



# Palliser Airshed Society

## Ambient Air Monitoring Network Summary

July 2007

Prepared By:



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August 29, 2007

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12th Floor, Oxbridge Place  
9820-106 Street  
Edmonton Alberta T6B 2X3

**Attention: Director of Monitoring and Evaluation**

**RE: Palliser Airshed Society (PAS) Ambient Air Monitoring Report – July 2007**

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Enclosed is the PAS Ambient Monitoring Report for the month of **July 2007**.

**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. The NO<sub>x</sub> analyzer was operational for 79.7% of the time (**Alberta Environment reference # 191369**); all other analyzers and instruments were greater than 90% for the month of July.

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

- Monthly average concentrations of NO<sub>2</sub> was 6.2 ppb
- Monthly average concentrations for O<sub>3</sub> was 38.0 ppb
- Monthly average concentrations for CO was 0.16 ppm
- Monthly average concentrations for THC was 1.95 ppm
- Monthly average concentrations for PM<sub>2.5</sub> was 6.3 µg/m<sup>3</sup>

The Air Quality Index (AQI) recorded 504 hours of Good readings and 133 hours of Fair readings for the month of July.

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

The passive sample analyses were performed by MAXXAM Analytics Inc. The following are the ranges for July 2007 recorded by the six passive stations located throughout the PAS zone.

- ◆ Average concentrations for SO<sub>2</sub> passives ranged from 0.2 to 0.4 ppb with a mean of 0.3 ppb.
- ◆ Average concentrations for NO<sub>2</sub> passives ranged from 3.6 to 4.4 ppb with a mean of 4.0 ppb.
- ◆ Average concentrations for O<sub>3</sub> passives ranged from 32.7 to 40.2 ppb with a mean of 36.6 ppb.

Focus added the NO<sub>2</sub> and SO<sub>2</sub> Provincial Annual Objectives to the passive figures to provide a quick comparison for the reader of the ambient data and the objective.

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

Sharon Whiteley, B.Sc.  
AQM Data Specialist

Barb Johnson, E.I.T.  
AQM Project Coordinator



September 21, 2007

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

**ATTENTION: Director**

**RE: Air Monitoring Directive Contravention Report Ref # 191369**

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A contravention of the Alberta Air Monitoring Directive was recently reported by Focus to Alberta Environment (AENV) on behalf of the Palliser Airshed Society (PAS). The contravention was less than ninety (90%) percent data collection for the month of July for the Oxides of Nitrogen Monitor (NO, NO<sub>2</sub>, NO<sub>x</sub>) at the Crescent Heights Station located in Medicine Hat, Alberta. The station is owned by PAS and operated on their behalf by Focus. The contravention has been assigned AENV reference number 191369.

The cause of the contravention was two-fold: the first was the result of a major power failure, which had the station down for a total of 61 hrs. The second was due to a broken exhaust line, which resulted in unstable readings and removal of data through QA/QC. As a result of these issues the following actions have been taken:

1. The exhaust line was replaced and a procedure is being discussed for checking the condition of the exhaust lines.
2. A UPS exists in the station, however in the event of a major power failure such as this one, the stations UPS is only capable of keeping the DACs and computer running for 30 minutes.

The listed action items are to ensure that data will not be lost in the future for reasons related to computer or power problems.

Sincerely,

THE FOCUS CORPORATION

Gary Cross C.E.T.  
AQM Technical Manager



# Continuous Monitoring

## Ambient Air Monitoring Network

### Crescent Heights Station

#### General Station Issues

Calibrations were performed on July 25<sup>th</sup> (NO<sub>x</sub> and O<sub>3</sub>) and July 26<sup>th</sup> (NO<sub>x</sub>, CO, THC and TEOM). The second calibration of the NO<sub>x</sub> analyzer was a reference check - not a full calibration. There were several power failures throughout the month which resulted in a number of hours of downtime for all the analyzers and sensors: July 20<sup>th</sup> to 23<sup>rd</sup> (57 hours), July 25<sup>th</sup> (4 hours)..

Parameter	Make	Model	Units	Notes
Ozone	Teledyne - API	400E	ppb	Power failures resulted in a total of 61 hours of invalid data.
Nitrogen Dioxide	Teledyne - API	200E	ppb	Power failures resulted in a total of 61 hours of invalid data. On July 27 <sup>th</sup> the exhaust line broke on the NO <sub>x</sub> analyzer resulting in seventy-four (74) hours of invalid data - <b>Alberta Environment reference # 191369</b> . The exhaust line was repaired on July 30 <sup>th</sup> (four (4) hours of maintenance), and twelve (12) hours for analyzer to stabilize.
Total Hydrocarbons	Bendix	400A	ppm	Power failures resulted in a total of 61 hours of invalid data.
Carbon Monoxide	TEI	49C	ppm	Power failures resulted in a total of 61 hours of invalid data.
PM <sub>2.5</sub>	R&P TEOM	1400ab	µg/m <sup>3</sup>	Power failures resulted in a total of 61 hours of invalid data. Six (6) hours were flagged for excessive baseline drift.
Wind Speed	Met One	010C	kph	Power failures resulted in a total of 61 hours of invalid data.
Wind Direction	Met One	020C	Deg	Power failures resulted in a total of 61 hours of invalid data.
Ambient Temperature	Met One	083D	DegC	Power failures resulted in a total of 61 hours of invalid data.
Relative Humidity	Met One	083D	%	Power failures resulted in a total of 61 hours of invalid data.
Solar Radiation	Met One	096-1	W/m <sup>2</sup>	Power failures resulted in a total of 61 hours of invalid data.
Data Acquisition System	Titan Logix	AP1000		Power failures resulted in a total of 61 hours of invalid data.





## July 2007 Monthly Overall Summary Report Ambient Air Quality Data

Jul-2007 Palliser Airshed Society							Maximum Recorded Values						Operational Time (%)
Pollutant (units)	Objectives		Station	Monthly Average	Exceedence		1-hr				24-hr / 8-hr		
	1-hr	24-hr			1-hr	24-hr	Conc	Day	WSPD (km/hr)	WDIR (Sector)	Conc	Day	
NO (ppb)			Crescent Heights	1.6	-	-	28.5	Jul-04 06:00	5.8	SW	4.5	Jul-03	79.7%
NO <sub>2</sub> (ppb)	212	106	Crescent Heights	6.2	0	0	32.0	Jul-02 00:00	2.6	E	10.4	Jul-26	79.7%
NO <sub>x</sub> (ppb)			Crescent Heights	7.5	-	-	50.1	Jul-20 03:00	4.6	SSE	14.0	Jul-03	79.7%
O <sub>3</sub> (ppb)	82		Crescent Heights	38.0	0	-	71.7	Jul-16 13:00	6.1	SSE	48.8	Jul-19	91.8%
O <sub>3</sub> (ppb) - 8-hr	65		Crescent Heights		3						67.0	Jul-20	
CO (ppm)	13		Crescent Heights	0.16	0	-	0.4	Jul-10 21:00	2	ENE	0.2	Jul-10	91.8%
CO (ppm) - 8-hr	5		Crescent Heights		0						0.3	Jul-11	
THC (ppm)			Crescent Heights	1.95	-	-	3.0	Jul-12 02:00	2.8	E	2.1	Jul-12	91.8%
PM <sub>2.5</sub> (µg/m <sup>3</sup> )		30 <sup>a</sup>	Crescent Heights	6.3	0	0	24.3	Jul-30 11:00	15.5	WSW	12.0	Jul-30	91.0%
RH (%)			Crescent Heights	44.2	-	-	-	-	-	-	-	-	91.8%
SR (W/m <sup>2</sup> )			Crescent Heights	295.3	-	-	-	-	-	-	-	-	91.8%
Temp (°C)			Crescent Heights	25.6	-	-	-	-	-	-	-	-	91.8%
WSPD v (km/hr)			Crescent Heights	10.0	-	-	32.4	Jul-09 10:00	32.4	NNW	15.2	Jul-09	91.8%
WSPD s (km/hr)			Crescent Heights	10.7	-	-	32.6	Jul-09 10:00	32.6	NNW	17.1	Jul-09	91.8%
WDIR			Crescent Heights	SSE	-	-	-	-	-	-	-	-	91.8%

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



# **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: July 1, 2007 to August 1, 2007

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:	504
Number of 1-hr Fair Readings:	133
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

Day	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-Jul-07	8	N	9	10	8	7	10	12	13	16	19	20	21	21	21	21	23	23	22	20	18	13	12	9	
2-Jul-07	N	7	5	6	8	8	14	14	15	20	24	24	26	29	29	25	25	26	26	25	21	20	15	N	
3-Jul-07	8	6	6	5	5	5	9	12	16	19	24	28	26	25	29	29	25	29	31	24	21	15	N	12	
4-Jul-07	10	10	8	8	6	7	7	8	9	14	22	22	29	32	34	35	34	37	36	33	25	N	17	15	
5-Jul-07	9	8	8	9	7	6	8	10	19	22	25	25	25	25	24	24	22	21	20	17	N	19	21	21	
6-Jul-07	19	19	20	19	15	16	16	16	16	21	23	29	38	41	41	35	32	33	41	N	25	18	15	15	
7-Jul-07	16	17	17	16	15	13	16	18	20	21	22	22	23	23	23	23	23	23	N	22	20	19	19	15	
8-Jul-07	15	14	15	14	17	15	10	12	11	13	18	21	23	24	24	23	22	N	22	22	21	19	17	18	
9-Jul-07	16	17	17	15	14	13	12	13	16	18	16	15	14	19	20	18	N	16	15	15	11	14	11	9	
10-Jul-07	8	6	6	5	4	3	4	6	8	14	17	19	20	20	21	N	20	20	20	20	14	8	7	9	
11-Jul-07	7	6	6	5	3	5	5	8	12	18	19	21	21	22	N	21	22	22	22	21	16	12	9	8	
12-Jul-07	7	5	5	4	5	6	9	9	15	19	18	18	18	N	18	19	19	19	19	17	16	14	12	12	
13-Jul-07	10	10	9	7	5	5	8	8	13	19	23	24	N	29	29	28	27	25	24	21	20	17	13	14	
14-Jul-07	16	15	15	12	8	11	13	18	21	23	24	N	22	23	26	23	23	24	23	21	18	16	15	16	
15-Jul-07	15	15	11	11	9	8	9	10	14	16	N	18	21	21	23	26	30	30	28	23	22	23	16	13	
16-Jul-07	16	16	19	18	17	17	15	15	17	N	22	31	39	43	38	33	32	32	31	25	24	29	23	18	
17-Jul-07	15	13	13	11	11	8	11	14	N	19	22	28	29	29	32	32	32	29	28	25	22	21	19	18	
18-Jul-07	18	19	19	16	13	15	13	N	18	21	23	28	30	29	28	27	29	29	28	25	22	21	20	20	
19-Jul-07	20	22	25	25	24	22	N	26	27	28	30	29	31	31	30	29	33	30	21	22	22	21	17	16	
20-Jul-07	19	14	12	11	7	N	6	10	11	19	24	31	37	40	39	42	42	40	40	35	29	24	21	N	
21-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
22-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
23-Jul-07	N	N	N	N	N	N	N	N	10	15	19	21	24	N	23	29	30	28	30	25	25	32	30	32	
24-Jul-07	33	28	N	26	23	16	13	16	12	14	13	16	20	N	20	21	21	22	22	22	16	16	22	20	
25-Jul-07	18	N	17	N	18	17	16	N	20	20	N	N	N	N	N	N	N	N	N	N	N	N	N	15	
26-Jul-07	14	14	N	7	7	9	9	10	14	18	N	N	N	N	N	25	24	23	23	21	20	18	21	23	
27-Jul-07	22	22	N	23	23	22	21	20	20	22	21	21	25	26	27	27	30	30	30	25	20	12	16	11	
28-Jul-07	17	15	N	13	14	14	16	18	22	26	35	33	36	38	35	36	37	40	39	34	24	18	11	10	
29-Jul-07	13	N	16	16	17	15	16	18	21	25	29	30	35	34	31	28	26	32	26	25	23	17	18	17	
30-Jul-07	N	13	14	14	14	13	13	16	18	22	24	36	40	36	34	34	32	32	33	29	25	23	21	22	
31-Jul-07	20	19	N	11	12	13	14	15	16	16	20	24	25	26	26	27	28	27	24	22	20	18	16	15	



# PAS - Crescent Heights - Nitrogen Dioxide Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

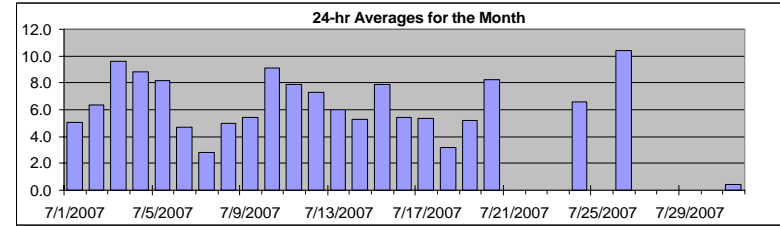
## HOURLY AVERAGE TABLE

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

Monitoring Dates: July 1, 2007 to August 1, 2007

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:	32.0 ppb 3-Jul 0:00 1:00
Maximum 24-hr Average:	10.4 ppb 26-Jul



AIC Time:	26 hrs	Operational Time:	557 hrs						
Calibration Time:	10 hrs	AMD Operational Uptime:	79.7%						
Percentile	99	95	75	50	25	5	1	Average	Median
	22.7	15.1	8.3	4.8	2.7	1.4	0.0	6.2 ppb	4.8 ppb

### Status Flag Characters

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

Day	Mountain Standard Time																							24-hour Average	Daily Maximum			
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Jul-07	8	A	10	5	4	5	3	3	3	5	2	3	2	2	2	2	1	2	3	7	9	12	9	12	5.0	11.7		
2-Jul-07	A	16	21	13	8	12	6	5	4	4	3	6	2	3	2	5	2	2	2	3	5	4	11	A	6.4	20.9		
3-Jul-07	32	27	24	20	19	12	8	6	4	3	2	2	2	2	1	1	3	2	2	4	8	A	A	22	9.7	32.0		
4-Jul-07	13	10	12	9	10	15	20	17	18	15	8	10	6	3	2	2	3	3	2	3	7	A	10	7	8.8	19.5		
5-Jul-07	16	18	16	12	15	15	17	18	7	3	2	2	3	2	3	3	3	3	4	12	A	7	3	2	8.1	17.9		
6-Jul-07	4	3	2	3	8	6	6	5	8	5	5	6	5	4	4	3	3	4	4	A	6	5	5	3	4.7	8.4		
7-Jul-07	3	2	2	3	4	5	3	2	2	2	2	2	1	1	1	1	2	1	A	6	5	5	4	6	2.8	6.1		
8-Jul-07	4	5	6	5	7	6	11	9	8	9	5	3	2	2	2	2	2	A	7	4	4	3	6	4	5.0	10.7		
9-Jul-07	4	3	3	3	4	6	8	5	5	6	4	6	10	3	2	2	A	7	6	6	12	5	8	8	5.4	11.6		
10-Jul-07	8	12	12	9	12	12	10	10	10	6	4	3	2	3	2	A	8	4	5	3	13	25	24	11	9.1	25.3		
11-Jul-07	10	13	10	11	12	15	13	11	8	6	5	4	4	4	A	8	4	4	3	3	4	7	12	12	7.9	14.8		
12-Jul-07	15	13	19	15	13	15	14	10	5	2	1	1	1	A	7	4	3	2	2	3	4	7	7	5	7.3	19.2		
13-Jul-07	7	5	6	7	10	11	10	13	10	5	1	1	A	7	3	3	2	2	2	5	6	6	9	7	6.0	12.9		
14-Jul-07	5	4	4	6	14	8	6	3	2	2	4	A	12	6	4	4	4	3	2	3	5	8	7	5	5.3	13.7		
15-Jul-07	8	5	8	8	8	11	10	12	9	7	A	11	6	10	9	5	3	4	5	7	10	3	9	13	7.9	13.0		
16-Jul-07	3	2	1	1	4	4	8	6	6	A	14	8	4	4	5	4	7	5	5	8	8	4	5	8	5.4	14.1		
17-Jul-07	8	8	7	9	8	15	14	8	A	7	4	3	3	2	3	3	3	3	2	3	2	3	3	3	5.3	15.3		
18-Jul-07	2	2	2	3	4	3	5	A	5	4	3	3	3	3	5	5	3	3	3	4	3	2	2	2	3.2	5.2		
19-Jul-07	2	1	1	1	1	2	A	8	6	5	4	4	4	4	5	7	5	5	11	10	6	7	11	10	5.2	10.7		
20-Jul-07	5	10	13	25	15	A	21	18	15	10	8	5	4	3	3	3	3	3	2	3	4	6	4	P	8.3	25.4		
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0	0.0	
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0	0.0	
23-Jul-07	P	P	P	P	P	P	P	P	P	6	5	6	2	3	1	1	1	2	2	3	5	4	6	3	N	9.1	9.1	
24-Jul-07	2	5	A	12	7	16	16	12	11	8	8	6	6	5	4	3	5	5	5	3	5	4	2	2	6.6	16.3		
25-Jul-07	2	A	10	5	5	5	5	4	3	2	2	P	P	C	C	C	C	C	C	C	A	P	P	5	N	9.7		
26-Jul-07	5	4	A	16	14	11	12	15	12	11	C	C	C	11	11	10	10	10	11	12	10	11	6	5	10.4	16.1		
27-Jul-07	3	2	A	9	6	5	5	4	5	4	5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	9.0	9.0	
28-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	0.0
29-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	0.0
30-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	M	M	M	M	N	N	N	N	N	N	N	N	0.0	0.0
31-Jul-07	N	N	N	N	N	2	1	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	3.0	
Hourly Avg	N	N	N	8.8	8.8	9.0	9.7	8.5	7.1	5.6	4.3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Hourly Max	32.0	26.6	24.2	25.4	19.1	15.5	20.9	17.7	17.6	14.6	14.1	10.8	11.7	11.3	11.1	10.0	10.4	10.1	11.1	12.4	12.7	25.3	23.6	22.0	N	N	N	

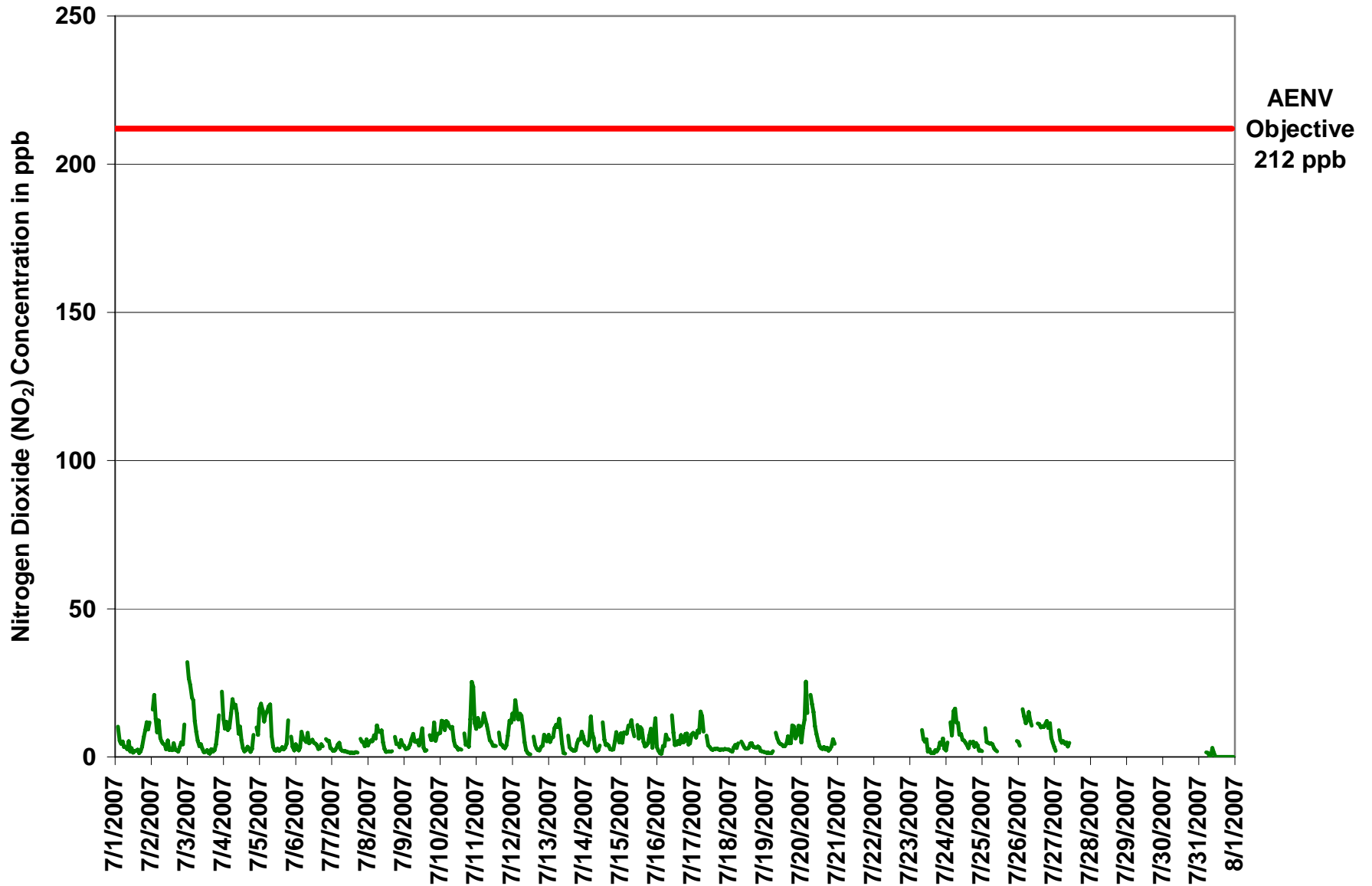


Figure 1. PAS - Crescent Heights Nitrogen Dioxide 1-hr Average Monthly Trend



Station: Crescent Heights  
 Station Owner: PAS

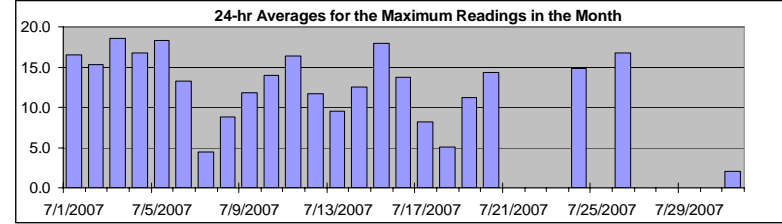
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: July 1, 2007 to August 1, 2007

**Summary**

Maximum 1-hr Value:	49.1	ppb	20-Jul	3:00 4:00
Maximum 24-hr Value:	18.6	ppb	3-Jul	



AIC Time:	26 hrs	Operational Time:	557 hrs						
Calibration Time:	10 hrs	AMD Operational Uptime:	79.7%						
Percentile	99	95	75	50	25	5	1	Average	Median
	40.0	32.4	17.6	9.5	4.9	2.3	0.0	12.5 ppb	9.5 ppb

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum	
1-Jul-07	34	A	36	7	6	17	12	14	4	33	12	21	3	16	23	17	3	4	7	11	23	22	32	24	16.5	35.7	
2-Jul-07	A	32	33	20	14	17	15	33	7	11	5	26	5	19	9	27	6	4	4	6	10	6	27	A	15.3	33.0	
3-Jul-07	38	35	33	25	31	30	28	8	6	7	5	5	4	21	3	2	27	4	6	11	46	28	A	26	18.6	46.3	
4-Jul-07	19	18	19	13	13	27	36	27	21	18	28	15	32	5	3	4	35	5	5	5	13	A	12	13	16.7	36.0	
5-Jul-07	36	27	21	15	18	20	21	20	18	18	4	26	28	4	20	12	5	6	7	37	A	36	18	4	18.3	37.1	
6-Jul-07	32	6	4	7	32	32	24	7	30	6	13	24	6	6	19	5	6	10	5	A	9	8	10	5	13.3	32.1	
7-Jul-07	5	4	3	6	5	7	3	3	3	3	3	2	2	2	2	2	3	2	A	10	8	8	5	11	4.5	11.2	
8-Jul-07	5	7	9	6	36	11	16	16	10	10	7	4	3	4	3	4	4	A	12	8	7	6	10	6	8.9	36.1	
9-Jul-07	6	4	4	5	8	7	11	11	12	9	12	14	19	10	4	6	A	15	16	16	22	22	24	13	11.8	24.1	
10-Jul-07	11	24	15	13	18	15	13	17	13	13	8	5	4	5	5	A	14	5	7	5	28	31	27	27	14.0	30.6	
11-Jul-07	15	15	31	41	17	19	26	20	16	15	7	18	25	5	A	30	6	7	6	6	6	10	20	14	16.4	41.1	
12-Jul-07	17	14	25	20	31	21	17	16	9	4	3	2	2	A	14	5	4	3	3	5	6	26	8	10	11.6	31.0	
13-Jul-07	14	8	9	10	14	14	14	16	15	13	2	2	A	15	5	4	3	3	4	7	15	11	12	9	9.5	16.1	
14-Jul-07	14	15	8	9	25	10	10	6	3	5	21	A	17	10	7	6	6	4	4	3	17	23	39	25	12.5	39.4	
15-Jul-07	30	7	11	12	11	14	12	28	19	35	A	17	11	28	36	29	6	6	8	13	19	4	28	29	18.0	35.9	
16-Jul-07	8	3	2	2	10	14	41	13	24	A	21	11	5	6	47	7	21	10	10	19	14	10	8	10	13.8	47.5	
17-Jul-07	10	12	9	12	11	30	19	14	A	12	7	5	4	3	3	4	4	3	4	5	4	4	4	4	8.1	30.0	
18-Jul-07	4	3	3	5	6	4	9	A	7	5	4	4	4	7	8	8	6	6	5	5	5	3	3	3	5.1	9.5	
19-Jul-07	4	3	2	2	2	3	A	12	18	27	8	14	5	5	6	13	8	6	19	18	13	13	36	21	11.2	35.6	
20-Jul-07	9	17	34	49	38	A	27	19	17	24	11	7	5	6	4	6	4	5	3	4	5	11	8	P	14.3	49.1	
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0	
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0	
23-Jul-07	P	P	P	P	P	P	P	P	23	8	8	31	3	13	3	2	2	4	3	10	31	9	12	5	N	31.2	
24-Jul-07	4	32	A	32	10	41	19	14	36	29	12	16	15	9	7	6	8	8	9	6	12	6	5	4	14.8	40.7	
25-Jul-07	3	A	15	7	7	6	7	7	5	4	4	P	P	C	C	C	C	C	C	C	A	P	P	8	N	15.4	
26-Jul-07	7	5	A	21	27	23	16	18	21	27	C	C	C	13	18	12	12	39	13	15	15	16	8	8	16.8	39.1	
27-Jul-07	4	3	A	16	30	6	6	6	23	5	8	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	30.0
28-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
29-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
30-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	M	M	M	M	N	N	N	N	N	N	N	N	0.0
31-Jul-07	N	N	N	N	N	2	2	2	1	18	4	2	2	0	3	2	0	0	0	0	0	0	0	0	1	2.0	17.9
Hourly Avg	N	N	N	14.9	17.5	16.4	16.9	14.6	14.4	14.4	9.0	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Hourly Max	37.8	34.7	35.7	49.1	38.4	40.7	41.0	33.0	36.0	34.9	27.7	30.7	31.7	27.7	47.5	30.5	35.1	39.1	18.8	37.1	46.3	35.7	39.4	28.5	N	N	

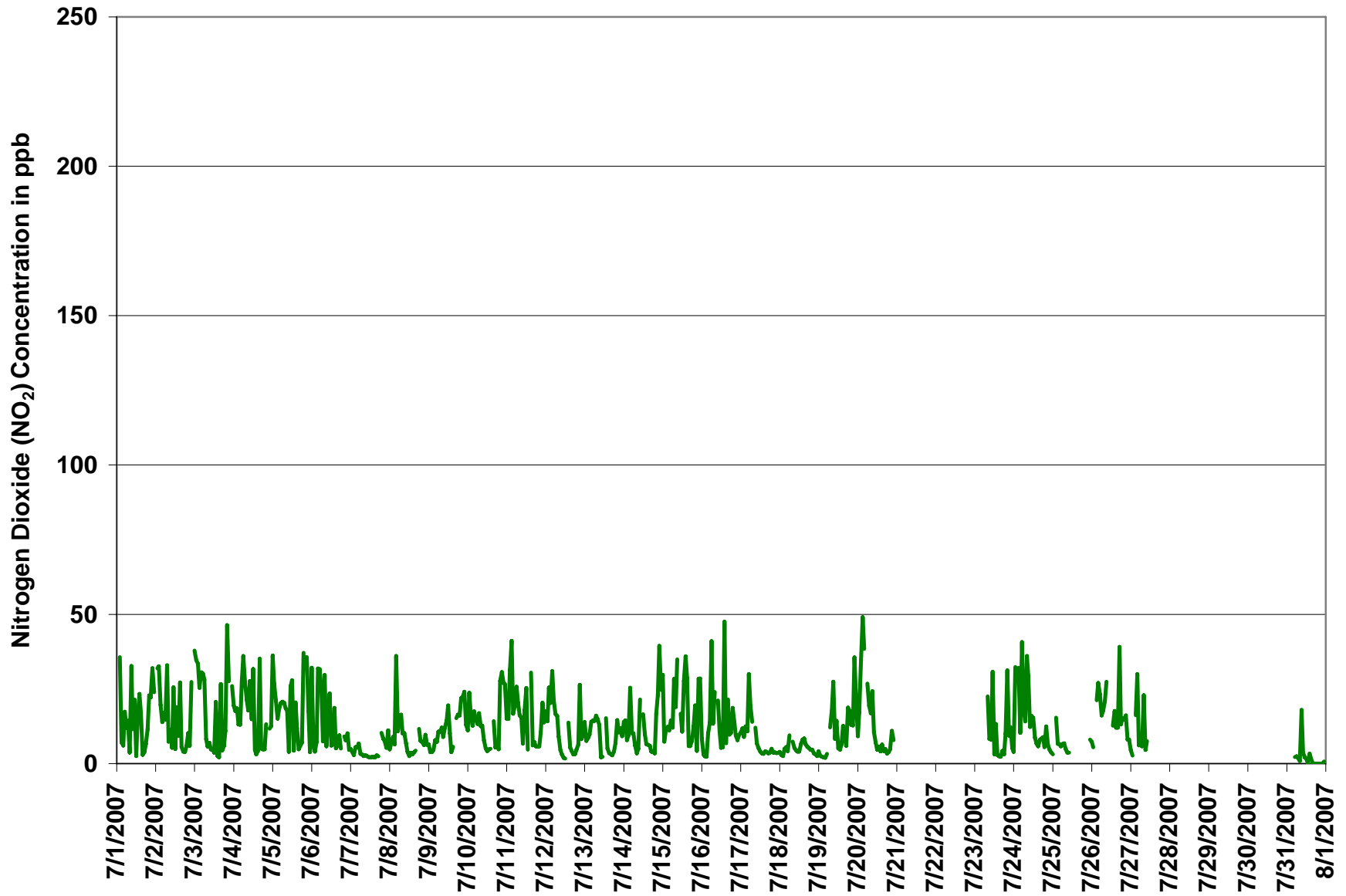
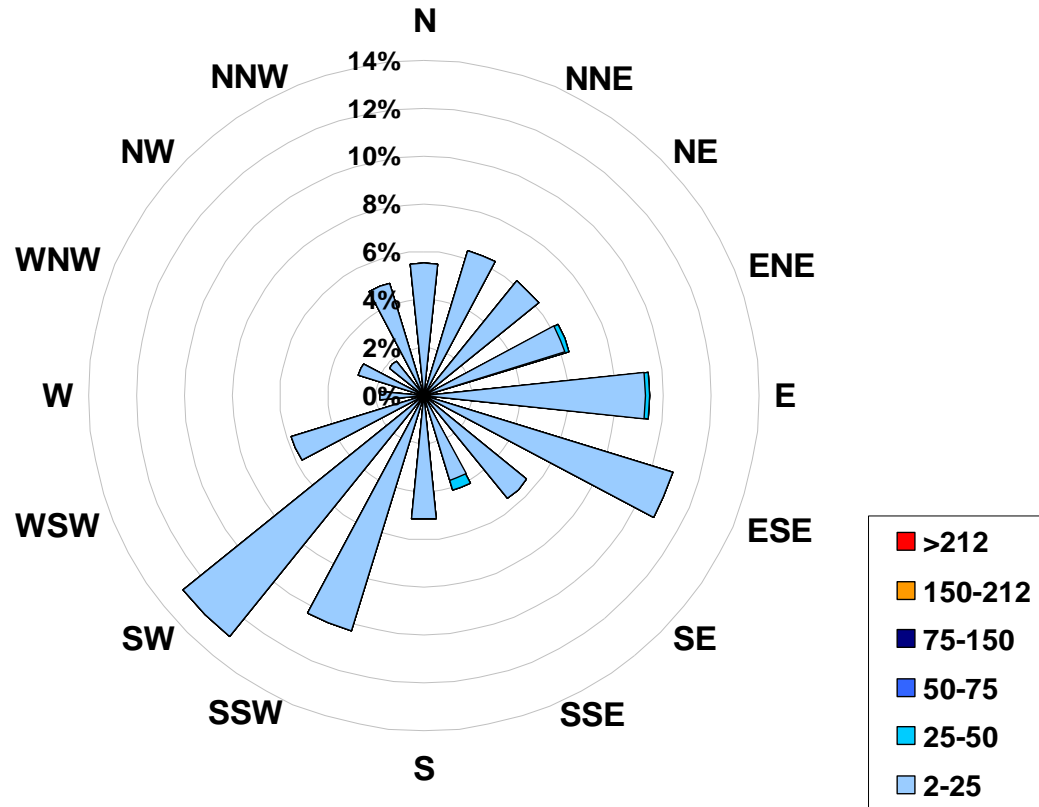


Figure 2. PAS - Crescent Heights Nitrogen Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend





**1-hr Average Concentration Rose for Nitrogen Dioxide (in ppb) Located at the Crescent Heights Site for July 2007**



**Calms: 0%**

Frequency Distribution of NO <sub>2</sub> in ppb			Frequency (hrs)
Range			
2.0	< 25		556
25	to 50		1
50	to 75		0
75	to 150		0
150	to 212		0
	> 212		0
Total Non-Zero Values			557



# PAS - Crescent Heights - Nitric Oxide Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

## HOURLY AVERAGE TABLE

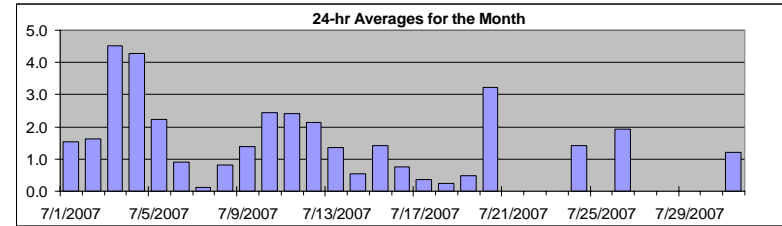
## Nitric Oxide (NO)

