



# Palliser Airshed Society

## Ambient Air Monitoring Network Summary

### September 2005

Prepared By:  
**FOCUS**  
AIR QUALITY MONITORING

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Edmonton, Alberta, T5K 2J6

**Attention: Director of Monitoring and Evaluation**

**RE: Palliser Airshed Society (PAS) Ambient Air Monitoring Report – September 2005**

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Enclosed is the PAS Ambient Monitoring Report for the month of **September 2005**.

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 at 100% uptime for the month of September. There were no significant events leading to emergency response for the month of September.

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

- Monthly average concentrations of NO<sub>2</sub> was 8.4 ppb
- Monthly average concentrations for O<sub>3</sub> was 21.8 ppb
- Monthly average concentrations for CO was 0.11 ppm
- Monthly average concentrations for PM<sub>2.5</sub> was 3.0 µg/m<sup>3</sup>

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

The following are the ranges for September 2005 recorded by the six passive stations located throughout the PAS zone.

- Monthly average concentrations for SO<sub>2</sub> passives ranged from 0.2 ppb to 0.4 ppb
- Monthly average concentrations for NO<sub>2</sub> passives ranged from 3.5 ppb to 6.5 ppb
- Monthly average concentrations for O<sub>3</sub> passives ranged from 20.7 ppb to 25.6 ppb

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

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AQM Technical Manager

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## September 2005 Monthly Overall Summary Report

Sep-2005		Palliser Airshed Society					Maximum Recorded Values						Operational Time (%)
Pollutant (units)	Objectives		Station	Monthly Average	Exceedence		1-hr			24-hr / 8-hr			
	1-hr	24-hr			1-hr	24-hr	Conc	Day	WSPD (km/hr)	WDIR (Sector)	Conc	Day	
SO <sub>2</sub> (ppb)	172	57	Crescent Heights										
NO (ppb)			Crescent Heights	3.7	-	-	68.1	Sep-20 07:00	2.3	S	10.0	Sep-20	100.0%
NO <sub>2</sub> (ppb)	212	106	Crescent Heights	8.4	0	0	37.3	Sep-02 19:00	3.4	SSE	13.6	Sep-02	100.0%
NO <sub>x</sub> (ppb)			Crescent Heights	12.0	-	-	86.4	Sep-20 07:00	2.3	S	21.5	Sep-21	100.0%
O <sub>3</sub> (ppb)	82		Crescent Heights	21.8	0	-	49.8	Sep-02 13:00	13.6	SSW	30.6	Sep-04	100.0%
O <sub>3</sub> (ppb) - 8-hr	65		Crescent Heights		0						47.3	Sep-02	
CO (ppm)	13		Crescent Heights	0.11	0	-	0.5	Sep-02 07:00	1.9	N	0.2	Sep-07	100.0%
CO (ppm) - 8-hr	5		Crescent Heights		0						0.4	Sep-01	
THC (ppm)			Crescent Heights	2.02	-	-	2.6	Sep-01 06:00	2.6	SSE	2.2	Sep-21	100.0%
TRS (ppb)			Crescent Heights										
H <sub>2</sub> S (ppb)	10	3	Crescent Heights										
PM <sub>2.5</sub> (µg/m <sup>3</sup> )		30 <sup>a</sup>	Crescent Heights	3.0		0	16.8	Sep-09 15:00	7.0	NW	8.1	Sep-09	100.0%
RH (%)			Crescent Heights	60.7	-	-	-	-	-	-	-	-	100.0%
SR (W/m <sup>2</sup> )			Crescent Heights	162.8	-	-	-	-	-	-	-	-	100.0%
Temp (°C)			Crescent Heights	13.5	-	-	-	-	-	-	-	-	100.0%
WSPD v (km/hr)			Crescent Heights	8.5	-	-	-	Sep-26 12:00	29.3	SSW	15.2	28-Sep	100.0%
WSPD s (km/hr)			Crescent Heights	8.9	-	-	-	Sep-26 12:00	29.6	SSW	16.0	29-Sep	100.0%
WDIR (Deg)			Crescent Heights	N	-	-	-	-	-	-	-	-	100.0%

Note: <sup>a</sup> the draft 1-hr Alberta Ambient Air Quality Objectives  
 \* Wind Direction is the predominate direction for the Month



# Continuous Monitoring

## Ambient Air Monitoring Network

### Crescent Heights Station

#### General Station Issues

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	$\mu\text{g}/\text{m}^3$	No operational issues observed.
Wind Speed	Met One	010C	kph	No operational issues 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	$\text{W}/\text{m}^2$	No operational issues observed.
Data Acquisition System	Titan Logix	AP1000		No operational issues observed.



### PAS - Crescent Heights AQI Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

## Air Quality Index (AQI)

Monitoring Dates: September 1, 2005 to October 1, 2005

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:	683
Number of 1-hr Fair Readings:	0
Number of 1-hr Poor Readings:	0
Number of 1-hr Very Poor Readings:	0

#### Status Flag Characters

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

#### Day Mountain Standard Time

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00
1-Sep-05	7	5	5	5	6	4	6	6	11	15	17	19	21	22	22	23	22	22	A	18	15	11	12	9
2-Sep-05	9	10	12	11	9	8	7	8	12	15	20	24	24	25	25	25	23	A	13	14	8	7	8	12
3-Sep-05	14	11	13	7	7	7	6	8	10	11	14	19	21	23	23	24	A	20	12	14	16	15	14	9
4-Sep-05	13	17	15	12	11	11	9	10	12	13	15	17	21	22	21	A	24	22	20	18	17	12	8	10
5-Sep-05	14	11	11	11	9	9	9	10	11	12	16	18	19	20	A	20	19	19	17	14	8	6	6	5
6-Sep-05	4	7	6	6	3	5	3	5	7	11	14	20	20	A	21	21	21	20	12	9	9	10	11	16
7-Sep-05	18	17	11	6	6	4	5	5	7	13	18	18	A	20	20	21	22	21	19	14	8	8	7	6
8-Sep-05	8	5	6	5	6	6	5	8	14	17	18	A	20	21	21	22	22	20	13	18	16	8	11	9
9-Sep-05	7	7	11	8	9	5	4	5	6	10	A	11	12	16	17	14	12	10	11	13	9	10	8	6
10-Sep-05	3	5	6	5	5	7	7	6	8	A	10	9	9	10	9	9	10	10	10	9	9	10	10	9
11-Sep-05	9	10	9	10	10	11	10	11	A	9	9	7	8	9	9	9	10	9	8	7	6	5	4	6
12-Sep-05	5	4	4	5	4	2	3	A	6	8	10	11	14	14	13	13	14	13	12	8	5	6	6	5
13-Sep-05	3	3	3	3	2	3	A	4	4	7	11	12	12	14	14	14	13	13	10	6	6	6	6	7
14-Sep-05	6	6	5	6	5	A	5	5	7	9	11	13	15	A	A	A	A	16	16	15	13	9	5	6
15-Sep-05	9	8	A	6	4	4	3	3	2	4	A	A	1	1	10	11	12	12	11	10	8	5	6	5
16-Sep-05	3	5	A	5	6	6	6	7	7	8	8	9	10	8	10	12	13	10	9	9	7	8	7	9
17-Sep-05	9	A	5	3	3	3	3	5	5	7	9	16	18	20	20	19	18	17	14	8	6	5	3	5
18-Sep-05	A	5	4	4	4	5	5	6	9	14	15	15	16	17	17	18	20	17	12	8	9	11	10	A
19-Sep-05	9	11	11	11	9	10	10	10	13	17	18	19	21	22	21	21	21	19	16	13	9	8	A	5
20-Sep-05	5	6	6	5	4	5	5	7	6	13	15	20	22	22	23	23	23	21	17	15	14	A	7	5
21-Sep-05	6	6	5	4	4	4	4	4	4	8	14	16	17	18	19	20	21	18	15	15	A	10	6	6
22-Sep-05	5	4	4	7	10	7	11	13	13	11	11	14	15	17	19	19	18	17	15	A	13	11	11	8
23-Sep-05	9	8	10	11	10	5	4	4	6	3	6	13	16	17	17	17	15	15	A	7	8	8	6	6
24-Sep-05	6	4	4	4	4	3	3	4	7	9	15	17	17	18	17	18	18	A	14	14	13	11	10	10
25-Sep-05	10	10	9	8	12	11	10	10	12	14	13	14	16	17	19	19	A	18	13	6	6	10	11	9
26-Sep-05	9	10	9	8	4	5	4	4	5	8	15	17	18	19	19	A	18	13	11	16	8	11	15	14
27-Sep-05	13	11	13	11	12	11	10	12	12	13	14	14	13	13	A	15	15	12	10	5	9	9	7	6
28-Sep-05	7	7	6	6	6	4	4	4	7	14	15	15	16	A	17	19	16	16	16	18	19	19	20	21
29-Sep-05	22	22	19	13	13	13	12	10	14	15	16	15	A	17	17	11	9	11	11	10	10	10	10	10
30-Sep-05	10	10	9	7	6	4	5	9	11	12	14	A	19	20	20	21	20	17	16	12	9	10	13	14



## PAS - Cresent Heights Nitrogen Dioxide Monthly Summary

Station: Cresent Heights  
 Station Owner: PAS

### HOURLY AVERAGE TABLE

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

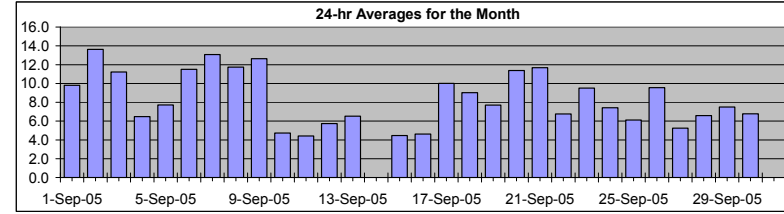
Monitoring Dates: September 1, 2005 to October 1, 2005

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

**Summary**

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	37.3 ppb 2-Sep 19:00 20:00
Maximum 24-hr Average:	13.6 ppb 2-Sep

AIC Time:	32 hrs	Operational Time:	677 hrs
Calibration Time:	11 hrs	AMD Operational Uptime:	100.0%
Percentile	99 27.6	95 21.0	75 12.1
	50 6.2	25 3.7	5 2.1
	1 1.6	Average 8.4 ppb	



**Status Flag Characters**

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start	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-Sep-05	13	18	22	13	9	13	17	15	7	2	3	4	4	2	2	2	5	4	A	17	13	15	11	13	9.8	22.1	
2-Sep-05	11	9	5	7	14	16	20	23	15	11	8	3	3	2	2	2	4	A	29	37	35	28	18	11	13.6	37.3	
3-Sep-05	8	15	8	18	25	14	12	7	5	6	6	7	6	3	4	5	A	21	30	20	9	7	8	15	11.2	30.1	
4-Sep-05	9	4	4	4	4	5	7	6	4	3	2	4	3	2	5	A	12	8	8	7	5	15	16	13	6.5	16.1	
5-Sep-05	6	6	2	2	7	6	6	4	3	4	3	2	3	2	A	10	5	4	5	9	20	19	27	21	7.7	26.5	
6-Sep-05	15	7	8	8	12	19	15	15	14	11	12	1	2	A	10	5	5	4	19	23	19	17	18	6	11.5	22.7	
7-Sep-05	3	2	7	14	15	18	20	17	17	10	3	4	A	13	9	10	7	5	6	12	23	33	28	25	13.1	33.0	
8-Sep-05	25	15	14	13	18	21	20	15	6	3	4	A	13	6	7	7	6	8	18	7	7	17	9	11	11.7	25.1	
9-Sep-05	26	14	6	9	11	9	9	9	9	6	A	19	13	7	6	12	11	16	19	28	14	12	11	17	12.6	27.6	
10-Sep-05	14	7	4	4	4	3	3	6	3	A	12	7	6	5	5	5	3	3	3	3	3	2	2	3	4.7	13.6	
11-Sep-05	2	2	4	3	3	2	4	2	A	15	8	6	4	4	3	3	3	3	3	4	5	6	7	6	2	4.4	15.2
12-Sep-05	3	7	6	4	7	9	9	A	17	9	6	7	3	4	5	5	3	3	4	4	4	4	4	6	5.7	16.8	
13-Sep-05	7	7	6	4	7	8	A	16	8	7	4	4	4	4	3	3	5	6	12	15	8	6	5	4	6.5	16.0	
14-Sep-05	4	4	5	4	6	A	21	11	5	4	C	C	C	C	C	C	C	4	4	4	7	10	20	14	N	21.1	
15-Sep-05	3	4	A	9	9	7	8	C	C	C	C	A	4	3	3	3	3	3	3	4	4	5	3	4	4.5	9.3	
16-Sep-05	6	5	A	11	6	5	5	4	3	3	4	2	4	2	2	2	2	3	4	4	8	7	10	4	4.6	11.2	
17-Sep-05	3	A	22	13	9	13	11	17	14	10	9	5	4	3	3	3	4	6	9	17	16	14	12	17	10.0	22.1	
18-Sep-05	A	20	15	17	16	15	14	9	6	3	3	2	2	2	5	4	5	8	15	18	11	5	4	A	9.0	19.7	
19-Sep-05	13	5	4	4	8	4	6	7	4	4	6	8	5	5	7	8	3	4	7	12	16	15	A	23	7.7	22.9	
20-Sep-05	21	24	26	21	19	19	16	18	15	5	5	4	2	4	3	3	3	2	2	4	5	A	19	21	11.4	25.5	
21-Sep-05	26	25	21	18	14	15	16	15	11	10	5	5	6	4	3	3	2	6	11	6	A	15	15	14	11.7	25.5	
22-Sep-05	19	13	14	8	6	11	8	6	4	4	5	3	5	6	4	3	4	3	4	A	9	6	4	6	6.8	19.3	
23-Sep-05	5	5	4	2	5	14	14	12	9	14	14	6	4	3	3	2	5	5	A	24	25	23	11	10	9.5	25.2	
24-Sep-05	7	12	11	15	16	13	12	12	6	7	5	3	2	2	4	3	2	A	13	7	5	5	4	4	7.4	15.7	
25-Sep-05	5	4	4	7	4	5	5	4	4	2	2	2	2	3	2	3	A	11	14	24	19	9	4	4	6.1	24.2	
26-Sep-05	6	4	7	9	13	17	16	12	10	7	4	3	2	2	6	A	10	16	17	9	24	17	4	4	9.6	24.0	
27-Sep-05	3	6	2	4	2	3	4	3	2	2	2	2	3	3	A	7	4	7	10	18	9	7	9	7	5.3	18.2	
28-Sep-05	5	5	5	6	7	16	16	16	13	3	2	2	2	A	8	6	8	7	6	5	4	2	5	1	6.6	16.4	
29-Sep-05	1	1	4	10	10	9	8	13	6	10	7	10	A	11	7	16	19	9	6	5	4	3	2	2	7.5	18.8	
30-Sep-05	2	1	2	3	7	15	14	8	6	4	4	A	8	5	4	4	4	7	8	14	17	11	4	3	6.8	16.5	
																									N	0.0	
Hourly Avg	9.4	8.7	8.7	8.8	9.7	11.3	11.6	10.8	8.0	6.4	5.4	4.8	4.3	4.2	4.6	5.0	5.4	6.7	10.4	12.5	12.0	11.6	10.1	9.8			
Hourly Max	25.9	24.7	25.5	21.0	24.9	21.4	21.1	22.6	17.2	15.2	13.7	18.6	12.9	13.0	10.1	16.4	18.8	21.5	30.1	37.3	35.1	33.0	28.0	25.2			

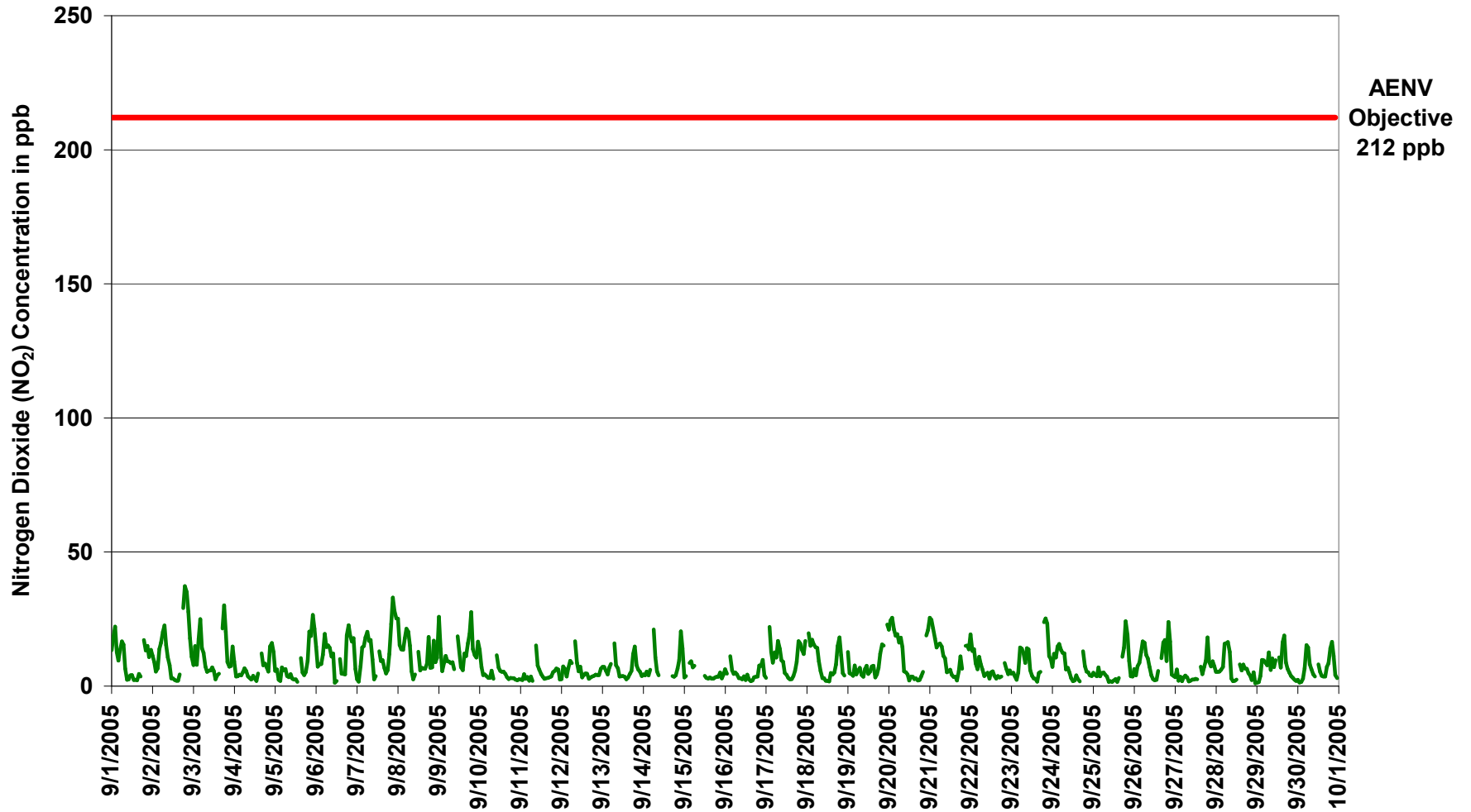


Figure 1. PAS - Cresent Heights Nitrogen Dioxide 1-hr Average Monthly Trend



Station: Crescent Heights  
 Station Owner: PAS

**HOURLY MAXIMUM TABLE**

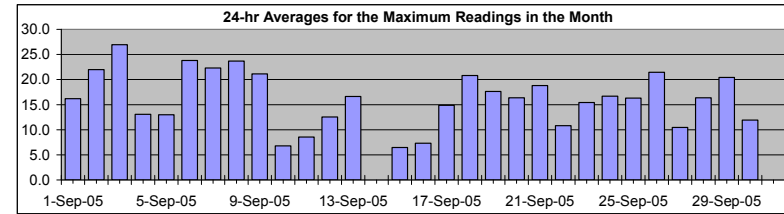
**Nitrogen Dioxide (NO<sub>2</sub>)**

Monitoring Dates: September 1, 2005 to October 1, 2005

**Summary**

Maximum 1-hr Value:	77.5	ppb	8-Sep	0:00 1:00
Maximum 24-hr Value:	26.9	ppb	3-Sep	

AIC Time:	32 hrs	Operational Time:	677 hrs					
Calibration Time:	11 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	49.9	36.6	24.2	13.4	6.4	3.5	2.6	16.2 ppb



**Status Flag Characters**

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

Day	Mountain Standard Time																								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-Sep-05	23	29	26	18	15	18	23	31	10	4	4	38	6	5	5	13	5	A	28	18	20	14	15	16.2	37.9		
2-Sep-05	14	14	10	10	30	25	44	36	24	16	15	5	22	3	3	4	16	A	36	58	43	34	25	19	22.0	58.3	
3-Sep-05	16	37	10	35	38	26	15	11	18	20	61	12	24	5	33	7	A	49	66	30	14	23	34	35	26.9	65.8	
4-Sep-05	25	6	5	8	6	11	14	13	5	5	5	10	4	4	16	A	25	13	13	13	7	47	20	26	13.1	47.1	
5-Sep-05	27	9	5	4	17	9	9	5	5	12	6	6	7	3	A	23	6	6	8	14	36	29	29	25	13.0	36.0	
6-Sep-05	29	15	39	20	19	31	17	17	27	29	35	2	4	A	21	7	11	7	43	41	26	26	53	27	23.8	52.6	
7-Sep-05	32	4	11	16	29	21	29	25	23	17	5	34	A	22	20	17	13	6	8	22	48	40	37	35	22.3	47.7	
8-Sep-05	77	26	36	22	26	29	62	40	8	6	9	A	26	8	11	10	12	14	27	13	11	24	15	32	23.7	77.5	
9-Sep-05	37	27	7	27	29	16	11	10	12	8	A	29	18	22	12	16	22	23	30	37	22	19	22	29	21.1	37.1	
10-Sep-05	18	12	6	6	5	5	7	9	4	A	18	8	7	7	8	7	4	4	4	4	4	4	3	4	6.8	18.5	
11-Sep-05	3	3	8	6	6	5	8	5	A	28	10	9	6	6	4	4	7	19	4	9	8	17	12	11	8.6	27.8	
12-Sep-05	4	26	18	5	27	18	11	A	33	35	12	13	7	15	7	10	5	6	5	5	7	5	5	11	12.5	35.4	
13-Sep-05	10	10	11	7	12	27	A	29	19	41	4	22	8	49	4	16	8	9	26	28	11	8	18	5	16.6	48.9	
14-Sep-05	25	6	25	6	19	A	34	15	8	5	C	C	C	C	C	C	C	5	4	6	15	15	39	24	N	38.7	
15-Sep-05	5	6	A	10	14	8	11	C	C	C	C	A	6	4	4	4	3	4	5	7	5	8	4	7	6.5	14.1	
16-Sep-05	8	6	A	21	8	6	11	6	4	5	4	8	4	6	5	2	4	5	6	6	12	11	16	5	7.3	21.2	
17-Sep-05	7	A	26	25	15	24	12	22	22	21	11	7	6	4	4	4	6	10	18	23	22	18	16	19	14.9	25.5	
18-Sep-05	A	30	27	29	19	25	36	23	8	21	34	4	21	12	20	8	35	17	31	25	18	7	9	A	20.8	35.6	
19-Sep-05	33	7	23	15	34	13	8	13	7	14	11	12	9	26	29	31	4	13	9	15	27	21	A	31	17.6	34.1	
20-Sep-05	30	27	29	26	30	33	19	30	18	9	9	8	3	7	10	5	5	3	3	5	7	A	33	29	16.4	33.0	
21-Sep-05	31	28	31	29	29	36	20	29	14	12	6	34	9	6	5	9	5	13	20	10	A	22	17	17	18.8	35.5	
22-Sep-05	22	16	30	17	12	15	11	13	6	5	7	6	6	9	9	8	4	6	6	7	A	16	8	6	10	10.8	29.9
23-Sep-05	10	11	10	3	14	16	17	15	11	18	15	13	6	6	5	3	6	8	A	40	42	29	35	22	15.4	42.2	
24-Sep-05	14	23	37	24	31	25	21	30	9	9	9	10	3	5	7	23	3	A	18	34	14	25	5	5	16.7	36.5	
25-Sep-05	30	18	6	29	21	29	7	8	16	3	23	2	4	6	3	6	A	15	32	43	34	32	4	5	16.3	42.9	
26-Sep-05	29	7	14	18	24	41	31	16	14	14	16	15	3	3	15	A	25	38	28	31	40	51	11	10	21.4	51.2	
27-Sep-05	8	13	3	6	3	5	11	5	4	3	5	3	5	4	A	15	6	10	14	29	16	25	19	28	10.5	28.6	
28-Sep-05	24	16	24	8	19	34	20	19	17	8	3	3	15	A	15	7	12	8	23	35	29	4	32	2	16.4	34.9	
29-Sep-05	2	2	8	47	32	25	13	19	15	16	12	16	A	24	18	25	42	27	37	16	26	14	18	16	20.4	46.7	
30-Sep-05	31	2	3	10	11	19	19	11	11	6	5	A	14	7	6	6	5	11	14	19	32	19	7	5	11.9	31.9	
																										N	0.0
Hourly Avg	21.5	15.0	17.4	16.9	19.8	20.5	18.9	18.1	13.2	13.9	13.1	12.6	9.5	10.3	10.9	10.3	11.4	12.6	19.2	22.3	21.1	20.9	19.3	17.5			
Hourly Max	77.5	37.4	39.2	46.7	38.0	40.7	61.5	40.0	32.8	41.3	60.6	37.9	25.6	48.9	33.3	30.7	41.8	49.5	65.8	58.3	47.7	51.2	52.6	35.4			



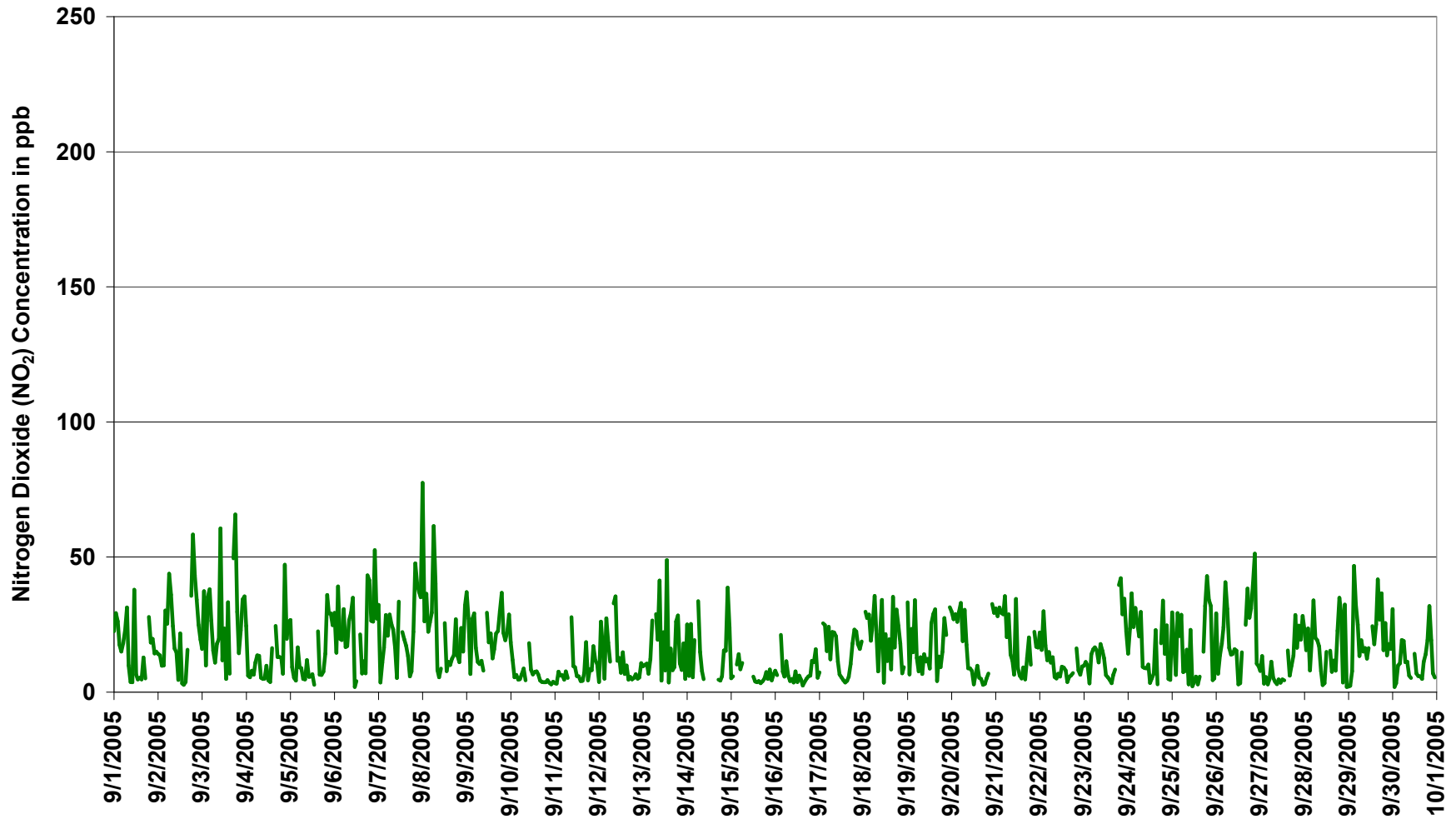
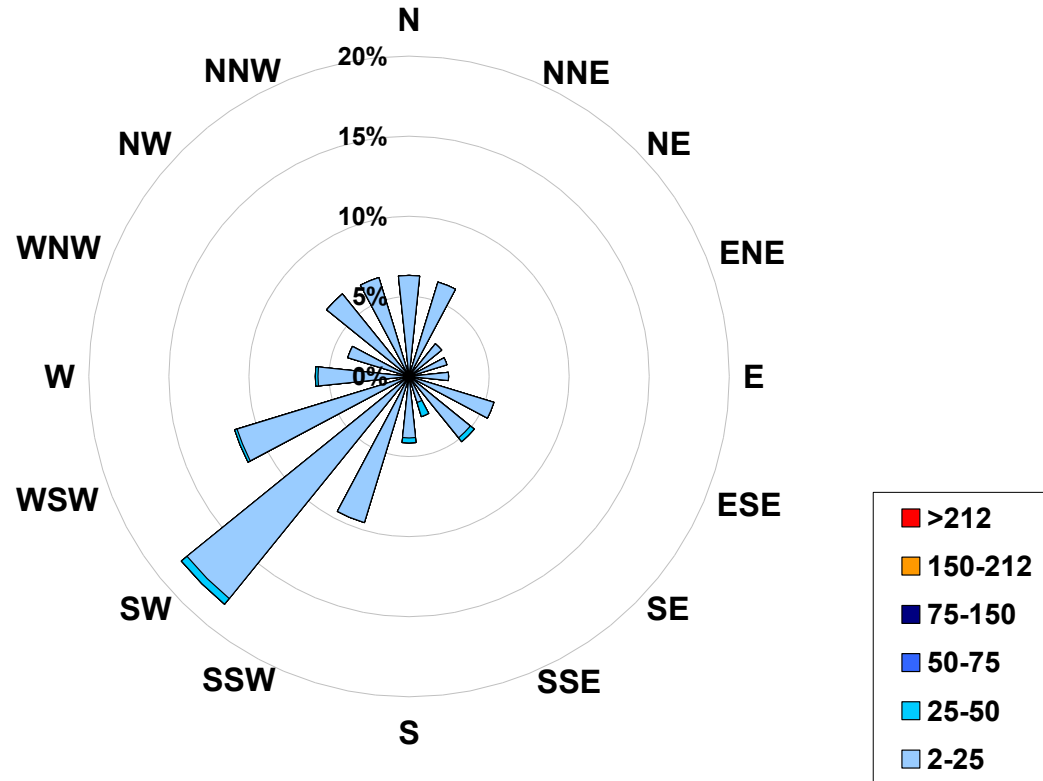


Figure 2. PAS - Crescent Heights Nitrogen Dioxide 1-hr Maximum Value Monthly Trend



**1-hr Average Concentration Rose for Nitrogen Dioxide (in ppb) Located at the Crescent Heights Site for September 2005**



**Calms: 0%**

Frequency Distribution of NO <sub>2</sub> in ppb			
Range		Frequency (hrs)	
2.0	< 25	664	
25	to 50	12	
50	to 75	1	
75	to 150	0	
150	to 212	0	
	> 212	0	
Total Non-Zero Values			677



### PAS - Cresent Heights Nitric Oxide Monthly Summary

#### HOURLY AVERAGE TABLE

#### Nitric Oxide (NO)

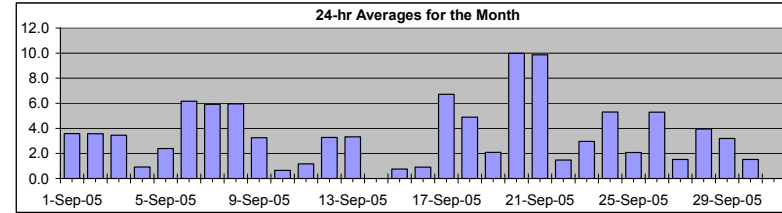
Station: Cresent Heights  
 Station Owner: PAS

Monitoring Dates: September 1, 2005 to October 1, 2005

Guideline Limit: 

1-hr	na	ppb
24-hr	na	ppb

Maximum 1-hr Average:	68.1	ppb	20-Sep	7:00 8:00
Maximum 24-hr Average:	10.0	ppb	20-Sep	



