



# Palliser Airshed Society

## Ambient Air Monitoring Network Summary

### August 2006

Prepared By:



#### TABLE OF CONTENTS

Airshed Zone Association – August PAS Ambient Air Summary Report.....	4
PAS - Crescent Heights - AQI Monthly Summary .....	6
PAS - Crescent Heights - Nitrogen Dioxide Monthly Summary .....	7
PAS - Crescent Heights - Nitric Oxide Monthly Summary.....	12
PAS - Crescent Heights - Oxides of Nitrogen Monthly Summary.....	14
PAS - Crescent Heights - Ozone Monthly Summary.....	18
PAS - Crescent Heights - Ozone Monthly Summary.....	23
PAS - Crescent Heights - Carbon Monoxide Monthly Summary .....	24
PAS - Crescent Heights - Carbon Monoxide Monthly Summary .....	29
PAS - Crescent Heights - Total Hydrocarbons Monthly Summary.....	30
PAS - Crescent Heights - Particulate Matter (less than 2.5 microns) Monthly Summary.....	35
PAS - Crescent Heights - Relative Humidity Monthly Summary.....	40
PAS - Crescent Heights - Temperature Monthly Summary .....	42
PAS - Crescent Heights - Solar Radiation Monthly Summary .....	44
PAS - Crescent Heights - Scalar Wind Speed Monthly Summary .....	46
PAS - Crescent Heights - Vector Wind Speed Monthly Summary .....	47
PAS - Crescent Heights - Wind Direction Monthly Summary .....	48
PAS - Crescent Heights - Standard Deviation of Wind Direction Monthly Summary .....	49
Passive Monitoring – August 2006 .....	51
PAS August 2006 - Calibration Reports .....	55

#### Table of Figures

Figure 1. PAS - Crescent Heights Nitrogen Dioxide 1-hr Average Monthly Trend.....	8
Figure 2. PAS - Crescent Heights Nitrogen Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend.....	10
Figure 3. PAS - Crescent Heights Oxides of Nitrogen 1-hr Average Monthly Trend.....	15
Figure 4. PAS - Crescent Heights Oxides of Nitrogen Instantaneous (30 Second) Maximum Value Monthly Trend .....	17
Figure 5. PAS - Crescent Heights Ozone 1-hr Average Monthly Trend.....	19
Figure 6. PAS - Crescent Heights Ozone Instantaneous (30 Second) Maximum Value Monthly Trend .....	21
Figure 7. PAS - Crescent Heights Carbon Monoxide 1-hr Average Monthly Trend .....	25
Figure 8. PAS - Crescent Heights Carbon Monoxide Instantaneous (30 Second) Maximum Value Monthly Trend .....	27
Figure 9. PAS - Crescent Heights Total Hydrocarbons 1-hr Average Monthly Trend .....	31
Figure 10. PAS - Crescent Heights Total Hydrocarbons Instantaneous (30 Second) Maximum Value Monthly Trend.....	33
Figure 11. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend.....	36
Figure 12. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) Instantaneous (30 Second) Maximum Value Monthly Trend.....	38
Figure 13. PAS - Crescent Heights Relative Humidity 1-hr Average Monthly Trend .....	41
Figure 14. PAS - Crescent Heights Temperature 1-hr Average Monthly Trend .....	43
Figure 15. PAS - Crescent Heights Solar Radiation 1-hr Average Monthly Trend.....	45



September 18, 2006

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

**Attention: Director of Monitoring and Evaluation**

**RE: Palliser Airshed Society (PAS) Ambient Air Monitoring Report – August 2006**

---

Enclosed is the PAS Ambient Monitoring Report for the month of **August 2006**.

Please note that this report has been prepared in partial fulfillment of the City of Medicine Hat's air monitoring requirement as well as all members of the Palliser Airshed Society.

**Continuous Monitoring – Crescent Heights**

Included in this report are; monthly sampling table, detailed hourly average reports and multipoint calibration reports of all instruments. The measured ambient air quality was within the Provincial and Federal guidelines with no exceedences recorded. Operational time of all instruments was greater than 95% uptime for the month of August. There were no significant events leading to emergency response for the month of August.

The following is a summary of the monthly averages recorded during sampling:

- Monthly average concentrations of NO<sub>2</sub> was 7.9 ppb
- Monthly average concentrations for O<sub>3</sub> was 34.9 ppb
- Monthly average concentrations for CO was 0.17 ppm
- Monthly average concentrations for THC was 1.99 ppm
- Monthly average concentrations for PM<sub>2.5</sub> was 6.8 µg/m<sup>3</sup>

**Passive Monitoring – Six Sites throughout the PAS zone:**

The following are the ranges for August 2006 recorded by the six passive stations located throughout the PAS zone.

- Monthly average concentrations for SO<sub>2</sub> passives were all <0.5 ppb.
- Monthly average concentrations for NO<sub>2</sub> passives ranged from 4.0 ppb to 5.9 ppb
- Monthly average concentrations for O<sub>3</sub> passives ranged from 28.8 ppb to 36.5 ppb

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

Sharon Whiteley, B.Sc.  
AQM Data Specialist

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



# Continuous Monitoring

## Ambient Air Monitoring Network

### Crescent Heights Station

#### General Station Issues

Calibrations were performed on August 22<sup>nd</sup> and 30<sup>th</sup> on all the pollutant analyzers. There were no operational issues for the month of August.

Parameter	Make	Model	Units	Notes
Ozone	Teledyne - API	400E	ppb	No operational issues observed.
Nitrogen Dioxide	Teledyne - API	200E	ppb	No operational issues observed.
Total Hydrocarbons	Bendix	400A	ppm	No operational issues observed.
Carbon Monoxide	TEI	49C	ppm	No operational issues observed.
PM 2.5	R&P TEOM	1400ab	µg/m <sup>3</sup>	There were three (3) hours of excessive baseline drift flagged. No other operational issues were observed.
Wind Speed	Met One	010C	kph	There was one (1) hours of calm noted. No other operational issues were observed.
Wind Direction	Met One	020C	Deg	No operational issues observed.
Ambient Temperature	Met One	083D	DegC	No operational issues observed.
Relative Humidity	Met One	083D	%	No operational issues observed.
Solar Radiation	Met One	096-1	W/m <sup>2</sup>	No operational issues observed.
Data Acquisition System	Titan Logix	AP1000		No operational issues observed.



## August 2006 Monthly Overall Summary Report

### Ambient Air Quality Data

Aug-2006 Palliser Airshed Society					Maximum Recorded Values						Operational Time (%)		
					1-hr		24-hr / 8-hr						
Pollutant (units)	Objectives		Station	Monthly Average	Exceedence		Conc	Day	WSPD (km/hr)	WDIR (Sector)	Conc	Day	
	1-hr	24-hr			1-hr	24-hr							
NO (ppb)			Crescent Heights	2.4	-	-	37.8	Aug-26 23:00	5.2	SE	7.2	Aug-17	100.0%
NO <sub>2</sub> (ppb)	212	106	Crescent Heights	7.9	0	0	44.8	Aug-08 21:00	4.4	W	15.6	Aug-08	100.0%
NO <sub>x</sub> (ppb)			Crescent Heights	10.1	-	-	70.9	Aug-26 23:00	5.2	SE	19.5	Aug-25	100.0%
O <sub>3</sub> (ppb)	82		Crescent Heights	34.9	0	-	67.7	Aug-23 13:00	14.5	WSW	47.0	Aug-23	100.0%
O <sub>3</sub> (ppb) - 8-hr	65		Crescent Heights		0						64.5	Aug-23	
CO (ppm)	13		Crescent Heights	0.17	0	-	0.8	Aug-08 21:00	4.4	W	0.3	Aug-08	100.0%
CO (ppm) - 8-hr	5		Crescent Heights		0						0.4	Aug-27	
THC (ppm)			Crescent Heights	1.99	-	-	3.4	Aug-27 03:00	3.4	NNE	2.3	Aug-27	100.0%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	30 <sup>a</sup>		Crescent Heights	6.8		0	34.2	Aug-22 21:00	15.7	WNW	18.2	Aug-08	99.6%
RH (%)			Crescent Heights	46.5	-	-	-	-	-	-	-	-	100.0%
SR (W/m <sup>2</sup> )			Crescent Heights	255.0	-	-	-	-	-	-	-	-	100.0%
Temp (°C)			Crescent Heights	20.9	-	-	-	-	-	-	-	-	100.0%
WSPD v (km/hr)			Crescent Heights	2.6	-	-	35.2	Aug-19 23:00	35.2	N	12.6	Aug-28	100.0%
WSPD s (km/hr)			Crescent Heights	8.7	-	-	35.6	Aug-19 23:00	35.6	N	13.5	Aug-28	100.0%
WDIR (Deg)			Crescent Heights	WSW	-	-	-	-	-	-	-	-	100.0%

Note: <sup>a</sup> the draft 24-hr Alberta Ambient Air Quality Objectives  
 \* Wind Direction is the predominate direction for the Month



# **PAS - Crescent Heights**

## **Monthly Summary Tables, Graphs, and Roses**



## PAS - Crescent Heights - AQI Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

### Air Quality Index (AQI)

Monitoring Dates: August 1, 2006 to September 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:	582
Number of 1-hr Fair Readings:	125
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 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
1-Aug-06	8	6	7	8	10	10	8	12	13	14	15	18	20	21	22	23	22	21	19	N	14	13	7		
2-Aug-06	10	8	8	6	8	7	8	10	11	14	20	22	24	25	25	24	23	25	25	N	20	20	19	16	
3-Aug-06	15	15	13	15	14	10	10	13	15	20	23	24	23	28	30	32	30	26	N	23	22	21	21	21	
4-Aug-06	20	20	19	17	18	18	17	17	17	19	20	23	28	33	32	33	35	N	27	23	27	26	24	21	
5-Aug-06	18	17	16	12	12	10	11	12	12	14	16	18	19	20	22	23	N	24	25	20	13	11	9	8	
6-Aug-06	9	11	5	9	12	12	10	16	19	23	27	30	30	30	30	N	31	29	26	24	20	17	20	24	
7-Aug-06	25	24	23	23	20	16	14	15	18	23	24	25	26	29	N	30	29	28	26	23	12	16	12	14	
8-Aug-06	15	14	12	16	14	13	15	15	16	21	22	23	26	N	28	32	29	31	27	21	22	26	19	19	
9-Aug-06	19	19	18	15	13	12	14	14	20	20	26	24	N	36	39	39	35	34	30	24	21	20	19	17	
10-Aug-06	16	13	12	11	10	10	11	13	14	17	22	N	28	28	29	31	31	32	30	31	29	22	19	20	
11-Aug-06	18	14	12	11	9	6	4	10	13	17	N	N	N	24	24	25	25	23	22	19	16	14	10	10	
12-Aug-06	6	7	9	9	8	8	7	9	10	N	15	16	17	18	19	19	19	17	17	12	9	12	8		
13-Aug-06	6	6	7	7	6	5	6	8	N	14	20	21	21	22	23	23	24	23	22	20	14	9	8	11	
14-Aug-06	10	7	9	8	5	9	8	N	10	17	23	23	24	25	26	25	25	24	24	24	17	11	16	11	
15-Aug-06	12	12	14	13	16	17	N	9	12	14	19	23	30	39	38	35	27	26	24	22	20	18	17	18	
16-Aug-06	19	17	18	17	14	N	11	11	14	16	19	20	20	19	18	20	22	23	22	15	10	9	5	4	
17-Aug-06	8	5	4	5	N	6	6	7	6	9	13	25	23	22	27	25	23	24	23	20	17	15	13	13	
18-Aug-06	12	10	9	N	6	4	5	6	9	17	24	26	27	28	30	29	30	29	26	24	24	27	29	29	
19-Aug-06	33	34	N	26	24	19	17	20	22	22	23	24	24	21	23	24	24	22	23	20	17	14	16	20	
20-Aug-06	22	N	21	20	15	12	9	12	17	17	20	24	25	26	28	30	33	34	33	24	21	16	16	17	
21-Aug-06	N	14	15	15	15	13	12	11	14	20	24	26	29	29	31	32	33	33	24	19	15	15	14	N	
22-Aug-06	11	12	11	9	13	6	7	9	14	19	24	29	27	N	N	N	32	31	20	22	17	27	26	27	
23-Aug-06	28	25	N	18	15	13	9	10	15	20	30	35	36	40	39	36	35	39	37	24	22	21	20	18	
24-Aug-06	16	N	11	8	8	6	4	6	9	14	16	19	21	22	23	22	22	22	21	18	11	8	10	9	
25-Aug-06	6	8	N	4	4	5	5	8	10	9	15	21	24	25	27	27	26	25	23	19	14	11	18	9	
26-Aug-06	9	N	9	7	8	8	7	9	13	21	24	24	25	26	28	26	26	27	25	16	22	20	16	14	
27-Aug-06	N	11	15	10	16	8	12	10	12	14	23	29	30	28	28	29	29	30	29	24	22	18	19	N	
28-Aug-06	19	20	19	22	23	21	21	21	23	26	27	26	25	26	27	25	24	23	20	16	11	13	N	21	
29-Aug-06	24	23	22	22	21	14	13	13	15	22	24	24	23	20	27	28	25	23	23	22	21	N	17	16	
30-Aug-06	11	10	14	13	15	14	13	9	7	9	14	20	22	22	N	5	2	4	23	19	16	15	13	11	
31-Aug-06	12	11	N	8	5	7	8	8	8	10	11	12	15	16	16	16	15	11	10	7	9	6	6		



## PAS - Crescent Heights - Nitrogen Dioxide Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: August 1, 2006 to September 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:	44.8 ppb	8-Aug	21:00 22:00
Maximum 24-hr Average:	15.6 ppb	8-Aug	

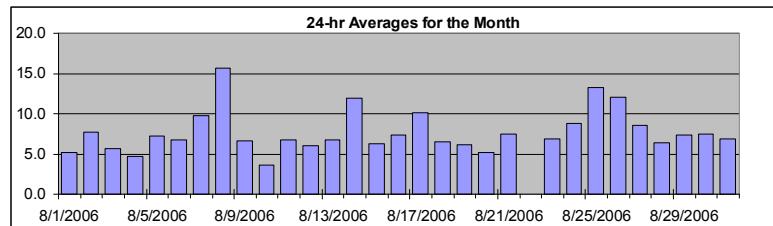
AIC Time:	29 hrs	Operational Time:	708 hrs						
Calibration Time:	7 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	30.5	20.9	10.3	5.5	3.5	2.1	1.2	7.9 ppb	5.5 ppb

### Day Mountain Standard Time

	Hour Start 0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum	
	Hour End 1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Aug-06	6	8	7	5	4	5	6	4	2	4	5	2	3	4	3	3	2	3	4	A	11	9	18	5.2	18.1		
2-Aug-06	22	13	12	13	8	10	9	6	7	9	4	3	2	2	2	4	6	6	5	A	13	10	5	6	7.8	22.1	
3-Aug-06	6	6	8	7	8	11	9	4	3	3	3	6	12	8	4	3	2	2	A	7	4	4	5	4	5.7	12.5	
4-Aug-06	3	4	4	4	3	3	4	4	5	4	4	5	4	4	4	5	5	5	A	15	7	3	4	5	4.7	15.4	
5-Aug-06	5	4	4	9	4	4	3	3	5	4	3	3	3	2	2	2	A	6	4	12	22	21	19	19	7.2	22.5	
6-Aug-06	16	7	21	12	8	7	13	4	3	3	1	2	2	1	2	A	6	6	8	7	9	9	6	3	6.8	21.3	
7-Aug-06	2	2	4	3	6	9	13	12	7	3	2	2	3	3	A	7	7	7	9	12	30	37	25	19	9.7	37.1	
8-Aug-06	18	12	19	18	21	22	20	14	10	5	9	13	11	A	11	8	12	12	12	21	26	45	12	8	15.6	44.8	
9-Aug-06	10	5	6	7	11	8	10	9	7	8	4	10	A	8	7	5	5	3	4	6	6	5	4	5	6.6	10.9	
10-Aug-06	4	6	4	4	4	4	4	4	5	4	3	A	4	3	3	3	3	3	3	3	3	4	3	2	3.6	5.6	
11-Aug-06	4	5	6	5	8	13	17	9	6	4	A	9	7	7	6	6	4	5	3	4	4	6	9	6	6.8	17.5	
12-Aug-06	12	9	8	5	7	6	6	5	4	A	7	4	4	3	3	2	3	2	3	4	11	12	6	12	6.0	12.3	
13-Aug-06	10	7	5	4	5	6	4	4	A	7	5	3	3	2	3	3	3	2	4	7	14	32	17	8	6.8	32.1	
14-Aug-06	7	20	11	10	21	10	14	A	25	13	4	4	2	2	2	3	4	5	5	17	34	40	13	8	11.9	39.7	
15-Aug-06	19	7	3	5	10	9	A	13	10	9	7	4	4	6	4	5	2	2	3	4	4	6	6	4	6.3	18.6	
16-Aug-06	3	3	4	4	4	A	13	11	7	5	3	3	3	3	6	5	3	3	6	12	19	13	20	17	7.4	19.9	
17-Aug-06	10	13	12	9	A	22	17	15	16	18	11	3	7	11	7	5	6	5	5	9	9	9	7	5	10.1	21.5	
18-Aug-06	6	5	5	A	13	15	15	13	15	9	3	4	2	2	2	3	3	4	8	8	6	3	3	6.5	15.1		
19-Aug-06	4	2	A	8	5	10	10	6	4	4	4	3	3	4	2	2	4	8	6	9	13	17	12	2	6.2	17.4	
20-Aug-06	1	A	6	4	9	9	12	7	4	6	6	5	3	2	2	3	3	3	4	8	4	8	7	4	5.2	12.0	
21-Aug-06	A	10	4	3	3	4	7	10	9	8	7	3	2	2	3	2	2	2	11	15	23	15	20	A	7.5	23.2	
22-Aug-06	28	21	13	17	20	27	20	18	8	6	C	C	C	C	C	C	C	C	10	26	19	23	9	7	3	N	28.2
23-Aug-06	3	3	12	11	13	19	16	13	9	9	5	4	4	4	5	7	7	4	2	2	3	3	3	4	6.9	19.2	
24-Aug-06	13	7	7	11	9	9	12	9	6	4	4	3	4	3	4	4	2	2	2	6	17	19	30	25	8.8	29.6	
25-Aug-06	24	22	A	17	14	20	18	13	11	16	10	5	3	3	3	4	4	3	5	6	9	16	20	33	30	13.2	32.5
26-Aug-06	23	A	11	12	8	20	19	20	9	3	2	2	3	2	2	4	4	2	5	19	21	31	22	33	12.1	33.2	
27-Aug-06	A	23	26	9	21	17	17	15	17	12	5	2	1	1	0	1	1	1	3	5	5	6	A	8.5	26.3		
28-Aug-06	10	5	9	3	3	3	4	4	3	5	6	5	2	2	4	4	5	9	16	20	15	A	7	6.4	20.3		
29-Aug-06	3	2	4	2	3	13	16	14	14	5	3	4	5	10	3	6	8	10	8	7	6	A	12	14	7.4	16.0	
30-Aug-06	26	18	11	12	8	10	11	11	7	5	5	3	4	4	4	5	3	3	6	5	3	4	6.8	25.7			
31-Aug-06	4	5	A	11	13	10	11	10	6	4	5	5	3	4	5	3	4	4	10	8	12	6	7	5	6.8	13.2	
	Hourly Avg	10.4	8.7	8.8	8.1	9.1	11.1	11.7	9.4	8.3	6.7	4.9	4.3	4.0	3.9	3.7	3.9	4.3	4.6	6.6	8.9	12.9	14.1	11.2	9.9		
	Hourly Max	28.2	22.7	26.3	18.1	20.9	26.7	20.2	20.4	25.4	18.0	11.3	12.7	12.5	11.4	11.3	7.9	12.4	11.5	26.4	21.0	34.2	44.8	32.5	33.2		

### HOURLY AVERAGE TABLE

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



### 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

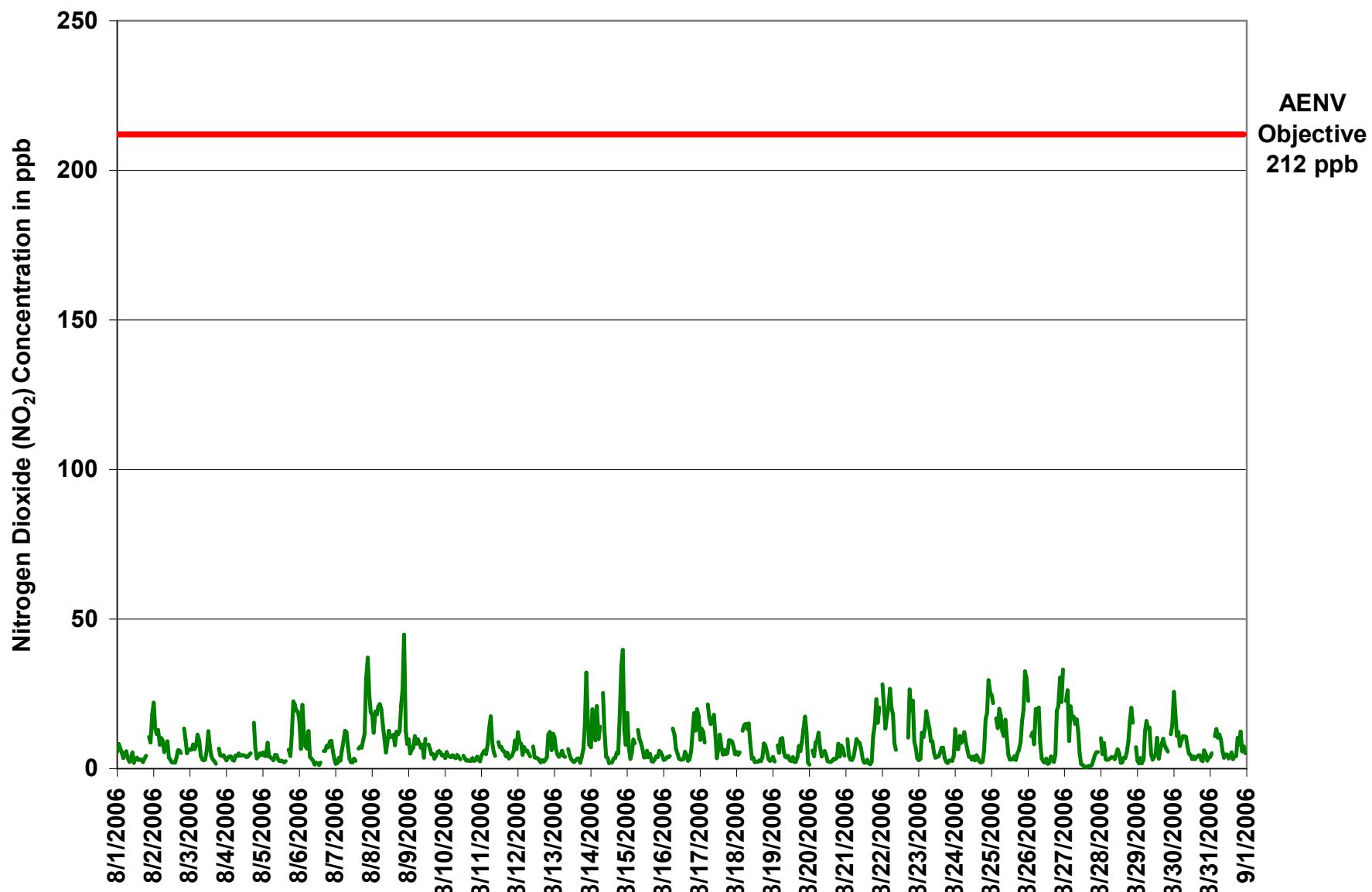


Figure 1. PAS - Crescent Heights Nitrogen Dioxide 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

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

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

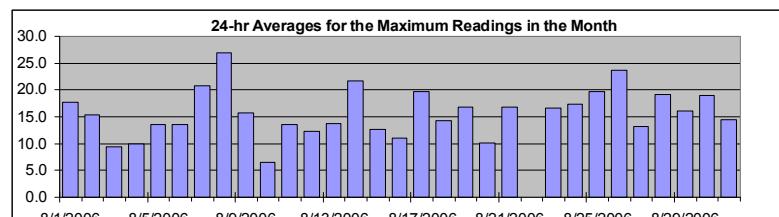
#### Summary

Maximum 1-hr Value:	73.2 ppb	22-Aug	2:00 3:00
Maximum 24-hr Value:	26.8 ppb	8-Aug	

AIC Time:	29 hrs	Operational Time:	708 hrs
Calibration Time:	7 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	16.2 ppb
	56.1 40.3 23.1 11.8 6.3 3.7 2.6	Median	11.8 ppb

#### Day Mountain Standard Time

	Hour Start Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
1-Aug-06	8 1:00	18	15	26	11	27	17	22	5	15	11	15	24	45	8	33	6	23	8	6	A	14	19	31	17.8	44.6	
2-Aug-06	31 2:00	20	33	23	16	13	20	13	28	17	7	6	3	3	3	8	11	14	13	A	37	18	9	15.3	37.1		
3-Aug-06	8 3:00	9	14	14	14	14	14	8	6	5	7	11	15	10	9	8	4	3	A	10	6	5	14	9	9.5	15.0	
4-Aug-06	5 4:00	5	6	7	5	5	11	8	9	6	9	17	6	5	31	8	7	A	28	25	5	5	9	6	9.9	31.4	
5-Aug-06	8 5:00	6	9	18	12	8	5	5	10	9	6	5	5	5	5	6	A	12	6	34	42	32	37	26	13.5	41.7	
6-Aug-06	34 6:00	17	30	27	19	13	36	6	7	7	3	5	4	2	6	A	13	13	10	10	21	13	8	6	13.6	36.4	
7-Aug-06	3 7:00	18	32	5	10	20	18	22	40	22	4	4	6	5	A	10	17	12	24	35	47	54	39	27	20.7	54.3	
8-Aug-06	33 8:00	19	34	27	23	36	25	19	29	23	29	19	16	A	18	13	32	20	18	40	51	52	29	11	26.8	52.4	
9-Aug-06	16 9:00	7	9	11	34	41	16	13	30	42	10	40	A	11	10	9	8	6	9	10	9	8	5	7	15.7	42.1	
10-Aug-06	4 10:00	7	6	6	5	6	5	5	7	19	16	A	5	5	4	5	4	5	8	4	4	9	6	4	6.5	19.2	
11-Aug-06	10 11:00	7	12	7	16	19	20	15	10	20	A	35	19	35	9	8	7	11	5	6	6	10	15	9	13.5	35.0	
12-Aug-06	17 12:00	17	30	7	18	9	21	11	9	A	12	6	5	6	5	3	5	4	6	7	21	28	10	26	12.3	29.9	
13-Aug-06	12 1:00	9	7	5	7	19	7	21	A	11	7	17	15	4	5	6	21	4	6	23	30	40	21	18	13.7	40.2	
14-Aug-06	14 2:00	29	27	21	30	34	20	A	37	34	6	21	5	4	4	7	7	12	11	35	44	55	29	11	21.6	54.8	
15-Aug-06	34 3:00	14	4	37	32	15	A	24	13	12	21	6	9	9	6	9	4	3	5	6	6	9	9	6	12.7	37.0	
16-Aug-06	4 4:00	4	5	6	6	A	18	19	9	7	4	4	4	6	9	9	4	5	14	17	33	18	26	23	11.1	33.3	
17-Aug-06	13 5:00	18	18	10	A	35	24	19	25	22	19	17	12	13	10	7	39	38	8	46	27	13	14	8	19.7	46.3	
18-Aug-06	9 6:00	6	7	A	24	33	26	17	28	11	7	45	4	5	4	4	4	6	39	10	9	5	4	21	14.3	44.8	
19-Aug-06	33 7:00	4	A	39	7	17	23	8	6	11	44	5	5	33	21	5	7	11	13	14	28	31	17	7	16.9	44.3	
20-Aug-06	2 8:00	A	10	5	15	11	16	12	5	32	39	7	4	3	3	4	5	6	6	12	8	11	9	6	10.1	39.2	
21-Aug-06	A 9:00	19	10	4	4	5	10	13	14	44	26	22	4	10	34	3	3	3	23	30	40	19	30	A	16.9	44.4	
22-Aug-06	69 10:00	29	73	27	31	34	69	25	15	35	C	C	C	C	C	C	C	C	23	56	32	59	20	17	12	N	73.2
23-Aug-06	7 11:00	7	29	20	23	57	21	20	20	36	19	12	22	7	8	40	17	8	3	3	7	4	4	6	16.6	56.5	
24-Aug-06	33 12:00	9	9	21	14	18	19	17	11	7	17	10	59	5	11	7	5	4	9	32	32	35	28	17.4	59.5		
25-Aug-06	27 1:00	24	A	22	30	29	20	18	15	26	13	9	5	6	5	8	5	12	11	15	25	26	62	42	19.7	61.9	
26-Aug-06	29 2:00	A	15	19	13	41	26	25	18	22	3	14	38	3	5	18	40	4	8	42	28	51	33	45	23.6	51.0	
27-Aug-06	A 3:00	33	41	12	37	20	26	22	19	17	11	3	3	2	1	2	4	2	3	6	12	7	8	A	13.2	41.3	
28-Aug-06	18 4:00	9	37	45	29	5	5	5	5	8	11	15	3	3	28	16	10	36	51	29	23	A	44	19.1	50.7		
29-Aug-06	5 5:00	3	44	3	4	23	18	17	19	9	5	7	8	40	6	11	29	28	15	15	11	A	17	33	16.1	43.6	
30-Aug-06	53 6:00	34	39	28	21	32	45	18	17	13	7	8	5	8	21	7	8	9	4	4	40	26	4	6	19.0	53.1	
31-Aug-06	7 7:00	8	A	13	25	18	16	13	9	5	9	6	6	9	32	6	7	8	23	18	36	9	39	9	14.4	38.5	
Hourly Avg		18.8	14.1	21.6	17.2	17.8	21.9	20.5	15.4	15.8	18.2	13.1	13.2	11.5	10.4	10.2	10.0	11.8	10.7	14.1	19.2	25.1	21.6	19.2	17.1		
Hourly Max		69.5	34.5	73.2	45.5	37.4	56.5	69.4	25.2	40.4	44.4	44.3	44.8	59.5	44.6	34.4	39.8	39.9	37.6	56.2	50.7	59.5	54.8	61.9	45.1		



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

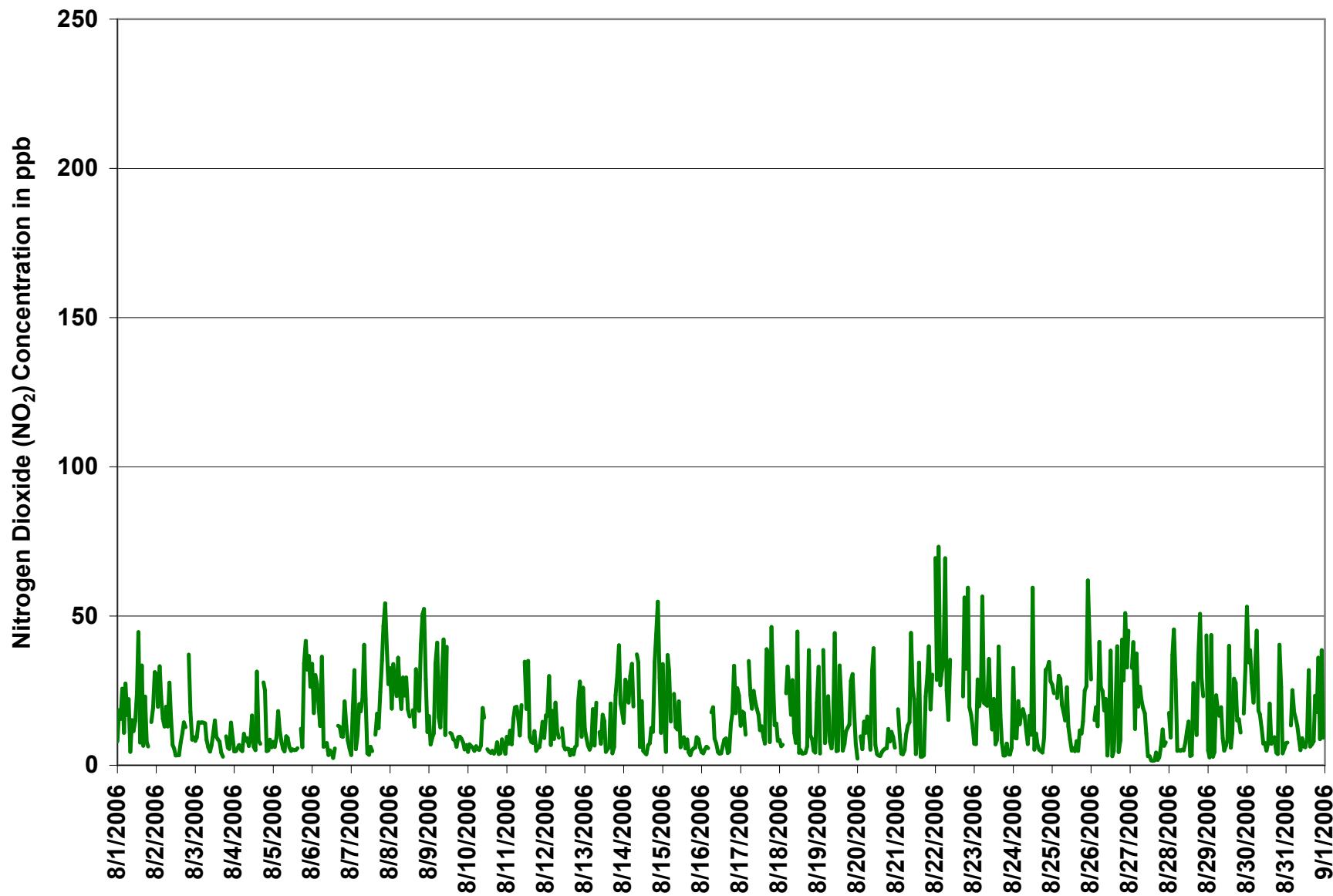
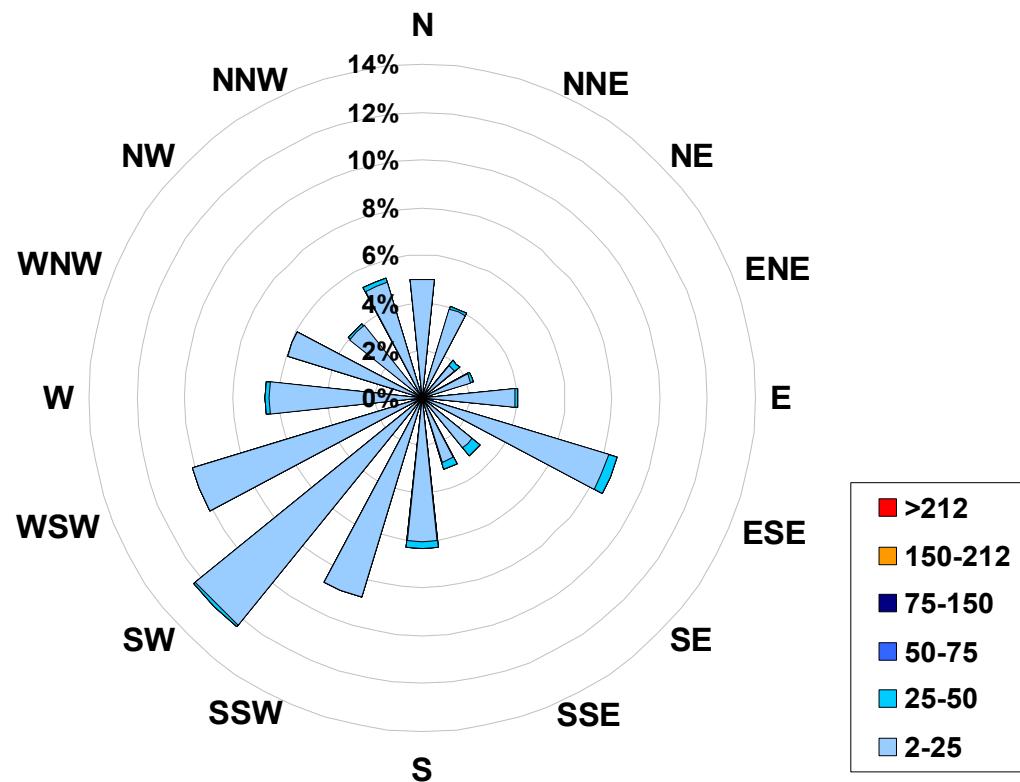