Monitoring Dates: July 1, 2007 to August 1, 2007

Guideline Limit:  
Summary

1-hr	na	ppb	24-hr	na	ppb
------	----	-----	-------	----	-----

Maximum 1-hr Average:	28.5	ppb	4-Jul	6:00 7:00
Maximum 24-hr Average:	4.5	ppb	3-Jul	



AIC Time:	26 hrs	Operational Time:	557 hrs						
Calibration Time:	10 hrs	AMD Operational Uptime:	79.7%						
Percentile	99	95	75	50	25	5	1	Average	Median
	14.4	7.4	1.3	0.6	0.3	0.0	0.0	1.6 ppb	0.6 ppb

### Status Flag Characters

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

Day	Mountain Standard Time																							24-hour Average	Daily Maximum			
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00				
1-Jul-07	5	A	6	0	1	2	1	2	1	4	1	3	0	1	1	1	0	0	1	1	1	1	1	1	1	1.6	5.5	
2-Jul-07	A	7	9	1	1	2	1	3	1	1	1	2	1	1	1	1	0	0	0	0	0	0	1	1	A	1.6	9.5	
3-Jul-07	7	15	23	14	13	9	6	3	1	1	0	0	0	1	0	0	1	1	0	1	2	1	A	A	2	4.5	22.9	
4-Jul-07	1	0	0	0	1	9	28	15	15	9	4	4	2	1	1	1	2	1	1	1	1	1	A	1	1	4.3	28.5	
5-Jul-07	4	1	1	1	1	6	9	11	3	1	1	1	2	0	1	1	1	1	1	3	A	1	1	0	2.2	11.1		
6-Jul-07	2	0	0	0	1	1	3	1	4	1	1	1	1	1	1	0	0	1	0	A	1	0	0	0	0.9	3.6		
7-Jul-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.4	
8-Jul-07	0	0	0	0	2	1	1	1	2	3	1	1	0	1	1	1	1	A	1	1	1	1	0	0	0	0.8	2.5	
9-Jul-07	0	0	0	0	1	1	3	2	2	2	1	2	6	1	0	1	A	1	2	1	2	0	1	0	1.4	6.4		
10-Jul-07	1	2	0	1	2	8	11	11	10	3	1	1	0	0	0	A	1	0	0	0	0	1	1	0	2.4	11.4		
11-Jul-07	0	0	6	2	2	13	9	9	5	1	1	1	1	1	A	1	1	0	0	0	0	0	1	0	2.4	13.3		
12-Jul-07	0	0	3	1	7	10	13	7	2	0	0	0	0	A	1	1	0	0	0	0	0	2	0	0	2.1	12.5		
13-Jul-07	0	0	0	0	1	3	6	9	4	2	0	0	A	1	0	0	0	1	0	1	0	0	0	0	1.4	8.8		
14-Jul-07	0	0	0	0	1	1	1	0	0	0	1	A	1	1	0	0	1	0	0	0	0	1	1	0	0.5	1.4		
15-Jul-07	3	0	1	0	0	2	3	7	3	3	A	2	1	3	2	1	0	0	0	0	0	0	1	1	1.4	6.7		
16-Jul-07	0	0	0	0	0	1	4	2	2	A	3	1	0	0	1	0	1	1	0	0	0	0	0	0	0.7	4.2		
17-Jul-07	0	0	0	0	0	4	2	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	4.1		
18-Jul-07	0	0	0	0	0	0	1	A	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.3	0.8		
19-Jul-07	0	0	0	0	0	0	A	1	1	1	1	2	0	0	1	1	0	0	0	0	0	0	1	0	0.5	1.8		
20-Jul-07	0	0	4	25	11	A	6	9	7	3	2	1	0	0	0	0	0	0	0	0	0	0	0	P	3.2	24.7		
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0	0.0	
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0	0.0	
23-Jul-07	P	P	P	P	P	P	P	P	P	7	2	2	3	0	1	0	0	0	0	0	0	1	0	0	N	6.8	6.8	
24-Jul-07	0	0	A	0	0	4	2	2	6	4	2	2	1	1	1	1	1	1	1	1	0	1	0	0	1.4	6.5		
25-Jul-07	0	A	1	0	1	1	1	1	1	1	1	1	P	P	C	C	C	C	C	C	C	A	P	P	1	N	1.0	
26-Jul-07	0	0	A	1	3	3	6	9	7	5	C	C	C	0	1	0	1	1	1	0	0	0	0	0	1.9	9.5		
27-Jul-07	0	0	A	1	1	0	1	1	2	1	1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	2.3	2.3	
28-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	0.0
29-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	0.0
30-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	0.0
31-Jul-07	N	N	N	N	N	3	3	2	2	4	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1.2	3.7	
Hourly Avg	N	N	N	2.1	2.1	3.5	5.0	4.6	3.6	2.2	1.1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Hourly Max	7.4	15.1	22.9	24.7	13.0	13.3	28.5	15.4	15.3	8.9	3.5	3.9	6.4	3.1	1.9	1.4	1.7	1.1	1.9	3.3	2.0	1.8	1.4	2.1				



# PAS - Crescent Heights - Oxides of Nitrogen Monthly Summary

Station: Crescent Heights  
 Station Owner: PAS

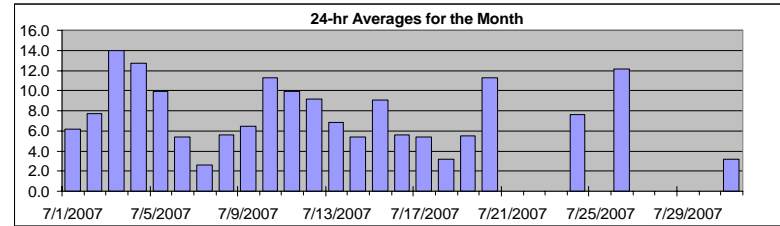
## HOURLY AVERAGE TABLE

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

Monitoring Dates: July 1, 2007 to August 1, 2007

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

Maximum 1-hr Average:	50.1	ppb	20-Jul	3:00 4:00
Maximum 24-hr Average:	14.0	ppb	3-Jul	



AIC Time:	26 hrs	Operational Time:	557 hrs						
Calibration Time:	10 hrs	AMD Operational Uptime:	79.7%						
Percentile	99	95	75	50	25	5	1	Average	Median
	33.2	21.5	9.5	5.0	3.0	1.5	0.7	7.5 ppb	5.0 ppb

### Status Flag Characters

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

Day	Mountain Standard Time																							24-hour Average	Daily Maximum			
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Jul-07	12	A	15	5	5	7	5	5	4	9	2	5	2	3	3	3	1	2	4	7	9	12	10	12	6.2	15.4		
2-Jul-07	A	22	30	14	9	14	7	8	5	5	3	8	3	3	2	6	3	2	2	3	5	5	11	A	7.7	30.1		
3-Jul-07	39	42	47	34	32	21	14	8	5	6	3	2	2	3	1	1	4	2	2	5	10	15	A	24	14.0	47.0		
4-Jul-07	13	10	12	9	11	23	48	32	33	23	11	14	7	3	2	3	5	3	2	3	8	A	10	8	12.7	48.0		
5-Jul-07	20	19	16	12	15	21	25	28	10	4	2	3	4	2	3	4	3	3	5	15	A	7	4	2	9.9	28.4		
6-Jul-07	6	3	2	3	9	7	8	6	12	5	6	7	5	5	4	3	3	5	4	A	7	6	6	3	5.4	11.6		
7-Jul-07	2	2	2	3	4	5	3	2	2	2	2	1	1	1	1	1	1	1	A	6	5	5	4	6	2.6	5.8		
8-Jul-07	3	5	5	5	9	7	12	10	10	11	6	3	2	2	2	2	2	A	7	5	5	3	6	4	5.6	11.8		
9-Jul-07	4	3	3	3	4	7	10	7	7	7	5	8	16	4	2	3	A	8	7	7	13	6	9	8	6.5	15.7		
10-Jul-07	8	14	12	10	14	19	22	21	20	8	5	4	3	3	2	A	9	4	4	3	13	26	24	11	11.3	26.1		
11-Jul-07	9	13	16	13	13	28	21	19	12	7	6	5	5	4	A	9	4	4	3	3	4	7	13	11	10.0	27.9		
12-Jul-07	14	13	22	16	20	24	26	17	6	2	1	1	1	A	7	4	3	2	2	3	4	9	6	5	9.1	26.2		
13-Jul-07	7	5	6	7	10	14	16	21	13	6	1	1	A	8	3	2	2	2	2	5	6	6	8	7	6.8	21.2		
14-Jul-07	5	4	4	6	14	8	7	3	2	2	4	A	12	6	4	4	4	3	2	2	5	9	8	5	5.4	13.9		
15-Jul-07	11	5	8	8	8	12	13	19	12	10	A	12	7	13	11	6	3	4	4	7	9	3	9	14	9.1	19.0		
16-Jul-07	3	2	1	0	3	4	11	7	8	A	17	9	4	4	6	4	8	5	5	8	8	4	4	7	5.6	16.7		
17-Jul-07	8	7	6	9	8	19	16	10	A	8	4	3	2	2	2	2	2	2	2	2	2	2	2	2	5.4	19.4		
18-Jul-07	2	2	2	3	4	3	5	A	6	5	3	3	3	3	5	5	3	3	3	3	3	2	2	2	3.2	5.9		
19-Jul-07	2	1	1	1	1	2	A	9	7	6	5	6	4	4	5	8	5	5	11	11	6	7	11	11	5.5	10.9		
20-Jul-07	5	10	16	50	25	A	27	26	22	13	9	6	4	3	3	3	3	3	2	2	4	6	4	P	11.3	50.1		
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0		
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0		
23-Jul-07	P	P	P	P	P	P	P	P	P	16	8	7	8	2	4	2	2	1	2	2	3	5	4	6	3	N	15.9	
24-Jul-07	2	5	A	12	7	20	18	14	18	11	9	7	7	6	5	4	6	5	5	3	5	4	2	2	7.7	19.8		
25-Jul-07	2	A	10	5	5	5	5	5	3	2	2	P	P	C	C	C	C	C	C	C	A	P	P	6	N	10.3		
26-Jul-07	5	4	A	17	16	14	18	24	19	15	C	C	C	11	11	10	11	11	12	12	10	12	6	5	12.2	24.4		
27-Jul-07	3	2	A	9	6	5	6	5	7	4	5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	9.4		
28-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	
29-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	
30-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	M	M	M	M	N	N	N	N	N	N	N	N	0.0	
31-Jul-07	N	N	N	N	N	7	7	5	5	9	7	3	3	2	3	2	1	1	0	1	1	1	1	2	3.1	9.5		
Hourly Avg	N	N	N	10.6	10.6	12.3	14.6	13.0	10.5	7.6	5.2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
Hourly Max	39.2	41.5	47.0	50.1	32.0	27.9	48.0	32.0	32.7	23.2	16.7	13.7	15.7	13.0	11.4	9.9	10.8	11.1	11.5	15.3	13.0	26.1	23.9	23.9				

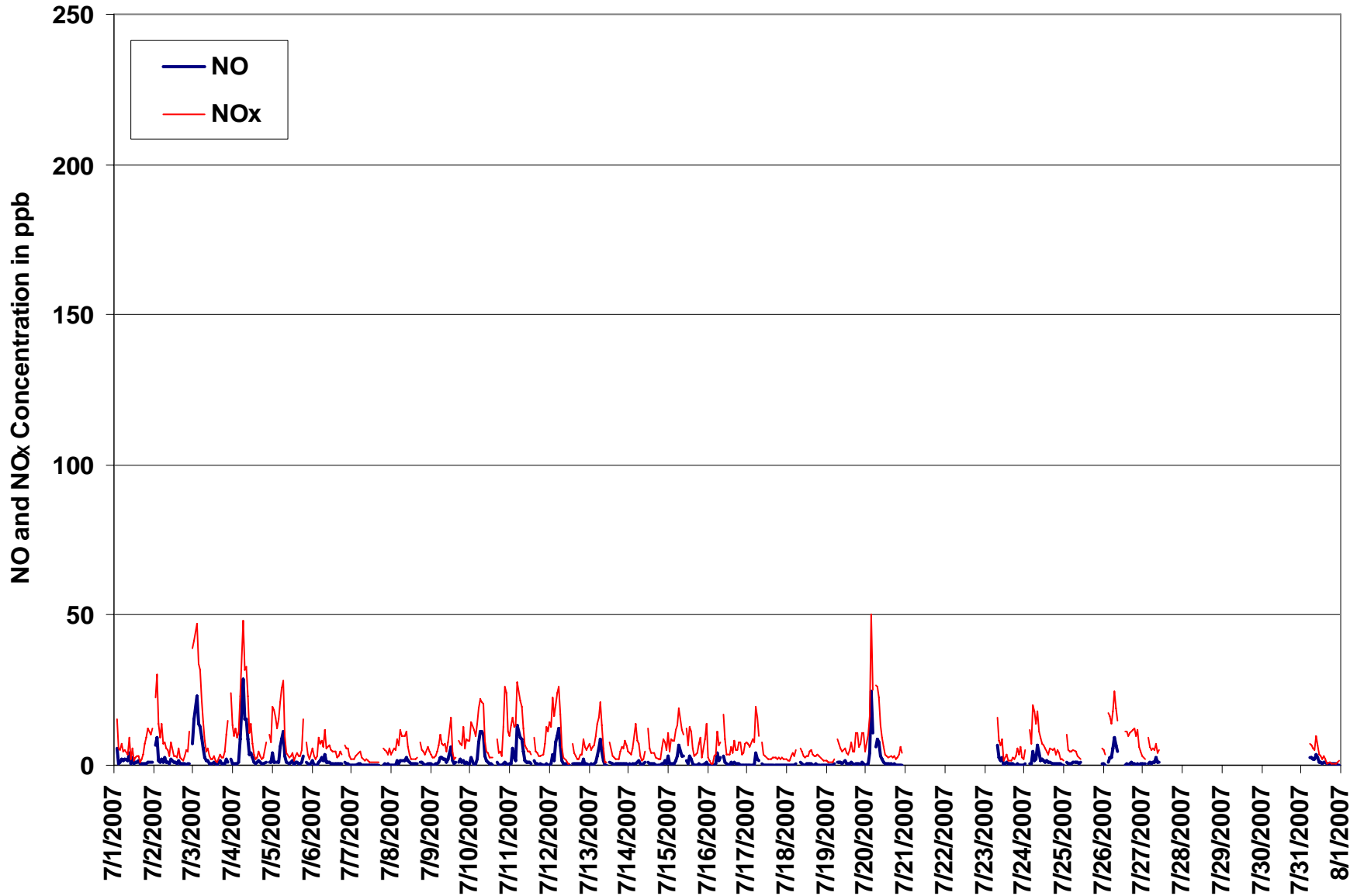


Figure 3. PAS - Crescent Heights Oxides of Nitrogen 1-hr Average Monthly Trend



Station: Crescent Heights  
Station Owner: PAS

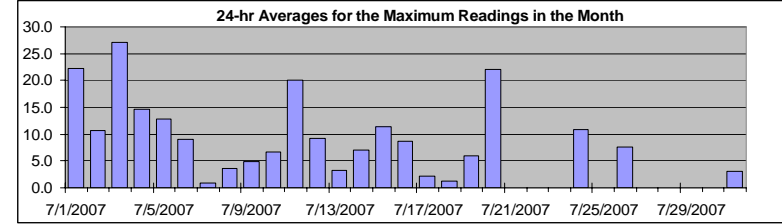
### INSTANTANEOUS (30 Second) MAXIMUM TABLE

### Nitric Oxide (NO)

Monitoring Dates: July 1, 2007 to August 1, 2007

#### Summary

Maximum 1-hr Value:	190.8	ppb	20-Jul	3:00 4:00
Maximum 24-hr Value:	27.1	ppb	3-Jul	



AIC Time:	26 hrs	Operational Time:	557 hrs						
Calibration Time:	10 hrs	AMD Operational Uptime:	79.7%						
Percentile	99	95	75	50	25	5	1	Average	Median
	107.6	41.1	8.0	2.2	1.3	0.8	0.5	9.5 ppb	2.2 ppb

#### Status Flag Characters

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

#### Day Mountain Standard Time

Hour Start	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	24-hour Average	Daily Maximum
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Jul-07	106	A	101	1	4	33	16	20	3	65	10	57	1	16	27	18	1	2	2	3	8	3	11	4	22.3	106.0	
2-Jul-07	A	32	35	5	4	6	9	70	4	4	2	17	3	12	6	14	2	2	2	3	2	2	3	A	10.7	69.5	
3-Jul-07	21	69	131	39	64	119	64	5	3	3	2	2	1	16	1	1	25	2	2	3	31	11	A	7	27.1	131.1	
4-Jul-07	2	1	1	2	4	38	111	41	21	14	20	6	21	2	1	2	34	3	3	3	3	A	2	2	14.5	110.9	
5-Jul-07	42	3	2	2	2	15	13	16	10	14	2	31	38	1	13	10	3	3	3	24	A	32	15	1	12.8	41.8	
6-Jul-07	28	1	1	1	29	31	31	2	34	2	8	8	2	1	11	3	3	3	1	A	3	3	2	1	9.1	33.9	
7-Jul-07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	A	1	2	1	1	1	1.0	2.0	
8-Jul-07	1	1	1	1	34	2	3	3	3	4	2	2	1	2	2	2	2	A	3	3	3	2	2	2	3.5	33.6	
9-Jul-07	1	1	1	1	2	2	6	6	7	3	6	7	26	9	2	3	A	3	8	4	3	3	5	2	4.8	25.5	
10-Jul-07	3	12	2	3	5	17	16	38	15	10	4	3	2	3	2	A	3	1	1	1	2	6	2	1	6.6	38.1	
11-Jul-07	1	1	110	47	30	33	53	63	25	10	2	24	27	1	A	20	2	2	2	2	1	1	3	2	20.1	109.6	
12-Jul-07	1	1	11	5	76	33	19	16	4	2	2	1	1	A	4	2	2	1	1	1	1	24	1	3	9.2	75.8	
13-Jul-07	1	1	1	2	3	6	11	14	10	7	1	1	A	2	1	1	1	1	1	1	1	1	2	1	3.2	14.1	
14-Jul-07	1	1	1	1	2	2	3	2	2	2	16	A	2	3	2	1	1	1	1	1	6	34	58	18	7.1	58.5	
15-Jul-07	46	2	3	1	1	3	4	54	11	35	A	4	3	20	21	16	1	1	1	1	1	1	18	13	11.4	53.8	
16-Jul-07	1	1	1	0	1	4	82	4	30	A	13	2	1	1	39	1	9	1	1	2	1	1	1	1	8.7	82.3	
17-Jul-07	1	1	2	2	1	17	5	3	A	3	2	1	1	1	0	1	1	1	1	1	0	1	0	1	2.1	17.2	
18-Jul-07	2	1	1	1	1	1	2	A	2	2	1	1	1	2	3	2	1	1	1	1	1	1	1	1	1.3	2.6	
19-Jul-07	3	1	1	1	1	1	A	2	22	18	3	48	2	1	2	3	1	1	2	1	2	1	18	5	6.0	47.8	
20-Jul-07	1	1	49	191	171	A	9	12	9	22	4	2	1	2	1	2	3	2	1	1	1	1	3	P	22.1	190.8	
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0	
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0	
23-Jul-07	P	P	P	P	P	P	P	P	51	4	3	33	1	10	1	1	1	2	2	2	14	1	1	1	N	50.8	
24-Jul-07	1	11	A	2	2	35	3	4	71	55	3	13	14	12	3	4	2	2	2	1	2	1	3	1	10.8	71.5	
25-Jul-07	1	A	2	1	1	2	2	2	2	2	2	P	P	C	C	C	C	C	C	C	A	P	P	1	N	2.1	
26-Jul-07	2	1	A	2	34	11	8	12	17	19	C	C	C	1	13	1	2	21	2	2	1	2	1	1	7.6	33.9	
27-Jul-07	1	1	A	2	13	1	1	2	29	2	2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	29.2	
28-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
29-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
30-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	M	M	M	M	N	N	N	N	N	N	N	N	0.0
31-Jul-07	N	N	N	N	N	3	3	3	3	18	4	2	2	2	3	2	2	2	2	1	1	1	1	1	1	3.0	17.9
Hourly Avg	N	N	N	13.1	20.2	17.3	19.8	16.5	15.5	12.8	4.7	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
Hourly Max	106.0	69.2	131.1	190.8	170.7	118.9	110.9	69.5	71.5	65.2	20.1	57.4	38.2	19.8	38.6	19.9	33.8	21.1	8.0	24.3	30.9	34.1	58.5	17.9			



Station: Crescent Heights  
Station Owner: PAS

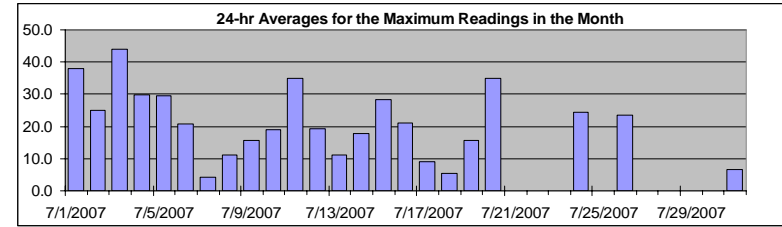
### INSTANTANEOUS (30 Second) MAXIMUM TABLE

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

Monitoring Dates: July 1, 2007 to August 1, 2007

#### Summary

Maximum 1-hr Value:	230.4	ppb	20-Jul	3:00 4:00
Maximum 24-hr Value:	44.1	ppb	3-Jul	



AIC Time:	26 hrs	Operational Time:	557 hrs						
Calibration Time:	10 hrs	AMD Operational Uptime:	79.7%						
Percentile	99	95	75	50	25	5	1	Average	Median
	136.2	69.9	25.5	9.9	5.3	2.5	1.8	20.8 ppb	9.9 ppb

#### Status Flag Characters

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

#### Day Mountain Standard Time

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum		
1-Jul-07	138	A	135	8	9	51	27	34	5	95	21	79	3	32	50	35	3	4	7	13	29	23	42	27	37.8	138.3		
2-Jul-07	A	63	67	24	17	24	23	103	11	14	6	42	7	30	14	39	6	5	4	6	11	6	30	A	25.1	102.7		
3-Jul-07	57	102	165	65	92	141	92	12	8	10	6	6	4	32	2	3	51	5	7	11	75	34	A	32	44.1	165.3		
4-Jul-07	21	18	19	13	15	65	140	66	42	31	47	20	53	5	3	5	68	6	5	5	14	A	12	13	29.8	139.7		
5-Jul-07	71	28	22	16	19	34	33	36	27	29	4	57	58	5	32	20	5	7	8	61	A	69	32	4	29.5	71.0		
6-Jul-07	59	6	4	7	60	62	48	9	63	7	21	31	7	6	30	5	6	11	5	A	10	8	9	5	20.8	63.5		
7-Jul-07	5	4	3	5	6	7	3	3	2	3	2	2	2	2	2	2	2	2	A	11	7	7	6	11	4.3	10.9		
8-Jul-07	4	7	8	6	69	12	19	19	12	13	9	6	3	5	3	5	6	A	12	8	7	6	10	6	11.1	69.3		
9-Jul-07	7	4	4	5	9	8	16	16	19	11	17	19	42	18	4	7	A	19	24	19	25	25	27	13	15.6	41.7		
10-Jul-07	12	34	15	14	21	28	28	55	25	22	10	7	4	6	6	A	15	5	8	4	29	34	28	27	19.0	55.2		
11-Jul-07	15	15	133	88	46	52	70	83	39	26	8	42	51	5	A	51	6	8	5	4	6	10	21	15	34.8	133.2		
12-Jul-07	18	15	32	24	105	53	33	30	10	4	4	2	1	A	16	6	5	3	3	5	6	48	8	9	19.2	105.2		
13-Jul-07	14	8	8	10	15	18	25	29	23	18	2	2	A	16	5	3	3	3	4	7	15	10	11	10	11.3	28.7		
14-Jul-07	15	15	8	10	26	11	11	7	4	5	37	A	18	9	7	7	6	4	4	4	22	50	92	39	17.8	91.6		
15-Jul-07	69	8	14	12	11	17	16	83	29	70	A	20	13	47	57	42	6	6	7	13	20	4	45	42	28.3	82.7		
16-Jul-07	8	2	2	1	10	16	124	17	52	A	31	12	5	5	85	7	27	10	11	20	14	9	7	9	21.1	123.5		
17-Jul-07	10	12	9	13	10	46	22	16	A	15	7	5	4	4	3	4	4	3	3	5	3	3	3	3	9.0	46.2		
18-Jul-07	4	3	2	5	5	4	11	A	9	5	5	4	4	6	9	10	7	5	5	4	4	3	3	2	5.3	11.3		
19-Jul-07	4	2	2	2	2	4	A	14	39	45	9	53	6	5	7	15	9	6	18	18	13	13	52	23	15.6	52.5		
20-Jul-07	9	18	84	230	208	A	35	30	26	46	13	8	5	7	4	6	5	5	3	3	5	12	8	P	35.0	230.4		
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0		
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0		
23-Jul-07	P	P	P	P	P	P	P	P	68	13	10	63	3	21	4	3	2	5	4	11	45	9	12	5	N	68.2		
24-Jul-07	4	42	A	33	10	73	21	18	108	85	15	27	27	20	8	7	8	9	9	6	12	6	5	4	24.3	107.7		
25-Jul-07	3	A	16	7	6	6	7	8	5	4	3	P	P	C	C	C	C	C	C	C	A	P	P	9	N	16.1		
26-Jul-07	8	5	A	23	60	33	24	29	36	46	C	C	C	13	31	12	13	60	14	16	15	17	8	8	23.6	60.0		
27-Jul-07	4	3	A	18	43	7	7	6	48	6	9	N	N	N	N	N	N	N	N	N	N	N	N	N	N	48.4	48.4	
28-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	0.0
29-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	0.0
30-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	M	M	M	M	N	N	N	N	N	N	N	N	0.0	0.0
31-Jul-07	N	N	N	N	N	8	8	7	6	39	9	7	6	4	8	6	2	2	2	2	2	2	3	4	6.6	38.5		
Hourly Avg	N	N	N	26.6	36.5	32.5	35.1	30.4	28.6	26.4	12.7	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Hourly Max	138.3	102.5	165.3	230.4	207.5	141.0	139.7	102.7	107.7	94.6	47.0	78.8	57.7	47.3	85.4	50.6	68.3	60.0	23.5	61.3	75.3	69.3	91.6	41.6				

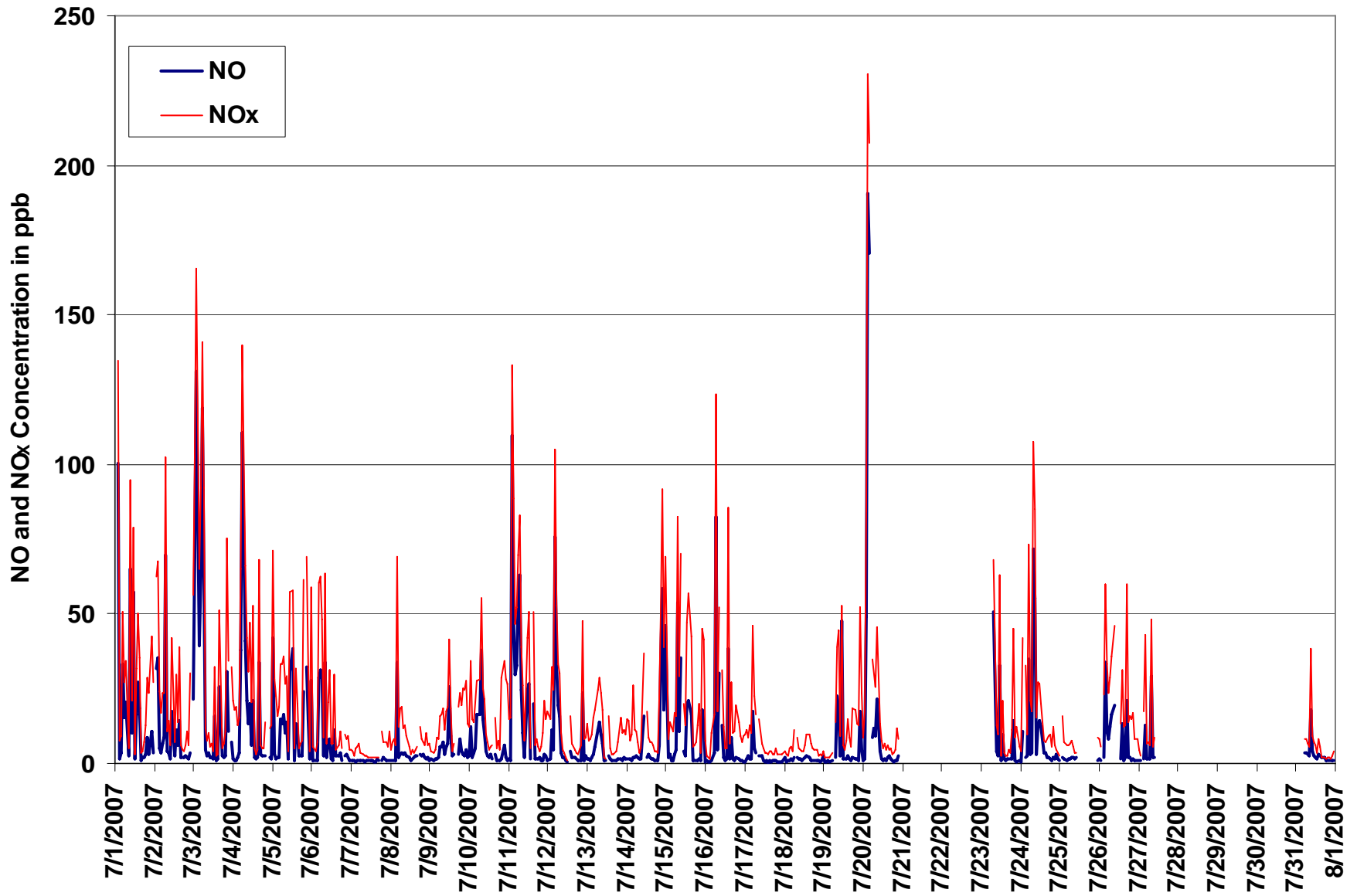


Figure 4. PAS - Crescent Heights Oxides of Nitrogen Instantaneous (30 Second) Maximum Value Monthly Trend





# PAS - Crescent Heights - Ozone Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

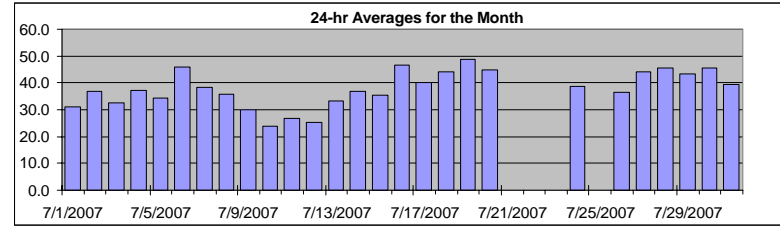
## HOURLY AVERAGE TABLE

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

Monitoring Dates: July 1, 2007 to August 1, 2007

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

Number of 1-hr Exceedances:	0		
Maximum 1-hr Average:	71.7 ppb	16-Jul	13:00 14:00
Maximum 24-hr Average:	48.8 ppb	19-Jul	



AIC Time:	30 hrs	Operational Time:	646 hrs						
Calibration Time:	7 hrs	AMD Operational Uptime:	91.8%						
Percentile	99	95	75	50	25	5	1	Average	Median
	68.2	60.9	48.8	39.2	28.0	11.6	6.1	38.0 ppb	39.2 ppb

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

Day	Mountain Standard Time																							24-hour Average	Daily Maximum		
Hour Start	0:00	1:00	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-Jul-07	16	A	18	19	17	15	20	25	26	31	39	40	42	43	43	43	45	46	44	40	36	27	25	18	31.1	45.6	
2-Jul-07	A	13	8	12	15	15	27	28	30	41	48	48	52	55	54	49	50	51	51	49	43	40	29	A	36.8	54.8	
3-Jul-07	3	2	2	6	3	11	17	24	32	38	49	54	51	50	54	55	51	54	57	48	42	A	A	11	32.4	57.4	
4-Jul-07	20	20	17	15	12	9	11	16	18	28	44	44	55	59	61	62	61	64	63	60	50	A	33	31	37.1	64.1	
5-Jul-07	19	15	15	17	14	11	16	20	38	44	49	50	50	50	48	47	44	43	39	34	A	38	42	42	34.2	50.4	
6-Jul-07	38	38	40	38	30	32	32	32	32	41	47	55	65	70	69	62	59	60	69	A	50	36	30	30	45.9	69.8	
7-Jul-07	32	34	33	32	29	27	32	35	39	43	43	45	45	45	45	46	46	46	A	43	39	38	37	30	38.4	45.9	
8-Jul-07	30	27	30	28	33	31	21	23	23	25	35	43	47	47	47	46	45	A	44	44	41	38	34	36	35.6	47.3	
9-Jul-07	32	33	35	31	28	25	23	27	33	36	32	29	28	37	40	36	A	33	31	30	22	27	21	19	29.9	40.1	
10-Jul-07	16	13	12	10	7	6	9	12	15	28	34	38	40	40	41	A	40	41	40	40	28	13	11	18	24.0	41.4	
11-Jul-07	15	11	12	10	7	5	10	16	23	36	37	41	41	45	A	42	44	44	44	42	31	25	18	15	26.8	44.6	
12-Jul-07	9	9	3	8	8	7	10	19	30	38	37	37	36	A	37	38	38	38	37	35	32	28	23	24	25.2	38.0	
13-Jul-07	20	20	18	14	9	10	13	17	27	39	47	47	A	54	55	54	52	50	48	43	39	34	26	28	33.3	55.3	
14-Jul-07	32	31	30	24	17	21	26	35	42	46	47	A	44	47	51	46	45	48	46	42	36	31	31	32	36.9	51.5	
15-Jul-07	29	29	23	22	18	16	17	20	28	32	A	37	41	42	47	51	56	56	54	46	45	46	31	26	35.3	55.8	
16-Jul-07	31	32	37	37	34	34	30	30	34	A	43	58	67	72	66	60	59	59	58	50	48	54	47	36	46.7	71.7	
17-Jul-07	30	27	26	21	23	16	18	26	A	38	45	53	55	55	58	59	59	55	54	49	45	41	38	36	40.3	59.0	
18-Jul-07	36	38	37	31	27	30	27	A	37	41	45	53	56	55	53	53	54	55	55	54	50	45	42	41	44.1	56.3	
19-Jul-07	41	44	49	50	47	44	A	51	52	53	56	55	57	57	56	54	60	56	43	44	45	41	34	31	48.8	59.5	
20-Jul-07	38	28	25	7	14	A	13	15	21	39	48	58	65	67	67	70	71	68	67	61	55	47	43	P	44.8	70.6	
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0	
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0	
23-Jul-07	P	P	P	P	P	P	P	P	P	17	31	38	42	49	43	47	55	56	54	56	49	49	58	56	58	N	58.5
24-Jul-07	60	54	A	51	47	32	26	26	24	27	26	33	40	39	39	43	42	44	43	44	32	33	43	40	38.6	59.6	
25-Jul-07	37	A	34	37	36	33	32	38	39	41	41	P	P	C	C	C	C	C	C	C	A	P	P	30	N	40.9	
26-Jul-07	28	28	A	15	14	17	19	20	27	37	45	47	48	48	49	50	48	47	45	42	39	35	43	47	36.4	49.9	
27-Jul-07	45	44	A	45	45	45	41	41	40	44	41	43	51	51	52	53	56	57	56	49	39	23	32	22	44.2	56.6	
28-Jul-07	34	31	A	26	29	28	32	36	43	51	62	60	63	65	62	63	64	68	66	61	47	23	10	19	45.4	68.2	
29-Jul-07	26	A	31	32	34	30	32	36	42	49	55	57	62	61	57	54	52	58	52	49	46	33	27	17	43.2	62.4	
30-Jul-07	A	26	29	27	28	26	27	31	35	44	49	63	68	63	61	60	58	59	59	55	49	46	41	43	45.6	68.3	
31-Jul-07	39	38	A	23	25	27	28	30	33	32	41	49	50	51	51	53	54	53	48	44	40	37	33	30	39.5	54.1	
Hourly Avg	29.1	27.4	N	24.7	23.2	22.3	22.6	27.0	31.5	38.3	43.7	47.4	50.7	52.3	52.3	51.9	52.1	52.0	50.8	46.1	41.4	35.9	32.6	30.0			
Hourly Max	59.6	54.2	49.5	51.2	47.4	44.6	41.3	50.7	52.2	53.4	62.2	63.4	68.3	71.7	68.7	70.2	70.6	68.2	69.0	61.4	54.7	58.5	56.4	58.0			

