Note: This is a reference cited in *AP 42, Compilation of Air Pollutant Emission Factors, Volume I Stationary Point and Area Sources.* AP42 is located on the EPA web site at www.epa.gov/ttn/chief/ap42/

The file name refers to the reference number, the AP42 chapter and section. The file name "ref02_c01s02.pdf" would mean the reference is from AP42 chapter 1 section 2. The reference may be from a previous version of the section and no longer cited. The primary source should always be checked.

Background Report Reference

AP-42 Section Number: 10.6.1

Background Report Section: 4

Reference Number: 86

Title: Source Emission Testing Louisiana Pacific Canada, LTD, Dawson Creek, B C

BOVAR-CONCORD Environmental

April 1995

4-86)

JOB NUMBER 5216618

SOURCE EMISSION TESTING

Prepared For:

LOUISIANA-PACIFIC CANADA LTD.
P.O. Box 2338
Dawson Creek, BC
V1G 4P2

BC 6618

Prepared By:

BOVAR-CONCORD ENVIRONMENTAL
8563 Commerce Court
Burnaby, BC
V5A 4N5

April, 1995

TABLE OF CONTENTS

INTRODUCTION

RESULTS

METHODS

SOURCE TESTING TEAM

DISCUSSION

APPENDIX A FIELD DATA-QA/QC SHEETS

APPENDIX B LABORATORY RESULTS

APPENDIX C PROCESS DATA

1.0 INTRODUCTION

BOVAR-CONCORD Environmental (BCE) conducted a series of source emission tests at Louisiana Pacific's (LP) Orientated Strand Board (OSB) facility located in Dawson Creek, B.C. from April 3, 1995 through to April 6, 1995. The tests were to meet LP's first quarter monitoring requirements for 1995 and additional formaldehyde testing was performed to satisfy the fourth quarter requirements of 1994.

The following table gives the sources, parameters tested, and summary table references for the duplicate tests.

SOURCE	PARAMETER	SUMMARY TABLE
Core Dryer	Particulate/Condensable Organics	Table 1.0
	Formaldehyde	Table 2.0
	Formaldehyde - 1994	Table 3.0
Konus	Particulate	Table 4.0
Press Vent	Sodium Hydroxide	Table 5.0
	Formaldehyde	Table 6.0
	Formaldehyde - 1994	Table 7.0
	Methylene Diphenyl Diisocyanate	Table 8.0
Baghouse	Formaldehyde	Table 9.0
	Formaldehyde - 1994	Table 10.0
	Phenol	Table 11.0
	Methylene Diphenyl Diisocyanate	Table 12.0

Mr. Rob Hamm of BCE was on-site to gather process data during the testing program. A summary of the process data can be found in Appendix C.

As requested by LP, BCE performed two additional formaldehyde tests per source on a different day than the formaldehyde tests for the 1995 first quarter requirements. These tests were conducted in order to satisfy the formaldehyde sampling permit requirements for the fourth quarter of 1994.

All of the formaldehyde samples taken during this test period were analyzed at two laboratories as requested by Louisiana-Pacific. The two laboratories were Zenon Environmental Laboratories in Burnaby and Enviro Test Laboratories in Edmonton.

2.0 RESULTS

All field data sheets, QA/QC data sheets, and isokinetic calculation printouts can be found in Appendix A. Chain of custody forms and lab results are found in Appendix B. Calculations were performed by BCE using a proprietary computer program.

Tables 1.0 - 12.0 contain summaries of relevant testing information.

The following table contains the formaldehyde results obtained by both Zenon and Enviro Test.

Formaldehyde Sample ID	Zenon Results (µg)	Enviro Test (µg)*
Method Blank	2.0	
Spiked Blank	710	
Field Blank	2.7	
T1CD-F	343	
T2CD-F	332	
T3CD-F	334	
T4CD-F	475	
T1PV-F	739	
T2PV-F	214	
T3PV-F	147	
T4PV-F	252	
T1BH-F	394	
T2BH-F	362	
T3BH-F	340	
T4BH-F	321	

* results unavailable at this time

3.0 METHODS

All testing was conducted in accordance to the methods specified in LP's operating permit PA-7596. When possible the surveys were conducted in accordance to the British Columbia Ministry of Environment, Lands, and Parks (BC MELP) source testing guidelines (BC code). As per BC MELP regulations, if a method could not be found in the BC code, the relevant U.S. Environmental Protection Agency (EPA) method was used. The following table lists the sampling and analytical methods used for the fourth quarter sampling program.

Parameter	Sampling Method	Analytical Method
Particulate	USEPA Method 5	USEPA 600 Method 5
Condensable Organics	USEPA Method 202	USEPA 600 Method 200
Formaldehyde	USEPA Method 0011	USEPA 600 Method 0011
Sodium Hydroxide (NaOH)	Modified USEPA Method 5	Modified USEPA 7770
Methylene Diphenyl Diisocyanate (MDI)	USEPA Research Method for MDI	USEPA Research Method for MDI
Phenol	USEPA Method 0010	USEPA Method 0010

All of the sampling was done isokinetically using an EPA Method 5 kit. The following table gives the train setup for each of the parameters tested. All of the trains had a heated probe going into a hotbox, through to a series of impingers cooled by ice, through an umbilical cord to the meter, connected to a pump.

Test Parameter	Probe	Filter	Impingers					
			1st	2nd	3rd	4th	5th	6th
Formaldehyde	Glass Lined	Filter Bypass	100ml DNPH	100ml DNPH	Empty	Silica Gel	-	-
Particulate/ Condensable Org	Glass Lined	Filter	100ml DI H_2O	100ml DI H_2O	Empty	Silica Gel	-	-
Particulate	Stainless Steel	Filter	100ml DI H_2O	100ml DI H_2O	Empty	Silica Gel	-	-
MDI	Glass Lined	Filter Bypass	300ml *1,2-PP	200ml 1,2-PP	200ml 1,2-PP	Empty	Silica Gel	Carbon
Phenol	Glass Lined	Filter	100ml DI H_2O	100ml DI H_2O	Empty	Silica Gel	-	-
NaOH	Glass Lined	Filter Bypass	100ml DI H_2O	100ml DI H_2O	Empty	Silica Gel	-	-

* 1,(2-pyridyl) piperazine in toluene

3.5 SOURCE TESTING TEAM

The following list details the BCE team who conducted the fourth quarter source sampling.

Project Manager	John McDonaugh
Train Operator	John Lennartz John McDonaugh
Stack Assistant	Genevieve Taeger Martin Sima
Process Data/ Train Recoveries	Rob Hamm

4.0 DISCUSSION

The press vent was tested for NaOH using isokinetic sampling. Samples were analyzed by Zenon using two different methods. A back titration method with sulfuric acid was used; however, this method is not specific for NaOH and any base present would have been incorporated into the NaOH concentration. Therefore, NaOH was also analyzed by flame atomic absorption. This method determines the amount of sodium in the sample. The concentrations were much lower using this method and the results have been reported using this method.

The MDI sampling was again performed as per Mr. Frank Wilshire and Joseph Knoll's paper, *Field Test and Validation of a Source Test Method for Methylene Diphenyl Diisocyanate*, 1994. This is a method currently under review by the U.S. EPA and was accepted by the BC MELP for determination of MDI at Louisiana Pacific, Dawson Creek. The absorbing solution was the derivitizing agent 1,(2-pyridyl) piperazine in toluene. The first three impingers contained absorbing solution, the fourth was dry, the fifth contained silica gel, and the sixth contained activated charcoal. The sampling was performed isokinetically and the recovery was performed by rinsing with toluene followed by acetonitrile.

During the port change of the second formaldehyde test on the baghouse, one of the glass connectors was broken. As the train had been leak checked before the connector was broken, the connector was replaced, the train was leak checked, and the second traverse of the formaldehyde test was performed.

On April 5, 1995 during the first formaldehyde test on the core dryer, the core dryer went down for one hour. The test was stopped as soon as the dryer went down and continued again once the dryer was running.

As was done previously on the Konus, the carbon dioxide and oxygen levels were measured using an integrated bag sample. The sample was taken over the entire length of the test and then analyzed using fyrites.

The Konus was down for one hour prior to the start of the first particulate test on April 6, 1995. However, this did not interfere with the test as the test had not been started. Once the Konus was back up, the particulate testing proceeded.

TABLE 1.0

SUMMARY CORE DRYER

PARTICULATE/CONDENSIBLE-ORGANICS

Parameter	Test One	Test Two	Average
Test Period			
- Date	95/04/05	95.04.06	
- Time	17:34-18:44	13:22-14:29	
Average Gas Temperature			
- °C	61.2	61.5	61.4
Average Gas Velocity			
- m/s	18.77	19.07	18.92
Stream Flow Rate			
- DSm^3/hr	62,345	62,348	62,346
Water Content			
- mole %	22.37	23.20	22.78
Particulate & Condensable Organics			
- mg/DSm^3	62.2	65.9	64.0
- mg/s	1,078	1,142	1,110
- KG/hr	3.88	4.11	4.00
Flue Gas Composition (% wet)			
- O_2	18.00	18.00	18.00
- CO_2	2.25	2.00	2.12
- CO	0.00	0.00	0.00
Isokenetic Variation			
- %	102.4	103.7	103.0

TABLE 2.0

SUMMARY CORE DRYER

FORMALDEHYDE

Parameter	Test One	Test Two	Average
Test Period			
- Date	*95/04/05*	*95/04/05*	
- Time	10:19-12:35	14:01-15:12	
Average Gas Temperature			
- °C	60.6	61.9	61.2
Average Gas Velocity			
- m/s	18.84	18.47	18.66
Stream Flow Rate			
- DSm^3/hr	62,875	62,163	62,519
Water Content			
- mole %	22.13	21.18	21.66
Formaldehyde			
- mg/DSm^3	0.268	0.263	0.266
- mg/s	4.683	4.547	4.615
- KG/hr	0.017	0.016	0.016
Flue Gas Composition (% wet)			
- O_2	18.00	18.00	18.00
- CO_2	2.00	2.00	2.00
- CO	0.00	0.00	0.00
Isokenetic Variation			
- %	103.0	102.7	102.8

TABLE 3.0

SUMMARY CORE DRYER

FORMALDEHYDE*

Parameter	Test Three	Test Four	Average
Test Period			
- Date	95/04/06	95/04/06	
- Time	9:40-10:48	11:23-12:32	
Average Gas Temperature			
- °C	64.1	62.6	63.4
Average Gas Velocity			
- m/s	18.85	19.03	18.94
Stream Flow Rate			
- DSm^3/hr	59,923	60,204	60,064
Water Content			
- mole %	24.72	25.43	25.08
Formaldehyde			
- mg/DSm^3	0.264	0.371	0.318
- mg/s	4.397	6.211	5.304
- KG/hr	0.016	0.022	0.019
Flue Gas Composition (% wet)			
- O_2	18.00	18.00	18.00
- CO_2	2.00	2.00	2.00
- CO	0.00	0.00	0.00
Isokenetic Variation			
- %	106.8	107.6	107.2

* Tests 3 and 4 to satisfy 1994 fourth quarter sampling requirements

BOVAR-CONCORD ENVIRONMENTAL

TABLE 4.0

SUMMARY KONUS

PARTICULATE

Parameter	Test One	Test Two	Average
Test Period			
- Date	95/04/06	95/04/06	
- Time	11:28-13:12	15:43-17:18	
Average Gas Temperature			
- °C	184.4	185.8	185.1
Average Gas Velocity			
- m/s	8.59	8.50	8.54
Stream Flow Rate			
- DSm^3/hr	30,296	29,759	30,028
Water Content			
- mole %	8.21	8.59	8.40
Particulate (12 % CO_2)			
- mg/DSm^3	329.3	344.0	336.6
- mg/s	1,155	1,185	1,170
- Kg/hr	4.158	4.266	4.212
Flue Gas Composition (% wet)			
- O_2	17.00	17.00	17.00
- CO_2	5.00	5.00	5.00
- CO	0.00	0.00	0.00
Isokenetic Variation			
- %	98.3	98.2	98.2

TABLE 5.0

SUMMARY PRESS VENT

SODIUM HYDROXIDE

Parameter	Test One	Test Two	Average
Test Period			
- Date	95/04/02	95/04/02	
- Time	14:24-15:31	15:55-16:59	
Average Gas Temperature			
- °C	40.4	39.6	40.0
Average Gas Velocity			
- m/s	11.99	12.20	12.10
Stream Flow Rate			
- DSm^3/hr	79,270	80,781	80,026
Water Content			
- mole %	2.09	2.14	2.12
NaOH			
- mg/DSm^3	0.483	0.438	0.460
- mg/s	10.63	9.838	10.23
- KG/hr	0.038	0.035	0.036
Flue Gas Composition (% wet)			
- O_2	20.90	20.90	20.90
- CO_2	0.00	0.00	0.00
- CO	0.00	0.00	0.00
Isokenetic Variation			
- %	96.2	95.7	96.0

TABLE 6.0

SUMMARY PRESS VENT

FORMALDEHYDE

Parameter	Test One	Test Two	Average
Test Period			
- Date	95/04/03	95/04/03	
- Time	10:02-11:09	11:56-13:03	
Average Gas Temperature			
- °C	40.2	39.3	39.8
Average Gas Velocity			
- m/s	12.33	12.35	12.34
Stream Flow Rate			
- DSm^3/hr	82,507	83,156	82,832
Water Content			
- mole %	0.95	0.63	0.79
Formaldehyde			
- mg/DSm^3	0.681	0.192	0.436
- mg/s	15.60	4.425	10.01
- KG/hr	0.056	0.016	0.036
Flue Gas Composition (% wet)			
- O_2	20.90	20.90	20.90
- CO_2	0.00	0.00	0.00
- CO	0.00	0.00	0.00
Isokenetic Variation			
- %	97.9	99.9	98.9

TABLE 7.0

SUMMARY PRESS VENT

FORMALDEHYDE*

Parameter	Test Three	Test Four	Average
Test Period			
- Date	95/04/04	95/04/04	
- Time	9:14-10:20	10:51-11:57	
Average Gas Temperature			
- °C	40.9	41.0	41.0
Average Gas Velocity			
- m/s	12.07	12.16	12.12
Stream Flow Rate			
- DSm^3/hr	80,004	80,863	80,434
Water Content			
- mole %	0.96	0.60	0.78
Formaldehyde			
- mg/DSm^3	0.137	0.235	0.186
- mg/s	3.037	5.286	4.162
- KG/hr	0.011	0.019	0.015
Flue Gas Composition (% wet)			
- O_2	20.90	20.90	20.90
- CO_2	0.00	0.00	0.00
- CO	0.00	0.00	0.00
Isokenetic Variation			
- %	100.0	98.5	99.2

* Test results to meet 1994 fourth quarter sampling requirements

BOVAR-CONCORD ENVIRONMENTAL

TABLE 8.0

SUMMARY PRESS VENT

METHYLENE DIPHENYL DIISOCYANATE

Parameter	Test One	Test Two	Average
Test Period			
- Date	95/04/03	95/04/03	
- Time	13:50-14:56	15:45-16:53	
Average Gas Temperature			
- °C	39.3	39.3	39.3
Average Gas Velocity			
- m/s	12.29	12.46	12.38
Stream Flow Rate			
- DSm^3/hr	82,167	83,274	82,720
Water Content			
- mole %	1.33	1.37	1.35
MDI			
- mg/DSm^3	0.103	0.012	0.058
- mg/s	2.343	0.269	1.306
- KG/hr	0.008	0.001	0.004
Flue Gas Composition (% wet)			
- O_2	20.90	20.90	20.90
- CO_2	0.00	0.00	0.00
- CO	0.00	0.00	0.00
Isokenetic Variation			
- %	100.5	100.0	100.2

TABLE 9.0

SUMMARY BLENDER BAGHOUSE AREA

FORMALDEHYDE

Parameter	Test One	Test Two	Average
Test Period			
- Date	95/04/03	95/04/03	
- Time	10:59-12:26	13:44-16:47	
Average Gas Temperature			
- °C	23.5	23.8	23.6
Average Gas Velocity			
- m/s	18.41	18.81	18.61
Stream Flow Rate			
- DSm^3/hr	29,488	30,106	29,797
Water Content			
- mole %	1.03	0.99	1.01
Formaldehyde			
- mg/DSm^3	0.223	0.197	0.210
- mg/s	1.824	1.645	1.734
- KG/hr	0.006	0.006	0.006
Flue Gas Composition (% wet)			
- O_2	20.90	20.90	20.90
- CO_2	0.00	0.00	0.00
- CO	0.00	0.00	0.00
Isokenetic Variation			
- %	100.0	101.9	101.0

TABLE 10.0

SUMMARY BLENDER BAGHOUSE AREA

FORMALDEHYDE*

Parameter	Test Three	Test Four	Average
Test Period			
- Date	95/04/04	95/04/04	
- Time	12:04-13:21	14:48-16:06	
Average Gas Temperature			
- °C	26.3	26.0	26.2
Average Gas Velocity			
- m/s	19.07	18.80	18.94
Stream Flow Rate			
- DSm^3/hr	29,989	29,378	29,684
Water Content			
- mole %	0.78	1.10	0.94
Formaldehyde			
- mg/DSm^3	0.188	0.182	0.185
- mg/s	1.564	1.487	1.526
- KG/hr	0.006	0.005	0.006
Flue Gas Composition (% wet)			
- O_2	20.90	20.90	20.90
- CO_2	0.00	0.00	0.00
- CO	0.00	0.00	0.00
Isokenetic Variation			
- %	100.6	99.9	100.2

- Test results to meet 1994 fourth quarter sampling requirements

BOVAR-CONCORD ENVIRONMENTAL

TABLE 11.0

SUMMARY BLENDER AREA BAGHOUSE

PHENOL

Parameter	Test One	Test Two	Average
Test Period			
- Date	95/04/05	95/04/05	
- Time	11:34-13:22	15:32-17:22	
Average Gas Temperature			
- °C	27.1	26.1	26.6
Average Gas Velocity			
- m/s	18.65	18.96	18.80
Stream Flow Rate			
- DSm^3/hr	28,921	29,450	29,186
Water Content			
- mole %	1.52	1.66	1.59
Phenol			
- mg/DSm^3	1.352	1.255	1.304
- mg/s	10.86	10.27	10.56
- KG/hr	0.039	0.037	0.038
Flue Gas Composition (% wet)			
- O_2	20.90	20.90	20.90
- CO_2	0.00	0.00	0.00
- CO	0.00	0.00	0.00
Isokenetic Variation			
- %	100.9	99.8	100.4

TABLE 12.0

SUMMARY BLENDER AREA BAGHOUSE

METHYLENE DIPHENYL DIISOCYANATE

Parameter	Test One	Test Two	Average
Test Period			
- Date	95/04/03	95/04/04	
- Time	17:41-18:54	9:32-10:48	
Average Gas Temperature			
- °C	23.6	24.2	23.9
Average Gas Velocity			
- m/s	18.51	18.86	18.68
Stream Flow Rate			
- DSm^3/hr	29,723	30,076	29,900
Water Content			
- mole %	0.72	0.07	0.40
MDI			
- mg/DSm^3	0.275	0.026	0.150
- mg/s	2.274	0.213	1.244
- KG/hr	0.008	7.7E10-4	0.004
Flue Gas Composition (% wet)			
- O_2	20.90	20.90	20.90
- CO_2	0.00	0.00	0.00
- CO	0.00	0.00	0.00
Isokenetic Variation			
- %	101.8	100.0	100.9

APPENDIX A

FIELD DATA - QA/QC SHEETS

CORE DRYER

PARTICULATE/CONDENSIBLE ORGANICS EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC	DATE : 95.04.05
JOBSITE : DAWSON CREEK	RUN : T1CD-PCO
REF.No. : 5216618	LOC. : CORE DRYER

RUN TIME : 17:34 TO 18:44

PARTICULATE/CONDENSIBLE ORGANICS CONCENTRATION

62.2 mg/DSm3	0.0272 gr/DScf
38.8 mg/Am3	0.0170 gr/Acf

PARTICULATE/CONDENSIBLE ORGANICS EMISSION RATE

1.076 g/s	8.55 lb/hr

SAMPLE GAS VOLUME	1.2610 DSm3	44.527 DScf
AVERAGE ISOKINETICITY	102.4 %	

FLUE GAS CHARACTERISTICS

MOISTURE	22.37 %	
TEMPERATURE	61.2 deg C	142.2 deg F
FLOW	62345 DSm3/hr	36695 DScfm
	99868 Am3/hr	58780 Acfm
VELOCITY	18.77 m/s	3695.9 fpm

GAS ANALYSIS	O2	18.00 %
	CO2	2.25 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	29.19 g/gmole D.B.
	MOL. WT.	26.69 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

PARTICULATE/CONDENSIBLE ORGANICS EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.05
RUN : T1CD-PCO
LOC. : CORE DRYER

STACK HEIGHT	15.2 m	50.0 ft.
STACK DIAMETER	1.37 m	54.0 in.
STACK AREA	1.478 m2	15.90 sq.ft.
BAROMETRIC PRESSURE	92.8 kPa	27.40 in.Hg
STATIC PRESSURE	137.0 Pa	0.55 in.H2O
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.799	
METER CORRECTION FACTOR	1.005	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	162.4 g
CONDENSATION IN IMPINGER 2	74.5 g
CONDENSATION IN IMPINGER 3	18.7 g
SILICA GEL WEIGHT GAIN	16.3 g
TOTAL MOISTURE GAIN	271.9 g

PARTICULATE/CONDENSIBLE ORGANICS COLLECTION

FILTER PARTICULATE/CONDENSIBLE ORGANICS
0.0489 g

WASHINGS PARTICULATE/CONDENSIBLE ORGANICS
0.0000 g

IMPINGER PARTICULATE/CONDENSIBLE ORGANICS
0.0296 g

TOTAL PARTICULATE/CONDENSIBLE ORGANICS
0.0785 g

TOTAL SAMPLING TIME 60.0 min.

PARTICULATE/CONDENSIBLE ORGANICS EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.05
RUN : T1CD-PCO
LOC. : CORE DRYER

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H2O	ORIF. PRES. in.H2O	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	140	1.000	2.00	156.23	51	272	251	50	4.0	1.4	103.3
2	3.0	140	1.200	2.20	158.59	52	269	257	48	4.5	4.4	100.6
3	6.0	142	1.200	2.30	161.11	53	269	252	49	4.5	7.9	102.5
4	9.0	142	1.200	2.30	163.68	55	268	260	51	5.0	12.2	101.7
5	12.0	142	1.150	2.20	166.24	56	268	258	54	5.0	18.5	100.5
6	15.0	142	1.150	2.20	168.72	58	268	256	53	5.0	35.5	100.5
7	18.0	143	0.980	1.90	171.21	59	268	258	54	5.0	41.8	100.8
8	21.0	142	0.930	1.80	173.52	60	268	261	53	4.5	46.1	101.3
9	24.0	141	0.890	1.80	175.79	62	268	257	51	4.0	49.6	101.8
10	27.0	139	0.750	1.50	178.03	63	270	256	50	4.0	52.6	100.9
	30.0				180.08							
TRAVERSE NO. 2												
1	0.0	140	0.880	1.80	180.34	55	271	227	51	5.0	1.4	106.0
2	3.0	140	0.940	1.85	182.63	57	268	232	50	5.0	4.4	101.7
3	6.0	142	0.970	1.95	184.91	58	266	230	49	5.0	7.9	102.8
4	9.0	143	0.980	2.05	187.25	59	266	240	48	5.0	12.2	105.2
5	12.0	144	1.000	2.05	189.66	59	265	245	48	5.0	18.5	103.7
6	15.0	144	1.050	2.15	192.06	59	259	252	49	5.5	35.5	104.7
7	18.0	145	1.050	2.15	194.54	59	266	236	50	6.0	41.8	103.1
8	21.0	145	0.970	1.95	196.98	59	266	241	50	6.0	46.1	102.4
9	24.0	143	0.950	1.90	199.31	59	266	248	50	5.5	49.6	101.1
10	27.0	144	0.700	1.40	201.59	58	266	249	50	5.0	52.6	104.4
	30.0				203.61							
		142	0.992	1.97		57	267	248	50	4.9		102.4

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT Louisiana Pacific
CITY PROV. Dawson Creek B.C
PROJECT # 5216188
TEST T1 D-CO
SAMPLE LOCATION Core Dryer
DATE 95.04.05
START TIME 17:34
FINISH TIME 18:44
BAROMETRIC PRESS.(in Hg) 27.4
STACK PRESS.(in H_2O) 0.55
PITOT COEFFICIENT 0.799
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0054
STACK HEIGHT(ft) 50
STACK DIAMETER(in) 54
LENGTH X WIDTH — X —
CO2(%) 2.25 O2(%) 18
CO(ppm) — OTHER —

IMPINGER NET 1 (g) 162.4
IMPINGER NET 2 (g) 74.5
IMPINGER NET 3 (g) 18.7
IMPINGER NET 4 (g) 16.3
IMPINGER NET 5 (g)
IMPINGER NET 6 (g)

NET FILTER WT.(g) —
NET PROBE WASH WT.(g) —
IMP.RESIDUE WT.(g) —
FILTER # —

METER BOX ID T4- Tor
PROBE ID T2, 7' Tor
NOZZLE ID 8-2 Ver
OTHER
EQUIPMENT COMMENTS

SAMPLING COMMENTS

PROCESS RATE
CONTROL EQUIP. OPERATION
PROCESS COMMENTS

John Lennartz — SIGNATURE
95.04.05 — DATE

Moisture Analysis Data Sheet

Project #: 5216618 ~~Louisiana Pacific~~ Client Louisiana Pacific Test: TICD-Co

Test Date: April 5/95 Sample Location: Core Dryer

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	697.2	534.8		162.4
Impinger 2	678.1	603.6		74.5
Impinger 3	514.9	496.2		18.7
Impinger 4				
Impinger 5				
Silica gel impinger	798.7 ~~797.4~~ 8	782.4		16.3

H_2O ~ 22%

Net Total Condensate 271.9 (g)

Signature

April 5/95
Date

static = 0

CO_2 = 2.5 % @ 17:42
27.0 17:57

Sampling Trains Data Sheet

Client LOUISIANA PACIFIC Project # 5216619 Sample Loc. CORE DRYER STACK Operators JL/GT Date 95/04/05

Run # ~~TID-F~~ TID-CO Traverse # 1 (North) Traverse Direction OUT Start Time 17:34 Finish Time 18:04

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.0	2.06		156.23	140	272	251	50		50	51	4
2	3		1.2	2.2	158.56	158.59	140	269	257	48		53	50	4.5
3	6		1.2	2.3	161.15	161.11	142	269	252	48		56	50	4.5
4	9		1.2	2.3	163.67	163.68	142	268	260	51		59	51	5
5	12		1.15	2.2		166.24	142	268	258	54		60	51	5
6	15		1.15	2.2	168.74	168.72	142	268	256	53		64	51	5
7	18		0.98	1.9	171.27	171.21	143	263	258	54		66	51	5
8	21		0.93	1.8	173.57	173.52	142	268	261	53		68	52	4.5
9	24		0.89	1.8	175.82	175.79	141	268	257	51		70	53	4
10	27		0.75	1.5	178.04	178.03	139	270	256	50		72	54	4
	30				180.10	180.075								

Pre test leak check: Rate (cfm) 0.008 at 15 inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.003 at 8 inches Hg (Vacuum)

K value calculated by _____ checked by _____

CO_2 = 1% @ 18:19
1.5% @ 18:37

Sampling Trains Data Sheet

Client LOUISIANA PACIFIC - Project # 5U6418 Sample Loc. CORE DRYER STACK Operators JL/GT Date 95/04/05

Run # TID-CO Traverse # 2(WEST) Traverse Direction OUT Start Time 18:14 Finish Time 18:44

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		0.88	1.3		180.335	140	271	227	51		56	53	5
2	3		0.94	1.85	182.57	182.63	140	268	232	50		60	53	5
3	6		0.97	1.95	184.94	184.91	142	266	230	49		62	53	5
4	9		0.98	2.05	187.26	187.25	143	266	240	48		64	53	5
5	12		1.0	2.05	189.61	189.66	144	265	245	48		65	53	5
6	15		1.05	2.15	192.04	192.06	144	259	252	49		65	52	5.5
7	18		1.05	2.15	194.50	194.54	145	266	236	50		65	52	6
8	21		0.97	1.95	196.98	196.98	145	266	241	50		65	52	6
9	24		0.95	1.9	199.33	199.31	143	266	248	50		65	52	5.5
10	27		0.70	1.4	201.63	201.59	144	266	249	50		64	51	5
	30					203.61								

Pre test leak check: Rate (cfm) 0.006 at 10 inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.014 at 8 inches Hg (Vacuum)

K value calculated by _____ checked by _____

QA/QC CHECKLIST
METHOD 5/TFACE METALS AND MODIFIED METHOD 5 SAMPLING

1.0 PRETEST TRAIN ASSEMBLY/FINAL PREPARATION

PROJECT NO. 5216618 CLIENT LOUISIANA PACIFIC TEST(S) T1/T2D-CO
DATE(S). 95.04.05/06 SAMPLE LOCATION
OPERATOR(S) JL/GT
Sampling Method (eg. MOE 5) EPA M202
Modifications to standard method NONE

Meter box TEAM #4 - TOR Probe T2, 7' - TOR
Equipment identity matches pretest calibration list? ✓
Probe nozzle material: S.STEEL
cleaned according to sampling protocol? ✓
undamaged ✓
Probe liner material: QUARTZ
cleaned according to sampling protocol? ✓
heated? ✓ entire length? ✓ temperature 250°F
Pitot tube: Type S ✓ Other
properly attached to probe (no interference with nozzle?) ✓
modifications NONE
pitot tube coefficient 0.799
Pitot tube connected to: inclined manometer ✓
or magnehelic gauge — range — division —
pitot lines checked for leaks? ✓ plugging? ✓
Meter box leveled? ✓ pitot pressure gauge zeroed?
orifice pressure gauge zeroed? ✓
Gas temperature sensor: thermocouple? ✓ type K
temperature sensor checked against ambient temp.? ✓
Filter holder: borosilicate glass ✓ other
frit material: teflon ✓ borosilicate glass
other
heated? ✓ temperature 250°F
cleaned according to sampling protocol? ✓
filter holder assembled correctly? ✓
Filter type : 'AE' GLASS FIBRE
filters checked visually for irregularities? ✓
filters properly centered? ✓ labelled? NO
Recent calibration of orifice meter dry gas meter ✓
pitot tubes ✓ magnehelic gauges —
thermometers and thermocouples? ✓ nozzles ✓
Is gas meter calibration temperature compensated? NO
meter temp. 45°F

QA/QC CHECKLIST
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

XAD resin trap used NO glassware proofed? NO
Impinger train: number of impingers 4
cleaned according to sampling protocol? ✓
contents: 1st 100mL DI 2nd 100mL DI 3rd EMPTY
4th SIL GEL 5th _____ 6th _____
impinger weights recorded? ✓
impingers properly assembled? ✓
cooling system: ICE / WATER proper connections ✓
modifications: NONE
grease used on joints: NO kind of grease —
Barometric pressure measured? ~~YES~~ source of data? ANEROID
Was preliminary velocity profile performed? ✓
Avg.delta P 1.0 Max. delta P 1.2 static 0.5
Avg. Temp. 145
Estimated moisture content % 19 how estimated? PREVIOUS DATA
Estimated O2 % 18 CO2 % 2 CO % _____ SO2 % _____
how estimated? PREVIOUS DATA
Has an "isokinetic sheet" been completed? ✓
Nozzle size properly selected? ✓ nozzle diameter 0.24
K factor _____
nozzle properly attached to probe (correct orientation) ✓
Number of sampling points per traverse from Source Test Code 10
number to be used 10
probe markings correct? ✓
Length of sampling time per point desired 3
number to be used 3
Leak test performed before start of sampling? ✓
rate <0.02 cfm @ 15 in Hg

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

2.0 SAMPLING

All openings of sampling train sealed (pretest & posttest)? ✓

Leak performed before start of sampling? ✓
<0.02 cfm @ 15 in Hg.

