



Palliser Airshed Society

Ambient Air Monitoring Network Summary

June 2005



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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 – June 2005

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

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

Continuous Monitoring – Crescent Heights

Included in this report are; monthly sampling table, detailed hourly average reports and multipoint calibration reports of all instruments. The measured ambient air quality was within the Provincial and Federal guidelines with no exceedences recorded. Operational time of all instruments was above 90% uptime for the month of June except for THC and Wind Speed / Wind Direction. Due to hail damage and power failures the THC and WSWD were less than 90% operational during the month of June (AENV Ref# 161424). There were no significant events leading to emergency response for the month of June.

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

- Monthly average concentrations of NO₂ was 5.1 ppb
- Monthly average concentrations for O₃ was 28.9 ppb
- Monthly average concentrations for CO was 0.2 ppm
- Monthly average concentrations for PM_{2.5} was 2.0 µg/m³

Passive Monitoring – Six Stations throughout the PAS zone:

The following are the ranges for June 2005 recorded by the six passive stations located throughout the PAS zone. There was one SO₂ passive located at site 5 (Suthridge) that was damaged and not reported for this month.

- Monthly average concentrations for SO₂ passives ranged from 0.2 ppb to 0.3 ppb
- Monthly average concentrations for NO₂ passives ranged from 2.7 ppb to 4.9 ppb
- Monthly average concentrations for O₃ passives ranged from 24.3 ppb to 35.5 ppb

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

Gary Cross, C.E.T.
AQM Technical Manager

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



July 26, 2005

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

ATTENTION: Director

RE: PAS Air Monitoring Directive Contravention Report Ref # 161424

A contravention of the Alberta Air Monitoring Directive was recently reported by Focus to Alberta Environment (AENV) on behalf of the Palliser Airshed Society (PAS). The contravention was less than ninety (90%) percent data collection for the month of June for the Total Hydrocarbon Analyzer (THC) and Wind Speed / Direction meteorological instrumentation at the Crescent Heights Air Monitoring Station located in Medicine Hat, Alberta. The station is owned by PAS and operated on their behalf by Focus. The contravention has been assigned AENV reference number 161424.

The cause of the contravention was data removed after the QA/QC processes which identified problems from a storm front (hail storm) which caused damage to the wind instrumentation and the station to shut-down. For the wind instrumentation, hail from a storm blew off a cup from the anemometer resulting in invalid data from the wind system from the period of the storm (June 17) to the replacement of the wind head (June 27). Data was being collected over the entire period; however after the storm hit on June 17th, it was noted that wind was erratic and THC was recording negative values (-2.23 ppm). This prompted a station inspection where it was noted that a cup was missing off the anemometer, and the ordering of a new wind system on June 20. In addition to the storm causing damage to the wind system, a power surge caused the THC pump to fail, it was manually restarted on June 20th, however more than 10% of the monthly data had been lost.

As these issues were a result of a storm front there were no direct actions that could be taken to prevent this from happening in the future.

If you have any questions, please feel free to contact me at the Focus office.

Sincerely,

THE FOCUS CORPORATION

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



June 2005 Monthly Overall Summary Report

Ambient Air Quality Data

Jun-2005		Palliser Airshed Society				Maximum Recorded Values							Operational Time (%)
Pollutant (units)	Objectives		Station	Monthly Average	Exceedence		Conc	1-hr			24-hr / 8-hr		
	1-hr	24-hr			1-hr	24-hr		Day	WSPD (km/hr)	WDIR (Sector)	Conc	Day	
NO (ppb)			Crescent Heights	1.4	-	-	30.6	Jun-30 06:00	3.0	S	5.0	Jun-30	95.1%
NO ₂ (ppb)	212	106	Crescent Heights	5.1	0	0	24.8	Jun-16 02:00	3.0	ENE	7.1	Jun-09	95.1%
NO _x (ppb)			Crescent Heights	6.3	-	-	42.7	Jun-30 06:00	3.0	S	11.9	Jun-30	95.1%
O ₃ (ppb)	82		Crescent Heights	28.9	0	-	52.2	Jun-21 13:00	N	N	38.5	Jun-22	95.1%
O ₃ (ppb) - 8-hr	65		Crescent Heights		0						49.3	Jun-12	
CO (ppm)	13		Crescent Heights	0.19	0	-	0.5	Jun-30 07:00	2.9	S	0.4	Jun-30	94.9%
CO (ppm) - 8-hr	5		Crescent Heights		0						0.4	Jun-30	
THC (ppm)			Crescent Heights	1.96	-	-	2.8	Jun-21 12:00	N	N	2.1	Jun-16	85.3%
PM _{2.5} (µg/m ³)		30 ^a	Crescent Heights	2.0		0	13.1	Jun-22 23:00	N	N	5.2	Jun-21	93.8%
RH (%)			Crescent Heights	68.8	-	-	-	-	-	-	-	-	95.1%
SR (W/m ²)			Crescent Heights	231.9	-	-	-	-	-	-	-	-	95.1%
Temp (°C)			Crescent Heights	16.1	-	-	-	-	-	-	-	-	95.1%
WSPD v (km/hr)			Crescent Heights	11.5	-	-	-	Jun-06 17:00	30.5	E	20.6	7-Jun	61.9%
WSPD s (km/hr)			Crescent Heights	11.2	-	-	-	Jun-06 17:00	30.3	E	17.9	6-Jun	61.9%
WDIR (Deg)			Crescent Heights	N	-	-	-	-	-	-	-	-	61.9%

Note: ^a the draft 1-hr Alberta Ambient Air Quality Objectives
 * Wind Direction is the predominate direction for the Month



Continuous Monitoring

Ambient Air Monitoring Network

Crescent Heights Station

General Station Issues

Station lost power from June 10 (14:00) to June 12 (0:00) due to a power outage. In addition, a second storm event caused damage to the meteorological equipment and a subsequent power outage caused the THC pump to fail on startup.

Parameter	Make	Model	Units	Notes
Ozone	Teledyne - API	400E	ppb	35 hours lost due to power failure
Nitrogen Dioxide	Teledyne - API	200E	ppb	35 hours lost due to power failure
Total Hydrocarbons	Bendix	400A	ppm	35 hours lost due to power failure; 71 hours were removed (June 17 and June 20, 2005) due to pump failure on startup from second power outage
Carbon Monoxide	TEI	49C	ppm	35 hours lost due to power failure; Two hours were removed due to excessive drift
PM 2.5	R&P TEOM	1400ab	$\mu\text{g}/\text{m}^3$	35 hours lost due to power failure; Ten hours were removed due to excessive drift
Wind Speed	Met One	010C	kph	35 hours lost due to power failure; 239 hours were removed (June 17 and June 27, 2005) due to damage from hail (lost a cup on the anemometer), replaced and recalibrated June 27, 2005
Wind Direction	Met One	020C	Deg	35 hours lost due to power failure; 239 hours were removed in relation to wind speed
Ambient Temperature	Met One	083D	DegC	35 hours lost due to power failure
Relative Humidity	Met One	083D	%	35 hours lost due to power failure
Solar Radiation	Met One	096-1	W/m^2	35 hours lost due to power failure
Data Acquisition System	Titan Logix	AP1000		35 hours lost due to power failure



PAS - Crescent Heights AQI Monthly Summary

Station: Crescent Heights
Station Owner: PAS

Air Quality Index (AQI)

Monitoring Dates: June 1, 2005 to July 1, 2005

Alberta's Air Quality Index

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

Summary

Number of 1-hr Good Readings:	642
Number of 1-hr Fair Readings:	8
Number of 1-hr Poor Readings:	0
Number of 1-hr Very Poor Readings:	0

Status Flag Characters

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

Day	Mountain Standard Time																							
Hour Start	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-Jun-05	7	5	11	9	7	9	8	A	23	24	23	23	23	24	23	25	23	24	22	22	20	17	15	16
2-Jun-05	16	13	13	12	9	9	A	12	15	19	18	19	20	22	20	18	18	21	22	20	19	17	16	17
3-Jun-05	16	15	16	14	13	A	10	12	12	13	13	14	15	14	14	15	16	13	12	17	14	14	11	11
4-Jun-05	10	10	10	11	A	9	11	14	13	14	16	16	17	16	21	21	19	19	20	19	16	16	15	11
5-Jun-05	9	8	7	A	7	8	8	8	8	11	15	19	20	21	21	20	21	20	20	18	17	16	15	13
6-Jun-05	11	11	A	10	9	7	7	8	8	8	9	11	13	15	13	13	14	17	18	16	15	14	15	15
7-Jun-05	15	A	13	13	13	12	12	12	13	14	14	15	17	18	18	18	18	17	16	15	14	15	15	14
8-Jun-05	A	13	12	12	11	10	11	12	12	12	9	10	12	13	15	15	14	15	15	14	13	12	11	A
9-Jun-05	10	7	6	4	4	4	4	8	10	11	14	14	19	17	19	18	19	20	18	15	11	7	A	12
10-Jun-05	8	10	8	6	5	5	8	13	18	19	21	23	21	23	A	A	A	A	A	A	A	A	A	A
11-Jun-05	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
12-Jun-05	A	13	7	5	5	6	10	12	18	22	25	27	26	26	26	26	22	19	20	A	18	15	11	10
13-Jun-05	8	12	9	7	7	5	6	6	8	8	6	8	13	17	17	19	16	16	17	17	15	11	12	12
14-Jun-05	14	16	A	15	12	11	12	13	14	17	21	22	22	22	22	21	21	21	20	16	21	19	17	17
15-Jun-05	16	A	15	13	12	12	12	14	16	20	21	23	24	25	23	24	24	24	23	22	20	17	16	12
16-Jun-05	A	6	6	4	4	10	11	17	20	21	21	20	20	20	21	22	22	22	22	21	19	18	17	A
17-Jun-05	16	15	13	12	11	11	11	11	11	10	10	12	13	16	16	14	13	17	16	12	10	10	A	11
18-Jun-05	11	8	7	8	9	9	10	12	14	17	19	20	20	19	19	20	20	18	16	13	9	A	8	7
19-Jun-05	7	7	6	6	5	6	8	10	12	14	16	16	16	16	16	16	16	15	14	14	A	9	8	8
20-Jun-05	7	7	7	6	5	6	7	10	12	16	16	17	18	19	19	20	A	A	A	A	A	1	16	13
21-Jun-05	14	13	A	9	9	9	7	8	10	12	13	19	25	27	26	24	A	22	20	18	17	18	21	19
22-Jun-05	19	17	A	16	11	10	10	11	15	20	23	24	24	25	23	25	26	23	25	18	20	18	20	19
23-Jun-05	14	A	16	14	14	11	11	11	15	16	19	21	21	21	22	23	20	20	20	19	15	11	9	8
24-Jun-05	A	8	4	5	5	4	6	11	12	14	17	18	19	20	21	20	20	21	20	18	17	16	17	A
25-Jun-05	14	14	13	13	12	11	11	11	15	15	12	12	10	15	17	18	20	20	19	20	21	18	A	10
26-Jun-05	8	7	8	9	9	10	12	13	13	16	18	17	21	25	24	23	25	24	22	19	16	A	12	12
27-Jun-05	9	8	8	9	8	7	8	9	12	14	15	15	17	17	17	18	20	20	20	19	18	17	16	15
28-Jun-05	14	13	A	13	13	13	13	11	10	10	11	17	20	17	16	14	14	14	12	11	10	9	8	8
29-Jun-05	8	A	8	9	10	10	11	10	10	10	13	14	15	16	14	15	15	14	13	9	4	4	4	4
30-Jun-05	A	4	3	2	2	5	3	5	10	16	16	18	18	19	18	19	18	19	19	15	13	14	11	A



PAS - Cresent Heights Nitrogen Dioxide Monthly Summary

HOURLY AVERAGE TABLE

Nitrogen Dioxide (NO₂)

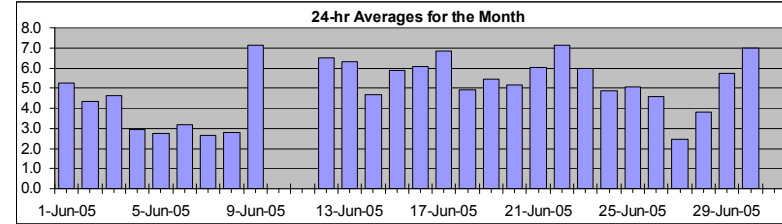
Station: Cresent Heights
Station Owner: PAS

Monitoring Dates: June 1, 2005 to July 1, 2005

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

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	24.8	ppb	16-Jun	2:00 3:00
Maximum 24-hr Average:	7.1	ppb	9-Jun	

AIC Time:	30 hrs	Operational Time:	650 hrs					
Calibration Time:	5 hrs	AMD Operational Uptime:	95.1%					
Percentile	99	95	75	50	25	5	1	Average
	18.5	12.3	6.7	3.8	2.4	1.4	1.1	5.1 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-Jun-05	16	23	6	7	9	4	7	A	6	3	2	3	2	2	2	2	3	3	4	3	3	3	5	4	5.3	22.5	
2-Jun-05	3	4	4	5	8	8	A	12	6	4	5	5	3	4	5	4	4	3	2	3	2	4	2	2	4.4	11.7	
3-Jun-05	2	3	4	3	4	A	11	6	3	2	3	2	2	2	2	2	3	6	9	3	9	9	11	6	4.6	11.4	
4-Jun-05	5	4	3	2	A	10	6	4	3	3	2	1	2	3	1	2	2	4	1	2	2	2	2	3	2.9	9.6	
5-Jun-05	3	3	3	A	8	4	4	3	3	2	2	2	2	2	2	3	2	2	2	3	2	2	2	2	2.8	7.9	
6-Jun-05	2	2	A	8	5	5	6	5	4	4	4	3	3	4	3	2	2	2	1	1	2	1	1	1	3.2	8.2	
7-Jun-05	2	A	7	4	3	2	2	2	2	1	3	8	2	3	2	3	3	2	2	2	2	2	1	3	2.7	7.6	
8-Jun-05	A	7	4	4	5	9	5	2	2	2	2	2	1	1	1	1	1	1	1	1	2	2	3	A	2.8	9.1	
9-Jun-05	8	10	8	10	11	12	11	6	3	3	3	7	2	3	2	3	4	2	4	6	14	22	A	12	7.1	22.5	
10-Jun-05	9	8	9	10	19	14	13	9	4	5	5	4	9	8	N	N	N	N	N	N	N	N	N	N	N	N	19.5
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
12-Jun-05	N	12	12	10	9	8	7	8	5	3	2	2	2	2	2	2	5	8	8	A	12	10	9	7	6.5	12.0	
13-Jun-05	7	4	8	6	7	8	7	8	6	5	6	6	4	3	4	3	10	9	3	3	5	14	7	7	6.3	14.1	
14-Jun-05	7	4	A	9	7	9	8	6	4	8	5	3	2	2	3	2	2	3	7	7	4	3	2	2	4.7	8.8	
15-Jun-05	3	A	8	5	5	10	7	6	9	5	4	5	4	3	8	5	3	4	4	3	5	10	9	10	5.9	10.2	
16-Jun-05	A	24	25	17	15	9	8	5	3	2	2	4	2	2	1	1	2	2	2	2	2	2	1	A	6.1	24.8	
17-Jun-05	12	5	4	4	3	4	4	4	3	3	4	2	3	2	2	3	3	12	12	14	19	16	A	19	6.8	19.4	
18-Jun-05	8	8	7	5	5	4	3	3	3	2	2	3	3	6	4	4	2	4	3	5	7	A	12	10	4.9	11.8	
19-Jun-05	6	5	5	6	4	4	3	3	2	2	3	5	6	6	6	4	5	10	8	6	A	15	8	6	5.5	14.9	
20-Jun-05	7	5	7	7	6	6	5	5	5	3	5	2	2	C	C	C	C	C	A	8	5	6	5	5	5.2	8.5	
21-Jun-05	4	4	A	12	8	7	10	12	10	10	13	9	2	1	1	3	5	4	6	5	4	4	2	3	6.0	13.3	
22-Jun-05	2	3	A	9	12	11	8	7	5	5	6	6	6	5	9	4	4	8	5	15	10	10	4	7	7.1	15.1	
23-Jun-05	8	A	7	6	5	9	8	5	8	5	4	3	2	2	2	3	2	2	3	10	15	13	13	6.0	15.0		
24-Jun-05	A	14	18	9	11	13	11	5	4	3	2	1	1	1	1	1	1	1	1	1	2	2	2	A	4.9	18.4	
25-Jun-05	9	5	4	4	4	4	4	3	2	4	7	4	5	3	2	2	2	7	8	6	5	7	A	17	5.0	17.0	
26-Jun-05	12	12	9	6	6	6	3	4	5	4	3	3	3	2	1	1	1	1	2	2	3	A	12	5	4.6	12.1	
27-Jun-05	5	5	5	3	4	4	3	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2	2	1	2.4	5.2	
28-Jun-05	2	2	A	9	5	4	3	3	3	3	4	3	3	4	5	6	3	2	3	5	5	4	3	4	3.8	9.5	
29-Jun-05	4	A	9	5	3	3	4	5	6	6	6	3	3	3	3	3	2	2	2	3	8	15	18	16	5.8	18.4	
30-Jun-05	A	18	13	9	8	10	12	12	9	3	3	2	3	2	3	3	4	3	4	8	10	5	9	A	7.0	17.8	
																									N	0.0	
Hourly Avg	6.0	7.6	7.9	7.0	7.1	7.3	6.5	5.5	4.5	3.7	3.9	3.6	3.0	2.9	3.0	2.8	3.0	4.0	3.9	4.5	5.8	7.2	5.9	6.7			
Hourly Max	15.9	24.3	24.8	16.9	19.5	13.7	13.2	12.4	9.6	9.6	13.3	8.6	9.4	7.6	9.4	5.9	9.8	12.4	11.8	15.1	19.4	22.5	18.4	18.6			

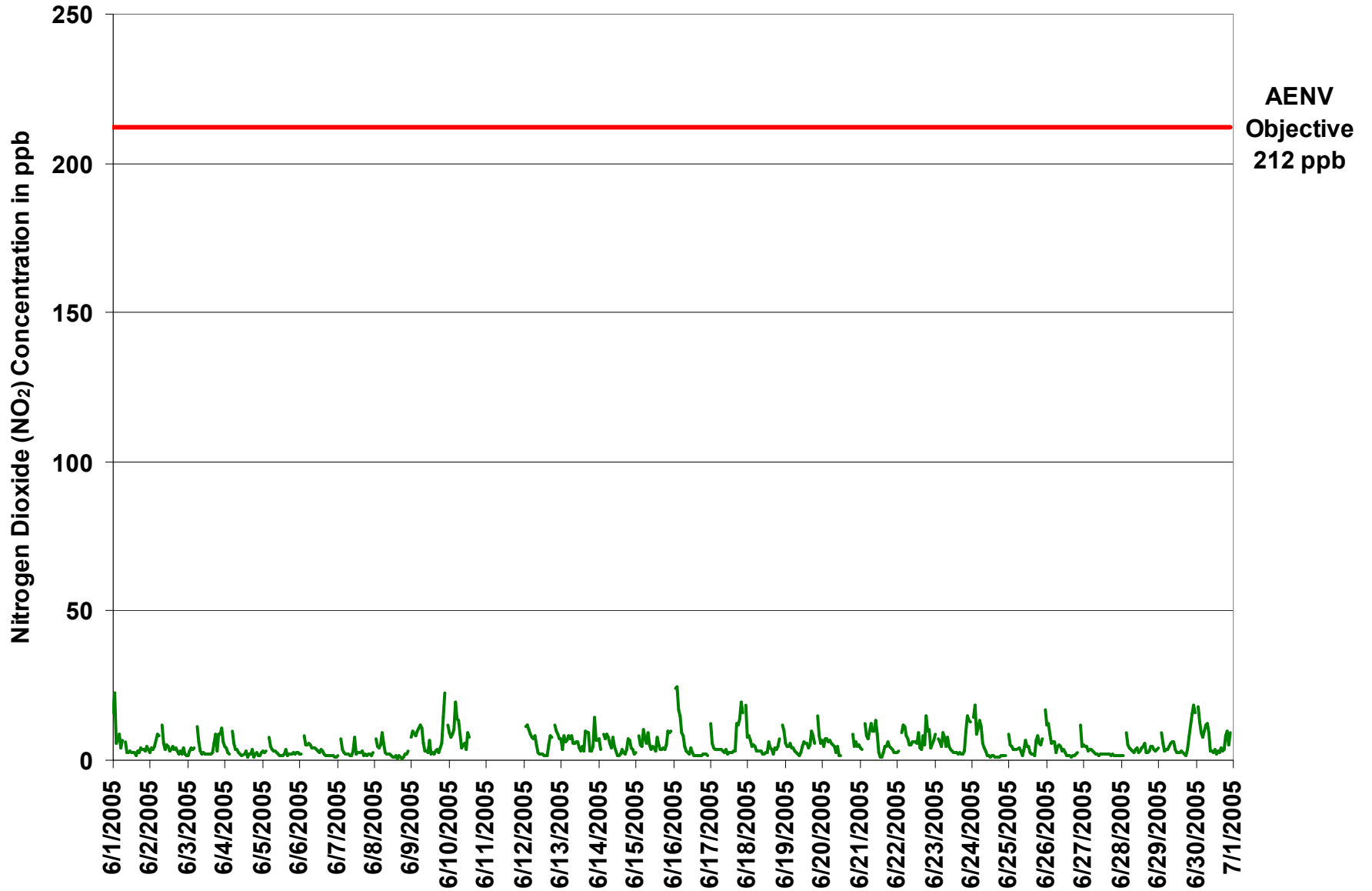


Figure 1. PAS - Crescent Heights Nitrogen Dioxide 1-hr Average Monthly Trend



Station: Crescent Heights
 Station Owner: PAS

HOURLY MAXIMUM TABLE

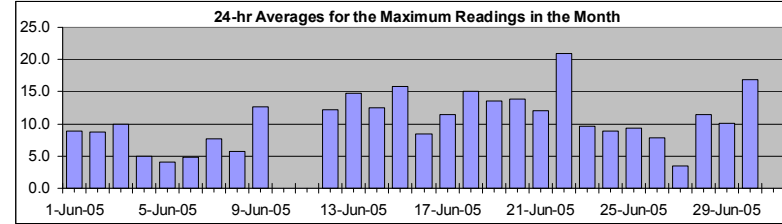
Nitrogen Dioxide (NO₂)

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

Maximum 1-hr Value:	53.1	ppb	22-Jun	5:00 6:00
Maximum 24-hr Value:	21.0	ppb	22-Jun	

AIC Time:	30 hrs	Operational Time:	650 hrs					
Calibration Time:	5 hrs	AMD Operational Uptime:	95.1%					
Percentile	99	95	75	50	25	5	1	Average
	39.5	29.8	14.8	7.0	3.8	2.3	1.9	10.7 ppb



Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	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-Jun-05	30	30	8	8	12	7	11	A	12	4	3	8	5	14	4	2	4	5	6	6	6	6	8	6	8.9	29.9	
2-Jun-05	3	6	5	10	12	13	A	27	12	6	9	9	4	18	10	16	5	6	4	6	5	7	4	3	8.7	27.2	
3-Jun-05	5	7	11	7	6	A	16	11	5	4	4	5	3	11	4	4	4	15	27	7	14	27	18	13	9.9	27.3	
4-Jun-05	7	6	4	3	A	15	7	5	4	4	3	2	3	8	2	4	6	13	2	4	3	2	2	3	5.0	14.9	
5-Jun-05	4	3	4	A	12	7	5	4	4	3	4	3	2	3	3	9	2	3	3	4	4	3	4	4	4.1	12.2	
6-Jun-05	3	3	A	13	6	6	19	7	5	5	5	4	4	4	5	4	3	2	2	2	2	3	2	2	4.9	19.3	
7-Jun-05	2	A	13	5	4	3	3	3	2	2	10	37	4	28	20	6	6	3	4	3	4	3	2	9	7.7	37.4	
8-Jun-05	A	12	10	6	13	24	8	6	3	4	4	4	2	2	3	2	2	3	2	2	3	4	6	A	5.7	23.9	
9-Jun-05	13	28	12	14	13	15	15	9	4	5	4	26	6	4	4	20	8	4	6	12	20	30	A	19	12.6	29.7	
10-Jun-05	11	10	21	21	24	23	32	13	5	7	7	6	47	11	N	N	N	N	N	N	N	N	N	N	N	N	47.1
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
12-Jun-05	N	16	18	14	13	10	9	12	8	5	3	3	4	3	4	2	28	29	19	A	21	20	16	11	12.1	29.0	
13-Jun-05	17	5	14	8	35	16	22	14	7	7	12	9	6	14	20	5	24	20	9	4	9	41	23	15	14.8	40.6	
14-Jun-05	22	33	A	14	24	20	10	8	9	14	8	21	3	3	4	27	4	6	5	19	17	7	7	3	12.5	32.6	
15-Jun-05	8	A	28	27	6	28	21	8	19	8	27	19	8	7	32	18	7	9	10	6	11	20	23	15	15.8	32.2	
16-Jun-05	A	32	29	21	20	11	11	10	4	3	4	6	6	3	2	2	2	2	2	3	3	3	3	A	8.4	32.2	
17-Jun-05	15	9	6	5	4	4	5	5	4	5	5	3	4	3	3	4	5	38	26	23	25	25	A	34	11.4	38.2	
18-Jun-05	9	13	21	6	8	16	4	25	23	15	22	35	26	14	10	8	9	9	8	15	19	A	18	16	15.1	35.3	
19-Jun-05	10	7	7	17	17	19	14	17	3	4	5	8	12	20	16	8	9	37	11	10	A	38	16	8	13.6	37.7	
20-Jun-05	34	30	26	24	7	12	10	31	14	6	8	3	3	C	C	C	C	C	A	12	6	8	7	8	13.8	34.2	
21-Jun-05	6	5	A	19	10	10	19	15	11	13	28	13	6	2	3	4	30	48	8	6	7	7	3	4	12.1	47.6	
22-Jun-05	3	5	A	14	19	53	32	34	7	39	11	10	11	13	28	24	8	15	22	33	34	23	9	34	21.0	53.1	
23-Jun-05	17	A	13	8	8	17	16	7	12	10	5	4	3	4	3	3	7	3	3	7	14	26	16	16	9.6	25.9	
24-Jun-05	A	30	29	11	35	17	13	10	5	4	3	2	2	14	3	2	2	2	2	2	2	3	3	A	9.0	35.5	
25-Jun-05	16	7	6	5	5	4	5	4	2	9	17	7	8	6	3	3	2	22	24	17	10	11	A	22	9.4	23.8	
26-Jun-05	14	16	14	13	12	21	3	10	8	6	4	4	5	2	2	2	6	2	2	3	5	A	18	7	7.8	20.7	
27-Jun-05	6	6	6	4	5	5	4	3	3	3	2	3	3	3	3	3	3	3	3	3	2	2	2	2	3.4	6.4	
28-Jun-05	2	2	A	18	7	5	5	4	4	7	7	4	7	27	40	22	4	5	25	19	20	17	4	8	11.4	40.3	
29-Jun-05	8	A	16	8	5	5	5	9	9	14	10	6	6	8	5	6	5	4	3	6	30	24	22	21	10.1	30.2	
30-Jun-05	A	26	15	15	11	12	14	15	13	4	5	3	29	4	18	4	34	8	6	41	53	6	37	A	16.9	52.7	
																									N	0.0	
Hourly Avg	11.1	14.0	14.0	12.0	12.6	14.2	12.1	11.6	7.7	7.5	8.2	9.2	7.9	9.0	9.4	8.0	8.5	11.7	9.0	10.2	12.9	14.1	10.9	11.8			
Hourly Max	34.2	32.6	29.4	26.7	35.5	53.1	32.3	33.8	22.7	38.6	27.7	37.4	47.1	28.2	40.3	26.9	34.2	47.6	27.3	41.0	52.7	40.6	37.0	34.1			

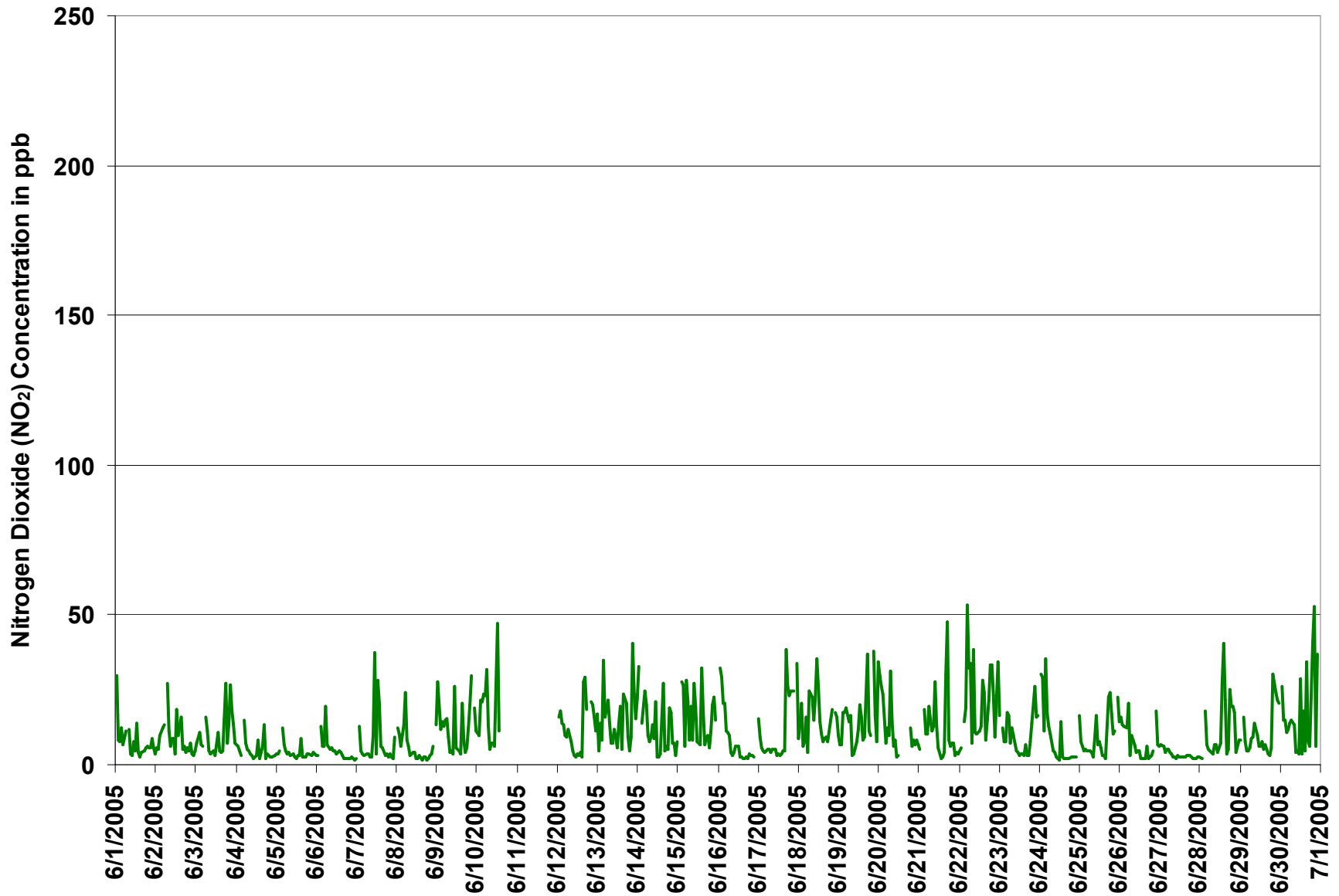
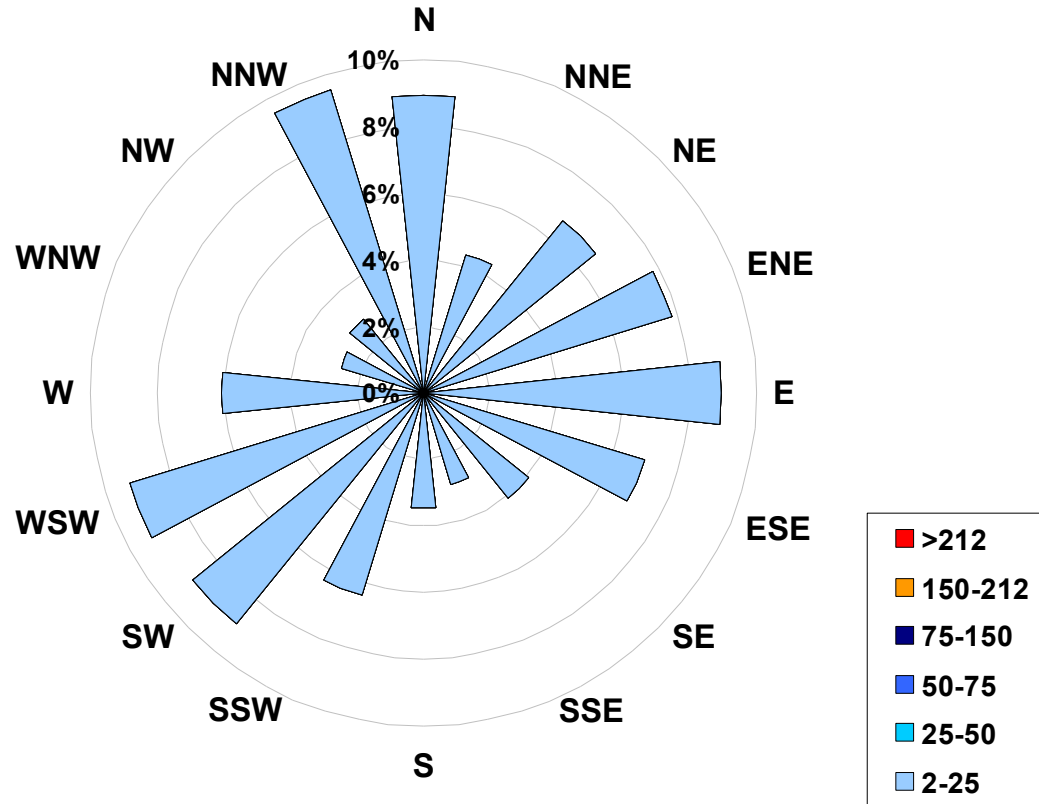


Figure 2. PAS - Crescent Heights Nitrogen Dioxide 1-hr Maximum Value Monthly Trend



