-Jul-06	0	0	0	5	A	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	4.7
26-Jul-06	0	0	0	0	A	0	1	1	1	2	0	0	0	12	2	0	2	0	0	0	0	0	0	0	1.0	12.3
27-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0	3	0	0	0	0.4	2.7
28-Jul-06	0	1	0	0	A	0	1	0	1	0	1	0	0	0	0	1	1	0	0	0	0	1	3	1	0.5	2.6
29-Jul-06	0	1	1	1	A	0	2	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0.4	1.8
30-Jul-06	0	0	0	0	A	0	0	0	0	0	3	1	0	0	1	0	0	0	0	1	1	1	0	2	0.5	2.5
31-Jul-06	1	0	0	10	A	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	10.3
Hourly Avg	0.4	0.6	0.5	1.2	N	0.7	0.7	0.6	0.5	0.7	0.8	0.6	0.5	0.9	0.4	0.3	0.4	1.0	0.5	1.0	0.6	0.3	0.4	0.4		
Hourly Max	1.1	6.8	5.1	10.3	0.0	4.7	4.4	3.2	3.1	4.4	3.1	4.1	4.1	12.3	2.3	1.0	2.0	11.7	5.7	20.3	5.7	1.4	2.6	2.2		

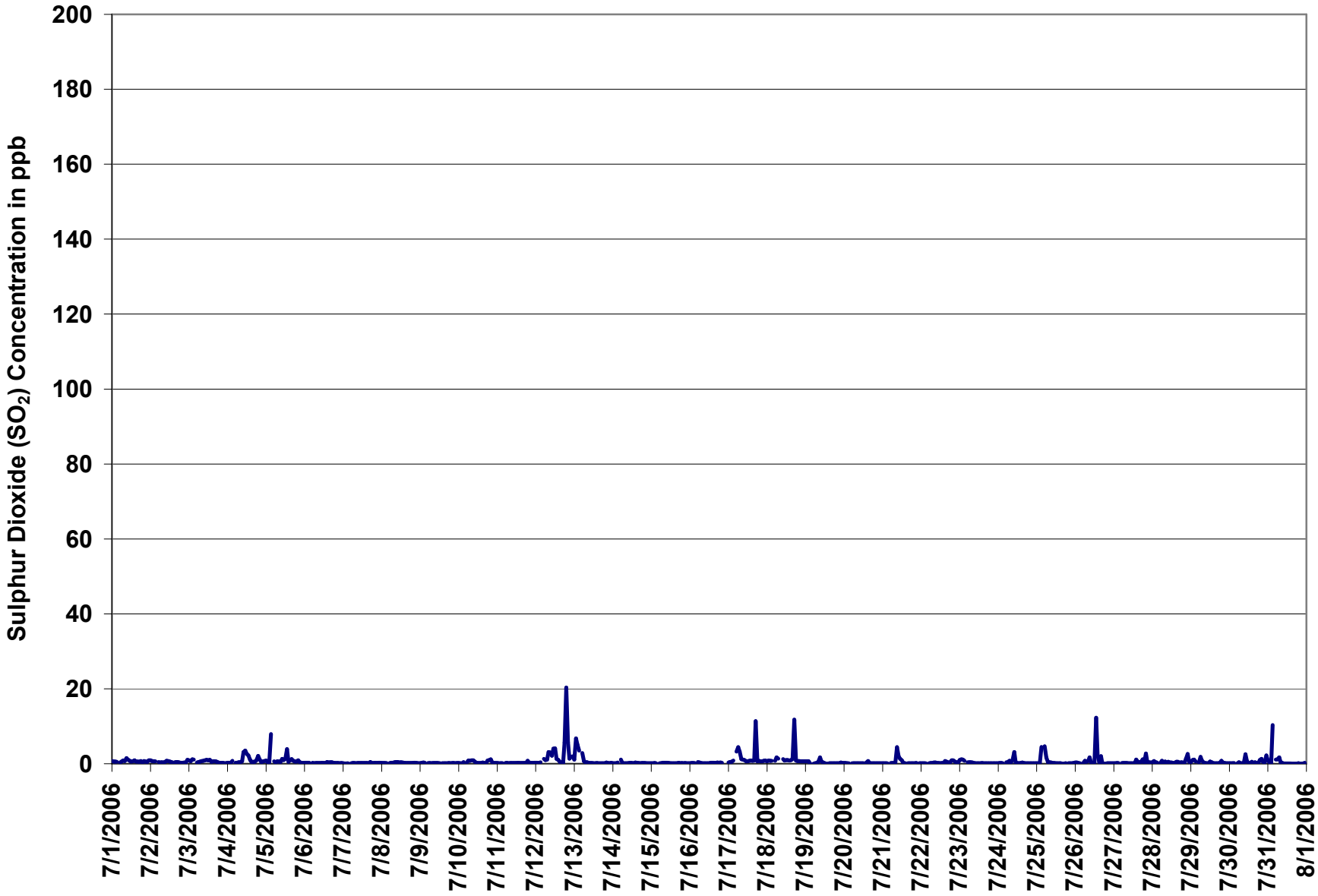
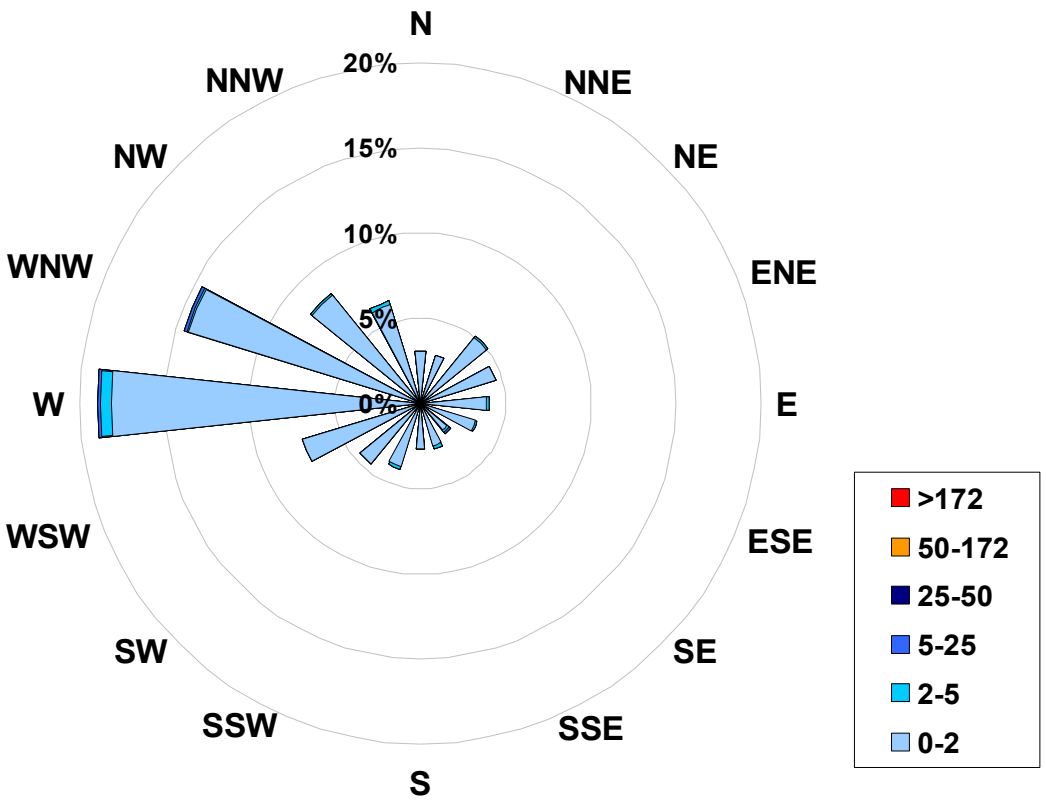


Figure 35. PASZA - Beaverlodge Sulphur Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Beaverlodge Site for July 2006



Calms:	0%

Frequency Distribution of SO_2 in ppb			
Range			Frequency (hrs)
0.0	<	2	688
2	to	5	16
5	to	25	3
25	to	50	0
50	to	172	0
	>	172	0
Total Non-Zero Values			708

PASZA - Beaverlodge - Nitrogen Dioxide Monthly Summary

HOURLY AVERAGE TABLE

Nitrogen Dioxide (NO_2)

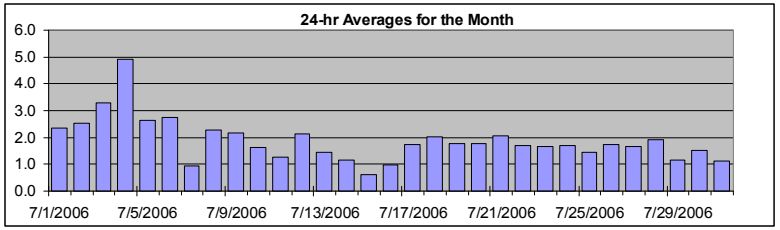
Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: July 1, 2006 to August 1, 2006

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:	9.9	ppb	4-Jul	3:00 4:00
Maximum 24-hr Average:	4.9	ppb	4-Jul	



AIC Time:	32 hrs	Operational Time:	704 hrs
Calibration Time:	8 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average	Median
	7.6	5.0	2.7	1.5	0.9	0.0	0.0	1.9 ppb	1.5 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Jul-06	4	4	8	5	A	8	4	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	1	2.4	8.3
2-Jul-06	2	3	4	4	A	5	6	7	5	3	3	2	1	1	1	1	1	1	1	1	2	2	2	2	2.5	6.6
3-Jul-06	2	2	2	3	A	6	5	6	6	4	3	3	2	2	1	2	2	3	2	4	4	4	3	3	3.3	6.4
4-Jul-06	3	5	6	10	A	8	8	9	7	8	7	5	4	4	3	2	2	2	2	3	3	3	3	8	4.9	9.9
5-Jul-06	5	3	3	3	A	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	4	3	3	3	2.7	5.1
6-Jul-06	2	2	3	6	A	4	4	4	4	3	3	2	2	2	2	2	2	2	2	3	3	2	2	2	2.7	5.8
7-Jul-06	3	3	3	2	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	0.9	3.2
8-Jul-06	3	2	3	2	A	2	5	4	4	3	1	1	1	1	1	1	1	1	1	2	5	5	3	2	2.3	4.9
9-Jul-06	2	2	2	3	A	3	2	1	1	1	1	1	1	0	0	1	1	1	1	2	4	6	8	5	2.2	8.4
10-Jul-06	4	3	2	2	A	3	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.6	3.8
11-Jul-06	1	2	2	1	A	3	2	1	1	1	1	1	0	1	0	1	1	1	1	2	2	2	2	2	1.3	2.8
12-Jul-06	3	3	2	2	A	3	2	2	2	2	1	1	1	1	1	1	1	1	1	1	4	4	6	4	2.1	5.6
13-Jul-06	4	5	3	3	A	3	1	1	1	0	0	1	1	1	1	0	0	0	0	1	2	2	1	2	1.5	5.1
14-Jul-06	3	3	4	4	A	3	2	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	1	1.2	3.9
15-Jul-06	2	1	1	1	A	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.6	2.2
16-Jul-06	2	3	1	1	A	1	1	0	0	0	0	0	0	0	0	0	C	C	C	A	1	3	3	2	1.0	3.4
17-Jul-06	1	2	2	2	A	5	6	3	2	2	1	0	1	1	1	0	1	1	1	2	1	1	1	3	1.7	6.0
18-Jul-06	2	2	3	3	A	3	5	4	C	C	C	C	C	1	1	1	1	1	1	2	1	1	5	2	2.0	5.4
19-Jul-06	1	0	1	2	A	3	3	2	2	2	2	1	0	0	0	1	1	1	1	2	2	4	4	5	1.8	5.0
20-Jul-06	6	4	4	4	A	5	5	3	2	1	0	0	0	0	0	0	0	0	0	1	1	1	1	3	1.8	6.0
21-Jul-06	3	2	4	4	A	4	4	4	2	1	1	1	1	0	0	0	0	0	0	2	2	6	2	4	2.0	6.0
22-Jul-06	3	2	2	3	A	3	4	3	3	2	1	1	0	0	0	0	0	1	1	1	2	3	2	2	1.7	4.0
23-Jul-06	3	3	3	4	A	3	5	3	1	1	0	0	0	0	0	0	0	0	0	1	3	2	4	2	1.7	5.0
24-Jul-06	2	1	5	4	A	3	4	2	1	1	1	1	0	0	0	0	0	0	0	1	2	3	4	4	1.7	5.0
25-Jul-06	2	2	2	2	A	3	5	2	2	2	1	0	0	0	0	0	1	1	1	1	1	2	1	2	1.4	5.0
26-Jul-06	2	4	3	3	A	5	5	3	2	1	1	2	3	1	1	0	0	0	0	0	0	1	1	2	1.7	5.0
27-Jul-06	1	2	2	4	A	5	4	6	3	1	0	0	0	0	0	0	0	0	0	0	3	2	2	3	1.7	6.0
28-Jul-06	3	3	4	6	A	3	3	2	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.9	6.0
29-Jul-06	1	1	1	1	A	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.2	2.0
30-Jul-06	1	1	1	1	A	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	4	4	2	2	1.5	4.0
31-Jul-06	1	1	1	1	A	2	3	2	1	0	1	0	1	0	0	0	0	0	0	1	2	1	1	2	1.1	3.0
Hourly Avg	2.5	2.5	2.8	3.1	N	3.5	3.6	2.8	2.2	1.6	1.2	1.0	0.9	0.7	0.6	0.6	0.7	0.8	0.8	1.4	2.1	2.5	2.4	2.6		
Hourly Max	6.0	5.1	8.3	9.9	0.0	8.0	7.5	8.7	7.4	8.4	7.0	5.2	3.9	3.5	2.8	2.1	2.0	3.3	2.2	3.6	4.9	6.1	8.4	7.6		

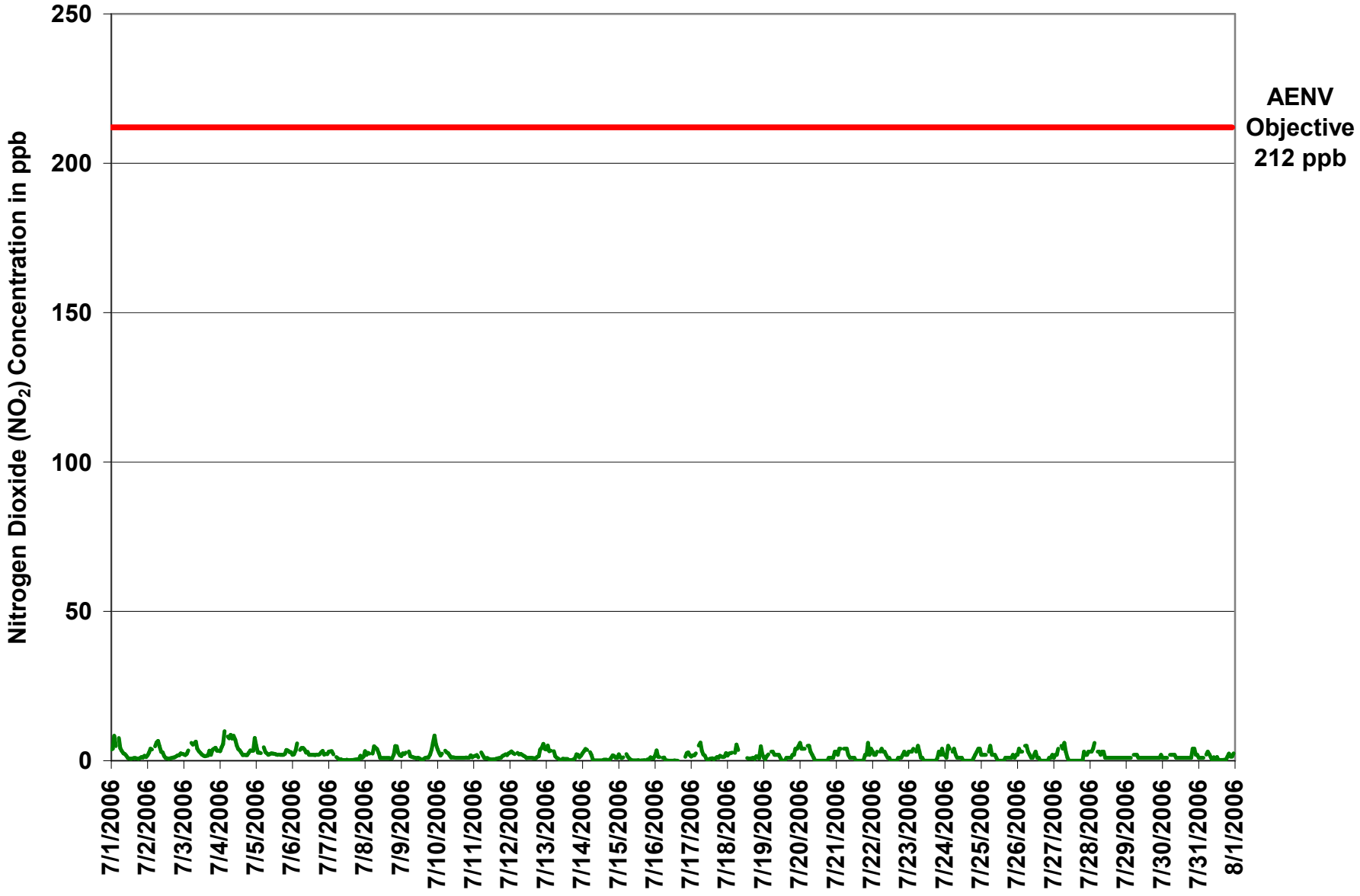


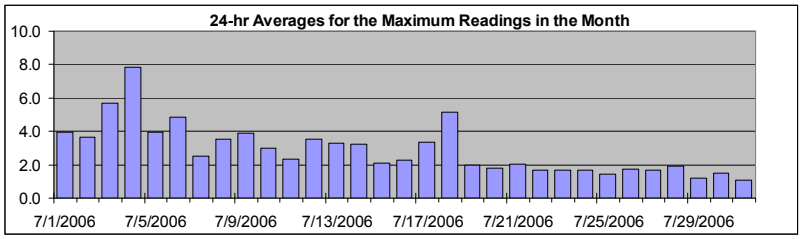
Figure 36. PASZA - Beaverlodge Nitrogen Dioxide 1-hr Average Monthly Trend

Station: Beaverlodge
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Nitrogen Dioxide (NO_2)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Value:	18.4	ppb	1-Jul	2:00 3:00
Maximum 24-hr Value:	7.8	ppb	4-Jul	

AIC Time:	32 hrs	Operational Time:	704 hrs
Calibration Time:	8 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average	Median
	12.7	8.0	4.0	2.0	1.0	0.0	0.0	2.9 ppb	2.0 ppb

Status Flag Characters

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

Day **Mountain Standard Time**

Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Jul-06	5	8	18	7	A	9	6	4	3	3	2	1	1	1	1	1	1	1	1	1	2	3	6	5	3.9	18.4
2-Jul-06	3	3	8	6	A	7	8	8	7	4	4	2	2	1	1	1	1	2	3	3	2	3	3	3	3.6	8.0
3-Jul-06	3	2	3	7	A	14	9	9	8	6	4	3	3	2	2	2	2	11	6	6	9	9	5	7	5.7	14.3
4-Jul-06	5	12	9	18	A	13	10	13	12	17	12	6	5	4	4	2	2	2	3	3	5	5	7	13	7.8	18.0
5-Jul-06	10	4	4	4	A	6	4	4	3	3	4	3	4	3	3	3	3	2	3	4	6	5	3	3	3.9	10.0
6-Jul-06	3	3	8	8	A	6	6	7	5	5	5	3	2	3	8	3	3	3	3	5	10	5	5	4	4.9	10.0
7-Jul-06	5	5	5	3	A	3	2	1	1	1	1	1	1	1	1	1	1	10	1	1	2	4	2	5	2.5	10.0
8-Jul-06	6	3	6	3	A	5	6	7	5	4	1	1	1	1	1	1	2	2	2	3	6	7	7	2	3.5	7.0
9-Jul-06	2	4	4	6	A	7	3	3	2	2	1	2	2	1	1	2	2	2	3	4	7	9	11	11	3.9	11.0
10-Jul-06	8	5	3	3	A	5	6	5	3	2	4	2	2	2	1	1	2	2	2	2	2	2	3	2	3.0	8.0
11-Jul-06	3	4	4	2	A	4	5	2	2	2	1	1	1	1	1	1	1	1	2	2	3	4	3	4	2.4	5.0
12-Jul-06	4	5	5	3	A	4	4	3	3	2	3	1	2	5	1	2	1	1	3	3	7	6	10	5	3.5	10.0
13-Jul-06	5	8	5	5	A	5	3	2	2	1	1	1	11	2	1	1	2	1	2	2	7	4	2	4	3.3	11.3
14-Jul-06	5	5	5	6	A	18	4	1	1	1	1	1	1	1	2	2	1	1	1	5	4	4	2	2	3.2	17.7
15-Jul-06	7	2	2	2	A	6	5	2	1	1	1	1	1	1	1	1	1	2	1	1	1	3	4	2	2.1	7.0
16-Jul-06	4	5	3	2	A	2	2	1	1	1	1	1	1	1	1	1	C	C	C	A	3	4	7	3	2.3	7.0
17-Jul-06	2	2	2	4	A	9	8	9	3	2	2	1	2	2	2	2	3	3	2	5	3	3	3	4	3.4	9.0
18-Jul-06	5	7	8	4	A	5	7	8	C	C	C	C	C	4	2	2	2	4	2	7	5	5	11	4	5.1	11.1
19-Jul-06	3	1	3	2	A	3	3	2	2	2	2	1	0	0	0	1	1	1	1	2	2	4	4	5	2.0	5.0
20-Jul-06	6	4	4	4	A	5	5	3	2	1	0	0	0	0	0	0	0	0	0	1	1	1	1	3	1.8	6.0
21-Jul-06	3	2	4	4	A	4	4	4	2	1	1	1	1	0	0	0	0	0	0	2	2	6	2	4	2.0	6.0
22-Jul-06	3	2	2	3	A	3	4	3	3	2	1	1	0	0	0	0	0	1	1	1	2	3	2	2	1.7	4.0
23-Jul-06	3	3	3	4	A	3	5	3	1	1	0	0	0	0	0	0	0	0	0	1	3	2	4	2	1.7	5.0
24-Jul-06	2	1	5	4	A	3	4	2	1	1	1	1	0	0	0	0	0	0	0	1	2	3	4	4	1.7	5.0
25-Jul-06	2	2	2	2	A	3	5	2	2	2	1	0	0	0	0	0	1	1	1	1	1	2	1	2	1.4	5.0
26-Jul-06	2	4	3	3	A	5	5	3	2	1	1	2	3	1	1	0	0	0	0	0	0	1	1	2	1.7	5.0
27-Jul-06	1	2	2	4	A	5	4	6	3	1	0	0	0	0	0	0	0	0	0	0	3	2	2	3	1.7	6.0
28-Jul-06	3	3	4	6	A	3	3	2	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.9	6.0
29-Jul-06	1	1	1	1	A	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.2	2.0
30-Jul-06	1	1	1	1	A	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	4	4	2	2	1.5	4.0
31-Jul-06	1	1	1	1	A	2	3	2	1	0	1	0	1	0	0	0	0	0	0	1	2	1	1	2	1.1	3.0
Hourly Avg	3.7	3.7	4.4	4.3	N	5.5	4.7	4.0	2.9	2.4	2.0	1.3	1.7	1.3	1.2	1.0	1.2	1.8	1.5	2.3	3.5	3.7	3.9	3.8		
Hourly Max	10.0	11.7	18.4	18.0	0.0	17.7	10.0	13.0	11.7	16.8	12.5	6.0	11.3	4.6	8.0	3.0	2.9	10.9	6.0	7.2	10.0	9.0	11.1	12.7		

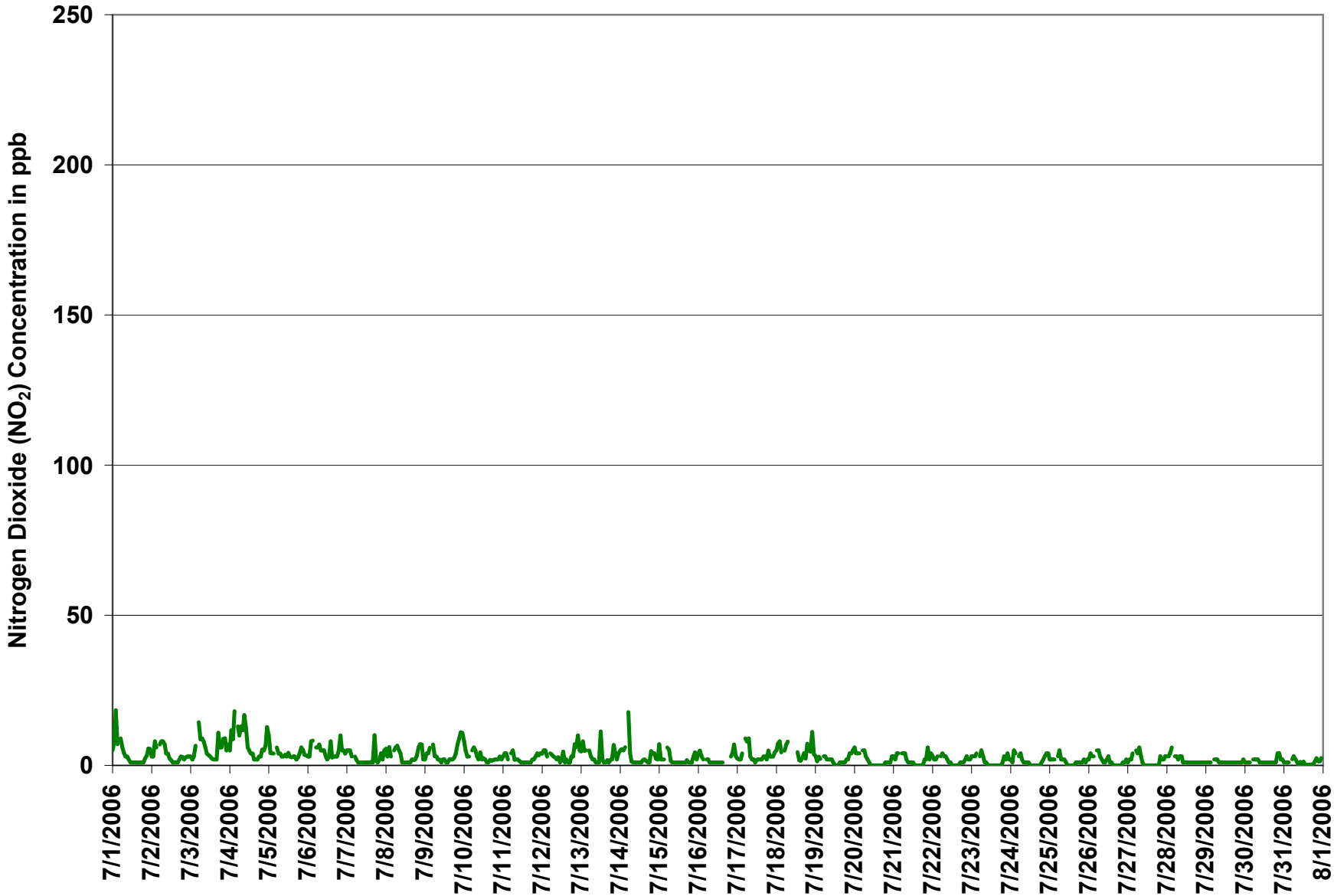
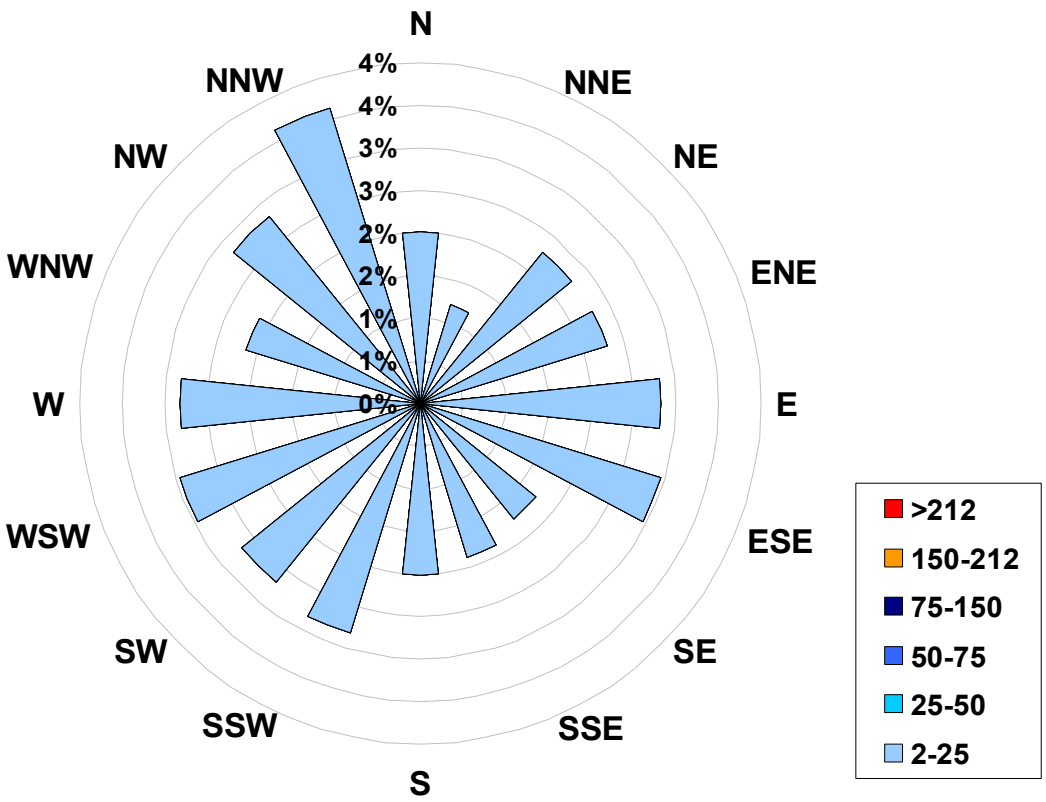


Figure 37. PASZA - Beaverlodge Nitrogen Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend

1-hr Average Concentration Rose for Nitrogen Dioxide (in ppb) Located at the Beaverlodge Site for July 2006



Calms:	0%

Frequency Distribution of NO_2 in ppb			
Range			Frequency (hrs)
2.0	<	25	704
25	to	50	0
50	to	75	0
75	to	150	0
150	to	212	0
	>	212	0
Total Non-Zero Values			704

PASZA - Beaverlodge - Nitric Oxide Monthly Summary

Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

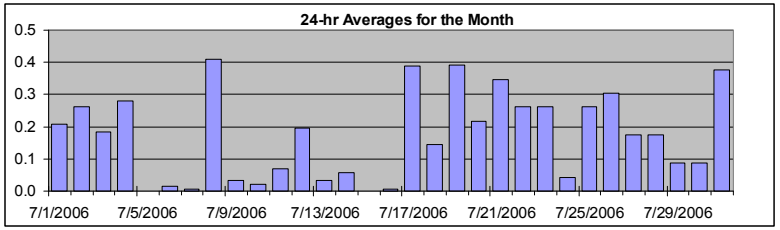
Nitric Oxide (NO)

Monitoring Dates: July 1, 2006 to August 1, 2006

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

Summary

Maximum 1-hr Average:	4.0	ppb	23-Jul	6:00 7:00
Maximum 24-hr Average:	0.4	ppb	8-Jul	



AIC Time:	32 hrs	Operational Time:	704 hrs
Calibration Time:	8 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average	Median
	2.8	1.0	0.0	0.0	0.0	0.0	0.0	0.2 ppb	0.0 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**

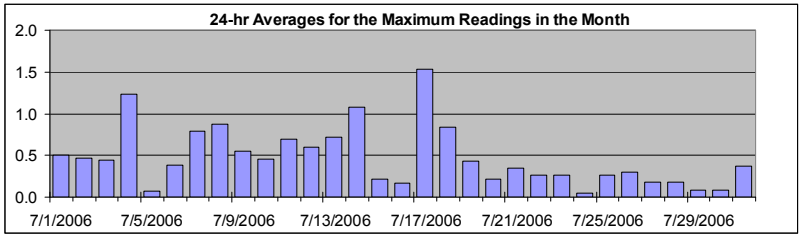
Hour Start / Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Jul-06	0	0	0	0	A	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.1
2-Jul-06	0	0	0	0	A	0	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.8
3-Jul-06	0	0	0	0	A	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.7
4-Jul-06	0	0	0	0	A	1	1	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	2.6
5-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
6-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.2
7-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1
8-Jul-06	0	0	0	0	A	0	3	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	2.8
9-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
10-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3
11-Jul-06	0	0	0	0	A	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.9
12-Jul-06	0	0	0	0	A	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
13-Jul-06	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.6
14-Jul-06	0	0	0	0	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.8
15-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
16-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	C	C	C	A	0	0	0	0	0.0	0.1
17-Jul-06	0	0	0	0	A	1	4	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.9
18-Jul-06	0	0	0	0	A	0	1	1	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.1	1.5
19-Jul-06	0	0	0	0	A	0	3	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.0
20-Jul-06	0	0	0	0	A	0	2	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.2	2.0
21-Jul-06	0	0	0	0	A	1	2	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.3	2.0
22-Jul-06	0	0	0	0	A	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.3	3.0
23-Jul-06	0	0	0	0	A	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	4.0
24-Jul-06	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	1.0
25-Jul-06	0	0	0	0	A	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
26-Jul-06	0	0	0	0	A	0	2	1	1	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0.3	2.0
27-Jul-06	0	0	0	0	A	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.0
28-Jul-06	0	0	0	0	A	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
29-Jul-06	0	0	0	0	A	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0
30-Jul-06	0	0	0	0	A	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0
31-Jul-06	0	0	0	0	A	0	2	3	1	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0.4	2.9
Hourly Avg	0.0	0.0	0.0	0.0	N	0.3	1.2	1.1	0.5	0.3	0.2	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0		
Hourly Max	0.3	0.0	0.1	0.0	0.0	2.1	4.0	3.0	2.4	2.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.2	1.0	1.0	1.0	0.1	0.1	0.3		

Station: Beaverlodge
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Nitric Oxide (NO)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Value:	13.9	ppb	14-Jul	5:00 6:00
Maximum 24-hr Value:	1.5	ppb	17-Jul	

AIC Time:	32 hrs	Operational Time:	704 hrs
Calibration Time:	8 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average	Median
	5.0	2.0	0.8	0.0	0.0	0.0	0.0	0.5 ppb	0.0 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-Jul-06	0	1	3	0	A	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	3.0
2-Jul-06	0	0	0	0	A	1	3	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	4.0
3-Jul-06	0	0	0	0	A	1	3	2	2	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.4	2.9
4-Jul-06	0	1	0	0	A	3	4	8	5	2	3	0	0	0	0	2	0	0	0	0	0	0	0	0	1.2	8.0
5-Jul-06	0	0	0	0	A	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.1	1.3
6-Jul-06	0	0	0	1	A	1	0	0	1	1	1	1	0	0	3	0	0	0	0	0	0	0	0	0	0.4	2.7
7-Jul-06	0	0	0	0	A	1	1	1	1	1	0	0	1	1	0	1	1	10	0	0	0	0	0	0	0.8	9.9
8-Jul-06	0	0	1	0	A	3	5	5	3	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.9	5.0
9-Jul-06	0	1	0	1	A	1	1	1	1	1	0	0	0	0	0	1	0	1	0	0	1	1	1	2	0.5	2.0
10-Jul-06	2	0	0	0	A	0	1	1	0	0	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0.5	2.1
11-Jul-06	0	0	1	0	A	2	2	1	1	1	1	4	2	1	1	1	0	0	0	0	0	0	0	0	0.7	4.0
12-Jul-06	0	1	0	0	A	1	1	1	2	1	5	0	0	0	0	0	0	0	0	0	1	0	0	0	0.6	4.5
13-Jul-06	0	0	0	0	A	1	1	1	2	1	7	0	0	1	0	0	1	0	1	0	1	0	0	0	0.7	6.7
14-Jul-06	0	0	0	1	A	14	1	1	1	1	1	1	1	0	1	0	1	0	0	1	0	0	0	0	1.1	13.9
15-Jul-06	0	0	0	0	A	1	1	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	1	0	0.2	1.0
16-Jul-06	0	0	0	0	A	0	1	0	1	1	0	0	0	0	0	0	C	C	C	A	0	0	0	0	0.2	1.0
17-Jul-06	0	0	0	0	A	5	6	12	2	1	1	0	1	1	1	1	1	1	1	2	0	0	0	0	1.5	12.5
18-Jul-06	0	0	0	0	A	2	3	2	C	C	C	C	C	1	1	1	1	1	1	1	1	0	0	1	0.8	2.9
19-Jul-06	0	0	1	0	A	0	3	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.0
20-Jul-06	0	0	0	0	A	0	2	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.2	2.0
21-Jul-06	0	0	0	0	A	1	2	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.3	2.0
22-Jul-06	0	0	0	0	A	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.3	3.0
23-Jul-06	0	0	0	0	A	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	4.0
24-Jul-06	0	0	0	0	A	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	1.0
25-Jul-06	0	0	0	0	A	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	1.0
26-Jul-06	0	0	0	0	A	0	2	1	1	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0.3	2.0
27-Jul-06	0	0	0	0	A	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	2.0
28-Jul-06	0	0	0	0	A	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	1.0
29-Jul-06	0	0	0	0	A	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0
30-Jul-06	0	0	0	0	A	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	1.0
31-Jul-06	0	0	0	0	A	0	2	3	1	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0.4	2.9
Hourly Avg	0.1	0.1	0.2	0.1	N	1.3	1.8	2.0	1.1	0.7	0.8	0.3	0.3	0.2	0.2	0.3	0.2	0.5	0.1	0.2	0.2	0.0	0.1	0.1		
Hourly Max	2.0	1.0	2.6	1.0	0.0	13.9	5.9	12.5	5.0	2.3	6.7	4.0	2.1	1.0	2.7	1.9	1.0	9.9	1.0	1.9	1.4	1.0	1.0	2.0		

PASZA - Beaverlodge - Oxides of Nitrogen Monthly Summary

HOURLY AVERAGE TABLE

Oxides of Nitrogen (NO_x)

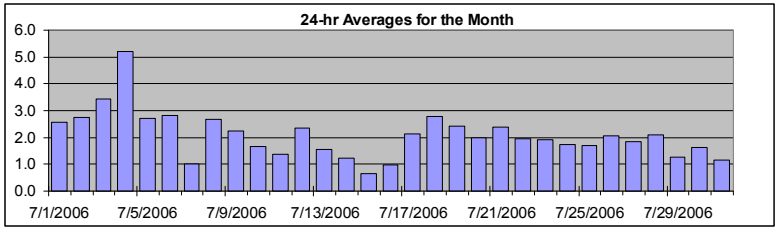
Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: July 1, 2006 to August 1, 2006

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

Summary

Maximum 1-hr Average:	11.4	ppb	4-Jul	7:00 8:00
Maximum 24-hr Average:	5.2	ppb	4-Jul	



AIC Time:	32 hrs	Operational Time:	704 hrs
Calibration Time:	8 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average	Median
	9.0	6.0	3.0	1.7	0.9	0.0	0.0	2.1 ppb	1.7 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-Jul-06	4	4	8	5	A	10	6	5	3	3	2	1	1	1	1	1	1	1	1	1	1	1	2	1	2.6	9.6
2-Jul-06	2	3	4	4	A	5	8	9	6	3	3	2	1	1	0	1	1	1	1	1	2	2	2	2	2.7	9.5
3-Jul-06	2	2	2	3	A	6	6	7	8	5	3	3	2	2	1	2	2	3	2	4	4	4	3	3	3.4	7.9
4-Jul-06	3	4	6	10	A	9	9	11	9	9	7	5	4	3	3	2	2	2	2	3	3	3	3	8	5.2	11.4
5-Jul-06	5	3	3	2	A	5	3	3	2	2	3	3	3	2	2	2	2	2	2	2	4	3	3	3	2.7	5.1
6-Jul-06	2	2	3	6	A	4	4	4	4	3	3	2	2	2	2	2	2	2	2	3	3	2	2	2	2.8	5.9
7-Jul-06	3	3	3	2	A	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	2	1	1	1.0	3.2
8-Jul-06	3	2	3	2	A	3	7	7	6	4	1	1	1	1	1	1	1	1	1	2	5	5	3	2	2.7	7.5
9-Jul-06	2	2	2	3	A	3	2	1	1	1	1	1	1	0	0	1	1	1	1	2	4	6	9	6	2.3	8.6
10-Jul-06	4	3	2	2	A	3	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1.7	4.1
11-Jul-06	1	2	2	1	A	4	2	1	1	1	1	1	0	1	1	1	1	1	1	2	2	2	2	2	1.4	3.7
12-Jul-06	3	3	2	2	A	3	3	3	3	2	2	1	1	1	1	1	1	1	1	2	4	4	6	4	2.4	5.8
13-Jul-06	4	5	3	3	A	4	2	1	1	0	0	1	1	1	1	0	0	0	0	1	2	2	1	2	1.5	5.1
14-Jul-06	3	3	4	4	A	4	2	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	1	1.2	3.9
15-Jul-06	2	1	1	1	A	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.6	2.4
16-Jul-06	2	3	1	1	A	1	1	0	0	0	0	0	0	0	0	0	C	C	C	A	1	3	3	2	1.0	3.3
17-Jul-06	1	2	2	2	A	6	10	5	3	2	1	0	1	1	1	0	1	1	1	2	1	1	1	2	2.1	10.0
18-Jul-06	2	2	2	3	A	3	7	4	C	C	C	C	C	1	1	1	2	2	2	3	3	2	6	4	2.8	6.9
19-Jul-06	3	2	4	2	A	3	6	5	3	4	2	1	0	0	0	1	1	1	1	2	2	4	4	5	2.4	6.0
20-Jul-06	6	4	4	4	A	5	7	5	2	1	0	0	0	0	0	0	0	0	1	1	1	1	1	3	2.0	7.0
21-Jul-06	3	2	4	4	A	5	6	5	3	2	1	1	1	0	0	0	0	0	0	3	3	6	2	4	2.4	6.0
22-Jul-06	3	2	2	3	A	3	7	5	3	2	1	1	0	0	0	0	0	1	1	1	3	3	2	2	2.0	7.0
23-Jul-06	3	3	3	4	A	3	9	5	1	1	0	0	0	0	0	0	0	0	0	1	3	2	4	2	1.9	9.0
24-Jul-06	2	1	5	4	A	3	4	3	1	1	1	1	0	0	0	0	0	0	0	1	2	3	4	4	1.7	5.0
25-Jul-06	2	2	2	2	A	3	6	3	3	3	2	1	0	0	0	0	1	1	1	1	1	2	1	2	1.7	6.0
26-Jul-06	2	4	3	3	A	5	7	4	3	1	1	2	3	2	1	1	1	0	0	0	0	1	1	2	2.0	7.0
27-Jul-06	1	2	2	4	A	5	5	8	4	1	0	0	0	0	0	0	0	0	0	0	3	2	2	3	1.8	8.0
28-Jul-06	3	3	4	6	A	3	4	3	3	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2.1	6.0
29-Jul-06	1	1	1	1	A	2	2	2	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	2	1.3	2.0
30-Jul-06	1	1	1	1	A	2	2	2	3	1	2	1	1	1	1	1	1	1	1	1	4	4	2	2	1.6	4.0
31-Jul-06	1	1	1	1	A	2	5	5	2	1	1	1	1	1	0	1	0	0	0	0	1	0	0	2	1.2	4.9
Hourly Avg	2.5	2.5	2.9	3.1	N	3.9	4.8	3.9	2.8	2.0	1.5	1.1	0.9	0.8	0.7	0.7	0.8	0.9	0.9	1.4	2.2	2.5	2.4	2.6		
Hourly Max	6.0	5.1	8.4	9.8	0.0	9.6	10.0	11.4	9.0	9.0	7.2	5.3	3.9	3.5	2.8	2.2	2.1	3.4	2.3	3.6	5.3	6.3	8.6	7.5		

