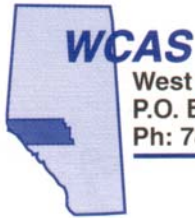


**TransAlta Utilities Corporation
Continuous Ambient Air Quality
Monitoring Program
Annual Summary for 2007**

Prepared by:

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



West Central Airshed Society
P.O. Box 7421, Drayton Valley, Alberta T7A 1S6
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January 29, 2008

TransAlta Utilities Corporation
Mr. Ken Woollard
Box 120
Wabamun, Alberta
T0E 2K0

Dear Sir:

**Re: Annual Ambient Air Quality Monitoring Report. January – December 2007.
For TransAlta Utilities Corporation**

The West Central Airshed Society (WCAS) presents the 2007 Annual Report containing ambient air quality and meteorological information from the following sites:

Network Stations are	AMS 907	Power
Identified as:	AMS 908	Meadows
	AMS 909	Wagner

The Network Stations 907, 908, 909 were commissioned April 23, April 26, and April 20 of 2004, respectively. WCAS data collection and validation began July 1, 2004. The following is a list of the reported ambient air and meteorological parameters measured at each site location:

AMS 907 (Power)

SO₂, NO/ NO₂/ NO_x, Particulate Matter (2.5 microns), Wind Speed and Direction, Relative Humidity, and External Temperature.

AMS 908 (Meadows)

SO₂, NO/ NO₂/ NO_x, Wind Speed and Direction, Relative Humidity, and External Temperature.

AMS 909 (Wagner)

SO₂, NO/ NO₂/ NO_x, Wind Speed and Direction, Relative Humidity, and External Temperature.

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

Sincerely,

Patrick Andersen
Environmental Specialist

Greg Swain
Senior Technologist

Jeff McClintock
Intermediate Technologist

**TransAlta Utilities Corporation
Frequency Distribution Charts
Wind Speed and Direction
Year 2007**

West Central Airshed Society - Power (AMS 907)
 Annual Summary for 2007
 Percentage Frequency Distribution of Wind

Speed (kph)							
Direction	>1 to 5	>5 to 11	>11 to 19	>19 to 28	>28 to 38	>38	Totals
North	1.13	2.91	3.2	0.8	0.05	--	8.08
NorthEast	1.76	3.52	1.36	0.11	--	--	6.75
East	1.16	3.09	1.39	0.14	--	--	5.79
SouthEast	1.28	5.41	6.9	2.85	0.41	0.01	16.86
South	1.27	4.58	5.96	0.94	0.16	0.01	12.91
SouthWest	1.72	5.37	5.35	0.53	0.03	--	13
West	1.72	6.76	8.4	1.7	0.41	0.08	19.08
NorthWest	1.74	4.59	5.86	3.65	1.12	0.22	17.17
Totals	11.78	36.23	38.42	10.72	2.18	0.32	99.65

Percent Calm	0.35
Number of Data Values	8759
Hours in Time Period	8760

West Central Airshed Society - Meadows (AMS 908)
 Annual Summary for 2007
 Percentage Frequency Distribution of Wind

Speed (kph)							
Direction	>1 to 5	>5 to 11	>11 to 19	>19 to 28	>28 to 38	>38	Totals
North	1.26	2.98	1.82	0.19	0.02	--	6.27
NorthEast	1.98	3.3	2.11	0.24	--	--	7.63
East	3.45	6.64	5.86	1.09	0.15	--	17.19
SouthEast	1.99	3.28	3.54	2.32	0.73	--	11.86
South	1.14	1.49	1.11	0.21	--	--	3.95
SouthWest	2.81	3.73	1.8	0.6	0.14	--	9.08
West	4.74	12.42	7.73	1.9	0.35	0.16	27.29
NorthWest	1.59	3.81	5.85	3.28	0.86	0.08	15.46
Totals	18.96	37.64	29.81	9.82	2.25	0.24	98.73