Sampling train traversing technique:
- Is nozzle sealed when probe in stack with pump off? ✓
- Is care taken to avoid scraping nipple of stack wall? ✓
- Is an effective seal made around probe at port opening? ✓
- Is probe seal made without disturbing flow inside stack? ✓
- Is probe moved to each point at the proper time? ✓
- Is probe marking system adequate to locate each point? ✓
- Was pitot tube kept parallel to stack wall at each point? ✓
- If probe is disconnected from filter holder with probe in the stack on a negative pressure source how is particulate matter in the probe prevented from being sucked back into the stack? NA
- If filters are changed during a run was there any pariculate loss? NA

Meterbox operation:
- Is data recorded in a permanent manner? ✓
- are data sheets complete? ✓
- Average time to reach isokinetic rate at each point ✓
- Are velocity pressures read and recorded accurately? ✓

Leak test performed at completion of test? <0.02 cfm @ 15 in Hg

Probe, filter holder, impingers sealed adequately after test? ____

Gas analysis from stack? ✓ other? ____
- from fyrites? ✓ integrated bag? ____ orsat? ____
- continuous gas analysers? —
- models: —

Approximate stack temperature 145 gas sample volume —

First 8 velocity pressures measured —

Percent isokinetic calculated ____

Data forms completed and data recorded properly ✓

General comment on sampling techniques ✓

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

3.0 SAMPLE RECOVERY

General environment - clean up area CLEAN ROOM @ PLANT
Brushes: nylon bristle _____ other TEFLON
cleaned according to sampling protocol? ✓
Wash bottles: glass _____ polyethylene _____ other TEFLON
cleaned according to sampling protocol? ✓
Storage containers: borosilicate glass ✓ other _____
cleaned according to sampling protocol? ✓
cap material TEFLON leak free? ✓
Petri dishes: plastic — other GLASS
cleaned according to sampling protocol? ✓
Graduated cylinder: borosilicate glass — other —
Subdivisions of graduated cylinder < 2 ml? —
cleaned according to sampling protocol? —
Balance type TRIPLE BEAM calibrated (AUDIT)
Probe allowed to cool sufficiently? ✓
Probe and sample train openins sealed? ✓
Silica gel colour: run 1 1/2 BLUE run 2 _____ run 3 _____
weighed? ✓ run 1 _____ run 2 _____ run 3 _____
Probe handling: Acetone rinses ✓ other —
Particulate recovery: probe nozzle ✓ probe fitting ✓
probe liner ✓ front half of filter holder ✓
Blanks collected: reagent(s) _____
acetone ✓ DI water ✓ other Meoh
Impinger rinses: DI _____ other Meoh
Samples labelled and stored properly? ✓
Liquid levels marked? ✓
Filter handling: tweezers used? ✓ surgical gloves —
Any particulate lost? Probe NO Filter NO
Description of particulate DARK BROWN
APPEARS TO BE HEAVY CAKE.

John Lennartz
Name

John Lennartz
Signature

PARTICULATE/CONDENSIBLE ORGANICS EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.06
RUN : T2CD-PCO
LOC. : CORE DRYER

RUN TIME : 13:22 TO 14:29

PARTICULATE/CONDENSIBLE ORGANICS CONCENTRATION

65.9 mg/DSm3	0.0288 gr/DScf
40.5 mg/Am3	0.0177 gr/Acf

PARTICULATE/CONDENSIBLE ORGANICS EMISSION RATE

1.142 g/s	9.06 lb/hr

SAMPLE GAS VOLUME	1.2770 DSm3	45.091 DScf
AVERAGE ISOKINETICITY	103.7 %	

FLUE GAS CHARACTERISTICS

MOISTURE	23.20 %	
TEMPERATURE	61.5 deg C	142.7 deg F
FLOW	62348 DSm3/hr	36697 DScfm
	101424 Am3/hr	59696 Acfm
VELOCITY	19.07 m/s	3753.5 fpm

GAS ANALYSIS	O2	18.00 %
	CO2	2.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	29.15 g/gmole D.B.
	MOL. WT.	26.57 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

PARTICULATE/CONDENSIBLE ORGANICS EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.06
RUN : T2CD-PCO
LOC. : CORE DRYER

STACK HEIGHT	15.2 m	50.0 ft.
STACK DIAMETER	1.37 m	54.0 in.
STACK AREA	1.478 m2	15.90 sq.ft.
BAROMETRIC PRESSURE	92.5 kPa	27.30 in.Hg
STATIC PRESSURE	124.5 Pa	0.50 in.H20
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.799	
METER CORRECTION FACTOR	1.005	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	155.3 g
CONDENSATION IN IMPINGER 2	93.4 g
CONDENSATION IN IMPINGER 3	20.9 g
SILICA GEL WEIGHT GAIN	19.0 g
TOTAL MOISTURE GAIN	288.6 g

PARTICULATE/CONDENSIBLE ORGANICS COLLECTION

FILTER PARTICULATE/CONDENSIBLE ORGANICS
0.0430 g

WASHINGS PARTICULATE/CONDENSIBLE ORGANICS
0.0000 g

IMPINGER PARTICULATE/CONDENSIBLE ORGANICS
0.0412 g

TOTAL PARTICULATE/CONDENSIBLE ORGANICS
0.0842 g

TOTAL SAMPLING TIME 60.0 min.

PARTICULATE/CONDENSIBLE ORGANICS EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.06
RUN : T2CD-PCO
LOC. : CORE DRYER

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H2O	ORIF. PRES. in.H2O	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	144	0.910	1.80	301.14	50	264	230	44	4.0	1.4	107.1
2	3.0	143	0.970	1.95	303.45	51	266	228	45	4.0	4.4	104.0
3	6.0	145	0.970	1.95	305.77	53	267	225	47	4.0	7.9	102.8
4	9.0	144	1.000	2.05	308.07	55	267	230	48	4.5	12.2	105.2
5	12.0	144	1.050	2.15	310.47	57	267	228	50	4.5	18.5	105.4
6	15.0	143	1.100	2.20	312.94	58	261	224	56	5.0	35.5	104.4
7	18.0	143	1.100	2.20	315.45	59	260	226	58	5.0	41.8	103.6
8	21.0	144	1.000	2.05	317.95	60	259	225	55	4.5	46.1	104.2
9	24.0	143	0.940	1.85	320.35	61	259	221	55	4.5	49.6	102.8
10	27.0	140	0.700	1.45	322.65	61	259	226	53	4.0	52.6	104.1
	30.0				324.67							
TRAVERSE NO. 2												
1	0.0	142	1.050	2.15	324.84	55	260	230	49	5.0	1.4	108.9
2	3.0	144	1.100	2.20	327.39	58	260	226	50	5.0	4.4	104.8
3	6.0	144	1.100	2.20	329.91	60	259	229	51	5.0	7.9	102.8
4	9.0	144	1.200	2.40	332.39	61	259	223	49	5.0	12.2	103.3
5	12.0	143	1.200	2.40	335.00	62	259	226	49	5.0	18.5	100.7
6	15.0	143	1.100	2.20	337.55	63	259	220	50	5.0	35.5	102.9
7	18.0	142	1.050	2.15	340.05	63	259	225	50	5.0	41.8	102.2
8	21.0	142	1.050	2.15	342.48	64	259	227	53	5.0	46.1	101.7
9	24.0	138	0.920	1.80	344.90	64	258	228	50	5.0	49.6	102.8
10	27.0	139	0.840	1.60	347.20	64	260	225	50	5.0	52.6	100.2
	30.0				349.34							
		143	1.014	2.05		59	261	226	51	4.7		103.7

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT Louisiana Pacific
CITY PROV. Dawson Creek, BC
PROJECT # 5216188
TEST T2D-CO
SAMPLE LOCATION Core Dryer
DATE 95.04.06
START TIME 13:22
FINISH TIME 14:29
BAROMETRIC PRESS.(in Hg) 27.3
STACK PRESS.(in H_2O) 0.5
PITOT COEFFICIENT 0.799
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0054
STACK HEIGHT(ft) 50
STACK DIAMETER(in) 54
LENGTH X WIDTH — X —
CO2(%) 2 O2(%) 18
CO(ppm) — OTHER —

IMPINGER NET 1 (g) 155.3
NET FILTER WT.(g) —
IMPINGER NET 2 (g) 93.4
NET PROBE WASH WT.(g) —
IMPINGER NET 3 (g) 20.9
IMP.RESIDUE WT.(g) —
IMPINGER NET 4 (g) 19.0
FILTER # —
IMPINGER NET 5 (g)
IMPINGER NET 6 (g)

METER BOX ID K4-Tor
PROBE ID T2, 7' Tor
NOZZLE ID 8-2 VCR
OTHER
EQUIPMENT COMMENTS

SAMPLING COMMENTS FILTER CRACKED BUT NO BREAK THRU APPARENT.

PROCESS RATE
CONTROL EQUIP. OPERATION
PROCESS COMMENTS

John Lennartz
SIGNATURE

95.04.06
DATE

Moisture Analysis Data Sheet

Project #: 5216618 Client LOUISIANA PACIFIC Test: T2CD-CO

Test Date: APRIL 6/95 Sample Location: CORE DRYER

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	709.9	554.6		155.3
Impinger 2	700.3	606.9		93.4
Impinger 3	517.8	496.9		20.9
Impinger 4				
Impinger 5				
Silica gel impinger	792.6	773.6		19

Net Total Condensate 288.6 (g)

Signature

April 6/95
Date

AMBIENT 44°F

Sampling Trains Data Sheet

Client Louisiana Pacific (Pacific) Project # 5246618 Sample Loc. COKE DRYER STACK Operators JL/GT Date 95/04/06

Run # T2-D-CO Traverse # 1 (WEST) Traverse Direction OUT Start Time 13:22 Finish Time 13:52

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		0.91	1.8		301.14	144	264	630	44		50	50	4
2	3		0.97	1.95	303.39	303.45	143	266	628	45		52	50	4
3	6		0.97	1.95	305.75	305.77	145	267	625	47		56	50	4
4	9		1.0	2.05	308.07	308.07	144	267	630	48		60	50	4.5
5	12		1.05	2.15	310.40	310.47	144	267	628	50		63	50	4.5
6	15		1.1	2.2	312.91	312.94	143	261	624	56		65	50	5
7	18		1.1	22	315.44	315.45	143	260	626	58		67	51	5
8	21		1.0	2.05	317.95	317.95	144	259	625	55		68	52	4.5
9	24		0.94	1.85	320.33	320.35	143	259	621	55		69	52	4.5
10	27		0.7	1.45	322.66	322.65	140	259	626	53		69	53	4
	30					324.67								

Pre test leak check: Rate (cfm) 0.006 at 16 inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.002 at 7 inches Hg (Vacuum)

K value calculated by [redacted] checked by [redacted]

static = 0.

Sampling Traine Data Sheet

Client Louisiana Pacific Project # 5216618 Sample Loc. CORE DRYER STACK Operators JL/GT Date 95/04/06

Run # T2D-CO Traverse # 2 (NORTH) Traverse Direction OUT Start Time 13:59 Finish Time 14:29

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.05	2.15		324.84	142	260	230	49		57	53	5
2	3		1.1	2.20	327.28	327.39	144	260	226	50		63	53	5
3	6		1.1	2.20	329.89	329.91	144	259	229	51		66	53	5
4	9		1.2	2.4	332.41	332.39	144	259	223	49		68	54	5
5	12		1.2	2.4	335.0	335.0	143	259	226	49		70	54	5
6	15		1.1	2.2	337.61	337.55	143	259	220	50		71	55	5
7	18		1.05	2.15	340.05	340.05	142	259	225	50		71	55	5
8	21		1.05	2.15	342.49	342.48	142	259	227	53		72	55	5
9	24		0.92	1.9	344.98	344.90	138	253	228	50		72	55	5
10	27		0.84	1.6	347.24	347.20	139	260	225	50		72	55	5
	30					349.34								

Pre test leak check: Rate (cfm) 0.002 at 7 inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.002 at 7 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.05
RUN : T1CD-F
LOC. : CORE DRYER

RUN TIME : 10:19 TO 12:35

FORMALDEHYDE CONCENTRATION	268.1 ug/DSm3	0.1172 gr/1000 DScf
	168.2 ug/Am3	0.0735 gr/1000 Acf
FORMALDEHYDE EMISSION RATE	4.683 mg/s	260.16 gr/hr
SAMPLE GAS VOLUME	1.2797 DSm3	45.186 DScf
AVERAGE ISOKINETICITY	103.0 %	

FLUE GAS CHARACTERISTICS

MOISTURE	22.13 %	
TEMPERATURE	60.6 deg C	141.1 deg F
FLOW	62875 DSm3/hr	37007 DScfm
	100208 Am3/hr	58981 Acfm
VELOCITY	18.84 m/s	3708.5 fpm

GAS ANALYSIS	O2	18.00 %
	CO2	2.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	29.15 g/gmole D.B.
	MOL. WT.	26.68 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.05
RUN : T1CD-F
LOC. : CORE DRYER

STACK HEIGHT	15.2 m	50.0 ft.
STACK DIAMETER	1.37 m	54.0 in.
STACK AREA	1.478 m2	15.90 sq.ft.
BAROMETRIC PRESSURE	92.8 kPa	27.40 in.Hg
STATIC PRESSURE	149.4 Pa	0.60 in.H2O
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.799	
METER CORRECTION FACTOR	1.005	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	111.4 g
CONDENSATION IN IMPINGER 2	99.3 g
CONDENSATION IN IMPINGER 3	35.2 g
SILICA GEL WEIGHT GAIN	26.2 g
TOTAL MOISTURE GAIN	272.1 g

FORMALDEHYDE COLLECTION

FILTER FORMALDEHYDE	0.0000 mg
WASHINGS FORMALDEHYDE	0.0000 mg
IMPINGER FORMALDEHYDE	0.3430 mg
TOTAL FORMALDEHYDE	0.3430 mg

TOTAL SAMPLING TIME 60.0 min.

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.05
RUN : T1CD-F
LOC. : CORE DRYER

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H2O	ORIF. PRES. in.H2O	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	144	0.800	1.50	59.39	42	269	270	43	4.0	1.4	101.9
2	3.0	144	0.870	2.00	61.44	43	258	253	42	4.0	4.4	110.6
3	6.0	144	0.910	2.00	63.70	44	258	263	45	4.0	7.9	106.5
4	9.0	145	0.960	2.00	66.05	46	258	252	48	4.0	12.2	104.8
5	12.0	142	0.970	2.00	68.37	46	259	253	50	4.0	18.5	105.3
6	15.0	142	1.200	2.30	70.72	48	257	254	51	4.0	35.5	99.6
7	18.0	142	1.200	2.40	73.20	48	258	254	53	4.0	41.8	106.0
8	21.0	141	1.200	2.40	75.84	49	257	254	55	4.0	46.1	103.0
9	24.0	141	1.150	2.30	78.41	49	257	249	54	4.0	49.6	98.1
10	27.0	139	1.100	2.30	80.81	50	258	260	54	4.0	52.6	97.5
	30.0				83.15							
TRAVERSE NO. 2												
1	0.0	141	0.950	1.80	83.43	47	261	254	48	4.0	1.4	102.9
2	3.0	140	0.980	2.00	85.71	47	259	259	60	4.0	4.4	103.9
3	6.0	138	0.980	2.00	88.05	49	258	259	60	4.0	7.9	102.9
4	9.0	135	1.000	2.10	90.38	47	263	253	60	4.0	12.2	103.8
5	12.0	142	1.050	2.20	92.75	47	261	265	60	4.0	18.5	110.9
6	15.0	142	1.100	2.20	95.33	48	261	266	60	4.0	35.5	103.9
7	18.0	142	1.100	2.20	97.81	50	262	259	60	4.0	41.8	101.1
8	21.0	144	0.950	1.80	100.23	51	262	261	60	4.0	46.1	100.5
9	24.0	141	0.880	1.60	102.47	53	263	263	60	4.0	49.6	98.1
10	27.0	132	0.750	1.40	104.59	54	262	264	60	4.0	52.6	99.8
	30.0				106.60							
		141	1.001	2.03		48	260	258	54	4.0		103.0

1/pm

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT Louisiana Pacific
CITY PROV. Dawson Creek BC
PROJECT # 5216188
TEST TID-F
SAMPLE LOCATION Core Dryer
DATE 95.04.05
START TIME 1019
FINISH TIME 1235
BAROMETRIC PRESS.(in Hg) 27.4
STACK PRESS.(in H_2O) +0.6
PITOT COEFFICIENT 0.799
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0054
STACK HEIGHT(ft) 50
STACK DIAMETER(in) 54
LENGTH X WIDTH — x —
CO2(%) 2 O2(%) 18
CO(ppm) _____ OTHER _____

IMPINGER NET 1 (g) 111.4
IMPINGER NET 2 (g) 99.3
IMPINGER NET 3 (g) 35.2
IMPINGER NET 4 (g) 26.2
IMPINGER NET 5 (g) _____
IMPINGER NET 6 (g) _____

NET FILTER WT.(g) —
NET PROBE WASH WT.(g) —
IMP.RESIDUE WT.(g) —
FILTER # —

METER BOX ID Team #4 – Tor
PROBE ID T2, 7' Tor
NOZZLE ID 8-2 VCR
OTHER _____
EQUIPMENT COMMENTS _____

SAMPLING COMMENTS Process Down for 1hr during meddle of test. Sampling stopped for this duration.

PROCESS RATE _____
CONTROL EQUIP. OPERATION _____
PROCESS COMMENTS _____

SIGNATURE

95.04.05
DATE

Moisture Analysis Data Sheet

Project #: 5216618 Client LOUISIANA PACIFIC Test: TICD-F

Test Date: APRIL 5/95 Sample Location: CORE DRYER

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	681.1	569.7		111.4
Impinger 2	740.5	641.2		99.3
Impinger 3	531.6	496.4		35.2
Impinger 4				
Impinger 5				
Silica gel impinger	828.8	802.6		26.2

Net Total Condensate 272.1 (g)

Signature

April 5/95
Date

CO_2

Sampling Trains Data Sheet

Client LOUISIANA PACIFIC Project # 526618 Sample Loc. CORE DRYER Operators JL/ET Date 95/04/05

Run # ~~TI-DEO~~ TID-F Traverse # 1 (North) Traverse Direction OUT Start Time 10:19 Finish Time 10:49

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		0.8	1.5		59.385	144	269	270	43		41	43	4
2	3		0.87	2.0	61.47	61.44	144	258	253	42		43	42	4
3	6		0.91	2.0	63.62	63.76	144	258	263	45		46	42	4
4	9		0.96	2.0	65.99	66.05	145	258	252	48		48	43	4
5	12		0.97	2.0	68.34	68.37	142	259	253	50		48	43	4
6	15		~~1.02~~ 1.2	2.3	70.67	70.72	142	257	254	51		51	44	4
7	18		1.2	2.4	73.23	73.20	142	258	254	53		52	44	4
8	21		1.2	2.4	75.76	75.84	141	257	254	55		53	44	4
9	24		1.15	2.3	78.40	78.41	141	257	249	54		53	45	4
10	27		1.1	2.3	80.91	80.81	139	258	260	54		54	45	4
	30				83.26	83.15								

Pre test leak check: Rate (cfm) 0.005 at 15 inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.004 at 8 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature

static +0.60

STOP @ 11:10 AS DEMER IS DOWN
RESTART @ 12:14

CO_2 = 2.5 @ 12:23
= 1.0 @ 12:30

Sampling Trains Data Sheet

Client LOUISIANA PACIFIC Project # 5216615 Sample Loc. CORE DRYER STA-12 Operators JL/GT Date 95/04/05

Run # TID-F Traverse # 2 (WEST) Traverse Direction OUT Start Time 11:07 Finish Time 12:35

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual JL	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		0.95	1.8		83.425	141	261	254	48		46	47	4
2	3		0.98	2.0	85.70	85.71	140	259	259	60		47	47	4
3	6		0.93	2.0	88.02	88.05	138	258	259			50	47	4
4	9		1.0	2.1	90.36	90.375	135	263	253			46	47	4
5	12		1.05	2.2	92.71	92.75	142	261	265			47	47	4
6	15		1.1	2.2	95.14	95.33	142	261	266			49	47	4
7	18		1.1	2.2	97.78	97.81	142	262	259			52	47	4
8	21		0.95	1.8	100.26	100.23	144	262	261			55	47	4
9	24		0.88	1.6	102.50	102.47	141	263	263			58	43	4
10	27		0.75	1.4	104.66	104.59	132	262	264			60	43	4
	30				106.61	106.60								

Pre test leak check: Rate (cfm) 0.004 at 15 inches Hg (Vacuum)

Post test leak check: Rate (cfm) ____ at ____ inches Hg (Vacuum)

K value calculated by ____ checked by ____

EXIT THERMOCOUPLE - NOT WORKING
KEEP IMPINGERS ICED & ASSUME 60°F

QA/QC CHECKLIST
METHOD 5/TFACE METALS AND MODIFIED METHOD 5 SAMPLING

1.0 PRETEST TRAIN ASSEMBLY/FINAL PREPARATION

PROJECT NO. 5216618 CLIENT Louisiana Pacific TEST(S) T1-T4D-F
DATE(S) 95.04.05/06 SAMPLE LOCATION CORE DRYER
OPERATOR(S) JL / GT
Sampling Method (eg. MOE 5) EPA 0011
Modifications to standard method NONE

Meter box T4- Tor Probe T2, 7' Tor
Equipment identity matches pretest calibration list? ✓
Probe nozzle material: S. STEEL
cleaned according to sampling protocol? ✓
undamaged ✓
Probe liner material: QUARTZ
cleaned according to sampling protocol? ✓
heated? ✓ entire length? ✓ temperature 250°F
Pitot tube: Type S ✓ Other
properly attached to probe (no interference with nozzle?) ✓
modifications NONE
pitot tube coefficient 0.799
Pitot tube connected to: inclined manometer ✓
or magnehelic gauge — range — division —
pitot lines checked for leaks? ✓ plugging? ✓
Meter box leveled? ✓ pitot pressure gauge zeroed? ✓
orifice pressure gauge zeroed? ✓
Gas temperature sensor: thermocouple? ✓ type K
temperature sensor checked against ambient temp.? ✓
Filter holder: borosilicate glass — other —
frit material: teflon — borosilicate glass —
other —
heated? — temperature —
cleaned according to sampling protocol? —
filter holder assembled correctly? —
Filter type : —
filters checked visually for irregularities? —
filters properly centered? — labelled? —
Recent calibration of orifice meter dry gas meter ✓
pitot tubes ✓ magnehelic gauges —
thermometers and thermocouples? ✓ nozzles ✓
Is gas meter calibration temperature compensated? NO
meter temp. 45°F

QA/QC CHECKLIST
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

XAD resin trap used NO glassware proofed? ✓
Impinger train: number of impingers 4
cleaned according to sampling protocol? ✓
contents: 1st 100mL DNPH 2nd 100mL DNPH 3rd EMPTY
4th SIL GEL 5th ____ 6th ____
impinger weights recorded? ✓
impingers properly assembled? ✓
cooling system: ICE/WATER proper connections ✓
modifications: NONE
grease used on joints: NO kind of grease —
Barometric pressure measured? ✓ source of data: ALMAND
Was preliminary velocity profile performed? ✓
Avg.delta P 1.0 Max. delta P 1.2 static 0.5
Avg. Temp. 145
Estimated moisture content % 19 how estimated? PREVIOUS DATA
Estimated O2 % 18 CO2 % 2 CO % ____ SO2 % ____
how estimated? PREVIOUS DATA
Has an "isokinetic sheet" been completed? ✓
Nozzle size properly selected? ✓ nozzle diameter 0.24
K factor ____
nozzle properly attached to probe (correct orientation) ✓
Number of sampling points per traverse from Source Test Code 10
number to be used 10
probe markings correct? ✓
Length of sampling time per point desired 3
number to be used 3
Leak test performed before start of sampling? ✓
rate <0.02 cfm @ 15 in Hg

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

2.0 SAMPLING

All openings of sampling train sealed (pretest & posttest)? ✓

Leak performed before start of sampling? ✓
<0.02 cfm @ 15 in Hg.

Sampling train traversing technique:
- Is nozzle sealed when probe in stack with pump off? ✓
- Is care taken to avoid scraping nipple of stack wall? ✓
- Is an effective seal made around probe at port opening? ✓
- Is probe seal made without disturbing flow inside stack? ✓
- Is probe moved to each point at the proper time? ✓
- Is probe marking system adequate to locate each point? ✓
- Was pitot tube kept parallel to stack wall at each point? ✓
- If probe is disconnected from filter holder with probe in the stack on a negative pressure source how is particulate matter in the probe prevented from being sucked back into the stack? NA
- If filters are changed during a run was there any pariculate loss? NA

Meterbox operation:
- Is data recorded in a permanent manner? ✓
- are data sheets complete? ✓
- Average time to reach isokinetic rate at each point 105
- Are velocity pressures read and recorded accurately? ✓

Leak test performed at completion of test? <0.02 cfm @ 10 in Hg

Probe, filter holder, impingers sealed adequately after test? ✓

Gas analysis from stack? ✓ other? ____

from fyrites? ✓ integrated bag? ____ orsat? ____

continuous gas analysers? ____

models: ____

Approximate stack temperature 145 gas sample volume ____

First 8 velocity pressures measured —

Percent isokinetic calculated —

Data forms completed and data recorded properly ✓

General comment on sampling techniques ✓

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

3.0 SAMPLE RECOVERY

General environment - clean up area CLEAN ROOM AT PLANT
Brushes: nylon bristle — other TEFLON
cleaned according to sampling protocol? ✓
Wash bottles: glass ____ polyethylene ✓ other TEFLON
cleaned according to sampling protocol? ✓
Storage containers: borosilicate glass ✓ other ____
cleaned according to sampling protocol? ✓
cap material TEFLON leak free? ✓
Petri dishes: plastic — other ____
cleaned according to sampling protocol? —
Graduated cylinder: borosilicate glass — other —
Subdivisions of graduated cylinder < 2 ml? —
cleaned according to sampling protocol? —
Balance type TRIPLE BEAM calibrated AUDIT
Probe allowed to cool sufficiently? ✓
Probe and sample train openins sealed? ✓
Silica gel colour: run 1 1/2 BLUE run 2 ____ run 3 ____
weighed? ✓ run 1 ____ run 2 ____ run 3 ____
Probe handling: Acetone rinses ____ other $MeCl_2$
Particulate recovery: probe nozzle — probe fitting —
probe liner — front half of filter holder —
Blanks collected: reagent(s) ____
acetone ____ DI water ____ other $MeCl_2$, DNPH
Impinger rinses: DI — other $MeCl_2$
Samples labelled and stored properly? ✓
Liquid levels marked? ✓
Filter handling: tweezers used? ✓ surgical gloves —
Any particulate lost? Probe — Filter —
Description of particulate —

John Lennartz
Name

Signature

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.05
RUN : T2CD-F
LOC. : CORE DRYER

RUN TIME : 14:01 TO 15:12

FORMALDEHYDE CONCENTRATION	263.3 ug/DSm3	0.1151 gr/1000 DScf
	166.6 ug/Am3	0.0728 gr/1000 Acf
FORMALDEHYDE EMISSION RATE	4.547 mg/s	252.61 gr/hr
SAMPLE GAS VOLUME	1.2612 DSm3	44.533 DScf
AVERAGE ISOKINETICITY	102.7 %	

FLUE GAS CHARACTERISTICS

MOISTURE	21.18 %	
TEMPERATURE	61.9 deg C	143.5 deg F
FLOW	62163 DSm3/hr	36588 DScfm
	98264 Am3/hr	57836 Acfm
VELOCITY	18.47 m/s	3636.5 fpm

GAS ANALYSIS	O2	18.00 %
	CO2	2.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	29.15 g/gmole D.B.
	MOL. WT.	26.79 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.05
RUN : T2CD-F
LOC. : CORE DRYER

STACK HEIGHT	15.2 m	50.0 ft.
STACK DIAMETER	1.37 m	54.0 in.
STACK AREA	1.478 m2	15.90 sq.ft.
BAROMETRIC PRESSURE	92.8 kPa	27.40 in.Hg
STATIC PRESSURE	156.9 Pa	0.63 in.H20
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.799	
METER CORRECTION FACTOR	1.005	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	147.8 g
CONDENSATION IN IMPINGER 2	66.2 g
CONDENSATION IN IMPINGER 3	18.8 g
SILICA GEL WEIGHT GAIN	20.8 g
TOTAL MOISTURE GAIN	253.6 g

FORMALDEHYDE COLLECTION

FILTER FORMALDEHYDE	0.0000 mg
WASHINGS FORMALDEHYDE	0.0000 mg
IMPINGER FORMALDEHYDE	0.3320 mg
TOTAL FORMALDEHYDE	0.3320 mg

TOTAL SAMPLING TIME 60.0 min.