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



Calms: 1%

Frequency Distribution of NO ₂ in ppb			Frequency (hrs)
Range			
2.0	< 25		649
25	to 50		1
50	to 75		0
75	to 150		0
150	to 212		0
	> 212		0
Total Non-Zero Values			650



PAS - Cresent Heights Nitric Oxide Monthly Summary

HOURLY AVERAGE TABLE

Nitric Oxide (NO)

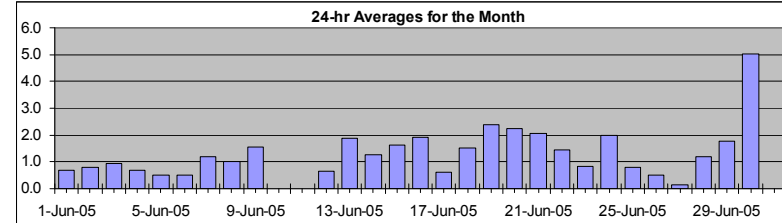
Station: Cresent Heights
 Station Owner: PAS

Monitoring Dates: June 1, 2005 to July 1, 2005

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

Maximum 1-hr Average:	30.6	ppb	30-Jun	6:00 7:00
Maximum 24-hr Average:	5.0	ppb	30-Jun	

AIC Time:	30 hrs	Operational Time:	650 hrs					
Calibration Time:	5 hrs	AMD Operational Uptime:	95.1%					
Percentile	99	95	75	50	25	5	1	Average
	10.2	4.6	1.5	0.7	0.4	0.0	0.0	1.4 ppb



Status Flag Characters

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

Day	Mountain Standard Time																							24-hour Average	Daily Maximum				
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	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-Jun-05	3	3	0	0	0	0	2	A	0	0	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0.7	3.4		
2-Jun-05	0	0	0	0	1	1	A	3	2	1	2	1	1	1	1	1	1	0	0	1	0	1	0	0	0	0.8	2.5		
3-Jun-05	0	0	0	0	0	A	2	2	1	1	1	1	1	2	1	1	1	2	3	0	0	1	0	0	0	0.9	3.1		
4-Jun-05	0	1	1	0	A	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0.7	1.5		
5-Jun-05	0	0	1	A	1	0	1	1	1	1	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0.5	0.9		
6-Jun-05	0	0	A	0	0	1	1	1	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0.5	1.4		
7-Jun-05	0	A	0	0	0	0	1	1	1	1	1	8	1	2	2	1	2	1	1	1	1	1	0	1	1	1.2	7.7		
8-Jun-05	A	1	1	1	1	3	2	1	1	1	2	1	1	1	1	1	1	1	0	1	1	1	1	A	1	1.0	3.2		
9-Jun-05	1	5	1	1	1	3	6	2	1	2	1	5	1	1	1	1	1	0	1	0	1	2	A	1	1	1.6	5.6		
10-Jun-05	1	0	1	4	11	10	11	4	1	2	2	1	2	2	N	N	N	N	N	N	N	N	N	N	N	N	11.1		
11-Jun-05	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	N	0.0	
12-Jun-05	N	0	0	0	1	1	1	3	2	0	0	0	0	0	0	0	1	1	0	A	0	0	0	0	0	0.6	2.9		
13-Jun-05	1	0	0	0	2	2	3	4	2	2	4	4	1	1	2	1	4	4	1	1	0	7	1	0	1	1.9	6.8		
14-Jun-05	1	1	A	1	2	2	3	3	3	4	2	2	0	1	0	2	1	0	0	0	1	0	0	0	0	1.2	3.9		
15-Jun-05	0	A	2	2	0	5	3	2	5	2	2	2	1	1	3	2	1	1	1	1	0	0	1	1	1	1.6	4.7		
16-Jun-05	A	10	14	1	5	2	3	2	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	A	1.9	13.6		
17-Jun-05	1	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	1	0	1	1	1	A	1	1	0.6	1.5		
18-Jun-05	0	1	2	0	0	2	1	3	3	1	1	2	2	4	2	1	1	2	1	1	3	A	1	1	1	1.5	3.5		
19-Jun-05	1	1	1	4	2	4	3	3	1	1	2	3	4	4	3	2	2	5	3	1	A	5	1	1	1	2.4	5.4		
20-Jun-05	5	2	1	5	1	5	4	4	3	1	2	1	1	C	C	C	C	C	A	2	1	1	1	1	1	2.2	5.3		
21-Jun-05	1	0	A	0	1	1	6	10	6	6	8	3	0	0	0	0	2	1	0	0	0	0	0	0	0	2.1	9.6		
22-Jun-05	0	0	A	0	0	4	5	4	1	2	1	1	2	1	4	1	0	2	0	2	0	0	0	0	0	1.4	5.4		
23-Jun-05	1	A	0	0	0	1	2	1	3	2	1	1	0	1	1	1	1	1	0	0	1	1	0	1	0	0.8	3.2		
24-Jun-05	A	2	6	0	4	10	10	3	2	1	1	0	0	1	0	0	0	0	0	0	0	0	0	A	1	2.0	10.2		
25-Jun-05	0	0	0	0	0	0	1	1	0	1	2	1	2	1	1	1	0	3	2	1	0	0	A	1	1	0.8	2.5		
26-Jun-05	0	1	1	0	1	2	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	A	0	0	0.5	2.1		
27-Jun-05	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6		
28-Jun-05	0	0	A	1	0	0	0	0	0	1	2	1	1	2	3	3	1	1	2	2	4	2	0	0	0	1.2	4.0		
29-Jun-05	0	A	0	0	0	1	2	2	3	2	2	2	2	1	1	1	1	1	0	1	3	4	6	8	1	1.8	7.5		
30-Jun-05	A	3	8	3	3	17	31	18	8	1	1	1	1	0	2	1	2	1	1	2	4	0	4	A	1	5.0	30.6		
																										N	0.0		
Hourly Avg	0.7	1.3	1.7	0.9	1.4	2.8	3.7	2.8	1.8	1.4	1.5	1.5	1.0	1.2	1.2	0.9	1.0	1.1	0.8	0.7	0.9	1.1	0.7	0.7					
Hourly Max	5.3	10.1	13.6	4.8	10.9	17.1	30.6	17.6	7.9	6.3	8.5	7.7	3.7	4.4	3.8	3.4	4.1	5.1	3.1	2.4	4.0	6.8	5.7	7.5					



Station: Crescent Heights
 Station Owner: PAS

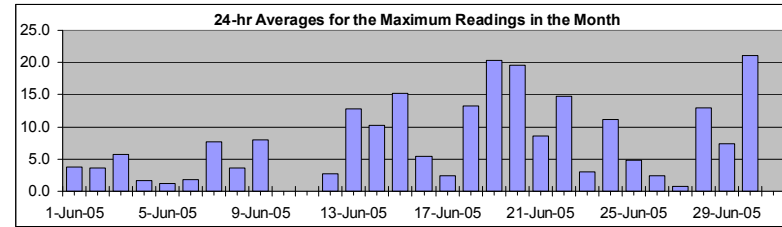
HOURLY MAXIMUM TABLE

Nitric Oxide (NO)

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

Maximum 1-hr Value:	119.5	ppb	24-Jun	4:00 5:00
Maximum 24-hr Value:	21.1	ppb	30-Jun	



AIC Time:	30 hrs	Operational Time:	650 hrs					
Calibration Time:	5 hrs	AMD Operational Uptime:	95.1%					
Percentile	99	95	75	50	25	5	1	Average
	75.8	45.5	5.0	1.8	1.1	0.6	0.5	8.1 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-Jun-05	31	16	0	0	2	1	7	A	1	1	1	6	1	6	1	1	1	1	2	1	2	1	1	1	3.7	31.3	
2-Jun-05	1	1	1	1	1	2	A	15	10	2	4	3	1	13	8	6	1	1	1	3	1	3	1	1	3.5	14.6	
3-Jun-05	1	1	2	2	1	A	10	7	2	2	3	2	3	13	4	3	2	5	46	1	1	19	1	1	5.7	46.5	
4-Jun-05	1	1	2	1	A	2	2	1	2	2	2	2	1	4	1	2	2	6	1	1	1	1	1	1	1.7	5.7	
5-Jun-05	1	1	1	A	1	1	1	1	2	1	2	2	2	1	1	2	1	1	1	1	1	1	1	1	1.2	2.4	
6-Jun-05	1	1	A	1	1	1	16	3	1	2	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1.8	15.7	
7-Jun-05	1	A	1	1	1	1	1	2	1	1	8	52	4	57	25	3	4	2	3	1	1	1	1	2	7.6	56.6	
8-Jun-05	A	1	1	2	2	36	4	2	2	3	4	4	2	3	2	2	2	1	1	1	1	3	A	3.7	35.6		
9-Jun-05	1	64	3	1	2	6	14	5	1	2	2	49	3	2	1	12	2	1	1	1	2	5	A	2	8.0	63.8	
10-Jun-05	1	2	13	18	24	46	58	8	3	2	2	2	39	4	N	N	N	N	N	N	N	N	N	N	N	58.5	58.5
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	0.0
12-Jun-05	N	2	2	1	4	3	2	6	3	2	1	1	1	1	0	1	11	11	1	A	1	1	1	3	2.7	10.8	
13-Jun-05	5	0	1	2	64	15	36	11	3	3	9	7	2	11	15	1	14	11	3	2	2	75	12	1	12.7	75.3	
14-Jun-05	8	28	A	2	23	13	4	4	39	8	4	46	2	1	1	41	1	1	1	2	5	1	1	1	10.2	45.5	
15-Jun-05	1	A	76	49	2	33	66	3	14	4	39	16	3	2	23	5	2	3	2	1	1	1	1	2	15.2	76.4	
16-Jun-05	A	26	39	5	24	2	5	4	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	A	5.5	38.7	
17-Jun-05	1	1	1	1	1	1	1	2	1	1	1	1	2	2	1	1	1	14	2	3	4	10	A	2	2.4	14.5	
18-Jun-05	1	2	32	1	3	17	2	56	49	11	13	45	24	9	5	3	4	4	3	3	13	A	2	3	13.3	55.6	
19-Jun-05	2	1	2	37	41	65	32	50	2	2	3	5	9	26	14	4	4	43	4	2	A	113	4	1	20.3	112.9	
20-Jun-05	95	69	19	63	2	27	18	21	16	4	4	2	2	C	C	C	C	C	A	4	2	2	2	2	19.6	95.2	
21-Jun-05	2	1	A	1	1	3	13	15	8	10	39	7	2	0	1	1	57	32	1	1	1	1	1	1	8.6	57.2	
22-Jun-05	1	0	A	1	1	87	81	45	3	46	3	3	3	4	16	14	2	4	3	7	7	1	1	6	14.8	87.3	
23-Jun-05	2	A	1	1	1	4	13	2	6	4	2	2	1	2	1	2	3	1	1	2	4	11	2	5	3.1	13.0	
24-Jun-05	A	26	25	2	119	22	12	9	3	3	1	1	1	13	1	1	1	1	1	1	1	1	1	A	11.1	119.5	
25-Jun-05	1	1	1	1	1	1	2	2	1	2	27	2	3	3	1	1	1	19	12	25	1	1	A	2	4.8	27.3	
26-Jun-05	1	2	2	2	3	24	1	4	2	2	1	1	1	1	1	1	2	0	1	1	1	A	1	0	2.4	24.4	
27-Jun-05	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.5	
28-Jun-05	1	1	A	1	1	1	1	1	1	2	4	2	3	38	46	24	2	2	53	26	39	48	1	2	13.0	53.3	
29-Jun-05	2	A	1	1	1	2	3	5	6	7	4	4	4	4	2	3	3	2	1	2	50	25	26	14	7.4	49.7	
30-Jun-05	A	5	15	10	14	25	40	22	16	2	2	1	16	1	31	2	47	6	2	66	84	1	57	A	21.1	83.9	
																									N	0.0	0.0
Hourly Avg	6.8	10.2	10.1	7.4	12.2	15.8	15.9	11.0	6.9	4.6	6.5	9.3	4.7	8.0	7.8	5.0	6.4	6.6	5.6	5.9	8.4	12.5	4.9	2.3			
Hourly Max	95.2	69.3	76.4	63.5	119.5	87.3	80.5	55.6	49.3	45.5	38.7	52.4	38.8	56.6	45.6	41.0	57.2	42.9	53.3	66.2	83.9	112.9	57.1	14.3			



PAS - Cresnet Heights Oxides of Nitrogen Monthly Summary

HOURLY AVERAGE TABLE

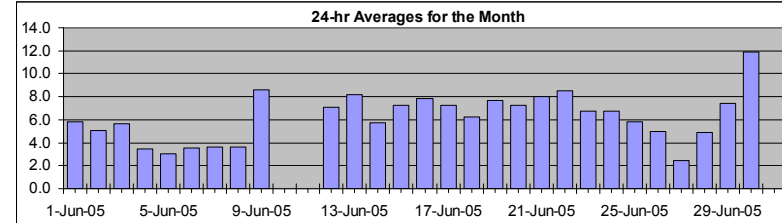
Oxides of Nitrogen (NO_x)

Station: Cresnet Heights
 Station Owner: PAS

Monitoring Dates: June 1, 2005 to July 1, 2005

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

Maximum 1-hr Average:	42.7	ppb	30-Jun	6:00 7:00
Maximum 24-hr Average:	11.9	ppb	30-Jun	



AIC Time:	30 hrs	Operational Time:	650 hrs					
Calibration Time:	5 hrs	AMD Operational Uptime:	95.1%					
Percentile	99	95	75	50	25	5	1	Average
	25.1	16.1	8.3	4.5	2.8	1.5	1.2	6.3 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																								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-Jun-05	19	26	5	6	9	4	9	A	14	7	4	3	2	3	3	3	2	3	3	5	4	4	3	5	4	5.8	25.8
2-Jun-05	3	4	4	5	9	9	A	14	7	4	7	6	4	5	6	4	4	3	2	4	2	5	2	2	5.1	14.1	
3-Jun-05	2	3	4	4	5	A	14	8	4	3	4	3	3	4	3	3	3	7	12	3	9	10	11	6	5.6	13.8	
4-Jun-05	5	4	3	2	A	10	6	4	4	4	3	2	2	2	5	1	3	2	5	1	2	2	2	3	3.4	10.5	
5-Jun-05	3	3	4	A	8	5	4	4	4	3	3	2	2	2	2	4	2	2	2	2	3	2	2	3	3.0	8.2	
6-Jun-05	2	2	A	8	5	6	7	6	5	5	4	4	3	3	4	3	2	2	2	1	2	2	1	1	3.5	8.5	
7-Jun-05	2	A	8	4	3	2	2	3	2	2	4	15	3	5	4	4	4	2	3	2	3	2	2	3	3.6	15.1	
8-Jun-05	A	8	5	4	5	12	7	3	3	3	4	3	2	2	2	1	2	2	1	2	2	3	4	A	3.6	12.2	
9-Jun-05	8	14	9	10	12	15	16	8	4	5	4	11	3	4	3	4	4	3	4	6	15	24	A	13	8.6	24.3	
10-Jun-05	10	8	10	14	30	23	24	13	5	7	7	5	12	9	N	N	N	N	N	N	N	N	N	N	N	N	30.4
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
12-Jun-05	N	12	12	11	10	9	8	11	7	3	2	2	2	2	1	1	6	10	8	A	12	10	9	7	7.1	12.5	
13-Jun-05	8	3	8	6	8	10	10	12	8	8	10	10	5	4	6	4	14	13	4	3	5	21	7	7	8.1	20.9	
14-Jun-05	8	5	A	9	8	11	10	8	7	12	6	4	2	2	2	5	3	2	4	7	7	4	3	2	5.8	11.5	
15-Jun-05	3	A	10	6	5	15	10	7	14	7	6	7	6	4	10	7	4	5	5	4	5	10	10	11	7.3	14.8	
16-Jun-05	A	34	38	18	19	11	11	6	3	3	2	4	3	2	2	2	2	2	2	2	2	2	2	A	7.8	38.3	
17-Jun-05	13	5	4	4	3	4	4	4	3	3	4	3	3	3	2	3	3	14	12	15	21	17	A	19	7.3	20.9	
18-Jun-05	8	9	9	5	5	6	4	6	6	3	3	4	4	10	6	5	3	5	4	5	9	A	13	11	6.2	12.9	
19-Jun-05	6	5	5	9	6	8	6	5	3	2	4	7	10	10	9	6	7	15	11	7	A	20	9	6	7.7	20.3	
20-Jun-05	12	6	8	12	7	11	9	9	7	4	7	2	2	C	C	C	C	C	A	10	5	7	5	6	7.2	12.0	
21-Jun-05	5	4	A	13	9	8	16	22	16	16	22	12	3	1	1	3	7	5	6	4	4	4	2	3	8.0	21.8	
22-Jun-05	2	3	A	9	12	15	14	11	6	7	7	8	8	7	13	5	4	10	5	17	10	11	4	7	8.5	17.4	
23-Jun-05	9	A	8	6	5	11	9	6	11	6	4	4	3	3	3	3	3	2	2	4	10	16	14	13	6.7	16.0	
24-Jun-05	A	16	24	9	15	24	21	9	6	4	2	2	1	2	2	1	1	1	1	2	2	2	2	A	6.8	24.3	
25-Jun-05	9	5	5	4	4	4	5	4	2	4	8	5	6	4	3	3	2	9	10	7	5	8	A	18	5.8	17.6	
26-Jun-05	12	13	9	6	7	8	3	6	7	5	3	4	3	2	1	1	1	1	1	1	2	2	A	12	5	5.0	12.9
27-Jun-05	5	5	4	3	4	4	3	3	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	2.4	5.0
28-Jun-05	2	1	A	10	5	4	3	4	3	4	6	3	4	6	8	9	3	3	5	6	9	5	3	4	4.9	9.8	
29-Jun-05	4	A	10	6	3	4	4	7	8	9	8	5	4	4	3	4	3	3	2	4	11	19	24	23	7.4	24.2	
30-Jun-05	A	20	20	12	11	27	43	30	17	4	4	3	5	2	5	3	7	4	4	10	13	5	13	A	11.9	42.7	
																									N	0.0	
Hourly Avg	6.7	8.8	9.5	7.8	8.3	10.0	10.2	8.3	6.1	4.9	5.2	5.0	3.8	3.9	4.0	3.5	3.8	5.0	4.5	5.1	6.5	8.3	6.5	7.3			
Hourly Max	19.2	34.4	38.3	18.3	30.4	26.9	42.7	30.0	16.9	16.0	21.8	15.1	11.7	10.1	13.1	9.3	13.9	14.8	12.1	17.4	20.9	24.3	24.2	23.1			

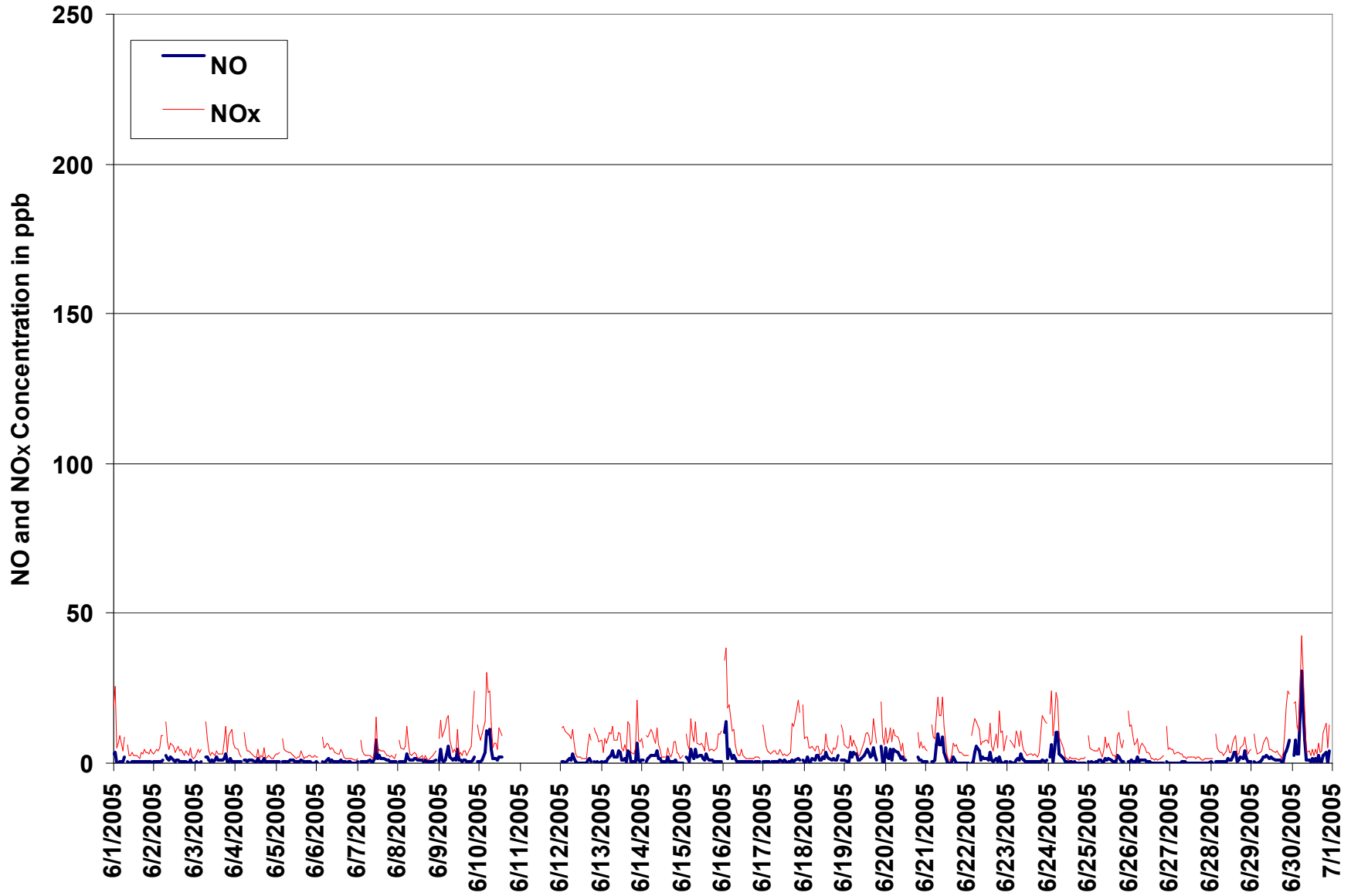


Figure 3. PAS - Cresent Heights Oxides of Nitrogen 1-hr Average Monthly Trend



Station: Crescent Heights
 Station Owner: PAS

HOURLY MAXIMUM TABLE

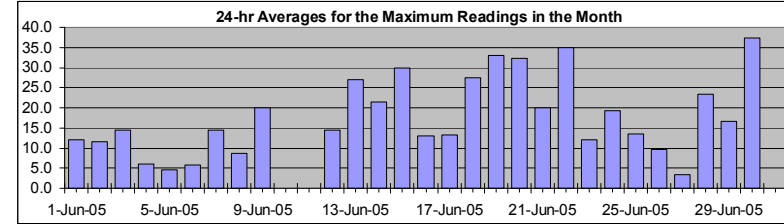
Oxides of Nitrogen (NO_x)

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

Maximum 1-hr Value:	149.2	ppb	19-Jun	21:00 22:00
Maximum 24-hr Value:	37.2	ppb	30-Jun	

AIC Time:	30 hrs	Operational Time:	650 hrs					
Calibration Time:	5 hrs	AMD Operational Uptime:	95.1%					
Percentile	99	95	75	50	25	5	1	Average
	107.8	72.7	20.0	8.4	4.6	2.4	1.9	18.0 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 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-Jun-05	57	46	8	8	13	7	18	A	13	4	4	13	5	20	5	3	4	5	7	7	6	10	6	12.0	57.2			
2-Jun-05	4	6	6	11	13	15	A	40	22	7	13	10	5	31	14	22	6	7	4	8	5	10	4	11.5	39.9			
3-Jun-05	6	8	11	7	7	A	21	17	5	4	6	5	5	21	8	6	5	20	72	8	15	45	18	14	14.5	72.3		
4-Jun-05	8	7	5	3	A	16	8	6	5	5	5	3	3	13	2	5	7	19	2	4	3	3	3	6.0	18.8			
5-Jun-05	4	4	5	A	13	7	5	4	5	4	6	3	2	3	4	10	3	3	3	4	4	3	4	4	4.6	12.6		
6-Jun-05	3	4	A	13	6	7	33	9	6	6	6	5	4	5	6	5	3	3	2	2	2	2	2	2	5.9	32.5		
7-Jun-05	2	A	13	5	4	3	4	5	3	3	19	86	7	84	46	9	9	4	6	4	5	3	2	11	14.6	85.8		
8-Jun-05	A	14	11	7	15	54	11	8	4	6	7	8	3	5	5	2	4	5	2	3	4	4	8	A	8.6	53.7		
9-Jun-05	14	91	15	15	14	20	30	14	5	7	5	75	8	5	5	30	10	5	6	13	21	34	A	20	20.1	91.5		
10-Jun-05	12	11	34	38	46	69	87	21	7	8	9	8	86	14	N	N	N	N	N	N	N	N	N	N	N	87.4		
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	
12-Jun-05	N	17	20	14	17	12	11	18	10	6	3	3	5	3	4	2	39	40	20	A	22	21	17	15	14.4	39.7		
13-Jun-05	21	5	14	9	99	29	55	25	10	10	20	16	7	26	35	6	38	32	11	5	9	115	35	16	27.0	114.6		
14-Jun-05	29	59	A	15	47	31	14	11	44	21	12	62	3	3	5	61	5	6	5	20	21	7	7	3	21.3	62.4		
15-Jun-05	7	A	97	74	7	59	82	10	31	11	66	35	11	8	55	23	8	11	12	7	12	20	24	16	29.9	96.9		
16-Jun-05	A	54	67	25	44	13	15	14	5	4	5	7	7	3	3	2	2	3	2	4	3	3	3	A	13.1	67.3		
17-Jun-05	17	10	6	4	4	5	6	6	5	6	7	3	5	4	3	5	5	52	27	26	28	34	A	36	13.2	52.2		
18-Jun-05	10	15	49	6	10	31	5	80	72	26	36	73	44	24	15	11	12	13	10	18	31	A	19	18	27.4	79.8		
19-Jun-05	11	8	7	54	53	80	46	65	4	5	8	12	20	46	30	12	13	76	15	12	A	149	20	9	32.9	149.2		
20-Jun-05	126	99	44	83	9	39	27	52	30	9	11	3	4	C	C	C	C	C	A	14	7	9	7	9	32.4	125.8		
21-Jun-05	7	5	A	19	11	12	32	30	19	22	66	19	7	2	3	5	88	79	9	6	8	7	3	4	20.1	87.7		
22-Jun-05	3	6	A	15	20	141	108	79	10	82	14	13	14	16	44	36	10	19	25	40	40	23	9	40	35.0	140.9		
23-Jun-05	18	A	14	8	8	21	28	8	18	13	6	5	4	5	4	4	9	3	4	8	17	35	17	20	12.0	35.3		
24-Jun-05	A	56	55	12	148	39	25	20	7	6	4	2	2	26	3	2	2	2	2	2	2	2	3	A	19.3	148.2		
25-Jun-05	17	8	7	5	5	5	6	5	3	11	40	8	11	9	4	4	2	41	35	41	11	12	A	23	13.5	41.4		
26-Jun-05	15	18	16	14	16	42	4	13	9	8	5	5	6	2	2	2	8	2	2	3	4	A	18	6	9.6	42.4		
27-Jun-05	6	6	6	4	5	5	4	4	4	4	3	3	3	3	3	2	3	3	2	2	2	2	2	2	3.5	6.1		
28-Jun-05	2	2	A	18	7	6	5	5	4	8	9	5	9	62	86	44	4	7	78	46	54	65	5	9	23.4	85.6		
29-Jun-05	9	A	17	7	5	5	8	13	14	20	12	10	9	11	6	8	6	5	3	6	80	48	46	34	16.7	79.6		
30-Jun-05	A	28	28	23	26	36	53	35	29	5	6	4	45	5	49	6	81	13	7	108	137	7	87	A	37.2	137.2		
																									N	0.0		
Hourly Avg	17.1	23.4	23.2	18.5	24.0	28.9	26.8	22.0	13.9	11.4	14.1	17.4	11.9	16.3	16.6	12.2	14.3	17.6	13.9	15.6	20.4	25.8	14.9	13.5				
Hourly Max	125.8	99.0	96.9	82.8	148.2	140.9	107.6	79.8	71.8	81.7	65.9	85.8	85.9	83.8	85.6	61.1	87.7	79.5	77.9	108.1	137.2	149.2	86.8	40.2				

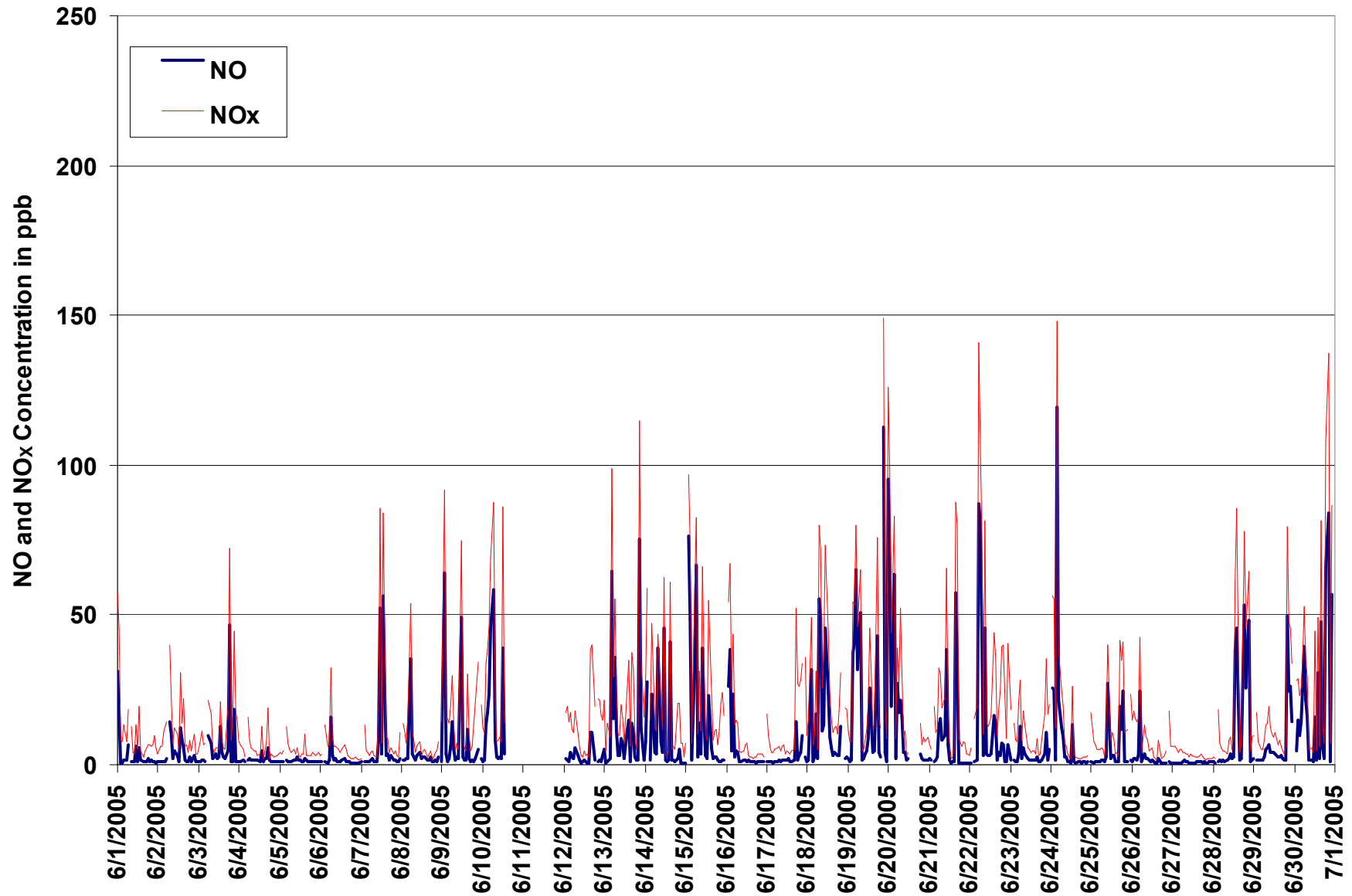


Figure 4. PAS - Crescent Heights Oxides of Nitrogen 1-hr Maximum Value Monthly Trend



PAS - Cresent Heights Ozone Monthly Summary

HOURLY AVERAGE TABLE

Ozone (O₃)

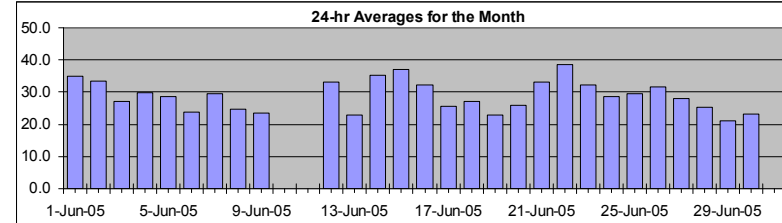
Station: Cresent Heights
 Station Owner: PAS

Monitoring Dates: June 1, 2005 to July 1, 2005

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

Number of 1-hr Exceedances: 0
 Maximum 1-hr Average: 52.2 ppb 21-Jun 13:00 14:00
 Maximum 24-hr Average: 38.5 ppb 22-Jun

AIC Time: 31 hrs Operational Time: 652 hrs
 Calibration Time: 2 hrs AMD Operational Uptime: 95.1%
 Percentile 99 95 75 50 25 5 1 Average
 50.8 46.8 37.1 28.9 21.1 11.8 4.2 28.9 ppb



