



Palliser Airshed Society

Ambient Air Monitoring Network Summary

April 2004



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Alberta Environment
Enforcement and Monitoring Division
11th Floor, Oxbridge Place
9820 - 106th Street
Edmonton, Alberta, T5K 2J6

Attention: Director of Monitoring and Evaluation

RE: Palliser Airshed Society (PAS) Ambient Air Monitoring Report – April 2004

Enclosed is the PAS Ambient Monitoring Report for the month of **April 2004**.

Continuous Monitoring – Crescent Heights

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

The following is a summary of the monthly averages found during this month of sampling:

- Monthly average concentrations of NO₂ was 7.2 ppb
- Monthly average concentrations for O₃ was 36.5 ppb
- Monthly average concentrations for THC was 2.20 ppm
- Monthly average concentrations for PM_{2.5} was 1.8 µg/m³

Passive Monitoring – Six Stations throughout the PAS zone:

There were no problems reported from the laboratory or field notes, however the NO₂ sample collected from the Crescent Heights monitoring station site had a concentration of 0.1 ppb, which was essentially the blank concentration. This filter was removed from the averages to avoid skewing the data falsely. In addition there were no damaged or missing samples for the month and no exceedences of the Provincial Air Quality guidelines.

- Monthly average concentrations for SO₂ passives ranged from 0.2 ppb to 0.3 ppb
- Monthly average concentrations for NO₂ passives ranged from 5.3 ppb to 7.2 ppb
- Monthly average concentrations for O₃ passives ranged from 33.0 ppb to 39.9 ppb

If you have any questions, please contact the Focus office at 466-6555.

Gary Cross C.E.T.

Kevin McCullum, M.Sc., P.Eng.



CONTINUOUS MONITORING
Ambient Air Compliance Network

April 2004 Monthly Overall Summary Report
Ambient Air Quality Data

Apr-2004		Palliser Airshed Society				Maximum Recorded Values						Operational Time (%)	
Pollutant (units)	Guidelines		Station	Monthly Average	Exceedence		1-hr			24-hr			
	1-hr	24-hr			1-hr	24-hr	Conc	Day	WSPD (km/hr)	WDIR (Sector)	Conc		Day
NO (ppb)			Crescent Heights	2.4	0	0	67.1	Apr-03	2.5	NNW	9.1	Apr-06	98.6%
NO ₂ (ppb)	212	106	Crescent Heights	7.2	0	0	39.1	Apr-03	2.5	NNW	13.7	Apr-03	98.6%
NO _x (ppb)			Crescent Heights	9.4	0	0	105.4	Apr-03	2.5	NNW	22.1	Apr-03	98.6%
O ₃ (ppb)	82		Crescent Heights	36.4	0	0	62.5	Apr-08	11.1	SSE	49.9	Apr-24	96.4%
THC (ppm)			Crescent Heights	2.25	0	0	3.17	Apr-03	2.5	NNW	2.48	Apr-10	97.5%
PM _{2.5} (µg/m ³)		30 ^a	Crescent Heights	1.8	0	0	21.8	Apr-27	24.8	SSE	6.4	Apr-27	92.5%
RH (%)			Crescent Heights	48.5									98.2%
SR (W/m ²)			Crescent Heights	236.1									98.2%
Temp (°C)			Crescent Heights	8.9									97.2%
WSPD v (km/hr)			Crescent Heights	1.7									98.1%
WSPD s (km/hr)			Crescent Heights	11.5									98.1%
WDIR (Deg)			Crescent Heights	ENE*									98.1%

Note: ^a the 24-hr Canada Wide Standard level is considered as an absolute value

* Wind Direction is the predominate direction for the Month



Continuous Monitoring

Ambient Air Monitoring Network

Crescent Heights Station

General Station Issues

Data is missing for 9 hours on April 28 and one hour on April 30 due to corrupted firmware on the AP1000. The firmware was downloaded and the system restarted.

Parameter	Make	Model	Units	Notes
Ozone	Teledyne - API	400E	ppb	Data was removed from April 28 at 11:00 to April 29 at 3:00 due to excessive instrument drift
Nitrogen Dioxide	Teledyne - API	200E	ppb	No operational problems observed
Total Hydrocarbons	Bendix	400A	ppm	The Bendix analyzer was removed on April 26 and the new TEI 51CLT analyzer was installed on April 27. Data was missing during stabilization of the new analyzer.
PM 2.5	R&P TEOM	1400ab	ug/m3	Various hours this month were removed due to negative drift of the analyzer according to AENV criteria
Wind Speed	Met One	010C	KPH	No operational problems observed - a calibration of the system was completed on April 27
Wind Direction	Met One	020C	Deg	No operational problems observed - a calibration of the system was completed on April 27
Ambient Temperature	Met One	083D	DegC	Data was removed from April 28 at 9:00 to 16:00 due to excessive sensor drift.
Relative Humidity	Met One	083D	%	No operational problems observed
Solar Radiation	Met One	096-1	W/m2	No operational problems observed
Data Acquisition System	Titan Logix	AP1000	N/A	The data system was replaced with the latest version on April 26 from 16:00 to 19:00 resulting in data loss for all parameters.



PAS - CRESCENT HEIGHTS OXIDES OF NITROGEN MONTHLY SUMMARY

Station: Crescent Heights

HOURLY AVERAGE TABLE

Nitrogen Dioxide (NO₂)

Station Owner: PAS

Monitoring Dates: April 1, 2004 to May 1, 2004

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	39 ppb 3-Apr 2:00 3:00
Maximum 24-hr Average:	14 ppb 3-Apr

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

AIC Time:	29 hrs	Operational Time:	673 hrs					
Calibration Time:	8 hrs	AMD Operational Uptime:	98.6%					
Percentile	99	95	75	50	25	5	1	Average
	31	22	9	5	3	1	0	7.2 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-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-Apr-04	5	7	0	0	0	1	3	2	1	0	0	1	1	4	3	5	6	9	10	11	A	20	21	27	8	5.5	27.0	
2-Apr-04	11	12	28	30	25	19	18	13	8	8	8	6	3	3	3	2	3	4	9	A	11	A	28	26	10	12.9	30.1	
3-Apr-04	17	31	39	30	31	32	21	11	7	5	4	4	3	5	4	5	4	5	A	18	7	23	5	3	13.7	39.1		
4-Apr-04	2	2	2	4	4	5	4	5	4	5	5	6	3	2	2	2	2	A	6	11	23	20	14	10	6.2	22.7		
5-Apr-04	13	8	8	15	9	22	29	19	12	5	4	5	5	11	5	2	A	4	9	22	14	12	15	13	11.3	29.3		
6-Apr-04	13	13	21	32	29	26	20	20	12	6	7	7	5	7	5	A	5	3	3	3	5	8	14	23	12.4	31.7		
7-Apr-04	14	14	18	19	13	12	12	16	14	6	3	3	2	2	A	4	3	4	3	2	5	3	4	4	7.8	19.0		
8-Apr-04	6	22	29	22	14	8	6	5	3	2	1	1	1	A	4	3	3	4	6	6	20	24	5	3	8.5	28.5		
9-Apr-04	7	12	9	13	12	13	13	7	8	3	1	2	A	3	3	3	2	3	7	13	18	10	6	4	7.5	18.4		
10-Apr-04	7	6	9	15	11	19	14	14	7	4	2	A	6	2	2	1	2	1	1	2	9	7	11	15	7.3	18.5		
11-Apr-04	15	7	5	4	9	10	9	4	2	1	A	4	2	3	2	4	2	2	3	4	4	3	4	2	4.6	15.0		
12-Apr-04	3	3	5	3	5	7	10	8	6	A	6	4	3	4	3	3	3	3	6	3	2	2	2	3	4.1	9.7		
13-Apr-04	2	2	1	2	2	3	2	2	A	4	2	1	1	1	1	1	1	1	1	2	2	2	2	2	1.7	3.8		
14-Apr-04	1	1	2	1	1	1	1	A	5	3	5	5	4	4	3	4	5	4	9	18	18	12	14	13	5.9	18.2		
15-Apr-04	16	14	12	12	18	16	A	13	8	7	5	4	3	4	3	3	3	2	3	7	11	4	4	10	7.8	17.5		
16-Apr-04	12	10	7	3	5	A	8	7	3	2	3	3	2	2	2	2	2	2	2	2	2	3	2	1	3.9	12.2		
17-Apr-04	3	6	9	9	A	18	13	6	4	4	7	7	3	2	2	3	3	3	3	3	4	5	6	13	6.1	18.2		
18-Apr-04	12	10	9	A	6	5	4	3	3	3	2	2	1	1	3	5	4	4	4	11	5	6	5	4	4.8	11.9		
19-Apr-04	3	3	A	5	6	9	8	5	4	7	8	8	8	5	5	6	6	7	2	5	12	4	2	5	5.7	11.9		
20-Apr-04	5	A	14	8	10	15	17	8	8	9	8	4	2	2	2	2	2	3	2	4	7	6	8	A	6.6	17.0		
21-Apr-04	11	23	28	26	30	17	12	9	8	8	6	3	3	4	6	4	4	3	5	10	10	13	13	A	11.0	30.0		
22-Apr-04	9	8	5	5	8	10	12	8	6	8	4	2	1	2	2	2	2	2	4	6	4	8	A	9	5.6	11.7		
23-Apr-04	6	11	9	9	2	3	4	4	4	3	3	4	3	3	3	3	3	15	6	5	25	A	7	7	6.1	25.0		
24-Apr-04	4	4	5	4	4	4	5	6	2	3	3	3	3	2	2	2	3	3	3	9	A	27	16	15	5.7	26.9		
25-Apr-04	11	7	6	15	13	18	15	10	5	3	3	2	2	2	2	2	2	4	4	A	16	27	29	27	9.8	29.3		
26-Apr-04	15	14	9	4	7	10	7	3	4	2	2	0	0	C	C	C	C	C	C	C	C	0	4	4	N	14.7		
27-Apr-04	6	7	6	A	3	9	8	6	6	3	6	17	12	6	5	12	2	3	7	9	3	2	4	4	6.3	16.8		
28-Apr-04	N	N	N	N	N	N	N	N	N	0	1	1	1	1	3	3	2	2	2	13	20	24	14	11	N	23.6		
29-Apr-04	6	3	4	A	7	7	5	4	4	4	4	3	2	4	4	3	2	2	2	3	5	3	5	4	4.0	7.3		
30-Apr-04	4	3	A	6	21	24	12	6	9	N	2	3	2	2	3	3	3	3	3	3	6	16	25	37	35	10.4	37.0	
																										N	0.0	
Hourly Avg	8.3	9.3	11.1	11.4	10.8	12.3	10.5	8.1	6.0	4.2	3.9	3.9	3.1	3.4	3.1	3.3	2.9	3.8	4.4	7.6	10.6	11.4	10.5	9.3				
Hourly Max	17.0	31.1	39.1	31.7	30.6	31.8	29.3	19.6	13.7	9.4	8.1	16.8	11.5	10.7	5.8	12.2	6.2	14.8	10.0	21.7	25.0	28.1	37.0	35.0				

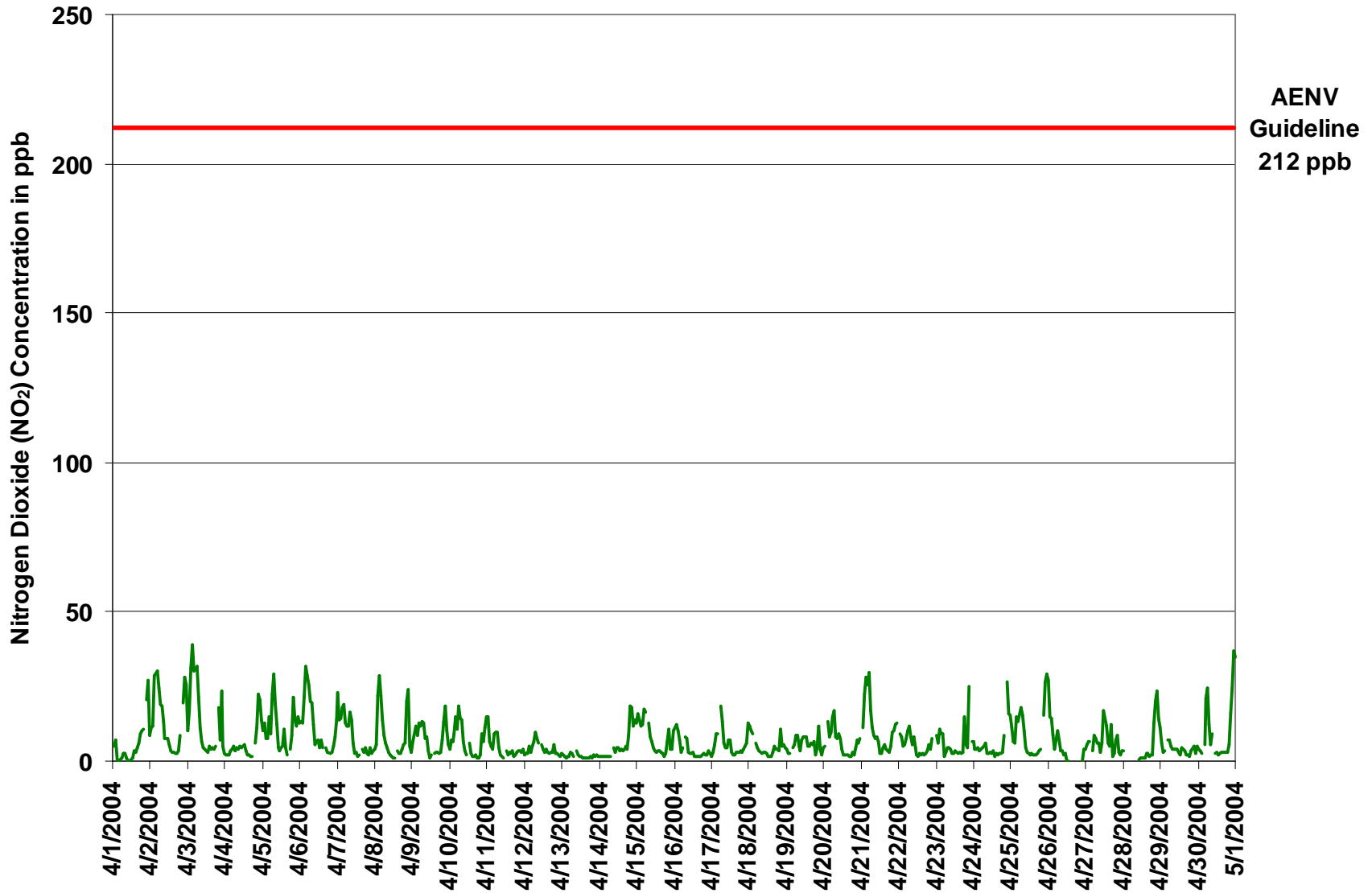


Figure 1. PAS - Crescent Heights Nitrogen Dioxide 1-hr Average Monthly Trend



Station: Crescent Heights

HOURLY MAXIMUM TABLE

Nitrogen Dioxide (NO₂)

Station Owner: PAS

Monitoring Dates: April 1, 2004 to May 1, 2004
Summary

Maximum 1-hr Value:	267.5	ppb	27-Apr	11:00 12:00
Maximum 24-hr Value:	27.9	ppb	27-Apr	

AIC Time:	29 hrs	Operational Time:	673 hrs					
Calibration Time:	8 hrs	AMD Operational Uptime:	98.6%					
Percentile	99	95	75	50	25	5	1	Average
	53	42	20	10	5	2	2	14.9 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	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum	
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Apr-04	10	12	4	3	3	3	6	4	11	2	2	2	5	19	12	8	23	62	37	29	A	28	39	16	14.6	61.9	
2-Apr-04	17	39	42	38	35	21	36	18	9	11	13	14	20	6	41	4	4	40	21	A	42	40	46	13	24.8	46.3	
3-Apr-04	25	41	52	47	40	45	39	16	12	7	32	41	4	15	6	35	6	13	A	39	12	46	41	4	27.0	52.0	
4-Apr-04	2	3	3	16	32	28	5	10	8	9	7	9	6	3	6	4	2	A	12	22	43	29	19	12	12.6	43.3	
5-Apr-04	25	13	9	38	16	45	42	23	21	13	5	6	7	13	10	4	A	6	21	40	25	32	20	17	19.5	44.9	
6-Apr-04	19	16	39	34	53	48	33	22	21	10	24	12	6	14	12	A	7	4	5	5	10	11	31	44	20.9	52.8	
7-Apr-04	41	25	25	48	21	26	21	27	38	8	4	5	3	32	A	7	6	9	4	3	15	4	5	5	16.7	48.3	
8-Apr-04	8	37	40	33	18	14	7	7	4	2	2	2	2	A	5	4	5	6	11	9	34	43	9	5	13.4	43.1	
9-Apr-04	16	16	10	15	15	16	16	10	13	5	2	3	A	5	5	4	4	6	40	31	52	49	8	5	15.1	51.9	
10-Apr-04	20	12	19	25	14	25	19	20	19	5	3	A	30	12	2	2	4	3	3	7	14	10	42	30	14.8	42.3	
11-Apr-04	36	15	36	7	13	15	16	7	3	2	A	6	4	13	13	51	3	3	14	5	5	4	20	20	13.5	50.8	
12-Apr-04	11	15	42	4	7	21	53	11	45	A	8	9	5	45	14	15	6	4	12	4	3	3	2	4	15.0	53.2	
13-Apr-04	4	3	2	3	3	4	3	3	A	9	3	2	2	2	2	2	2	2	2	3	2	3	3	3	2.9	8.7	
14-Apr-04	3	2	3	3	2	2	2	A	6	6	8	8	40	11	7	14	9	7	26	35	56	19	20	20	13.4	56.4	
15-Apr-04	21	16	15	14	23	20	A	18	10	9	6	5	6	7	13	5	4	3	4	18	23	6	6	15	11.6	23.1	
16-Apr-04	15	15	9	4	7	A	12	10	5	3	5	4	3	3	3	3	3	3	3	3	4	5	4	2	5.5	15.0	
17-Apr-04	4	9	11	14	A	22	19	9	6	10	10	20	4	4	4	4	5	4	5	5	6	7	12	16	9.1	21.5	
18-Apr-04	17	13	11	A	8	6	6	3	4	4	3	3	2	6	8	7	9	8	19	10	44	25	18	10.2	44.0		
19-Apr-04	4	6	A	6	16	11	19	11	25	42	35	42	16	23	14	33	14	21	5	10	28	14	4	8	17.7	42.5	
20-Apr-04	9	A	31	11	11	32	23	21	23	16	10	7	4	4	3	2	2	6	3	5	10	12	13	A	11.8	31.7	
21-Apr-04	22	33	34	42	35	29	19	12	10	10	10	5	16	8	8	5	8	7	9	13	21	16	38	A	17.8	41.6	
22-Apr-04	11	32	9	7	18	15	14	26	8	11	11	3	2	24	9	15	3	4	6	9	8	13	A	13	11.6	32.1	
23-Apr-04	8	15	14	15	3	26	7	6	49	4	11	51	13	20	16	9	39	39	18	21	55	A	13	32	21.1	55.2	
24-Apr-04	7	10	11	10	6	9	12	18	4	4	5	5	6	3	4	4	5	6	5	22	A	46	20	17	10.4	45.7	
25-Apr-04	15	10	11	19	21	33	28	17	7	4	5	3	4	5	5	5	6	8	6	A	29	46	45	35	16.0	45.7	
26-Apr-04	20	33	13	8	10	53	11	33	15	6	6	2	1	C	C	C	C	C	C	C	C	C	0	5	16	N	53.2
27-Apr-04	31	15	24	A	4	36	27	8	20	6	12	267	18	14	24	24	5	9	28	23	7	3	17	19	27.9	267.5	
28-Apr-04	N	N	N	N	N	N	N	N	N	1	2	2	3	17	7	7	3	5	6	58	23	30	22	16	N	57.6	
29-Apr-04	8	5	6	A	12	24	6	5	5	24	10	6	5	8	9	12	7	7	3	7	10	5	8	7	8.7	24.2	
30-Apr-04	6	4	A	8	35	28	25	9	12	N	6	6	5	5	6	8	8	7	7	11	32	41	43	38	15.9	42.8	
																										N	0.0
Hourly Avg	15.0	16.7	19.5	18.1	17.1	23.5	18.8	13.7	14.7	8.6	9.0	18.9	8.3	12.0	9.5	10.6	7.1	10.8	11.6	16.8	21.5	20.9	20.0	16.1			
Hourly Max	40.8	41.3	52.0	48.3	52.8	53.2	53.2	33.4	48.7	42.0	34.9	267.5	40.3	45.1	41.0	50.8	38.9	61.9	39.7	57.6	56.4	48.7	46.3	44.1			

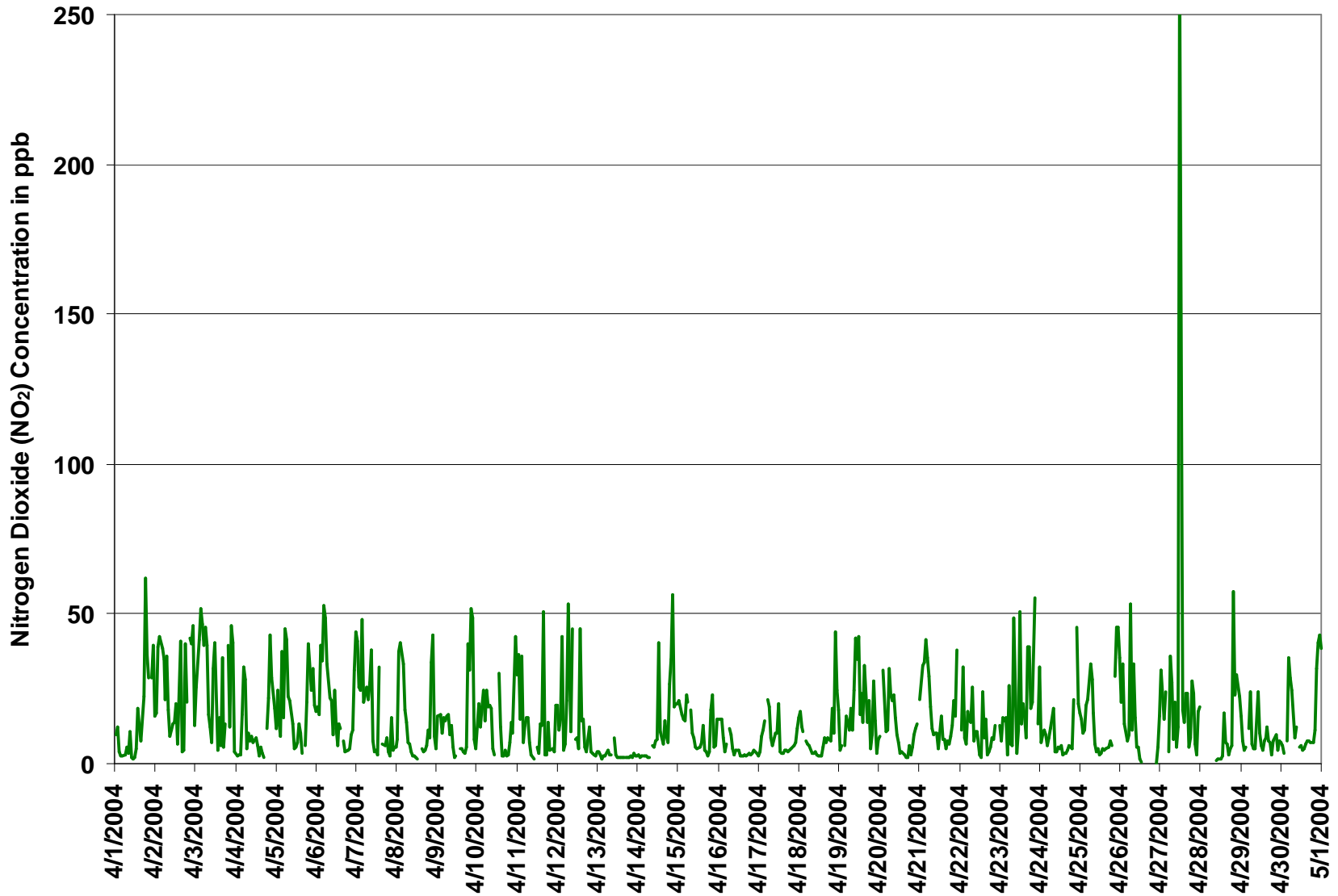
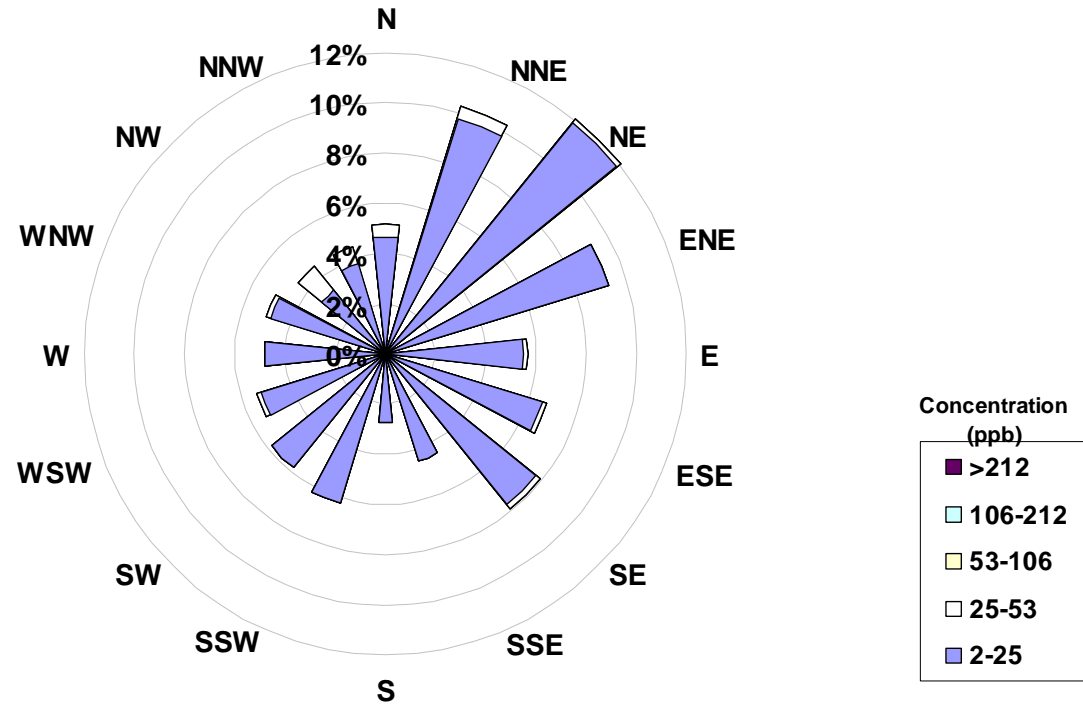


Figure 2. PAS - Crescent Heights Nitrogen Dioxide 1-hr Maximum Value Monthly Trend



Concentration Rose for the 1-hr NO₂ Average Concentration Occurrences at the Crescent Heights Site for April 2004



Frequency Distribution of NO ₂ in ppb			
Range	Frequency (hrs)		
0 < 2	86		
2 to 25	563		
25 to 53	24		
53 to 106	0		
106 to 212	0		
> 212	0		
Total Non-Zero Values	673		



Station: Crescent Heights

HOURLY AVERAGE TABLE

Nitrogen Oxide (NO)

Station Owner: PAS

Monitoring Dates: April 1, 2004 to May 1, 2004

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	67	ppb	3-Apr	2:00 3:00
Maximum 24-hr Average:	9	ppb	6-Apr	

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

AIC Time:	29 hrs		Operational Time:	673 hrs				
Calibration Time:	8 hrs		AMD Operational Uptime:	98.6%				
Percentile	99	95	75	50	25	5	1	Average
	27	8	2	1	0	0	0	2.4 ppb

Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start	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-Apr-04	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	4	1	1	A	1	5	0	0.8	5.4	
2-Apr-04	0	4	13	7	3	1	14	8	5	4	4	3	2	1	2	1	1	1	1	1	A	1	9	20	0	4.4	19.9
3-Apr-04	1	23	67	26	22	19	8	6	4	2	1	1	1	3	1	2	1	1	A	2	0	5	2	0	8.8	67.1	
4-Apr-04	0	0	0	1	5	2	0	2	2	2	2	2	1	0	1	0	0	A	0	1	1	0	1	0	1.1	5.3	
5-Apr-04	1	0	0	1	1	16	33	17	10	4	2	3	3	6	2	1	A	0	1	2	0	1	1	1	4.6	32.8	
6-Apr-04	1	1	14	28	21	36	31	38	11	3	4	4	2	4	2	A	1	1	1	1	1	1	1	3	9.1	37.9	
7-Apr-04	3	1	2	13	3	5	5	13	11	3	1	1	1	1	A	1	1	1	0	0	0	0	0	0	2.9	12.8	
8-Apr-04	0	3	7	3	1	1	1	2	2	1	1	1	0	A	0	0	0	1	1	0	2	1	0	0	1.3	6.6	
9-Apr-04	1	1	1	2	3	3	6	6	9	2	1	1	A	0	1	1	0	1	1	1	3	3	0	0	2.0	8.6	
10-Apr-04	1	1	0	2	1	1	2	7	4	2	1	A	4	2	0	0	1	0	0	0	1	0	2	1	1.4	6.8	
11-Apr-04	5	1	3	0	0	0	2	2	1	0	A	0	0	1	1	1	1	0	3	1	0	0	1	1	1.2	5.2	
12-Apr-04	0	0	2	0	1	1	4	3	3	A	1	1	1	1	2	1	1	1	1	0	0	0	0	0	1.1	4.2	
13-Apr-04	0	0	0	0	0	1	1	1	A	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0.5	1.3	
14-Apr-04	0	0	0	0	0	0	0	A	1	1	1	2	3	2	2	2	2	1	1	2	4	1	1	1	1.2	4.4	
15-Apr-04	1	1	1	1	1	2	A	4	2	2	2	2	2	2	3	2	2	1	1	1	2	1	1	1	1.7	3.5	
16-Apr-04	1	1	1	1	1	A	1	2	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0.7	1.5	
17-Apr-04	0	1	2	2	A	4	5	3	3	4	6	7	1	1	1	1	1	0	1	0	0	0	1	2	2.0	7.2	
18-Apr-04	2	2	2	A	0	0	0	1	1	1	1	1	1	0	1	2	1	1	0	1	1	3	3	1	1.1	3.3	
19-Apr-04	0	1	A	0	1	1	2	3	3	5	5	7	4	3	2	3	2	2	1	1	1	1	0	1	2.2	6.7	
20-Apr-04	1	A	2	0	1	7	14	5	8	8	5	2	1	1	0	0	1	1	0	0	0	0	0	A	2.6	13.6	
21-Apr-04	0	3	4	11	29	3	6	6	5	4	3	1	1	2	2	1	1	1	1	1	1	1	3	A	3.9	28.5	
22-Apr-04	0	5	1	0	1	2	6	5	3	5	2	1	0	1	1	1	1	1	1	0	0	0	A	0	1.7	6.5	
23-Apr-04	0	0	0	0	0	1	1	2	4	1	1	2	1	1	1	1	1	3	1	2	10	A	0	2	1.6	9.6	
24-Apr-04	0	0	0	0	0	0	1	2	1	1	1	1	1	0	1	0	1	1	0	1	A	2	0	0	0.6	2.0	
25-Apr-04	0	0	0	1	0	4	6	4	2	1	1	1	1	1	1	1	1	1	1	A	0	3	4	2	1.5	5.6	
26-Apr-04	0	4	0	0	0	4	1	1	3	1	1	0	0	C	C	C	C	C	C	C	C	0	1	1	N	3.6	
27-Apr-04	2	2	1	A	1	3	5	3	3	1	3	14	6	3	3	3	1	1	2	2	1	1	1	1	2.8	14.1	
28-Apr-04	N	N	N	N	N	N	N	N	N	1	1	1	1	2	2	2	1	1	1	5	1	2	1	1	N	4.7	
29-Apr-04	0	0	0	A	1	3	3	4	3	3	2	2	1	2	2	2	1	1	1	1	0	0	0	0	1.4	4.3	
30-Apr-04	0	0	A	0	10	18	9	3	6	N	2	1	1	2	1	1	1	1	1	1	0	2	1	8	14	3.7	17.5
																									N	0.0	
Hourly Avg	0.8	2.0	4.6	3.9	3.7	4.9	6.0	5.4	3.9	2.3	2.0	2.2	1.5	1.6	1.3	1.2	1.0	1.0	0.8	1.0	1.3	1.4	2.1	1.2			
Hourly Max	5.2	23.4	67.1	28.5	28.5	35.6	32.8	37.9	10.9	7.8	5.9	14.1	6.0	6.3	3.4	3.5	2.0	3.9	3.2	4.7	9.6	9.2	19.9	13.6			