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.05
RUN : T2CD-F
LOC. : CORE DRYER

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H2O	ORIF. PRES. in.H2O	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	141	0.860	1.60	107.88	52	273	245	60	4.0	1.4	98.5
2	3.0	143	0.860	1.60	110.00	54	271	250	60	4.0	4.4	97.8
3	6.0	142	0.970	2.00	112.11	56	269	257	60	4.0	7.9	101.8
4	9.0	144	1.000	2.15	114.45	58	269	255	60	5.0	12.2	105.5
5	12.0	144	1.050	2.20	116.92	60	269	261	60	5.0	18.5	104.3
6	15.0	142	1.050	2.20	119.43	62	268	262	60	5.0	35.5	103.8
7	18.0	143	1.100	2.30	121.94	63	267	269	60	5.0	41.8	102.5
8	21.0	150	1.100	2.40	124.48	65	268	260	60	5.5	46.1	106.0
9	24.0	150	0.950	2.00	127.10	66	268	265	60	5.5	49.6	105.1
10	27.0	146	0.760	1.60	129.52	66	267	260	60	5.0	52.6	102.8
	30.0				131.65							
TRAVERSE NO. 2												
1	0.0	141	1.000	2.05	131.82	59	273	268	60	5.0	1.4	102.5
2	3.0	144	1.050	2.15	134.23	62	271	263	60	5.0	4.4	104.7
3	6.0	144	1.050	2.15	136.76	64	270	263	60	5.0	7.9	101.9
4	9.0	143	1.100	2.25	139.23	66	268	267	60	5.5	12.2	104.3
5	12.0	143	1.100	2.25	141.83	67	269	267	60	5.5	18.5	103.7
6	15.0	143	1.000	2.05	144.42	68	269	265	60	5.5	35.5	101.8
7	18.0	144	0.950	1.90	146.85	68	269	263	60	5.5	41.8	102.7
8	21.0	141	0.920	1.80	149.24	69	268	265	60	5.0	46.1	97.5
9	24.0	143	0.870	1.80	151.48	70	268	263	60	5.0	49.6	102.0
10	27.0	138	0.600	1.30	153.76	70	269	263	60	5.0	52.6	104.4
	30.0				155.71							
		143	0.962	1.99		63	269	262	60	5.0		102.7

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT Louisiana Pacific
CITY PROV. Dawson Creek BC
PROJECT # 52161188
TEST T2D-F
SAMPLE LOCATION Core Dryer
DATE 95.04.05
START TIME 1401
FINISH TIME 15:12
BAROMETRIC PRESS.(in Hg) 27.4
STACK PRESS.(in H_2O) 0.63
PITOT COEFFICIENT 0.799
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0054
STACK HEIGHT(ft) 50
STACK DIAMETER(in) 54
LENGTH X WIDTH — X —
CO2(%) 2 O2(%) 18
CO(ppm) — OTHER —

IMPINGER NET 1 (g) 147.8
NET FILTER WT.(g) —
IMPINGER NET 2 (g) 66.2
NET PROBE WASH WT.(g) —
IMPINGER NET 3 (g) 18.8
IMP.RESIDUE WT.(g) —
IMPINGER NET 4 (g) 20.8
FILTER # —
IMPINGER NET 5 (g)
IMPINGER NET 6 (g)

METER BOX ID T4 - Tr
PROBE ID T2, 7' Tr
NOZZLE ID 8-2 Vcr
OTHER

EQUIPMENT COMMENTS

SAMPLING COMMENTS

PROCESS RATE
CONTROL EQUIP. OPERATION
PROCESS COMMENTS

SIGNATURE

95.04.05
DATE

Moisture Analysis Data Sheet

Project #: 5216618 Client LOUISIANA PACIFIC D.C. Test: T2CD-F

Test Date: APRIL 5/95 Sample Location: CORE DRYER

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	798.7	650.9		147.8
Impinger 2	664.2	598.0		66.2
Impinger 3	492.1	473.3		18.8
Impinger 4				
Impinger 5				
Silica gel impinger	806.1	785.3		20.8

Net Total Condensate 253.6 (g)

Signature

4/5/95
Date

CO_2 - 1.5 @ 14:06
3.5 @ 14:21

Sampling Trains Data Sheet

Client LOUISIANA PACIFIC - Project # 546618 Sample Loc. CORE DRYER STACK Operators JL/GT Date 95/04/05

Run # T2-DF Traverse # WEST(1) Traverse Direction SOUTH Start Time 14:01 Finish Time 14:31

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		0.86	1.6		107.88	141	273	245	60		51	52	4
2	3		0.86	1.6	110.04	110.00	143	271	250			56	52	4
3	6		0.97	2.0	112.16	112.11	142	269	257			59	52	4
4	9		1.0	2.15	114.41	114.45	144	269	255			63	53	5
5	12		1.05	2.2	116.78	116.92	144	269	261			67	53	5
6	15		1.05	2.2	119.31	119.43	142	268	262			69	54	5
7	18		1.1	2.3		121.94	143	267	269			71	55	5
8	21		1.1	2.4	124.44	124.43	150	268	260			73	56	5.5
9	24		0.95	2.0	127.03	127.10	150	268	265			74	57	5.5
10	27		0.76	1.6	129.47	129.52	144	267	260			75	57	5
	30				131.64	131.645								

Pre test leak check: Rate (cfm) 0.01 at 16 inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.003 at 9 inches Hg (Vacuum)

K value calculated by _____ checked by _____

CO_2 = 1.5 @ 14:48
3 @ 15:05

Sampling Trains Data Sheet

Client LOUISIANA PACIFIC Project # 5216618 Sample Loc. CORE DRYER STACK Operators JL/GT Date 95/04/05

Run # 72D-F Traverse # 2(NORTH) Traverse Direction OUT Start Time 14:42 Finish Time 15:12

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.0	2.05		131.82	141	273	268	60		60	58	5
2	3		1.05	2.15	134.26	134.23	144	271	263			66	58	5
3	6		1.05	2.15	136.73	136.76	144	270	263			69	58	5
4	9		1.1	2.25	139.26	139.23	143	268	267			73	59	5.5
5	12		1.1	2.25	141.78	141.83	143	269	267			75	59	5.5
6	15		1.0	2.05	144.38	144.42	143	269	265			76	60	5.5
7	18		0.95	1.9	146.86	146.85	144	269	263			76	60	5.5
8	21		0.92	1.8	149.22	149.24	141	268	265			77	60	5
9	24		0.87	1.8	151.58	151.48	143	268	263			78	61	5
10	27		0.6	1.3	153.75	153.76	138	269	263			78	62	5
	30				155.65	155.71								

Pre test leak check: Rate (cfm) 0.002 at 10 inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.002 at 10 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature [signature]

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.06
RUN : T3CD-F
LOC. : CORE DRYER

RUN TIME : 9:40 TO 10:48

FORMALDEHYDE CONCENTRATION	264.1 ug/DSm3	0.1154 gr/1000 DScf
	157.9 ug/Am3	0.0690 gr/1000 Acf
FORMALDEHYDE EMISSION RATE	4.397 mg/s	244.27 gr/hr
SAMPLE GAS VOLUME	1.2648 DSm3	44.662 DScf
AVERAGE ISOKINETICITY	106.8 %	

FLUE GAS CHARACTERISTICS

MOISTURE	24.72 %	
TEMPERATURE	64.1 deg C	147.4 deg F
FLOW	59923 DSm3/hr	35269 DScfm
	100254 Am3/hr	59008 Acfm
VELOCITY	18.85 m/s	3710.2 fpm

GAS ANALYSIS	O2	18.00 %
	CO2	2.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	29.15 g/gmole D.B.
	MOL. WT.	26.40 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.06
RUN : T3CD-F
LOC. : CORE DRYER

STACK HEIGHT	15.2 m	50.0 ft.
STACK DIAMETER	1.37 m	54.0 in.
STACK AREA	1.478 m2	15.90 sq.ft.
BAROMETRIC PRESSURE	92.5 kPa	27.30 in.Hg
STATIC PRESSURE	99.6 Pa	0.40 in.H20
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.799	
METER CORRECTION FACTOR	1.005	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	129.6 g
CONDENSATION IN IMPINGER 2	109.0 g
CONDENSATION IN IMPINGER 3	44.7 g
SILICA GEL WEIGHT GAIN	27.5 g
TOTAL MOISTURE GAIN	310.8 g

FORMALDEHYDE COLLECTION

FILTER FORMALDEHYDE	0.0000 mg
WASHINGS FORMALDEHYDE	0.0000 mg
IMPINGER FORMALDEHYDE	0.3340 mg
TOTAL FORMALDEHYDE	0.3340 mg

TOTAL SAMPLING TIME 60.0 min.

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.06
RUN : T3CD-F
LOC. : CORE DRYER

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H20	ORIF. PRES. in.H20	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	144	0.900	1.80	204.97	39	267	231	44	4.5	1.4	106.8
2	3.0	148	0.900	1.80	207.17	43	267	233	43	4.5	4.4	110.6
3	6.0	148	0.910	1.85	209.40	45	268	245	46	5.0	7.9	101.9
4	9.0	148	0.920	1.95	211.59	47	269	261	49	5.0	12.2	107.1
5	12.0	146	0.950	2.05	213.85	50	270	271	53	5.0	18.5	112.1
6	15.0	147	1.050	2.15	216.27	51	270	259	57	5.0	35.5	108.2
7	18.0	150	1.050	2.05	218.73	53	269	251	54	5.0	41.8	103.6
8	21.0	149	1.000	2.00	221.09	53	269	258	53	5.0	46.1	108.3
9	24.0	149	0.920	1.95	223.50	54	269	256	53	5.0	49.6	109.9
10	27.0	138	0.800	1.70	225.85	56	269	257	54	5.0	52.6	108.8
	30.0				228.05							
TRAVERSE NO. 2												
1	0.0	145	1.050	2.05	228.17	50	273	232	52	4.5	1.4	105.6
2	3.0	147	1.050	2.10	230.57	53	269	253	54	4.5	4.4	106.4
3	6.0	151	1.100	2.20	233.00	56	268	248	57	5.0	7.9	107.3
4	9.0	150	1.100	2.20	235.51	56	269	263	59	5.0	12.2	107.5
5	12.0	150	1.200	2.35	238.03	58	268	258	60	5.0	18.5	105.9
6	15.0	148	1.050	2.10	240.63	58	267	251	63	4.5	35.5	105.1
7	18.0	147	1.050	2.10	243.05	60	267	254	60	4.5	41.8	103.8
8	21.0	148	0.970	2.00	245.45	60	268	247	60	4.5	46.1	105.7
9	24.0	148	0.870	1.90	247.80	62	268	254	58	4.5	49.6	105.1
10	27.0	147	0.750	1.70	250.02	64	269	259	57	4.0	52.6	108.1
	30.0				252.15							
		147	0.977	2.00		53	269	252	54	4.8		106.8

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT Louisiana Pacific
CITY PROV. Dawson Creek, BC
PROJECT # 5216188
TEST T3-DF
SAMPLE LOCATION Core Dryer Stack
DATE 95.04.06
START TIME 9:40
FINISH TIME 10:48
BAROMETRIC PRESS.(in Hg) 27.3
STACK PRESS.(in H_2O) 0.4
PITOT COEFFICIENT 0.799
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0054
STACK HEIGHT(ft) 50
STACK DIAMETER(in) 54
LENGTH X WIDTH — X —
CO2(%) 2 O2(%) 18
CO(ppm) — OTHER —

IMPINGER NET 1 (g) 129.6
NET FILTER WT.(g) —
IMPINGER NET 2 (g) 109.0
NET PROBE WASH WT.(g) —
IMPINGER NET 3 (g) 44.7
IMP.RESIDUE WT.(g) —
IMPINGER NET 4 (g) 27.5
FILTER # —
IMPINGER NET 5 (g)
IMPINGER NET 6 (g)

METER BOX ID T4 - Tor
PROBE ID T2,7' - Tor
NOZZLE ID 8-2 Vcr
OTHER
EQUIPMENT COMMENTS

SAMPLING COMMENTS

PROCESS RATE
CONTROL EQUIP. OPERATION
PROCESS COMMENTS

John Lannaitz
SIGNATURE

95.04.05
DATE

Moisture Analysis Data Sheet

Project #: 5216618 Client LOUISIANA PACIFIC-DC Test: T3CD-F

Test Date: APRIL 6/95 Sample Location: CORE DRYER

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	710.7	581.1		129.6
Impinger 2	720.4	611.4		109.0
Impinger 3	525.3	480.6		44.7
Impinger 4				
Impinger 5				
Silica gel impinger	776.4	748.9		27.5

Net Total Condensate 310.8 (g)

Signature

4/6/95
Date

[redacted] STATIC [redacted] 0.4

AMBIENT = 39°F

Sampling Trains Data Sheet

Client LOUISIANA PACIFIC Project # 5216618 Sample Loc. CORE DRYER STACK Operators JL/GT Date 95/04/06

Run # T3D-F Traverse # 1 (WEST) Traverse Direction OUT Start Time 9:40 Finish Time 10:10

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0	0	0.9	1.8		204.97	144	267	231	44		38	39	4.5
2	3		0.9	1.8	207.18	207.17	148	267	233	43		46	39	4.5
3	6		0.91	1.85	209.38	209.46	148	268	245	46		50	39	5
4	9		0.92	1.95	211.69	211.59	148	269	261	49		53	40	5
5	12		0.95	2.05	213.83	213.85	146	270	271	53		58	41	5
6	15		1.05	2.15	216.12	216.27	147	270	259	57		60	42	5
7	18		1.05	2.05	218.66	218.73	150	269	251	54		62	44	5
8	21		1.0	2.0	221.12	221.09	149	269	258	53		62	44	5
9	24		0.92	1.95	223.47	223.50	149	269	256	53		63	45	5
10	27		0.80	1.70	225.79	225.85	138	269	257	54		65	47	5
	30				227.98	228.05								

Pre test leak check: Rate (cfm) 0.002 at 15 inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.001 at 7 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Sampling Trains Data Sheet

Client Louisiana Pacific - Project # 516618 Sample Loc. CORE DRYER STACK Operators JL/GT Date 95/04/06

Run # T3D-F Traverse # 2(NORTH) Traverse Direction OUT Start Time 10:18 Finish Time 10:48

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.05	2.05		228.17	145	273	252	52		51	48	4.5
2	3		1.05	2.10	230.61	230.57	147	269	253	54		58	48	4.5
3	6		1.1	2.20	233.01	233.0	151	269	258	57		62	49	5
4	9		1.1	2.20	235.50	235.51	150	269	263	59		63	49	5
5	12		1.2	2.35	238.01	238.03	150	268	258	60		65	50	5
6	15		1.05	2.1	240.64	240.63	148	267	257	63		66	50	4.5
7	18		1.05	2.1	243.07	243.05	147	267	254	60		68	51	4.5
8	21		0.97	2.0	245.49	245.45	148	268	257	60		69	51	4.5
9	24		0.87	1.9	247.80	247.80	148	268	254	58		71	52	4.5
10	27		0.75	1.7	250.02	250.02	147	269	259	57		73	54	4
	30				252.09	252.15								

Pre test leak check: Rate (cfm) 0.001 at 7 inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.001 at 7 inches Hg (Vacuum)

K value calculated by _____ checked by _____

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.06
RUN : T4CD-F
LOC. : CORE DRYER

RUN TIME : 11:23 TO 12:32

FORMALDEHYDE CONCENTRATION	371.3 ug/DSm3	0.1623 gr/1000 DScf
	220.9 ug/Am3	0.0965 gr/1000 Acf
FORMALDEHYDE EMISSION RATE	6.211 mg/s	345.05 gr/hr
SAMPLE GAS VOLUME	1.2794 DSm3	45.175 DScf
AVERAGE ISOKINETICITY	107.6 %	

FLUE GAS CHARACTERISTICS

MOISTURE	25.43 %	
TEMPERATURE	62.6 deg C	144.6 deg F
FLOW	60204 DSm3/hr	35435 DScfm
	101209 Am3/hr	59570 Acfm
VELOCITY	19.03 m/s	3745.5 fpm

GAS ANALYSIS	O2	18.00 %
	CO2	2.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	29.15 g/gmole D.B.
	MOL. WT.	26.32 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.06
RUN : T4CD-F
LOC. : CORE DRYER

STACK HEIGHT	15.2 m	50.0 ft.
STACK DIAMETER	1.37 m	54.0 in.
STACK AREA	1.478 m2	15.90 sq.ft.
BAROMETRIC PRESSURE	92.5 kPa	27.30 in.Hg
STATIC PRESSURE	99.6 Pa	0.40 in.H2O
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.799	
METER CORRECTION FACTOR	1.005	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	205.5 g
CONDENSATION IN IMPINGER 2	103.0 g
CONDENSATION IN IMPINGER 3	4.9 g
SILICA GEL WEIGHT GAIN	13.0 g
TOTAL MOISTURE GAIN	326.4 g

FORMALDEHYDE COLLECTION

FILTER FORMALDEHYDE	0.0000 mg
WASHINGS FORMALDEHYDE	0.0000 mg
IMPINGER FORMALDEHYDE	0.4750 mg
TOTAL FORMALDEHYDE	0.4750 mg

TOTAL SAMPLING TIME 60.0 min.

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.06
RUN : T4CD-F
LOC. : CORE DRYER

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H2O	ORIF. PRES. in.H2O	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	144	1.000	2.00	252.41	56	247	238	45	4.5	1.4	107.6
2	3.0	147	1.100	2.10	254.81	57	262	227	43	4.5	4.4	105.8
3	6.0	148	1.100	2.15	257.28	59	265	236	47	5.0	7.9	107.5
4	9.0	148	1.200	2.25	259.80	61	267	244	46	5.0	12.2	104.2
5	12.0	148	1.200	2.30	262.36	62	267	253	45	5.0	18.5	107.7
6	15.0	148	1.100	2.15	265.01	64	268	248	44	5.0	35.5	107.9
7	18.0	149	0.960	1.95	267.56	64	268	253	43	5.0	41.8	105.4
8	21.0	146	0.950	1.95	269.89	65	268	249	43	4.5	46.1	104.7
9	24.0	147	0.910	1.95	272.20	65	268	246	44	4.5	49.6	106.5
10	27.0	137	0.680	1.40	274.50	66	269	240	44	4.5	52.6	104.9
	30.0				276.48							
TRAVERSE NO. 2												
1	0.0	139	0.930	1.95	276.61	59	273	227	50	4.5	1.4	109.2
2	3.0	144	0.960	2.00	278.98	60	270	225	47	4.5	4.4	110.5
3	6.0	143	0.970	2.00	281.41	61	268	233	44	4.5	7.9	108.6
4	9.0	144	1.000	2.05	283.82	62	267	229	45	5.0	12.2	109.1
5	12.0	144	1.050	2.10	286.28	63	268	239	47	5.0	18.5	109.4
6	15.0	143	1.100	2.20	288.81	64	268	248	49	5.0	35.5	110.4
7	18.0	144	1.100	2.20	291.43	64	268	242	50	5.0	41.8	109.2
8	21.0	144	1.000	2.05	294.02	64	267	244	51	5.0	46.1	110.1
9	24.0	144	0.950	2.00	296.51	64	267	234	51	4.5	49.6	106.5
10	27.0	141	0.760	1.55	298.86	64	267	229	51	4.0	52.6	106.0
	30.0				300.96							
		145	0.997	2.01		62	267	239	46	4.7		107.6

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT Louisiana Pacific
CITY PROV. Dawson Creek, B.C.
PROJECT # 5216188
TEST T4D-F
SAMPLE LOCATION Core Dryer
DATE 95.04.06
START TIME 11:23
FINISH TIME 12:32
BAROMETRIC PRESS.(in Hg) 27.3
STACK PRESS.(in H_2O) 0.4
PITOT COEFFICIENT ~~1.0~~ 0.799
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0054
STACK HEIGHT(ft) 50
STACK DIAMETER(in) 54
LENGTH X WIDTH — x —
CO2(%) 2 O2(%) 18
CO(ppm) _____ OTHER _____

IMPINGER NET 1 (g) 205.5
NET FILTER WT.(g) —
IMPINGER NET 2 (g) 103.0
NET PROBE WASH WT.(g) —
IMPINGER NET 3 (g) 4.9
IMP.RESIDUE WT.(g) —
IMPINGER NET 4 (g) 13.0
FILTER # _____
IMPINGER NET 5 (g) _____
IMPINGER NET 6 (g) _____

METER BOX ID T4-TOR
PROBE ID T2,7'-TOR
NOZZLE ID B-2 Vcr
OTHER _____
EQUIPMENT COMMENTS _____

SAMPLING COMMENTS _____

PROCESS RATE _____
CONTROL EQUIP. OPERATION _____
PROCESS COMMENTS _____

John Lunnart
SIGNATURE

95.04.06
DATE

Moisture Analysis Data Sheet

Project #: 521668 Client LOUISIANA PACIFIC Test: T4CD-F

Test Date: APRIL 6/95 Sample Location: CORE DRYER

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	837.9	632.4		205.5
Impinger 2	708.0	605.0		103.0
Impinger 3	477.1	472.2		4.9
Impinger 4				
Impinger 5				
Silica gel impinger	800.2	787.2		13.0

Net Total Condensate 326.4 (g)

Signature

April 6/95
Date

Sampling Trains Data Sheet

Client Louisiana Pacific Project # 526618 Sample Loc. CORE DRYER STACK Operators JL/GT Date 95/04/06

Run # T4D-F Traverse # 1 (NORTH) Traverse Direction OUT Start Time 11:23 Finish Time 12:53

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.0	2.0		252.41	144	247	238	45		55	57	4.5
2	3		1.1	2.1	254.79	254.81	147	262	237	43		57	56	4.5
3	6		1.1	2.15	257.31	257.23	148	265	246	47		62	56	5
4	9		1.2	2.25	259.78	259.80	148	267	244	46		66	56	5
5	12		1.2	2.3	262.41	262.36	148	267	253	45		68	56	5
6	15		1.1	2.15	264.97	265.01	148	268	248	44		70	57	5
7	18		0.96	1.95	267.56	267.56	149	268	253	43		71	57	5
8	21		0.95	1.95	269.95	269.89	146	268	249	43		72	57	4.5
9	24		0.91	1.95	272.26	272.20	147	268	246	44		73	57	4.5
10	27		0.68	1.4	274.52	274.50	137	269	240	44		74	58	4.5
	30				~~276~~ 276.51	276.48								

Pre test leak check: Rate (cfm) 0.004 at 16 inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.001 at 7 inches Hg (Vacuum)

K value calculated by [redacted] checked by [redacted]

Amb

Sampling Trains Data Sheet

Client Louisiana Pacific Project # 5466.19 Sample Loc. CORE DRYER STACK Operators JL/GT Date 95/04/06

Run # T4D-F Traverse # 2 (WEST) Traverse Direction OUT Start Time 12:02 Finish Time 12:32

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		0.93	1.95		276.61	139	273	227	50		61	56	4.5
2	3		0.96	2.0	278.96	278.98	144	270	225	47		63	56	4.5
3	6		0.97	2.0	281.37	281.41	143	268	233	44		66	56	4.5
4	9		1.0	2.05	283.81	283.82	144	267	229	45		68	56	5
5	12		1.05	2.1	286.26	286.28	144	268	239	47		70	55	5
6	15		1.1	2.20	288.78	288.81	143	268	248	49		71	56	5
7	18		1.1	2.2	291.37	291.43	144	268	242	50		71	56	5
8	21		1.0	2.05	293.98	294.02	144	267	244	51		71	56	5
9	24		0.95	2.0	296.46	296.51	144	267	234	51		72	56	4.5
10	27		0.76	1.55	298.88	298.86	141	267	209	51		72	56	4
	30				300.93	300.96								

Pre test leak check: Rate (cfm) 0.001 at 7 inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.001 at 7 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature

PARTICULATE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.06
RUN : T1K-P
LOC. : KONUS

RUN TIME : 11:28 TO 13:12

PARTICULATE CONCENTRATION	137.2 mg/DSm3	0.0600 gr/DScf
	73.7 mg/Am3	0.0322 gr/Acf
@ 12% CO2	329.3 mg/DSm3	0.1439 gr/DScf
PARTICULATE EMISSION RATE	1.155 g/s	9.17 lb/hr
SAMPLE GAS VOLUME	1.3154 DSm3	46.449 DScf
AVERAGE ISOKINETICITY	98.3 %	

FLUE GAS CHARACTERISTICS

MOISTURE	8.21 %	
TEMPERATURE	184.4 deg C	364.0 deg F
FLOW	30296 DSm3/hr	17832 DScfm
	56427 Am3/hr	33212 Acfm
VELOCITY	8.59 m/s	1691.5 fpm

GAS ANALYSIS	O2	17.00 %
	CO2	5.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	29.59 g/gmole D.B.
	MOL. WT.	28.64 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

PARTICULATE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.06
RUN : T1K-P
LOC. : KONUS

STACK HEIGHT	18.3 m	60.0 ft.
STACK DIAMETER	1.52 m	60.0 in.
STACK AREA	1.824 m2	19.64 sq.ft.
BAROMETRIC PRESSURE	92.5 kPa	27.30 in.Hg
STATIC PRESSURE	39.8 Pa	0.16 in.H2O
NOZZLE DIAMETER	9.25 mm	0.3640 in.
PITOT COEFFICIENT	0.763	
METER CORRECTION FACTOR	1.006	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	50.7 g
CONDENSATION IN IMPINGER 2	21.8 g
CONDENSATION IN IMPINGER 3	3.7 g
SILICA GEL WEIGHT GAIN	11.8 g
TOTAL MOISTURE GAIN	88.0 g

PARTICULATE COLLECTION

FILTER PARTICULATE	0.1603 g
WASHINGS PARTICULATE	0.0202 g
IMPINGER PARTICULATE	0.0000 g
TOTAL PARTICULATE	0.1805 g

TOTAL SAMPLING TIME 72.0 min.

PARTICULATE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.06
RUN : T1K-P
LOC. : KONUS

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H20	ORIF. PRES. in.H20	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	371	0.300	2.70	814.00	48	243	245	38	2.0	1.0	102.0
2	2.0	372	0.300	2.70	815.80	49	242	246	38	2.0	2.6	98.4
3	4.0	376	0.240	2.20	817.54	49	248	245	38	2.0	4.5	101.2
4	6.0	377	0.240	2.20	819.14	50	244	245	38	2.0	6.5	99.9
5	8.0	378	0.250	2.30	820.72	51	246	245	38	2.0	8.8	100.8
6	10.0	378	0.230	2.20	822.35	52	246	245	39	2.0	11.3	101.7
7	12.0	378	0.230	2.20	823.93	53	243	245	39	2.0	14.2	100.1
8	14.0	378	0.210	2.00	825.49	54	246	245	39	2.0	17.8	101.3
9	16.0	377	0.200	2.00	827.00	54	243	246	39	2.0	22.9	101.6
10	18.0	377	0.170	1.60	828.48	55	248	244	40	2.0	37.1	98.7
11	20.0	373	0.130	1.20	829.81	56	243	246	41	2.0	42.2	99.7
12	22.0	371	0.130	1.20	830.99	56	247	244	42	2.0	45.8	97.8
13	24.0	371	0.150	1.40	832.15	57	246	246	42	2.0	48.7	98.8
14	26.0	370	0.150	1.40	833.41	58	244	246	43	2.0	51.2	98.6
15	28.0	368	0.140	1.20	834.67	58	248	245	43	2.0	53.5	95.4
16	30.0	365	0.100	1.00	835.85	59	243	245	44	2.0	55.5	104.8
17	32.0	358	0.110	1.00	836.95	59	248	244	44	2.0	57.4	98.5
18	34.0	288	0.090	0.80	838.04	60	246	244	44	2.0	59.0	94.4
	36.0				839.03							
TRAVERSE NO. 2												
1	0.0	364	0.120	1.10	839.23	59	243	245	37	2.0	1.0	99.9
2	2.0	365	0.140	1.20	840.38	60	244	244	35	2.0	2.6	94.9
3	4.0	370	0.170	1.60	841.56	60	246	245	35	2.0	4.5	98.2
4	6.0	370	0.170	1.60	842.90	60	248	247	35	2.0	6.5	99.5
5	8.0	370	0.170	1.60	844.26	60	242	246	35	2.0	8.8	98.1
6	10.0	370	0.160	1.50	845.60	61	247	246	35	2.0	11.3	97.2
7	12.0	371	0.160	1.50	846.89	61	246	247	36	2.0	14.2	98.7
8	14.0	371	0.160	1.50	848.20	61	244	247	37	2.0	17.8	98.7
9	16.0	370	0.140	1.20	849.51	62	249	246	37	2.0	22.9	94.7
10	18.0	371	0.180	1.70	850.69	62	243	246	38	2.0	37.1	97.9
11	20.0	372	0.200	1.80	852.07	63	248	246	38	2.0	42.2	96.9
12	22.0	372	0.230	2.10	853.51	63	245	246	39	4.0	45.8	97.8
13	24.0	370	0.220	2.00	855.07	63	245	246	40	4.0	48.7	98.0
14	26.0	368	0.240	2.20	856.60	64	249	247	40	4.0	51.2	98.5
15	28.0	366	0.220	2.00	858.21	64	243	247	41	4.0	53.5	96.9

PARTICULATE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.06
RUN : T1K-P
LOC. : KONUS

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H20	ORIF. PRES. in.H20	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
16	30.0	360	0.200	1.80	859.73	64	249	246	41	4.0	55.5	95.2
17	32.0	353	0.180	1.60	861.16	64	245	247	41	4.0	57.4	95.7
18	34.0	225	0.110	0.95	862.53	64	246	245	42	4.0	59.0	90.1
	36.0				863.63							
		364	0.170	1.67		59	245	246	39	2.4		98.3

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT LOUISIANA-PACIFIC
CITY PROV. DAWSON CREEK
PROJECT # 5216618
TEST TIK-P
SAMPLE LOCATION KONUS
DATE APR 6/95
START TIME 11:28
FINISH TIME 13:12
BAROMETRIC PRESS.(in Hg) 27.3
STACK PRESS.(in H_2O) 0.16
PITOT COEFFICIENT 0.763
NOZZLE DIAMETER(in) 0.364
GAS METER FACTOR 1.0057
STACK HEIGHT(ft) 60
STACK DIAMETER(in) 60
LENGTH X WIDTH / X /
CO2*(%) 5.0 O2(%)* 17.0
CO(ppm) / OTHER /

* BY INTEGRATED BAG OVER TEST PERIOD

IMPINGER NET 1 (g) 50.7
NET FILTER WT.(g)
IMPINGER NET 2 (g) 21.8
NET PROBE WASH WT.(g)
IMPINGER NET 3 (g) 3.7
IMP.RESIDUE WT.(g)
IMPINGER NET 4 (g) 11.8
FILTER #
IMPINGER NET 5 (g)
IMPINGER NET 6 (g)

METER BOX ID V#1
PROBE ID T1 7'
NOZZLE ID
OTHER
EQUIPMENT COMMENTS

SAMPLING COMMENTS

PROCESS RATE NORMAL
CONTROL EQUIP. OPERATION NORMAL
PROCESS COMMENTS KONUS DOWN AT 14:30 AND BACK UP AT 15:30

SIGNATURE

04/06/95
DATE

Moisture Analysis Data Sheet

Project #: 521668 Client LOUISIANA PACIFIC Test: TIK-P

Test Date: APRIL 6/95 Sample Location: KONUS

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	702.1	651.4		50.7
Impinger 2	631.7	609.9		21.8
Impinger 3	481.7	478.0		3.7
Impinger 4				
Impinger 5				
Silica gel impinger	821.1	809.3		11.8

Net Total Condensate 88.0 (g)

Signature

April 6/95
Date

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. KONUS Operators JM/MS Date 04/06/9

Run # TIKP Traverse # 1 Traverse Direction OUT Start Time 11:28 Finish Time

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		~~0.29~~ 0.30	2.70		814.00	371	243	245	38		49	46	2.0
2	2		0:30	2.70	815.80	815.80	372	242	246	38		50	47	2.0
3	4		0.24	2.20	817.60	817.54	376	248	245	38		51	47	2.0
4	6		0.24	2.20	819.15	819.14	377	244	245	38		52	47	2.0
5	8		0.25	2.30	820.75	820.72	378	246	245	38		54	48	2.0
6	10		0.23	2.20	822.37	822.35	378	246	245	39		55	48	2.0
7	12		0.23	2.20	823.93	823.93	378	243	245	39		57	49	2.0
8	14		0.21	2.00	825.51	825.49	378	246	245	39		58	49	2.0
9	16		0.20	2.00	827.00	827.00	377	243	246	39		59	49	2.0
10	18		0.17	1.60	828.47	828.48	377	248	244	40		60	50	2.0
11	20		0.13	1.20	829.84	829.81	373	243	246	42		61	50	2.0
12	22		0.13	1.20	830.00	830.99	371	247	244	42		61	51	2.0

Pre test leak check: Rate (cfm) 0.008 at 15 inches Hg (Vacuum)

Post test leak check: Rate (cfm) at inches Hg (Vacuum)

K value calculated by checked by

Signature

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. KONUS Operators JM/MS Date 04/06/05

Run # TIK-D Traverse # 1 Traverse Direction OUT Start Time / Finish Time 12:04

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
13	24		0.15	1.40	832.18	832.15	371	246	246	42		62	51	2.0
14	26		0.15	1.40	833.42	833.41	370	244	246	43		63	52	2.0
15	28		0.14	1.20	834.66	834.67	368	248	245	43		63	52	2.0
16	30		0.10	1.00	835.88	835.85	365	243	245	44		64	53	2.0
17	32		0.11	1.00	836.87	836.95	358	248	244	44		64	54	2.0
18	34		0.09	0.80	838.02	838.04	288	246	244	44		65	54	2.0
	36				839.01	839.03								

