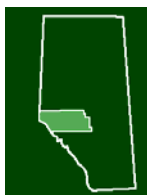


# **Capital Power**

## **AIR QUALITY MONITORING June 2016 Monthly Report**

**Prepared by:**

**West Central Airshed Society  
Drayton Valley, Alberta**





July 8, 2016

Capital Power  
Mr. Kevin Parry  
Box 20, Site 2, RR 1  
Warburg, AB  
T0C 2T0

Dear Mr. Parry:

**Monthly Ambient Air Quality Monitoring Report for June 2016 for Capital Power**

Enclosed are the reports for the continuous ambient air quality monitoring station of the West Central Airshed Society network.

Network Station is                      AMS 910                      Genesee  
Identified as:

The person responsible for this reporting is Robert Scotten, Executive Director of West Central Airshed Society.

The following operational notes are included as required by the Air Monitoring Directive:

**1. Concentrations in excess of the Clean Air (Maximum Levels) Regulation:**

There were no readings in excess of guidelines as indicated in Air Monitoring Directive Section III.A.3. (a&b) for SO<sub>2</sub>, NO<sub>2</sub>, or PM<sub>2.5</sub>.

**2. Operational times less than 90 percent:**

There were no operational times less than 90% in June.

**3. Monitoring Notes:**

**AMS 910 (Genesee)**

The SO<sub>2</sub> and NO/NO<sub>2</sub>/NO<sub>x</sub> analyzers returned uptimes of 99.9% in June do to one hour of abnormal data being recorded. All other analyzers and meteorological instruments returned uptimes of 100%

If additional information is required please contact Patrick Andersen at (780) 514-3533 or (403) 505-1041.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Scotten'.

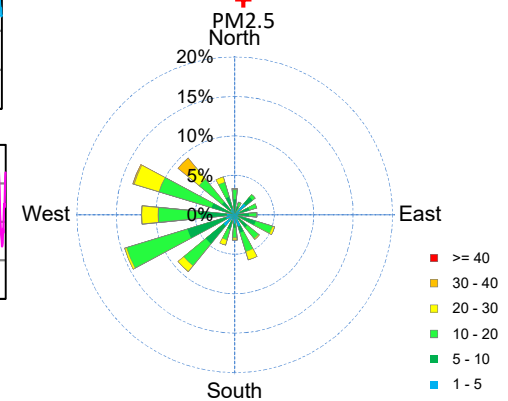
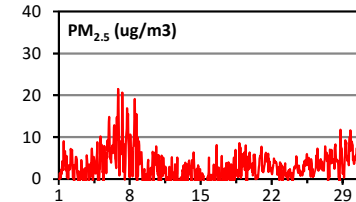
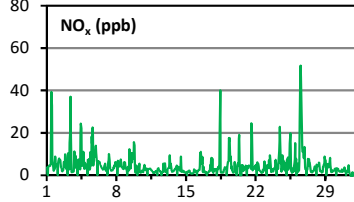
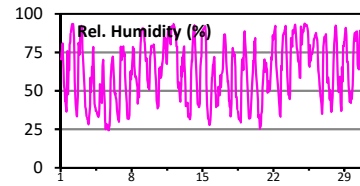
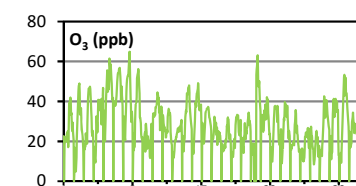
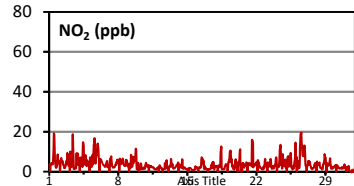
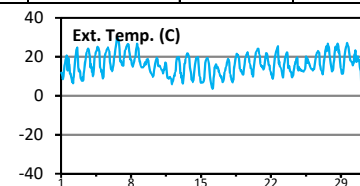
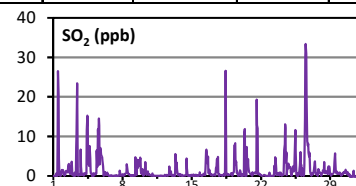
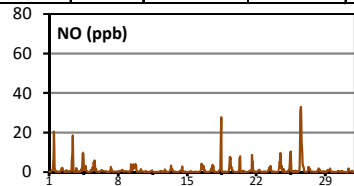
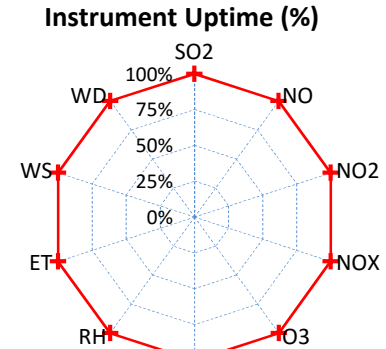
Robert Scotten  
Executive Director

A handwritten signature in black ink, appearing to read 'Patrick Andersen'.

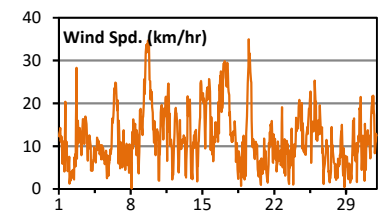
Patrick Andersen  
Environmental Specialist

# WCAS - June 2016 Genesee Summary Report

Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc Unit	Avg. Conc.	Uptime	Maximum		AAAQO Objective	Exceed No.	Maximum		AAAQO Objective	Exceed No.
				Conc	Time			Conc	Time		
SO <sub>2</sub>	ppb	1.6	99.9%	8.7	Jun-26	48	0	33.4	Jun-26 13:00	172	0
NO	ppb	1.1	99.9%	6.4	Jun-26	-	-	33	Jun-26 13:00	-	-
NO <sub>2</sub>	ppb	3.8	99.9%	8.4	Jun-26	-	-	19.6	Jun-26 14:00	159	0
NO <sub>x</sub>	ppb	4.8	99.9%	14.7	Jun-26	-	-	51.8	Jun-26 13:00	-	-
O <sub>3</sub>	ppb	29	100.0%	46	Jun-6	-	-	65	Jun-07 18:00	82	0
PM <sub>2.5</sub>	µg/m <sup>3</sup>	3	100.0%	9	Jun-6	30	0	22	Jun-06 21:00	-	-



Wind Rose (km/hr)



## Monthly Summary

- \* All data has been slope, intercept, and baseline corrected. Data may change after validation process.
- \* The measured ambient concentrations of all parameters are within the AAAQO for the month of June.
- \* All compliance parameters are above 90% operational for the month of June.
- \* Routine calibration was performed on June 20.

**WEST CENTRAL AIRSHED SOCIETY**

**CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
MONTHLY REPORT  
CONTINUOUS AIR MONITORING DATA**

**AMS 910  
GENESEE  
JUNE 2016**

Operations and Data Collection by:  
West Central Airshed Society  
Drayton Valley, Alberta

QA/QC, Data Validation and Reporting by:  
West Central Airshed Society  
Drayton Valley, Alberta

**Summary Report**

Continuous air quality/meteorological monitoring measurements

**West Central Airshed Society**

EPCOR / Genesee Station 910													June 2016		
Parameter	Calibration Hours	Number of Data	Percent Uptime	Mean	Min	Max	Percentile					Exceedences		24 Hour Average Max (ppm)	
							P10	Q1	Median	Q3	P90	1-hour	24-hour		
SO <sub>2</sub> (ppb)	34	685	99.9	1.7	0.0	33.4	0.0	0.1	0.4	1.3	4.5	0	0	0.009	
O <sub>3</sub> (ppb)	35	685	100.0	29.1	3.3	64.9	15.5	20.3	27.3	36.8	44.8	0	-	0.046	
NO (ppb)	35	684	99.9	1.1	0.0	33.0	0.1	0.1	0.2	0.7	2.4	-	-	-	
NO <sub>2</sub> (ppb)	35	684	99.9	3.9	0.8	19.6	1.3	1.9	3.0	4.7	7.3	0	0	0.008	
NO <sub>x</sub> (ppb)	35	684	99.9	5.0	0.8	51.8	1.4	2.1	3.4	5.4	9.1	-	-	-	
Particulate Matter 2.5 microns (µ/m <sup>3</sup> )	4	716	100.0	3.3	0.0	21.5	0.0	0.9	2.7	4.9	7.4	0	0	8.56 ug/m3	
Wind Speed (kph)	0	720	100.0	11.9	0.1	35.0	4.1	6.9	10.8	15.6	21.6	-	-	-	
Temperature - 2m (°C)	0	720	100.0	16.3	3.5	29.8	9.5	12.6	16.0	19.8	23.6	-	-	-	
Temperature - 10m (°C)	0	720	100.0	16.0	5.1	28.7	9.7	12.8	16.0	19.2	22.4	-	-	-	
Delta Temperature (°C)	0	720	100.0	-0.3	-2.8	4.5	-1.8	-1.4	-0.6	0.5	1.8	-	-	-	
Relative Humidity (%)	0	720	100.0	62.8	24.2	93.7	34.9	46.2	63.9	79.8	88.7	-	-	-	
Global Solar Radiation (W/m <sup>2</sup> )	0	720	100.0	268.3	0.0	958.7	0.0	0.0	134.5	478.6	752.4	-	-	-	
Std Dev Wind Direction (deg)	0	720	100.0	24.1	3.4	99.8	8.7	11.3	16.7	31.1	53.9	-	-	-	
Std Dev Wind Speed (kph)	0	720	100.0	3.4	0.6	14.0	1.6	2.3	3.2	4.3	5.5	-	-	-	



**WCAS - Genesee**  
**Summary of Hourly Averages**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**June 2016**

Maximum Value: 33.39 ppb on Jun 26 13:00		Maximum Daily Average: 8.69 ppb on Jun 26		Hours in Service: 720																						
Minimum Value: 0.0 ppb on Jun 1 01:00		Minimum Daily Average: 0.06 ppb on Jun 11		Hours of Data: 685																						
Maximum Diurnal Average: 4.96 ppb at hour 12		Minimum Diurnal Average: 0.35 ppb at hour 5		Hours of Missing Data: 35																						
Monthly Average: 1.696 ppb		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.1 Median = 0.4 Q <sub>3</sub> = 1.3 P <sub>90</sub> = 4.5 P <sub>99</sub> = 19.7		Hours of Calibration: 34																						
				Percent Operational Time: 99.9																						
Day	Hourly Period Ending At																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.6	0.5	0.0	9.5	26.5	20.6	4.2	1.5	0.1	0.0	0.0	0.0	1.0	1.4	1.4	1.5	1.5	3.06	26.50
2-Jun	1.2	0.3	Z	0.3	0.3	0.4	1.2	1.3	1.3	1.3	0.9	1.3	2.3	3.1	1.1	0.7	0.5	1.4	2.5	0.8	3.6	1.9	0.2	0.1	1.22	3.56
3-Jun	0.4	0.4	Z	0.8	0.6	0.0	0.2	7.1	10.4	23.4	11.9	0.4	0.0	0.1	0.3	0.4	0.2	0.2	6.7	2.3	0.3	0.4	0.3	0.4	2.93	23.44
4-Jun	0.6	0.2	Z	0.6	0.7	0.4	0.6	0.4	0.5	11.5	15.3	15.1	3.2	2.7	5.3	2.5	7.5	4.4	1.3	0.6	0.2	0.0	0.2	0.0	3.21	15.29
5-Jun	0.6	0.3	Z	0.3	0.2	0.6	0.6	0.4	0.6	6.4	2.3	5.7	11.7	9.7	14.5	12.8	2.8	6.9	7.0	6.2	5.2	5.0	4.8	3.8	4.72	14.48
6-Jun	2.4	1.2	Z	1.0	0.3	0.3	0.9	0.5	0.3	0.2	0.8	0.3	0.5	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.41	2.44
7-Jun	0.0	0.0	Z	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.1	1.3	0.4	0.1	0.1	0.1	0.0	0.3	0.13	1.33	
8-Jun	0.4	0.3	Z	0.0	0.5	0.2	0.3	0.5	0.7	0.8	3.0	1.7	1.0	0.5	0.5	0.4	0.1	0.3	0.3	0.0	0.1	0.0	0.0	0.2	0.52	2.97
9-Jun	0.0	0.1	Z	0.1	0.1	0.1	0.0	4.7	2.2	1.1	0.3	4.1	3.6	2.1	3.9	3.8	2.5	2.7	4.6	4.5	1.4	0.6	0.7	0.5	1.90	4.68
10-Jun	1.7	0.7	Z	0.7	0.3	0.4	1.8	3.5	0.6	0.4	0.4	0.3	0.3	1.1	0.5	0.3	0.2	0.4	0.3	0.2	0.1	0.1	0.2	0.0	0.63	3.46
11-Jun	0.6	0.6	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.06	0.62
12-Jun	0.0	0.0	Z	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.2	0.2	AF	0.0	0.1	0.2	0.5	2.3	0.2	0.5	0.4	1.1	0.2	0.0	0.29	2.34
13-Jun	0.0	0.3	Z	0.0	0.1	0.4	0.1	0.0	5.5	3.5	2.1	3.3	1.7	0.4	0.2	0.4	0.5	0.4	0.0	0.3	0.4	0.1	0.1	0.0	0.86	5.52
14-Jun	0.2	0.0	Z	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	4.4	1.9	0.2	0.1	0.0	0.1	0.0	0.1	0.0	0.2	0.3	0.3	0.0	0.36	4.41
15-Jun	0.2	0.3	Z	0.2	0.3	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.3	0.9	0.4	0.2	0.0	0.1	0.16	0.92
16-Jun	0.0	0.0	Z	0.5	0.5	0.2	0.4	0.7	0.2	1.9	6.5	6.7	5.7	3.7	3.1	4.9	0.7	0.5	1.5	0.6	0.6	0.6	0.1	0.2	1.74	6.70
17-Jun	0.3	0.3	Z	0.1	0.3	0.4	0.4	0.2	0.1	0.1	2.0	1.1	3.2	4.2	1.1	4.8	0.6	0.0	0.4	0.1	0.2	0.3	0.2	0.1	0.89	4.77
18-Jun	0.1	0.2	Z	0.0	0.3	0.3	0.4	0.0	1.1	11.2	26.6	0.8	0.3	0.4	0.5	0.2	0.3	0.2	0.2	0.2	0.4	0.6	0.6	0.6	1.97	26.56
19-Jun	0.6	0.4	Z	0.8	0.8	0.8	1.1	7.7	8.1	8.3	2.8	3.6	2.0	0.8	1.0	0.2	0.0	0.3	0.3	0.1	0.2	1.4	0.7	0.0	1.83	8.28
20-Jun	0.0	0.1	Z	0.4	0.0	0.1	0.4	10.8	11.9	C	C	C	C	7.3	3.4	2.3	4.2	2.3	1.0	1.0	0.8	0.5	0.4	0.4	2.49	11.85
21-Jun	0.5	0.5	Z	0.9	0.5	0.4	0.6	0.7	0.7	0.9	0.7	0.6	0.6	19.3	12.9	12.0	0.4	0.8	0.5	0.3	0.5	0.3	0.4	0.2	2.40	19.27
22-Jun	0.2	0.0	Z	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.09	0.80
23-Jun	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	2.6	0.9	4.7	4.6	1.9	0.2	0.2	0.3	0.6	0.3	0.4	0.4	0.8	0.1	0.3	0.9	0.83	4.70
24-Jun	0.4	0.4	Z	0.3	0.2	0.3	0.2	3.1	6.5	8.0	13.1	12.1	3.4	5.9	0.2	1.2	2.7	1.9	3.1	2.8	2.2	2.2	2.3	1.9	3.22	13.07
25-Jun	0.8	1.1	Z	1.6	1.5	2.4	1.2	1.0	1.7	3.0	8.9	11.6	5.8	0.3	0.0	0.0	0.1	0.0	0.7	0.1	0.5	1.8	2.6	6.0	2.29	11.59
26-Jun	1.0	2.8	Z	1.9	0.5	1.7	0.3	0.0	0.4	2.6	14.5	30.3	33.4	30.9	19.5	14.0	8.8	7.6	8.1	5.8	4.9	5.9	3.8	1.3	8.69	33.39
27-Jun	0.4	0.3	Z	0.3	0.6	0.6	0.4	1.0	1.5	2.3	3.6	2.1	1.2	0.4	0.4	0.7	0.5	0.0	0.7	1.7	0.8	1.0	1.0	0.8	0.98	3.63
28-Jun	0.7	0.3	Z	0.6	0.7	0.7	1.4	0.9	1.3	3.5	1.5	0.7	1.2	0.9	0.8	1.0	1.1	0.4	1.9	2.4	2.3	2.4	1.9	0.5	1.26	3.51
29-Jun	0.6	0.1	Z	0.2	0.4	0.4	0.5	0.6	0.8	1.7	3.4	5.7	3.3	1.5	0.7	0.6	1.1	0.6	0.7	0.5	0.7	0.6	0.8	0.8	1.16	5.70
30-Jun	0.5	0.6	Z	0.4	0.3	0.5	0.4	0.8	0.6	1.0	1.0	0.7	1.2	1.6	1.4	1.1	0.5	0.8	0.9	0.6	0.1	0.1	0.4	0.1	0.68	1.57
																								Diurnal Average		
																								Diurnal Maximum		
																								0.49 0.39 -- 0.40 0.35 0.40 0.47 1.57 2.01 3.28 4.70 4.96 3.93 3.39 2.44 2.16 1.22 1.20 1.48 1.13 0.99 0.96 0.80 0.69		
																								2.44 2.83 -- 1.87 1.49 2.40 1.82 10.77 11.85 23.44 26.56 30.34 33.39 30.93 19.50 13.98 8.79 7.61 8.10 6.17 5.20 5.86 4.79 5.98		
Z - zerospan C - Calibration AF - Analyzer Failure																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																										



**WCAS - Genesee**  
**Summary of Hourly Averages**

**Ozone (O<sub>3</sub>) - ppb**  
**June 2016**

<b>Maximum Value: 64.91 ppb on Jun 7 18:00</b> <b>Maximum Daily Average: 46.14 ppb on Jun 6</b>																						<b>Hours in Service: 720</b>				
<b>Minimum Value: 3.3 ppb on Jun 2 03:00</b> <b>Minimum Daily Average: 17.28 ppb on Jun 25</b>																						<b>Hours of Data: 685</b>				
<b>Maximum Diurnal Average: 38.58 ppb at hour 17</b> <b>Minimum Diurnal Average: 17.50 ppb at hour 6</b>																						<b>Hours of Missing Data: 35</b>				
<b>Monthly Average: 29.066 ppb</b> <b>Percentiles: P<sub>1</sub> = 9.3 P<sub>10</sub> = 15.5 Q<sub>1</sub> = 20.3 Median = 27.3 Q<sub>3</sub> = 36.8 P<sub>90</sub> = 44.8 P<sub>99</sub> = 57.8</b>																						<b>Hours of Calibration: 35</b>				
																						<b>Percent Operational Time: 100.0</b>				
Day	Hourly Period Ending At																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	22.5	Z	22.0	22.1	20.1	19.7	20.9	22.4	23.9	24.9	24.3	17.1	21.3	39.1	38.5	39.5	41.8	39.9	33.2	34.3	26.0	25.0	29.3	24.7	27.51	41.83
2-Jun	20.6	Z	3.3	16.7	5.4	7.5	4.9	11.8	22.9	27.3	35.0	41.3	45.2	47.7	48.9	44.3	33.4	34.0	36.7	31.7	25.8	24.3	23.0	19.8	26.58	48.92
3-Jun	16.2	Z	18.6	15.8	16.8	17.6	23.9	22.2	22.7	18.7	29.2	41.5	44.2	46.4	46.2	46.7	47.4	46.3	39.3	35.2	32.0	24.6	22.4	25.2	30.40	47.38
4-Jun	21.6	Z	17.2	14.0	12.1	9.4	13.0	18.8	32.4	29.4	24.4	28.1	40.8	37.3	35.4	37.4	37.3	40.6	41.0	34.2	28.4	34.9	41.4	42.3	29.20	42.32
5-Jun	46.7	Z	35.4	29.4	26.4	20.0	31.7	40.6	44.3	47.2	55.5	52.5	44.8	49.5	46.1	50.0	61.6	57.0	58.8	58.1	51.4	49.0	44.1	40.9	45.26	61.56
6-Jun	41.8	Z	40.1	38.9	39.0	39.1	37.7	39.2	40.8	42.9	46.3	51.5	53.6	54.4	55.0	56.3	55.3	56.8	52.3	48.4	40.5	47.6	42.8	40.8	46.14	56.80
7-Jun	37.6	Z	32.6	28.4	28.0	21.8	20.6	28.6	38.1	45.1	48.9	51.1	52.8	52.6	53.4	59.5	62.5	64.9	56.0	41.9	37.7	29.6	34.9	31.9	41.68	64.91
8-Jun	28.7	Z	24.1	15.4	17.1	17.2	29.4	35.4	38.5	39.4	42.1	51.5	53.6	54.2	56.2	54.9	47.1	44.0	32.0	31.9	29.1	23.6	22.0	20.7	35.13	56.20
9-Jun	21.8	Z	19.0	18.7	21.6	21.9	24.4	14.8	28.0	28.7	24.4	17.2	16.2	22.4	18.1	20.3	18.2	19.3	12.4	11.5	19.6	24.0	28.7	24.0	20.67	28.72
10-Jun	25.4	Z	32.5	34.0	33.1	32.2	33.8	33.2	37.0	36.9	37.4	38.9	41.4	44.5	42.7	39.9	41.8	34.2	33.8	25.5	31.4	35.8	37.4	36.8	35.63	44.53
11-Jun	35.0	Z	33.1	32.0	29.1	26.9	27.1	25.0	25.8	21.8	21.9	24.9	25.7	24.5	32.3	34.8	36.3	35.9	33.4	34.1	32.6	24.6	20.0	18.8	28.51	36.28
12-Jun	18.2	Z	11.0	14.3	11.4	11.8	15.5	18.8	20.4	20.2	21.9	21.9	23.3	24.7	25.9	26.5	24.8	24.9	26.9	27.3	25.0	26.5	28.1	30.6	21.74	30.63
13-Jun	24.3	Z	22.9	19.0	17.0	14.9	19.4	21.7	27.7	32.1	35.4	34.5	38.8	44.1	43.6	43.5	46.9	47.9	48.0	44.1	36.7	33.1	30.3	29.4	32.83	48.01
14-Jun	26.0	Z	19.3	17.0	14.1	13.8	19.1	23.2	30.3	36.0	39.4	37.3	42.3	44.2	44.4	46.3	49.0	47.1	37.3	35.5	35.8	37.1	37.3	38.4	33.48	49.05
15-Jun	31.4	Z	29.2	23.9	24.3	20.4	18.9	20.0	23.8	29.7	34.1	34.9	35.7	36.3	36.2	36.7	37.2	37.0	35.6	31.7	31.7	30.7	29.5	27.4	30.28	37.25
16-Jun	25.5	Z	22.1	20.9	21.6	21.3	24.4	26.4	32.3	30.1	27.5	27.4	29.3	22.9	26.9	18.2	24.5	25.1	21.4	21.2	24.5	22.6	22.8	20.0	24.30	32.25
17-Jun	19.8	Z	18.7	17.5	16.0	15.9	15.0	15.6	17.1	18.6	16.7	20.7	19.6	20.5	27.9	26.2	31.6	32.0	31.0	27.3	21.3	20.8	23.4	21.2	21.49	32.02
18-Jun	19.3	Z	14.5	14.6	13.4	12.0	13.6	18.2	21.3	16.7	16.5	28.1	30.1	32.0	31.9	33.2	32.6	32.9	32.9	24.7	23.7	22.9	25.3	25.5	23.30	33.17
19-Jun	30.7	Z	21.8	17.9	19.9	15.8	17.3	14.2	21.4	23.5	29.1	23.1	21.0	25.3	23.7	26.2	27.4	29.9	31.1	34.4	32.9	28.3	30.2	28.1	24.93	34.44
20-Jun	24.7	Z	14.0	18.9	15.6	13.2	18.5	16.5	18.7	C	C	C	C	C	53.4	56.0	57.6	63.2	57.2	47.6	48.4	50.1	45.0	39.9	36.58	63.17
21-Jun	34.9	Z	26.7	31.5	33.2	28.8	25.9	24.8	25.2	30.4	35.5	33.0	38.4	30.8	31.0	32.8	42.1	40.6	41.0	34.0	32.3	25.6	23.4	23.8	31.55	42.15
22-Jun	20.7	Z	17.0	13.1	10.4	9.8	13.2	17.8	26.9	31.5	34.1	37.4	37.7	37.0	36.5	37.0	36.2	29.7	37.8	32.9	25.1	19.7	20.3	18.0	26.08	37.78
23-Jun	23.0	Z	25.9	13.5	8.8	9.5	15.8	16.2	23.4	31.3	30.4	33.4	39.6	38.6	38.5	36.8	32.2	37.4	37.7	31.5	24.8	21.2	25.2	22.8	26.86	39.64
24-Jun	17.9	Z	15.1	15.5	18.0	16.6	17.6	18.4	19.7	18.7	17.9	23.6	28.3	29.7	35.6	33.8	24.4	27.7	23.7	23.1	20.0	17.1	14.8	15.1	21.42	35.60
25-Jun	16.0	Z	12.0	13.1	12.0	11.9	16.4	10.9	10.0	10.6	10.0	11.8	15.7	22.2	22.0	24.5	23.4	24.3	22.0	25.1	26.6	23.2	16.8	17.1	17.28	26.59
26-Jun	26.2	Z	24.3	25.5	27.3	21.9	22.4	18.0	15.9	15.6	10.6	8.4	10.8	13.7	17.0	18.9	24.7	25.2	22.7	20.9	22.1	12.4	17.7	17.7	19.12	27.31
27-Jun	16.6	Z	15.2	15.3	14.9	15.8	12.5	18.0	20.1	27.1	31.4	38.9	42.6	37.4	31.8	34.9	39.7	40.7	39.6	36.0	33.4	30.5	28.9	27.7	28.22	42.60
28-Jun	25.7	Z	13.9	19.3	22.7	10.9	15.6	14.5	27.1	33.7	40.7	41.2	35.9	32.1	37.7	40.2	41.3	40.2	34.9	39.5	34.6	35.7	22.2	12.8	29.23	41.25
29-Jun	12.5	Z	11.4	12.8	14.2	9.2	13.5	20.1	25.4	34.4	39.6	45.6	52.4	53.3	42.9	44.7	51.9	45.0	44.1	41.2	37.3	34.4	31.9	26.3	32.35	53.34
30-Jun	22.7	Z	24.7	19.3	16.8	18.2	18.6	25.3	29.7	31.9	34.4	31.0	27.6	24.2	29.0	26.0	27.0	27.8	28.6	23.5	28.1	32.3	20.9	27.2	25.87	34.43
																								Diurnal Average		
																								Diurnal Maximum		
																								25.13 -- 21.26 20.28 19.35 17.50 20.01 21.69 26.36 28.78 30.86 32.69 34.79 35.92 36.95 37.53 38.58 38.39 36.07 32.95 30.61 28.91 28.00 26.49		
																								46.71 -- 40.10 38.92 38.99 39.11 37.69 40.61 44.27 47.24 55.48 52.52 53.64 54.45 56.20 59.46 62.46 64.91 58.76 58.07 51.40 50.10 44.99 42.32		
Z - zerospan      C - Calibration																										
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82.5 ppb      24-hr -- ppb																										



