



Palliser Airshed Society

Ambient Air Monitoring Network Summary

April 2008

Prepared By:



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May 30, 2008

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

Attention: Director of Monitoring and Evaluation

RE: Palliser Airshed Society (PAS) Ambient Air Monitoring Report – April 2008

Enclosed is the PAS Ambient Monitoring Report for the month of **April 2008**.

Continuous Monitoring – Crescent Heights and Portable-Brooks

Included in this report are; monthly sampling table, detailed hourly average reports and multipoint calibration reports of all instruments.

Crescent Heights:

- ◆ All analyzers and instruments at the Crescent Heights Station were greater than 90% operational for for the month of April.
- ◆ The measured ambient air quality was within the Alberta Objectives and Federal guidelines with no exceedences recorded at the Crescent Heights Station
- ◆ The following is a summary of the monthly averages recorded during sampling:
 - Monthly average concentrations of NO₂ was 7.3 ppb
 - Monthly average concentrations for O₃ was 31.2 ppb
 - Monthly average concentrations for CO was 0.20 ppm
 - Monthly average concentrations for THC was 2.06 ppm
 - Monthly average concentrations for PM_{2.5} was 3.7 µg/m³
- ◆ The Air Quality Index (AQI) recorded 650 hours of Good readings and 34 hours of Fair readings for the month of April.

Portable-Brooks:

- ◆ All pollutant analyzers at the Portable Brooks Station were 100% operational for the month of April.
- ◆ The measured ambient air quality was within the Alberta Objectives and Federal guidelines for SO₂ and O₃ pollutants recorded at the Portable - Brooks Station. The H₂S analyzer recorded four (4) exceedences greater then the Alberta Objective of 10 (ppb):
 1. April 7: 02:00 12 ppb Alberta Environment Reference # **198991**.
 2. April 12: 21:00 22 ppb Alberta Environment Reference # **200341**.
 3. April 14: 19:00 32 ppb Alberta Environment Reference # **200374**.
 4. April 12: 21:00 14 ppb Alberta Environment Reference # **200652**.
 5. *April 10: 21:00 10 ppb Alberta Environment Reference # **200528**. (This reading was called in to Alberta Environment but after zero baseline adjustment it was no longer greater than the Alberta Objective.)
- ◆ The following is a summary of the monthly averages recorded during sampling:
 - Monthly average concentrations of SO₂ was 0.5 ppb
 - Monthly average concentrations for H₂S was 0.4 ppb
 - Monthly average concentrations for O₃ was 33.9 ppb



Passive Monitoring – Twenty Sites throughout the PAS zone:

The passive sample analyses were performed by MAXXAM Analytics Inc. There were two duplicate sites sampled in the month of March: Site 8 and Site 18. The NO₂ sampler at Site 13 fell apart when technician tried to collect it, there is no sample result. The following are the ranges for April 2008 recorded by the twenty passive stations located throughout the PAS zone.

- ◆ Average concentrations for SO₂ passives ranged from 0.1 to 0.5 ppb with a mean of 0.3 ppb.
- ◆ Average concentrations for NO₂ passives ranged from 0.0 to 4.7 ppb with a mean of 1.3 ppb.
- ◆ Average concentrations for O₃ passives ranged from 39.7 to 56.4 ppb with a mean of 46.2 ppb.

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

Sharon Whiteley, B.Sc.
AQM Data Specialist

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



Continuous Monitoring

Ambient Air Monitoring Network

Crescent Heights Station

General Station Issues

Routine monthly calibrations were performed on April 18th (NO_x and O₃) and April 30th (CO, THC and PM_{2.5}).

Parameter	Make	Model	Units	Notes
Ozone	TECO	43I	ppb	No operational problems observed.
Nitrogen Dioxide	Teledyne - API	200E	ppb	No operational problems observed.
Total Hydrocarbons	Bendix	400A	ppm	No operational problems observed.
Carbon Monoxide	TEI	49C	ppm	No operational problems observed.
PM _{2.5}	R&P TEOM	1400ab	µg/m ³	Two (2) hours were flagged for excessive baseline drift. No other operational problems observed.
Wind Speed	Met One	010C	kph	No operational problems observed.
Wind Direction	Met One	020C	Deg	No operational problems observed.
Ambient Temperature	Met One	083D	DegC	No operational problems observed.
Relative Humidity	Met One	083D	%	No operational problems observed.
Solar Radiation	Met One	096-1	W/m ²	No operational problems observed.
Data Acquisition System	Titan Logix	AP1000		No operational problems observed.



Continuous Monitoring

Ambient Air Monitoring Network

Portable-Brooks Station

General Station Issues

Routine monthly calibrations were performed on April 18th (O₃) and April 25th (SO₂ and H₂S).

Parameter	Make	Model	Units	Notes
Ozone	Teledyne - API	400E	ppb	No operational problems observed.
Sulphur Dioxide	TEI	43A	ppb	No operational problems observed.
Hydrogen Sulphide	TEI	43A	ppb	No operational problems observed.
Wind Speed	Blue Sky		kph	No operational problems observed.
Wind Direction	Blue Sky		Deg	No operational problems observed.
Data Acquisition System	Titan Logix	AP1000		No operational problems observed.



PAS - Crescent Heights

Monthly Summary Tables, Graphs and Roses



PAS - Crescent Heights - AQI Monthly Summary

Station: Crescent Heights
Station Owner: PAS

Air Quality Index (AQI)

Monitoring Dates: April 1, 2008 to May 1, 2008

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:	650
Number of 1-hr Fair Readings:	34
Number of 1-hr Poor Readings:	0
Number of 1-hr Very Poor Readings:	0

Status Flag Characters

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

Day	Mountain Standard Time																							
Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00
1-Apr-08	12	12	N	13	13	12	5	6	8	9	9	12	14	15	16	18	19	17	16	12	6	7	6	9
2-Apr-08	11	N	10	9	8	5	5	8	12	13	16	18	18	20	21	21	21	17	13	7	9	12	11	
3-Apr-08	N	11	11	11	11	9	10	11	12	14	15	17	19	19	21	21	21	19	15	10	9	5	8	N
4-Apr-08	8	12	10	10	6	10	4	13	6	14	15	17	20	21	20	20	21	20	19	17	16	14	N	13
5-Apr-08	12	11	11	11	11	11	12	11	12	12	13	15	17	19	19	18	19	19	15	13	13	N	14	14
6-Apr-08	N	15	15	14	14	14	12	14	14	14	15	16	18	19	20	20	20	20	20	18	N	15	12	9
7-Apr-08	15	12	12	13	13	11	10	11	11	10	10	10	13	15	19	20	20	20	19	N	17	9	7	9
8-Apr-08	8	10	12	11	10	7	7	11	13	16	19	21	22	22	22	22	22	N	15	10	17	18	17	
9-Apr-08	15	12	13	12	10	6	5	6	8	12	20	21	21	21	21	22	22	N	19	18	12	11	9	8
10-Apr-08	10	8	10	12	12	11	11	12	12	12	13	14	17	19	19	20	N	19	19	17	15	17	17	14
11-Apr-08	19	15	12	8	6	6	5	5	8	12	17	21	23	24	24	N	25	25	24	18	15	12	12	8
12-Apr-08	6	5	5	6	6	6	5	8	10	17	22	27	25	24	N	23	21	20	19	16	9	9	9	10
13-Apr-08	13	18	16	14	11	8	11	12	17	18	18	18	19	N	18	16	17	16	12	13	11	11	9	11
14-Apr-08	11	11	10	11	10	10	8	12	12	10	13	15	N	21	21	21	22	21	19	14	10	13	20	21
15-Apr-08	20	17	17	19	18	16	13	13	17	14	14	N	22	21	22	24	25	22	22	21	20	19	16	14
16-Apr-08	13	8	5	7	7	4	5	8	10	13	N	20	20	19	21	22	22	23	21	17	11	6	8	11
17-Apr-08	10	12	12	9	9	11	11	12	14	N	22	23	23	24	24	25	25	23	22	16	16	20	20	22
18-Apr-08	22	21	17	13	12	10	12	15	N	20	22	24	24	N	2	3	21	18	17	16	14	14	13	13
19-Apr-08	12	12	N	11	11	10	9	9	7	7	6	6	6	5	6	7	7	8	8	8	8	9	8	7
20-Apr-08	9	N	8	8	9	9	9	9	10	11	12	13	14	15	16	17	17	17	16	14	14	15	15	14
21-Apr-08	N	15	14	15	15	14	15	15	16	16	18	19	21	22	23	23	23	24	24	23	22	21	21	N
22-Apr-08	16	18	17	17	20	18	19	20	20	22	22	24	25	27	27	28	27	27	24	21	18	12	N	13
23-Apr-08	11	15	17	14	8	8	8	10	20	22	24	24	25	29	29	29	29	27	27	25	24	N	24	23
24-Apr-08	22	21	20	19	19	17	16	16	15	14	19	22	24	25	27	29	30	27	25	25	N	24	24	23
25-Apr-08	21	19	18	10	14	12	15	19	23	22	21	22	22	21	22	23	24	24	25	N	23	13	11	17
26-Apr-08	14	16	15	16	13	12	8	14	19	19	19	20	23	24	27	28	26	26	N	21	16	17	17	16
27-Apr-08	9	7	10	13	8	7	6	8	11	18	21	22	31	34	32	30	29	N	25	18	16	15	15	12
28-Apr-08	16	20	16	16	14	13	10	10	13	15	16	19	22	23	23	24	N	24	24	22	15	11	12	9
29-Apr-08	6	8	7	6	6	7	9	11	15	22	24	27	26	25	24	N	22	21	18	19	23	22	24	22
30-Apr-08	21	20	20	N	17	14	11	N	N	21	23	23	26	27	26	27	28	29	26	21	18	15	9	7



PAS - Crescent Heights Nitrogen Dioxide Monthly Summary

Station: Crescent Heights
Station Owner: PAS

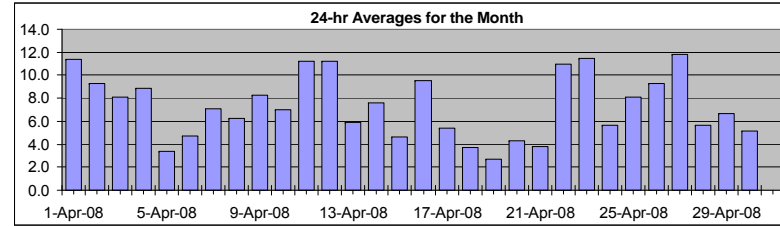
HOURLY AVERAGE TABLE

Nitrogen Dioxide (NO₂)

Monitoring Dates: April 1, 2008 to May 1, 2008

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:	54.8 ppb 22-Apr 23:00 0:00
Maximum 24-hr Average:	11.8 ppb 27-Apr



AIC Time:	32 hrs	Operational Time:	684 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	32.3	21.5	8.8	5.1	3.3	1.8	1.3	7.3 ppb	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	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	0:00			
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00					
1-Apr-08	7	9	A	8	6	7	21	27	13	3	4	6	6	6	5	6	5	7	9	15	27	28	26	10			11.4	27.6	
2-Apr-08	5	A	7	11	11	19	21	12	6	7	6	5	6	4	4	3	4	3	11	16	23	15	9	5			9.3	22.9	
3-Apr-08	A	7	6	5	5	8	9	7	5	6	5	4	3	3	3	3	6	14	23	17	22	12	A	A			8.1	22.6	
4-Apr-08	12	5	9	10	27	24	18	22	15	9	10	7	4	4	5	5	3	2	3	3	2	2	A	A	4		8.9	27.2	
5-Apr-08	4	3	3	3	2	3	3	3	3	3	2	2	2	1	1	3	2	3	8	10	8	A	A	4	3		3.4	10.2	
6-Apr-08	3	3	2	5	4	4	6	3	2	4	4	4	4	4	3	2	3	3	2	4	A	10	14	17			4.7	17.3	
7-Apr-08	3	5	9	5	4	7	9	5	3	5	4	4	5	4	3	2	4	4	3	A	9	21	28	17			7.1	28.4	
8-Apr-08	15	8	5	5	5	12	12	8	4	3	2	2	2	1	2	3	2	3	A	16	21	5	4	4			6.3	21.3	
9-Apr-08	7	10	4	7	8	13	20	15	16	10	2	2	3	2	2	2	2	A	10	6	13	9	12	17			8.3	20.0	
10-Apr-08	9	12	9	6	7	10	10	7	7	5	6	5	5	4	5	4	A	7	5	9	10	5	4	7			7.0	12.0	
11-Apr-08	4	8	4	8	10	15	16	11	10	8	7	5	3	3	3	A	5	4	4	11	16	26	44	32			11.2	44.5	
12-Apr-08	22	19	16	22	25	27	15	11	11	6	4	2	2	2	A	4	4	4	5	9	20	12	8	8			11.2	26.7	
13-Apr-08	13	7	5	6	7	13	7	5	2	2	2	2	A	6	9	5	7	13	4	6	4	7	4			5.9	13.1		
14-Apr-08	3	3	4	4	5	8	10	6	6	14	8	8	A	6	5	5	4	5	7	17	19	16	7	7			7.6	19.1	
15-Apr-08	5	3	3	3	3	4	6	7	4	5	5	A	7	5	5	4	3	4	4	4	3	5	6	8			4.7	8.2	
16-Apr-08	6	11	17	12	10	17	14	8	8	7	A	4	5	7	3	2	5	4	5	10	22	22	13	7			9.6	21.9	
17-Apr-08	5	4	4	6	7	8	7	6	5	A	5	4	4	3	4	4	4	4	4	14	13	3	5	2			5.4	13.6	
18-Apr-08	2	3	8	12	9	10	8	4	A	C	C	C	C	A	1	1	1	1	1	1	2	2	1	2			3.7	11.8	
19-Apr-08	2	2	A	3	2	3	3	3	3	3	2	1	1	2	2	2	2	3	2	3	3	4	5	7			2.7	6.8	
20-Apr-08	4	A	6	5	4	4	5	5	4	3	3	3	2	2	3	2	2	2	4	8	8	7	5	8			4.3	8.2	
21-Apr-08	A	5	4	3	3	6	6	4	3	4	4	4	4	3	2	3	3	3	3	4	4	3	6	A			3.8	6.2	
22-Apr-08	17	10	11	10	6	9	7	8	7	5	6	2	3	3	3	2	2	2	6	13	17	51	A	55			11.0	54.8	
23-Apr-08	46	19	14	17	33	31	32	30	7	5	3	3	3	2	2	1	2	2	2	2	2	A	A	4	2			11.5	46.4
24-Apr-08	2	2	2	3	4	7	8	7	10	16	8	6	5	6	5	4	4	5	5	5	A	7	4	3			5.6	16.2	
25-Apr-08	3	3	3	20	10	11	10	9	6	5	5	4	3	4	4	3	4	4	4	A	9	25	27	12			8.1	27.0	
26-Apr-08	15	9	12	8	12	15	25	14	6	5	4	4	5	6	6	6	7	5	A	9	13	10	8	10			9.3	25.5	
27-Apr-08	21	24	17	11	34	31	22	22	16	9	6	7	4	3	1	1	2	A	3	7	6	7	5	11			11.8	33.9	
28-Apr-08	8	3	6	2	4	6	8	7	8	7	8	6	4	3	4	3	A	5	3	4	9	9	6	9			5.7	9.1	
29-Apr-08	15	7	8	10	11	12	11	9	9	4	3	4	3	4	3	A	7	5	6	9	3	4	5	5			6.7	15.1	
30-Apr-08	4	4	3	3	3	6	7	8	3	3	3	4	4	3	4	4	3	3	3	6	7	8	15	15			5.2	15.3	
Hourly Avg	9.3	7.4	7.2	7.7	9.4	11.6	11.9	9.8	7.0	5.9	4.6	4.0	3.7	3.6	3.5	3.4	3.5	3.9	5.3	8.5	11.1	12.1	10.5	10.4					
Hourly Max	46.4	23.6	17.4	22.4	33.9	31.3	32.5	30.0	16.5	16.2	9.8	7.6	6.5	6.7	6.5	9.3	7.2	7.4	13.5	22.6	26.7	50.7	44.5	54.8					

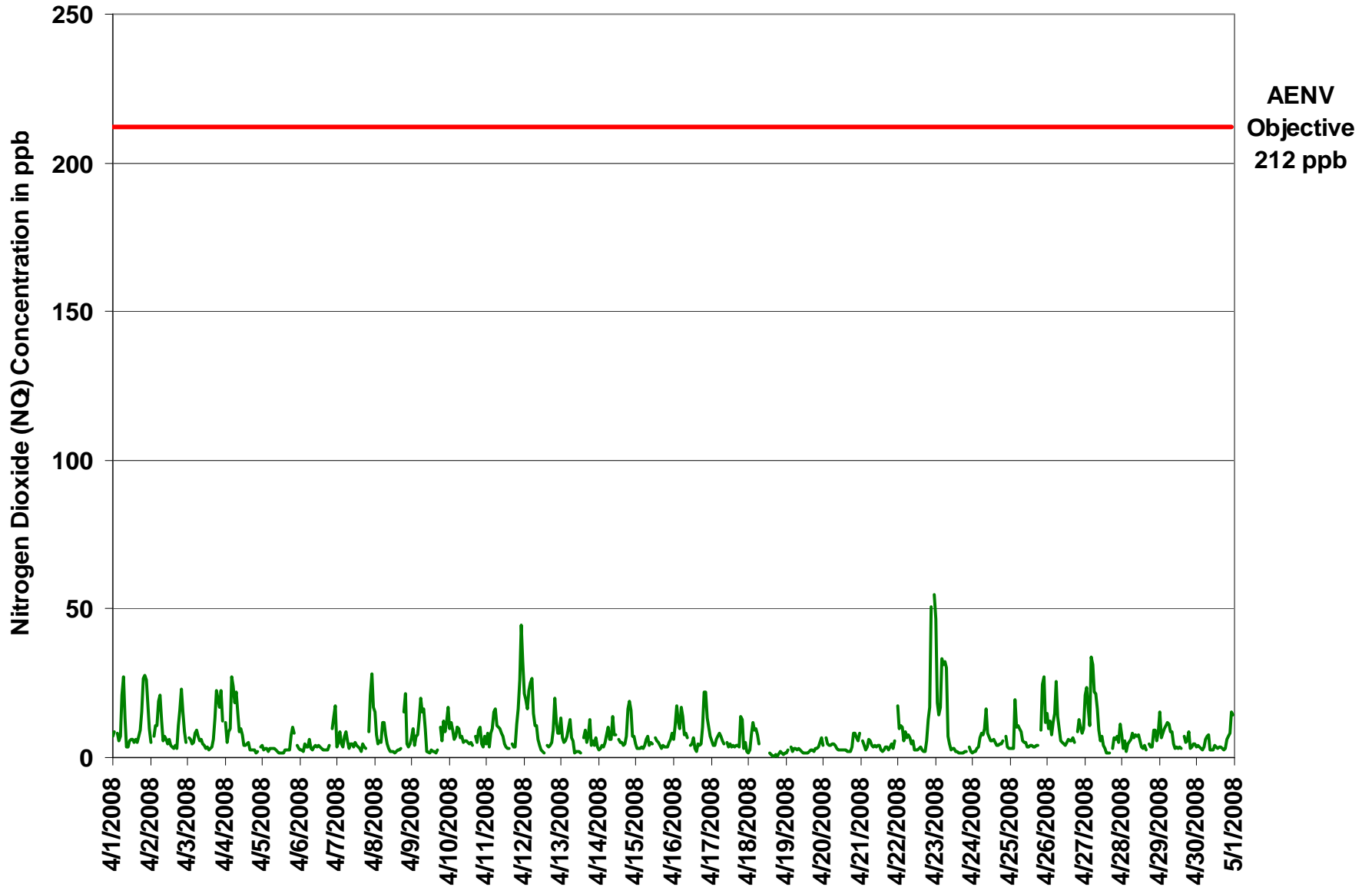


Figure 1. PAS - Crescent Heights Nitrogen Dioxide 1-hr Average Monthly Trend



Station: Crescent Heights
Station Owner: PAS

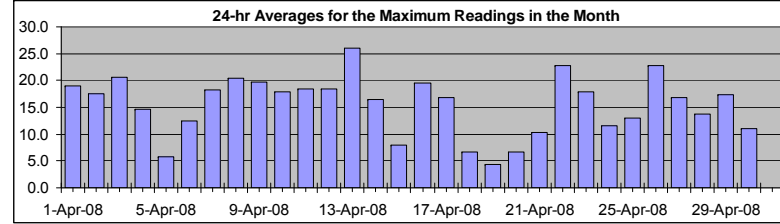
INSTANTANEOUS (30 Second) MAXIMUM TABLE

Nitrogen Dioxide (NO₂)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Maximum 1-hr Value:	99.5	ppb	3-Apr	22:00 23:00
Maximum 24-hr Value:	26.0	ppb	13-Apr	



AIC Time:	32 hrs	Operational Time:	684 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	58.1	44.2	21.3	10.0	5.6	3.1	2.4	15.6 ppb	10.0 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-Apr-08	10	19	A	12	12	13	35	36	26	5	6	8	8	8	8	8	10	19	32	45	35	36	38	19.0	45.1	
2-Apr-08	7	A	9	13	14	45	25	30	7	10	8	6	9	6	6	7	7	5	41	47	30	21	32	17	17.5	46.5
3-Apr-08	A	19	37	24	7	13	24	9	8	16	8	7	5	5	5	8	6	11	20	34	48	42	100	A	20.7	99.5
4-Apr-08	15	12	14	15	39	58	24	34	19	12	17	11	8	6	8	8	6	4	5	7	4	3	A	6	14.6	57.9
5-Apr-08	5	3	4	4	3	4	4	4	3	3	3	2	2	3	3	7	6	4	14	25	13	A	6	5	5.8	25.4
6-Apr-08	4	8	4	4	32	36	18	22	21	4	7	8	6	6	7	5	6	4	7	8	A	16	23	27	12.5	36.1
7-Apr-08	5	19	81	35	10	21	22	8	13	7	6	5	7	7	6	4	8	6	8	A	13	36	51	37	18.2	80.6
8-Apr-08	50	13	36	32	8	29	36	14	25	5	4	4	4	3	16	5	6	6	A	44	43	32	34	22	20.4	49.9
9-Apr-08	46	27	7	55	24	25	28	19	18	18	3	4	30	5	4	3	5	A	18	22	22	13	16	40	19.8	55.4
10-Apr-08	33	55	12	9	13	42	49	18	12	8	18	23	9	7	8	6	A	9	6	15	20	9	9	20	17.9	55.2
11-Apr-08	9	15	5	15	13	28	39	14	18	11	10	8	5	16	5	A	8	7	6	17	20	57	58	39	18.4	57.8
12-Apr-08	29	23	27	27	29	31	29	13	12	22	6	5	4	4	A	6	34	7	7	23	39	19	16	14	18.5	38.6
13-Apr-08	59	45	23	13	41	44	10	32	9	25	25	20	3	A	16	28	11	39	34	20	25	7	57	13	26.0	58.7
14-Apr-08	4	4	6	7	8	14	16	15	13	39	11	21	A	10	9	8	5	7	12	29	33	45	21	44	16.5	44.8
15-Apr-08	11	5	5	5	5	9	14	12	8	8	8	A	10	8	6	6	6	6	5	7	4	10	11	13	8.0	13.6
16-Apr-08	10	20	28	28	14	30	28	16	13	10	A	7	34	38	20	4	8	9	7	20	33	38	21	12	19.5	38.1
17-Apr-08	7	6	7	29	33	64	29	8	20	A	33	21	21	5	7	7	7	8	5	27	21	5	13	4	16.8	64.1
18-Apr-08	3	5	13	32	13	13	11	9	A	C	C	C	C	A	4	2	1	2	3	2	3	2	2	3	6.8	32.5
19-Apr-08	3	4	A	6	3	4	4	4	5	4	3	2	3	3	3	4	4	4	3	5	5	6	10	13	4.4	12.9
20-Apr-08	9	A	8	6	5	5	6	6	6	4	4	5	4	3	4	3	3	3	6	12	13	12	15	16	6.8	16.3
21-Apr-08	A	12	7	4	7	12	15	9	5	16	9	24	21	29	6	10	5	6	5	5	5	4	10	A	10.4	29.2
22-Apr-08	25	13	45	44	29	48	9	12	19	11	36	4	7	5	6	3	4	4	11	19	53	59	A	60	22.8	60.3
23-Apr-08	56	41	48	20	39	35	40	61	16	7	5	5	5	3	3	2	3	3	3	4	4	A	6	3	17.9	60.9
24-Apr-08	3	3	3	4	5	9	12	19	18	23	19	9	44	11	8	8	21	7	9	10	A	10	5	4	11.6	44.5
25-Apr-08	4	4	4	30	16	14	14	15	8	8	9	5	4	10	6	6	6	6	7	A	15	46	47	19	13.1	46.6
26-Apr-08	17	17	35	11	19	42	31	24	22	43	30	5	25	11	8	12	51	7	A	13	26	40	12	23	22.8	51.1
27-Apr-08	31	29	25	14	44	35	26	25	19	15	8	9	15	6	3	2	3	A	5	8	9	11	7	35	16.7	44.1
28-Apr-08	19	26	51	4	14	10	11	24	10	9	17	7	11	12	8	5	A	6	5	6	17	13	8	20	13.7	50.8
29-Apr-08	22	8	12	16	26	43	18	16	19	20	5	13	5	34	5	A	13	10	10	35	5	9	15	41	17.4	43.1
30-Apr-08	6	6	4	4	5	44	10	15	8	6	4	9	7	13	11	8	5	4	5	10	12	14	33	22	11.1	43.8
Hourly Avg	18.0	16.4	20.0	18.3	17.8	26.8	21.4	18.0	13.2	13.3	11.6	9.2	11.3	9.9	7.2	6.7	9.1	7.3	10.2	18.0	20.7	21.9	24.0	21.9		
Hourly Max	58.7	55.2	80.6	55.4	44.1	64.1	48.7	60.9	26.4	43.5	36.0	23.7	44.5	38.1	19.9	28.0	51.1	38.7	41.3	46.5	53.0	58.9	99.5	60.3		

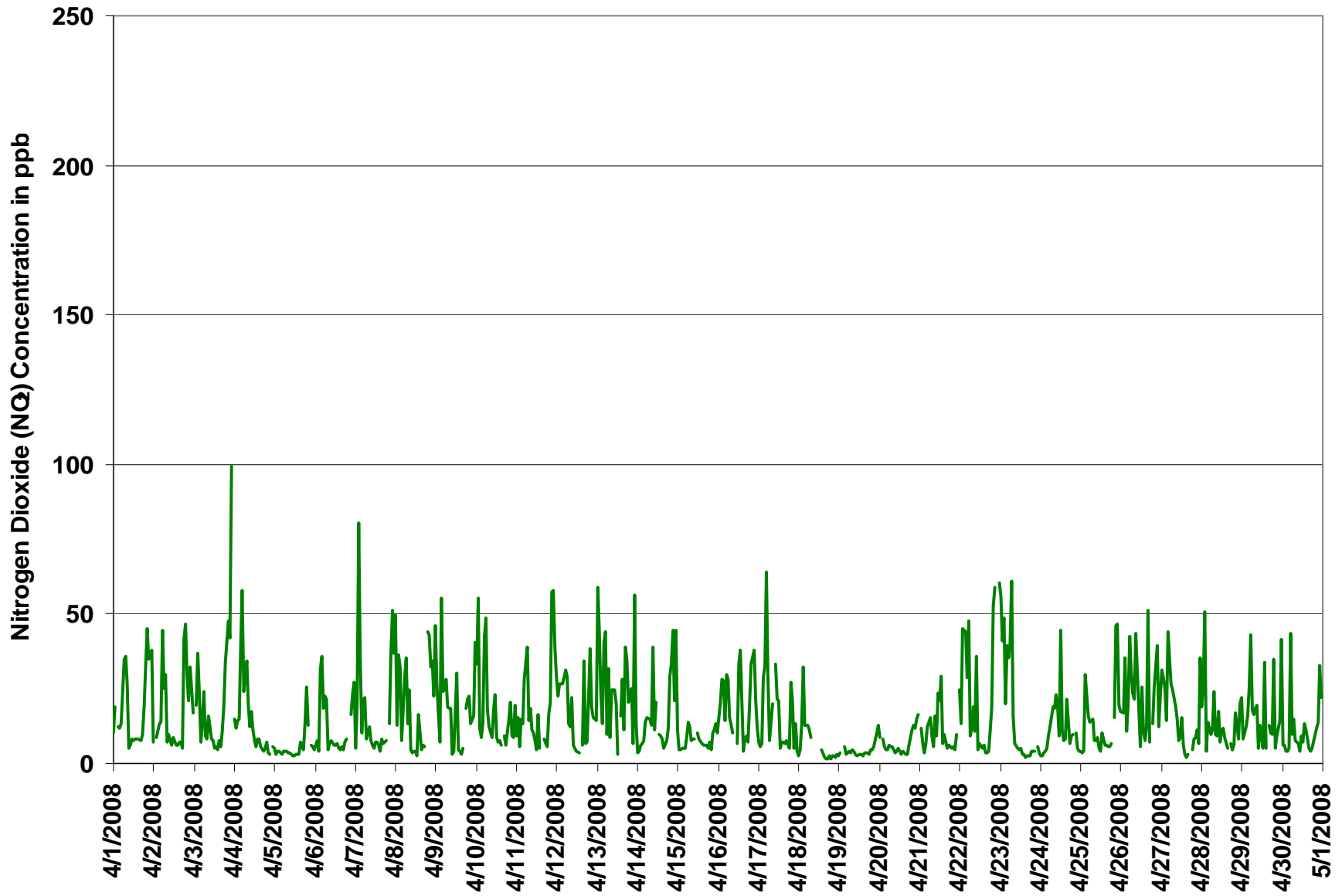
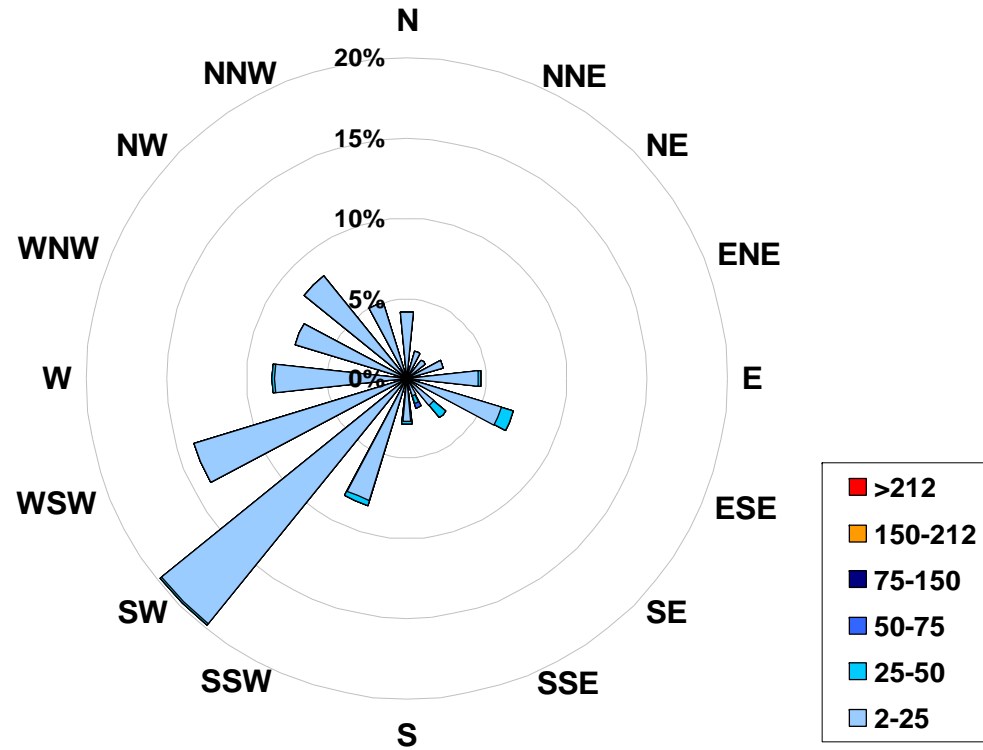


Figure 2. PAS - Crescent Heights Nitrogen Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend



1-hr Average Concentration Rose for Nitrogen Dioxide (in ppb) Located at the Crescent Heights Site for April 2008



Calms: 0%

Frequency Distribution of NO ₂ in ppb			Frequency (hrs)
Range			
2.0	< 25		682
25	to 50		2
50	to 75		0
75	to 150		0
150	to 212		0
	> 212		0
Total Non-Zero Values			684



PAS - Crescent Heights Nitric Oxide Monthly Summary

Station: Crescent Heights
 Station Owner: PAS

HOURLY AVERAGE TABLE

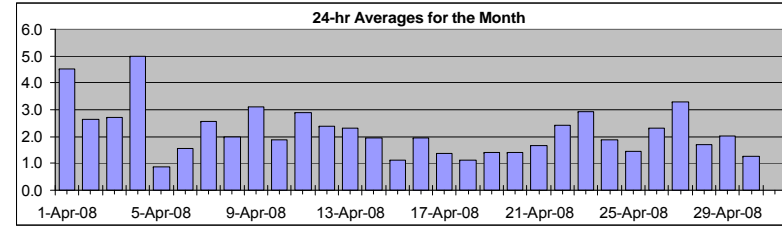
Nitric Oxide (NO)

Monitoring Dates: April 1, 2008 to May 1, 2008

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

Maximum 1-hr Average:	29.6	ppb	1-Apr	7:00 8:00
Maximum 24-hr Average:	5.0	ppb	4-Apr	

AIC Time:	32 hrs	Operational Time:	684 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	15.9	7.1	2.5	1.3	0.6	0.3	0.1	2.2 ppb	1.3 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	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Apr-08	0	0	A	0	0	1	6	30	16	3	5	6	6	5	3	3	2	2	1	1	8	1	3	2		4.5	29.6	
2-Apr-08	0	A	0	0	0	6	8	10	4	5	4	3	3	2	1	1	1	1	3	3	1	1	3	1		2.6	9.5	
3-Apr-08	A	1	4	2	1	2	3	3	3	4	3	2	2	2	1	1	2	2	1	2	4	12	2	A		2.7	12.3	
4-Apr-08	1	2	2	3	20	13	8	29	12	5	5	4	2	1	2	2	1	1	0	1	0	0	A	0		5.0	28.9	
5-Apr-08	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	A	1	1		0.9	2.1	
6-Apr-08	1	1	1	3	2	2	2	4	1	3	3	2	2	2	1	1	1	1	1	1	1	A	1	1	1		1.6	3.9
7-Apr-08	0	1	7	3	1	1	2	2	2	3	3	3	3	2	1	1	1	1	1	1	A	1	1	14	2		2.6	14.3
8-Apr-08	6	0	4	3	0	6	5	3	2	1	1	1	1	1	1	1	1	1	A	A	1	3	1	1	1		2.0	5.8
9-Apr-08	4	2	1	4	2	2	10	10	16	8	1	1	2	1	1	1	1	1	A	1	1	0	0	0	4		3.1	15.6
10-Apr-08	2	4	1	0	0	4	4	3	4	3	4	4	2	2	2	1	A	1	0	0	0	1	1	1	1		1.9	4.1
11-Apr-08	0	0	0	1	0	6	11	6	5	4	3	1	1	1	1	A	0	0	0	1	1	9	14	2		2.9	13.6	
12-Apr-08	0	0	1	1	5	17	7	6	6	3	1	0	0	0	A	1	1	1	0	1	2	0	0	0		2.4	17.5	
13-Apr-08	8	2	1	0	3	3	1	3	1	3	1	1	1	A	2	4	1	4	3	1	2	1	4	1		2.3	8.0	
14-Apr-08	1	1	1	1	1	1	3	3	2	7	4	4	A	2	2	1	1	1	1	1	1	3	1	2		2.0	7.2	
15-Apr-08	1	1	1	1	1	1	2	2	1	2	2	A	2	2	2	1	1	1	1	1	1	0	0	0		1.1	2.5	
16-Apr-08	0	0	1	2	1	5	10	5	5	4	A	1	1	2	1	1	1	1	0	0	1	3	1	1		2.0	9.5	
17-Apr-08	0	0	0	2	4	4	3	2	2	A	2	1	2	1	1	1	1	1	1	1	1	0	0	0		1.4	4.5	
18-Apr-08	0	0	0	3	3	2	3	2	A	C	C	C	C	A	2	1	1	1	1	0	0	0	0	0		1.1	3.0	
19-Apr-08	0	0	A	1	1	1	1	1	2	3	3	1	1	2	2	3	3	3	1	1	1	1	1	2		1.4	3.0	
20-Apr-08	1	A	0	1	1	1	2	2	3	3	3	3	2	2	2	2	1	0	1	1	1	0	0	1		1.4	3.5	
21-Apr-08	A	0	1	0	1	1	2	2	2	4	4	5	4	3	1	2	2	1	0	0	0	0	0	A		1.6	4.6	
22-Apr-08	0	0	2	1	1	3	2	3	3	3	6	2	2	2	2	1	1	1	1	1	1	9	A	9		2.4	9.1	
23-Apr-08	6	1	2	1	1	3	16	22	4	3	1	2	1	1	1	1	0	0	1	0	0	A	0	0		2.9	22.3	
24-Apr-08	0	0	0	0	0	1	2	3	5	9	5	3	3	3	2	2	2	1	1	0	A	0	0	0		1.9	9.0	
25-Apr-08	0	0	0	1	1	1	2	2	1	2	2	2	2	2	2	2	1	2	1	A	1	2	2	1		1.4	2.3	
26-Apr-08	1	1	2	0	1	2	12	8	3	3	3	2	2	2	2	2	3	1	A	1	1	2	0	0		2.3	11.7	
27-Apr-08	1	0	0	0	8	8	10	17	13	5	2	3	1	1	0	0	0	A	0	1	1	1	1	1		3.3	17.3	
28-Apr-08	1	1	3	0	1	1	3	4	5	4	4	3	2	2	2	1	A	1	1	1	1	1	1	1		1.7	4.6	
29-Apr-08	2	1	1	1	3	7	5	4	5	2	1	1	1	2	1	A	1	1	1	2	1	1	1	2		2.0	6.7	
30-Apr-08	1	1	1	1	0	2	2	3	2	1	1	2	2	1	1	1	1	1	1	1	2	2	1	1		1.3	3.1	
Hourly Avg	1.4	0.8	1.3	1.2	2.1	3.6	4.8	6.5	4.6	3.6	2.8	2.2	1.8	1.7	1.5	1.3	1.2	1.1	0.9	0.9	1.4	1.8	2.0	1.4				
Hourly Max	8.0	3.5	6.6	4.1	20.4	17.5	16.5	29.6	15.7	9.0	5.7	6.2	5.8	4.8	3.1	4.4	3.0	3.5	3.2	3.4	8.2	12.3	14.3	9.1				



PAS - Crescent Heights Oxides of Nitrogen Monthly Summary

Station: Crescent Heights
 Station Owner: PAS

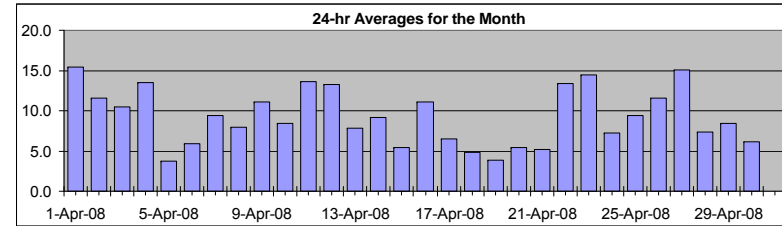
HOURLY AVERAGE TABLE

Oxides of Nitrogen (NO_x)

Monitoring Dates: April 1, 2008 to May 1, 2008

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

Maximum 1-hr Average:	65.1	ppb	22-Apr	23:00 0:00
Maximum 24-hr Average:	15.5	ppb	1-Apr	



AIC Time:	32 hrs	Operational Time:	684 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	49.5	26.9	10.8	6.6	4.0	2.1	1.6	9.3 ppb	6.6 ppb

Status Flag Characters

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

Day	Mountain Standard Time																							24-hour Average	Daily Maximum		
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Apr-08	7	9	A	8	6	7	27	56	29	7	8	11	11	10	8	8	6	8	10	15	35	28	29	11	15.5	56.4	
2-Apr-08	5	A	7	10	10	24	29	22	9	12	10	7	8	5	5	4	5	4	13	19	24	16	12	6	11.6	29.1	
3-Apr-08	A	8	10	7	6	10	12	10	8	10	7	6	4	5	4	4	5	8	14	24	21	35	14	A	10.5	34.5	
4-Apr-08	13	7	10	13	47	37	26	51	27	14	15	11	5	5	6	6	3	2	3	3	1	2	A	3	13.5	50.6	
5-Apr-08	4	2	3	3	2	3	3	3	3	3	3	2	2	1	2	3	3	3	9	12	9	A	4	4	3.7	11.5	
6-Apr-08	3	3	3	7	5	5	7	7	3	6	7	6	6	5	3	3	3	3	3	4	A	10	15	18	5.9	18.0	
7-Apr-08	4	6	15	8	4	8	11	8	5	8	8	6	8	6	4	3	5	4	3	A	9	22	42	19	9.4	42.4	
8-Apr-08	21	8	8	8	5	17	17	11	7	4	3	2	2	2	3	3	3	3	A	16	24	6	5	5	7.9	23.6	
9-Apr-08	11	11	4	11	9	15	29	25	32	17	3	2	4	2	3	2	3	A	11	6	13	9	12	21	11.0	31.7	
10-Apr-08	11	15	9	6	7	13	13	9	11	7	10	9	7	6	6	5	A	8	5	9	10	5	4	8	8.5	15.2	
11-Apr-08	5	8	3	8	10	21	27	16	15	11	9	5	3	3	3	A	5	4	3	12	17	34	58	33	13.6	57.5	
12-Apr-08	22	19	17	23	30	44	21	16	17	8	5	3	2	2	A	4	4	4	5	9	22	12	8	8	13.2	43.8	
13-Apr-08	21	8	5	6	10	16	8	8	2	4	3	3	2	A	8	13	6	10	15	5	7	4	10	5	7.8	20.7	
14-Apr-08	3	3	4	4	5	8	12	9	8	20	11	12	A	8	7	6	5	6	8	18	20	18	8	9	9.2	20.4	
15-Apr-08	5	3	4	4	4	5	8	9	5	6	7	A	8	7	6	4	3	4	4	4	4	5	6	8	5.4	9.4	
16-Apr-08	6	11	18	13	10	22	23	12	13	10	A	4	5	8	4	2	6	4	5	10	22	24	14	7	11.0	24.2	
17-Apr-08	5	3	4	8	11	12	9	7	7	A	6	5	6	4	5	4	5	5	4	15	13	3	5	2	6.5	14.6	
18-Apr-08	2	3	8	14	12	11	10	6	A	C	C	C	C	A	4	2	2	2	2	2	1	2	2	2	2	4.8	14.1
19-Apr-08	2	3	A	4	3	4	3	3	4	5	5	3	2	3	3	4	5	5	3	4	3	4	6	8	3.9	8.1	
20-Apr-08	4	A	7	5	4	4	6	7	7	6	5	5	4	4	5	4	3	2	4	9	8	7	6	9	5.4	8.7	
21-Apr-08	A	6	4	3	4	7	7	6	5	8	7	9	8	5	3	4	5	5	3	4	4	3	6	A	5.2	8.6	
22-Apr-08	18	10	13	12	6	11	8	11	10	7	11	4	5	4	6	3	3	2	6	14	19	61	A	65	13.4	65.1	
23-Apr-08	54	20	17	18	35	35	49	53	11	7	3	5	4	2	2	2	2	2	2	2	2	A	4	2	14.4	53.7	
24-Apr-08	2	2	2	3	4	7	10	11	14	25	14	8	8	9	8	5	6	6	5	6	A	8	3	3	7.3	25.3	
25-Apr-08	3	3	3	21	11	12	12	11	7	7	7	5	5	6	6	5	5	5	5	A	10	27	29	13	9.4	29.3	
26-Apr-08	15	10	14	8	13	18	37	22	8	9	7	6	7	9	7	7	9	6	A	10	14	12	8	10	11.6	37.4	
27-Apr-08	22	24	17	11	42	40	32	39	30	14	8	10	5	4	2	2	2	A	3	7	7	8	6	12	15.1	42.4	
28-Apr-08	8	4	9	2	5	7	11	11	13	11	12	9	5	5	6	4	A	6	4	4	10	10	6	10	7.4	12.5	
29-Apr-08	17	7	9	11	14	18	16	13	14	6	4	4	3	5	4	A	8	6	7	10	3	4	5	7	8.5	18.2	
30-Apr-08	4	5	3	3	3	8	8	11	4	3	4	6	5	4	4	4	4	3	3	7	8	9	17	16	6.1	16.8	
Hourly Avg	10.5	7.9	8.2	8.6	11.2	15.0	16.5	16.1	11.3	9.1	7.2	5.9	5.2	5.0	4.7	4.4	4.3	4.6	5.8	9.2	12.2	13.8	12.3	11.6			
Hourly Max	53.7	24.3	17.9	22.5	47.2	43.8	49.3	56.4	31.7	25.3	14.9	11.6	11.4	10.4	8.1	13.3	9.1	10.0	15.5	23.8	34.5	60.7	57.5	65.1			

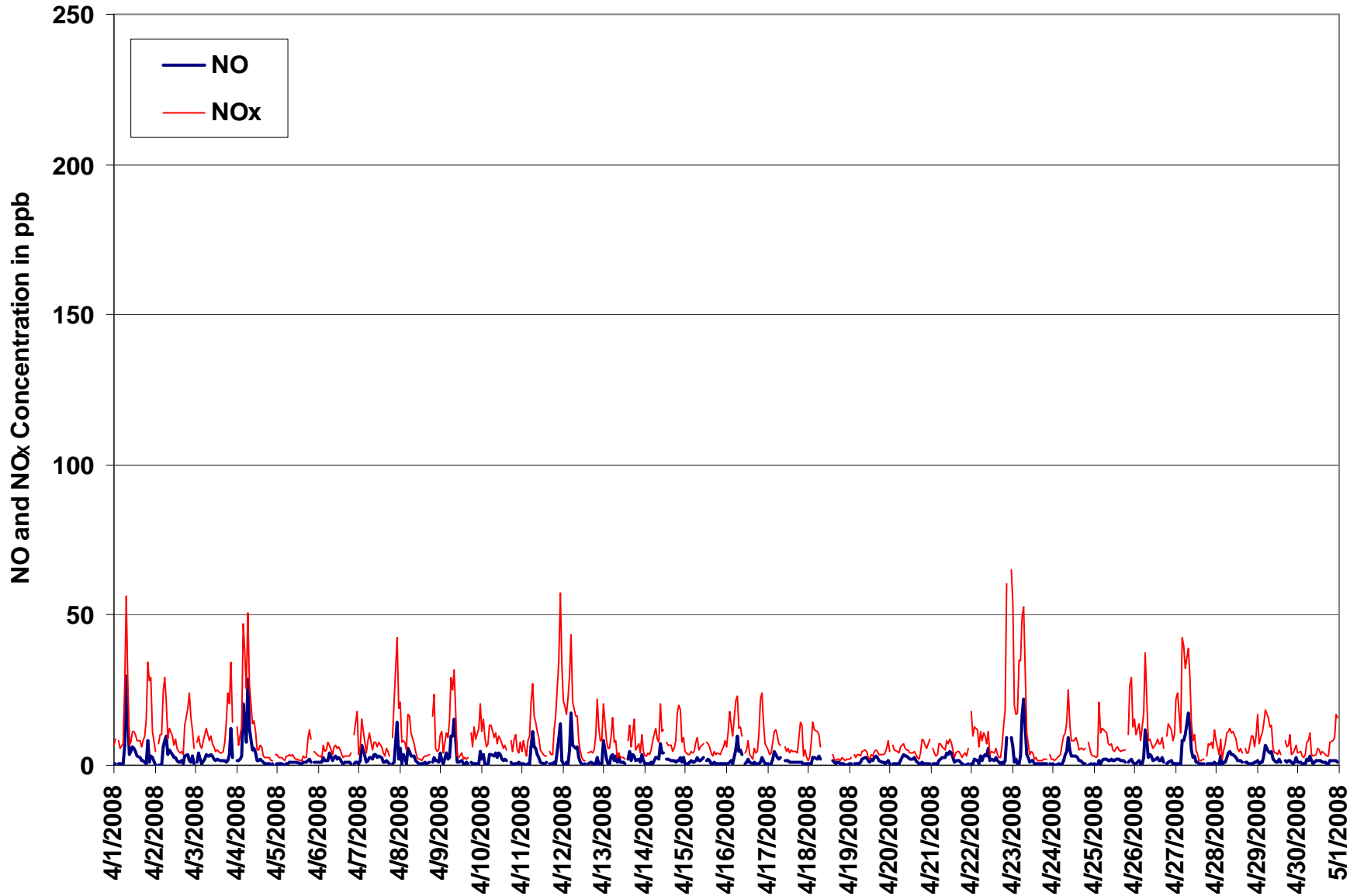


Figure 3. PAS - Crescent Heights Oxides of Nitrogen 1-hr Average Monthly Trend



Station: Crescent Heights
 Station Owner: PAS

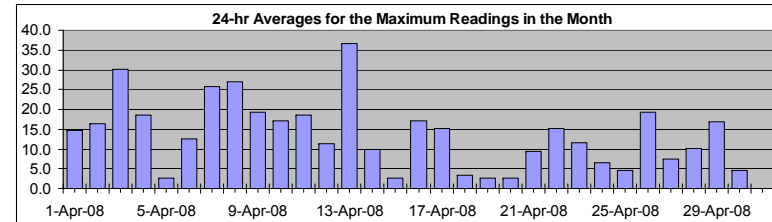
INSTANTANEOUS (30 Second) MAXIMUM TABLE

Nitric Oxide (NO)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Maximum 1-hr Value:	241.4	ppb	7-Apr	22:00 23:00
Maximum 24-hr Value:	36.5	ppb	13-Apr	