Pre test leak check: Rate (cfm) / at / inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.008 at 10 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

O_2 0% CO_2 3.5% CO_2 6.0%

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. KONUS Operators JM/MS Date 04/06/9

Run # TIK-P Traverse # 2 Traverse Direction OUT Start Time 12:36 Finish Time /

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		0.12	1.10	/	839.23	364	243	245	37	/	60	58	2.0
2	2		0.14	1.20	840.35	840.38	365	244	244	35	/	61	58	2.0
3	4		0.17	1.60	841.59	841.56	370	246	245	35	/	61	58	2.0
4	6		0.17	1.60	842.89	842.90	370	248	247	35	/	62	58	2.0
5	8		0.17	1.60	844.23	844.26	370	242	246	35	/	62	58	2.0
6	10		0.16	1.50	845.59	845.60	370	247	246	35	/	63	58	2.0
7	12		0.16	1.50	846.89	846.89	371	246	247	36	/	64	58	2.0
8	14		0.16	1.50	848.18	848.20	371	244	247	37	/	64	58	2.0
9	16		0.14	1.20	849.49	849.51	370	249	246	37	/	65	59	2.0
10	18		0.18	1.70	850.72	850.69	371	243	246	38	/	65	59	2.0
11	20		0.20	1.80	852.06	852.07	372	248	246	38	/	66	59	2.0
12	22		0.23	2.10	853.51	853.51	372	245	246	39	/	67	59	4.0

Pre test leak check: Rate (cfm) 0.01 at 10 inches Hg (Vacuum)

Post test leak check: Rate (cfm) / at / inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature JMC

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. KONUS Operators JM/MS Date 04/06/9

Run # TIKP Traverse # 2 Traverse Direction OUT Start Time / Finish Time 13:12

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
13	24		0.22	2.00	855.06	855.07	370	245	246	40		67	59	4.0
14	26		0.24	2.20	856.58	856.60	368	249	247	40		68	60	4.0
15	28		0.22	2.00	858.18	858.21	366	243	247	41		68	60	4.0
16	30		0.20	1.80	859.72	859.73	360	249	246	41		68	60	4.0
17	32		0.18	1.60	861.17	861.16	353	245	247	41		68	60	4.0
18	34		0.11	~~0.05~~ 0.95	862.53	862.53	225	246	245	42		68	60	4.0
	36				863.60	863.63								

Pre test leak check: Rate (cfm) / at / inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.012 at 10 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

b

QA/QC CHECKLIST
METHOD 5/TFACE METALS AND MODIFIED METHOD 5 SAMPLING

1.0 PRETEST TRAIN ASSEMBLY/FINAL PREPARATION

PROJECT NO. 521618 CLIENT LOUISIANA-PACIFIC TEST(S) T1 KP / T2KP
DATE(S) APR. 6/95 SAMPLE LOCATION KONUS
OPERATOR(S) JM/MS
Sampling Method (eg. MOE 5) US EPA 5
Modifications to standard method

Meter box V#1 Probe T1 7'
Equipment identity matches pretest calibration list? ✓
Probe nozzle material: SS
cleaned according to sampling protocol? ✓
undamaged ✓
Probe liner material: SS
cleaned according to sampling protocol? ✓
heated? ✓ entire length? ✓ temperature 250°F
Pitot tube: Type S ✓ Other —
properly attached to probe (no interference with nozzle?) ✓
modifications NONE
pitot tube coefficient 0.763
Pitot tube connected to: inclined manometer ✓
or magnehelic gauge — range — division —
pitot lines checked for leaks? ✓ plugging? ✓
Meter box leveled? ✓ pitot pressure gauge zeroed? ✓
orifice pressure gauge zeroed? ✓
Gas temperature sensor: thermocouple? ✓ type K
temperature sensor checked against ambient temp.? ✓
Filter holder: borosilicate glass ✓ other —
frit material: teflon ✓ borosilicate glass —
other —
heated? ✓ temperature 250°F
cleaned according to sampling protocol? ✓
filter holder assembled correctly? ✓
Filter type : GLASS-FIBER
filters checked visually for irregularities? ✓
filters properly centered? ✓ labelled? ✓
Recent calibration of orifice meter dry gas meter ✓
pitot tubes ✓ magnehelic gauges ✓
thermometers and thermocouples? ✓ nozzles ✓
Is gas meter calibration temperature compensated? NO
meter temp. —

QA/QC CHECKLIST
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

XAD resin trap used ——— glassware proofed? ———
Impinger train: number of impingers 4
cleaned according to sampling protocol? ✓
contents: 1st 100ml DI H2O 2nd 100ml DI H2O 3rd EMPTY
4th SILICA GEL 5th _____ 6th _____
impinger weights recorded? ✓
impingers properly assembled? ✓
cooling system: ✓ proper connections ✓
modifications: NONE
grease used on joints: SOME kind of grease SILICON GREASE
Barometric pressure measured? ✓ source of data? PORTABLE BAROMETER
Was preliminary velocity profile performed? ———
Avg.delta P _____ Max. delta P _____ static _____
Avg. Temp. _____
Estimated moisture content % 9.00 how estimated? PREVIOUS DATA
Estimated O2 % 15.0 CO2 % 6.0 CO % ——— SO2 % ———
how estimated? PREVIOUS DATA
Has an "isokinetic sheet" been completed? ✓
Nozzle size properly selected? ✓ nozzle diameter 0.364
K factor _____
nozzle properly attached to probe (correct orientation) ✓
Number of sampling points per traverse from Source Test Code 18
number to be used 18
probe markings correct? ✓
Length of sampling time per point desired 2.0 MIN.
number to be used 2.0 MIN
Leak test performed before start of sampling? ✓
rate <0.02 cfm @ 15 in Hg

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

2.0 SAMPLING

All openings of sampling train sealed (pretest & posttest)? ✓

Leak performed before start of sampling? ✓
<0.02 cfm @ 15 in Hg.

Sampling train traversing technique:
- Is nozzle sealed when probe in stack with pump off? ✓
- Is care taken to avoid scraping nipple of stack wall? ✓
- Is an effective seal made around probe at port opening? ✓
- Is probe seal made without disturbing flow inside stack? ✓
- Is probe moved to each point at the proper time? ✓
- Is probe marking system adequate to locate each point? ✓
- Was pitot tube kept parallel to stack wall at each point? ✓
- If probe is disconnected from filter holder with probe in the stack on a negative pressure source how is particulate matter in the probe prevented from being sucked back into the stack? _____
- If filters are changed during a run was there any pariculate loss? _____

Meterbox operation:
- Is data recorded in a permanent manner? ✓
- are data sheets complete? ✓
- Average time to reach isokinetic rate at each point 10 s.
- Are velocity pressures read and recorded accurately? ✓

Leak test performed at completion of test? <0.02 cfm @ 15 in Hg
Probe, filter holder, impingers sealed adequately after test? ✓
Gas analysis from stack? ✓ other? —
from fyrites? * ✓ integrated bag? * ✓ orsat? —
~~continuous gas analysers?~~ * FYRITES ON INTEGRATED BAG
models: _____
Approximate stack temperature 375°F gas sample volume ~50 ft³
First 8 velocity pressures measured ✓
Percent isokinetic calculated ✓
Data forms completed and data recorded properly ✓
General comment on sampling techniques ✓

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

3.0 SAMPLE RECOVERY

General environment - clean up area LAB AREA.
Brushes: nylon bristle — other TEFLON
cleaned according to sampling protocol? ✓
Wash bottles: glass — polyethylene — other TEFLON
cleaned according to sampling protocol? ✓
Storage containers: borosilicate glass ✓ other —
cleaned according to sampling protocol? ✓
cap material TEFLON leak free? ✓
Petri dishes: plastic — other GLASS
cleaned according to sampling protocol? ✓
Graduated cylinder: borosilicate glass — other —
Subdivisions of graduated cylinder < 2 ml? —
cleaned according to sampling protocol? —
Balance type TRIPLE BEAM calibrated ✓
Probe allowed to cool sufficiently? ✓
Probe and sample train openins sealed? ✓
Silica gel colour: run 1 ¼ PINK run 2 ½ PINK run 3 ____
weighed? run 1 ____ run 2 ____ run 3 ____
Probe handling: Acetone rinses ✓ other ____
Particulate recovery: probe nozzle ✓ probe fitting ✓
probe liner ✓ front half of filter holder ✓
Blanks collected: reagent(s) ✓
acetone ✓ DI water — other —
Impinger rinses: DI — other —
Samples labelled and stored properly? ✓
Liquid levels marked? ✓
Filter handling: tweezers used? ✓ surgical gloves ✓
Any particulate lost? Probe NO Filter NO
Description of particulate GRAY ASH.

JOHN McDONAUGH
Name

Signature

PARTICULATE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.06
RUN : T2K-P
LOC. : KONUS

RUN TIME : 15:43 TO 17:18

PARTICULATE CONCENTRATION	143.3 mg/DSm3	0.0626 gr/DScf
	76.4 mg/Am3	0.0334 gr/Acf
@ 12% CO2	344.0 mg/DSm3	0.1503 gr/DScf
PARTICULATE EMISSION RATE	1.185 g/s	9.40 lb/hr
SAMPLE GAS VOLUME	1.2906 DSm3	45.572 DScf
AVERAGE ISOKINETICITY	98.2 %	

FLUE GAS CHARACTERISTICS

MOISTURE	8.59 %	
TEMPERATURE	185.8 deg C	366.4 deg F
FLOW	29759 DSm3/hr	17515 DScfm
	55815 Am3/hr	32852 Acfm
VELOCITY	8.50 m/s	1673.1 fpm

GAS ANALYSIS	O2	17.00 %
	CO2	5.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	29.59 g/gmole D.B.
	MOL. WT.	28.60 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

PARTICULATE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.06
RUN : T2K-P
LOC. : KONUS

STACK HEIGHT	18.3 m	60.0 ft.
STACK DIAMETER	1.52 m	60.0 in.
STACK AREA	1.824 m2	19.64 sq.ft.
BAROMETRIC PRESSURE	92.5 kPa	27.30 in.Hg
STATIC PRESSURE	39.8 Pa	0.16 in.H2O
NOZZLE DIAMETER	9.25 mm	0.3640 in.
PITOT COEFFICIENT	0.763	
METER CORRECTION FACTOR	1.006	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	51.7 g
CONDENSATION IN IMPINGER 2	24.0 g
CONDENSATION IN IMPINGER 3	4.3 g
SILICA GEL WEIGHT GAIN	10.7 g
TOTAL MOISTURE GAIN	90.7 g

PARTICULATE COLLECTION

FILTER PARTICULATE	0.1464 g
WASHINGS PARTICULATE	0.0386 g
IMPINGER PARTICULATE	0.0000 g
TOTAL PARTICULATE	0.1850 g

TOTAL SAMPLING TIME 72.0 min.

PARTICULATE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.06
RUN : T2K-P
LOC. : KONUS

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H2O	ORIF. PRES. in.H2O	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	367	0.130	1.20	864.75	58	246	249	40	4.0	1.0	100.1
2	2.0	367	0.160	1.50	865.94	56	248	246	40	4.0	2.6	100.6
3	4.0	371	0.180	1.65	867.26	56	243	247	40	5.0	4.5	98.7
4	6.0	371	0.160	1.50	868.63	55	248	247	40	5.0	6.5	100.9
5	8.0	371	0.160	1.50	869.95	55	242	248	39	5.0	8.8	100.2
6	10.0	373	0.180	1.65	871.26	56	246	246	39	5.0	11.3	98.8
7	12.0	373	0.160	1.50	872.63	56	247	247	39	5.0	14.2	99.3
8	14.0	373	0.160	1.50	873.93	56	243	246	39	5.0	17.8	99.3
9	16.0	373	0.160	1.45	875.23	57	249	244	39	5.0	22.9	97.7
10	18.0	374	0.200	1.80	876.51	58	244	246	39	5.0	37.1	96.9
11	20.0	374	0.220	2.00	877.93	58	248	246	40	6.0	42.2	98.2
12	22.0	373	0.240	2.15	879.44	59	243	246	40	7.0	45.8	98.3
13	24.0	372	0.230	2.10	881.02	59	248	246	40	8.0	48.7	98.9
14	26.0	371	0.220	2.00	882.58	60	244	246	40	8.0	51.2	97.7
15	28.0	370	0.230	2.10	884.09	60	246	245	41	8.0	53.5	97.4
16	30.0	368	0.220	2.00	885.63	61	247	246	42	8.0	55.5	97.4
17	32.0	356	0.180	1.65	887.14	61	246	246	42	6.0	57.4	96.8
18	34.0	296	0.110	0.95	888.51	61	249	246	42	6.0	59.0	96.4
	36.0				889.62							
TRAVERSE NO. 2												
1	0.0	373	0.220	2.00	890.01	61	248	245	42	8.0	1.0	97.7
2	2.0	373	0.260	2.30	891.52	62	245	245	40	9.0	2.6	98.1
3	4.0	375	0.250	2.20	893.17	62	250	246	39	9.0	4.5	98.2
4	6.0	377	0.270	2.40	894.79	62	244	248	39	9.0	6.5	99.3
5	8.0	376	0.240	2.20	896.49	62	250	247	39	9.0	8.8	99.6
6	10.0	376	0.220	2.00	898.10	62	244	247	39	9.0	11.3	98.9
7	12.0	377	0.200	1.80	899.63	63	248	247	40	8.0	14.2	96.8
8	14.0	377	0.190	1.70	901.06	63	245	246	40	8.0	17.8	97.9
9	16.0	379	0.170	1.60	902.47	63	247	246	40	8.0	22.9	97.7
10	18.0	378	0.140	1.25	903.80	62	247	246	41	6.0	37.1	97.9
11	20.0	374	0.110	0.95	905.01	62	245	246	41	5.0	42.2	100.2
12	22.0	374	0.120	1.10	906.11	62	249	246	41	5.0	45.8	99.5
13	24.0	373	0.130	1.20	907.25	62	244	246	42	5.0	48.7	97.2
14	26.0	371	0.130	1.20	908.41	62	249	245	41	5.0	51.2	97.8
15	28.0	369	0.130	1.15	909.58	62	243	246	41	5.0	53.5	98.5

PARTICULATE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.06
RUN : T2K-P
LOC. : KONUS

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H20	ORIF. PRES. in.H20	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
16	30.0	365	0.110	0.95	910.76	62	248	245	42	5.0	55.5	98.7
17	32.0	346	0.100	0.90	911.85	63	243	246	41	5.0	57.4	96.5
18	34.0	263	0.080	0.70	912.88	63	245	245	41	5.0	59.0	93.2
	36.0				913.82							
		366	0.173	1.61		60	246	246	40	6.3		98.2

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT LOUISIANA-PACIFIC
CITY PROV. DAWSON CREEK
PROJECT # 5216618
TEST T2K-P
SAMPLE LOCATION KONUS
DATE 04/06/95
START TIME 15:43
FINISH TIME 17:18
BAROMETRIC PRESS.(in Hg) 27.3
STACK PRESS.(in H_2O) 0.16
PITOT COEFFICIENT 0.763
NOZZLE DIAMETER(in) 0.364
GAS METER FACTOR 1.0057
STACK HEIGHT(ft) 60
STACK DIAMETER(in) 60
LENGTH X WIDTH / X /
CO2(%) 5.0 O2(%) 17.0
CO(ppm) / OTHER /

IMPINGER NET 1 (g) 51.7
NET FILTER WT.(g)
IMPINGER NET 2 (g) 24.0
NET PROBE WASH WT.(g)
IMPINGER NET 3 (g) 4.3
IMP.RESIDUE WT.(g)
IMPINGER NET 4 (g) 10.7
FILTER #
IMPINGER NET 5 (g)
IMPINGER NET 6 (g)

METER BOX ID V#1
PROBE ID T1 7'
NOZZLE ID
OTHER
EQUIPMENT COMMENTS

SAMPLING COMMENTS

PROCESS RATE NORMAL
CONTROL EQUIP. OPERATION NORMAL
PROCESS COMMENTS

SIGNATURE

04/06/95
DATE

Moisture Analysis Data Sheet

Project #: 5216618 Client LOUISIANA - PACIFIC Test: ~~[illegible]~~ T2K-P

Test Date: 04/06/95 Sample Location: KOWUS

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	657.7	606.0		51.7
Impinger 2	621.3 ~~[illegible]~~	597.3		24.0
Impinger 3	472.7	468.4		4.3
Impinger 4				
Impinger 5				
Silica gel impinger	779.7	769.0		10.7

Net Total Condensate 90.7 (g)

Signature

04/07/95
Date

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. KONUS Operators JM/MS Date 04/06/9

Run # T2K-P Traverse # 1 Traverse Direction OUT Start Time 15:43 Finish Time /

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		0.13	1.20	/	864.745	367	246	249	40		58	57	4.0
2	2		0.16	1.50	865.91	865.94	367	248	246	40		56	55	4.0
3	4		0.18	1.65	867.23	867.26	371	243	247	40		56	55	5.0
4	6		0.16	1.50	868.63	868.63	371	248	247	40		56	54	5.0
5	8		0.16	1.50	869.92	869.95	371	242	248	39		56	54	5.0
6	10		0.18	1.65	871.24	871.26	373	246	246	39		57	54	5.0
7	12		0.16	1.50	872.63	872.63	373	247	247	39		58	54	5.0
8	14		0.16	1.50	873.92	873.93	373	243	246	39		58	54	5.0
9	16		0.16	1.45	875.22	875.23	373	249	244	39		59	54	5.0
10	18		0.20	1.80	876.52	876.51	374	244	246	39		61	54	5.0
11	20		0.22	2.00	877.95	877.93	374	248	246	40		62	54	6.0
12	22		0.24	2.15	879.44	879.44	373	243	246	40		63	54	7.0

Pre test leak check: Rate (cfm) 0.014 at 15 inches Hg (Vacuum)

Post test leak check: Rate (cfm) / at / inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. KONJS Operators JM/MS Date 04/06/9

Run # T2K-P Traverse # 1 Traverse Direction OUT Start Time / Finish Time 16:19

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
13	24		0.23	2.10	881.02	881.02	372	248	246	40		63	55	8.0
14	26		0.22	2.00	882.57	882.58	371	244	246	40		64	55	8.0
15	28		0.23	2.10	884.09	884.09	370	246	245	41		65	55	8.0
16	30		0.22	2.00	885.64	885.63	368	247	246	42		65	56	8.0
17	32		0.18	1.65	887.14	887.14	356	246	246	42		66	56	6.0
18	34		0.11	0.95	888.51	888.51	296	249	246	42		66	56	6.0
	36				889.58	889.62								

Pre test leak check: Rate (cfm) / at / inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.012 at 10 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. KONUS Operators JM/MS Date 04/06/9

Run # T2K-P Traverse # 2 Traverse Direction OUT Start Time 16:32 Finish Time /

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		0.22	2.00	/	890.01	373	248	245	42		62	59	8.0
2	2		0.26	2.30	891.52	891.52	373	245	245	40		64	59	9.0
3	4		0.25	2.20	893.17	893.17	375	250	246	39		65	59	9.0
4	6		0.27	2.40	894.78	894.79	377	244	248	39		65	59	9.0
5	8		0.24	2.20	896.47	896.49	376	250	247	39		65	59	9.0
6	10		0.22	2.00	898.07	898.10	376	244	247	~~50~~ 39		65	59	9.0
7	12		0.20	1.80	899.61	899.63	377	248	247	40		66	59	8.0
8	14		0.19	1.70	901.07	901.06	377	245	246	40		66	59	8.0
9	16		0.17	1.60	902.47	902.47	379	247	246	40		66	59	8.0
10	18		0.14	1.25	903.80	903.80	378	247	246	41		66	58	6.0
11	20		0.11	0.95	905.01	905.01	374	245	246	41		65	58	5.0
12	22		0.12	1.10	906.08	906.11	374	249	246	41		65	58	5.0

Pre test leak check: Rate (cfm) 0.009 at 11 inches Hg (Vacuum)

Post test leak check: Rate (cfm) / at / inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 521661B Sample Loc. KONUE Operators JM/MS Date 04/06/9

Run # T2K-P Traverse # 2 Traverse Direction OUT Start Time / Finish Time 17:18

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
13	24		0.13	1.20	907.23	907.25	373	244	246	42		65	58	5.0
14	26		0.13	1.20	908.41	908.41	371	249	245	41		66	58	5.0
15	28		0.13	1.15	909.57	909.58	369	243	246	41		66	58	5.0
16	30		0.11	0.95	910.74	910.76	365	248	245	42		66	58	5.0
17	32		0.10	0.90	911.83	911.85	346	243	246	41		67	58	5.0
18	34		0.08	0.70	912.87	912.88	263	245	245	41		67	58	5.0
	36				913.79	913.82								

Pre test leak check: Rate (cfm) / at / inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.016 at 12 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

PRESS VENT

NAOH EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.02
RUN : T1PV-NAOH
LOC. : PRESS VENT

RUN TIME : 14:24 TO 15:31

NAOH CONCENTRATION	482.8 ug/DSm3	0.2110 gr/1000 DScf
	408.4 ug/Am3	0.1785 gr/1000 Acf
NAOH EMISSION RATE	10.634 mg/s	590.76 gr/hr
SAMPLE GAS VOLUME	1.0253 DSm3	36.205 DScf
AVERAGE ISOKINETICITY	96.2 %	

FLUE GAS CHARACTERISTICS

MOISTURE	2.09 %	
TEMPERATURE	40.4 deg C	104.8 deg F
FLOW	79270 DSm3/hr	46657 DScfm
	93715 Am3/hr	55159 Acfm
VELOCITY	11.99 m/s	2361.1 fpm

GAS ANALYSIS	O2	20.90 %
	CO2	0.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	28.95 g/gmole D.B.
	MOL. WT.	28.72 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

NAOH EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC	DATE : 95.04.02
JOBSITE : DAWSON CREEK	RUN : T1PV-NAOH
REF.No. : 5216618	LOC. : PRESS VENT

STACK HEIGHT	3.0 m	10.0 ft.
DUCT DIMENSIONS	1.47 m	58.0 in.
	BY 1.47 m	BY 58.0 in.
DUCT AREA	2.170 m2	23.36 sq.ft.
BAROMETRIC PRESSURE	93.8 kPa	27.70 in.Hg
STATIC PRESSURE	-174.3 Pa	-0.70 in.H20
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.799	
METER CORRECTION FACTOR	1.005	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	2.6 g
CONDENSATION IN IMPINGER 2	-12.4 g
CONDENSATION IN IMPINGER 3	18.7 g
SILICA GEL WEIGHT GAIN	7.5 g
TOTAL MOISTURE GAIN	16.4 g

NAOH COLLECTION

FILTER NAOH	0.0000 mg
WASHINGS NAOH	0.0000 mg
IMPINGER NAOH	0.4950 mg
TOTAL NAOH	0.4950 mg

TOTAL SAMPLING TIME	60.0 min.

NAOH EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.02
RUN : T1PV-NAOH
LOC. : PRESS VENT

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H2O	ORIF. PRES. in.H2O	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	103	0.150	0.35	729.01	50	234	225	43	2.0	5.8	92.2
2	3.0	102	0.440	1.00	730.03	50	234	225	41	2.5	17.4	87.2
3	6.0	104	0.500	1.40	731.88	51	234	224	41	3.0	29.0	95.0
4	9.0	106	0.550	1.60	733.61	52	234	224	40	3.0	40.6	99.0
5	12.0	100	0.400	1.00	735.70	52	233	226	41	3.0	52.2	96.4
	15.0				737.45							
TRAVERSE NO. 2												
1	0.0	103	0.550	1.60	737.45	51	235	225	41	3.0	5.8	98.3
2	3.0	107	0.630	2.00	739.53	53	233	225	41	3.0	17.4	97.3
3	6.0	108	0.590	1.70	741.73	54	233	226	42	3.0	29.0	99.0
4	9.0	109	0.500	1.40	743.90	54	234	241	43	3.0	40.6	94.2
5	12.0	105	0.350	0.80	745.80	54	233	225	43	3.0	52.2	88.9
	15.0				747.31							
TRAVERSE NO. 3												
1	0.0	109	0.510	1.50	747.31	52	235	224	42	3.0	5.8	99.5
2	3.0	103	0.640	2.00	749.33	54	233	225	43	3.0	17.4	101.3
3	6.0	105	0.570	1.60	751.65	54	233	223	43	3.0	29.0	98.0
4	9.0	105	0.590	1.60	753.77	54	233	231	44	3.0	40.6	97.7
5	12.0	103	0.500	1.35	755.92	55	233	231	44	3.0	52.2	97.4
	15.0				757.90							
TRAVERSE NO. 4												
1	0.0	103	0.550	1.50	757.90	52	234	249	45	3.0	5.8	97.2
2	3.0	103	0.470	1.30	759.96	54	234	233	45	3.0	17.4	97.1
3	6.0	111	0.520	1.30	761.87	54	233	242	45	3.0	29.0	92.9
4	9.0	111	0.280	0.70	763.78	55	233	242	45	3.0	40.6	98.5
5	12.0	95	0.280	0.65	765.27	55	234	237	45	2.5	52.2	89.9
	15.0				766.65							
		105	0.468	1.32		53	234	230	43	2.9		96.2

μ

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT Louisiana Pacific
CITY PROV. Dawson Creek, B.C
PROJECT # 52166618
TEST ~~95.04.0~~ T1-NaOH
SAMPLE LOCATION Press Vent
DATE 95.04.02
START TIME 14:24
FINISH TIME 15:31
BAROMETRIC PRESS.(in Hg) 27.7
STACK PRESS.(in H_2O) -0.7
PITOT COEFFICIENT ~~0.766~~ 0.799
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0054
STACK HEIGHT(ft) 10'
STACK DIAMETER(in) —
LENGTH X WIDTH 58" x 58"
CO2(%) 0 O2(%) 20.9
CO(ppm) 0 OTHER 0

IMPINGER NET 1 (g) 2.6
IMPINGER NET 2 (g) -12.4
IMPINGER NET 3 (g) 18.7
IMPINGER NET 4 (g) 7.5
IMPINGER NET 5 (g)
IMPINGER NET 6 (g)

NET FILTER WT.(g) —
NET PROBE WASH WT.(g) —
IMP.RESIDUE WT.(g) —
FILTER # —

METER BOX ID TEAM #4
PROBE ID Toronto 7' T2
NOZZLE ID VCR #8-2
OTHER

EQUIPMENT COMMENTS

SAMPLING COMMENTS

PROCESS RATE
CONTROL EQUIP. OPERATION
PROCESS COMMENTS

John Lennartz
SIGNATURE

95.04.02
DATE

Moisture Analysis Data Sheet

Project #: 5216618 Client LOUISIANA PACIFIC Test: TIPV-NaOH

Test Date: APRIL 2/95 Sample Location: PRESS VENT

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	627.3	624.7		2.6
Impinger 2	641.6	654.0		-12.4
Impinger 3	497.1	478.4		18.7
Impinger 4				
Impinger 5				
Silica gel impinger	788.0	780.5		7.5

Net Total Condensate 16.4 (g)

Signature

April 2/95
Date

Sampling Trains Data Sheet

Client LOUISIANA PACIFIC Project # 5216618 Sample Loc. PRESS VENT Operators JL Date 95/04/02

Run # T1-NaOH Traverse # 1 & 2 Traverse Direction OUT Start Time 14:24 Finish Time 14:56

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0	14:24	0.15	0.35		729.01	103	234	225	43		50	50	2
2	3		0.44	1.0	730.06	730.03	102	234	225	41		50	49	2.5
3	6		0.50	1.4	731.83	731.68	104	234	224	41		52	49	3
4	9		0.55	1.6	733.60	733.61	106	234	224	40		54	49	3
5	12		0.40	1.0	735.62	735.70	100	233	226	41		55	49	3
	15				737.41	737.45								
		14:39												
1	0	14:41	0.55	1.6		739.45	103	235	225	41		53	49	3
2	3		0.63	2.0	739.46	739.53	107	233	225	41		56	49	3
3	6		0.59	1.7	741.68	741.73	108	233	226	42		58	49	3
4	9		0.50	1.4	743.81	743.90	109	234	241	43		58	49	3
5	12		0.35	0.80	745.82	745.80	105	233	225	43		59	49	3
	15	14:56			747.40	747.31								

Pre test leak check: Rate (cfm) 0.001 at 15 inches Hg (Vacuum)

Post test leak check: Rate (cfm) ____ at ____ inches Hg (Vacuum)

K value calculated by JL checked by JL

Signature [illegible]

Sampling Trains Data Sheet

Client LOUISIANA PACIFIC Project # 5216618 Sample Loc. PRESS VENT Operators JL Date 95/04/02

Run # TI-NaOH Traverse # 3+4 Traverse Direction OUT Start Time 14:59 Finish Time 15:31

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0	14:59	0.51	1.5		747.31	109	235	214	42		55	49	3
2	3		0.64	2.0	749.24	749.33	103	233	265	43		58	49	3
3	6		0.57	1.6	751.50	751.65	105	233	213	43		59	49	3
4	9		0.59	1.6	753.70	753.77	105	233	211	44		59	49	3
5	12		0.5	1.35	755.85	755.92	103	233	231	44		60	49	3
	15	15:14			757.84	757.90								
1	0	15:16	0.55	1.5		757.90	103	234	219	45		55	49	3
2	3		0.47	1.3	759.91	759.96	103	234	233	45		58	49	3
3	6		0.52	1.3	761.82	761.87	111	233	212	45		59	49	3
4	9		0.23	0.7	763.82	763.78	111	233	212	45		60	49	3
5	12		0.28	0.65	765.21	765.27	95	234	257	45		60	49	2.5
	15	15:31			766.70	766.65								

Pre test leak check: Rate (cfm) ___ at ___ inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.001 at 15 inches Hg (Vacuum)

K value calculated by _____ checked by _____

QA/QC CHECKLIST
METHOD 5/TFACE METALS AND MODIFIED METHOD 5 SAMPLING

1.0 PRETEST TRAIN ASSEMBLY/FINAL PREPARATION

PROJECT NO. 5216618 CLIENT LOUISIANA PACIFIC TEST(S) T1/T2-NaOH
DATE(S). 95.04.02 SAMPLE LOCATION Press Vent
OPERATOR(S) J. Lennartz / M.
Sampling Method (eg. MOE 5) NaOH
Modifications to standard method

Meter box TEAM#9-Tr. Probe T2-Tr-7'
Equipment identity matches pretest calibration list? ✓
Probe nozzle material: S.STEEL
cleaned according to sampling protocol? ✓
undamaged ✓
Probe liner material: QUARTZ
cleaned according to sampling protocol? ✓
heated? ✓ entire length? ✓ temperature 250°F
Pitot tube: Type S ✓ Other
properly attached to probe (no interference with nozzle?) ✓
modifications NONE
pitot tube coefficient 0.766
Pitot tube connected to: inclined manometer ✓
or magnehelic gauge — range — division —
pitot lines checked for leaks? ✓ plugging? ✓
Meter box leveled? ✓ pitot pressure gauge zeroed? ✓
orifice pressure gauge zeroed? ✓
Gas temperature sensor: thermocouple? ✓ type ✓
temperature sensor checked against ambient temp.? ✓ 35°F
Filter holder: borosilicate glass ✓ other —
frit material: teflon ✓ borosilicate glass —
other —
heated? ✓ temperature —
cleaned according to sampling protocol? —
filter holder assembled correctly? —
Filter type : N/A
filters checked visually for irregularities? —
filters properly centered? — labelled? —
Recent calibration of orifice meter dry gas meter ✓
pitot tubes ✓ magnehelic gauges
thermometers and thermocouples? ✓ nozzles ✓
Is gas meter calibration temperature compensated? NO
meter temp. 50°F

QA/QC CHECKLIST
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

XAD resin trap used ___—___ glassware proofed? ___✓___
Impinger train: number of impingers ___4___
cleaned according to sampling protocol? ___✓___
contents: 1st 100mL DI 2nd 100mL DI 3rd EMPTY
4th SIL GEL 5th ___ 6th ___
impinger weights recorded? ___✓___
impingers properly assembled? ___✓___
cooling system: ICE/WATER proper connections ___✓___
modifications: NONE
grease used on joints: NO kind of grease ___—___
Barometric pressure measured? ___✓___ source of data? ANEROID
Was preliminary velocity profile performed? ___✓___
Avg.delta P 0.5 Max. delta P 0.66 static -0.7
Avg. Temp. 100
Estimated moisture content % 1 how estimated? PREVIOUS DATA
Estimated O2 % 20.9 CO2 % 0 CO % 0 SO2 % 0
how estimated? AMBIENT
Has an "isokinetic sheet" been completed? ___✓___
Nozzle size properly selected? ___✓___ nozzle diameter 0.240
K factor ___—___
nozzle properly attached to probe (correct orientation) ___✓___
Number of sampling points per traverse from Source Test Code ___
number to be used 20
probe markings correct? ___✓___
Length of sampling time per point desired 3
number to be used 3
Leak test performed before start of sampling? ___✓___
rate 0.001 cfm @ 15 in Hg

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

2.0 SAMPLING

All openings of sampling train sealed (pretest & posttest)? ✓

Leak performed before start of sampling? ✓
0.001 cfm @ 15 in Hg.