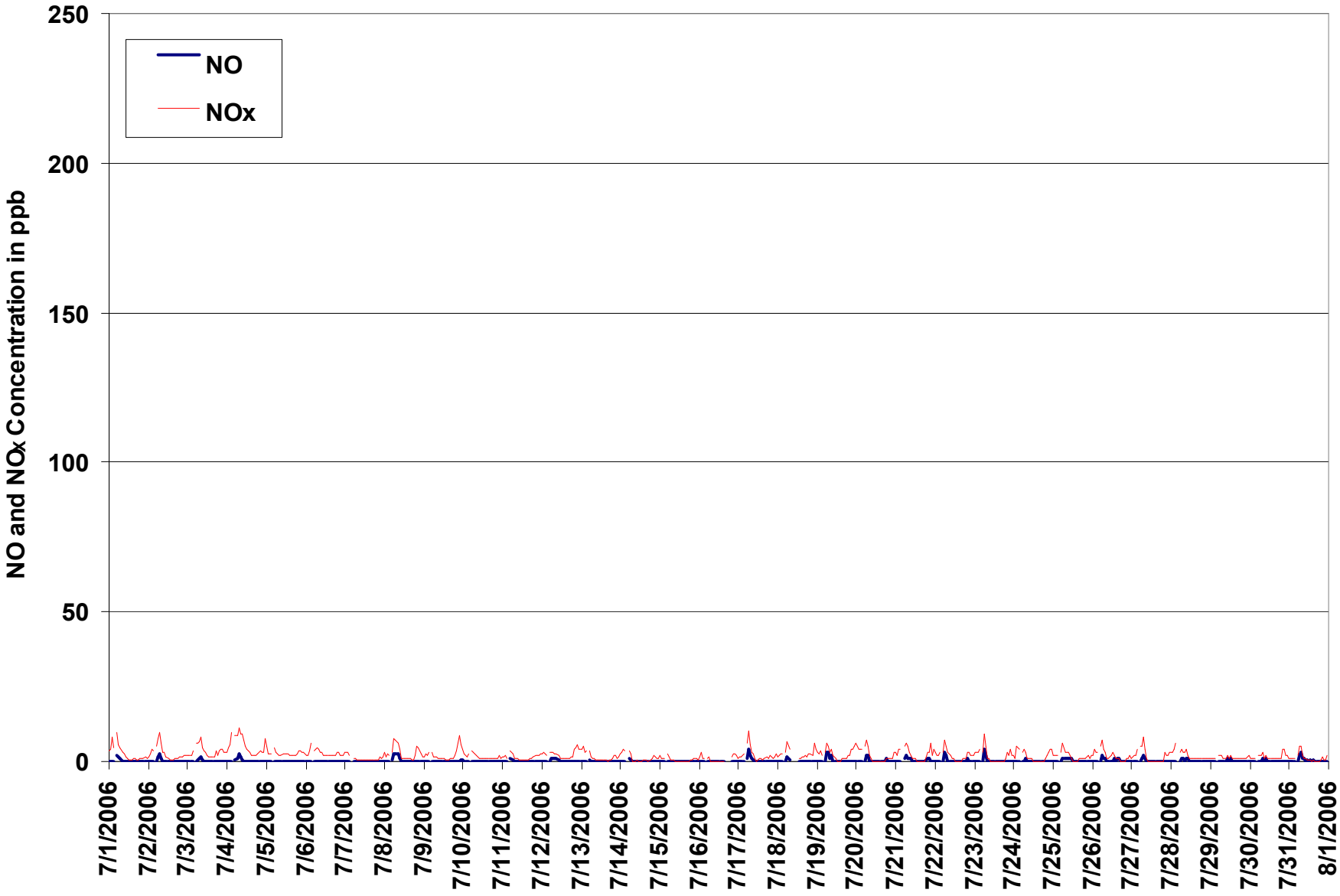


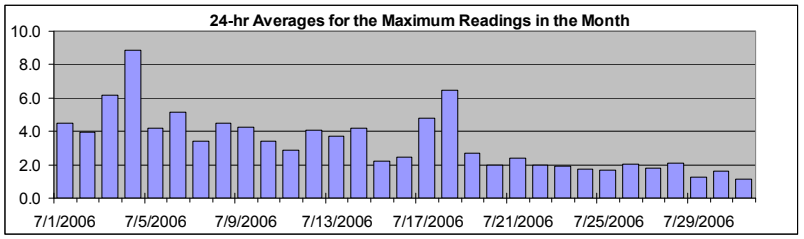
Figure 38. PASZA - Beaverlodge Oxides of Nitrogen 1-hr Average Monthly Trend

Station: Beaverlodge
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Oxides of Nitrogen (NO_x)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Value:	31.7	ppb	14-Jul	5:00 6:00
Maximum 24-hr Value:	8.9	ppb	4-Jul	

AIC Time:	32 hrs	Operational Time:	704 hrs
Calibration Time:	8 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average	Median
	16.3	9.7	4.0	2.3	1.0	0.0	0.0	3.3 ppb	2.3 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-Jul-06	5	9	21	7	A	12	9	5	3	4	3	1	1	1	1	1	1	1	1	1	2	3	6	6	4.5	20.7
2-Jul-06	3	3	8	6	A	7	11	11	9	4	4	2	1	1	1	1	1	2	3	3	2	3	3	3	4.0	11.0
3-Jul-06	3	2	3	7	A	15	11	11	10	7	4	4	3	3	2	2	2	12	7	6	9	9	5	7	6.1	15.0
4-Jul-06	5	13	9	18	A	16	14	21	16	18	16	6	5	4	4	2	2	2	3	3	5	5	7	13	8.9	20.9
5-Jul-06	11	3	4	4	A	7	4	4	3	4	4	3	6	3	3	3	3	2	3	4	6	6	3	4	4.2	11.0
6-Jul-06	3	3	8	9	A	6	6	7	6	6	6	3	2	3	11	3	3	3	3	5	11	5	5	4	5.2	10.7
7-Jul-06	5	5	6	4	A	4	2	2	2	2	2	1	2	2	2	2	2	20	2	2	2	5	2	5	3.4	19.9
8-Jul-06	6	3	7	3	A	8	11	11	8	6	2	1	1	1	2	1	2	2	2	4	7	7	7	2	4.5	11.0
9-Jul-06	2	4	5	7	A	7	4	3	2	2	1	2	2	1	1	3	3	2	3	4	7	10	12	12	4.3	12.0
10-Jul-06	11	6	3	3	A	6	7	6	3	2	4	3	3	2	2	2	2	2	2	2	2	2	3	2	3.4	10.6
11-Jul-06	4	4	4	2	A	6	7	2	3	3	2	2	1	1	1	2	1	1	2	3	4	4	3	4	2.8	6.9
12-Jul-06	4	5	5	4	A	5	5	4	5	3	7	1	2	5	1	2	2	1	3	3	8	6	10	5	4.1	10.0
13-Jul-06	5	8	4	5	A	6	4	3	4	1	2	2	11	3	2	1	2	1	2	3	8	5	2	4	3.7	10.7
14-Jul-06	5	6	5	7	A	32	6	2	2	2	2	1	1	1	2	2	2	1	1	5	5	4	2	1	4.2	31.7
15-Jul-06	7	2	2	2	A	6	6	2	1	1	2	1	1	1	1	1	1	2	1	1	2	3	5	2	2.2	7.0
16-Jul-06	4	5	3	2	A	3	3	1	2	1	1	2	1	1	1	1	C	C	C	A	3	4	7	3	2.5	6.9
17-Jul-06	2	2	2	4	A	14	14	21	5	3	3	1	2	3	3	3	4	3	3	7	3	3	3	4	4.8	21.3
18-Jul-06	5	7	8	5	A	7	10	10	C	C	C	C	C	5	3	3	5	6	4	9	7	6	13	5	6.5	12.6
19-Jul-06	5	3	6	2	A	3	6	5	3	4	2	1	0	0	0	1	1	1	1	2	2	4	4	5	2.7	6.0
20-Jul-06	6	4	4	4	A	5	7	5	2	1	0	0	0	0	0	0	0	0	1	1	1	1	1	3	2.0	7.0
21-Jul-06	3	2	4	4	A	5	6	5	3	2	1	1	1	0	0	0	0	0	0	3	3	6	2	4	2.4	6.0
22-Jul-06	3	2	2	3	A	3	7	5	3	2	1	1	0	0	0	0	0	1	1	1	3	3	2	2	2.0	7.0
23-Jul-06	3	3	3	4	A	3	9	5	1	1	0	0	0	0	0	0	0	0	0	1	3	2	4	2	1.9	9.0
24-Jul-06	2	1	5	4	A	3	4	3	1	1	1	1	0	0	0	0	0	0	0	1	2	3	4	4	1.7	5.0
25-Jul-06	2	2	2	2	A	3	6	3	3	3	2	1	0	0	0	0	1	1	1	1	1	2	1	2	1.7	6.0
26-Jul-06	2	4	3	3	A	5	7	4	3	1	1	2	3	2	1	1	1	0	0	0	0	1	1	2	2.0	7.0
27-Jul-06	1	2	2	4	A	5	5	8	4	1	0	0	0	0	0	0	0	0	0	0	3	2	2	3	1.8	8.0
28-Jul-06	3	3	4	6	A	3	4	3	3	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2.1	6.0
29-Jul-06	1	1	1	1	A	2	2	2	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	2	1.3	2.0
30-Jul-06	1	1	1	1	A	2	2	2	3	1	2	1	1	1	1	1	1	1	1	1	4	4	2	2	1.6	4.0
31-Jul-06	1	1	1	1	A	2	5	5	2	1	1	1	1	1	0	1	0	0	0	0	1	0	0	2	1.2	4.9
Hourly Avg	3.9	3.8	4.6	4.4	N	6.7	6.5	5.8	3.8	3.0	2.6	1.5	1.8	1.5	1.5	1.3	1.4	2.3	1.7	2.6	3.8	3.9	4.0	3.9		
Hourly Max	11.0	12.7	20.7	18.0	0.0	31.7	14.0	21.3	16.4	17.6	15.8	5.9	10.7	5.0	10.7	3.0	4.7	19.9	6.9	9.2	10.6	9.9	12.6	12.7		

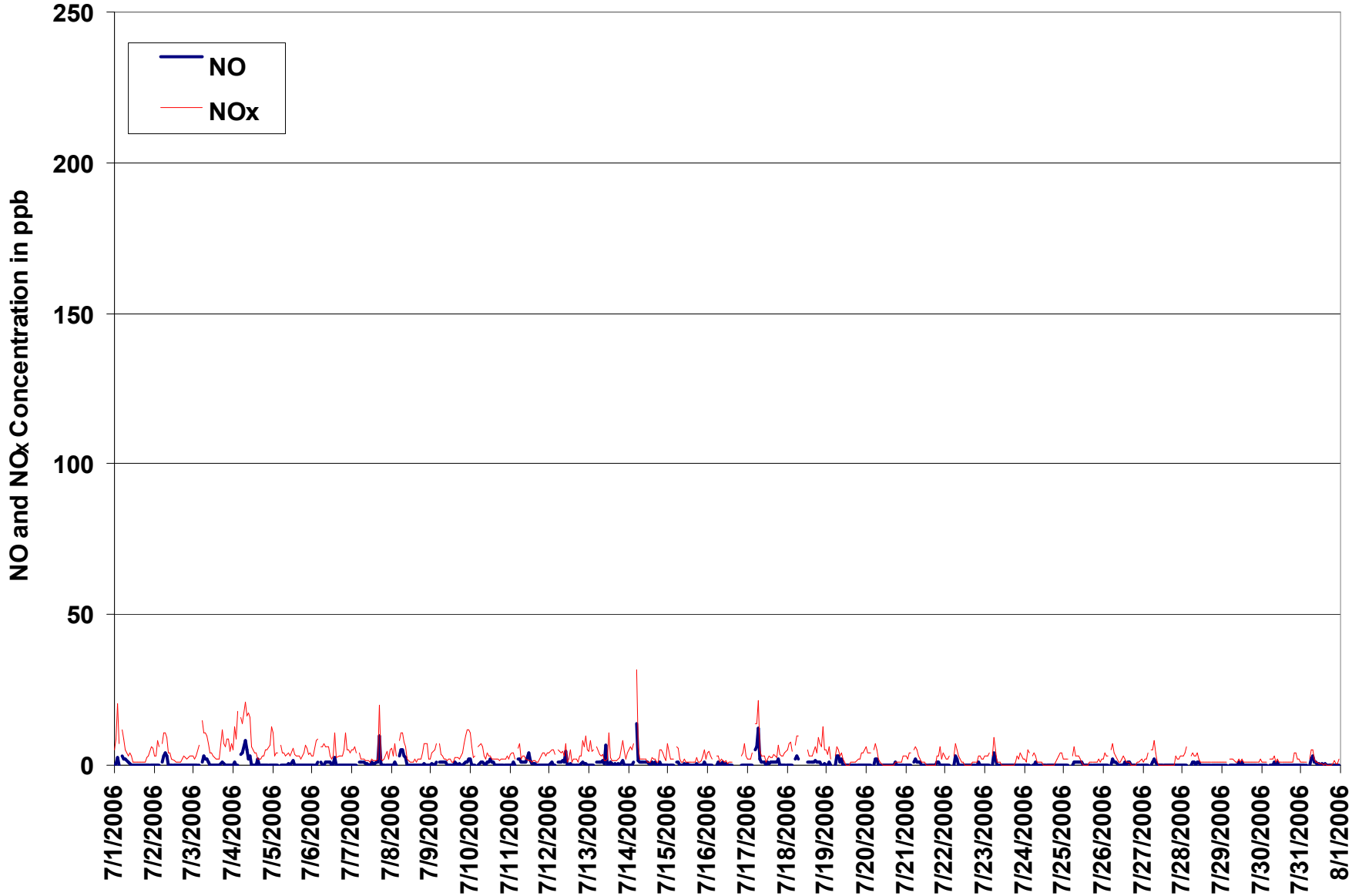


Figure 39. PASZA - Beaverlodge Oxides of Nitrogen Instantaneous (30 Second) Maximum Value Monthly Trend

PASZA - Beaverlodge - Ozone Monthly Summary

HOURLY AVERAGE TABLE

Ozone (O_3)

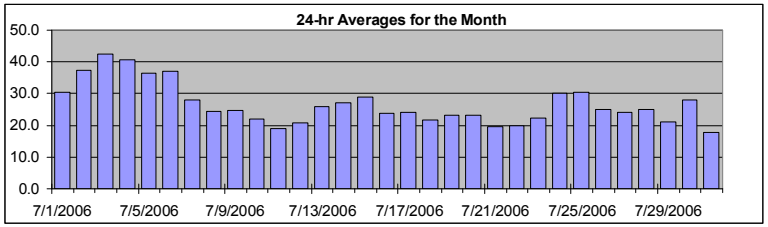
Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: July 1, 2006 to August 1, 2006

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

Summary

Number of 1-hr Exceedances:	0			
Maximum 1-hr Average:	61.0	ppb	4-Jul	13:00 14:00
Maximum 24-hr Average:	42.5	ppb	3-Jul	



AIC Time:	32 hrs	Operational Time:	708 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average	Median
	53.8	44.2	32.0	26.3	20.0	12.0	9.0	26.6 ppb	26.3 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-Jul-06	27	27	18	20	A	9	15	21	30	38	39	36	35	34	35	37	37	35	35	35	33	34	33	37	30.3	39.5
2-Jul-06	36	33	27	26	A	19	14	16	27	38	45	42	42	44	44	45	46	46	44	45	47	44	42	44	37.3	46.5
3-Jul-06	44	43	42	37	A	19	21	30	29	40	47	54	55	53	53	51	46	40	48	49	51	44	41	41	42.5	54.5
4-Jul-06	39	35	25	25	A	13	15	15	26	40	44	50	56	61	60	55	54	51	44	44	54	52	47	32	40.7	61.0
5-Jul-06	31	40	40	38	A	29	32	34	35	37	38	37	38	37	38	40	42	42	42	39	34	34	32	31	36.6	41.9
6-Jul-06	28	28	24	13	A	25	32	32	30	35	44	44	48	48	51	51	50	50	46	33	35	39	35	29	37.1	51.3
7-Jul-06	25	19	16	18	A	24	24	26	27	29	30	32	32	32	33	34	32	31	31	31	30	28	29	28	27.9	33.7
8-Jul-06	21	23	19	18	A	17	11	16	20	27	32	32	30	30	32	32	30	30	32	28	22	20	21	22	24.5	32.1
9-Jul-06	23	20	19	16	A	21	31	29	30	26	30	29	30	31	31	32	31	28	29	25	21	15	10	11	24.6	32.2
10-Jul-06	11	14	19	20	A	17	19	22	26	30	31	29	31	27	24	30	28	28	25	19	16	18	14	14	22.1	30.7
11-Jul-06	13	9	7	9	A	11	16	20	20	20	24	25	26	26	26	26	25	25	24	20	18	16	16	16	19.0	26.0
12-Jul-06	14	12	12	11	A	11	9	11	14	17	24	31	32	33	33	30	27	29	28	28	23	18	15	19	20.8	32.6
13-Jul-06	17	14	14	12	A	10	15	19	24	30	33	30	33	33	33	35	35	35	33	32	28	27	27	25	25.8	35.4
14-Jul-06	20	18	17	17	A	17	21	26	26	28	28	29	32	33	33	34	34	33	32	30	27	30	31	30	27.1	34.0
15-Jul-06	26	24	25	26	A	26	27	28	29	30	30	31	32	33	33	34	34	31	30	30	30	26	25	25	28.8	33.8
16-Jul-06	22	19	20	19	A	19	19	21	22	24	25	25	26	26	27	28	28	28	28	C	C	A	24	25	23.7	28.0
17-Jul-06	25	22	19	16	A	11	10	17	19	23	28	29	28	27	28	30	30	33	33	28	26	27	25	23	24.2	33.0
18-Jul-06	22	20	20	20	A	17	9	17	24	24	25	C	C	27	28	26	25	27	23	23	21	25	15	16	21.7	27.9
19-Jul-06	17	17	14	15	A	11	10	10	12	17	25	30	30	29	30	33	35	35	34	30	31	24	22	20	23.1	35.0
20-Jul-06	16	18	17	17	A	13	14	21	27	31	30	29	30	32	29	28	28	26	24	23	24	22	20	17	23.3	32.0
21-Jul-06	17	17	15	14	A	13	14	18	22	24	25	24	25	25	23	22	23	22	22	19	19	14	19	16	19.7	25.0
22-Jul-06	14	14	13	10	A	9	8	15	22	23	23	24	25	25	26	26	25	26	25	23	21	19	19	19	19.7	26.0
23-Jul-06	13	12	10	9	A	10	9	18	23	25	30	30	28	29	29	30	31	31	30	27	24	24	20	21	22.3	31.0
24-Jul-06	21	23	20	23	A	22	21	27	30	34	35	34	35	34	35	34	35	36	37	37	33	29	28	28	30.0	37.0
25-Jul-06	28	24	23	22	A	21	18	26	29	33	37	36	36	37	40	40	37	41	34	33	30	27	25	23	30.4	41.0
26-Jul-06	22	19	22	21	A	17	15	21	24	27	25	22	20	27	34	35	34	32	31	30	27	25	23	22	25.0	35.0
27-Jul-06	22	22	22	17	A	12	12	14	20	24	27	28	29	29	29	30	30	31	31	31	26	24	24	22	24.2	31.0
28-Jul-06	22	21	17	13	A	14	14	14	14	17	23	26	30	32	35	35	35	36	35	33	31	30	27	24	25.1	36.0
29-Jul-06	20	18	17	16	A	17	17	18	19	19	19	22	20	19	22	22	21	28	23	23	25	29	27	23	21.0	29.0
30-Jul-06	25	26	29	29	A	29	27	27	28	31	31	32	32	31	30	33	35	34	33	28	20	18	20	16	28.0	35.0
31-Jul-06	14	13	12	12	A	10	8	9	16	23	26	26	26	24	25	22	21	21	21	20	16	16	16	15	17.9	26.0
Hourly Avg	22.4	21.4	19.7	18.7	N	16.5	17.0	20.5	24.0	27.8	30.8	31.6	32.3	32.5	33.2	33.5	33.0	33.0	31.8	29.8	28.1	26.6	25.0	23.6		
Hourly Max	43.9	43.1	42.1	38.4	0.0	29.2	32.5	33.7	35.3	40.3	47.3	53.9	55.9	61.0	59.6	54.9	54.1	51.0	48.0	49.5	53.9	52.0	47.0	43.7		

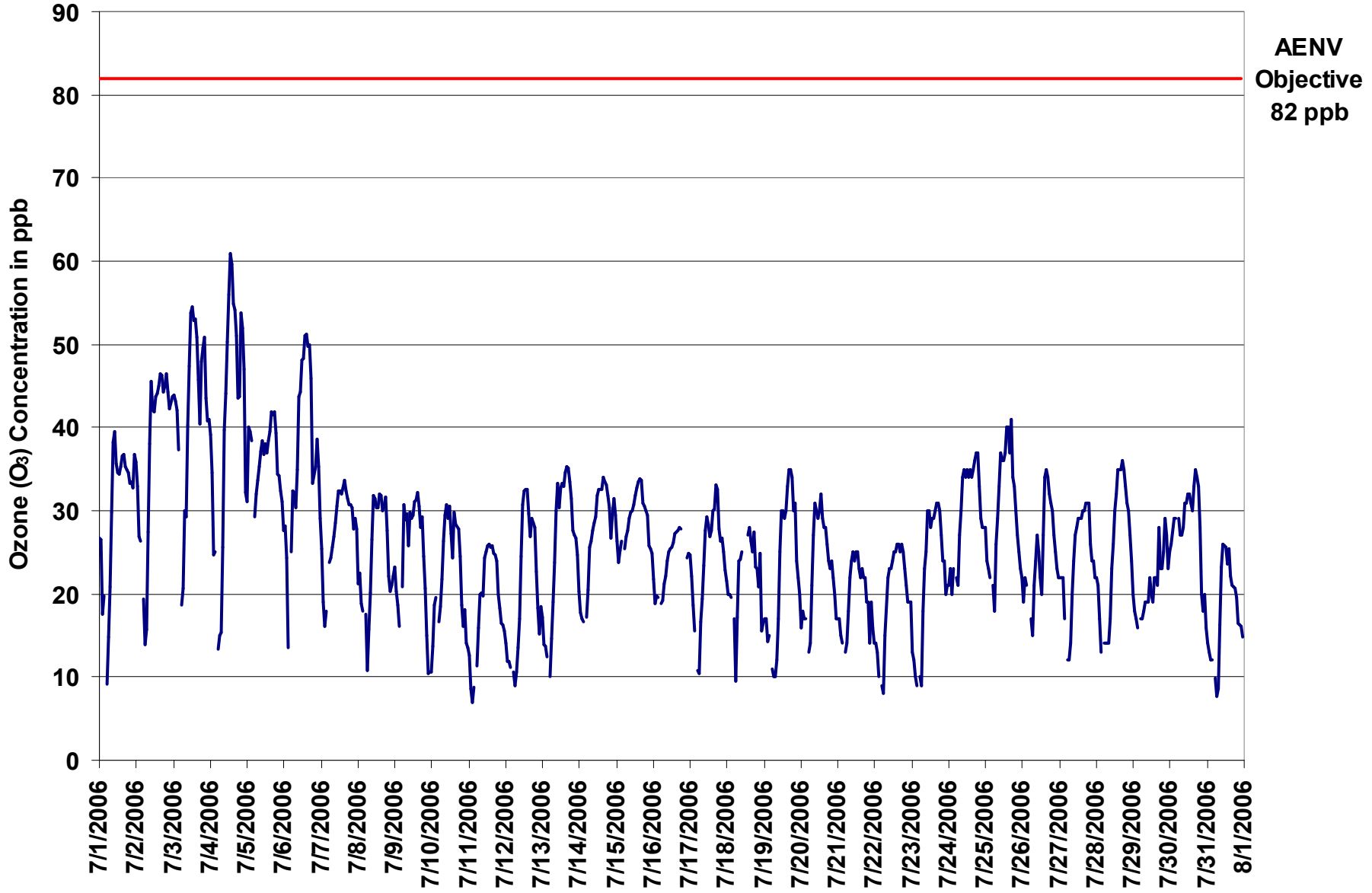


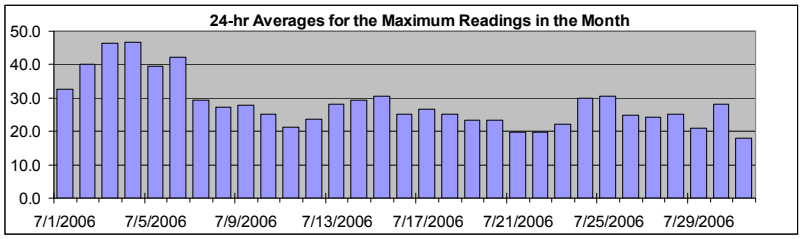
Figure 40. PASZA - Beaverlodge Ozone 1-hr Average Monthly Trend

Station: Beaverlodge
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Ozone (O_3)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Value:	66.3	ppb	4-Jul	13:00 14:00
Maximum 24-hr Value:	46.6	ppb	4-Jul	

AIC Time:	32 hrs	Operational Time:	708 hrs
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average	Median
	55.8	47.4	33.9	28.0	21.4	14.0	9.8	28.3 ppb	28.0 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-Jul-06	28	29	28	21	A	12	19	26	34	41	41	37	36	35	37	37	38	36	36	36	34	35	37	38	32.8	41.4
2-Jul-06	38	34	33	29	A	24	18	21	34	43	49	45	44	45	45	46	48	48	47	47	47	46	45	45	40.0	49.4
3-Jul-06	45	44	44	41	A	23	27	38	38	44	52	56	63	56	55	54	48	45	51	52	55	47	44	46	46.4	62.5
4-Jul-06	43	45	34	30	A	20	19	29	31	46	48	56	59	66	65	57	58	54	46	51	57	56	52	48	46.6	66.3
5-Jul-06	40	42	43	40	A	32	36	36	39	39	41	39	41	39	41	43	44	43	43	42	37	36	34	33	39.4	44.1
6-Jul-06	30	31	32	24	A	36	36	38	35	42	47	49	50	53	53	53	53	52	50	41	48	46	39	34	42.2	52.9
7-Jul-06	28	22	17	20	A	25	26	27	29	31	32	34	34	33	34	35	33	33	32	31	31	30	30	30	29.4	34.7
8-Jul-06	24	25	22	20	A	21	14	19	24	31	33	32	32	32	33	33	32	32	34	35	25	22	24	24	27.2	34.5
9-Jul-06	26	23	23	22	A	29	34	31	32	28	37	32	32	33	33	33	33	32	31	27	24	21	14	15	28.0	36.6
10-Jul-06	14	17	22	23	A	20	22	25	29	33	34	32	36	35	27	32	30	29	27	22	18	20	17	17	25.3	36.2
11-Jul-06	16	12	8	11	A	14	19	21	21	22	27	26	27	27	27	27	26	27	26	24	21	20	20	19	21.1	27.0
12-Jul-06	20	18	14	15	A	13	11	12	15	22	31	32	33	34	34	32	30	30	31	30	28	21	19	20	23.7	33.9
13-Jul-06	19	18	16	16	A	12	18	21	28	35	35	33	36	35	34	36	36	36	35	34	30	29	29	28	28.2	36.5
14-Jul-06	25	20	20	20	A	20	25	27	28	29	30	31	34	34	34	35	35	35	33	33	29	32	34	31	29.3	35.5
15-Jul-06	29	25	27	29	A	28	29	29	31	31	31	32	33	34	35	35	35	33	31	31	27	27	26	30.4	35.5	
16-Jul-06	25	20	22	21	A	20	21	22	23	26	26	26	27	28	29	29	29	29	29	C	C	A	27	26	25.2	29.1
17-Jul-06	26	24	23	17	A	15	16	20	21	27	29	31	31	28	29	32	35	35	34	30	29	29	26	25	26.5	35.0
18-Jul-06	24	22	22	23	A	21	16	21	29	29	28	C	C	29	30	29	27	30	28	28	26	27	21	19	25.2	30.4
19-Jul-06	19	18	18	15	A	11	10	10	12	17	25	30	30	29	30	33	35	35	34	30	31	24	22	20	23.4	35.0
20-Jul-06	16	18	17	17	A	13	14	21	27	31	30	29	30	32	29	28	28	26	24	23	24	22	20	17	23.3	32.0
21-Jul-06	17	17	15	14	A	13	14	18	22	24	25	24	25	25	23	22	23	22	22	19	19	14	19	16	19.7	25.0
22-Jul-06	14	14	13	10	A	9	8	15	22	23	23	24	25	25	26	26	25	26	25	23	21	19	19	19	19.7	26.0
23-Jul-06	13	12	10	9	A	10	9	18	23	25	30	30	28	29	29	30	31	31	30	27	24	24	20	21	22.3	31.0
24-Jul-06	21	23	20	23	A	22	21	27	30	34	35	34	35	34	35	34	35	36	37	37	33	29	28	28	30.0	37.0
25-Jul-06	28	24	23	22	A	21	18	26	29	33	37	36	36	37	40	40	37	41	34	33	30	27	25	23	30.4	41.0
26-Jul-06	22	19	22	21	A	17	15	21	24	27	25	22	20	27	34	35	34	32	31	30	27	25	23	22	25.0	35.0
27-Jul-06	22	22	22	17	A	12	12	14	20	24	27	28	29	29	29	30	30	31	31	31	26	24	24	22	24.2	31.0
28-Jul-06	22	21	17	13	A	14	14	14	14	17	23	26	30	32	35	35	35	36	35	33	31	30	27	24	25.1	36.0
29-Jul-06	20	18	17	16	A	17	17	18	19	19	19	22	20	19	22	22	21	28	23	23	25	29	27	23	21.0	29.0
30-Jul-06	25	26	29	29	A	29	27	27	28	31	31	32	32	31	30	33	35	34	33	28	20	18	20	16	28.0	35.0
31-Jul-06	14	13	12	12	A	10	8	9	16	23	26	26	26	24	25	22	21	21	21	20	16	16	16	15	17.9	26.0
Hourly Avg	24.3	23.1	22.1	20.7	N	18.8	19.1	22.6	26.0	29.9	32.5	32.9	33.8	33.9	34.2	34.5	34.2	34.2	33.0	31.7	29.9	28.2	26.7	25.4		
Hourly Max	45.4	45.1	43.9	40.9	0.0	35.6	35.9	37.9	39.0	46.4	52.3	55.8	62.5	66.3	64.6	57.3	58.0	54.3	50.9	52.4	57.0	55.8	51.8	47.6		

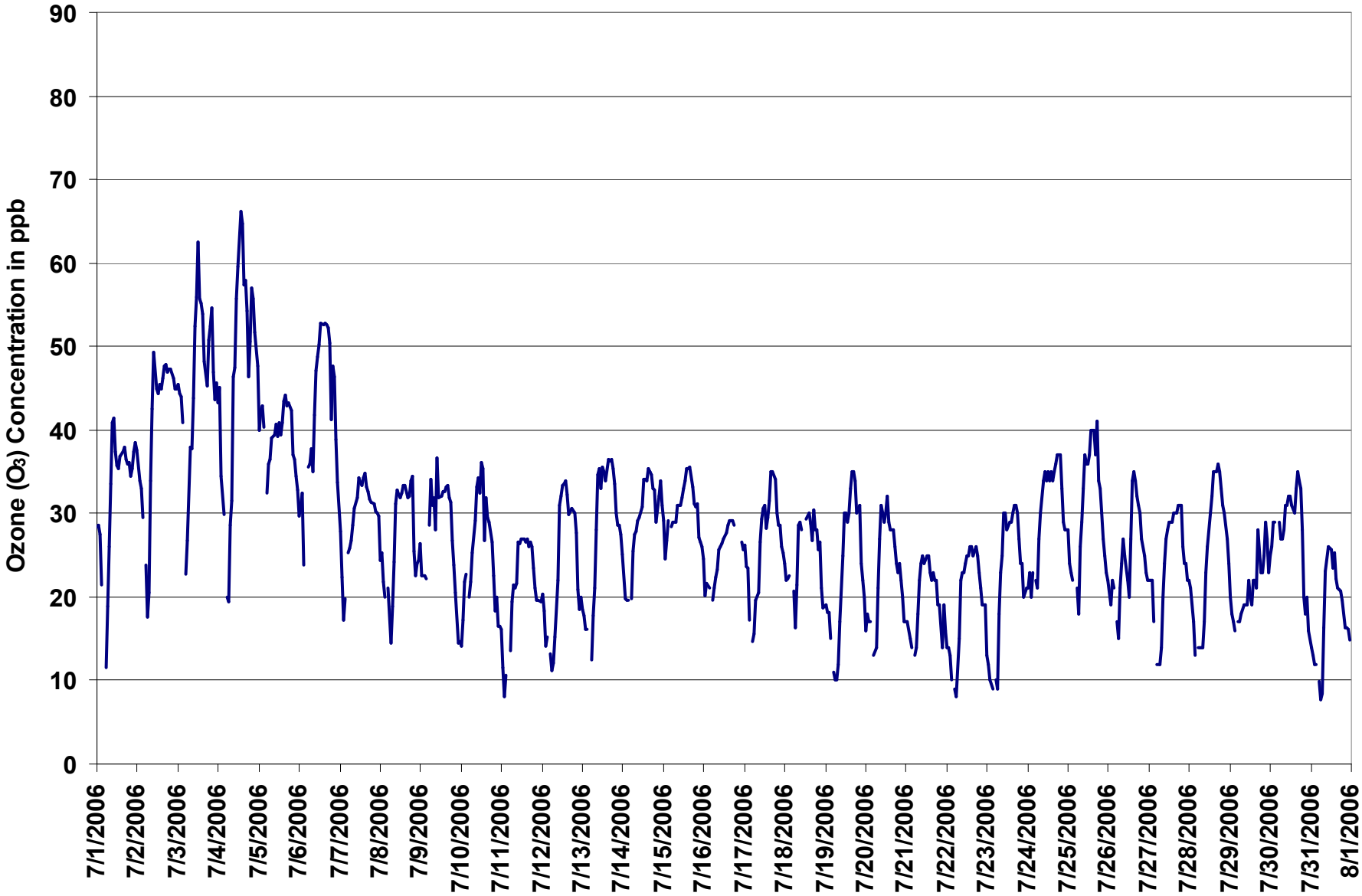
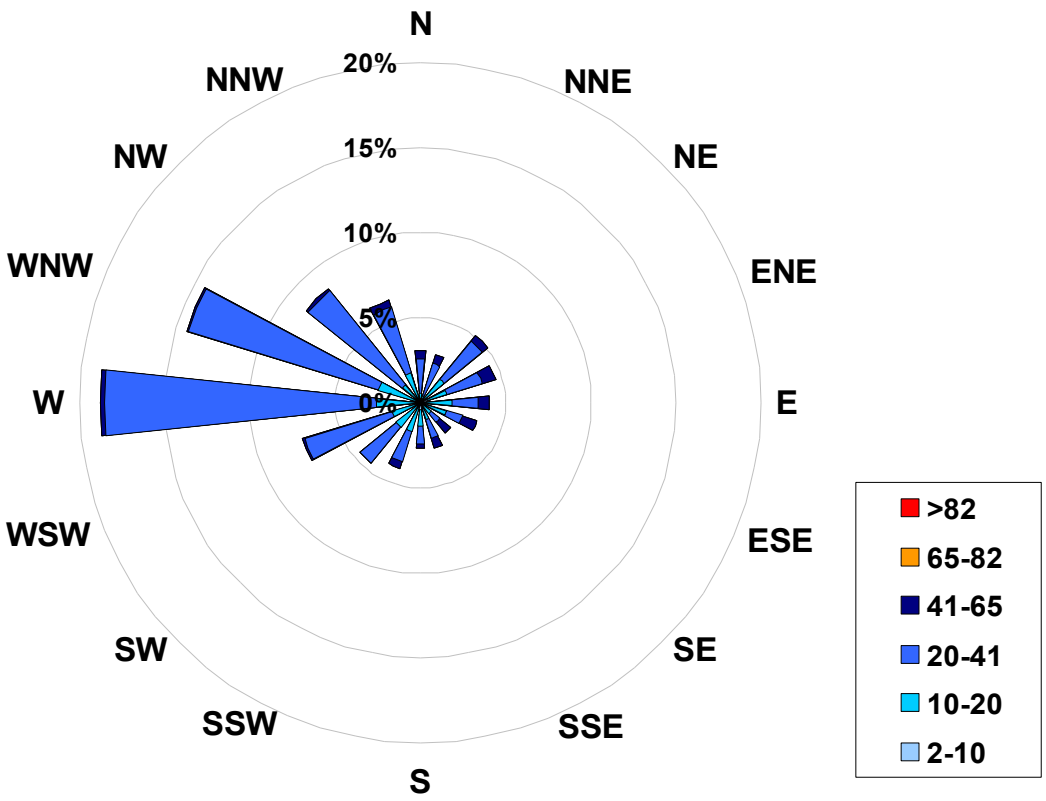


Figure 41. PASZA - Beaverlodge Ozone Instantaneous (30 Second) Maximum Value Monthly Trend

1-hr Average Concentration Rose for Ozone (in ppb) Located at the Beaverlodge Site for July 2006



Calms: 0%

Frequency Distribution of O_3 in ppb			
Range			Frequency (hrs)
2.0	<	10	14
10	to	20	166
20	to	41	470
41	to	65	53
65	to	82	0
	>	82	0
Total Non-Zero Values			708

PASZA - Beaverlodge - Ozone Monthly Summary

EIGHT HOUR RUNNING AVERAGE TABLE

Ozone (O_3)

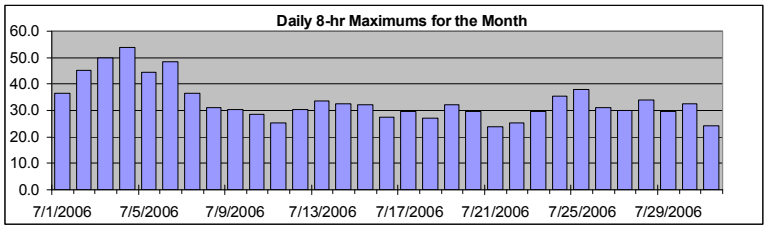
Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: July 1, 2006 to August 1, 2006

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

Summary

Number of 8-hr Exceedances:	0			
Maximum 8-hr Average:	53.9	ppb	4-Jul	17:00 18:00



Percentile	99	95	75	50	25	5	1
	49.9	44.0	31.0	25.9	20.6	14.4	11.8

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-Jul-06	32	31	29	27	26	23	21	19	20	21	25	27	28	31	34	35	36	36	35	35	35	35	35	35	36.4
2-Jul-06	35	34	33	32	32	30	27	24	23	24	27	29	31	34	37	41	43	44	44	45	45	45	45	45	45.2
3-Jul-06	45	44	44	43	42	39	36	34	32	31	32	34	37	41	45	48	50	50	50	49	49	48	46	45	49.9
4-Jul-06	44	43	40	37	36	31	28	24	22	23	25	29	32	38	44	49	52	54	54	53	53	52	50	47	53.9
5-Jul-06	44	43	42	42	40	37	35	35	35	35	35	35	35	36	37	38	38	39	39	40	39	39	38	37	44.3
6-Jul-06	35	34	31	28	27	26	26	26	27	28	30	35	36	39	42	44	46	48	49	47	46	44	42	40	48.6
7-Jul-06	37	33	29	27	26	24	22	22	22	23	25	27	28	29	30	31	32	32	32	32	32	31	31	30	36.6
8-Jul-06	29	28	26	24	24	22	20	18	18	18	20	22	23	25	27	29	31	31	31	31	30	28	27	26	31.1
9-Jul-06	25	24	22	20	20	20	22	23	24	24	26	28	28	29	29	30	30	30	30	30	28	26	24	21	30.2
10-Jul-06	19	17	16	15	14	14	15	17	19	22	23	25	25	27	27	28	29	29	28	26	25	23	22	20	28.7
11-Jul-06	18	16	14	12	12	11	11	12	13	15	17	20	20	22	23	24	25	25	25	25	24	22	21	20	25.3
12-Jul-06	19	17	16	14	14	13	12	11	11	12	14	17	19	21	24	27	28	30	30	30	29	27	25	23	30.3
13-Jul-06	22	20	18	17	16	14	14	14	15	18	20	23	24	27	29	31	33	34	34	34	33	32	31	30	33.7
14-Jul-06	28	26	24	22	21	20	19	19	20	22	23	25	26	28	29	30	31	32	32	33	32	31	31	31	32.5
15-Jul-06	30	29	28	27	27	27	26	26	26	27	28	29	29	30	31	31	32	32	32	32	32	31	30	29	32.2
16-Jul-06	27	26	24	23	22	21	20	20	20	21	21	22	23	24	25	25	26	27	27	27	N	N	N	N	27.3
17-Jul-06	N	N	N	N	N	20	18	17	16	16	18	20	21	23	25	27	28	29	30	30	29	29	29	28	29.7
18-Jul-06	27	25	24	23	22	21	19	18	18	19	19	N	N	N	N	N	N	N	N	26	25	25	23	22	27.0
19-Jul-06	21	20	19	18	17	15	14	13	13	13	14	16	18	20	23	26	29	31	32	32	32	32	31	29	32.1
20-Jul-06	27	24	22	21	19	18	16	17	18	20	22	24	24	27	29	30	30	29	28	28	27	26	24	23	29.6
21-Jul-06	22	21	19	18	17	16	15	15	16	17	19	20	21	22	23	24	24	24	23	23	22	21	20	19	23.9
22-Jul-06	18	17	16	15	14	14	12	12	13	14	16	18	19	21	23	24	25	25	25	25	25	24	23	22	25.3
23-Jul-06	21	19	17	15	14	13	12	12	13	15	18	21	22	24	27	28	29	30	30	29	29	28	27	26	29.8
24-Jul-06	25	24	23	22	22	21	22	22	24	25	27	29	30	31	33	34	35	35	35	35	35	35	34	33	35.4
25-Jul-06	32	31	29	27	26	25	23	23	23	25	27	29	30	32	34	36	37	38	38	37	37	35	33	31	38.0
26-Jul-06	29	27	25	24	23	21	20	20	20	21	21	22	21	23	25	27	28	29	29	30	31	31	30	28	31.3
27-Jul-06	27	25	24	23	22	20	18	17	17	17	18	20	21	23	25	27	28	29	30	30	30	29	28	27	30.0
28-Jul-06	26	25	23	21	20	19	18	16	15	15	16	17	19	21	24	27	29	32	33	34	34	34	33	31	34.0
29-Jul-06	30	27	25	23	22	20	18	18	17	18	18	19	19	19	20	20	21	22	22	22	23	24	25	25	29.5
30-Jul-06	25	25	26	27	27	27	27	27	28	29	29	29	30	30	30	31	32	32	33	32	31	29	28	26	32.5
31-Jul-06	23	20	18	16	15	14	12	11	11	13	15	17	18	20	22	24	24	24	23	22	21	20	19	18	24.1
Hourly Max	44.5	44.1	43.9	42.9	42.4	38.7	35.6	34.9	35.5	35.0	34.9	34.7	36.8	41.1	45.1	48.9	52.5	53.9	53.8	53.0	52.7	51.6	50.0	47.2	

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

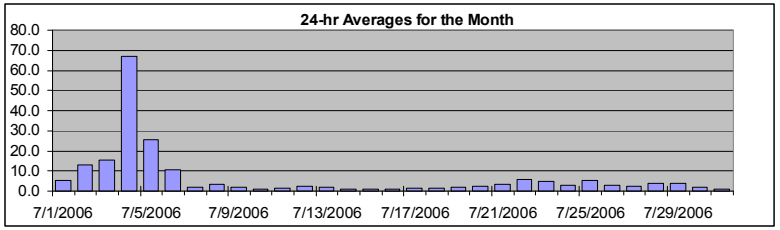
Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

Particulate Matter ($PM_{2.5}$)

Monitoring Dates: July 1, 2006 to August 1, 2006

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



Summary

Number of 24-hr Exceedances (draft):	1			
Maximum 1-hr Average:	267.6	µg/m³	4-Jul	10:00 11:00
Maximum 24-hr Value:	66.8	µg/m³	4-Jul	

AIC Time:	0 hrs	Operational Time:	717 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	97.2%

Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	54.1	26.2	5.6	2.7	0.6	0.0	0.0	6.6 / 3 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-Jul-06	5	6	10	9	7	12	5	6	5	6	2	0	2	2	3	7	8	5	3	5	4	6	3	4	5.2	12.2
2-Jul-06	6	7	7	8	7	7	12	11	19	17	22	26	24	15	12	15	16	23	25	8	6	7	5	3	12.9	26.0
3-Jul-06	7	5	5	6	7	10	7	4	6	9	8	10	11	8	16	20	18	18	23	36	36	39	31	25	15.3	38.7
4-Jul-06	24	25	29	29	26	26	31	29	42	153	268	223	150	122	77	40	34	26	21	34	29	59	51	55	66.8	267.6
5-Jul-06	38	34	27	20	27	16	10	18	14	23	25	27	29	27	32	31	28	24	24	31	29	23	26	26	25.4	37.7
6-Jul-06	31	21	23	24	23	10	3	3	7	8	5	6	7	9	9	9	14	3	11	14	0	1	4	6	10.4	31.2
7-Jul-06	6	6	8	5	0	D	D	0	D	D	D	0	0	0	0	0	0	0	1	1	1	1	3	2	1.8	8.0
8-Jul-06	4	2	3	2	0	5	4	3	3	0	2	4	5	4	2	3	0	0	1	14	7	1	5	4	3.2	13.7
9-Jul-06	0	0	0	3	1	D	4	1	0	2	D	3	D	D	0	0	0	0	4	4	5	4	6	4	2.0	6.0
10-Jul-06	3	D	D	0	1	4	0	0	0	4	0	2	1	1	0	0	0	0	3	1	0	1	0	D	1.0	3.9
11-Jul-06	0	D	0	0	0	2	0	0	1	1	0	1	0	0	0	0	4	2	4	11	6	1	1	0	1.5	11.0
12-Jul-06	2	1	1	1	4	4	2	2	3	0	D	0	0	2	5	7	0	0	0	3	4	2	5	8	2.5	7.9
13-Jul-06	9	9	2	4	0	6	D	0	D	D	D	0	D	0	0	0	0	0	0	1	3	3	1	2	2.1	8.9
14-Jul-06	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5	2	5	1	0.8	5.4
15-Jul-06	2	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	4	7	3	2	1.1	7.1
16-Jul-06	1	1	3	3	1	2	1	2	1	0	0	0	1	0	0	1	0	0	2	3	0	C	C	C	1.1	3.2
17-Jul-06	0	0	0	1	0	1	3	1	1	3	1	0	2	2	1	0	1	1	0	1	0	4	3	2	1.3	4.5
18-Jul-06	2	1	1	2	0	2	6	5	2	C	C	C	0	0	0	3	0	0	3	2	1	0	0	0	1.4	6.4
19-Jul-06	0	0	0	1	1	2	4	0	1	1	0	0	0	0	0	1	0	1	1	1	5	8	6	8	1.8	8.1
20-Jul-06	6	5	4	4	4	5	8	5	3	0	2	2	0	0	0	1	0	0	0	3	3	4	4	1	2.6	7.9
21-Jul-06	5	3	5	5	4	4	4	7	6	4	2	2	3	2	0	0	0	2	1	4	3	8	3	5	3.4	8.2
22-Jul-06	6	7	5	6	8	9	12	22	14	4	1	0	0	2	2	1	3	0	2	4	5	9	8	6	5.6	22.1
23-Jul-06	10	8	7	8	7	7	10	4	3	2	0	3	2	0	1	1	0	1	3	4	7	7	9	6	4.6	9.9
24-Jul-06	5	5	4	3	4	3	5	4	3	1	2	0	2	0	1	3	1	0	0	4	5	6	6	4	2.9	5.9
25-Jul-06	4	5	4	5	6	4	9	13	18	14	10	2	2	1	2	3	4	3	3	4	4	6	3	4	5.5	17.8
26-Jul-06	2	3	3	4	6	2	8	8	3	4	6	6	0	0	0	2	0	0	1	1	2	2	3	2	2.8	7.9
27-Jul-06	2	3	4	2	1	3	5	6	1	D	0	0	0	1	1	2	3	1	2	3	5	4	6	6	2.5	6.3
28-Jul-06	5	5	3	1	5	4	1	9	5	6	3	5	3	2	1	1	3	D	2	5	11	2	3	2	3.8	11.2
29-Jul-06	1	3	2	2	2	2	3	4	7	12	7	5	6	0	2	4	4	3	3	4	5	3	4	4	3.8	11.8
30-Jul-06	3	3	2	2	1	1	3	0	1	0	1	1	1	3	0	0	0	2	3	5	4	2	2	1	1.7	4.7
31-Jul-06	0	0	1	2	1	2	3	3	1	0	0	1	1	0	0	2	0	0	1	3	0	2	1	2	1.0	3.1
Hourly Avg	6.1	5.9	5.4	5.1	5.1	5.3	5.6	5.5	5.8	10.1	14.1	11.0	8.7	6.8	5.5	5.0	4.5	3.9	4.8	7.1	6.5	7.5	7.0	6.6		
Hourly Max	37.7	34.4	28.6	29.4	26.7	26.1	30.9	28.8	42.4	153.2	267.6	222.6	149.7	121.6	76.9	40.3	33.7	26.2	25.5	36.4	36.5	59.3	50.7	54.8		