Station: Crescent Heights

HOURLY MAXIMUM TABLE

Nitrogen Oxide (NO)

Station Owner: PAS

Monitoring Dates: April 1, 2004 to May 1, 2004

Summary

Maximum 1-hr Value:	262.9	ppb	27-Apr	11:00 12:00
Maximum 24-hr Value:	33.3	ppb	3-Apr	

AIC Time:	29 hrs	Operational Time:	673 hrs					
Calibration Time:	8 hrs	AMD Operational Uptime:	98.6%					
Percentile	99	95	75	50	25	5	1	Average
	116	67	10	3	1	1	0	13.1 ppb

Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00			23:00 0:00
1-Apr-04	0	0	0	0	0	0	0	0	13	0	0	1	2	16	4	4	33	115	26	18	A	4	37	2	11.9	115.2	
2-Apr-04	1	46	49	33	11	4	108	11	6	7	8	13	18	3	59	14	1	13	2	A	12	50	107	1	25.1	108.2	
3-Apr-04	15	62	128	84	45	77	31	15	9	3	38	45	2	11	3	38	2	2	A	35	1	40	78	2	33.3	128.2	
4-Apr-04	1	1	1	15	124	50	1	3	5	4	3	4	2	1	3	1	1	A	1	7	8	1	2	1	10.5	124.3	
5-Apr-04	2	2	1	16	3	94	62	29	24	58	4	3	4	9	6	1	A	2	9	15	2	1	2	1	15.2	93.9	
6-Apr-04	1	2	99	39	73	208	96	53	30	6	65	7	3	11	6	A	2	2	2	2	2	2	2	19	31.8	208.1	
7-Apr-04	33	8	11	235	31	43	17	98	83	4	2	2	1	23	A	1	2	2	1	1	2	1	1	2	26.3	235.0	
8-Apr-04	1	9	23	8	2	1	3	3	2	2	1	1	1	A	2	1	2	1	2	2	2	18	10	1	4.2	22.7	
9-Apr-04	3	3	2	4	4	9	11	9	19	4	1	2	A	1	2	1	1	1	14	10	38	93	1	1	10.2	93.1	
10-Apr-04	17	1	2	50	2	3	3	14	14	3	2	A	27	20	1	1	1	1	1	1	2	1	59	7	10.2	59.2	
11-Apr-04	45	5	86	2	1	2	3	3	2	1	A	1	1	7	22	30	2	1	136	2	2	2	13	19	16.8	136.0	
12-Apr-04	7	7	50	1	1	12	96	6	48	A	3	3	2	41	10	10	2	2	2	1	1	2	2	2	13.5	96.2	
13-Apr-04	2	1	1	1	1	1	1	3	A	5	1	1	1	1	1	2	2	1	1	1	1	2	1	1	1.3	4.6	
14-Apr-04	1	1	1	2	2	1	1	A	1	3	3	7	41	5	3	10	4	2	4	17	58	2	4	2	7.6	58.4	
15-Apr-04	3	3	3	1	3	3	A	9	3	3	3	5	7	4	20	3	3	2	2	3	3	3	2	2	4.0	19.6	
16-Apr-04	1	1	2	1	2	A	2	2	2	2	1	2	2	1	2	2	2	1	1	1	1	1	1	1	1.5	2.5	
17-Apr-04	1	3	4	3	A	8	7	5	5	17	11	34	3	2	2	2	2	2	1	1	1	1	1	3	5.2	33.5	
18-Apr-04	4	4	3	A	1	1	1	1	2	2	2	2	2	2	2	4	2	2	1	1	2	91	70	17	9.5	90.7	
19-Apr-04	1	11	A	1	14	2	12	31	41	50	27	56	10	18	7	18	4	10	1	1	5	2	1	2	14.1	56.4	
20-Apr-04	2	A	18	1	2	75	49	24	57	18	8	5	2	2	1	1	1	2	1	1	1	1	1	A	12.4	74.8	
21-Apr-04	1	14	15	70	53	31	13	9	9	6	7	2	10	3	3	2	6	1	2	1	3	1	92	A	15.4	92.5	
22-Apr-04	1	90	3	1	16	6	8	26	5	7	7	1	1	11	8	2	2	2	1	1	1	1	A	0	8.8	90.2	
23-Apr-04	0	3	3	2	1	30	2	3	118	2	8	79	34	11	10	5	49	12	4	75	102	A	1	49	26.2	118.2	
24-Apr-04	1	1	1	1	1	1	3	16	2	2	3	2	3	1	1	1	1	2	1	5	A	6	1	1	2.5	16.1	
25-Apr-04	0	1	1	1	1	35	64	7	3	2	2	1	2	2	2	2	2	2	2	A	1	9	46	7	8.4	63.9	
26-Apr-04	2	54	1	1	1	98	2	16	16	4	3	1	1	C	C	C	C	C	C	C	C	0	2	4	N	98.0	
27-Apr-04	50	10	12	A	1	38	104	5	15	2	7	263	11	6	26	7	2	3	12	9	2	1	4	5	25.9	262.9	
28-Apr-04	N	N	N	N	N	N	N	N	N	2	2	2	2	21	7	3	2	2	3	88	4	3	3	2	N	88.2	
29-Apr-04	1	1	1	A	1	47	6	7	4	16	5	3	3	10	4	5	3	3	1	3	1	1	1	1	5.6	46.6	
30-Apr-04	1	1	A	1	62	36	23	5	9	N	6	3	3	6	4	3	2	2	2	1	28	3	30	28	11.8	61.7	
																									N	0.0	
Hourly Avg	6.8	12.3	19.3	22.0	16.3	32.6	26.0	14.7	19.5	8.4	8.1	19.0	6.9	8.9	7.9	6.3	5.0	6.9	8.5	11.2	11.3	11.5	19.5	6.6			
Hourly Max	49.9	90.2	128.2	235.0	124.3	208.1	108.2	98.1	118.2	57.6	65.1	262.9	40.8	41.0	59.2	38.3	49.3	115.2	136.0	88.2	101.6	93.1	107.1	49.2			



Station: Crescent Heights

HOURLY AVERAGE TABLE

Oxides of Nitrogen (NO_x)

Station Owner: PAS

Monitoring Dates: April 1, 2004 to May 1, 2004

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	105	ppb	3-Apr	2:00 3:00
Maximum 24-hr Average:	22	ppb	3-Apr	

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

AIC Time:	29 hrs		Operational Time:	673 hrs				
Calibration Time:	8 hrs		AMD Operational Uptime:	98.6%				
Percentile	99	95	75	50	25	5	1	Average
	54	29	12	6	3	2	1	9.4 ppb

Status Flag Characters

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

Day Mountain Standard Time

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum	
1-Apr-04	7	9	2	1	2	2	4	4	3	1	1	2	2	6	5	7	8	14	11	12	A	22	32	9	7.0	31.9	
2-Apr-04	11	15	40	36	27	20	32	21	12	11	12	8	5	4	5	3	3	4	9	A	20	37	45	10	17.0	45.0	
3-Apr-04	18	54	105	56	52	50	29	17	10	6	5	5	4	8	5	7	5	6	A	20	7	28	7	3	22.1	105.4	
4-Apr-04	2	3	2	4	9	7	4	6	6	7	6	8	4	2	3	2	2	A	6	12	24	20	14	10	7.1	23.5	
5-Apr-04	14	8	8	16	9	38	61	36	22	9	6	7	8	17	6	3	A	4	10	24	14	12	16	13	15.6	61.3	
6-Apr-04	14	13	35	59	49	60	50	57	23	8	11	11	7	11	6	A	5	4	3	4	5	9	14	25	21.0	60.4	
7-Apr-04	16	16	19	31	15	17	16	28	24	9	4	4	2	3	A	5	4	5	3	2	5	3	4	4	10.4	31.4	
8-Apr-04	6	25	35	24	14	9	7	7	5	3	2	1	1	A	4	3	3	4	6	6	22	25	5	3	9.5	34.7	
9-Apr-04	7	13	10	14	14	16	18	13	16	6	2	3	A	3	4	3	3	4	8	14	21	13	6	4	9.3	21.3	
10-Apr-04	8	7	10	17	11	19	16	20	10	6	3	A	10	4	2	1	2	1	1	2	10	7	13	15	8.5	20.1	
11-Apr-04	20	7	9	4	10	10	11	6	3	1	A	4	2	4	3	5	2	2	6	4	4	3	5	3	5.5	19.8	
12-Apr-04	3	3	6	3	5	8	14	10	9	A	7	5	4	6	4	3	4	3	6	3	2	2	2	3	5.0	13.6	
13-Apr-04	2	2	1	2	2	3	3	3	A	5	2	2	2	1	1	1	1	1	1	2	2	2	2	2	2.0	4.9	
14-Apr-04	1	2	2	1	1	1	1	A	5	4	6	6	6	5	5	6	7	5	10	20	22	12	15	14	6.8	21.9	
15-Apr-04	17	15	13	13	19	18	A	16	10	8	6	6	5	5	6	5	4	3	3	8	13	5	5	11	9.2	18.6	
16-Apr-04	13	11	8	3	5	A	9	9	4	3	3	4	2	2	2	2	2	3	3	3	2	4	3	2	4.4	12.7	
17-Apr-04	3	7	11	11	A	22	18	9	7	8	13	14	4	3	3	4	4	3	4	3	4	5	7	14	7.8	21.8	
18-Apr-04	13	12	10	A	6	5	4	3	4	4	3	2	2	2	4	7	5	5	4	11	6	8	8	5	5.8	13.4	
19-Apr-04	3	3	A	5	6	9	11	8	7	12	13	15	12	8	7	9	7	8	2	5	13	5	2	5	7.7	14.6	
20-Apr-04	5	A	15	8	10	22	30	13	16	17	13	6	3	3	2	2	2	4	2	4	7	6	8	A	9.0	30.2	
21-Apr-04	11	25	32	37	58	20	17	14	12	12	9	3	3	6	7	5	4	3	6	10	11	13	16	A	14.6	57.7	
22-Apr-04	10	13	6	6	9	12	18	13	8	13	7	3	2	4	3	3	3	3	4	6	4	8	A	A	9	7.2	17.9
23-Apr-04	6	11	9	9	2	4	5	6	8	4	3	6	4	4	4	3	4	18	6	7	34	A	6	8	7.4	34.1	
24-Apr-04	4	4	4	4	4	4	6	8	3	3	4	3	4	2	3	2	3	3	3	9	A	28	16	15	6.1	28.5	
25-Apr-04	11	7	6	15	14	21	21	14	6	4	4	2	3	3	2	3	3	5	5	A	16	29	33	29	11.1	33.1	
26-Apr-04	15	18	9	5	8	15	9	6	8	5	5	1	1	C	C	C	C	C	C	C	C	0	4	4	N	18.3	
27-Apr-04	7	8	7	A	4	12	13	9	9	4	9	27	17	9	8	15	2	3	9	11	4	2	4	5	8.7	27.3	
28-Apr-04	N	N	N	N	N	N	N	N	N	1	2	2	2	3	4	4	3	3	3	17	21	25	15	12	N	25.4	
29-Apr-04	6	3	4	A	8	10	8	8	7	7	6	5	3	7	5	5	3	3	2	4	5	3	5	4	5.2	10.0	
30-Apr-04	3	3	A	6	31	41	21	8	15	N	4	4	3	4	4	4	4	4	3	6	17	25	44	48	13.7	48.0	
Hourly Avg	8.9	11.2	15.5	15.0	14.4	17.0	16.3	13.3	9.8	6.4	5.8	5.8	4.4	4.9	4.2	4.3	3.7	4.5	5.0	8.4	11.7	12.5	12.3	10.3			
Hourly Max	19.8	53.9	105.4	59.3	57.7	60.4	61.3	56.9	23.9	16.9	12.9	27.3	17.3	16.7	8.1	15.4	8.3	17.6	11.4	23.9	34.1	36.8	45.0	48.0			



Station: Crescent Heights

HOURLY MAXIMUM TABLE

Oxides of Nitrogen (NO_x)

Station Owner: PAS

Monitoring Dates: April 1, 2004 to May 1, 2004

Summary

Maximum 1-hr Value:	268.3	ppb	7-Apr	3:00 4:00
Maximum 24-hr Value:	57.8	ppb	3-Apr	

AIC Time:	29 hrs	Operational Time:	673 hrs					
Calibration Time:	8 hrs	AMD Operational Uptime:	98.6%					
Percentile	99	95	75	50	25	5	1	Average
	156	98	30	12	6	3	2	26.3 ppb

Status Flag Characters

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

Day Mountain Standard Time

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum	
1-Apr-04	11	15	5	4	3	4	7	5	23	3	3	3	8	31	17	12	56	176	62	45	A	31	70	16	26.6	176.0	
2-Apr-04	18	85	90	69	44	24	137	28	14	18	21	25	36	8	94	15	6	52	23	A	52	88	152	13	48.2	152.4	
3-Apr-04	32	97	173	129	79	120	69	31	21	9	69	85	6	26	9	73	8	15	A	68	13	83	110	5	57.8	173.3	
4-Apr-04	3	3	3	32	156	69	6	13	13	13	10	12	8	3	8	5	2	A	12	27	51	29	20	12	22.2	155.6	
5-Apr-04	26	15	9	53	18	135	96	51	44	70	8	9	11	22	15	4	A	6	29	54	26	32	20	18	33.6	134.7	
6-Apr-04	19	17	132	72	115	253	127	74	50	15	87	18	8	25	17	A	9	5	5	6	10	12	32	56	50.6	253.0	
7-Apr-04	72	30	35	268	44	65	38	124	108	12	5	7	4	54	A	7	7	10	4	3	16	5	5	6	40.3	268.3	
8-Apr-04	8	46	62	40	18	14	9	9	5	4	3	2	2	A	6	4	5	7	13	9	46	52	10	6	16.6	61.8	
9-Apr-04	19	19	12	17	18	24	25	17	32	9	3	4	A	5	6	5	4	6	52	37	89	141	8	5	24.2	140.5	
10-Apr-04	35	13	20	70	15	27	22	32	31	7	4	A	42	32	3	3	5	3	2	7	15	11	100	37	23.3	100.3	
11-Apr-04	78	19	113	8	13	17	17	9	4	2	A	6	4	21	32	80	4	3	140	6	5	5	31	34	28.3	140.1	
12-Apr-04	17	21	92	5	8	33	148	16	90	A	11	11	6	84	21	23	7	5	13	4	3	3	3	5	27.4	148.4	
13-Apr-04	4	3	2	3	3	5	4	5	A	12	3	2	3	2	2	3	3	2	2	3	2	3	3	2	3	3.3	12.1
14-Apr-04	2	2	3	3	3	2	2	A	6	7	9	14	75	15	9	22	12	9	30	46	109	20	21	20	19.2	108.7	
15-Apr-04	23	19	16	15	25	22	A	24	13	11	7	9	9	11	31	7	6	5	4	20	26	8	7	16	14.5	31.4	
16-Apr-04	15	16	10	5	7	A	13	11	6	4	6	6	3	4	4	3	4	4	4	3	4	5	4	3	6.2	15.6	
17-Apr-04	5	12	15	16	A	29	25	11	10	27	20	46	6	4	5	5	5	5	5	5	7	8	14	20	13.2	46.1	
18-Apr-04	19	15	13	A	8	8	7	4	5	5	4	3	3	3	7	12	9	11	9	20	11	134	79	34	18.4	134.5	
19-Apr-04	4	16	A	6	27	13	30	39	61	92	58	97	25	41	20	50	18	29	6	10	32	17	4	9	30.6	96.6	
20-Apr-04	10	A	49	11	12	98	70	45	78	33	17	12	5	5	4	3	3	7	4	6	10	12	13	A	23.0	97.8	
21-Apr-04	22	46	48	107	87	60	31	19	18	15	17	6	26	11	10	6	11	8	10	14	23	16	130	A	32.2	129.7	
22-Apr-04	12	108	11	7	29	18	22	51	12	18	17	4	3	34	16	17	5	5	7	8	8	13	A	13	19.1	108.2	
23-Apr-04	8	16	15	16	3	55	8	8	166	5	20	129	44	30	25	14	83	51	21	88	156	A	13	79	45.8	166.0	
24-Apr-04	7	10	11	10	6	9	14	34	5	5	7	6	8	4	4	4	6	7	5	25	A	50	21	18	12.0	50.4	
25-Apr-04	15	10	11	20	21	67	88	24	9	6	7	4	5	7	7	5	7	9	7	A	30	53	77	42	23.1	88.1	
26-Apr-04	22	88	13	8	11	149	14	50	33	11	10	4	4	C	C	C	C	C	C	C	0	5	19	N	N	148.9	
27-Apr-04	80	19	34	A	5	71	131	13	34	8	19	206	28	19	49	30	7	10	39	32	8	3	20	24	38.7	206.3	
28-Apr-04	N	N	N	N	N	N	N	N	N	2	3	4	25	38	12	10	4	7	9	130	26	32	25	17	N	N	129.5
29-Apr-04	8	5	7	A	13	69	10	11	9	40	14	9	7	16	12	17	10	9	4	10	10	5	8	7	13.5	69.1	
30-Apr-04	5	4	A	7	92	63	47	12	21	N	11	8	6	10	9	10	9	9	8	11	57	44	68	65	26.2	91.6	
																										N	0.0
Hourly Avg	20.6	27.5	37.2	38.5	31.5	54.3	43.4	27.5	32.9	16.5	16.5	25.9	14.5	20.2	16.3	16.1	11.2	16.9	18.9	25.9	31.3	31.6	37.1	21.4			
Hourly Max	80.0	108.2	173.3	268.3	155.6	253.0	148.4	123.7	166.0	92.1	87.1	206.3	75.4	84.2	93.9	80.0	83.1	176.0	140.1	129.5	155.8	140.5	152.4	79.0			

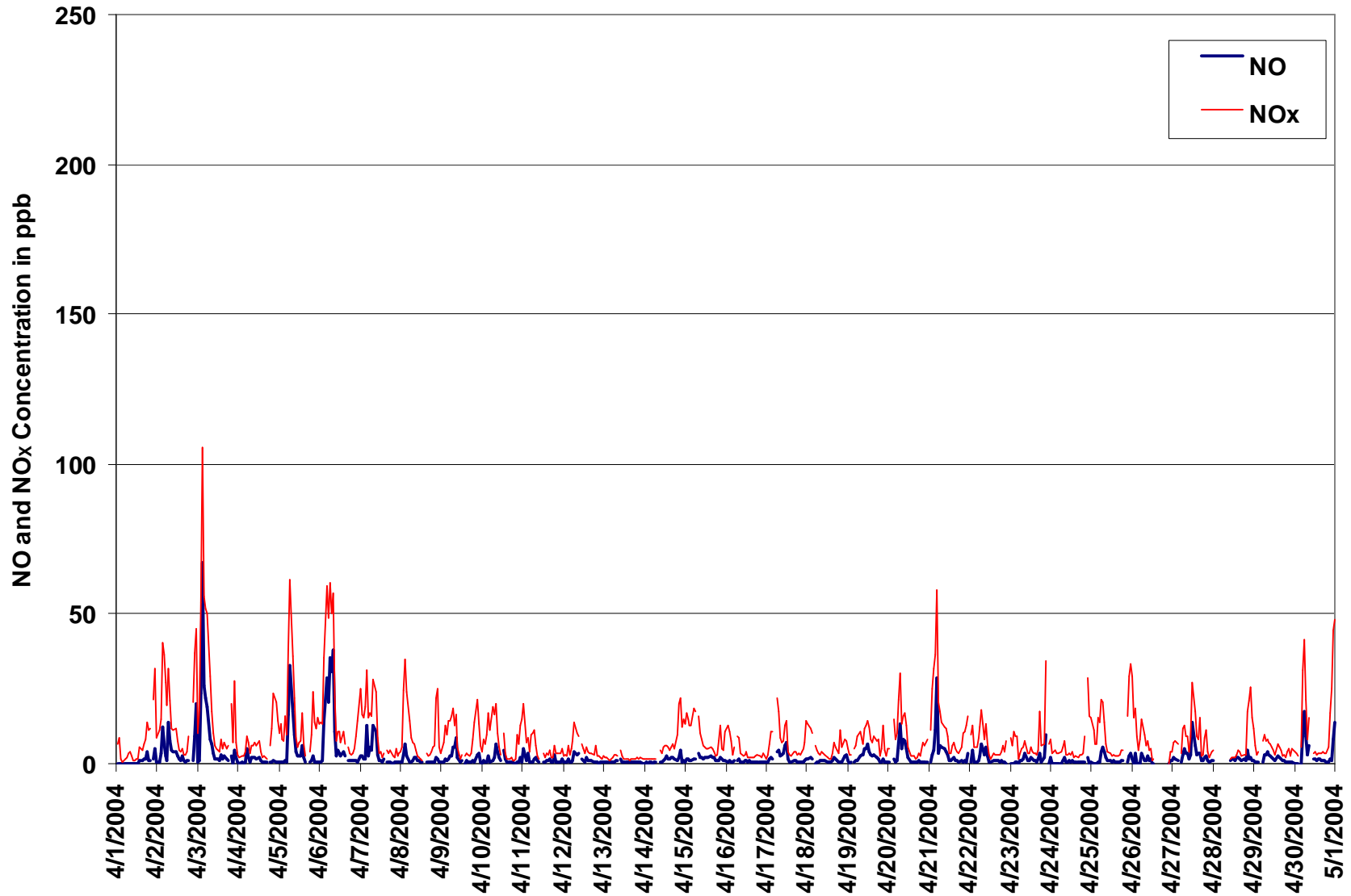


Figure 3. PAS - Crescent Heights Oxides of Nitrogen 1-hr Average Monthly Trends

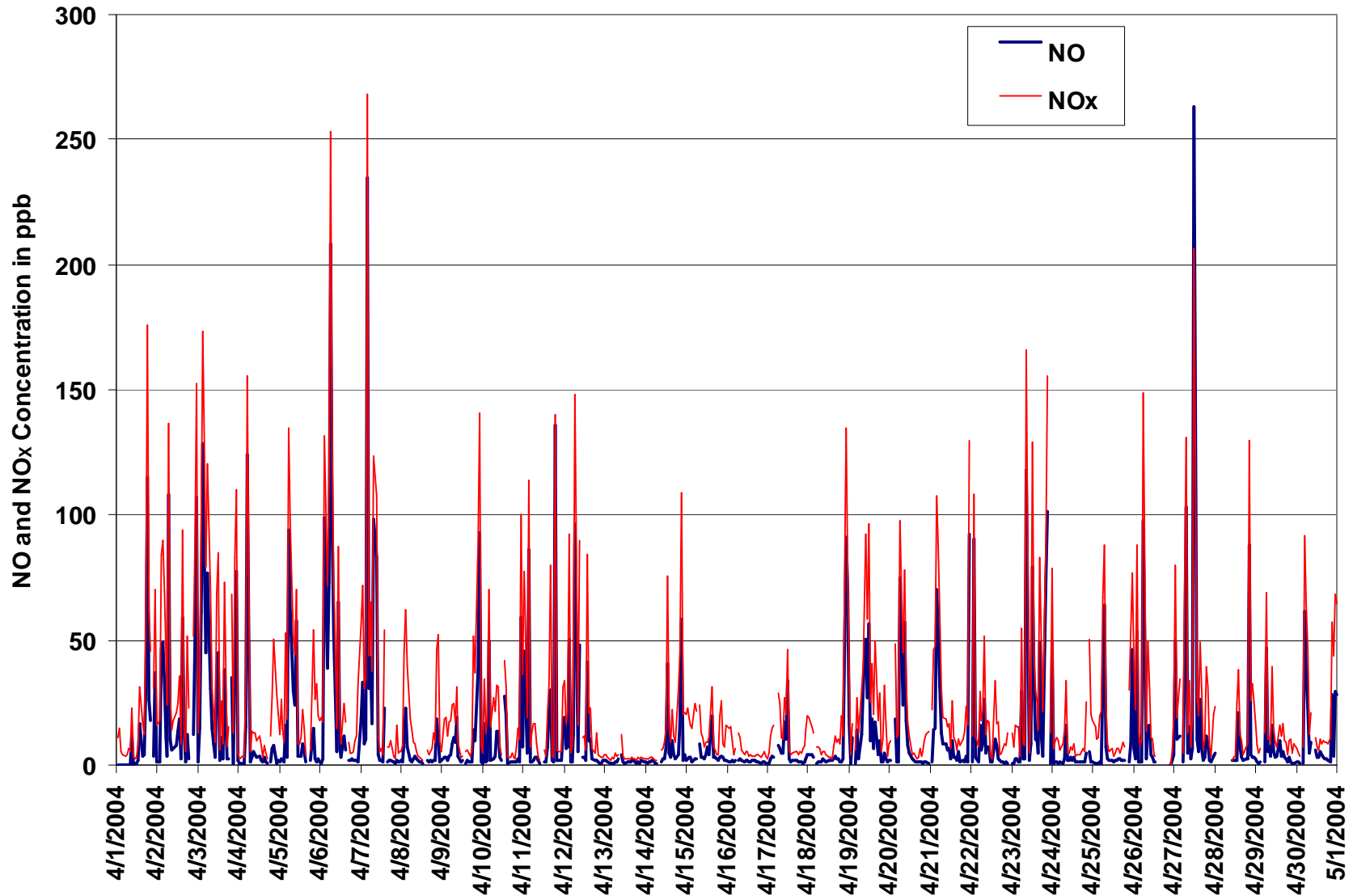


Figure 4. PAS - Crescent Heights Oxides of Nitrogen 1-hr Maximum Value Monthly Trends



PAS - CRESCENT HEIGHTS OZONE MONTHLY SUMMARY

Station: Crescent Heights

HOURLY AVERAGE TABLE

Ozone (O₃)

Station Owner: PAS

Monitoring Dates: April 1, 2004 to May 1, 2004

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	63 ppb 8-Apr 16:00 17:00
Maximum 24-hr Average:	50 ppb 24-Apr

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

AIC Time:	29 hrs	Operational Time:	657 hrs
Calibration Time:	8 hrs	AMD Operational Uptime:	96.4%
Percentile	99 95 75 50 25 5 1	Average	
	61 57 47 37 27 11 2	36.4 ppb	

Status Flag Characters

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

Day Mountain Standard Time

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	24-hour Average	Daily Maximum
1-Apr-04	2	23	33	34	32	30	30	33	38	42	44	44	44	46	47	46	43	40	38	35	A	20	15	35	34.5	46.6
2-Apr-04	30	29	13	8	10	11	11	17	27	36	43	49	53	54	56	57	57	57	49	A	32	14	14	28	32.9	57.4
3-Apr-04	18	6	1	5	3	2	7	19	29	43	53	53	54	53	52	52	53	51	A	36	39	26	42	42	32.1	54.1
4-Apr-04	43	40	38	34	30	28	28	25	35	43	47	51	58	60	59	59	59	A	52	44	27	23	23	24	40.4	60.4
5-Apr-04	23	28	26	18	25	14	4	12	22	30	35	37	41	36	51	59	A	60	51	34	38	36	25	24	31.7	60.3
6-Apr-04	23	22	12	1	2	4	4	7	19	42	42	44	47	46	52	A	58	58	57	54	48	41	33	23	32.1	57.6
7-Apr-04	24	19	11	9	15	15	19	16	27	42	54	56	60	59	A	57	58	56	56	52	44	46	45	44	38.5	59.6
8-Apr-04	40	19	9	15	22	26	27	28	32	40	47	54	58	A	62	62	63	61	55	49	32	25	41	37	39.3	62.5
9-Apr-04	30	23	22	14	12	9	10	16	18	31	42	45	A	51	52	54	55	55	50	42	32	34	36	38	33.6	55.3
10-Apr-04	36	33	29	20	22	19	23	23	33	39	45	A	49	51	52	53	53	52	49	45	32	31	25	18	36.1	53.5
11-Apr-04	20	31	32	32	26	22	19	26	34	42	A	48	51	55	57	60	56	53	49	45	44	45	43	45	40.6	59.9
12-Apr-04	44	43	36	36	32	30	28	30	35	A	45	48	50	51	50	49	49	49	46	48	39	38	37	34	41.1	51.1
13-Apr-04	34	35	37	36	36	34	34	36	A	39	41	44	47	48	49	49	49	48	46	44	42	37	37	36	40.8	49.1
14-Apr-04	36	35	35	35	34	34	34	A	34	37	36	34	36	37	39	41	45	46	40	28	27	29	25	18	34.6	46.2
15-Apr-04	9	9	13	16	13	15	A	21	27	29	31	34	35	36	39	40	42	44	43	35	30	37	38	29	29.0	43.9
16-Apr-04	26	29	33	41	40	A	37	40	45	46	45	45	47	47	46	46	46	44	44	43	41	37	37	37	40.9	47.4
17-Apr-04	33	28	21	20	A	12	14	20	23	25	24	29	35	40	43	44	45	46	44	40	38	32	25	15	30.2	45.9
18-Apr-04	13	12	11	A	14	11	14	18	20	22	26	35	44	52	53	51	54	54	53	41	39	38	37	37	32.6	53.6
19-Apr-04	39	40	A	38	34	29	30	33	40	44	45	44	46	50	49	50	51	46	51	45	34	38	40	34	41.3	51.3
20-Apr-04	31	A	23	22	20	14	11	22	24	27	30	41	51	55	55	56	56	56	54	47	41	39	33	25	36.3	56.3
21-Apr-04	A	11	4	5	1	8	13	19	27	36	41	50	54	53	52	56	57	56	51	44	42	35	28	A	33.7	57.0
22-Apr-04	28	26	25	21	18	16	15	20	22	28	43	51	53	54	54	55	56	55	52	47	47	35	A	33	37.1	55.6
23-Apr-04	34	27	29	35	47	45	42	40	42	44	46	50	53	55	58	61	61	45	49	44	25	A	47	45	44.5	61.0
24-Apr-04	50	48	48	46	47	48	47	47	51	53	55	56	57	58	59	60	61	61	60	51	A	26	30	28	49.9	61.4
25-Apr-04	32	34	35	27	27	21	22	30	38	45	47	50	51	53	55	55	54	53	52	A	37	20	14	9	37.6	55.1
26-Apr-04	19	21	25	26	22	25	31	30	25	32	35	32	32	31	C	C	C	C	33	25	22	29	34	34	28.1	34.5
27-Apr-04	27	23	26	A	36	25	21	27	41	C	C	C	C	42	45	37	48	47	35	30	34	34	35	35	34.2	47.7
28-Apr-04	N	N	N	N	N	N	N	N	N	33	33	D	D	D	D	D	D	D	D	D	D	D	D	D	N	33.2
29-Apr-04	D	D	A	21	21	21	20	27	35	40	44	49	52	52	51	55	54	52	45	38	39	33	34	34	39.2	55.4
30-Apr-04	30	29	A	25	7	2	14	28	28	N	42	44	47	49	50	51	53	55	54	47	34	22	4	0	32.4	54.9
																									N	0.0
Hourly Avg	28.6	26.8	24.1	23.8	23.2	20.3	21.8	25.0	30.8	37.2	41.4	44.9	48.3	49.1	51.4	52.3	53.2	51.9	48.8	42.1	36.3	32.4	31.2	30.1		
Hourly Max	49.6	48.5	47.8	45.9	46.8	48.0	47.3	46.9	51.5	53.2	54.6	56.4	59.6	60.4	61.9	62.4	62.5	61.4	60.2	53.8	48.3	46.0	46.6	44.8		