AIC Time:	32 hrs	Operational Time:	677 hrs					
Calibration Time:	11 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	28.6	17.0	3.3	1.4	0.7	0.3	0.1	3.7 ppb

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum			
	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	23:00
1-Sep-05	1	5	6	1	1	4	21	29	5	1	2	2	1	0	1	1	0	A	1	0	0	0	0	0	0	0	0	3.6	28.6
2-Sep-05	0	0	0	0	2	1	7	17	8	5	3	1	3	1	1	1	1	1	1	A	2	12	11	3	1	1	3.6	16.8	
3-Sep-05	1	5	0	7	17	3	2	3	3	5	3	3	2	1	2	1	A	3	11	1	0	1	2	3		3.5	16.8		
4-Sep-05	1	0	0	0	0	0	1	2	1	1	1	1	1	0	1	A	1	1	0	0	0	0	6	0	1	0.9	5.6		
5-Sep-05	1	0	0	0	1	0	1	1	1	2	1	1	1	1	A	1	1	1	1	1	1	5	3	21	10	2.4	21.1		
6-Sep-05	7	1	7	4	2	21	8	22	17	9	11	0	1	A	1	1	1	0	3	3	1	2	19	2		6.2	22.0		
7-Sep-05	2	0	0	1	1	3	17	20	22	6	1	3	A	2	2	2	1	1	1	1	1	9	21	11	8	5.9	22.1		
8-Sep-05	18	5	5	2	9	27	30	24	2	1	2	A	2	1	1	1	1	1	1	0	0	1	0	1		5.9	30.1		
9-Sep-05	7	2	0	1	6	4	5	7	6	3	A	3	2	2	1	2	2	2	12	1	1	1	1	4		3.3	11.6		
10-Sep-05	2	0	0	1	0	0	1	1	1	A	1	1	1	1	1	1	1	1	0	0	0	0	1	0	0		0.7	2.1	
11-Sep-05	0	1	1	1	0	0	1	1	A	2	2	2	2	2	2	1	1	1	2	1	1	1	2	2	1		1.2	2.4	
12-Sep-05	1	14	4	1	7	8	7	A	7	5	2	4	1	2	2	2	1	1	1	1	3	1	1	1		3.3	13.6		
13-Sep-05	1	1	2	1	5	14	A	12	7	4	2	3	3	2	1	2	2	2	2	2	6	2	1	2	0		3.3	14.4	
14-Sep-05	3	0	7	0	4	A	8	7	3	2	C	C	C	C	C	C	C	C	1	1	1	1	3	1		N	8.1		
15-Sep-05	1	1	A	0	2	1	4	C	C	C	C	A	2	1	0	0	0	0	0	0	0	0	1	0	1		0.8	4.0	
16-Sep-05	2	1	A	1	1	1	1	1	1	1	1	2	1	1	2	1	1	1	1	0	0	1	1	0	0		0.9	2.1	
17-Sep-05	0	A	22	7	1	7	7	48	26	9	8	2	1	1	1	1	1	1	1	1	0	0	1	2	8		6.7	48.2	
18-Sep-05	A	8	11	12	8	17	18	8	4	3	3	1	1	1	4	2	2	2	2	1	1	1	0	1	A		4.9	17.9	
19-Sep-05	5	0	2	0	8	1	1	2	2	2	3	3	2	3	4	4	1	1	1	1	1	1	0	A	0		2.1	8.2	
20-Sep-05	9	6	10	9	12	28	41	68	21	3	2	2	1	1	1	1	1	1	0	0	0	0	A	1	12		10.0	68.1	
21-Sep-05	17	30	37	29	12	15	25	19	16	11	3	4	3	1	1	1	0	1	1	0	0	A	0	0	0		9.9	37.3	
22-Sep-05	2	1	10	1	0	1	1	1	1	2	2	1	3	3	1	1	1	1	1	0	A	1	0	0	0		1.5	10.4	
23-Sep-05	0	0	0	0	0	1	2	5	3	10	5	2	1	1	1	1	1	1	1	A	3	11	14	2	4		3.0	13.6	
24-Sep-05	2	6	6	20	19	7	10	20	6	6	3	1	1	1	1	1	1	1	A	1	3	3	4	1	0		5.3	20.0	
25-Sep-05	3	1	0	8	2	3	1	1	2	1	1	1	1	1	1	1	A	1	1	1	8	5	4	0	1		2.1	8.1	
26-Sep-05	3	0	1	2	5	15	20	16	14	8	3	2	1	1	2	A	1	4	2	2	7	11	1	0		5.3	20.4		
27-Sep-05	0	1	0	0	0	1	1	2	1	1	2	1	2	2	A	1	1	1	2	4	1	3	2	3		1.5	4.0		
28-Sep-05	3	2	3	1	2	13	11	25	13	2	1	2	2	A	1	1	2	1	1	2	2	0	2	0		4.0	25.1		
29-Sep-05	0	0	0	7	5	3	2	3	2	5	3	5	A	2	2	7	11	2	5	1	4	1	1	1		3.2	10.7		
30-Sep-05	2	0	1	1	1	4	3	3	3	3	2	A	1	1	1	1	1	1	1	1	3	1	1	1		1.5	4.1		
																												N	0.0
Hourly Avg	3.2	3.2	4.9	3.9	4.4	7.1	8.9	13.2	7.1	4.0	2.6	2.1	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.1	1.5	2.3	2.6	3.0	2.7	2.3			
Hourly Max	17.6	29.8	37.3	28.7	18.9	28.3	41.1	68.1	25.7	11.3	10.9	4.9	2.8	3.0	4.0	6.7	10.7	3.7	11.1	12.1	11.3	21.0	21.1	11.9					



Station: Cresent Heights  
 Station Owner: PAS

**HOURLY MAXIMUM TABLE**

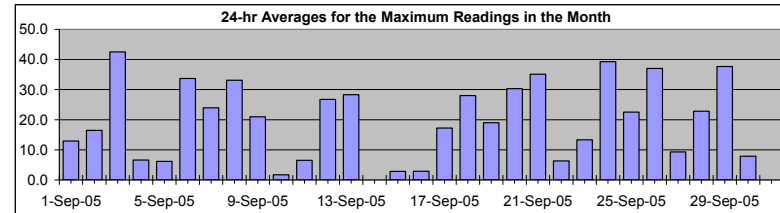
**Nitric Oxide (NO)**

Monitoring Dates: September 1, 2005 to October 1, 2005

**Summary**

Maximum 1-hr Value:	233.3	ppb	3-Sep	18:00 19:00
Maximum 24-hr Value:	42.5	ppb	3-Sep	

AIC Time:	32 hrs	Operational Time:	677 hrs					
Calibration Time:	11 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	158.9	89.2	24.2	4.2	1.8	1.0	0.8	20.6 ppb



**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum	
1-Sep-05	2	56	14	2	3	12	53	61	8	2	1	65	3	2	2	4	1	A	2	1	1	1	1	12.9	64.7		
2-Sep-05	1	1	4	4	19	7	24	27	20	9	7	2	85	2	1	1	11	A	5	97	35	9	5	2	16.4	97.3	
3-Sep-05	3	37	2	31	131	36	5	4	17	76	41	6	21	2	44	2	A	194	233	2	1	5	52	36	42.5	233.3	
4-Sep-05	7	2	2	2	1	2	4	6	3	3	3	10	2	2	6	A	2	2	2	1	1	84	1	4	6.6	83.7	
5-Sep-05	4	1	1	2	3	2	2	4	2	7	4	3	3	2	A	2	2	3	2	2	20	24	29	19	6.2	29.2	
6-Sep-05	75	4	127	29	10	61	15	32	54	59	53	1	2	A	2	2	4	1	30	14	4	7	144	42	33.7	144.0	
7-Sep-05	53	1	1	2	10	8	59	49	39	14	2	43	A	4	8	7	4	1	1	15	64	48	67	51	23.9	67.1	
8-Sep-05	123	32	56	9	32	72	215	166	4	3	5	A	4	2	4	3	3	1	3	1	1	6	1	15	33.1	214.9	
9-Sep-05	35	12	1	32	104	60	21	12	8	5	A	8	6	17	2	4	4	8	9	71	4	2	9	49	21.0	104.3	
10-Sep-05	7	1	2	1	1	1	2	2	2	A	2	1	1	3	2	2	1	1	1	1	1	1	1	1	1.7	6.6	
11-Sep-05	1	2	2	2	1	1	1	2	A	3	4	5	4	6	2	2	3	32	2	4	3	39	13	15	6.5	38.9	
12-Sep-05	2	103	90	2	149	35	13	A	39	89	15	8	4	23	4	5	2	3	1	4	9	1	2	11	26.7	149.4	
13-Sep-05	2	3	7	3	94	122	A	57	85	55	4	23	14	48	2	15	4	5	9	50	6	3	39	1	28.3	122.5	
14-Sep-05	90	2	119	1	79	A	12	14	4	3	C	C	C	C	C	C	C	2	2	1	2	2	35	3	N	119.3	
15-Sep-05	1	1	A	1	3	1	22	C	C	C	C	A	4	2	1	1	1	1	1	1	3	3	2	3	2.8	22.5	
16-Sep-05	4	2	A	2	3	2	15	3	2	4	2	9	1	3	3	1	1	1	1	1	2	2	2	1	2.9	14.6	
17-Sep-05	1	A	53	23	8	52	24	67	49	61	11	5	2	1	2	2	2	2	3	1	1	4	6	17	17.2	66.8	
18-Sep-05	A	23	55	47	29	64	85	51	6	57	72	3	24	12	24	4	35	6	13	2	1	1	2	A	28.0	84.7	
19-Sep-05	43	1	54	11	157	28	3	6	2	7	6	6	3	25	38	28	2	2	3	2	3	3	A	1	19.0	157.4	
20-Sep-05	71	14	50	53	54	130	80	153	33	6	5	4	1	3	4	2	2	1	1	1	1	A	2	27	30.3	153.2	
21-Sep-05	45	53	165	89	60	103	83	87	19	16	4	55	5	2	2	3	1	5	5	1	A	1	1	1	35.1	164.7	
22-Sep-05	5	3	75	9	1	3	2	4	1	3	4	3	6	6	4	2	1	4	1	A	2	2	1	2	6.3	74.6	
23-Sep-05	2	1	1	1	1	3	6	9	8	25	8	6	3	2	2	2	3	2	A	14	125	23	19	40	13.3	124.9	
24-Sep-05	56	35	131	51	100	61	36	83	11	8	7	8	2	2	3	27	2	A	3	75	89	110	2	1	39.3	130.9	
25-Sep-05	89	17	4	101	24	69	2	3	19	1	14	2	3	4	1	2	A	2	8	50	50	50	2	2	22.5	100.9	
26-Sep-05	75	1	7	42	48	163	89	42	25	22	8	31	2	2	6	A	5	45	5	17	73	138	2	1	37.0	163.4	
27-Sep-05	1	3	1	1	1	2	6	3	2	2	5	3	11	7	A	2	2	3	9	10	3	28	15	93	9.3	93.0	
28-Sep-05	52	24	55	2	30	89	33	37	19	6	2	4	19	A	2	2	4	2	15	53	41	1	33	1	22.8	88.6	
29-Sep-05	1	1	1	171	42	20	43	5	9	10	7	10	A	6	8	12	67	21	133	40	136	32	31	62	37.7	171.4	
30-Sep-05	65	1	13	5	3	13	18	5	12	4	3	A	2	1	2	2	1	2	3	2	20	3	1	1	7.9	65.0	
																									N	0.0	
Hourly Avg	31.5	15.1	39.0	24.3	40.1	42.2	33.6	35.5	17.9	20.0	11.0	12.5	8.8	7.0	6.7	5.2	6.4	12.6	18.0	18.5	24.3	21.8	17.8	17.4			
Hourly Max	123.4	103.1	164.7	171.4	157.4	163.4	214.9	165.6	85.1	88.7	71.7	64.7	85.2	48.4	43.8	28.5	67.2	194.4	233.3	97.3	135.8	138.0	144.0	93.0			



## PAS - Crescent Heights Oxides of Nitrogen Monthly Summary

Station: Crescent Heights  
 Station Owner: PAS

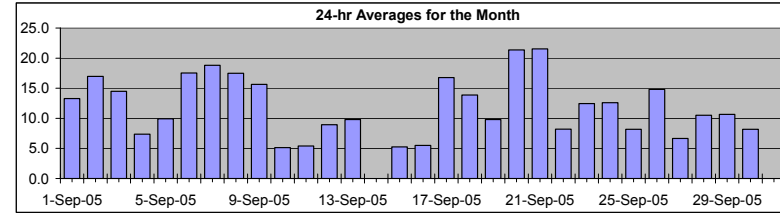
### HOURLY AVERAGE TABLE

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

Monitoring Dates: September 1, 2005 to October 1, 2005

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

Maximum 1-hr Average:	86.4	ppb	20-Sep	7:00 8:00
Maximum 24-hr Average:	21.5	ppb	21-Sep	



AIC Time:	32 hrs	Operational Time:	677 hrs
Calibration Time:	11 hrs	AMD Operational Uptime:	100.0%
Percentile	99	95	75
	49.2	36.7	15.3
	7.8	4.4	2.6
	5	1	Average
	2.0	12.0	ppb

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start	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-Sep-05	14	23	28	13	10	17	38	44	11	3	3	6	6	3	3	3	5	4	A	18	14	15	11	14	13.3	44.1	
2-Sep-05	11	9	6	7	15	18	27	39	23	15	10	3	5	3	2	2	6	A	31	49	46	31	19	11	17.0	48.9	
3-Sep-05	8	20	8	24	41	17	15	10	9	11	9	10	8	3	6	5	A	25	41	21	9	8	9	18	14.5	41.5	
4-Sep-05	10	4	4	5	4	6	8	8	5	4	3	5	3	2	6	A	13	8	9	7	6	20	17	14	7.4	20.3	
5-Sep-05	6	6	2	2	8	6	7	5	4	6	4	3	3	2	A	11	5	5	5	6	10	25	22	47	31	9.9	47.3
6-Sep-05	22	8	15	12	14	41	22	37	31	20	23	1	2	A	11	5	5	5	22	25	20	18	37	8	17.5	40.5	
7-Sep-05	4	2	8	15	16	21	38	37	39	16	3	7	A	15	11	12	8	5	6	13	32	54	38	33	18.8	53.8	
8-Sep-05	43	20	19	15	26	48	50	39	8	3	6	A	15	7	8	8	7	9	19	7	7	18	9	11	17.5	50.3	
9-Sep-05	33	15	5	10	17	13	14	16	15	9	A	21	15	9	6	14	12	18	21	39	14	12	12	21	15.6	38.7	
10-Sep-05	15	7	4	5	4	3	3	7	3	A	12	7	6	6	6	5	4	3	3	3	3	3	2	3	5.1	15.5	
11-Sep-05	2	2	5	3	3	2	4	2	A	17	9	8	6	5	4	4	4	5	4	6	6	9	8	3	5.4	16.9	
12-Sep-05	3	21	10	4	14	17	16	A	24	14	8	11	4	6	7	6	3	4	4	5	7	5	5	7	8.9	24.1	
13-Sep-05	8	8	7	5	12	23	A	28	15	11	5	6	7	6	4	5	6	7	14	20	10	7	7	4	9.8	28.3	
14-Sep-05	8	4	13	4	10	A	29	18	8	6	C	C	C	C	C	C	C	C	4	4	4	7	10	23	15	N	29.0
15-Sep-05	4	4	A	9	11	8	12	C	C	C	C	A	6	4	3	3	3	3	3	3	4	6	3	5	5.3	11.7	
16-Sep-05	8	6	A	12	7	5	6	6	4	4	3	6	3	6	4	2	3	4	4	4	9	8	10	4	5.5	12.1	
17-Sep-05	3	A	44	20	10	20	18	65	40	18	17	7	6	4	3	3	5	6	10	17	16	15	14	25	16.8	65.2	
18-Sep-05	A	28	26	29	24	31	32	17	9	6	6	3	3	2	9	6	7	10	16	19	12	5	4	A	13.9	32.2	
19-Sep-05	18	5	6	4	16	6	7	9	6	5	9	11	6	8	11	11	4	5	8	13	16	16	A	23	9.8	23.5	
20-Sep-05	30	30	36	30	31	48	58	86	35	9	8	6	3	5	5	3	3	2	2	4	6	A	20	33	21.4	86.4	
21-Sep-05	43	54	59	46	27	31	41	33	27	22	8	10	9	5	4	4	2	7	12	7	A	15	15	14	21.5	58.7	
22-Sep-05	21	14	24	9	6	12	9	8	4	6	7	4	8	8	5	4	4	4	4	A	10	7	4	6	8.2	24.2	
23-Sep-05	5	5	4	2	5	16	17	17	12	24	18	8	5	4	3	2	6	6	A	26	36	37	13	14	12.5	36.9	
24-Sep-05	9	18	17	35	35	21	22	32	12	13	8	4	2	3	5	4	2	A	14	10	8	9	4	4	12.6	34.8	
25-Sep-05	8	5	4	15	6	8	6	5	6	2	3	2	3	4	2	4	A	12	15	32	24	13	4	4	8.2	32.2	
26-Sep-05	10	4	8	11	17	31	37	28	24	15	7	5	3	4	8	A	12	20	19	11	31	28	5	4	14.8	36.6	
27-Sep-05	4	7	2	4	2	4	5	5	3	3	4	4	4	4	5	A	8	6	9	11	22	10	10	12	11	6.6	22.1
28-Sep-05	8	7	9	7	9	29	27	42	26	4	3	3	4	A	10	7	10	7	7	6	6	3	7	1	10.5	41.7	
29-Sep-05	1	2	4	17	14	11	10	16	8	16	10	15	A	13	9	23	29	11	11	6	7	4	3	3	10.6	29.4	
30-Sep-05	5	1	2	3	7	19	17	11	9	7	5	A	9	6	4	4	4	8	9	15	20	12	5	4	8.2	19.9	
																										N	0.0
Hourly Avg	12.5	11.8	13.5	12.6	14.1	18.3	20.5	23.9	15.1	10.4	7.9	6.8	5.7	5.4	5.9	6.3	6.7	7.6	11.8	14.6	14.5	14.4	12.7	12.0			
Hourly Max	42.8	54.5	58.7	46.4	41.5	48.5	57.6	86.4	39.8	24.0	22.9	20.8	14.8	14.7	11.4	23.1	29.4	24.6	40.9	48.9	46.1	53.8	47.3	33.1			

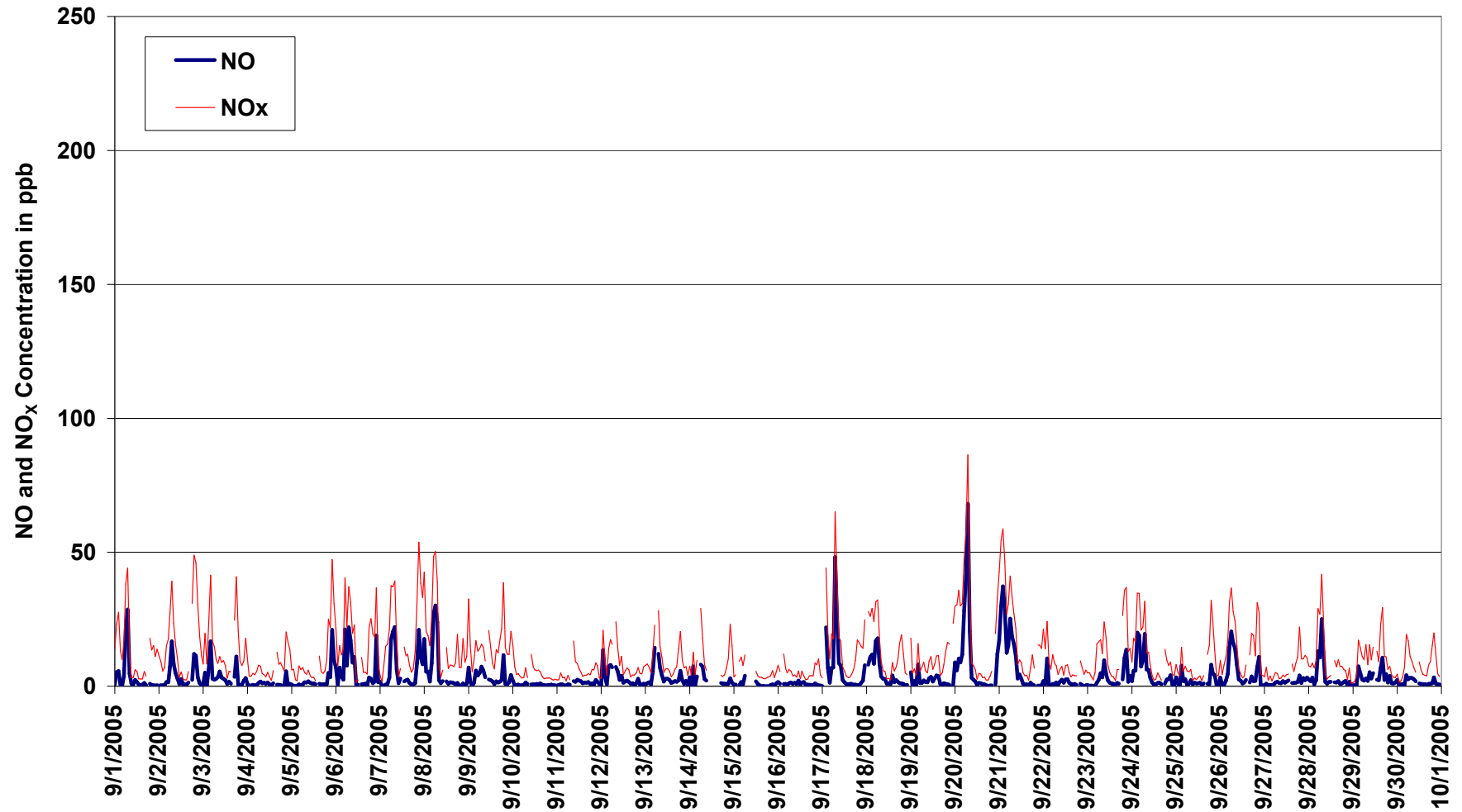


Figure 3. PAS - Crescent Heights Oxides of Nitrogen 1-hr Average Monthly Trend



Station: Crescent Heights  
 Station Owner: PAS

**HOURLY MAXIMUM TABLE**

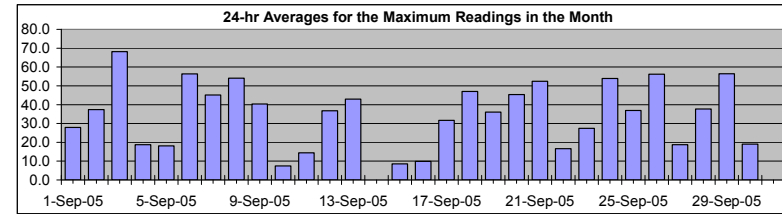
**Oxides of Nitrogen (NO<sub>x</sub>)**

Monitoring Dates: September 1, 2005 to October 1, 2005

**Summary**

Maximum 1-hr Value:	299.3	ppb	3-Sep	18:00 19:00
Maximum 24-hr Value:	68.2	ppb	3-Sep	

AIC Time:	32 hrs	Operational Time:	677 hrs					
Calibration Time:	11 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	191.8	112.6	47.9	18.0	8.0	4.1	3.1	35.4 ppb



**Status Flag Characters**

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00			
1-Sep-05	24	78	40	19	17	30	71	87	18	5	5	103	8	7	7	6	16	5	A	28	18	20	14	15	27.9	102.9	
2-Sep-05	14	14	13	14	47	32	66	63	45	24	21	6	104	4	3	5	27	A	39	153	77	42	27	21	37.4	152.9	
3-Sep-05	18	74	10	64	168	62	19	14	34	93	100	17	43	6	69	8	A	243	299	30	15	27	85	71	68.2	299.3	
4-Sep-05	32	7	5	9	7	13	18	19	7	7	7	19	5	4	22	A	26	15	13	13	7	125	20	29	18.7	124.7	
5-Sep-05	31	9	6	4	19	10	9	8	6	18	8	8	8	3	A	23	8	8	8	15	54	53	57	43	18.1	57.4	
6-Sep-05	104	18	166	49	29	91	29	49	77	89	85	3	6	A	23	8	15	8	71	54	28	32	193	69	56.3	192.7	
7-Sep-05	85	4	11	17	38	28	85	74	62	31	7	76	A	23	28	24	17	7	8	38	107	85	104	80	45.1	107.1	
8-Sep-05	201	57	93	30	57	99	243	190	11	8	14	A	29	9	15	13	15	15	29	13	11	30	15	47	54.1	243.0	
9-Sep-05	71	39	7	56	131	72	31	20	19	12	A	33	24	37	14	18	23	29	37	107	25	20	30	73	40.4	130.9	
10-Sep-05	22	12	6	7	5	5	8	9	5	A	19	9	8	9	9	8	5	4	4	4	4	4	3	4	7.5	22.1	
11-Sep-05	3	4	8	6	6	5	8	7	A	30	12	14	9	11	6	7	10	51	6	12	12	55	24	24	14.4	55.4	
12-Sep-05	5	117	107	5	168	48	23	A	59	124	27	21	11	36	10	15	5	8	5	8	16	6	6	16	36.8	167.7	
13-Sep-05	11	13	18	9	99	150	A	74	100	96	7	43	21	97	5	31	11	14	35	67	16	10	56	6	42.9	149.6	
14-Sep-05	105	7	127	6	93	A	40	29	12	8	C	C	C	C	C	C	C	5	5	6	16	17	71	25	N	126.8	
15-Sep-05	6	6	A	11	16	9	29	C	C	C	C	A	9	5	4	4	4	4	5	8	7	10	6	9	8.5	29.3	
16-Sep-05	11	7	A	23	10	7	26	8	6	8	5	16	5	9	7	3	5	6	7	7	14	12	18	6	9.9	26.0	
17-Sep-05	8	A	78	47	23	75	37	86	71	82	22	11	8	5	4	5	7	12	21	24	23	22	22	36	31.7	85.5	
18-Sep-05	A	51	79	71	48	86	104	74	14	78	105	6	45	23	40	12	69	23	42	26	19	7	11	A	47.0	105.5	
19-Sep-05	76	7	74	27	192	36	10	19	9	21	17	19	12	51	67	58	5	15	11	17	31	24	A	33	36.1	191.6	
20-Sep-05	93	39	77	79	79	162	97	179	50	15	14	11	3	9	13	7	6	3	3	6	7	A	34	57	45.3	179.4	
21-Sep-05	71	78	192	115	89	138	100	111	33	27	10	86	14	8	6	12	6	17	25	10	A	23	17	18	52.5	192.4	
22-Sep-05	27	19	104	26	13	17	13	17	7	7	11	9	15	14	11	5	6	10	8	A	18	9	7	11	16.6	103.7	
23-Sep-05	11	11	10	3	14	18	21	24	19	42	23	19	8	7	7	4	8	10	A	51	165	52	53	50	27.4	164.6	
24-Sep-05	70	56	167	75	132	80	57	110	19	16	14	19	4	6	9	45	4	A	18	104	91	132	6	5	53.9	167.3	
25-Sep-05	109	33	9	127	40	98	9	10	36	4	37	3	6	9	4	7	A	16	40	91	78	72	5	7	36.9	127.3	
26-Sep-05	105	8	21	58	66	182	113	57	38	37	24	47	4	5	21	A	29	83	32	46	113	184	12	9	56.2	184.1	
27-Sep-05	8	16	3	6	4	6	18	7	4	4	10	5	15	10	A	17	8	12	22	39	19	52	34	112	18.7	112.1	
28-Sep-05	65	36	74	10	48	123	46	56	36	14	3	6	31	A	17	10	16	10	38	88	70	4	66	2	37.7	122.7	
29-Sep-05	2	3	9	214	72	43	56	22	19	26	19	26	A	30	26	36	105	42	164	56	156	46	49	78	56.4	214.3	
30-Sep-05	96	2	12	14	12	33	36	15	23	9	8	A	15	8	7	7	5	12	17	21	51	21	8	6	19.1	96.1	
																										N	0.0
Hourly Avg	51.2	28.5	54.4	40.1	57.9	60.6	49.0	51.3	30.0	33.4	23.5	24.4	17.5	16.6	16.8	14.8	17.0	24.5	36.1	39.3	43.7	41.2	36.3	33.1			
Hourly Max	200.9	117.3	192.4	214.3	191.6	181.9	243.0	190.3	99.9	124.1	105.5	102.9	103.6	97.3	68.5	58.0	105.4	242.5	299.3	152.9	164.6	184.1	192.7	112.1			

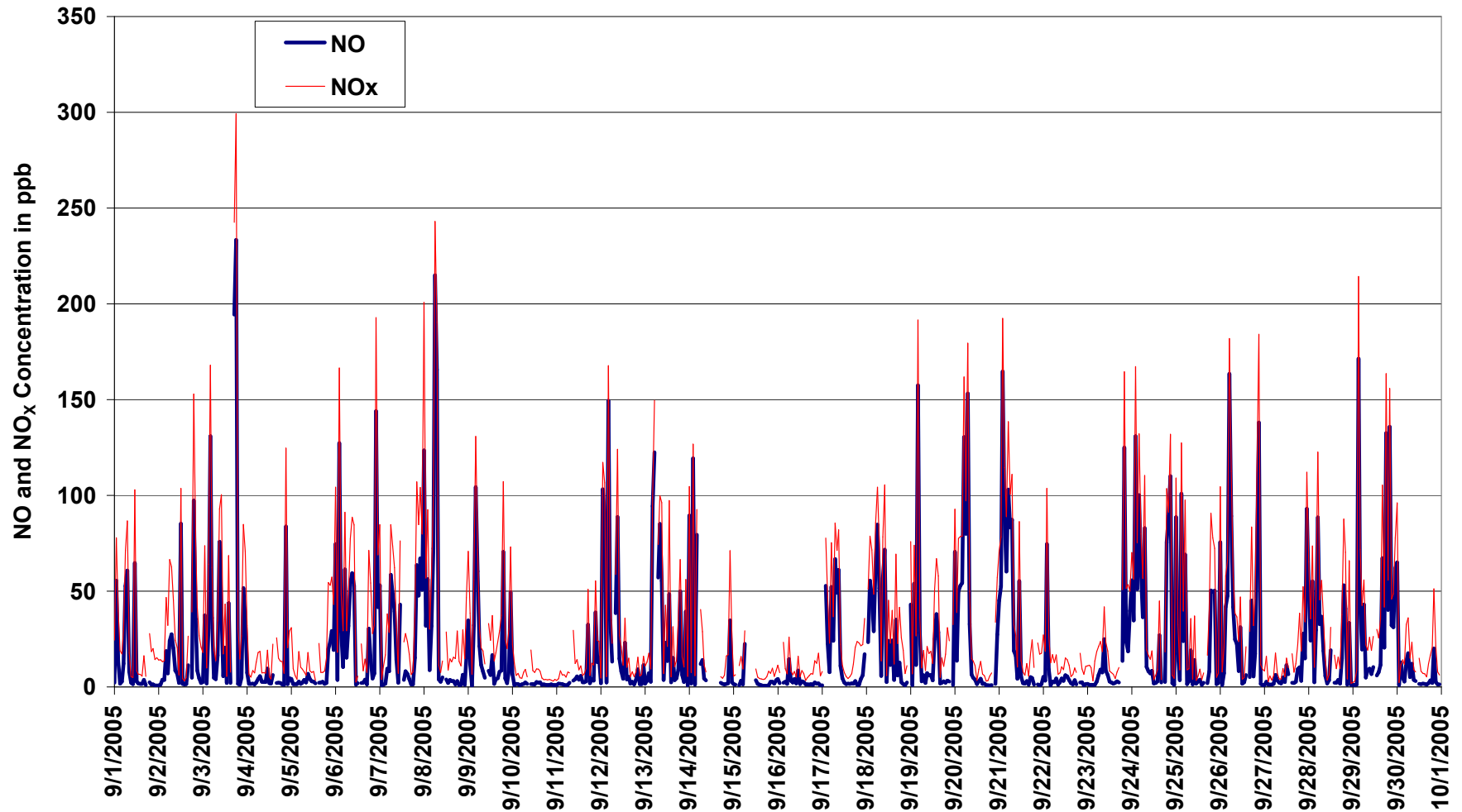


Figure 4. PAS - Crescent Heights Oxides of Nitrogen 1-hr Maximum Value Monthly Trend





### PAS - Crescent Heights Ozone Monthly Summary

Station: Crescent Heights  
 Station Owner: PAS

#### HOURLY AVERAGE TABLE

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

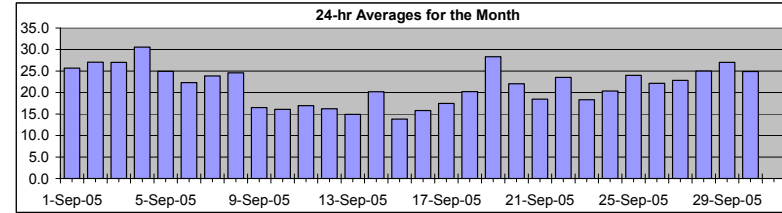
Monitoring Dates: September 1, 2005 to October 1, 2005

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

Summary

Number of 1-hr Exceedances:	0		
Maximum 1-hr Average:	49.8 ppb	2-Sep	13:00 14:00
Maximum 24-hr Average:	30.6 ppb	4-Sep	