**WCAS - Genesee**  
**Summary of Hourly Averages**

**Nitrogen Oxide (NO) - ppb**  
**June 2016**

Maximum Value: 32.98 ppb on Jun 26 13:00      Maximum Daily Average: 6.40 ppb on Jun 26 Minimum Value: 0.0 ppb on Jun 14 00:00      Minimum Daily Average: 0.12 ppb on Jun 15 Maximum Diurnal Average: 3.70 ppb at hour 11      Minimum Diurnal Average: 0.10 ppb at hour 23 Monthly Average: 1.078 ppb      Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.1 Median = 0.2 Q <sub>3</sub> = 0.7 P <sub>90</sub> = 2.4 P <sub>99</sub> = 13.8																								Hours in Service:	720																								
																								Hours of Data:	684																								
																								Hours of Missing Data:	36																								
																								Hours of Calibration:	35																								
																								Percent Operational Time:	99.9																								
Day	Hourly Period Ending At																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jun	0.1	0.1	Z	0.1	0.2	0.4	0.7	1.0	1.0	1.1	8.1	20.4	14.4	2.2	0.8	0.3	0.2	0.3	0.2	0.2	0.4	0.2	0.1	0.1	2.29	20.45																							
2-Jun	0.2	0.1	Z	0.1	0.5	1.2	1.9	2.1	1.9	1.2	0.8	0.4	0.2	0.1	0.1	0.1	0.3	0.9	0.4	0.2	0.7	0.3	0.1	0.1	0.60	2.12																							
3-Jun	0.2	0.1	Z	0.5	0.5	0.4	0.5	6.0	9.8	18.5	8.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	2.0	0.7	0.2	0.2	0.1	0.1	2.12	18.50																							
4-Jun	0.2	0.2	Z	0.3	0.4	1.2	1.7	1.7	0.5	9.5	9.8	9.5	1.0	1.0	2.5	1.1	3.0	1.4	0.3	0.3	0.4	0.1	0.1	0.1	2.01	9.78																							
5-Jun	0.0	0.1	Z	0.2	0.3	0.9	0.8	0.3	0.4	2.5	0.9	1.9	4.9	3.7	5.9	4.1	0.5	1.4	1.1	0.5	0.2	0.0	0.1	0.0	1.34	5.88																							
6-Jun	0.2	0.1	Z	0.2	0.3	0.5	0.7	1.0	0.9	0.9	0.7	0.5	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.1	0.2	0.1	0.1	0.1	0.39	0.98																							
7-Jun	0.1	0.1	Z	0.2	0.2	0.8	2.6	1.7	0.7	0.6	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.3	0.1	0.2	0.43	2.57																							
8-Jun	0.1	0.1	Z	0.5	0.5	0.6	0.5	0.7	0.8	0.7	1.1	0.7	0.3	0.3	0.3	0.3	0.3	0.2	0.4	0.3	0.4	0.3	0.3	0.2	0.43	1.11																							
9-Jun	0.2	0.2	Z	0.2	0.1	0.2	0.5	3.9	1.6	0.9	0.7	3.2	3.9	1.8	3.2	2.8	2.1	2.1	4.1	3.3	0.6	0.2	0.2	0.2	1.57	4.08																							
10-Jun	0.2	0.1	Z	0.1	0.1	0.2	0.9	1.4	0.4	0.2	0.2	0.1	0.2	0.3	0.1	0.1	0.1	0.2	0.2	0.5	0.1	0.0	0.0	0.0	0.25	1.45																							
11-Jun	0.0	0.0	Z	0.0	0.1	0.1	0.3	0.4	0.6	0.7	0.9	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.20	0.85																							
12-Jun	0.1	0.1	Z	0.1	0.2	0.3	0.3	0.4	0.2	0.3	0.3	0.3	AF	0.2	0.2	0.2	0.4	1.4	0.2	0.4	0.3	0.1	0.0	0.0	0.27	1.36																							
13-Jun	0.0	0.0	Z	0.1	0.1	0.5	0.8	0.9	3.2	1.8	1.0	1.6	0.7	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.52	3.22																							
14-Jun	0.0	0.1	Z	0.1	0.1	0.5	0.6	0.7	0.4	0.3	0.2	2.7	0.8	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.33	2.72																							
15-Jun	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.3	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.0	0.0	0.1	0.12	0.48																							
16-Jun	0.0	0.0	Z	0.1	0.1	0.3	0.4	0.4	0.5	1.4	4.3	4.1	2.9	1.8	1.6	3.3	0.3	0.2	1.2	0.2	0.1	0.1	0.0	0.1	1.01	4.28																							
17-Jun	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.3	0.4	0.4	1.8	1.1	2.4	3.7	0.5	3.1	0.3	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.65	3.67																							
18-Jun	0.0	0.1	Z	0.1	0.2	0.7	1.1	1.0	1.9	10.8	27.8	0.5	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.3	0.1	0.2	0.1	0.1	1.98	27.78																							
19-Jun	0.1	0.1	Z	0.1	0.2	1.0	2.0	7.7	6.6	7.2	2.2	2.7	1.7	0.6	0.9	0.4	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.1	1.48	7.72																							
20-Jun	0.1	0.0	Z	0.1	0.2	0.8	1.0	7.0	8.0	C	C	C	C	C	0.6	0.4	0.7	0.2	0.1	0.1	0.1	0.0	0.1	0.1	1.10	8.03																							
21-Jun	0.1	0.1	Z	0.1	0.1	0.2	0.3	0.5	0.7	0.7	0.6	0.4	0.3	8.6	5.1	5.4	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	1.05	8.64																							
22-Jun	0.1	0.1	Z	0.2	0.5	1.1	1.2	1.2	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.31	1.24																							
23-Jun	0.1	0.1	Z	0.2	0.4	0.9	0.8	1.3	2.4	0.9	3.1	2.3	0.7	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.62	3.08																							
24-Jun	0.1	0.1	Z	0.1	0.1	0.4	0.8	2.5	4.9	4.6	9.5	6.3	2.2	3.2	0.2	0.6	0.7	0.2	1.6	0.6	0.1	0.1	0.1	0.1	1.71	9.51																							
25-Jun	0.1	0.1	Z	0.1	0.3	0.7	0.2	0.6	1.8	3.8	7.9	10.5	6.0	0.4	0.2	0.1	0.2	0.2	0.6	0.1	0.2	0.1	0.5	0.7	1.53	10.49																							
26-Jun	0.1	0.5	Z	0.2	0.1	0.3	0.1	0.3	0.5	3.2	13.3	30.3	33.0	26.6	15.0	9.9	4.5	3.3	3.2	1.8	0.4	0.2	0.0	0.0	6.40	32.98																							
27-Jun	0.0	0.1	Z	0.1	0.1	0.9	2.4	1.2	2.5	1.8	1.6	0.6	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.56	2.53																							
28-Jun	0.0	0.0	Z	0.1	0.1	0.8	0.9	1.8	1.6	1.4	0.4	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.4	0.3	0.1	0.1	0.1	0.1	0.41	1.83																							
29-Jun	0.2	0.1	Z	0.1	0.2	1.1	1.0	0.9	1.0	0.8	1.4	1.7	0.7	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.45	1.74																							
30-Jun	0.1	0.1	Z	0.1	0.1	0.2	0.5	0.5	0.4	0.3	0.2	0.1	0.1	0.1	0.2	0.2	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.19	0.50																							
																								0.10	0.11	--	0.15	0.21	0.58	0.86	1.66	1.88	2.66	3.70	3.55	2.78	1.95	1.31	1.14	0.54	0.48	0.60	0.39	0.20	0.11	0.10	0.11	Diurnal Average	
																								0.19	0.50	--	0.47	0.53	1.17	2.57	7.72	9.80	18.50	27.78	30.34	32.98	26.63	15.02	9.86	4.54	3.34	4.08	3.28	0.66	0.31	0.52	0.67	Diurnal Maximum	
Z - zerospan      C - Calibration      AF - Analyzer Failure																																																	
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ppb      24-hr --- ppb																																																	







**WCAS - Genesee**  
**Summary of Hourly Averages**

**NOx (NO<sub>x</sub>) - ppb**  
**June 2016**

Maximum Value: 51.78 ppb on Jun 26 13:00		Maximum Daily Average: 14.72 ppb on Jun 26		Hours in Service: 720																							
Minimum Value: 0.8 ppb on Jun 15 13:00		Minimum Daily Average: 1.48 ppb on Jun 15		Hours of Data: 684																							
Maximum Diurnal Average: 8.93 ppb at hour 11		Minimum Diurnal Average: 3.30 ppb at hour 17		Hours of Missing Data: 36																							
Monthly Average: 4.964 ppb		Percentiles: P <sub>1</sub> = 0.8 P <sub>10</sub> = 1.4 Q <sub>1</sub> = 2.1 Median = 3.4 Q <sub>3</sub> = 5.4 P <sub>90</sub> = 9.1 P <sub>99</sub> = 31.4		Hours of Calibration: 35																							
				Percent Operational Time: 99.9																							
Day	Hourly Period Ending At																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jun	3.7	3.4	Z	3.9	4.0	4.6	4.6	4.6	4.5	4.9	18.7	39.4	32.9	8.3	6.4	3.9	2.2	2.2	2.8	3.4	8.8	4.8	4.2	4.7	7.86	39.37	
2-Jun	4.9	5.3	Z	5.0	6.7	7.9	7.7	7.1	7.2	5.3	3.7	2.8	2.0	1.9	1.9	2.3	3.8	6.2	5.6	4.1	9.9	8.5	3.1	3.5	5.06	9.91	
3-Jun	4.0	4.3	Z	10.4	8.0	3.4	2.7	15.3	20.7	37.0	19.8	1.5	1.4	1.6	1.6	1.7	1.7	1.8	11.2	6.4	3.6	9.1	6.2	3.9	7.71	37.02	
4-Jun	3.6	4.2	Z	7.2	7.5	7.0	6.5	5.5	2.7	18.9	24.4	22.2	4.6	4.6	8.5	4.6	11.1	7.2	3.0	3.1	5.9	5.4	4.7	4.6	7.69	24.39	
5-Jun	2.8	2.3	Z	7.4	7.2	7.6	5.0	2.6	3.0	10.9	4.5	8.8	18.3	15.0	22.6	18.8	4.6	10.2	9.9	8.5	10.1	12.1	14.0	10.7	9.42	22.55	
6-Jun	6.8	6.2	Z	6.5	6.4	6.6	6.4	6.2	5.4	4.8	4.5	3.9	3.6	3.3	2.7	2.9	2.8	3.1	3.8	4.6	5.4	2.4	2.2	2.1	4.46	6.79	
7-Jun	2.7	3.5	Z	5.2	6.3	7.0	10.0	7.1	4.4	3.1	2.3	2.2	2.5	2.3	2.3	2.5	2.8	4.0	3.4	4.8	4.6	6.2	4.3	4.3	4.26	10.03	
8-Jun	4.5	5.9	Z	6.9	5.5	5.7	4.2	4.8	4.9	5.4	7.4	5.7	4.0	3.7	3.2	3.5	3.6	3.0	6.0	4.5	6.1	4.8	3.2	2.8	4.76	7.40	
9-Jun	2.4	2.4	Z	4.0	2.2	2.1	2.4	12.3	5.8	3.8	3.1	10.5	10.4	6.0	10.3	9.1	7.6	7.8	15.5	14.1	5.0	1.4	1.2	2.2	6.15	15.52	
10-Jun	4.6	1.1	Z	1.3	1.4	1.4	3.9	5.4	1.8	1.3	1.3	1.3	1.6	2.2	1.7	1.5	1.4	2.8	3.4	4.8	3.0	2.6	2.5	2.3	2.37	5.44	
11-Jun	3.1	3.2	Z	2.7	3.0	2.9	2.9	3.1	3.1	3.1	3.0	2.6	2.3	2.2	2.0	1.4	1.2	1.1	1.4	1.1	1.1	1.6	1.9	2.0	2.26	3.21	
12-Jun	1.9	2.1	Z	2.4	3.3	3.4	2.9	2.5	1.8	1.8	1.8	1.6	AF	1.4	1.4	1.6	2.3	5.5	1.6	3.2	4.6	5.7	2.4	1.6	2.58	5.67	
13-Jun	2.0	1.7	Z	2.6	3.1	3.3	3.5	3.3	9.5	6.0	3.8	5.5	3.3	2.0	1.5	1.6	1.8	1.9	2.1	2.6	2.4	2.8	3.4	3.1	3.16	9.46	
14-Jun	3.3	4.5	Z	2.7	3.5	4.0	3.0	3.0	2.4	2.3	2.2	8.7	4.1	1.5	1.7	1.6	2.0	2.2	2.0	1.4	1.3	1.2	1.1	1.0	2.66	8.74	
15-Jun	1.4	1.3	Z	1.8	1.8	1.9	1.9	2.1	2.2	1.3	0.9	0.8	0.8	0.9	0.9	0.9	0.9	0.9	1.0	2.8	2.2	1.5	1.7	2.2	1.48	2.79	
16-Jun	1.9	1.9	Z	2.0	1.9	2.3	2.5	2.4	2.4	4.2	10.6	11.1	9.1	8.0	5.4	8.6	1.7	1.4	3.9	1.5	2.0	1.8	1.2	1.4	3.87	11.05	
17-Jun	1.1	1.2	Z	1.2	1.2	1.3	1.3	1.8	1.9	1.8	4.9	3.5	6.7	8.2	2.3	7.9	1.6	1.2	1.3	1.8	3.0	2.8	2.3	2.7	2.74	8.17	
18-Jun	2.7	2.9	Z	2.7	2.8	3.9	3.9	3.1	5.2	20.1	40.1	2.3	1.2	1.3	1.3	1.3	1.3	1.3	1.4	2.7	2.9	3.8	3.4	3.4	4.99	40.12	
19-Jun	2.9	3.6	Z	4.2	5.3	6.5	7.0	17.6	16.1	17.6	6.8	8.9	6.9	3.0	4.0	2.2	1.4	1.2	1.2	1.2	1.6	6.2	3.0	3.0	5.72	17.62	
20-Jun	3.8	3.5	Z	4.8	5.0	5.6	4.4	17.2	19.1	C	C	C	C	C	4.7	3.3	4.7	2.6	2.1	2.5	3.1	2.7	4.0	4.5	5.43	19.06	
21-Jun	4.6	3.4	Z	4.2	3.2	3.4	4.2	4.6	4.6	4.1	3.8	3.3	3.0	24.5	20.8	19.6	2.3	2.9	3.1	3.6	3.1	3.8	4.2	4.2	6.02	24.47	
22-Jun	4.8	4.2	Z	5.9	6.1	5.7	5.0	4.1	2.4	2.1	2.1	1.9	1.4	1.3	1.2	1.1	1.2	2.7	1.6	2.1	5.1	6.5	3.5	3.8	3.30	6.47	
23-Jun	3.1	3.4	Z	4.7	4.1	4.6	3.4	3.9	7.0	3.4	9.4	7.9	3.6	1.6	1.5	2.2	3.0	2.4	1.6	2.1	2.6	3.5	3.1	6.9	3.88	9.39	
24-Jun	7.2	4.6	Z	3.2	2.8	3.1	3.1	6.8	11.2	15.5	22.8	16.1	5.5	7.4	1.6	3.5	9.4	4.4	6.9	3.6	2.8	2.5	6.0	4.4	6.71	22.81	
25-Jun	1.8	2.8	Z	7.1	7.5	8.4	2.6	3.1	6.6	8.6	15.0	19.8	12.7	2.3	1.8	1.1	1.6	1.7	3.4	1.7	3.8	6.0	7.6	15.2	6.19	19.85	
26-Jun	3.1	7.8	Z	5.0	2.1	5.5	1.6	2.0	2.3	6.7	25.0	49.1	51.8	46.1	29.3	22.0	13.1	11.0	11.9	9.6	8.0	13.3	8.5	3.8	14.72	51.78	
27-Jun	2.8	2.7	Z	2.8	2.6	4.6	7.7	4.4	7.6	6.5	6.2	4.0	2.7	1.8	1.8	1.3	1.4	1.6	1.9	2.1	2.1	3.5	4.1	3.7	3.47	7.69	
28-Jun	3.6	3.9	Z	5.1	4.6	4.6	4.3	5.2	5.9	5.9	2.6	1.9	2.1	2.0	1.6	1.3	1.4	1.5	4.0	3.9	4.9	4.9	8.8	7.6	3.98	8.81	
29-Jun	7.2	4.2	Z	3.5	3.8	5.3	4.1	3.7	4.3	4.3	6.7	8.2	4.7	2.2	1.4	1.5	2.4	1.8	1.8	1.9	2.1	2.6	3.0	3.1	3.65	8.24	
30-Jun	2.8	3.3	Z	3.1	3.3	3.3	3.1	2.4	2.2	2.0	1.7	1.8	1.8	1.8	1.7	1.7	2.7	1.7	1.7	2.0	2.2	2.0	3.7	2.5	2.36	3.69	
		3.51	3.49	--	4.31	4.20	4.56	4.20	5.58	5.93	7.34	8.93	8.86	7.32	5.80	4.97	4.55	3.30	3.31	4.02	3.73	4.11	4.54	4.09	4.04	Diurnal Average	
		7.24	7.80	--	10.35	8.02	8.42	10.03	17.62	20.70	37.02	40.12	49.07	51.78	46.14	29.33	22.01	13.07	11.03	15.52	14.10	10.08	13.30	13.99	15.19	Diurnal Maximum	
Z - zerospan      C - Calibration      AF - Analyzer Failure Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ppb    24-hr --- ppb																											