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

Day	Mountain Standard Time																							24-hour Average	Daily Maximum		
Hour Start	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-Jun-05	14	9	21	18	13	19	16	A	45	48	47	46	47	48	45	50	47	47	45	44	40	35	31	32	35.0	50.3	
2-Jun-05	32	26	25	23	18	18	A	23	30	37	37	38	40	45	40	37	35	41	45	40	37	34	33	34	33.4	44.9	
3-Jun-05	31	30	31	29	26	A	20	23	25	26	26	28	29	28	28	30	31	25	24	34	28	27	22	23	27.2	33.7	
4-Jun-05	20	21	20	21	A	17	21	27	25	29	32	33	33	33	41	41	39	38	39	38	33	33	30	23	29.9	41.2	
5-Jun-05	18	16	14	A	14	16	17	16	17	22	30	38	40	42	41	39	41	40	40	37	34	32	30	26	28.7	42.0	
6-Jun-05	22	22	A	20	17	14	14	16	15	16	18	22	26	29	26	25	28	34	35	31	30	29	30	30	23.9	35.4	
7-Jun-05	29	A	25	27	25	24	25	25	27	27	29	29	33	36	37	37	35	35	31	30	28	29	30	27	29.6	36.8	
8-Jun-05	A	25	23	24	22	19	21	25	25	24	19	20	23	26	30	30	27	29	29	28	26	24	23	A	24.6	29.7	
9-Jun-05	20	13	12	8	8	7	9	15	20	23	27	28	38	34	37	37	38	40	36	31	23	14	A	24	23.6	39.6	
10-Jun-05	17	20	15	13	2	11	15	26	35	38	42	47	42	45	N	N	N	N	N	N	N	N	N	N	N	N	46.5
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
12-Jun-05	N	25	14	10	10	12	21	24	36	44	49	52	51	51	51	51	45	39	39	A	36	30	23	19	33.3	52.1	
13-Jun-05	17	24	19	15	13	11	13	13	16	16	13	16	27	33	34	37	33	32	35	34	31	21	24	25	22.9	37.0	
14-Jun-05	28	32	A	30	25	21	24	25	27	35	41	43	44	44	44	41	42	43	40	33	42	39	35	35	35.4	44.4	
15-Jun-05	32	A	30	26	24	25	24	28	32	39	42	46	48	49	45	48	49	47	46	44	40	34	32	24	37.1	49.0	
16-Jun-05	A	9	2	5	7	20	22	33	39	41	43	39	39	41	43	44	45	45	45	42	39	36	34	A	32.3	44.9	
17-Jun-05	33	31	27	25	22	21	23	22	22	21	19	24	27	32	31	27	27	34	33	25	19	19	A	22	25.5	34.4	
18-Jun-05	21	17	15	16	18	19	20	24	29	33	39	39	37	39	39	39	39	36	32	26	19	A	16	14	27.2	39.4	
19-Jun-05	14	15	13	12	11	12	16	21	24	28	33	32	31	32	32	33	33	29	29	27	A	18	15	15	22.8	32.9	
20-Jun-05	14	15	14	11	11	12	15	19	24	32	32	35	37	38	38	39	40	39	C	C	A	A	32	26	26.0	39.5	
21-Jun-05	27	25	A	19	19	17	13	16	21	24	26	38	50	52	52	47	45	44	39	36	34	35	42	38	33.1	52.2	
22-Jun-05	38	34	A	32	23	19	20	23	31	40	45	48	47	50	47	50	51	47	49	37	41	36	39	37	38.5	51.3	
23-Jun-05	28	A	31	29	28	21	22	22	30	33	39	43	43	43	44	45	40	40	40	38	29	22	18	16	32.3	45.3	
24-Jun-05	A	17	6	11	10	7	11	22	25	29	34	36	38	41	41	40	41	41	39	37	34	33	34	A	28.5	41.4	
25-Jun-05	27	27	27	26	23	22	21	23	30	29	25	23	20	30	34	37	40	41	38	40	42	36	A	19	29.6	42.0	
26-Jun-05	17	14	15	18	18	19	24	26	27	32	36	34	43	50	48	47	49	48	43	38	32	A	25	24	31.5	49.7	
27-Jun-05	18	17	17	17	15	15	17	19	23	29	30	31	34	33	34	36	39	41	40	38	36	33	31	30	28.1	41.0	
28-Jun-05	28	27	A	27	25	26	26	22	20	20	23	34	39	34	31	28	29	28	23	21	19	19	16	15	25.2	39.3	
29-Jun-05	15	A	17	18	21	20	21	21	20	20	21	26	29	30	31	28	30	30	28	26	19	8	4	3	21.2	31.3	
30-Jun-05	A	2	2	4	4	3	4	9	19	32	33	37	36	37	37	37	36	38	38	30	25	27	22	A	23.3	37.7	
																									N	0.0	
Hourly Avg	23.3	20.5	18.1	19.0	16.9	16.7	18.4	21.7	26.2	29.8	32.0	34.6	37.0	38.8	38.6	38.7	38.4	38.2	37.1	34.0	31.4	28.2	26.8	24.3			
Hourly Max	37.8	33.9	31.1	32.2	28.1	25.6	25.8	33.4	45.1	47.9	49.4	52.1	51.0	52.2	51.7	50.9	51.3	47.5	49.4	43.6	42.0	38.8	42.0	38.4			

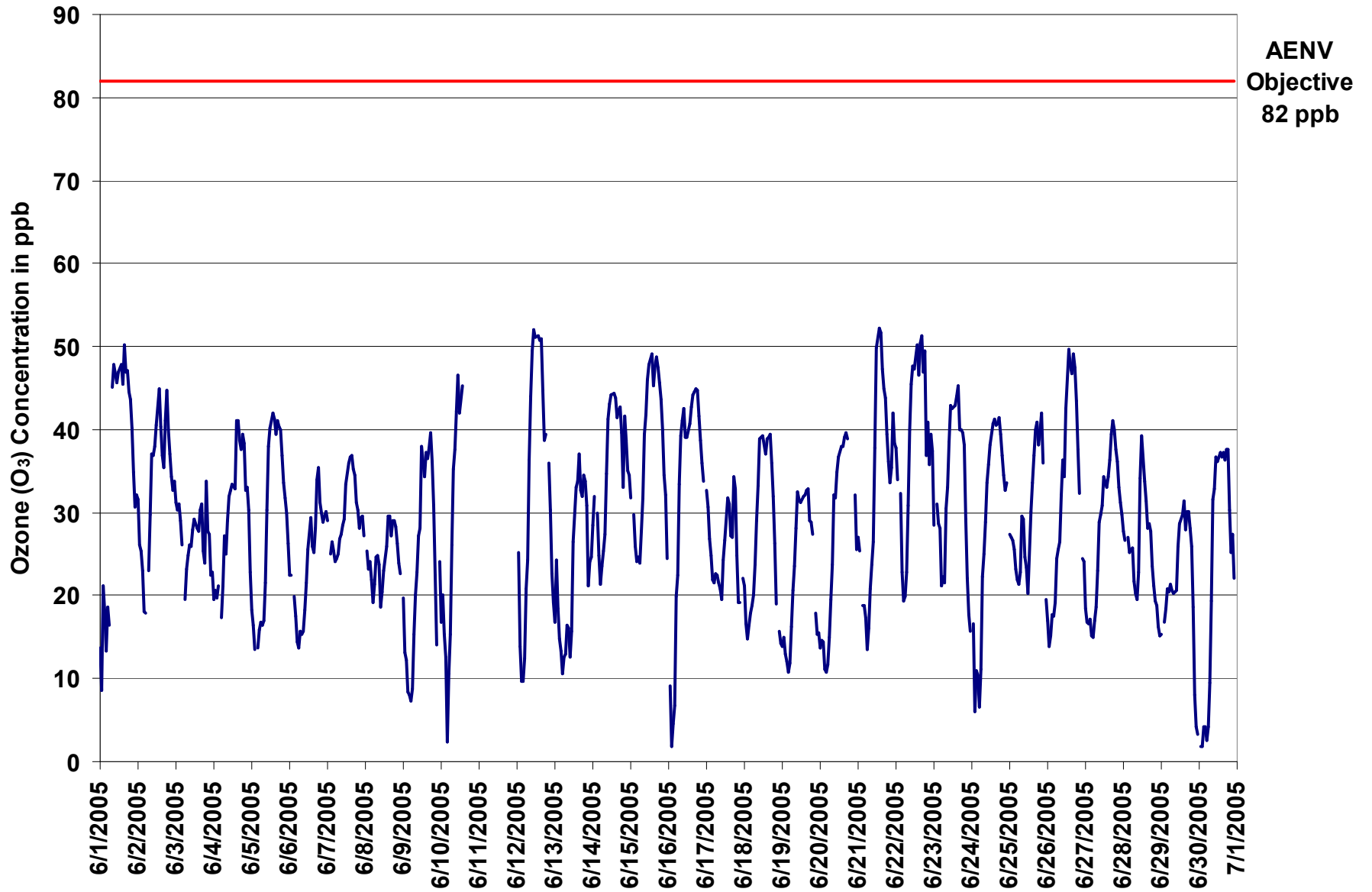


Figure 5. PAS - Cresent Heights Ozone 1-hr Average Monthly Trend



Station: Crescent Heights
 Station Owner: PAS

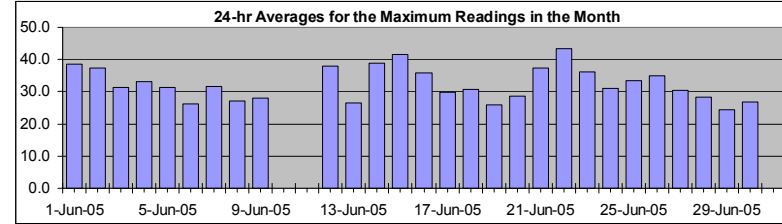
HOURLY MAXIMUM TABLE

Ozone (O₃)

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

Maximum 1-hr Value:	67.5	ppb	21-Jun	12:00 13:00
Maximum 24-hr Value:	43.5	ppb	22-Jun	



AIC Time:	31 hrs	Operational Time:	652 hrs					
Calibration Time:	2 hrs	AMD Operational Uptime:	95.1%					
Percentile	99	95	75	50	25	5	1	Average
	53.6	50.0	40.8	32.3	24.3	15.4	6.8	32.4 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-Jun-05	19	20	26	21	19	22	19	A	49	50	49	48	50	50	48	53	49	49	47	48	43	40	34	36	38.6	52.5	
2-Jun-05	37	30	28	26	22	21	A	28	37	42	43	41	45	48	43	40	40	45	47	43	41	37	36	38	37.2	48.4	
3-Jun-05	33	33	35	36	29	A	23	26	28	27	29	33	35	32	30	34	33	33	32	37	35	31	30	28	31.4	37.3	
4-Jun-05	22	23	22	23	A	21	27	31	28	32	34	35	37	39	43	45	41	42	42	43	35	35	33	27	33.1	45.1	
5-Jun-05	22	18	17	A	16	18	18	19	19	25	35	42	41	44	44	44	43	42	41	39	36	33	32	30	31.3	44.5	
6-Jun-05	24	25	A	22	20	17	16	18	18	19	21	24	30	32	28	28	32	37	37	34	31	30	31	31	26.2	36.8	
7-Jun-05	31	A	26	28	26	25	26	27	30	29	31	34	35	38	39	39	38	37	34	31	30	31	31	30	31.6	39.1	
8-Jun-05	A	28	25	27	26	25	25	26	27	27	22	22	25	28	32	32	30	31	31	30	28	26	26	A	27.2	32.3	
9-Jun-05	23	18	17	12	11	11	13	19	23	26	31	36	41	42	40	39	41	42	39	38	29	24	A	30	28.1	42.4	
10-Jun-05	20	23	22	20	4	15	23	34	37	42	45	51	53	49	N	N	N	N	N	N	N	N	N	N	N	52.8	
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
12-Jun-05	N	32	24	14	14	18	29	31	40	48	51	54	54	53	54	53	50	45	44	A	39	38	26	23	37.9	54.3	
13-Jun-05	20	27	22	18	16	13	16	16	18	18	15	21	33	35	37	40	41	39	38	36	34	29	26	28	26.5	41.3	
14-Jun-05	36	34	A	34	29	24	26	28	33	41	45	46	46	46	45	45	45	45	42	40	48	41	38	36	38.8	47.5	
15-Jun-05	36	A	33	29	30	32	27	33	41	43	45	51	52	52	51	52	52	50	49	47	44	39	38	28	41.5	52.2	
16-Jun-05	A	25	5	6	15	23	27	41	42	44	45	43	41	44	45	46	46	47	46	44	41	37	36	A	35.8	46.6	
17-Jun-05	39	39	28	28	23	24	24	24	23	22	23	27	29	34	34	31	34	47	39	34	24	24	A	27	29.7	47.1	
18-Jun-05	26	21	18	18	21	21	22	29	33	37	41	41	42	42	42	42	42	39	35	31	26	A	19	18	30.7	42.4	
19-Jun-05	17	18	15	14	13	14	19	23	25	32	35	35	36	37	36	36	36	35	33	30	A	23	19	18	26.0	36.7	
20-Jun-05	17	17	18	15	13	14	17	23	28	36	34	36	38	39	40	41	42	42	C	C	A	A	35	28	28.7	41.9	
21-Jun-05	30	29	A	21	21	20	17	21	24	27	31	46	67	54	54	50	49	48	42	41	37	44	44	40	37.3	67.5	
22-Jun-05	40	37	A	34	32	22	23	27	37	46	52	52	51	54	53	53	53	54	53	49	44	45	45	44	43.5	54.1	
23-Jun-05	35	A	33	33	30	26	25	28	37	36	42	45	44	45	46	47	46	42	41	41	33	35	20	24	36.2	46.9	
24-Jun-05	A	20	10	13	16	9	15	25	28	33	36	38	40	43	43	43	43	43	41	39	36	35	35	A	30.9	43.2	
25-Jun-05	29	29	28	27	25	23	23	28	34	32	30	28	24	34	36	40	42	47	45	48	48	43	A	23	33.4	48.0	
26-Jun-05	21	19	19	19	21	23	29	30	31	36	38	39	49	52	52	49	51	49	47	40	37	A	28	26	35.0	52.2	
27-Jun-05	22	19	18	19	17	16	21	21	29	32	32	35	36	35	36	38	41	42	42	40	38	36	32	31	30.4	42.3	
28-Jun-05	29	28	A	29	26	28	27	24	22	24	28	43	43	38	34	32	31	31	27	24	23	22	18	19	28.2	43.0	
29-Jun-05	18	A	19	21	22	22	23	24	24	24	25	30	31	33	34	31	32	32	31	29	26	13	9	11	24.5	34.4	
30-Jun-05	A	4	4	7	6	5	8	14	30	33	35	40	39	39	39	39	39	41	41	36	30	29	29	A	26.7	41.0	
																									N	0.0	
Hourly Avg	26.9	24.6	21.3	21.8	20.1	19.7	21.7	25.6	30.1	33.3	35.3	38.4	41.0	41.7	41.4	41.6	41.4	41.9	40.3	38.2	35.2	32.8	30.0	28.2			
Hourly Max	39.7	39.1	34.7	35.7	31.6	31.5	29.1	41.1	48.9	50.0	51.6	53.7	67.5	54.2	53.8	53.1	53.3	53.7	53.5	49.4	47.7	44.7	45.2	44.3			

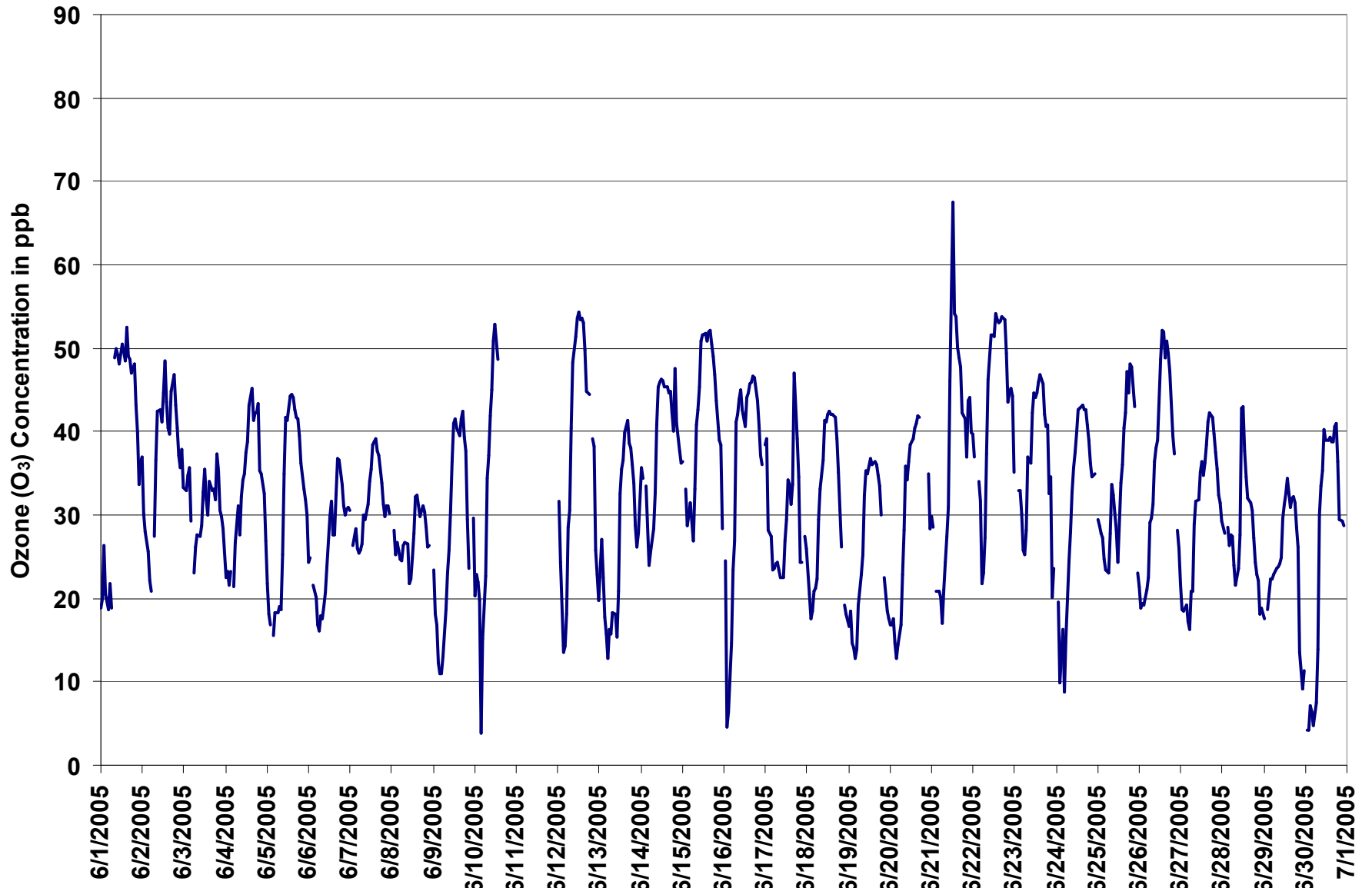
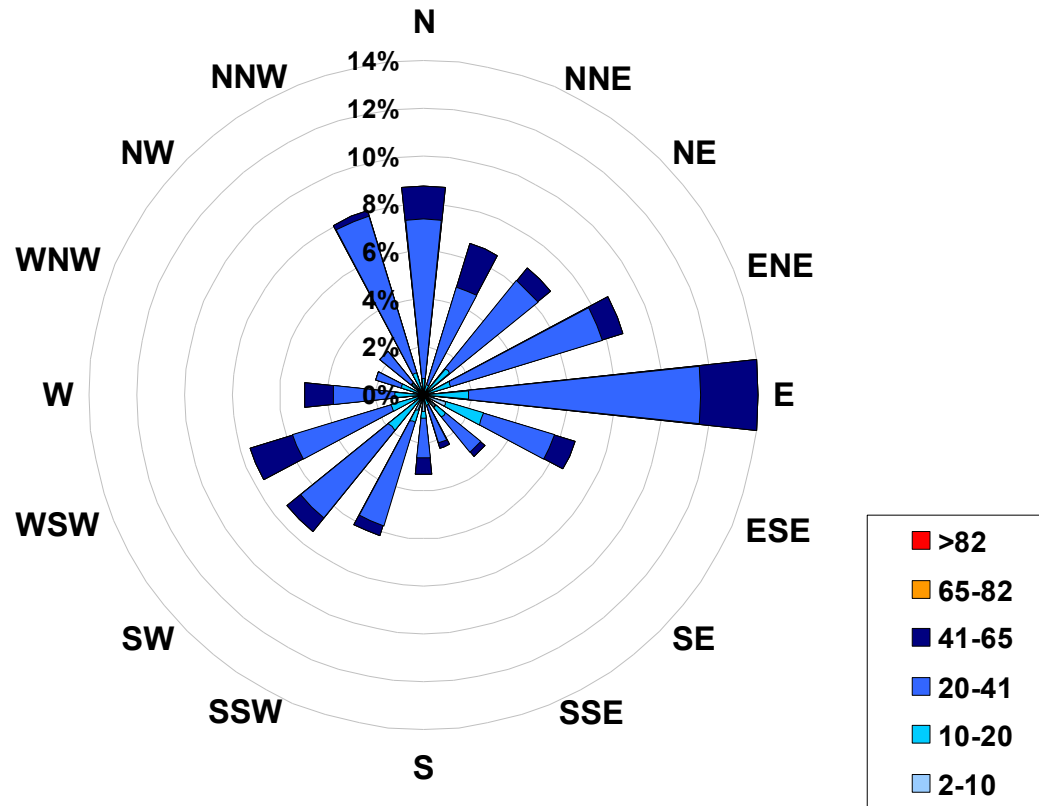


Figure 6. PAS - Crescent Heights Ozone 1-hr Maximum Value Monthly Trend



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



Calms: 1%

Frequency Distribution of O ₃ in ppb			
Range		Frequency (hrs)	
2.0	< 10		24
10	to 20		121
20	to 41		417
41	to 65		90
65	to 82		0
	> 82		0
Total Non-Zero Values			652



PAS - Cresent Heights Ozone Monthly Summary

EIGHT HOUR RUNNING AVERAGE TABLE

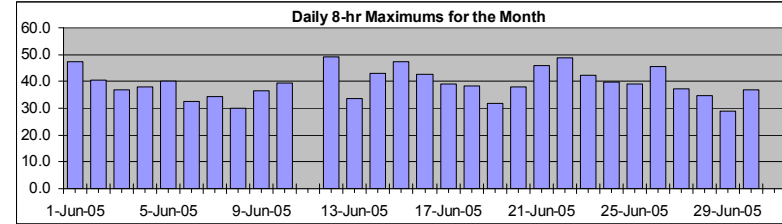
Ozone (O₃)

Station: Cresent Heights
 Station Owner: PAS

Monitoring Dates: June 1, 2005 to July 1, 2005

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

Number of 8-hr Exceedances:	0					
Maximum 8-hr Average:	49.3	ppb	12-Jun	16:00	17:00	



Percentile	99	95	75	50	25	5	1
	47.4	44.1	35.5	28.2	22.7	14.5	9.5

Status Flag Characters

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

Day Mountain Standard Time

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	Daily Maximum
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	
1-Jun-05	35	31	29	26	23	21	18	16	20	26	29	33	38	42	47	47	47	47	47	47	46	44	42	40	47.2
2-Jun-05	38	35	33	30	28	26	25	24	23	25	27	29	32	36	36	38	39	39	40	40	40	39	38	37	40.5
3-Jun-05	37	36	34	32	31	31	29	27	26	26	25	25	25	26	27	28	28	28	28	29	28	28	28	27	36.9
4-Jun-05	25	25	24	23	22	21	20	21	22	23	25	26	27	29	32	33	35	36	37	38	38	38	36	34	37.8
5-Jun-05	32	29	26	24	21	19	17	16	16	16	19	21	24	28	31	34	37	39	40	40	39	38	37	35	40.3
6-Jun-05	33	30	29	27	24	22	20	18	17	16	16	17	18	19	21	22	24	26	28	29	30	30	30	31	32.6
7-Jun-05	31	31	29	28	28	27	26	26	25	26	26	26	27	29	30	32	33	34	34	34	34	33	32	31	34.3
8-Jun-05	30	29	28	27	26	24	23	23	23	23	22	22	22	23	24	24	25	25	27	28	28	28	27	27	30.1
9-Jun-05	26	23	21	18	15	13	11	12	12	13	15	17	21	24	28	31	33	35	36	36	34	32	31	29	36.3
10-Jun-05	26	24	21	18	15	15	15	15	17	19	23	27	32	36	39	N	N	N	N	N	N	N	N	N	39.3
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
12-Jun-05	N	N	N	N	N	N	N	17	19	21	26	31	36	41	45	48	49	49	47	47	45	42	37	33	49.3
13-Jun-05	29	27	24	23	20	18	16	15	15	14	14	14	15	18	21	24	26	28	31	33	33	32	31	29	33.5
14-Jun-05	29	29	28	27	26	27	26	27	26	27	29	30	33	35	38	40	42	43	43	41	41	40	39	38	42.9
15-Jun-05	37	36	35	34	31	29	28	27	27	28	30	32	35	38	41	44	46	47	47	47	47	46	44	42	47.2
16-Jun-05	38	33	27	21	16	14	13	14	17	21	26	31	35	37	40	41	42	42	42	43	43	42	41	41	42.8
17-Jun-05	39	37	34	32	30	27	26	25	24	23	22	22	22	24	25	25	26	28	29	29	29	27	26	26	38.9
18-Jun-05	25	22	20	18	18	18	18	19	20	22	25	28	30	33	35	37	38	38	38	36	33	33	30	26	38.4
19-Jun-05	22	19	17	15	13	13	13	14	15	17	19	22	24	27	29	30	32	32	31	31	31	29	26	24	31.8
20-Jun-05	21	19	17	15	14	13	13	14	15	17	19	22	26	29	32	34	36	37	38	N	N	N	N	N	37.8
21-Jun-05	N	N	N	N	N	24	21	20	19	18	19	22	26	30	35	39	42	44	46	46	44	42	40	39	45.9
22-Jun-05	38	37	37	36	35	32	29	27	26	27	29	31	34	38	41	45	47	48	49	47	47	45	44	42	48.7
23-Jun-05	39	38	36	35	33	31	28	26	26	27	28	30	32	34	37	40	41	42	42	42	40	37	34	30	42.1
24-Jun-05	29	26	21	17	14	12	11	12	14	15	19	22	25	29	33	35	37	39	40	40	39	38	37	37	39.9
25-Jun-05	35	33	31	30	28	26	25	24	25	25	25	25	24	25	27	28	30	31	33	35	38	38	39	37	39.1
26-Jun-05	33	29	26	23	20	17	18	19	20	22	25	27	30	34	37	40	42	44	45	46	44	43	40	37	45.5
27-Jun-05	33	28	24	21	19	18	17	17	17	19	21	22	25	27	29	31	33	35	36	37	37	37	37	36	37.3
28-Jun-05	35	33	32	30	29	28	27	26	25	24	23	24	26	27	28	29	30	31	31	29	27	25	23	21	34.5
29-Jun-05	20	18	18	17	17	18	18	19	20	20	20	21	22	23	25	26	27	28	29	29	28	25	22	19	29.0
30-Jun-05	17	13	9	6	4	3	3	4	6	10	14	18	22	26	30	33	36	36	37	36	35	34	32	31	36.9
																									0.0

Hourly Max 39.4 38.3 36.8 36.2 34.6 32.4 29.2 27.2 26.9 28.4 29.9 33.4 38.2 42.4 46.5 48.2 49.3 48.6 48.7 47.4 46.6 44.8 43.9 42.2



PAS - Cresent Heights Carbon Monoxide Monthly Summary

HOURLY AVERAGE TABLE

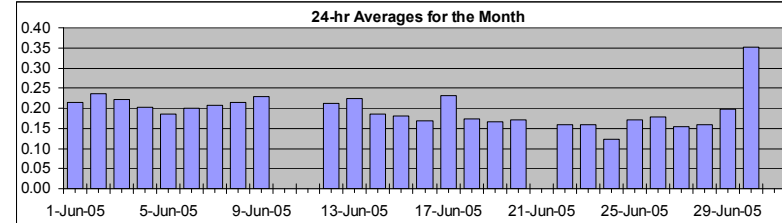
Carbon Monoxide (CO)

Station: Cresent Heights
 Station Owner: PAS

Monitoring Dates: June 1, 2005 to July 1, 2005

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

Number of 1-hr Exceedances:	0					
Maximum 1-hr Average:	0.5	ppm	30-Jun	7:00	8:00	
Maximum 24-hr Value:	0.4	ppm	30-Jun			



AIC Time:	30 hrs	Operational Time:	650 hrs					
Calibration Time:	3 hrs	AMD Operational Uptime:	94.9%					
Percentile	99	95	75	50	25	5	1	Average
	0.4	0.3	0.2	0.2	0.2	0.1	0.0	0.2 ppm

Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	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-Jun-05	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	A	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.32
2-Jun-05	0.2	0.2	0.2	0.2	0.3	0.3	A	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24	0.31	
3-Jun-05	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.22	0.27	
4-Jun-05	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.24	
5-Jun-05	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.22	
6-Jun-05	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.23	
7-Jun-05	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.24	
8-Jun-05	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.21	0.30	
9-Jun-05	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	A	0.2	0.23	0.42		
10-Jun-05	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	N	N	N	N	N	N	N	N	N	N	N	N	0.34	
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.00	
12-Jun-05	N	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.21	0.31	
13-Jun-05	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.29	
14-Jun-05	0.2	0.2	A	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.25	
15-Jun-05	0.2	A	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18	0.26	
16-Jun-05	A	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.17	0.22	
17-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	A	0.2	0.23	0.37	
18-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	A	0.2	0.2	0.17	0.21	
19-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	A	0.2	0.2	0.2	0.17	0.22	
20-Jun-05	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17	0.22	
21-Jun-05	0.2	0.2	A	0.2	0.2	0.2	0.3	0.3	0.3	0.0	0.1	C	C	C	A	D	D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N	0.32	
22-Jun-05	0.0	0.1	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.22	
23-Jun-05	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.16	0.22		
24-Jun-05	A	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	A	0.12	0.22		
25-Jun-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.3	0.17	0.28		
26-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	A	0.2	0.2	0.18	0.20	
27-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.15	0.19	
28-Jun-05	0.1	0.1	A	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.16	0.20	
29-Jun-05	0.2	A	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.20	0.38	
30-Jun-05	A	0.2	0.3	0.3	0.3	0.3	0.5	0.5	0.4	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	A	0.35	0.51		
																								N	0.00		
Hourly Avg	0.19	0.19	0.21	0.20	0.20	0.21	0.23	0.22	0.19	0.18	0.19	0.18	0.18	0.18	0.18	0.17	0.18	0.17	0.18	0.19	0.21	0.22	0.20	0.20			
Hourly Max	0.32	0.31	0.30	0.27	0.30	0.33	0.51	0.51	0.36	0.27	0.30	0.27	0.29	0.30	0.33	0.34	0.36	0.37	0.40	0.45	0.49	0.46	0.48	0.33			

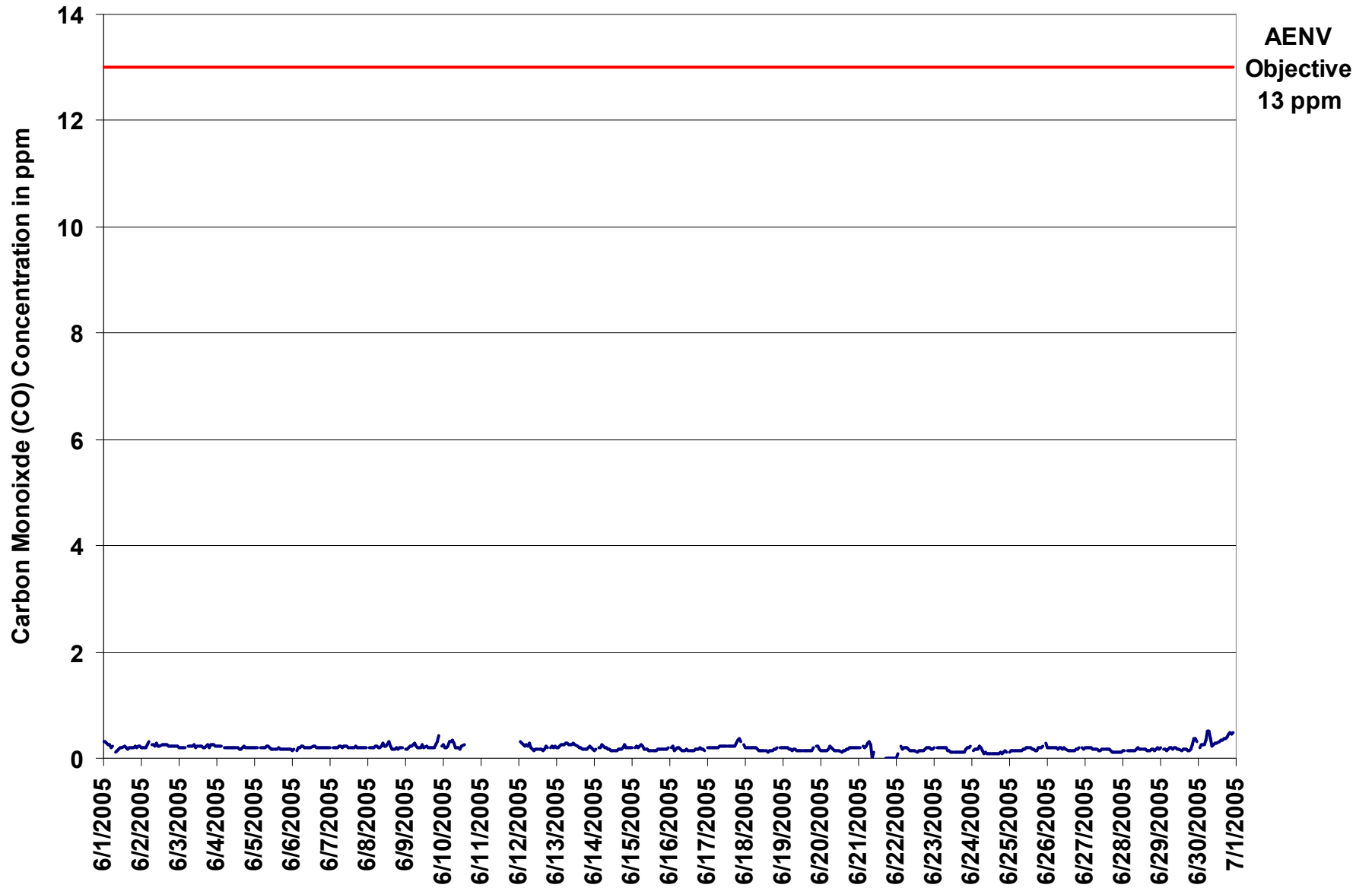


Figure 7. PAS - Crescent Heights Carbon Monoxide 1-hr Average Monthly Trend



Station: Crescent Heights
 Station Owner: PAS

HOURLY MAXIMUM TABLE

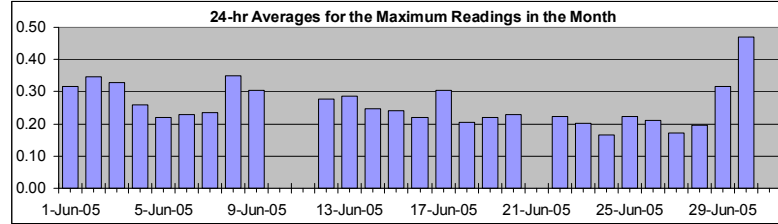
Carbon Monoxide (CO)