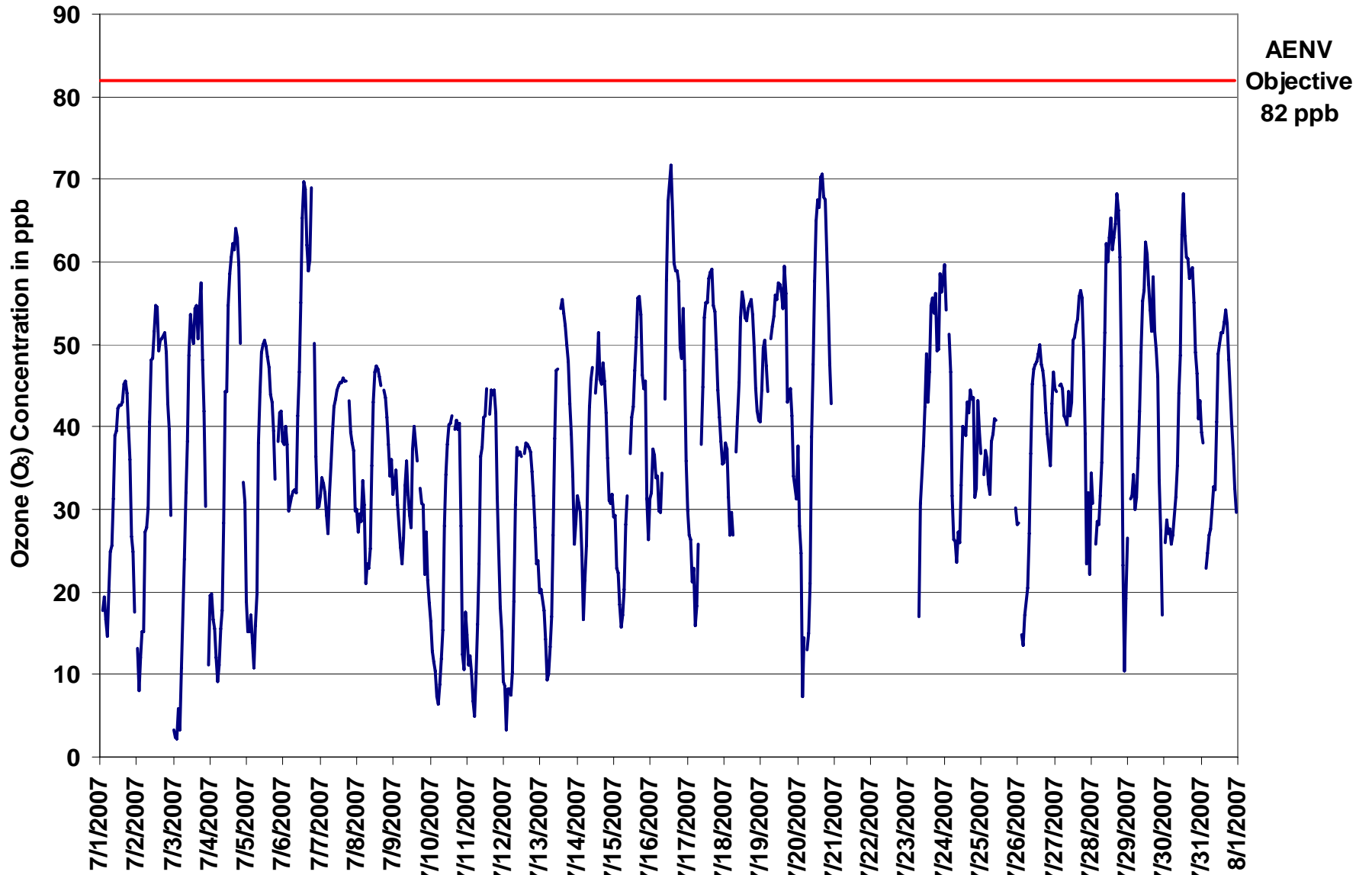


Figure 5. PAS - Crescent Heights Ozone 1-hr Average Monthly Trend



Station: Crescent Heights  
 Station Owner: PAS

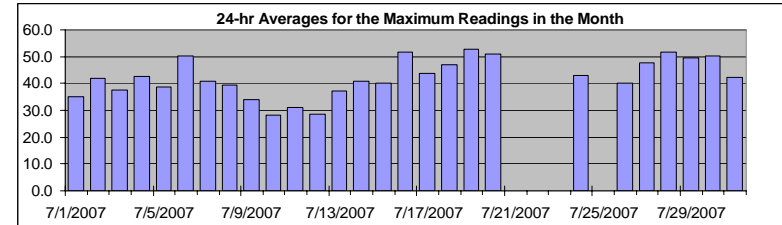
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: July 1, 2007 to August 1, 2007

**Summary**

Maximum 1-hr Value:	79.0	ppb	16-Jul	14:00 15:00
Maximum 24-hr Value:	52.9	ppb	19-Jul	



AIC Time:	30 hrs	Operational Time:	646 hrs						
Calibration Time:	7 hrs	AMD Operational Uptime:	91.8%						
Percentile	99	95	75	50	25	5	1	Average	Median
	72.2	65.7	52.7	42.9	33.0	17.2	10.6	42.3 ppb	42.9 ppb

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Jul-07	21	A	23	20	19	17	24	27	27	38	42	42	44	44	44	46	47	47	47	44	45	34	30	29	34.9	46.9
2-Jul-07	A	21	16	18	19	27	31	31	35	49	52	53	54	59	56	53	55	53	53	51	50	43	38	A	41.8	59.4
3-Jul-07	9	8	6	16	15	15	23	27	35	46	54	55	55	53	56	58	54	60	61	53	49	43	A	18	37.7	61.4
4-Jul-07	26	27	26	20	15	12	20	19	22	44	52	52	59	61	63	66	65	67	68	64	56	A	45	33	42.6	67.8
5-Jul-07	32	28	20	20	18	15	24	24	45	49	51	52	53	51	50	50	46	46	43	43	A	40	43	43	38.7	53.1
6-Jul-07	42	40	42	41	35	35	35	35	37	45	50	62	69	72	72	70	63	71	72	A	54	43	33	31	50.1	72.4
7-Jul-07	33	35	35	34	32	32	34	39	42	44	45	46	47	47	46	47	48	47	A	45	44	41	41	34	40.7	47.5
8-Jul-07	33	30	35	31	43	42	28	26	26	30	39	46	48	50	49	49	47	A	47	46	44	39	38	42	39.6	50.0
9-Jul-07	35	35	38	34	31	28	27	29	38	44	36	34	33	40	42	40	A	35	34	34	33	30	27	25	34.0	43.8
10-Jul-07	20	20	19	13	12	10	13	14	21	33	37	41	41	43	44	A	43	42	42	42	42	19	15	22	28.1	43.7
11-Jul-07	19	14	16	14	10	10	17	22	31	41	41	44	44	48	A	44	48	47	47	46	36	29	26	20	31.1	47.9
12-Jul-07	14	12	9	14	13	11	16	26	35	40	39	39	39	A	38	39	39	39	39	37	34	34	26	26	28.6	39.7
13-Jul-07	25	24	21	21	14	14	18	20	33	46	49	49	A	56	57	56	54	52	50	46	43	42	29	35	37.2	57.2
14-Jul-07	36	33	34	31	25	25	34	39	45	51	50	A	49	50	53	49	48	50	47	43	39	38	35	34	40.9	53.3
15-Jul-07	34	33	26	30	20	19	20	27	34	36	A	41	44	50	51	55	58	58	56	51	52	51	40	35	40.0	57.9
16-Jul-07	33	38	39	38	37	37	35	34	39	A	53	66	70	76	79	64	63	63	63	55	53	57	56	43	51.8	79.0
17-Jul-07	32	32	29	25	24	28	23	29	A	42	53	57	59	57	60	61	61	59	57	53	47	43	42	38	43.8	60.7
18-Jul-07	38	40	39	36	31	32	30	A	43	45	50	57	58	57	56	55	56	57	57	55	54	47	43	42	46.9	57.9
19-Jul-07	42	49	52	52	51	46	A	54	54	57	59	58	60	60	58	59	62	61	54	53	53	48	40	38	52.9	61.8
20-Jul-07	52	33	35	20	21	A	17	18	34	49	55	63	69	71	72	76	74	72	70	64	57	53	47	P	50.9	76.3
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0
23-Jul-07	P	P	P	P	P	P	P	P	27	37	42	49	51	48	53	57	58	57	58	56	58	63	61	61	N	63.2
24-Jul-07	62	61	A	54	51	47	31	29	30	32	30	39	43	43	42	46	44	48	47	47	36	42	46	41	43.1	62.3
25-Jul-07	40	A	36	39	39	37	34	41	41	42	43	P	P	C	C	C	C	C	C	C	A	P	P	33	N	42.6
26-Jul-07	30	31	A	18	18	25	28	26	30	42	48	49	50	51	51	52	50	49	48	45	45	41	46	49	40.0	52.1
27-Jul-07	47	46	A	47	47	47	43	43	44	47	44	49	53	54	54	55	59	59	58	54	48	32	35	34	47.9	59.4
28-Jul-07	38	35	A	30	31	31	38	42	46	61	65	65	69	68	65	68	70	72	72	69	60	46	22	28	51.7	72.4
29-Jul-07	31	A	34	36	38	33	35	41	45	58	61	67	68	66	63	61	60	62	59	59	50	46	34	34	49.6	68.2
30-Jul-07	A	34	34	33	30	28	30	36	44	49	57	71	73	68	64	65	62	62	62	59	53	49	46	46	50.3	72.5
31-Jul-07	42	40	A	25	28	29	30	32	34	40	49	52	53	53	54	56	56	55	50	47	42	40	36	32	42.4	55.6
Hourly Avg	33.4	31.9	N	28.9	27.4	27.1	27.4	30.8	36.4	44.1	48.1	51.8	53.8	55.5	55.3	55.4	55.1	55.1	54.2	50.4	47.2	42.0	37.7	35.1		
Hourly Max	62.3	60.7	51.5	54.5	50.7	47.2	43.2	53.6	54.4	60.8	65.3	71.1	72.5	76.0	79.0	76.3	74.3	71.9	72.4	68.6	60.3	63.2	60.8	61.2		

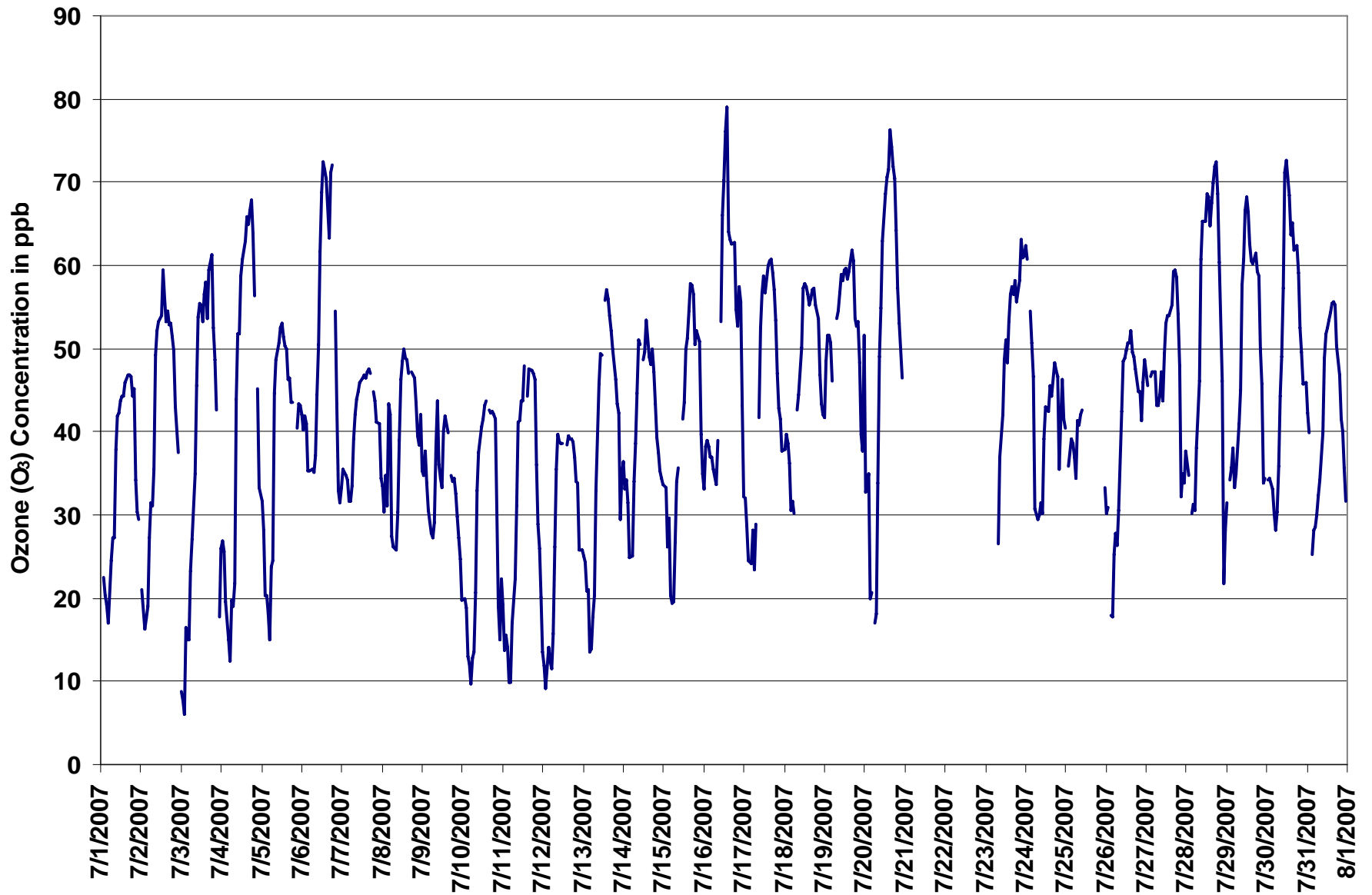
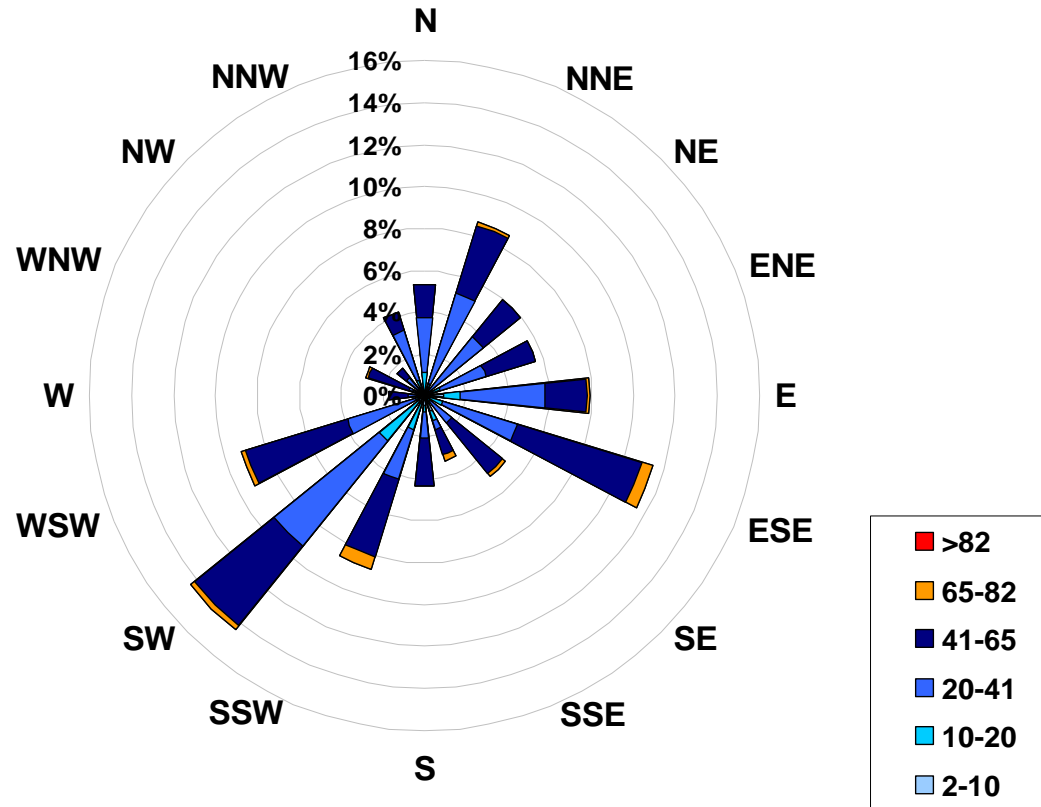


Figure 6. PAS - Crescent Heights Ozone Instantaneous (30 Second) Maximum Value Monthly Trend



**1-hr Average Concentration Rose for Ozone (in ppb) Located at the Crescent Heights Site for July 2007**



**Calms: 0%**

Frequency Distribution of O <sub>3</sub> in ppb			Frequency (hrs)
Range			
2.0	< 10		21
10	to 20		70
20	to 41		261
41	to 65		277
65	to 82		17
	> 82		0
Total Non-Zero Values			646



# PAS - Crescent Heights - Ozone Eight Hour Average Summary

Station: Crescent Heights  
Station Owner: PAS

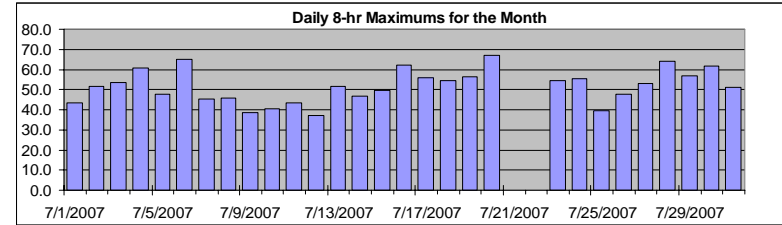
## EIGHT HOUR RUNNING AVERAGE TABLE

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

Monitoring Dates: July 1, 2007 to August 1, 2007

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

Number of 8-hr Exceedances:	3		
Maximum 8-hr Average:	67.0 ppb	20-Jul	19:00 20:00



Percentile	99	95	75	50	25	5	1
	63.7	57.8	46.9	38.0	29.6	15.8	10.6

### Status Flag Characters

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

Day	Mountain Standard Time																							Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00
1-Jul-07	36	34	31	28	24	21	19	19	20	21	24	26	30	33	36	38	41	42	43	43	42	40	38	35	43.1
2-Jul-07	34	29	24	20	17	15	15	17	19	22	27	32	36	41	44	47	50	51	51	51	50	48	45	45	51.4
3-Jul-07	38	31	24	18	12	8	6	9	12	17	23	28	34	39	44	48	50	52	53	53	51	49	48	42	53.3
4-Jul-07	38	33	27	22	18	15	14	15	15	16	19	23	28	34	41	46	52	56	59	61	60	60	56	52	60.5
5-Jul-07	46	39	32	26	21	19	17	16	18	22	26	30	35	40	44	47	48	48	47	44	44	42	41	40	47.9
6-Jul-07	39	39	39	39	38	37	36	35	34	35	36	38	42	47	51	55	58	61	64	65	63	58	52	48	64.8
7-Jul-07	44	40	35	35	32	31	31	32	33	34	35	37	39	41	43	44	45	45	45	45	44	43	42	40	45.4
8-Jul-07	38	35	34	32	32	31	29	28	27	27	28	29	31	33	36	39	42	44	46	46	45	44	42	40	45.7
9-Jul-07	38	38	37	35	33	32	30	29	29	30	29	29	29	31	33	34	34	34	33	34	33	31	29	26	38.4
10-Jul-07	25	22	20	18	16	13	12	11	11	12	15	19	23	27	31	34	37	39	40	40	39	35	30	29	40.4
11-Jul-07	26	22	18	15	12	11	11	11	12	15	18	22	26	31	34	38	41	42	43	43	42	39	36	33	43.2
12-Jul-07	29	24	19	15	12	10	9	9	12	16	20	23	27	30	33	36	37	37	37	37	36	35	33	32	37.2
13-Jul-07	29	27	25	22	20	17	16	15	16	18	22	26	29	35	41	46	50	51	52	51	49	47	43	40	51.5
14-Jul-07	37	35	33	30	28	26	26	27	28	30	32	33	37	41	45	46	47	47	47	46	45	43	40	39	46.9
15-Jul-07	37	34	32	29	27	25	23	22	22	22	22	24	27	31	35	40	44	47	48	49	49	50	48	45	49.9
16-Jul-07	42	39	37	36	34	33	33	33	33	34	35	38	42	48	53	57	61	60	62	61	59	57	54	51	62.3
17-Jul-07	48	44	40	36	33	28	25	23	22	24	27	31	36	41	47	52	53	55	56	55	54	52	50	47	55.9
18-Jul-07	44	42	40	38	36	34	33	32	32	33	34	37	41	45	49	49	51	53	54	54	54	52	51	49	54.5
19-Jul-07	48	46	46	45	45	45	45	47	48	50	51	51	53	55	55	55	56	57	55	53	52	50	47	44	56.5
20-Jul-07	41	38	36	31	27	25	22	20	18	19	22	30	37	41	47	54	60	64	67	67	66	63	60	59	67.0
21-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
22-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
23-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	38	40	45	48	50	51	51	53	54	55	54.6
24-Jul-07	55	55	55	55	55	51	47	42	37	33	32	30	29	30	32	34	36	38	40	42	41	40	40	40	55.3
25-Jul-07	39	39	37	36	37	37	36	35	36	36	37	37	N	N	N	N	N	N	N	N	N	N	N	N	39.4
26-Jul-07	N	N	N	N	N	N	22	20	20	21	24	28	33	36	40	44	46	48	48	47	46	44	44	43	47.6
27-Jul-07	43	42	42	43	43	45	45	44	43	43	43	43	43	44	45	47	49	50	52	53	52	48	46	42	52.9
28-Jul-07	39	36	33	30	28	29	29	31	32	35	38	43	47	52	55	59	61	63	64	64	62	57	50	45	64.0
29-Jul-07	40	36	31	27	25	26	29	32	34	36	39	42	45	49	52	55	56	57	57	56	54	50	46	42	57.0
30-Jul-07	40	36	33	29	27	26	26	28	29	31	33	38	43	48	52	55	58	60	61	60	58	56	53	51	61.5
31-Jul-07	49	46	45	40	37	34	32	30	29	28	30	33	36	39	42	45	48	50	51	51	49	48	45	42	51.2

Hourly Max 55.1 55.2 55.0 55.3 54.9 51.1 46.8 46.8 48.4 49.7 50.6 51.3 52.8 54.6 55.3 58.7 61.4 64.1 66.6 67.0 65.8 63.3 60.3 58.9



# PAS - Crescent Heights - Carbon Monoxide Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

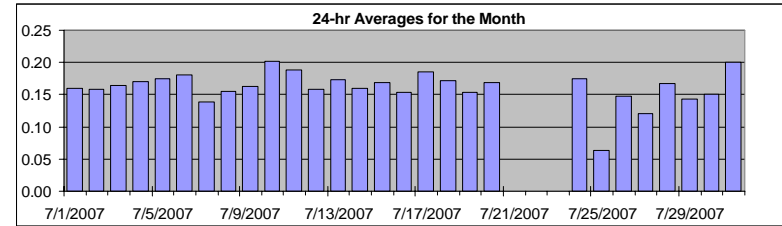
## HOURLY AVERAGE TABLE

## Carbon Monoxide (CO)

Monitoring Dates: July 1, 2007 to August 1, 2007

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

Number of 1-hr Exceedances:	0			
Maximum 1-hr Average:	0.4	ppm	10-Jul	21:00 22:00
Maximum 24-hr Value:	0.2	ppm	10-Jul	



AIC Time:	30 hrs	Operational Time:	651 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	91.8%						
Percentile	99	95	75	50	25	5	1	Average	Median
	0.3	0.3	0.2	0.2	0.1	0.1	0.0	0.2 ppm	0.2 ppm

### Status Flag Characters

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

Day	Mountain Standard Time																							24-hour Average	Daily Maximum			
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
1-Jul-07	0.2	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.3	0.2	0.2		0.16	0.30	
2-Jul-07	A	0.2	0.2	0.2	0.2	0.3	0.2	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	0.2	0.2	A		0.16	0.26	
3-Jul-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	A	0.3		0.16	0.29	
4-Jul-07	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	A	0.1	0.1		0.17	0.25	
5-Jul-07	0.1	0.2	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	A	0.2	0.1	0.1		0.18	0.34	
6-Jul-07	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	0.2	0.2		0.18	0.25	
7-Jul-07	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.1	0.2	0.1	0.1	0.2		0.14	0.20	
8-Jul-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	A	0.2	0.2	0.2	0.1	0.2	0.2		0.16	0.20
9-Jul-07	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	A	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2		0.16	0.22
10-Jul-07	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	A	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.2		0.20	0.44	
11-Jul-07	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2		0.19	0.30	
12-Jul-07	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2		0.16	0.32	
13-Jul-07	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.2	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2		0.17	0.36	
14-Jul-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.16	0.25	
15-Jul-07	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	A	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2		0.17	0.25	
16-Jul-07	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.15	0.23	
17-Jul-07	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	A	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.18	0.31	
18-Jul-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.17	0.23	
19-Jul-07	0.1	0.1	0.1	0.1	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.2		0.15	0.23	
20-Jul-07	0.2	0.2	0.2	0.2	0.2	A	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	P		0.17	0.28	
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		N	0.00	
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		N	0.00	
23-Jul-07	P	P	P	P	P	P	P	P	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2		N	0.32	
24-Jul-07	0.1	0.2	A	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.17	0.29	
25-Jul-07	0.2	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	P	P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	P	P	0.1	0.06	0.15	
26-Jul-07	0.1	0.1	A	0.1	0.1	0.2	0.3	0.3	0.2	0.1	C	C	A	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1		0.15	0.32	
27-Jul-07	0.1	0.1	A	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.2		0.12	0.22	
28-Jul-07	0.1	0.1	A	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	0.0	0.1	0.1	0.1	0.2	0.4	0.3	0.2		0.17	0.41
29-Jul-07	0.1	A	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2		0.14	0.20	
30-Jul-07	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.15	0.25	
31-Jul-07	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		0.20	0.23	
Hourly Avg	0.16	0.17	N	0.17	0.18	0.21	0.22	0.22	0.20	0.17	0.16	0.15	0.15	0.13	0.13	0.12	0.12	0.12	0.14	0.14	0.16	0.18	0.17	0.17				
Hourly Max	0.20	0.21	0.20	0.23	0.23	0.30	0.32	0.36	0.32	0.28	0.22	0.23	0.23	0.21	0.21	0.21	0.21	0.21	0.23	0.28	0.29	0.44	0.31	0.26				



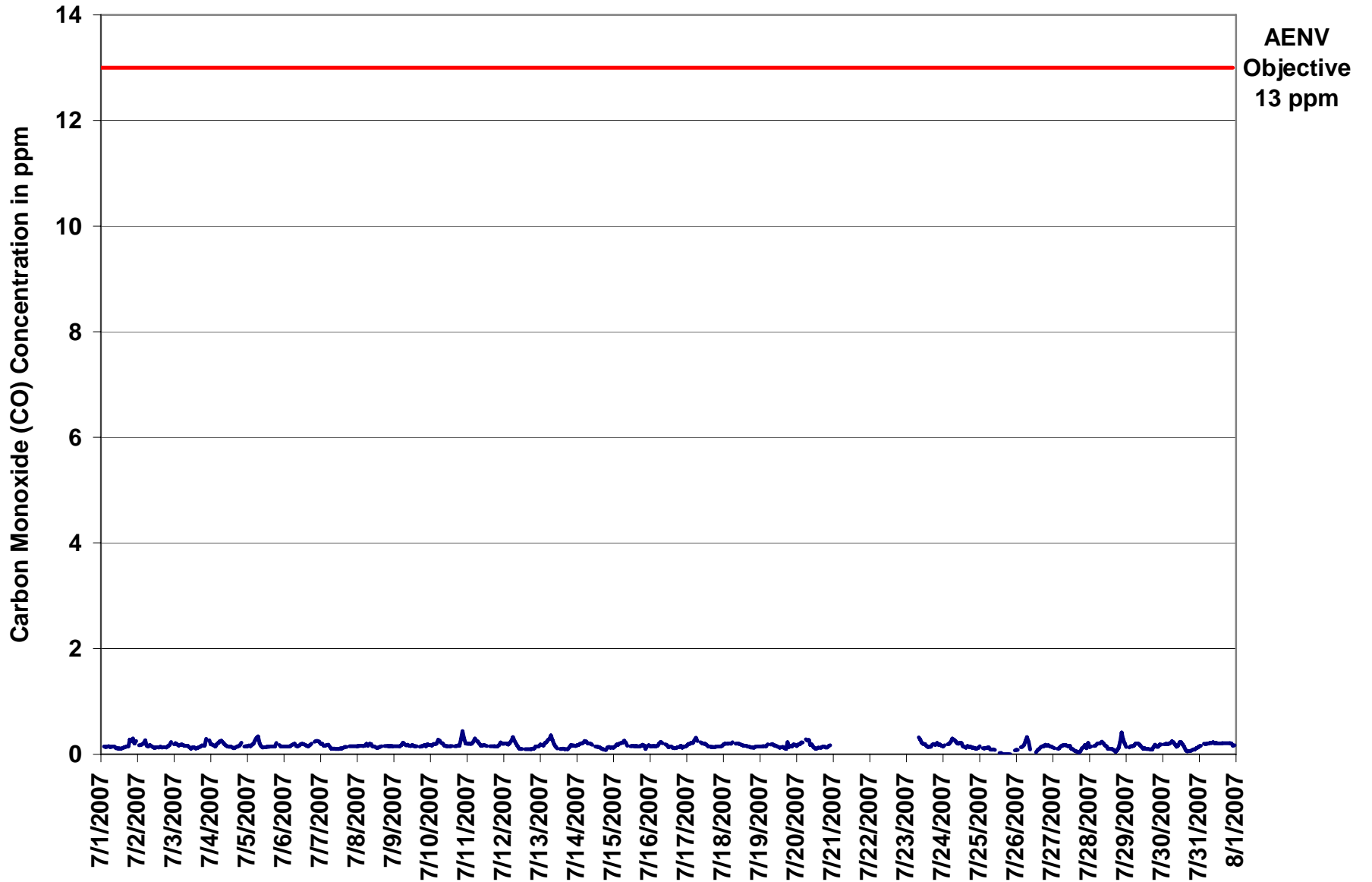


Figure 7. PAS - Crescent Heights Carbon Monoxide 1-hr Average Monthly Trend



Station: Crescent Heights  
 Station Owner: PAS

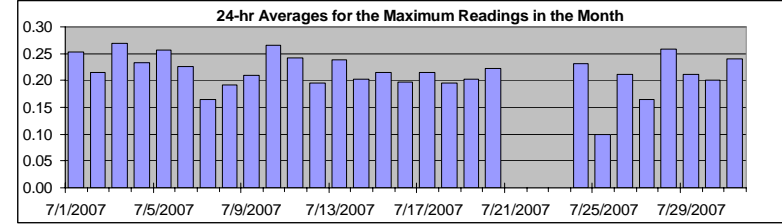
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

**Carbon Monoxide (CO)**

Monitoring Dates: July 1, 2007 to August 1, 2007

**Summary**

Maximum 1-hr Value:	1.5	ppm	3-Jul	21:00 22:00
Maximum 24-hr Value:	0.3	ppm	3-Jul	



AIC Time:	30 hrs	Operational Time:	651 hrs							
Calibration Time:	2 hrs	AMD Operational Uptime:	91.8%							
Percentile	99	95	75	50	25	5	1	Average	Median	
	0.6	0.4	0.2	0.2	0.1	0.0	0.2	ppm	0.2	ppm

