



# Palliser Airshed Society

## Ambient Air Monitoring Network Summary

### November 2006

Prepared By:



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December 13, 2006

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

**Attention: Director of Monitoring and Evaluation**

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

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

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

**Continuous Monitoring – Crescent Heights**

Included in this report are; monthly sampling table, detailed hourly average reports and multipoint calibration reports of all instruments. The measured ambient air quality was within the Provincial and Federal guidelines with no exceedences recorded. Operational uptime of all instruments was 90% or greater for the month of November. There were no significant events leading to emergency response for the month of November.

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

- Monthly average concentrations of NO<sub>2</sub> was 8.1 ppb
- Monthly average concentrations for O<sub>3</sub> was 20.0 ppb
- Monthly average concentrations for CO was 0.2 ppm
- Monthly average concentrations for THC was 2.1 ppm
- Monthly average concentrations for PM<sub>2.5</sub> was 2.7 µg/m<sup>3</sup>

The Air Quality Index (AQI) recorded 682 hours of 'Good' readings for the month of November.

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

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

- ◆ Monthly average concentrations for SO<sub>2</sub> passives were all ≤0.5 ppb.
- ◆ Monthly average concentrations for NO<sub>2</sub> passives ranged from 3.7 ppb to 8.2 ppb
- ◆ Monthly average concentrations for O<sub>3</sub> passives ranged from 20.2 ppb to 27.1 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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# Continuous Monitoring

## Ambient Air Monitoring Network

### Crescent Heights Station

#### General Station Issues

Calibrations were performed on November 21<sup>st</sup> (NO<sub>x</sub>, THC, and CO) and 22<sup>nd</sup> (O<sub>3</sub> and TEOM). There were no outstanding issues for the month of November.

Parameter	Make	Model	Units	Notes
Ozone	Teledyne - API	400E	ppb	No operational issues observed.
Nitrogen Dioxide	Teledyne - API	200E	ppb	No operational issues observed.
Total Hydrocarbons	Bendix	400A	ppm	No operational issues observed.
Carbon Monoxide	TEI	49C	ppm	No operational issues observed.
PM 2.5	R&P TEOM	1400ab	µg/m <sup>3</sup>	There were three (3) hours of excessive baseline drift flagged. No other operational issues 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	W/m <sup>2</sup>	No operational issues observed.
Data Acquisition System	Titan Logix	AP1000		No operational issues observed.



# November 2006 Monthly Overall Summary Report

## Ambient Air Quality Data

Pollutant (units)		Palliser Airshed Society					Maximum Recorded Values						Operational Time (%)
							1-hr		24-hr / 8-hr				
		1-hr	24-hr	1-hr	24-hr								
NO (ppb)		Crescent Heights	5.2	-	-	96.4	Nov-18 18:00	3.7	SSE	14.9	Nov-18	100.0%	
NO <sub>2</sub> (ppb)	212	106	Crescent Heights	8.1	0	0	38.6	Nov-18 18:00	3.7	SSE	15.9	Nov-29	100.0%
NO <sub>x</sub> (ppb)		Crescent Heights	13.1	-	-	134.6	Nov-18 18:00	3.7	SSE	27.6	Nov-14	100.0%	
O <sub>3</sub> (ppb)	82		Crescent Heights	20.0	0	-	38.4	Nov-21 22:00	30.2	SW	31.5	Nov-30	100.0%
O <sub>3</sub> (ppb) - 8-hr	65		Crescent Heights	0						36.5		Nov-19	
CO (ppm)	13		Crescent Heights	0.17	0	-	1.0	Nov-18 19:00	6.2	SSE	0.3	Nov-07	100.0%
CO (ppm) - 8-hr	5		Crescent Heights	0						0.6		Nov-07	
THC (ppm)			Crescent Heights	2.09	-	-	2.9	Nov-07 17:00	3.7	ENE	2.4	Nov-06	100.0%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	30 <sup>a</sup>		Crescent Heights	2.7	0		19.4	Nov-02 08:00	3.3	ENE	9.0	Nov-14	99.6%
RH (%)			Crescent Heights	63.3	-	-	-	-	-	-	-	-	100.0%
SR (W/m <sup>2</sup> )			Crescent Heights	50.0	-	-	-	-	-	-	-	-	100.0%
Temp (°C)			Crescent Heights	-2.5	-	-	-	-	-	-	-	-	100.0%
WSPD v (km/hr)			Crescent Heights	5.8	-	-	39.2	Nov-16 05:00	39.2	SW	24.3	15-Nov	100.0%
WSPD s (km/hr)			Crescent Heights	13.5	-	-	39.4	Nov-16 05:00	39.4	SW	24.5	15-Nov	100.0%
WDIR			Crescent Heights	WSW	-	-	-	-	-	-	-	-	100.0%

Note: <sup>a</sup> the draft 24-hr Alberta Ambient Air Quality Objectives



# **PAS - Crescent Heights**

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



## PAS - Crescent Heights - AQI Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

### Air Quality Index (AQI)

Monitoring Dates: November 1, 2006 to December 1, 2006

Alberta's Air Quality Index

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

#### Summary

Number of 1-hr Good Readings:	682
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 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
1-Nov-06	12	12	11	10	10	8	N	6	6	8	10	14	15	16	16	15	12	6	6	6	6	6	6	6	6
2-Nov-06	5	5	6	5	6	N	N	6	16	10	12	14	16	18	18	17	16	16	14	14	13	10	10	13	
3-Nov-06	13	13	12	10	N	11	7	6	5	10	9	9	9	9	11	8	5	5	5	5	5	5	4	4	
4-Nov-06	3	3	4	N	5	4	3	4	4	3	3	5	6	5	5	4	4	5	4	12	12	13	16	16	
5-Nov-06	16	16	N	15	15	14	13	13	12	12	17	17	17	17	17	16	12	15	16	16	12	8	7	8	
6-Nov-06	10	N	7	7	9	7	4	4	4	3	4	3	2	3	4	2	3	4	2	2	2	5	4	4	
7-Nov-06	N	6	4	5	4	5	5	4	3	4	5	3	3	2	3	3	3	5	3	3	4	7	9	N	
8-Nov-06	12	3	4	6	8	8	5	5	8	9	11	11	13	14	15	15	14	12	11	11	11	N	11		
9-Nov-06	12	11	11	9	9	8	9	9	9	10	9	9	10	11	11	12	12	12	12	11	11	N	10	9	
10-Nov-06	9	8	8	8	7	7	4	5	3	5	10	15	14	16	13	14	12	13	16	16	N	16	16	15	
11-Nov-06	16	17	17	17	17	17	15	12	9	11	11	9	6	6	6	7	7	7	N	7	7	7	7		
12-Nov-06	7	6	7	8	6	5	4	5	4	11	15	16	17	17	16	14	12	13	N	14	15	15	16	16	
13-Nov-06	17	17	18	19	17	17	16	17	17	18	19	18	17	17	18	18	N	19	14	9	10	7	6		
14-Nov-06	5	5	7	7	8	10	12	14	11	8	9	8	8	10	10	8	N	7	10	7	8	9	6	5	
15-Nov-06	5	4	11	9	8	12	12	14	15	16	18	18	17	17	18	N	18	17	17	16	16	16	16	16	
16-Nov-06	17	17	17	17	17	16	14	14	16	13	13	12	15	13	N	15	13	14	11	6	6	5	7	10	
17-Nov-06	11	12	14	13	13	10	11	8	9	12	15	16	16	N	18	16	7	8	8	8	11	9	11	11	
18-Nov-06	12	13	15	12	13	13	12	13	13	14	15	16	N	16	15	14	10	7	10	11	6	5	5	5	
19-Nov-06	6	5	7	5	5	10	13	18	19	18	18	N	18	18	18	17	17	16	16	16	16	16	15	15	
20-Nov-06	15	15	15	16	15	13	11	7	9	N	5	7	15	18	16	N	18	16	15	13	13	15	13	13	
21-Nov-06	13	14	14	15	15	14	10	7	5	N	8	9	14	N	13	14	13	10	14	16	15	19	19		
22-Nov-06	17	14	N	10	9	9	10	11	3	N	N	13	13	12	12	12	10	10	10	11	11	11	10	10	
23-Nov-06	10	9	N	7	5	7	4	3	4	7	7	7	6	7	6	5	5	5	5	6	4	4	5		
24-Nov-06	6	7	N	6	7	7	9	8	7	8	10	10	11	11	10	9	10	9	11	11	12	12	11		
25-Nov-06	10	N	11	9	8	6	5	5	8	9	12	13	14	13	13	12	13	12	11	8	7	8	8		
26-Nov-06	N	8	12	11	10	6	6	5	5	5	8	8	8	10	10	11	11	11	10	11	11	13	13		
27-Nov-06	14	14	14	14	13	13	11	11	11	12	11	12	13	14	13	12	12	10	11	12	13	13	N		
28-Nov-06	12	12	12	12	12	11	11	10	10	10	11	11	11	11	10	9	10	10	9	N	8	12			
29-Nov-06	9	9	11	10	12	12	12	8	7	11	13	14	16	17	16	11	7	8	8	8	N	7	7	9	
30-Nov-06	15	18	18	19	19	19	18	18	17	17	16	16	15	13	14	14	12	12	11	15	15	16	16		



## PAS - Crescent Heights - Nitrogen Dioxide Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: November 1, 2006 to December 1, 2006

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

Number of 1-hr Exceedances:	0		
Number of 24-hr Exceedances:	0		
Maximum 1-hr Average:	38.6 ppb	18-Nov	18:00 19:00
Maximum 24-hr Average:	15.9 ppb	29-Nov	

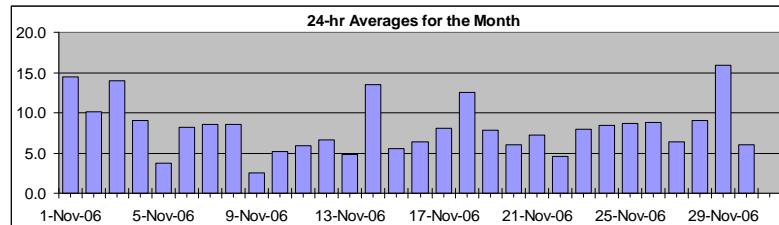
AIC Time:	32 hrs	Operational Time:	683 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	28.8	22.2	10.4	6.3	3.5	1.8	1.1	8.1 ppb	6.3 ppb

Day	Mountain Standard Time																									24-hour Average	Daily Maximum	
	Hour Start 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Nov-06	6	7	8	9	9	13	A	26	20	13	12	6	5	4	4	5	9	21	25	26	25	25	25	27	27	14.5	27.2	
2-Nov-06	22	23	23	21	23	A	25	24	22	6	5	3	2	1	1	1	1	2	3	3	3	3	7	8	3	10.1	25.0	
3-Nov-06	3	5	4	7	A	7	13	25	19	8	7	13	16	17	9	12	20	22	19	22	20	19	18	17		14.0	24.9	
4-Nov-06	11	11	5	A	17	12	12	13	10	8	7	5	6	8	10	9	8	18	19	6	4	4	2	2		9.0	18.8	
5-Nov-06	2	3	A	4	3	3	2	2	3	6	2	3	2	2	3	3	10	4	2	3	5	7	7	6		3.8	10.4	
6-Nov-06	6	A	10	9	9	8	9	10	9	8	8	6	5	4	6	9	13	14	10	8	8	11	4	4		8.2	13.6	
7-Nov-06	A	4	7	3	5	3	3	4	6	7	6	11	6	9	12	12	13	16	14	14	17	9	6	A		8.6	17.2	
8-Nov-06	5	12	10	8	13	12	15	17	13	12	10	10	8	6	6	4	5	6	6	6	4	4	A	4		8.6	17.2	
9-Nov-06	3	3	2	4	3	3	2	2	3	2	2	2	2	2	2	2	3	3	2	2	A	4	3		2.5	3.9		
10-Nov-06	3	4	3	3	3	3	7	6	13	9	7	3	3	3	4	5	10	10	4	3	A	5	4	3		5.2	12.8	
11-Nov-06	3	3	2	2	2	2	2	5	12	6	6	6	6	4	6	7	6	6	9	A	11	9	11		5.9	12.0		
12-Nov-06	11	10	10	10	7	7	12	13	12	7	4	2	2	3	3	6	7	6	A	6	5	3	3	3		6.6	13.2	
13-Nov-06	3	6	5	2	3	3	3	3	4	4	4	3	3	4	5	3	3	5	A	5	9	11	9	8	6		4.8	11.1
14-Nov-06	7	14	14	12	10	10	12	13	9	5	7	5	5	4	5	8	A	28	27	22	24	25	22	21		13.5	28.2	
15-Nov-06	21	15	4	8	11	5	6	7	7	5	2	2	3	3	3	3	A	6	5	3	4	2	2	1		5.5	21.2	
16-Nov-06	1	1	1	1	2	2	3	4	3	8	2	3	2	5	A	8	10	7	11	21	19	17	10	6			6.4	21.4
17-Nov-06	4	4	2	2	3	9	8	12	12	6	5	4	3	A	6	7	21	18	14	14	7	10	7	7		8.0	21.1	
18-Nov-06	6	4	3	8	6	4	8	5	4	5	6	5	A	8	7	8	13	27	39	33	24	20	21	21		12.5	38.6	
19-Nov-06	23	21	28	21	21	10	11	3	2	2	2	A	4	3	2	3	3	3	4	3	3	3	2	2		7.8	28.1	
20-Nov-06	2	1	2	1	2	3	5	8	13	8	A	22	13	6	4	4	11	5	5	5	6	6	3	3		6.0	22.3	
21-Nov-06	4	3	4	4	3	4	13	19	22	C	C	C	C	C	A	10	9	8	10	6	3	7	1	1		7.2	21.6	
22-Nov-06	1	8	A	8	6	7	7	6	7	4	4	2	2	4	3	4	6	7	4	4	3	2	2	2		4.6	8.4	
23-Nov-06	2	3	A	8	9	7	11	14	11	4	4	4	5	6	9	10	9	8	10	11	7	12	11	10		8.0	13.5	
24-Nov-06	10	9	A	14	11	10	8	10	10	9	7	6	6	7	10	11	9	12	7	7	6	5	5	7		8.5	13.8	
25-Nov-06	8	A	9	11	13	17	17	20	12	8	4	2	2	3	5	4	5	4	4	6	12	14	11	9		8.6	20.1	
26-Nov-06	A	11	3	3	4	11	24	22	20	17	11	13	12	6	5	5	4	5	5	3	3	2	1	A	10		8.7	24.3
27-Nov-06	3	2	2	3	4	6	9	9	8	6	7	6	5	4	6	9	8	12	9	7	6	5	A	10		6.4	11.9	
28-Nov-06	8	7	6	6	5	5	7	7	8	9	10	8	8	8	9	10	12	12	10	12	13	A	18	8		9.0	17.6	
29-Nov-06	13	13	9	13	9	7	8	16	19	10	6	5	5	4	5	18	30	32	33	A	29	30	19		15.9	33.0		
30-Nov-06	8	3	2	1	1	2	4	4	5	3	5	5	6	12	11	10	11	12	13	A	7	6	3	3		6.0	13.1	

Hourly Avg	7.0	7.4	6.9	7.1	7.6	6.8	9.3	11.0	10.7	7.1	5.7	5.9	5.2	5.4	5.7	7.1	9.5	11.4	11.3	10.7	9.3	9.9	9.0	7.9
Hourly Max	23.2	22.7	28.1	21.4	23.4	17.0	25.0	25.9	22.4	16.8	12.1	22.3	15.5	16.5	12.1	18.0	29.8	31.8	38.6	33.4	24.8	28.6	29.7	27.1

### HOURLY AVERAGE TABLE

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



### Status Flag Characters

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

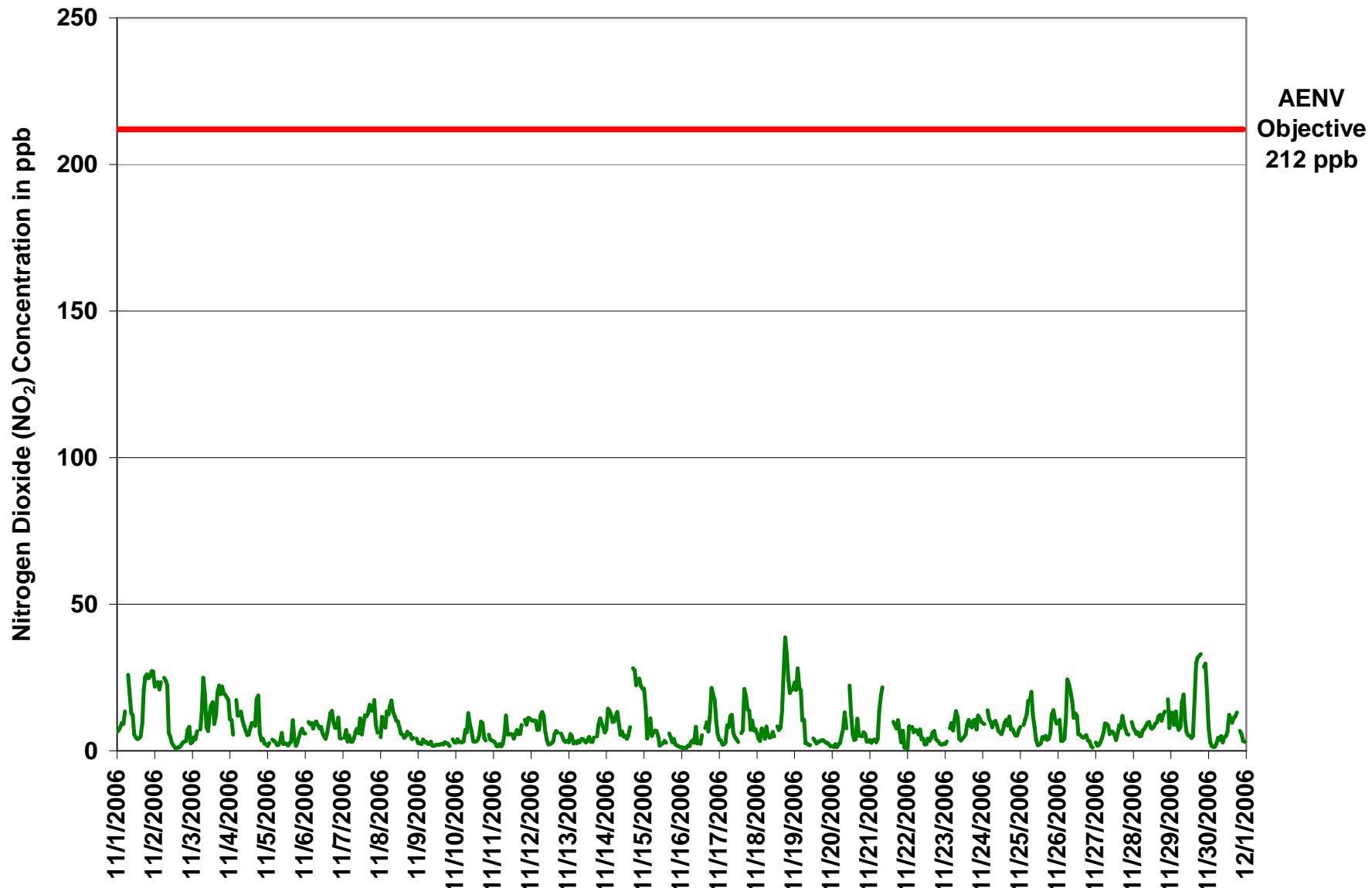


Figure 1. PAS - Crescent Heights Nitrogen Dioxide 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

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

Monitoring Dates: November 1, 2006 to December 1, 2006

#### Summary

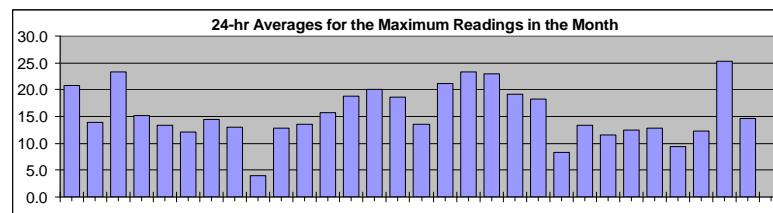
Maximum 1-hr Value:	78.7	ppb	29-Nov	22:00 23:00
Maximum 24-hr Value:	25.2	ppb	29-Nov	

AIC Time:	32 hrs	Operational Time:	683 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	Median
	48.0 36.7 21.1 12.4 7.2 3.4 2.3	15.6 ppb	12.4 ppb

#### Day Mountain Standard Time

	Hour Start Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
1-Nov-06	11 1:00	11	11	13	12	15	21	A	30	26	44	18	8	6	5	6	7	31	28	31	31	33	31	31	31	20.9	44.2
2-Nov-06	28 2:00	28	27	28	23	32	A	31	32	32	11	6	4	3	2	2	2	2	3	7	5	5	16	17	4	14.0	32.1
3-Nov-06	6 3:00	7	5	11	A	16	22	37	39	14	9	28	19	48	35	28	31	35	26	32	22	21	26	21		23.3	47.7
4-Nov-06	13 4:00	12	10	A	19	18	20	16	13	16	10	7	8	16	11	12	11	21	32	29	12	29	3	13		15.1	31.8
5-Nov-06	3 5:00	45	A	7	22	25	3	3	13	13	6	18	5	3	4	5	23	10	3	23	15	23	28	8	13.4	45.0	
6-Nov-06	7 6:00	A	11	11	11	9	11	15	13	10	12	11	7	6	16	12	20	15	14	9	10	31	11	6	12.1	31.2	
7-Nov-06	7 7:00	A	15	13	13	12	5	7	12	11	9	21	7	11	18	23	25	20	16	17	26	17	12	A	14.5	26.3	
8-Nov-06	10 8:00	15	18	10	19	19	23	23	21	14	14	12	13	7	13	9	13	9	9	8	7	6	A	8	13.1	23.4	
9-Nov-06	4 9:00	4	4	4	6	6	5	4	4	5	3	3	3	3	4	4	5	3	4	4	3	3	A	7	4	4.0	6.5
10-Nov-06	4 10:00	5	4	4	4	5	13	8	17	12	12	12	6	27	20	22	25	17	22	17	A	25	10	4	12.8	27.0	
11-Nov-06	12 11:00	42	12	8	36	2	4	15	35	14	8	8	7	6	10	9	7	8	14	A	14	13	14	15	13.6	42.0	
12-Nov-06	15 12:00	14	12	12	12	10	24	16	16	35	6	11	15	13	5	24	10	10	A	26	25	19	10	20	15.7	34.8	
13-Nov-06	18 13:00	65	47	5	32	18	26	4	11	6	8	13	27	32	25	5	19	A	7	18	15	14	9	9	18.8	64.7	
14-Nov-06	12 14:00	16	16	14	12	13	14	15	13	7	9	8	8	7	8	11	A	46	44	28	28	69	34	31	20.1	68.6	
15-Nov-06	51 15:00	44	8	12	15	24	10	10	44	18	12	4	4	70	4	A	10	27	4	32	15	3	2	18.6	70.5		
16-Nov-06	10 16:00	2	10	7	21	3	14	5	7	28	4	11	4	10	A	11	13	11	21	35	28	24	22	9	13.5	35.1	
17-Nov-06	6 17:00	11	3	3	5	21	18	17	33	13	30	38	37	A	24	13	31	25	20	46	10	29	24	30		21.2	46.4
18-Nov-06	24 18:00	6	5	49	43	6	24	7	6	25	16	24	A	11	9	12	24	44	46	46	29	25	32	22		23.3	49.0
19-Nov-06	46 19:00	40	66	31	28	18	32	25	15	8	6	A	7	24	10	4	27	26	42	20	23	25	4	2	23.0	65.7	
20-Nov-06	3 20:00	2	3	21	47	33	22	13	A	27	20	34	28	7	35	24	6	6	39	36	5	6		19.2	47.5		
21-Nov-06	13 21:00	4	6	28	11	11	33	32	35	C	C	C	C	A	17	17	20	16	12	5	31	15	21		18.2	35.2	
22-Nov-06	7 22:00	14	A	18	9	10	10	8	18	9	7	4	5	8	7	7	9	10	5	5	5	5	4	4	8.2	18.5	
23-Nov-06	5 23:00	7	A	12	12	13	13	16	18	17	5	18	10	17	19	15	11	12	12	15	11	18	17	14	13.4	19.0	
24-Nov-06	16 00:00	11	A	19	13	12	10	12	12	11	10	9	7	10	12	15	14	17	9	9	10	6	7	14	11.5	18.9	
25-Nov-06	14 01:00	A	11	14	18	26	22	24	16	13	6	3	4	6	6	5	7	5	6	9	22	19	18	11	12.5	26.2	
26-Nov-06	17 02:00	5	5	5	6	25	28	28	27	34	12	16	16	9	9	8	7	6	7	5	4	4	2	A	12.7	34.0	
27-Nov-06	9 03:00	3	4	6	9	11	15	16	10	9	9	8	5	13	13	13	16	12	9	7	7	A	13	9.5	16.3		
28-Nov-06	10 04:00	10	7	8	6	7	10	9	11	12	11	10	10	13	12	12	16	15	16	20	16	A	26	15	12.3	26.5	
29-Nov-06	16 05:00	18	17	19	32	8	10	26	28	15	8	11	6	7	26	34	38	39	44	39	A	33	79	27	25.2	78.7	
30-Nov-06	20 06:00	11	6	3	6	32	41	8	24	4	21	12	14	18	15	14	15	25	20	A	10	8	6	5	14.6	40.8	

Hourly Avg 13.9 16.8 14.1 12.8 16.1 14.4 18.5 16.7 19.9 15.1 10.3 12.7 10.2 15.3 13.3 12.5 17.4 18.9 17.8 19.9 16.1 21.0 17.0 13.2  
Hourly Max 50.6 64.7 65.7 49.0 42.9 32.5 47.5 36.8 44.3 44.2 30.0 38.0 37.3 70.5 35.2 34.0 37.6 46.0 46.3 46.4 38.6 68.6 78.7 31.0



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

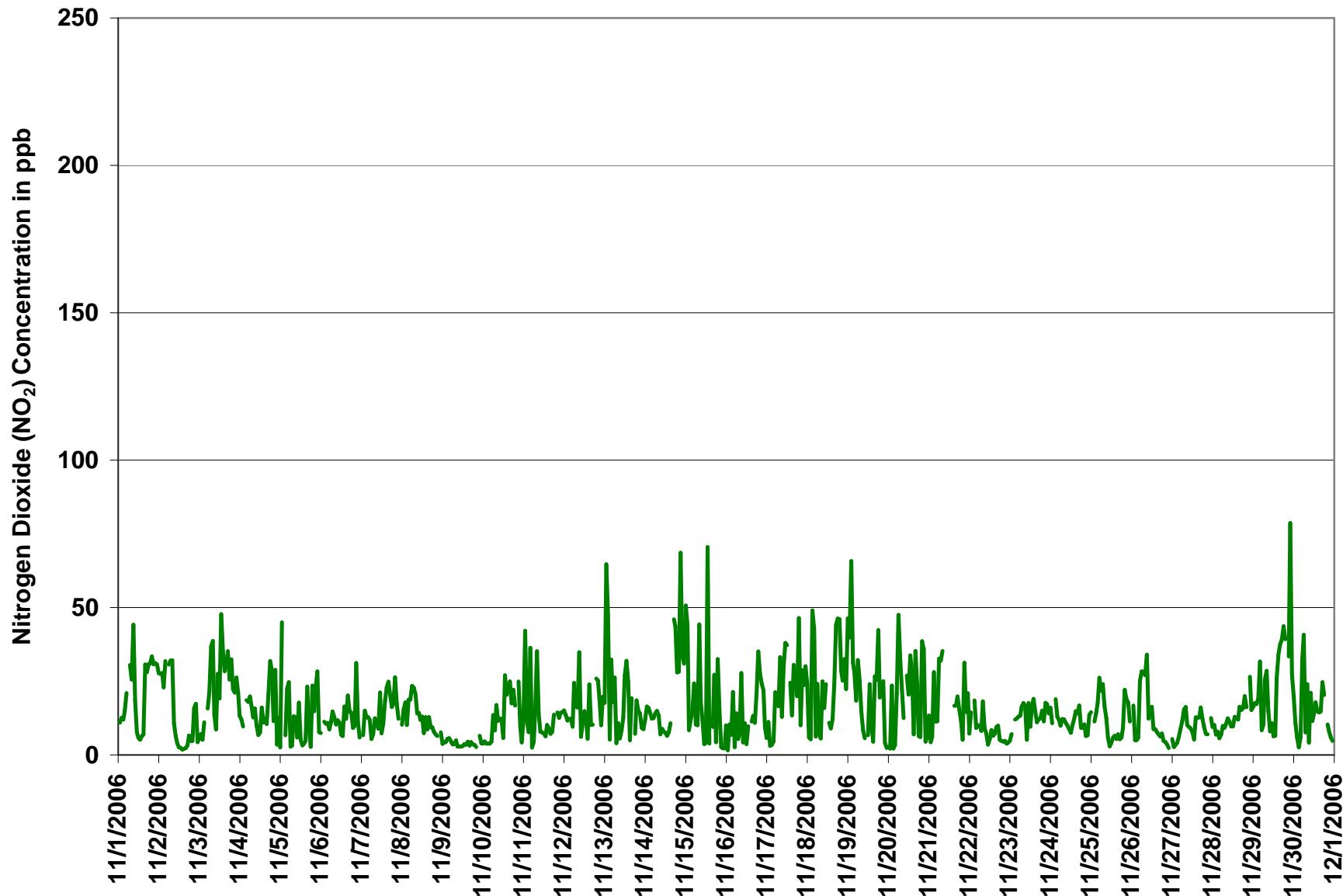
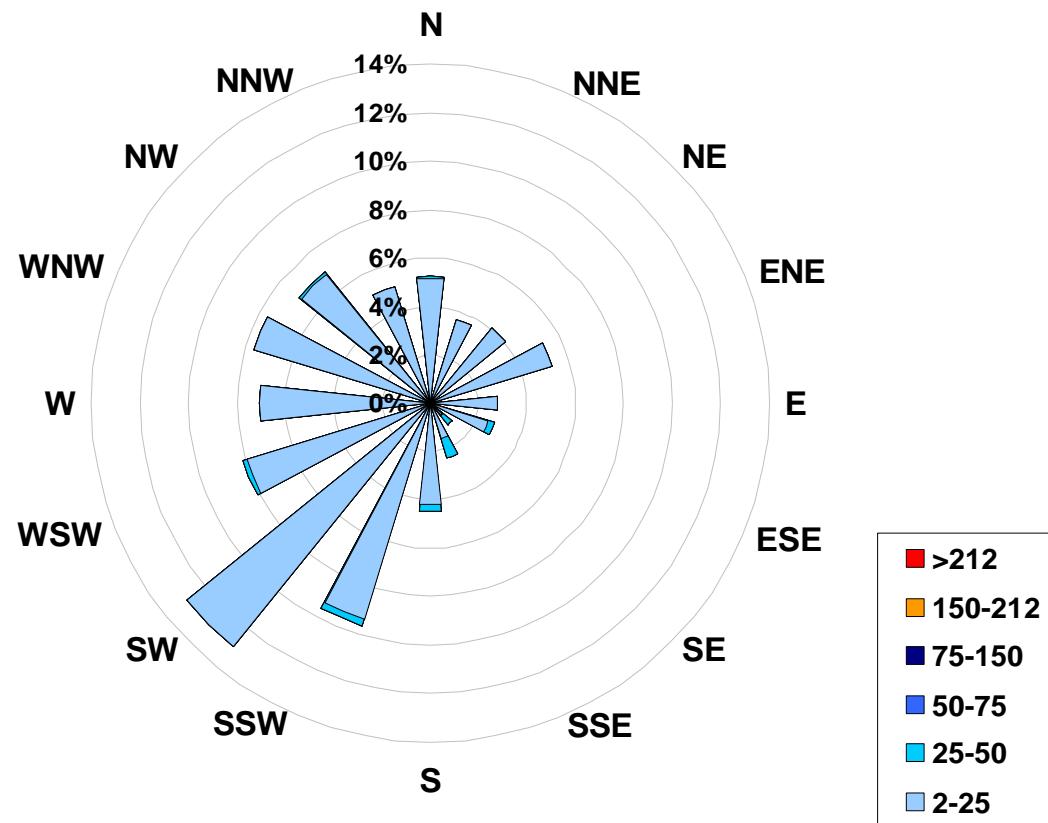


Figure 2. PAS - Crescent Heights Nitrogen Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend



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



Calms:	0%	Frequency Distribution of NO <sub>2</sub> in ppb		
		Range	Frequency (hrs)	
2.0	<	25	655	
25	to	50	23	
50	to	75	3	
75	to	150	2	
150	to	212	0	
	>	212	0	
Total Non-Zero Values			683	



## PAS - Crescent Heights - Nitric Oxide Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: November 1, 2006 to December 1, 2006

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

Maximum 1-hr Average: 96.4 ppb 18-Nov 18:00 19:00  
Maximum 24-hr Average: 14.9 ppb 18-Nov

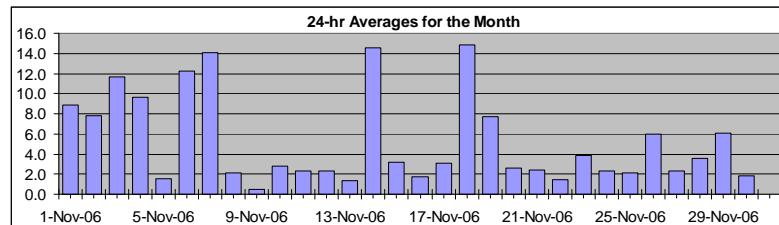
AIC Time:	32 hrs	Operational Time:	683 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	Median
	44.6 21.8 4.5 2.1 0.9 0.3 0.1	5.2 ppb	2.1 ppb

		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	24:00	
	1:00	0	0	0	1	1	2	A	21	19	14	13	4	3	3	3	2	4	4	7	11	17	11	33	30	8.9	32.6
1-Nov-06	0	0	0	1	1	2	A	21	19	14	13	4	3	3	3	2	4	4	7	11	17	11	33	30	8.9	32.6	
2-Nov-06	11	11	16	8	21	A	22	31	40	5	3	2	1	1	1	1	0	1	0	0	1	1	1	1	1	7.8	40.3
3-Nov-06	1	1	0	1	A	1	1	21	18	7	7	18	16	18	8	10	13	19	14	34	18	16	17	11	11.7	33.6	
4-Nov-06	3	2	1	A	15	12	9	14	15	15	9	7	7	13	10	5	2	45	27	2	2	2	1	3	9.6	44.6	
5-Nov-06	0	1	A	1	2	1	1	1	4	2	1	2	1	1	2	1	3	1	1	1	1	3	2	2	1.5	3.9	
6-Nov-06	2	A	3	3	7	3	7	16	12	13	16	9	7	5	7	10	30	36	12	11	22	45	4	1	12.3	44.6	
7-Nov-06	A	1	5	2	4	3	2	3	5	5	4	10	6	13	34	32	36	48	15	33	40	7	1	A	14.1	48.3	
8-Nov-06	1	8	4	1	3	3	3	4	3	3	2	2	2	2	2	1	1	1	0	1	1	0	0	A	0	2.1	7.6
9-Nov-06	0	0	0	0	0	0	0	1	1	0	1	1	1	1	1	0	1	0	1	0	0	A	0	0	0.5	1.2	
10-Nov-06	0	0	0	0	0	0	2	1	22	11	7	2	2	3	3	2	3	2	1	2	A	2	1	0	2.8	21.9	
11-Nov-06	1	2	1	1	2	0	1	1	5	3	4	6	6	3	3	3	2	1	3	A	2	1	2	2	2.4	6.5	
12-Nov-06	3	2	2	1	1	1	9	6	9	5	1	1	1	1	1	3	1	0	A	2	1	1	0	1	2.3	9.1	
13-Nov-06	1	4	2	0	2	0	1	0	1	1	1	2	3	3	2	1	2	A	1	1	1	1	1	1	1.4	3.7	
14-Nov-06	1	3	5	7	4	4	4	16	8	4	5	3	3	2	4	4	A	23	42	32	51	70	27	15	14.6	69.7	
15-Nov-06	36	10	0	1	1	2	2	2	5	3	1	1	1	2	1	A	1	1	0	2	2	1	0	0	3.2	35.8	
16-Nov-06	1	0	1	0	1	1	1	1	2	4	1	2	2	2	2	A	2	2	1	5	3	3	2	1	1.7	5.1	
17-Nov-06	1	1	0	1	1	5	4	2	7	3	3	4	3	A	3	1	4	2	3	9	1	4	2	5	3.1	9.3	
18-Nov-06	3	0	0	9	2	1	3	1	1	3	4	3	A	2	2	2	2	23	96	91	19	10	38	24	14.9	96.4	
19-Nov-06	39	24	63	14	12	1	5	1	1	1	1	A	1	2	1	1	1	2	4	1	1	1	0	0	7.7	62.9	
20-Nov-06	0	0	1	0	0	3	6	3	4	2	A	19	5	3	2	1	2	1	1	0	3	2	0	0	2.6	19.0	
21-Nov-06	1	0	0	1	1	0	6	8	18	C	C	C	C	C	A	1	1	2	1	0	0	2	0	1	2.4	17.6	
22-Nov-06	0	2	A	2	1	1	1	2	3	2	2	2	2	3	2	2	1	1	1	1	1	1	0	0	1.5	3.2	
23-Nov-06	0	0	A	2	3	2	4	7	8	3	3	5	4	5	10	7	4	4	4	3	2	3	3	2	3.8	10.2	
24-Nov-06	2	1	A	2	1	1	2	4	3	3	3	3	3	4	5	4	2	2	2	1	1	1	1	1	2.3	4.7	
25-Nov-06	2	A	2	1	1	2	5	4	3	4	3	2	2	2	2	1	1	0	1	0	2	3	2	1	2.1	5.0	
26-Nov-06	A	1	1	1	1	3	10	8	13	25	15	18	19	5	4	2	1	1	1	1	1	1	0	A	6.0	25.4	
27-Nov-06	1	1	1	1	0	1	2	3	5	3	4	5	5	3	4	4	2	2	1	1	1	1	1	A	2.3	5.1	
28-Nov-06	1	1	1	1	1	1	1	2	3	6	7	7	7	7	4	3	2	3	4	4	A	6	2	3.5	7.2		
29-Nov-06	3	4	2	4	3	2	2	4	9	7	6	6	5	4	3	10	13	13	10	11	A	3	11	6	6.1	13.1	
30-Nov-06	1	2	2	0	0	1	4	1	2	1	2	2	2	4	3	2	2	3	2	A	1	1	1	1	1.8	4.3	