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

Maximum 1-hr Value:	1.1	ppm	29-Jun	20:00 21:00
Maximum 24-hr Value:	0.5	ppm	30-Jun	

AIC Time:	30 hrs	Operational Time:	650 hrs					
Calibration Time:	3 hrs	AMD Operational Uptime:	94.9%					
Percentile	99	95	75	50	25	5	1	Average
	0.7	0.5	0.3	0.2	0.2	0.1	0.0	0.3 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-Jun-05	0.4	0.3	0.3	0.3	0.3	0.2	0.4	A	0.2	0.2	0.2	0.2	0.4	0.7	0.4	0.2	0.2	0.3	0.2	0.3	0.4	0.3	0.4	0.2	0.32	0.72	
2-Jun-05	0.2	0.2	0.2	0.2	0.3	0.4	A	0.4	0.5	0.4	0.5	0.3	0.2	0.9	0.4	0.3	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.2	0.35	0.90	
3-Jun-05	0.2	0.2	0.2	0.2	0.2	A	0.4	0.3	0.5	0.3	0.5	0.3	0.5	0.7	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.33	0.67	
4-Jun-05	0.2	0.2	0.3	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.26	0.50	
5-Jun-05	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.33	
6-Jun-05	0.2	0.2	A	0.2	0.2	0.2	0.4	0.3	0.3	0.2	0.3	0.2	0.2	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	0.38	
7-Jun-05	0.2	A	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23	0.30	
8-Jun-05	A	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.5	0.6	0.3	0.5	0.9	0.7	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.4	A	0.35	0.88	
9-Jun-05	0.2	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.6	A	0.3	0.30	0.65	
10-Jun-05	0.2	0.2	0.4	0.3	0.4	0.6	0.4	0.4	0.2	0.3	0.2	0.2	0.4	0.3	N	N	N	N	N	N	N	N	N	N	N	0.63	
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.00
12-Jun-05	N	0.5	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	A	0.3	0.3	0.2	0.3	0.28	0.45	
13-Jun-05	0.2	0.2	0.2	0.2	0.4	0.3	0.5	0.4	0.3	0.4	0.3	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.29	0.49	
14-Jun-05	0.2	0.2	A	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.4	0.3	0.3	0.3	0.2	0.25	0.38	
15-Jun-05	0.2	A	0.3	0.2	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.3	0.3	0.24	0.37	
16-Jun-05	A	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.22	0.45	
17-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.6	0.5	0.5	0.4	A	0.3	0.30	0.56	
18-Jun-05	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.2	0.2	0.20	0.30	
19-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.3	0.6	0.2	0.22	0.59	
20-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.23	0.34	
21-Jun-05	0.2	0.2	A	0.3	0.3	0.3	0.4	0.4	0.3	0.2	0.4	C	C	C	A	D	D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N	0.44	
22-Jun-05	0.0	0.1	A	0.2	0.4	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.22	0.44	
23-Jun-05	0.2	A	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.20	0.30	
24-Jun-05	A	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	A	0.17	0.34	
25-Jun-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	A	0.4	0.22	0.39	
26-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.21	0.29	
27-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.17	0.21	
28-Jun-05	0.2	0.1	A	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.25	
29-Jun-05	0.2	A	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.1	0.7	0.8	0.5	0.32	1.08	
30-Jun-05	A	0.3	0.3	0.4	0.3	0.5	0.6	0.6	0.5	0.3	0.3	0.6	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.8	0.5	0.8	A	0.47	0.81	
																									N	0.00	
Hourly Avg	0.21	0.23	0.26	0.22	0.25	0.29	0.30	0.29	0.25	0.26	0.28	0.24	0.25	0.31	0.26	0.21	0.23	0.23	0.24	0.26	0.30	0.28	0.29	0.23			
Hourly Max	0.36	0.45	0.45	0.36	0.44	0.63	0.59	0.60	0.51	0.53	0.65	0.59	0.54	0.90	0.69	0.39	0.46	0.53	0.56	0.51	1.08	0.65	0.81	0.47			

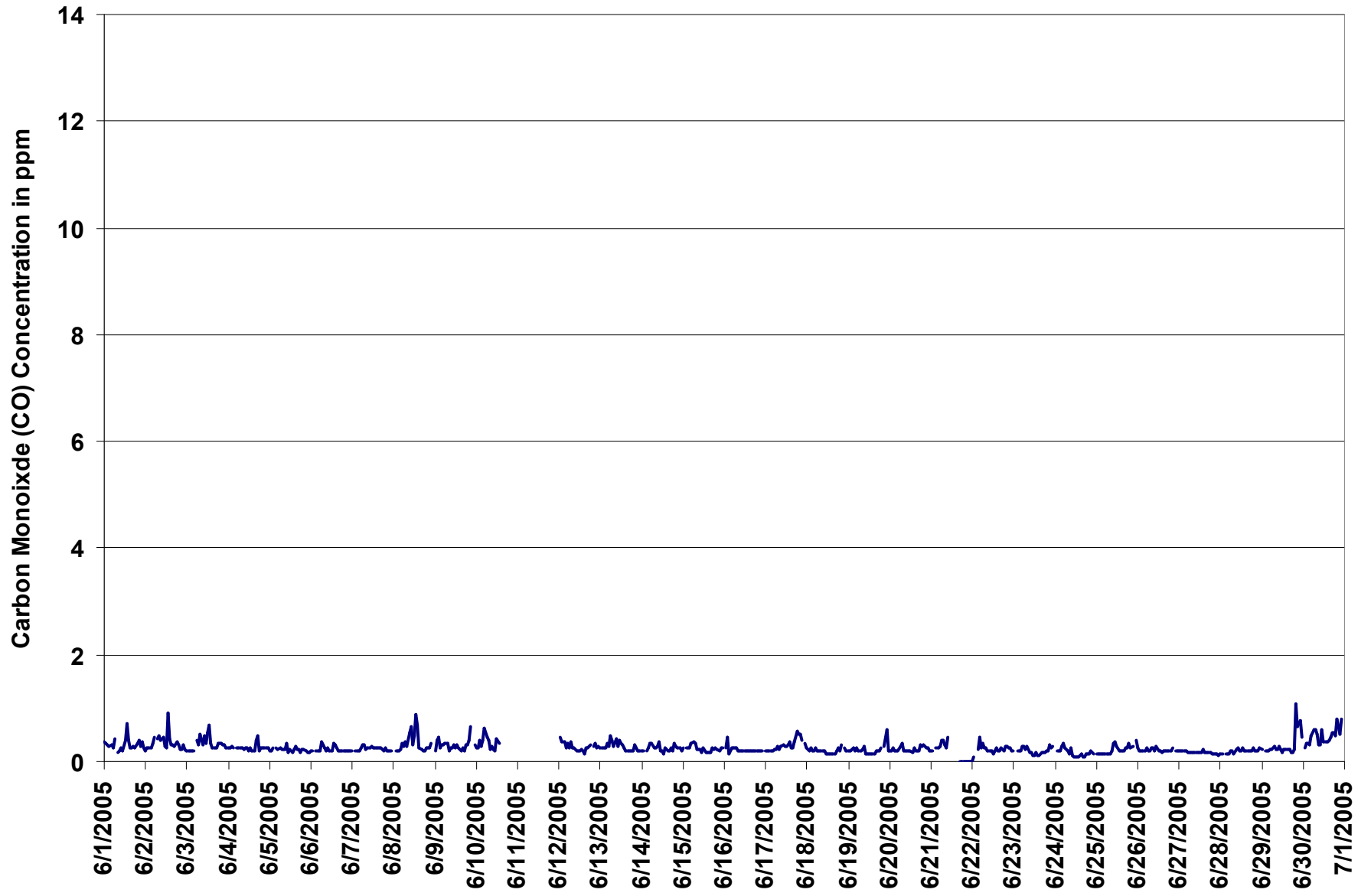
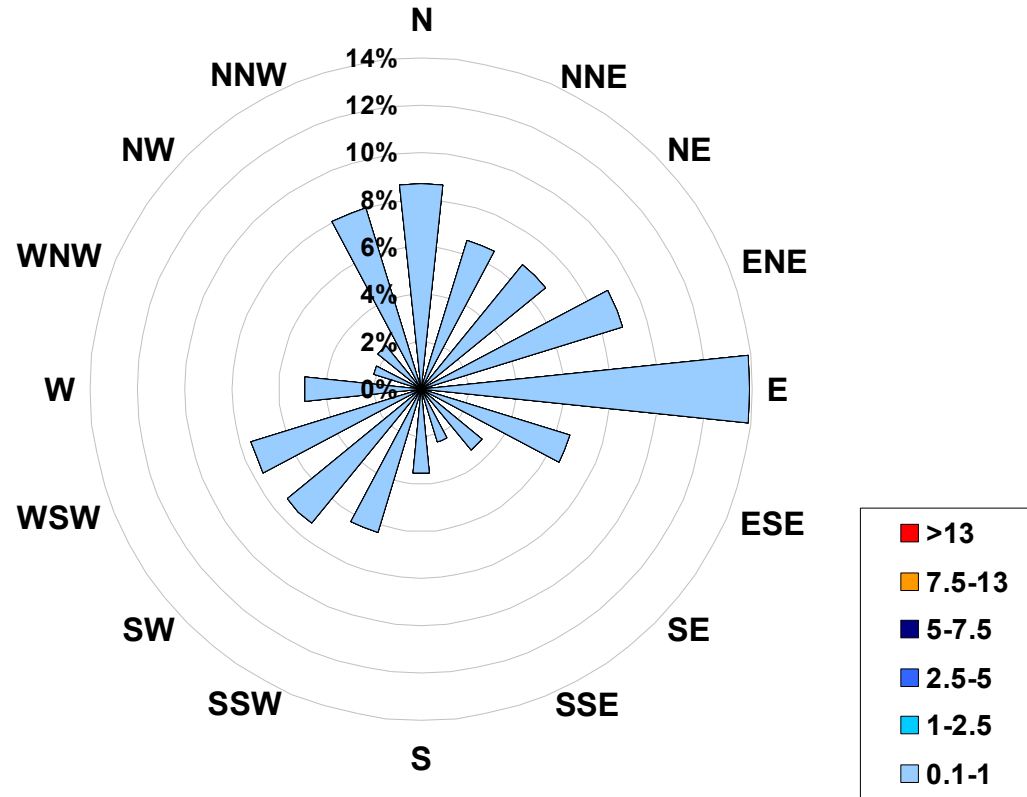


Figure 8. PAS - Crescent Heights Carbon Monoxide 1-hr Maximum Value Monthly Trend



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



Calms: 1%

Frequency Distribution of CO in ppm			Frequency (hrs)
Range			
0.1	<	1	650
1	to	2.5	0
2.5	to	5	0
5	to	7.5	0
7.5	to	13	0
	>	13	0
Total Non-Zero Values			650



PAS - Cresent Heights Carbon Monoxide Monthly Summary

EIGHT HOUR RUNNING AVERAGE TABLE

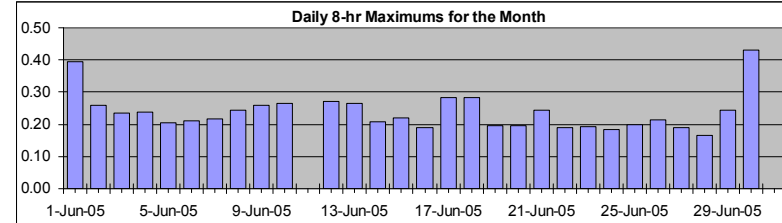
Carbon Monoxide (CO)

Station: Cresent Heights
 Station Owner: PAS

Monitoring Dates: June 1, 2005 to July 1, 2005

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

Number of 8-hr Exceedances:	0			
Maximum 8-hr Average:	0.4	ppm	30-Jun	23:00 0:00



Percentile	99	95	75	50	25	5	1
	0.4	0.3	0.2	0.2	0.2	0.1	0.1

Status Flag Characters

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

Day	Mountain Standard Time																								Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00		
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-Jun-05	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.39
2-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.26
3-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
4-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
5-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
6-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
7-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
8-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
9-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.26
10-Jun-05	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	N	N	N	N	N	N	N	N	N	N	0.27
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.00
12-Jun-05	N	N	N	N	N	N	N	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27
13-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27
14-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
15-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.22
16-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19
17-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.28
18-Jun-05	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.28
19-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.20
20-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
21-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	N	N	N	N	N	N	N	N	N	N	N	N	0.0	0.24
22-Jun-05	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.19
23-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.19
24-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.18
25-Jun-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
26-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
27-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.19
28-Jun-05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.17
29-Jun-05	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
30-Jun-05	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.43
Hourly Max	0.39	0.39	0.38	0.37	0.35	0.32	0.31	0.33	0.34	0.34	0.34	0.34	0.35	0.34	0.32	0.30	0.30	0.32	0.33	0.36	0.38	0.40	0.42	0.43	0.00	



PAS - Crescent Heights Total Hydrocarbons Monthly Summary

HOURLY AVERAGE TABLE

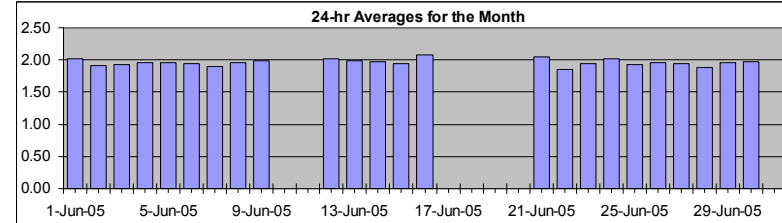
Total Hydrocarbons (THC)

Station: Crescent Heights
 Station Owner: PAS

Monitoring Dates: June 1, 2005 to July 1, 2005

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

Maximum 1-hr Average:	2.8	ppm	21-Jun	12:00 13:00
Maximum 24-hr Value:	2.1	ppm	16-Jun	



AIC Time:	27 hrs	Operational Time:	585 hrs					
Calibration Time:	2 hrs	AMD Operational Uptime:	85.3%					
Percentile	99	95	75	50	25	5	1	Average
	2.4	2.2	2.0	1.9	1.9	1.8	1.8	2.0 ppm

Status Flag Characters

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

Day	Mountain Standard Time																								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-Jun-05	2.0	2.0	2.4	2.4	2.3	2.1	2.2	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.02	2.42	
2-Jun-05	1.9	2.0	2.0	1.9	2.1	2.1	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.91	2.12	
3-Jun-05	1.9	1.9	1.9	1.9	1.9	A	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.2	1.93	2.17	
4-Jun-05	2.0	2.0	1.9	2.0	A	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.1	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.0	1.96	2.13	
5-Jun-05	2.1	2.1	2.0	A	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.96	2.10	
6-Jun-05	1.9	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	1.99	
7-Jun-05	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.90	1.95	
8-Jun-05	A	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.0	A	1.95	2.01	
9-Jun-05	2.1	2.1	2.0	2.1	2.1	2.1	2.1	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	A	2.0	1.99	2.09	
10-Jun-05	2.1	2.0	2.0	2.1	2.3	2.2	2.1	2.0	1.9	2.0	1.9	2.0	1.9	N	N	N	N	N	N	N	N	N	N	N	N	2.32	
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.00
12-Jun-05	N	2.1	2.1	2.1	2.2	2.5	2.4	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	2.0	2.0	2.02	2.54	
13-Jun-05	2.0	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.99	2.09	
14-Jun-05	1.9	1.9	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.97	2.02	
15-Jun-05	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	1.94	2.07	
16-Jun-05	A	2.4	2.4	2.2	2.5	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	2.07	2.48	
17-Jun-05	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	N	N	N	N	N	N	N	N	N	N	N	2.00	
18-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.00
19-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.00
20-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	1.8	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	N	2.03	
21-Jun-05	2.0	2.1	A	2.2	2.2	2.2	2.2	2.1	2.2	C	C	A	2.8	2.8	1.8	1.8	1.8	1.8	1.8	2.1	1.9	1.8	1.8	1.8	2.06	2.84	
22-Jun-05	1.8	1.8	A	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.85	1.91	
23-Jun-05	1.9	A	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.1	2.1	1.95	2.12	
24-Jun-05	A	2.1	2.2	2.1	2.2	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	A	2.01	2.22	
25-Jun-05	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	2.0	A	2.1	1.92	2.06	
26-Jun-05	2.0	2.1	2.1	2.0	2.0	2.0	1.9	1.9	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	A	2.0	1.9	1.95	2.08	
27-Jun-05	2.0	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.94	2.04	
28-Jun-05	2.0	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.89	1.96	
29-Jun-05	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.1	2.2	2.2	1.96	2.17	
30-Jun-05	A	2.6	2.4	2.2	2.2	2.2	2.2	2.1	2.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	A	1.97	2.56	
																									N	0.00	
Hourly Avg	N	N	N	2.01	2.05	2.06	2.03	1.98	1.95	1.92	1.92	1.91	1.95	1.94	1.90	1.90	1.90	1.90	1.91	1.93	1.95	1.95	1.96	N			
Hourly Max	2.07	2.56	2.42	2.40	2.48	2.54	2.38	2.14	2.21	2.04	2.07	2.03	2.84	2.76	1.97	1.98	1.99	1.95	1.98	2.05	2.02	2.12	2.17	2.17			

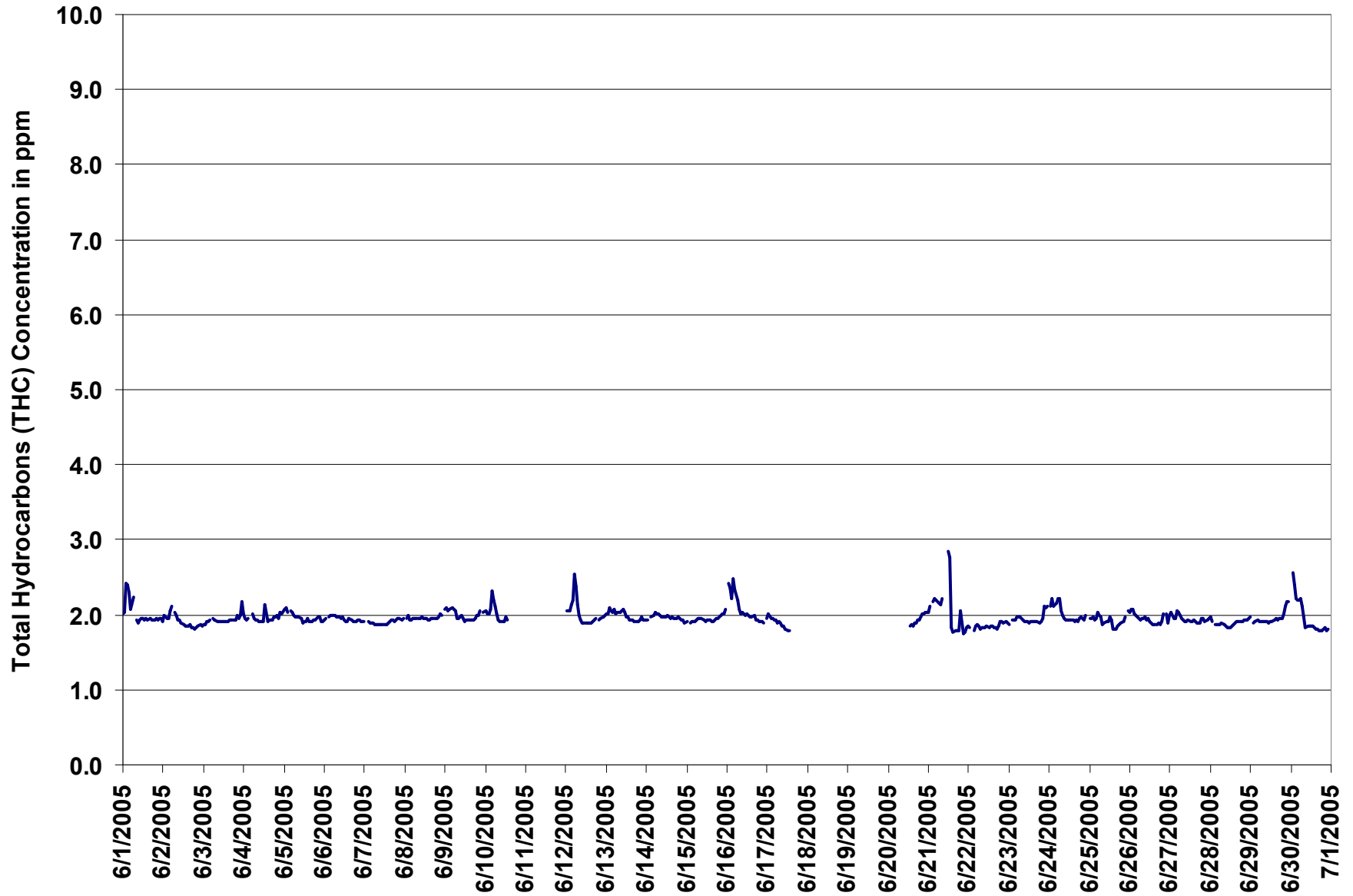


Figure 9. PAS - Crescent Heights Total Hydrocarbons 1-hr Average Monthly Trend



Station: Cresent Heights
 Station Owner: PAS

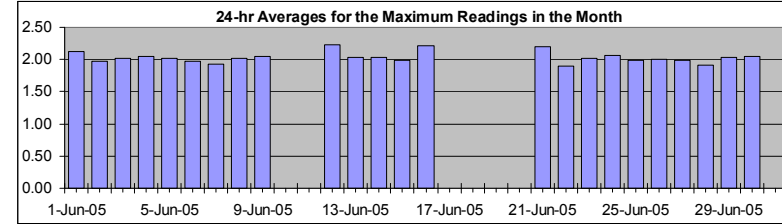
HOURLY MAXIMUM TABLE

Total Hydrocarbons (THC)

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

Maximum 1-hr Value:	5.2	ppm	12-Jun	5:00 6:00
Maximum 24-hr Value:	2.2	ppm	12-Jun	



AIC Time:	27 hrs	Operational Time:	585 hrs					
Calibration Time:	2 hrs	AMD Operational Uptime:	85.3%					
Percentile	99	95	75	50	25	5	1	Average
	3.0	2.3	2.1	2.0	1.9	1.9	1.8	2.0 ppm

Status Flag Characters

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

Day Mountain Standard Time

Hour Start 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-Jun-05	2.1	2.1	3.1	2.6	2.5	2.2	2.3	A	2.0	1.9	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.12	3.09	
2-Jun-05	2.0	2.0	2.0	2.0	2.2	2.2	A	2.1	2.0	2.1	2.0	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.97	2.20	
3-Jun-05	1.9	1.9	2.0	1.9	2.0	A	2.0	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.1	2.4	2.02	2.37		
4-Jun-05	2.1	2.0	2.0	2.0	A	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	3.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.05	3.06	
5-Jun-05	2.2	2.2	2.1	A	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	2.01	2.18		
6-Jun-05	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.98	2.04		
7-Jun-05	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	1.93	1.99		
8-Jun-05	A	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.02	2.22		
9-Jun-05	2.1	2.3	2.1	2.1	2.1	2.1	2.2	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.1	A	2.1	2.05	2.29		
10-Jun-05	2.1	2.1	2.1	2.3	2.4	2.3	2.2	2.1	2.0	2.0	1.9	1.9	2.1	2.0	N	N	N	N	N	N	N	N	N	N	N	2.40	
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.00
12-Jun-05	N	2.2	2.1	2.2	2.2	5.2	2.8	2.3	2.1	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	A	2.0	2.1	2.0	2.0	2.22	5.15		
13-Jun-05	2.1	2.1	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.04	2.31		
14-Jun-05	2.0	2.0	A	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.2	2.4	1.9	2.03	2.39		
15-Jun-05	1.9	A	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.1	2.1	1.99	2.14		
16-Jun-05	A	3.0	2.4	2.3	3.3	3.0	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	A	2.21	3.35		
17-Jun-05	2.1	2.2	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.8	1.8	1.8	N	N	N	N	N	N	N	N	N	N	N	2.18	
18-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.00	
19-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.00	
20-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	1.9	1.9	1.9	1.9	1.9	2.1	2.1	2.2	2.1	2.2	2.2	N	2.18	
21-Jun-05	2.2	2.2	A	2.2	2.2	2.2	2.3	2.2	2.3	C	C	A	2.9	3.1	2.5	1.8	1.8	1.8	1.8	2.4	2.3	2.0	1.8	1.9	2.20	3.06	
22-Jun-05	1.9	2.0	A	1.8	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	2.0	1.9	1.9	1.9	2.0	1.90	2.01		
23-Jun-05	1.9	A	2.0	2.0	2.0	2.0	2.0	2.1	2.0	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	2.0	2.0	2.6	2.1	2.2	2.01	2.64	
24-Jun-05	A	2.2	2.3	2.2	2.2	2.3	2.3	2.2	2.0	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.06	2.34		
25-Jun-05	2.0	2.0	2.0	1.9	2.0	2.1	2.1	2.0	1.9	1.9	2.0	2.0	2.1	2.1	1.8	1.8	1.8	1.9	1.9	2.1	2.0	2.0	A	2.2	1.99	2.18	
26-Jun-05	2.1	2.2	2.2	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	A	2.1	1.9	2.01	2.23		
27-Jun-05	2.0	2.1	2.0	2.0	2.1	2.1	2.0	2.0	2.0	1.9	1.9	2.0	2.0	1.9	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.99	2.14		
28-Jun-05	2.0	2.0	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.92	2.00		
29-Jun-05	2.0	A	1.9	1.9	1.9	2.0	1.9	2.0	1.9	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.2	2.5	2.3	2.03	2.46		
30-Jun-05	A	2.7	2.5	2.3	2.3	2.3	2.3	2.2	2.1	1.9	1.9	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	2.3	1.8	1.9	A	2.05	2.65	
																								N	N	0.00	
Hourly Avg	N	N	N	2.07	2.14	2.25	2.10	2.04	2.01	1.97	1.97	1.95	1.99	2.04	1.97	1.94	1.94	1.93	1.95	2.00	2.05	2.04	2.04	N			
Hourly Max	2.17	3.03	3.09	2.60	3.35	5.15	2.85	2.30	2.31	2.08	2.12	2.08	2.93	3.06	2.49	2.02	2.02	2.00	2.08	2.40	2.30	2.64	2.46	2.37			

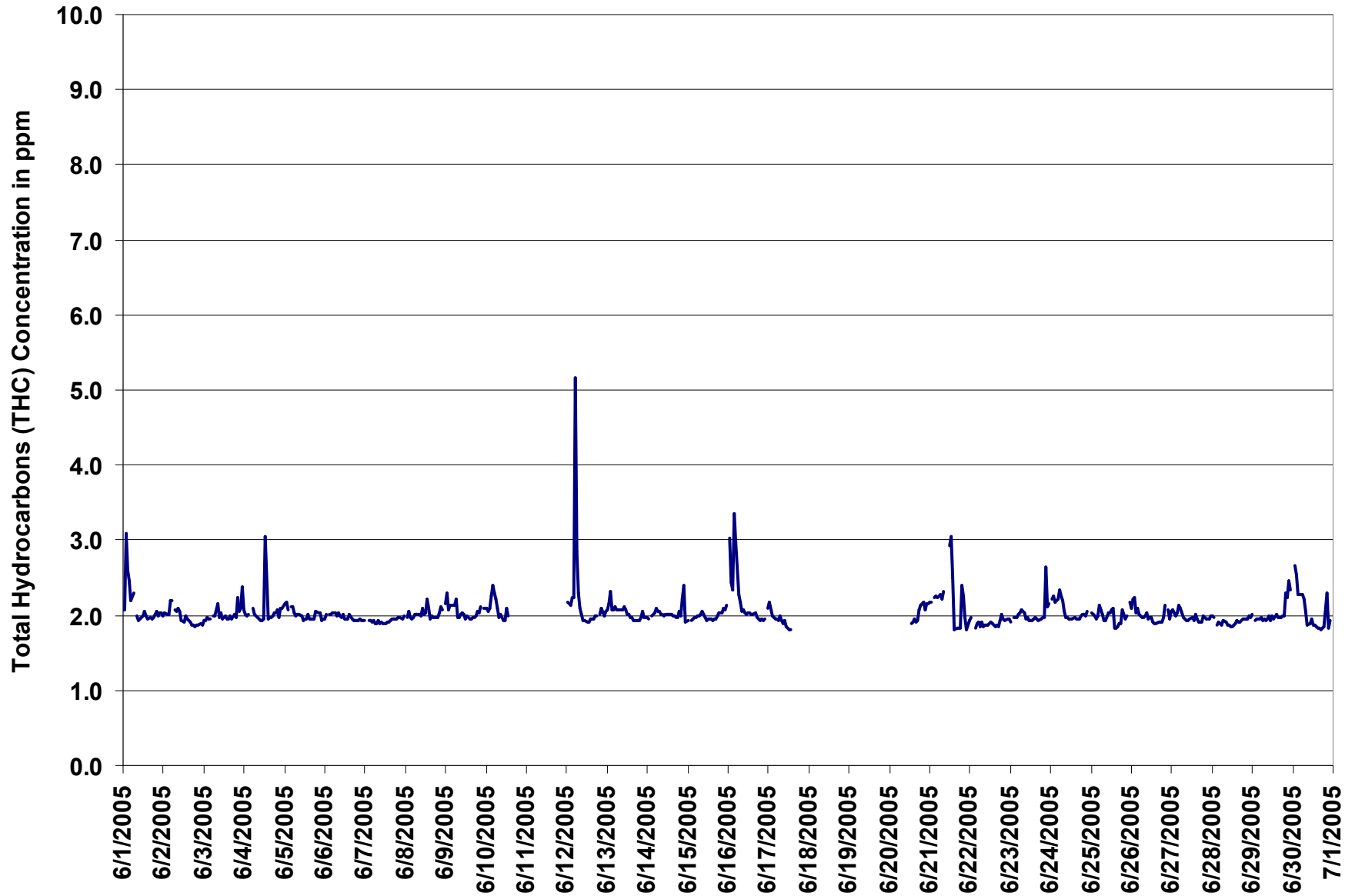
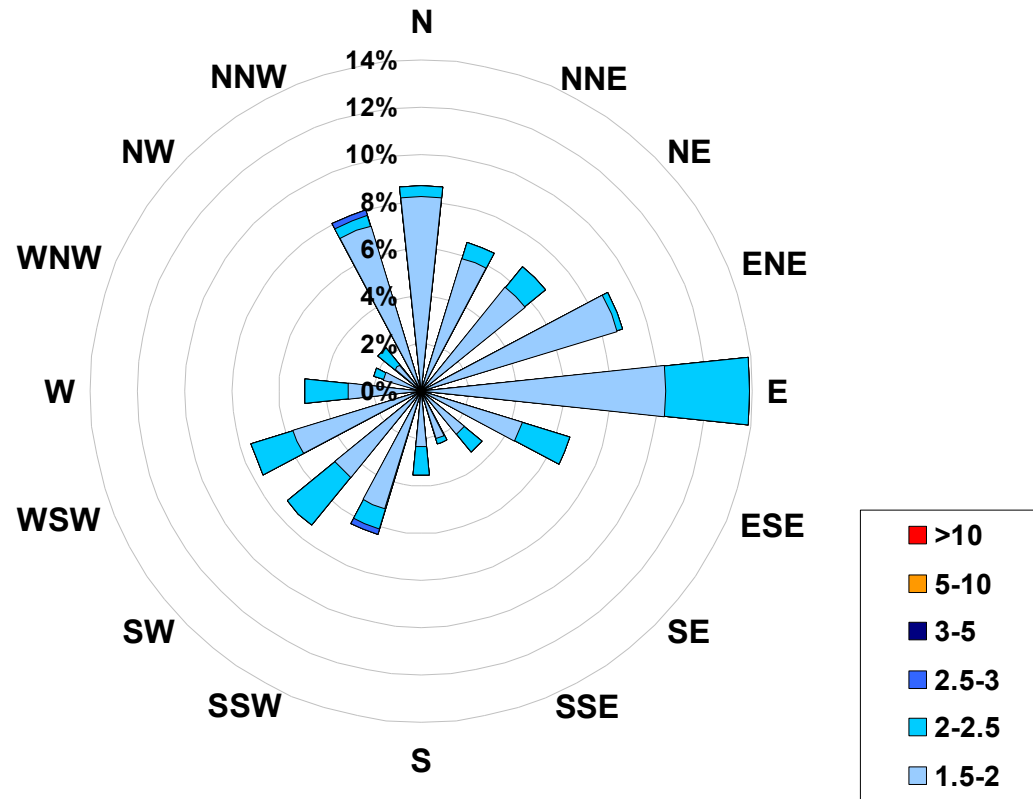


Figure 10. PAS - Crescent Heights Total Hydrocarbons 1-hr Maximum Value Monthly Trend



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



Calms: 1%

Frequency Distribution of THC in ppm			Frequency (hrs)
Range			
1.5	<	2	458
2	to	2.5	123
2.5	to	3	4
3	to	5	0
5	to	10	0
	>	10	0
Total Non-Zero Values			585



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

Station: Cresent Heights
 Station Owner: PAS

HOURLY AVERAGE TABLE

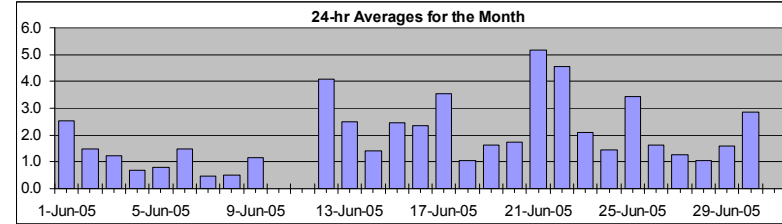
Particulate Matter (PM_{2.5})