AIC Time:	32 hrs	Operational Time:	685 hrs					
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	46.7	42.1	30.4	20.4	12.3	3.3	1.1	21.8 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																								24-hour Average	Daily Maximum	
	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
1-Sep-05	14	10	4	11	12	7	7	11	21	29	34	38	42	44	45	45	44	45	A	35	30	22	24	18	25.7	45.4	
2-Sep-05	17	20	24	22	18	15	13	15	24	30	40	48	48	50	49	50	47	A	26	11	7	9	17	23	27.1	49.8	
3-Sep-05	28	22	25	15	6	12	12	16	18	21	28	38	43	47	46	47	A	40	25	28	32	30	27	18	27.0	47.0	
4-Sep-05	26	35	30	25	22	23	19	20	23	27	31	35	41	44	42	A	48	44	40	37	34	23	16	20	30.6	47.7	
5-Sep-05	28	21	22	23	18	19	17	20	22	25	32	36	39	40	A	40	39	39	35	28	16	11	1	3	24.9	40.0	
6-Sep-05	8	14	13	11	6	3	6	8	15	23	28	40	39	A	42	43	41	41	24	17	18	19	21	32	22.3	42.7	
7-Sep-05	36	35	22	12	11	7	5	10	12	26	36	37	A	40	40	41	43	42	38	29	17	4	3	3	23.9	43.1	
8-Sep-05	3	11	12	10	7	3	8	15	28	34	36	A	40	41	42	43	44	40	27	35	32	16	21	18	24.6	43.8	
9-Sep-05	4	14	21	15	10	8	8	8	10	20	A	23	25	32	33	26	25	20	13	2	18	21	16	8	16.5	33.3	
10-Sep-05	5	9	11	9	11	14	14	12	17	A	19	18	18	19	18	19	21	21	20	18	19	19	19	18	16.1	21.0	
11-Sep-05	18	20	18	20	20	21	19	22	A	18	18	15	16	17	18	19	20	18	17	14	13	9	9	12	16.9	21.5	
12-Sep-05	11	8	8	10	8	5	6	A	12	16	21	22	27	28	26	27	29	27	23	16	11	12	13	10	16.2	28.8	
13-Sep-05	7	5	7	6	3	3	A	4	8	14	23	25	25	27	28	27	26	27	19	11	12	11	12	13	14.9	28.4	
14-Sep-05	13	12	10	12	10	A	5	10	15	18	21	25	29	31	31	32	34	32	31	30	25	19	8	12	20.2	33.8	
15-Sep-05	18	15	A	11	8	9	7	5	4	8	C	C	C	A	20	22	24	23	22	20	15	10	12	9	13.8	23.6	
16-Sep-05	6	9	A	10	11	13	12	13	15	16	17	17	19	16	20	24	25	20	19	18	15	16	14	18	15.8	25.4	
17-Sep-05	17	A	1	6	6	2	2	2	5	13	19	32	37	39	39	38	37	33	28	17	12	7	6	2	17.5	39.2	
18-Sep-05	A	4	5	1	1	3	5	11	18	28	29	30	32	34	33	36	39	33	24	16	18	21	20	A	20.2	39.3	
19-Sep-05	18	22	21	21	19	21	21	21	27	35	37	38	42	44	43	42	43	39	33	25	17	16	A	9	28.3	43.6	
20-Sep-05	3	4	1	2	3	0	1	3	10	27	31	39	45	44	46	46	46	42	35	31	27	A	15	7	22.0	46.4	
21-Sep-05	1	1	1	1	1	1	2	3	7	16	28	32	34	37	39	40	42	37	30	30	A	19	13	12	18.4	41.6	
22-Sep-05	5	8	8	15	20	15	21	25	27	22	22	28	30	33	37	38	36	33	31	A	27	23	21	17	23.5	38.3	
23-Sep-05	18	17	19	22	19	9	8	8	13	7	11	25	32	34	34	35	30	31	A	14	6	4	12	12	18.3	34.9	
24-Sep-05	13	8	8	5	3	4	3	7	13	18	29	34	35	36	35	36	36	A	28	27	26	23	21	20	20.4	36.2	
25-Sep-05	20	20	18	17	23	22	19	21	25	28	27	28	31	35	38	38	A	35	26	12	10	20	21	19	24.0	38.0	
26-Sep-05	19	21	19	15	8	3	3	6	10	17	29	33	37	39	39	A	36	26	23	33	15	23	30	28	22.1	38.9	
27-Sep-05	27	22	25	22	25	21	20	24	25	26	28	29	26	26	A	30	30	25	20	11	18	18	14	12	22.8	30.5	
28-Sep-05	15	14	12	12	12	4	4	7	14	29	29	31	33	A	34	37	33	32	32	35	38	39	39	43	25.0	42.9	
29-Sep-05	45	44	37	26	26	26	24	20	29	29	32	30	A	35	33	21	19	23	21	20	20	20	20	20	27.0	44.7	
30-Sep-05	20	20	18	15	12	5	10	17	21	25	29	A	38	39	41	42	40	34	33	25	18	19	26	27	24.9	41.6	
																									N	0.0	
Hourly Avg	15.9	16.0	15.0	13.4	12.0	10.3	10.3	12.5	16.8	22.2	27.2	30.6	33.4	35.2	35.4	35.2	34.8	32.2	26.4	22.2	19.6	17.3	16.9	15.9			
Hourly Max	44.7	44.4	37.1	26.4	26.3	26.4	24.4	25.1	28.6	34.7	39.8	48.0	48.0	49.8	49.4	49.7	47.7	44.5	39.6	36.7	38.1	38.8	39.4	42.9			

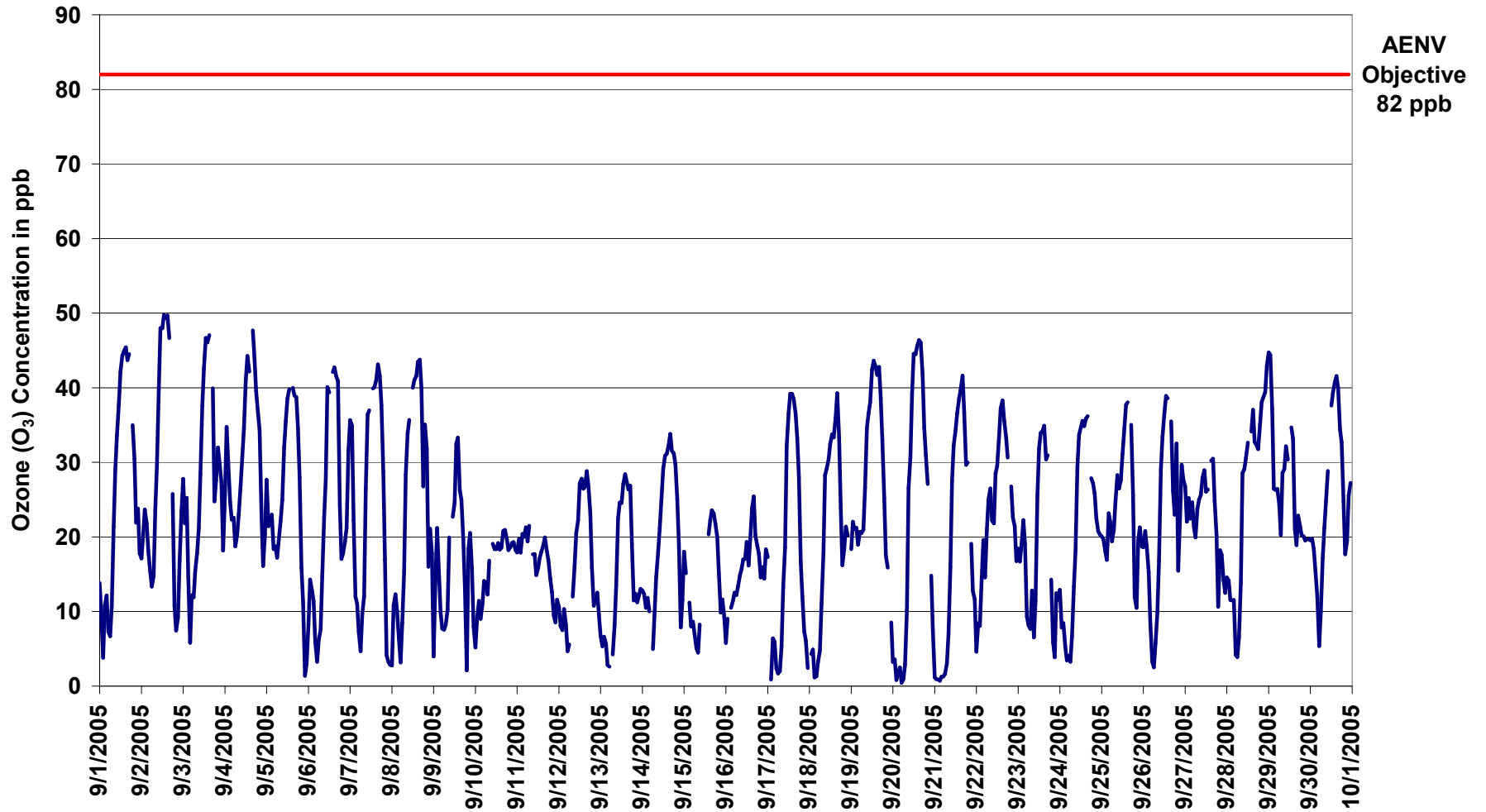


Figure 5. PAS - Cresent Heights Ozone 1-hr Average Monthly Trend



Station: Crescent Heights  
 Station Owner: PAS

**HOURLY MAXIMUM TABLE**

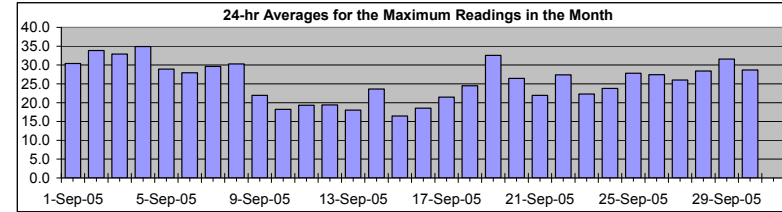
**Ozone (O<sub>3</sub>)**

Monitoring Dates: September 1, 2005 to October 1, 2005

**Summary**

Maximum 1-hr Value:	52.2	ppb	2-Sep	15:00 16:00
Maximum 24-hr Value:	34.9	ppb	4-Sep	

AIC Time:	32 hrs	Operational Time:	685 hrs					
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	49.6	46.5	34.7	24.6	16.8	7.1	2.6	25.9 ppb



**Status Flag Characters**

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00		
1-Sep-05	21	17	11	14	18	12	16	19	29	31	37	41	45	47	47	48	49	47	A	40	36	25	26	22	30.4	48.5
2-Sep-05	21	27	28	25	25	26	19	24	31	38	48	50	50	51	51	52	50	A	37	32	18	17	28	29	33.8	52.2
3-Sep-05	33	33	28	24	15	18	16	17	20	25	37	43	47	49	50	49	A	48	40	37	36	35	30	26	32.9	49.9
4-Sep-05	32	38	33	28	25	29	22	23	25	31	33	40	43	46	47	A	50	49	43	43	39	33	21	30	34.9	49.6
5-Sep-05	32	25	24	25	23	21	19	21	27	33	37	39	41	42	A	41	40	40	38	33	32	22	3	9	28.9	42.0
6-Sep-05	16	19	15	14	11	9	9	11	24	27	40	42	42	A	45	45	45	43	38	28	23	29	32	37	28.0	44.9
7-Sep-05	38	37	32	18	14	11	9	15	20	34	40	41	A	43	45	47	47	44	41	36	31	24	7	7	29.6	47.4
8-Sep-05	6	19	19	17	17	10	16	25	34	36	40	A	44	44	44	48	48	47	34	38	39	27	24	20	30.3	48.2
9-Sep-05	7	22	23	22	13	12	10	11	15	24	A	28	35	36	38	31	34	27	22	7	26	27	23	12	21.9	37.9
10-Sep-05	10	12	13	12	13	16	16	17	21	A	21	20	19	21	20	21	23	22	21	19	20	21	21	20	18.2	22.7
11-Sep-05	19	21	22	22	23	23	22	24	A	20	22	17	17	19	20	21	23	20	18	18	15	13	12	14	19.3	23.7
12-Sep-05	13	13	12	13	12	8	9	A	16	19	24	28	30	31	30	28	31	29	26	19	14	15	15	15	19.4	31.3
13-Sep-05	8	7	9	9	4	5	A	7	12	18	25	27	27	29	30	30	29	31	28	20	17	14	14	15	18.0	30.6
14-Sep-05	15	15	13	13	14	A	8	14	17	21	24	29	31	33	33	34	35	33	34	32	31	23	20	20	23.6	35.4
15-Sep-05	21	18	A	15	11	11	10	7	7	10	C	C	C	A	22	24	25	25	24	24	18	14	14	12	16.5	24.9
16-Sep-05	8	12	A	14	15	14	15	15	16	18	23	20	21	19	23	26	28	22	21	21	18	18	19	21	18.5	28.0
17-Sep-05	20	A	4	11	9	5	3	4	10	16	26	38	39	41	41	41	39	38	34	25	22	11	12	5	21.5	41.2
18-Sep-05	A	8	10	2	4	7	9	15	27	31	32	32	35	36	37	40	45	40	32	25	24	25	23	A	24.5	44.7
19-Sep-05	24	24	23	24	23	23	22	23	31	39	39	44	47	48	49	48	44	43	36	29	28	24	A	12	32.5	49.4
20-Sep-05	6	15	2	4	6	1	2	7	21	31	33	44	46	47	48	48	48	48	37	33	30	A	25	22	26.4	48.4
21-Sep-05	3	2	2	2	3	4	5	5	12	28	33	35	38	39	44	43	43	42	37	33	A	21	16	15	21.9	43.5
22-Sep-05	11	12	14	21	23	23	26	29	29	24	25	33	33	39	40	40	39	37	34	A	29	25	25	20	27.4	40.2
23-Sep-05	22	21	21	25	22	13	13	13	16	9	16	30	35	37	36	37	33	33	A	21	15	14	16	16	22.3	36.8
24-Sep-05	15	16	13	11	7	7	6	11	16	23	36	36	37	39	39	39	37	A	32	29	28	25	22	22	23.8	38.8
25-Sep-05	23	22	20	21	26	24	23	23	30	30	29	30	34	37	40	40	A	41	33	25	17	25	24	22	27.8	41.2
26-Sep-05	22	23	21	20	12	6	6	9	13	22	34	35	39	44	43	A	40	35	37	38	33	35	33	30	27.4	43.7
27-Sep-05	29	27	27	25	26	25	25	26	27	28	30	30	29	29	A	32	32	30	24	20	21	21	20	15	26.0	32.5
28-Sep-05	17	17	14	15	16	11	11	14	20	31	31	34	34	A	36	40	37	34	35	38	40	40	44	44	28.4	44.1
29-Sep-05	47	46	43	34	32	31	27	24	33	35	38	38	A	39	38	31	30	28	25	22	22	22	21	21	31.6	46.9
30-Sep-05	21	21	20	19	16	10	16	22	24	29	31	A	40	42	43	44	43	37	37	33	27	28	28	29	28.7	43.7
																									N	0.0
Hourly Avg	19.3	20.3	18.4	17.3	15.9	14.3	14.2	16.4	21.5	26.2	31.5	34.1	36.2	38.0	38.6	38.2	38.1	36.2	32.1	28.3	25.9	23.1	21.2	20.0		
Hourly Max	46.9	46.2	43.1	33.8	31.8	31.1	27.4	29.4	33.9	38.8	48.5	49.8	50.3	51.2	51.3	52.2	49.6	48.9	43.1	42.8	40.2	40.2	44.1	44.1		

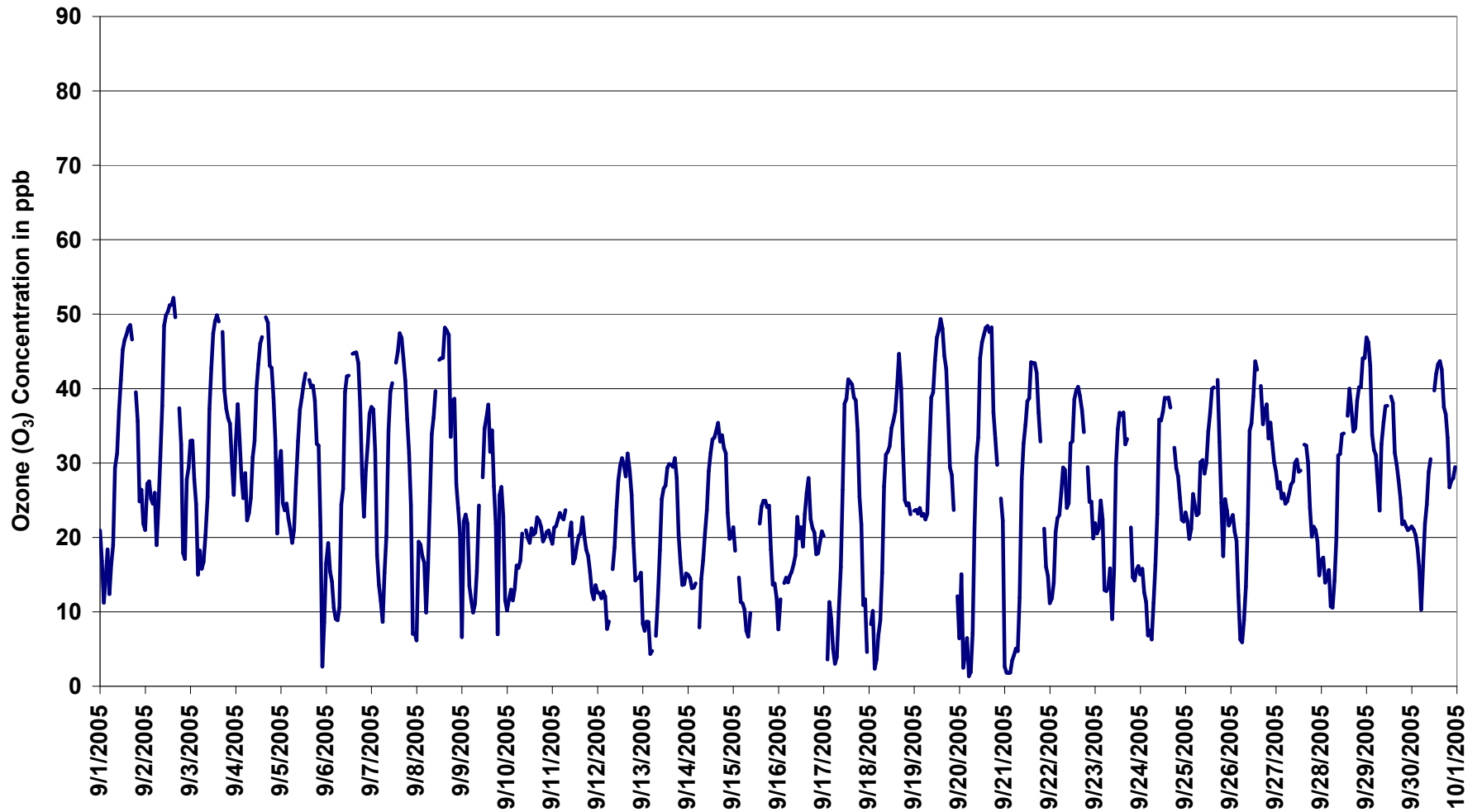
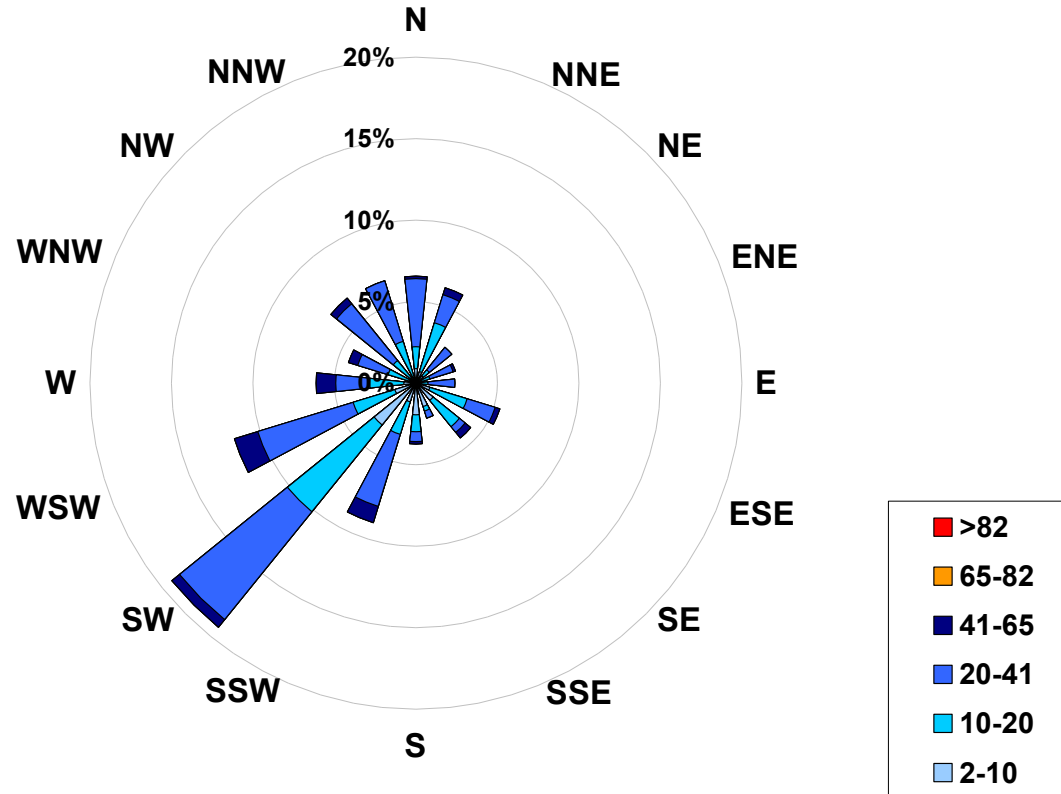


Figure 6. PAS - Crescent Heights Ozone 1-hr Maximum Value Monthly Trend



**1-hr Average Concentration Rose for Ozone (in ppb) Located at the Crescent Heights Site for September 2005**



**Calms: 0%**

Frequency Distribution of O <sub>3</sub> in ppb			
Range			Frequency (hrs)
2.0	<	10	123
10	to	20	207
20	to	41	308
41	to	65	47
65	to	82	0
	>	82	0
Total Non-Zero Values			685



### PAS - Cresent Heights Ozone Monthly Summary

#### EIGHT HOUR RUNNING AVERAGE TABLE

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

Station: Cresent Heights  
 Station Owner: PAS

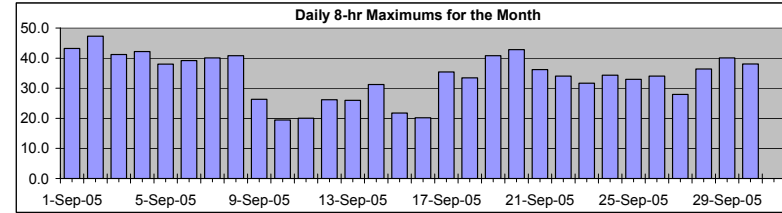
Monitoring Dates: September 1, 2005 to October 1, 2005

Objective Limit: Alberta Environment: 8-hr 65 ppb

**Summary**

Number of 8-hr Exceedances:	0						
Maximum 8-hr Average:	47.3	ppb	2-Sep	17:00	18:00		

Percentile	99	95	75	50	25	5	1
	42.2	38.9	28.7	20.5	14.4	7.5	3.2



**Status Flag Characters**

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

Day	Mountain Standard Time																								Daily Maximum	
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-Sep-05	11	11	9	9	9	9	9	9	10	13	16	20	24	28	33	37	40	42	43	43	41	38	35	31	43.2	
2-Sep-05	27	24	24	22	21	20	18	18	19	20	22	25	29	33	38	42	45	47	45	40	34	28	24	20	47.3	
3-Sep-05	17	18	18	18	18	18	18	17	16	16	16	19	23	28	32	36	39	41	41	39	38	35	33	28	41.2	
4-Sep-05	28	27	28	28	27	26	25	25	25	24	24	25	27	30	33	35	38	41	42	42	41	38	35	33	42.2	
5-Sep-05	30	27	25	24	22	21	21	21	20	21	22	24	26	29	30	33	36	38	38	37	34	30	26	21	38.0	
6-Sep-05	18	15	12	10	9	8	8	9	10	11	12	16	20	23	28	33	37	39	39	35	32	31	28	27	39.2	
7-Sep-05	26	25	25	24	24	22	20	17	14	13	15	18	19	24	29	33	38	40	40	39	36	32	27	22	40.1	
8-Sep-05	17	13	10	8	7	6	7	9	12	15	18	19	24	29	34	38	40	41	40	39	38	35	32	29	40.8	
9-Sep-05	24	21	20	18	15	14	12	11	12	12	11	12	14	18	22	24	26	26	25	22	21	20	18	15	26.3	
10-Sep-05	13	12	11	12	11	10	10	11	12	13	14	15	16	17	17	18	19	19	19	19	19	19	19	19	19	19.4
11-Sep-05	19	19	19	19	19	19	19	20	20	20	20	19	18	18	18	17	18	18	17	17	17	16	15	14	20.0	
12-Sep-05	13	12	10	10	9	9	8	8	8	9	11	13	15	19	22	22	24	26	26	25	23	21	20	17	26.2	
13-Sep-05	15	12	10	9	8	6	6	5	5	6	9	11	14	18	19	22	24	26	26	24	22	20	18	17	26.0	
14-Sep-05	15	13	12	12	12	12	11	10	11	11	13	15	18	19	23	25	28	29	31	31	31	29	26	24	31.2	
15-Sep-05	22	20	18	15	13	11	11	10	8	8	8	N	N	N	N	N	N	N	N	N	21	20	18	17	21.7	
16-Sep-05	15	13	12	10	10	10	10	11	12	13	13	14	15	16	17	18	19	20	20	20	20	20	19	18	20.2	
17-Sep-05	17	17	14	13	11	9	8	5	4	5	7	10	14	19	23	28	32	34	35	33	30	26	22	18	35.4	
18-Sep-05	15	11	8	5	4	3	3	4	6	9	12	16	20	23	27	30	33	33	33	31	29	28	26	25	33.4	
19-Sep-05	22	20	20	20	20	20	20	20	22	23	25	27	30	33	36	38	40	41	40	39	36	32	31	26	40.8	
20-Sep-05	20	15	11	7	5	3	3	2	3	6	9	14	19	25	31	36	40	42	43	42	40	39	35	29	42.8	
21-Sep-05	23	17	12	8	4	4	2	1	2	4	7	11	15	20	24	29	33	36	36	36	36	34	30	26	36.2	
22-Sep-05	21	17	14	11	12	12	13	14	17	19	21	22	24	26	28	30	31	32	33	34	34	32	30	27	34.0	
23-Sep-05	24	22	20	21	20	18	16	15	14	13	12	13	14	17	20	24	26	29	32	30	26	22	19	16	31.7	
24-Sep-05	13	10	10	9	8	8	7	7	7	8	10	14	18	22	26	29	32	34	34	33	32	30	28	26	34.3	
25-Sep-05	24	23	22	21	20	20	20	21	22	23	24	25	27	29	31	32	33	33	31	28	25	23	20		32.9	
26-Sep-05	20	18	17	18	18	16	13	12	11	10	11	14	17	22	26	29	33	34	33	33	30	28	26	27	34.0	
27-Sep-05	25	25	25	24	25	25	24	23	23	23	24	25	25	25	26	27	28	28	27	24	23	22	21	19	27.9	
28-Sep-05	17	15	14	14	13	12	10	10	10	11	14	16	19	21	25	29	32	33	33	34	34	35	36	36	36.4	
29-Sep-05	38	39	40	39	38	36	34	31	29	27	27	27	27	29	30	30	28	28	26	25	24	22	20	20	40.1	
30-Sep-05	20	20	20	19	18	16	15	15	15	15	17	17	21	26	30	33	36	37	38	36	34	31	29	28	38.0	
																									0.0	

Hourly Max	37.9	39.4	40.1	39.0	37.5	36.0	34.1	31.3	29.2	27.3	26.7	27.2	30.1	33.4	37.9	42.2	45.1	47.3	45.3	42.9	41.3	38.9	35.7	36.4
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## PAS - Crescent Heights Carbon Monoxide Monthly Summary

Station: Crescent Heights  
 Station Owner: PAS

### HOURLY AVERAGE TABLE

### Carbon Monoxide (CO)

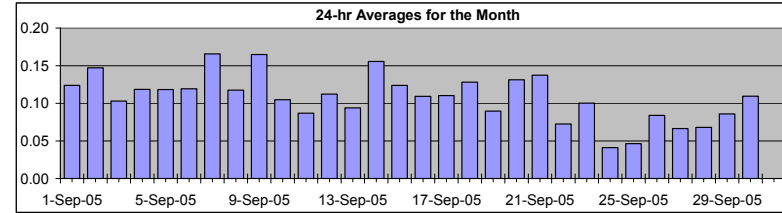
Monitoring Dates: September 1, 2005 to October 1, 2005

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

**Summary**

Number of 1-hr Exceedances:	0
Maximum 1-hr Average:	0.5 ppm 2-Sep 7:00 8:00
Maximum 24-hr Value:	0.2 ppm 7-Sep

AIC Time:	32 hrs	Operational Time:	686 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	0.1 ppm
	0.4 0.2 0.1 0.1 0.1 0.0 0.0		



**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																								24-hour Average	Daily Maximum			
	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	
1-Sep-05	0:00	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12	0.38
2-Sep-05	1:00	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.5	0.2	0.2	0.1	0.0	0.1	0.0	0.0	0.1	0.1	A	0.2	0.4	0.3	0.2	0.2	0.1	0.1	0.15	0.54	
3-Sep-05	2:00	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	A	0.2	0.3	0.3	0.1	0.0	0.1	0.1	0.1	0.10	0.27		
4-Sep-05	3:00	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	A	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.12	0.24		
5-Sep-05	4:00	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	A	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.12	0.25		
6-Sep-05	5:00	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.3	0.2	0.1	0.1	0.0	0.0	A	0.0	0.0	0.0	0.1	0.4	0.2	0.2	0.1	0.1	0.0	0.12	0.39		
7-Sep-05	6:00	0.0	0.0	0.0	0.1	0.1	0.1	0.4	0.4	0.4	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.5	0.5	0.2	0.1	0.17	0.51	
8-Sep-05	7:00	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.1	0.1	0.0	A	0.1	0.0	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.12	0.29		
9-Sep-05	8:00	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	0.1	0.2	0.2	0.2	0.3	0.5	0.2	0.2	0.2	0.2	0.16	0.50		
10-Sep-05	9:00	0.2	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	0.1	0.1	0.1	0.10	0.15		
11-Sep-05	10:00	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	0.1	0.1	0.1	0.1	0.09	0.10		
12-Sep-05	11:00	0.1	0.1	0.1	0.1	0.1	0.2	0.2	A	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.11	0.17		
13-Sep-05	12:00	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.0	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	0.09	0.15		
14-Sep-05	13:00	0.1	0.1	0.1	0.1	0.1	A	0.2	0.1	0.1	0.1	0.1	0.1	0.1	C	C	A	0.0	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.16	0.35		
15-Sep-05	14:00	0.1	0.1	A	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12	0.23		
16-Sep-05	15:00	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.11	0.15		
17-Sep-05	16:00	0.1	A	0.1	0.1	0.0	0.1	0.1	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.11	0.25		
18-Sep-05	17:00	A	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	0.3	0.3	0.1	0.1	A	0.13	0.26		
19-Sep-05	18:00	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	0.2	0.1	0.2	0.1	A	0.09	0.18		
20-Sep-05	19:00	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.5	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	A	0.1	0.2	0.13	0.54		
21-Sep-05	20:00	0.2	0.1	0.2	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.1	A	0.1	0.0	0.0	0.14	0.32		
22-Sep-05	21:00	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.07	0.12		
23-Sep-05	22:00	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	A	0.2	0.2	0.2	0.1	0.0	0.10	0.22		
24-Sep-05	23:00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	A	0.1	0.1	0.0	0.0	0.0	0.0	0.04	0.11		
25-Sep-05	0:00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	A	0.1	0.1	0.1	0.2	0.2	0.1	0.0	0.0	0.05	0.20		
26-Sep-05	1:00	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.08	0.19		
27-Sep-05	2:00	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	A	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.07	0.15		
28-Sep-05	3:00	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.1	0.0	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.07	0.30		
29-Sep-05	4:00	0.0	0.0	0.1	0.1	0.1	0.1	0.2	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	0.09	0.16		
30-Sep-05	5:00	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	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.11	0.25		
																										N	0.00		
Hourly Avg	0:00	0.07	0.07	0.07	0.08	0.09	0.12	0.16	0.19	0.12	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.12	0.16	0.17	0.15	0.13	0.11	0.09			
Hourly Max	0:00	0.16	0.16	0.17	0.15	0.16	0.25	0.44	0.54	0.37	0.20	0.19	0.13	0.15	0.18	0.13	0.15	0.19	0.35	0.39	0.50	0.48	0.51	0.29	0.21				