Sampling train traversing technique:
- Is nozzle sealed when probe in stack with pump off? ✓
- Is care taken to avoid scraping nipple of stack wall? ✓
- Is an effective seal made around probe at port opening? ✓
- Is probe seal made without disturbing flow inside stack? ✓
- Is probe moved to each point at the proper time? ✓
- Is probe marking system adequate to locate each point? ✓
- Was pitot tube kept parallel to stack wall at each point? ✓
- If probe is disconnected from filter holder with probe in the stack on a negative pressure source how is particulate matter in the probe prevented from being sucked back into the stack? NA
- If filters are changed during a run was there any pariculate loss? NA

Meterbox operation:
- Is data recorded in a permanent manner? ✓
- are data sheets complete? ✓
- Average time to reach isokinetic rate at each point 20s
- Are velocity pressures read and recorded accurately? ✓

Leak test performed at completion of test? 0.001 cfm @ 17 in Hg

Probe, filter holder, impingers sealed adequately after test? ✓

Gas analysis from stack? — other? —
- from fyrites? — integrated bag? — orsat? —
- continuous gas analysers? —
- models: —

Approximate stack temperature 100 gas sample volume ____

First 8 velocity pressures measured —

Percent isokinetic calculated —

Data forms completed and data recorded properly ✓

General comment on sampling techniques ✓

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

3.0 SAMPLE RECOVERY

General environment - clean up area CLEAN ROOM IN PLANT
Brushes: nylon bristle — other —
cleaned according to sampling protocol? —
Wash bottles: glass ____ polyethylene ✓ other ____
cleaned according to sampling protocol? ✓
Storage containers: borosilicate glass ✓ other ____
cleaned according to sampling protocol? ✓
cap material TEFLON leak free? ✓
Petri dishes: plastic — other —
cleaned according to sampling protocol? —
Graduated cylinder: borosilicate glass — other —
Subdivisions of graduated cylinder < 2 ml? —
cleaned according to sampling protocol? —
Balance type TRIPLE BEAM calibrated ✓
Probe allowed to cool sufficiently? ✓
Probe and sample train openins sealed? ✓
Silica gel colour: run 1 1/2 BLUE run 2 ____ run 3 ____
weighed? run 1 ____ run 2 ____ run 3 ____
Probe handling: Acetone rinses — other DI WATER
Particulate recovery: probe nozzle — probe fitting —
probe liner — front half of filter holder —
Blanks collected: reagent(s) ____
acetone ____ DI water ✓ other ____
Impinger rinses: DI ✓ other ____
Samples labelled and stored properly? ✓
Liquid levels marked? ✓
Filter handling: tweezers used? — surgical gloves —
Any particulate lost? Probe — Filter —
Description of particulate —

John Lennartz
Name

John Lennartz
Signature

NAOH EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.02
RUN : T2PV-NAOH
LOC. : PRESS VENT

RUN TIME : 15:53 TO 16:59

NAOH CONCENTRATION	438.3 ug/DSm3	0.1916 gr/1000 DScf
	371.5 ug/Am3	0.1624 gr/1000 Acf
NAOH EMISSION RATE	9.838 mg/s	546.53 gr/hr
SAMPLE GAS VOLUME	1.0395 DSm3	36.706 DScf
AVERAGE ISOKINETICITY	95.7 %	

FLUE GAS CHARACTERISTICS

MOISTURE	2.14 %	
TEMPERATURE	39.6 deg C	103.4 deg F
FLOW	80781 DSm3/hr	47546 DScfm
	95311 Am3/hr	56098 Acfm
VELOCITY	12.20 m/s	2401.4 fpm

GAS ANALYSIS	O2	20.90 %
	CO2	0.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	28.95 g/gmole D.B.
	MOL. WT.	28.71 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

NAOH EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.02
RUN : T2PV-NAOH
LOC. : PRESS VENT

STACK HEIGHT	3.0 m	10.0 ft.
DUCT DIMENSIONS	1.47 m	58.0 in.
	BY 1.47 m	BY 58.0 in.
DUCT AREA	2.170 m2	23.36 sq.ft.
BAROMETRIC PRESSURE	93.8 kPa	27.70 in.Hg
STATIC PRESSURE	-176.8 Pa	-0.71 in.H2O
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.799	
METER CORRECTION FACTOR	1.005	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	2.6 g
CONDENSATION IN IMPINGER 2	5.9 g
CONDENSATION IN IMPINGER 3	1.4 g
SILICA GEL WEIGHT GAIN	7.1 g
TOTAL MOISTURE GAIN	17.0 g

NAOH COLLECTION

FILTER NAOH	0.0000 mg
WASHINGS NAOH	0.0000 mg
IMPINGER NAOH	0.4556 mg
TOTAL NAOH	0.4556 mg

TOTAL SAMPLING TIME 60.0 min.

NAOH EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.02
RUN : T2PV-NAOH
LOC. : PRESS VENT

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H2O	ORIF. PRES. in.H2O	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	101	0.150	0.35	767.04	47	234	244	41	2.0	5.8	93.5
2	3.0	105	0.540	1.30	768.07	48	232	240	42	3.0	17.4	89.4
3	6.0	104	0.610	1.85	769.93	49	232	225	42	3.0	29.0	98.4
4	9.0	104	0.570	1.60	772.11	51	232	225	41	3.0	40.6	99.6
5	12.0	102	0.280	0.70	774.25	52	232	225	41	3.0	52.2	98.3
	15.0				775.74							
TRAVERSE NO. 2												
1	0.0	99	0.450	1.20	775.74	50	233	252	42	3.0	5.8	95.4
2	3.0	102	0.620	1.85	777.57	52	232	239	43	3.0	17.4	100.4
3	6.0	104	0.560	1.40	779.83	53	231	248	44	3.0	29.0	94.9
4	9.0	105	0.610	1.75	781.86	53	231	232	44	3.0	40.6	96.9
5	12.0	110	0.410	1.00	784.02	54	231	225	44	3.0	52.2	94.7
	15.0				785.75							
TRAVERSE NO. 3												
1	0.0	103	0.540	1.35	785.75	51	233	231	44	3.0	5.8	92.0
2	3.0	103	0.650	1.95	787.68	53	232	237	44	3.0	17.4	99.4
3	6.0	108	0.660	1.90	789.97	53	232	227	44	3.0	29.0	98.6
4	9.0	106	0.600	1.65	792.25	54	232	224	45	3.0	40.6	97.1
5	12.0	107	0.480	1.20	794.40	54	231	221	45	3.0	52.2	92.4
	15.0				796.23							
TRAVERSE NO. 4												
1	0.0	95	0.440	1.15	796.23	51	232	225	43	3.0	5.8	92.8
2	3.0	100	0.440	1.10	798.00	52	232	224	43	3.0	17.4	92.5
3	6.0	98	0.500	1.30	799.76	53	231	230	43	3.0	29.0	93.0
4	9.0	103	0.540	1.40	801.65	53	232	245	43	3.0	40.6	96.5
5	12.0	108	0.280	0.65	803.68	53	232	235	44	3.0	52.2	94.7
	15.0				805.11							
		103	0.485	1.33		52	232	233	43	3.0		95.7

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT LOUISIANA PACIFIC
CITY PROV. DAWSON CREEK, ONT
PROJECT # 5216618
TEST T2-NaOH
SAMPLE LOCATION PRESS VENT
DATE 95.04.02
START TIME 15:53
FINISH TIME 16:59
BAROMETRIC PRESS.(in Hg) 27.7
STACK PRESS.(in H_2O) -0.71
PITOT COEFFICIENT ~~0.766~~ 0.79998
NOZZLE DIAMETER(in) 0.240
GAS METER FACTOR 1.0054
STACK HEIGHT(ft)
STACK DIAMETER(in) —
LENGTH X WIDTH X
CO2(%) 0
O2(%) 20.9
CO(ppm)
OTHER

IMPINGER NET 1 (g) 2.6
NET FILTER WT.(g) —
IMPINGER NET 2 (g) 5.9
NET PROBE WASH WT.(g) —
IMPINGER NET 3 (g) 1.4
IMP.RESIDUE WT.(g) —
IMPINGER NET 4 (g) 7.1
FILTER # —
IMPINGER NET 5 (g)
IMPINGER NET 6 (g)

METER BOX ID TEAM #4 - TOR.
PROBE ID 7' TEAM 2 - TOR.
NOZZLE ID #B-2 VCR
OTHER
EQUIPMENT COMMENTS

SAMPLING COMMENTS

PROCESS RATE
CONTROL EQUIP. OPERATION
PROCESS COMMENTS

SIGNATURE

95.04.02
DATE

Moisture Analysis Data Sheet

Project #: 5216618 Client LOUISIANA PACIFIC Test: T2PV-NaOH

Test Date: APRIL 2/95 Sample Location: PRESS VENT

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	645.2	642.6		2.6
Impinger 2	636.5	630.6		5.9
Impinger 3	467	465.6		1.4
Impinger 4				
Impinger 5				
Silica gel impinger WITH CAP	785.8	778.7		7.1

Net Total Condensate 17.0 (g)

Signature

April 2/95
Date

Looking at it

0 0 0 0

4 3 2 1

Sampling Trains Data Sheet

Client Louisiana Pacific Project # 5216618 Sample Loc. Press Vent Operators JZ/MS Date 95/04/02

Run # T2-N60H Traverse # 1/2 Traverse Direction OUT Start Time 15:53 Finish Time 16:25

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0	15:53	0.15	0.35		767.04	101	234	244	41		47	47	2
2	3		0.54	1.3	768.09	768.07	105	232	240	42		49	47	3
3	6		0.61	1.85	770.06	769.93	104	232	225	42		51	47	3
4	9		0.57	1.60	772.05	772.11	104	232	225	41		54	47	3
5	12		0.28	0.70	774.16	774.25	102	232	225	41		56	47	3
	15	16:08			775.68	775.74								
	~~18~~													
1	0	16:10	0.45	1.2		775.74	99	233	252	42		53	47	3
2	3		0.62	1.85	777.56	777.57	102	232	239	43		57	47	3
3	6		0.56	1.4	779.70	779.83	104	231	248	44		58	47	3
4	9		0.61	1.75	781.86	781.86	105	231	232	44		58	47	3
5	12		0.41	1.0	783.98	784.02	110	231	225	44		59	48	3
	15	16:25			785.75	785.75								

Pre test leak check: Rate (cfm) 0.0 at 17 inches Hg (Vacuum)

Post test leak check: Rate (cfm) ____ at ____ inches Hg (Vacuum)

K value calculated by _____ checked by _____

Sampling Trains Data Sheet

Client Louisiana Pacific Project # 5216418 Sample Loc. Press Vent Operators JL/MS Date 95,04,02

Run # T2-North Traverse # 3&4 Traverse Direction N/S Start Time 16:27 Finish Time 16:59

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0	16:27	0.54	1.35		785.75	103	233	231	44		55	47	3
2	3		0.65	1.95	787.74	787.68	103	232	237	44		58	47	3
3	6		0.66	1.90	789.86	789.97	108	232	227	44		59	47	3
4	9		0.60	1.65	792.17	792.25	106	232	224	45		59	48	3
5	12		0.48	1.20	794.35	794.40	107	231	221	45		59	48	3
	15	16:42			796.28	796.225								
1	0	16:44	0.44	1.15		796.225	95	232	225	43		55	47	3
2	3		0.44	1.10	798.02	798.00	100	232	224	43		57	47	3
3	6		0.50	1.3	799.80	799.76	98	231	230	43		58	47	3
4	9		0.54	1.40	801.68	801.65	103	232	245	43		58	47	3
5	12		0.28	0.65	803.64	803.68	108	232	235	44		58	47	3
	15	16:59			805.11	805.11								

Pre test leak check: Rate (cfm) 0.001 at 15 inches Hg (Vacuum)

Post test leak check: Rate (cfm) ___ at ___ inches Hg (Vacuum)

K value calculated by JL checked by JL

Signature

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.03
RUN : T1PV-F
LOC. : PRESS VENT

RUN TIME : 10:02 TO 11:09

FORMALDEHYDE CONCENTRATION	680.6 ug/DSm3	0.2975 gr/1000 DScf
	582.9 ug/Am3	0.2548 gr/1000 Acf
FORMALDEHYDE EMISSION RATE	15.601 mg/s	866.73 gr/hr
SAMPLE GAS VOLUME	1.0859 DSm3	38.345 DScf
AVERAGE ISOKINETICITY	97.9 %	

FLUE GAS CHARACTERISTICS

MOISTURE	0.95 %	
TEMPERATURE	40.2 deg C	104.4 deg F
FLOW	82507 DSm3/hr	48562 DScfm
	96336 Am3/hr	56701 Acfm
VELOCITY	12.33 m/s	2427.2 fpm

GAS ANALYSIS	O2	20.90 %
	CO2	0.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	28.95 g/gmole D.B.
	MOL. WT.	28.84 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.03
RUN : T1PV-F
LOC. : PRESS VENT

STACK HEIGHT	3.0 m	10.0 ft.
DUCT DIMENSIONS	1.47 m BY 1.47 m	58.0 in. BY 58.0 in.
DUCT AREA	2.170 m2	23.36 sq.ft.
BAROMETRIC PRESSURE	93.8 kPa	27.70 in.Hg
STATIC PRESSURE	-161.8 Pa	-0.65 in.H2O
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.799	
METER CORRECTION FACTOR	1.005	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	3.0 g
CONDENSATION IN IMPINGER 2	0.5 g
CONDENSATION IN IMPINGER 3	-1.2 g
SILICA GEL WEIGHT GAIN	5.5 g
TOTAL MOISTURE GAIN	7.8 g

FORMALDEHYDE COLLECTION

FILTER FORMALDEHYDE	0.0000 mg
WASHINGS FORMALDEHYDE	0.0000 mg
IMPINGER FORMALDEHYDE	0.7390 mg
TOTAL FORMALDEHYDE	0.7390 mg

TOTAL SAMPLING TIME 60.0 min.

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.03
RUN : T1PV-F
LOC. : PRESS VENT

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H2O	ORIF. PRES. in.H2O	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	100	0.150	0.35	805.33	37	235	265	31	2.5	5.8	89.0
2	3.0	103	0.620	1.75	806.30	43	235	267	41	3.0	17.4	92.0
3	6.0	102	0.590	1.75	808.35	44	237	268	44	3.0	29.0	100.3
4	9.0	102	0.570	1.60	810.54	46	236	264	43	3.0	40.6	95.7
5	12.0	97	0.280	0.70	812.60	47	237	271	41	3.0	52.2	95.2
	15.0				814.05							
TRAVERSE NO. 2												
1	0.0	107	0.580	1.75	814.05	46	239	271	38	3.0	5.8	102.3
2	3.0	103	0.650	2.00	816.26	48	238	261	37	3.0	17.4	100.7
3	6.0	103	0.510	1.35	818.58	49	237	262	37	3.0	29.0	95.1
4	9.0	104	0.490	1.35	820.53	50	238	260	37	3.0	40.6	95.0
5	12.0	106	0.500	1.50	822.44	51	239	255	36	3.0	52.2	99.9
	15.0				824.47							
TRAVERSE NO. 3												
1	0.0	109	0.390	1.00	824.47	49	239	262	36	3.0	5.8	99.2
2	3.0	108	0.390	1.00	826.24	50	239	254	39	3.0	17.4	97.8
3	6.0	103	0.550	1.50	827.99	52	238	260	38	3.0	29.0	89.8
4	9.0	107	0.650	2.00	829.91	52	237	254	38	3.0	40.6	99.8
5	12.0	105	0.500	1.50	832.22	53	238	257	39	3.0	52.2	101.0
	15.0				834.28							
TRAVERSE NO. 4												
1	0.0	102	0.650	2.00	834.28	51	240	253	40	3.0	5.8	103.0
2	3.0	108	0.650	2.00	836.67	52	238	273	40	3.0	17.4	101.2
3	6.0	104	0.630	1.85	839.01	53	237	274	41	3.0	29.0	98.3
4	9.0	109	0.590	1.80	841.26	53	236	277	41	3.0	40.6	99.6
5	12.0	105	0.260	0.65	843.46	54	237	275	41	3.0	52.2	95.5
	15.0				844.87							
		104	0.497	1.47		49	238	264	39	3.0		97.9

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT Louisiana Pacific
CITY PROV. Dawson Creek B.C
PROJECT # 5216618
TEST T1-Form
SAMPLE LOCATION Press Vent
DATE 95.04.03
START TIME 10:02
FINISH TIME 11:09
BAROMETRIC PRESS.(in Hg) 27.68
STACK PRESS.(in H_2O) -0.65
PITOT COEFFICIENT 0.799
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0054
STACK HEIGHT(ft) 10
STACK DIAMETER(in) —
LENGTH X WIDTH 58 x 58
CO2(%) 0 O2(%) 20.9
CO(ppm) _____ OTHER _____

IMPINGER NET 1 (g) 3.0
IMPINGER NET 2 (g) 0.5
IMPINGER NET 3 (g) -1.2
IMPINGER NET 4 (g) 5.5
IMPINGER NET 5 (g) _____
IMPINGER NET 6 (g) _____

NET FILTER WT.(g) —
NET PROBE WASH WT.(g) —
IMP.RESIDUE WT.(g) —
FILTER # —

METER BOX ID TEAM #4-TOR
PROBE ID TEAM #2, 7', TOR
NOZZLE ID B-2 - VCR
OTHER _____
EQUIPMENT COMMENTS _____

SAMPLING COMMENTS NO FLOW @ 4-1 ∴ sample twice as long as 4-2

PROCESS RATE _____
CONTROL EQUIP. OPERATION _____
PROCESS COMMENTS _____

SIGNATURE

95.04.03
DATE

Moisture Analysis Data Sheet

Project #: 5216618 Client LOUISIANA PACIFIC Test: TTPV-F

Test Date: APRIL 3/95 Sample Location: PRESS VENT

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	646.2	643.2		3.0
Impinger 2	657.2	656.7		0.5
Impinger 3	479.7	480.9		-1.2
Impinger 4				
Impinger 5				
Silica gel impinger WITHOUT CAP	794.2	788.7		5.5

Net Total Condensate 7.8 (g)

* BALL OF IMPINGER 2 BROKE, BUT WAS WEIGHED WITH IMPINGER

Signature

April 3/95
Date

pitots
Obz

0000
4 3 2 1
Looking @ press vent

Sampling Trains Data Sheet

Client LOUISIANA PACIFIC Project # 5216618 Sample Loc. PRESS VENT Operators JL Date 95/04/03

Run # TI-Form Traverse # 1&2 Traverse Direction OUT Start Time 10:02 Finish Time ____

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0	10:02	0.15	0.35		805.33	100	235	265	31		36	37	2.5
2	3		0.62	1.75	806.41	806.30	103	235	267	41		47	38	3
3	6		0.59	1.75	808.49	808.35	102	237	268	44		50	38	3
4	9		0.57	1.6	810.49	810.54	102	236	264	43		52	39	3
5	12		0.28	0.7	812.64	812.60	97	237	271	41		54	40	3
	15	10:17			814.07	814.045								
1	0	10:19	0.53	1.75		814.045	107	239	271	38		50	41	3
2	3		0.65	2.0	816.23	816.26	103	238	261	37		54	41	3
3	6		0.51	1.35	818.57	818.58	103	237	262	37		56	42	3
4	9		0.49	1.35	820.63	820.53	104	238	260	37		57	43	3
5	12		0.50	1.5	822.54	822.44	106	239	255	36		58	44	3
	15	10:34			824.47	824.465								

Pre test leak check: Rate (cfm) 0.003 at 17 inches Hg (Vacuum)

Post test leak check: Rate (cfm) ____ at ____ inches Hg (Vacuum)

K value calculated by _____ checked by _____

[illegible] ol

Don't sample 4-1 as it's dead
sample 4-2 for 6 m
Static -0.65
Bp = 27.68

Sampling Train Data Sheet

Client Louisiana Pacific Project # 5216619 Sample Loc. Press Vent Operators JL Date 95/04/03

Run # T1-Form Traverse # 3&4 Traverse Direction OUT Start Time ____ Finish Time 1109

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0	10:36	0.39	1.0		824.465	109	239	262	36		54	44	3
2	3		0.39	1.0	826.26	826.24	108	239	254	39		55	45	3
3	6		0.55	1.5	828.03	827.99	103	238	260	38		57	46	3
4	9		0.05	2.0	830.12	829.91	107	237	251	38		58	46	3
5	12		0.50	1.5	832.22	832.22	105	238	257	39		59	46	3
	15	10:51			834.25	834.28								
1	0	10:54	0.65	2.0		834.28	102	240	253	40		55	47	3
2	3		0.65	2.0	836.59	836.67	108	238	273	40		56	47	3
3	6		0.63	1.85	838.98	839.01	104	237	271	41		58	47	3
4	9		0.59	1.80	841.29	841.26	109	236	277	41		59	47	3
5	12		0.26	0.65	843.46	843.46	105	237	275	41		60	47	3
	15	11:09			844.92	844.87								

Pre test leak check: Rate (cfm) ____ at ____ inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.004 at 15 inches Hg (Vacuum)

K value calculated by JL checked by JL

QA/QC CHECKLIST
METHOD 5/TFACE METALS AND MODIFIED METHOD 5 SAMPLING

1.0 PRETEST TRAIN ASSEMBLY/FINAL PREPARATION

PROJECT NO. 52166018 CLIENT Louisiana Pacific TEST(S) T1/T2-Form
DATE(S). 95.04.03 SAMPLE LOCATION Press Vent
OPERATOR(S) John Lenhartz
Sampling Method (eg. MOE 5) M0011
Modifications to standard method NONE

Meter box TEAM #4-Tor Probe T2, 7' Tor
Equipment identity matches pretest calibration list? ✓
Probe nozzle material: S. STEEL
cleaned according to sampling protocol? ✓
undamaged ✓
Probe liner material: QUARTZ
cleaned according to sampling protocol? ✓
heated? ✓ entire length? ✓ temperature 250 °F
Pitot tube: Type S ✓ Other
properly attached to probe (no interference with nozzle?) ✓
modifications NONE
pitot tube coefficient 0.799
Pitot tube connected to: inclined manometer ✓
or magnehelic gauge — range — division —
pitot lines checked for leaks? ✓ plugging? ✓
Meter box leveled? ✓ pitot pressure gauge zeroed? ✓
orifice pressure gauge zeroed? ✓
Gas temperature sensor: thermocouple? ✓ type K
temperature sensor checked against ambient temp.? ✓ 95 °F
Filter holder: borosilicate glass — other —
frit material: teflon — borosilicate glass —
other —
heated? — temperature —
cleaned according to sampling protocol? —
filter holder assembled correctly? —
Filter type : —
filters checked visually for irregularities? —
filters properly centered? — labelled? —
Recent calibration of orifice meter dry gas meter ✓
pitot tubes ✓ magnehelic gauges —
thermometers and thermocouples? ✓ nozzles ✓
Is gas meter calibration temperature compensated? ND
meter temp. 50 °F

QA/QC CHECKLIST
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

XAD resin trap used — glassware proofed? ✓
Impinger train: number of impingers 4
cleaned according to sampling protocol? ✓
contents: 1st 100mL DI/PH 2nd 100mL DI/PH 3rd EMPTY
4th SIL GEL 5th _____ 6th _____
impinger weights recorded? ✓
impingers properly assembled? ✓
cooling system: ICE / WATER proper connections ✓
modifications: NONE
grease used on joints: ONLY SIL GEL kind of grease SILICON
Barometric pressure measured? ✓ source of data? ANEROID
Was preliminary velocity profile performed? ✓
Avg.delta P 0.5 Max. delta P 0.09 static -0.7
Avg. Temp. 100
Estimated moisture content % 2 how estimated? PREVIOUS DATA
Estimated O2 % 20.9 CO2 % 0 CO % 0 SO2 % 0
how estimated? PREVIOUS DATA
Has an "isokinetic sheet" been completed? ✓
Nozzle size properly selected? ✓ nozzle diameter 0.24
K factor 0.955
nozzle properly attached to probe (correct orientation) ✓
Number of sampling points per traverse from Source Test Code 5
number to be used 5
probe markings correct? ✓
Length of sampling time per point desired 3
number to be used 3
Leak test performed before start of sampling? ✓
rate <0.002 cfm @ 15 in Hg

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

2.0 SAMPLING

All openings of sampling train sealed (pretest & posttest)? ✓

Leak performed before start of sampling? ✓
<0.002 cfm @ 15 in Hg.

Sampling train traversing technique:
- Is nozzle sealed when probe in stack with pump off? ✓
- Is care taken to avoid scraping nipple of stack wall? ✓
- Is an effective seal made around probe at port opening? ✓
- Is probe seal made without disturbing flow inside stack? ✓
- Is probe moved to each point at the proper time? ✓
- Is probe marking system adequate to locate each point? ✓
- Was pitot tube kept parallel to stack wall at each point? ✓
- If probe is disconnected from filter holder with probe in the stack on a negative pressure source how is particulate matter in the probe prevented from being sucked back into the stack? NA
- If filters are changed during a run was there any pariculate loss? NA

Meterbox operation:
- Is data recorded in a permanent manner? ✓
- are data sheets complete? ✓
- Average time to reach isokinetic rate at each point 105 ✓
- Are velocity pressures read and recorded accurately? ✓

Leak test performed at completion of test? <0.002 cfm @ 15 in Hg

Probe, filter holder, impingers sealed adequately after test? ✓

Gas analysis from stack? — other? —
- from fyrites? — integrated bag? — orsat? —
- continuous gas analysers? AMBIENT
- models: —

Approximate stack temperature 100°F gas sample volume 2.75 ft³

First 8 velocity pressures measured —

Percent isokinetic calculated —

Data forms completed and data recorded properly ✓

General comment on sampling techniques ✓

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

3.0 SAMPLE RECOVERY

General environment - clean up area CLEAN ROOM ON-SITE
Brushes: nylon bristle — other —
cleaned according to sampling protocol? —
Wash bottles: glass ____ polyethylene ✓ other TEFLON
cleaned according to sampling protocol? ✓
Storage containers: borosilicate glass ✓ other ____
cleaned according to sampling protocol? ✓
cap material TEFLON leak free? ✓
Petri dishes: plastic — other ____
cleaned according to sampling protocol? —
Graduated cylinder: borosilicate glass — other —
Subdivisions of graduated cylinder < 2 ml? —
cleaned according to sampling protocol? —
Balance type TRIPLE BEAM calibrated (AUDIT)
Probe allowed to cool sufficiently? ✓
Probe and sample train openins sealed? ✓
Silica gel colour: run 1 1/2 BLUE run 2 ____ run 3 ____
weighed? run 1 ____ run 2 ____ run 3 ____
Probe handling: Acetone rinses — other $MeCl_2$
Particulate recovery: probe nozzle ✓ probe fitting —
probe liner — front half of filter holder —
Blanks-collected: reagent(s) ____
acetone ____ DI water ____ other DNPH, $MeCl_2$
Impinger rinses: DI — other $MeCl_2$
Samples labelled and stored properly? ✓
Liquid levels marked? ✓
Filter handling: tweezers used? — surgical gloves —
Any particulate lost? Probe — Filter —
Description of particulate —

John Lennartz
Name

John Lennartz
Signature

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.03
RUN : T2PV-F
LOC. : PRESS VENT

RUN TIME : 11:56 TO 13:03

FORMALDEHYDE CONCENTRATION	191.5 ug/DSm3	0.0837 gr/1000 DScf
	165.0 ug/Am3	0.0721 gr/1000 Acf
FORMALDEHYDE EMISSION RATE	4.425 mg/s	245.83 gr/hr
SAMPLE GAS VOLUME	1.1174 DSm3	39.458 DScf
AVERAGE ISOKINETICITY	99.9 %	

FLUE GAS CHARACTERISTICS

MOISTURE	0.63 %	
TEMPERATURE	39.3 deg C	102.7 deg F
FLOW	83156 DSm3/hr	48944 DScfm
	96506 Am3/hr	56802 Acfm
VELOCITY	12.35 m/s	2431.5 fpm

GAS ANALYSIS	O2	20.90 %
	CO2	0.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	28.95 g/gmole D.B.
	MOL. WT.	28.88 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.03
RUN : T2PV-F
LOC. : PRESS VENT

STACK HEIGHT	3.0 m	10.0 ft.
DUCT DIMENSIONS	1.47 m	58.0 in.
	BY 1.47 m	BY 58.0 in.
DUCT AREA	2.170 m2	23.36 sq.ft.
BAROMETRIC PRESSURE	93.8 kPa	27.70 in.Hg
STATIC PRESSURE	-179.3 Pa	-0.72 in.H2O
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.799	
METER CORRECTION FACTOR	1.005	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	11.3 g
CONDENSATION IN IMPINGER 2	-10.9 g
CONDENSATION IN IMPINGER 3	-1.8 g
SILICA GEL WEIGHT GAIN	6.7 g
TOTAL MOISTURE GAIN	5.3 g

FORMALDEHYDE COLLECTION

FILTER FORMALDEHYDE	0.0000 mg
WASHINGS FORMALDEHYDE	0.0000 mg
IMPINGER FORMALDEHYDE	0.2140 mg
TOTAL FORMALDEHYDE	0.2140 mg

TOTAL SAMPLING TIME 60.0 min.