Hourly Avg	4.1	3.0	4.4	2.3	3.1	2.0	4.2	6.3	8.2	5.5	4.7	5.3	4.3	4.2	4.6	4.2	4.8	8.4	8.8	9.5	7.0	7.0	5.6	4.1
Hourly Max	39.3	23.8	62.9	14.2	20.7	11.6	22.4	30.9	40.3	25.4	15.7	19.0	18.9	18.4	33.7	32.5	36.4	48.3	96.4	91.4	50.6	69.7	38.4	29.8

### HOURLY AVERAGE TABLE

### Nitric Oxide (NO)



### Status Flag Characters

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



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

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: November 1, 2006 to December 1, 2006

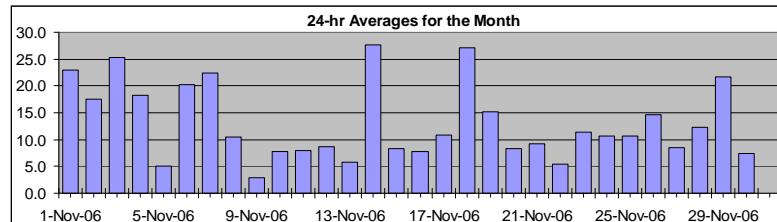
Guideline Limit: Alberta Environment: 1-hr na ppb 24-hr na ppb  
Summary

Maximum 1-hr Average:	134.6	ppb	18-Nov	18:00 19:00
Maximum 24-hr Average:	27.6	ppb	14-Nov	

AIC Time:	32 hrs	Operational Time:	683 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	Median
	62.6 43.7 14.5 8.5 4.5 2.2 1.3	13.1 ppb	8.5 ppb

### HOURLY AVERAGE TABLE

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



### Status Flag Characters

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

Day	Mountain Standard Time																									24-hour Average	Daily Maximum
	Hour Start 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	
1-Nov-06	7	7	8	10	9	15	A	47	38	26	25	9	7	7	7	6	13	25	31	37	41	36	59	56	23.0	59.4	
2-Nov-06	33	33	39	29	44	A	47	54	62	11	8	4	3	1	1	1	1	2	3	3	4	8	9	3	17.6	62.4	
3-Nov-06	3	5	4	7	A	8	14	46	37	15	13	31	31	35	16	22	32	41	33	55	37	34	35	28	25.4	55.1	
4-Nov-06	13	13	7	A	32	23	20	27	25	23	16	13	12	21	19	14	10	62	46	8	5	6	3	5	18.3	61.8	
5-Nov-06	2	3	A	4	5	4	2	2	7	8	3	4	3	3	4	4	13	5	2	4	6	10	10	8	5.0	12.9	
6-Nov-06	7	A	12	12	17	11	17	26	20	21	24	15	12	9	13	20	43	50	22	19	30	56	8	5	20.2	55.6	
7-Nov-06	A	5	12	5	8	6	4	7	11	12	10	21	11	22	46	44	49	64	28	47	57	16	7	A	22.3	63.5	
8-Nov-06	5	19	14	9	17	15	18	21	16	15	12	12	10	7	7	5	6	7	6	6	4	5	A	4	10.5	21.5	
9-Nov-06	3	3	2	4	3	3	3	3	4	2	2	3	3	3	3	2	3	3	3	2	A	4	3	2.9	4.1		
10-Nov-06	3	4	3	3	3	3	9	7	35	19	13	5	4	6	7	8	12	11	5	5	A	7	4	4	7.8	34.6	
11-Nov-06	4	5	2	2	4	2	3	7	17	8	9	11	12	7	9	9	7	7	11	A	12	10	13	13	7.9	16.6	
12-Nov-06	13	12	12	11	8	8	20	19	21	11	5	3	3	3	4	8	7	6	A	8	5	4	3	8.7	20.8		
13-Nov-06	4	9	7	2	5	3	4	3	5	5	4	5	6	7	5	3	6	A	5	10	12	10	9	7	5.9	11.7	
14-Nov-06	8	17	18	19	13	13	16	29	16	9	11	7	7	6	8	12	A	50	69	54	74	94	48	36	27.6	93.5	
15-Nov-06	57	25	4	9	12	7	8	8	12	8	3	3	3	5	3	A	7	5	3	6	3	2	2	1	8.3	56.5	
16-Nov-06	2	1	2	1	2	2	4	5	4	12	4	5	4	7	A	9	11	8	12	26	22	20	12	6	7.8	26.2	
17-Nov-06	4	4	2	3	4	14	12	14	19	9	8	7	6	A	9	8	25	20	17	23	8	15	9	13	10.9	25.2	
18-Nov-06	9	4	4	16	8	4	11	6	5	7	10	8	A	10	9	9	15	50	135	124	43	30	59	45	27.0	134.6	
19-Nov-06	62	44	90	35	32	11	15	3	3	2	A	5	5	4	3	4	5	7	4	3	4	2	1	15.2	90.5		
20-Nov-06	1	1	3	1	2	6	11	11	17	10	A	41	18	8	5	5	13	6	6	5	9	8	3	3	8.4	41.0	
21-Nov-06	4	3	3	5	3	4	19	26	39	C	C	C	C	C	A	11	9	9	11	6	3	9	1	9.2	38.9		
22-Nov-06	0	10	A	9	7	8	7	7	10	6	6	3	3	6	5	6	7	7	4	4	3	3	2	5.5	10.0		
23-Nov-06	3	3	A	9	12	8	14	20	18	7	6	9	8	11	19	17	12	12	14	14	9	14	14	11.4	19.6		
24-Nov-06	11	10	A	15	12	11	10	13	13	12	10	9	9	11	14	14	10	14	9	9	7	6	6	9	10.6	15.3	
25-Nov-06	10	A	11	11	13	19	22	24	15	12	7	4	4	5	7	5	6	4	4	6	14	17	13	10	10.6	24.1	
26-Nov-06	A	12	5	4	5	14	35	31	33	42	26	31	31	11	9	7	5	6	6	4	4	2	1	A	14.7	42.1	
27-Nov-06	3	2	2	3	4	7	12	12	13	9	11	11	10	7	10	13	10	14	10	8	7	A	11	8.5	13.8		
28-Nov-06	8	8	6	7	5	6	8	9	11	15	17	15	14	15	16	14	14	14	13	16	18	A	23	10	12.3	23.1	
29-Nov-06	16	17	11	17	11	8	10	20	28	17	12	11	10	8	8	27	42	45	42	44	A	31	40	25	21.8	44.6	
30-Nov-06	9	4	3	1	1	3	8	4	7	3	7	7	8	16	14	12	13	15	15	A	8	6	4	2	7.5	16.5	

Hourly Avg	10.9	10.1	11.1	9.1	10.4	8.5	13.2	17.1	18.7	12.3	10.1	11.0	9.2	9.3	10.0	11.0	14.0	19.5	19.7	19.9	16.0	16.6	14.4	11.6
Hourly Max	62.1	44.2	90.5	35.3	43.8	23.3	46.9	54.5	62.4	42.1	26.1	41.0	31.0	34.7	45.6	44.0	48.9	63.5	134.6	124.4	73.9	93.5	59.4	56.3

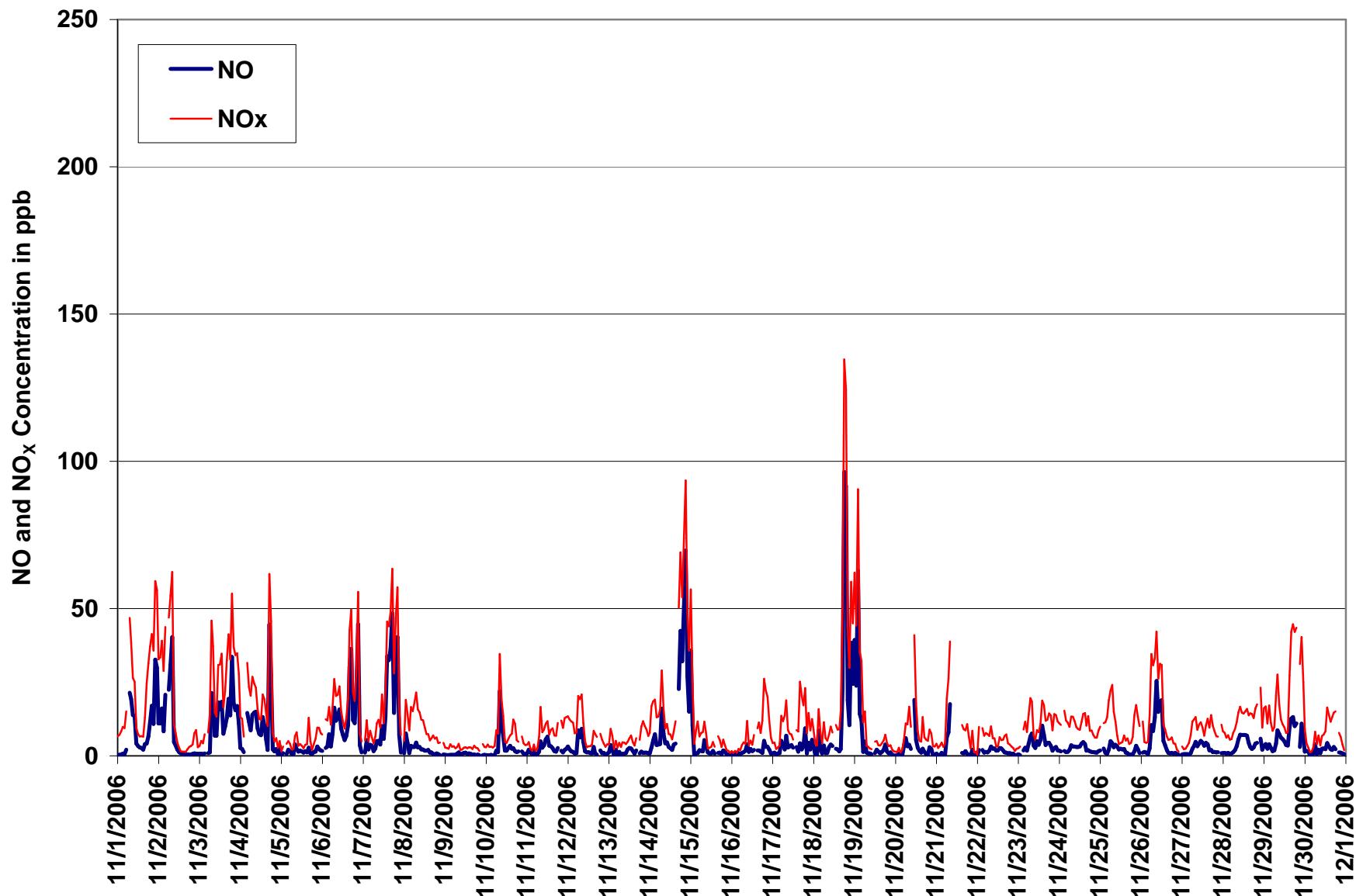


Figure 3. PAS - Crescent Heights Oxides of Nitrogen 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

### Nitric Oxide (NO)

Monitoring Dates: November 1, 2006 to December 1, 2006

#### Summary

Maximum 1-hr Value:	278.7	ppb	14-Nov	21:00 22:00
Maximum 24-hr Value:	50.9	ppb	18-Nov	

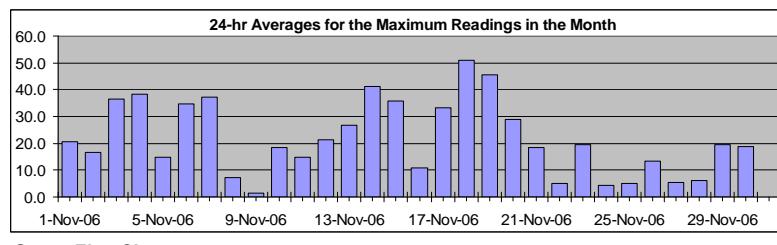
AIC Time:	32 hrs	Operational Time:	683 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	Median
	158.0 82.5 28.4 6.9 2.6 1.3 1.1	21.7 ppb	6.9 ppb

#### Day Mountain Standard Time

	Hour Start Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
1-Nov-06	1:00	2	2	2	1	7	A	44	24	61	23	6	4	4	5	3	59	8	11	24	44	30	64	44	20.5	64.2	
2-Nov-06	29:00	26	31	11	58	A	55	59	77	9	5	4	2	2	2	1	1	1	1	1	1	1	2	2	2	16.6	76.6
3-Nov-06	3:00	3	2	3	A	10	18	49	35	12	10	50	18	139	54	72	33	81	44	85	36	24	43	19		36.6	138.7
4-Nov-06	5:00	4	2	A	27	26	47	35	18	56	16	9	9	39	16	10	4	64	244	49	35	52	2	113		38.4	244.1
5-Nov-06	1:00	21	A	2	57	28	1	2	71	6	3	12	3	2	3	2	11	2	1	12	12	53	36	3	14.9	70.8	
6-Nov-06	3:00	A	4	12	13	5	12	28	19	21	24	50	20	35	34	24	75	60	32	29	31	190	68	5	34.6	190.4	
7-Nov-06	5:00	A	5	32	28	24	41	6	6	19	18	9	21	8	19	53	108	92	83	26	78	96	44	3	A	37.2	108.4
8-Nov-06	2:00	24	39	2	7	8	8	10	6	5	4	4	3	3	13	3	13	3	1	2	1	1	A	1	7.1	38.6	
9-Nov-06	1:00	2	2	1	1	1	1	2	2	2	2	2	2	2	2	2	1	2	1	1	1	A	1	1	1.6	2.4	
10-Nov-06	1:00	1	1	1	1	1	7	5	49	18	16	17	4	48	70	36	37	4	15	54	A	32	5	1	18.4	69.9	
11-Nov-06	22:00	63	23	5	62	1	2	22	58	9	7	8	9	6	6	4	3	2	5	A	3	3	9	7	14.7	62.7	
12-Nov-06	10:00	6	3	3	2	3	88	11	20	85	3	19	26	8	2	43	3	3	A	71	32	23	9	22	21.5	87.7	
13-Nov-06	55:00	126	59	1	71	13	40	1	10	2	13	59	50	41	37	2	18	A	2	4	2	2	2	2	26.6	126.5	
14-Nov-06	2:00	5	17	18	12	10	13	21	16	6	9	5	4	4	7	7	A	61	160	68	84	279	98	46	41.3	278.7	
15-Nov-06	242:00	83	2	3	3	68	46	24	125	59	15	2	2	37	2	A	2	19	2	36	52	2	1	1	35.9	241.6	
16-Nov-06	17:00	1	22	7	16	1	16	3	4	39	3	9	3	3	A	3	3	4	3	30	22	20	21	2	10.9	38.5	
17-Nov-06	2:00	4	1	2	2	42	54	4	89	14	44	66	58	A	69	3	10	5	19	113	2	63	38	57	33.1	112.9	
18-Nov-06	84:00	2	1	169	76	3	23	2	2	40	20	35	A	4	4	2	19	120	155	144	49	39	137	38	50.9	168.8	
19-Nov-06	158:00	107	234	40	26	5	72	20	20	11	7	A	3	41	41	2	34	46	90	26	22	39	2	1	45.5	233.8	
20-Nov-06	1:00	1	1	35	1	1	88	121	82	18	5	A	30	16	39	31	2	34	26	2	1	60	70	1	29.0	121.2	
21-Nov-06	12:00	1	1	38	5	4	53	33	66	C	C	C	C	C	A	3	5	19	2	2	3	30	23	30	18.3	66.0	
22-Nov-06	2:00	9	A	12	3	3	2	4	18	12	11	3	4	6	8	4	2	2	2	2	3	3	2	3	5.2	18.2	
23-Nov-06	3:00	3	A	5	5	4	8	13	76	42	4	63	19	45	93	12	5	9	9	7	4	6	7	3	19.5	92.7	
24-Nov-06	5:00	3	A	3	3	2	3	7	5	5	6	5	6	6	7	7	4	4	2	2	3	2	2	4	4.2	7.0	
25-Nov-06	4:00	A	5	3	2	5	9	7	5	6	5	3	4	14	3	2	2	1	2	2	3	7	24	3	5.2	23.7	
26-Nov-06	2:00	2	2	2	2	12	18	21	25	105	17	25	26	10	7	4	2	2	2	2	2	1	1	A	13.3	105.3	
27-Nov-06	2:00	2	2	2	1	1	3	4	16	28	5	6	8	7	9	8	3	3	3	3	2	3	A	5.5	28.0		
28-Nov-06	2:00	4	2	2	2	2	2	3	4	4	9	9	9	11	10	8	6	4	6	8	7	A	13	5	6.0	13.4	
29-Nov-06	5:00	8	7	7	16	3	3	8	27	11	8	13	7	5	29	42	29	30	38	31	A	12	77	29	19.4	76.9	
30-Nov-06	4:00	63	70	1	7	26	63	2	53	2	23	6	6	8	7	4	3	33	38	A	2	2	2	2	18.7	70.0	

Hourly Avg 24.2 20.7 23.1 13.3 17.5 14.7 27.5 18.2 33.0 23.3 11.4 19.4 11.9 20.8 22.2 14.8 17.8 24.2 31.6 31.7 21.9 36.9 24.8 15.9

Hourly Max 241.6 126.5 233.8 168.8 75.9 88.1 121.2 81.7 124.8 105.3 43.6 66.2 58.0 138.7 92.7 108.4 91.9 119.7 244.1 144.3 95.5 278.7 137.2 112.8



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



Station: Crescent Heights  
Station Owner: PAS

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

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

Monitoring Dates: November 1, 2006 to December 1, 2006

#### Summary

Maximum 1-hr Value:	346.7	ppb	14-Nov	21:00 22:00
Maximum 24-hr Value:	71.5	ppb	18-Nov	

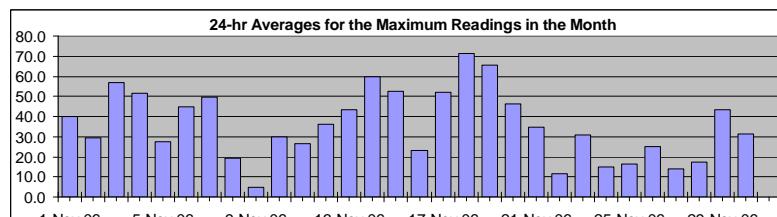
AIC Time:	32 hrs	Operational Time:	683 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	Median
	198.5 109.7 49.4 19.5 9.8 4.0 2.6	35.7 ppb	19.5 ppb

#### Day Mountain Standard Time

	Hour Start Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
1-Nov-06	11 12 13 12 16 26 A	73	48	104	40	14	9	8	10	9	83	35	41	55	75	56	92	74	39.8	104.3							
2-Nov-06	55 52 57 32 89 A	85	90	107	19	11	7	4	4	2	3	3	4	7	5	5	17	18	5	29.6	107.4						
3-Nov-06	7 7 6 13 A	25	37	86	70	25	16	76	37	185	79	92	59	110	68	111	56	43	66	37	57.0	185.0					
4-Nov-06	18 15 11 A	46	43	66	50	30	70	25	14	16	51	27	22	14	83	271	77	41	77	4	118	51.7	271.4				
5-Nov-06	2 65 A	7	78	50	3	4	80	18	7	29	8	5	6	6	34	11	3	35	27	75	63	10	27.3	79.7			
6-Nov-06	10 A	15	21	23	14	22	38	29	32	35	55	22	41	46	34	88	74	46	37	40	219	74	10	44.6	219.3		
7-Nov-06	A 11 46	39	35	52	11	12	30	26	17	39	15	28	65	131	116	95	42	94	116	60	14	A	49.8	131.3			
8-Nov-06	12 39 55	11	25	26	31	33	25	18	17	14	15	10	25	11	25	10	10	9	8	6	A	8	19.2	55.3			
9-Nov-06	4 4 4	6	6	5	4	4	7	3	4	4	4	4	5	7	3	5	4	4	3	A	8	4	4.6	7.9			
10-Nov-06	4 5 4	4	4	5	19	13	64	29	27	27	7	75	88	58	63	21	33	62	A	56	14	4	29.9	88.5			
11-Nov-06	33 104 24	12	92	3	5	36	90	22	13	14	15	12	15	12	9	9	18	A	17	13	20	21	26.5	104.1			
12-Nov-06	26 20 13	14	14	12	112	26	34	111	8	30	41	21	7	64	12	13	A	95	56	43	18	37	35.9	112.0			
13-Nov-06	62 190 106	5	103	31	61	4	21	6	22	69	71	66	60	6	36	A	8	21	16	15	11	9	43.4	189.7			
14-Nov-06	13 21 32	32	24	20	26	35	29	12	16	11	10	8	13	17	A	99	201	92	109	347	128	74	59.6	346.7			
15-Nov-06	292 123 7	12	15	90	55	30	168	70	26	4	5	106	5	A	11	45	5	68	61	3	3	2	52.4	291.6			
16-Nov-06	25 2 32	14	36	3	26	7	10	65	6	19	6	12	A	15	15	14	23	62	49	39	43	10	23.1	65.3			
17-Nov-06	7 15 3	4	5	58	67	18	123	26	70	95	94	A	93	16	40	29	38	152	10	91	60	84	52.2	152.1			
18-Nov-06	101 7 6	208	118	6	47	8	7	64	29	55	A	14	12	14	39	162	198	183	77	64	165	59	71.5	207.8			
19-Nov-06	188 139 298	71	53	23	101	45	35	19	12	A	8	56	51	5	60	61	131	45	42	63	4	3	65.8	298.1			
20-Nov-06	3 2 51	2	3	104	149	114	41	17	A	56	36	72	58	8	69	45	7	7	98	106	5	7	46.1	149.2			
21-Nov-06	25 4 6	65	15	15	82	63	97	C	C	C	C	A	19	19	35	17	13	6	59	32	50	34.6	97.3				
22-Nov-06	7 22 A	29	10	12	10	10	25	19	17	6	8	13	13	10	10	11	5	5	5	5	4	4	11.4	29.4			
23-Nov-06	5 7 A	14	16	17	19	28	87	59	8	80	27	59	111	26	15	21	21	19	14	21	23	17	31.0	111.4			
24-Nov-06	21 12 A	21	15	13	13	19	17	15	15	14	14	14	18	21	17	20	11	10	12	7	8	17	15.0	21.2			
25-Nov-06	18 A	16	16	18	30	30	30	20	17	9	5	7	19	9	7	9	6	7	10	24	24	37	14	16.6	36.6		
26-Nov-06	A 18 7	6	7	37	45	49	52	134	29	40	42	18	15	11	8	8	8	6	6	4	3	A	25.1	133.6			
27-Nov-06	6 3 4	5	7	12	15	25	41	15	15	16	13	9	21	20	15	18	15	11	8	9	A	13	13.7	40.9			
28-Nov-06	11 12 7	8	7	7	11	13	15	21	19	19	18	24	22	20	21	19	21	27	22	A	39	20	17.5	38.7			
29-Nov-06	21 24 24	26	41	10	13	33	53	25	16	24	13	11	55	75	66	69	81	69	A	43	151	54	43.3	151.3			
30-Nov-06	24 73 73	3	13	56	103	10	75	5	44	18	19	25	19	18	17	52	49	A	12	9	6	4	31.5	103.5			

Hourly Avg 36.0 36.1 35.5 24.6 32.2 27.8 43.7 33.5 51.0 36.9 20.5 30.5 20.8 34.7 33.9 26.1 33.7 40.8 47.9 49.4 36.2 56.3 39.8 27.4

Hourly Max 291.6 189.7 298.1 207.8 118.4 104.1 149.2 114.3 168.2 133.6 70.2 94.7 93.8 185.0 111.4 131.3 116.2 161.7 271.4 183.0 116.4 346.7 165.2 118.4



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

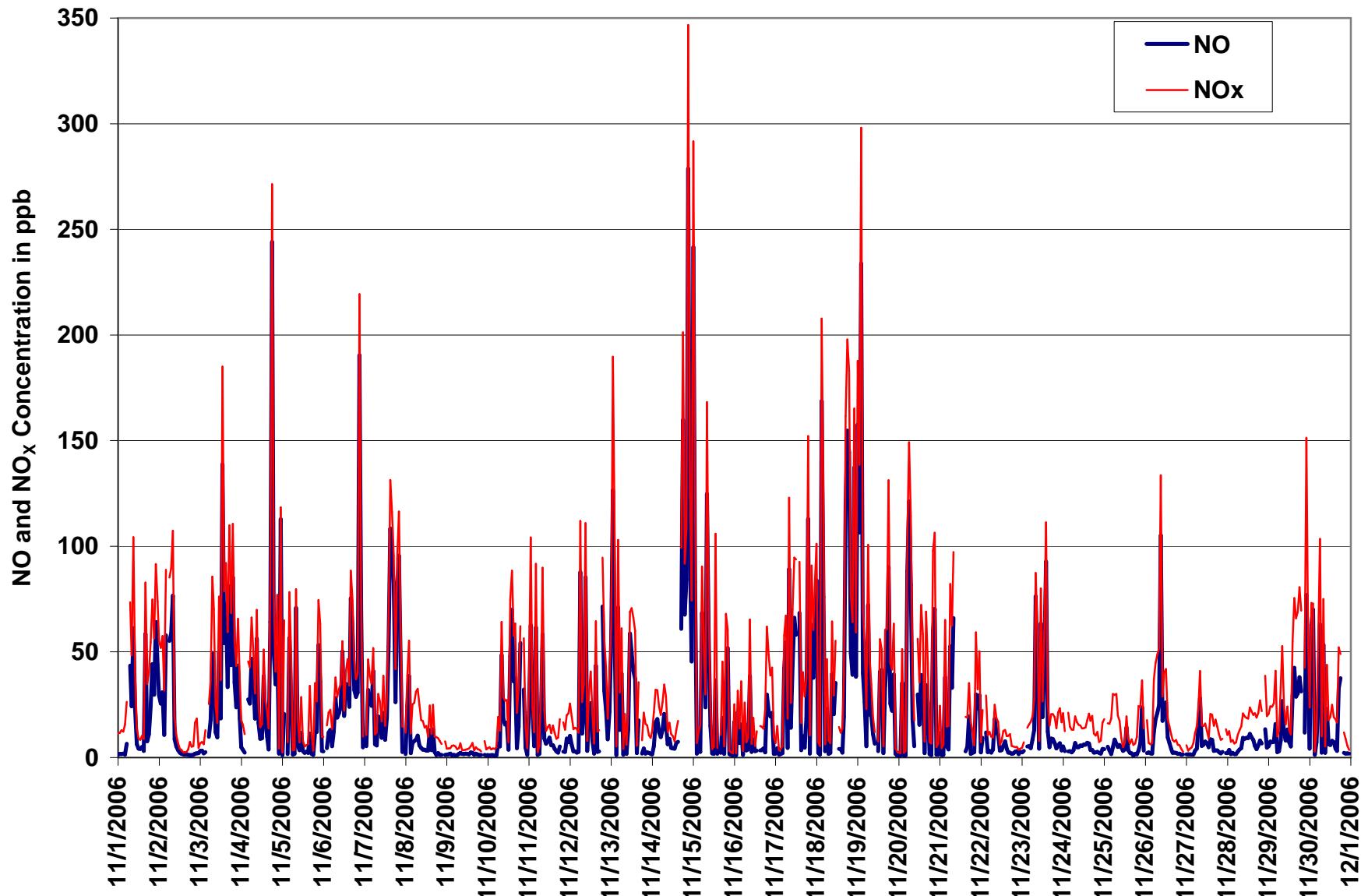


Figure 4. PAS - Crescent Heights Oxides of Nitrogen Instantaneous (30 Second) Maximum Value Monthly Trend



## PAS - Crescent Heights - Ozone Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: November 1, 2006 to December 1, 2006

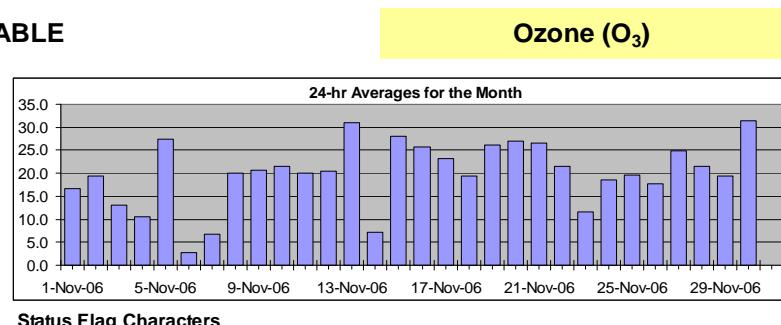
Objective Limit: Alberta Environment: 1-hr 82 ppb 24-hr na ppb  
Summary

Number of 1-hr Exceedances: 0  
Maximum 1-hr Average: 38.4 ppb 21-Nov 22:00 23:00  
Maximum 24-hr Average: 31.5 ppb 30-Nov

AIC Time:	33 hrs	Operational Time:	685 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	37.3	34.8	28.4	21.6	11.4	1.4	0.8	20.0 ppb	21.6 ppb

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
	Hour Start 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	
1-Nov-06	24	24	22	21	21	15	A	2	9	16	20	28	31	32	32	31	25	13	7	4	4	3	2	1	16.7	31.6
2-Nov-06	3	2	1	1	1	A	2	2	8	20	24	28	32	36	35	34	33	31	29	27	26	21	21	26	19.3	36.4
3-Nov-06	27	25	24	20	A	22	14	5	10	19	19	17	17	18	22	17	7	4	3	1	2	1	2	3	13.1	27.0
4-Nov-06	4	4	8	A	1	5	3	1	3	5	7	9	11	11	10	9	7	1	2	23	25	27	31	32	10.4	32.3
5-Nov-06	33	32	A	30	29	27	26	26	23	25	33	35	35	34	34	32	24	30	32	31	23	17	14	4	27.4	34.8
6-Nov-06	3	A	2	1	1	1	1	1	2	4	4	5	5	7	5	2	1	1	1	1	1	1	9	8	2.8	9.0
7-Nov-06	A	12	7	11	8	10	9	8	6	8	11	6	5	3	2	1	1	1	2	1	1	13	18	A	6.6	17.8
8-Nov-06	25	5	8	11	16	16	11	11	17	18	21	22	25	27	30	31	29	24	22	21	23	22	A	22	19.9	30.5
9-Nov-06	23	23	21	19	18	17	18	17	18	19	19	19	20	23	22	24	25	23	23	23	23	A	20	19	20.6	25.0
10-Nov-06	18	16	16	15	14	13	9	10	5	9	19	29	29	31	27	28	25	26	32	32	A	31	32	31	21.6	32.0
11-Nov-06	31	35	35	34	34	33	30	25	18	23	21	17	12	12	11	12	14	14	11	A	12	11	7	7	20.0	34.8
12-Nov-06	6	6	6	7	9	8	4	3	8	23	29	32	34	34	32	28	25	26	A	29	29	31	32	32	20.5	33.8
13-Nov-06	35	35	36	37	34	33	33	34	35	34	37	37	37	34	35	36	36	A	37	28	17	12	9	11	31.0	37.4
14-Nov-06	10	3	3	4	5	4	2	3	8	13	13	16	17	20	19	17	A	2	1	1	1	1	1	2	7.2	19.8
15-Nov-06	2	9	22	18	17	25	25	27	29	31	37	35	34	34	37	A	35	34	33	31	32	31	31	27.9	36.7	
16-Nov-06	34	33	34	34	33	32	28	28	31	26	25	25	30	27	A	29	25	29	23	13	11	9	15	20	25.8	33.9
17-Nov-06	22	24	27	27	26	21	21	17	19	25	30	32	32	A	35	31	14	15	16	15	22	17	21	22	23.1	35.4
18-Nov-06	23	26	29	24	25	27	25	25	27	27	29	32	A	31	31	28	20	8	1	1	1	3	3	1	19.4	32.1
19-Nov-06	1	2	1	1	2	20	27	35	37	37	36	A	37	37	37	34	33	32	32	33	33	33	30	26.2	37.3	
20-Nov-06	30	30	30	32	30	30	27	22	15	19	A	9	14	29	36	32	33	36	32	29	25	25	29	27	27.0	35.9
21-Nov-06	25	28	29	30	31	29	20	15	11	A	16	18	28	35	30	27	27	26	20	27	33	30	38	38	26.5	38.4
22-Nov-06	34	13	A	17	19	18	19	21	C	C	A	26	26	24	25	24	21	19	21	21	22	21	20	21.6	34.4	
23-Nov-06	19	17	A	13	10	13	8	6	8	13	14	14	14	13	14	11	11	11	10	9	13	8	8	9	11.6	19.5
24-Nov-06	11	14	A	12	13	14	18	15	14	17	20	21	23	22	19	17	20	18	22	22	23	24	24	22	18.5	24.2
25-Nov-06	21	A	22	18	15	11	10	7	15	19	23	25	27	26	26	24	25	25	22	17	15	16	17	19.7	27.0	
26-Nov-06	A	16	23	21	20	13	3	5	7	11	16	16	16	19	20	22	22	21	21	22	23	27	27	A	17.8	27.0
27-Nov-06	28	28	28	26	25	22	22	23	25	23	24	27	29	27	24	24	21	23	24	25	25	A	22	24.8	28.7	
28-Nov-06	23	24	25	24	25	22	21	20	20	20	22	23	22	22	21	19	19	19	21	19	18	A	16	24	21.5	25.0
29-Nov-06	19	19	23	19	23	25	24	17	15	22	25	28	31	33	33	22	10	7	6	6	A	10	10	19	19.4	33.4
30-Nov-06	30	35	37	38	38	37	35	35	34	35	33	32	30	26	28	27	25	24	21	A	30	31	32	32	31.5	37.7

Hourly Avg	20.2	19.3	20.0	19.5	18.8	19.6	17.1	15.5	16.4	20.0	22.3	22.8	24.2	25.1	25.2	23.4	21.2	18.6	18.3	18.5	18.3	17.9	18.7	19.0
Hourly Max	34.6	35.2	36.8	37.7	37.6	37.2	35.2	35.3	37.3	37.0	37.0	37.4	36.7	36.7	36.8	36.0	36.3	35.6	37.3	32.7	32.8	32.6	38.4	37.6