Monitoring Dates: June 1, 2005 to July 1, 2005

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

Number of 24-hr Exceedances (draft):	0
Maximum 1-hr Average:	13.1 $\mu\text{g}/\text{m}^3$ 22-Jun 23:00 0:00
Maximum 24-hr Value:	5.2 $\mu\text{g}/\text{m}^3$ 21-Jun

AIC Time:	0 hrs	Operational Time:	670 hrs
Calibration Time:	5 hrs	AMD Operational Uptime:	93.8%
Percentile	99	95	75
	8.4	6.0	2.9
			1.6
			0.5
			0.0
			0.0
Average			2.0 $\mu\text{g}/\text{m}^3$
Geomean			1.7 $\mu\text{g}/\text{m}^3$



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	
1-Jun-05	Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	2.5	4.2		
2-Jun-05	1	2	2	1	1	2	4	3	2	3	3	1	2	1	0	1	2	2	2	0	1	2	1	2	1	2	1	1.5	3.1
3-Jun-05	1	1	1	2	2	1	1	1	1	0	1	0	1	0	0	0	0	3	3	2	3	1	4	0	0	1	1.2	3.8	
4-Jun-05	2	1	2	1	2	1	2	1	2	0	0	0	0	0	0	0	0	1	1	0	1	1	0	0	1	0.7	1.7		
5-Jun-05	0	0	0	1	2	2	1	1	2	2	0	0	0	0	0	1	2	0	0	0	0	1	1	2	1	0.8	2.4		
6-Jun-05	1	2	2	2	2	4	2	2	2	2	1	0	1	2	1	0	1	0	2	1	3	2	0	0	0	1.5	3.9		
7-Jun-05	0	0	1	2	3	2	0	D	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.5	2.5		
8-Jun-05	0	0	0	0	0	1	0	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0.5	1.5		
9-Jun-05	1	2	1	1	1	2	1	1	1	1	1	1	0	2	0	1	0	0	2	2	1	3	1	2	1	1.2	2.7		
10-Jun-05	2	1	1	1	4	3	4	4	3	3	4	4	4	2	N	N	N	N	N	N	N	N	N	N	N	N	N	4.1	
11-Jun-05	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	N	0.0	
12-Jun-05	N	6	5	5	5	6	4	4	4	3	2	1	1	3	1	0	5	6	6	9	1	3	7	7	7	4.1	9.3		
13-Jun-05	7	6	6	6	5	5	3	3	2	0	1	2	2	0	0	0	D	0	0	0	2	4	2	0	0	2.5	6.5		
14-Jun-05	1	1	1	1	2	2	2	3	2	D	0	0	D	0	1	0	0	0	4	3	1	3	3	0	0	1.4	3.8		
15-Jun-05	2	5	4	3	3	3	1	0	D	0	0	0	2	2	2	3	4	4	3	3	3	2	3	6	6	2.4	5.9		
16-Jun-05	2	6	6	3	4	3	4	3	1	0	1	3	0	2	2	1	2	1	1	3	4	1	1	4	4	2.4	5.9		
17-Jun-05	5	2	1	2	2	2	3	4	8	9	6	6	4	7	3	2	5	1	3	1	2	2	3	1	1	3.5	8.7		
18-Jun-05	0	0	0	0	0	1	1	0	0	0	D	0	1	0	1	1	1	4	5	1	4	2	2	0	0	1.0	4.6		
19-Jun-05	0	0	1	1	1	2	2	2	2	0	0	0	0	2	1	2	2	2	2	5	4	5	4	1	1	1.6	5.2		
20-Jun-05	1	1	1	2	2	3	5	4	3	D	2	0	2	1	2	2	C	C	C	C	C	0	1	1	1	1.8	4.6		
21-Jun-05	0	2	2	3	3	4	6	6	6	7	5	8	5	5	8	6	D	12	11	10	4	0	D	2	2	5.2	11.6		
22-Jun-05	0	2	2	3	5	6	6	7	4	1	4	5	6	2	6	7	4	6	8	4	3	5	0	13	13	4.6	13.1		
23-Jun-05	6	5	5	4	3	0	3	0	1	0	0	0	0	0	0	0	4	0	1	1	2	6	5	5	5	2.1	6.1		
24-Jun-05	1	2	3	1	3	4	5	1	2	1	1	1	0	0	0	1	1	2	1	0	1	1	0	1	1	1.5	4.9		
25-Jun-05	3	1	0	1	1	3	3	4	1	4	4	9	6	2	1	2	2	D	3	3	4	8	8	7	7	3.4	9.3		
26-Jun-05	4	2	0	2	1	3	3	2	2	1	2	2	0	0	2	0	0	3	3	1	3	0	1	2	2	1.6	4.1		
27-Jun-05	1	1	2	2	2	3	2	2	2	0	1	1	0	0	0	0	0	1	3	2	1	3	1	0	0	1.3	3.0		
28-Jun-05	3	2	1	1	0	0	1	2	2	4	2	0	0	0	0	0	1	4	0	0	0	2	0	0	0	1.1	3.6		
29-Jun-05	0	2	0	0	0	0	1	2	2	2	2	1	1	0	1	2	1	2	3	1	2	3	4	4	4	1.6	3.9		
30-Jun-05	1	1	0	0	2	6	2	6	4	0	3	2	4	3	3	3	3	0	3	8	4	3	5	2	2	2.9	8.0		
																										N	0.0		
Hourly Avg	1.7	1.9	1.8	1.8	2.2	2.6	2.5	2.6	2.3	1.7	1.8	1.8	1.6	1.4	1.5	1.3	1.7	2.1	2.8	2.4	2.2	2.3	2.4	2.3	2.3				
Hourly Max	6.5	5.9	6.1	6.2	5.1	6.4	6.2	6.6	7.6	8.7	6.5	9.3	6.0	7.3	7.7	6.7	5.3	11.6	11.1	10.1	4.2	7.9	7.9	13.1					

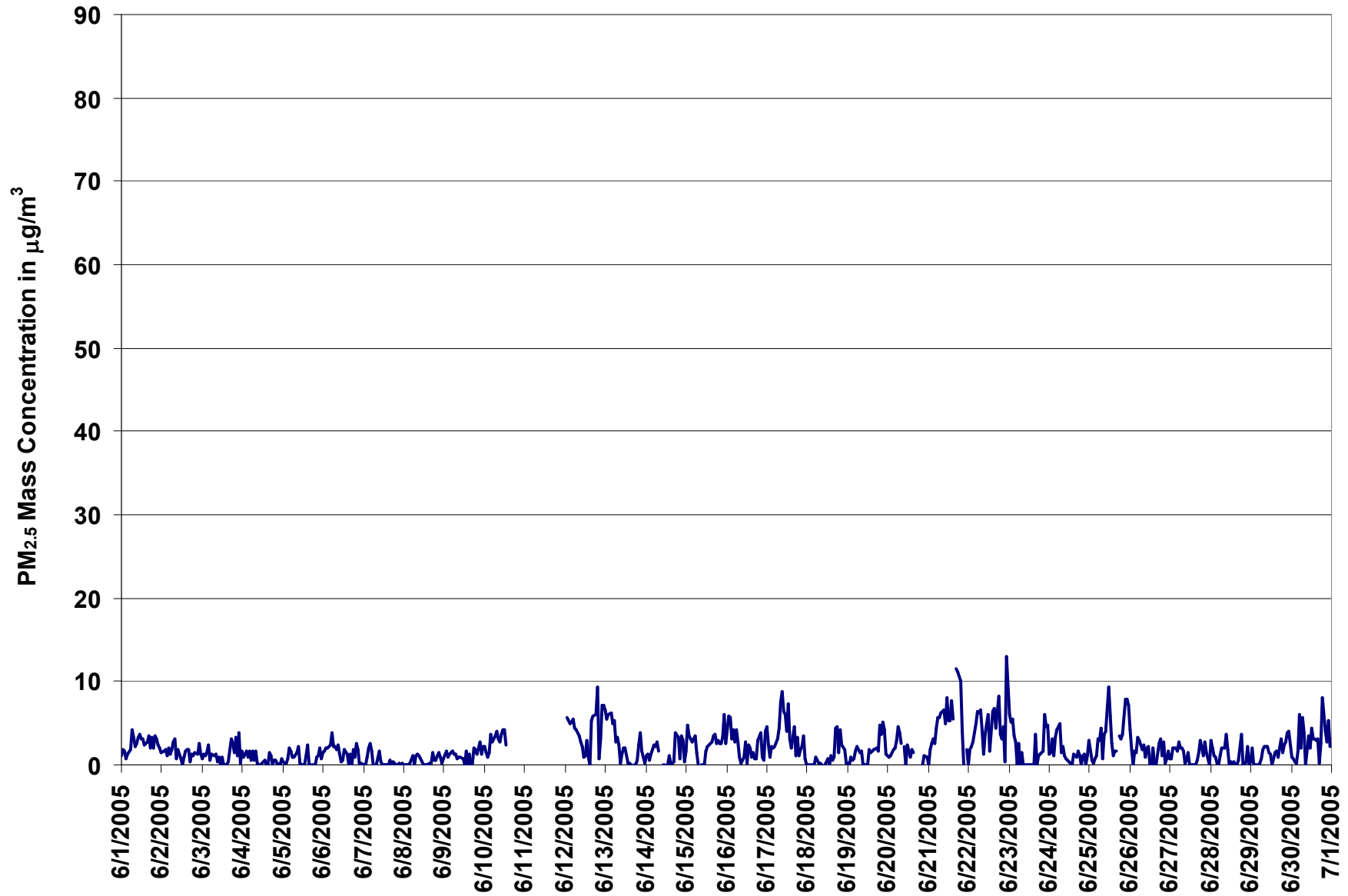


Figure 11. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend



Station: Crescent Heights
 Station Owner: PAS

HOURLY MAXIMUM TABLE

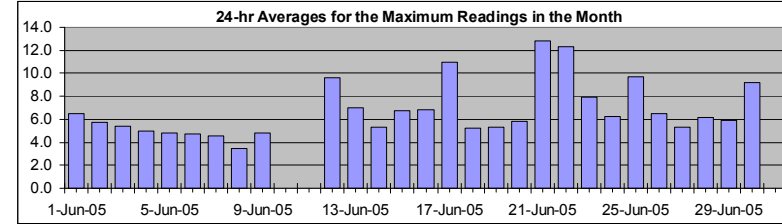
Particulate Matter (PM_{2.5})

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

Maximum 1-hr Average:	46.5	µg/m ³	17-Jun	17:00 18:00
Maximum 24-hr Value:	12.8	µg/m ³	21-Jun	

AIC Time:	0 hrs	Operational Time:	670 hrs						
Calibration Time:	5 hrs	AMD Operational Uptime:	93.8%						
Percentile	99	95	75	50	25	5	1	Average	Geomean
	19.7	13.3	8.1	5.9	4.5	3.0	2.1	6.8 µg/m ³	6.4 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																								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-Jun-05	4	5	5	4	5	6	8	8	6	8	6	8	8	6	5	7	6	7	7	9	9	8	6	7	6.5	8.8		
2-Jun-05	5	5	5	5	5	5	6	6	7	6	6	8	5	4	6	7	5	8	6	4	6	5	6	4	5.7	7.9		
3-Jun-05	4	4	5	4	6	4	4	4	5	3	6	6	7	4	5	4	4	8	9	7	8	4	10	6	5.4	9.9		
4-Jun-05	4	4	5	4	5	4	5	4	5	5	3	5	6	5	5	4	9	13	3	4	5	4	3	3	4.9	13.4		
5-Jun-05	4	4	3	4	5	5	5	5	4	7	5	3	5	4	8	9	5	4	3	4	6	5	5	4	4.8	9.3		
6-Jun-05	6	6	6	5	5	7	6	5	4	5	5	4	3	5	5	4	6	2	5	3	5	6	3	2	4.7	7.4		
7-Jun-05	3	4	5	5	6	4	2	D	6	7	5	8	5	2	8	4	7	4	4	3	2	3	2	4	4.5	8.1		
8-Jun-05	2	4	3	2	3	3	3	5	4	7	3	7	4	2	2	3	3	4	3	3	3	3	3	4	3.5	6.9		
9-Jun-05	4	4	4	4	4	4	5	5	3	4	5	7	5	7	5	5	4	5	6	7	4	6	5	6	4.8	7.1		
10-Jun-05	5	4	3	4	7	7	7	8	8	8	7	9	13	7	N	N	N	N	N	N	N	N	N	N	N	12.6		
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	
12-Jun-05	N	9	10	11	8	9	8	9	8	8	7	5	6	7	9	10	21	17	10	13	8	8	10	10	9.6	20.8		
13-Jun-05	12	11	9	11	9	8	6	7	6	4	4	5	11	6	4	3	D	6	6	4	8	10	6	3	7.0	11.7		
14-Jun-05	4	4	3	5	5	5	6	6	5	D	3	6	D	3	5	5	4	5	8	9	9	8	6	4	5.3	8.6		
15-Jun-05	5	9	9	6	7	11	5	3	D	6	3	4	7	6	6	8	7	7	6	8	6	6	8	14	6.8	13.9		
16-Jun-05	6	10	9	7	7	7	7	8	4	6	6	8	5	7	7	6	7	5	4	8	9	5	5	8	6.8	9.7		
17-Jun-05	8	9	9	6	7	5	7	9	13	13	15	10	9	13	8	10	17	47	10	10	6	11	6	6	11.0	46.5		
18-Jun-05	4	3	3	1	4	3	3	6	5	3	D	4	6	6	5	5	5	15	11	4	10	5	4	3	5.2	14.6		
19-Jun-05	3	2	3	3	4	5	5	5	6	4	2	6	5	5	8	6	6	6	6	9	7	9	8	5	5.3	9.1		
20-Jun-05	4	4	3	4	5	6	8	8	6	D	6	6	9	5	9	7	C	C	C	C	C	3	5	6	5.8	9.0		
21-Jun-05	3	6	5	6	6	9	10	10	13	13	15	17	15	13	17	19	D	33	20	18	15	15	D	6	12.8	33.0		
22-Jun-05	4	9	7	8	9	13	9	15	13	13	13	15	15	12	15	12	14	13	20	9	9	12	7	30	12.3	30.5		
23-Jun-05	22	11	10	8	8	8	9	4	8	5	4	4	2	6	4	6	14	9	6	6	5	14	8	10	7.9	21.8		
24-Jun-05	5	6	8	5	7	10	11	7	5	5	5	6	5	6	6	8	8	6	7	5	6	7	3	5	6.3	10.9		
25-Jun-05	9	6	4	5	6	7	7	8	9	7	12	19	13	12	8	11	9	D	10	13	8	16	12	12	9.7	19.1		
26-Jun-05	10	8	3	6	6	8	7	5	6	5	7	8	3	5	8	7	11	7	8	5	8	4	5	6	6.5	11.4		
27-Jun-05	4	4	5	6	5	5	6	5	8	6	5	9	4	3	3	3	5	6	9	5	5	7	5	3	5.3	8.7		
28-Jun-05	8	5	5	5	4	4	4	6	6	8	8	5	17	6	10	6	3	8	8	6	4	5	6	4	6.2	16.6		
29-Jun-05	7	7	1	2	3	2	3	6	6	6	8	9	6	3	7	8	6	9	7	6	6	6	8	8	5.9	9.3		
30-Jun-05	5	4	3	4	6	10	8	9	12	8	14	10	11	11	12	11	7	10	8	13	10	6	21	7	9.2	20.9		
																									N	0.0		
Hourly Avg	5.8	5.8	5.3	5.2	5.7	6.4	6.2	6.6	6.8	6.6	6.6	7.5	7.5	6.4	7.2	7.0	7.7	10.1	7.8	7.2	6.8	7.2	6.5	6.9				
Hourly Max	21.8	10.9	10.4	11.0	8.8	12.6	10.9	14.5	13.3	13.2	15.1	19.1	16.6	12.8	17.3	18.9	20.8	46.5	20.0	18.0	14.7	16.4	20.9	30.5				

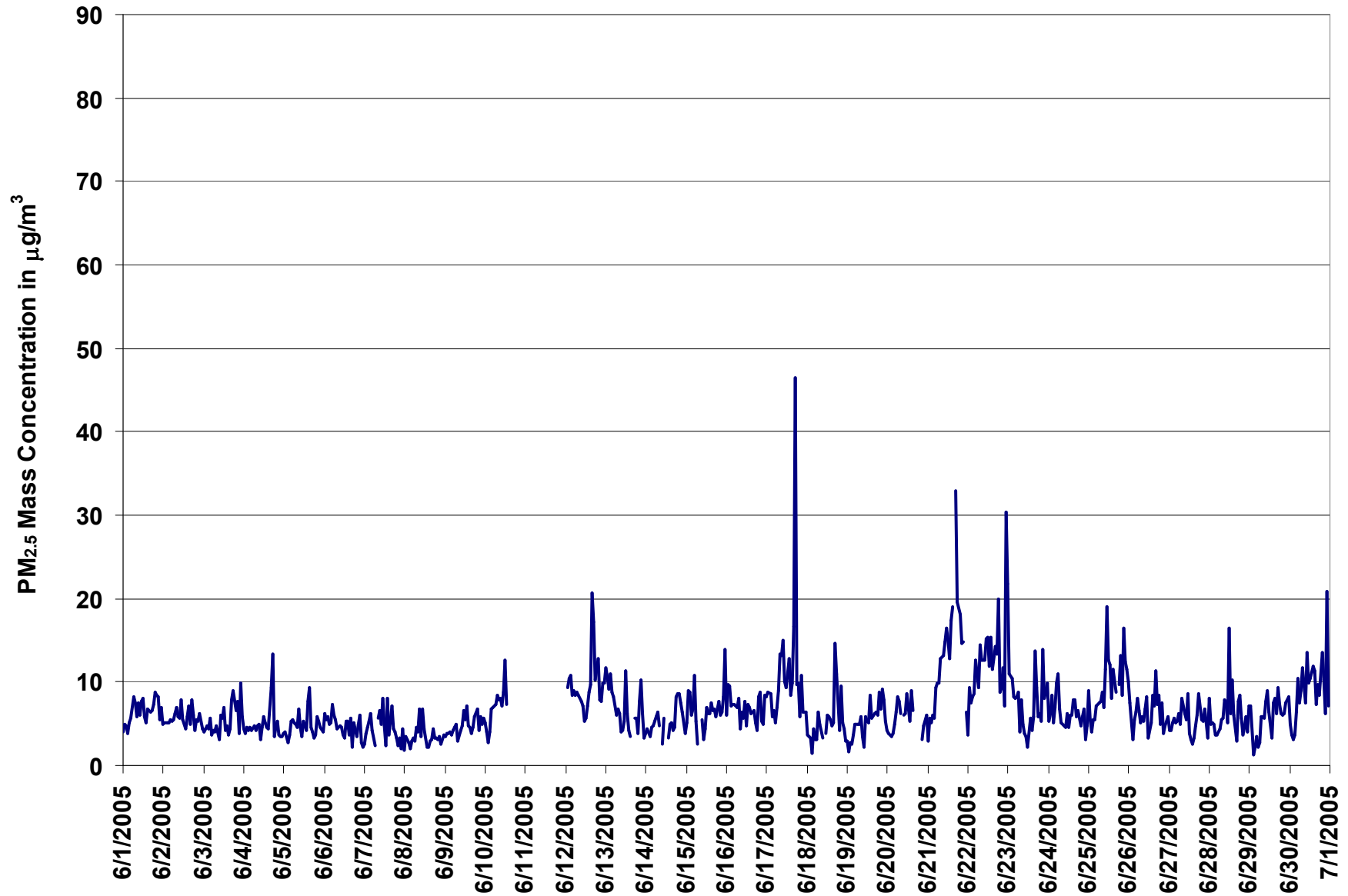
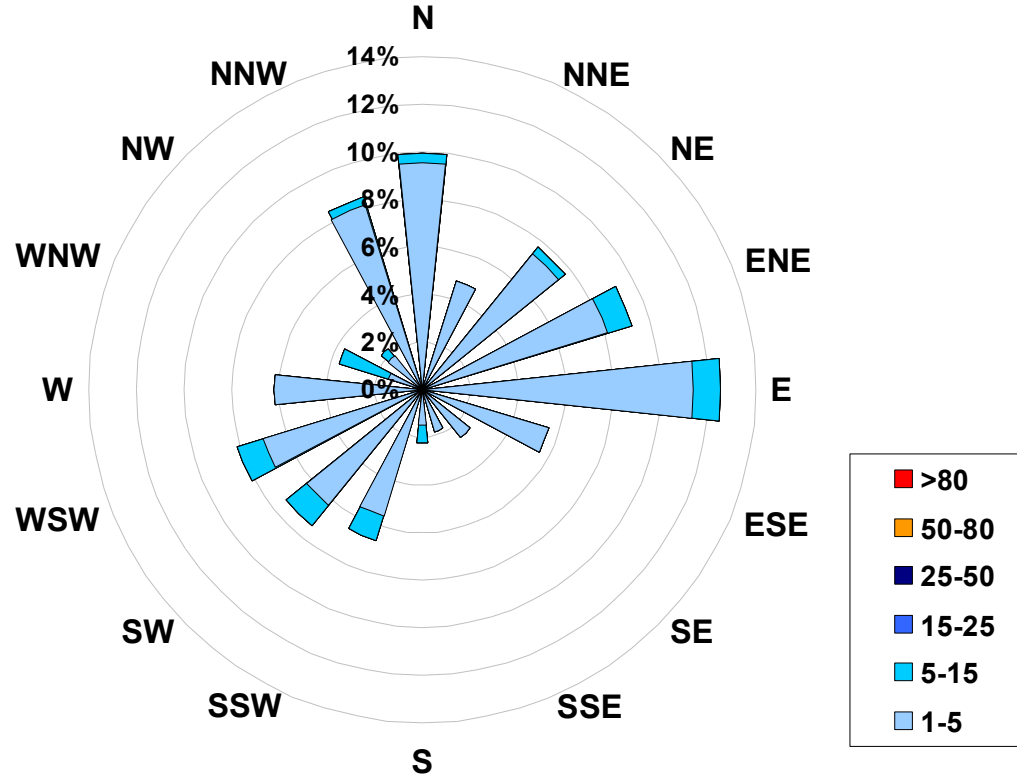


Figure 12. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) 1-hr Maximum Value Monthly Trend



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



Calms: 1%

Frequency Distribution of PM _{2.5} in µg/m ³			
Range			Frequency (hrs)
1.0	<	5	612
5	to	15	58
15	to	25	0
25	to	50	0
50	to	80	0
	>	80	0
Total Non-Zero Values			670



PAS - Cresent Heights Relative Humidity Monthly Summary

HOURLY AVERAGE TABLE

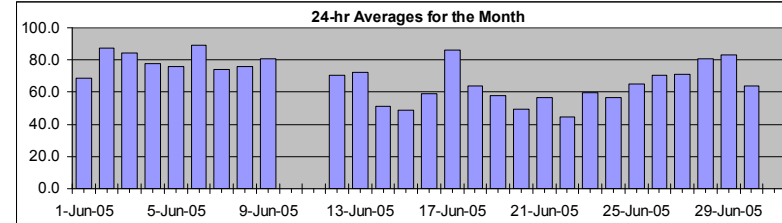
Relative Humidity (RH)

Station: Cresent Heights
Station Owner: PAS

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

Maximum 1-hr Average:	94.8	%	17-Jun	21:00 22:00
Maximum 24-hr Value:	89.1	%	6-Jun	



AIC Time:	0 hrs	Operational Time:	685 hrs					
Calibration Time:	0 hrs	AMD Operational Uptime:	95.1%					
Percentile	99	95	75	50	25	5	1	Average
	94.2	93.2	86.3	71.1	54.9	32.8	27.7	68.8 %

Status Flag Characters

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

Day	Mountain Standard Time																								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-Jun-05	68	71	73	77	78	76	72	62	56	55	60	65	61	60	59	56	59	60	64	63	74	86	93	94	68.5	93.5	
2-Jun-05	93	92	92	91	91	91	89	88	83	78	78	82	80	75	86	91	92	88	86	90	91	92	93	92	87.6	93.5	
3-Jun-05	93	94	94	94	94	93	94	92	88	81	75	80	80	72	70	64	62	69	82	84	91	91	92	90	84.1	94.2	
4-Jun-05	92	93	94	94	93	93	92	88	85	75	69	67	72	70	54	54	68	64	64	70	74	78	79	85	77.8	93.8	
5-Jun-05	86	88	89	90	93	93	92	92	90	84	73	63	57	53	59	70	64	62	60	62	67	73	75	79	75.6	93.0	
6-Jun-05	83	85	85	87	89	91	91	90	90	90	92	92	92	92	92	89	89	87	87	89	88	88	89	87	89.1	93.1	
7-Jun-05	88	91	91	91	92	91	91	91	90	89	80	65	61	56	51	47	49	54	62	65	68	71	72	75	74.1	91.8	
8-Jun-05	78	79	79	79	80	80	78	77	79	82	85	84	76	68	64	65	67	69	71	73	75	78	80	82	76.2	85.1	
9-Jun-05	85	87	88	90	91	91	91	89	87	82	79	78	66	78	71	75	69	66	70	76	81	82	82	84	80.8	91.2	
10-Jun-05	88	89	92	93	94	86	77	71	62	57	54	51	75	70	N	N	N	N	N	N	N	N	N	N	N	N	93.8
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
12-Jun-05	N	79	85	89	89	87	84	76	64	57	52	48	48	45	42	43	46	69	70	83	90	91	91	93	70.5	92.8	
13-Jun-05	94	94	94	95	94	95	93	91	90	88	86	84	80	64	56	50	37	38	39	42	48	55	61	62	72.1	94.6	
14-Jun-05	63	69	71	76	78	75	70	66	60	46	35	34	32	29	30	31	30	31	36	42	39	53	63	64	50.9	78.4	
15-Jun-05	65	68	77	79	81	75	74	63	48	42	38	31	28	29	29	29	30	31	32	35	38	41	45	59	48.6	81.0	
16-Jun-05	63	74	79	82	80	73	68	61	54	48	45	55	55	50	51	46	46	45	46	52	56	59	61	68	59.1	82.5	
17-Jun-05	75	79	82	84	88	87	86	85	86	87	88	81	78	70	76	84	94	93	94	94	95	95	94	94	86.2	94.8	
18-Jun-05	92	91	91	90	88	84	80	72	66	60	49	43	42	38	37	36	37	40	48	54	62	71	78	80	63.7	92.3	
19-Jun-05	84	85	87	87	87	82	78	72	63	54	43	38	36	34	34	32	32	34	33	41	50	59	67	70	57.6	87.4	
20-Jun-05	72	73	71	76	76	71	66	58	50	36	34	32	29	29	28	28	28	28	28	36	50	53	58	67	49.1	76.3	
21-Jun-05	63	67	72	74	74	72	67	61	57	50	48	46	44	43	42	40	35	41	49	56	61	69	66	65	56.8	74.1	
22-Jun-05	65	69	70	72	75	70	65	59	50	39	33	29	28	23	24	25	24	26	30	33	36	39	42	48	44.8	74.7	
23-Jun-05	71	75	80	80	81	80	79	85	78	64	55	45	42	36	34	32	39	46	43	44	49	55	65	70	59.4	85.3	
24-Jun-05	72	73	78	78	78	72	69	62	58	54	49	46	43	40	39	40	40	42	45	46	49	56	60	64	56.4	78.3	
25-Jun-05	66	67	68	70	73	73	68	65	56	54	61	76	84	76	64	57	55	41	46	51	62	67	75	82	64.8	83.7	
26-Jun-05	84	86	87	88	87	84	78	78	76	69	64	69	59	54	55	52	47	54	58	62	69	74	79	83	70.6	87.9	
27-Jun-05	88	90	90	91	90	91	89	84	75	68	68	68	64	65	63	58	53	52	53	55	56	62	64	67	71.0	90.9	
28-Jun-05	77	87	88	89	90	90	91	92	92	90	81	70	62	64	64	67	67	68	76	78	83	88	90	93	80.7	92.5	
29-Jun-05	91	92	94	94	94	93	92	92	93	91	88	80	73	70	68	70	66	67	71	72	78	86	89	93	83.2	94.2	
30-Jun-05	94	94	94	93	92	88	80	73	63	49	47	46	49	48	46	43	45	42	42	49	58	62	68	71	64.1	94.2	
																									N	0.0	
Hourly Avg	79.8	82.1	84.0	85.3	85.9	83.7	80.9	77.0	72.0	66.2	62.4	60.4	58.4	55.2	53.2	52.7	52.5	53.8	56.6	60.6	65.7	70.5	74.0	77.1			
Hourly Max	94.1	94.2	94.2	94.6	94.4	94.5	93.7	92.2	92.7	91.3	91.9	93.1	92.4	92.0	91.9	90.9	94.2	93.4	93.6	94.0	94.6	94.8	94.3	93.6			

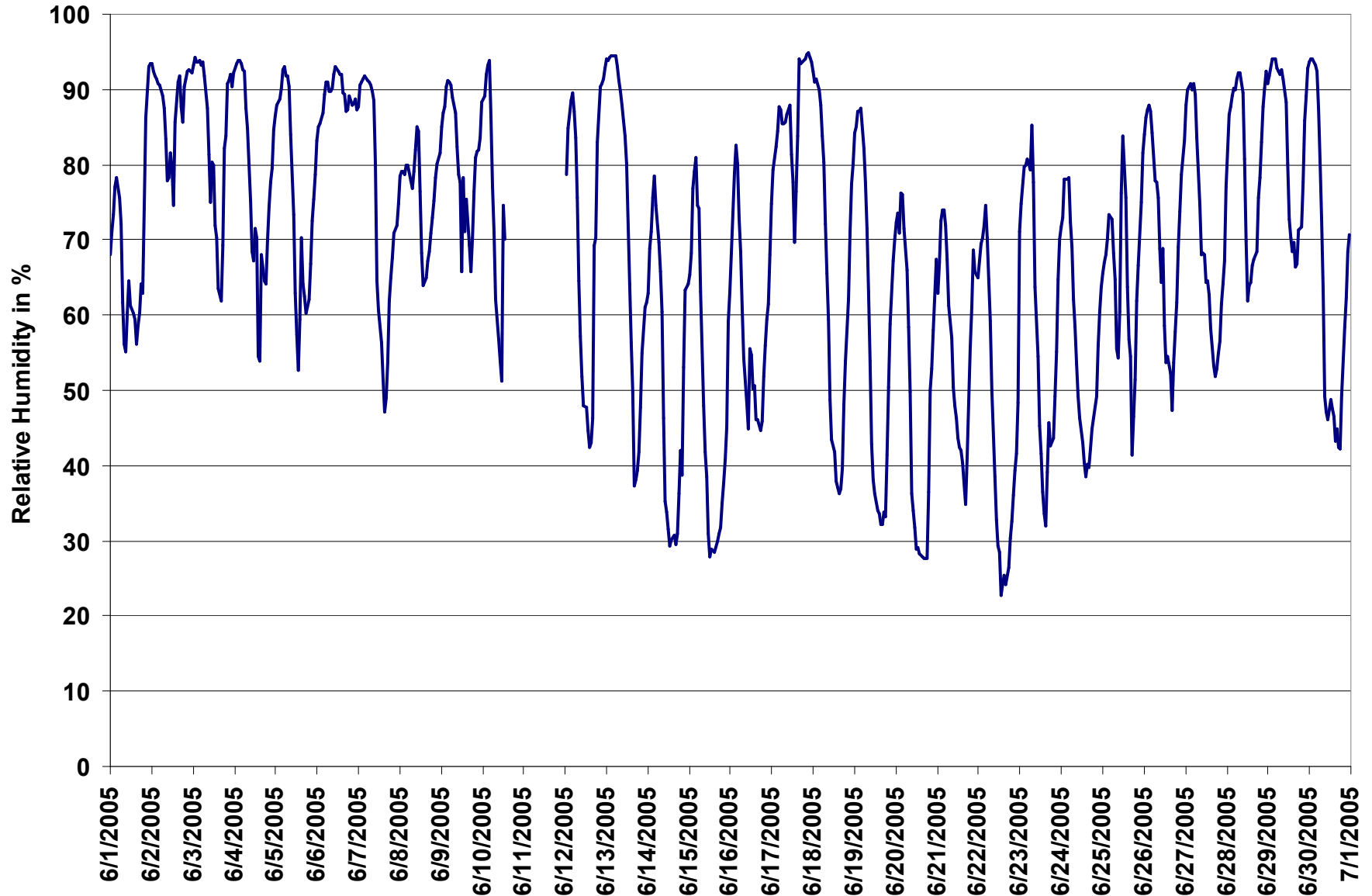


Figure 13. PAS - Cresent Heights Relative Humidity 1-hr Average Monthly Trend



PAS - Cresent Heights Temperature Monthly Summary

HOURLY AVERAGE TABLE

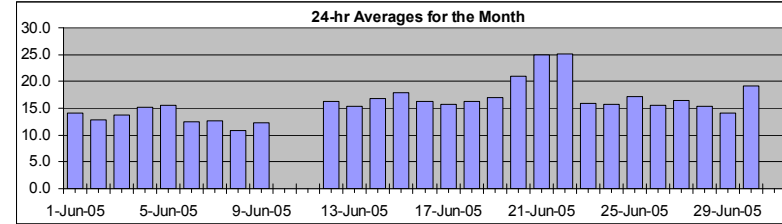
Ambient Temperature (T)

Station: Cresent Heights
 Station Owner: PAS

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

Maximum 1-hr Average:	33.9 °C	21-Jun	15:00 16:00
Maximum 24-hr Value:	25.1 °C	22-Jun	



AIC Time:	0 hrs	Operational Time:	685 hrs					
Calibration Time:	0 hrs	AMD Operational Uptime:	95.1%					
Percentile	99	95	75	50	25	5	1	Average
	32.0	26.0	19.0	15.0	12.4	9.7	8.6	16.1 °C

Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	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-Jun-05	11	10	10	10	9	10	12	16	17	17	16	15	16	16	17	17	17	17	17	16	15	13	12	12	14.1	17.4	
2-Jun-05	12	12	12	12	11	11	11	12	13	14	14	14	14	15	14	13	13	13	14	13	13	12	13	13	12.8	14.9	
3-Jun-05	13	12	12	12	12	11	11	12	13	14	15	14	15	16	16	18	17	17	15	14	13	13	13	13	13.8	17.5	
4-Jun-05	13	13	12	12	12	12	12	13	14	16	17	17	16	17	20	20	17	19	18	17	16	15	14	13	15.2	20.0	
5-Jun-05	13	13	12	12	12	12	12	12	13	15	17	19	20	21	19	18	19	19	19	18	16	15	14	14	15.5	20.9	
6-Jun-05	13	13	13	12	12	12	12	12	12	12	12	12	12	13	13	13	13	14	13	13	13	12	12	12	12.5	13.6	
7-Jun-05	12	11	11	11	11	11	11	10	10	11	13	15	15	16	17	18	18	16	13	12	11	10	10	9	12.6	17.9	
8-Jun-05	9	8	9	9	9	9	10	10	10	11	11	11	11	12	13	14	13	13	13	12	12	11	11	11	10.8	13.7	
9-Jun-05	10	10	10	10	10	10	10	11	11	13	14	14	15	13	15	14	15	15	14	14	12	12	12	12	12.3	15.2	
10-Jun-05	12	11	10	9	9	11	13	15	17	18	19	20	14	16	N	N	N	N	N	N	N	N	N	N	N	N	20.1
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
12-Jun-05	N	13	12	11	11	11	12	15	17	19	21	22	21	22	23	22	22	17	16	15	13	13	13	13	16.3	23.0	
13-Jun-05	13	13	13	13	13	13	13	14	14	14	14	14	14	15	18	19	20	20	20	19	18	17	15	13	12	15.3	20.4
14-Jun-05	12	11	10	9	8	10	11	13	16	18	20	21	21	22	23	23	23	23	21	20	20	18	16	16	16.8	23.2	
15-Jun-05	16	16	15	14	14	15	15	15	17	18	19	21	21	22	22	22	23	22	22	20	20	18	16	15	13	17.9	22.5
16-Jun-05	12	10	9	7	8	10	12	15	16	18	19	17	18	20	20	22	22	22	22	20	19	18	17	16	16.2	22.3	
17-Jun-05	16	15	14	13	13	13	14	15	16	17	17	19	20	22	20	19	16	14	14	14	14	13	13	13	15.7	22.5	
18-Jun-05	12	12	12	11	11	12	13	15	16	18	20	20	21	22	22	22	22	22	21	18	15	13	11	11	16.3	21.9	
19-Jun-05	10	9	9	8	8	9	11	13	15	18	21	22	22	23	23	24	24	24	24	22	20	18	16	15	17.0	24.1	
20-Jun-05	13	13	13	12	11	13	15	18	21	23	25	26	27	27	28	29	29	28	28	26	22	21	19	17	21.0	28.7	
21-Jun-05	18	17	16	16	16	17	19	21	23	26	28	30	32	32	33	34	34	33	31	29	28	24	20	19	24.9	33.9	
22-Jun-05	19	18	18	18	18	19	20	22	25	28	29	30	31	32	32	32	32	31	30	28	25	23	21	20	25.1	32.0	
23-Jun-05	17	16	15	14	14	14	14	11	13	15	17	18	19	20	20	20	19	17	18	17	15	14	13	12	15.9	20.5	
24-Jun-05	10	10	9	9	9	11	13	14	15	16	18	19	20	21	21	21	21	21	20	18	17	16	15	14	15.7	21.4	
25-Jun-05	14	13	13	12	12	13	14	16	19	19	18	17	16	19	22	23	24	24	23	21	17	16	15	14	17.3	24.2	
26-Jun-05	13	12	11	10	11	11	13	14	14	15	17	16	19	19	20	20	21	20	19	18	17	15	14	13	15.6	20.6	
27-Jun-05	13	12	12	12	12	12	13	14	17	18	18	18	19	18	18	19	19	20	20	19	19	17	17	16	16.4	19.6	
28-Jun-05	15	13	13	13	12	12	12	12	13	15	17	19	21	20	20	19	18	18	17	16	15	14	14	13	15.3	20.6	
29-Jun-05	13	13	13	12	12	12	12	12	12	13	15	16	16	17	17	17	18	17	17	17	15	13	13	12	14.0	17.6	
30-Jun-05	11	10	9	9	9	10	13	16	19	21	23	24	24	25	26	27	27	27	27	25	22	20	18	18	19.1	26.9	
																									N	0.0	
Hourly Avg	12.9	12.4	12.0	11.5	11.3	11.9	12.9	14.1	15.5	16.9	17.9	18.6	19.0	19.9	20.5	20.7	20.5	20.1	19.3	18.2	16.7	15.4	14.4	13.7			
Hourly Max	19.1	18.1	18.1	18.1	17.6	18.9	20.5	22.5	25.5	27.6	29.2	30.3	31.7	32.3	33.3	33.9	33.8	32.5	30.8	29.3	27.7	24.2	21.0	20.5			

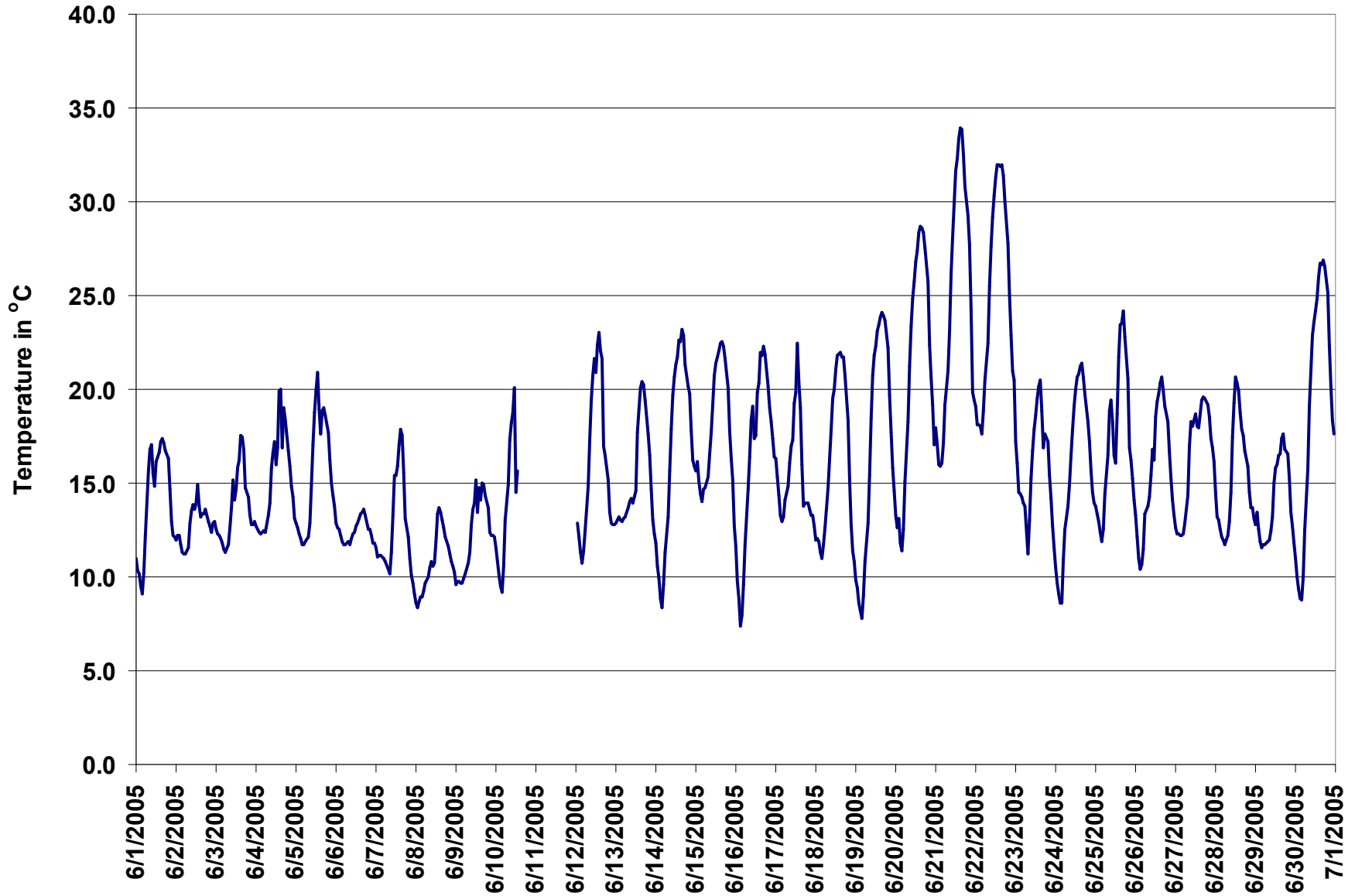


Figure 14. PAS - Crescent Heights Temperature 1-hr Average Monthly Trend



PAS - Crescent Heights Solar Radiation Monthly Summary

HOURLY AVERAGE TABLE

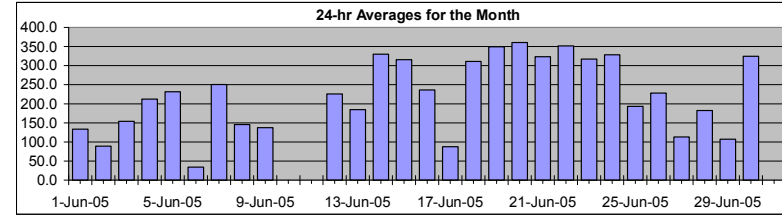
Solar Radiation (SR)

Station: Crescent Heights
 Station Owner: PAS

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

Maximum 1-hr Average:	945.0	W/m ²	23-Jun	12:00 13:00
Maximum 24-hr Value:	360.6	W/m ²	20-Jun	



AIC Time:	0 hrs	Operational Time:	685 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	95.1%
Percentile	99	95	75
	913.3	826.5	406.6
		81.2	0.0
		0.0	0.0
			0.0
			Average
			224.8 W/m 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																								24-hour Average	Daily Maximum	
	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00			23:00
1-Jun-05	0	0	0	0	4	72	146	294	519	439	128	86	391	253	113	282	235	174	66	9	0	0	0	0	133.7	518.6	
2-Jun-05	0	0	0	0	0	8	34	72	269	252	273	233	279	310	165	80	44	54	48	13	0	0	0	0	88.9	310.3	
3-Jun-05	0	0	0	0	0	3	21	64	258	407	512	241	537	434	404	467	179	126	36	8	0	0	0	0	154.0	537.3	
4-Jun-05	0	0	0	0	0	11	68	125	270	612	522	661	218	640	674	551	95	419	204	24	0	0	0	0	212.3	674.4	
5-Jun-05	0	0	0	0	0	22	26	78	123	343	683	790	832	822	157	537	582	377	144	40	0	0	0	0	231.6	832.2	
6-Jun-05	0	0	0	0	0	6	32	52	21	22	22	25	60	109	140	92	135	88	18	0	0	0	0	0	34.2	139.8	
7-Jun-05	0	0	0	0	0	0	24	70	101	269	417	680	870	762	775	732	614	397	201	100	0	0	0	0	250.5	869.8	
8-Jun-05	0	0	0	0	0	38	77	168	286	275	216	290	436	494	343	333	265	181	74	23	0	0	0	0	145.7	494.0	
9-Jun-05	0	0	0	0	0	18	60	98	165	314	360	426	460	261	381	246	264	184	44	14	0	0	0	0	137.3	459.8	
10-Jun-05	0	0	0	0	9	128	262	428	604	603	606	841	175	395	N	N	N	N	N	N	N	N	N	N	N	N	841.0
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
12-Jun-05	N	0	0	0	2	58	130	321	577	733	805	638	177	558	547	324	143	121	42	13	0	0	0	0	225.7	804.6	
13-Jun-05	0	0	0	0	0	8	59	138	155	178	227	247	274	723	713	594	488	354	210	59	1	0	0	0	184.6	723.1	
14-Jun-05	0	0	0	0	9	117	270	437	601	742	849	867	928	888	774	495	520	325	75	19	0	0	0	0	329.8	928.3	
15-Jun-05	0	0	0	0	0	1	37	114	214	417	683	743	901	929	834	734	666	558	413	251	82	0	0	0	0	315.7	929.0
16-Jun-05	0	0	0	0	13	74	197	391	536	658	415	164	290	630	633	728	383	367	155	37	0	0	0	0	236.3	728.1	
17-Jun-05	0	0	0	0	0	21	60	87	134	117	192	360	363	721	21	15	10	0	0	4	0	0	0	0	87.7	720.9	
18-Jun-05	0	0	0	0	13	120	223	397	594	734	836	686	794	794	579	486	455	412	253	84	0	0	0	0	310.8	836.1	
19-Jun-05	0	0	0	0	10	121	272	437	597	734	841	836	833	860	777	728	583	415	254	86	0	0	0	0	349.3	859.6	
20-Jun-05	0	0	0	0	10	122	276	442	603	742	846	914	933	894	828	720	579	416	248	81	0	0	0	0	360.6	932.9	
21-Jun-05	0	0	0	0	9	118	266	429	587	723	818	884	901	868	785	644	437	212	77	5	0	0	0	0	323.5	901.0	
22-Jun-05	0	0	0	0	7	112	262	431	592	739	849	913	921	880	772	653	566	408	246	81	1	0	0	0	351.4	921.1	
23-Jun-05	0	0	0	0	0	50	111	63	468	727	846	914	945	877	804	655	434	384	253	84	0	0	0	0	317.2	945.0	
24-Jun-05	0	0	0	0	10	120	271	439	597	728	844	893	900	760	607	564	569	315	199	62	6	0	0	0	328.4	900.1	
25-Jun-05	0	0	0	0	3	85	201	271	340	217	105	92	169	605	833	645	497	390	161	24	0	0	0	0	193.3	833.2	
26-Jun-05	0	0	0	0	0	73	275	226	172	295	325	285	560	716	673	610	574	398	189	97	5	0	0	0	228.0	715.8	
27-Jun-05	0	0	0	0	0	9	85	214	460	469	308	316	172	79	68	108	151	139	98	35	0	0	0	0	113.0	469.3	
28-Jun-05	0	0	0	0	0	5	14	39	56	112	465	669	761	628	541	408	239	261	146	38	0	0	0	0	182.6	760.5	
29-Jun-05	0	0	0	0	0	18	40	81	73	132	112	293	390	313	263	234	265	222	83	55	0	0	0	0	107.3	390.2	
30-Jun-05	0	0	0	0	12	104	256	416	575	710	806	773	709	790	740	690	498	395	245	69	0	0	0	0	324.5	805.5	
																									N	0.0	
Hourly Avg	0	0	0	0	4	58	143	239	371	473	516	549	559	617	530	474	370	284	144	44	0	0	0	0			
Hourly Max	0	0	0	0	13	128	276	442	604	742	849	914	945	894	833	732	614	419	254	100	6	0	0	0			

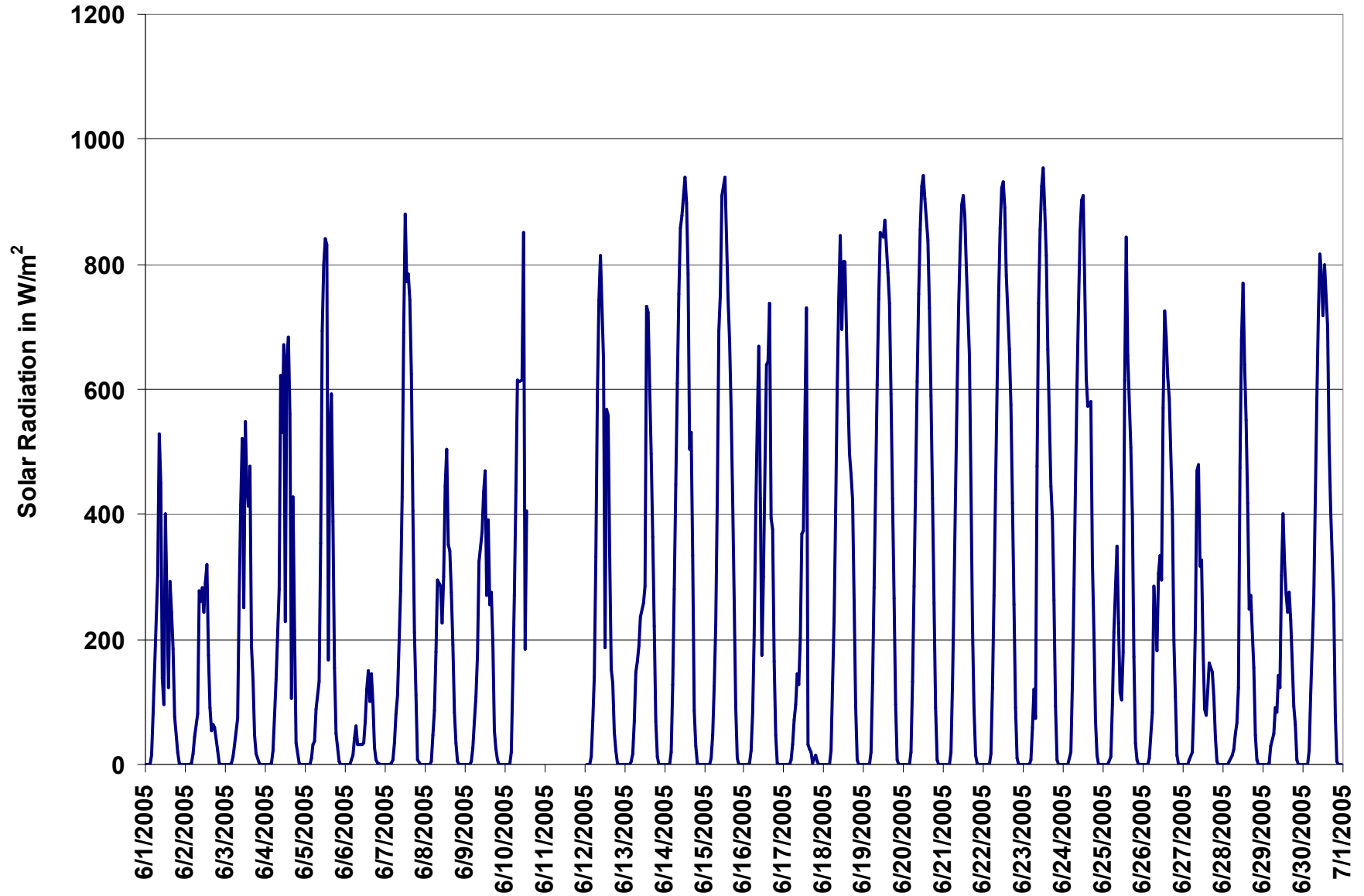


Figure 15. PAS - Crescent Heights Solar Radiation 1-hr Average Monthly Trend



PAS - Cresnet Heights Scalar Wind Speed Monthly Summary

HOURLY AVERAGE TABLE

Wind Speed (WSs)

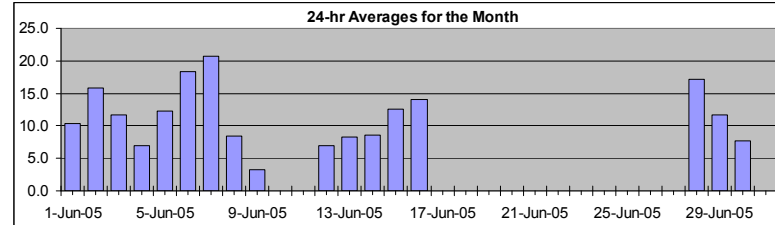
Station: Cresnet Heights
Station Owner: PAS

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

Maximum 1-hr Average:	30.5	km/hr	6-Jun	17:00 18:00
Maximum 24-hr Value:	20.6	km/hr	7-Jun	

Calm Time:	3 hrs	0% calms	Operational Time:	441 hrs				
Calibration Time:	2 hrs		AMD Operational Uptime:	61.9%				
Percentile	99	95	75	50	25	5	1	AverageS
	29.8	23.6	15.5	11.1	6.0	2.6	1.4	11.5 km/hr



Status Flag Characters

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

Day	Mountain Standard Time																								24-hr Scalar Average	Daily Max	
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00			
1-Jun-05	4	2	6	3	4	6	calm	7	16	18	13	12	13	14	14	16	13	15	13	12	10	12	7	9	10.4	17.8	
2-Jun-05	10	12	11	10	9	10	12	15	17	20	17	16	15	19	16	14	15	15	22	22	22	21	19	15.8	22.1		
3-Jun-05	16	16	15	15	15	15	12	14	14	14	14	14	15	13	13	12	10	10	8	7	5	5	4	11.6	16.1		
4-Jun-05	3	4	4	5	5	6	5	4	6	7	9	12	11	7	4	7	7	5	7	7	8	11	11	11	7.0	12.0	
5-Jun-05	11	9	9	8	12	10	12	12	8	9	10	11	13	12	10	9	16	17	16	14	14	17	18	18	12.3	18.0	
6-Jun-05	14	8	12	12	11	9	11	13	11	11	13	15	19	18	16	14	24	30	30	30	30	30	28	30	18.3	30.5	
7-Jun-05	27	28	29	29	28	26	28	30	30	24	14	14	17	14	16	15	15	24	25	19	13	10	13	8	20.6	29.9	
8-Jun-05	9	3	5	6	4	4	4	5	4	5	9	13	15	15	15	16	17	14	11	9	7	4	4	2	8.4	16.7	
9-Jun-05	3	1	calm	1	1	1	3	4	4	3	4	5	3	4	3	5	2	6	5	3	3	2	4	3	3.2	6.1	
10-Jun-05	2	2	1	2	2	5	3	6	4	4	4	7	11	11	N	N	N	N	N	N	N	N	N	N	N	11.2	
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
12-Jun-05	N	1	4	3	3	4	3	2	6	7	10	11	9	10	9	11	5	15	10	7	11	10	5	3	6.9	14.7	
13-Jun-05	5	4	2	5	4	5	5	6	6	8	8	8	9	10	11	12	18	15	14	9	7	7	8	11	8.3	17.6	
14-Jun-05	14	10	9	5	6	6	6	5	6	8	6	6	10	11	7	7	7	11	8	7	10	12	9	16	8.5	16.4	
15-Jun-05	11	15	18	15	13	10	10	12	12	15	16	17	17	18	17	17	15	14	13	10	6	6	6	3	12.6	18.4	
16-Jun-05	5	3	3	2	3	6	6	11	15	16	16	13	16	19	17	19	21	19	22	23	21	23	24	15	14.1	24.0	
17-Jun-05	4	12	17	15	13	14	15	14	10	14	17	20	20	21	N	N	N	N	N	N	N	N	N	N	N	N	21.2
18-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
19-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
20-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
21-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
22-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
23-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
24-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
25-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
26-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
27-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	C	C	13	17	19	19	20	21	20	22	22	N	22.3
28-Jun-05	21	21	22	24	22	23	25	22	20	18	11	17	15	16	19	17	17	18	15	14	15	10	6	7	17.2	24.6	
29-Jun-05	4	5	16	17	18	14	17	16	16	15	12	13	17	15	14	13	13	11	10	7	3	calm	2	2	11.8	17.6	
30-Jun-05	2	3	4	5	4	3	3	3	5	10	8	9	10	13	11	11	13	12	11	8	8	10	8	9	7.6	13.2	
																									N	0.0	
1-hr Average	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	N
Hourly Max	27.0	27.7	28.9	29.4	28.2	26.2	27.8	29.6	29.9	24.4	17.1	20.0	20.3	21.2	18.8	18.8	23.8	30.5	30.1	29.6	30.5	29.9	27.5	29.7			



PAS - Cresnet Heights Vector Wind Speed Monthly Summary

HOURLY AVERAGE TABLE

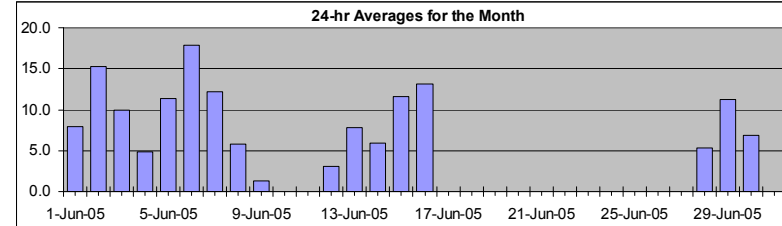
Wind Speed (WSv)

Station: Cresnet Heights
Station Owner: PAS

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

Maximum 1-hr Average:	30.3	km/hr	6-Jun	17:00 18:00
Maximum 24-hr Value:	17.9	km/hr	6-Jun	



Calm Time:	4 hrs	1% calms	Operational Time:	440 hrs				
Calibration Time:	2 hrs		AMD Operational Uptime:	61.9%				
Percentile	99	95	75	50	25	5	1	AverageV
	29.5	23.5	15.2	10.8	5.6	2.1	1.2	9.3 km/hr

Status Flag Characters

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

Day	Mountain Standard Time																								24-hr Vector Average	Daily Max	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Jun-05	3	2	6	2	4	6	calm	6	16	17	13	11	12	13	14	16	13	15	13	12	10	12	7	9	7.9	17.2	
2-Jun-05	9	12	11	10	9	10	12	15	16	20	17	16	15	19	16	13	15	14	22	22	22	21	18	15.3	21.9		
3-Jun-05	16	16	15	15	15	15	12	14	13	14	13	13	14	13	13	11	9	10	7	6	5	5	4	4	10.0	16.0	
4-Jun-05	3	4	3	5	4	6	5	4	6	7	9	12	10	6	2	4	6	5	7	7	8	11	11	11	4.8	11.8	
5-Jun-05	11	9	9	8	12	10	12	12	8	9	10	11	12	11	9	7	15	17	15	13	14	17	18	18	11.4	17.8	
6-Jun-05	14	8	12	12	11	9	11	13	11	10	13	15	18	17	16	14	24	30	30	29	30	30	27	30	17.9	30.3	
7-Jun-05	27	27	29	29	28	26	28	29	29	24	10	14	16	13	16	15	14	24	25	19	13	10	13	7	12.2	29.3	
8-Jun-05	9	2	5	5	4	4	3	5	3	5	8	12	15	14	15	16	16	14	11	9	7	4	4	2	5.8	16.5	
9-Jun-05	3	1	calm	1	1	1	3	4	4	2	3	4	3	2	3	3	1	6	4	3	3	2	4	3	1.3	5.7	
10-Jun-05	2	2	1	2	2	5	3	5	4	1	2	6	10	10	N	N	N	N	N	N	N	N	N	N	N	N	10.0
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
12-Jun-05	N	calm	4	2	2	3	3	1	5	7	10	11	9	8	9	11	2	14	9	7	11	9	4	3	3.1	14.3	
13-Jun-05	3	3	2	5	4	4	5	6	6	8	8	7	9	10	11	12	17	15	14	9	7	7	8	11	7.8	17.4	
14-Jun-05	14	10	9	5	6	6	6	5	5	7	5	3	9	10	5	6	7	11	8	7	10	12	9	16	5.9	16.3	
15-Jun-05	9	15	18	15	13	10	10	12	12	15	15	16	17	17	16	17	15	13	12	9	6	6	5	2	11.5	18.2	
16-Jun-05	5	2	1	2	3	6	6	11	15	15	15	13	16	19	16	18	20	19	22	23	21	23	24	15	13.2	23.7	
17-Jun-05	3	12	16	15	13	14	15	13	9	13	17	20	20	21	N	N	N	N	N	N	N	N	N	N	N	N	20.8
18-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
19-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
20-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
21-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
22-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
23-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
24-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
25-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
26-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0
27-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	C	C	13	17	19	19	20	21	20	22	22	N	22.1	
28-Jun-05	21	21	22	24	21	23	24	22	20	17	10	16	14	15	18	16	17	18	15	13	15	10	5	7	5.4	24.5	
29-Jun-05	4	5	16	17	18	14	16	16	16	15	11	13	17	15	14	13	13	10	10	7	3	calm	2	2	11.2	17.5	
30-Jun-05	2	3	4	5	4	3	3	3	5	10	7	8	9	12	10	10	13	12	11	8	8	9	8	9	6.9	12.6	
1-hr Vector	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	N
Hourly Max	26.9	27.5	28.8	29.3	28.0	26.0	27.7	29.2	28.9	24.1	16.8	19.7	20.1	20.8	18.5	18.5	23.6	30.3	30.0	29.4	30.3	29.8	27.4	29.6			



PAS - Cresent Heights Standard Deviation of Wind Direction Monthly Summary

Station: Cresent Heights
Station Owner: PAS

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: June 1, 2005 to July 1, 2005

Summary

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Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	444 hrs			
Calibration Time:	2 hrs		AMD Operational Uptime:	61.9%			
Percentile	99	95	75	50	25	5	1
	54.1	36.8	16.0	10.0	7.2	5.1	4.4

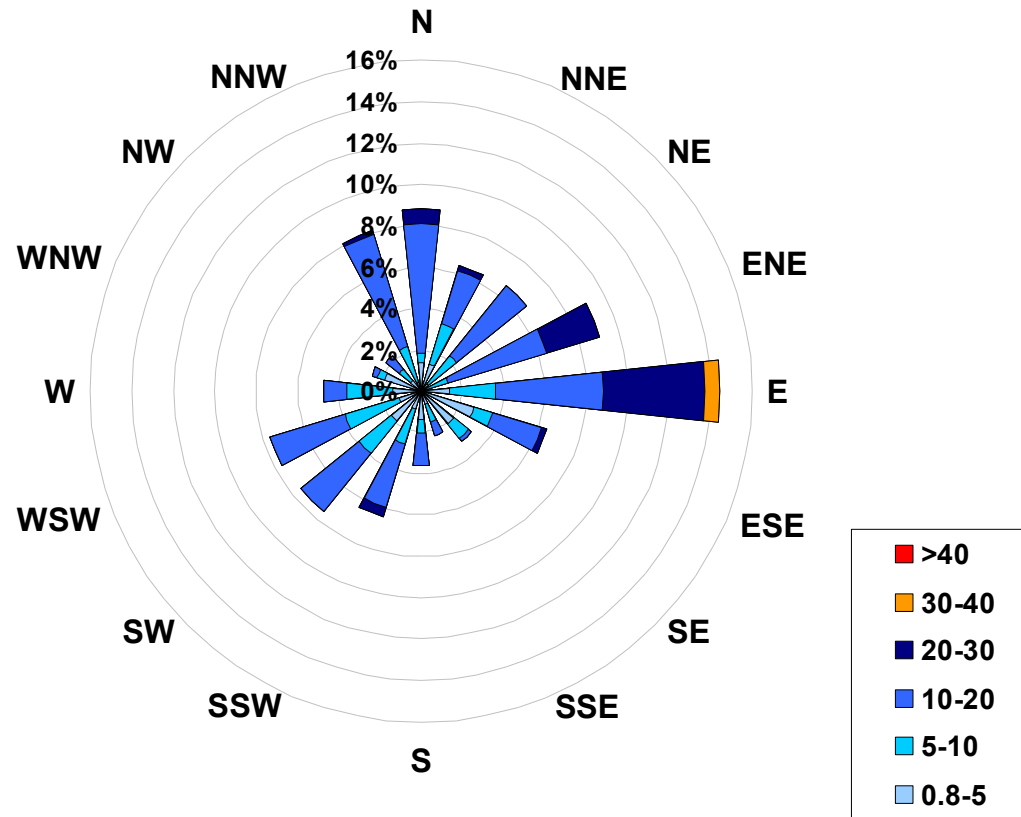
Status Flag Characters

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																								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-Jun-05	18	29	11	24	14	10	33	46	12	14	13	14	12	12	10	12	9	8	6	6	6	5	7	6	46.2	
2-Jun-05	9	6	5	6	7	7	9	7	6	7	8	8	10	6	7	12	7	14	5	4	5	4	5	4	14.1	
3-Jun-05	5	5	4	5	5	5	5	6	7	9	13	9	8	11	10	13	12	11	25	15	19	8	13	16	24.7	
4-Jun-05	15	11	13	11	14	12	11	14	16	23	18	11	14	26	46	49	25	11	11	8	7	6	7	9	48.9	
5-Jun-05	8	8	6	8	6	9	8	6	8	12	15	15	16	18	34	20	14	8	7	8	5	5	6	6	34.0	
6-Jun-05	10	10	7	6	7	10	8	7	10	10	8	8	6	7	7	9	7	6	6	5	6	5	6	5	10.1	
7-Jun-05	6	6	5	5	5	6	5	6	8	9	21	14	13	16	14	12	13	8	7	9	12	12	8	25	25.2	
8-Jun-05	11	46	16	17	18	20	20	26	38	19	17	10	9	12	11	10	10	10	9	9	10	10	9	15	45.9	
9-Jun-05	11	16	35	12	16	19	12	9	11	30	16	18	39	36	37	38	60	24	14	22	11	11	7	10	59.8	
10-Jun-05	31	13	17	24	11	7	10	17	35	69	55	32	23	25	N	N	N	N	N	N	N	N	N	N	68.7	
11-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	
12-Jun-05	N	50	21	37	23	41	22	40	23	18	18	20	11	24	11	12	31	10	14	18	12	8	30	31	50.1	
13-Jun-05	15	24	16	13	17	8	8	10	14	9	20	12	11	17	15	16	7	9	8	8	8	11	11	6	23.7	
14-Jun-05	6	9	7	24	20	9	11	22	35	26	43	58	21	25	40	29	27	13	10	11	10	8	8	5	57.9	
15-Jun-05	11	8	5	6	7	8	9	8	13	11	12	11	12	10	14	11	13	11	10	8	8	8	18	46	45.7	
16-Jun-05	22	39	53	27	42	9	11	10	9	10	9	9	7	7	12	10	8	8	6	6	6	6	6	8	52.8	
17-Jun-05	63	11	5	6	5	5	7	9	11	9	12	8	8	9	N	N	N	N	N	N	N	N	N	N	62.6	
18-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	
19-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	
20-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	
21-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	
22-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	
23-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	
24-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	
25-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	
26-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	
27-Jun-05	N	N	N	N	N	N	N	N	N	N	N	N	N	C	C	7	7	7	7	7	5	6	6	6	6	7.2
28-Jun-05	7	7	5	5	6	5	5	5	6	13	13	11	14	12	10	12	9	9	10	8	7	13	31	11	31.0	
29-Jun-05	26	53	5	4	5	5	5	6	5	6	8	9	7	8	9	7	8	14	8	8	8	19	20	12	52.5	
30-Jun-05	19	13	9	5	9	17	16	17	18	17	27	18	17	16	20	18	12	10	7	8	5	5	8	17	27.3	
Hourly Max	63	53	53	37	42	41	33	46	38	69	55	58	39	36	46	49	60	24	25	22	19	19	31	46	0.0	



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



Calms: 1%

Frequency Distribution of Wind in km/hr			Frequency (hrs)
Range			
0.8	<	5	87
5	to	10	101
10	to	20	208
20	to	30	42
30	to	40	3
	>	40	0
Total Non-Zero Values			441