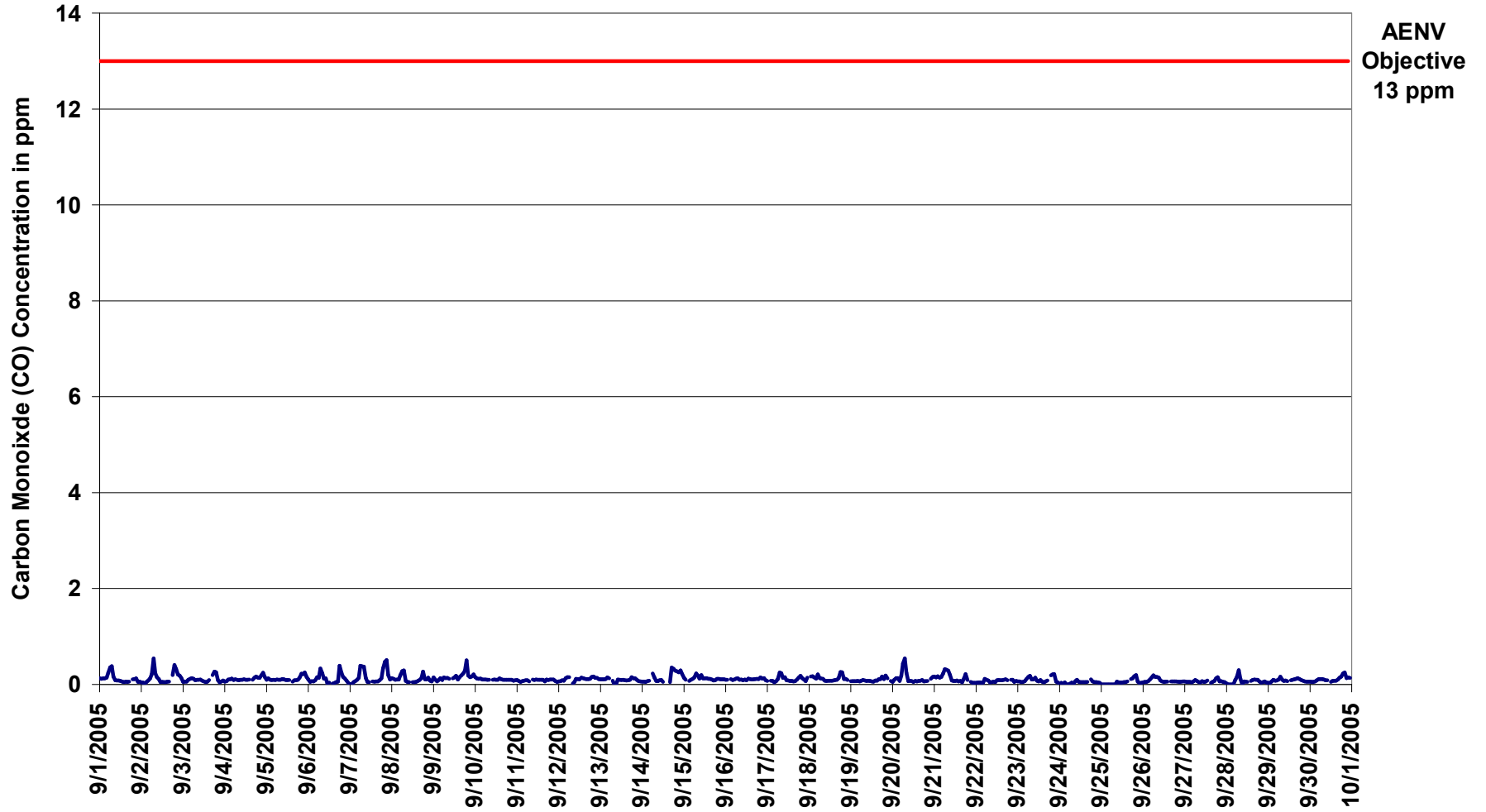


Figure 7. PAS - Crescent Heights Carbon Monoxide 1-hr Average Monthly Trend





Station: Crescent Heights  
 Station Owner: PAS

**HOURLY MAXIMUM TABLE**

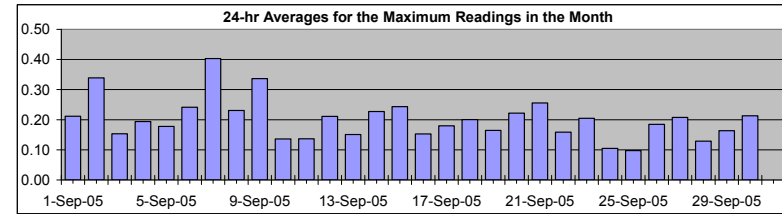
**Carbon Monoxide (CO)**

Monitoring Dates: September 1, 2005 to October 1, 2005

**Summary**

Maximum 1-hr Value:	2.1	ppm	7-Sep	20:00 21:00
Maximum 24-hr Value:	0.4	ppm	7-Sep	

AIC Time:	32 hrs	Operational Time:	686 hrs					
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	0.9	0.5	0.2	0.1	0.1	0.1	0.0	0.2 ppm



**Status Flag Characters**

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

Day	Mountain Standard Time																								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-Sep-05	0.1	0.1	0.2	0.2	0.2	0.4	0.7	0.7	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.2	0.4	0.2	0.1	0.1	0.1	0.21	0.75	
2-Sep-05	0.0	0.0	0.0	0.2	0.1	0.4	0.6	2.0	0.4	0.2	0.2	0.1	0.2	0.1	0.1	0.1	A	0.3	0.8	0.5	0.3	0.3	0.4	0.34	2.04		
3-Sep-05	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	0.2	0.3	0.3	0.2	0.1	0.1	0.2	0.15	0.35	
4-Sep-05	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	0.1	A	0.1	0.3	0.4	0.3	0.2	0.3	0.3	0.4	0.19	0.43
5-Sep-05	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	0.6	0.4	0.3	0.2	0.18	0.57
6-Sep-05	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.6	0.4	0.2	0.3	0.1	0.1	A	0.0	0.1	0.1	0.1	1.5	0.5	0.2	0.2	0.1	0.1	0.24	1.55	
7-Sep-05	0.0	0.0	0.1	0.1	0.2	0.3	1.1	0.9	0.6	0.3	0.1	0.1	A	0.2	0.2	0.1	0.1	0.2	0.3	0.9	2.1	0.8	0.3	0.2	0.40	2.13	
8-Sep-05	0.1	0.1	0.1	0.1	0.1	0.4	0.7	0.6	0.1	0.1	0.0	A	0.1	0.1	0.1	0.2	0.1	0.2	0.7	0.2	0.2	0.2	0.1	0.1	0.23	0.74	
9-Sep-05	0.2	0.2	0.1	0.1	0.2	0.1	0.3	0.2	0.2	0.2	A	0.2	0.4	0.9	0.2	0.3	0.4	0.5	0.5	1.4	0.3	0.2	0.4	0.3	0.34	1.44	
10-Sep-05	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.30	
11-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	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	0.1	0.14	0.25	
12-Sep-05	0.1	0.1	0.3	0.1	0.3	0.3	0.4	A	0.1	0.1	0.2	0.3	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.21	0.49	
13-Sep-05	0.1	0.2	0.1	0.2	0.2	0.2	A	0.2	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.15	0.28	
14-Sep-05	0.1	0.1	0.1	0.2	0.2	A	0.3	0.3	0.1	0.3	0.1	0.1	0.1	C	C	A	0.1	0.5	0.4	0.3	0.4	0.3	0.4	0.3	0.23	0.49	
15-Sep-05	0.2	0.1	A	0.1	0.1	0.2	0.7	0.5	0.5	0.2	0.5	0.3	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.1	0.2	0.24	0.72	
16-Sep-05	0.1	0.1	A	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.15	0.22	
17-Sep-05	0.1	A	0.1	0.1	0.1	0.1	0.2	0.4	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.2	0.2	0.1	0.3	0.18	0.37	
18-Sep-05	A	0.2	0.4	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.7	0.4	0.2	0.1	0.1	A	0.20	0.68	
19-Sep-05	0.1	0.1	0.3	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.4	0.3	0.3	0.3	A	0.1	0.16	0.40	
20-Sep-05	0.1	0.1	0.1	0.2	0.1	0.4	0.5	0.8	0.4	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.3	0.1	0.1	0.2	A	0.1	0.2	0.22	0.79	
21-Sep-05	0.2	0.2	0.2	0.2	0.2	0.4	0.5	0.4	0.4	0.3	0.1	0.1	0.2	0.9	0.1	0.2	0.1	0.3	0.4	0.2	A	0.1	0.0	0.1	0.26	0.87	
22-Sep-05	0.0	0.1	0.1	0.0	0.1	0.5	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.1	A	0.3	0.1	0.1	0.1	0.16	0.53	
23-Sep-05	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.5	0.1	0.1	0.1	0.3	A	0.5	0.3	0.4	0.1	0.1	0.20	0.54	
24-Sep-05	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	A	0.2	0.1	0.1	0.1	0.1	0.1	0.10	0.19	
25-Sep-05	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.2	0.2	0.3	0.3	0.1	0.1	0.1	0.10	0.33	
26-Sep-05	0.1	0.1	0.1	0.1	0.5	0.4	0.5	0.3	0.4	0.3	0.3	0.2	0.1	0.2	0.1	A	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.18	0.52	
27-Sep-05	0.1	0.1	0.1	0.1	0.2	0.2	0.4	0.2	0.2	0.1	0.2	0.1	0.5	0.4	A	0.1	0.1	0.2	0.6	0.3	0.2	0.3	0.1	0.0	0.21	0.56	
28-Sep-05	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.5	0.3	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.13	0.53	
29-Sep-05	0.0	0.0	0.2	0.1	0.1	0.1	0.4	0.4	0.3	0.1	0.2	0.1	A	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.16	0.42	
30-Sep-05	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	A	0.1	0.1	0.1	0.3	0.3	0.3	0.2	0.7	0.6	0.2	0.2	0.1	0.21	0.70	
																									N	0.00	
Hourly Avg	0.11	0.10	0.13	0.13	0.15	0.23	0.34	0.39	0.23	0.17	0.17	0.13	0.14	0.24	0.12	0.14	0.14	0.22	0.33	0.34	0.32	0.21	0.16	0.16			
Hourly Max	0.30	0.21	0.36	0.24	0.52	0.53	1.07	2.04	0.60	0.35	0.54	0.27	0.45	0.87	0.21	0.31	0.41	0.49	1.55	1.44	2.13	0.80	0.42	0.40			

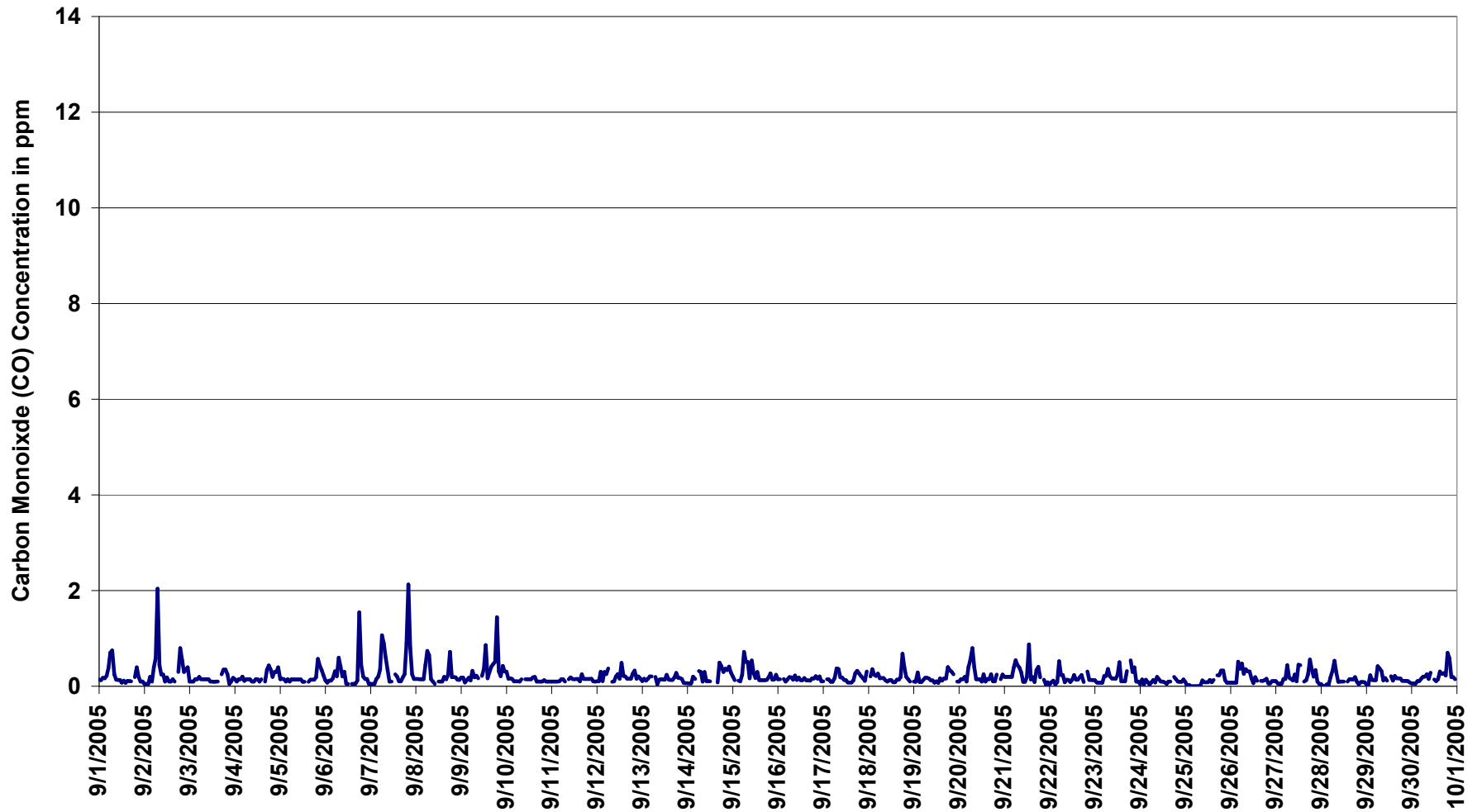
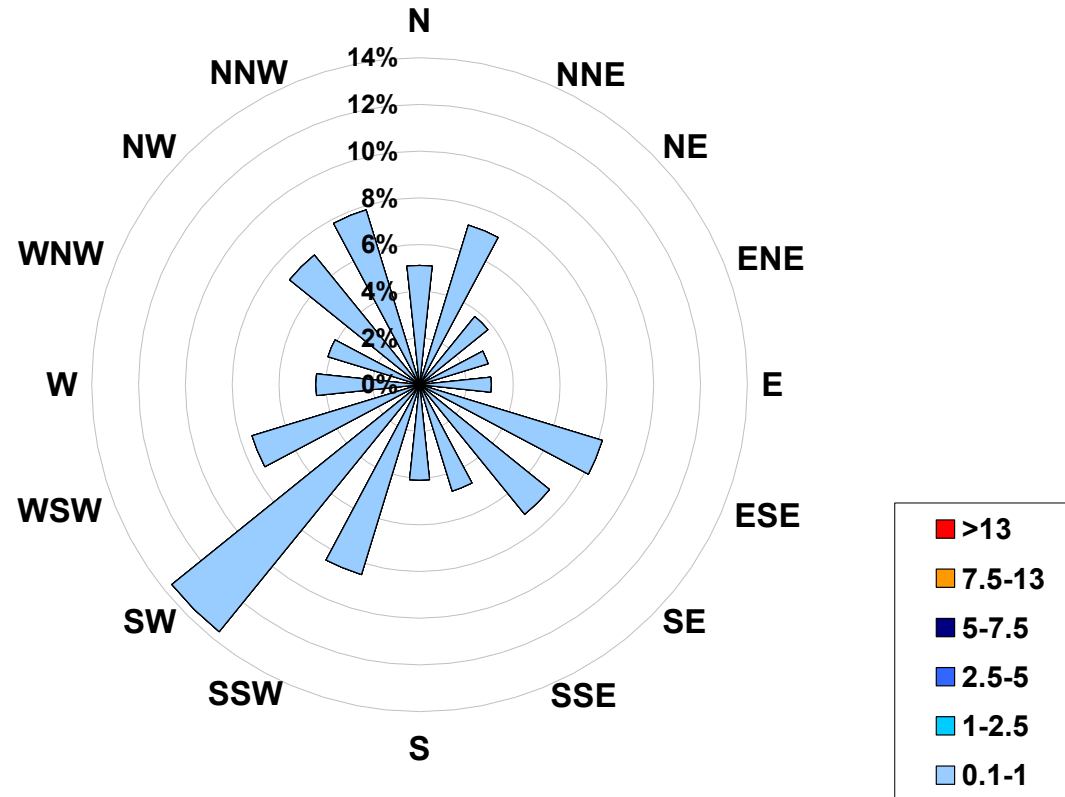


Figure 8. PAS - Cresent Heights Carbon Monoxide 1-hr Maximum Value Monthly Trend



### 1-hr Average Concentration Rose for Carbon Monoxide (in ppm) Located at the Crescent Heights Site for September 2005



**Calms: 0%**

Frequency Distribution of CO in ppm			Frequency (hrs)
Range			
0.1	<	1	686
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			686



## PAS - Crescent Heights Carbon Monoxide Monthly Summary

### EIGHT HOUR RUNNING AVERAGE TABLE

### Carbon Monoxide (CO)

Station: Crescent Heights  
 Station Owner: PAS

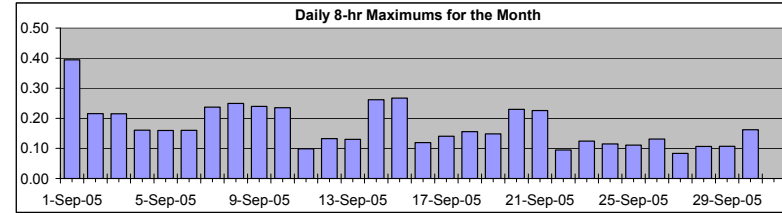
Monitoring Dates: September 1, 2005 to October 1, 2005

Objective Limit: Alberta Environment: 8-hr 5 ppm

**Summary**

Number of 8-hr Exceedances:	0
Maximum 8-hr Average:	0.4 ppm 1-Sep 0:00 1:00

<table border="1" style="margin: auto;"> <tr> <td style="width: 10%;">Percentile</td> <td style="width: 10%;">99</td> <td style="width: 10%;">95</td> <td style="width: 10%;">75</td> <td style="width: 10%;">50</td> <td style="width: 10%;">25</td> <td style="width: 10%;">5</td> <td style="width: 10%;">1</td> </tr> <tr> <td></td> <td style="text-align: center;">0.3</td> <td style="text-align: center;">0.2</td> <td style="text-align: center;">0.1</td> <td style="text-align: center;">0.1</td> <td style="text-align: center;">0.1</td> <td style="text-align: center;">0.0</td> <td style="text-align: center;">0.0</td> </tr> </table>	Percentile	99	95	75	50	25	5	1		0.3	0.2	0.1	0.1	0.1	0.0	0.0
Percentile	99	95	75	50	25	5	1									
	0.3	0.2	0.1	0.1	0.1	0.0	0.0									



**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																							Daily Maximum			
	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
1-Sep-05	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	0.39	
2-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.22
3-Sep-05	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	0.1	0.1	0.21
4-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	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	0.16
5-Sep-05	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	0.1	0.1	0.16
6-Sep-05	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.16
7-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.24
8-Sep-05	0.2	0.2	0.2	0.2	0.2	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	0.1	0.1	0.25
9-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
10-Sep-05	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	0.1	0.1	0.24
11-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.10
12-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13
13-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13
14-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	N	N	N	N	N	N	N	N	0.3	0.3	0.26
15-Sep-05	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	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	0.27
16-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12
17-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14
18-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.16
19-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
20-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	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	0.23
21-Sep-05	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.23
22-Sep-05	0.1	0.1	0.0	0.0	0.0	0.0	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	0.1	0.1	0.1	0.1	0.1	0.10
23-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.12
24-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.11
25-Sep-05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.11
26-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13
27-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.08
28-Sep-05	0.1	0.1	0.1	0.0	0.0	0.0	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	0.1	0.1	0.1	0.1	0.1	0.11
29-Sep-05	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.11
30-Sep-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	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	0.16
																											0.00

Hourly Max    0.39   0.36   0.33   0.31   0.29   0.23   0.22   0.21   0.23   0.23   0.22   0.21   0.22   0.21   0.16   0.14   0.14   0.16   0.18   0.22   0.23   0.22   0.26   0.26



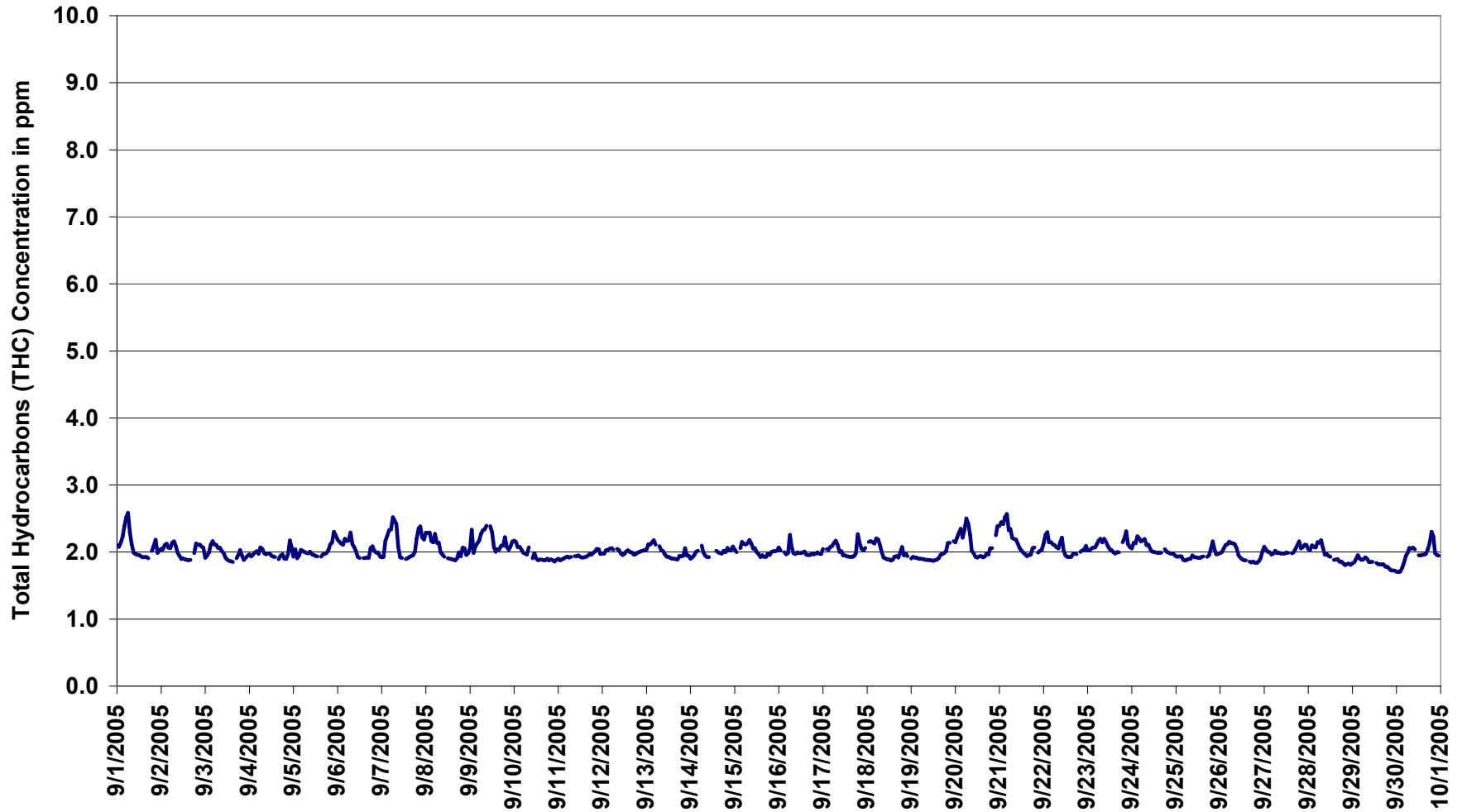


Figure 9. PAS - Cresent Heights Total Hydrocarbons 1-hr Average Monthly Trend



Station: Crescent Heights  
 Station Owner: PAS

**HOURLY MAXIMUM TABLE**

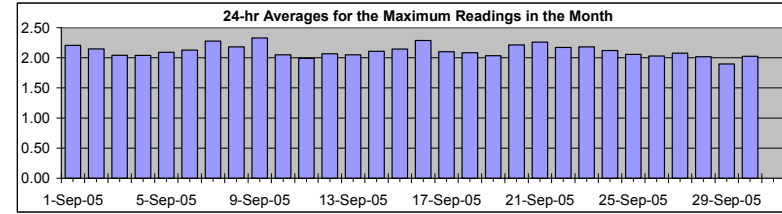
**Total Hydrocarbons (THC)**

Monitoring Dates: September 1, 2005 to October 1, 2005

**Summary**

Maximum 1-hr Value:	5.7	ppm	16-Sep	6:00 7:00
Maximum 24-hr Value:	2.3	ppm	9-Sep	

AIC Time:	32 hrs	Operational Time:	686 hrs					
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	3.0	2.5	2.2	2.1	2.0	1.9	1.8	2.1 ppm



**Status Flag Characters**

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00		
1-Sep-05	2.1	2.1	2.2	2.4	2.6	2.7	3.0	2.8	2.2	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	A	2.1	2.2	2.4	2.0	2.1	2.21	2.96
2-Sep-05	2.1	2.3	2.2	2.3	2.2	2.2	2.3	2.4	2.3	2.1	2.0	1.9	1.9	1.9	1.9	1.9	A	2.1	2.3	2.2	2.3	2.2	2.5	2.15	2.54	
3-Sep-05	2.0	2.0	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.1	2.0	1.9	1.9	1.9	A	1.9	2.0	2.1	2.1	2.0	2.0	2.0	2.04	2.24	
4-Sep-05	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	1.9	2.0	2.1	2.0	1.9	2.1	2.2	2.2	2.04	2.25
5-Sep-05	2.0	2.3	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.2	2.4	2.4	2.4	2.09	2.44	
6-Sep-05	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.2	2.1	2.1	2.0	1.9	A	1.9	1.9	1.9	2.0	2.4	2.2	2.1	2.0	2.0	2.13	2.40	
7-Sep-05	1.9	2.0	2.3	2.3	2.5	2.5	2.9	3.0	2.6	2.3	2.0	1.9	A	1.9	1.9	2.0	2.0	2.0	2.1	2.3	2.6	2.5	2.3	2.3	2.28	3.01
8-Sep-05	2.4	2.5	2.7	2.3	2.4	2.4	2.4	2.4	2.1	2.0	2.0	A	2.0	1.9	1.9	2.0	1.9	2.0	2.2	2.0	2.3	2.1	2.0	2.1	2.18	2.67
9-Sep-05	2.3	3.9	2.0	2.2	2.3	2.4	2.4	2.4	2.4	A	2.4	2.4	2.3	2.1	2.1	2.2	2.2	2.2	2.5	2.2	2.1	2.2	2.3	2.33	3.94	
10-Sep-05	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	3.1	A	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	2.05	3.11
11-Sep-05	2.0	1.9	1.9	1.9	1.9	2.0	1.9	2.0	A	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	1.99	2.12	
12-Sep-05	2.0	2.0	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.07	2.12	
13-Sep-05	2.1	2.2	2.2	2.3	2.2	2.2	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.2	2.0	2.0	2.05	2.27	
14-Sep-05	1.9	1.9	2.0	2.1	2.1	A	2.1	2.1	2.0	2.1	2.0	C	C	A	2.5	2.6	2.0	2.0	2.1	2.1	2.2	2.1	2.1	2.2	2.11	2.55
15-Sep-05	2.1	2.3	A	2.4	2.7	2.2	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.15	2.74
16-Sep-05	2.1	2.1	A	2.0	2.0	2.0	5.7	4.3	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.29	5.72	
17-Sep-05	2.2	A	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.5	2.2	2.1	2.1	2.1	2.10	2.45
18-Sep-05	A	2.2	2.4	2.3	2.3	2.3	2.3	2.2	2.1	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.2	2.2	2.0	2.0	A	2.08	2.38	
19-Sep-05	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	2.0	2.0	2.0	3.0	2.1	2.2	2.3	A	2.3	2.04	3.03
20-Sep-05	2.3	2.3	2.3	2.4	2.3	2.5	2.6	2.5	2.4	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.5	2.5	2.21	2.59
21-Sep-05	2.5	2.6	2.5	2.7	2.8	2.6	2.5	2.3	2.2	2.2	2.1	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.2	2.1	A	2.0	2.1	2.1	2.26	2.79
22-Sep-05	2.2	2.4	2.5	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.0	2.1	2.0	2.0	2.0	2.2	2.0	A	2.3	2.1	2.1	2.1	2.17	2.47
23-Sep-05	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.2	2.3	2.2	2.1	2.1	2.2	2.0	2.0	2.0	2.1	A	2.6	2.3	2.5	2.2	2.2	2.18	2.64
24-Sep-05	2.1	2.2	2.2	2.4	2.3	2.2	2.3	2.3	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.1	2.0	2.0	2.0	2.12	2.38	
25-Sep-05	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.0	2.0	2.0	A	2.0	2.0	3.6	2.3	2.1	2.0	2.0	2.06	3.58
26-Sep-05	2.0	2.0	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.1	2.03	2.23
27-Sep-05	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.0	2.0	2.1	2.2	2.3	2.1	2.1	2.2	2.2	2.08	2.29
28-Sep-05	2.1	2.1	2.3	2.1	2.1	2.3	2.2	2.3	2.1	2.0	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.8	2.02	2.32
29-Sep-05	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	2.2	1.8	1.8	1.8	1.7	1.8	1.90	2.24	
30-Sep-05	1.7	1.7	1.7	1.9	1.9	2.0	2.1	2.1	2.1	2.1	2.1	A	2.0	2.0	2.0	2.0	2.1	2.2	2.4	2.4	2.0	2.0	2.0	2.02	2.40	
																								N	0.00	
Hourly Avg	2.09	2.19	2.14	2.18	2.20	2.20	2.35	2.30	2.18	2.09	2.04	2.02	2.00	2.00	1.99	1.99	1.98	2.02	2.10	2.18	2.13	2.12	2.08	2.12		
Hourly Max	2.47	3.94	2.67	2.70	2.79	2.72	5.72	4.32	3.11	2.45	2.30	2.44	2.43	2.25	2.54	2.55	2.15	2.24	3.03	3.58	2.65	2.54	2.47	2.54		

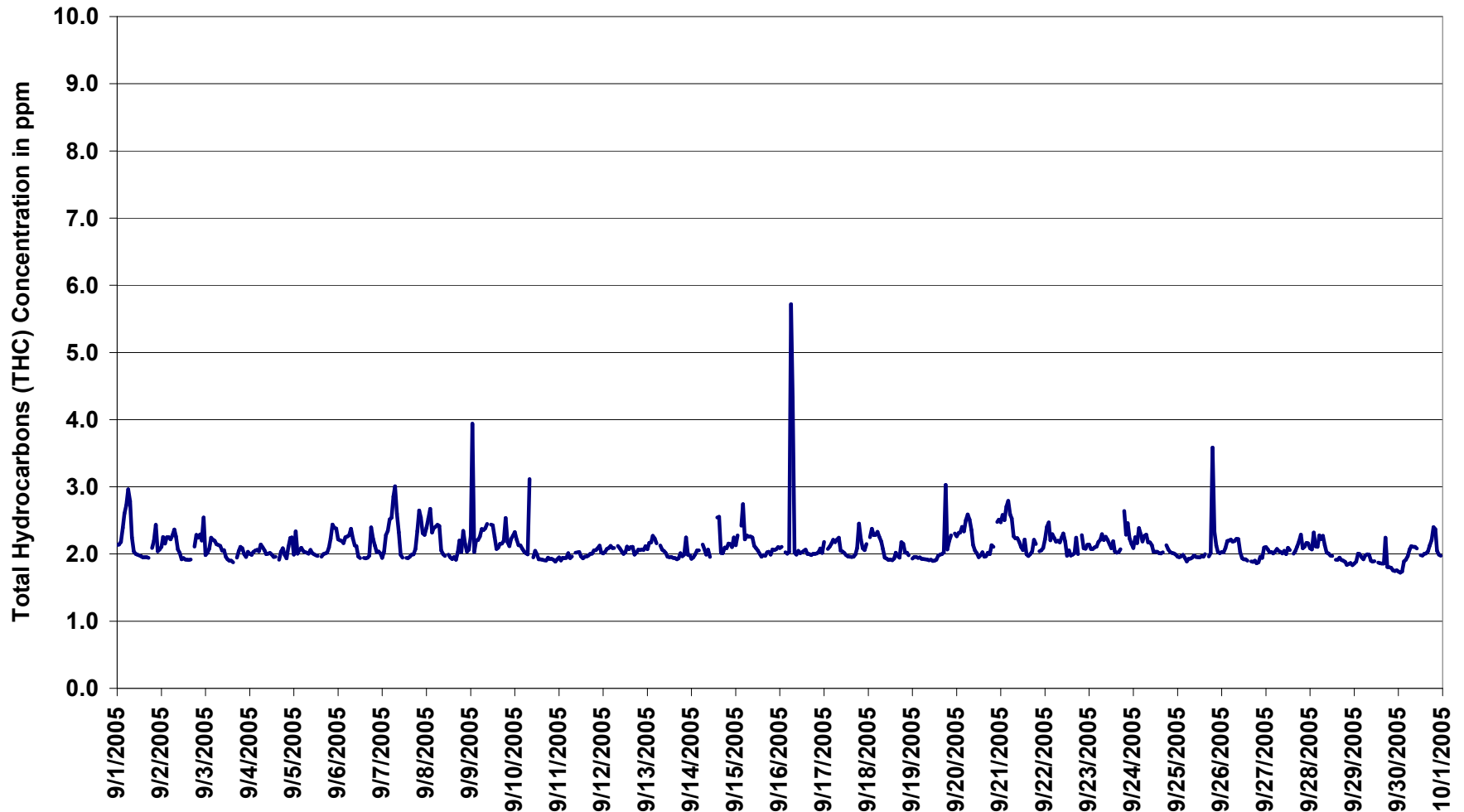
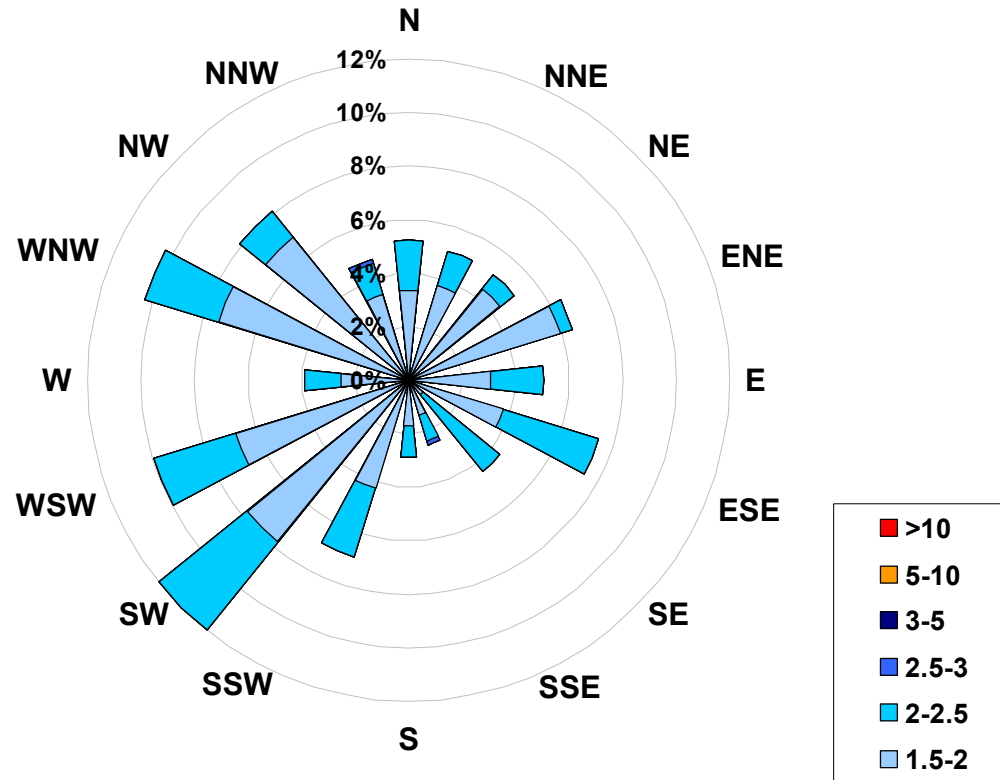