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

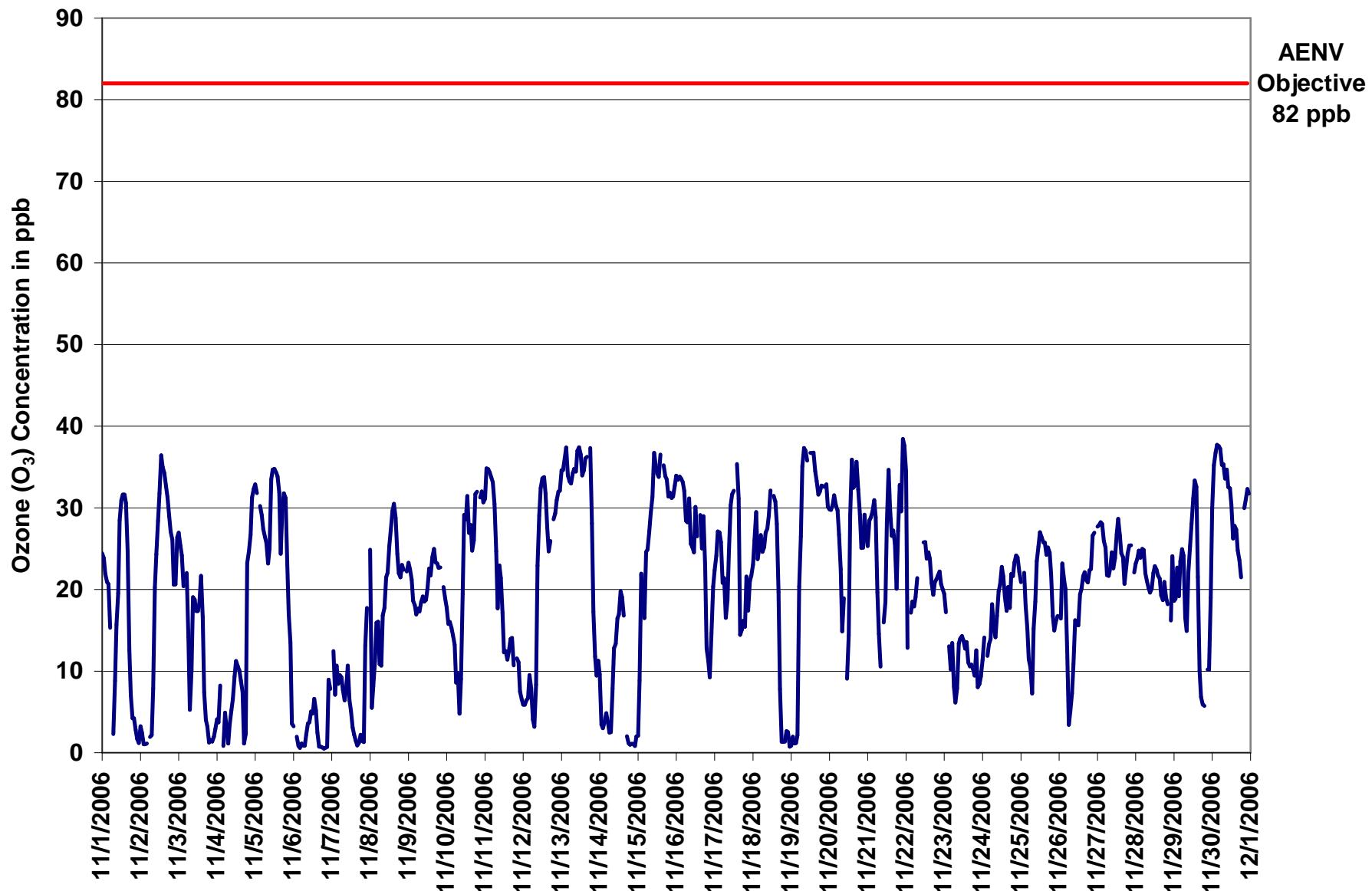


Figure 5. PAS - Crescent Heights Ozone 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

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

Monitoring Dates: November 1, 2006 to December 1, 2006

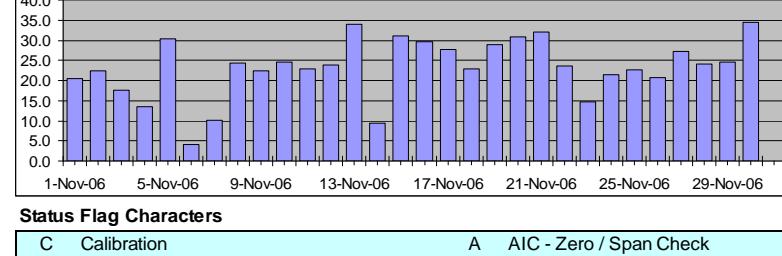
#### Summary

Maximum 1-hr Value:	43.5 ppb	21-Nov 22:00 23:00
Maximum 24-hr Value:	34.5 ppb	30-Nov

AIC Time:	33 hrs	Operational Time:	685 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	Median
	39.7 37.8 31.9 24.9 15.8 3.6 1.8	23.3 ppb	24.9 ppb

#### Day Mountain Standard Time

	Hour Start Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
1-Nov-06	28 1:00	27 2:00	26 3:00	23 4:00	25 5:00	19 A	5 6:00	14 7:00	18 8:00	27 9:00	32 10:00	33 11:00	33 12:00	34 13:00	33 14:00	32 15:00	19 16:00	14 17:00	13 18:00	8 19:00	6 20:00	4 21:00	2 22:00	2 23:00	20.5	34.1	
2-Nov-06	6 2:00	6 3:00	2 4:00	2 5:00	A 6:00	5 7:00	4 8:00	20 9:00	23 10:00	27 11:00	31 12:00	35 13:00	39 14:00	37 15:00	35 16:00	35 17:00	33 18:00	32 19:00	29 20:00	28 21:00	26 22:00	27 23:00	29 24:00	22.4	38.6		
3-Nov-06	30 2:00	28 3:00	25 4:00	24 A	26 6:00	18 7:00	11 8:00	16 9:00	21 10:00	21 11:00	20 12:00	21 13:00	23 14:00	26 15:00	24 16:00	15 17:00	14 18:00	12 19:00	3 20:00	7 21:00	7 22:00	7 23:00	7 24:00	17.7	29.7		
4-Nov-06	6 2:00	6 3:00	10 A	3 4:00	10 5:00	9 6:00	3 7:00	6 8:00	7 9:00	9 10:00	12 11:00	13 12:00	13 13:00	11 14:00	11 15:00	9 16:00	6 17:00	15 18:00	26 19:00	27 20:00	30 21:00	30 22:00	33 23:00	35 24:00	13.5	34.8	
5-Nov-06	34 2:00	34 A	32 3:00	31 4:00	30 5:00	29 6:00	27 7:00	26 8:00	32 9:00	35 10:00	37 11:00	36 12:00	36 13:00	34 14:00	35 15:00	34 16:00	34 17:00	35 18:00	35 19:00	27 20:00	22 21:00	20 22:00	5 23:00	30.5	37.1		
6-Nov-06	5 A	4 2:00	2 3:00	2 4:00	2 5:00	2 6:00	3 7:00	3 8:00	5 9:00	5 10:00	7 11:00	7 12:00	6 13:00	8 14:00	6 15:00	8 16:00	4 17:00	2 18:00	2 19:00	2 20:00	2 21:00	2 22:00	10 23:00	10 24:00	4.2	10.2	
7-Nov-06	A 2:00	14 3:00	11 4:00	12 5:00	12 6:00	11 7:00	11 8:00	10 9:00	11 10:00	13 11:00	13 12:00	13 13:00	8 14:00	5 15:00	4 16:00	3 17:00	2 18:00	6 19:00	6 20:00	3 21:00	22 22:00	30 A	29.6	10.0	29.6		
8-Nov-06	31 2:00	17 3:00	12 4:00	15 5:00	27 6:00	21 7:00	17 8:00	16 9:00	21 10:00	26 11:00	27 12:00	30 13:00	30 14:00	33 15:00	34 16:00	33 17:00	27 18:00	25 19:00	24 20:00	26 21:00	26 22:00	A 23:00	25 24:00	24.4	33.8		
9-Nov-06	25 2:00	25 3:00	23 4:00	21 5:00	20 6:00	19 7:00	19 8:00	19 9:00	20 10:00	20 11:00	20 12:00	21 13:00	23 14:00	24 15:00	25 16:00	27 17:00	26 18:00	24 19:00	24 20:00	A 21:00	22 22:00	21 23:00	21 24:00	22.4	26.5		
10-Nov-06	19 2:00	17 3:00	17 4:00	16 5:00	16 6:00	14 7:00	12 8:00	12 9:00	10 10:00	12 11:00	28 12:00	31 13:00	33 14:00	30 15:00	30 16:00	30 17:00	30 18:00	30 19:00	34 20:00	34 21:00	A 32 22:00	33 23:00	35 24:00	34.6	34.6		
11-Nov-06	35 2:00	37 3:00	37 4:00	36 5:00	35 6:00	35 7:00	34 8:00	27 9:00	24 10:00	26 11:00	25 12:00	20 13:00	15 14:00	15 15:00	16 16:00	17 17:00	14 18:00	A 19:00	13 20:00	14 21:00	9 22:00	9 23:00	32 24:00	22.8	37.1		
12-Nov-06	8 2:00	9 3:00	9 4:00	9 5:00	12 6:00	10 7:00	10 8:00	9 9:00	21 10:00	29 11:00	33 12:00	35 13:00	35 14:00	34 15:00	31 16:00	28 17:00	28 A 18:00	31 19:00	33 20:00	33 21:00	33 22:00	34 23:00	34 24:00	23.9	35.5		
13-Nov-06	38 2:00	39 3:00	40 4:00	40 5:00	36 6:00	35 7:00	35 8:00	36 9:00	37 10:00	36 11:00	40 12:00	40 13:00	40 14:00	38 15:00	37 16:00	39 17:00	40 A 18:00	39 19:00	37 20:00	21 21:00	17 22:00	12 23:00	13 24:00	40.0	40.0		
14-Nov-06	14 2:00	7 3:00	5 4:00	7 5:00	6 6:00	5 7:00	4 8:00	4 9:00	12 10:00	16 11:00	15 12:00	19 13:00	19 14:00	22 15:00	21 16:00	20 A 17:00	6 18:00	2 19:00	2 20:00	2 21:00	2 22:00	5 23:00	5 24:00	9.4	22.1		
15-Nov-06	6 2:00	19 3:00	25 4:00	23 5:00	23 6:00	28 7:00	28 8:00	30 9:00	32 10:00	36 11:00	36 12:00	37 13:00	36 14:00	38 15:00	A 37 16:00	36 17:00	36 18:00	34 19:00	33 20:00	33 21:00	33 22:00	33 23:00	34 24:00	31.0	38.7		
16-Nov-06	36 2:00	36 3:00	35 4:00	35 5:00	34 6:00	32 7:00	33 8:00	34 9:00	32 10:00	27 11:00	29 12:00	34 13:00	33 14:00	A 33 15:00	29 16:00	31 17:00	30 18:00	21 19:00	21 20:00	17 21:00	15 22:00	20 23:00	25 24:00	29.7	36.4		
17-Nov-06	24 2:00	26 3:00	28 4:00	29 5:00	27 6:00	27 7:00	28 8:00	20 9:00	26 10:00	28 11:00	35 12:00	34 13:00	35 14:00	A 38 15:00	36 16:00	25 17:00	22 18:00	24 19:00	21 20:00	21 21:00	26 22:00	24 23:00	26 24:00	27.6	38.5		
18-Nov-06	26 2:00	28 3:00	32 4:00	29 5:00	28 6:00	30 7:00	28 8:00	29 9:00	31 10:00	34 11:00	36 12:00	A 33 13:00	33 14:00	33 15:00	33 16:00	33 17:00	24 18:00	20 19:00	3 20:00	3 21:00	6 22:00	5 23:00	7 24:00	22.9	36.1		
19-Nov-06	2 2:00	5 3:00	3 4:00	9 5:00	26 6:00	36 7:00	37 8:00	39 9:00	38 10:00	37 A 11:00	37 12:00	38 13:00	39 14:00	37 15:00	39 16:00	37 17:00	35 18:00	34 19:00	35 20:00	35 21:00	35 22:00	34 23:00	32 24:00	28.9	39.3		
20-Nov-06	32 2:00	31 3:00	32 4:00	33 5:00	32 6:00	30 7:00	27 8:00	19 9:00	22 10:00	A 11:00	17 12:00	20 13:00	37 14:00	39 15:00	41 16:00	43 17:00	43 18:00	35 19:00	32 20:00	32 21:00	29 22:00	29 23:00	31 24:00	30.8	42.7		
21-Nov-06	29 2:00	32 3:00	32 4:00	34 5:00	35 6:00	31 7:00	29 8:00	25 9:00	20 A 10:00	24 11:00	38 12:00	33 13:00	33 14:00	30 15:00	29 16:00	28 17:00	28 A 18:00	28 19:00	37 20:00	39 21:00	44 22:00	40 23:00	43.5 24:00	32.0	43.5		
22-Nov-06	40 2:00	16 A	19 3:00	21 4:00	20 5:00	21 6:00	C 7:00	C 8:00	A 9:00	A 10:00	A 11:00	A 12:00	A 13:00	A 14:00	A 15:00	A 16:00	A 17:00	A 18:00	A 19:00	A 20:00	A 21:00	A 22:00	A 23:00	A 24:00	23.7	40.0	
23-Nov-06	20 2:00	20 A	15 3:00	12 4:00	17 5:00	10 6:00	11 7:00	15 8:00	15 9:00	16 10:00	16 11:00	16 12:00	16 13:00	17 14:00	18 15:00	18 16:00	18 17:00	18 18:00	13 19:00	13 20:00	13 21:00	14 22:00	12 23:00	12 24:00	14.8	20.5	
24-Nov-06	14 2:00	16 A	15 3:00	16 4:00	20 5:00	20 6:00	17 7:00	16 8:00	23 9:00	23 10:00	23 11:00	23 12:00	23 13:00	26 14:00	25 15:00	25 16:00	21 17:00	22 18:00	23 19:00	21 20:00	23 21:00	24 22:00	26 23:00	21.5	26.3		
25-Nov-06	25 A	25 2:00	21 3:00	19 4:00	18 5:00	14 6:00	11 7:00	19 8:00	22 9:00	26 10:00	27 11:00	29 12:00	29 13:00	28 14:00	27 15:00	27 16:00	27 17:00	27 18:00	27 19:00	27 20:00	27 21:00	27 22:00	18 23:00	19 24:00	22.7	28.6	
26-Nov-06	A 24	25 2:00	23 3:00	22 4:00	18 5:00	9 6:00	9 7:00	15 8:00	16 9:00	18 10:00	17 11:00	18 12:00	18 13:00	17 14:00	23 15:00	24 16:00	23 17:00	22 18:00	24 19:00	24 20:00	24 21:00	24 22:00	28 A 23:00	28 24:00	20.8	28.6	
27-Nov-06	29 2:00	29 3:00	29 4:00	28 5:00	28 6:00	26 7:00	26 8:00	26 9:00	27 10:00	25 11:00	26 12:00	26 13:00	29 14:00	30 15:00	30 16:00	30 17:00	30 18:00	30 19:00	28 20:00	27 21:00	27 22:00	27 23:00	A 24:00	24.2	30.3		
28-Nov-06	25 2:00	26 3:00	25 4:00	26 5:00	24 6:00	23 7:00	22 8:00	23 9:00	22 10:00	22 11:00	24 12:00	24 13:00	25 14:00	24 15:00	24 16:00	22 17:00	22 18:00	24 19:00	23 20:00	23 21:00	23 22:00	23 23:00	A 24:00	24.5	26.5		
29-Nov-06	25 2:00	25 3:00	26 4:00	25 5:00	26 6:00	23 7:00	20 8:00	24 9:00	27 10:00	30 11:00	36 12:00	36 13:00	35 14:00	35 15:00	29 16:00	21 17:00	17 18:00	14 19:00	A 20:00	18 21:00	17 22:00	17 23:00	27 24:00	24.5	35.4		
30-Nov-06	36 2:00	37 3:00	38 4:00	39 5:00	39 6:00	38 7:00	37 8:00	36 9:00	37 10:00	36 11:00	35 12:00	34 13:00	31 14:00	32 15:00	32 16:00	30 17:00	28 18:00	28 A 19:00	32 20:00	32 21:00	34 22:00	33 23:00	33 24:00	34.5	39.1		



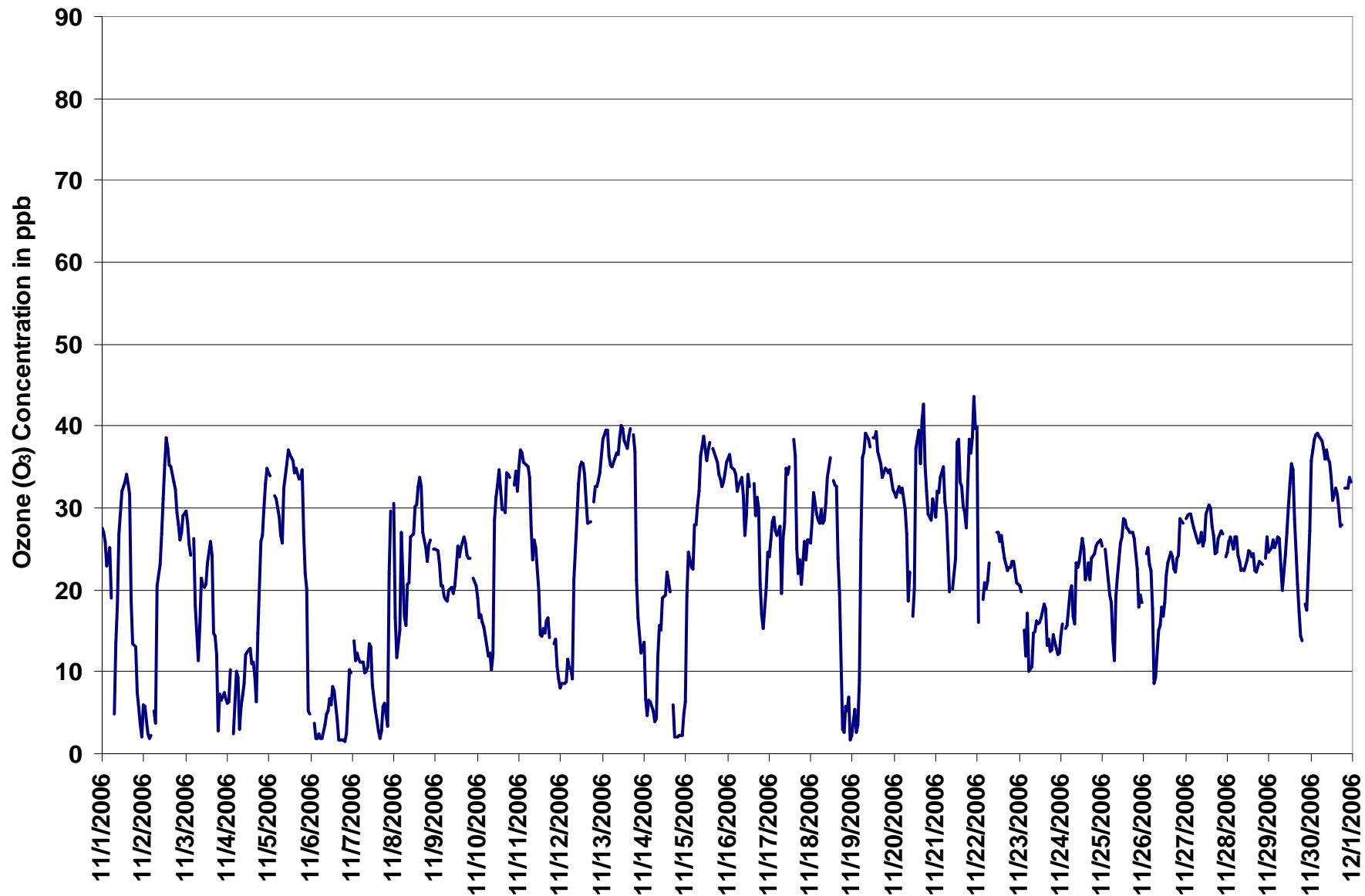
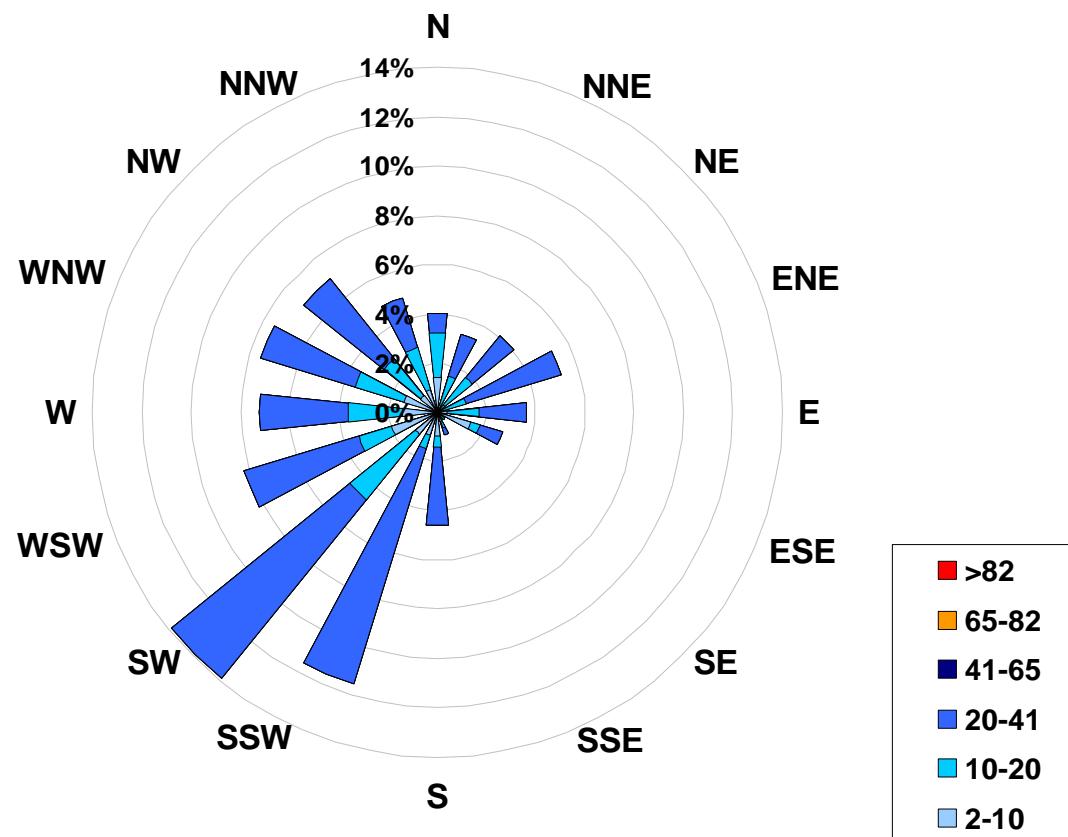


Figure 6. PAS - Crescent Heights Ozone Instantaneous (30 Second) Maximum Value Monthly Trend



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



Calms: 0%

Frequency Distribution of O <sub>3</sub> in ppb			Frequency (hrs)
Range			
2.0	<	10	145
10	to	20	156
20	to	41	384
41	to	65	0
65	to	82	0
>	82		0
Total Non-Zero Values			685



## PAS - Crescent Heights - Ozone Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

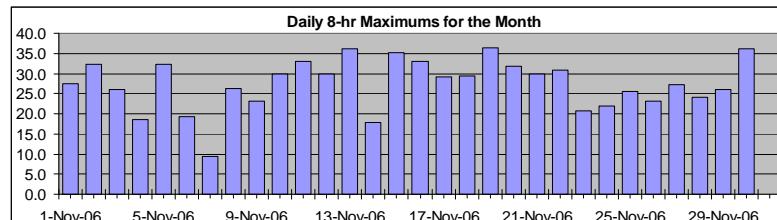
Monitoring Dates: November 1, 2006 to December 1, 2006

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

Number of 8-hr Exceedances: 0  
Maximum 8-hr Average: 36.5 ppb 19-Nov 14:00 15:00

### EIGHT HOUR RUNNING AVERAGE TABLE

### Ozone ( $O_3$ )



### Status Flag Characters

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

### Day Mountain Standard Time

	Hour Start 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00 0:00	Daily Maximum
1-Nov-06	27	27	26	25	24	23	22	18	16	15	15	16	17	20	21	25	27	26	25	22	18	15	11	7	27.4		
2-Nov-06	5	3	3	2	2	2	2	2	3	5	8	12	17	19	23	27	30	32	32	32	31	29	28	27	32.3		
3-Nov-06	26	25	25	24	24	24	23	20	17	16	16	15	16	15	16	17	17	15	13	11	9	7	5	3	26.0		
4-Nov-06	3	3	3	3	3	4	4	4	4	4	4	4	4	6	6	7	8	9	8	8	9	11	13	16	19	18.6	
5-Nov-06	22	26	29	30	31	31	30	29	28	27	28	28	29	30	31	31	32	32	32	32	30	28	25	22	32.2		
6-Nov-06	19	18	13	9	6	4	2	1	1	2	2	2	3	3	4	4	4	4	3	3	2	1	2	3	19.2		
7-Nov-06	3	5	5	7	8	9	9	9	9	8	9	8	8	7	6	5	5	4	3	2	2	3	5	5	9.3		
8-Nov-06	9	9	10	12	14	14	13	13	12	13	15	16	18	19	21	24	25	26	26	26	26	25	25	23	26.2		
9-Nov-06	23	22	22	22	21	20	20	19	19	18	18	18	18	19	20	20	21	22	22	23	23	23	23	22	23.2		
10-Nov-06	21	20	19	18	17	16	15	14	12	11	12	14	15	18	20	22	25	27	28	29	29	29	29	30	29.8		
11-Nov-06	31	32	32	33	33	33	33	32	30	29	27	25	22	20	18	16	15	14	13	12	12	12	12	11	33.1		
12-Nov-06	10	8	8	8	7	7	7	6	6	9	11	15	18	21	24	27	29	30	30	29	29	28	28	29	30.0		
13-Nov-06	31	32	32	33	34	34	34	35	35	35	35	35	35	35	36	36	36	36	36	36	35	32	29	25	36.0		
14-Nov-06	18	16	12	9	7	6	5	4	4	5	6	8	10	12	14	15	16	15	13	11	9	6	3	1	17.8		
15-Nov-06	1	2	5	7	9	12	15	18	21	24	26	28	30	32	33	34	35	35	35	34	34	33	33	33	35.1		
16-Nov-06	32	32	32	33	33	33	33	32	32	31	30	29	28	27	27	27	27	27	27	25	22	20	19	18	33.0		
17-Nov-06	18	17	18	20	21	23	24	23	23	23	24	25	25	27	29	29	27	27	25	23	21	21	19	18	29.1		
18-Nov-06	19	20	22	23	23	25	25	25	26	26	26	27	27	28	29	29	28	26	22	17	15	12	8	5	29.4		
19-Nov-06	2	2	2	2	4	7	11	16	20	24	28	33	35	36	36	36	35	35	35	34	34	33	33	32	36.5		
20-Nov-06	32	32	31	31	31	30	29	27	26	25	22	19	19	21	22	25	27	28	30	32	31	30	29	31.8			
21-Nov-06	29	28	27	27	28	28	27	26	24	23	21	20	19	20	22	23	26	26	26	27	28	27	28	30	29.8		
22-Nov-06	31	29	30	29	27	25	23	20	N	N	N	N	N	N	N	N	N	N	23	23	23	22	21	21	30.7		
23-Nov-06	21	20	20	19	18	16	14	13	11	11	11	12	13	13	12	12	11	11	10	10	10	10	10	20.7			
24-Nov-06	10	10	10	11	11	12	13	14	14	15	15	16	18	19	19	19	20	20	20	20	21	21	21	21	21.9		
25-Nov-06	22	23	23	22	21	19	17	15	14	15	15	16	17	19	21	23	25	25	26	25	24	22	21	20	25.5		
26-Nov-06	19	18	18	18	18	16	15	14	13	12	11	12	14	16	18	19	20	20	21	22	23	23	23	23	23.2		
27-Nov-06	24	25	26	27	27	27	26	26	25	25	24	24	24	24	25	25	25	25	25	25	24	24	24	24	27.3		
28-Nov-06	23	24	24	24	24	24	24	24	23	23	22	22	22	21	21	21	21	21	21	21	20	19	19	19	24.1		
29-Nov-06	19	19	20	20	20	21	22	21	21	21	21	22	23	24	26	26	26	24	21	18	17	13	10	10	26.1		
30-Nov-06	13	17	21	26	27	30	34	36	36	36	35	35	34	33	32	31	30	28	27	26	27	27	28	28	36.1		

Hourly Max 32.5 32.4 32.5 33.4 34.0 34.3 34.4 35.6 36.1 36.0 35.5 34.8 35.1 35.2 36.5 36.4 35.8 36.0 36.0 34.7 33.8 33.4 32.8 32.6



## PAS - Crescent Heights - Carbon Monoxide Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: November 1, 2006 to December 1, 2006

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

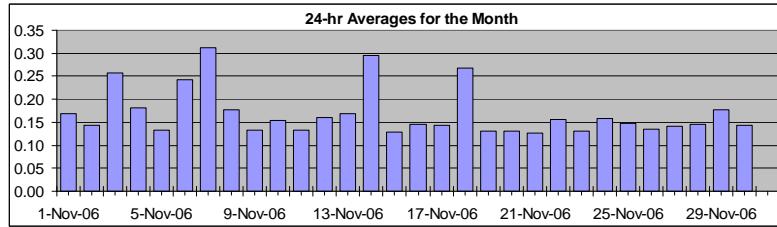
Number of 1-hr Exceedances: 0  
Maximum 1-hr Average: 1.0 ppm 18-Nov 19:00 20:00  
Maximum 24-hr Value: 0.3 ppm 7-Nov

AIC Time:	33 hrs	Operational Time:	684 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	0.6	0.3	0.2	0.1	0.1	0.1	0.1	0.2 ppm	0.1 ppm

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	24:00			
1-Nov-06	0:00	0.1	0.1	0.1	0.1	0.1	0.1	A	0.4	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.3	0.4	0.3	0.17	0.36
2-Nov-06	0:00	0.2	0.1	0.1	0.1	0.1	A	0.3	0.6	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.14	0.56
3-Nov-06	0:00	0.1	0.1	0.1	0.1	A	0.1	0.2	0.7	0.6	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.26	0.69
4-Nov-06	0:00	0.2	0.2	0.1	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.18	0.36
5-Nov-06	0:00	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	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.18
6-Nov-06	0:00	0.1	A	0.1	0.1	0.2	0.2	0.2	0.5	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.4	0.4	0.2	0.2	0.3	0.3	0.1	0.1	0.24	0.46	
7-Nov-06	0:00	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.3	0.6	0.7	0.6	0.8	0.4	0.6	0.5	0.2	0.2	A	0.1	0.31	0.78	
8-Nov-06	0:00	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	A	0.1	0.18	0.26	
9-Nov-06	0:00	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.13	0.19	
10-Nov-06	0:00	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	A	0.1	0.1	0.1	0.15	0.44	
11-Nov-06	0:00	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.13	0.17	
12-Nov-06	0:00	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	A	0.1	0.2	0.1	0.1	0.2	0.2	0.16	0.22
13-Nov-06	0:00	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	A	0.1	0.2	0.2	0.2	0.2	0.2	0.17	0.23
14-Nov-06	0:00	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.5	0.6	0.5	0.6	0.6	0.3	0.30	0.64
15-Nov-06	0:00	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.29	
16-Nov-06	0:00	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	A	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.14	0.24		
17-Nov-06	0:00	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.14	0.26		
18-Nov-06	0:00	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	A	0.1	0.1	0.2	0.2	0.4	0.9	1.0	0.4	0.2	0.5	0.3	0.27	1.00
19-Nov-06	0:00	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.30
20-Nov-06	0:00	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	A	0.3	0.2	0.1	0.1	0.1	C	C	C	A	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.34
21-Nov-06	0:00	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	A	0.2	0.1	0.1	C	C	C	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.41		
22-Nov-06	0:00	0.1	0.1	A	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	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.16	0.27		
23-Nov-06	0:00	0.1	0.1	A	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	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.13	0.21	
24-Nov-06	0:00	0.1	0.1	A	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.16	0.21		
25-Nov-06	0:00	0.2	A	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15	0.24		
26-Nov-06	0:00	A	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.13	0.21		
27-Nov-06	0:00	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.14	0.24		
28-Nov-06	0:00	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.15	0.21		
29-Nov-06	0:00	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.3	0.3	A	0.2	0.2	0.2	0.2	0.18	0.36		
30-Nov-06	0:00	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.14	0.21		

### HOURLY AVERAGE TABLE

### Carbon Monoxide (CO)



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

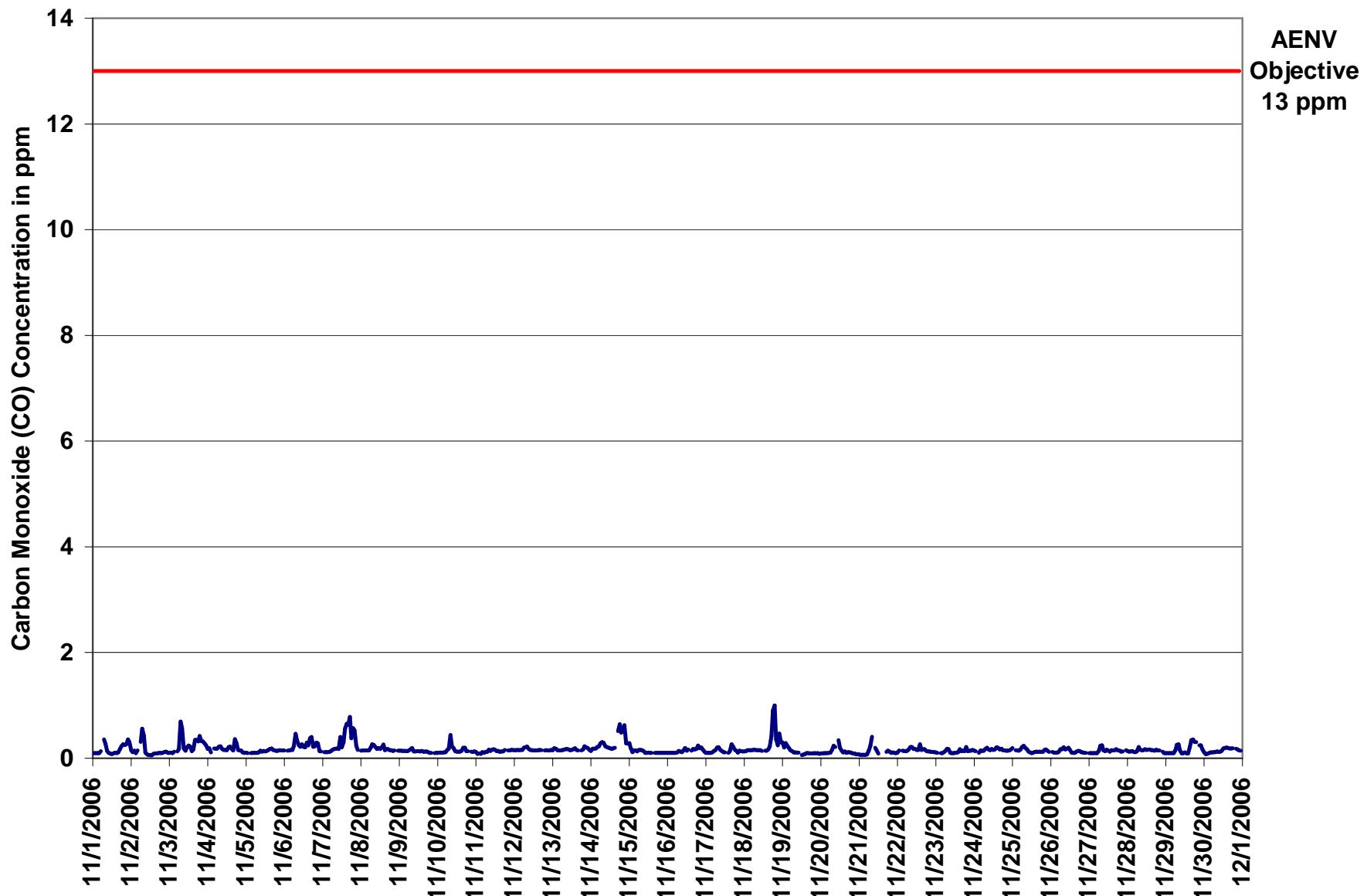


Figure 7. PAS - Crescent Heights Carbon Monoxide 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

### Carbon Monoxide (CO)

Monitoring Dates: November 1, 2006 to December 1, 2006

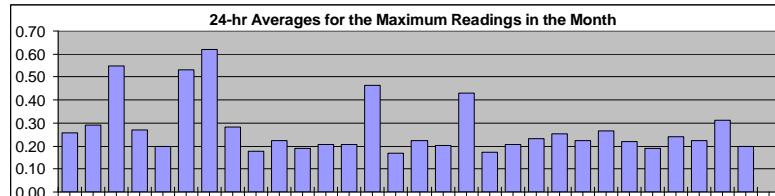
#### Summary

Maximum 1-hr Value:	2.3	ppm	3-Nov	7:00 8:00
Maximum 24-hr Value:	0.6	ppm	7-Nov	

AIC Time:	33 hrs	Operational Time:	684 hrs
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	Median
	1.5 0.7 0.3 0.2 0.1 0.1 0.1	0.3 ppm	0.2 ppm