**WCAS - Genesee**  
**Summary of Hourly Averages**

**PM2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>**  
**June 2016**

Maximum Value: 21.51 µg/m <sup>3</sup> on Jun 6 21:00		Maximum Daily Average: 8.56 µg/m <sup>3</sup> on Jun 6		Hours in Service: 720																																													
Minimum Value: 0.0 µg/m <sup>3</sup> on Jun 1 01:00		Minimum Daily Average: 0.55 µg/m <sup>3</sup> on Jun 15		Hours of Data: 716																																													
Maximum Diurnal Average: 4.73 µg/m <sup>3</sup> at hour 20		Minimum Diurnal Average: 2.22 µg/m <sup>3</sup> at hour 1		Hours of Missing Data: 4																																													
Monthly Average: 3.341 µg/m <sup>3</sup>		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.9 Median = 2.7 Q <sub>3</sub> = 4.9 P <sub>90</sub> = 7.4 P <sub>99</sub> = 15.3		Hours of Calibration: 4																																													
				Percent Operational Time: 100.0																																													
Day	Hourly Period Ending At																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jun	0.0	0.1	1.4	0.1	0.3	2.2	1.2	3.2	4.3	3.6	2.2	9.1	3.3	5.4	6.7	5.1	5.1	2.0	5.5	0.4	1.6	1.6	0.1	3.3	2.82	9.06																							
2-Jun	3.2	2.2	2.4	4.1	7.2	6.1	5.8	6.9	2.2	0.3	3.2	0.0	0.0	3.3	2.5	3.9	5.3	5.3	4.7	1.5	0.9	0.0	0.0	1.8	3.04	7.16																							
3-Jun	1.0	0.0	0.2	0.0	0.0	4.5	0.4	1.7	2.4	0.3	0.0	1.1	1.2	2.2	2.6	1.4	0.0	1.2	5.7	3.5	2.4	3.5	2.7	0.0	1.58	5.65																							
4-Jun	3.1	2.8	0.5	3.7	3.1	6.0	7.3	4.1	0.0	0.4	5.3	1.4	3.5	2.3	2.5	1.3	4.2	5.1	6.1	8.8	0.0	0.0	0.0	0.0	2.98	8.81																							
5-Jun	2.1	2.4	10.2	8.2	4.4	8.2	8.0	1.6	1.9	0.0	0.0	7.9	4.4	5.5	4.2	5.5	1.4	6.1	5.2	9.2	6.8	9.9	13.6	14.8	5.91	14.84																							
6-Jun	6.6	4.9	5.6	3.9	6.3	7.6	8.0	6.6	6.2	9.0	12.4	12.9	9.8	4.9	4.5	2.6	4.5	14.8	9.4	16.0	21.5	19.3	7.2	0.9	8.56	21.51																							
7-Jun	3.5	9.0	5.9	7.6	6.1	10.9	20.6	8.6	6.0	1.7	8.3	4.9	0.0	3.7	8.8	10.0	12.0	16.9	12.7	15.6	9.1	8.0	5.3	0.4	8.16	20.64																							
8-Jun	6.7	10.6	6.3	7.1	5.9	6.6	0.6	7.5	7.8	9.2	11.0	19.1	14.7	13.5	0.5	15.5	1.3	0.0	9.9	0.7	7.9	9.0	8.1	3.5	7.63	19.13																							
9-Jun	4.3	5.5	6.4	6.4	4.4	2.1	0.0	0.0	1.2	1.8	2.4	0.6	0.0	0.0	1.2	0.0	1.2	0.0	3.9	4.6	0.8	0.0	0.0	0.0	1.95	6.40																							
10-Jun	0.0	2.7	2.4	1.1	1.6	4.1	6.5	5.2	0.0	4.0	6.3	4.1	4.5	3.5	7.8	4.0	2.0	4.8	1.1	5.7	0.0	1.5	1.9	2.0	3.19	7.84																							
11-Jun	4.3	0.0	1.1	5.6	3.5	4.3	0.8	5.1	1.8	1.4	3.1	3.0	1.5	2.8	0.0	0.0	0.5	0.0	0.0	0.0	2.5	2.9	0.0	0.0	1.84	5.59																							
12-Jun	0.0	0.0	0.5	5.2	1.7	1.4	0.4	0.1	1.5	0.0	0.0	3.5	0.0	2.4	0.4	1.2	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.98	5.24																							
13-Jun	0.4	0.0	0.3	0.0	2.1	1.9	2.4	3.3	0.0	1.1	0.0	3.9	0.0	0.0	0.0	3.5	0.0	2.6	0.7	4.2	4.4	3.5	1.3	2.1	1.58	4.43																							
14-Jun	3.1	0.0	2.2	4.5	4.2	3.5	2.7	6.4	2.7	1.6	0.0	1.8	0.0	0.0	2.5	0.0	0.3	3.3	3.1	0.0	0.0	2.4	0.0	0.0	1.85	6.39																							
15-Jun	0.0	1.1	0.4	1.4	0.3	0.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	1.7	5.2	0.0	0.5	0.0	1.0	0.55	5.17																							
16-Jun	0.0	1.0	0.0	0.0	0.9	0.8	3.4	1.8	0.0	2.0	1.9	3.0	2.8	8.1	1.1	0.4	0.0	1.6	2.8	0.0	0.0	0.0	0.0	0.4	1.33	8.15																							
17-Jun	1.6	5.5	1.7	0.9	1.1	0.0	0.6	2.6	1.1	1.3	0.0	2.3	3.8	0.0	1.6	2.1	0.1	4.0	2.1	3.1	0.6	0.0	0.0	3.6	1.65	5.53																							
18-Jun	0.0	0.0	0.0	1.0	1.3	3.8	5.1	0.0	1.5	4.0	6.9	1.3	0.9	2.3	0.7	0.5	0.9	0.5	2.7	8.6	2.4	7.6	3.0	0.3	2.30	8.61																							
19-Jun	0.8	6.0	6.0	3.0	3.2	3.1	5.7	6.4	2.2	4.4	8.1	0.0	1.3	0.0	1.7	4.7	5.5	2.3	5.1	6.3	5.0	3.5	2.7	2.7	3.73	8.08																							
20-Jun	3.1	1.7	3.8	0.9	1.4	5.8	4.6	5.8	4.3	C	C	C	C	0.9	0.7	0.3	1.1	2.9	3.3	4.9	5.5	5.0	5.8	7.8	3.48	7.75																							
21-Jun	5.8	1.9	2.6	1.6	1.7	2.8	3.2	3.5	6.0	6.2	6.3	5.3	4.7	4.5	4.0	6.1	1.7	4.9	2.5	4.1	3.1	2.8	1.9	1.8	3.71	6.30																							
22-Jun	1.2	1.5	2.4	3.5	3.7	4.9	4.0	4.0	4.3	4.0	4.0	3.7	2.2	1.0	1.9	1.7	1.7	2.9	0.0	4.0	1.8	3.7	2.7	3.3	2.84	4.93																							
23-Jun	0.0	0.0	0.0	0.2	1.5	2.9	2.5	3.7	1.4	0.8	0.4	0.4	1.5	1.5	0.0	0.9	2.1	1.2	1.9	2.4	0.6	0.4	0.6	1.4	1.18	3.74																							
24-Jun	0.7	0.0	0.4	1.1	2.2	3.0	2.8	2.5	2.9	3.7	5.5	3.0	3.2	2.2	1.5	1.8	3.2	2.2	1.3	2.0	0.8	1.7	1.5	1.3	2.09	5.45																							
25-Jun	0.9	1.3	2.2	3.5	1.8	4.3	3.7	4.5	3.2	4.1	5.3	5.9	4.0	3.6	3.3	5.0	2.3	2.7	3.6	2.3	0.6	4.8	3.7	1.4	3.26	5.95																							
26-Jun	2.5	0.5	1.4	0.7	1.4	1.5	1.7	2.2	2.7	5.6	4.6	3.0	7.3	3.1	2.0	3.5	3.5	2.4	3.8	4.7	2.9	4.4	4.0	3.5	3.04	7.29																							
27-Jun	2.1	2.8	2.6	2.0	4.0	4.6	7.8	5.1	5.6	5.7	6.3	4.2	5.7	0.0	2.8	2.1	0.4	7.0	5.9	4.6	3.7	6.9	4.1	4.0	4.17	7.79																							
28-Jun	4.0	4.5	4.7	4.1	2.5	7.3	8.3	6.1	4.4	4.3	4.1	4.6	4.1	3.3	0.4	0.8	0.0	3.6	11.8	7.8	7.7	7.2	3.8	2.7	4.67	11.79																							
29-Jun	1.2	2.8	2.6	0.3	4.7	5.5	9.3	8.3	8.7	5.3	5.5	4.3	5.3	5.4	3.3	7.8	10.1	6.8	11.6	8.6	6.9	9.0	8.4	8.2	6.24	11.60																							
30-Jun	4.6	5.0	3.6	3.7	4.4	4.7	5.6	4.7	6.5	7.4	6.4	6.2	2.2	4.4	7.6	5.8	3.7	0.0	4.5	3.0	0.0	0.0	1.0	0.0	3.96	7.62																							
																								2.22	2.53	2.65	2.85	2.89	4.16	4.46	4.06	3.10	3.21	4.12	4.16	3.17	2.99	2.57	3.26	2.65	3.57	4.41	4.73	3.32	3.89	2.85	2.41	Diurnal Average	
																								6.69	10.62	10.17	8.21	7.16	10.92	20.64	8.59	8.70	9.24	12.42	19.13	14.67	13.53	8.79	15.50	12.00	16.92	12.73	15.95	21.51	19.30	13.64	14.84	Diurnal Maximum	
C - Calibration																																																	
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 80 ul/m <sup>3</sup> 24-hr 30 ul/m <sup>3</sup>																																																	

# Calibration Data Summary

## West Central Airshed Society

Operator: WCAS

Location: Station 910, Genesee

Calibration Date: June 20, 2016

Parameter: NO/NO<sub>2</sub>/NO<sub>x</sub>

Instrument: 42i

Serial Number: 1150790046

Previous Calibration Date: May 13,2016

Calibration: Routine

Calibration Equipment: SABIO 2010 sn 05200311

Barometric Pressure: 27.55" Hg

Calibration Method: Standard Gas Dilution/ GPT

Cylinder ID: FF9469

Temperature: 22.0° C

Cylinder Concentration: 12.6 ppm No/ NOX

In Service: Jan.14/15

Technician: J.McClintock

Instrument Settings	NO bkg ppb	NO <sub>x</sub> bkg ppb	Pre-reactor bkg ppb	NO Coefficient	NO <sub>x</sub> Coefficient	NO <sub>2</sub> Coefficient	Monitoring Range
Previous	1.9	2.8	na	1.235	1.005	1.000	300 ppb
Current	1.9	2.4	na	1.265	1.000	1.000	300 ppb

NO	Final Zero: 0.4 ppb	Final Span: 225.2 ppb	As Found Correction Factor: 1.016
NO <sub>2</sub>	Final Zero: -0.5 ppb	Final Span: -0.3 ppb	As Found Correction Factor: 1.000
NO <sub>x</sub>	Final Zero: 0.0 ppb	Final Span: 225.3 ppb	As Found Correction Factor: 1.017

Results of Linear Regression			Slope	Intercept	R <sup>2</sup>
NO	R <sub>c</sub> vs C <sub>c</sub>	Previous	99.998470	20.197250	0.999981
		Current	100.105200	-23.965760	0.999991
	C <sub>i</sub> vs C <sub>c</sub>	Current	1.000000	0.000030	0.999991
NO <sub>2</sub>	R <sub>c</sub> vs C <sub>c</sub>	Previous	100.324400	28.956520	0.999981
		Current	99.912960	19.864040	0.999999
	C <sub>i</sub> vs C <sub>c</sub>	Current	1.000000	0.000000	0.999999
NO <sub>x</sub>	R <sub>c</sub> vs C <sub>c</sub>	Previous	100.309400	17.882930	0.999981
		Current	99.930820	-30.114980	0.999988
	C <sub>i</sub> vs C <sub>c</sub>	Current	1.000000	-0.000009	0.999988

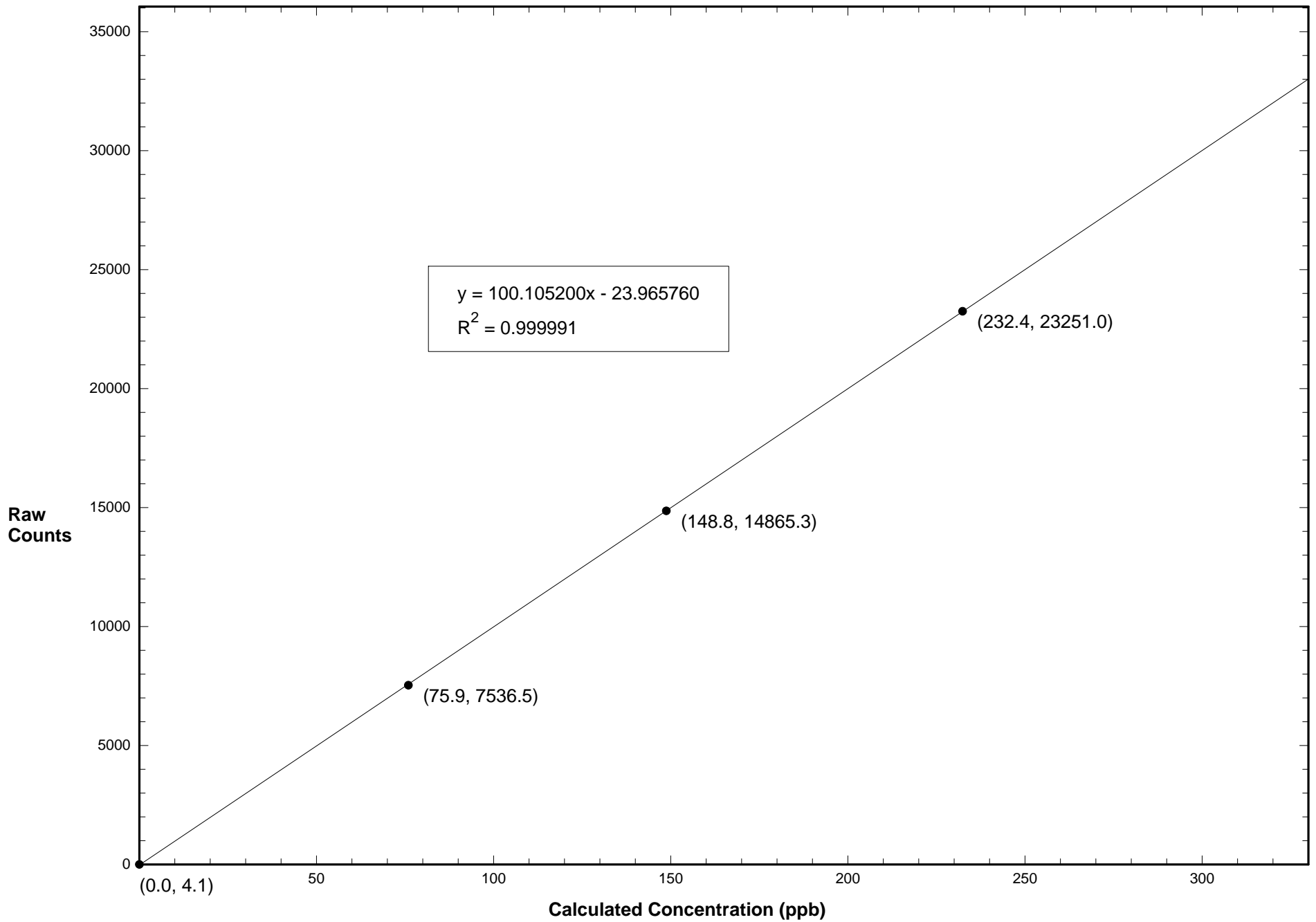
Comments:

**Calibration Data Summary (Page 2)**

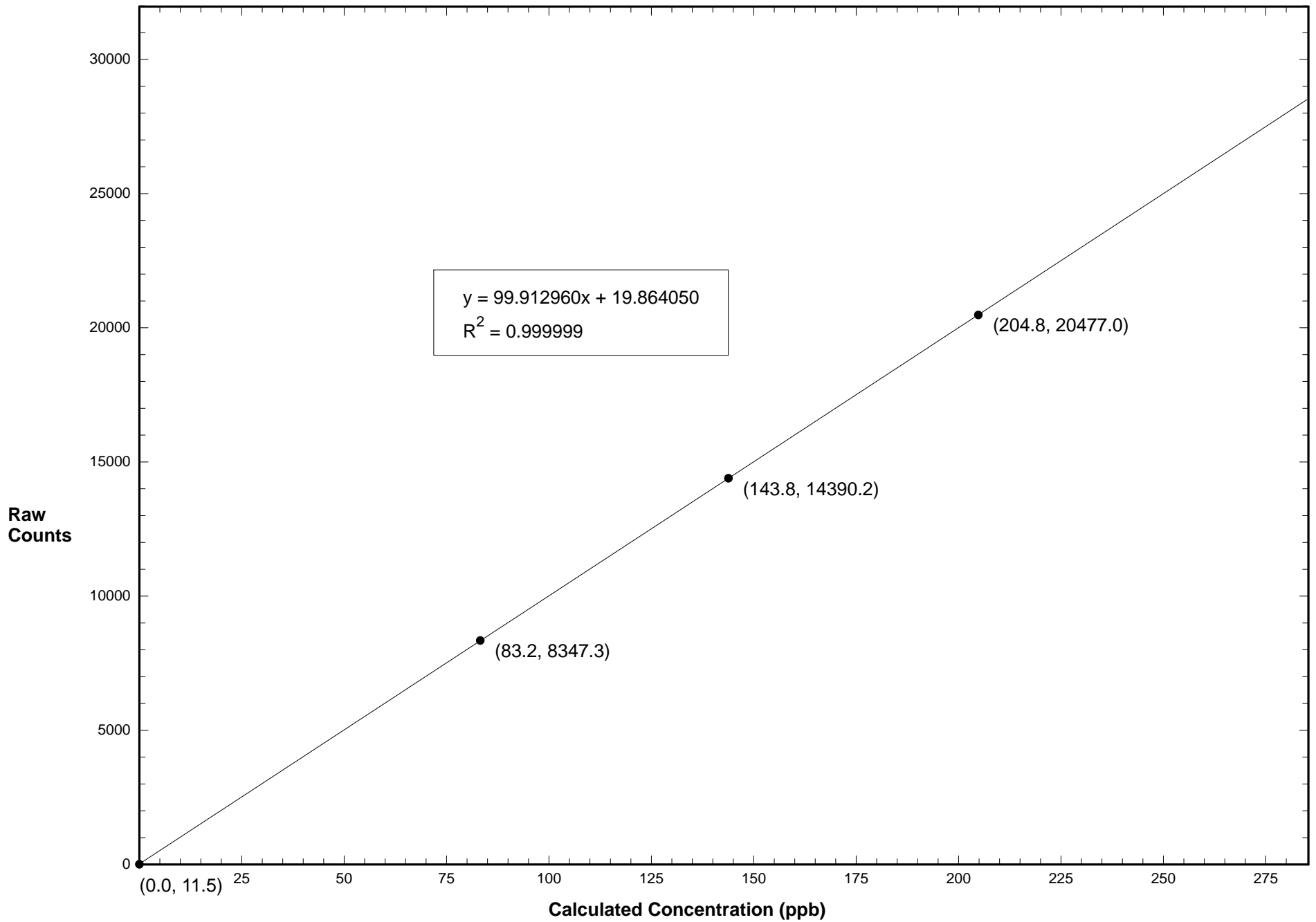
June 20, 2016 - Station 910

NO Flow Rate (LPM)	Dilution Flow Rate (LPM)	Calculated Concentration C <sub>c</sub> (ppb)	Raw Count Output R <sub>c</sub>	Indicated Concentration C <sub>i</sub> (ppb)	Correction Factor C <sub>c</sub> /C <sub>i</sub>		
0.09610	5.115	232.4	23251.0	232.5	0.999		
0.06100	5.106	148.8	14865.3	148.7	1.000		
0.03080	5.080	75.9	7536.5	75.5	1.005		
0.00000	5.000	0.0	4.1	0.3			
NO Calibration					Average Correction Factor:	1.002	
0.09610	5.115	232.4	23210.7	232.6	0.999		
0.06100	5.106	148.8	14825.1	148.7	1.001		
0.03080	5.080	75.9	7513.5	75.5	1.006		
0.00000	5.000	0.0	3.3	0.3			
NO <sub>x</sub> Calibration					Average Correction Factor:	1.002	
Reference Concentration NO (ppb)	Raw Count Output NO	Calculated Concentration NO (ppb)	Calculated Concentration NO <sub>2</sub> , C <sub>c</sub> (ppb)	Raw Count Output R <sub>c</sub>	Indicated Concentration C <sub>i</sub> (ppb)	Correction Factor C <sub>c</sub> /C <sub>i</sub>	Converter Efficiency C <sub>i</sub> /C <sub>c</sub>
231.5	2650.6	26.7	204.8	20477.0	204.7	1.000	1.000
231.5	8758.7	87.7	143.8	14390.2	143.8	1.000	1.000
231.5	14823.5	148.3	83.2	8347.3	83.3	0.998	1.002
			0.0	11.5	-0.1		
						Average Correction Factor:	1.000
NO <sub>2</sub> Gas Phase Titration						Average Converter Efficiency:	1.000
Parameter	Correction Factor (Previous)	Correction Factor: (Current)	Percent Change of Correction Factor				
NO	1.000	0.999	-0.1				
NO <sub>2</sub>	0.998	1.000	0.2				
NO <sub>x</sub>	0.999	0.999	0.0				

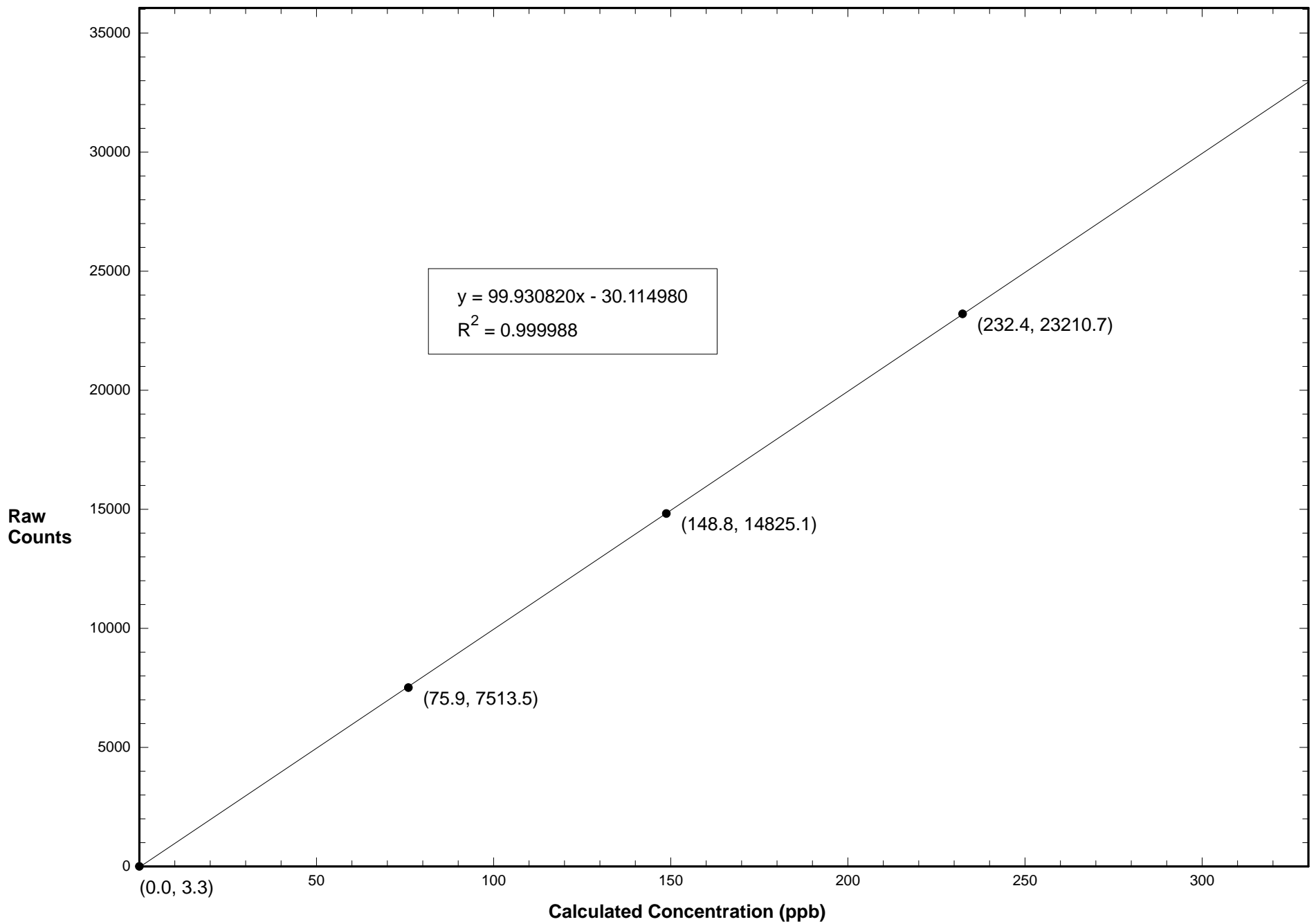
# Station 910 NO June 20, 2016: Linear Regression