Figure 10. PAS - Cresent Heights Total Hydrocarbons 1-hr Maximum Value Monthly Trend





**1-hr Average Concentration Rose for Total Hydrocarbons (in ppm)  
Located at the Crescent Heights Site for August 2005**



**Calms: 0%**

Frequency Distribution of THC in ppm			Frequency (hrs)
Range			
1.5	<	2	396
2	to	2.5	197
2.5	to	3	2
3	to	5	0
5	to	10	0
	>	10	0
Total Non-Zero Values			595



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

Station: Crescent Heights  
 Station Owner: PAS

### HOURLY AVERAGE TABLE

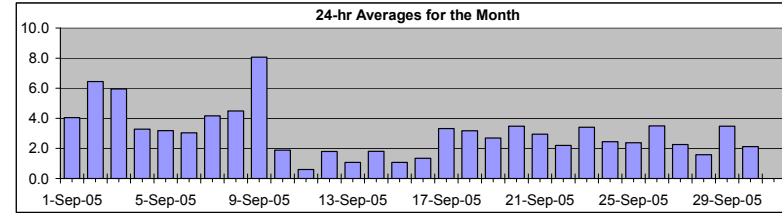
### Particulate Matter (PM<sub>2.5</sub>)

Monitoring Dates: September 1, 2005 to October 1, 2005

Draft Objective Limit: Alberta Environment: 1-hr - µg/m<sup>3</sup> 24-hr 30 µg/m<sup>3</sup>

Number of 24-hr Exceedances (draft):		0	
Maximum 1-hr Average:	16.8 µg/m <sup>3</sup>	9-Sep	15:00 16:00
Maximum 24-hr Value:	8.1 µg/m <sup>3</sup>	9-Sep	

AIC Time:	0 hrs	Operational Time:	717 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%
Percentile	99	95	75
	10.9	8.2	4.5
	50	25	5
	1	0.0	0.0
Average	3.0 µg/m <sup>3</sup>		
Geomean	2.6 µg/m <sup>3</sup>		



#### Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	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
1-Sep-05	3	4	5	5	4	7	8	5	5	4	1	1	1	2	2	2	5	3	3	6	5	5	4.0	7.6			
2-Sep-05	4	3	3	3	5	6	8	10	9	8	2	2	3	4	5	7	4	7	10	16	10	6	6.4	16.5			
3-Sep-05	5	6	5	7	9	8	8	10	12	11	8	1	0	1	3	4	4	7	10	11	2	0	4	5	6.0	12.0	
4-Sep-05	5	10	7	5	2	2	2	2	3	2	2	1	0	1	1	0	1	3	3	7	4	6	6	2	3.3	10.4	
5-Sep-05	2	3	2	2	2	3	4	4	4	3	2	0	1	2	1	1	2	4	2	3	8	6	6	6	3.2	8.3	
6-Sep-05	5	3	3	2	3	5	4	6	6	6	2	0	0	0	0	0	1	1	5	5	6	4	4	1	3.0	6.3	
7-Sep-05	1	2	3	4	3	4	6	6	9	4	2	3	1	2	2	4	2	4	4	6	6	9	7	8	4.2	8.9	
8-Sep-05	10	6	5	5	7	7	6	8	4	3	2	2	0	2	1	2	3	4	6	3	3	6	7	6	4.5	9.7	
9-Sep-05	8	8	9	9	11	6	5	5	7	7	9	4	5	4	7	17	11	8	14	16	4	6	6	7	8.1	16.8	
10-Sep-05	3	1	2	2	4	1	1	2	6	3	3	3	3	5	5	1	0	0	0	0	0	0	0	0	1.9	5.7	
11-Sep-05	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	3	3	3	2	1	1	0	0.6	3.1	
12-Sep-05	0	0	0	0	0	2	1	1	3	3	1	1	3	3	5	4	2	2	4	3	0	1	1	2	1.8	5.4	
13-Sep-05	1	0	0	0	0	4	1	3	5	1	0	1	0	0	0	0	0	2	2	2	1	1	1	1	1.1	5.2	
14-Sep-05	2	2	3	2	3	4	3	4	4	3	4	0	0	0	C	C	C	0	0	0	1	0	3	1	1.8	4.2	
15-Sep-05	0	1	0	0	1	1	1	2	2	2	3	1	0	0	0	1	0	0	3	3	2	1	1	0	1.1	3.5	
16-Sep-05	1	2	1	1	1	1	2	1	1	1	0	1	2	1	1	0	1	2	2	2	2	2	2	3	1.3	2.8	
17-Sep-05	0	0	4	2	2	3	3	7	6	5	4	0	1	2	2	2	3	3	4	7	6	6	3	6	3.3	6.8	
18-Sep-05	6	4	4	4	2	6	6	6	6	0	1	0	0	1	0	2	0	3	10	6	3	2	2	1	3.2	9.9	
19-Sep-05	2	1	1	1	2	2	3	3	3	1	1	3	0	1	2	7	6	6	4	3	4	3	4	2	2.7	6.5	
20-Sep-05	4	4	4	3	3	6	6	9	7	3	4	0	0	1	2	2	5	3	1	2	2	3	2	5	3.5	8.8	
21-Sep-05	5	5	6	5	4	5	3	5	5	3	0	1	0	0	1	3	1	2	3	2	4	2	3	3	2.9	5.5	
22-Sep-05	4	3	2	1	0	1	0	2	2	2	4	2	2	0	2	3	5	4	3	3	3	1	3	1	2.2	4.9	
23-Sep-05	3	2	2	1	2	4	4	4	3	4	2	0	0	0	0	1	2	3	10	8	10	10	5	4	3.4	9.7	
24-Sep-05	2	3	2	3	3	2	3	5	4	3	1	2	1	1	0	2	1	2	4	3	4	3	1	0	2.4	5.0	
25-Sep-05	1	1	1	2	1	1	1	2	0	1	1	2	0	2	1	2	2	3	6	5	7	5	5	5	2.4	7.2	
26-Sep-05	5	5	4	4	2	6	5	5	4	6	0	0	0	0	0	2	3	2	1	2	4	5	11	7	3.5	11.5	
27-Sep-05	6	4	3	3	2	3	2	0	0	1	1	1	1	0	0	0	1	3	3	6	4	4	3	2	2.3	6.3	
28-Sep-05	1	0	0	0	0	2	1	4	4	0	1	1	1	1	0	0	1	0	1	1	1	4	6	6	1.6	6.2	
29-Sep-05	4	5	5	5	4	7	5	6	8	5	5	4	2	0	1	4	3	5	3	2	0	0	0	0	3.5	8.4	
30-Sep-05	1	0	1	1	0	1	3	1	4	3	4	2	0	2	0	0	1	2	4	5	5	5	3	3	2.1	5.4	
																									N	0.0	
Hourly Avg	3.2	3.0	3.0	2.8	2.8	3.5	3.4	4.4	4.6	3.3	2.5	1.4	1.0	1.3	1.6	2.5	2.3	3.0	4.3	4.7	3.7	3.7	3.8	3.3			
Hourly Max	9.7	10.4	8.9	8.7	10.9	8.2	7.9	9.8	12.0	10.5	9.4	4.4	5.3	4.6	6.9	16.8	10.7	8.2	13.7	16.5	9.6	9.7	11.5	7.6			

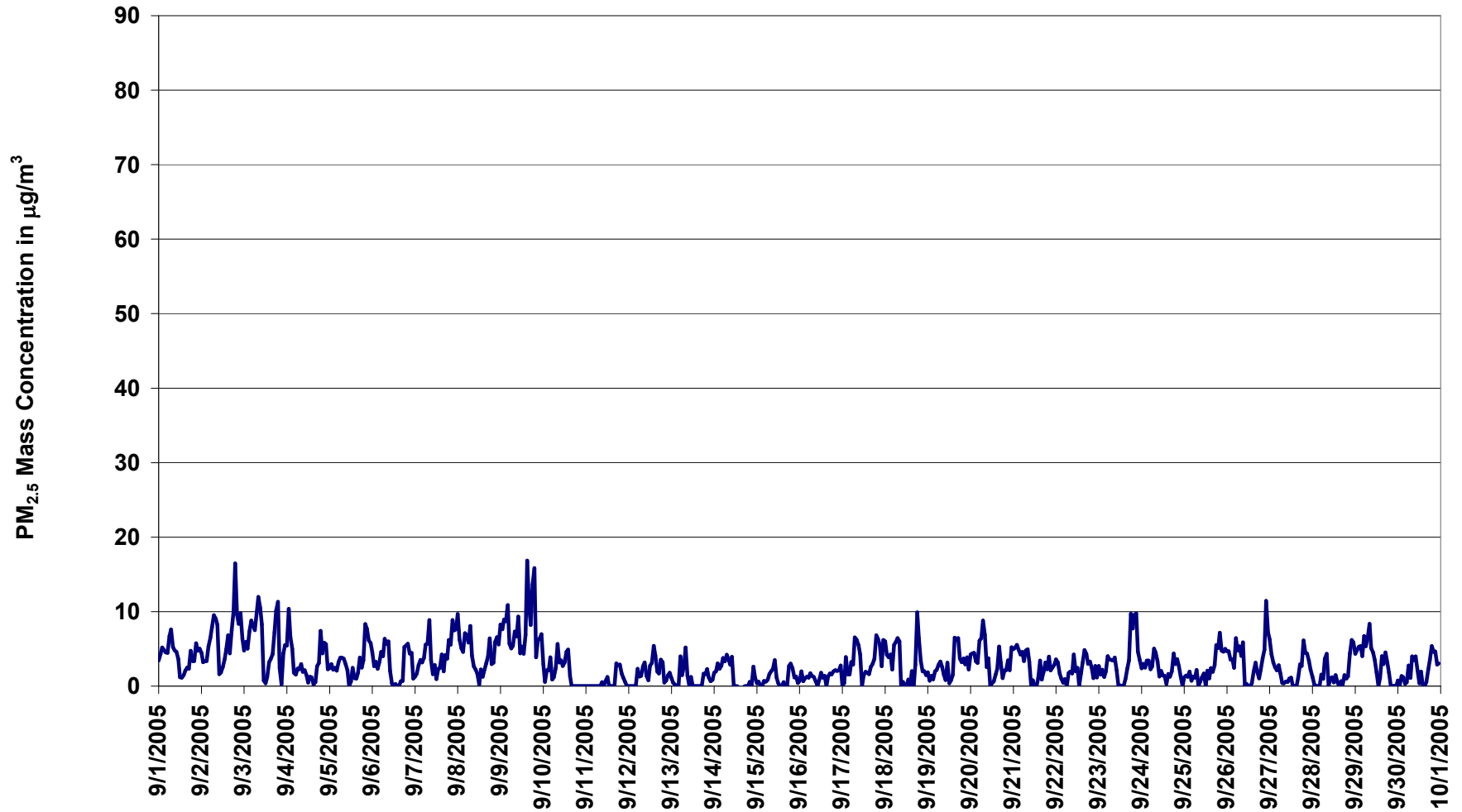


Figure 11. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend



Station: Crescent Heights  
 Station Owner: PAS

**HOURLY MAXIMUM TABLE**

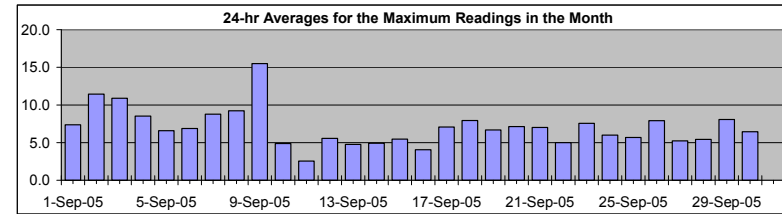
**Particulate Matter (PM<sub>2.5</sub>)**

Monitoring Dates: September 1, 2005 to October 1, 2005

**Summary**

Maximum 1-hr Average:	45.3	µg/m <sup>3</sup>	9-Sep	15:00 16:00
Maximum 24-hr Value:	15.5	µg/m <sup>3</sup>	9-Sep	

AIC Time:	0 hrs	Operational Time:	717 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Geomean
	20.7	14.4	8.8	6.0	4.3	2.3	1.1	7.0 µg/m <sup>3</sup>	6.6 µg/m <sup>3</sup>



**Status Flag Characters**

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

Day	Mountain Standard Time																								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-Sep-05	6	7	7	8	8	10	14	13	9	8	8	7	4	4	4	4	6	5	9	5	8	9	8	8	7.4	13.6
2-Sep-05	8	6	6	6	8	10	14	15	16	13	11	8	5	7	9	9	8	11	16	28	17	15	18	12	11.4	27.7
3-Sep-05	10	11	10	14	14	11	11	14	15	12	12	5	6	5	9	7	10	14	15	18	9	7	11	12	10.9	18.4
4-Sep-05	12	15	12	14	11	5	9	7	8	5	4	4	3	4	5	3	4	10	8	13	14	10	12	11	8.5	15.4
5-Sep-05	8	7	6	5	5	6	6	5	5	7	5	4	5	5	4	5	6	6	6	9	13	11	9	9	6.6	13.0
6-Sep-05	7	6	6	6	6	7	7	8	8	13	9	3	3	5	2	3	3	6	10	10	11	10	9	6	6.9	12.9
7-Sep-05	5	6	9	7	6	7	10	10	16	7	6	7	4	6	9	7	7	8	11	12	12	16	12	11	8.8	16.3
8-Sep-05	14	10	12	8	11	12	13	17	7	5	6	5	3	7	5	5	7	10	12	12	10	11	11	9	9.2	17.0
9-Sep-05	15	18	13	15	15	9	7	9	13	14	17	12	12	10	14	45	21	20	22	25	13	11	12	12	15.5	45.3
10-Sep-05	6	5	5	6	11	4	6	6	9	7	9	6	6	7	8	4	1	2	3	2	3	1	0	1	4.9	10.7
11-Sep-05	0	1	0	1	1	1	2	1	2	3	3	3	4	3	3	3	3	6	5	5	4	4	2	1	2.6	5.8
12-Sep-05	1	2	2	2	3	10	4	4	6	7	5	5	8	9	12	6	7	5	6	6	4	7	4	8	5.6	12.0
13-Sep-05	3	2	2	1	1	20	4	6	14	6	4	5	5	5	3	3	5	3	5	4	5	3	3	3	4.8	20.2
14-Sep-05	4	4	6	5	7	10	6	6	6	7	8	3	2	2	C	C	C	1	3	3	6	2	7	6	4.9	9.8
15-Sep-05	3	6	3	3	6	3	3	5	6	6	19	6	5	4	2	3	4	3	8	10	8	8	3	3	5.5	18.9
16-Sep-05	3	5	4	3	3	3	4	3	3	3	4	4	5	4	6	3	5	4	4	4	5	5	4	5	4.0	5.8
17-Sep-05	3	3	11	6	6	7	5	10	9	9	8	6	4	6	5	4	5	6	11	9	9	8	6	14	7.1	14.4
18-Sep-05	10	7	7	7	5	9	13	20	9	4	7	6	3	5	7	6	7	10	16	13	6	4	4	3	7.9	20.3
19-Sep-05	5	3	3	3	4	4	4	6	5	6	5	8	6	6	6	20	14	10	6	9	10	6	8	6	6.7	19.9
20-Sep-05	8	7	7	6	8	9	10	12	11	6	6	5	5	4	4	8	10	11	3	4	5	7	5	10	7.1	12.5
21-Sep-05	10	10	10	11	7	7	8	7	8	8	5	6	7	4	7	9	6	5	10	6	7	5	4	5	7.0	10.6
22-Sep-05	6	6	5	4	4	3	1	6	4	4	6	6	6	4	4	6	8	9	6	6	5	3	5	4	5.0	8.6
23-Sep-05	5	5	5	3	4	6	7	6	5	6	6	3	3	4	2	5	5	8	27	27	14	12	7	5	7.6	27.4
24-Sep-05	4	5	6	7	6	5	5	11	6	9	7	6	6	5	6	6	5	6	7	6	7	7	3	2	6.0	11.0
25-Sep-05	4	4	3	4	4	3	3	4	6	6	6	8	3	6	5	7	6	5	9	8	11	8	7	7	5.7	11.1
26-Sep-05	7	8	6	8	6	23	8	9	8	10	5	5	2	3	5	9	6	6	5	6	7	12	17	11	7.9	22.8
27-Sep-05	8	7	6	5	5	5	5	2	4	6	3	4	4	6	3	3	7	6	5	9	8	6	5	4	5.2	9.1
28-Sep-05	4	2	1	1	2	8	4	7	6	5	4	5	3	8	5	5	5	4	6	7	6	8	10	11	5.4	11.2
29-Sep-05	9	8	8	9	7	20	13	11	12	10	10	7	8	6	7	10	7	9	8	4	3	3	4	2	8.1	19.5
30-Sep-05	3	6	5	8	4	5	10	5	7	7	8	6	5	6	6	4	4	5	6	9	13	10	6	6	6.5	12.6
																									N	0.0
Hourly Avg	6.3	6.4	6.3	6.1	6.3	8.0	7.2	8.2	8.0	7.3	7.2	5.6	4.8	5.3	5.7	7.4	6.6	7.1	9.0	9.6	8.3	7.6	7.2	6.9		
Hourly Max	15.0	17.9	12.9	14.9	15.2	22.8	13.9	20.3	16.0	13.7	18.9	12.4	11.5	10.1	13.6	45.3	20.7	20.0	26.9	27.7	17.3	16.3	18.0	14.4		

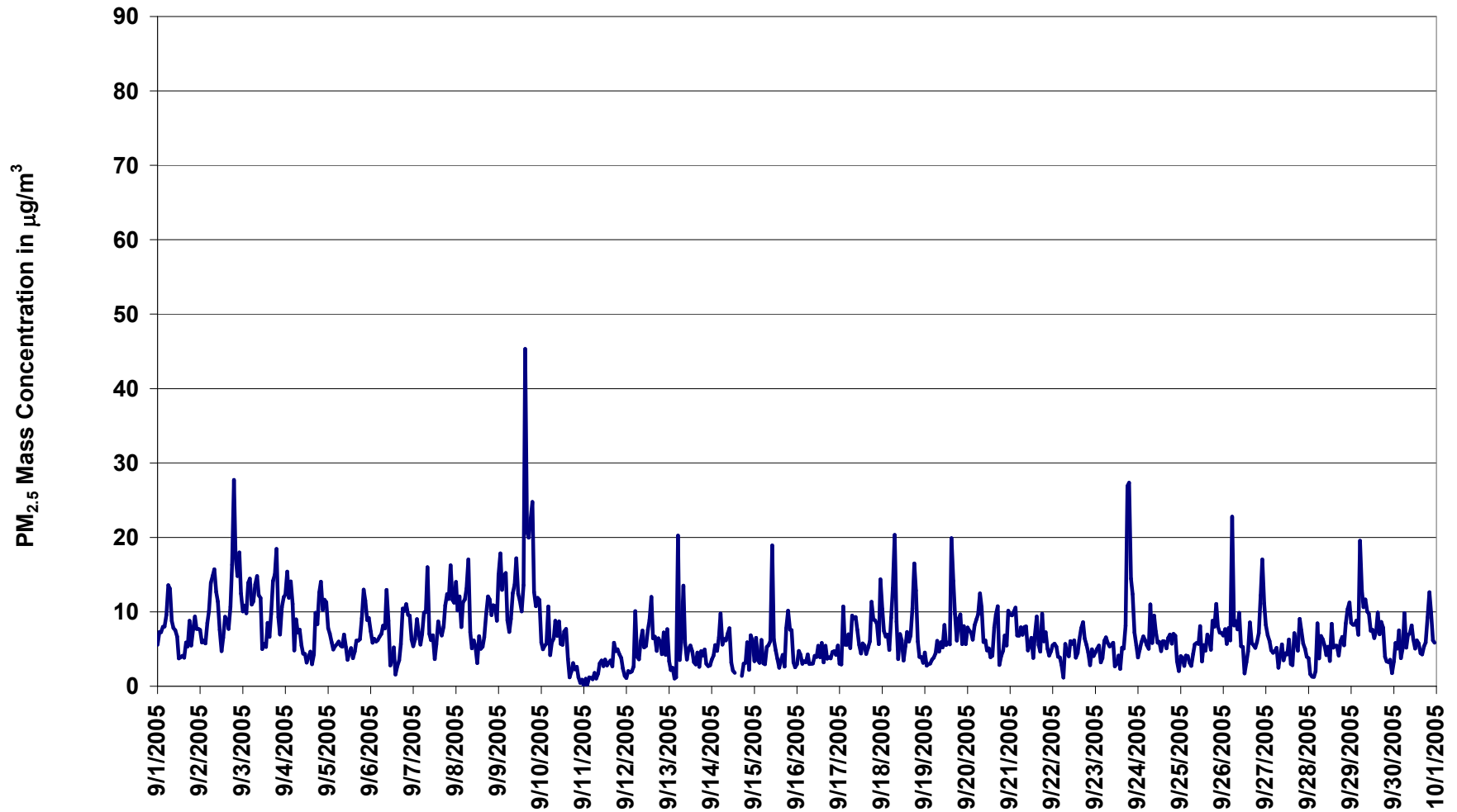
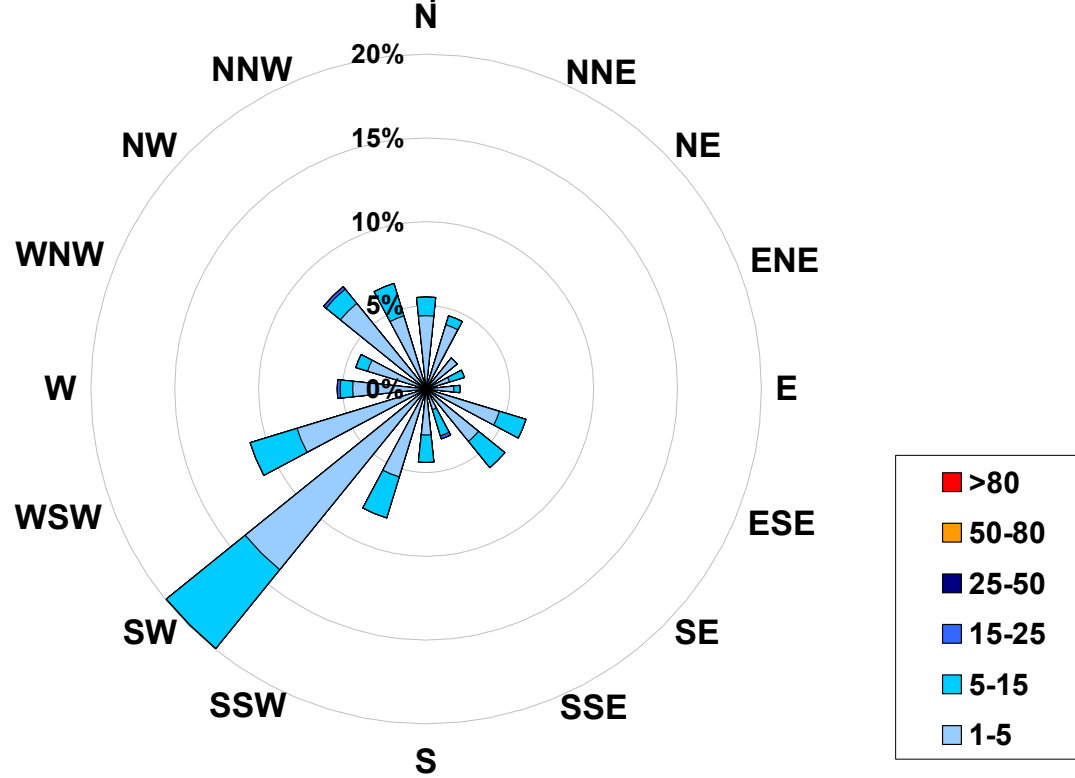


Figure 12. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly Trend



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



**Calms: 0%**

Frequency Distribution of PM <sub>2.5</sub> in µg/m <sup>3</sup>			Frequency (hrs)
Range			
1.0	<	5	572
5	to	15	142
15	to	25	3
25	to	50	0
50	to	80	0
	>	80	0
Total Non-Zero Values			717



## PAS - Crescent Heights Relative Humidity Monthly Summary

Station: Crescent Heights  
 Station Owner: PAS

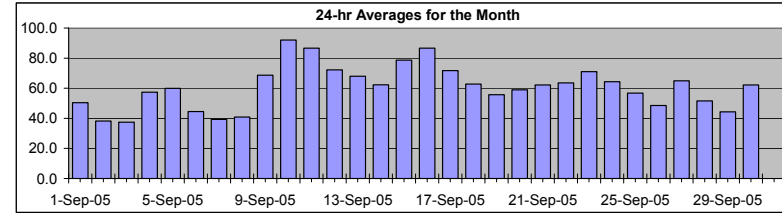
### HOURLY AVERAGE TABLE

### Relative Humidity (RH)

Monitoring Dates: September 1, 2005 to October 1, 2005

**Summary**

Maximum 1-hr Average:	94.8 %	16-Sep	6:00 7:00
Maximum 24-hr Value:	92.0 %	10-Sep	



AIC Time:	0 hrs	Operational Time:	720 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%
Percentile	99	95	75
	50	25	5
	1	Average	
	94.2	91.5	80.2
	62.4	42.9	23.8
	17.0	60.7 %	

**Status Flag Characters**

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum		
	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
1-Sep-05	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	50.4	80.4	
2-Sep-05		64	63	61	65	62	64	58	49	41	35	26	18	16	15	13	13	13	17	24	32	38	44	45	42	38.2	64.8	
3-Sep-05		40	37	40	48	53	56	58	57	61	54	45	32	24	21	22	21	21	27	31	35	28	24	29	32	37.4	61.2	
4-Sep-05		36	57	69	75	77	76	79	77	71	63	56	52	47	44	43	37	33	35	39	49	59	63	70	69	57.3	78.8	
5-Sep-05		72	78	80	80	77	80	83	80	76	70	58	51	46	44	38	35	32	32	37	42	47	60	68	70	59.9	82.8	
6-Sep-05		71	71	73	75	79	80	72	63	50	41	32	25	23	21	19	17	17	17	26	35	39	43	42	37	44.5	80.0	
7-Sep-05		32	35	48	58	60	62	64	53	46	36	29	26	22	21	21	22	19	22	27	35	41	49	54	59	39.3	64.4	
8-Sep-05		63	64	66	68	70	72	62	52	40	33	27	23	19	19	18	18	18	21	27	31	35	41	46	50	40.9	71.9	
9-Sep-05		55	54	54	65	75	82	84	80	75	65	63	61	57	51	50	56	58	63	75	86	83	81	86	89	68.7	88.7	
10-Sep-05		92	93	92	92	92	90	90	90	92	91	92	93	92	92	94	94	92	91	91	91	93	93	93	94	94	92.0	93.8
11-Sep-05		94	94	94	94	93	92	91	91	90	90	89	88	86	84	80	80	74	78	80	82	82	84	86	84	86.7	94.3	
12-Sep-05		85	83	85	85	85	87	83	81	76	69	61	54	50	52	54	56	56	60	69	81	82	79	79	81	72.2	86.7	
13-Sep-05		87	88	89	90	90	90	89	91	91	79	61	54	51	43	41	38	35	38	46	54	66	72	73	75	68.0	91.1	
14-Sep-05		75	76	77	76	76	79	77	72	67	61	55	44	37	33	31	43	50	54	58	62	67	73	76	77	62.3	78.9	
15-Sep-05		77	78	78	78	81	83	84	85	87	87	86	86	76	68	63	64	64	66	68	78	82	88	90	91	78.7	91.4	
16-Sep-05		93	94	94	95	95	95	95	95	95	94	92	90	85	83	76	71	71	77	80	82	82	82	82	84	86.7	94.8	
17-Sep-05		85	91	91	91	91	89	89	85	80	74	64	53	49	47	47	45	46	50	57	66	74	83	86	87	71.7	91.1	
18-Sep-05		87	89	90	92	93	94	91	83	77	64	54	48	41	39	34	33	29	30	40	50	54	62	67	68	62.8	93.7	
19-Sep-05		70	71	73	73	72	72	70	66	57	42	36	33	29	24	23	27	35	46	55	62	70	73	79	80	55.7	79.7	
20-Sep-05		84	81	84	88	86	87	86	75	62	54	47	38	33	32	30	31	35	42	46	49	52	59	63	72	59.0	87.6	
21-Sep-05		79	79	81	82	82	81	80	78	72	56	46	40	38	38	39	48	38	43	48	56	67	70	76	76	62.2	82.2	
22-Sep-05		79	81	81	77	72	74	67	59	59	60	57	45	40	37	36	37	43	50	65	72	79	82	85	88	63.5	87.8	
23-Sep-05		89	89	87	86	86	86	86	86	84	82	78	67	59	52	48	43	44	44	52	58	68	74	76	79	71.0	89.4	
24-Sep-05		81	83	85	86	86	86	85	76	70	59	46	43	43	41	40	40	41	43	53	60	66	74	78	80	64.4	86.4	
25-Sep-05		81	82	84	86	84	83	84	75	64	52	49	44	35	30	27	26	27	30	41	47	54	53	58	64	56.7	85.8	
26-Sep-05		62	62	61	68	73	78	79	74	64	55	41	35	29	25	23	25	28	30	31	29	35	37	55	66	48.6	78.5	
27-Sep-05		71	74	74	75	76	84	86	81	78	73	64	57	55	48	44	40	38	44	50	55	60	72	77	81	64.9	86.2	
28-Sep-05		81	82	84	83	83	84	82	73	64	51	46	43	39	39	35	29	31	32	32	30	27	30	28	28	51.6	84.0	
29-Sep-05		28	28	37	44	44	44	47	47	45	39	40	40	38	35	34	42	45	48	50	54	55	58	60	62	44.3	62.2	
30-Sep-05		62	61	63	67	70	70	70	70	66	62	57	55	51	48	48	47	49	52	53	56	68	78	84	85	62.2	85.4	
																										N	0.0	
Hourly Avg		71.6	73.0	75.1	77.3	78.1	79.4	78.2	73.7	68.6	61.3	54.7	49.2	44.7	41.7	39.8	40.1	40.2	43.5	49.3	55.2	59.8	64.4	68.3	70.2			
Hourly Max		94.0	93.9	94.5	94.7	94.7	94.8	94.8	94.8	94.6	94.2	92.3	93.1	92.3	92.3	93.6	93.7	91.6	91.0	90.6	91.3	92.6	93.2	93.6	93.8			