Percent Calm	1.27
Number of Data Values	8634
Hours in Time Period	8760

West Central Airshed Society - Wagner (AMS 909)
 Annual Summary for 2007
 Percentage Frequency Distribution of Wind

Speed (kph)							
Direction	>1 to 5	>5 to 11	>11 to 19	>19 to 28	>28 to 38	>38	Totals
North	4.27	5.38	1.4	0.13	--	--	11.17
NorthEast	5.88	4.6	0.69	0.02	--	--	11.2
East	3.72	6.28	1.74	0.11	--	--	11.86
SouthEast	1.79	2.53	1.74	0.45	--	--	6.5
South	2.82	2.16	1.03	0.1	--	--	6.11
SouthWest	4.32	7.88	3.29	0.34	0.01	--	15.83
West	2.24	6.8	10.05	1.5	0.22	0.05	20.86
NorthWest	1.99	5.15	5.44	2.36	0.37	0.03	15.34
Totals	27.03	40.79	25.37	5.01	0.6	0.08	98.87

Percent Calm	1.13
Number of Data Values	8736
Hours in Time Period	8760

**TransAlta Utilities Corporation
Frequency Distribution Charts
SO₂ Monthly Averages
Year 2007**

West Central Airshed Society - Power (AMS 907)
 Annual Summary for 2007
 SO2 (ppm)

Month	Number of Data	Operational Time (%)	Mean	Maximum 1-Hour Value	Number 1-Hour Violations	Maximum 24-Hour Value	Number 24-Hour Violations	Percent of Data in each Concentration Range					
								<=0.02	>0.02-0.06	>0.06-0.11	>0.11-0.17	>0.17-0.34	>0.34
January	708	100	0.001	0.029	0	0.006	0	99.72	0.28	-	-	-	-
February	640	100	0.002	0.05	0	0.005	0	99.84	0.16	-	-	-	-
March	708	100	0.001	0.014	0	0.003	0	100	-	-	-	-	-
April	685	100	0.001	0.016	0	0.003	0	100	-	-	-	-	-
May	709	100	0.001	0.018	0	0.003	0	100	-	-	-	-	-
June	685	100	0.001	0.018	0	0.002	0	100	-	-	-	-	-
July	703	99.87	0.001	0.02	0	0.003	0	100	-	-	-	-	-
August	709	100	0.001	0.032	0	0.003	0	99.72	0.28	-	-	-	-
September	685	100	0.002	0.091	0	0.015	0	98.83	1.02	0.15	-	-	-
October	708	100	0.001	0.084	0	0.013	0	99.01	0.85	0.14	-	-	-
November	686	100	0.001	0.03	0	0.003	0	99.71	0.29	-	-	-	-
December	709	100	0.001	0.009	0	0.002	0	100	-	-	-	-	-

Year 2007	Annual Number of Data Hours	Annual Operational Time (%)	Annual Mean (ppm)	Annual Maximum 1-Hour Value (ppm)	Annual Number 1-Hour Violations	Annual Maximum 24-Hour Value (ppm)	Annual Number 24-Hour Violations	Annual Percent of Data in each Concentration Range					
								<=0.02	>0.02-0.06	>0.06-0.11	>0.11-0.17	>0.17-0.34	>0.34
	8335	99.99	0.001	0.091	0	0.015	0	99.74	0.24	0.02	-	-	-

West Central Airshed Society - Meadows (AMS 908)
 Annual Summary for 2007
 SO2 (ppm)