# Station 910 NO2 June 20, 2016: Linear Regression

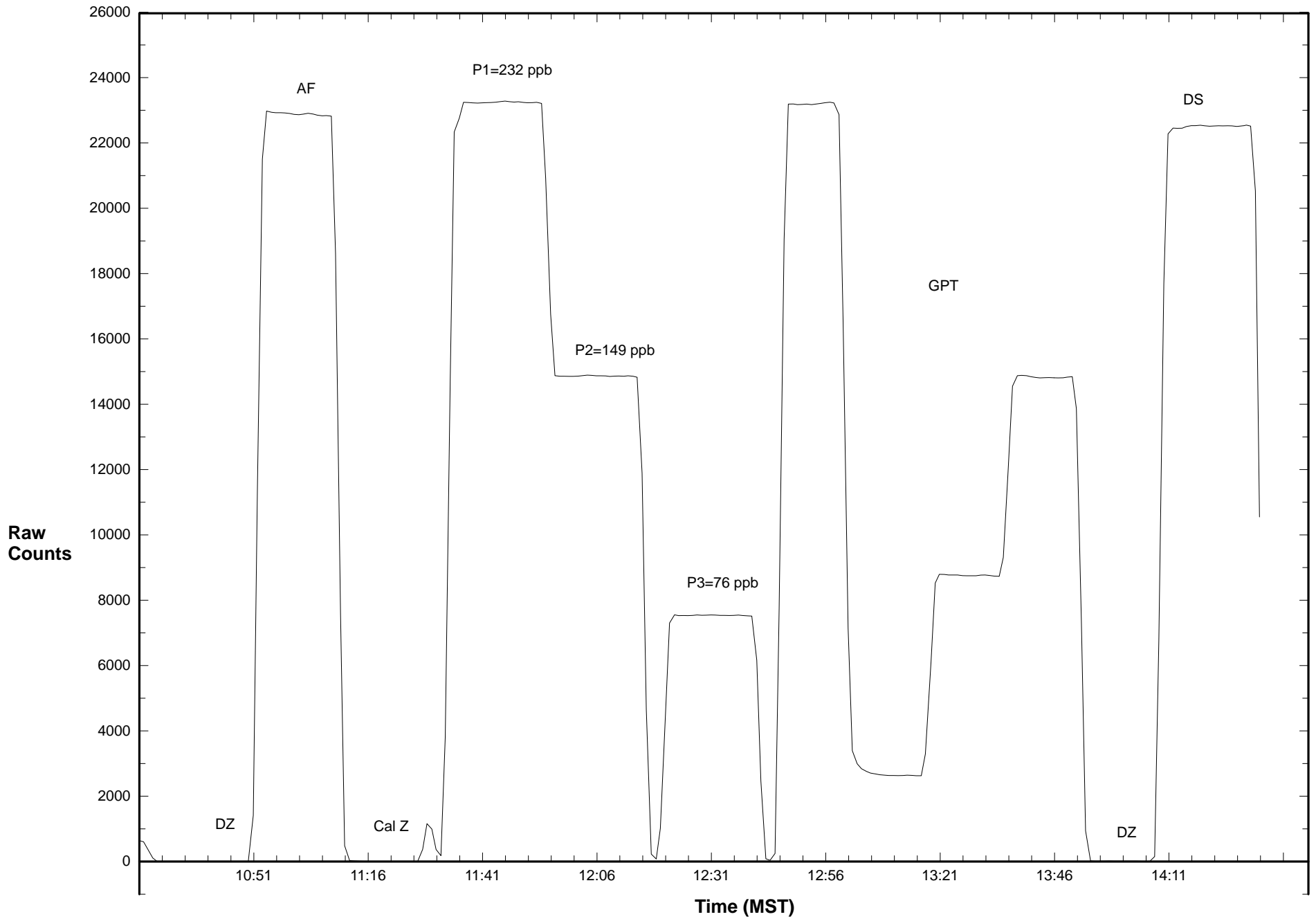


# Station 910 NOX June 20, 2016: Linear Regression

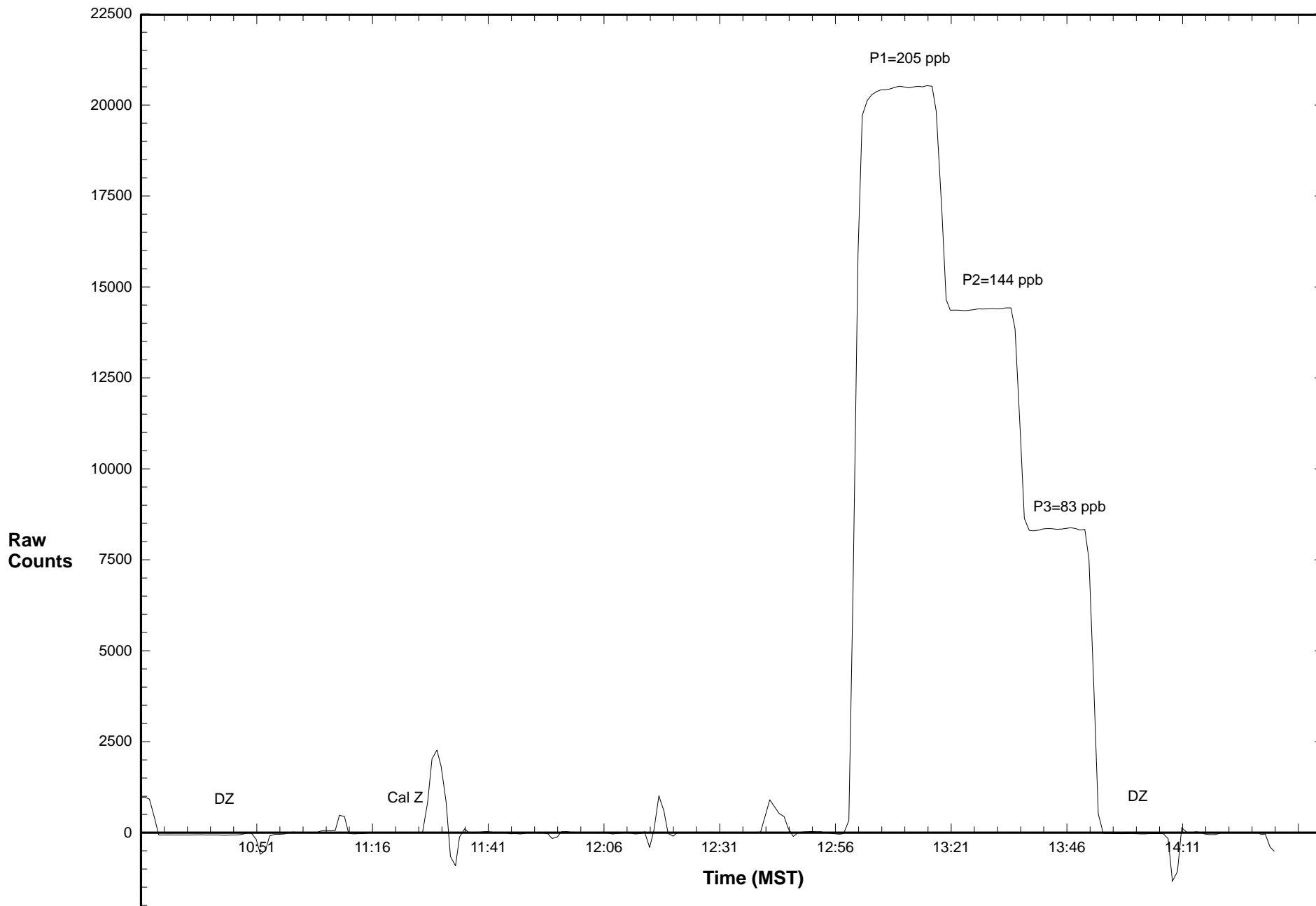




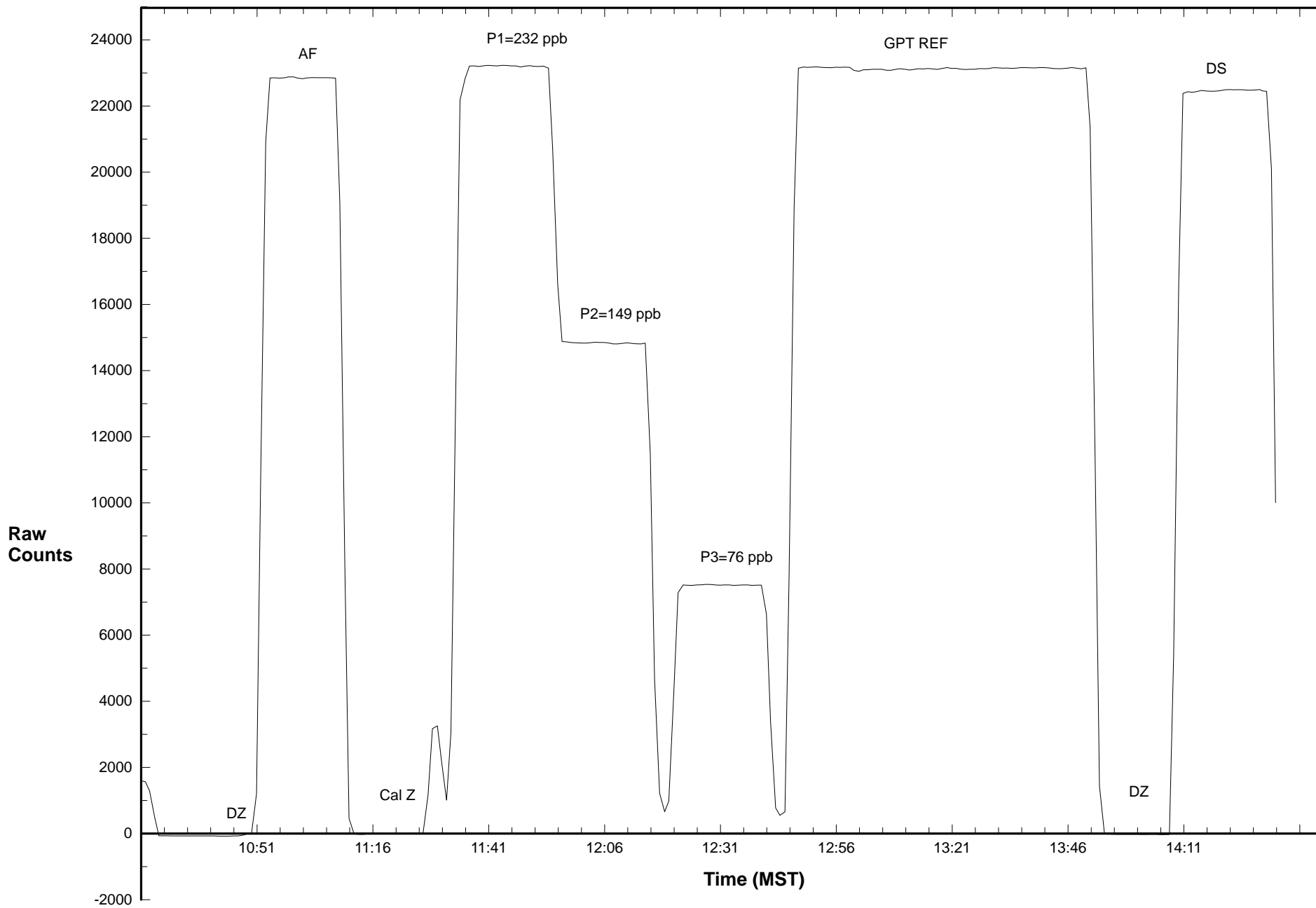
# Station 910 NO June 20, 2016: Calibration Graph



# Station 910 NO2 June 20, 2016: Calibration Graph



# Station 910 NOX June 20, 2016: Calibration Graph



# Calibration Data Summary

## West Central Airshed Society

Operator: WCAS

Location: Station 910, Genesee

Calibration Date: June 20, 2016

Parameter: O<sub>3</sub>

Instrument: Teco 49i

Serial Number: 1150790051

Previous Calibration Date: May 13,2016

Calibration: Routine

Calibration Equipment: 2B Technology 306 SN 145 Barometric Pressure: 27.55" Hg

Calibration Method: Ozone Generator

Temperature: 22.0° C

Technician: J.McClintock

Instrument Settings	Background	Coefficient	Monitoring Range
Previous	-0.9	1.012	500 ppb
Current	-0.5	0.995	500 ppb

Final Zero: -2.0 ppb

Final Span: 375.1 ppb

As Found Correction Factor: 0.975

Calibration System Flow Rate (LPM)	Calculated Concentration C <sub>c</sub> (ppb)	Raw Count Output R <sub>c</sub>	Indicated Concentration C <sub>i</sub> (ppb)	Correction Factor C <sub>c</sub> /C <sub>i</sub>
3.000	409.0	24543.3	408.2	1.002
3.000	256.0	15475.5	257.1	0.996
3.000	102.0	6175.5	102.2	0.998
3.000	0.0	9.0	-0.6	

### Results of Linear Regression

R <sub>c</sub> vs C <sub>c</sub>	Slope	Intercept	R <sup>2</sup>
Previous	59.877060	101.267200	0.999931
Current	60.014880	42.971200	0.999977
C <sub>i</sub> vs C <sub>c</sub>			
Current	1.000000	0.000000	0.999977

Average Correction Factor: 0.999

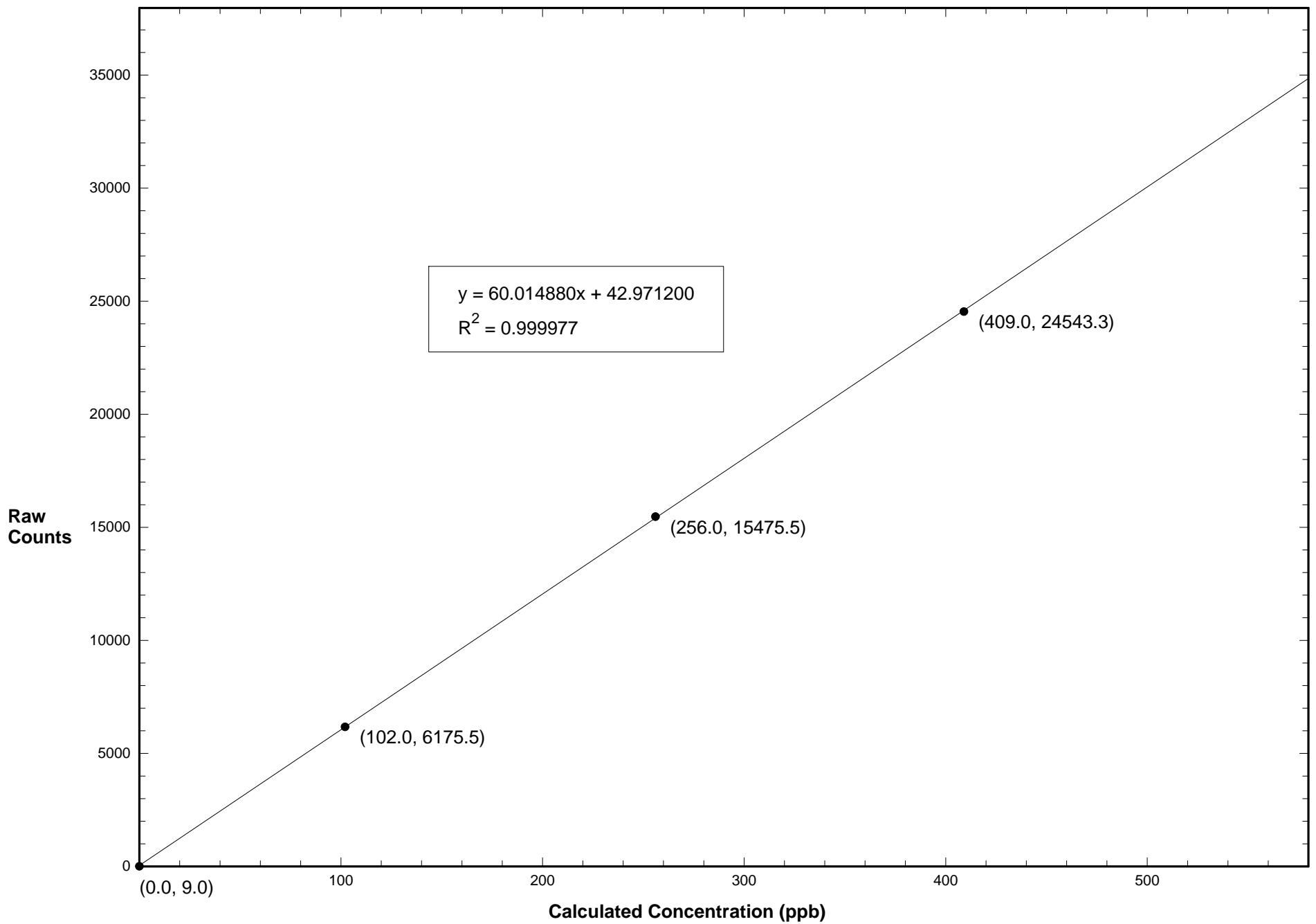
Previous Correction Factor: 1.003

Current Correction Factor: 1.002

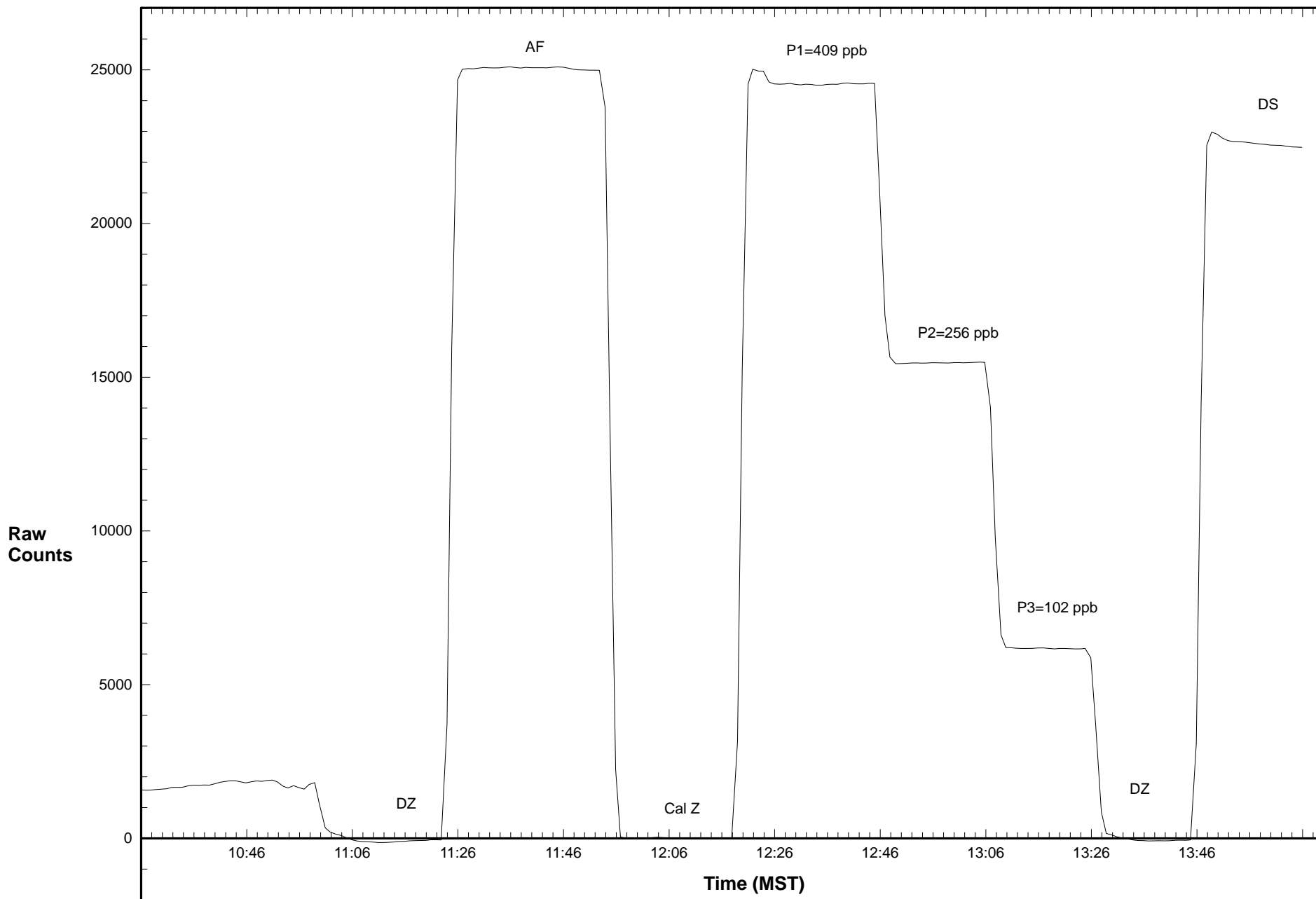
Percent Change of Correction Factor: -0.1

Comments:

### Station 910 O3 June 20, 2016: Linear Regression



# Station 910 O3 June 20, 2016: Calibration Graph



# Calibration Data Summary

## West Central Airshed Society

Operator: WCAS

Location: Station 910, Genesee

Calibration Date: June 20, 2016

Parameter: SO<sub>2</sub>

Instrument: Teco 43 i

Serial Number: JC1433001437

Previous Calibration Date: May 13,2016

Calibration: Routine

Calibration Equipment: SABIO 2010 sn 05200311

Barometric Pressure: 27.55" Hg

Calibration Method: Standard Gas Dilution

Cylinder ID: FF9469

Temperature: 22.0° C

Cylinder Concentration: 6.2 ppm SO<sub>2</sub>

In Service: Jan.14/15

Technician: J.McClintock

Instrument Settings	SO <sub>2</sub> bkg ppb	SO <sub>2</sub> Coefficient	Monitoring Range
Previous	37.1	1.096	200 ppb
Current	33.2	1.049	200 ppb

Final Zero: 0.3 ppb

Final Span: 102.7 ppb

As Found Correction Factor: 0.959

SO <sub>2</sub> Flow Rate (LPM)	Dilution Flow Rate (LPM)	Calculated Concentration C <sub>c</sub> (ppb)	Raw Count Output R <sub>c</sub>	Indicated Concentration C <sub>i</sub> (ppb)	Correction Factor C <sub>c</sub> /C <sub>i</sub>
0.0961	5.115	114.3	17082.8	113.9	1.004
0.0610	5.106	73.2	11103.4	74.0	0.989
0.0308	5.080	37.4	5565.2	37.1	1.008
0.0000	5.000	0.0	-4.7	-0.1	

### Results of Linear Regression

R <sub>c</sub> vs C <sub>c</sub>	Slope	Intercept	R <sup>2</sup>
Previous	150.657200	5.816017	0.999965
Current	149.885800	9.498999	0.999868
C <sub>i</sub> vs C <sub>c</sub>			
Current	1.000000	0.000000	0.999868