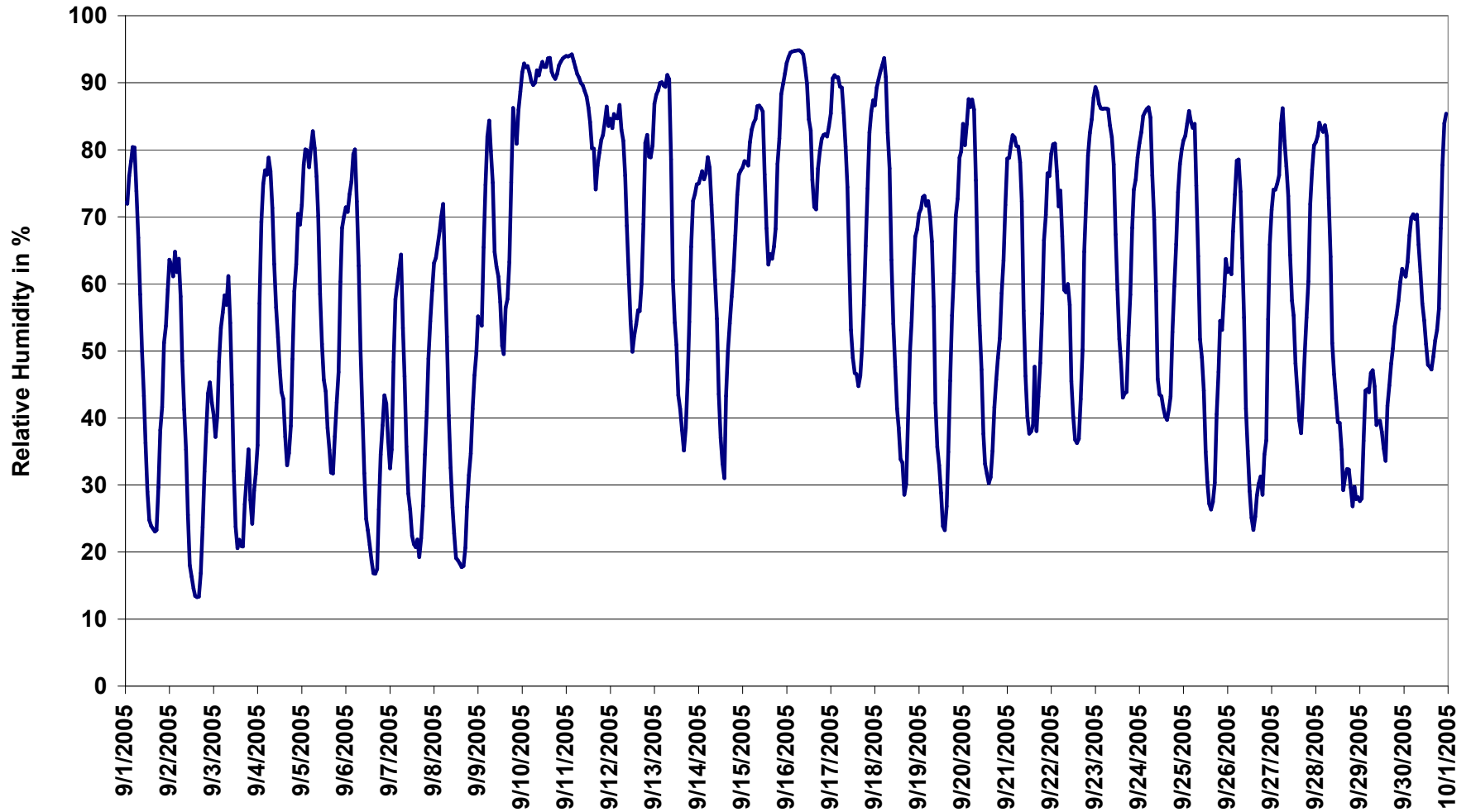


Figure 13. PAS - Cresent Heights Relative Humidity 1-hr Average Monthly Trend





### PAS - Cresent Heights Temperature Monthly Summary

Station: Cresent Heights  
 Station Owner: PAS

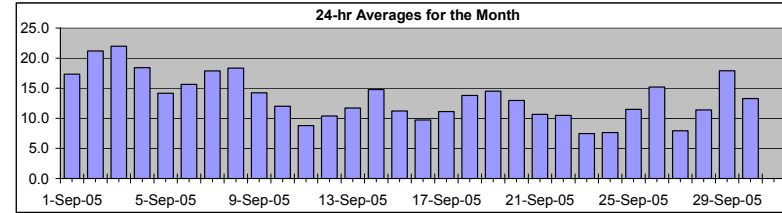
#### HOURLY AVERAGE TABLE

#### Ambient Temperature (T)

Monitoring Dates: September 1, 2005 to October 1, 2005

#### Summary

Maximum 1-hr Average:	31.3 °C	2-Sep	15:00 16:00
Maximum 24-hr Value:	22.0 °C	3-Sep	



AIC Time:	0 hrs	Operational Time:	720 hrs					
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average
	29.6	25.2	17.5	12.6	9.0	4.9	0.9	13.5 °C

#### Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	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
1-Sep-05	10	10	9	9	9	8	10	12	15	18	21	23	25	26	26	26	26	26	26	23	20	19	16	15	13	17.3	26.4
2-Sep-05	12	12	12	11	12	12	13	17	21	25	28	29	30	30	31	31	30	29	26	23	21	18	17	17	17	21.2	31.3
3-Sep-05	17	18	17	15	14	13	13	14	17	21	24	27	29	30	29	31	30	28	26	25	24	23	21	20	20	22.0	30.7
4-Sep-05	19	17	15	14	13	13	12	13	14	17	19	21	22	23	23	24	25	24	22	21	19	19	17	16	16	18.4	25.1
5-Sep-05	15	13	12	12	12	11	11	12	13	16	17	17	18	18	19	19	19	17	15	14	11	9	8	8	8	14.2	18.9
6-Sep-05	7	7	6	5	5	5	6	9	14	18	21	22	23	25	25	25	25	24	21	18	16	15	15	16	16	15.6	25.2
7-Sep-05	17	16	12	10	9	9	9	13	18	21	23	24	26	26	26	26	26	26	25	21	18	16	14	12	10	17.9	26.3
8-Sep-05	10	9	9	8	8	8	10	13	18	21	24	25	27	27	28	28	28	27	24	22	20	17	15	14	14	18.3	28.3
9-Sep-05	14	14	14	12	11	9	8	9	11	15	16	16	17	18	19	18	18	17	16	15	14	15	14	14	14	14.2	19.3
10-Sep-05	13	13	13	12	13	13	12	12	12	13	12	12	12	13	13	13	12	12	11	11	10	10	10	10	10	12.0	13.4
11-Sep-05	10	9	9	9	9	9	8	8	8	8	8	9	9	10	10	9	10	9	10	9	9	8	7	7	7	8.8	10.0
12-Sep-05	6	6	5	5	5	5	5	6	8	12	14	15	16	16	16	15	15	14	13	11	11	10	10	10	10	10.4	16.3
13-Sep-05	9	8	7	6	5	5	5	5	7	10	14	15	17	18	19	20	20	19	16	15	12	11	10	10	10	11.7	19.9
14-Sep-05	10	11	11	11	11	10	10	12	14	16	18	21	22	23	23	23	21	19	17	15	14	13	12	12	11	14.8	22.8
15-Sep-05	11	11	11	10	10	9	9	9	9	10	10	11	13	14	15	15	15	14	13	12	11	10	9	8	8	11.2	15.5
16-Sep-05	8	8	8	8	8	8	8	8	8	8	9	9	11	11	13	13	13	12	12	11	10	10	10	10	10	9.7	13.5
17-Sep-05	9	7	6	6	5	5	5	7	9	11	14	16	17	17	17	18	17	16	14	13	11	9	8	8	8	11.1	17.8
18-Sep-05	8	7	7	7	6	6	7	10	13	16	18	19	21	21	22	22	21	20	17	15	14	12	11	11	11	13.8	21.8
19-Sep-05	10	10	9	9	9	8	9	10	13	18	20	21	22	23	23	22	22	19	16	14	12	11	10	9	9	14.5	23.2
20-Sep-05	8	8	8	7	6	5	5	8	12	14	18	20	21	21	21	21	20	18	15	13	13	11	10	9	9	13.0	21.3
21-Sep-05	7	7	6	6	6	7	7	8	10	14	15	17	17	16	16	14	17	15	13	11	9	7	5	5	5	10.7	17.3
22-Sep-05	5	5	5	6	6	6	7	9	10	10	13	17	19	19	19	19	17	15	11	10	8	7	6	5	5	10.5	19.1
23-Sep-05	5	5	5	5	5	5	5	5	6	7	8	9	11	12	12	13	12	12	10	9	7	5	4	3	3	7.5	12.7
24-Sep-05	2	2	1	1	0	0	0	2	5	9	13	14	15	15	16	15	15	13	11	9	8	7	6	5	5	7.6	15.6
25-Sep-05	4	4	4	4	5	5	5	7	10	12	13	16	18	19	20	20	20	19	16	14	11	10	10	9	9	11.5	20.5
26-Sep-05	10	10	10	8	7	6	5	7	10	14	19	20	22	23	24	24	22	21	20	20	18	17	14	12	12	15.2	24.1
27-Sep-05	10	9	9	8	7	6	6	6	6	7	8	9	10	11	11	11	11	10	9	7	7	6	5	3	3	7.9	10.9
28-Sep-05	3	2	1	1	0	0	1	3	7	12	13	15	16	17	19	20	19	19	18	18	18	17	18	17	17	11.4	19.8
29-Sep-05	17	17	15	13	12	13	12	13	16	20	20	21	22	23	23	22	21	20	20	19	18	18	17	16	16	17.9	23.1
30-Sep-05	16	17	16	15	14	12	11	9	10	11	13	14	15	16	16	15	15	14	14	13	12	11	10	10	10	13.3	16.7
																										N	0.0
Hourly Avg	10.1	9.7	9.1	8.4	8.1	7.6	7.8	9.2	11.5	14.0	16.0	17.5	18.7	19.4	19.8	19.7	19.4	18.2	16.3	14.8	13.5	12.2	11.2	10.6	10.6		
Hourly Max	19.1	17.9	16.7	15.2	14.4	13.2	13.4	17.1	20.8	24.8	27.9	29.1	29.7	30.5	31.0	31.3	30.5	29.1	25.9	24.7	24.5	23.2	21.0	20.0	20.0		

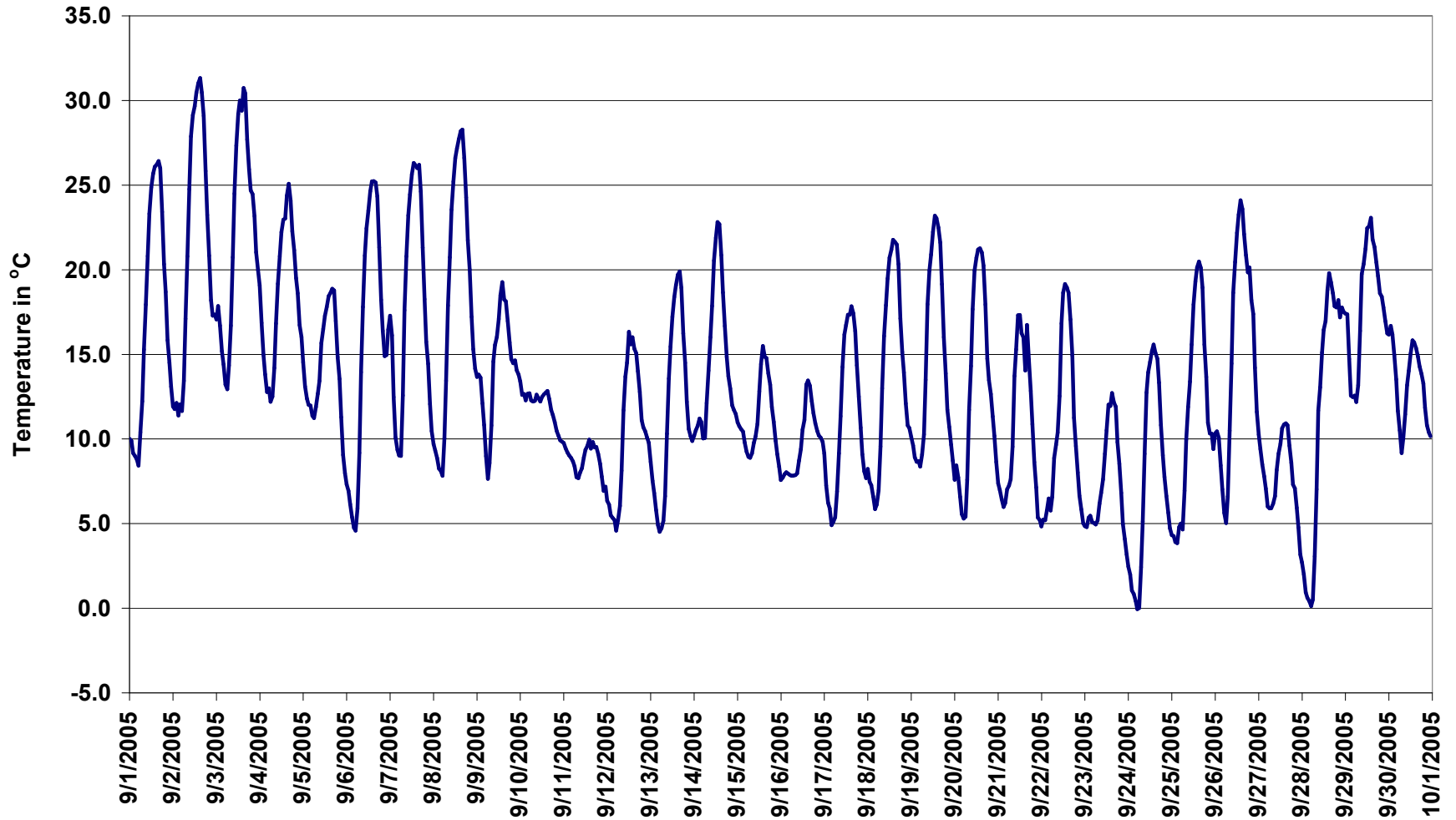


Figure 14. PAS - Crescent Heights Temperature 1-hr Average Monthly Trend



## PAS - Cresent Heights Solar Radiation Monthly Summary

### HOURLY AVERAGE TABLE

### Solar Radiation (SR)

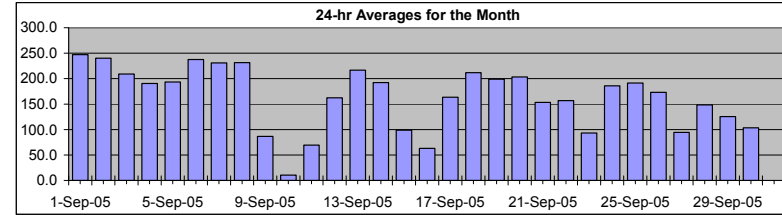
Station: Cresent Heights  
 Station Owner: PAS

Monitoring Dates: September 1, 2005 to October 1, 2005

**Summary**

Maximum 1-hr Average:	752.2	W/m <sup>2</sup>	2-Sep	12:00 13:00
Maximum 24-hr Value:	247.2	W/m <sup>2</sup>	1-Sep	

AIC Time:	0 hrs	Operational Time:	720 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%
Percentile	99	95	75
	719.8	644.6	301.7
		13.1	0.8
		0.8	0.7
			Average
			162.8 W/m <sup>2</sup>



**Status Flag Characters**

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	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
1-Sep-05	1	1	1	1	1	6	96	250	408	551	661	732	748	719	633	496	353	214	55	2	1	1	1	1	247.2	747.8	
2-Sep-05	1	1	1	1	1	7	88	239	411	557	676	743	752	696	604	500	307	151	24	2	1	1	1	1	240.2	752.2	
3-Sep-05	1	1	1	1	1	4	44	161	387	537	644	712	685	628	377	469	270	78	15	2	1	1	1	1	209.2	712.3	
4-Sep-05	1	1	1	1	1	2	49	164	300	427	649	720	597	456	351	402	303	126	20	1	1	1	1	1	190.6	719.7	
5-Sep-05	1	1	1	1	1	2	38	199	288	167	536	563	578	673	570	452	323	202	42	1	1	1	1	1	193.4	672.9	
6-Sep-05	1	1	1	1	1	4	78	239	412	542	652	714	686	720	628	517	322	147	32	1	1	1	1	1	237.5	719.8	
7-Sep-05	1	1	1	1	1	3	43	229	389	534	647	735	715	673	575	440	338	180	31	1	1	1	1	1	230.9	734.9	
8-Sep-05	1	1	1	1	1	4	75	232	392	535	597	720	728	693	612	487	333	112	27	1	1	1	1	1	231.5	728.4	
9-Sep-05	1	1	1	1	1	2	17	170	209	461	174	173	173	291	231	81	68	14	4	1	1	1	1	1	86.5	461.3	
10-Sep-05	1	1	1	1	1	1	6	37	15	25	16	22	25	21	22	26	14	8	3	1	1	1	1	1	10.5	37.4	
11-Sep-05	1	1	1	1	1	1	9	31	47	75	118	172	241	290	319	171	139	35	9	1	1	1	1	1	69.5	318.9	
12-Sep-05	1	1	1	1	1	3	69	135	285	532	404	453	682	293	438	277	205	103	11	1	1	1	1	1	162.5	681.6	
13-Sep-05	1	1	1	1	1	2	68	168	299	506	615	695	701	650	584	462	286	143	12	1	1	1	1	1	216.6	700.6	
14-Sep-05	1	1	1	1	1	1	44	206	342	489	470	612	681	639	417	332	257	107	6	1	1	1	1	1	192.1	681.2	
15-Sep-05	1	1	1	1	1	1	14	35	47	165	99	296	436	385	445	180	192	62	5	1	1	1	1	1	98.8	445.0	
16-Sep-05	1	1	1	1	1	1	8	32	51	72	79	118	146	97	434	308	115	36	5	1	1	1	1	1	62.9	433.8	
17-Sep-05	1	1	1	1	1	1	15	97	201	296	506	636	496	541	425	374	231	89	11	1	1	1	1	1	163.6	636.1	
18-Sep-05	1	1	1	1	1	1	52	200	348	490	597	672	680	642	559	436	270	114	8	1	1	1	1	1	211.6	680.2	
19-Sep-05	1	1	1	1	1	1	49	114	295	500	595	592	667	639	555	370	269	110	8	1	1	1	1	1	198.9	667.4	
20-Sep-05	1	1	1	1	1	1	41	171	334	476	583	654	662	625	541	412	253	113	7	1	1	1	1	1	203.4	661.7	
21-Sep-05	1	1	1	1	1	1	10	72	244	478	582	666	518	305	171	183	333	103	6	1	1	1	1	1	153.3	666.4	
22-Sep-05	1	1	1	1	1	1	23	126	111	230	315	630	613	613	484	365	172	70	3	1	1	1	1	1	156.8	629.7	
23-Sep-05	1	1	1	1	1	1	6	34	105	90	83	231	378	459	270	336	142	91	5	1	1	1	1	1	93.2	458.7	
24-Sep-05	1	1	1	1	1	1	36	176	330	473	594	672	582	486	443	299	271	88	4	1	1	1	1	1	185.9	671.7	
25-Sep-05	1	1	1	1	1	1	23	164	317	457	561	628	631	599	507	384	226	83	4	1	1	1	1	1	191.3	631.3	
26-Sep-05	1	1	1	1	1	1	26	167	321	439	552	620	624	509	463	287	108	30	3	1	1	1	1	1	173.2	623.8	
27-Sep-05	1	1	1	1	1	1	3	52	126	182	345	308	301	388	221	169	120	37	2	1	1	1	1	1	94.3	387.5	
28-Sep-05	1	1	1	1	1	1	22	154	296	459	449	592	489	340	374	260	95	25	1	1	1	1	1	1	148.5	592.1	
29-Sep-05	1	1	1	1	1	1	15	61	251	407	326	444	514	415	315	153	80	18	1	1	1	1	1	1	125.3	514.0	
30-Sep-05	1	1	1	1	1	1	11	95	159	424	383	371	375	272	200	121	43	14	1	1	1	1	1	1	103.3	424.4	
																										N	0.0
Hourly Avg	0.8	0.8	0.8	0.8	0.8	1.9	35.9	140.4	257.3	385.9	450.3	529.9	536.8	491.8	425.5	325.0	214.6	90.1	12.2	1.0	0.8	0.8	0.8	0.8	0.8		
Hourly Max	1.0	1.0	0.9	1.0	0.9	6.7	95.6	249.7	412.3	556.6	675.7	743.4	752.2	719.8	632.9	516.7	352.9	214.0	54.6	2.1	1.0	1.0	1.0	0.9			

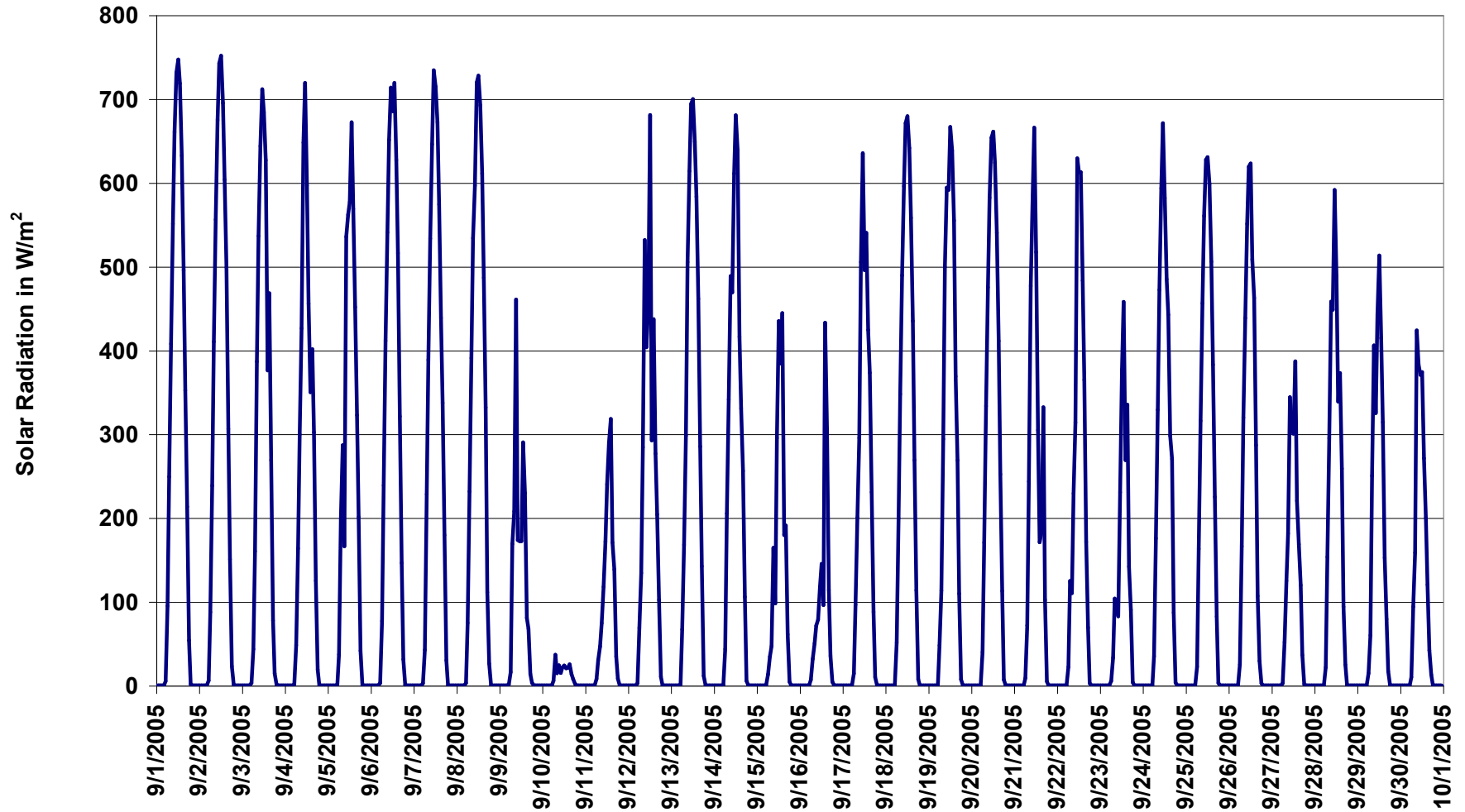


Figure 15. PAS - Crescent Heights Solar Radiation 1-hr Average Monthly Trend



## PAS - Cresent Heights Scalar Wind Speed Monthly Summary

Station: Cresent Heights  
 Station Owner: PAS

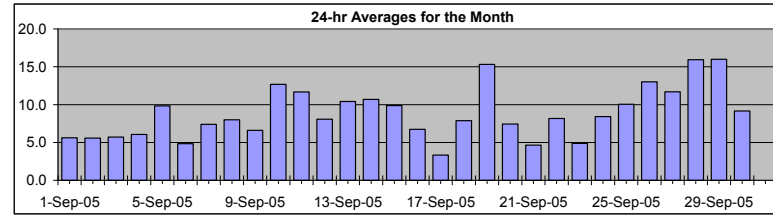
### HOURLY AVERAGE TABLE

### Wind Speed (WSs)

Monitoring Dates: September 1, 2005 to October 1, 2005

**Summary**

Maximum 1-hr Average:	29.6	km/hr	26-Sep	12:00 13:00
Maximum 24-hr Value:	16.0	km/hr	29-Sep	



Calm Time:	2 hrs	0% calms	Operational Time:	718 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageS
	25.2	19.9	12.5	7.4	4.4	2.4	1.4	8.9 km/hr

**Status Flag Characters**

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

Day	Mountain Standard Time																								24-hr Scalar Average	Daily Max
	Hour Start Hour End	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-Sep-05	3	3	1	2	2	3	3	5	9	13	11	10	8	7	8	7	3	3	6	8	6	6	5	4	5.6	12.6
2-Sep-05	4	3	1	calm	3	1	1	2	2	3	9	12	18	14	9	8	11	7	4	3	5	3	2	3	5.6	18.2
3-Sep-05	5	6	4	4	5	6	6	7	8	6	8	10	8	8	7	4	2	1	2	6	10	9	3	2	5.7	10.3
4-Sep-05	6	10	10	7	8	7	9	9	8	3	4	4	4	5	5	3	3	2	6	8	6	4	3	9	6.1	10.1
5-Sep-05	10	6	6	8	8	9	10	14	16	11	14	14	17	16	16	15	13	9	6	5	4	2	2	4	9.8	16.5
6-Sep-05	6	6	4	3	4	4	4	3	2	3	4	5	8	9	7	8	5	2	2	6	6	4	5	8	4.8	8.5
7-Sep-05	10	4	4	5	5	4	2	2	2	6	17	17	12	12	14	12	11	10	9	7	3	3	4	3	7.4	16.6
8-Sep-05	4	4	5	4	3	5	8	9	11	15	11	11	13	16	13	13	8	5	3	9	7	4	6	4	8.0	15.6
9-Sep-05	3	7	8	4	8	12	10	9	6	6	9	6	6	7	8	7	5	5	2	3	10	7	5	5	6.6	11.6
10-Sep-05	4	9	6	6	7	12	12	19	14	16	13	13	10	9	5	11	18	21	20	17	17	17	15	13	12.7	21.2
11-Sep-05	13	17	15	17	12	13	12	11	9	8	10	14	14	15	14	14	14	12	13	7	3	5	6	11	11.7	17.1
12-Sep-05	7	9	6	6	6	6	6	8	10	9	7	7	8	10	13	13	12	10	10	11	7	6	4	4	8.1	13.0
13-Sep-05	5	5	6	5	6	8	9	11	14	13	16	15	15	19	17	14	10	8	6	9	10	11	9	10	10.4	18.5
14-Sep-05	11	9	8	6	6	7	9	11	14	16	16	13	14	13	12	19	21	17	11	9	5	4	3	5	10.7	20.8
15-Sep-05	6	3	calm	4	5	4	5	4	4	7	10	13	14	14	14	16	18	16	14	11	16	13	9	7	9.9	17.8
16-Sep-05	8	8	8	7	9	8	9	9	9	9	7	7	5	2	7	8	9	8	6	7	4	3	1	3	6.7	9.5
17-Sep-05	4	3	3	3	3	3	2	2	3	3	3	4	4	4	4	5	4	2	2	4	4	5	5	1	3.3	4.7
18-Sep-05	3	2	3	2	1	3	2	5	7	16	15	15	18	17	13	11	9	5	2	6	7	5	8	14	7.9	17.8
19-Sep-05	19	19	16	17	18	20	19	12	16	22	25	26	25	23	23	18	11	11	7	7	3	3	4	3	15.3	25.6
20-Sep-05	4	4	3	3	3	3	3	2	3	5	5	9	14	13	13	14	14	20	16	10	7	3	4	2	7.4	19.9
21-Sep-05	1	3	2	3	4	4	5	4	3	3	5	3	5	4	8	8	6	6	5	7	5	7	6	5	4.7	8.2
22-Sep-05	3	2	3	5	7	3	8	8	10	10	11	8	6	7	9	9	10	14	15	14	11	7	9	8	8.2	15.5
23-Sep-05	12	4	4	7	6	5	5	5	5	5	2	5	6	5	6	6	4	3	2	4	3	4	5	7	4.9	12.0
24-Sep-05	7	5	2	3	4	5	3	4	3	3	3	5	7	5	6	14	18	15	12	13	17	19	17	13	8.4	19.1
25-Sep-05	12	8	7	7	12	13	9	4	10	19	18	17	13	8	8	10	8	6	3	4	7	12	14	11	10.1	19.1
26-Sep-05	9	7	4	4	5	5	7	7	5	9	13	21	30	28	21	18	14	14	11	16	14	17	22	9	13.0	29.6
27-Sep-05	11	20	17	13	15	12	13	14	16	16	16	12	11	11	11	14	14	6	5	4	6	7	7	9	11.7	20.2
28-Sep-05	11	6	6	4	4	3	4	4	6	16	21	23	22	23	24	25	21	22	20	26	28	20	21	22	15.9	27.6
29-Sep-05	18	11	6	6	12	11	13	9	10	16	16	19	20	17	16	18	14	18	19	20	25	24	21	23	16.0	25.1
30-Sep-05	28	26	19	11	13	12	10	11	5	8	4	8	6	3	5	5	4	5	6	3	5	8	8	8	9.2	27.6
																									N	0.0
1-hr Average	8.2	7.7	6.4	6.1	6.9	7.1	7.2	7.5	8.0	9.8	10.7	11.5	12.1	11.4	11.2	11.6	10.5	9.5	8.2	8.8	8.7	8.0	7.8	7.7		
Hourly Max	27.6	26.2	18.8	17.1	18.0	20.4	19.0	18.5	16.3	22.1	25.2	25.6	29.6	28.3	24.0	24.9	21.3	22.0	20.4	25.9	27.6	23.5	21.7	23.0		



## PAS - Crescent Heights Vector Wind Speed Monthly Summary

Station: Crescent Heights  
 Station Owner: PAS

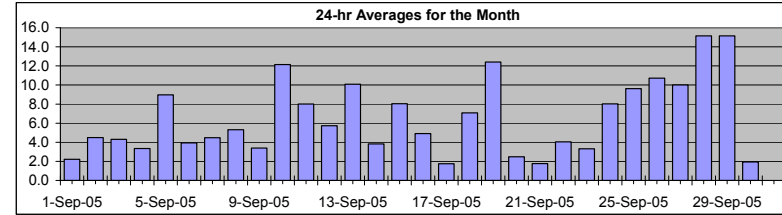
### HOURLY AVERAGE TABLE

### Wind Speed (WSv)

Monitoring Dates: September 1, 2005 to October 1, 2005

**Summary**

Maximum 1-hr Average:	29.3	km/hr	26-Sep	12:00 13:00
Maximum 24-hr Value:	15.2	km/hr	28-Sep	



Calm Time:	10 hrs	1% calms	Operational Time:	710 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageV
	25.0	19.9	12.1	7.0	4.0	1.7	1.0	11.8 km/hr