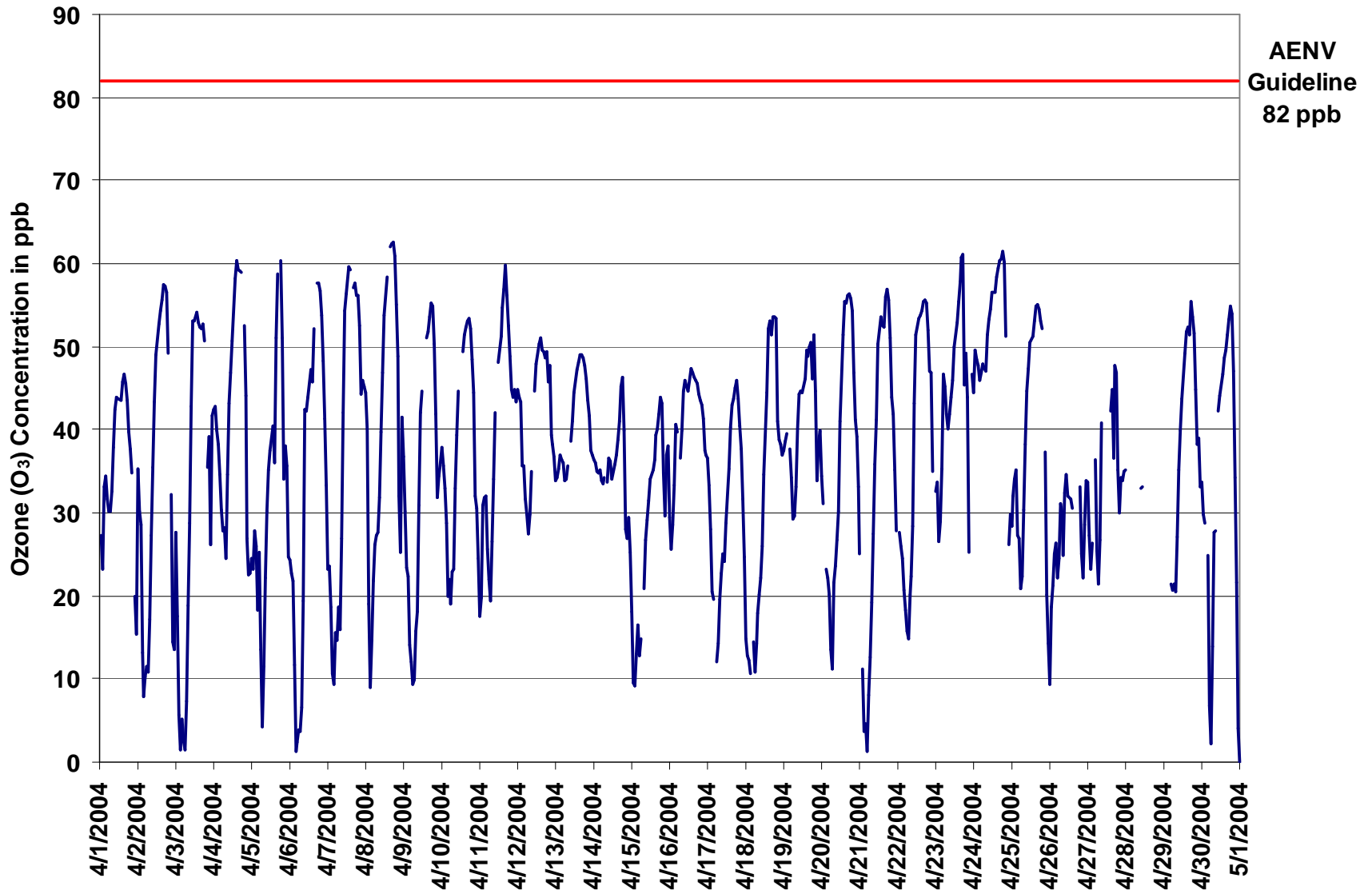


Figure 5. PAS - Crescent Heights Ozone 1-hr Average Monthly Trend



Station: Crescent Heights

HOURLY MAXIMUM TABLE

Ozone (O₃)

Station Owner: PAS

Monitoring Dates: April 1, 2004 to May 1, 2004

Summary

Maximum 1-hr Value:	64.6	ppb	8-Apr	15:00 16:00
Maximum 24-hr Value:	54.2	ppb	24-Apr	

AIC Time:	29 hrs	Operational Time:	657 hrs					
Calibration Time:	8 hrs	AMD Operational Uptime:	96.4%					
Percentile	99	95	75	50	25	5	1	Average
	63	60	51	41	33	16	8	41.0 ppb

Status Flag Characters

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

Day Mountain Standard Time

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum	
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Apr-04	33	31	36	36	34	33	32	36	42	44	45	45	46	53	52	49	47	45	43	39	A	29	31	39	40.0	52.8	
2-Apr-04	37	36	35	17	20	15	17	24	32	43	51	53	56	58	59	60	59	59	59	A	43	28	28	32	40.0	59.6	
3-Apr-04	26	20	6	15	10	4	13	26	35	50	55	56	56	57	56	56	55	54	A	42	44	45	45	44	37.9	56.7	
4-Apr-04	44	42	41	37	35	32	30	27	41	48	49	55	62	62	61	61	60	A	57	50	48	27	27	26	44.5	62.0	
5-Apr-04	33	36	29	23	28	26	11	19	29	33	37	40	42	51	58	63	A	62	61	47	45	49	30	32	38.4	63.1	
6-Apr-04	28	25	24	3	11	9	7	14	30	49	52	51	52	52	57	A	60	59	58	56	53	47	41	33	37.9	59.9	
7-Apr-04	29	29	14	14	21	20	24	20	40	54	57	62	61	61	A	59	60	61	59	56	49	48	48	47	43.2	62.2	
8-Apr-04	45	36	28	27	27	30	29	31	35	45	51	58	62	A	64	65	64	63	62	53	48	41	44	41	45.5	64.6	
9-Apr-04	36	25	25	20	15	13	13	18	26	42	45	48	A	52	54	56	58	57	56	47	40	38	39	40	37.6	57.7	
10-Apr-04	44	37	34	33	27	24	30	28	37	44	48	A	52	53	54	55	56	57	51	47	39	34	31	25	40.8	57.2	
11-Apr-04	29	35	35	34	31	28	25	30	39	45	A	51	56	58	64	64	61	56	53	47	46	46	46	48	44.6	63.9	
12-Apr-04	46	47	40	38	35	34	31	33	40	A	49	50	53	54	54	52	51	51	51	51	46	40	39	36	44.3	54.3	
13-Apr-04	36	37	38	38	37	36	37	38	A	40	43	47	49	49	50	50	50	49	48	46	43	40	38	37	42.4	50.4	
14-Apr-04	37	36	36	36	35	35	35	A	37	38	40	37	39	40	43	46	50	50	48	39	39	33	27	38.9	50.2		
15-Apr-04	12	14	18	18	17	23	A	26	30	34	33	37	38	40	42	42	45	46	45	41	36	39	40	37	32.7	46.2	
16-Apr-04	30	35	40	43	42	A	42	46	47	48	47	47	49	48	48	48	47	46	45	45	43	39	39	39	43.5	48.9	
17-Apr-04	35	34	24	22	A	15	19	22	26	27	27	35	38	43	46	45	47	47	46	43	41	35	30	19	33.3	47.5	
18-Apr-04	15	15	12	A	16	16	16	20	22	27	30	42	51	54	54	55	56	56	56	48	42	41	40	40	36.0	56.2	
19-Apr-04	40	43	A	40	37	33	33	36	49	51	51	51	52	54	53	55	56	52	56	51	44	41	41	41	46.1	56.5	
20-Apr-04	34	A	29	26	24	22	16	25	28	30	35	48	56	57	57	58	58	59	56	50	46	43	40	38	40.6	58.5	
21-Apr-04	A	20	10	13	6	14	18	23	35	40	47	54	55	56	55	59	59	59	55	50	49	41	33	A	38.8	59.5	
22-Apr-04	31	31	30	22	22	19	19	24	28	32	50	53	55	55	56	57	57	57	55	51	49	47	A	36	40.8	57.5	
23-Apr-04	37	32	34	47	48	47	44	42	44	46	48	54	56	58	61	63	64	63	63	52	48	44	A	51	52	49.4	63.8
24-Apr-04	52	55	54	51	50	52	53	53	54	57	57	58	59	61	61	62	63	63	64	58	A	40	36	31	54.2	63.6	
25-Apr-04	37	37	39	33	33	28	28	37	41	50	51	52	54	55	56	57	57	57	56	A	48	40	26	21	43.1	56.8	
26-Apr-04	23	27	32	31	26	31	35	35	30	35	40	35	34	33	C	C	C	C	39	30	32	34	36	38	32.7	39.7	
27-Apr-04	36	28	37	A	38	37	26	40	47	C	C	C	C	49	50	47	50	50	47	38	38	37	41	40	40.8	49.9	
28-Apr-04	N	N	N	N	N	N	N	N	N	36	36	D	D	D	D	D	D	D	D	D	D	D	D	D	N	36.3	
29-Apr-04	D	D	D	A	23	23	24	23	33	40	44	50	53	56	56	56	58	57	55	48	41	43	37	37	42.8	57.9	
30-Apr-04	37	30	A	31	21	8	24	33	33	N	45	48	49	53	53	54	57	58	58	53	39	32	13	1	37.8	57.9	
																									N	0.0	
Hourly Avg	34.1	32.4	29.9	28.8	27.5	25.3	26.1	29.6	36.0	41.9	45.1	48.8	51.3	52.5	54.6	55.3	55.7	55.3	53.2	47.3	43.5	39.4	36.6	34.8			
Hourly Max	52.2	55.0	53.7	51.3	50.4	52.5	52.9	53.1	54.0	56.9	57.1	62.2	61.7	62.0	64.1	64.6	64.1	63.4	63.6	58.1	52.7	49.2	50.8	52.0			

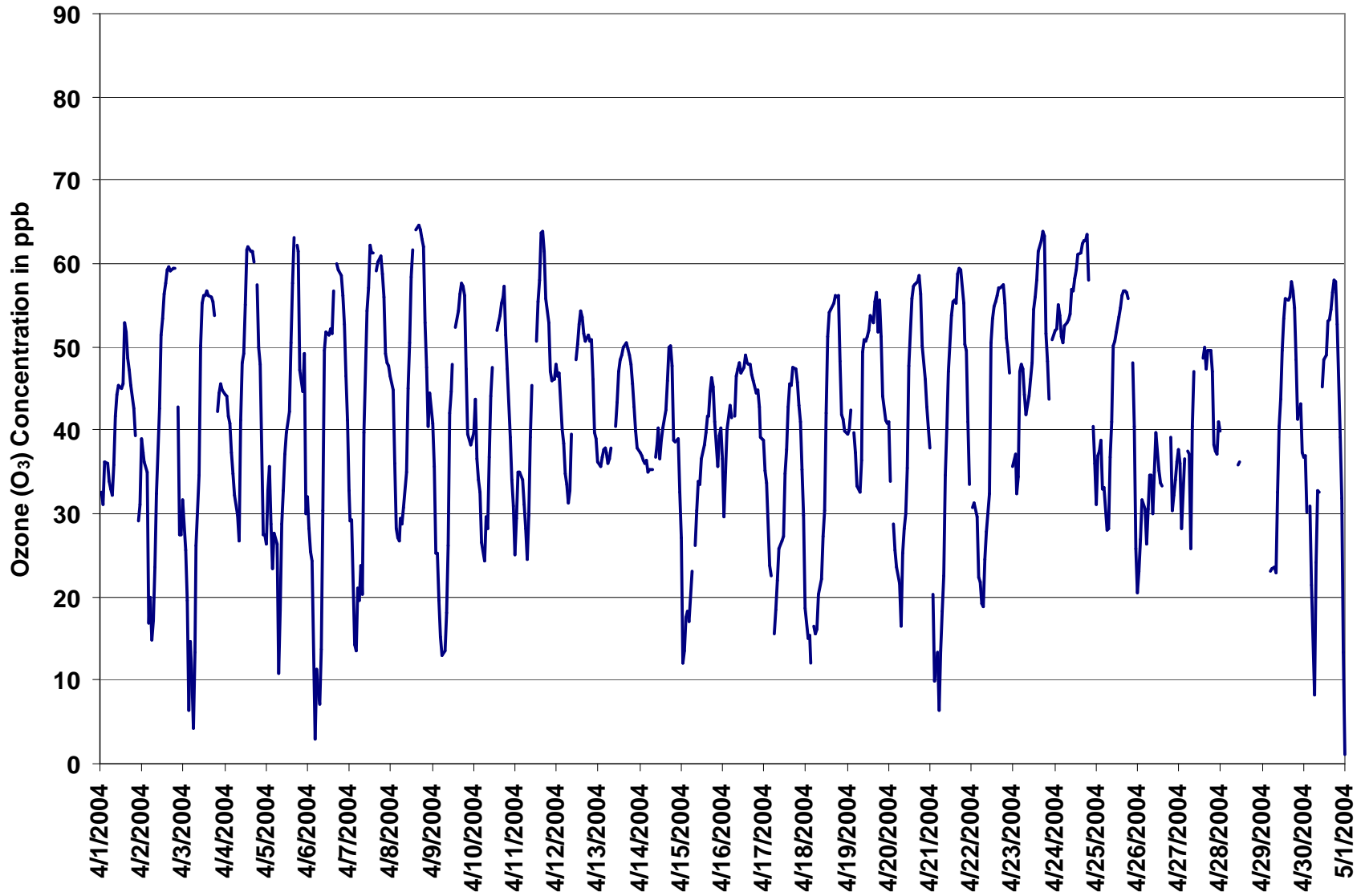


Figure 6. PAS - Crescent Heights Ozone 1-hr Maximum Value Monthly Trend



Station: Crescent Heights

EIGHT HOUR RUNNING AVERAGE TABLE

Ozone (O₃)

Station Owner: PAS

Monitoring Dates: April 1, 2004 to May 1, 2004

Summary

Number of 8-hr Exceedances:	0			
Maximum 8-hr Average:	59.3	ppb	8-Apr	18:00 19:00

Guideline Limit: Canada Wide Standard 8-hr 65 ppb

Percentile	99	95	75	50	25	5	1
	57.7	53.3	46.0	37.7	28.8	16.6	9.4

Status Flag Characters

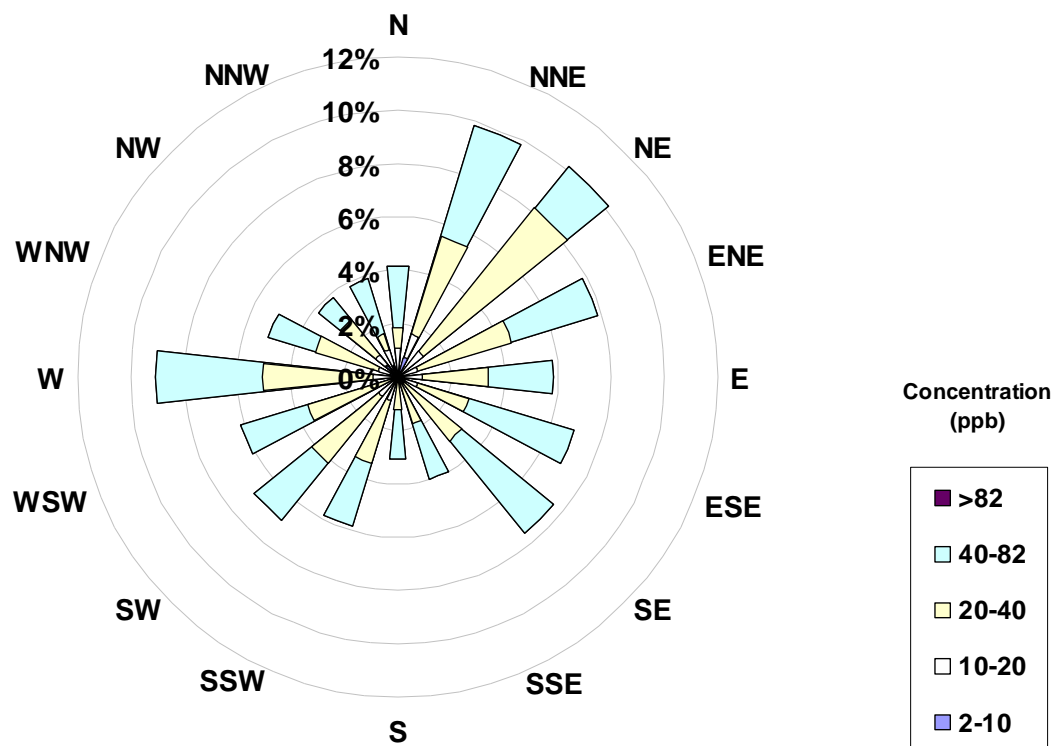
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day Mountain Standard Time

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	24-hour Average	Daily Maximum		
1-Apr-04	27	48	48	47	47	44	41	30	32	34	35	37	38	40	42	44	44	44	43	42	42	38	34	32	39.7	47.8		
2-Apr-04	30	29	25	21	20	19	18	16	16	17	20	26	31	36	42	47	51	53	54	55	52	46	40	36	33.4	54.7		
3-Apr-04	30	23	16	15	11	9	9	8	9	14	20	26	32	39	45	49	52	53	53	50	48	44	43	41	30.7	52.6		
4-Apr-04	40	38	38	38	37	37	35	33	32	33	34	36	39	43	47	52	55	56	57	56	52	46	41	36	42.1	57.0		
5-Apr-04	31	31	27	24	24	23	20	19	19	19	20	22	24	27	33	39	41	46	48	47	47	47	43	38	31.6	47.9		
6-Apr-04	36	32	27	23	18	14	11	9	9	11	15	21	26	31	37	42	47	50	52	53	53	52	50	46	31.9	53.1		
7-Apr-04	42	37	32	26	22	19	17	16	16	19	25	31	36	42	45	51	55	57	57	57	55	53	52	50	38.0	57.5		
8-Apr-04	48	43	38	33	30	28	25	23	22	25	29	34	39	41	46	51	55	58	59	59	55	51	49	45	41.1	59.3		
9-Apr-04	41	37	33	28	26	24	20	17	16	17	19	23	24	30	36	42	47	50	52	51	49	47	45	43	34.0	51.7		
10-Apr-04	40	38	35	32	31	29	27	26	25	26	28	29	33	38	42	46	49	51	51	51	48	46	42	38	37.6	51.5		
11-Apr-04	34	31	29	27	27	26	25	26	28	29	29	31	35	39	45	50	53	54	54	53	52	51	49	47	38.5	54.2		
12-Apr-04	46	45	43	42	40	39	37	35	34	32	33	35	38	41	44	47	49	49	49	49	48	46	44	42	41.9	49.0		
13-Apr-04	41	39	38	36	36	35	35	35	35	36	37	38	39	41	43	45	46	47	48	47	47	45	44	42	40.7	47.6		
14-Apr-04	41	39	38	37	36	35	35	35	34	35	35	35	35	35	36	37	38	39	40	39	38	37	35	32	36.4	40.8		
15-Apr-04	28	23	20	18	17	15	13	14	16	19	22	24	27	31	32	34	36	38	39	39	39	39	39	37	27.5	39.3		
16-Apr-04	35	33	32	33	34	34	33	35	38	40	42	42	43	44	45	46	46	46	46	45	45	43	42	41	40.1	46.0		
17-Apr-04	40	37	35	32	30	27	23	21	20	19	20	21	23	26	30	33	36	38	41	42	42	41	39	35	31.3	42.5		
18-Apr-04	31	27	23	21	17	14	13	13	14	16	18	20	24	29	34	38	42	46	50	50	50	48	46	44	30.4	50.3		
19-Apr-04	42	41	39	38	38	36	35	35	35	36	37	37	39	42	44	46	47	48	48	48	47	45	44	42	41.2	48.4		
20-Apr-04	40	39	35	32	30	26	22	20	19	20	21	23	27	33	38	42	47	50	53	54	53	51	48	44	36.2	54.0		
21-Apr-04	42	36	29	23	17	12	9	9	11	14	19	24	31	37	42	46	50	52	54	53	51	49	46	45	33.3	53.5		
22-Apr-04	40	36	32	29	26	23	21	21	20	21	23	27	31	36	41	45	49	53	54	53	53	50	50	46	36.7	53.9		
23-Apr-04	43	39	36	34	34	36	36	37	38	40	43	44	45	47	48	51	53	54	54	53	50	49	47	45	44.1	54.1		
24-Apr-04	43	44	44	44	47	47	47	48	48	48	49	51	52	53	55	56	57	58	59	58	59	54	50	45	50.8	59.2		
25-Apr-04	41	37	34	30	30	29	28	29	29	31	32	35	38	42	46	49	51	52	53	53	51	47	41	34	39.4	53.4		
26-Apr-04	29	25	21	22	20	20	22	25	26	27	28	29	30	31	31	N	N	N	N	N	N	N	N	N	N	N	30.9	
27-Apr-04	29	28	28	28	30	29	28	27	29	N	N	N	N	N	N	N	N	N	N	N	40	40	39	37	37	N	40.5	
28-Apr-04	36	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	35.7
29-Apr-04	N	N	N	N	N	N	N	N	N	N	N	27	29	32	36	40	44	47	50	51	51	50	48	44	N	51.3		
30-Apr-04	40	37	35	32	28	23	20	19	19	N	21	24	29	36	41	44	48	49	50	51	49	46	40	34	35.4	50.7		
																										N	0.0	
Hourly Avg	37.6	35.4	32.4	30.2	28.6	26.8	25.3	24.3	24.6	26.0	27.8	30.5	33.7	37.3	41.0	45.0	47.9	49.7	50.7	50.1	48.6	46.4	43.8	40.9				
Hourly Max	48.1	47.8	47.6	46.6	47.1	47.2	47.3	47.6	47.8	48.4	49.3	50.6	51.8	53.1	54.6	56.3	57.4	58.5	59.3	58.5	58.8	54.2	51.9	50.3				



Concentration Rose for the 1-hr O₃ Average Concentration Occurrences at the Crescent Heights Site for April 2004



Frequency Distribution of O ₃ in ppb			
Range	Frequency (hrs)		
0 < 2	5		
2 to 10	24		
10 to 20	61		
20 to 40	281		
40 to 82	286		
> 82	0		
Total Non-Zero Values	657		



PAS - CRESCENT HEIGHTS TOTAL HYDROCARBON MONTHLY SUMMARY

Station: Crescent Heights

HOURLY AVERAGE TABLE

Total HydroCarbons (THC)

Station Owner: PAS

Monitoring Dates: April 1, 2004 to May 1, 2004

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	3.2 ppm 3-Apr 2:00 3:00
Maximum 24-hr Average:	2.5 ppm 10-Apr

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

AIC Time:	28 hrs	Operational Time:	662 hrs					
Calibration Time:	12 hrs	AMD Operational Uptime:	97.5%					
Percentile	99	95	75	50	25	5	1	Average
	2.9	2.6	2.3	2.2	2.1	2.1	2.0	2.3 ppb

Status Flag Characters

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

Day Mountain Standard Time

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	23:00	24-hour Average	Daily Maximum
1-Apr-04	Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	2.26	2.44	
2-Apr-04		2.3	2.3	2.4	2.4	2.6	2.4	2.5	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	A	2.4	2.4	2.5	2.5	2.3	2.31	2.61
3-Apr-04		2.4	2.9	3.2	2.7	2.6	2.6	2.5	2.7	2.6	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	A	2.2	2.1	2.2	2.1	2.1	2.1	2.35	3.17	
4-Apr-04		2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	A	2.2	2.2	2.6	2.4	2.2	2.3	2.3	2.15	2.56	
5-Apr-04		2.4	2.3	2.2	2.2	2.2	2.3	2.5	2.4	2.3	2.2	2.2	2.2	2.2	2.2	A	A	2.2	2.2	2.5	2.4	3.0	2.3	2.3	2.3	2.31	2.99	
6-Apr-04		2.3	2.8	2.8	2.9	2.9	2.5	3.0	2.9	2.4	2.2	2.2	2.1	2.3	2.3	2.2	A	2.2	2.2	2.2	2.5	2.2	2.4	2.4	2.4	2.44	3.05	
7-Apr-04		2.5	2.7	2.8	2.7	2.6	2.3	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	A	2.1	2.1	2.1	2.1	2.3	2.3	2.3	2.3	2.3	2.31	2.78	
8-Apr-04		2.4	2.6	2.6	2.8	2.8	2.7	2.5	2.5	2.3	2.2	2.2	2.2	2.2	A	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.4	2.3	2.3	2.37	2.80	
9-Apr-04		2.4	2.5	2.5	2.5	2.4	2.4	2.5	2.5	2.4	2.3	2.2	2.2	A	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.5	2.4	2.3	2.3	2.36	2.55	
10-Apr-04		2.4	2.4	2.5	2.5	2.5	2.7	2.8	2.8	2.7	2.6	2.5	A	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.48	2.78	
11-Apr-04		2.5	2.4	2.3	2.3	2.4	2.6	2.8	3.1	2.4	2.2	A	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.30	3.09	
12-Apr-04		2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.2	2.2	A	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.2	2.2	2.2	2.15	2.28	
13-Apr-04		2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	A	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.14	2.20	
14-Apr-04		2.2	2.2	2.1	2.2	2.2	2.1	2.1	A	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.14	2.35	
15-Apr-04		2.4	2.4	2.3	2.4	2.4	2.4	A	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.4	2.26	2.42	
16-Apr-04		2.7	2.4	2.3	2.3	2.3	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.25	2.74	
17-Apr-04		2.2	2.3	2.4	2.4	A	2.6	2.5	2.4	2.4	2.4	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.26	2.57	
18-Apr-04		2.3	2.3	2.4	A	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.20	2.36	
19-Apr-04		2.2	2.1	A	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.11	2.18	
20-Apr-04		2.2	A	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.3	2.4	2.21	2.37	
21-Apr-04		A	2.6	2.7	2.7	2.7	2.6	2.7	2.5	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3	A	2.33	2.74	
22-Apr-04		2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.2	2.3	A	2.2	2.20	2.30	
23-Apr-04		2.2	2.2	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.1	2.1	2.13	2.32	
24-Apr-04		2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	A	2.3	2.4	2.5	2.18	2.45	
25-Apr-04		2.4	2.4	2.3	2.5	2.5	2.4	2.5	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	A	2.4	2.5	2.4	2.5	2.32	2.55	
26-Apr-04		2.5	2.5	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	C	C	C	C	C	C	C	N	N	N	2.53	
27-Apr-04		N	N	N	N	N	C	C	C	C	C	2.0	2.0	2.1	2.1	N	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	N	2.15	
28-Apr-04		N	N	N	N	N	N	N	N	N	2.2	2.3	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.4	2.3	2.4	N	2.39	
29-Apr-04		2.3	2.2	2.2	A	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.3	2.3	2.24	2.34	
30-Apr-04		2.3	2.3	A	2.3	2.3	2.5	2.6	2.4	2.2	N	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.8	1.8	1.8	1.9	2.1	2.1	2.7	2.14	2.68	
																										N	0.00	
Hourly Avg		2.31	2.36	2.38	2.37	2.37	2.37	2.40	2.37	2.29	2.22	2.19	2.16	2.17	2.16	2.15	2.14	2.14	2.14	2.16	2.21	2.25	2.28	2.26	2.29			
Hourly Max		2.74	2.89	3.17	2.91	2.89	2.73	3.05	3.09	2.74	2.60	2.48	2.34	2.45	2.42	2.40	2.39	2.38	2.37	2.45	2.50	2.56	2.99	2.53	2.68			

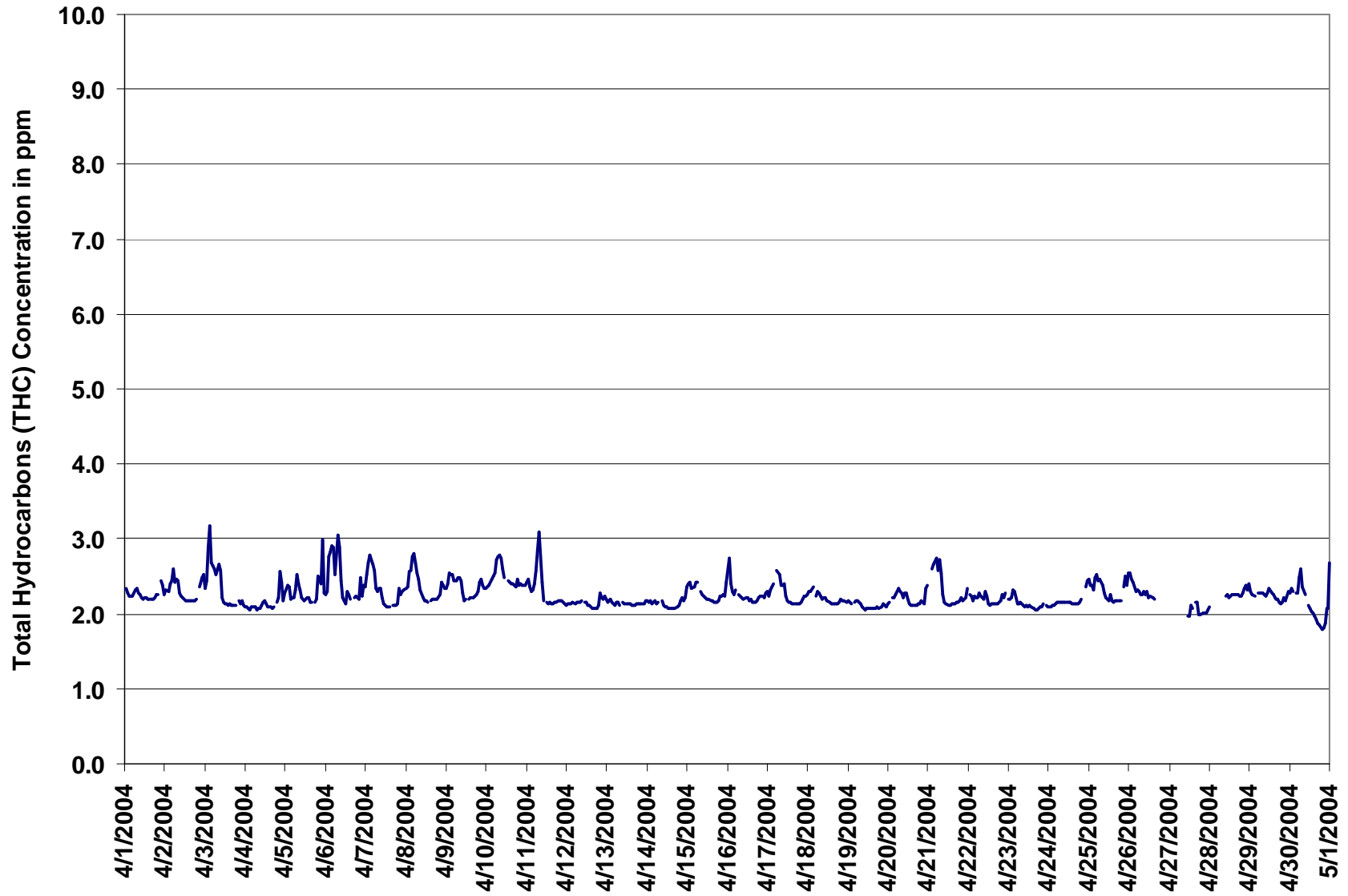


Figure 7. PAS - Crescent Heights Total Hydrocarbons 1-hr Average Monthly Trend



Station: Crescent Heights

HOURLY MAXIMUM TABLE

Total HydroCarbons (THC)