**Status Flag Characters**

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

**Day Mountain Standard Time**

Day	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum	
1-Jul-07	Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	0.25	0.91	
2-Jul-07		A	A	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.44
3-Jul-07		0.2	0.2	0.2	0.2	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	1.5	A	0.3	0.27	1.46	
4-Jul-07		0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.3	A	0.1	0.2	0.23	0.35	
5-Jul-07		0.2	0.5	0.2	0.2	0.2	0.4	0.7	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.4	A	0.2	0.2	0.1	0.26	0.67	
6-Jul-07		0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	A	0.3	0.3	0.3	0.3	0.23	0.44	
7-Jul-07		0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.16	0.20	
8-Jul-07		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.20	
9-Jul-07		0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.21	0.35	
10-Jul-07		0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	A	0.2	0.2	0.3	0.2	0.5	0.6	0.4	0.3	0.27	0.56	
11-Jul-07		0.2	0.3	0.3	0.2	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.5	0.3	0.24	0.50	
12-Jul-07		0.2	0.3	0.2	0.2	0.3	0.4	0.4	0.4	0.2	0.2	0.2	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.2	0.20	0.41	
13-Jul-07		0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.4	0.3	0.2	0.2	A	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.2	0.24	0.51	
14-Jul-07		0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.20	0.31	
15-Jul-07		0.1	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.2	A	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.22	0.31	
16-Jul-07		0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.3	A	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.2	0.20	0.35	
17-Jul-07		0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.3	A	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.21	0.37	
18-Jul-07		0.2	0.2	0.2	0.2	0.3	0.2	0.3	A	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.20	0.30	
19-Jul-07		0.1	0.1	0.1	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.5	0.1	0.1	0.4	0.2	0.3	0.2	0.2	0.2	0.20	0.46	
20-Jul-07		0.2	0.2	0.2	0.3	0.3	A	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.36	
21-Jul-07		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.00	
22-Jul-07		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.00	
23-Jul-07		P	P	P	P	P	P	P	P	0.3	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	N	0.39	
24-Jul-07		0.2	0.2	A	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.2	0.23	0.35	
25-Jul-07		0.2	A	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	P	P	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	P	P	0.10	0.31	
26-Jul-07		0.1	0.1	A	0.1	0.2	0.2	0.3	0.4	0.3	0.2	C	C	A	0.1	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.21	0.48	
27-Jul-07		0.1	0.1	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.1	0.4	0.16	0.39	
28-Jul-07		0.1	0.1	A	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.8	0.8	0.5	0.3	0.26	0.84
29-Jul-07		0.1	A	0.1	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.6	0.1	0.1	0.1	0.1	0.1	0.4	0.3	0.2	0.2	0.2	0.2	0.21	0.55	
30-Jul-07		A	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.20	0.41	
31-Jul-07		0.2	0.2	A	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.4	0.24	0.41	
Hourly Avg		0.18	0.20	N	0.20	0.23	0.28	0.30	0.28	0.24	0.21	0.20	0.19	0.21	0.17	0.19	0.17	0.16	0.16	0.19	0.22	0.25	0.30	0.23	0.23			
Hourly Max		0.30	0.45	0.26	0.30	0.35	0.45	0.67	0.51	0.42	0.39	0.39	0.26	0.55	0.25	0.48	0.46	0.29	0.30	0.40	0.91	0.84	1.46	0.50	0.41			

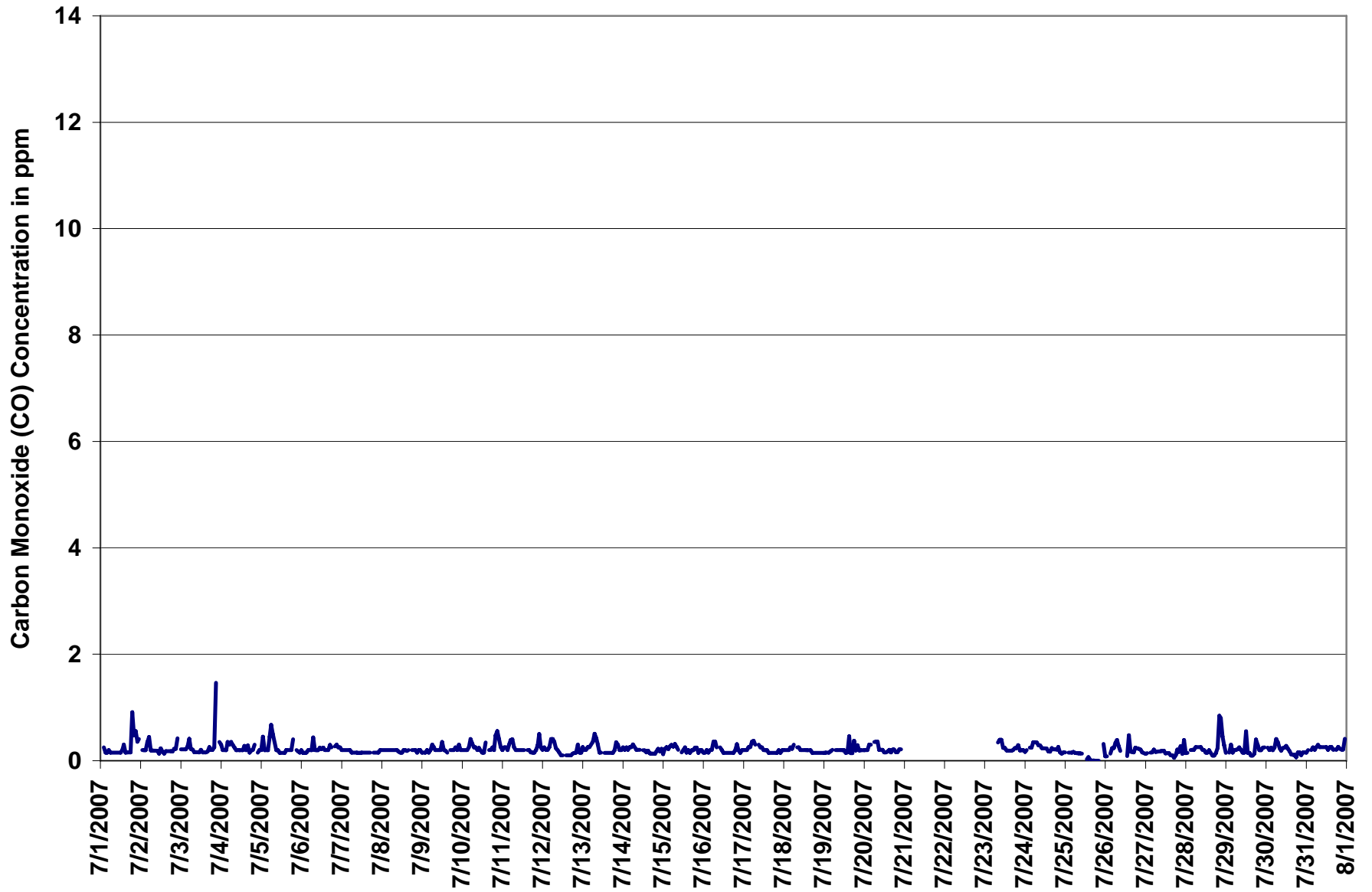
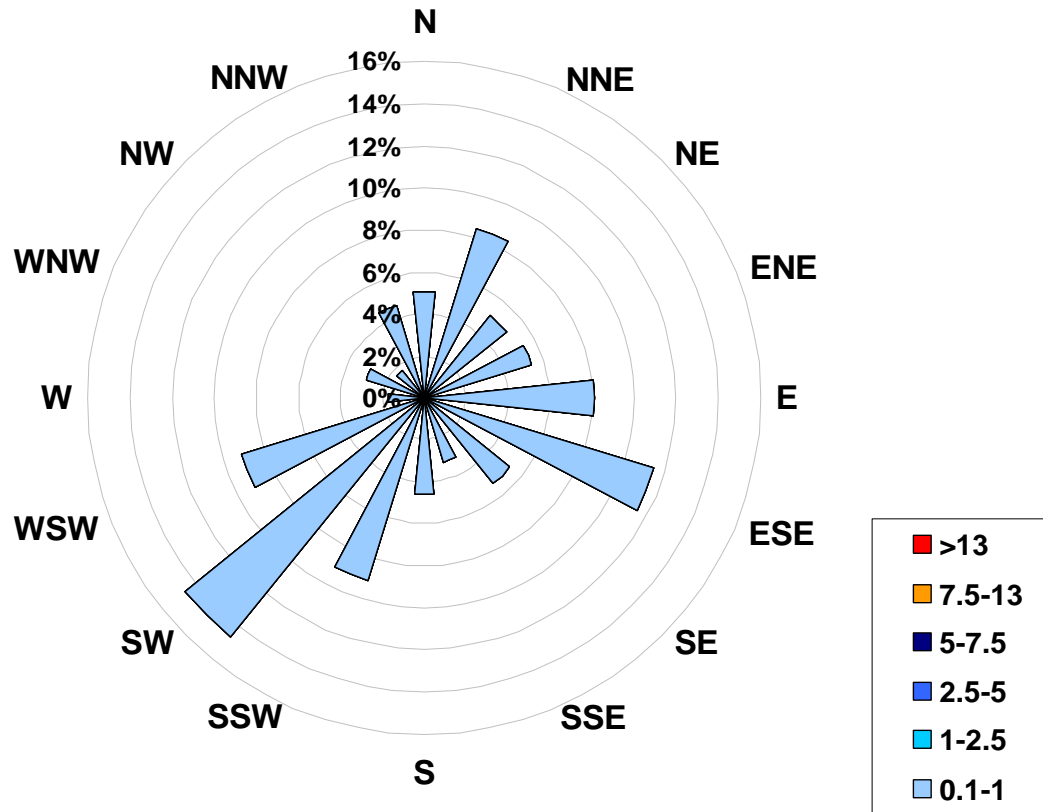


Figure 8. PAS - Crescent Heights Carbon Monoxide Instantaneous (30 Second) Maximum Value Monthly Trend



**1-hr Average Concentration Rose for Carbon Monoxide (in ppm) Located at the Crescent Heights Site for July 2007**



**Calms: 0%**

Frequency Distribution of CO in ppm			
Range			Frequency (hrs)
0.1	<	1	651
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			651



# PAS - Crescent Heights - Carbon Monoxide Eight Hour Average Summary

Station: Crescent Heights  
Station Owner: PAS

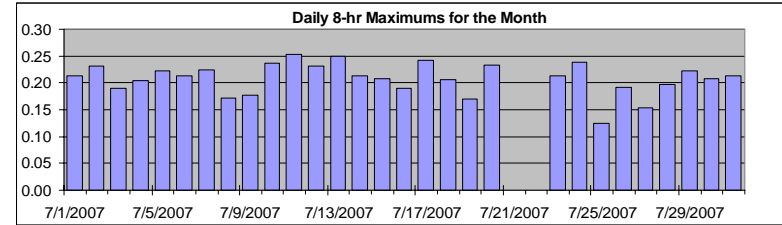
## EIGHT HOUR RUNNING AVERAGE TABLE

## Carbon Monoxide (CO)

Monitoring Dates: July 1, 2007 to August 1, 2007

Objective Limit: Alberta Environment: 8-hr 5 ppm

Number of 8-hr Exceedances:	0						
Maximum 8-hr Average:	0.3	ppm	11-Jul	3:00	4:00		



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

### Status Flag Characters

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

Day	Mountain Standard Time																							Daily Maximum		
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	
1-Jul-07	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.21
2-Jul-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.23
3-Jul-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.19
4-Jul-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.20
5-Jul-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.22
6-Jul-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
7-Jul-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.22
8-Jul-07	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	0.1	0.1	0.1	0.1	0.2	0.2	0.17
9-Jul-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
10-Jul-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
11-Jul-07	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
12-Jul-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.23
13-Jul-07	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.25
14-Jul-07	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.21
15-Jul-07	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.21
16-Jul-07	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.19
17-Jul-07	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.24
18-Jul-07	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.21
19-Jul-07	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.17
20-Jul-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.23
21-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.00
22-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.00
23-Jul-07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
24-Jul-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.24
25-Jul-07	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	N	N	N	N	N	N	N	N	0.0	0.0	0.0	N	N	0.13
26-Jul-07	N	N	N	N	N	N	0.1	0.2	0.2	0.2	N	N	N	N	N	N	N	N	N	N	0.1	0.1	0.1	0.1	0.2	0.19
27-Jul-07	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15
28-Jul-07	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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.20
29-Jul-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.22
30-Jul-07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.21
31-Jul-07	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21

Hourly Max 0.24 0.25 0.25 0.25 0.25 0.23 0.22 0.24 0.25 0.25 0.25 0.24 0.24 0.23 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.22 0.24 0.23



## PAS - Crescent Heights - Total Hydrocarbons Monthly Summary

Station: Crescent Heights  
 Station Owner: PAS

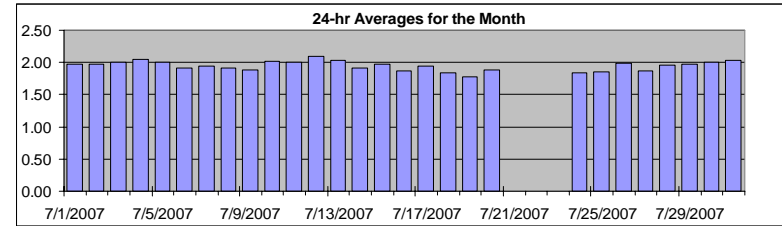
### HOURLY AVERAGE TABLE

### Total Hydrocarbons (THC)

Monitoring Dates: July 1, 2007 to August 1, 2007

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

Maximum 1-hr Average:	3.0	ppm	12-Jul	2:00 3:00
Maximum 24-hr Value:	2.1	ppm	12-Jul	



AIC Time:	30 hrs	Operational Time:	650 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	91.8%						
Percentile	99	95	75	50	25	5	1	Average	Median
	2.4	2.2	2.0	1.9	1.9	1.8	1.7	1.9 ppm	1.9 ppm

#### Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum		
	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00			23:00	0:00
1-Jul-07	2.4	A	2.0	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.2	2.0	2.1	1.97	2.44
2-Jul-07	A	2.0	2.1	2.3	2.4	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.1	A	1.98	2.36
3-Jul-07	2.2	2.2	2.3	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.2	2.01	2.26	
4-Jul-07	2.1	2.2	2.2	2.1	2.3	2.3	2.3	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.0	2.0	2.05	2.33	
5-Jul-07	2.0	2.1	2.1	2.3	2.5	2.6	2.4	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.8	1.9	A	1.8	1.8	1.8	2.00	2.62	
6-Jul-07	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	2.0	2.1	2.0	1.91	2.07	
7-Jul-07	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	1.9	1.9	1.94	2.07	
8-Jul-07	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.91	2.02	
9-Jul-07	1.9	1.8	1.9	1.8	1.8	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.8	1.8	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.88	2.01	
10-Jul-07	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	2.0	2.1	2.2	2.1	2.02	2.21	
11-Jul-07	2.1	2.1	2.1	2.2	2.3	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.1	2.01	2.26	
12-Jul-07	2.3	2.4	3.0	2.3	2.7	2.4	2.5	2.4	2.1	1.9	1.9	1.8	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.0	1.9	2.0	2.10	3.01	
13-Jul-07	2.0	2.1	2.1	2.3	2.4	2.3	2.4	2.4	2.2	2.0	1.9	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.1	2.1	2.0	2.03	2.39	
14-Jul-07	2.1	2.0	2.1	2.2	2.2	2.1	2.1	2.0	2.0	1.9	1.8	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.92	2.17	
15-Jul-07	1.9	1.9	2.1	2.1	2.1	2.2	2.3	2.2	2.0	1.9	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.0	1.9	2.0	1.97	2.26	
16-Jul-07	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	2.0	1.87	1.97	
17-Jul-07	2.1	2.2	2.1	2.3	2.3	2.2	2.1	2.1	A	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.94	2.28	
18-Jul-07	1.9	1.9	1.9	1.9	2.0	1.9	1.9	A	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.84	1.99	
19-Jul-07	1.9	1.9	1.8	1.8	1.8	1.8	A	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.78	1.86	
20-Jul-07	1.9	1.9	1.9	2.0	2.1	A	2.1	2.1	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.8	P	1.89	2.13
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.00
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.00
23-Jul-07	P	P	P	P	P	P	P	P	P	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.8	1.9	1.9	N	2.11
24-Jul-07	1.8	1.9	A	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.8	1.8	1.8	1.83	1.94
25-Jul-07	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	P	P	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	P	P	1.9	1.85	1.92
26-Jul-07	1.9	1.9	A	2.4	2.3	2.1	2.0	2.0	C	C	C	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.98	2.44	
27-Jul-07	1.9	1.9	A	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.0	1.9	2.0	1.87	2.05
28-Jul-07	2.0	1.9	A	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.8	1.9	1.9	2.1	2.2	2.2	2.3	1.95	2.26	
29-Jul-07	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.0	2.1	2.3	2.2	1.97	2.28
30-Jul-07	A	2.1	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	2.1	2.1	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.00	2.14
31-Jul-07	2.1	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.03	2.14	
Hourly Avg	2.00	2.00	N	2.07	2.10	2.07	2.06	2.02	2.02	1.96	1.91	1.89	1.88	1.87	1.86	1.85	1.84	1.84	1.84	1.84	1.86	1.88	1.93	1.96	1.97	1.98		
Hourly Max	2.44	2.39	3.01	2.44	2.67	2.62	2.51	2.40	2.16	2.09	2.04	2.09	2.14	2.06	1.95	1.94	1.93	1.92	1.97	2.01	2.14	2.22	2.28	2.26				

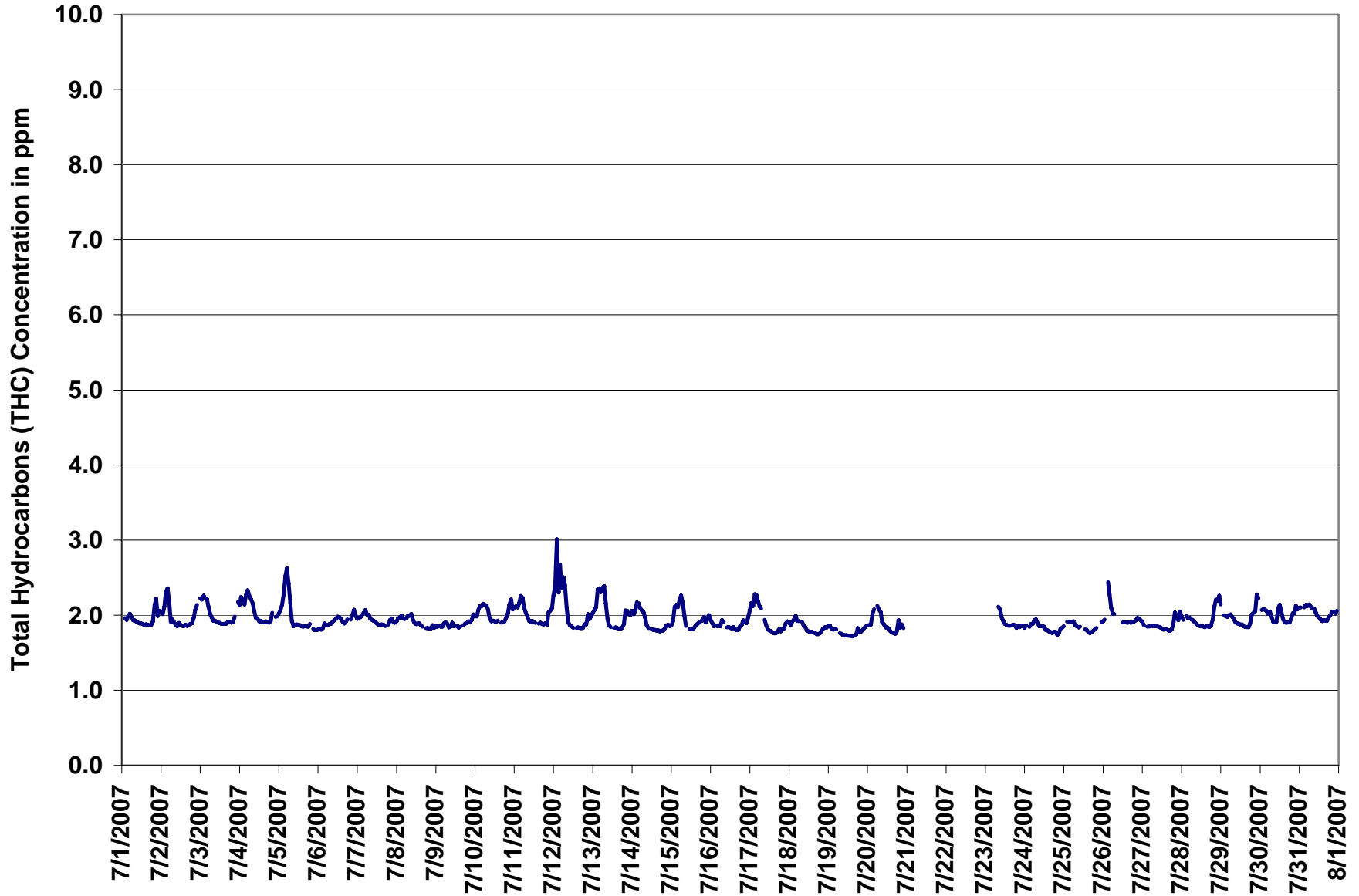


Figure 9. PAS - Crescent Heights Total Hydrocarbons 1-hr Average Monthly Trend





Station: Crescent Heights  
 Station Owner: PAS

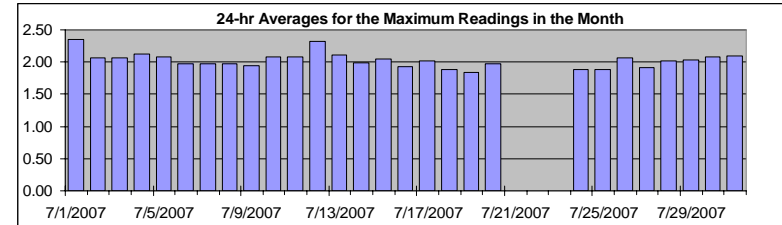
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

**Total Hydrocarbons (THC)**

Monitoring Dates: July 1, 2007 to August 1, 2007

**Summary**

Maximum 1-hr Value:	9.5	ppm	1-Jul	0:00 1:00
Maximum 24-hr Value:	2.4	ppm	1-Jul	



AIC Time:	30 hrs	Operational Time:	650 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	91.8%						
Percentile	99	95	75	50	25	5	1	Average	Median
	2.7	2.4	2.1	2.0	1.9	1.8	1.8	2.0 ppm	2.0 ppm

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start	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	
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	Average	Maximum	
1-Jul-07	9.5	A	2.0	2.0	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.4	2.7	2.0	2.1	2.35	9.52	
2-Jul-07	A	2.1	2.2	2.4	2.5	2.5	2.0	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.2	2.3	A	2.06	2.49	
3-Jul-07	2.3	2.3	2.4	2.3	2.3	2.3	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.1	A	2.3	2.07	2.39	
4-Jul-07	2.3	2.3	2.3	2.2	2.4	2.4	2.4	2.3	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.2	A	2.1	2.0	2.13	2.42	
5-Jul-07	2.1	2.1	2.2	2.4	2.7	2.7	2.6	2.4	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	1.8	1.9	1.8	2.08	2.75	
6-Jul-07	1.8	1.9	1.9	1.9	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	2.0	A	2.1	2.1	2.1	2.1	1.97	2.11	
7-Jul-07	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	2.0	2.0	2.0	2.0	1.98	2.11	
8-Jul-07	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.8	1.8	1.9	2.2	2.0	1.97	2.17	
9-Jul-07	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	2.0	1.9	2.1	2.1	1.94	2.09	
10-Jul-07	2.1	2.0	2.1	2.2	2.2	2.3	2.2	2.2	2.1	2.0	2.0	2.0	1.9	1.9	1.9	2.0	A	1.9	1.9	1.9	2.0	2.1	2.3	2.3	2.07	2.30	
11-Jul-07	2.2	2.3	2.2	2.4	2.4	2.3	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.2	2.1	2.2	2.08	2.38
12-Jul-07	2.4	2.6	4.4	2.6	4.1	2.4	2.7	2.7	2.2	2.0	1.9	1.9	1.8	A	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.2	2.0	2.0	2.31	4.42	
13-Jul-07	2.1	2.1	2.2	2.6	2.4	2.4	2.5	2.5	2.3	2.2	1.9	1.9	A	1.8	1.8	1.9	1.8	1.8	1.9	1.9	2.2	2.2	2.1	2.1	2.11	2.55	
14-Jul-07	2.2	2.1	2.2	2.3	2.2	2.1	2.1	2.6	2.0	1.9	1.9	A	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.99	2.60	
15-Jul-07	1.9	2.0	2.4	2.3	2.3	2.4	2.4	2.3	2.1	2.0	A	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.0	2.0	2.0	2.05	2.37	
16-Jul-07	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	1.8	1.8	1.8	1.8	1.8	2.0	1.9	2.1	2.0	1.9	2.1	1.93	2.14	
17-Jul-07	2.1	2.3	2.2	2.7	2.5	2.3	2.2	2.2	A	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.9	2.0	2.02	2.66	
18-Jul-07	1.9	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.88	2.10	
19-Jul-07	1.9	1.9	1.8	1.8	1.9	1.8	A	1.8	1.8	1.8	1.7	1.8	1.7	1.8	1.8	1.8	1.8	1.8	2.1	1.8	1.9	1.8	1.9	1.9	1.83	2.07	
20-Jul-07	1.9	1.9	2.0	2.2	2.3	A	2.2	2.1	2.1	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	2.0	2.1	2.0	2.0	2.0	P	1.97	2.32	
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.00
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.00
23-Jul-07	P	P	P	P	P	P	P	P	2.2	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	N	2.19	
24-Jul-07	1.9	2.0	A	1.9	2.0	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.89	2.00	
25-Jul-07	1.9	A	2.0	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	P	P	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	P	P	2.0	1.88	1.98	
26-Jul-07	2.0	2.0	A	2.7	2.7	2.3	2.1	2.1	C	C	C	A	1.9	1.9	2.1	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.07	2.68	
27-Jul-07	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.2	2.1	2.0	1.91	2.19	
28-Jul-07	2.1	2.0	A	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	2.3	2.4	2.3	2.4	2.01	2.43	
29-Jul-07	2.2	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.1	2.5	2.3	2.03	2.51	
30-Jul-07	A	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.2	2.2	2.1	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.2	2.1	2.3	2.2	2.08	2.29
31-Jul-07	2.1	2.1	A	2.1	2.2	2.2	2.2	2.2	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	2.1	2.1	2.1	2.2	2.09	2.24
Hourly Avg	2.33	2.09	N	2.17	2.25	2.16	2.13	2.12	2.03	1.97	1.92	1.91	1.90	1.89	1.89	1.89	1.87	1.88	1.92	1.95	2.03	2.06	2.06	2.06			
Hourly Max	9.52	2.62	4.42	2.66	4.07	2.75	2.70	2.69	2.33	2.19	2.10	2.16	2.24	2.15	2.07	2.06	1.96	2.00	2.07	2.21	2.36	2.66	2.51	2.41			

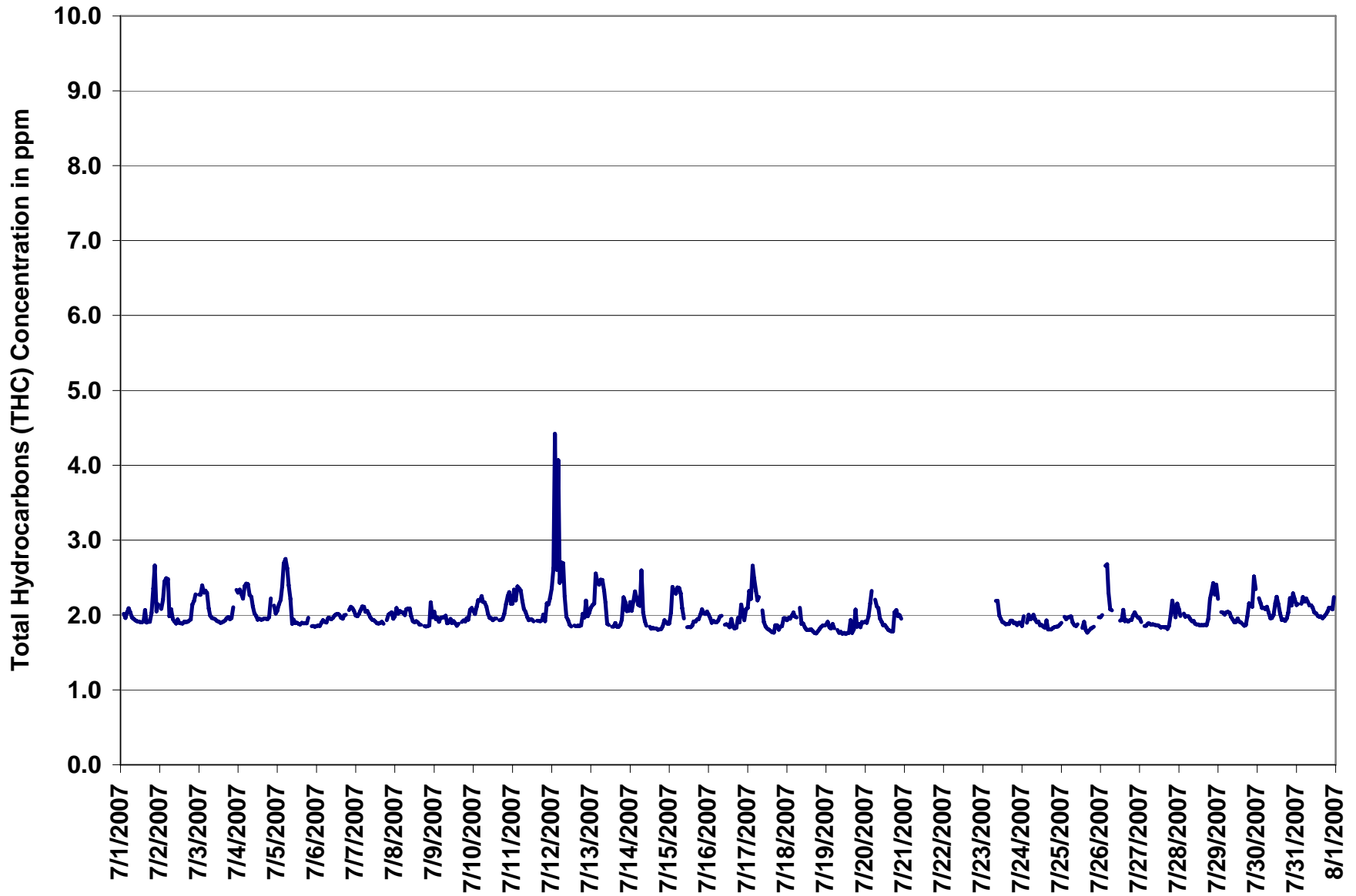
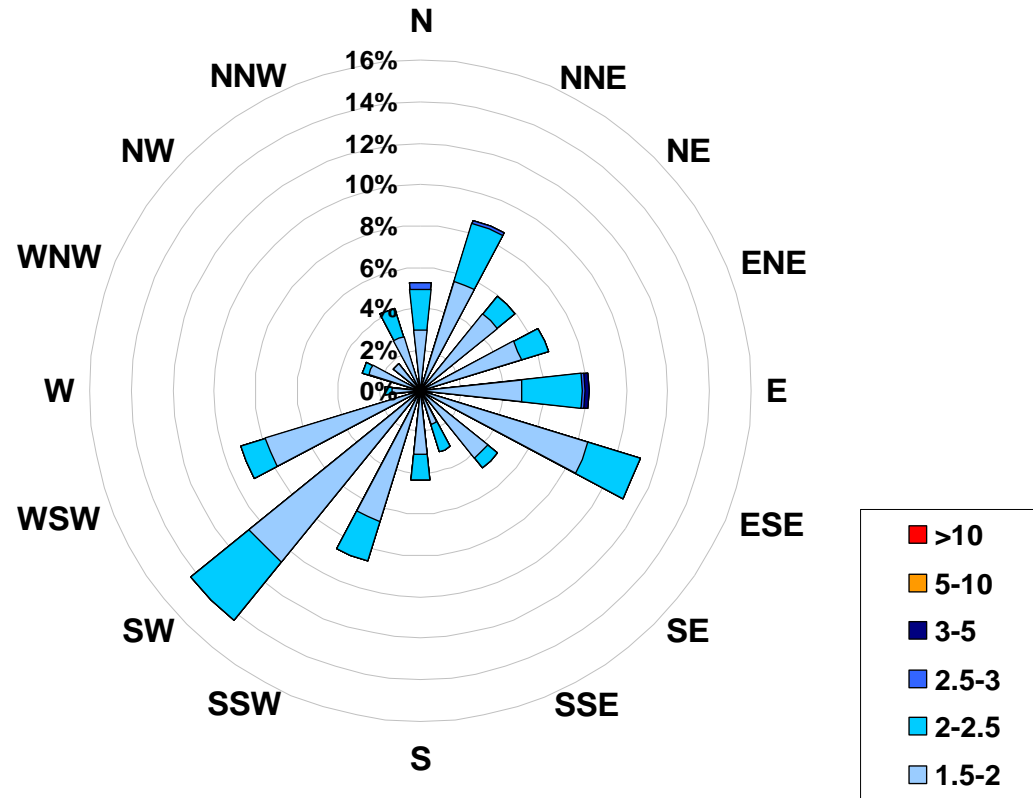


Figure 10. PAS - Crescent Heights Total Hydrocarbons Instantaneous (30 Second) Maximum Value Monthly Trend



**1-hr Average Concentration Rose for Total Hydrocarbons (in ppm)  
Located at the Crescent Heights Site for July 2007**



**Calms: 0%**

Frequency Distribution of THC in ppm Range			Frequency (hrs)
1.5	<	2	482
2	to	2.5	163
2.5	to	3	4
3	to	5	1
5	to	10	0
	>	10	0
Total Non-Zero Values			650



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

Station: Crescent Heights  
 Station Owner: PAS

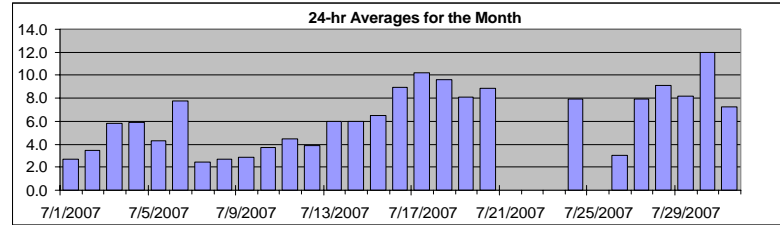
### HOURLY AVERAGE TABLE

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

Monitoring Dates: July 1, 2007 to August 1, 2007

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

Number of 24-hr Exceedances (draft):	0
Maximum 1-hr Average:	24.3 µg/m <sup>3</sup> 30-Jul 11:00 12:00
Maximum 24-hr Value:	12.0 µg/m <sup>3</sup> 30-Jul



AIC Time:	0 hrs	Operational Time:	675 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	91.0%
Percentile	99	95	75
	14.4	8.6	5.5
	3.1	0.5	0.0
	Average / Median		Geomean
	6.3 6 µg/m <sup>3</sup>		5.7 µg/m <sup>3</sup>

#### Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00		
1-Jul-07	6	3	2	2	2	2	3	2	3	1	1	1	0	1	2	2	1	2	2	2	5	9	6	5	2.7	8.6
2-Jul-07	3	4	4	3	3	6	4	3	5	2	0	0	2	2	3	4	1	3	1	3	5	6	6	7	3.4	6.8
3-Jul-07	6	7	7	5	6	6	7	5	6	5	2	1	5	3	2	3	4	4	7	6	6	8	15	14	5.8	14.6
4-Jul-07	9	9	8	6	7	8	9	10	9	5	4	5	4	3	3	0	3	5	6	6	8	6	5	4	5.9	9.5
5-Jul-07	6	5	6	6	5	8	9	10	4	4	0	1	2	2	3	3	0	1	1	4	9	4	5	3	4.3	10.0
6-Jul-07	5	4	3	5	6	6	8	8	2	5	8	9	9	6	4	2	3	8	18	10	14	17	16	8	7.8	18.3
7-Jul-07	3	3	2	2	4	5	1	1	2	3	1	1	1	2	2	2	2	2	3	4	4	3	1	4	2.4	5.2
8-Jul-07	5	4	1	4	0	3	6	3	4	2	0	0	0	5	1	4	4	2	4	2	3	1	4	3	2.7	5.8
9-Jul-07	1	0	5	3	3	4	5	5	4	5	4	5	3	0	0	0	1	1	4	4	3	3	3	1	2.9	5.3
10-Jul-07	3	3	2	3	3	3	5	6	5	2	1	2	1	3	3	3	2	3	3	4	6	10	9	5	3.7	9.8
11-Jul-07	5	5	4	4	3	6	5	7	6	3	5	3	4	3	2	2	3	2	5	8	5	7	5	7	4.5	7.9
12-Jul-07	8	6	6	5	7	7	11	7	5	1	0	0	1	0	1	1	1	1	3	3	3	5	5	6	3.8	11.0
13-Jul-07	5	4	4	5	6	6	9	7	3	1	0	4	7	8	7	7	5	6	4	7	8	9	11	10	6.0	10.7
14-Jul-07	8	8	8	7	7	8	11	12	7	4	3	7	8	2	4	5	4	10	0	6	4	5	3	3	6.0	11.8
15-Jul-07	4	2	4	3	4	5	7	7	5	7	5	6	9	4	10	12	7	8	11	8	5	6	8	11	6.5	11.7
16-Jul-07	16	10	5	3	2	8	10	12	14	15	8	6	0	6	7	10	9	7	9	10	15	17	6	9	9.0	17.2
17-Jul-07	11	13	8	10	8	8	13	17	14	14	4	4	15	11	5	7	5	9	11	14	14	10	10	8	10.2	17.3
18-Jul-07	9	11	13	11	13	13	13	12	9	12	6	0	8	3	9	6	7	6	4	5	24	17	12	8	9.6	23.7
19-Jul-07	8	7	7	8	9	11	2	7	8	8	7	9	3	6	5	11	4	16	16	9	7	10	10	8	8.1	16.5
20-Jul-07	6	11	7	13	2	7	5	11	9	0	5	0	9	8	11	12	13	14	10	12	12	15	12	P	8.9	14.7
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0
23-Jul-07	P	P	P	P	P	P	P	P	12	3	0	0	3	D	7	10	11	16	14	20	19	6	12	13	N	20.0
24-Jul-07	10	8	8	9	11	12	13	20	6	5	9	11	13	D	1	3	11	2	7	4	11	5	1	2	7.9	19.7
25-Jul-07	6	D	0	D	0	3	0	D	3	0	1	P	P	0	0	5	4	4	3	0	2	P	P	2	N	5.5
26-Jul-07	2	2	3	3	3	1	4	6	2	0	D	0	0	C	C	2	3	2	4	5	8	6	4	4	3.1	7.6
27-Jul-07	4	6	7	7	7	9	9	9	11	9	6	9	4	5	4	6	7	7	7	9	12	12	11	12	7.9	12.0
28-Jul-07	9	11	12	10	9	11	12	13	11	7	4	4	0	4	4	6	4	5	9	11	14	21	13	11	9.1	21.1
29-Jul-07	6	4	5	7	7	8	9	10	9	5	2	4	3	4	6	7	7	7	10	13	10	13	21	20	8.2	21.0
30-Jul-07	16	15	17	15	16	15	16	14	9	6	9	24	20	13	9	5	4	8	6	6	9	7	11	17	12.0	24.3
31-Jul-07	13	14	14	8	1	6	7	7	9	8	6	6	6	7	8	6	7	8	10	8	5	3	3	4	7.3	14.1
Hourly Avg	6.9	6.7	6.1	6.3	5.5	6.9	7.6	8.5	6.7	4.9	3.7	4.4	5.1	4.3	4.4	5.0	4.8	5.9	6.6	6.9	8.5	8.5	8.1	7.6		
Hourly Max	16.0	15.1	17.2	14.7	15.6	14.8	16.1	19.7	14.4	14.9	9.2	24.3	20.2	13.0	10.6	11.8	13.2	16.5	18.3	20.0	23.7	21.1	21.0	20.2		

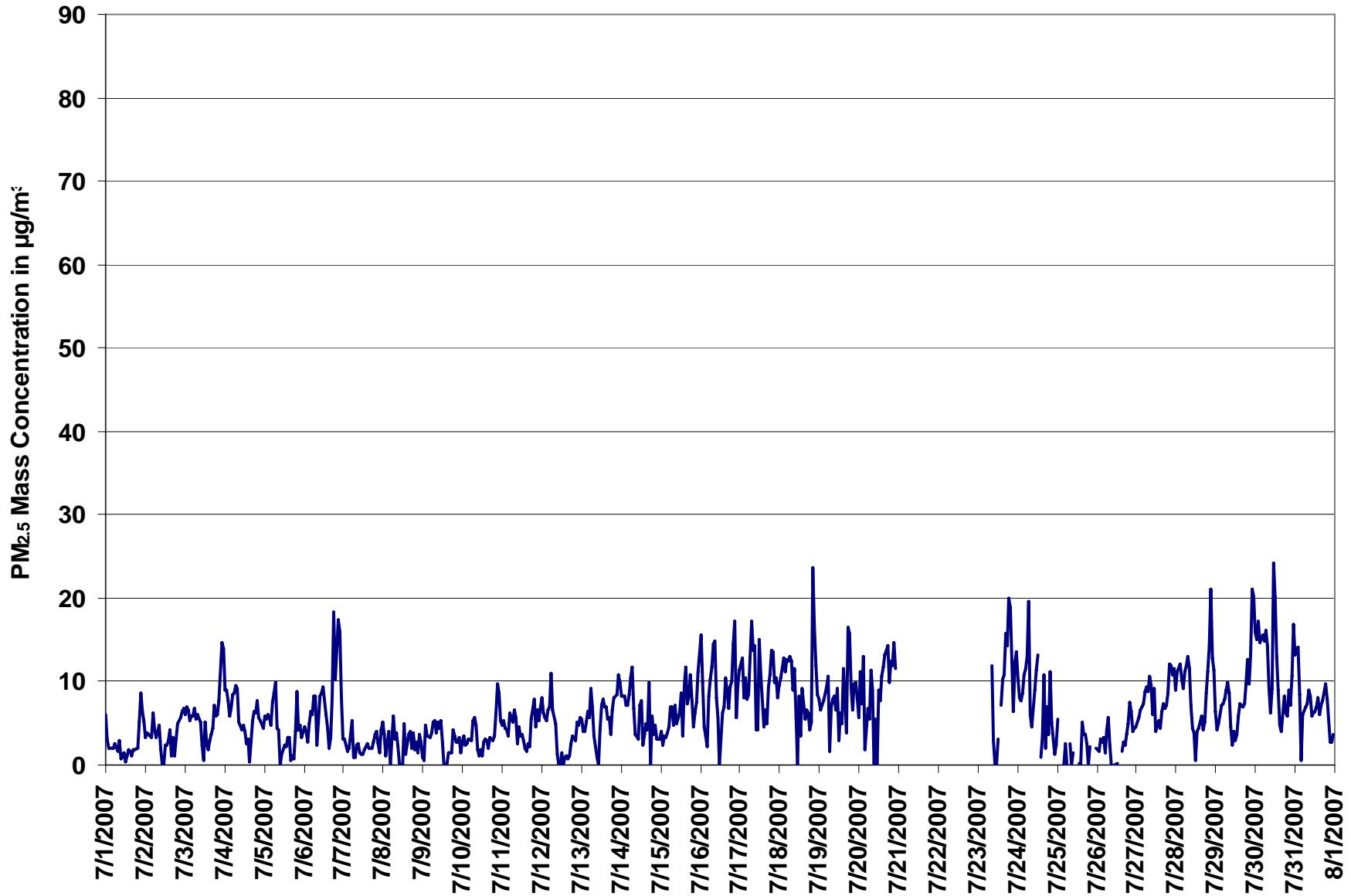


Figure 11. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend



Station: Crescent Heights  
 Station Owner: PAS

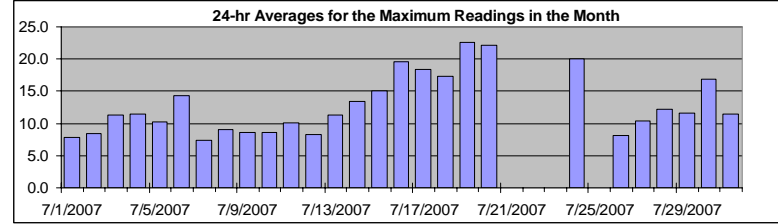
**INSTANTANEOUS (30 Second) MAXIMUM TABLE**

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

Monitoring Dates: July 1, 2007 to August 1, 2007

**Summary**

Maximum 1-hr Average:	97.5	µg/m <sup>3</sup>	19-Jul	17:00 18:00
Maximum 24-hr Value:	22.6	µg/m <sup>3</sup>	19-Jul	



AIC Time:	0 hrs	Operational Time:	675 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	91.0%						
Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	38.7	26.1	16.1	11.1	8.2	4.8	3.5	13.0	11 µg/m <sup>3</sup>
									12.1 µg/m <sup>3</sup>

**Status Flag Characters**

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

**Day Mountain Standard Time**

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Jul-07	10	7	5	5	7	6	6	6	5	4	4	5	4	6	4	6	6	5	7	10	11	24	22	12	7.8	24.4
2-Jul-07	7	7	10	9	9	11	10	8	11	12	5	4	7	6	6	7	5	6	8	9	8	13	11	13	8.5	13.1
3-Jul-07	13	19	12	11	9	12	10	8	8	9	9	5	10	8	7	8	10	12	15	12	11	14	19	20	11.3	19.6
4-Jul-07	14	14	13	12	9	15	13	14	15	12	9	8	9	8	9	9	9	10	13	12	15	12	10	8	11.4	15.3
5-Jul-07	9	10	10	12	8	15	15	18	11	19	5	11	6	5	9	12	5	9	4	8	15	7	12	11	10.2	18.8
6-Jul-07	10	10	9	10	9	9	15	14	9	12	14	16	15	10	11	9	8	18	27	16	21	31	22	17	14.4	31.2
7-Jul-07	9	9	6	5	9	12	6	6	7	9	6	4	7	5	8	8	5	7	8	10	9	6	5	10	7.4	11.8
8-Jul-07	14	11	9	7	8	9	10	7	9	12	6	6	8	21	8	8	10	10	8	10	7	5	7	6	9.0	20.7
9-Jul-07	6	3	12	8	8	7	8	11	9	12	10	13	10	9	6	9	10	8	10	9	8	5	11	5	8.6	13.2
10-Jul-07	5	6	5	5	6	9	12	13	10	7	8	7	8	5	7	7	6	11	7	8	11	15	16	11	8.6	15.6
11-Jul-07	9	11	8	6	11	11	9	11	16	8	13	9	8	9	7	10	9	8	9	13	12	10	9	15	10.1	16.3
12-Jul-07	12	14	10	9	11	12	16	14	9	8	3	4	8	4	5	3	4	5	7	9	7	8	8	8	8.3	16.4
13-Jul-07	9	6	6	9	10	12	22	11	9	16	6	8	10	13	13	11	11	11	10	10	19	13	15	12	11.3	21.6
14-Jul-07	16	11	16	13	13	11	18	19	15	11	13	22	21	12	9	13	14	19	9	10	9	12	8	7	13.3	21.6
15-Jul-07	7	7	9	9	9	9	12	18	13	14	12	13	15	17	21	19	17	20	25	19	17	15	12	34	15.1	34.1
16-Jul-07	35	23	17	10	7	11	16	17	20	37	20	16	10	14	16	17	17	16	20	27	43	33	10	18	19.5	42.8
17-Jul-07	17	25	12	19	18	13	19	35	19	21	20	14	32	19	11	13	12	23	20	24	18	16	14	12	18.4	34.6
18-Jul-07	12	14	16	15	17	16	18	17	22	23	12	10	19	16	18	17	13	16	8	9	51	29	15	11	17.3	50.6
19-Jul-07	12	10	10	12	12	16	10	13	16	20	17	18	19	11	29	38	19	98	39	48	14	19	19	22	22.6	97.5
20-Jul-07	42	27	26	39	21	22	15	17	24	25	28	14	17	20	19	19	21	25	18	16	15	20	19	P	22.2	41.8
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0
23-Jul-07	P	P	P	P	P	P	P	P	17	18	17	16	16	D	18	22	20	29	23	33	64	25	28	37	N	63.7
24-Jul-07	16	14	20	19	20	20	19	33	27	25	21	19	23	D	15	12	30	16	15	14	26	33	16	8	20.1	33.4
25-Jul-07	10	D	4	D	3	16	4	D	12	2	10	P	P	8	7	10	8	11	9	4	7	P	P	5	N	15.8
26-Jul-07	5	4	13	11	13	12	8	10	8	8	D	5	4	C	C	4	4	4	5	6	18	14	6	6	8.1	18.4
27-Jul-07	6	7	8	8	9	11	11	10	13	12	9	11	7	9	8	8	10	8	9	12	14	16	14	17	10.3	17.3
28-Jul-07	10	13	14	12	11	13	13	14	13	12	8	6	3	7	8	9	7	8	13	14	18	30	21	17	12.3	29.7
29-Jul-07	8	6	7	9	9	11	10	12	12	7	5	14	6	5	9	9	9	10	15	17	13	16	32	25	11.6	31.9
30-Jul-07	22	18	20	19	17	17	18	18	14	10	19	32	27	23	17	11	7	14	10	10	13	9	19	23	16.9	31.5
31-Jul-07	19	18	18	12	7	9	9	9	11	13	12	9	10	10	13	10	13	12	20	12	10	6	6	6	11.4	20.2
Hourly Avg	13.1	12.0	11.7	11.7	10.7	12.5	12.6	14.3	13.3	13.7	11.4	11.5	12.1	10.8	11.3	11.7	11.0	15.5	13.5	14.1	17.3	16.3	14.4	14.1		
Hourly Max	41.8	26.9	26.0	38.5	20.6	22.5	21.6	34.6	26.5	36.8	28.2	31.5	31.7	22.9	28.9	38.2	30.0	97.5	39.1	48.2	63.7	33.4	31.9	36.6		

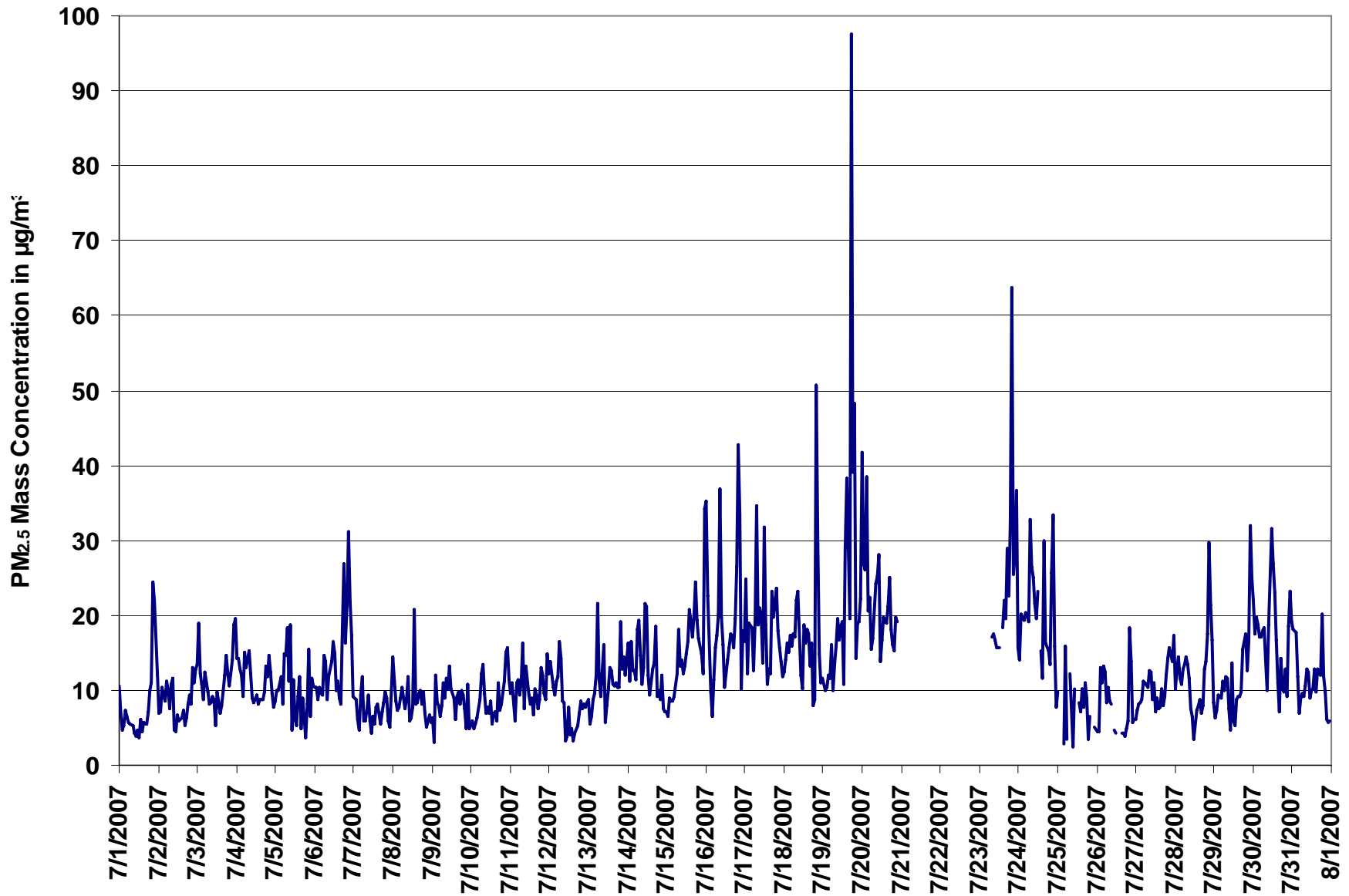
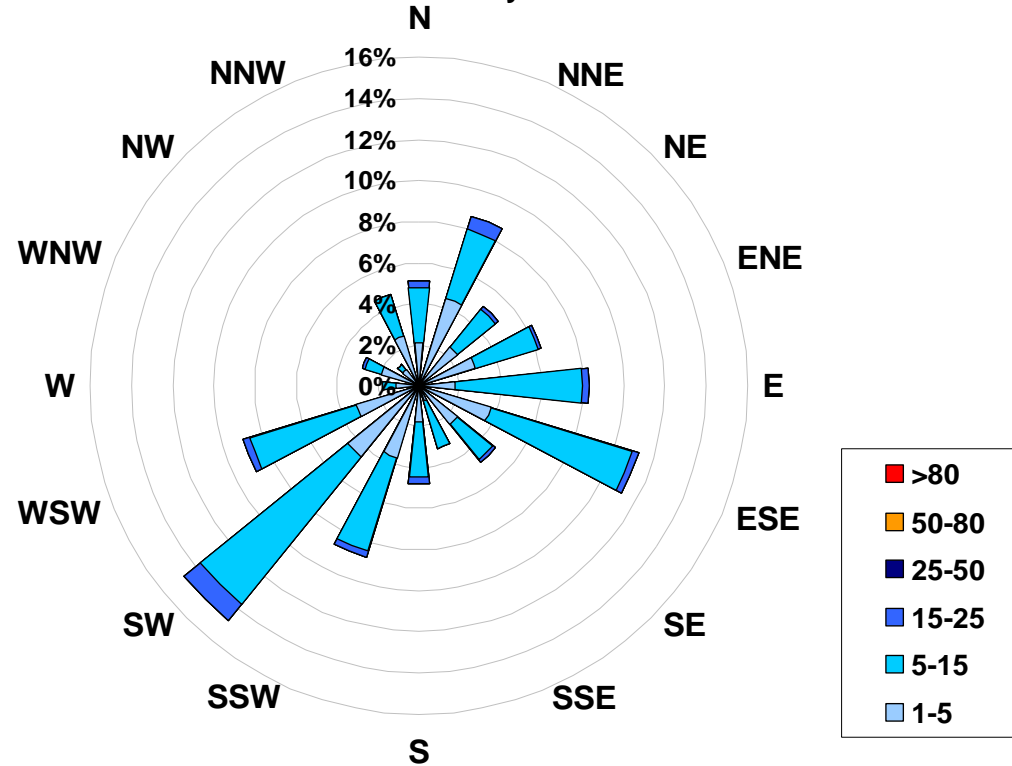


Figure 12. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) Instantaneous (30 Second) Maximum Value Monthly Trend



**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 July 2007**



**Calms: 0%**

Frequency Distribution of PM <sub>2.5</sub> in µg/m <sup>3</sup>			
Range		Frequency (hrs)	
1.0	< 5	299	
5	to 15	350	
15	to 25	26	
25	to 50	0	
50	to 80	0	
	> 80	0	
Total Non-Zero Values			675





# PAS - Crescent Heights - Relative Humidity Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

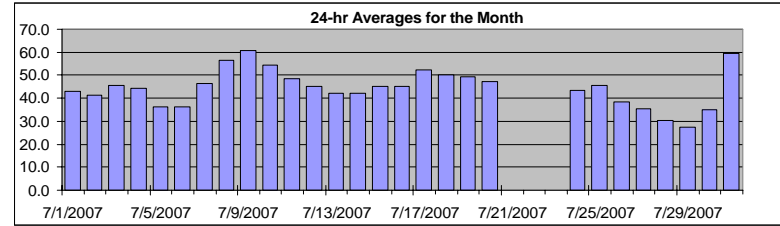
## HOURLY AVERAGE TABLE

## Relative Humidity (RH)

Monitoring Dates: July 1, 2007 to August 1, 2007

### Summary

Maximum 1-hr Average:	84.7 %	10-Jul	4:00 5:00
Maximum 24-hr Value:	60.8 %	9-Jul	



AIC Time:	0 hrs	Operational Time:	683 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	91.8%						
Percentile	99	95	75	50	25	5	1	Average	Median
	79.4	74.0	58.2	42.9	29.8	17.8	10.7	44.2 %	42.9 %

### Status Flag Characters

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

Day	Mountain Standard Time																								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	23:00			
1-Jul-07	66	67	67	69	72	67	61	52	50	40	32	29	24	24	24	24	21	20	21	27	30	42	50	58		43.2	71.7	
2-Jul-07	67	68	68	67	66	64	57	53	48	37	28	19	20	21	23	24	21	21	21	24	32	41	47	57		41.4	68.4	
3-Jul-07	63	69	74	74	77	74	66	57	48	42	33	23	26	26	21	20	21	22	28	31	37	45	56	63		45.7	76.6	
4-Jul-07	63	67	68	72	76	72	64	56	49	41	35	32	29	27	25	17	18	19	24	28	34	38	51	56		44.4	76.3	
5-Jul-07	62	65	67	66	69	64	56	48	40	34	22	20	19	18	18	18	15	15	14	17	28	33	33	34		36.4	68.6	
6-Jul-07	38	42	42	46	54	51	47	42	32	28	28	26	23	20	17	12	11	13	25	33	42	60	71	75		36.5	75.0	
7-Jul-07	73	69	63	61	63	62	52	49	45	41	39	35	32	30	30	30	32	31	32	41	47	49	51	55		46.3	73.3	
8-Jul-07	62	72	70	78	76	77	79	77	76	70	59	46	38	36	33	33	37	39	43	45	47	48	54	56		56.3	78.9	
9-Jul-07	57	57	57	72	75	74	68	64	57	59	62	65	84	70	51	45	43	43	46	51	56	62	69	73		60.8	84.0	
10-Jul-07	76	77	78	84	85	80	73	68	58	52	44	40	34	34	34	34	34	36	36	37	45	49	52	62		54.2	84.7	
11-Jul-07	68	72	75	78	79	72	69	60	49	42	41	38	34	30	27	25	24	25	26	32	40	46	53	59		48.5	79.4	
12-Jul-07	65	69	73	74	78	69	63	56	50	40	33	28	26	24	23	22	23	24	25	30	37	43	53	58		45.3	77.8	
13-Jul-07	61	65	68	71	72	65	63	54	43	34	27	23	22	22	22	23	23	23	24	29	34	39	48	52		42.0	72.0	
14-Jul-07	53	59	62	66	65	60	58	49	40	31	24	25	28	26	22	23	26	32	34	39	42	47	50	51		42.1	65.6	
15-Jul-07	55	59	62	60	68	66	60	52	46	43	41	38	35	32	28	33	30	29	33	39	38	39	46	47		45.0	67.9	
16-Jul-07	59	68	68	70	69	66	62	58	50	48	40	36	27	25	26	24	27	26	25	26	29	43	51	55		45.0	69.8	
17-Jul-07	59	65	66	68	71	71	64	66	64	58	46	35	35	36	34	34	35	39	40	45	52	55	59	62		52.4	71.0	
18-Jul-07	62	62	66	72	77	74	70	68	56	53	51	40	33	30	30	29	30	31	31	32	40	53	58	59		50.2	77.1	
19-Jul-07	59	57	54	54	58	62	54	44	40	38	35	33	30	30	31	34	32	39	55	62	71	70	71	76		49.5	75.9	
20-Jul-07	73	79	75	81	77	73	64	58	52	37	33	23	22	21	20	23	24	28	33	38	45	50	58	P		47.2	80.7	
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		N	0.0
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		N	0.0
23-Jul-07	P	P	P	P	P	P	P	P	55	46	34	28	24	17	15	18	20	22	22	27	36	33	31	31	N		N	55.4
24-Jul-07	32	40	47	44	46	46	49	51	51	48	49	47	45	34	30	26	29	30	34	36	48	53	62	67		43.5	66.5	
25-Jul-07	72	70	63	57	53	53	53	45	44	40	38	P	P	30	27	29	32	35	37	38	41	P	P	54		45.4	71.8	
26-Jul-07	54	54	57	66	68	64	56	50	41	34	25	20	18	18	19	20	21	22	24	30	37	42	41	38		38.4	67.9	
27-Jul-07	40	44	46	48	47	49	51	50	47	41	43	36	23	22	17	16	17	17	17	23	32	39	43	46		35.6	51.0	
28-Jul-07	43	47	54	54	52	53	48	44	38	28	19	15	9	10	11	11	10	9	12	15	22	34	40	45		30.2	54.2	
29-Jul-07	48	45	44	40	42	45	44	38	32	23	16	11	9	10	12	12	11	11	13	22	25	29	35	42		27.4	47.7	
30-Jul-07	44	42	45	44	50	50	45	42	32	26	24	34	38	34	29	24	19	21	23	25	29	32	38	51		35.1	50.8	
31-Jul-07	59	64	75	82	80	77	76	72	67	65	56	52	45	46	46	45	44	46	50	54	56	55	57	60		59.5	82.2	
Hourly Avg	58.4	61.2	62.6	64.9	66.6	64.3	59.6	54.4	48.4	42.0	36.4	32.0	29.8	27.7	25.7	25.0	25.2	26.5	29.2	33.6	39.7	45.4	51.0	55.0				
Hourly Max	76.4	78.8	77.9	84.4	84.7	80.0	78.9	77.4	75.8	70.0	62.5	65.4	84.0	69.5	50.6	45.1	44.3	46.0	55.2	61.7	70.7	69.9	70.7	75.9				

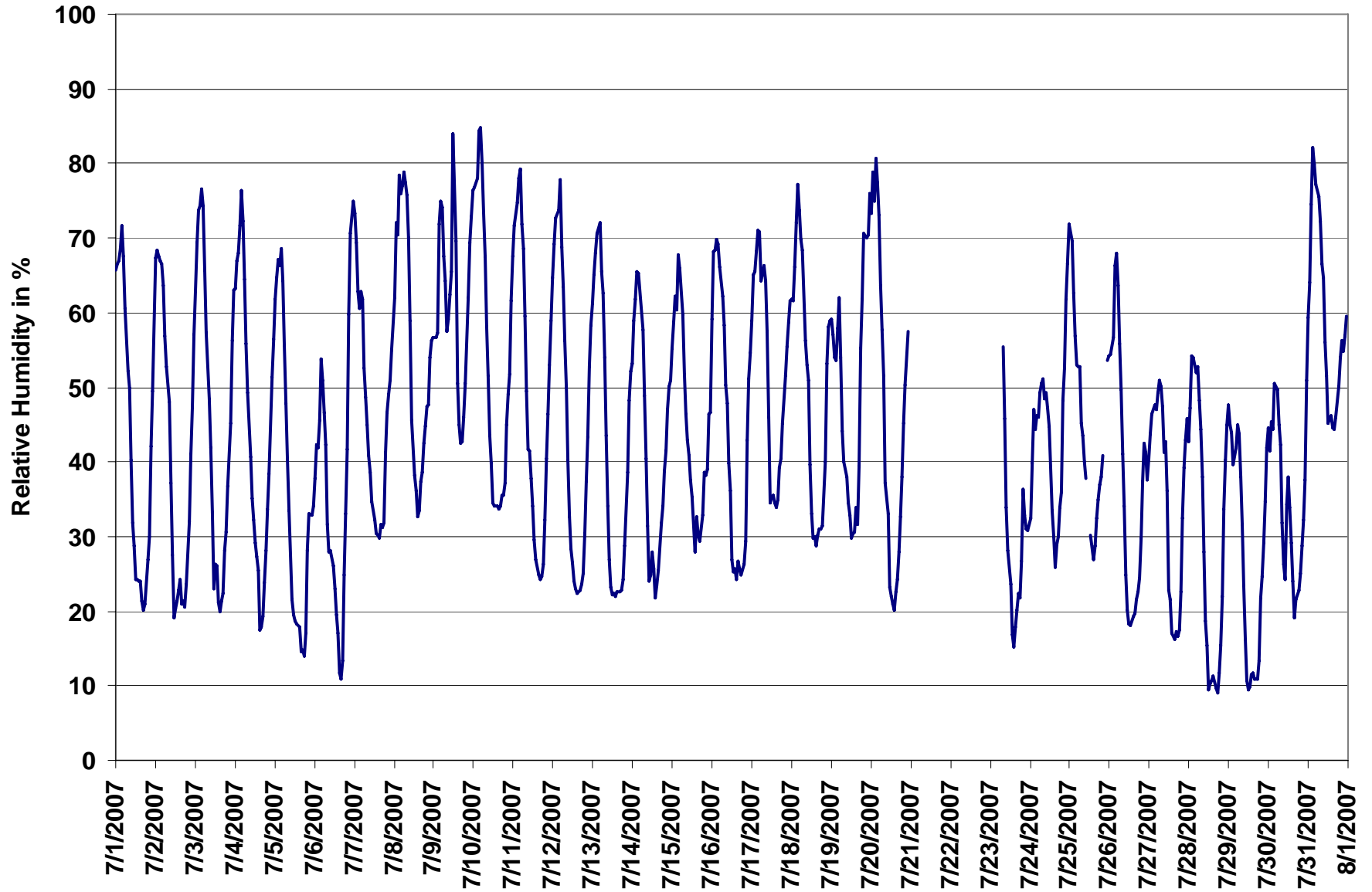


Figure 13. PAS - Crescent Heights Relative Humidity 1-hr Average Monthly Trend



# PAS - Crescent Heights - Temperature Monthly Summary

Station: Crescent Heights  
 Station Owner: PAS

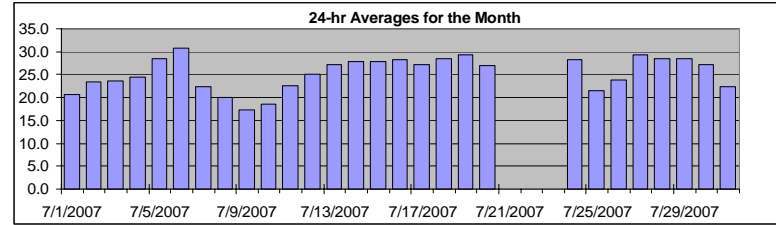
## HOURLY AVERAGE TABLE

## Ambient Temperature (T)

Monitoring Dates: July 1, 2007 to August 1, 2007

### Summary

Maximum 1-hr Average:	39.8	°C	6-Jul	16:00 17:00
Maximum 24-hr Value:	30.8	°C	6-Jul	



AIC Time:	0 hrs	Operational Time:	683 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	91.8%						
Percentile	99	95	75	50	25	5	1	Average	Median
	38.5	36.1	31.1	25.5	20.2	14.7	12.0	25.6 °C	25.5 °C

### Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00		
1-Jul-07	14	14	13	12	11	12	14	17	19	22	24	25	26	26	27	28	29	29	29	26	24	21	19	17	20.7	29.2
2-Jul-07	15	15	14	15	15	16	20	20	23	26	28	29	29	30	31	30	30	30	29	28	25	23	21	19	23.4	30.7
3-Jul-07	17	15	14	14	13	14	17	20	23	26	28	31	31	31	32	32	32	31	30	28	26	23	21	20	23.7	31.8
4-Jul-07	18	17	17	15	15	16	18	21	24	27	29	30	30	31	31	32	32	32	31	30	27	25	21	18	24.5	32.3
5-Jul-07	17	16	16	16	16	17	21	26	29	31	33	34	35	36	37	37	37	37	37	35	31	29	29	29	28.5	37.3
6-Jul-07	28	26	26	25	22	23	25	27	30	31	33	34	37	38	38	40	40	39	36	34	31	28	25	23	30.8	39.8
7-Jul-07	21	21	21	20	19	19	18	19	20	22	23	24	25	27	27	26	26	26	24	21	20	20	19	17	22.3	27.0
8-Jul-07	18	17	16	15	15	15	16	16	16	18	20	22	24	23	25	25	24	24	23	22	21	20	20	20	20.0	25.2
9-Jul-07	19	18	18	15	15	15	17	18	20	20	18	16	13	16	20	20	21	20	20	18	17	15	14	13	17.2	20.6
10-Jul-07	12	12	12	10	10	11	13	16	19	20	22	23	24	23	24	24	24	23	24	23	20	20	19	16	18.5	24.1
11-Jul-07	15	14	14	13	12	14	15	18	22	24	25	27	28	30	31	31	31	31	30	28	26	24	21	20	22.6	31.3
12-Jul-07	18	17	16	15	15	17	19	22	25	28	29	30	31	32	32	33	33	32	32	30	27	25	22	20	25.0	32.8
13-Jul-07	19	18	18	18	17	19	20	24	27	31	32	33	34	34	35	35	35	35	34	32	29	27	24	22	27.2	35.2
14-Jul-07	22	20	20	19	18	20	22	26	29	33	36	35	34	35	37	36	35	33	31	29	28	25	23	22	27.9	37.3
15-Jul-07	21	20	20	20	18	19	21	24	27	28	29	31	33	34	36	35	36	36	35	32	31	29	27	26	27.8	36.1
16-Jul-07	25	23	21	20	20	21	23	24	27	28	31	32	35	35	35	36	35	35	34	31	29	28	25	23	28.2	35.8
17-Jul-07	21	20	20	20	19	19	21	22	25	28	32	35	35	35	35	35	34	31	30	28	27	26	24	22	27.2	35.3
18-Jul-07	24	24	23	21	21	22	23	24	27	28	29	31	34	35	35	35	35	35	34	33	30	28	26	26	28.4	35.4
19-Jul-07	25	25	26	26	25	24	26	30	32	33	35	36	37	37	37	36	37	32	29	26	23	23	23	22	29.3	37.0
20-Jul-07	20	19	20	19	19	19	21	23	26	28	30	32	32	33	34	34	34	34	32	30	28	27	26	P	26.9	34.2
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0
23-Jul-07	P	P	P	P	P	P	P	P	27	29	33	35	36	39	40	39	39	38	38	35	31	31	31	31	N	39.7
24-Jul-07	30	28	26	27	26	26	26	27	27	27	26	28	30	32	32	34	34	34	32	31	27	25	22	21	28.3	34.2
25-Jul-07	20	19	19	19	19	18	18	19	21	21	22	P	P	25	27	27	26	26	25	23	21	P	P	16	21.5	26.9
26-Jul-07	15	15	15	13	12	14	16	19	23	26	28	29	30	31	32	32	33	32	31	29	26	24	23	24	23.8	32.6
27-Jul-07	25	25	25	24	25	25	25	26	27	29	28	31	34	35	36	36	36	36	36	33	29	27	25	24	29.2	36.5
28-Jul-07	24	23	21	20	20	20	22	24	28	31	33	34	35	36	36	36	36	36	36	33	29	27	23	22	28.6	36.5
29-Jul-07	20	20	20	21	19	18	20	23	26	30	32	34	35	36	37	37	38	38	37	33	30	27	25	24	28.4	37.9
30-Jul-07	23	22	21	21	19	19	21	23	27	30	31	32	32	32	33	33	34	33	32	30	29	27	26	25	27.2	33.8
31-Jul-07	23	23	21	20	18	18	19	19	21	22	25	25	27	26	26	27	26	26	25	23	21	19	18	17	22.4	27.3
Hourly Avg	20.3	19.5	18.9	18.3	17.6	18.3	20.0	22.1	24.7	26.8	28.3	29.9	31.0	31.5	32.3	32.6	32.5	31.9	31.0	29.0	26.5	24.8	23.0	21.5		
Hourly Max	30.2	27.9	25.9	26.6	26.2	26.2	26.2	29.6	31.6	33.3	35.5	35.8	37.0	38.6	39.7	39.5	39.8	39.1	37.6	35.5	31.2	30.6	30.5	30.9		