#### Day Mountain Standard Time

	Hour Start 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
	Hour End 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	
1-Nov-06	0.1	0.1	0.1	0.1	0.1	0.3	A	0.4	0.4	0.2	0.2	0.2	0.1	0.1	0.3	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.26	0.45
2-Nov-06	0.2	0.1	0.2	0.1	0.2	A	1.3	1.6	0.6	0.2	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.29	1.63
3-Nov-06	0.1	0.2	0.1	0.3	A	0.2	0.3	2.3	1.6	0.3	0.2	0.2	0.3	0.3	0.2	0.4	0.6	0.6	1.1	1.0	0.5	0.7	0.5	0.3	0.55	2.30	
4-Nov-06	0.3	0.3	0.1	A	0.2	0.2	0.3	0.4	0.8	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.5	0.2	0.1	0.1	0.1	0.1	0.27	0.76	
5-Nov-06	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.1	0.20	0.61	
6-Nov-06	0.2	A	0.1	0.1	0.2	0.2	0.4	2.2	0.8	0.4	0.3	0.8	0.4	0.5	0.4	0.5	1.3	0.4	0.7	0.7	0.4	0.9	0.4	0.4	0.2	0.53	2.17
7-Nov-06	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	1.7	0.5	0.6	0.9	0.9	1.7	1.3	1.3	0.6	1.0	1.0	0.6	0.2	A	0.62	1.71	
8-Nov-06	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	1.1	0.2	0.5	0.2	0.2	0.2	0.1	0.1	A	0.1	0.1	0.28	1.08
9-Nov-06	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	A	0.1	0.1	0.18	0.33	
10-Nov-06	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.8	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.1	0.2	A	0.2	0.1	0.1	0.1	0.22	0.80	
11-Nov-06	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.3	A	0.2	0.2	0.2	0.2	0.19	0.30	
12-Nov-06	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.21	0.30	
13-Nov-06	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	A	0.2	0.2	0.3	0.2	0.2	0.21	0.29	
14-Nov-06	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.4	0.3	A	1.0	1.4	0.9	0.8	1.0	0.4	0.5	0.46	1.37	
15-Nov-06	0.6	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.1	0.1	A	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.17	0.55	
16-Nov-06	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.4	0.2	0.4	0.2	0.4	A	0.2	0.3	0.5	0.2	0.3	0.2	0.3	0.2	0.22	0.53	
17-Nov-06	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.4	0.3	0.2	0.2	0.1	0.2	0.20	0.40	
18-Nov-06	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.3	0.1	0.3	0.4	0.7	1.6	1.5	0.5	0.4	1.4	0.4	0.43	1.58	
19-Nov-06	0.4	0.3	0.5	0.3	0.3	0.2	0.2	0.1	0.1	0.2	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.17	0.47		
20-Nov-06	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.6	A	0.4	0.3	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.21	0.65		
21-Nov-06	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.6	0.8	A	0.3	0.2	0.2	C	C	C	A	0.2	0.2	0.2	0.1	0.3	0.1	0.1	0.23	0.85	
22-Nov-06	0.1	0.1	A	0.1	0.1	0.1	0.2	0.3	0.4	0.5	0.3	0.3	0.2	0.2	0.2	0.9	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25	0.94		
23-Nov-06	0.2	0.2	A	0.1	0.1	0.3	0.2	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.3	0.3	0.2	0.4	0.3	0.2	0.2	0.22	0.39	
24-Nov-06	0.2	0.2	A	0.1	0.2	0.1	0.2	0.3	0.3	0.2	0.3	0.4	0.3	0.5	0.4	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.27	0.48	
25-Nov-06	0.3	A	0.2	0.2	0.1	0.3	0.4	0.4	0.3	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.2	0.2	0.22	0.40	
26-Nov-06	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.3	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.19	0.35	
27-Nov-06	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6	0.5	0.2	0.2	0.3	0.2	0.3	0.5	0.2	0.2	0.2	0.3	0.2	0.2	0.2	A	0.4	0.24	0.58	
28-Nov-06	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.7	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	A	0.1	0.1	0.23	0.68	
29-Nov-06	0.1	0.1	0.1	0.1	0.1	0.1	0.6	0.5	0.5	0.2	0.1	0.2	0.6	0.1	0.1	0.3	0.6	0.6	0.5	0.5	A	0.3	0.4	0.2	0.31	0.59	
30-Nov-06	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.20	0.39		



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

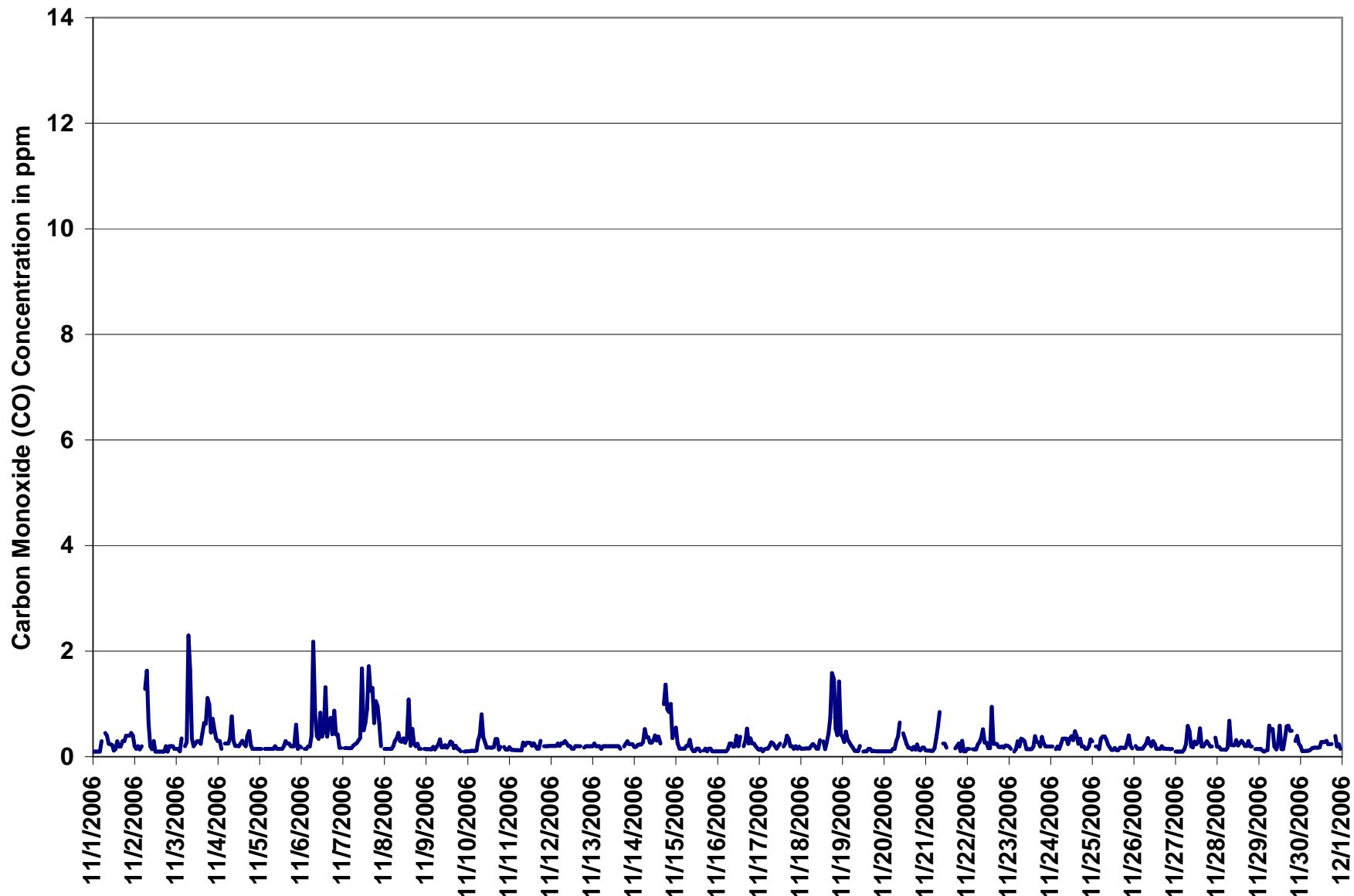
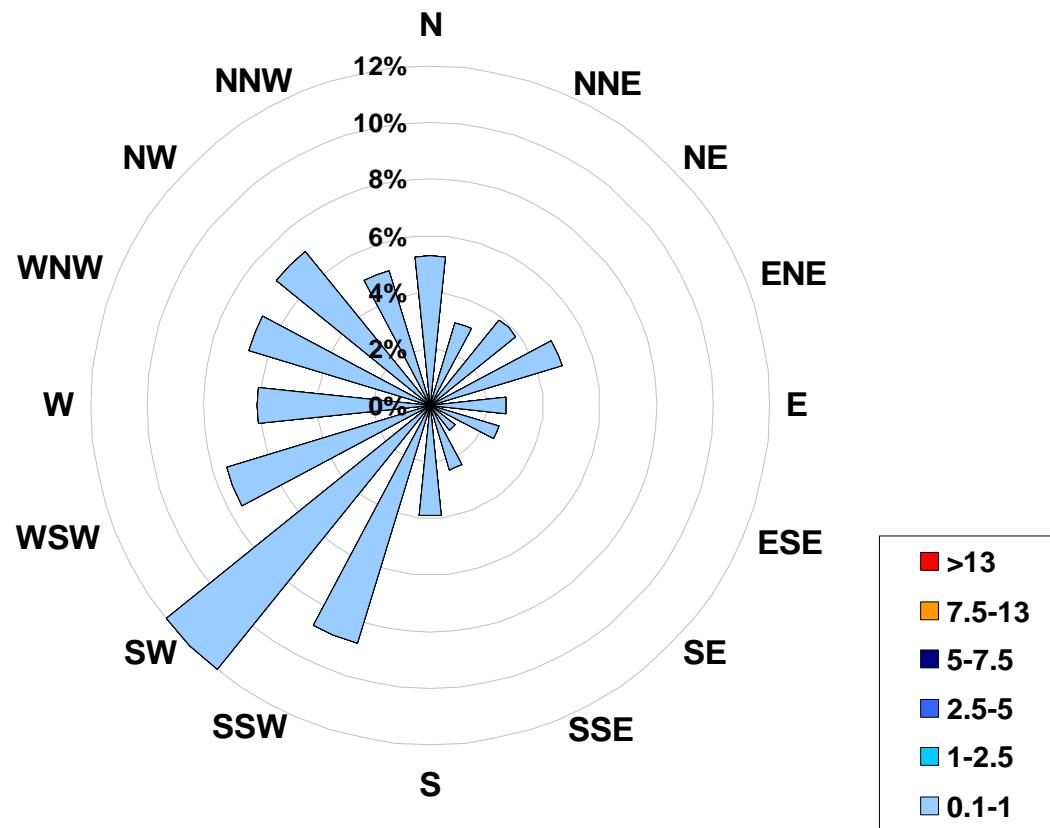


Figure 8. PAS - Crescent Heights Carbon Monoxide Instantaneous (30 Second) Maximum Value Monthly Trend



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



Calms: 0%

Frequency Distribution of CO in ppm			Frequency (hrs)
Range			
0.1	<	1	684
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			684



## PAS - Crescent Heights - Carbon Monoxide Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

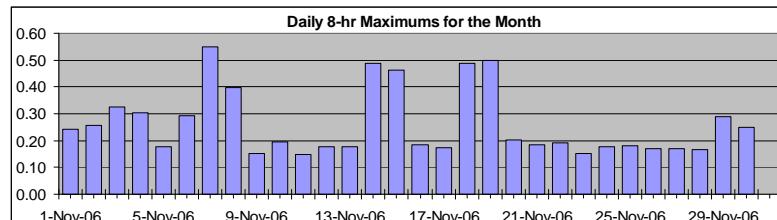
Monitoring Dates: November 1, 2006 to December 1, 2006

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

Number of 8-hr Exceedances: 0  
Maximum 8-hr Average: 0.6 ppm 7-Nov 20:00 21:00

### EIGHT HOUR RUNNING AVERAGE TABLE

### Carbon Monoxide (CO)



### Status Flag Characters

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

### Day Mountain Standard Time

	Hour Start 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	25:00	26:00	27:00	28:00	29:00	30:00	31:00	32:00	33:00	34:00	35:00	36:00	37:00	38:00	39:00	40:00	41:00	42:00	43:00	44:00	45:00	46:00	47:00	48:00	49:00	50:00	51:00	52:00	53:00	54:00	55:00	56:00	57:00	58:00	59:00	60:00	61:00	62:00	63:00	64:00	65:00	66:00	67:00	68:00	69:00	70:00	71:00	72:00	73:00	74:00	75:00	76:00	77:00	78:00	79:00	80:00	81:00	82:00	83:00	84:00	85:00	86:00	87:00	88:00	89:00	90:00	91:00	92:00	93:00	94:00	95:00	96:00	97:00	98:00	99:00	100:00	101:00	102:00	103:00	104:00	105:00	106:00	107:00	108:00	109:00	110:00	111:00	112:00	113:00	114:00	115:00	116:00	117:00	118:00	119:00	120:00	121:00	122:00	123:00	124:00	125:00	126:00	127:00	128:00	129:00	130:00	131:00	132:00	133:00	134:00	135:00	136:00	137:00	138:00	139:00	140:00	141:00	142:00	143:00	144:00	145:00	146:00	147:00	148:00	149:00	150:00	151:00	152:00	153:00	154:00	155:00	156:00	157:00	158:00	159:00	160:00	161:00	162:00	163:00	164:00	165:00	166:00	167:00	168:00	169:00	170:00	171:00	172:00	173:00	174:00	175:00	176:00	177:00	178:00	179:00	180:00	181:00	182:00	183:00	184:00	185:00	186:00	187:00	188:00	189:00	190:00	191:00	192:00	193:00	194:00	195:00	196:00	197:00	198:00	199:00	200:00	201:00	202:00	203:00	204:00	205:00	206:00	207:00	208:00	209:00	210:00	211:00	212:00	213:00	214:00	215:00	216:00	217:00	218:00	219:00	220:00	221:00	222:00	223:00	224:00	225:00	226:00	227:00	228:00	229:00	230:00	231:00	232:00	233:00	234:00	235:00	236:00	237:00	238:00	239:00	240:00	241:00	242:00	243:00	244:00	245:00	246:00	247:00	248:00	249:00	250:00	251:00	252:00	253:00	254:00	255:00	256:00	257:00	258:00	259:00	260:00	261:00	262:00	263:00	264:00	265:00	266:00	267:00	268:00	269:00	270:00	271:00	272:00	273:00	274:00	275:00	276:00	277:00	278:00	279:00	280:00	281:00	282:00	283:00	284:00	285:00	286:00	287:00	288:00	289:00	290:00	291:00	292:00	293:00	294:00	295:00	296:00	297:00	298:00	299:00	300:00	301:00	302:00	303:00	304:00	305:00	306:00	307:00	308:00	309:00	310:00	311:00	312:00	313:00	314:00	315:00	316:00	317:00	318:00	319:00	320:00	321:00	322:00	323:00	324:00	325:00	326:00	327:00	328:00	329:00	330:00	331:00	332:00	333:00	334:00	335:00	336:00	337:00	338:00	339:00	340:00	341:00	342:00	343:00	344:00	345:00	346:00	347:00	348:00	349:00	350:00	351:00	352:00	353:00	354:00	355:00	356:00	357:00	358:00	359:00	360:00	361:00	362:00	363:00	364:00	365:00	366:00	367:00	368:00	369:00	370:00	371:00	372:00	373:00	374:00	375:00	376:00	377:00	378:00	379:00	380:00	381:00	382:00	383:00	384:00	385:00	386:00	387:00	388:00	389:00	390:00	391:00	392:00	393:00	394:00	395:00	396:00	397:00	398:00	399:00	400:00	401:00	402:00	403:00	404:00	405:00	406:00	407:00	408:00	409:00	410:00	411:00	412:00	413:00	414:00	415:00	416:00	417:00	418:00	419:00	420:00	421:00	422:00	423:00	424:00	425:00	426:00	427:00	428:00	429:00	430:00	431:00	432:00	433:00	434:00	435:00	436:00	437:00	438:00	439:00	440:00	441:00	442:00	443:00	444:00	445:00	446:00	447:00	448:00	449:00	450:00	451:00	452:00	453:00	454:00	455:00	456:00	457:00	458:00	459:00	460:00	461:00	462:00	463:00	464:00	465:00	466:00	467:00	468:00	469:00	470:00	471:00	472:00	473:00	474:00	475:00	476:00	477:00	478:00	479:00	480:00	481:00	482:00	483:00	484:00	485:00	486:00	487:00	488:00	489:00	490:00	491:00	492:00	493:00	494:00	495:00	496:00	497:00	498:00	499:00	500:00	501:00	502:00	503:00	504:00	505:00	506:00	507:00	508:00	509:00	510:00	511:00	512:00	513:00	514:00	515:00	516:00	517:00	518:00	519:00	520:00	521:00	522:00	523:00	524:00	525:00	526:00	527:00	528:00	529:00	530:00	531:00	532:00	533:00	534:00	535:00	536:00	537:00	538:00	539:00	540:00	541:00	542:00	543:00	544:00	545:00	546:00	547:00	548:00	549:00	550:00	551:00	552:00	553:00	554:00	555:00	556:00	557:00	558:00	559:00	560:00	561:00	562:00	563:00	564:00	565:00	566:00	567:00	568:00	569:00	570:00	571:00	572:00	573:00	574:00	575:00	576:00	577:00	578:00	579:00	580:00	581:00	582:00	583:00	584:00	585:00	586:00	587:00	588:00	589:00	590:00	591:00	592:00	593:00	594:00	595:00	596:00	597:00	598:00	599:00	600:00	601:00	602:00	603:00	604:00	605:00	606:00	607:00	608:00	609:00	610:00	611:00	612:00	613:00	614:00	615:00	616:00	617:00	618:00	619:00	620:00	621:00	622:00	623:00	624:00	625:00	626:00	627:00	628:00	629:00	630:00	631:00	632:00	633:00	634:00	635:00	636:00	637:00	638:00	639:00	640:00	641:00	642:00	643:00	644:00	645:00	646:00	647:00	648:00	649:00	650:00	651:00	652:00	653:00	654:00	655:00	656:00	657:00	658:00	659:00	660:00	661:00	662:00	663:00	664:00	665:00	666:00	667:00	668:00	669:00	670:00	671:00	672:00	673:00	674:00	675:00	676:00	677:00	678:00	679:00	680:00	681:00	682:00	683:00	684:00	685:00	686:00	687:00	688:00	689:00	690:00	691:00	692:00	693:00	694:00	695:00	696:00	697:00	698:00	699:00	700:00	701:00	702:00	703:00	704:00	705:00	706:00	707:00	708:00	709:00	710:00	711:00	712:00	713:00	714:00	715:00	716:00	717:00	718:00	719:00	720:00	721:00	722:00	723:00	724:00	725:00	726:00	727:00	728:00	729:00	730:00	731:00	732:00	733:00	734:00	735:00	736:00	737:00	738:00	739:00	740:00	741:00	742:00	743:00	744:00	745:00	746:00	747:00	748:00	749:00	750:00	751:00	752:00	753:00	754:00	755:00	756:00	757:00	758:00	759:00	760:00	761:00	762:00	763:00	764:00	765:00	766:00	767:00	768:00	769:00	770:00	771:00	772:00	773:00	774:00	775:00	776:00	777:00	778:00	779:00	780:00	781:00	782:00	783:00	784:00	785:00	786:00	787:00	788:00	789:00	790:00	791:00	792:00	793:00	794:00	795:00	796:00	797:00	798:00	799:00	800:00	801:00	802:00	803:00	804:00	805:00	806:00	807:00	808:00	809:00	810:00	811:00	812:00	813:00	814:00	815:00	816:00	817:00	818:00	819:00	820:00	821:00	822:00	823:00	824:00	825:00	826:00	827:00	828:00	829:00	830:00	831:00	832:00	833:00	834:00	835:00	836:00	837:00	838:00	839:00	840:00	841:00	842:00	843:00	844:00	845:00	846:00	847:00	848:00	849:00	850:00	851:00	852:00	853:00	854:00	855:00	856:00	857:00	858:00	859:00	860:00	861:00	862:00	863:00	864:00	865:00	866:00	867:00	868:00	869:00	870:00	871:00	872:00	873:00	874:00	875:00	876:00	877:00	878:00	



## PAS - Crescent Heights - Total Hydrocarbons Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: November 1, 2006 to December 1, 2006

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

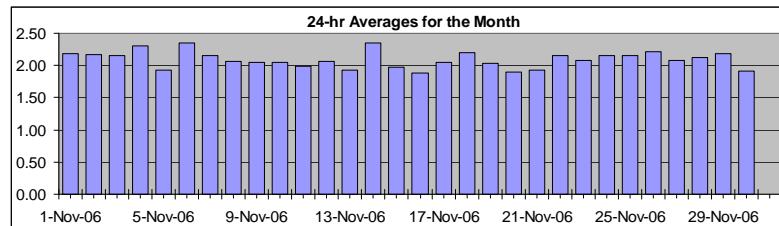
Maximum 1-hr Average:	2.9	ppm	7-Nov	17:00 18:00
Maximum 24-hr Value:	2.4	ppm	6-Nov	

AIC Time:	33 hrs	Operational Time:	685 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99 2.6	95 2.5	75 2.2	50 2.1	25 2.0	5 1.8	1 1.7	Average 2.1 ppm	Median 2.1 ppm

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00		
1-Nov-06	2.0	2.1	2.1	2.1	2.2	2.2	A	2.3	2.3	2.2	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.1	2.2	2.3	2.5	2.5	2.5	2.4	2.19	2.49	
2-Nov-06	2.3	2.2	2.3	2.3	2.3	A	2.3	2.7	2.4	2.3	2.2	2.2	2.1	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.3	2.1	2.3	2.1	2.17	2.68	
3-Nov-06	2.1	2.1	2.0	2.1	A	2.4	2.4	2.4	2.3	2.2	2.4	2.2	2.1	2.1	1.9	1.9	2.0	2.0	2.0	2.2	2.2	2.3	2.2	2.1	2.15	2.44	
4-Nov-06	2.1	2.3	2.3	A	2.6	2.5	2.3	2.8	2.7	2.5	2.5	2.4	2.3	2.3	2.3	2.3	2.3	2.5	2.4	2.0	1.9	1.9	1.9	1.9	2.30	2.76	
5-Nov-06	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	2.0	2.1	2.3	1.93	2.28	
6-Nov-06	2.2	A	2.4	2.5	2.5	2.4	2.4	2.5	2.5	2.4	2.4	2.3	2.3	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	1.9	1.9	2.35	2.52	
7-Nov-06	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.1	2.2	2.3	2.5	2.5	2.6	2.9	2.9	2.7	2.4	2.0	1.9	A	2.16	2.94	
8-Nov-06	1.9	2.2	2.2	2.2	2.0	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.06	2.20	
9-Nov-06	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.04	2.09	
10-Nov-06	2.1	2.2	2.1	2.2	2.2	2.1	2.2	2.3	2.3	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.05	2.32	
11-Nov-06	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	A	2.22	2.22	2.2	2.2	1.99	2.20
12-Nov-06	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	A	1.9	1.9	1.9	2.0	2.0	2.06	2.26	
13-Nov-06	1.9	2.0	1.9	1.9	1.9	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	A	1.9	1.9	2.1	2.3	2.2	2.2	1.92	2.25	
14-Nov-06	2.2	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.4	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	A	2.3	2.4	2.5	2.5	2.6	2.4	2.35	2.58	
15-Nov-06	2.4	2.3	2.1	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	A	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.7	1.97	2.43	
16-Nov-06	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.9	1.9	1.9	1.9	1.9	A	2.0	2.0	2.0	2.1	2.1	A	2.22	2.22	1.89	2.14	
17-Nov-06	2.1	2.0	2.1	2.1	2.0	2.1	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	2.1	2.1	2.0	2.0	2.05	2.12		
18-Nov-06	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.2	2.2	2.4	2.6	2.8	2.5	2.20	2.83	
19-Nov-06	2.5	2.4	2.5	2.4	2.4	2.3	2.1	2.0	2.0	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	2.03	2.50	
20-Nov-06	1.9	1.8	1.9	1.8	1.9	1.8	1.8	1.9	1.9	2.0	A	2.1	2.0	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	2.11	
21-Nov-06	2.0	2.0	2.2	1.9	2.0	2.0	1.9	2.0	2.0	A	2.0	1.9	1.8	1.7	1.8	C	C	A	2.0	1.9	1.9	1.9	1.9	1.9	1.93	2.25	
22-Nov-06	1.9	2.2	A	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.16	2.26	
23-Nov-06	2.1	2.1	A	2.0	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.1	2.1	2.08	2.25	
24-Nov-06	2.3	2.2	A	2.2	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.16	2.29	
25-Nov-06	2.2	A	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.2	2.3	2.2	2.15	2.35	
26-Nov-06	A	2.2	2.1	2.1	2.2	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.22	2.40	
27-Nov-06	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.07	2.14	
28-Nov-06	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	A	2.1	2.13	2.19	
29-Nov-06	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.0	2.18	2.32	
30-Nov-06	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.91	2.02	

### HOURLY AVERAGE TABLE

### Total Hydrocarbons (THC)



Status Flag Characters

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

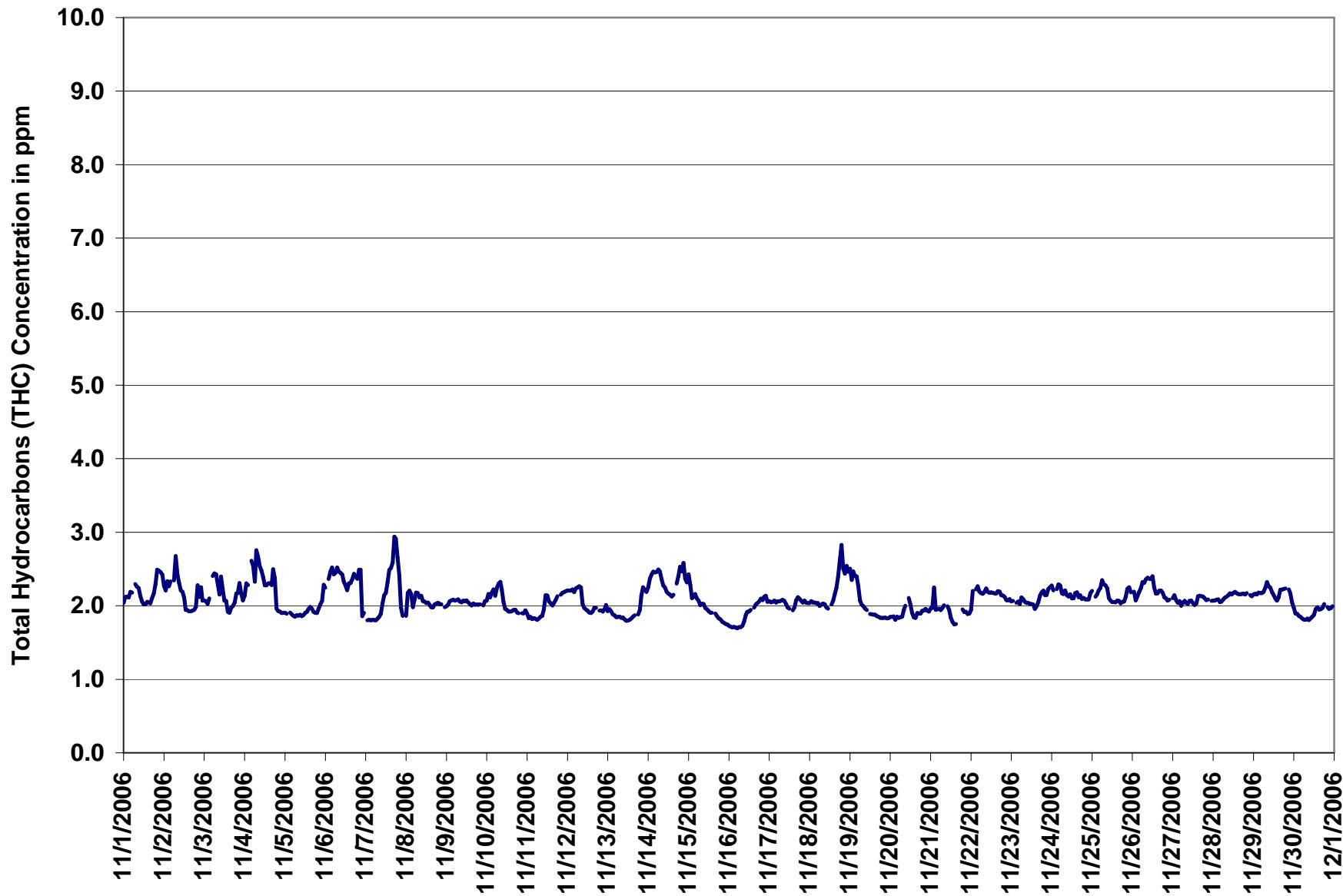


Figure 9. PAS - Crescent Heights Total Hydrocarbons 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

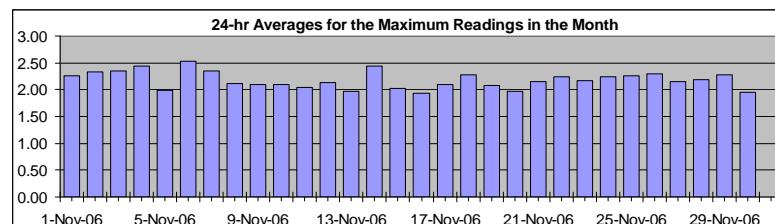
### INSTANTANEOUS (30 Second) MAXIMUM TABLE

### Total Hydrocarbons (THC)

Monitoring Dates: November 1, 2006 to December 1, 2006

#### Summary

Maximum 1-hr Value:	4.8	ppm	21-Nov	2:00 3:00
Maximum 24-hr Value:	2.5	ppm	6-Nov	



AIC Time:	33 hrs	Operational Time:	685 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%
Percentile	99 95 75 50 25 5 1	Average	Median
	3.0 2.7 2.3 2.1 2.0 1.9 1.8	2.2 ppm	2.1 ppm

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-Nov-06	2.1	2.2	2.2	2.2	2.3	2.3	A	2.4	2.3	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.4	2.7	2.5	2.5	2.5	2.27	2.70	
2-Nov-06	2.3	2.3	2.6	2.3	2.4	A	2.7	3.1	2.7	2.4	2.3	2.3	2.3	2.3	2.0	2.0	2.0	1.9	2.0	2.0	2.2	2.6	2.3	2.8	2.1	2.33	3.13	
3-Nov-06	2.3	2.1	2.1	2.4	A	2.6	2.5	2.7	2.9	2.3	3.0	2.4	2.1	2.1	2.1	2.0	2.1	2.1	2.3	2.5	2.4	2.5	2.3	2.2	2.2	2.36	3.00	
4-Nov-06	2.2	3.1	2.4	A	2.9	3.1	2.7	2.8	2.8	2.6	2.5	2.5	2.3	2.3	2.4	2.4	2.4	2.3	2.6	2.5	2.0	2.0	2.0	1.9	1.9	2.45	3.08	
5-Nov-06	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.0	1.9	1.9	2.0	2.1	2.3	2.4	2.4	1.98	2.40	
6-Nov-06	2.3	A	2.4	2.6	2.8	2.8	2.7	2.8	2.7	2.5	2.6	2.5	2.3	2.3	2.7	2.4	2.4	2.7	2.6	2.5	2.5	2.7	2.0	2.0	2.0	2.52	2.84	
7-Nov-06	A	1.8	1.9	1.9	1.8	1.8	1.9	1.9	2.0	2.1	2.3	2.2	2.5	2.8	2.7	2.8	3.7	3.5	3.1	2.9	2.3	2.0	A	2.0	2.0	2.35	3.68	
8-Nov-06	2.0	2.3	2.2	2.2	2.1	2.1	2.2	2.2	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	A	2.0	2.27		
9-Nov-06	2.0	2.0	2.1	2.1	2.3	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.0	A	2.0	2.26		
10-Nov-06	2.1	2.2	2.2	2.2	2.3	2.2	2.3	2.4	2.5	2.3	2.2	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	A	1.9	1.9	2.0	2.10	2.47	
11-Nov-06	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	A	2.2	2.3	2.2	2.2	2.2	2.03	2.26		
12-Nov-06	2.2	2.3	2.3	2.4	2.3	2.4	2.4	2.4	2.1	2.0	2.0	2.0	1.9	1.9	2.0	2.1	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.13	2.44		
13-Nov-06	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	A	1.9	2.1	2.3	2.3	2.3	2.3	1.97	2.32		
14-Nov-06	2.3	2.4	2.5	2.5	2.5	2.6	2.5	2.4	2.3	2.4	2.3	2.2	2.2	2.2	2.2	2.2	A	2.4	2.6	2.7	2.6	2.8	2.5	2.6	2.44	2.85		
15-Nov-06	2.7	2.5	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	A	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	2.03	2.66			
16-Nov-06	1.8	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.9	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.2	2.1	2.1	2.2	2.3	2.1	1.94	2.25			
17-Nov-06	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.2	2.2	2.1	2.1	2.1	2.1	2.09	2.23			
18-Nov-06	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	A	2.1	2.1	2.2	2.3	2.6	3.0	3.0	2.6	2.8	2.6	2.29	3.00		
19-Nov-06	2.6	2.4	2.6	2.5	2.5	2.4	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.08	2.64
20-Nov-06	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.2	A	2.2	2.1	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.96	2.17		
21-Nov-06	2.0	2.1	4.8	2.0	2.0	2.1	2.0	2.0	2.3	A	2.0	2.0	1.9	1.8	1.8	2.1	C	C	A	2.0	2.0	2.0	1.9	1.9	2.15	4.83		
22-Nov-06	2.2	2.3	A	2.3	2.3	2.3	2.2	2.2	2.5	2.3	2.2	2.2	2.2	2.3	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.24	2.55		
23-Nov-06	2.1	2.1	A	2.1	2.1	2.2	2.3	2.4	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.1	2.1	2.3	2.3	2.3	2.3	2.2	2.4	2.4	2.18	2.38		
24-Nov-06	2.4	2.3	A	2.3	2.3	2.3	2.3	2.2	2.3	2.2	2.2	2.2	2.1	2.2	2.4	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.3	2.23	2.38		
25-Nov-06	2.3	A	2.2	2.3	2.3	2.5	2.6	2.4	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.3	2.4	2.4	2.3	2.25	2.64		
26-Nov-06	A	2.3	2.2	2.2	2.2	2.3	2.4	2.4	2.5	2.5	2.4	2.5	2.5	2.5	2.3	2.2	2.3	2.2	2.3	2.1	2.1	2.2	2.1	A	2.30	2.53		
27-Nov-06	2.1	2.2	2.2	2.1	2.1	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	A	2.16	2.30		
28-Nov-06	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	A	2.19	2.32		
29-Nov-06	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.6	2.5	2.3	2.3	2.2	2.6	2.2	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.1	A	2.28	2.63		
30-Nov-06	2.1	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	1.95	2.10		

Hourly Avg 2.15 2.17 2.26 2.16 2.18 2.20 2.21 2.25 2.24 2.18 2.17 2.15 2.12 2.12 2.12 2.14 2.23 2.23 2.21 2.22 2.21 2.18 2.15

Hourly Max 2.66 3.06 4.83 2.60 2.90 3.08 2.74 3.13 2.95 2.63 3.00 2.53 2.55 2.48 2.75 2.73 2.83 3.68 3.46 3.05 2.90 2.85 2.83 2.58