Figure 2. PAS - Crescent Heights Nitrogen Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend



1-hr Average Concentration Rose for Nitrogen Dioxide (in ppb) Located at  
the Crescent Heights Site for August 2006



Calms: 0%

Frequency Distribution of NO <sub>2</sub> in ppb			Frequency (hrs)
Range		Frequency (hrs)	
2.0	<	25	698
25	to	50	10
50	to	75	0
75	to	150	0
150	to	212	0
> 212			0
Total Non-Zero Values			708



## PAS - Crescent Heights - Nitric Oxide Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

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

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

Maximum 1-hr Average: 37.8 ppb 26-Aug 23:00 0:00  
Maximum 24-hr Average: 7.2 ppb 17-Aug

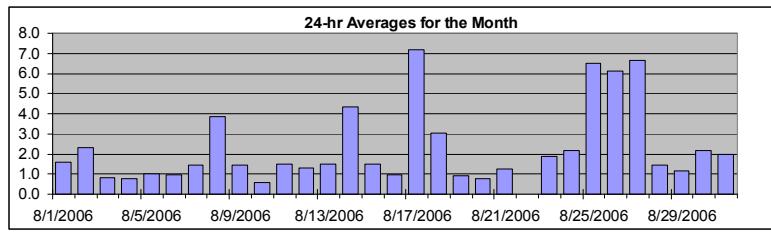
AIC Time:	29 hrs	Operational Time:	708 hrs
Calibration Time:	7 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	Median
	25.8 10.2 2.1 0.9 0.5 0.2 0.1	2.4 ppb	0.9 ppb

### Day Mountain Standard Time

	Hour Start 0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum	
	Hour End 1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Aug-06	0	0	0	3	0	1	4	3	2	2	4	2	3	3	1	2	1	1	0	1	A	0	0	0	3	1.6	4.1
2-Aug-06	5	2	9	1	0	2	5	4	6	6	1	1	1	1	1	1	2	1	1	A	1	0	0	0	0	2.3	9.3
3-Aug-06	0	0	1	1	1	1	2	1	1	0	1	2	4	2	1	0	0	0	A	0	0	0	0	0	0.8	4.2	
4-Aug-06	0	0	0	0	0	1	1	2	1	1	1	1	1	1	1	1	1	A	1	1	0	0	0	0	0.7	1.9	
5-Aug-06	0	0	0	1	1	1	1	1	3	2	1	1	1	1	1	1	1	A	1	0	1	1	1	1	3	1	
6-Aug-06	2	0	2	0	0	1	10	1	1	0	0	0	0	0	0	0	0	A	0	1	1	0	0	0	0	1.0	9.5
7-Aug-06	0	0	1	0	0	1	2	4	4	1	0	0	1	0	A	1	1	1	1	1	2	8	1	1	1.4	8.4	
8-Aug-06	1	0	5	3	3	17	13	6	4	2	3	4	3	A	2	1	2	1	1	1	5	12	0	0	3.8	16.6	
9-Aug-06	0	1	1	1	3	2	2	2	2	3	1	4	A	1	1	1	1	1	1	1	1	0	1	0	1.4	4.3	
10-Aug-06	0	0	0	1	0	1	1	1	1	2	1	A	1	1	1	0	0	1	1	0	0	0	1	0	0.6	1.8	
11-Aug-06	0	0	0	0	0	2	8	4	3	3	A	3	2	3	2	1	0	1	0	0	0	0	0	0	1.5	8.4	
12-Aug-06	2	2	5	0	3	1	2	2	2	A	1	1	1	1	1	0	0	0	0	0	0	2	0	3	1.3	4.6	
13-Aug-06	0	1	0	0	0	3	2	4	A	1	1	1	1	0	1	1	1	0	1	1	1	12	1	0	1.5	12.1	
14-Aug-06	0	4	3	1	15	3	7	A	16	6	1	2	1	1	1	1	1	1	1	1	2	8	25	0	0	4.4	24.9
15-Aug-06	4	0	0	2	3	1	A	7	5	4	3	1	1	1	1	0	0	0	0	0	0	0	0	0	1.5	6.6	
16-Aug-06	0	0	0	0	0	A	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	0	4	2	1.0	3.8	
17-Aug-06	0	1	2	1	A	27	31	18	28	25	9	1	2	4	2	1	2	2	1	3	1	0	1	0	7.2	30.6	
18-Aug-06	0	0	0	A	2	13	12	13	14	3	1	2	1	1	1	1	1	1	1	2	1	1	0	0	3.0	13.9	
19-Aug-06	1	0	A	1	0	1	2	1	1	1	2	1	1	2	1	1	1	1	1	1	0	0	0	0	0.9	2.3	
20-Aug-06	0	A	0	0	0	0	2	2	1	2	3	1	0	1	0	0	1	0	0	0	0	0	0	0	0.8	2.9	
21-Aug-06	A	0	1	0	0	0	1	3	3	4	3	1	1	1	2	1	1	0	1	1	1	1	A	1.3	3.6		
22-Aug-06	33	2	12	1	3	13	12	8	3	3	C	C	C	C	C	C	C	C	1	3	1	4	1	1	1	N	33.0
23-Aug-06	1	1	1	1	1	10	3	5	4	4	2	1	2	1	1	2	2	1	1	0	1	0	0	0	1.9	9.6	
24-Aug-06	1	0	0	1	1	2	6	8	4	2	2	1	1	1	2	1	1	1	1	1	1	2	6	4	2.2	7.6	
25-Aug-06	17	17	A	5	3	8	8	7	7	15	5	2	1	1	0	1	1	1	1	1	1	1	22	26	6.5	25.7	
26-Aug-06	9	A	1	1	0	16	16	28	6	1	1	2	2	1	1	1	2	1	1	1	2	1	11	1	38	6.1	37.8
27-Aug-06	A	15	36	0	10	6	26	21	18	7	2	1	0	0	0	0	0	0	0	0	0	0	0	A	6.6	36.4	
28-Aug-06	0	0	4	2	1	0	0	1	1	1	2	2	1	1	2	1	1	1	1	6	1	1	A	1.4	5.8		
29-Aug-06	0	0	2	0	0	1	2	3	5	1	1	1	1	3	1	1	1	1	1	0	1	0	A	1.2	4.6		
30-Aug-06	8	4	3	1	1	2	4	4	6	5	2	1	1	1	0	1	1	1	1	0	2	1	0	0	2.2	8.2	
31-Aug-06	0	0	A	1	3	1	2	3	3	2	2	2	2	4	1	1	1	2	1	4	0	6	0	5.6	2.0		
	Hourly Avg	3.1	1.9	3.2	1.1	1.9	4.6	6.2	5.6	5.2	3.8	2.0	1.5	1.3	1.2	1.0	1.0	0.8	0.8	0.9	1.4	2.8	1.7	3.0			
	Hourly Max	33.0	16.7	36.4	5.1	15.0	27.0	30.6	27.6	28.3	25.2	9.4	4.3	4.2	4.3	4.0	2.4	2.2	2.3	3.5	5.8	8.2	24.9	22.0	37.8		

### HOURLY AVERAGE TABLE

### Nitric Oxide (NO)



### 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

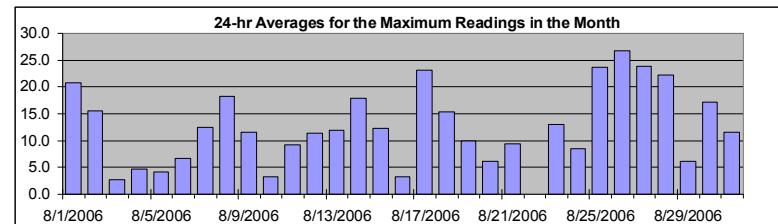


Station: Crescent Heights  
Station Owner: PAS

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

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

### Nitric Oxide (NO)



#### Summary

Maximum 1-hr Value:	370.8	ppb	22-Aug	0:00 1:00
Maximum 24-hr Value:	26.7	ppb	26-Aug	

AIC Time:	29 hrs	Operational Time:	708 hrs						
Calibration Time:	7 hrs	AMD Operational Uptime:	100.0%						
Percentile	99 125.8	95 59.7	75 13.7	50 2.8	25 1.6	5 1.1	1 0.9	Average 13.8 ppb	Median 2.8 ppb

#### Status Flag Characters

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

#### Day Mountain Standard Time

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	Daily Maximum
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
1-Aug-06	0	6	3	68	5	38	27	56	4	31	22	30	32	54	3	40	2	29	3	2	A	1	2	19	20.7	67.9
2-Aug-06	17	59	91	8	3	8	26	34	50	15	4	3	2	1	2	3	4	4	2	A	20	1	1	1	15.6	91.2
3-Aug-06	1	2	2	4	3	4	5	3	4	3	3	4	6	3	3	2	1	2	A	1	1	1	1	2.7	5.9	
4-Aug-06	1	1	2	2	2	2	10	4	5	3	5	14	3	2	22	2	2	A	21	2	1	1	1	1	4.7	21.7
5-Aug-06	1	2	1	5	3	3	3	7	7	4	4	4	4	2	2	2	A	2	2	8	10	2	17	2	4.2	17.0
6-Aug-06	12	2	6	3	2	3	96	2	2	4	3	2	2	1	2	A	2	2	1	1	1	1	1	1	6.6	96.1
7-Aug-06	2	12	33	2	2	3	4	11	67	23	3	2	3	1	A	2	6	3	3	9	36	53	7	2	12.6	67.1
8-Aug-06	3	2	31	18	7	126	20	13	34	16	14	6	5	A	4	3	11	3	1	14	44	41	3	1	18.3	126.3
9-Aug-06	1	2	2	1	1	65	46	5	11	26	40	3	41	A	3	2	2	3	2	3	2	1	2	1	11.6	64.8
10-Aug-06	1	1	1	1	1	2	2	2	2	33	11	A	1	2	2	1	2	2	2	1	1	2	1	1	3.3	33.0
11-Aug-06	1	2	1	1	2	8	13	25	7	52	A	39	18	26	4	2	3	3	1	1	2	1	2	1	9.3	52.1
12-Aug-06	5	6	69	2	49	4	24	6	4	A	3	8	3	2	2	2	2	1	1	1	7	33	1	27	11.4	69.5
13-Aug-06	1	2	2	1	2	37	6	58	A	2	3	42	30	1	2	2	24	2	2	8	11	33	3	2	12.0	58.1
14-Aug-06	1	28	27	4	47	73	14	A	31	31	2	21	2	2	2	2	3	3	2	14	31	65	1	1	17.8	73.3
15-Aug-06	27	1	1	87	65	3	A	36	9	7	22	2	2	1	1	2	2	1	2	1	2	2	2	12.2	87.3	
16-Aug-06	1	1	1	1	1	A	4	6	2	2	1	1	2	2	3	2	2	2	3	4	13	1	13	9	3.3	12.6
17-Aug-06	1	3	4	2	A	82	62	49	44	33	31	13	5	6	4	2	32	64	2	67	12	1	10	1	23.1	82.1
18-Aug-06	1	1	1	A	35	70	48	21	36	5	2	72	2	2	2	2	2	2	28	1	1	1	1	15.4	72.5	
19-Aug-06	16	1	A	43	2	2	7	2	2	14	35	2	2	46	38	2	2	2	2	2	1	2	2	1	10.0	46.2
20-Aug-06	2	A	1	1	2	1	4	5	2	46	58	3	1	1	1	2	1	1	1	1	1	2	2	6.1	58.3	
21-Aug-06	A	2	1	1	1	1	3	6	7	53	44	23	2	7	24	2	2	1	5	9	7	2	4	A	9.4	53.3
22-Aug-06	371	7	195	4	29	71	148	19	5	33	C	C	C	C	C	C	C	17	19	6	38	2	2	1	N	370.8
23-Aug-06	2	2	2	2	2	141	5	22	20	30	10	6	30	3	2	18	4	2	1	1	2	1	1	1	13.0	141.3
24-Aug-06	14	1	2	3	2	15	16	37	11	4	14	22	3	3	5	3	2	4	2	1	4	12	15	8	8.4	36.7
25-Aug-06	33	23	A	18	49	44	11	16	12	35	8	4	2	2	1	2	2	4	2	2	14	3	182	73	23.6	182.4
26-Aug-06	19	A	3	2	2	107	42	51	22	15	1	60	37	1	2	15	37	1	2	13	3	54	5	119	26.7	118.5
27-Aug-06	A	53	91	1	155	25	83	59	22	16	4	1	1	1	1	2	1	1	1	1	1	1	1	A	23.8	154.7
28-Aug-06	1	1	115	63	33	1	2	2	2	3	4	9	2	1	32	12	2	24	143	3	4	A	22.2	143.0	6.1	36.9
29-Aug-06	1	1	25	1	1	8	4	6	9	3	3	3	2	37	2	3	3	2	1	2	3	A	1	20	17.3	81.2
30-Aug-06	73	30	25	13	26	54	81	9	10	13	5	4	2	3	11	3	2	2	2	1	39	5	1	1	17.3	81.2
31-Aug-06	1	2	A	2	25	4	4	5	5	3	7	3	3	5	48	3	3	2	6	2	55	2	71	3	11.6	70.7

Hourly Avg 21.2 8.8 26.4 12.2 20.8 33.0 26.0 19.3 15.5 19.1 11.3 15.2 7.4 7.7 6.9 5.6 6.0 5.6 4.8 10.7 12.3 11.0 11.8 12.7  
Hourly Max 370.8 58.8 195.2 87.3 154.7 141.3 147.6 59.3 67.1 53.3 58.3 72.5 36.5 53.9 48.4 39.9 36.5 63.7 27.8 143.0 54.8 65.4 182.4 118.5



## PAS - Crescent Heights - Oxides of Nitrogen Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

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

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

Maximum 1-hr Average: 70.9 ppb 26-Aug 23:00 0:00  
Maximum 24-hr Average: 19.5 ppb 25-Aug

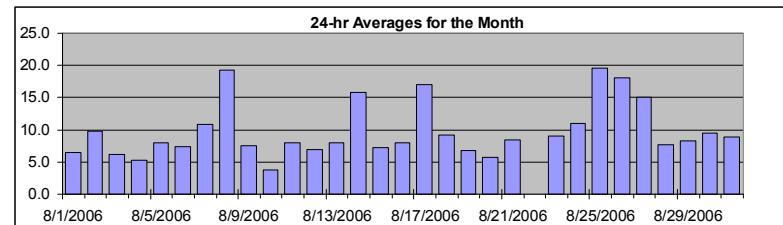
AIC Time:	29 hrs	Operational Time:	708 hrs
Calibration Time:	7 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	Median
	48.3 31.3 12.5 6.4 4.0 2.4 1.4	10.1 ppb	6.4 ppb

### Day Mountain Standard Time

	Hour Start 0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
	Hour End 1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Aug-06	5	8	6	8	3	6	9	6	3	6	9	4	5	6	4	4	3	3	5	A	11	9	21	6.5	20.8	
2-Aug-06	27	15	21	14	8	12	14	10	13	15	5	4	3	2	3	5	8	7	6	A	14	10	5	6	9.8	27.1
3-Aug-06	6	6	8	7	8	12	11	5	4	3	3	8	17	9	5	3	3	2	A	7	4	4	5	3	6.2	16.5
4-Aug-06	3	4	4	4	3	3	5	5	7	5	6	6	5	4	5	5	6	A	16	7	4	4	5	4	5.2	16.3
5-Aug-06	5	4	4	9	4	4	4	4	7	6	4	3	4	3	2	3	A	7	4	12	23	22	23	19	8.0	23.3
6-Aug-06	18	7	23	13	8	7	22	5	4	3	1	2	2	1	2	A	6	6	8	7	9	9	6	3	7.4	23.0
7-Aug-06	1	2	5	2	6	9	14	16	11	4	2	2	4	3	A	7	8	8	10	12	32	45	25	19	10.8	45.2
8-Aug-06	18	12	24	21	23	38	33	20	14	6	12	16	13	A	13	9	14	13	13	22	31	56	13	8	19.2	56.2
9-Aug-06	10	5	6	7	14	10	12	10	9	11	4	14	A	9	7	5	6	4	5	6	6	5	5	5	7.6	14.0
10-Aug-06	4	6	4	4	4	5	4	4	5	5	4	A	5	4	3	3	3	3	3	4	3	3	2	3.8	5.8	
11-Aug-06	4	5	6	5	8	15	26	13	8	6	A	11	9	10	8	7	4	6	3	4	4	6	10	8.0	25.7	
12-Aug-06	14	10	13	5	10	6	7	7	5	A	8	4	4	4	3	2	3	2	3	4	11	14	6	14.3	7.0	
13-Aug-06	11	7	5	4	5	9	6	7	A	7	5	4	3	2	3	4	4	2	4	7	15	44	17	8	7.9	43.7
14-Aug-06	7	24	14	10	35	13	20	A	41	19	5	5	2	2	2	4	4	6	5	18	42	64	13	8	15.8	64.2
15-Aug-06	22	7	3	7	12	9	A	19	14	13	9	4	4	6	4	5	2	2	3	4	4	6	5	4	7.3	21.9
16-Aug-06	3	3	3	4	4	A	15	13	7	6	4	3	3	3	6	5	3	3	6	13	20	13	23	19	8.0	23.3
17-Aug-06	10	14	14	9	A	48	48	33	44	43	20	5	9	16	9	6	8	7	6	13	10	9	8	5	17.0	48.3
18-Aug-06	6	5	5	A	15	28	27	26	29	12	4	6	3	3	2	3	3	4	10	8	6	3	3	3	9.2	28.8
19-Aug-06	4	2	A	9	5	10	12	7	5	5	6	3	3	6	3	3	4	8	6	9	13	18	12	2	6.7	17.5
20-Aug-06	1	A	6	4	9	10	14	9	5	8	8	6	3	3	2	3	3	3	4	9	4	8	7	4	5.7	13.8
21-Aug-06	A	10	5	3	3	4	8	13	12	12	9	4	2	3	4	2	2	2	12	15	24	16	21	A	8.5	24.2
22-Aug-06	61	23	25	18	23	40	32	26	11	9	C	C	C	C	C	C	C	12	30	21	27	10	8	4	N	61.1
23-Aug-06	4	4	13	12	15	29	19	19	13	13	8	5	6	6	7	10	9	5	3	3	4	4	3	5	9.0	29.1
24-Aug-06	15	7	7	12	10	12	19	17	10	6	6	5	5	4	6	5	3	3	7	18	21	35	30	11.1	35.5	
25-Aug-06	41	38	A	22	17	28	26	20	18	31	15	6	4	4	3	5	3	6	7	10	17	20	54	56	19.5	55.8
26-Aug-06	32	A	11	13	9	36	35	48	15	5	3	3	5	2	2	5	5	3	5	22	22	41	23	71	18.1	70.9
27-Aug-06	A	37	63	10	31	22	43	36	35	20	7	2	1	1	1	1	1	1	3	5	6	6	A	15.1	62.5	
28-Aug-06	10	5	12	5	4	3	4	5	5	4	6	9	7	2	3	5	5	6	10	21	21	16	A	10	7.7	21.5
29-Aug-06	3	2	5	2	3	13	18	17	18	6	4	5	5	13	4	7	9	10	8	7	6	A	12	15	8.3	18.1
30-Aug-06	34	22	14	13	8	12	15	14	16	13	7	6	4	5	4	4	5	5	3	3	8	5	3	4	9.5	33.8
31-Aug-06	4	6	A	11	17	12	13	13	9	6	7	7	5	6	10	5	6	5	12	9	17	7	13	4	8.9	17.1
	Hourly Avg	13.2	10.4	11.8	8.9	10.8	15.5	17.8	14.8	13.2	10.2	6.6	5.5	5.0	4.9	4.5	4.6	4.9	5.1	7.1	9.6	14.1	16.7	12.7	12.6	
	Hourly Max	61.1	38.2	62.5	21.7	35.5	48.3	47.6	48.0	43.9	43.1	20.4	16.2	16.5	15.5	12.7	9.6	14.1	12.5	30.1	22.1	41.8	64.2	54.3	70.9	

### HOURLY AVERAGE TABLE

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



### 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

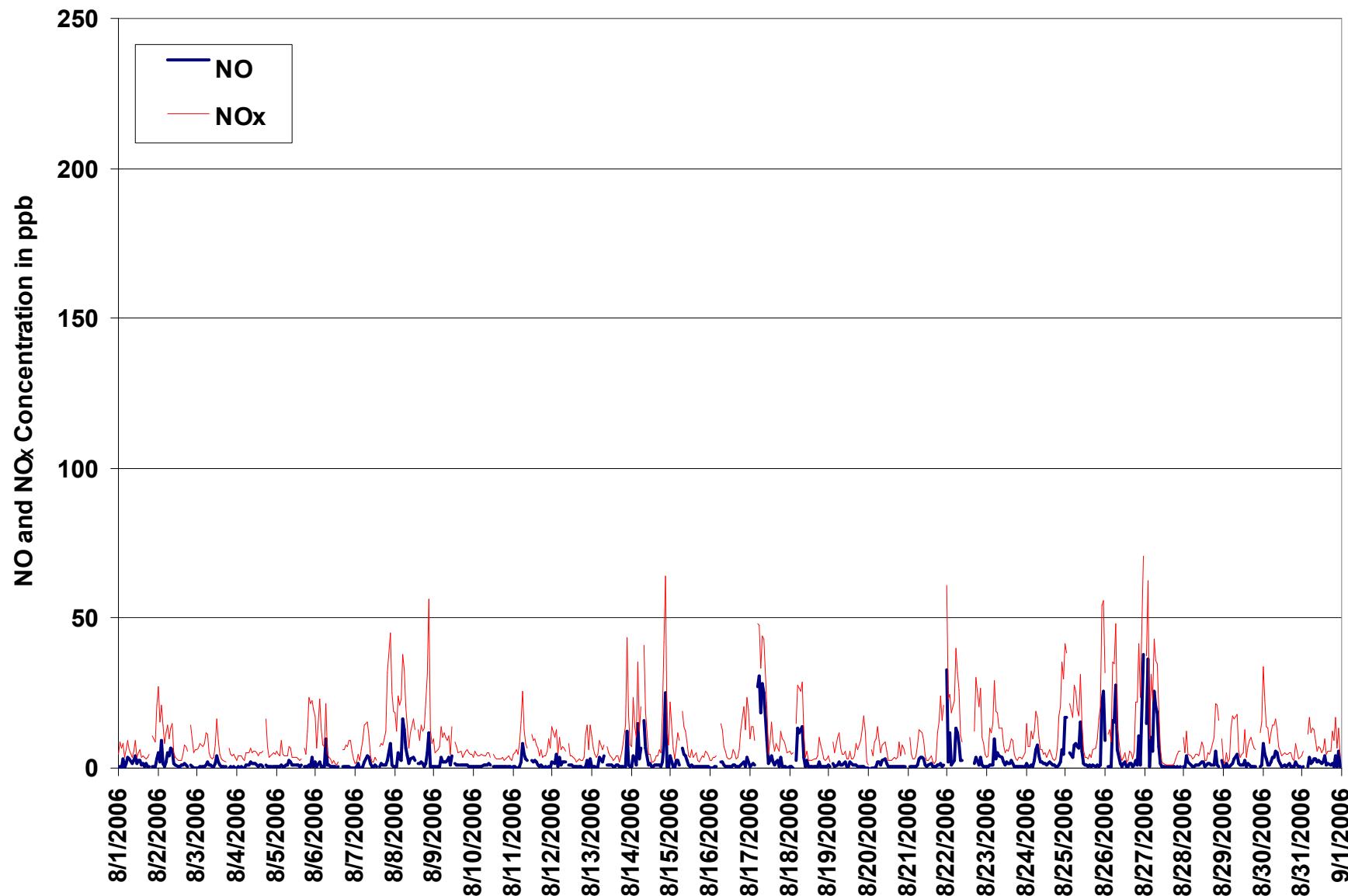


Figure 3. PAS - Crescent Heights Oxides of Nitrogen 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

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

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

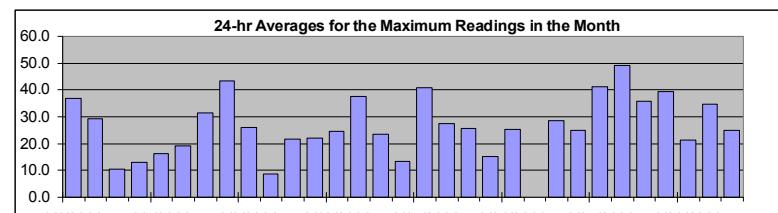
#### Summary

Maximum 1-hr Value:	438.5 ppb	22-Aug 0:00 1:00
Maximum 24-hr Value:	49.0 ppb	26-Aug

AIC Time:	29 hrs	Operational Time:	708 hrs
Calibration Time:	7 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	Median
	160.7 94.8 37.4 14.2 7.1 4.1 2.6	28.6 ppb	14.2 ppb

#### Day Mountain Standard Time

	Hour Start Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
1-Aug-06	7 1:00	23	17	93	16	64	44	79	7	46	22	46	47	99	10	74	8	51	9	7	A	15	20	49	37.0	99.1	
2-Aug-06	47 2:00	75	118	27	16	20	49	38	78	31	9	8	4	4	4	10	13	17	14	A	57	18	9	29.4	118.0		
3-Aug-06	8 3:00	9	15	16	14	15	17	10	6	5	8	13	20	12	10	9	4	3	A	10	6	5	15	10.4	20.4		
4-Aug-06	4 4:00	5	6	7	6	5	18	10	10	8	13	30	7	6	52	9	8	A	45	25	5	5	9	6	13.0	52.1	
5-Aug-06	8 5:00	7	10	22	14	10	8	6	14	14	9	6	6	5	7	7	A	14	6	40	46	33	53	28	16.2	52.9	
6-Aug-06	45 6:00	20	36	29	21	16	129	7	8	9	4	7	4	2	7	A	14	14	11	10	22	12	9	6	19.2	128.7	
7-Aug-06	3 7:00	29	66	6	10	22	19	32	100	45	4	3	9	5	A	10	23	14	26	41	82	102	44	31.5	101.9		
8-Aug-06	35 8:00	19	63	45	29	148	42	31	64	36	42	23	21	A	21	15	42	23	19	53	91	91	30	11	43.2	148.0	
9-Aug-06	17 9:00	7	9	11	95	89	18	24	56	81	11	80	A	13	12	9	9	7	10	10	9	8	6	7	26.1	95.2	
10-Aug-06	5 10:00	7	6	6	5	7	6	6	8	51	26	A	6	5	5	5	5	5	8	4	4	10	6	4	8.6	50.6	
11-Aug-06	9 11:00	7	12	7	17	27	30	35	16	69	A	73	38	61	12	9	9	13	5	6	6	10	15	9	21.5	73.5	
12-Aug-06	21 12:00	22	90	7	65	12	44	16	12	A	15	14	7	7	7	4	6	6	6	28	58	9	49	22.2	90.1		
13-Aug-06	12 13:00	9	7	5	8	55	12	76	A	13	9	59	45	4	7	7	43	4	6	31	39	71	22	18	24.4	75.7	
14-Aug-06	14 14:00	55	53	25	75	108	34	A	65	63	7	40	5	4	4	8	9	15	12	45	69	118	30	10	37.7	118.3	
15-Aug-06	57 15:00	14	4	125	94	16	A	59	22	19	43	7	9	10	6	9	3	3	5	6	6	10	8	6	23.6	124.9	
16-Aug-06	4 16:00	4	5	6	5	A	22	24	10	8	5	4	4	7	10	10	5	5	16	19	45	18	36	32	13.3	45.1	
17-Aug-06	13 17:00	20	19	11	A	105	85	68	70	53	49	28	16	18	13	9	65	101	8	103	38	14	24	8	40.9	104.8	
18-Aug-06	9 18:00	6	7	A	58	93	70	37	58	15	9	117	5	6	4	5	4	7	64	10	9	5	4	31	27.4	117.3	
19-Aug-06	49 19:00	4	A	81	8	16	30	9	7	25	79	6	5	74	58	6	8	13	13	15	28	32	17	7	25.6	81.1	
20-Aug-06	2 A 20:00	10	5	14	11	19	17	6	76	98	9	4	5	4	4	4	6	6	6	13	8	12	10	6	15.2	98.0	
21-Aug-06	A 21:00	20	10	5	4	5	14	19	20	98	70	45	4	17	58	3	3	4	28	34	45	19	33	A	25.3	97.6	
22-Aug-06	438 22:00	35	259	30	60	103	218	45	20	68	C	C	C	C	C	C	C	36	75	38	97	21	18	13	N	438.5	
23-Aug-06	9 23:00	8	31	21	25	182	26	40	39	66	28	18	52	10	11	58	20	8	4	4	10	5	4	7	28.6	182.0	
24-Aug-06	45 0:00	11	10	25	15	32	35	50	22	11	31	30	61	8	15	8	6	7	5	10	36	44	49	34	25.0	60.9	
25-Aug-06	59 1:00	46	A	36	74	72	30	34	26	62	20	12	6	7	5	10	5	15	11	15	38	27	227	107	41.1	226.7	
26-Aug-06	47 2:00	A	17	21	14	136	69	75	42	37	5	74	74	4	6	33	72	5	9	55	30	102	37	162	49.0	161.7	
27-Aug-06	A 3:00	86	123	13	191	44	105	78	40	33	14	4	3	2	2	2	5	2	3	6	12	6	8	A	35.6	191.1	
28-Aug-06	18 4:00	9	141	108	60	6	6	6	6	10	15	23	4	4	56	26	12	53	187	32	26	A	93	39.4	187.4		
29-Aug-06	5 5:00	3	69	3	5	31	21	21	27	11	7	8	9	76	7	13	32	29	15	16	12	A	18	51	21.3	76.4	
30-Aug-06	126 6:00	64	63	40	46	76	125	25	25	25	10	10	7	9	32	9	9	10	5	4	72	31	5	6	34.6	125.5	
31-Aug-06	8 7:00	9	A	14	46	22	20	18	14	8	14	9	9	14	80	8	9	9	29	20	88	10	101	11	24.8	100.7	



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

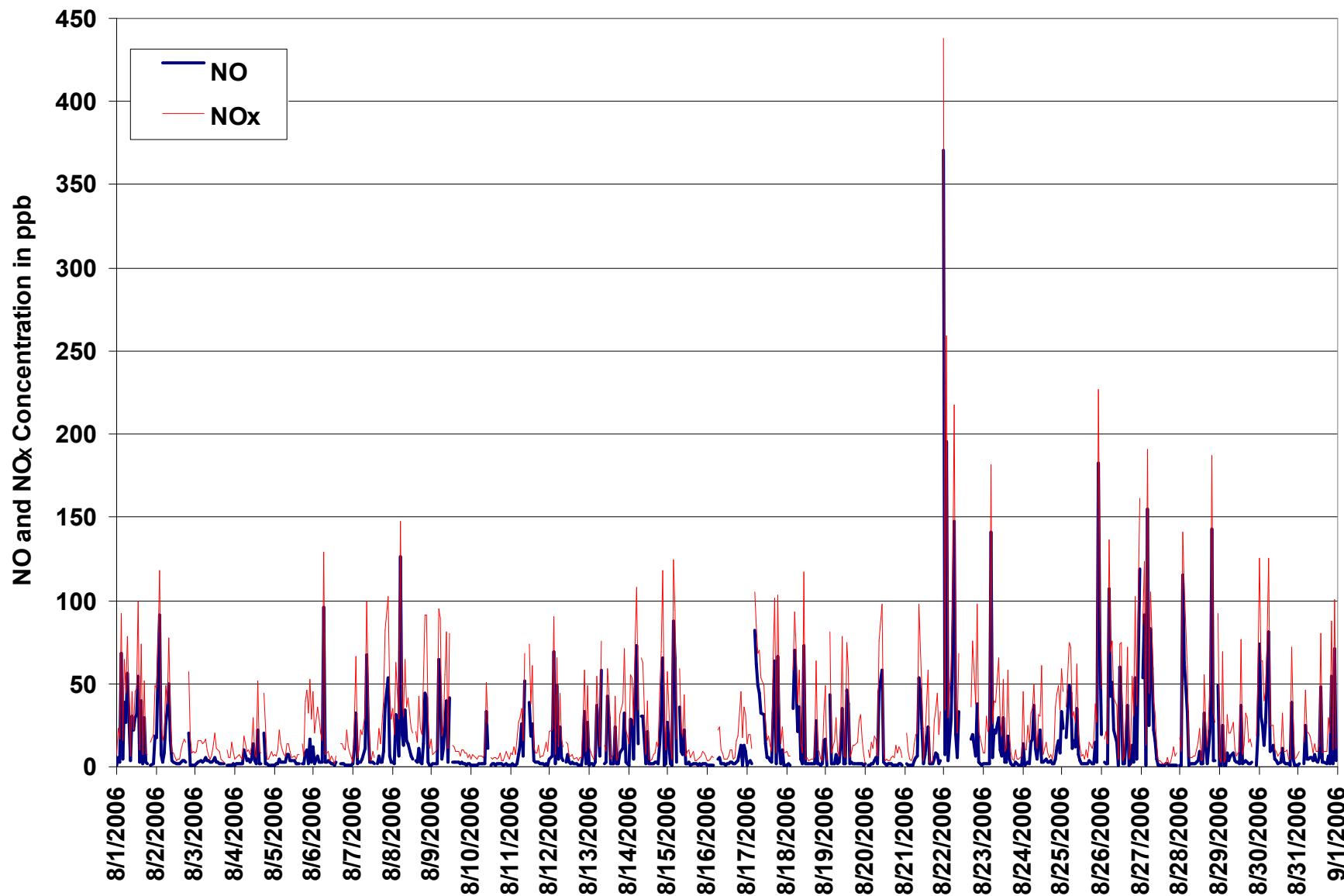


Figure 4. PAS - Crescent Heights Oxides of Nitrogen Instantaneous (30 Second) Maximum Value Monthly Trend



## PAS - Crescent Heights - Ozone Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

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

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

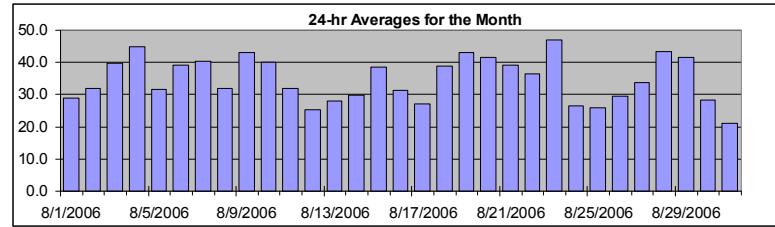
Number of 1-hr Exceedances: 0  
Maximum 1-hr Average: 67.7 ppb 23-Aug 13:00 14:00  
Maximum 24-hr Average: 47.0 ppb 23-Aug