AIC Time:	32 hrs	Operational Time:	684 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	115.0	69.4	11.3	3.3	1.9	1.1	0.8	13.7 ppb	3.3 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-Apr-08	1	1	A	1	1	1	33	52	35	5	8	8	8	7	5	5	3	2	2	3	53	4	9	87	14.6	87.2
2-Apr-08	0	A	1	2	1	82	17	82	5	8	5	4	6	9	3	4	3	3	32	40	3	3	52	12	16.3	81.9
3-Apr-08	A	18	119	91	2	18	52	4	5	15	14	4	3	3	3	4	3	3	3	22	52	134	86	A	30.0	134.3
4-Apr-08	3	4	6	7	64	178	14	78	19	9	11	7	3	3	4	4	3	2	3	2	2	A	1	1	18.6	177.7
5-Apr-08	1	1	1	1	1	1	1	2	2	2	2	2	2	3	2	3	3	3	4	15	3	A	3	3	2.7	15.0
6-Apr-08	4	10	3	38	41	40	21	84	3	5	5	4	4	3	3	2	4	2	2	2	A	2	3	3	12.6	84.4
7-Apr-08	2	21	124	66	4	10	24	4	23	7	6	5	5	9	5	3	3	2	1	A	2	3	241	20	25.7	241.4
8-Apr-08	68	2	115	72	3	35	67	14	80	3	2	3	2	2	11	2	2	3	A	8	10	47	46	26	27.1	114.7
9-Apr-08	77	17	3	74	49	16	18	15	20	17	2	3	36	2	2	2	A	2	2	2	1	1	2	77	19.2	77.4
10-Apr-08	30	106	3	2	2	71	70	9	7	5	24	35	5	5	4	3	A	2	1	1	1	2	2	2	17.1	106.1
11-Apr-08	2	2	1	3	2	36	82	8	16	7	6	3	2	3	2	A	1	1	1	2	9	174	59	5	18.6	174.4
12-Apr-08	2	2	6	2	22	54	76	8	8	21	3	2	2	2	A	3	21	2	1	2	18	1	1	1	11.2	75.8
13-Apr-08	89	35	14	2	50	85	5	42	12	88	38	24	2	A	6	29	4	41	16	48	41	2	117	53	36.5	116.6
14-Apr-08	2	1	3	1	3	1	5	15	5	41	6	20	A	6	5	2	3	2	2	4	8	38	11	41	9.8	41.5
15-Apr-08	1	1	2	2	3	3	9	5	3	3	7	A	3	3	3	2	2	2	1	3	2	1	1	1	2.8	8.6
16-Apr-08	1	2	3	8	1	42	75	20	9	6	A	2	28	26	17	2	3	2	1	1	9	105	26	3	17.1	105.0
17-Apr-08	2	1	2	52	70	66	39	3	24	A	27	24	19	2	2	2	2	2	2	3	2	1	1	2	15.2	69.8
18-Apr-08	1	1	1	15	5	5	9	5	A	C	C	C	C	A	4	2	2	2	2	1	2	1	1	1	3.4	15.0
19-Apr-08	1	1	A	1	1	2	1	1	4	4	4	3	3	4	3	4	4	4	2	2	2	2	3	4	2.8	4.5
20-Apr-08	3	A	1	1	1	1	3	3	6	4	4	5	4	3	4	2	2	1	2	2	2	1	3	2	2.7	5.7
21-Apr-08	A	2	1	1	2	4	5	7	5	22	11	42	38	44	4	4	3	4	1	1	1	1	2	A	9.4	44.1
22-Apr-08	1	2	43	42	13	59	3	6	16	13	54	3	6	4	4	2	6	2	2	1	8	44	A	16	15.2	58.8
23-Apr-08	14	25	51	4	2	7	32	95	9	4	3	2	3	2	2	2	1	1	2	1	1	A	2	2	11.6	94.6
24-Apr-08	1	1	1	1	1	1	3	12	11	14	24	6	33	7	4	6	16	2	1	1	A	1	1	2	6.6	32.7
25-Apr-08	1	1	1	4	2	3	4	10	2	3	6	3	3	12	4	3	3	3	2	A	2	11	20	2	4.6	20.2
26-Apr-08	2	3	38	1	3	53	17	17	20	61	63	3	23	6	3	5	55	2	A	8	22	34	2	5	19.4	63.3
27-Apr-08	3	1	2	1	53	13	19	20	17	11	4	4	7	2	1	1	1	A	1	2	1	2	1	5	7.5	53.0
28-Apr-08	2	15	102	2	4	2	5	41	7	5	11	4	3	10	3	2	A	2	2	1	1	1	2	3	10.1	102.0
29-Apr-08	4	1	2	4	107	88	9	14	16	11	3	13	2	31	2	A	2	2	3	11	2	1	2	58	16.9	107.4
30-Apr-08	2	1	2	2	1	44	3	5	3	3	3	4	3	8	4	2	2	2	1	3	3	5	5	3	4.7	44.1
Hourly Avg	11.5	10.0	23.2	16.8	17.1	34.1	24.0	22.7	13.5	14.2	12.8	8.7	9.2	7.9	4.2	3.9	5.7	3.6	3.5	6.9	9.4	22.3	25.1	15.7		
Hourly Max	89.1	106.1	123.8	91.3	107.4	177.7	81.5	94.6	79.8	87.7	63.3	41.6	38.5	44.1	16.6	29.1	55.1	41.0	32.4	47.5	53.1	174.4	241.4	87.2		



Station: Crescent Heights
 Station Owner: PAS

INSTANTANEOUS (30 Second) MAXIMUM TABLE

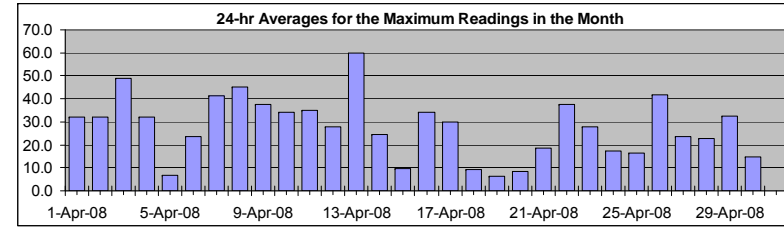
Oxides of Nitrogen (NO_x)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Maximum 1-hr Value:	271.3	ppb	7-Apr	22:00 23:00
Maximum 24-hr Value:	59.8	ppb	13-Apr	

AIC Time:	32 hrs	Operational Time:	684 hrs						
Calibration Time:	4 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	163.8	104.4	32.9	13.2	7.0	3.8	2.6	27.8 ppb	13.2 ppb



Status Flag Characters

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

Day Mountain Standard Time

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Apr-08	10	19	A	12	12	14	64	85	60	9	13	15	15	14	10	11	8	11	20	34	93	37	44	124	32.0	123.8
2-Apr-08	7	A	8	13	13	127	37	104	11	17	13	10	12	15	8	9	8	6	73	87	31	23	80	25	32.2	126.8
3-Apr-08	A	37	156	116	8	31	76	12	13	30	22	11	7	8	7	11	8	13	20	44	89	171	185	A	48.8	184.7
4-Apr-08	17	16	20	22	101	235	37	111	38	21	28	17	10	7	10	11	7	5	5	7	3	3	A	5	32.0	235.2
5-Apr-08	5	3	4	4	3	5	4	4	4	4	4	3	3	3	4	7	7	5	15	39	14	A	6	6	6.9	39.5
6-Apr-08	5	16	5	70	76	54	44	106	7	11	12	9	10	7	6	5	9	5	9	10	A	17	24	27	23.7	105.9
7-Apr-08	6	32	202	99	14	29	48	11	36	13	11	9	11	15	10	5	10	8	9	A	14	38	271	55	41.5	271.3
8-Apr-08	110	13	150	103	8	63	96	26	104	6	4	4	5	4	26	6	7	7	A	51	52	73	74	48	45.2	149.9
9-Apr-08	123	42	7	127	68	36	45	33	37	34	5	5	67	5	5	5	6	A	19	23	23	14	16	114	37.4	127.2
10-Apr-08	62	163	14	10	12	113	119	26	19	13	42	58	13	9	11	8	A	10	6	15	21	10	10	21	34.1	163.3
11-Apr-08	10	16	5	16	15	63	111	22	33	17	14	8	6	19	6	A	8	7	5	17	29	227	111	43	35.1	226.9
12-Apr-08	31	22	32	27	49	79	101	21	19	38	8	5	3	4	A	8	55	8	6	24	55	19	16	15	28.0	100.9
13-Apr-08	146	78	36	14	85	119	13	73	18	111	63	43	3	A	22	56	14	77	49	55	66	7	166	63	59.8	166.1
14-Apr-08	4	5	8	6	10	15	18	23	16	80	17	39	A	15	13	9	6	9	12	31	41	80	27	80	24.6	80.4
15-Apr-08	11	5	6	6	7	10	18	16	8	10	15	A	13	11	9	7	7	7	6	10	6	10	12	13	9.7	17.7
16-Apr-08	10	21	28	35	15	63	92	34	21	16	A	7	61	65	35	4	10	10	8	20	40	133	43	14	34.2	133.0
17-Apr-08	9	5	7	81	87	129	68	10	39	A	53	45	37	6	8	9	8	9	5	29	22	5	14	4	30.0	129.1
18-Apr-08	3	5	13	47	17	17	17	11	A	C	C	C	C	A	9	4	3	4	5	3	4	3	2	3	9.4	46.6
19-Apr-08	3	4	A	6	4	4	4	4	8	8	7	4	3	5	5	7	7	7	4	6	5	6	13	17	6.1	16.6
20-Apr-08	11	A	9	6	5	5	8	8	11	7	8	8	7	5	7	5	5	3	7	13	13	12	17	18	8.6	18.0
21-Apr-08	A	14	7	4	8	16	21	16	9	38	20	63	56	67	10	13	8	10	5	5	5	5	11	A	18.7	67.3
22-Apr-08	26	15	85	85	41	107	12	17	35	22	90	6	12	9	10	5	7	4	12	21	61	103	A	76	37.5	107.5
23-Apr-08	71	64	87	21	41	38	73	152	24	10	7	6	7	4	4	3	3	3	3	4	4	A	7	4	27.8	152.4
24-Apr-08	3	3	3	4	5	11	15	31	30	37	41	15	77	18	12	14	33	8	9	10	A	11	5	4	17.3	77.1
25-Apr-08	4	4	4	34	17	15	18	25	10	11	15	7	6	23	10	9	7	8	8	A	16	53	60	20	16.7	60.2
26-Apr-08	19	20	73	12	22	91	46	41	41	103	94	8	49	17	10	16	107	8	A	22	45	74	13	27	41.6	106.6
27-Apr-08	32	30	26	15	97	46	43	44	35	26	11	13	22	8	3	3	3	A	5	9	9	12	7	41	23.4	97.1
28-Apr-08	21	41	145	4	17	12	17	60	16	14	29	11	14	20	13	7	A	8	5	6	18	14	9	24	22.8	144.7
29-Apr-08	26	9	13	19	133	111	27	31	31	31	7	26	6	60	6	A	13	11	11	45	6	10	16	100	32.5	133.1
30-Apr-08	7	7	5	4	6	84	11	19	10	6	7	12	9	21	15	11	6	5	6	12	15	18	38	23	14.8	84.0
Hourly Avg	28.3	25.2	41.3	34.1	33.2	58.1	43.4	39.2	25.7	26.5	23.5	16.8	19.4	16.6	10.4	9.5	13.6	9.9	12.5	23.3	28.6	42.4	46.4	36.3		
Hourly Max	145.5	163.3	201.6	127.2	133.1	235.2	118.7	152.4	104.0	111.1	93.6	63.0	77.1	67.3	34.7	55.9	106.6	77.4	72.8	87.0	92.9	226.9	271.3	123.8		

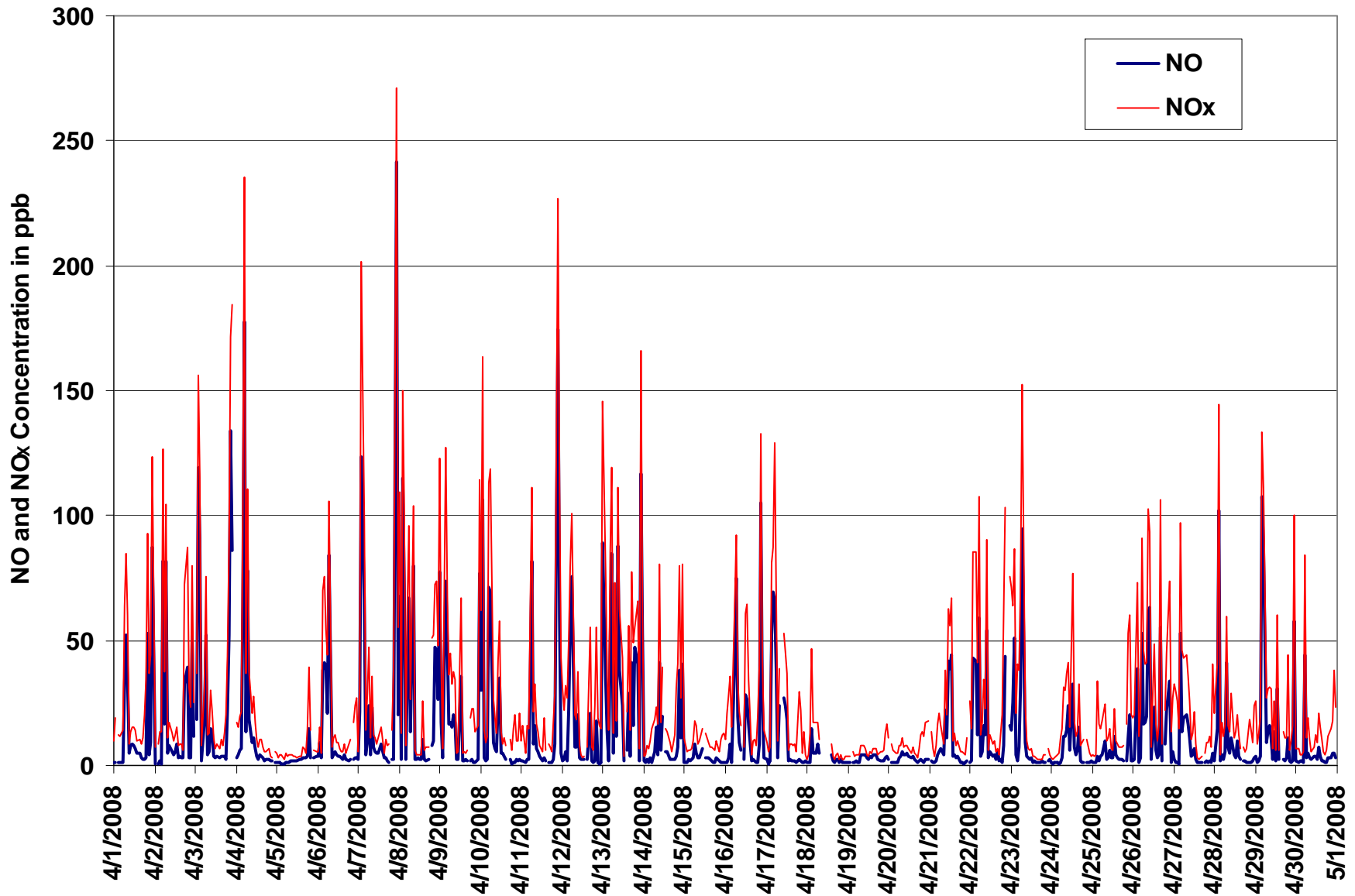


Figure 4. PAS - Crescent Heights Oxides of Nitrogen Instantaneous (30 Second) Maximum Value Monthly Trend



PAS - Crescent Heights Ozone Monthly Summary

Station: Crescent Heights
 Station Owner: PAS

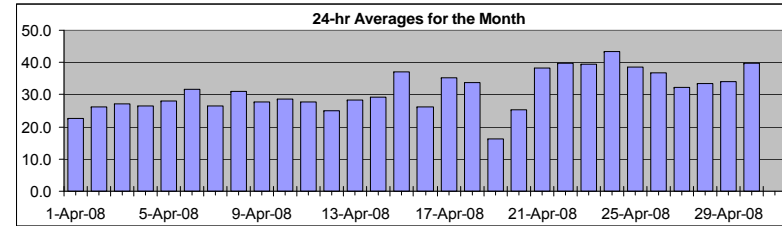
HOURLY AVERAGE TABLE

Ozone (O₃)

Monitoring Dates: April 1, 2008 to May 1, 2008

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

Number of 1-hr Exceedances:	0			
Maximum 1-hr Average:	60.4	ppb	27-Apr	13:00 14:00
Maximum 24-hr Average:	43.4	ppb	24-Apr	



AIC Time:	32 hrs	Operational Time:	686 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	54.6	50.6	41.2	31.0	21.9	11.1	3.4	31.2 ppb	31.0 ppb

Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00			24:00
1-Apr-08	24	24	A	26	27	23	9	8	16	17	19	24	28	30	32	36	38	35	33	24	11	9	8	19	22.5	37.8	
2-Apr-08	22	A	21	17	17	10	6	15	23	26	33	36	36	41	41	42	41	41	33	26	14	18	24	23	26.3	41.5	
3-Apr-08	A	22	22	23	21	19	19	22	24	28	30	34	37	39	42	41	42	38	31	20	18	11	16	A	27.2	41.6	
4-Apr-08	15	24	21	19	3	6	8	4	12	27	31	34	40	41	41	41	43	41	38	34	32	28	A	27	26.5	42.7	
5-Apr-08	23	23	21	22	22	22	23	23	24	25	26	30	35	38	39	36	38	37	30	25	25	A	29	29	28.0	38.8	
6-Apr-08	29	30	29	27	28	27	25	28	29	28	29	32	35	38	41	41	41	40	40	37	A	30	24	18	31.6	41.0	
7-Apr-08	30	25	24	26	26	23	21	22	22	20	20	20	25	30	37	40	39	40	37	A	34	19	10	17	26.4	40.3	
8-Apr-08	15	20	24	22	21	14	15	22	26	31	38	42	43	45	45	45	45	44	A	30	19	34	36	34	30.9	45.0	
9-Apr-08	29	24	27	24	19	12	5	11	11	25	39	43	42	43	43	44	43	A	37	37	24	22	18	15	27.7	43.8	
10-Apr-08	20	17	19	24	24	23	22	23	23	25	25	27	33	37	38	39	A	38	39	34	30	34	34	28	28.6	39.3	
11-Apr-08	37	30	24	15	11	5	4	10	16	25	34	41	46	47	48	A	46	42	40	38	32	18	18	19	21	27.6	49.9
12-Apr-08	11	7	10	2	0	0	9	15	20	34	45	52	50	47	A	46	42	40	38	32	18	18	19	21	25.1	52.3	
13-Apr-08	26	35	33	27	23	16	21	24	34	36	35	36	38	A	36	33	33	32	24	27	22	22	18	22	28.4	37.8	
14-Apr-08	22	22	21	22	20	19	17	24	25	20	26	31	A	41	43	43	43	41	38	27	20	25	39	41	29.1	43.5	
15-Apr-08	40	34	33	37	36	32	26	26	35	29	28	A	43	43	45	48	51	44	44	41	39	38	32	28	37.2	50.6	
16-Apr-08	25	17	11	14	15	7	10	16	21	27	A	41	40	39	43	45	44	45	42	33	21	12	15	22	26.2	45.1	
17-Apr-08	20	24	23	19	18	22	21	24	28	A	44	46	46	48	48	50	49	47	44	33	31	39	39	44	35.2	49.9	
18-Apr-08	44	41	34	26	24	21	24	30	A	40	45	47	48	C	C	A	41	36	33	33	28	28	27	26	33.8	48.3	
19-Apr-08	25	23	A	22	22	20	18	17	15	13	12	12	11	11	12	13	15	15	16	16	17	17	16	15	16.2	25.0	
20-Apr-08	17	A	16	17	18	18	18	19	20	22	24	26	28	30	32	33	34	34	32	28	29	29	30	28	25.3	34.0	
21-Apr-08	A	31	29	30	30	27	29	31	33	33	36	39	41	43	46	47	46	47	48	45	43	43	41	A	38.1	47.7	
22-Apr-08	31	36	35	34	39	37	39	39	41	44	44	48	51	52	53	53	53	52	48	42	37	5	A	3	39.8	53.1	
23-Apr-08	8	31	34	27	12	16	16	21	40	44	48	48	50	54	54	55	55	53	52	50	49	A	48	46	39.5	54.6	
24-Apr-08	45	43	41	39	38	33	32	32	31	28	39	45	48	50	52	55	56	52	49	50	A	48	47	45	43.4	56.1	
25-Apr-08	42	39	37	20	29	25	31	38	46	43	41	43	44	42	44	46	47	49	50	A	46	25	23	34	38.4	50.1	
26-Apr-08	28	31	29	32	26	24	15	29	38	38	38	40	45	48	52	53	52	52	A	42	33	35	34	33	36.8	53.4	
27-Apr-08	17	13	20	26	3	2	13	15	22	36	43	45	57	60	58	56	55	A	49	36	32	30	30	25	32.3	60.4	
28-Apr-08	32	39	33	32	28	27	20	19	26	30	32	37	43	45	46	47	A	48	48	43	30	23	23	18	33.6	48.4	
29-Apr-08	11	17	14	11	12	14	15	22	30	44	49	52	51	49	49	A	45	42	37	38	45	45	47	44	34.0	51.9	
30-Apr-08	42	40	40	38	33	29	23	31	42	43	45	47	51	53	51	53	54	54	51	42	36	29	18	13	39.9	54.3	
Hourly Avg	26.1	27.2	25.8	24.0	21.5	19.0	18.5	21.9	26.6	30.3	34.5	37.9	40.9	42.4	43.2	43.8	44.1	42.4	39.6	34.3	29.1	26.4	26.7	25.8			
Hourly Max	44.7	42.9	40.6	38.7	39.3	36.7	38.9	39.2	45.8	44.3	48.8	52.3	56.9	60.4	58.0	56.2	56.1	54.3	52.0	49.7	48.9	48.3	47.6	46.3			

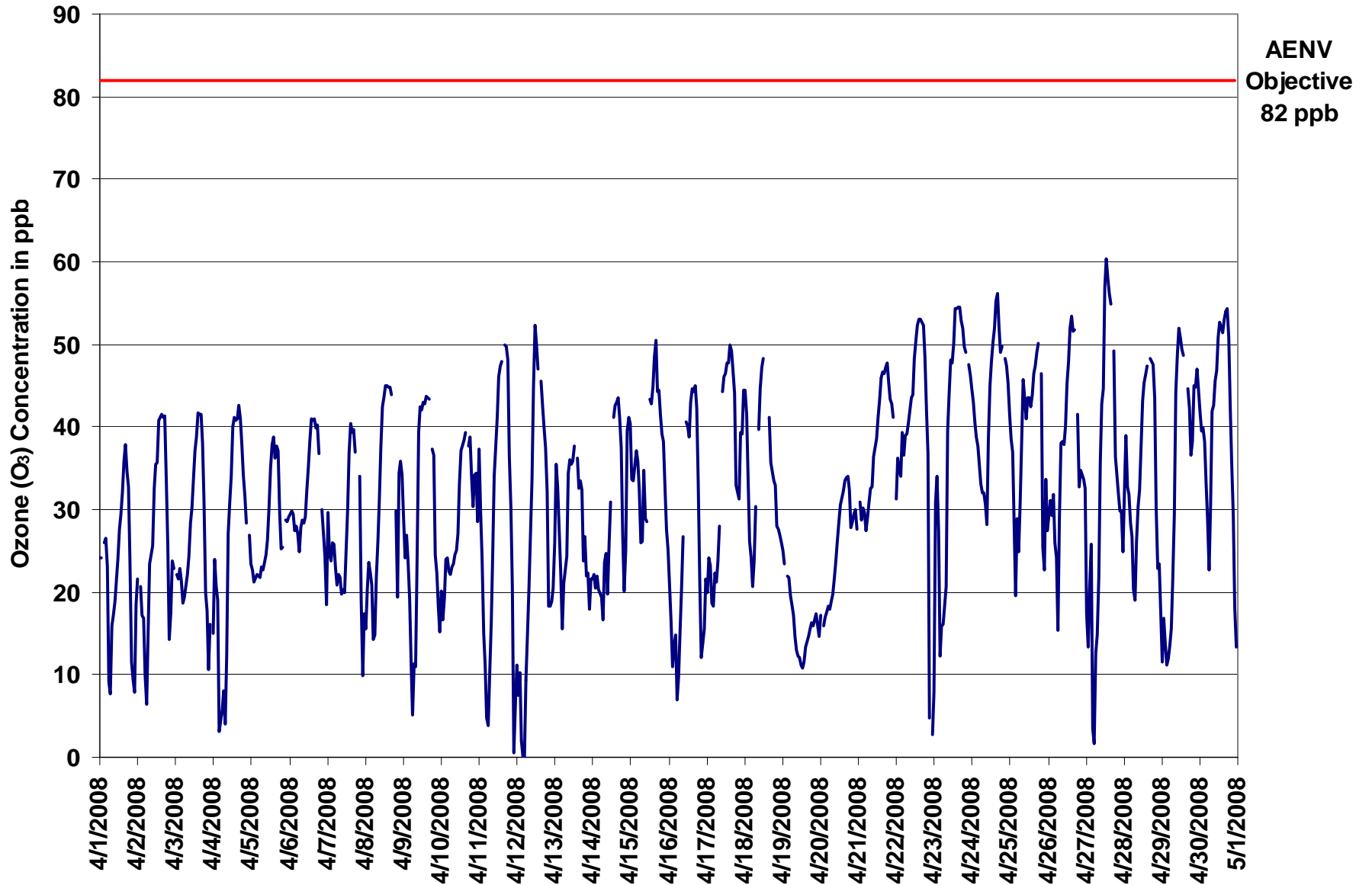


Figure 5. PAS - Crescent Heights Ozone 1-hr Average Monthly Trend



Station: Crescent Heights
Station Owner: PAS

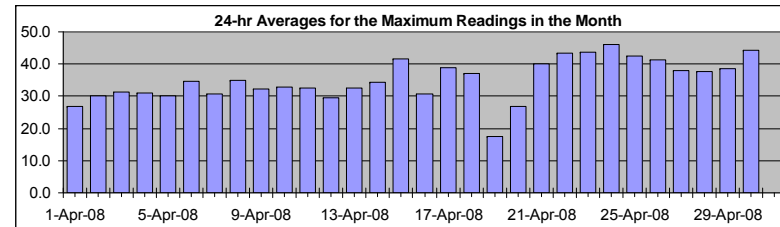
INSTANTANEOUS (30 Second) MAXIMUM TABLE

Ozone (O₃)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Maximum 1-hr Value:	63.5	ppb	27-Apr	13:00 14:00
Maximum 24-hr Value:	46.2	ppb	24-Apr	



AIC Time:	32 hrs	Operational Time:	686 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	57.0	53.3	44.2	36.1	25.7	16.2	9.2	35.1 ppb	36.1 ppb

Status Flag Characters

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

Day Mountain Standard Time

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Apr-08	30	33	A	29	28	28	16	10	20	19	23	26	30	31	34	38	40	38	37	34	18	17	17	22	26.9	40.0
2-Apr-08	23	A	22	20	19	14	9	22	25	30	35	38	40	44	44	44	44	44	41	35	18	26	29	27	30.2	44.0
3-Apr-08	A	24	25	25	23	22	23	25	29	32	33	36	39	42	43	43	44	43	37	35	23	23	19	A	31.2	44.4
4-Apr-08	21	28	23	22	18	14	15	13	17	36	37	40	43	42	44	44	45	43	41	36	34	30	A	28	31.0	44.7
5-Apr-08	24	24	22	23	23	24	24	24	25	26	29	33	38	39	41	38	40	40	37	30	28	A	30	30	30.1	40.8
6-Apr-08	30	31	31	29	29	29	28	31	31	31	32	36	39	40	42	43	43	42	43	41	A	34	32	29	34.7	43.1
7-Apr-08	31	29	28	28	28	26	23	24	24	22	23	24	29	33	41	43	43	43	41	A	38	29	24	31	30.7	43.3
8-Apr-08	24	24	27	26	23	20	18	27	29	37	40	45	45	46	46	47	47	47	A	40	34	37	38	36	34.9	47.0
9-Apr-08	35	31	28	26	24	16	9	15	15	38	43	45	47	46	45	45	46	A	45	42	31	25	22	24	32.2	46.7
10-Apr-08	24	21	22	25	27	28	25	25	26	26	28	31	38	41	41	43	A	40	41	39	40	40	40	41	32.8	42.9
11-Apr-08	42	34	28	20	15	9	8	13	21	33	39	44	48	50	51	A	52	52	52	44	35	33	9	14	32.4	52.3
12-Apr-08	20	11	22	5	1	1	13	18	26	40	52	55	53	49	A	47	45	43	43	39	26	23	21	29	29.6	54.7
13-Apr-08	39	39	39	32	27	21	24	29	37	37	37	37	39	A	40	39	37	37	34	29	26	25	22	23	32.5	39.9
14-Apr-08	23	23	25	26	27	24	24	28	29	28	31	37	A	43	45	46	45	44	41	38	25	44	45	47	34.2	47.5
15-Apr-08	45	41	36	39	39	37	31	41	42	37	31	A	46	48	49	51	53	49	47	45	41	42	36	31	41.6	52.5
16-Apr-08	29	20	17	18	17	13	16	18	24	32	A	42	43	44	45	46	48	49	47	38	32	22	22	25	30.8	48.7
17-Apr-08	22	26	26	23	23	26	24	26	36	A	47	48	49	50	51	52	52	49	47	42	40	42	45	46	38.9	52.5
18-Apr-08	46	44	41	37	29	25	27	34	A	45	46	49	49	C	C	A	44	38	35	34	32	29	28	27	36.9	49.4
19-Apr-08	26	24	A	23	23	21	20	18	16	14	13	13	12	11	13	15	16	17	17	17	18	19	18	18	17.4	26.3
20-Apr-08	19	A	17	18	18	19	19	20	21	22	25	27	30	32	34	34	35	35	34	31	32	33	33	32	26.8	34.7
21-Apr-08	A	32	30	31	31	30	31	33	35	35	39	42	44	46	47	48	48	49	50	47	44	44	A	A	40.1	49.6
22-Apr-08	36	38	40	38	41	41	41	43	43	46	48	50	53	54	55	55	54	53	52	47	46	14	A	12	43.4	54.8
23-Apr-08	25	39	40	34	27	20	23	33	43	46	49	49	54	55	55	55	56	54	53	51	50	A	48	47	43.7	55.5
24-Apr-08	46	44	42	40	39	37	36	36	33	34	42	48	51	53	54	58	58	57	53	56	A	51	48	47	46.2	58.1
25-Apr-08	44	40	38	35	33	29	35	47	48	46	43	45	45	44	46	49	50	51	53	A	51	38	32	38	42.6	52.9
26-Apr-08	34	34	33	36	30	29	25	38	40	40	40	44	49	51	55	56	55	56	A	48	38	40	36	38	41.1	56.3
27-Apr-08	36	24	29	31	12	9	18	19	27	44	45	49	62	63	61	58	56	A	51	47	36	33	33	33	38.1	63.5
28-Apr-08	41	42	38	33	31	31	24	22	32	33	36	42	46	48	49	50	A	51	50	47	44	27	27	21	37.6	50.5
29-Apr-08	17	19	19	17	23	18	18	27	40	48	52	54	53	52	51	A	49	48	39	45	48	49	52	51	38.6	54.4
30-Apr-08	46	42	42	42	35	32	25	41	44	45	49	51	54	56	54	56	57	57	57	48	41	32	29	25	44.2	57.1
Hourly Avg	31.3	30.7	29.7	27.7	25.5	23.1	22.4	26.7	30.2	34.5	37.5	40.7	43.8	44.8	45.6	46.0	46.5	45.2	43.4	40.1	34.6	32.2	31.4	31.2		
Hourly Max	46.3	43.9	42.2	42.1	41.4	40.8	41.3	46.5	47.8	47.9	52.5	54.7	62.1	63.5	60.7	57.8	58.1	56.9	56.7	56.0	50.7	50.9	51.6	50.7		

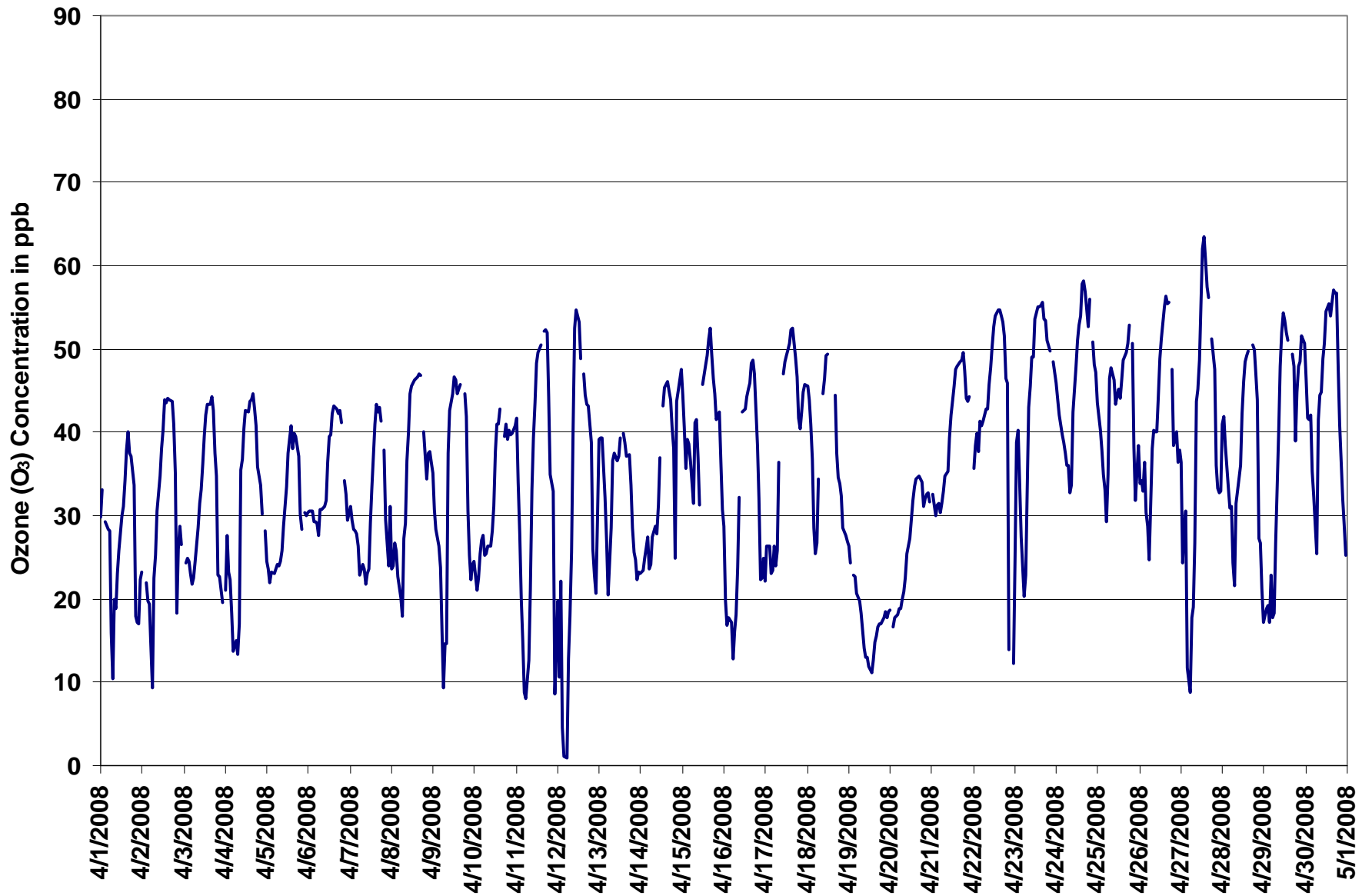
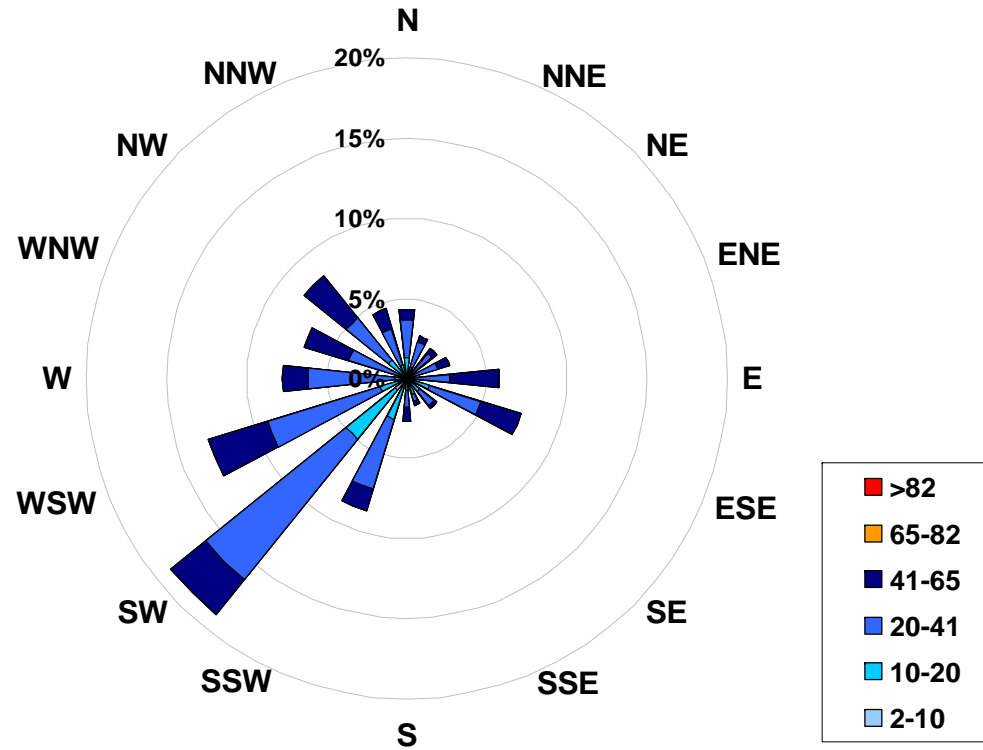


Figure 6. PAS - Crescent Heights Ozone Instantaneous (30 Second) Maximum Value Monthly Trend



1-hr Average Concentration Rose for Ozone (in ppb) Located at the Crescent Heights Site for April 2008



Calms: 0%

Frequency Distribution of O ₃ in ppb		
Range	Frequency (hrs)	
2.0 < 10	27	
10 to 20	109	
20 to 41	370	
41 to 65	180	
65 to 82	0	
> 82	0	
Total Non-Zero Values		686



PAS - Crescent Heights Ozone Eight Hour Average Summary

Station: Crescent Heights
Station Owner: PAS

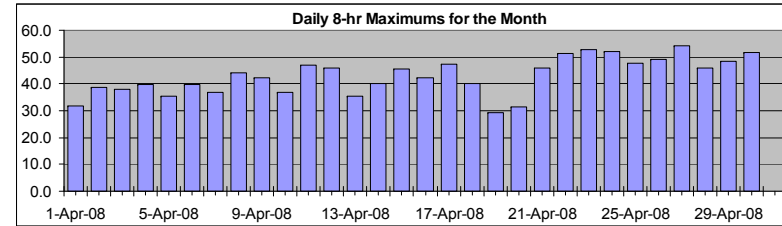
EIGHT HOUR RUNNING AVERAGE TABLE

Ozone (O₃)

Monitoring Dates: April 1, 2008 to May 1, 2008

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

Number of 8-hr Exceedances:	0			
Maximum 8-hr Average:	54.3	ppb	27-Apr	18:00 19:00



Percentile	99	95	75	50	25	5	1
	52.1	48.1	38.7	31.1	23.1	15.4	12.2

Status Flag Characters

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

Day	Mountain Standard Time																							Daily Maximum		
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	Hour End	0:00
1-Apr-08	27	26	25	25	26	25	22	20	19	18	18	18	18	19	22	25	28	30	32	32	30	27	24	22		31.8
2-Apr-08	20	18	16	15	16	16	16	15	16	17	18	21	23	27	31	35	37	39	39	38	35	32	30	28		38.8
3-Apr-08	26	23	21	21	22	22	21	21	22	22	23	25	27	29	32	34	37	38	38	36	34	30	27	25		37.9
4-Apr-08	21	19	18	18	16	15	14	12	12	13	14	16	20	25	29	33	37	39	40	40	39	37	37	35		39.8
5-Apr-08	32	29	27	25	24	23	23	22	22	23	23	24	26	28	30	32	33	35	35	35	33	33	31	30		35.3
6-Apr-08	29	28	28	28	29	29	28	28	28	28	28	28	29	31	33	34	36	37	39	39	40	39	36	33		39.7
7-Apr-08	31	29	27	25	25	24	24	24	23	23	22	22	22	23	25	27	29	31	34	36	37	35	31	28		36.8
8-Apr-08	25	22	20	20	19	18	19	19	21	22	24	26	29	33	37	39	42	43	44	42	39	37	36	35		44.2
9-Apr-08	32	30	29	28	28	26	22	19	17	17	18	21	23	27	32	36	40	42	42	41	39	36	32	28		42.4
10-Apr-08	25	24	22	20	20	20	20	21	22	23	24	24	25	27	29	31	32	34	36	37	36	36	35	34		36.9
11-Apr-08	34	33	32	29	27	23	19	17	14	14	15	18	23	28	33	37	42	45	47	46	44	40	34	30		47.2
12-Apr-08	25	20	15	11	7	5	6	7	8	11	16	22	28	34	38	42	45	46	45	42	38	33	32	28		46.0
13-Apr-08	26	26	25	25	25	25	25	26	27	27	27	28	30	32	34	35	35	35	33	32	30	29	26	25		35.5
14-Apr-08	24	22	22	21	21	21	21	21	21	21	22	23	23	26	30	33	35	38	40	39	37	35	35	34		40.0
15-Apr-08	34	33	33	34	36	37	35	33	32	32	31	30	31	33	36	39	41	43	46	45	44	44	42	40		45.5
16-Apr-08	37	33	29	25	22	19	16	14	14	15	15	19	23	27	32	36	40	42	42	41	39	36	32	29		42.3
17-Apr-08	26	24	21	20	19	20	21	21	22	22	25	29	33	37	41	44	47	47	47	46	44	43	42	41		47.4
18-Apr-08	40	40	38	37	37	34	32	31	29	28	30	33	36	N	N	N	N	N	N	N	N	N	32	31		40.3
19-Apr-08	29	28	27	26	25	24	22	21	20	18	17	16	15	14	13	12	12	13	13	14	14	15	16	16		29.4
20-Apr-08	16	16	16	16	17	17	17	18	18	18	19	20	22	23	25	27	29	30	31	32	32	31	31	30		31.6
21-Apr-08	30	30	29	29	29	29	29	30	30	30	31	32	34	36	38	40	41	43	45	45	46	46	45	45		45.8
22-Apr-08	43	41	39	38	37	36	36	36	37	38	40	41	43	45	46	48	50	51	51	51	49	43	41	34		51.4
23-Apr-08	28	25	23	21	17	19	18	21	25	26	28	31	35	40	45	49	51	52	53	53	53	52	51	50		52.8
24-Apr-08	49	47	46	44	43	41	40	38	36	34	34	35	36	38	41	43	47	50	51	52	52	52	51	50		52.1
25-Apr-08	48	46	44	40	38	35	33	32	33	34	34	37	39	41	43	44	44	45	46	46	47	44	41	39		47.6
26-Apr-08	36	34	31	31	28	28	27	27	28	29	30	31	33	36	41	44	46	47	49	49	47	45	43	40		49.1
27-Apr-08	35	29	28	26	23	19	16	14	14	17	20	22	29	36	42	47	51	53	54	53	50	45	41	37		54.3
28-Apr-08	33	34	32	32	31	31	29	29	28	27	27	28	29	32	35	39	40	43	45	46	44	41	38	33		45.9
29-Apr-08	31	27	22	18	16	15	14	14	17	20	25	30	34	39	43	46	48	48	46	44	44	43	43	43		48.4
30-Apr-08	43	42	43	43	41	39	36	34	34	35	35	37	39	42	45	48	50	51	52	51	49	46	42	37		51.7

Hourly Max 48.9 47.5 45.8 44.3 42.7 41.5 39.5 37.7 37.4 38.4 39.5 41.3 42.7 44.7 46.4 49.1 51.2 53.4 54.3 53.1 52.7 52.4 51.5 50.3



PAS - Crescent Heights Carbon Monoxide Monthly Summary

Station: Crescent Heights
 Station Owner: PAS

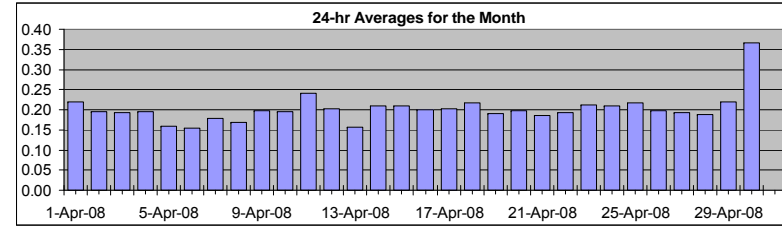
HOURLY AVERAGE TABLE

Carbon Monoxide (CO)

Monitoring Dates: April 1, 2008 to May 1, 2008

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-Apr	19:00 20:00
Maximum 24-hr Value:	0.4	ppm	30-Apr	



AIC Time:	32 hrs	Operational Time:	685 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	0.5	0.3	0.2	0.2	0.2	0.2	0.1	0.2 ppm	0.2 ppm

Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00			0:00
1-Apr-08	0.2	0.2	A	0.2	0.2	0.2	0.3	0.5	0.2	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	0.2	0.22	0.47
2-Apr-08	0.2	A	0.1	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	0.2	0.2	0.3	0.2	0.2	0.1	0.19	0.29
3-Apr-08	A	0.1	0.1	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	0.2	0.2	0.3	0.3	0.2	0.2	A	A	0.19	0.28	
4-Apr-08	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	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	A	0.1	0.19	0.39	
5-Apr-08	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.16	0.23	
6-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.16	0.20	
7-Apr-08	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	0.3	0.2	0.18	0.29
8-Apr-08	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	A	A	0.2	0.3	0.2	0.2	0.2	0.17	0.26
9-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.34
10-Apr-08	0.2	0.2	0.2	0.2	0.2	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.22
11-Apr-08	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	0.2	0.3	0.3	0.4	0.5	0.3	0.24	0.48
12-Apr-08	0.2	0.2	0.2	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	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.20	0.29
13-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	A	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.16	0.18	
14-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.3	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	0.3	0.3	0.2	0.2	0.2	0.21	0.31
15-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	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	0.21	0.27
16-Apr-08	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	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.20	0.31
17-Apr-08	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20	0.22
18-Apr-08	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22	0.29
19-Apr-08	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	0.2	0.19	0.20
20-Apr-08	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	0.2	0.20	0.22
21-Apr-08	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	A	0.18	0.21	
22-Apr-08	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	A	0.3	0.19	0.35	
23-Apr-08	0.3	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.21	0.44
24-Apr-08	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	0.2	A	0.2	0.2	0.2	0.2	0.21	0.29
25-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.3	0.2	0.22	0.27
26-Apr-08	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	A	0.2	0.2	0.2	0.2	0.2	0.20	0.28
27-Apr-08	0.3	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	0.1	0.2	0.2	A	A	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.25
28-Apr-08	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	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.25
29-Apr-08	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	A	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.22	0.26
30-Apr-08	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	C	C	C	A	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.37	0.52
Hourly Avg	0.18	0.18	0.17	0.18	0.19	0.21	0.24	0.24	0.20	0.19	0.19	0.18	0.18	0.20	0.20	0.19	0.20	0.20	0.21	0.23	0.24	0.23	0.22	0.20			
Hourly Max	0.25	0.25	0.21	0.24	0.26	0.29	0.44	0.47	0.34	0.29	0.27	0.22	0.22	0.49	0.47	0.47	0.46	0.45	0.46	0.52	0.46	0.46	0.48	0.47			

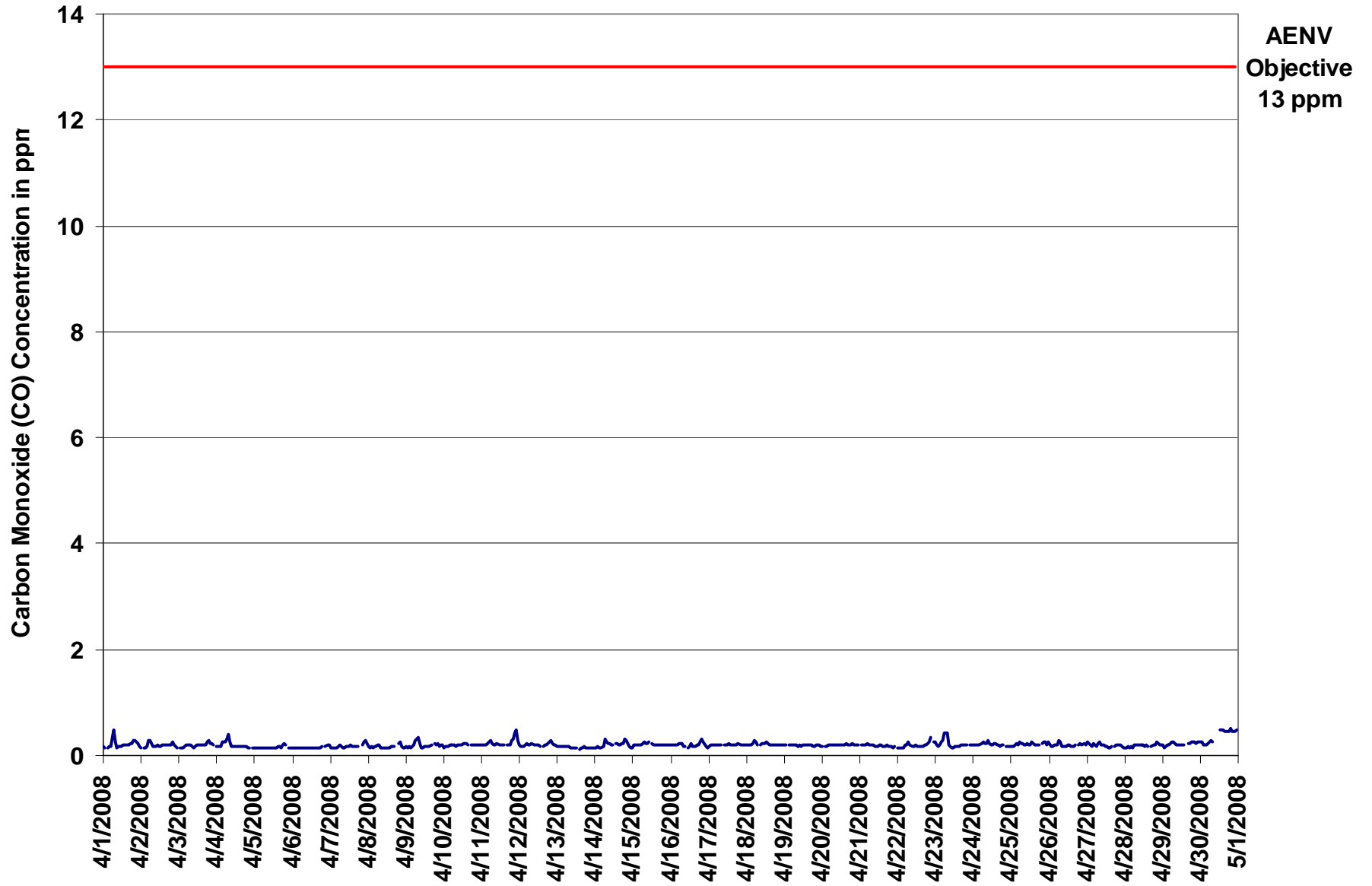


Figure 7. PAS - Crescent Heights Carbon Monoxide 1-hr Average Monthly Trend



Station: Crescent Heights
 Station Owner: PAS

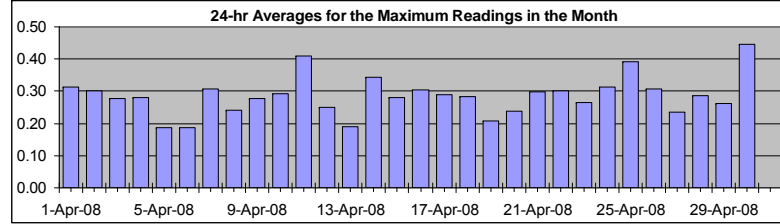
INSTANTANEOUS (30 Second) MAXIMUM TABLE

Carbon Monoxide (CO)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Maximum 1-hr Value:	1.2	ppm	25-Apr	10:00 11:00
Maximum 24-hr Value:	0.4	ppm	30-Apr	