Month	Number of Data	Operational Time (%)	Mean	Maximum 1-Hour Value	Number 1-Hour Violations	Maximum 24-Hour Value	Number 24-Hour Violations	Percent of Data in each Concentration Range					
								<=0.02	>0.02-0.06	>0.06-0.11	>0.11-0.17	>0.17-0.34	>0.34
January	697	98.52	0.001	0.035	0	0.005	0	99.71	0.29	-	-	-	-
February	639	100	0.002	0.027	0	0.009	0	99.37	0.63	-	-	-	-
March	705	99.87	0.002	0.034	0	0.016	0	98.58	1.42	-	-	-	-
April	675	98.61	0.001	0.028	0	0.003	0	99.85	0.15	-	-	-	-
May	696	98.39	0.001	0.025	0	0.008	0	99.57	0.43	-	-	-	-
June	607	88.75	0.001	0.025	0	0.008	0	99.84	0.16	-	-	-	-
July	703	98.52	0.001	0.03	0	0.006	0	99.72	0.28	-	-	-	-
August	704	99.46	0.001	0.03	0	0.005	0	99.43	0.57	-	-	-	-
September	686	100	0.001	0.015	0	0.002	0	100	-	-	-	-	-
October	706	99.87	0.001	0.013	0	0.004	0	100	-	-	-	-	-
November	681	99.44	0.001	0.011	0	0.003	0	100	-	-	-	-	-
December	707	99.87	0.002	0.027	0	0.009	0	99.86	0.14	-	-	-	-

Year 2007	Annual Number of Data Hours	Annual Operational Time (%)	Annual Mean (ppm)	Annual Maximum 1-Hour Value (ppm)	Annual Number 1-Hour Violations	Annual Maximum 24-Hour Value (ppm)	Annual Number 24-Hour Violations	Annual Percent of Data in each Concentration Range					
								<=0.02	>0.02-0.06	>0.06-0.11	>0.11-0.17	>0.17-0.34	>0.34
	8206	98.45	0.001	0.035	0	0.016	0	99.66	0.34	-	-	-	-

West Central Airshed Society - Wagner (AMS 909)
 Annual Summary for 2007
 SO2 (ppm)

Month	Number of Data	Operational Time (%)	Mean	Maximum 1-Hour Value	Number 1-Hour Violations	Maximum 24-Hour Value	Number 24-Hour Violations	Percent of Data in each Concentration Range					
								<=0.02	>0.02-0.06	>0.06-0.11	>0.11-0.17	>0.17-0.34	>0.34
January	706	99.87	0.001	0.023	0	0.004	0	99.86	0.14	-	-	-	-
February	639	100	0.002	0.018	0	0.005	0	100	-	-	-	-	-
March	708	100	0.002	0.029	0	0.008	0	98.31	1.69	-	-	-	-
April	686	100	0.001	0.024	0	0.005	0	99.85	0.15	-	-	-	-
May	709	100	0.002	0.042	0	0.009	0	99.44	0.56	-	-	-	-
June	662	96.67	0.002	0.023	0	0.004	0	99.09	0.91	-	-	-	-
July	706	100	0.002	0.028	0	0.006	0	99.43	0.57	-	-	-	-
August	709	100	0.002	0.042	0	0.006	0	99.15	0.85	-	-	-	-
September	685	100	0.002	0.029	0	0.004	0	99.71	0.29	-	-	-	-
October	705	100	0.002	0.042	0	0.006	0	99.01	0.99	-	-	-	-
November	684	100	0.001	0.014	0	0.003	0	100	-	-	-	-	-
December	706	99.73	0.001	0.018	0	0.003	0	100	-	-	-	-	-

Year 2007	Annual Number of Data Hours	Annual Operational Time (%)	Annual Mean (ppm)	Annual Maximum 1-Hour Value (ppm)	Annual Number 1-Hour Violations	Annual Maximum 24-Hour Value (ppm)	Annual Number 24-Hour Violations	Annual Percent of Data in each Concentration Range					
								<=0.02	>0.02-0.06	>0.06-0.11	>0.11-0.17	>0.17-0.34	>0.34
	8305	99.69	0.002	0.042	0	0.009	0	99.48	0.52	-	-	-	-

**TransAlta Utilities Corporation
Frequency Distribution Charts
NO₂ Monthly Averages
Year 2007**

West Central Airshed Society - Power (AMS 907)