AIC Time:	32 hrs	Operational Time:	709 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	63.9	57.1	47.7	37.0	22.1	7.9	2.6	34.9 ppb	37.0 ppb

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	
1-Aug-06	16	12	14	17	21	20	16	23	25	27	30	36	39	43	45	46	46	44	41	38	A	29	26	14	29.0	46.0
2-Aug-06	7	11	15	11	17	14	14	19	20	28	40	44	48	49	49	48	46	49	50	A	39	40	38	33	31.8	50.0
3-Aug-06	31	30	27	30	27	20	20	25	30	40	47	49	45	53	56	58	56	52	A	46	45	43	42	43	39.8	58.3
4-Aug-06	40	40	37	33	35	37	34	34	35	38	41	46	54	60	59	60	62	A	52	47	52	51	47	41	45.0	61.6
5-Aug-06	36	33	33	23	23	21	23	25	25	28	33	35	38	40	43	46	A	48	50	41	26	23	18	16	31.6	50.2
6-Aug-06	17	23	9	17	24	25	20	31	37	45	53	56	56	56	56	56	A	57	55	51	49	40	33	39	39.1	57.3
7-Aug-06	49	49	46	45	40	33	28	29	37	46	48	49	51	55	A	56	54	54	51	46	23	9	14	15	40.3	55.6
8-Aug-06	17	18	12	8	3	6	10	18	32	42	44	46	51	A	54	59	55	57	52	38	27	6	39	39	31.9	58.6
9-Aug-06	34	39	35	29	23	24	22	27	40	40	51	49	A	64	67	67	62	61	56	48	43	40	37	34	43.0	67.0
10-Aug-06	32	26	25	22	21	20	22	25	28	35	44	A	53	54	55	57	57	58	56	57	54	44	38	39	40.2	58.4
11-Aug-06	36	27	24	22	18	13	7	20	27	33	A	41	46	48	48	50	50	46	43	37	32	28	20	21	32.0	49.7
12-Aug-06	12	15	17	19	15	15	15	18	21	A	29	33	33	36	38	39	38	35	34	34	24	18	24	17	25.2	38.7
13-Aug-06	13	12	13	13	12	11	13	16	A	28	41	43	43	45	46	47	47	47	44	40	28	7	17	23	28.1	47.1
14-Aug-06	21	7	17	17	5	19	15	A	20	34	45	46	48	50	51	50	48	48	48	34	13	2	22	25	29.9	51.0
15-Aug-06	14	24	29	27	24	20	A	19	24	28	38	46	56	67	65	62	52	51	48	44	41	36	33	36	38.4	67.0
16-Aug-06	38	34	35	34	29	A	21	22	29	31	38	40	40	39	36	40	45	46	43	31	19	18	5	7	31.3	46.4
17-Aug-06	17	10	7	10	A	1	1	3	4	10	27	49	45	43	53	49	46	48	46	39	35	30	25	26	27.2	52.6
18-Aug-06	23	21	17	A	12	8	7	11	18	35	49	51	52	54	56	55	56	55	51	48	48	53	54	55	38.7	56.5
19-Aug-06	60	60	A	51	48	38	35	39	43	45	46	48	48	42	45	48	48	45	46	40	32	23	21	40	43.0	60.4
20-Aug-06	45	A	42	41	30	24	18	24	34	33	41	47	50	51	53	56	59	61	59	48	42	31	32	33	41.5	61.0
21-Aug-06	A	29	30	31	29	26	24	22	28	40	48	52	55	55	57	59	60	59	47	39	30	29	16	A	39.2	59.9
22-Aug-06	14	12	23	14	7	3	11	14	29	38	49	55	52	57	58	57	58	57	37	45	35	46	51	53	36.3	58.4
23-Aug-06	53	50	A	37	29	21	18	21	31	39	56	62	63	68	67	63	63	67	64	49	43	42	41	36	47.0	67.7
24-Aug-06	24	A	22	16	17	12	8	12	18	27	33	38	41	45	45	45	44	43	41	36	22	15	3	2	26.5	45.1
25-Aug-06	1	1	A	5	9	5	9	17	21	19	29	42	47	51	52	52	51	49	46	38	27	21	3	3	26.0	52.4
26-Aug-06	6	A	19	14	16	5	6	9	26	42	47	49	50	51	53	52	51	52	49	47	25	10	13	2	29.4	53.4
27-Aug-06	A	9	4	21	3	3	5	8	13	27	47	55	56	54	54	55	55	54	49	43	37	38	A	33.8	56.1	
28-Aug-06	37	40	38	44	46	46	42	43	46	52	52	51	51	52	49	48	45	41	32	23	27	A	43	52.4		
29-Aug-06	47	47	44	44	42	28	26	27	31	44	47	48	46	40	52	54	49	46	45	44	43	A	34	31	41.7	53.5
30-Aug-06	18	19	29	25	28	29	26	14	13	18	29	39	44	44	C	C	C	A	46	38	32	30	26	23	28.4	46.0
31-Aug-06	25	22	A	16	10	14	17	16	16	20	21	24	30	31	33	31	30	23	21	15	19	12	12	21.2	32.8	
	Hourly Avg	27.0	25.6	24.5	24.6	22.0	18.6	17.7	21.0	26.7	33.8	41.3	45.6	47.8	49.9	51.6	52.0	51.6	50.6	47.2	40.7	33.3	28.0	27.7	27.9	
	Hourly Max	59.7	60.4	45.6	51.1	47.7	45.6	42.5	42.7	46.3	51.7	55.5	61.5	63.3	67.7	67.3	66.8	62.5	66.8	63.9	57.5	54.3	52.7	54.4	55.4	

### HOURLY AVERAGE TABLE

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



### 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

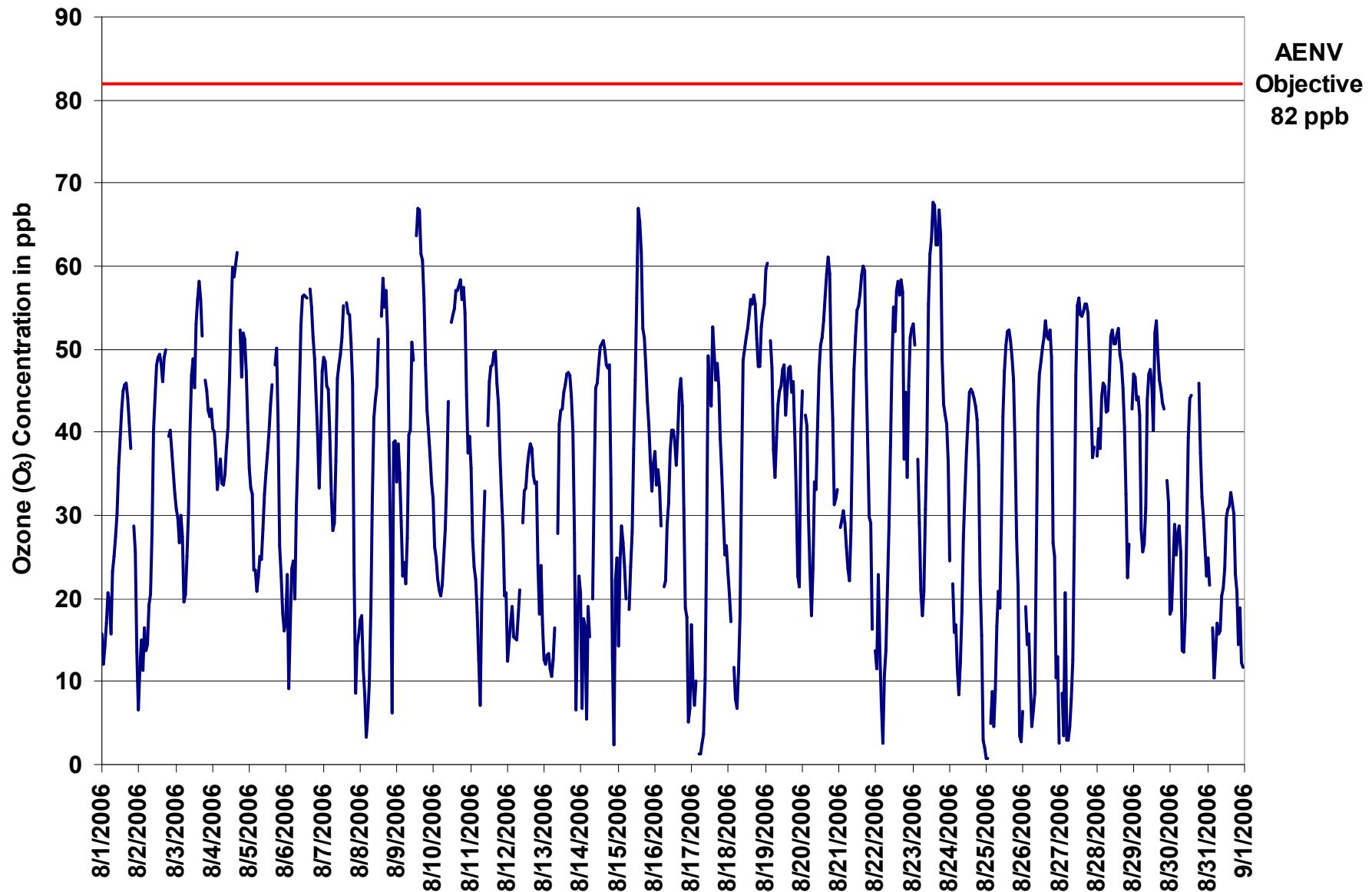


Figure 5. PAS - Crescent Heights Ozone 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

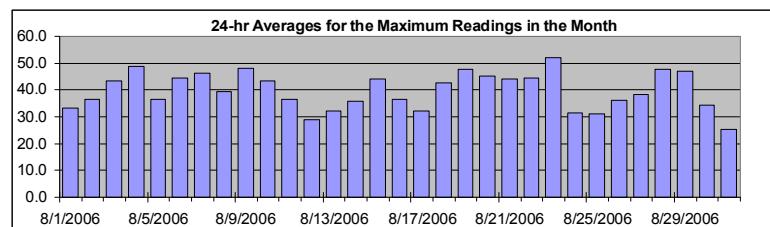
### Ozone (O<sub>3</sub>)

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

#### Summary

Maximum 1-hr Value:	77.0	ppb	15-Aug	14:00 15:00
Maximum 24-hr Value:	52.2	ppb	23-Aug	

AIC Time:	32 hrs	Operational Time:	709 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99 71.5	95 61.5	75 51.5	50 41.5	25 28.2	5 14.4	1 6.8	Average 39.8 ppb	Median 41.5 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 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
1-Aug-06	19	16	21	22	24	22	20	26	27	31	35	39	42	46	49	49	50	46	45	43	A	34	34	29	33.4	50.4	
2-Aug-06	14	19	22	20	24	17	19	22	24	38	44	48	50	51	52	52	51	54	55	A	46	45	41	37	36.6	54.8	
3-Aug-06	33	32	31	34	32	23	24	28	36	43	49	53	51	56	59	62	61	53	A	49	47	45	49	47	43.4	61.9	
4-Aug-06	43	44	41	35	37	39	38	36	38	40	44	51	58	62	61	66	66	A	60	56	55	53	51	44	48.7	66.5	
5-Aug-06	41	36	36	31	27	23	25	27	27	32	35	37	40	42	47	49	A	52	53	51	48	31	31	25	36.7	52.6	
6-Aug-06	26	29	19	21	34	34	29	36	43	50	57	59	58	58	59	A	60	58	55	54	51	41	43	52	44.6	60.4	
7-Aug-06	50	51	49	48	49	40	34	36	41	50	49	51	55	58	A	59	59	59	58	54	45	20	24	24	46.1	59.2	
8-Aug-06	25	21	20	14	8	14	16	22	39	45	49	53	60	A	60	65	64	64	59	50	40	33	44	44	39.5	65.0	
9-Aug-06	42	43	39	33	30	29	27	38	43	46	54	60	A	68	74	74	65	62	60	53	46	42	40	35	48.0	74.4	
10-Aug-06	35	30	27	26	23	22	26	28	34	41	49	A	56	56	56	60	60	61	59	59	57	55	40	41	43.5	61.1	
11-Aug-06	40	32	28	25	22	21	15	25	32	36	A	45	51	52	52	53	52	50	47	41	36	32	27	23	36.4	52.6	
12-Aug-06	22	20	22	21	21	19	19	21	24	A	33	34	36	39	40	41	40	37	36	36	35	22	26	26	29.0	41.0	
13-Aug-06	16	14	15	15	13	13	15	20	A	35	45	45	46	47	48	50	51	50	48	44	41	21	21	25	32.1	50.9	
14-Aug-06	23	11	26	25	17	25	25	A	29	42	48	49	50	52	53	53	51	52	45	32	11	27	27	36.0	53.3		
15-Aug-06	28	29	31	29	29	25	A	25	28	32	50	50	66	73	77	72	54	54	51	47	45	39	37	40	44.0	77.0	
16-Aug-06	41	39	39	38	33	A	30	29	32	35	42	42	42	41	41	43	51	49	51	37	31	21	15	15	36.4	51.2	
17-Aug-06	22	16	14	12	A	4	3	4	6	18	44	54	50	48	57	57	52	52	49	44	39	37	29	29	32.3	57.5	
18-Aug-06	27	24	20	A	18	17	10	17	29	43	51	54	55	56	58	57	59	58	58	52	51	54	56	61	42.7	60.7	
19-Aug-06	62	62	A	54	51	44	39	42	47	47	48	49	51	46	48	51	51	51	51	45	44	31	39	43	47.6	62.4	
20-Aug-06	46	A	43	42	38	26	21	33	37	36	47	51	52	53	55	59	62	63	62	55	46	38	35	34	45.0	62.9	
21-Aug-06	A	33	31	32	31	29	26	28	37	45	54	54	56	57	60	61	62	61	60	47	43	34	30	A	44.1	62.2	
22-Aug-06	27	20	35	23	14	9	18	20	36	44	52	62	58	63	62	64	66	63	57	58	52	53	59	58	44.6	65.9	
23-Aug-06	56	53	A	42	36	36	23	27	35	51	60	65	68	72	72	69	68	71	71	52	45	44	43	39	52.2	72.1	
24-Aug-06	35	A	27	22	19	16	14	18	25	31	37	41	44	47	49	49	47	45	44	40	35	25	7	5	31.5	49.3	
25-Aug-06	2	2	A	13	14	11	14	19	25	28	35	47	52	54	55	57	53	53	50	44	35	33	14	9	31.2	57.3	
26-Aug-06	19	A	22	18	18	10	11	14	40	47	50	52	53	54	55	55	55	55	53	47	35	37	20	9	36.0	55.3	
27-Aug-06	A	15	15	25	19	8	8	11	17	35	52	58	58	57	55	56	57	57	56	52	51	38	42	A	38.3	57.7	
28-Aug-06	42	43	43	46	48	48	45	45	50	55	56	56	54	54	59	52	51	50	44	40	34	32	A	47.6	58.7		
29-Aug-06	49	48	46	46	45	36	30	29	40	48	50	50	48	49	56	58	58	54	52	49	54	A	45	42	47.0	58.4	
30-Aug-06	35	33	37	32	32	35	32	17	19	22	38	44	47	49	C	C	A	49	43	37	33	29	28	34.5	49.0		
31-Aug-06	30	28	A	21	14	20	21	19	20	23	23	27	33	34	35	35	34	34	31	26	25	21	15	14	25.3	35.5	
Hourly Avg	32.6	30.1	29.6	28.9	27.3	23.8	22.6	25.4	32.0	39.0	45.9	49.3	51.4	53.1	55.3	56.2	55.6	54.1	52.5	47.1	42.6	35.2	33.8	32.8			
Hourly Max	61.9	62.4	48.6	54.2	50.7	48.2	45.3	44.6	50.0	54.8	59.7	65.1	68.4	72.7	77.0	73.9	68.1	71.5	71.3	58.9	57.3	55.4	59.3	60.7			

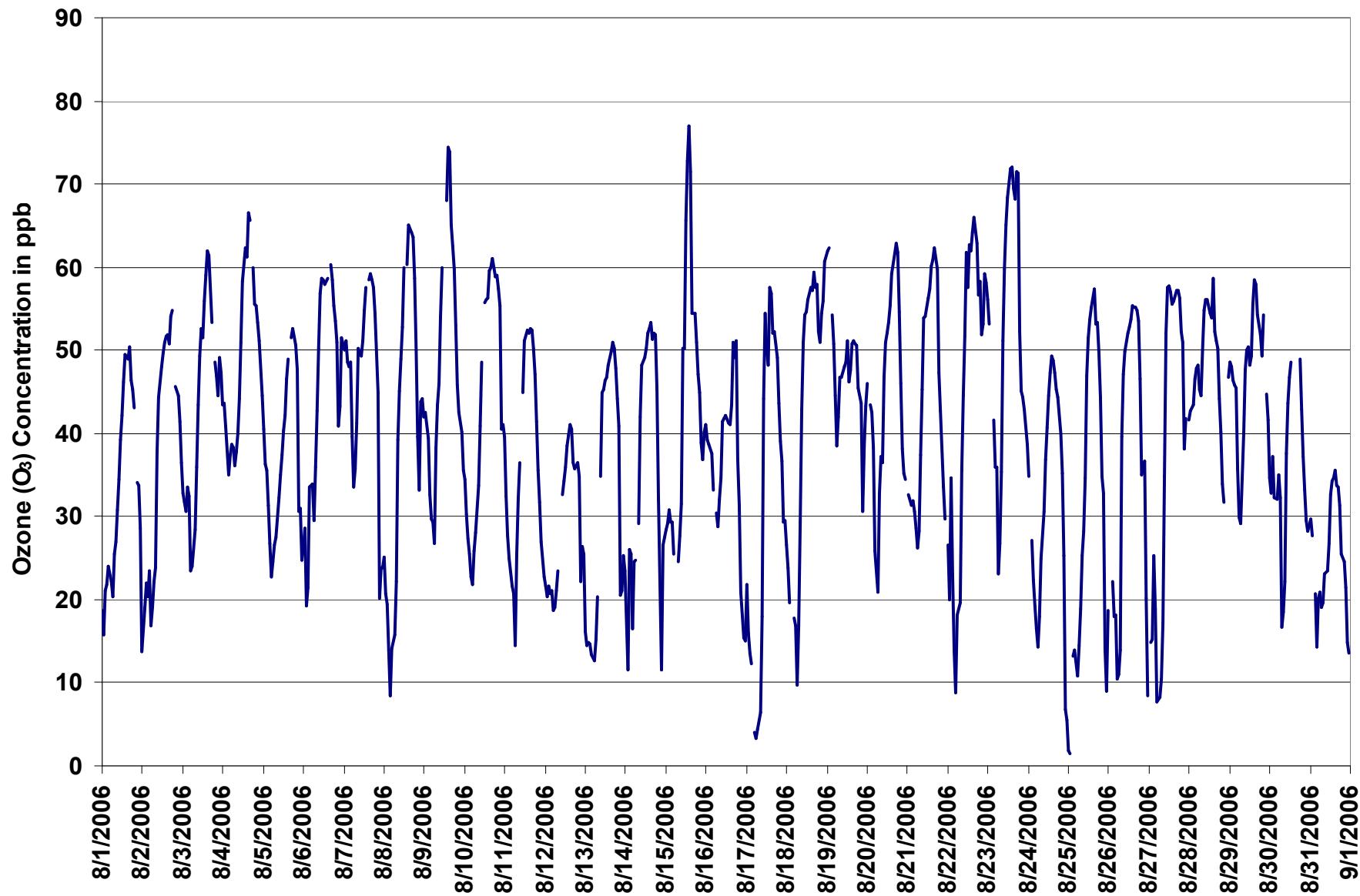
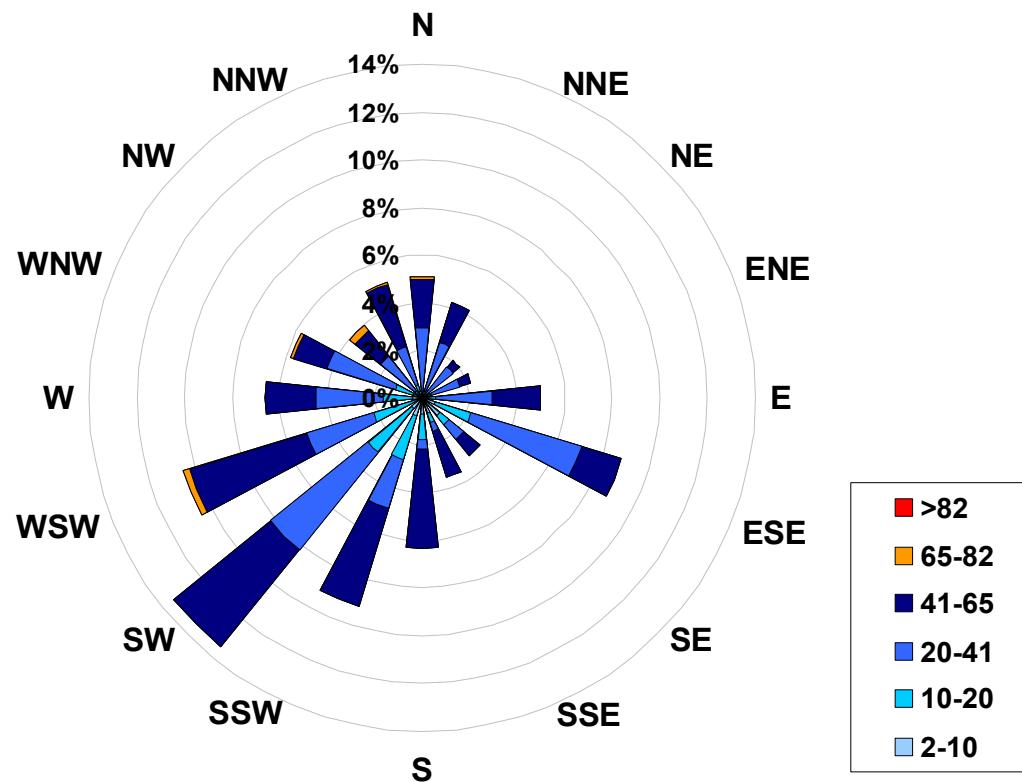


Figure 6. PAS - Crescent Heights Ozone Instantaneous (30 Second) Maximum Value Monthly Trend

1-hr Average Concentration Rose for Ozone (in ppb) Located at the  
Crescent Heights Site for August 2006



Frequency Distribution of O <sub>3</sub> in ppb			
Range		Frequency (hrs)	
2.0	<	10	47
10	to	20	103
20	to	41	270
41	to	65	282
65	to	82	7
	>	82	0
Total Non-Zero Values			709



## PAS - Crescent Heights - Ozone Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

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

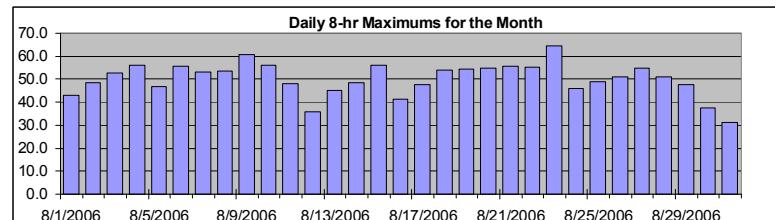
Objective Limit: Alberta Environment: 8-hr 65 ppb  
Summary

Number of 8-hr Exceedances: 0

Maximum 8-hr Average: 64.5 ppb 23-Aug 18:00 19:00

### EIGHT HOUR RUNNING AVERAGE TABLE

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



### 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 1:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	Daily Maximum
1-Aug-06	35	31	28	26	23	21	18	17	18	20	22	25	27	30	34	36	39	41	42	43	43	41	38	34	43.2	
2-Aug-06	28	24	20	16	16	14	13	14	15	17	20	25	29	33	37	41	44	47	48	49	47	46	44	42	48.6	
3-Aug-06	40	37	34	33	32	29	27	26	26	27	30	32	35	39	43	47	51	52	53	52	52	51	49	47	52.7	
4-Aug-06	44	43	42	40	39	38	37	36	36	35	36	37	40	43	46	49	52	55	56	56	56	55	53	50	56.2	
5-Aug-06	47	45	42	40	36	32	29	27	26	25	25	27	28	31	33	36	38	40	43	44	42	40	36	32	46.6	
6-Aug-06	30	27	22	19	18	19	19	21	23	26	31	36	40	44	49	52	54	56	56	55	52	49	46	47	55.8	
7-Aug-06	46	45	44	44	44	43	42	40	38	38	38	39	40	43	45	49	51	53	53	52	48	42	38	33	53.0	
8-Aug-06	29	24	19	15	12	12	11	12	13	16	20	25	31	35	41	47	50	52	53	52	49	44	42	39	53.4	
9-Aug-06	37	34	32	31	30	33	31	29	30	30	32	34	36	42	48	54	57	60	61	61	58	55	52	47	60.6	
10-Aug-06	44	39	36	32	30	27	25	24	24	25	27	28	32	37	42	47	51	54	56	56	56	55	53	51	56.2	
11-Aug-06	48	44	40	36	31	27	23	21	20	21	20	23	27	32	38	42	45	47	46	46	44	42	38	35	47.9	
12-Aug-06	30	26	23	21	18	17	16	16	17	17	19	21	24	26	30	33	35	35	36	36	35	32	31	28	35.7	
13-Aug-06	25	22	19	17	15	14	13	13	13	15	19	23	28	33	37	42	42	45	45	45	43	38	35	31	45.1	
14-Aug-06	28	23	20	17	14	16	16	14	14	18	22	26	33	37	42	43	47	48	49	47	43	37	33	30	48.7	
15-Aug-06	26	23	21	20	21	23	23	22	24	24	26	28	33	40	43	48	52	55	56	56	54	50	46	43	56.0	
16-Aug-06	41	39	37	36	34	34	32	30	29	29	30	32	33	34	37	39	41	41	40	37	35	31	27	41.2		
17-Aug-06	23	19	14	12	11	8	8	7	5	5	8	14	18	23	29	35	40	45	48	46	45	43	40	37	47.5	
18-Aug-06	34	31	27	25	22	19	16	14	13	15	20	24	29	35	41	46	51	54	54	54	53	53	53	53	54.0	
19-Aug-06	53	54	54	55	54	52	50	47	45	43	43	43	43	45	46	46	46	46	46	45	43	41	38	37	54.5	
20-Aug-06	36	35	35	35	34	35	34	32	30	31	30	31	34	37	42	46	49	52	55	55	54	51	49	46	54.8	
21-Aug-06	44	39	35	32	31	30	29	27	27	29	31	34	37	40	45	49	53	55	55	54	51	47	42	40	55.5	
22-Aug-06	33	27	23	20	16	13	12	12	14	17	20	26	31	38	44	49	53	55	54	53	50	49	48	48	55.4	
23-Aug-06	47	46	47	46	46	42	37	33	30	28	31	34	39	45	51	56	60	63	64	63	60	57	54	51	64.5	
24-Aug-06	46	43	37	32	28	24	19	16	15	17	18	21	24	28	32	36	40	42	43	43	40	37	31	26	45.9	
25-Aug-06	20	15	11	7	5	4	4	6	9	12	14	19	24	29	35	39	43	47	49	48	46	42	36	30	48.8	
26-Aug-06	24	21	17	14	12	9	8	7	7	8	10	16	20	27	33	39	45	50	54	55	54	52	50	48	47	51.0
27-Aug-06	26	19	13	12	9	8	7	7	8	10	16	20	27	33	39	45	50	54	55	54	52	50	48	47	54.9	
28-Aug-06	45	43	40	40	40	41	42	42	43	45	46	47	48	49	50	51	51	50	49	46	43	40	38	37	50.9	
29-Aug-06	37	37	37	39	42	42	40	38	36	36	36	37	37	38	42	45	47	48	47	47	48	45	42	42	47.7	
30-Aug-06	37	33	31	28	26	27	26	23	23	23	24	26	28	29	N	N	N	N	N	N	N	N	N	N	37.4	
31-Aug-06	31	30	28	25	22	19	18	17	16	16	17	20	22	24	26	28	29	29	29	27	25	23	20	31.3		

Hourly Max 53.1 53.7 54.0 54.5 54.5 52.4 49.5 47.2 44.9 44.6 46.4 47.2 47.8 48.6 50.7 56.0 60.0 63.4 64.5 62.9 60.4 57.2 53.9 52.7



## PAS - Crescent Heights - Carbon Monoxide Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: August 1, 2006 to September 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: 0.8 ppm 8-Aug 21:00 22:00  
Maximum 24-hr Value: 0.3 ppm 8-Aug

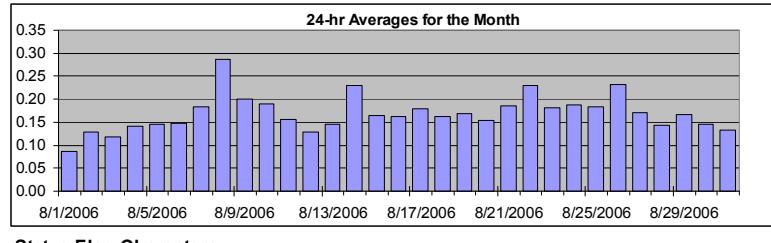
AIC Time:	32 hrs		Operational Time:	710 hrs					
Calibration Time:	2 hrs		AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average	Median
	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.2 ppm	0.1 ppm

Day Mountain Standard Time

	Hour Start 0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum	
	Hour End 1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Aug-06	0.1	0.1	0.1	0.1	0.0	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	A	0.1	0.1	0.2	0.09	0.15
2-Aug-06	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	A	0.2	0.2	0.2	0.1	0.1	0.13	0.20
3-Aug-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	A	0.1	0.1	0.1	0.1	0.1	0.12	0.15
4-Aug-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	0.2	0.2	A	0.3	0.2	0.2	0.2	0.2	0.14	0.26	
5-Aug-06	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	0.1	A	0.1	0.1	0.2	0.3	0.3	0.15	0.34	
6-Aug-06	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	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.15	0.22	
7-Aug-06	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	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.49		
8-Aug-06	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.2	A	0.2	0.2	0.2	0.3	0.3	0.4	0.7	0.8	0.5	0.3	0.3	0.29	0.76	
9-Aug-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	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.26	
10-Aug-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	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.20	
11-Aug-06	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	A	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	0.16	0.21	
12-Aug-06	0.1	0.1	0.1	0.1	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	0.2	0.2	0.2	0.13	0.21	
13-Aug-06	0.2	0.2	0.1	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	0.2	0.2	0.2	0.15	0.37		
14-Aug-06	0.2	0.2	0.1	0.2	0.1	0.2	A	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.5	0.7	0.4	0.2	0.23	0.73
15-Aug-06	0.2	0.2	0.1	0.2	0.2	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	0.1	0.1	0.16	0.21
16-Aug-06	0.1	0.1	0.1	0.1	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	0.2	0.3	0.3	0.2	0.16	0.27	
17-Aug-06	0.2	0.2	0.1	A	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.32	
18-Aug-06	0.1	0.1	0.1	A	0.1	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.16	0.29	
19-Aug-06	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	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.1	0.17	0.32	
20-Aug-06	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	0.2	0.2	0.3	0.2	0.2	0.1	0.15	0.25	
21-Aug-06	A	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	0.2	0.2	0.2	0.3	0.4	0.5	0.3	0.2	0.18	0.47	
22-Aug-06	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.2	0.2	C	C	A	0.2	0.2	0.6	0.4	0.4	0.2	0.2	0.2	0.23	0.58	
23-Aug-06	0.1	0.1	A	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.26	
24-Aug-06	0.2	A	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	0.2	0.3	0.3	0.19	0.35	
25-Aug-06	0.3	0.2	A	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	0.1	0.1	0.2	0.4	0.3	0.18	0.47	
26-Aug-06	0.2	A	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	0.2	0.2	0.2	0.2	0.5	0.7	0.4	0.3	0.23	0.69	
27-Aug-06	A	0.2	0.3	0.2	0.3	0.3	0.2	0.3	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	0.1	0.1	0.17	0.31	
28-Aug-06	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	0.1	0.2	0.2	0.3	0.1	A	0.1	0.14	0.25	
29-Aug-06	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.17	0.22	
30-Aug-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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.20	
31-Aug-06	0.1	0.1	A	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	0.1	0.2	0.1	0.13	0.16	
	Hourly Avg	0.16	0.15	0.15	0.14	0.15	0.16	0.18	0.18	0.17	0.15	0.13	0.13	0.13	0.14	0.14	0.15	0.15	0.16	0.19	0.22	0.27	0.27	0.22	0.18		
	Hourly Max	0.28	0.23	0.31	0.24	0.28	0.27	0.31	0.29	0.38	0.28	0.22	0.22	0.20	0.21	0.21	0.20	0.23	0.26	0.58	0.48	0.69	0.76	0.47	0.34		

### HOURLY AVERAGE TABLE

### Carbon Monoxide (CO)



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

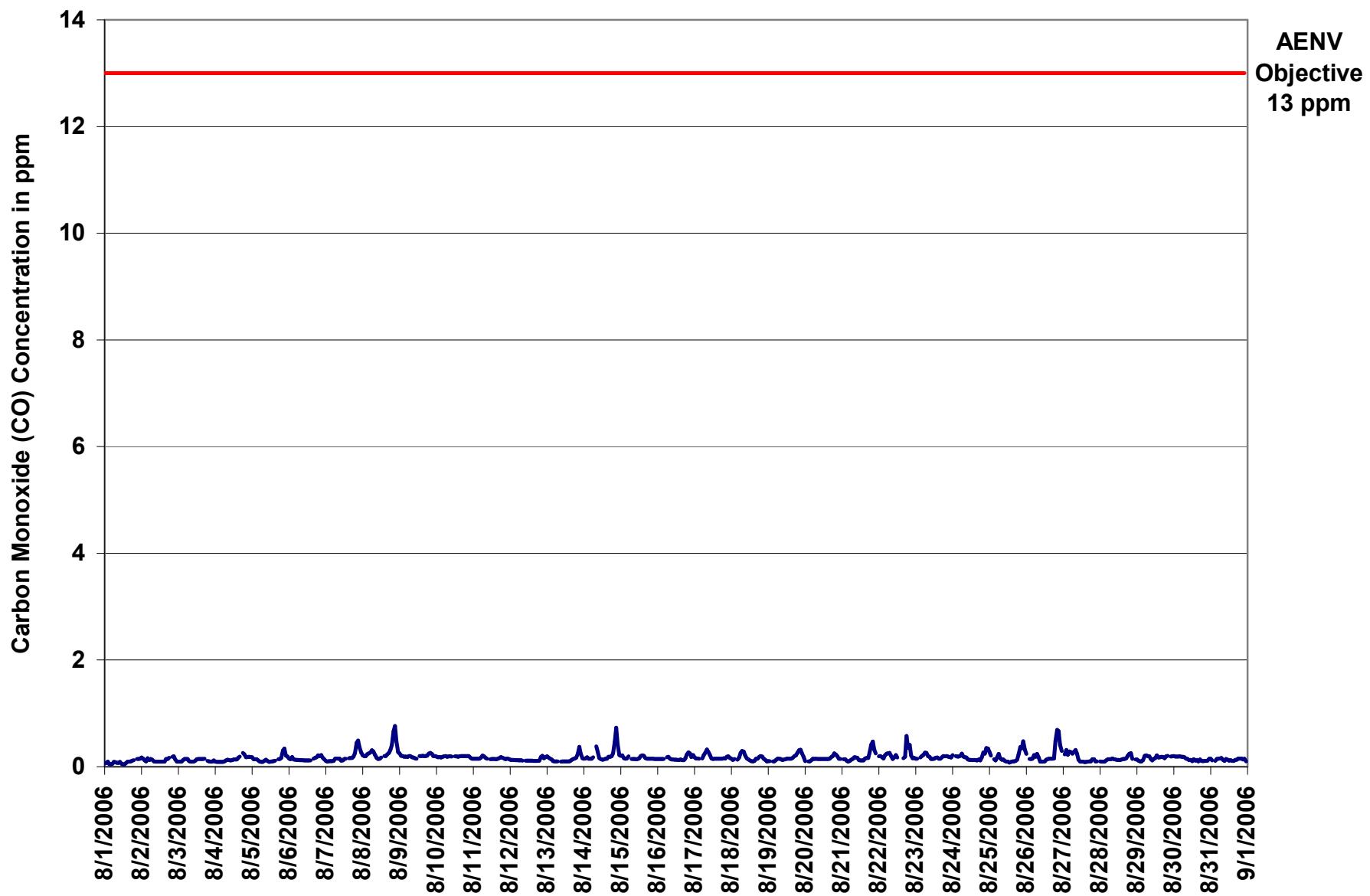


Figure 7. PAS - Crescent Heights Carbon Monoxide 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

