



HINTON PULP
A DIVISION OF WEST FRASER MILLS LIMITED
Continuous Ambient Air Quality
Monitoring Program
Annual Summary for 2011

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



January 31st, 2012

Hinton Pulp
A Division of West Fraser Mills Ltd.
Mr. Phil Whitney
760 Switzer Drive
Hinton, Alberta
T7V 1V7

Dear Mr. Whitney:

Re: Annual Ambient Air Quality Monitoring Report. January – December 2011.
For Hinton Pulp – A Division of West Fraser Mills Ltd.

The West Central Airshed Society (WCAS) presents the 2011 Annual Report containing ambient air quality and meteorological information from the following site:

Network Station is AMS 906 Hinton
Identified as:

WCAS data collection and validation began January 1, 2004. The following is a list of the reported ambient air and meteorological parameters measured at the site location:

AMS 906 (Hinton)

TRS, Particulate Matter (2.5 microns), Wind Speed and Direction, Relative Humidity, and External Temperature.

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Patrick Andersen', is written over a light blue horizontal line.

Patrick Andersen
Environmental Specialist

Hinton Pulp
A Division of West Fraser Mills Limited
Frequency Distribution Charts
Wind Speed and Direction
Year 2011

West Central Airshed Society - Hinton (AMS 906)
 Annual Summary for 2011
 Percentage Frequency Distribution of Wind

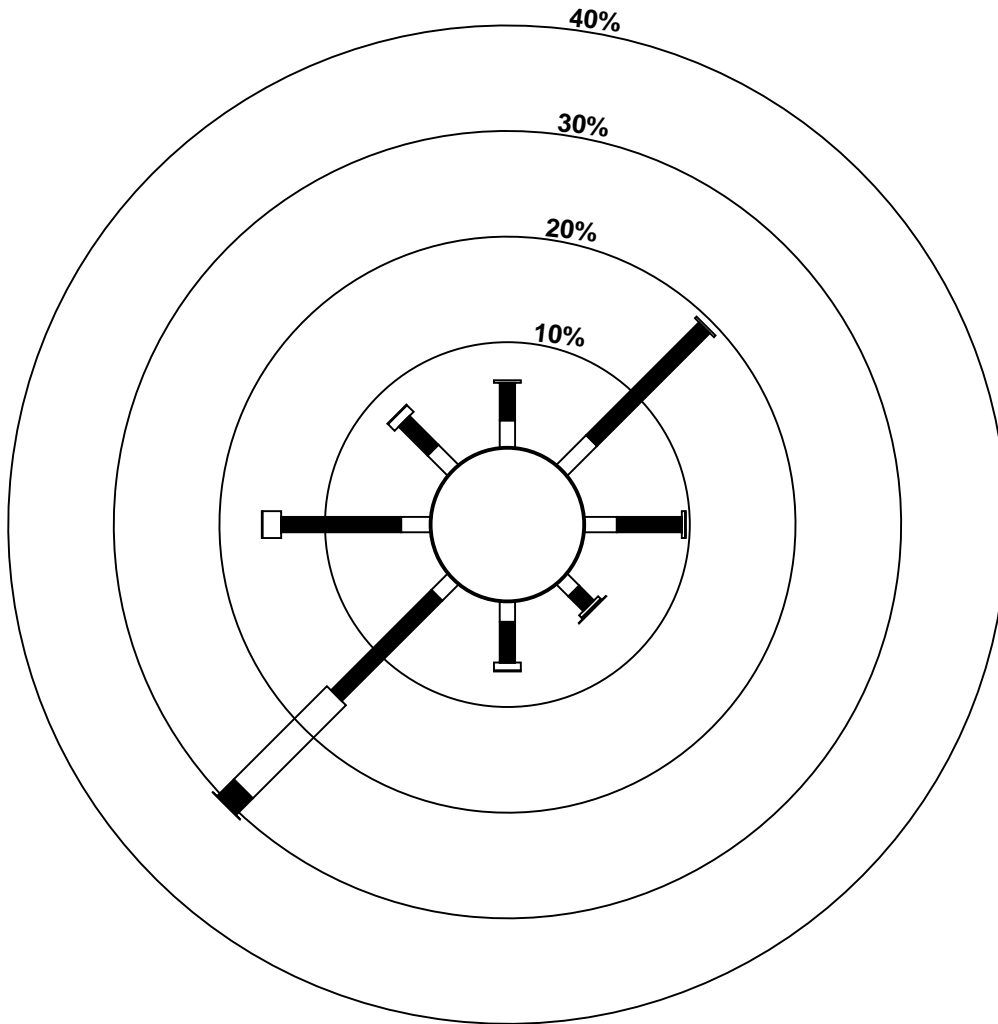
Speed (kph)							
Direction	>1 to 5	>5 to 11	>11 to 19	>19 to 28	>28 to 38	>38	Totals
North	3.56	0.25	-	-	-	-	6.40
NorthEast	15.12	0.23	-	-	-	-	19.33
East	6.15	0.33	0.03	-	-	-	9.61
SouthEast	1.97	0.34	0.15	0.05	-	-	4.13
South	3.86	0.76	0.08	-	-	-	6.62
SouthWest	13.45	12.48	2.25	0.02	-	-	30.38
West	11.37	1.77	0.07	-	-	-	16.00
NorthWest	3.88	0.88	0.07	-	-	-	7.53
Totals	59.36	17.04	2.65	0.07	-	-	79.12