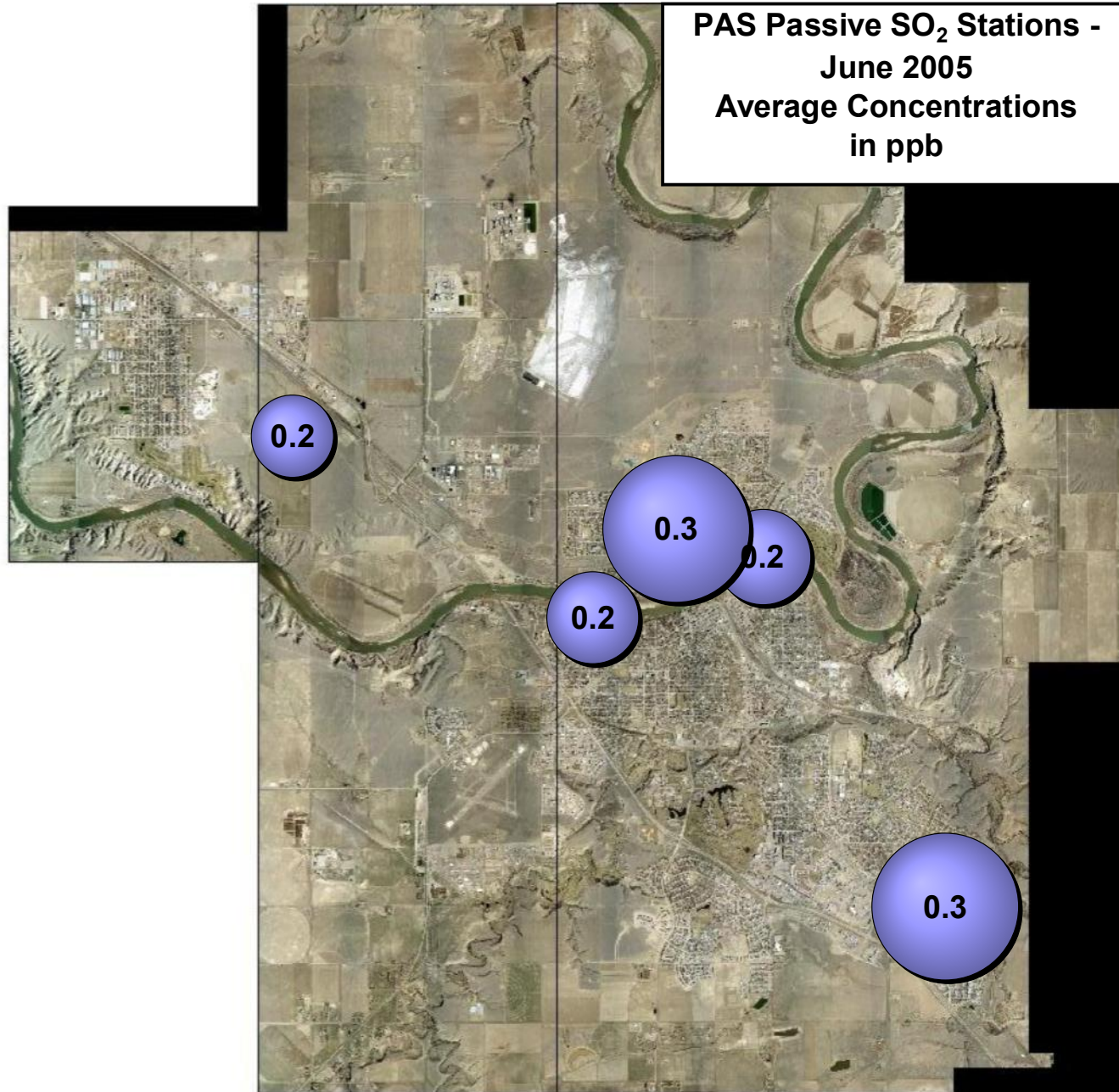
Passive Monitoring – June 2005

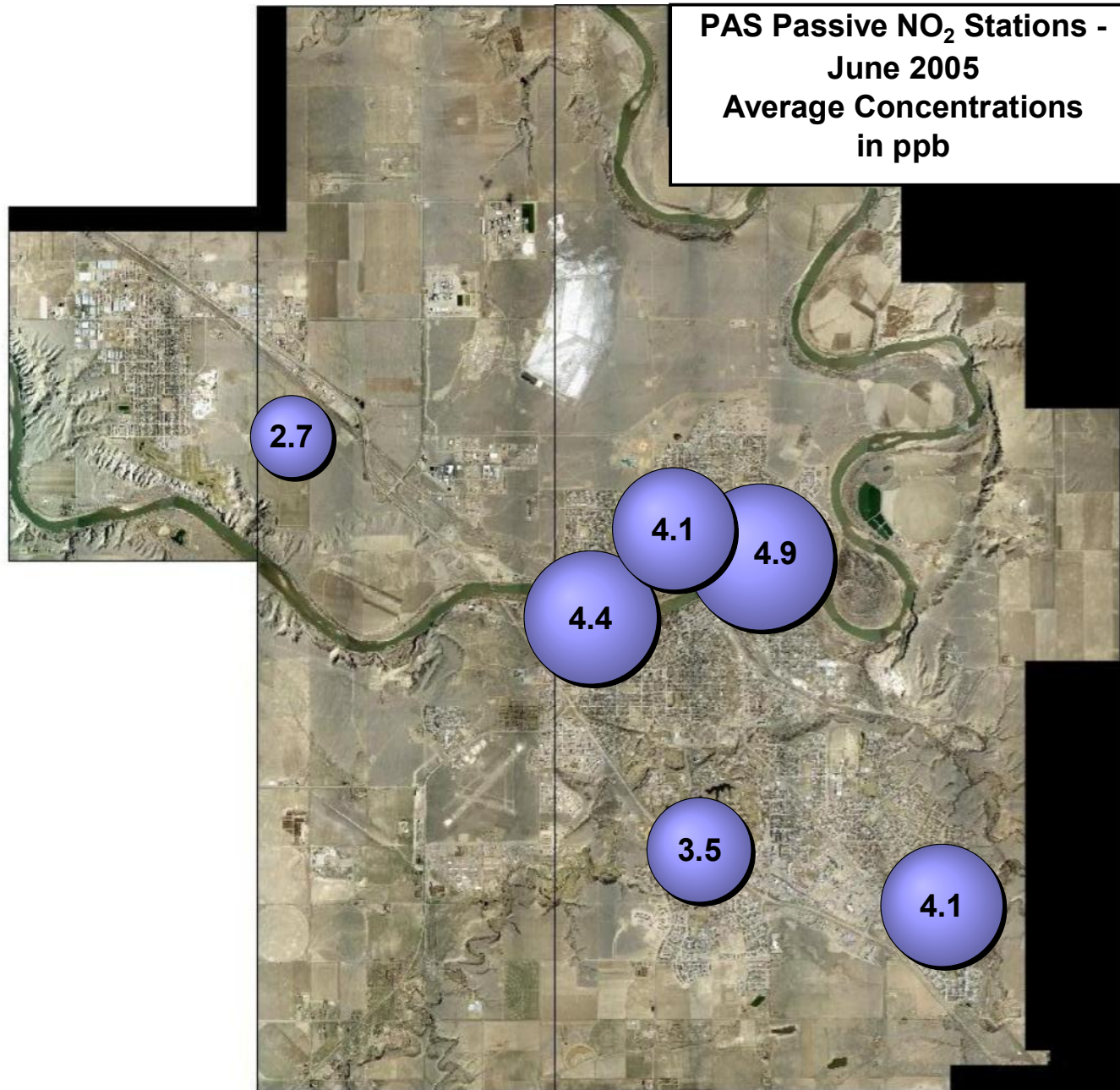
Ambient Air Compliance Network

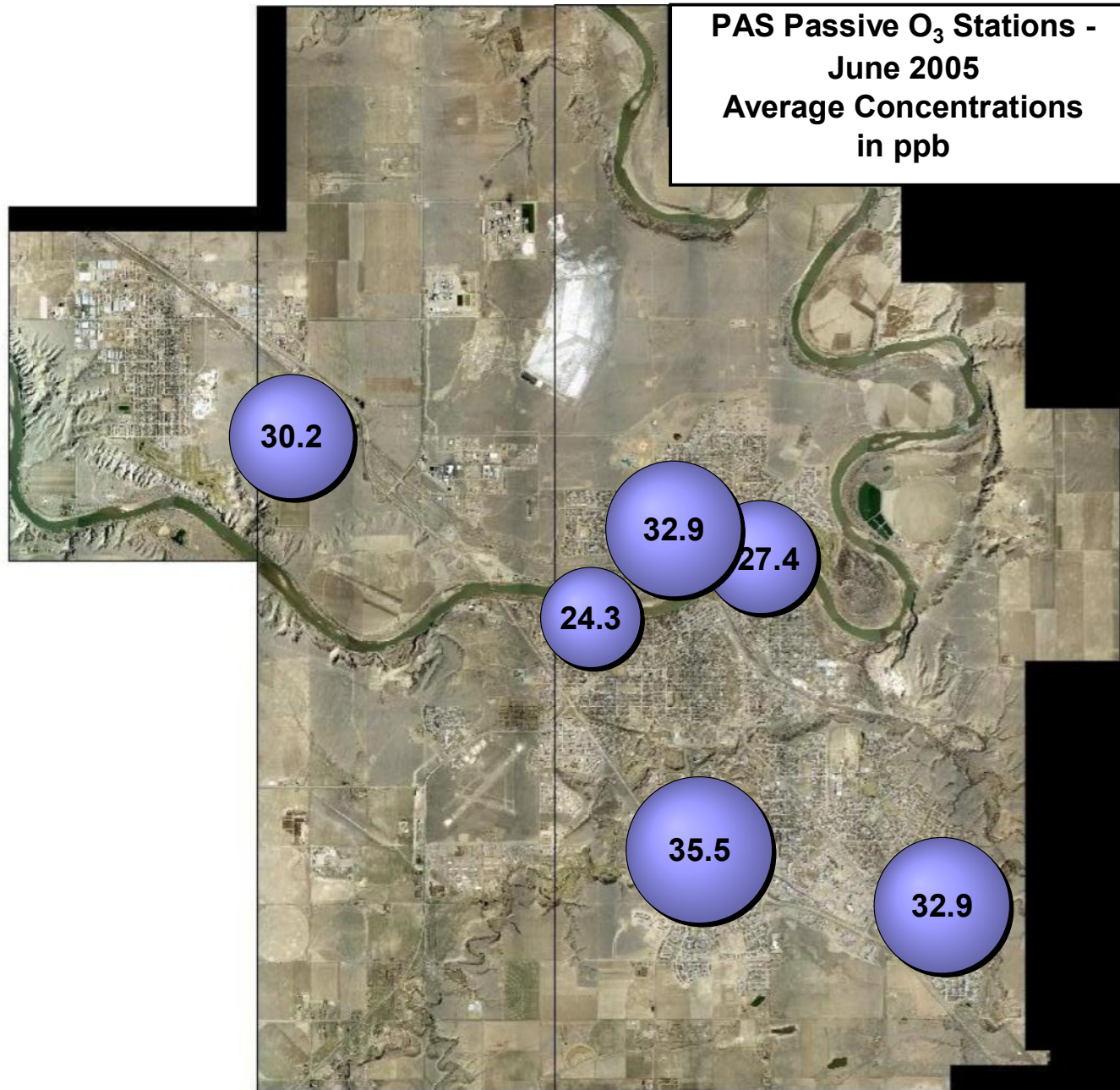


Palliser Airshed Society - PAS Passive Stations for June 2005

Station Number	Station Name	SO ₂ ppb	O ₃ ppb	NO ₂ ppb	Easting	Northing	Elevation																																																																
Duplicates																																																																							
3a	Monitoring Station	0.3	33.5	4.1																																																																			
3b		0.3	32.3	4.1																																																																			
1	Hospital	0.2	24.3	4.4	521648	5542721	698																																																																
2	Ball Park	0.2	27.4	4.9	524019	5543686	660																																																																
3	Monitoring Station	0.3	32.9	4.1	522812	5544133	714																																																																
4	Redcliff	0.2	30.2	2.7	517448	5545608	725																																																																
5	Southridge	-	35.5	3.5	523172	5539016	721																																																																
6	Christian School Park	0.3	32.9	4.1	526577	5538133	709																																																																
<p>Stats:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Mean</td> <td style="text-align: center;">0.2</td> <td style="text-align: center;">30.5</td> <td style="text-align: center;">3.9</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">Standard Deviation</td> <td style="text-align: center;">0.1</td> <td style="text-align: center;">4.1</td> <td style="text-align: center;">0.7</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">Minimum</td> <td style="text-align: center;">0.2</td> <td></td> <td></td> <td style="text-align: center;">4</td> <td></td> <td style="text-align: center;">Redcliff</td> <td></td> </tr> <tr> <td style="text-align: center;">Maximum</td> <td style="text-align: center;">0.3</td> <td></td> <td></td> <td style="text-align: center;">3</td> <td></td> <td style="text-align: center;">Monitoring Station</td> <td></td> </tr> <tr> <td style="text-align: center;">Minimum</td> <td></td> <td style="text-align: center;">24.3</td> <td></td> <td style="text-align: center;">1</td> <td></td> <td style="text-align: center;">Hospital</td> <td></td> </tr> <tr> <td style="text-align: center;">Maximum</td> <td></td> <td style="text-align: center;">35.5</td> <td></td> <td style="text-align: center;">5</td> <td></td> <td style="text-align: center;">Southridge</td> <td></td> </tr> <tr> <td style="text-align: center;">Minimum</td> <td></td> <td></td> <td style="text-align: center;">2.7</td> <td style="text-align: center;">4</td> <td></td> <td style="text-align: center;">Redcliff</td> <td></td> </tr> <tr> <td style="text-align: center;">Maximum</td> <td></td> <td></td> <td style="text-align: center;">4.9</td> <td style="text-align: center;">2</td> <td></td> <td style="text-align: center;">Ball Park</td> <td></td> </tr> </table>								Mean	0.2	30.5	3.9					Standard Deviation	0.1	4.1	0.7					Minimum	0.2			4		Redcliff		Maximum	0.3			3		Monitoring Station		Minimum		24.3		1		Hospital		Maximum		35.5		5		Southridge		Minimum			2.7	4		Redcliff		Maximum			4.9	2		Ball Park	
Mean	0.2	30.5	3.9																																																																				
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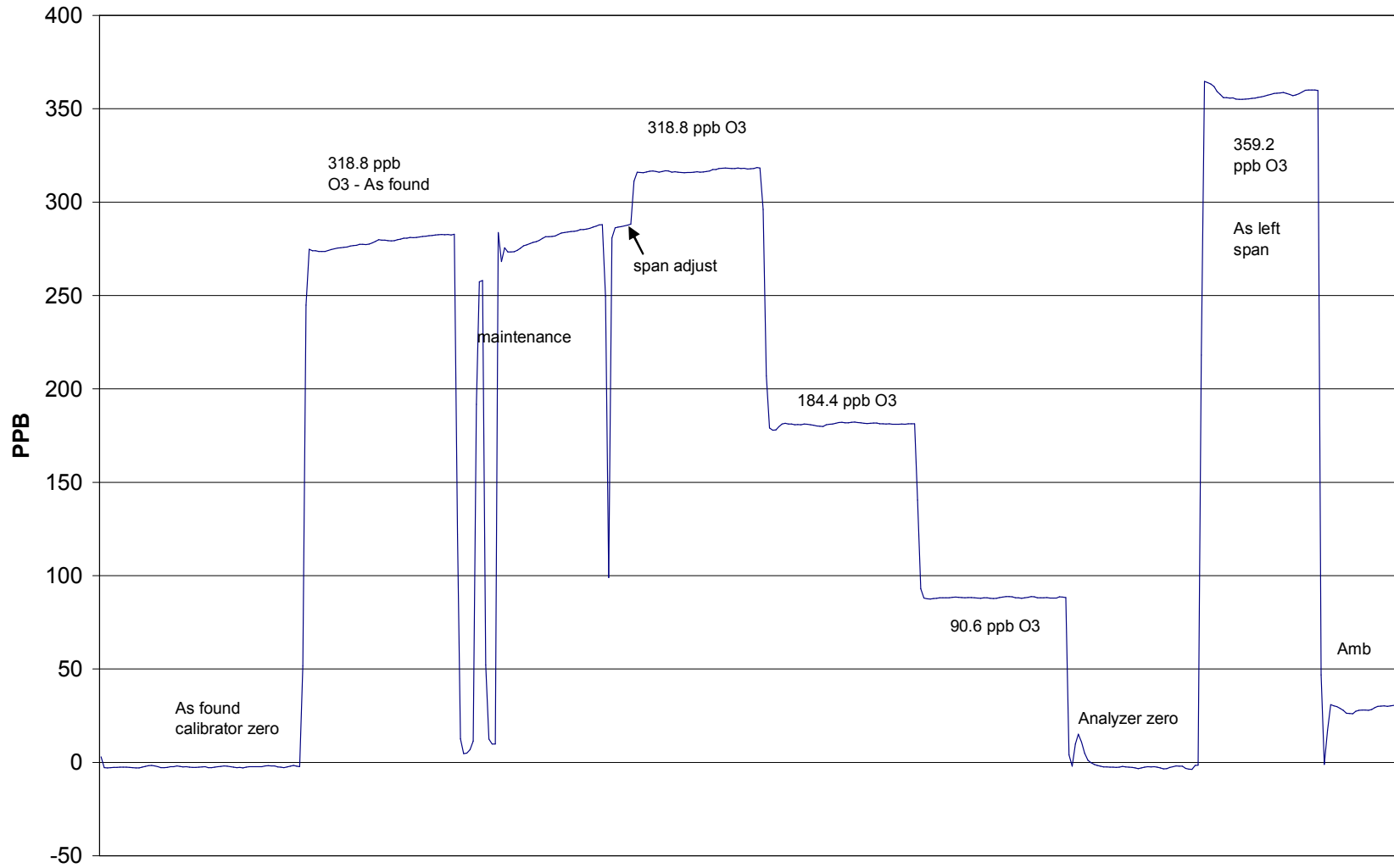


June 2005 - Calibration Reports

PAS - Crescent Heights Station:

O₃, NO_x, NO, NO₂, THC, CO, PM_{2.5}, and Wind Speed / Wind Direction

O3 Calibration



June 20, 2005

Calibration Report

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



Station Information

Calibration Date June 20, 2005 Previous Calibration May 4, 2005
 Station Number 1 Station Location Crescent Heights

Reason: Routine Installation Removal Other: _____

Start Time (MST) 13:25 End Time (MST) 19:00
 Barometric Pressure 0.927 ATM Station Temperature 21.0 Deg C
 Calibrator EnviroNics 6100 Serial Number 3016
 NO Cal Gas Conc 49.8 ppm Cal Gas Expiry Date 12-Dec-05
 NOx Cal Gas Conc 49.8 ppm Cal Gas Serial # ALM011558

DACS Information

DACS make FOCUS AP1000 DACS serial No. 45270

Parameter		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	0.999737	1.003711	1.004541
	Data Offset	-0.184826	-1.081129	-0.751125
After	Data Slope	0.995076	0.995836	0.995604
	Data Offset	-0.013963	-0.908161	-0.955972
Channel #		8	6	7
Voltage Range		0 - 1 VDC	0 - 1 VDC	0 - 1 VDC

Analyzer Information

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

Test Point	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
NO background	0.6	mV	-0.5	mV
NO _x background	1.2	mV	0.4	mV
NO coefficient	1.848		1.809	
NO _x coefficient	1.868		1.825	
Chamber Temp	49.9	Deg C	49.9	Deg C
Cooler Temp	7.1	Deg C	7.1	Deg C
Azero	32.0		33.6	
Perm Temp	40.0	Deg C	40.0	Deg C
Pressure	4.0	inches Hg	4.0	inches Hg
Sample Flow	456.0	ccm	455.0	ccm

Notes: Analyzer was zero and span adjusted.
Analyzer pump was replaced with newer rebuilt pump following as found captured points.

Calibration Report

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



Station Information

Calibration Date: June 20, 2005 Station Location: Crescent Heights

Calibration Data

	Dilution flow rate (ccm)	Source gas flow rate (ccm)	Calculated NO _x conc (ppb)	Calculated NO conc (ppb)	Calculated NO ₂ conc (ppb)	Indicated NO _x conc (ppb)	Indicated NO conc (ppb)	Indicated NO ₂ conc (ppb)	NO _x Correction factor	NO Correction factor
zero	4993	0.00	0.0	0.0	0.0	0.2	-0.1	0.2	N/A	N/A
1	4993	39.97	395.5	395.5	0.0	397.6	397.5	0.6	0.9947	0.9949
2	4993	19.97	198.4	198.4	0.0	200.8	201.2	-0.3	0.9881	0.9862
3	4993	9.97	99.2	99.2	0.0	101.1	101.4	-0.5	0.9819	0.9785
AFZ	4993	0.00	0.0	0.0	0.0	-0.4	-1.0	0.4	0.0000	0.0000
AFS	4993	39.97	395.5	395.5	0.0	382.6	382.6	0.3	1.0337	1.0337
								Average Correction Factor	0.9882	0.9865

As Found Concentrations NO_x= 381.9 NO= 382.8 As Found Percent Change NO_x= -3.4% NO= -3.2%

GPT Calibration Data

Dilution Flow 4993 ccm Source Gas Flow 39.97 ccm

O ₃ Setpoint (ppb)	Calculated NO _x conc (ppb)	Calculated NO conc (ppb)	Calculated NO ₂ conc (ppb)	Indicated NO _x conc (ppb)	Indicated NO conc (ppb)	Indicated NO ₂ conc (ppb)	NO _x Correction factor	NO Correction factor	NO ₂ Correction factor	Converter Efficiency	
0	395.3	394.8	0.5	399.1	397.5	0.2	N/A	N/A	N/A	N/A	
350	395.3	76.5	318.8	398.6	77.8	320.7	0.9918	0.9833	0.9942	100.6%	
200	395.3	210.8	184.4	397.4	212.7	184.9	0.9946	0.9911	0.9973	100.3%	
100	395.3	304.7	90.6	397.5	307.0	91.0	0.9943	0.9925	0.9956	100.4%	
							Average Correction Factor	0.9936	0.9890	0.9957	100.4%

AIC Data

Parameter	Previous calibration				Current calibration			
	NO _x	NO ₂	NO		NO _x	NO ₂	NO	
Auto zero	-1.1	0.1	-1.0	ppb	0.1	0.0	0.1	ppb
Auto span	485.0	475.7	8.5	ppb	474.0	465.4	9.8	ppb

Calibration Performed By: Kelly Baragar

Calibration Summary

Parameter NO₂
 Air Monitoring Network Palliser Airshed

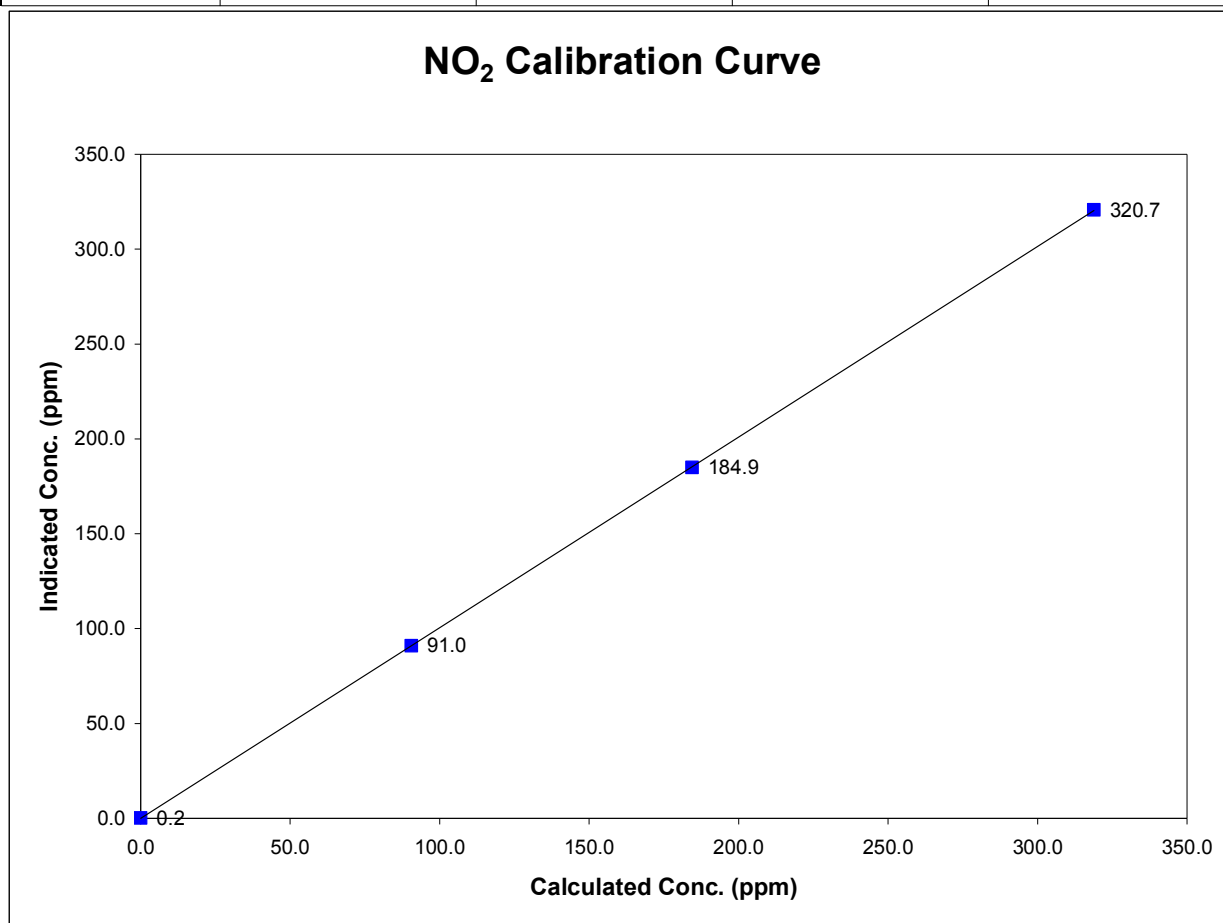


Station Information

Calibration Date	June 20, 2005	Previous Calibration	May 4, 2005
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	13:25	End Time (MST)	19:00
Analyzer make	API Model 200E	Analyzer serial #	219

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	0.0000	Correlation Coefficient	0.999995
90.6	91.0	0.9956		
184.4	184.9	0.9973		
318.8	320.7	0.9942		
			Slope	0.995076
			Intercept	-0.013963



Calibration Summary

Parameter NO_x
 Air Monitoring Network Palliser Airshed



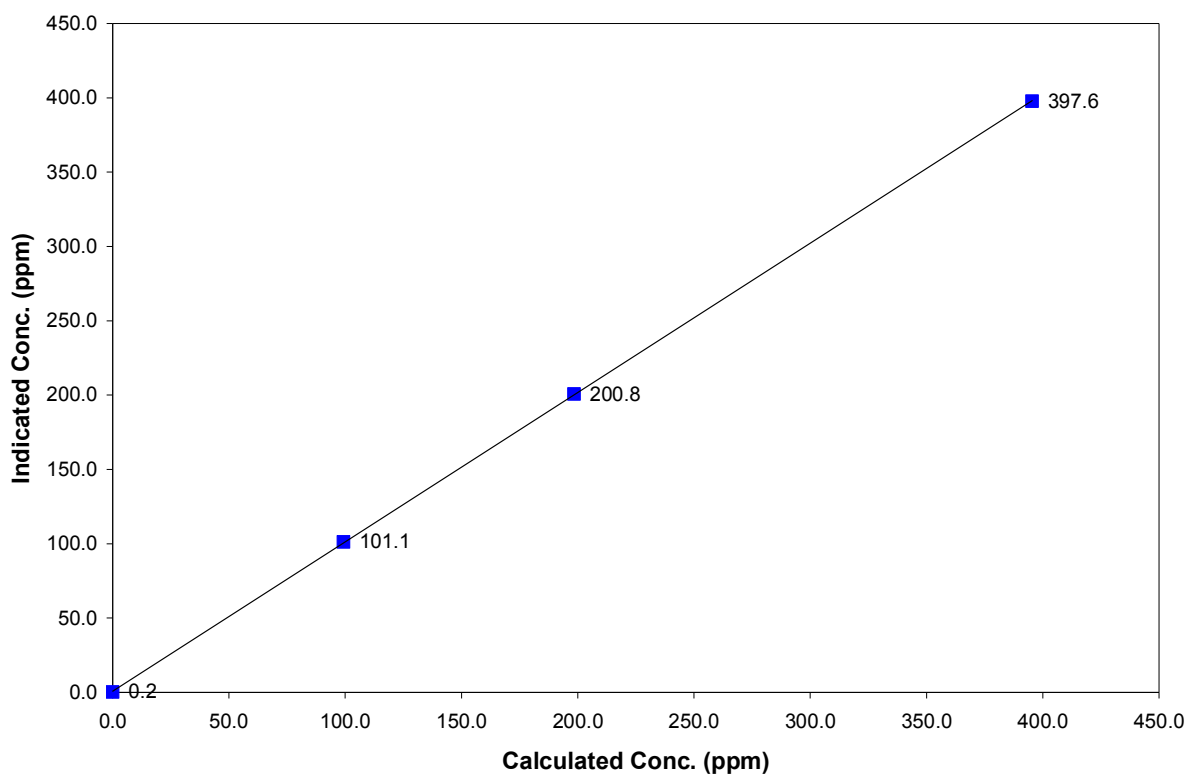
Station Information

Calibration Date	June 20, 2005	Previous Calibration	May 4, 2005
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	13:25	End Time (MST)	19:00
Analyzer make	API Model 200E	Analyzer serial #	219

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.2	0.0000	Correlation Coefficient	0.999984
395.5	397.6	0.9947		
198.4	200.8	0.9881		
99.2	101.1	0.9819		
			Slope	0.995836
			Intercept	-0.908161

NO_x Calibration Curve



Calibration Summary

Parameter NO
 Air Monitoring Network Palliser Airshed

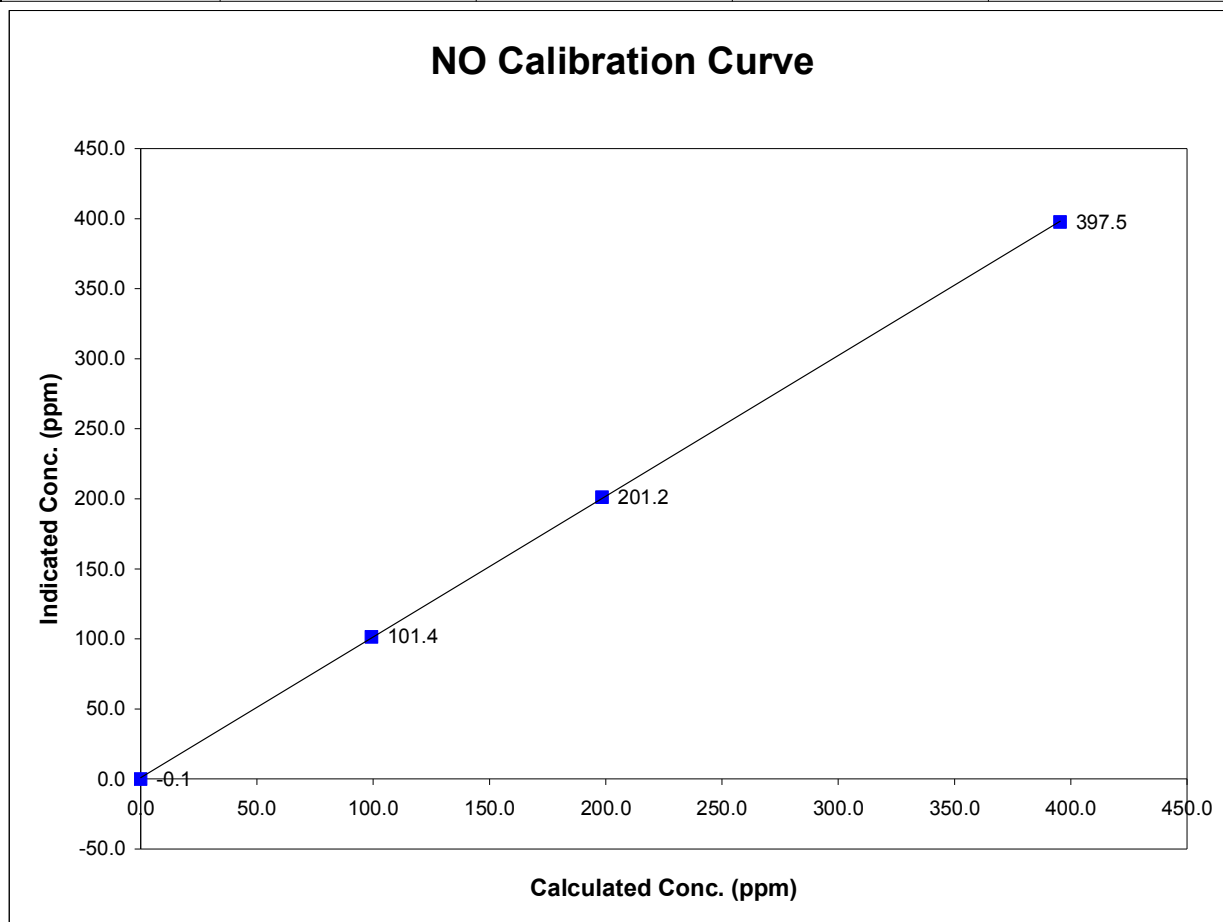


Station Information

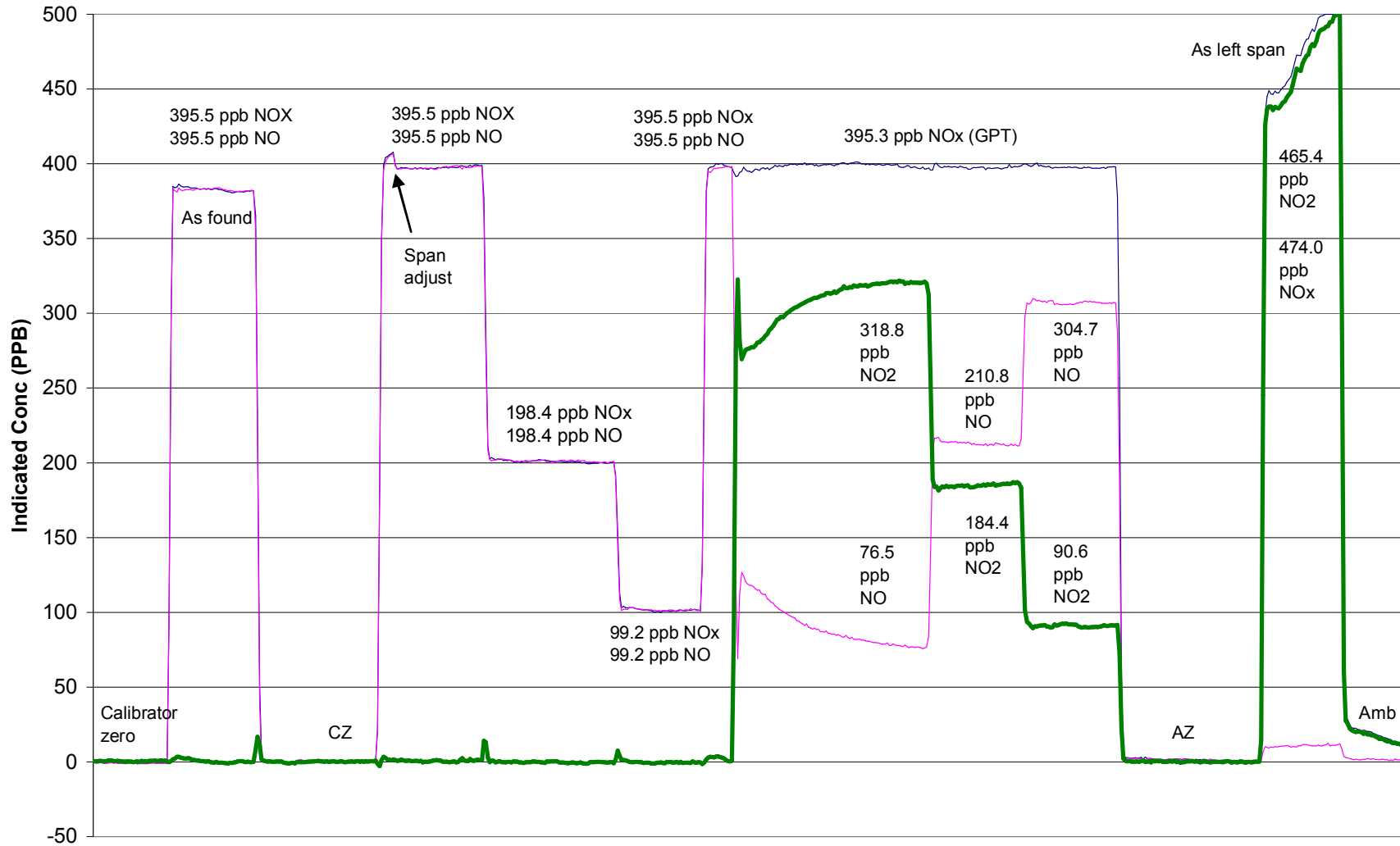
Calibration Date	June 20, 2005	Previous Calibration	May 4, 2005
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	13:25	End Time (MST)	19:00
Analyzer make	API Model 200E	Analyzer serial #	219

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
395.5	397.5	0.9949	Correlation Coefficient	0.999964
198.4	201.2	0.9862		
99.2	101.4	0.9785		
			Slope	0.995604
			Intercept	-0.955972



NOx Calibration



June 20, 2005

Calibration Report

Parameter THC
 Air Monitoring Network Palliser Airshed



Station Information

Calibration Date	June 21, 2005	Previous Calibration	May 13, 2005
Station Number	1	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	9:10	End Time (MST)	12:00
Barometric Pressure	0.927 ATM	Station Temperature	21.0 Deg C
Calibrator	Envionics 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 CH4 equiv	1527.75 ppm	Cal Gas Cylinder #	ALM030358
DACS make	Focus AP1000	DACS serial No.	45270
DACS voltage range	0 - 10 volt	DACS channel #	9
	<u>Before</u>		<u>After</u>
DACS slope	0.005000	DACS slope	0.005000
DACS intercept	0.000000	DACS intercept	0.000000
Calculated slope	1.000024	Calculated slope	1.004649
Calculated intercept	0.008562	Calculated intercept	-0.128735
Analyzer make	TEI model 51C-LT	Analyzer serial #	407505596

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
THC sample pressure	5.74	PSI	5.75	PSI
THC span counts	10713	raw	10965	raw
THC zero counts	1784	raw	1784	raw

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
2994	0.00	0.00	0.15	N/A
2994	39.98	20.13	20.19	0.9972
2994	19.98	10.13	10.17	0.9960
2994	9.97	5.07	5.17	0.9804
zero	0.00	0.00	0.15	As Found Zero
2994	39.98	20.13	20.83	As Found Span
Average Correction Factor				0.9912

Calculated value of As Found Response: 20.692 ppm Percent Change of As Found: -2.8%

	before calibration		after calibration	
Auto zero	0.00	ppm	-0.04	ppm
Auto span	21.87	ppm	23.41	ppm

Notes: Span adjusted analyzer.