### Carbon Monoxide (CO)

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

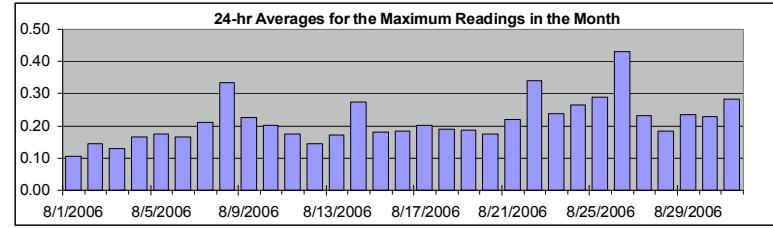
#### Summary

Maximum 1-hr Value:	2.8	ppm	26-Aug	20:00 21:00
Maximum 24-hr Value:	0.4	ppm	26-Aug	

AIC Time:	32 hrs	Operational Time:	710 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99 0.8	95 0.4	75 0.2	50 0.2	25 0.1	5 0.1	1 0.1	Average 0.2 ppm	Median 0.2 ppm

#### Day Mountain Standard Time

	Hour Start Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum		
1-Aug-06	1:00	0.1	0.1	0.1	0.1	0.0	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	A	0.1	0.1	0.2	0.10	0.20			
2-Aug-06	1:00	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.2	0.15	0.20			
3-Aug-06	1:00	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	A	0.1	0.1	0.1	0.13	0.15			
4-Aug-06	1:00	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	A	0.3	0.3	0.2	0.2	0.2	0.16	0.34		
5-Aug-06	1:00	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	A	0.1	0.1	0.2	0.4	0.4	0.3	0.17	0.39	
6-Aug-06	1:00	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	A	0.2	0.2	0.3	0.3	0.3	0.2	0.17	0.26	
7-Aug-06	1:00	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.6	0.5	0.21	0.55	
8-Aug-06	1:00	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.4	0.5	0.8	0.9	0.34	0.90
9-Aug-06	1:00	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.23	0.30
10-Aug-06	1:00	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.25
11-Aug-06	1:00	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	A	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.18	0.25
12-Aug-06	1:00	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	0.1	0.1	0.1	A	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.15	0.26
13-Aug-06	1:00	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.40	0.40		
14-Aug-06	1:00	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	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	0.3	0.6	0.9	0.7	0.3	
15-Aug-06	1:00	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.25	
16-Aug-06	1:00	0.2	0.1	0.2	0.1	0.1	A	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.3	0.4	0.3	0.2	0.3	0.18	0.37
17-Aug-06	1:00	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.35
18-Aug-06	1:00	0.2	0.2	0.2	A	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.35	
19-Aug-06	1:00	0.1	0.2	A	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.3	0.3	0.19	0.35	
20-Aug-06	1:00	0.1	A	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	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.17	0.30	
21-Aug-06	1:00	A	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.4	0.6	0.5	0.5	0.3	A	0.22	0.56	
22-Aug-06	1:00	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	C	C	A	0.2	0.3	1.2	0.6	1.0	0.4	0.2	0.2	0.34	1.24
23-Aug-06	1:00	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	0.3	0.2	0.1	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.24	0.34	
24-Aug-06	1:00	0.3	A	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.2	0.3	0.5	0.4	0.5	0.4	0.27	0.51	
25-Aug-06	1:00	0.4	0.2	A	0.2	0.1	0.5	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.5	0.5	0.4	0.6	0.5	0.29	0.64	
26-Aug-06	1:00	0.3	A	0.1	0.1	0.2	0.5	0.2	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.0	2.8	1.1	0.6	0.4	0.43	2.76
27-Aug-06	1:00	A	0.4	0.4	0.3	0.3	0.3	0.4	0.3	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	0.1	0.1	0.1	0.1	0.1	0.23	0.44
28-Aug-06	1:00	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.2	A	0.19	0.39		
29-Aug-06	1:00	0.1	0.1	0.1	0.1	0.1	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.3	0.4	0.2	0.2	0.3	A	0.3	0.2	0.24	0.45	
30-Aug-06	1:00	0.3	0.2	0.2	0.2	0.2	0.2	0.5	0.3	0.2	0.2	0.2	0.2	0.1	0.3	0.1	0.2	0.1	0.5	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.23	0.54	
31-Aug-06	1:00	0.2	0.2	A	0.1	0.1	0.2	0.2	0.3	0.1	0.2	0.4	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.5	0.2	0.2	0.1	0.1	0.2	0.28	1.63	
Hourly Avg		0.20	0.18	0.17	0.16	0.17	0.22	0.22	0.20	0.18	0.17	0.16	0.15	0.16	0.16	0.18	0.18	0.18	0.21	0.26	0.30	0.43	0.33	0.33	0.23				
Hourly Max		0.41	0.39	0.44	0.29	0.34	0.54	0.40	0.54	0.40	0.35	0.39	0.26	0.26	0.36	0.34	0.29	0.26	0.51	1.24	1.03	2.76	1.11	1.63	0.49				



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

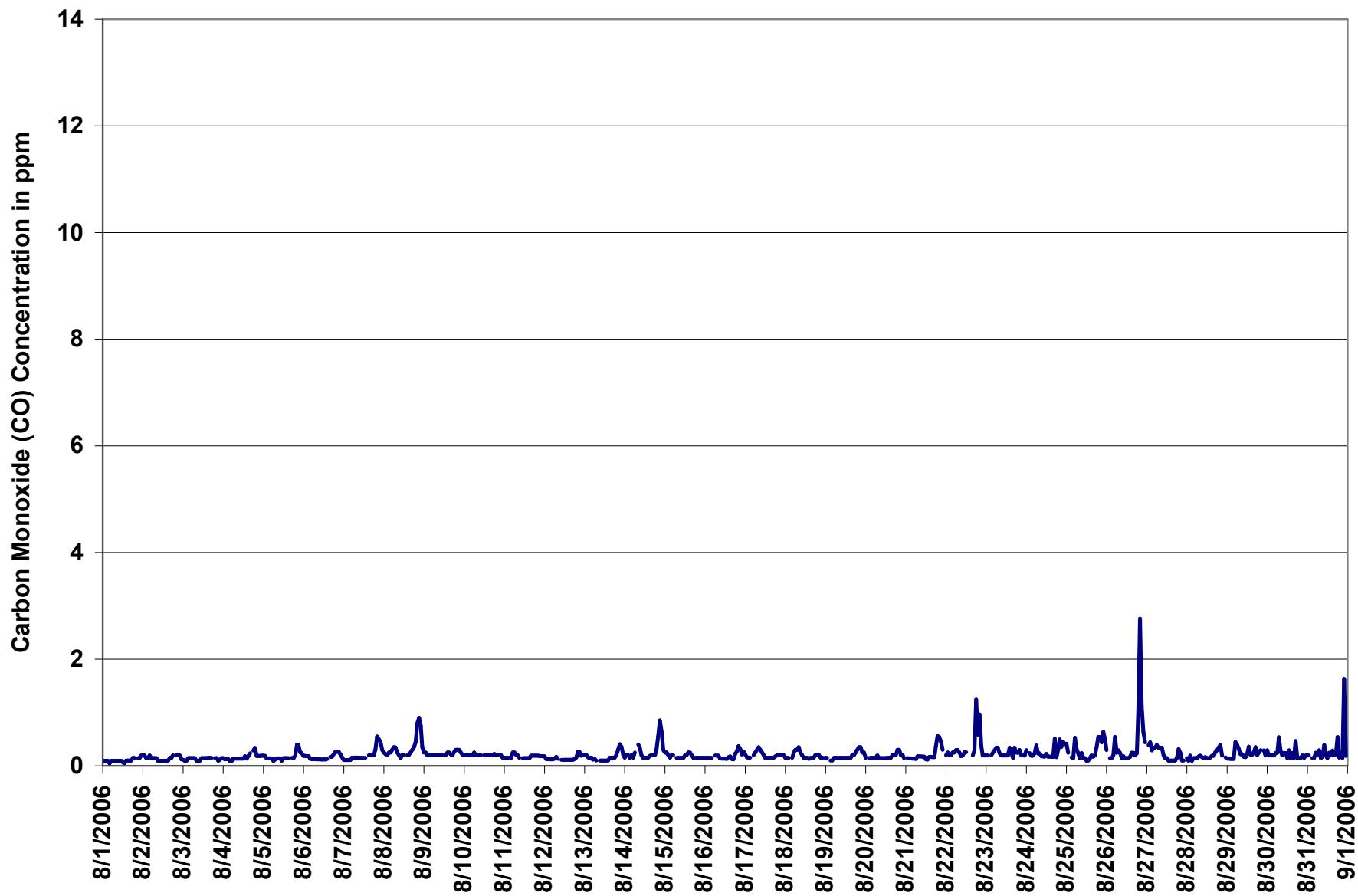
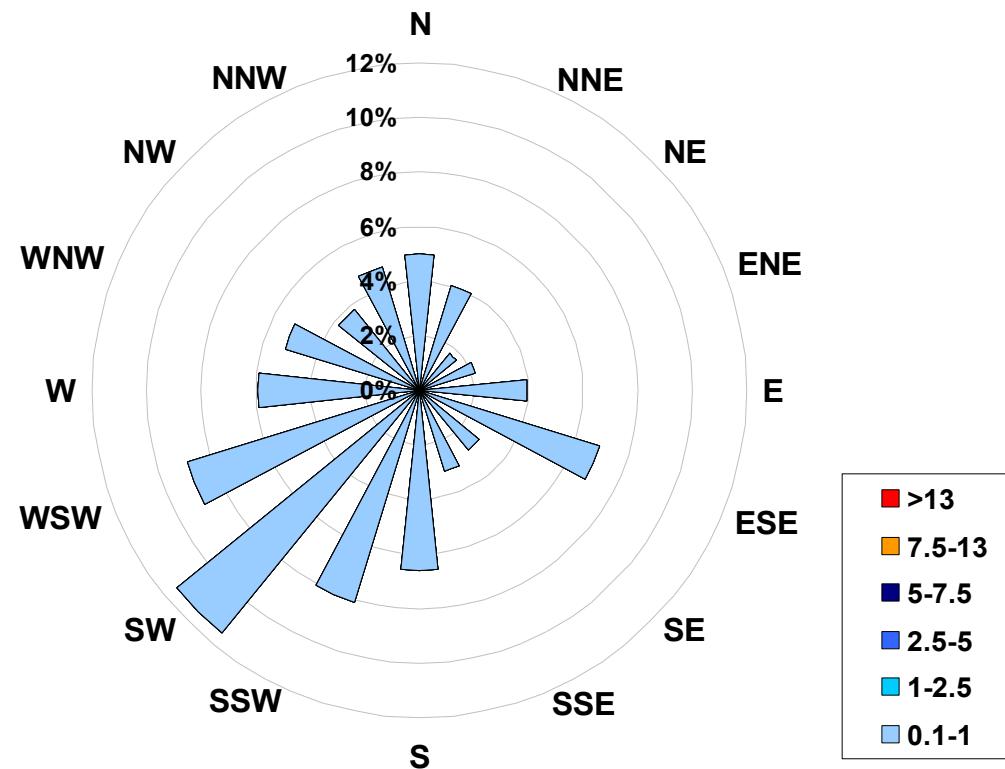


Figure 8. PAS - Crescent Heights Carbon Monoxide Instantaneous (30 Second) Maximum Value Monthly Trend



1-hr Average Concentration Rose for Carbon Monoxide (in ppm) Located  
at the Crescent Heights Site for August 2006



Calms:	0%	Frequency Distribution of CO in ppm		
		Range	Frequency (hrs)	
0.1	< 1	710		
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			710	



## PAS - Crescent Heights - Carbon Monoxide Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

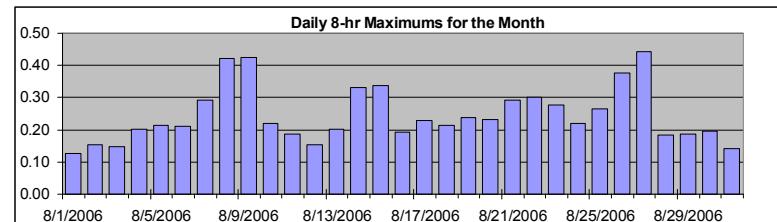
Monitoring Dates: August 1, 2006 to September 1, 2006

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

Number of 8-hr Exceedances: 0  
Maximum 8-hr Average: 0.4 ppm 27-Aug 2:00 3:00

### EIGHT HOUR RUNNING AVERAGE TABLE

### Carbon Monoxide (CO)



### 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 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-Aug-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
2-Aug-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
3-Aug-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
4-Aug-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	0.2
5-Aug-06	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	0.1	0.1	0.1	0.1	0.1	0.21
6-Aug-06	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	0.1	0.1	0.1	0.1	0.21
7-Aug-06	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	0.1	0.1	0.1	0.1	0.1	0.1	0.21
8-Aug-06	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.29
9-Aug-06	0.4	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	0.2	0.2	0.2	0.2	0.2	0.2	0.42
10-Aug-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	0.22
11-Aug-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	0.19
12-Aug-06	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	0.1	0.1	0.1	0.1	0.1	0.1	0.15
13-Aug-06	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	0.1	0.1	0.1	0.1	0.20
14-Aug-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	0.33
15-Aug-06	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.34
16-Aug-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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
17-Aug-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	0.23
18-Aug-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	0.21
19-Aug-06	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.24
20-Aug-06	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	0.1	0.1	0.1	0.1	0.1	0.23
21-Aug-06	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	0.1	0.1	0.1	0.1	0.1	0.29
22-Aug-06	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.30
23-Aug-06	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.28
24-Aug-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	0.22
25-Aug-06	0.2	0.2	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	0.27
26-Aug-06	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.38
27-Aug-06	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.44
28-Aug-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	0.18
29-Aug-06	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
30-Aug-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	0.20
31-Aug-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

Hourly Max 0.42 0.42 0.44 0.40 0.35 0.29 0.27 0.26 0.27 0.27 0.25 0.23 0.22 0.22 0.21 0.20 0.19 0.19 0.22 0.25 0.32 0.38 0.41 0.42



## PAS - Crescent Heights - Total Hydrocarbons Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

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

Objective Limit: Alberta Environment: 1-hr na ppm 24-hr na ppm  
Summary

Maximum 1-hr Average:	3.4	ppm	27-Aug	3:00 4:00
Maximum 24-hr Value:	2.3	ppm	27-Aug	

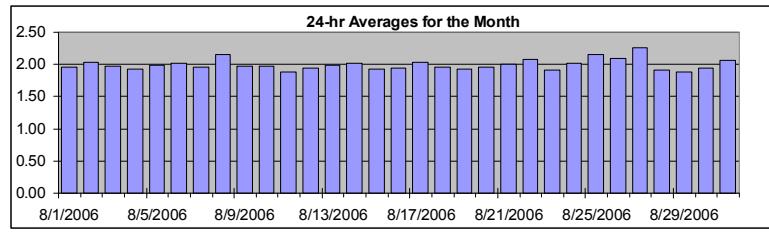
AIC Time:	32 hrs	Operational Time:	710 hrs								
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%								
Percentile	99 2.5	95 2.3	75 2.1	50 1.9	25 1.9	5 1.9	1 1.8	Average 2.0	Median 1.9	ppm	ppm

**Day Mountain Standard Time**

	Hour Start 0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum		
	Hour End 1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
1-Aug-06	2.1	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.1	2.2	1.96	2.22	
2-Aug-06	2.3	2.4	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.1	2.0	2.03	2.42	
3-Aug-06	2.0	2.0	2.0	2.1	2.0	2.1	2.2	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.97	2.15	
4-Aug-06	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	1.9	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	1.93	2.01
5-Aug-06	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.98	2.19	
6-Aug-06	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1	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	A	1.9	1.9	1.9	2.02	2.21	
7-Aug-06	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.95	2.22	
8-Aug-06	2.1	2.4	2.4	2.6	2.8	2.5	2.3	2.1	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	A	1.9	1.9	1.9	2.16	2.81	
9-Aug-06	2.1	2.0	2.0	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	1.97	2.12	
10-Aug-06	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	A	2.0	1.9	1.9	1.98	2.13	
11-Aug-06	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	1.8	1.8	1.8	1.8	1.9	A	1.9	1.9	1.9	1.88	2.01	
12-Aug-06	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.94	2.04	
13-Aug-06	2.2	2.1	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.98	2.17	
14-Aug-06	2.1	2.1	2.1	2.2	2.2	2.1	2.2	2.2	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	A	2.0	2.1	2.1	2.03	2.38	
15-Aug-06	2.1	2.0	1.9	1.9	2.0	2.2	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.93	2.15	
16-Aug-06	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	A	1.9	1.9	1.9	1.94	2.17	
17-Aug-06	2.1	2.3	2.2	2.1	A	2.1	2.2	2.2	2.3	2.2	2.1	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	2.03	2.34
18-Aug-06	2.0	2.0	2.0	A	2.0	2.1	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	1.96	2.12
19-Aug-06	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	1.8	1.8	1.8	1.9	1.9	A	1.9	1.9	1.9	1.93	2.47
20-Aug-06	1.9	A	1.9	1.9	2.0	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	1.96	2.10
21-Aug-06	A	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.1	2.2	2.00	2.20
22-Aug-06	2.2	2.3	2.1	2.3	2.6	2.5	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.1	2.3	2.1	2.08	2.56
23-Aug-06	1.9	1.9	A	2.0	2.1	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.92	2.10
24-Aug-06	2.0	A	2.0	2.1	2.1	2.1	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.1	2.3	2.01	2.33
25-Aug-06	2.3	2.4	A	2.4	2.2	2.2	2.4	2.3	2.2	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.2	2.4	2.15	2.42
26-Aug-06	2.4	A	2.1	2.2	2.2	2.3	2.3	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.2	2.4	2.09	2.40
27-Aug-06	A	2.4	2.7	3.4	3.0	2.9	2.5	2.5	2.5	2.3	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	2.0	2.1	2.2	2.26	3.38
28-Aug-06	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.92	2.06
29-Aug-06	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.88	1.98
30-Aug-06	1.9	1.9	1.9	2.0	2.0	1.9	1.9	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.95	2.06
31-Aug-06	1.9	1.9	A	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.0	2.1	2.2	2.07	2.18
Hourly Avg	2.03	2.05	2.05	2.09	2.10	2.11	2.09	2.06	2.02	1.97	1.93	1.91	1.91	1.90	1.89	1.89	1.89	1.89	1.93	1.98	2.04	2.07	2.05	2.03				
Hourly Max	2.37	2.42	2.65	3.38	3.04	2.85	2.53	2.49	2.46	2.33	2.09	2.06	2.05	2.04	2.05	2.07	2.07	2.09	2.14	2.14	2.33	2.44	2.47	2.37				

### HOURLY AVERAGE TABLE

### Total Hydrocarbons (THC)



### 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

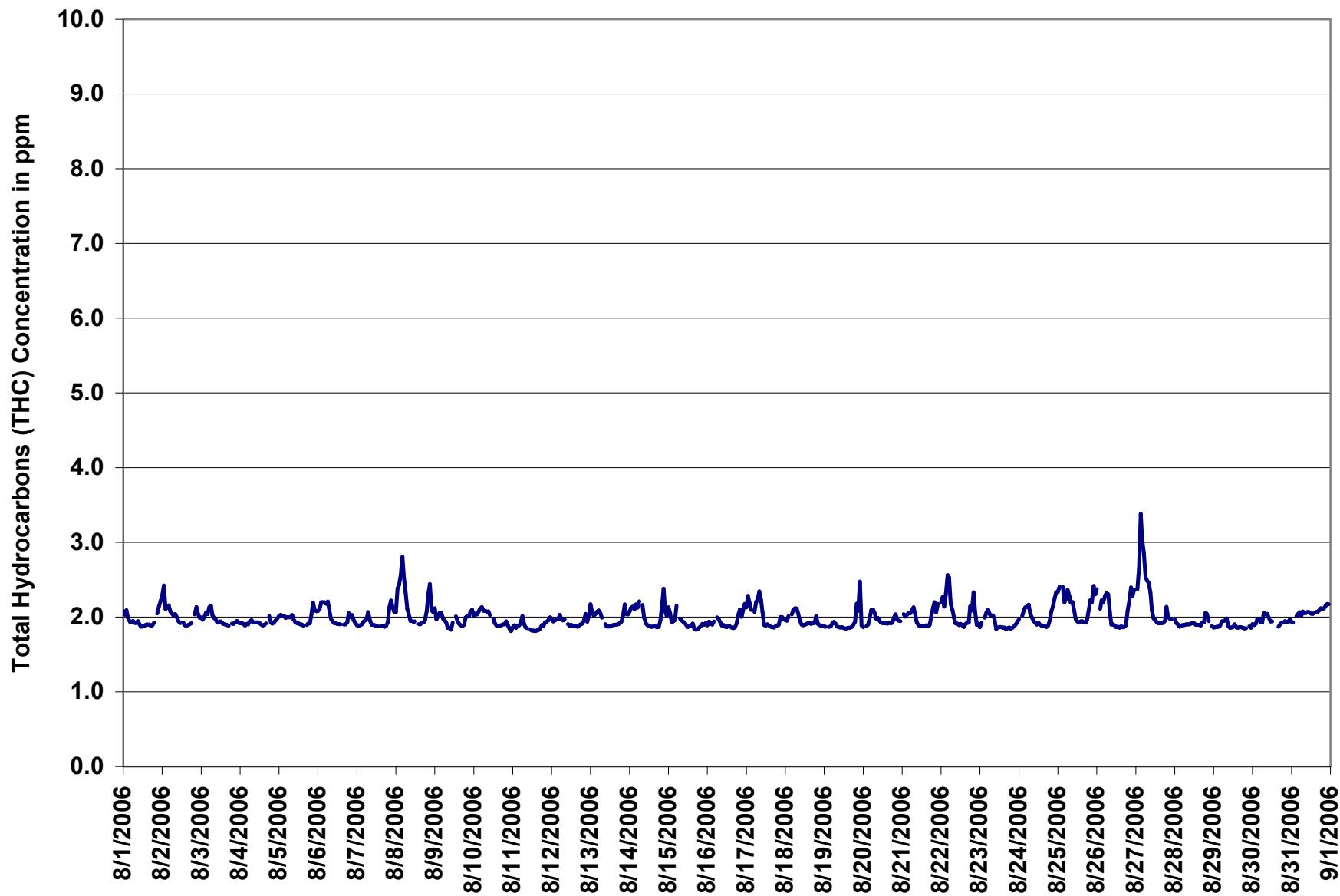


Figure 9. PAS - Crescent Heights Total Hydrocarbons 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

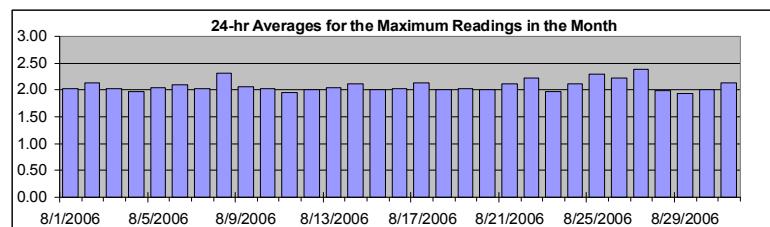
### INSTANTANEOUS (30 Second) MAXIMUM TABLE

### Total Hydrocarbons (THC)

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

#### Summary

Maximum 1-hr Value:	3.7	ppm	27-Aug	3:00 4:00
Maximum 24-hr Value:	2.4	ppm	27-Aug	



AIC Time:	32 hrs							Operational Time:							710 hrs												
	Calibration Time: 2 hrs							AMD Operational Uptime: 100.0%																			
Percentile	99	95	75	50	25	5	1	Average 2.1 ppm							Median 2.0 ppm												
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum	
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Aug-06	2.2	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	A	2.2	2.4	2.3	2.03	2.36	
2-Aug-06	2.4	2.9	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	A	2.1	2.4	2.2	2.1	2.13	2.87	
3-Aug-06	2.1	2.0	2.1	2.2	2.1	2.2	2.3	2.1	2.0	2.0	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	2.0	2.0	2.02	2.27	
4-Aug-06	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	2.0	A	2.1	2.1	1.9	2.0	2.0	2.0	1.97	2.12	
5-Aug-06	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	A	1.9	2.0	2.0	2.2	2.4	2.2	2.1	2.05	2.36	
6-Aug-06	2.2	2.2	2.3	2.4	2.4	2.3	2.3	2.2	2.0	2.0	1.9	1.9	1.9	1.9	2.0	A	1.9	1.9	2.0	2.3	2.1	2.1	2.0	2.0	2.10	2.39	
7-Aug-06	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.2	2.1	1.9	1.9	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	2.1	2.2	2.5	2.3	2.1	2.03	2.46	
8-Aug-06	2.3	2.5	2.6	3.0	2.9	3.0	2.5	2.2	2.1	2.0	2.0	2.0	2.0	2.0	A	1.9	1.9	2.0	2.1	2.2	2.5	3.0	2.2	2.1	2.30	3.00	
9-Aug-06	2.4	2.0	2.1	2.1	2.2	2.1	2.0	2.0	1.9	1.9	1.9	2.0	A	2.1	2.0	1.9	1.9	2.0	2.1	2.2	2.1	2.2	2.05	2.40			
10-Aug-06	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.1	1.9	1.9	1.9	2.03	2.18	
11-Aug-06	1.9	2.0	1.9	2.0	2.0	2.1	2.1	2.0	1.9	1.9	A	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.1	1.95	2.12	
12-Aug-06	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.0	2.1	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.2	2.0	2.00	2.24	
13-Aug-06	2.3	2.1	2.0	2.1	2.1	2.2	2.1	2.0	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.3	2.1	2.03	2.30		
14-Aug-06	2.2	2.2	2.2	2.2	2.2	2.2	2.3	A	2.3	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.4	2.6	2.2	2.11	2.64	
15-Aug-06	2.3	2.2	2.0	2.0	2.0	2.2	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.2	2.2	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.00	2.26	
16-Aug-06	1.9	2.0	2.0	2.0	2.2	A	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.2	2.1	2.2	2.0	2.02	2.25	
17-Aug-06	2.7	2.4	2.3	2.2	A	2.1	2.3	2.3	2.7	2.3	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.3	2.1	2.0	2.13	2.68	
18-Aug-06	2.0	2.0	2.1	A	2.1	2.2	2.2	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.1	1.9	1.9	1.9	1.9	2.01	2.20	
19-Aug-06	1.9	1.9	A	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.5	2.4	3.1	2.0	2.02	3.15	
20-Aug-06	1.9	A	1.9	1.9	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.2	2.0	2.0	2.0	2.00	2.19	
21-Aug-06	A	2.1	2.1	2.1	2.1	2.2	2.6	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	2.5	2.5	2.2	2.3	A	2.12	2.62
22-Aug-06	2.3	2.4	2.3	2.6	2.7	2.7	2.4	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.4	2.4	3.0	2.3	2.0	2.23	3.05
23-Aug-06	1.9	2.0	A	2.0	2.1	2.2	2.1	2.1	2.1	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	1.97	2.20	
24-Aug-06	2.0	A	2.1	2.2	2.2	2.2	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.2	2.2	2.4	2.5	2.11	2.63	
25-Aug-06	2.5	2.8	A	2.6	2.3	2.3	2.4	2.4	2.2	2.2	2.2	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.2	2.7	2.7	2.3	2.5	2.4	2.29	2.79
26-Aug-06	2.5	A	2.2	2.3	2.3	2.5	2.4	2.4	2.3	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.3	3.2	2.6	2.4	2.4	2.22	3.22
27-Aug-06	A	2.5	3.2	3.7	3.3	3.2	2.6	2.6	2.5	2.4	2.3	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.1	2.4	2.1	2.0	2.0	A	2.38	3.69
28-Aug-06	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.5	2.4	2.0	A	1.98	2.54	
29-Aug-06	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.0	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	1.93	2.08	
30-Aug-06	2.0	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	C	C	A	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.00	2.13
31-Aug-06	2.0	2.0	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.5	2.2	2.12	2.49	

Hourly Avg 2.13 2.15 2.14 2.19 2.19 2.22 2.17 2.14 2.10 2.03 1.98 1.95 1.96 1.94 1.93 1.94 1.92 1.94 2.01 2.12 2.22 2.20 2.16 2.09

Hourly Max 2.65 2.87 3.18 3.69 3.33 3.19 2.60 2.62 2.68 2.44 2.27 2.10 2.63 2.08 2.15 2.21 2.11 2.13 2.44 2.68 3.22 2.96 3.15 2.52

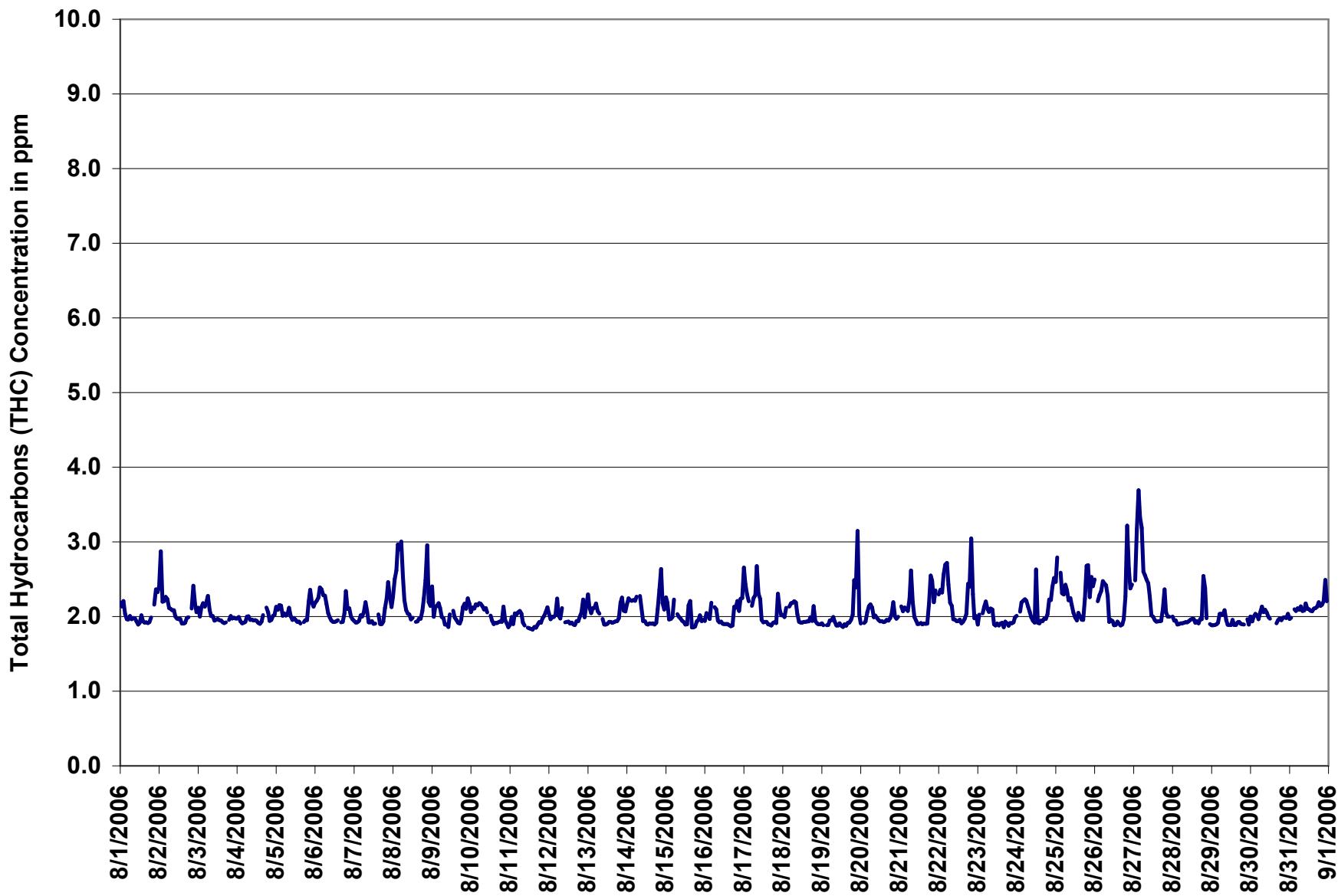
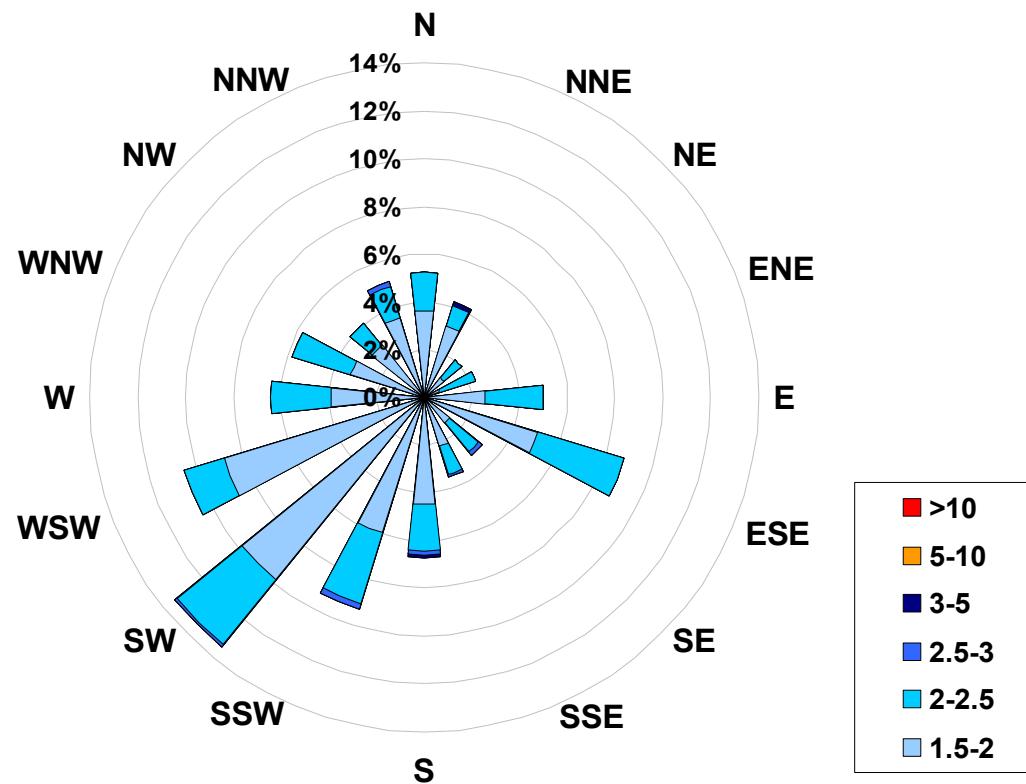