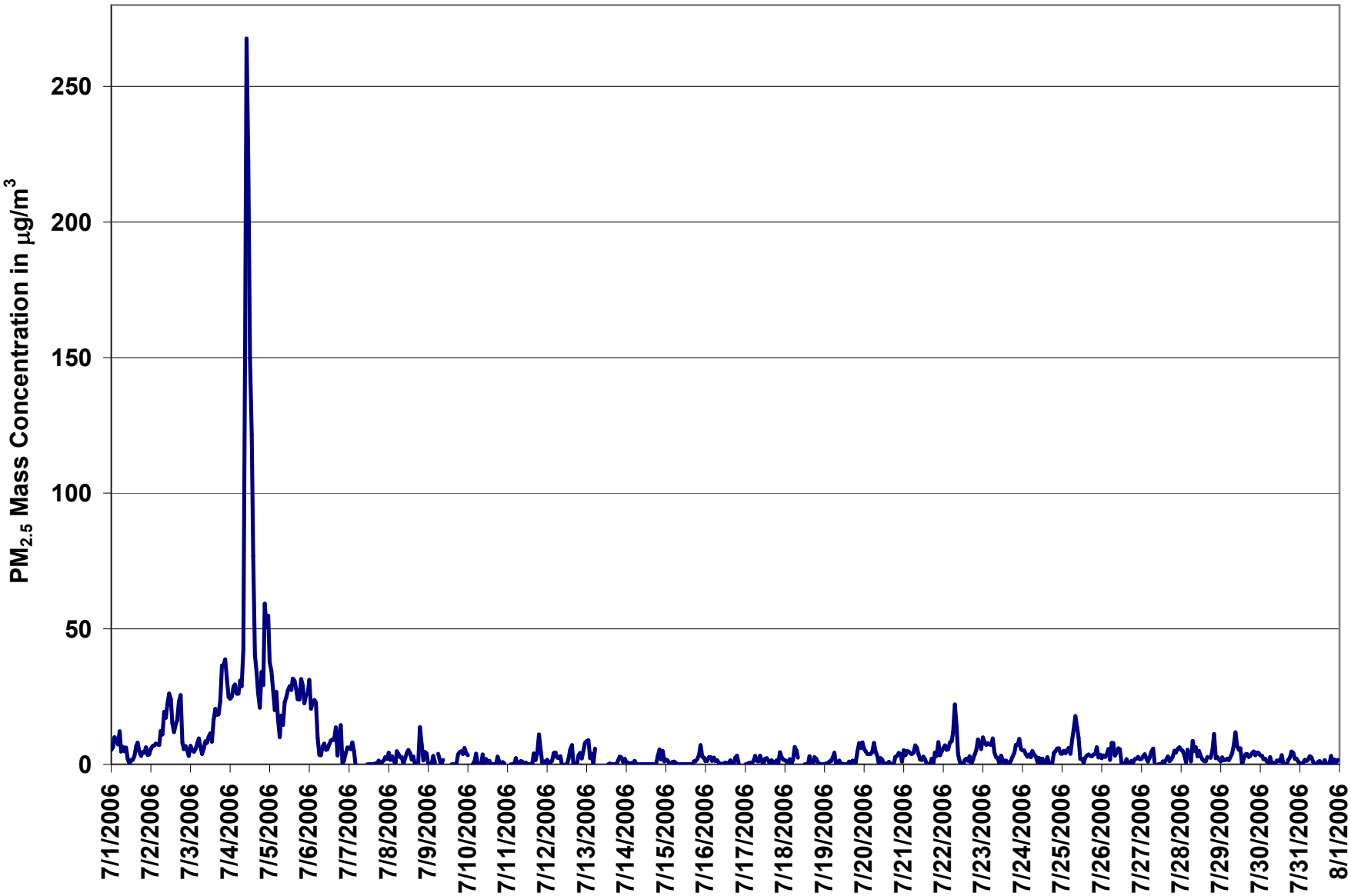


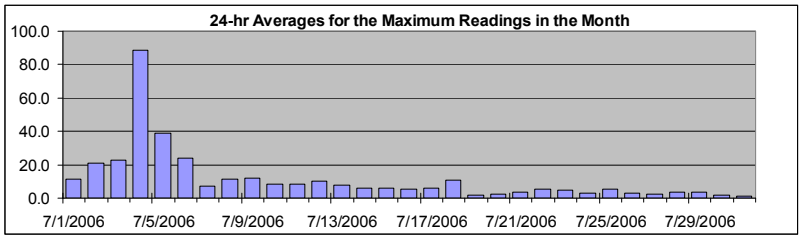
Figure 42. PASZA - Beaverlodge Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend

Station: Beaverlodge
Station Owner: PASZA

INSTANTANEOUS (30 Second) MAXIMUM TABLE

Particulate Matter ($PM_{2.5}$)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Average:	285.5	µg/m³	4-Jul	10:00 11:00
Maximum 24-hr Value:	88.9	µg/m³	4-Jul	

AIC Time:	0 hrs	Operational Time:	717 hrs
Calibration Time:	6 hrs	AMD Operational Uptime:	97.2%

Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	95.2	38.6	11.3	5.4	2.7	0.2	0.0	11.4 / 5 µg/m³	6.7 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-Jul-06	7	15	18	11	25	16	10	10	12	14	14	8	7	8	13	13	12	8	7	10	9	11	13	8	11.7	25.3
2-Jul-06	7	8	10	12	19	13	16	20	25	22	38	36	39	33	18	26	22	49	42	17	11	10	7	5	20.9	48.8
3-Jul-06	10	7	6	11	11	12	10	13	12	15	13	19	23	17	24	29	26	24	45	47	44	56	40	37	23.0	55.6
4-Jul-06	36	43	42	33	29	29	39	36	50	240	286	259	209	156	127	55	46	37	32	49	75	79	72	74	88.9	285.5
5-Jul-06	78	98	33	24	44	22	19	28	28	41	41	36	38	46	47	36	35	34	29	43	38	25	32	33	38.7	98.3
6-Jul-06	41	25	32	32	33	20	7	12	14	21	18	26	28	32	39	33	32	19	28	25	22	12	13	12	24.0	41.1
7-Jul-06	11	8	11	11	7	D	D	5	D	D	D	7	7	5	5	4	8	3	6	4	3	6	13	7	6.9	12.9
8-Jul-06	9	8	10	5	2	16	15	9	12	9	18	11	16	12	7	12	11	5	10	29	13	6	16	11	11.3	29.0
9-Jul-06	4	4	5	13	5	D	20	12	10	16	D	21	D	D	15	8	12	32	13	10	8	13	12	10	12.2	32.2
10-Jul-06	9	D	D	7	5	18	7	8	9	14	13	14	10	15	8	4	4	7	8	12	3	3	2	D	8.6	17.7
11-Jul-06	5	D	3	4	1	7	4	3	5	5	2	12	3	6	7	12	12	11	20	48	12	10	5	1	8.6	48.0
12-Jul-06	6	4	2	3	8	7	11	9	12	14	D	8	8	16	12	24	22	10	6	16	10	9	11	11	10.4	24.2
13-Jul-06	11	17	5	9	10	11	D	8	D	D	D	4	D	9	8	5	7	6	9	8	6	6	4	5	7.7	17.0
14-Jul-06	4	2	2	3	3	3	7	2	3	5	5	5	9	6	6	6	7	8	4	13	14	8	11	6	5.9	14.1
15-Jul-06	4	5	2	0	3	7	5	8	5	5	7	1	3	3	3	11	9	8	6	8	13	15	6	4	5.9	15.5
16-Jul-06	2	3	4	4	4	4	6	5	4	2	5	5	6	7	7	9	6	7	10	8	5	C	C	C	5.5	10.2
17-Jul-06	2	4	5	7	8	5	7	4	4	7	6	5	10	9	4	3	5	6	5	5	8	18	7	4	6.2	17.6
18-Jul-06	4	4	4	6	5	4	18	21	113	C	C	C	3	1	3	6	6	3	10	7	9	4	1	0	11.0	112.8
19-Jul-06	1	2	2	1	1	2	4	0	1	1	0	0	0	0	0	1	0	1	1	1	5	8	6	8	2.0	8.1
20-Jul-06	6	5	4	4	4	5	8	5	3	0	2	2	0	0	0	1	0	0	0	3	3	4	4	1	2.6	7.9
21-Jul-06	5	3	5	5	4	4	4	7	6	4	2	2	3	2	0	0	0	2	1	4	3	8	3	5	3.4	8.2
22-Jul-06	6	7	5	6	8	9	12	22	14	4	1	0	0	2	2	1	3	0	2	4	5	9	8	6	5.6	22.1
23-Jul-06	10	8	7	8	7	7	10	4	3	2	0	3	2	0	1	1	0	1	3	4	7	7	9	6	4.6	9.9
24-Jul-06	5	5	4	3	4	3	5	4	3	1	2	0	2	0	1	3	1	0	0	4	5	6	6	4	2.9	5.9
25-Jul-06	4	5	4	5	6	4	9	13	18	14	10	2	2	1	2	3	4	3	3	4	4	6	3	4	5.5	17.8
26-Jul-06	2	3	3	4	6	2	8	8	3	4	6	6	0	0	0	2	0	0	1	1	2	2	3	2	2.8	7.9
27-Jul-06	2	3	4	2	1	3	5	6	1	D	0	0	0	1	1	2	3	1	2	3	5	4	6	6	2.5	6.3
28-Jul-06	5	5	3	1	5	4	1	9	5	6	3	5	3	2	1	1	3	D	2	5	11	2	3	2	3.8	11.2
29-Jul-06	1	3	2	2	2	2	3	4	7	12	7	5	6	0	2	4	4	3	3	4	5	3	4	4	3.8	11.8
30-Jul-06	3	3	2	2	1	1	3	0	1	0	1	1	1	3	0	0	0	2	3	5	4	2	2	1	1.7	4.7
31-Jul-06	0	0	1	2	1	2	3	3	1	0	0	1	1	0	0	2	0	0	1	3	0	2	1	2	1.0	3.1
Hourly Avg	9.8	10.6	7.9	7.7	8.8	8.2	9.4	9.6	13.1	17.7	19.2	16.8	15.2	13.1	11.7	10.1	9.6	9.7	10.1	13.0	11.7	11.8	10.7	9.6		
Hourly Max	78.1	98.3	42.3	33.3	44.1	29.2	39.1	36.4	112.8	239.7	285.5	258.8	208.9	155.7	127.0	54.6	46.1	48.8	45.3	49.0	75.0	79.0	72.4	73.9		

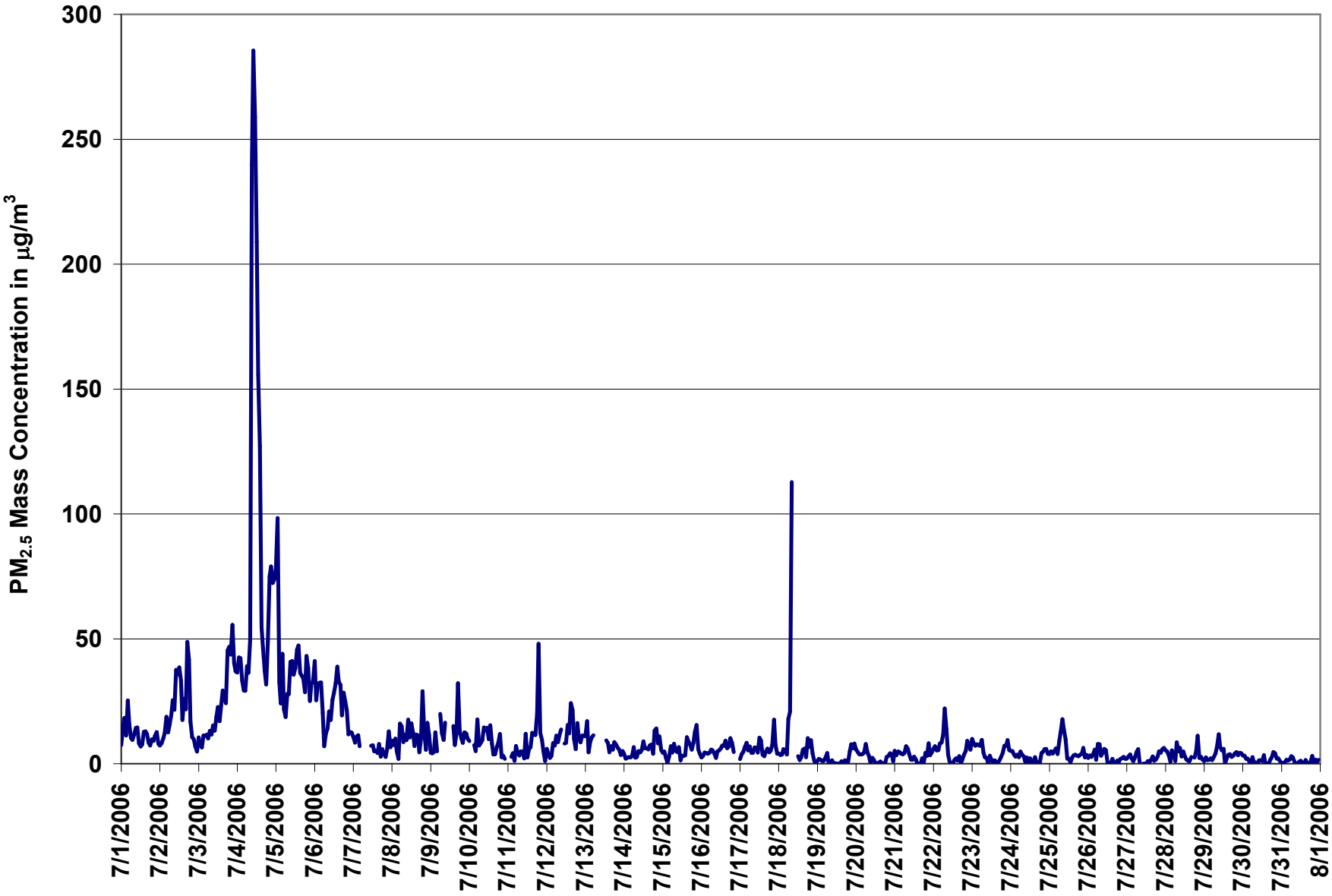
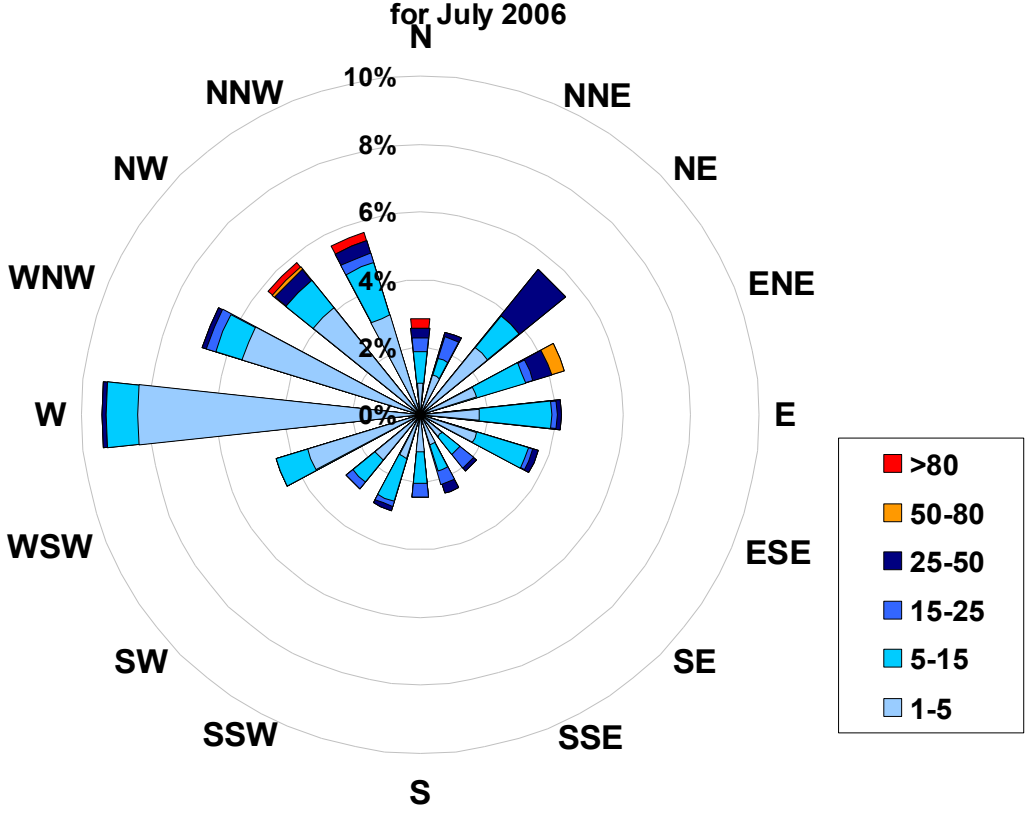


Figure 43. PASZA - Beaverlodge Particulate Matter (less than 2.5 microns) Instantaneous (30 Second) Maximum Value Monthly Trend

1-hr Average Concentration Rose for Particulate Matter (less than 2.5 microns) (in micrograms per cubic meter) Located at the Beaverlodge Site for July 2006



Calms:	0%

Frequency Distribution of $PM_{2.5}$ in $\mu g/m^3$			
Range			Frequency (hrs)
1.0	<	5	507
5	to	15	133
15	to	25	29
25	to	50	34
50	to	80	4
	>	80	5
Total Non-Zero Values			717

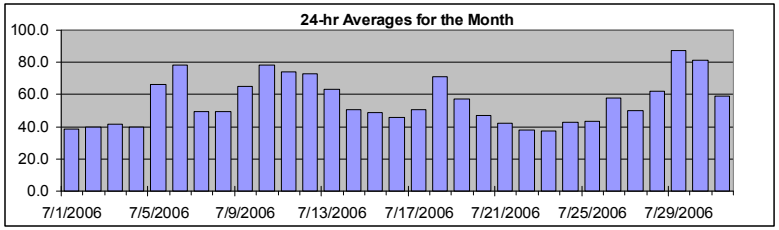
PASZA – Beaverlodge - Relative Humidity Monthly Summary

HOURLY AVERAGE TABLE

Relative Humidity (RH)

Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Average:	96.6	%	13-Jul	4:00 5:00
Maximum 24-hr Value:	87.4	%	29-Jul	

AIC Time:	0 hrs	Operational Time:	744 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average	Median
	96.0	92.9	73.0	56.2	36.0	23.0	19.0	55.8 %	56.2 %

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-Jul-06	42	45	53	58	76	72	59	51	43	34	30	26	24	24	23	22	23	24	24	27	31	37	41	38	38.6	75.9
2-Jul-06	43	48	55	61	65	68	70	63	51	38	30	24	20	16	13	13	13	15	32	40	41	46	50	47	40.0	70.3
3-Jul-06	48	49	52	60	75	80	71	56	52	40	35	29	25	21	21	22	25	27	26	28	30	37	42	42	41.4	79.7
4-Jul-06	45	47	63	56	65	76	70	61	51	43	36	27	22	19	18	17	19	21	24	30	30	26	33	48	39.5	76.5
5-Jul-06	67	61	68	73	77	80	73	70	61	62	63	64	62	66	62	59	57	57	56	58	66	73	80	82	66.5	82.2
6-Jul-06	84	84	85	92	95	95	94	92	89	85	78	64	59	57	53	50	60	58	61	72	84	96	96	95	78.2	96.4
7-Jul-06	95	96	96	92	88	67	59	52	45	38	33	31	30	29	29	28	29	29	30	29	32	42	42	46	49.5	95.9
8-Jul-06	60	61	67	69	65	64	67	54	46	38	33	35	34	33	34	33	34	33	34	43	57	59	65	75	49.6	74.8
9-Jul-06	76	78	76	79	85	80	80	78	68	64	50	56	59	45	41	40	44	50	51	59	65	70	76	84	64.8	85.1
10-Jul-06	86	86	85	87	90	92	91	89	84	74	72	70	66	67	65	62	65	64	70	80	76	80	87	87	78.1	92.1
11-Jul-06	88	93	94	91	89	86	80	76	73	70	62	59	53	50	48	49	53	58	61	81	87	93	94	93	74.2	94.5
12-Jul-06	93	94	95	95	96	96	96	95	84	70	57	47	46	45	48	56	64	56	58	59	64	74	79	82	72.9	96.3
13-Jul-06	86	92	97	97	97	96	89	82	70	57	50	54	45	44	46	41	36	34	35	41	51	55	60	65	63.3	96.6
14-Jul-06	73	76	76	79	79	71	59	52	48	44	43	39	35	33	32	31	30	29	30	33	48	53	60	66	50.8	78.9
15-Jul-06	69	75	73	73	72	70	68	61	50	42	38	34	31	29	27	26	26	30	31	33	37	52	56	60	48.5	75.4
16-Jul-06	69	72	75	75	73	70	63	51	45	39	36	34	33	31	29	28	29	28	28	29	33	43	46	46	46.1	75.3
17-Jul-06	47	55	65	70	72	68	62	48	46	38	31	27	32	44	42	38	40	55	52	55	55	55	58	62	50.8	71.8
18-Jul-06	70	73	72	74	76	75	78	70	63	58	58	51	59	56	58	72	72	72	67	86	80	82	90	94	71.1	94.3
19-Jul-06	95	96	96	96	96	93	80	74	70	59	43	33	31	28	28	27	28	30	31	37	35	49	56	61	57.1	96.0
20-Jul-06	70	70	72	72	69	73	66	57	49	36	35	32	31	28	28	28	28	29	30	32	37	45	49	56	46.8	73.0
21-Jul-06	61	64	66	70	70	68	59	53	47	42	36	31	29	27	23	22	21	24	24	29	30	40	37	42	42.3	70.0
22-Jul-06	51	54	59	67	69	68	64	53	46	34	27	25	23	21	20	20	20	20	20	22	26	31	34	34	37.8	69.0
23-Jul-06	46	53	61	68	71	68	56	43	32	30	26	24	23	21	20	20	19	20	21	23	28	34	43	47	37.4	71.0
24-Jul-06	49	57	63	68	71	71	62	57	51	45	41	36	31	29	26	27	25	24	23	23	29	37	40	43	42.8	71.0
25-Jul-06	50	58	62	64	65	65	60	49	49	39	29	26	23	23	23	23	29	32	32	34	40	47	55	59	43.2	65.0
26-Jul-06	61	65	64	69	75	73	70	64	52	45	55	69	73	62	50	44	39	38	38	39	49	59	66	70	57.9	75.0
27-Jul-06	75	77	74	79	84	86	84	69	56	44	36	34	30	30	28	26	27	26	26	27	32	41	45	61	49.9	86.0
28-Jul-06	69	76	84	80	69	73	72	82	78	74	62	56	49	46	46	41	40	39	42	46	57	69	71	75	62.3	84.0
29-Jul-06	79	81	82	84	84	83	83	82	85	89	90	91	92	92	90	91	92	89	90	88	88	88	91	93	87.4	93.0
30-Jul-06	94	94	94	95	94	94	94	92	89	83	80	78	81	80	73	62	57	59	60	66	79	82	81	87	81.2	95.0
31-Jul-06	80	77	79	81	84	86	78	73	63	55	51	49	48	47	40	40	38	38	41	48	57	56	57	55	59.2	86.0
Hourly Avg	68.3	71.1	74.3	76.5	78.6	77.6	72.8	66.1	59.2	51.9	46.7	43.7	41.9	40.1	38.2	37.4	38.2	39.0	40.3	45.0	50.1	56.5	60.7	64.4		
Hourly Max	95.1	95.8	96.5	96.6	96.6	95.9	96.3	95.3	89.0	89.0	90.0	91.0	92.0	92.0	90.0	91.0	92.0	89.0	90.0	88.0	88.0	96.4	96.1	94.8		

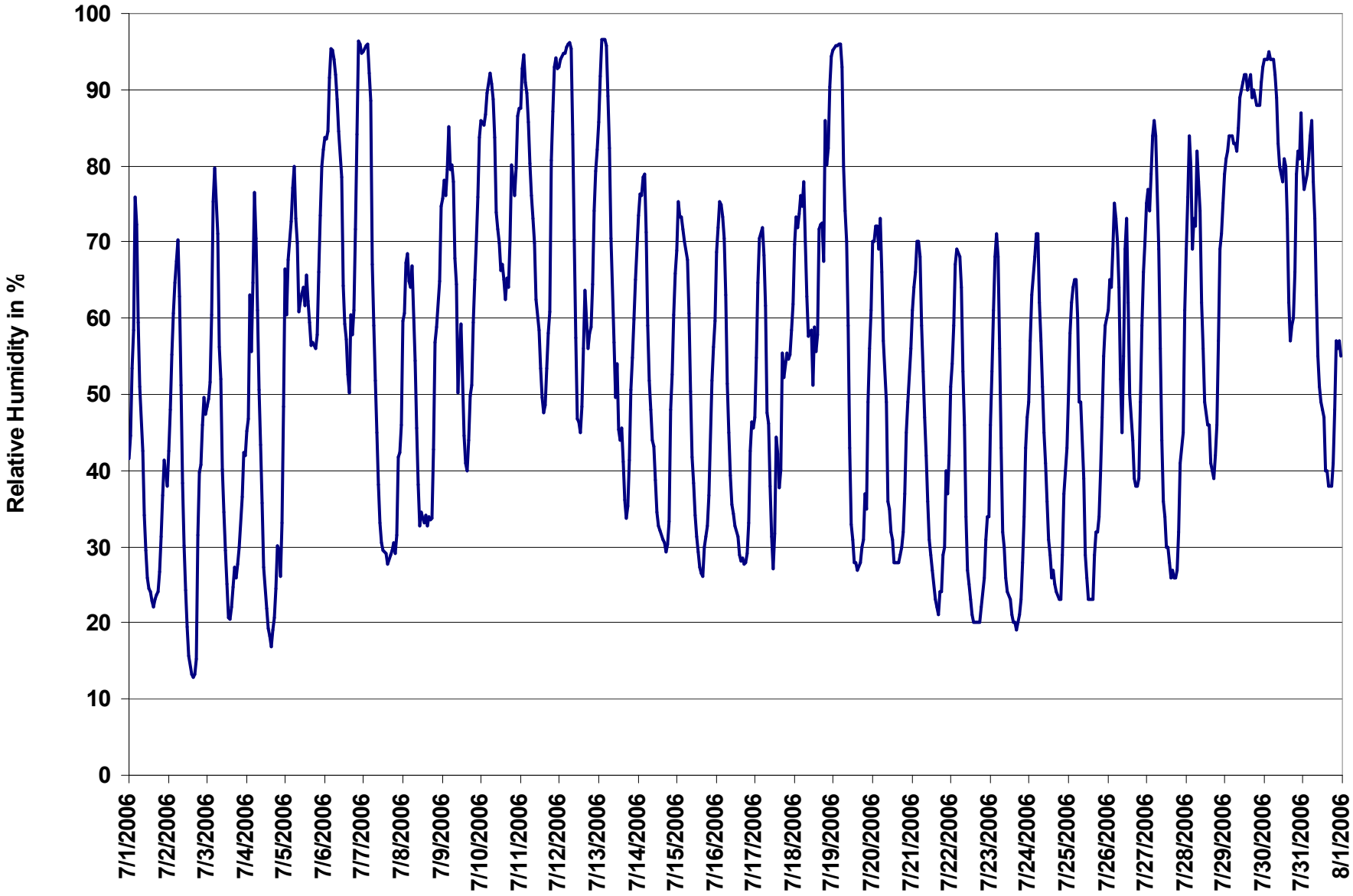


Figure 44. PASZA - Beaverlodge Relative Humidity 1-hr Average Monthly Trend

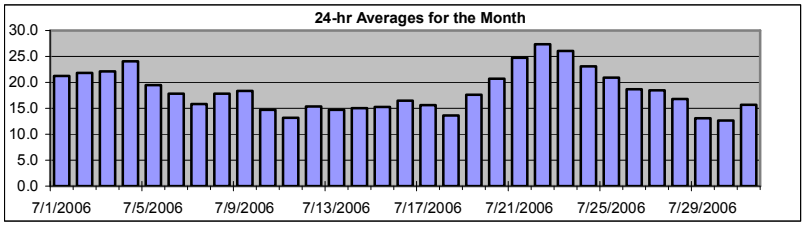
PASZA – Beaverlodge - Temperature Monthly Summary

HOURLY AVERAGE TABLE

Ambient Temperature (T)

Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Average:	34.4	°C	22-Jul	14:00 15:00
Maximum 24-hr Value:	27.3	°C	22-Jul	

AIC Time:	0 hrs	Operational Time:	744 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%

Percentile	99	95	75	50	25	5	1	Average	Median
	33.2	30.0	21.9	17.5	13.7	10.0	8.4	18.3 °C	17.5 °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-Jul-06	18	17	15	14	11	12	15	17	20	23	24	25	26	26	27	28	27	27	27	26	24	22	20	20	21.2	27.6
2-Jul-06	19	17	16	14	14	13	13	15	19	23	26	28	29	30	31	31	31	29	25	22	21	19	18	18	21.8	31.2
3-Jul-06	18	17	16	14	11	11	14	17	19	23	25	27	29	30	31	31	30	29	28	26	24	22	21	20	22.1	30.8
4-Jul-06	19	19	15	17	15	12	14	18	20	23	26	29	32	32	33	33	32	31	29	28	27	26	24	22	24.1	33.3
5-Jul-06	19	19	18	17	17	16	17	18	20	20	20	21	22	21	21	22	22	22	22	22	20	18	17	16	19.5	22.2
6-Jul-06	17	17	16	15	15	15	15	15	16	17	18	21	22	23	23	24	22	22	21	20	16	13	13	13	17.8	23.6
7-Jul-06	13	12	12	12	12	13	14	15	16	16	17	18	18	19	19	19	19	19	18	19	18	15	14	13	15.8	18.9
8-Jul-06	10	10	9	9	9	10	11	14	17	19	21	21	23	24	24	25	24	24	24	23	21	20	19	17	17.8	25.2
9-Jul-06	16	16	16	15	14	15	15	16	18	20	22	20	19	22	23	23	22	21	20	19	18	17	17	16	18.4	23.2
10-Jul-06	16	15	14	14	13	13	13	13	14	16	16	17	17	17	17	17	16	16	15	14	13	12	11	10	14.7	17.5
11-Jul-06	10	8	8	8	9	9	11	12	12	13	15	16	17	18	18	18	17	17	16	14	14	13	12	12	13.2	18.3
12-Jul-06	12	12	12	11	11	11	11	12	14	17	19	20	19	20	19	18	17	18	18	18	17	15	14	14	15.4	19.7
13-Jul-06	14	13	12	12	11	11	12	13	15	16	16	16	17	17	16	17	19	19	18	16	14	13	12	11	14.7	18.8
14-Jul-06	9	9	8	7	7	9	12	14	15	16	17	18	19	20	20	20	21	21	20	19	16	15	13	12	15.0	21.0
15-Jul-06	12	10	11	10	10	11	12	13	16	17	18	19	19	20	20	20	20	19	18	18	17	13	12	12	15.3	20.1
16-Jul-06	9	8	8	8	9	10	12	15	17	18	19	20	21	21	22	23	22	22	22	22	20	16	15	15	16.5	22.5
17-Jul-06	14	12	10	9	8	9	11	15	17	20	22	23	21	18	19	20	19	16	17	17	17	15	14	13	15.6	22.5
18-Jul-06	12	11	11	10	9	10	11	13	15	16	16	18	17	18	17	15	16	15	16	14	14	13	11	10	13.6	17.8
19-Jul-06	10	9	9	9	9	10	13	14	15	18	21	23	23	24	24	25	25	24	24	22	22	19	18	16	17.6	24.9
20-Jul-06	15	14	13	13	13	13	15	17	19	21	22	24	25	26	27	27	27	27	27	27	25	22	21	19	20.7	27.1
21-Jul-06	18	17	16	15	15	16	18	20	23	25	27	29	30	31	33	33	32	31	32	29	29	25	26	24	24.7	32.7
22-Jul-06	21	21	19	18	17	17	19	22	26	30	31	32	32	34	34	34	34	34	34	33	31	28	27	27	27.3	34.4
23-Jul-06	24	21	19	17	16	16	20	24	27	28	29	30	31	32	33	33	33	32	31	31	28	25	23	21	26.1	33.0
24-Jul-06	21	19	18	17	17	17	19	21	23	24	25	25	27	27	28	28	29	28	28	27	25	22	20	19	23.1	28.5
25-Jul-06	17	15	14	14	13	14	15	19	19	23	26	27	28	28	27	27	24	24	25	24	22	21	20	19	20.9	27.6
26-Jul-06	18	17	17	15	14	14	15	17	21	23	21	19	19	19	20	22	23	23	23	22	20	17	16	15	18.7	22.7
27-Jul-06	14	13	14	12	11	11	11	14	17	19	21	21	23	23	24	25	24	24	24	24	22	19	18	16	18.5	24.9
28-Jul-06	15	14	13	12	12	11	11	13	14	15	19	20	21	22	21	22	22	22	21	20	18	16	15	15	16.8	22.4
29-Jul-06	15	15	15	14	14	14	13	14	13	13	13	13	13	13	13	13	13	13	13	13	12	12	12	11	13.1	14.7
30-Jul-06	11	11	11	11	10	10	10	10	11	12	13	13	12	13	15	16	17	16	16	15	14	13	13	12	12.6	16.5
31-Jul-06	12	11	10	10	9	8	11	12	15	18	18	20	20	20	21	21	21	20	20	18	17	16	15	15	15.7	21.0
Hourly Avg	15.0	14.2	13.3	12.7	12.1	12.3	13.7	15.5	17.5	19.4	20.7	21.6	22.3	22.8	23.2	23.5	23.2	22.8	22.3	21.4	19.9	17.9	16.8	15.9		
Hourly Max	23.7	21.3	19.2	17.5	17.0	17.3	20.2	23.6	26.9	29.7	31.2	31.7	32.4	33.7	34.4	34.3	34.3	34.2	34.0	33.3	31.3	28.4	26.9	26.8		

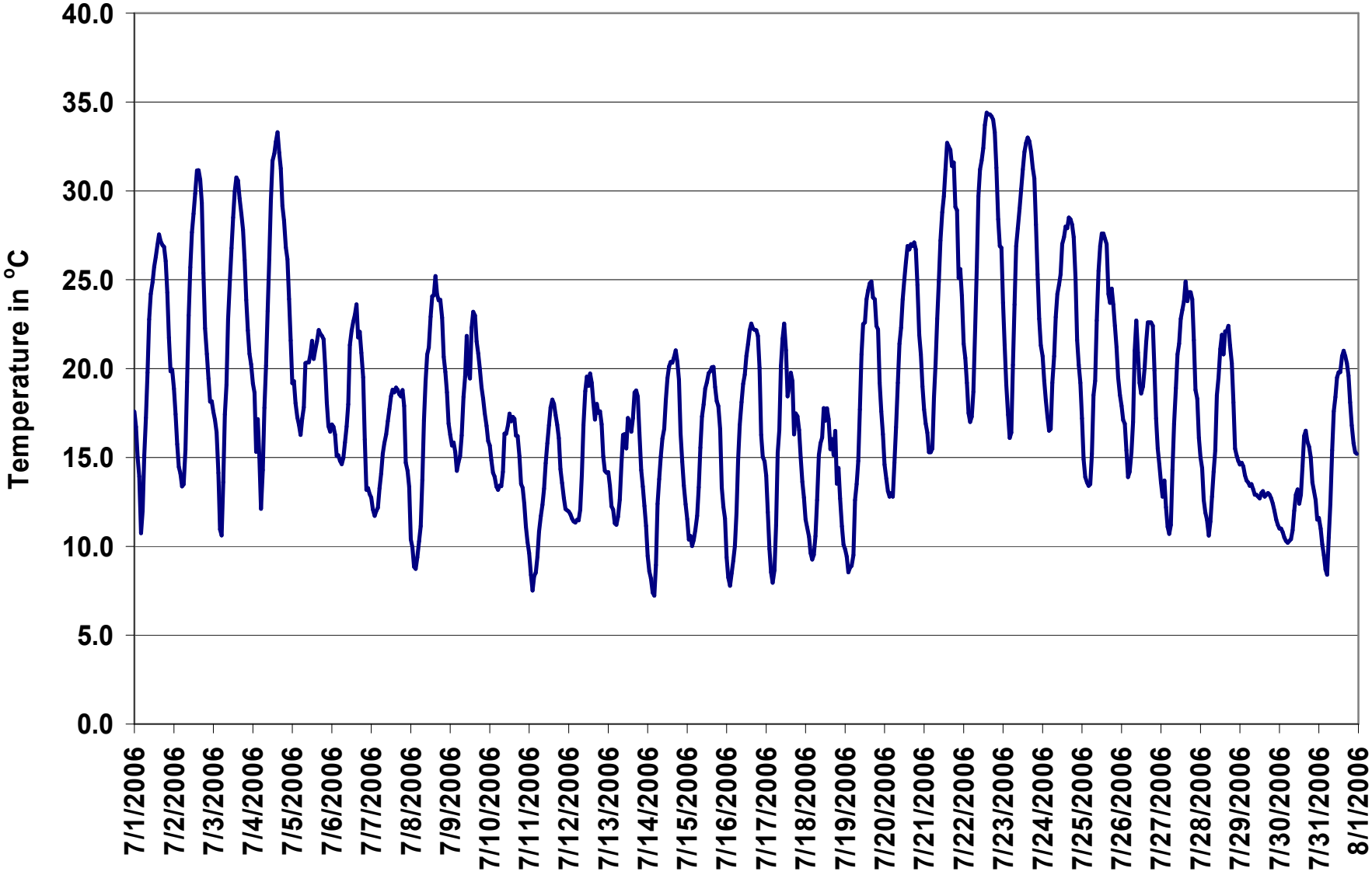


Figure 45. PASZA - Beaverlodge Temperature 1-hr Average Monthly Trend

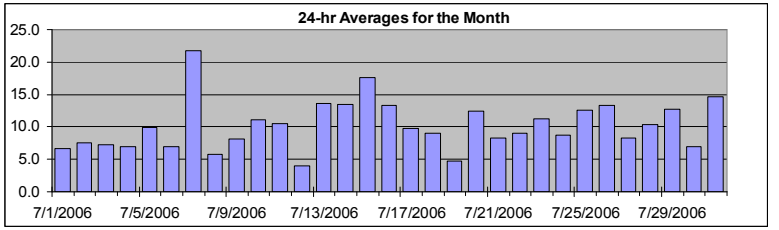
PASZA – Beaverlodge - Scalar Wind Speed Monthly Summary

Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSs)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Average:	35.1	km/hr	7-Jul	12:00 13:00
Maximum 24-hr Value:	21.8	km/hr	7-Jul	

Calm Time:	1 hrs	**0%** calms		Operational Time:			743 hrs	
Calibration Time:	0 hrs			AMD Operational Uptime:			100.0%	
Percentile	99	95	75	50	25	5	1	AverageS
	30.0	23.6	14.2	8.2	5.2	2.8	1.8	10.2 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-Jul-06	4	2	2	4	6	3	6	8	8	5	7	10	10	11	11	10	10	9	7	6	6	4	5	6	6.6	11.5
2-Jul-06	5	3	2	3	8	3	4	5	4	4	5	7	8	8	5	7	6	6	19	23	22	14	5	8	7.6	23.0
3-Jul-06	8	8	4	3	5	4	4	2	3	3	5	9	11	15	15	10	8	8	13	10	6	8	7	3	7.2	15.3
4-Jul-06	6	5	6	9	8	6	5	2	4	5	5	4	5	7	7	5	7	6	14	10	16	10	4	10	7.0	15.9
5-Jul-06	10	17	14	13	9	11	12	12	11	10	12	11	7	13	12	9	7	8	7	7	6	6	8	7	10.0	16.8
6-Jul-06	9	4	3	4	11	8	3	5	2	7	7	3	4	5	8	5	10	11	10	6	11	11	8	8	6.9	11.2
7-Jul-06	6	5	6	6	10	18	22	23	24	29	32	33	35	34	33	34	31	30	26	26	21	13	15	11	21.8	35.1
8-Jul-06	3	4	3	4	4	3	3	3	4	7	7	6	8	11	8	5	6	4	5	7	6	6	14	8	5.8	14.3
9-Jul-06	8	3	8	5	7	6	8	7	7	7	11	17	14	12	12	13	12	11	10	6	3	3	3	3	8.1	16.5
10-Jul-06	4	10	9	8	7	6	7	10	8	7	9	12	13	16	17	18	16	16	15	13	13	12	8	10	11.1	17.6
11-Jul-06	9	8	8	12	10	10	14	18	17	16	19	15	14	12	12	10	8	6	5	6	4	5	4	calm	10.5	18.7
12-Jul-06	2	2	2	2	3	3	3	2	2	3	4	4	5	4	6	9	7	3	3	4	5	6	6	6	3.9	8.7
13-Jul-06	5	6	4	4	2	4	6	8	13	20	24	17	18	20	24	24	22	22	21	17	11	14	14	9	13.6	24.1
14-Jul-06	9	7	5	8	4	8	8	16	17	17	20	18	21	22	19	17	14	16	15	14	13	13	10	8	13.4	22.4
15-Jul-06	6	8	9	8	8	9	7	7	13	23	26	26	29	26	28	26	25	25	27	25	21	12	15	15	17.7	28.7
16-Jul-06	9	8	5	9	7	6	9	17	18	21	22	21	18	19	17	17	16	16	14	15	11	8	8	8	13.3	22.3
17-Jul-06	6	3	3	4	3	4	3	2	4	4	8	9	19	21	19	14	15	21	18	14	13	12	8	5	9.7	21.4
18-Jul-06	6	4	4	3	4	2	2	7	10	13	16	17	15	18	19	17	12	11	12	7	7	6	3	2	9.1	18.9
19-Jul-06	2	3	3	4	2	3	3	5	6	6	5	5	8	7	6	7	5	6	5	7	4	5	5	4	4.7	7.6
20-Jul-06	2	2	2	3	1	2	3	6	9	19	17	18	19	23	21	20	19	23	22	17	15	13	12	9	12.4	22.6
21-Jul-06	10	5	4	4	4	4	3	5	5	8	9	11	11	10	14	18	17	15	13	6	6	6	7	5	8.3	18.1
22-Jul-06	5	3	4	5	5	4	3	3	5	11	16	17	15	15	14	14	14	13	13	11	6	6	7	7	9.0	16.9
23-Jul-06	5	3	3	3	4	6	2	6	14	20	19	16	19	16	20	21	18	17	18	15	7	6	8	6	11.3	20.9
24-Jul-06	8	9	10	6	9	7	4	6	4	5	6	8	10	11	11	11	13	14	15	14	9	8	7	4	8.7	14.6
25-Jul-06	4	4	4	4	3	3	4	5	5	6	16	22	24	22	25	29	21	17	21	19	16	13	10	6	12.5	28.6
26-Jul-06	3	2	7	6	2	4	3	4	8	18	20	10	9	17	25	26	28	29	26	21	19	14	12	8	13.3	28.5
27-Jul-06	4	3	5	4	3	3	5	6	8	15	16	15	14	13	14	10	10	8	9	8	7	5	8	8	8.3	15.6
28-Jul-06	7	8	7	10	10	10	12	6	5	6	6	5	7	8	14	14	12	16	14	13	19	18	12	11	10.4	18.5
29-Jul-06	12	12	13	15	14	14	10	9	12	14	15	15	12	15	20	14	12	17	7	11	13	13	10	9	12.7	19.8
30-Jul-06	10	11	11	12	10	8	6	7	4	4	3	7	8	5	7	8	8	7	7	8	5	5	6	4	7.0	11.6
31-Jul-06	8	8	8	7	4	2	2	3	7	15	17	18	21	24	27	28	30	28	24	15	10	17	15	15	14.6	29.6
1-hr Average	6.3	5.8	5.7	6.0	6.0	5.9	6.0	7.2	8.4	11.3	13.0	13.1	13.9	14.8	15.8	15.2	14.1	14.1	14.0	12.2	10.6	9.4	8.6	7.4		
Hourly Max	12.1	16.8	14.3	14.5	13.8	17.6	22.2	23.2	24.4	28.7	32.3	33.1	35.1	33.6	33.3	34.5	30.7	30.3	26.5	25.9	22.1	18.0	15.4	15.3		