Average Correction Factor: 1.000

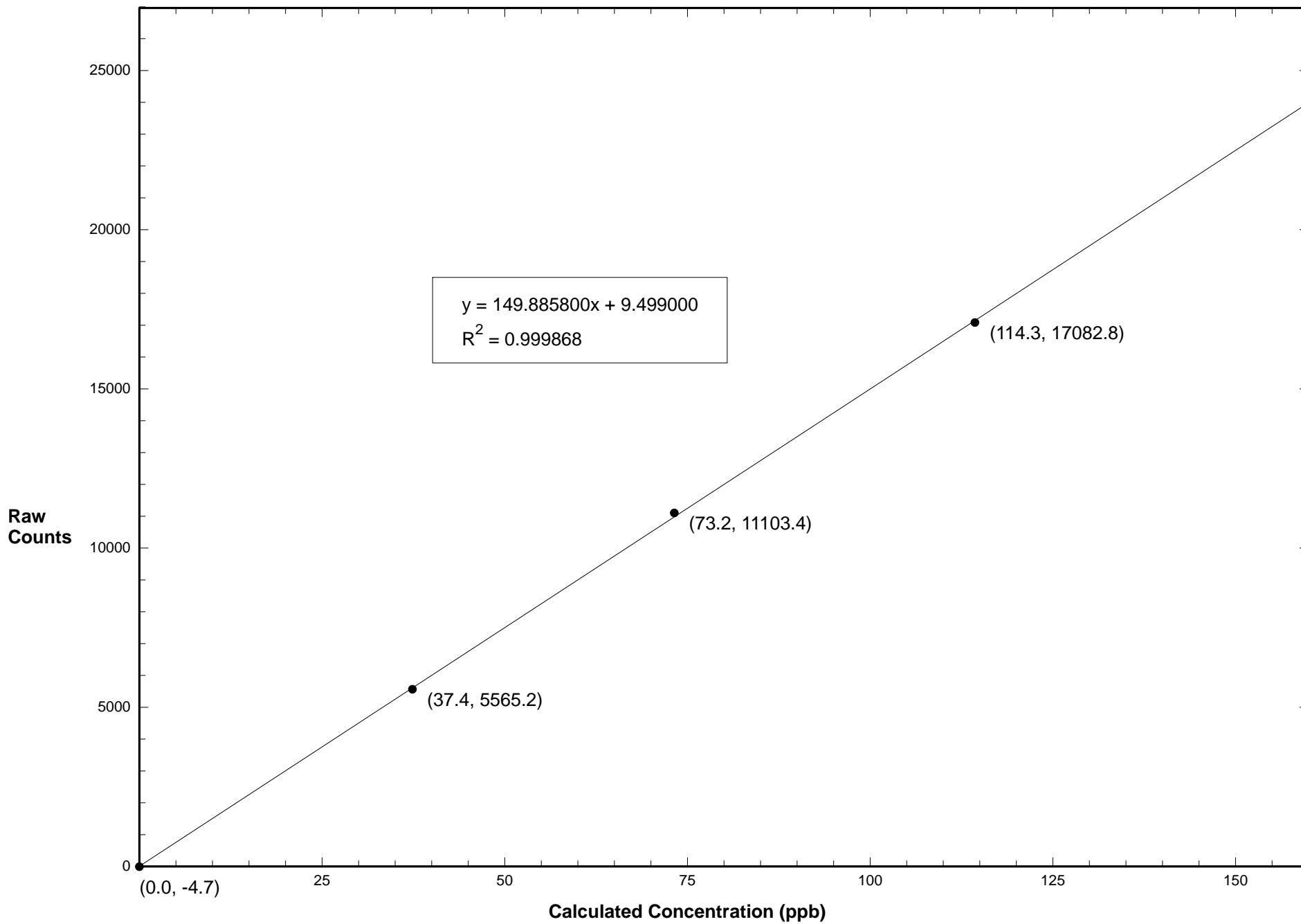
Previous Correction Factor: 1.002

Current Correction Factor: 1.004

Percent Change of Correction Factor: 0.2

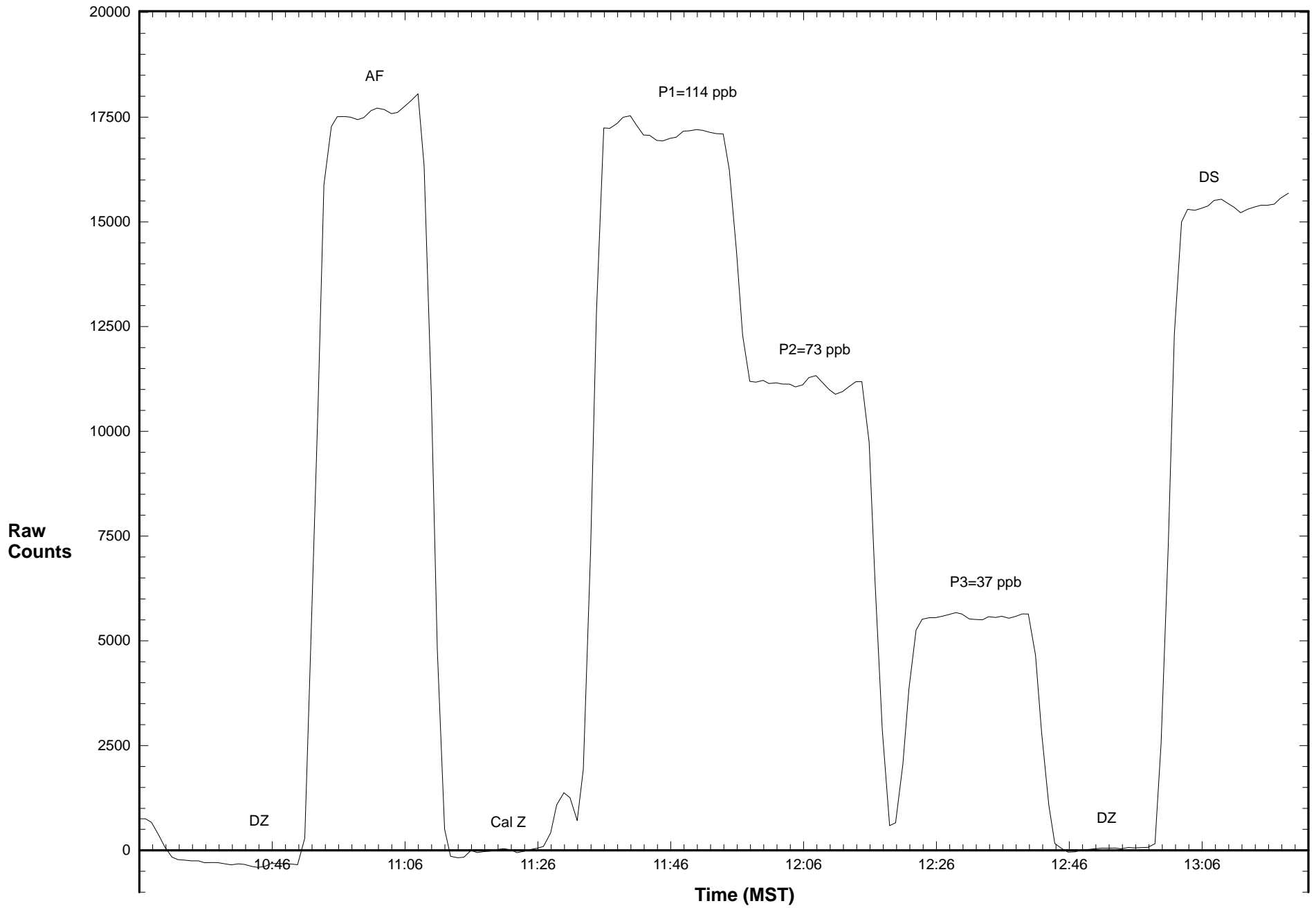
Comments:

# Station 910 SO2 June 20, 2016: Linear Regression





# Station 910 SO2 June 20, 2016: Calibration Graph



**SHARP 5030 Analyzer Audit Form**

Date: 20/Jun/16 Technician: Jeff McClintock

**Station Information**

Name: 910 Location: Genesee  
 Facility/Zone: NA Operator: WCAS

**Analyzer Information**

Make/Model: Thermo 5030 SHARP Serial #: CM-1417

**Flow Audit Transfer Standard Information**

Make/Model: DeltaCal Serial #: 623  
 Cell Serial #: NA

**Meteorological Transfer Standard Information**

Make/Model: Vaisala M170/HMP76 Serial #: K2750017  
 Probe Serial #: K3430009

**Sample Flow**

Set Point (LPH): 1000 Convert to LPM: 16.67 ( $\pm 10\%$ )  
 Indicated: 1003 16.71  
 Conv Meas Flow: 1003 16.7

**Leak Check**

Starting Value: NA (mmHg) Flow: 16.60 leak LPM  
 Leak Check: NA (mmHg) Flow: 16.77 LPM  
 Flow: 0.17 LPM ( $\pm 0.42$  LPM)

**Sensors**

	Sharp	Audit	Difference	Tolerance	Adjusted
Amb Temp (°C):	<u>13</u>	<u>13.22</u>	<u>0.22</u>	<u>(<math>\pm 4^\circ\text{C}</math>)</u>	<u>na</u>
RH (%):	<u>16</u>	<u>23.44</u>	<u>7.44</u>	<u>(<math>\pm 2\%</math>)</u>	<u>23</u>
Amb Pres (hPa):	<u>933</u>	<u>931</u>	<u>2</u>	<u>(<math>\pm 13.33</math> hPa)</u>	<u>na</u>

**Background Zero**

	Analog	Neph ( $\mu\text{g}/\text{m}^3$ )	Limit	Conc
With HEPA:	<u>161</u>	<u>0</u>	<u>(&lt;math&gt;\pm 2 \mu\text{g}/\text{m}^3&lt;/math&gt;)</u>	<u>0</u>

**Mass Foil Calibration**

	Old Value	New Value	Difference (%)	Limit
Sensitivity:	<u>6986</u>	<u>6994</u>	<u>-0.11</u>	<u>(<math>\pm 5\%</math>)</u>

Notes: ck performed June 20,2016.

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**WEST CENTRAL AIRSHED SOCIETY**

**CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
MONTHLY REPORT  
METEROLOGICAL DATA**

**AMS 910  
GENESEE  
JUNE 2016**

Operations and Data Collection by:  
West Central Airshed Society  
Drayton Valley, Alberta

QA/QC, Data Validation and Reporting by:  
West Central Airshed Society  
Drayton Valley, Alberta



**WCAS - Genesee**  
**Summary of Hourly Averages**

**External Temperature (ET) - C**  
**June 2016**

<b>Maximum Value: 29.78 C on Jun 6 17:00</b>		<b>Maximum Daily Average: 21.49 C on Jun 6</b>		<b>Hours in Service: 720</b>																																													
<b>Minimum Value: 3.5 C on Jun 16 04:00</b>		<b>Minimum Daily Average: 11.06 C on Jun 16</b>		<b>Hours of Data: 720</b>																																													
<b>Maximum Diurnal Average: 21.52 C at hour 15</b>		<b>Minimum Diurnal Average: 10.25 C at hour 5</b>		<b>Hours of Missing Data: 0</b>																																													
<b>Monthly Average: 16.288 C</b>		<b>Percentiles: P<sub>1</sub> = 6.1 P<sub>10</sub> = 9.5 Q<sub>1</sub> = 12.6 Median = 16.0 Q<sub>3</sub> = 19.8 P<sub>90</sub> = 23.6 P<sub>99</sub> = 26.9</b>		<b>Hours of Calibration: 0</b>																																													
				<b>Percent Operational Time: 100.0</b>																																													
Day	Hourly Period Ending At																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jun	11.7	11.9	10.5	9.9	8.6	10.2	12.0	13.9	15.5	16.7	18.0	19.1	19.8	20.7	18.8	13.0	17.4	19.3	16.8	16.3	14.4	11.4	11.4	10.5	14.49	20.70																							
2-Jun	9.7	8.3	7.1	8.2	6.4	9.0	9.7	12.1	15.5	17.5	19.9	21.6	23.4	24.0	24.8	21.2	19.4	14.9	12.5	13.0	13.3	12.4	9.8	8.9	14.28	24.76																							
3-Jun	8.5	7.7	8.0	9.3	7.7	8.0	11.3	13.1	15.2	17.0	18.4	19.6	21.2	22.2	23.2	23.8	24.1	24.2	23.6	22.2	20.4	18.3	14.7	16.3	16.59	24.23																							
4-Jun	14.5	14.6	12.2	11.4	9.9	10.5	13.9	17.5	19.8	20.7	21.4	22.5	22.9	23.2	24.3	25.2	24.8	24.7	24.1	22.7	19.3	15.0	14.4	13.7	18.46	25.21																							
5-Jun	12.3	13.1	10.9	9.8	8.9	9.5	14.1	16.7	19.2	21.1	21.8	22.2	22.9	23.6	24.0	24.2	24.8	24.3	23.8	22.9	20.9	17.4	15.7	14.2	18.25	24.83																							
6-Jun	13.5	13.0	12.7	13.0	14.3	15.7	17.2	19.6	20.7	22.2	24.0	25.8	27.0	28.5	29.6	29.2	29.8	29.3	27.3	26.0	23.9	17.7	17.6	18.1	21.49	29.78																							
7-Jun	17.3	16.5	15.8	15.7	15.5	15.5	18.4	19.5	21.3	23.1	23.9	24.1	24.7	25.5	26.1	26.4	26.0	26.5	25.4	23.1	21.4	19.1	19.2	18.4	21.19	26.52																							
8-Jun	18.2	16.7	15.7	14.9	15.1	15.5	16.6	17.7	18.8	19.2	20.1	22.4	23.8	25.3	26.8	25.5	25.0	24.5	22.3	19.9	17.5	17.5	16.3	15.4	19.60	26.79																							
9-Jun	14.9	14.6	14.6	14.7	14.5	14.6	15.2	15.2	16.6	17.2	16.9	16.1	17.5	18.6	18.8	18.8	18.7	18.2	16.5	14.7	13.8	13.1	12.0	12.0	15.74	18.81																							
10-Jun	11.6	10.8	10.5	10.2	9.6	10.1	11.7	13.2	14.9	16.0	17.0	18.4	18.9	19.6	19.3	18.9	16.2	15.3	15.4	15.1	15.4	15.1	14.6	14.1	14.67	19.61																							
11-Jun	13.6	13.3	12.9	12.3	11.5	12.2	13.3	13.3	15.0	15.1	17.1	16.8	15.5	13.4	10.0	9.2	9.1	8.9	9.2	8.9	9.4	9.7	9.4	9.1	12.00	17.07																							
12-Jun	8.5	6.9	6.0	6.9	7.6	8.3	9.5	10.4	10.2	11.7	12.5	13.4	16.9	19.2	19.7	19.3	18.9	19.2	19.9	19.0	16.9	14.9	11.6	11.7	13.29	19.93																							
13-Jun	9.3	10.2	7.8	6.6	6.2	7.7	10.9	14.2	16.4	16.8	18.7	19.2	20.0	21.2	21.7	21.4	21.7	21.4	20.9	19.5	16.9	14.7	12.8	12.2	15.35	21.71																							
14-Jun	11.0	8.2	7.7	7.5	7.0	7.9	9.6	12.0	14.1	16.3	17.1	17.9	19.5	19.5	19.3	19.6	19.8	18.6	14.4	11.8	10.1	9.6	7.6	6.6	13.02	19.82																							
15-Jun	6.7	6.8	6.9	6.9	6.9	7.0	7.5	9.1	12.2	14.2	17.0	18.2	18.7	19.2	19.0	19.5	19.2	18.1	16.8	15.8	13.1	9.5	8.2	7.3	12.67	19.46																							
16-Jun	5.7	5.0	4.2	3.5	3.9	5.8	9.1	11.1	14.5	15.2	15.8	16.1	16.1	14.1	14.7	14.8	14.8	13.9	12.3	12.7	11.5	10.6	10.1	9.9	11.06	16.13																							
17-Jun	10.0	8.7	8.2	7.1	7.0	7.5	8.8	10.5	12.0	12.8	13.7	14.5	15.3	16.1	17.4	17.7	18.9	18.5	18.6	17.0	14.4	11.6	10.8	9.6	12.77	18.87																							
18-Jun	9.3	8.0	7.2	7.3	6.9	8.1	11.4	14.5	16.0	17.5	18.8	19.6	20.4	21.5	21.6	20.7	21.0	20.4	19.8	17.9	16.0	14.0	13.3	12.7	15.15	21.59																							
19-Jun	13.2	12.4	11.5	10.9	10.9	11.0	12.8	14.2	16.2	18.1	19.2	20.1	20.6	21.4	21.9	22.4	21.6	21.0	20.0	18.8	17.0	16.0	15.5	14.1	16.71	22.40																							
20-Jun	13.8	13.3	11.2	11.5	9.9	10.8	14.2	16.1	17.7	19.2	20.9	22.1	22.6	23.2	23.5	24.0	24.1	24.2	23.0	21.7	20.7	19.1	16.7	15.6	18.29	24.15																							
21-Jun	15.2	15.5	14.7	15.1	14.0	13.5	13.8	14.6	15.6	18.4	20.0	19.6	21.8	21.8	21.6	20.7	18.1	17.4	16.0	15.5	15.7	13.4	12.7	12.2	16.54	21.81																							
22-Jun	11.0	11.0	9.8	9.0	8.8	10.7	13.2	15.6	18.2	19.9	20.9	21.9	23.1	23.6	24.1	25.1	25.4	21.0	16.6	17.6	16.1	15.1	14.6	14.3	16.95	25.40																							
23-Jun	13.8	12.6	11.9	10.5	9.3	11.2	13.4	15.9	17.4	18.9	20.1	20.7	21.5	22.1	22.4	21.1	18.2	14.2	14.5	15.3	14.4	12.6	12.5	12.3	15.70	22.36																							
24-Jun	11.9	10.2	9.6	9.6	10.2	10.8	12.6	14.3	15.7	16.0	17.4	17.3	18.3	19.2	19.8	19.3	13.9	12.9	14.4	14.8	13.8	13.1	13.7	13.5	14.26	19.79																							
25-Jun	12.9	12.9	12.9	12.9	12.7	12.5	12.5	13.0	13.1	13.7	15.2	18.5	20.2	19.5	16.9	19.3	18.3	16.9	17.2	16.6	15.7	15.3	15.2	14.1	15.33	20.15																							
26-Jun	14.0	13.8	13.5	13.4	13.0	13.5	13.6	13.6	14.8	17.0	18.5	19.3	21.3	21.5	22.1	22.6	22.9	22.8	22.6	22.1	19.8	16.2	14.7	13.4	17.50	22.94																							
27-Jun	13.0	12.8	12.7	12.0	10.9	13.8	16.0	18.2	19.5	20.9	23.0	24.3	25.4	25.3	23.0	24.8	26.8	26.4	25.3	23.8	21.6	18.5	17.5	16.3	19.66	26.83																							
28-Jun	14.9	13.7	12.6	12.8	13.2	14.1	16.7	18.6	21.6	23.1	25.3	24.9	23.8	23.4	24.6	26.6	26.8	25.3	22.3	23.1	20.5	17.9	16.2	14.6	19.85	26.76																							
29-Jun	13.5	11.9	11.4	11.4	11.4	12.4	15.9	18.1	19.6	21.8	23.5	24.4	25.2	26.1	27.0	27.0	25.9	25.4	24.5	23.0	20.8	19.3	18.2	18.0	19.82	27.04																							
30-Jun	17.6	17.3	17.2	16.3	15.6	15.9	16.8	19.6	21.2	22.1	23.3	21.6	17.4	17.5	19.6	19.2	20.2	18.2	18.6	18.3	16.6	14.7	13.2	12.9	17.96	23.27																							
																								12.36	11.73	10.92	10.69	10.25	11.11	13.05	14.85	16.62	17.98	19.30	20.07	20.86	21.33	21.52	21.35	21.06	20.19	19.15	18.31	16.70	14.77	13.67	13.07	Diurnal Average	
																								18.18	17.34	17.24	16.34	15.62	15.86	18.38	19.60	21.64	23.11	25.27	25.78	26.99	28.49	29.59	29.18	29.78	29.25	27.26	26.00	23.93	19.32	19.24	18.44	Diurnal Maximum	