Station Owner: PAS

Monitoring Dates: April 1, 2004 to May 1, 2004
Summary

Maximum 1-hr Value:	6.3	ppm	5-Apr	21:00 22:00
Maximum 24-hr Value:	2.6	ppm	6-Apr	

AIC Time:	28 hrs	Operational Time:	662 hrs					
Calibration Time:	12 hrs	AMD Operational Uptime:	97.5%					
Percentile	99	95	75	50	25	5	1	Average
	3.3	2.8	2.4	2.3	2.2	2.1	2.0	2.4 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-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-Apr-04	2.6	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.3	2.2	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.3	A	2.6	2.5	2.3	2.34	2.63	
2-Apr-04	2.5	2.3	2.6	2.5	2.9	2.5	2.6	2.6	2.3	2.3	2.3	2.3	2.2	2.5	2.2	2.2	2.2	2.2	2.3	A	2.5	2.6	2.7	2.4	2.42	2.85	
3-Apr-04	2.5	3.9	3.7	3.0	2.8	2.7	2.6	2.8	2.9	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.1	A	2.2	2.2	2.2	2.3	2.2	2.1	2.51	3.91	
4-Apr-04	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	A	2.2	2.3	2.8	2.7	2.2	2.5	2.23	2.80		
5-Apr-04	2.6	2.6	2.2	2.3	2.3	2.5	2.7	2.6	2.5	2.3	2.2	2.2	2.3	2.2	2.2	A	2.2	2.3	2.7	2.8	6.3	2.4	2.3	2.56	6.28		
6-Apr-04	2.4	3.2	3.0	3.0	3.3	3.0	3.2	3.2	2.6	2.3	2.3	2.2	2.4	2.4	2.2	A	2.3	2.3	2.3	3.5	2.3	2.5	2.5	2.63	3.53		
7-Apr-04	2.6	2.9	2.9	2.8	2.7	2.4	2.3	2.4	2.4	2.3	2.2	2.2	2.1	2.1	A	2.2	2.2	2.2	2.3	2.5	2.4	2.4	2.4	2.41	2.91		
8-Apr-04	2.4	2.7	2.8	2.9	2.9	2.7	2.7	2.5	2.4	2.3	2.2	2.2	2.2	A	2.2	2.2	2.2	2.2	2.3	2.4	2.6	2.5	2.4	2.4	2.45	2.87	
9-Apr-04	2.7	2.7	2.6	2.7	2.5	2.5	2.7	2.5	2.3	2.2	2.3	A	2.2	2.3	2.3	2.3	2.3	2.4	2.5	2.5	2.4	2.4	2.4	2.4	2.44	2.73	
10-Apr-04	2.4	2.4	2.6	2.6	2.6	2.8	2.8	2.9	2.8	2.7	2.5	A	2.5	2.5	2.4	2.4	2.4	2.4	2.7	2.6	2.4	2.4	2.4	2.5	2.56	2.91	
11-Apr-04	2.5	2.4	2.3	2.4	2.6	2.7	3.2	3.3	2.8	2.2	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.39	3.27	
12-Apr-04	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	A	2.2	2.3	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.21	2.35	
13-Apr-04	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	A	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.19	2.27	
14-Apr-04	2.2	2.2	2.2	2.2	2.3	2.2	2.2	A	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.5	2.3	2.3	2.5	2.21	2.46	
15-Apr-04	2.5	2.5	2.4	2.4	2.5	2.5	A	2.3	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.6	2.33	2.56	
16-Apr-04	4.3	2.5	2.4	2.3	2.4	A	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.3	2.38	4.29	
17-Apr-04	2.3	2.4	2.5	2.5	A	2.7	2.7	2.5	2.4	2.6	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.3	2.4	2.35	2.72	
18-Apr-04	2.4	2.4	2.6	A	2.3	2.3	2.4	2.3	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.26	2.59	
19-Apr-04	2.3	2.2	A	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.1	2.2	2.15	2.26	
20-Apr-04	2.2	A	2.3	2.3	2.4	2.5	2.4	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.6	2.5	2.28	2.63	
21-Apr-04	A	3.5	3.3	3.1	2.8	3.1	3.1	2.7	2.6	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.3	2.5	A	2.52	3.48	
22-Apr-04	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.4	2.4	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.4	A	2.3	2.27	2.43	
23-Apr-04	2.2	2.3	2.4	2.5	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.5	2.3	2.1	2.1	2.1	2.1	2.2	2.2	2.2	A	2.2	2.1	2.22	2.55	
24-Apr-04	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	A	2.4	2.5	2.5	2.24	2.52
25-Apr-04	2.4	2.4	2.4	2.6	2.7	2.5	2.5	2.5	2.3	2.3	2.2	2.2	3.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	A	2.7	2.8	2.5	2.6	2.44	3.24
26-Apr-04	2.6	2.5	2.5	2.4	2.4	2.4	2.3	2.3	2.4	2.3	3.2	2.4	2.3	2.3	2.2	C	C	C	C	C	C	C	N	N	N	N	3.15
27-Apr-04	N	N	N	N	N	C	C	C	C	C	2.2	2.1	2.2	2.2	N	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.1	2.1	N	2.27	
28-Apr-04	N	N	N	N	N	N	N	N	N	2.3	2.4	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.5	2.4	2.5	N	2.49	
29-Apr-04	2.4	2.3	2.3	A	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.4	2.4	2.30	2.42	
30-Apr-04	2.4	2.3	A	2.3	2.4	3.0	2.9	2.5	2.3	N	2.2	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.4	2.3	3.2	2.27	3.19	
																									N	0.00	
Hourly Avg	2.46	2.52	2.51	2.47	2.47	2.49	2.52	2.47	2.39	2.29	2.28	2.22	2.26	2.23	2.19	2.18	2.19	2.19	2.23	2.29	2.39	2.50	2.36	2.39			
Hourly Max	4.29	3.91	3.73	3.06	3.28	3.12	3.21	3.27	2.92	2.70	3.15	2.42	3.24	2.46	2.43	2.42	2.42	2.41	2.66	2.69	3.53	6.28	2.75	3.19			

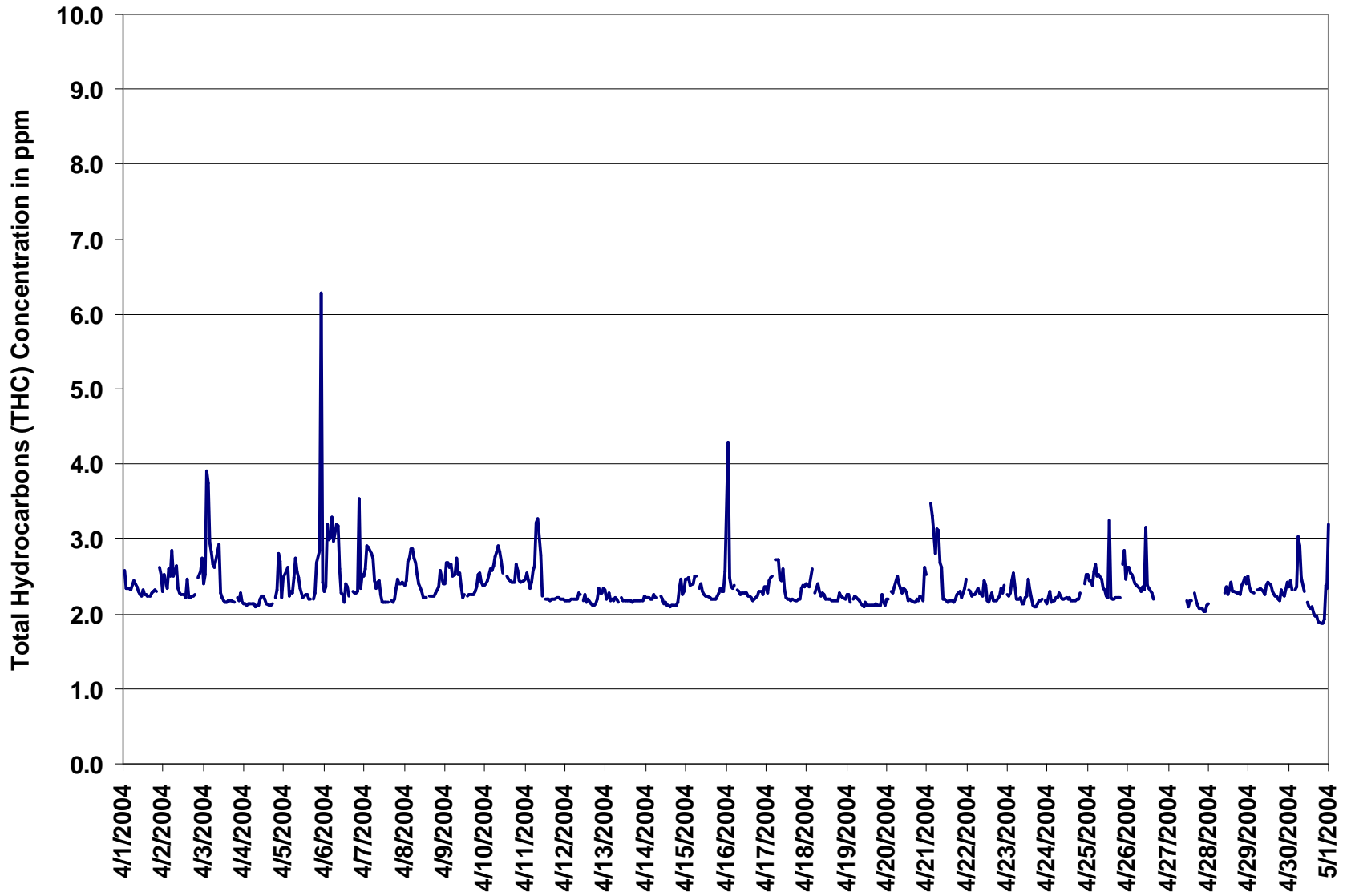


Figure 8. PAS - Crescent Heights Total Hydrocarbons 1-hr Maximum Value Monthly Trend



PAS - CRESCENT HEIGHTS PARTICULATE MATTER (LESS THAN 2.5 MICRONS) MONTHLY SUMMARY

Station: Crescent Heights

HOURLY AVERAGE TABLE

Particulate Matter (PM_{2.5})

Station Owner: PAS

Monitoring Dates: April 1, 2004 to May 1, 2004

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	21.8 $\mu\text{g}/\text{m}^3$ 27-Apr 20:00 21:00
Maximum 24-hr Average:	6.4 $\mu\text{g}/\text{m}^3$ 27-Apr

Guideline Limit	Canada Wide Standard	1-hr - $\mu\text{g}/\text{m}^3$	24-hr 30 $\mu\text{g}/\text{m}^3$
(considered as an absolute value)			

AIC Time:	0 hrs	Operational Time:	660 hrs						
Calibration Time:	6 hrs	AMD Operational Uptime:	92.5%						
Percentile	99	95	75	50	25	5	1	Average	Geomean
	10.1	6.3	2.5	1.1	0.0	0.0	0.0	1.8 $\mu\text{g}/\text{m}^3$	1.4 $\mu\text{g}/\text{m}^3$

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																							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-Apr-04	0	0	D	D	0	0	0	0	0	0	0	0	0	2	3	0	0	1	1	1	2	0	1	1	0.5	2.9	
2-Apr-04	2	2	2	4	1	2	4	3	2	0	D	D	0	D	0	0	0	0	0	5	4	5	6	1	2.0	5.5	
3-Apr-04	2	4	6	2	0	0	1	1	0	0	D	0	0	0	0	0	0	0	1	1	0	3	2	2	1.2	5.8	
4-Apr-04	2	2	2	3	2	3	1	1	0	0	2	2	1	2	1	1	2	2	3	4	8	5	4	3	2.4	7.7	
5-Apr-04	2	2	0	1	2	8	11	8	7	5	4	3	2	4	2	0	0	0	2	5	3	3	2	3	3.3	10.6	
6-Apr-04	2	1	2	3	2	2	10	12	7	0	3	0	4	9	9	8	5	4	3	2	1	1	7	4.5	12.5		
7-Apr-04	1	1	1	2	2	1	2	6	5	2	0	D	0	D	0	0	0	0	1	1	2	0	0	0	1.2	5.9	
8-Apr-04	1	2	1	1	0	0	0	1	0	0	0	0	0	0	0	1	2	2	2	1	5	7	7	1	1.5	7.2	
9-Apr-04	2	1	1	1	0	1	1	2	2	0	D	0	0	0	0	0	1	2	2	4	5	7	4	2	1.6	6.7	
10-Apr-04	1	1	2	3	3	5	5	6	4	2	0	0	0	0	0	0	0	0	0	0	2	1	1	1	1.5	5.8	
11-Apr-04	2	0	0	0	2	1	3	2	0	0	0	0	0	0	0	0	2	0	1	1	0	0	0	0	0.6	3.0	
12-Apr-04	1	0	2	1	1	2	6	4	4	2	3	2	2	1	0	0	0	0	5	5	0	0	0	1	1.8	6.4	
13-Apr-04	0	0	0	0	0	2	2	2	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	2.5	
14-Apr-04	0	0	0	D	0	0	0	0	0	1	4	1	2	1	3	0	D	0	0	1	3	1	0	3	0.9	4.5	
15-Apr-04	5	1	0	1	2	1	1	3	3	2	0	1	2	2	1	2	1	0	1	3	5	6	3	3	2.0	5.6	
16-Apr-04	4	4	4	7	2	2	1	0	0	1	3	0	0	0	2	1	0	0	0	0	0	0	D	D	0	1.3	7.3
17-Apr-04	0	0	0	0	0	0	0	0	0	3	2	1	0	0	0	0	0	0	0	4	0	0	0	0	0.4	4.0	
18-Apr-04	0	0	0	0	0	0	0	0	0	2	2	0	D	D	D	D	D	0	0	6	1	0	0	1	0.6	6.2	
19-Apr-04	0	0	D	D	D	D	0	0	D	D	1	D	D	D	0	D	0	0	5	0	0	1	0	0	N	5.3	
20-Apr-04	0	0	0	0	0	2	1	2	2	2	0	0	D	D	1	0	0	0	0	4	2	0	0	0	0.7	3.9	
21-Apr-04	1	0	0	2	2	2	1	2	1	0	0	0	0	0	0	0	0	0	4	3	0	1	1	1	0.9	3.5	
22-Apr-04	0	0	0	0	0	0	2	4	2	3	0	D	0	0	0	0	0	0	1	0	0	0	0	0	0.6	3.7	
23-Apr-04	0	0	0	D	0	2	2	2	1	1	1	D	1	0	0	3	4	12	5	5	3	6	4	2	2.5	12.2	
24-Apr-04	7	13	0	0	D	D	1	D	1	D	0	0	D	0	D	D	0	0	0	4	4	9	8	5	N	12.9	
25-Apr-04	3	2	0	1	2	2	2	0	0	D	0	0	0	0	0	0	0	0	0	0	2	3	4	4	1.1	4.2	
26-Apr-04	2	1	0	0	0	0	0	2	2	2	2	1	0	0	D	C	C	C	2	3	2	5	4	5	1.7	5.0	
27-Apr-04	5	4	4	3	2	5	6	5	5	4	1	7	7	C	C	C	18	D	D	D	22	11	6	0	6.4	21.8	
28-Apr-04	N	N	N	N	N	N	N	N	N	0	2	1	2	1	1	1	1	1	2	3	4	4	3	2	N	4.1	
29-Apr-04	3	1	2	3	2	3	3	5	3	3	3	2	2	2	2	2	4	4	5	4	3	4	4	4	3.0	4.9	
30-Apr-04	7	6	4	6	7	7	6	3	2	N	0	0	0	0	1	2	2	3	4	5	5	6	9	9	4.2	9.4	
																									N	0.0	
Hourly Avg	1.9	1.7	1.2	1.8	1.3	2.0	2.5	2.8	2.0	1.4	1.3	0.8	1.0	1.0	1.0	0.9	1.7	1.1	1.7	2.6	3.0	2.9	2.6	2.1			
Hourly Max	6.8	12.9	5.8	7.3	7.4	8.0	10.6	12.5	7.4	5.3	4.5	6.7	6.7	8.7	8.8	8.7	17.6	12.2	5.3	6.2	21.8	10.7	9.3	9.4			

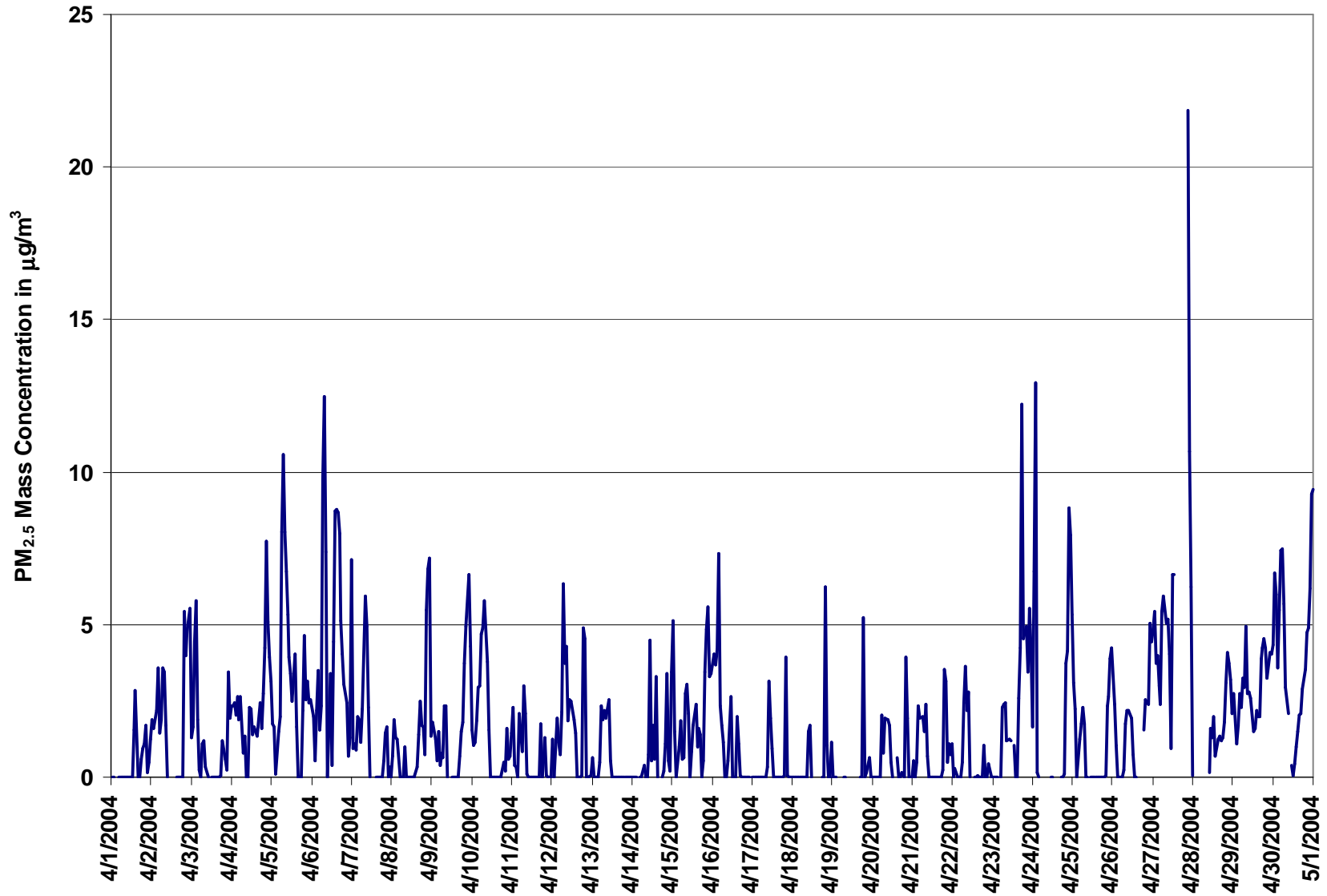


Figure 9. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend



Station: Crescent Heights

HOURLY MAXIMUM TABLE

Particulate Matter (PM_{2.5})

Station Owner: PAS

Monitoring Dates: April 1, 2004 to May 1, 2004

Summary

Maximum 1-hr Value:	34.5	µg/m ³	19-Apr	18:00 19:00
Maximum 24-hr Value:	14.4	µg/m ³	27-Apr	

AIC Time:	0 hrs	Operational Time:	701 hrs						
Calibration Time:	6 hrs	AMD Operational Uptime:	98.2%						
Percentile	99	95	75	50	25	5	1	Average	Geomean
	23.4	14.0	6.6	4.1	2.2	0.0	0.0	5.1 µg/m ³	4.8 µg/m 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

Day	Hour Start	Hour End	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
1-Apr-04	0:00	1:00	2	4	0	0	4	0	0	0	1	1	0	1	1	8	13	5	2	2	3	3	4	2	5	4	2.7	13.3
2-Apr-04	1:00	2:00	4	5	5	7	4	6	13	6	4	0	0	1	1	0	2	1	3	1	3	10	8	8	10	3	4.3	13.4
3-Apr-04	2:00	3:00	4	8	9	6	2	4	4	4	3	3	0	1	2	3	3	0	2	2	3	3	3	6	3	4	3.4	8.9
4-Apr-04	3:00	4:00	4	4	4	5	3	8	3	4	1	4	9	7	11	10	6	5	6	4	5	7	15	10	6	5	6.1	14.6
5-Apr-04	4:00	5:00	6	9	3	3	3	15	16	11	10	9	8	6	6	8	5	2	0	3	7	8	8	12	8	5	7.2	16.0
6-Apr-04	5:00	6:00	4	2	9	9	11	9	13	16	10	5	8	5	9	17	14	17	15	8	8	6	4	2	4	12	9.1	17.0
7-Apr-04	6:00	7:00	6	3	3	8	3	4	4	8	9	10	4	5	2	2	4	2	2	2	8	5	3	1	2	1	4.2	10.5
8-Apr-04	7:00	8:00	2	4	5	3	1	0	2	4	2	2	3	3	3	2	4	5	4	5	5	3	11	12	14	4	4.3	14.4
9-Apr-04	8:00	9:00	7	7	2	3	2	3	2	6	5	4	2	2	1	4	3	3	3	4	5	6	9	12	12	5	4.7	11.8
10-Apr-04	9:00	10:00	4	4	5	5	4	6	7	8	8	5	4	3	3	3	2	3	3	9	4	4	4	3	2	4	4.4	9.3
11-Apr-04	10:00	11:00	6	2	2	2	6	3	6	4	2	3	2	3	2	4	4	4	5	2	3	3	1	2	1	2	3.0	5.9
12-Apr-04	11:00	12:00	3	2	4	3	3	5	21	7	7	6	7	7	7	5	4	6	2	4	21	7	4	3	4	3	6.1	20.9
13-Apr-04	12:00	13:00	3	1	2	0	3	6	7	6	11	12	4	3	2	1	1	2	0	1	0	2	2	0	0	0	2.9	11.6
14-Apr-04	13:00	14:00	2	2	4	0	4	1	6	1	4	4	15	6	6	5	7	5	5	3	3	7	7	4	2	6	4.5	14.6
15-Apr-04	14:00	15:00	9	3	2	2	4	2	3	5	6	4	2	5	5	5	4	5	3	1	4	5	8	7	5	6	4.4	8.7
16-Apr-04	15:00	16:00	7	8	6	15	5	5	3	2	3	7	7	2	0	2	7	7	2	2	1	1	0	0	0	0	3.8	14.8
17-Apr-04	16:00	17:00	0	0	0	3	0	1	2	3	3	6	7	5	2	4	4	3	2	3	4	12	2	2	2	1	3.0	11.7
18-Apr-04	17:00	18:00	1	1	4	3	0	2	0	1	4	4	7	2	0	0	4	2	0	1	1	23	8	4	3	3	3.2	22.7
19-Apr-04	18:00	19:00	0	1	0	0	0	0	0	0	0	1	20	2	2	0	3	0	5	5	34	5	4	3	1	1	3.6	34.5
20-Apr-04	19:00	20:00	0	0	0	0	0	20	4	4	4	5	5	5	1	0	9	3	7	11	6	10	6	2	4	2	4.5	19.8
21-Apr-04	20:00	21:00	3	2	3	6	7	7	5	4	4	3	3	2	5	3	3	3	3	3	11	8	5	3	3	4	4.4	10.9
22-Apr-04	21:00	22:00	1	3	1	1	2	3	4	9	6	7	7	2	2	1	5	4	3	2	5	1	3	5	3	1	3.4	9.0
23-Apr-04	22:00	23:00	0	1	1	0	3	5	3	4	5	4	4	4	9	4	7	9	11	21	8	9	9	8	11	9	6.3	21.0
24-Apr-04	23:00	0:00	34	31	16	4	0	5	6	4	14	9	10	3	0	1	0	1	3	3	3	12	11	24	12	8	8.9	33.8
25-Apr-04	0:00	1:00	7	4	1	4	4	9	5	1	2	2	1	1	1	2	0	1	1	1	1	3	14	17	8	8	4.1	16.8
26-Apr-04	1:00	2:00	5	3	4	0	1	11	2	6	7	6	6	8	3	0	1	C	C	C	8	7	9	9	7	7	5.2	10.8
27-Apr-04	2:00	3:00	9	6	7	17	5	14	9	11	12	18	7	25	23	C	C	C	32	D	D	D	33	14	14	4	14.4	33.4
28-Apr-04	3:00	4:00	N	N	N	N	N	N	N	N	N	2	5	3	5	2	3	5	4	3	4	6	6	6	5	5	N	6.2
29-Apr-04	4:00	5:00	4	3	4	16	5	7	5	9	6	5	5	3	5	6	6	5	7	7	7	7	6	6	7	7	6.3	16.3
30-Apr-04	5:00	6:00	10	9	6	7	11	9	10	5	7	N	4	5	6	4	6	6	6	6	7	7	7	13	14	15	7.8	15.2
																											N	0.0
Hourly Avg	5.0	4.6	3.9	4.6	3.4	5.8	5.7	5.3	5.6	5.2	5.6	4.4	4.1	3.7	4.6	4.1	4.9	4.4	6.3	6.5	7.1	6.6	5.7	4.6				
Hourly Max	33.8	30.6	16.0	16.8	11.2	19.8	20.9	15.6	14.1	18.2	20.1	25.2	23.4	16.6	14.0	17.0	31.5	21.0	34.5	22.7	33.4	23.8	14.4	15.2				