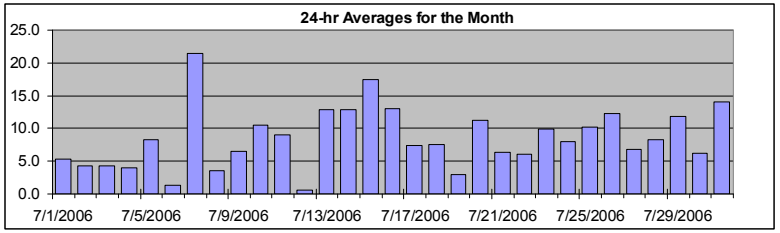
PASZA - Beaverlodge - Vector Wind Speed Monthly Summary

Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Speed (WSv)

Monitoring Dates: July 1, 2006 to August 1, 2006



Summary

Maximum 1-hr Average:	34.8	km/hr	7-Jul	12:00 13:00
Maximum 24-hr Value:	21.4	km/hr	7-Jul	

Calm Time:	9 hrs	**1%** calms				Operational Time:			735 hrs	
Calibration Time:	0 hrs					AMD Operational Uptime:			100.0%	
Percentile	99	95	75	50	25	5	1			AverageV
	29.9	23.5	14.1	8.0	5.0	2.2	1.5			5.8 km/hr

Status Flag Characters

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

Day	Mountain Standard Time																									
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-hr Vector	Daily
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	Average	Max
1-Jul-06	4	2	1	2	3	2	6	8	7	5	6	9	9	10	10	9	9	9	7	6	6	4	5	6	5.4	10.5
2-Jul-06	5	3	calm	3	8	2	4	5	3	3	4	5	6	6	2	6	5	4	18	23	22	14	5	8	4.2	22.9
3-Jul-06	8	8	3	3	5	4	4	2	3	2	4	8	11	15	14	10	8	7	13	9	6	6	7	calm	4.3	15.0
4-Jul-06	6	calm	4	9	7	2	5	1	3	5	5	4	4	5	5	2	7	6	14	9	15	5	4	10	4.0	15.0
5-Jul-06	7	17	14	13	6	11	11	11	11	10	11	11	7	13	12	8	6	8	7	7	6	5	8	7	8.2	16.5
6-Jul-06	9	4	1	3	11	5	3	4	2	6	6	3	2	4	7	4	10	11	10	6	10	10	7	8	1.3	11.1
7-Jul-06	6	5	6	6	10	17	22	23	24	28	32	33	35	33	33	34	30	30	26	26	21	13	15	10	21.4	34.8
8-Jul-06	calm	3	3	4	4	3	2	3	4	6	7	5	7	10	7	3	5	3	5	7	5	5	14	7	3.6	13.9
9-Jul-06	8	2	6	1	7	6	7	6	7	7	11	16	14	11	12	13	12	11	10	6	2	2	3	2	6.5	16.3
10-Jul-06	3	10	8	8	7	5	6	10	8	7	9	12	13	16	17	17	16	15	15	13	13	12	8	10	10.5	17.4
11-Jul-06	9	8	7	12	10	10	13	18	17	16	18	14	13	12	11	9	7	6	3	5	4	5	4	calm	9.0	18.3
12-Jul-06	2	calm	2	2	3	3	3	2	2	2	1	2	4	3	5	8	6	2	3	4	5	6	6	6	0.6	8.2
13-Jul-06	4	4	3	3	2	4	6	8	13	20	24	17	18	20	24	23	21	22	21	17	11	14	13	9	12.8	23.9
14-Jul-06	9	7	5	8	1	8	8	16	16	17	19	18	21	22	18	17	14	16	15	14	13	13	9	8	12.8	22.1
15-Jul-06	6	8	9	8	8	8	6	6	12	23	26	25	28	26	28	26	25	25	26	25	21	12	15	15	17.5	28.1
16-Jul-06	9	8	5	8	7	6	9	17	18	21	22	21	18	18	17	17	15	16	14	15	11	8	8	8	13.0	22.1
17-Jul-06	5	1	3	3	3	3	2	2	3	3	8	8	19	21	19	13	14	21	18	13	13	12	8	5	7.4	21.2
18-Jul-06	6	4	4	2	2	2	calm	7	10	13	16	17	15	17	19	17	12	11	10	5	7	5	3	calm	7.5	18.6
19-Jul-06	2	2	calm	4	2	3	3	5	6	6	5	5	8	7	6	7	5	6	5	7	4	5	5	4	3.0	7.6
20-Jul-06	2	2	2	3	1	2	3	6	9	19	17	18	19	23	21	20	19	23	22	17	15	13	12	9	11.3	22.6
21-Jul-06	10	5	4	4	4	4	3	5	5	8	9	11	11	10	14	18	17	15	13	6	6	6	7	5	6.4	18.1
22-Jul-06	5	3	4	5	5	4	3	3	5	11	16	17	15	15	14	14	14	13	13	11	6	6	7	7	6.0	16.9
23-Jul-06	5	3	3	3	4	6	2	6	14	20	19	16	19	16	20	21	18	17	18	15	7	6	8	6	9.9	20.9
24-Jul-06	8	9	10	6	9	7	4	6	4	5	6	8	10	11	11	11	13	14	15	14	9	8	7	4	8.1	14.6
25-Jul-06	4	4	4	4	3	3	4	5	5	6	16	22	24	22	25	29	21	17	21	19	16	13	10	6	10.1	28.6
26-Jul-06	3	2	7	6	2	4	3	4	8	18	20	10	9	17	25	26	28	29	26	21	19	14	12	8	12.2	28.5
27-Jul-06	4	3	5	4	3	3	5	6	8	15	16	15	14	13	14	10	10	8	9	8	7	5	8	8	6.9	15.6
28-Jul-06	7	8	7	10	10	10	12	6	5	6	6	5	7	8	14	14	12	16	14	13	19	18	12	11	8.2	18.5
29-Jul-06	12	12	13	15	14	14	10	9	12	14	15	15	12	15	20	14	12	17	7	11	13	13	10	9	11.9	19.8
30-Jul-06	10	11	11	12	10	8	6	7	4	4	3	7	8	5	7	8	8	7	7	8	5	5	6	4	6.2	11.6
31-Jul-06	8	8	8	7	4	2	2	3	7	15	17	18	21	24	27	28	30	28	24	15	10	17	15	15	14.0	29.6
1-hr Vector	1.6	1.6	2.0	2.0	1.8	1.9	2.3	3.9	5.3	8.5	10.1	9.2	9.7	10.3	10.7	10.8	9.8	9.1	8.2	6.2	4.2	4.5	4.4	4.0		
Hourly Max	12.1	16.5	14.2	14.5	13.8	17.5	22.1	23.0	24.2	28.4	32.1	32.8	34.8	33.4	33.0	34.2	30.4	30.1	26.3	25.8	22.0	18.0	15.4	15.2		

PASZA - Beaverlodge - Wind Direction Monthly Summary

HOURLY AVERAGE TABLE

Wind Direction (WD)

Station: Beaverlodge
Station Owner: PASZA

Monitoring Dates: **July 1, 2006** to **August 1, 2006**

Summary

Calm Time:	0 hrs	**0%** calms		Operational Time:	744 hrs			
Calibration Time:	0 hrs			AMD Operational Uptime:	100.0%			
Percentile	99	95	75	50	25	5	1	Average
	351.8	340.0	293.9	262.9	144.5	39.8	12.9	288 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-Jul-06	85	96	236	18	325	358	329	315	326	351	320	334	338	333	344	352	345	351	12	37	44	71	54	63	353	N
2-Jul-06	86	88	114	80	49	149	195	192	163	189	189	166	176	156	275	278	301	343	85	96	97	112	113	113	115	ESE
3-Jul-06	89	91	140	254	304	49	55	144	206	142	153	124	135	143	141	146	133	133	192	208	151	319	55	4	138	SE
4-Jul-06	57	350	305	333	45	305	52	108	274	307	328	327	352	10	58	24	72	43	31	60	129	77	64	311	26	NNE
5-Jul-06	335	359	346	343	296	294	329	359	18	353	18	49	38	34	39	54	36	17	17	40	73	60	43	50	12	NNE
6-Jul-06	75	101	30	214	123	238	249	23	72	115	198	243	11	10	55	72	119	106	107	80	274	273	306	243	106	ESE
7-Jul-06	232	214	216	225	259	274	275	280	271	269	263	267	272	268	263	267	263	265	271	272	272	271	275	275	267	W
8-Jul-06	116	263	90	80	68	95	121	175	155	169	174	211	189	230	257	288	296	240	211	175	186	207	226	231	205	SSW
9-Jul-06	237	144	252	317	253	298	342	258	261	254	251	242	254	254	224	220	219	232	220	213	220	108	166	95	242	WSW
10-Jul-06	261	245	312	337	344	327	346	320	323	311	294	300	306	326	326	325	320	312	313	316	324	319	305	298	315	NW
11-Jul-06	295	269	275	290	294	299	296	301	310	302	309	327	330	336	351	350	359	1	342	212	190	261	270	199	309	NW
12-Jul-06	57	21	66	88	136	187	173	122	92	287	177	228	291	295	297	281	343	24	164	145	154	141	109	107	168	SSE
13-Jul-06	105	222	180	209	176	245	250	257	254	260	266	258	268	269	258	254	256	269	268	272	274	277	265	266	261	W
14-Jul-06	241	236	234	226	224	247	247	255	264	271	260	269	266	284	294	285	285	286	276	266	252	274	273	276	268	W
15-Jul-06	251	269	274	277	256	252	240	240	275	280	267	265	262	270	261	265	265	274	273	277	279	260	260	261	267	W
16-Jul-06	253	253	248	258	255	263	274	283	282	285	281	279	288	271	272	276	286	291	293	281	281	290	287	299	279	W
17-Jul-06	290	95	112	142	98	152	140	208	211	230	245	255	257	290	298	286	270	228	225	225	245	262	262	244	253	WSW
18-Jul-06	208	206	226	215	41	114	170	309	314	307	302	287	303	309	298	285	286	276	307	325	302	303	189	160	293	WNW
19-Jul-06	77	89	148	66	82	71	162	206	220	230	256	201	200	219	209	215	207	160	168	210	101	98	112	197	185	S
20-Jul-06	163	16	147	86	240	81	209	243	238	272	259	274	275	288	281	281	270	274	280	284	282	288	286	276	275	W
21-Jul-06	268	250	245	109	106	117	205	202	189	268	272	278	253	257	301	290	278	267	278	316	266	340	302	244	272	W
22-Jul-06	79	85	80	78	67	73	140	143	189	258	286	292	296	301	301	314	318	315	315	323	324	340	351	343	312	NW
23-Jul-06	336	10	34	101	74	60	333	241	300	306	299	291	290	299	285	281	290	298	291	314	310	297	294	301	299	WNW
24-Jul-06	340	346	346	344	340	351	351	327	334	292	278	307	298	321	296	316	294	298	290	294	286	290	306	290	311	NW
25-Jul-06	43	76	113	151	89	102	141	212	222	233	251	273	271	290	280	286	295	290	281	282	280	273	270	274	276	W
26-Jul-06	269	214	261	243	164	181	117	192	203	266	270	268	273	280	280	278	276	282	279	280	259	263	265	273	270	W
27-Jul-06	273	288	320	220	99	171	63	339	299	298	303	318	297	307	314	315	291	307	321	339	319	358	28	344	315	NW
28-Jul-06	16	12	358	340	347	341	345	35	292	309	301	120	95	75	30	48	44	32	47	66	63	47	50	44	31	NNE
29-Jul-06	38	47	53	50	51	54	41	55	67	61	54	53	48	57	66	63	71	71	59	28	31	14	348	334	49	NE
30-Jul-06	334	325	325	329	323	313	316	319	318	336	280	19	38	308	291	322	302	329	305	284	271	280	297	280	317	NW
31-Jul-06	289	293	300	297	327	82	186	193	266	288	292	291	286	283	284	277	281	281	278	298	275	262	269	275	282	WNW
Hourly Avg	318	319	308	318	348	303	301	282	278	282	277	281	281	290	291	288	287	289	286	289	279	294	292	289		

PASZA - Beaverlodge - Standard Deviation of Wind Direction Monthly Summary

Station: Beaverlodge
Station Owner: PASZA

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: July 1, 2006 to August 1, 2006

Summary

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	**0%** calms	Operational Time: 744 hrs
Calibration Time:	0 hrs		AMD Operational Uptime: 100.0%

Percentile	99	95	75	50	25	5	1
	56.9	36.6	16.0	10.5	7.6	4.2	2.7

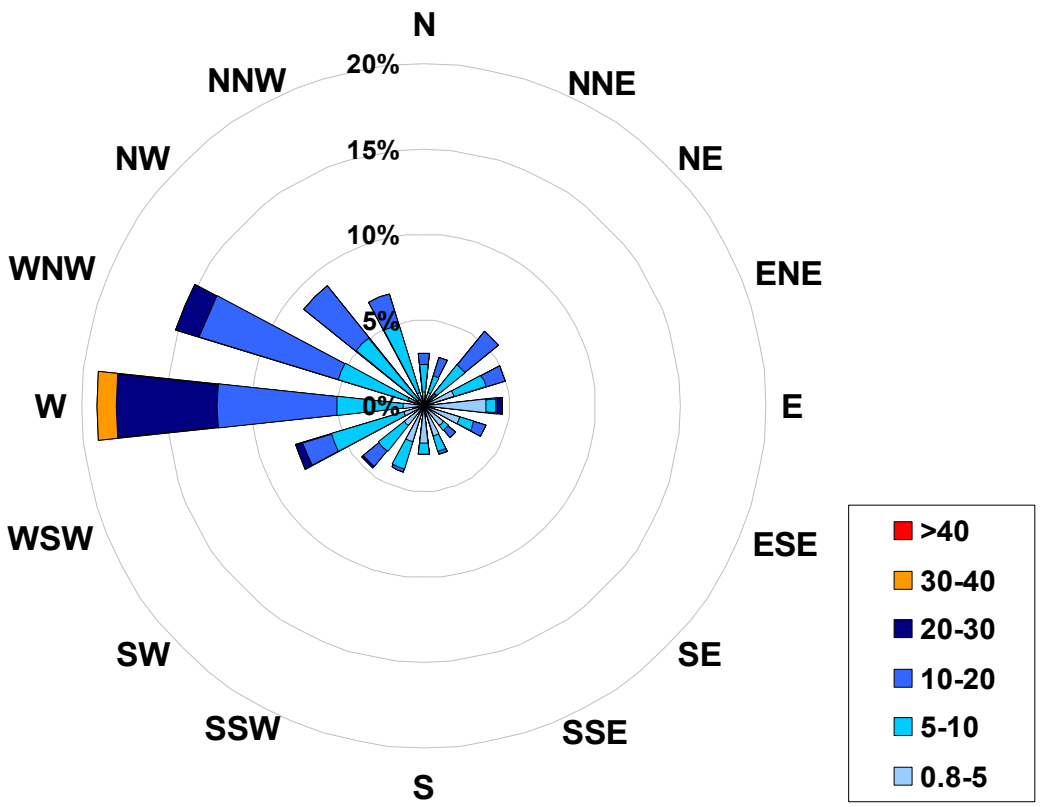
Status Flag Characters

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-Jul-06	11	24	20	32	37	60	12	9	15	28	20	22	26	26	20	22	23	23	20	8	6	8	17	6	60.2
2-Jul-06	9	9	50	13	13	21	16	11	36	32	35	32	53	34	72	37	24	31	5	4	3	4	35	7	72.3
3-Jul-06	4	4	12	25	17	17	10	20	29	43	27	21	15	11	12	17	13	7	9	8	11	33	20	61	60.7
4-Jul-06	9	35	32	12	28	32	20	49	17	16	21	42	59	41	30	50	22	12	6	7	12	36	37	13	58.8
5-Jul-06	61	7	4	5	20	6	6	7	9	12	12	11	18	8	10	20	15	14	16	10	8	10	4	6	60.9
6-Jul-06	9	22	38	17	5	23	30	23	13	11	17	42	47	37	28	48	11	13	10	13	26	6	12	6	48.1
7-Jul-06	11	9	6	10	6	4	4	5	6	8	6	10	11	6	7	6	6	6	9	9	3	2	3	4	11.3
8-Jul-06	53	25	24	18	8	11	13	21	18	22	22	28	25	28	26	49	43	24	15	11	11	10	8	13	53.5
9-Jul-06	8	38	12	29	5	10	12	12	13	12	14	6	6	15	17	12	8	7	7	5	18	20	24	60	59.6
10-Jul-06	33	4	12	6	18	12	9	5	7	18	12	10	12	9	10	9	9	8	9	6	6	6	5	5	33.0
11-Jul-06	8	7	4	3	4	4	6	6	6	7	9	11	11	17	18	18	21	20	38	16	15	16	8	43	42.8
12-Jul-06	39	61	24	7	12	14	17	31	26	45	69	48	35	40	20	13	14	31	21	17	5	4	5	4	68.7
13-Jul-06	6	24	21	30	33	18	9	8	7	13	6	6	8	6	4	7	10	6	7	4	3	4	5	6	33.3
14-Jul-06	3	6	13	6	37	4	15	7	11	11	10	11	11	7	11	12	13	8	8	7	3	5	13	9	37.2
15-Jul-06	7	15	5	6	8	7	12	17	11	7	6	8	10	10	9	8	6	6	5	7	4	2	2	2	17.2
16-Jul-06	3	5	8	6	4	8	6	6	11	7	8	10	13	12	15	12	18	11	11	7	2	3	6	4	18.1
17-Jul-06	12	30	15	19	11	22	33	54	26	54	22	28	9	8	5	11	8	7	8	5	8	4	4	9	54.4
18-Jul-06	6	5	7	22	17	22	36	11	8	8	8	9	7	17	7	5	8	5	14	11	5	12	17	51	50.5
19-Jul-06	37	15	30	1	6	2	13	11	13	16	23	26	20	26	24	21	27	13	9	7	9	7	8	6	36.8
20-Jul-06	9	16	14	8	13	20	12	9	12	8	10	10	9	9	9	9	9	8	7	8	8	6	6	3	20.0
21-Jul-06	4	4	5	6	8	9	12	9	16	12	18	15	14	19	11	9	10	7	8	7	11	10	10	5	19.0
22-Jul-06	10	11	6	4	6	7	12	11	14	14	9	10	11	11	15	13	12	11	11	12	9	11	14	9	15.0
23-Jul-06	15	12	13	12	7	6	23	12	10	9	9	11	11	12	10	10	10	9	9	10	7	5	6	8	23.0
24-Jul-06	14	17	18	10	11	17	16	18	26	32	21	17	17	16	14	14	12	10	9	8	5	5	6	4	32.0
25-Jul-06	10	9	12	10	17	13	11	15	10	16	9	9	9	9	8	8	8	8	8	8	7	7	6	6	17.0
26-Jul-06	9	18	9	23	12	9	11	14	12	8	7	8	8	8	8	8	8	8	8	8	6	6	5	5	23.0
27-Jul-06	9	14	11	7	10	11	4	10	10	8	10	11	13	15	16	22	11	19	16	16	10	14	9	11	22.0
28-Jul-06	7	13	15	6	14	15	18	17	19	11	19	17	22	16	14	12	13	12	10	9	9	9	8	10	22.0
29-Jul-06	10	8	9	8	9	8	8	10	10	10	10	10	10	10	9	11	10	10	15	18	14	18	20	13	20.0
30-Jul-06	15	11	10	11	11	8	9	9	12	14	19	16	11	11	12	16	12	13	12	6	3	5	6	5	19.0
31-Jul-06	8	5	7	7	17	13	11	12	16	9	9	9	9	8	8	8	7	8	8	9	6	7	8	8	17.0
Hourly Max	61	61	50	32	37	60	36	54	36	54	69	48	59	41	72	50	43	31	38	18	26	36	37	61	

1-hr Average Wind Rose (in km/hr) Located at the Beaverlodge Site for July 2006



Calms:	0%

Frequency Distribution of Wind in km/hr			
Range			Frequency (hrs)
0.8	<	5	176
5	to	10	263
10	to	20	233
20	to	30	61
30	to	40	8
	>	40	0
Total Non-Zero Values			743

PASZA

Monthly Passive Data Summary

Table 1. PASZA Passive Stations for July 2006

Peace Airshed Zone Association - PASZA Passive Stations for July 2006

		PASZA			
Station Number	**Station Name**	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
Duplicates					
10a	Woking	**0.2**	**21.5**	**1.0**	
10b	Woking	**0.3**	**20.1**	**0.9**	
19a	Wanham	**0.3**	**24.1**	**0.7**	
19b	Wanham	**0.3**	**22.1**	**0.6**	
21a	Eaglesham	**0.3**	**18.7**	**0.5**	
21b	Eaglesham	**0.2**	**16.8**	**0.5**	
49a	Grande Prairie HP	**0.3**	**24.7**	**3.1**	
49b	Grande Prairie HP	**0.5**	**26.3**	**3.5**	
1	Silver Valley	**0.2**	**20.6**	**1.1**	08-27-081-11 W6M
2	Bay Tree	**0.1**	**20.4**	**0.0**	13-16-078-13 W6M
3	Forth Creek	**0.2**	**23.6**	**0.7**	04-13-082-07 W6M
4	Gordondale	**0.4**	**21.3**	**0.8**	04-34-078-10 W6M
5	Boone Creek	**0.2**	**19.5**	**1.5**	01-23-076-11 W6M
7	Steeprock Creek	**0.2**	**21.3**	**0.6**	09-35-072-13 W6M
9	Spirit River	**0.3**	**21.5**	**1.6**	08-12-079-07 W6M
10	Woking	**0.2**	**20.8**	**0.9**	01-13-076-07 W6M
11	Webber Creek	**0.2**	**21.4**	**1.1**	09-36-074-09 W6M
12	Hythe	**0.4**	**19.9**	**1.2**	14-36-072-11 W6M
14	Sylvester	**0.1**	**18.8**	**0.5**	08-06-069-12 W6M
16	Beaverlodge	**0.2**	**25.4**	**1.1**	15-36-071-10 W6M
17	Poplar	**0.2**	**21.7**	**1.1**	13-06-073-08 W6M
18	Saddle Hills	**0.3**	**21.5**	**0.8**	04-25-074-07 W6M
19	Wanham	**0.3**	**23.1**	**0.7**	16-22-077-03 W6M

Table 1. PASZA Passive Stations for July 2006 (Continued)

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Site Legal
20	Shaftesbury	**0.3**	**16.7**	**0.6**	04-03-082-23 W5M
21	Eaglesham	**0.2**	**17.8**	**0.5**	16-21-079-25 W5M
23	Bear Lake	**0.2**	**22.0**	**1.2**	15-31-072-06 W6M
24	Wembley	**0.4**	**20.1**	**1.4**	12-31-070-08 W6M
25	Pinto Creek	**0.1**	**21.9**	**0.7**	04-24-069-11 W6M
26	Flyingshot	**0.2**	**20.3**	**1.1**	15-36-070-07 W6M
27	Grande Prairie I	**0.5**	**23.5**	**2.6**	08-15-071-06 W6M
28	Clairmont Lake	**0.5**	**23.1**	**1.2**	09-06-073-04 W6M
29	Smoky Heights	**0.4**	**27.7**	**0.7**	04-06-075-02 W6M
30	Fitzsimmons	**0.3**	**23.1**	**0.8**	15-36-072-03 W6M
32	Gold Creek	**0.1**	**17.4**	**1.4**	06-33-067-05 W6M
33	Wapiti	**0.2**	**22.7**	**1.0**	02-25-071-03 W6M
34	Puskwaskau	**0.1**	**19.8**	**0.2**	15-35-074-25 W5M
35	Jean Cote	**0.3**	**18.5**	**0.7**	12-35-079-21 W5M
36	Guy	**0.2**	**19.7**	**0.3**	03-04-076-22 W5M
37	Crooked Creek	**0.2**	**23.5**	**0.8**	16-01-071-26 W5M
38	Karr Creek	**0.1**	**17.0**	**n/a**	10-16-065-02 W6M
39	Clouston Creek	**0.2**	**20.6**	**0.6**	12-01-073-22 W5M
40	McLennan	**0.2**	**20.6**	**0.6**	03-29-077-19 W5M
41	Valleyview	**0.2**	**24.1**	**0.5**	09-30-069-22 W5M
42	Sunset House	**0.2**	**24.0**	**0.3**	05-32-070-19 W5M
43	High Prairie	**0.1**	**18.7**	**0.7**	16-13-074-17 W5M
44	Peavine	**0.2**	**16.7**	**0.1**	03-05-079-15 W5M
45	Gift Lake	**0.1**	**16.1**	**0.6**	10-07-079-12 W5M
46	Little Smoky	**0.1**	**19.2**	**1.5**	12-01-065-21 W5M
47	Kinuso	**0.1**	**15.7**	**0.3**	12-10-073-10 W5M
48	Deer Mountain	**0.1**	**17.1**	**0.3**	15-22-068-09 W5M
49	Grande Prairie HP	**0.4**	**25.5**	**3.3**	17-26-071-06 W6M

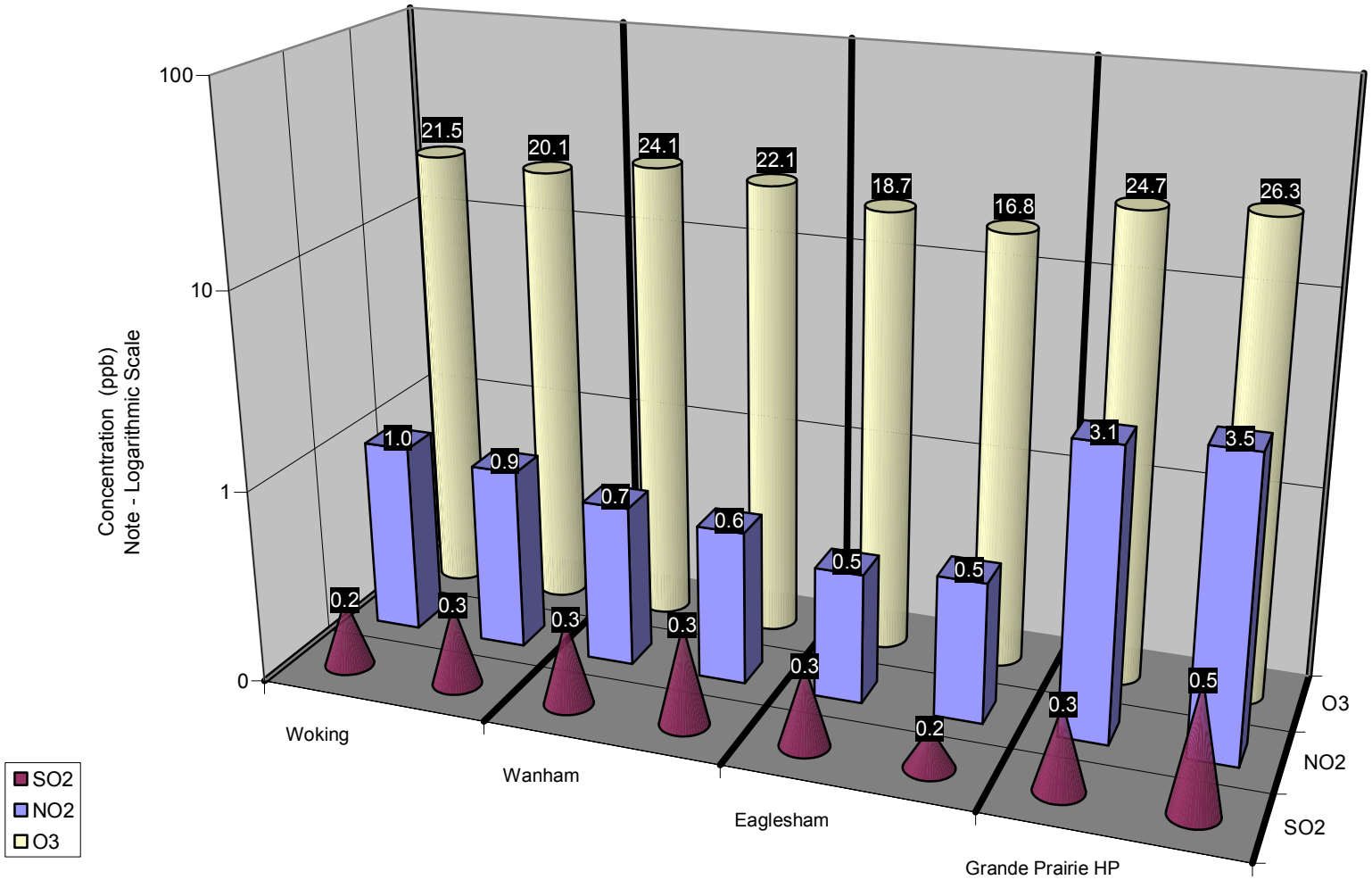


Figure 46. Duplicate Summary Chart

Table 2. Passive Summary Results for July 2006

Stats	Sulphur Dioxide SO_2	Ozone O_3	Nitrogen Dioxide NO_2
	ppb	ppb	ppb
	Passive Summary for July 2006 (PASZA Zone)		
Mean	**0.2**	**20.8**	**0.9**
Standard Deviation	**0.1**	**2.7**	**0.6**
Minimum	**0.1** Kinuso (#47)	**15.7** Kinuso (#47)	**0.0** Bay Tree (#2)
Maximum	**0.5** Clairmont Lake (#28)	**27.7** Smoky Heights (#29)	**3.3** Grande Prairie HP (#49)

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

	SO_2	O_3	NO_2
AENV Beaverlodge station	**0.4**	**26.6**	**1.9**
PASZA Beaverlodge passive	**0.2**	**25.4**	**1.1**

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

	SO_2	O_3	NO_2
PASZA Henry Pirker station	**0.4**	**14.7**	**5.3**
PASZA Grande Prairie passive	**0.4**	**25.5**	**3.3**