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.03
RUN : T2PV-F
LOC. : PRESS VENT

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H20	ORIF. PRES. in.H20	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	93	0.170	0.45	845.79	46	237	267	33	3.0	5.8	93.0
2	3.0	107	0.600	1.75	846.90	48	236	260	35	3.0	17.4	96.7
3	6.0	104	0.640	1.95	849.04	49	235	254	43	3.0	29.0	101.1
4	9.0	102	0.600	1.80	851.36	50	234	256	42	3.0	40.6	99.4
5	12.0	97	0.280	0.75	853.58	50	233	260	38	3.0	52.2	97.0
	15.0				855.07							
TRAVERSE NO. 2												
1	0.0	103	0.540	1.50	855.07	48	234	257	31	3.0	5.8	97.3
2	3.0	104	0.510	1.45	857.12	48	232	248	34	3.0	17.4	98.2
3	6.0	105	0.550	1.65	859.13	49	231	245	34	3.0	29.0	102.0
4	9.0	105	0.590	1.80	861.30	49	232	256	34	3.0	40.6	100.8
5	12.0	105	0.420	1.20	863.52	49	231	254	35	3.0	52.2	99.9
	15.0				865.38							
TRAVERSE NO. 3												
1	0.0	104	0.480	1.40	865.38	47	232	252	33	3.0	5.8	99.3
2	3.0	105	0.690	2.20	867.35	47	233	254	35	3.0	17.4	104.3
3	6.0	107	0.580	1.90	869.82	48	231	258	35	3.0	29.0	104.9
4	9.0	105	0.620	2.00	872.10	48	231	256	35	3.0	40.6	102.5
5	12.0	104	0.550	1.50	874.41	49	231	260	36	3.0	52.2	97.2
	15.0				876.48							
TRAVERSE NO. 4												
1	0.0	94	0.600	1.90	876.48	47	234	260	36	3.0	5.8	103.5
2	3.0	102	0.600	1.80	878.79	48	233	255	37	3.0	17.4	102.2
3	6.0	101	0.590	1.70	881.06	48	233	263	37	3.0	29.0	96.0
4	9.0	110	0.550	1.60	883.18	49	232	253	37	3.0	40.6	99.2
5	12.0	96	0.150	0.38	885.28	49	232	262	38	3.0	52.2	100.5
	15.0				886.41							
		103	0.501	1.53		48	233	257	36	3.0		99.9

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT Louisiana Pacific
CITY PROV. Dawson Creek, B.C
PROJECT # 5216618
TEST T2 Form
SAMPLE LOCATION Press Vent
DATE 95.04.03
START TIME 11:56
FINISH TIME 13:03
BAROMETRIC PRESS.(in Hg) 27.69
STACK PRESS.(in H_2O) -0.72
PITOT COEFFICIENT 0.799
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0054
STACK HEIGHT(ft) 10
STACK DIAMETER(in) —
LENGTH X WIDTH 58 x 58
CO2(%) 0 O2(%) 20.9
CO(ppm) _____ OTHER _____

IMPINGER NET 1 (g) 11.3
NET FILTER WT.(g) —
IMPINGER NET 2 (g) -10.9
NET PROBE WASH WT.(g) —
IMPINGER NET 3 (g) -1.8
IMP.RESIDUE WT.(g) —
IMPINGER NET 4 (g) 6.7
FILTER # —
IMPINGER NET 5 (g) _____
IMPINGER NET 6 (g) _____

METER BOX ID TEAM #4 - TOR
PROBE ID T2, 7' TOR
NOZZLE ID 8-2 VCR
OTHER _____
EQUIPMENT COMMENTS _____

SAMPLING COMMENTS NO FLOW @ PT 4-1 ∴ SAMPLE TWICE AS LONG AT 4-2

PROCESS RATE _____
CONTROL EQUIP. OPERATION _____
PROCESS COMMENTS _____

John Lunnat
SIGNATURE

95.04.03
DATE

Moisture Analysis Data Sheet

Project #: 5216618 Client LOUISIANA PACIFIC-DC Test: T2PV-E

Test Date: APRIL 3/95 Sample Location: PRESS VENT

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	634.7	623.4		11.3
Impinger 2	575.8	586.7		-10.9
Impinger 3	467.6	469.4		-1.8
Impinger 4				
Impinger 5				
Silica gel impinger WITH CAP	792.7	786.0		6.7

Net Total Condensate 5.3 (g)

Signature

4/3/95
Date

static -0.72

Sampling Trains Data Sheet

Client LOUISIANA PACIFIC Project # 5216618 Sample Loc. PRESS VENT Operators JL Date 95/04/03

Run # T2-FRIM Traverse # 1&2 Traverse Direction OUT Start Time 1:56 Finish Time

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0	11:56	0.47	0.45		845.785	93	237	267	33		46	46	3
2	3		0.60	1.75	846.97	846.90	107	236	260	35		49	46	3
3	6		0.64	1.95	849.12	849.04	104	235	254	43		51	46	3
4	9		0.60	1.80	851.33	851.36	102	234	256	42		54	46	3
5	12		0.28	0.75	853.58	853.58	97	233	260	38		54	46	3
	15	12:11			855.10	855.07								
1	0	12:14	0.54	1.5		855.07	103	234	257	31		50	45	3
2	3		0.51	1.45	857.18	857.12	104	232	248	34		50	45	3
3	6		0.55	1.65	859.17	859.13	105	231	245	34		52	45	3
4	9		0.59	1.80	861.26	861.30	105	232	256	34		53	44	3
5	12		0.42	1.2	863.50	863.52	105	231	254	35		54	44	3
	15	12:29			865.38	865.38								

Pre test leak check: Rate (cfm) 0.002 at 17 inches Hg (Vacuum)

Post test leak check: Rate (cfm) ____ at ____ inches Hg (Vacuum)

K value calculated by _____ checked by _____

Sampling Trains Data Sheet

Client LOUISIANA PACIFIC Project # 5216618 Sample Loc. PRESS VENT Operators JL Date 95/04/03

Run # T2-Form Traverse # 3+4 Traverse Direction OUT Start Time ____ Finish Time 13:03

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0	12:31	0.48	1.4		865.38	104	232	252	33		51	43	3
2	3		0.69	2.2	867.36	867.35	105	233	254	35		50	43	3
3	6		0.58	1.9	869.73	869.82	107	231	258	35		52	43	3
4	9		0.62	2.0	872.00	872.10	105	231	256	35		53	43	3
5	12		0.55	1.5	874.36	874.41	104	231	260	36		54	43	3
	15	12:46			876.54	876.48								
1	0	12:48	0.6	2.9		876.48	94	234	260	36		50	43	3
2	3		0.6	1.8	878.70	878.79	102	233	255	37		52	43	3
3	6		0.59	1.7	881.00	881.06	101	233	263	37		53	43	3
4	9		0.55	1.6	883.26	883.18	110	232	253	37		54	43	3
5	12		0.15	0.38	885.31	885.28	96	232	262	38		55	43	3
	15	13:03				886.41								

Pre test leak check: Rate (cfm) ____ at ____ inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.004 at 16 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature [signature]

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.04
RUN : T3PV-F
LOC. : PRESS VENT

RUN TIME : 9:14 TO 10:20

FORMALDEHYDE CONCENTRATION	136.6 ug/DSm3	0.0597 gr/1000 DScf
	115.9 ug/Am3	0.0507 gr/1000 Acf
FORMALDEHYDE EMISSION RATE	3.037 mg/s	168.72 gr/hr
SAMPLE GAS VOLUME	1.0760 DSm3	37.994 DScf
AVERAGE ISOKINETICITY	100.0 %	

FLUE GAS CHARACTERISTICS

MOISTURE	0.96 %	
TEMPERATURE	40.9 deg C	105.6 deg F
FLOW	80004 DSm3/hr	47089 DScfm
	94312 Am3/hr	55510 Acfm
VELOCITY	12.07 m/s	2376.2 fpm

GAS ANALYSIS	O2	20.90 %
	CO2	0.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	28.95 g/gmole D.B.
	MOL. WT.	28.84 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.04
RUN : T3PV-F
LOC. : PRESS VENT

STACK HEIGHT	3.0 m	10.0 ft.
DUCT DIMENSIONS	1.47 m	58.0 in.
	BY 1.47 m	BY 58.0 in.
DUCT AREA	2.170 m2	23.36 sq.ft.
BAROMETRIC PRESSURE	93.1 kPa	27.50 in.Hg
STATIC PRESSURE	-171.8 Pa	-0.69 in.H20
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.799	
METER CORRECTION FACTOR	1.005	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	3.0 g
CONDENSATION IN IMPINGER 2	0.5 g
CONDENSATION IN IMPINGER 3	-1.2 g
SILICA GEL WEIGHT GAIN	5.5 g
TOTAL MOISTURE GAIN	7.8 g

FORMALDEHYDE COLLECTION

FILTER FORMALDEHYDE	0.0000 mg
WASHINGS FORMALDEHYDE	0.0000 mg
IMPINGER FORMALDEHYDE	0.1470 mg
TOTAL FORMALDEHYDE	0.1470 mg

TOTAL SAMPLING TIME 60.0 min.

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.04
RUN : T3PV-F
LOC. : PRESS VENT

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H20	ORIF. PRES. in.H20	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	103	0.360	0.95	978.78	45	239	249	44	3.0	5.8	96.2
2	3.0	105	0.560	1.60	980.43	45	236	225	49	3.0	17.4	99.4
3	6.0	107	0.570	1.70	982.55	47	236	244	53	4.0	29.0	100.6
4	9.0	105	0.570	1.70	984.72	49	236	253	53	4.0	40.6	101.0
5	12.0	112	0.350	0.95	986.91	51	236	237	53	4.0	52.2	104.8
	15.0				988.69							
TRAVERSE NO. 2												
1	0.0	108	0.500	1.50	988.69	51	236	238	54	4.0	5.8	98.3
2	3.0	104	0.450	1.30	990.69	54	236	255	54	4.0	17.4	98.1
3	6.0	110	0.500	1.50	992.60	55	236	250	55	4.0	29.0	101.7
4	9.0	102	0.500	1.45	994.68	56	236	253	55	4.0	40.6	97.3
5	12.0	111	0.400	1.00	996.69	57	235	251	55	3.5	52.2	93.1
	15.0				998.40							
TRAVERSE NO. 3												
1	0.0	110	0.570	1.70	998.40	54	237	259	56	4.0	5.8	102.7
2	3.0	106	0.620	1.85	1000.64	56	235	254	55	4.0	17.4	99.7
3	6.0	106	0.640	1.95	1002.92	56	234	255	55	4.0	29.0	101.5
4	9.0	106	0.600	1.75	1005.28	57	235	259	55	4.0	40.6	99.7
5	12.0	104	0.280	0.75	1007.53	57	235	242	55	4.0	52.2	100.0
	15.0				1009.08							
TRAVERSE NO. 4												
1	0.0	96	0.450	1.40	9.08	54	236	230	53	4.0	5.8	102.4
2	3.0	103	0.450	1.30	11.09	56	235	243	53	4.0	17.4	100.1
3	6.0	99	0.510	1.50	13.05	56	234	252	53	4.0	29.0	99.4
4	9.0	112	0.550	1.65	15.13	57	233	259	53	4.0	40.6	102.4
5	12.0	102	0.180	0.55	17.33	57	234	250	53	4.0	52.2	102.1
	15.0				18.60							
		106	0.472	1.40		53	236	248	53	3.9		100.0

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT Louisiana Pacific
CITY PROV. Dawson Creek BC
PROJECT # 521641B
TEST T3- Form
SAMPLE LOCATION Press Vent
DATE 95.04.04
START TIME 914
FINISH TIME 1020
BAROMETRIC PRESS.(in Hg) 27.43
STACK PRESS.(in H_2O) -0.69
PITOT COEFFICIENT 0.799
NOZZLE DIAMETER(in) 0.240
GAS METER FACTOR 1.0054
STACK HEIGHT(ft) 10
STACK DIAMETER(in)
LENGTH X WIDTH 58 x 58
CO2(%) 0 O2(%) 20.9
CO(ppm) 0 OTHER

IMPINGER NET 1 (g) -2.6
IMPINGER NET 2 (g) 5.0
IMPINGER NET 3 (g) -11.2
IMPINGER NET 4 (g) 8.5
IMPINGER NET 5 (g)
IMPINGER NET 6 (g)

NET FILTER WT.(g) —
NET PROBE WASH WT.(g) —
IMP.RESIDUE WT.(g) —
FILTER # —

METER BOX ID Team #4 - Tor
PROBE ID Team #2, 7' - Tor
NOZZLE ID #8-2 VCR
OTHER
EQUIPMENT COMMENTS

SAMPLING COMMENTS No flow @ pt 4-1 ∴ sample twice as long at pt 4-2

PROCESS RATE
CONTROL EQUIP. OPERATION
PROCESS COMMENTS

John Lennartz 95.04.04
SIGNATURE DATE

Moisture Analysis Data Sheet

Project #: 5216618 Client LOUISIANA PACIFIC Test: T3PV-F

Test Date: APRIL 4/95 Sample Location: PRESS VENT

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	632.6	635.2		-2.6
Impinger 2	601.3	596.3		5.0
Impinger 3	471.7	482.9		-11.2
Impinger 4				
Impinger 5				
Silica gel impinger	794.1	785.6		8.5

Net Total Condensate -0.3 (g)

Signature

4/4/95
Date

Pitots L[illegible]
static -0.69

Sampling Trains Data Sheet

Client Louisiana Pacific Project # 5216613 Sample Loc. Press Vent Operators JL Date 95, 04, 04

Run # T3-Form Traverse # 1+2 Traverse Direction out Start Time 914 Finish Time ____

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0	9:14	0.36	0.95		978.775	103	239	249	44		43	46	3
2	3		0.56	1.6	980.50	980.43	105	236	225	49		46	44	3
3	6		0.57	1.7	982.58	982.55	107	236	244	53		50	44	4
4	9		0.57	1.7	984.71	984.72	105	236	253	53		53	45	4
5	12		0.35	0.95	986.88	986.91	112	236	237	53		57	45	4
	15	9:29			988.61	988.69								
1	0	9:31	0.5	1.5		988.69	108	230	238	54		55	47	4
2	3		0.45	1.3	990.72	990.69	104	236	255	54		60	47	4
3	6		0.5	1.5	992.61	992.60	110	236	250	55		61	49	4
4	9		0.5	1.45	994.63	994.68	102	236	253	55		63	49	4
5	12		0.4	1.0	996.71	996.69	111	235	251	55		64	49	3.5
	15	9:46			998.50	998.40								

Pre test leak check: Rate (cfm) 0.004 at 15 inches Hg (Vacuum)

Post test leak check: Rate (cfm) ____ at ____ inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature JL

Sampling Trains Data Sheet

Client Louisiana Pacific Project # 5216618 Sample Loc. Press Vent Operators JL Date 95/04/04

Run # T3-Form Traverse # 3/4 Traverse Direction OUT Start Time ____ Finish Time 10:20

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0	9:48	0.57	1.7		998.40	110	237	253	56		58	50	4
2	3		0.62	1.85	1000.56	1000.64	106	235	254	55		61	50	4
3	6		0.64	1.95	1002.90	1002.92	106	234	255	55		62	50	4
4	9		0.60	1.75	1005.21	1005.23	106	235	253	55		63	50	4
5	12		0.23	0.75	1007.50	1007.53	104	235	242	55		64	50	4
	15	10:03			1009.05	1009.08								
1	0	10:05	0.45	1.4		9.08	96	234	250	53		58	50	4
2	3		0.45	1.3	11.0	11.09	103	235	243	53		61	50	4
3	6		0.51	1.5	13.01	13.05	99	234	252	53		62	50	4
4	9		0.55	1.65	15.10	15.13	112	233	259	53		63	50	4
5	12		0.19	0.55	17.26	17.33	102	234	250	53		63	50	4
	15	10:20			19.55	19.60								

Pre test leak check: Rate (cfm) ____ at ____ inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.004 at 15 inches Hg (Vacuum)

K value calculated by _____ checked by _____

QA/QC CHECKLIST
METHOD 5/TFACE METALS AND MODIFIED METHOD 5 SAMPLING

1.0 PRETEST TRAIN ASSEMBLY/FINAL PREPARATION

PROJECT NO. 5214418 CLIENT Louisiana Pacific TEST(S) T3/T4 - Firm
DATE(S) 95.04.04 SAMPLE LOCATION
OPERATOR(S) J. Lemartz
Sampling Method (eg. MOE 5) MD011
Modifications to standard method NONE

Meter box TEAM #9 - Tor Probe TEAM #2, 7' Tor
Equipment identity matches pretest calibration list? ✓
Probe nozzle material: S. STEEL
cleaned according to sampling protocol? ✓
undamaged ✓
Probe liner material: QUARTZ
cleaned according to sampling protocol? ✓
heated? ✓ entire length? ✓ temperature 250°F
Pitot tube: Type S ✓ Other
properly attached to probe (no interference with nozzle?) ✓
modifications NONE
pitot tube coefficient 0.799
Pitot tube connected to: inclined manometer ✓
or magnehelic gauge — range — division —
pitot lines checked for leaks? ✓ plugging? ✓
Meter box leveled? ✓ pitot pressure gauge zeroed? ✓
orifice pressure gauge zeroed? ✓
Gas temperature sensor: thermocouple? ✓ type K
temperature sensor checked against ambient temp.? ✓
Filter holder: borosilicate glass — other —
frit material: teflon — borosilicate glass —
other —
heated? — temperature —
cleaned according to sampling protocol? —
filter holder assembled correctly? —
Filter type : —
filters checked visually for irregularities? —
filters properly centered? — labelled? —
Recent calibration of orifice meter dry gas meter ✓
pitot tubes ✓ magnehelic gauges —
thermometers and thermocouples? ✓ nozzles ✓
Is gas meter calibration temperature compensated? NO
meter temp. 50°F

QA/QC CHECKLIST
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

XAD resin trap used ___—___ glassware proofed? ___✓___
Impinger train: number of impingers ___4___
cleaned according to sampling protocol? ___✓___
contents: 1st 100ML DNPH 2nd 100ML DNPH 3rd EMPTY
4th SIL. GEL 5th ___ 6th ___
impinger weights recorded? ___✓___
impingers properly assembled? ___✓___
cooling system: ICE/WATER proper connections ___✓___
modifications: NONE
grease used on joints: ONLY SIL GEL kind of grease SILICON
Barometric pressure measured? ___✓___ source of data? ANEROID
Was preliminary velocity profile performed? ___✓___
Avg.delta P 0.5 Max. delta P 0.69 static -0.7
Avg. Temp. 100 °F
Estimated moisture content % 2 how estimated? PREVIOUS DATA
Estimated O2 % 20.9 CO2 % 0 CO % 0 SO2 % 0
how estimated? PREVIOUS DATA
Has an "isokinetic sheet" been completed? ___✓___
Nozzle size properly selected? ___✓___ nozzle diameter 0.240
K factor 0.955
nozzle properly attached to probe (correct orientation) ___✓___
Number of sampling points per traverse from Source Test Code 5
number to be used 5
probe markings correct? ___✓___
Length of sampling time per point desired 3
number to be used 3
Leak test performed before start of sampling? ___✓___
rate <0.02 cfm @ 15 in Hg

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

2.0 SAMPLING

All openings of sampling train sealed (pretest & posttest)? ✓

Leak performed before start of sampling? ✓
<0.02 cfm @ 15 in Hg.

Sampling train traversing technique:
- Is nozzle sealed when probe in stack with pump off? ✓
- Is care taken to avoid scraping nipple of stack wall? ✓
- Is an effective seal made around probe at port opening? ✓
- Is probe seal made without disturbing flow inside stack? ✓
- Is probe moved to each point at the proper time? ✓
- Is probe marking system adequate to locate each point? ✓
- Was pitot tube kept parallel to stack wall at each point? ✓
- If probe is disconnected from filter holder with probe in the stack on a negative pressure source how is particulate matter in the probe prevented from being sucked back into the stack? N/A
- If filters are changed during a run was there any pariculate loss? N/A

Meterbox operation:
- Is data recorded in a permanent manner? ✓
- are data sheets complete? ✓
- Average time to reach isokinetic rate at each point 10 s
- Are velocity pressures read and recorded accurately? ✓

Leak test performed at completion of test? <0.02 cfm @ 15 in Hg

Probe, filter holder, impingers sealed adequately after test? ✓

Gas analysis from stack? ✓ other? —
- from fyrites? — integrated bag? — orsat? —
- continuous gas analysers? —
- models: AMBIENT

Approximate stack temperature 100 gas sample volume ≈ 35 ft³

First 8 velocity pressures measured —

Percent isokinetic calculated —

Data forms completed and data recorded properly ✓

General comment on sampling techniques ✓

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

3.0 SAMPLE RECOVERY

General environment - clean up area CLEAN ROOM ON-SITE
Brushes: nylon bristle — other —
cleaned according to sampling protocol? —
Wash bottles: glass ____ polyethylene ✓ other TEFLON
cleaned according to sampling protocol? ✓
Storage containers: borosilicate glass ✓ other ____
cleaned according to sampling protocol? ✓
cap material TEFLON leak free? ✓
Petri dishes: plastic — other —
cleaned according to sampling protocol? —
Graduated cylinder: borosilicate glass — other —
Subdivisions of graduated cylinder < 2 ml? —
cleaned according to sampling protocol? —
Balance type TRIPLE BEAM calibrated (AUDIT)
Probe allowed to cool sufficiently? ✓
Probe and sample train openins sealed? ✓
Silica gel colour: run 1 ½ BLUE run 2 ____ run 3 ____
weighed? ✓ run 1 ____ run 2 ____ run 3 ____
Probe handling: Acetone rinses ____ other Meeh
Particulate recovery: probe nozzle — probe fitting —
probe liner — front half of filter holder —
Blanks collected: reagent(s) ____
acetone ____ DI water ____ other Meeh, DNPH
Impinger rinses: DI ____ other Meeh
Samples labelled and stored properly? ✓
Liquid levels marked? ✓
Filter handling: tweezers used? — surgical gloves —
Any particulate lost? Probe — Filter —
Description of particulate —

John Lennartz
Name

John Lennartz
Signature

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.04
RUN : T4PV-F
LOC. : PRESS VENT

RUN TIME : 10:51 TO 11:57

FORMALDEHYDE CONCENTRATION	235.3 ug/DSm3	0.1028 gr/1000 DScf
	200.2 ug/Am3	0.0875 gr/1000 Acf
FORMALDEHYDE EMISSION RATE	5.286 mg/s	293.65 gr/hr
SAMPLE GAS VOLUME	1.0712 DSm3	37.825 DScf
AVERAGE ISOKINETICITY	98.5 %	

FLUE GAS CHARACTERISTICS

MOISTURE	0.60 %	
TEMPERATURE	41.0 deg C	105.9 deg F
FLOW	80863 DSm3/hr	47594 DScfm
	95020 Am3/hr	55927 Acfm
VELOCITY	12.16 m/s	2394.0 fpm

GAS ANALYSIS	O2	20.90 %
	CO2	0.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	28.95 g/gmole D.B.
	MOL. WT.	28.88 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC	DATE : 95.04.04
JOBSITE : DAWSON CREEK	RUN : T4PV-F
REF.No. : 5216618	LOC. : PRESS VENT

STACK HEIGHT	3.0 m	10.0 ft.
DUCT DIMENSIONS	1.47 m	58.0 in.
	BY 1.47 m	BY 58.0 in.
DUCT AREA	2.170 m2	23.36 sq.ft.
BAROMETRIC PRESSURE	93.1 kPa	27.50 in.Hg
STATIC PRESSURE	-166.9 Pa	-0.67 in.H2O
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.799	
METER CORRECTION FACTOR	1.005	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	-3.8 g
CONDENSATION IN IMPINGER 2	3.2 g
CONDENSATION IN IMPINGER 3	-1.9 g
SILICA GEL WEIGHT GAIN	7.3 g
TOTAL MOISTURE GAIN	4.8 g

FORMALDEHYDE COLLECTION

FILTER FORMALDEHYDE	0.0000 mg
WASHINGS FORMALDEHYDE	0.0000 mg
IMPINGER FORMALDEHYDE	0.2520 mg
TOTAL FORMALDEHYDE	0.2520 mg

TOTAL SAMPLING TIME 60.0 min.

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.04
RUN : T4PV-F
LOC. : PRESS VENT

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H20	ORIF. PRES. in.H20	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	104	0.240	0.70	19.00	46	238	256	42	3.0	5.8	104.4
2	3.0	101	0.650	2.00	20.47	48	238	261	49	3.0	17.4	102.5
3	6.0	100	0.580	1.70	22.85	51	236	249	52	3.0	29.0	99.1
4	9.0	107	0.580	1.70	25.04	53	236	251	50	4.0	40.6	98.4
5	12.0	103	0.370	0.98	27.21	54	236	260	50	4.0	52.2	96.8
	15.0				28.93							
TRAVERSE NO. 2												
1	0.0	105	0.400	1.05	28.93	54	238	255	48	4.0	5.8	93.9
2	3.0	108	0.400	1.05	30.66	55	236	256	44	4.0	17.4	93.9
3	6.0	102	0.480	1.40	32.39	56	237	256	43	4.0	29.0	98.0
4	9.0	110	0.480	1.40	34.38	57	237	257	42	4.0	40.6	100.1
5	12.0	104	0.400	1.10	36.40	58	236	258	42	4.0	52.2	95.8
	15.0				38.18							
TRAVERSE NO. 3												
1	0.0	112	0.600	2.00	38.18	57	237	261	41	4.0	5.8	107.1
2	3.0	113	0.580	1.70	40.59	58	237	254	42	4.0	17.4	99.2
3	6.0	112	0.550	1.50	42.79	59	236	259	41	4.0	29.0	94.7
4	9.0	114	0.600	1.90	44.84	60	237	256	42	4.0	40.6	103.6
5	12.0	110	0.300	0.80	47.18	60	236	256	42	4.0	52.2	100.1
	15.0				48.79							
TRAVERSE NO. 4												
1	0.0	107	0.500	1.35	48.79	58	237	261	39	4.0	5.8	98.0
2	3.0	101	0.500	1.35	50.82	59	236	261	40	3.0	17.4	93.9
3	6.0	102	0.530	1.45	52.78	59	230	262	40	3.0	29.0	95.1
4	9.0	100	0.530	1.50	54.82	59	235	261	41	3.0	40.6	98.2
5	12.0	102	0.450	1.25	56.93	60	235	257	41	3.0	52.2	96.4
	15.0				58.84							
		106	0.480	1.39		56	236	257	44	3.7		98.5

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT Louisiana Pacific
CITY PROV. Dawson Creek B.C
PROJECT # 5216618
TEST T4-Form
SAMPLE LOCATION Press Vent
DATE 95.04.04
START TIME 10:51
FINISH TIME 11:57
BAROMETRIC PRESS.(in Hg) 27.43
STACK PRESS.(in H_2O) -0.67
PITOT COEFFICIENT 0.799
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0054
STACK HEIGHT(ft) 10
STACK DIAMETER(in) —
LENGTH X WIDTH 58 x 58
CO2(%) 0 O2(%) 20.9
CO(ppm) — OTHER —

IMPINGER NET 1 (g) -3.8
NET FILTER WT.(g) —
IMPINGER NET 2 (g) 3.2
NET PROBE WASH WT.(g) —
IMPINGER NET 3 (g) -1.9
IMP.RESIDUE WT.(g) —
IMPINGER NET 4 (g) 7.3
FILTER # —
IMPINGER NET 5 (g)
IMPINGER NET 6 (g)

METER BOX ID TEAM #4 - Tor
PROBE ID T2,7' Tor
NOZZLE ID 8-R - VCR
OTHER
EQUIPMENT COMMENTS

SAMPLING COMMENTS NO FLOW @ PT 4-1 ∴ SAMPLE TWICE AS LONG @ PT 4-2.

PROCESS RATE
CONTROL EQUIP. OPERATION
PROCESS COMMENTS

[signature] 95.04.04
SIGNATURE DATE

Moisture Analysis Data Sheet

Project #: 5216618 Client LOUISIANA PACIFIC-DC Test: TYPV-F

Test Date: APRIL 4/95 Sample Location: PRESS VENT

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	592.2	596.0		-3.8
Impinger 2	624.8	621.6		3.2
Impinger 3	495.4	497.3		-1.9
Impinger 4				
Impinger 5				
Silica gel impinger	777.5	770.2		7.3

Net Total Condensate 4.8 (g)

Signature

April 4/95
Date

0000 looking @ ports

9 3 2 1

Sampling Trains Data Sheet

Client Louisiana Pacific Project # 5214418 Sample Loc. Press Vent Operators JL Date 95/04/04

Run # T4 Form Traverse # 1/2 Traverse Direction OUT Start Time 10:51 Finish Time ____

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0	10:51	0.24	0.7		19.0	104	238	256	42		46	46	3
2	3		0.65	2.0	20.40	20.47	101	238	261	49		49	46	3
3	6		0.58	1.7	22.78	22.85	100	236	249	52		55	46	3
4	9		0.58	1.7	25.03	25.04	107	236	251	50		58	47	4
5	12		0.37	0.98	27.22	27.21	103	236	260	50		61	47	4
	15	11:06			28.95	28.93								
1	0	11:08	0.4	1.05		28.93	105	238	255	48		58	49	4
2	3		0.4	1.05	30.74	30.66	108	236	256	44		61	49	4
3	6		0.43	1.4		32.39	102	237	252	43		62	50	4
4	9		0.43	1.4	34.38	34.33	110	237	257	42		63	50	4
5	12		0.40	1.1	36.37	36.40	104	236	252	42		64	51	4
	15	11:23			38.21	38.175								

Pre test leak check: Rate (cfm) 0.009 at 15 inches Hg (Vacuum)

Post test leak check: Rate (cfm) ____ at ____ inches Hg (Vacuum)

K value calculated by [redacted] checked by [redacted]

Ambient Static 2-

Sampling Trains Data Sheet

Client Louisiana Pacific Project # 5216618 Sample Loc. Press Vent Operators JL Date 95/04/04

Run # T4-Form Traverse # 3 & 4 Traverse Direction OUT Start Time ____ Finish Time 11:57

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0	11:25	0.6	2		38.175	112	237	261	41		61	53	4
2	3		0.58	1.7	40.40	40.59	113	237	254	42		63	53	4
3	6		0.55	1.5	42.77	42.79	112	236	259	41		64	53	4
4	9		0.6	1.9	44.92	44.84	114	237	256	42		65	54	4
5	12		0.3	0.80	47.06	47.18	110	236	256	42		66	54	4
	15	11:40			48.75	48.79								
	0													
1	0	1142	0.5	1.35		48.79	107	237	261	39		61	55	4
2	3		0.5	1.35	50.82	50.82	101	236	261	40		62	56	3
3	6		0.53	1.45	52.85	52.78	102	230	262	40		63	55	3
4	9		0.53	1.5	54.87	54.82	100	235	261	41		63	55	3
5	12		0.45	1.25	56.91	56.93	102	235	257	41		64	55	3
	15	1157			58.85	58.84								

Pre test leak check: Rate (cfm) ____ at ____ inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.006 at 15 inches Hg (Vacuum)

K value calculated by ____ checked by ____

MDI EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.03
RUN : T1PV-MDI
LOC. : PRESS VENT

RUN TIME : 13:50 TO 14:56

MDI CONCENTRATION	102.6 ug/DSm3	0.0449 gr/1000 DScf
	87.8 ug/Am3	0.0384 gr/1000 Acf
MDI EMISSION RATE	2.343 mg/s	130.15 gr/hr
SAMPLE GAS VOLUME	1.1110 DSm3	39.229 DScf
AVERAGE ISOKINETICITY	100.5 %	

FLUE GAS CHARACTERISTICS

MOISTURE	1.33 %	
TEMPERATURE	39.3 deg C	102.8 deg F
FLOW	82167 DSm3/hr	48362 DScfm
	96050 Am3/hr	56533 Acfm
VELOCITY	12.29 m/s	2420.0 fpm

GAS ANALYSIS	O2	20.90 %
	CO2	0.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	28.95 g/gmole D.B.
	MOL. WT.	28.80 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

MDI EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC	DATE : 95.04.03
JOBSITE : DAWSON CREEK	RUN : T1PV-MDI
REF.No. : 5216618	LOC. : PRESS VENT

STACK HEIGHT	3.0 m	10.0 ft.
DUCT DIMENSIONS	1.47 m	58.0 in.
	BY 1.47 m	BY 58.0 in.
DUCT AREA	2.170 m2	23.36 sq.ft.
BAROMETRIC PRESSURE	93.8 kPa	27.70 in.Hg
STATIC PRESSURE	-169.3 Pa	-0.68 in.H20
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.799	
METER CORRECTION FACTOR	1.005	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	-90.5 g
CONDENSATION IN IMPINGER 2	28.1 g
CONDENSATION IN IMPINGER 3	7.0 g
CONDENSATION IN IMPINGER 4	4.2 g
CONDENSATION IN IMPINGER 5	11.3 g
SILICA GEL WEIGHT GAIN	51.1 g
TOTAL MOISTURE GAIN	11.2 g

MDI COLLECTION

FILTER MDI	0.0000 mg
WASHINGS MDI	0.0000 mg
IMPINGER MDI	0.1140 mg
TOTAL MDI	0.1140 mg

TOTAL SAMPLING TIME 60.0 min.

