

Hinton Pulp
A division of West Fraser Mills Limited
Hinton, Alberta

AIR QUALITY MONITORING
November 2016
Monthly Report

Prepared by:

West Central Airshed Society
Drayton Valley, Alberta





WCAS - Hinton
Summary of Hourly Averages

Sulphur Dioxide (SO₂) - ppb
November 2016

Maximum Value: 10.98 ppb on Nov 8 19:00		Maximum Daily Average: 3.23 ppb on Nov 8		Hours in Service: 720																																													
Minimum Value: 0.0 ppb on Nov 1 15:00		Minimum Daily Average: 0.07 ppb on Nov 1		Hours of Data: 685																																													
Maximum Diurnal Average: 1.04 ppb at hour 15		Minimum Diurnal Average: 0.25 ppb at hour 5		Hours of Missing Data: 35																																													
Monthly Average: 0.531 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.9 P ₉₉ = 7.2		Hours of Calibration: 35																																													
Percentiles: P ₁ = 0.0 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 Q ₃ = 0.3 P ₉₀ = 0.9 P ₉₉ = 7.2		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-Nov	0.0	0.1	0.0	Z	0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.07	0.22																							
2-Nov	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.0	0.1	0.1	0.2	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.12	0.27																							
3-Nov	0.1	0.0	0.0	Z	1.2	1.0	0.4	0.1	0.0	0.1	1.2	0.5	0.9	0.0	0.1	0.1	0.1	0.1	0.1	0.3	0.7	3.0	4.5	0.9	0.67	4.49																							
4-Nov	0.5	0.1	3.0	Z	0.3	0.1	0.0	0.0	0.0	0.1	1.1	0.7	0.1	0.0	0.0	0.2	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.31	2.97																							
5-Nov	1.6	6.2	2.9	Z	1.9	0.1	0.1	0.2	0.1	0.2	0.1	2.5	3.7	1.0	1.6	3.0	0.5	0.6	1.7	0.3	0.3	0.2	0.2	0.2	1.28	6.21																							
6-Nov	0.2	0.1	0.1	Z	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.3	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.16	0.29																							
7-Nov	0.2	0.2	0.2	Z	0.1	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.2	1.9	9.9	3.3	2.9	1.6	2.1	0.4	0.4	0.2	0.3	0.2	1.11	9.95																							
8-Nov	0.1	0.2	0.3	Z	1.4	1.9	1.3	0.2	0.1	0.2	0.1	0.2	5.0	8.6	8.7	6.0	7.8	2.9	11.0	7.3	6.6	3.6	0.4	0.3	3.23	10.98																							
9-Nov	0.3	0.5	0.4	Z	0.2	0.2	2.4	1.3	0.8	0.3	0.3	0.9	0.4	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.43	2.39																							
10-Nov	0.1	0.1	0.1	Z	0.0	0.2	0.3	0.3	0.4	0.3	0.3	0.4	0.5	C	C	C	C	C	0.2	0.2	0.2	0.2	0.2	0.3	0.24	0.55																							
11-Nov	0.3	0.2	0.2	Z	0.0	2.1	6.8	5.9	5.0	6.7	4.9	8.1	7.3	2.4	4.5	3.1	2.7	0.3	0.3	0.2	0.2	0.3	0.3	0.2	2.70	8.07																							
12-Nov	0.2	0.2	0.1	Z	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	1.9	0.4	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.2	0.1	0.25	1.91																							
13-Nov	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.2	0.3	0.2	1.4	0.7	0.7	0.3	0.1	0.9	6.0	4.9	1.2	2.4	2.5	6.2	4.0	1.42	6.15																							
14-Nov	2.1	0.9	4.4	Z	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.3	0.44	4.37																							
15-Nov	0.3	0.3	0.3	Z	0.0	0.2	0.3	0.3	0.1	0.1	0.2	0.1	0.1	0.0	0.2	0.1	0.2	0.1	0.4	0.2	0.3	0.1	0.1	0.1	0.18	0.45																							
16-Nov	0.1	0.1	0.1	Z	0.1	0.1	0.2	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.11	0.21																							
17-Nov	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.13	0.27																							
18-Nov	0.2	0.2	0.1	Z	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.5	0.6	0.5	0.4	0.4	0.25	0.58																							
19-Nov	0.2	0.2	0.2	Z	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.3	0.2	0.12	0.29																							
20-Nov	0.1	0.1	0.1	Z	0.0	0.0	0.1	0.1	0.3	0.3	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.4	0.3	0.2	0.2	0.2	0.17	0.35																							
21-Nov	0.2	0.1	0.1	Z	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.4	0.1	0.3	0.1	0.1	0.2	0.1	0.17	0.40																							
22-Nov	0.1	0.1	0.2	Z	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.21	0.31																							
23-Nov	0.2	0.2	0.3	Z	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.5	0.6	0.9	0.9	0.5	0.3	0.33	0.93																							
24-Nov	0.3	0.2	0.2	Z	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.2	0.3	0.3	0.4	0.2	0.21	0.39																							
25-Nov	0.2	0.3	0.3	Z	0.1	0.3	0.4	0.4	0.4	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.5	0.7	0.6	0.6	0.4	0.3	1.3	1.8	0.45	1.79																							
26-Nov	0.5	0.3	0.2	Z	0.2	0.3	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.22	0.47																							
27-Nov	0.3	0.4	0.4	Z	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.3	0.2	1.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.30	1.27																							
28-Nov	0.1	0.1	0.1	Z	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.2	0.5	0.9	1.0	0.7	0.4	0.1	0.2	0.26	1.01																							
29-Nov	0.2	0.1	0.0	Z	0.1	0.0	0.1	0.2	0.1	0.2	0.3	0.5	0.3	0.3	0.1	0.1	0.1	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.19	0.49																							
30-Nov	0.2	0.2	0.2	Z	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.12	0.22																							
																								0.31	0.40	0.50	--	0.25	0.30	0.51	0.41	0.35	0.40	0.36	0.63	0.77	0.70	1.04	0.67	0.66	0.58	0.86	0.54	0.54	0.49	0.59	0.38	Diurnal Average	
																								2.14	6.21	4.37	--	1.88	2.14	6.76	5.92	4.99	6.67	4.89	8.07	7.33	8.60	9.95	5.98	7.76	5.95	10.98	7.33	6.57	3.61	6.15	3.97	Diurnal Maximum	
Z - zerospan C - Calibration																																																	
Alberta Ambient Air Quality Objectives (AAQO): 1-hr 172 ppb 24-hr 48 ppb																																																	



WCAS - Hinton
Summary of Hourly Averages

Ozone (O₃) - ppb
November 2016

Maximum Value: 43.93 ppb on Nov 14 14:00		Maximum Daily Average: 28.99 ppb on Nov 8		Hours in Service: 720																																													
Minimum Value: 0.1 ppb on Nov 22 05:00		Minimum Daily Average: 1.47 ppb on Nov 21		Hours of Data: 685																																													
Maximum Diurnal Average: 19.74 ppb at hour 15		Minimum Diurnal Average: 8.46 ppb at hour 9		Hours of Missing Data: 35																																													
Monthly Average: 12.422 ppb		Percentiles: P ₁ = 0.2 P ₁₀ = 0.7 Q ₁ = 1.6 Median = 7.1 Q ₃ = 20.2 P ₉₀ = 33.1 P ₉₉ = 42.2		Hours of Calibration: 35																																													
				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-Nov	4.2	3.3	7.4	Z	1.9	0.7	0.8	1.1	2.2	5.3	10.2	13.6	13.8	13.5	13.0	13.7	11.5	9.7	10.8	8.7	6.7	6.3	6.0	5.0	7.36	13.77																							
2-Nov	1.3	1.0	0.9	Z	0.8	0.7	0.7	1.3	0.9	1.5	2.5	3.7	4.7	5.4	5.2	3.5	3.0	2.3	2.4	2.2	1.5	3.2	2.9	1.2	2.30	5.45																							
3-Nov	0.8	0.6	0.9	Z	27.3	25.3	27.3	31.8	32.0	34.2	36.0	38.8	39.1	39.8	38.7	37.5	37.1	27.6	9.4	2.5	31.9	31.2	31.4	39.5	27.00	39.81																							
4-Nov	40.6	40.9	38.1	Z	27.9	24.9	40.9	41.0	42.4	43.0	43.6	40.7	40.4	38.0	34.9	33.9	9.9	2.9	2.5	2.9	4.5	8.8	12.4	12.7	27.29	43.63																							
5-Nov	39.5	35.6	39.0	Z	38.6	39.5	38.1	22.7	14.3	14.9	30.6	32.5	31.9	33.0	33.1	31.6	32.4	31.1	26.3	15.7	17.6	11.8	11.1	13.6	27.58	39.51																							
6-Nov	10.4	4.5	3.3	Z	1.3	1.6	1.8	1.7	2.2	5.1	10.8	14.9	17.5	18.8	18.6	20.2	24.7	7.1	2.3	1.8	1.9	1.2	0.7	0.7	7.53	24.75																							
7-Nov	0.7	0.8	0.7	Z	0.8	0.7	0.7	0.7	1.1	2.5	3.6	4.3	11.0	30.7	27.0	29.9	31.1	31.4	33.1	33.9	27.5	12.7	24.9	27.9	14.68	33.95																							
8-Nov	21.4	19.8	18.9	Z	33.0	32.9	32.5	32.8	32.5	32.5	32.2	33.6	31.6	29.5	28.3	29.0	28.7	30.9	25.5	30.0	25.5	26.8	30.6	28.3	28.99	33.58																							
9-Nov	21.2	18.4	29.7	Z	26.6	26.4	18.9	24.3	16.2	32.6	35.4	32.8	32.3	31.5	32.5	29.6	29.0	23.6	15.5	11.8	3.1	1.3	1.6	3.5	21.63	35.38																							
10-Nov	2.4	1.2	1.9	Z	0.6	0.8	0.8	0.8	1.0	1.6	3.0	7.3	16.1	C	C	C	C	C	3.0	3.0	2.3	1.3	0.7	0.7	2.70	16.11																							
11-Nov	1.0	0.6	0.8	Z	3.6	25.7	32.3	36.6	39.2	37.8	40.7	38.9	38.6	39.5	38.2	40.2	41.1	42.3	32.0	28.6	14.6	4.8	5.9	5.7	25.60	42.30																							
12-Nov	4.7	11.0	6.4	Z	6.5	5.4	3.9	7.0	4.8	4.8	5.9	6.9	13.4	32.4	33.6	33.5	31.4	27.1	32.6	31.2	31.0	20.8	7.2	5.5	15.96	33.55																							
13-Nov	5.5	4.9	2.7	Z	0.9	0.9	1.0	0.8	0.9	1.8	9.5	31.2	32.8	34.6	33.1	32.8	34.7	37.7	37.2	40.2	37.5	38.4	33.8	35.5	21.23	40.16																							
14-Nov	36.7	37.4	30.6	Z	33.5	36.0	26.6	22.5	6.4	23.6	34.0	33.4	42.8	43.9	43.8	42.8	41.0	34.1	26.2	6.1	3.2	4.7	1.8	1.9	26.66	43.93																							
15-Nov	1.4	1.2	1.5	Z	18.3	4.7	1.3	1.3	2.6	3.6	5.0	9.7	9.2	11.6	13.7	11.5	8.4	18.0	25.3	26.1	28.7	26.0	20.1	17.9	11.62	28.68																							
16-Nov	16.0	13.0	11.5	Z	10.9	6.0	1.6	2.6	1.7	7.0	10.3	11.5	11.1	10.0	10.4	12.3	15.1	16.5	10.0	10.7	24.9	26.3	25.4	24.2	12.57	26.31																							
17-Nov	24.7	19.7	17.6	Z	12.7	12.1	11.3	8.9	8.8	9.1	11.3	14.8	24.3	24.6	21.8	17.4	20.3	18.3	18.7	19.8	21.5	21.0	20.0	19.6	17.32	24.68																							
18-Nov	19.7	19.4	20.2	Z	18.9	18.3	16.7	14.5	11.5	11.7	12.8	15.2	17.1	17.0	17.3	17.4	16.6	14.9	15.1	15.8	16.4	17.0	17.3	15.7	16.37	20.23																							
19-Nov	14.2	13.6	13.9	Z	13.1	11.2	10.2	9.0	7.7	9.4	11.6	13.0	12.3	12.8	13.4	11.3	10.4	7.0	7.1	4.3	3.0	1.3	1.2	1.1	9.22	14.17																							
20-Nov	1.1	0.9	1.0	Z	0.8	0.8	0.8	0.8	1.1	1.6	3.4	4.8	8.3	8.0	9.3	9.1	7.6	4.6	1.6	0.8	0.8	0.7	0.6	0.7	3.00	9.31																							
21-Nov	0.9	1.0	0.5	Z	0.5	0.4	0.5	0.5	1.0	1.7	2.9	4.8	4.0	5.1	4.3	2.9	1.2	0.4	0.3	0.3	0.2	0.2	0.2	0.2	1.47	5.10																							
22-Nov	0.4	0.2	0.3	Z	0.1	0.2	0.2	0.7	3.6	5.3	5.7	7.0	7.6	6.5	7.2	6.6	4.5	4.0	2.2	3.0	2.4	2.1	1.0	0.7	3.11	7.65																							
23-Nov	1.0	1.0	0.7	Z	0.6	0.9	1.5	7.2	5.0	2.2	4.8	3.5	3.8	3.7	3.9	2.5	1.2	0.9	0.7	0.8	1.2	1.1	0.9	0.8	2.17	7.24																							
24-Nov	0.9	0.8	0.7	Z	0.7	0.7	0.7	0.7	0.8	2.1	3.4	6.5	9.6	11.7	14.6	9.4	3.0	5.6	6.2	3.3	1.7	0.9	0.9	0.9	3.73	14.64																							
25-Nov	0.5	0.6	0.8	Z	2.6	1.6	1.1	0.5	0.6	1.4	3.5	4.1	16.4	11.6	19.8	15.7	4.3	0.5	4.8	0.8	0.5	13.9	32.4	35.2	7.53	35.24																							
26-Nov	16.5	9.9	9.7	Z	4.3	1.9	0.5	1.3	1.5	1.5	2.7	7.0	7.7	8.1	10.1	7.5	6.8	2.9	5.7	6.8	6.7	3.2	6.7	9.2	6.00	16.46																							
27-Nov	8.7	12.4	13.6	Z	11.2	10.7	9.5	7.7	6.0	7.7	9.6	13.3	14.0	14.9	12.2	8.8	4.5	1.5	1.0	0.5	0.5	1.0	1.4	1.3	7.47	14.90																							
28-Nov	1.8	1.2	1.1	Z	1.2	1.0	1.0	0.8	0.3	1.1	3.2	7.0	9.0	10.3	6.3	4.2	2.3	0.4	0.9	1.1	0.4	0.3	0.3	0.5	2.42	10.26																							
29-Nov	0.3	0.4	0.7	Z	0.5	0.5	0.4	0.4	0.7	1.6	2.7	3.9	7.5	9.0	20.8	26.2	24.7	14.1	4.6	1.0	1.3	3.3	1.1	1.9	5.55	26.22																							
30-Nov	1.8	2.7	2.9	Z	7.1	6.0	4.9	3.5	5.0	7.1	8.5	7.8	7.1	7.4	7.6	6.1	4.1	2.6	2.0	2.2	2.4	2.1	1.9	0.6	4.50	8.48																							
																								10.02	9.26	9.27	--	10.22	9.94	9.62	9.52	8.46	10.51	13.32	15.55	17.83	19.41	19.74	18.86	16.92	14.47	12.16	10.53	10.71	9.79	10.08	10.40	Diurnal Average	
																								40.61	40.93	39.02	--	38.55	39.51	40.87	41.04	42.37	42.96	43.63	40.71	42.81	43.93	43.83	42.80	41.12	42.30	37.20	40.16	37.49	38.41	33.77	39.54	Diurnal Maximum	
Z - zerospan C - Calibration																																																	
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82.5 ppb 24-hr -- ppb																																																	



WCAS - Hinton
Eight Hour Running Averages

Ozone (O₃) - ppb
November 2016

Maximum Value: 41.24 ppb on Nov 4 14:00		Maximum Daily Average: 31.33 ppb on Nov 14		Hours in Service: 720																						
Minimum Value: 0.2 ppb on Nov 22 05:00		Minimum Daily Average: 1.54 ppb on Nov 21		Hours of Data: 712																						
Maximum Diurnal Average: 17.10 ppb at hour 18		Minimum Diurnal Average: 9.47 ppb at hour 9		Hours of Missing Data: 8																						
Monthly Average: 12.378 ppb		Percentiles: P₁ = 0.3 P₁₀ = 1.1 Q₁ = 2.9 Median = 8.3 Q₃ = 20.0 P₉₀ = 30.7 P₉₉ = 39.3		Hours of Calibration: 8																						
				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-Nov	10.6	9.1	7.6	6.4	5.0	4.2	3.5	2.8	2.5	2.8	3.2	4.5	6.0	7.6	9.1	10.7	11.8	12.4	12.4	11.8	11.0	10.0	9.2	8.1	7.59	12.45
2-Nov	6.8	5.7	4.5	3.9	3.0	2.2	1.5	1.0	0.9	1.0	1.2	1.5	2.0	2.6	3.2	3.4	3.7	3.8	3.8	3.6	3.2	2.9	2.6	2.3	2.93	6.81
3-Nov	2.1	1.8	1.7	1.6	5.3	8.4	11.9	16.3	20.8	25.6	30.6	31.6	33.1	34.9	36.3	37.0	37.7	36.8	33.5	29.0	28.1	27.0	26.1	26.3	22.64	37.66
4-Nov	26.8	28.4	32.0	36.2	35.7	34.8	36.1	36.3	36.6	36.9	37.7	38.0	39.6	41.2	40.5	39.6	35.6	30.5	25.4	20.7	16.2	12.5	9.7	7.1	30.59	41.24
5-Nov	10.8	14.9	19.4	21.8	26.6	31.0	34.7	36.1	32.5	29.6	28.4	28.9	28.1	27.2	26.6	27.7	30.0	32.0	31.5	29.4	27.6	24.9	22.2	19.9	26.74	36.14
6-Nov	17.2	13.9	11.0	10.3	8.0	6.5	5.2	3.5	2.3	2.4	3.5	4.9	7.0	9.1	11.2	13.5	16.3	16.6	15.5	13.9	11.9	9.7	7.5	5.1	9.42	17.19
7-Nov	2.1	1.3	1.1	1.0	0.8	0.7	0.7	0.7	0.8	1.0	1.4	1.8	3.1	6.8	10.1	13.8	17.5	21.1	24.8	28.5	30.6	28.3	28.0	27.8	10.58	30.57
8-Nov	26.6	25.2	23.4	21.9	22.7	25.5	26.6	27.3	28.9	30.7	32.6	32.8	32.6	32.2	31.6	31.1	30.7	30.5	29.6	29.2	28.4	28.1	28.4	28.3	28.54	32.76
9-Nov	27.4	25.8	26.3	25.8	25.9	25.9	24.2	23.6	22.9	25.0	25.8	26.6	27.4	28.0	29.7	30.3	31.9	30.8	28.3	25.7	22.1	18.3	14.4	11.2	25.14	31.95
10-Nov	7.8	5.0	3.4	2.1	1.8	1.7	1.6	1.2	1.0	1.1	1.2	2.0	3.9	4.4	5.0	C	C	C	C	C	C	C	C	1.8	--	7.84
11-Nov	1.7	1.6	1.3	1.1	1.2	4.7	9.2	14.4	19.8	25.2	30.9	31.9	36.2	37.9	38.7	39.1	39.4	39.9	38.8	37.6	34.6	30.2	26.2	21.9	23.48	39.93
12-Nov	17.3	13.4	10.2	7.6	6.4	6.5	6.2	6.4	6.4	5.5	5.5	5.7	6.5	9.9	13.6	16.9	20.2	23.0	26.4	29.4	31.6	30.1	26.8	23.3	14.80	31.59
13-Nov	20.1	17.3	13.6	11.1	6.8	3.9	3.0	2.4	1.7	1.3	2.3	5.9	9.9	14.1	18.1	22.1	26.3	30.8	34.3	35.4	36.0	36.5	36.5	36.9	17.75	36.87
14-Nov	37.1	37.1	36.3	35.7	35.1	34.8	33.7	31.9	27.6	25.6	26.1	27.0	28.2	29.2	31.3	33.9	38.2	39.5	38.5	35.1	30.2	25.2	20.0	14.9	31.33	39.49
15-Nov	9.9	5.8	2.7	2.2	4.4	4.4	4.3	4.3	4.4	4.8	5.3	5.8	4.7	5.5	7.1	8.4	9.1	10.9	13.4	15.5	17.9	19.7	20.5	21.3	8.85	21.31
16-Nov	22.3	21.6	19.9	19.0	16.5	13.6	11.0	8.8	6.8	5.9	5.7	6.5	6.5	7.0	8.1	9.3	11.0	12.2	12.1	12.0	13.7	15.8	17.7	19.1	12.58	22.26
17-Nov	20.3	20.7	21.7	23.3	21.5	19.5	17.5	15.3	13.0	11.5	10.6	11.1	12.6	14.1	15.4	16.5	17.9	19.1	20.0	20.6	20.3	19.8	19.6	19.9	17.59	23.26
18-Nov	19.8	20.0	20.2	20.2	19.8	19.4	19.0	18.3	17.1	16.0	14.9	15.0	14.7	14.6	14.7	15.0	15.6	16.0	16.3	16.4	16.3	16.3	16.3	16.1	17.00	20.21
19-Nov	15.8	15.6	15.5	15.4	15.0	14.2	13.1	12.2	11.3	10.7	10.3	10.7	10.6	10.8	11.2	11.4	11.8	11.5	10.9	9.8	8.6	7.2	5.7	4.4	11.40	15.79
20-Nov	3.2	2.5	1.7	1.4	1.0	1.0	0.9	0.9	0.9	1.0	1.3	1.7	2.7	3.6	4.6	5.7	6.5	6.9	6.7	6.2	5.2	4.3	3.2	2.2	3.13	6.88
21-Nov	1.3	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.7	1.1	1.5	2.0	2.6	3.1	3.3	3.4	3.2	2.9	2.3	1.8	1.2	0.7	0.4	1.54	3.36
22-Nov	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.7	1.5	2.3	2.8	3.8	4.6	5.4	6.2	6.3	6.1	5.7	5.2	4.6	4.0	3.2	2.5	2.79	6.31
23-Nov	2.1	1.7	1.5	1.3	1.0	0.9	0.9	1.9	2.4	2.6	3.2	3.2	3.6	4.0	4.3	3.7	3.2	3.0	2.5	2.2	1.9	1.5	1.2	1.0	2.27	4.26
24-Nov	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.9	1.3	1.9	3.1	4.4	6.2	7.3	7.5	8.0	8.3	7.9	6.9	5.6	3.9	2.8	3.48	8.33
25-Nov	2.5	1.9	1.2	0.9	1.0	1.1	1.2	1.1	1.1	1.2	1.6	1.9	3.6	4.9	7.2	9.1	9.6	9.5	9.6	9.2	7.3	7.5	9.1	11.6	4.79	11.56
26-Nov	13.1	14.2	14.9	16.9	17.4	15.7	11.1	6.3	4.1	2.9	1.9	2.6	3.0	3.8	5.0	5.8	6.4	6.6	7.0	6.9	6.8	6.2	5.8	6.0	7.93	17.40
27-Nov	6.2	7.4	8.4	8.6	9.3	10.4	10.8	10.5	10.1	9.5	8.9	9.5	9.8	10.3	10.7	10.8	10.6	9.8	8.8	7.2	5.5	3.7	2.4	1.5	8.36	10.80
28-Nov	1.1	1.1	1.1	1.2	1.3	1.3	1.2	1.2	0.9	0.9	1.2	2.0	2.9	4.1	4.7	5.2	5.4	5.3	5.0	4.3	3.2	2.0	1.2	0.8	2.44	5.41
29-Nov	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.7	1.0	1.3	2.2	3.3	5.8	9.1	12.1	13.6	13.8	13.5	12.7	12.0	9.5	6.5	5.06	13.84
30-Nov	3.6	2.2	2.0	2.1	3.0	3.3	3.9	4.1	4.6	5.2	6.0	6.2	6.2	6.4	6.7	7.1	7.0	6.4	5.6	4.9	4.3	3.6	2.9	2.3	4.57	7.06
																								Diurnal Average		
																								Diurnal Maximum		
11.25 10.59 10.16 10.04 9.93 9.93 9.85 9.69 9.47 9.65 10.23 10.89 11.85 12.97 14.17 15.62 16.64 17.10 16.95 16.32 15.46 14.29 13.13 11.77																										
37.11 37.08 36.25 36.24 35.67 34.77 36.12 36.33 36.58 36.87 37.67 38.05 39.61 41.24 40.49 39.61 39.37 39.93 38.85 37.56 35.98 36.46 36.54 36.87																										
C - Calibration																										