**WCAS - Genesee**  
**Summary of Hourly Averages**

**External Temperature 10 m (ET\_10) - C**  
**June 2016**

<b>Maximum Value: 28.66 C on Jun 6 17:00</b>																						<b>Maximum Daily Average: 21.48 C on Jun 6</b>																						<b>Hours in Service: 720</b>					
<b>Minimum Value: 5.1 C on Jun 16 05:00</b>																						<b>Minimum Daily Average: 10.66 C on Jun 16</b>																						<b>Hours of Data: 720</b>					
<b>Maximum Diurnal Average: 20.01 C at hour 16</b>																						<b>Minimum Diurnal Average: 10.96 C at hour 6</b>																						<b>Hours of Missing Data: 0</b>					
<b>Monthly Average: 15.984 C</b>																						<b>Percentiles: P<sub>1</sub> = 6.4 P<sub>10</sub> = 9.7 Q<sub>1</sub> = 12.8 Median = 16.0 Q<sub>3</sub> = 19.2 P<sub>90</sub> = 22.4 P<sub>99</sub> = 26.2</b>																						<b>Hours of Calibration: 0</b>					
																																												<b>Percent Operational Time: 100.0</b>					
Day	Hourly Period Ending At																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jun	12.7	12.7	11.9	11.3	10.5	10.6	11.2	12.3	13.9	15.2	16.6	17.4	18.4	19.2	18.0	13.9	16.6	17.8	17.0	16.7	15.3	13.9	14.1	12.6	14.57	19.21																							
2-Jun	11.9	10.3	8.9	10.3	8.5	8.6	9.3	11.1	13.9	15.9	18.1	19.8	21.2	21.8	22.2	21.2	19.7	14.6	12.6	13.0	13.3	12.8	10.7	9.9	14.15	22.22																							
3-Jun	9.8	8.5	9.5	9.8	8.7	8.0	10.6	12.2	13.8	15.5	16.8	17.7	18.9	20.0	20.8	21.7	22.4	23.0	22.9	22.2	21.4	20.1	17.5	17.6	16.24	23.01																							
4-Jun	16.1	16.1	14.7	13.1	11.9	10.7	13.2	16.1	18.5	19.3	20.0	20.7	21.2	21.9	22.7	23.5	23.6	23.6	23.3	22.4	20.9	19.6	18.5	17.2	18.71	23.60																							
5-Jun	16.5	16.2	14.1	12.5	10.8	9.3	13.5	15.5	17.7	19.7	20.3	20.8	21.6	22.1	22.6	22.9	23.4	23.3	23.1	22.6	21.5	20.0	18.7	16.4	18.54	23.36																							
6-Jun	15.8	15.5	15.1	15.1	15.7	16.3	17.3	18.9	19.7	20.4	21.9	23.6	25.0	26.4	27.5	28.0	28.7	28.6	27.9	26.7	24.0	19.8	18.4	19.3	21.48	28.66																							
7-Jun	19.2	19.3	18.3	17.1	17.3	15.7	17.6	18.5	20.2	22.0	22.9	23.1	23.7	24.4	24.7	25.1	25.2	25.1	24.7	23.1	22.4	20.9	20.5	19.8	21.28	25.18																							
8-Jun	19.1	18.2	17.3	15.9	15.8	15.5	16.0	16.8	17.8	18.4	19.2	21.2	22.7	23.8	24.7	24.3	24.0	23.8	22.8	20.2	19.1	17.4	16.1	15.0	19.37	24.68																							
9-Jun	14.5	14.2	14.2	14.2	14.1	14.1	14.4	14.4	15.5	16.1	16.0	15.0	15.9	16.9	17.1	17.3	17.1	16.9	15.6	14.1	13.4	12.7	11.7	11.5	14.87	17.25																							
10-Jun	11.3	10.6	10.2	10.0	9.6	9.7	10.7	11.8	13.3	14.2	15.2	16.1	16.7	17.3	17.4	17.4	16.0	14.9	15.3	15.1	15.4	15.3	14.7	14.1	13.84	17.42																							
11-Jun	13.4	13.2	12.7	12.1	11.3	11.6	12.5	12.7	13.9	13.6	14.5	15.0	14.8	13.5	9.6	8.6	8.4	8.2	8.4	9.3	10.7	10.0	9.5	9.3	11.53	15.04																							
12-Jun	9.0	8.0	7.0	7.5	7.5	8.0	9.1	9.7	9.7	11.1	12.1	12.5	15.3	17.3	18.1	17.7	17.8	18.2	19.1	18.8	17.2	16.0	13.9	13.6	13.08	19.08																							
13-Jun	11.4	12.0	9.9	8.6	7.7	7.1	9.6	12.4	14.6	15.4	16.4	16.9	18.1	19.1	19.6	19.7	20.1	20.2	20.0	19.3	17.4	16.1	15.4	13.7	15.03	20.16																							
14-Jun	12.2	9.5	7.9	7.5	6.9	7.2	8.5	10.1	12.2	13.9	15.2	16.4	17.0	17.5	17.6	17.9	18.1	17.8	13.5	10.9	9.7	9.1	7.2	6.2	12.08	18.11																							
15-Jun	6.2	6.3	6.8	7.2	7.0	7.0	7.3	8.5	10.5	12.3	14.4	15.5	16.1	16.8	17.1	17.6	17.7	17.4	16.8	16.0	14.4	12.3	10.6	9.0	12.11	17.71																							
16-Jun	7.8	6.6	6.2	5.2	5.1	5.7	7.9	9.8	12.7	13.5	14.1	14.5	14.8	13.4	13.7	13.6	13.5	12.9	11.4	12.0	11.2	10.5	10.0	9.8	10.66	14.79																							
17-Jun	9.7	8.5	7.8	6.5	6.4	6.8	8.4	9.8	10.9	11.7	12.4	13.2	13.9	14.6	15.7	16.0	17.0	17.0	17.1	16.7	16.0	14.5	13.5	12.1	12.34	17.10																							
18-Jun	10.5	9.7	9.7	8.8	8.1	8.0	9.9	12.8	14.6	16.0	17.0	17.7	18.1	18.7	19.1	19.1	19.4	19.3	19.2	18.5	17.8	15.6	14.5	13.6	14.82	19.41																							
19-Jun	13.5	12.8	12.5	11.5	11.3	10.9	12.0	13.1	15.0	16.7	17.8	18.9	19.5	20.2	20.7	21.1	20.8	20.6	19.7	18.8	18.0	17.3	16.1	15.7	16.44	21.12																							
20-Jun	15.3	15.0	13.2	13.0	11.2	10.5	13.2	14.9	16.2	17.8	19.2	20.5	21.1	21.6	22.0	22.4	22.6	22.7	22.3	21.4	20.9	20.2	18.6	16.7	18.02	22.69																							
21-Jun	16.7	16.6	15.6	15.5	14.2	13.7	13.8	14.0	14.7	16.7	17.9	17.9	19.5	20.2	20.6	19.9	17.7	17.0	15.3	15.3	15.6	14.5	13.9	13.0	16.24	20.57																							
22-Jun	12.5	12.0	10.9	10.3	10.0	10.1	12.0	14.0	16.8	18.1	19.1	20.0	21.1	21.7	22.2	22.7	23.0	20.8	17.7	17.3	17.2	16.1	15.0	15.0	16.48	23.01																							
23-Jun	14.0	13.3	13.2	11.2	10.0	10.6	12.6	13.9	16.0	17.6	18.7	19.5	20.1	20.5	20.9	20.6	18.4	14.3	12.9	14.4	14.6	14.0	13.3	13.3	15.33	20.87																							
24-Jun	12.8	11.4	9.9	9.6	10.3	10.5	11.8	13.2	14.4	15.1	15.9	16.2	16.7	17.2	17.9	17.7	13.3	12.2	12.9	13.5	13.9	13.3	13.6	13.3	13.61	17.86																							
25-Jun	12.8	12.7	12.4	12.5	12.2	12.0	11.9	12.4	12.4	12.7	13.8	17.0	18.5	18.4	16.6	18.3	17.9	16.4	16.8	16.4	15.7	15.2	15.0	14.0	14.75	18.54																							
26-Jun	13.8	13.7	13.3	13.3	12.9	13.3	13.3	13.6	14.2	15.9	17.3	18.1	19.5	19.9	20.7	21.2	21.6	21.8	21.9	21.6	20.8	18.8	17.4	16.3	17.25	21.87																							
27-Jun	15.8	14.8	14.5	14.2	13.6	14.3	15.0	16.5	18.3	19.7	21.2	22.7	23.3	23.7	22.4	23.3	24.5	24.7	24.2	23.6	22.7	21.1	19.4	19.0	19.69	24.65																							
28-Jun	17.3	15.7	14.3	15.2	15.8	14.8	16.0	16.9	20.3	21.8	22.9	22.9	22.4	21.9	22.8	23.9	24.6	24.5	22.1	22.5	21.8	20.8	20.4	17.9	19.98	24.60																							
29-Jun	17.0	15.1	13.7	12.6	13.1	12.7	14.8	16.9	18.4	20.6	22.2	23.2	24.0	24.7	25.1	25.1	24.3	24.0	23.1	22.5	20.9	19.7	18.4	18.1	19.60	25.13																							
30-Jun	17.7	17.6	17.3	16.1	15.4	15.6	16.1	18.5	19.7	20.8	22.0	21.0	17.2	16.8	18.4	18.2	18.8	17.6	17.9	17.9	16.5	14.8	13.4	13.7	17.46	22.03																							
																								13.55	12.87	12.10	11.58	11.09	10.96	12.31	13.71	15.32	16.58	17.70	18.51	19.22	19.72	19.94	20.01	19.87	19.31	18.58	18.10	17.32	16.08	15.00	14.23	Diurnal Average	
																								19.24	19.33	18.27	17.11	17.26	16.28	17.59	18.89	20.25	21.99	22.91	23.60	25.03	26.44	27.55	28.04	28.66	28.60	27.86	26.72	23.98	21.12	20.50	19.76	Diurnal Maximum	



**WCAS - Genesee**  
**Summary of Hourly Averages**

**Delta Temperature (ET\_D) - C**  
**June 2016**

Maximum Value: 4.51 C on Jun 4 22:00		Maximum Daily Average: 0.29 C on Jun 5		Hours in Service: 720																							
Minimum Value: -2.8 C on Jun 15 12:00		Minimum Daily Average: -0.93 C on Jun 14		Hours of Data: 720																							
Maximum Diurnal Average: 1.31 C at hour 23		Minimum Diurnal Average: -1.63 C at hour 13		Hours of Missing Data: 0																							
Monthly Average: -0.298 C		Percentiles: P <sub>1</sub> = -2.5 P <sub>10</sub> = -1.8 Q <sub>1</sub> = -1.4 Median = -0.6 Q <sub>3</sub> = 0.5 P <sub>90</sub> = 1.8 P <sub>99</sub> = 3.2		Hours of Calibration: 0																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jun	1.0	0.8	1.4	1.3	1.9	0.4	-0.7	-1.6	-1.6	-1.5	-1.4	-1.7	-1.4	-1.5	-0.8	0.9	-0.8	-1.6	0.2	0.3	0.9	2.4	2.6	2.2	0.08	2.63	
2-Jun	2.2	2.0	1.8	2.1	2.0	-0.4	-0.5	-1.0	-1.6	-1.6	-1.8	-1.7	-2.2	-2.2	-2.5	0.0	0.3	-0.2	0.0	0.0	0.0	0.4	0.9	0.9	-0.13	2.25	
3-Jun	1.3	0.8	1.5	0.5	1.0	0.0	-0.6	-0.9	-1.4	-1.6	-1.6	-1.9	-2.3	-2.2	-2.4	-2.1	-1.7	-1.2	-0.6	0.1	1.0	1.7	2.8	1.3	-0.35	2.84	
4-Jun	1.5	1.4	2.5	1.7	2.0	0.2	-0.8	-1.4	-1.2	-1.4	-1.5	-1.7	-1.7	-1.2	-1.6	-1.7	-1.2	-1.1	-0.8	-0.2	1.6	4.5	4.2	3.5	0.25	4.51	
5-Jun	4.3	3.2	3.2	2.7	1.8	-0.2	-0.7	-1.1	-1.4	-1.4	-1.4	-1.3	-1.3	-1.6	-1.5	-1.3	-1.5	-1.0	-0.7	-0.2	0.6	2.6	3.0	2.2	0.29	4.26	
6-Jun	2.3	2.4	2.4	2.1	1.3	0.5	0.1	-0.6	-1.0	-1.8	-2.1	-2.2	-2.0	-2.0	-2.0	-1.1	-1.1	-0.6	0.6	0.7	0.0	2.1	0.7	1.1	0.00	2.44	
7-Jun	1.9	2.8	2.5	1.4	1.8	0.2	-0.8	-1.0	-1.1	-1.1	-1.0	-0.9	-1.0	-1.1	-1.3	-1.3	-0.8	-1.4	-0.7	0.0	1.0	1.7	1.2	1.3	0.10	2.85	
8-Jun	0.9	1.4	1.5	1.0	0.7	0.0	-0.6	-0.9	-1.0	-0.8	-0.8	-1.2	-1.2	-1.4	-2.1	-1.1	-1.0	-0.7	0.4	0.4	1.6	-0.1	-0.3	-0.3	-0.23	1.62	
9-Jun	-0.4	-0.4	-0.4	-0.5	-0.4	-0.5	-0.8	-0.8	-1.1	-1.1	-0.9	-1.1	-1.6	-1.7	-1.6	-1.5	-1.6	-1.2	-0.9	-0.6	-0.3	-0.4	-0.2	-0.4	-0.85	-0.25	
10-Jun	-0.3	-0.3	-0.3	-0.2	0.0	-0.4	-1.0	-1.4	-1.6	-1.7	-1.8	-2.3	-2.1	-2.3	-1.9	-1.4	-0.2	-0.3	-0.1	0.0	0.0	0.1	0.1	0.0	-0.81	0.13	
11-Jun	-0.1	-0.1	-0.2	-0.2	-0.2	-0.6	-0.8	-0.6	-1.1	-1.5	-2.5	-1.8	-0.7	0.1	-0.3	-0.6	-0.7	-0.7	-0.7	0.4	1.3	0.3	0.1	0.2	-0.46	1.33	
12-Jun	0.5	1.0	1.0	0.6	-0.1	-0.3	-0.4	-0.7	-0.5	-0.6	-0.4	-0.9	-1.6	-1.9	-1.5	-1.6	-1.0	-0.9	-0.8	-0.3	0.2	1.1	2.3	1.9	-0.21	2.26	
13-Jun	2.1	1.8	2.1	2.0	1.5	-0.6	-1.3	-1.7	-1.8	-1.4	-2.3	-2.3	-1.9	-2.1	-2.1	-1.6	-1.6	-1.2	-0.8	-0.2	0.5	1.4	2.5	1.6	-0.31	2.55	
14-Jun	1.2	1.2	0.2	0.0	-0.1	-0.7	-1.1	-1.9	-1.9	-2.4	-1.9	-1.5	-2.5	-2.0	-1.6	-1.7	-1.7	-0.8	-0.8	-0.9	-0.4	-0.4	-0.4	-0.4	-0.93	1.25	
15-Jun	-0.6	-0.5	-0.1	0.2	0.1	-0.1	-0.2	-0.6	-1.7	-1.9	-2.5	-2.8	-2.6	-2.4	-1.9	-1.9	-1.5	-0.7	-0.1	0.2	1.2	2.8	2.3	1.7	-0.55	2.83	
16-Jun	2.1	1.5	2.0	1.7	1.2	-0.2	-1.1	-1.3	-1.8	-1.6	-1.6	-1.6	-1.3	-0.7	-1.1	-1.2	-1.3	-1.0	-0.8	-0.7	-0.3	-0.1	-0.1	-0.2	-0.39	2.11	
17-Jun	-0.3	-0.2	-0.4	-0.6	-0.6	-0.7	-0.4	-0.8	-1.0	-1.1	-1.3	-1.3	-1.3	-1.5	-1.7	-1.6	-1.9	-1.5	-1.4	-0.3	1.6	2.9	2.8	2.5	-0.42	2.88	
18-Jun	1.3	1.7	2.5	1.5	1.3	-0.1	-1.5	-1.7	-1.4	-1.5	-1.8	-1.9	-2.4	-2.7	-2.5	-1.6	-1.6	-1.1	-0.6	0.6	1.8	1.6	1.2	0.9	-0.33	2.53	
19-Jun	0.3	0.4	1.0	0.6	0.4	-0.1	-0.8	-1.0	-1.2	-1.4	-1.5	-1.2	-1.1	-1.2	-1.2	-1.3	-0.8	-0.4	-0.3	0.0	0.9	1.2	0.6	1.6	-0.27	1.58	
20-Jun	1.5	1.7	1.9	1.5	1.3	-0.3	-1.0	-1.2	-1.5	-1.4	-1.6	-1.7	-1.5	-1.5	-1.5	-1.6	-1.5	-1.5	-0.7	-0.2	0.2	1.0	1.9	1.1	-0.27	1.93	
21-Jun	1.5	1.0	0.8	0.4	0.2	0.2	0.0	-0.6	-0.9	-1.7	-2.0	-1.6	-2.3	-1.6	-1.0	-0.7	-0.4	-0.4	-0.6	-0.3	-0.1	1.1	1.1	0.8	-0.29	1.49	
22-Jun	1.5	1.0	1.1	1.2	1.2	-0.6	-1.3	-1.6	-1.5	-1.8	-1.8	-1.8	-2.0	-1.9	-1.9	-2.4	-2.4	-0.2	1.1	-0.3	1.0	1.0	0.4	0.8	-0.47	1.49	
23-Jun	0.2	0.7	1.3	0.6	0.6	-0.6	-0.8	-2.0	-1.4	-1.3	-1.4	-1.2	-1.4	-1.6	-1.5	-0.6	0.2	0.1	-1.6	-0.9	0.2	1.4	0.8	1.0	-0.37	1.40	
24-Jun	0.9	1.2	0.4	0.0	0.0	-0.3	-0.8	-1.2	-1.3	-0.9	-1.4	-1.0	-1.6	-2.0	-1.9	-1.6	-0.6	-0.7	-1.5	-1.2	0.1	0.2	-0.1	-0.2	-0.64	1.16	
25-Jun	-0.1	-0.1	-0.4	-0.4	-0.5	-0.5	-0.6	-0.7	-0.7	-1.0	-1.4	-1.4	-1.6	-1.0	-0.2	-0.9	-0.4	-0.5	-0.4	-0.2	-0.1	-0.1	-0.2	-0.1	-0.56	-0.06	
26-Jun	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.3	-0.1	-0.5	-1.1	-1.2	-1.1	-1.8	-1.6	-1.4	-1.4	-1.3	-1.0	-0.8	-0.5	1.0	2.6	2.6	2.9	-0.24	2.86	
27-Jun	2.8	2.0	1.9	2.2	2.7	0.5	-0.9	-1.7	-1.2	-1.2	-1.7	-1.6	-2.1	-1.6	-0.6	-1.5	-2.3	-1.8	-1.1	-0.2	1.1	2.6	1.9	2.7	0.03	2.78	
28-Jun	2.4	2.0	1.8	2.4	2.6	0.7	-0.7	-1.8	-1.4	-1.2	-2.3	-2.0	-1.4	-1.5	-1.8	-2.6	-2.1	-0.7	-0.1	-0.6	1.3	2.9	4.1	3.3	0.13	4.09	
29-Jun	3.5	3.2	2.3	1.2	1.7	0.4	-1.1	-1.2	-1.2	-1.2	-1.2	-1.3	-1.1	-1.4	-1.9	-1.9	-1.6	-1.4	-1.3	-0.6	0.2	0.4	0.2	0.1	-0.22	3.52	
30-Jun	0.1	0.2	0.1	-0.2	-0.2	-0.3	-0.7	-1.1	-1.5	-1.3	-1.2	-0.6	-0.2	-0.6	-1.2	-1.0	-1.4	-0.6	-0.7	-0.3	-0.1	0.0	0.2	0.8	-0.49	0.76	
		1.18	1.13	1.17	0.89	0.83	-0.14	-0.73	-1.12	-1.28	-1.38	-1.58	-1.55	-1.63	-1.60	-1.56	-1.33	-1.18	-0.87	-0.56	-0.20	0.60	1.30	1.31	1.15	Diurnal Average	
		4.26	3.16	3.22	2.70	2.68	0.70	0.10	-0.05	-0.51	-0.59	-0.41	-0.56	-0.18	0.13	-0.23	0.89	0.31	0.11	1.05	0.70	1.78	4.51	4.17	3.53	Diurnal Maximum	



**WCAS - Genesee**  
**Summary of Hourly Averages**

**Wind Speed (WS) - kph**  
**June 2016**

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1 Spd	12.3	13.0	13.6	14.3	11.2	11.0	12.2	10.1	5.9	6.7	10.5	11.1	9.7	4.0	14.8	20.3	10.4	7.0	11.0	7.3	4.1	4.4	7.2	6.1	4.64	20.35	
Dir	SSE	SSE	SSE	SSE	S	S	S	S	SW	WSW	WNW	NNW	N	NNW	NW	S	SE	SSE	SW	W	W	W	WSW	WSW	SSW	S	
2 Spd	7.5	1.2	2.9	2.7	2.0	4.0	2.7	3.6	4.4	3.7	2.5	2.2	7.3	5.7	8.1	5.3	16.0	28.3	7.1	11.3	16.0	14.1	10.7	11.1	4.32	28.28	
Dir	WSW	S	SSW	SSE	S	SW	SW	SW	S	S	S	S	SE	SSE	SE	W	NW	WNW	W	WNW	NW	WNW	W	WSW	W	WNW	
3 Spd	11.3	14.3	12.1	13.0	7.9	8.3	12.5	15.3	16.3	14.4	13.7	10.5	14.2	16.8	16.9	16.3	15.1	13.1	11.2	6.6	12.0	9.3	10.4	12.5	11.40	16.90	
Dir	WSW	WSW	W	WNW	W	SW	W	WNW	NW	NW	NW	W	WSW	WSW	WSW	WSW	WSW	W	NNW	WNW	WNW	W	WSW	W	W	WSW	
4 Spd	11.9	10.5	10.2	4.3	6.1	6.1	4.2	6.5	6.7	6.6	9.7	8.7	7.1	6.5	6.2	9.1	9.0	12.0	10.9	11.3	9.2	11.2	9.6	8.1	5.77	11.96	
Dir	WSW	W	WSW	W	WSW	SW	SW	WSW	NNW	NNW	NNW	WNW	WNW	NNW	NW	WNW	N	N	N	N	N	N	N	N	NNW	NW	N
5 Spd	8.6	10.2	7.9	6.9	10.2	10.1	9.5	9.5	8.5	6.8	8.4	5.8	7.5	6.2	9.0	6.0	2.5	5.6	7.8	6.0	3.1	5.6	6.3	6.6	3.37	10.21	
Dir	NNW	NNW	NW	WNW	WSW	WSW	W	W	W	WNW	NW	NW	NNW	WNW	NNW	N	SW	NE	ENE	ENE	ESE	SE	SE	SSE	NW	NNW	
6 Spd	9.2	8.2	9.2	9.3	15.4	16.5	15.4	17.1	18.6	22.1	23.6	22.5	24.9	24.7	22.7	20.8	18.4	20.8	15.4	5.9	16.0	13.5	8.1	4.8	14.30	24.87	
Dir	SE	SE	SSE	SE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	SSE	SE	SSE	SSE	E	NNE	ESE	ESE	E	SSE	SSE	
7 Spd	11.0	10.8	6.1	7.8	5.0	7.2	8.0	13.7	9.3	5.7	8.2	4.5	6.7	9.9	10.6	10.4	10.2	5.5	7.7	5.7	3.8	10.4	6.8	6.2	5.68	13.69	
Dir	NNE	NNW	NNE	N	ENE	WSW	NW	NW	NNW	NNE	N	NE	NE	ENE	NE	ENE	ENE	ESE	E	E	NE	NNE	NNE	NE	NNE	NW	
8 Spd	7.1	4.7	0.1	10.2	13.4	9.5	16.2	11.1	10.6	14.1	15.2	13.5	10.7	7.9	13.7	13.0	12.1	5.9	3.6	6.6	8.6	18.3	17.9	18.7	5.44	18.70	
Dir	SE	SSE	WSW	N	N	NE	ENE	ENE	NE	NE	ENE	ENE	NE	E	SSE	S	S	WSW	SE	ESE	N	N	N	NNW	NE	NNW	
9 Spd	14.0	15.3	14.4	12.6	16.5	16.9	19.7	25.6	22.1	24.9	28.4	31.9	33.7	31.9	33.7	32.5	34.7	32.9	34.8	30.1	25.5	25.3	20.9	23.1	24.54	34.77	
Dir	NNW	NW	NW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	NW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
10 Spd	21.1	22.7	19.2	17.8	13.9	14.8	10.8	15.8	13.2	13.3	7.9	12.8	11.5	13.6	13.9	13.4	11.6	2.0	1.9	7.9	8.0	13.4	17.8	18.8	4.85	22.68	
Dir	NW	NNW	NNW	NW	NNW	NW	WNW	NW	NNW	NNE	NE	E	E	E	ESE	ESE	ESE	SSW	SE	NNE	E	ESE	ESE	ESE	NNE	NNW	
11 Spd	19.6	18.8	16.2	14.0	11.5	14.5	18.8	16.9	17.2	20.9	21.6	18.8	15.9	6.5	19.2	24.3	24.6	22.4	13.4	17.6	10.3	10.0	11.6	10.8	6.38	24.60	
Dir	SE	SE	ESE	ESE	ESE	ESE	SE	SSE	SE	ESE	ESE	ESE	E	ENE	W	W	W	W	WSW	W	W	SW	SW	WSW	SSE	W	
12 Spd	9.0	2.2	3.6	3.3	6.3	9.3	13.0	16.1	17.7	18.9	17.6	17.6	15.7	13.3	11.7	4.8	3.8	5.4	11.4	16.1	11.7	10.8	9.3	10.2	9.48	18.95	
Dir	WSW	SW	SSE	WSW	WSW	WSW	WSW	SW	SW	SW	WSW	SW	WSW	WSW	SW	WSW	NNW	WNW	WNW	WNW	WNW	WNW	WSW	W	WSW	SW	
13 Spd	10.5	11.5	11.6	10.9	12.5	11.5	12.1	9.9	3.1	2.7	6.7	8.7	11.8	21.7	17.0	17.6	19.2	18.0	20.9	17.2	11.5	2.5	4.8	4.1	6.89	21.66	
Dir	WSW	W	WSW	WSW	WSW	SW	WSW	WSW	SW	NE	SE	ESE	ESE	SSE	SSE	SE	SE	SE	SE	SE	ENE	SSW	NE	NE	S	SSE	
14 Spd	2.3	7.9	10.9	11.3	12.5	9.6	13.4	12.7	13.8	10.6	7.8	1.8	4.9	5.1	10.8	11.1	13.3	16.0	16.7	24.7	25.2	24.3	20.9	20.8	9.08	25.21	
Dir	SSE	WSW	WSW	WSW	WSW	SW	W	WSW	WSW	WSW	W	NW	SSE	ESE	SE	SSE	SE	SE	W	W	W	W	WSW	W	WSW	W	
15 Spd	21.6	22.4	20.1	21.1	19.7	13.1	9.5	13.6	20.1	21.1	22.9	23.7	20.9	21.6	21.3	25.7	24.8	22.8	16.9	9.1	16.8	13.9	13.4	8.0	17.30	25.68	
Dir	WNW	WSW	SW	SW	SW	SSW	SSW	SSW	SW	SW	SW	SW	SSW	SSW	SW	SSW	SSW	SSW	SW	WSW	SW	SW	SW	WSW	SW	SSW	
16 Spd	8.9	6.4	9.6	12.0	12.3	10.9	15.6	12.1	13.0	13.1	15.5	15.3	11.0	20.3	12.9	24.3	23.1	26.4	22.8	27.5	18.0	21.8	18.8	20.8	14.17	27.47	
Dir	SW	SW	SW	SW	WSW	WSW	SW	WSW	WSW	WNW	NW	NNW	NNW	NNW	NW	NW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW
17 Spd	27.4	29.3	29.2	28.5	29.9	27.9	26.1	25.5	23.9	28.2	29.5	27.0	23.8	22.7	21.9	17.1	18.0	12.5	12.8	13.1	11.0	12.8	11.0	12.9	18.83	29.85	
Dir	W	W	W	W	W	W	W	WNW	WNW	WNW	WNW	WNW	NW	NW	NNW	NW	W	WSW	SSW	S	S	SSW	SW	SW	W	W	
18 Spd	13.5	12.7	12.7	15.8	14.6	11.5	6.3	8.5	10.7	7.2	4.5	2.4	7.6	8.8	7.6	4.3	4.1	4.0	0.7	7.3	2.7	10.9	7.9	10.0	7.48	15.78	
Dir	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	WNW	WNW	WSW	SW	SW	SSW	SW	WSW	SSW	S	SSE	S	SW	SW	SW	WSW	WSW	WSW	WSW
19 Spd	12.5	6.3	2.2	10.1	9.2	3.0	12.9	15.0	17.7	22.3	24.7	28.6	35.0	31.1	31.6	29.5	27.4	25.3	24.8	16.1	10.1	9.8	11.6	10.8	16.66	35.01	
Dir	W	NW	W	SW	WNW	NW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	NW	NW	NNW	NNW	NW	WNW	W	W	NW	NW	
20 Spd	9.4	7.3	7.0	9.9	11.0	10.6	8.2	10.4	6.9	4.6	3.5	2.9	5.2	5.3	6.6	2.5	0.9	7.1	7.1	4.1	3.5	5.0	6.8	5.4	1.48	11.04	
Dir	W	W	WSW	WSW	WSW	WSW	W	W	WNW	NW	W	NNW	N	NE	ENE	E	SSE	E	ENE	ENE	ENE	E	ESE	ESE	W	WSW	
21 Spd	11.8	4.6	7.8	9.0	7.2	3.7	3.4	1.7	1.5	3.1	5.7	10.7	9.6	13.3	11.7	15.1	14.4	10.4	15.9	10.8	6.2	6.1	12.8	7.8	2.45	15.90	
Dir	SW	W	NE	NE	ENE	E	NE	NE	NE	SE	SSW	SSW	WNW	NW	NNW	NW	WNW	SE	SSE	SW	SW	SSE	WSW	SW	WSW	SSE	
22 Spd	9.7	11.7	8.7	6.9	9.9	4.1	5.4	6.2	11.1	9.8	7.8	6.5	8.1	7.2	8.9	5.6	6.9	15.3	19.1	5.0	10.4	7.2	8.1	3.7	6.59	19.13	
Dir	SSW	WSW	WSW	SW	SW	SW	SW	WSW	W	W	W	W	WSW	WSW	SW	SSW	S	SSW	SSW	NNE	NNW	WNW	SW	WSW	WSW	SSW	