AIC Time:	32 hrs	Operational Time:	685 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	0.9	0.6	0.3	0.3	0.2	0.2	0.2	0.3 ppm	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	24:00	24-hour Average	Daily Maximum
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Apr-08	0.2	0.2	A	0.2	0.2	0.3	0.5	0.6	0.6	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.4	0.4	0.3	0.2	0.2	0.31	0.60
2-Apr-08	0.2	A	0.2	0.2	0.2	1.2	0.4	0.4	0.3	0.4	0.3	0.2	0.3	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.30	1.16
3-Apr-08	A	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.4	0.4	0.2	0.4	0.4	0.4	0.4	0.3	0.3	0.3	A	0.2	0.28	0.40
4-Apr-08	0.2	0.2	0.2	0.2	1.1	0.4	0.6	0.6	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	A	0.2	0.28	1.12
5-Apr-08	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	0.3	0.3	0.2	A	0.2	0.2	0.19	0.30	
6-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	A	0.2	0.3	0.2	0.19	0.40	
7-Apr-08	0.2	0.4	0.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.5	0.3	0.2	0.7	0.3	0.4	0.3	0.2	0.2	A	0.3	0.5	0.4	0.6	0.31	0.66	
8-Apr-08	0.4	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.3	0.2	0.2	A	0.4	0.5	0.2	0.2	0.2	0.24	0.45	
9-Apr-08	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.4	0.4	0.4	0.2	0.2	0.3	0.2	0.2	0.2	0.3	A	0.4	0.4	0.4	0.3	0.3	0.3	0.28	0.53	
10-Apr-08	0.2	0.4	0.2	0.2	0.2	0.3	0.3	0.5	0.3	0.3	0.4	0.3	0.4	0.4	0.3	0.5	A	0.3	0.3	0.4	0.3	0.3	0.3	0.2	0.29	0.54	
11-Apr-08	0.2	0.2	0.2	0.2	0.4	0.5	1.0	0.3	0.4	0.4	0.5	0.3	0.5	0.3	0.3	A	0.2	0.2	0.2	0.6	0.5	0.7	0.7	0.4	0.41	1.03	
12-Apr-08	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.3	0.5	0.3	0.3	0.3	0.3	0.25	0.48	
13-Apr-08	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	A	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.19	0.34	
14-Apr-08	0.2	0.2	0.4	0.2	0.2	0.5	0.6	0.4	0.5	0.3	0.4	0.3	A	0.9	0.4	0.3	0.3	0.3	0.4	0.6	0.4	0.3	0.2	0.2	0.34	0.87	
15-Apr-08	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.4	0.8	A	0.5	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.28	0.79	
16-Apr-08	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.2	0.2	A	0.2	0.3	0.6	0.2	0.2	0.2	0.3	0.3	0.6	0.9	0.5	0.4	0.2	0.30	0.91	
17-Apr-08	0.2	0.2	0.4	0.2	0.3	0.2	0.3	0.3	0.2	A	0.9	0.2	0.3	0.5	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.2	0.29	0.85	
18-Apr-08	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.3	A	0.3	0.3	0.3	0.3	0.6	0.4	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.28	0.57	
19-Apr-08	0.2	0.2	A	0.2	0.2	0.2	0.3	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	0.21	0.25	
20-Apr-08	0.2	A	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	0.5	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.24	0.45	
21-Apr-08	A	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.7	0.6	0.2	0.2	0.4	0.5	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	A	0.30	0.68	
22-Apr-08	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.8	0.4	0.2	0.3	0.4	0.2	0.4	0.3	0.3	0.3	0.2	0.3	0.4	0.4	0.4	A	0.3	0.30	0.77	
23-Apr-08	0.3	0.3	0.2	0.3	0.3	0.4	0.7	0.7	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	A	0.2	0.27	0.71	
24-Apr-08	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.4	0.4	0.8	0.2	0.3	1.1	0.3	0.2	0.2	0.2	0.2	0.2	A	0.2	0.2	0.2	0.31	1.05	
25-Apr-08	0.2	0.2	0.2	0.6	0.3	0.3	0.3	0.3	0.3	0.4	1.2	0.3	0.3	0.9	0.4	0.3	0.3	0.3	0.4	A	0.3	0.3	0.6	0.3	0.39	1.19	
26-Apr-08	0.5	0.2	0.2	0.2	0.3	0.3	0.3	0.9	0.2	0.2	0.2	0.4	0.3	0.2	0.2	0.4	0.4	0.3	A	0.3	0.3	0.3	0.4	0.3	0.31	0.92	
27-Apr-08	0.4	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	A	0.2	0.3	0.3	0.2	0.2	0.2	0.23	0.35	
28-Apr-08	0.2	0.2	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.6	0.5	0.2	A	0.2	0.2	0.3	0.4	0.3	0.2	0.3	0.29	0.55	
29-Apr-08	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.3	A	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.26	0.40	
30-Apr-08	0.3	0.3	0.3	0.3	0.2	0.3	0.4	0.3	0.3	C	C	C	A	1.0	0.7	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.45	0.98	
Hourly Avg	0.23	0.21	0.22	0.21	0.27	0.32	0.36	0.37	0.30	0.28	0.36	0.24	0.27	0.42	0.28	0.26	0.25	0.25	0.27	0.34	0.32	0.29	0.28	0.24			
Hourly Max	0.49	0.35	0.35	0.61	1.12	1.16	1.03	0.92	0.68	0.61	1.19	0.40	0.50	1.05	0.70	0.53	0.49	0.49	0.49	0.64	0.91	0.69	0.69	0.62			

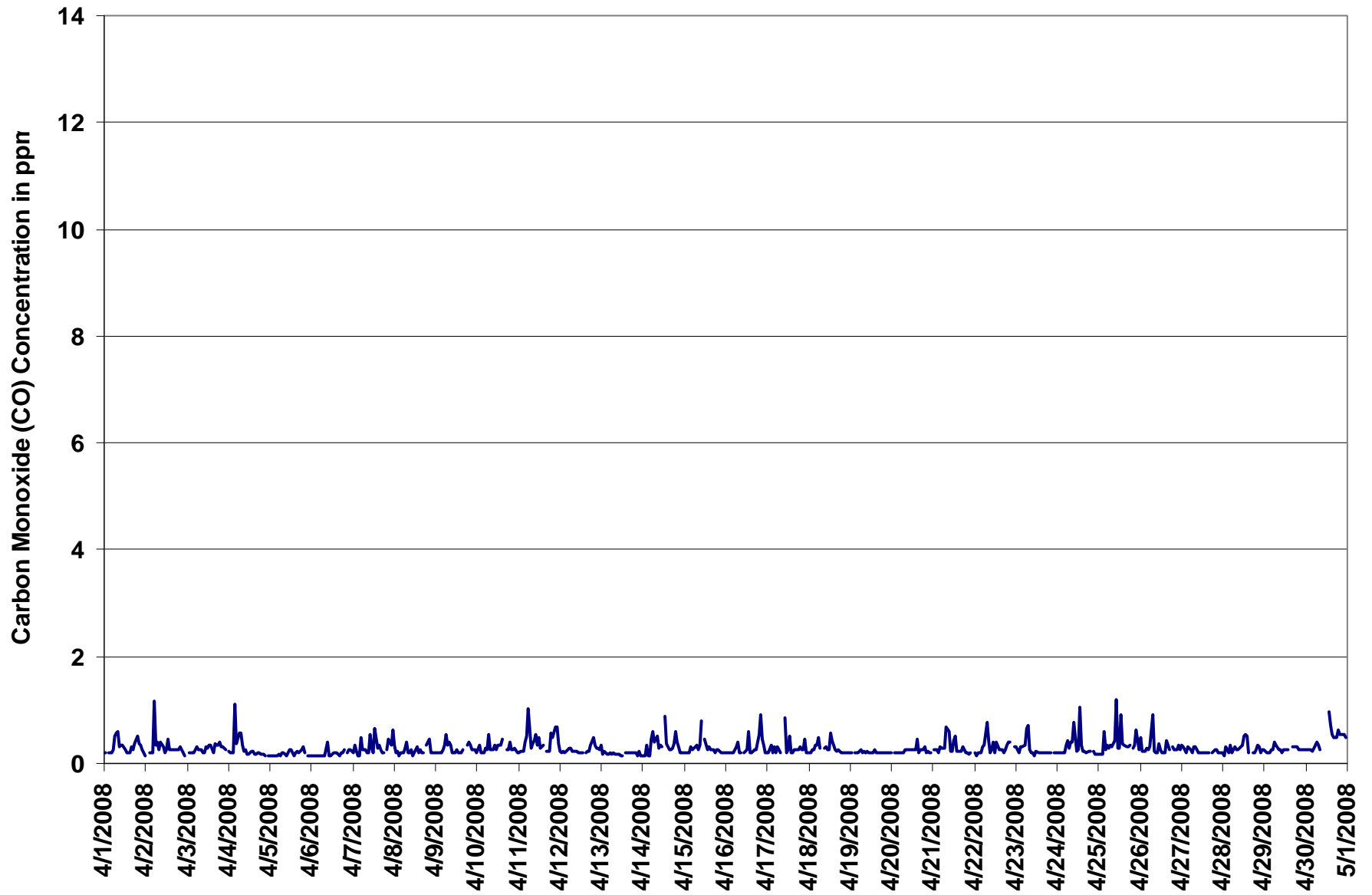
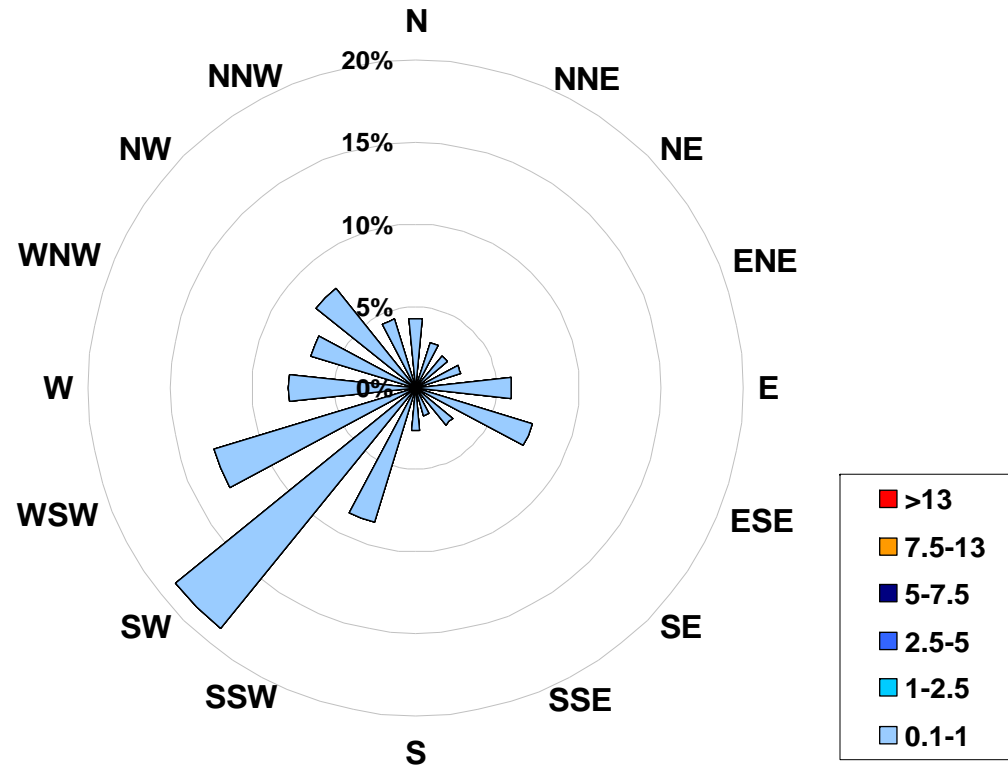


Figure 8. PAS - Crescent Heights Carbon Monoxide Instantaneous (30 Second) Maximum Value Monthly Trend



1-hr Average Concentration Rose for Carbon Monoxide (in ppm) Located at the Crescent Heights Site for April 2008



Calms: 0%

Frequency Distribution of CO in ppm		Frequency (hrs)
Range		
0.1	< 1	685
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		685



PAS - Crescent Heights Carbon Monoxide Eight Hour Average Summary

Station: Crescent Heights
Station Owner: PAS

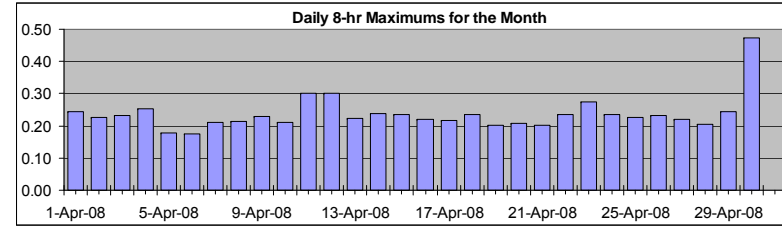
EIGHT HOUR RUNNING AVERAGE TABLE

Carbon Monoxide (CO)

Monitoring Dates: April 1, 2008 to May 1, 2008

Objective Limit: Alberta Environment: 8-hr 5 ppm

Number of 8-hr Exceedances:	0						
Maximum 8-hr Average:	0.5	ppm	30-Apr	19:00	20:00		



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

Status Flag Characters

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

Day	Mountain Standard Time																								Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	
1-Apr-08	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
2-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
3-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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-Apr-08	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
5-Apr-08	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
6-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.18
7-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
8-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
9-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
10-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
11-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.30
12-Apr-08	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.30
13-Apr-08	0.2	0.2	0.2	0.2	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	0.2	0.2	0.2	0.2	0.2	0.22
14-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
15-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
16-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
17-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
18-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
19-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
20-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21
21-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
22-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.24
23-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.27
24-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
25-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
26-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.23
27-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.22
28-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.20
29-Apr-08	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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-Apr-08	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	0.5	0.5	0.5	0.5	0.5	0.47

Hourly Max	0.30	0.30	0.30	0.28	0.27	0.24	0.25	0.27	0.27	0.26	0.26	0.25	0.24	0.24	0.23	0.23	0.22	0.22	0.22	0.47	0.47	0.47	0.47	0.47	0.47
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PAS - Crescent Heights Total Hydrocarbons Monthly Summary

Station: Crescent Heights
Station Owner: PAS

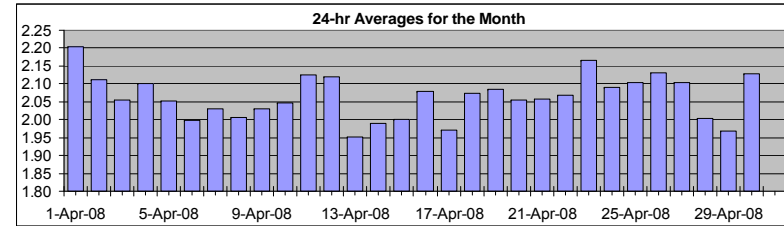
HOURLY AVERAGE TABLE

Total Hydrocarbons (THC)

Monitoring Dates: April 1, 2008 to May 1, 2008

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

Maximum 1-hr Average:	2.5	ppm	23-Apr	6:00 7:00
Maximum 24-hr Value:	2.2	ppm	1-Apr	



AIC Time:	32 hrs	Operational Time:	686 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	2.4	2.2	2.1	2.0	2.0	1.9	1.9	2.1 ppm	2.0 ppm

Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00			23:00
1-Apr-08	2.1	2.1	A	2.1	2.1	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.2	2.2	2.2	2.1	2.1	2.20	2.45
2-Apr-08	2.1	A	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.11	2.19
3-Apr-08	A	2.0	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	A	2.05	2.13	
4-Apr-08	2.3	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	A	2.1	2.10	2.32
5-Apr-08	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.05	2.22	
6-Apr-08	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.2	2.00	2.17	
7-Apr-08	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.2	2.1	2.03	2.20
8-Apr-08	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.1	2.0	2.0	2.0	2.01	2.08
9-Apr-08	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.1	2.1	2.1	2.1	2.03	2.18
10-Apr-08	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.05	2.13	
11-Apr-08	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.2	2.2	2.3	2.4	2.2	2.13	2.39	
12-Apr-08	2.2	2.2	2.2	2.2	2.3	2.4	2.2	2.1	2.2	2.1	2.1	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.1	2.12	2.39	
13-Apr-08	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.95	2.04	
14-Apr-08	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.1	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	1.9	1.9	1.99	2.13	
15-Apr-08	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.00	2.08	
16-Apr-08	2.1	2.2	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.08	2.29
17-Apr-08	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.0	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	1.97	2.05	
18-Apr-08	2.0	2.0	2.1	2.2	2.2	2.2	2.2	2.1	A	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.07	2.24	
19-Apr-08	2.1	2.1	A	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.08	2.17	
20-Apr-08	2.1	A	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.05	2.12	
21-Apr-08	A	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	A	2.06	2.14	
22-Apr-08	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	A	2.3	2.07	2.35
23-Apr-08	2.4	2.4	2.3	2.3	2.3	2.5	2.5	2.3	2.2	2.1	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.0	2.1	2.1	2.1	2.0	A	2.0	2.0	2.16	2.51
24-Apr-08	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.2	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	A	2.2	2.1	2.1	2.09	2.24	
25-Apr-08	2.0	2.0	2.1	2.2	2.1	2.4	2.2	2.2	2.1	2.0	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.1	A	2.3	2.1	2.2	2.1	2.10	2.37	
26-Apr-08	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	A	2.1	2.1	2.0	2.1	2.1	2.13	2.31	
27-Apr-08	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	A	1.9	1.9	2.0	2.0	2.0	2.0	2.10	2.33	
28-Apr-08	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	1.9	A	1.9	1.9	2.0	2.2	2.0	2.0	2.1	2.00	2.20	
29-Apr-08	2.3	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	A	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.97	2.29	
30-Apr-08	1.9	1.9	1.9	1.9	2.0	1.9	2.0	C	C	A	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.4	2.13	2.42	
Hourly Avg	2.08	2.07	2.07	2.08	2.09	2.11	2.10	2.10	2.08	2.07	2.06	2.04	2.03	2.03	2.02	2.01	2.01	2.01	2.01	2.02	2.06	2.09	2.10	2.09	2.09		
Hourly Max	2.41	2.38	2.30	2.31	2.33	2.45	2.51	2.29	2.24	2.17	2.17	2.17	2.16	2.18	2.23	2.20	2.23	2.18	2.34	2.45	2.31	2.30	2.39	2.42			

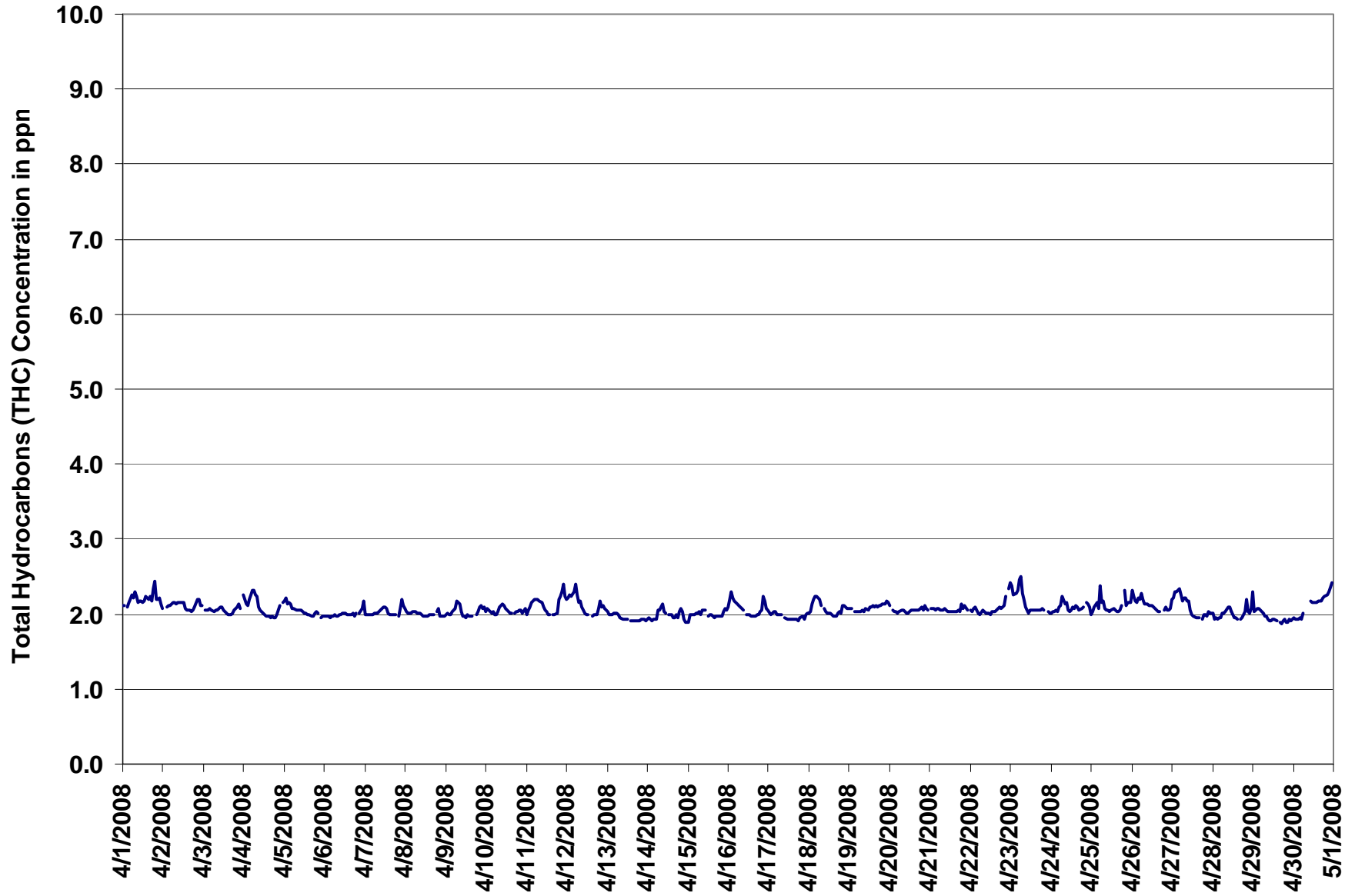


Figure 9. PAS - Crescent Heights Total Hydrocarbons 1-hr Average Monthly Trend



Station: Crescent Heights
 Station Owner: PAS

INSTANTANEOUS (30 Second) MAXIMUM TABLE

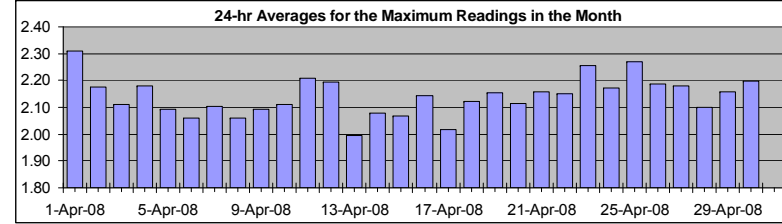
Total Hydrocarbons (THC)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Maximum 1-hr Value:	5.7	ppm	29-Apr	0:00 1:00
Maximum 24-hr Value:	2.3	ppm	1-Apr	

AIC Time:	32 hrs	Operational Time:	686 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	2.6	2.4	2.2	2.1	2.0	2.0	1.9	2.1 ppm	2.1 ppm



Status Flag Characters

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

Day Mountain Standard Time

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	Daily	
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	Average	Maximum	
1-Apr-08	2.2	2.2	A	2.2	2.3	2.4	2.3	2.4	2.4	2.2	2.3	2.2	2.2	2.2	2.1	2.1	2.3	2.5	2.3	2.6	2.6	2.3	2.3	2.3	2.3	2.31	2.59
2-Apr-08	2.1	A	2.1	2.2	2.1	2.4	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.2	2.2	2.18	2.43
3-Apr-08	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.2	2.2	2.3	2.2	A	2.11	2.25	
4-Apr-08	2.4	2.3	2.2	2.4	2.4	2.4	2.5	2.4	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	A	2.2	2.18	2.47	
5-Apr-08	2.3	2.3	2.2	2.2	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	A	2.0	2.0	2.09	2.25	
6-Apr-08	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.2	A	2.1	2.3	2.3	2.06	2.34	
7-Apr-08	2.1	2.0	2.1	2.0	2.0	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	A	2.0	2.3	2.3	2.3	2.10	2.32	
8-Apr-08	2.4	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.2	2.0	2.0	2.0	2.06	2.35	
9-Apr-08	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	A	2.1	2.2	2.3	2.2	2.2	2.2	2.09	2.31	
10-Apr-08	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	A	2.1	2.1	2.1	2.3	2.1	2.2	2.11	2.27	
11-Apr-08	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.0	A	2.0	2.0	2.1	2.3	2.3	2.6	2.6	2.4	2.21	2.63	
12-Apr-08	2.4	2.3	2.3	2.3	2.4	2.5	2.5	2.2	2.2	2.2	2.1	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	2.2	2.3	2.1	2.2	2.1	2.20	2.49	
13-Apr-08	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	1.9	1.99	2.10	
14-Apr-08	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.3	2.3	2.3	2.1	2.1	A	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.0	1.9	2.08	2.32	
15-Apr-08	1.9	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.1	2.3	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.07	2.34	
16-Apr-08	2.2	2.3	2.4	2.3	2.2	2.2	2.2	2.2	2.1	2.1	A	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.2	2.4	2.3	2.1	2.14	2.40	
17-Apr-08	2.1	2.0	2.0	2.1	2.1	2.0	2.1	2.0	2.0	A	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.1	2.1	2.02	2.13	
18-Apr-08	2.0	2.1	2.2	2.3	2.3	2.3	2.3	2.2	A	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.2	2.1	2.12	2.33	
19-Apr-08	2.2	2.1	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.5	2.2	2.2	2.1	2.2	2.2	2.2	2.3	2.2	2.2	2.15	2.54	
20-Apr-08	2.2	A	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.11	2.21	
21-Apr-08	A	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.6	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.1	A	2.16	2.55	
22-Apr-08	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.3	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.3	2.3	A	2.4	2.15	2.44	
23-Apr-08	2.5	2.6	2.3	2.3	2.4	2.6	2.6	2.5	2.4	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	A	2.1	2.1	2.25	2.61	
24-Apr-08	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.5	2.2	2.2	2.2	2.1	2.1	2.3	2.1	2.2	2.1	2.1	2.1	2.4	A	2.3	2.2	2.2	2.17	2.45	
25-Apr-08	2.1	2.2	2.2	2.3	2.3	2.8	2.2	2.3	2.1	2.1	2.4	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.4	A	3.1	2.2	2.3	2.3	2.27	3.09	
26-Apr-08	2.4	2.3	2.3	2.2	2.3	2.3	2.4	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.1	A	2.1	2.1	2.1	2.1	2.1	2.19	2.37	
27-Apr-08	2.3	2.3	2.5	2.5	2.4	2.4	2.2	2.3	2.3	2.3	2.3	2.1	2.1	2.0	2.0	2.0	2.0	A	2.0	2.0	2.0	2.0	2.1	2.1	2.18	2.51	
28-Apr-08	2.2	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.4	2.0	2.0	2.0	2.0	A	2.0	2.0	2.4	2.6	2.1	2.1	2.10	2.56	
29-Apr-08	5.7	2.1	2.1	2.2	2.1	2.2	2.1	2.0	2.0	2.0	2.0	1.9	2.0	2.0	1.9	A	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0	2.16	5.68	
30-Apr-08	2.0	2.0	2.0	2.0	2.0	2.0	2.1	C	C	A	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.5	2.5	2.20	2.50	
Hourly Avg	2.28	2.14	2.14	2.14	2.16	2.20	2.18	2.20	2.17	2.15	2.14	2.09	2.09	2.09	2.08	2.06	2.06	2.06	2.09	2.16	2.20	2.18	2.17	2.16			
Hourly Max	5.68	2.58	2.45	2.51	2.44	2.77	2.60	2.51	2.55	2.29	2.44	2.29	2.37	2.28	2.54	2.31	2.45	2.30	2.57	2.59	3.09	2.59	2.63	2.50			

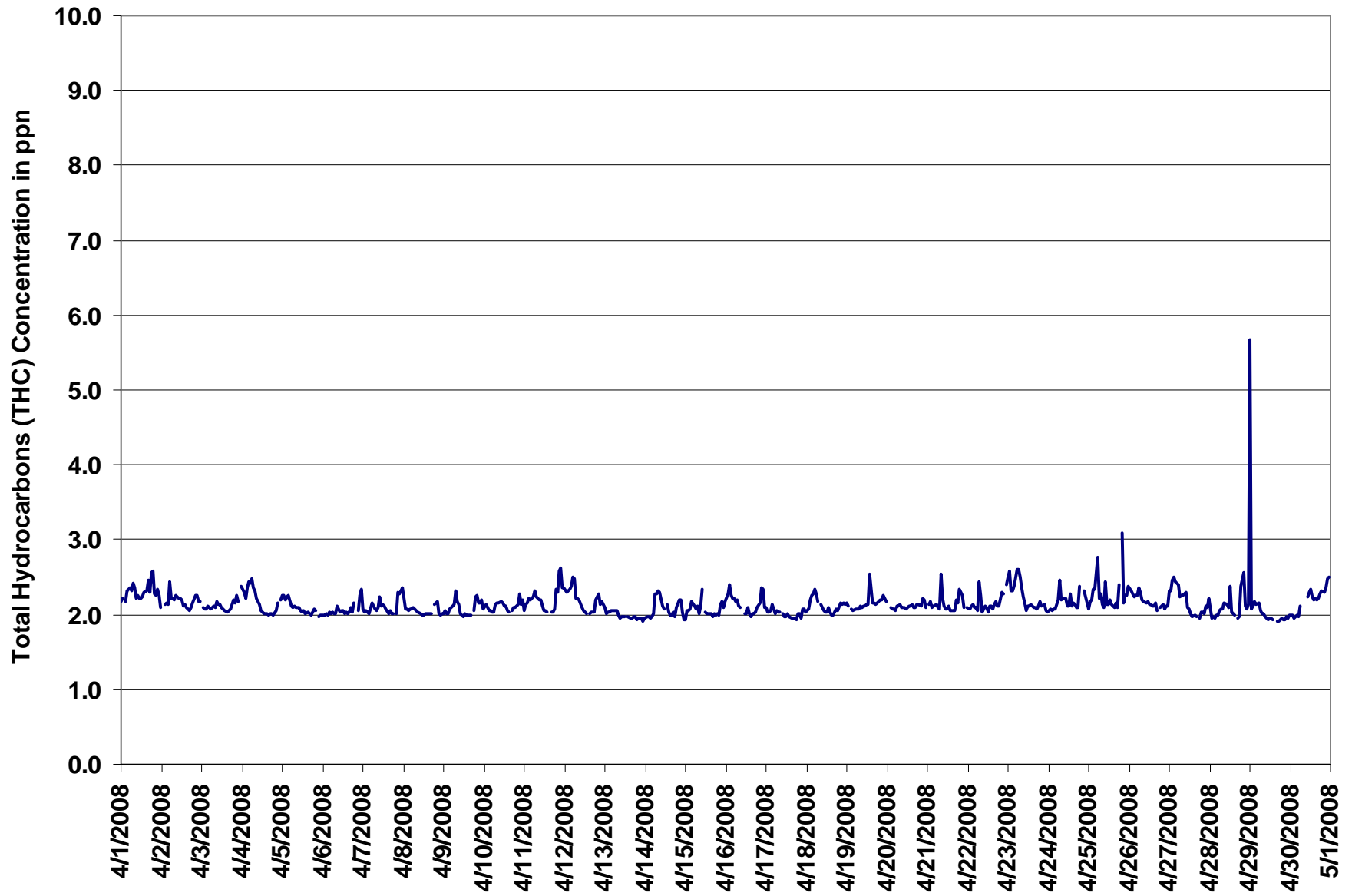
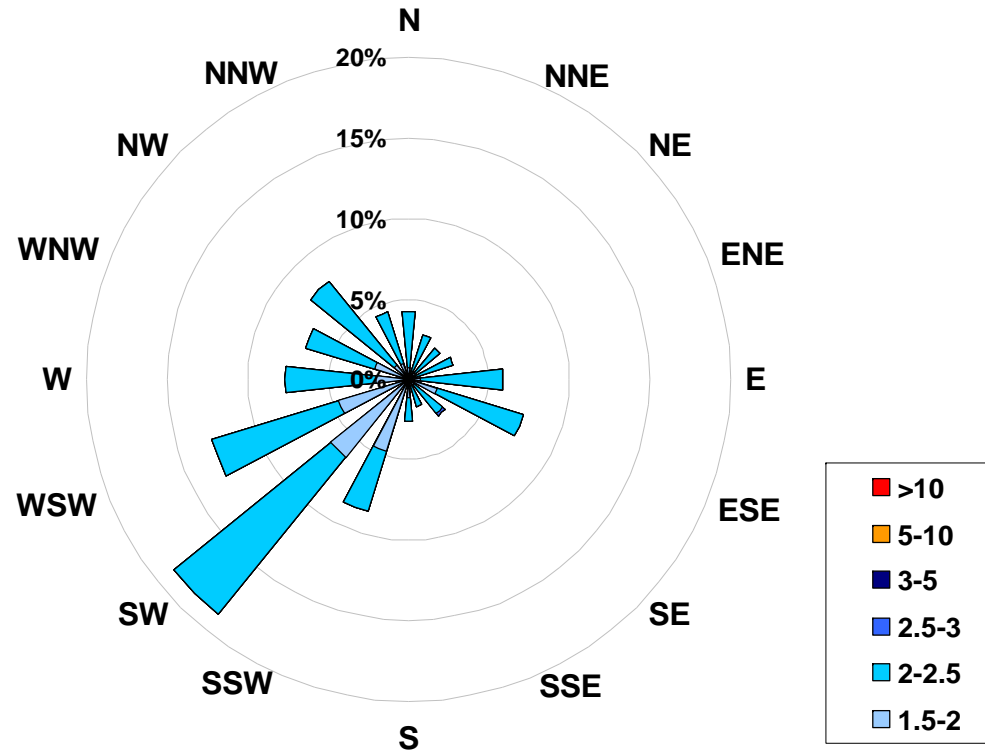


Figure 10. PAS - Crescent Heights Total Hydrocarbons Instantaneous (30 Second) Maximum Value Monthly Trend



**1-hr Average Concentration Rose for Total Hydrocarbons (in ppm)
Located at the Crescent Heights Site for April 2008**



Calms: 0%

Frequency Distribution of THC in ppm			Frequency (hrs)
Range			
1.5	< 2		194
2	to 2.5		489
2.5	to 3		1
3	to 5		0
5	to 10		0
	> 10		0
Total Non-Zero Values			686



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

Station: Crescent Heights
 Station Owner: PAS

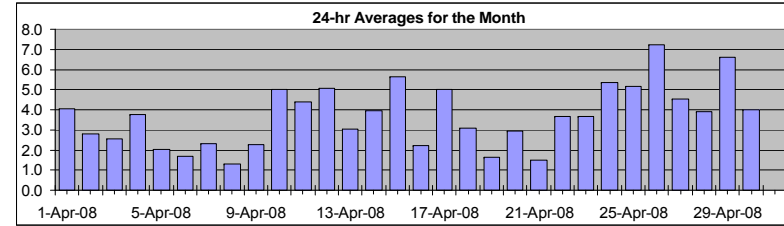
HOURLY AVERAGE TABLE

Particulate Matter (PM_{2.5})

Monitoring Dates: April 1, 2008 to May 1, 2008

Draft Objective Limit: Alberta Environment: 1-hr - µg/m³ 24-hr 30 µg/m³
 Summary

Number of 24-hr Exceedances (draft):	0
Maximum 1-hr Average:	18.8 µg/m ³ 29-Apr 16:00 17:00
Maximum 24-hr Value:	7.2 µg/m ³ 26-Apr



AIC Time:	0 hrs	Operational Time:	716 hrs
Calibration Time:	2 hrs	AMD Operational Uptime:	99.7%
Percentile	99	95	75
	12.5	8.5	5.2
	3.2	1.7	0.0
	0.0	0.0	0.0
	Average / Median		3.7
			3 µg/m ³
			3.4 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	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00			0:00
1-Apr-08	0:00	3	3	4	3	3	3	5	8	6	5	6	5	6	6	5	2	4	3	3	6	4	4	3	0	4.1	7.7
2-Apr-08	1:00	0	0	1	1	2	3	5	6	4	5	3	2	0	0	1	3	2	2	4	4	6	4	4	2	2.8	6.4
3-Apr-08	2:00	2	2	2	2	2	3	3	4	4	2	2	1	0	0	0	1	0	3	3	5	7	6	3	4	2.5	6.6
4-Apr-08	3:00	5	6	3	3	4	12	5	15	6	3	3	2	0	1	2	0	2	3	3	6	5	0	1	0	3.8	15.4
5-Apr-08	4:00	1	1	1	1	2	2	1	1	2	2	4	1	0	0	0	3	3	2	3	2	3	7	6	0	2.0	6.8
6-Apr-08	5:00	D	0	0	0	0	0	1	1	3	2	4	6	2	1	0	1	3	1	2	4	3	2	2	1	1.7	5.9
7-Apr-08	6:00	0	0	0	0	0	0	2	3	4	6	4	4	1	2	0	0	2	3	7	2	3	5	6	3	2.3	7.0
8-Apr-08	7:00	0	0	0	1	1	2	2	2	3	2	0	0	0	0	0	0	1	1	2	2	6	3	2	3	1.3	6.4
9-Apr-08	8:00	1	2	1	1	1	1	5	6	9	2	0	0	2	3	0	0	0	0	2	5	5	3	2	2	2.2	9.5
10-Apr-08	9:00	2	2	2	2	2	2	4	6	7	8	6	6	4	4	5	4	8	8	6	8	10	5	6	4	5.0	10.3
11-Apr-08	10:00	3	4	2	1	4	7	6	6	6	7	4	1	0	0	0	2	1	1	5	7	6	15	14	8	4.4	14.9
12-Apr-08	11:00	7	6	6	7	6	6	7	6	9	6	3	3	6	3	3	4	3	3	2	5	10	5	5	2	5.1	10.0
13-Apr-08	12:00	1	2	3	3	2	3	5	5	2	4	10	3	0	2	0	3	2	5	4	3	3	3	3	2	3.1	10.5
14-Apr-08	13:00	3	4	3	3	2	3	5	3	4	5	6	3	3	4	4	5	2	3	3	5	8	6	5	1	3.9	7.9
15-Apr-08	14:00	5	8	5	5	8	12	9	6	9	9	5	1	2	4	0	0	3	15	4	7	7	4	5	3	5.6	15.1
16-Apr-08	15:00	1	2	3	4	2	3	6	4	1	1	0	0	0	0	0	1	1	1	2	3	5	5	3	5	2.2	6.3
17-Apr-08	16:00	4	2	1	2	2	4	4	5	4	1	2	5	8	4	5	5	6	6	7	7	9	8	12	7	5.0	12.3
18-Apr-08	17:00	2	4	4	2	3	3	4	2	2	5	6	6	5	1	3	3	1	1	0	2	5	3	2	4	3.1	6.4
19-Apr-08	18:00	2	1	3	1	1	3	5	1	3	1	2	0	2	3	3	1	1	0	1	3	1	0	0	1	1.6	4.6
20-Apr-08	19:00	0	1	1	2	2	3	3	3	4	5	5	4	5	4	5	5	4	3	3	3	2	2	2	2	2.9	4.9
21-Apr-08	20:00	0	2	1	0	0	1	1	1	2	2	2	1	4	0	0	1	1	0	1	2	5	2	2	3	1.5	5.1
22-Apr-08	21:00	3	1	2	2	2	3	3	4	5	3	3	3	4	7	4	3	2	5	5	2	4	8	5	6	3.7	7.5
23-Apr-08	22:00	6	6	3	2	3	5	8	8	0	3	3	5	2	3	2	3	5	4	2	2	3	2	3	4	3.7	8.5
24-Apr-08	23:00	5	5	6	6	7	7	6	6	7	10	8	6	5	7	3	3	3	3	3	5	5	4	4	5	5.3	9.7
25-Apr-08	0:00	5	4	3	3	1	4	5	5	4	4	4	5	5	4	3	2	4	6	8	7	7	11	11	10	5.1	11.3
26-Apr-08	1:00	8	6	7	7	7	10	10	12	11	11	12	12	8	6	3	0	3	3	8	8	6	3	6	7	7.2	12.1
27-Apr-08	2:00	6	5	3	3	6	5	7	9	8	5	6	7	0	0	7	4	3	5	5	8	3	3	3	2	4.5	9.1
28-Apr-08	3:00	1	1	4	4	3	5	7	11	6	6	6	4	1	0	2	2	1	2	3	5	9	3	2	4	3.9	11.4
29-Apr-08	4:00	5	2	4	4	4	6	11	11	8	3	6	2	8	7	10	6	19	16	0	0	7	13	1	4	6.6	18.8
30-Apr-08	5:00	2	1	0	D	0	3	8	C	C	9	6	3	3	4	5	5	5	4	5	4	4	4	5	4	4.0	8.9
Hourly Avg		2.9	2.8	2.6	2.7	2.8	4.1	5.0	5.6	4.8	4.4	4.2	3.4	2.9	2.7	2.5	2.4	3.2	3.7	3.5	4.4	5.4	4.7	4.3	3.4		
Hourly Max		8.3	8.2	6.8	7.4	8.2	12.5	10.9	15.4	10.7	10.7	12.1	11.9	8.0	7.2	10.2	6.5	18.8	15.6	8.1	7.8	10.3	14.9	14.1	9.7		

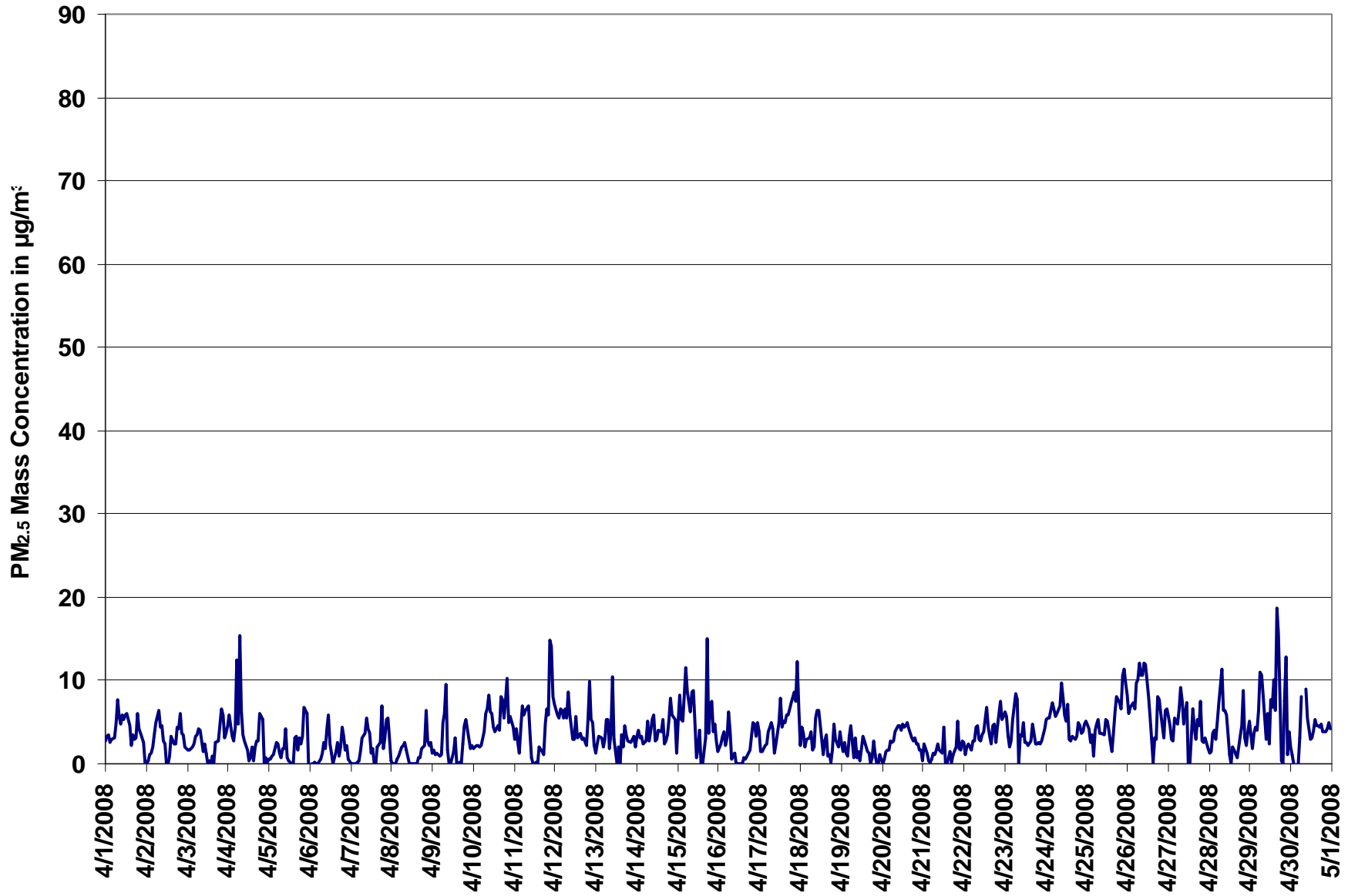


Figure 11. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) 1-hr Average Monthly Trend



Station: Crescent Heights
 Station Owner: PAS

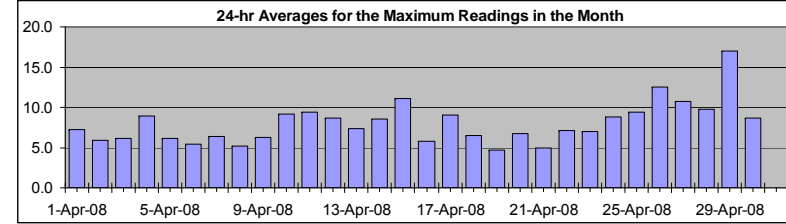
INSTANTANEOUS (30 Second) MAXIMUM TABLE

Particulate Matter (PM_{2.5})

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Maximum 1-hr Average:	61.1	µg/m ³	29-Apr	16:00 17:00
Maximum 24-hr Value:	16.9	µg/m ³	29-Apr	



AIC Time:	0 hrs	Operational Time:	718 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average / Median	Geomean
	27.9	15.2	9.8	7.3	5.1	2.6	0.9	8.0	7.7 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

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Apr-08	5	5	5	5	4	5	10	11	10	7	9	9	10	9	8	8	9	7	7	10	5	6	6	1	7.2	11.2
2-Apr-08	1	2	3	3	3	8	8	8	7	7	7	6	5	4	7	8	10	5	8	8	9	6	6	5	5.9	9.6
3-Apr-08	3	4	3	6	6	7	5	6	7	5	6	6	5	5	2	4	5	10	6	10	10	10	6	8	6.1	10.3
4-Apr-08	8	10	5	4	7	42	7	37	8	9	6	6	5	5	5	4	6	7	5	13	9	3	3	2	9.0	42.3
5-Apr-08	3	2	3	3	5	4	3	2	4	4	11	5	4	4	3	10	8	5	6	5	5	11	31	6	6.2	31.0
6-Apr-08	0	1	1	2	1	1	2	4	6	4	7	9	7	6	4	10	11	8	8	11	7	7	6	5	5.4	11.5
7-Apr-08	0	1	1	1	2	2	3	6	6	7	9	8	6	5	4	4	8	14	22	6	6	14	10	8	6.3	21.7
8-Apr-08	7	1	2	2	4	9	6	5	5	4	2	5	4	6	3	7	6	11	4	6	11	6	4	5	5.2	11.1
9-Apr-08	3	3	3	3	3	5	8	8	13	9	5	2	9	11	8	4	4	6	6	8	8	6	4	11	6.2	13.4
10-Apr-08	5	4	5	3	3	5	7	9	10	11	9	11	13	14	12	12	12	12	8	9	15	10	12	10	9.2	15.2
11-Apr-08	6	8	6	4	7	19	8	9	10	7	5	3	6	5	6	4	7	7	7	9	9	25	33	14	9.4	33.4
12-Apr-08	12	8	8	10	8	10	9	9	13	10	9	11	9	7	7	6	8	6	7	8	14	8	8	5	8.7	13.5
13-Apr-08	3	4	5	5	4	6	7	8	5	9	30	7	5	7	3	12	7	13	7	5	5	5	6	5	7.3	30.0
14-Apr-08	7	5	5	5	4	6	13	6	7	10	10	7	7	9	8	10	8	5	9	10	16	14	12	13	8.6	15.9
15-Apr-08	8	15	10	8	11	17	10	10	13	14	9	8	9	14	8	12	8	26	9	11	11	11	7	6	11.1	26.5
16-Apr-08	4	7	6	6	3	6	12	7	3	5	2	5	2	5	5	4	5	4	4	6	12	9	8	9	5.8	11.8
17-Apr-08	6	3	3	4	4	10	6	8	8	5	9	10	14	9	11	10	11	10	10	10	11	10	20	15	9.0	19.9
18-Apr-08	5	7	6	4	5	6	7	5	7	10	10	10	8	8	9	7	6	4	4	4	11	5	5	5	6.5	11.1
19-Apr-08	6	4	4	3	3	6	6	4	8	5	6	6	6	6	6	3	5	2	5	6	5	1	2	6	4.7	7.6
20-Apr-08	5	4	6	7	5	5	5	5	9	8	10	10	7	11	9	10	9	8	6	5	5	5	4	5	6.8	10.6
21-Apr-08	3	5	4	2	2	2	3	3	4	5	4	6	14	10	5	4	4	3	5	5	10	4	5	6	4.9	14.4
22-Apr-08	5	2	4	4	3	5	5	7	8	7	6	8	10	11	9	8	7	8	8	6	11	11	9	8	7.1	11.5
23-Apr-08	9	11	5	5	5	8	13	12	4	7	9	10	5	6	8	6	8	7	4	4	5	5	5	7	7.0	13.4
24-Apr-08	9	8	8	10	10	9	9	9	10	12	10	9	10	12	7	7	6	7	7	11	7	7	7	7	8.8	12.1
25-Apr-08	9	8	6	9	5	10	8	8	8	9	7	11	9	8	6	6	8	9	14	12	12	14	14	13	9.4	14.4
26-Apr-08	11	9	9	11	8	14	14	16	13	14	15	18	15	12	11	6	19	17	16	12	9	7	10	12	12.5	19.1
27-Apr-08	11	8	7	7	12	7	12	13	12	10	14	14	13	9	21	11	8	10	10	17	7	8	7	8	10.7	21.0
28-Apr-08	10	6	7	7	7	9	12	17	15	16	13	10	9	9	11	10	8	7	8	9	14	7	6	7	9.8	16.7
29-Apr-08	10	5	6	10	10	9	17	17	17	12	16	12	17	16	27	17	61	37	16	14	12	28	9	10	16.9	61.1
30-Apr-08	7	4	4	3	3	7	19	C	C	12	13	7	7	8	9	8	10	9	11	10	8	10	11	11	8.7	19.0
Hourly Avg	6.0	5.5	5.0	5.3	5.3	8.7	8.5	9.3	8.7	8.5	9.3	8.3	8.5	8.3	8.0	7.7	9.7	9.5	8.2	8.6	9.3	9.0	9.2	7.7		
Hourly Max	11.6	14.8	10.0	11.2	11.7	42.3	19.0	37.1	17.3	16.2	30.0	17.7	16.6	16.4	27.1	16.7	61.1	37.0	21.7	16.5	15.9	28.0	33.4	14.9		