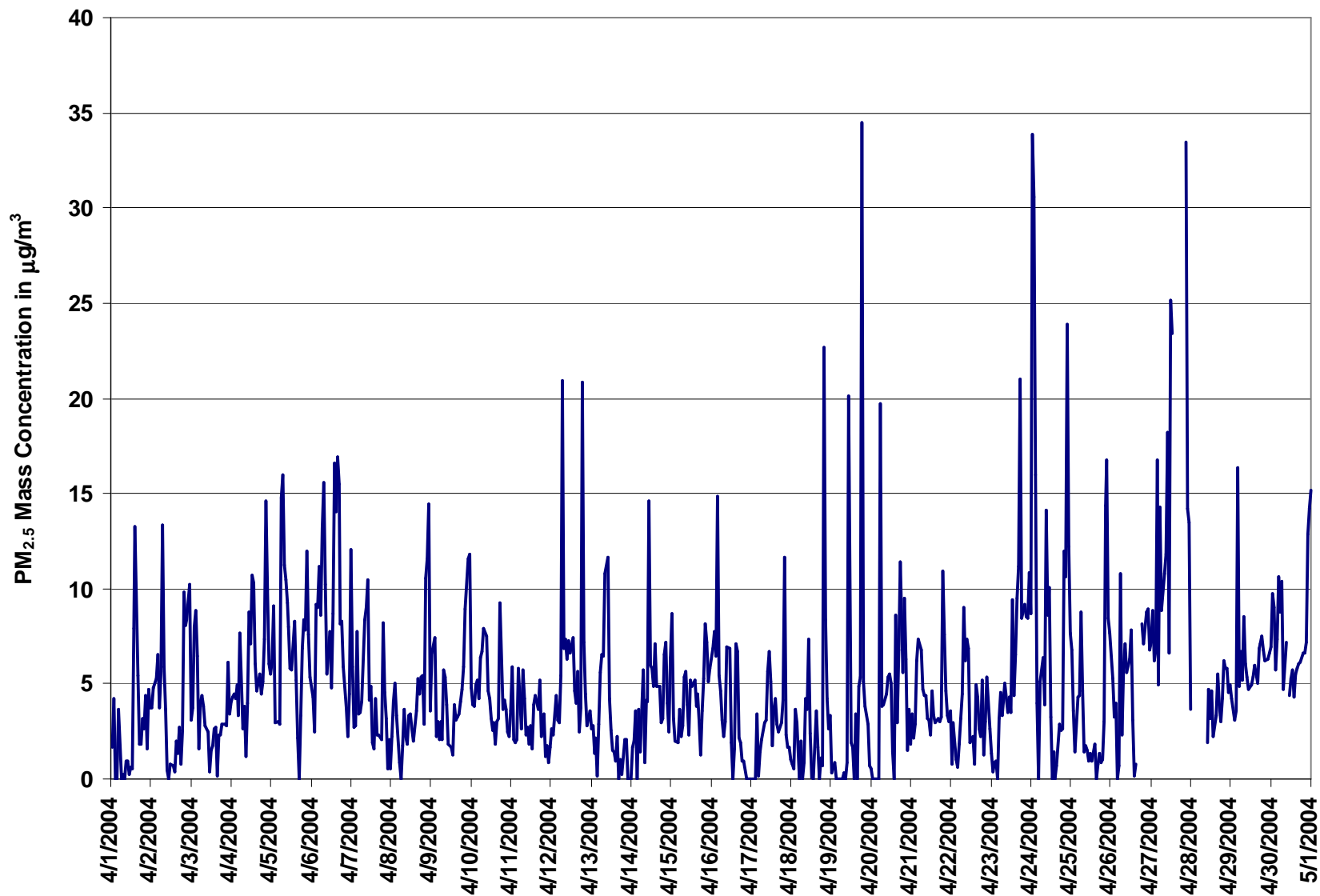
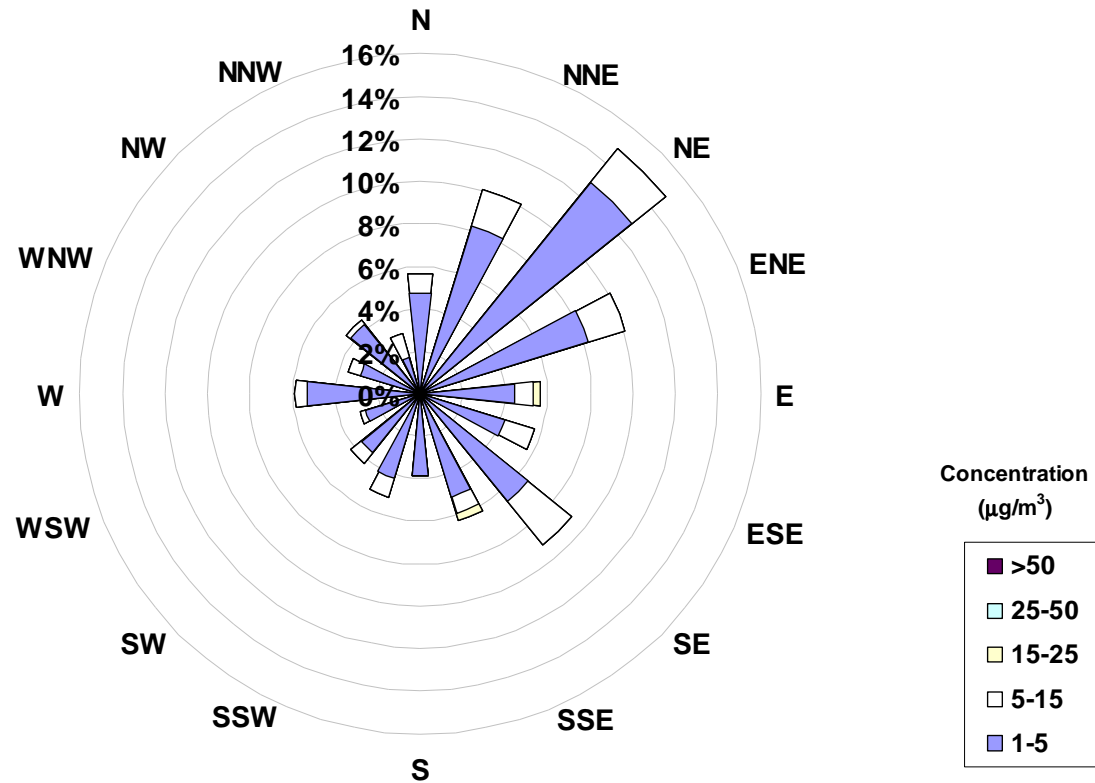


Figure 10. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly



Concentration Rose for the 1-hr PM_{2.5} Average Concentration Occurrences at the Crescent Heights Site for April 2004



Frequency Distribution of PM _{2.5} in µg/m ³			Frequency (hrs)
0	Range		
0	<	1	319
1	to	5	282
5	to	15	57
15	to	25	2
25	to	50	0
	>	50	0
Total Non-Zero Values			660



PAS - CRESCENT HEIGHTS METEOROLOGICAL PARAMETERS MONTHLY SUMMARY

Station: Crescent Heights

HOURLY AVERAGE TABLE

Relative Humidity (RH - %)

Station Owner: PAS

Monitoring Dates: April 1, 2004 to May 1, 2004

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	94.8 % 18-Apr 7:00 8:00
Maximum 24-hr Average:	73.1 % 15-Apr

AIC Time:	0 hrs	Operational Time:	707 hrs					
Calibration Time:	0 hrs	AMD Operational Uptime:	98.2%					
Percentile	99	95	75	50	25	5	1	Average
	91.9	80.7	64.3	47.0	31.6	20.8	12.5	48.5 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	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average	Daily Maximum
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Apr-04	65	67	59	58	60	61	60	56	50	44	41	39	38	44	56	60	61	61	63	65	68	70	69	68	58	70
2-Apr-04	71	75	78	82	83	85	83	77	70	57	42	32	29	28	27	25	26	27	30	37	42	52	58	62	53	85
3-Apr-04	66	70	72	74	77	78	76	67	58	44	28	28	27	28	30	28	30	33	38	43	49	51	51	53	50	78
4-Apr-04	55	58	59	61	64	67	65	63	44	32	30	29	25	21	19	18	18	19	23	28	32	39	47	51	40	67
5-Apr-04	52	53	57	58	59	63	66	61	52	48	42	37	35	33	30	26	23	22	26	32	34	38	49	54	44	66
6-Apr-04	56	57	64	69	74	72	76	67	55	39	33	29	27	29	29	31	35	41	48	53	59	64	67	72	52	76
7-Apr-04	76	77	80	81	81	82	77	70	62	51	41	36	29	26	26	25	24	24	28	37	44	46	47	46	51	82
8-Apr-04	49	59	63	64	63	60	56	54	48	38	30	27	26	25	25	25	26	27	29	31	37	42	45	49	42	64
9-Apr-04	54	61	65	73	76	78	75	66	58	50	38	33	32	30	28	26	26	25	28	32	36	43	50	51	47	78
10-Apr-04	46	48	51	56	59	61	59	52	47	42	36	31	27	26	26	25	24	27	33	40	47	55	59	62	43	62
11-Apr-04	61	59	60	63	66	69	69	62	53	44	39	34	32	26	24	21	24	27	29	37	41	41	39	37	44	69
12-Apr-04	38	38	41	44	48	49	50	45	37	32	27	26	24	23	19	19	16	17	22	35	39	42	46	50	35	50
13-Apr-04	53	54	53	55	59	65	69	65	65	63	60	56	49	45	43	42	42	45	48	51	54	59	62	65	55	69
14-Apr-04	66	68	68	69	73	76	73	70	65	58	57	61	55	53	54	48	39	38	42	49	56	62	65	73	60	76
15-Apr-04	82	86	86	86	86	87	90	90	87	81	77	72	69	63	56	54	51	52	54	62	67	69	72	74	73	90
16-Apr-04	73	72	69	77	86	84	83	79	75	70	66	60	56	53	51	47	48	48	51	52	54	57	59	61	64	86
17-Apr-04	64	69	75	80	83	83	80	74	65	58	55	50	47	44	41	41	39	41	46	60	66	69	75	83	62	83
18-Apr-04	87	89	92	94	95	95	95	95	95	93	87	70	52	40	36	32	30	29	31	41	57	61	64	68	68	95
19-Apr-04	69	73	76	77	75	72	64	56	44	33	30	28	24	21	20	19	19	24	28	29	33	39	44	49	44	77
20-Apr-04	55	56	60	63	65	67	64	61	59	52	45	40	33	30	32	32	33	34	38	51	62	68	71	74	52	74
21-Apr-04	76	76	77	79	80	81	77	69	56	44	41	36	33	34	32	32	32	33	40	48	53	58	62	65	55	81
22-Apr-04	67	71	73	74	73	74	72	64	60	48	41	33	30	27	26	27	27	26	28	33	36	40	45	46	48	74
23-Apr-04	46	50	52	41	33	36	37	38	35	31	29	23	18	14	10	6	6	10	16	19	22	27	35	37	28	52
24-Apr-04	41	63	78	70	57	47	44	36	32	32	27	23	17	15	13	11	11	11	12	17	22	28	29	33	32	78
25-Apr-04	34	39	40	41	45	48	45	40	35	29	27	25	25	25	22	22	22	23	24	29	32	37	38	42	33	48
26-Apr-04	42	42	43	43	44	44	40	40	37	30	28	28	27	25	23	M	M	M	22	26	25	28	30	31	33	44
27-Apr-04	37	43	45	40	39	44	46	40	28	22	18	17	18	18	16	16	18	23	41	63	67	73	84	90	39	90
28-Apr-04	N	N	N	N	N	N	N	N	N	65	67	65	65	59	58	56	55	50	49	55	64	68	73	78	N	78
29-Apr-04	78	76	76	78	80	78	74	72	61	48	40	35	29	27	25	22	21	25	27	31	37	40	42	45	49	80
30-Apr-04	54	62	58	68	74	74	67	55	47	N	35	32	29	25	25	25	22	21	22	29	33	39	52	62	44	74
																									N	0
Hourly Avg	59	62	65	66	67	68	67	62	55	48	42	38	34	32	31	30	29	30	34	41	46	50	54	58		
Hourly Max	87	89	92	94	95	95	95	95	95	93	87	72	69	63	58	60	61	61	63	65	68	73	84	90		

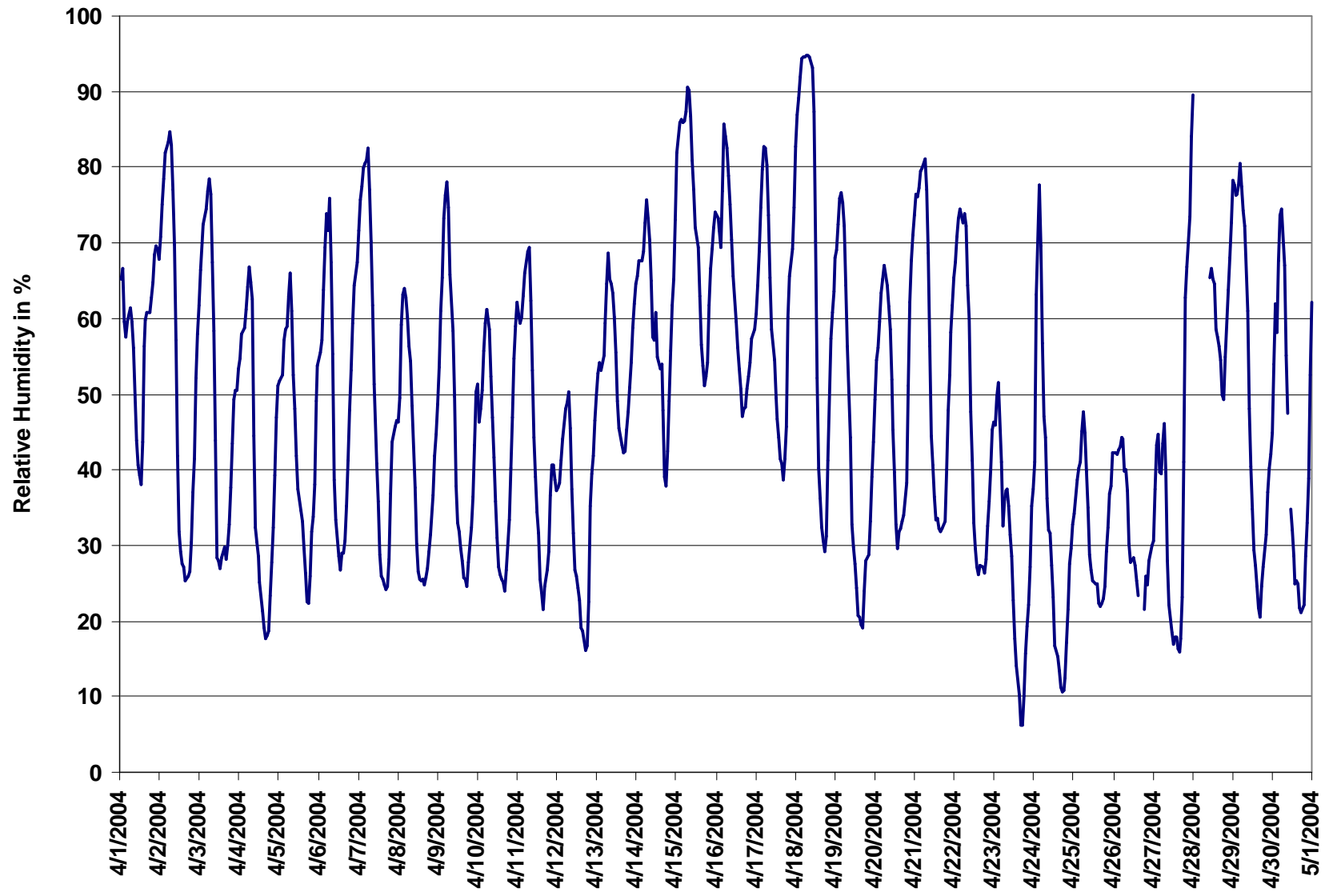


Figure 11. PAS - Crescent Heights Relative Humidity 1-hr Average Monthly Trend



Station: Crescent Heights

HOURLY AVERAGE TABLE

Ambient Temperature (AT - °C)

Station Owner: PAS

Monitoring Dates: April 1, 2004 to May 1, 2004

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	25.3 °C 26-Apr 18:00 19:00
Maximum 24-hr Average:	17.4 °C 27-Apr

AIC Time:	0 hrs	Operational Time:	700 hrs					
Calibration Time:	0 hrs	AMD Operational Uptime:	97.2%					
Percentile	99	95	75	50	25	5	1	Average
	24.5	20.0	13.8	8.8	3.9	-1.0	-3.4	8.9 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-Apr-04	3	3	3	2	2	2	2	2	3	3	4	5	5	5	5	4	4	4	4	3	2	2	2	3.2	5.0	
2-Apr-04	2	1	0	-1	-1	-2	-2	0	3	6	9	10	12	12	13	13	13	11	9	7	4	3	2	5.6	13.1	
3-Apr-04	1	0	-1	-1	-2	-2	2	5	10	13	14	16	16	17	17	17	15	13	11	7	4	3	2	8.8	17.2	
4-Apr-04	11	11	10	10	9	8	8	9	14	16	17	18	19	20	20	19	19	17	15	13	11	9	7	13.8	20.2	
5-Apr-04	7	7	5	5	5	4	4	6	9	11	14	16	17	18	19	19	19	17	14	13	11	8	7	11.4	19.1	
6-Apr-04	7	6	4	4	3	2	2	5	9	14	16	18	17	15	15	14	12	10	8	6	5	4	3	8.7	17.8	
7-Apr-04	2	0	-1	-1	-1	-1	0	2	6	9	12	13	14	15	16	17	16	14	12	9	8	7	7	8.1	16.8	
8-Apr-04	6	3	2	2	2	2	2	3	6	9	12	14	14	14	14	15	14	14	13	10	9	7	6	5	8.3	14.7
9-Apr-04	4	2	1	-1	-2	-2	-2	1	4	6	8	9	10	12	12	13	13	13	12	10	8	6	5	4	6.2	13.4
10-Apr-04	5	4	4	3	2	2	3	5	8	10	11	12	13	14	14	14	14	13	12	9	7	4	3	2	7.9	14.3
11-Apr-04	3	3	3	2	1	0	1	4	6	9	10	12	13	16	17	17	16	15	12	10	9	10	10	9.1	17.4	
12-Apr-04	10	10	9	9	7	7	7	9	14	16	19	20	22	23	24	24	24	24	22	18	15	12	11	9	15.2	24.4
13-Apr-04	8	7	6	5	5	4	5	5	6	7	9	11	13	14	15	15	15	13	12	11	10	8	7	6	9.0	15.0
14-Apr-04	5	5	4	4	3	3	4	4	6	8	9	9	11	12	13	15	15	15	14	12	10	9	8	6	8.5	15.3
15-Apr-04	4	2	1	0	0	-1	-1	-1	0	2	2	2	3	4	6	6	7	6	5	3	1	0	-1	-2	2.0	6.8
16-Apr-04	-1	-1	0	-1	-1	-1	-1	-1	0	1	2	4	4	5	7	9	8	8	7	6	5	4	3	2	2.9	8.7
17-Apr-04	2	1	0	-1	-2	-2	-1	1	4	7	9	11	12	13	14	14	15	14	13	10	9	8	6	4	6.6	15.4
18-Apr-04	2	1	0	1	1	1	2	2	3	4	6	9	12	14	15	16	15	16	14	11	10	8	7	7	7.4	15.9
19-Apr-04	7	7	6	5	5	5	6	8	11	13	14	15	16	17	17	16	16	15	14	12	10	10	9	8	10.9	16.9
20-Apr-04	6	5	4	3	2	1	2	5	7	10	12	14	16	16	15	15	15	14	13	10	8	6	5	3	8.6	15.8
21-Apr-04	2	2	2	1	1	0	2	5	9	12	14	16	17	16	17	16	16	15	14	12	11	9	7	6	9.2	16.8
22-Apr-04	6	5	4	4	4	4	4	7	9	13	14	15	15	16	16	15	15	15	14	12	10	8	5	5	9.8	16.0
23-Apr-04	4	3	4	6	9	10	10	12	14	17	18	20	22	23	24	25	24	22	20	18	16	15	14	13	15.2	24.8
24-Apr-04	12	7	5	6	6	6	7	8	9	10	11	12	13	14	15	15	15	15	14	12	10	8	7	6	10.2	15.3
25-Apr-04	6	4	4	5	4	3	5	7	9	12	13	14	14	14	16	16	16	16	15	13	12	11	10	10	10.3	15.9
26-Apr-04	10	9	10	9	9	8	10	11	13	18	20	22	23	24	25	M	M	M	25	23	21	19	19	19	16.5	25.3
27-Apr-04	16	14	14	16	16	14	14	16	21	24	25	25	24	24	25	25	25	23	18	12	9	8	6	5	17.4	25.2
28-Apr-04	N	N	N	N	N	N	N	N	N	D	D	D	D	D	D	D	-1	-3	1	0	-1	-2	-3	-4	N	1.0
29-Apr-04	-4	-4	-4	-4	-4	-4	-3	-1	2	6	8	10	10	10	10	10	11	10	9	8	6	6	5	5	4.2	10.6
30-Apr-04	4	3	3	2	1	1	3	6	8	N	10	10	11	13	14	15	16	15	15	13	11	9	7	5	8.4	15.6
																									N	0.0
Hourly Avg	5.1	4.2	3.5	3.2	2.9	2.5	3.1	4.9	7.5	10.1	11.8	13.1	14.1	14.8	15.5	15.5	14.8	14.1	13.3	11.0	9.3	7.8	6.7	5.8		
Hourly Max	16.2	14.0	13.8	15.8	15.8	14.1	13.5	16.3	21.1	23.6	24.9	25.2	24.1	24.0	25.0	24.8	24.5	24.2	25.3	22.6	21.1	19.4	18.9	18.6		

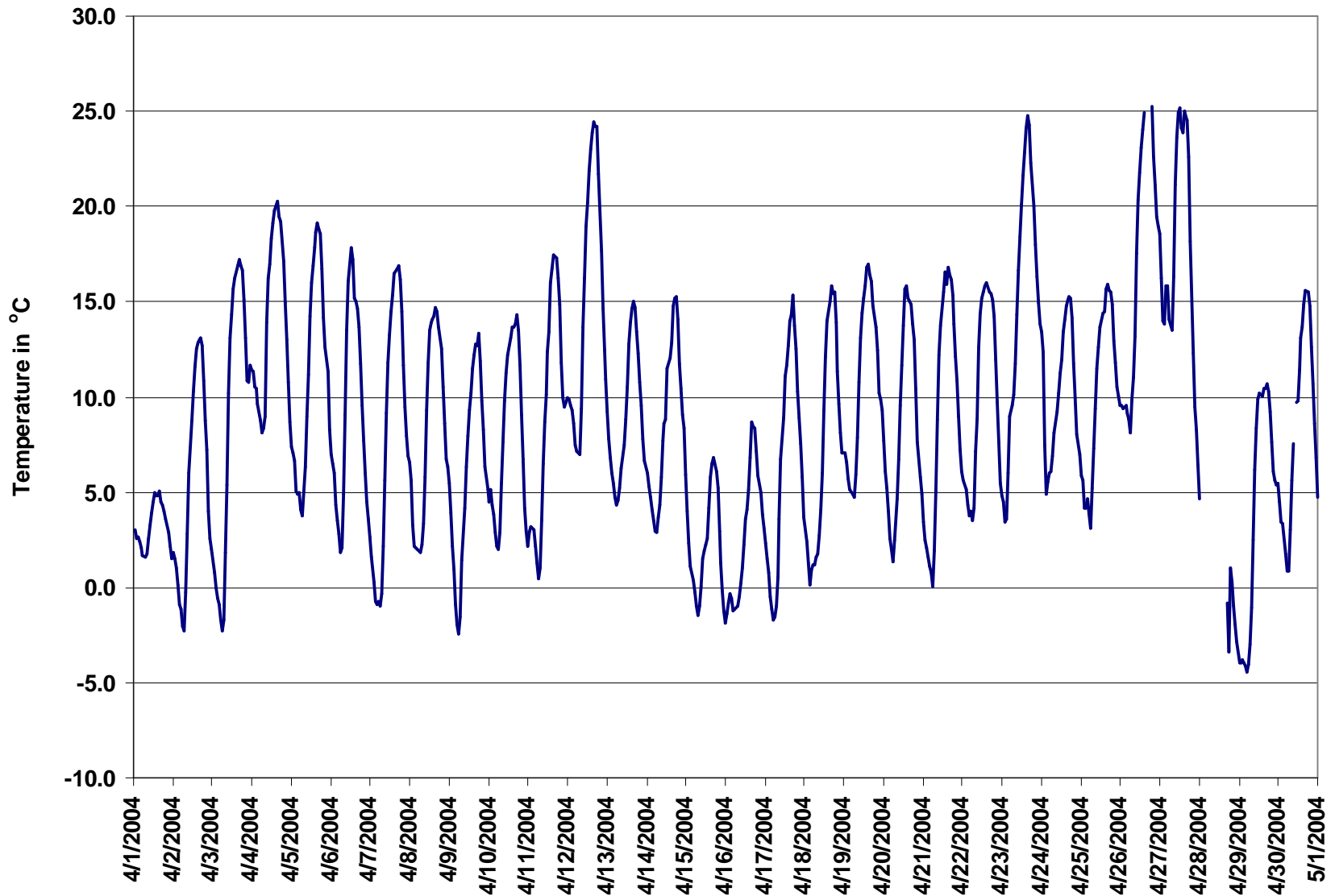


Figure 12. PAS - Crescent Heights Temperature 1-hr Average Monthly Trend



Station: Crescent Heights

HOURLY AVERAGE TABLE

Solar Radiation (SR - W/m²)

Station Owner: PAS

Monitoring Dates: April 1, 2004 to May 1, 2004

Summary

Number of 1-hr Exceedances:	0
Number of 24-hr Exceedances:	0
Maximum 1-hr Average:	874.8 W/m ² 24-Apr 12:00 13:00
Maximum 24-hr Average:	294.3 W/m ² 30-Apr

AIC Time:	0 hrs	Operational Time:	707 hrs					
Calibration Time:	0 hrs	AMD Operational Uptime:	98.2%					
Percentile	99	95	75	50	25	5	1	Average
	836.8	777.0	473.2	74.6	0.9	0.8	0.7	236.1 ppb

Status Flag Characters

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

Day Mountain Standard Time

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Apr-04	1	1	1	1	1	1	9	56	87	111	144	136	143	155	335	272	134	51	13	1	1	1	1	1	69	335
2-Apr-04	1	1	1	1	1	1	35	221	393	550	672	756	779	744	661	526	374	206	47	1	1	1	1	1	249	779
3-Apr-04	1	1	1	1	1	2	61	226	400	557	680	761	780	741	660	539	378	210	46	1	1	1	1	1	252	780
4-Apr-04	1	1	1	1	1	4	30	174	406	561	536	691	558	515	611	536	287	236	46	1	1	1	1	1	217	691
5-Apr-04	1	1	1	1	1	2	63	214	389	543	656	746	761	716	637	460	291	182	42	1	1	1	1	1	238	761
6-Apr-04	1	1	1	1	1	3	69	226	401	555	680	763	785	698	653	537	377	209	48	2	1	1	1	1	251	785
7-Apr-04	1	1	1	1	1	4	78	249	376	579	681	770	795	763	668	517	331	186	71	2	1	1	1	1	253	795
8-Apr-04	1	1	1	1	1	3	91	250	432	573	685	818	813	754	669	554	321	118	37	2	1	1	1	1	255	818
9-Apr-04	1	1	1	1	1	5	89	254	428	584	704	784	803	769	648	424	279	233	69	2	1	1	1	1	253	803
10-Apr-04	1	1	1	1	1	6	98	266	426	590	708	788	803	771	566	477	414	200	75	3	1	1	1	1	258	803
11-Apr-04	1	1	1	1	1	7	110	261	274	306	344	510	521	693	720	548	431	253	89	5	1	1	1	1	212	720
12-Apr-04	1	1	1	1	1	4	70	266	425	416	712	778	803	759	684	541	347	242	50	2	1	1	1	1	254	803
13-Apr-04	1	1	1	1	1	8	106	277	429	557	704	777	795	770	681	561	379	166	75	4	1	1	1	1	262	795
14-Apr-04	1	1	1	1	1	4	25	77	140	232	201	242	657	337	424	574	370	241	79	4	1	1	1	1	151	657
15-Apr-04	1	1	1	1	1	4	29	67	110	173	206	304	334	445	560	458	407	202	98	5	1	1	1	1	142	560
16-Apr-04	1	1	1	1	1	5	38	96	124	179	280	384	324	451	472	643	431	255	91	4	1	1	1	1	158	643
17-Apr-04	1	1	1	1	1	9	65	157	460	552	615	776	653	590	546	411	407	196	96	9	1	1	1	1	231	776
18-Apr-04	1	1	1	1	1	5	29	81	179	212	319	762	793	835	773	683	479	280	88	9	1	1	1	1	231	835
19-Apr-04	1	1	1	1	1	17	145	318	488	642	756	826	697	802	572	522	308	110	81	11	1	1	1	1	263	826
20-Apr-04	1	1	1	1	1	16	148	308	458	637	755	837	873	600	627	554	493	224	128	7	1	1	1	1	278	873
21-Apr-04	1	1	1	1	1	19	157	320	475	646	713	837	816	735	595	540	365	164	38	5	1	1	1	1	268	837
22-Apr-04	1	1	1	1	1	16	99	238	280	618	755	751	797	811	715	445	389	242	99	10	1	1	1	1	261	811
23-Apr-04	1	1	1	1	1	26	148	327	422	615	686	754	838	813	723	605	443	151	59	6	1	1	1	1	276	838
24-Apr-04	1	1	1	1	1	27	173	338	514	637	644	672	875	816	757	632	455	297	124	10	1	1	1	1	291	875
25-Apr-04	1	1	1	1	1	36	173	329	511	652	763	822	773	596	774	597	335	271	124	11	1	1	1	1	282	822
26-Apr-04	1	1	1	1	1	31	179	244	471	656	766	841	864	792	707	M	M	M	129	18	2	2	2	2	272	864
27-Apr-04	2	2	2	2	3	38	176	345	520	691	690	782	480	516	487	199	307	161	25	14	2	2	2	2	227	782
28-Apr-04	N	N	N	N	N	N	N	N	N	174	192	223	224	296	295	237	242	361	149	17	2	2	2	2	N	361
29-Apr-04	2	2	2	2	3	41	186	368	362	614	634	674	614	668	632	535	491	155	62	9	2	2	2	2	253	674
30-Apr-04	2	2	2	2	3	54	212	368	542	N	791	706	856	837	709	623	543	333	151	21	2	2	2	2	294	856
																									N	0
Hourly Avg	1	1	1	1	1	14	100	239	377	497	589	676	687	660	619	509	373	212	78	7	1	1	1	1		
Hourly Max	2	2	2	2	3	54	212	368	542	691	791	841	875	837	774	683	543	361	151	21	2	2	2	2		

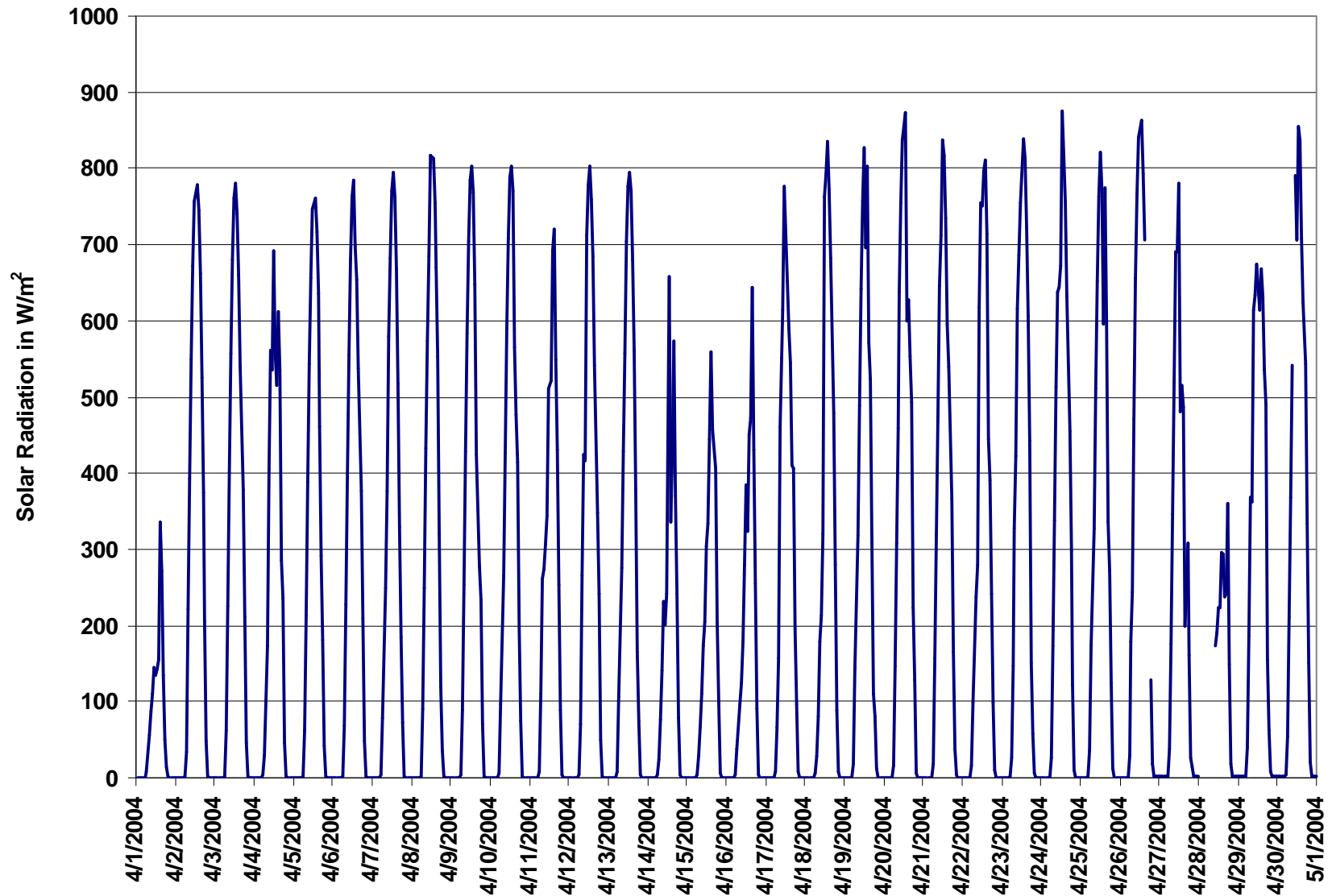


Figure 13. PAS - Crescent Heights Solar Radiation 1-hr Average Monthly Trend



Station: Crescent Heights

HOURLY AVERAGE TABLE

Wind Speed (WS - Km/hr)