**WCAS - Genesee**  
**Summary of Hourly Averages**

**Wind Speed (WS) - kph**  
**June 2016**

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24									
23 Spd	11.6	3.1	8.8	8.9	8.3	11.3	10.3	10.4	6.6	2.1	1.1	5.1	5.0	7.7	9.2	5.5	14.1	10.5	5.7	7.7	1.0	10.0	10.4	7.5	4.33	14.09							
Dir	SSW	SSW	W	WSW	WSW	WSW	W	SW	W	NNW	NE	NNE	ENE	ENE	ESE	SE	SW	S	WSW	WSW	NE	WSW	W	WNW	WSW	SW							
24 Spd	9.0	9.8	12.4	16.6	13.5	14.7	14.3	14.1	15.9	19.2	20.8	17.3	17.8	18.1	15.6	13.7	20.1	9.4	15.4	13.4	9.0	8.7	10.0	8.2	12.56	20.80							
Dir	W	WSW	WSW	WSW	W	WSW	W	WNW	WNW	NW	NW	NW	WNW	WNW	W	WNW	N	WNW	NW	WNW	NW	W	WNW	WNW	WNW	NW							
25 Spd	8.1	8.0	9.6	12.5	13.5	14.4	12.8	16.0	17.1	18.7	18.7	20.7	22.7	21.0	6.1	14.8	15.4	15.7	14.2	13.4	13.5	16.4	25.3	23.4	14.51	25.30							
Dir	W	W	WNW	NW	WNW	WNW	W	WNW	WNW	WNW	WNW	NW	NW	NNW	NNE	N	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW							
26 Spd	19.7	20.4	11.5	14.3	11.3	13.5	16.0	15.7	12.7	16.4	19.5	17.4	13.9	12.8	13.2	14.4	8.4	9.4	4.4	1.2	4.4	5.3	6.0	7.4	10.07	20.36							
Dir	WNW	WNW	WNW	W	W	W	W	W	W	WNW	NW	NW	NW	WNW	NW	NW	NNW	N	NNW	ESE	SE	S	SSW	SW	WNW	WNW							
27 Spd	8.4	10.6	11.5	9.8	8.6	10.0	4.0	4.2	2.8	1.5	2.6	2.5	4.1	12.2	14.4	8.0	10.2	8.6	7.1	6.1	5.9	5.5	2.6	5.9	3.17	14.43							
Dir	SW	WSW	WSW	WSW	WSW	W	NW	SW	NW	NNE	ESE	SE	SSE	SSE	SSE	E	ESE	ESE	ESE	ESE	ESE	SSE	SSE	SSW	S	SSE							
28 Spd	2.2	5.3	4.5	5.4	2.5	7.1	5.2	6.8	5.5	8.0	7.2	11.3	13.4	12.1	14.9	9.0	4.6	3.1	9.5	3.7	0.4	4.4	7.7	5.3	3.04	14.95							
Dir	SSE	SE	SSE	SSW	SSW	N	N	WSW	NW	NNW	SW	SW	SSW	SW	SW	S	S	WNW	N	NE	NW	SW	NW	WNW	WSW	SW							
29 Spd	5.7	7.5	7.5	4.6	2.9	2.3	2.6	5.9	4.7	1.5	2.2	3.6	2.3	4.2	6.9	11.9	15.9	14.5	16.5	9.0	7.7	8.3	6.4	9.7	3.25	16.49							
Dir	WNW	WSW	WSW	WSW	W	SW	WSW	NW	N	NNW	NE	ENE	NE	ENE	E	E	E	E	ESE	ESE	E	ESE	ESE	ESE	E	ESE							
30 Spd	10.7	1.6	8.1	8.8	10.6	12.4	11.1	18.9	18.5	18.5	21.5	12.4	4.4	6.2	9.3	12.4	11.0	8.3	5.0	1.9	15.2	10.1	4.4	9.4	6.89	21.49							
Dir	SE	SSE	E	E	E	ESE	ESE	SE	SE	SE	SE	SSE	S	ENE	ENE	ENE	E	ENE	ENE	SW	SW	WSW	SSW	W	ESE	SE							
Spd	5.96	6.35	5.71	6.24	6.41	6.19	6.08	6.95	6.35	5.32	5.17	4.38	3.89	3.36	4.14	3.45	3.42	3.77	3.13	4.29	4.40	4.48	5.29	5.80	Diurnal Average								
Dir	WSW	W	WSW	WSW	WSW	WSW	WSW	W	W	WNW	WNW	WNW	WNW	WNW	W	W	W	WSW	W	WNW	WNW	W	W	W	Diurnal Maximum								
Spd	27.40	29.30	29.18	28.51	29.85	27.86	26.09	25.57	23.86	28.23	29.49	31.86	35.01	31.87	33.74	32.54	34.69	32.95	34.77	30.09	25.49	25.27	25.30	23.39	Diurnal Maximum								
Dir	281.05	271.16	269.38	269.23	266.23	267.57	270.42	302.20	285.09	291.30	300.66	310.07	318.70	303.10	306.12	304.77	311.32	310.17	319.39	317.46	318.86	322.27	299.30	295.71									
Maximum Speed Value: 35.0 kph on Jun 19 13:00																				Minimum Speed Value: 0.1 kph on Jun 8 03:00				Hours in Service: 720									
Maximum Daily Speed Average: 24.54 kph on Jun 9																				Minimum Daily Speed Average: 1.48 kph on Jun 20				Hours of Data: 720									
Maximum Diurnal Speed Average: 6.95 kph at hour 8																				Minimum Diurnal Speed Average: 3.13 kph at hour 19				Hours of Missing Data: 0									
Monthly Average Velocity: 4.862 kph 268.43 deg										Speed Percentiles: P <sub>1</sub> = 1.1 P <sub>10</sub> = 4.1 Q <sub>1</sub> = 6.9 Median = 10.8 Q <sub>3</sub> = 15.6 P <sub>90</sub> = 21.6 P <sub>99</sub> = 32.3										Percent Operational Time: 100.0													
All monthly, daily, and diurnal averages have been calculated using vector methods																																	
Frequency Distribution																																	
		Speed Range (kph)																															
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																										
North	6	25	9	3	0	0	43																										
NorthEast	14	26	7	0	0	0	47																										
East	9	27	15	0	0	0	51																										
SouthEast	13	27	35	10	0	0	85																										
South	16	13	16	8	0	0	53																										
SouthWest	21	57	46	12	0	0	136																										
West	13	72	60	22	5	0	172																										
NorthWest	9	28	49	30	17	0	133																										
Total	101	275	237	85	22	0	720																										





**WCAS - Genesee**  
**Summary of Hourly Averages**

**Relative Humidity (RH) - %**  
**June 2016**

<b>Maximum Value: 93.69 % on Jun 25 03:00</b> <b>Maximum Daily Average: 81.88 % on Jun 25</b>																						<b>Hours in Service: 720</b> <b>Hours of Data: 720</b>																											
<b>Minimum Value: 24.2 % on Jun 5 18:00</b> <b>Minimum Daily Average: 40.42 % on Jun 5</b> <b>Maximum Diurnal Average: 83.27 % at hour 5</b> <b>Minimum Diurnal Average: 45.27 % at hour 15</b> <b>Monthly Average: 62.773 %</b> <b>Percentiles: P<sub>1</sub> = 26.5 P<sub>10</sub> = 34.9 Q<sub>1</sub> = 46.2 Median = 63.9 Q<sub>3</sub> = 79.8 P<sub>90</sub> = 88.7 P<sub>99</sub> = 92.9</b>																						<b>Hours of Missing Data: 0</b> <b>Hours of Calibration: 0</b> <b>Percent Operational Time: 100.0</b>																											
Day	Hourly Period Ending At																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jun	70.7	70.5	74.8	77.3	80.8	74.2	63.8	56.1	52.4	50.1	43.4	43.3	39.0	36.4	43.3	75.8	63.7	47.7	64.4	63.8	63.5	79.9	81.9	87.3	62.66	87.26																							
2-Jun	87.8	91.3	92.3	93.5	93.3	93.5	91.2	86.9	64.8	56.5	46.0	43.4	38.1	34.7	33.3	39.0	47.3	64.5	81.2	78.7	73.4	75.9	85.9	90.5	70.12	93.54																							
3-Jun	90.9	92.2	91.1	77.3	75.9	68.7	61.5	56.9	52.0	47.1	39.5	38.0	35.4	33.3	32.3	31.1	30.4	28.2	28.5	32.9	34.9	39.9	58.4	49.2	51.06	92.15																							
4-Jun	54.0	55.2	65.6	64.9	75.9	78.5	62.1	49.5	41.7	39.3	39.0	37.0	36.8	36.4	35.2	33.8	33.4	32.9	34.5	38.6	46.4	54.4	46.9	44.1	47.34	78.46																							
5-Jun	44.2	42.1	54.5	66.2	70.2	65.0	54.3	46.1	41.2	30.7	25.0	27.9	28.1	28.1	26.7	26.1	25.7	24.2	25.6	27.5	32.2	44.3	51.1	62.9	40.42	70.17																							
6-Jun	67.2	68.1	71.1	72.3	69.5	60.2	56.8	49.1	47.7	48.6	46.0	44.3	41.8	37.9	34.1	33.1	31.1	29.9	33.3	39.1	49.1	71.7	78.8	73.2	52.24	78.78																							
7-Jun	69.9	73.2	76.6	78.5	78.9	74.1	72.5	74.0	65.0	54.5	49.2	45.5	42.7	34.4	31.9	31.8	32.3	31.6	34.1	46.2	52.7	62.5	57.6	62.9	55.52	78.90																							
8-Jun	60.6	68.7	71.7	78.5	76.4	77.2	67.0	61.4	59.0	59.7	58.7	57.1	54.9	52.5	41.7	46.2	51.0	45.7	58.0	65.0	75.3	80.0	84.0	88.6	64.12	88.62																							
9-Jun	89.9	90.6	90.0	90.5	90.6	89.6	82.5	81.0	73.5	69.6	69.4	71.0	64.4	57.0	54.7	52.1	52.2	50.8	57.3	66.8	72.3	74.2	79.2	79.3	72.84	90.59																							
10-Jun	78.5	78.6	78.7	78.5	80.2	77.7	72.1	68.5	61.9	56.4	51.7	43.5	41.1	38.5	39.0	39.8	50.0	64.5	61.3	65.5	58.5	58.3	59.9	61.6	61.01	80.19																							
11-Jun	67.3	69.3	71.7	76.6	84.7	84.9	80.8	84.0	77.6	76.3	68.0	67.4	74.4	86.3	90.2	89.1	89.3	88.7	91.6	81.7	80.1	86.1	91.6	91.9	81.23	91.94																							
12-Jun	91.0	91.1	92.0	93.4	92.9	91.7	89.0	86.9	88.0	83.5	78.9	78.8	63.9	55.5	51.6	55.6	55.5	50.8	44.8	42.8	48.0	53.8	66.3	59.4	71.04	93.37																							
13-Jun	72.1	62.8	72.8	78.3	78.9	67.1	59.3	52.6	40.0	40.7	39.9	41.9	42.2	35.5	32.9	35.0	34.0	32.8	31.6	34.1	51.8	63.3	69.9	69.4	51.62	78.94																							
14-Jun	77.2	85.7	89.2	91.9	92.7	86.5	80.1	72.0	67.5	61.6	55.3	48.4	41.5	41.0	41.7	39.3	39.6	41.9	57.9	65.9	71.0	72.3	85.8	88.9	66.45	92.67																							
15-Jun	88.9	89.9	90.3	90.7	91.1	91.9	91.9	88.5	68.4	58.5	42.8	37.3	34.2	31.6	30.9	29.2	27.7	27.9	31.0	34.9	40.9	54.6	58.8	59.3	57.96	91.94																							
16-Jun	66.5	66.6	68.5	72.0	69.0	56.6	48.7	47.4	39.3	40.4	41.0	41.8	40.5	52.6	52.5	49.2	47.0	48.6	60.1	52.5	55.8	60.5	61.7	62.7	54.23	72.01																							
17-Jun	64.3	77.6	82.0	86.6	86.9	85.5	82.2	73.3	67.6	63.9	59.9	55.8	56.2	50.9	43.8	44.0	39.8	39.5	33.4	34.2	42.2	65.8	72.1	77.9	61.88	86.88																							
18-Jun	75.5	74.5	75.0	72.6	73.2	65.7	54.2	46.0	46.0	43.2	37.9	36.6	35.1	32.7	31.6	32.0	31.1	30.6	29.5	41.5	58.3	69.2	70.6	71.0	51.40	75.52																							
19-Jun	63.5	71.3	82.0	88.7	83.9	79.2	75.8	72.1	64.9	57.0	54.2	47.6	39.2	33.3	31.9	31.9	32.2	32.9	36.3	42.3	50.6	54.0	57.5	63.1	56.06	88.72																							
20-Jun	69.6	69.3	82.1	79.8	84.2	75.5	62.5	58.4	55.1	52.7	45.9	38.5	32.6	34.3	32.4	28.4	25.2	26.7	28.3	34.8	36.5	41.0	52.0	57.8	50.16	84.24																							
21-Jun	63.2	64.1	70.3	63.0	62.3	65.0	68.2	65.5	63.5	55.5	48.8	56.2	54.6	53.8	49.5	51.1	55.1	59.8	68.3	72.0	70.3	80.3	86.0	83.1	63.73	85.98																							
22-Jun	86.5	87.0	88.6	91.0	92.3	82.6	66.3	63.0	59.2	56.1	54.2	52.0	46.0	40.2	38.7	34.3	33.0	44.1	66.0	63.4	74.7	77.8	86.2	86.4	65.40	92.31																							
23-Jun	87.4	87.4	89.5	89.8	92.2	86.8	79.0	68.9	62.7	55.9	50.1	47.2	47.6	48.0	44.5	47.7	63.6	84.4	80.0	80.6	78.6	89.2	89.5	87.5	72.41	92.21																							
24-Jun	88.7	89.8	92.6	93.0	90.7	84.6	81.5	77.9	76.0	73.2	70.0	68.8	68.6	64.0	58.5	58.4	84.5	91.8	81.6	80.2	85.8	89.3	88.3	89.0	80.28	93.03																							
25-Jun	92.3	93.5	93.7	92.0	92.5	93.0	92.8	91.7	91.3	88.2	83.9	75.7	66.8	65.6	79.8	68.9	69.9	72.3	74.3	74.0	75.1	76.8	78.5	82.6	81.88	93.69																							
26-Jun	83.8	85.1	85.9	84.8	87.5	85.7	85.0	83.1	78.7	71.7	64.1	60.3	57.9	53.7	49.5	46.4	45.4	41.4	37.6	35.1	44.2	66.6	78.5	82.2	66.43	87.55																							
27-Jun	85.0	85.2	84.9	84.2	86.9	76.5	74.8	55.4	58.4	58.8	57.2	52.4	49.3	44.3	50.4	44.0	38.3	36.3	40.2	42.6	46.4	61.4	72.6	77.0	60.94	86.91																							
28-Jun	81.1	85.9	91.0	92.4	89.8	84.5	76.9	65.5	58.6	54.4	49.2	51.6	55.4	59.2	51.4	42.4	36.8	38.9	65.2	56.1	68.5	79.4	79.2	82.2	66.48	92.36																							
29-Jun	82.9	87.5	89.1	91.0	86.1	77.2	68.8	69.1	67.3	58.9	53.0	47.9	42.9	43.4	42.5	42.1	49.4	44.7	48.8	51.2	64.6	73.0	80.9	85.8	64.51	90.99																							
30-Jun	87.6	87.0	82.5	86.1	88.6	88.6	83.7	67.1	64.7	67.8	63.9	70.3	84.3	89.1	81.5	83.8	80.3	84.6	84.2	85.5	85.3	84.8	89.8	91.4	81.78	91.39																							
																								76.27	78.03	81.34	82.52	83.27	78.92	72.84	67.26	61.79	57.70	52.86	50.92	48.51	46.80	45.27	45.39	46.49	47.96	52.30	54.31	59.58	68.01	73.31	74.93	Diurnal Average	
																								92.27	93.51	93.69	93.54	93.26	93.46	92.79	91.70	91.27	88.21	83.90	78.76	84.31	89.06	90.15	89.09	89.26	91.78	91.63	85.49	85.83	89.31	91.55	91.94	Diurnal Maximum	



**WCAS - Genesee**  
**Summary of Hourly Averages**

**Global Solar Radiation (GSR) - W/m2**  
**June 2016**

<b>Maximum Value: 958.67 W/m2 on Jun 26 13:00</b> <b>Maximum Daily Average: 355.92 W/m2 on Jun 20</b>																							<b>Hours in Service: 720</b> <b>Hours of Data: 720</b>			
<b>Minimum Value: 0.0 W/m2 on Jun 1 01:00</b> <b>Minimum Daily Average: 94.78 W/m2 on Jun 11</b> <b>Maximum Diurnal Average: 713.83 W/m2 at hour 13</b> <b>Minimum Diurnal Average: 0.00 W/m2 at hour 1</b> <b>Monthly Average: 268.27 W/m2</b> <b>Percentiles: P<sub>1</sub> = 0.0 P<sub>10</sub> = 0.0 Q<sub>1</sub> = 0.0 Median = 134.5 Q<sub>3</sub> = 478.6 P<sub>90</sub> = 752.4 P<sub>99</sub> = 898.5</b>																							<b>Hours of Missing Data: 0</b> <b>Hours of Calibration: 0</b> <b>Percent Operational Time: 100.0</b>			
Day	Hourly Period Ending At																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	0.0	0.0	0.0	0.0	7.0	92.6	183.7	297.3	350.4	409.8	571.1	789.9	693.3	753.3	256.7	75.2	362.2	376.6	110.9	69.1	30.3	0.0	0.0	0.0	226.21	789.92
2-Jun	0.0	0.0	0.0	0.0	19.5	71.3	72.7	247.4	368.1	405.0	754.5	810.5	844.2	810.0	769.8	60.8	18.9	22.1	16.2	26.7	23.0	0.0	0.0	0.0	222.53	844.16
3-Jun	0.0	0.0	0.0	0.0	15.8	118.8	231.9	401.1	589.3	714.5	815.7	886.4	901.4	871.0	811.6	713.9	347.8	393.0	266.1	117.4	48.1	0.0	0.0	0.0	343.49	901.43
4-Jun	0.0	0.0	0.0	0.0	6.8	54.5	182.6	428.8	576.9	705.6	805.2	876.0	832.5	699.6	806.5	714.4	325.1	425.6	272.3	134.7	40.0	0.0	0.0	0.0	328.63	876.02
5-Jun	0.0	0.0	0.0	0.0	14.9	112.6	261.3	432.5	582.6	713.8	821.8	877.0	883.0	875.9	810.9	658.5	371.0	414.9	283.6	144.2	39.1	0.0	0.0	0.0	345.73	882.97
6-Jun	0.0	0.0	0.0	0.0	12.5	108.3	158.5	356.3	388.0	700.3	777.2	889.1	838.6	883.7	846.0	557.0	375.7	420.3	173.4	33.0	0.5	0.0	0.0	0.0	313.25	889.11
7-Jun	0.0	0.0	0.0	0.0	11.4	108.6	257.4	385.8	477.1	560.7	556.9	506.4	576.7	698.6	729.3	696.0	298.9	361.1	206.3	51.2	5.5	0.0	0.0	0.0	270.32	729.25
8-Jun	0.0	0.0	0.0	0.0	3.2	54.6	219.6	321.8	390.8	314.6	400.5	612.1	499.8	439.4	585.3	266.2	256.5	225.4	43.6	38.2	10.6	0.0	0.0	0.0	195.08	612.12
9-Jun	0.0	0.0	0.0	0.0	5.5	33.1	252.7	205.3	373.3	418.3	298.8	371.4	729.1	741.6	700.6	592.6	361.6	420.0	251.9	99.9	16.1	0.0	0.0	0.0	244.66	741.59
10-Jun	0.0	0.0	0.0	0.0	14.5	121.8	275.8	442.3	584.3	730.7	826.7	897.8	745.1	688.8	467.0	299.8	100.7	76.7	42.2	65.3	8.6	0.0	0.0	0.0	266.17	897.77
11-Jun	0.0	0.0	0.0	0.0	0.3	27.3	121.3	87.5	229.4	356.6	633.3	352.6	110.2	17.3	15.4	115.0	84.4	54.3	36.1	26.1	7.5	0.1	0.0	0.0	94.78	633.33
12-Jun	0.0	0.0	0.0	0.0	2.8	34.8	58.4	123.3	117.5	230.1	150.7	298.8	546.3	865.6	494.4	647.7	309.4	316.3	291.5	169.7	54.0	1.1	0.0	0.0	196.35	865.62
13-Jun	0.0	0.0	0.0	0.0	21.0	134.3	282.2	438.1	568.2	675.8	779.3	806.1	710.1	696.7	650.6	475.4	354.1	368.2	284.2	135.8	22.5	0.0	0.0	0.0	308.44	806.08
14-Jun	0.0	0.0	0.0	0.0	16.0	110.1	262.8	437.5	496.6	676.8	652.6	745.3	644.4	548.7	380.1	388.2	358.5	216.5	163.7	135.2	14.0	0.0	0.0	0.0	260.29	745.34
15-Jun	0.0	0.0	0.0	0.0	2.0	19.4	55.4	202.7	489.3	619.2	848.7	918.3	791.9	716.0	631.1	653.4	354.2	304.9	172.8	106.7	22.4	0.0	0.0	0.0	287.85	918.30
16-Jun	0.0	0.0	0.0	0.0	21.7	134.3	292.6	367.8	525.8	651.0	805.1	779.7	659.1	304.9	480.9	440.7	317.6	326.8	197.5	186.0	43.0	0.8	0.0	0.0	272.30	805.08
17-Jun	0.0	0.0	0.0	0.0	3.7	36.5	138.8	281.8	472.8	548.9	577.9	609.5	690.0	726.4	731.6	656.1	365.1	345.5	314.2	164.9	60.4	0.5	0.0	0.0	280.19	731.59
18-Jun	0.0	0.0	0.0	0.0	20.1	127.3	280.5	447.0	598.2	727.8	835.4	901.8	758.9	858.7	788.2	488.7	399.3	310.5	217.8	116.2	33.5	0.6	0.0	0.0	329.60	901.78
19-Jun	0.0	0.0	0.0	0.0	10.9	112.9	254.9	411.7	543.3	717.9	845.3	707.5	778.1	776.0	766.9	738.0	366.1	330.0	247.3	132.7	51.9	1.5	0.0	0.0	324.70	845.33
20-Jun	0.0	0.0	0.0	0.0	11.0	114.5	270.0	436.0	586.4	714.9	822.4	894.0	918.6	887.1	826.3	733.9	354.4	461.5	269.5	165.0	74.4	2.4	0.0	0.0	355.92	918.60
21-Jun	0.0	0.0	0.0	0.0	8.8	41.4	72.5	116.2	248.4	433.1	451.6	369.4	946.7	735.3	480.6	308.7	116.7	69.8	66.9	49.3	22.6	2.5	0.0	0.0	189.18	946.67
22-Jun	0.0	0.0	0.0	0.0	9.0	135.0	189.7	396.0	575.4	704.4	805.6	881.1	906.6	767.4	648.5	724.9	390.1	71.9	56.1	148.4	34.2	4.3	0.0	0.0	310.36	906.64
23-Jun	0.0	0.0	0.0	0.0	19.3	139.2	235.9	432.7	583.7	702.9	768.6	751.9	590.2	792.0	473.7	186.8	38.2	14.3	94.1	90.9	38.8	0.4	0.0	0.0	248.06	791.98
24-Jun	0.0	0.0	0.0	0.0	12.5	105.0	268.6	438.8	462.8	284.9	659.4	332.8	688.4	918.4	758.8	509.7	34.0	46.2	253.3	92.8	16.7	0.0	0.0	0.0	245.12	918.41
25-Jun	0.0	0.0	0.0	0.0	2.3	11.6	35.5	84.6	133.0	308.9	400.4	724.5	940.1	578.0	219.2	489.8	169.4	147.6	131.6	53.5	19.6	0.0	0.0	0.0	185.40	940.11
26-Jun	0.0	0.0	0.0	0.0	3.7	34.0	64.2	115.4	168.4	564.9	573.7	628.7	958.7	879.4	780.9	696.9	345.7	451.7	302.7	160.8	54.6	1.4	0.0	0.0	282.73	958.67
27-Jun	0.0	0.0	0.0	0.0	14.1	113.4	263.0	426.6	559.7	688.4	798.6	882.7	834.0	670.2	367.1	545.0	436.8	455.9	302.7	153.6	68.4	3.1	0.0	0.0	315.97	882.66
28-Jun	0.0	0.0	0.0	0.0	25.3	160.5	227.8	420.1	579.1	667.3	828.5	666.7	478.6	479.2	692.0	784.1	430.0	310.2	201.1	188.8	29.7	0.3	0.0	0.0	298.71	828.45
29-Jun	0.0	0.0	0.0	0.0	13.1	105.3	252.6	414.7	561.1	673.6	792.0	857.6	888.9	879.2	810.6	711.6	366.4	443.1	294.7	128.6	12.8	0.0	0.0	0.0	341.91	888.91
30-Jun	0.0	0.0	0.0	0.0	5.4	39.4	168.3	431.9	511.1	532.1	485.6	153.4	31.4	135.6	574.0	308.7	296.9	96.8	130.5	33.8	8.1	0.0	0.0	0.0	164.29	573.96
																							Diurnal Average			
																							Diurnal Maximum			