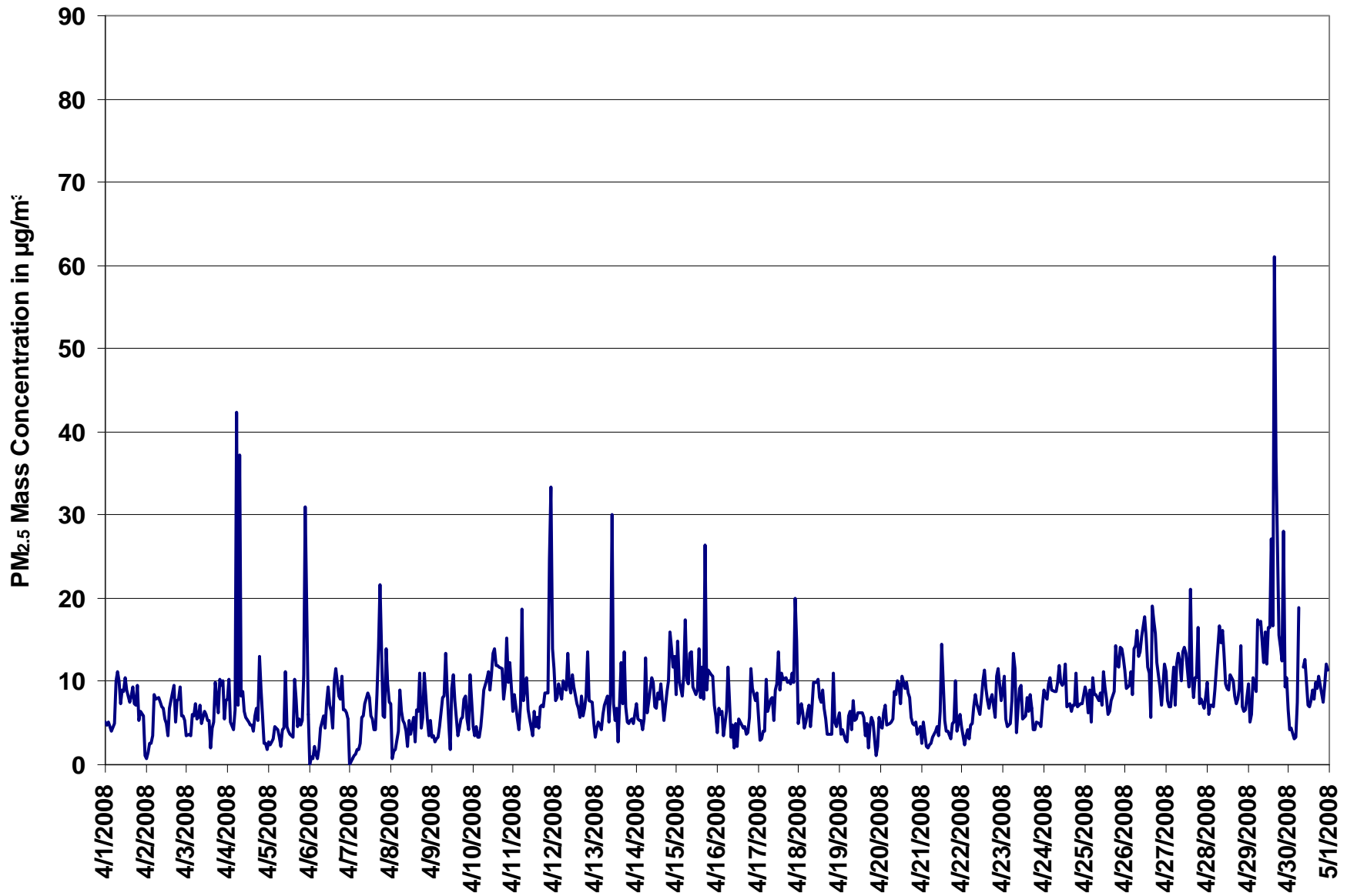
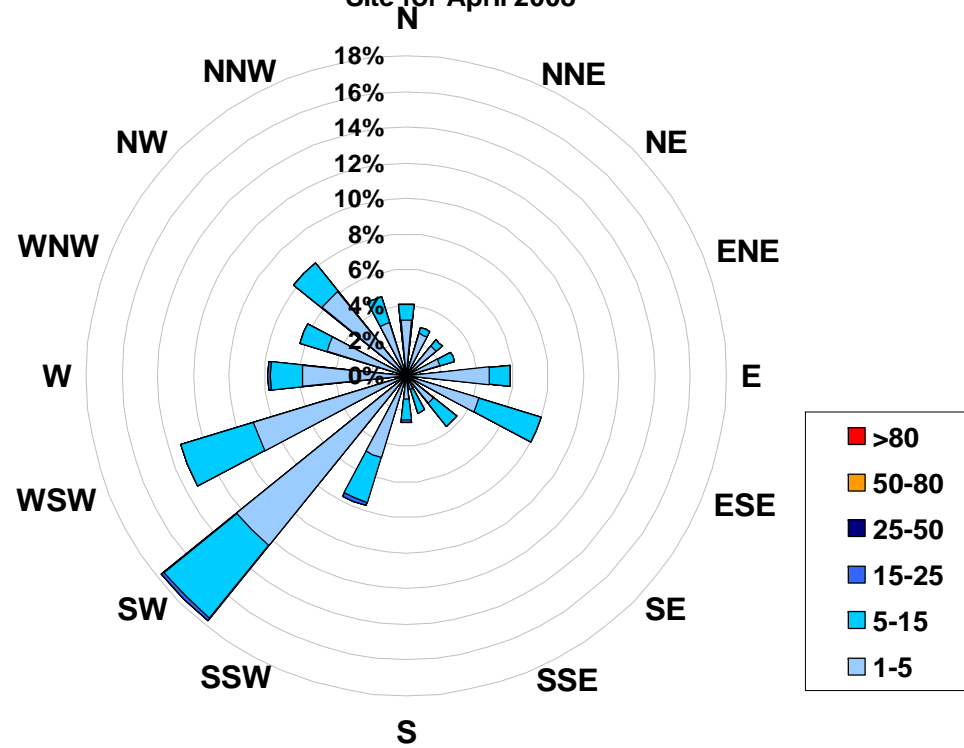


Figure 12. PAS - Crescent Heights Particulate Matter (less than 2.5 microns) Instantaneous (30 Second) Maximum Value Monthly Trend



1-hr Average Concentration Rose for Particulate Matter (less than 2.5 microns) (in micrograms per cubic meter) Located at the Crescent Heights Site for April 2008



Calms: 0%

Frequency Distribution of PM _{2.5} in µg/m ³			Frequency (hrs)
Range			
1.0	<	5	527
5	to	15	185
15	to	25	4
25	to	50	0
50	to	80	0
	>	80	0
Total Non-Zero Values			716



PAS - Crescent Heights Relative Humidity Monthly Summary

Station: Crescent Heights
 Station Owner: PAS

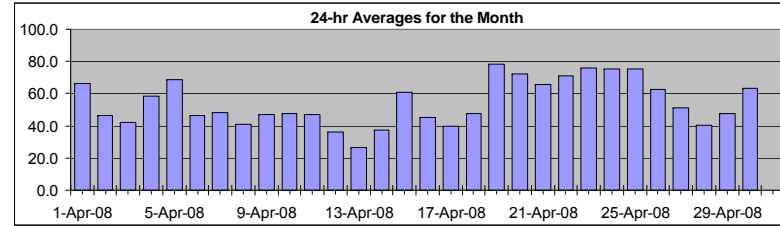
HOURLY AVERAGE TABLE

Relative Humidity (RH)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Maximum 1-hr Average:	87.5 %	5-Apr	6:00 7:00
Maximum 24-hr Value:	78.5 %	19-Apr	



AIC Time:	0 hrs	Operational Time:	720 hrs
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%
Percentile	99	95	75
	85.6	82.5	71.2
	50	25	5
	55.9	37.5	20.8
	14.4	Average	Median
		54.4 %	55.9 %

Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum
	Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00		
1-Apr-08	78	76	78	83	81	81	82	74	69	66	59	59	53	58	55	49	50	55	55	64	69	70	70	63	66.5	82.5
2-Apr-08	64	66	66	65	65	65	64	58	53	46	38	34	34	29	29	26	27	27	32	36	43	47	47	56	46.5	65.7
3-Apr-08	58	61	63	62	64	65	60	53	48	38	34	30	27	25	22	22	22	25	26	29	37	44	49	52	42.4	64.5
4-Apr-08	58	64	69	71	74	76	75	72	65	56	52	45	41	39	36	33	34	38	43	54	72	76	78	78	58.3	77.9
5-Apr-08	80	82	84	85	86	86	87	86	84	81	78	69	56	48	46	50	49	49	52	55	59	65	69	65	68.9	87.5
6-Apr-08	57	53	55	58	59	60	59	53	49	44	43	43	40	34	31	33	32	35	35	42	48	51	51	51	46.5	59.5
7-Apr-08	47	52	54	55	59	62	62	60	61	58	52	49	39	35	29	27	27	27	36	45	47	54	58	61	48.1	61.7
8-Apr-08	62	63	62	63	67	68	65	57	50	41	34	26	22	18	17	15	14	15	20	25	36	42	45	51	40.9	68.2
9-Apr-08	58	64	69	71	73	75	73	65	57	46	34	26	29	28	29	26	27	24	26	33	41	49	52	50	46.8	75.0
10-Apr-08	48	51	52	53	54	56	55	52	48	48	44	43	38	33	30	29	31	34	37	41	52	63	75	80	47.8	80.2
11-Apr-08	81	82	82	80	81	81	78	74	65	55	44	36	27	25	21	18	15	14	15	22	26	31	38	41	47.2	82.3
12-Apr-08	47	56	56	60	64	63	56	47	38	28	19	15	16	16	16	17	17	18	21	27	34	42	48	45	36.0	64.4
13-Apr-08	38	33	36	40	46	48	45	39	27	24	23	20	14	13	11	11	12	11	16	20	24	27	30	30	26.5	48.3
14-Apr-08	33	35	36	33	34	30	46	53	52	49	43	37	33	30	30	30	31	35	37	40	44	42	36	36	37.6	53.3
15-Apr-08	40	57	65	65	67	74	85	84	84	80	74	63	53	48	36	29	27	47	53	59	65	65	68	65	60.6	85.1
16-Apr-08	62	64	64	69	72	75	72	67	56	48	38	31	27	28	23	25	24	23	26	29	32	42	45	47	45.3	74.6
17-Apr-08	56	59	62	67	68	62	61	56	46	33	27	25	25	23	22	19	18	20	23	27	31	33	37	50	39.6	67.6
18-Apr-08	50	55	58	62	68	69	64	54	46	42	41	41	40	35	33	34	34	32	35	35	46	49	54	64	47.6	69.1
19-Apr-08	69	73	73	72	71	77	82	83	82	82	82	77	73	75	81	79	79	80	81	83	83	82	82	82	78.5	83.3
20-Apr-08	83	83	83	82	82	82	81	80	78	75	70	68	70	67	64	63	62	63	66	66	65	63	64	66	72.0	83.0
21-Apr-08	65	73	76	73	78	77	76	72	67	66	58	53	49	47	50	48	48	56	60	65	73	83	84	84	65.9	84.0
22-Apr-08	84	84	81	80	80	79	75	72	77	77	64	54	53	60	62	61	62	61	66	70	69	79	81	81	71.3	84.2
23-Apr-08	83	82	81	80	79	78	78	71	59	56	56	73	78	74	75	77	80	81	81	81	80	81	81	81	76.2	83.1
24-Apr-08	82	84	86	87	87	86	82	74	72	75	69	70	71	64	64	63	64	62	68	74	78	79	80	83	75.1	87.0
25-Apr-08	84	85	84	84	80	84	83	82	80	78	73	69	67	68	67	62	65	67	66	68	71	75	77	79	75.0	85.0
26-Apr-08	81	81	81	82	82	82	75	68	67	67	66	66	61	52	43	36	35	34	41	54	63	62	65	66	62.9	81.9
27-Apr-08	71	74	73	73	75	77	68	58	50	44	42	39	32	23	26	27	27	31	38	49	55	57	58	56	50.9	77.0
28-Apr-08	47	42	48	53	55	51	56	56	42	39	36	31	26	23	21	21	20	21	24	32	43	55	59	62	40.1	61.7
29-Apr-08	63	58	62	66	66	66	58	51	39	27	23	17	16	17	19	21	25	48	51	46	59	75	86	84	47.6	85.6
30-Apr-08	84	82	82	69	67	68	74	79	72	69	63	55	50	48	48	44	41	42	45	54	62	68	73	77	63.1	84.0
Hourly Avg	63.8	65.7	67.3	68.1	69.5	70.0	69.2	65.0	59.5	54.6	49.2	45.5	42.0	39.4	37.9	36.5	36.7	39.2	42.5	47.5	53.6	58.3	61.4	62.8		
Hourly Max	84.2	85.0	85.7	86.6	87.0	86.4	87.5	85.9	84.1	82.5	81.7	77.4	78.3	74.7	80.9	78.7	79.6	81.4	81.5	83.1	83.3	83.3	85.6	84.0		

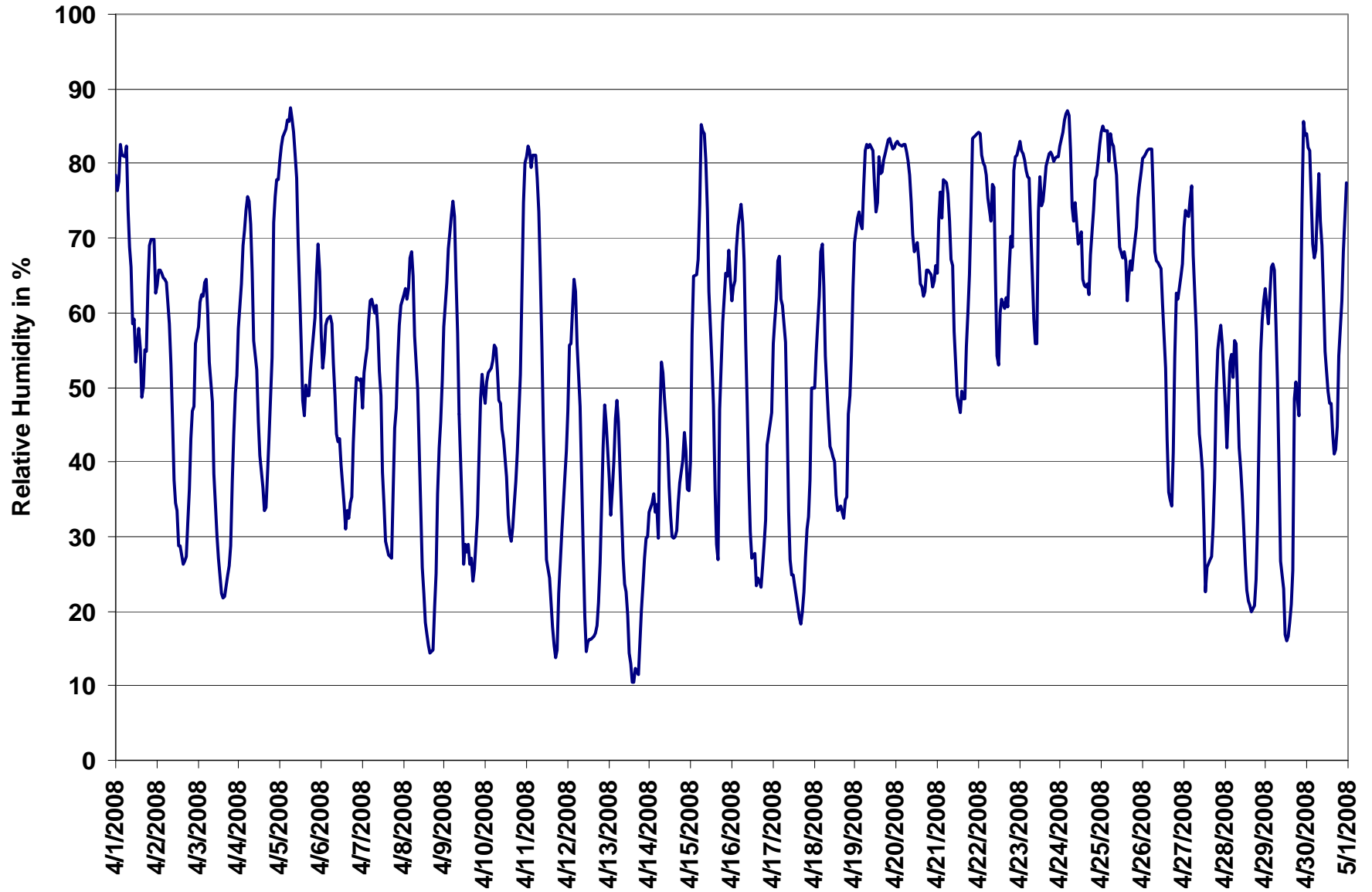


Figure 13. PAS - Crescent Heights Relative Humidity 1-hr Average Monthly Trend



PAS - Crescent Heights Temperature Monthly Summary

Station: Crescent Heights
 Station Owner: PAS

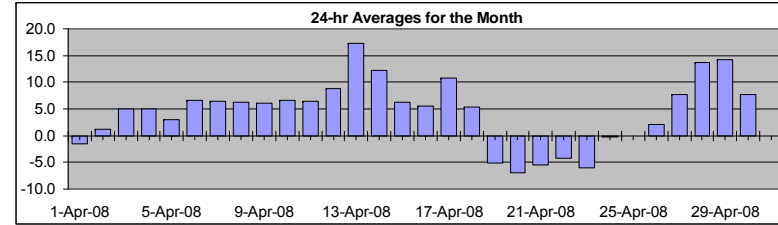
HOURLY AVERAGE TABLE

Ambient Temperature (T)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Maximum 1-hr Average:	27.0 °C	13-Apr	14:00 15:00
Maximum 24-hr Value:	17.2 °C	13-Apr	



AIC Time:	0 hrs	Operational Time:	720 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	24.0	17.3	10.1	4.1	-1.4	-7.1	-8.7	4.5 °C	4.1 °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			0:00
1-Apr-08	-7	-6	-6	-6	-6	-7	-7	-7	-4	-3	-2	1	1	3	3	5	5	4	3	2	0	-1	-2	-4	-3	-1.6	5.5
2-Apr-08	-4	-4	-5	-5	-5	-5	-5	-5	-3	0	2	5	7	7	7	7	8	7	7	6	4	2	0	0	-2	1.2	7.8
3-Apr-08	-2	-2	-3	-3	-3	-3	-2	0	3	6	8	10	11	12	12	13	12	11	10	9	7	5	4	3	5.0	12.7	
4-Apr-08	2	2	1	0	0	-1	0	1	3	7	8	10	11	11	11	12	11	10	8	6	4	2	2	1	5.0	11.6	
5-Apr-08	0	-1	-1	-2	-2	-1	-2	-2	-1	-1	1	3	6	8	8	7	8	9	8	7	5	4	5	4	2.9	8.6	
6-Apr-08	3	3	3	2	1	0	0	2	5	7	8	10	11	13	12	11	11	11	10	8	8	6	6	5	6.5	12.5	
7-Apr-08	5	4	4	3	2	1	1	2	3	5	7	8	11	12	13	12	12	12	10	8	7	5	4	3	6.5	12.9	
8-Apr-08	1	0	0	0	-1	-2	-1	1	4	7	9	11	12	13	13	13	14	13	11	9	6	5	5	4	6.2	13.7	
9-Apr-08	3	2	1	0	-1	-2	-1	1	5	8	10	12	11	12	12	13	12	12	11	9	6	4	3	2	6.0	12.9	
10-Apr-08	2	2	2	2	1	1	1	3	6	7	9	10	12	12	13	13	12	11	10	9	7	6	5	4	6.6	12.9	
11-Apr-08	4	3	2	0	-1	-2	-2	0	4	7	9	11	12	12	13	14	14	13	12	9	8	6	4	3	6.5	13.8	
12-Apr-08	1	-1	-1	-1	-2	-2	-1	2	6	10	14	16	17	17	18	18	18	19	17	14	11	8	6	7	8.8	18.7	
13-Apr-08	8	9	8	8	6	6	8	12	17	20	21	23	25	26	27	27	26	25	23	20	18	17	16	16	17.2	27.0	
14-Apr-08	15	14	13	14	13	15	10	6	7	8	11	13	15	16	15	16	15	13	12	11	10	10	11	10	12.3	16.0	
15-Apr-08	9	6	5	4	4	4	4	4	4	5	6	7	8	10	11	11	10	8	6	5	5	4	4	4	6.2	11.0	
16-Apr-08	2	0	-1	-1	-2	-2	-1	1	4	7	9	10	10	10	12	11	12	12	10	9	7	5	4	5	5.6	11.9	
17-Apr-08	4	4	3	2	2	3	3	6	10	13	15	16	16	17	17	19	19	18	16	14	12	12	11	8	10.8	18.9	
18-Apr-08	7	5	4	3	1	0	0	2	4	7	9	10	11	12	11	12	10	9	6	5	2	1	0	-1	5.4	11.6	
19-Apr-08	-2	-3	-3	-2	-3	-3	-4	-4	-5	-5	-6	-6	-6	-6	-6	-5	-6	-6	-7	-7	-7	-7	-8	-8	-5.1	-2.3	
20-Apr-08	-8	-8	-8	-8	-8	-8	-8	-8	-8	-7	-6	-6	-5	-5	-5	-4	-5	-6	-6	-7	-8	-8	-8	-8	-8	-6.9	-4.5
21-Apr-08	-8	-8	-8	-8	-8	-8	-8	-7	-6	-5	-4	-3	-2	-1	-2	-2	-2	-4	-5	-6	-6	-7	-7	-7	-5.5	-1.2	
22-Apr-08	-7	-7	-7	-7	-7	-7	-6	-5	-4	-4	-2	0	0	-1	-1	-1	-1	-1	-3	-4	-4	-6	-8	-9	-4.2	0.0	
23-Apr-08	-9	-10	-11	-12	-13	-13	-11	-8	-6	-3	-2	-3	-4	-3	-3	-3	-3	-3	-4	-4	-4	-4	-4	-4	-6.0	-1.7	
24-Apr-08	-4	-4	-3	-3	-3	-3	-2	0	1	0	2	1	1	3	3	3	2	2	1	-1	-1	-1	-1	-1	-0.2	3.2	
25-Apr-08	0	0	0	0	0	-2	-2	-1	-1	0	1	2	2	2	2	2	1	1	0	0	-1	-1	-2	-2	0.0	2.3	
26-Apr-08	-3	-5	-5	-6	-6	-6	-5	-2	-1	1	3	5	6	8	10	10	11	10	9	6	4	3	2	1	2.2	10.5	
27-Apr-08	0	-1	-1	-2	-2	-3	-1	3	7	9	11	13	15	16	16	17	17	16	14	11	9	8	7	7	7.6	16.6	
28-Apr-08	9	9	8	7	6	7	7	8	13	14	16	18	20	21	21	21	22	22	20	17	14	11	9	9	13.7	21.7	
29-Apr-08	9	9	8	7	6	6	9	12	17	20	22	24	24	24	24	23	22	17	16	13	10	8	6	6	14.2	24.0	
30-Apr-08	6	6	5	5	5	5	5	6	7	7	8	10	10	11	11	12	13	12	12	10	8	6	5	4	7.8	12.5	
Hourly Avg	1.2	0.7	0.2	-0.3	-0.8	-1.1	-0.6	1.0	3.2	5.0	6.8	8.1	9.1	9.7	10.1	10.2	9.9	9.2	7.8	6.1	4.5	3.3	2.5	2.1			
Hourly Max	14.6	14.0	13.2	13.8	13.4	14.9	9.9	12.3	17.5	20.2	22.0	23.8	25.4	26.4	27.0	26.7	26.0	25.3	22.9	20.2	18.2	16.5	15.6	15.7			

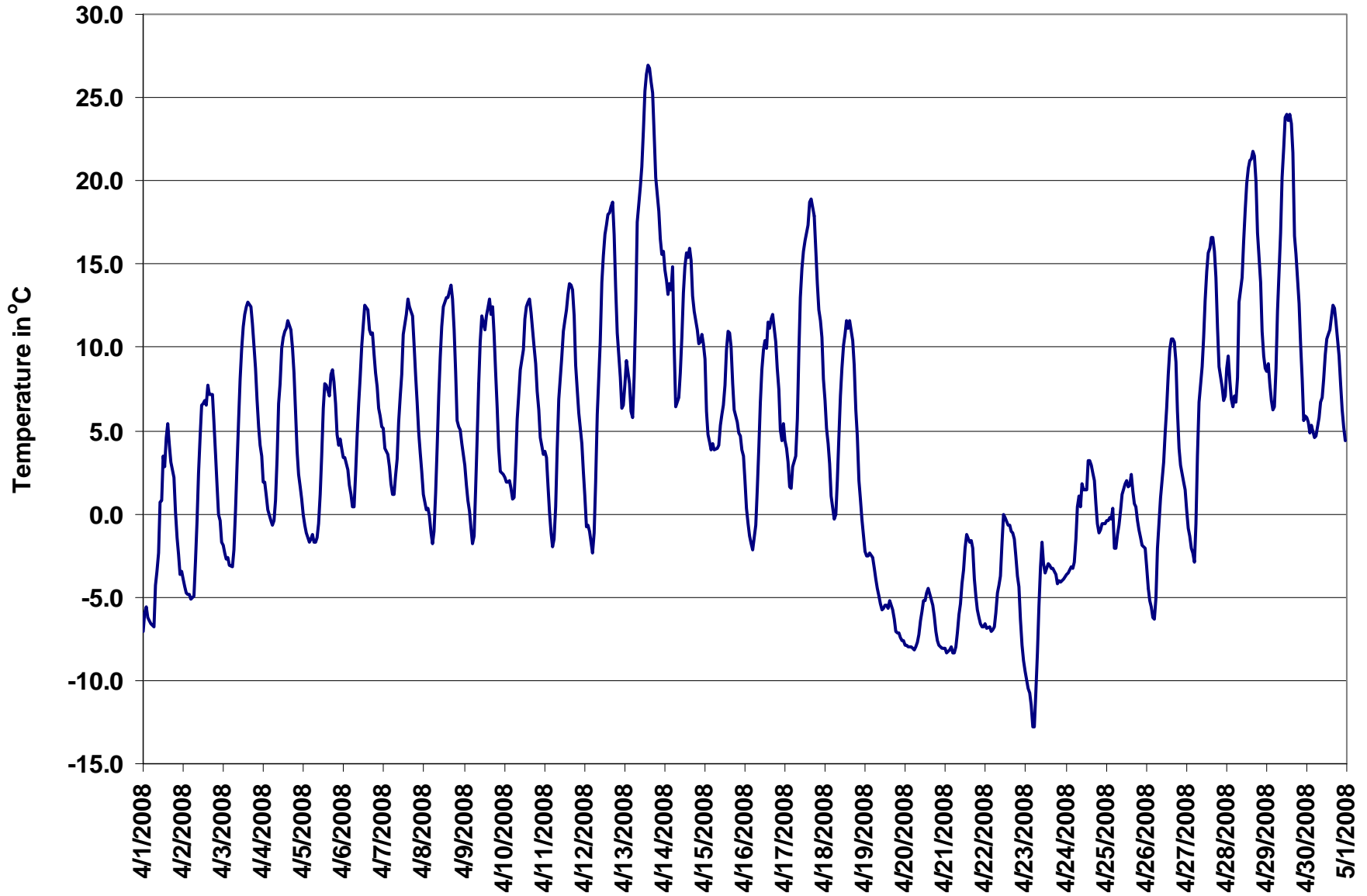


Figure 14. PAS - Crescent Heights Temperature 1-hr Average Monthly Trend



PAS - Crescent Heights Solar Radiation Monthly Summary

Station: Crescent Heights
Station Owner: PAS

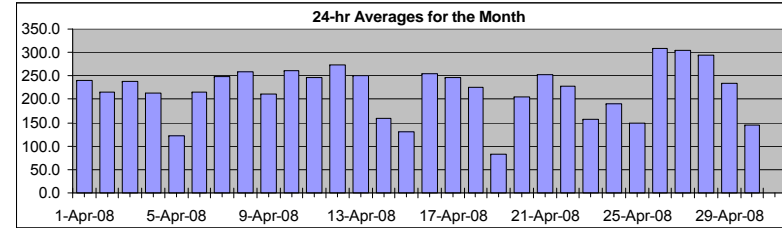
HOURLY AVERAGE TABLE

Solar Radiation (SR)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Maximum 1-hr Average:	882.4	W/m ²	26-Apr	12:00 13:00
Maximum 24-hr Value:	307.6	W/m ²	26-Apr	



AIC Time:	0 hrs	Operational Time:	720 hrs						
Calibration Time:	0 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	846.1	766.0	429.4	58.7	0.0	0.0	0.0	218.4 W/m ²	58.7 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	24:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Apr-08	0	0	0	0	0	0	28	172	385	548	677	751	782	752	671	551	280	127	42	0	0	0	0	0	0	240.3	781.6
2-Apr-08	0	0	0	0	0	1	56	226	402	562	684	777	481	562	372	504	294	211	44	0	0	0	0	0	0	215.7	776.7
3-Apr-08	0	0	0	0	0	1	61	224	397	556	678	728	740	681	682	499	299	129	17	0	0	0	0	0	0	237.2	740.0
4-Apr-08	0	0	0	0	0	1	45	166	325	468	587	659	729	668	560	479	283	120	31	0	0	0	0	0	0	213.4	728.9
5-Apr-08	0	0	0	0	0	0	16	51	148	258	455	369	538	382	164	105	240	146	46	1	0	0	0	0	0	121.7	538.2
6-Apr-08	0	0	0	0	0	2	51	233	421	576	696	773	801	678	405	211	135	158	21	0	0	0	0	0	0	215.1	801.3
7-Apr-08	0	0	0	0	0	2	73	241	412	564	690	779	788	752	645	479	306	183	40	1	0	0	0	0	0	248.3	788.4
8-Apr-08	0	0	0	0	0	4	81	242	419	580	706	790	810	739	583	464	464	246	65	1	0	0	0	0	0	258.1	810.1
9-Apr-08	0	0	0	0	0	4	83	238	399	532	710	793	377	463	479	509	220	204	41	1	0	0	0	0	0	210.5	792.8
10-Apr-08	0	0	0	0	0	3	84	304	460	538	673	798	812	784	699	577	325	148	47	2	0	0	0	0	0	260.6	811.7
11-Apr-08	0	0	0	0	0	5	92	258	448	585	695	684	554	548	623	620	453	248	76	2	0	0	0	0	0	245.5	694.6
12-Apr-08	0	0	0	0	0	4	105	274	450	604	723	800	811	775	699	575	419	241	71	3	0	0	0	0	0	273.1	811.2
13-Apr-08	0	0	0	0	0	9	123	311	433	590	724	841	794	752	505	376	297	192	48	2	0	0	0	0	0	249.9	841.5
14-Apr-08	0	0	0	0	0	3	34	90	161	268	511	530	468	471	464	382	278	109	41	4	0	0	0	0	0	158.9	530.5
15-Apr-08	0	0	0	0	0	0	16	56	108	204	249	279	428	645	502	304	189	86	44	3	0	0	0	0	0	129.7	644.6
16-Apr-08	0	0	0	0	0	12	128	300	476	630	752	771	616	402	703	550	446	267	47	6	0	0	0	0	0	254.4	771.3
17-Apr-08	0	0	0	0	0	14	126	289	472	573	671	730	620	637	506	557	397	239	66	3	0	0	0	0	0	245.8	729.7
18-Apr-08	0	0	0	0	0	13	117	286	461	614	739	736	678	639	287	368	204	220	36	3	0	0	0	0	0	225.0	739.0
19-Apr-08	0	0	0	0	0	3	20	48	81	115	197	224	191	189	240	352	186	101	25	1	0	0	0	0	0	82.2	352.4
20-Apr-08	0	0	0	0	0	9	58	109	252	386	519	544	589	704	620	510	353	227	59	5	0	0	0	0	0	206.0	704.2
21-Apr-08	0	0	0	0	0	19	104	238	356	442	586	655	794	823	755	629	386	201	76	6	0	0	0	0	0	252.9	823.5
22-Apr-08	0	0	0	0	0	8	48	101	174	330	500	762	820	701	663	553	453	257	69	6	0	0	0	0	0	226.9	820.0
23-Apr-08	0	0	0	0	0	28	95	163	301	434	445	417	388	459	321	286	222	133	75	4	0	0	0	0	0	157.1	458.6
24-Apr-08	0	0	0	0	0	14	108	203	228	254	391	373	418	592	585	629	449	233	75	7	0	0	0	0	0	189.9	629.3
25-Apr-08	0	0	0	0	0	14	75	116	244	319	369	500	481	316	343	477	188	84	58	11	0	0	0	0	0	149.7	500.1
26-Apr-08	0	0	0	0	0	28	146	327	513	673	794	863	882	849	767	639	476	293	120	12	0	0	0	0	0	307.6	882.4
27-Apr-08	0	0	0	0	0	30	169	351	532	682	787	880	871	836	775	637	448	215	97	9	0	0	0	0	0	304.9	879.9
28-Apr-08	0	0	0	0	0	31	83	252	540	585	766	855	872	835	737	589	470	289	125	11	0	0	0	0	0	293.4	871.8
29-Apr-08	0	0	0	0	0	32	172	342	516	666	777	847	568	473	598	424	86	42	68	2	0	0	0	0	0	233.9	847.2
30-Apr-08	0	0	0	0	0	15	105	224	317	145	275	335	291	280	295	407	411	259	110	15	0	0	0	0	0	145.2	410.8
Hourly Avg	0.0	0.0	0.0	0.0	0.0	10.3	83.3	214.5	361.1	476.1	600.9	661.5	633.1	612.8	541.7	474.7	321.9	186.8	59.4	4.0	0.0	0.0	0.0	0.0	0.0		
Hourly Max	0.0	0.0	0.0	0.0	0.3	31.6	172.0	351.1	539.5	682.2	794.3	879.9	882.4	848.6	775.4	639.4	475.6	293.0	125.5	14.8	0.2	0.0	0.0	0.0	0.0		

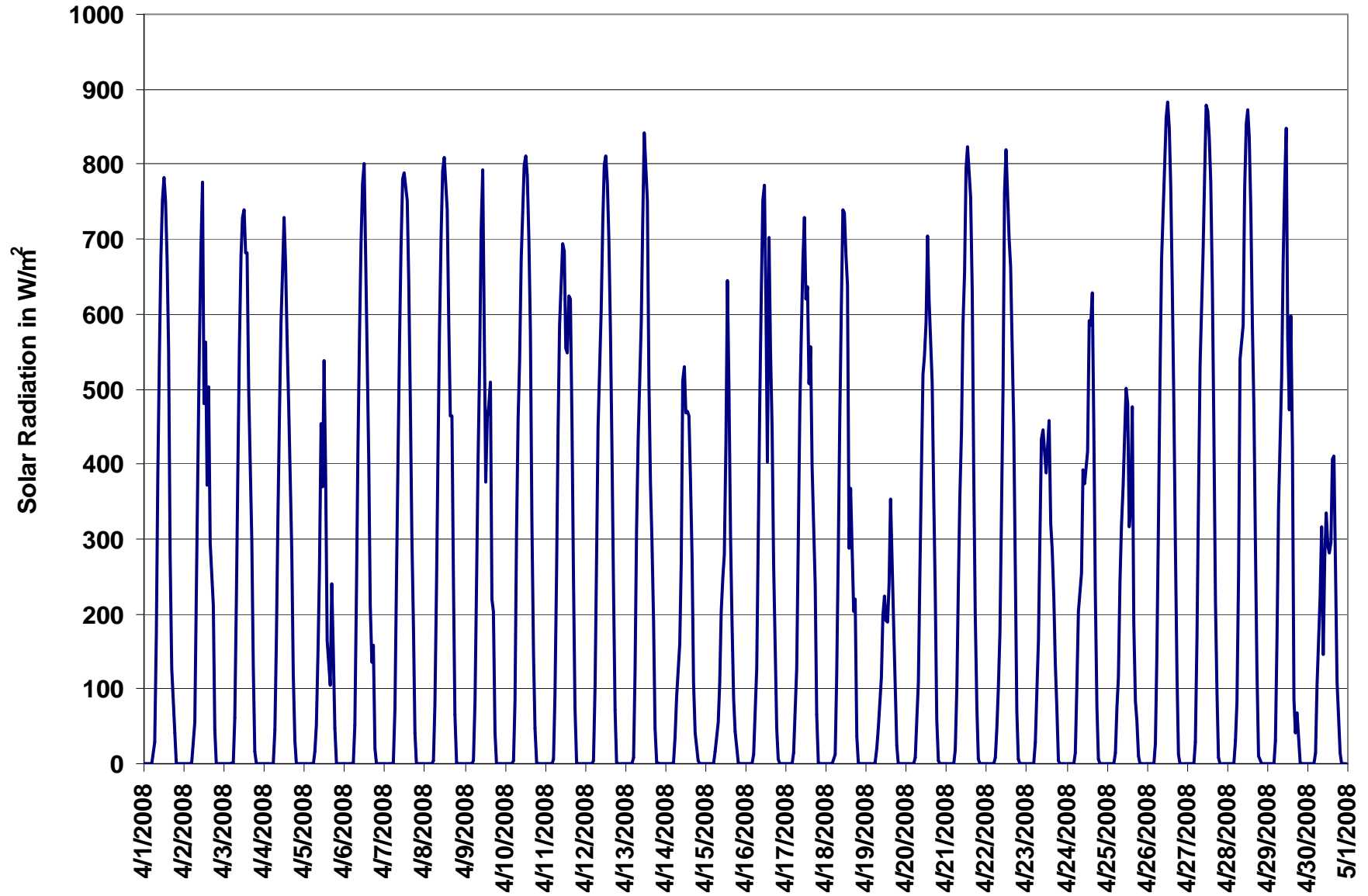


Figure 15. PAS - Crescent Heights Solar Radiation 1-hr Average Monthly Trend



PAS - Crescent Heights Scalar Wind Speed Monthly Summary

Station: Crescent Heights
 Station Owner: PAS

HOURLY AVERAGE TABLE

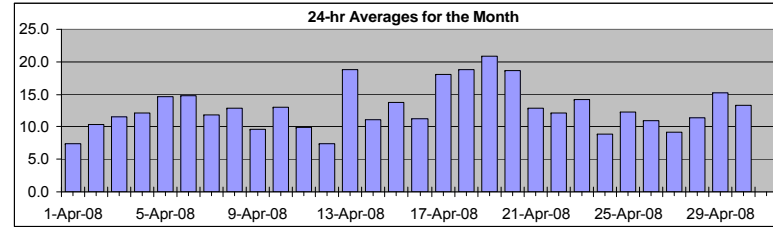
Wind Speed (WSs)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Maximum 1-hr Average:	35.0	km/hr	13-Apr	11:00 12:00
Maximum 24-hr Value:	20.9	km/hr	19-Apr	

Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageS
	28.1	23.0	16.1	12.0	8.6	5.5	4.5	12.9 km/hr



Status Flag Characters

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

Day	Mountain Standard Time																								24-hr Scalar Average	Daily Max	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Apr-08	8	8	7	6	7	6	4	5	11	11	7	8	6	9	8	9	10	8	5	6	6	5	5	12	7.4	12.1	
2-Apr-08	15	14	10	9	9	7	8	12	13	9	7	7	9	11	10	12	10	13	9	6	8	9	14	16	10.3	16.1	
3-Apr-08	16	17	18	16	15	14	16	15	14	11	10	10	11	11	13	11	10	8	5	5	9	6	8	7	11.6	17.6	
4-Apr-08	9	15	13	10	4	8	7	4	6	6	7	6	8	10	9	9	14	16	18	23	25	24	22	20	12.2	24.5	
5-Apr-08	17	16	19	18	15	14	14	14	14	15	14	14	13	13	12	9	10	8	11	11	13	18	25	24	14.6	24.8	
6-Apr-08	24	26	25	23	21	20	17	24	23	14	11	9	9	8	8	13	11	11	12	14	12	9	5	5	14.8	25.7	
7-Apr-08	7	12	16	18	14	11	14	17	19	15	13	11	13	14	13	14	14	9	7	8	6	4	6	8	11.8	18.6	
8-Apr-08	7	8	16	14	10	13	12	14	16	15	15	14	14	14	15	12	13	13	12	8	11	15	16	15	12.9	16.1	
9-Apr-08	11	8	12	11	8	8	6	5	4	10	12	12	13	9	14	15	12	10	10	8	9	8	8	8	9.6	15.1	
10-Apr-08	10	8	8	10	11	13	13	13	14	14	15	16	17	18	18	14	14	13	11	12	10	9	15	15	13.0	18.3	
11-Apr-08	9	9	11	10	7	9	9	11	9	9	12	10	12	11	12	14	13	12	12	10	8	6	6	6	9.9	13.6	
12-Apr-08	6	7	7	5	4	6	7	6	6	7	7	9	10	11	11	12	8	6	5	6	7	8	7	9	7.4	12.1	
13-Apr-08	10	12	10	9	8	8	11	13	27	32	34	35	29	26	23	18	16	15	11	23	22	20	19	20	18.7	35.0	
14-Apr-08	16	12	9	9	9	12	14	14	9	10	12	12	11	14	13	10	15	11	6	5	8	10	10	16	11.0	15.9	
15-Apr-08	13	17	17	19	14	16	14	15	12	13	15	14	10	11	10	11	14	18	15	11	17	15	11	7	13.8	18.6	
16-Apr-08	9	8	8	7	7	8	11	12	11	11	13	14	14	14	20	20	16	12	10	6	6	8	11	14	11.2	20.0	
17-Apr-08	14	16	14	12	14	18	16	19	16	17	21	21	20	19	21	17	18	27	25	17	18	19	19	18	18.1	26.6	
18-Apr-08	12	7	5	10	12	12	19	22	19	19	17	16	17	20	21	17	27	32	31	29	22	19	23	20	18.7	32.4	
19-Apr-08	21	23	21	20	23	24	22	23	19	23	27	27	26	20	19	20	20	19	20	15	14	16	20	20	20.9	27.3	
20-Apr-08	21	19	17	19	18	17	19	20	23	21	23	22	23	23	21	23	18	16	13	13	14	16	14	14	18.6	23.0	
21-Apr-08	14	12	15	17	12	14	15	16	16	18	16	16	15	14	15	11	8	12	11	9	8	9	9	7	12.8	17.9	
22-Apr-08	5	6	8	11	14	13	14	12	14	19	15	16	22	20	21	19	16	10	9	5	5	5	6	6	12.1	22.4	
23-Apr-08	7	9	8	6	6	5	3	5	7	9	16	20	20	20	21	22	22	22	21	19	19	18	16	16	14.2	22.5	
24-Apr-08	16	14	12	9	6	5	5	6	6	8	7	9	10	9	9	11	9	7	7	6	7	9	13	14	8.9	15.7	
25-Apr-08	13	11	7	5	11	12	11	13	14	13	15	19	18	19	17	18	18	16	12	8	6	6	6	7	12.3	18.6	
26-Apr-08	7	9	9	10	8	7	6	8	13	15	16	17	18	14	12	11	12	10	10	11	9	11	11	10	11.0	17.8	
27-Apr-08	7	6	7	7	5	6	5	4	5	6	7	8	10	13	15	15	18	17	15	10	11	10	9	5	9.2	18.0	
28-Apr-08	8	12	11	16	11	19	18	13	11	12	12	13	14	14	13	12	8	8	9	9	8	10	8	7	11.5	19.1	
29-Apr-08	9	10	8	9	8	11	9	12	8	8	8	11	16	19	22	20	23	24	24	25	27	28	19	9	15.2	28.3	
30-Apr-08	8	8	12	16	16	15	13	24	23	20	19	17	15	15	14	12	11	11	9	11	12	10	6	5	13.4	24.1	
1-hr Average	11.6	11.9	12.0	12.0	10.9	11.6	11.7	13.0	13.3	13.7	14.0	14.4	14.8	14.7	15.0	14.4	14.3	13.8	12.5	11.6	11.8	12.1	12.3	12.1			
Hourly Max	23.8	25.7	25.1	22.5	23.0	24.1	21.8	24.1	26.8	32.0	34.3	35.0	29.4	25.5	22.9	22.7	27.1	32.4	31.4	29.4	26.8	28.3	24.8	23.5			



PAS - Crescent Heights Vector Wind Speed Monthly Summary

Station: Crescent Heights
 Station Owner: PAS

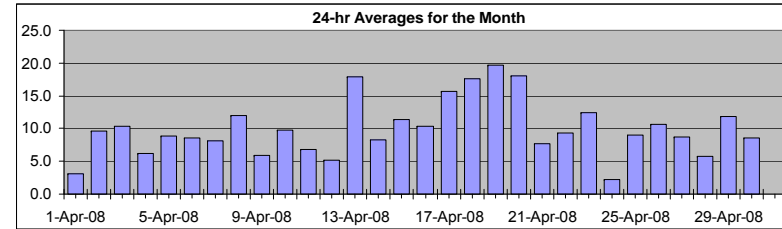
HOURLY AVERAGE TABLE

Wind Speed (WSv)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Maximum 1-hr Average:	34.6	km/hr	13-Apr	11:00 12:00
Maximum 24-hr Value:	19.6	km/hr	19-Apr	



Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageV
	27.5	22.8	15.8	11.6	7.8	4.7	3.0	16.2 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-Apr-08	8	7	6	6	7	4	3	5	10	11	5	7	4	8	7	8	9	7	5	6	6	5	4	12	3.1	11.8	
2-Apr-08	15	14	10	9	9	7	8	12	12	8	6	5	8	10	9	11	9	12	9	6	8	9	14	16	9.6	15.9	
3-Apr-08	15	17	17	16	15	14	16	15	14	11	10	9	10	11	12	10	10	7	5	4	9	6	8	5	10.3	17.5	
4-Apr-08	8	15	13	10	3	7	7	4	6	5	6	3	6	8	7	8	13	16	18	23	24	24	22	19	6.2	24.3	
5-Apr-08	17	16	19	17	15	14	14	14	14	14	14	14	13	12	11	8	8	5	11	11	12	18	25	23	8.9	24.7	
6-Apr-08	24	26	25	22	21	20	17	23	23	13	10	7	7	5	6	12	10	7	8	14	14	11	7	5	3	8.5	25.6
7-Apr-08	6	12	16	18	14	11	14	16	18	14	12	10	12	13	12	14	13	9	5	6	5	3	5	8	8.2	18.4	
8-Apr-08	6	7	16	14	9	12	11	14	16	14	14	14	13	12	14	11	12	12	12	8	10	15	15	14	12.0	15.8	
9-Apr-08	11	8	12	11	8	7	5	5	3	9	10	12	10	7	14	15	12	9	9	7	9	7	7	6	5.8	14.8	
10-Apr-08	9	7	7	10	11	13	13	13	13	14	15	15	17	18	17	13	13	13	11	12	7	8	14	15	9.7	17.6	
11-Apr-08	8	9	11	10	7	9	9	11	8	8	11	9	11	8	11	13	11	11	12	10	7	2	4	5	6.9	12.5	
12-Apr-08	6	7	6	4	4	5	7	5	5	7	6	7	7	5	9	10	6	5	4	5	7	8	6	9	5.1	10.3	
13-Apr-08	10	12	10	9	7	8	10	13	27	32	34	35	29	25	22	17	15	15	10	23	21	20	18	20	17.9	34.6	
14-Apr-08	16	11	8	7	7	11	14	13	8	9	11	11	10	13	13	9	15	11	6	4	7	9	8	15	8.3	15.8	
15-Apr-08	13	16	17	18	14	15	14	15	12	12	15	14	9	10	8	7	12	17	15	11	17	15	11	7	11.4	18.5	
16-Apr-08	8	7	8	7	6	8	11	12	11	10	11	13	13	12	19	19	15	12	9	6	6	8	11	14	10.3	19.4	
17-Apr-08	14	16	14	11	14	18	16	18	15	17	20	20	19	19	20	17	18	26	25	17	17	19	15	17	15.7	26.3	
18-Apr-08	12	7	5	10	12	12	19	22	19	18	17	15	16	19	20	17	27	32	31	29	22	19	23	20	17.5	32.2	
19-Apr-08	21	23	21	19	23	24	22	23	19	23	27	27	26	20	19	20	20	19	20	15	14	16	20	19	19.6	27.2	
20-Apr-08	21	19	17	19	17	17	19	20	23	21	22	22	23	23	21	23	18	16	13	13	14	15	14	14	18.1	22.9	
21-Apr-08	14	11	15	17	12	14	15	16	16	18	16	16	14	13	15	11	7	12	10	8	8	9	9	7	7.7	17.6	
22-Apr-08	4	5	7	11	14	13	14	12	13	19	15	16	22	19	21	18	16	10	8	5	3	5	5	6	9.3	21.7	
23-Apr-08	6	9	8	5	6	5	3	5	7	9	16	20	20	20	20	22	22	22	21	19	18	18	18	16	12.4	22.2	
24-Apr-08	15	14	11	9	5	5	5	5	4	7	6	8	10	8	9	10	9	6	7	3	7	8	13	14	2.3	15.4	
25-Apr-08	13	11	7	4	8	11	10	13	14	13	14	18	18	19	17	17	18	16	12	8	6	6	5	7	9.0	18.5	
26-Apr-08	7	9	9	9	7	7	6	8	12	15	15	16	17	14	12	11	12	10	10	11	9	11	10	10	10.6	17.5	
27-Apr-08	7	5	7	7	5	5	5	3	3	5	7	8	9	12	14	15	18	17	15	10	11	10	9	2	8.7	17.8	
28-Apr-08	6	12	11	15	11	19	18	12	10	11	11	13	13	13	12	11	5	3	9	9	7	10	8	7	5.8	18.7	
29-Apr-08	7	10	7	8	8	10	9	12	7	5	6	9	15	19	21	19	18	23	23	24	27	28	18	9	11.8	27.5	
30-Apr-08	8	8	12	15	16	14	11	24	23	20	19	17	14	14	13	12	10	10	9	11	12	9	4	3	8.5	23.9	
1-hr Vector	3.6	3.6	4.3	5.1	5.1	5.6	5.4	6.0	6.6	7.4	6.4	6.6	6.8	6.0	4.9	4.7	4.7	3.4	1.6	0.8	0.9	2.8	2.2	3.1			
Hourly Max	23.6	25.6	25.0	22.5	22.9	24.0	21.8	23.9	26.6	31.6	33.9	34.6	28.7	25.1	21.6	22.6	27.0	32.2	31.2	29.2	26.7	27.5	24.7	23.4			



PAS - Crescent Heights Wind Direction Monthly Summary

Station: Crescent Heights
Station Owner: PAS

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	Average
	354.9	332.1	270.8	228.0	127.5	36.5	5.6	259 deg

Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	WD Sector	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Apr-08	113	103	54	63	69	114	139	187	228	236	251	340	62	68	98	109	56	54	90	115	128	121	166	226	109	ESE	
2-Apr-08	230	226	223	211	217	242	242	227	226	239	270	279	242	284	305	258	257	236	245	248	221	227	228	233	240	WSW	
3-Apr-08	239	239	236	228	229	228	221	225	234	252	253	271	297	274	304	280	260	314	270	219	238	199	209	273	247	WSW	
4-Apr-08	333	17	351	352	236	245	251	217	235	244	357	264	317	352	347	2	20	47	54	62	81	93	92	85	39	NE	
5-Apr-08	85	86	73	86	81	63	52	64	69	66	62	55	49	79	97	99	126	164	155	162	184	195	193	208	101	ESE	
6-Apr-08	206	206	205	206	205	207	217	219	224	257	257	275	280	259	298	0	28	70	114	115	107	135	174	194	210	SSW	
7-Apr-08	214	213	218	225	235	230	223	222	224	245	263	269	282	299	305	324	333	342	39	294	219	169	160	221	252	WSW	
8-Apr-08	229	233	225	234	226	225	228	227	221	210	214	211	213	200	178	177	194	180	171	169	163	183	187	203	204	SSW	
9-Apr-08	228	253	239	229	227	205	223	201	185	206	224	225	207	114	123	115	119	107	132	102	112	120	119	208	176	S	
10-Apr-08	223	211	199	209	220	225	225	232	248	257	254	269	276	289	283	271	285	298	306	303	340	356	348	342	271	W	
11-Apr-08	345	288	268	271	234	241	227	223	239	275	299	300	293	285	263	279	295	302	319	336	355	115	100	116	282	WNW	
12-Apr-08	112	113	127	126	127	145	189	197	216	210	207	202	195	240	200	218	252	229	222	100	118	130	141	233	185	S	
13-Apr-08	236	222	235	243	236	206	213	199	202	209	206	209	221	223	231	256	258	256	251	220	212	211	213	207	220	SW	
14-Apr-08	211	207	244	252	303	274	335	334	329	239	248	253	264	307	323	293	321	335	320	274	226	248	264	243	278	W	
15-Apr-08	261	353	6	356	341	331	320	329	315	304	311	301	290	249	286	282	332	263	262	250	274	288	290	289	305	NW	
16-Apr-08	310	293	283	271	269	223	227	233	239	252	253	245	261	261	223	228	248	253	292	303	240	231	234	229	249	WSW	
17-Apr-08	229	219	224	236	236	228	224	224	217	232	223	232	248	257	239	261	248	236	236	248	252	264	318	14	242	WSW	
18-Apr-08	40	85	52	9	356	351	359	4	28	45	62	60	61	60	50	25	26	20	14	28	14	34	43	37	31	NNE	
19-Apr-08	29	31	29	31	24	26	22	19	9	359	4	12	14	9	9	5	2	354	347	339	323	324	328	334	7	N	
20-Apr-08	326	324	319	321	312	309	316	320	325	320	323	321	321	325	324	324	315	307	299	296	295	287	277	278	314	NW	
21-Apr-08	284	264	268	273	265	271	259	259	255	243	259	252	258	256	233	230	329	2	52	89	87	109	125	134	260	W	
22-Apr-08	180	246	247	239	228	242	239	249	239	232	251	271	287	302	292	306	319	306	253	314	351	154	167	167	265	W	
23-Apr-08	204	212	215	177	113	123	127	140	88	71	107	109	86	87	93	94	95	96	93	91	91	95	81	86	100	E	
24-Apr-08	102	100	108	117	109	46	85	126	115	257	283	249	232	271	266	261	257	257	217	107	74	68	88	97	133	SE	
25-Apr-08	97	90	106	248	256	327	314	321	317	311	314	315	320	326	331	336	347	350	327	321	296	262	279	248	323	NW	
26-Apr-08	216	227	233	233	216	206	153	214	233	227	226	233	235	234	255	253	240	235	228	227	239	235	233	213	230	SW	
27-Apr-08	162	123	111	127	200	125	118	183	131	97	114	110	120	124	105	107	110	110	106	117	120	127	121	95	118	ESE	
28-Apr-08	264	218	236	226	248	248	237	234	291	290	276	280	287	301	289	292	325	100	100	95	112	119	110	130	254	WSW	
29-Apr-08	192	233	203	209	205	220	229	226	239	197	107	148	171	188	168	129	188	212	217	256	275	242	255	237	212	SSW	
30-Apr-08	218	213	204	219	214	224	303	333	320	310	320	330	320	320	316	295	297	313	327	356	3	27	94	37	306	NW	
Hourly Avg	228	227	235	241	242	246	255	255	255	257	266	268	274	285	279	291	312	307	295	313	242	191	193	220			