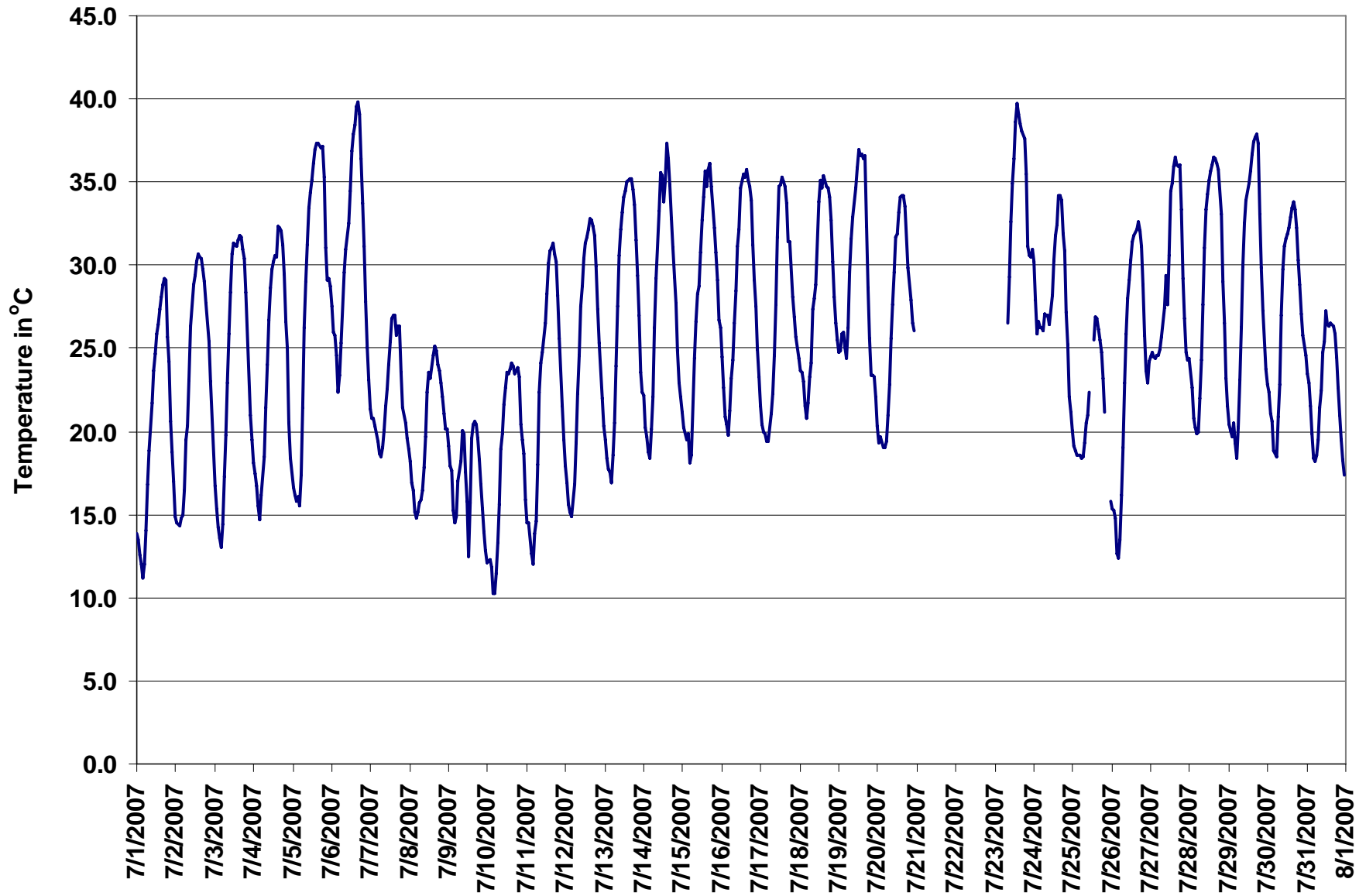


Figure 14. PAS - Crescent Heights Temperature 1-hr Average Monthly Trend



# PAS - Crescent Heights - Solar Radiation Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

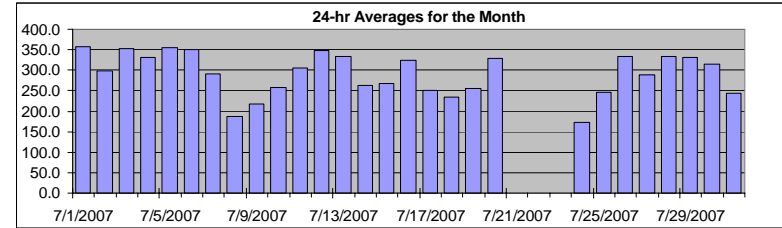
## HOURLY AVERAGE TABLE

## Solar Radiation (SR)

Monitoring Dates: July 1, 2007 to August 1, 2007

### Summary

Maximum 1-hr Average:	970.8	W/m <sup>2</sup>	11-Jul	13:00 14:00
Maximum 24-hr Value:	358.0	W/m <sup>2</sup>	1-Jul	



AIC Time:	0 hrs	Operational Time:	683 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	91.8%						
Percentile	99	95	75	50	25	5	1	Average	Median
	918.0	875.8	558.2	183.7	0.1	0.0	0.0	295.3 W/m <sup>2</sup>	183.7 W/m <sup>2</sup>

### Status Flag Characters

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

Day	Mountain Standard Time																							24-hour Average	Daily Maximum		
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Jul-07	0	0	0	0	14	107	236	394	580	768	862	895	948	918	846	738	594	426	235	25	5	0	0	0	358.0	948.3	
2-Jul-07	0	0	0	0	9	32	75	144	310	526	678	814	949	892	770	683	564	379	234	104	16	0	0	0	299.1	948.9	
3-Jul-07	0	0	0	0	10	97	247	416	583	728	836	907	909	905	835	727	571	383	241	55	8	0	0	0	352.5	908.9	
4-Jul-07	0	0	0	0	11	89	232	397	581	723	834	911	880	655	539	745	584	437	267	79	8	0	0	0	332.1	911.1	
5-Jul-07	0	0	0	0	10	97	244	412	579	726	839	907	930	903	834	716	580	416	249	77	5	0	0	0	355.2	929.5	
6-Jul-07	0	0	0	0	10	102	251	417	581	726	836	883	919	875	810	715	568	400	234	80	11	0	0	0	350.7	919.0	
7-Jul-07	0	0	0	0	10	64	104	174	402	638	705	847	894	906	720	526	257	410	282	56	5	0	0	0	291.7	906.4	
8-Jul-07	0	0	0	0	5	27	62	94	122	271	513	702	692	311	459	466	378	218	120	45	4	0	0	0	187.0	701.9	
9-Jul-07	0	0	0	0	6	57	223	415	430	596	333	171	100	709	720	415	411	294	251	77	6	0	0	0	217.3	720.2	
10-Jul-07	0	0	0	0	8	71	243	407	592	547	666	780	664	479	528	464	280	209	168	89	5	0	0	0	258.4	780.1	
11-Jul-07	0	0	0	0	6	99	115	298	528	408	400	793	934	971	747	684	612	405	236	74	6	0	0	0	304.8	970.8	
12-Jul-07	0	0	0	0	7	88	234	399	566	713	825	895	917	893	821	708	562	399	236	72	6	0	0	0	347.5	917.1	
13-Jul-07	0	0	0	0	12	90	204	376	556	702	820	891	909	883	811	696	556	349	116	38	7	0	0	0	333.9	909.4	
14-Jul-07	0	0	0	0	8	84	186	376	541	589	704	763	316	548	728	502	283	364	217	82	6	0	0	0	262.4	763.4	
15-Jul-07	0	0	0	0	3	66	211	363	482	436	537	726	628	758	626	496	470	352	187	53	4	0	0	0	266.6	758.3	
16-Jul-07	0	0	0	0	7	112	150	372	533	678	784	831	918	794	724	726	527	360	199	59	5	0	0	0	324.1	917.8	
17-Jul-07	0	0	0	0	6	49	142	233	339	471	701	805	846	814	605	423	272	130	140	32	2	0	0	0	250.5	846.0	
18-Jul-07	0	0	0	0	4	50	202	265	340	248	348	457	703	834	542	643	400	357	190	60	3	0	0	0	235.3	833.5	
19-Jul-07	0	0	0	0	4	40	191	375	513	636	721	832	849	560	400	504	497	15	5	13	0	0	0	0	256.7	849.1	
20-Jul-07	0	0	0	0	2	71	189	339	497	650	770	850	873	849	779	645	529	345	129	25	2	0	0	P	328.0	873.5	
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0
23-Jul-07	P	P	P	P	P	P	P	P	500	636	755	827	868	838	747	612	493	289	182	64	5	0	0	0	N	867.8	
24-Jul-07	0	0	0	0	2	57	114	191	198	168	161	493	507	417	411	523	363	332	116	72	2	0	0	0	172.0	523.0	
25-Jul-07	0	0	0	0	1	22	77	262	361	314	468	P	P	726	805	702	548	381	215	53	2	P	P	0	246.9	805.2	
26-Jul-07	0	0	0	0	3	61	203	370	543	691	808	881	901	876	805	691	545	377	210	52	3	0	0	0	334.1	901.4	
27-Jul-07	0	0	0	0	3	34	173	184	510	707	170	730	891	867	805	683	534	369	197	50	2	0	0	0	287.9	890.9	
28-Jul-07	0	0	0	0	3	60	145	360	483	675	817	896	929	898	823	703	553	382	209	53	3	0	0	0	333.1	929.1	
29-Jul-07	0	0	0	0	2	52	190	371	551	712	831	908	899	875	801	688	521	345	185	44	2	0	0	0	332.4	908.0	
30-Jul-07	0	0	0	0	1	51	187	335	525	688	797	850	874	848	726	646	502	327	158	22	1	0	0	0	314.1	874.0	
31-Jul-07	0	0	0	0	1	30	72	210	308	551	638	522	760	493	574	576	520	355	184	41	1	0	0	0	243.1	760.2	
Hourly Avg	0.0	0.0	0.1	0.1	5.9	66.4	175.1	319.5	470.2	583.5	660.6	777.4	800.3	768.7	701.5	622.4	485.3	338.1	192.8	56.5	5.0	0.0	0.0	0.0			
Hourly Max	0.3	0.2	0.3	0.4	13.8	111.7	250.8	417.3	592.4	767.8	862.3	911.1	948.9	970.8	846.3	744.6	611.7	436.8	282.1	103.8	15.6	0.3	0.2	0.2			

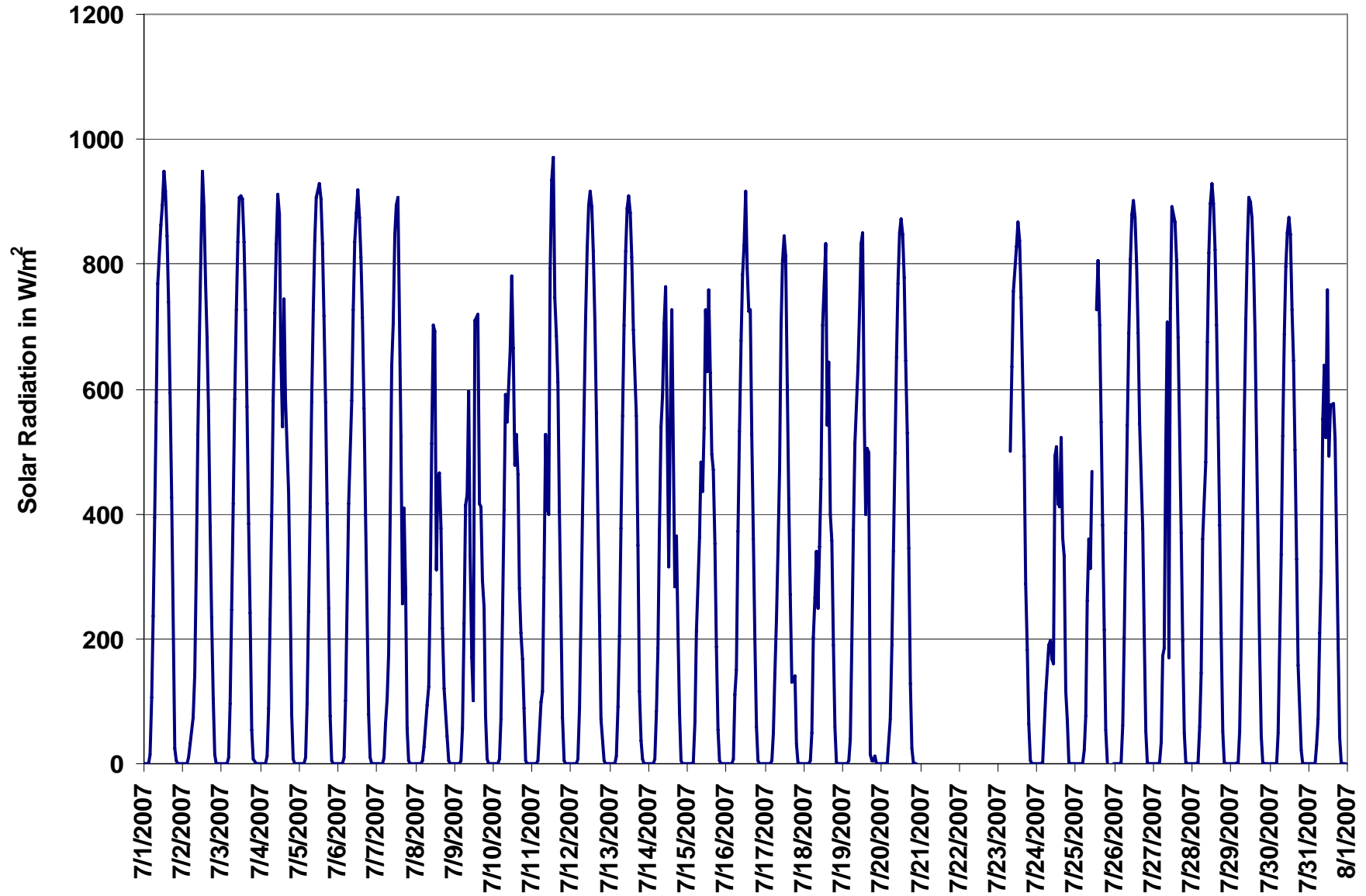


Figure 15. PAS - Crescent Heights Solar Radiation 1-hr Average Monthly Trend



# PAS - Crescent Heights - Scalar Wind Speed Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

## HOURLY AVERAGE TABLE

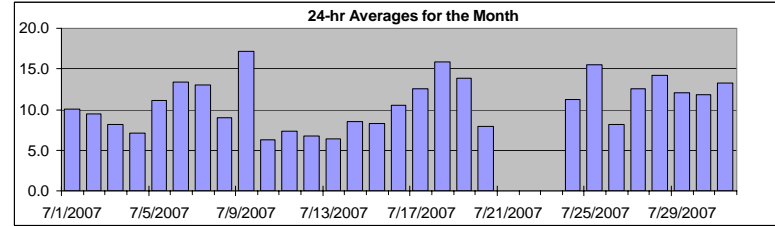
## Wind Speed (WSs)

Monitoring Dates: July 1, 2007 to August 1, 2007

### Summary

Maximum 1-hr Average:	32.6	km/hr	9-Jul	10:00 11:00
Maximum 24-hr Value:	17.1	km/hr	9-Jul	

Calm Time:	0 hrs	0% calms	Operational Time:	683 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	91.8%				
Percentile	99	95	75	50	25	5	1	AverageS
	25.0	19.7	14.3	9.9	6.7	4.0	3.0	10.7 km/hr



### Status Flag Characters

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

Day	Mountain Standard Time																							24-hr Scalar Average	Daily Max	
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00		
1-Jul-07	8	8	11	13	11	8	12	11	12	12	17	17	15	15	13	10	6	5	5	5	8	7	7	6	10.0	17.0
2-Jul-07	7	3	4	5	6	7	10	12	10	9	11	13	14	16	16	12	13	11	9	11	12	7	4	3	9.4	16.4
3-Jul-07	3	5	5	7	5	9	7	10	8	6	7	9	11	13	13	11	11	12	13	9	7	6	5	6	8.2	13.4
4-Jul-07	7	6	5	7	4	4	6	5	5	5	7	7	11	8	9	10	10	7	8	8	7	10	7	8	7.1	10.7
5-Jul-07	6	5	4	5	5	4	4	4	10	13	15	19	19	15	16	17	17	14	8	5	10	15	19	19	11.1	19.4
6-Jul-07	20	19	24	15	7	19	20	14	10	11	11	11	9	9	8	6	5	6	14	13	12	17	21	22	13.4	24.1
7-Jul-07	18	14	10	6	8	11	20	22	21	17	16	13	10	9	9	10	11	12	12	20	16	14	9	6	13.0	22.4
8-Jul-07	8	10	9	8	6	6	5	8	7	5	7	8	9	11	10	10	12	14	14	13	12	11	6	7	9.0	14.3
9-Jul-07	11	15	18	20	9	5	6	9	13	25	33	29	16	16	17	20	24	24	29	25	15	15	11	8	17.1	32.6
10-Jul-07	7	7	6	5	4	4	5	5	5	8	7	8	8	9	10	10	8	8	6	6	3	2	3	6	6.3	10.3
11-Jul-07	7	7	7	5	4	5	7	4	6	6	7	9	12	8	8	7	8	10	10	14	10	7	5	3	7.3	13.5
12-Jul-07	3	3	3	3	4	3	4	5	9	9	10	6	8	8	9	7	9	10	8	10	10	9	8	6	6.7	10.0
13-Jul-07	5	5	3	4	2	3	4	3	4	7	8	9	11	10	9	10	9	10	6	8	6	7	6	6	6.4	11.3
14-Jul-07	8	5	6	5	4	4	6	7	11	7	7	11	8	5	6	10	11	18	18	11	11	8	8	9	8.6	18.5
15-Jul-07	9	5	5	6	6	5	4	4	7	11	16	11	10	11	9	11	10	8	10	7	8	12	8	8	8.3	16.2
16-Jul-07	18	22	19	18	12	9	5	15	9	10	8	9	7	6	10	9	10	10	10	7	7	10	8	6	10.5	22.2
17-Jul-07	5	6	3	5	7	4	3	7	5	8	7	10	17	20	23	23	25	23	27	20	15	14	11	12	12.6	26.5
18-Jul-07	12	14	14	13	11	9	8	10	10	12	16	19	20	17	15	16	20	19	20	17	19	25	26	21	15.9	25.8
19-Jul-07	18	16	14	14	18	15	21	18	19	19	13	13	16	15	13	11	14	10	6	14	10	10	6	7	13.9	21.4
20-Jul-07	9	6	5	5	7	6	4	4	4	5	5	5	6	8	10	11	12	13	14	15	13	7	10	P	8.0	14.5
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0
23-Jul-07	P	P	P	P	P	P	P	P	8	9	8	9	9	7	5	6	9	10	13	16	12	18	11	20	N	19.6
24-Jul-07	14	11	9	11	15	9	7	10	10	14	10	12	11	12	12	7	5	7	8	6	15	13	22	21	11.3	22.2
25-Jul-07	18	18	16	13	11	13	13	21	17	19	16	P	P	15	14	15	17	18	17	15	14	P	P	8	15.5	21.0
26-Jul-07	7	8	7	4	5	5	4	4	4	5	9	10	12	9	11	12	10	11	12	10	10	10	7	10	8.2	12.2
27-Jul-07	9	15	16	13	12	12	15	15	15	27	19	13	18	19	13	12	15	12	5	4	5	5	6	6	12.6	27.4
28-Jul-07	10	16	14	14	16	15	20	17	14	17	19	21	19	18	20	19	18	15	8	6	3	5	7	8	14.1	20.9
29-Jul-07	8	12	15	12	13	12	12	16	17	16	16	18	19	19	18	15	11	6	4	5	6	7	8	7	12.1	19.2
30-Jul-07	6	10	8	12	12	11	15	18	16	15	17	16	16	16	13	12	11	9	11	8	9	8	5	11	11.8	18.5
31-Jul-07	7	9	16	12	17	13	10	9	6	9	10	13	14	17	18	18	17	15	18	17	17	19	10	7	13.2	19.2
1-hr Average	9.6	10.0	9.8	9.3	8.5	8.2	9.2	10.3	10.0	11.5	12.1	12.4	12.7	12.5	12.3	12.0	12.2	11.9	11.8	11.2	10.4	10.7	9.4	9.5		
Hourly Max	20.1	22.2	24.1	19.8	17.8	18.7	21.4	22.4	20.7	27.4	32.6	29.0	19.6	19.7	22.6	22.8	25.2	23.6	29.2	24.6	19.1	24.9	25.8	22.1		



# PAS - Crescent Heights - Vector Wind Speed Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

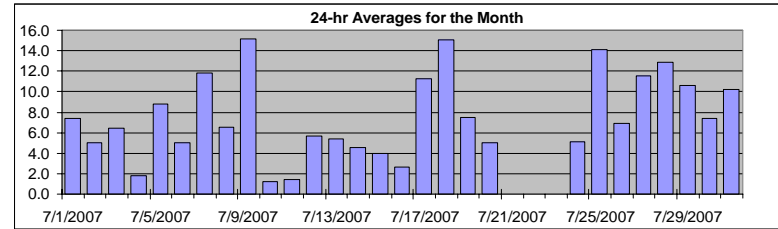
## HOURLY AVERAGE TABLE

## Wind Speed (WSv)

Monitoring Dates: July 1, 2007 to August 1, 2007

### Summary

Maximum 1-hr Average:	32.4	km/hr	9-Jul	10:00 11:00
Maximum 24-hr Value:	15.2	km/hr	9-Jul	



Calm Time:	2 hrs	0% calms	Operational Time:	681 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	91.8%				
Percentile	99	95	75	50	25	5	1	AverageV
	24.9	19.3	13.9	9.2	5.7	2.6	1.6	1.4 km/hr

### Status Flag Characters

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

Day	Mountain Standard Time																								24-hr Vector Average	Daily Max	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Jul-07	7	7	11	13	11	8	12	11	12	11	17	16	14	14	12	8	4	2	4	4	7	7	6	6	7.3	16.5	
2-Jul-07	7	3	4	5	6	5	8	11	9	9	10	12	14	15	16	11	12	10	9	11	11	7	4	3	5.0	15.9	
3-Jul-07	2	4	4	6	4	9	7	10	8	3	5	8	8	12	12	10	10	11	13	9	7	6	4	5	6.4	12.9	
4-Jul-07	6	5	5	6	2	1	6	3	4	2	4	6	2	5	2	7	6	4	7	8	5	10	7	8	1.8	9.6	
5-Jul-07	6	4	3	5	5	4	4	3	10	13	15	18	18	15	15	17	16	14	7	4	9	15	19	19	8.8	19.2	
6-Jul-07	19	19	24	14	5	18	20	14	10	10	10	10	8	7	7	4	1	4	14	13	12	17	20	22	5.0	24.0	
7-Jul-07	18	13	10	6	8	11	19	22	20	17	15	12	8	6	7	8	11	11	11	18	16	13	9	3	11.8	22.2	
8-Jul-07	7	10	9	7	6	3	5	8	6	4	6	7	9	9	9	9	11	14	14	13	12	11	5	3	6.5	13.9	
9-Jul-07	11	14	16	19	8	5	6	8	13	24	32	29	16	15	17	19	23	23	29	24	15	15	10	7	15.2	32.4	
10-Jul-07	7	7	6	4	1	3	5	4	2	4	2	6	7	9	9	5	6	6	6	3	2	3	6	6	1.2	9.3	
11-Jul-07	5	7	7	4	3	4	7	3	4	6	6	9	10	2	4	3	5	9	9	13	10	7	5	3	1.4	13.4	
12-Jul-07	3	2	3	3	2	1	4	4	8	8	9	5	5	5	8	6	8	9	8	10	10	8	8	6	5.7	10.0	
13-Jul-07	4	4	3	4	2	3	3	calm	2	6	7	8	10	8	7	7	7	10	5	7	6	7	5	5	5.4	9.9	
14-Jul-07	7	5	5	5	3	4	6	7	11	6	6	8	6	3	3	9	7	18	18	11	10	7	8	9	4.5	18.3	
15-Jul-07	9	3	5	5	6	4	3	3	6	10	16	10	9	11	9	11	10	8	9	6	6	11	7	1	4.0	16.1	
16-Jul-07	17	22	19	17	11	8	3	15	8	9	4	7	5	3	8	7	10	9	9	7	1	9	8	6	2.6	21.5	
17-Jul-07	5	5	calm	5	7	2	2	7	2	8	6	9	16	19	22	22	25	23	26	20	15	13	11	12	11.3	26.0	
18-Jul-07	11	13	14	13	11	9	7	10	10	11	16	18	19	16	14	15	19	19	20	17	19	25	26	21	15.1	25.7	
19-Jul-07	18	16	14	14	18	15	21	17	19	19	12	13	15	14	12	10	13	3	2	9	8	10	4	7	7.5	21.2	
20-Jul-07	8	4	3	3	6	6	3	3	3	4	4	3	4	4	9	10	11	13	14	14	12	7	7	P	5.0	14.5	
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	0.0
23-Jul-07	P	P	P	P	P	P	P	P	8	9	7	8	9	5	2	4	9	9	13	14	11	17	10	18	N	17.9	
24-Jul-07	13	10	9	10	14	8	6	10	10	14	9	12	10	12	11	5	4	7	8	6	14	7	22	20	5.1	21.9	
25-Jul-07	18	18	16	13	11	13	13	21	16	18	16	P	P	14	13	14	17	17	17	15	14	P	P	8	14.1	20.8	
26-Jul-07	7	8	6	4	3	3	4	3	2	3	8	9	11	8	10	11	9	10	12	10	10	10	7	9	6.9	11.9	
27-Jul-07	7	15	16	13	12	10	14	15	15	27	19	12	17	19	12	12	15	12	4	4	5	5	5	4	11.5	27.1	
28-Jul-07	10	15	14	14	16	15	20	17	13	17	19	21	19	18	20	18	18	15	7	6	2	4	7	7	12.9	20.7	
29-Jul-07	8	12	14	12	13	12	12	16	16	15	15	18	18	19	17	15	10	4	2	5	6	7	7	5	10.6	18.9	
30-Jul-07	5	10	7	12	11	11	15	18	16	15	16	15	15	15	12	11	10	8	11	8	9	8	4	11	7.4	18.4	
31-Jul-07	7	8	16	10	16	13	10	9	4	8	9	12	13	16	18	17	16	14	17	17	17	19	10	7	10.3	19.1	
1-hr Vector	2.3	1.6	1.0	1.1	0.3	2.0	2.5	3.0	2.6	3.4	3.2	4.0	4.8	3.9	3.2	1.9	0.9	1.6	4.5	5.2	4.7	5.7	4.6	3.8			
Hourly Max	18.9	21.5	24.0	19.1	17.6	18.4	21.2	22.2	20.4	27.1	32.4	28.7	19.4	19.0	22.2	22.4	25.0	23.4	29.0	24.5	19.0	24.8	25.7	22.0			





# PAS - Crescent Heights - Wind Direction Monthly Summary

Station: Crescent Heights  
Station Owner: PAS

## HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: July 1, 2007 to August 1, 2007

### Summary


Calm Time:	0 hrs	0% calms	Operational Time:	683 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	91.8%				
Percentile	99	95	75	50	25	5	1	Average
	353.0	335.8	230.1	154.8	81.5	16.4	3.7	153 deg

### Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	WD Sector	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Jul-07	241	211	223	227	218	211	227	231	217	236	219	214	243	237	229	220	267	303	212	64	53	99	85	104	223	SW	
2-Jul-07	107	90	92	346	339	250	243	223	221	246	262	282	242	251	235	284	285	304	324	351	12	35	35	96	276	W	
3-Jul-07	88	153	149	170	185	230	218	218	205	180	101	118	186	212	214	225	240	246	234	251	260	236	170	195	209	SSW	
4-Jul-07	228	227	203	226	273	218	235	202	218	42	145	185	224	237	35	254	263	289	26	4	31	78	109	116	223	SW	
5-Jul-07	152	145	43	4	358	349	343	166	191	192	192	195	195	186	186	207	225	226	213	164	156	171	173	174	190	S	
6-Jul-07	200	215	197	201	258	228	245	236	263	238	206	217	193	204	201	205	325	329	26	17	16	4	3	6	241	WSW	
7-Jul-07	5	359	350	342	327	339	0	13	18	33	34	34	25	33	24	34	18	44	63	33	29	55	79	93	23	NNE	
8-Jul-07	10	21	29	64	99	187	346	23	3	16	57	85	77	72	118	126	120	99	117	114	114	113	128	47	84	E	
9-Jul-07	41	58	23	24	57	55	344	318	322	339	347	336	345	323	314	324	332	325	341	345	334	341	338	288	345	NNW	
10-Jul-07	289	295	284	106	157	208	226	217	169	286	269	221	277	329	353	343	4	68	100	88	94	68	92	112	311	NW	
11-Jul-07	141	196	222	200	183	155	220	218	231	203	198	201	215	146	268	281	349	349	358	17	24	41	97	90	222	SW	
12-Jul-07	87	74	89	71	80	92	26	27	31	44	24	42	16	17	353	1	13	39	36	50	59	96	113	107	44	NE	
13-Jul-07	125	108	58	347	5	1	66	196	42	54	42	30	46	46	38	44	59	52	50	52	88	105	109	73	56	NE	
14-Jul-07	94	104	77	100	90	106	96	94	83	111	142	249	298	64	130	130	162	110	109	99	200	245	242	246	126	SE	
15-Jul-07	238	311	12	339	346	15	191	173	217	223	224	241	246	232	216	216	216	201	213	223	55	74	137	64	222	SW	
16-Jul-07	25	27	77	111	127	109	140	224	243	206	232	63	133	167	197	253	235	232	217	247	327	91	112	108	140	SE	
17-Jul-07	89	121	275	14	31	112	359	29	41	63	100	108	77	75	66	66	67	92	99	104	103	106	91	80	81	E	
18-Jul-07	82	90	84	83	85	100	107	92	86	66	75	100	116	129	143	127	121	122	122	121	107	104	110	114	106	ESE	
19-Jul-07	106	103	115	120	98	115	109	123	135	136	152	183	193	191	178	244	297	295	25	271	345	118	229	122	139	SE	
20-Jul-07	105	188	227	154	244	212	207	219	151	212	182	108	8	153	123	121	117	114	97	78	67	93	89	P	123	ESE	
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	-
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	-
23-Jul-07	P	P	P	P	P	P	P	P	201	213	230	212	223	203	132	43	23	44	110	124	189	153	167	203	N	-	
24-Jul-07	195	236	229	220	240	232	234	230	234	239	241	211	213	247	225	285	154	111	115	104	194	360	20	25	230	SW	
25-Jul-07	23	29	34	39	37	20	45	50	60	81	87	P	P	76	101	81	72	70	75	64	73	P	P	117	61	ENE	
26-Jul-07	48	74	81	4	33	103	113	170	144	154	121	104	124	161	125	123	142	166	144	134	132	128	128	109	123	ESE	
27-Jul-07	165	182	186	180	183	206	199	194	194	206	200	201	210	222	211	209	222	226	183	139	106	125	118	226	197	SSW	
28-Jul-07	242	234	234	238	238	239	229	232	228	250	252	241	242	229	231	227	227	235	296	340	26	171	151	203	236	SW	
29-Jul-07	226	217	237	238	237	236	222	232	221	221	237	246	239	240	238	248	249	246	135	113	108	115	201	216	229	SW	
30-Jul-07	193	235	217	224	235	236	235	229	243	249	257	251	254	244	254	270	298	317	8	16	18	10	76	87	255	WSW	
31-Jul-07	109	66	9	8	1	23	18	16	8	222	251	302	290	332	346	356	21	39	21	20	15	15	23	4	4	N	
Hourly Avg	108	123	125	139	216	206	218	214	206	214	213	218	221	213	202	237	301	63	76	58	63	84	100	107			



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

Station: Crescent Heights  
Station Owner: PAS

## HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: July 1, 2007 to August 1, 2007

### Summary


Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	683 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	91.8%			
Percentile	99	95	75	50	25	5	1
	62.2	50.5	24.9	14.8	9.1	5.6	4.3