WCAS - Hinton
Summary of Hourly Averages

Nitrogen Oxide (NO) - ppb
November 2016

Maximum Value: 125.22 ppb on Nov 28 20:00 Maximum Daily Average: 30.36 ppb on Nov 28 Minimum Value: 0.0 ppb on Nov 14 14:00 Minimum Daily Average: 0.99 ppb on Nov 8 Maximum Diurnal Average: 15.06 ppb at hour 20 Minimum Diurnal Average: 4.78 ppb at hour 15 Monthly Average: 9.157 ppb Percentiles: P ₁ = 0.0 P ₁₀ = 0.3 Q ₁ = 1.0 Median = 4.6 Q ₃ = 11.7 P ₉₀ = 24.0 P ₉₉ = 60.9																								Hours in Service:	720																								
																								Hours of Data:	684																								
																								Hours of Missing Data:	36																								
																								Hours of Calibration:	36																								
																								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-Nov	2.9	3.5	0.4	Z	19.5	37.3	25.3	19.1	11.9	8.8	5.7	3.9	5.1	3.5	3.8	1.8	3.2	3.5	1.3	1.7	3.0	3.4	2.3	3.5	7.59	37.34																							
2-Nov	11.7	9.8	12.7	Z	36.8	34.7	35.6	37.8	44.2	39.5	16.8	12.5	8.6	8.4	14.1	19.1	10.4	7.9	2.7	1.8	4.8	5.5	2.3	5.2	16.64	44.21																							
3-Nov	6.4	3.1	5.8	Z	0.5	0.4	0.3	0.2	1.2	0.9	1.2	0.8	0.9	0.7	0.7	1.5	0.8	0.6	5.5	28.8	1.1	0.6	0.5	0.1	2.72	28.77																							
4-Nov	0.0	0.0	0.2	Z	3.3	5.7	0.3	0.7	0.2	0.7	0.2	0.8	0.6	1.7	3.3	2.2	25.9	33.7	27.1	24.4	12.9	4.1	2.1	1.4	6.58	33.71																							
5-Nov	0.1	0.8	0.2	Z	0.2	0.1	0.5	4.1	8.3	10.6	3.9	1.8	1.4	0.4	0.4	0.5	0.1	0.5	1.2	1.5	1.7	4.5	2.1	0.8	1.98	10.57																							
6-Nov	0.5	3.8	4.6	Z	10.2	10.8	7.6	7.1	6.1	13.8	1.9	1.6	0.8	0.3	0.7	1.6	0.4	13.6	7.2	11.6	2.6	2.5	12.5	14.3	5.92	14.31																							
7-Nov	7.0	5.8	11.7	Z	7.5	14.4	26.2	22.1	18.8	11.4	7.7	10.3	8.8	0.6	2.2	0.8	0.4	1.1	0.2	0.1	0.2	2.2	4.8	1.9	7.23	26.15																							
8-Nov	0.4	0.9	3.4	Z	0.3	0.3	0.7	0.5	0.5	1.0	1.6	0.7	1.7	2.3	2.3	1.4	1.1	0.3	0.6	0.8	0.8	0.7	0.2	0.5	0.99	3.41																							
9-Nov	0.3	0.2	0.1	Z	0.2	0.2	0.6	0.4	4.8	0.6	1.1	2.7	1.3	0.6	0.6	0.8	0.3	0.3	0.3	0.3	4.9	12.9	11.9	0.5	2.00	12.95																							
10-Nov	3.2	7.7	1.6	Z	14.6	25.6	48.2	38.6	38.9	26.4	18.4	13.8	4.9	C	C	C	C	C	C	3.2	4.0	6.0	17.8	27.7	--	48.25																							
11-Nov	33.7	23.4	26.0	Z	9.0	0.7	0.6	0.3	0.4	0.7	0.6	1.0	1.2	0.9	1.0	0.4	0.2	0.4	1.2	2.6	4.9	9.7	6.9	2.9	5.59	33.70																							
12-Nov	9.7	1.3	4.9	Z	4.0	5.9	7.4	3.7	6.1	4.1	8.9	5.9	3.9	0.7	0.1	0.1	0.1	0.5	0.2	0.2	0.3	0.4	5.4	2.5	3.32	9.72																							
13-Nov	0.7	0.4	4.6	Z	5.6	9.7	13.4	22.6	20.3	20.1	13.0	0.9	0.5	0.4	0.5	2.4	0.4	0.4	0.3	0.1	0.2	0.2	0.9	0.5	5.13	22.59																							
14-Nov	1.4	0.0	1.0	Z	0.2	0.1	4.9	4.8	22.8	4.2	0.4	1.2	0.0	0.0	0.0	0.0	0.0	0.4	0.6	8.2	8.7	7.9	18.0	22.8	4.69	22.79																							
15-Nov	22.8	22.9	19.8	Z	1.2	26.4	28.1	31.7	14.0	13.8	12.3	3.6	8.1	5.0	3.1	3.8	2.8	0.2	2.3	0.4	0.0	0.1	0.0	0.0	9.67	31.66																							
16-Nov	0.0	0.0	0.0	Z	0.0	1.7	5.2	1.0	4.8	3.5	3.2	3.9	7.9	8.9	9.3	4.8	1.7	0.5	2.3	0.6	0.9	0.1	0.2	0.2	2.64	9.28																							
17-Nov	0.1	0.1	1.0	Z	1.3	2.4	4.2	5.4	5.4	8.2	8.3	6.6	3.5	2.3	2.9	3.3	2.3	1.9	1.1	0.7	0.5	0.8	0.7	0.2	2.75	8.31																							
18-Nov	0.2	0.5	0.7	Z	1.1	1.2	2.0	1.7	3.2	3.2	5.1	3.7	2.8	3.2	2.4	2.1	1.3	2.1	1.1	1.3	0.8	0.7	0.6	0.3	1.80	5.06																							
19-Nov	0.7	0.5	1.3	Z	0.9	1.5	2.8	1.4	2.2	3.2	2.5	3.5	3.4	2.7	2.0	2.3	2.3	5.8	2.3	3.5	5.2	11.0	32.4	24.2	5.11	32.37																							
20-Nov	22.5	20.8	12.7	Z	5.3	7.3	13.8	22.2	36.4	44.8	18.1	25.3	9.0	8.6	4.6	5.0	4.3	7.0	18.3	41.5	29.9	26.5	17.6	12.0	17.97	44.79																							
21-Nov	11.3	5.3	6.8	Z	9.7	11.6	12.3	10.5	8.5	16.0	13.8	11.6	15.5	11.1	11.7	16.5	19.6	31.7	16.5	21.2	7.5	3.1	1.6	1.9	11.97	31.68																							
22-Nov	3.5	2.7	1.7	Z	5.4	11.2	11.9	10.9	5.1	5.3	7.1	6.3	7.3	9.2	7.0	6.5	6.0	4.8	8.6	7.7	5.6	5.8	7.5	12.3	6.93	12.34																							
23-Nov	9.5	12.1	16.2	Z	14.2	16.4	11.4	2.6	8.0	16.9	7.2	9.9	12.1	15.9	15.0	13.0	15.2	27.3	45.1	63.3	102.0	97.2	47.2	25.4	26.22	101.98																							
24-Nov	27.0	11.5	12.7	Z	11.5	21.1	10.4	23.1	24.5	12.6	14.6	10.7	9.8	9.5	7.0	9.4	22.4	9.0	4.7	11.1	18.3	32.8	41.1	16.9	16.15	41.08																							
25-Nov	16.4	27.1	18.7	Z	2.2	17.5	27.0	32.8	45.2	43.8	30.8	17.5	17.3	8.0	2.7	10.5	40.0	72.7	21.4	42.0	25.1	7.4	0.2	0.1	22.88	72.70																							
26-Nov	0.7	0.8	0.7	Z	2.8	5.7	12.8	10.2	11.2	14.1	19.3	5.3	9.0	11.4	5.9	5.7	4.3	6.1	4.7	3.2	2.3	1.3	0.7	0.2	6.02	19.27																							
27-Nov	0.3	0.3	0.1	Z	0.2	0.7	2.3	1.6	0.9	3.2	2.5	5.2	7.0	3.5	6.0	5.6	6.5	8.5	8.2	21.6	14.1	7.2	6.7	6.1	5.16	21.61																							
28-Nov	5.8	5.6	4.9	Z	2.8	2.3	4.5	18.6	18.3	24.6	28.6	40.9	22.8	7.5	10.7	11.8	17.5	63.9	121.0	125.2	82.7	46.5	13.2	18.6	30.36	125.22																							
29-Nov	13.3	11.1	7.3	Z	9.4	2.7	13.4	25.2	21.7	28.9	45.0	62.5	37.9	22.5	7.8	2.4	0.3	10.7	13.9	19.7	17.4	4.3	13.6	18.0	17.79	62.47																							
30-Nov	4.8	2.3	7.3	Z	1.5	2.7	4.3	5.4	5.2	5.2	9.1	9.4	10.0	8.8	10.7	10.1	5.9	5.9	4.2	3.7	2.5	1.3	0.7	4.6	5.46	10.73																							
																								7.24	6.15	6.31	--	6.04	9.27	11.27	12.21	13.30	13.00	10.29	9.46	7.43	5.47	4.78	5.01	6.75	11.07	11.17	15.06	12.16	10.22	9.06	7.52	Diurnal Average	
																								33.70	27.14	25.97	--	36.76	37.34	48.25	38.60	45.20	44.79	44.97	62.47	37.88	22.54	15.01	19.08	39.99	72.70	120.97	125.22	101.98	97.20	47.19	27.66	Diurnal Maximum	
Z - zerospan C - Calibration																								Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ppb 24-hr --- ppb																									



WCAS - Hinton
Summary of Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
November 2016

Maximum Value: 32.63 ppb on Nov 4 17:00																						Maximum Daily Average: 15.62 ppb on Nov 25																						Hours in Service: 720	
Minimum Value: 0.5 ppb on Nov 14 15:00																						Minimum Daily Average: 5.25 ppb on Nov 13																						Hours of Data: 684	
Maximum Diurnal Average: 12.18 ppb at hour 19																						Minimum Diurnal Average: 6.64 ppb at hour 14																						Hours of Missing Data: 36	
Monthly Average: 9.025 ppb																						Percentiles: P₁ = 1.4 P₁₀ = 3.8 Q₁ = 5.4 Median = 8.0 Q₃ = 11.1 P₉₀ = 15.8 P₉₉ = 27.8																						Hours of Calibration: 36	
																																												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-Nov	10.9	8.9	3.9	Z	13.7	13.7	14.6	11.5	7.0	6.9	6.0	4.2	5.0	4.6	4.9	3.2	5.4	6.2	4.2	4.9	5.7	5.1	4.8	5.9	7.01	14.63																			
2-Nov	10.2	8.9	8.3	Z	10.5	8.3	8.2	7.7	7.0	6.5	3.8	3.4	3.0	2.7	5.6	7.4	6.7	6.2	4.1	4.6	6.0	6.2	4.6	4.8	6.28	10.52																			
3-Nov	4.6	5.1	6.4	Z	8.0	10.3	8.8	5.5	6.8	4.8	4.6	2.7	3.0	1.9	3.1	4.1	3.7	8.9	21.7	27.3	4.9	10.2	9.9	2.2	7.32	27.27																			
4-Nov	1.7	1.7	5.4	Z	12.5	16.4	2.4	2.5	1.9	2.3	1.5	4.5	4.0	7.1	10.0	6.4	32.6	31.4	26.6	23.3	20.1	15.5	10.5	8.8	10.83	32.63																			
5-Nov	3.5	9.0	4.0	Z	3.5	1.5	3.2	16.6	19.9	20.9	8.9	5.5	4.8	1.2	1.8	4.0	1.4	3.3	11.3	10.7	10.9	12.4	8.9	6.2	7.54	20.85																			
6-Nov	8.7	12.1	12.1	Z	12.8	9.3	10.0	10.0	11.3	14.1	7.0	3.5	3.1	1.8	2.2	6.8	5.4	18.1	10.2	7.9	4.5	3.4	3.4	3.9	7.90	18.10																			
7-Nov	4.1	3.6	4.7	Z	5.0	5.4	6.7	5.1	6.2	5.5	5.4	7.8	7.8	6.1	13.2	7.3	6.6	7.1	4.3	2.1	4.8	7.5	7.4	6.5	6.09	13.20																			
8-Nov	6.3	8.2	11.0	Z	3.3	3.3	3.3	2.3	2.6	2.7	3.8	1.8	4.1	5.9	7.2	6.7	9.0	6.0	12.9	7.6	11.8	9.8	4.6	4.6	6.03	12.86																			
9-Nov	7.3	9.3	1.9	Z	3.3	3.1	11.7	4.8	12.7	2.6	1.8	7.7	5.0	3.1	3.7	5.8	4.7	7.6	9.3	4.9	8.9	8.7	7.4	3.0	6.00	12.67																			
10-Nov	3.8	5.9	3.6	Z	5.1	6.1	7.8	6.1	5.3	4.4	5.2	6.7	6.0	C	C	C	C	C	C	9.7	9.5	9.8	9.0	8.2	--	9.83																			
11-Nov	8.4	5.9	8.5	Z	12.7	9.6	11.0	6.8	4.7	5.7	4.0	5.5	5.8	4.8	5.9	5.4	4.9	2.9	10.4	12.3	19.0	21.9	16.5	15.3	9.04	21.90																			
12-Nov	13.0	7.2	10.1	Z	7.5	10.0	11.9	10.7	12.0	8.5	10.9	8.6	7.6	6.1	1.8	1.6	1.0	7.4	3.6	5.4	6.4	7.7	12.0	4.7	7.63	13.00																			
13-Nov	3.4	2.9	4.6	Z	5.0	4.0	4.4	7.3	5.5	5.7	6.4	5.4	4.0	2.6	4.2	6.5	6.3	7.7	7.5	3.0	5.2	3.9	8.6	6.7	5.25	8.58																			
14-Nov	4.7	2.6	9.9	Z	4.8	2.8	13.1	12.3	32.0	12.7	3.0	4.6	0.5	0.5	0.5	0.7	0.6	7.9	12.8	27.8	29.6	24.7	27.5	27.9	11.45	31.99																			
15-Nov	24.6	24.3	25.4	Z	11.5	18.8	20.5	20.1	15.5	14.4	13.7	9.0	12.1	11.1	9.8	14.8	15.8	5.4	11.5	6.8	5.3	5.3	6.7	5.8	13.40	25.35																			
16-Nov	6.1	8.0	8.3	Z	5.7	6.8	11.7	7.6	9.6	8.3	6.3	5.3	9.4	10.6	10.9	10.0	10.1	6.4	11.7	9.5	5.9	4.1	5.0	5.0	7.92	11.74																			
17-Nov	4.3	4.7	5.7	Z	6.2	7.3	9.1	12.1	10.8	9.9	7.9	8.2	5.4	4.8	6.5	10.5	9.7	10.4	6.0	5.7	4.3	4.8	5.6	5.6	7.20	12.05																			
18-Nov	4.8	4.6	4.6	Z	4.9	5.5	6.5	7.5	9.4	7.9	7.2	5.4	4.6	5.0	4.6	4.4	5.0	6.9	6.3	5.8	5.1	4.5	4.0	4.8	5.62	9.40																			
19-Nov	4.9	5.0	5.1	Z	4.6	6.0	6.2	6.4	7.7	7.1	5.5	5.6	5.5	5.9	6.8	8.0	8.0	10.4	7.6	8.9	10.7	12.0	11.7	10.1	7.38	11.96																			
20-Nov	9.9	9.7	9.5	Z	8.7	7.9	8.0	8.5	8.6	11.3	6.4	9.1	4.8	5.3	4.0	5.8	7.2	10.6	14.3	14.9	12.9	11.5	9.4	6.9	8.92	14.92																			
21-Nov	7.3	7.9	10.0	Z	7.7	7.9	8.2	9.0	8.4	8.4	6.8	5.7	6.6	5.6	6.5	9.4	11.2	14.1	11.0	10.4	8.8	8.9	8.4	7.8	8.52	14.07																			
22-Nov	8.0	7.7	7.7	Z	8.3	8.4	8.3	8.0	9.0	7.0	6.4	5.0	5.0	6.4	5.2	5.5	7.5	8.6	10.3	10.0	10.1	10.6	10.5	9.2	7.95	10.60																			
23-Nov	9.2	8.8	10.1	Z	11.7	11.7	10.8	13.3	15.5	15.8	9.2	8.8	8.3	8.8	8.9	9.4	10.6	11.6	11.8	11.5	13.2	13.0	9.0	6.1	10.74	15.83																			
24-Nov	7.6	7.9	7.8	Z	6.5	7.2	6.8	7.7	8.5	7.5	8.1	6.8	7.3	8.7	10.5	15.3	21.0	17.9	15.2	17.2	19.2	19.8	16.9	19.4	11.77	20.97																			
25-Nov	16.1	14.0	13.5	Z	12.1	16.2	17.2	17.2	16.6	14.5	11.6	14.6	21.5	17.5	8.1	12.6	27.0	28.2	21.8	20.9	15.0	10.4	7.4	5.2	15.62	28.17																			
26-Nov	5.3	5.2	4.4	Z	7.2	7.8	10.6	10.8	13.0	12.1	13.6	7.9	10.2	11.7	11.3	11.9	12.2	16.0	11.1	10.3	9.1	9.4	6.6	6.2	9.73	15.99																			
27-Nov	6.6	6.9	6.2	Z	6.9	7.8	9.2	10.2	9.6	10.0	8.4	6.9	7.6	6.7	10.5	12.5	16.0	17.2	14.1	19.1	16.9	14.8	12.5	11.2	10.78	19.11																			
28-Nov	11.1	13.0	12.9	Z	12.4	10.0	8.5	11.1	10.7	9.3	10.5	18.9	20.2	10.5	17.6	15.0	19.3	22.2	26.4	24.4	17.0	13.6	10.0	10.4	14.57	26.45																			
29-Nov	8.6	8.0	9.5	Z	9.3	8.3	8.1	10.3	11.3	12.4	16.2	20.1	16.8	15.4	9.7	7.1	6.7	15.9	19.2	21.7	20.2	15.5	17.6	16.5	13.23	21.66																			
30-Nov	13.6	8.6	9.8	Z	8.5	9.9	12.0	13.6	12.3	10.1	8.5	9.1	10.4	10.0	10.2	11.5	13.4	15.2	15.7	14.8	13.8	13.5	12.7	14.4	11.81	15.74																			
																								Diurnal Average																					
																								Diurnal Maximum																					
7.95 7.85 8.16 -- 8.00 8.37 9.29 9.42 10.38 8.96 7.28 7.28 7.31 6.64 7.07 7.92 9.96 11.64 12.18 12.11 11.16 10.62 9.64 8.44																																													
24.56 24.34 25.35 -- 13.74 18.85 20.51 20.09 31.99 20.85 16.16 20.09 21.54 17.50 17.58 15.27 32.63 31.40 26.58 27.80 29.63 24.69 27.54 27.93																																													
Z - zerospan C - Calibration																																													
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb 24-hr 106 ppb																																													