Percent Calm	20.88
Number of Data Values	8713
Hours in Time Period	8760

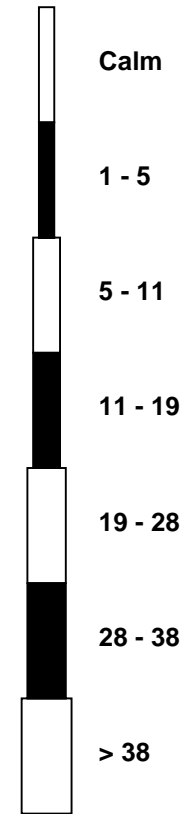
WCAS - Hinton
Wind Speed Rose



Wind Speed (WS) - kph
January 2011



Wind Frequency (kph)



Hinton Pulp
A Division of West Fraser Mills Limited
Frequency Distribution Charts
Total Reduced Sulfur Monthly Averages
Year 2011

West Central Airshed Society - Hinton (AMS 906)
 Annual Summary for 2011
 TRS (ppb)

Month	Number of Data	Operational Time (%)	Mean	Maximum 1-Hour Value	Number 1-Hour Exceedances*	Maximum 24-Hour Value	Number 24-Hour Exceedances**	Percent of Data in each Concentration Range			
								<=3	>3-10	>10-50	>50
January	709	100.0	1.2	8.6	0	2.6	0	92.0	8.0	0.0	0.0
February	640	100.0	1.1	13.0	1	4.4	0	95.2	4.7	0.2	0.0
March	709	100.0	1.1	16.0	2	3.5	0	92.5	7.2	0.3	0.0
April	685	100.0	1.3	6.9	0	2.8	0	92.6	7.5	0.0	0.0
May	709	100.0	1.7	20.9	23	3.4	0	83.8	12.6	3.7	0.0
June	685	100.0	1.7	23.8	16	5.9	1	83.5	13.9	2.6	0.0
July	701	100.0	2.1	40.0	29	7.4	3	79.5	16.0	4.6	0.0
August	709	100.0	2.4	36.9	42	7.9	2	77.2	16.5	6.4	0.0
September	686	99.9	1.7	29.2	17	6.6	3	86.4	11.1	2.5	0.0
October	708	99.7	0.7	11.2	1	2.7	0	95.8	4.1	0.1	0.0
November	685	100.0	0.7	6.7	0	1.6	0	99.1	0.9	0.0	0.0
December	710	100.0	0.7	3.7	0	1.2	0	99.7	0.3	0.0	0.0
Annual	8336	100.0	1.4	40.0	131	7.9	9	89.7	8.6	1.7	0.0

* Hours of TRS above 10 ppb H₂S Hourly Average Guideline.

**Hours of TRS above 4 ppm H₂S Daily Average Guideline.

Hinton Pulp
A Division of West Fraser Mills Limited
Frequency Distribution Charts
PM Monthly Averages
Year 2011

West Central Airshed Society - Hinton (AMS 906)
 Annual Summary for 2011
 PM2.5 ($\mu\text{g}/\text{m}^3$)

Month	Number of Data	Operational Time (%)	Mean	Maximum 1-Hour Value	Number 1-Hour Violations	Maximum 24-Hour Value	Number 24-Hour Violations
January	742	99.7	6.5	35.4	0	10.3	0
February	670	99.7	6.4	28.8	0	11.6	0
March	743	99.9	9.0	35.8	0	13.7	0
April	719	99.9	7.8	40.9	0	12.4	0
May	741	99.6	8.6	112.9	1	19.1	0
June	718	99.7	8.2	56.5	0	15.3	0
July	737	99.1	9.2	94.4	2	30.2	2
August	744	100.0	7.2	49.3	0	11.1	0
September	718	99.7	8.4	44.3	0	13.0	0
October	737	99.2	7.8	58.4	0	14.3	0
November	718	99.7	8.5	49.9	0	14.5	0
December	744	100.0	7.0	53.3	0	13.3	0
Annual	8731	99.7	7.9	112.9	3	30.2	2

Hinton Pulp
A Division of West Fraser Mills Limited
Frequency Distribution Charts
Meteorological Measurements
Year 2011

Summary Report

Continuous air quality/meteorological monitoring measurements

West Central Airshed Society

**Hinton Pulp / Hinton
Station 906**

January to December 2011

Parameter	Calibration Hours	Number of Data	Percent Uptime	Mean	Min	Max	Percentile				
							P10	Q1	Median	Q3	P90
TRS (ppb)	421	8336	100.0	1.4	0.0	40.0	0.2	0.4	0.6	1.5	3.3
Particulate Matter 2.5 microns (μm^3)	1	8731	99.7	7.9	0.0	112.9	3.4	4.8	6.7	9.6	13.6
Wind Speed (kph)	0	8713	99.5	3.3	0.0	21.9	0.3	0.8	2.4	4.8	7.7
Temperature ($^{\circ}\text{C}$)	0	8754	99.9	3.0	-30.8	29.4	-6.0	-2.0	3.3	8.2	11.9
Relative Humidity (%)	0	8754	99.9	57.9	5.5	90.7	27.8	39.5	60.9	76.8	83.5
Std Dev Wind Direction (deg)	0	8713	99.5	52.9	0.1	122.3	31.5	39.0	48.9	63.7	82.0
Std Dev Wind Speed (kph)	0	8713	99.5	2.7	0.0	13.1	0.6	1.3	2.3	3.7	5.3