Station Owner: PAS

Monitoring Dates: April 1, 2004 to May 1, 2004
Summary

Maximum 1-hr Average:	37.1	km/hr	23-Apr	15:00 16:00
Maximum 24-hr Average:	23.8	km/hr	23-Apr	

Calm Time:	2 hrs	0% calms	Operational Time:	704 hrs					
Calibration Time:	1 hrs		AMD Operational Uptime:	98.1%					
Percentile	99	95	75	50	25	5	1	AverageS	AverageV
	32.2	25.9	15.3	9.4	5.6	3.1	1.9	11.5 km/hr	1.7 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	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				
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-Apr-04	3	5	9	8	7	9	8	9	11	11	7	4	2	6	9	7	7	9	7	6	7	4	3	6	6.7	1.8	10.6	
2-Apr-04	5	5	4	2	3	3	5	7	9	9	9	10	8	9	11	9	8	7	4	5	6	5	6	7	6.5	5.6	10.9	
3-Apr-04	3	3	3	3	3	4	3	3	6	7	15	17	17	21	22	21	22	20	15	15	13	9	15	19	11.5	10.7	21.9	
4-Apr-04	20	17	20	17	14	16	18	17	13	15	13	17	22	22	22	18	16	12	8	7	4	5	7	4	14.4	7.7	22.5	
5-Apr-04	5	7	7	5	3	2	4	4	3	4	8	6	5	6	7	6	4	4	4	5	4	8	4	3	5.1	1.8	8.4	
6-Apr-04	2	3	Calm	Calm	2	5	6	4	5	10	12	14	24	29	29	30	27	26	23	15	8	5	5	4	13.0	7.7	30.3	
7-Apr-04	6	3	3	3	8	6	9	4	5	6	6	7	9	11	11	10	6	6	9	12	8	11	11	12	7.5	3.6	11.8	
8-Apr-04	5	3	1	5	7	9	8	7	11	15	16	11	10	10	11	10	11	11	9	8	4	4	14	13	8.9	5.7	16.1	
9-Apr-04	6	8	8	9	6	5	2	2	4	6	7	9	9	9	8	7	6	5	6	5	8	13	9	7	6.5	1.8	12.7	
10-Apr-04	15	11	5	5	5	4	3	6	8	12	16	14	18	17	15	14	9	7	12	10	10	7	6	3	9.7	0.1	18.4	
11-Apr-04	8	8	9	3	2	3	4	9	10	12	13	10	10	7	8	5	10	13	13	13	12	11	10	12	9.0	5.6	13.5	
12-Apr-04	9	10	11	10	12	10	10	8	7	8	5	8	8	8	10	12	14	10	9	21	23	22	24	25	12.3	4.8	25.0	
13-Apr-04	25	24	19	20	19	14	20	24	22	23	24	26	25	25	25	25	25	25	25	25	23	25	21	24	25	23.1	22.1	25.6
14-Apr-04	24	27	22	27	25	26	17	16	10	13	7	13	10	10	14	13	13	10	5	3	7	4	5	6	13.6	5.3	27.0	
15-Apr-04	6	5	4	4	4	5	8	6	7	9	13	14	12	10	13	14	16	14	14	12	12	12	10	5	9.6	4.0	16.1	
16-Apr-04	3	3	4	8	7	3	5	5	3	4	4	5	6	8	8	9	13	17	18	15	16	12	16	11	8.5	6.2	17.8	
17-Apr-04	8	9	8	7	4	6	5	6	6	5	4	6	8	5	5	4	3	6	13	10	9	10	8	6	6.7	3.2	13.5	
18-Apr-04	6	7	8	7	7	3	5	6	5	5	4	6	6	6	6	6	7	4	4	7	14	12	12	12	6.8	2.8	13.6	
19-Apr-04	16	18	19	21	20	19	19	22	25	25	22	22	22	21	19	23	18	13	21	11	9	14	12	11	18.3	16.6	25.0	
20-Apr-04	11	5	5	7	7	6	5	6	9	6	6	10	8	9	14	11	15	14	11	12	6	5	4	3	8.1	1.5	15.3	
21-Apr-04	2	3	2	3	3	3	4	5	5	5	5	5	6	8	7	10	8	8	10	8	8	3	6	7	5.7	0.4	10.1	
22-Apr-04	9	12	12	12	15	14	12	13	11	11	18	18	22	23	19	19	17	14	9	8	10	8	10	9	13.6	3.4	23.0	
23-Apr-04	9	5	2	6	23	25	26	24	28	31	31	32	35	36	36	37	36	27	26	20	14	13	19	28	23.8	20.9	37.1	
24-Apr-04	27	32	19	10	13	14	11	17	21	19	17	17	17	16	15	15	15	14	11	6	6	4	5	4	14.4	13.2	31.7	
25-Apr-04	5	4	7	7	7	4	3	9	11	12	13	13	14	15	15	13	11	10	8	5	4	3	3	2	8.3	6.4	14.9	
26-Apr-04	3	3	4	5	4	9	8	19	15	11	10	13	13	12	11	M	M	M	8	7	13	15	17	17	10.4	9.0	19.1	
27-Apr-04	13	11	10	16	18	18	18	20	19	C	22	29	28	30	32	24	32	29	30	32	25	21	23	29	23.0	17.6	32.3	
28-Apr-04	N	N	N	N	N	N	N	N	N	N	33	30	28	27	24	19	16	13	9	5	4	5	7	9	N	N	33.2	
29-Apr-04	10	10	7	13	14	15	19	17	18	20	18	17	21	25	24	23	25	24	20	13	10	7	5	7	16.0	8.3	25.4	
30-Apr-04	9	11	11	4	3	3	3	4	4	N	11	11	15	16	15	16	16	15	11	7	8	3	5	4	9.0	5.7	16.2	
																									N	N	0.0	
1-hr Scalar	9.5	9.4	8.7	8.7	9.1	9.1	9.3	10.3	10.6	12.5	12.8	13.6	14.6	15.2	15.3	14.7	14.6	13.2	12.3	10.8	10.2	9.2	10.1	10.4				
1-hr Vector	2.3	1.5	1.5	2.6	3.1	2.6	3.1	2.9	3.2	2.1	2.4	2.8	3.3	3.9	3.7	4.2	4.6	3.2	1.3	2.0	1.5	1.5	0.9	0.5				
Hourly Max	27.1	31.7	22.4	26.5	25.0	26.1	26.3	24.2	27.6	33.2	30.9	32.2	35.1	36.2	36.1	37.1	35.6	29.4	30.1	31.5	24.8	22.3	24.1	29.1				



Station: Crescent Heights

HOURLY AVERAGE TABLE

Wind Direction (WD - Degrees)

Station Owner: PAS

Monitoring Dates: April 1, 2004 to May 1, 2004

Summary

Calm Time:	2 hrs	0% calms	Operational Time:	704 hrs				
Calibration Time:	1 hrs		AMD Operational Uptime:	98.1%				
Percentile	99	95	75	50	25	5	1	Average
	354.4	328.3	252.7	143.1	60.2	18.7	5.4	70 deg

Status Flag Characters

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

Day Mountain Standard Time

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-hour Average
1-Apr-04	234	216	219	225	229	222	212	213	223	247	247	253	263	262	316	344	31	25	14	23	53	81	80	71	253
2-Apr-04	33	65	33	321	4	23	55	44	44	56	68	58	60	50	24	31	19	34	38	51	36	341	35	33	40
3-Apr-04	4	346	334	11	314	309	289	281	295	313	355	352	338	340	344	341	339	342	338	327	313	351	12	13	341
4-Apr-04	10	24	28	38	49	51	61	55	83	108	114	127	124	123	127	119	92	65	98	197	275	304	300	228	74
5-Apr-04	299	265	290	304	306	330	141	10	29	9	307	337	235	177	225	180	173	172	125	178	226	284	306	294	287
6-Apr-04	273	203	Calm	Calm	313	317	20	29	31	29	45	74	134	139	124	104	131	134	75	57	94	145	126	108	108
7-Apr-04	55	27	358	19	42	61	54	20	33	24	349	334	358	25	20	1	2	325	277	265	272	257	255	255	341
8-Apr-04	245	320	339	212	209	243	236	235	236	280	286	269	226	217	221	176	153	185	262	208	163	259	209	220	235
9-Apr-04	204	204	198	37	267	204	157	303	233	169	211	130	219	207	186	163	92	91	81	69	59	53	68	86	125
10-Apr-04	57	51	28	11	61	105	135	118	115	183	186	163	120	208	189	175	137	232	267	286	305	296	306	308	267
11-Apr-04	57	65	48	47	144	252	269	275	287	270	284	295	296	329	334	10	16	27	12	5	14	6	13	32	350
12-Apr-04	39	42	47	53	52	49	45	33	34	36	11	274	294	304	17	9	23	12	317	265	255	261	257	250	329
13-Apr-04	254	265	268	262	269	213	221	236	245	247	250	269	278	268	266	272	262	260	260	258	259	251	261	260	258
14-Apr-04	258	264	260	261	265	267	275	251	265	292	351	28	12	46	53	66	89	87	90	78	23	102	38	124	284
15-Apr-04	112	106	83	97	102	122	137	127	116	113	127	136	136	131	150	174	118	207	219	253	344	322	249	230	142
16-Apr-04	128	136	141	133	146	128	199	187	230	268	279	299	261	244	269	253	235	245	247	256	256	251	262	258	246
17-Apr-04	223	247	318	89	295	202	231	212	268	272	211	223	183	199	244	21	304	225	231	254	210	204	241	259	230
18-Apr-04	93	341	222	221	233	287	282	232	230	221	274	272	285	323	323	20	29	323	345	337	14	9	9	22	329
19-Apr-04	25	25	32	25	25	30	29	35	45	62	70	69	70	72	73	55	67	87	89	84	76	83	85	58	55
20-Apr-04	57	50	42	39	64	64	61	41	45	105	247	259	266	236	218	220	220	205	208	236	298	277	265	293	244
21-Apr-04	357	327	242	301	314	272	203	270	312	311	296	300	329	223	189	203	198	193	47	65	92	65	35	49	336
22-Apr-04	51	53	51	48	54	58	50	50	52	128	122	228	199	139	101	122	121	150	211	218	245	283	300	294	69
23-Apr-04	301	295	246	340	357	1	7	10	19	24	23	22	30	31	27	38	48	61	62	49	69	69	75	76	32
24-Apr-04	91	142	140	90	110	120	114	129	134	122	111	111	103	117	113	112	114	130	140	139	154	123	151	142	121
25-Apr-04	136	123	123	98	96	60	109	126	128	130	131	124	113	117	122	112	122	137	139	211	248	311	358	8	122
26-Apr-04	33	44	18	43	39	54	62	52	56	88	99	120	116	97	72	M	M	M	30	31	82	81	86	86	74
27-Apr-04	60	55	59	78	83	47	45	43	67	C	81	72	77	62	56	78	91	91	125	154	159	158	138	164	91
28-Apr-04	N	N	N	N	N	N	N	N	N	169	170	175	168	169	162	161	174	169	208	358	4	354	42	46	N
29-Apr-04	51	44	66	48	53	61	57	47	44	58	90	123	148	158	155	154	165	170	176	205	239	245	206	213	120
30-Apr-04	219	258	270	298	330	234	202	204	161	N	179	151	164	156	154	145	153	145	144	158	179	197	29	2	171
Hourly Avg	31	22	21	26	28	35	47	44	50	78	91	92	109	109	90	87	100	117	132	247	278	298	327	37	N



Station: Crescent Heights

STANDARD DEVIATION TABLE

Wind Direction (WD - Degrees)

Station Owner: PAS

Monitoring Dates: April 1, 2004 to May 1, 2004

Summary

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	708 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	98.3%			
Percentile	99	95	75	50	25	5	1
	79.6	70.5	32.6	13.8	8.4	5.2	4.2

Status Flag Characters

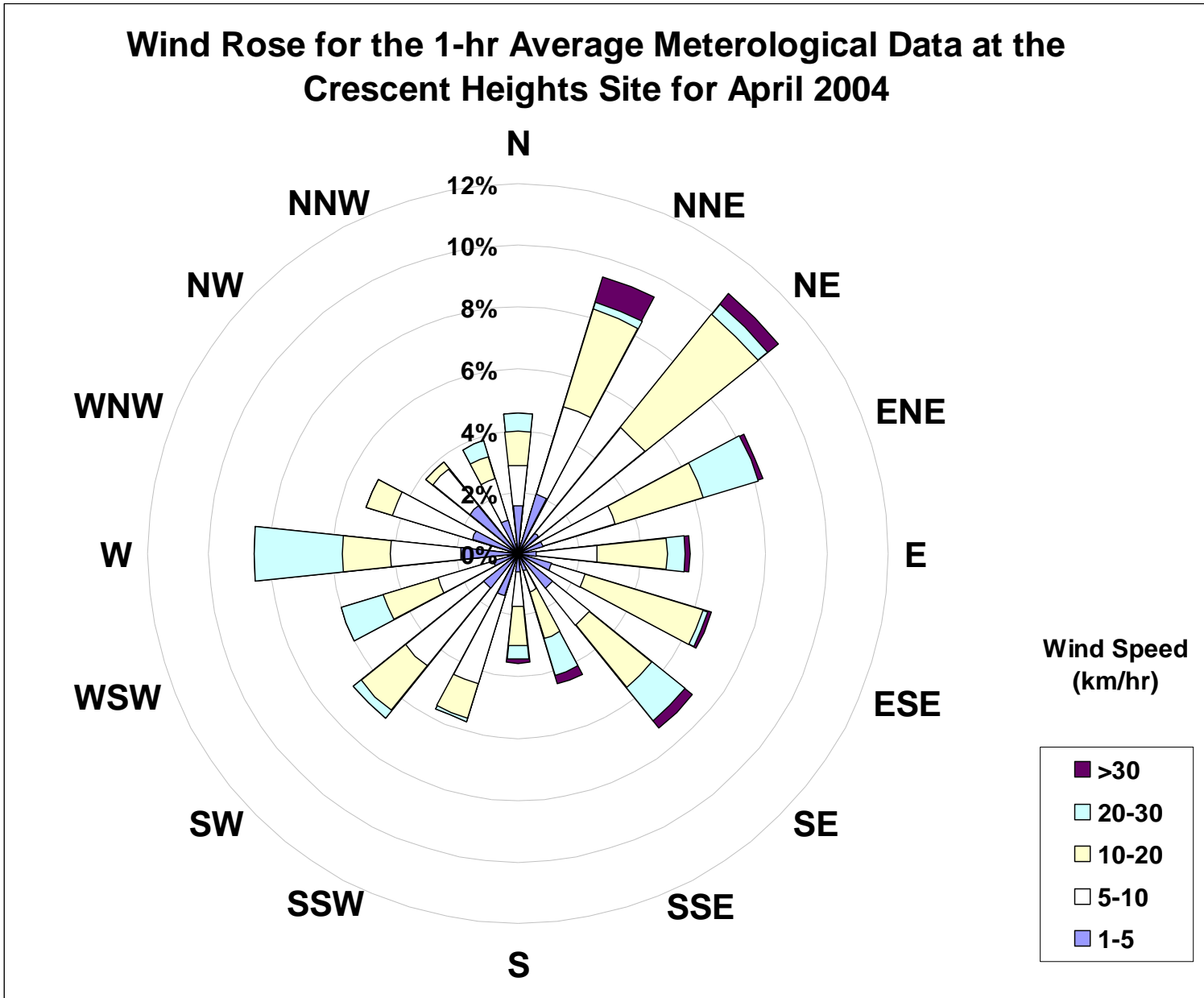
C	Calibration	A	AIC - Zero / Span Check
S	Instrument out of Service	X	Filter Exchange
N	No Data	M	Equipment Maintenance
D	Excessive Instrument Drift	P	Power Failure

Day Mountain Standard Time

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	23:00	0:00	Daily Maximum
1-Apr-04	65	72	11	11	4	4	6	9	7	11	14	35	58	58	23	27	17	9	13	11	5	17	26	11	72.3			
2-Apr-04	19	15	31	36	18	11	7	7	10	16	22	18	42	27	23	27	30	28	14	10	16	8	9	9	42.2			
3-Apr-04	16	17	12	12	7	11	7	21	18	19	12	12	12	10	10	10	8	7	6	4	6	12	7	7	21.1			
4-Apr-04	6	6	6	6	9	5	6	4	9	10	13	24	57	51	51	58	62	71	50	11	13	9	10	17	70.7			
5-Apr-04	27	19	14	14	30	20	40	32	25	18	41	55	60	81	70	71	67	60	76	45	11	12	8	8	80.5			
6-Apr-04	19	46	49	57	22	11	7	12	12	11	15	19	10	15	35	53	27	38	55	52	68	37	5	24	68.5			
7-Apr-04	8	19	12	15	7	11	6	10	18	25	34	36	30	26	23	27	36	35	7	5	13	9	8	6	36.4			
8-Apr-04	13	19	36	9	25	7	11	11	10	12	11	41	50	57	54	77	72	71	76	6	69	64	16	33	77.2			
9-Apr-04	31	29	35	58	74	40	52	53	62	76	69	73	59	65	65	68	49	40	11	9	7	7	11	18	75.9			
10-Apr-04	11	13	45	30	14	16	47	22	66	85	70	77	89	85	75	63	77	57	11	8	7	9	8	10	89.1			
11-Apr-04	13	8	5	25	47	13	16	10	9	11	14	17	19	31	30	48	38	11	12	7	7	8	10	11	48.3			
12-Apr-04	12	10	5	6	4	7	8	9	14	22	44	35	31	28	40	25	17	14	20	5	6	7	6	5	43.9			
13-Apr-04	6	7	8	7	8	12	5	7	10	12	12	12	11	13	10	10	9	7	6	5	5	6	6	6	12.6			
14-Apr-04	6	8	9	7	7	6	11	8	19	9	25	12	22	18	16	14	12	15	12	20	36	46	27	17	45.7			
15-Apr-04	11	12	14	27	15	14	17	16	17	17	12	12	24	40	62	80	78	70	43	46	63	58	42	52	80.4			
16-Apr-04	34	26	23	28	71	59	59	59	47	23	39	40	27	25	28	37	17	11	6	7	7	8	7	8	70.9			
17-Apr-04	9	55	76	71	60	18	62	25	38	41	69	80	59	72	65	49	60	60	75	10	19	23	58	54	79.7			
18-Apr-04	72	63	65	8	16	21	17	18	26	47	42	47	39	54	45	43	42	50	16	12	7	7	8	5	71.6			
19-Apr-04	6	4	4	5	4	6	11	6	7	8	9	11	9	12	11	14	15	11	33	9	8	6	6	7	32.5			
20-Apr-04	11	28	15	14	11	12	11	16	17	58	55	23	40	46	38	50	46	69	12	12	8	9	14	13	69.5			
21-Apr-04	36	53	34	19	26	39	59	18	27	28	49	58	62	63	62	61	63	57	19	12	9	28	9	8	63.1			
22-Apr-04	6	10	6	5	8	5	7	13	14	31	78	79	92	90	75	70	74	79	72	6	7	13	7	8	91.7			
23-Apr-04	7	11	52	46	7	5	5	6	7	9	9	10	9	8	8	8	6	6	6	6	6	9	5	4	51.9			
24-Apr-04	11	6	9	10	10	9	12	11	9	15	16	16	14	16	20	20	19	14	11	28	5	52	7	7	52.4			
25-Apr-04	5	12	10	10	10	21	41	13	19	22	43	24	17	16	14	21	18	30	56	9	18	9	17	14	55.9			
26-Apr-04	7	10	10	6	18	4	13	7	8	14	24	19	19	21	23	N	N	16	17	15	9	5	5	5	24.2			
27-Apr-04	11	8	10	6	6	7	5	6	9	67	11	8	7	8	7	7	6	5	7	5	5	7	9	4	67.5			
28-Apr-04	N	N	N	N	N	N	N	N	N	4	6	6	6	7	8	12	12	20	28	17	10	14	13	6	28.1			
29-Apr-04	10	8	18	6	4	6	4	8	7	8	11	15	12	9	9	10	7	5	5	6	5	8	12	30	30.2			
30-Apr-04	17	8	8	16	26	15	24	39	62	N	25	31	21	22	15	19	14	11	12	7	4	35	17	14	61.7			
Hourly Max	72	72	76	71	74	59	62	59	66	85	78	80	92	90	75	80	78	79	76	52	69	64	58	54	0.0			



Wind Rose for the 1-hr Average Meterological Data at the Crescent Heights Site for April 2004





PASSIVE MONITORING

Ambient Air Compliance Network

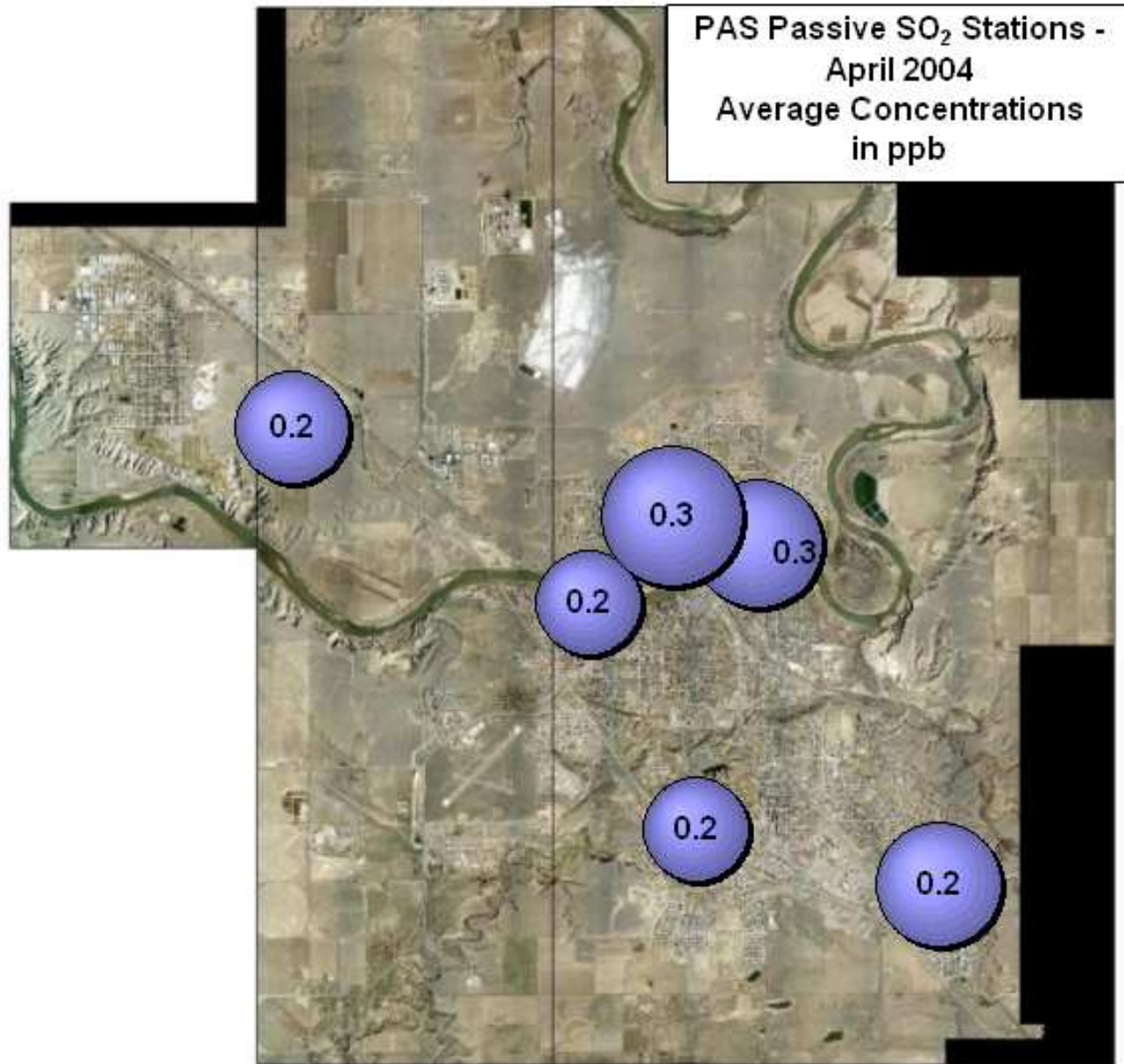
Pallisar Airshed Society - PAS Passive Stations for April 2004

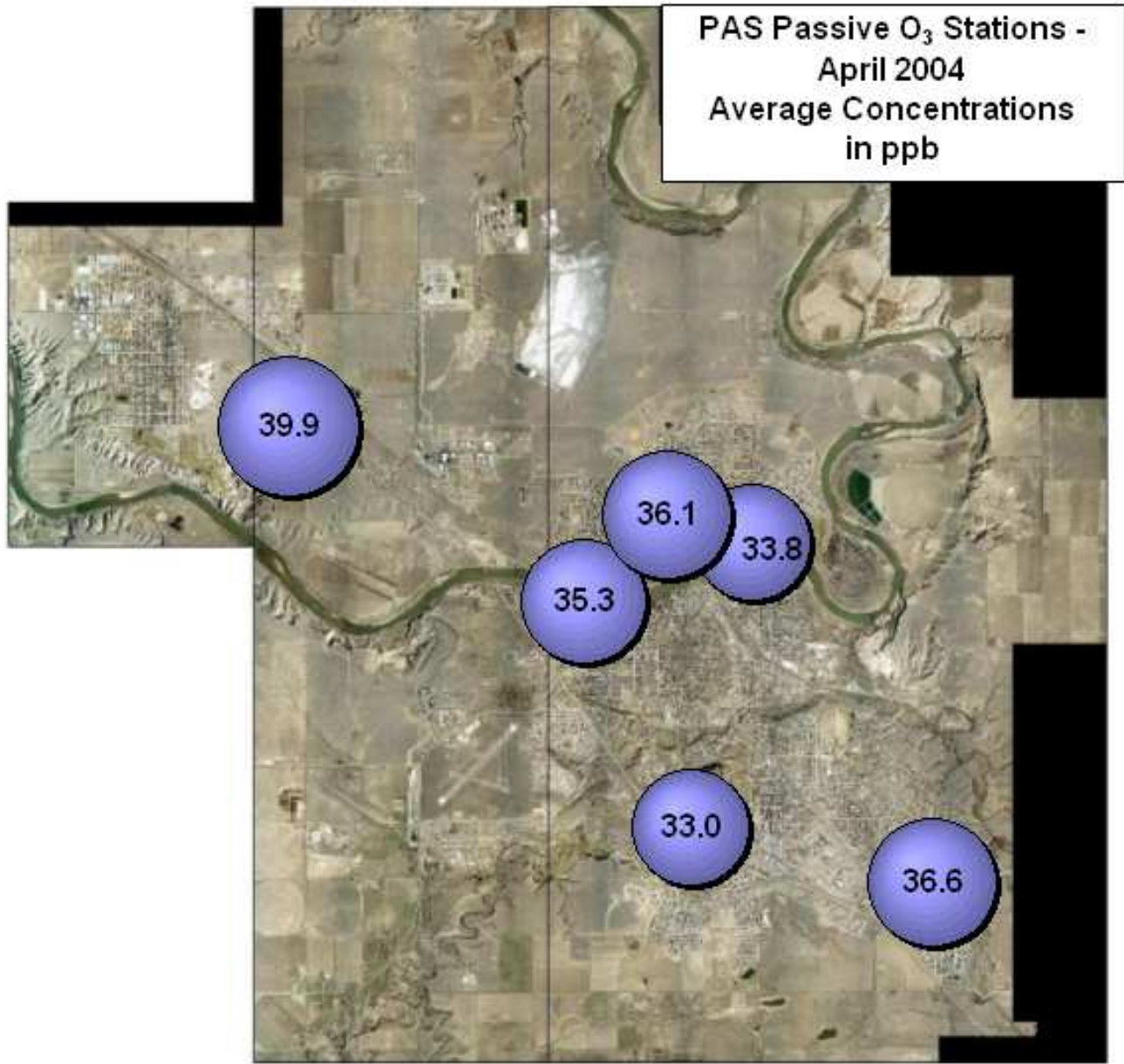
Station Number	Station	SO ₂ ppb	O ₃ ppb	NO ₂ ppb	Location		
	Name				Easting	Northing	Elevation
Duplicates							
2a	Ball Park	0.2	34.3	7.7			
2b		0.3	33.2	6.8			
1	Hospital	0.2	35.3	7.1	521648	5542721	698
2	Ball Park	0.3	33.8	7.2	524019	5543686	660
3	Monitoring Station	0.3	36.1	NA	522812	5544133	714
4	Redcliff	0.2	39.9	5.5	517448	5545608	725
5	Southridge	0.2	33.0	5.4	523172	5539016	721
6	Christian School Park	0.2	36.6	5.3	526577	5538133	709