Figure 10. PAS - Crescent Heights Total Hydrocarbons Instantaneous (30 Second) Maximum Value Monthly Trend

**1-hr Average Concentration Rose for Total Hydrocarbons (in ppm)**  
**Located at the Crescent Heights Site for August 2006**



Calms: 0%

Frequency Distribution of THC in ppm			
Range			Frequency (hrs)
1.5	<	2	461
2	to	2.5	239
2.5	to	3	8
3	to	5	2
5	to	10	0
>	10		0
Total Non-Zero Values			710



## PAS - Crescent Heights - Particulate Matter (less than 2.5 microns) Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

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

Draft Objective Limit: Alberta Environment: 1-hr -  $\mu\text{g}/\text{m}^3$  24-hr 30  $\mu\text{g}/\text{m}^3$   
Summary

Number of 24-hr Exceedances (draft): 0  
Maximum 1-hr Average: 34.2  $\mu\text{g}/\text{m}^3$  22-Aug 21:00 22:00  
Maximum 24-hr Value: 18.2  $\mu\text{g}/\text{m}^3$  8-Aug

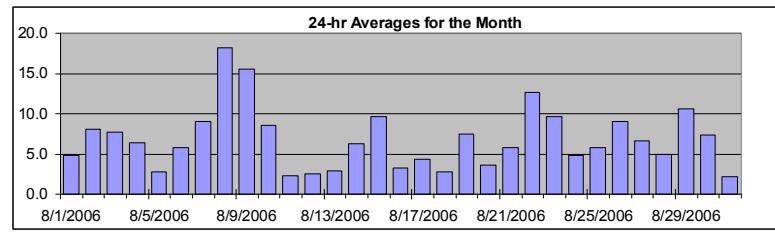
AIC Time:	0 hrs	Operational Time:	740 hrs							
Calibration Time:	1 hrs	AMD Operational Uptime:	99.6%							
Percentile	99	95	75	50	25	5	1	Average / Median	Geomean	
	24.9	18.3	9.5	5.3	2.6	0.0	0.0	6.8	5 $\mu\text{g}/\text{m}^3$	5.9 $\mu\text{g}/\text{m}^3$

### Day Mountain Standard Time

	Hour Start 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Aug-06	4	8	3	2	3	3	6	5	6	6	4	0	0	3	5	8	6	3	4	4	6	8	9	8	4.9	9.2
2-Aug-06	12	10	4	5	5	6	10	12	13	9	7	3	3	3	4	5	11	12	13	14	11	9	6	6	8.0	14.4
3-Aug-06	9	8	9	13	16	8	8	7	5	4	4	6	7	6	6	8	10	8	5	5	5	4	8	14	7.7	16.3
4-Aug-06	3	3	3	3	3	4	5	6	2	5	3	3	3	2	2	4	8	8	12	25	14	11	11	11	6.4	24.8
5-Aug-06	7	2	1	0	0	1	2	2	2	0	0	0	1	1	1	1	2	3	2	3	11	9	7	7	2.7	11.2
6-Aug-06	7	6	5	5	4	4	5	5	4	2	5	2	3	3	5	5	6	7	8	7	11	14	9	5	5.8	14.0
7-Aug-06	4	4	5	6	7	7	7	8	9	6	7	8	7	9	11	9	9	8	10	10	15	19	15	17	9.0	19.0
8-Aug-06	18	16	14	20	17	15	18	18	13	14	11	14	17	14	10	12	23	25	25	25	26	32	20	20	18.2	31.9
9-Aug-06	23	19	17	18	16	14	16	17	10	10	11	14	18	17	15	13	13	13	13	19	14	19	14	14	15.5	22.7
10-Aug-06	15	12	10	10	10	8	10	10	12	12	8	8	6	4	2	6	7	10	12	10	5	16	1	1	8.5	15.8
11-Aug-06	4	8	2	1	1	5	3	3	0	2	1	D	D	0	0	0	9	3	0	1	0	1	3	3	2.3	8.6
12-Aug-06	2	1	2	1	2	3	2	3	4	2	0	0	1	1	2	3	2	4	2	1	6	8	5	5	2.6	8.5
13-Aug-06	4	1	2	2	3	3	4	6	4	4	0	0	0	0	0	0	2	2	3	3	7	11	5	5	2.9	10.8
14-Aug-06	6	8	4	5	5	2	5	8	9	4	1	0	1	2	4	7	6	4	6	10	13	19	10	11	6.2	18.7
15-Aug-06	15	9	13	15	19	21	8	4	4	4	6	3	11	23	24	18	6	4	4	2	5	4	8	2	9.6	24.2
16-Aug-06	4	5	1	2	2	0	6	0	2	1	1	1	0	0	0	0	8	4	2	5	6	12	7	5	3.2	11.6
17-Aug-06	3	6	3	0	3	7	8	8	7	10	6	0	1	3	0	7	2	4	3	5	5	5	4	3	4.4	10.3
18-Aug-06	4	2	2	2	3	4	6	7	8	5	1	0	0	0	0	0	3	3	5	4	3	0	2	4	2.8	8.4
19-Aug-06	5	1	1	2	3	4	5	5	2	5	5	4	2	1	5	8	8	10	12	15	20	17	19	19	7.5	20.0
20-Aug-06	5	4	1	1	5	7	7	4	4	5	1	0	0	0	1	2	5	5	6	8	2	4	5	4	3.6	7.8
21-Aug-06	3	2	1	1	1	1	2	7	7	8	4	1	4	2	3	7	6	8	14	11	13	7	16	5.8	16.3	
22-Aug-06	13	15	5	11	16	7	8	10	9	8	14	9	13	10	14	8	7	11	23	10	19	34	18	13	12.6	34.2
23-Aug-06	11	9	7	9	9	16	8	9	9	8	0	0	5	8	10	9	10	18	26	13	18	7	5	8	9.6	26.3
24-Aug-06	19	9	2	6	4	5	4	5	4	5	0	0	2	0	1	1	0	1	4	5	11	5	12	11	4.8	18.7
25-Aug-06	7	10	7	3	4	6	2	5	3	6	4	0	1	1	2	6	3	4	5	6	9	14	22	11	5.8	21.8
26-Aug-06	10	5	4	5	5	9	9	10	9	0	0	3	6	7	5	6	6	5	6	19	26	24	20	16	9.0	25.9
27-Aug-06	14	14	18	9	19	9	14	11	14	6	0	0	0	0	0	0	1	2	1	2	3	4	3	12	6.6	19.3
28-Aug-06	11	5	5	5	7	6	5	8	8	1	0	0	3	4	5	3	3	5	4	6	5	5	7	5	5.0	10.8
29-Aug-06	3	3	3	5	5	8	8	10	13	1	8	12	15	18	10	15	14	28	5	20	18	D	16	6	10.6	28.0
30-Aug-06	14	12	7	14	19	11	16	11	4	1	4	2	2	2	C	6	2	4	8	13	6	3	7	4	7.4	18.5
31-Aug-06	2	3	0	2	4	0	0	6	2	2	2	1	0	0	0	0	2	4	8	9	2	2	1	1	2.2	8.9
Hourly Avg	8.4	7.1	5.2	5.9	7.0	6.6	7.0	7.5	6.6	5.2	3.8	3.1	4.5	4.6	4.9	6.0	6.3	7.3	8.4	9.3	10.5	10.5	9.5	8.5		
Hourly Max	22.7	18.7	17.8	19.8	19.3	20.7	17.9	18.0	13.8	13.7	13.7	13.9	18.3	23.4	24.2	17.9	23.1	28.0	26.3	25.1	26.0	34.2	21.8	20.3		

### HOURLY AVERAGE TABLE

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



### 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

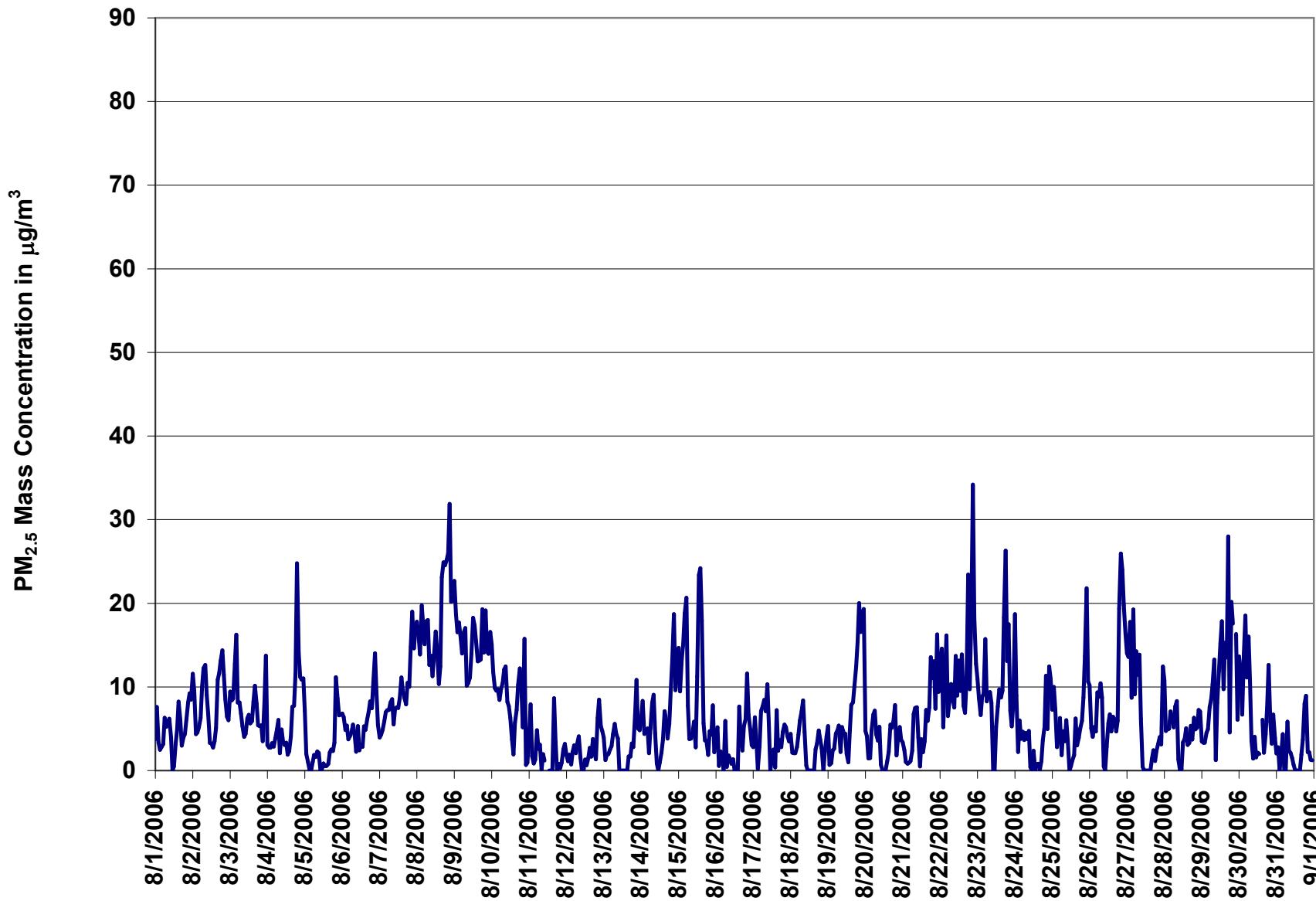


Figure 11. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

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

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

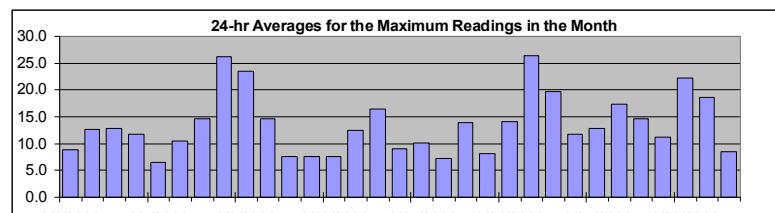
#### Summary

Maximum 1-hr Average:	67.3	µg/m <sup>3</sup>	23-Aug	18:00 19:00
Maximum 24-hr Value:	26.4	µg/m <sup>3</sup>	22-Aug	

AIC Time:	0 hrs	Operational Time:	740 hrs						
Calibration Time:	1 hrs	AMD Operational Uptime:	99.6%						
Percentile	99 49.4	95 31.7	75 16.5	50 10.7	25 7.4	5 4.5	1 3.1	Average / Median 13.5	Geomean 12.6 µg/m <sup>3</sup>

#### Day Mountain Standard Time

	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Aug-06	7	12	13	7	7	7	11	8	9	10	8	2	4	9	8	12	9	5	8	8	12	11	13	13	8.9	13.3	
2-Aug-06	16	16	8	11	9	11	15	17	17	12	11	6	8	6	7	11	15	15	19	18	15	20	10	11	12.6	19.9	
3-Aug-06	13	12	14	18	21	13	12	10	9	8	7	9	8	8	10	10	8	11	14	15	13	9	9	9	7	19	37
4-Aug-06	7	8	6	6	6	8	8	9	7	9	8	8	8	7	6	8	11	13	15	59	18	17	14	14	11.7	59.1	
5-Aug-06	16	5	5	5	4	4	6	4	5	6	1	2	3	3	5	3	7	5	5	7	18	17	11	10	6.5	18.4	
6-Aug-06	11	9	8	9	8	8	9	11	8	6	16	6	6	8	10	11	10	12	15	13	16	18	13	11	10.5	17.8	
7-Aug-06	8	7	10	9	12	12	12	13	14	11	12	14	14	14	16	13	13	12	20	20	27	31	19	24	14.7	30.6	
8-Aug-06	29	23	17	26	21	30	27	24	17	18	19	17	20	20	15	19	26	32	35	32	43	65	27	28	26.2	65.3	
9-Aug-06	39	25	26	29	21	21	22	22	17	16	25	24	24	24	25	25	21	19	33	20	26	22	18	20	23.5	39.4	
10-Aug-06	20	15	15	14	14	13	14	15	15	20	14	13	15	10	8	13	13	17	18	16	10	36	7	6	14.6	35.9	
11-Aug-06	8	17	7	4	5	11	6	8	10	9	6	D	D	7	6	8	13	8	5	6	3	4	7	8	7.6	17.4	
12-Aug-06	5	5	5	4	5	6	5	7	7	6	5	7	10	5	7	17	10	7	6	11	11	12	10	10	7.6	16.7	
13-Aug-06	7	4	5	5	6	9	9	9	10	10	3	5	5	4	8	2	6	7	7	7	15	23	8	9	7.7	22.9	
14-Aug-06	10	13	8	12	9	6	10	14	14	11	5	4	5	6	9	15	10	10	9	20	23	44	15	17	12.5	44.4	
15-Aug-06	21	17	18	18	25	33	13	8	8	9	12	8	27	27	41	33	12	8	9	5	11	8	17	10	16.5	40.9	
16-Aug-06	13	12	5	6	7	4	14	9	7	6	7	8	9	6	5	13	12	7	14	9	18	10	9	6	9.1	18.2	
17-Aug-06	7	11	8	4	8	14	11	13	14	20	15	8	8	9	6	20	9	10	6	9	10	9	7	7	10.2	20.4	
18-Aug-06	7	5	5	6	6	8	10	12	12	8	7	5	3	5	7	7	8	6	8	7	6	4	6	14	7.3	14.0	
19-Aug-06	10	4	5	6	5	9	9	9	10	10	10	6	4	13	13	14	18	15	21	26	22	33	51	51.3	13.9		
20-Aug-06	9	9	5	5	11	9	12	9	7	10	4	6	5	2	6	7	14	9	11	14	8	8	9	6	8.1	14.1	
21-Aug-06	6	7	5	5	4	4	7	13	14	19	14	7	15	9	15	18	12	11	27	24	42	16	27	17	14.0	41.5	
22-Aug-06	20	23	15	20	29	16	15	15	13	14	27	19	36	25	24	16	28	24	47	37	42	63	48	17	26.4	63.3	
23-Aug-06	15	26	11	12	14	51	12	12	15	15	8	8	12	15	18	18	16	48	67	24	26	10	8	11	19.7	67.3	
24-Aug-06	31	21	7	10	7	7	7	10	11	12	5	4	9	6	6	8	6	7	8	11	27	17	24	22	11.8	30.6	
25-Aug-06	22	18	15	7	11	12	9	8	10	10	10	7	6	9	11	11	7	13	11	10	18	21	37	15	12.8	36.9	
26-Aug-06	15	9	8	9	8	23	14	16	15	7	8	7	11	14	10	11	14	31	39	66	32	26	17.3	66.5	17.3		
27-Aug-06	34	22	27	14	28	14	23	18	19	23	13	11	8	4	5	3	10	7	4	6	8	7	6	34	14.6	34.2	
28-Aug-06	23	8	8	8	11	11	10	12	14	9	6	7	12	8	14	11	11	11	12	14	12	9	12	16	11.2	23.1	
29-Aug-06	7	6	6	7	9	15	16	16	22	15	15	21	26	28	23	26	21	63	25	39	46	D	43	15	22.2	63.3	
30-Aug-06	28	23	31	22	24	22	35	34	9	6	11	7	8	12	C	19	10	11	18	28	29	19	13	11	18.6	34.5	18.6
31-Aug-06	8	8	7	5	8	7	5	10	8	10	6	4	7	7	6	3	10	12	27	23	10	7	5	4	8.6	27.1	



Status Flag Characters		AIC - Zero / Span Check	
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

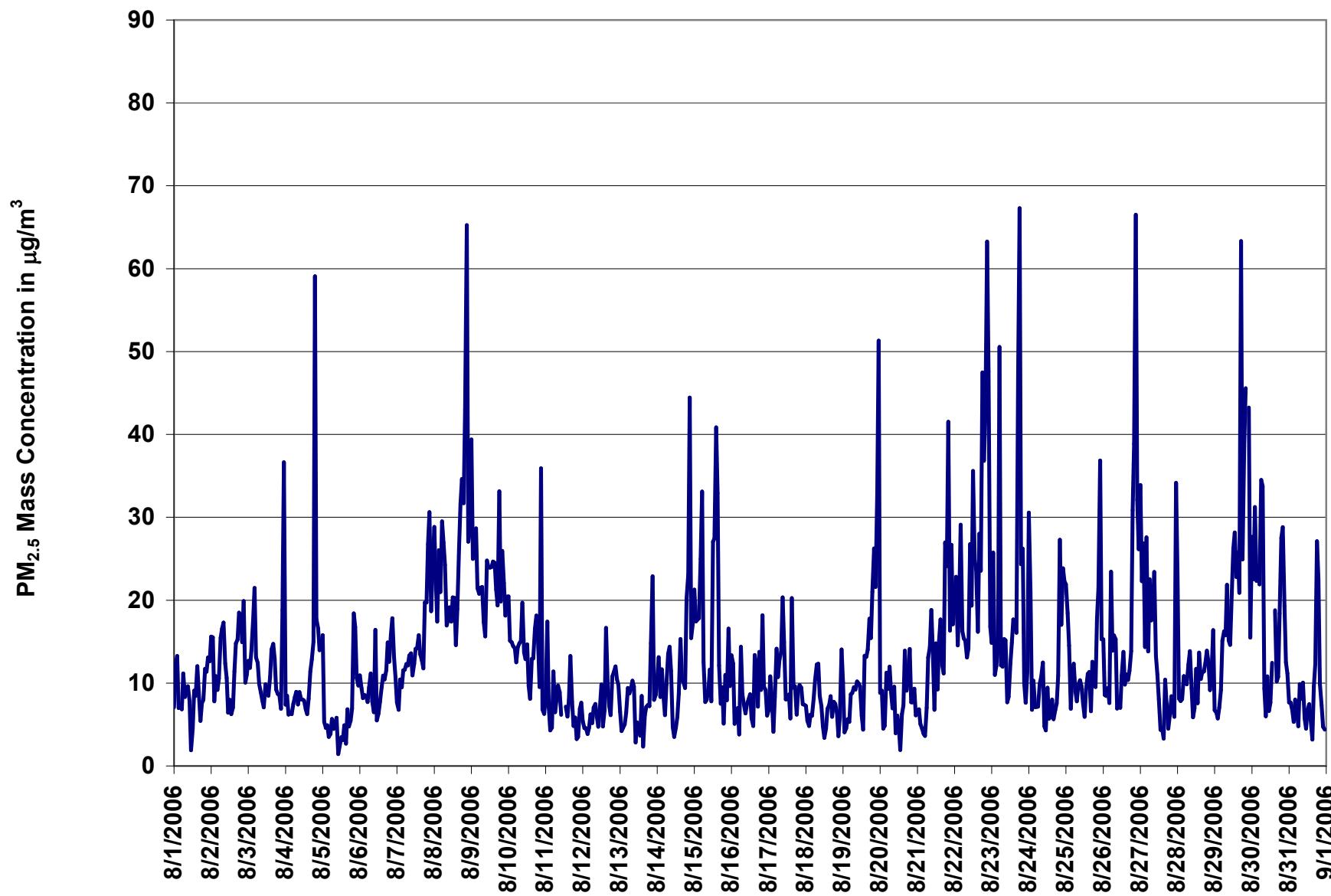
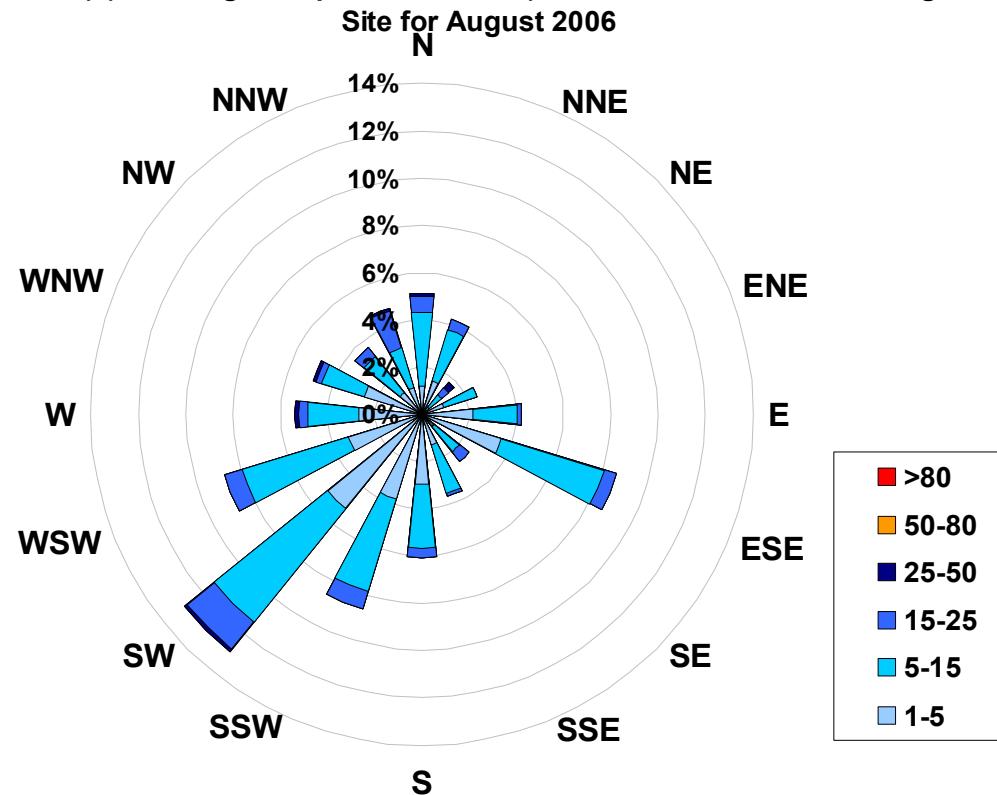


Figure 12. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) Instantaneous (30 Second) Maximum Value Monthly Trend



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



Calms: 0%

Frequency Distribution of PM <sub>2.5</sub> in µg/m <sup>3</sup>		
Range	Frequency (hrs)	
1.0 < 5	346	
5 to 15	319	
15 to 25	68	
25 to 50	7	
50 to 80	0	
> 80	0	
Total Non-Zero Values	740	



## PAS - Crescent Heights - Relative Humidity Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

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

### Summary

Maximum 1-hr Average:	89.9	%	17-Aug	4:00 5:00
Maximum 24-hr Value:	69.7	%	16-Aug	

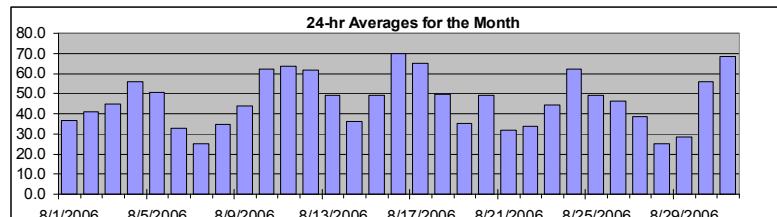
AIC Time:	0 hrs	Operational Time:	744 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99 88.9	95 84.1	75 63.2	50 44.5	25 28.3	5 14.2	1 10.1	Average 46.5 %	Median 44.5 %

### Day Mountain Standard Time

	Hour Start 0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
	Hour End 1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
1-Aug-06	54	58	59	55	52	50	52	43	41	38	32	23	19	18	20	19	20	20	23	26	32	38	44	48	36.8	58.5
2-Aug-06	56	62	60	64	64	62	58	58	52	40	36	32	28	26	22	20	22	20	19	26	35	38	42	44	41.1	64.0
3-Aug-06	48	53	57	54	56	65	62	58	50	41	33	31	28	25	23	21	25	32	37	43	48	52	54	83	44.9	82.6
4-Aug-06	79	77	78	82	80	77	74	70	60	56	49	41	35	29	23	20	20	20	23	58	66	72	76	79	56.1	82.3
5-Aug-06	79	79	81	82	80	77	70	64	58	51	43	37	35	32	29	26	26	27	27	31	39	45	49	52	50.8	81.9
6-Aug-06	56	60	62	64	63	60	55	48	37	26	20	16	14	11	11	10	10	11	14	18	25	34	34	26	32.8	63.7
7-Aug-06	24	25	27	30	35	42	41	38	34	27	23	20	15	12	12	10	10	9	11	18	26	37	37	39	25.1	41.8
8-Aug-06	41	49	52	62	65	63	55	49	40	31	25	22	21	19	16	12	16	17	19	24	30	39	32	35	34.8	65.0
9-Aug-06	40	41	43	48	49	49	51	49	42	41	34	34	34	33	32	31	29	32	37	47	53	61	67	72	43.7	71.7
10-Aug-06	77	80	83	86	86	86	86	85	79	68	60	53	46	39	34	33	34	36	38	46	47	60	79	76	62.3	86.1
11-Aug-06	76	83	88	89	89	89	89	89	80	71	65	60	50	38	35	32	31	40	46	47	54	62	67	73	63.8	89.4
12-Aug-06	79	80	80	79	79	79	78	72	68	64	56	47	46	42	39	46	41	48	49	50	54	62	71	76	61.9	80.0
13-Aug-06	80	82	83	84	85	83	78	72	63	55	42	32	29	23	22	18	18	19	22	27	35	41	44	48	49.4	84.9
14-Aug-06	51	56	58	59	64	56	49	43	35	30	23	19	18	17	16	16	18	18	20	27	36	47	45	47	36.1	63.7
15-Aug-06	53	53	48	49	50	67	76	72	62	55	45	38	36	36	36	36	37	37	39	41	44	49	56	61	49.0	76.0
16-Aug-06	66	77	82	82	85	81	83	80	76	73	67	61	53	51	50	57	53	52	57	64	72	80	84	85	69.7	85.5
17-Aug-06	84	85	88	89	90	88	88	86	81	70	58	44	40	37	34	39	43	44	48	52	59	67	73	74	65.0	89.9
18-Aug-06	79	82	85	85	85	85	78	71	61	51	41	35	30	26	22	20	21	22	26	33	38	37	37	40	49.7	85.4
19-Aug-06	50	47	48	49	51	54	52	46	39	36	33	28	23	18	16	15	15	15	17	23	29	35	42	58	35.0	58.4
20-Aug-06	64	66	68	70	73	81	78	72	64	57	49	41	34	29	26	25	25	26	28	35	37	41	45	46	49.2	81.2
21-Aug-06	47	50	50	48	49	50	48	43	37	29	26	21	16	15	12	11	12	13	19	24	28	31	42	47	32.0	50.4
22-Aug-06	48	58	53	57	66	66	62	56	46	35	26	18	19	13	12	10	6	7	17	16	20	25	36	41	33.9	65.9
23-Aug-06	48	51	53	58	63	69	69	66	55	43	30	24	19	14	12	9	10	15	29	48	63	69	70	72	44.1	72.0
24-Aug-06	84	88	88	89	89	89	87	83	77	68	58	46	43	40	38	35	34	33	36	42	49	56	66	72	62.0	89.3
25-Aug-06	72	75	79	77	76	77	70	60	52	46	40	33	29	26	24	25	26	24	28	34	41	46	58	61	49.1	78.5
26-Aug-06	65	65	69	72	75	76	67	59	53	40	31	27	27	25	25	25	24	27	38	41	50	53	55	46.4	75.9	
27-Aug-06	59	62	68	66	75	78	68	60	50	40	29	21	19	17	14	13	12	15	16	20	24	31	31	33	38.3	77.5
28-Aug-06	36	37	35	34	37	40	38	36	31	23	17	13	14	14	14	13	13	14	17	21	27	28	27	27	25.2	39.6
29-Aug-06	26	26	27	28	30	38	35	35	29	19	15	14	16	19	13	13	15	22	24	39	45	40	55	54	28.2	54.6
30-Aug-06	58	65	55	55	60	57	61	77	73	65	58	50	46	41	36	34	34	37	39	55	57	66	81	85	56.1	84.8
31-Aug-06	87	89	89	89	90	86	81	80	77	69	65	63	54	48	43	41	41	42	52	65	68	70	78	80	68.6	89.9
	Hourly Avg	60.2	63.3	64.3	65.6	67.4	68.4	65.8	61.6	54.7	46.8	39.5	33.4	29.8	26.8	24.5	23.7	24.2	25.7	29.2	37.0	42.9	48.9	54.1	57.9	
	Hourly Max	87.2	88.5	88.7	89.1	89.9	89.3	89.2	85.8	80.5	72.7	66.9	62.9	54.5	50.6	50.1	56.9	53.0	52.4	57.5	65.2	72.4	80.3	84.1	85.5	

### HOURLY AVERAGE TABLE

### Relative Humidity (RH)



### 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

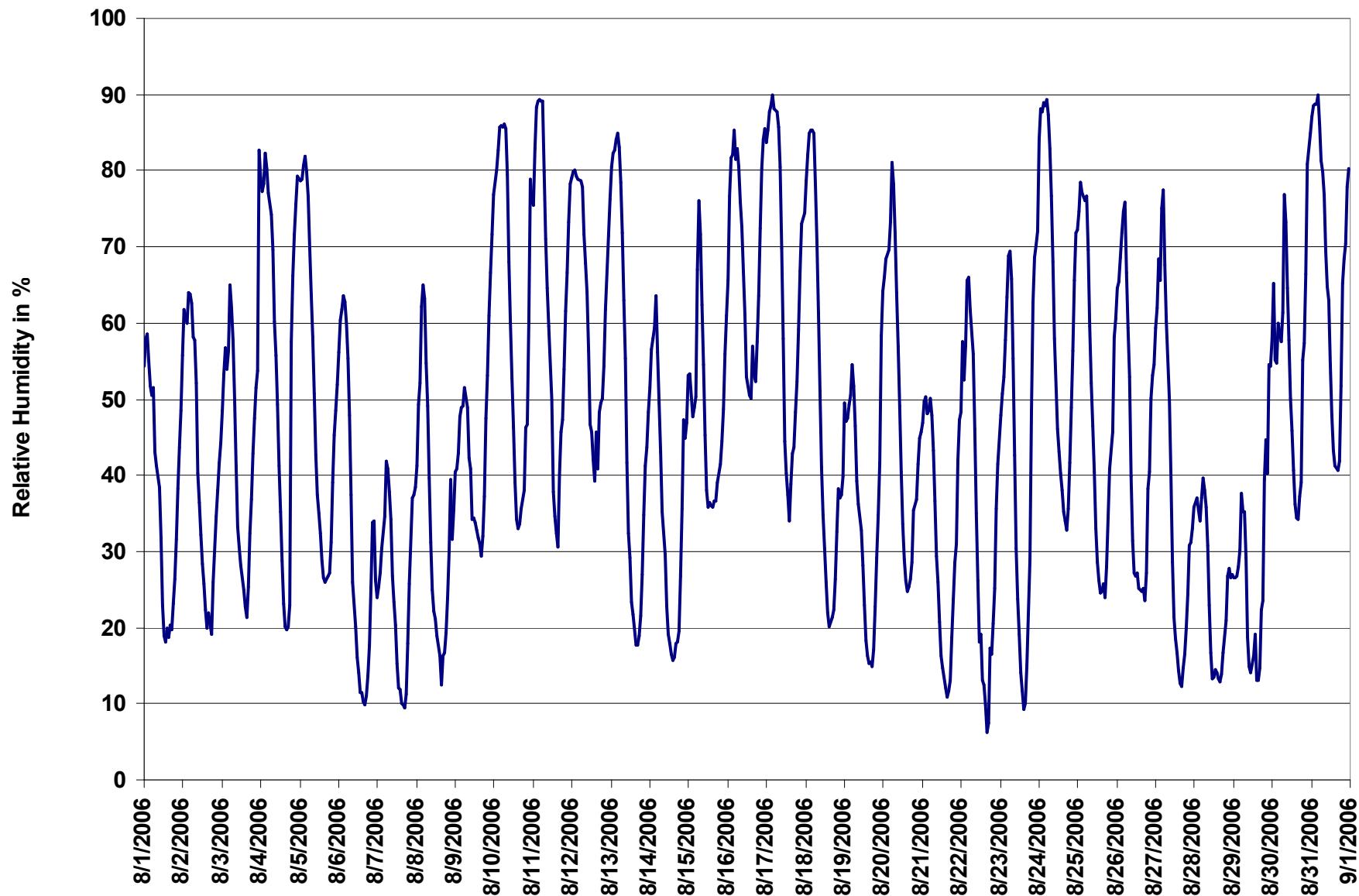


Figure 13. PAS - Crescent Heights Relative Humidity 1-hr Average Monthly Trend



## PAS - Crescent Heights - Temperature Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

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

### Summary

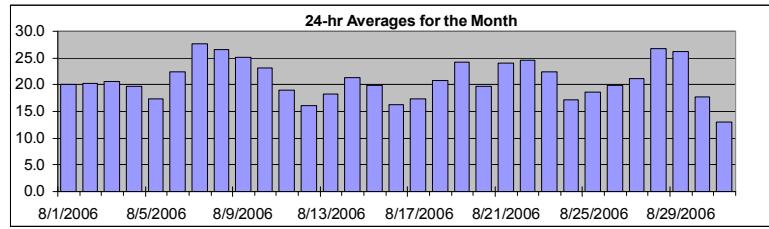
Maximum 1-hr Average:	36.2	°C	8-Aug	15:00 16:00
Maximum 24-hr Value:	27.7	°C	7-Aug	

AIC Time:	0 hrs	Operational Time:	744 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	34.8	32.2	26.0	20.4	15.0	11.1	9.8		