Annual Summary for 2007

NO2 (ppm)

Month	Number of Data	Operational Time (%)	Mean	Maximum 1-Hour Value	Number 1-Hour Violations	Maximum 24-Hour Value	Number 24-Hour Violations	Percent of Data in each Concentration Range			
								<=0.05	>0.05-0.11	>0.11-0.21	>0.21
January	707	100	0.004	0.021	0	0.008	0	100	-	-	-
February	639	100	0.006	0.038	0	0.015	0	100	-	-	-
March	702	100	0.004	0.025	0	0.011	0	100	-	-	-
April	684	100	0.002	0.013	0	0.005	0	100	-	-	-
May	707	100	0.001	0.015	0	0.004	0	100	-	-	-
June	684	100	0.001	0.012	0	0.003	0	100	-	-	-
July	702	99.87	0.002	0.018	0	0.005	0	100	-	-	-
August	708	100	0.001	0.022	0	0.004	0	100	-	-	-
September	684	100	0.002	0.016	0	0.005	0	100	-	-	-
October	707	100	0.003	0.027	0	0.008	0	100	-	-	-
November	684	100	0.004	0.022	0	0.012	0	100	-	-	-
December	708	100	0.008	0.034	0	0.019	0	100	-	-	-

Year 2007	Annual Number of Data Hours	Annual Operational Time (%)	Annual Mean (ppm)	Annual Maximum 1-Hour Value (ppm)	Annual Number 1-Hour Violations	Annual Maximum 24-Hour Value (ppm)	Annual Number 24-Hour Violations	Annual Percent of Data in each Concentration Range			
								<=0.05	>0.05-0.11	>0.11-0.21	>0.21
	8316	99.99	0.003	0.038	0	0.019	0	100	-	-	-

West Central Airshed Society - Meadows (AMS 908)

Annual Summary for 2007

NO2 (ppm)

Month	Number of Data	Operational Time (%)	Mean	Maximum 1-Hour Value	Number 1-Hour Violations	Maximum 24-Hour Value	Number 24-Hour Violations	Percent of Data in each Concentration Range			
								<=0.05	>0.05-0.11	>0.11-0.21	>0.21
January	697	98.52	0.011	0.038	0	0.026	0	100	-	-	-
February	635	99.55	0.009	0.039	0	0.018	0	100	-	-	-
March	705	99.87	0.007	0.037	0	0.02	0	100	-	-	-
April	674	98.61	0.004	0.029	0	0.008	0	100	-	-	-
May	695	98.39	0.004	0.035	0	0.01	0	100	-	-	-
June	606	88.75	0.004	0.03	0	0.012	0	100	-	-	-
July	703	98.52	0.004	0.028	0	0.01	0	100	-	-	-
August	703	99.46	0.004	0.02	0	0.008	0	100	-	-	-
September	685	100	0.003	0.024	0	0.01	0	100	-	-	-
October	705	99.87	0.007	0.03	0	0.015	0	100	-	-	-
November	681	99.44	0.007	0.032	0	0.015	0	100	-	-	-
December	706	99.87	0.013	0.038	0	0.026	0	100	-	-	-

Year 2007	Annual Number of Data Hours	Annual Operational Time (%)	Annual Mean (ppm)	Annual Maximum 1-Hour Value (ppm)	Annual Number 1-Hour Violations	Annual Maximum 24-Hour Value (ppm)	Annual Number 24-Hour Violations	Annual Percent of Data in each Concentration Range			
								<=0.05	>0.05-0.11	>0.11-0.21	>0.21
	8195	98.41	0.006	0.039	0	0.026	0	100	-	-	-

West Central Airshed Society - Wagner (AMS 909)

Annual Summary for 2007

NO2 (ppm)