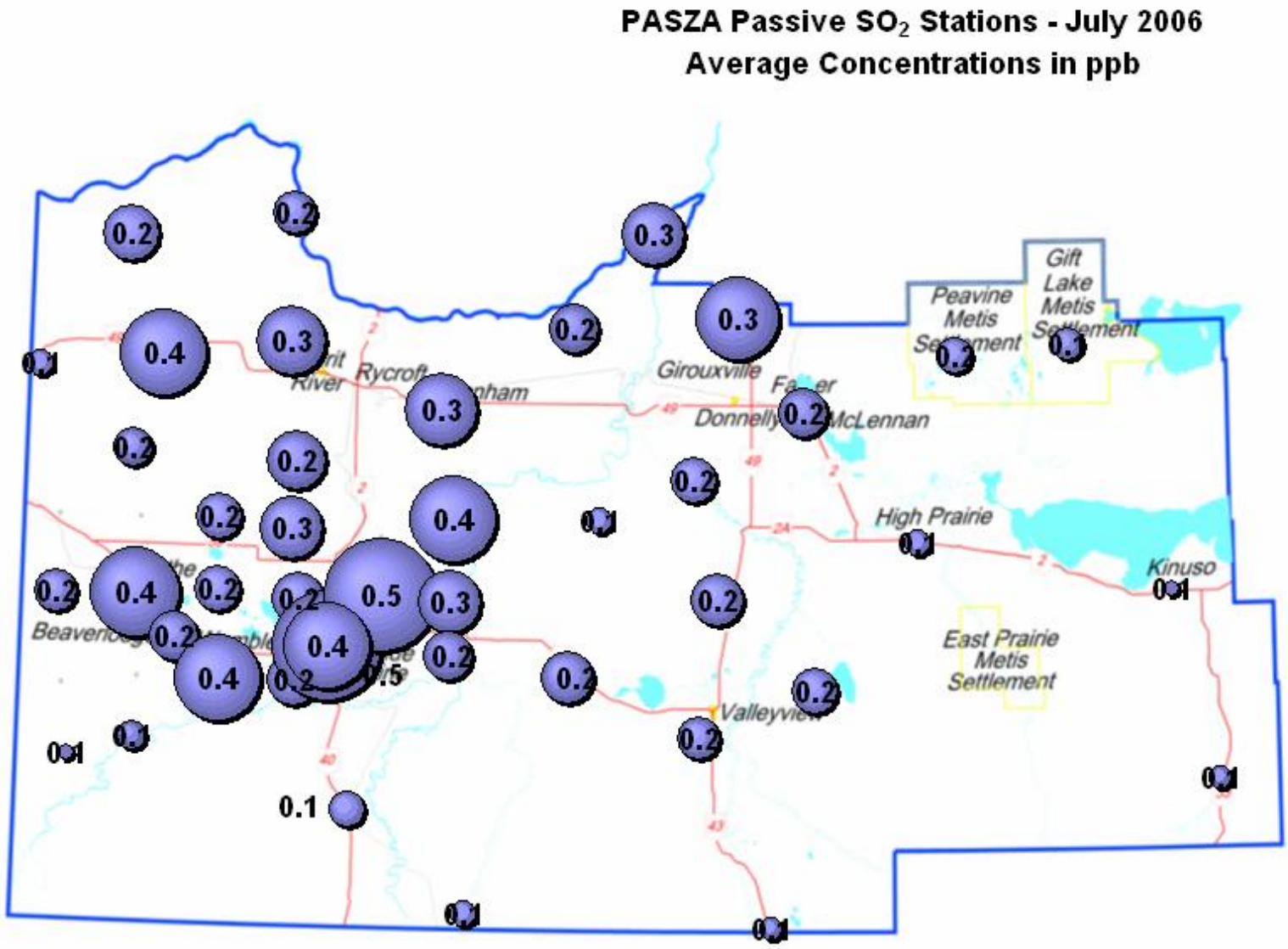


Figure 47. SO_2 Bubble Chart

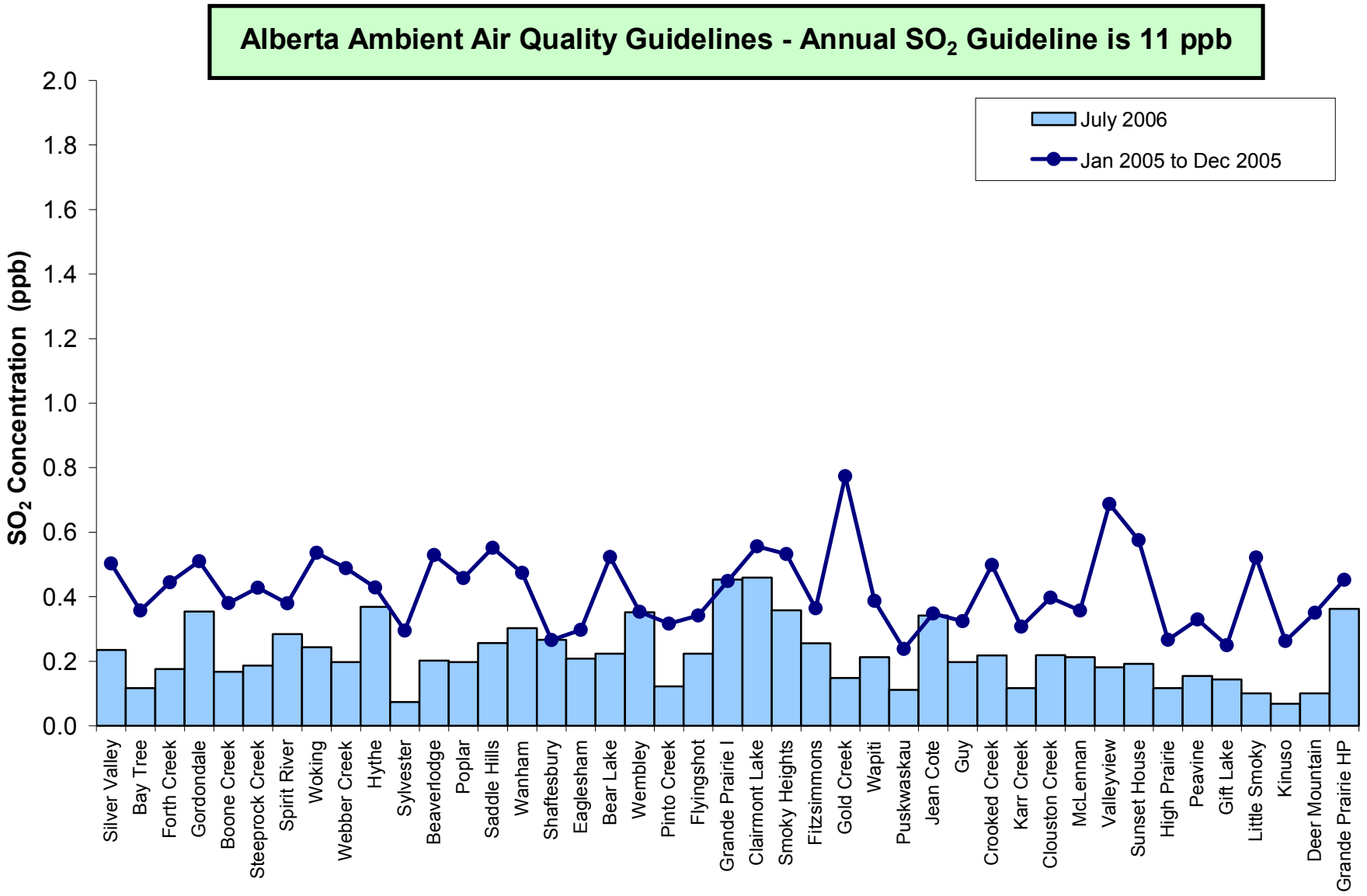


Figure 48. SO_2 Summary Chart

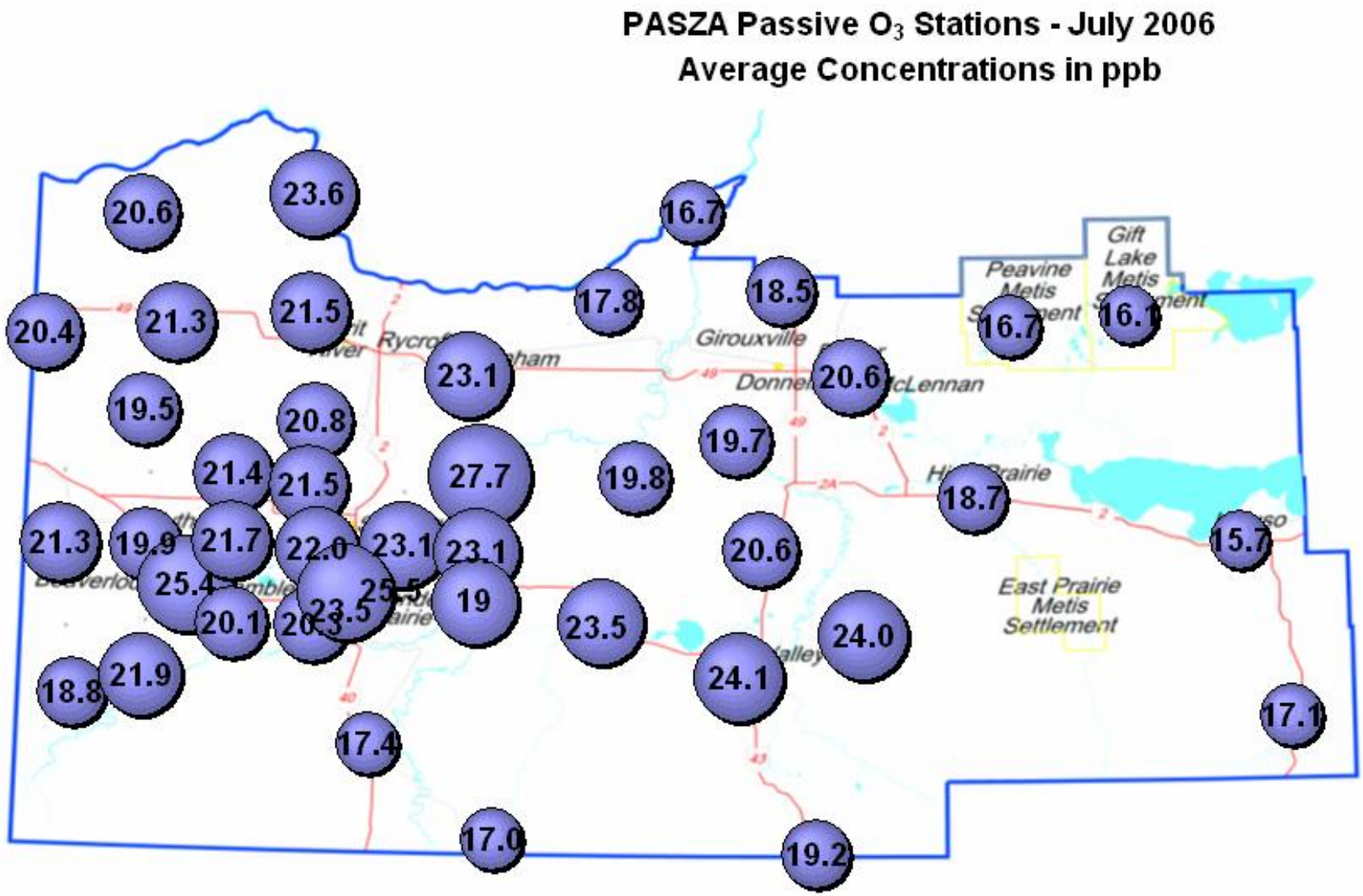


Figure 49. O_3 Bubble Chart

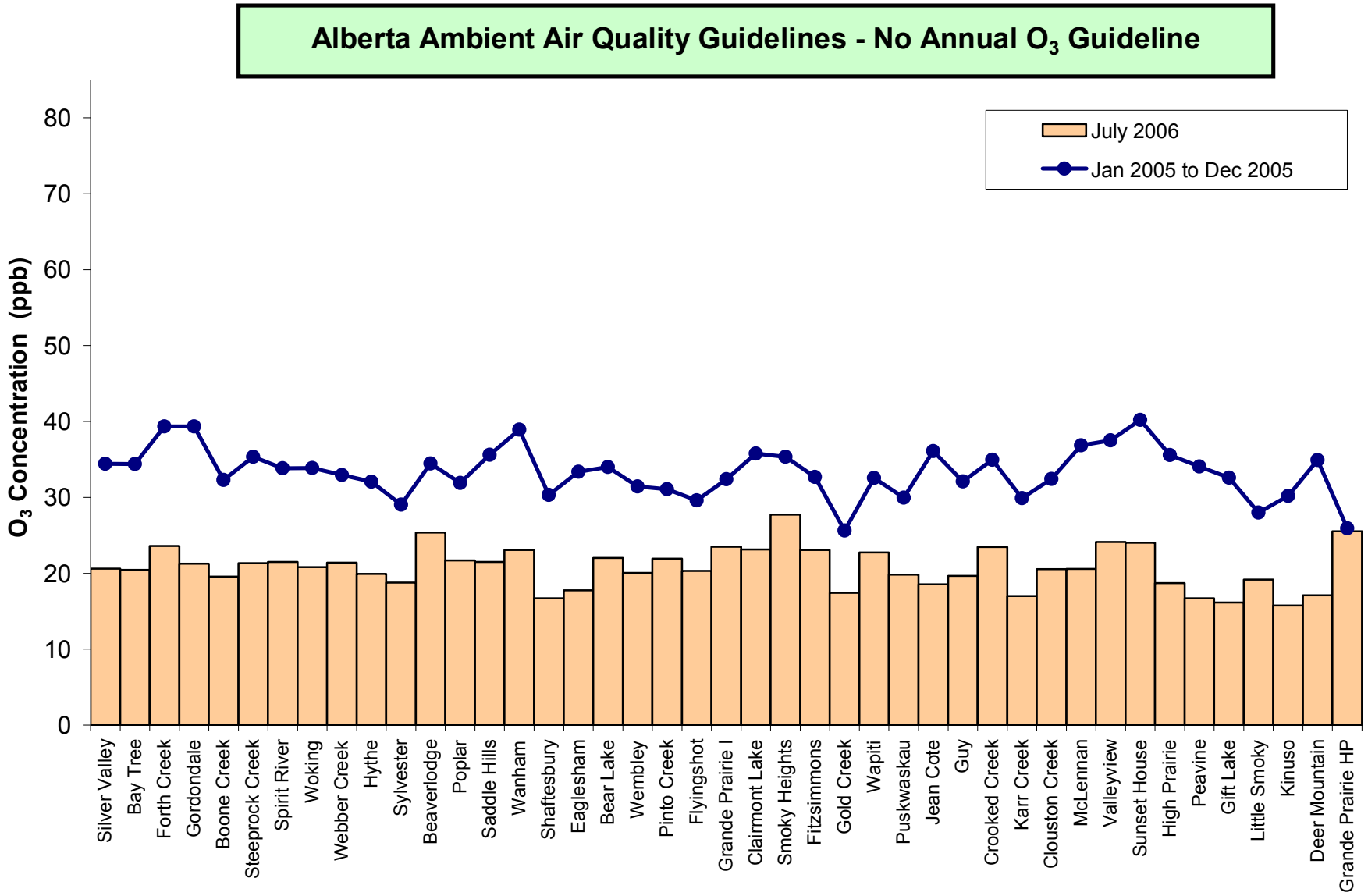


Figure 50. O_3 Summary Chart

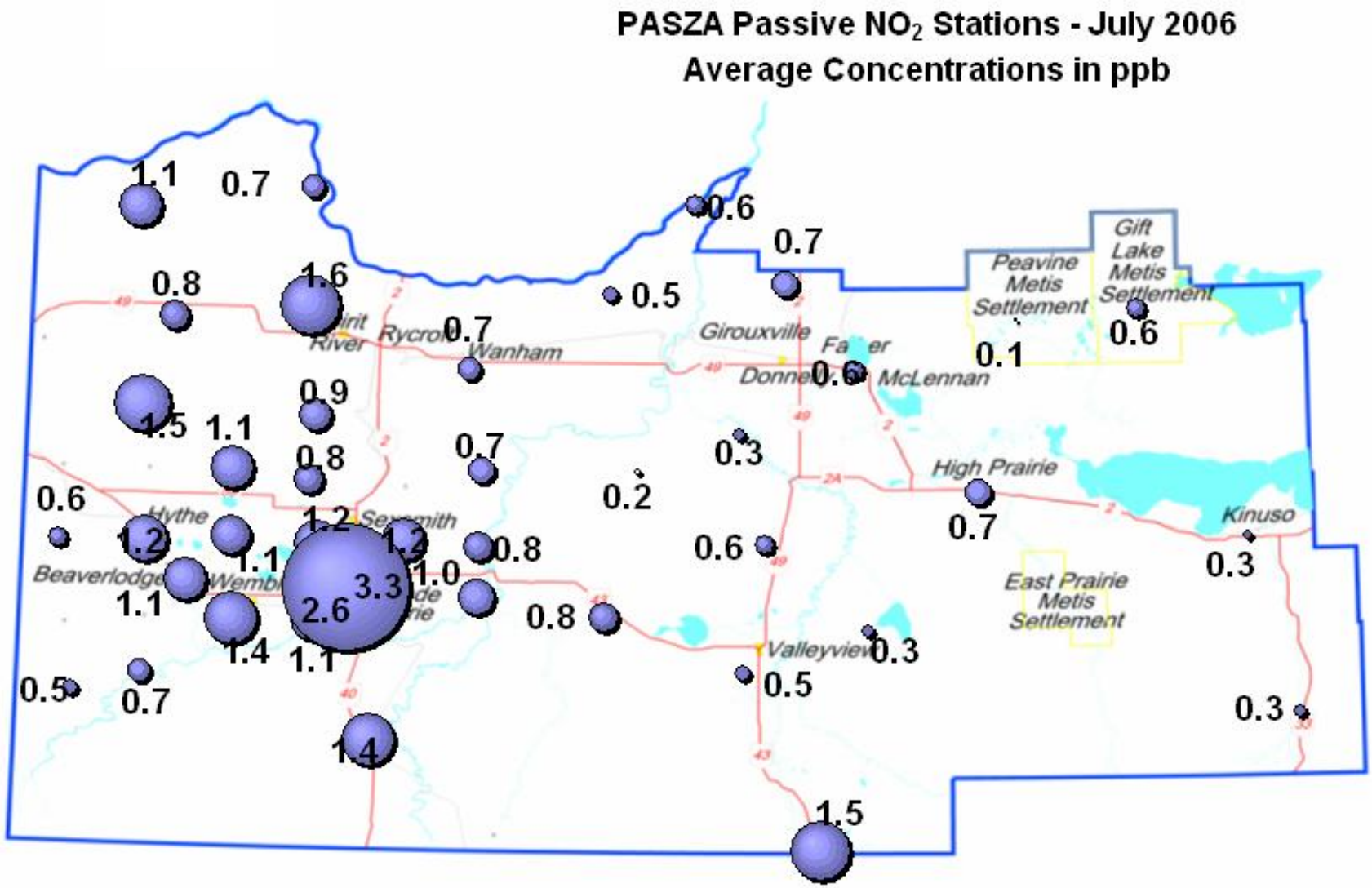


Figure 51. NO_2 Bubble Chart

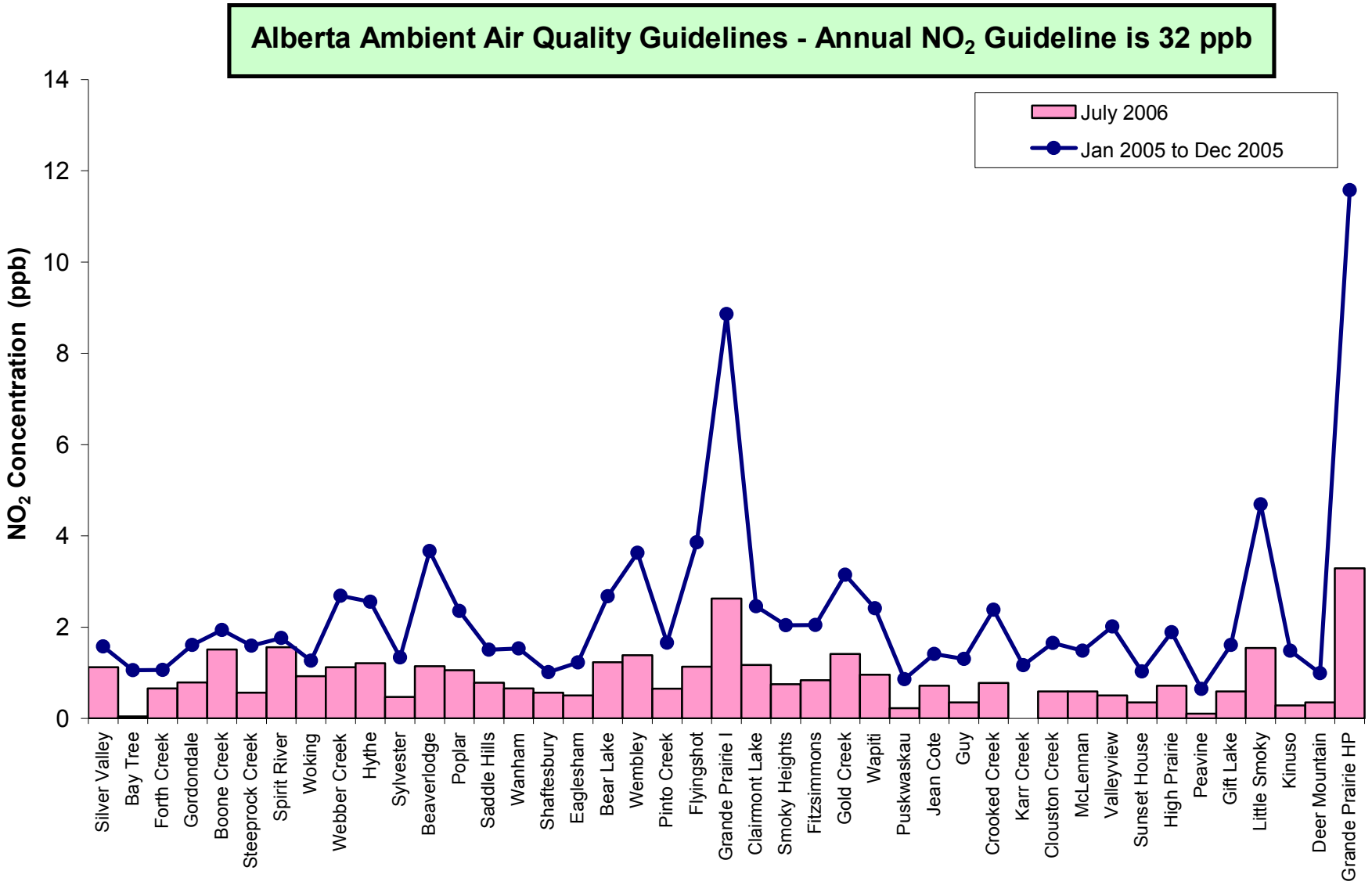


Figure 52. NO_2 Summary Chart

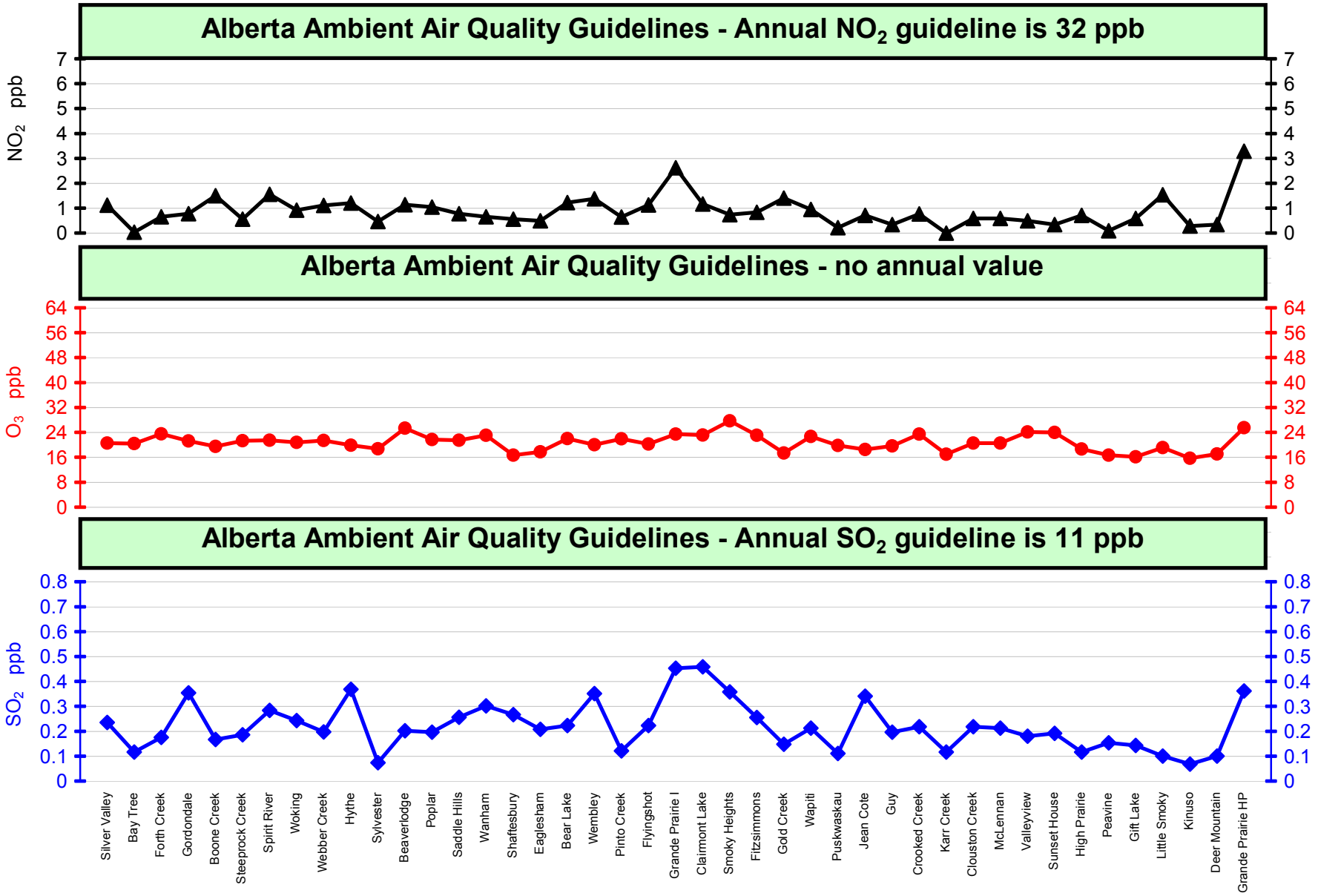


Figure 53. Overview Summary

July 2006 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	July 13, 2006	Previous Calibration	June 8, 2006
Station Number	1	Station Location	Muskoseepi Park

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

Start Time (MST)	9:55	End Time (MST)	14:13
Barometric Pressure	27.5 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	2,469 ng/min	Perm-tube Expiry Date	
Correction factor	0.934462	Perm-tube Cert #	19-18265
DACS make	Focus AP1000	DACS serial No.	45266
DACS voltage range	0 - 10 volt	DACS channel #	4
	Before		After
Calculated slope	1.005234	Calculated slope	1.019149
Calculated intercept	-0.822300	Calculated intercept	-0.691905

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

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
SO2 zero pot	176		166	
SO2 span pot	421		148	
UV Lamp voltage	947	V	938	V
Vacuum	17.8	" Hg	22.2	" 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	2326.8	0.0	0.3	N/A
2490	2326.8	405.0	397.9	1.0180
5015	4686.3	201.1	198.3	1.0140
9000	8410.2	112.1	110.9	1.0106
zero	2364.2	0.0	-0.9	As Found Zero
2530	2364.2	398.6	446.8	As Found Span
			Average Correction Factor	1.0142

Calculated value of As Found Response: 449.266 ppm Percent Change of As Found: -12.7%

	before calibration		after calibration	
Auto zero	-1.5	ppm	-0.5	ppm
Auto span	193.7	ppm	172.3	ppm

Notes:

Calibration Performed By: Dawn Ewan

Calibration Summary

FOCUS AIR QUALITY MONITORING

Parameter **SO2**

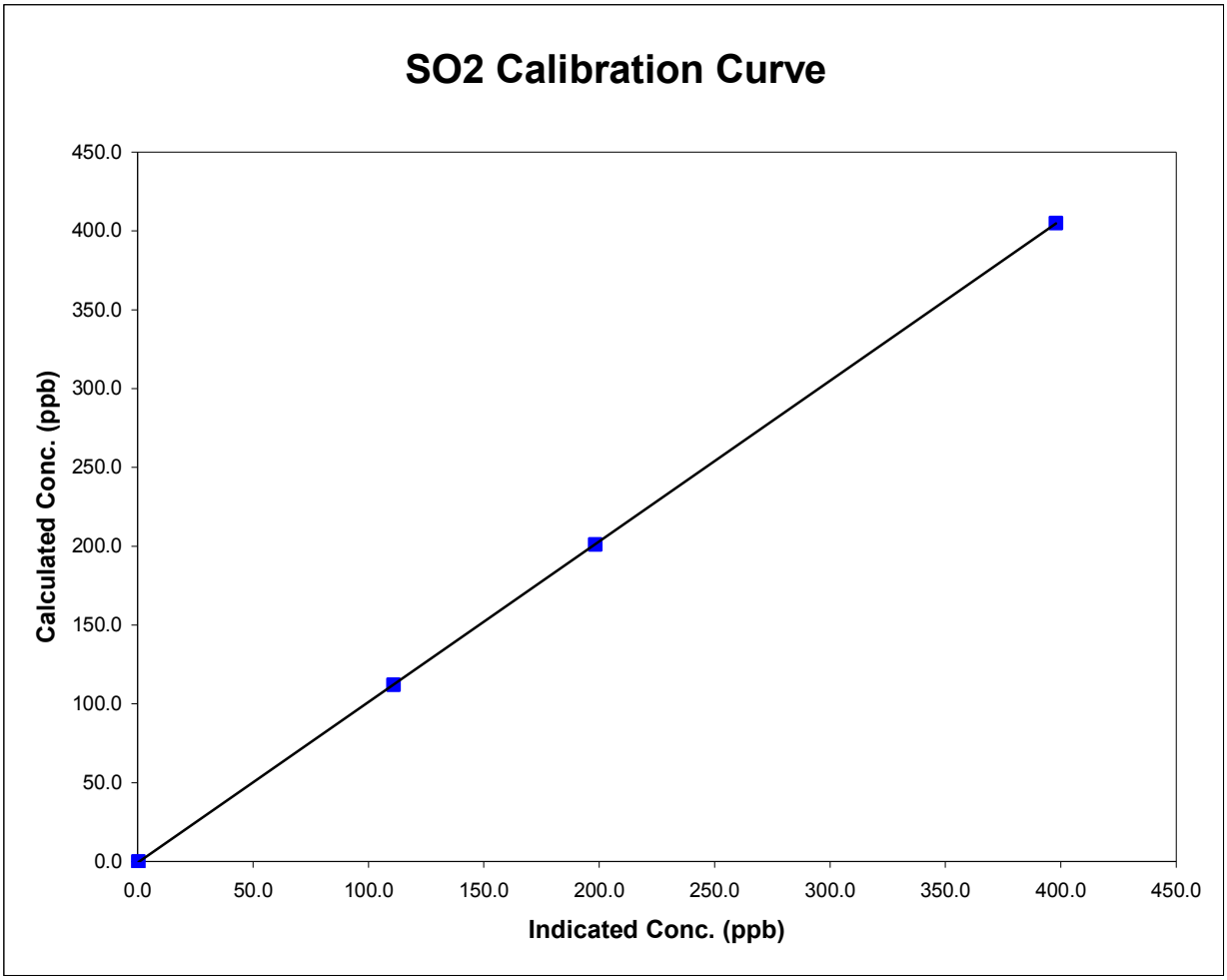
Air Monitoring Network **PASZA**

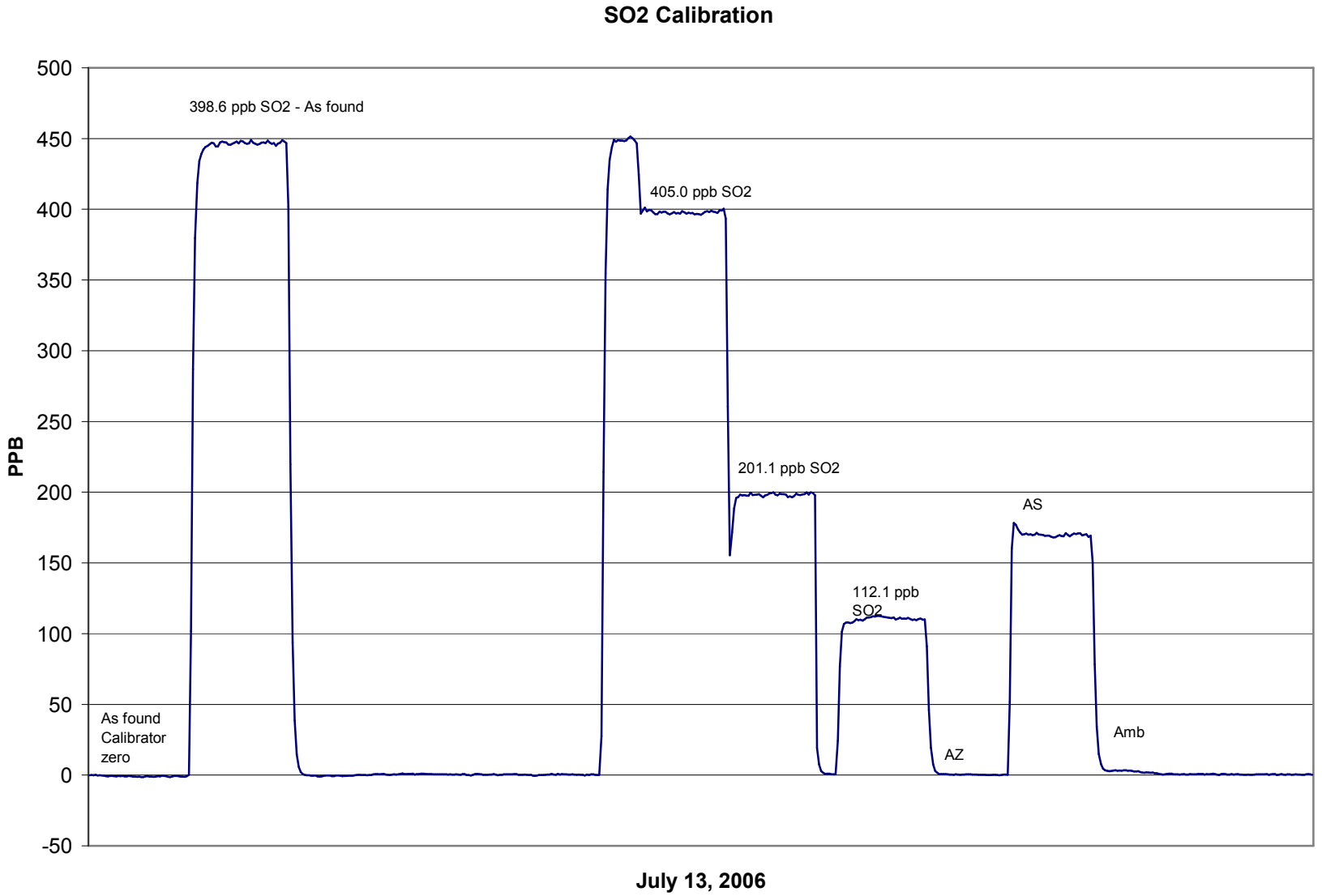
Station Information

Calibration Date	July 13, 2006	Previous Calibration	June 8, 2006
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	9:55	End Time (MST)	14:13
Analyzer make/model	TEI Model 43A	Analyzer serial #	43A-21120-195

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.3	N/A		
405.0	397.9	1.0180	Correlation Coefficient	0.999996
201.1	198.3	1.0140		
112.1	110.9	1.0106	Slope	1.019149
			Intercept	-0.691905




SO2 Calibration
500
450
400
350
300
250
200
150
100
50
0
-50
PPB
398.6 ppb SO2 - As found
405.0 ppb SO2
201.1 ppb SO2
112.1 ppb SO2
AS
AZ
Amb
As found Calibrator zero
July 13, 2006

Calibration Report

Parameter **NOx-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	July 15, 2006	Previous Calibration	June 5, 2006
Station Number	1	Station Location	Muskoseepi Park

Reason: Routine | Installation | Removal | Other:

Start Time (MST)	9:20		End Time (MST)	13:51	
Barometric Pressure	0.924	Atm	Station Temperature	20.0	Deg C
Calibrator	Environics 6103		Serial Number	2977	
NO Cal Gas Conc	50.3	ppm	Cal Gas Expiry Date	22-Nov-06	
NOx Cal Gas Conc	50.5	ppm	Cal Gas Serial #	BAL786	

DACS Information

DACS make	FOCUS AP1000	DACS serial No.	45269

Parameter		NO2	NOx	NO
Before	Data Slope	0.992786	0.991819	0.990169
	Data Offset	-0.209930	-0.115430	-0.191496
After	Data Slope	1.000320	1.005654	1.003284
	Data Offset	0.670670	0.071307	0.326665
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	8.5	ppb	8.0	mV
NOx background	8.7	ppb	8.2	mV
NO coefficient	0.857		0.807	
NOx coefficient	0.987		0.993	
Chamber Temp	50.0	Deg C	49.8	Deg C
Cooler Temp	-2.5	Deg C	-2.4	Deg C
Converter Temp	318.0	Deg C	318.0	Deg C
Vacuum	193.5	mm Hg	181.7	mm Hg

Notes: Span adjustment made.

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **NOx-NO-NO_2**

Air Monitoring Network **PASZA**

Station Information

Calibration Date: July 15, 2006 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	4992	0.00	0.0	0.0	0.0	0.4	0.0	0.2	N/A	N/A
1	4992	39.93	400.7	399.1	1.6	398.5	397.5	1.0	1.0057	1.0042
2	4992	19.91	200.6	199.8	0.8	199.7	199.3	0.5	1.0045	1.0027
3	4992	10.00	101.0	100.6	0.4	99.5	99.2	0.4	1.0142	1.0138
AFZ	4992	0.00	0.0	0.0	0.0	0.4	0.0	0.2	0.0000	0.0000
AFS	4992	39.93	400.7	399.1	1.6	422.6	425.4	-2.9	0.9482	0.9382
							Average Correction Factor		1.0081	1.0069

As Found Concentrations: NO_X= 422.2 NO= 425.2 As Found Percent Change NO_X= 5.3% NO= 6.5%

GPT Calibration Data

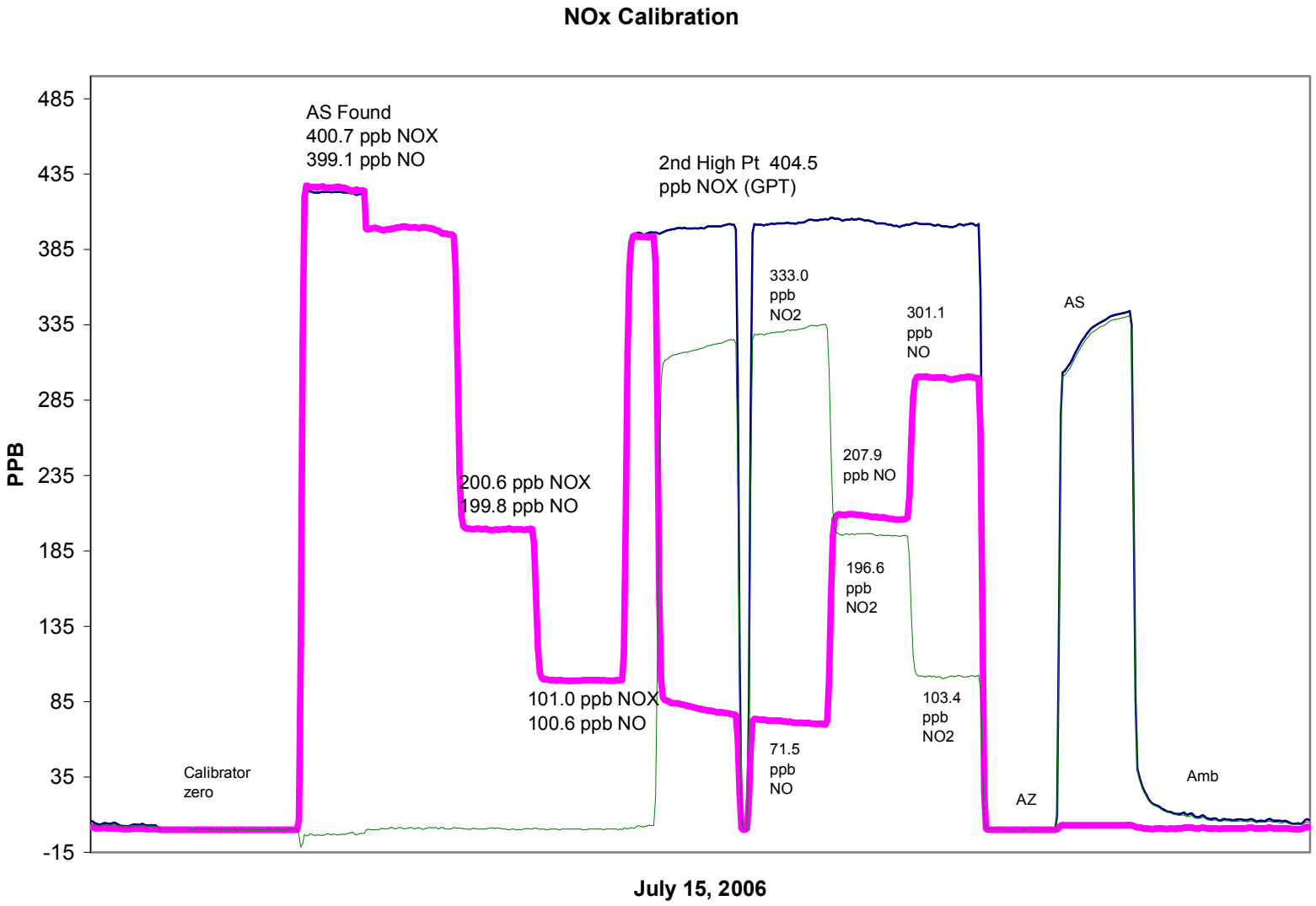
Dilution Flow 4993 ccm Source Gas Flow 39.97 ccm

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	404.5	395.2	9.3	395.8	393.6	2.3	1.0220	1.0041	N/A	N/A
350	404.5	71.5	333.0	403.4	70.9	332.8	1.0027	1.0079	1.0006	99.9%
200	404.5	207.9	196.6	402.0	206.8	195.5	1.0061	1.0049	1.0058	99.4%
100	404.5	301.1	103.4	401.0	299.8	101.6	1.0086	1.0044	1.0175	98.3%
					Average Correction Factor		1.0058	1.0057	1.0080	99.2%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	1.0	1.0	1.0	ppb	0.9	0.9	1.0	ppb
Auto span	343.3	340.1	3.4	ppb	344.2	340.0	3.4	ppb

Calibration Performed By: Dawn Ewan


NOx Calibration
485
435
385
335
285
235
185
135
85
35
-15
PPB
AS Found
400.7 ppb NOX
399.1 ppb NO
2nd High Pt 404.5
ppb NOX (GPT)
333.0
ppb
NO2
301.1
ppb
NO
AS
207.9
ppb NO
200.6 ppb NOX
199.8 ppb NO
196.6
ppb
NO2
101.0 ppb NOX
100.6 ppb NO
103.4
ppb
NO2
71.5
ppb
NO
Calibrator
zero
AZ
Amb
July 15, 2006

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PASZA**

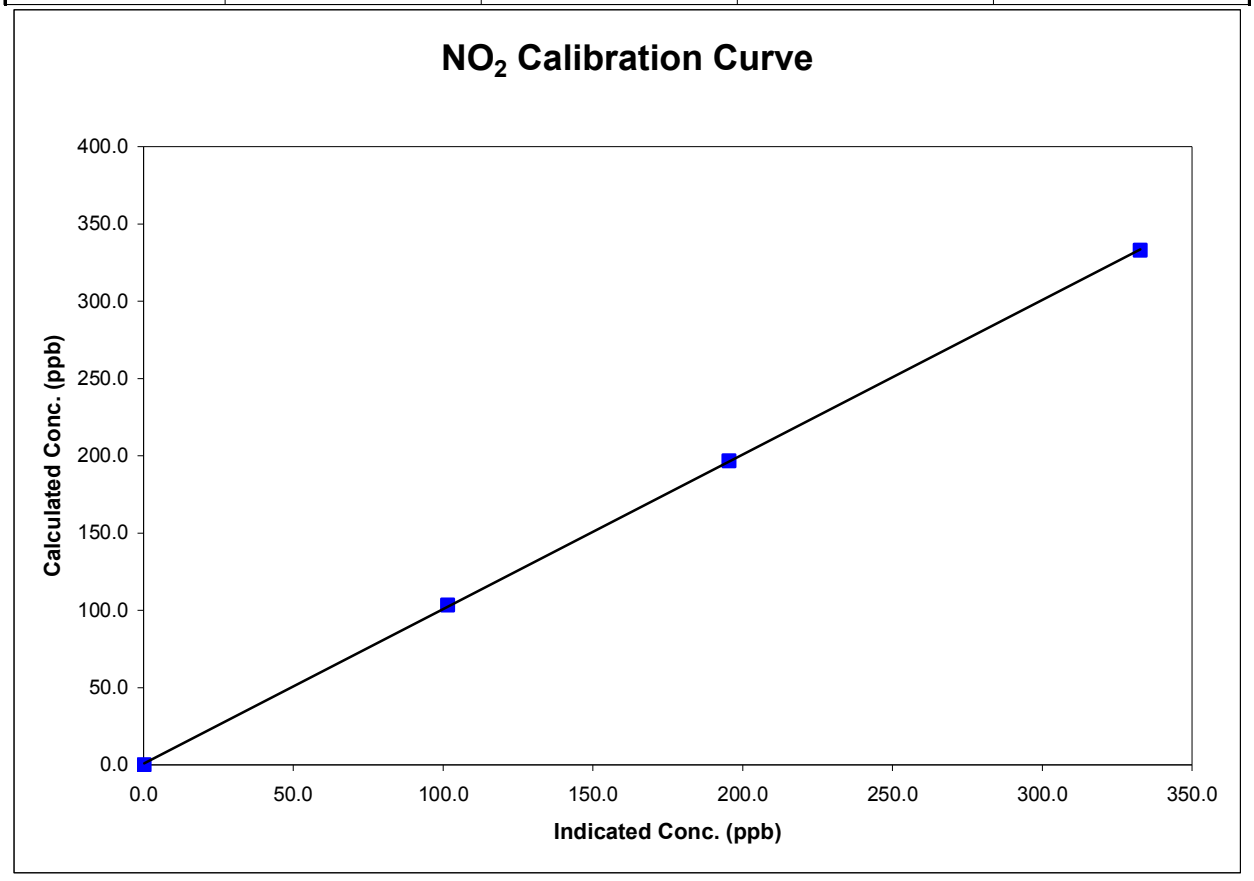
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	July 15, 2006	Previous Calibration	June 5, 2006
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	9:20	End Time (MST)	13:51
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	0.2	0.0000		
333.0	332.8	1.0006	Correlation Coefficient	0.999959
196.6	195.5	1.0058		
103.4	101.6	1.0175	Slope	1.000320
			Intercept	0.670670



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PASZA**

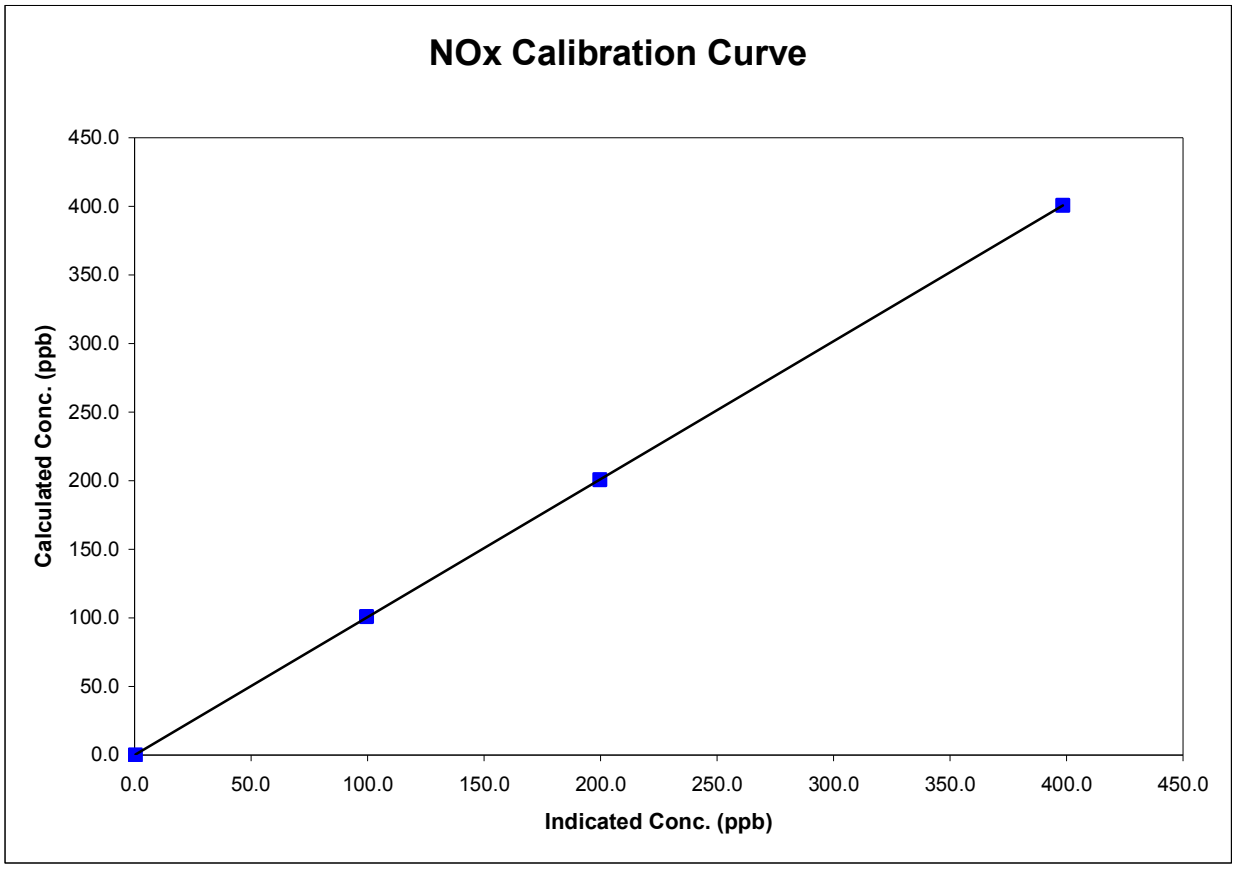
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	July 15, 2006	Previous Calibration	June 5, 2006
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	9:20	End Time (MST)	13:51
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	0.4	0.0000		
400.7	398.5	1.0057	Correlation Coefficient	0.999990
200.6	199.7	1.0045		
101.0	99.5	1.0142	Slope	1.005654
			Intercept	0.071307



Calibration Summary

Parameter **NO**

Air Monitoring Network **PASZA**

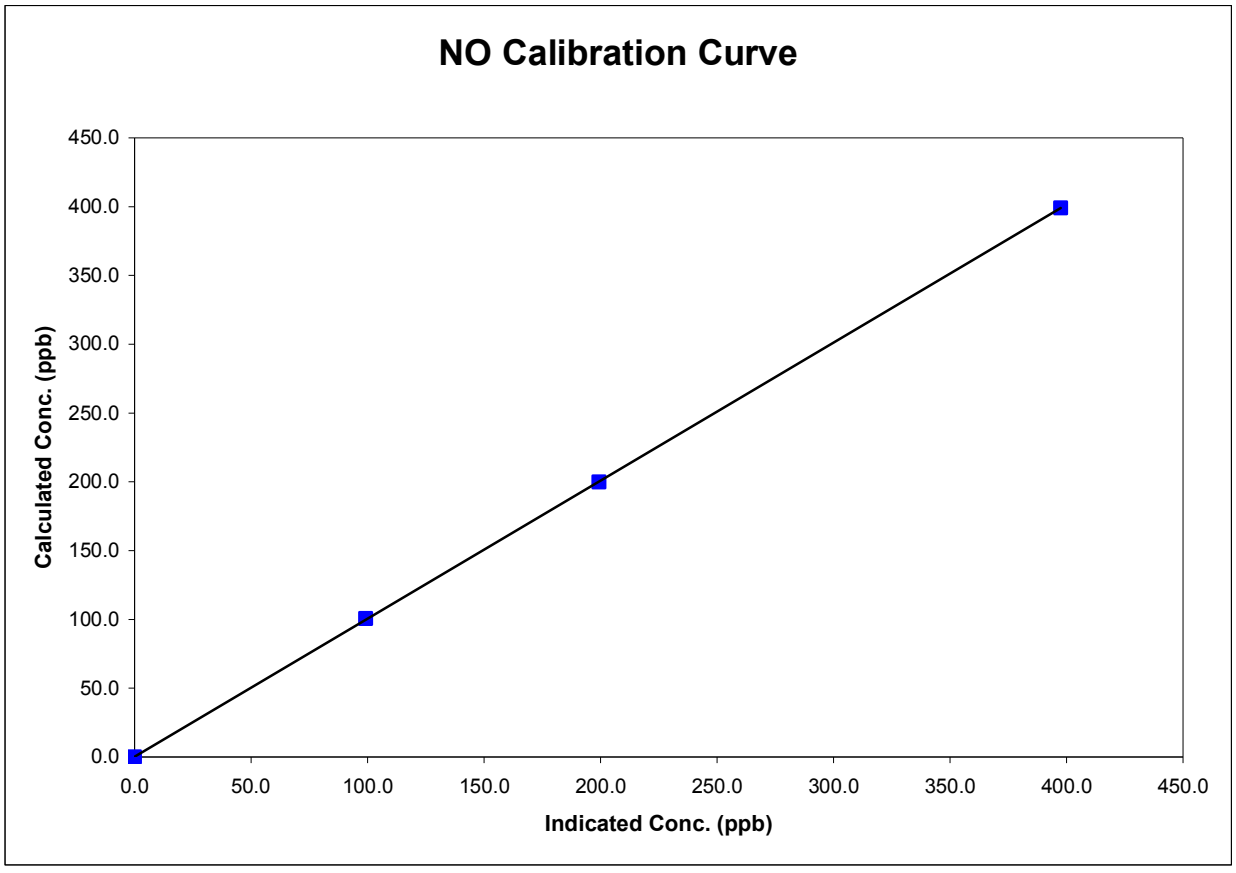
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	July 15, 2006	Previous Calibration	June 5, 2006
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	9:20	End Time (MST)	13:51
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		
399.1	397.5	1.0042	Correlation Coefficient	0.999991
199.8	199.3	1.0027		
100.6	99.2	1.0138	Slope	1.003284
			Intercept	0.326665



Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **O3**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	July 15, 2006	Previous Calibration	June 6, 2006
Station Number	1	Station Location	Muskoseepi Park

Reason: Routine | Install | Removal | Other:

Start Time (MST)	13:05	End Time (MST)	12:04
Barometric Pressure	0.924 atm	Station Temperature	20.0 Deg C
Calibrator	Environics 6103	Serial Number	2977
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
Calculated slope	0.997075	Calculated slope	0.991813
Calculated intercept	3.492454	Calculated intercept	2.781152
Analyzer make	API Model 400	Analyzer serial #	383

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.6	ppb	-0.6	ppb
slope	1.037		1.012	
Lamp measure	3921	mV	3843	mV
Lamp Reference	3921	mV	3847	mV
Pressure	27.8	inches Hg	28	inches Hg
Sample Flow	698	ccm	684	ccm
ANA 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)
4992	0.00	0.0	0.5	N/A
4992	0.00	333.0	335.4	0.9930
4992	0.00	196.6	192.8	1.0196
4992	0.00	103.4	98.3	1.0520
4992	0.00	0.0	0.2	As found zero
4992	0.00	333.0	334.5	As found span
			Average Correction Factor	1.0215

Calculated value of As Found Response: 336.8 ppm Percent Change of As Found: 1.1%

	before calibration		after calibration	
Auto zero	4.2	ppb	2.6	ppb
Auto span	214.0	ppb	203.9	ppb

Notes: Replaced pump. Adjusted zero and span.

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **O3**

Air Monitoring Network **PASZA**

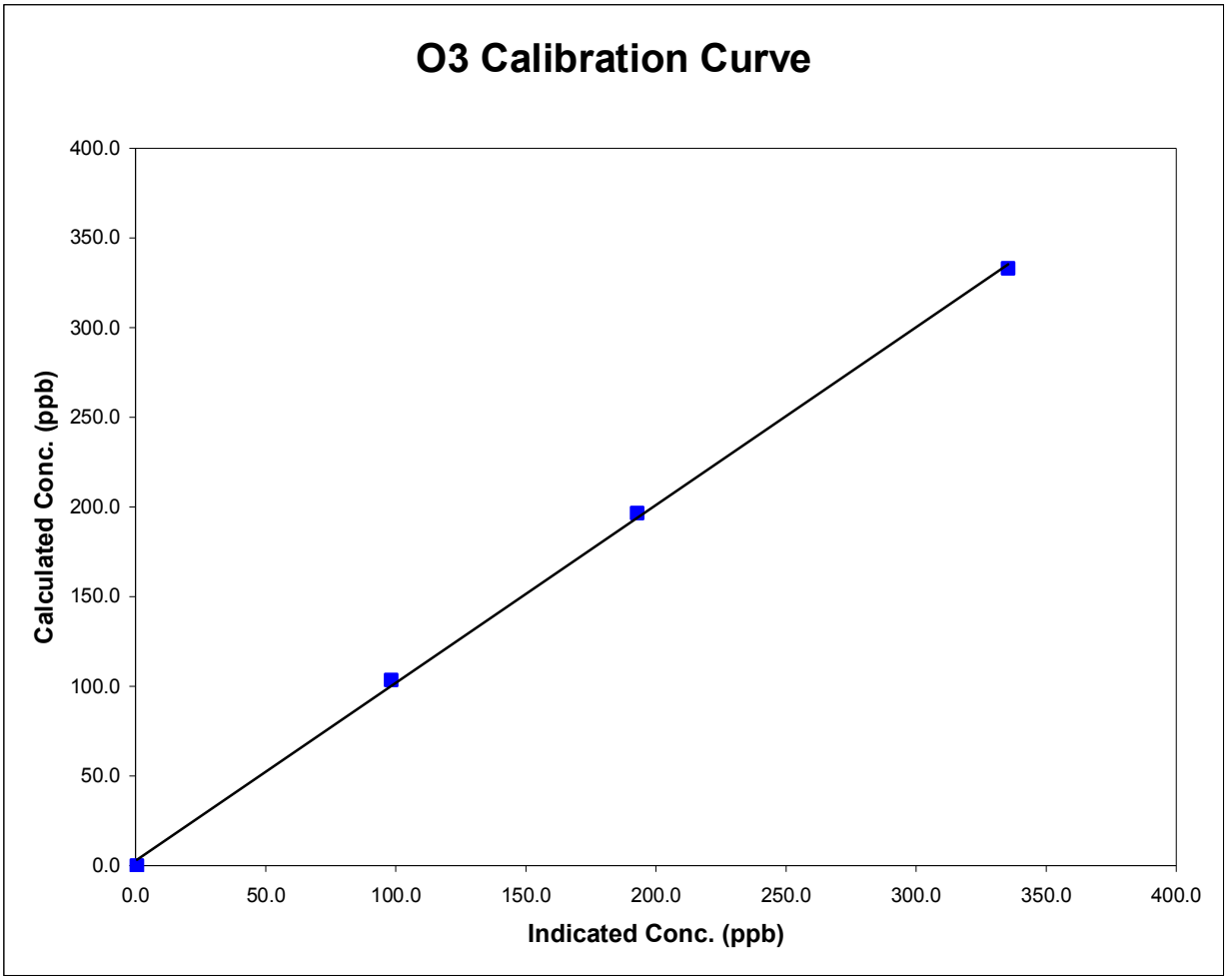
FOCUS AIR QUALITY MONITORING

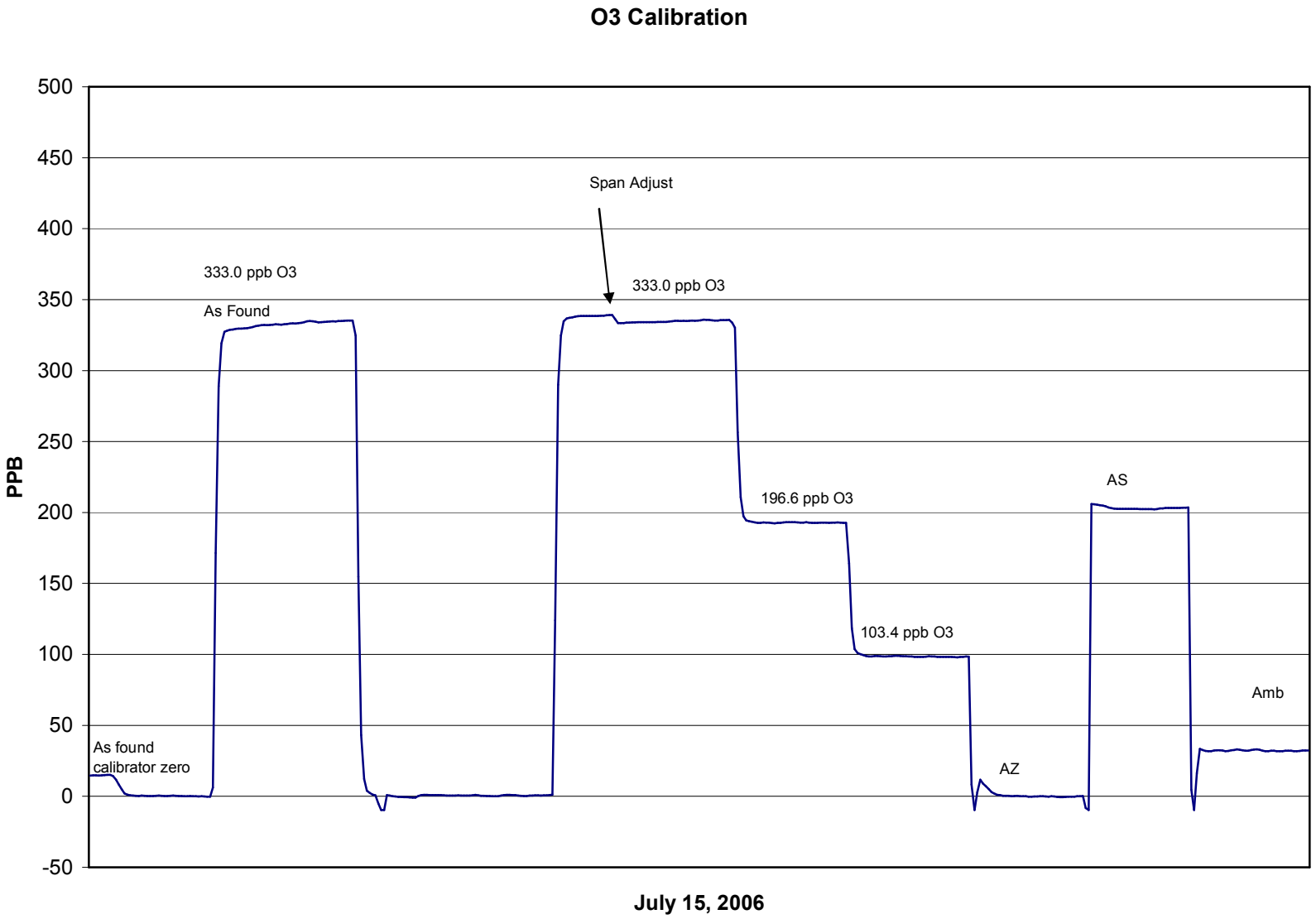
Station Information

Calibration Date	July 15, 2006	Previous Calibration	June 6, 2006
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	13:05	End Time (MST)	12:04
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	0.5	NA		
333.0	335.4	0.9930	Correlation Coefficient	0.999447
196.6	192.8	1.0196		
103.4	98.3	1.0520	Slope	0.991813
			Intercept	2.781152




O3 Calibration
500
450
400
350
300
250
200
150
100
50
0
-50
PPB
Span Adjust
333.0 ppb O3
As Found
333.0 ppb O3
196.6 ppb O3
103.4 ppb O3
AS
Amb
AZ
As found
calibrator zero
July 15, 2006

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **CO**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	July 4, 2006	Previous Calibration	June 8, 2006
Station Number	1	Station Location	Muskoseepi Park

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

Start Time (MST)	10:10	End Time (MST)	13:36
Barometric Pressure	0.929 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6103	Serial Number	2977
Cal Gas Conc	3000 ppm	Cal Gas Expiry Date	AUG 28/05
		Cal Gas Cylinder #	AAL20565
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
Calculated slope	1.004370	Calculated slope	1.000887
Calculated intercept	-0.088779	Calculated intercept	-0.036492

Analyzer make	TEI Model 48C	Analyzer serial # 508011062

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
CO span setting	1.042		1.042	
CO zero setting	5.911		6.106	
Sample pressure	684.2	mm Hg	681.9	mm Hg
Sample Flow	1.072	LPM	1.069	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)
4994	0.00	0.00	0.02	N/A
4994	39.94	23.80	23.85	0.9979
4994	19.91	11.91	11.81	1.0084
4994	9.50	5.70	5.83	0.9764
4994	0.00	0.00	0.22	As Found Zero
4994	39.94	23.80	24.25	As Found Span
			Average Correction Factor	0.9942

Calculated value of As Found Response: 24.045 ppm Percent Change of As Found: -1.0%

	before calibration		after calibration	
Auto zero	-0.01	ppm	0.08	ppm
Auto span	20.73	ppm	20.90	ppm

Notes: Adjusted zero.