Calibration Performed By: Kelly Baragar

Calibration Summary

Parameter THC
 Air Monitoring Network Palliser Airshed

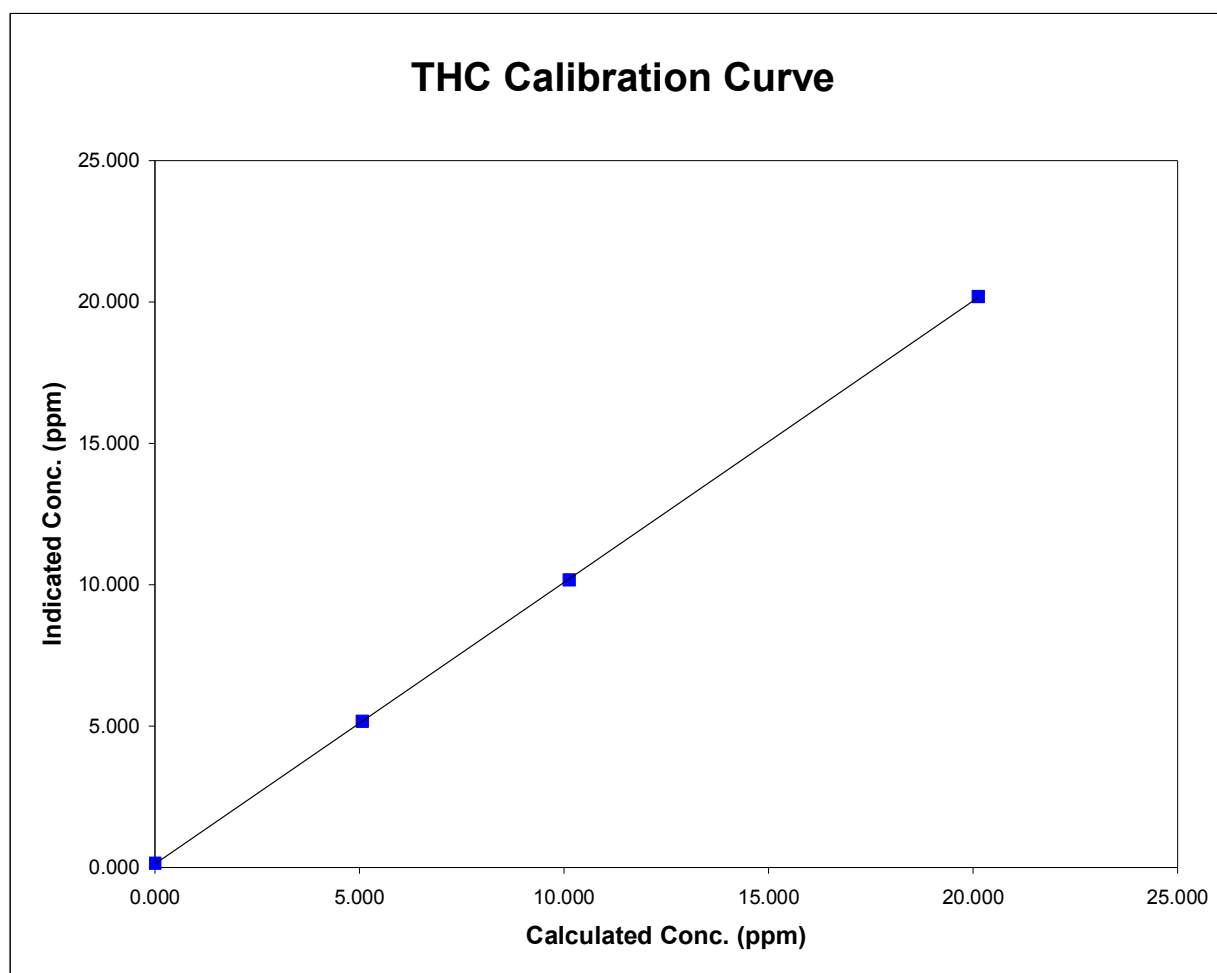


Station Information

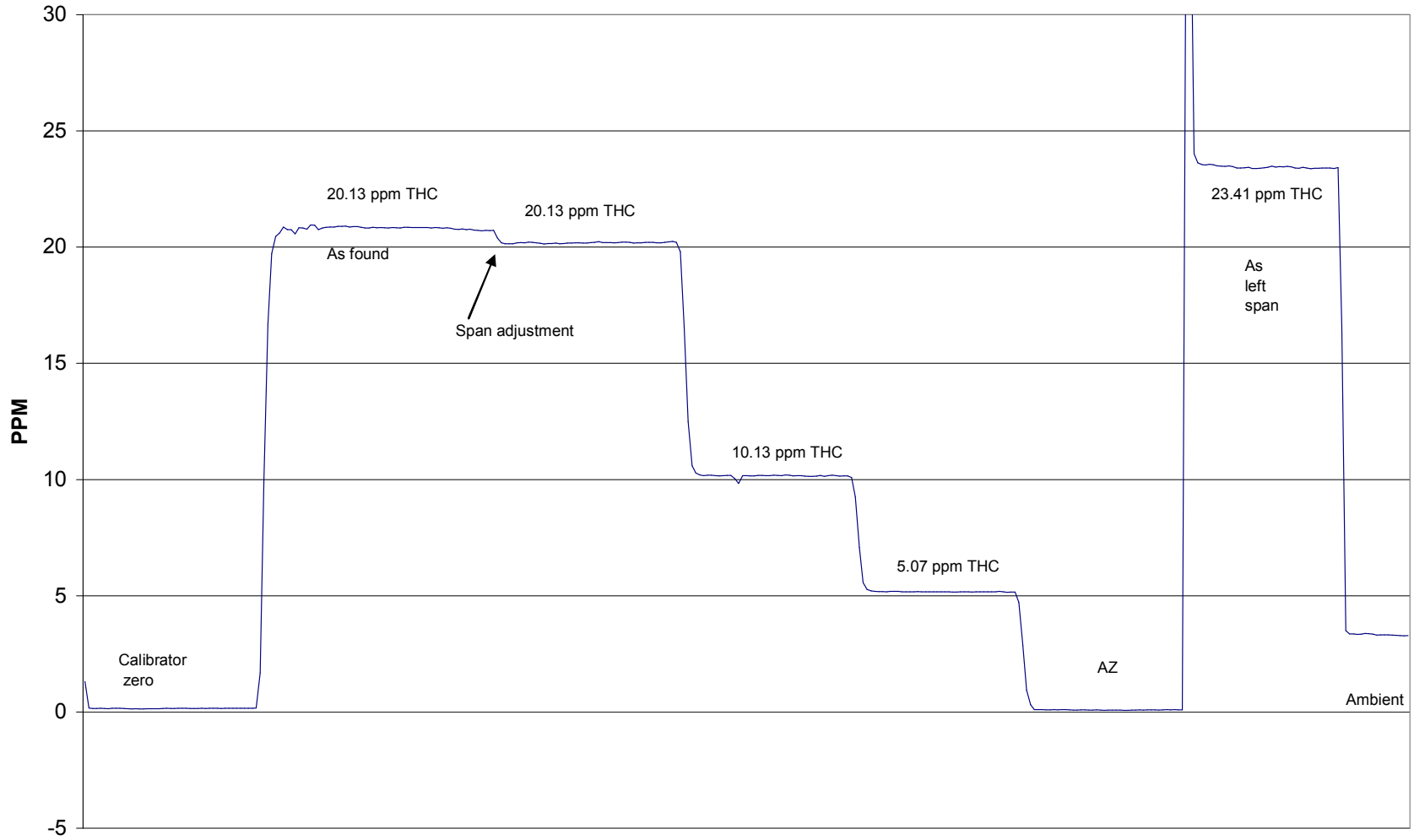
Calibration Date	June 21, 2005	Previous Calibration	May 13, 2005
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	9:10	End Time (MST)	12:00
Analyzer make/model	TEI model 51C-LT	Analyzer serial #	407505596

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	0.151	N/A		
20.132	20.188	0.9972	Correlation Coefficient	0.999988
10.128	10.169	0.9960		
5.071	5.172	0.9804	Slope	1.004649
			Intercept	-0.128735



THC Calibration



June 21, 2005

Calibration Report



Parameter CO
 Air Monitoring Network Palliser

Station Information

Calibration Date	June 21, 2005	Previous Calibration	May 4, 2005
Station Number	1	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	11:10	End Time (MST)	14:45
Barometric Pressure	0.927 ATM	Station Temperature	21.0 Deg C
Calibrator	Envionics 6100	Serial Number	3016
Cal Gas Conc	2998 ppm	Cal Gas Expiry Date	3/14/2008
		Cal Gas Cylinder #	BLM002248
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	0.999499	Calculated slope	0.992240
Calculated intercept	0.564476	Calculated intercept	0.524037
Analyzer make	TEI Model 48CLT	Analyzer serial #	436609887

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO coefficient	1.045		NA	
CO bkg setting	4.108		NA	
Lamp ratio	1.1598		1.1599	
Lamp intensity	199903	Hz	199885	Hz
Sample Flow	1.012	LPM	1.012	LPM

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4993	0.00	0.00	-0.48	N/A
4993	49.97	29.71	29.45	1.0088
4993	19.96	11.94	11.40	1.0471
4993	9.97	5.97	5.51	1.0843
4993	0.00	0.00	0.32	0.0000
4993	49.97	29.71	31.52	0.9426
Average Correction Factor				1.0467

Calculated value of As Found Response: 31.743 ppm Percent Change of As Found: -6.9%

	before calibration		after calibration	
Auto zero	0.02	ppm	0.05	ppm
Auto span	20.27	ppm	20.00	ppm

Notes: A zero and span adjustment were performed.
Analyzer was mounted on rack slides.

Calibration Performed By: Kelly Baragar

Calibration Summary

Parameter CO
Air Monitoring Network Palliser

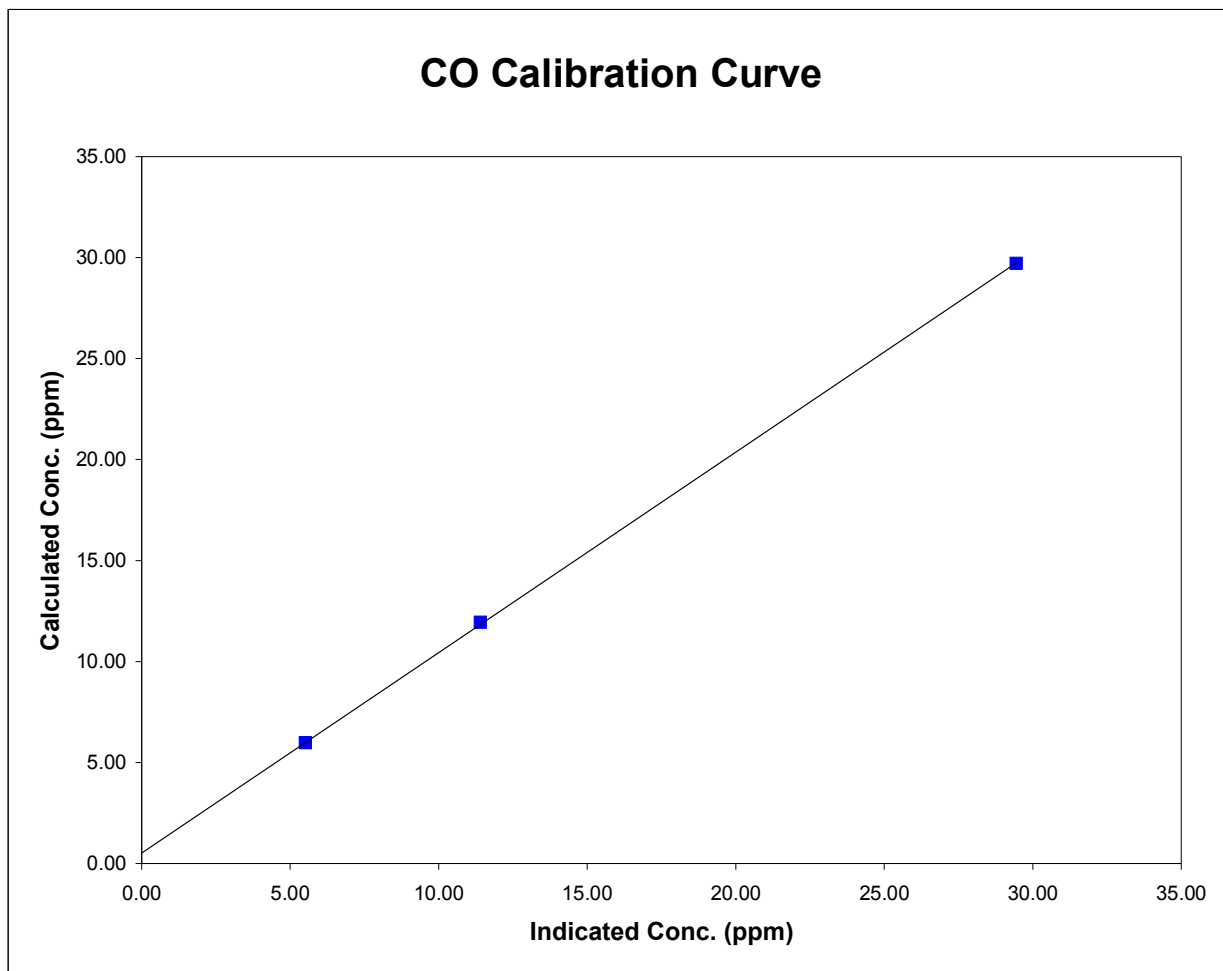


Station Information

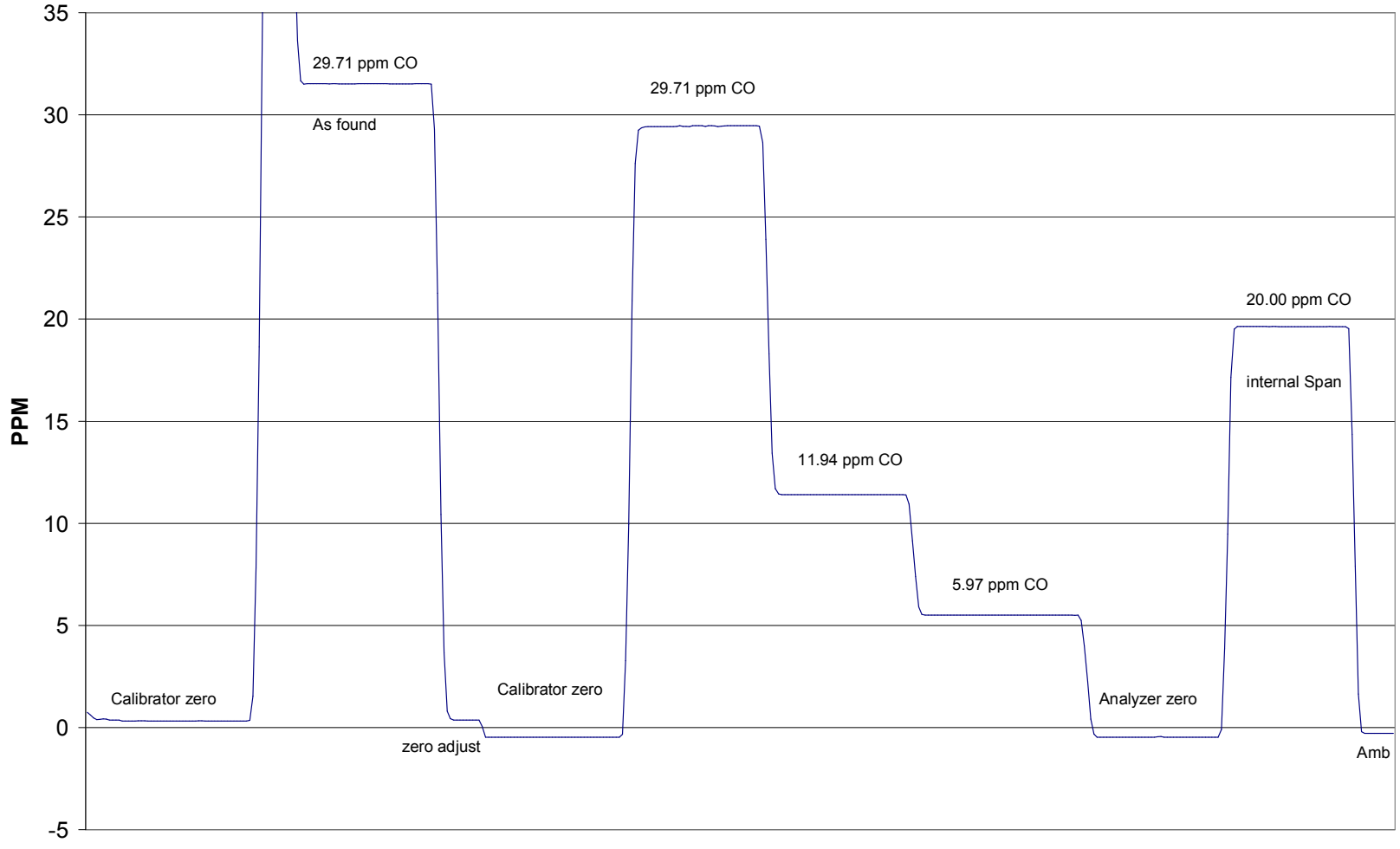
Calibration Date	June 21, 2005	Previous Calibration	May 4, 2005
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	11:10	End Time (MST)	14:45
Analyzer make/model	TEI Model 48CLT	Analyzer serial #	436609887

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.480	N/A		
29.707	29.448	1.0088	Correlation Coefficient	0.999971
11.937	11.400	1.0471		
5.974	5.510	1.0843	Slope	0.992240
			Intercept	0.524037



CO Calibration



June 21, 2005

Calibration Report



Parameter PM2.5
 Air Monitoring Network Palliser Airshed

Station Information

Calibration Date	June 20, 2005	Previous Calibration	May 9, 2005
Station Number	1	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	16:25	End Time (MST)	21:30
Barometric Pressure	0.927 ATM	Station Temperature	20.5 Deg C
Flow Calibrator	BIOS Drycal DCL-MH	Serial Number	101780
DACS make	AP 1000	DACS serial No.	45269
DACS voltage range	0 - 1 V	DACS channel #	15
	<u>Before</u>		<u>After</u>
DACS slope	0.050000	DACS slope	0.050000
DACS intercept	-50.000000	DACS intercept	-50.000000

Analyzer Information

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

	before		after	
Main Flow Set Point	3.000	SLPM	3.000	SLPM
Aux Flow Set Point	16.67	SLPM	16.67	SLPM
Filter Load	42	%	30	%
Ko Factor	12758		12758	
Temperature	27.8	Deg C	27.4	Deg C
Pressure	0.926	ATM	0.927	ATM

Calibration Data

Parameter	Set Point	Indicated Reading (measured externally)	Tolerance	TEOM Reading
zero flow - main	0.0	0.0	0.00	0.09
zero flow - auxillary	0.0	0.0	0.01	0.17
flow recovery - main	45 - 60 Seconds	40.0	45 - 60 Seconds	40.0
flow recovery - aux	46 - 60 Seconds	40.0	46 - 60 Seconds	40.0
Temperature	measured	27.4	+/- 1.0 Deg C	27.4
Pressure	measured	0.927	+/- 1.5% ΔATM	0.927
Total Flow	16.67 SLPM	16.20		16.70
Main Flow	13.67 SLPM	2.900	+/- 1.0 SLPM	3.000
Auxillary Flow	3.0 SLPM	13.30	+/- 0.2 SLPM	13.75
Leak Check - main	0.0	0.00	<0.15 SLPM	0.00
Leak Check - aux	0.0	0.00	<0.15 SLPM	0.01
Ko Factor (w/o filter)	measured	328.766	filter weight (g)	0.11352
Ko Factor (w/ filter)	measured	234.716	% Ko difference	0.0%

Notes: Installed new MFC board to replace recalled existing board. Slight adjustments made on temp and BP sensors. Flow's recalibrated. Full analog input/output calibration done. Filter audit performed.

Calibration Performed By: Kelly Baragar

Calibration Report



Parameter Wind Speed & Direction
Air Monitoring Network Palliser Airshed

Station Information

Calibration Date	June 27, 2005	Previous Calibration	April 27, 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)	12:50	End Time (MST)	14:35
Barometric Pressure	0.922 mb	Ambient Temperature	24.5 Deg C

DACS Information

DACS make	Focus AP1000	DACS serial No.	45270
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		1.0	N/A
90.0		91.2	0.9867
180.0		181.4	0.9922
270.0		271.9	0.9929
360.0		359.9	1.0002

Sensor Make	Met One 020C	Sensor S/N	C4769
	<u>Before</u>		<u>After</u>
Calculated slope	1.006515	Calculated slope	1.001553
Calculated intercept	-1.923282	Calculated intercept	-1.380762

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

Sensor Make	Met One 010C	Sensor S/N	C4492
	<u>Before</u>		<u>After</u>
Calculated slope	1.013013	Calculated slope	1.013013
Calculated intercept	-0.837100	Calculated intercept	-0.837100

Notes: Wind head was re-installed at 19° West of magnetic North (same noted on removal).
Replaced all bearings and wind cup set.

Calibration Performed By: Kelly Baragar

Calibration Summary



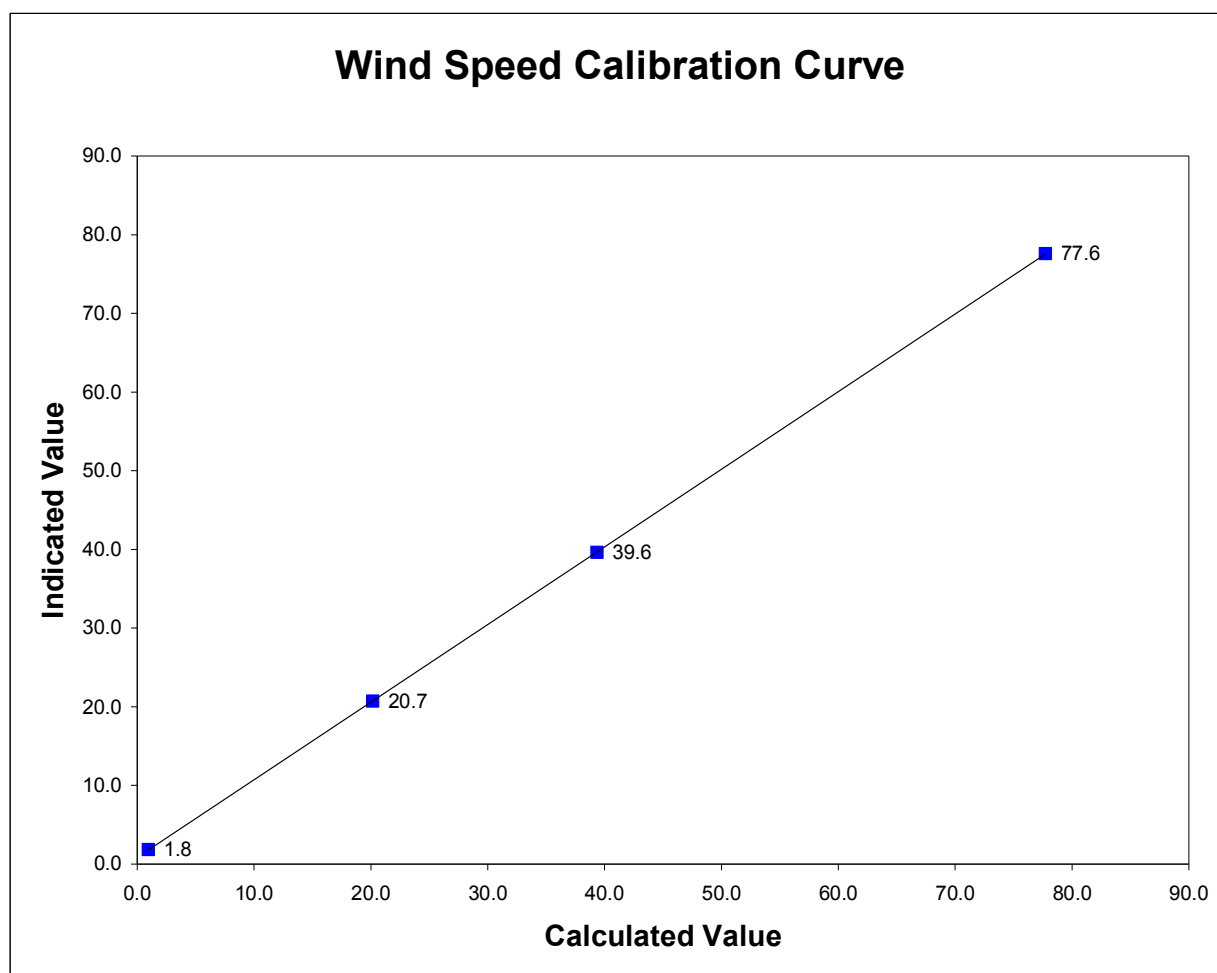
Parameter Wind Speed
 Air Monitoring Network Palliser Airshed

Station Information

Calibration Date	June 27, 2005	Previous Calibration	April 27, 2004
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	12:50	End Time (MST)	14:35
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



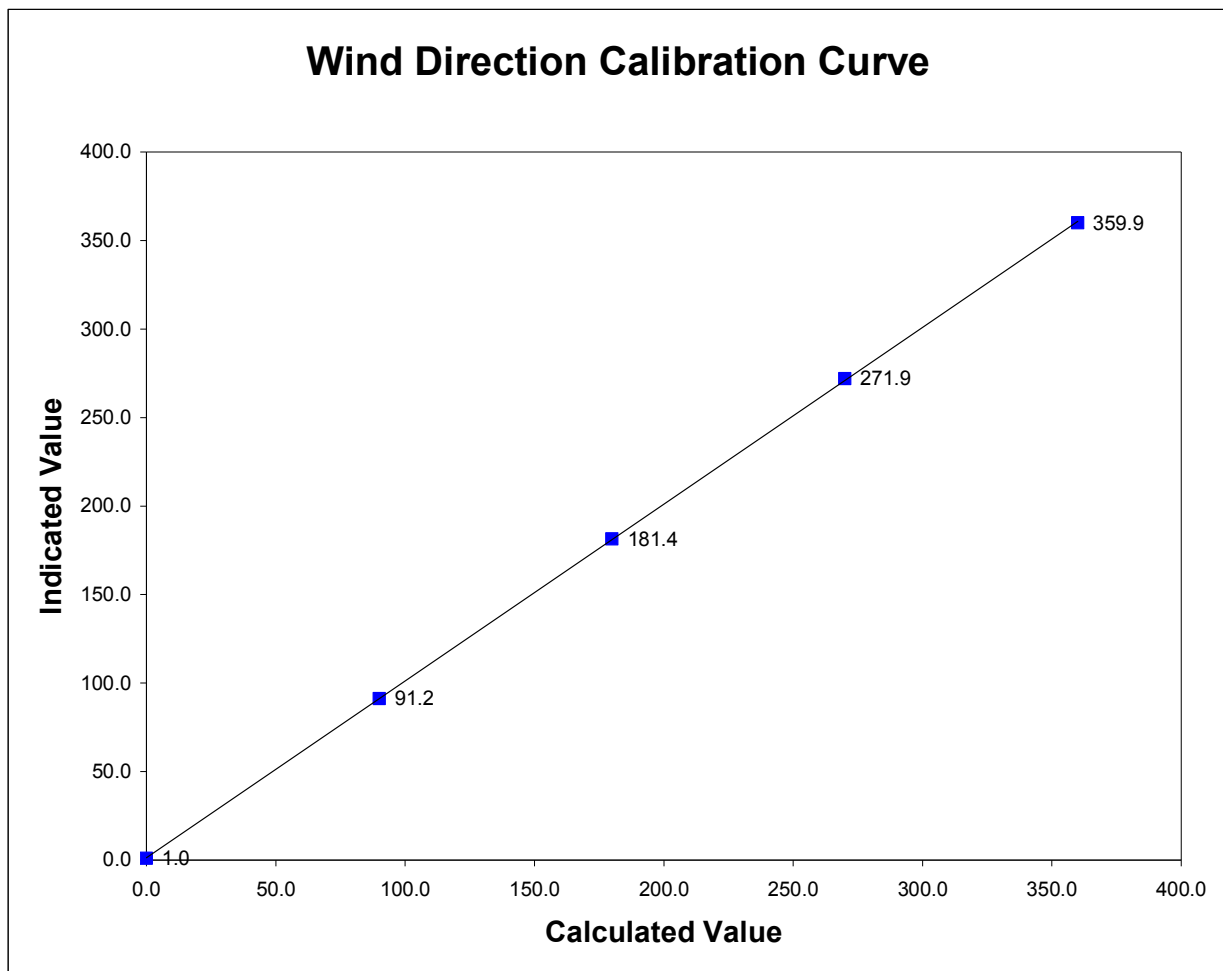
Parameter Wind Direction
 Air Monitoring Network Palliser Airshed

Station Information

Calibration Date	June 27, 2005	Previous Calibration	April 27, 2004
Station Number	1	Station Location	Crescent Heights
Start Time (MST)	12:50	End Time (MST)	14:35
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	1.0	N/A		
360.0	359.9	1.0002	Correlation Coefficient	0.999975
270.0	271.9	0.9929		
180.0	181.4	0.9922	Slope	1.001553
90.0	91.2	0.9867		
			Intercept	-1.380762



Wind Speed & Direction Calibration