Day	Mountain Standard Time																									24-hour Average	Daily Maximum		
	Hour Start 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00				
1-Aug-06	12	11	12	12	13	13	14	18	19	22	24	26	27	27	27	27	27	27	27	25	24	22	20	18	17	20.1	27.3		
2-Aug-06	16	15	14	13	12	12	13	15	18	22	24	25	26	26	27	27	27	27	27	26	24	22	20	19	17	20.2	27.2		
3-Aug-06	16	15	14	14	14	13	15	17	20	22	24	26	27	28	29	28	27	26	24	22	20	19	18	14		20.6	28.6		
4-Aug-06	14	14	13	13	13	13	15	17	19	20	22	25	27	29	30	29	28	27	26	19	16	15	14	13		19.6	29.9		
5-Aug-06	13	12	11	10	10	10	11	13	15	18	20	21	22	23	24	24	25	24	24	22	19	17	14	13		17.3	24.6		
6-Aug-06	11	11	10	10	10	11	14	17	22	26	28	29	31	31	32	32	32	32	31	28	24	20	20	23		22.3	32.4		
7-Aug-06	25	24	23	22	21	19	21	23	26	28	30	32	34	35	35	36	35	35	35	35	31	28	25	22	21		27.7	35.6	
8-Aug-06	20	19	18	17	15	15	18	21	24	27	31	32	34	35	35	36	35	35	35	32	30	28	26	27	25		26.5	36.2	
9-Aug-06	24	23	22	20	19	19	19	21	24	25	29	29	30	31	31	31	31	31	30	29	26	24	23	21	20		25.1	31.5	
10-Aug-06	20	19	19	18	18	18	18	18	20	23	25	27	28	30	30	30	30	30	30	29	27	25	21	16	16		23.1	30.5	
11-Aug-06	17	16	16	15	15	15	15	17	19	21	22	23	24	25	26	26	24	23	21	18	16	15	14	13			19.0	25.7	
12-Aug-06	12	11	11	11	12	12	12	14	15	16	17	19	20	21	22	20	21	19	19	18	17	16	15	14			16.0	22.0	
13-Aug-06	12	11	11	10	9	10	11	14	17	20	22	23	25	26	25	27	26	26	25	22	20	18	15	13			18.2	26.8	
14-Aug-06	12	11	11	11	10	11	14	18	22	25	27	29	29	30	31	31	30	30	28	25	22	20	17	16			21.3	30.6	
15-Aug-06	15	15	15	15	15	14	13	15	17	19	22	24	25	26	26	25	25	25	24	23	21	20	19	18			19.9	25.9	
16-Aug-06	16	15	14	14	13	13	13	14	15	16	17	18	19	19	19	18	21	21	19	18	16	15	14	13			16.3	20.7	
17-Aug-06	13	12	12	11	10	11	11	13	14	18	21	23	24	25	26	25	23	23	23	21	19	18	16	14	13			17.4	25.5
18-Aug-06	13	12	12	11	11	11	13	15	19	22	25	26	27	28	28	29	29	29	28	25	22	22	21	21			20.7	28.8	
19-Aug-06	20	20	20	19	18	17	18	21	23	25	27	29	30	31	32	32	32	31	29	26	23	20	18	17			24.1	32.2	
20-Aug-06	15	15	14	13	12	11	13	15	17	20	22	23	25	26	27	27	28	27	26	23	21	18	17	16			19.6	27.7	
21-Aug-06	16	15	14	15	15	14	15	18	23	27	30	31	32	33	34	34	34	33	31	28	26	22	19	17			24.1	33.9	
22-Aug-06	17	16	16	15	14	13	14	17	21	26	29	32	32	34	34	34	34	34	31	28	26	22	24	22			24.5	34.3	
23-Aug-06	20	19	18	17	15	14	14	16	20	25	28	29	30	31	31	31	31	30	27	21	19	17	16	16			22.5	31.4	
24-Aug-06	15	14	12	12	11	11	11	12	14	17	19	21	22	23	23	23	23	23	22	20	19	16	15	14			17.2	23.4	
25-Aug-06	13	12	12	11	11	11	11	12	15	18	20	22	24	25	25	25	25	26	24	21	19	17	16	14			18.6	26.0	
26-Aug-06	13	12	11	10	10	9	12	15	18	23	25	27	28	28	29	29	28	28	27	23	22	19	17	16			19.9	28.6	
27-Aug-06	14	13	12	11	11	10	12	15	19	23	26	29	30	30	31	31	31	30	28	25	22	18	18	17			21.1	30.9	
28-Aug-06	17	19	21	22	22	21	22	23	27	30	32	33	33	34	34	34	34	33	31	28	24	22	25	25			26.8	34.0	
29-Aug-06	24	24	23	22	21	19	20	22	26	31	32	33	31	31	34	34	34	32	29	28	24	23	23	20			26.2	34.5	
30-Aug-06	19	18	19	18	17	17	16	14	15	16	18	21	21	22	22	22	21	21	20	19	17	16	14	12	11			17.7	22.3
31-Aug-06	11	11	10	10	10	10	10	10	12	13	14	14	16	17	18	18	18	18	15	14	13	12	10	9			13.0	18.3	

### HOURLY AVERAGE TABLE

### Ambient Temperature (T)



### 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

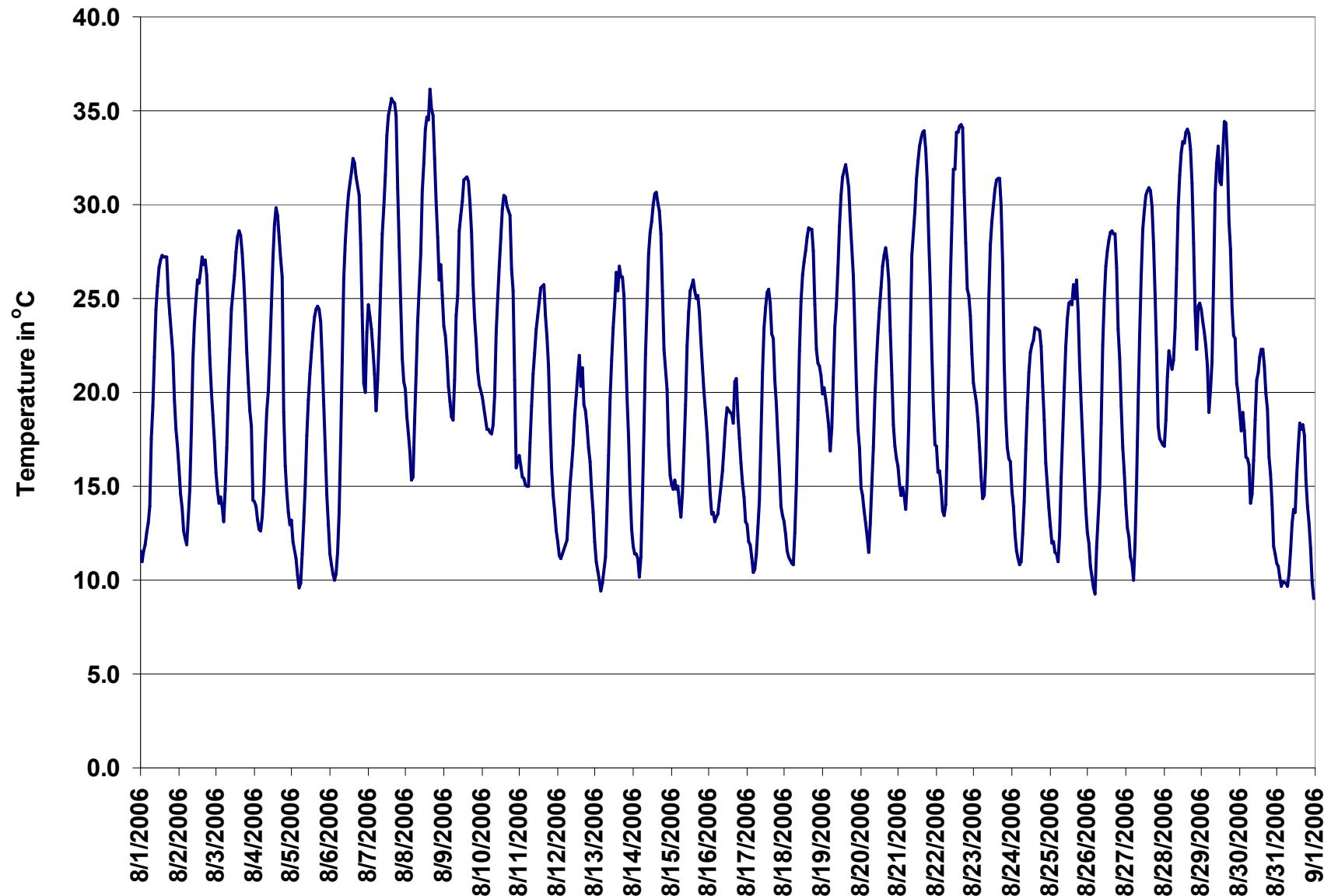


Figure 14. PAS - Crescent Heights Temperature 1-hr Average Monthly Trend



PAS - Crescent Heights - Solar Radiation Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

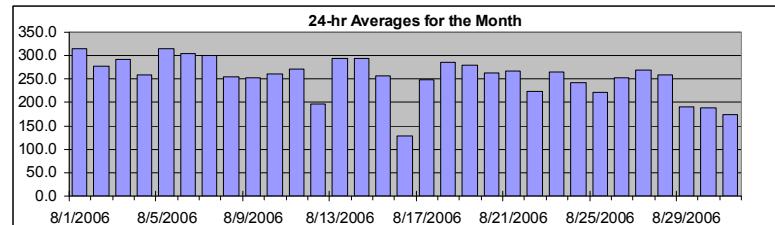
**Monitoring Dates:** August 1, 2006 to September 1, 2006

## HOURLY AVERAGE TABLE

## Solar Radiation (SR)

## Summary

Maximum 1-hr Average: 976.6 W/m<sup>2</sup> 13-Aug 13:00 14:00  
Maximum 24-hr Value: 315.2 W/m<sup>2</sup> 5-Aug



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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
	Hour Start 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		
1-Aug-06	0	0	0	0	2	62	187	354	527	674	790	865	889	792	763	679	475	356	92	31	1	0	0	0	314.1	889.4
2-Aug-06	0	0	0	0	1	32	176	337	506	647	757	835	813	570	549	538	405	315	154	35	1	0	0	0	277.9	835.2
3-Aug-06	0	0	0	0	1	30	163	312	477	645	755	819	837	816	737	595	382	330	112	23	0	0	0	0	293.0	836.8
4-Aug-06	0	0	0	0	1	39	166	330	486	570	734	815	854	736	603	420	226	116	92	32	1	0	0	0	259.2	854.0
5-Aug-06	0	0	0	0	0	40	173	342	513	659	771	843	868	841	770	659	515	348	184	38	0	0	0	0	315.2	867.7
6-Aug-06	0	0	0	0	0	39	175	339	506	663	756	828	857	832	747	645	441	289	134	34	0	0	0	0	303.6	857.2
7-Aug-06	0	0	0	0	0	33	157	316	477	629	744	819	846	821	745	630	485	315	152	32	0	0	0	0	300.1	845.8
8-Aug-06	0	0	0	0	0	28	180	221	452	658	760	708	763	693	441	531	345	246	68	10	0	0	0	0	254.3	763.5
9-Aug-06	0	0	0	0	0	12	85	208	227	344	689	753	806	800	717	598	458	269	104	12	0	0	0	0	253.5	806.4
10-Aug-06	0	0	0	0	0	8	40	96	193	650	745	820	803	823	747	531	346	277	152	8	0	0	0	0	259.9	822.7
11-Aug-06	0	0	0	0	0	12	48	276	490	560	693	816	798	819	738	466	304	299	154	21	0	0	0	0	270.6	819.2
12-Aug-06	0	0	0	0	0	5	30	198	266	322	349	681	670	692	636	298	303	211	56	10	0	0	0	0	197.0	692.2
13-Aug-06	0	0	0	0	0	26	156	318	485	631	745	821	858	977	538	594	437	321	153	18	0	0	0	0	294.9	976.6
14-Aug-06	0	0	0	0	0	26	156	319	485	631	744	810	835	797	728	608	466	296	128	17	0	0	0	0	293.5	834.6
15-Aug-06	0	0	0	0	0	20	124	294	461	604	708	775	788	749	619	417	299	215	83	9	0	0	0	0	256.8	787.6
16-Aug-06	0	0	0	0	0	3	73	110	146	242	418	516	379	241	148	179	349	214	48	5	0	0	0	0	128.0	516.0
17-Aug-06	0	0	0	0	0	11	69	94	237	549	756	813	865	772	670	558	332	203	39	11	0	0	0	0	249.2	864.9
18-Aug-06	0	0	0	0	0	18	137	297	464	612	724	798	820	795	724	607	457	287	127	10	0	0	0	0	286.6	820.4
19-Aug-06	0	0	0	0	0	17	134	295	460	603	716	790	809	791	715	617	395	248	101	11	0	0	0	0	279.3	809.3
20-Aug-06	0	0	0	0	0	13	112	268	431	579	698	608	795	768	690	574	426	261	104	8	0	0	0	0	264.0	795.4
21-Aug-06	0	0	0	0	0	13	107	252	406	561	685	783	808	778	708	592	391	236	93	10	0	0	0	0	267.6	808.0
22-Aug-06	0	0	0	0	0	12	83	226	363	571	539	703	524	755	527	441	303	243	68	5	0	0	0	0	223.6	755.2
23-Aug-06	0	0	0	0	0	18	67	200	435	580	697	770	749	769	691	623	461	188	94	7	0	0	0	0	264.5	770.0
24-Aug-06	0	0	0	0	0	10	50	174	337	575	693	624	786	724	592	516	414	230	95	4	0	0	0	0	242.7	786.5
25-Aug-06	0	0	0	0	0	8	113	288	432	586	698	520	614	472	329	504	343	307	95	5	0	0	0	0	221.3	697.9
26-Aug-06	0	0	0	0	0	9	113	271	431	585	649	763	788	708	577	483	339	258	75	3	0	0	0	0	252.2	788.5
27-Aug-06	0	0	0	0	0	9	106	274	440	586	696	775	793	762	685	569	414	248	88	3	0	0	0	0	268.7	793.2
28-Aug-06	0	0	0	0	0	7	105	263	433	581	692	767	785	743	655	541	376	190	73	3	0	0	0	0	258.9	784.7
29-Aug-06	0	0	0	0	0	12	105	219	402	559	639	672	274	354	641	515	150	14	8	1	0	0	0	0	190.2	671.7
30-Aug-06	0	0	0	0	0	3	15	64	175	447	659	703	587	586	575	450	228	34	8	0	0	0	0	0	189.0	703.4
31-Aug-06	0	0	0	0	0	20	106	232	437	336	292	437	743	697	427	306	143	15	2	0	0	0	0	0	174.8	742.6
Hourly Avg	0.0	0.0	0.0	0.0	0.2	18.4	110.4	247.1	399.2	565.8	678.6	738.9	745.2	726.4	635.6	529.2	373.2	242.2	95.2	13.6	0.1	0.0	0.0	0.0	0.0	0.0
Hourly Max	0.2	0.1	0.1	0.1	1.7	61.7	186.5	353.7	527.4	673.9	789.8	865.1	889.4	976.6	770.4	679.3	514.7	355.6	183.9	37.7	0.9	0.0	0.1	0.1	0.0	0.0

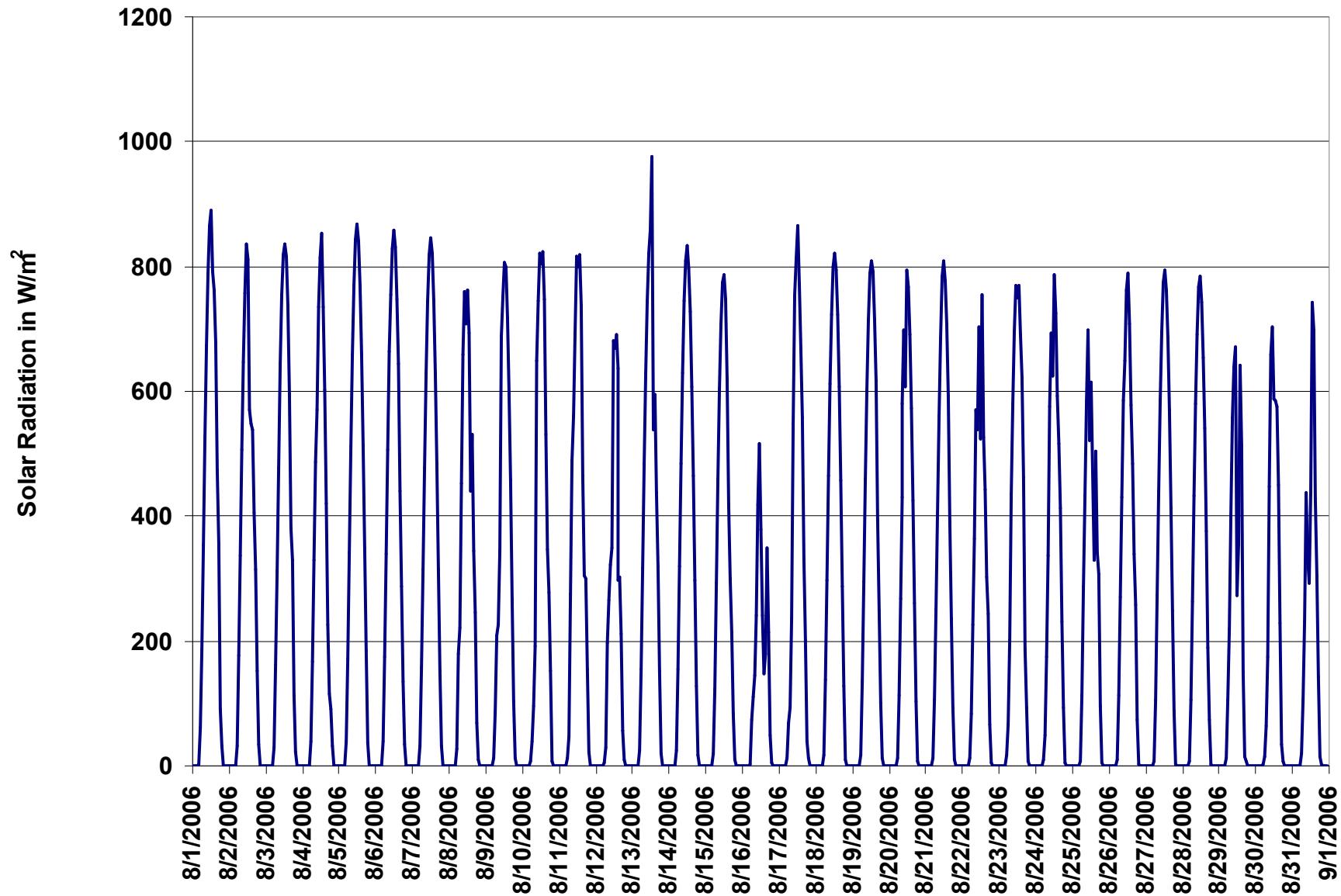


Figure 15. PAS - Crescent Heights Solar Radiation 1-hr Average Monthly Trend



## PAS - Crescent Heights - Scalar Wind Speed Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

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

### Summary

Maximum 1-hr Average:	35.6	km/hr	19-Aug	23:00 0:00
Maximum 24-hr Value:	13.5	km/hr	28-Aug	

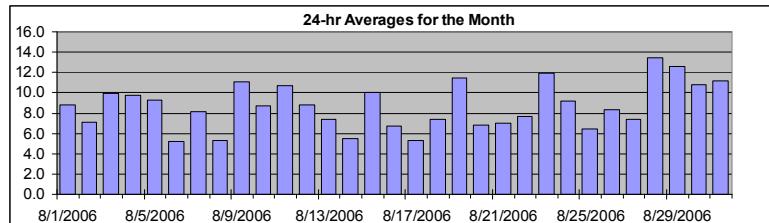
Calm Time:	1 hrs	0% calms	Operational Time:	743 hrs
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%
Percentile	99	95	75	50

25 20 15 10 5 1      AverageS

23.8 16.6 11.5 7.9 5.2 2.5 1.6 8.7 km/hr

### HOURLY AVERAGE TABLE

### Wind Speed (WSs)



### Status Flag Characters

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

Day	Mountain Standard Time																									24-hr Scalar Average	Daily Max
	Hour Start 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	6:00 7:00	7:00 8:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	
1-Aug-06	5	3	5	7	8	14	9	10	9	11	11	13	14	15	13	16	11	8	7	7	6	5	4	4	8.8	16.2	
2-Aug-06	2	5	5	4	2	3	8	12	9	8	11	11	9	10	8	8	11	7	7	6	6	7	6	5	7.1	11.5	
3-Aug-06	7	6	5	8	6	8	7	9	6	6	5	5	5	6	8	8	12	21	19	16	14	11	16	27	10.0	26.6	
4-Aug-06	21	10	8	8	8	10	7	6	10	10	6	4	4	4	6	9	7	6	3	34	25	13	8	6	9.7	33.8	
5-Aug-06	9	11	12	12	12	11	10	10	9	10	11	11	12	12	11	11	10	11	8	3	2	5	5	4	9.3	12.4	
6-Aug-06	4	2	2	2	5	3	4	3	4	3	3	4	6	11	10	7	6	3	3	6	7	6	7	14	5.2	13.6	
7-Aug-06	19	17	16	9	6	3	2	2	5	16	18	16	11	7	8	7	8	4	1	calm	3	2	4	2	8.1	18.9	
8-Aug-06	2	4	3	4	2	5	4	5	8	10	8	8	8	10	7	7	7	5	3	4	4	4	6	3	5.3	10.2	
9-Aug-06	7	7	6	7	9	13	10	10	13	14	18	14	12	12	11	13	14	16	14	13	11	9	8	6	11.1	18.0	
10-Aug-06	8	5	6	5	9	11	8	5	3	5	6	6	6	6	6	8	8	6	10	15	23	26	14	8.7	25.6		
11-Aug-06	4	17	7	6	4	4	6	6	6	9	13	17	20	19	18	14	15	16	14	9	6	6	10	9	10.7	19.8	
12-Aug-06	8	7	6	6	6	9	9	10	11	14	16	15	10	10	12	10	16	7	5	3	5	2	4	8.8	15.8		
13-Aug-06	4	7	7	8	10	9	10	10	8	9	13	9	9	10	9	6	7	9	6	2	1	4	4	7.4	12.9		
14-Aug-06	4	3	4	2	2	3	2	2	2	5	4	12	13	13	13	10	10	8	5	2	1	3	5	3	5.5	13.4	
15-Aug-06	4	8	13	8	6	8	8	9	8	9	9	10	12	12	12	13	11	10	12	15	12	10	8	12	10.0	15.3	
16-Aug-06	17	12	16	10	8	6	6	5	5	7	9	11	9	7	8	8	3	2	1	3	3	2	2	4	6.8	16.6	
17-Aug-06	3	3	3	1	3	4	1	2	2	3	5	4	6	5	5	11	11	10	11	9	8	7	6	4	5.3	11.5	
18-Aug-06	5	6	4	4	6	5	4	3	4	5	7	8	10	12	10	8	7	6	6	8	11	12	13	7.3	13.5		
19-Aug-06	12	12	17	16	12	3	4	5	13	18	18	15	15	12	14	10	9	7	6	4	5	7	36	11.5	35.6		
20-Aug-06	23	9	8	5	9	8	5	6	6	4	6	5	6	5	6	4	4	3	2	5	7	9	10	9	6.9	23.5	
21-Aug-06	8	5	8	10	10	8	6	4	2	2	9	13	17	13	11	9	5	4	2	4	5	6	3	7.0	17.2		
22-Aug-06	4	2	4	4	2	2	5	6	8	9	10	7	15	10	11	9	4	3	4	5	7	16	22	12	7.6	21.7	
23-Aug-06	15	7	5	7	7	6	9	7	9	5	9	12	13	14	14	14	12	10	21	24	30	20	11	6	11.9	30.1	
24-Aug-06	12	8	8	7	8	8	6	7	7	11	13	13	15	15	14	14	14	10	9	7	6	4	4	3	9.2	14.7	
25-Aug-06	3	4	5	6	7	3	5	7	6	7	8	8	9	8	10	9	10	6	6	5	4	5	6	6	6.5	10.3	
26-Aug-06	7	6	5	6	6	4	3	3	9	16	14	15	16	15	14	13	15	8	3	3	4	5	5	5	8.3	16.4	
27-Aug-06	4	3	5	3	6	6	3	3	3	5	8	10	15	14	11	10	8	11	10	9	7	6	8	7	7.4	14.5	
28-Aug-06	8	9	14	20	17	17	16	14	13	16	15	13	14	19	14	17	14	10	7	7	8	9	17	16	13.5	19.9	
29-Aug-06	15	14	11	12	11	6	7	7	16	21	22	19	12	12	12	9	25	10	15	17	8	9	7	7	12.6	25.4	
30-Aug-06	5	10	13	6	7	9	13	11	11	9	12	12	13	13	11	12	12	11	16	8	14	10	7	7	10.8	15.8	
31-Aug-06	6	5	9	7	7	9	13	14	15	15	14	12	14	15	14	12	11	9	11	9	9	12	12	14	11.2	14.9	
1-hr Average	8.2	7.4	7.7	7.1	7.1	7.0	6.7	6.8	7.5	9.3	10.6	10.9	11.5	11.2	10.6	10.3	9.5	9.3	7.6	8.9	8.2	8.1	8.5	8.8			
Hourly Max	23.5	17.4	16.7	19.9	16.9	16.6	16.0	14.5	14.7	17.6	20.8	21.5	19.8	19.5	17.8	16.8	15.3	25.4	20.6	33.8	30.1	22.7	25.6	35.6			



## PAS - Crescent Heights - Vector Wind Speed Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

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

### Summary

Maximum 1-hr Average:	35.2	km/hr	19-Aug	23:00 0:00
Maximum 24-hr Value:	12.6	km/hr	28-Aug	

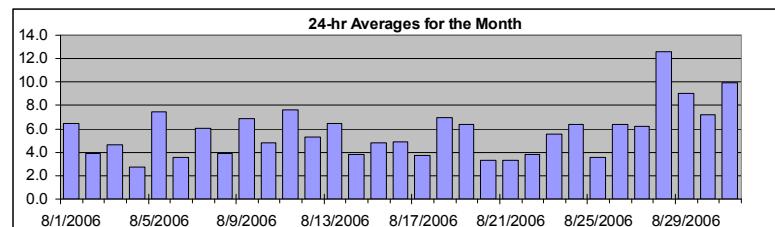
Calm Time:	9 hrs	1% calms	Operational Time:	735 hrs							
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%							
Percentile	99	95	75	50	25	5	1	AverageV			
	23.2	16.1	10.9	7.4	4.5	1.8	1.0	2.6 km/hr			

### Day Mountain Standard Time

	Hour Start 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-Aug-06	5	2	4	6	7	13	9	10	9	10	10	13	14	14	12	16	10	6	6	6	6	4	3	3	6.5	15.9
2-Aug-06	2	5	4	3	1	2	7	11	9	6	10	10	8	9	7	6	11	6	6	6	6	6	6	5	3.9	11.4
3-Aug-06	7	6	3	7	5	7	7	9	6	5	calm	4	4	4	7	5	11	21	18	16	14	11	14	25	4.6	25.2
4-Aug-06	21	10	7	8	8	10	6	5	10	10	5	3	3	2	5	8	7	6	2	33	25	13	7	5	2.7	33.4
5-Aug-06	9	11	12	12	12	11	10	10	9	10	10	9	10	11	11	11	9	10	8	2	2	5	5	4	7.5	12.3
6-Aug-06	4	2	1	2	5	3	4	3	3	2	1	1	4	10	9	6	4	3	2	6	7	6	7	13	3.5	12.8
7-Aug-06	19	17	16	7	5	2	calm	2	4	16	17	16	10	6	7	6	8	4	calm	calm	2	2	4	2	6.1	18.8
8-Aug-06	1	4	2	3	2	4	3	4	7	10	8	8	8	9	7	6	6	4	2	3	3	3	5	2	3.9	10.0
9-Aug-06	6	7	5	7	9	13	10	9	13	14	17	14	11	11	10	13	13	16	13	13	11	9	8	5	6.9	17.3
10-Aug-06	8	5	5	5	9	11	8	4	2	4	6	5	3	5	4	5	7	6	6	10	15	15	25	13	4.8	24.9
11-Aug-06	1	16	5	5	4	4	6	6	6	8	13	16	20	19	17	13	15	16	14	9	6	6	10	9	7.6	19.5
12-Aug-06	8	7	6	6	6	9	9	10	11	14	15	15	9	8	8	12	10	16	7	5	1	5	1	3	5.3	15.7
13-Aug-06	3	7	7	8	10	9	10	10	8	8	12	8	8	9	6	5	5	8	6	2	1	4	4	5	6.4	12.4
14-Aug-06	4	3	4	2	2	3	2	2	1	5	4	12	12	12	13	8	9	7	5	1	1	3	5	3	3.9	12.8
15-Aug-06	3	7	13	8	6	8	8	9	7	9	7	9	12	11	12	13	11	10	12	15	11	10	8	12	4.8	15.2
16-Aug-06	16	11	15	9	8	5	5	4	4	7	8	10	9	7	8	7	2	2	1	3	2	2	2	2	4.9	16.3
17-Aug-06	2	calm	3	calm	3	3	calm	1	2	3	4	1	5	2	1	10	10	10	11	9	7	6	6	4	3.7	11.4
18-Aug-06	4	6	3	4	5	3	3	3	3	4	6	7	9	11	9	8	6	6	6	8	11	12	13	13	7.0	13.4
19-Aug-06	12	12	17	16	12	2	3	4	13	17	17	15	15	11	13	9	8	7	6	4	4	5	4	35	6.4	35.2
20-Aug-06	23	8	8	4	9	8	5	5	6	4	5	3	4	2	6	3	2	2	2	5	7	9	10	9	3.3	23.2
21-Aug-06	8	4	8	10	10	8	6	3	1	1	8	12	17	12	11	8	4	3	2	4	4	5	2	3	3.3	16.8
22-Aug-06	3	2	4	3	calm	2	4	6	8	9	10	7	14	10	11	9	2	2	4	5	6	14	21	12	3.8	21.1
23-Aug-06	13	2	4	5	4	5	8	6	8	1	8	11	12	14	13	13	12	3	20	24	30	20	11	5	5.5	30.0
24-Aug-06	8	7	8	7	7	8	5	6	6	10	13	11	14	14	13	13	10	8	7	5	3	3	2	6.4	14.3	
25-Aug-06	calm	2	3	4	5	1	4	6	6	6	5	7	8	7	9	8	8	5	6	5	2	4	6	3.6	8.9	
26-Aug-06	6	5	4	6	5	3	3	3	9	16	14	15	15	14	13	11	15	7	2	3	3	4	5	6.4	16.1	
27-Aug-06	3	2	3	2	6	6	1	2	2	5	7	9	14	13	10	9	7	10	10	9	7	6	8	7.2	13.5	
28-Aug-06	7	8	14	20	17	17	16	14	13	15	15	13	13	18	14	16	14	10	7	6	7	9	17	15	12.6	19.8
29-Aug-06	15	14	11	12	11	6	6	7	6	16	21	21	18	10	10	12	9	23	9	14	11	5	8	6	9.0	23.2
30-Aug-06	1	10	13	4	7	8	12	11	11	9	12	11	12	12	11	11	10	11	12	16	7	13	10	7	7.2	15.7
31-Aug-06	5	5	9	6	6	9	13	14	14	15	13	12	14	14	13	11	11	9	10	9	9	12	12	14	9.9	14.6
1-hr Vector	1.1	2.0	2.8	3.4	3.5	3.2	3.4	3.8	4.5	6.4	7.3	6.4	6.7	6.9	5.8	5.3	3.8	3.1	3.3	5.2	3.3	1.9	1.9	1.5		
Hourly Max	23.2	17.3	16.6	19.8	16.8	16.5	15.9	14.3	14.4	17.3	20.5	21.0	19.5	19.1	17.4	16.2	14.8	23.2	20.5	33.4	30.0	19.5	24.9	35.2		

### HOURLY AVERAGE TABLE

### Wind Speed (WSv)



### 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



## PAS - Crescent Heights - Wind Direction Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

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

### HOURLY AVERAGE TABLE

### Wind Direction (WD)

#### Summary

Wind Data 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			
	356.9	340.5	259.9	214.7	120.5	23.2	5.1		243 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																								24-hour Average	WD Sector	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Aug-06	119	140	207	253	233	224	213	221	232	221	239	225	230	222	233	225	237	319	326	319	325	318	68	99	235	SW	
2-Aug-06	230	209	197	201	196	225	211	213	224	258	291	293	296	276	297	251	231	249	291	357	26	70	86	120	254	WSW	
3-Aug-06	115	109	162	238	313	11	98	106	103	100	286	157	161	202	248	268	357	10	18	27	21	25	347	5	20	NNE	
4-Aug-06	44	60	118	119	113	97	56	93	197	215	226	190	115	144	210	257	302	321	294	346	352	358	318	306	13	NNE	
5-Aug-06	291	289	289	269	266	269	266	276	285	282	276	258	238	242	239	231	220	225	256	41	113	120	131	260	W		
6-Aug-06	122	68	112	67	91	77	105	87	108	92	96	168	180	181	172	185	220	259	23	64	111	110	115	152	135	SE	
7-Aug-06	164	167	169	207	293	288	194	246	227	221	213	209	224	259	254	254	235	247	249	10	14	110	121	107	208	SSW	
8-Aug-06	20	345	282	194	172	217	242	213	213	209	223	241	243	240	226	229	240	226	281	337	40	267	303	332	241	WSW	
9-Aug-06	202	232	227	216	226	227	235	228	223	203	229	243	257	254	293	322	336	346	337	321	319	352	353	334	271	W	
10-Aug-06	356	358	343	341	333	343	358	11	5	105	135	105	121	146	106	100	94	78	100	104	84	327	3	16	33	NNE	
11-Aug-06	341	223	331	84	120	294	289	257	256	206	221	230	247	243	243	264	317	327	319	308	309	295	294	282	268	W	
12-Aug-06	270	258	234	243	230	229	243	251	258	280	304	319	303	283	287	1	12	30	53	59	214	241	277	222	289	WNW	
13-Aug-06	202	217	215	224	227	236	221	224	231	216	236	253	218	243	238	266	276	224	231	251	233	120	120	119	228	SW	
14-Aug-06	119	137	212	177	126	136	118	96	146	216	218	223	214	214	222	244	260	255	263	289	100	138	121	123	212	SSW	
15-Aug-06	178	222	229	226	223	261	251	246	275	244	250	334	340	339	3	13	17	33	28	27	1	359	5	16	330	NNW	
16-Aug-06	16	10	49	56	119	82	344	41	95	106	98	105	109	110	117	107	114	72	357	360	85	118	97	184	75	ENE	
17-Aug-06	280	265	186	223	108	191	182	231	76	32	108	141	170	170	115	162	148	199	226	219	234	211	194	221	187	S	
18-Aug-06	209	214	195	215	189	206	192	168	215	210	190	213	196	202	195	192	183	154	161	162	168	173	175	171	187	S	
19-Aug-06	181	189	195	193	194	259	250	258	230	220	216	206	215	243	217	232	245	263	309	353	94	113	47	9	221	SW	
20-Aug-06	31	76	107	104	313	300	273	302	17	125	138	140	129	116	121	113	166	256	31	51	90	107	104	85	80	E	
21-Aug-06	87	94	95	88	81	79	59	61	354	166	191	174	198	207	210	225	197	43	14	15	85	106	135	107	138	SE	
22-Aug-06	182	183	223	330	328	145	186	208	225	215	213	218	226	263	254	254	251	237	48	71	10	302	341	350	262	W	
23-Aug-06	15	48	121	202	219	194	211	221	208	268	244	254	257	250	254	259	239	324	357	353	347	348	12	16	302	WNW	
24-Aug-06	323	330	321	288	271	273	285	257	249	243	240	301	328	334	334	340	353	360	9	14	47	118	222	57	316	NW	
25-Aug-06	179	209	229	191	274	157	302	318	351	230	259	285	341	355	341	325	351	254	308	332	326	307	156	178	296	WNW	
26-Aug-06	199	195	167	187	186	162	142	164	209	218	210	205	205	220	234	230	217	244	290	31	35	123	42	127	206	SSW	
27-Aug-06	108	101	337	21	187	210	149	128	69	113	81	87	106	104	94	90	83	98	93	83	105	112	107	115	100	E	
28-Aug-06	106	107	146	163	170	170	177	181	187	188	179	169	181	196	179	187	187	190	177	182	145	142	163	202	174	S	
29-Aug-06	174	184	188	199	212	277	240	248	214	201	208	213	213	191	172	254	251	271	229	283	341	260	80	128	159	215	SW
30-Aug-06	311	258	270	262	208	225	236	260	256	270	241	270	263	278	276	287	319	352	355	4	14	14	4	328	290	WNW	
31-Aug-06	334	321	320	301	248	278	293	290	307	316	302	297	278	276	268	285	278	272	253	256	242	231	234	236	279	W	
Hourly Avg	71	200	203	205	215	232	236	235	234	222	226	230	229	235	236	253	269	295	333	359	8	17	36	37			