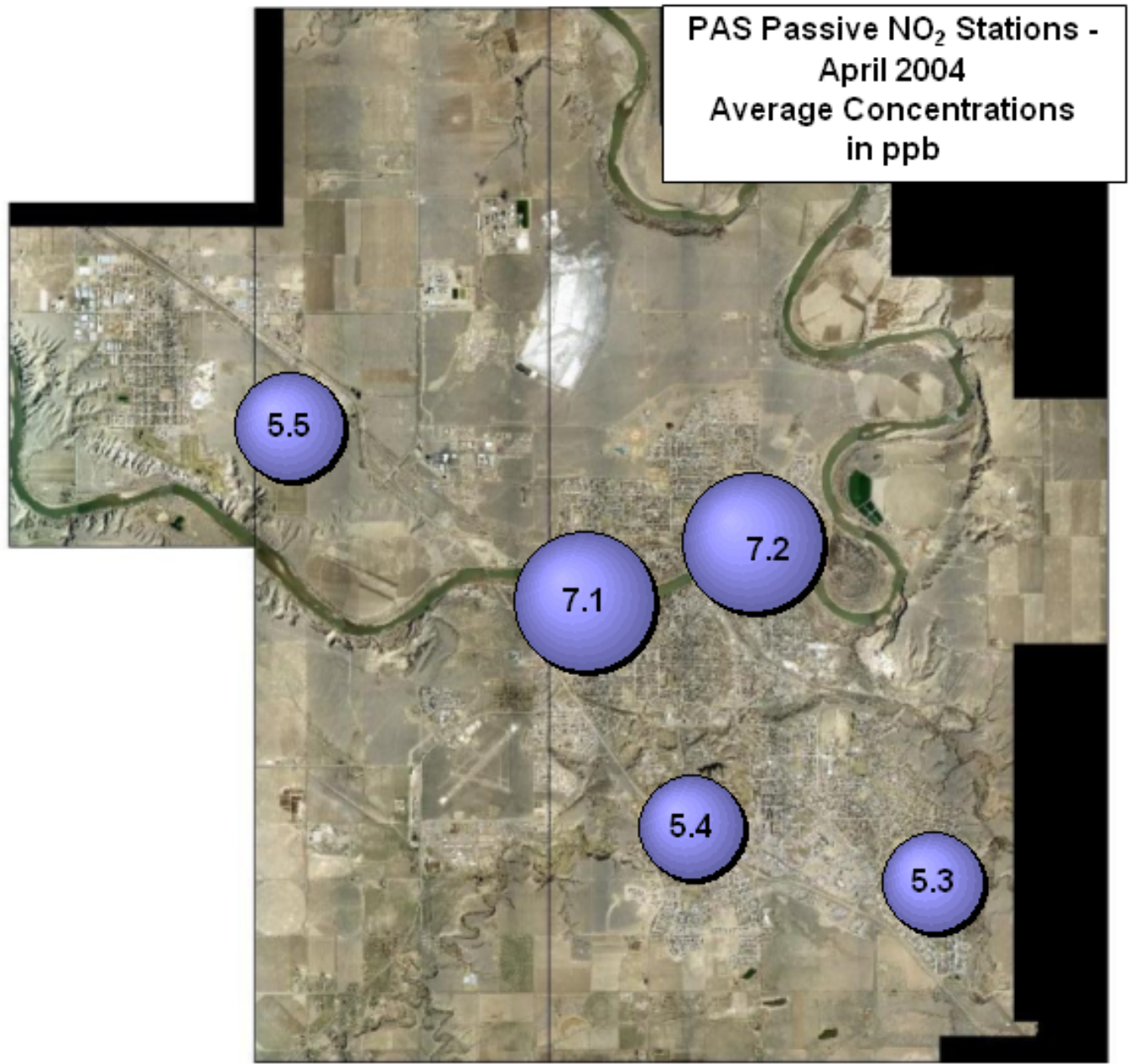
Stats:							
	Mean	0.2	35.8	6.1			
	Standard Deviation	0.0	2.4	1.0			
	Minimum	0.2			5	Southridge	
	Maximum	0.3			3	Monitoring Station	
	Minimum		33.0		5	Southridge	
	Maximum		39.9		4	Redcliff	
	Minimum			5.3	6	Christian School Park	
	Maximum			7.2	2	Ball Park	

Comparison between Continuous and Passive monitoring (passive #3)

	SO ₂	O ₃	NO ₂
PAS Station	-	36.4	7.2
PAS Passive	0.3	36.1	-







April 2004 - Calibration Reports

PAS - Crescent Heights Station

O₃, NO_x, NO, NO₂, THC, Met

Calibration Report**FOCUS INTEC**

Air Quality Monitoring

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

Calibration Date	April 26 & 27, 2004	Previous Calibration	March 9, 2004
Station Number	1	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	4:48 - 15:40 (April 26th)	End Time (MST)	09:35 - 12:15 (April 27th)
Barometric Pressure	0.906 mb	Station Temperature	20.5 Deg C
Calibrator	Enviroconics 6100	Serial Number	3016
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	NA
DACS voltage range	0 - 1 volt	DACS channel #	5
	<u>Before</u>		<u>After</u>
DACS slope	0.050	DACS slope	0.050
DACS intercept	0.000	DACS intercept	0.000
Calculated slope	0.996772	Calculated slope	1.005853
Calculated intercept	4.912258	Calculated intercept	-0.145744
Analyzer make	API Model 400E	Analyzer serial #	331

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Background	-1.1	ppb	-1.3	ppb
coefficient	1.088		1.083	
Lamp measure	3836.4	mV	3663.6	mV
Lamp Reference	3838	mV	3669.1	mV
Pressure	25.9	inches Hg	25.2	inches Hg
Sample Flow	702	ccm	694	ccm
Lamp temp	52	Deg C	52	Deg C

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4995	0.00	0.0	0.2	N/A
4995	0.00	400.0	397.9	1.0053
4995	0.00	200.0	198.8	1.0058
4995	0.00	100.0	99.6	1.0043
4995	0.00	0.0	-4.0	0.0000
4995	0.00	400.0	392.6	1.0188
Average Correction Factor				1.0052

Calculated value of As Found Response: 400.2 ppm Percent Change of As Found: 0.1%

	before calibration		after calibration	
Auto zero	-3.9	ppb	0.3	ppb
Auto span	404.2	ppb	399.0	ppb

Notes: As found captured April 26th prior to DACS replacement. Calibration completed April 27th.
Analyzer was zero and span adjusted. All test functions normal.Calibration Performed By: Kelly Baragar

Calibration Summary

FOCUS INTEC
Air Quality Monitoring

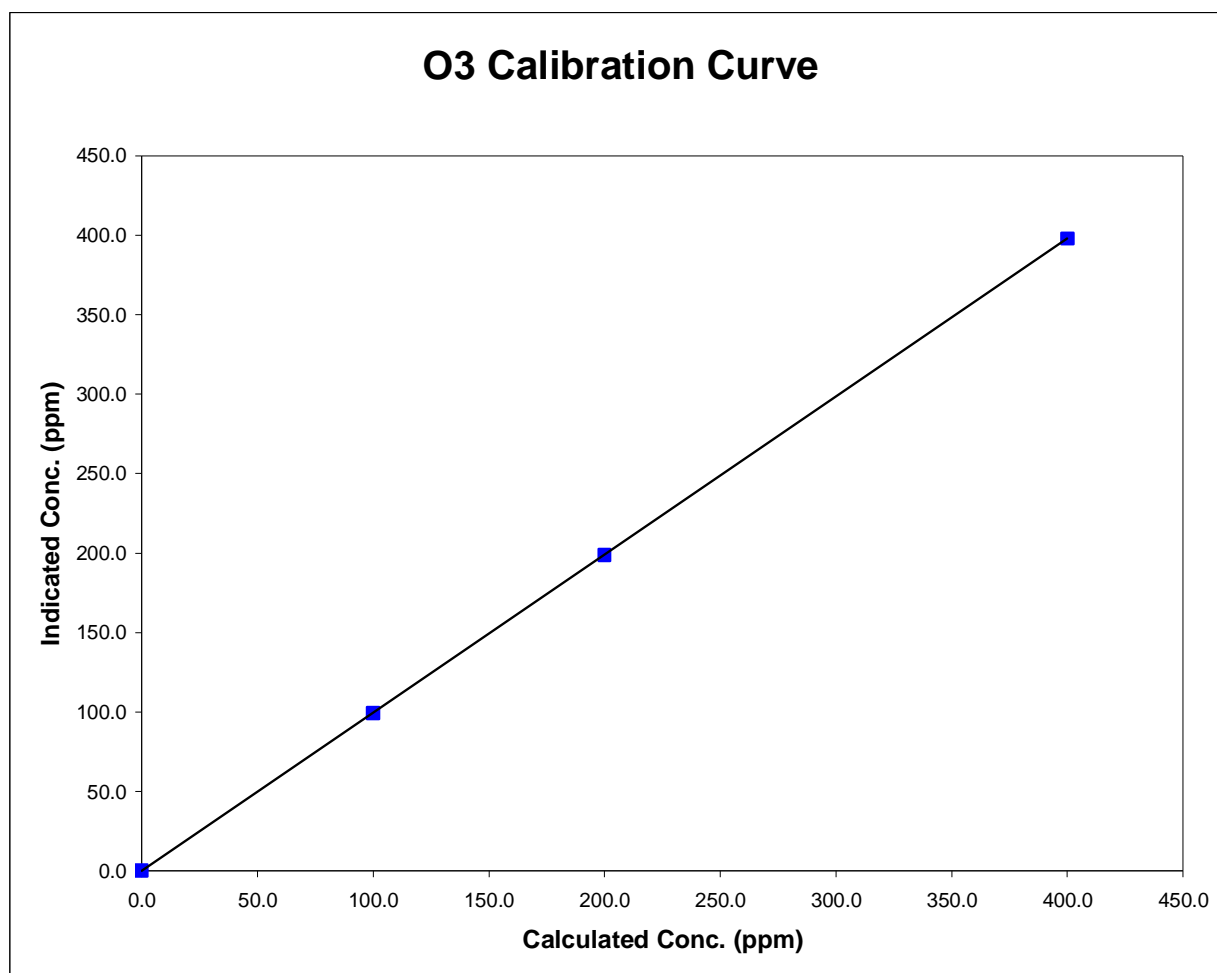
Parameter O3
Air Monitoring Network Palliser Airshed

Station Information

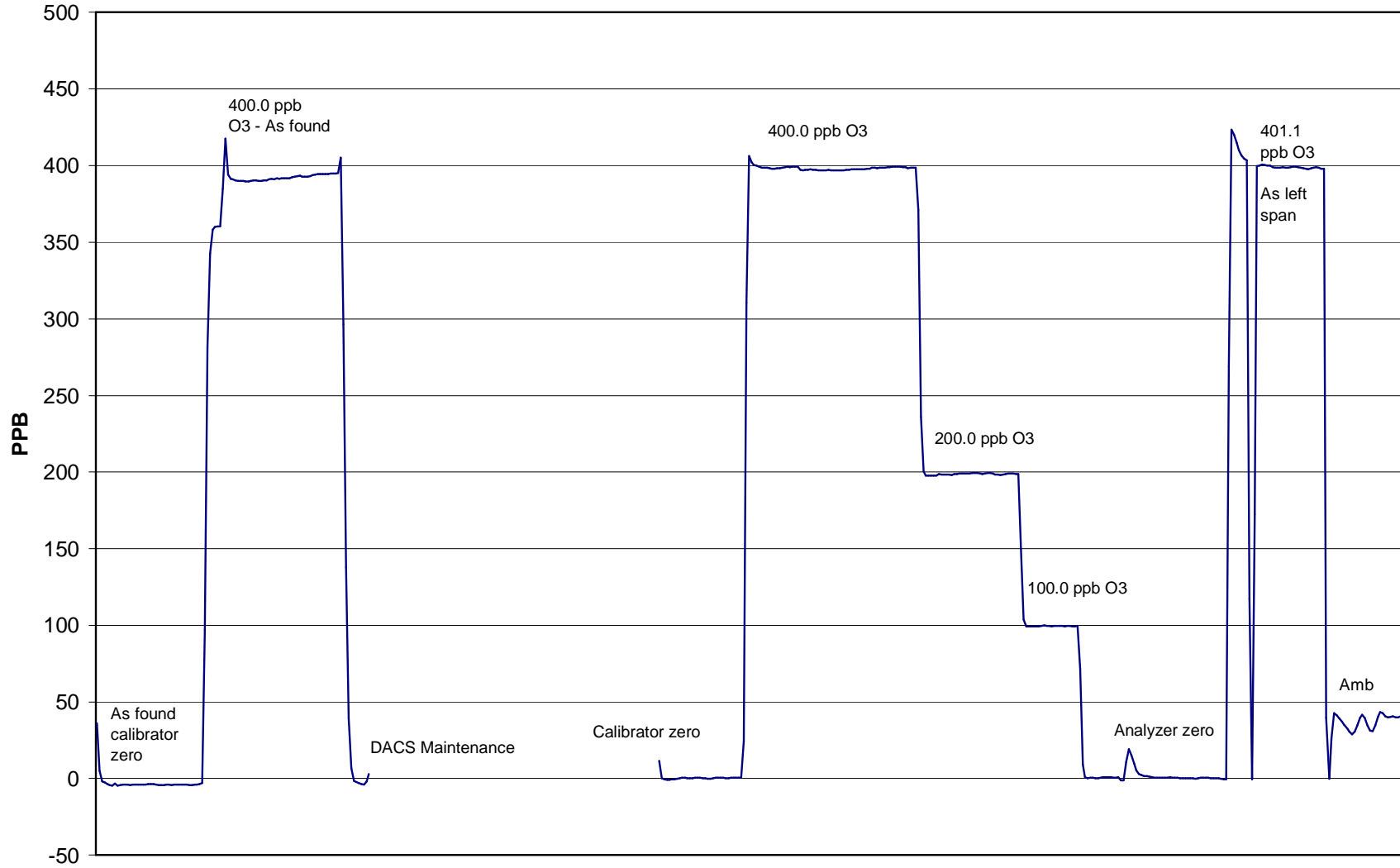
Calibration Date	<u> April 26 & 27, 2004 </u>	Previous Calibration	<u> March 9, 2004 </u>
Station Number	<u> 1 </u>	Station Location	<u> Crescent Heights </u>
Start Time (MST)	<u> 14:48 - 15:40 (April 26th) </u>	End Time (MST)	<u> 09:35 - 12:15 (April 27th) </u>
Analyzer make/model	<u> API Model 400E </u>	Analyzer serial #	<u> 331 </u>

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
400.0	397.9	1.0053		
200.0	198.8	1.0058	Correlation Coefficient	1.000000
100.0	99.6	1.0043		
0.0	0.2	N/A	Slope	1.005853
			Intercept	-0.145744



O3 Calibration



April 26 - 27, 2004

Calibration Report

Parameter **NOx-NO-NO₂**
 Air Monitoring Network **Palliser Airshed**



Station Information

Calibration Date April 26, 2004 Previous Calibration March 9, 2004
 Station Number 1 Station Location Crescent Heights

Reason: Routine Installation Removal Other: _____

Start Time (MST) 13:20 End Time (MST) 21:30
 Barometric Pressure 0.910 mmHg Station Temperature 19.5 Deg C
 Calibrator Envionics 6100 Serial Number 3016
 NO Cal Gas Conc 49.8 ppm Cal Gas Expiry Date 12-Dec-05
 NOx Cal Gas Conc 49.9 ppm Cal Gas Serial # ALM011558

DACS Information

DACS make FOCUS AP1000 DACS serial No. 45267

Parameter		NO ₂	NO _x	NO
Before	DACS slope	0.050000	0.050000	0.050000
	DACS offset	0.000000	0.000000	0.000000
After	DACS slope	0.050000	0.050000	0.050000
	DACS offset	0.000000	0.000000	0.000000
Before	Data Slope	0.997944	0.997533	0.996811
	Data Offset	2.779591	3.154438	3.288483
After	Data Slope	1.010573	1.002298	1.008464
	Data Offset	-3.364154	-2.825406	-2.221213
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	-2.8	mV	-2.1	mV
NO _x background	0.9	mV	-0.7	mV
NO coefficient	1.302		1.310	
NO _x coefficient	1.286		1.289	
Chamber Temp	50.0	Deg C	50.0	Deg C
Cooler Temp	7.0	Deg C	7.0	Deg C
Azero	27.9		29.2	
Perm Temp	40.1	Deg C	40.3	Deg C
Pressure	3.7	inches Hg	3.7	inches Hg
Sample Flow	455.0	ccm	450.0	ccm

Notes: As found captured before DACS system was replaced.
Analyzer was zero and span adjusted. No other maintenance performed.

Air Monitoring Network

Palliser Airshed

Station Information

Calibration Date:

April 26, 2004

Station Location:

Crescent Heights

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor
zero	4993	0.00	0.0	0.0	0.0	2.5	2.3	2.6	N/A	N/A
1	4993	39.98	396.4	395.6	0.8	398.1	394.4	5.2	0.9956	1.0029
2	4993	19.97	198.8	198.4	0.4	201.3	199.1	3.2	0.9873	0.9962
3	4993	9.97	99.4	99.2	0.2	102.3	100.3	2.8	0.9717	0.9891
AFZ	4993	0.00	0.0	0.0	0.0	-0.8	-2.0	-2.1	0.0000	0.0000
AFS	4993	39.98	396.4	395.6	0.8	391.8	396.6	-7.4	1.0118	0.9974
Average Correction Factor									0.9849	0.9961

As Found Concentrations

NO_x= 395.7

NO= 401.9

As Found Percent Change

NO_x= -0.2%

NO= 1.6%

GPT Calibration Data

Dilution Flow

4993

ccm

Source Gas Flow

39.98

ccm

O3 Setpoint (ppb)	Calculated NOx conc (ppb)	Calculated NO conc (ppb)	Calculated NO2 conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO2 conc (ppb)	NOx Correction factor	NO Correction factor	NO2 Correction factor	Converter Efficiency
0	394.5	391.1	3.4	397.6	390.0	2.6	N/A	N/A	N/A	N/A
100	394.5	112.1	282.4	394.5	113.4	282.0	1.0000	0.9889	1.0014	99.9%
200	394.5	209.2	185.3	395.9	209.6	187.6	0.9964	0.9979	0.9880	101.2%
350	394.5	304.0	90.4	395.6	303.7	93.4	0.9971	1.0011	0.9677	103.3%
Average Correction Factor							0.9978	0.9960	0.9857	101.5%

AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO2	NO		NOx	NO2	NO	
Auto zero	-3.8	-3.9	-3.1	ppb	2.2	1.1	1.7	ppb
Auto span	383.4	378.2	2.3	ppb	379.8	374.7	6.1	ppb

Calibration Performed By:

Kelly Baragar

Calibration Summary

Parameter NO₂
 Air Monitoring Network Palliser Airshed

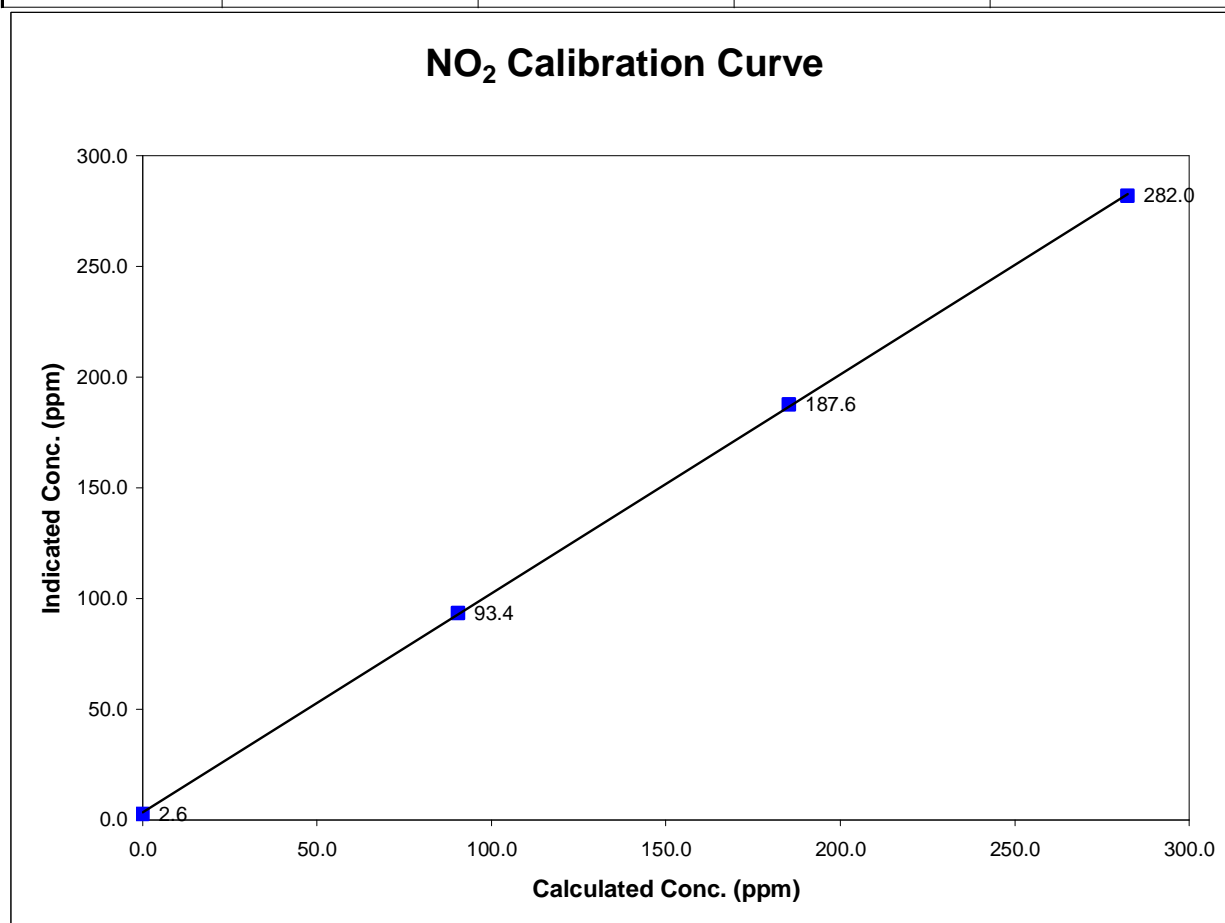


Station Information

Calibration Date	April 26, 2004	Previous Calibration	March 9, 2004
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	13:20	End Time (MST)	21:30
Analyzer make	API Model 200E	Analyzer serial #	219

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	2.6	0.0000	Correlation Coefficient	0.999947
90.4	93.4	0.9677		
185.3	187.6	0.9880		
282.4	282.0	1.0014		
			Slope	1.010573
			Intercept	-3.364154



Calibration Summary



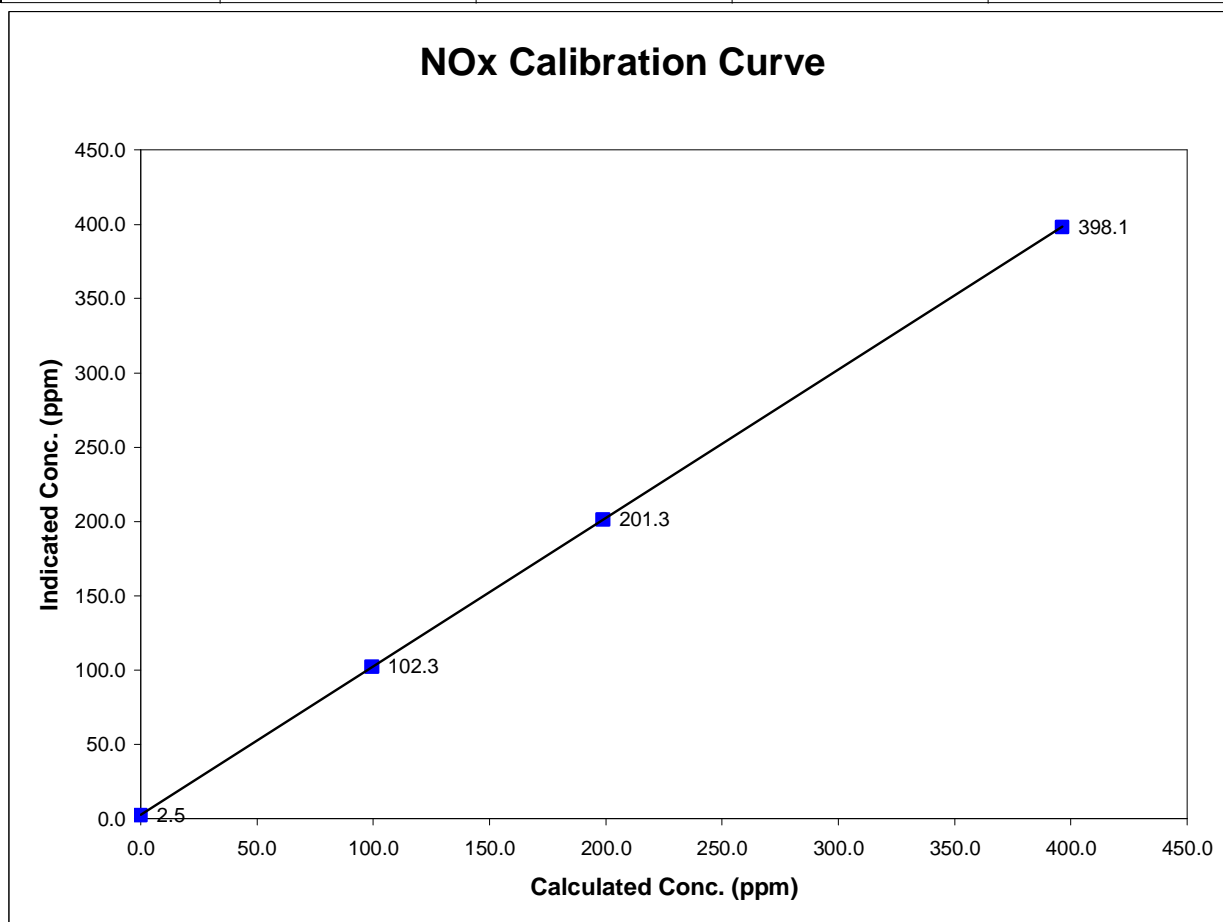
Parameter NO_x
 Air Monitoring Network Palliser Airshed

Station Information

Calibration Date	April 26, 2004	Previous Calibration	March 9, 2004
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	13:20	End Time (MST)	21:30
Analyzer make	API Model 200E	Analyzer serial #	219

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	2.5	0.0000		
396.4	398.1	0.9956	Correlation Coefficient	0.999997
198.8	201.3	0.9873		
99.4	102.3	0.9717	Slope	1.002298
			Intercept	-2.825406



Calibration Summary

Parameter NO
 Air Monitoring Network Palliser Airshed

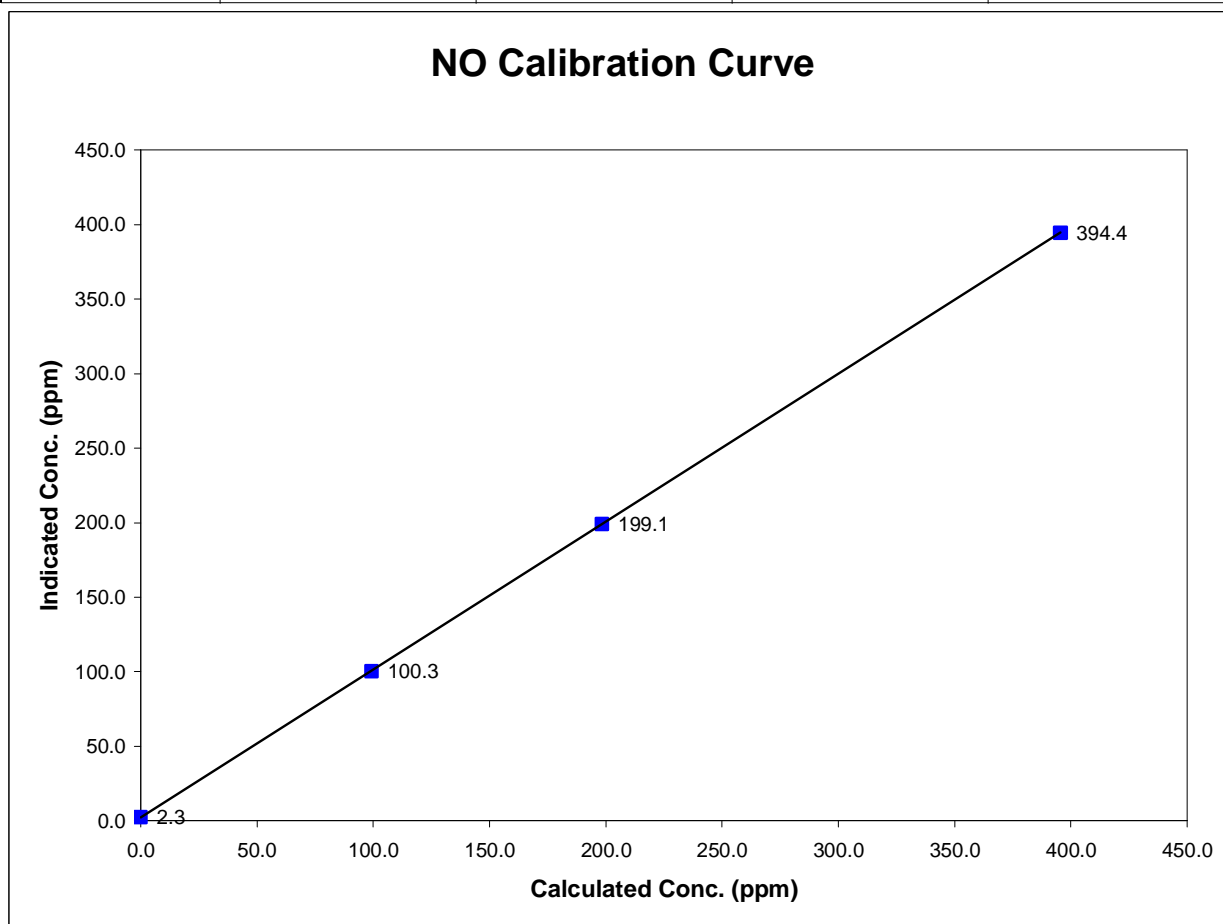


Station Information

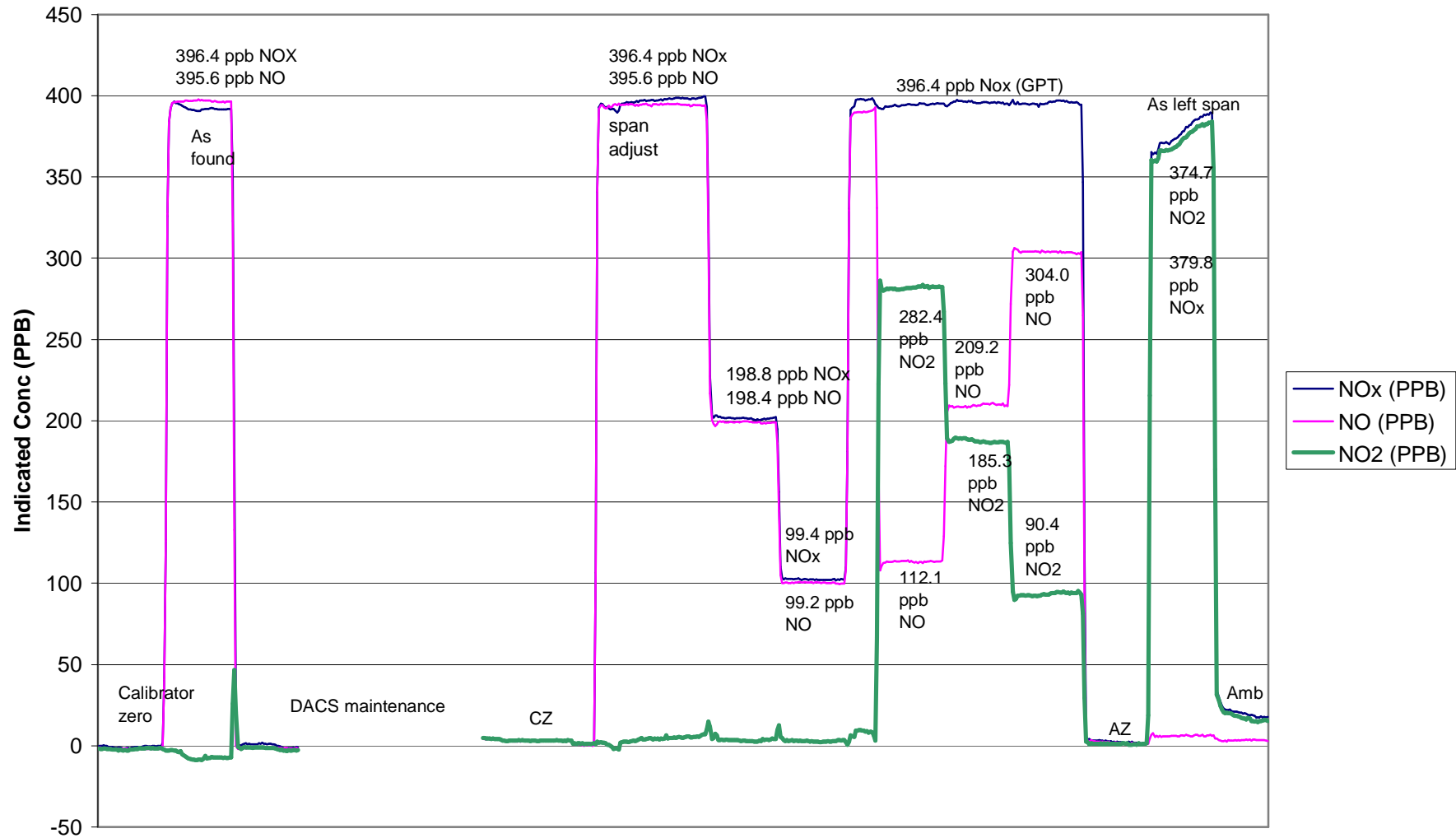
Calibration Date	April 26, 2004	Previous Calibration	March 9, 2004
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	13:20	End Time (MST)	21:30
Analyzer make	API Model 200E	Analyzer serial #	219

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	2.3	N/A		
395.6	394.4	1.0029	Correlation Coefficient	0.999998
198.4	199.1	0.9962		
99.2	100.3	0.9891		
			Slope	1.008464
			Intercept	-2.221213



NOx Calibration



April 26, 2004

Calibration Report



Parameter THC
 Air Monitoring Network Palliser Airshed

Station Information

Calibration Date	April 26, 2004	Previous Calibration	March 9, 2004
Station Number	1	Station Location	Crescent Heights
Reason:	<input type="checkbox"/> Routine	<input type="checkbox"/> Install	<input checked="" type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	14:03	End Time (MST)	15:20
Barometric Pressure	0.910 mb	Station Temperature	19.5 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Concentration	700 ppm CH ₄ / 301 ppm C ₃ H ₈	Cal Gas Expiry Date	8/28/2005
Cal Gas CH ₄ equiv	1527.75 ppm	Cal Gas Cylinder #	ALM030358
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
DACS slope	0.005000	DACS slope	0.005000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	0.991713	Calculated slope	0.955331
Calculated intercept	0.258427	Calculated intercept	0.153841
Analyzer make	Bendix Model 8201	Analyzer serial #	300437-2

	before		after	
Concentration range	0 - 50	ppm	NA	ppm
THC zero pot	172		NA	
THC span pot	615		NA	

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)
2997	0.00	0.000	-0.161	N/A
2997	39.96	20.102	20.881	0.9627
2997	0.00	0.000	-0.161	As Found Zero
2997	39.96	20.102	20.881	As Found Span
Average Correction Factor				0.9627

Calculated value of As Found Response: 21.126 ppm Percent Change of As Found: -5.1

	before calibration		after calibration	
Auto zero	-0.157	ppm	NA	ppm
Auto span	21.318	ppm	NA	ppm

Notes: After as found captured this analyzer was removed from service.