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **CO**

Air Monitoring Network **PASZA**

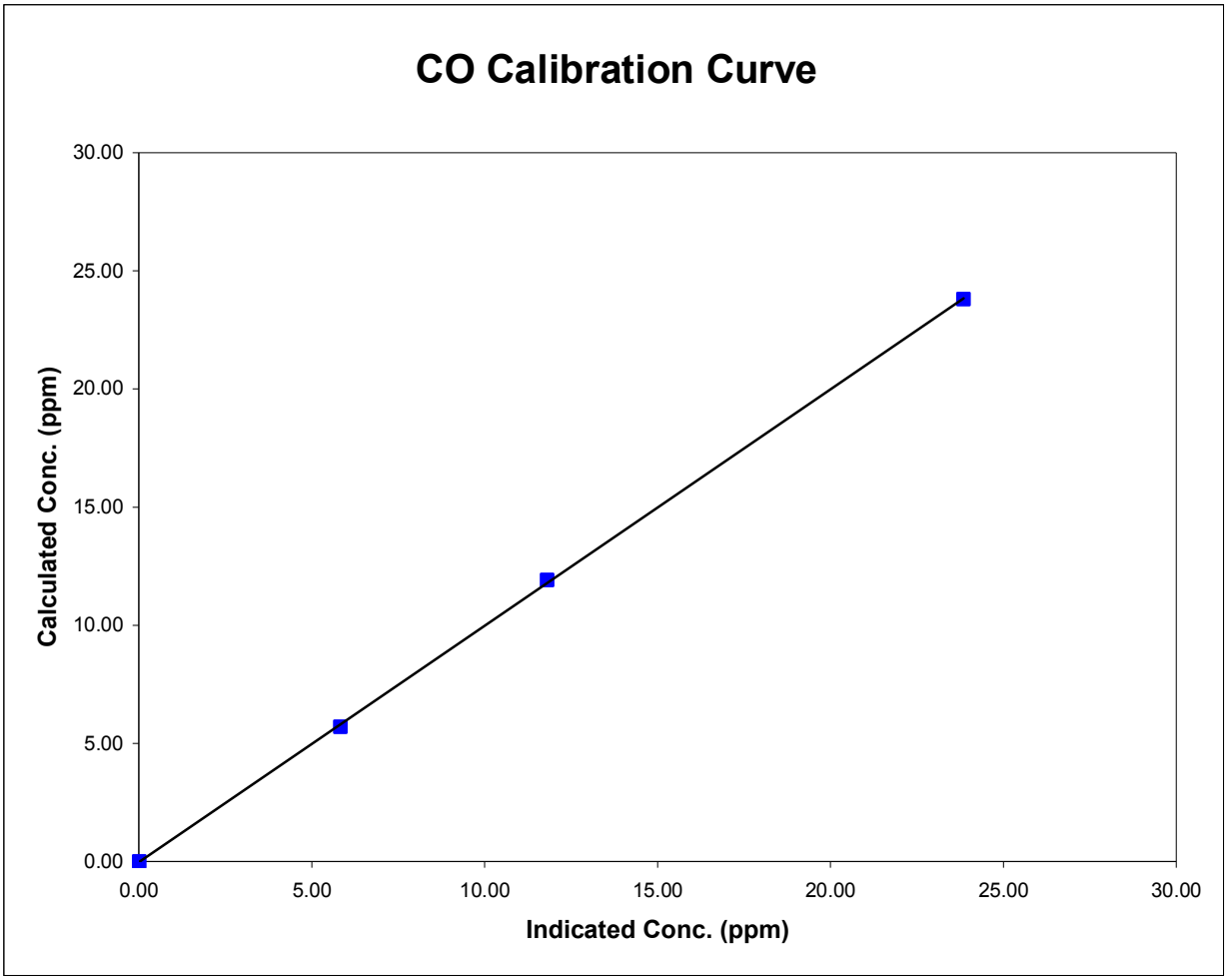
FOCUS AIR QUALITY MONITORING

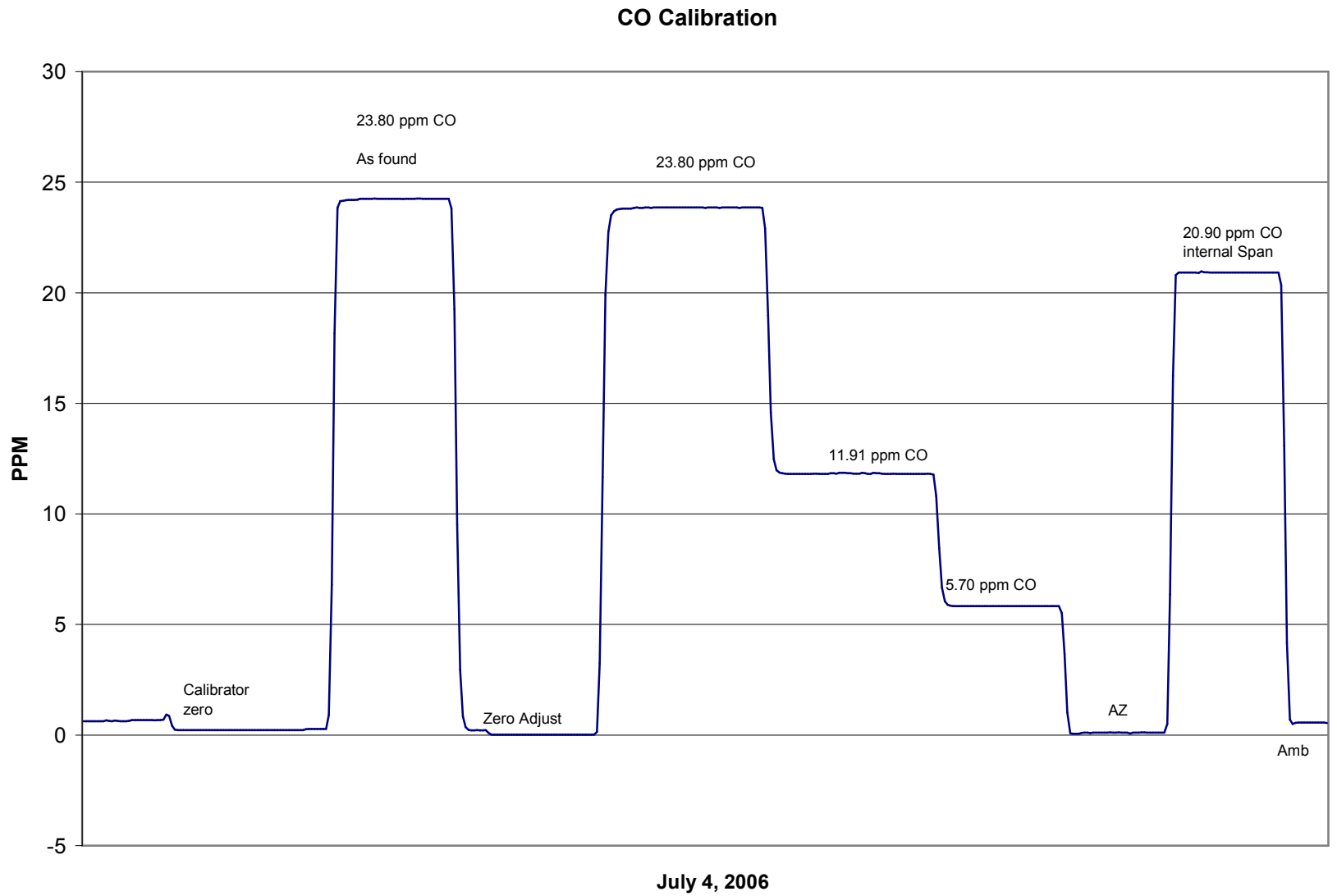
Station Information

Calibration Date	July 4, 2006	Previous Calibration	June 8, 2006
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	10:10	End Time (MST)	13:36
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	0.019	N/A		
23.802	23.854	0.9979	Correlation Coefficient	0.999909
11.913	11.814	1.0084		
5.696	5.834	0.9764	Slope	1.000887
			Intercept	-0.036492




CO Calibration
30
25
20
15
10
5
0
-5
PPM
23.80 ppm CO
As found
23.80 ppm CO
20.90 ppm CO
internal Span
11.91 ppm CO
5.70 ppm CO
Calibrator
zero
Zero Adjust
AZ
Amb
July 4, 2006

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **THC**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	July 10, 2006	Previous Calibration	June 6, 2006
Station Number	1	Station Location	Muskoseepi Park
Reason: Routine	Install	Removal	Other:

Start Time (MST)	10:41	End Time (MST)	14:30
Barometric Pressure	0.921 ATM	Station Temperature	20.0 Deg C
Calibrator	Environics 6103	Serial Number	2977
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
Calculated slope	0.995336	Calculated slope	1.000455
Calculated intercept	0.115112	Calculated intercept	0.035983

Analyzer make: TEI Model 51C-LT — Analyzer serial #: 51CLT-79009-390

	before		after	
Concentration range	0 - 25	ppm	0 - 25	ppm
THC sample pressure	6.1	psi	6.1	psi
THC span counts	6968	capture	6909	capture
THC zero counts	1414	capture	1268	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)
4992	0.00	0.00	0.02	N/A
4992	64.92	19.54	19.53	1.0005
4992	34.95	10.58	10.49	1.0093
4992	9.92	3.02	2.95	1.0234
4992	0.00	0.00	-0.47	As Found Zero
4992	64.92	19.54	19.32	As Found Span
			Average Correction Factor	1.0111

Calculated value of As Found Response: 19.813 ppm Percent Change of As Found: -1.4%

	before calibration		after calibration	
Auto zero	0.07	ppm	0.04	ppm
Auto span	22.89	ppm	22.78	ppm

Notes: Adjusted zero and span.

Calibration Performed By: Dawn Ewan

Calibration Summary

FOCUS AIR QUALITY MONITORING

Parameter **THC**

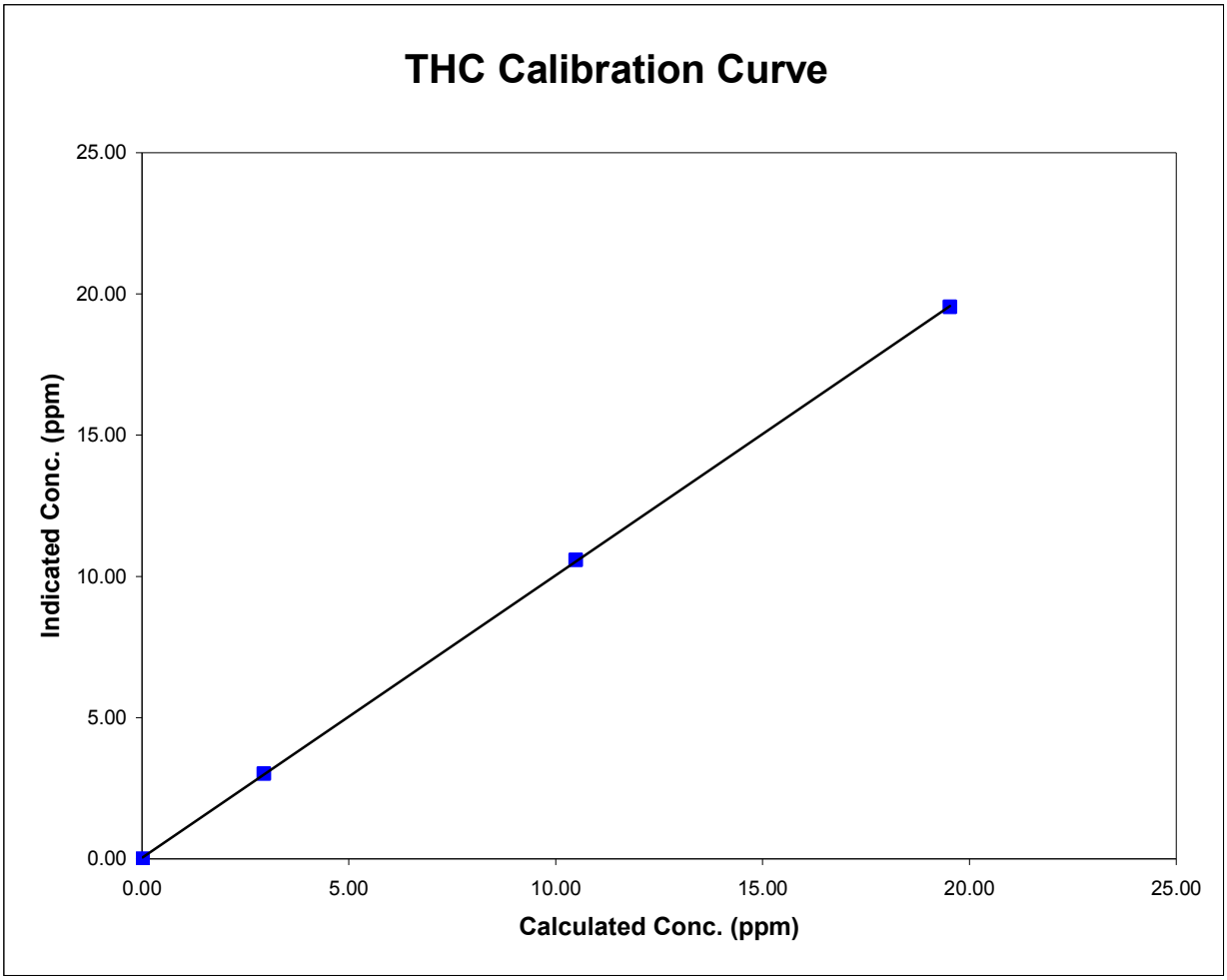
Air Monitoring Network **PASZA**

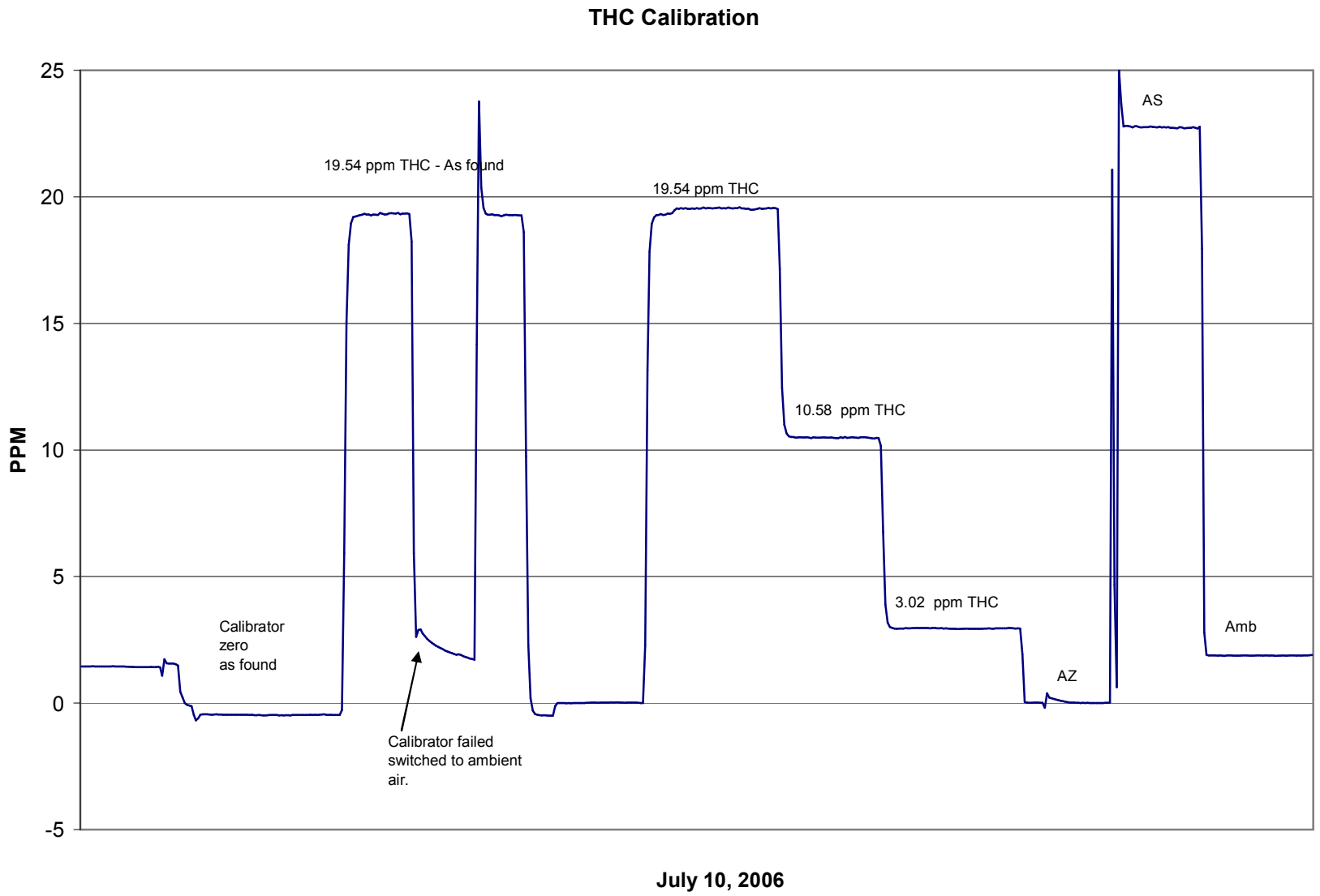
Station Information

Calibration Date	July 10, 2006	Previous Calibration	June 6, 2006
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	10:41	End Time (MST)	14:30
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	0.017	N/A		
19.542	19.532	1.0005	Correlation Coefficient	0.999963
10.583	10.486	1.0093		
3.019	2.950	1.0234	Slope	1.000455
			Intercept	0.035983




THC Calibration
25
20
15
10
5
0
-5
PPM
19.54 ppm THC - As found
19.54 ppm THC
10.58 ppm THC
3.02 ppm THC
AS
AZ
Amb
Calibrator
zero
as found
Calibrator failed
switched to ambient
air.
July 10, 2006

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **TRS**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	July 13, 2006	Previous Calibration	June 8, 2006
Station Number	1	Station Location	Muskoseepi Park
Reason:	Routine: ☒	Install: ☐	Removal: ☐	Other: ☐
Start Time (MST)	9:55	End Time (MST)	14:09
Barometric Pressure	27.5 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	181 ng/min	Perm-tube Expiry Date	12/10/2005
Correction factor	0.934462	Perm-tube Cert #	04-19367
DACS make	Focus AP1000	DACS serial No.	45266
DACS voltage range	0 - 10 volt	DACS channel #	9
	Before		After
Calculated slope	0.983103	Calculated slope	1.007842
Calculated intercept	-0.017289	Calculated intercept	0.717975
Analyzer make	TEI Model 43C	Analyzer serial #	31990000000491

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	25.7	ppb	27.7	ppb
coefficient	1.173		1.21	
Lamp Voltage	891	volts	892	volts
Chamber Temp	44.6	Deg C	44.6	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	663.2	mm Hg	660.1	mm Hg
Sample Flow	504	ccm	536	ccm
Lamp Intensity	39,450	mv	39,300	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	2326.8	0.0	-0.3	N/A
2490	2326.8	55.9	55.0	1.0167
5015	4686.3	27.8	26.6	1.0433
9000	8410.2	15.5	14.2	1.0916
zero	2364.2	0.0	0.6	As Found Zero
2530	2364.2	55.0	53.1	As Found Span
			Average Correction Factor	1.0505

Calculated value of As Found Response: 51.66 ppm Percent Change of As Found: 6.2%

	before calibration		after calibration	
Auto zero	0.0	ppm	0.5	ppm
Auto span	47.4	ppm	76.1	ppm

Notes:

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **TRS**

Air Monitoring Network **PASZA**

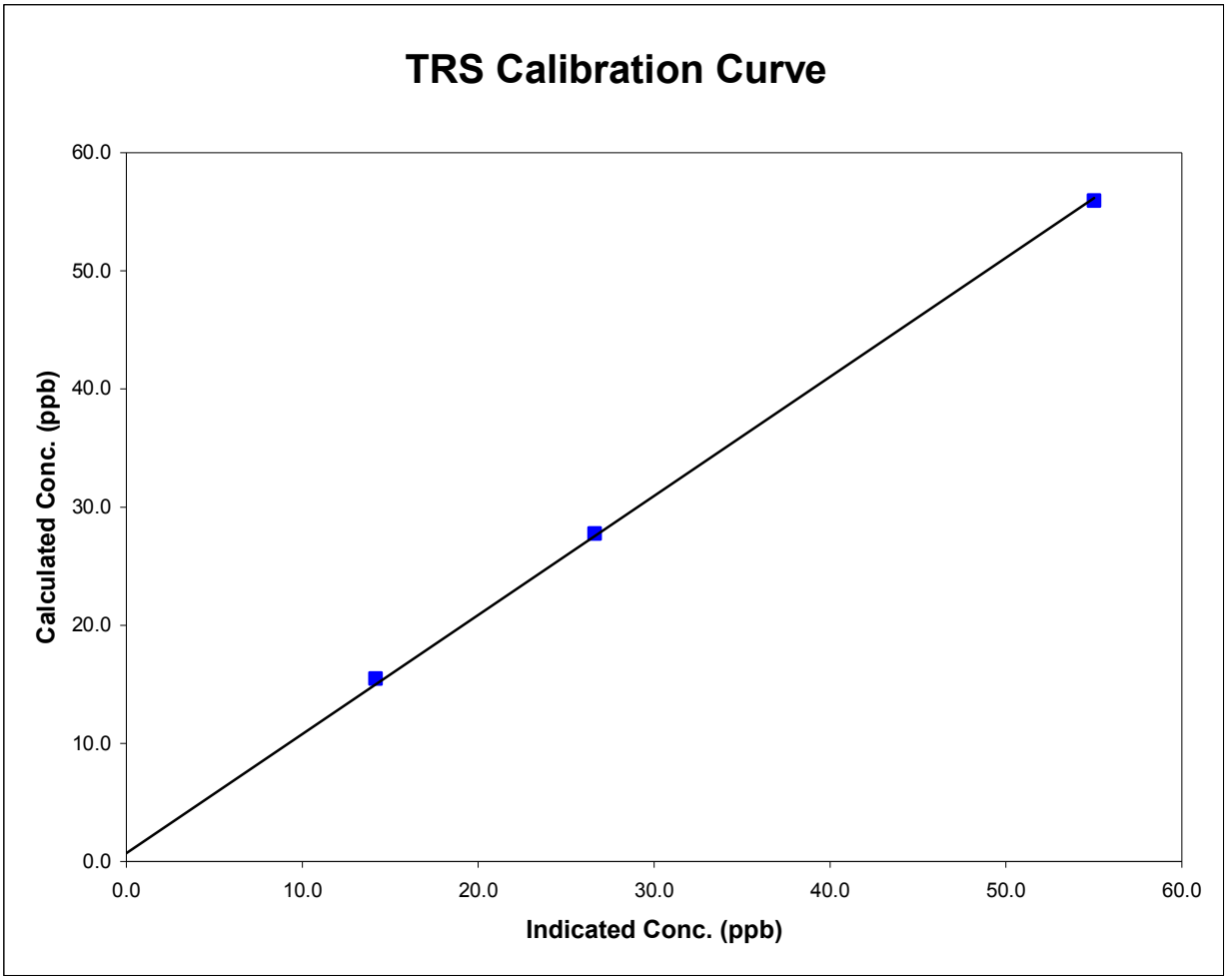
FOCUS AIR QUALITY MONITORING

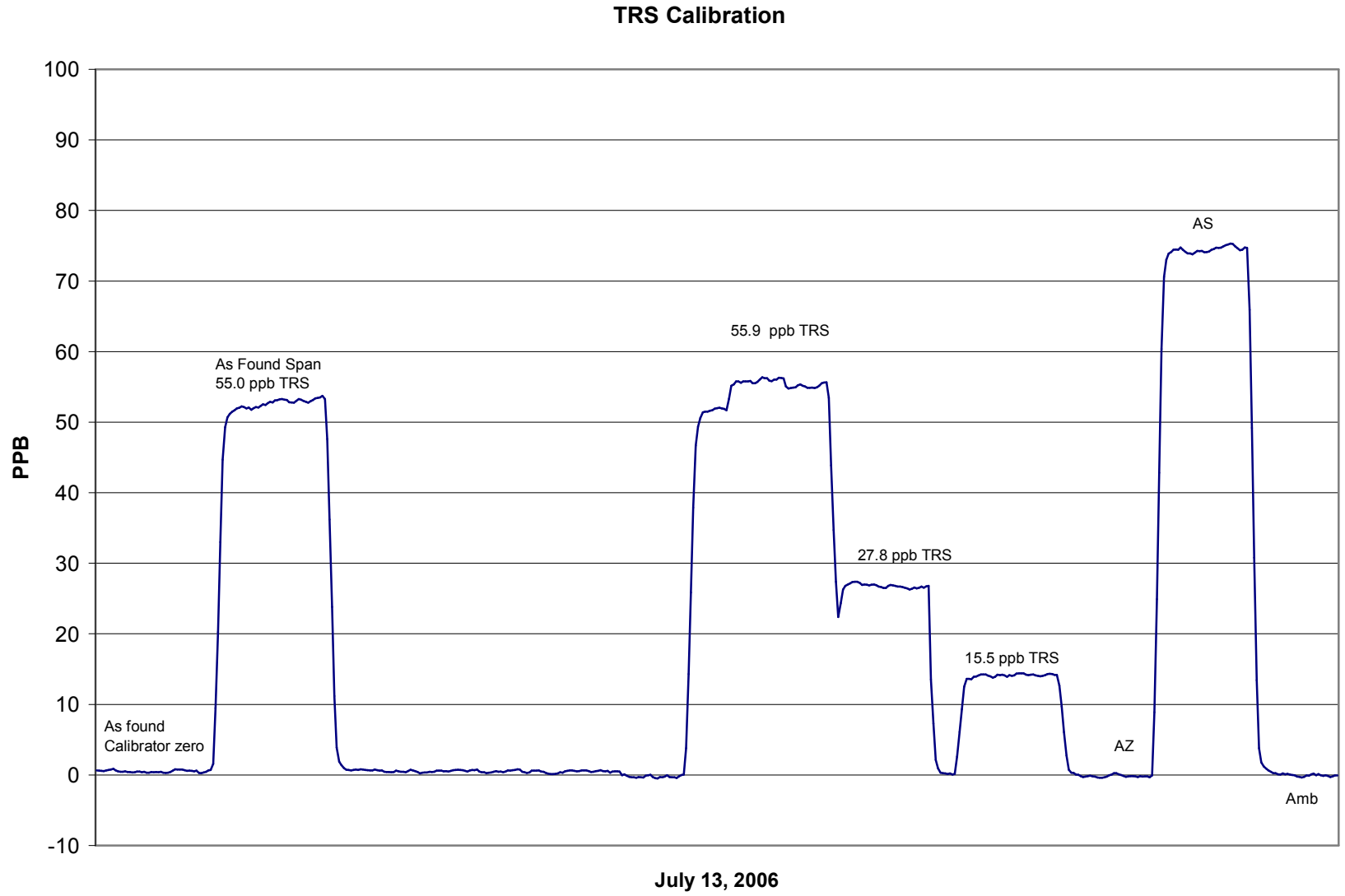
Station Information

Calibration Date	July 13, 2006	Previous Calibration	June 8, 2006
Station Number	1	Station Location	Muskoseepi Park
Start Time (MST)	9:55	End Time (MST)	14:09
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		
55.9	55.0	1.0167	Correlation Coefficient	0.999678
27.8	26.6	1.0433		
15.5	14.2	1.0916	Slope	1.007842
			Intercept	0.717975




TRS Calibration
100
90
80
70
60
50
40
30
20
10
0
-10
PPB
As found
Calibrator zero
As Found Span
55.0 ppb TRS
55.9 ppb TRS
27.8 ppb TRS
15.5 ppb TRS
AZ
AS
Amb
July 13, 2006

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **PM2.5**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	July 15, 2006	Previous Calibration	June 8, 2006
Station Number	1	Station Location	Muskoseepi Park

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

Start Time (MST)	14:00	End Time (MST)	16:00
Barometric Pressure	0.924 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

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	13.66	SLPM	13.68	SLPM
Filter Load	43	%	16	%
Ko Factor	13020		13020	
Temperature	20.85	Deg C	20.85	Deg C
Pressure	0.923	ATM	0.923	ATM

Calibration Data

Parameter	Set Point	As Found	Tolerance	TEOM Reading
zero flow - main	0.0	0.01		0.01
zero flow - auxillary	0.0	0.03		0.03
flow recovery - main	45 - 60 Seconds	25.00	45 - 60 Seconds	25.00
flow recovery - aux	46 - 60 Seconds	45.00	46 - 60 Seconds	45.00
Temperature	measured	20.9	+/- 1.0 Deg C	20.9
Pressure	measured	0.923	+/- 1.5% Δ_{ATM}	0.923
Total Flow	16.67 SLPM	17.08		17.08
Main Flow	13.67 SLPM	14.39	+/- 1.0 SLPM	14.39
Auxillary Flow	3.0 SLPM	3.098	+/- 0.2 SLPM	3.098
Leak Check - main	0.0	0.07	<0.15 SLPM	0.07
Leak Check - aux	0.0	0.03	<0.15 SLPM	0.01
Ko Factor (w/o filter)	measured	337.772	filter weight (g)	0.11423
Ko Factor (w/ filter)	measured	238.196	% Ko difference	0.98%

Notes: Temperature and pressures are ok.
Cleaned head.
New filter.

Calibration Performed By: Dawn Ewan

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **SO_2**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	July 6, 2006	Previous Calibration	June 1, 2006
Station Number	2	Station Location	Evergreen Park

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

Start Time (MST)	9:20	End Time (MST)	
Barometric Pressure	27.6 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	2,097 ng/min	Perm-tube Expiry Date	June 30/05
Correction factor	0.939561	Perm-tube Cert #	19-9955
DACS make	Focus AP1000	DACS serial No.	45274
DACS voltage range	0 - 10 volt	DACS channel #	4
	Before		After
Calculated slope	0.969696	Calculated slope	0.989958
Calculated intercept	2.691115	Calculated intercept	2.095573

Analyzer make	TECO	Analyzer serial # 43A-25573-221

	before		after	
Concentration range	1000	ppb	1000	ppb
Sample Flow	450	ccm	550	ccm
Lamp Voltage	780	mv	784	mv
Vacuum	22	" Hg	22	" Hg
Span Pot	748		1089	Deg C
Zero Pot	102		92	Deg C
				Deg C

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	2395.9	0.0	-0.8	N/A
2550	2395.9	334.1	336.0	0.9943
5010	4707.2	170.0	169.0	1.0059
9510	8935.2	89.6	87.0	1.0295
zero	2367.7		-3.8	As Found Zero
2520	2367.7	338.1	296.1	As Found Span
			Average Correction Factor	1.0099

Calculated value of As Found Response: 293.530 ppm Percent Change of As Found: 13.2%

	before calibration		after calibration	
Auto zero	-0.3	ppm	1.1	ppm
Auto span	155.5	ppm	180.2	ppm

Notes: Adjusted zero and span.

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

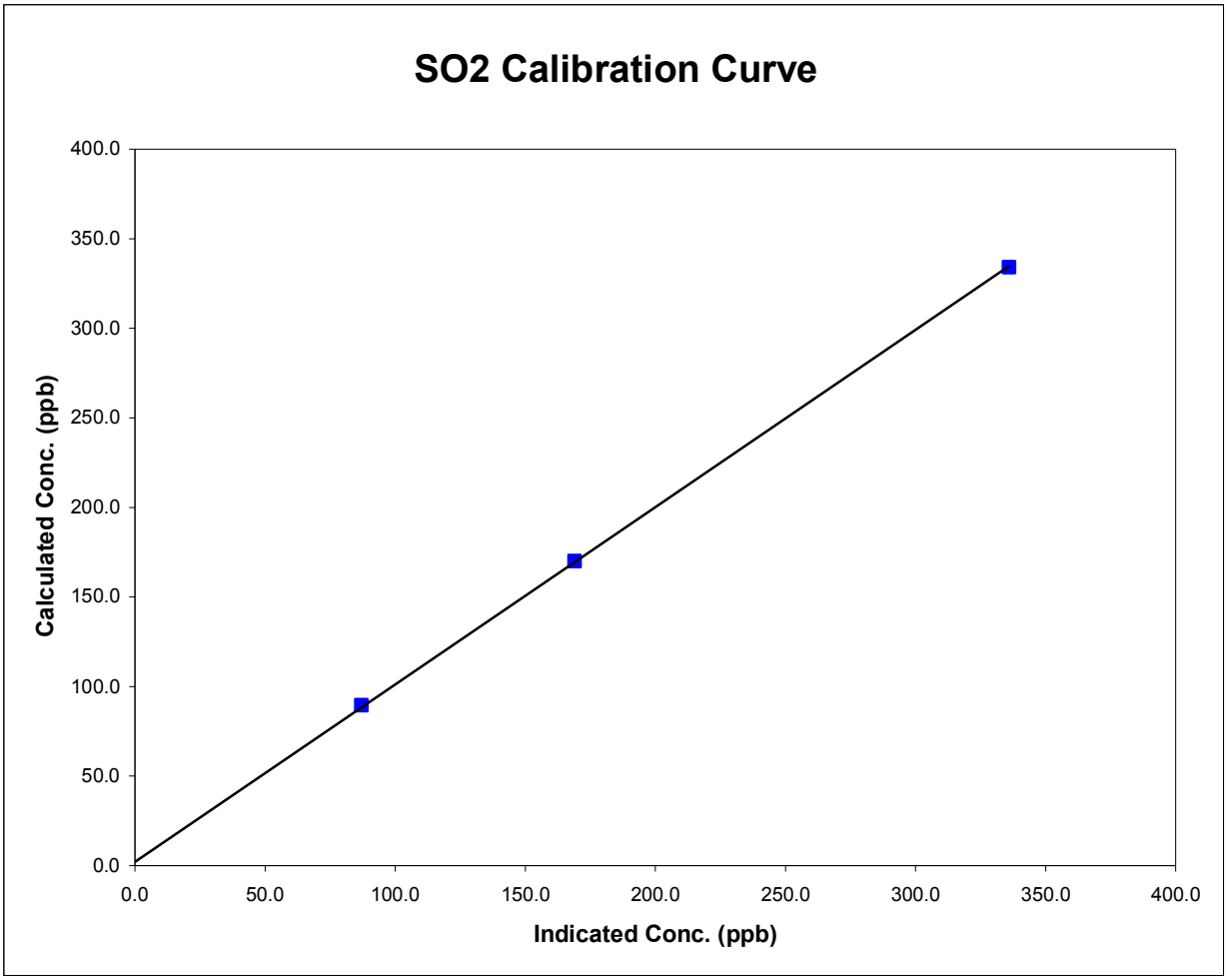
FOCUS AIR QUALITY MONITORING

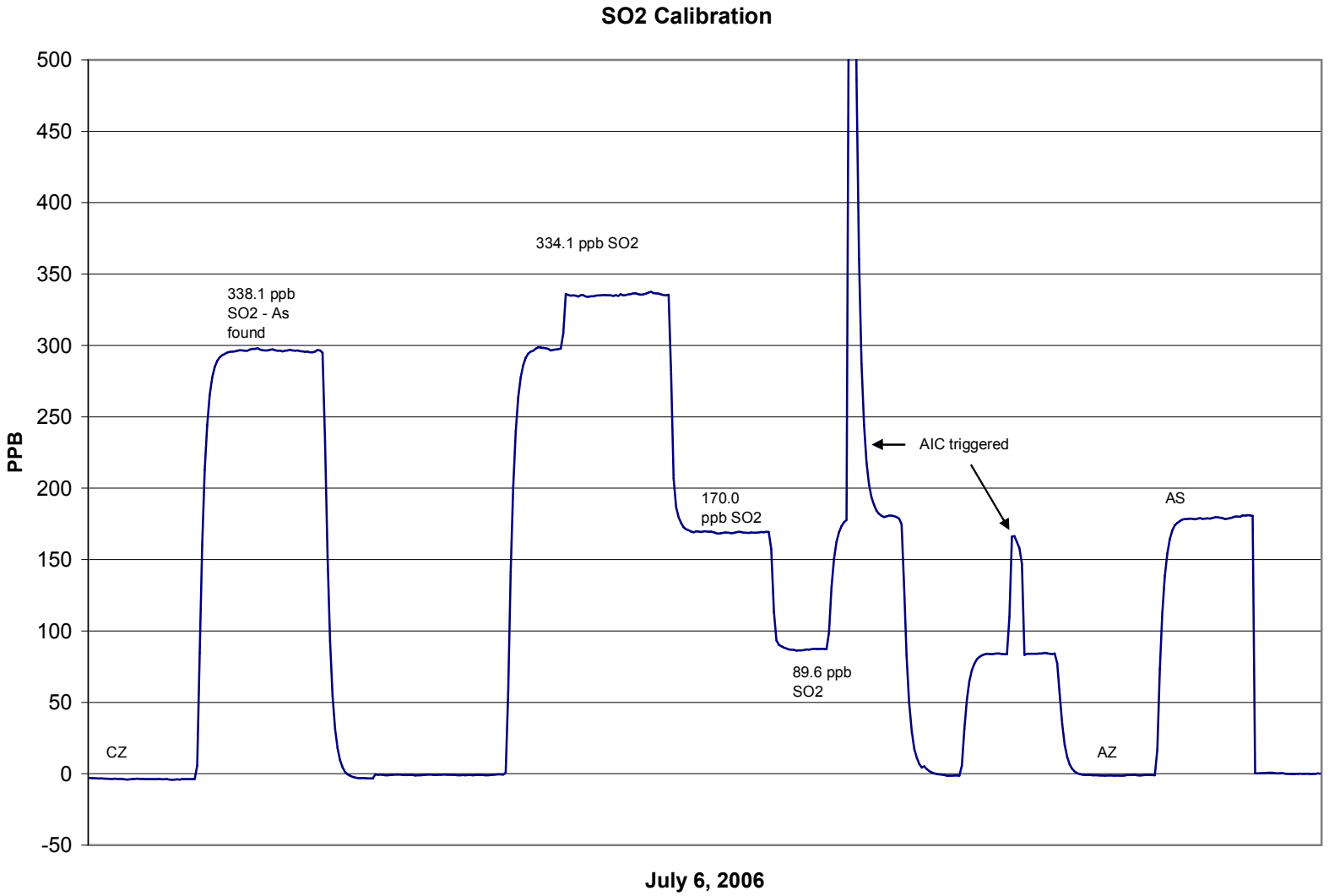
Station Information

Calibration Date	July 6, 2006	Previous Calibration	June 1, 2006
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	9:20	End Time (MST)	0:00
Analyzer make/model	TECO	Analyzer serial #	43A-25573-221

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.8	N/A		
334.1	336.0	0.9943	Correlation Coefficient	0.999930
170.0	169.0	1.0059		
89.6	87.0	1.0295	Slope	0.989958
			Intercept	2.095573




SO2 Calibration
500
450
400
350
300
250
200
150
100
50
0
-50
PPB
338.1 ppb SO2 - As found
334.1 ppb SO2
170.0 ppb SO2
89.6 ppb SO2
AIC triggered
AS
CZ
AZ
July 6, 2006

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **SO_2**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	July 13, 2006	Previous Calibration	July 6, 2006
Station Number	2	Station Location	Evergreen Park

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

Start Time (MST)	19:25	End Time (MST)	7/14/2006 14:40
Barometric Pressure	27.6 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	2,469 ng/min	Perm-tube Expiry Date	June 30/05
Correction factor	0.936502	Perm-tube Cert #	19-18265
DACS make	Focus AP1000	DACS serial No.	45274
DACS voltage range	0 - 10 volt	DACS channel #	4
	Before		After
Calculated slope	0.989959	Calculated slope	1.022042
Calculated intercept	2.095573	Calculated intercept	-2.496572

Analyzer make	TECO	Analyzer serial # 43A-25573-221

	before		after	
Concentration range	1000	ppb	1000	ppb
Sample Flow	550	ccm	550	ccm
Lamp Voltage	784	mv	792	mv
Vacuum	22	" Hg	22	" Hg
Span Pot	1089		87	
Zero Pot	92		114	

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	2341.3	0.0	-1.3	N/A
2500	2341.3	402.5	394.2	1.0210
5000	4682.5	201.3	200.9	1.0019
8900	8334.9	113.1	117.3	0.9638
zero	2360.0		-0.1	As Found Zero
2520	2360.0	399.3	496.9	As Found Span
			Average Correction Factor	0.9956

Calculated value of As Found Response: 494.162 ppm Percent Change of As Found: -23.7%

	before calibration		after calibration	
Auto zero	1.1	ppm	-3.2	ppm
Auto span	180.2	ppm	146.2	ppm

Notes: Adjusted PMT Gain up. Adjusted zero and span.