MDI EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.03
RUN : T1PV-MDI
LOC. : PRESS VENT

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H2O	ORIF. PRES. in.H2O	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	103	0.170	0.50	886.65	39	232	256	31	3.0	5.8	101.8
2	3.0	103	0.610	1.80	887.83	41	231	240	32	3.0	17.4	99.3
3	6.0	107	0.610	1.85	890.01	43	231	259	33	3.0	29.0	102.5
4	9.0	101	0.610	1.85	892.26	44	231	244	34	3.0	40.6	102.2
5	12.0	98	0.350	0.92	894.52	45	231	258	34	3.0	52.2	99.0
	15.0				896.19							
TRAVERSE NO. 2												
1	0.0	106	0.500	1.30	896.19	44	234	238	33	3.0	5.8	96.1
2	3.0	106	0.470	1.30	898.11	45	232	252	34	3.0	17.4	98.4
3	6.0	102	0.500	1.50	900.02	46	232	235	35	3.0	29.0	100.4
4	9.0	102	0.540	1.65	902.04	47	231	260	36	3.0	40.6	101.8
5	12.0	104	0.440	1.25	904.17	48	231	236	37	3.0	52.2	98.3
	15.0				906.03							
TRAVERSE NO. 3												
1	0.0	103	0.620	1.90	906.03	46	233	263	36	3.0	5.8	102.8
2	3.0	105	0.690	2.30	908.33	47	232	248	40	3.0	17.4	106.9
3	6.0	103	0.570	1.60	910.85	49	231	263	42	3.0	29.0	99.7
4	9.0	104	0.570	1.60	913.00	49	232	253	44	3.0	40.6	98.7
5	12.0	105	0.450	1.20	915.13	50	233	245	46	3.0	52.2	95.4
	15.0				916.96							
TRAVERSE NO. 4												
1	0.0	101	0.500	1.50	916.96	48	233	244	42	3.0	5.8	102.9
2	3.0	104	0.650	2.00	919.04	50	233	250	48	3.0	17.4	102.9
3	6.0	100	0.580	1.70	921.41	51	232	244	50	3.0	29.0	99.5
4	9.0	101	0.530	1.55	923.59	51	232	250	50	3.0	40.6	98.4
5	12.0	98	0.180	0.55	925.65	51	232	250	51	3.0	52.2	103.5
	15.0				926.92							
		103	0.495	1.49		47	232	249	39	3.0		100.5

Inc

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT Louisiana Pacific
CITY PROV. Dawson Creek, B.C
PROJECT # 52166618
TEST ~~95.04.03~~ T1-MD1
SAMPLE LOCATION Press Vent
DATE 95.04.03
START TIME 13:50
FINISH TIME 14:56
BAROMETRIC PRESS.(in Hg) 27.68
STACK PRESS.(in H_2O) -0.68
PITOT COEFFICIENT 0.799
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0054
STACK HEIGHT(ft) 10
STACK DIAMETER(in) —
LENGTH X WIDTH 58 X 58
CO2(%) Ø
O2(%) 20.9
CO(ppm)
OTHER

IMPINGER NET 1 (g) -90.5
IMPINGER NET 2 (g) 28.1
IMPINGER NET 3 (g) 7.0
IMPINGER NET 4 (g) 4.2
IMPINGER NET 5 (g) 11.3
IMPINGER NET 6 (g) 51.1

NET FILTER WT.(g) —
NET PROBE WASH WT.(g) —
IMP.RESIDUE WT.(g) —
FILTER # —

METER BOX ID TEAM #4 - Tor
PROBE ID T2 7' Tor
NOZZLE ID 8-2 VCR
OTHER

EQUIPMENT COMMENTS

SAMPLING COMMENTS NO FLOW @ PT 4-1 ∴ SAMPLE TWICE AS LONG @ 4-2

PROCESS RATE
CONTROL EQUIP. OPERATION
PROCESS COMMENTS

John Lennart — SIGNATURE
95.04.03 — DATE

Moisture Analysis Data Sheet

Project #: 5316618 Client LOUISIANA PACIFIC Test: TIPU-MDT

Test Date: 4/3/95 Sample Location: PRESS VENT

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	582.8	673.3		-90.5
Impinger 2	651.4	623.3		28.1
Impinger 3	650.1	643.1		7.0
Impinger 4	483.7	479.5		4.2
Impinger 5	643.2	631.9		11.3
Silica gel impinger	844.4	793.3		51.1

Net Total Condensate 11.2 (g)

Signature

4/3/95
Date

STATIC -0.68

Sampling Trains Data Sheet

Client LOUISIANA PACIFIC Project # 5216618 Sample Loc. PRESS VENT Operators JL Date 95/04/03

Run # TI-MD1 Traverse # 1&2 Traverse Direction OUT Start Time 13:50 Finish Time ____

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0	13:50	0.17	0.50		886.65	103	232	236	31		39	39	3
2	3		0.61	1.8	887.83	887.83	103	231	240	32		41	40	3
3	6		0.61	1.85	890.07	890.01	107	231	259	33		45	40	3
4	9		0.61	1.85	892.25	892.26	101	231	244	34		47	40	3
5	12		0.35	0.92	894.50	894.52	98	231	258	34		49	40	3
	15	14:05			896.22	896.19								
1	0	14:07	0.5	1.3		896.19	106	234	238	33		48	40	3
2	3		0.47	1.3	898.22	898.11	106	232	252	34		49	41	3
3	6		0.5	1.5	900.08	900.02	102	232	235	35		51	41	3
4	9		0.54	1.65	902.05	902.04	102	231	260	36		52	41	3
5	12		0.44	1.25	904.15	904.17	104	231	236	37		54	42	3
	15	14:22			906.07	906.03								

Pre test leak check: Rate (cfm) 0.005 at 15 inches Hg (Vacuum)

Post test leak check: Rate (cfm) ____ at ____ inches Hg (Vacuum)

K value calculated by ____ checked by ____

Signature ____

Sampling Trains Data Sheet

Client LOUISIANA PACIFIC Project # 5216618 Sample Loc. PRESS VENT Operators JL Date 95 / 01 / 03

Run # T1-M01 Traverse # 3+4 Traverse Direction OUT Start Time ____ Finish Time 14:56

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0	14:24	0.62	1.9		906.07	103	233	213	36		50	42	3
2	3		0.69	2.3	908.29	908.33	105	232	243	40		52	42	3
3	6		0.57	1.6	910.71	910.85	103	231	213	42		55	42	3
4	9		0.57	1.6	913.01	913.00	104	232	253	44		55	43	3
5	12		0.45	1.2	915.16	915.13	105	233	215	46		56	43	3
	15	14:39			917.05	910.96								
1	0	14:41	0.50	1.5		916.96	101	233	214	42		52	44	3
2	3		0.65	2.0	918.99	919.04	104	233	250	48		55	44	3
3	6		0.58	1.7	921.35	921.41	100	232	244	50		57	45	3
4	9		0.53	1.55	923.60	923.59	101	232	250	50		57	45	3
5	12		0.18	0.55	925.68	925.65	98	232	250	51		57	45	3
	15	14:56			926.87	926.92								

Pre test leak check: Rate (cfm) ____ at ____ inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.000 at 15 inches Hg (Vacuum)

K value calculated by [redacted] checked by [redacted]

signature

QA/QC CHECKLIST
METHOD 5/TFACE METALS AND MODIFIED METHOD 5 SAMPLING

1.0 PRETEST TRAIN ASSEMBLY/FINAL PREPARATION

PROJECT NO. 5216618 CLIENT Louisiana Pacific TEST(S) T1/T2 MDI
DATE(S) 95.04.03 SAMPLE LOCATION Press Vent
OPERATOR(S) J. Lennart 2
Sampling Method (eg. MOE 5) Mooil
Modifications to standard method NONE

Meter box TEAM #4 - Tor. Probe TEAM #2, 7' - Tor.
Equipment identity matches pretest calibration list? ✓
Probe nozzle material: S. STEEL
cleaned according to sampling protocol? ✓
undamaged ✓
Probe liner material: QUARTZ
cleaned according to sampling protocol? ✓
heated? ✓ entire length? ✓ temperature 250°F
Pitot tube: Type S ✓ Other
properly attached to probe (no interference with nozzle?) ✓
modifications NONE
pitot tube coefficient 0.799
Pitot tube connected to: inclined manometer ✓
or magnehelic gauge — range — division —
pitot lines checked for leaks? ✓ plugging? ✓
Meter box leveled? ✓ pitot pressure gauge zeroed? ✓
orifice pressure gauge zeroed? ✓
Gas temperature sensor: thermocouple? ✓ type K
temperature sensor checked against ambient temp.? ✓ 35°F
Filter holder: borosilicate glass — other —
frit material: teflon — borosilicate glass —
other —
heated? — temperature —
cleaned according to sampling protocol? —
filter holder assembled correctly? —
Filter type : —
filters checked visually for irregularities? —
filters properly centered? — labelled? —
Recent calibration of orifice meter dry gas meter ✓
pitot tubes ✓ magnehelic gauges —
thermometers and thermocouples? ✓ nozzles ✓
Is gas meter calibration temperature compensated? No
meter temp. 50°F

QA/QC CHECKLIST
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

XAD resin trap used ___ glassware proofed? ✓
Impinger train: number of impingers 6
cleaned according to sampling protocol? ✓
contents: 1st 100mL 1,2 PP 2nd 100mL 1,2PP 3rd 100mL 1,2PP
4th EMPTY 5th SIL GEL 6th CARBON
impinger weights recorded? ✓
impingers properly assembled? ✓
cooling system: ICE/WATER proper connections ✓
modifications: NONE
grease used on joints: ONLY SIL GEL kind of grease SILICON
Barometric pressure measured? ✓ source of data? ANEROID
Was preliminary velocity profile performed? ✓
Avg.delta P 0.5 Max. delta P 0.68 static -0.7
Avg. Temp. 100
Estimated moisture content % 2 how estimated? PREVIOUS DATA
Estimated O2 % 20.9 CO2 % 0 CO % 0 SO2 % 0
how estimated? PREVIOUS DATA
Has an "isokinetic sheet" been completed? ✓
Nozzle size properly selected? ✓ nozzle diameter 0.240
K factor 0.855
nozzle properly attached to probe (correct orientation) ✓
Number of sampling points per traverse from Source Test Code 5
number to be used 5
probe markings correct? ✓
Length of sampling time per point desired 3
number to be used 3
Leak test performed before start of sampling? ✓
rate <0.002 cfm @ 15" in Hg

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

2.0 SAMPLING

All openings of sampling train sealed (pretest & posttest)? ✓

Leak performed before start of sampling? ✓
<0.02 cfm @ 15 in Hg.

Sampling train traversing technique:
- Is nozzle sealed when probe in stack with pump off? ✓
- Is care taken to avoid scraping nipple of stack wall? ✓
- Is an effective seal made around probe at port opening? ✓
- Is probe seal made without disturbing flow inside stack? ✓
- Is probe moved to each point at the proper time? ✓
- Is probe marking system adequate to locate each point? ✓
- Was pitot tube kept parallel to stack wall at each point? ✓
- If probe is disconnected from filter holder with probe in the stack on a negative pressure source how is particulate matter in the probe prevented from being sucked back into the stack? NA
- If filters are changed during a run was there any pariculate loss? NA

Meterbox operation:
- Is data recorded in a permanent manner? ✓
- are data sheets complete? ✓
- Average time to reach isokinetic rate at each point 10.5
- Are velocity pressures read and recorded accurately? ✓

Leak test performed at completion of test? <0.02 cfm @ 15 in Hg

Probe, filter holder, impingers sealed adequately after test? ✓

Gas analysis from stack? — other? —
- from fyrites? — integrated bag? — orsat? —
- continuous gas analysers? AMBIENT SOURCE
- models: —

Approximate stack temperature 160 gas sample volume 75 ft³

First 8 velocity pressures measured —

Percent isokinetic calculated —

Data forms completed and data recorded properly ✓

General comment on sampling techniques ✓

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

3.0 SAMPLE RECOVERY

General environment - clean up area CLEAN ROOM ON-SITE
Brushes: nylon bristle — other —
cleaned according to sampling protocol? —
Wash bottles: glass ____ polyethylene ✓ other TEFLON
cleaned according to sampling protocol? ✓
Storage containers: borosilicate glass ✓ other ____
cleaned according to sampling protocol? ✓
cap material TEFLON leak free? ✓
Petri dishes: plastic — other —
cleaned according to sampling protocol? —
Graduated cylinder: borosilicate glass — other —
Subdivisions of graduated cylinder < 2 ml? —
cleaned according to sampling protocol? —
Balance type TRIPLE BEAM calibrated (AUDIT)
Probe allowed to cool sufficiently? ✓
Probe and sample train openins sealed? ✓
Silica gel colour: run 1 1/2 BLUE run 2 ____ run 3 ____
weighed? run 1 ____ run 2 ____ run 3 ____
Probe handling: Acetone rinses ____ other TOLUENE / ACETONITRILE
Particulate recovery: probe nozzle — probe fitting —
probe liner — front half of filter holder —
Blanks-collected: reagent(s) ✓
acetone ____ DI water ____ other TOLUENE / ACETONITRILE
Impinger rinses: DI — other TOLUENE / ACETONITRILE
Samples labelled and stored properly? ✓
Liquid levels marked? ✓
Filter handling: tweezers used? — surgical gloves —
Any particulate lost? Probe — Filter —
Description of particulate —

John Lennartz
Name

John Lennartz
Signature

MDI EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.03
RUN : T2PV-MDI
LOC. : PRESS VENT

RUN TIME : 15:45 TO 16:53

MDI CONCENTRATION	11.6 ug/DSm3	0.0051 gr/1000 DScf
	9.9 ug/Am3	0.0043 gr/1000 Acf
MDI EMISSION RATE	0.269 mg/s	14.92 gr/hr
SAMPLE GAS VOLUME	1.1198 DSm3	39.540 DScf
AVERAGE ISOKINETICITY	100.0 %	

FLUE GAS CHARACTERISTICS

MOISTURE	1.37 %	
TEMPERATURE	39.3 deg C	102.8 deg F
FLOW	83274 DSm3/hr	49014 DScfm
	97372 Am3/hr	57312 Acfm
VELOCITY	12.46 m/s	2453.3 fpm

GAS ANALYSIS	O2	20.90 %
	CO2	0.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	28.95 g/gmole D.B.
	MOL. WT.	28.80 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

MDI EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC	DATE : 95.04.03
JOBSITE : DAWSON CREEK	RUN : T2PV-MDI
REF.No. : 5216618	LOC. : PRESS VENT

STACK HEIGHT	3.0 m	10.0 ft.
DUCT DIMENSIONS	1.47 m	58.0 in.
	BY 1.47 m	BY 58.0 in.
DUCT AREA	2.170 m2	23.36 sq.ft.
BAROMETRIC PRESSURE	93.8 kPa	27.70 in.Hg
STATIC PRESSURE	-161.8 Pa	-0.65 in.H2O
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.799	
METER CORRECTION FACTOR	1.005	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	-94.3 g
CONDENSATION IN IMPINGER 2	25.8 g
CONDENSATION IN IMPINGER 3	14.1 g
CONDENSATION IN IMPINGER 4	6.6 g
CONDENSATION IN IMPINGER 5	10.1 g
SILICA GEL WEIGHT GAIN	49.3 g
TOTAL MOISTURE GAIN	11.6 g

MDI COLLECTION

FILTER MDI	0.0000 mg
WASHINGS MDI	0.0000 mg
IMPINGER MDI	0.0130 mg
TOTAL MDI	0.0130 mg

TOTAL SAMPLING TIME 60.0 min.

MDI EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.03
RUN : T2PV-MDI
LOC. : PRESS VENT

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H2O	ORIF. PRES. in.H2O	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	95	0.150	0.40	927.61	44	236	260	29	3.0	5.8	98.5
2	3.0	102	0.550	1.65	928.70	44	234	259	30	3.0	17.4	98.5
3	6.0	102	0.610	1.85	930.77	45	233	259	33	3.0	29.0	102.0
4	9.0	106	0.600	1.80	933.03	47	234	263	34	3.0	40.6	98.8
5	12.0	103	0.400	1.00	935.20	48	233	260	34	3.0	52.2	94.7
	15.0				936.91							
TRAVERSE NO. 2												
1	0.0	103	0.520	1.60	936.91	47	237	259	33	3.0	5.8	103.2
2	3.0	101	0.500	1.50	939.03	50	235	261	38	3.0	17.4	100.0
3	6.0	104	0.550	1.70	941.06	49	235	257	39	3.0	29.0	102.0
4	9.0	105	0.530	1.60	943.22	50	234	260	39	3.0	40.6	100.9
5	12.0	100	0.380	1.00	945.32	50	234	258	39	3.0	52.2	98.1
	15.0				947.06							
TRAVERSE NO. 3												
1	0.0	103	0.600	1.95	947.06	49	236	259	36	3.0	5.8	105.0
2	3.0	103	0.650	2.00	949.38	50	234	260	43	3.0	17.4	103.6
3	6.0	105	0.610	1.90	951.77	52	235	257	45	3.0	29.0	101.4
4	9.0	104	0.550	1.50	954.04	53	234	261	46	3.0	40.6	98.4
5	12.0	100	0.480	1.35	956.14	53	235	258	46	3.0	52.2	96.9
	15.0				958.08							
TRAVERSE NO. 4												
1	0.0	107	0.520	1.40	958.08	51	238	260	46	3.0	5.8	97.0
2	3.0	102	0.600	1.85	960.08	53	236	273	53	3.0	17.4	101.3
3	6.0	103	0.560	1.60	962.34	54	236	267	54	3.0	29.0	98.7
4	9.0	108	0.500	1.45	964.47	54	236	251	55	3.0	40.6	98.9
5	12.0	100	0.470	1.40	966.48	55	235	250	55	3.0	52.2	99.0
	15.0				968.45							
		103	0.509	1.53		50	235	260	41	3.0		100.0

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT Louisiana Pacific
CITY PROV. Dawson Creek B.C
PROJECT # 5216 6618
TEST T2-MD1
SAMPLE LOCATION Press Vent
DATE 95.04.07
START TIME 15:45
FINISH TIME 16:53
BAROMETRIC PRESS.(in Hg) 27.68
STACK PRESS.(in H_2O) -0.65
PITOT COEFFICIENT 0.799
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0054
STACK HEIGHT(ft) 10
STACK DIAMETER(in) —
LENGTH X WIDTH 58 x 58
CO2(%) 0 O2(%) 20.9
CO(ppm) _____ OTHER _____

IMPINGER NET 1 (g) -94.3
IMPINGER NET 2 (g) 25.8
IMPINGER NET 3 (g) 14.1
IMPINGER NET 4 (g) 6.6
IMPINGER NET 5 (g) 10.1
IMPINGER NET 6 (g) 49.3

NET FILTER WT.(g) —
NET PROBE WASH WT.(g) —
IMP.RESIDUE WT.(g) —
FILTER # —

METER BOX ID TEAM #4 - Tor
PROBE ID T2, 7' Tor
NOZZLE ID #8-2 Ver
OTHER _____
EQUIPMENT COMMENTS _____

SAMPLING COMMENTS NO FLOW @ PT 4-1 ∴ SAMPLE TWICE AS LONG @ PT 4-2

PROCESS RATE _____
CONTROL EQUIP. OPERATION _____
PROCESS COMMENTS _____

John Lennart
SIGNATURE

95.04.07
DATE

Moisture Analysis Data Sheet

Project #: 5216618 Client LOUISIANA PACIFIC Test: T2PV-MDI

Test Date: APRIL 3/95 Sample Location: PRESS VENT

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	604.8	699.1 ~~[illegible]~~ g		-94.3
Impinger 2	653.3	627.5		25.8
Impinger 3	619.8	605.7		14.1
Impinger 4	490.2	483.6		6.6
CHARCOAL Impinger 5	608.7	598.6		10.1
Silica gel impinger	828.9 g	779.6		49.3

Net Total Condensate 11.6 (g)

Signature

4/3/95
Date

Sampling Trains Data Sheet

Client Louisiana Pacific Project # 5216418 Sample Loc. Press Vent Operators JL Date 95/04/03

Run # T2-MD1 Traverse # 1&2 Traverse Direction OUT Start Time 1345 Finish Time ____

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0	1545	0.15	0.40		~~905~~ 927.605	95	236	210	29		43	44	3
2	3		0.55	1.65	928.71	923.70	102	234	259	30		44	44	3
3	6		0.61	1.85	930.83	930.77	102	233	259	33		46	44	3
4	9		0.60	1.80	933.01	933.03	106	234	263	34		49	44	3
5	12		0.4	1.0	935.25	935.20	103	233	210	34		51	44	3
	15	1600			937.01	936.91								
1	0	1602	0.52	1.6		936.91	103	~~259~~ 237.52	259	33		50	44	3
2	3		0.50	1.5	938.98	938.03	101	235	261	38		52	48	3
3	6		0.55	1.7	941.06	941.06	104	235	257	39		54	44	3
4	9		0.53	1.6	943.19	943.22	105	234	260	39		55	45	3
5	12		0.38	1.0	945.31	945.32	100	234	258	39		55	45	3
	15	1617			947.09	947.06								

Pre test leak check: Rate (cfm) 0.005 at 17 inches Hg (Vacuum)

Post test leak check: Rate (cfm) ____ at ____ inches Hg (Vacuum) .005

K value calculated by ____ checked by ____

static -0.65

Sampling Trains Data Sheet

Client Louisiana Pacific Project # 5216618 Sample Loc. Press Vent Operators JL Date 95, 04, 03

Run # T2-MD I Traverse # 3/4 Traverse Direction Out Start Time 16:20 Finish Time 16:53

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
	0	16:20	0.6	1.95		947.06	103	236	259	36		52	45	3
	3		0.65	2.0	949.28	949.33	103	234	260	43		55	45	3
	6		0.61	1.90	951.69	951.77	105	235	257	45		57	46	3
	9		0.55	1.5	954.01	954.04	104	234	261	46		59	46	3
	12		0.48	1.35	956.17	956.14	100	235	258	46		60	46	3
	15	16:35			958.13	958.075								
				~~1.4~~										
	0	16:38	0.52	~~1.35~~		958.075	107	238	260	46		54	47	3
	3		0.60	1.85	960.14	960.08	102	236	273	53		58	47	3
	6		0.56	1.6	962.3	962.34	103	236	267	54		60	47	3
	9		0.50	1.45	964.49	964.47	108	236	251	55		60	48	3
	12		0.47	1.40	966.50	966.48	100	235	250	55		62	48	3
	15	16:53			968.45	968.45								

Pre test leak check: Rate (cfm) ____ at ____ inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.004 at 16 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature [illegible]

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.03
RUN : T1BH-F
LOC. : BAGHOUSE

RUN TIME : 10:59 TO 12:26

FORMALDEHYDE CONCENTRATION	222.7 ug/DSm3	0.0973 gr/1000 DScf
	190.9 ug/Am3	0.0834 gr/1000 Acf
FORMALDEHYDE EMISSION RATE	1.824 mg/s	101.36 gr/hr
SAMPLE GAS VOLUME	1.7695 DSm3	62.482 DScf
AVERAGE ISOKINETICITY	100.0 %	

FLUE GAS CHARACTERISTICS

MOISTURE	1.03 %	
TEMPERATURE	23.5 deg C	74.3 deg F
FLOW	29488 DSm3/hr	17356 DScfm
	34394 Am3/hr	20244 Acfm
VELOCITY	18.41 m/s	3624.6 fpm

GAS ANALYSIS	O2	20.90 %
	CO2	0.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	28.95 g/gmole D.B.
	MOL. WT.	28.84 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.03
RUN : T1BH-F
LOC. : BAGHOUSE

STACK HEIGHT	6.1 m	20.0 ft.
STACK DIAMETER	0.81 m	32.0 in.
STACK AREA	0.519 m2	5.59 sq.ft.
BAROMETRIC PRESSURE	93.8 kPa	27.70 in.Hg
STATIC PRESSURE	-4980.0 Pa	-20.00 in.H2O
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.766	
METER CORRECTION FACTOR	1.006	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	-6.6 g
CONDENSATION IN IMPINGER 2	9.2 g
CONDENSATION IN IMPINGER 3	1.5 g
SILICA GEL WEIGHT GAIN	9.7 g
TOTAL MOISTURE GAIN	13.8 g

FORMALDEHYDE COLLECTION

FILTER FORMALDEHYDE	0.0000 mg
WASHINGS FORMALDEHYDE	0.0000 mg
IMPINGER FORMALDEHYDE	0.3940 mg
TOTAL FORMALDEHYDE	0.3940 mg

TOTAL SAMPLING TIME 64.0 min.

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.03
RUN : T1BH-F
LOC. : BAGHOUSE

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H20	ORIF. PRES. in.H20	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	75	1.400	4.00	165.88	45	245	245	19	3.5	1.1	105.4
1	2.0	75	1.400	4.00	168.13	43	225	245	24	3.5	1.1	107.7
2	4.0	75	1.400	3.90	170.42	44	203	244	26	3.5	3.4	98.6
2	6.0	75	1.400	3.90	172.52	44	193	246	26	3.5	3.4	100.4
3	8.0	75	1.500	3.90	174.66	45	185	244	25	3.5	6.2	96.9
3	10.0	75	1.500	4.10	176.80	46	179	245	25	3.5	6.2	97.2
4	12.0	76	1.400	4.00	178.95	46	174	243	25	3.5	10.3	100.1
4	14.0	76	1.500	4.10	181.09	47	170	247	25	3.5	10.3	98.9
5	16.0	76	1.300	3.80	183.28	47	166	247	26	3.5	21.7	100.8
5	18.0	76	1.300	3.80	185.36	48	165	243	26	3.5	21.7	101.1
6	20.0	75	1.250	3.70	187.45	48	164	244	27	3.5	25.8	101.9
6	22.0	76	1.250	3.60	189.52	48	162	246	28	3.5	25.8	102.0
7	24.0	67	1.050	3.20	191.59	49	171	246	29	3.5	28.6	102.1
7	26.0	69	1.050	3.10	193.51	49	175	244	29	3.5	28.6	100.6
8	28.0	69	0.650	1.90	195.40	50	183	245	29	3.5	30.9	102.4
8	30.0	69	0.620	1.70	196.92	50	190	246	29	3.5	30.9	99.3
	32.0				198.36							
TRAVERSE NO. 2												
1	0.0	70	1.150	3.40	198.53	46	247	245	21	3.5	1.1	102.6
1	2.0	75	1.150	3.20	200.53	47	213	242	23	3.5	1.1	102.3
2	4.0	77	1.200	3.00	202.52	48	198	247	23	3.5	3.4	102.1
2	6.0	77	1.150	3.00	204.55	48	188	245	23	3.5	3.4	104.7
3	8.0	77	1.200	3.00	206.59	50	179	245	25	3.5	6.2	86.2
3	10.0	76	1.200	3.20	208.31	50	175	245	25	3.5	6.2	99.6
4	12.0	77	1.250	3.30	210.30	51	171	245	26	3.5	10.3	99.0
4	14.0	76	1.250	3.40	212.32	52	168	245	26	3.5	10.3	99.7
5	16.0	76	1.400	3.60	214.36	54	165	245	27	3.5	21.7	99.0
5	18.0	76	1.400	3.70	216.51	55	163	245	28	3.5	21.7	97.5
6	20.0	76	1.400	4.00	218.63	56	161	246	29	3.5	25.8	99.2
6	22.0	76	1.400	4.00	220.79	57	159	245	30	3.5	25.8	99.5
7	24.0	68	1.250	3.60	222.96	58	166	245	31	3.5	28.6	97.8
7	26.0	74	1.200	3.40	225.00	59	170	245	32	3.5	28.6	98.8
8	28.0	74	0.740	2.10	227.01	59	179	247	32	3.5	30.9	99.7
8	30.0	74	0.780	2.20	228.61	59	185	245	32	3.5	30.9	99.6
	32.0				230.25							
		74	1.209	3.40		50	182	245	27	3.5		100.0

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT LOUISIANA-PACIFIC
CITY PROV. DAWSON CREEK
PROJECT # 5216618
TEST TIBH-F
SAMPLE LOCATION BAG HOUSE
DATE MAR. 3/95
START TIME 10:59
FINISH TIME 12:26
BAROMETRIC PRESS.(in Hg) 27.7
STACK PRESS.(in H_2O) -20
PITOT COEFFICIENT 0.766
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0057
STACK HEIGHT(ft) 20
STACK DIAMETER(in) 32
LENGTH X WIDTH — X —
CO2(%) 0
O2(%) 20.9
CO(ppm) 0
OTHER 0

IMPINGER NET 1 (g) -6.6
NET FILTER WT.(g) —
IMPINGER NET 2 (g) 9.2
NET PROBE WASH WT.(g) —
IMPINGER NET 3 (g) 1.5
IMP.RESIDUE WT.(g)
IMPINGER NET 4 (g) 9.7
FILTER # —
IMPINGER NET 5 (g)
IMPINGER NET 6 (g)

METER BOX ID V-1
PROBE ID T1 7'
NOZZLE ID ~~0.24~~ #P(T8)
OTHER
EQUIPMENT COMMENTS FILTER BYPASS

SAMPLING COMMENTS TEFLON WRAPPED JOINTS

PROCESS RATE NORMAL
CONTROL EQUIP. OPERATION NORMAL
PROCESS COMMENTS

JMC
SIGNATURE

04/03/95
DATE

Moisture Analysis Data Sheet

Project #: 5216618 Client LOUISIANA PACIFIC Test: TIBH-F

Test Date: APRIL 3/95 Sample Location: BAG HOUSE

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	568.6	575.2		-6.6
Impinger 2	640.8	631.6		9.2
Impinger 3	497.7	496.2		1.5
Impinger 4				
Impinger 5				
Silica gel impinger	780.8	771.1		9.7

Net Total Condensate 13.8 (g)