### 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

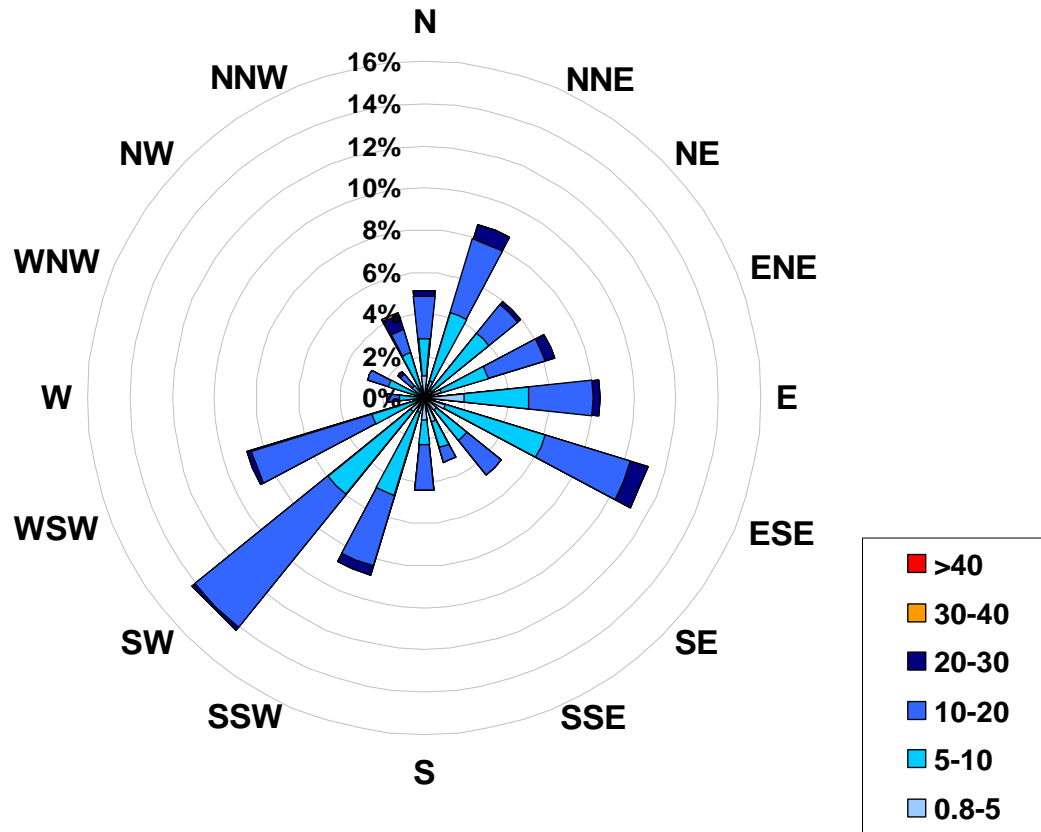
### Day Mountain Standard Time

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	Daily Maximum	
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Jul-07	15	15	9	8	6	16	7	11	10	14	17	18	18	17	25	29	52	71	46	26	8	12	14	13	71.2	
2-Jul-07	10	31	18	14	20	34	37	16	19	24	19	16	15	17	12	25	22	16	14	7	5	9	12	28	36.9	
3-Jul-07	29	18	20	25	30	6	11	10	17	51	40	33	33	24	22	35	21	15	9	11	10	12	12	25	51.2	
4-Jul-07	34	23	28	19	42	53	16	59	52	52	43	37	42	45	59	53	38	56	24	21	20	9	9	9	58.9	
5-Jul-07	19	17	17	7	10	13	21	42	16	15	12	13	16	17	14	14	9	8	17	22	8	7	6	7	42.2	
6-Jul-07	10	10	5	12	28	8	5	10	16	16	16	19	23	30	29	63	63	38	10	7	7	3	5	4	63.3	
7-Jul-07	6	6	8	18	11	10	5	7	11	12	12	18	34	47	38	41	20	18	16	11	7	7	10	35	46.9	
8-Jul-07	14	6	14	11	18	25	10	10	14	20	17	29	23	21	19	19	14	9	11	6	6	9	15	52	52.4	
9-Jul-07	14	13	14	8	11	9	16	18	20	7	5	6	11	12	12	12	9	8	7	4	7	4	10	15	20.2	
10-Jul-07	13	15	16	51	48	38	21	48	60	48	63	48	41	36	27	52	20	14	9	22	16	31	10	10	63.3	
11-Jul-07	43	11	11	26	35	22	12	50	46	27	25	21	39	62	61	62	39	27	19	7	5	7	12	19	62.4	
12-Jul-07	29	23	25	22	26	58	31	26	15	22	21	46	42	57	35	43	27	27	16	7	6	11	7	8	58.3	
13-Jul-07	25	11	13	13	39	10	20	53	62	33	29	29	27	36	42	35	36	16	17	6	16	15	11	12	61.5	
14-Jul-07	12	19	23	33	23	17	13	15	10	32	38	32	29	36	44	22	22	9	7	7	20	23	15	9	44.2	
15-Jul-07	7	31	16	29	22	30	43	50	17	12	7	15	19	14	20	10	10	16	8	22	17	12	14	42	49.6	
16-Jul-07	12	9	8	8	13	17	29	10	24	19	33	37	47	58	34	38	18	24	19	9	32	11	10	13	58.5	
17-Jul-07	21	16	68	20	8	35	38	12	30	22	25	17	19	15	10	10	7	8	6	7	7	7	7	5	68.5	
18-Jul-07	10	7	7	6	8	14	26	12	12	10	7	9	8	16	17	17	10	9	7	6	5	5	5	4	25.8	
19-Jul-07	5	4	6	9	6	6	6	9	10	13	12	12	18	14	15	22	15	51	58	45	25	23	46	13	58.2	
20-Jul-07	30	35	58	23	14	27	40	49	40	54	53	54	39	52	18	20	11	9	6	4	7	14	29	P	58.2	
21-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	0.0
22-Jul-07	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	0.0
23-Jul-07	P	P	P	P	P	P	P	P	18	17	22	20	18	46	74	39	12	10	7	13	29	14	20	14	74.3	
24-Jul-07	10	16	11	17	11	21	22	15	11	8	12	10	14	14	15	41	50	11	7	8	14	32	8	8	49.8	
25-Jul-07	8	6	7	7	6	9	6	6	11	10	10	P	P	17	17	20	14	12	9	6	7	P	P	32	32.3	
26-Jul-07	8	8	21	9	20	25	28	36	45	56	25	25	25	35	28	19	18	14	12	9	7	9	11	10	56.0	
27-Jul-07	22	9	8	9	14	23	11	9	10	8	9	14	12	8	22	16	14	10	32	19	12	13	9	42	41.7	
28-Jul-07	10	7	4	4	4	5	5	6	8	7	8	9	10	11	10	12	10	8	17	7	35	34	12	10	35.5	
29-Jul-07	29	6	5	6	7	6	5	6	6	13	11	10	11	9	11	11	14	34	37	8	12	10	19	45	44.7	
30-Jul-07	38	8	12	7	6	6	6	5	8	10	13	13	18	11	25	19	17	22	8	6	5	5	23	7	37.6	
31-Jul-07	15	20	5	33	12	8	9	15	41	20	24	18	17	17	13	14	16	15	10	7	5	4	6	7	40.7	

Hourly Max	43	35	68	51	48	58	43	59	62	56	63	54	47	62	74	63	63	71	58	45	35	34	46	52
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**1-hr Average Wind Rose (in km/hr) Located at the Crescent Heights Site for July 2007**



**Calms: 0%**

Frequency Distribution of Wind in km/hr			Frequency (hrs)
Range			
0.8	< 5		80
5	to 10		273
10	to 20		299
20	to 30		30
30	to 40		1
	> 40		0
Total Non-Zero Values			683



## Passive Monitoring – July 2007

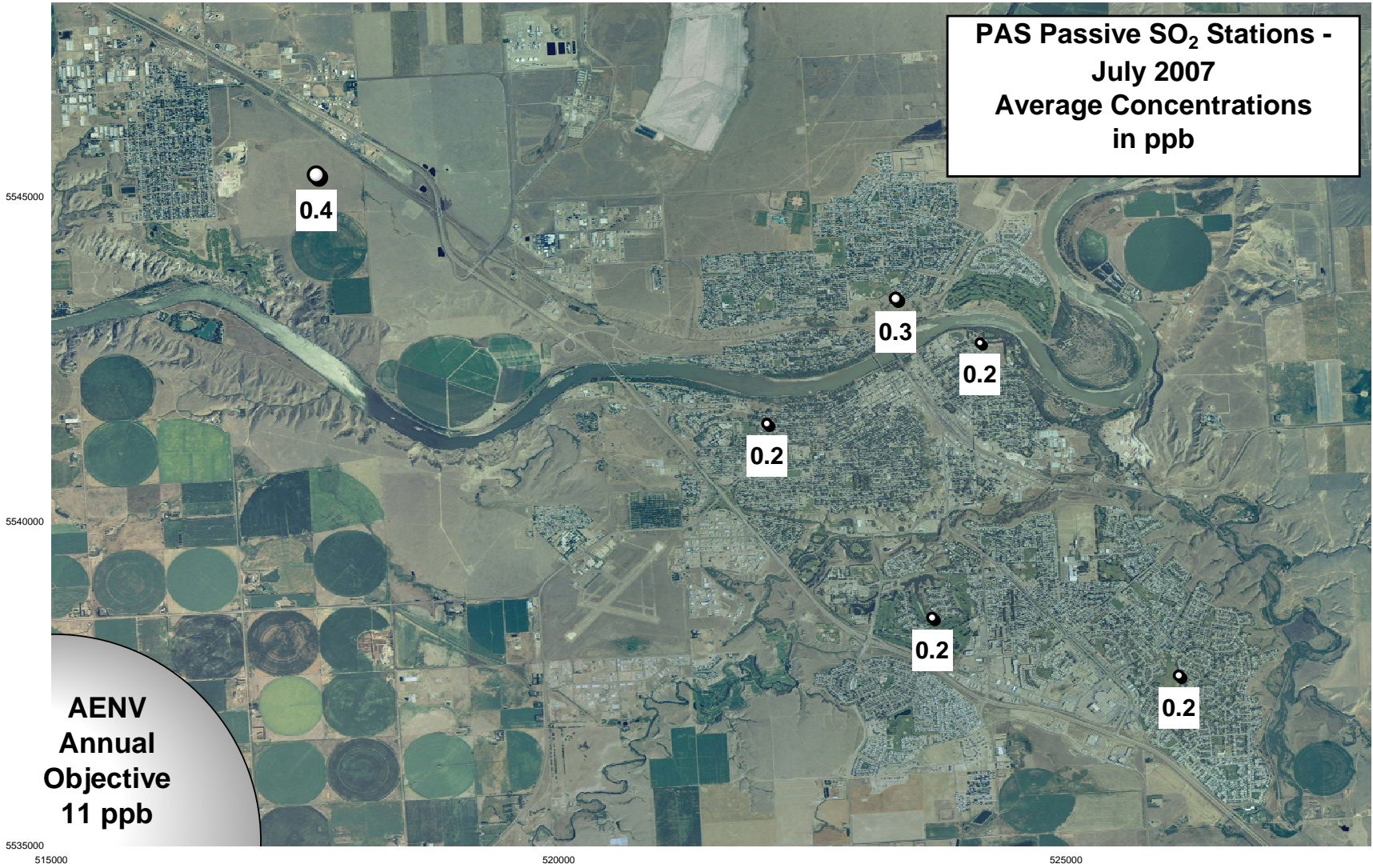
Station Number	Station Name	SO <sub>2</sub> ppb	O <sub>3</sub> ppb	NO <sub>2</sub> ppb	Easting	Northing	Elevation
<b>Duplicates</b>							
4a	Redcliff	0.4	38.3	3.7			
4b	Redcliff	0.5	41.8	3.6			
1	Hospital	0.2	32.8	4.4	521648	5542721	698
2	Ball Park	0.2	32.7	4.2	524019	5543686	660
3	Monitoring Station	0.3	40.2	4.0	522812	5544133	714
4	Redcliff	0.4	40.1	3.6	517448	5545608	725
5	Southridge	0.2	35.7	3.8	523172	5539016	721
6	Christian School Park	0.2	38.1	4.2	526577	5538133	709

Stats:							
<b>Mean</b>	<b>0.3</b>	<b>36.6</b>	<b>4.0</b>				
<b>Standard Deviation</b>	<b>0.1</b>	<b>3.4</b>	<b>0.3</b>				
<b>Minimum</b>	<b>0.2</b>			<b>2</b>		<b>Ball Park</b>	
<b>Maximum</b>	<b>0.4</b>			<b>4</b>		<b>Redcliff</b>	
<b>Minimum</b>		<b>32.7</b>		<b>2</b>		<b>Ball Park</b>	
<b>Maximum</b>		<b>40.2</b>		<b>3</b>		<b>Monitoring Station</b>	
<b>Minimum</b>			<b>3.6</b>	<b>4</b>		<b>Redcliff</b>	
<b>Maximum</b>			<b>4.4</b>	<b>1</b>		<b>Hospital</b>	

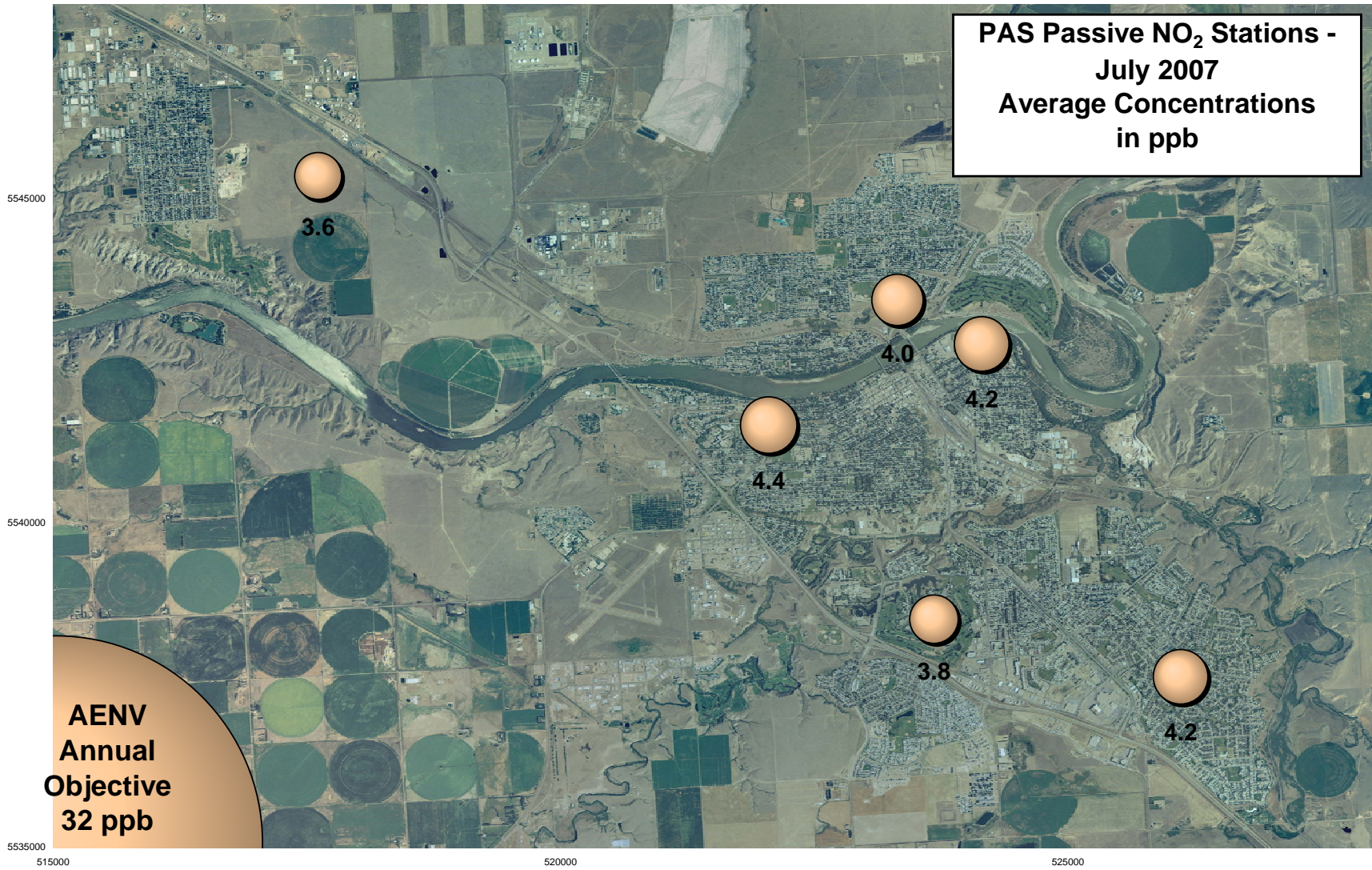




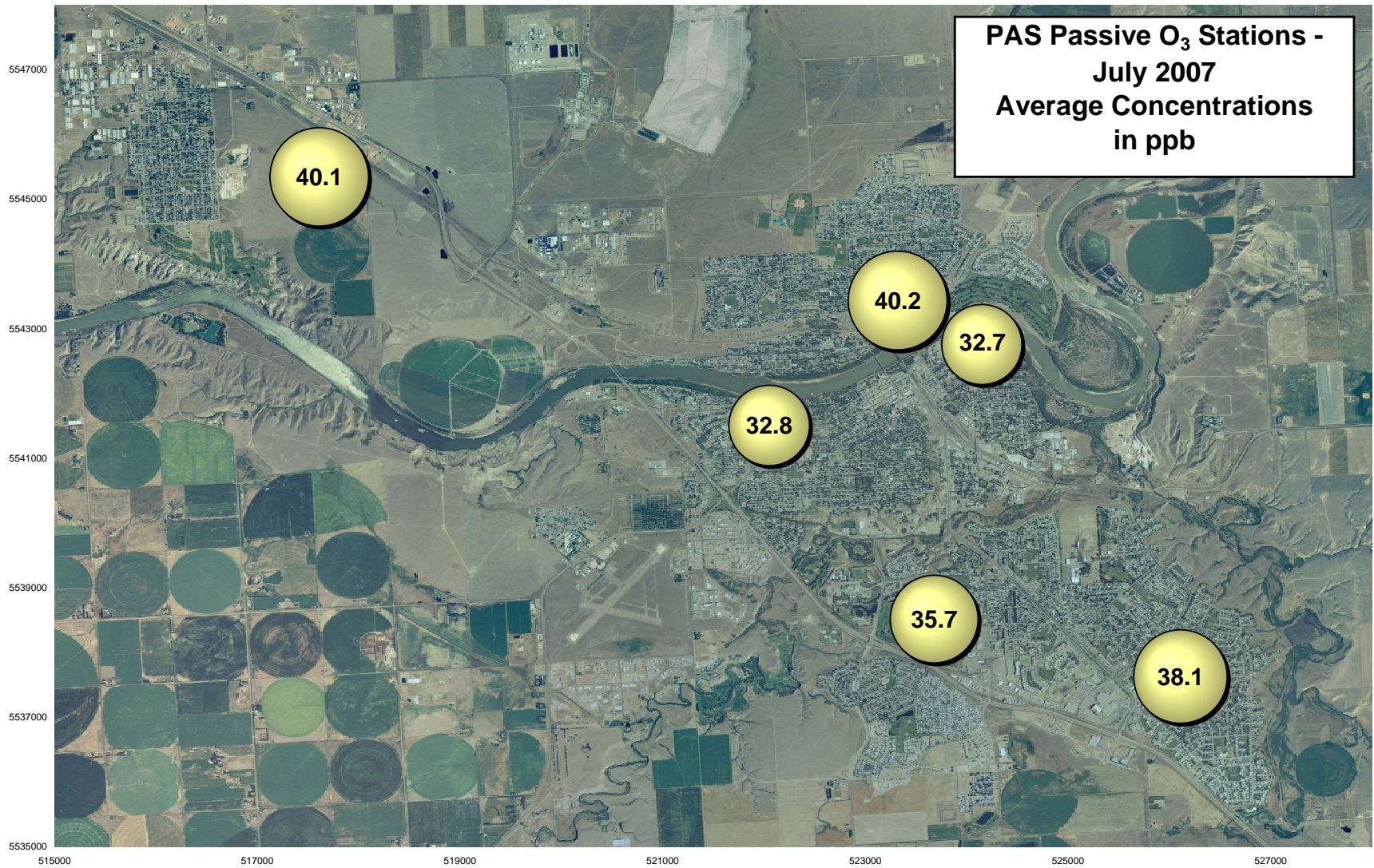
**PAS Passive SO<sub>2</sub> Stations -  
July 2007  
Average Concentrations  
in ppb**











# **Palliser Airshed Society July 2007 - Calibration Reports**

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



# Calibration Report



Parameter **03**  
 Air Monitoring Network **Palliser Airshed**

## Station Information

Calibration Date	July 26, 2007	Previous Calibration	June 27, 2007
Station Number	101	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Calibration	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	13:00	End Time (MST)	21:00
Barometric Pressure	27.7 inches Hg	Station Temperature	22.0 Deg C
Calibrator	Envionics 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
	<u>Before</u>		<u>After</u>
Calculated slope	0.981022	Calculated slope	0.954207
Calculated intercept	1.316662	Calculated intercept	1.692650
Analyzer make	API Model 400E	Analyzer serial #	331

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Offset	-6.1	ppb	NA	ppb
Slope	1.061		NA	
Lamp measure	4243.9	mV	4243.9	mV
Lamp Reference	4249.9	mV	4249.9	mV
Pressure	26.2	inches Hg	26.2	inches Hg
Sample Flow	675	ccm	675	ccm
Sample temp	38.5	Deg C	38.5	Deg C

## Calibration Data

Dilution air flow rate (cc/min)	Ozone Set Point	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)
4988	0.0	0.0	-4.6	N/A
4988	300.0	302.3	312.9	0.9663
4988	200.0	206.1	215.0	0.9584
4988	100.0	108.8	116.4	0.9343
4988	0.0	0.0	-2.8	0.0000
4988	300.0	302.3	312.0	0.9690
Average Correction Factor				0.9530

Calculated value of As Found Response: 310.1 ppm      Percent Change of As Found: 2.6%

	before calibration		after calibration	
Auto zero	-1.9	ppb	-3.4	ppb
Auto span	380.1	ppb	370.3	ppb

Notes: Performed maintenance: Took apart the bench and replaced rxn chamber o-rings.  
Calculated concentration inputs based on GPT portion of NOX calibration.

Calibration Performed By: Reid Balawyder

## Calibration Summary

Parameter **O3**  
 Air Monitoring Network **Palliser Airshed**

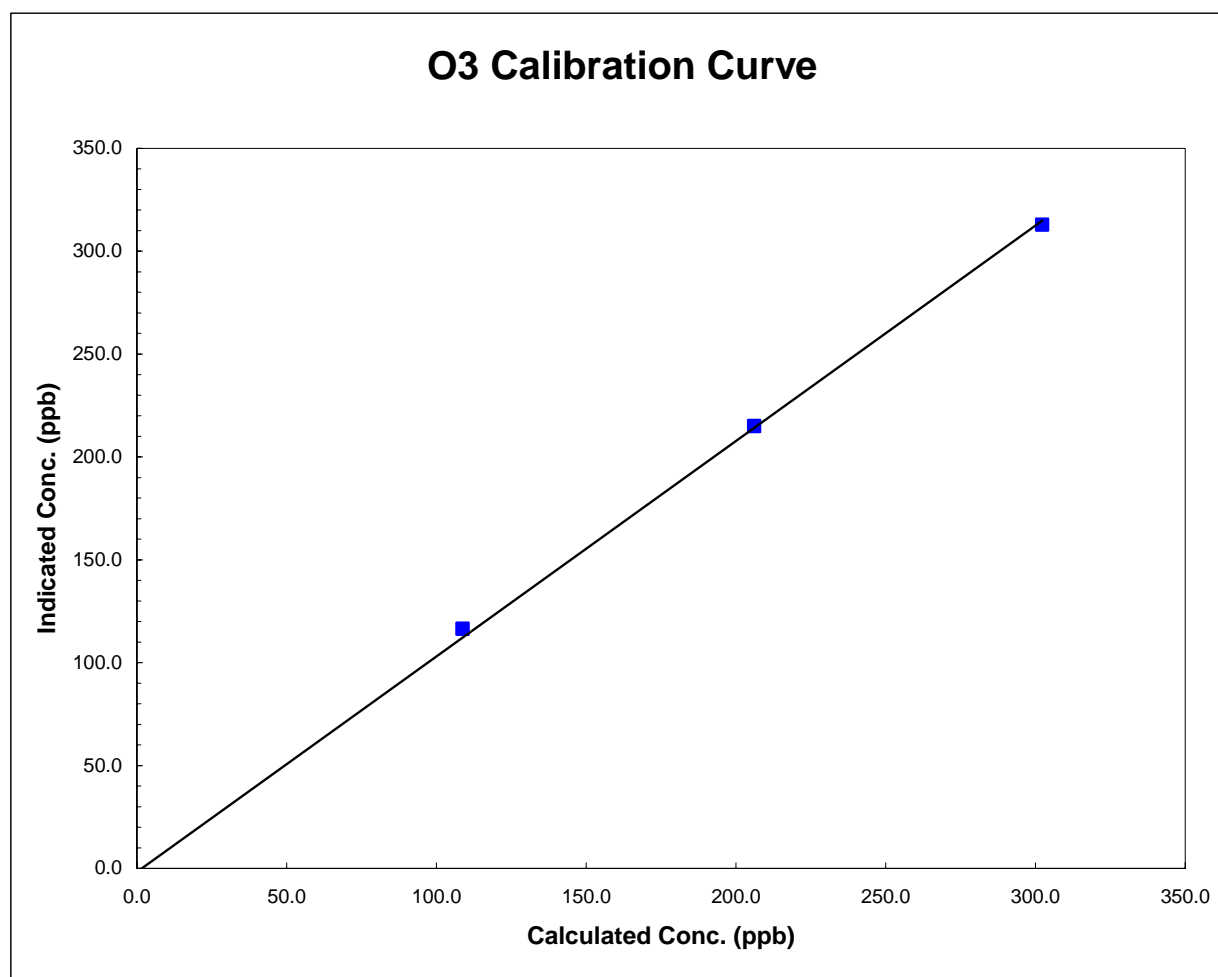


### Station Information

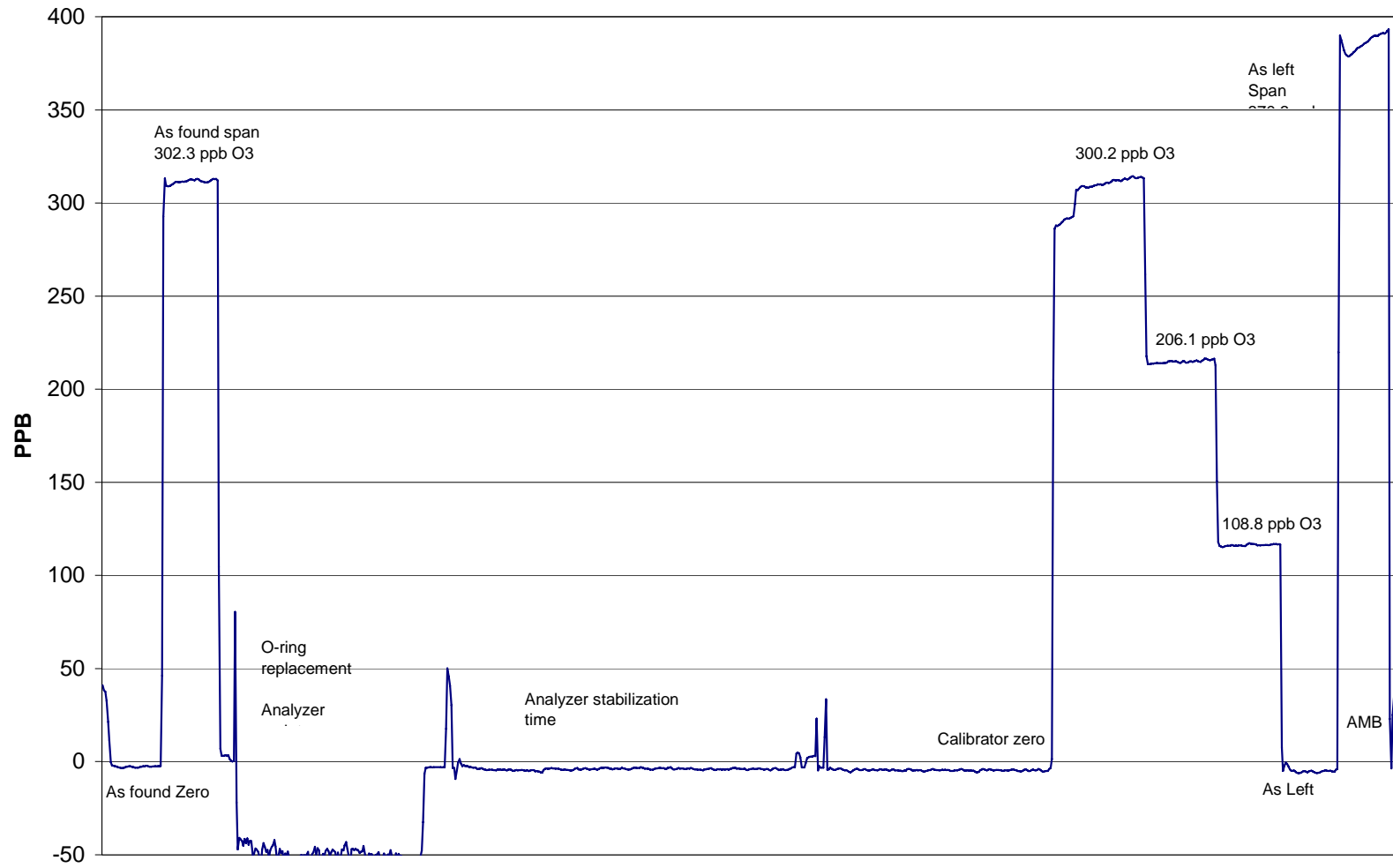
Calibration Date	July 26, 2007	Previous Calibration	June 27, 2007
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	13:00	End Time (MST)	21:00
Analyzer make/model	API Model 400E	Analyzer serial #	331

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
302.3	312.9	0.9663	Correlation Coefficient	0.999437
206.1	215.0	0.9584		
108.8	116.4	0.9343		
0.0	-4.6	N/A	Slope	0.954207
			Intercept	1.692650



O3 Calibration



July 26, 2007

# Calibration Report

Parameter  
Air Monitoring Network

**NOx-NO-NO<sub>2</sub>**  
**Palliser Airshed**



## Station Information

Calibration Date July 25, 2007 Previous Calibration June 26, 2007  
Station Number 101 Station Location Crescent Heights

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

Start Time (MST) 13:45 End Time (MST) 20:00  
Barometric Pressure 27.4 inches Hg Station Temperature 22.0 Deg C  
Calibrator EnviroNics 6100 Serial Number 3474  
NO Cal Gas Conc 48.9 ppm Cal Gas Expiry Date 5-Dec-07  
NOx Cal Gas Conc 48.9 ppm Cal Gas Serial # LL-50114

## DACS Information

DACS make FOCUS AP1000 DACS serial No. 45270

Parameter		NO2	NOx	NO
Before	Data Slope	1.016977	1.013871	1.000353
	Data Offset	4.272512	1.717992	2.402720
After	Data Slope	0.922388	0.929471	0.955244
	Data Offset	-1.552901	0.406096	0.942031
Channel #		8	6	7
Voltage Range		0 - 1 VDC	0 - 1 VDC	0 - 1 VDC

## Analyzer Information

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

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO background	0.3	mV	NA	mV
NOx background	1.7	mV	NA	mV
NO coefficient	2.079		NA	
NOx coefficient	2.122		NA	
Chamber Temp	50.0	Deg C	50.0	Deg C
Cooler Temp	7.0	Deg C	7.0	Deg C
Azero	43.0		43.0	
Perm Temp	40.2	Deg C	40.2	Deg C
Pressure	4.8	inches Hg	4.8	inches Hg
Sample Flow	457.0	ccm	457.0	ccm

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

<b>Calibration Report</b>										
Parameter	<b>NO<sub>x</sub>-NO-NO<sub>2</sub></b>									
Air Monitoring Network	<b>Palliser Airshed</b>									
<b>Station Information</b>										
Calibration Date:	July 25, 2007				Station Location:	Crescent Heights				
<b>Calibration Data</b>										
	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NO <sub>x</sub> conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NO <sub>x</sub> conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NO <sub>x</sub> Correction factor	NO Correction factor
zero	4989	0.00	0.0	0.0	0.0	-3.0	-3.2	-1.6	N/A	N/A
1	4989	39.84	387.4	387.4	0.0	414.8	403.0	10.9	0.9340	0.9613
2	4989	19.90	194.3	194.3	0.0	210.7	204.8	4.7	0.9224	0.9490
3	4989	9.94	97.2	97.2	0.0	106.3	102.2	2.5	0.9147	0.9514
AFZ	4989	0.00	0.0	0.0	0.0	-3.0	-3.2	-1.6	0.0000	0.0000
AFS	4989	39.84	387.4	387.4	0.0	414.7	404.1	9.7	0.9342	0.9588
Average Correction Factor									0.9237	0.9539
As Found Concentrations			NO <sub>x</sub> = 419.5		NO= 409.6		As Found Percent Change		NO <sub>x</sub> = 8.3%	NO= 5.7%
<b>GPT Calibration Data</b>										
Dilution Flow		4989		ccm	Source Gas Flow		39.84		ccm	
O <sub>3</sub> Setpoint (ppb)	Calculated NO <sub>x</sub> conc (ppb)	Calculated NO conc (ppb)	Calculated NO <sub>2</sub> conc (ppb)	Indicated NO <sub>x</sub> conc (ppb)	Indicated NO conc (ppb)	Indicated NO <sub>2</sub> conc (ppb)	NO <sub>x</sub> Correction factor	NO Correction factor	NO <sub>2</sub> Correction factor	Converter Efficiency
0	387.6	388.3	-0.7	416.6	405.5	-1.6	N/A	N/A	N/A	N/A
300	387.1	84.7	302.3	416.0	87.7	326.8	0.9304	0.9660	0.9252	108.1%
200	388.2	182.1	206.1	417.2	189.6	226.4	0.9304	0.9602	0.9104	109.8%
100	388.1	279.4	108.8	417.2	291.5	124.3	0.9304	0.9585	0.8748	114.3%
Average Correction Factor							0.9304	0.9616	0.9035	110.7%
<b>AIC Data</b>										
	Previous calibration				Current calibration					
Parameter	NO <sub>x</sub>	NO <sub>2</sub>	NO		NO <sub>x</sub>	NO <sub>2</sub>	NO			
Auto zero	-1.7	0.1	-0.8	ppb	0.2	-2.4	-0.6	ppb		
Auto span	490.5	484.3	9.3	ppb	432.3	418.3	8.2	ppb		
Calibration Performed By: Reid Balawyder										