**Status Flag Characters**

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

Day	Mountain Standard Time																								24-hr Vector Average	Daily Max	
	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00			23:00
1-Sep-05	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	2.2	12.4
2-Sep-05	2	3	1	1	2	2	1	5	8	12	11	9	7	7	5	5	2	2	6	8	6	6	5	4	4.5	17.8	
3-Sep-05	4	3	1	calm	3	calm	1	2	1	2	8	12	18	13	8	7	11	7	3	2	4	2	2	3	4.3	10.0	
4-Sep-05	4	4	4	3	4	5	5	7	7	6	8	10	7	7	7	4	2	1	2	5	10	9	3	1	3.3	9.4	
5-Sep-05	4	9	9	7	7	7	9	9	8	1	3	3	2	4	5	3	2	2	6	7	6	3	2	9	9.0	15.9	
6-Sep-05	9	5	5	7	8	9	9	14	16	10	13	14	16	16	15	15	13	9	6	5	4	1	2	4	3.9	8.1	
7-Sep-05	6	5	4	3	4	4	3	3	1	2	1	3	6	7	6	7	4	2	1	5	6	4	5	8	4.5	16.4	
8-Sep-05	10	2	3	4	5	4	2	1	calm	5	16	16	12	11	14	12	9	10	9	7	1	3	4	3	5.3	15.3	
9-Sep-05	4	4	4	4	3	4	8	9	11	15	11	11	13	15	12	12	7	5	3	9	6	4	5	4	3.4	11.6	
10-Sep-05	2	6	7	2	8	12	10	8	6	3	8	4	3	6	4	4	2	4	calm	3	10	4	2	5	12.1	21.1	
11-Sep-05	4	9	6	6	7	12	12	18	14	16	13	13	9	8	5	11	18	21	20	17	17	15	13	8.0	17.0		
12-Sep-05	13	17	15	17	12	13	12	11	9	8	9	14	14	15	14	14	14	12	13	7	3	5	6	11	5.7	12.8	
13-Sep-05	7	9	6	6	6	6	5	8	10	8	7	6	7	9	12	13	11	10	10	11	7	5	4	4	10.1	17.9	
14-Sep-05	4	5	5	5	6	8	9	11	14	12	15	15	15	18	16	14	10	8	6	9	10	11	9	10	3.8	20.5	
15-Sep-05	11	9	8	6	6	7	9	11	14	16	16	12	13	13	11	17	21	17	11	8	4	4	1	5	8.0	17.6	
16-Sep-05	6	2	calm	4	5	4	5	3	3	7	10	12	14	13	14	15	18	16	13	10	16	11	8	7	4.9	9.2	
17-Sep-05	8	8	8	7	8	8	9	9	8	8	6	6	5	1	7	8	8	8	6	7	4	2	1	3	1.8	4.7	
18-Sep-05	4	3	3	3	3	2	2	1	3	2	2	3	3	1	3	3	3	2	2	4	4	5	4	1	7.1	17.4	
19-Sep-05	3	2	3	2	1	3	2	4	6	16	15	15	17	17	13	11	9	5	2	6	7	5	7	14	12.4	25.3	
20-Sep-05	19	19	16	17	18	20	19	12	16	22	25	25	25	22	23	16	11	11	7	6	3	2	2	3	2.5	19.8	
21-Sep-05	1	1	1	2	2	3	3	2	2	5	3	8	14	13	13	13	14	20	16	10	7	3	3	calm	1.8	7.1	
22-Sep-05	calm	calm	2	2	4	calm	4	3	3	calm	4	1	4	3	5	6	5	6	5	7	5	7	6	5	4.0	15.4	
23-Sep-05	2	2	2	4	7	2	7	8	10	10	10	7	3	6	8	9	10	13	15	14	11	7	9	7	3.3	11.9	
24-Sep-05	12	3	4	6	6	4	5	5	4	4	1	4	5	4	5	5	4	3	2	4	3	4	5	6	8.0	19.0	
25-Sep-05	7	4	2	3	4	5	3	4	3	2	1	3	5	3	3	14	17	15	12	13	16	19	16	13	9.6	18.9	
26-Sep-05	12	8	6	7	12	13	9	4	9	19	17	17	12	8	8	9	8	6	3	4	7	12	14	11	10.7	29.3	
27-Sep-05	9	6	4	3	5	5	7	7	4	9	13	21	29	28	21	18	14	13	11	16	14	16	21	9	10.0	20.0	
28-Sep-05	11	20	16	13	14	12	12	14	16	16	16	11	11	11	11	14	14	6	4	4	6	7	7	8	15.2	27.5	
29-Sep-05	11	6	6	4	4	3	3	4	6	16	21	23	22	22	24	25	21	22	20	26	27	19	21	22	15.1	25.0	
30-Sep-05	18	11	6	6	12	11	13	9	10	15	15	19	20	17	16	18	14	18	19	20	25	23	21	23	1.9	27.6	
1-hr Vector	3.7	3.2	3.0	2.2	2.9	3.1	3.0	2.7	3.2	4.8	5.5	6.6	7.0	6.7	6.2	5.3	3.6	2.8	2.1	0.9	1.8	2.6	2.0	3.5	N	0.0	
Hourly Max	27.6	26.1	18.4	17.0	17.9	20.4	19.0	18.4	15.9	21.6	24.9	25.3	29.3	27.8	23.8	24.8	21.2	21.9	20.4	25.7	27.5	23.4	21.3	22.9			



### PAS - Cresent Heights Wind Direction Monthly Summary

Station: Cresent Heights  
Station Owner: PAS

#### HOURLY AVERAGE TABLE

#### Wind Direction (WD)

Monitoring Dates: September 1, 2005 to October 1, 2005

#### Summary


Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	Average
	355.9	339.0	262.5	222.3	128.6	16.4	2.1	256 deg

#### Status Flag Characters

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

#### Day Mountain Standard Time

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	WD Sector
1-Sep-05	125	138	111	115	8	349	159	189	213	226	219	225	261	263	247	220	197	284	17	20	62	120	121	132	214	SW
2-Sep-05	129	108	79	165	245	244	74	353	323	219	193	199	215	205	208	209	221	219	250	157	143	159	229	233	205	SSW
3-Sep-05	252	308	338	120	221	227	233	225	218	212	208	234	274	249	233	136	142	195	236	257	294	260	196	226	239	WSW
4-Sep-05	336	1	346	332	331	346	327	358	4	83	128	198	135	120	135	129	106	17	1	57	60	68	86	336	12	NNE
5-Sep-05	356	303	299	293	281	298	315	313	311	297	298	298	292	304	310	316	302	313	322	314	270	210	128	182	304	NW
6-Sep-05	194	201	189	174	133	138	123	112	133	156	101	81	129	167	191	195	182	223	11	118	155	172	181	176	161	SSE
7-Sep-05	174	224	316	342	345	357	354	335	138	219	225	228	238	250	242	256	285	311	323	337	332	154	149	172	255	WSW
8-Sep-05	170	191	191	193	228	193	219	224	229	233	238	241	245	242	247	244	257	279	30	55	86	130	128	137	225	SW
9-Sep-05	165	208	243	277	238	233	241	232	225	294	229	284	331	10	6	307	58	111	300	269	303	337	60	228	268	W
10-Sep-05	315	339	341	326	347	12	6	7	16	17	19	15	19	13	348	13	27	30	36	32	31	28	22	22	17	NNE
11-Sep-05	15	10	4	2	356	338	327	309	280	271	274	277	277	271	269	274	257	242	235	245	254	243	250	245	295	WNW
12-Sep-05	250	247	224	234	236	223	237	228	223	219	234	252	310	304	319	332	323	320	322	339	336	325	313	276	283	WNW
13-Sep-05	271	276	254	233	219	226	229	229	226	212	225	221	226	218	224	239	257	264	250	226	227	243	237	231	231	SW
14-Sep-05	230	224	229	231	234	229	226	231	219	222	221	240	245	246	296	1	29	28	48	55	103	124	269	347	255	WSW
15-Sep-05	345	317	239	36	17	32	8	52	22	48	50	96	99	101	88	90	102	98	82	78	22	28	46	17	67	ENE
16-Sep-05	7	1	9	2	7	26	24	22	25	14	25	25	68	130	118	68	56	115	115	118	138	125	118	94	44	NE
17-Sep-05	101	123	142	170	131	152	125	128	141	143	197	156	200	32	280	267	285	316	89	113	115	115	124	150	142	SE
18-Sep-05	227	168	159	124	125	221	210	218	204	207	214	202	220	226	243	254	266	270	237	235	248	244	273	243	228	SW
19-Sep-05	234	231	236	234	236	230	233	251	235	236	250	249	252	258	258	273	314	342	357	16	130	104	93	117	249	WSW
20-Sep-05	156	71	216	142	145	197	174	174	224	216	201	252	274	287	293	324	360	15	23	42	52	105	11	97	335	NNW
21-Sep-05	161	157	205	159	204	26	180	192	185	308	50	186	331	24	357	47	68	5	34	69	122	121	117	127	81	E
22-Sep-05	112	41	36	71	96	92	75	115	91	71	84	109	265	279	313	306	311	340	7	358	352	336	319	317	13	NNE
23-Sep-05	342	331	293	318	309	289	297	308	299	220	173	328	339	7	350	2	316	326	287	249	222	212	233	223	305	NW
24-Sep-05	213	194	181	172	197	190	170	185	205	201	196	226	149	233	223	223	228	219	224	198	201	207	207	211	208	SSW
25-Sep-05	213	234	225	203	200	215	227	240	220	226	226	222	234	264	256	253	262	270	250	232	214	230	238	243	230	SW
26-Sep-05	235	237	289	252	236	228	222	222	178	202	205	204	211	217	242	251	259	250	256	249	256	266	338	314	240	WSW
27-Sep-05	313	335	338	329	325	328	345	7	1	3	2	353	349	350	353	350	348	323	314	290	271	267	244	217	337	NNW
28-Sep-05	225	226	225	199	197	190	202	214	196	197	198	207	207	210	203	214	213	211	216	218	227	235	256	264	217	SW
29-Sep-05	268	267	242	223	233	238	232	227	249	253	257	253	253	267	265	251	241	217	220	221	218	220	217	218	238	WSW
30-Sep-05	217	217	225	270	301	295	315	330	340	339	353	354	41	104	89	30	43	43	31	25	118	114	105	102	282	WNW
Hourly Avg	246	263	270	274	266	264	266	273	249	239	230	237	244	250	261	276	291	305	329	306	238	223	241	237	N	-



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

Station: Cresent Heights  
 Station Owner: PAS

### HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: September 1, 2005 to October 1, 2005

**Summary**

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Determined by the Yamartino 15-min interval calculation

Calm Time: 0 hrs	0% calms	Operational Time: 720 hrs
Calibration Time: 0 hrs		AMD Operational Uptime: 100.0%
Percentile	99 95 75 50 25 5 1	
	64.1 48.6 19.7 11.6 7.8 4.8 3.8	

**Status Flag Characters**

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

**Day Mountain Standard Time**

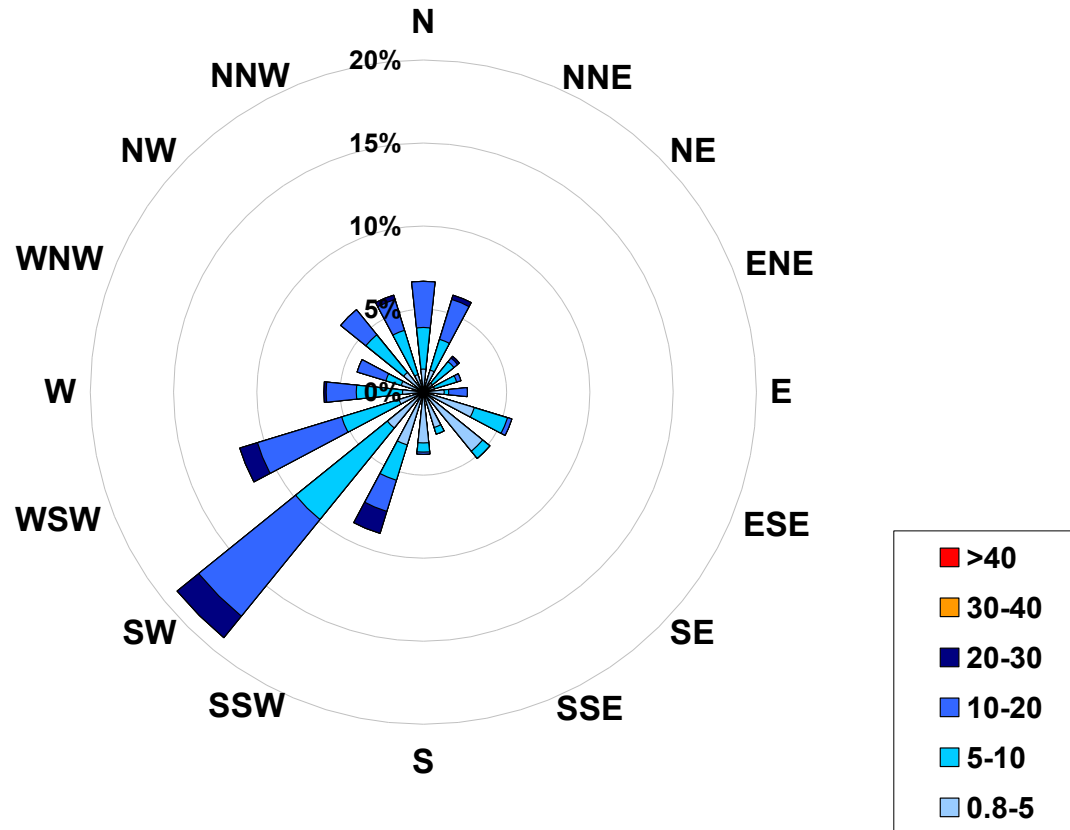
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	Daily Maximum
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	
1-Sep-05	18	15	39	52	21	45	54	13	18	11	15	17	28	25	42	58	70	54	23	5	14	9	13	9	70.5
2-Sep-05	8	12	17	28	18	55	22	11	54	34	16	13	14	16	20	23	10	9	13	18	10	30	25	24	55.2
3-Sep-05	12	19	31	35	12	11	21	17	12	14	16	13	25	23	22	21	40	40	20	16	9	11	34	56	55.9
4-Sep-05	42	31	15	22	20	18	18	10	15	43	51	52	51	28	19	39	42	28	14	23	14	33	21	11	51.7
5-Sep-05	12	22	15	10	10	12	11	8	10	14	15	13	13	12	15	13	14	13	7	5	12	17	13	15	21.7
6-Sep-05	10	11	9	10	10	9	5	14	48	53	44	52	39	34	40	29	31	48	12	11	8	12	15	16	53.0
7-Sep-05	14	47	39	8	7	9	28	50	69	30	10	10	18	21	12	11	15	9	6	4	27	21	8	7	68.6
8-Sep-05	10	14	11	14	20	19	8	14	8	8	13	11	13	11	17	11	21	9	30	15	21	11	18	8	30.1
9-Sep-05	45	17	31	40	14	5	6	8	22	35	39	37	59	23	20	23	26	56	43	26	11	21	40	10	58.9
10-Sep-05	22	7	11	10	9	6	7	4	5	5	6	6	9	10	6	6	6	5	6	5	4	5	5	6	21.7
11-Sep-05	6	4	5	5	7	7	8	9	9	11	11	7	8	8	9	9	9	7	5	8	17	12	11	8	16.6
12-Sep-05	9	9	15	17	14	14	13	7	7	15	17	23	26	16	15	10	11	10	9	7	7	13	15	11	25.8
13-Sep-05	8	6	10	7	6	5	5	6	7	12	11	10	13	14	15	13	15	9	9	11	7	5	9	5	14.8
14-Sep-05	8	8	12	9	10	4	4	5	7	8	11	13	14	12	17	11	7	6	7	12	12	10	20	19	19.9
15-Sep-05	11	26	56	9	10	14	15	34	42	9	7	9	8	12	11	7	8	8	16	19	5	12	13	9	55.9
16-Sep-05	5	7	11	11	8	10	10	10	10	10	13	14	21	34	15	24	17	7	8	8	11	40	40	12	40.1
17-Sep-05	7	31	11	14	11	19	18	33	18	38	42	55	48	56	42	56	42	26	14	7	8	6	6	49	56.2
18-Sep-05	28	25	8	7	14	16	13	11	10	12	11	14	12	11	15	11	11	12	12	9	12	20	14	8	27.7
19-Sep-05	4	3	5	3	4	3	4	10	10	8	7	7	8	7	8	12	12	7	5	16	11	39	75	16	74.6
20-Sep-05	52	74	85	42	47	28	19	16	40	18	27	22	11	13	14	12	9	5	5	6	9	14	20	41	84.7
21-Sep-05	57	49	50	70	12	44	28	34	20	39	25	65	47	30	39	23	25	11	8	11	8	8	6	6	69.7
22-Sep-05	19	15	46	13	12	34	12	18	7	8	7	24	55	34	25	19	11	8	5	4	7	12	7	11	55.1
23-Sep-05	9	39	20	11	15	14	14	15	20	13	46	36	35	51	26	29	20	14	12	11	12	15	9	6	51.3
24-Sep-05	5	12	16	11	11	10	43	13	19	38	70	50	37	49	49	17	10	8	6	5	5	4	6	4	70.0
25-Sep-05	5	9	12	8	8	6	7	23	12	8	10	8	14	22	23	16	11	10	7	7	7	6	8	5	23.3
26-Sep-05	7	45	39	23	8	13	9	8	19	13	12	8	7	8	10	7	6	7	7	6	6	8	7	20	44.6
27-Sep-05	11	7	7	8	7	7	7	7	7	8	8	13	13	14	15	8	5	9	9	16	7	7	10	7	16.4
28-Sep-05	6	12	7	12	6	19	27	8	10	10	9	10	10	9	7	7	5	5	4	4	4	5	6	6	26.8
29-Sep-05	6	8	14	11	6	7	5	6	9	9	6	6	8	8	8	7	6	5	4	4	4	5	4	4	14.1
30-Sep-05	4	4	5	10	7	9	47	10	29	17	42	18	28	33	21	19	9	8	7	18	12	7	10	12	47.0
																									0.0

Hourly Max 57 74 85 70 47 55 54 50 69 53 70 65 59 56 49 58 70 56 43 26 27 40 75 56





**1-hr Average Wind Rose (in km/hr) Located at the Crescent Heights Site for September 2005**



**Calms: 0%**

Frequency Distribution of Wind in km/hr			Frequency (hrs)
Range			
0.8	<	5	226
5	to	10	243
10	to	20	213
20	to	30	36
30	to	40	0
	>	40	0
Total Non-Zero Values			718



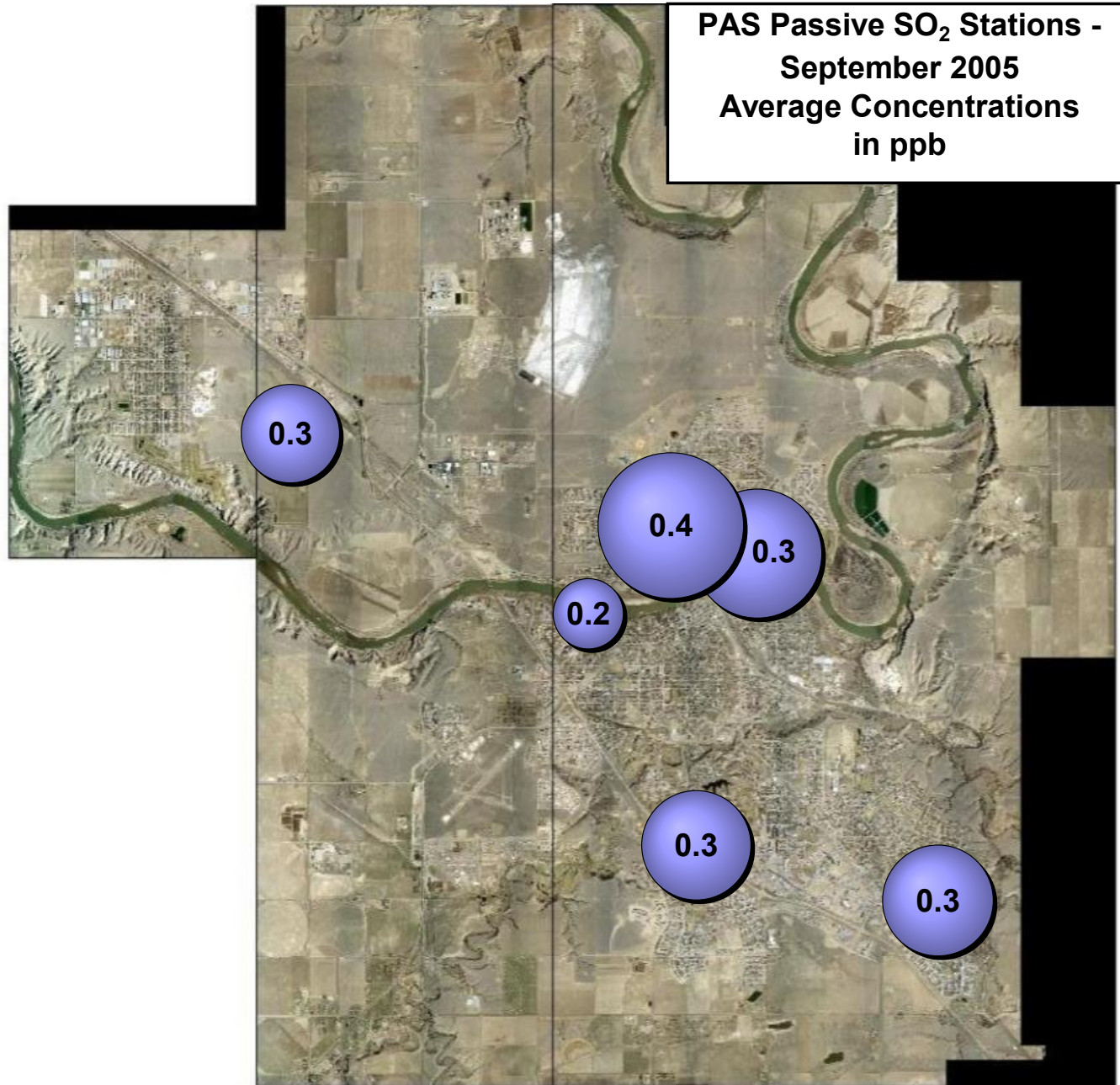
# **Passive Monitoring – September 2005**

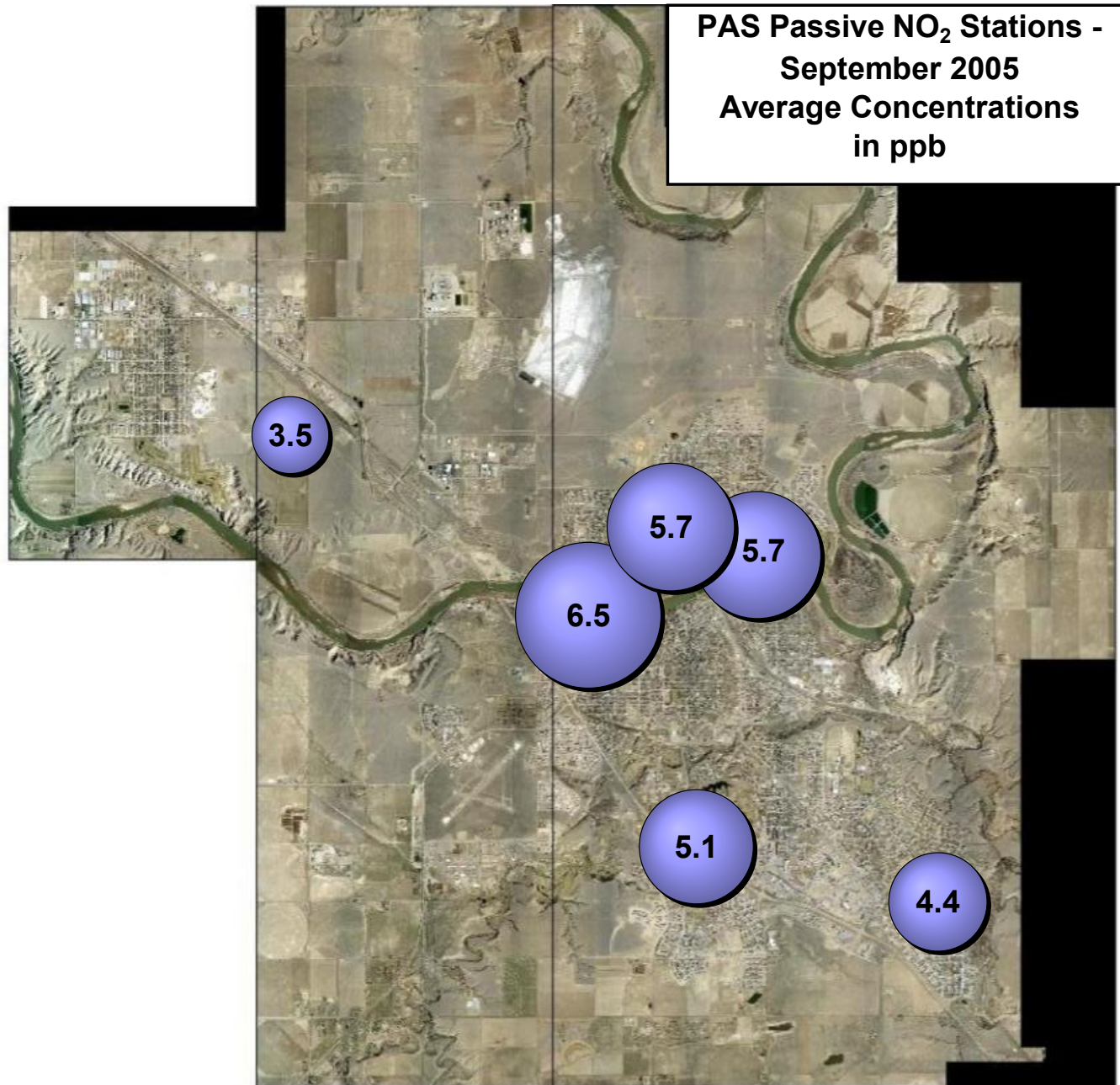
Ambient Air Compliance Network

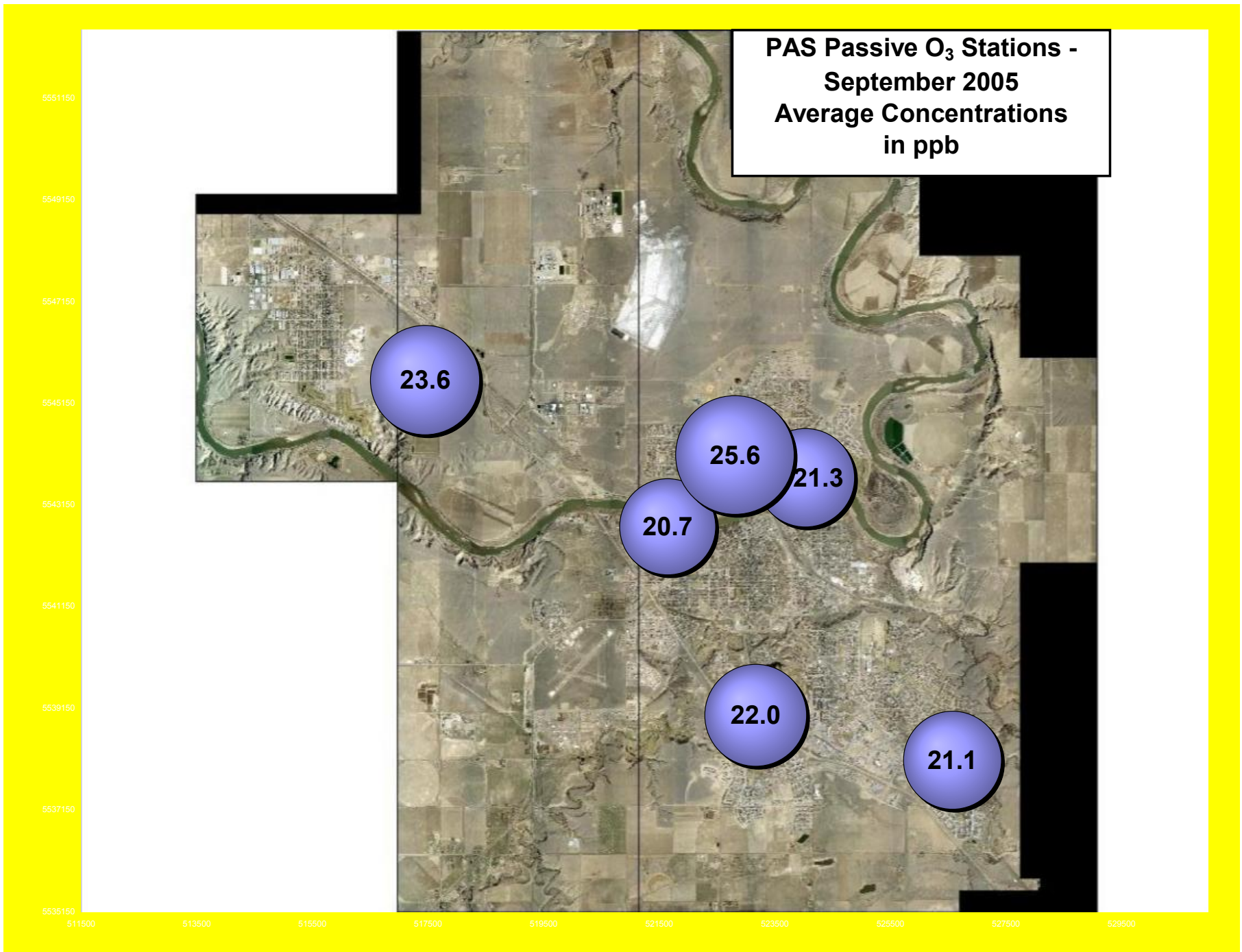


### Palliser Airshed Society - PAS Passive Stations for September 2005

Station Number	Station Name	SO <sub>2</sub> ppb	O <sub>3</sub> ppb	NO <sub>2</sub> ppb	Easting	Northing	Elevation
<b>Duplicates</b>							
5a	Monitoring Station	0.2	21.8	4.5			
5b		0.4	22.2	5.8			
1	Hospital	0.2	20.7	6.5	521648	5542721	698
2	Ball Park	0.3	21.3	5.7	524019	5543686	660
3	Monitoring Station	0.4	25.6	5.7	522812	5544133	714
4	Redcliff	0.3	23.6	3.5	517448	5545608	725
5	Southridge	0.3	22.0	5.1	523172	5539016	721
6	Christian School Park	0.3	21.1	4.4	526577	5538133	709
Stats:							
	<b>Mean</b>	<b>0.3</b>	<b>22.4</b>	<b>5.2</b>			
	<b>Standard Deviation</b>	<b>0.1</b>	<b>1.9</b>	<b>1.1</b>			
	<b>Minimum</b>	<b>0.2</b>			<b>1</b>	<b>Hospital</b>	
	<b>Maximum</b>	<b>0.4</b>			<b>3</b>	<b>Monitoring Station</b>	
	<b>Minimum</b>		<b>20.7</b>		<b>1</b>	<b>Hospital</b>	
	<b>Maximum</b>		<b>25.6</b>		<b>3</b>	<b>Monitoring Station</b>	
	<b>Minimum</b>			<b>3.5</b>	<b>4</b>	<b>Redcliff</b>	
	<b>Maximum</b>			<b>6.5</b>	<b>1</b>	<b>Hospital</b>	







# **September 2005 - Calibration Reports**

**PAS - Crescent Heights Station:**

**O<sub>3</sub>, NO<sub>x</sub>, NO, NO<sub>2</sub>, THC, CO, PM<sub>2.5</sub>, and Wind Speed / Wind Direction**

# Calibration Report

Parameter                     03                      
 Air Monitoring Network                     Palliser Airshed                    



## Station Information

Calibration Date	September 15, 2005	Previous Calibration	August 23, 2005
Station Number	1	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	10:35	End Time (MST)	13:50
Barometric Pressure	0.916 ATM	Station Temperature	21.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	NA
DACS voltage range	0 - 1 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
DACS slope	0.050000	DACS slope	0.050000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	0.991858	Calculated slope	1.002006
Calculated intercept	2.557796	Calculated intercept	-0.068684
Analyzer make	API Model 400E	Analyzer serial #	331

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	-4.7	ppb	-5.9	ppb
coefficient	0.997		0.991	
Lamp measure	2722.0	mV	2692.2	mV
Lamp Reference	2724.4	mV	2695.0	mV
Pressure	25.8	inches Hg	26.0	inches Hg
Sample Flow	727	ccm	727	ccm
Lamp temp	52	Deg C	52	Deg C

## Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	-0.7	N/A
4995	0.00	307.3	305.8	1.0048
4995	0.00	203.2	204.0	0.9963
4995	0.00	102.4	102.8	0.9959
4995	0.00	0.0	3.4	0.0000
4995	0.00	307.3	308.7	0.9953
Average Correction Factor				0.9990

Calculated value of As Found Response: 305.4 ppm      Percent Change of As Found: -0.6%

	before calibration		after calibration	
Auto zero	0.0	ppb	-1.6	ppb
Auto span	362.3	ppb	356.4	ppb

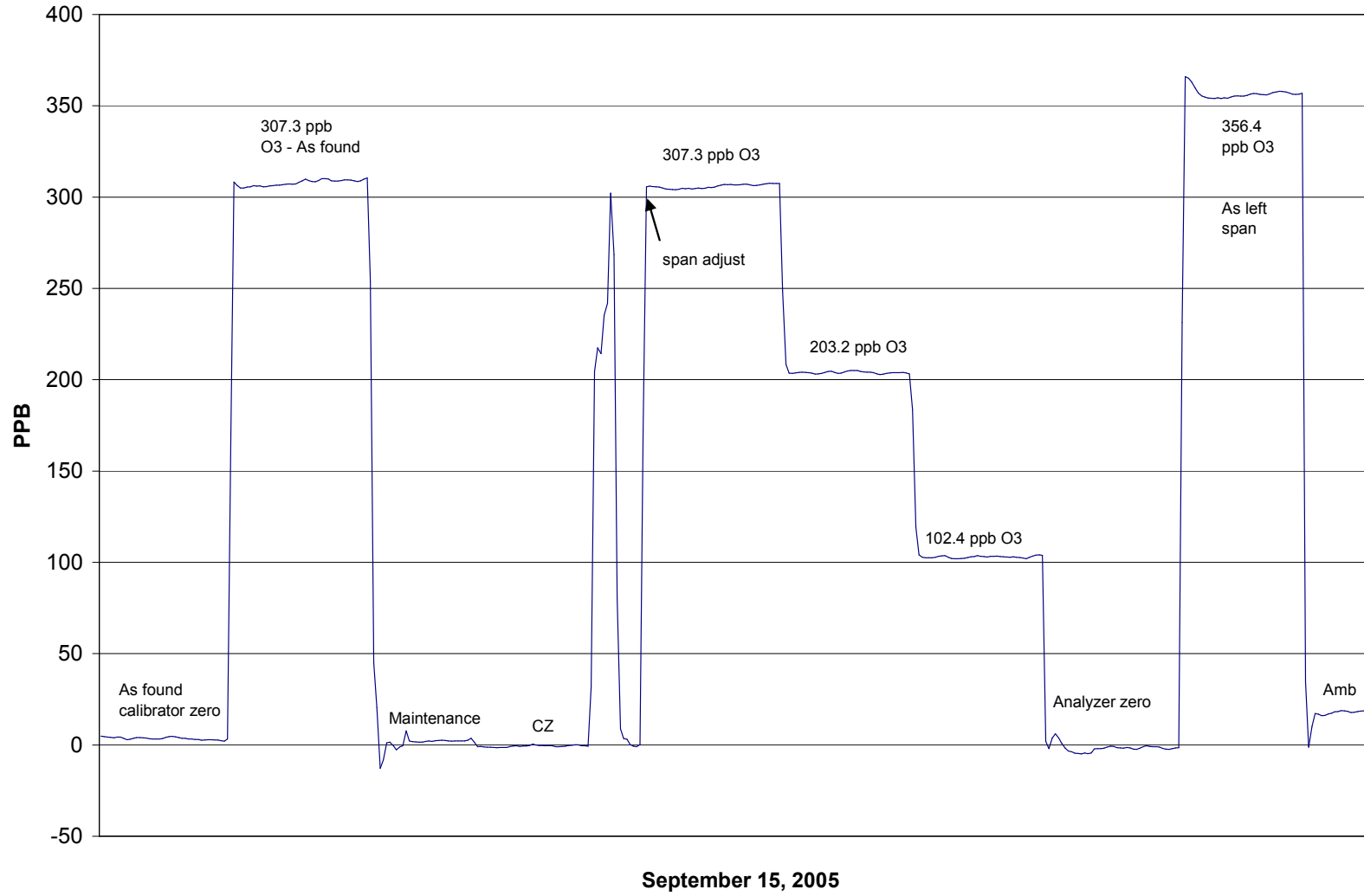
Notes: Internal reference scrubber was replaced post as found response. Analyzer was zero and span adjuste

Calibration Performed By: Kelly Baragar





### O3 Calibration



# Calibration Report

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



## Station Information

Calibration Date September 15, 2005 Previous Calibration September 14, 2005  
 Station Number 1 Station Location Crescent Heights

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

Start Time (MST) 7:35 End Time (MST) 11:30  
 Barometric Pressure 0.916 ATM Station Temperature 21.0 Deg C  
 Calibrator Envionics 6100 Serial Number 3016  
 NO Cal Gas Conc 49.8 ppm Cal Gas Expiry Date 12-Dec-05  
 NOx Cal Gas Conc 49.8 ppm Cal Gas Serial # ALM011558

## DACS Information

DACS make FOCUS AP1000 DACS serial No. 45270

Parameter		NO2	NOx	NO
Before	DACS slope	0.050000	0.050000	0.050000
	DACS offset	0.000000	0.000000	0.000000
After	DACS slope	0.050000	0.050000	0.050000
	DACS offset	0.000000	0.000000	0.000000
Before	0.998148	0.997536	0.996086	0.995388
	-0.340971	-0.132124	0.153617	-1.071806
After	Data Slope	0.990688	0.992727	0.993998
	Data Offset	-0.525135	0.624742	1.067300
Channel #		8	6	7
Voltage Range		0 - 1 VDC	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	-3.6	mV	-1.2	mV
NOx background	-2.1	mV	1.1	mV
NO coefficient	1.258		1.258	
NOx coefficient	1.268		1.257	
Chamber Temp	50.0	Deg C	50.0	Deg C
Cooler Temp	7.0	Deg C	7.0	Deg C
Azero	40.4		40.4	
Perm Temp	40.0	Deg C	40.1	Deg C
Pressure	4.3	inches Hg	4.3	inches Hg
Sample Flow	446.0	ccm	446.0	ccm

Notes: Analyzer was zero and span adjusted.