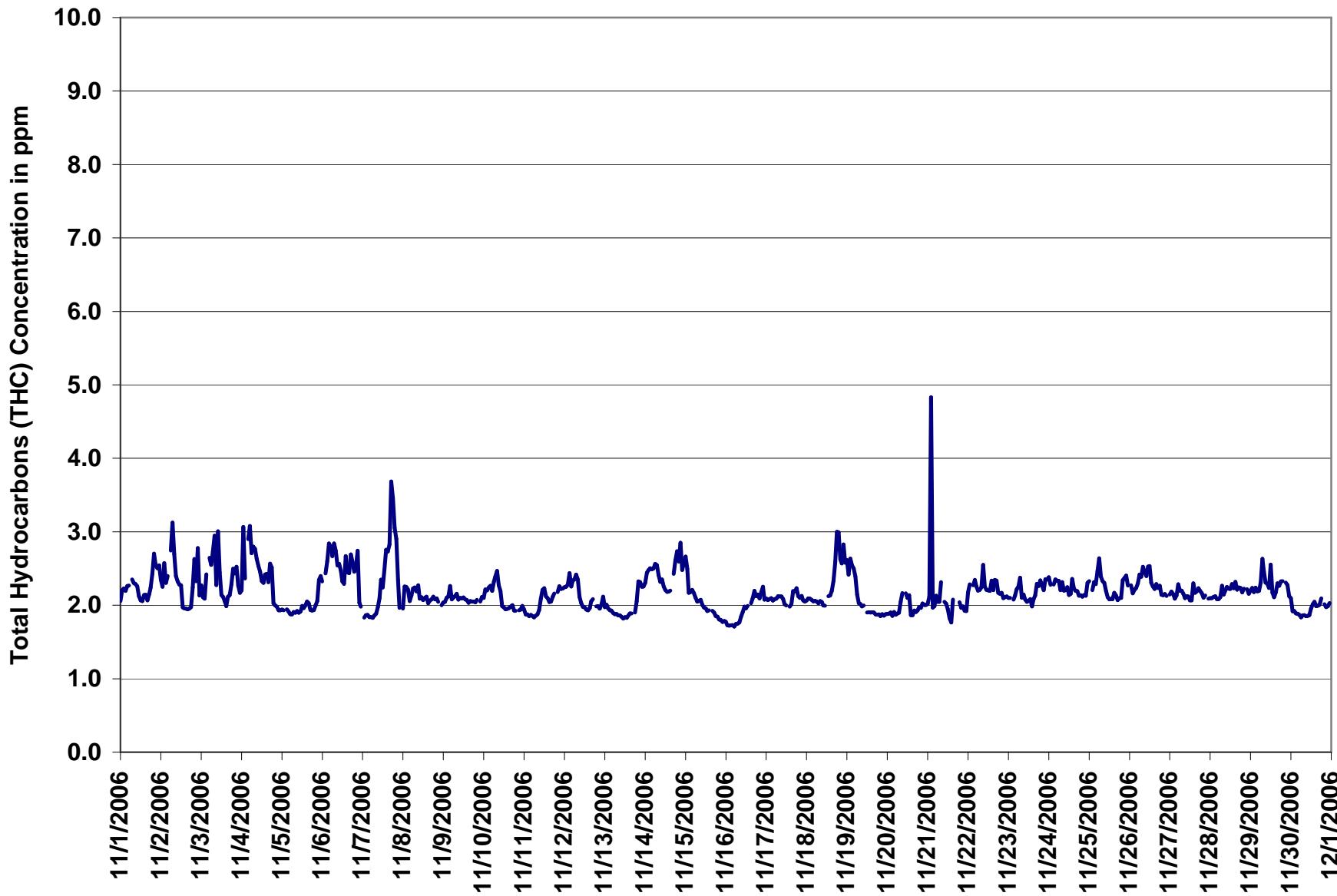
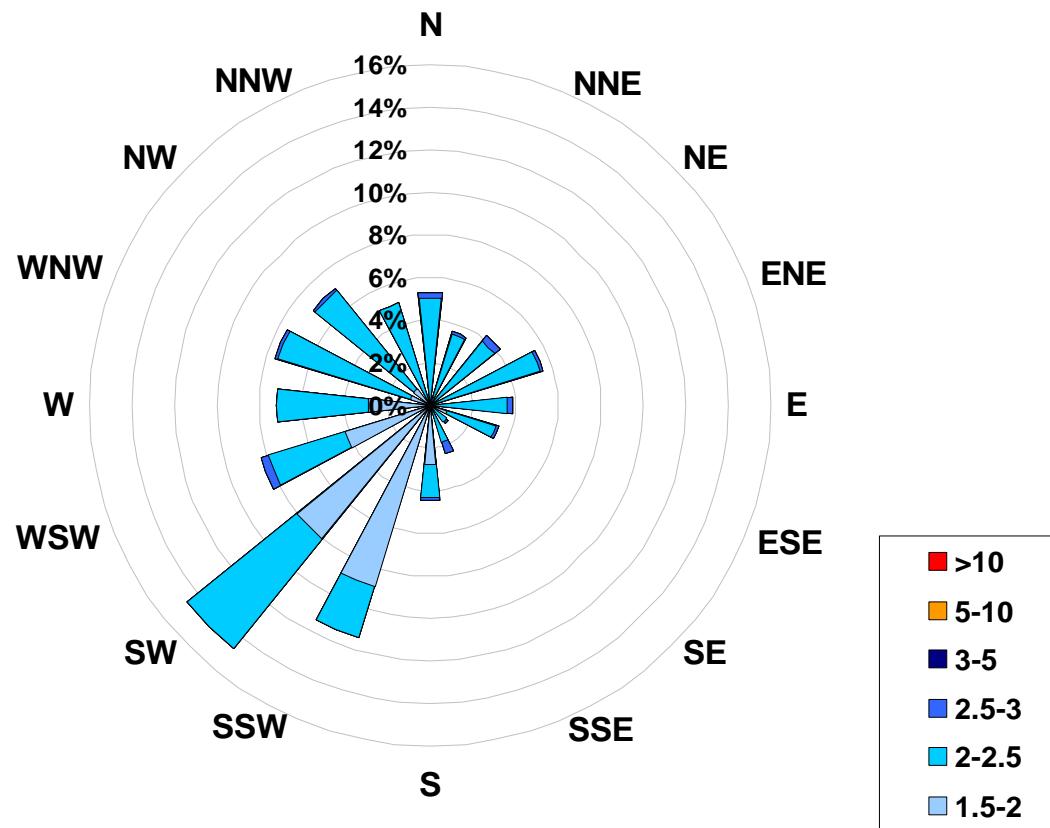


Figure 10. PAS - Crescent Heights Total Hydrocarbons Instantaneous (30 Second) Maximum Value Monthly Trend

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



Calms: 0%

Frequency Distribution of THC in ppm			Frequency (hrs)
Range			
1.5	<	2	223
2	to	2.5	442
2.5	to	3	20
3	to	5	0
5	to	10	0
	>	10	0
Total Non-Zero Values			685



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

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: November 1, 2006 to December 1, 2006

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

Number of 24-hr Exceedances (draft):	0
Maximum 1-hr Average:	19.4 $\mu\text{g}/\text{m}^3$
Maximum 24-hr Value:	9.0 $\mu\text{g}/\text{m}^3$
	2-Nov 8:00 9:00
	14-Nov

AIC Time:	0 hrs	Operational Time:	715 hrs							
Calibration Time:	2 hrs	AMD Operational Uptime:	99.6%							
Percentile	99	95	75	50	25	5	1	Average / Median	Geomean	
	12.2	8.3	3.8	2.1	0.7	0.0	0.0	2.7	2 $\mu\text{g}/\text{m}^3$	2.2 $\mu\text{g}/\text{m}^3$

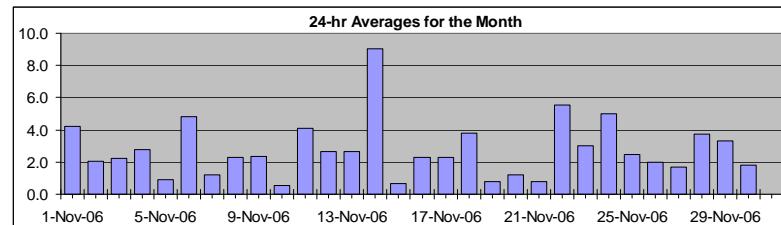
### Day Mountain Standard Time

	Hour Start 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	25:00	26:00	27:00	28:00	29:00	30:00	24-hour Average	Daily Maximum
1-Nov-06	5	3	4	3	3	3	5	7	7	6	4	2	2	2	2	3	5	6	6	5	5	5	6	6	6	6	6	6	4.2	7.1				
2-Nov-06	4	3	3	2	2	0	D	4	19	2	0	0	0	0	0	0	0	0	1	1	1	2	1	2	2.1	19.4	2.1	5.3						
3-Nov-06	1	1	0	1	0	1	1	2	4	2	2	5	4	5	3	3	2	2	3	3	3	3	3	3	3	3	3	3	2.2	5.6				
4-Nov-06	1	2	2	3	5	5	3	5	4	4	3	4	4	3	3	4	3	6	3	0	0	0	0	0	0	0	0	0	0.9	9.4				
5-Nov-06	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	1	3	1	0	0	0	0	1	1	9	0	0	0	4.8	11.9				
6-Nov-06	12	12	8	8	11	8	5	5	5	4	4	3	3	1	5	2	3	5	3	0	2	6	3	0	0	0	0	0	1.2	5.8				
7-Nov-06	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	3	3	3	6	2	1	3	0	0	2	D	0	0	2.3	5.7				
8-Nov-06	1	3	4	1	1	2	6	4	3	2	2	3	2	2	1	2	1	2	1	3	2	2	2	2	2	3	0	0	2.3	4.6				
9-Nov-06	3	3	4	3	4	4	4	5	3	3	2	2	2	2	0	2	2	1	2	1	1	1	1	1	1	1	1	0	0.6	3.5				
10-Nov-06	1	1	0	1	1	0	1	1	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.1	9.0				
11-Nov-06	0	0	1	0	0	0	0	2	4	0	1	4	4	7	6	7	8	6	8	8	9	8	8	8	8	8	0	0	2.7	9.5				
12-Nov-06	8	7	9	9	7	6	5	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.6	11.6				
13-Nov-06	1	2	1	1	0	0	2	2	1	2	1	2	1	3	1	1	1	2	1	4	11	12	8	3	0	0	0	9.0	16.3					
14-Nov-06	4	6	8	9	10	13	14	16	13	9	10	6	8	7	7	8	7	8	12	9	10	10	8	4	0	0	0	0.6	5.2					
15-Nov-06	5	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	2.3	7.6				
16-Nov-06	0	0	1	1	0	0	0	3	1	3	8	3	4	3	3	3	3	1	2	2	4	5	3	2	2	0	0	0	2.3	4.7				
17-Nov-06	1	1	2	1	2	2	3	2	3	3	1	2	1	0	1	3	5	4	4	4	3	3	2	3	0	0	0	3.8	13.6					
18-Nov-06	1	2	2	2	2	1	6	2	3	3	1	1	0	3	4	4	3	6	12	14	7	4	5	4	0	0	0	0.8	6.2					
19-Nov-06	4	2	6	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.2	3.1				
20-Nov-06	2	2	2	2	1	0	2	1	1	1	1	3	2	0	0	1	D	1	2	2	1	1	0	0	0	0	0	0	0.8	3.9				
21-Nov-06	0	0	0	0	0	0	3	2	3	3	4	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	5.5	16.5				
22-Nov-06	1	16	11	12	9	10	8	6	3	C	C	6	7	7	7	4	3	3	1	2	1	2	1	0	0	0	0	0	3.0	5.8				
23-Nov-06	1	0	0	0	0	2	5	3	4	3	3	3	3	4	4	4	6	5	6	5	3	4	2	3	0	0	0	0	5.0	8.0				
24-Nov-06	2	1	3	3	3	4	4	7	8	8	6	7	6	7	8	7	6	5	5	4	3	4	4	4	0	0	0	0	2.5	3.8				
25-Nov-06	4	2	3	2	3	3	3	4	4	4	1	2	1	2	2	3	2	2	2	2	2	3	3	3	0	0	0	0	2.0	5.7				
26-Nov-06	2	2	2	1	1	2	3	3	4	6	5	4	6	1	0	0	0	2	1	1	1	0	1	0	0	0	0	0	1.7	2.8				
27-Nov-06	0	0	1	0	1	1	1	1	2	2	2	1	1	1	3	3	3	3	2	3	2	2	2	3	3	3	3	3	3.7	5.7				
28-Nov-06	2	2	3	1	2	2	3	3	4	5	6	6	4	5	4	5	5	5	4	5	4	3	3	3	3	3	3	3	3.3	6.8				
29-Nov-06	4	3	3	4	3	4	4	5	7	4	5	4	3	2	1	2	2	2	2	5	3	2	3	3	3	3	3	3	1.8	5.7				
30-Nov-06	1	0	1	1	1	1	3	2	2	1	3	4	5	6	3	2	1	0	1	1	1	1	1	1	1	1	1	1	0	0				

Hourly Avg	2.4	2.8	2.8	2.4	2.5	2.5	3.4	3.4	4.1	3.0	2.5	2.6	2.4	2.5	2.6	2.8	2.8	2.8	3.0	2.8	2.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Hourly Max	11.9	16.5	10.9	11.7	10.7	12.5	14.5	16.3	19.4	9.2	10.3	7.1	8.5	7.0	7.8	8.0	7.7	7.9	12.2	13.6	10.7	11.6	8.4	9.4	9.4	9.4	9.4	9.4

### HOURLY AVERAGE TABLE

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



### Status Flag Characters

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

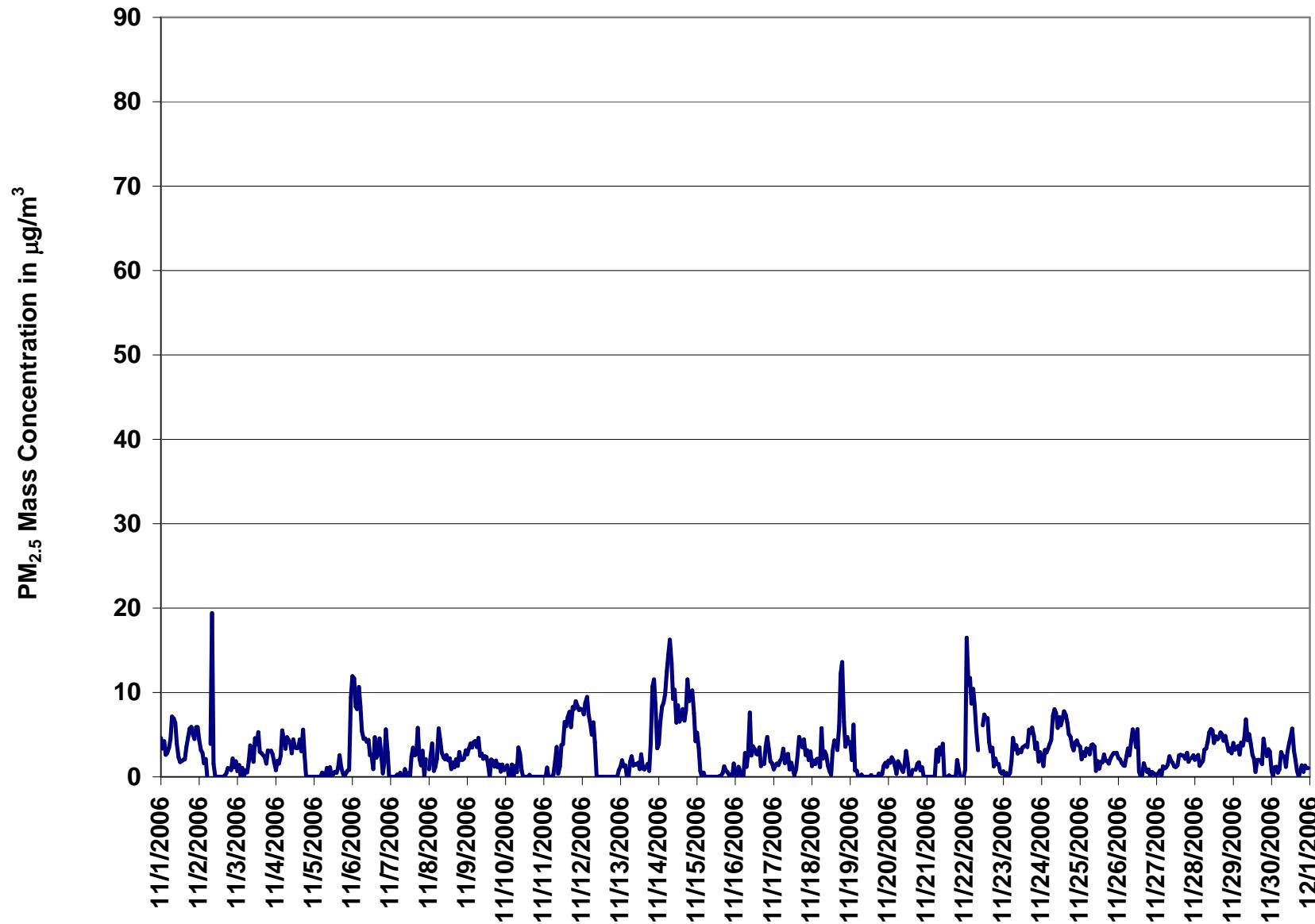


Figure 11. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

### INSTANTANEOUS (30 Second) MAXIMUM TABLE

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

Monitoring Dates: November 1, 2006 to December 1, 2006

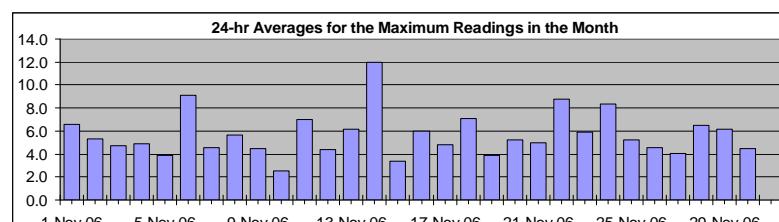
#### Summary

Maximum 1-hr Average:	30.8	µg/m <sup>3</sup>	2-Nov	8:00 9:00
Maximum 24-hr Value:	11.9	µg/m <sup>3</sup>	14-Nov	

AIC Time:	0 hrs	Operational Time:	715 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	99.6%						
Percentile	99 17.5	95 12.4	75 7.3	50 5.1	25 3.3	5 1.1	1 0.2	Average / Median 5.7	Geomean 5.4 µg/m <sup>3</sup>

#### Day Mountain Standard Time

	Hour Start 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
	Hour End 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	
1-Nov-06	6	7	6	5	5	6	9	10	9	8	7	5	4	4	3	4	5	6	8	9	9	7	9	9	9	6.6	10.2
2-Nov-06	8	7	6	3	4	4	D	26	31	3	3	2	1	0	1	0	2	2	2	2	2	4	5	5	5	5.3	30.8
3-Nov-06	3	3	1	3	1	3	3	4	5	5	3	9	6	8	6	6	5	5	4	6	7	7	6	5	4	4.7	8.6
4-Nov-06	3	3	4	4	8	8	6	7	6	6	5	6	5	5	6	7	5	9	5	2	1	1	1	3	4.9	9.1	
5-Nov-06	1	3	2	1	3	4	4	3	5	3	4	2	4	4	2	5	5	3	4	3	3	3	6	13	3.9	13.2	
6-Nov-06	14	14	14	11	15	12	8	8	8	7	8	5	5	4	10	6	5	10	9	4	6	14	15	4	9.1	14.9	
7-Nov-06	3	4	3	2	3	2	3	2	8	4	1	4	3	5	7	8	6	9	4	5	8	2	9	D	4.5	9.3	
8-Nov-06	4	5	7	3	8	4	13	12	6	4	6	6	4	5	3	6	4	6	4	4	5	5	3	6	5.7	12.6	
9-Nov-06	6	7	6	6	7	6	6	6	5	4	4	4	3	2	4	4	4	4	4	4	3	4	3	4	4.5	6.6	
10-Nov-06	3	3	2	3	3	2	3	3	7	5	4	3	3	2	1	4	1	1	1	1	3	1	2	1	2.6	7.2	
11-Nov-06	3	1	5	3	1	3	5	6	8	4	4	8	6	9	8	11	11	9	10	11	12	10	10	9	7.0	11.5	
12-Nov-06	9	9	10	12	11	8	8	9	9	0	2	0	0	0	2	2	3	3	3	0	1	0	1	3	4.4	11.7	
13-Nov-06	4	5	3	4	2	1	6	4	6	4	6	5	4	12	3	3	7	7	3	9	15	14	14	8	6.1	14.6	
14-Nov-06	7	11	11	11	13	15	19	19	17	12	13	10	11	9	9	10	9	10	14	12	13	15	11	6	11.9	18.7	
15-Nov-06	8	8	3	2	3	1	8	1	3	2	0	1	1	3	3	2	3	4	4	3	4	4	4	6	3.4	8.4	
16-Nov-06	3	5	6	3	3	3	5	6	9	15	5	7	11	9	7	8	5	5	3	6	7	5	3	4	6.0	14.8	
17-Nov-06	3	3	5	3	3	4	8	8	5	5	3	6	3	2	4	6	8	7	5	7	5	5	4	5	4.8	8.3	
18-Nov-06	3	4	3	5	4	3	23	3	6	5	4	2	1	6	7	6	7	12	18	18	9	6	8	5	7.1	22.9	
19-Nov-06	8	5	17	3	3	1	2	4	1	2	2	0	0	5	3	4	2	2	3	4	4	5	5	6	3.8	17.3	
20-Nov-06	8	7	5	5	6	5	11	4	6	4	6	6	5	3	5	4	D	6	7	7	5	4	1	0	5.3	11.4	
21-Nov-06	0	0	1	0	2	2	11	6	7	7	14	7	10	9	6	5	6	4	2	6	3	3	3	7	5.0	13.9	
22-Nov-06	14	23	15	13	11	12	12	8	6	C	C	8	10	10	13	7	5	5	4	4	4	4	3	3	8.8	22.8	
23-Nov-06	4	2	3	2	5	4	10	9	7	6	6	6	7	5	5	8	8	8	9	6	6	5	6	5.9	9.9		
24-Nov-06	5	4	8	9	8	9	12	11	12	15	10	9	8	9	10	10	9	7	7	6	5	6	6	6	8.3	14.8	
25-Nov-06	7	4	6	6	6	6	6	7	7	4	6	3	4	3	5	4	4	4	5	4	4	6	5	7	5.2	7.2	
26-Nov-06	6	5	3	4	3	6	6	4	7	10	9	7	9	3	2	2	4	4	2	3	2	3	3	2	4.6	10.2	
27-Nov-06	2	3	3	2	4	3	3	5	4	4	3	3	3	3	6	5	5	6	6	5	5	4	5	7	4.1	7.3	
28-Nov-06	5	4	6	4	4	5	6	6	6	9	9	8	7	7	7	7	7	7	7	7	7	6	6	6	6.5	9.1	
29-Nov-06	7	5	6	7	6	7	6	8	9	6	7	7	5	4	3	5	5	4	4	8	8	4	9	6	6.1	9.5	
30-Nov-06	3	3	3	5	5	4	7	9	5	4	6	8	8	7	6	4	3	2	2	3	2	3	2	3	4.5	8.7	



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

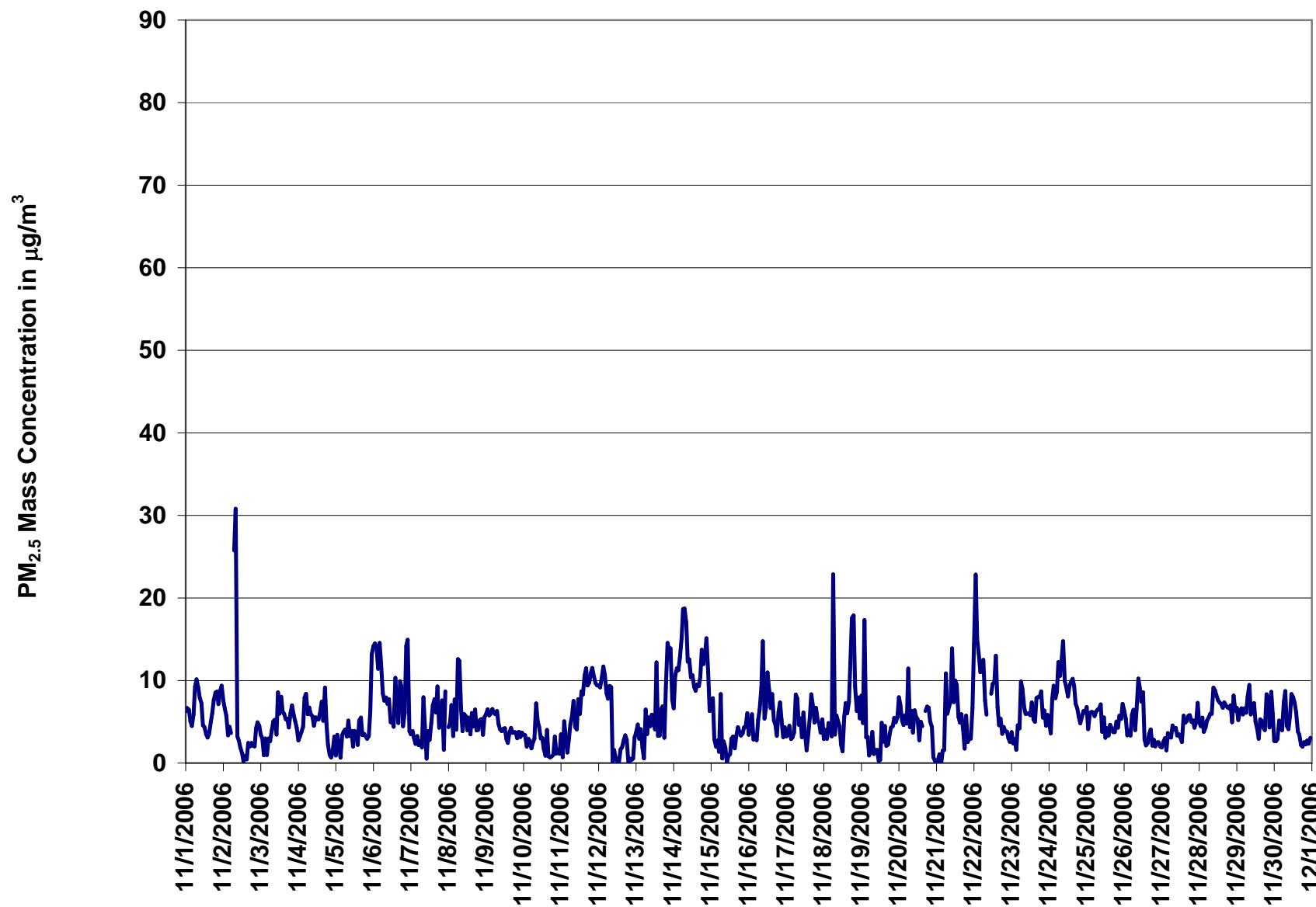
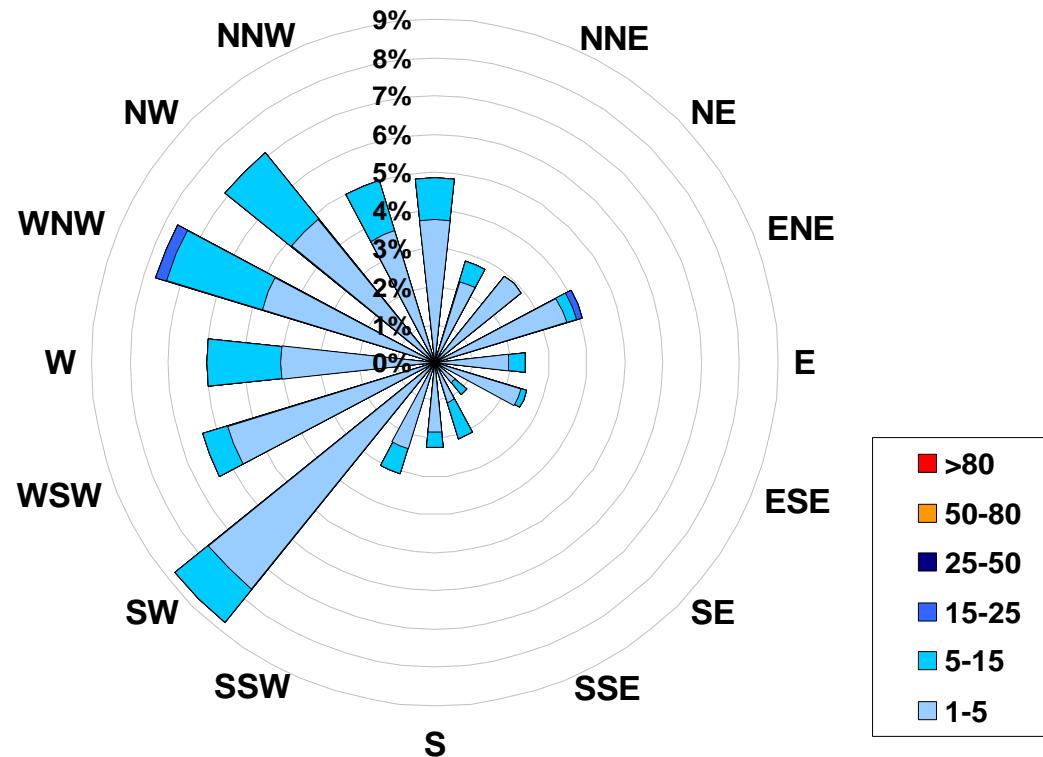


Figure 12. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) Instantaneous (30 Second) Maximum Value Monthly Trend



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





PAS - Crescent Heights - Relative Humidity Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

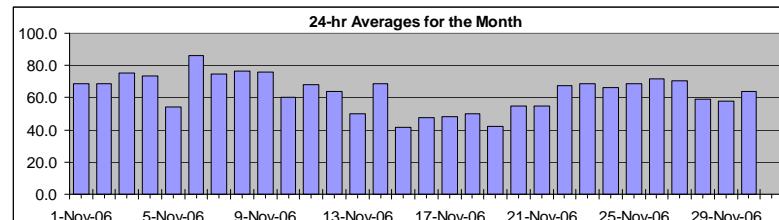
**Monitoring Dates:** November 1, 2006 to December 1, 2006

## HOURLY AVERAGE TABLE

## Relative Humidity (RH)

## Summary

**Maximum 1-hr Average:** 90.5 % 6-Nov 19:00 20:00  
**Maximum 24-hr Value:** 86.2 % 6-Nov



## Status Flag Characters

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

Day Mountain Standard Time

Day	Mountain Standard Time																									24-hour Average	Daily Maximum															
	Hour Start 0:00	1:00	2:00	3:00	4:00	4:00	5:00	6:00	6:00	7:00	7:00	8:00	8:00	9:00	9:00	10:00	10:00	11:00	11:00	12:00	12:00	13:00	13:00	14:00	14:00	15:00	15:00	16:00	16:00	17:00	17:00	18:00	18:00	19:00	19:00	20:00	20:00	21:00	21:00	22:00	22:00	23:00
1-Nov-06	65	66	68	69	70	74	77	77	71	67	65	58	55	55	56	58	63	69	73	76	76	77	78	78	68.4	78.4																
2-Nov-06	78	77	78	78	78	79	78	78	69	68	62	60	53	47	52	55	59	61	64	66	67	70	85	87	68.7	86.9																
3-Nov-06	87	86	85	85	83	81	84	83	79	68	66	57	57	58	59	60	67	74	77	81	83	85	85	84	75.5	86.8																
4-Nov-06	85	85	86	85	84	84	84	85	83	80	79	74	67	60	61	64	69	76	76	67	66	62	56	54	73.8	85.5																
5-Nov-06	53	53	53	54	55	59	63	66	68	61	52	45	38	37	35	36	40	47	50	50	50	62	71	82	54.1	81.9																
6-Nov-06	84	86	87	88	85	87	88	88	88	86	85	86	85	84	83	86	88	88	89	90	90	90	78	77	86.2	90.5																
7-Nov-06	68	66	73	73	74	76	75	75	76	72	70	67	75	74	72	73	76	77	77	83	84	77	78	76	74.5	84.3																
8-Nov-06	76	83	85	87	80	78	80	81	79	79	77	76	74	74	71	73	74	72	71	70	69	71	76	83	76.6	86.9																
9-Nov-06	82	79	79	80	78	80	77	77	78	77	76	75	74	71	69	67	69	73	74	75	76	76	77	78	75.8	81.7																
10-Nov-06	79	80	80	80	80	82	83	84	81	75	61	49	50	44	47	46	44	45	41	39	39	42	46	48	60.1	83.7																
11-Nov-06	49	49	52	56	57	58	60	66	69	69	64	62	65	73	76	77	77	77	78	78	81	82	81	68.1	81.5																	
12-Nov-06	81	80	80	80	82	84	85	84	75	62	55	48	44	43	44	46	48	49	52	57	63	65	64	62	63.9	84.8																
13-Nov-06	57	53	49	45	45	41	41	43	42	43	46	49	50	51	44	40	37	38	38	46	74	81	76	71	50.0	81.1																
14-Nov-06	73	71	71	70	70	71	70	69	66	62	64	64	62	62	59	58	62	68	73	76	76	78	76	74	68.5	77.9																
15-Nov-06	76	74	65	65	64	58	51	45	38	31	23	24	25	26	22	23	26	31	36	38	40	40	39	38	41.6	76.3																
16-Nov-06	41	41	43	48	49	52	58	55	47	48	49	47	42	43	42	42	43	39	40	43	52	62	65	60	47.9	65.1																
17-Nov-06	59	58	57	57	58	59	59	62	55	50	41	38	35	30	28	29	34	39	45	51	52	55	56	56	48.4	62.2																
18-Nov-06	56	55	51	56	56	55	53	55	52	48	42	36	32	31	31	33	38	44	51	59	62	64	68	71	50.0	71.5																
19-Nov-06	73	74	72	72	70	54	42	38	34	33	32	30	28	26	26	30	32	33	33	32	33	35	38	44	42.3	73.7																
20-Nov-06	47	50	53	54	57	58	62	63	66	67	63	62	61	48	40	45	32	35	42	52	59	65	66	70	54.8	70.0																
21-Nov-06	71	65	62	60	57	61	60	59	64	61	59	55	50	41	43	45	46	50	53	53	54	48	48	48	54.7	70.6																
22-Nov-06	50	75	80	81	80	80	78	76	73	69	68	65	62	62	61	58	59	61	60	60	62	63	66	67	67.3	80.7																
23-Nov-06	69	73	74	76	77	74	77	76	75	73	69	64	62	59	50	50	58	65	68	69	70	72	73	73	68.5	77.3																
24-Nov-06	72	69	68	67	66	65	61	63	63	65	66	69	68	66	68	66	67	64	70	66	64	64	66	66	66.2	71.8																
25-Nov-06	66	65	67	69	71	71	71	73	70	68	64	61	57	60	63	68	71	72	71	72	74	75	74	68.7	74.7																	
26-Nov-06	74	74	74	74	74	73	72	70	70	67	66	67	70	70	69	69	73	74	75	75	75	75	75	71.9	75.1																	
27-Nov-06	75	75	75	76	76	76	76	76	75	74	72	70	69	67	67	67	66	66	65	64	64	65	67	60.7	76.1																	
28-Nov-06	65	64	65	65	64	62	62	61	61	60	58	56	56	55	55	55	55	55	55	55	56	55	57	59	58.8	65.1																
29-Nov-06	62	62	61	60	59	59	58	61	60	56	54	53	50	47	43	44	55	62	64	66	66	64	64	57	57.8	66.3																
30-Nov-06	51	50	54	61	64	65	67	67	67	62	58	59	81	86	82	77	76	64	61	60	56	53	54	54	63.8	86.0																

Hourly Avg	67.5	67.9	68.2	69.0	68.8	68.6	68.4	68.5	66.4	63.4	60.3	57.5	56.5	55.1	54.1	54.6	56.7	58.9	60.7	62.5	64.7	65.9	66.7	67.2
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Hourly Max 86.8 86.0 87.4 87.5 85.2 87.0 87.7 88.1 87.7 86.2 85.5 85.7 85.3 86.0 83.3 85.8 88.2 88.0 89.2 90.5 90.5 90.4 85.3 86.9