**WCAS - Genesee**  
**Summary of Hourly Standard Deviations**

**Wind Speed (WS) - kph**  
**June 2016**

Maximum Value: 14.04 kph on Jun 2 17:00      Maximum Daily Average: 5.08 kph on Jun 9																				Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0						
Minimum Value: 0.6 kph on Jun 4 22:00      Minimum Daily Average: 2.24 kph on Jun 27 Maximum Diurnal Average: 5.07 kph at hour 15      Minimum Diurnal Average: 2.49 kph at hour 6 Monthly Average: 3.437 kph      Percentiles: P <sub>1</sub> = 0.9 P <sub>10</sub> = 1.6 Q <sub>1</sub> = 2.3 Median = 3.2 Q <sub>3</sub> = 4.3 P <sub>90</sub> = 5.5 P <sub>99</sub> = 10.0																										
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jun	1.6	1.5	1.6	2.3	2.1	2.2	2.1	3.2	2.9	2.8	2.4	3.2	3.6	3.4	11.4	10.1	4.4	1.7	2.3	2.3	4.1	2.2	1.6	3.2	3.26	11.37
2-Jun	3.4	2.8	1.8	2.4	1.8	2.9	2.1	2.2	1.8	1.6	2.2	2.9	4.8	4.4	6.2	4.1	14.0	10.6	7.0	6.3	3.4	4.1	2.2	1.9	4.05	14.04
3-Jun	1.6	1.3	1.9	2.5	1.9	1.0	3.7	2.9	2.7	3.6	4.5	5.3	4.4	6.3	5.2	4.4	4.3	4.3	3.0	2.0	2.8	1.8	2.2	2.9	3.19	6.31
4-Jun	2.6	2.6	0.9	3.8	4.8	2.8	3.9	2.2	2.7	3.2	5.3	4.6	4.3	5.1	4.9	5.2	4.3	3.7	2.2	2.3	3.4	0.6	3.0	1.4	3.32	5.30
5-Jun	1.9	2.8	5.4	5.3	3.3	2.1	3.5	1.8	2.0	3.2	3.7	4.7	4.5	5.3	5.6	3.5	3.2	4.0	2.6	2.5	1.4	1.4	1.0	1.0	3.17	5.63
6-Jun	1.6	1.5	2.2	1.3	2.5	2.2	2.3	3.7	3.0	3.5	3.8	4.3	3.7	4.3	3.9	3.7	3.2	3.6	4.7	1.6	7.7	7.5	3.8	5.9	3.56	7.67
7-Jun	3.9	3.6	2.6	4.9	2.2	2.8	5.3	2.5	1.9	2.5	2.7	3.2	2.8	3.2	3.3	3.3	3.3	3.3	3.0	2.4	4.8	1.5	5.3	2.7	3.21	5.33
8-Jun	3.2	4.0	5.0	1.6	2.3	2.8	3.5	3.0	3.3	3.4	3.9	4.2	2.9	3.5	3.2	3.1	2.9	3.9	3.5	3.4	5.1	3.3	5.4	3.6	3.50	5.35
9-Jun	2.5	2.6	3.2	3.2	3.3	4.0	5.2	6.1	6.0	5.3	7.5	7.5	5.8	6.8	6.2	6.9	6.3	5.7	5.9	5.4	4.2	4.6	4.0	3.9	5.08	7.46
10-Jun	4.5	4.1	3.1	2.7	2.4	2.3	2.3	3.3	3.8	4.3	4.3	5.9	4.4	4.6	3.9	3.8	7.6	2.4	1.9	1.5	3.2	4.2	3.6	3.8	3.66	7.63
11-Jun	4.0	4.2	3.1	4.0	3.8	2.8	4.4	3.2	4.0	4.4	5.2	5.6	4.6	3.9	10.3	6.6	4.7	4.4	3.1	4.7	2.8	3.2	1.9	2.0	4.21	10.26
12-Jun	1.9	2.0	1.7	2.3	2.3	2.5	3.4	2.9	2.5	3.6	3.6	3.3	3.6	6.0	5.6	2.5	6.4	3.0	3.8	3.5	2.9	4.7	1.2	2.4	3.23	6.42
13-Jun	1.5	1.4	1.5	2.7	1.8	1.7	1.6	2.2	3.4	2.3	3.6	4.0	4.8	4.4	4.0	4.8	4.0	4.7	4.3	3.8	2.7	4.4	2.1	1.1	3.04	4.85
14-Jun	2.0	4.7	3.3	3.0	2.6	2.2	2.8	2.5	2.7	3.0	4.3	2.4	3.5	3.5	3.6	2.5	4.2	3.5	6.0	5.4	5.1	4.3	5.4	5.2	3.65	6.03
15-Jun	6.9	4.2	3.7	3.2	4.0	1.9	1.3	3.6	3.4	3.4	3.9	5.2	4.8	5.0	4.4	5.5	4.8	4.2	6.0	5.8	2.9	0.9	1.4	1.6	3.83	6.92
16-Jun	1.4	1.1	1.0	1.5	1.5	1.9	2.5	3.4	2.9	3.7	4.3	4.1	5.0	6.3	6.8	5.6	6.7	6.0	9.1	6.9	5.5	5.8	4.5	5.6	4.29	9.06
17-Jun	6.3	5.9	5.5	5.5	5.5	5.0	5.5	6.7	6.8	6.9	6.4	6.5	6.5	5.6	6.3	4.7	5.0	3.6	2.9	1.8	0.9	1.5	2.0	1.8	4.79	6.93
18-Jun	2.1	1.9	1.5	2.1	1.5	1.7	1.6	3.0	2.5	2.6	4.1	3.2	4.5	4.5	5.2	3.8	3.5	2.8	1.6	2.6	1.5	1.7	1.5	1.1	2.59	5.19
19-Jun	2.1	3.6	2.6	2.0	1.6	3.5	3.7	4.6	4.9	5.6	5.7	7.1	6.6	6.1	6.3	6.1	5.1	5.2	5.3	3.4	2.1	1.6	1.7	1.4	4.08	7.11
20-Jun	1.4	1.6	3.1	1.1	1.1	1.5	3.1	2.7	2.6	2.8	2.7	4.0	4.4	3.7	3.1	3.2	2.7	3.0	2.1	2.0	1.1	1.5	1.7	2.1	2.43	4.39
21-Jun	4.4	4.2	3.6	2.0	1.8	2.6	1.7	2.8	2.4	2.7	3.2	2.5	3.5	3.2	2.5	5.2	3.7	6.0	3.0	2.3	3.9	2.1	1.3	3.5	3.08	5.95
22-Jun	1.4	1.4	2.5	3.2	2.5	3.3	3.0	4.2	2.5	3.2	3.4	4.1	3.9	4.8	4.3	3.6	3.7	9.5	12.2	6.3	5.1	2.9	4.2	4.7	4.16	12.24
23-Jun	3.8	2.3	2.4	2.3	3.0	1.7	2.0	1.7	2.4	3.2	2.2	3.3	3.1	3.4	3.3	2.3	11.6	4.4	3.8	2.3	2.4	2.4	1.8	2.2	3.04	11.58
24-Jun	1.8	1.8	1.3	2.5	2.8	2.1	3.5	3.6	3.8	4.4	3.5	4.3	4.4	3.9	4.6	4.4	8.1	2.2	5.6	4.9	2.5	1.6	1.7	1.7	3.37	8.07
25-Jun	1.6	1.8	3.3	2.5	2.6	2.9	2.8	3.3	3.2	4.0	4.2	4.3	4.2	4.3	4.9	2.6	4.0	3.9	2.9	3.6	2.5	3.0	7.8	5.7	3.58	7.77
26-Jun	4.5	5.1	3.8	2.4	2.2	2.9	3.7	3.8	2.9	4.2	3.9	3.0	3.5	4.0	4.7	3.6	3.5	2.6	2.2	1.4	0.9	0.7	0.9	1.0	2.98	5.13
27-Jun	0.7	1.2	0.9	2.3	1.3	2.8	2.5	1.9	2.7	2.0	2.3	3.0	2.9	3.7	8.3	2.5	2.5	2.2	2.2	1.2	0.8	0.7	1.7	1.3	2.24	8.33
28-Jun	2.1	0.6	1.0	1.1	1.5	1.5	3.0	2.5	3.1	2.4	3.5	2.7	2.3	2.0	2.8	2.5	3.2	3.1	2.2	2.0	1.7	2.2	1.9	3.8	2.29	3.81
29-Jun	3.5	2.0	3.2	3.6	2.8	2.5	2.1	2.2	1.9	2.0	2.2	2.5	2.2	3.0	3.6	3.8	4.1	4.1	4.7	2.8	2.2	2.2	2.6	2.0	2.83	4.73
30-Jun	2.0	3.5	2.6	2.3	2.7	2.5	2.9	4.8	3.8	4.1	5.0	5.1	5.0	2.4	3.7	3.9	3.5	2.3	2.6	4.9	2.7	3.1	3.6		3.39	5.07
																								Diurnal Average		
																								Diurnal Maximum		
																								2.74 2.71 2.64 2.73 2.51 2.49 3.04 3.22 3.15 3.45 3.92 4.20 4.15 4.36 5.07 4.25 4.96 4.13 4.05 3.29 3.15 2.70 2.75 2.81		
																								6.92 5.91 5.49 5.53 5.48 4.99 5.48 6.67 6.75 6.93 7.46 7.45 6.58 6.75 11.37 10.11 14.04 10.65 12.24 6.88 7.67 7.51 7.77 5.89		
,Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ul/m^3 24-hr 100 ul/m^3																										



**WCAS - Genesee**  
**Summary of Hourly Standard Deviations**

**Wind Direction (WD) - deg**  
**June 2016**

Maximum Value: 99.77 deg on Jun 23 11:00		Maximum Daily Average: 39.83 deg on Jun 2		Hours in Service:	720																																												
Minimum Value: 3.4 deg on Jun 18 00:00		Minimum Daily Average: 10.64 deg on Jun 9		Hours of Data:	720																																												
Maximum Diurnal Average: 34.40 deg at hour 12		Minimum Diurnal Average: 16.31 deg at hour 1		Hours of Missing Data:	0																																												
Monthly Average: 24.081 deg		Percentiles: P <sub>1</sub> = 5.4 P <sub>10</sub> = 8.7 Q <sub>1</sub> = 11.3 Median = 16.7 Q <sub>3</sub> = 31.1 P <sub>90</sub> = 53.9 P <sub>99</sub> = 90.6		Hours of Calibration:	0																																												
				Percent Operational Time:	100.0																																												
Day	Hourly Period Ending At																								Daily Average	Daily Maximum																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																									
1-Jun	5.2	6.9	5.9	6.3	14.7	11.5	7.7	21.2	31.0	23.6	20.3	22.0	31.7	69.4	50.7	54.3	15.3	27.2	9.3	28.2	62.4	40.7	19.8	42.6	26.16	69.41																							
2-Jun	17.0	65.9	59.8	39.9	48.3	45.5	20.9	40.1	17.4	24.4	46.4	71.7	40.6	44.9	57.2	62.5	66.3	34.0	61.7	31.5	17.1	20.7	12.6	9.5	39.83	71.75																							
3-Jun	6.5	6.0	10.3	11.5	24.9	7.0	16.2	15.2	15.4	17.6	22.5	37.4	23.8	22.5	27.9	22.4	21.5	31.6	21.6	29.6	10.8	32.7	10.5	21.5	19.45	37.42																							
4-Jun	17.6	17.3	10.3	64.8	33.0	20.1	36.9	23.9	23.5	35.9	36.5	37.8	43.1	56.9	59.9	42.5	33.9	21.3	18.6	12.4	10.6	5.9	7.2	6.4	28.18	64.82																							
5-Jun	6.1	5.8	73.9	53.5	16.8	13.5	20.7	12.7	14.9	33.7	33.6	51.9	43.2	56.5	46.5	42.9	75.7	67.6	22.3	16.7	11.1	15.0	13.7	10.1	31.60	75.71																							
6-Jun	7.3	7.2	9.1	7.5	6.6	6.3	8.2	10.0	9.7	11.1	9.6	12.0	10.3	13.3	12.2	11.6	13.0	9.5	10.4	29.5	33.7	42.9	28.3	65.2	16.02	65.19																							
7-Jun	28.3	9.9	30.7	49.0	37.8	32.8	24.0	10.6	18.1	30.1	21.7	42.0	38.2	20.4	24.2	21.7	18.3	27.7	19.8	19.8	64.3	24.2	37.9	67.6	29.96	67.63																							
8-Jun	27.1	47.8	91.4	24.6	18.4	16.5	13.9	16.7	19.2	14.4	15.0	16.5	31.5	37.3	14.3	14.9	16.1	32.0	30.5	32.7	35.2	17.2	17.3	23.8	26.02	91.43																							
9-Jun	13.8	12.4	9.6	12.7	11.0	11.1	12.0	10.6	13.3	11.6	12.5	10.5	11.3	12.0	11.2	11.4	10.9	9.9	9.1	8.8	7.2	7.0	8.8	6.8	10.64	13.81																							
10-Jun	9.5	8.3	8.2	7.6	7.4	6.1	14.8	12.9	28.6	26.1	42.4	31.3	23.0	25.1	22.7	16.8	38.4	32.5	50.9	10.0	24.6	13.8	10.1	10.6	20.06	50.89																							
11-Jun	10.8	10.3	10.1	17.0	17.1	11.1	11.8	9.3	11.9	12.5	17.0	16.2	15.6	61.2	16.0	14.3	12.4	10.1	14.1	12.3	15.3	26.7	7.4	7.7	15.34	61.15																							
12-Jun	11.5	91.2	21.0	46.6	24.4	16.7	16.7	8.5	7.5	12.2	12.1	11.8	19.3	31.2	32.5	57.5	86.8	32.9	16.5	8.9	11.3	16.2	8.3	13.2	25.62	91.21																							
13-Jun	13.7	6.4	7.7	18.3	10.0	20.5	8.3	10.5	66.4	57.9	37.7	27.7	36.5	12.9	14.5	12.6	10.6	10.6	9.1	9.8	20.8	91.0	32.3	32.5	24.08	91.02																							
14-Jun	56.1	19.1	10.5	13.1	7.0	9.5	10.5	12.7	13.5	22.2	33.3	89.8	40.7	43.7	20.6	18.5	18.0	11.1	52.0	11.4	10.0	10.8	23.5	18.3	24.00	89.84																							
15-Jun	19.9	11.4	10.5	8.0	7.8	10.4	13.0	9.9	9.2	9.8	11.6	17.7	17.7	16.6	14.2	11.6	13.6	11.8	14.9	52.2	15.9	7.4	6.3	17.2	14.11	52.23																							
16-Jun	6.7	12.2	14.7	7.1	5.5	7.1	7.9	11.9	13.4	25.9	19.5	18.1	30.9	16.9	30.8	12.8	19.1	14.7	16.2	14.8	13.5	14.4	12.7	13.5	15.00	30.85																							
17-Jun	13.5	11.2	10.7	10.4	9.4	9.1	10.2	14.1	12.5	13.9	12.0	14.1	14.8	16.5	20.5	17.7	18.3	23.7	10.7	6.4	7.6	11.0	6.0	3.4	12.41	23.69																							
18-Jun	9.3	6.6	8.5	8.7	5.8	5.4	16.4	22.7	15.9	29.3	62.0	78.6	30.9	27.5	44.0	58.7	68.5	48.4	85.6	16.3	30.0	16.6	13.4	9.4	29.94	85.64																							
19-Jun	11.7	49.4	71.9	7.2	40.6	72.4	12.4	12.0	13.6	13.4	11.9	12.4	10.7	11.5	11.5	14.4	10.3	9.7	14.0	8.6	10.7	9.4	6.3	8.9	18.96	72.36																							
20-Jun	13.2	27.2	52.7	6.3	6.1	5.3	22.3	15.2	27.8	34.2	44.8	81.3	65.6	48.4	39.5	66.8	88.7	20.6	17.3	15.0	14.2	17.0	15.8	23.3	32.02	88.72																							
21-Jun	26.5	59.9	44.7	19.2	16.0	54.0	52.9	93.3	80.4	68.6	31.9	18.8	36.4	18.0	13.0	25.3	10.2	70.3	14.6	20.5	34.2	35.6	9.8	39.4	37.23	93.34																							
22-Jun	21.8	4.9	11.5	30.4	16.1	29.6	26.7	29.9	19.0	24.2	31.1	43.8	36.4	36.6	32.1	38.3	36.9	21.2	61.8	57.1	34.2	50.6	33.1	82.2	33.73	82.19																							
23-Jun	29.3	54.9	14.9	19.4	10.3	8.9	14.3	11.3	26.6	72.8	99.8	46.8	36.4	26.7	24.7	29.0	16.7	56.2	62.0	21.4	82.2	11.2	6.2	26.9	33.70	99.77																							
24-Jun	7.3	12.3	7.1	6.6	14.6	9.6	12.9	12.9	15.7	14.7	11.6	15.5	16.7	16.8	20.3	29.4	19.6	20.8	17.8	16.7	9.4	14.7	11.6	10.3	14.36	29.35																							
25-Jun	9.3	11.2	20.8	13.3	9.2	10.4	11.7	13.8	9.7	9.8	11.9	11.9	10.0	26.1	39.5	19.8	19.9	12.2	11.2	10.5	12.4	8.4	12.2	10.6	13.99	39.48																							
26-Jun	11.5	10.1	14.2	9.2	12.6	13.7	10.1	10.5	10.0	11.8	13.5	12.4	20.3	21.2	20.1	14.9	32.4	18.8	29.8	56.6	18.5	12.7	10.4	11.4	16.94	56.57																							
27-Jun	8.5	5.4	3.7	8.7	7.9	28.0	39.0	18.0	57.0	62.1	50.3	65.3	44.8	23.1	21.7	16.6	15.9	16.6	20.7	10.0	9.2	8.6	19.2	17.1	24.05	65.33																							
28-Jun	14.7	6.2	10.8	13.8	51.8	22.4	61.3	41.3	48.2	16.4	37.5	16.6	8.6	13.6	13.1	34.2	37.2	55.1	21.7	22.9	96.8	16.4	29.9	41.4	30.50	96.80																							
29-Jun	46.2	15.4	21.6	27.7	54.3	55.9	38.0	29.8	33.8	68.8	65.4	49.0	60.6	48.0	32.8	17.0	15.6	15.3	12.9	16.3	17.0	13.2	14.5	10.4	32.47	68.78																							
30-Jun	9.3	90.8	17.0	12.7	13.3	9.8	13.8	13.0	12.6	12.0	12.6	51.1	62.8	27.6	20.6	14.9	17.6	18.2	23.0	61.8	14.6	26.0	55.3	15.5	26.08	90.76																							
																								16.31	23.45	23.13	19.37	18.62	19.34	19.52	19.15	23.19	27.36	29.59	34.40	30.42	30.09	26.96	27.51	29.26	26.38	26.00	22.29	25.16	21.26	16.68	22.54	Diurnal Average	
																								56.13	91.21	91.43	64.82	54.25	72.36	61.26	93.34	80.36	72.81	99.77	89.84	65.56	69.41	59.88	66.78	88.72	70.28	85.64	61.78	96.80	91.02	55.34	82.19	Diurnal Maximum	
,Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ul/m^3 24-hr 100 ul/m^3																																																	

**WEST CENTRAL AIRSHED SOCIETY**

**CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
MONTHLY REPORT**

**END OF REPORT  
JUNE 2016**