PAS - Crescent Heights Standard Deviation of Wind Direction Monthly Summary

Station: Crescent Heights
Station Owner: PAS

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%			
Percentile	99	95	75	50	25	5	1
	64.1	46.8	22.4	13.4	8.8	5.7	4.7

Status Flag Characters

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

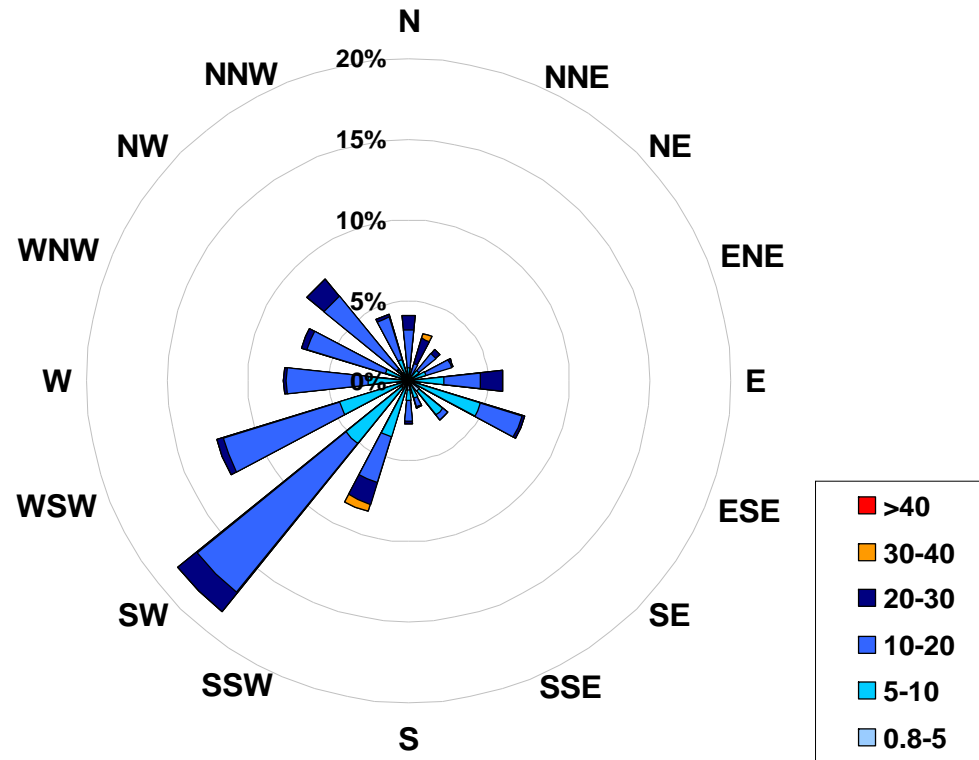
Day Mountain Standard Time

Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	Daily Maximum
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
1-Apr-08	13	22	35	22	15	50	55	30	12	13	43	29	65	25	20	18	18	28	24	17	11	9	33	14	64.8	
2-Apr-08	5	6	9	10	9	18	9	9	11	27	30	44	33	21	28	19	25	19	11	16	9	12	11	9	44.1	
3-Apr-08	12	7	8	7	6	7	6	7	12	17	21	28	31	19	18	30	24	27	16	28	10	30	10	46	46.2	
4-Apr-08	27	12	7	7	52	12	12	35	19	49	36	74	57	48	39	24	21	14	7	9	8	7	8	8	74.1	
5-Apr-08	10	9	8	12	15	8	6	9	12	11	15	12	16	26	20	25	31	60	16	6	12	5	6	5	60.2	
6-Apr-08	6	5	5	5	8	6	10	7	12	15	29	44	39	62	50	25	27	52	49	17	23	43	30	65	64.6	
7-Apr-08	40	9	5	6	10	8	8	8	9	17	18	28	21	17	22	17	20	17	53	47	45	43	42	12	52.6	
8-Apr-08	40	22	7	8	17	10	9	10	11	16	13	20	27	31	20	26	27	20	8	12	23	8	9	12	39.9	
9-Apr-08	12	14	5	6	12	18	29	23	61	38	28	25	59	50	15	12	14	19	22	12	10	13	28	42	60.6	
10-Apr-08	12	19	15	9	7	7	8	15	12	14	13	18	14	16	15	23	19	17	12	13	45	41	13	7	44.6	
11-Apr-08	29	15	7	13	11	9	8	8	27	33	21	34	24	46	37	23	31	17	9	7	32	66	56	35	65.8	
12-Apr-08	29	12	22	13	22	18	10	19	27	25	39	37	60	71	47	35	53	41	40	18	16	22	38	11	71.3	
13-Apr-08	9	7	17	12	17	20	18	14	7	10	9	8	13	11	21	10	9	10	9	7	8	9	6	5	21.0	
14-Apr-08	6	15	30	32	36	22	13	8	28	21	16	20	26	19	21	27	12	14	35	33	31	29	40	12	40.0	
15-Apr-08	17	25	9	5	9	10	11	6	11	10	10	13	25	28	43	50	29	14	8	11	7	8	9	19	50.4	
16-Apr-08	16	25	16	16	38	27	7	13	16	25	29	23	20	21	19	16	17	20	23	22	18	7	10	12	38.0	
17-Apr-08	10	6	7	10	8	7	10	7	13	14	16	14	16	15	16	15	13	9	5	8	6	8	37	11	37.0	
18-Apr-08	14	21	15	20	8	7	5	5	13	17	15	26	17	18	19	13	6	6	7	5	7	8	6	9	26.5	
19-Apr-08	9	7	8	7	6	6	5	5	9	5	4	7	7	6	6	5	5	7	4	9	8	7	6	9	9.2	
20-Apr-08	5	5	7	7	10	7	10	7	6	6	6	6	5	6	6	6	6	8	10	9	9	9	7	7	9.7	
21-Apr-08	7	11	9	7	12	11	6	6	9	12	7	12	11	16	13	18	37	14	20	33	14	8	13	15	36.5	
22-Apr-08	37	12	13	7	9	10	13	11	10	7	17	9	14	13	9	11	7	21	23	27	58	29	36	23	57.7	
23-Apr-08	17	13	10	26	14	19	27	26	20	14	11	6	9	10	8	8	7	6	6	6	7	7	8	8	26.8	
24-Apr-08	12	10	9	8	29	10	25	23	50	18	31	19	12	23	19	19	18	25	20	59	8	7	10	6	58.6	
25-Apr-08	6	8	14	65	39	11	9	8	8	9	10	6	9	6	9	10	6	6	12	14	17	10	12	17	65.2	
26-Apr-08	10	9	9	11	30	19	13	25	7	8	12	10	13	15	10	13	19	13	11	10	5	10	8	14	30.3	
27-Apr-08	20	25	10	14	25	22	18	43	55	40	17	18	22	15	12	11	8	6	5	10	12	17	10	82	81.7	
28-Apr-08	40	17	13	15	14	12	3	9	19	21	21	16	18	19	32	22	60	85	9	13	21	7	18	11	85.1	
29-Apr-08	34	10	36	29	23	18	13	8	28	57	54	35	22	14	17	17	37	13	15	14	6	13	10	18	57.5	
30-Apr-08	14	22	10	7	7	17	32	6	9	12	12	10	18	12	14	20	24	24	14	6	3	26	44	56	55.5	

Hourly Max 40 25 36 65 52 50 55 43 61 57 54 74 65 71 50 50 60 85 53 59 58 66 56 82



1-hr Average Wind Rose (in km/hr) Located at the Crescent Heights Site for April 2008



Calms: 0%

Frequency Distribution of Wind in km/hr			Frequency (hrs)
Range			
0.8	< 5		16
5	to 10		232
10	to 20		395
20	to 30		72
30	to 40		5
	> 40		0
Total Non-Zero Values			720



PAS – Portable-Brooks

Monthly Summary Tables, Graphs and Roses



PAS – Brooks Sulphur Dioxide Monthly Summary

Station: Portable-Brooks
 Station Owner: PAS

HOURLY AVERAGE TABLE

Sulphur Dioxide (SO₂)

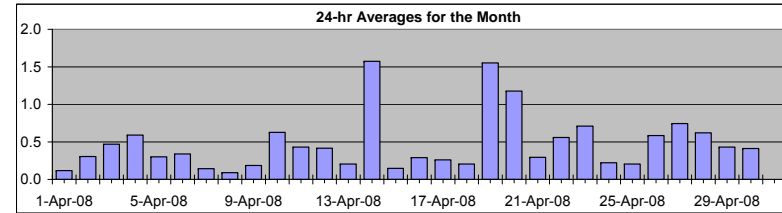
Monitoring Dates: April 1, 2008 to May 1, 2008

Objective Limit: Alberta Environment: 1-hr 172 ppb 24-hr 57 ppb

Summary

Number of 1-hr Exceedances:	0			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	6.9 ppb	19-Apr	17:00	18:00
Maximum 24-hr Average:	1.6 ppb	14-Apr		

AIC Time:	33 hrs		Operational Time:	684 hrs					
Calibration Time:	3 hrs		AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average	Median
	3.7	1.5	0.5	0.3	0.1	0.0	0.0	0.5 ppb	0.3 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-Apr-08	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0.1	0.6
2-Apr-08	A	0	0	0	0	0	0	0	0	1	1	1	0	1	1	0	0	0	0	0	0	1	0	A	0	0.3	0.6
3-Apr-08	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	1	1	A	0	0	0.5	1.4	
4-Apr-08	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	1	1	A	0	0	0.6	1.4	
5-Apr-08	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	A	3	1	0	0.3	2.6	
6-Apr-08	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	1	A	0	0	0	0	0.3	1.3	
7-Apr-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.3	
8-Apr-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.1	0.4	
9-Apr-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	1	1	0.2	0.8	
10-Apr-08	1	0	0	0	0	0	0	0	1	1	2	3	3	2	1	A	0	0	0	0	0	0	0	0	0.6	3.2	
11-Apr-08	0	0	0	0	0	0	0	0	2	2	2	1	0	0	A	0	0	0	0	0	0	0	0	0	0.4	2.0	
12-Apr-08	0	0	0	0	0	0	0	0	0	0	0	1	1	A	1	1	0	0	0	0	2	1	0	0	0.4	1.5	
13-Apr-08	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.2	0.3	
14-Apr-08	0	0	3	6	4	1	2	2	2	1	1	A	3	4	3	1	1	1	1	0	1	0	0	0	1.6	5.7	
15-Apr-08	0	0	1	0	0	0	0	0	0	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.5	
16-Apr-08	0	0	0	0	0	0	0	0	1	1	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9	
17-Apr-08	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.4	
18-Apr-08	0	0	0	0	0	0	0	A	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.2	0.8	
19-Apr-08	0	A	0	0	0	0	0	0	0	0	0	2	5	4	4	4	7	5	1	1	1	0	0	1.6	6.9		
20-Apr-08	A	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	3	3	2	1	1	0	0	A	1.2	3.0	
21-Apr-08	0	0	0	0	0	0	0	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	A	0	0.3	0.6	
22-Apr-08	0	0	0	0	1	1	1	0	1	1	1	0	0	0	1	1	1	1	1	1	0	A	2	1	0.6	1.5	
23-Apr-08	0	0	0	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	0	A	0	0	0	0	0.7	1.8	
24-Apr-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.2	0.3	
25-Apr-08	0	0	0	0	0	0	0	0	0	C	C	C	A	1	1	0	0	0	0	0	0	0	0	0	0.2	0.6	
26-Apr-08	0	A	0	0	0	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	0.6	1.4	
27-Apr-08	A	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	A	0.7	2.7	
28-Apr-08	1	1	1	0	1	1	1	1	1	1	1	0	1	0	0	1	1	0	0	0	3	A	0	0	0.6	2.6	
29-Apr-08	0	0	0	0	0	0	0	1	1	0	1	1	1	1	1	1	1	1	0	0	A	0	0	0	0.4	0.6	
30-Apr-08	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1	0	0	0	0	0	A	1	1	1	0.4	0.6	
Hourly Avg	0.2	0.2	0.3	0.4	0.3	0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.7	0.8	0.7	0.5	0.6	0.7	0.6	0.3	0.4	0.5	0.4	0.2			
Hourly Max	0.6	0.6	2.9	5.7	3.5	1.3	1.5	1.8	1.8	1.9	2.0	3.2	3.3	4.6	3.9	3.7	4.0	6.9	5.3	1.2	1.5	2.6	2.7	0.9			

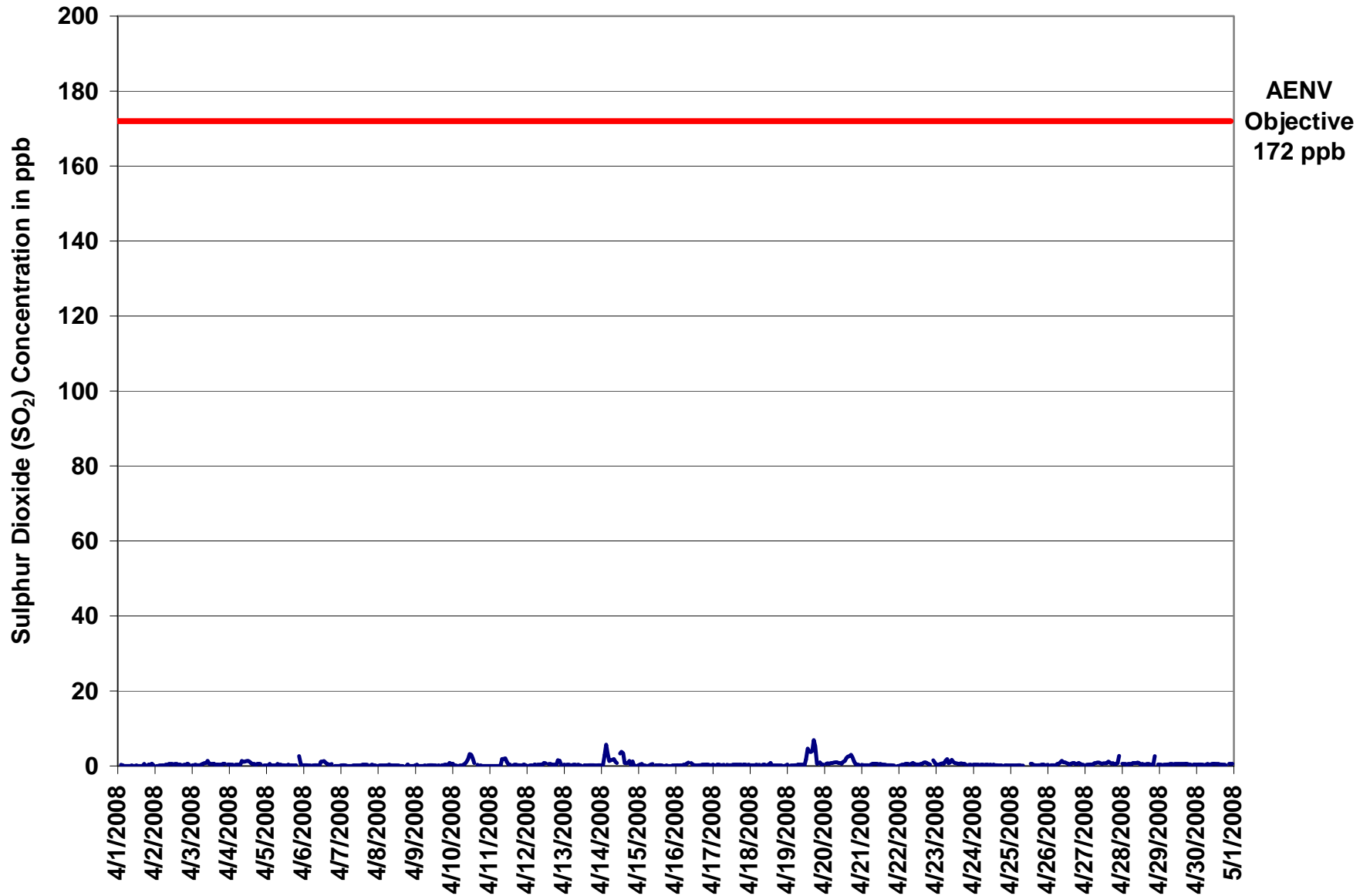


Figure 16. PAS – Brooks Sulphur Dioxide 1-hr Average Monthly Trend



Station: Portable-Brooks
 Station Owner: PAS

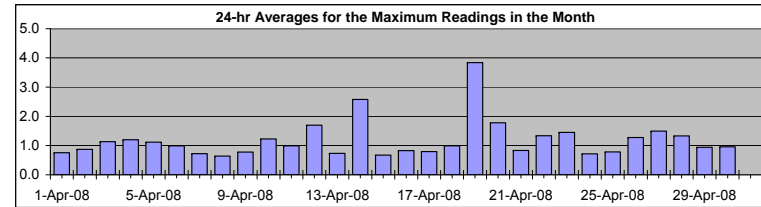
INSTANTANEOUS (30 Second) MAXIMUM TABLE

Sulphur Dioxide (SO₂)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Maximum 1-hr Value:	13.4	ppb	19-Apr	17:00 18:00
Maximum 24-hr Value:	3.8	ppb	19-Apr	



AIC Time:	33 hrs	Operational Time:	684 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	8.3	3.0	1.2	0.8	0.7	0.5	0.4	1.2 ppb	0.8 ppb

Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00			
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Apr-08	1	A	1	1	1	1	1	0	1	0	0	1	1	1	1	1	1	2	1	0	2	1	2	1	0.8	1.9	
2-Apr-08	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.9	1.4	
3-Apr-08	1	1	1	1	1	1	1	1	1	2	4	1	1	1	1	1	1	1	1	1	2	1	A	1	1.1	3.6	
4-Apr-08	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1	2	2	A	1	1	1.2	2.2	
5-Apr-08	1	1	3	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	A	5	1	1	1.1	5.4		
6-Apr-08	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	3	A	0	0	0	1	1.0	3.3	
7-Apr-08	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	0.7	1.4	
8-Apr-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	A	1	2	0	0	1	1	0.6	1.9	
9-Apr-08	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	2	1	1	1	1	0.8	1.6	
10-Apr-08	1	1	1	0	1	1	1	1	1	2	3	4	4	3	2	A	1	1	1	1	1	0	0	1	0	1.2	4.3
11-Apr-08	0	1	0	1	1	0	0	1	2	3	3	2	1	1	A	1	1	1	1	1	1	1	1	1	1	1.0	2.6
12-Apr-08	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	2	9	10	1	1	1.7	10.4	
13-Apr-08	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	0.7	0.9	
14-Apr-08	1	1	5	7	5	3	3	3	3	2	2	A	4	5	5	2	1	1	2	1	4	1	1	0	2.6	6.6	
15-Apr-08	1	1	1	1	1	0	0	1	1	1	1	A	1	1	1	1	0	1	1	1	1	1	1	1	0.7	1.1	
16-Apr-08	1	1	1	1	1	1	1	1	2	A	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.7	
17-Apr-08	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.1	
18-Apr-08	1	1	1	1	1	1	1	A	1	4	1	1	2	4	1	1	1	1	1	1	1	1	1	1	1.0	3.9	
19-Apr-08	1	A	1	1	1	1	1	1	1	1	1	1	8	13	10	8	9	13	13	2	1	2	1	1	3.8	13.4	
20-Apr-08	A	1	1	1	1	2	1	1	2	1	1	1	2	2	3	3	3	4	3	2	1	1	1	A	1.8	3.9	
21-Apr-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.1	
22-Apr-08	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	2	1	1	1	1	A	4	1.3	4.3	
23-Apr-08	1	1	1	1	1	1	3	4	1	1	4	2	1	1	1	1	1	1	1	1	A	1	1	1	1.4	4.0	
24-Apr-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	0.7	1.0	
25-Apr-08	1	1	1	1	1	1	1	1	1	C	C	A	2	1	1	1	1	1	1	1	1	1	1	1	0.8	1.5	
26-Apr-08	1	A	1	1	1	1	2	2	2	2	2	2	3	1	1	1	1	1	1	1	2	1	1	1	1.3	3.0	
27-Apr-08	A	1	1	1	1	1	2	1	2	2	1	1	1	2	1	2	1	1	1	1	1	2	5	A	1.5	4.5	
28-Apr-08	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	7	A	1	1.3	7.4	
29-Apr-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0.9	1.3	
30-Apr-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1.0	1.3	
Hourly Avg	0.8	0.8	1.0	1.0	0.9	0.8	1.0	1.2	1.1	1.3	1.3	1.2	1.6	1.7	1.4	1.2	1.3	1.4	1.4	1.0	1.3	1.7	1.1	0.8			
Hourly Max	1.7	1.1	5.0	6.6	4.9	2.9	3.0	3.6	2.7	3.5	4.0	4.3	7.7	12.9	9.6	8.3	9.2	13.4	12.5	2.0	8.5	10.4	4.5	4.0			

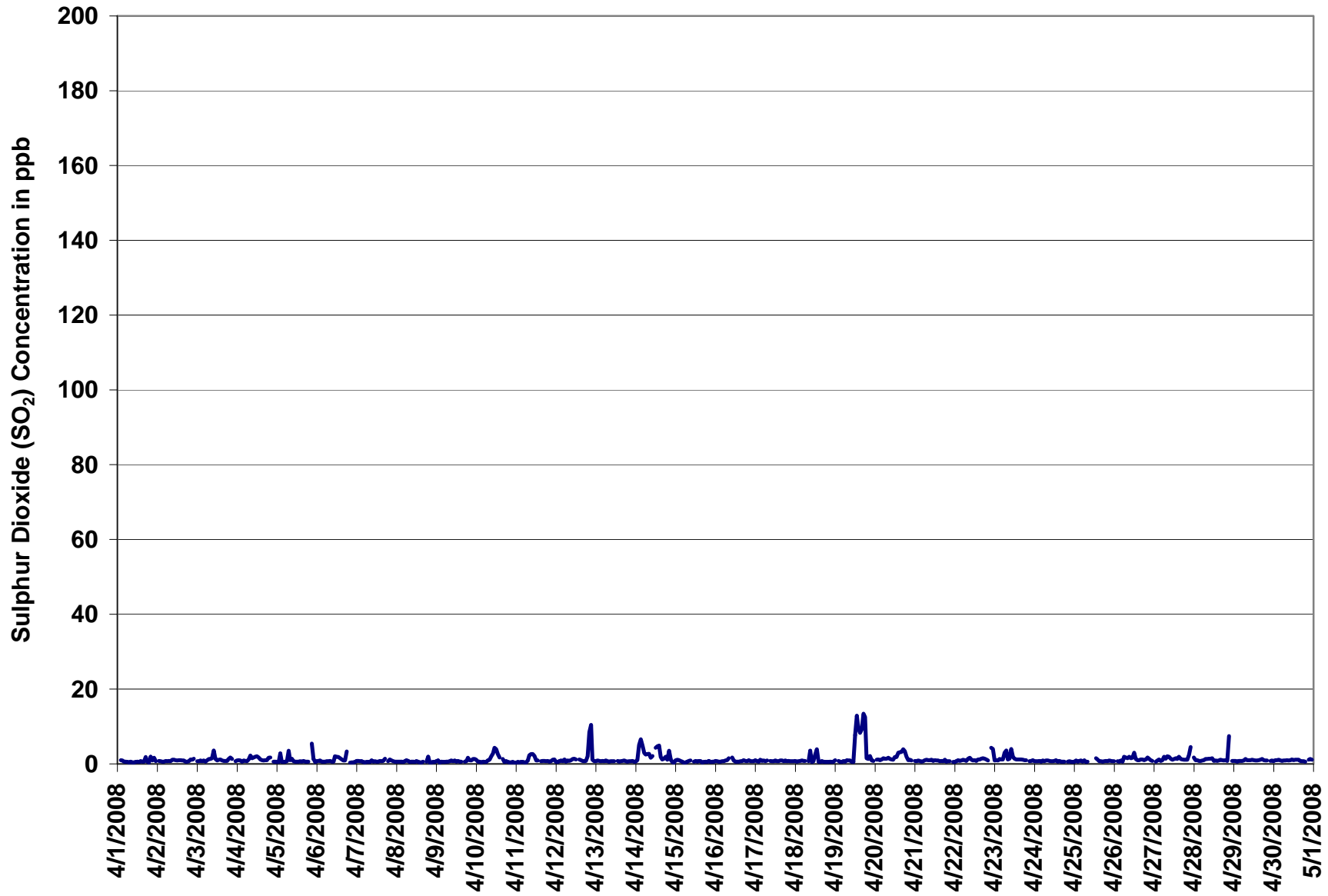
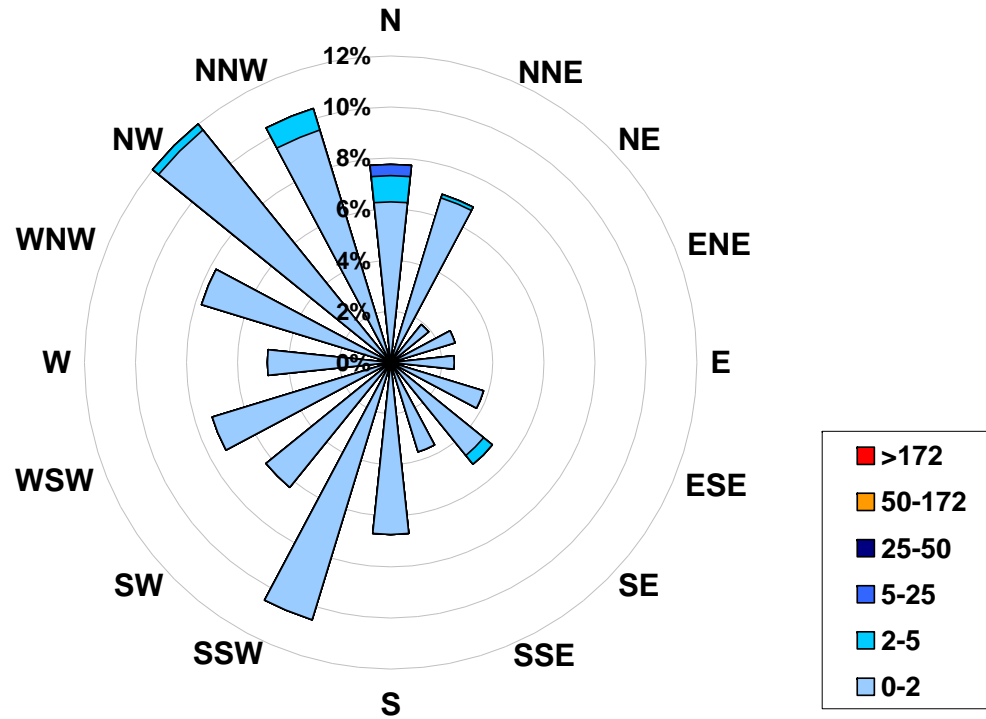


Figure 17. PAS – Brooks Sulphur Dioxide Instantaneous (30 Second) Maximum Value Monthly Trend



1-hr Average Concentration Rose for Sulphur Dioxide (in ppb) Located at the Portable-Brooks Site for April 2008



Calms: 0%

Frequency Distribution of SO ₂ in ppb			
Range		Frequency (hrs)	
0.0	< 2	660	
2	to 5	19	
5	to 25	3	
25	to 50	0	
50	to 172	0	
	> 172	0	
Total Non-Zero Values			684



PAS – Brooks Ozone Monthly Summary

Station: Portable-Brooks
 Station Owner: PAS

HOURLY AVERAGE TABLE

Ozone (O₃)

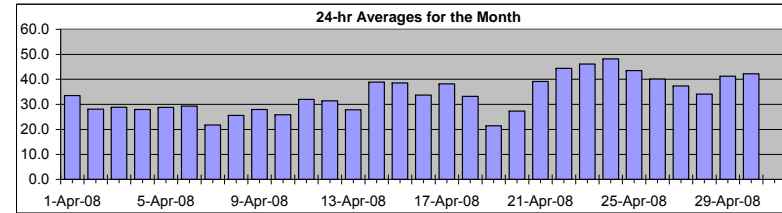
Monitoring Dates: April 1, 2008 to May 1, 2008

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

Summary

Number of 1-hr Exceedances:	0		
Maximum 1-hr Average:	58.7 ppb	24-Apr	16:00 17:00
Maximum 24-hr Average:	48.2 ppb	24-Apr	

AIC Time:	33 hrs	Operational Time:	684 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	57.5	55.0	45.0	34.9	22.7	10.7	2.6	33.9 ppb	34.9 ppb



Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum	
	Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00			23:00 0:00
1-Apr-08	19	A	9	23	34	34	34	32	33	36	37	39	42	43	44	45	44	44	44	38	36	38	32	20	15	33.5	44.5
2-Apr-08	A	16	14	14	5	3	4	15	23	32	40	43	44	44	45	45	45	44	39	29	28	24	21	A	28.0	45.4	
3-Apr-08	13	16	19	12	10	9	21	22	31	33	39	39	41	43	46	46	47	43	35	31	26	23	A	21	28.8	46.8	
4-Apr-08	19	17	15	10	2	2	4	12	27	34	39	42	44	45	45	44	42	40	36	33	32	A	30	30	28.0	45.0	
5-Apr-08	28	25	25	24	23	23	21	24	25	26	30	34	34	34	37	39	39	40	35	30	A	23	22	21	28.8	39.8	
6-Apr-08	24	26	22	16	10	8	9	16	28	34	34	37	41	44	45	46	45	43	40	A	32	30	27	20	29.3	45.5	
7-Apr-08	13	7	6	5	7	12	13	15	17	19	20	23	29	34	38	41	42	42	A	29	27	23	19	19	21.8	42.1	
8-Apr-08	18	13	9	1	3	1	2	6	14	19	34	42	44	47	48	48	49	A	46	37	33	24	24	28	25.6	49.1	
9-Apr-08	23	15	13	6	7	2	5	13	17	24	34	44	47	47	48	49	A	49	40	44	36	34	27	19	27.9	49.2	
10-Apr-08	14	14	12	11	6	9	13	19	27	31	34	27	31	36	42	A	46	47	41	39	37	32	19	10	25.9	46.5	
11-Apr-08	6	12	12	11	11	11	15	17	21	33	39	46	49	50	A	55	56	57	53	44	46	36	26	31	32.0	56.6	
12-Apr-08	29	28	21	12	19	17	11	18	32	44	47	49	45	A	42	45	44	43	40	38	32	22	23	22	31.4	49.0	
13-Apr-08	22	19	19	18	17	15	17	22	28	34	38	39	A	41	39	38	36	34	31	30	28	26	26	24	27.8	40.5	
14-Apr-08	20	20	35	32	32	30	34	37	41	45	47	A	45	45	46	50	51	50	44	33	35	41	41	40	38.9	50.8	
15-Apr-08	41	38	32	25	21	23	21	33	30	36	A	52	54	53	53	54	54	53	49	47	38	26	27	25	38.5	53.9	
16-Apr-08	17	21	18	17	15	14	15	23	31	A	45	45	46	47	49	49	50	50	48	42	36	32	32	33	33.7	50.3	
17-Apr-08	25	13	12	18	14	12	14	25	A	40	46	51	52	54	56	56	56	57	48	48	48	47	45	42	38.2	56.6	
18-Apr-08	37	35	21	26	24	26	27	A	35	38	38	39	39	41	42	40	C	C	C	A	32	32	31	30	33.2	41.5	
19-Apr-08	29	A	25	25	25	23	22	19	17	16	16	17	19	20	21	23	24	22	22	23	22	21	22	22	21.4	28.6	
20-Apr-08	A	20	20	21	22	22	22	23	24	25	26	28	30	31	30	30	31	30	31	33	35	35	35	A	27.3	35.1	
21-Apr-08	30	30	32	32	33	33	34	35	38	39	41	41	44	45	46	47	47	46	46	45	39	38	A	39	39.1	47.1	
22-Apr-08	39	41	41	41	42	39	40	40	42	45	48	50	50	52	52	53	53	52	48	48	48	A	33	27	44.4	53.0	
23-Apr-08	27	30	37	42	43	38	30	35	41	46	45	52	53	55	56	57	57	56	55	52	A	50	50	50	46.1	57.4	
24-Apr-08	49	47	44	42	42	42	42	42	44	47	49	52	56	57	58	58	58	59	58	56	A	44	45	35	41	48.2	58.7
25-Apr-08	44	43	40	36	36	35	38	38	43	44	44	46	49	51	53	55	56	56	54	44	44	46	25	22	43.5	55.8	
26-Apr-08	29	A	14	18	20	24	26	38	43	40	42	45	52	54	55	57	58	57	55	47	52	35	29	31	40.1	58.4	
27-Apr-08	A	20	21	16	21	15	14	23	25	42	49	49	54	56	57	58	58	55	49	31	33	42	36	A	37.4	57.6	
28-Apr-08	18	13	16	16	13	4	15	28	37	44	50	50	49	51	52	53	54	53	47	33	29	35	A	24	34.1	53.5	
29-Apr-08	22	26	22	26	30	28	31	35	40	49	53	53	54	55	55	55	55	48	45	38	38	48	A	51	49	41.2	54.9
30-Apr-08	39	38	32	24	29	44	42	44	46	49	52	55	57	57	55	57	58	53	46	33	A	22	22	17	42.2	58.1	
Hourly Avg	25.7	23.9	21.9	20.7	20.5	19.9	21.1	25.8	30.9	35.9	39.9	42.4	44.5	45.9	46.6	48.0	48.1	47.1	43.2	37.6	36.2	32.5	29.5	27.8			
Hourly Max	48.9	47.4	43.9	42.4	42.8	43.8	41.9	43.5	46.3	49.1	52.5	55.0	56.5	57.3	57.5	58.0	58.7	57.8	56.3	52.4	51.8	50.3	50.9	49.8			

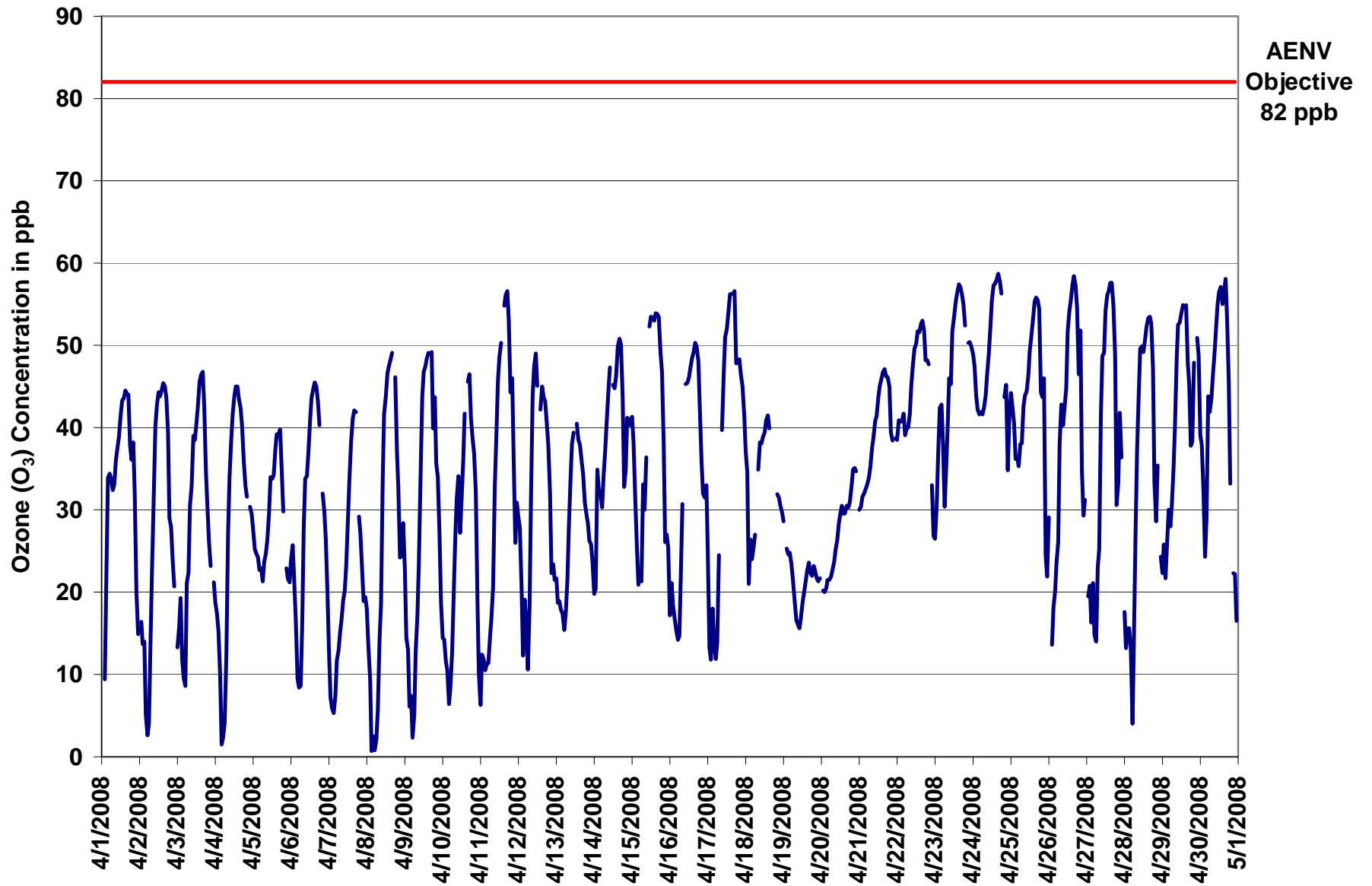


Figure 18. PAS – Brooks Ozone 1-hr Average Monthly Trend



Station: Portable-Brooks
 Station Owner: PAS

INSTANTANEOUS (30 Second) MAXIMUM TABLE

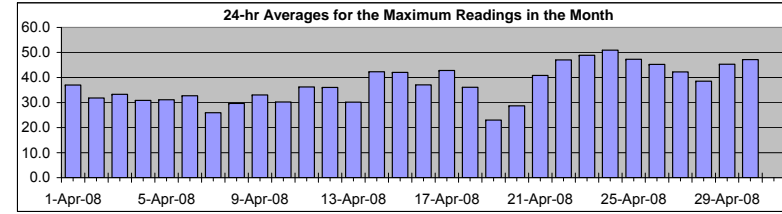
Ozone (O₃)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Maximum 1-hr Value:	61.1	ppb	17-Apr	17:00 18:00
Maximum 24-hr Value:	50.9	ppb	24-Apr	

AIC Time:	33 hrs	Operational Time:	684 hrs						
Calibration Time:	3 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	59.6	57.4	47.7	39.5	26.5	15.3	7.2	37.5 ppb	39.5 ppb



Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	Daily Maximum		
	Hour Start	Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00			23:00	0:00
1-Apr-08	0:00	1:00	A	17	39	39	37	35	34	36	39	39	41	43	44	45	46	46	46	45	39	41	39	23	17	36.9	46.3	
2-Apr-08	1:00	2:00	A	20	17	19	12	7	10	17	27	42	44	45	46	45	46	47	46	45	44	36	31	29	26	A	31.8	46.8
3-Apr-08	2:00	3:00	20	20	22	20	19	15	24	28	33	37	43	41	42	45	48	48	49	47	40	37	34	30	A	25	33.2	48.5
4-Apr-08	3:00	4:00	23	21	18	15	4	6	7	21	31	38	40	44	46	46	46	46	44	42	39	36	34	A	32	32	30.9	46.3
5-Apr-08	4:00	5:00	30	26	27	27	25	25	24	25	26	29	32	36	36	38	41	41	40	41	41	32	A	26	24	24	31.1	41.3
6-Apr-08	5:00	6:00	26	29	26	20	13	11	15	21	33	36	36	39	49	45	46	47	46	45	47	A	36	33	29	26	32.7	49.2
7-Apr-08	6:00	7:00	17	14	12	8	12	14	15	16	19	20	22	27	32	37	41	43	43	43	A	41	38	29	24	28	25.9	43.4
8-Apr-08	7:00	8:00	23	16	16	4	6	3	7	12	18	24	41	44	45	48	49	50	51	A	50	42	39	32	29	32	29.6	51.2
9-Apr-08	8:00	9:00	27	26	17	11	10	5	10	15	24	30	44	46	48	49	50	55	A	52	49	52	41	40	35	23	33.0	55.4
10-Apr-08	9:00	10:00	20	21	17	13	10	12	14	25	29	35	37	30	34	39	46	A	48	50	45	46	41	37	31	16	30.2	49.8
11-Apr-08	10:00	11:00	13	17	16	13	13	14	17	19	29	36	44	50	50	52	A	57	57	58	57	51	54	47	35	35	36.2	58.3
12-Apr-08	11:00	12:00	32	32	32	20	22	23	18	28	38	48	51	52	48	A	44	46	46	45	44	40	40	31	27	23	36.0	51.7
13-Apr-08	12:00	13:00	24	20	22	21	19	17	21	25	31	38	40	41	A	43	41	40	38	36	34	33	30	29	29	25	30.2	42.9
14-Apr-08	13:00	14:00	23	26	38	36	35	34	36	42	44	47	50	A	47	48	49	51	52	52	51	41	45	43	43	42	42.3	52.3
15-Apr-08	14:00	15:00	43	42	36	32	24	25	28	38	32	41	A	55	56	56	54	56	56	56	53	49	43	34	32	29	42.0	55.7
16-Apr-08	15:00	16:00	23	23	21	23	17	16	17	27	37	A	47	47	48	48	50	51	52	52	52	49	45	37	35	36	37.1	52.3
17-Apr-08	16:00	17:00	32	20	24	27	21	19	21	30	A	46	51	53	54	55	58	59	59	61	54	50	51	48	47	45	42.8	61.1
18-Apr-08	17:00	18:00	40	40	27	32	28	30	31	A	38	40	40	40	41	43	44	42	C	C	C	A	34	33	32	31	36.1	43.5
19-Apr-08	18:00	19:00	30	A	27	26	26	25	23	20	18	17	17	18	21	22	23	24	26	24	24	25	24	23	23	23	23.0	30.1
20-Apr-08	19:00	20:00	A	22	22	22	23	23	23	24	25	26	28	30	31	32	31	31	32	32	32	36	36	36	A	41	28.7	36.2
21-Apr-08	20:00	21:00	32	33	34	34	34	34	35	37	39	40	42	43	45	47	47	48	48	48	47	47	43	41	A	41	40.8	48.1
22-Apr-08	21:00	22:00	40	43	43	42	43	42	42	44	48	49	51	52	53	53	53	54	54	53	52	53	51	A	41	35	47.0	54.2
23-Apr-08	22:00	23:00	31	34	43	45	47	41	38	40	45	48	50	55	56	57	58	59	58	57	57	53	A	51	51	51	48.9	58.7
24-Apr-08	23:00	0:00	50	49	48	45	44	44	43	43	46	48	52	54	58	58	59	59	60	59	58	A	52	47	48	47	50.9	59.6
25-Apr-08	0:00	1:00	49	48	45	39	41	39	41	41	45	45	46	50	51	53	55	57	58	57	59	51	47	50	41	27	47.3	59.0
26-Apr-08	1:00	2:00	35	A	24	24	28	32	35	40	45	43	44	47	55	57	57	60	60	59	58	58	60	49	35	36	45.2	60.3
27-Apr-08	2:00	3:00	A	27	24	23	27	22	20	27	36	48	52	52	58	59	59	60	60	57	54	42	37	45	42	A	42.3	60.1
28-Apr-08	3:00	4:00	24	17	19	19	22	10	24	33	41	51	52	51	51	52	54	55	55	55	54	39	39	41	A	28	38.5	55.3
29-Apr-08	4:00	5:00	26	33	25	31	33	30	34	39	44	52	54	55	56	57	57	57	54	49	44	53	50	A	56	54	45.3	57.4
30-Apr-08	5:00	6:00	49	41	39	33	43	46	44	47	50	51	55	57	58	59	58	59	60	60	60	52	40	A	30	28	47.1	59.8
Hourly Avg			29.7	28.2	26.6	25.3	24.6	23.3	25.0	29.5	34.5	39.4	42.7	44.6	46.8	47.8	48.5	49.9	49.9	49.4	47.6	43.4	41.3	37.3	34.6	31.8		
Hourly Max			50.2	49.3	47.6	45.1	46.5	46.0	44.0	46.9	49.5	51.9	54.9	56.9	58.3	58.6	58.8	60.3	59.8	61.1	59.0	58.1	59.7	51.2	55.6	54.4		

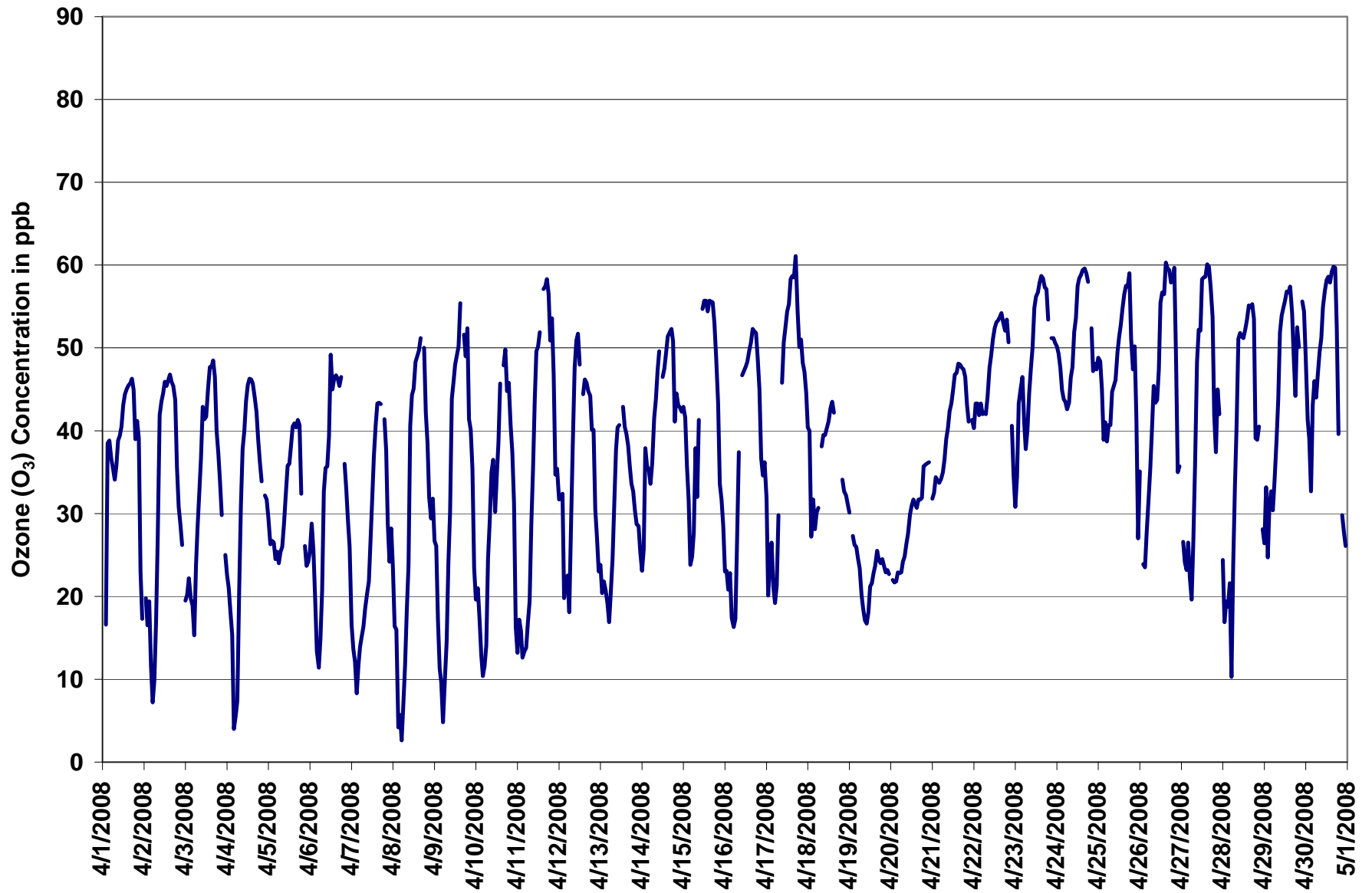
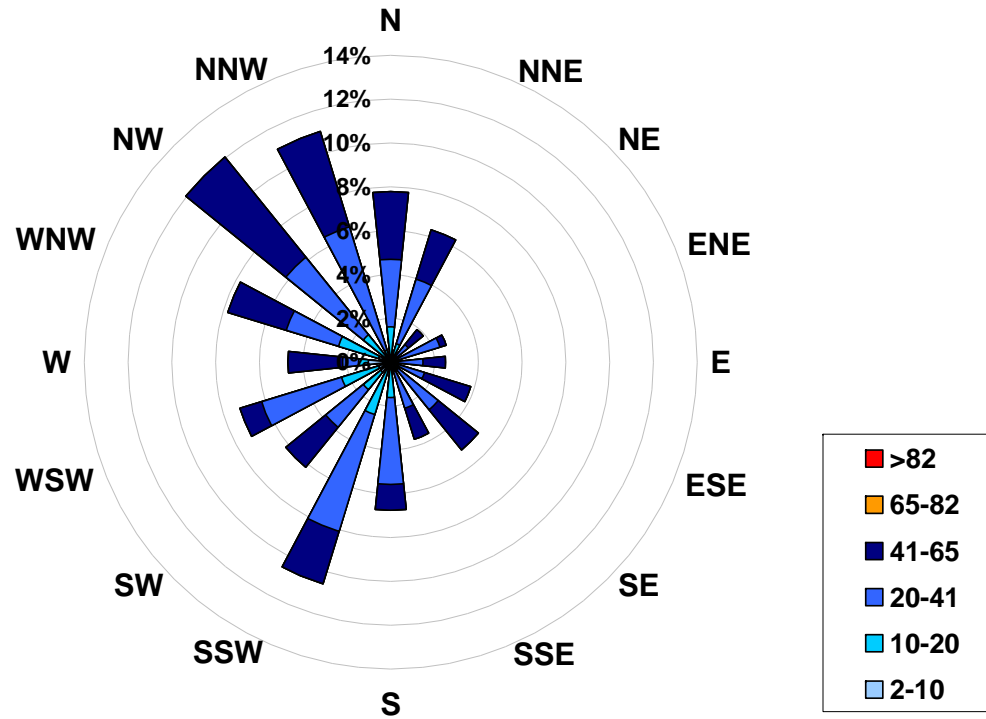