Month	Number of Data	Operational Time (%)	Mean	Maximum 1-Hour Value	Number 1-Hour Violations	Maximum 24-Hour Value	Number 24-Hour Violations	Percent of Data in each Concentration Range			
								<=0.05	>0.05-0.11	>0.11-0.21	>0.21
January	705	99.87	0.005	0.031	0	0.011	0	100	-	-	-
February	638	100	0.007	0.043	0	0.018	0	100	-	-	-
March	707	100	0.005	0.027	0	0.013	0	100	-	-	-
April	685	100	0.003	0.02	0	0.006	0	100	-	-	-
May	708	100	0.003	0.019	0	0.008	0	100	-	-	-
June	661	96.67	0.003	0.018	0	0.005	0	100	-	-	-
July	705	100	0.003	0.022	0	0.007	0	100	-	-	-
August	707	100	0.002	0.024	0	0.008	0	100	-	-	-
September	684	100	0.003	0.017	0	0.005	0	100	-	-	-
October	704	100	0.004	0.028	0	0.011	0	100	-	-	-
November	684	100	0.004	0.018	0	0.009	0	100	-	-	-
December	698	99.73	0.009	0.035	0	0.021	0	100	-	-	-

Year 2007	Annual Number of Data Hours	Annual Operational Time (%)	Annual Mean (ppm)	Annual Maximum 1-Hour Value (ppm)	Annual Number 1-Hour Violations	Annual Maximum 24-Hour Value (ppm)	Annual Number 24-Hour Violations	Annual Percent of Data in each Concentration Range			
								<=0.05	>0.05-0.11	>0.11-0.21	>0.21
	8286	99.69	0.004	0.043	0	0.021	0	100	-	-	-

**TransAlta Utilities Corporation
Frequency Distribution Charts
PM Monthly Averages
Year 2007**

West Central Airshed Society - Power (AMS 907)
 Annual Summary for 2007
 PM2.5 (ppm)

Month	Number of Data	Operational Time (%)	Mean	Maximum 1-Hour Value	Maximum 24-Hour Value
January	742	99.73	1.6	12.2	4
February	672	100	3.6	17.7	9
March	734	98.66	2.7	19.2	12.4
April	714	99.86	2.7	14.2	6.1
May	739	99.6	4.6	85.5	19.5
June	704	98.47	6.2	30.4	17.6
July	710	96.1	5.9	46.3	13.3
August	728	98.39	3.4	25.9	8.2
September	705	97.92	2.6	24.6	6.3
October	738	99.87	4	18.2	9.7
November	716	99.44	3	18	6.9
December	740	100	3.8	27.7	18.6

Year 2007	Annual Number of Data Hours	Annual Operational Time (%)	Annual Mean (ppm)	Annual Maximum 1-Hour Value (ppm)	Annual Maximum 24-Hour Value (ppm)
	8642	99	3.70	85.5	19.5

**TransAlta Utilities Corporation
Frequency Distribution Charts
Meteorological Measurements
Year 2007**

Summary Report

Continuous air quality/meteorological monitoring measurements

West Central Airshed Society

**TransAlta / Power
Station 907**

January to December 2007

Parameter	Calibration Hours	Number of Data	Percent Uptime	Mean	Total	Min	Max	----- P10	----- Q1	Percentile Median	----- Q3	----- P90
SO ₂ (ppb)	424	8335	100.0	1.0	-	0.0	91.0	0.2	0.3	0.6	1.1	2.0
NO (ppb)	443	8316	100.0	0.8	-	0.0	99.0	0.0	0.0	0.2	0.9	2.2
NO ₂ (ppb)	443	8316	100.0	3.1	-	0.0	38.0	0.2	0.8	2.3	4.8	7.5
NO _x (ppb)	443	8316	100.0	4.5	-	0.0	113.0	0.7	1.6	3.6	6.6	10.1
Particulate Matter 2.5 microns (μ/m ³)	30	8642	99.0	3.7	-	0.0	86.0	0.2	1.3	3.0	5.5	8.2
Wind Speed (kph)	0	8759	100.0	12.1	-	0.0	51.0	5.0	8.0	11.7	15.9	20.2
Temperature (°C)	0	8757	100.0	4.1	-	-29.0	31.0	-3.3	1.0	4.4	8.3	11.3
Relative Humidity (%)	0	8757	100.0	67.5	-	19.0	100.0	44.1	55.9	70.0	82.6	89.9
Precipitation (mm)	0	7490	85.6	-	217.7	0.0	16.5	0.0	0.0	0.0	0.0	0.0
Std Dev Wind Direction (deg)	0	8759	100.0	17.0	-	0.0	102.0	7.4	9.3	12.7	19.1	32.4
Std Dev Wind Speed (kph)	0	8757	100.0	2.8	-	0.0	14.0	1.3	1.8	2.5	3.5	4.7