WCAS - Hinton
Summary of Hourly Averages

NOx (NO_x) - ppb
November 2016

Maximum Value: 148.08 ppb on Nov 28 20:00																						Maximum Daily Average: 44.60 ppb on Nov 28																						Hours in Service: 720					
Minimum Value: 0.4 ppb on Nov 14 14:00																						Minimum Daily Average: 7.03 ppb on Nov 8																						Hours of Data: 684					
Maximum Diurnal Average: 27.02 ppb at hour 20																						Minimum Diurnal Average: 11.80 ppb at hour 15																						Hours of Missing Data: 36					
Monthly Average: 18.105 ppb																						Percentiles: P₁ = 1.5 P₁₀ = 4.6 Q₁ = 7.2 Median = 13.4 Q₃ = 21.9 P₉₀ = 37.6 P₉₉ = 81.0																						Hours of Calibration: 36					
																																												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-Nov	13.8	12.4	4.3	Z	33.3	51.1	40.0	30.7	18.9	15.7	11.8	8.1	10.0	8.1	8.7	5.0	8.6	9.8	5.5	6.6	8.7	8.6	7.1	9.4	14.62	51.10																							
2-Nov	21.9	18.7	21.0	Z	47.3	43.1	43.8	45.5	51.2	46.0	20.5	16.0	11.5	11.1	19.7	26.5	17.1	14.1	6.8	6.4	10.7	11.7	6.9	10.0	22.94	51.24																							
3-Nov	11.0	8.2	12.2	Z	8.5	10.7	9.1	5.8	8.0	5.7	5.8	3.5	3.8	2.6	3.8	5.6	4.5	9.5	27.2	56.1	6.1	10.9	10.5	2.4	10.06	56.10																							
4-Nov	1.8	1.7	5.7	Z	15.8	22.1	2.7	3.1	2.1	2.9	1.7	5.3	4.6	8.8	13.4	8.6	58.5	65.2	53.7	47.8	33.0	19.7	12.6	10.2	17.44	65.16																							
5-Nov	3.7	9.7	4.3	Z	3.7	1.6	3.7	20.7	28.3	31.5	12.8	7.3	6.2	1.6	2.2	4.5	1.5	3.8	12.5	12.2	12.6	16.9	11.0	6.9	9.54	31.49																							
6-Nov	9.2	15.9	16.8	Z	23.0	20.1	17.6	17.1	17.5	28.0	8.9	5.1	3.9	2.1	2.8	8.4	5.8	31.7	17.4	19.6	7.1	5.9	16.0	18.3	13.83	31.71																							
7-Nov	11.1	9.4	16.5	Z	12.5	19.8	32.9	27.2	25.0	16.9	13.1	18.2	16.6	6.7	15.5	8.1	6.9	8.1	4.5	2.2	5.0	9.7	12.2	8.4	13.33	32.86																							
8-Nov	6.7	9.0	14.5	Z	3.5	3.6	4.0	2.8	3.1	3.7	5.4	2.4	5.8	8.3	9.5	8.1	10.1	6.3	13.4	8.3	12.7	10.5	4.8	5.1	7.03	14.47																							
9-Nov	7.6	9.5	2.0	Z	3.5	3.3	12.4	5.2	17.5	3.2	2.9	10.4	6.3	3.8	4.3	6.6	5.0	7.8	9.6	5.2	13.7	21.7	19.3	3.5	8.01	21.70																							
10-Nov	7.0	13.6	5.2	Z	19.7	31.8	56.2	44.9	44.5	31.1	23.8	20.8	11.2	C	C	C	C	C	C	12.5	13.1	15.5	26.5	35.6	--	56.20																							
11-Nov	41.9	29.1	34.3	Z	21.5	10.1	11.5	7.0	5.0	6.3	4.6	6.5	7.0	5.6	6.9	5.7	5.1	3.2	11.5	14.7	23.8	31.4	23.2	18.0	14.52	41.86																							
12-Nov	22.6	8.5	14.9	Z	11.4	15.8	19.1	14.3	18.0	12.5	19.6	14.4	11.4	6.8	1.9	1.7	1.1	7.9	3.7	5.5	6.6	8.0	17.3	7.1	10.87	22.58																							
13-Nov	4.1	3.3	9.2	Z	10.5	13.6	17.8	29.8	25.6	25.7	19.2	6.2	4.4	2.9	4.6	8.9	6.6	8.0	7.7	3.0	5.3	4.0	9.4	7.1	10.32	29.77																							
14-Nov	6.1	2.6	10.8	Z	4.9	2.8	17.8	17.0	54.4	16.8	3.4	5.7	0.5	0.4	0.5	0.7	0.6	8.2	13.3	35.7	38.1	32.4	45.3	50.4	16.02	54.39																							
15-Nov	47.0	46.9	44.9	Z	12.6	45.0	48.3	51.5	29.3	28.0	25.8	12.6	20.1	16.0	12.8	18.5	18.5	5.5	13.7	7.2	5.3	5.3	6.6	5.8	22.92	51.50																							
16-Nov	6.0	7.9	8.2	Z	5.7	8.4	16.8	8.6	14.4	11.6	9.4	9.2	17.2	19.4	20.0	14.6	11.6	6.8	13.9	10.0	6.8	4.2	5.1	5.2	10.49	20.05																							
17-Nov	4.4	4.8	6.7	Z	7.5	9.6	13.2	17.3	16.1	17.9	16.1	14.8	8.8	7.1	9.4	13.8	11.9	12.2	7.0	6.4	4.8	5.6	6.3	5.8	9.88	17.95																							
18-Nov	5.0	5.1	5.3	Z	6.0	6.6	8.4	9.2	12.5	11.1	12.2	9.1	7.3	8.1	6.9	6.5	6.3	8.9	7.4	7.1	5.8	5.1	4.6	5.0	7.37	12.50																							
19-Nov	5.6	5.5	6.3	Z	5.5	7.4	9.0	7.7	9.8	10.2	7.9	9.0	8.8	8.5	8.7	10.2	10.3	16.2	9.8	12.4	15.8	22.8	43.9	34.1	12.41	43.89																							
20-Nov	32.2	30.3	22.1	Z	14.0	15.1	21.7	30.6	44.8	55.8	24.4	34.2	13.7	13.8	8.6	10.8	11.4	17.5	32.4	56.2	42.6	37.8	26.9	18.7	26.76	56.15																							
21-Nov	18.5	13.1	16.6	Z	17.2	19.5	20.4	19.4	16.8	24.2	20.4	17.2	22.0	16.6	18.1	25.8	30.7	45.6	27.3	31.4	16.1	11.9	10.0	9.7	20.37	45.56																							
22-Nov	11.4	10.3	9.3	Z	13.6	19.4	20.1	18.8	14.0	12.2	13.4	11.2	12.3	15.5	12.1	11.9	13.5	13.4	18.8	17.6	15.5	16.3	17.9	21.4	14.79	21.42																							
23-Nov	18.6	20.8	26.1	Z	25.9	27.9	22.0	15.7	23.4	32.5	16.3	18.6	20.2	24.6	23.7	22.3	25.6	38.7	56.7	74.5	114.8	109.9	56.0	31.4	36.79	114.80																							
24-Nov	34.4	19.3	20.3	Z	17.9	28.2	17.1	30.6	32.9	19.9	22.6	17.4	17.0	18.1	17.4	24.5	43.1	26.7	19.8	28.1	37.3	52.4	57.8	36.1	27.78	57.77																							
25-Nov	32.4	40.9	32.1	Z	14.1	33.5	44.0	49.7	61.6	58.0	42.2	31.9	38.6	25.4	10.7	23.0	66.7	100.4	43.0	62.6	39.9	17.8	7.5	5.2	38.31	100.36																							
26-Nov	6.0	5.9	5.0	Z	9.9	13.3	23.3	20.9	24.1	26.0	32.7	13.1	19.0	23.0	17.1	17.5	16.4	21.9	15.6	13.4	11.3	10.6	7.1	6.3	15.64	32.72																							
27-Nov	6.9	7.2	6.3	Z	7.0	8.5	11.4	11.7	10.5	13.1	10.9	12.1	14.6	10.2	16.3	17.9	22.4	25.6	22.2	40.5	30.8	21.8	19.1	17.2	15.83	40.51																							
28-Nov	16.7	18.5	17.7	Z	15.1	12.2	12.9	29.6	28.9	33.7	39.0	59.6	42.8	17.9	28.1	26.7	36.6	85.6	145.1	148.1	99.3	59.9	23.1	28.9	44.60	148.08																							
29-Nov	21.7	19.0	16.8	Z	18.6	10.9	21.4	35.4	32.9	41.2	60.9	82.2	54.5	37.8	17.3	9.5	7.0	26.4	32.9	41.1	37.3	19.7	31.1	34.3	30.87	82.18																							
30-Nov	18.4	10.9	17.0	Z	9.9	12.6	16.2	18.8	17.3	15.2	17.4	18.4	20.2	18.7	20.8	21.5	19.2	20.9	19.8	18.4	16.2	14.7	13.3	18.9	17.16	21.52																							
																								15.12	13.94	14.41	--	13.98	17.59	20.49	21.55	23.61	21.89	17.51	16.68	14.69	12.05	11.80	12.88	16.64	22.62	23.19	27.02	23.21	20.75	18.61	15.88	Diurnal Average	
																								47.04	46.92	44.88	--	47.32	51.10	56.20	51.50	61.57	58.00	60.88	82.18	54.47	37.81	28.09	26.69	66.66	100.36	145.10	148.08	114.80	109.86	57.77	50.41	Diurnal Maximum	
Z - zerospan																								C - Calibration																									
Alberta Ambient Air Quality Objectives (AAQO): 1-hr --- ppb 24-hr --- ppb																																																	



WCAS - Hinton
Summary of Hourly Averages

PM2.5 (PM_{2.5}) - µg/m³
November 2016

Maximum Value: 38.09 µg/m³ on Nov 4 20:00 Maximum Daily Average: 16.83 µg/m³ on Nov 23																							Hours in Service:	720		
Minimum Value: 0.0 µg/m³ on Nov 3 04:00 Minimum Daily Average: 4.39 µg/m³ on Nov 7																							Hours of Data:	686		
Maximum Diurnal Average: 10.89 µg/m³ at hour 3 Minimum Diurnal Average: 6.56 µg/m³ at hour 17																							Hours of Missing Data:	34		
Monthly Average: 8.385 µg/m³ Percentiles: P ₁ = 0.0 P ₁₀ = 1.7 Q ₁ = 4.4 Median = 7.2 Q ₃ = 10.8 P ₉₀ = 15.6 P ₉₉ = 28.8																							Hours of Calibration:	0		
																							Percent Operational Time:	95.3		
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-Nov	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	--
2-Nov	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	9.8	11.3	7.0	5.2	6.8	4.7	2.8	3.8	4.2	2.2	1.2	1.4	3.0	9.5	--	11.28
3-Nov	5.9	6.4	3.6	0.0	9.1	4.3	1.1	2.6	0.0	0.0	6.0	7.8	5.0	4.4	4.1	0.0	0.0	5.2	15.8	30.1	15.4	13.6	12.1	1.3	6.41	30.12
4-Nov	3.1	4.7	8.0	7.2	8.2	7.8	8.9	4.2	3.1	3.6	5.9	6.1	4.5	5.2	8.8	10.0	24.7	37.9	36.8	38.1	29.0	10.6	9.3	10.6	12.34	38.09
5-Nov	7.8	17.1	12.2	9.8	11.0	4.8	4.1	2.2	18.0	14.0	13.5	6.7	6.2	6.6	5.9	1.9	1.2	0.7	3.3	9.4	9.8	12.1	15.1	7.0	8.36	18.01
6-Nov	4.1	14.1	11.8	12.0	12.9	12.7	7.1	8.2	9.8	9.2	3.8	3.8	1.8	3.0	3.4	9.2	4.7	6.2	3.2	5.0	8.1	2.5	3.1	6.9	6.94	14.10
7-Nov	4.8	6.1	7.0	4.2	4.4	4.3	2.9	3.3	7.6	6.0	1.2	3.5	4.0	6.2	5.7	6.9	1.8	3.0	4.2	1.5	0.1	0.0	7.6	9.1	4.39	9.13
8-Nov	0.4	4.5	4.4	4.0	6.9	3.5	5.5	3.9	3.8	0.8	2.3	1.9	9.7	7.9	10.6	9.0	7.3	5.7	8.1	17.5	5.3	18.8	8.1	6.0	6.50	18.79
9-Nov	5.2	5.2	10.5	3.5	2.3	0.0	4.3	10.2	8.2	8.0	1.4	0.2	0.0	5.0	8.4	0.3	0.0	3.8	8.0	8.1	4.7	6.7	11.8	0.0	4.82	11.81
10-Nov	0.5	9.3	6.5	5.6	7.7	6.4	11.3	18.9	14.4	14.4	7.3	13.0	9.1	3.1	5.4	13.0	7.1	5.5	5.9	4.7	6.7	9.3	8.3	6.7	8.34	18.86
11-Nov	9.7	14.8	14.4	12.4	9.5	6.2	10.5	6.6	1.4	6.6	6.6	7.6	6.9	6.2	7.2	0.2	2.9	1.2	2.0	6.4	15.5	16.5	23.7	19.6	8.94	23.67
12-Nov	9.7	13.4	10.7	11.7	8.3	7.2	10.2	4.8	6.9	8.9	9.3	10.6	6.8	6.1	2.3	0.0	0.0	0.0	1.5	0.9	3.1	0.6	4.7	13.5	6.30	13.48
13-Nov	13.7	8.0	10.7	6.9	6.4	8.6	7.0	5.9	8.2	5.1	9.3	6.4	0.0	0.0	0.0	0.0	0.0	6.0	4.7	1.8	3.5	4.1	7.3	10.1	5.57	13.72
14-Nov	7.9	5.3	9.5	6.5	1.7	0.3	0.7	6.7	8.8	11.9	5.1	5.0	4.9	1.6	0.2	0.0	0.0	0.8	8.3	14.0	15.2	21.0	22.8	21.5	7.49	22.84
15-Nov	20.8	24.0	25.5	19.5	9.5	5.5	17.4	16.7	16.1	14.1	19.4	16.9	9.2	10.5	8.7	10.6	9.2	7.6	7.2	0.0	4.0	2.7	2.9	1.5	11.65	25.54
16-Nov	7.4	7.0	12.6	10.2	7.1	5.0	7.4	6.7	8.2	10.1	3.5	4.6	3.7	8.4	8.4	6.9	5.3	3.9	1.8	2.9	1.6	1.3	0.7	0.0	5.61	12.55
17-Nov	0.0	5.7	5.1	8.1	6.7	4.1	7.6	5.8	11.0	6.0	3.7	8.5	2.6	5.5	3.4	0.4	3.3	1.8	7.3	3.5	1.5	2.8	2.7	0.9	4.49	11.01
18-Nov	4.2	5.0	6.6	6.6	2.9	5.5	4.0	6.6	5.6	7.9	5.5	5.1	5.3	4.4	6.3	3.5	4.9	3.4	6.3	8.0	4.4	7.4	7.4	4.7	5.48	8.01
19-Nov	10.5	10.6	13.8	15.1	10.9	11.4	11.1	7.4	8.7	9.5	12.8	9.8	10.0	7.6	7.9	10.7	13.5	7.7	5.9	7.1	8.0	12.2	14.9	8.6	10.24	15.14
20-Nov	10.4	13.1	17.1	13.9	9.5	8.2	11.2	8.7	8.1	11.8	12.4	12.3	7.1	6.3	6.7	6.5	8.5	4.4	6.1	8.7	7.0	12.9	8.7	0.0	9.15	17.08
21-Nov	4.0	15.1	21.8	15.8	13.8	13.0	10.6	12.2	9.5	10.8	11.9	12.8	12.9	10.9	10.8	15.9	11.8	11.5	9.0	3.9	8.1	7.7	4.4	6.9	11.05	21.83
22-Nov	10.4	15.8	10.0	6.3	9.4	10.1	7.9	9.1	5.6	9.1	3.4	4.1	3.2	5.8	3.9	7.1	2.8	1.4	2.5	2.1	8.3	12.0	10.0	6.3	6.94	15.82
23-Nov	5.8	15.6	15.2	8.5	10.7	16.4	14.7	10.5	5.3	13.3	14.5	19.3	21.9	22.8	15.9	18.9	20.0	23.7	22.4	26.0	29.4	27.4	20.8	4.8	16.83	29.40
24-Nov	5.1	15.7	9.9	6.7	5.1	4.4	2.8	3.4	4.8	10.0	7.1	6.0	6.1	4.0	5.8	10.3	9.6	7.1	6.1	9.6	11.2	10.1	12.2	14.5	7.82	15.73
25-Nov	17.3	15.4	15.0	11.2	10.8	9.6	15.4	13.4	10.3	6.8	15.2	18.1	14.7	5.2	5.3	6.1	5.3	10.2	11.7	13.2	12.7	4.5	11.7	0.0	10.80	18.13
26-Nov	0.0	0.4	5.0	0.0	5.2	7.8	2.4	7.5	7.4	3.0	1.8	5.1	1.5	1.7	5.2	5.0	5.3	6.5	7.7	5.7	6.6	5.2	5.6	9.3	4.62	9.31
27-Nov	5.5	10.2	6.1	7.1	10.5	11.6	16.2	14.3	13.3	10.0	10.3	8.5	12.4	14.8	19.1	29.3	21.5	24.9	25.0	23.4	26.9	20.4	16.9	7.6	15.24	29.33
28-Nov	4.5	13.6	15.3	18.7	20.7	15.7	12.7	11.4	9.5	10.2	9.6	19.5	23.9	13.2	7.6	5.4	5.8	5.2	11.4	15.5	17.9	10.8	7.7	0.4	11.93	23.86
29-Nov	7.9	10.3	10.3	7.1	6.5	1.8	1.5	4.4	5.9	5.4	6.7	21.7	27.3	16.4	4.6	0.0	0.0	0.0	2.6	5.5	9.4	11.2	4.8	25.4	8.19	27.28
30-Nov	21.2	15.5	6.5	5.4	2.1	7.7	9.0	7.2	8.4	9.0	7.7	10.3	10.3	8.5	10.7	12.9	10.7	13.8	13.6	10.4	11.1	11.4	14.7	7.1	10.22	21.18
																							Diurnal Average			
7.43 10.79 10.89 8.70 8.21 7.29 8.05 7.96 8.14 8.41 7.83 9.18 8.20 7.12 6.86 7.06 6.56 7.33 8.71 9.84 9.85 9.56 9.76 7.58																							Diurnal Maximum			
21.18 24.02 25.54 19.50 20.69 16.40 17.36 18.86 18.01 14.41 19.43 21.66 27.28 22.81 19.13 29.33 24.68 37.86 36.75 38.09 29.40 27.39 23.67 25.43																										
AF - Analyzer Failure Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 80 ul/m ³ 24-hr 30 ul/m ³																										

Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: November 10, 2016

Parameter: NO/NO₂/NO_x

Instrument: Teco 42i

Serial Number: CM13040041

Previous Calibration Date: October 12 2016

Calibration: Routine

Calibration Equipment: SABIO 2010 sn # 04300810

Barometric Pressure: 26.70" Hg

Calibration Method: Std.Gas Dilution / GPT

Cylinder ID: FF27662

Temperature: 24.5° C

Cylinder Concentration: 11.7 ppm NO & NO_x

In Service: June 2 2016; Exp Jan 20 2019

Technician: Dean Yustak

Instrument Settings	NO bkg ppb	NO _x bkg ppb	Pre-reactor bkg ppb	NO Coefficient	NO _x Coefficient	NO ₂ Coefficient	Monitoring Range
Previous	5.8	6.1	na	0.929	1.000	1.000	200 ppb
Current	5.7	5.9	na	0.897	1.000	1.000	200 ppb

NO	Final Zero: -0.3 ppb	Final Span: 159.1 ppb	As Found Correction Factor: 0.984
NO ₂	Final Zero: 0.6 ppb	Final Span: 0.7 ppb	As Found Correction Factor: NA
NO _x	Final Zero: -0.3 ppb	Final Span: 158.9 ppb	As Found Correction Factor: 0.982

Results of Linear Regression			Slope	Intercept	R ²
NO	R _c vs C _c	Previous	150.104100	13.064510	0.999999
		Current	149.629500	59.694370	0.999967
	C _i vs C _c	Current	1.000000	0.000000	0.999967
NO ₂	R _c vs C _c	Previous	150.180200	-15.888710	0.999999
		Current	148.613300	-107.130400	0.999878
	C _i vs C _c	Current	1.000000	0.000020	0.999878
NO _x	R _c vs C _c	Previous	150.060700	5.182094	0.999999
		Current	150.045400	47.018960	0.999975
	C _i vs C _c	Current	1.000000	0.000000	0.999975

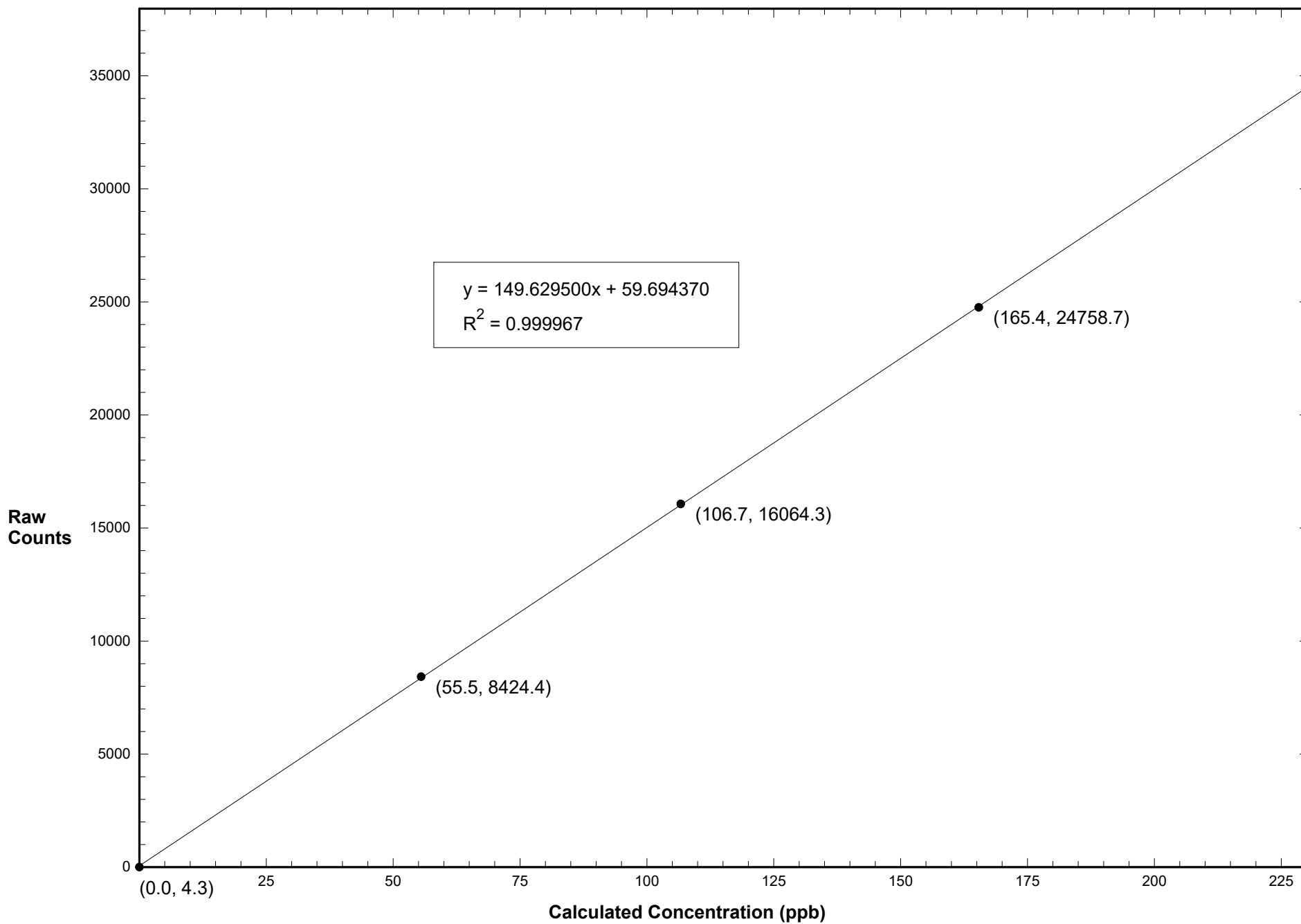
Comments:

Calibration Data Summary (Page 2)

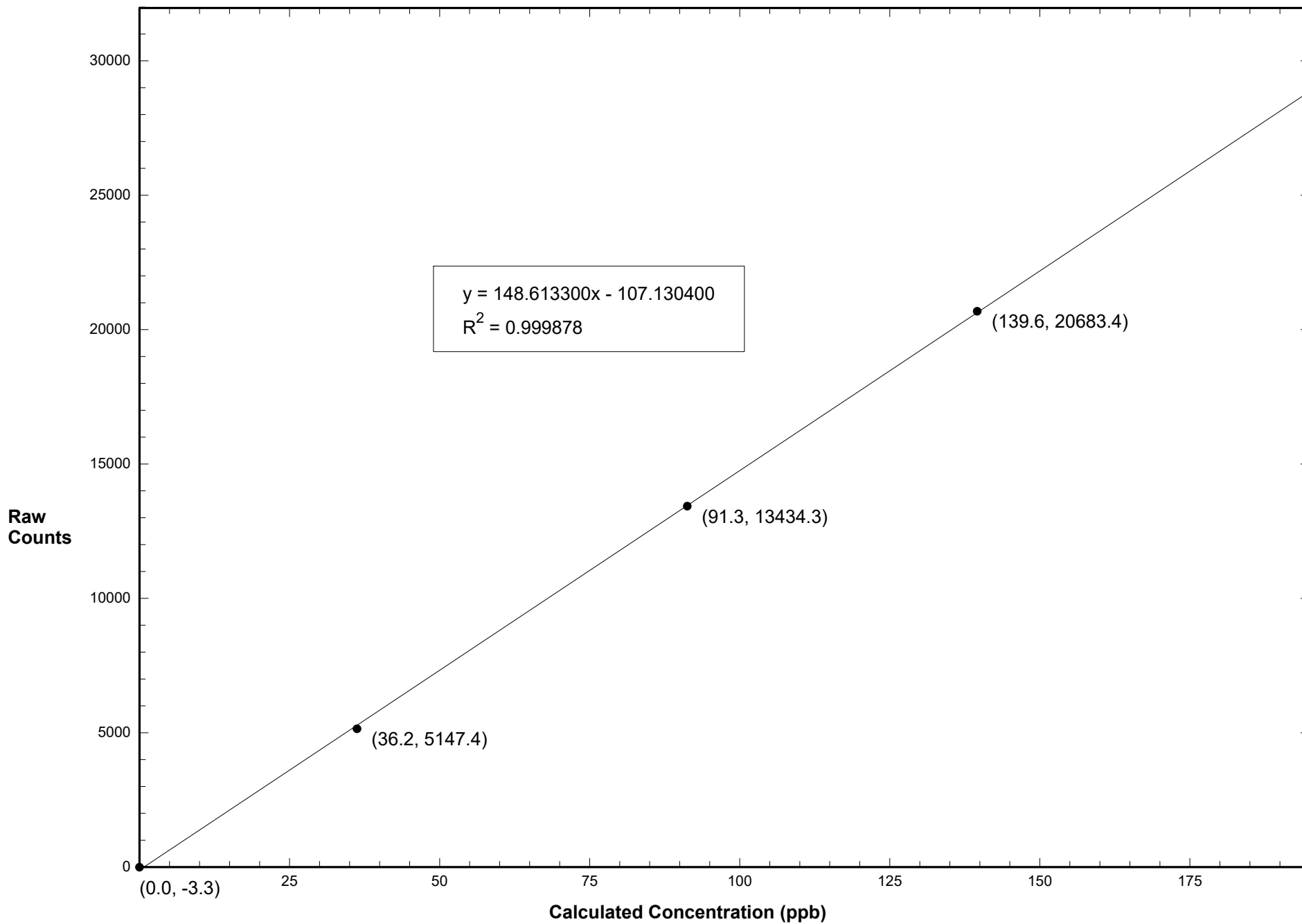
November 10, 2016 - Station 906

NO Flow Rate (LPM)	Dilution Flow Rate (LPM)	Calculated Concentration C _c (ppb)	Raw Count Output R _c	Indicated Concentration C _i (ppb)	Correction Factor C _c /C _i		
0.06550	4.568	165.4	24758.7	165.1	1.002		
0.04200	4.565	106.7	16064.3	107.0	0.997		
0.02175	4.563	55.5	8424.4	55.9	0.993		
0.00000	4.525	0.0	4.3	-0.4			
NO Calibration					Average Correction Factor:	0.997	
0.06550	4.568	165.4	24816.1	165.1	1.002		
0.04200	4.565	106.7	16105.4	107.0	0.997		
0.02175	4.563	55.5	8412.8	55.8	0.996		
0.00000	4.525	0.0	2.9	-0.3			
NO _x Calibration					Average Correction Factor:	0.998	
Reference Concentration NO (ppb)	Raw Count Output NO	Calculated Concentration NO (ppb)	Calculated Concentration NO ₂ , C _c (ppb)	Raw Count Output R _c	Indicated Concentration C _i (ppb)	Correction Factor C _c /C _i	Converter Efficiency C _i /C _c
165.5	3932.3	25.9	139.6	20683.4	139.9	0.998	1.002
165.5	11161.3	74.2	91.3	13434.3	91.1	1.002	0.998
165.5	19395.3	129.2	36.2	5147.4	35.4	1.025	0.976
			0.0	-3.3	0.7		
						Average Correction Factor:	1.008
NO ₂ Gas Phase Titration						Average Converter Efficiency:	0.992
Parameter	Correction Factor (Previous)	Correction Factor: (Current)	Percent Change of Correction Factor				
NO	1.000	1.002	0.2				
NO ₂	1.000	0.998	-0.2				
NO _x	1.000	1.002	0.2				

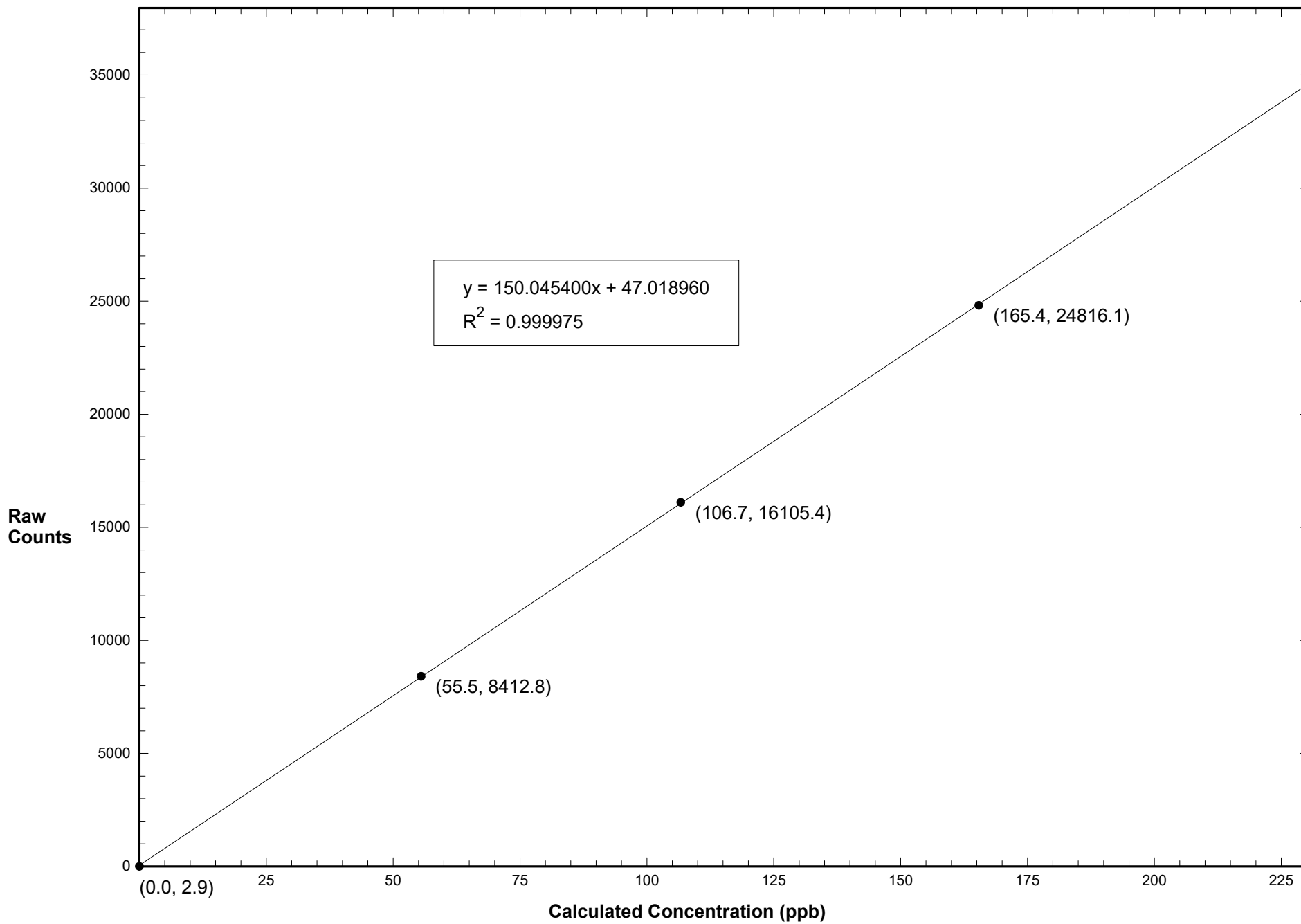
Station 906 NO November 10, 2016: Linear Regression



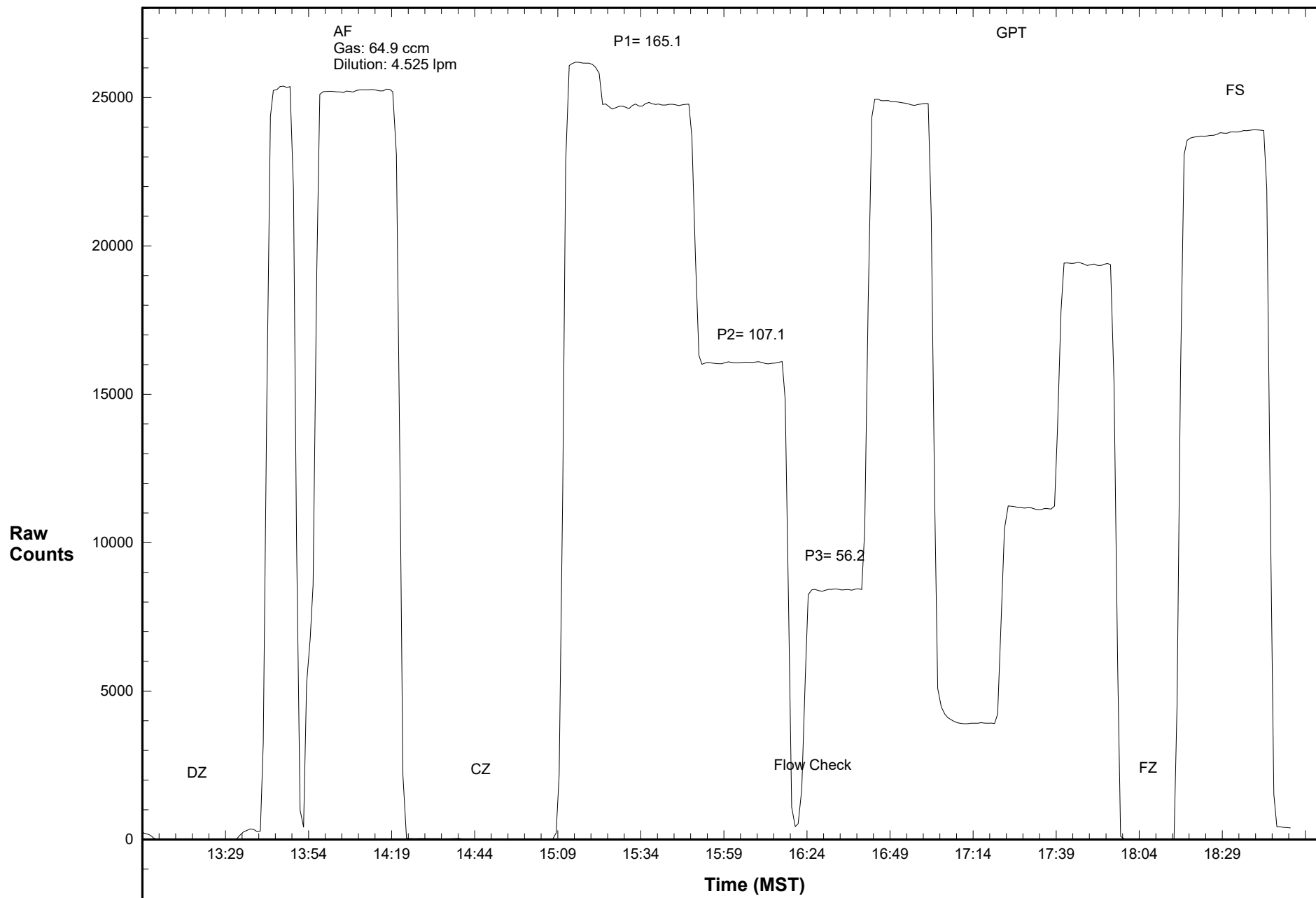
Station 906 NO2 November 10, 2016: Linear Regression



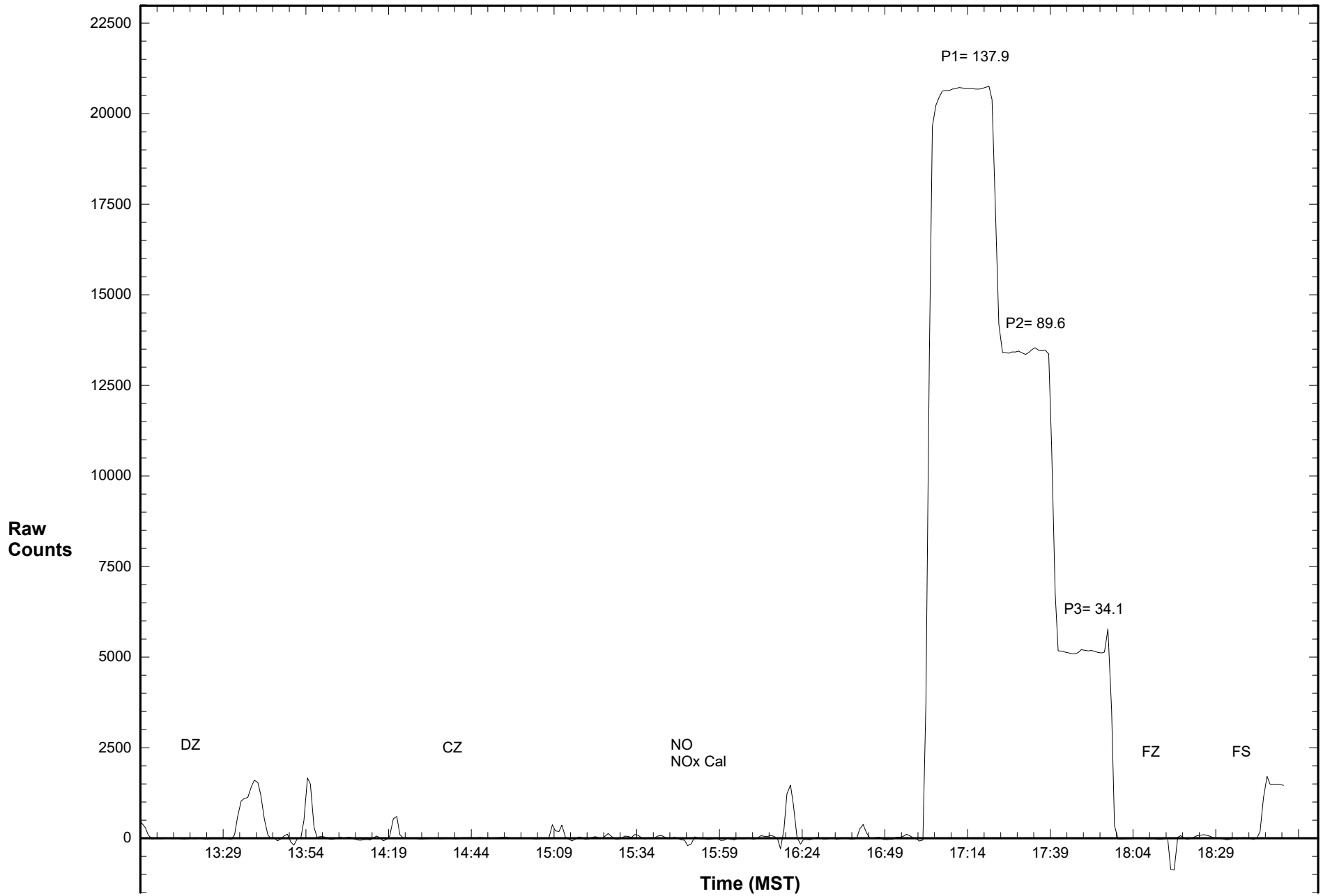
Station 906 NOX November 10, 2016: Linear Regression