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

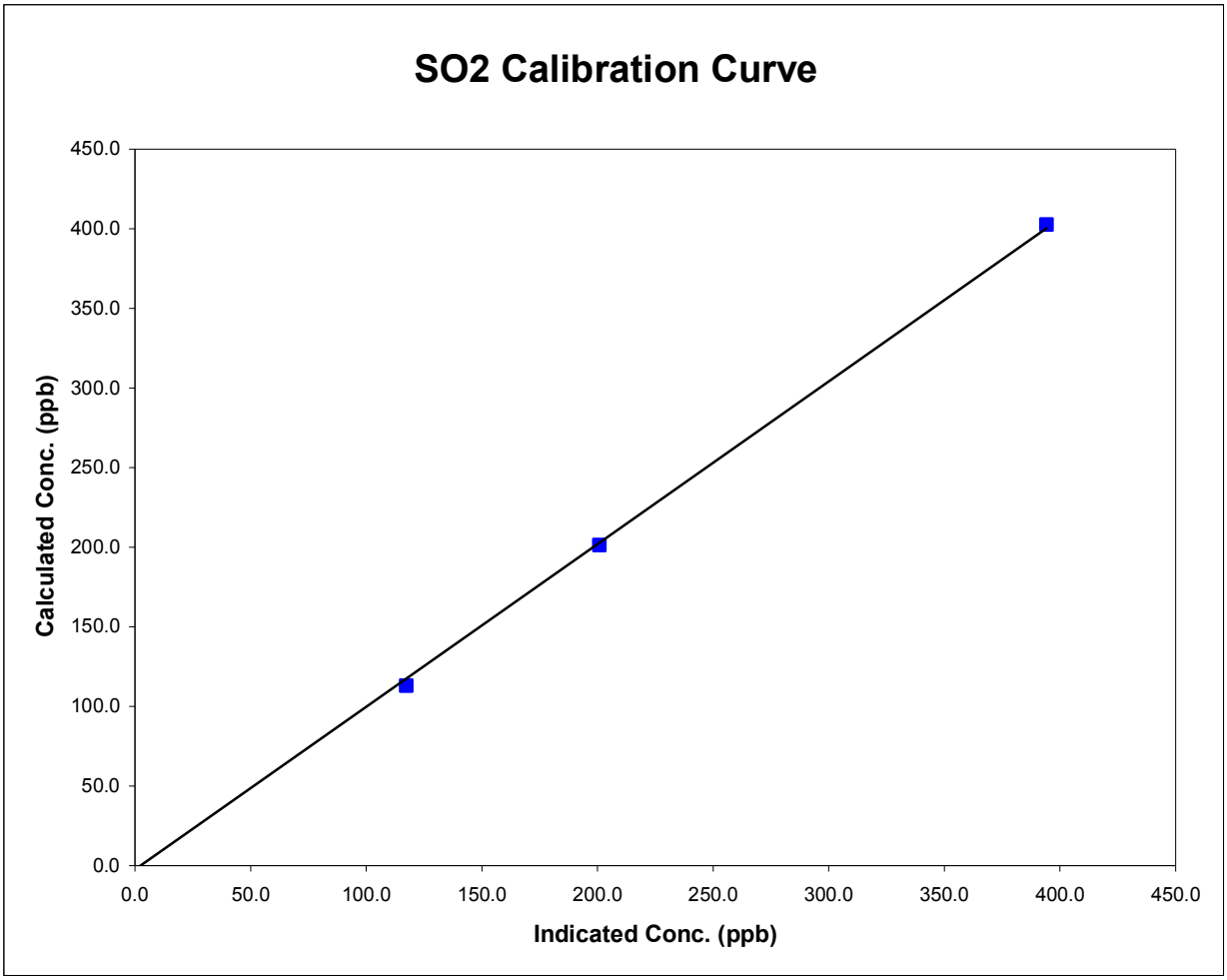
FOCUS AIR QUALITY MONITORING

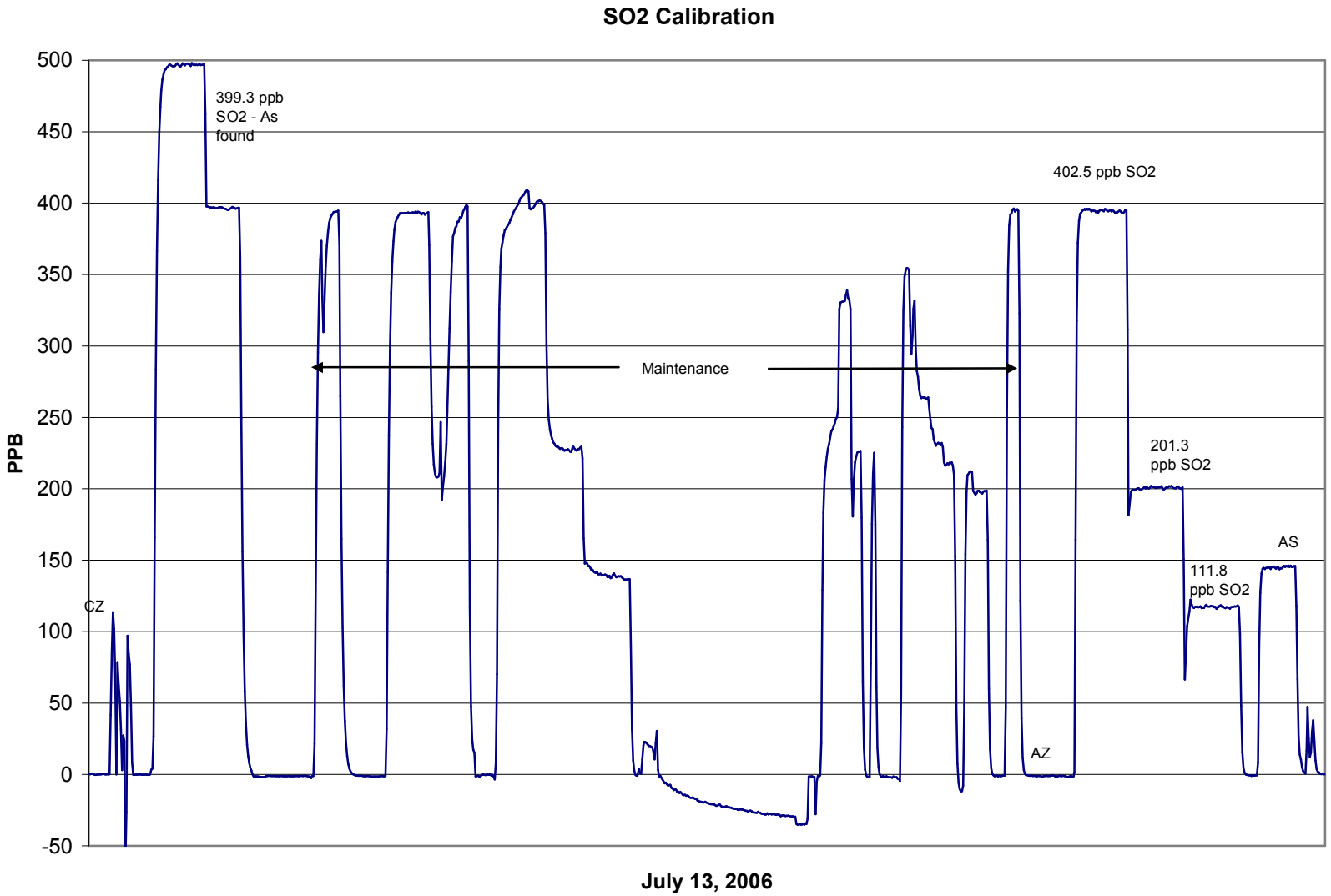
Station Information

Calibration Date	July 13, 2006	Previous Calibration	July 6, 2006
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	19:25	End Time (MST)	14:40
Analyzer make/model	TECO	Analyzer serial #	43A-25573-221

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-1.3	N/A		
402.5	394.2	1.0210	Correlation Coefficient	0.999539
201.3	200.9	1.0019		
113.1	117.3	0.9638	Slope	1.022042
			Intercept	-2.496572




SO2 Calibration
500
450
400
350
300
250
200
150
100
50
0
-50
PPB
399.3 ppb
SO2 - As
found
402.5 ppb SO2
Maintenance
201.3
ppb SO2
AS
111.8
ppb SO2
CZ
AZ
July 13, 2006

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **TRS**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	July 5, 2006	Previous Calibration	June 1, 2006
Station Number	2	Station Location	Evergreen Park

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

Start Time (MST)	10:50	End Time (MST)	14:22
Barometric Pressure	27.76 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	181 ng/min	Perm-tube Expiry Date	June 30/05
Correction factor	0.943640	Perm-tube Cert #	04-19367
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 10 volt	DACS channel #	9
	Before		After
Calculated slope	0.989164	Calculated slope	0.999933
Calculated intercept	0.070308	Calculated intercept	0.220536

Analyzer make: TEI Model 43C Analyzer serial #: 0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	13.9	ppb	14.6	ppb
coefficient	1.295		1.354	
Lamp Voltage	756	volts	749	volts
Chamber Temp	44.2	Deg C	44.3	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	637.8	mm Hg	636.6	mm Hg
Sample Flow	471	ccm	470	ccm
Lamp Intesity	32,800	mv	30,000	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	2359.1	0.0	-0.4	N/A
2500	2359.1	55.2	55.0	1.0036
5000	4718.2	27.6	27.0	1.0197
9500	8964.6	14.5	14.8	0.9809
zero	2359.1	0.0	-0.4	As Found Zero
2500	2359.1	55.2	50.5	As Found Span
			Average Correction Factor	1.0014

Calculated value of As Found Response: 50.44 ppm Percent Change of As Found: 8.6%

	before calibration		after calibration	
Auto zero	-0.1	ppm	-0.3	ppm
Auto span	80.9	ppm	77.8	ppm

Notes:

Calibration Performed By: Dawn Ewan

Calibration Summary

FOCUS AIR QUALITY MONITORING

Parameter **TRS**

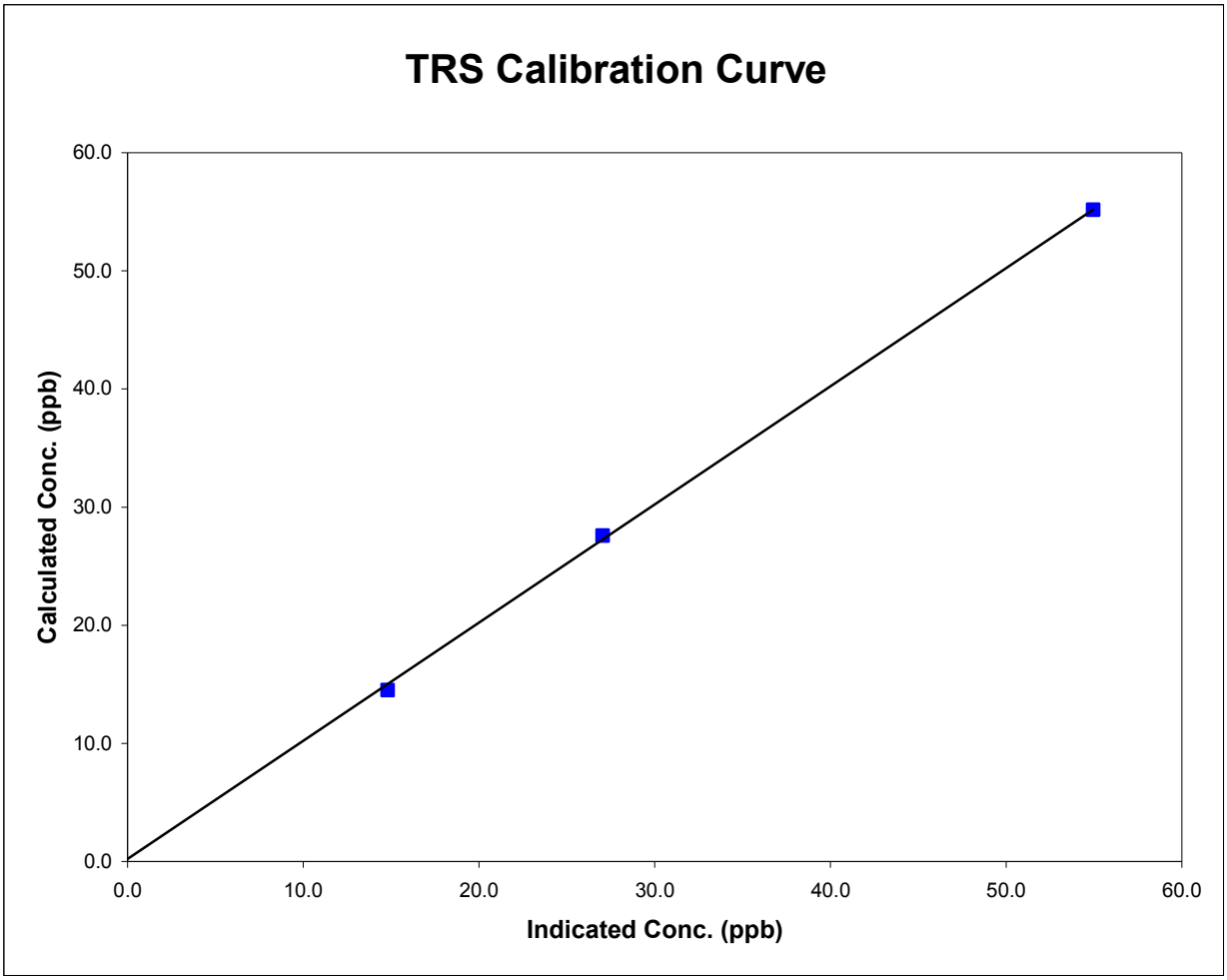
Air Monitoring Network **PASZA**

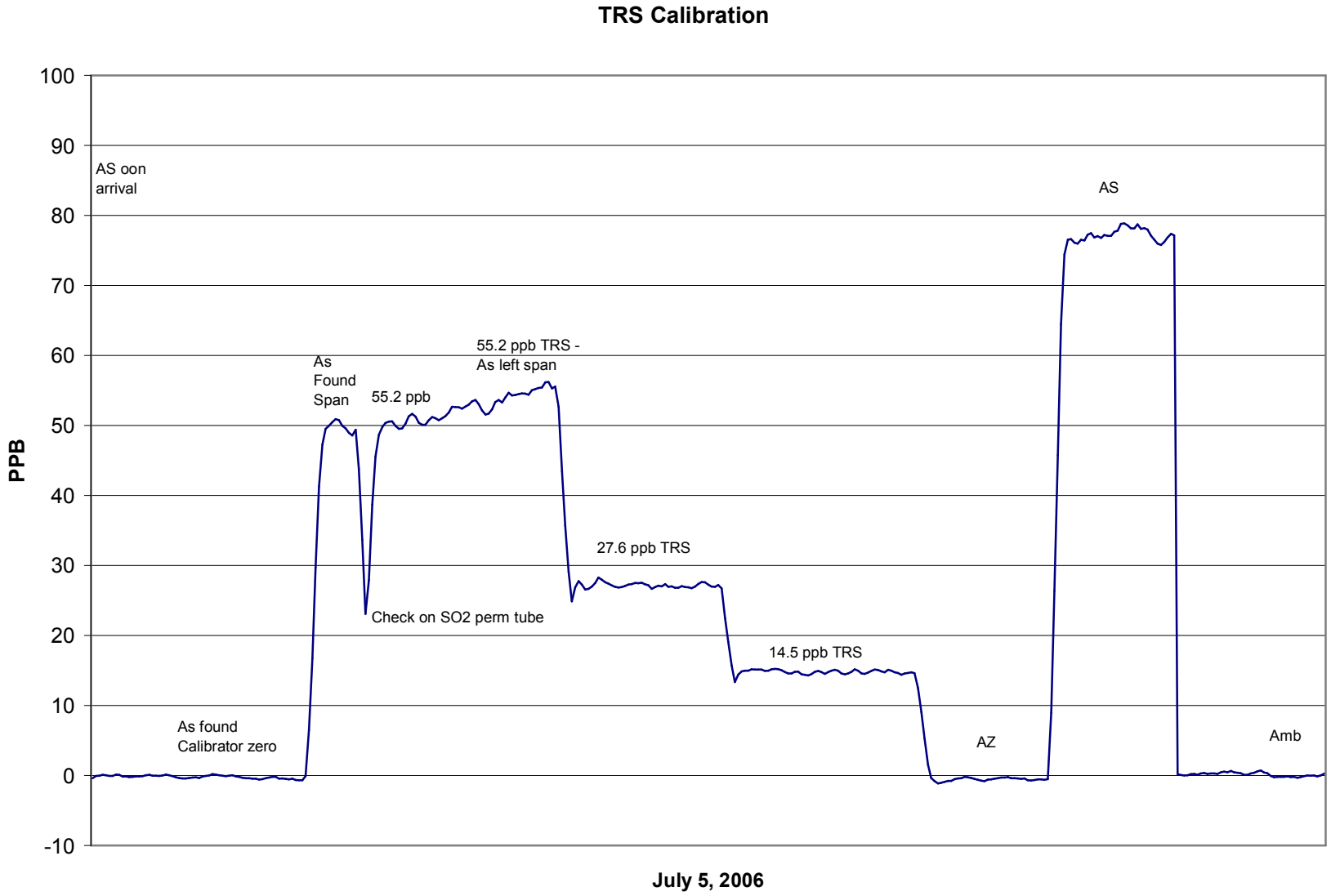
Station Information

Calibration Date	July 5, 2006	Previous Calibration	June 1, 2006
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	10:50	End Time (MST)	14:22
Analyzer make/model	TEI Model 43C	Analyzer serial #	0436610005

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	N/A		
55.2	55.0	1.0036	Correlation Coefficient	0.999762
27.6	27.0	1.0197		
14.5	14.8	0.9809	Slope	0.999933
			Intercept	0.220536




TRS Calibration
100
90
80
70
60
50
40
30
20
10
0
-10
PPB
AS oon
arrival
As
Found
Span
55.2 ppb
55.2 ppb TRS -
As left span
27.6 ppb TRS
Check on SO2 perm tube
14.5 ppb TRS
AS
As found
Calibrator zero
AZ
Amb
July 5, 2006

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **TRS**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	July 13, 2006	Previous Calibration	July 6, 2006
Station Number	2	Station Location	Evergreen Park
Reason:	Routine ☒	Install ☐	Removal ☐	Other: ☐
Start Time (MST)	18:47	End Time (MST)	23:32
Barometric Pressure	27.76 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	181 ng/min	Perm-tube Expiry Date	June 30/05
Correction factor	0.943640	Perm-tube Cert #	04-19367
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 10 volt	DACS channel #	9
	Before		After
Calculated slope	0.999933	Calculated slope	1.000849
Calculated intercept	0.220536	Calculated intercept	-0.214685
Analyzer make	TEI Model 43C	Analyzer serial #	0436610005

	before		after	
Concentration range	100	ppb	100	ppb
Background	14.6	ppb	18.6	ppb
coefficient	1.354		0.971	
Lamp Voltage	749	volts	827	volts
Chamber Temp	44.3	Deg C	44	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	636.6	mm Hg	635.2	mm Hg
Sample Flow	470	ccm	469	ccm
Lamp Intesity	30,000	mv	48,500	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	2387.4	0.0	0.9	N/A
2530	2387.4	54.5	55.0	0.9908
5000	4718.2	27.6	27.5	1.0040
9000	8492.8	15.3	14.8	1.0367
zero	2378.0	0.0	-0.2	As Found Zero
2520	2378.0	54.7	55.7	As Found Span
			Average Correction Factor	1.0105

Calculated value of As Found Response: 56.13 ppm Percent Change of As Found: -2.6%

	before calibration		after calibration	
Auto zero	-0.3	ppm	-2.0	ppm
Auto span	77.8	ppm	78.2	ppm

Notes: Installed new lamp and socket. Adjusted PMT gain up. Adjusted zero and span.

Calibration Performed By: Dawn Ewan

Calibration Summary

FOCUS AIR QUALITY MONITORING

Parameter **TRS**

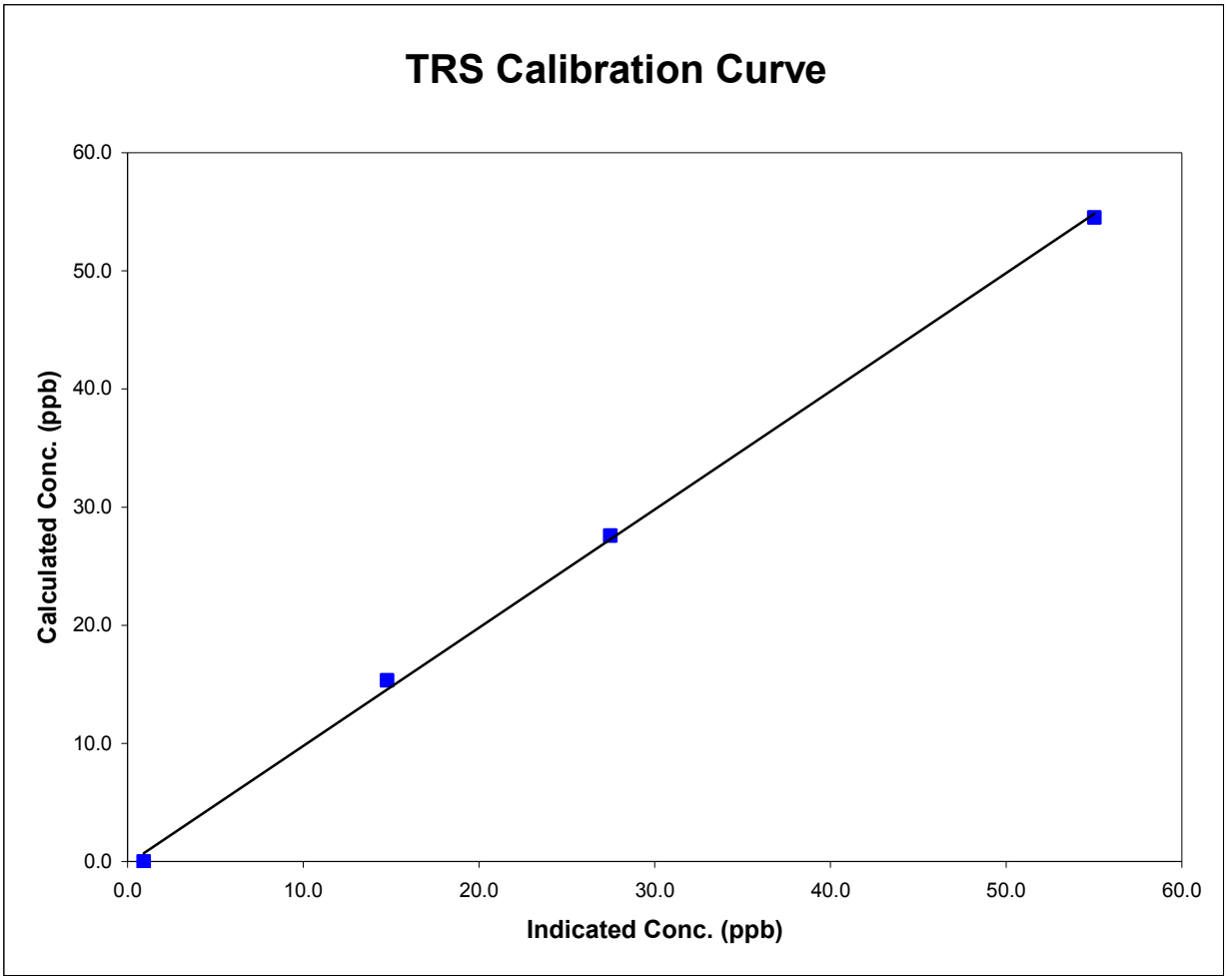
Air Monitoring Network **PASZA**

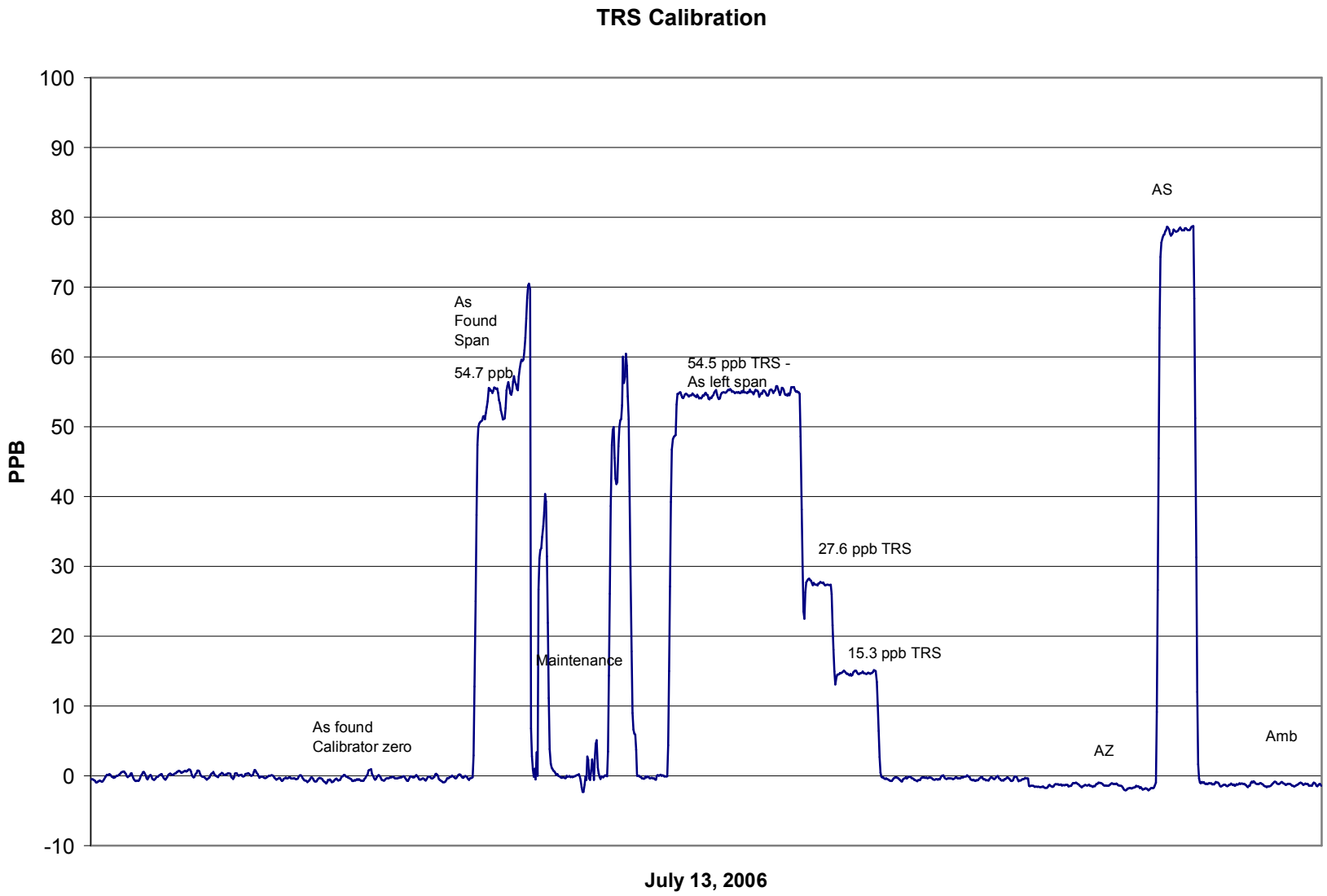
Station Information

Calibration Date	July 13, 2006	Previous Calibration	July 6, 2006
Station Number	2	Station Location	Evergreen Park
Start Time (MST)	18:47	End Time (MST)	23:32
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	0.9	N/A		
54.5	55.0	0.9908	Correlation Coefficient	0.999209
27.6	27.5	1.0040		
15.3	14.8	1.0367	Slope	1.000849
			Intercept	-0.214685




TRS Calibration
100
90
80
70
60
50
40
30
20
10
0
-10
PPB
As
Found
Span
54.7 ppb
54.5 ppb TRS -
As left span
AS
27.6 ppb TRS
15.3 ppb TRS
Maintenance
As found
Calibrator zero
AZ
Amb
July 13, 2006

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **PM2.5**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	July 6, 2006	Previous Calibration	June 1, 2006
Station Number	2	Station Location	Evergreen Park
Reason: Routine	Install	Removal	Other:
Start Time (MST)	11:00	End Time (MST)	12:10
Barometric Pressure	0.926 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	13.66	SLPM	13.65	SLPM
Filter Load	32	%	17	%
Ko Factor	10124		10124	
Temperature	19.5	Deg C	19.5	Deg C
Pressure	0.929	ATM	0.929	ATM

Calibration Data

Parameter	Set Point	As Found	Tolerance	TEOM Reading
zero flow - main	0.0	0.05		0.05
zero flow - auxillary	0.0	0.02		0.02
flow recovery - main	45 - 60 Seconds	38.0	45 - 60 Seconds	38.0
flow recovery - aux	46 - 60 Seconds	40.0	46 - 60 Seconds	40.0
Temperature	measured	18.7	+/- 1.0 Deg C	18.7
Pressure	measured	0.924	+/- 1.5% Δ_{ATM}	0.924
Total Flow	16.67 SLPM	16.40		16.40
Main Flow	13.67 SLPM	13.94	+/- 1.0 SLPM	13.94
Auxillary Flow	3.0 SLPM	3.076	+/- 0.2 SLPM	3.076
Leak Check - main	0.0	0.06	<0.15 SLPM	0.06
Leak Check - aux	0.0	0.15	<0.15 SLPM	0.15
Ko Factor (w/o filter)	measured		filter weight (g)	0.11012
Ko Factor (w/ filter)	measured		% Ko difference	N/A

Notes: New filter.
Cleaned head.

Calibration Performed By: Dawn Ewan

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **SO_2**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	July 16, 2006	Previous Calibration	June 15, 2006
Station Number	3	Station Location	Smoky Heights
Reason: Routine	Install	Removal	Other: Check on lack of span
Start Time (MST)	8:22	End Time (MST)	14:05
Barometric Pressure	27.49 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	2,097 ng/min	Perm-tube Expiry Date	June 30/05
Correction factor	0.934462	Perm-tube Cert #	19-9955
DACS make	Focus AP1000	DACS serial No.	45274
DACS voltage range	0 - 10 volt	DACS channel #	4
	Before		After
Calculated slope	1.001491	Calculated slope	1.006173
Calculated intercept	-1.034765	Calculated intercept	0.667967
Analyzer make	API 102A	Analyzer serial #	212

	before		after	
Concentration range	500	ppb	500	ppb
Sample Flow	561	ccm	574	ccm
UV Lamp Voltage	2220	mv	3072	mv
Lamp Ratio	63.7	%	100	%
Rx Cell Temp	51	Deg C	51	Deg C
PMT Temp	7	Deg C	7	Deg C
IZS Temp	45	Deg C	45	Deg C
Slope	1.093		0.851	
Intercept	20.1		23.4	

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	2396.9	0.0	-0.2	N/A
2565	2396.9	333.9	331.3	1.0079
5100	4765.8	168.0	166.5	1.0085
9000	8410.2	95.2	93.1	1.0227
zero	2336.2	0.0	0.9	As Found Zero
2500	2336.2	342.6	384.5	As Found Span
			Average Correction Factor	1.0130

Calculated value of As Found Response: 383.191 ppm Percent Change of As Found: -11.8%

	before calibration		after calibration	
Auto zero	-0.8	ppm	0.7	ppm
Auto span	227.0	ppm	199.0	ppm

Notes: New UV lamp installed
Adjusted Lamp output. Span and zero adjustment made.

Calibration Performed By: Dawn Ewan

Calibration Summary

FOCUS AIR QUALITY MONITORING

Parameter **SO2**

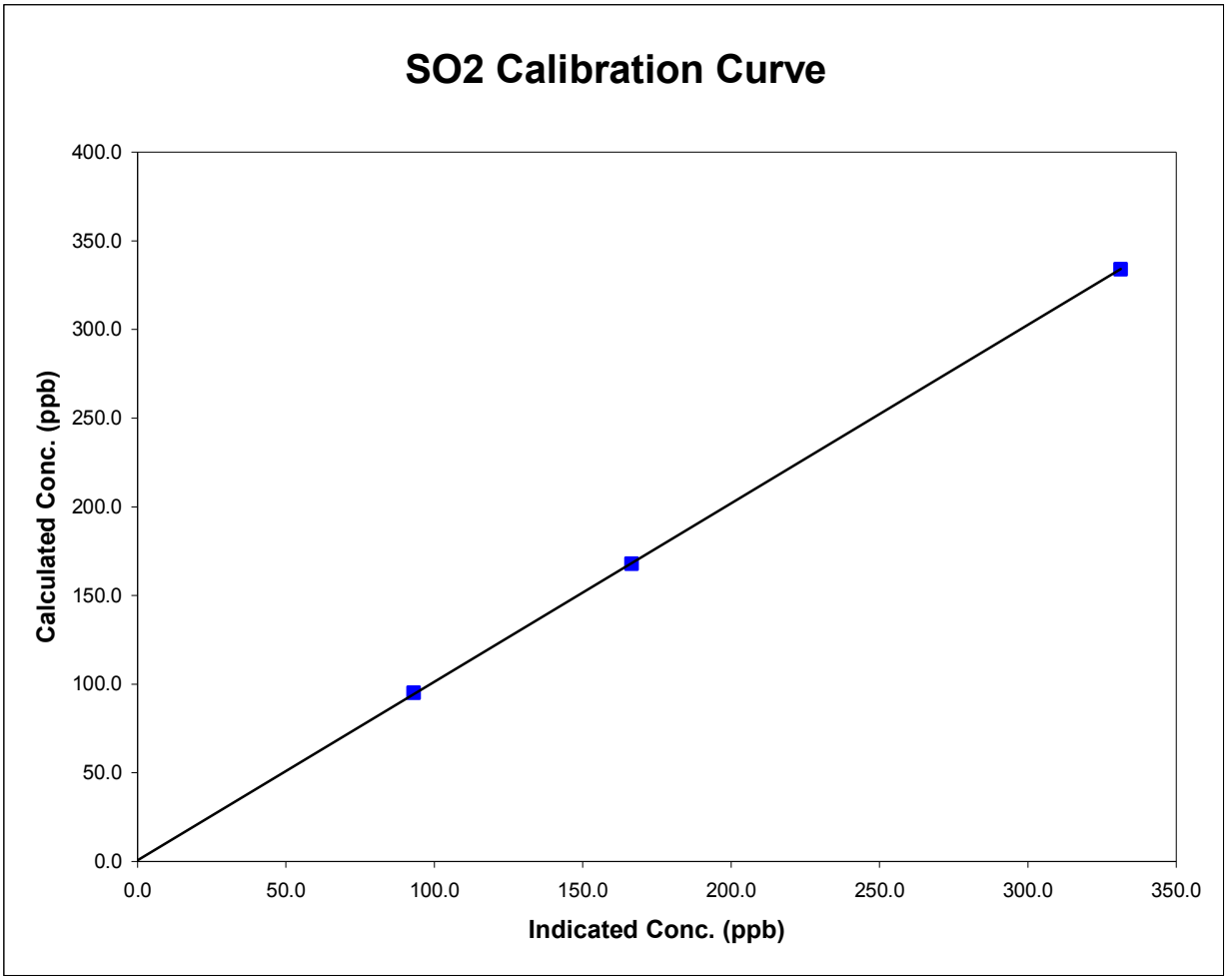
Air Monitoring Network **PASZA**

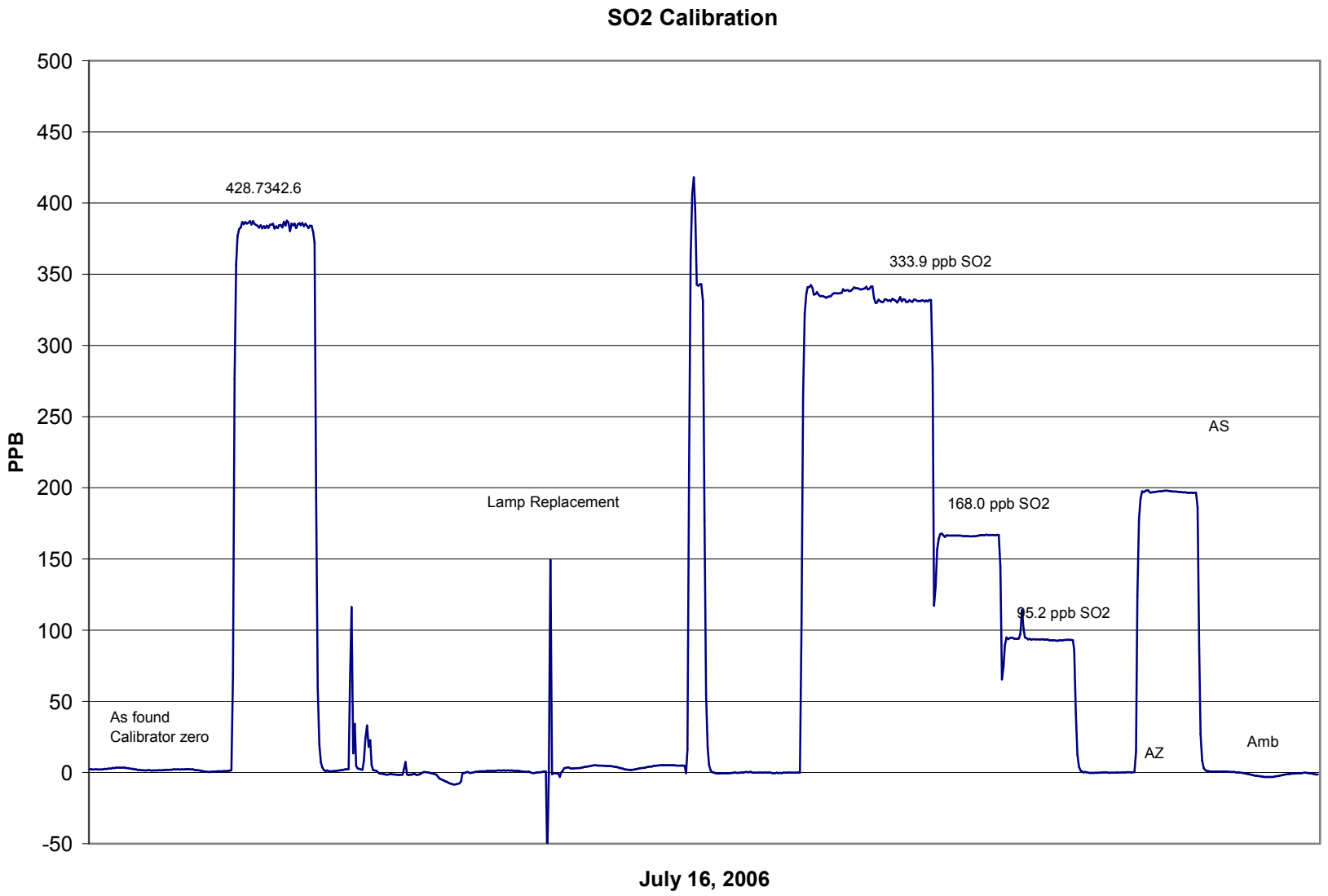
Station Information

Calibration Date	July 16, 2006	Previous Calibration	June 15, 2006
Station Number	3	Station Location	Smoky Heights
Start Time (MST)	8:22	End Time (MST)	14:05
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	-0.2	N/A		
333.9	331.3	1.0079	Correlation Coefficient	0.999982
168.0	166.5	1.0085		
95.2	93.1	1.0227	Slope	1.006173
			Intercept	0.667967




SO2 Calibration
500
450
400
350
300
250
200
150
100
50
0
-50
PPB
428.7342.6
333.9 ppb SO2
AS
Lamp Replacement
168.0 ppb SO2
95.2 ppb SO2
As found
Calibrator zero
AZ
Amb
July 16, 2006

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **TRS**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	July 11, 2006	Previous Calibration	June 19, 2006
Station Number	3	Station Location	Smoky Heights

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

Start Time (MST)	9:35	End Time (MST)	14:30
Barometric Pressure	27.49 inches Hg	Station Temperature	20.0 Deg C
Calibrator	VICI Metronics	Serial Number	111-1695
Perm-tube Conc	181 ng/min	Perm-tube Expiry Date	June 30/05
Correction factor	0.934462	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	1.005670	Calculated slope	1.010266
Calculated intercept	0.364985	Calculated intercept	0.096257

Analyzer make: TEI Model 43C — Analyzer serial #: 436610004

	before		after	
Concentration range	100	ppb	100	ppb
Background	13.4	ppb	11.8	ppb
coefficient	1.031		1.045	
Lamp Voltage	773	volts	768	volts
Chamber Temp	44	Deg C	44	Deg C
Perm Gas Temp	45	Deg C	45	Deg C
Pressure	507.6	mm Hg	492.4	mm Hg
Sample Flow	785	ccm	765	ccm
Lamp Intesity	32,500	mv	32,300	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	2350.2	0.0	0.0	N/A
2515	2350.2	55.4	54.7	1.0118
5025	4695.7	27.7	27.4	1.0114
9020	8428.9	15.4	15.0	1.0282
zero	2345.5	0.0	-2.0	As Found Zero
2510	2345.5	55.5	51.9	As Found Span
			Average Correction Factor	1.0171

Calculated value of As Found Response: 54.52 ppm Percent Change of As Found: 1.7%

	before calibration		after calibration	
Auto zero	-0.7	ppm	-0.5	ppm
Auto span	44.6	ppm	46.0	ppm

Notes: Adjusted zero and span.

Calibration Performed By: Dawn Ewan

Calibration Summary

FOCUS AIR QUALITY MONITORING

Parameter **TRS**

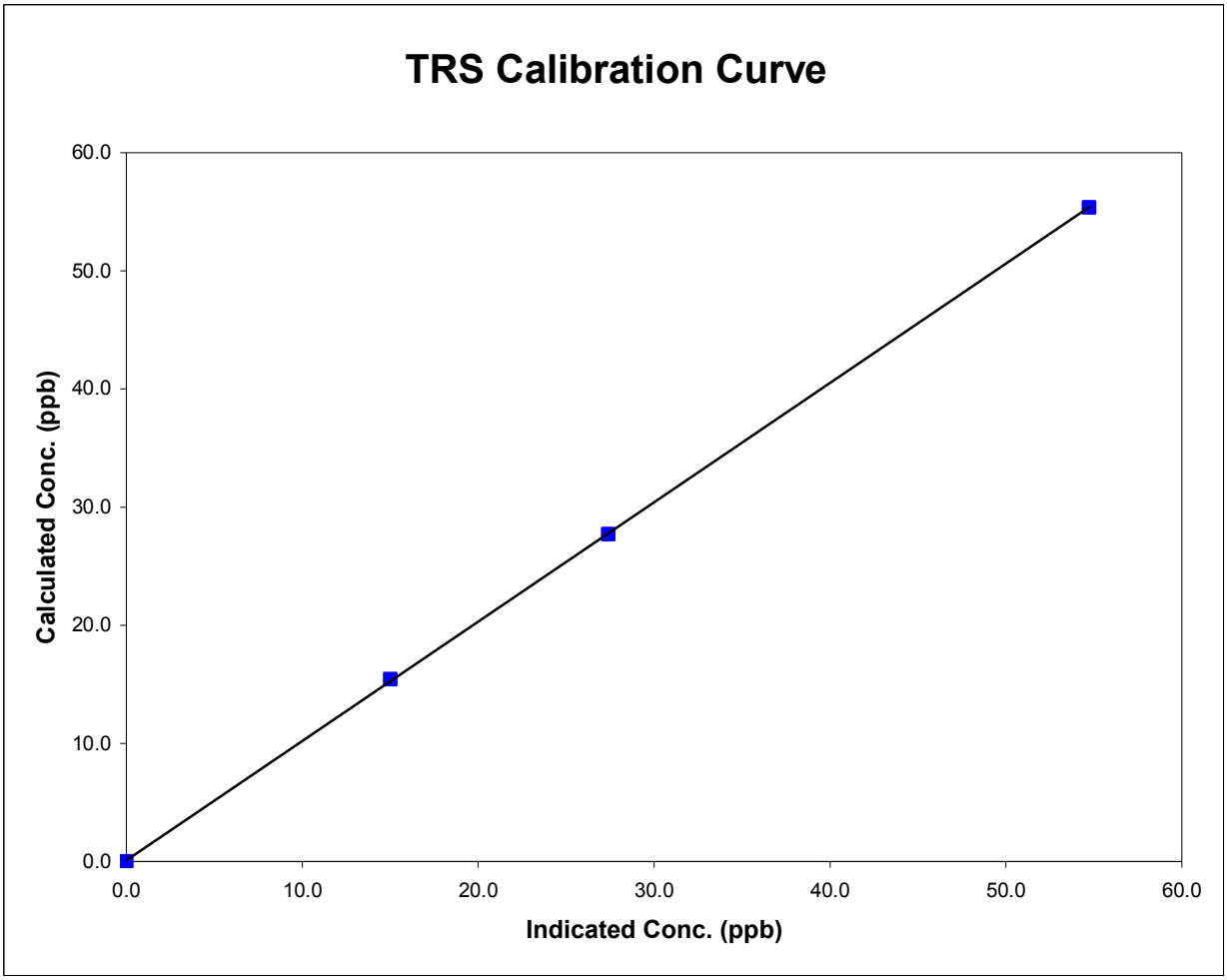
Air Monitoring Network **PASZA**

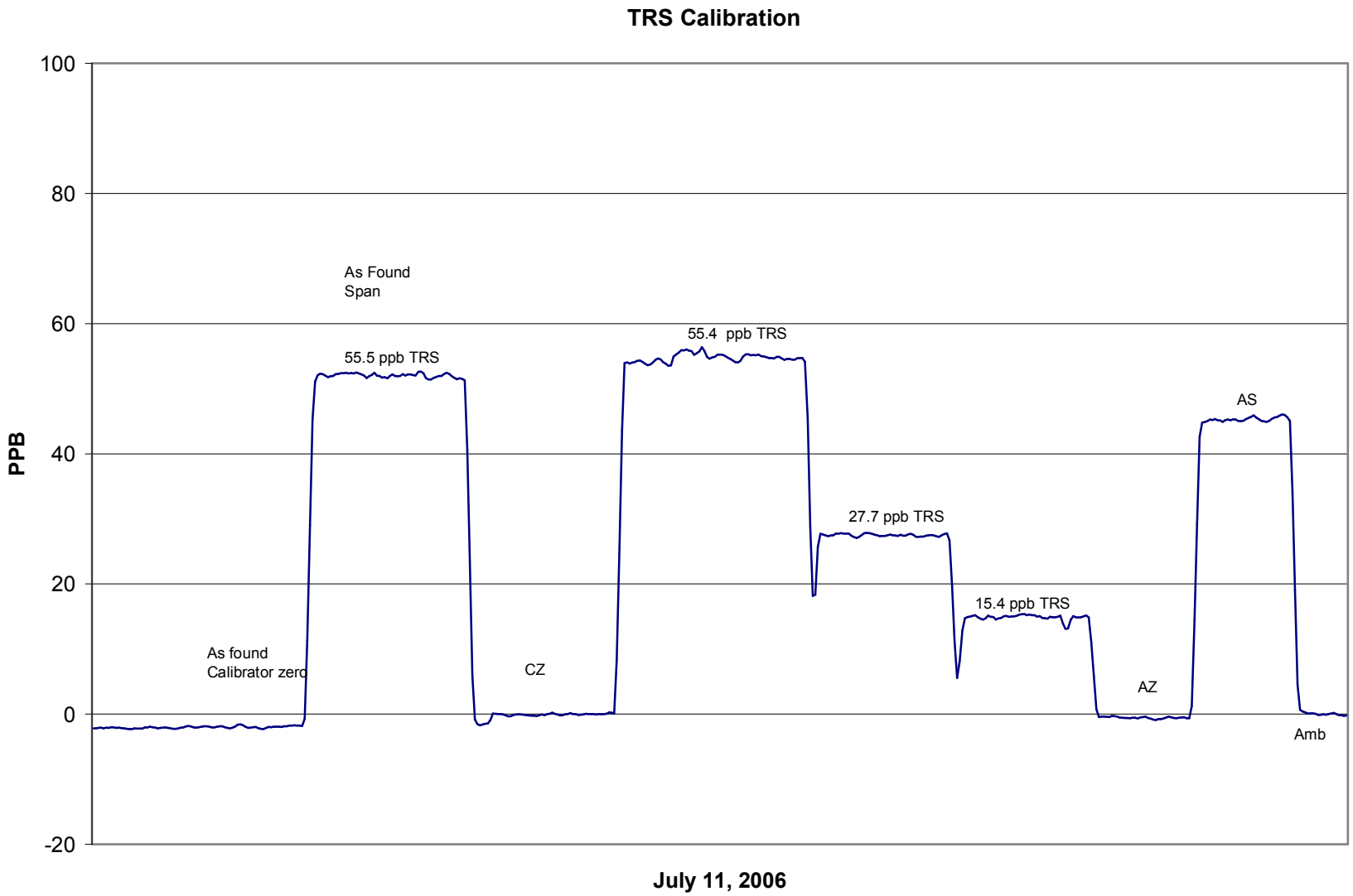
Station Information

Calibration Date	July 11, 2006	Previous Calibration	June 19, 2006
Station Number	3	Station Location	Smoky Heights
Start Time (MST)	9:35	End Time (MST)	14:30
Analyzer make/model	TEI Model 43C	Analyzer serial #	436610004

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.0	N/A		
55.4	54.7	1.0118	Correlation Coefficient	0.999974
27.7	27.4	1.0114		
15.4	15.0	1.0282	Slope	1.010266
			Intercept	0.096257




TRS Calibration
100
80
60
40
20
0
-20
PPB
As Found
Span
55.5 ppb TRS
55.4 ppb TRS
AS
27.7 ppb TRS
15.4 ppb TRS
As found
Calibrator zero
CZ
AZ
Amb
July 11, 2006

Calibration Report

Parameter **PM2.5**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	July 11, 2006	Previous Calibration	June 15, 2006
Station Number	3	Station Location	Smoky Heights
Reason: Routine	Install	Removal	Other:
Start Time (MST)	11:20	End Time (MST)	12:30
Barometric Pressure	0.919 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

Analyzer Information

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

	before		after	
Main Flow Set Point	2.990	SLPM	3.000	SLPM
Aux Flow Set Point	13.66	SLPM	13.67	SLPM
Filter Load	25	%	16	%
Ko Factor	12122		12122	
Temperature	14.2	Deg C	14.2	Deg C
Pressure	0.919	ATM	0.919	ATM
Main Fadj	1.000		1.000	
Aux Fadj	1.000		1.000	

Calibration Data

Parameter	Set Point	As Found	Tolerance	New Reading
zero flow - main	0.0	0.02		0.02
zero flow - auxillary	0.0	-0.04		-0.04
flow recovery - main	45 - 60 Seconds	30	45 - 60 Seconds	30
flow recovery - aux	46 - 60 Seconds	40	46 - 60 Seconds	40
Temperature	measured	14.4	+/- 1.0 Deg C	14.4
Pressure	measured	0.925	+/- 1.5% Δ_{ATM}	0.919
Total Flow	16.67 SLPM	16.15		16.15
Main Flow	13.67 SLPM	13.60	+/- 1.0 SLPM	13.60
Auxillary Flow	3.0 SLPM	3.048	+/- 0.2 SLPM	3.048
Leak Check - main	0.0	0.03	<0.15 SLPM	0.03
Leak Check - aux	0.0	0.05	<0.15 SLPM	0.05
Ko Factor (w/o filter)	measured		filter weight (g)	0.11014
Ko Factor (w/ filter)	measured		% Ko difference	

Notes: New mass filter.
Cleaned TEOM head.
Adjusted pressure.