# Calibration Report

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



## Station Information

Calibration Date: September 15, 2005 Station Location: Crescent Heights

## Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NO <sub>x</sub> conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NO <sub>x</sub> conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NO <sub>x</sub> Correction factor	NO Correction factor
zero	4993	0.00	0.0	0.0	0.0	0.5	0.1	0.4	N/A	N/A
1	4993	39.97	395.5	395.5	0.0	398.3	397.4	1.5	0.9930	0.9952
2	4993	19.97	198.4	198.4	0.0	198.7	197.9	1.0	0.9985	1.0023
3	4993	9.97	99.2	99.2	0.0	98.3	97.6	0.6	1.0101	1.0171
AFZ	4993	0.00	0.0	0.0	0.0	0.5	0.1	0.4	0.0000	0.0000
AFS	4993	39.97	395.5	395.5	0.0	404.4	405.6	-0.7	0.9780	0.9752
Average Correction Factor									1.0005	1.0049

As Found Concentrations NO<sub>x</sub>= 404.1 NO= 404.4 As Found Percent Change NO<sub>x</sub>= 2.2% NO= 2.2%

## GPT Calibration Data

Dilution Flow 4993 ccm Source Gas Flow 39.97 ccm

O <sub>3</sub> Setpoint (ppb)	Calculated NO <sub>x</sub> conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NO <sub>x</sub> conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NO <sub>x</sub> Correction factor	NO Correction factor	NO <sub>2</sub> Correction factor	Converter Efficiency
0	397.8	394.0	3.9	398.6	395.3	0.4	N/A	N/A	N/A	N/A
350	397.8	90.5	307.3	401.2	90.0	311.2	0.9915	1.0059	0.9873	101.3%
200	397.8	194.6	203.2	398.7	194.7	204.4	0.9978	0.9995	0.9942	100.6%
100	397.8	295.4	102.4	400.4	296.1	104.8	0.9935	0.9976	0.9771	102.3%
Average Correction Factor							0.9943	1.0010	0.9862	101.4%

## AIC Data

Parameter	Previous calibration				Current calibration			
	NO <sub>x</sub>	NO <sub>2</sub>	NO	ppb	NO <sub>x</sub>	NO <sub>2</sub>	NO	ppb
Auto zero	NA	NA	NA	ppb	1.9	-0.2	2.1	ppb
Auto span	NA	NA	NA	ppb	345.1	336.9	7.6	ppb

Calibration Performed By: Kelly Baragar

## Calibration Summary

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

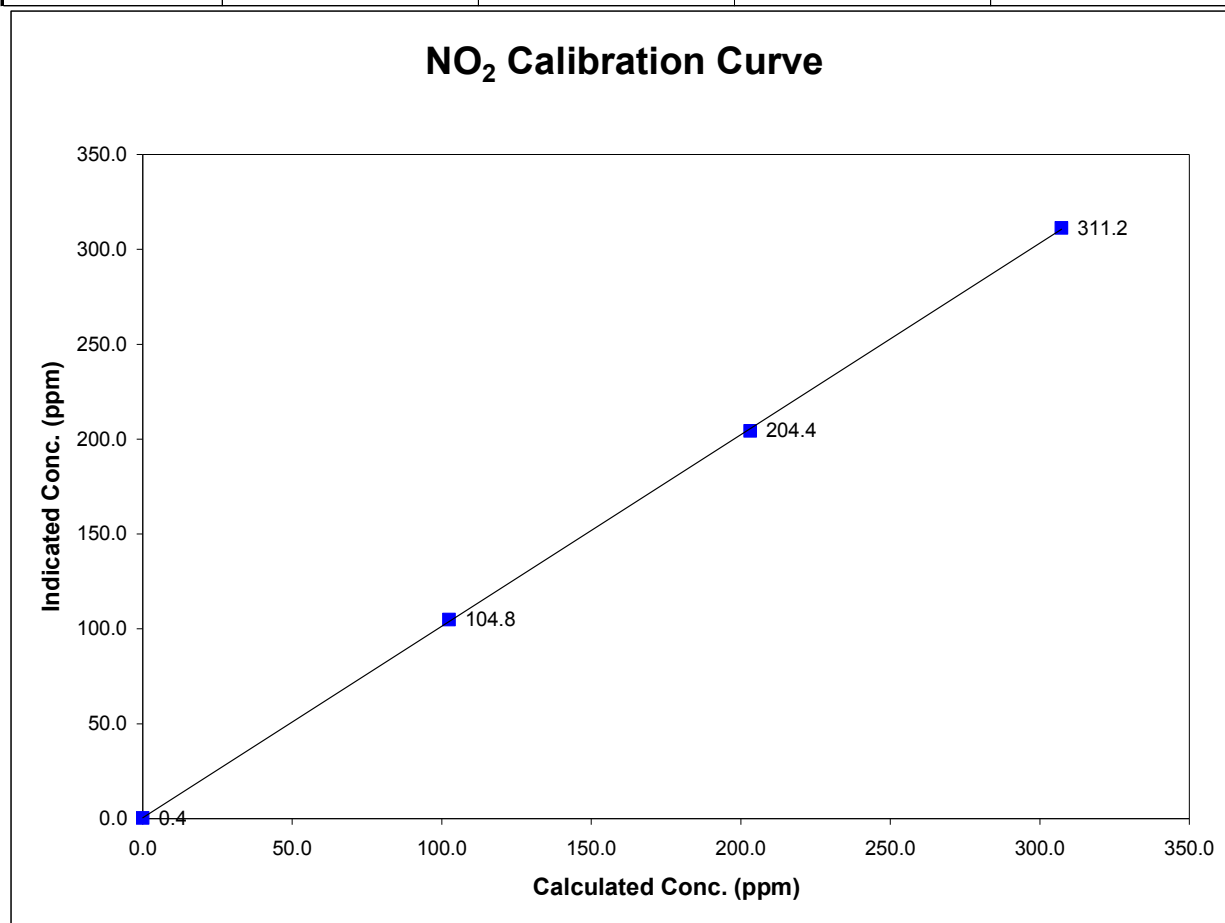


### Station Information

Calibration Date	September 15, 2005	Previous Calibration	September 14, 2005
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	7:35	End Time (MST)	11:30
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	0.999949
307.3	311.2	0.9873		
203.2	204.4	0.9942		
102.4	104.8	0.9771		
			Slope	0.990688
			Intercept	-0.525135



## Calibration Summary

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



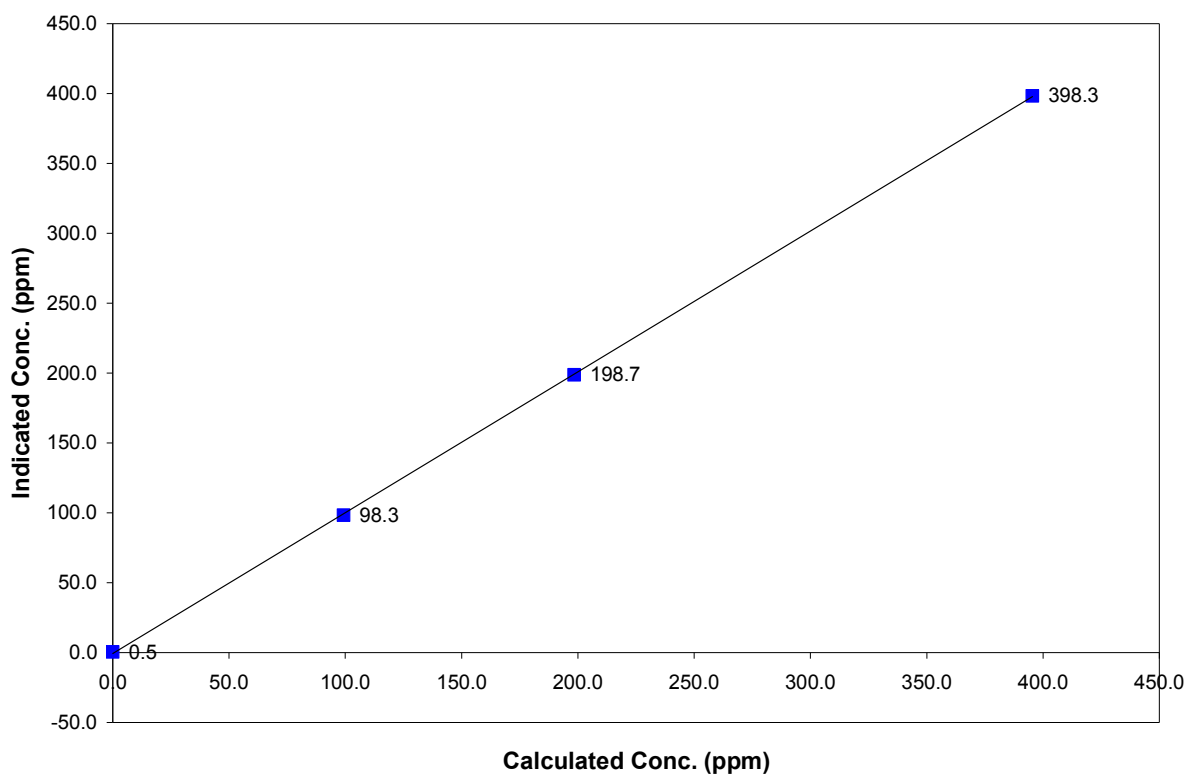
### Station Information

Calibration Date	September 15, 2005	Previous Calibration	September 14, 2005
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	7:35	End Time (MST)	11:30
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	0.5	0.0000	Correlation Coefficient	0.999966
395.5	398.3	0.9930		
198.4	198.7	0.9985		
99.2	98.3	1.0101		
			Slope	0.992727
			Intercept	0.624742

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



## Calibration Summary

Parameter NO  
 Air Monitoring Network Palliser Airshed

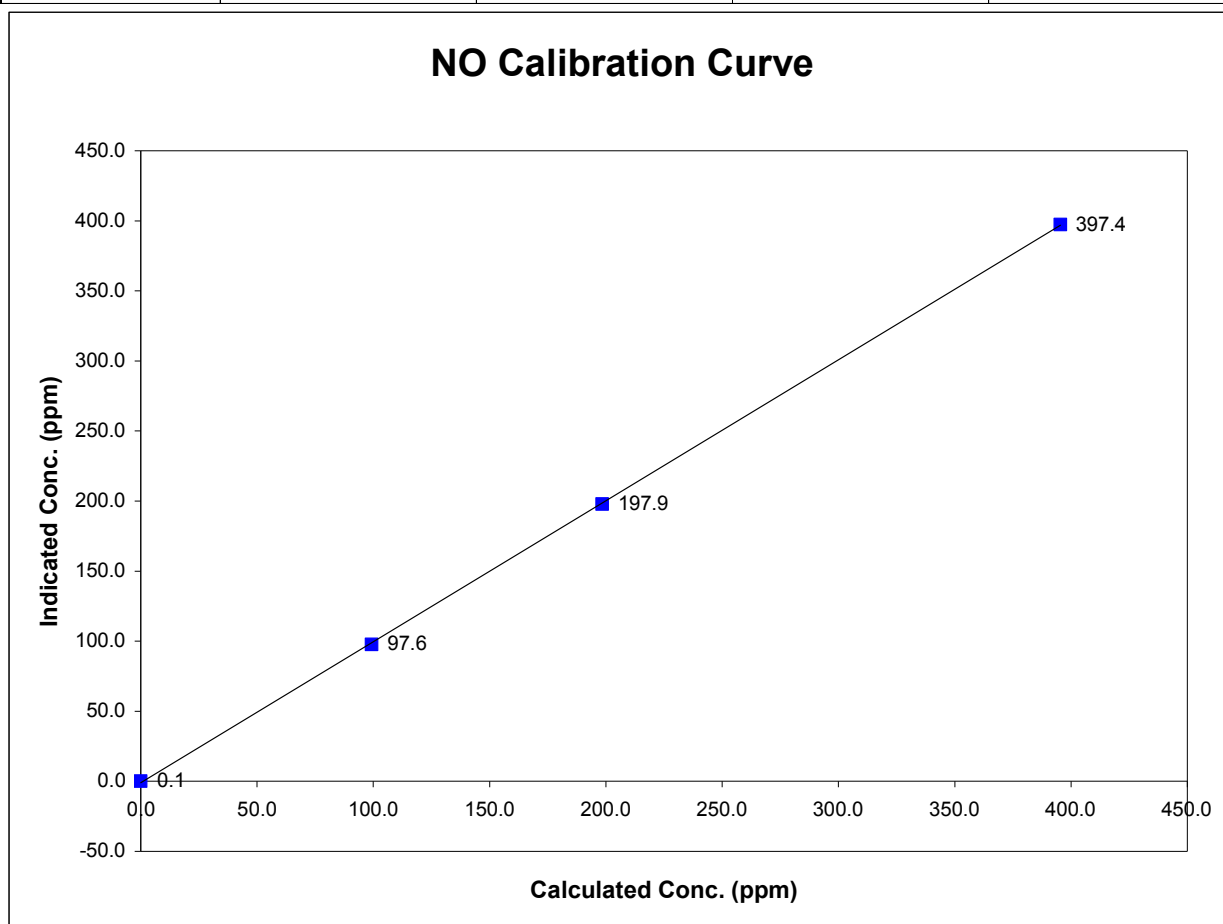


### Station Information

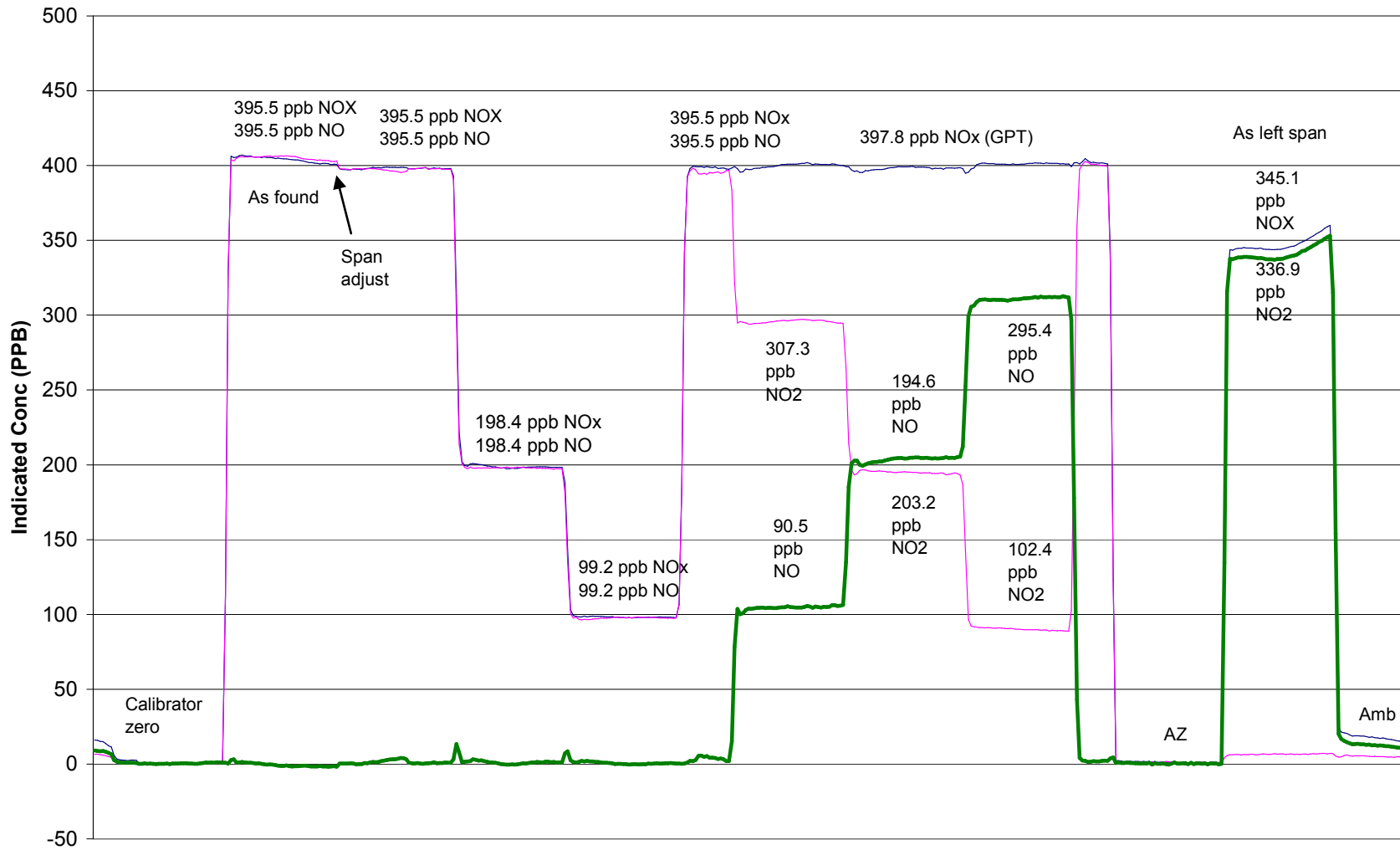
Calibration Date	September 15, 2005	Previous Calibration	September 14, 2005
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	7:35	End Time (MST)	11:30
Analyzer make	API Model 200E	Analyzer serial #	219

### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.1	N/A		
395.5	397.4	0.9952	Correlation Coefficient	0.999959
198.4	197.9	1.0023		
99.2	97.6	1.0171	Slope	0.993998
			Intercept	1.067300



### NOx Calibration



September 15, 2005



# Calibration Report

Parameter THC  
 Air Monitoring Network Palliser Airshed



## Station Information

Calibration Date	September 14, 2005	Previous Calibration	August 24, 2005
Station Number	1	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	11:00	End Time (MST)	13:25
Barometric Pressure	0.912 ATM	Station Temperature	20.0 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
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 CH <sub>4</sub> 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
	<b>Before</b>		<b>After</b>
Calculated slope	0.994850	Calculated slope	0.996874
Calculated intercept	0.038348	Calculated intercept	0.098365
Analyzer make	TEI model 51C-LT	Analyzer serial #	407505596

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
THC sample pressure	5.75	PSI	5.75	PSI
THC span counts	10678	raw	10678	raw
THC zero counts	1639	raw	1639	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)
2994	0.00	0.00	0.01	N/A
2994	39.98	20.13	20.16	0.9984
2994	19.98	10.13	9.96	1.0166
2994	9.97	5.07	4.91	1.0322
zero	0.00	0.00	0.01	As Found Zero
2994	39.98	20.13	20.16	As Found Span
Average Correction Factor				1.0158

Calculated value of As Found Response: 20.090 ppm      Percent Change of As Found: 0.2%

	before calibration		after calibration	
Auto zero	0.04	ppm	0.08	ppm
Auto span	23.53	ppm	23.68	ppm

Notes: No adjustments or maintenance performed.

Calibration Performed By: Kelly Baragar

## Calibration Summary

Parameter THC  
 Air Monitoring Network Palliser Airshed

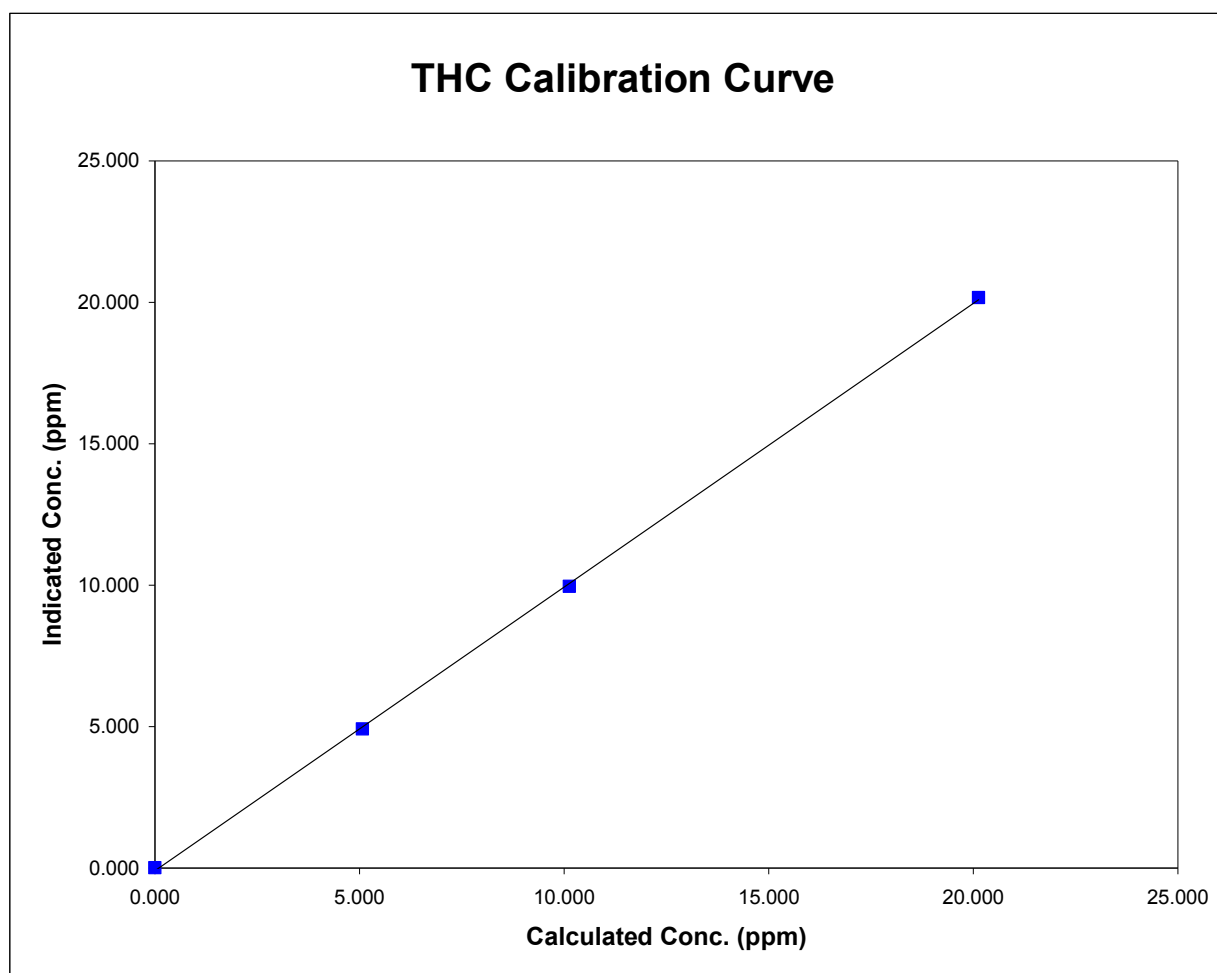


### Station Information

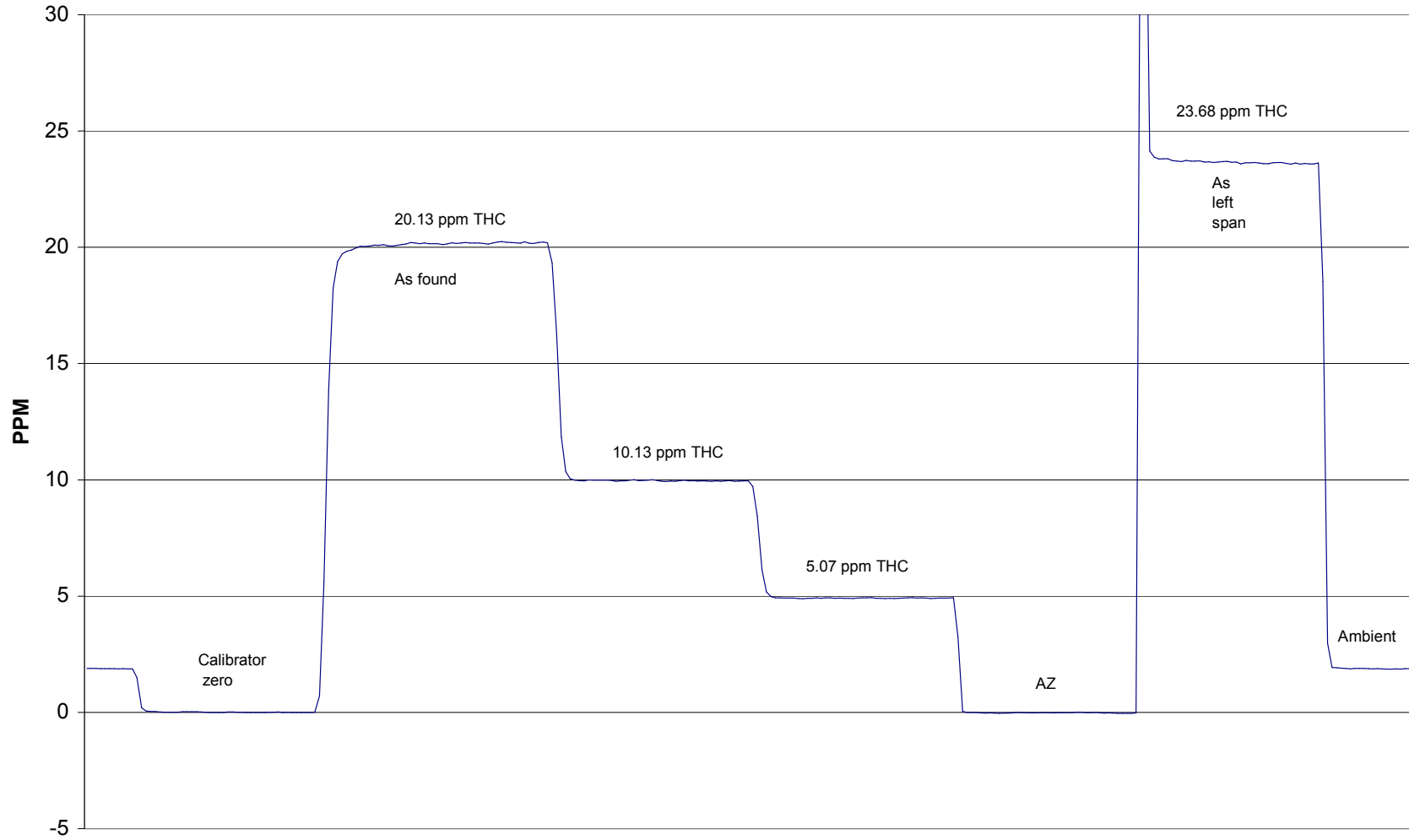
Calibration Date	September 14, 2005	Previous Calibration	August 24, 2005
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	11:00	End Time (MST)	13:25
Analyzer make/model	TEI model 51C-LT	Analyzer serial #	407505596

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.008	N/A		
20.132	20.163	0.9984	Correlation Coefficient	0.999859
10.128	9.962	1.0166		
5.071	4.912	1.0322	Slope	0.996874
			Intercept	0.098365



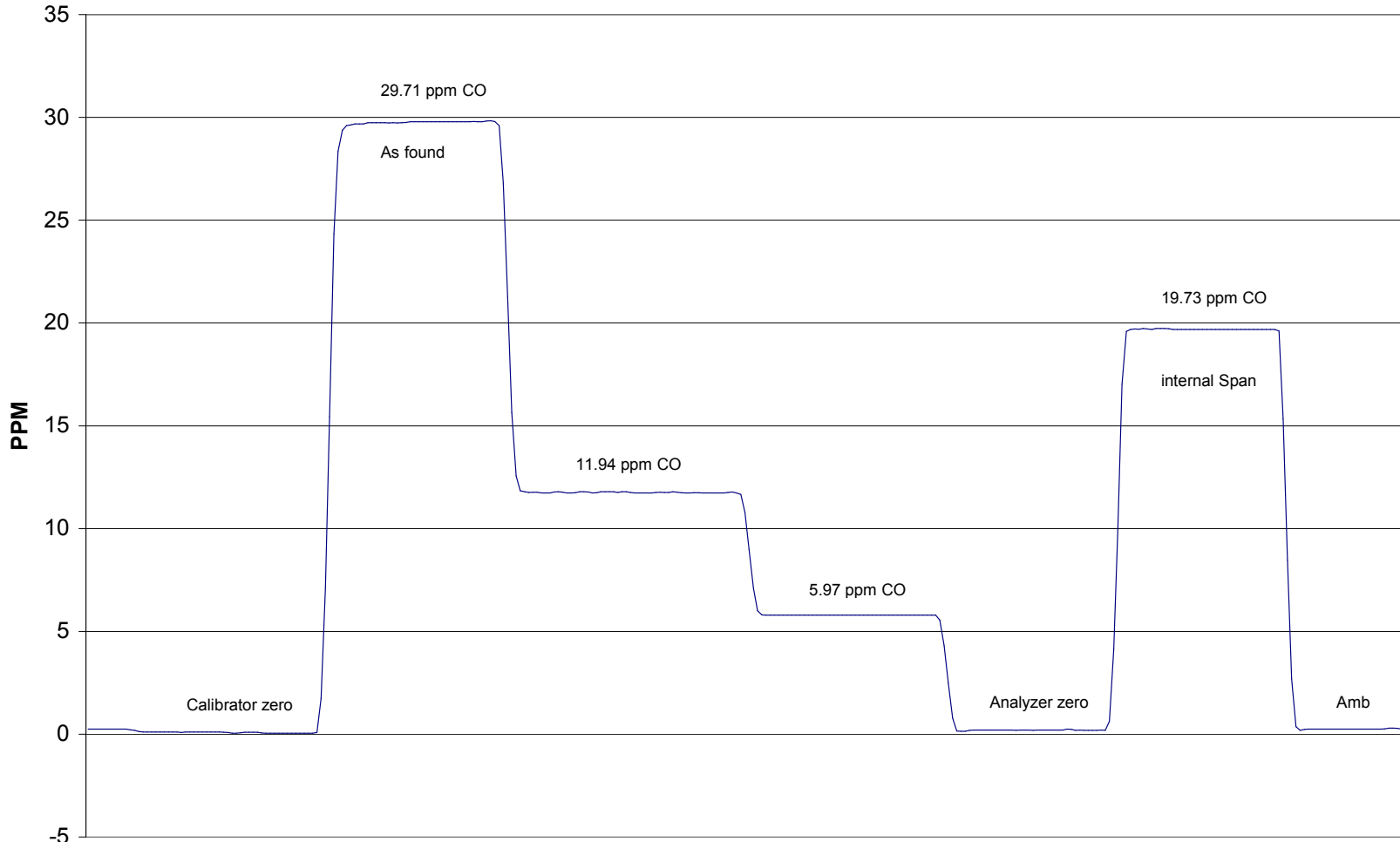
### THC Calibration







### CO Calibration



September 14, 2005