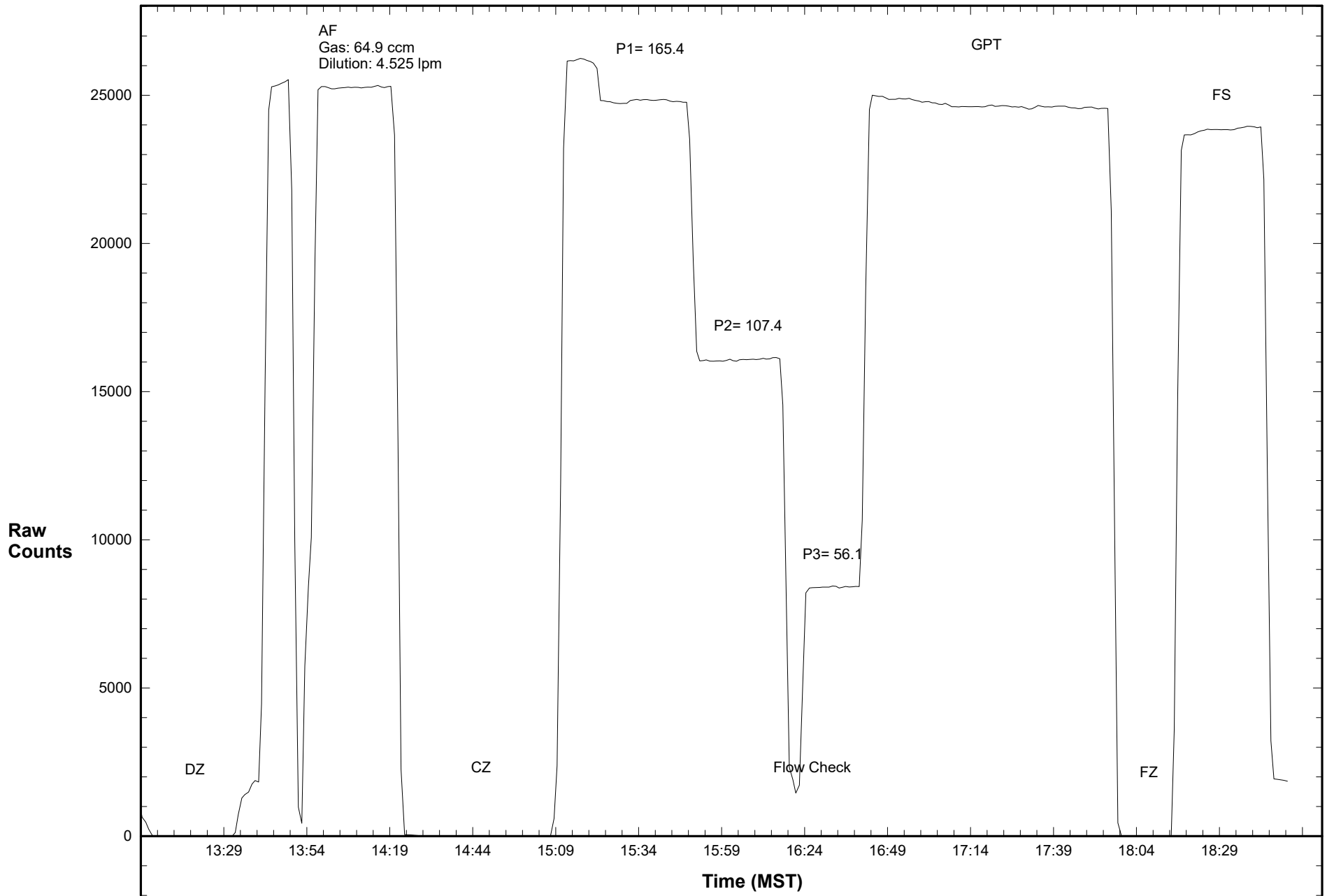
Station 906 NO November 10, 2016: Calibration Graph



Station 906 NO2 November 10, 2016: Calibration Graph



Station 906 NOX November 10, 2016: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: November 10, 2016

Parameter: O₃

Instrument: Teco 49i

Serial Number: 1150790050

Previous Calibration Date: October 12 2016

Calibration: Routine

Calibration Equipment: 2B Tech 306 SN-135

Barometric Pressure: 26.70" Hg

Calibration Method: Certified Ozone Generator

Temperature: 24.5° C

Technician: Dean Yustak

Instrument Settings	Background	Coefficient	Monitoring Range
Previous	0.0	0.964	500 ppb
Current	-0.3	1.033	500 ppb

Final Zero: -1.4 ppb

Final Span: 365.8 ppb

As Found Correction Factor: 1.063

Calibration System Flow Rate (LPM)	Calculated Concentration C _c (ppb)	Raw Count Output R _c	Indicated Concentration C _i (ppb)	Correction Factor C _c /C _i
3.000	409.0	24609.8	407.5	1.004
3.000	255.0	15564.0	257.4	0.991
3.000	102.3	6233.1	102.5	0.998
3.000	0.0	-5.1	-1.0	

Results of Linear Regression

R _c vs C _c	Slope	Intercept	R ²
Previous	60.002320	13.006060	0.999997
Current	60.254330	57.227050	0.999907
C _i vs C _c			
Current	1.000000	0.000000	0.999907

Average Correction Factor: 0.998

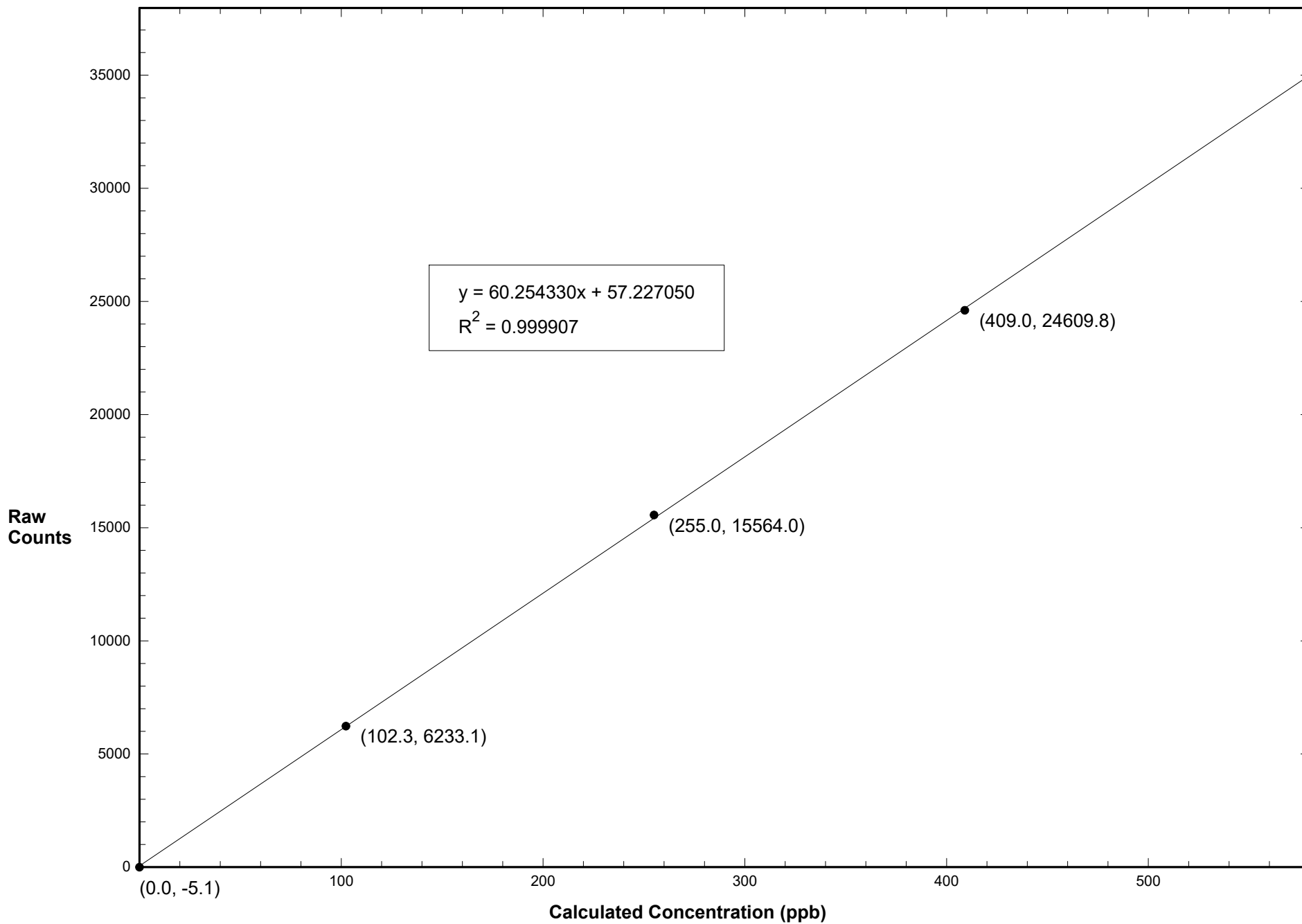
Previous Correction Factor: 1.001

Current Correction Factor: 1.004

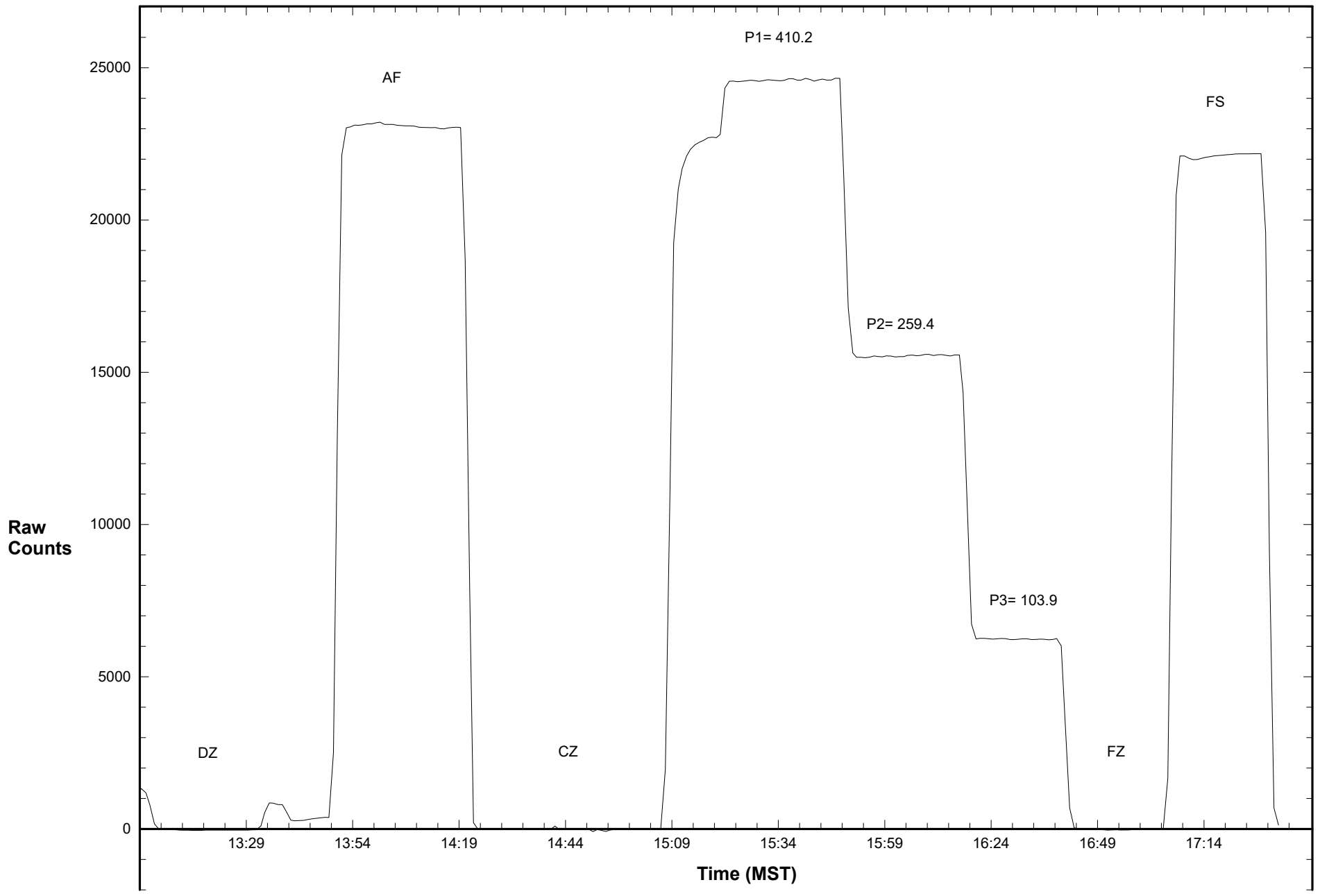
Percent Change of Correction Factor: 0.3

Comments:

Station 906 O3 November 10, 2016: Linear Regression



Station 906 O3 November 10, 2016: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton
 Calibration Date: November 10, 2016
 Parameter: SO₂

Instrument: Teco 43i	Serial Number: CM 12499009	Previous Calibration Date: October 12 2016
Calibration: Routine	Calibration Equipment: SABIO 2010 sn # 04300810	Barometric Pressure: 26.70" Hg
Calibration Method: Std.Gas Dilution	Cylinder ID: FF27662	Temperature: 23.5° C
Cylinder Concentration: 5.68 ppm SO ₂	In Service: June 2 2016; Exp Jan 20 2019	Technician: Dean Yustak

Instrument Settings	SO ₂ bkg ppb	SO ₂ Coefficient	Monitoring Range
Previous	26.3	0.993	100 ppb
Current	26.1	0.989	100 ppb

Final Zero: -0.1 ppm Final Span: 68.1 ppm As Found Correction Factor: 0.994

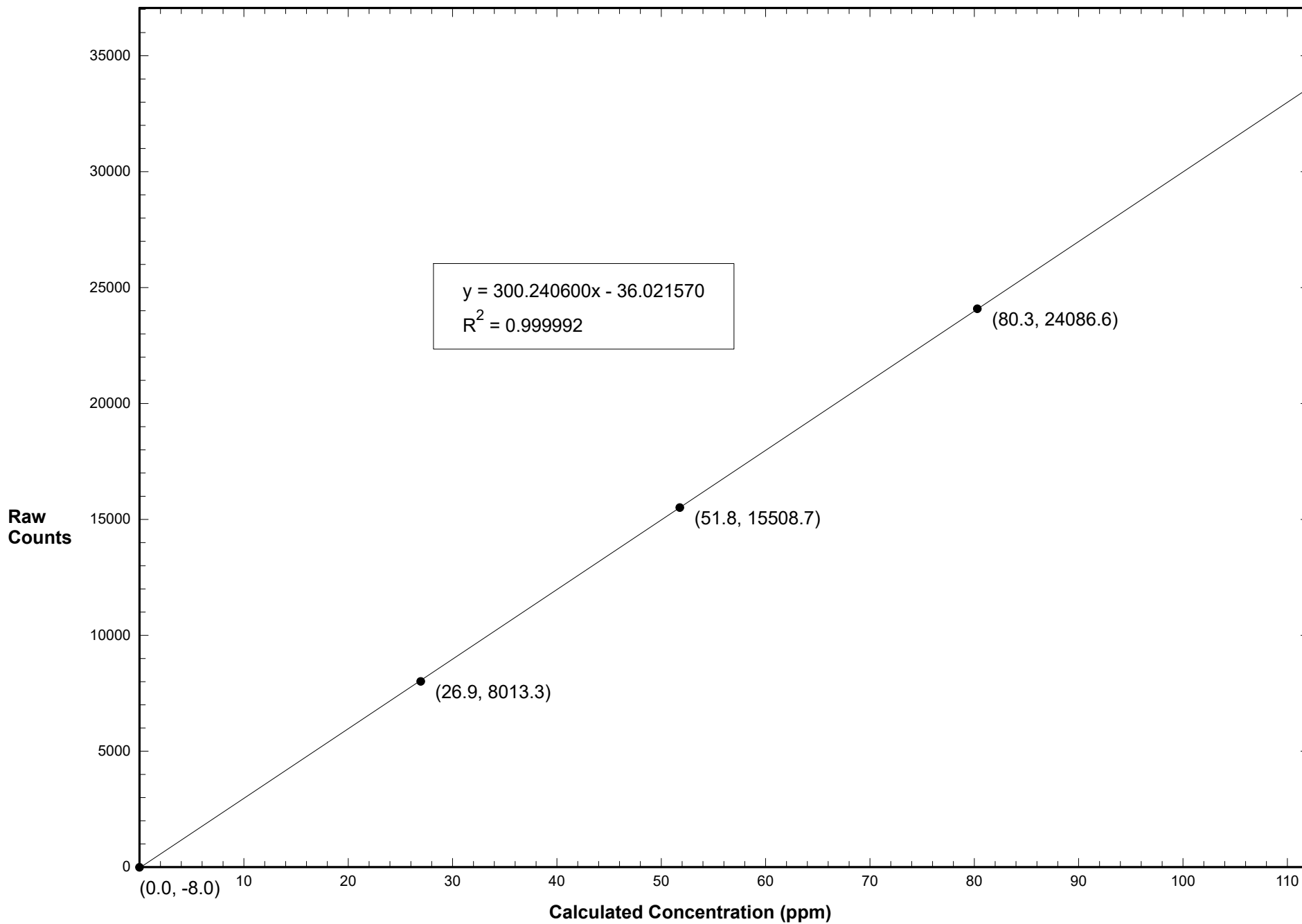
SO ₂ Flow Rate (LPM)	Dilution Flow Rate (LPM)	Calculated Concentration C _c (ppm)	Raw Count Output R _c	Indicated Concentration C _i (ppm)	Correction Factor C _c /C _i
0.0655	4.568	80.3	24086.6	80.3	0.999
0.0420	4.565	51.8	15508.7	51.8	1.000
0.0218	4.563	26.9	8013.3	26.8	1.005
0.0000	4.525	0.0	-8.0	0.1	

Results of Linear Regression			
R _c vs C _c	Slope	Intercept	R ²
Previous	300.099100	-68.760680	0.999996
Current	300.240600	-36.021570	0.999992
C _i vs C _c			
Current	1.000000	0.000011	0.999991