## PAS - Crescent Heights - Standard Deviation of Wind Direction Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

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

### HOURLY AVERAGE TABLE

### Wind Direction (WD)

#### 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							
	65.0	50.2	25.3	16.2	10.4	6.1	4.7							

Determined by the Yamartino 15-min interval calculation

#### 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

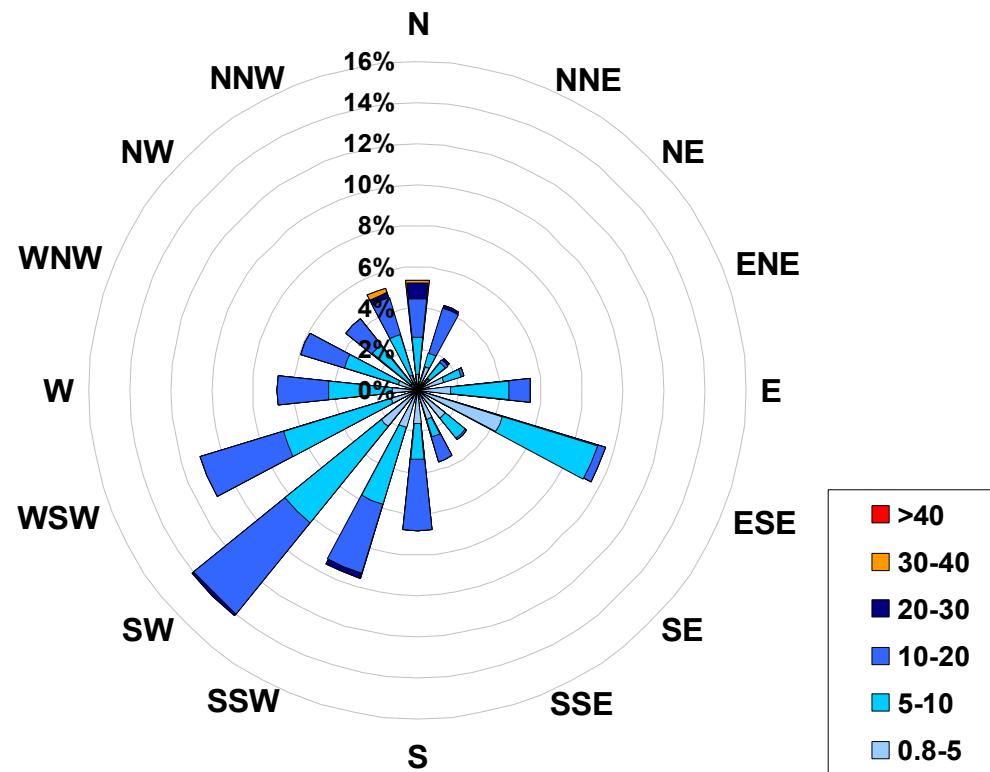
#### Day Mountain Standard Time

	Hour Start 1:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	Daily Maximum
1-Aug-06	9	22	37	18	23	10	9	19	14	16	15	17	20	19	23	11	21	39	11	12	12	12	17	18	31	39.0
2-Aug-06	56	16	17	24	71	54	13	8	12	27	18	24	27	24	21	35	13	22	17	9	10	11	11	17	16	70.7
3-Aug-06	8	7	16	12	20	19	13	8	20	34	42	41	44	58	29	30	18	7	8	6	5	10	10	19	7	58.2
4-Aug-06	6	13	15	14	16	11	19	13	14	13	41	63	44	61	31	19	15	11	25	12	6	9	13	14	63.0	
5-Aug-06	11	11	10	7	7	7	10	14	16	17	22	25	27	23	23	22	20	16	10	23	26	18	10	8	26.8	
6-Aug-06	9	17	28	18	9	17	18	21	28	51	70	74	56	17	22	42	43	39	25	9	5	6	6	12	73.6	
7-Aug-06	7	7	11	45	21	34	35	55	41	8	7	8	19	27	30	30	17	31	59	6	16	45	11	20	58.6	
8-Aug-06	43	14	23	16	45	17	24	12	9	12	17	20	19	18	15	27	14	11	23	9	13	26	22	57	57.4	
9-Aug-06	20	9	20	11	9	7	12	9	7	7	11	12	19	16	20	14	13	10	9	5	6	5	7	19	20.4	
10-Aug-06	11	22	16	17	7	6	19	16	40	25	25	33	67	38	50	34	19	18	29	6	6	25	7	13	66.8	
11-Aug-06	52	20	18	17	18	46	14	21	28	25	18	14	9	11	11	17	11	8	9	10	20	44	10	11	51.8	
12-Aug-06	11	10	8	11	10	8	10	11	11	12	13	13	22	30	32	13	20	8	10	13	26	11	40	34	39.8	
13-Aug-06	39	7	4	5	5	9	6	9	18	17	17	33	41	31	31	57	37	20	19	17	48	13	7	5	57.4	
14-Aug-06	6	21	14	29	24	16	11	21	67	41	53	15	24	34	18	29	24	20	17	27	13	12	3	13	67.1	
15-Aug-06	20	15	8	9	33	12	14	13	21	15	29	19	15	18	14	14	10	9	8	4	9	7	9	7	32.7	
16-Aug-06	7	10	6	12	17	19	12	20	16	10	12	12	14	10	11	12	32	27	13	10	14	15	17	30	32.0	
17-Aug-06	45	28	19	76	17	23	59	55	25	31	38	67	49	51	31	21	12	12	5	9	13	14	11	47	76.5	
18-Aug-06	29	13	24	14	14	22	15	36	36	49	36	30	28	19	19	20	30	15	13	9	9	7	8	8	49.0	
19-Aug-06	10	11	6	5	9	32	36	29	15	10	10	11	13	16	15	26	26	17	12	7	12	7	16	6	35.9	
20-Aug-06	6	15	7	27	12	8	16	20	22	34	33	58	42	53	23	43	52	58	17	6	9	8	6	9	58.1	
21-Aug-06	12	12	8	7	5	6	5	16	46	56	36	13	11	22	20	27	40	14	9	7	17	7	32	26	56.1	
22-Aug-06	20	52	41	56	54	34	16	18	7	11	9	14	10	17	13	15	66	42	12	10	19	16	9	10	66.4	
23-Aug-06	15	60	41	21	28	17	10	17	13	60	26	22	21	19	22	16	18	44	5	4	3	6	8	15	59.9	
24-Aug-06	20	33	10	9	13	12	25	18	26	16	16	23	15	19	17	17	14	11	9	4	12	24	40	36	39.9	
25-Aug-06	54	35	39	23	43	60	41	19	23	36	37	47	28	31	33	32	18	37	18	7	20	22	20	6	60.4	
26-Aug-06	8	15	18	8	11	49	30	40	13	9	16	15	19	18	21	19	10	17	45	5	18	29	28	11	48.6	
27-Aug-06	37	27	38	26	14	7	31	32	47	19	20	30	21	20	26	28	29	11	7	6	11	10	9	10	46.7	
28-Aug-06	10	10	11	6	7	7	8	8	8	11	11	14	16	13	15	15	12	12	11	12	9	10	7	17	16.9	
29-Aug-06	8	8	9	8	11	17	14	9	33	10	8	11	8	18	24	20	15	24	27	14	21	50	29	32	49.8	
30-Aug-06	45	19	14	62	37	39	19	10	13	19	18	25	23	19	21	20	18	9	6	5	42	26	6	14	62.1	
31-Aug-06	13	13	7	16	13	18	11	9	11	11	14	13	14	15	14	18	14	15	11	10	9	8	6	3	17.9	

Hourly Max 56 60 41 76 71 60 59 55 67 60 70 74 67 61 50 57 66 58 59 27 48 50 40 57



**1-hr Average Wind Rose (in km/hr) Located at the Crescent Heights Site  
for August 2006**



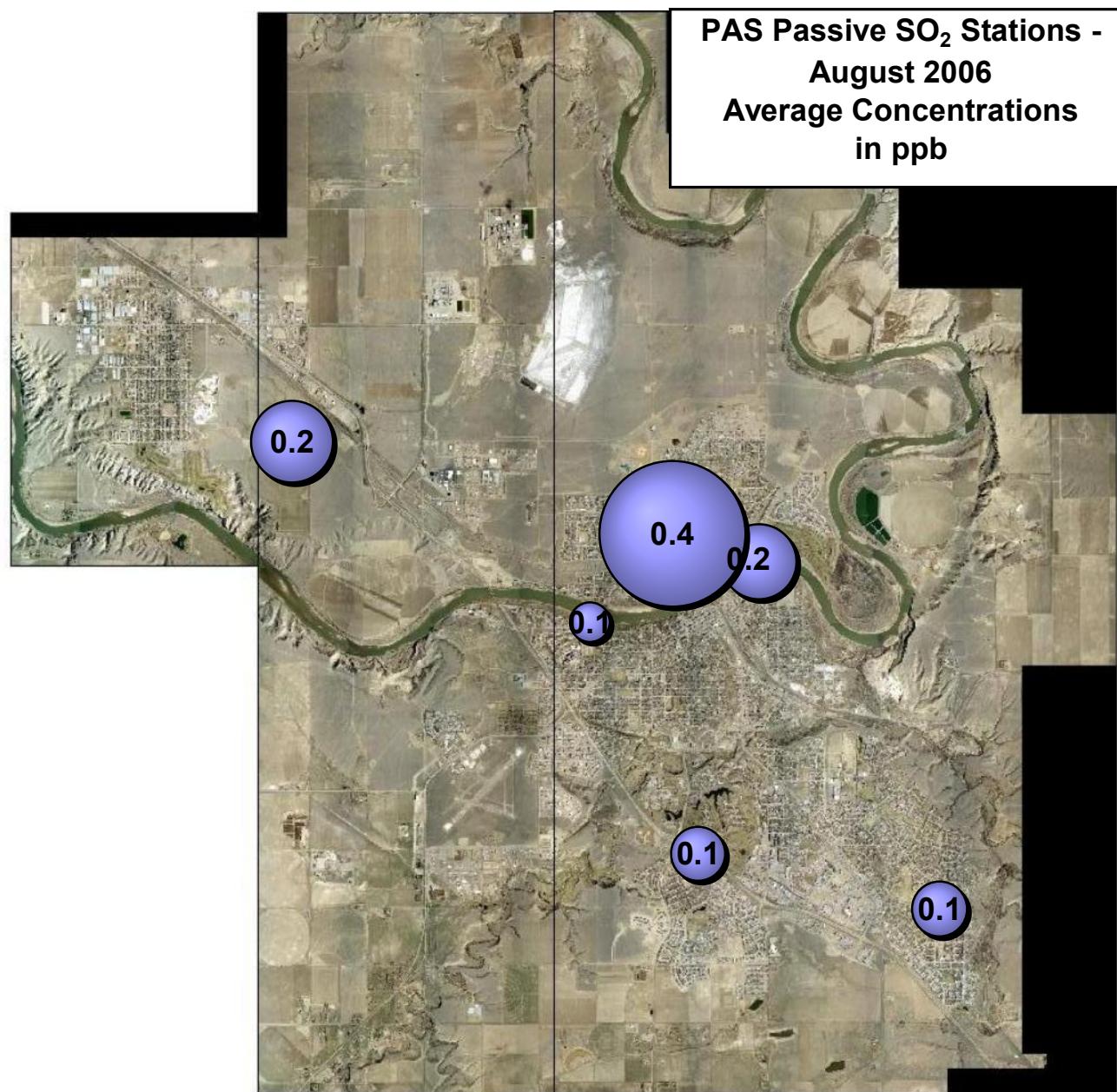
Calms:		Frequency Distribution of Wind in km/hr		
		Range		Frequency (hrs)
0.8	<	5		177
5	to	10		310
10	to	20		240
20	to	30		13
30	to	40		3
	>	40		0
Total Non-Zero Values				743

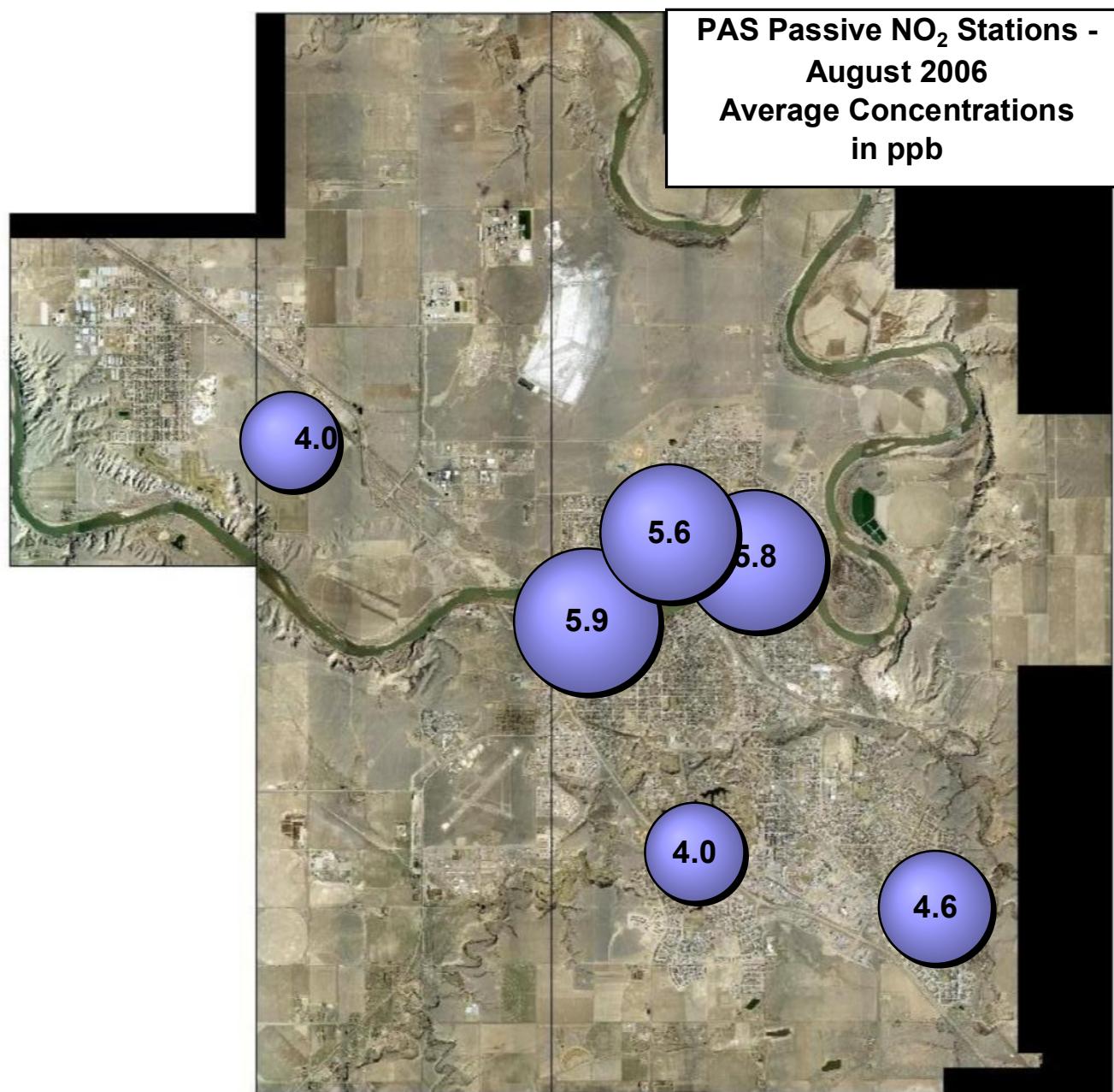


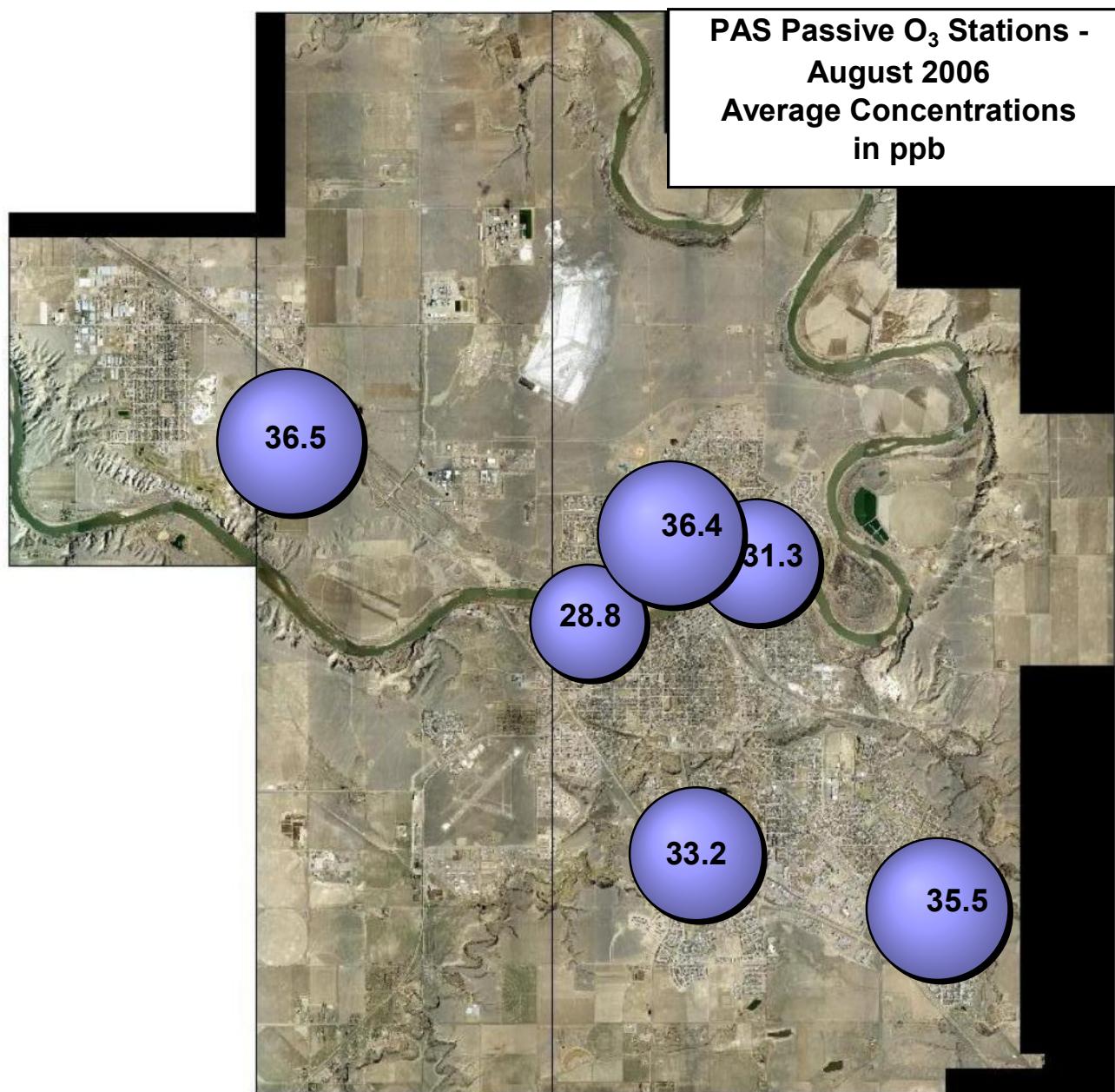
## Passive Monitoring – August 2006

### Ambient Air Compliance Network

Station Name				Location		
	SO <sub>2</sub> ppb	O <sub>3</sub> ppb	NO <sub>2</sub> ppb	Easting	Northing	Elevation
Southridge	0.1	33.2	4.1			
	0.2	33.3	4.0			
Hospital	0.1	28.8	5.9	521648	5542721	698
Ball Park	0.2	31.3	5.8	524019	5543686	660
Monitoring Station	0.4	36.4	5.6	522812	5544133	714
Redcliff	0.2	36.5	4.0	517448	5545608	725
Southridge	0.1	33.2	4.0	523172	5539016	721
Christian School Park	0.1	35.5	4.6	526577	5538133	709
Mean	0.2	33.6	5.0			
Standard Deviation	0.1	3.1	0.9			
Minimum	0.1			1	Hospital	
Maximum	0.4			3	Monitoring Station	
Minimum		28.8		1	Hospital	
Maximum		36.5		4	Redcliff	
Minimum			4.0	4	Redcliff	
Maximum			5.9	1	Hospital	







**PAS**

## **August 2006 - Calibration Reports**

**Crescent Heights Station: O<sub>3</sub>, NO<sub>x</sub>, NO, NO<sub>2</sub>, THC, CO and PM<sub>2.5</sub>**

## Calibration Report

Parameter

O3

Air Monitoring Network

Palliser Airshed

### Station Information

Calibration Date	August 30, 2006	Previous Calibration	July 26, 2006	
Station Number	101	Station Location	Crescent Heights	
Reason:	Routine	Calibration	Removal	
			Other:	
Start Time (MST)	14:20	End Time (MST)	17:45	
Barometric Pressure	27.3 inches Hg	Station Temperature	21.0 Deg C	
Calibrator	Environics 6100	Serial Number	3474	
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA	
DACS make	Focus AP1000	DACS serial No.	45270	
DACS voltage range	0 - 1 volt	DACS channel #	5	
	Before		After	
Calculated slope	1.026545	Calculated slope	0.997608	
Calculated intercept	-1.693290	Calculated intercept	-1.800224	
Analyzer make	API Model 400E	Analyzer serial #	331	
Concentration range Offset Slope Lamp measure Lamp Reference Pressure Sample Flow Sample temp	before		after	
	0 - 500	ppb	0 - 500	ppb
	-6.5	ppb	-7.6	ppb
	1.117		1.113	
	4832.5	mV	4792.1	mV
	4834.2	mV	4793.1	mV
	25.8	inches Hg	25.8	inches Hg
	668	ccm	666	ccm
	41.5	Deg C	37.8	Deg C

### Calibration Data

Dilution air flow rate (cc/min)	Ozone Set Point	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4992	0.0	0.0	-1.5	N/A
4992	300.0	289.1	289.4	0.9988
4992	200.0	193.5	196.3	0.9857
4992	100.0	97.2	104.2	0.9329
4992	0.0	0.0	-2.7	0.0000
4992	300.0	289.1	284.5	1.0161
	Average Correction Factor			0.9725

Calculated value of As Found Response:

293.2 ppm

Percent Change of As Found: 1.4%

Auto zero Auto span	before calibration		after calibration	
	-4.7	ppb	-4.4	ppb
	344.1	ppb	377.4	ppb

Notes: A zero adjustment was performed.

Calibration Performed By: Kelly Baragar, Travis Mehrer

## Calibration Summary

## Parameter

03

Air Monitoring Network

Palliser Airshed

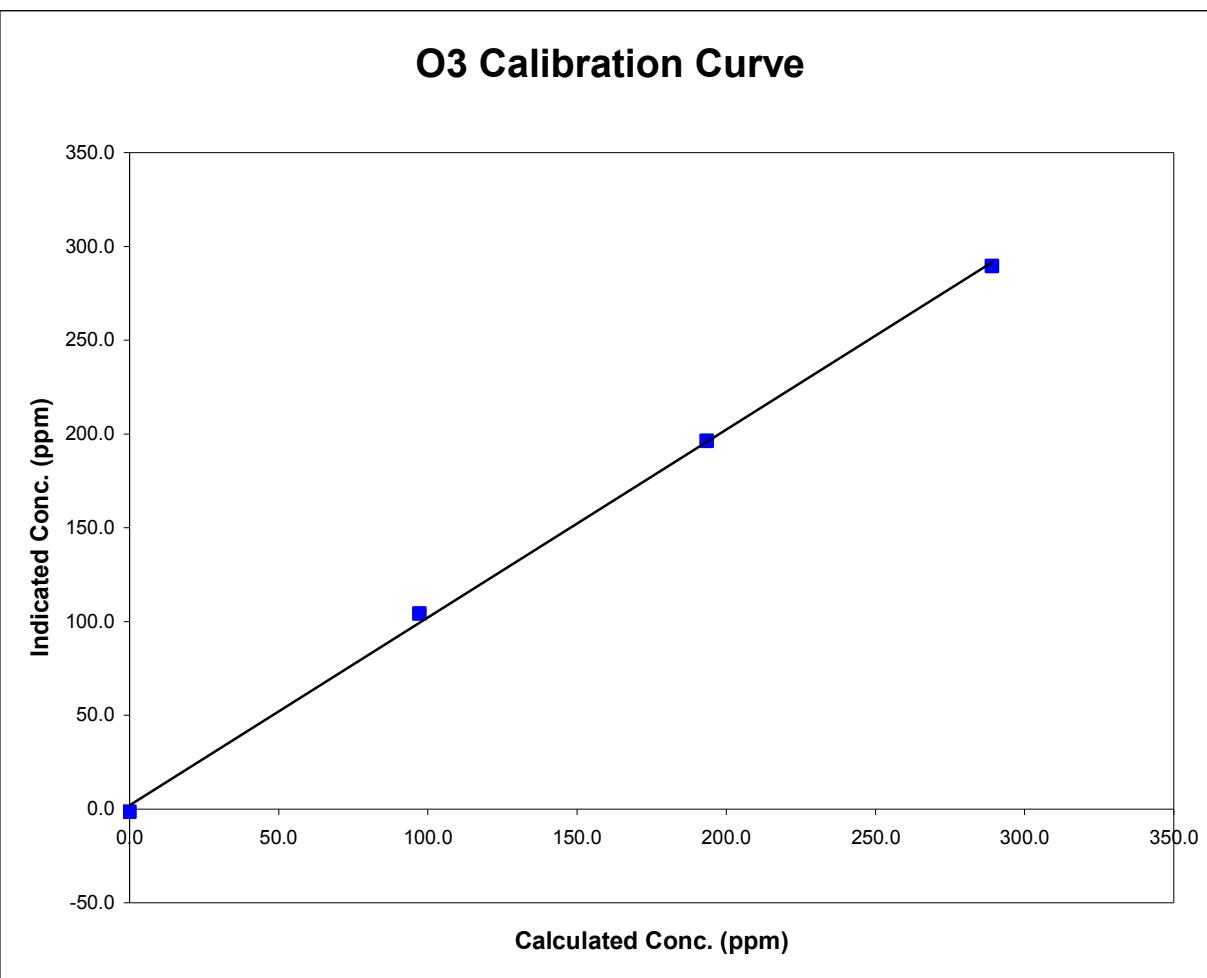


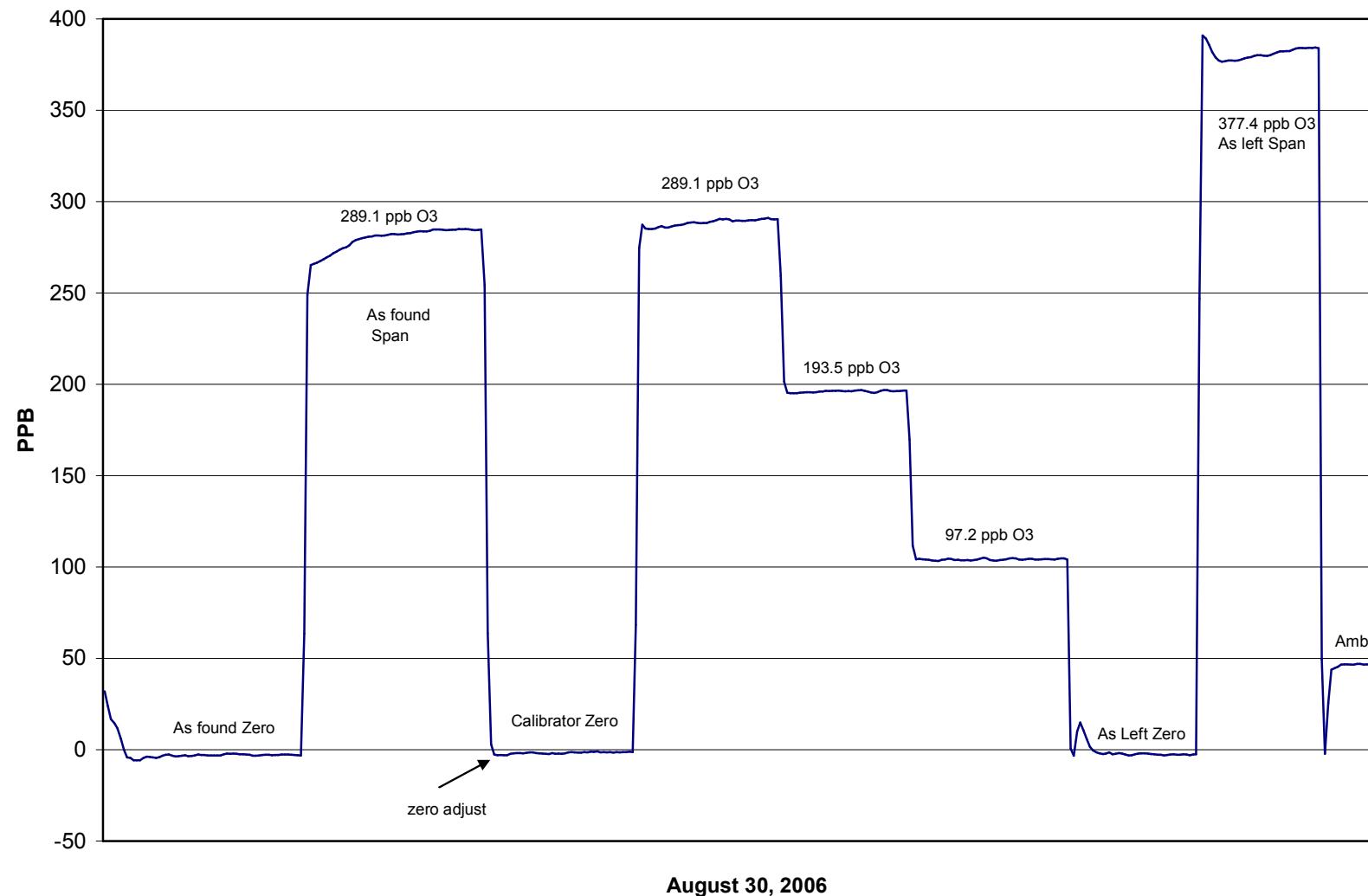
## **Station Information**

Calibration Date	August 30, 2006	Previous Calibration	July 26, 2006
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	14:20	End Time (MST)	17:45
Analyzer make/model	API Model 400E	Analyzer serial #	331

## **Calibration Data**

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
289.1	289.4	0.9988		
193.5	196.3	0.9857	Correlation Coefficient	0.999130
97.2	104.2	0.9329		
0.0	-1.5	N/A	Slope	0.997608
			Intercept	-1.800224



**O3 Calibration**

# Calibration Report

Parameter NOx-NO-NO<sub>2</sub>  
 Air Monitoring Network Palliser Airshed



## Station Information

Calibration Date	August 22, 2006			Previous Calibration	July 25, 2006
Station Number	101			Station Location	Crescent Heights
Reason:	Routine      Installation      Removal      Other: _____				
Start Time (MST)	10:41			End Time (MST)	16:28
Barometric Pressure	27.3	inches Hg		Station Temperature	20.3      Deg C
Calibrator	Environics 6100			Serial Number	3474
NO Cal Gas Conc	50.5	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.	45270
<hr/>			
Before	Parameter	NO2	NOx
	Data Slope	1.020337	1.017192
After	Data Offset	-0.176913	-1.080539
	Data Slope	1.003726	1.005186
	Data Offset	-0.650790	-0.108456
	Channel #	8	6
Voltage Range		0 - 1 VDC	0 - 1 VDC

## Analyzer Information

Analyzer make/model API Model 200E Analyzer serial # 219

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO background	-0.2	mV	-0.2	mV
NOx background	1.1	mV	1.1	mV
NO coefficient	1.159		1.159	
NOx coefficient	1.173		1.173	
Chamber Temp	49.9	Deg C	49.9	Deg C
Cooler Temp	7.0	Deg C	7.0	Deg C
Azero	39.6		39.6	
Perm Temp	40.4	Deg C	40.4	Deg C
Pressure	4.6	inches Hg	4.6	inches Hg
Sample Flow	446.0	ccm	446.0	ccm

Notes: \_\_\_\_\_

## Calibration Report

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



### Station Information

Calibration Date: August 22, 2006 Station Location: Crescent Heights

### Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NOx Correction factor	NO Correction factor
zero	4991	0.00	0.0	0.0	0.0	-0.4	-2.1	0.4	N/A	N/A
1	4991	39.88	400.3	400.3	0.0	397.9	395.8	1.4	1.0058	1.0112
2	4991	19.91	200.6	200.6	0.0	200.2	198.5	0.6	1.0019	1.0104
3	4991	9.95	100.5	100.5	0.0	100.4	98.4	0.7	1.0009	1.0217
AFZ	4991	0.00	0.0	0.0	0.0	-0.4	-2.1	0.4	0.0000	0.0000
AFS	4991	39.88	400.3	400.3	0.0	382.9	386.0	-3.9	1.0454	1.0368
								Average Correction Factor	1.0029	1.0145

As Found Concentrations NO<sub>x</sub>= 382.2 NO= 390.0 As Found Percent Change NO<sub>x</sub>= -4.5% NO= -2.6%

### GPT Calibration Data

Dilution Flow 4991 ccm Source Gas Flow 39.88 ccm

O <sub>3</sub> Setpoint (ppb)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NOx Correction factor	NO Correction factor	NO <sub>2</sub> Correction factor	Converter Efficiency
0	397.9	397.2	0.7	396.0	393.2	0.4	N/A	N/A	N/A	N/A
300	400.1	303.0	97.2	398.2	299.5	97.8	1.0049	1.0115	0.9933	100.7%
200	404.0	210.5	193.5	402.1	207.6	193.6	1.0049	1.0139	0.9999	100.0%
100	404.2	115.1	289.1	402.2	112.7	288.5	1.0049	1.0206	1.0021	99.8%
					Average Correction Factor		1.0049	1.0153	0.9984	100.2%

### AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO <sub>2</sub>	NO	ppb	NOx	NO <sub>2</sub>	NO	ppb
Auto zero	2.1	-0.7	2.1	ppb	-1.2	-1.7	-0.1	ppb
Auto span	413.7	404.2	8.6	ppb	382.7	376.8	4.9	ppb