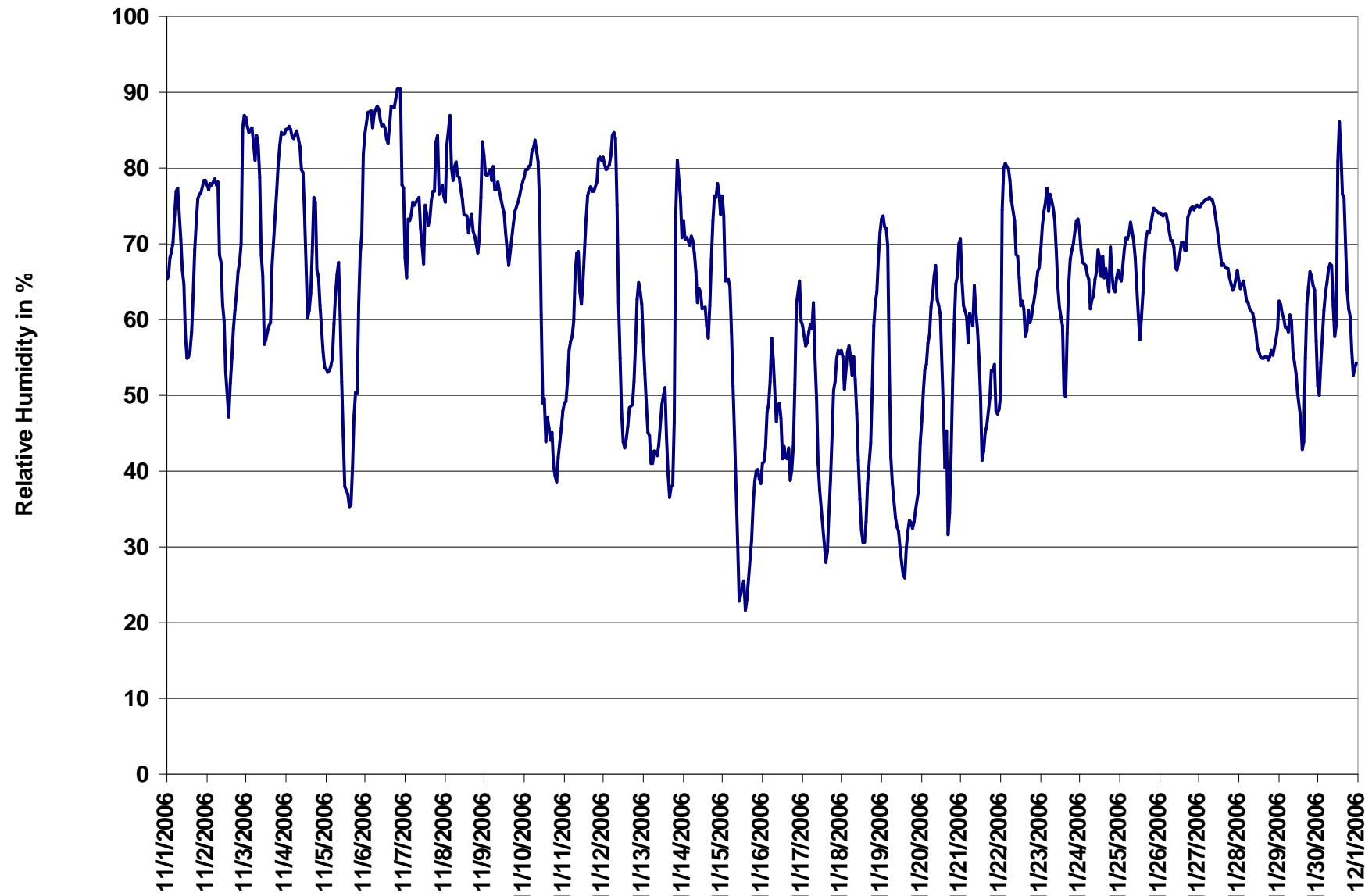


Figure 13. PAS - Crescent Heights Relative Humidity 1-hr Average Monthly Trend



## PAS - Crescent Heights - Temperature Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: November 1, 2006 to December 1, 2006

### Summary

Maximum 1-hr Average:	15.4	°C	5-Nov	12:00 13:00
Maximum 24-hr Value:	12.5	°C	7-Nov	

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	Median
	13.8	12.0	5.5	-2.2	-8.0	-22.0	-24.1		

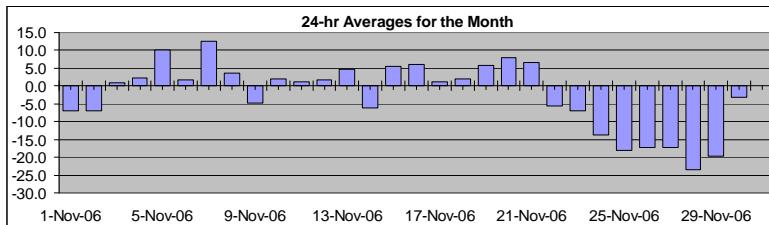
### Day Mountain Standard Time

	Hour Start 0:00	1:00	2:00	3:00	4:00	5:00	6:00	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	
	Hour End 1:00	2:00	3:00	4:00	5:00	6:00	7:00																				
1-Nov-06	-6	-6	-6	-7	-8	-10	-11	-12	-11	-8	-6	-4	-3	-3	-2	-3	-4	-5	-7	-8	-9	-10	-11	-12	-7.1	-2.2	
2-Nov-06	-13	-13	-13	-14	-14	-14	-14	-14	-11	-9	-7	-4	-2	0	0	-1	-2	-2	-3	-3	-3	-3	-4	-4	-7.0	-0.2	
3-Nov-06	-4	-3	-3	-3	-4	-4	-5	-4	-3	0	1	5	6	7	8	9	7	5	4	3	2	1	1	2	1.0	8.6	
4-Nov-06	0	-1	-2	-3	-3	-3	-4	-4	-4	-3	-2	0	4	7	7	6	5	4	5	9	9	9	10	11	2.3	10.5	
5-Nov-06	11	11	11	11	11	10	9	8	8	10	12	14	15	15	15	14	11	10	10	6	4	3	-2	10.2	15.4		
6-Nov-06	-3	-4	-4	-4	-3	-2	-1	-1	0	1	3	4	3	3	3	3	3	4	3	3	3	5	13	13	1.8	12.7	
7-Nov-06	15	15	13	14	14	13	13	13	13	13	12	13	10	11	12	12	11	12	12	11	11	12	12	12	12.5	15.1	
8-Nov-06	10	7	5	4	5	4	3	2	3	3	4	4	5	5	5	5	4	3	2	1	1	1	0	-2	3.6	10.4	
9-Nov-06	-2	-3	-3	-4	-4	-5	-5	-5	-6	-6	-5	-5	-5	-5	-5	-5	-5	-5	-5	-6	-5	-5	-5	-5	-4.9	-2.5	
10-Nov-06	-5	-5	-5	-4	-4	-4	-4	-5	-4	-1	3	5	6	7	7	7	6	6	6	6	7	7	6	5	1.9	7.5	
11-Nov-06	5	6	6	6	6	6	5	4	4	3	4	3	2	-1	-2	-3	-3	-3	-3	-3	-4	-4	-4	-3	1.3	6.3	
12-Nov-06	-3	-3	-3	-3	-3	-4	-5	-5	-3	1	4	6	7	7	7	6	5	5	4	3	3	3	2	1.6	7.4		
13-Nov-06	3	3	4	4	4	4	4	5	5	6	7	8	8	8	9	8	8	7	6	5	2	0	-2	-4	4.7	8.9	
14-Nov-06	-6	-7	-7	-8	-8	-8	-7	-8	-8	-7	-7	-6	-5	-5	-4	-3	-3	-4	-5	-7	-7	-7	-6	-6	-6.3	-2.5	
15-Nov-06	-6	-5	-3	-3	-2	0	1	2	3	5	7	7	7	8	9	10	10	10	11	11	12	12	12	12	5.4	12.2	
16-Nov-06	12	12	11	10	10	10	8	9	10	10	7	6	6	5	5	4	3	3	2	2	1	0	-1	-1	6.0	12.0	
17-Nov-06	-1	-1	-1	-1	-2	-2	-2	-3	-1	1	4	5	6	8	8	8	6	4	1	-1	-1	-2	-2	-2	1.1	8.4	
18-Nov-06	-2	-2	-1	-2	-1	-1	0	-1	0	2	5	8	9	10	10	9	7	4	2	0	-2	-2	-3	-4	1.9	10.1	
19-Nov-06	-5	-5	-5	-5	-4	1	4	5	7	8	8	9	10	12	12	10	9	9	10	10	10	10	10	10	5.8	12.0	
20-Nov-06	8	8	9	10	9	10	9	8	7	6	7	8	9	12	14	13	12	10	8	5	3	3	3	1	8.0	13.8	
21-Nov-06	0	1	1	2	3	2	2	2	1	3	6	8	11	14	14	13	12	10	9	10	10	9	9	8	6.6	13.7	
22-Nov-06	5	-3	-4	-4	-4	-6	-6	-7	-7	-8	-8	-7	-6	-6	-5	-5	-5	-6	-7	-7	-7	-7	-8	-8	-5.7	5.3	
23-Nov-06	-9	-9	-9	-9	-9	-7	-9	-10	-9	-8	-7	-5	-4	-2	-3	-2	-3	-6	-8	-8	-9	-10	-11	-13	-7.0	2.7	
24-Nov-06	-13	-13	-14	-14	-13	-14	-14	-14	-14	-13	-14	-14	-14	-13	-14	-14	-13	-14	-14	-14	-14	-15	-15	-17	-13.9	-12.8	
25-Nov-06	-18	-18	-19	-19	-19	-20	-20	-20	-20	-19	-18	-17	-16	-16	-17	-17	-17	-17	-17	-17	-17	-18	-18	-18	-18.1	-15.8	
26-Nov-06	-18	-17	-17	-17	-17	-18	-20	-22	-22	-20	-17	-16	-17	-17	-16	-16	-16	-16	-16	-16	-16	-15	-15	-15	-17.3	-15.2	
27-Nov-06	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-16	-16	-16	-17	-19	-20	-20	-21	-21	-22	-22	-17.1	-14.7	
28-Nov-06	-22	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-24	-24	-24	-24	-24	-24	-24	-24	-24	-24	-25	-25	-25	-23.6	-22.2	
29-Nov-06	-24	-24	-23	-23	-23	-23	-23	-23	-24	-25	-23	-22	-20	-18	-16	-14	-13	-16	-19	-20	-20	-18	-16	-15	-11	-19.7	-10.9
30-Nov-06	-8	-6	-5	-5	-4	-4	-3	-2	-2	-2	-1	-1	-2	-1	-1	-1	-2	-3	-5	-5	-3	-3	-4	-3	-3.2	-0.6	

Hourly Avg	-3.8	-4.1	-4.1	-4.2	-4.3	-4.2	-4.4	-4.7	-4.2	-3.2	-1.9	-0.9	-0.2	0.5	1.0	0.7	-0.3	-1.3	-2.0	-2.3	-2.7	-3.0	-3.0	-3.5
Hourly Max	14.6	15.1	13.3	13.7	13.6	13.1	13.4	13.1	12.7	13.5	12.3	14.2	15.4	15.3	15.2	15.0	13.8	11.5	12.1	11.5	11.8	12.4	12.7	12.6

### HOURLY AVERAGE TABLE

### Ambient Temperature (T)



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

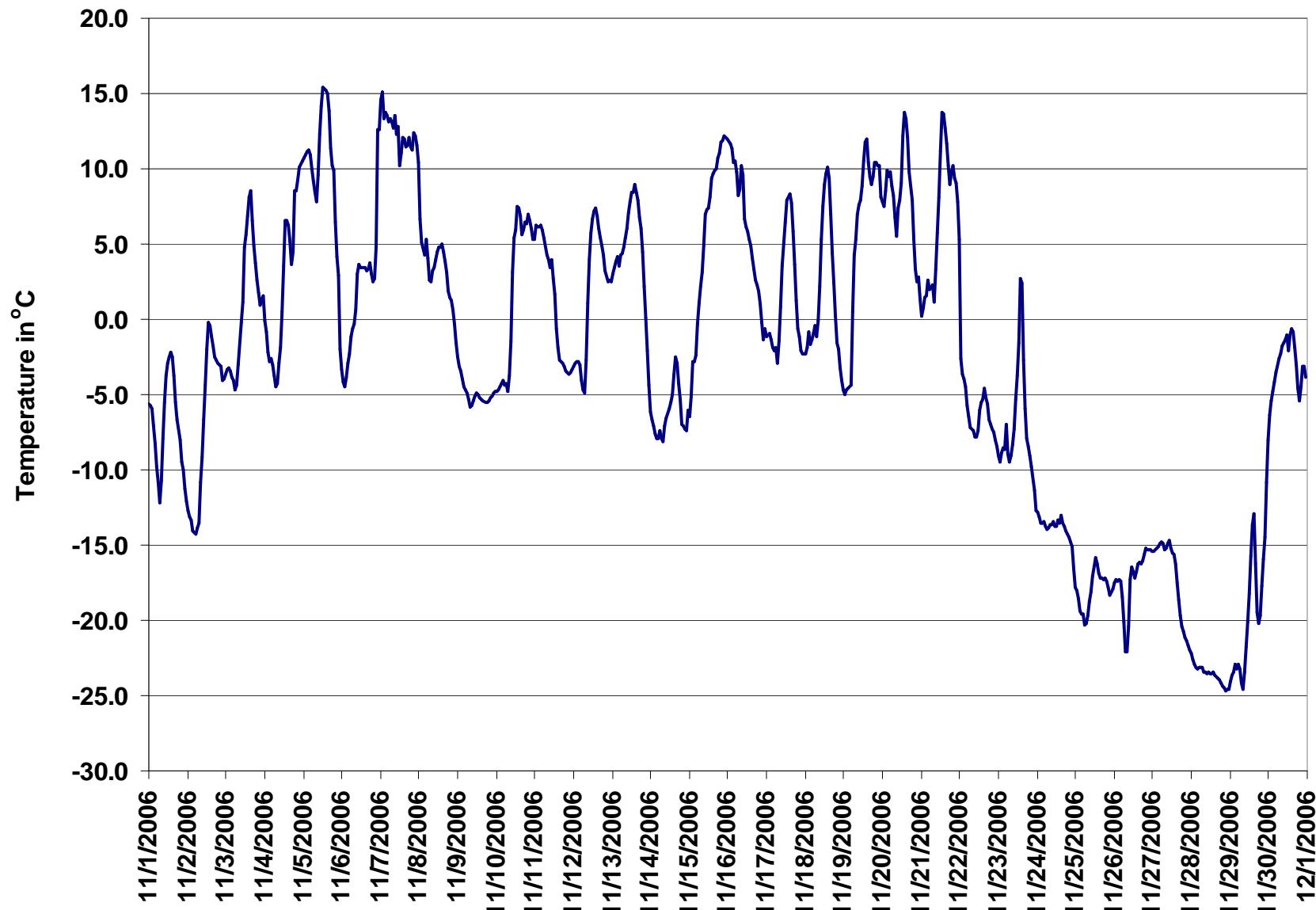


Figure 14. PAS - Crescent Heights Temperature 1-hr Average Monthly Trend



## PAS - Crescent Heights - Solar Radiation Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: November 1, 2006 to December 1, 2006

### Summary

Maximum 1-hr Average:	410.7	W/m <sup>2</sup>	3-Nov	11:00 12:00
Maximum 24-hr Value:	98.5	W/m <sup>2</sup>	1-Nov	

AIC Time:	0 hrs	Operational Time:	720 hrs			
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%			
Percentile	99 358.9	95 278.0	75 72.8			
Hour	50 0.1	25 0.0	5 0.0	1 0.0	Average 50.0 W/m <sup>2</sup>	Median 0.1 W/m <sup>2</sup>

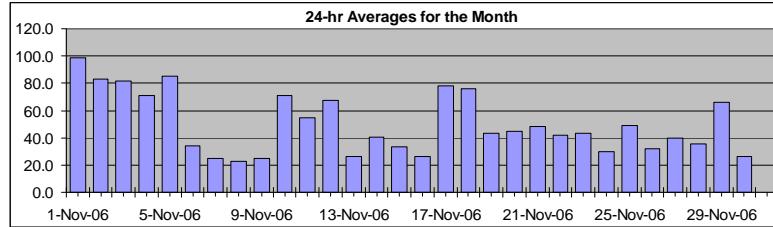
### Day Mountain Standard Time

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum	
1-Nov-06	0	0	0	0	0	0	0	25	138	264	363	410	410	376	191	152	34	1	0	0	0	0	0	0	0	98.5	410.4
2-Nov-06	0	0	0	0	0	0	0	24	153	263	351	329	278	301	177	91	22	0	0	0	0	0	0	0	0	82.9	351.0
3-Nov-06	0	0	0	0	0	0	0	10	108	223	258	411	294	325	164	136	22	0	0	0	0	0	0	0	0	81.4	410.7
4-Nov-06	0	0	0	0	0	0	0	10	79	162	166	327	319	347	166	96	23	0	0	0	0	0	0	0	0	70.7	347.4
5-Nov-06	0	0	0	0	0	0	0	7	55	168	339	392	388	355	164	147	29	0	0	0	0	0	0	0	0	85.2	391.5
6-Nov-06	0	0	0	0	0	0	0	3	31	138	166	139	140	122	50	20	6	0	0	0	0	0	0	0	0	34.1	166.2
7-Nov-06	0	0	0	0	0	0	0	2	23	78	103	111	83	72	78	35	7	0	0	0	0	0	0	0	0	24.7	111.0
8-Nov-06	0	0	0	0	0	0	0	3	21	57	76	78	74	69	93	53	21	0	0	0	0	0	0	0	0	22.7	93.2
9-Nov-06	0	0	0	0	0	0	0	0	5	23	42	82	113	114	94	76	31	9	0	0	0	0	0	0	0	24.6	113.9
10-Nov-06	0	0	0	0	0	0	0	0	6	61	205	286	278	263	343	177	75	13	0	0	0	0	0	0	0	71.1	343.1
11-Nov-06	0	0	0	0	0	0	0	3	29	124	251	360	321	134	52	36	9	0	0	0	0	0	0	0	0	55.0	359.8
12-Nov-06	0	0	0	0	0	0	0	11	109	191	271	326	298	231	127	52	9	0	0	0	0	0	0	0	0	67.8	326.4
13-Nov-06	0	0	0	0	0	0	0	2	31	67	72	82	106	112	96	46	9	0	0	0	0	0	0	0	0	26.0	111.6
14-Nov-06	0	0	0	0	0	0	0	0	4	78	156	89	107	96	107	199	119	16	0	0	0	0	0	0	0	40.5	198.9
15-Nov-06	0	0	0	0	0	0	0	3	50	181	216	158	69	55	42	23	4	0	0	0	0	0	0	0	0	33.4	216.2
16-Nov-06	0	0	0	0	0	0	0	0	4	71	38	111	135	129	81	46	16	3	0	0	0	0	0	0	0	26.5	135.3
17-Nov-06	0	0	0	0	0	0	0	0	4	79	198	290	345	342	312	182	97	17	0	0	0	0	0	0	0	77.8	345.1
18-Nov-06	0	0	0	0	0	0	0	0	3	73	191	281	335	333	301	186	102	15	0	0	0	0	0	0	0	75.9	335.0
19-Nov-06	0	0	0	0	0	0	0	0	2	48	91	133	188	157	216	140	61	7	0	0	0	0	0	0	0	43.4	216.5
20-Nov-06	0	0	0	0	0	0	0	0	1	50	56	203	110	117	258	184	78	13	0	0	0	0	0	0	0	44.6	258.1
21-Nov-06	0	0	0	0	0	0	0	0	1	12	118	136	145	302	250	130	53	7	0	0	0	0	0	0	0	48.2	301.8
22-Nov-06	0	0	0	0	0	0	0	0	1	17	51	88	159	220	232	126	106	11	0	0	0	0	0	0	0	42.2	231.9
23-Nov-06	0	0	0	0	0	0	0	0	1	28	86	124	181	152	215	151	87	9	0	0	0	0	0	0	0	43.1	214.9
24-Nov-06	0	0	0	0	0	0	0	0	0	8	40	102	113	165	136	71	58	20	0	0	0	0	0	0	0	29.7	165.4
25-Nov-06	0	0	0	0	0	0	0	0	1	25	152	178	277	315	130	65	31	4	0	0	0	0	0	0	0	49.1	315.0
26-Nov-06	0	0	0	0	0	0	0	0	1	24	73	144	166	141	105	82	34	2	0	0	0	0	0	0	0	32.2	166.4
27-Nov-06	0	0	0	0	0	0	0	0	0	21	69	118	149	187	222	139	51	5	0	0	0	0	0	0	0	40.1	222.2
28-Nov-06	0	0	0	0	0	0	0	0	0	21	71	117	156	170	152	114	46	6	0	0	0	0	0	0	0	35.6	169.7
29-Nov-06	0	0	0	0	0	0	0	0	1	37	154	245	304	307	278	154	89	6	0	0	0	0	0	0	0	65.8	306.8
30-Nov-06	0	0	0	0	0	0	0	1	18	78	102	111	80	105	73	46	8	0	0	0	0	0	0	0	0	26.0	111.1

Hourly Avg	0.0	0.0	0.1	0.0	0.0	0.0	4.6	50.7	126.2	182.1	216.5	212.3	201.3	123.2	68.9	12.3	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.0
Hourly Max	0.2	0.2	0.3	0.2	0.2	0.3	25.3	152.8	264.3	362.9	410.7	409.6	375.6	198.9	151.6	34.2	0.5	0.2	0.2	0.4	0.4	0.2	0.2	0.2

### HOURLY AVERAGE TABLE

### Solar Radiation (SR)



### Status Flag Characters

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

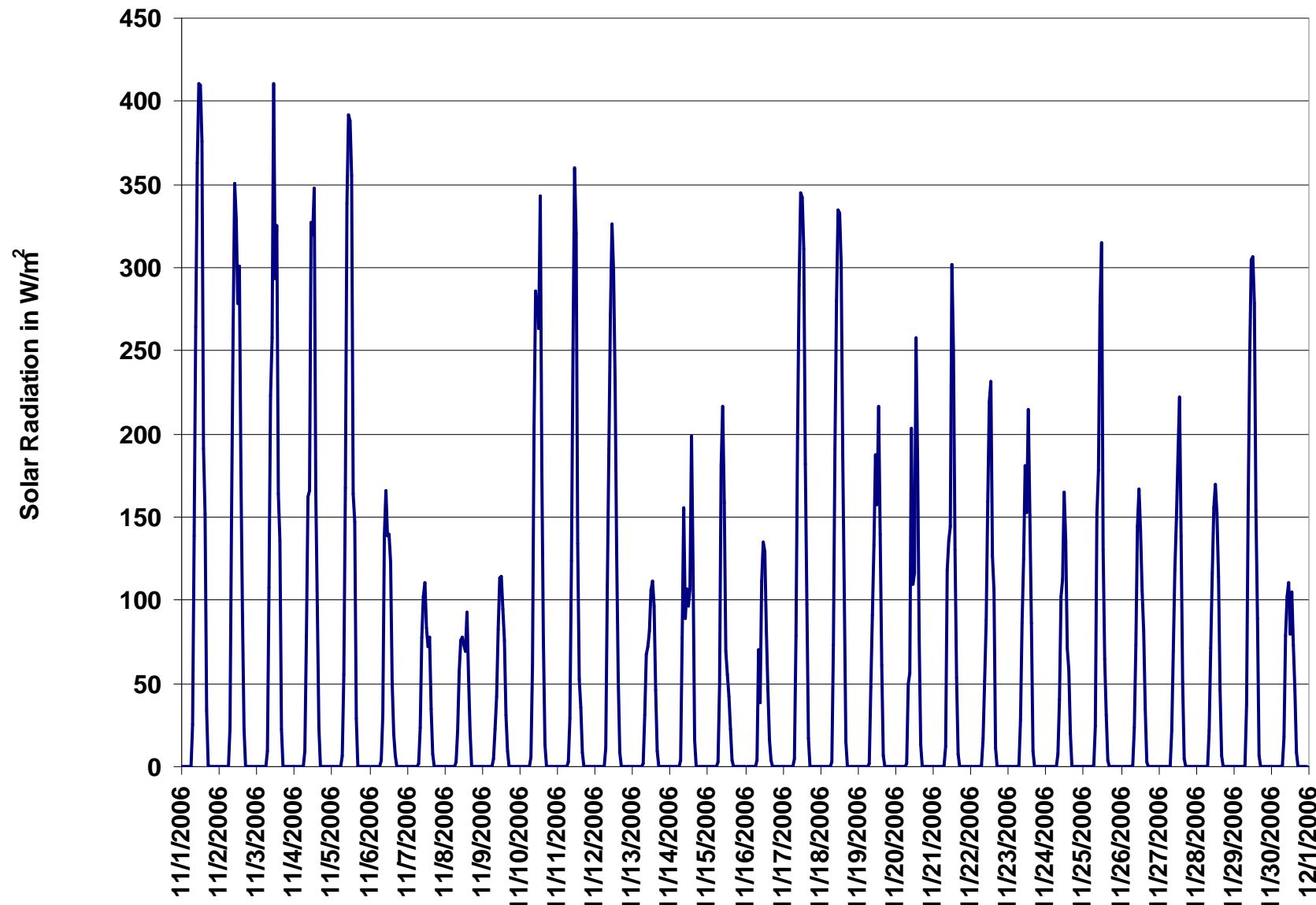


Figure 15. PAS - Crescent Heights Solar Radiation 1-hr Average Monthly Trend



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

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: November 1, 2006 to December 1, 2006

### Summary

Maximum 1-hr Average:	39.4 km/hr	16-Nov 5:00	6:00
Maximum 24-hr Value:	24.5 km/hr	15-Nov	

Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageS
	34.4	29.6	16.7	11.9	7.6	4.3	3.3	13.5 km/hr

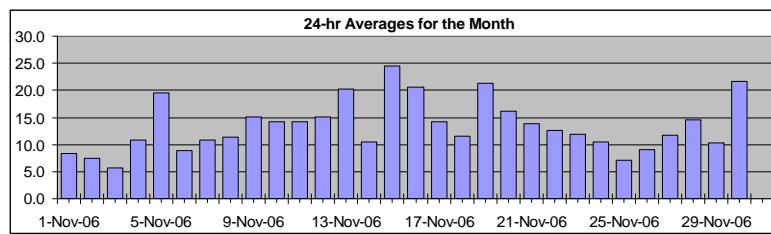
### Day Mountain Standard Time

	Hour Start 0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	Daily Max	
	Hour End 1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	Scalar Average		
1-Nov-06	13	12	10	10	12	9	7	6	7	8	9	8	9	10	10	10	9	6	6	5	7	5	5	5	8.4	13.3	
2-Nov-06	6	5	4	5	4	3	3	3	3	7	6	8	9	15	17	18	16	12	6	7	7	3	9	4	7.5	17.9	
3-Nov-06	9	8	6	4	7	5	4	7	5	4	4	4	6	9	9	7	4	5	3	6	4	5	6	7	5.6	8.9	
4-Nov-06	10	6	7	6	5	5	4	7	6	7	8	7	5	4	7	7	6	4	9	25	25	26	31	31	10.8	31.1	
5-Nov-06	30	30	31	31	33	31	30	27	22	16	18	18	17	18	13	8	10	11	16	17	15	8	9	11	19.5	33.3	
6-Nov-06	11	9	8	3	5	5	9	8	6	10	8	6	11	10	10	9	5	8	5	13	5	4	7	25	18	8.9	24.6
7-Nov-06	20	17	9	15	13	16	16	20	17	9	8	4	7	3	3	5	4	4	5	5	7	19	14	19	10.8	20.5	
8-Nov-06	20	16	9	11	17	16	8	9	11	11	8	7	6	8	8	11	10	11	12	8	9	13	16	17	11.3	19.7	
9-Nov-06	17	15	15	16	18	16	17	16	16	17	17	16	16	16	16	15	14	12	13	13	14	13	13	10	15.0	17.7	
10-Nov-06	10	11	10	9	9	8	6	8	6	6	12	19	18	19	18	17	12	17	18	19	23	24	23	21	14.2	24.4	
11-Nov-06	21	27	26	26	25	27	22	11	7	9	14	14	16	14	13	11	8	9	10	9	7	5	6	4	14.1	27.1	
12-Nov-06	5	6	5	4	8	7	5	6	8	12	20	27	26	23	19	16	16	14	20	22	23	24	22	22	15.1	26.5	
13-Nov-06	22	15	11	12	15	20	18	22	19	16	22	29	33	25	29	28	27	25	23	17	13	13	15	18	20.2	33.2	
14-Nov-06	10	9	11	12	11	10	12	14	14	18	17	17	16	15	12	9	6	5	4	5	5	6	6	6	10.4	17.8	
15-Nov-06	6	11	11	6	5	18	19	20	29	19	30	30	31	37	39	36	27	28	30	25	30	32	35	34	24.5	38.6	
16-Nov-06	33	35	36	33	33	39	35	26	28	22	28	24	22	11	12	10	9	10	5	7	5	5	11	15	20.6	39.4	
17-Nov-06	10	12	13	12	12	17	17	11	16	13	20	22	20	19	18	12	9	11	12	12	15	12	12	14.2	21.6		
18-Nov-06	15	15	13	14	10	12	12	14	18	18	18	17	17	17	12	9	8	5	4	6	7	7	6	6	11.5	18.2	
19-Nov-06	7	6	5	4	4	9	16	25	26	26	28	31	33	29	28	22	25	24	26	26	29	28	29	27	21.3	32.9	
20-Nov-06	21	22	24	27	22	24	21	14	9	5	4	4	4	20	19	16	20	22	20	11	15	16	14	12	16.1	27.2	
21-Nov-06	10	11	12	15	16	11	11	10	6	9	6	5	11	13	13	12	16	13	20	19	21	30	26	13.8	30.2		
22-Nov-06	26	16	12	11	12	12	11	12	10	12	11	8	6	7	7	10	10	11	17	16	16	15	16	12.7	25.9		
23-Nov-06	17	14	14	12	10	9	13	9	10	16	17	16	19	12	7	9	14	16	13	6	8	8	10	5	11.8	18.6	
24-Nov-06	10	11	8	10	10	12	14	11	11	11	12	12	12	11	10	9	8	7	8	9	12	11	12	12	10.5	13.6	
25-Nov-06	12	9	9	3	3	4	6	5	6	7	7	7	8	8	10	10	9	8	7	8	6	8	6	4	7.1	12.2	
26-Nov-06	4	6	8	5	4	6	7	5	5	4	4	4	6	8	12	15	14	13	14	14	13	15	14	15	9.0	15.4	
27-Nov-06	16	14	11	9	6	5	10	11	11	10	10	13	14	16	14	15	15	12	11	11	12	11	12	12	11.7	16.0	
28-Nov-06	14	13	12	13	15	16	15	17	16	15	15	17	16	16	14	13	13	16	12	13	15	15	14	14.6	17.2		
29-Nov-06	11	14	16	12	11	12	11	7	9	12	15	15	18	16	9	6	7	5	5	5	6	6	8	13	10.3	18.3	
30-Nov-06	24	28	31	34	33	34	29	30	29	31	24	24	21	16	13	11	14	12	12	13	15	17	15	14	21.7	33.7	

1-hr Average	14.6	14.1	13.2	12.9	12.9	14.0	13.5	13.0	13.0	12.7	14.0	14.5	15.1	14.8	14.1	12.8	12.3	11.8	12.4	12.2	12.7	13.3	14.8	14.3
Hourly Max	32.7	35.2	35.8	33.7	33.4	39.4	34.6	29.9	29.3	31.4	30.1	31.0	33.2	37.1	38.6	36.0	27.3	27.8	29.6	26.2	29.7	32.3	34.7	33.8

### HOURLY AVERAGE TABLE

### Wind Speed (WSs)



### Status Flag Characters

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



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

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: November 1, 2006 to December 1, 2006

### Summary

Maximum 1-hr Average:	39.2	km/hr	16-Nov	5:00 6:00
Maximum 24-hr Value:	24.3	km/hr	15-Nov	

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 V
	34.2	29.5	16.5	11.6	7.2	3.4	2.0	5.8 km/hr

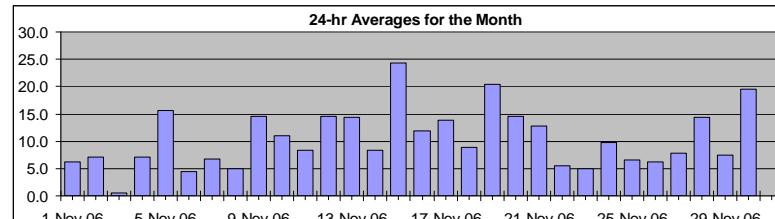
### Day Mountain Standard Time

	Hour Start 1:00 Hour End 1:00	1:00 2:00 3:00 4:00	2:00 3:00 4:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hr Vector Average	Daily Max				
1-Nov-06	13	12	10	10	12	8	7	6	7	8	9	8	9	10	9	10	9	14	17	18	16	12	6	4	7	5	4	5	13.2	6.3
2-Nov-06	5	5	4	5	4	3	2	2	3	7	6	8	9	14	17	18	16	12	6	6	7	3	9	4	7.1	7.1	17.8			
3-Nov-06	9	8	5	4	7	5	3	7	5	4	3	2	5	8	8	5	3	4	1	5	2	3	5	6	0.5	0.5	8.8			
4-Nov-06	9	6	7	6	5	4	3	7	6	7	8	7	4	3	7	7	6	4	7	25	25	26	31	31	7.0	7.0	31.0			
5-Nov-06	30	30	31	31	33	30	30	27	22	15	18	18	16	17	13	7	9	10	16	16	16	15	7	5	11	15.5	15.5	33.2		
6-Nov-06	11	9	7	3	4	9	7	5	10	8	6	11	10	10	8	2	7	4	13	4	1	5	25	18	4.5	4.5	24.6			
7-Nov-06	20	17	8	15	13	15	16	20	16	7	8	2	7	3	2	5	3	3	5	2	5	19	13	18	6.7	6.7	20.4			
8-Nov-06	19	15	8	10	17	16	7	8	10	10	8	7	5	8	8	10	10	11	12	8	9	12	16	16	5.0	5.0	19.4			
9-Nov-06	17	15	14	16	18	16	17	16	16	17	16	15	15	16	16	15	14	12	13	13	14	13	13	10	14.6	14.6	17.5			
10-Nov-06	10	11	10	9	9	7	6	8	6	6	11	19	17	19	17	17	12	16	18	19	22	24	23	21	11.0	11.0	24.2			
11-Nov-06	21	27	26	26	25	27	22	10	7	9	13	14	15	13	13	10	8	9	10	9	7	3	5	4	8.4	8.4	27.0			
12-Nov-06	5	6	5	3	8	6	5	4	5	12	20	26	26	23	19	16	16	14	19	22	23	24	22	22	14.6	14.6	26.3			
13-Nov-06	22	14	11	12	15	20	18	22	19	16	22	29	33	24	29	28	27	25	23	17	13	13	14	17	14.4	14.4	32.8			
14-Nov-06	10	9	11	12	11	10	12	14	14	18	16	17	16	14	12	9	6	4	2	5	4	4	5	5	8.3	8.3	17.7			
15-Nov-06	4	11	10	5	4	18	19	20	29	19	30	30	31	37	38	36	27	28	29	25	30	32	34	34	24.3	24.3	38.4			
16-Nov-06	32	35	36	33	33	39	34	26	28	17	28	24	22	11	11	10	9	10	3	6	3	3	10	15	11.9	11.9	39.2			
17-Nov-06	10	11	13	12	12	16	17	10	15	12	20	21	20	19	18	12	9	11	12	12	15	11	12	12	13.9	13.9	21.4			
18-Nov-06	15	15	13	13	9	11	11	13	18	17	18	17	17	16	12	8	8	3	2	5	6	7	6	5	8.8	8.8	18.0			
19-Nov-06	6	6	4	2	3	8	16	25	26	26	28	31	33	29	28	22	25	24	26	26	29	28	29	27	20.5	20.5	32.7			
20-Nov-06	21	22	24	27	22	24	21	14	8	5	4	2	2	20	19	16	19	22	20	11	15	16	13	11	14.5	14.5	27.0			
21-Nov-06	9	10	11	15	15	10	10	9	6	9	5	4	11	12	13	12	16	16	13	19	18	21	30	25	12.8	12.8	30.0			
22-Nov-06	24	16	12	11	11	12	11	12	10	12	11	8	4	6	6	10	10	11	17	16	16	15	16	5.4	5.4	23.6				
23-Nov-06	17	14	14	11	10	8	12	8	10	15	17	16	18	12	6	14	16	13	5	7	8	10	5	4.9	4.9	18.4				
24-Nov-06	9	10	8	9	10	12	13	11	10	11	12	12	12	10	10	9	7	7	8	9	12	11	12	11	9.8	9.8	13.5			
25-Nov-06	12	9	9	3	3	4	6	5	6	7	7	7	7	7	10	9	9	8	7	8	6	8	6	6.6	6.6	12.1				
26-Nov-06	4	6	8	5	3	6	7	4	4	4	4	2	6	8	12	15	14	13	14	14	13	15	14	6.1	6.1	15.3				
27-Nov-06	16	14	10	9	6	5	9	11	11	10	10	13	14	16	14	14	15	11	10	11	12	11	12	12	7.8	7.8	15.8			
28-Nov-06	14	13	12	13	14	16	15	17	16	14	15	15	17	15	16	14	13	13	16	12	13	15	15	14	14.4	14.4	17.1			
29-Nov-06	11	14	16	12	11	11	11	6	9	12	15	14	18	16	9	5	7	5	4	4	5	5	8	12	7.5	7.5	18.0			
30-Nov-06	23	27	31	34	33	33	29	30	29	31	24	23	21	16	13	11	14	12	12	13	15	17	15	14	19.6	19.6	33.6			

1-hr Vector	5.9	6.1	5.8	6.6	6.3	7.9	7.9	7.4	7.4	6.3	6.6	6.7	6.6	6.1	5.1	3.4	3.2	2.7	3.4	4.3	5.8	6.4	7.0	6.6	
Hourly Max	32.4	35.0	35.6	33.6	33.2	39.2	34.3	29.8	29.3	31.3	29.9	30.7	32.8	36.9	38.4	35.9	27.2	27.7	29.5	26.0	29.6	32.2	34.5	33.7	

### HOURLY AVERAGE TABLE

### Wind Speed (WSv)



### Status Flag Characters

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



## PAS - Crescent Heights - Wind Direction Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: November 1, 2006 to December 1, 2006