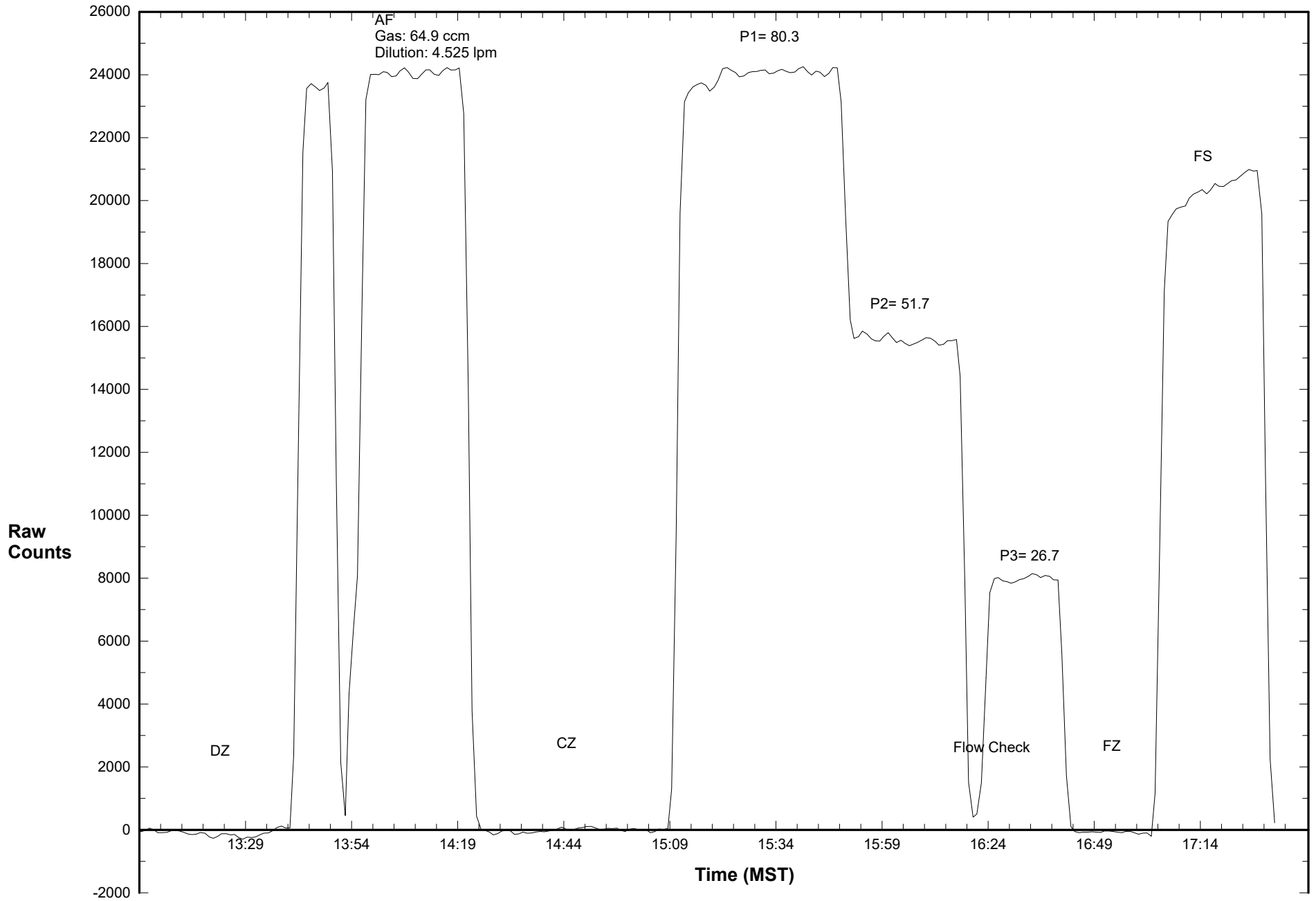
Average Correction Factor: 1.002
 Previous Correction Factor: 1.001
 Current Correction Factor: 0.999
 Percent Change of Correction Factor: -0.2

Comments:

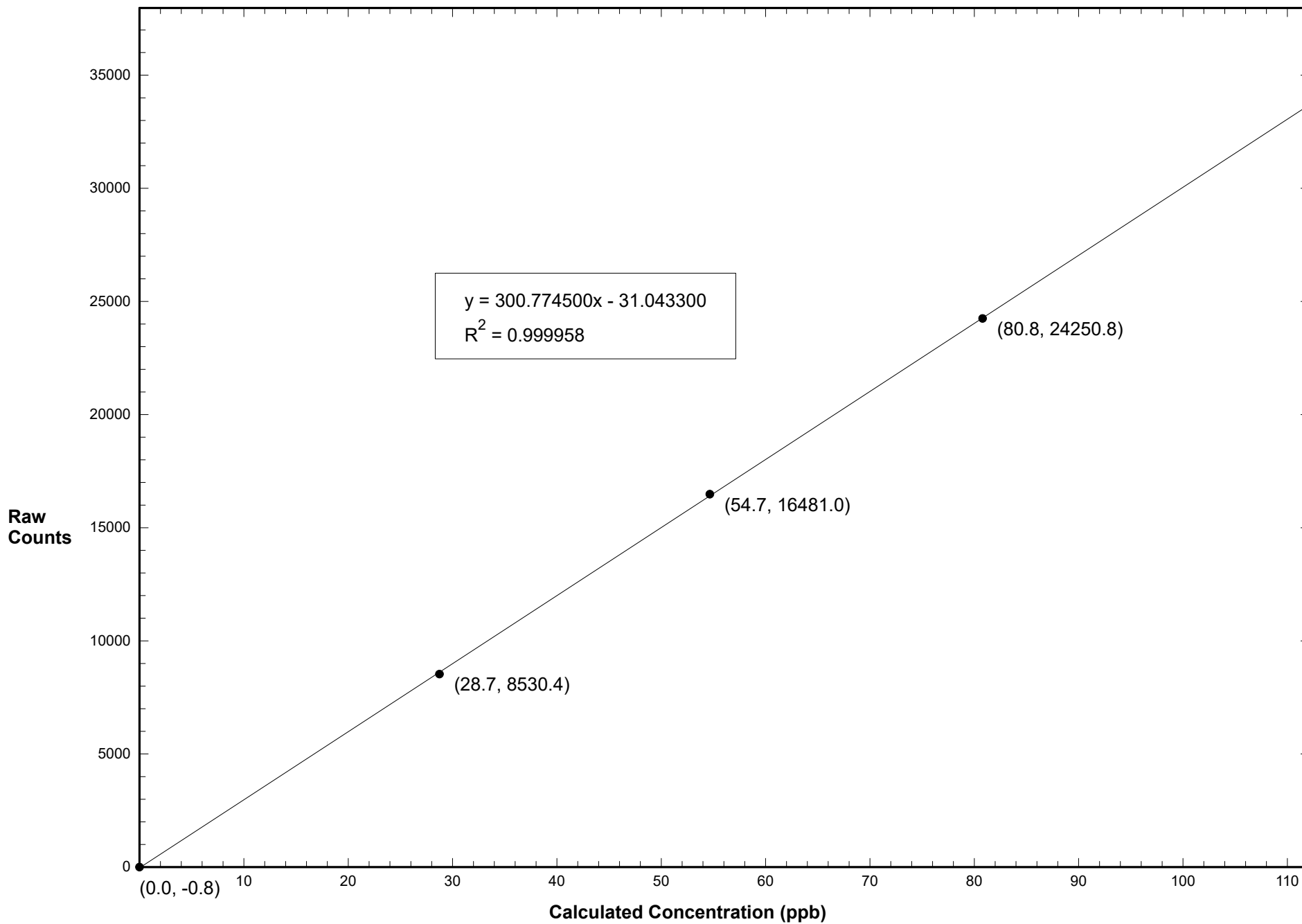
Station 906 SO2 November 10, 2016: Linear Regression



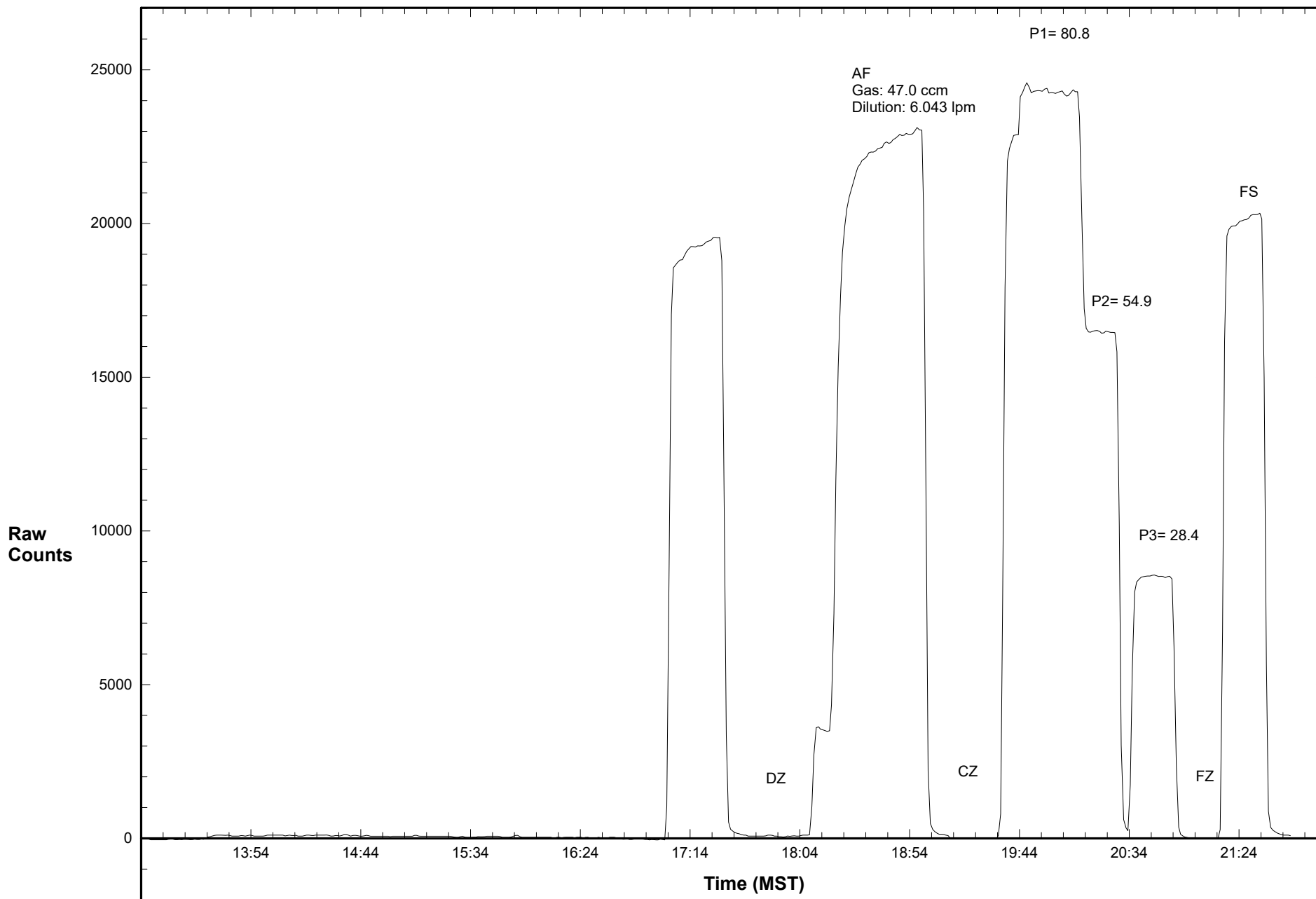
Station 906 SO2 November 10, 2016: Calibration Graph



Station 906 TRS November 10, 2016: Linear Regression



Station 906 TRS November 10, 2016: Calibration Graph



WEST CENTRAL AIRSHED SOCIETY

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

**AMS 906
HINTON
NOVEMBER 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 - Hinton
Summary of Hourly Averages

External Temperature (ET) - C
November 2016

Maximum Value: 20.91 C on Nov 8 14:00		Maximum Daily Average: 16.51 C on Nov 8		Hours in Service: 720																							
Minimum Value: -13.0 C on Nov 24 06:00		Minimum Daily Average: -9.11 C on Nov 24		Hours of Data: 720																							
Maximum Diurnal Average: 3.50 C at hour 15		Minimum Diurnal Average: -1.95 C at hour 4		Hours of Missing Data: 0																							
Monthly Average: -0.109 C		Percentiles: P ₁ = -12.4 P ₁₀ = -8.4 Q ₁ = -5.2 Median = -2.6 Q ₃ = 5.1 P ₉₀ = 12.2 P ₉₉ = 18.8		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-Nov	0.1	0.0	-0.3	-1.1	-1.8	-2.7	-2.6	-2.4	-2.0	-1.7	-1.6	-1.2	-0.2	-0.3	-0.7	-0.8	-1.0	-1.1	-1.3	-1.6	-1.6	-1.4	-1.3	-1.7	-1.27	0.09	
2-Nov	-2.5	-2.9	-3.7	-4.0	-4.1	-4.3	-4.1	-4.2	-4.1	-3.6	-2.8	-1.5	0.3	2.5	2.8	3.1	3.0	2.2	1.8	1.5	1.1	1.5	1.2	0.0	-0.87	3.07	
3-Nov	-0.5	-0.6	-0.3	-0.8	8.0	8.8	8.8	8.8	9.0	10.6	12.2	13.2	13.9	14.1	13.5	12.3	11.5	9.1	4.9	2.8	9.1	11.7	12.2	13.1	8.56	14.09	
4-Nov	13.4	13.4	13.1	12.2	10.4	9.7	13.4	13.4	14.0	14.8	15.7	16.2	15.9	16.5	17.0	17.1	14.5	9.7	7.2	5.2	4.1	3.7	3.2	4.0	11.57	17.13	
5-Nov	14.9	15.3	14.5	13.7	13.5	13.1	12.5	10.2	7.3	10.1	12.6	14.2	15.3	16.4	16.1	14.0	12.2	10.5	10.6	7.0	6.7	5.6	4.2	4.0	11.45	16.36	
6-Nov	4.0	3.4	3.2	3.0	3.4	3.4	3.2	3.2	3.2	3.5	4.2	5.1	5.8	6.2	7.3	8.9	8.0	5.9	3.5	2.0	0.8	-0.5	-1.3	-1.9	3.65	8.90	
7-Nov	-2.5	-2.7	-2.9	-2.7	-2.8	-2.8	-3.1	-3.1	-2.7	-2.1	-1.2	0.0	2.8	10.3	11.9	12.2	12.2	12.7	13.6	13.2	11.7	5.8	11.5	13.1	4.26	13.60	
8-Nov	10.2	9.7	10.7	12.5	17.5	18.0	18.0	17.9	18.0	18.3	19.2	20.1	20.6	20.9	20.8	20.0	19.0	17.5	16.3	16.0	14.8	14.4	13.9	12.0	16.51	20.91	
9-Nov	10.5	10.6	13.1	12.4	11.0	10.6	10.5	10.4	10.0	8.7	7.4	7.1	7.5	9.6	10.1	9.6	8.3	6.9	5.0	3.3	0.9	-0.6	-1.7	-2.0	7.47	13.13	
10-Nov	-2.2	-2.5	-2.7	-3.2	-3.5	-3.5	-3.8	-4.2	-4.2	-2.9	0.4	3.4	6.3	6.9	6.2	5.0	4.0	3.1	2.3	1.8	1.3	0.3	-0.4	-1.1	0.29	6.95	
11-Nov	-1.6	-1.8	-2.1	-2.1	0.1	10.8	14.1	13.6	13.9	14.5	15.2	15.5	16.0	16.2	15.6	14.2	13.8	13.2	12.1	11.3	9.0	8.1	7.3	6.0	9.71	16.24	
12-Nov	4.5	5.1	4.4	4.3	3.8	3.6	3.7	4.1	4.0	4.0	5.2	6.1	8.0	12.0	11.3	11.1	10.0	10.0	9.9	9.1	8.3	6.4	3.2	2.3	6.44	11.99	
13-Nov	2.3	2.5	2.0	1.7	1.2	0.1	-0.6	-1.4	-1.9	-0.1	4.8	10.4	11.5	10.9	10.4	9.9	10.0	9.3	8.7	8.4	8.7	8.8	8.0	5.67	11.48		
14-Nov	7.5	7.1	7.4	6.2	6.0	5.8	5.6	4.6	4.1	5.6	6.1	7.5	8.7	9.2	8.6	7.7	5.3	3.5	1.5	-1.2	-2.5	-3.4	-3.7	-4.3	4.29	9.16	
15-Nov	-4.9	-5.6	-5.5	-5.1	-3.9	-5.0	-5.7	-5.9	-5.9	-5.1	-4.2	-3.2	-2.0	-1.1	-0.5	-0.3	-0.5	-0.7	-1.2	-1.8	-2.0	-2.0	-2.0	-1.9	-3.17	-0.33	
16-Nov	-1.8	-1.7	-1.7	-1.6	-1.7	-1.9	-1.9	-1.9	-1.9	-1.6	-1.2	-0.7	0.1	0.2	0.5	0.5	-0.4	-0.7	-1.1	-1.2	-1.8	-2.1	-2.4	-2.8	-1.29	0.51	
17-Nov	-3.2	-3.5	-3.8	-4.0	-4.3	-4.8	-5.6	-6.0	-6.8	-6.8	-6.4	-5.3	-4.1	-3.7	-3.6	-3.3	-3.5	-3.9	-4.6	-4.9	-5.0	-5.0	-4.9	-4.9	-4.66	-3.22	
18-Nov	-4.8	-4.7	-4.8	-4.9	-5.0	-5.0	-4.9	-4.9	-4.8	-4.5	-4.2	-3.1	-2.8	-2.6	-2.6	-3.2	-3.8	-4.2	-4.4	-4.3	-4.4	-4.5	-4.7	-4.7	-4.24	-2.57	
19-Nov	-5.0	-5.1	-5.1	-5.2	-5.1	-5.0	-5.1	-5.2	-5.0	-4.9	-4.5	-4.0	-3.7	-3.5	-3.7	-3.8	-4.0	-4.4	-4.7	-5.1	-5.0	-5.7	-7.0	-8.0	-4.91	-3.53	
20-Nov	-8.9	-9.5	-9.4	-9.1	-9.2	-9.6	-9.1	-9.6	-10.2	-9.5	-7.7	-6.5	-4.6	-3.4	-2.8	-2.3	-2.9	-3.9	-5.0	-6.2	-7.2	-7.6	-7.2	-8.0	-7.06	-2.26	
21-Nov	-8.0	-7.3	-7.2	-7.1	-6.9	-6.7	-7.4	-7.7	-7.6	-7.2	-6.5	-5.4	-4.7	-3.7	-3.0	-2.8	-2.4	-2.3	-2.7	-3.1	-3.2	-3.1	-3.2	-3.1	-5.10	-2.34	
22-Nov	-3.2	-3.2	-3.3	-3.3	-3.3	-3.4	-3.5	-3.5	-3.7	-3.9	-3.7	-3.4	-2.9	-3.0	-2.3	-2.1	-3.0	-4.1	-5.2	-5.4	-5.9	-6.1	-6.6	-7.6	-3.97	-2.08	
23-Nov	-8.5	-8.7	-8.7	-8.1	-7.9	-8.1	-8.4	-6.3	-5.9	-6.5	-6.2	-6.0	-5.7	-5.2	-4.8	-4.6	-4.8	-5.2	-5.9	-6.7	-7.5	-8.5	-9.8	-10.5	-7.01	-4.61	
24-Nov	-11.2	-11.3	-11.9	-12.5	-13.0	-13.0	-12.5	-12.4	-12.3	-11.5	-10.8	-9.5	-7.7	-5.8	-4.3	-4.6	-5.3	-5.5	-6.0	-6.7	-7.1	-7.7	-8.4	-7.7	-9.11	-4.35	
25-Nov	-8.8	-9.4	-9.2	-8.3	-8.1	-8.1	-8.7	-9.3	-10.1	-9.8	-7.7	-5.1	-1.7	-1.8	-1.5	-1.5	-2.2	-4.3	-4.5	-6.8	-8.3	-6.1	-1.3	-0.8	-5.97	-0.84	
26-Nov	-5.4	-9.0	-9.6	-10.1	-10.6	-10.7	-10.4	-10.1	-9.6	-8.9	-8.1	-7.3	-6.5	-5.7	-5.0	-4.7	-4.5	-4.7	-4.9	-4.7	-4.7	-4.7	-4.7	-4.6	-7.05	-4.54	
27-Nov	-4.6	-4.6	-4.7	-4.7	-4.7	-4.8	-4.9	-4.9	-5.1	-4.7	-4.4	-4.0	-4.0	-3.1	-3.1	-3.0	-3.2	-3.5	-3.8	-4.1	-5.0	-5.0	-5.2	-5.6	-4.36	-3.00	
28-Nov	-6.6	-6.9	-7.2	-7.4	-7.9	-8.1	-8.5	-8.1	-7.9	-7.8	-6.7	-5.2	-3.8	-2.0	-1.5	-1.8	-1.7	-3.1	-4.8	-6.2	-7.0	-7.8	-8.4	-8.3	-6.03	-1.50	
29-Nov	-8.1	-8.1	-8.3	-8.8	-9.6	-10.7	-11.4	-12.0	-12.8	-12.9	-12.1	-8.4	-5.4	-3.3	-0.6	-0.2	-2.1	-3.7	-6.4	-7.9	-9.2	-10.2	-11.2	-11.5	-8.13	-0.24	
30-Nov	-11.7	-11.3	-11.0	-10.6	-10.1	-10.2	-10.3	-10.5	-10.3	-9.9	-8.9	-7.9	-7.7	-7.8	-7.5	-7.7	-8.0	-8.0	-8.0	-7.9	-7.7	-7.4	-7.1	-6.7	-8.92	-6.70	
		-1.56	-1.79	-1.82	-1.95	-1.64	-1.49	-1.42	-1.57	-1.71	-1.19	-0.20	1.03	2.14	3.21	3.50	3.31	2.62	1.70	0.79	-0.13	-0.62	-1.10	-1.23	-1.50	Diurnal Average	
		14.86	15.28	14.53	13.74	17.47	17.97	18.02	17.93	17.98	18.31	19.22	20.14	20.56	20.91	20.81	20.01	18.96	17.49	16.31	15.99	14.78	14.45	13.88	13.15	Diurnal Maximum	