Figure 19. PAS – Brooks Ozone Instantaneous (30 Second) Maximum Value Monthly Trend



1-hr Average Concentration Rose for Ozone (in ppb) Located at the Portable-Brooks Site for April 2008



Calms: 0%

Frequency Distribution of O ₃ in ppb			Frequency (hrs)
Range			Frequency (hrs)
2.0	<	10	31
10	to	20	95
20	to	41	310
41	to	65	248
65	to	82	0
	>	82	0
Total Non-Zero Values			684



PAS – Brooks Ozone Eight Hour Average Summary

Station: Portable-Brooks
 Station Owner: PAS

EIGHT HOUR RUNNING AVERAGE TABLE

Ozone (O₃)

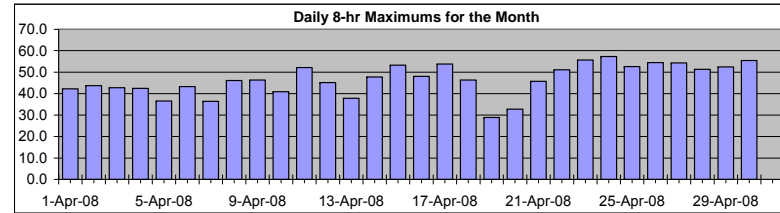
Monitoring Dates: April 1, 2008 to May 1, 2008

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

Summary

Number of 8-hr Exceedances:	0		
Maximum 8-hr Average:	57.3 ppb	24-Apr	19:00 20:00

Percentile	99	95	75	50	25	5	1
	55.3	52.1	43.1	34.7	24.6	13.8	10.1



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 Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	
1-Apr-08	28	27	23	22	22	23	25	26	29	29	33	35	36	37	38	40	41	42	42	42	41	40	37	33	42.2
2-Apr-08	32	28	24	21	17	12	10	10	12	14	17	21	26	31	36	40	42	44	44	42	40	37	34	33	43.7
3-Apr-08	28	24	21	19	16	14	14	15	17	20	22	25	29	33	37	40	42	43	42	41	39	37	36	32	42.8
4-Apr-08	28	25	22	19	15	12	11	10	11	13	16	20	25	31	36	40	42	43	42	41	40	39	37	35	42.5
5-Apr-08	33	30	29	28	26	26	25	24	24	24	24	26	27	28	30	32	34	36	37	36	36	35	33	30	36.6
6-Apr-08	28	26	24	22	20	19	17	16	17	18	19	22	26	30	35	38	41	42	43	43	42	40	37	34	43.3
7-Apr-08	29	24	19	17	14	12	10	10	10	12	14	16	18	21	24	28	31	34	36	36	36	35	32	29	36.4
8-Apr-08	25	21	20	16	13	10	8	7	6	7	10	15	20	26	31	37	41	44	46	45	44	41	37	35	46.1
9-Apr-08	31	29	25	21	18	15	12	10	10	11	14	18	23	29	34	39	42	46	46	46	45	43	40	35	46.4
10-Apr-08	33	28	25	21	17	14	12	12	14	16	19	21	24	27	31	33	35	37	39	40	41	40	37	34	40.9
11-Apr-08	29	25	21	17	14	12	11	12	14	16	20	24	29	34	36	42	47	50	52	52	52	50	47	44	52.2
12-Apr-08	40	37	33	29	25	23	21	19	20	22	25	30	33	35	40	44	45	45	44	42	41	38	36	33	45.2
13-Apr-08	30	27	25	22	20	19	19	19	19	21	24	26	28	31	34	37	38	38	37	35	35	33	31	29	37.8
14-Apr-08	27	26	26	26	27	27	28	30	33	36	37	38	40	42	44	46	47	48	47	45	44	44	43	42	47.8
15-Apr-08	41	39	38	37	35	33	30	29	28	28	27	31	36	40	45	47	51	53	53	52	50	47	44	40	53.3
16-Apr-08	35	31	28	24	21	19	18	18	19	19	23	27	31	36	41	45	47	48	48	48	46	45	42	40	48.1
17-Apr-08	37	33	28	25	22	20	18	17	15	19	24	29	34	40	46	51	51	54	54	53	53	52	51	49	53.8
18-Apr-08	46	44	40	38	35	32	30	28	28	28	31	32	35	37	39	39	40	N	N	N	N	N	N	N	46.4
19-Apr-08	N	N	N	29	28	27	25	24	22	21	20	19	18	18	18	18	19	20	21	22	22	22	22	22	28.9
20-Apr-08	22	22	22	21	21	21	21	21	22	22	23	24	25	26	27	28	29	29	30	31	31	32	32	33	32.8
21-Apr-08	33	33	33	33	32	32	32	32	33	34	35	37	38	40	41	42	44	45	45	46	45	44	44	43	45.7
22-Apr-08	42	41	40	40	40	40	40	40	41	41	42	43	44	46	47	49	50	51	51	51	51	50	48	44	51.1
23-Apr-08	40	37	36	35	34	35	34	35	37	39	40	41	43	45	48	51	53	54	55	55	55	55	54	53	55.7
24-Apr-08	52	51	49	48	47	46	45	44	43	43	44	45	47	49	51	53	54	56	57	57	56	54	51	48	57.3
25-Apr-08	46	44	42	41	40	39	39	39	39	39	39	41	42	44	46	48	50	51	53	52	52	51	47	43	52.6
26-Apr-08	40	38	32	28	25	22	22	24	26	28	31	35	39	43	46	49	51	53	54	54	54	52	49	45	54.4
27-Apr-08	44	38	33	29	25	22	20	19	19	22	26	30	34	39	44	49	53	54	54	52	49	48	45	43	54.3
28-Apr-08	38	32	27	25	22	16	13	15	18	22	26	30	35	40	45	48	50	51	51	49	46	45	43	39	51.4
29-Apr-08	35	31	27	26	26	25	26	27	30	33	36	40	43	46	49	52	52	52	50	48	48	47	46	45	52.5
30-Apr-08	44	43	42	40	37	38	37	36	37	39	41	45	49	50	52	53	55	55	55	52	51	46	42	36	55.4

Hourly Max 51.9 50.6 49.0 47.6 46.8 45.8 44.7 43.7 43.1 43.0 43.6 45.1 48.5 50.2 51.8 53.4 54.9 55.8 56.7 57.3 55.7 55.0 54.1 53.0



PAS – Brooks Hydrogen Sulphide Monthly Summary

HOURLY AVERAGE TABLE

Hydrogen Sulphide (H₂S)

Station: Portable-Brooks
 Station Owner: PAS

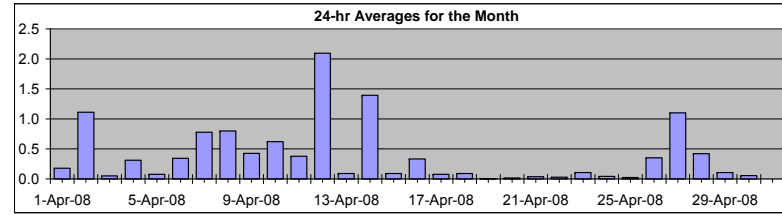
Monitoring Dates: April 1, 2008 to May 1, 2008

Objective Limit: Alberta Environment: 1-hr 10 ppb 24-hr 3 ppb

Summary

Number of 1-hr Exceedances:	4			
Number of 24-hr Exceedances:	0			
Maximum 1-hr Average:	31.6 ppb	14-Apr	18:00	19:00
Maximum 24-hr Value:	2.1 ppb	12-Apr		

AIC Time:	33 hrs		Operational Time:	685 hrs					
Calibration Time:	2 hrs		AMD Operational Uptime:	100.0%					
Percentile	99	95	75	50	25	5	1	Average	Median
	9.1	1.2	0.2	0.1	0.0	0.0	0.0	0.4 ppb	0.1 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	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Apr-08	1	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.2	0.6	
2-Apr-08	A	1	0	1	9	9	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.1	9.3	
3-Apr-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.1	0.3	
4-Apr-08	0	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.3	4.1	
5-Apr-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	1	0	0.1	0.5	
6-Apr-08	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0.3	6.7	
7-Apr-08	0	12	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0.8	12.0	
8-Apr-08	0	2	5	3	2	0	0	0	0	0	0	0	0	0	0	0	0	A	1	4	1	0	0	0	0.8	4.5	
9-Apr-08	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	2	0	1	1	0.4	2.1	
10-Apr-08	10	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	1	1	0.6	10.3	
11-Apr-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	6	1	0	0.4	6.3	
12-Apr-08	0	0	0	0	0	4	6	0	0	0	0	0	0	A	0	0	0	0	5	9	22	2	0	0	2.1	22.0	
13-Apr-08	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
14-Apr-08	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	1.4	31.6	
15-Apr-08	0	0	0	0	1	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	1	0	0.1	1.2	
16-Apr-08	2	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	3	0	0	0	0.3	3.3	
17-Apr-08	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.3	
18-Apr-08	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.4	
19-Apr-08	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	
20-Apr-08	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0.0	0.1	
21-Apr-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0.0	0.1	
22-Apr-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.0	0.3	
23-Apr-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.3	
24-Apr-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.0	0.2	
25-Apr-08	0	0	0	0	0	0	0	0	0	C	C	A	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3	
26-Apr-08	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0.4	2.5	
27-Apr-08	A	0	2	14	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	1.1	14.2	
28-Apr-08	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	A	0	0.4	1.8	
29-Apr-08	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0.1	0.8	
30-Apr-08	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0.1	0.5	
Hourly Avg	0.6	0.7	0.5	0.8	0.6	0.7	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.3	0.6	1.2	0.5	0.2	0.1			
Hourly Max	10.3	12.0	4.5	14.2	9.2	9.3	6.7	0.6	0.6	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.4	31.6	9.1	22.0	6.3	1.3	1.1		

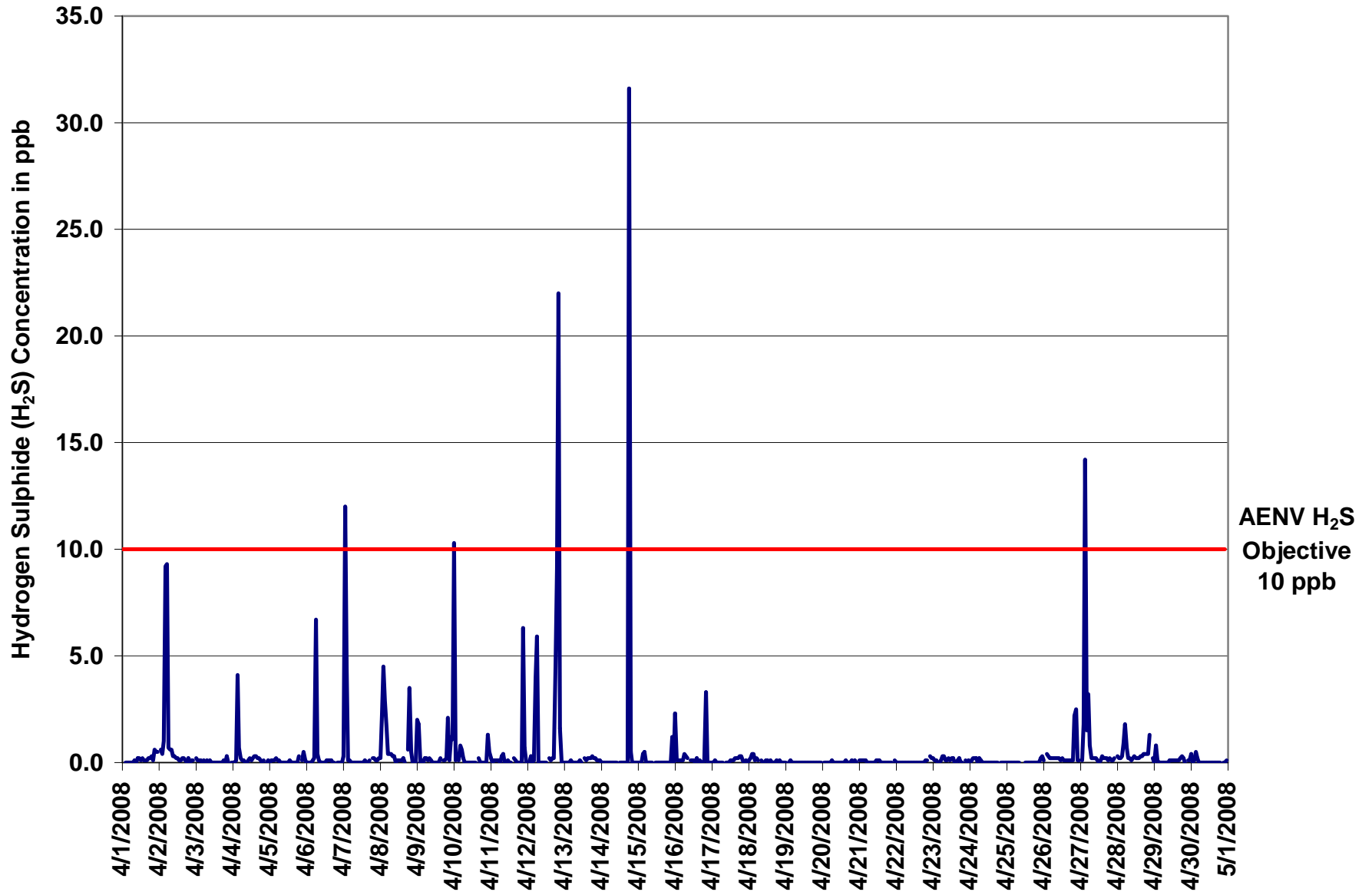


Figure 20. PAS – Brooks Hydrogen Sulphide 1-hr Average Monthly Trend



Station: Portable-Brooks
 Station Owner: PAS

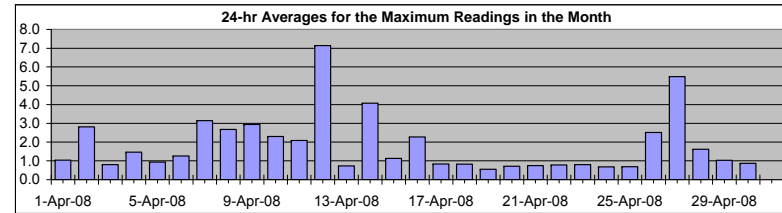
INSTANTANEOUS (30 Second) MAXIMUM TABLE

Hydrogen Sulphide (H₂S)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Maximum 1-hr Value:	58.0	ppb	14-Apr	18:00 19:00
Maximum 24-hr Value:	7.1	ppb	12-Apr	



AIC Time:	33 hrs	Operational Time:	685 hrs						
Calibration Time:	2 hrs	AMD Operational Uptime:	100.0%						
Percentile	99	95	75	50	25	5	1	Average	Median
	26.9	5.7	0.9	0.8	0.7	0.5	0.4	1.8 ppb	0.8 ppb

Status Flag Characters

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

Day Mountain Standard Time

Hour Start Hour End	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	24-hour Average	Daily Maximum
1-Apr-08	2	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	2	1	1.0	3.0	
2-Apr-08	A	1	1	4	20	17	2	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	A	2.8	20.3	
3-Apr-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	A	1	0.8	3.4	
4-Apr-08	1	1	1	13	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.5	12.9	
5-Apr-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	A	1	4	1	0.9	4.0	
6-Apr-08	1	1	1	1	1	1	12	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	1	1.3	12.4	
7-Apr-08	3	27	27	1	1	1	1	1	1	1	1	1	0	1	1	1	1	A	1	1	1	1	1	3.1	26.9	
8-Apr-08	1	6	12	6	3	1	1	1	1	1	1	1	1	1	1	1	A	4	10	8	1	1	1	2.7	11.6	
9-Apr-08	15	12	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1	12	1	10	5	2.9	14.9	
10-Apr-08	27	1	1	1	3	3	2	1	1	1	1	0	1	1	A	1	1	1	1	1	1	5	3	2.3	26.6	
11-Apr-08	1	1	1	1	1	1	1	1	2	1	1	1	1	1	A	1	1	1	1	1	1	9	1	2.1	21.0	
12-Apr-08	1	0	5	1	4	17	18	1	1	1	0	1	1	A	1	1	1	1	29	27	31	24	1	7.1	31.3	
13-Apr-08	1	1	1	1	1	1	1	1	0	1	1	1	A	1	1	1	1	1	1	1	1	1	1	0.7	1.1	
14-Apr-08	1	1	1	1	1	1	1	1	0	1	1	A	1	1	1	1	0	1	58	23	1	0	1	4.1	58.0	
15-Apr-08	1	1	1	4	4	1	1	1	0	1	A	1	1	1	1	1	1	1	1	1	1	5	1	1.1	5.0	
16-Apr-08	8	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	0	2	27	1	1	1	2.3	26.9	
17-Apr-08	1	1	1	1	1	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3	
18-Apr-08	1	1	1	2	1	1	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	2.0	
19-Apr-08	1	A	1	1	1	1	1	1	0	1	0	1	1	1	0	0	0	1	1	1	1	0	0	1	0.6	0.8
20-Apr-08	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.7	1.0	
21-Apr-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	0.8	1.1	
22-Apr-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3	
23-Apr-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	0.8	1.1	
24-Apr-08	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	A	1	1	1	0	0.7	1.1	
25-Apr-08	1	1	1	1	1	1	1	1	1	1	C	C	A	1	1	1	1	1	1	1	1	1	1	0.7	1.0	
26-Apr-08	1	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22	17	1	1	2.5	22.0	
27-Apr-08	A	1	9	42	12	40	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5.5	41.5	
28-Apr-08	1	1	1	1	6	4	5	1	1	1	1	1	1	1	1	1	1	1	1	2	4	A	1	1.6	5.5	
29-Apr-08	1	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	1	1.0	6.1	
30-Apr-08	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	A	1	0	2	0.9	3.1	
Hourly Avg	2.7	2.5	2.5	3.0	2.4	3.4	2.1	0.8	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.8	3.8	2.9	4.4	3.1	1.9	1.0		
Hourly Max	26.6	26.5	26.9	41.5	20.3	40.2	17.9	1.4	2.7	1.1	1.0	1.3	1.1	1.1	1.0	1.0	1.1	1.3	58.0	27.1	31.3	23.5	9.6	4.6		

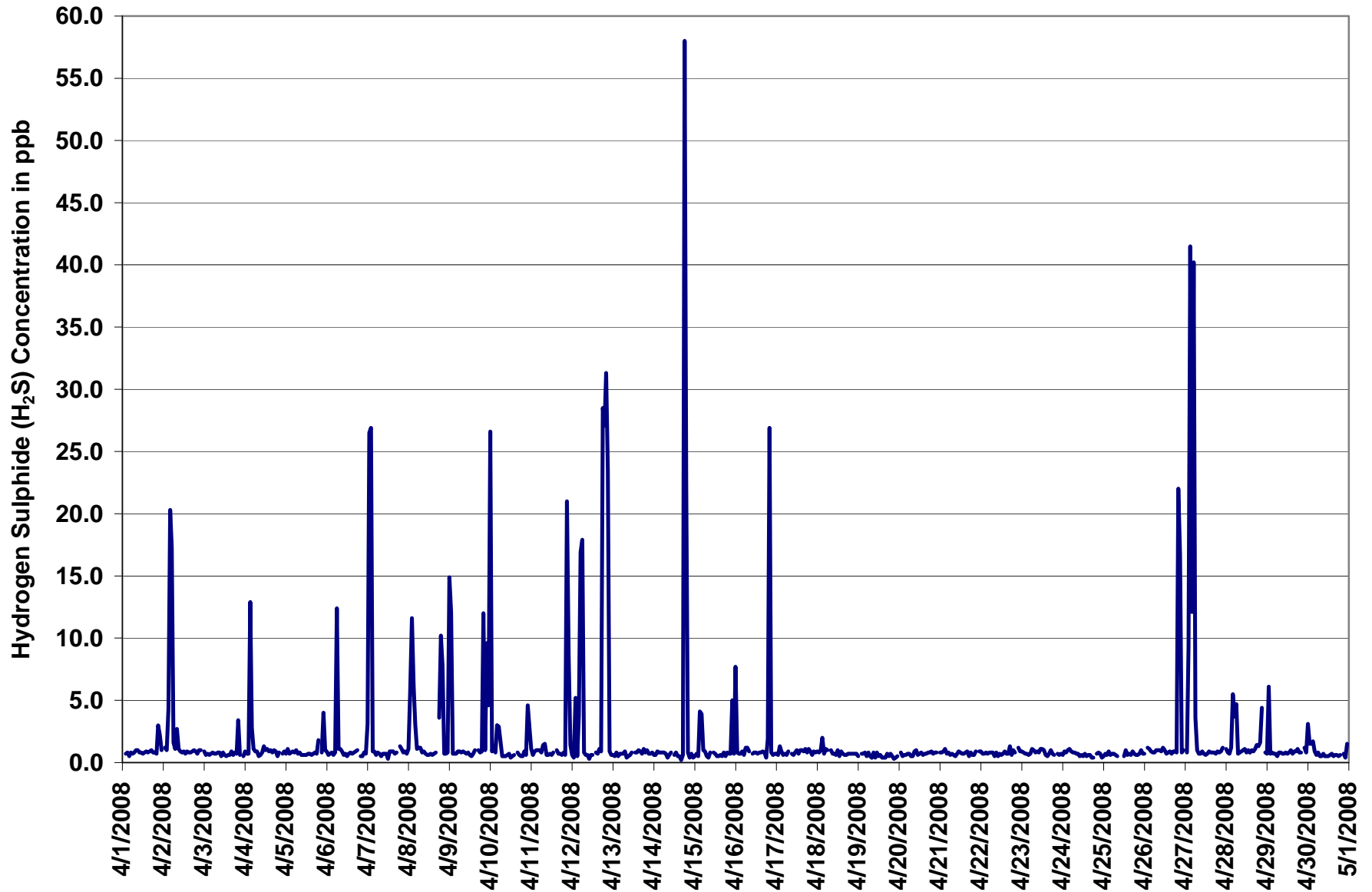
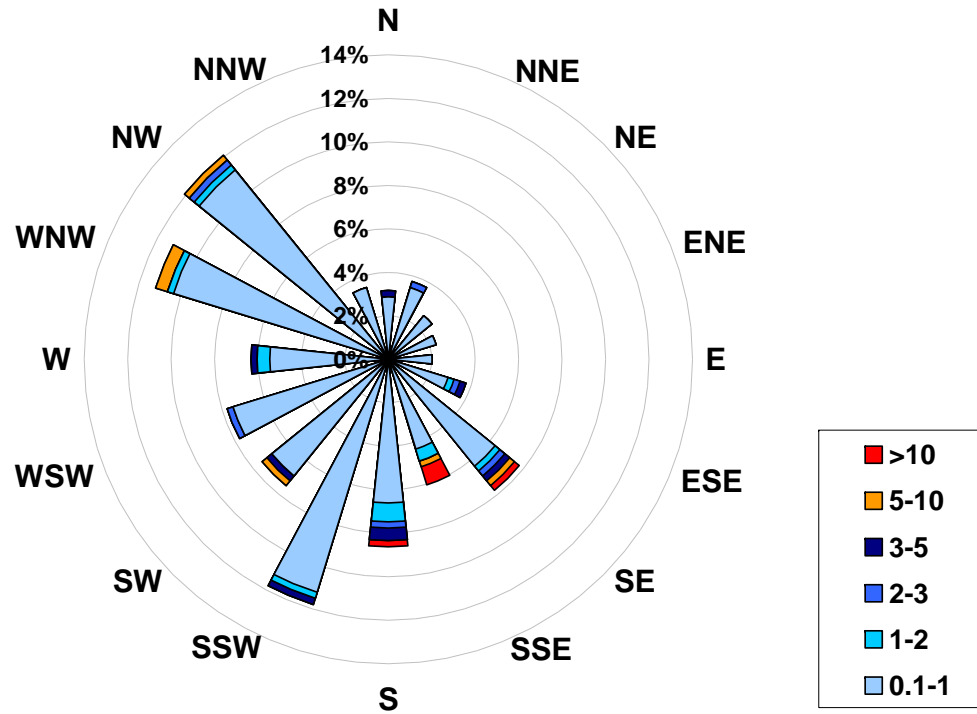


Figure 21. PAS – Brooks Hydrogen Sulphide Instantaneous (30 Second) Maximum Value Monthly Trend



1-hr Average Concentration Rose for Hydrogen Sulphide (in ppb) Located at the Portable-Brooks Site for April 2008



Calms: 0%

Frequency Distribution of H ₂ S in ppb			
Range		Frequency (hrs)	
0.1	< 1	647	
1	to 2	12	
2	to 3	6	
3	to 5	8	
5	to 10	6	
	> 10	5	
Total Non-Zero Values			685



PAS – Brooks Scalar Wind Speed Monthly Summary

Station: Portable-Brooks
 Station Owner: PAS

HOURLY AVERAGE TABLE

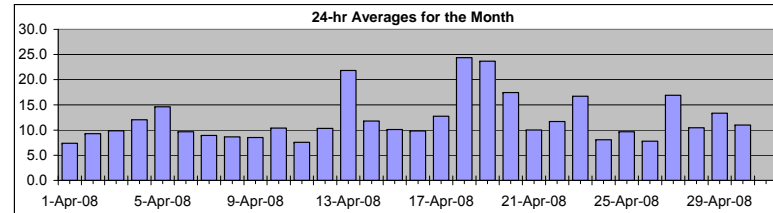
Wind Speed (WSs)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Maximum 1-hr Average:	40.6	km/hr	18-Apr	17:00 18:00
Maximum 24-hr Value:	24.4	km/hr	18-Apr	

Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageS
	32.1	25.1	14.5	10.7	7.5	4.7	3.7	12.2 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	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-Apr-08	5	3	3	4	5	5	5	5	7	8	8	7	10	10	9	7	6	6	8	12	12	10	12	11		7.4	12.1
2-Apr-08	7	4	4	6	5	6	5	6	9	10	14	13	12	11	11	11	12	11	9	8	10	13	14	13		9.3	14.4
3-Apr-08	11	8	8	7	8	8	8	10	11	11	9	10	10	10	10	10	10	13	9	9	9	11	15	12		9.9	14.7
4-Apr-08	8	5	4	6	6	6	6	6	8	8	7	7	7	6	7	15	18	24	24	21	23	25	23	20		12.1	24.7
5-Apr-08	15	15	14	12	12	14	14	17	15	15	13	13	14	13	13	16	15	15	11	15	18	18	19	15		14.6	18.6
6-Apr-08	16	8	7	7	7	6	5	7	10	10	10	7	7	7	6	8	10	10	10	14	14	15	17	14		9.7	16.9
7-Apr-08	11	6	5	5	8	11	12	13	10	11	11	11	10	10	8	10	10	10	8	8	5	8	8	5		9.0	12.9
8-Apr-08	4	4	6	5	5	5	5	4	6	4	5	6	9	9	13	11	19	15	16	11	11	10	12	13		8.6	18.9
9-Apr-08	8	7	9	10	11	6	5	5	5	5	8	10	13	13	14	12	8	7	5	6	8	12	8	10		8.5	13.8
10-Apr-08	8	9	11	6	6	7	7	11	13	14	15	15	13	15	15	13	12	10	10	11	9	7	6	6		10.4	15.2
11-Apr-08	5	7	6	4	4	6	7	6	7	6	6	8	11	11	11	10	6	5	7	11	9	7	10		7.5	11.2	
12-Apr-08	17	17	13	10	8	4	4	10	11	11	12	8	9	8	10	8	8	6	6	13	17	13	14	14		10.3	16.9
13-Apr-08	17	18	19	21	22	20	22	24	28	23	21	25	24	27	24	18	18	22	24	28	27	19	17	16		21.9	27.6
14-Apr-08	17	11	20	13	10	9	12	13	11	13	13	12	11	7	7	9	6	8	9	6	6	20	20	20		11.8	20.3
15-Apr-08	17	9	7	6	8	8	8	11	11	10	12	13	14	12	13	9	9	8	15	13	7	6	9	8		10.1	17.1
16-Apr-08	6	8	9	9	6	5	6	7	8	8	10	14	19	19	16	13	9	8	7	4	10	12	13	12		9.8	18.8
17-Apr-08	13	11	6	8	10	11	14	12	14	12	13	14	11	11	12	10	12	11	8	9	17	28	22	16		12.7	27.5
18-Apr-08	10	7	8	7	10	11	14	21	26	32	32	29	27	28	27	35	39	41	38	35	29	28	28	25		24.4	40.6
19-Apr-08	26	24	21	22	25	29	31	35	32	31	28	31	24	20	22	25	24	19	17	16	15	13	20	21		23.7	35.0
20-Apr-08	19	20	17	18	19	16	17	23	19	20	20	22	26	26	25	25	22	17	9	8	7	9	8	8		17.5	25.8
21-Apr-08	12	11	13	12	13	11	13	15	13	15	16	13	13	13	11	8	6	6	4	3	4	4	5	8		10.0	15.6
22-Apr-08	8	10	13	14	13	10	10	10	14	15	17	16	17	18	16	13	11	9	5	8	8	9	7	9		11.7	17.8
23-Apr-08	9	10	11	12	12	10	5	8	13	15	16	20	21	20	22	23	26	23	23	23	22	21	20	18		16.7	25.7
24-Apr-08	14	11	11	9	9	10	10	9	7	7	8	9	8	8	8	7	6	5	4	6	7	10	7	5		8.1	13.6
25-Apr-08	6	8	8	9	10	10	7	10	11	13	15	16	14	13	12	10	12	12	10	7	5	3	7	6		9.7	16.3
26-Apr-08	4	6	7	6	5	5	6	7	7	7	9	10	10	11	11	11	9	7	4	4	7	11	12	12		7.8	12.0
27-Apr-08	6	7	5	4	4	6	4	6	9	19	24	25	25	25	25	27	28	26	21	20	25	27	23	17		16.9	28.3
28-Apr-08	11	8	4	5	6	2	7	10	13	13	11	10	9	9	9	8	10	14	12	13	18	23	13	14		10.5	22.5
29-Apr-08	12	12	11	12	11	13	8	12	13	14	18	21	23	25	18	11	14	9	8	13	17	10	12	5		13.4	24.8
30-Apr-08	10	11	13	5	13	17	13	12	12	12	13	14	14	12	11	11	12	14	12	7	9	11	5	5		11.0	16.5
1-hr Average	11.1	9.9	9.8	9.1	9.7	9.5	9.6	11.5	12.4	13.1	13.7	14.4	14.4	14.1	13.8	13.4	13.6	13.0	11.7	11.8	12.9	13.7	13.3	12.2			
Hourly Max	25.5	23.5	20.9	21.9	24.9	29.0	31.0	35.0	31.8	32.3	32.2	30.8	27.2	27.6	27.3	34.6	38.7	40.6	38.1	34.6	28.5	27.8	27.6	25.1			



PAS – Brooks Vector Wind Speed Monthly Summary

Station: Portable-Brooks
 Station Owner: PAS

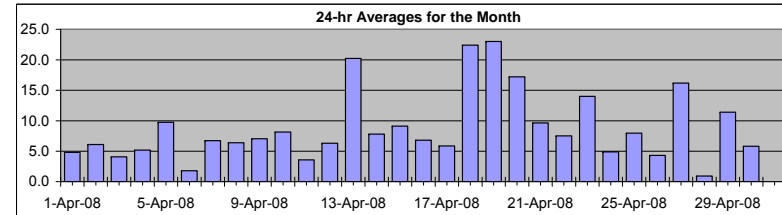
HOURLY AVERAGE TABLE

Wind Speed (WSv)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Maximum 1-hr Average:	40.4	km/hr	18-Apr	17:00 18:00
Maximum 24-hr Value:	23.0	km/hr	19-Apr	



Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	AverageV
	32.0	25.0	14.2	10.3	6.8	3.5	2.1	2.2 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	24:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Apr-08	4	3	3	3	4	4	4	3	5	6	8	7	5	9	8	8	5	17	5	8	12	12	10	12	11	4.8	12.1
2-Apr-08	6	4	4	5	5	6	5	6	9	9	13	12	10	8	10	10	11	11	8	8	10	13	14	13	13	6.1	14.4
3-Apr-08	11	8	8	7	8	8	8	10	11	11	8	10	9	9	9	9	8	13	9	9	6	8	14	11	11	4.1	14.1
4-Apr-08	7	5	3	6	6	6	6	6	7	8	5	4	3	4	4	14	17	24	24	21	23	25	23	20	20	5.2	24.7
5-Apr-08	15	15	14	12	12	14	14	17	15	14	13	13	14	12	12	15	14	15	11	14	18	17	18	15	15	9.8	18.2
6-Apr-08	16	8	6	6	7	6	4	7	10	10	9	6	2	3	2	2	9	10	8	13	14	15	17	14	14	1.8	16.8
7-Apr-08	10	6	3	5	7	10	12	13	10	11	11	11	10	9	7	9	9	8	8	5	3	8	8	3	3	6.7	12.7
8-Apr-08	2	3	5	2	5	4	4	4	5	1	2	4	6	7	12	9	18	15	16	11	11	9	12	12	12	6.4	17.8
9-Apr-08	7	7	9	10	11	6	4	5	4	4	7	10	12	12	13	11	7	7	4	6	8	10	6	9	9	7.0	12.8
10-Apr-08	8	9	11	5	5	7	7	10	13	14	14	15	12	15	15	13	12	10	10	10	9	7	5	5	5	8.2	14.7
11-Apr-08	5	7	6	4	3	6	6	5	7	5	3	6	10	10	10	9	9	5	5	6	11	7	4	9	9	3.6	10.9
12-Apr-08	17	17	11	10	7	3	3	10	10	11	11	7	6	5	9	7	6	4	5	12	17	13	14	14	14	6.3	16.8
13-Apr-08	16	18	19	20	22	20	22	24	28	22	21	25	24	27	24	18	17	22	24	28	27	19	17	16	16	20.2	27.6
14-Apr-08	17	9	20	13	10	9	11	12	11	13	12	12	10	6	6	8	4	5	8	5	4	20	20	20	20	7.8	20.2
15-Apr-08	17	8	7	6	8	8	8	11	11	10	11	12	14	12	11	9	9	7	14	13	7	6	9	8	8	9.1	17.0
16-Apr-08	6	8	9	9	6	5	6	7	8	6	9	13	18	18	15	9	8	7	6	3	10	12	13	12	12	6.8	17.9
17-Apr-08	13	11	6	8	10	11	14	12	14	12	12	13	9	9	10	9	11	11	8	9	16	27	22	16	16	5.9	27.4
18-Apr-08	9	6	8	7	10	11	14	20	26	32	32	29	27	27	27	34	39	40	38	35	29	28	28	25	25	22.4	40.4
19-Apr-08	25	23	21	22	25	29	31	35	32	31	28	31	24	20	22	25	24	19	17	16	14	13	20	21	21	23.0	34.9
20-Apr-08	19	20	17	18	19	16	17	23	19	20	20	22	26	26	25	25	21	17	9	8	7	8	8	8	8	17.2	25.7
21-Apr-08	12	11	13	12	13	11	13	15	13	15	15	13	13	12	10	8	6	6	4	2	4	4	4	7	7	9.6	15.4
22-Apr-08	8	10	13	14	13	10	10	10	14	15	17	16	17	18	16	13	11	8	3	7	8	9	7	9	9	7.5	17.8
23-Apr-08	9	10	11	12	12	10	5	8	13	15	15	20	20	20	22	22	26	23	23	23	22	21	20	17	17	14.0	25.6
24-Apr-08	13	11	10	9	9	10	10	8	7	6	8	9	8	8	8	7	6	5	3	6	7	10	7	5	5	4.9	13.4
25-Apr-08	6	8	8	9	10	10	7	10	11	12	15	16	14	13	11	10	11	12	10	7	4	1	6	6	6	8.0	16.1
26-Apr-08	4	6	7	6	5	5	6	7	6	7	9	10	10	11	10	11	9	7	4	3	6	10	12	12	12	4.3	12.0
27-Apr-08	6	6	5	3	4	4	2	6	8	18	24	25	24	25	25	26	28	26	21	20	25	27	23	17	17	16.2	28.2
28-Apr-08	11	7	3	4	5	1	6	10	13	13	11	9	8	5	5	7	14	12	13	18	22	12	14	14	14	0.9	22.4
29-Apr-08	12	11	11	11	11	12	8	12	13	14	17	20	23	24	17	9	14	8	8	11	17	9	12	2	2	11.4	24.1
30-Apr-08	9	11	12	1	12	17	13	12	11	12	13	14	13	11	11	10	11	13	12	7	8	11	4	4	4	5.8	16.5
1-hr Vector	2.6	1.9	2.2	3.1	3.5	3.7	4.1	4.6	5.1	4.8	4.4	3.9	4.4	3.9	4.8	3.9	3.1	2.6	3.1	4.1	5.0	4.8	3.2	2.6	2.6		
Hourly Max	25.4	23.4	20.8	21.7	24.9	28.9	30.9	34.9	31.8	32.1	32.0	30.7	26.9	27.0	26.7	34.4	38.5	40.4	38.1	34.5	28.5	27.7	27.6	25.0	25.0		



PAS – Brooks Wind Direction Monthly Summary

Station: Portable-Brooks
Station Owner: PAS

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs				
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%				
Percentile	99	95	75	50	25	5	1	Average
	357.0	344.1	305.9	219.3	133.7	15.8	3.3	310 deg

Status Flag Characters

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

Day	Mountain Standard Time																								24-hour Average	WD Sector	
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1-Apr-08	181	131	74	218	249	241	270	243	231	238	230	227	229	215	235	217	321	101	130	147	165	189	205	201	SSW		
2-Apr-08	231	250	256	311	305	294	278	297	324	331	337	322	321	280	293	284	264	261	240	207	192	190	195	203	269	W	
3-Apr-08	210	221	231	240	229	228	295	315	319	323	312	311	319	307	297	307	237	205	206	187	129	86	30	28	277	W	
4-Apr-08	27	352	315	269	235	263	249	244	257	248	187	201	227	30	303	34	51	50	54	75	87	98	98	98	70	ENE	
5-Apr-08	91	89	76	60	50	57	57	64	63	83	98	96	135	150	155	168	178	194	194	152	143	136	173	198	120	ESE	
6-Apr-08	204	224	254	238	234	279	294	317	345	2	360	34	9	201	316	10	42	95	116	104	113	129	122	126	101	E	
7-Apr-08	131	162	4	20	337	348	357	5	360	10	14	19	4	7	4	26	39	57	73	129	357	4	46	310	19	NNE	
8-Apr-08	313	29	233	245	263	263	244	245	277	300	248	197	208	194	178	127	159	188	163	169	185	200	191	190	194	SSW	
9-Apr-08	180	200	197	195	205	240	263	246	248	206	201	209	225	219	226	239	240	235	188	152	117	147	164	151	204	SSW	
10-Apr-08	190	218	214	249	292	314	320	333	338	336	336	319	312	318	335	333	338	315	305	350	355	353	301	284	318	NW	
11-Apr-08	285	294	293	252	258	293	285	305	312	317	209	267	278	297	303	307	314	319	349	109	125	150	175	113	286	WNW	
12-Apr-08	127	129	158	205	181	131	231	211	192	201	197	221	227	317	289	292	341	357	122	141	155	180	183	188	183	S	
13-Apr-08	187	189	188	188	187	187	190	192	200	212	240	245	248	251	248	238	229	211	206	203	210	216	219	219	219	213	SSW
14-Apr-08	211	227	12	10	342	335	344	3	343	1	346	350	351	357	9	16	357	130	145	65	71	30	19	24	6	N	
15-Apr-08	16	357	314	310	314	315	316	315	318	323	343	358	346	270	284	320	341	329	351	340	336	307	314	312	328	NNW	
16-Apr-08	305	297	295	293	285	275	286	295	298	282	245	219	212	210	204	219	289	317	322	207	175	192	192	179	240	WSW	
17-Apr-08	193	208	238	211	212	214	208	212	210	237	236	234	259	277	294	301	266	283	293	297	351	16	23	24	265	W	
18-Apr-08	3	285	289	313	13	27	40	45	57	62	53	56	63	63	33	26	32	32	31	31	19	20	22	21	35	NE	
19-Apr-08	19	20	10	12	22	25	27	27	12	13	9	8	2	358	360	3	4	2	357	342	345	341	341	341	8	N	
20-Apr-08	341	341	338	338	338	335	340	336	336	337	338	339	342	342	341	340	340	331	328	324	328	310	280	336	336	NNW	
21-Apr-08	286	306	311	303	298	289	290	292	300	297	294	275	281	269	281	279	281	337	326	302	245	252	261	287	290	WNW	
22-Apr-08	265	256	249	248	255	262	274	266	258	267	303	312	306	317	317	319	336	350	59	106	143	170	181	205	280	W	
23-Apr-08	212	205	195	191	188	183	164	183	186	158	151	137	148	117	110	123	117	109	111	110	108	107	100	99	133	SE	
24-Apr-08	92	86	43	18	11	16	15	10	356	321	325	323	325	333	338	348	347	341	49	72	116	132	112	110	23	NNE	
25-Apr-08	104	31	25	20	345	344	328	335	329	334	340	348	344	343	334	335	351	11	8	2	30	1	213	207	349	N	
26-Apr-08	203	207	209	207	216	252	243	245	296	302	298	305	311	316	313	320	320	310	322	95	136	185	197	205	266	W	
27-Apr-08	206	104	170	167	120	211	178	127	127	151	156	151	149	141	145	135	130	128	127	125	127	133	134	153	140	SE	
28-Apr-08	200	245	293	280	351	263	314	316	339	339	326	322	314	324	295	203	135	104	100	122	135	146	171	197	215	SW	
29-Apr-08	204	186	195	196	220	218	232	232	252	249	208	184	187	175	179	196	189	276	323	240	254	237	233	212	212	SSW	
30-Apr-08	194	174	170	255	311	323	317	317	315	322	329	333	340	336	335	337	350	26	42	71	69	59	82	219	339	NNW	
Hourly Avg	195	218	265	271	287	301	311	318	315	320	314	311	294	293	301	331	357	28	64	108	121	121	139	166			



PAS – Brooks Standard Deviation of Wind Direction Monthly Summary

Station: Portable-Brooks
Station Owner: PAS

HOURLY AVERAGE TABLE

Wind Direction (WD)

Monitoring Dates: April 1, 2008 to May 1, 2008

Summary

Determined by the Yamartino 15-min interval calculation

Calm Time:	0 hrs	0% calms	Operational Time:	720 hrs			
Calibration Time:	0 hrs		AMD Operational Uptime:	100.0%			
Percentile	99	95	75	50	25	5	1
	79.4	59.5	23.8	12.3	6.5	3.6	2.3

Status Flag Characters

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

Day Mountain Standard Time

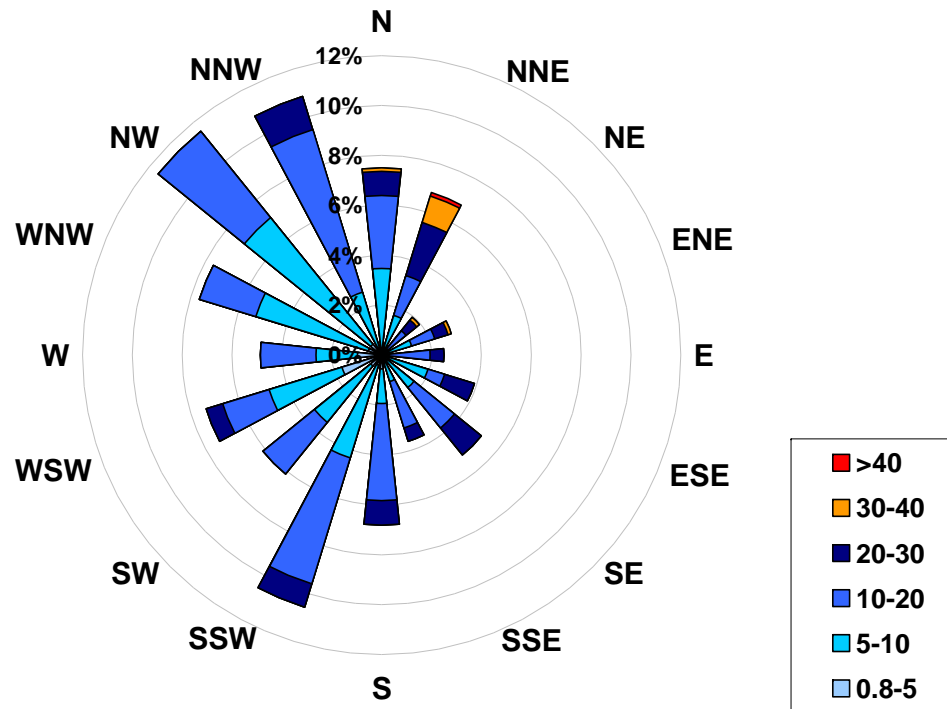
Hour Start	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00
Hour End	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	
1-Apr-08	42	39	29	52	36	43	57	42	28	22	36	48	31	35	36	69	91	39	22	5	3	15	6	5	
2-Apr-08	39	18	22	23	11	12	23	15	12	16	13	17	27	40	27	24	20	20	15	8	2	2	3	3	
3-Apr-08	5	9	13	7	13	9	20	8	7	12	21	20	28	29	22	26	55	8	6	16	60	41	17	14	
4-Apr-08	39	20	31	30	8	16	19	16	12	16	49	67	75	60	66	23	12	9	4	9	5	3	4	6	
5-Apr-08	6	6	10	8	9	8	5	7	9	20	16	14	13	14	21	18	19	16	11	19	4	2	19	6	
6-Apr-08	5	14	22	13	13	26	27	14	17	19	22	46	83	76	87	76	39	11	46	19	6	8	7	17	
7-Apr-08	35	25	74	30	29	24	16	11	16	16	19	19	21	26	45	33	30	29	14	47	61	15	11	64	
8-Apr-08	67	51	29	78	18	27	25	45	28	77	84	61	63	68	28	44	20	14	9	8	11	28	7	9	
9-Apr-08	38	22	10	11	7	35	22	16	30	51	38	23	23	32	23	22	28	17	25	7	12	38	33	31	
10-Apr-08	14	8	6	31	23	9	10	12	10	12	14	13	12	13	15	15	14	13	7	20	11	13	16	7	
11-Apr-08	9	8	8	25	26	10	16	39	20	45	75	57	26	26	28	29	26	35	18	38	11	34	63	34	
12-Apr-08	2	4	31	6	35	49	57	8	10	16	17	46	57	64	32	41	40	54	36	3	8	6	6	4	
13-Apr-08	6	3	5	4	3	2	4	4	4	17	9	6	7	8	8	8	11	5	6	4	3	3	4	4	
14-Apr-08	4	40	20	11	7	9	9	12	11	14	17	12	13	25	38	39	63	80	31	30	59	20	4	5	
15-Apr-08	5	23	11	9	7	6	7	5	6	10	21	29	18	24	36	25	21	28	15	8	8	16	6	7	
16-Apr-08	6	6	4	4	10	10	11	14	15	40	32	25	19	21	21	49	24	30	21	31	17	8	3	8	
17-Apr-08	14	4	9	19	3	4	2	6	10	14	16	19	28	35	27	36	23	14	9	6	25	5	3	4	
18-Apr-08	21	23	12	16	11	7	4	12	6	7	6	9	9	12	12	6	6	6	4	5	4	4	3	5	
19-Apr-08	4	4	6	7	4	4	6	4	4	5	4	4	5	6	6	4	4	6	6	5	8	7	4	5	
20-Apr-08	4	4	5	5	5	6	6	5	5	6	6	6	5	6	5	5	4	6	6	7	5	12	9	17	
21-Apr-08	16	5	7	6	5	8	6	5	8	6	7	9	12	8	14	12	19	18	35	35	19	17	26	13	
22-Apr-08	10	5	6	4	5	7	8	11	4	10	10	7	7	5	6	8	11	14	51	29	13	17	6	5	
23-Apr-08	2	3	3	3	2	12	29	11	9	7	11	8	12	8	7	5	4	4	4	3	3	4	3	4	
24-Apr-08	8	17	13	6	6	6	5	7	8	24	14	9	17	16	17	15	17	23	36	17	13	5	20	12	
25-Apr-08	16	17	7	14	7	7	9	7	7	8	7	10	10	10	12	16	14	6	4	13	15	61	8	9	
26-Apr-08	8	8	5	8	25	9	14	10	25	14	10	9	13	14	16	12	14	16	33	35	25	22	4	7	
27-Apr-08	68	41	26	46	30	50	61	26	12	9	6	6	10	8	8	8	4	5	3	3	1	3	3	10	
28-Apr-08	16	19	60	60	38	91	26	10	11	12	17	23	34	30	63	58	65	9	5	7	10	6	20	5	
29-Apr-08	5	20	9	11	11	13	12	10	13	12	18	14	13	14	33	40	17	39	8	61	8	39	15	87	
30-Apr-08	19	5	8	88	22	5	6	6	8	12	12	12	13	13	10	13	11	26	16	11	18	5	49	49	

Daily Maximum
90.7
39.6
59.6
75.4
20.6
86.7
73.8
83.9
51.3
30.9
75.0
63.6
17.1
79.6
36.0
48.5
36.4
23.0
7.9
16.5
35.0
51.1
28.6
36.1
60.7
34.6
68.1
90.9
86.6
87.5

Hourly Max	68	51	74	88	38	91	61	45	30	77	84	67	83	76	87	76	91	80	51	61	61	61	63	87
------------	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----



1-hr Average Wind Rose (in km/hr) Located at the Portable-Brooks Site for April 2008



Calms: 0%

Frequency Distribution of Wind in km/hr			
Range			Frequency (hrs)
0.8	<	5	46
5	to	10	264
10	to	20	306
20	to	30	87
30	to	40	11
	>	40	1
Total Non-Zero Values			720



Palliser Airshed Society

Passive Monitoring – April 2008



Palliser Airshed Society - Palliser Passive Stations for April 2008 Palliser Passive Monitoring Expansion

Station Number	Station Name	SO2 ppb	O3 ppb	NO2 ppb	Location		Elevation meter
					Easting	Northing	
Duplicates							
8a	Site 8	0.4	46.7	0.8			
8b	Site 8	0.4	49.0	0.8			
18a	Site 18 - Christian School Park	0.2	42.6	3.9			
18b	Site 18 - Christian School Park	0.2	39.4	3.3			
1	Site 1	0.2	50.6	0.6	562434	5583139	719
2	Site 2	0.3	44.1	0.1	565416	5616277	
3	Site 3	0.3	46.0	0.1	533794	5675379	779
4	Site 4	0.3	49.4	0.4	554771	5717338	718
5	Site 5	0.2	46.0	0.2	494218	5715862	735
6	Site 6	0.3	54.1	0.7	433039	5673766	818
7	Site 7	0.3	43.6	1.3	400808	5620907	780
8	Site 8	0.4	45.8	2.3	498530	5621839	747
9	Site 9	0.3	52.8	1.0	487701	5591707	763
10	Site 10	0.3	40.8	1.1	478223	5613583	774
11	Site 11 - Brooks	0.5	42.2	4.7	439773	5604548	736
12	Site 12	0.4	39.7	1.0	450287	5587201	726
13	Site 13	0.3	47.4	N/A	464279	5548934	
14	Site 14	0.2	48.6	0.5	493206	5521201	870
15	Site 15	0.2	56.4	0.7	465824	5485742	874
16	Site 16	0.1	45.8	0.0	503827	5446942	903
17	Site 17	0.1	43.3	0.0	557668	5452307	942
18	Site 18 - Christian School Park	0.2	41.0	3.6	526575	5538135	709
19	Site 19 - Monitoring Station	0.3	41.9	4.3	522813	5544137	714
20	Site 20 - Redcliff	0.3	45.1	1.9	517479	5546059	725