Calibration Performed By: Kelly Baragar

Calibration Summary

FOCUS INTEC
Air Quality Monitoring

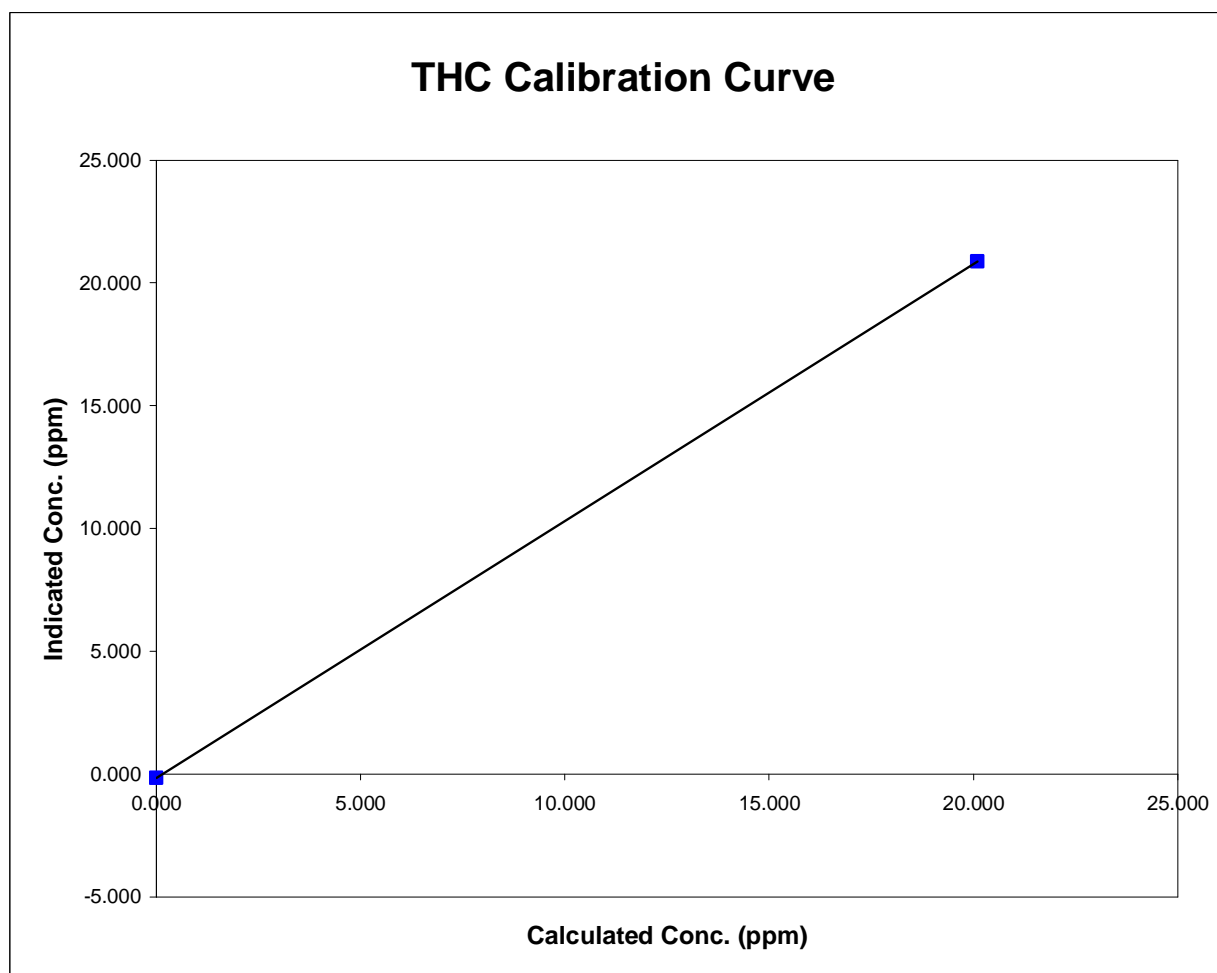
Parameter THC
Air Monitoring Network Palliser Airshed

Station Information

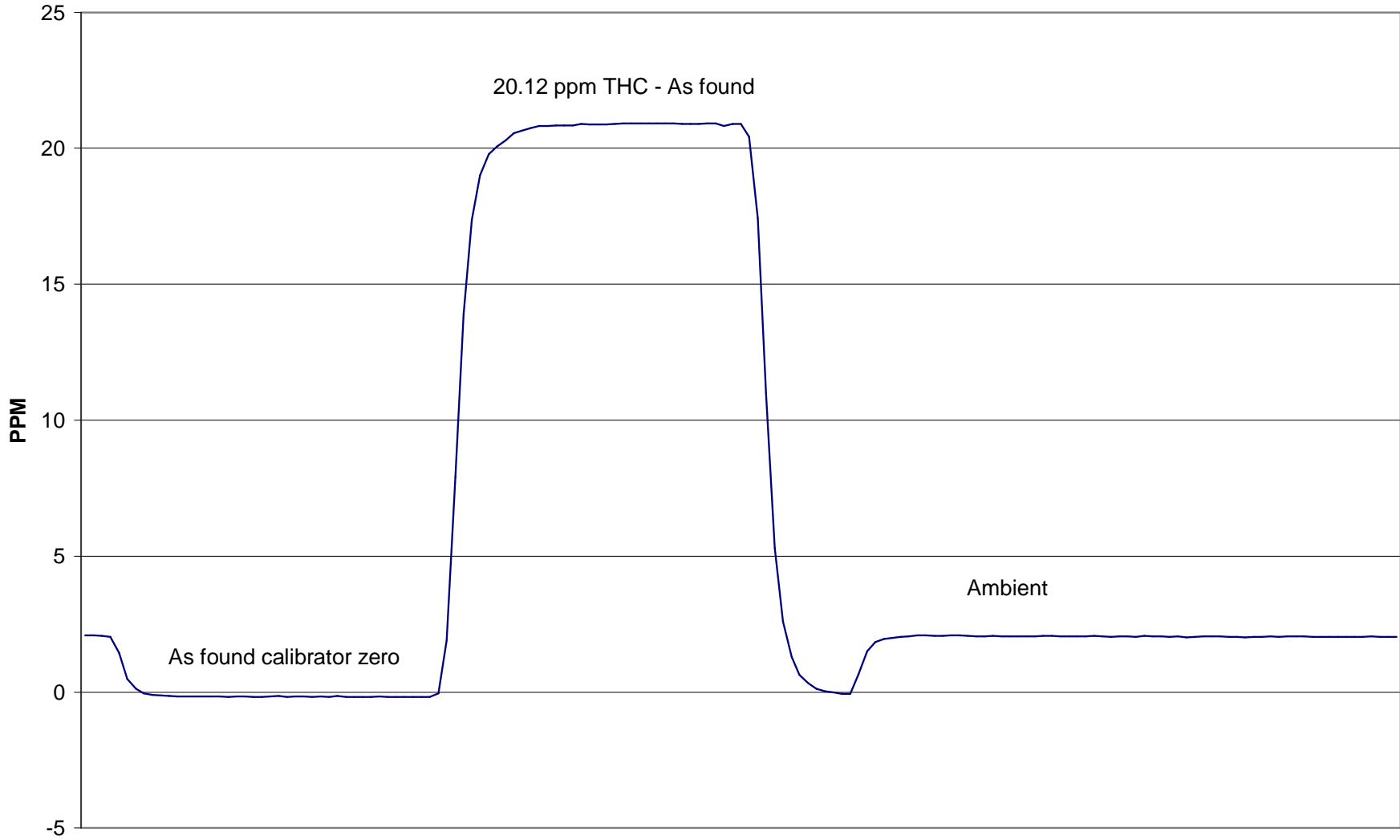
Calibration Date	April 26, 2004	Previous Calibration	March 9, 2004
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	14:03	End Time (MST)	15:20
Analyzer make/model	Bendix Model 8201	Analyzer serial #	300437-2

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.161	N/A		
20.102	20.881	0.9627	Correlation Coefficient	1.000000
			Slope	0.955331
			Intercept	0.153841



THC Calibration



April 26, 2004

Calibration Report



Parameter THC
Air Monitoring Network Palliser Airshed

Station Information

Calibration Date	April 27, 2004	Previous Calibration	NA
Station Number	1	Station Location	Crescent Heights
Reason:	<input type="checkbox"/> Routine	<input checked="" type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	7:40	End Time (MST)	10:03
Barometric Pressure	0.910 mb	Station Temperature	19.5 Deg C
Calibrator	EnviroNics 6100	Serial Number	3016
Cal Gas Concentration	700 ppm CH ₄ / 301 ppm C ₃ H ₈	Cal Gas Expiry Date	8/28/2005
Cal Gas CH ₄ equiv	1527.75 ppm	Cal Gas Cylinder #	ALM030358
DACS make	Focus AP1000	DACS serial No.	1
DACS voltage range	0 - 1 volt	DACS channel #	9
	Before		After
DACS slope	0.005000	DACS slope	0.005000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	0.991713	Calculated slope	0.999809
Calculated intercept	0.258427	Calculated intercept	-0.014283
Analyzer make	TEI model 51C-LT	Analyzer serial #	407505596

	before		after	
Concentration range	NA	ppm	0 - 50	ppm
THC sample pressure	NA	PSI	5.77	PSI
THC flame temp	NA	deg-C	189.0	deg-C

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
2994	0.00	0.000	0.012	N/A
2994	39.96	20.122	20.145	0.9988
2994	19.97	10.123	10.121	1.0002
2994	9.97	5.071	5.101	0.9940
				As Found Zero
				As Found Span
Average Correction Factor				0.9977

Calculated value of As Found Response: NA Percent Change of As Found: NA

	before calibration		after calibration	
Auto zero	NA	ppm	0.144	ppm
Auto span	NA	ppm	21.591	ppm

Notes: Analyzer was installed April 26th and stabilized overnight.
All analyzer operations appear normal; zero and span adjustments were performed.

Calibration Performed By: Kelly Baragar

Calibration Summary



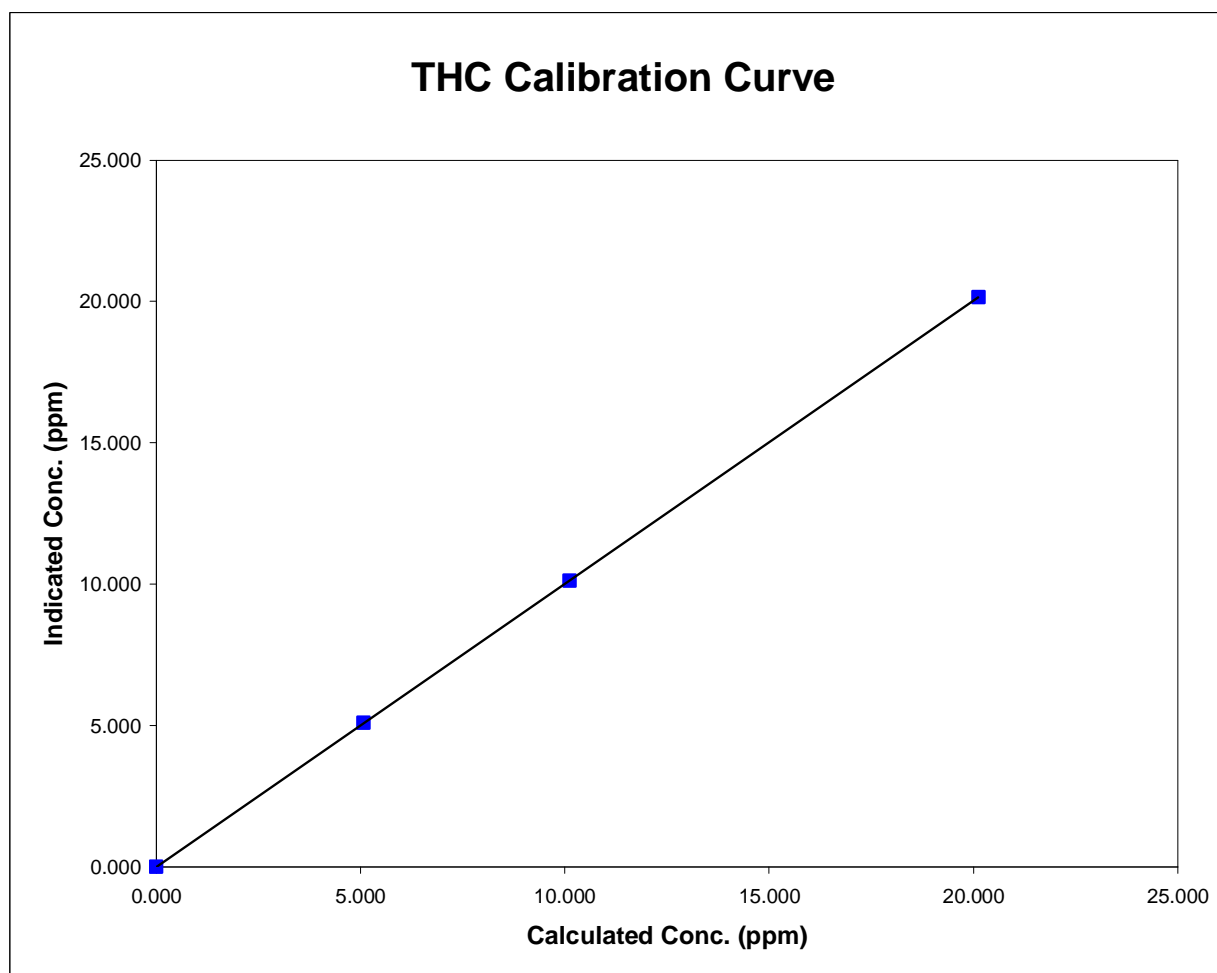
Parameter THC
 Air Monitoring Network Palliser Airshed

Station Information

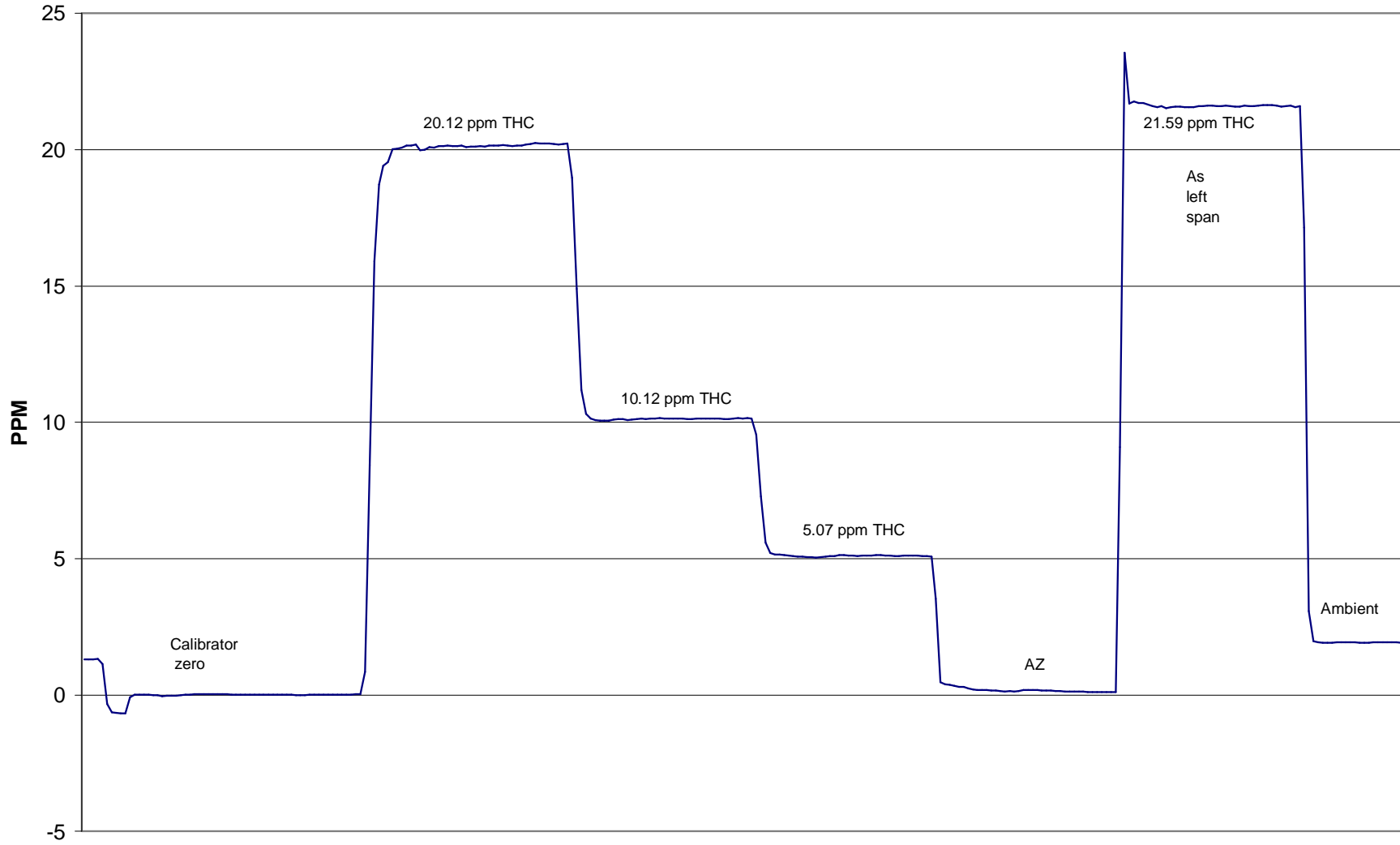
Calibration Date	April 27, 2004	Previous Calibration	NA
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	7:40	End Time (MST)	10:03
Analyzer make/model	TEI model 51C-LT	Analyzer serial #	407505596

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.012	N/A		
20.122	20.145	0.9988	Correlation Coefficient	0.999997
10.123	10.121	1.0002		
5.071	5.101	0.9940	Slope	0.999809
			Intercept	-0.014283



THC Calibration



April 27, 2004

Calibration Report



Parameter Wind Speed & Direction
 Air Monitoring Network Palliser Airshed

Station Information

Calibration Date	April 27, 2004	Previous Calibration	NA
Station Number	1	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
		<input type="checkbox"/> Other:	
Start Time (MST)	9:00	End Time (MST)	10:00
Barometric Pressure	0.908 mb	Ambient Temperature	24.5 Deg C

DACS Information

DACS make	Focus AP1000	DACS serial No.	45267
DACS voltage range	0 - 1 volt	DACS channel #	3 & 4

Sensor Information

Wind Direction Calibration Data

Sensor make/model	Met One Model 020C-1	Sensor serial #	C4769
Actual Value (Degrees)	Indicated Value (Degrees)		Correction factor (Cc/lc)
0.0	2.1		N/A
90.0	92.2		0.9761
180.0	180.4		0.9978
270.0	270.1		0.9996
360.0	359.8		1.0006

	Before		After
DACS slope	0.036000	DACS slope	0.036000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	NA	Calculated slope	1.013013
Calculated intercept	NA	Calculated intercept	-0.837100

Wind Speed Calibration Data

Sensor make/model	Met One Model 010C-1	Sensor serial #	C4492
Actual Value (km/hr)	Indicated Value (km/hr)		Correction factor (Cc/lc)
1.0	1.8		N/A
20.2	20.7		0.9739
39.4	39.6		0.9937
77.7	77.6		1.0017

	Before		After
DACS slope	0.900000	DACS slope	0.900000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	NA	Calculated slope	1.006515
Calculated intercept	NA	Calculated intercept	-1.923282

Notes: Wind head as found declination noted at 18° West of magnetic North.
 Wind head was re-installed at 19° West of magnetic North.

Calibration Performed By: Kelly Baragar

Calibration Summary



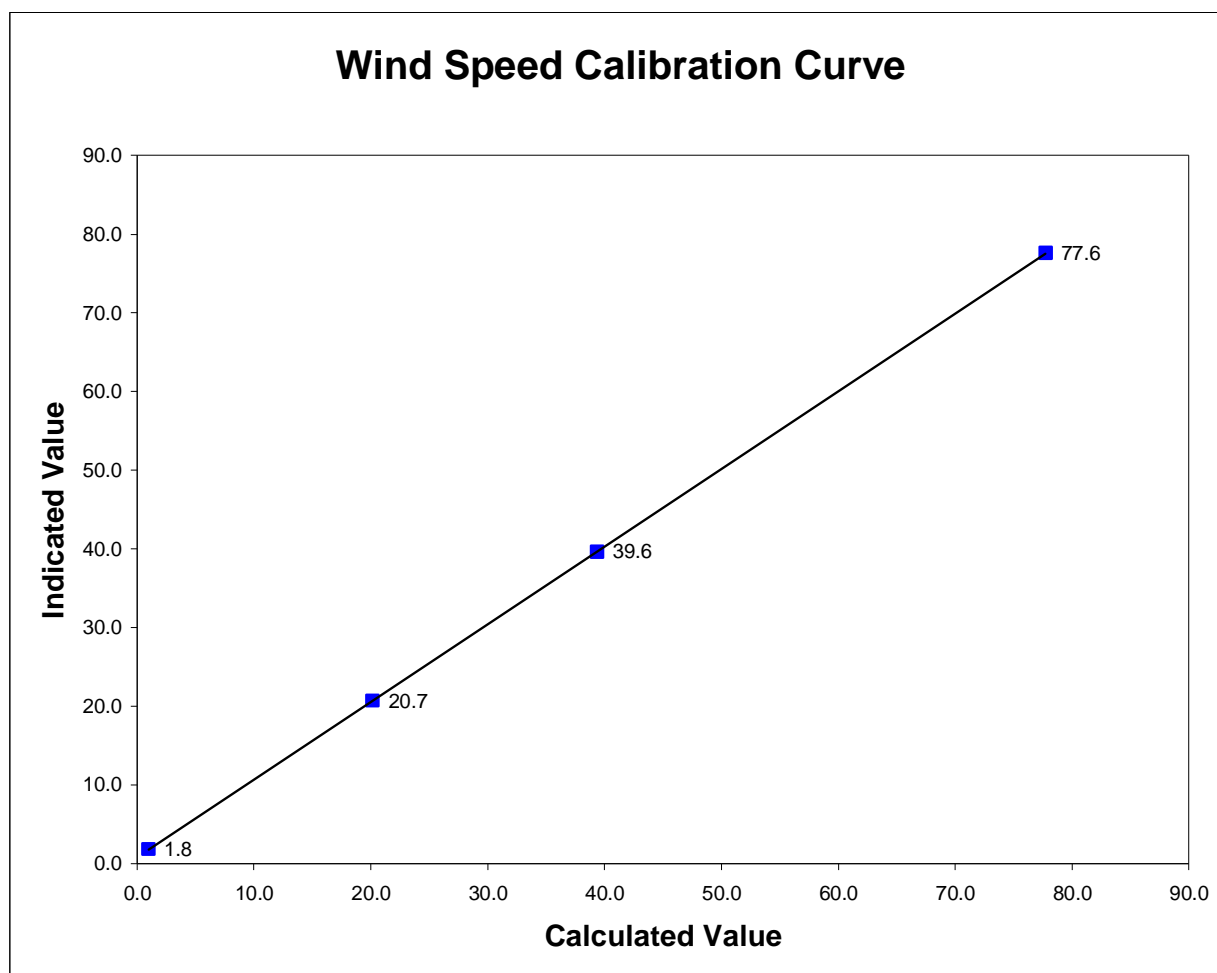
Parameter Wind Speed
 Air Monitoring Network Palliser Airshed

Station Information

Calibration Date	April 27, 2004	Previous Calibration	NA
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	9:00	End Time (MST)	10:00
Analyzer make/model	Met One Model 010C-1	Analyzer serial #	C4492

Calibration Data

Actual Value (km/hr)	Indicated Value (km/hr)	Correction factor (Cc/lc)	Statistical Evaluation	
1.0	1.8	N/A		
77.7	77.6	1.0017	Correlation Coefficient	0.999997
39.4	39.6	0.9937		
20.2	20.7	0.9739	Slope	1.013013
			Intercept	-0.837100



Calibration Summary

FOCUS INTEC
Air Quality Monitoring

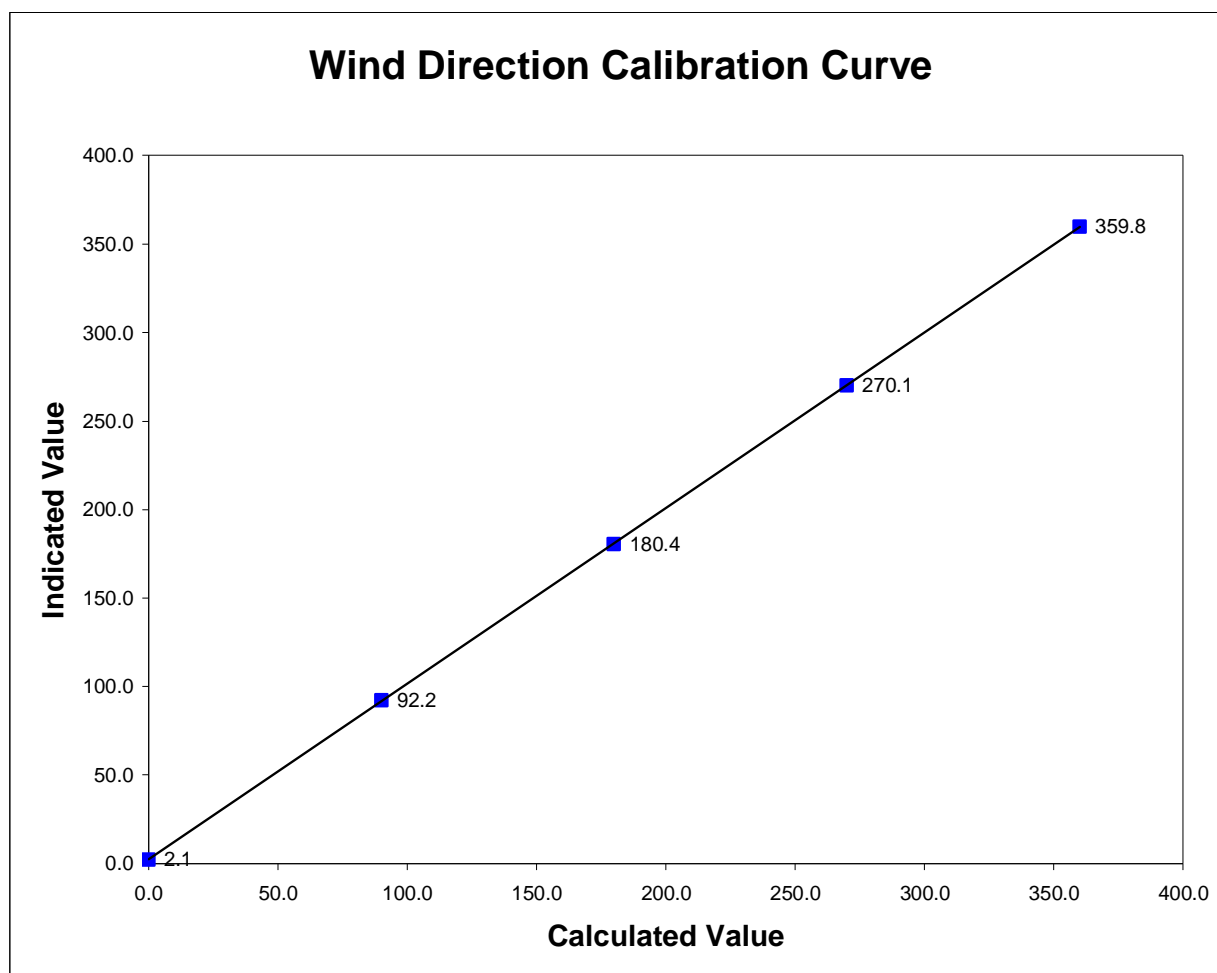
Parameter Wind Direction
Air Monitoring Network Palliser Airshed

Station Information

Calibration Date	April 27, 2004	Previous Calibration	NA
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	9:00	End Time (MST)	10:00
Analyzer make/model	Met One Model 020C-1	Analyzer serial #	C4769

Calibration Data

Actual Value (Degrees)	Indicated Value (Degrees)	Correction factor (Cc/lc)	Statistical Evaluation	
0.0	2.1	N/A		
360.0	359.8	1.0006	Correlation Coefficient	0.999997
270.0	270.1	0.9996		
180.0	180.4	0.9978	Slope	1.006515
90.0	92.2	0.9761		
			Intercept	-1.923282



Wind Speed & Direction Calibration