WCAS - Hinton
Summary of Hourly Averages

Wind Speed (WS) - kph
November 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	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	3.6	5.3	5.6	3.7	3.7	4.9	3.5	2.6	1.4	0.6	0.8	--	5.56	
Dir	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	NE	ENE	ENE	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	--	ENE	
2 Spd	0.2	0.2	0.2	0.5	0.5	0.1	0.2	0.0	0.1	1.0	1.6	2.2	3.2	3.6	2.8	2.9	4.1	3.5	5.8	5.3	3.1	4.8	0.8	1.5	1.92	5.77	
Dir	ENE	E	NE	SW	S	NNE	ENE	E	NNW	ENE	ENE	NE	ENE	ENE	ENE	ENE	ENE	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	
3 Spd	1.7	7.9	5.0	1.4	4.7	5.7	7.4	7.0	7.7	7.9	9.3	11.9	14.3	15.7	11.5	13.7	8.4	0.4	0.3	0.2	4.1	9.2	9.0	14.5	6.02	15.68	
Dir	ENE	ENE	ENE	E	WSW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	SSW	SW	WSW	SW	WSW	NE	WSW	W	WSW	SW	SW	SW	
4 Spd	13.7	9.2	4.9	2.4	2.7	4.2	13.1	9.4	10.7	14.4	10.9	9.0	6.0	3.5	1.8	0.2	0.1	0.7	0.2	1.4	1.9	5.2	2.4	2.0	4.24	14.39	
Dir	SW	SW	SW	S	SSE	S	SW	SW	SW	SSW	SW	SW	SW	SSW	SSE	W	ESE	SSE	ENE	SSE	E	ENE	NE	NE	SSW	SSW	
5 Spd	11.6	14.6	15.6	15.8	15.1	16.8	10.2	1.4	1.1	0.8	9.7	10.4	8.2	4.2	3.8	2.0	1.3	1.3	3.4	3.6	1.2	1.1	2.2	0.5	5.55	16.84	
Dir	SW	SW	SW	SW	SW	SSW	S	SSE	ESE	SSW	SW	SW	W	W	WSW	WNW	WSW	SW	ENE	SSE	ENE	ENE	E	SW	SW		
6 Spd	0.2	0.3	1.0	0.1	0.7	0.3	0.5	0.4	0.1	2.4	0.2	0.5	0.4	0.2	0.3	1.5	2.1	0.2	1.0	2.0	1.9	0.2	0.5	0.3	0.16	2.36	
Dir	SE	S	S	N	S	N	S	ENE	SSW	SSW	WNW	WNW	W	WNW	NW	SW	SW	SSE	ENE	ENE	NE	NE	E	ENE	SSE	SSW	
7 Spd	0.1	0.7	0.2	1.1	1.0	0.5	0.2	0.6	1.4	2.9	4.0	2.9	0.7	5.5	6.8	5.4	7.2	6.8	9.0	7.9	1.3	2.6	4.1	1.9	1.44	9.00	
Dir	NNE	ENE	E	E	ENE	E	ESE	ENE	ENE	ENE	ENE	ENE	WSW	WSW	WSW	WSW	WSW	SSW	SW	SW	WSW	ENE	SSW	ESE	SW	SW	
8 Spd	2.0	1.2	2.8	1.0	11.5	16.3	16.0	15.3	14.4	11.6	11.5	15.3	18.9	16.2	13.8	10.7	11.9	9.4	8.3	12.1	8.7	9.4	8.0	5.5	9.91	18.92	
Dir	E	ENE	ENE	SE	SW	SW	SW	SW	SW	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
9 Spd	4.6	6.4	10.7	10.3	5.9	5.6	3.5	4.5	2.0	3.6	4.1	6.2	8.5	3.6	2.0	6.1	5.2	4.0	0.8	1.8	0.1	0.1	0.2	0.4	3.61	10.70	
Dir	SW	SW	SW	SW	SW	WSW	SW	NE	ENE	S	SSW	SSW	WSW	WSW	SW	SW	SW	SW	WSW	SW	ESE	ESE	W	WSW	SW	SW	
10 Spd	0.3	0.5	0.1	0.1	0.6	0.6	0.3	0.2	0.1	1.3	0.2	1.3	0.9	1.3	2.5	4.0	4.1	1.5	1.6	1.3	0.7	0.5	0.2	0.4	0.86	4.15	
Dir	SSW	SW	W	NNE	E	SSE	E	ENE	NE	ENE	S	ENE	ESE	ENE	ENE	ENE	ENE	NE	ENE	E	ENE	E	ESE	S	ENE	ENE	
11 Spd	0.4	0.0	0.6	1.8	3.1	5.8	9.7	8.9	16.2	8.4	16.4	12.1	9.0	7.9	8.1	7.7	9.0	8.5	1.2	1.1	0.9	0.2	0.6	0.3	5.06	16.36	
Dir	SE	NW	ENE	ENE	ENE	WSW	SW	WSW	SW	WSW	SW	SW	SW	SW	WSW	SW	SW	SW	SE	S	S	ESE	ENE	NE	SW	SW	
12 Spd	1.2	1.0	0.8	1.4	0.3	0.8	0.1	0.7	0.9	0.2	0.6	1.1	0.4	6.7	1.5	2.1	1.8	4.9	5.1	4.1	5.6	0.8	0.8	1.2	0.87	6.66	
Dir	ENE	ENE	E	ENE	E	E	ENE	E	E	N	ENE	ENE	E	SW	W	W	WNW	SW	SW	SW	SW	WSW	ENE	NE	SW	SW	
13 Spd	1.8	0.6	0.5	0.3	0.5	0.7	1.0	0.7	0.9	0.6	1.3	5.8	7.8	5.2	1.2	5.3	2.9	12.2	10.8	13.6	11.0	11.0	8.1	9.5	4.00	13.61	
Dir	ENE	NE	ENE	NE	ENE	E	ENE	E	ENE	ENE	SW	WSW	SW	SW	S	S	SW	SW	SW	SW	SW	SW	WSW	SW	SW	SW	
14 Spd	8.9	4.6	5.8	2.6	6.3	5.2	1.5	1.5	2.8	1.0	1.6	2.4	4.7	3.3	4.8	2.7	0.9	2.2	0.3	0.1	0.1	0.1	0.1	0.2	2.19	8.92	
Dir	SW	WSW	WSW	WSW	SW	SW	SW	ENE	S	SSW	SW	SW	WNW	W	WNW	WNW	W	SW	SW	SSE	W	ESE	SW	SSW	WSW	SW	
15 Spd	0.1	0.2	0.5	1.0	1.1	0.0	0.7	0.5	1.1	0.3	0.1	0.4	0.7	1.8	1.7	1.0	0.3	0.8	1.6	1.1	AF	AF	AF	AF	0.35	1.79	
Dir	E	ESE	ESE	SW	WSW	NNW	ENE	NE	ENE	W	NE	NE	E	ENE	ENE	ENE	NE	S	S	ENE	AF	AF	AF	AF	E	ENE	
16 Spd	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	--	
Dir	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	--	
17 Spd	AF	AF	AF	AF	0.6	1.2	2.0	0.7	1.4	2.1	2.1	3.6	5.1	6.3	6.0	3.4	3.3	4.2	6.7	6.2	6.0	5.8	5.4	4.7	3.84	6.67	
Dir	AF	AF	AF	AF	NE	NE	ENE	NE	ENE	ENE	ENE	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	
18 Spd	3.4	3.4	5.0	5.6	3.8	4.9	4.0	1.9	1.7	1.3	2.9	2.5	3.3	3.2	4.2	5.1	4.9	4.7	4.1	4.1	4.5	4.3	4.8	4.1	3.74	5.57	
Dir	ENE	ENE	ENE	ENE	ENE	ENE	ENE	NE	ENE	NE	ENE	NE	ENE	NE	ENE	E	E	ENE	ENE	E	ENE	E	ENE	ENE	ENE	ENE	
19 Spd	4.1	4.3	4.1	3.9	4.8	3.0	3.8	1.8	0.7	2.3	2.2	2.8	1.7	2.4	3.2	2.5	3.0	2.1	1.7	AF	AF	AF	AF	AF	2.84	4.80	
Dir	NE	ENE	ENE	ENE	ENE	NE	ENE	ENE	ENE	ENE	NE	NE	NE	ENE	ENE	NE	NE	ENE	NE	AF	AF	AF	AF	AF	ENE	ENE	
20 Spd	AF	AF	AF	1.7	0.4	AF	AF	AF	AF	AF	AF	AF	AF	4.2	2.9	3.8	2.9	2.6	1.2	1.0	AF	AF	AF	0.9	0.3	--	4.22
Dir	AF	AF	AF	ENE	ENE	AF	AF	AF	AF	AF	AF	AF	AF	ENE	NE	ENE	ENE	ENE	E	AF	AF	AF	AF	ESE	ENE	--	ENE
21 Spd	1.0	AF	AF	AF	AF	1.5	1.7	1.6	2.2	0.5	1.1	0.8	1.3	0.5	2.9	0.9	0.9	0.5	1.1	1.0	2.9	2.6	0.5	0.2	1.20	2.87	
Dir	SE	AF	AF	AF	AF	NE	NE	ENE	ENE	NE	ENE	ENE	ENE	E	ENE	ENE	ENE	ESE	ENE	E	ENE	NE	NE	NNE	ENE	ENE	
22 Spd	1.4	2.4	1.9	1.8	2.0	1.4	1.3	0.8	2.7	3.0	5.0	5.3	4.6	4.0	5.7	6.9	5.7	5.0	3.1	3.1	2.0	1.4	0.8	0.2	2.94	6.94	
Dir	ENE	ENE	ENE	ENE	ENE	NE	ENE	ENE	E	ENE	ENE	ENE	NE	NE	ENE	ENE	ENE	ENE	ENE	E	E	ENE	E	NE	ENE	ENE	



WCAS - Hinton
Summary of Hourly Averages

Wind Speed (WS) - kph
November 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	0.1	0.0	0.5	0.3	0.4	2.9	4.1	2.0	2.9	1.8	3.9	3.6	5.1	3.4	1.6	0.0	0.7	0.1	0.1	0.1	0.0	0.1	0.1	0.3	0.58	5.06	
Dir	E	SE	SSW	S	SE	SW	WSW	W	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	NE	NNW	ESE	SE	SE	S	S	ENE	ENE	
24 Spd	1.6	1.0	0.9	0.3	0.2	0.5	0.6	0.2	1.0	0.5	0.8	2.5	2.6	2.5	2.2	0.9	0.7	1.3	0.4	0.7	1.3	0.9	0.3	2.5	0.68	2.60	
Dir	ENE	E	NE	ESE	ESE	NE	NE	SE	E	N	ENE	ENE	E	ENE	NE	E	ENE	ENE	NNW	NE	S	SW	SW	SW	E	E	
25 Spd	0.3	0.1	2.8	2.4	0.4	0.3	0.6	0.2	0.1	0.3	0.9	1.4	5.3	0.5	1.0	0.5	0.2	0.2	1.5	0.3	0.4	2.7	5.1	3.9	0.45	5.29	
Dir	NE	NE	ENE	ENE	NE	ESE	S	NE	E	SE	E	SE	S	SSW	WSW	ENE	S	ENE	W	E	ENE	WSW	WSW	WSW	SSW	S	
26 Spd	3.0	4.9	4.7	1.2	0.5	0.3	0.1	0.7	0.0	0.2	1.1	1.0	1.3	0.1	0.2	0.2	0.8	0.2	1.7	0.7	1.4	0.1	0.4	0.4	1.00	4.87	
Dir	NE	ENE	ENE	ENE	E	WNW	NE	ENE	NNW	NE	ENE	NNE	NE	S	ENE	NNE	E	NNW	ENE	ENE	ENE	NNE	ENE	NE	ENE	ENE	
27 Spd	0.2	1.0	1.2	0.7	0.8	1.6	3.1	0.3	0.2	0.1	0.2	1.7	3.9	1.5	1.0	0.3	0.5	0.1	0.6	1.6	3.2	0.5	1.3	2.5	0.31	3.85	
Dir	NNE	NE	NE	ENE	NE	ENE	ENE	NNE	NW	SSE	WNW	SW	SSW	NW	SSW	NW	E	NNE	SSW	S	SSW	SSW	SW	SSW	SSW	SSW	
28 Spd	1.4	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	1.44	
Dir	SSW	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	SSW	
29 Spd	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	4.6	3.7	1.7	0.8	2.2	2.1	2.3	1.2	0.2	0.5	--	4.59	
Dir	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	SW	SW	W	NNE	NE	ENE	ENE	ENE	ENE	ENE	--	SW	
30 Spd	0.6	2.4	2.4	4.1	5.9	5.7	5.3	5.0	5.7	4.5	3.8	5.0	5.4	4.2	4.6	4.1	3.8	3.1	2.3	1.6	0.9	2.6	0.2	0.2	3.44	5.90	
Dir	NE	NE	ENE	ENE	ENE	ENE	ENE	NE	ENE	ENE	ENE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	N	WNW	NE	NE	ENE	
Spd	0.85	0.37	0.43	0.45	1.00	1.61	1.70	1.27	1.22	0.95	1.58	1.67	1.77	1.10	0.39	0.79	0.53	0.81	0.40	0.71	0.46	0.29	0.64	0.86	Diurnal Average		
Dir	SSW	S	S	SSE	SSW	SW	SW	SSW	SSW	S	SSW	SSW	SW	SW	SSW	S	SSW	SSW	SSE	SSE	SSE	SSE	SSW	SSW	Diurnal Maximum		
Spd	13.73	14.62	15.60	15.77	15.08	16.84	16.02	15.32	16.23	14.39	16.36	15.28	18.92	16.19	13.77	13.70	11.87	12.15	10.76	13.61	11.03	10.97	9.03	14.50	Diurnal Maximum		
Dir	228.66	232.39	230.95	236.32	230.92	223.14	215.13	215.34	233.08	208.94	222.63	216.15	227.93	230.66	228.54	208.12	225.34	235.99	234.59	231.48	229.90	234.88	232.62	228.12	Diurnal Maximum		
Maximum Speed Value: 18.9 kph on Nov 8 13:00																			Minimum Speed Value: 0.0 kph on Nov 2 08:00					Hours in Service:		720	
Maximum Daily Speed Average: 9.91 kph on Nov 8																			Minimum Daily Speed Average: 0.16 kph on Nov 6					Hours of Data:		616	
Maximum Diurnal Speed Average: 1.77 kph at hour 13																			Minimum Diurnal Speed Average: 0.29 kph at hour 22					Hours of Missing Data:		104	
Monthly Average Velocity: 0.869 kph 201.90 deg																			Speed Percentiles: P ₁ = 0.0 P ₁₀ = 0.2 Q ₁ = 0.6 Median = 1.8 Q ₃ = 4.6 P ₉₀ = 8.5 P ₉₉ = 16.2					Percent Operational Time:		85.6	
All monthly, daily, and diurnal averages have been calculated using vector methods																											
AF - Analyzer Failure																											
Frequency Distribution																											
		Speed Range (kph)																									
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																				
North	11	0	0	0	0	0	11																				
NorthEast	199	25	0	0	0	0	224																				
East	122	2	0	0	0	0	124																				
SouthEast	26	0	0	0	0	0	26																				
South	36	4	0	0	0	0	40																				
SouthWest	45	63	34	0	0	0	142																				
West	36	2	0	0	0	0	38																				
NorthWest	11	0	0	0	0	0	11																				
Total	486	96	34	0	0	0	616																				



WCAS - Hinton
Summary of Hourly Averages

Relative Humidity (RH) - %
November 2016

Maximum Value: 91.68 % on Nov 7 03:00 Maximum Daily Average: 88.45 % on Nov 16																								Hours in Service: 720			
Minimum Value: 14.8 % on Nov 4 14:00 Minimum Daily Average: 30.14 % on Nov 4																								Hours of Data: 720			
Maximum Diurnal Average: 78.65 % at hour 4 Minimum Diurnal Average: 63.41 % at hour 15																								Hours of Missing Data: 0			
Monthly Average: 73.314 % Percentiles: P₁ = 17.0 P₁₀ = 33.6 Q₁ = 63.0 Median = 84.7 Q₃ = 88.0 P₉₀ = 89.6 P₉₉ = 91.5																								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-Nov	90.5	90.7	90.9	91.1	91.4	91.5	91.6	91.6	91.6	91.3	89.9	84.5	80.8	81.1	83.1	83.5	84.4	85.9	86.2	86.9	87.7	88.0	88.3	88.5	87.96	91.62	
2-Nov	89.1	89.6	90.0	90.3	90.2	90.0	90.0	90.1	89.8	89.6	89.3	88.4	85.3	79.3	79.9	84.5	86.1	88.0	89.0	89.3	89.7	88.5	87.1	89.3	88.02	90.30	
3-Nov	90.4	91.2	91.0	90.6	63.4	54.1	53.4	48.4	44.1	34.7	28.6	24.6	23.8	22.7	23.3	27.2	29.4	38.5	54.3	64.9	45.2	35.2	33.3	27.6	47.50	91.16	
4-Nov	25.3	23.6	23.9	25.1	28.4	30.1	19.8	19.0	17.3	16.1	14.8	15.0	15.4	14.8	15.1	17.8	24.3	41.9	50.6	56.7	58.3	56.1	57.4	56.3	30.14	58.29	
5-Nov	21.3	24.2	28.3	30.9	32.5	33.7	37.3	44.9	56.2	49.4	42.1	37.7	34.8	30.9	28.9	34.5	42.3	48.0	47.1	59.5	62.0	66.4	71.3	72.9	43.21	72.87	
6-Nov	73.6	75.9	77.3	77.9	78.3	79.6	84.5	88.2	89.5	90.1	90.3	90.3	89.7	89.0	86.4	71.0	62.3	70.8	85.4	88.1	89.3	90.2	90.9	91.2	83.31	91.21	
7-Nov	91.5	91.6	91.7	91.6	91.3	91.1	90.8	90.8	90.6	89.9	88.4	86.4	79.5	45.2	38.4	39.1	38.8	37.3	36.4	38.2	43.5	64.7	47.8	43.4	68.26	91.68	
8-Nov	54.3	55.9	52.5	48.2	32.5	29.7	28.9	28.7	28.1	27.2	25.5	23.7	22.7	21.8	21.8	22.3	22.3	23.9	27.3	27.3	31.0	31.5	32.3	38.3	31.56	55.93	
9-Nov	45.2	46.8	41.2	50.6	61.0	64.0	65.0	62.9	62.7	60.9	66.9	68.5	68.6	62.6	56.1	57.8	62.6	70.4	77.7	81.1	85.8	87.8	88.8	89.6	66.02	89.60	
10-Nov	89.9	90.2	90.4	90.5	90.4	90.3	90.0	89.9	89.9	89.4	83.2	75.3	59.3	55.2	62.2	67.7	70.9	73.9	76.6	78.7	80.6	83.1	85.8	87.1	80.85	90.45	
11-Nov	88.4	89.4	89.8	90.7	82.6	41.6	32.6	33.6	30.0	28.6	26.9	27.0	26.9	26.7	28.3	31.8	32.7	34.2	37.9	40.8	50.6	56.2	59.7	63.5	47.94	90.69	
12-Nov	69.9	67.4	70.3	70.8	72.6	73.0	73.3	71.2	72.2	73.6	69.5	67.1	63.9	49.8	52.3	51.8	58.1	54.7	50.9	53.2	57.5	63.0	75.8	81.3	65.14	81.34	
13-Nov	82.8	82.4	83.6	84.0	85.1	87.0	88.4	89.1	89.8	87.4	70.9	41.3	37.2	33.3	34.8	34.4	35.0	33.8	34.6	35.6	37.2	37.0	39.7	46.8	58.81	89.80	
14-Nov	48.6	48.0	47.0	49.9	48.7	47.3	47.4	53.3	56.1	54.6	52.8	46.0	24.3	17.4	15.8	17.1	22.0	23.5	28.7	43.5	50.3	57.0	58.9	63.3	42.56	63.29	
15-Nov	67.8	70.1	70.0	69.2	67.0	71.4	75.1	77.6	78.1	76.8	75.0	72.0	68.1	65.6	63.5	61.6	63.2	63.9	79.6	86.7	87.7	88.2	88.8	89.2	74.01	89.18	
16-Nov	89.4	89.6	89.7	89.9	90.0	90.1	90.3	90.4	90.5	90.4	90.0	88.7	84.7	83.2	83.6	83.8	87.8	88.9	89.4	89.8	89.2	87.7	87.8	87.9	88.45	90.49	
17-Nov	87.8	87.8	88.1	87.9	87.8	87.4	87.5	87.4	87.4	87.1	85.2	83.2	78.9	80.1	81.5	82.8	82.0	83.6	85.5	86.1	86.2	86.0	85.9	86.1	85.38	88.06	
18-Nov	86.7	86.9	87.2	88.3	89.2	89.4	89.4	88.9	88.5	87.7	85.4	80.9	76.3	75.4	76.2	77.8	80.0	81.0	82.1	82.4	82.7	82.9	82.6	83.2	83.80	89.43	
19-Nov	86.0	87.1	86.8	87.5	88.8	88.9	88.6	88.6	88.5	88.3	88.0	86.1	84.2	82.1	81.6	86.6	87.0	87.5	88.0	88.5	88.6	88.1	88.2	88.2	87.16	88.90	
20-Nov	87.8	87.5	87.8	87.5	87.2	86.8	87.1	86.5	86.2	86.5	87.3	86.8	81.8	78.4	79.5	77.9	82.2	84.6	86.6	87.4	87.6	87.8	87.2	86.9	85.52	87.81	
21-Nov	87.9	88.5	88.3	88.2	88.0	87.8	87.1	86.7	86.7	86.1	85.3	82.9	81.8	80.9	81.0	83.4	85.6	86.7	87.5	88.3	88.8	88.6	88.7	88.9	86.41	88.94	
22-Nov	89.2	89.1	88.3	88.4	89.7	90.2	90.1	89.9	89.5	88.8	87.9	86.8	84.4	84.9	83.4	82.0	84.1	86.4	88.0	88.8	88.1	87.8	87.3	87.4	87.52	90.19	
23-Nov	87.5	87.5	87.1	86.4	87.5	88.6	87.4	86.6	85.6	86.0	85.9	86.4	86.6	86.2	85.5	84.9	85.9	86.6	87.8	88.1	88.4	88.2	87.3	86.3	86.85	88.62	
24-Nov	85.9	85.7	85.2	84.5	84.2	84.3	84.6	84.5	84.5	85.0	85.1	84.7	83.0	81.5	78.4	80.1	84.1	85.6	86.2	87.2	87.6	87.4	87.1	87.4	84.74	87.61	
25-Nov	86.3	86.9	87.1	86.9	86.9	87.0	87.1	86.8	86.8	86.6	84.2	83.0	89.7	89.8	89.7	89.3	89.3	89.7	87.1	86.3	87.8	81.9	59.5	56.6	84.68	89.83	
26-Nov	69.8	82.5	84.6	85.1	85.4	85.8	85.9	85.3	84.8	84.9	84.0	83.7	85.0	84.5	83.9	84.8	86.5	87.2	88.0	88.2	88.1	88.1	88.5	88.5	85.13	88.51	
27-Nov	88.2	88.2	88.3	88.1	88.1	88.2	88.3	88.4	88.5	88.0	86.0	84.1	85.1	82.7	84.1	83.9	85.9	87.0	87.9	87.9	87.9	87.9	87.1	86.4	87.3	86.90	88.47
28-Nov	88.9	89.2	89.0	88.7	88.2	88.0	87.6	88.1	88.0	88.1	88.4	88.6	88.8	87.4	83.0	83.0	81.8	84.7	87.3	88.2	88.6	88.7	88.4	88.2	87.45	89.23	
29-Nov	87.9	87.8	87.7	87.4	86.7	86.0	85.3	84.9	84.7	84.6	85.1	86.8	86.9	81.6	63.0	55.5	63.8	71.1	81.7	85.1	86.3	86.4	86.2	85.8	82.01	87.92	
30-Nov	84.9	84.7	83.6	83.5	84.0	84.6	84.7	84.1	83.5	82.3	80.7	80.0	79.9	79.1	78.2	79.5	80.7	81.5	81.6	81.6	81.5	81.5	82.1	83.5	82.14	84.94	
77.43 78.20 78.22 78.65 77.58 76.25 75.97 76.21 76.32 75.34 73.42 70.69 67.91 64.44 63.41 63.92 66.04 68.69 71.90 74.49 75.45 76.38 75.96 76.68																								Diurnal Average			
91.52 91.65 91.68 91.61 91.38 91.49 91.62 91.57 91.55 91.28 90.27 90.26 89.70 89.83 89.72 89.34 89.27 89.75 89.41 89.77 89.72 90.16 90.88 91.21																								Diurnal Maximum			