Calibration Performed By: Dawn Ewan

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **SO_2**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	July 16, 2006	Previous Calibration	June 13, 2006
Station Number	4	Station Location	Beaverlodge

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

Start Time (MST)	21:32	End Time (MST)	23:49
Barometric Pressure	0.913 atm	Station Temperature	20.0 Deg C
Calibrator	Environics 6103	Serial Number	2977
Cal Gas Make	Scott	Cal Gas Expiry Date	December 12, 2005
Cal Gas Conc.	10.3 ppm	Cal Gas Cylinder #	BLM002816
DACS make	Focus AP1000	DACS serial No.	45267
DACS voltage range	0 - 10 volt	DACS channel #	3
	Before		After
Calculated slope	0.991403	Calculated slope	0.992069
Calculated intercept	0.174942	Calculated intercept	0.582421
Analyzer make	TEI Model 43CTL	Analyzer serial #	43CTL-74200-376

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
Background	2.23	ppb	2.17	ppb
Coefficient	0.824		0.805	
Lamp Voltage	898.0	Volts	901.0	Volts
Chamber Temp	43.7	Deg C	43.6	Deg C
Sample Flow	649.8	ccm	620	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)
4992	0.00	0.00	-0.07	N/A
4992	39.98	81.84	82.01	0.9979
4992	19.93	40.96	40.85	1.0026
4992	9.95	20.49	19.29	1.0623
4992	0.00	0.00	-0.07	As Found Zero
4992	39.98	81.84	83.18	As Found Span
			Average Correction Factor	1.0209

Calculated value of As Found Response: 82.712 ppm Percent Change of As Found: -1.1%

	before calibration		after calibration	
Auto zero	0.09	ppm	0.55	ppm
Auto span	27.43	ppm	27.32	ppm

Notes:

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **SO2**

Air Monitoring Network **PASZA**

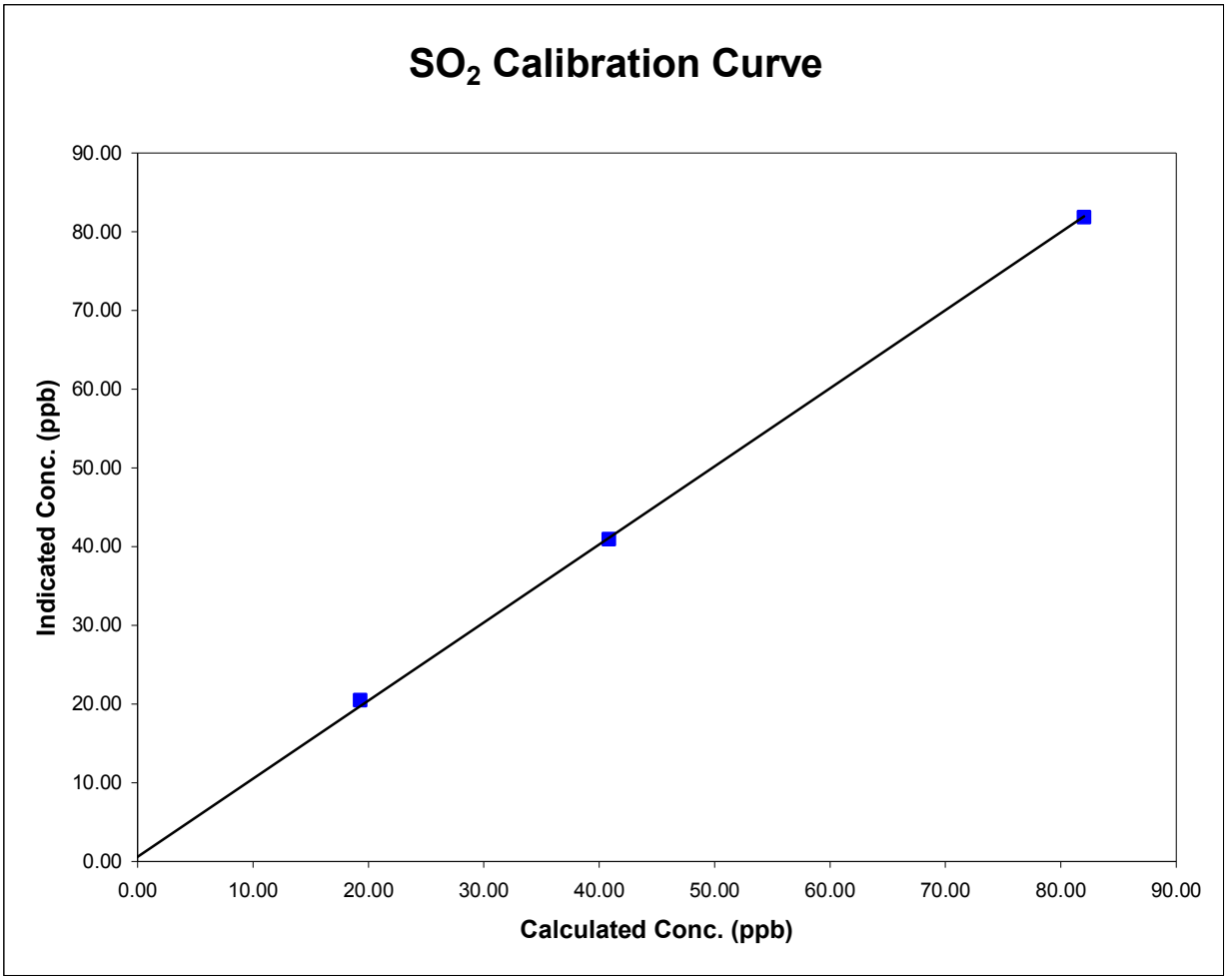
FOCUS AIR QUALITY MONITORING

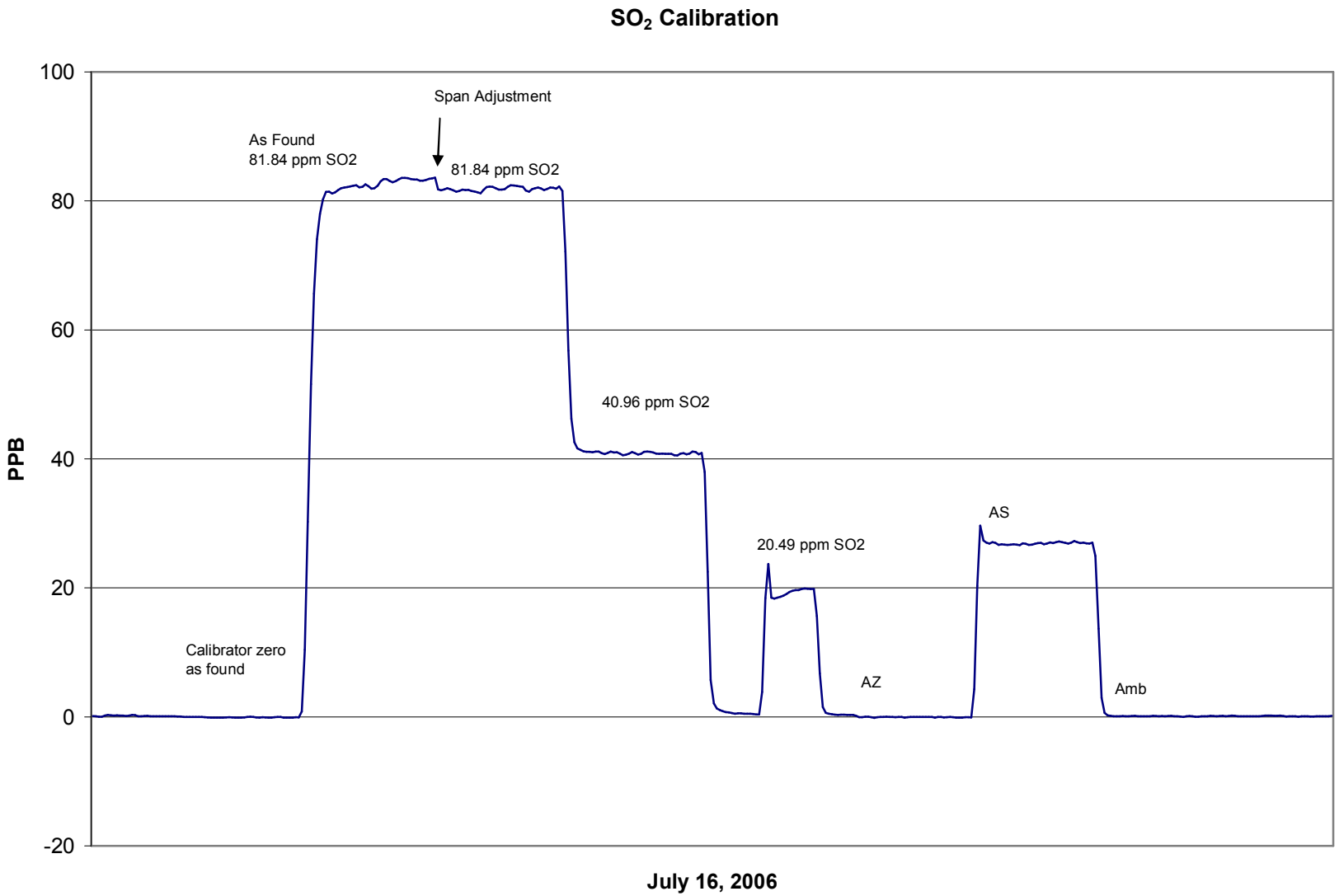
Station Information

Calibration Date	July 16, 2006	Previous Calibration	June 13, 2006
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	21:32	End Time (MST)	23:49
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	-0.068	N/A		
81.835	82.010	0.9979	Correlation Coefficient	0.999755
40.958	40.851	1.0026		
20.489	19.287	1.0623	Slope	0.992069
			Intercept	0.582421




SO2 Calibration
100
80
60
40
20
0
-20
PPB
Span Adjustment
As Found
81.84 ppm SO2
81.84 ppm SO2
40.96 ppm SO2
20.49 ppm SO2
AS
AZ
Amb
Calibrator zero
as found
July 16, 2006

Calibration Report

Parameter **NOx-NO-NO_2**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	July 16, 2006	Previous Calibration	June 12, 2006
Station Number	4	Station Location	AG Canada Research Station

Reason: Routine | Installation | Removal | Other:

Start Time (MST)	15:50		End Time (MST)	19:54	
Barometric Pressure	0.919	Atm	Station Temperature	20.0	Deg C
Calibrator	Environics 6103		Serial Number	2977	
NO Cal Gas Conc	50.3	ppm	Cal Gas Expiry Date	Nov 22/06	
NOx Cal Gas Conc	50.5	ppm	Cal Gas Serial #	BAL786	

DACS Information

DACS make	FOCUS AP1000	DACS serial No.	45269

Parameter		NO2	NOx	NO
Before	Data Slope	1.007654	1.004496	1.004528
	Data Offset	-0.160600	0.970243	1.018879
After	Data Slope	1.005827	0.997482	0.998830
	Data Offset	-1.621590	0.821713	0.132354
Channel #		8	6	7
Voltage Range		0 - 10 VDC	0 - 10 VDC	0 - 10 VDC

Analyzer Information

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

Test Point	before		after	
Concentration range	0-1000	ppb	0-1000	ppb
NO background	1.2	ppb	1,2	mV
NOx background	1.4	ppb	1.4	mV
NO coefficient	0.970		1.006	
NOx coefficient	0.994		0.98	
Box Temp	31.8	ccm	32.2	ccm
Chamber Temp	49.2	Deg C	49.4	Deg C
Cooler Temp	-2.1	Deg C	-2.2	Deg C
Converter Temp	323.0	Deg C	324.0	Deg C
Sample Flow	824.0	LPM	830.0	LPM
Ozonator Flow	0.087	LPM	0.087	LPM
Pressure	161.9	inches HG	165.4	inches Hg

Notes: Adjusted span.

Calibration Report

Parameter **$NOx\text{-}NO\text{-}NO_2$**

Air Monitoring Network **PASZA**

FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date: July 16, 2006 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	4992	0.00	0.0	0.0	0.0	-0.3	0.7	1.7	N/A	N/A
1	4992	79.92	795.7	792.6	3.2	797.1	793.7	2.7	0.9983	0.9986
2	4992	39.98	401.2	399.6	1.6	401.5	399.8	1.1	0.9993	0.9995
3	4992	20.00	201.5	200.7	0.8	200.5	199.8	0.1	1.0053	1.0045
AFZ	4992	0.00	0.0	0.0	0.0	-0.3	-0.4	-0.4	0.0000	0.0000
AFS	4992	79.92	795.7	792.6	3.2	778.0	762.4	14.9	1.0227	1.0396
							Average Correction Factor		1.0010	1.0009

As Found Concentrations: NO_X= 779.3 NO= 763.8 As Found Percent Change NO_X= -2.1% NO= -3.6%

GPT Calibration Data

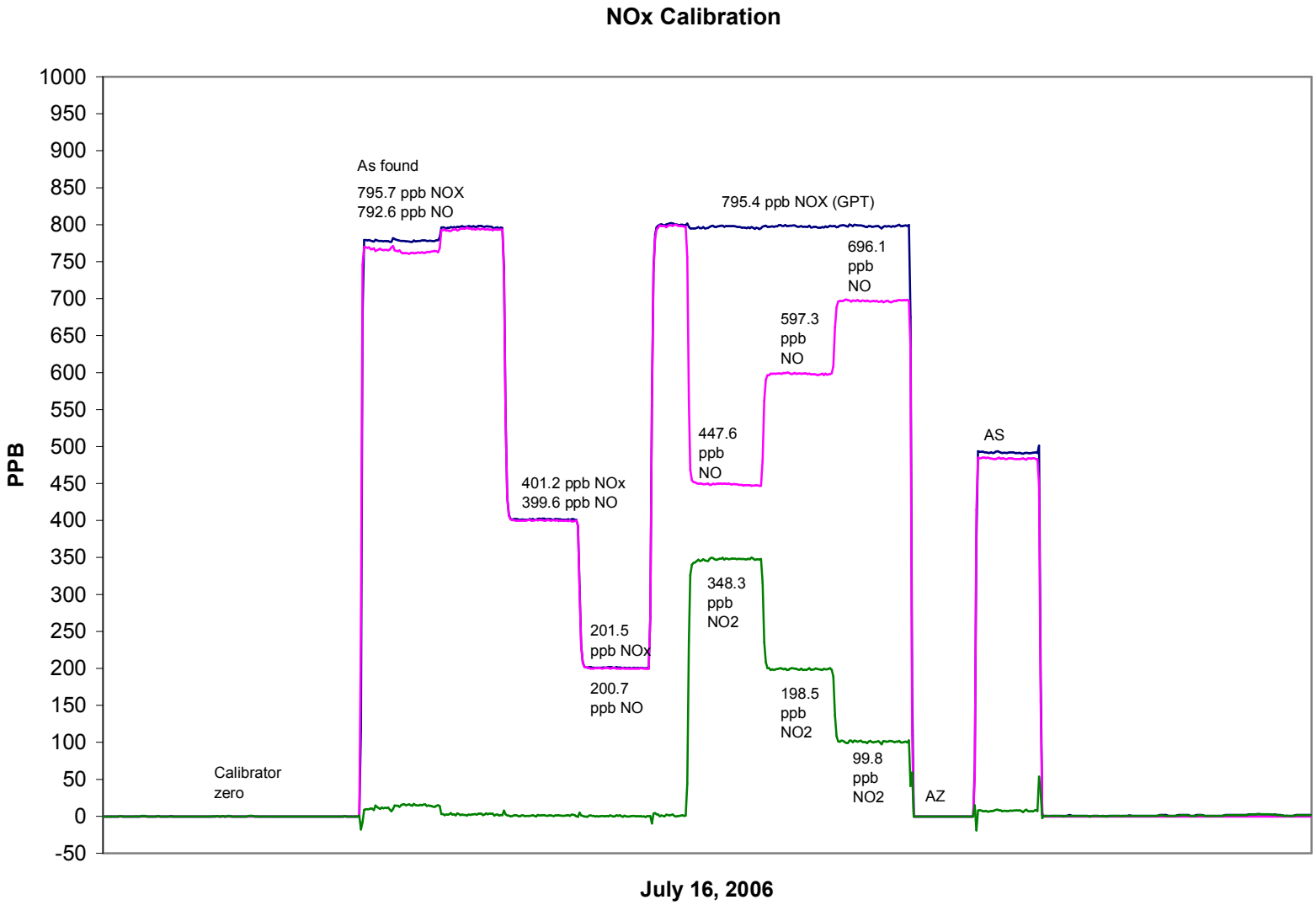
Dilution Flow 4993 ccm Source Gas Flow 39.97 ccm

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	795.9	797.7	-1.8	800.4	798.5	1.0	0.9944	0.9990	N/A	N/A
350	795.9	447.6	348.3	796.2	448.0	348.0	0.9996	0.9991	1.0008	99.9%
200	795.9	597.3	198.5	797.0	597.9	198.8	0.9986	0.9991	0.9988	100.1%
100	795.9	696.1	99.8	798.0	696.8	100.8	0.9974	0.9990	0.9895	101.1%
					Average Correction Factor		0.9985	0.9991	0.9964	100.4%

AIC Data

	Previous calibration				Current calibration			
Parameter	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-0.3	-0.3	-0.2	ppb	0.6	-2.0	-0.2	ppb
Auto span	494.6	9.7	484.5	ppb	491.0	5.8	483.0	ppb

Calibration Performed By: Dawn Ewan


NOx Calibration
PPB
1000
950
900
850
800
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
-50
As found
795.7 ppb NOX
792.6 ppb NO
795.4 ppb NOX (GPT)
696.1
ppb
NO
597.3
ppb
NO
447.6
ppb
NO
AS
401.2 ppb NOx
399.6 ppb NO
201.5
ppb NOx
200.7
ppb NO
348.3
ppb
NO2
198.5
ppb
NO2
99.8
ppb
NO2
AZ
Calibrator
zero
July 16, 2006

Calibration Summary

Parameter **NO_2**

Air Monitoring Network **PASZA**

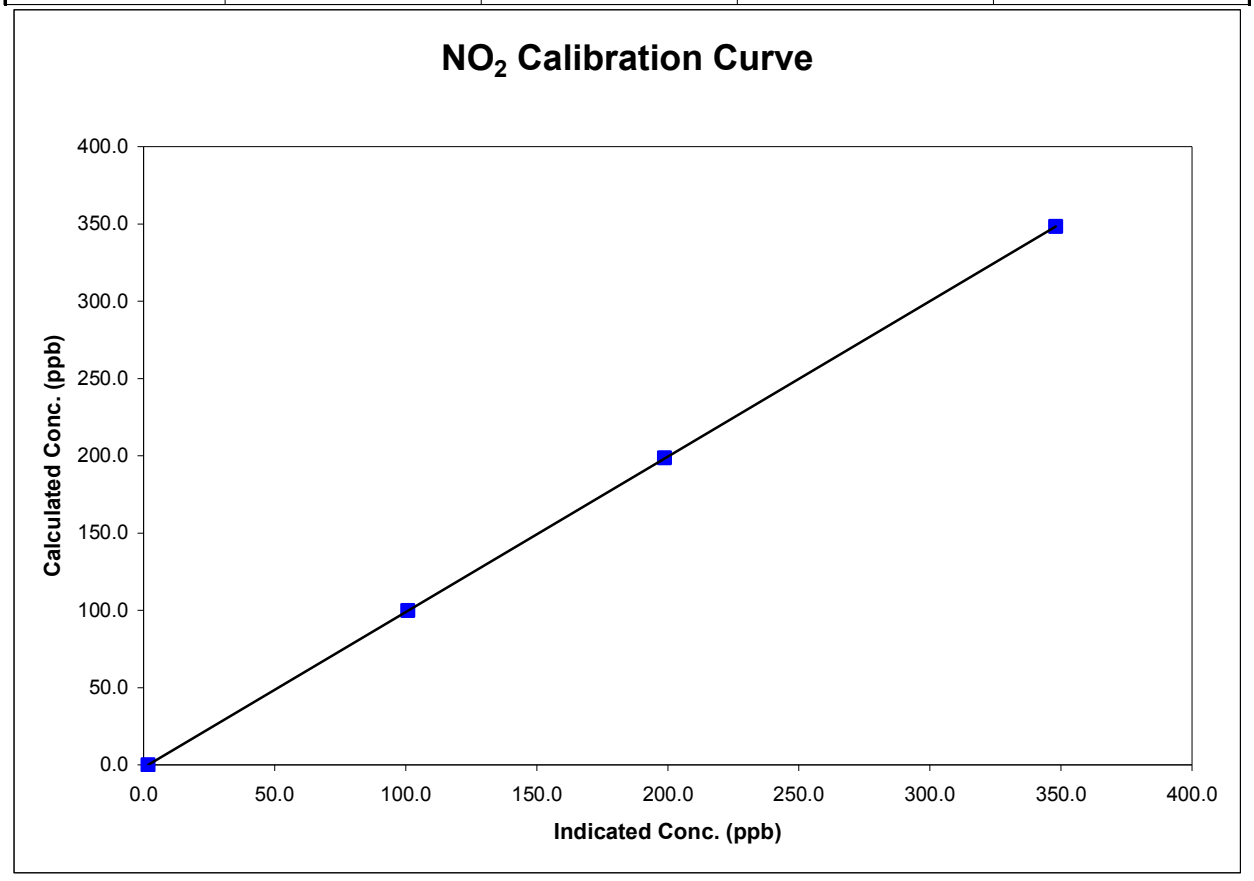
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	July 16, 2006	Previous Calibration	June 12, 2006
Station Number	4	Station Location	AG Canada Research Station
Start Time (MST)	15:50	End Time (MST)	19:54
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	1.7	0.0000		
348.3	348.0	1.0008	Correlation Coefficient	0.999999
198.5	198.8	0.9988		
99.8	100.8	0.9895	Slope	1.005827
			Intercept	-1.621590



Calibration Summary

Parameter **NO_x**

Air Monitoring Network **PASZA**

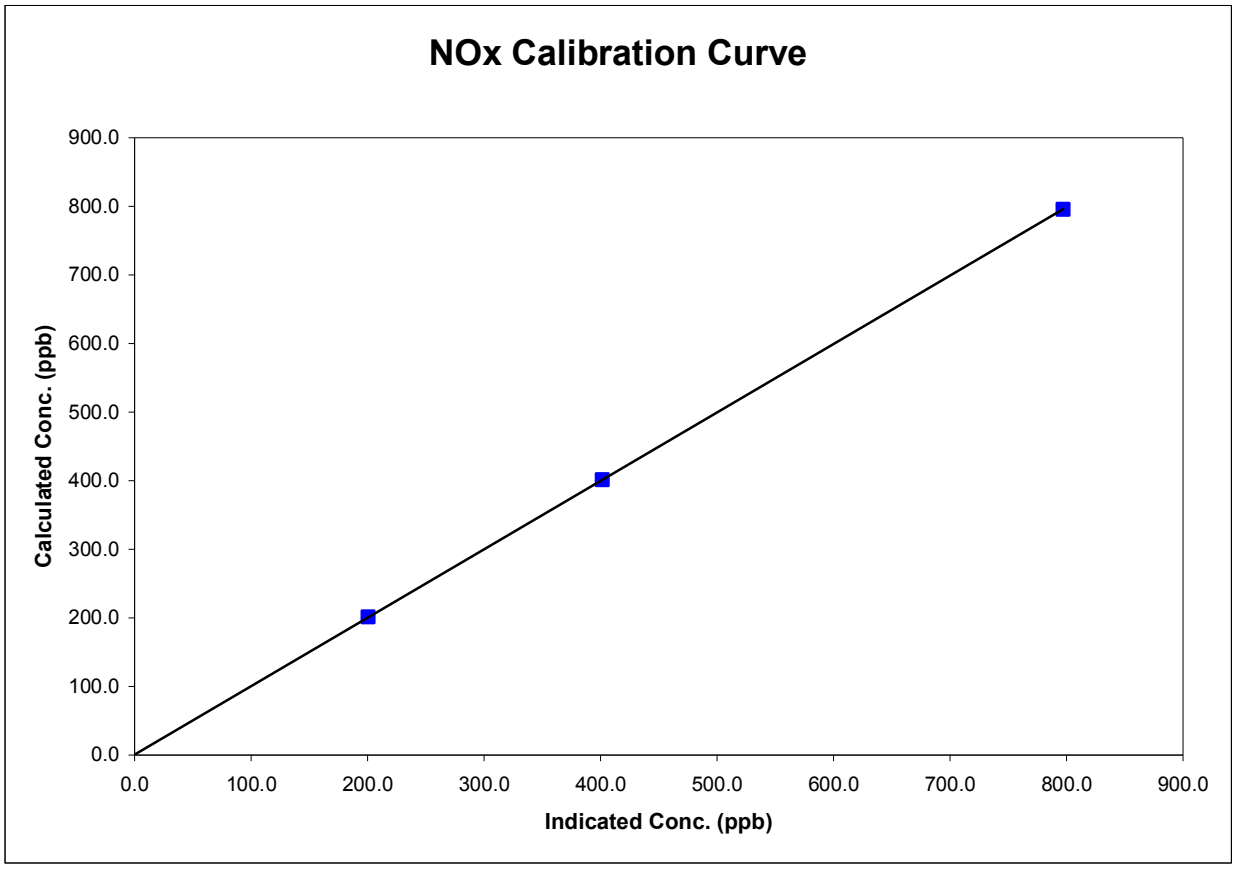
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	July 16, 2006	Previous Calibration	June 12, 2006
Station Number	4	Station Location	AG Canada Research Station
Start Time (MST)	15:50	End Time (MST)	19:54
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.3	0.0000		
795.7	797.1	0.9983	Correlation Coefficient	0.999998
401.2	401.5	0.9993		
201.5	200.5	1.0053	Slope	0.997482
			Intercept	0.821713



Calibration Summary

Parameter **NO**

Air Monitoring Network **PASZA**

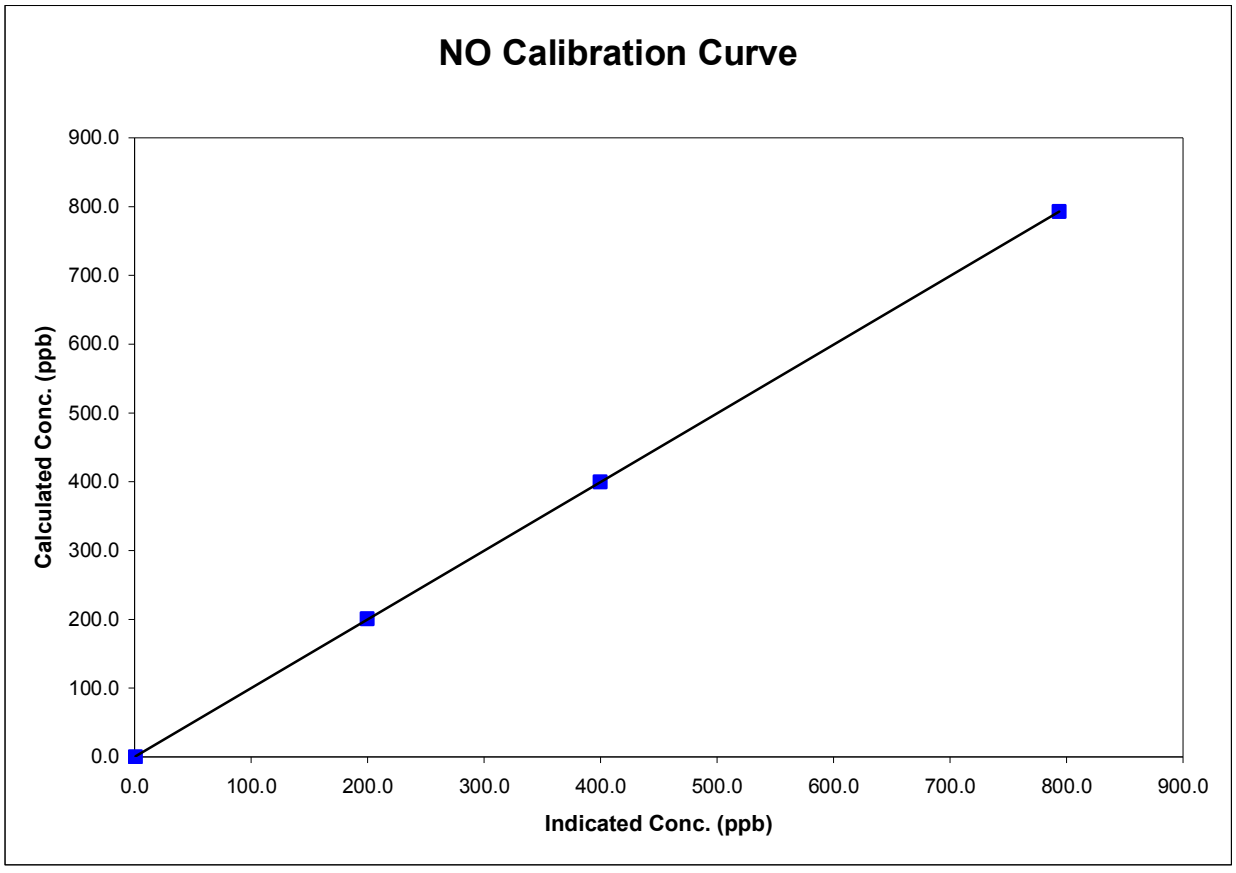
FOCUS AIR QUALITY MONITORING

Station Information

Calibration Date	July 16, 2006	Previous Calibration	June 12, 2006
Station Number	4	Station Location	AG Canada Research Station
Start Time (MST)	15:50	End Time (MST)	19:54
Analyzer make	TEI Model 42	Analyzer serial #	42-28486-231

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	N/A		
792.6	793.7	0.9986	Correlation Coefficient	0.999995
399.6	399.8	0.9995		
200.7	199.8	1.0045	Slope	0.998830
			Intercept	0.132354



Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **O3**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	July 16, 2006	Previous Calibration	June 12, 2006
Station Number	4	Station Location	Beaverlodge

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

Start Time (MST)	19:18	End Time (MST)	21:43
Barometric Pressure	0.919 atm	Station Temperature	20.0 Deg C
Calibrator	Environics 6103	Serial Number	2977
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
Calculated slope	0.994609	Calculated slope	0.994498
Calculated intercept	3.119545	Calculated intercept	-0.262754

Analyzer make	Teco 49C	Analyzer serial #	49C-76443-383

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
offset	-0.50	ppb	-0.50	ppb
slope	1.07		1.07	
Lamp temp	71	mV	71	mV
Lamp Intensity A/B	86500/84700	mV	86200/84100	mV
Pressure	686.2	inches Hg	693	inches Hg
Flow A	751	ccm	756	ccm
Flow B	708	Deg C	713	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)
4992	0.00	0.0	0.2	N/A
4992	0.00	348.3	350.4	0.9941
4992	0.00	198.5	200.2	0.9917
4992	0.00	99.8	100.5	0.9930
4992	0.00	0.0	0.2	As found zero
4992	0.00	348.3	345.9	As found span
			Average Correction Factor	0.9930

Calculated value of As Found Response: 346.9 ppm Percent Change of As Found: -0.4%

	before calibration		after calibration	
Auto zero	3.5	ppb	-0.2	ppb
Auto span	131.7	ppb	114.8	ppb

Notes: Adjusted span.

Calibration Performed By: Dawn Ewan

Calibration Summary

Parameter **O3**

Air Monitoring Network **PASZA**

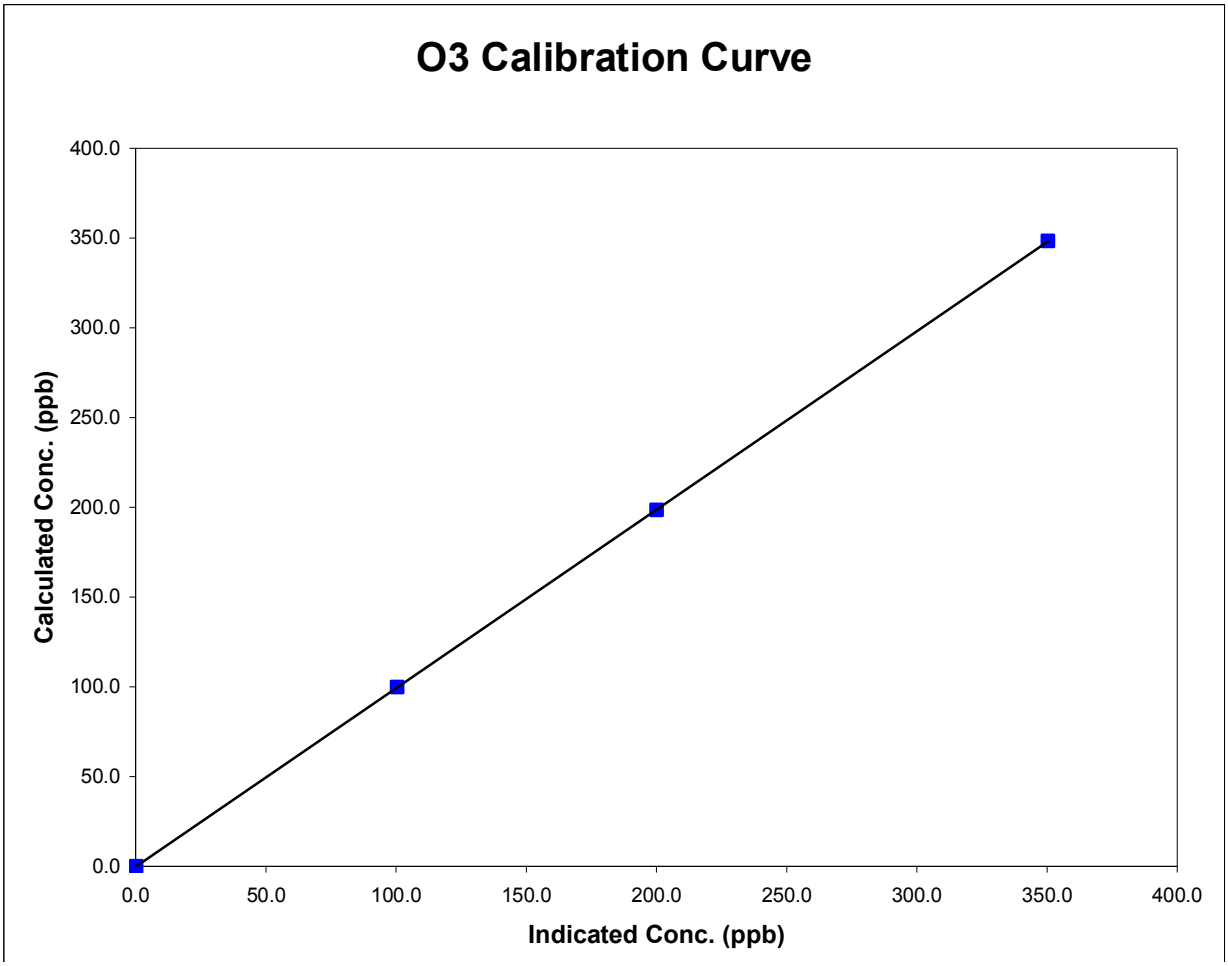
FOCUS AIR QUALITY MONITORING

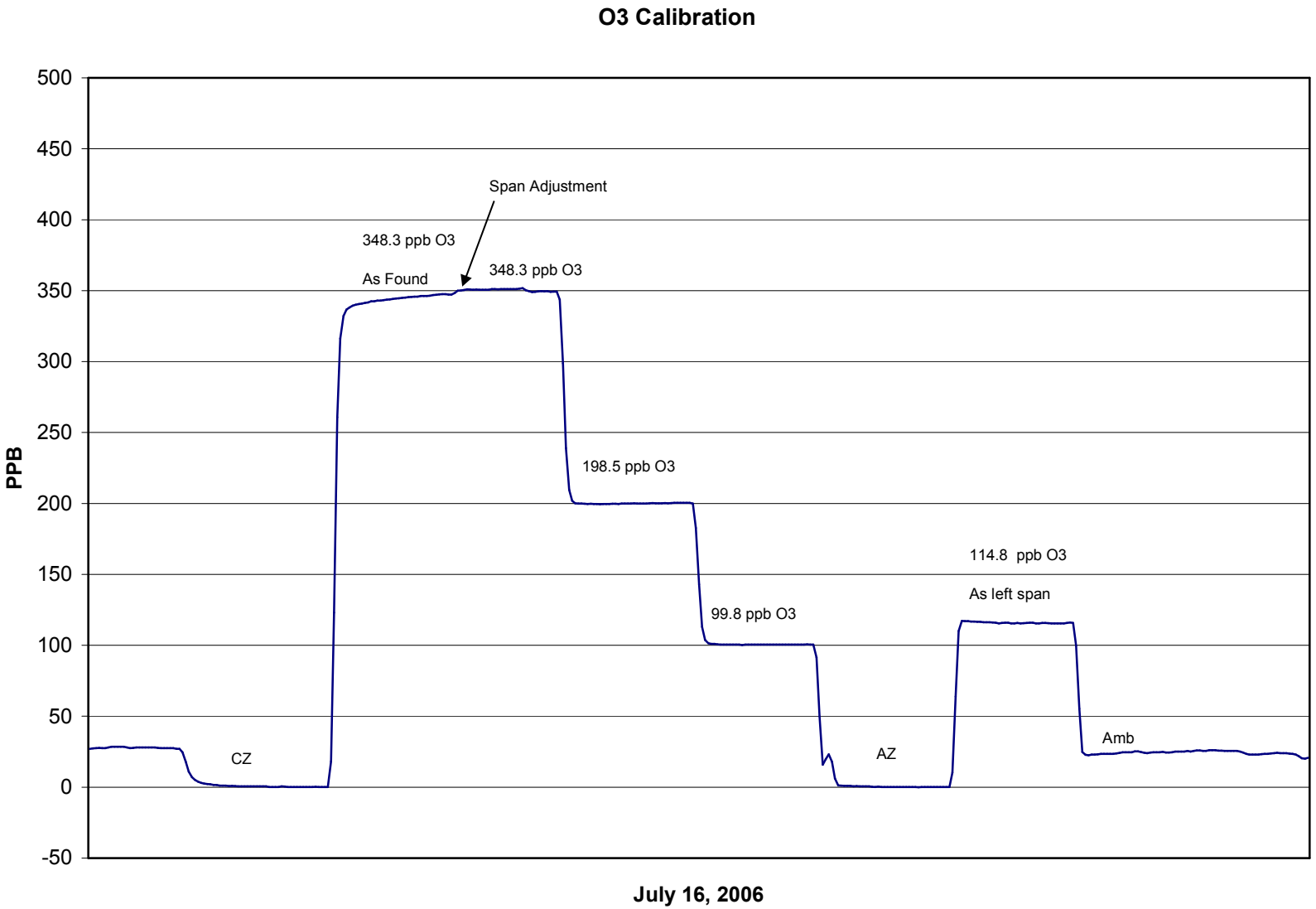
Station Information

Calibration Date	July 16, 2006	Previous Calibration	June 12, 2006
Station Number	4	Station Location	Beaverlodge
Start Time (MST)	19:18	End Time (MST)	21:43
Analyzer make/model	Teco 49C	Analyzer serial #	49C-76443-383

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	NA		
348.3	350.4	0.9941	Correlation Coefficient	0.999998
198.5	200.2	0.9917		
99.8	100.5	0.9930	Slope	0.994498
			Intercept	-0.262754




O3 Calibration
500
450
400
350
300
250
200
150
100
50
0
-50
PPB
Span Adjustment
348.3 ppb O3
As Found
348.3 ppb O3
198.5 ppb O3
99.8 ppb O3
114.8 ppb O3
As left span
CZ
AZ
Amb
July 16, 2006

Calibration Report

FOCUS AIR QUALITY MONITORING

Parameter **PM2.5**

Air Monitoring Network **PASZA**

Station Information

Calibration Date	July 16, 2006	Previous Calibration	June
Station Number	4	Station Location	Beaverlodge
Reason: Routine	Install	Removal	Other:
Start Time (MST)		End Time (MST)	
Barometric Pressure	0.919 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 #	10

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	13.68	SLPM	13.68	SLPM
Filter Load	43	%	17	%
Ko Factor	14287		14287	
Temperature	16.4	Deg C	16.4	Deg C
Pressure	0.918	ATM	0.918	ATM

Calibration Data

Parameter	Set Point	Teom Reading (As Found)	Tolerance	Teom Reading (After Adjustments)
zero flow - main	0.0	0.04		0.04
zero flow - auxillary	0.0	0.09		0.09
flow recovery - main	45 - 60 Seconds	38.00	45 - 60 Seconds	38.00
flow recovery - aux	46 - 60 Seconds	46.00	46 - 60 Seconds	46.00
Temperature	measured	16.2	+/- 1.0 Deg C	16.2
Pressure	measured	0.919	+/- 1.5% Δ_{ATM}	0.919
Total Flow	16.67 SLPM	16.33		16.33
Auxillary Flow	13.67 SLPM	13.82	+/- 1.0 SLPM	13.82
Main Flow	3.0 SLPM	3.060	+/- 0.2 SLPM	3.060
Leak Check - main	0.0	-0.01	<0.15 SLPM	-0.01
Leak Check - aux	0.0	0.14	<0.15 SLPM	0.14
Ko Factor (w/o filter)	measured		filter weight (g)	
Ko Factor (w/ filter)	measured		% Ko difference	N/A

Notes: Cleaned head
New mass filter.

Calibration Performed By: Dawn Ewan