BDL = Below Detection Limit



Alberta Ambient Air Quality Objective - Annual SO₂ Objective is 11 ppb

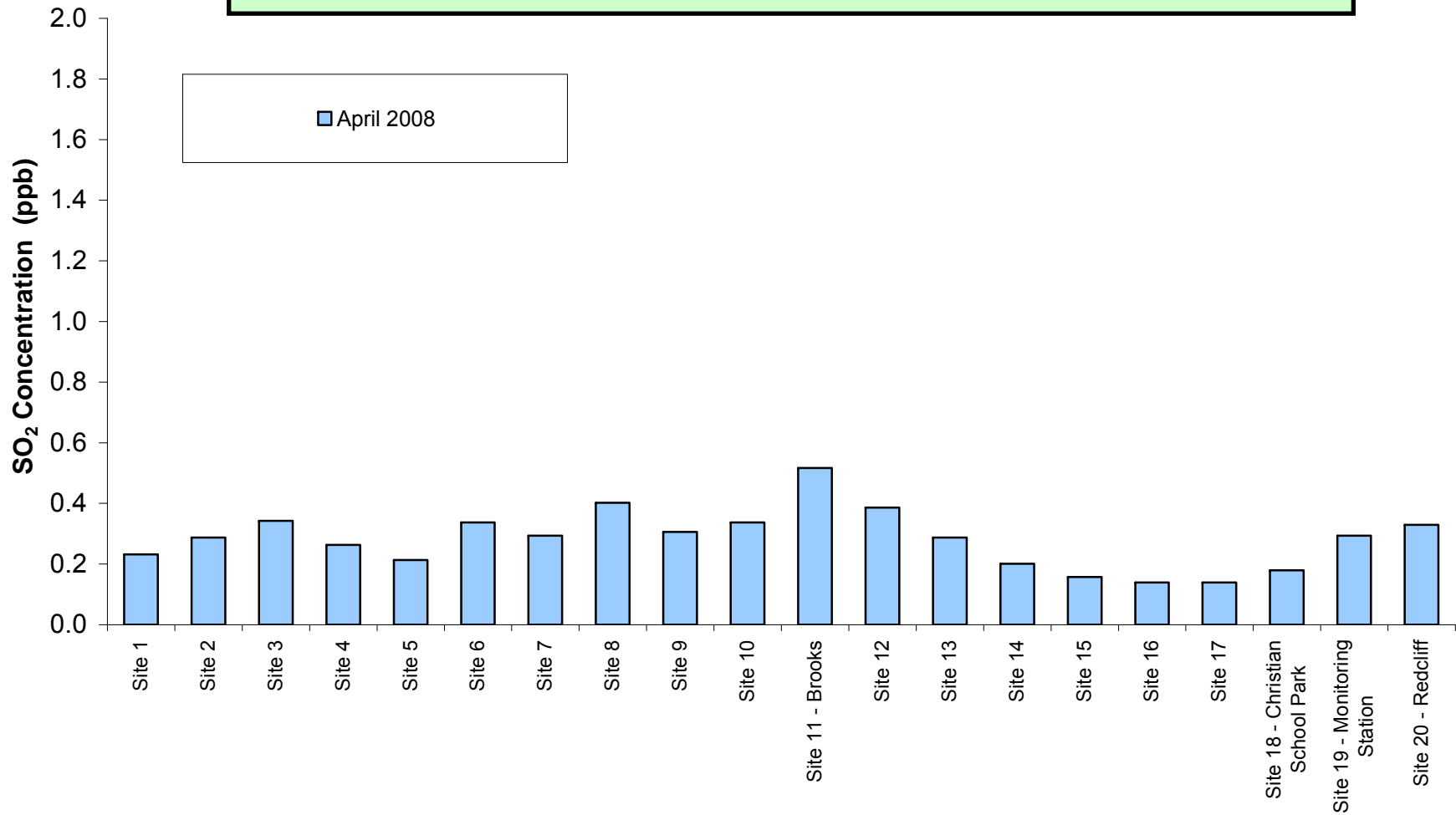


Figure 24. PAS – Sulphur Dioxide Passive Summary Chart

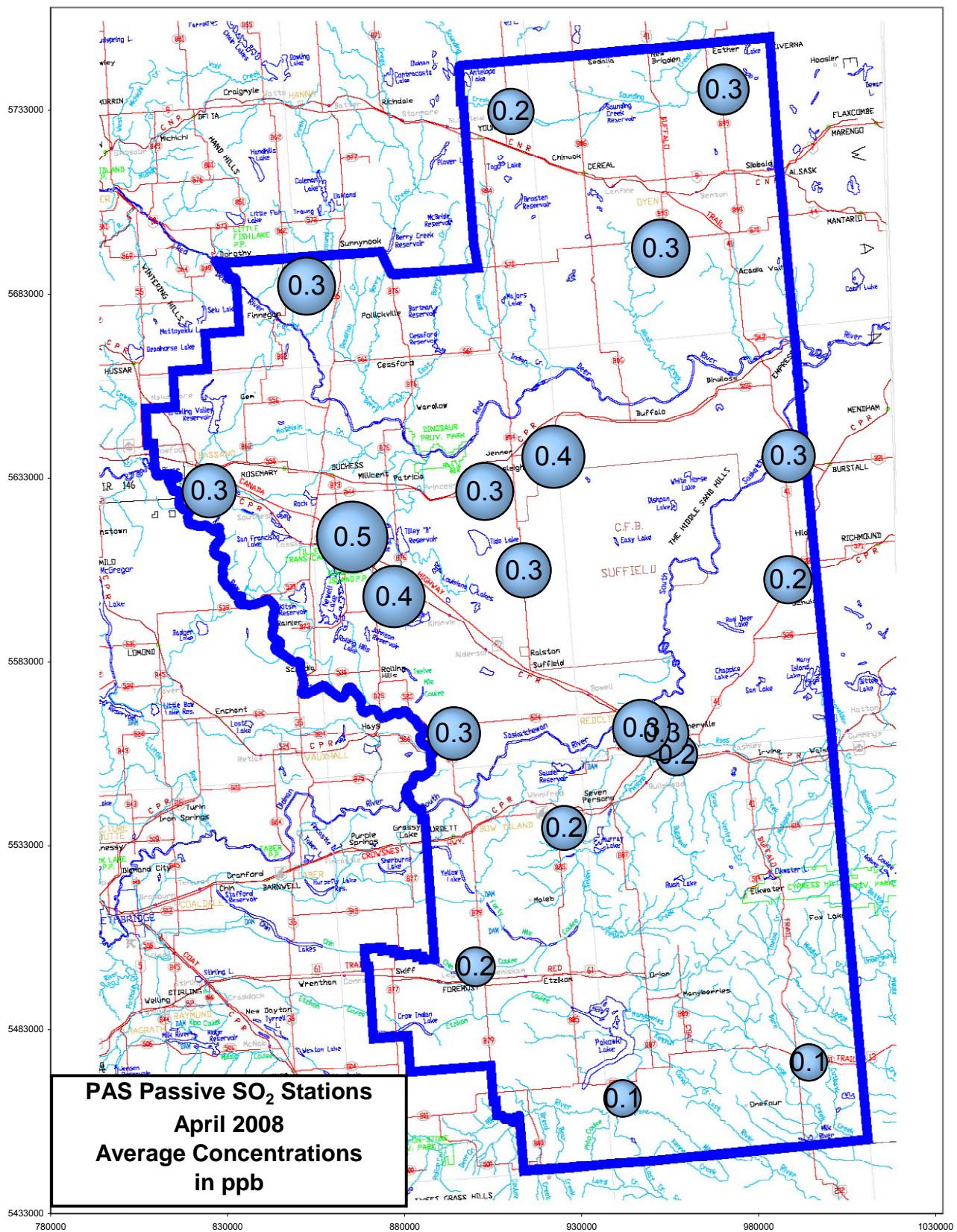


Figure 25. PAS – Sulphur Dioxide Passive Summary Bubble Chart

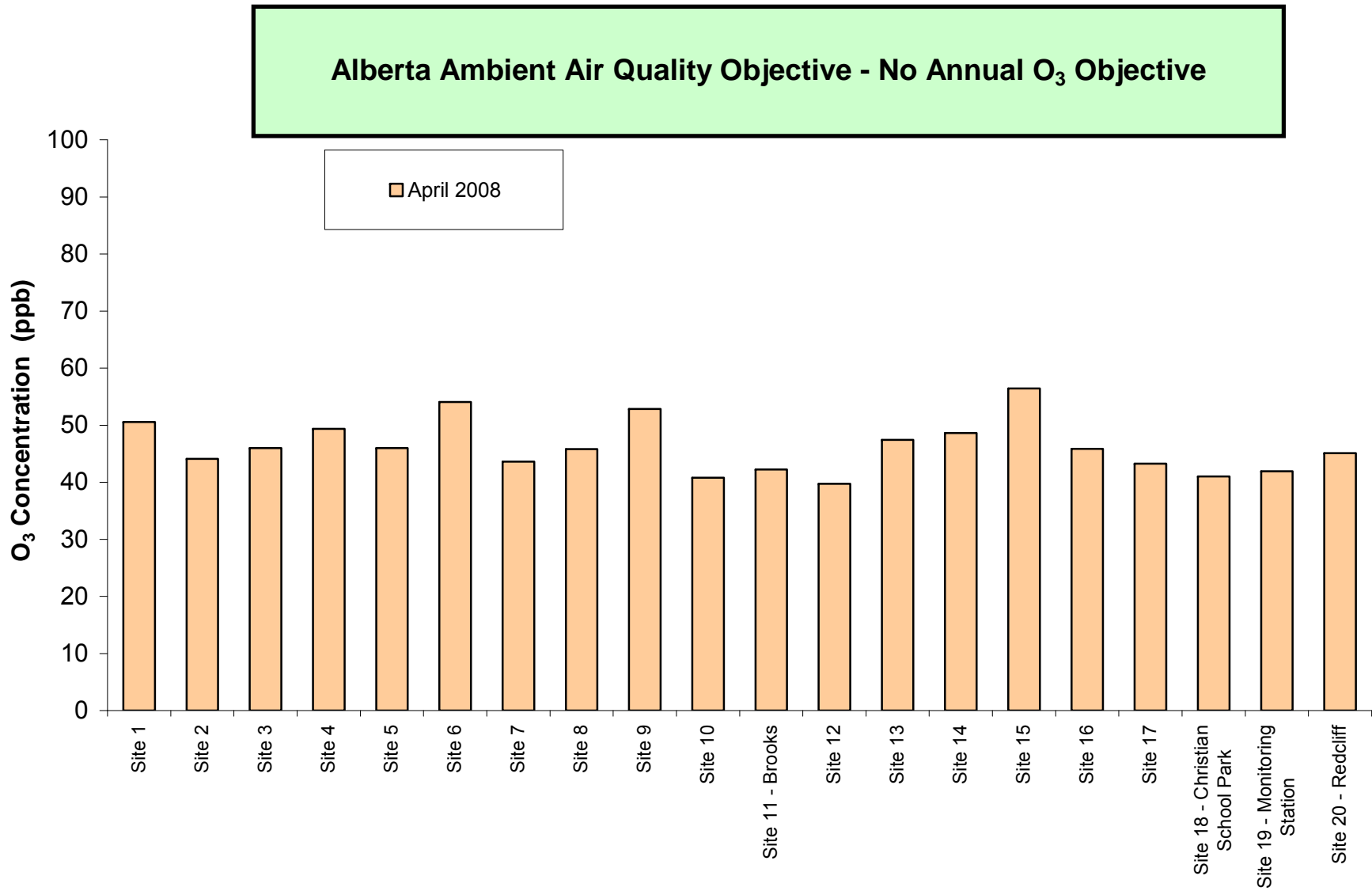


Figure 26. PAS – Ozone Passive Summary Chart

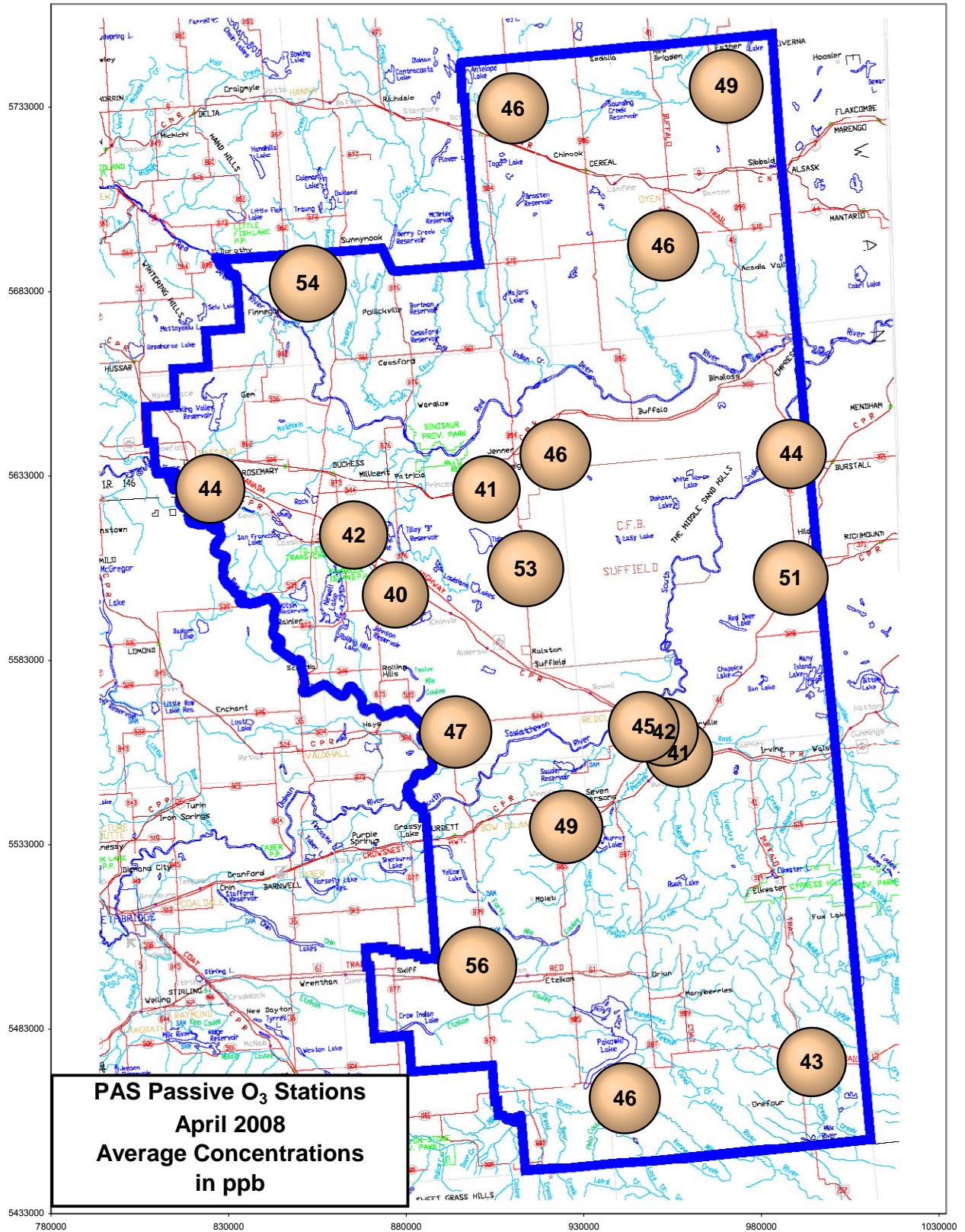


Figure 27. PAS – Ozone Passive Summary Bubble Chart



Alberta Ambient Air Quality Objective - Annual NO₂ Objective is 32 ppb

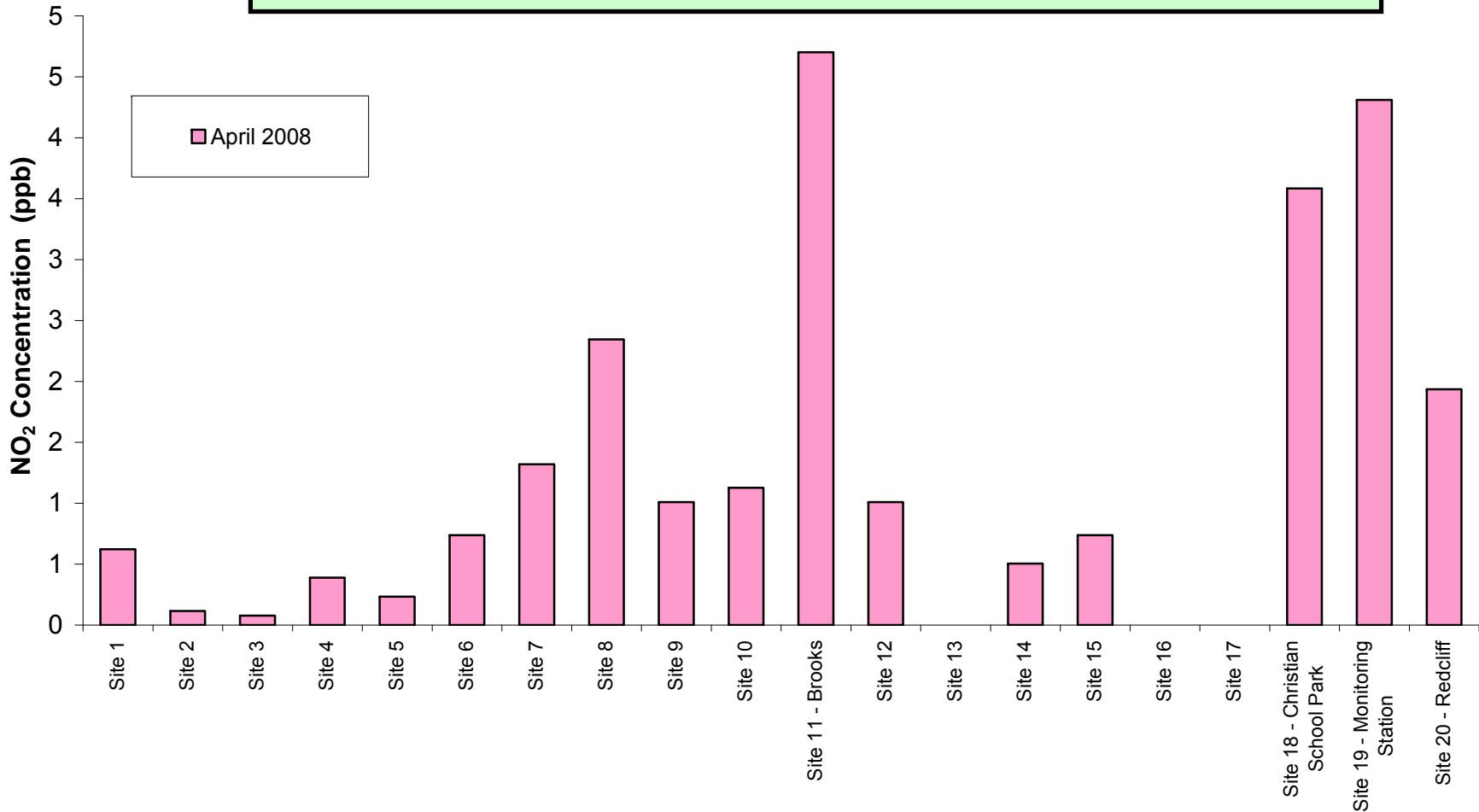


Figure 28. PAS – Nitrogen Dioxide Passive Summary Chart

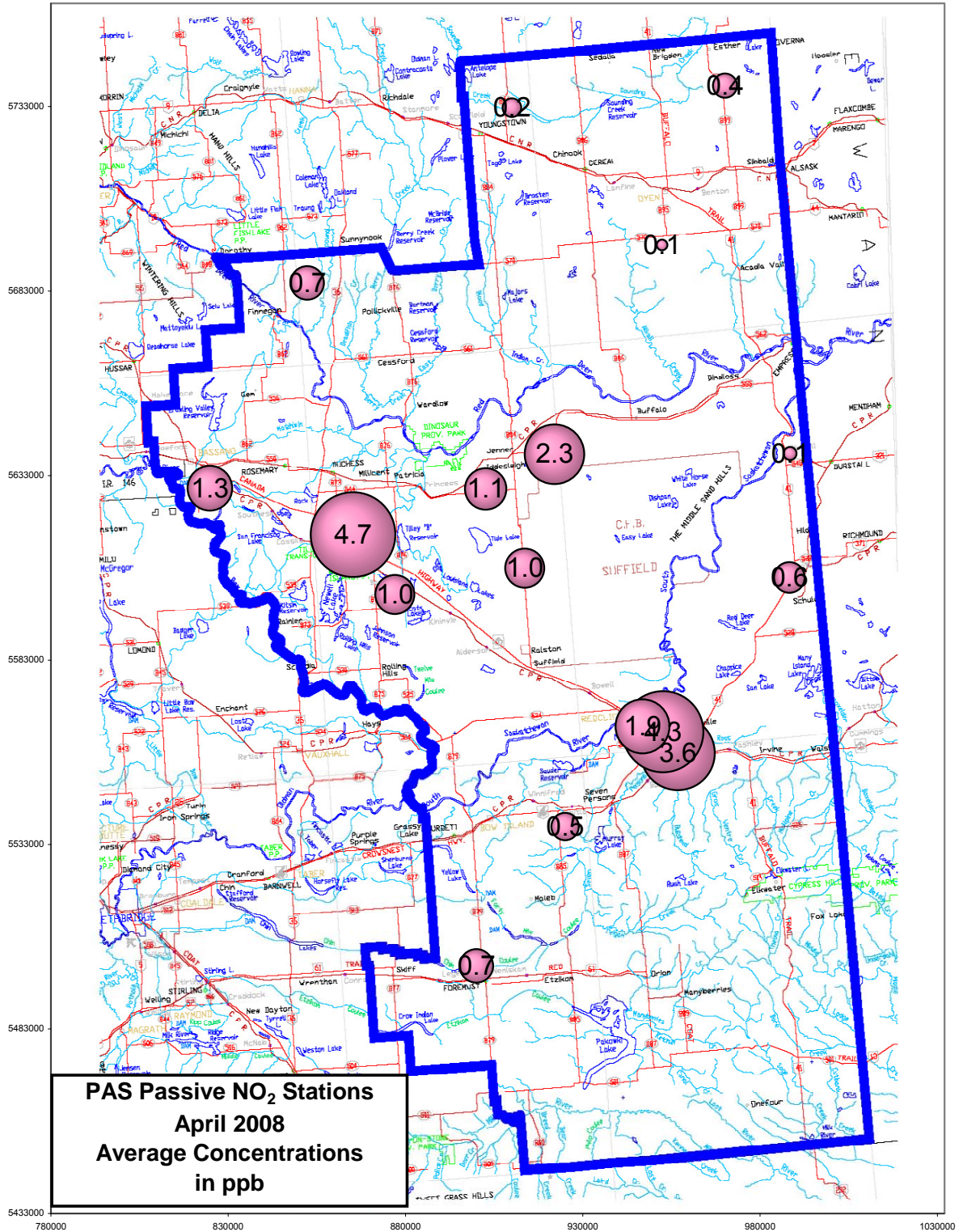


Figure 29. PAS – Nitrogen Dioxide Passive Summary Bubble Chart

Palliser Airshed Society

April 2008 - Calibration Reports

Crescent Heights Station: O₃, NO_x, NO, NO₂, THC, CO and PM_{2.5}

Portable-Brooks: O₃, SO₂, and H₂S

Calibration Report



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

Station Information

Calibration Date	April 18, 2008	Previous Calibration	March 31, 2008
Station Number	101	Station Location	Crescent Heights
Reason:	Routine	Calibration	Removal
			Other:
Start Time (MST)	12:55	End Time (MST)	15:20
Barometric Pressure	27.4 inches Hg	Station Temperature	20.0 Deg C
Calibrator	Dasibi 5008	Serial Number	723
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	45270
DACS voltage range	0 - 10 volt	DACS channel #	5
	Before		After
Calculated slope	0.965994	Calculated slope	0.981692
Calculated intercept	0.145275	Calculated intercept	-1.418883
Analyzer make	TEI 49i	Analyzer serial #	713021144

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
O3 Background	0.5	ppb	0.5	ppb
O3 Coeff	1.004		1.033	
CellA	74419.0	Hz	69634	Hz
CellB	105907.0	Hz	104582	Hz
Pressure	692.1	mmHg	686.1	mmHg
Cell A Flow	725.0	ccm	716	ccm
Cell B Flow	709	ccm	698	ccm
Bench	29.2	Deg C	33.2	Deg C

Calibration Data

Dilution air flow rate (cc/min)	Ozone Set Point	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
5000	0.0	0.0	0.6	N/A
5000	300.0	285.1	290.9	0.9799
5000	200.0	162.6	168.3	0.9662
5000	100.0	107.2	111.2	0.9638
5000	0.0	0.0	0.6	0.0000
5000	300.0	285.1	290.9	0.9799
Average Correction Factor				0.9700

Calculated value of As Found Response: 280.6 ppm Percent Change of As Found: -1.6%

	before calibration		after calibration	
Auto zero	1.5	ppb	3.2	ppb
Auto span	277.8	ppb	153.2	ppb

Notes: No adjustments were done...

Calibration Performed By: Lenin Flores

Calibration Summary

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

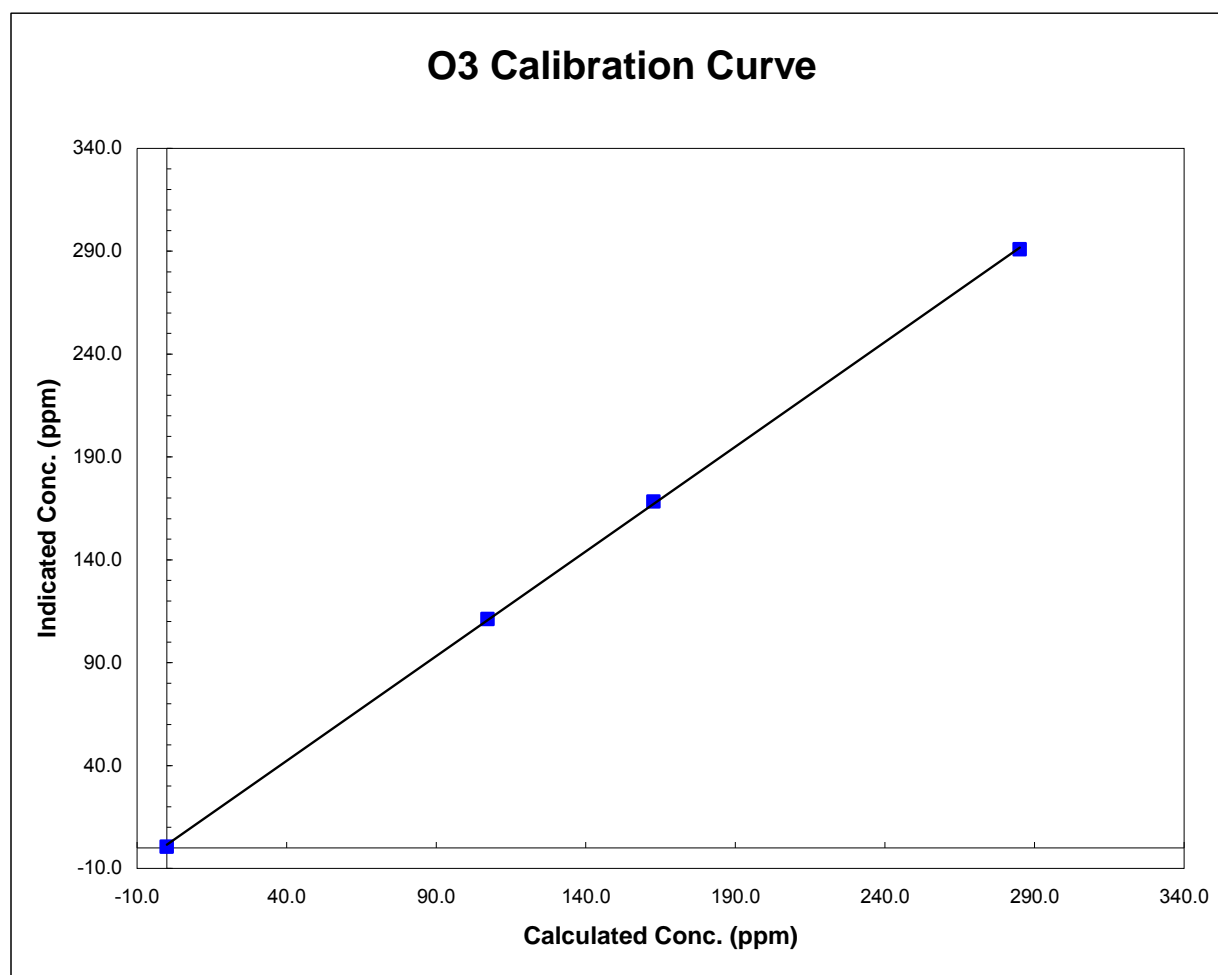


Station Information

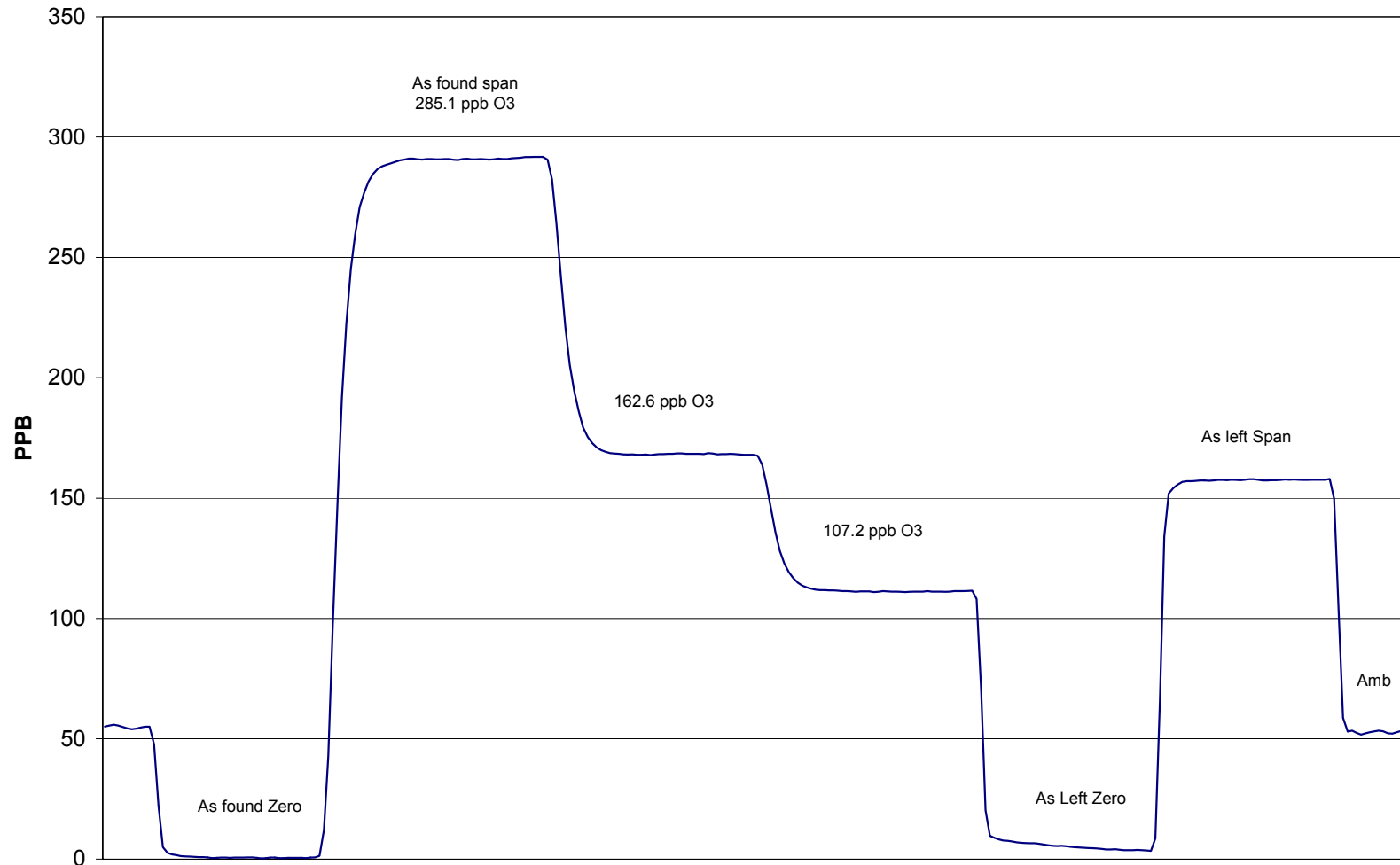
Calibration Date	April 18, 2008	Previous Calibration	March 31, 2008
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	12:55	End Time (MST)	15:20
Analyzer make/model	TEI 49i	Analyzer serial #	713021144

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
285.1	290.9	0.9799	Correlation Coefficient	0.999922
162.6	168.3	0.9662		
107.2	111.2	0.9638		
0.0	0.6	N/A	Slope	0.981692
			Intercept	-1.418883



Crescent Heights O3 Calibration



April 18, 2008

Calibration Report

Parameter
Air Monitoring Network

NO_x-NO-NO₂
Palliser Airshed



Station Information

Calibration Date	April 18, 2008	Previous Calibration	March 28, 2008
Station Number	101	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Installation	<input type="checkbox"/> Removal
Start Time (MST)	9:30	End Time (MST)	13:53
Barometric Pressure	0.914 Atm	Station Temperature	20.0 Deg C
Calibrator	Dasibi	Serial Number	723
NO Cal Gas Conc	48.9 ppm	Cal Gas Expiry Date	January 29, 2008
NOx Cal Gas Conc	48.9 ppm	Cal Gas Serial #	LL-50114

DACS Information

DACS make FOCUS AP1000 DACS serial No. 45270

Parameter	NO2	NOx	NO
Before	Data Slope	1.010183	1.007694
	Data Offset	2.145940	0.443072
After	Data Slope	1.000571	1.029090
	Data Offset	0.798603	0.413419
Channel #	8	6	7
Voltage Range	0 - 10 VDC	0 - 10 VDC	0 - 10 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 offset	-9.0	mV	-9.0	mV
NOx offset	-5.5	mV	-5.5	mV
NO slope	1.237		1.312	
NOx slope	1.227		1.310	
R Cell Temp	49.6	Deg C	49.6	Deg C
PMT Temp	7.0	Deg C	7.0	Deg C
Azero	57.9	mV	57.8	mV
IZS Temp	37.1	Deg C	37.0	Deg C
R Cell Press	4.2	in Hg	4.2	in Hg
Sample Press	26.1	in Hg	26.9	in Hg
O3 Flow	75.0	ccm	74.0	ccm
Sample Flow	450.0	ccm	441.0	ccm

Notes: No adjustments performed...

Calibration Report

Parameter

NO_x-NO-NO₂

Air Monitoring Network

Palliser Airshed



Station Information

Calibration Date: April 18, 2008

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	5000	0.00	0.0	0.0	0.0	-2.1	-2.4	-2.8	N/A	N/A
1	5000	40.00	388.1	388.1	0.0	376.1	373.9	-0.4	1.0319	1.0379
2	5000	20.00	194.8	194.8	0.0	189.0	187.3	-1.4	1.0306	1.0401
3	5000	10.00	97.6	97.6	0.0	96.6	95.6	-2.2	1.0100	1.0213
AFZ	5000	0.00	0.0	0.0	0.0	-2.1	-2.4	-2.8	0.0000	0.0000
AFS	5000	40.00	388.1	388.1	0.0	376.1	373.9	-0.4	1.0319	1.0379
Average Correction Factor									1.0242	1.0331

As Found Concentrations:

NO_x= 378.6

NO= 376.9

As Found Percent Change

NO_x= -2.4%

NO= -2.9%

GPT Calibration Data

Dilution Flow 4996 ccm Source Gas Flow 39.93 ccm

O3 Setpoint (ppb)	Indicated NO high point (ppb)	Indicated NO drop 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	-2.4	-2.4	0.0	-2.1	-2.4	-2.8	N/A	N/A	N/A	N/A
NO point	368.6	368.6	0.0	374.8	368.6	3.6	0.9834	1.0000	N/A	N/A
300	368.6	83.4	285.1	369.1	83.4	282.5	0.9984	1.0000	1.0091	99.1%
200	368.6	205.9	162.6	371.7	205.9	162.7	0.9915	1.0000	0.9995	100.0%
100	368.6	261.4	107.2	373.5	261.4	109.0	0.9867	1.0000	0.9831	101.7%
Average Correction Factor							0.9922	1.0000	0.9973	100.3%

AIC Data

Parameter	Previous calibration			Current calibration				
	NO _x	NO ₂	NO	NO _x	NO ₂	NO		
Auto zero				ppb	-1.3	-2.7	-0.9	ppb
Auto span				ppb	289.9	276.7	3.0	ppb

Calibration Performed By: Jorge Lenin Flores

Calibration Summary

Parameter **NO₂**

Air Monitoring Network **Palliser Airshed**

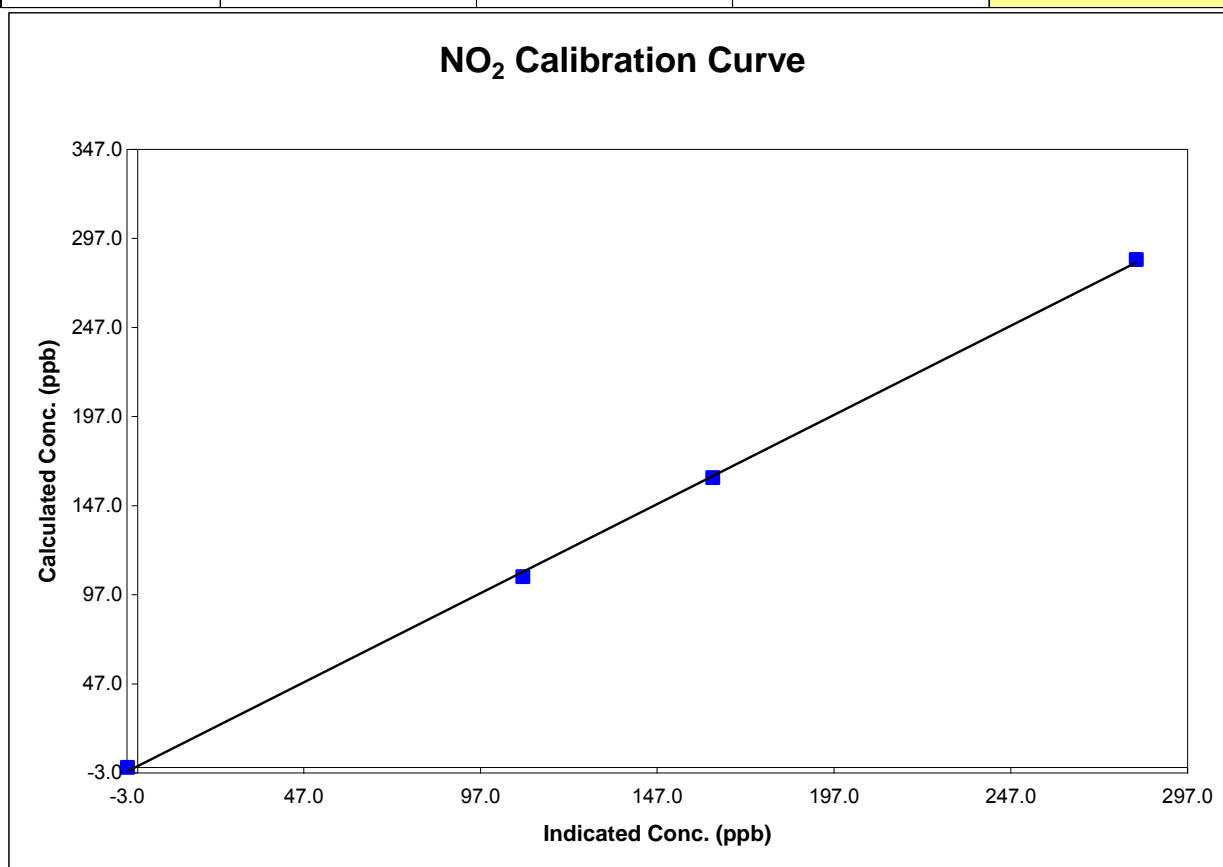


Station Information

Calibration Date	April 18, 2008	Previous Calibration	March 28, 2008
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	9:30	End Time (MST)	13:53
Analyzer make	API Model 200E	Analyzer serial #	219

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-2.8	N/A		
285.1	282.5	1.0091	Correlation Coefficient	0.999643
162.6	162.7	0.9995		
107.2	109.0	0.9831		
			Slope	1.000571
			Intercept	0.798603



Calibration Summary

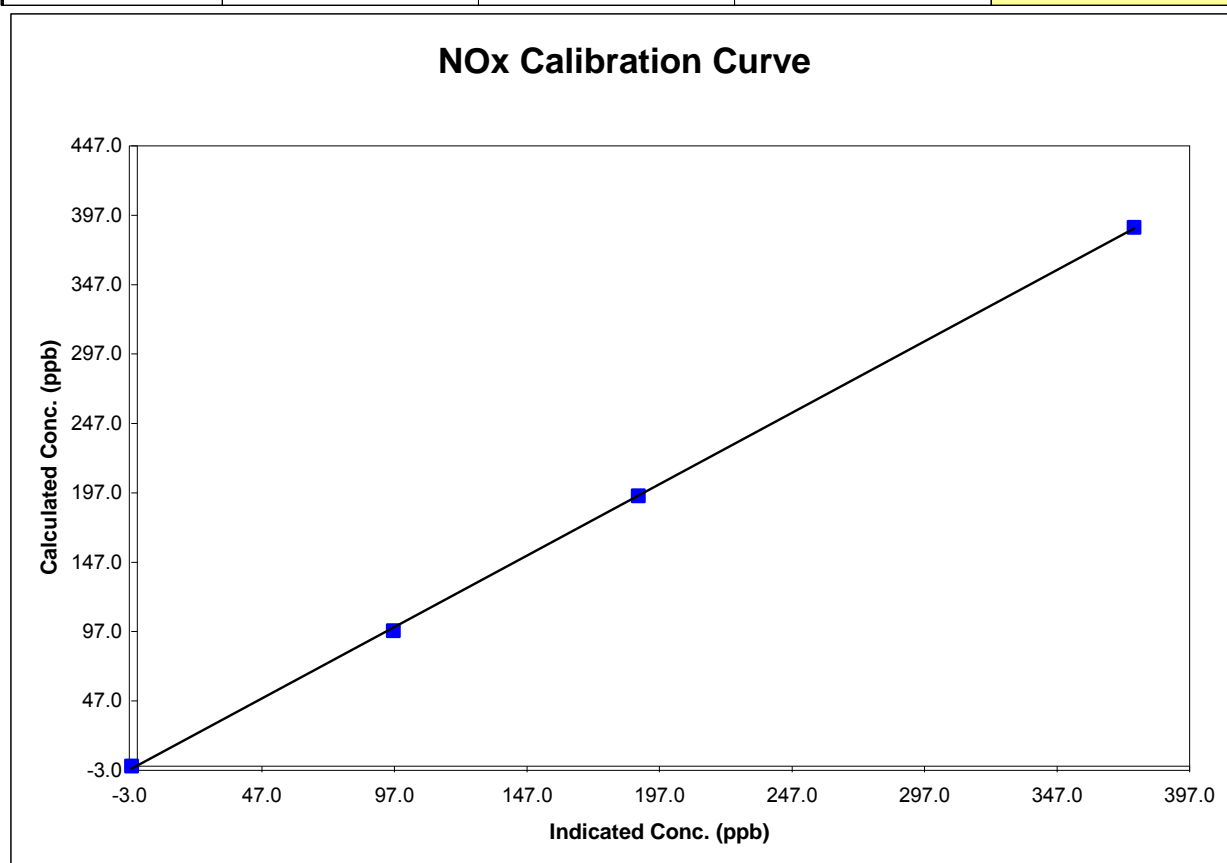
Parameter **NO_x**Air Monitoring Network **Palliser Airshed**

Station Information

Calibration Date	April 18, 2008	Previous Calibration	March 28, 2008
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	9:30	End Time (MST)	13:53
Analyzer make	API Model 200E	Analyzer serial #	219

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-2.1	N/A		
388.1	376.1	1.0319	Correlation Coefficient	0.999896
194.8	189.0	1.0306		
97.6	96.6	1.0100	Slope	1.029090
			Intercept	0.413419



Calibration Summary

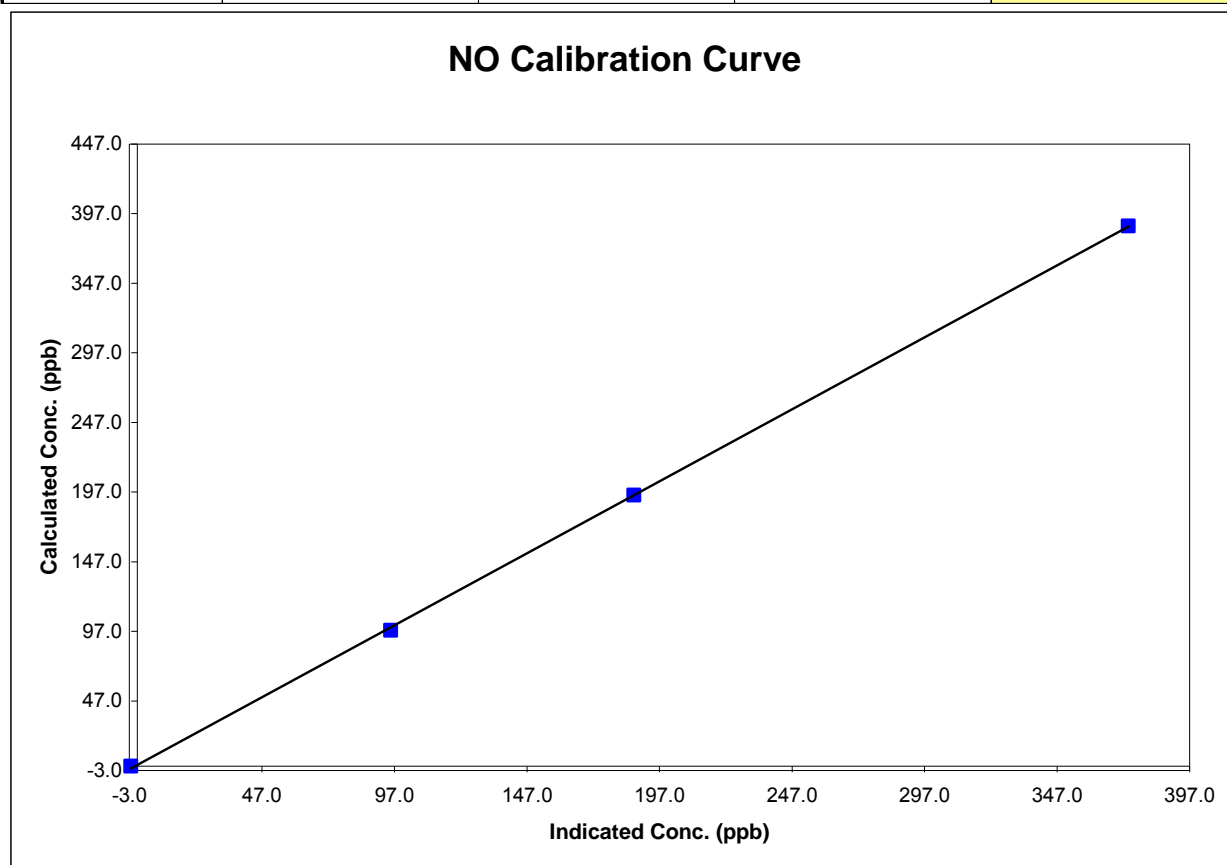
Parameter **NO**Air Monitoring Network **Palliser Airshed**

Station Information

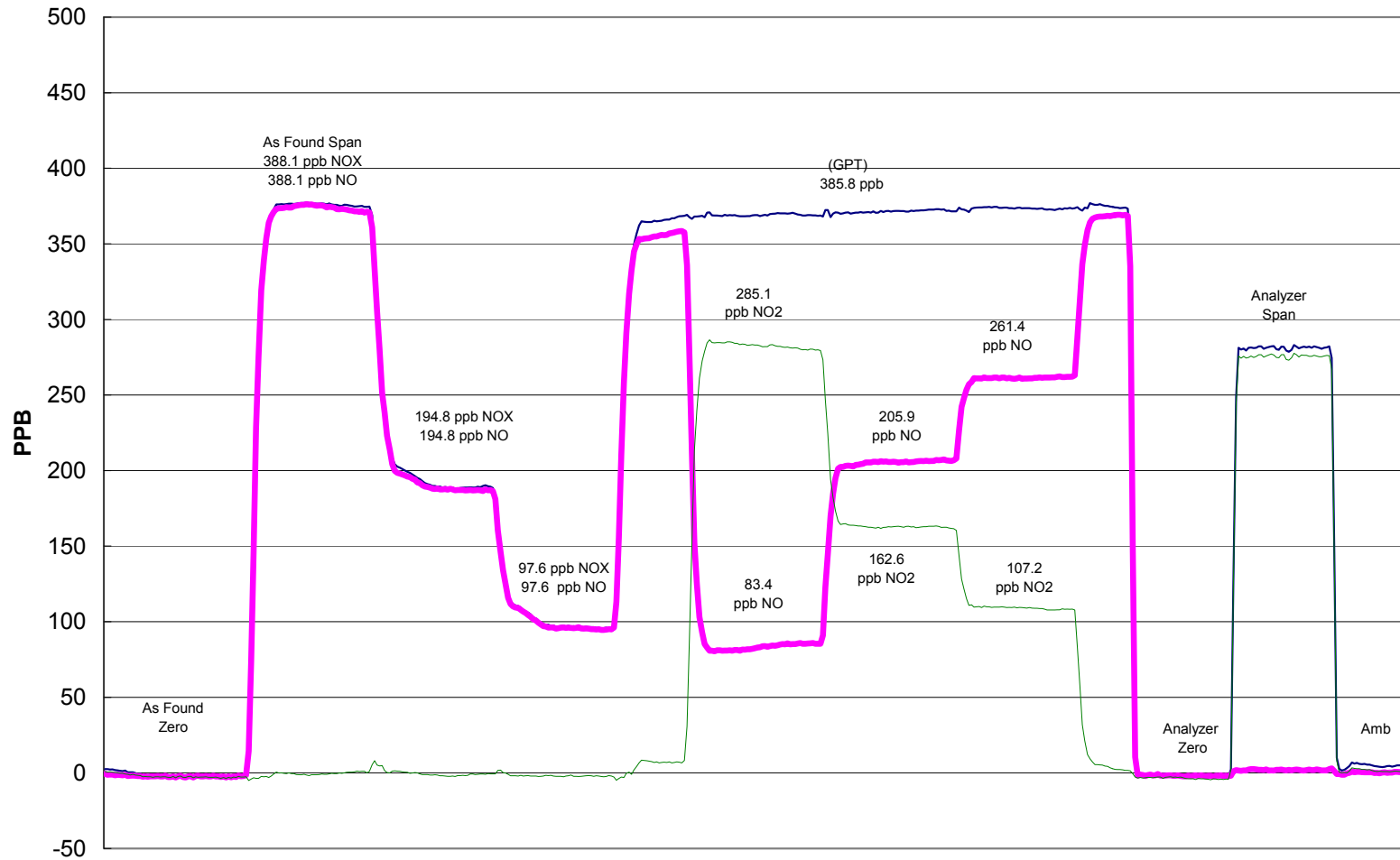
Calibration Date	April 18, 2008	Previous Calibration	March 28, 2008
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	9:30	End Time (MST)	13:53
Analyzer make	API Model 200E	Analyzer serial #	219

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-2.4	N/A		
388.1	373.9	1.0379	Correlation Coefficient	0.999911
194.8	187.3	1.0401		
97.6	95.6	1.0213	Slope	1.034013
			Intercept	0.960647



Crescent Heights NOx Calibration Graph



April 18, 2008

Calibration Report

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



Station Information

Calibration Date	April 30, 2008	Previous Calibration	March 31, 2008
Station Number	101	Station Location	Crescent Heights
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	7:20	End Time (MST)	9:40
Barometric Pressure	27.1 inches Hg	Station Temperature	20.0 Deg C
Calibrator	API700	Serial Number	
Cal Gas Concentration	708 ppm CH ₄ / 299 ppm C ₃ H ₈	Cal Gas Expiry Date	1/25/2009
Cal Gas CH ₄ equiv	1530.25 ppm	Cal Gas Cylinder #	LL-41839
DACS make	Focus AP1000	DACS serial No.	45270
DACS voltage range	0 - 10 volt	DACS channel #	9
	Before		After
Calculated slope	0.996226	Calculated slope	0.985243
Calculated intercept	-0.129358	Calculated intercept	0.060439
Analyzer make	TEI 51C-LT	Analyzer serial #	0407505596

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
THC sample pressure	5.75	PSI	5.75	PSI
THC span counts	12558	raw	12033	raw
THC zero counts	1591	raw	1282	raw
V Bias	-327	Volts	-326	Volts

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
2995	0.00	0.00	-0.01	N/A
2995	79.86	39.74	40.31	0.9861
2995	39.96	20.15	20.34	0.9903
2995	9.96	5.07	5.05	1.0049
2995	0.00	0.00	-0.01	As Found Zero
2995	79.86	39.74	40.31	As Found Span
Average Correction Factor				0.9937

Calculated value of As Found Response: 40.030 ppm Percent Change of As Found: -0.7%

	before calibration		after calibration	
Auto zero	0.00	ppm	0.04	ppm
Auto span	21.07	ppm	19.34	ppm

Notes: No adjustments made...