WCAS - Hinton
Summary of Hourly Standard Deviations

Wind Speed (WS) - kph
November 2016

Maximum Value: 11.33 kph on Nov 8 13:00		Maximum Daily Average: 6.22 kph on Nov 8		Hours in Service: 720																																													
Minimum Value: 0.0 kph on Nov 2 01:00		Minimum Daily Average: 1.21 kph on Nov 6		Hours of Data: 616																																													
Maximum Diurnal Average: 3.47 kph at hour 13		Minimum Diurnal Average: 2.02 kph at hour 24		Hours of Missing Data: 104																																													
Monthly Average: 2.641 kph		Percentiles: P ₁ = 0.0 P ₁₀ = 0.7 Q ₁ = 1.4 Median = 2.2 Q ₃ = 3.1 P ₉₀ = 5.8 P ₉₉ = 8.6		Hours of Calibration: 0																																													
				Percent Operational Time: 85.6																																													
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-Nov	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	2.8	3.4	3.3	2.9	2.6	2.6	2.5	2.2	1.9	1.2	1.3	--	3.40																							
2-Nov	0.0	0.5	0.0	1.5	1.2	0.3	0.3	0.3	0.6	1.6	2.1	3.0	2.7	3.0	3.3	3.1	2.8	3.1	3.4	3.5	3.6	4.1	1.6	2.2	1.99	4.10																							
3-Nov	2.5	4.3	4.3	2.8	4.8	4.6	4.6	3.9	3.6	4.1	5.7	6.9	8.3	8.1	6.0	5.7	4.8	2.4	1.0	0.9	4.6	7.0	5.9	7.5	4.76	8.32																							
4-Nov	8.1	6.6	5.0	4.2	3.3	4.9	7.1	6.7	6.2	6.7	6.5	4.2	3.5	2.8	0.1	0.0	1.5	2.0	2.3	3.0	3.4	3.1	3.0	4.20	8.06																								
5-Nov	7.9	8.6	8.8	8.7	8.0	7.7	5.9	4.1	3.2	1.8	3.7	5.3	6.4	3.7	3.9	3.1	1.9	2.3	3.3	3.3	2.5	1.7	2.0	1.3	4.54	8.80																							
6-Nov	0.7	0.6	1.6	0.2	1.6	0.9	1.0	1.0	0.0	2.5	0.0	0.9	0.9	0.3	0.7	2.3	2.5	0.6	1.9	3.1	2.7	0.8	1.1	0.8	1.21	3.11																							
7-Nov	0.5	1.4	1.2	2.7	2.6	1.6	1.0	2.0	2.6	3.1	3.6	3.0	3.3	5.8	7.2	5.2	6.4	5.3	7.5	7.8	3.8	3.1	4.4	3.3	3.69	7.75																							
8-Nov	2.5	2.6	3.2	4.5	6.3	9.2	8.2	8.1	7.9	6.1	5.5	7.2	11.3	9.5	7.9	7.5	6.4	5.6	5.9	6.4	5.2	5.1	4.0	3.0	6.22	11.33																							
9-Nov	3.0	4.1	4.3	4.9	4.3	4.2	4.1	4.1	4.8	4.9	4.4	3.9	3.9	3.9	3.1	4.3	5.3	2.9	1.6	2.4	0.9	1.2	0.4	0.9	3.41	5.29																							
10-Nov	1.0	1.1	0.0	0.0	1.4	1.5	0.9	0.5	0.0	1.7	0.7	2.1	1.5	1.9	2.4	2.7	2.3	2.1	2.0	1.7	1.3	0.9	1.0	1.3	1.33	2.66																							
11-Nov	1.0	1.0	2.0	3.7	4.0	6.5	7.3	7.2	10.6	7.4	7.8	8.3	7.3	6.7	6.8	6.1	6.1	5.1	3.1	2.0	1.7	1.0	1.4	0.6	4.78	10.60																							
12-Nov	1.7	2.4	1.8	2.3	1.1	1.5	1.9	1.9	1.9	0.5	1.4	2.0	2.8	4.6	2.5	3.0	2.4	3.2	3.2	3.5	3.0	2.2	1.6	1.7	2.25	4.59																							
13-Nov	2.1	1.3	1.1	0.7	1.1	2.3	2.5	1.3	2.1	1.3	3.1	4.9	5.2	3.8	2.5	2.8	3.8	8.3	6.8	7.6	7.0	7.2	7.3	6.5	3.86	8.26																							
14-Nov	5.6	3.8	5.8	2.7	3.0	3.6	2.2	2.4	2.0	2.4	2.3	3.0	4.2	3.2	3.5	3.2	1.9	2.9	1.0	0.6	0.0	0.4	0.2	0.5	2.51	5.79																							
15-Nov	0.5	0.9	1.2	1.6	1.6	0.0	1.2	1.1	1.6	1.4	0.0	1.0	1.2	2.1	2.0	1.6	0.7	2.5	2.1	1.4	AF	AF	AF	AF	1.28	2.55																							
16-Nov	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	--																							
17-Nov	AF	AF	AF	AF	1.1	1.8	2.2	1.4	2.1	2.2	2.3	2.6	2.2	2.7	2.8	2.2	2.1	3.2	2.7	2.7	2.4	2.2	2.0	2.5	2.28	3.18																							
18-Nov	2.3	2.4	2.2	2.3	2.7	2.4	2.7	2.4	2.2	1.9	2.0	1.8	1.7	1.9	1.9	2.4	2.3	1.9	1.9	2.5	1.9	2.6	2.8	2.2	2.23	2.76																							
19-Nov	2.3	2.3	1.7	2.2	2.2	2.6	2.3	2.2	1.3	1.6	2.1	1.9	1.9	2.4	2.5	2.1	1.8	2.0	1.7	AF	AF	AF	AF	AF	2.06	2.62																							
20-Nov	AF	AF	AF	1.8	0.9	AF	AF	AF	AF	AF	AF	AF	2.3	2.0	1.9	2.3	2.0	1.6	1.2	AF	AF	AF	1.6	1.3	--	2.29																							
21-Nov	2.0	AF	AF	AF	AF	1.9	1.9	2.2	2.3	1.1	1.5	1.4	1.5	0.9	2.0	1.5	1.6	0.9	1.4	1.4	2.2	2.4	1.2	0.0	1.56	2.39																							
22-Nov	1.6	1.9	1.9	2.0	1.9	1.7	1.7	1.4	2.5	2.5	2.6	2.4	2.3	2.4	2.7	2.9	1.9	1.9	2.4	2.0	2.2	2.0	1.3	0.4	2.03	2.86																							
23-Nov	0.0	0.2	1.4	1.2	1.3	2.8	3.9	2.7	2.2	2.3	2.7	3.1	3.0	2.7	2.0	0.4	1.6	0.0	0.3	0.0	0.0	0.4	0.8	1.1	1.51	3.89																							
24-Nov	2.1	1.9	2.1	1.1	1.4	2.0	1.8	1.1	1.7	1.3	1.8	2.4	2.0	2.5	2.4	1.7	1.7	2.5	1.9	1.9	2.0	1.6	0.8	2.9	1.85	2.85																							
25-Nov	0.6	0.4	3.0	2.4	1.1	0.8	2.1	0.8	0.8	1.1	2.0	3.0	3.0	1.9	1.7	1.5	0.6	1.3	2.4	1.8	1.6	3.5	3.7	3.7	1.87	3.75																							
26-Nov	3.1	2.8	2.7	1.8	1.4	1.1	0.6	1.4	0.0	0.7	1.6	1.5	1.5	0.3	0.4	0.0	1.3	0.9	1.8	1.3	1.7	0.0	1.0	0.7	1.22	3.11																							
27-Nov	0.3	1.6	1.5	1.3	1.8	1.9	2.5	0.8	0.0	0.0	0.0	2.4	2.7	1.4	1.6	0.5	0.9	0.1	1.4	2.1	2.1	1.2	1.7	2.9	1.36	2.86																							
28-Nov	1.9	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	1.92																							
29-Nov	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	4.07																							
30-Nov	1.2	2.4	2.5	3.0	2.7	3.1	3.1	3.1	3.0	2.6	2.7	2.5	2.7	2.4	2.6	2.5	2.3	2.2	2.1	1.6	1.3	1.6	0.4	0.0	2.24	3.12																							
																								2.18	2.40	2.59	2.49	2.51	2.84	2.92	2.57	2.60	2.51	2.73	3.31	3.47	3.19	3.10	2.75	2.58	2.52	2.51	2.64	2.46	2.37	2.04	2.02	Diurnal Average	
																								8.06	8.62	8.80	8.71	7.95	9.18	8.22	8.08	10.60	7.39	7.82	8.31	11.33	9.52	7.89	7.53	6.43	8.26	7.51	7.75	6.96	7.17	7.31	7.47	Diurnal Maximum	

AF - Analyzer Failure

,Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ul/m³ 24-hr 100 ul/m³



WCAS - Hinton
Summary of Hourly Standard Deviations

Wind Direction (WD) - deg
November 2016

Maximum Value: 101.71 deg on Nov 11 02:00		Maximum Daily Average: 73.52 deg on Nov 7		Hours in Service: 720																							
Minimum Value: 13.8 deg on Nov 27 21:00		Minimum Daily Average: 26.87 deg on Nov 17		Hours of Data: 616																							
Maximum Diurnal Average: 57.52 deg at hour 8		Minimum Diurnal Average: 39.46 deg at hour 13		Hours of Missing Data: 104																							
Monthly Average: 50.088 deg		Percentiles: P ₁ = 19.1 P ₁₀ = 26.1 Q ₁ = 31.8 Median = 43.5 Q ₃ = 68.5 P ₉₀ = 84.2 P ₉₉ = 96.4		Hours of Calibration: 0																							
				Percent Operational Time: 85.6																							
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-Nov	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	39.4	28.2	29.0	29.7	27.8	21.3	26.2	28.1	39.4	37.9	22.8	--	39.44	
2-Nov	32.7	31.4	37.9	70.8	83.2	73.5	46.6	94.0	89.1	36.7	65.2	69.0	38.0	51.5	68.8	54.7	39.3	41.0	47.1	36.6	69.3	53.7	63.0	61.3	56.43	93.96	
3-Nov	44.9	28.6	63.6	59.5	51.5	46.8	32.8	31.1	22.8	30.0	35.1	32.6	31.8	25.3	27.1	22.0	25.0	86.1	77.9	72.3	55.4	41.3	36.7	28.7	42.05	86.12	
4-Nov	32.6	38.5	63.0	85.2	64.0	69.0	28.3	34.2	33.7	26.2	34.7	34.6	32.1	25.5	49.4	42.9	70.0	78.6	93.0	76.3	73.6	44.4	52.5	70.1	52.19	93.05	
5-Nov	42.5	34.2	31.5	30.8	28.7	23.0	34.7	91.9	74.2	65.0	16.2	28.3	42.9	40.3	45.8	52.3	51.2	50.1	32.2	43.2	67.4	46.6	41.6	67.3	45.08	91.85	
6-Nov	88.1	69.9	59.2	66.8	73.5	81.7	60.0	60.8	82.2	46.0	42.5	37.2	52.8	50.3	60.1	51.1	41.9	71.1	59.5	57.8	72.2	99.0	69.8	74.2	63.65	99.00	
7-Nov	97.3	63.5	91.5	83.9	89.4	84.5	81.4	93.6	84.8	74.4	56.3	70.8	98.9	58.2	59.0	54.3	56.5	53.9	56.1	43.3	89.0	69.7	70.6	83.5	73.52	98.87	
8-Nov	56.8	84.5	72.2	96.2	30.7	29.8	28.2	31.7	31.3	26.6	27.4	26.0	32.6	33.6	33.3	37.3	29.4	28.6	34.5	30.1	32.7	31.3	25.4	20.6	37.95	96.19	
9-Nov	23.0	22.9	20.0	26.6	41.7	43.6	69.5	62.8	82.7	80.6	69.0	43.6	23.1	52.9	75.5	21.2	49.8	41.9	59.9	49.6	95.9	86.7	43.5	47.6	51.40	95.88	
10-Nov	88.6	59.6	59.1	62.1	74.3	93.9	76.1	75.8	82.0	40.1	98.9	52.5	28.3	41.9	48.8	29.3	29.4	56.5	37.0	50.2	64.7	59.7	97.4	96.9	62.63	98.87	
11-Nov	82.3	101.7	77.7	87.0	80.5	69.2	43.3	46.1	36.6	50.5	26.2	38.3	46.3	49.1	46.9	47.3	37.1	32.0	79.4	80.3	63.7	73.9	60.7	53.0	58.70	101.71	
12-Nov	55.2	79.0	84.5	67.4	83.1	78.0	93.2	90.9	78.1	74.5	52.0	72.4	87.8	43.8	57.6	65.5	49.6	26.4	31.1	32.3	24.1	85.5	30.3	33.9	61.51	93.18	
13-Nov	48.7	51.5	37.5	54.5	56.2	74.1	88.2	75.2	92.1	52.2	96.7	44.1	30.6	33.2	60.3	24.5	62.7	38.7	33.9	30.0	35.2	40.7	50.5	43.0	52.27	96.65	
14-Nov	36.3	48.5	55.2	50.5	24.9	33.8	49.5	67.5	31.2	78.5	42.0	47.1	39.7	46.1	30.0	42.0	41.6	31.9	54.4	76.9	79.1	81.1	70.3	63.3	50.89	81.09	
15-Nov	74.2	93.5	65.9	46.8	35.5	95.9	41.4	76.4	56.7	93.6	53.8	62.0	43.5	31.4	32.7	36.9	42.9	52.9	58.5	19.2	AF	AF	AF	AF	AF	55.69	95.89
16-Nov	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	--	
17-Nov	AF	AF	AF	AF	23.5	34.6	26.4	34.6	42.2	26.9	19.4	28.0	27.4	18.3	24.1	32.7	31.2	34.5	22.2	26.9	21.6	19.7	20.0	23.3	26.87	42.24	
18-Nov	26.5	23.4	22.7	23.1	22.7	23.6	31.8	34.2	37.6	37.4	28.8	29.4	30.1	25.9	24.6	29.2	27.9	20.8	26.3	31.5	23.7	33.2	28.7	31.1	28.10	37.65	
19-Nov	32.8	30.7	25.5	27.3	24.0	35.4	26.8	21.8	35.2	27.9	39.8	38.3	45.5	39.6	39.4	45.0	27.2	33.1	31.6	AF	AF	AF	AF	AF	32.98	45.47	
20-Nov	AF	AF	AF	33.5	52.3	AF	AF	AF	AF	AF	AF	AF	27.7	33.6	20.4	32.8	51.5	43.3	44.3	AF	AF	AF	68.5	88.6	--	88.58	
21-Nov	91.2	AF	AF	AF	AF	68.5	32.1	34.4	30.3	32.6	28.6	66.7	36.9	50.4	36.5	57.9	57.7	47.7	51.3	48.0	38.5	45.0	72.4	46.3	48.65	91.20	
22-Nov	27.0	44.7	43.5	30.6	28.7	36.8	19.1	26.5	32.5	29.3	28.5	28.1	31.3	31.8	31.9	23.7	19.1	19.7	28.7	23.2	33.3	32.6	39.7	51.9	30.92	51.89	
23-Nov	79.3	96.6	59.0	78.2	88.5	28.2	40.7	49.2	40.2	35.0	25.4	35.8	33.7	38.3	47.5	82.3	49.9	72.5	87.2	72.9	91.1	95.3	99.5	96.7	63.46	99.52	
24-Nov	64.7	87.4	83.7	77.7	86.8	88.0	87.1	74.3	51.4	85.7	82.4	53.9	39.5	60.3	56.7	82.2	71.8	91.9	69.3	67.7	77.0	58.5	62.0	44.3	71.01	91.86	
25-Nov	29.8	83.0	57.7	37.9	79.6	84.2	91.8	86.9	93.6	86.5	74.1	92.0	22.4	56.2	34.4	74.0	61.3	94.7	56.2	96.8	83.8	46.2	37.4	52.6	67.21	96.78	
26-Nov	73.9	41.1	38.8	68.1	84.1	73.9	58.1	67.8	90.6	62.8	63.2	35.2	31.5	69.9	41.2	25.4	51.2	73.8	32.7	38.8	31.0	46.7	31.6	24.2	52.32	90.56	
27-Nov	32.5	37.1	35.4	34.3	51.2	38.6	27.8	47.0	42.5	78.0	15.4	42.2	41.0	46.6	39.8	48.3	60.2	61.0	73.6	42.4	13.8	32.5	15.8	27.9	41.04	78.00	
28-Nov	20.9	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	20.93	
29-Nov	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	AF	--	74.71	
30-Nov	36.1	36.6	26.8	38.4	23.1	26.1	36.4	29.3	27.5	23.0	27.7	23.5	30.6	33.0	32.8	39.3	36.2	35.8	32.2	40.4	25.3	22.9	61.9	38.9	32.66	61.91	
																								Diurnal Average			
52.71 55.99 52.68 55.71 55.27 57.39 50.05 57.52 56.05 52.01 45.97 45.27 39.46 41.73 43.76 43.77 44.45 50.76 48.68 47.95 53.08 53.15 51.61 51.36																								Diurnal Maximum			
97.30 101.71 91.51 96.19 89.45 95.89 93.18 93.96 93.58 93.63 98.87 91.95 98.87 69.94 75.53 82.32 71.83 94.71 93.05 96.78 95.88 99.00 99.52 96.88																											
AF - Analyzer Failure																											
,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
NOVEMBER 2016**