Calibration Performed By: Lenin Flores

## Calibration Summary

Parameter **NO<sub>2</sub>**  
 Air Monitoring Network **Palliser Airshed**



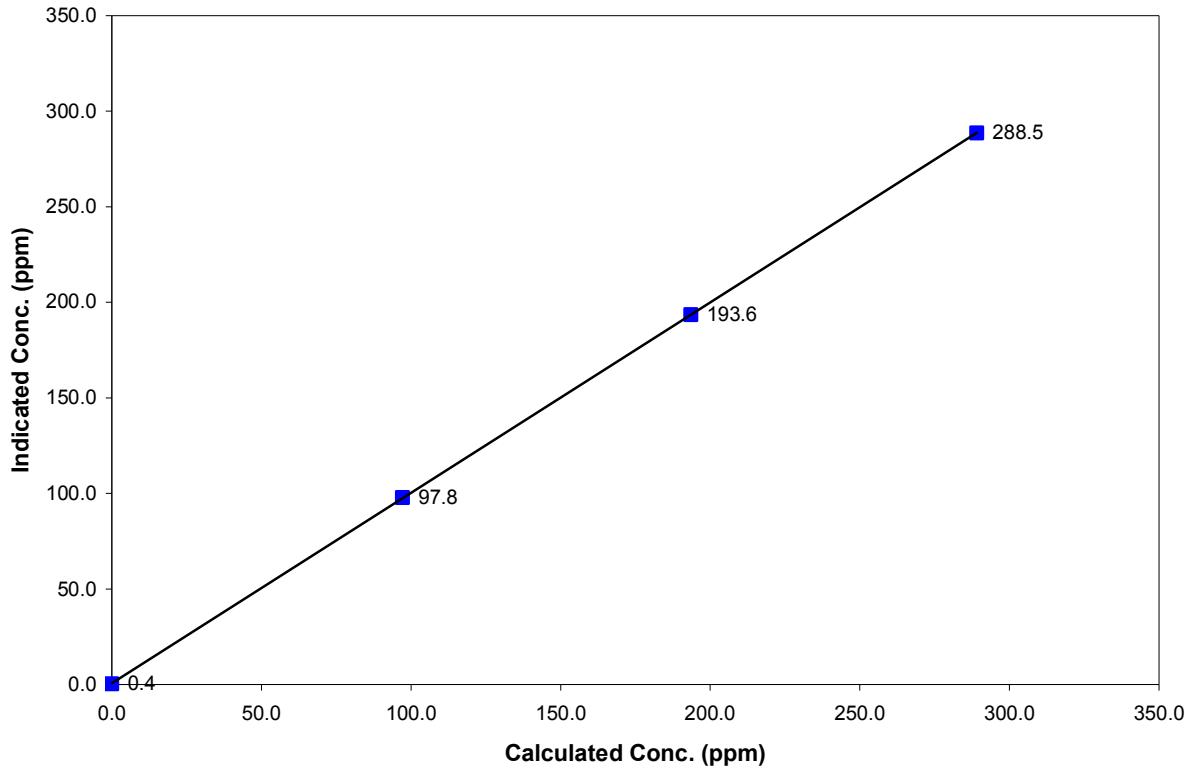
### Station Information

Calibration Date	August 22, 2006	Previous Calibration	July 25, 2006
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	10:41	End Time (MST)	16:28
Analyzer make	API Model 200E	Analyzer serial #	219

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.4	0.0000	Correlation Coefficient	0.999994
97.2	97.8	0.9933		
193.5	193.6	0.9999		
289.1	288.5	1.0021		
			Slope	1.003726
			Intercept	-0.650790

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



## Calibration Summary

Parameter **NO<sub>x</sub>**  
 Air Monitoring Network **Palliser Airshed**



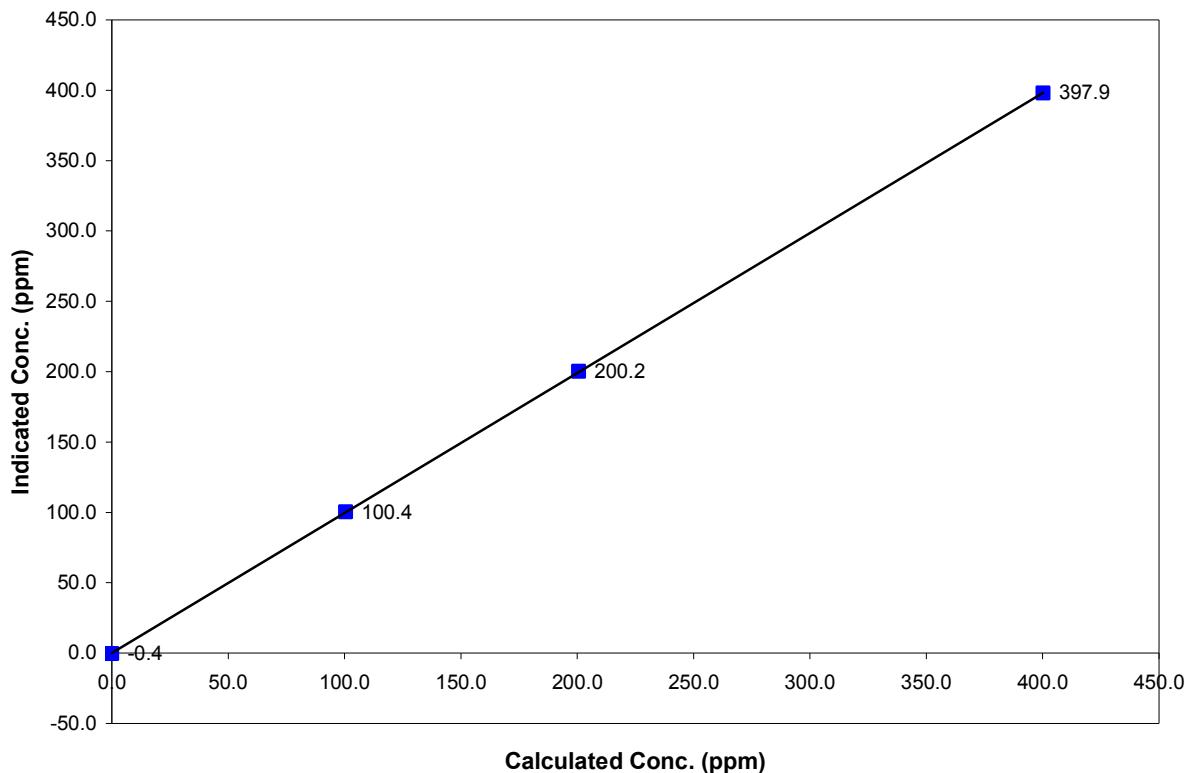
### Station Information

Calibration Date	August 22, 2006	Previous Calibration	July 25, 2006
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	10:41	End Time (MST)	16:28
Analyzer make	API Model 200E	Analyzer serial #	219

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.4	0.0000	Correlation Coefficient	0.999991
400.3	397.9	1.0058		
200.6	200.2	1.0019		
100.5	100.4	1.0009		
			Slope	1.005186
			Intercept	-0.108456

### NOx Calibration Curve



**Calibration Summary**

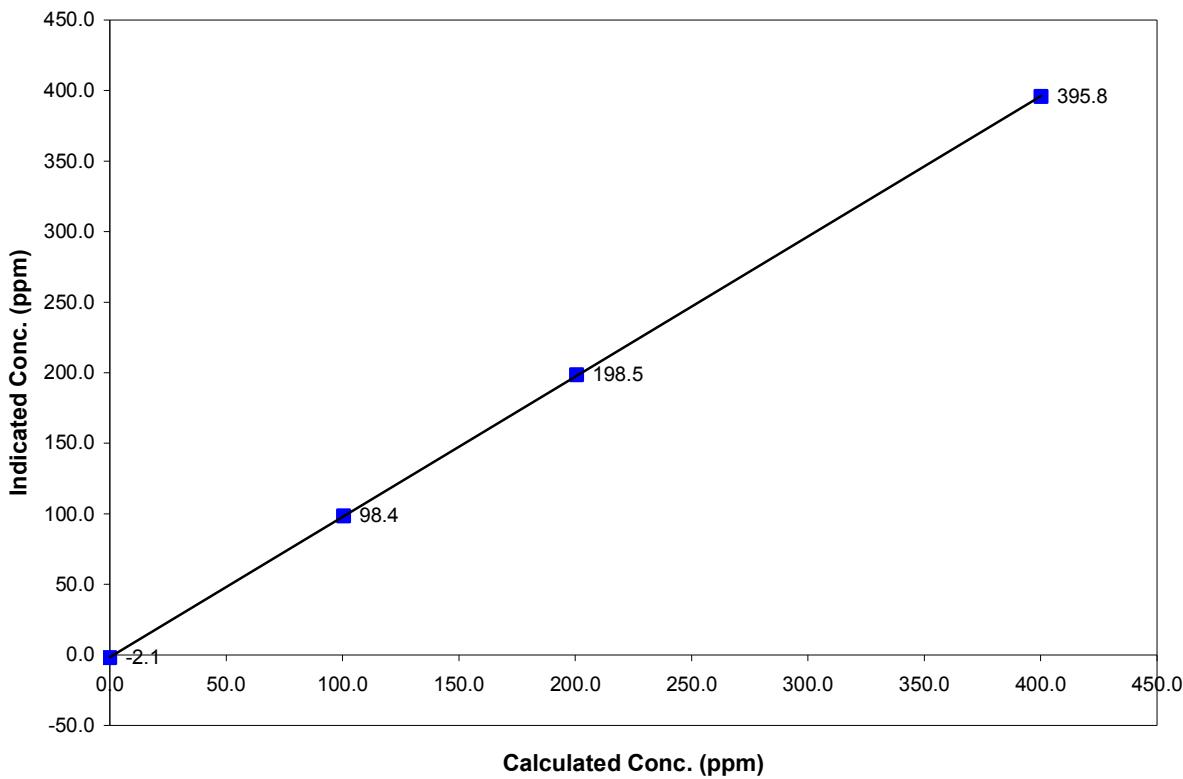
Parameter **NO**  
 Air Monitoring Network **Palliser Airshed**

**Station Information**

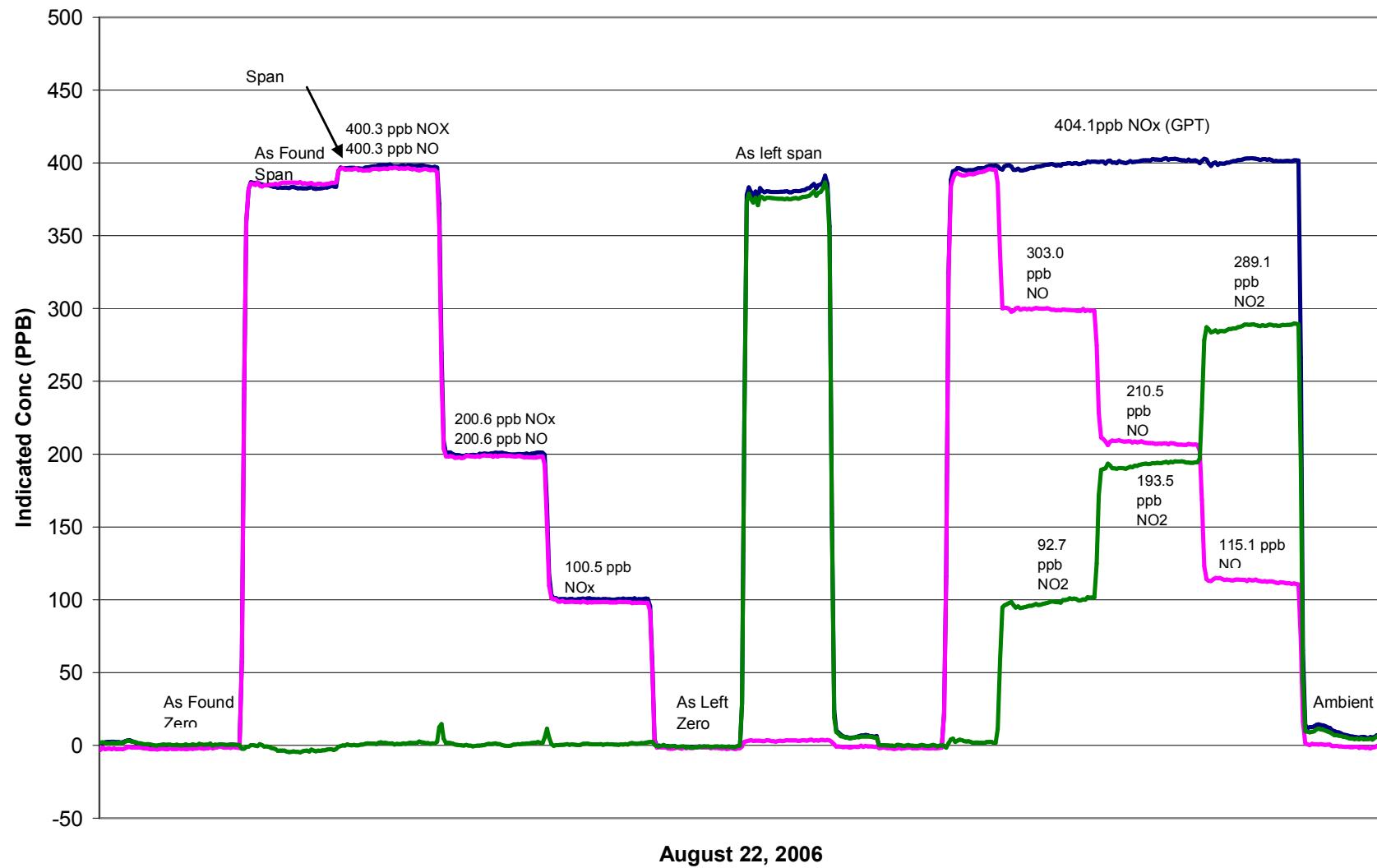
Calibration Date	August 22, 2006	Previous Calibration	July 25, 2006
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	10:41	End Time (MST)	16:28
Analyzer make	API Model 200E	Analyzer serial #	219

**Calibration Data**

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-2.1	N/A	Correlation Coefficient	0.999989
400.3	395.8	1.0112		
200.6	198.5	1.0104		
100.5	98.4	1.0217		
			Slope	1.006015
			Intercept	1.642203

**NO Calibration Curve**

## NOx Calibration



## Calibration Report

Parameter THC  
 Air Monitoring Network Palliser Airshed



### Station Information

Calibration Date	August 30, 2006		Previous Calibration	July 25, 2006
Station Number	101		Station Location	Crescent Heights
Reason:	Routine	Install	Removal	Other:
Start Time (MST)	12:55		End Time (MST)	15:05
Barometric Pressure	27.3	inches Hg	Station Temperature	20.2 Deg C
Calibrator	Environics 6100		Serial Number	3747
Cal Gas Concentration	700 ppm CH <sub>4</sub> / 301 ppm C <sub>3</sub> H <sub>8</sub>		Cal Gas Expiry Date	8/28/2005
Cal Gas CH4 equiv	1527.75	ppm	Cal Gas Cylinder #	ALM030358
DACS make	Focus AP1000		DACS serial No.	45270
DACS voltage range	0 - 10 volt		DACS channel #	9
	<u>Before</u>			<u>After</u>
Calculated slope	0.998768		Calculated slope	0.997900
Calculated intercept	0.062009		Calculated intercept	0.053112
Analyzer make	TEI model 51C-LT		Analyzer serial #	407505596
Concentration range	0 - 50		before	after
THC sample pressure	5.77		ppm	ppm
THC span counts	12605		PSI	PSI
THC zero counts	1370		raw	raw

### 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	0.00	N/A
4992	79.78	24.03	24.08	0.9981
4992	39.85	12.10	11.97	1.0104
4992	9.96	3.04	2.99	1.0184
zero	0.00	0.00	0.00	As Found Zero
4992	79.78	24.03	24.08	As Found Span
	Average Correction Factor			1.0090

Calculated value of As Found Response: 24.107 ppm Percent Change of As Found: -0.3%

Auto zero	before calibration		after calibration	
	0.03	ppm	0.04	ppm
	21.51	ppm	25.20	ppm

Notes: No adjustments or maintenance performed.

Calibration Performed By: Kelly Baragar, Travis Mehrer

## Calibration Summary

Parameter	THC	Palliser Airshed
Air Monitoring Network		

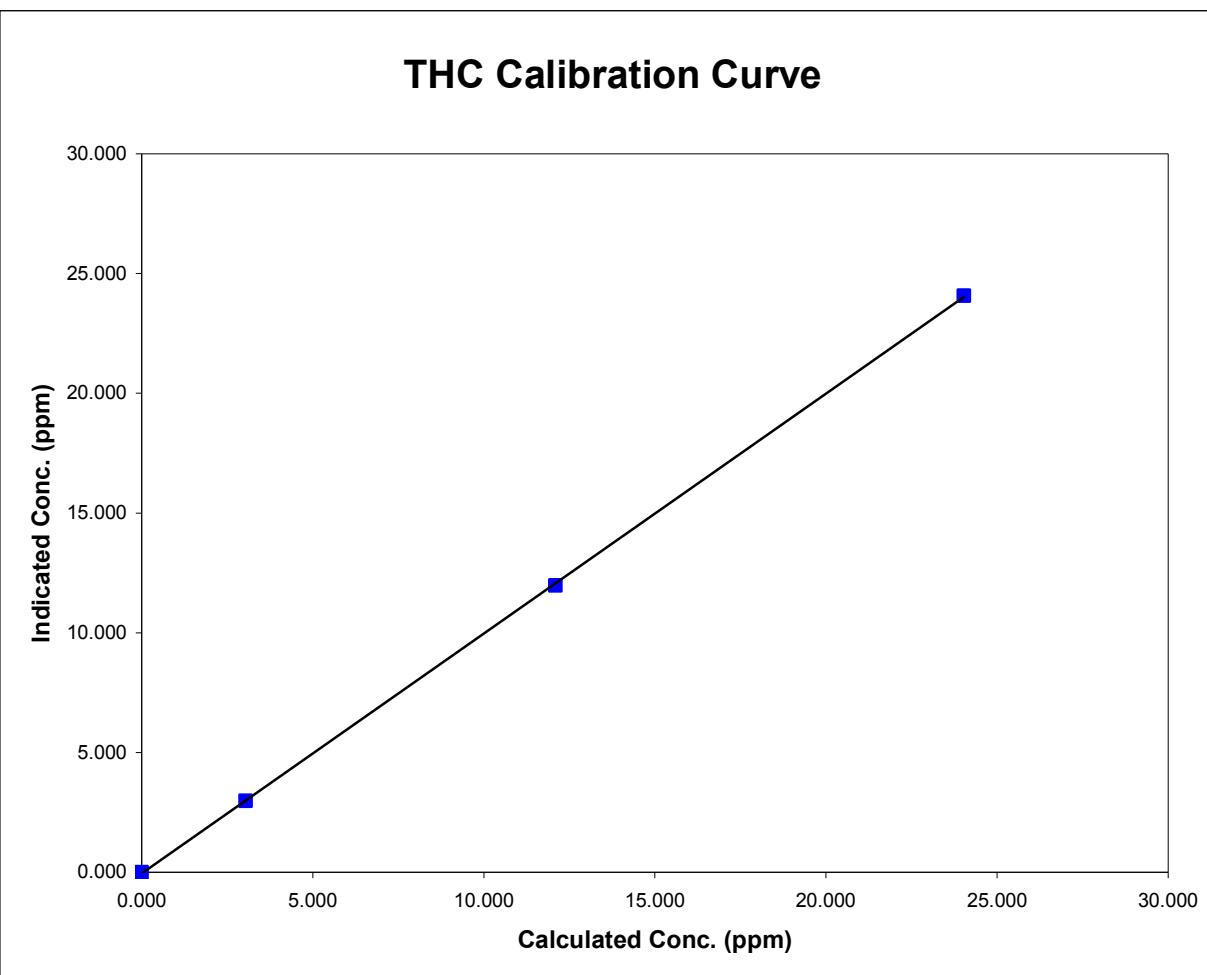


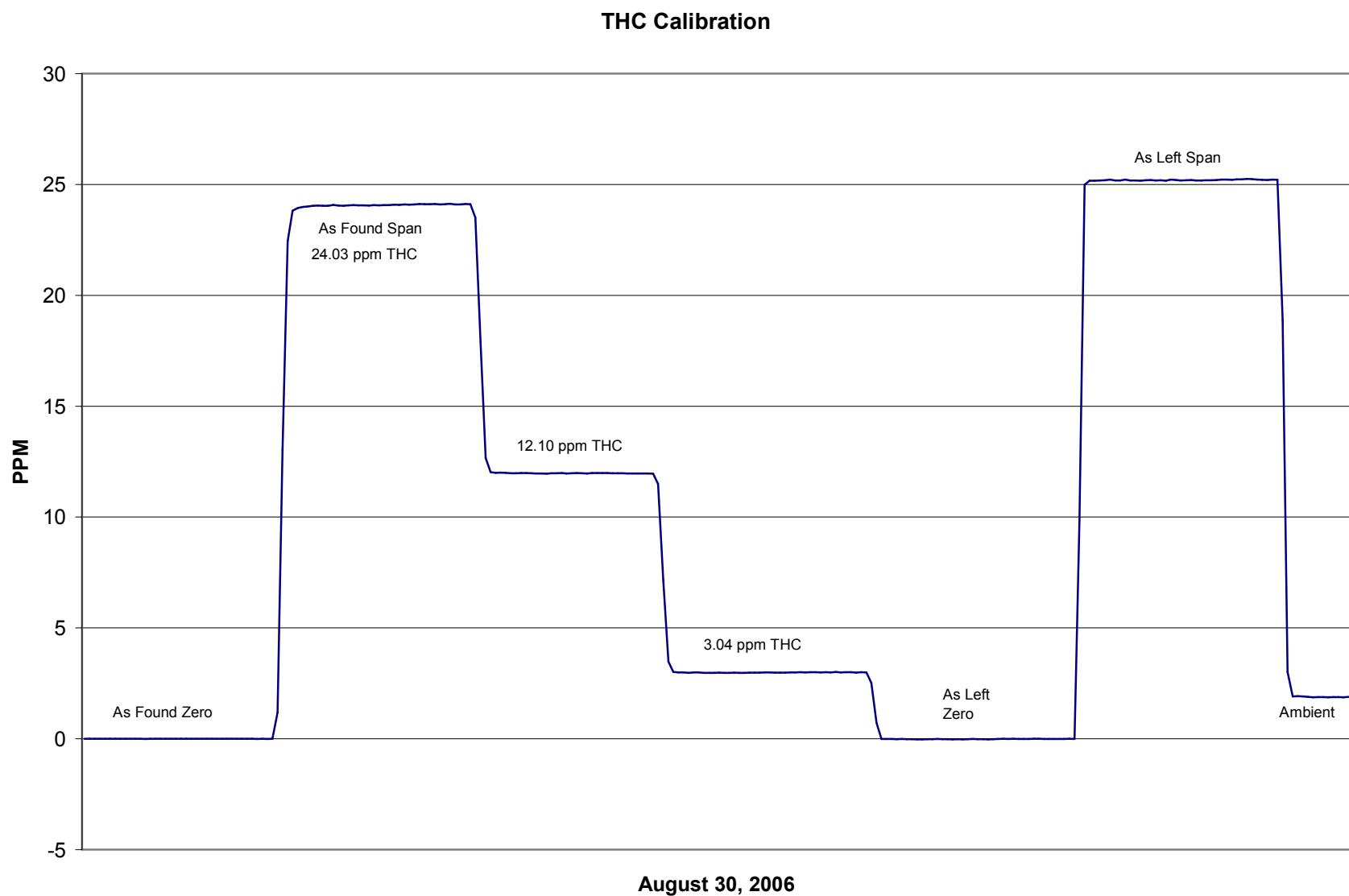
## **Station Information**

Calibration Date	August 30, 2006	Previous Calibration	July 25, 2006
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	12:55	End Time (MST)	15:05
Analyzer make/model	TEI model 51C-LT	Analyzer serial #	407505596

## ***Calibration Data***

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.003	N/A		
24.031	24.078	0.9981	Correlation Coefficient	0.999957
12.098	11.973	1.0104		
3.041	2.986	1.0184	Slope	0.997900
			Intercept	0.053112





# Calibration Report



Parameter CO  
Air Monitoring Network Palliser

## Station Information

Calibration Date	August 22, 2006		Previous Calibration	July 26, 2006
Station Number	101		Station Location	Crescent Heights
Reason:	Routine	Install	Removal	Other:
Start Time (MST)	12:34	End Time (MST)	15:28	
Barometric Pressure	27.45 in Hg	Station Temperature	22.1 Deg C	
Calibrator	Environics 6100	Serial Number	3474	
Cal Gas Conc	2998 ppm	Cal Gas Expiry Date	3/14/2008	
DACS make	Focus AP1000	DACS serial No.	45270	
DACS voltage range	0 - 1 volt	DACS channel #	11	
	Before		After	
Calculated slope	0.998287	Calculated slope	0.981470	
Calculated intercept	-0.149556	Calculated intercept	-0.264195	
Analyzer make	TEI Model 48C	Analyzer serial #	436609887	
Concentration range	before		after	
CO coefficient	0 - 50	ppm	0 - 50	ppm
CO bkg setting	1.064		1.064	
Lamp ratio	9.920		9.920	
Lamp intensity	1.1484		1.1484	
Sample Flow	199354 Hz		199354 Hz	
	1.011 LPM		1.011 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)
4991	0.00	0.00	0.30	N/A
4991	49.83	29.63	30.49	0.9721
4991	19.91	11.91	12.35	0.9646
4991	9.95	5.97	6.35	0.9400
4991	0.00	0.00	0.30	0.0000
4991	49.83	29.63	30.49	0.9721
Average Correction Factor				0.9589

Calculated value of As Found Response: 29.981 ppm Percent Change of As Found: -1.2%

Auto zero	before calibration		after calibration	
	0.30	ppm	0.08	ppm
	20.77	ppm	18.82	ppm

Notes:

---



---

Calibration Performed By: LeninF,Travis Mehrer

## Calibration Summary

Parameter CO  
Air Monitoring Network Palliser



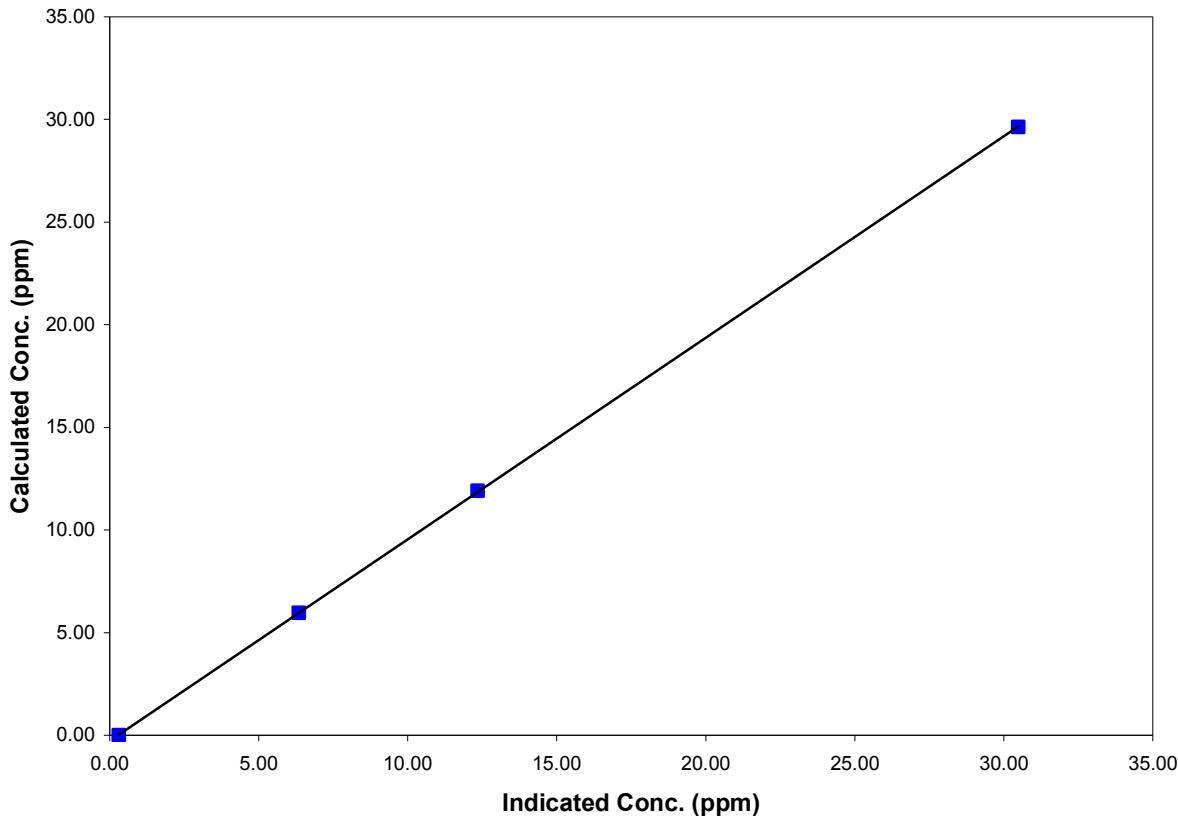
### Station Information

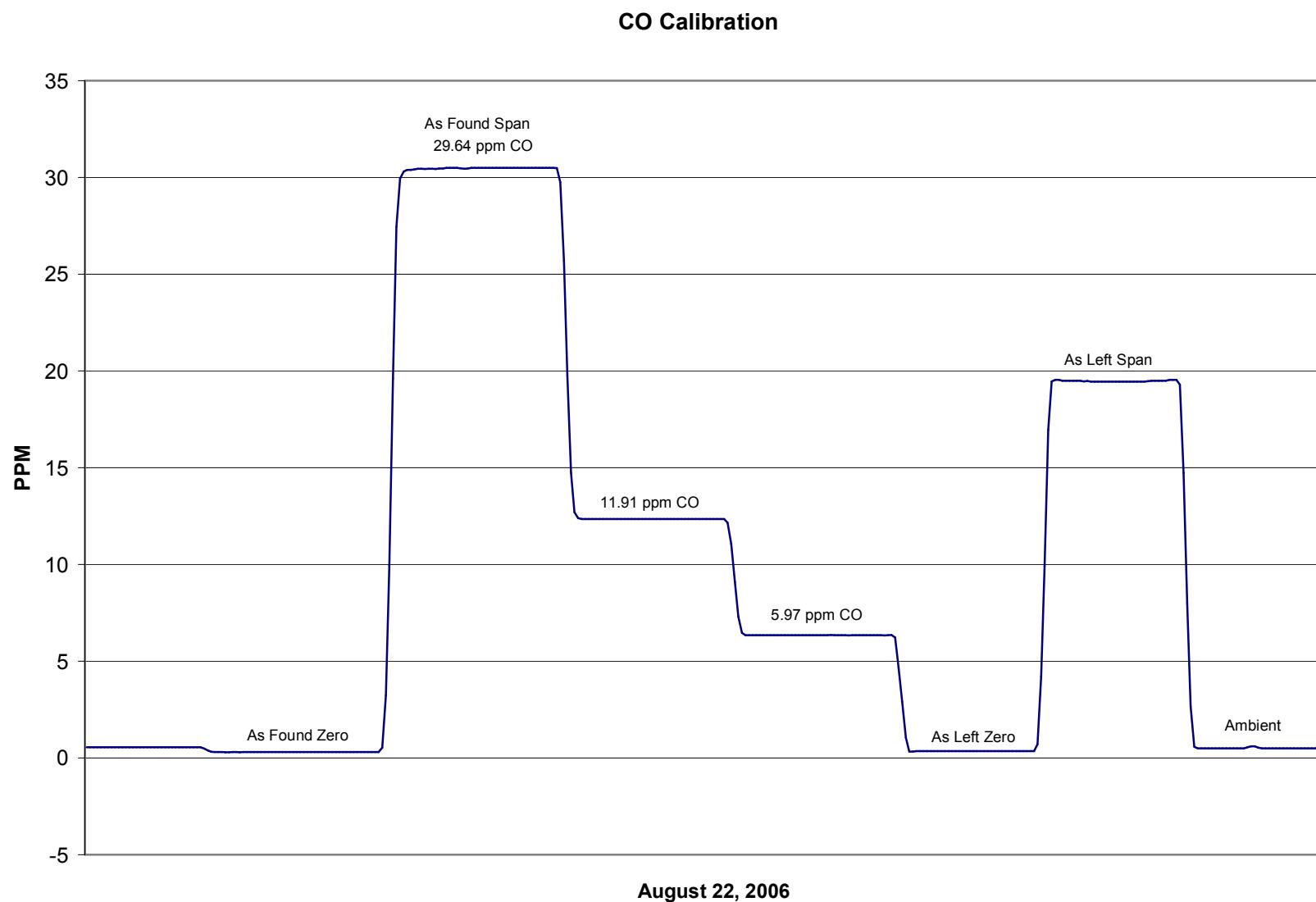
Calibration Date	August 22, 2006	Previous Calibration	July 26, 2006
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	12:34	End Time (MST)	15:28
Analyzer make/model	TEI Model 48C	Analyzer serial #	436609887

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.00	0.30	N/A		
29.63	30.49	0.9721	Correlation Coefficient	0.999990
11.91	12.35	0.9646	Slope	0.981470
5.97	6.35	0.9400	Intercept	-0.264195

### CO Calibration Curve





## Calibration Report



Parameter **PM2.5**  
Air Monitoring Network **Palliser Airshed**

### Station Information

Calibration Date	August 30, 2006	Previous Calibration	July 26, 2006
Station Number	1	Station Location	Crescent Heights
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	14:00	End Time (MST)	14:57
Barometric Pressure	0.912 ATM	Station Temperature	21.9 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 Scale High	450	DACS slope	450
DACS Scale Low	-50	DACS intercept	-50

### Analyzer Information

Analyzer make	R&P	Control Unit serial #	140AB237960110
Analyzer model	TEOM 1400AB	Sensor Unit serial #	140AB237960110

	before		after
Main Flow Set Point	3.000	SLPM	3.000
Aux Flow Set Point	13.67	SLPM	13.67
Filter Load	38	%	38%
Ko Factor	12758		12758
Temperature	21.2	Deg C	21.2
Pressure	0.910	ATM	0.910

### Calibration Data

Parameter	Set Point	TEOM Reading (as found)	Tolerance	TEOM Reading (after adjustments)
zero flow - main	0.0	NA	0.00	NA
zero flow - auxillary	0.0	NA	0.01	NA
flow recovery - main	45 - 60 Seconds	NA	45 - 60 Seconds	NA
flow recovery - aux	46 - 60 Seconds	NA	46 - 60 Seconds	NA
Temperature	measured	21.2	+/- 1.0 Deg C	21.2
Pressure	measured	0.910	+/- 1.5% ΔATM	0.910
Total Flow	16.67 SLPm	16.60		16.60
Auxiliary flow	13.67 SLPm	13.60	+/- 1.0 SLPm	13.60
Main flow	3.0 SLPm	3.010	+/- 0.2 SLPm	3.010
Leak Check - main	0.0	NA	<0.15 SLPm	NA
Leak Check - aux	0.0	NA	<0.15 SLPm	NA
Ko Factor (w/o filter)	measured	NA	filter weight (g)	NA
Ko Factor (w/ filter)	measured	NA	% Ko difference	N/A

Notes: Temp measurement indicated 21.9; TEOM measured 21.2 degC. Barometric pressure measured 0.910 ATM on TEOM; audit indicated 0.912 ATM.

Due to limited time constraints a straight flow audit was performed only. Inlets (PM10 and 2.5) were both cleaned out.

Calibration Performed By: Kelly Baragar, Travis Mehrer