Summary Report

Continuous air quality/meteorological monitoring measurements

West Central Airshed Society

**TransAlta / Meadows
Station 908**

January to December 2007

Parameter	Calibration	Number of	Percent	Mean	Total	Min	Max	----- Percentile -----				
	Hours	Data	Uptime					P10	Q1	Median	Q3	P90
SO2 (ppb)	418	8206	98.5	1.2	-	0.0	35.0	0.1	0.3	0.6	1.1	2.4
NO (ppb)	426	8195	98.4	3.0	-	0.0	109.0	0.1	0.2	0.9	2.7	7.9
NO ₂ (ppb)	426	8195	98.4	6.4	-	0.0	39.0	0.4	1.5	4.5	9.3	15.5
NO _x (ppb)	426	8195	98.4	9.9	-	0.0	130.0	1.1	2.6	6.3	12.8	22.9
Wind Speed (kph)	0	8634	98.6	10.8	-	0.0	50.0	3.3	5.8	9.6	14.8	19.9
Temperature (°C)	0	8634	98.6	4.1	-	-32.0	32.0	-3.5	0.3	4.1	8.0	11.6
Relative Humidity (%)	0	8634	98.6	69.0	-	18.0	99.0	45.0	57.3	70.9	82.7	89.1
Precipitation (mm)	0	8634	98.6	-	277.2	0.0	14.4	0.0	0.0	0.0	0.0	0.0
Std Dev Wind Direction (deg)	0	8602	98.6	21.2	-	0.0	104.0	7.1	9.6	14.5	25.6	46.8
Std Dev Wind Speed (kph)	0	8602	98.6	2.8	-	0.0	14.0	1.2	1.7	2.5	3.4	4.6

Summary Report*Continuous air quality/meteorological monitoring measurements***West Central Airshed Society****TransAlta / Wagner
Station 909****January to December 2007**

Parameter	Calibration Hours	Number of Data	Percent Uptime	Mean	Min	Max	Percentile				
							P10	Q1	Median	Q3	P90
SO ₂ (ppb)	428	8305	99.7	1.5	0.0	42.0	0.1	0.3	0.6	1.4	3.8
NO (ppb)	447	8286	99.7	1.1	0.0	43.0	0.0	0.0	0.2	1.0	3.0
NO ₂ (ppb)	447	8286	99.7	4.3	0.0	43.0	0.7	1.6	3.2	5.8	9.2
NO _x (ppb)	447	8286	99.7	5.1	0.0	64.0	0.9	1.7	3.4	6.6	11.3
Wind Speed (kph)	0	8736	99.7	8.9	0.0	44.0	2.5	4.7	8.1	12.1	16.1
Temperature (°C)	0	8735	99.7	4.6	-37.0	32.0	-3.2	0.7	4.7	8.6	12.4
Relative Humidity (%)	0	8736	99.7	66.3	1.0	99.0	41.7	53.5	67.7	80.6	87.7
Std Dev Wind Direction (deg)	0	8730	99.7	24.6	1.0	103.0	9.9	13.3	18.9	29.0	49.3
Std Dev Wind Speed (kph)	0	8730	99.7	2.8	0.0	12.0	1.3	1.8	2.5	3.5	4.7