Calibration Performed By: Lenin Flores

Calibration Summary

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

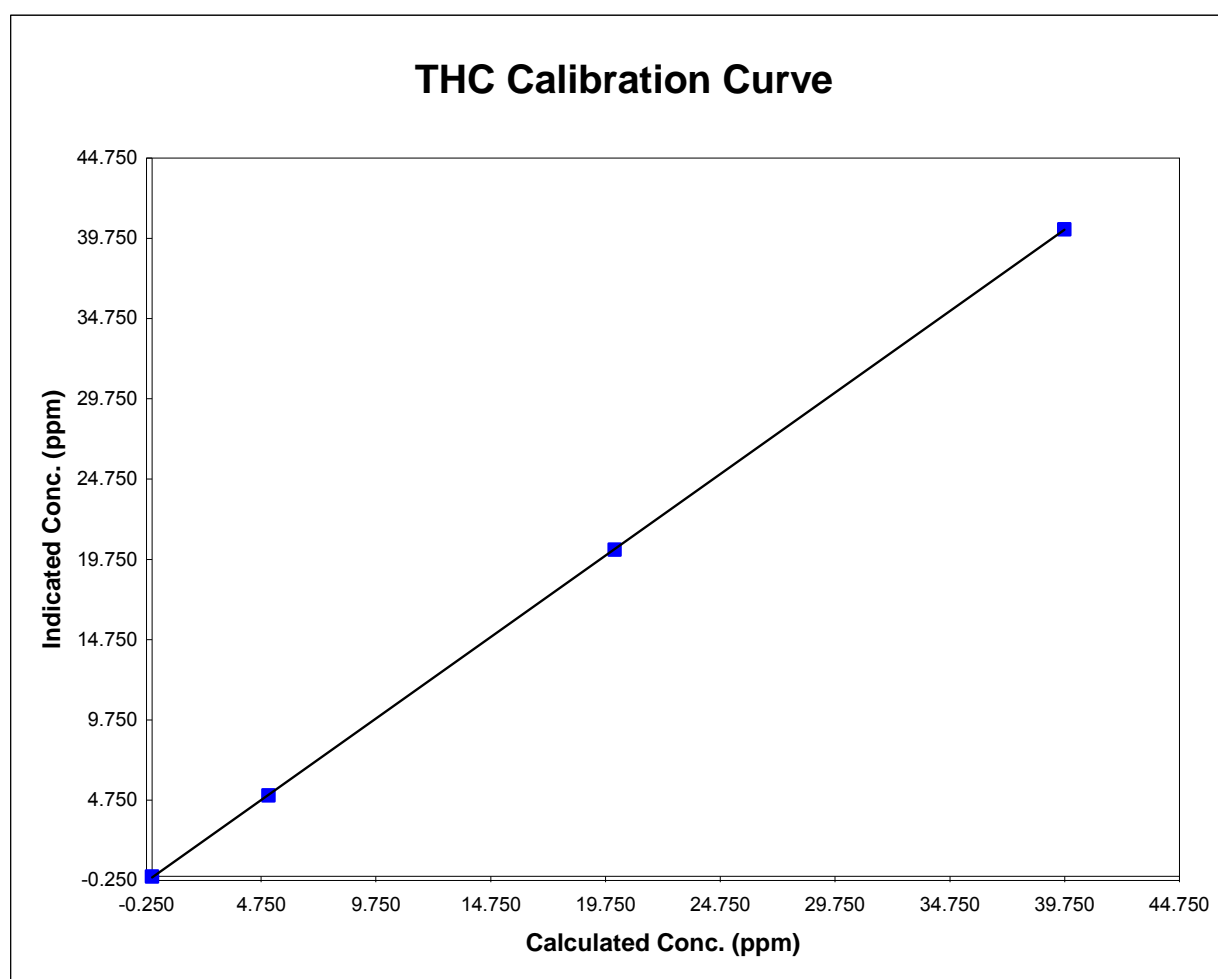


Station Information

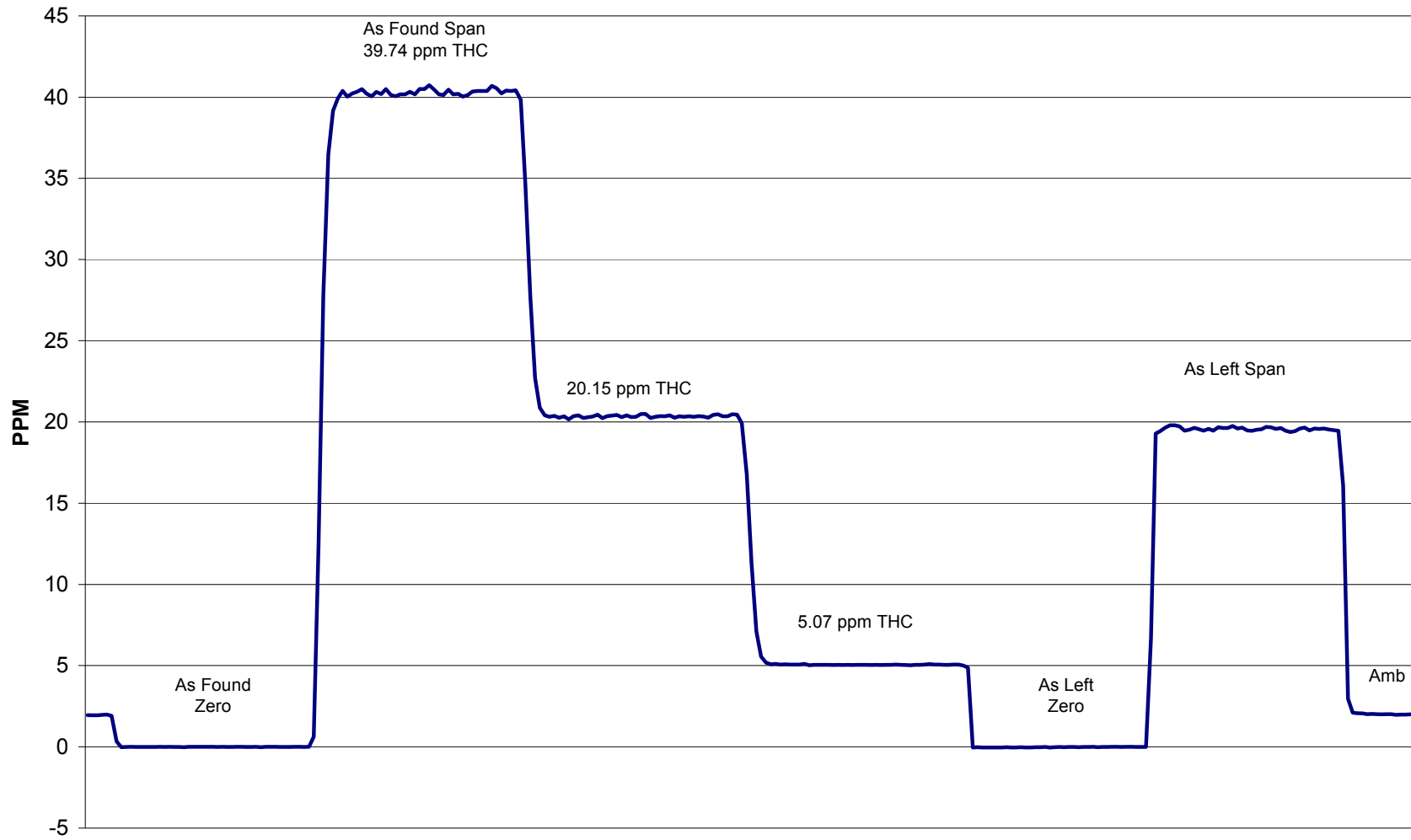
Calibration Date	April 30, 2008	Previous Calibration	March 31, 2008
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	7:20	End Time (MST)	9:40
Analyzer make/model	TEI 51C-LT	Analyzer serial #	0407505596

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.000	-0.006	N/A		
39.745	40.305	0.9861	Correlation Coefficient	0.999993
20.146	20.344	0.9903		
5.074	5.050	1.0049	Slope	0.985243
			Intercept	0.060439



Crescent Heights THC Calibration



April 30, 2008

Calibration Report



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

Station Information

Calibration Date	April 30, 2008	Previous Calibration	March 31, 2008
Station Number	101	Station Location	Crescent Heights
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	8:50	End Time (MST)	12:15
Barometric Pressure	27.05 in Hg	Station Temperature	20.0 Deg C
Calibrator	API 700	Serial Number	
Cal Gas Conc	2998 ppm	Cal Gas Expiry Date	3/14/2008
		Cal Gas Cylinder #	BLM002248
DACS make	Focus AP1000	DACS serial No.	45270
DACS voltage range	0 - 1 volt	DACS channel #	11
	Before		After
Calculated slope	1.006691	Calculated slope	0.997177
Calculated intercept	-0.259028	Calculated intercept	-0.020049
Analyzer make	TEI Model 48C	Analyzer serial #	436609887

	before		after	
Concentration range	0 - 50	ppm	0 - 50	ppm
CO coefficient	1.106		1.106	
CO bkg setting	3.56		4.070	
Lamp ratio	1.138325		1.137516	
Lamp intensity	1999456	Hz	199566	Hz
Sample Flow	1.008	LPM	1.005	LPM

Calibration Data

Dilution air flow rate (cc/min)	Source gas flow rate (cc/min)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
3996	0.00	0.00	0.00	N/A
3996	49.91	36.98	37.10	0.9969
3996	29.95	22.30	22.39	0.9960
3996	9.96	7.45	7.51	0.9917
3996	0.00	0.00	0.50	0.0000
3996	49.91	36.98	38.48	0.9609
Average Correction Factor				0.9948

Calculated value of As Found Response: 37.979 ppm Percent Change of As Found: -2.7%

	before calibration		after calibration	
Auto zero	-0.11	ppm	-0.02	ppm
Auto span	19.35	ppm	19.01	ppm

Notes: Adjusted Zero, Span was OK...

Calibration Performed By: Lenin Flores

Calibration Summary



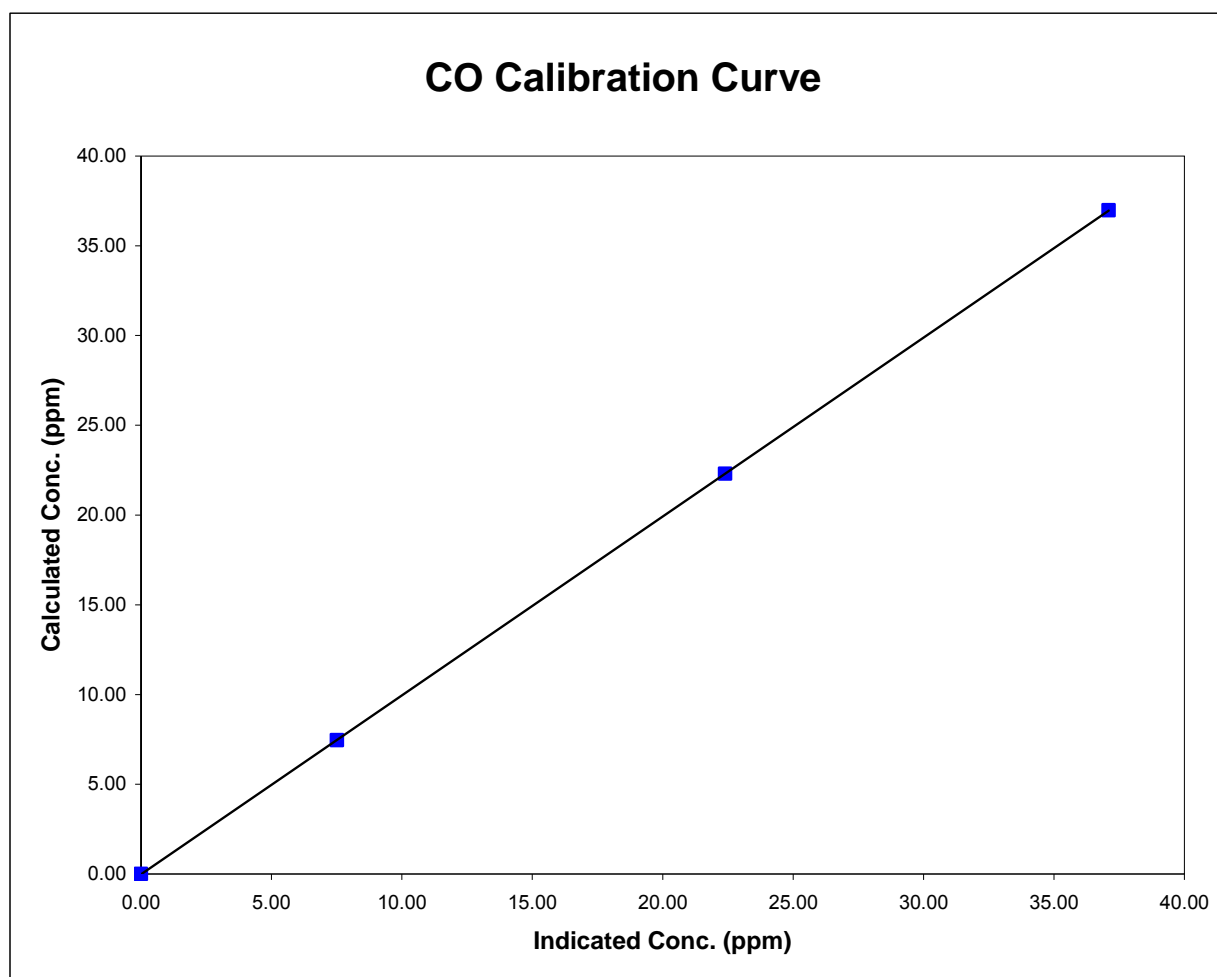
Parameter **CO**
 Air Monitoring Network **Palliser**

Station Information

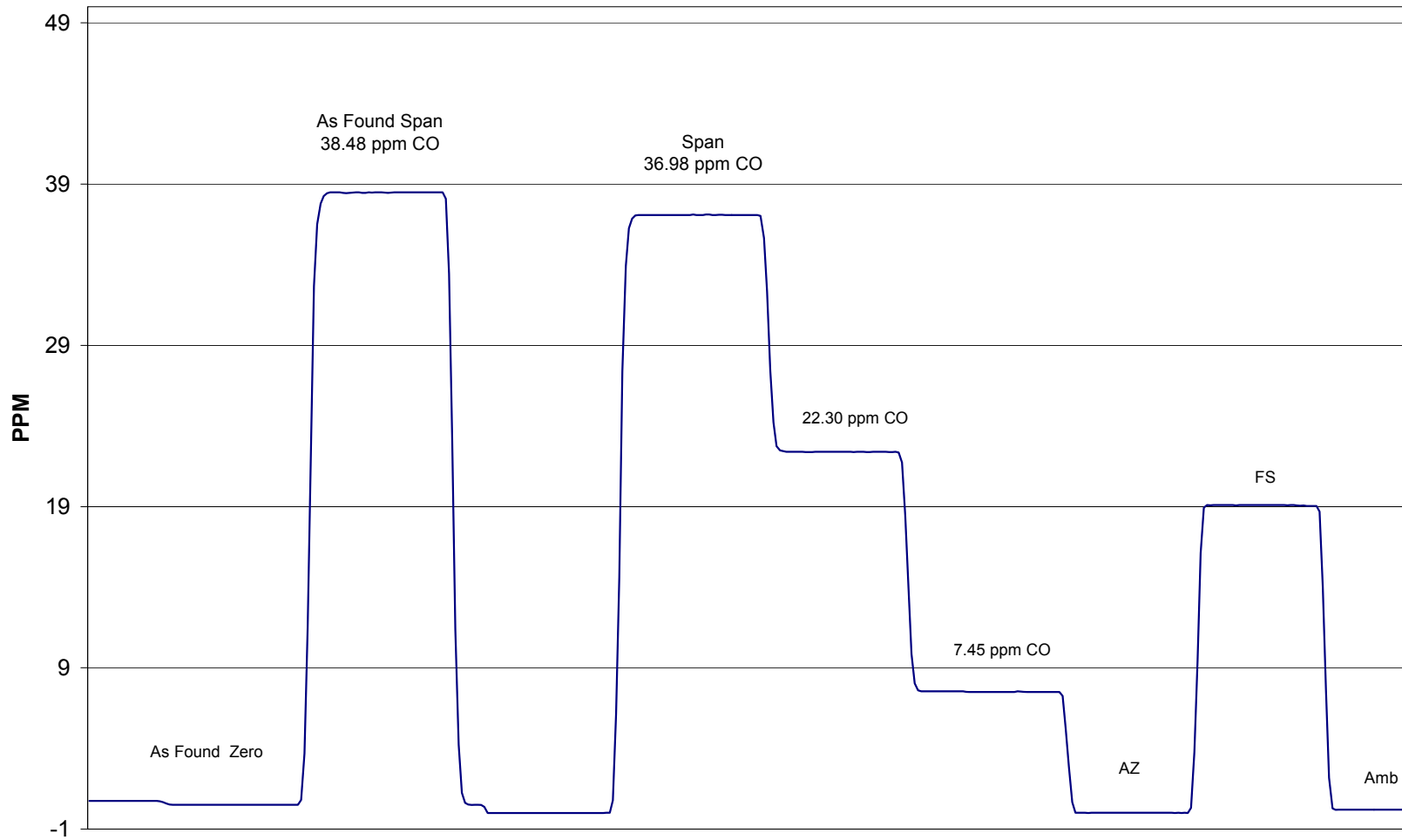
Calibration Date	April 30, 2008	Previous Calibration	March 31, 2008
Station Number	101	Station Location	Crescent Heights
Start Time (MST)	8:50	End Time (MST)	12:15
Analyzer make/model	TEI Model 48C	Analyzer serial #	436609887

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.00	0.00	N/A		
36.98	37.10	0.9969	Correlation Coefficient	0.999999
22.30	22.39	0.9960		
7.45	7.51	0.9917	Slope	0.997177
			Intercept	-0.020049



Crescent Heights CO Calibration



April 30, 2008

Calibration Report

Parameter **PM2.5**
 Air Monitoring Network **Palliser Airshed**



Station Information

Calibration Date	April 30, 2008	Previous Calibration	NA
Station Number	101	Station Location	Crescent Heights
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	7:35	End Time (MST)	9:00
Barometric Pressure	0.904 ATM	Station Temperature	20.0 Deg C
Flow Calibrator	BIOS Drycal Definer 220	Serial Number	111860
DACS make	AP 1000	DACS serial No.	45269
DACS voltage range	0 - 1 V	DACS channel #	15
	Before		After
DACS Scale High	450	DACS slope	450
DACS Scale Low	-50	DACS intercept	-50

Analyzer Information

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

	before		after	
Main Flow Set Point	3.000	SLPM	3.000	SLPM
Aux Flow Set Point	13.67	SLPM	13.67	SLPM
Filter Load	73%	%	20%	%
Ko Factor	NA		NA	
Temperature	6.5	Deg C	6.3	Deg C
Pressure	0.904	ATM	0.904	ATM

Calibration Data

Parameter	Set Point	TEOM Reading (as found)	Tolerance	TEOM Reading (after adjustments)
zero flow - main	0.0	0.01	0.00	0.01
zero flow - auxillary	0.0	-0.01	0.01	-0.01
flow recovery - main	45 - 60 Seconds	47.0	45 - 60 Seconds	47.0
flow recovery - aux	46 - 60 Seconds	52.0	46 - 60 Seconds	52.0
Temperature	measured	6.3	+/- 1.0 Deg C	6.3
Pressure	measured	0.904	+/- 1.5% ΔATM	0.904
Total Flow	16.67 SLPM	16.39		16.39
Auxiliary flow	13.67 SLPM	13.32	+/- 1.0 SLPM	13.32
Main flow	3.0 SLPM	2.930	+/- 0.2 SLPM	2.930
Leak Check - main	0.0	0.01	<0.15 SLPM	0.01
Leak Check - aux	0.0	-0.01	<0.15 SLPM	-0.01
Ko Factor (w/o filter)	measured	NA	filter weight (g)	NA
Ko Factor (w/ filter)	measured	NA	% Ko difference	NA

Notes: No adjustments made... I just used up last filter, need more!!

Calibration Performed By: Lenin Flores

Calibration Report



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

Station Information

Calibration Date	April 18, 2008	Previous Calibration	March 31, 2008
Station Number	110	Station Location	Rover - Brooks
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			Other: <input type="text"/>
Start Time (MST)	16:00	End Time (MST)	19:45
Barometric Pressure	27.3 inches Hg	Station Temperature	20.0 Deg C
Calibrator	Dasibi 5008	Serial Number	723
Cal Gas Concentration	NA	Cal Gas Expiry Date	NA
DACS make	Focus AP1000	DACS serial No.	45265
DACS voltage range	0 - 1 volt	DACS channel #	7
	Before		After
Calculated slope	0.939395	Calculated slope	0.942306
Calculated intercept	-2.596195	Calculated intercept	-3.213895
Analyzer make	API Model 400E	Analyzer serial #	331

	before		after	
Concentration range	0 - 500	ppb	0 - 500	ppb
Offset	-10.5	ppb	-10.5	ppb
Slope	0.988		0.988	
Lamp measure	4276.6	mV	4246.7	mV
Lamp Reference	4277.0	mV	4250.7	mV
Pressure	26.6	inches Hg	26.6	inches Hg
Sample Flow	609	ccm	609	ccm
Sample temp	35.8	Deg C	36.2	Deg C

Calibration Data

Dilution air flow rate (cc/min)	Ozone Set Point	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
4900	0.0	0.0	3.1	N/A
4900	400.0	285.1	305.6	0.9328
4900	300.0	162.6	176.5	0.9214
4900	200.0	107.2	117.3	0.9142
4900	0.0	0.0	3.1	As Found Zero
4900	400.0	285.1	305.6	As Found Span
Average Correction Factor				0.9228

Calculated value of As Found Response: 281.6 ppm Percent Change of As Found: -1.2%

	before calibration		after calibration	
Auto zero	-0.2	ppb	3.2	ppb
Auto span	393.0	ppb	216.8	ppb

Notes: No adjustments were made...

Calibration Performed By: Lenin Flores

Calibration Summary



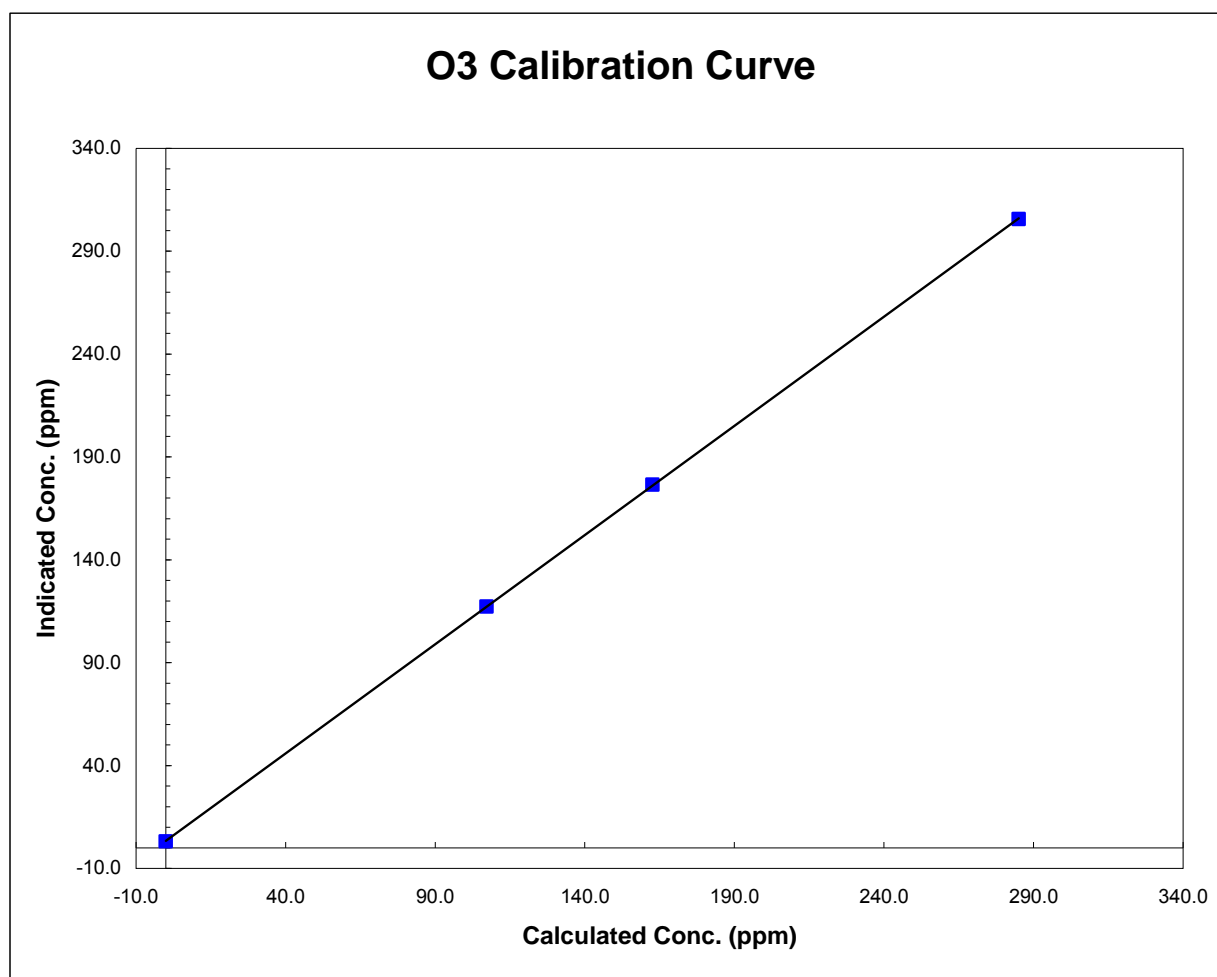
Parameter **O3**
 Air Monitoring Network **Palliser Airshed**

Station Information

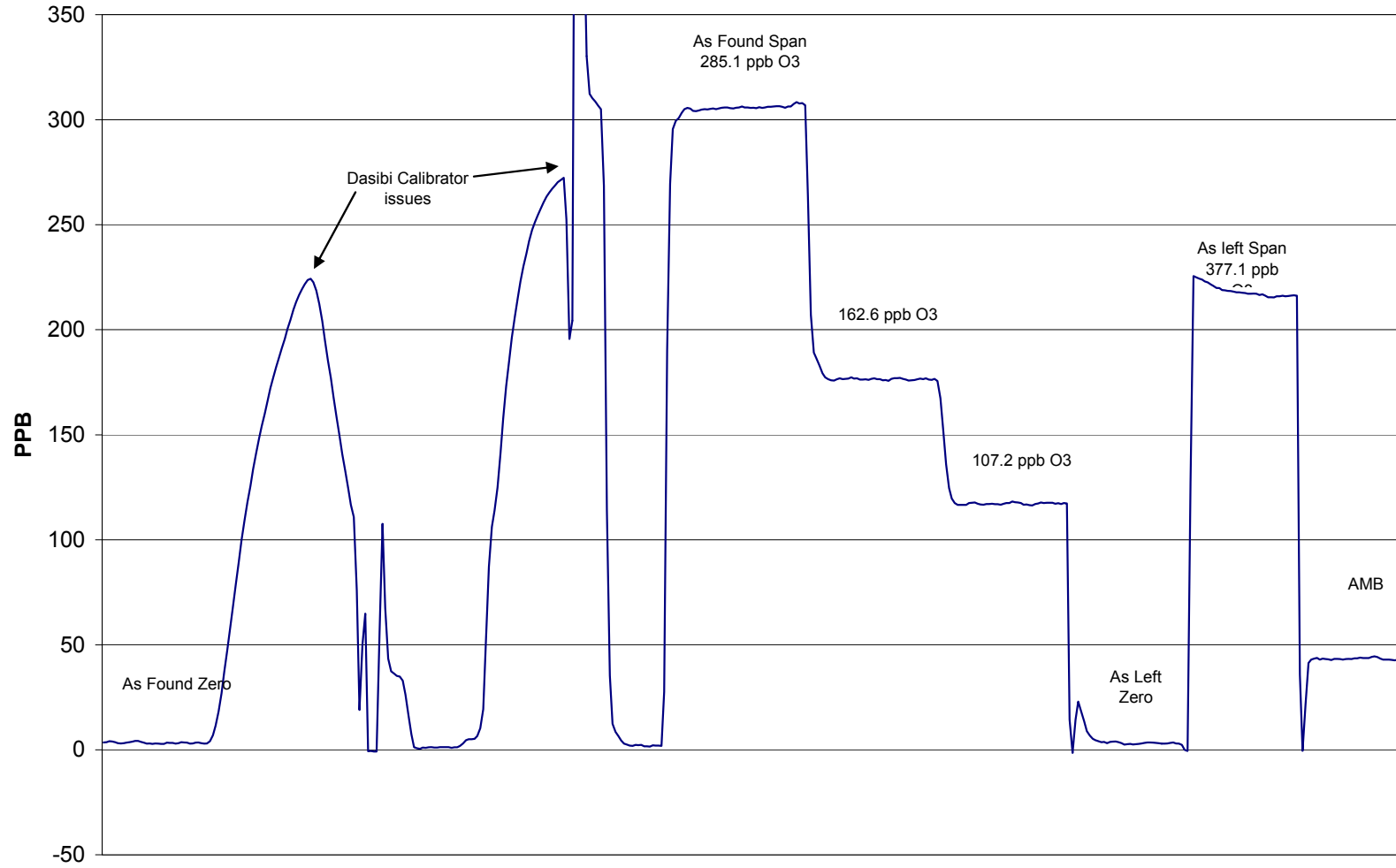
Calibration Date	April 18, 2008	Previous Calibration	March 31, 2008
Station Number	110	Station Location	Rover - Brooks
Start Time (MST)	16:00	End Time (MST)	19:45
Analyzer make/model	API Model 400E	Analyzer serial #	331

Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
285.1	305.6	0.9328	Correlation Coefficient	0.999991
162.6	176.5	0.9214		
107.2	117.3	0.9142		
0.0	3.1	N/A	Slope	0.942306
			Intercept	-3.213895



Portable-Brooks O3 Calibration



April 18, 2008

Calibration Report



Parameter **SO2**
 Air Monitoring Network **Palliser Airshed**

Station Information

Calibration Date	April 25, 2007	Previous Calibration	March 28, 2007
Station Number	110	Station Location	Rover - Brooks
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			<input type="checkbox"/> Other:
Start Time (MST)	10:25	End Time (MST)	12:40
Barometric Pressure	27.80 inches Hg	Station Temperature	22.0 Deg C
Calibrator	Dasibi 5008	Serial Number	723
Cal Gas Concentration	50.3 ppm	Cal Gas Expiry Date	27-Jul-09
Gas Cert Reference	LL-16136		
DACS make	Focus AP1000	DACS serial No.	45265
DACS voltage range	0 - 10 volt	DACS channel #	5
	Before		After
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.984153	Calculated slope	0.971832
Calculated intercept	1.717270	Calculated intercept	-0.993946
Analyzer make	TEI Model 43A	Analyzer serial #	NA

	before		after	
Concentration range	0-500	ppb	0-500	ppb
SO2 zero pot	1.5		1.5	
SO2 span pot	4.65		4.65	
Analyzer flow	4.75	LPM	4.75	LPM
UV Lamp voltage	859	V	858	V
Vacuum	23.5	in Hg	21.5	in Hg

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)
5000	0.00	0.0	-0.8	N/A
5000	40.00	399.2	410.7	0.9720
5000	20.00	200.4	208.6	0.9607
5000	10.00	100.4	105.9	0.9481
5000	0.00	0.0	-0.8	As found zero
5000	40.00	399.2	410.7	As found span
Average Correction Factor				0.9603

Calculated value of As Found Response: 406.703 ppm Percent Change of As Found: -1.9%

	before calibration		after calibration	
Auto zero	-7.0	ppm	-1.0	ppm
Auto span	203.9	ppm	194.6	ppm

Notes: No adjustments were made...

Calibration Performed By: Lenin Flores

Calibration Summary



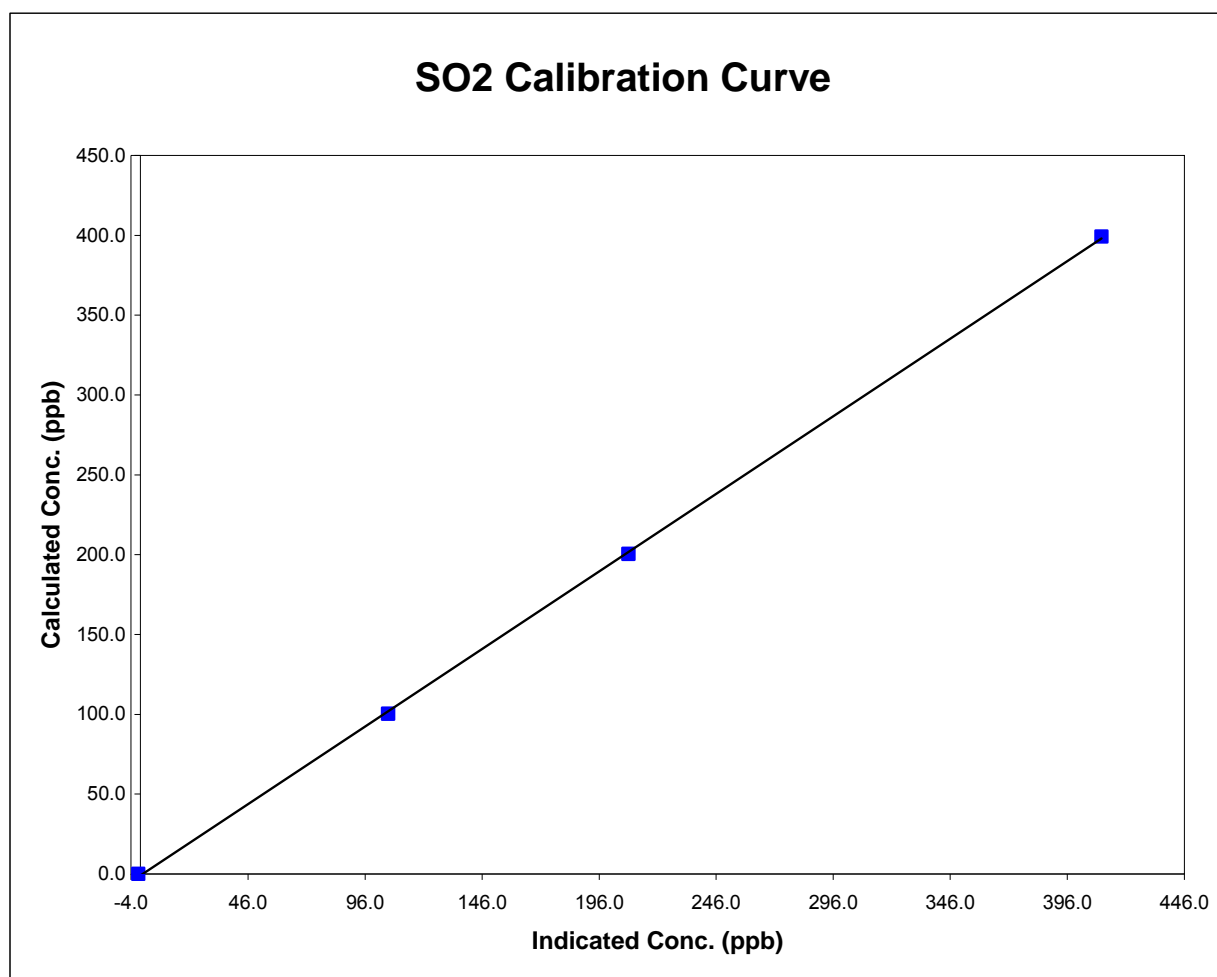
Parameter **SO2**
 Air Monitoring Network **Palliser Airshed**

Station Information

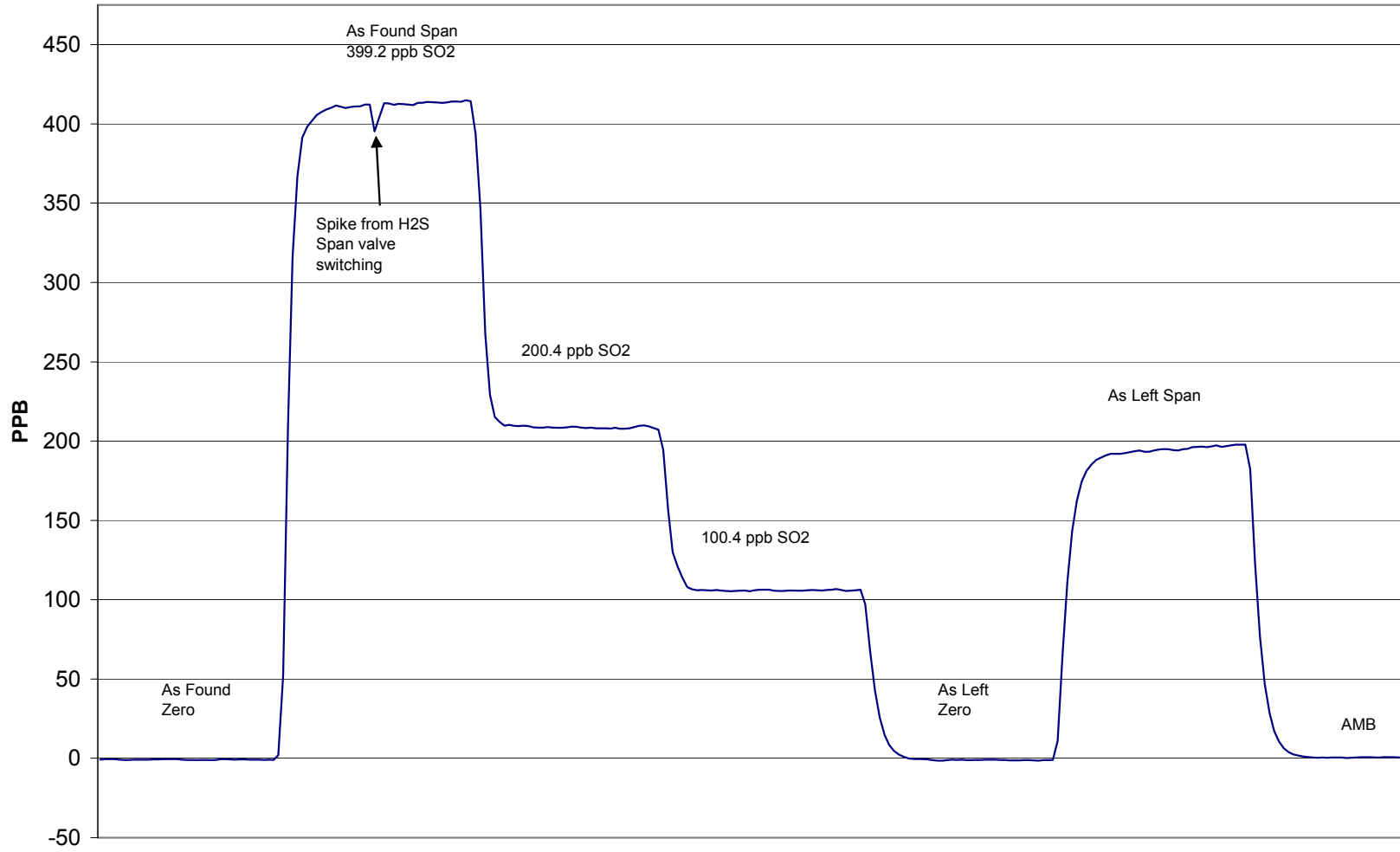
Calibration Date	April 25, 2007	Previous Calibration	March 28, 2007
Station Number	110	Station Location	Rover - Brooks
Start Time (MST)	10:25	End Time (MST)	12:40
Analyzer make/model	TEI Model 43A	Analyzer serial #	NA

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.8	N/A		
399.2	410.7	0.9720	Correlation Coefficient	0.999904
200.4	208.6	0.9607		
100.4	105.9	0.9481	Slope	0.971832
			Intercept	-0.993946



Portable-Brooks SO2 Calibration



Calibration Report



Parameter **H2S**
 Air Monitoring Network **Palliser Airshed**

Station Information

Calibration Date	April 25, 2008	Previous Calibration	March 28, 2008
Station Number	110	Station Location	Brooks Rover
Reason:	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Install	<input type="checkbox"/> Removal
			Other: <input type="checkbox"/>
Start Time (MST)	8:50	End Time (MST)	11:30
Barometric Pressure	27.8 inches Hg	Station Temperature	22.0 Deg C
Calibrator	Dasibi 5008	Serial Number	723
Cal Gas Concentration	5.02 ppm	Cal Gas Expiry Date	15-Nov-05
Gas Cert Reference	BLM003489		
DACS make	Focus AP1000	DACS serial No.	45265
DACS voltage range	0 - 10 volt	DACS channel #	6
	Before		After
DACS Scale High	100	DACS slope	100
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.987857	Calculated slope	0.987932
Calculated intercept	-0.125590	Calculated intercept	-0.353006
Analyzer make	TEI Model 43A	Analyzer serial #	43A-25575-221

	before		after	
Concentration range	0 - 100	ppb	0 - 100	ppb
H2S zero pot	9.59		9.60	
H2S span pot	5.55		7.35	
Analyzer flow	0.900	LPM	0.900	LPM
UV Lamp voltage	935	V	933	V
Vacuum	21.5	in Hg	21.5	in Hg

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)
4000	0.00	0.0	0.7	N/A
4000	70.00	86.3	87.0	0.9920
4000	40.00	49.7	52.3	0.9504
4000	15.00	18.8	18.0	1.0391
4000	0.00	0.0	0.7	As found zero
4000	70.00	86.3	87.0	As found span
Average Correction Factor				0.9938

Calculated value of As Found Response: 85.13 ppm Percent Change of As Found: 1.4%

	before calibration		after calibration	
Auto zero	1.3	ppm	0.8	ppm
Auto span	36.1	ppm	41.0	ppm

Notes: No adjustments were performed...

Calibration Performed By: Lenin Flores

Calibration Summary



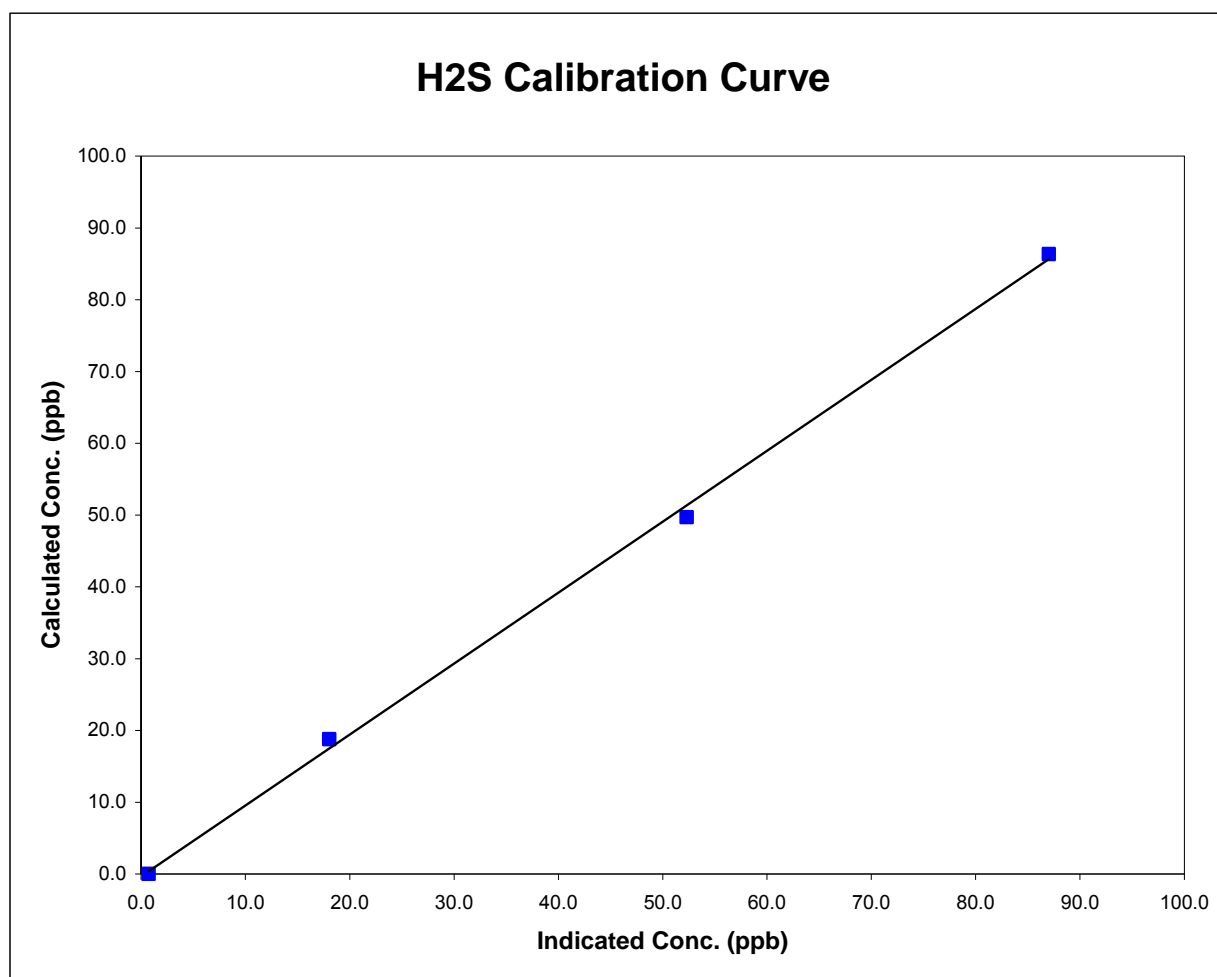
Parameter **H2S**
 Air Monitoring Network **Palliser Airshed**

Station Information

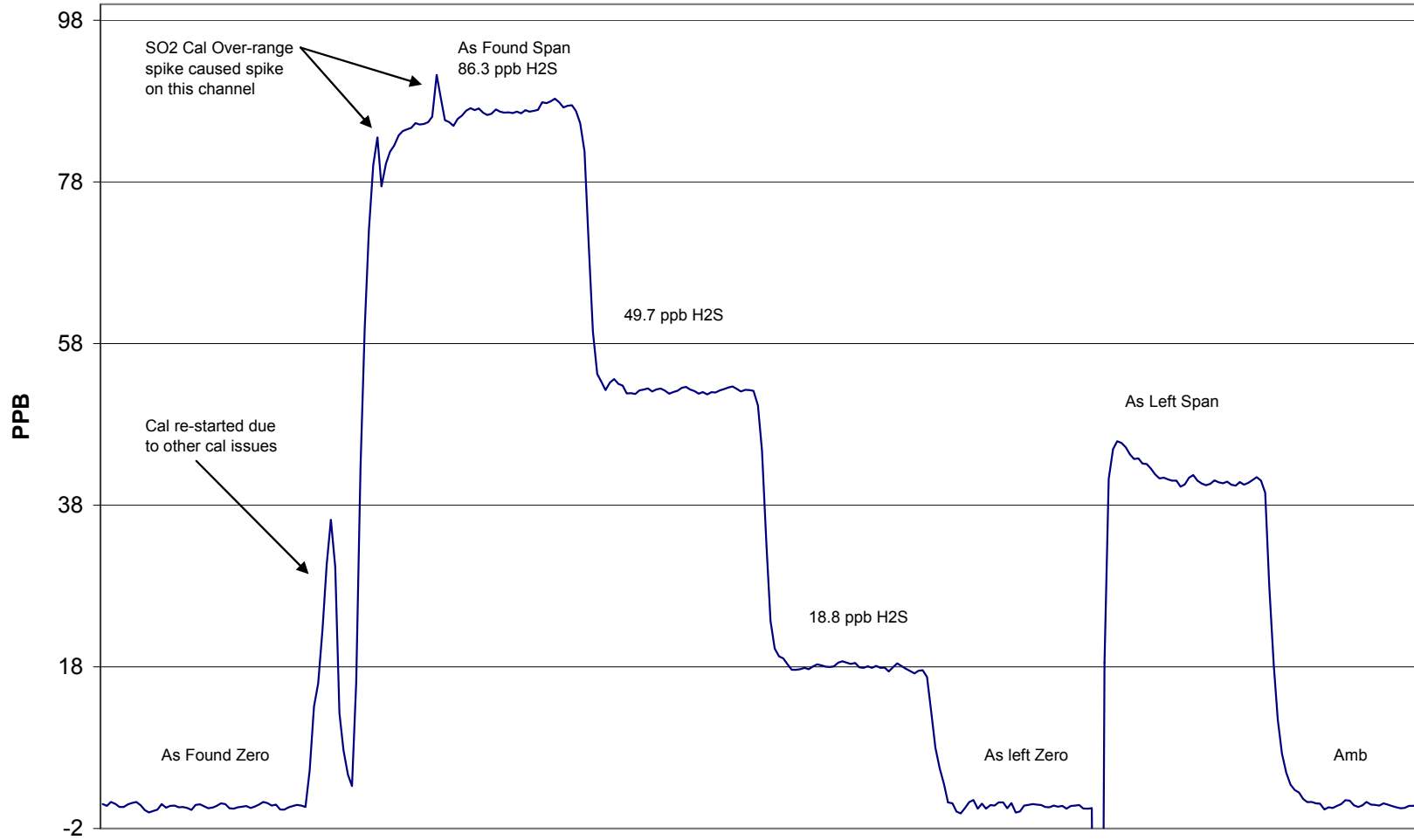
Calibration Date	April 25, 2008	Previous Calibration	March 28, 2008
Station Number	110	Station Location	Brooks Rover
Start Time (MST)	8:50	End Time (MST)	11:30
Analyzer make/model	TEI Model 43A	Analyzer serial #	43A-25575-221

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	0.7	N/A		
86.3	87.0	0.9920	Correlation Coefficient	0.998865
49.7	52.3	0.9504		
18.8	18.0	1.0391	Slope	0.987932
			Intercept	-0.353006



Portable-Brooks H2S Calibration



April 25, 2008