### HOURLY AVERAGE TABLE

### Wind Direction (WD)

#### Summary

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					
	355.6	343.2	279.4	221.2	140.7	26.5	4.3		238 deg				

#### Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	WD Sector
	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
1-Nov-06	290	297	293	298	314	264	249	204	216	222	241	288	293	292	286	266	247	250	244	209	200	170	149	126	263	W
2-Nov-06	117	137	102	111	106	79	75	45	61	63	58	68	91	108	104	105	105	106	102	95	73	67	79	64	94	E
3-Nov-06	42	21	34	26	68	76	70	12	25	42	86	118	201	220	239	261	299	237	255	221	219	125	225	302	351	N
4-Nov-06	332	341	341	311	295	317	242	255	247	241	242	230	238	149	121	110	103	124	187	206	203	208	206	208	216	SW
5-Nov-06	207	206	205	210	214	227	224	227	230	237	254	277	301	319	321	322	273	264	268	260	227	204	287	345	239	WSW
6-Nov-06	347	347	6	82	33	13	7	352	354	350	358	352	352	3	8	356	225	2	4	9	325	226	210	208	343	NNW
7-Nov-06	207	220	234	229	250	240	246	235	237	289	359	37	7	51	99	357	42	70	89	100	168	220	279	242	239	WSW
8-Nov-06	273	280	253	218	277	289	269	264	287	286	300	294	332	358	20	27	15	29	54	51	65	54	52	57	331	NNW
9-Nov-06	61	62	47	46	45	53	65	69	71	75	79	80	68	62	71	79	79	70	73	79	91	99	96	90	70	ENE
10-Nov-06	91	93	95	95	101	105	109	93	117	118	179	195	188	191	174	174	179	177	177	186	202	208	209	207	173	S
11-Nov-06	211	215	217	214	213	217	226	253	257	274	309	321	343	349	340	345	318	316	333	350	333	278	241	268	259	W
12-Nov-06	264	259	272	220	219	211	150	182	186	214	223	216	215	214	216	223	215	221	208	209	211	208	208	214	SW	
13-Nov-06	205	198	184	182	195	192	184	190	183	173	194	201	209	249	263	262	263	266	270	283	315	310	326	323	231	SW
14-Nov-06	303	293	283	279	274	273	277	281	276	278	290	306	301	307	299	275	283	317	161	122	221	150	158	186	282	WNW
15-Nov-06	183	224	220	228	176	208	208	202	203	191	196	195	192	197	202	203	194	195	194	189	193	196	202	208	199	SSW
16-Nov-06	214	213	213	210	207	217	214	235	238	296	352	344	349	326	313	321	335	25	110	141	223	207	228	242	241	WSW
17-Nov-06	261	239	236	255	256	239	236	222	222	227	215	227	220	219	228	232	228	225	222	226	239	222	225	237	230	SW
18-Nov-06	224	228	228	229	234	240	238	233	238	240	246	282	293	305	313	330	4	150	165	170	189	163	162	242	WSW	
19-Nov-06	139	146	137	150	107	168	209	196	193	195	196	196	195	191	191	187	193	193	196	203	211	209	214	219	196	SSW
20-Nov-06	222	218	218	222	212	214	222	241	322	9	109	114	235	222	236	243	251	235	233	253	229	225	244	250	230	SW
21-Nov-06	249	250	228	220	215	228	248	255	244	231	236	216	193	187	188	172	179	188	212	208	211	234	215	224	216	SW
22-Nov-06	240	294	294	281	295	297	307	318	329	350	2	26	96	82	74	72	59	62	69	63	63	68	65	53	15	NNE
23-Nov-06	58	42	37	13	15	40	299	290	231	233	234	229	222	233	227	340	358	351	348	335	302	303	323	332	315	NW
24-Nov-06	349	8	3	4	350	346	355	351	321	340	332	315	315	297	282	304	315	316	318	331	328	333	335	332	NNW	
25-Nov-06	347	356	359	51	61	11	3	27	48	34	13	42	34	12	9	26	47	55	48	48	39	12	10	20	24	NNE
26-Nov-06	354	341	348	344	341	311	318	313	256	249	214	33	18	33	51	54	65	50	47	51	66	80	82	85	43	NE
27-Nov-06	87	85	81	74	66	17	349	343	341	329	306	303	303	311	303	301	306	304	300	308	310	311	308	309	327	NNW
28-Nov-06	305	305	306	308	311	310	307	308	303	298	295	294	288	291	290	297	300	279	277	280	285	280	273	295	WNW	
29-Nov-06	279	277	277	266	272	271	240	217	235	238	243	223	210	194	167	125	121	115	151	182	168	185	196	231	SW	
30-Nov-06	200	208	210	210	214	221	229	230	228	235	242	272	278	290	282	260	239	240	237	253	260	277	268	273	237	WSW

Hourly Avg 235 239 237 231 235 238 242 243 239 250 249 250 250 249 248 254 245 241 226 215 219 218 224 230



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

Station: Crescent Heights  
Station Owner: PAS

Monitoring Dates: November 1, 2006 to December 1, 2006

### HOURLY AVERAGE TABLE

### Wind Direction (WD)

#### 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	
								53.7	30.2	13.1	8.8	6.5	4.4	3.7	

Determined by the Yamartino 15-min interval calculation

#### Status Flag Characters

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

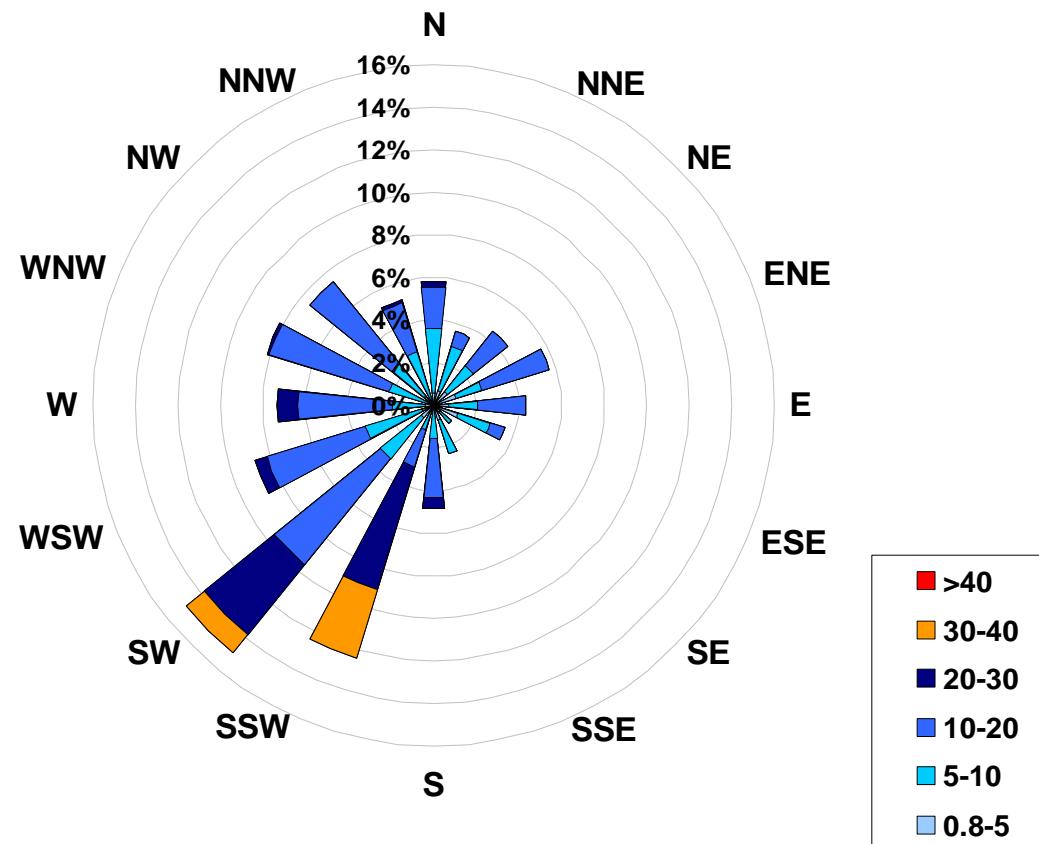
#### Day Mountain Standard Time

	Hour Start 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	Daily Maximum
1-Nov-06	7	9	9	8	7	12	7	21	7	10	15	23	19	19	17	12	9	15	8	25	14	8	13	9	24.8
2-Nov-06	14	16	17	7	16	18	62	30	16	15	23	15	13	9	8	6	7	7	9	6	6	24	6	10	62.4
3-Nov-06	10	5	9	16	5	14	15	6	12	19	29	51	49	14	13	19	21	45	65	23	71	41	25	13	71.4
4-Nov-06	12	12	11	18	30	24	50	17	18	12	13	21	43	48	9	7	14	29	24	4	5	4	4	4	49.7
5-Nov-06	4	4	4	4	4	4	4	5	6	8	8	7	9	9	8	15	14	9	5	9	7	12	13	7	15.3
6-Nov-06	4	5	12	25	28	9	12	37	8	8	9	10	16	6	13	32	21	33	7	28	51	35	5	6	50.8
7-Nov-06	6	11	17	11	9	11	8	5	10	16	13	29	11	20	26	18	22	19	15	62	18	5	20	10	62.0
8-Nov-06	7	7	19	25	13	8	23	11	11	8	13	21	24	12	11	9	7	5	8	12	13	10	6	6	25.0
9-Nov-06	6	9	8	8	6	6	7	6	6	7	8	10	9	8	9	8	7	7	7	8	8	7	7	7	9.6
10-Nov-06	8	6	8	7	6	4	8	8	9	7	12	8	10	10	10	6	7	8	7	7	7	5	4	4	12.0
11-Nov-06	4	4	4	4	4	3	7	11	18	9	12	12	11	10	11	15	14	12	10	9	12	27	13	26	26.7
12-Nov-06	24	17	19	35	11	13	13	24	22	11	9	6	7	6	7	6	4	9	6	5	6	5	5	5	34.7
13-Nov-06	5	5	6	7	7	6	7	6	6	7	8	6	7	9	5	5	6	6	5	7	8	10	9	6	9.9
14-Nov-06	9	13	8	8	6	9	8	8	8	6	9	10	10	10	13	12	17	24	26	12	21	17	12	16	26.4
15-Nov-06	38	18	30	45	55	4	5	10	5	7	6	7	6	5	5	5	5	5	5	5	6	5	6	6	55.5
16-Nov-06	5	5	5	5	5	4	5	6	5	12	4	7	6	13	12	8	9	8	25	16	37	51	18	6	50.5
17-Nov-06	13	10	9	8	11	10	8	23	6	10	7	7	7	9	8	7	5	7	7	11	5	13	14	9	23.4
18-Nov-06	5	7	8	6	18	20	14	8	6	6	7	8	8	8	11	12	7	28	54	17	14	10	13	23	54.2
19-Nov-06	9	11	16	34	30	15	7	5	6	8	6	7	6	6	6	5	5	4	6	4	4	4	4	3	33.8
20-Nov-06	6	5	5	4	4	5	5	13	14	16	29	42	68	11	9	8	7	5	9	10	5	6	10	16	68.2
21-Nov-06	15	14	25	19	17	29	15	8	21	7	24	41	12	11	11	7	6	7	7	6	8	9	5	7	40.9
22-Nov-06	16	8	14	9	9	10	10	8	13	8	9	16	38	25	40	13	9	9	7	7	7	6	8	6	39.8
23-Nov-06	7	6	5	6	9	15	10	18	12	9	8	9	7	13	57	24	11	3	5	36	14	15	8	22	57.4
24-Nov-06	9	9	15	10	14	12	9	11	12	10	9	9	11	14	12	16	13	9	10	7	6	8	7	7	15.6
25-Nov-06	6	5	5	18	11	9	5	7	9	15	11	21	21	18	11	12	8	7	9	5	5	9	9	15	21.3
26-Nov-06	14	9	6	11	17	11	10	18	22	27	48	36	19	11	9	7	8	7	6	6	7	8	7	7	48.0
27-Nov-06	6	6	8	6	10	11	5	4	5	9	10	9	10	8	8	9	9	11	13	12	11	11	8	10	13.1
28-Nov-06	8	9	9	7	8	6	9	7	8	9	9	11	8	11	8	11	10	11	6	8	8	8	7	8	10.8
29-Nov-06	13	8	6	10	7	7	7	24	8	8	6	11	8	8	13	32	7	10	10	21	33	19	11	7	32.7
30-Nov-06	5	5	4	4	5	5	5	4	4	6	7	5	7	8	9	7	6	7	6	5	5	6	6	8.8	

Hourly Max 38 18 30 45 55 29 62 37 22 27 48 51 68 48 57 32 22 45 65 62 71 51 25 26



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



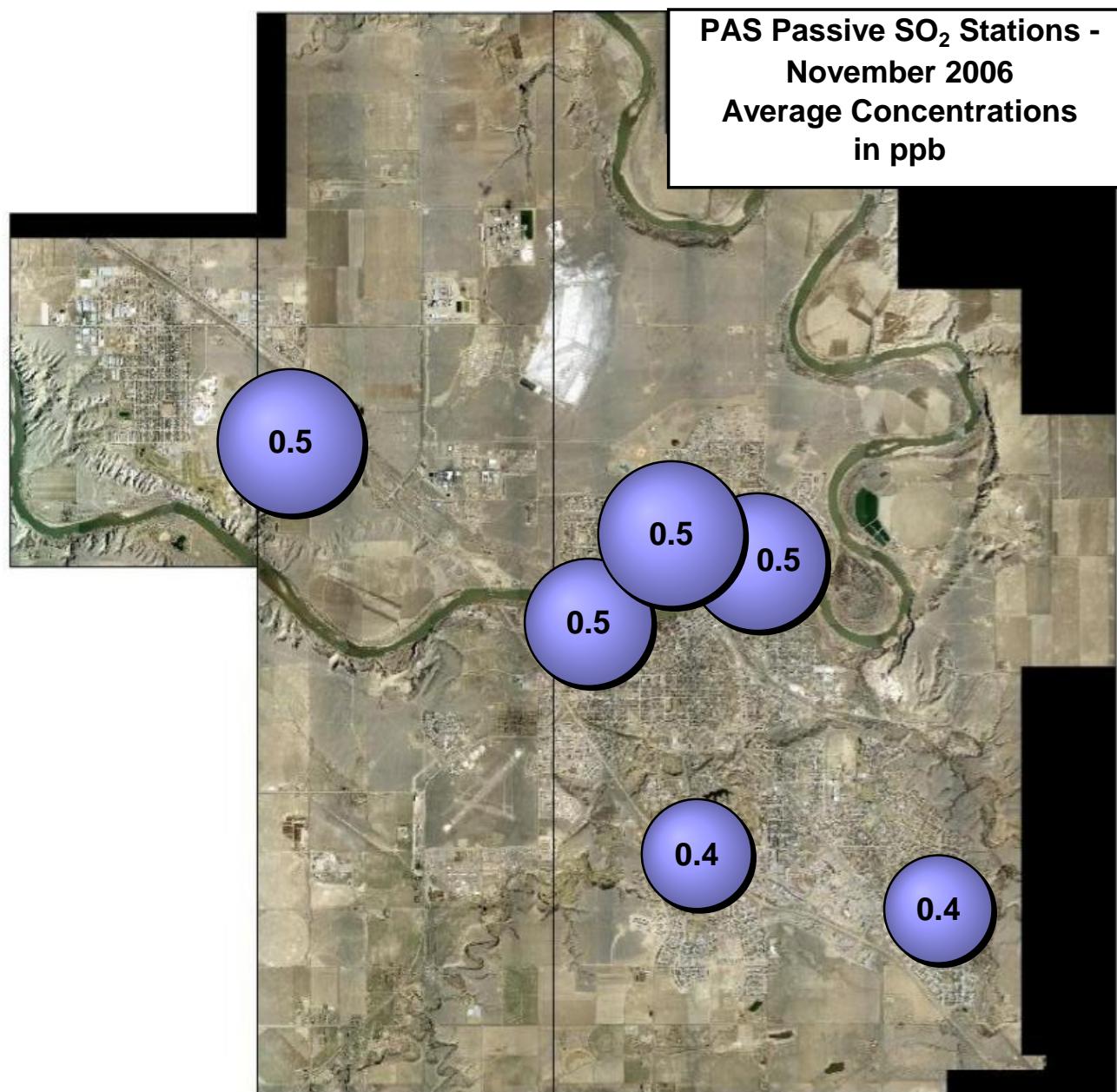
Calms: 0%

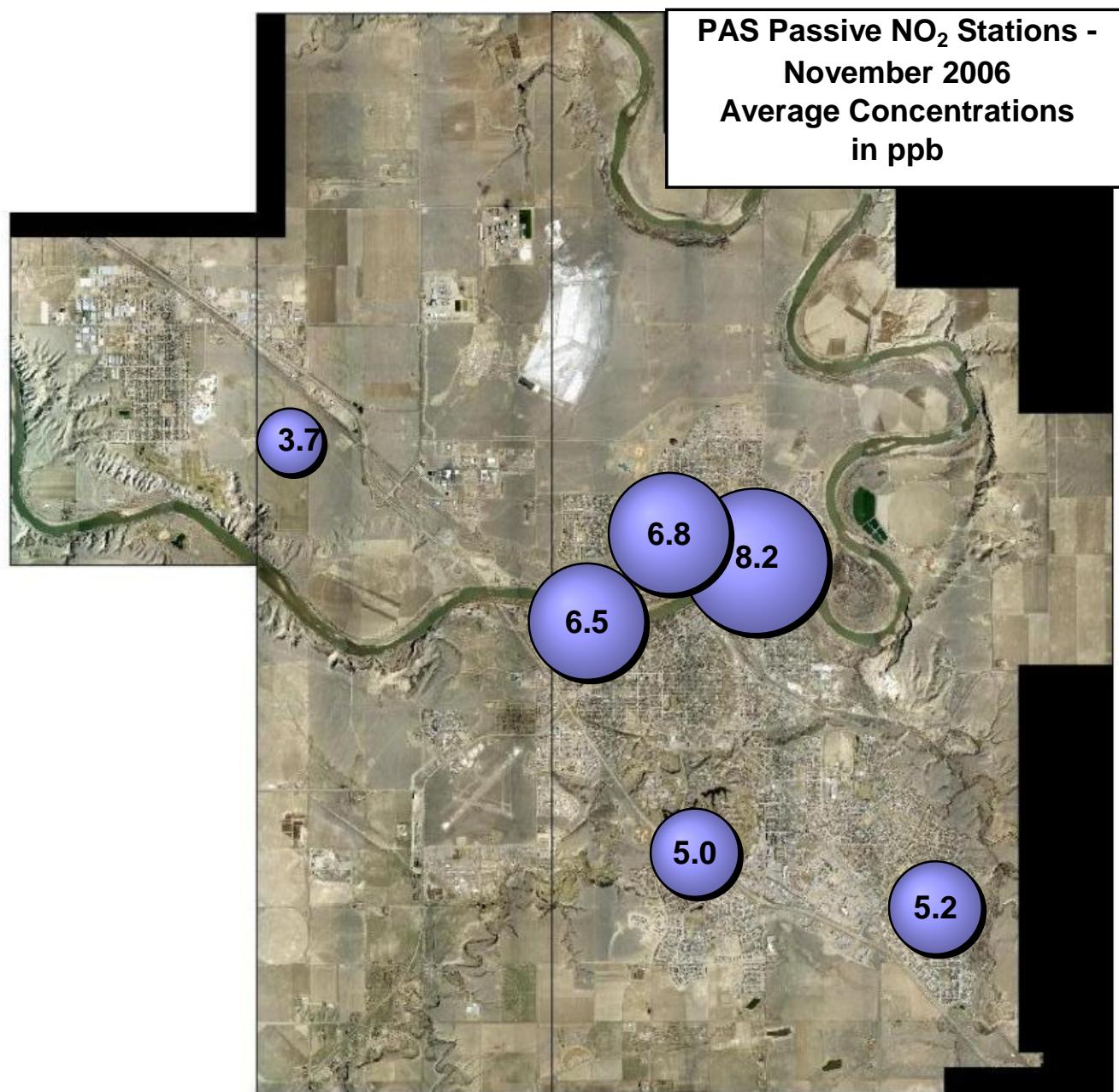
Frequency Distribution of Wind in km/hr			Frequency (hrs)
Range			
0.8	<	5	66
5	to	10	209
10	to	20	320
20	to	30	93
30	to	40	32
	>	40	0
Total Non-Zero Values			720

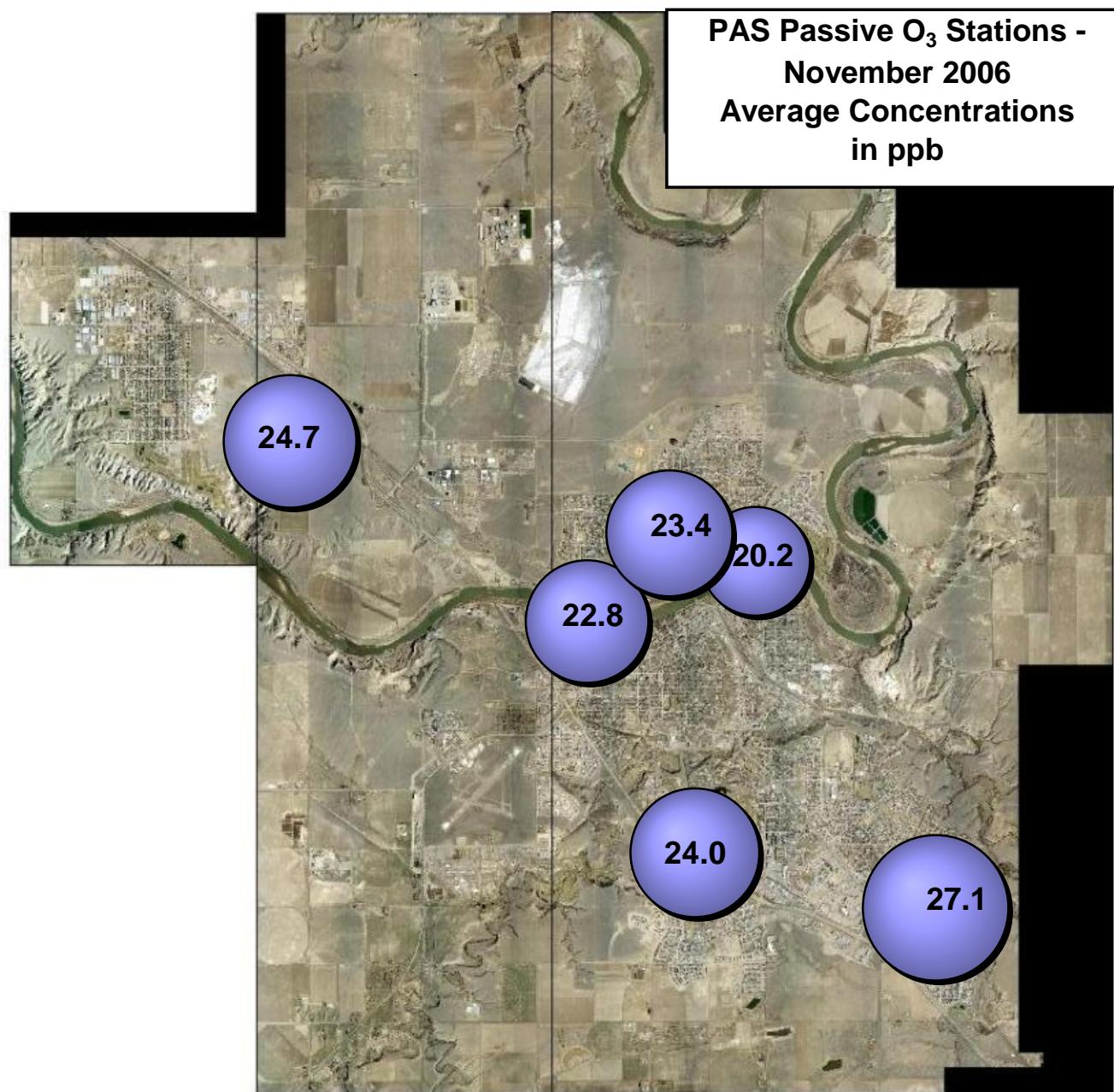


# **Passive Monitoring – November 2006**

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>							
2a	Ball Park	0.4	19.8	7.2			
2b		0.5	20.7	9.2			
1	Hospital	0.5	22.8	6.5	521648	5542721	698
2	Ball Park	0.5	20.2	8.2	524019	5543686	660
3	Monitoring Station	0.5	23.4	6.8	522812	5544133	714
4	Redcliff	0.5	24.7	3.7	517448	5545608	725
5	Southridge	0.4	24.0	5.0	523172	5539016	721
6	Christian School Park	0.4	27.1	5.2	526577	5538133	709
Stats:							
Mean		0.5	23.7	5.9			
Standard Deviation		0.1	2.3	1.6			
Minimum		0.4			6	Christian School Park	
Maximum		0.5			3	Monitoring Station	
Minimum			20.2		2	Ball Park	
Maximum			27.1		6	Christian School Park	
Minimum				3.7	4	Redcliff	
Maximum				8.2	2	Ball Park	







# **Palliser Airshed Society**

## **November 2006 - Calibration Reports**

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

## Calibration Report

Parameter O3

Air Monitoring Network

**Palliser Airshed**

### **Station Information**

Calibration Date	November 22, 2006	Previous Calibration	October 11, 2006
Station Number	101	Station Location	Crescent Heights
Reason:	Routine	Calibration	Removal
			Other:
Start Time (MST)	8:12	End Time (MST)	10:55
Barometric Pressure	27.5 inches Hg	Station Temperature	25.4 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	45270
DACS voltage range	0 - 1 volt	DACS channel #	5
	Before		After
Calculated slope	1.022824	Calculated slope	1.002981
Calculated intercept	-5.097908	Calculated intercept	1.691385
Analyzer make	API Model 400E	Analyzer serial #	331
Concentration range Offset Slope Lamp measure Lamp Reference Pressure Sample Flow Sample temp	before	after	
	0 - 500	ppb	0 - 500
	-7.6	ppb	-7.6
	1.113		1.113
	4732.6	mV	4659.0
	4732.7	mV	4667.5
	26.0	inches Hg	25.8
	669	ccm	665
	36.2	Deg C	35.6

### **Calibration Data**

Dilution air flow rate (cc/min)	Ozone Set Point	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4989	0.0	0.0	-1.6	N/A
4989	300.0	292.4	288.8	1.0124
4989	200.0	194.5	194.5	1.0001
4989	100.0	106.2	102.9	1.0324
4989	0.0	0.0	-1.6	0.0000
4989	300.0	292.4	288.8	1.0124
Average Correction Factor				1.0150

Calculated value of As Found Response: 291.9 ppm Percent Change of As Found: -0.2%

Auto zero Auto span	before calibration		after calibration	
	-1.4	ppb	-1.1	ppb
	344.4	ppb	370.7	ppb

Notes:

Calibration Performed By: Lenin Flores, Travis Mehrer

## Calibration Summary

Parameter O3  
 Air Monitoring Network Palliser Airshed



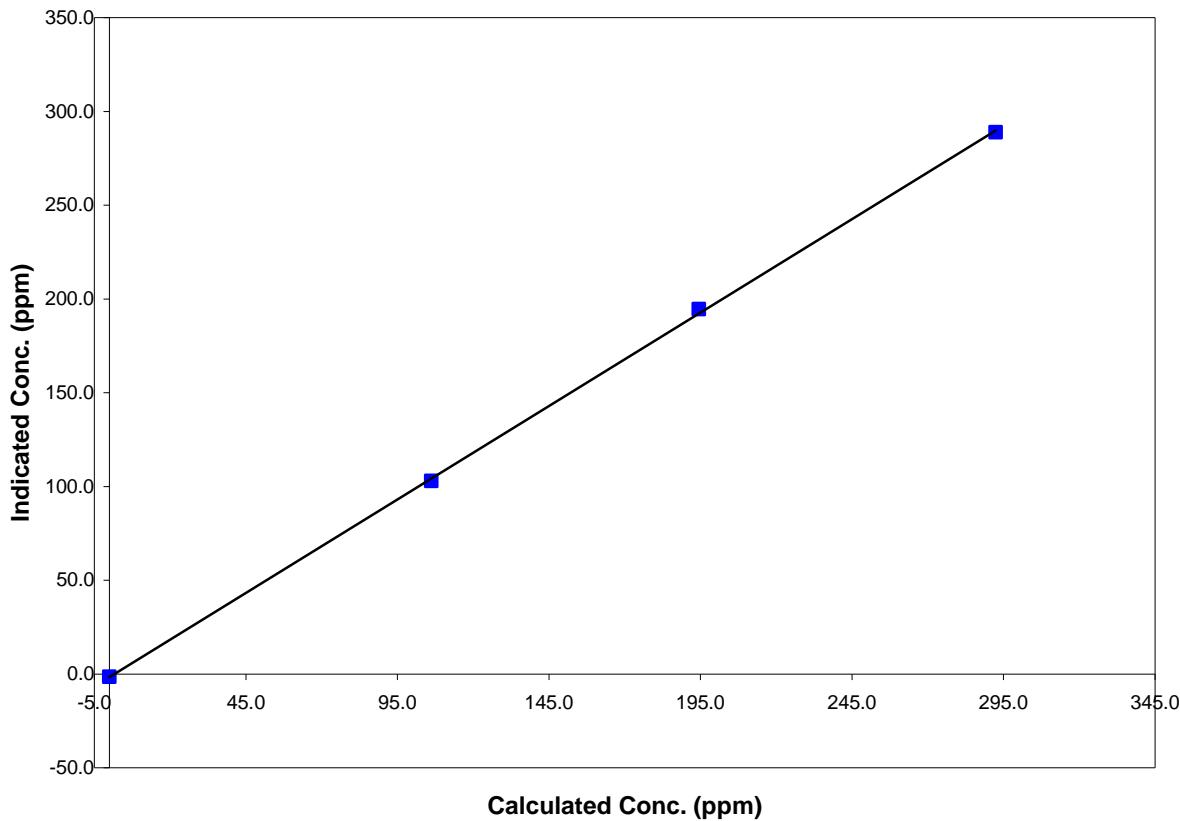
### Station Information

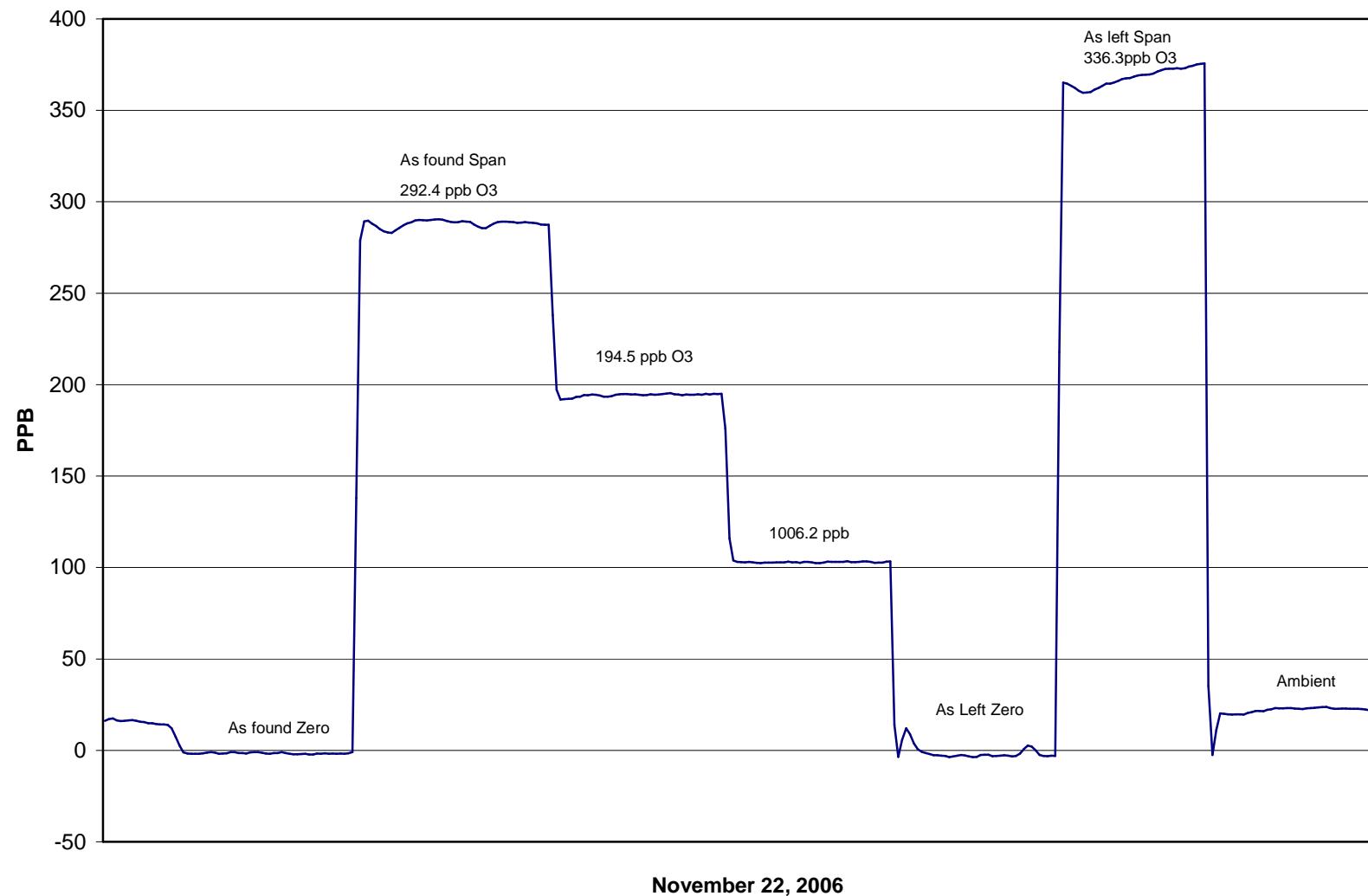
Calibration Date	November 22, 2006	Previous Calibration	October 11, 2006
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	8:12	End Time (MST)	10:55
Analyzer make/model	API Model 400E	Analyzer serial #	331

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
			Correlation Coefficient	Slope
292.4	288.8	1.0124		
194.5	194.5	1.0001		
106.2	102.9	1.0324		
0.0	-1.6	N/A		
			Intercept	1.691385

### O3 Calibration Curve



**O3 Calibration**

# Calibration Report

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



## Station Information

Calibration Date	November 21, 2006			Previous Calibration	October 11, 2006	
Station Number	101			Station Location	Crescent Heights	
Reason:	Routine			Installation	Removal	Other:
Start Time (MST)	10:01			End Time (MST)	14:40	
Barometric Pressure	27.2	inches Hg		Station Temperature	30.0	Deg C
Calibrator	Environics 6100			Serial Number	3474	
NO Cal Gas Conc	49.9	ppm		Cal Gas Expiry Date	15-Dec-07	
NOx Cal Gas Conc	49.9	ppm		Cal Gas Serial #	LL-50114	

## DACS Information

DACS make	FOCUS AP1000	DACS serial No.	45270
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Parameter		NO2	NOx	NO
Before	Data Slope	0.992902	0.991380	0.993163
	Data Offset	-2.230585	-0.980927	0.667798
After	Data Slope	1.001089	0.999109	0.998338
	Data Offset	0.511037	0.725960	2.846580
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
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Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO background	-0.2	mV	-0.2	mV
NOx background	1.1	mV	1.1	mV
NO coefficient	1.293		1.378	
NOx coefficient	1.314		1.397	
Chamber Temp	50.0	Deg C	49.9	Deg C
Cooler Temp	7.0	Deg C	7.0	Deg C
Azero	40.3		42.4	
Perm Temp	40.4	Deg C	40.1	Deg C
Pressure	5.5	inches Hg	5.2	inches Hg
Sample Flow	451.0	ccm	448.0	ccm

Notes: Performed a Span Adjustment... A thorough maintenance will have to be performed next calibration...