## Calibration Summary

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

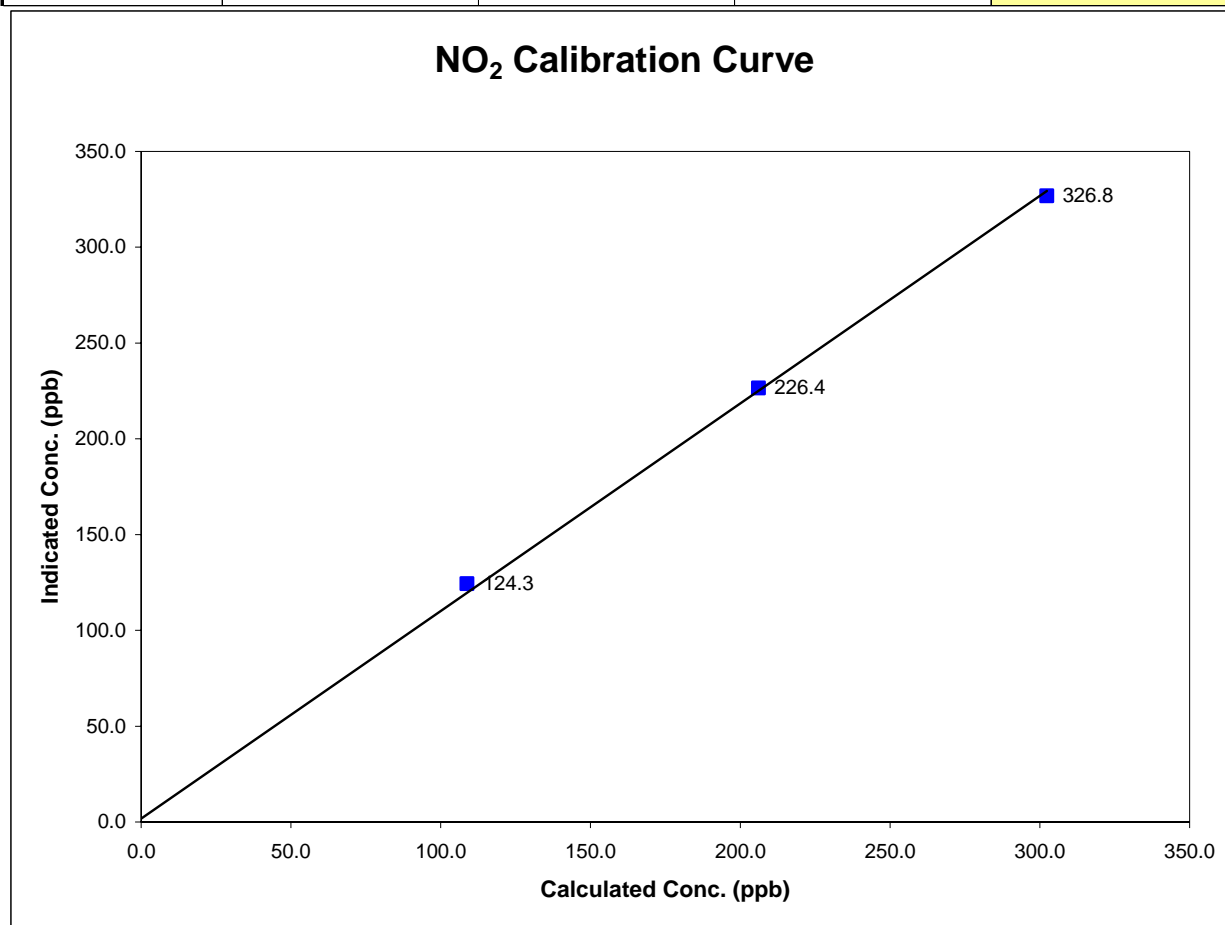


### Station Information

Calibration Date	July 25, 2007	Previous Calibration	June 26, 2007
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	13:45	End Time (MST)	20:00
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	-1.6	0.0000	Correlation Coefficient	0.999291
302.3	326.8	0.9252		
206.1	226.4	0.9104		
108.8	124.3	0.8748		
			Slope	0.922388
			Intercept	-1.552901



## Calibration Summary

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

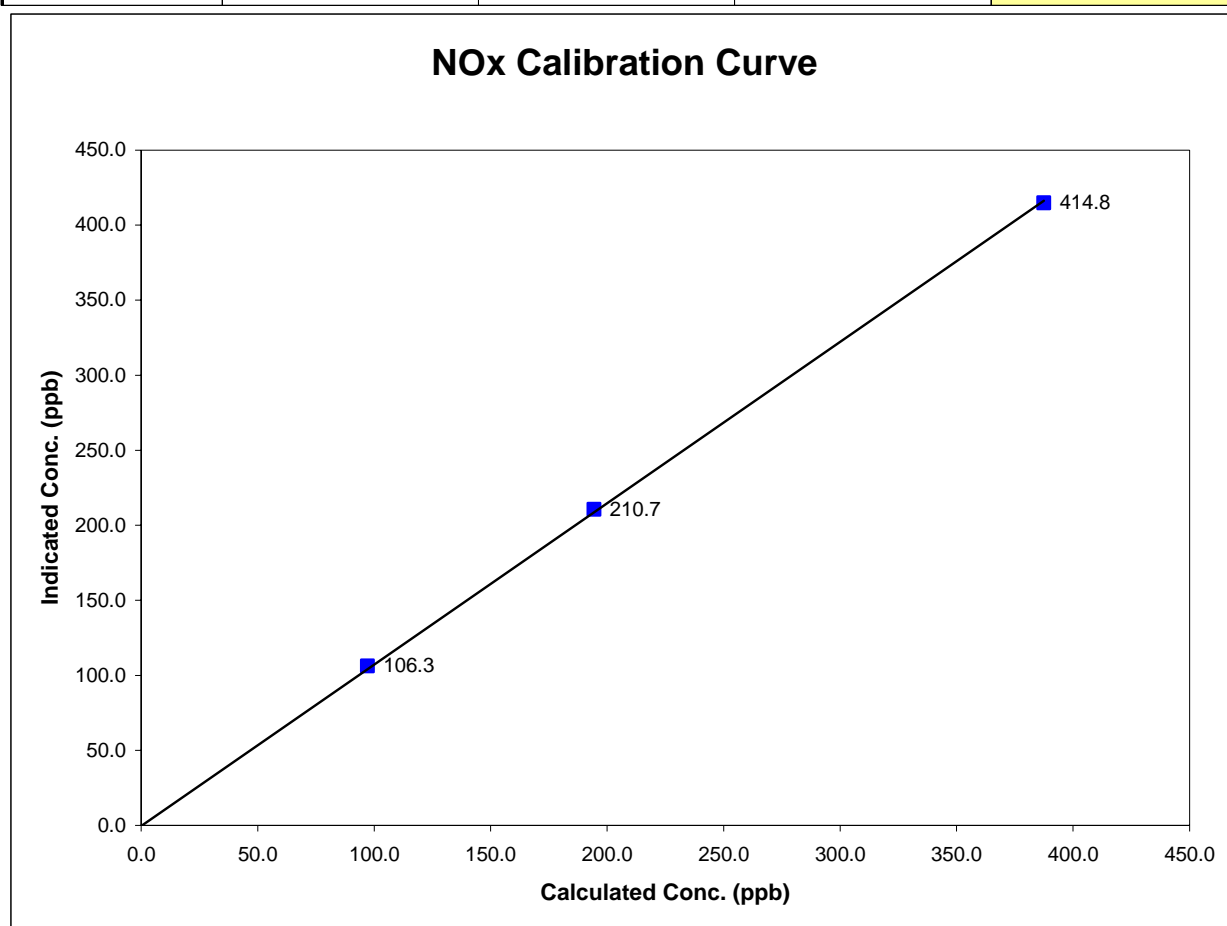


### Station Information

Calibration Date	July 25, 2007	Previous Calibration	June 26, 2007
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	13:45	End Time (MST)	20:00
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	-3.0	0.0000		
387.4	414.8	0.9340	Correlation Coefficient	0.999812
194.3	210.7	0.9224		
97.2	106.3	0.9147	Slope	0.929471
			Intercept	0.406096



## Calibration Summary

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

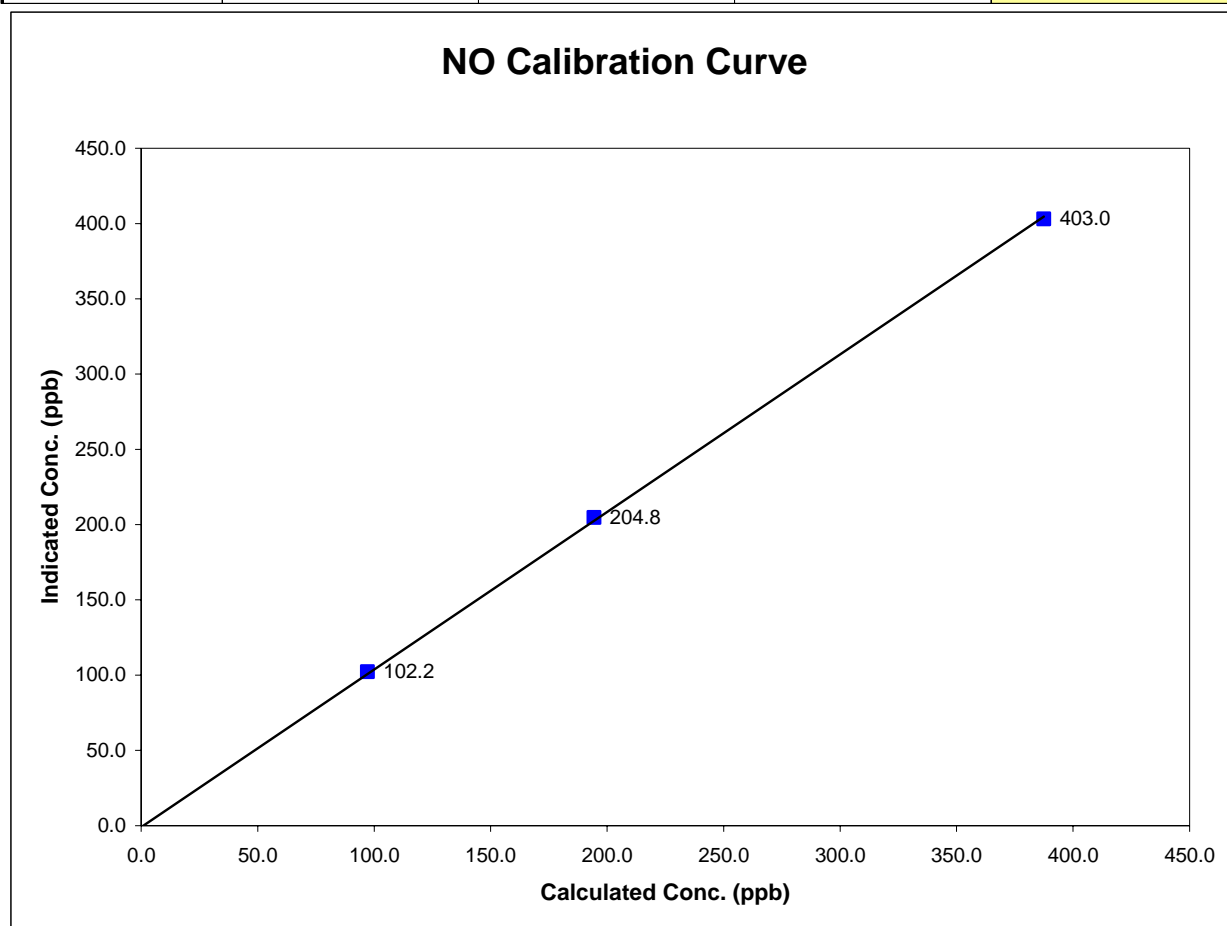


### Station Information

Calibration Date	July 25, 2007	Previous Calibration	June 26, 2007
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	13:45	End Time (MST)	20:00
Analyzer make	API Model 200E	Analyzer serial #	219

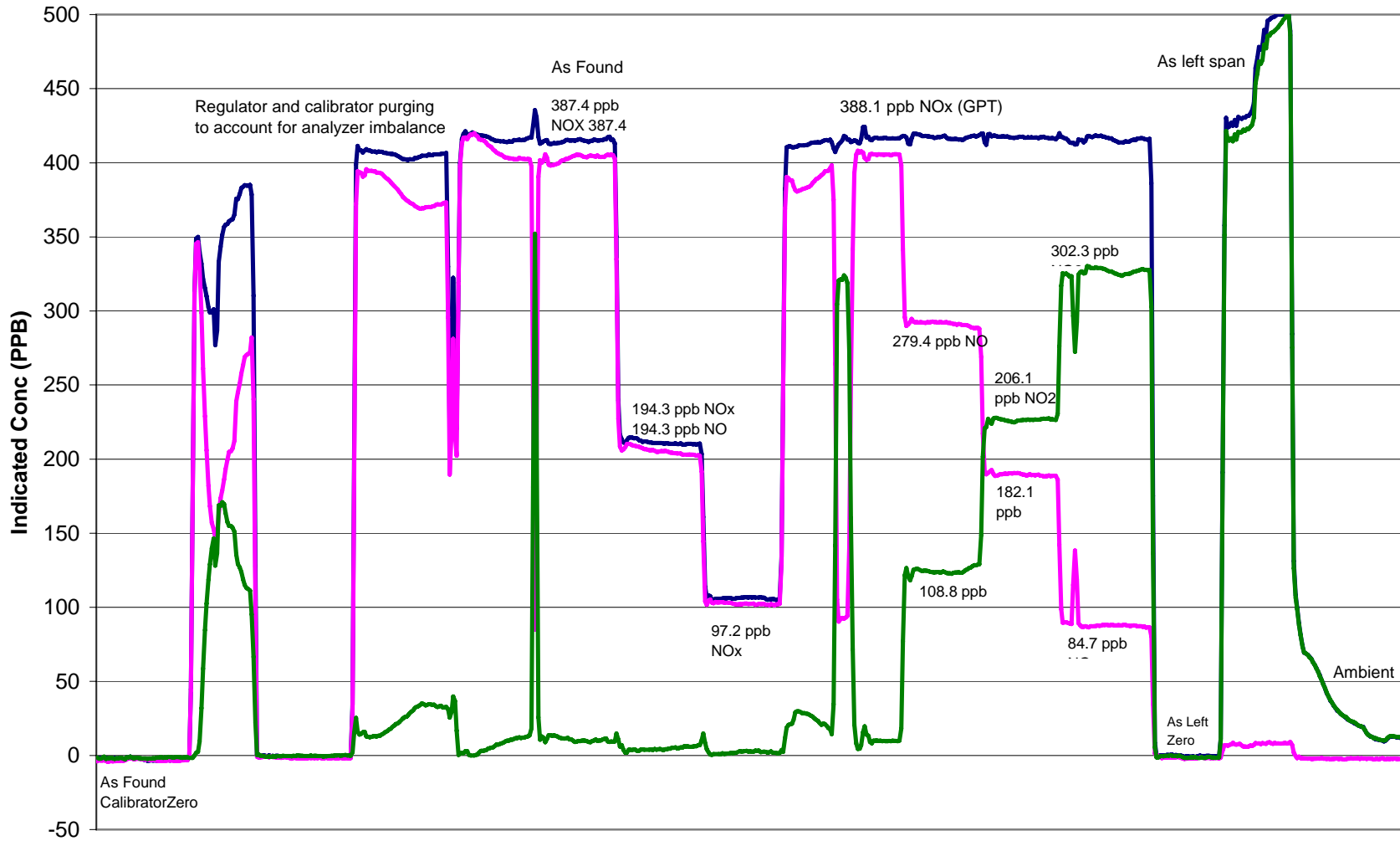
### Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-3.2	N/A		
387.4	403.0	0.9613	Correlation Coefficient	0.999840
194.3	204.8	0.9490		
97.2	102.2	0.9514	Slope	0.955244
			Intercept	0.942031





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



July 25, 2007

# Calibration Report

Parameter **THC**  
Air Monitoring Network **Palliser Airshed**



## Station Information

Calibration Date	July 26, 2007	Previous Calibration	June 26, 2007
Station Number	101	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	8:15	End Time (MST)	10:45
Barometric Pressure	27.7 inches Hg	Station Temperature	22.0 Deg C
Calibrator	Envionics 6100	Serial Number	3747
Cal Gas Concentration	708 ppm CH <sub>4</sub> / 299 ppm C <sub>3</sub> H <sub>8</sub>	Cal Gas Expiry Date	8/28/2005
Cal Gas CH <sub>4</sub> equiv	1530.25 ppm	Cal Gas Cylinder #	ALM030358
DACS make	Focus AP1000	DACS serial No.	45270
DACS voltage range	0 - 10 volt	DACS channel #	9
	<b>Before</b>		<b>After</b>
Calculated slope	0.990120	Calculated slope	0.995730
Calculated intercept	0.000143	Calculated intercept	-0.052219
Analyzer make	TEI model 51C-LT	Analyzer serial #	407505596

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
THC sample pressure	5.75	PSI	5.75	PSI
THC span counts	12605	raw	12605	raw
THC zero counts	1370	raw	1370	raw
V Bias	-326	Volts	-326	Volts

## 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)
4990	0.00	0.00	0.05	N/A
4990	79.74	24.07	24.25	0.9925
4990	39.84	12.12	12.17	0.9962
4988	9.94	3.04	3.14	0.9695
zero	0.00	0.00	0.05	As Found Zero
4988	79.77	24.09	24.25	As Found Span
Average Correction Factor				0.9861

Calculated value of As Found Response: 23.956 ppm      Percent Change of As Found: 0.5%

	before calibration		after calibration	
Auto zero	-0.04	ppm	-0.09	ppm
Auto span	18.46	ppm	18.53	ppm

Notes: No adjustments were performed...

Calibration Performed By: Reid Balawyder

## Calibration Summary

Parameter **THC**  
 Air Monitoring Network **Palliser Airshed**

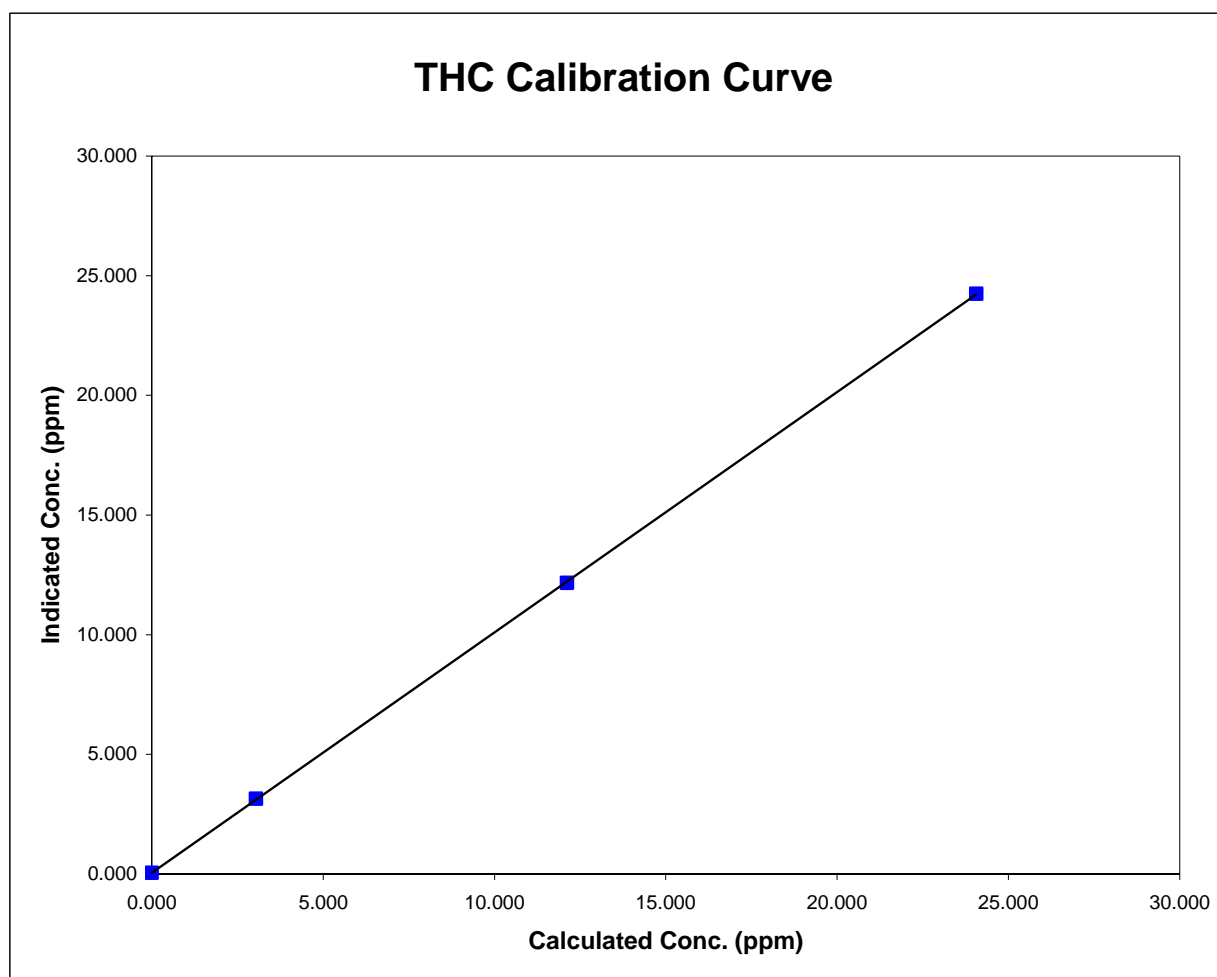


### Station Information

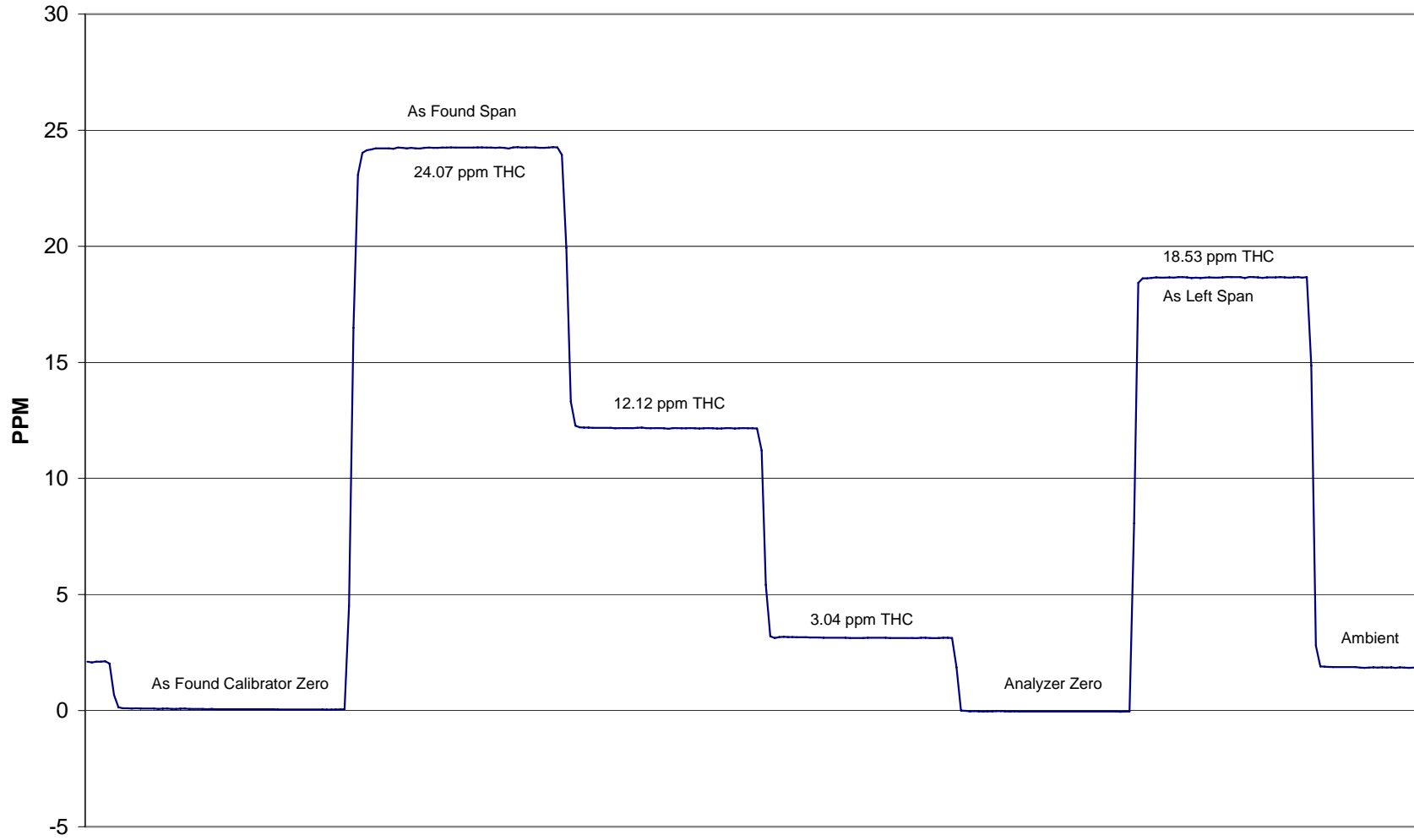
Calibration Date	July 26, 2007	Previous Calibration	June 26, 2007
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	8:15	End Time (MST)	10:45
Analyzer make/model	TEI model 51C-LT	Analyzer serial #	407505596

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.055	N/A		
24.069	24.250	0.9925	Correlation Coefficient	0.999986
12.120	12.166	0.9962		
3.042	3.138	0.9695	Slope	0.995730
			Intercept	-0.052219



### THC Calibration



July 26, 2007

# Calibration Report



Parameter **CO**  
 Air Monitoring Network **Palliser**

## Station Information

Calibration Date	July 26, 2007	Previous Calibration	June 27, 2007
Station Number	101	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	9:55	End Time (MST)	12:30
Barometric Pressure	27.60 in Hg	Station Temperature	22.0 Deg C
Calibrator	Envionics 6100	Serial Number	3474
Cal Gas Conc	2998 ppm	Cal Gas Expiry Date	3/14/2008
		Cal Gas Cylinder #	BLM002248
DACS make	Focus AP1000	DACS serial No.	45270
DACS voltage range	0 - 1 volt	DACS channel #	11
	Before		After
Calculated slope	1.012196	Calculated slope	1.009652
Calculated intercept	-0.074619	Calculated intercept	-0.098717
Analyzer make	TEI Model 48C	Analyzer serial #	436609887

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO coefficient	1.080		1.080	
CO bkg setting	1.197		1.197	
Lamp ratio	1.142311		1.142311	
Lamp intensity	199466	Hz	199466	Hz
Sample Flow	1.017	LPM	1.017	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	0.00	N/A
4989	49.83	29.65	29.42	1.0076
4989	19.91	11.92	11.96	0.9967
4989	9.93	5.95	6.08	0.9799
4989	0.00	0.00	0.00	0.0000
4989	49.87	29.67	29.42	1.0084
Average Correction Factor				0.9947

Calculated value of As Found Response: 29.705 ppm      Percent Change of As Found: -0.1%

	before calibration		after calibration	
Auto zero	-0.04	ppm	-0.07	ppm
Auto span	19.50	ppm	19.20	ppm

Notes: No adjustments made.

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Calibration Performed By: Reid Balawyder

# Calibration Summary

Parameter **CO**

Air Monitoring Network **Palliser**

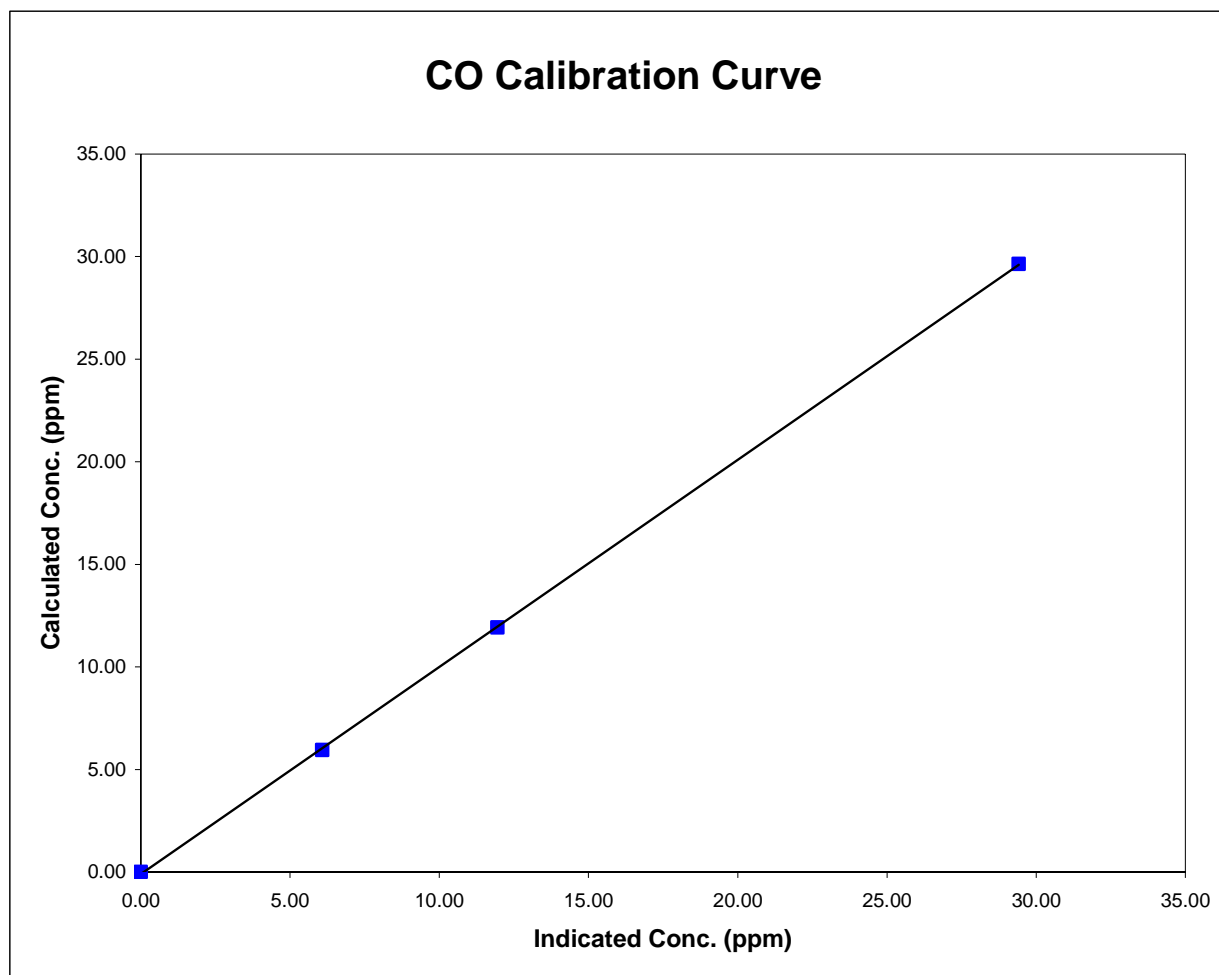


## Station Information

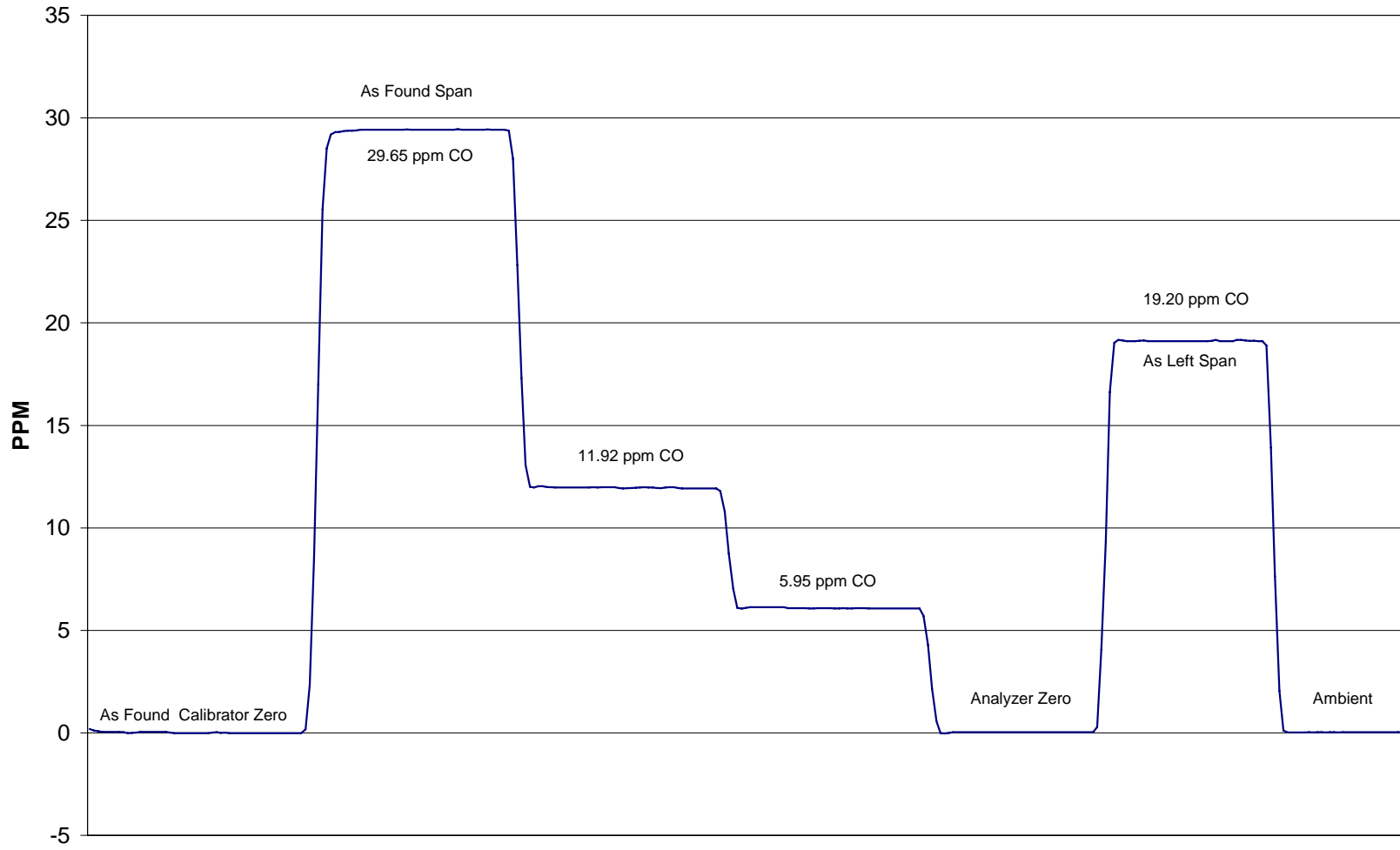
Calibration Date	July 26, 2007	Previous Calibration	June 27, 2007
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	9:55	End Time (MST)	12:30
Analyzer make/model	TEI Model 48C	Analyzer serial #	436609887

## Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.00	0.00	N/A		
29.65	29.42	1.0076	Correlation Coefficient	0.999957
11.92	11.96	0.9967		
5.95	6.08	0.9799	Slope	1.009652
			Intercept	-0.098717



**CO Calibration**



**July 26, 2007**