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## Calibration Report

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



### Station Information

Calibration Date: November 21, 2006 Station Location: Crescent Heights

### Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NOx Correction factor	NO Correction factor
zero	4990	0.00	0.0	0.0	0.0	-0.5	-2.9	-0.5	N/A	N/A
	4990	39.86	395.5	395.5	0.0	395.2	393.2	-0.4	1.0008	1.0058
	4990	19.92	198.4	198.4	0.0	197.9	196.0	-1.1	1.0025	1.0120
	4990	9.95	99.3	99.3	0.0	98.3	96.6	-1.6	1.0105	1.0281
AFZ	4990	0.00	0.0	0.0	0.0	-0.5	-2.9	-0.5	0.0000	0.0000
AFS	4990	39.86	395.5	395.5	0.0	371.2	368.8	-0.1	1.0653	1.0723
								Average Correction Factor	1.0046	1.0153

As Found Concentrations NO<sub>x</sub>= 370.7 NO= 372.4 As Found Percent Change NO<sub>x</sub>= -6.3% NO= -5.8%

### GPT Calibration Data

Dilution Flow 4990 ccm Source Gas Flow 39.86 ccm

O <sub>3</sub> Setpoint (ppb)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NOx Correction factor	NO Correction factor	NO <sub>2</sub> Correction factor	Converter Efficiency
0	392.8	392.6	0.1	392.4	390.4	-0.5	N/A	N/A	N/A	N/A
300	394.1	287.9	106.2	393.7	285.5	105.4	1.0010	1.0083	1.0073	99.3%
200	395.3	200.8	194.5	394.9	198.3	193.9	1.0009	1.0127	1.0028	99.7%
100	394.7	102.3	292.4	394.3	99.6	291.5	1.0010	1.0269	1.0031	99.7%
						Average Correction Factor	1.0010	1.0160	1.0044	99.6%

### AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO <sub>2</sub>	NO		NOx	NO <sub>2</sub>	NO	
	Auto zero	2.1	-0.7	2.1	ppb	-2.6	-3.7	-0.5
Auto span	413.7	404.2	8.6	ppb	397.9	392.1	5.1	ppb

Calibration Performed By: Travis Mehrer

## Calibration Summary

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

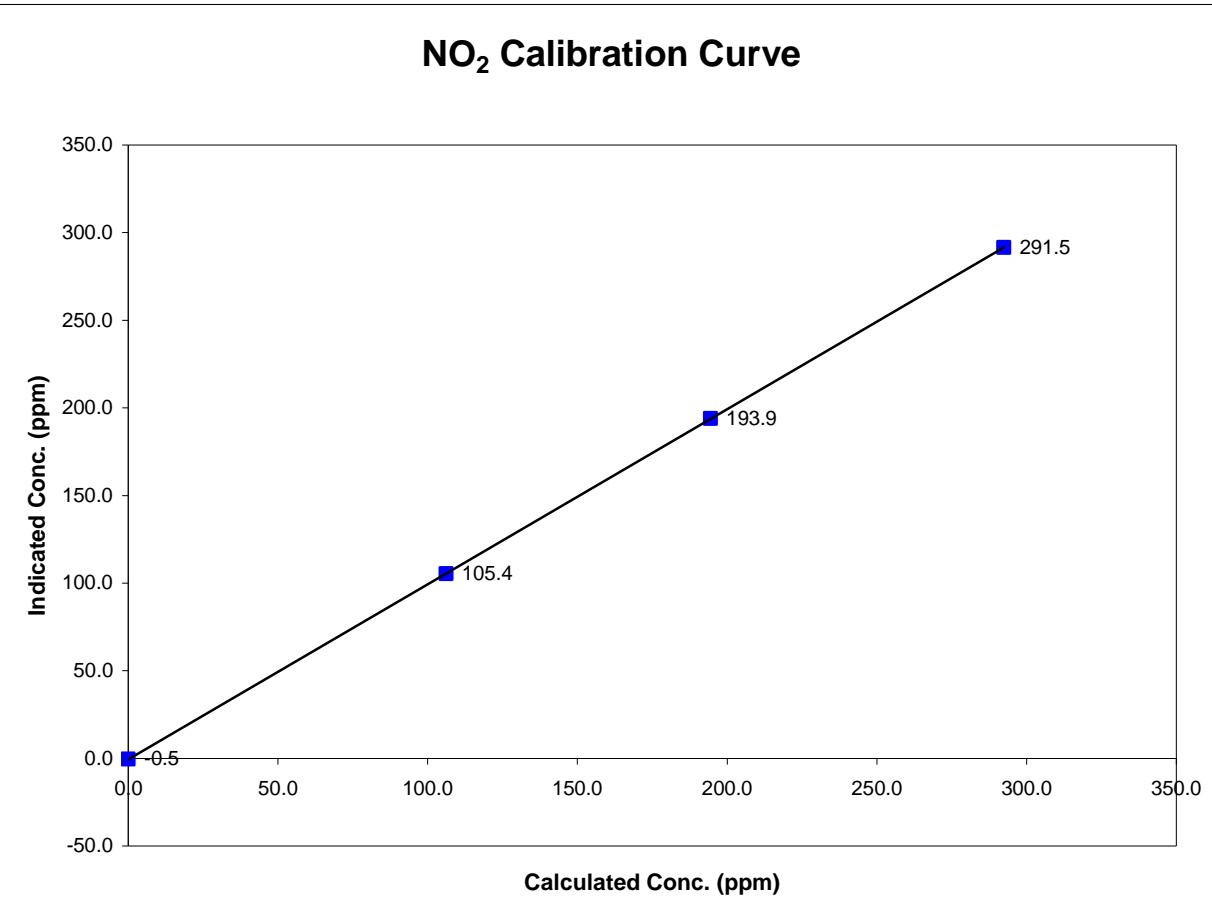


## ***Station Information***

Calibration Date	November 21, 2006	Previous Calibration	October 11, 2006
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	10:01	End Time (MST)	14:40
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		
106.2	105.4	1.0073	Correlation Coefficient	0.999999
194.5	193.9	1.0028		
292.4	291.5	1.0031	Slope	1.001089
			Intercept	0.511037



## Calibration Summary

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



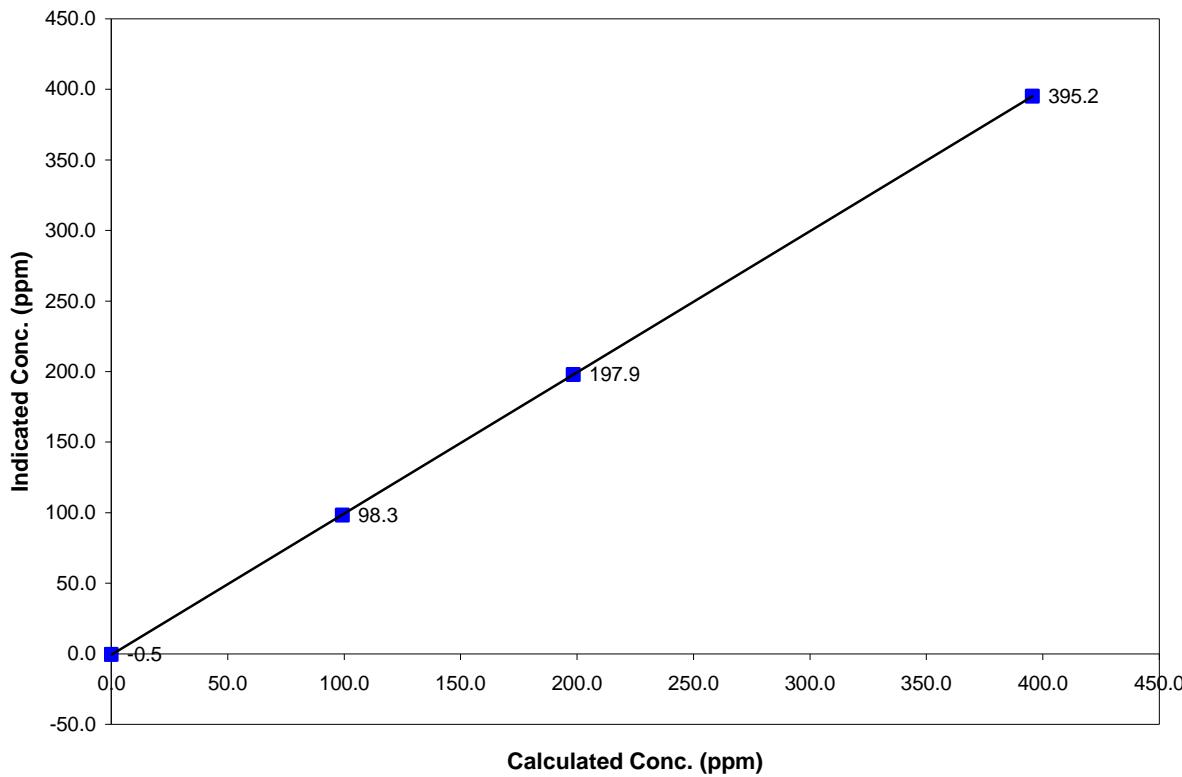
### Station Information

Calibration Date	November 21, 2006	Previous Calibration	October 11, 2006
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	10:01	End Time (MST)	14:40
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	0.999997
395.5	395.2	1.0008		
198.4	197.9	1.0025		
99.3	98.3	1.0105		
			Slope	0.999109
			Intercept	0.725960

### NOx Calibration Curve



## Calibration Summary

Parameter **NO**  
Air Monitoring Network

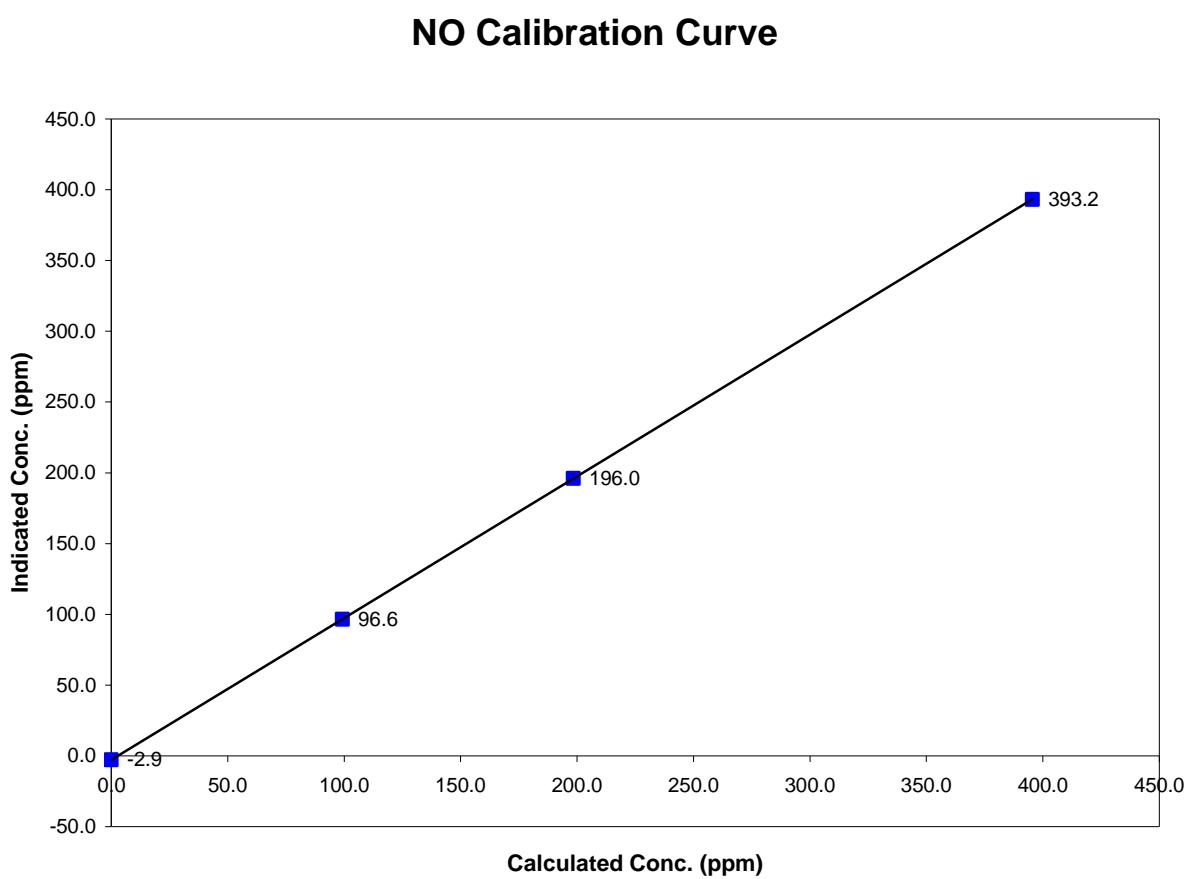


## **Station Information**

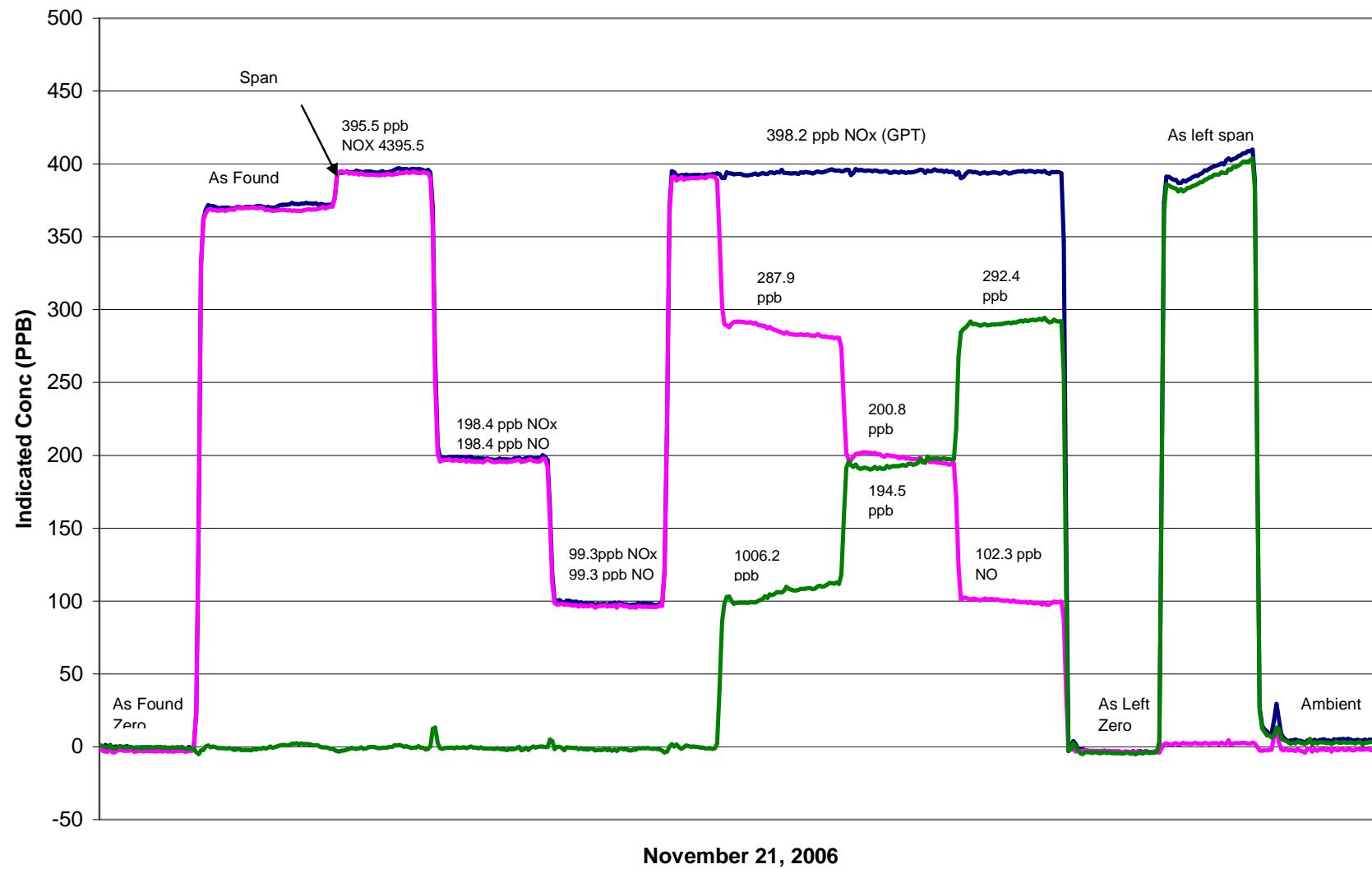
Calibration Date	November 21, 2006	Previous Calibration	October 11, 2006
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	10:01	End Time (MST)	14:40
Analyzer make	API Model 200E	Analyzer serial #	219

## ***Calibration Data***

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-2.9	N/A		
395.5	393.2	1.0058	Correlation Coefficient	1.000000
198.4	196.0	1.0120		
99.3	96.6	1.0281	Slope	0.998338
			Intercept	2.846580



## NOx Calibration



**Calibration Report**

Parameter THC  
 Air Monitoring Network Palliser Airshed

**Station Information**

Calibration Date	November 21, 2006	Previous Calibration	October 22, 2006
Station Number	101	Station Location	Crescent Heights
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	15:47	End Time (MST)	18:11
Barometric Pressure	27.2 inches Hg	Station Temperature	30.0 Deg C
Calibrator	Environics 6100	Serial Number	3747
Cal Gas Concentration	700 ppm CH <sub>4</sub> / 301 ppm C <sub>3</sub> H <sub>8</sub>	Cal Gas Expiry Date	8/28/2005
Cal Gas CH4 equiv	1527.75 ppm	Cal Gas Cylinder #	ALM030358
DACS make	Focus AP1000	DACS serial No.	45270
DACS voltage range	0 - 10 volt	DACS channel #	9
	Before		After
Calculated slope	0.994708	Calculated slope	0.996074
Calculated intercept	-0.072260	Calculated intercept	0.206512
Analyzer make	TEI model 51C-LT	Analyzer serial #	407505596
	before		after
Concentration range	0 - 50	ppm	0 - 50
THC sample pressure	5.75	PSI	5.75
THC span counts	12605	raw	12605
THC zero counts	1370	raw	1370

**Calibration Data**

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4991	0.00	0.00	-0.16	N/A
4991	79.77	24.03	23.97	1.0027
4991	39.85	12.10	11.84	1.0217
4991	9.95	3.04	2.84	1.0701
zero	0.00	0.00	-0.17	As Found Zero
4991	79.77	24.03	23.97	As Found Span
	Average Correction Factor			1.0315

Calculated value of As Found Response: 23.937 ppm      Percent Change of As Found: 0.4%

Auto zero Auto span	before calibration		after calibration	
	0.06	ppm	0.05	ppm
	21.18	ppm	21.19	ppm

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

Calibration Performed By: Lenin Flores, Travis Mehrer

## Calibration Summary

Parameter THC  
 Air Monitoring Network Palliser Airshed



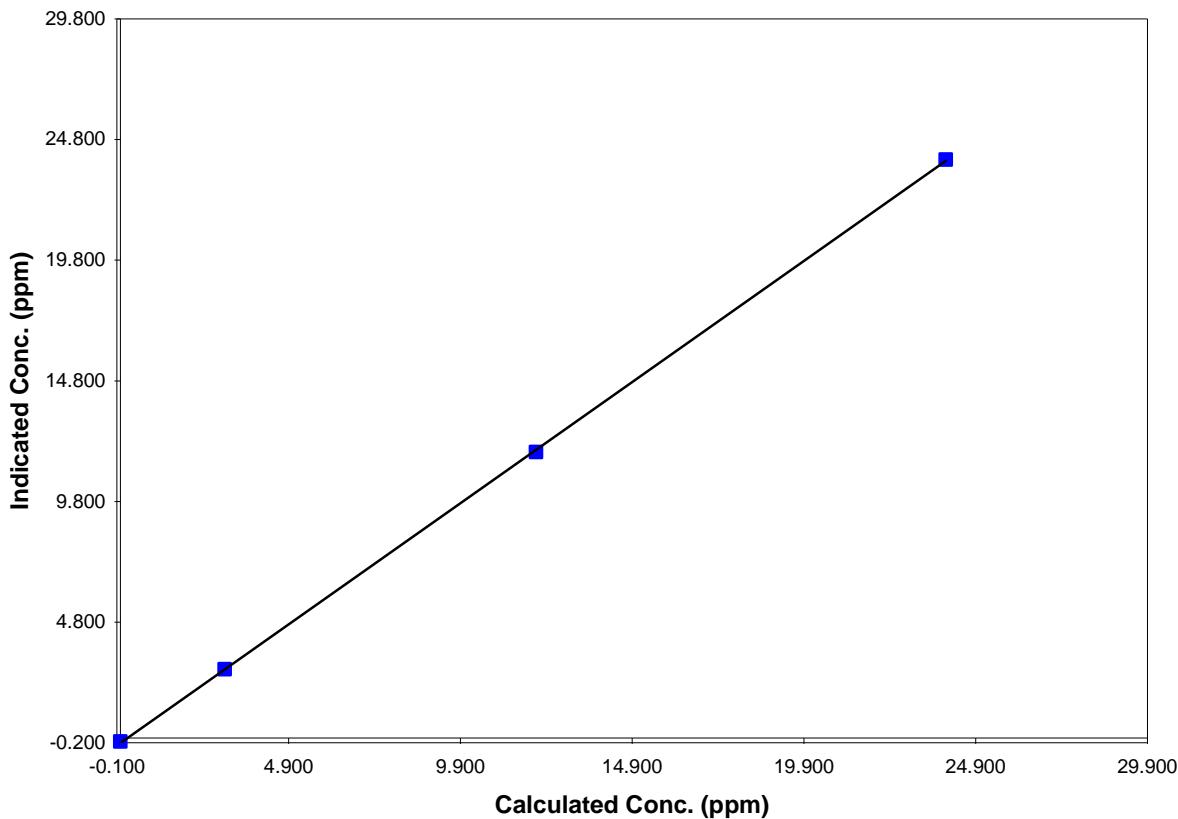
### Station Information

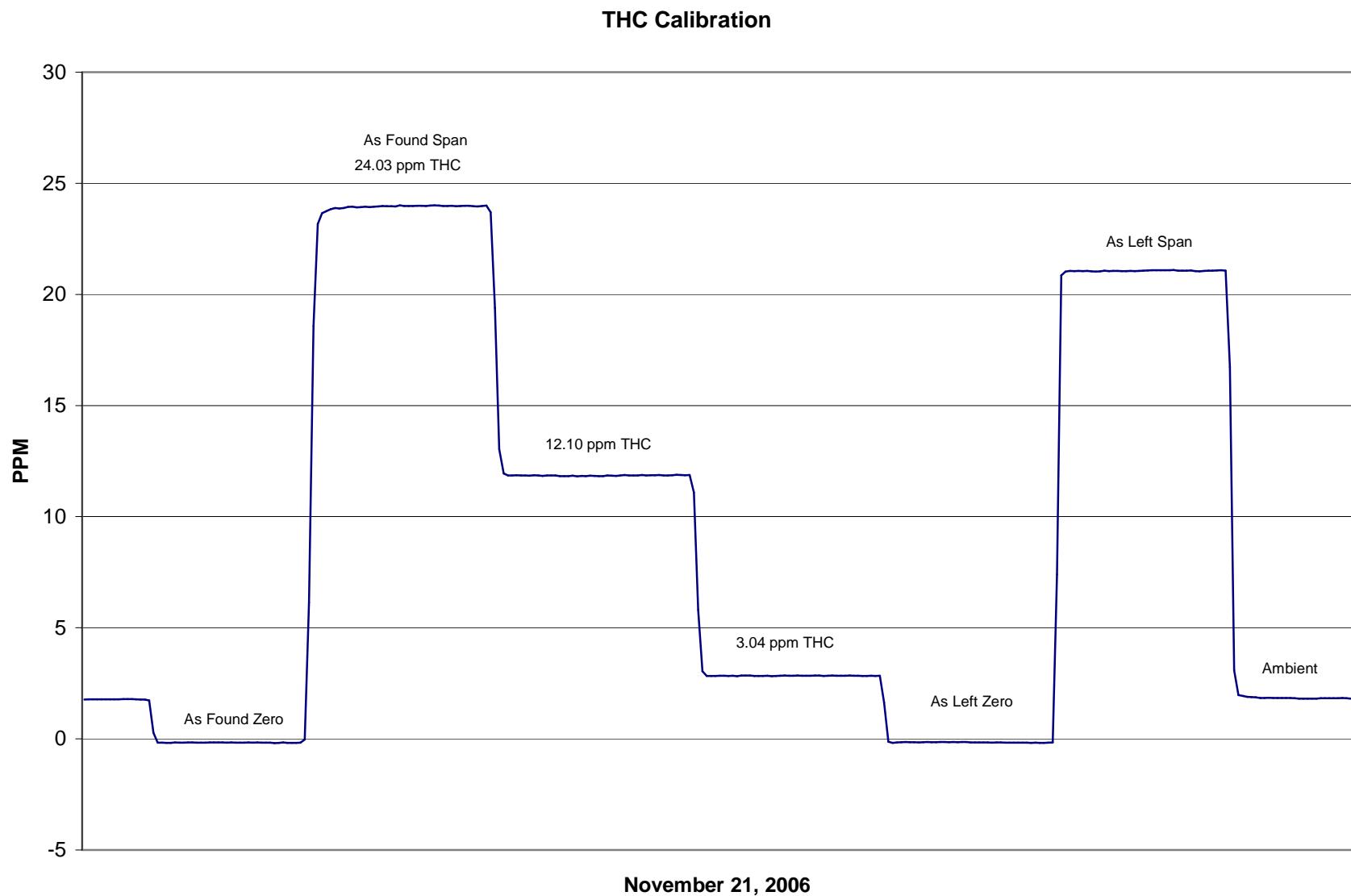
Calibration Date	November 21, 2006	Previous Calibration	October 22, 2006
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	15:47	End Time (MST)	18:11
Analyzer make/model	TEI model 51C-LT	Analyzer serial #	407505596

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.155	N/A		
24.035	23.971	1.0027	Correlation Coefficient	0.999959
12.101	11.844	1.0217	Slope	0.996074
3.039	2.840	1.0701	Intercept	0.206512

### THC Calibration Curve





## Calibration Report

Parameter CO  
Air Monitoring Network Palliser



### Station Information

Calibration Date	November 21, 2006	Previous Calibration	October 11, 2006
Station Number	101	Station Location	Crescent Heights
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	13:35	End Time (MST)	16:40
Barometric Pressure	27.20 in Hg	Station Temperature	30.0 Deg C
Calibrator	Environics 6100	Serial Number	3474
Cal Gas Conc	2998 ppm	Cal Gas Expiry Date	3/14/2008
DACS make	Focus AP1000	Cal Gas Cylinder #	BLM002248
DACS voltage range	0 - 1 volt	DACS serial No.	45270
	Before	DACS channel #	11
Calculated slope	0.998371	Calculated slope	0.986610
Calculated intercept	-0.232401	Calculated intercept	-0.879055
Analyzer make	TEI Model 48C	Analyzer serial #	436609887
Concentration range	before	after	
CO coefficient	0 - 50 ppm	0 - 50 ppm	
CO bkg setting	1.064	1.064	
Lamp ratio	10.633	10.653	
Lamp intensity	1.1469	1.1460	
Sample Flow	200116 Hz	200131 Hz	
	1.005 LPM	1.005 LPM	

### Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4989	0.00	0.00	0.73	N/A
4989	49.83	29.65	30.94	0.9582
4989	19.91	11.92	12.79	0.9321
4989	9.95	5.97	7.28	0.8195
4989	0.00	0.00	0.65	0.0000
4989	49.83	29.65	30.94	0.9582
Average Correction Factor				0.9033

Calculated value of As Found Response: 30.009 ppm Percent Change of As Found: -1.2%

Auto zero	before calibration		after calibration	
	0.06	ppm	-0.15	ppm
	18.09	ppm	16.14	ppm

Notes: Tried to adjust Zero, but were unsuccessful...

Calibration Performed By: Lenin Flores, Travis Mehrer

## Calibration Summary

Parameter CO  
Air Monitoring Network Palliser



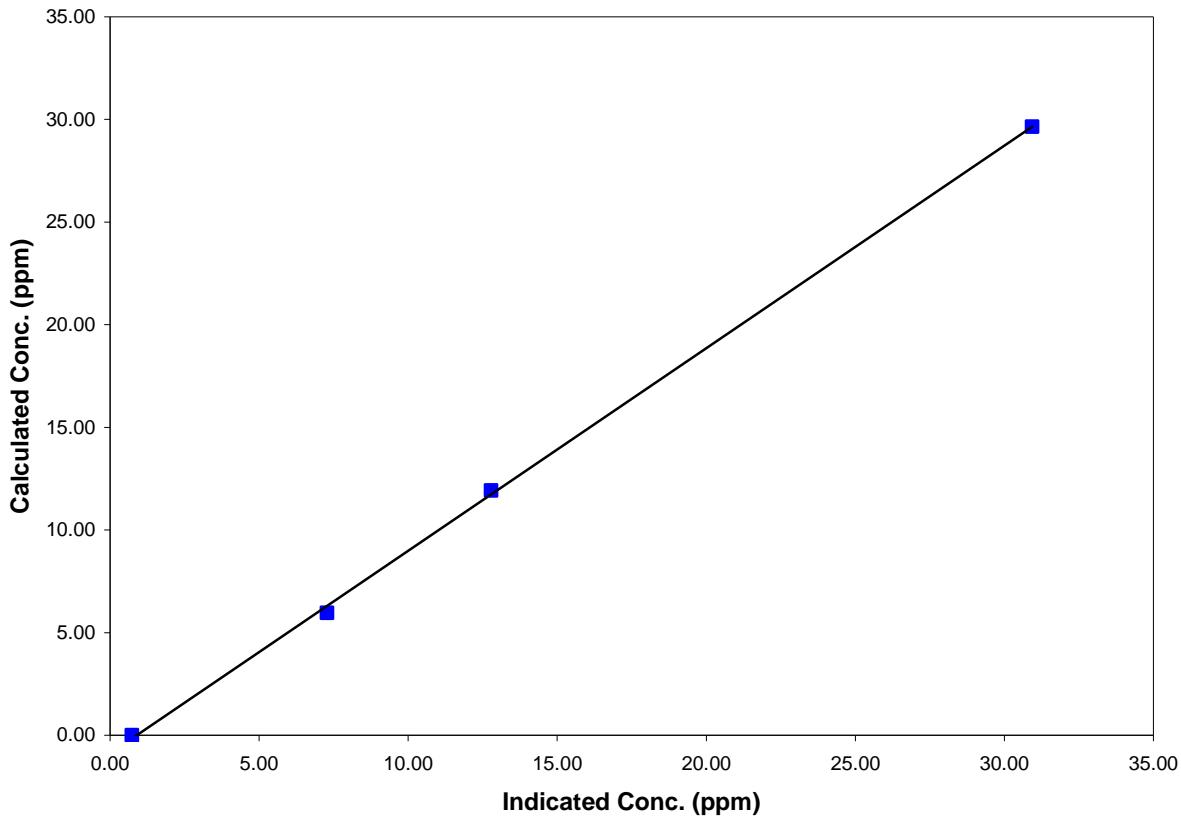
### Station Information

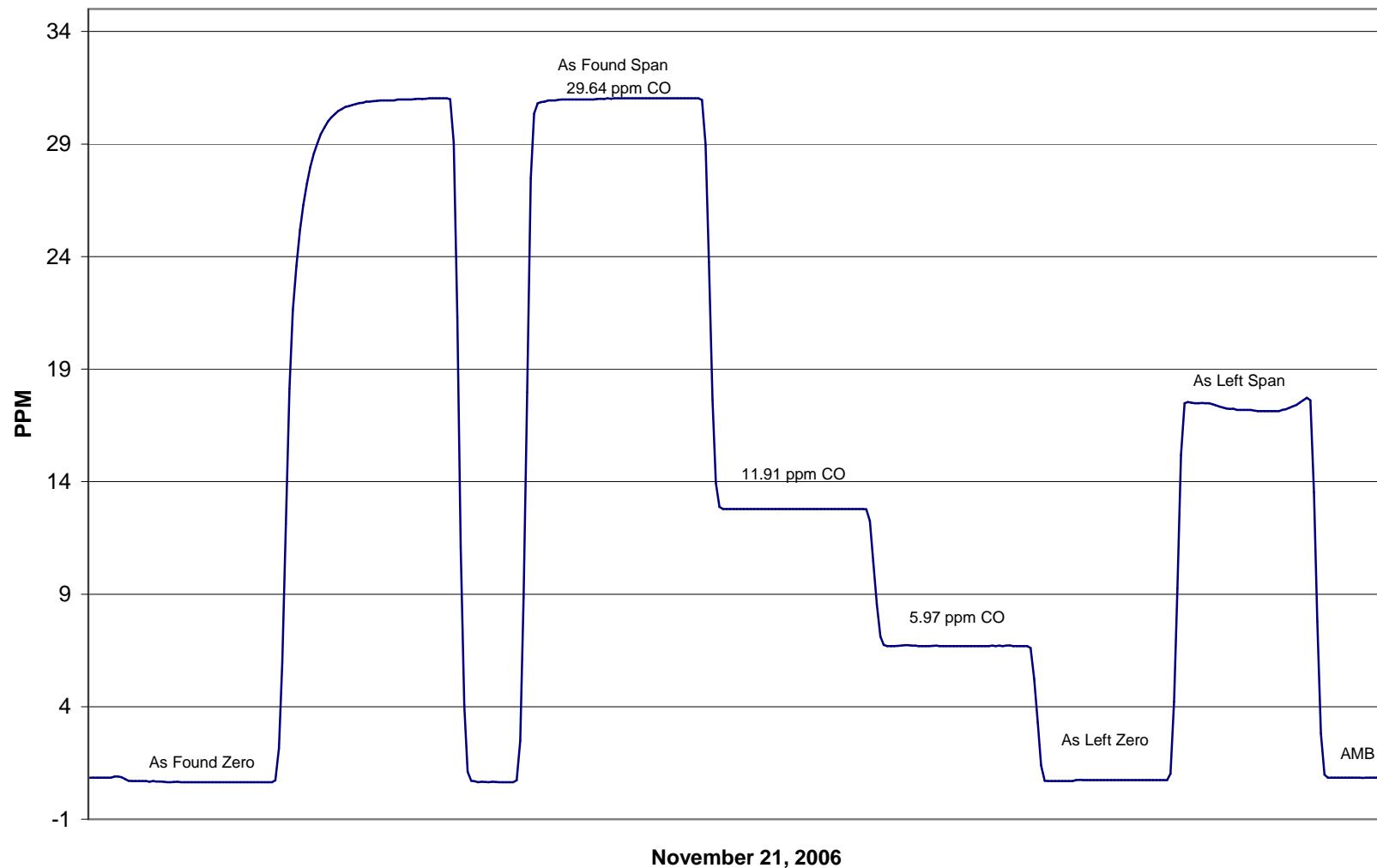
Calibration Date	November 21, 2006	Previous Calibration	October 11, 2006
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	13:35	End Time (MST)	16:40
Analyzer make/model	TEI Model 48C	Analyzer serial #	436609887

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.00	0.73	N/A		
29.65	30.94	0.9582	Correlation Coefficient	0.999652
11.92	12.79	0.9321	Slope	0.986610
5.97	7.28	0.8195	Intercept	-0.879055

### CO Calibration Curve



**CO Calibration**

## Calibration Report

Parameter

**PM2.5**

Air Monitoring Network

**Palliser Airshed**



### Station Information

Calibration Date	November 22, 2006	Previous Calibration	October 12, 2006
Station Number	1	Station Location	Crescent Heights
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	9:00	End Time (MST)	8:45
Barometric Pressure	0.921 ATM	Station Temperature	25.0 Deg C
Flow Calibrator	BIOS Drycal DCL-MH	Serial Number	101780
DACS make	AP 1000	DACS serial No.	45269
DACS voltage range	0 - 1 V	DACS channel #	15
	Before		After
DACS Scale High	450	DACS slope	450
DACS Scale Low	-50	DACS intercept	-50

### Analyzer Information

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

	before		after
Main Flow Set Point	2.990	SLPM	2.990
Aux Flow Set Point	13.67	SLPM	13.67
Filter Load	41%	%	41%
Ko Factor	NA		NA
Temperature	-8.0	Deg C	-8.0
Pressure	0.918	ATM	0.918

### Calibration Data

Parameter	Set Point	TEOM Reading (as found)	Tolerance	TEOM Reading (after adjustments)
zero flow - main	0.0	-0.01	0.00	-0.01
zero flow - auxillary	0.0	-0.02	0.01	-0.02
flow recovery - main	45 - 60 Seconds	25.0	45 - 60 Seconds	25.0
flow recovery - aux	46 - 60 Seconds	35.0	46 - 60 Seconds	35.0
Temperature	measured	-8.0	+/- 1.0 Deg C	-8.0
Pressure	measured	0.918	+/- 1.5% ΔATM	0.918
Total Flow	16.67 SLPM	16.58		16.58
Auxiliary flow	13.67 SLPM	13.74	+/- 1.0 SLPM	13.74
Main flow	3.0 SLPM	2.939	+/- 0.2 SLPM	2.939
Leak Check - main	0.0	0.00	<0.15 SLPM	0.00
Leak Check - aux	0.0	-0.02	<0.15 SLPM	-0.02
Ko Factor (w/o filter)	measured	NA	filter weight (g)	NA
Ko Factor (w/ filter)	measured	NA	% Ko difference	NA

Notes: No adjustments were necessary

Calibration Performed By: Lenin Flores, Travis Mehrer