Signature

April 3/95
Date

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/03/9

Run # TBH-F Traverse # 1 Traverse Direction OUT Start Time 10:59 Finish Time

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.4	4.0		165.875 ~~159.19~~	75	245	245	19		46	44	3.5
1	2		1.4	4.0	168.014	168.13	75	225	245	24		43	43	3.5
2	4		1.4	3.9	170.269	170.42	75	203	244	26		44	43	3.5
2	6		1.4	3.9	172.56	172.52	75	193	246	26		45	43	3.5
3	8		1.5	3.9	174.679	174.66	75	185	244	25		46	43	3.5
3	10		1.5	4.1	176.895	176.80	75	179	245	25		48	43	3.5
4	12		1.4	4.0	179.035	178.95	76	174	243	25		49	43	3.5
4	14		1.5	4.1	181.109	181.09	76	170	247	25		50	43	3.5
5	16		1.3	3.8	183.325	183.28	76	166	247	26		51	43	3.5
5	18		1.3	3.8	185.36	185.36	76	165	243	26		52	43	3.5
6	20		1.25	3.7	187.44	187.45	75	164	244	27		53	43	3.5
6	22		1.25	3.6	189.49	189.52	76	162	246	28		53	43	3.5

Pre test leak check: Rate (cfm) 0.008 at 15 inches Hg (Vacuum)

Post test leak check: Rate (cfm) / at / inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/03/9

Run # TIBH-F Traverse # 1 Traverse Direction OUT Start Time / Finish Time 11:31

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
7	24		1.05	3.2	191.56	191.59	67	171	246	29		54	44	3.5
7	26		1.05	3.1	193.455	193.51	69	175	244	29		54	44	3.5
8	28		0.65	1.9	195.375	195.40	69	183	245	29		55	44	3.5
8	30		0.62	1.7	196.87	196.92	69	190	246	29		55	44	3.5
	32				198.356	198.36								

Pre test leak check: Rate (cfm) / at / inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.001 at 10 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature [illegible]

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JW/MS Date 04/03/95

Run # TIBA-F Traverse # 2 Traverse Direction OUT Start Time 11:54 Finish Time /

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.15	3.4	/	198.53	70	247	245	21		46	45	3.5
1	2		1.15	3.2	200.486	200.53	75	213	242	23		48	45	3.5
2	4		1.20	3.0	202.487	202.52	77	198	247	23		50	45	3.5
2	6		1.15	3.0	204.52	204.55	77	188	245	23		51	45	3.5
3	8		1.20	3.0	206.507	206.59	77	179	245	25		54	45	3.5
3	10		1.20	3.2	208.589	208.31	76	175	245	25		55	45	3.5
4	12		1.25	3.3	210.309	210.30	77	171	245	26		57	45	3.5
4	14		1.25	3.4	212.335	212.32	76	168	245	26		58	46	3.5
5	16		1.40	3.6	214.355	214.36	76	165	245	27		60	47	3.5
5	18		1.40	3.7	216.519	216.51	76	163	245	28		62	47	3.5
6	20		1.40	4.0	218.678	218.63	76	161	246	29		63	48	3.5
6	22		1.40	4.0	220.789	220.79	76	159	245	30		64	49	3.5

Pre test leak check: Rate (cfm) 0.004 at 10 inches Hg (Vacuum)

Post test leak check: Rate (cfm) / at / inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 521618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/03/9

Run # TIBH-F Traverse # 2 Traverse Direction OUT Start Time / Finish Time 12:26

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
7	24		1.25	3.6	222.949	222.96	68	166	245	31		66	50	3.5
7	26		1.20	3.4	224.995	225.00	74	170	245	32		66	51	3.5
8	28		0.74	2.1	226.999	227.01	74	179	247	32		66	52	3.5
8	30		0.78	2.2	228.58	228.61	74	185	245	32		66	52	3.5
	32				230.221	230.25								

Pre test leak check: Rate (cfm) / at / inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.002 at 10 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature [signature]

QA/QC CHECKLIST
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

1.0 PRETEST TRAIN ASSEMBLY/FINAL PREPARATION

PROJECT NO. 5216618 CLIENT LOUISIANA-PACIFIC TEST(S) T1BH-F/T2BM-F T3BHF/T4BH-F
DATE(S) 04/03/95 SAMPLE LOCATION BAGHOUSE
OPERATOR(S) JM/MS
Sampling Method (eg. MOE 5) US EPA 0011
Modifications to standard method —

Meter box V-1 Probe T1 7'
Equipment identity matches pretest calibration list? ✓
Probe nozzle material: SS
cleaned according to sampling protocol? ✓
undamaged ✓
Probe liner material: GLASS
cleaned according to sampling protocol? ✓
heated? ✓ entire length? ✓ temperature 250°F
Pitot tube: Type S ✓ Other —
properly attached to probe (no interference with nozzle?) ✓
modifications NONE
pitot tube coefficient 0.766
Pitot tube connected to: inclined manometer ✓
or magnehelic gauge — range — division —
pitot lines checked for leaks? ✓ plugging? ✓
Meter box leveled? ✓ pitot pressure gauge zeroed? ✓
orifice pressure gauge zeroed? ✓
Gas temperature sensor: thermocouple? ✓ type K
temperature sensor checked against ambient temp.? ✓
Filter holder: borosilicate glass — other —
frit material: teflon — borosilicate glass —
other —
heated? — temperature —
cleaned according to sampling protocol? —
filter holder assembled correctly? —
Filter type : —
filters checked visually for irregularities? —
filters properly centered? — labelled? —
Recent calibration of orifice meter dry gas meter ✓
pitot tubes ✓ magnehelic gauges —
thermometers and thermocouples? ✓ nozzles ✓
Is gas meter calibration temperature compensated? NO
meter temp. —

QA/QC CHECKLIST
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

XAD resin trap used — glassware proofed? —
Impinger train: number of impingers 4
cleaned according to sampling protocol? ✓
contents: 1st 100mL DNPH 2nd 100ML DNPH 3rd EMPTY
4th SILICA GEL 5th — 6th —
impinger weights recorded? ✓
impingers properly assembled? ✓
cooling system: ✓ proper connections —
modifications: —
grease used on joints: ONLY S.G. kind of grease SILICON.
Barometric pressure measured? ✓ source of data? PORTABLE BAROMETER
Was preliminary velocity profile performed? NO
Avg.delta P ____ Max. delta P ____ static ____
Avg. Temp. ____
Estimated moisture content % 1.0% how estimated? PREVIOUS DATA
Estimated O2 % 20.9 CO2 % 0 CO % — SO2 % —
how estimated? PREVIOUS DATA
Has an "isokinetic sheet" been completed? ✓
Nozzle size properly selected? ✓ nozzle diameter 0.24"
K factor 0.930
nozzle properly attached to probe (correct orientation) ✓
Number of sampling points per traverse from Source Test Code 8
number to be used 8
probe markings correct? ✓
Length of sampling time per point desired 4.0 Min.
number to be used 4
Leak test performed before start of sampling? ✓
rate <0.02 cfm @ 15. in Hg

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

2.0 SAMPLING

All openings of sampling train sealed (pretest & posttest)? ✓

Leak performed before start of sampling? ✓
<0.02 cfm @ 15. in Hg.

Sampling train traversing technique:
- Is nozzle sealed when probe in stack with pump off? ✓
- Is care taken to avoid scraping nipple of stack wall? ✓
- Is an effective seal made around probe at port opening? ✓
- Is probe seal made without disturbing flow inside stack? ✓
- Is probe moved to each point at the proper time? ✓
- Is probe marking system adequate to locate each point? ✓
- Was pitot tube kept parallel to stack wall at each point? ✓
- If probe is disconnected from filter holder with probe in the stack on a negative pressure source how is particulate matter in the probe prevented from being sucked back into the stack? —
- If filters are changed during a run was there any pariculate loss? —

Meterbox operation:
- Is data recorded in a permanent manner? ✓
- are data sheets complete? ✓
- Average time to reach isokinetic rate at each point 70 S
- Are velocity pressures read and recorded accurately? ✓

Leak test performed at completion of test? <0.02 cfm @ 15 in Hg
Probe, filter holder, impingers sealed adequately after test? ✓
Gas analysis from stack? ✓ other? —
- from fyrites? ✓ integrated bag? — orsat? —
- continuous gas analysers? —
- models: —

Approximate stack temperature 75°F gas sample volume ~60 ft³
First 8 velocity pressures measured —
Percent isokinetic calculated ✓
Data forms completed and data recorded properly ✓
General comment on sampling techniques _____

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

3.0 SAMPLE RECOVERY

General environment - clean up area LAB (INDOOR)
Brushes: nylon bristle — other TEFLON
cleaned according to sampling protocol? ✓
Wash bottles: glass — polyethylene — other TEFLON
cleaned according to sampling protocol? ✓
Storage containers: borosilicate glass ✓ other —
cleaned according to sampling protocol? ✓
cap material TEFLON leak free? ✓
Petri dishes: plastic — other —
cleaned according to sampling protocol? —
Graduated cylinder: borosilicate glass — other —
Subdivisions of graduated cylinder < 2 ml? —
cleaned according to sampling protocol? —
Balance type TRIPLE BEAM calibrated ✓
Probe allowed to cool sufficiently? ✓
Probe and sample train openins sealed? ✓
Silica gel colour: run 1 BLUE run 2 BLUE run 3 ____
weighed? run 1 ✓ run 2 ✓ run 3 ____
Probe handling: Acetone rinses — other $MECL_2$
Particulate recovery: probe nozzle — probe fitting —
probe liner — front half of filter holder —
Blanks collected: reagent(s) ✓
acetone — DI water — other $MECL_2$/DNPH
Impinger rinses: DI — other $MECL_2$
Samples labelled and stored properly? ✓
Liquid levels marked? ✓
Filter handling: tweezers used? — surgical gloves —
Any particulate lost? Probe — Filter —
Description of particulate —

Mr McDONAUGH
Name

Signature

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.03
RUN : T2BH-F
LOC. : BAGHOUSE

RUN TIME : 13:44 TO 16:47

FORMALDEHYDE CONCENTRATION	196.6 ug/DSm3	0.0859 gr/1000 DScf
	168.5 ug/Am3	0.0736 gr/1000 Acf
FORMALDEHYDE EMISSION RATE	1.645 mg/s	91.37 gr/hr
SAMPLE GAS VOLUME	1.8412 DSm3	65.013 DScf
AVERAGE ISOKINETICITY	101.9 %	

FLUE GAS CHARACTERISTICS

MOISTURE	0.99 %	
TEMPERATURE	23.8 deg C	74.8 deg F
FLOW	30106 DSm3/hr	17720 DScfm
	35135 Am3/hr	20680 Acfm
VELOCITY	18.81 m/s	3702.7 fpm

GAS ANALYSIS	O2	20.90 %
	CO2	0.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	28.95 g/gmole D.B.
	MOL. WT.	28.84 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC	DATE : 95.04.03
JOBSITE : DAWSON CREEK	RUN : T2BH-F
REF.No. : 5216618	LOC. : BAGHOUSE

STACK HEIGHT	6.1 m	20.0 ft.
STACK DIAMETER	0.81 m	32.0 in.
STACK AREA	0.519 m2	5.59 sq.ft.
BAROMETRIC PRESSURE	93.8 kPa	27.70 in.Hg
STATIC PRESSURE	-4980.0 Pa	-20.00 in.H20
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.766	
METER CORRECTION FACTOR	1.006	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	13.8 g
CONDENSATION IN IMPINGER 2	0.0 g
CONDENSATION IN IMPINGER 3	0.0 g
SILICA GEL WEIGHT GAIN	0.0 g
TOTAL MOISTURE GAIN	13.8 g

FORMALDEHYDE COLLECTION

FILTER FORMALDEHYDE	0.0000 mg
WASHINGS FORMALDEHYDE	0.0000 mg
IMPINGER FORMALDEHYDE	0.3620 mg
TOTAL FORMALDEHYDE	0.3620 mg

TOTAL SAMPLING TIME 64.0 min.

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.03
RUN : T2BH-F
LOC. : BAGHOUSE

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H2O	ORIF. PRES. in.H2O	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	70	1.150	3.40	230.56	48	242	244	21	4.0	1.1	103.1
1	2.0	70	1.100	3.30	232.58	48	230	248	26	4.0	1.1	103.4
2	4.0	76	1.200	3.60	234.56	47	204	242	34	4.5	3.4	102.8
2	6.0	76	1.150	3.40	236.60	48	191	243	34	4.5	3.4	101.2
3	8.0	77	1.200	3.60	238.57	48	181	245	32	4.5	6.2	103.2
3	10.0	77	1.200	3.60	240.62	49	174	244	30	4.5	6.2	102.1
4	12.0	77	1.250	3.80	242.65	49	168	246	28	4.5	10.3	103.4
4	14.0	77	1.250	3.80	244.75	50	163	244	27	4.5	10.3	101.8
5	16.0	76	1.350	4.00	246.82	50	160	243	27	4.5	21.7	101.6
5	18.0	76	1.350	4.00	248.97	51	157	244	27	4.5	21.7	101.9
6	20.0	74	1.400	4.20	251.13	52	156	244	27	4.5	25.8	101.7
6	22.0	76	1.400	4.20	253.33	52	154	244	27	4.5	25.8	101.9
7	24.0	69	1.250	3.80	255.53	52	162	245	29	4.5	28.6	102.5
7	26.0	75	1.400	4.20	257.64	52	165	244	30	4.5	28.6	104.0
8	28.0	75	0.960	2.80	259.89	52	173	244	30	4.5	30.9	101.2
8	30.0	75	0.980	2.90	261.71	52	179	244	30	4.5	30.9	101.8
	32.0				263.56							
TRAVERSE NO. 2												
1	0.0	76	1.400	4.20	267.45	47	247	254	20	5.0	1.1	98.2
1	2.0	76	1.400	4.30	269.55	47	214	243	21	5.0	1.1	97.8
2	4.0	76	1.500	4.40	271.64	48	207	245	22	5.0	3.4	101.5
2	6.0	76	1.450	4.40	273.89	48	195	245	22	5.0	3.4	102.7
3	8.0	76	1.500	4.40	276.13	49	189	244	25	5.0	6.2	102.2
3	10.0	76	1.500	4.40	278.40	49	183	246	26	5.0	6.2	101.6
4	12.0	76	1.400	4.20	280.66	50	179	246	28	5.0	10.3	103.1
4	14.0	77	1.500	4.40	282.88	51	175	246	30	5.0	10.3	101.9
5	16.0	77	1.300	3.90	285.15	51	173	245	31	5.0	21.7	102.6
5	18.0	77	1.300	3.90	287.28	51	171	244	33	5.0	21.7	102.5
6	20.0	74	1.300	3.90	289.41	52	169	243	35	5.0	25.8	102.1
6	22.0	74	1.300	3.90	291.54	52	168	246	35	5.0	25.8	101.5
7	24.0	69	1.150	3.60	293.66	53	177	245	37	5.0	28.6	102.6
7	26.0	73	1.150	3.50	295.69	53	183	243	38	5.0	28.6	102.9
8	28.0	73	0.860	2.50	297.72	54	189	245	38	5.0	30.9	101.6
8	30.0	73	0.920	2.60	299.46	54	194	242	38	5.0	30.9	100.0
	32.0				301.23							
		75	1.260	3.78		50	184	245	29	4.7		101.9

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT LOUISIANA - PACIFIC
CITY PROV. DAWSON CREEK
PROJECT # 5216618
TEST T2BH-F
SAMPLE LOCATION BAGHOUSE
DATE APR. 3/95
START TIME ~~16:15~~ 13:44
FINISH TIME 16:47
BAROMETRIC PRESS.(in Hg) 27.7
STACK PRESS.(in H_2O) -20
PITOT COEFFICIENT 0.766
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0057
STACK HEIGHT(ft) 20
STACK DIAMETER(in) 32
LENGTH X WIDTH / X /
CO2(%) 0 O2(%) 20.9
CO(ppm) / OTHER /

IMPINGER NET 1 (g)
IMPINGER NET 2 (g)
IMPINGER NET 3 (g)
IMPINGER NET 4 (g)
IMPINGER NET 5 (g)
IMPINGER NET 6 (g)

NET FILTER WT.(g) /
NET PROBE WASH WT.(g) /
IMP.RESIDUE WT.(g)
FILTER # /

METER BOX ID V #1
PROBE ID T1 7'
NOZZLE ID #8 (T8)
OTHER
EQUIPMENT COMMENTS FILTER BYPASS

SAMPLING COMMENTS TEFLON WRAPPED JOINT

PROCESS RATE NORMAL
CONTROL EQUIP. OPERATION NORMAL
PROCESS COMMENTS

SIGNATURE

04/03/95
DATE

Moisture Analysis Data Sheet

Project #: 5216618 Client LOUISIANA PACIFIC-DC Test: T2BH-F

Test Date: APRIL 3/95 Sample Location: BAG HOUSE

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1		635.2		
Impinger 2		589.2		
Impinger 3		473.1		
Impinger 4				
Impinger 5				
Silica gel impinger		774.6		

* FINAL MOISTURE NOT WEIGHED. USED AVERAGE MOISTURE FROM OTHER TESTS

Net Total Condensate _____ (g)

Signature

4/3/95
Date

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/03/9

Run # T2BH-F Traverse # 1 Traverse Direction OUT Start Time 13:44 Finish Time /

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.15	3.4	/	230.56	70	242	244	21		48	48	4.0
1	2		1.10	~~3.3~~ 3.3	232.57	232.58	70	230	248	26		48	47	4.0
2	4		1.20	3.6	234.531	234.56	76	204	242	34		47	47	4.5
2	6		1.15	3.4	236.598	236.60	76	191	243	34		48	47	4.5
3	8		1.20	3.6	238.59	238.57	77	181	245	32		49	47	4.5
3	10		1.20	3.6	240.608	240.62	77	174	244	30		51	46	4.5
4	12		1.25	3.8	242.658	242.65	77	168	246	28		52	46	4.5
4	14		1.25	3.8	244.73	244.75	77	163	244	27		53	46	4.5
5	16		1.35	4.0	246.83	246.82	76	160	243	27		54	46	4.5
5	18		1.35	4.0	248.98	248.97	76	157	244	27		55	47	4.5
6	20		1.40	4.2	251.13	251.13	74	156	244	27		56	47	4.5
6	22		1.40	4.2	253.33	253.33	76	154	244	27		56	47	4.5

Pre test leak check: Rate (cfm) 0.01 at 15 inches Hg (Vacuum)

Post test leak check: Rate (cfm) / at / inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/03/9

Run # T2BH-F Traverse # 1 Traverse Direction OUT Start Time / Finish Time 19:16

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
7	24		1.25	3.8	255.53	255.53	69	162	245	29		57	47	4.5
7	26		1.40	4.2	257.61	257.64	75	165	244	30		57	47	4.5
8	28		0.96	2.8	259.841	259.89	75	173	244	30		57	47	4.5
8	30		0.98	2.9	261.713	261.71	75	179	244	30		57	47	4.5
	32				263.552	263.56								

Pre test leak check: Rate (cfm) / at / inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.018 at 10 inches Hg (Vacuum)

K value calculated by JM checked by

Signature JM

Sampling Trains Data Sheet

Client LOUISIANA PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/03/9

Run # T2BH-F Traverse # 2 Traverse Direction OUT Start Time ~~[illegible]~~ 16:15 Finish Time /

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.40	4.2	/	267.45	76	247	254	20		48	45	5.0
1	2		1.40	4.3	269.651	269.55	76	214	243	21		48	45	5.0
2	4		1.50	4.4	271.651	271.64	76	207	245	22		49	46	5.0
2	6		1.45	4.4	273.919	273.89	76	195	245	22		50	46	5.0
3	8		1.50	4.4	276.13	276.13	76	189	244	25		51	46	5.0
3	10		1.50	4.4	278.409	278.40	76	183	246	26		52	46	5.0
4	12		1.40	4.2	280.679	280.66	76	179	246	28		53	47	5.0
4	14		1.50	4.4	282.861	282.88	77	175	246	30		54	47	5.0
5	16		1.30	3.9	285.159	285.15	77	173	245	31		54	47	5.0
5	18		1.30	3.9	287.271	287.28	77	171	244	33		55	47	5.0
6	20		1.30	3.9	289.401	289.41	74	169	243	35		56	47	5.0
6	22		1.30	3.9	291.531	291.54	74	168	246	35		57	47	5.0

Pre test leak check: Rate (cfm) 0.01 at 10 inches Hg (Vacuum)

Post test leak check: Rate (cfm) / at / inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/03/9

Run # T2BH-F Traverse # 2 Traverse Direction OUT Start Time / Finish Time 16:47

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
7	24		1.15	3.6	293.661	293.66	69	177	245	37		58	48	5.0
7	26		1.15	3.5	295.655	295.69	73	183	243	38		58	48	5.0
8	28		0.86	2.5	297.68	297.72	73	189	245	38		59	48	5.0
8	30		0.92	2.6	299.445	299.46	73	194	242	38		59	48	5.0
	32				301.244	301.23								

Pre test leak check: Rate (cfm) / at / inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.016 at 10 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.04
RUN : T3BH-F
LOC. : BAGHOUSE

RUN TIME : 12:04 TO 13:21

FORMALDEHYDE CONCENTRATION	187.7 ug/DSm3	0.0821 gr/1000 DScf
	158.0 ug/Am3	0.0691 gr/1000 Acf
FORMALDEHYDE EMISSION RATE	1.564 mg/s	86.90 gr/hr
SAMPLE GAS VOLUME	1.8112 DSm3	63.954 DScf
AVERAGE ISOKINETICITY	100.6 %	

FLUE GAS CHARACTERISTICS

MOISTURE	0.78 %	
TEMPERATURE	26.3 deg C	79.3 deg F
FLOW	29989 DSm3/hr	17651 DScfm
	35627 Am3/hr	20969 Acfm
VELOCITY	19.07 m/s	3754.6 fpm

GAS ANALYSIS	O2	20.90 %
	CO2	0.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	28.95 g/gmole D.B.
	MOL. WT.	28.86 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.04
RUN : T3BH-F
LOC. : BAGHOUSE

STACK HEIGHT	6.1 m	20.0 ft.
STACK DIAMETER	0.81 m	32.0 in.
STACK AREA	0.519 m2	5.59 sq.ft.
BAROMETRIC PRESSURE	92.8 kPa	27.40 in.Hg
STATIC PRESSURE	-4980.0 Pa	-20.00 in.H20
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.766	
METER CORRECTION FACTOR	1.006	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	-20.3 g
CONDENSATION IN IMPINGER 2	11.7 g
CONDENSATION IN IMPINGER 3	3.4 g
SILICA GEL WEIGHT GAIN	15.9 g
TOTAL MOISTURE GAIN	10.7 g

FORMALDEHYDE COLLECTION

FILTER FORMALDEHYDE	0.0000 mg
WASHINGS FORMALDEHYDE	0.0000 mg
IMPINGER FORMALDEHYDE	0.3400 mg
TOTAL FORMALDEHYDE	0.3400 mg

TOTAL SAMPLING TIME 64.0 min.

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.04
RUN : T3BH-F
LOC. : BAGHOUSE

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H2O	ORIF. PRES. in.H2O	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	79	1.200	3.40	441.75	62	245	249	35	2.0	1.1	94.5
1	2.0	79	1.300	3.80	443.69	59	224	243	40	2.0	1.1	97.1
2	4.0	80	1.300	3.90	445.75	58	213	248	43	2.0	3.4	100.7
2	6.0	79	1.300	3.90	447.88	58	204	247	44	2.0	3.4	100.6
3	8.0	79	1.300	3.90	450.01	58	198	247	42	2.0	6.2	100.2
3	10.0	79	1.300	3.90	452.13	58	192	246	41	2.0	6.2	100.6
4	12.0	79	1.300	3.90	454.26	58	188	247	40	2.0	10.3	100.7
4	14.0	79	1.300	3.90	456.39	58	184	246	40	2.0	10.3	100.6
5	16.0	80	1.400	4.10	458.52	58	182	248	41	2.0	21.7	99.9
5	18.0	80	1.400	4.10	460.71	60	180	246	43	2.0	21.7	99.1
6	20.0	77	1.400	4.10	462.89	58	179	246	44	2.0	25.8	100.0
6	22.0	80	1.400	4.10	465.09	58	177	247	45	2.0	25.8	99.3
7	24.0	75	1.200	3.60	467.27	58	190	245	45	2.0	28.6	100.9
7	26.0	77	1.200	3.60	469.33	58	196	246	45	2.0	28.6	101.1
8	28.0	77	1.000	3.00	471.39	58	203	243	45	2.0	30.9	100.9
8	30.0	77	1.050	3.10	473.27	58	207	245	45	2.0	30.9	102.2
	32.0				475.22							
TRAVERSE NO. 2												
1	0.0	80	1.400	4.20	475.44	54	245	252	36	2.0	1.1	98.4
1	2.0	80	1.500	4.40	477.58	54	221	242	42	2.0	1.1	101.3
2	4.0	81	1.500	4.40	479.86	53	213	247	41	2.0	3.4	101.5
2	6.0	81	1.500	4.40	482.14	54	205	244	41	2.0	3.4	100.1
3	8.0	82	1.450	4.30	484.39	55	198	245	42	2.0	6.2	101.7
3	10.0	82	1.450	4.30	486.64	55	194	245	43	2.0	6.2	101.6
4	12.0	82	1.450	4.30	488.89	56	189	245	45	2.0	10.3	101.5
4	14.0	82	1.450	4.30	491.14	56	186	245	45	2.0	10.3	101.4
5	16.0	82	1.300	4.00	493.39	56	184	245	46	2.0	21.7	104.1
5	18.0	83	1.300	3.90	495.58	57	182	245	46	2.0	21.7	102.7
6	20.0	81	1.300	3.90	497.74	57	181	246	45	2.0	25.8	102.5
6	22.0	82	1.250	3.80	499.90	57	180	244	45	2.0	25.8	102.5
7	24.0	74	1.100	3.20	502.02	57	190	245	45	2.0	28.6	101.2
7	26.0	77	1.100	3.20	504.00	57	196	245	46	2.0	28.6	103.5
8	28.0	77	0.760	2.20	506.02	57	203	246	46	2.0	30.9	99.0
8	30.0	77	0.760	2.20	507.63	57	209	245	46	2.0	30.9	100.2
	32.0				509.26							
		79	1.271	3.79		57	198	246	43	2.0		100.6

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT LOUISIANA-PACIFIC
CITY PROV. DAWSON CREEK
PROJECT # 5216618
TEST T3BH-F
SAMPLE LOCATION BAGHOUSE
DATE APR. 4/95
START TIME 12:04
FINISH TIME 13:21
BAROMETRIC PRESS.(in Hg) 27.4
STACK PRESS.(in H_2O) -20
PITOT COEFFICIENT 0.766
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0057
STACK HEIGHT(ft) 20
STACK DIAMETER(in) 32
LENGTH X WIDTH — X —
CO2(%) — O2(%) 20.9
CO(ppm) — OTHER —

IMPINGER NET 1 (g) -20.3
NET FILTER WT.(g) —
IMPINGER NET 2 (g) 11.7
NET PROBE WASH WT.(g) —
IMPINGER NET 3 (g) 3.4
IMP.RESIDUE WT.(g)
IMPINGER NET 4 (g) 15.9
FILTER # —
IMPINGER NET 5 (g)
IMPINGER NET 6 (g)

METER BOX ID V #1
PROBE ID T1 7'
NOZZLE ID T #8
OTHER
EQUIPMENT COMMENTS FILTER BYPASS

SAMPLING COMMENTS TEFLON WRAPPED JOINT

PROCESS RATE NORMAL
CONTROL EQUIP. OPERATION NORMAL
PROCESS COMMENTS

SIGNATURE

04/04/95
DATE

Moisture Analysis Data Sheet

Project #: 5216618 Client LOUISIANA PACIFIC Test: T3BH-1E

Test Date: APRIL 4/95 Sample Location: BAGHOUSE

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	563.1	583.4		-20.3
Impinger 2	633.5	621.8		11.7
Impinger 3	486.3	482.9		3.4
Impinger 4				
Impinger 5				
Silica gel impinger WITH CAP	811.5	795.6		15.9

Net Total Condensate 10.7 (g)

Signature

April 4/95
Date

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/04/9

Run # T3BH-F Traverse # 1 Traverse Direction OUT Start Time 12:04 Finish Time

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.20	3.4		441.75	79	245	249	35		63	61	2.0
1	2		1.30	3.8	443.79	443.69	79	224	243	40		58	60	2.0
2	4		1.30	3.9	445.81	445.75	80	213	248	43		57	59	2.0
2	6		1.30	3.9	447.87	447.88	79	204	247	44		57	59	2.0
3	8		1.30	3.9	450.00	450.01	79	198	247	42		57	58	2.0
3	10		1.30	3.9	452.13	452.13	79	192	246	41		58	58	2.0
4	12		1.30	3.9	454.25	454.26	79	188	247	40		58	57	2.0
4	14		1.30	3.9	456.38	456.39	79	184	246	40		59	57	2.0
5	16		1.40	4.1	458.51	458.52	80	182	248	41		59	56	2.0
5	18		1.40	4.1	460.72	460.71	80	180	246	43		59	60	2.0
6	20		1.40	4.1	462.91	462.89	77	179	246	44		60	56	2.0
6	22		1.40	4.1	465.09	465.09	80	177	247	45		60	56	2.0

Pre test leak check: Rate (cfm) 0.01 at 15 inches Hg (Vacuum)

Post test leak check: Rate (cfm) ___ at ___ inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/04/9

Run # T3BM-F Traverse # 1 Traverse Direction OUT Start Time / Finish Time 12:36

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
7	24		1.20	3.6	467.29	467.27	75	190	245	45		60	55	2.0
7	26		1.20	3.6	469.31	469.33*	77	196	246	45		60	55	2.0
8	28		1.00	3.0	471.37	471.39	77	203	243	45		60	55	2.0
8	30		1.05	3.1	473.25	473.27	77	207	245	45		60	55	2.0
	32				475.18	475.22								

Pre test leak check: Rate (cfm) / at / inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.003 at 11 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/04/9

Run # T3BH-F Traverse # 2 Traverse Direction OUT Start Time 12:49 Finish Time

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.40	4.2		475.44	80	245	252	36		54	53	2.0
1	2		1.50	4.4	477.64	477.58	80	221	242	42		54	53	2.0
2	4		1.50	4.4	479.86	479.86	81	213	247	41		54	52	2.0
2	6		1.50	4.4	482.14	482.14	81	205	244	41		55	52	2.0
3	8		1.45	4.3	484.42	484.39	82	198	245	42		57	52	2.0
3	10		1.45	4.3	486.63	486.64	82	194	245	43		58	52	2.0
4	12		1.45	4.3	488.88	488.89	82	189	245	45		59	52	2.0
4	14		1.45	4.3	491.13	491.14	82	186	245	45		60	52	2.0
5	16		1.30	4.0	493.38	493.39	82	184	245	46		60	52	2.0
5	18		1.30	3.9	495.51	495.58	83	182	245	46		61	52	2.0
6	20		1.30	3.9	497.70	497.74	81	181	246	45		61	52	2.0
6	22		1.25	3.8	499.86	499.90	82	180	244	45		62	52	2.0

Pre test leak check: Rate (cfm) 0.006 at 10 inches Hg (Vacuum)

Post test leak check: Rate (cfm) at inches Hg (Vacuum)

K value calculated by checked by

Signature

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/04/9

Run # T3BM-F Traverse # 2 Traverse Direction OUT Start Time / Finish Time 13:21

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
7	24		1.10	3.2	502.05	502.02	74	190	245	45		62	52	2.0
7	26		1.10	3.2	503.97	503.00	77	196	245	46		62	52	2.0
8	28		0.76	2.2	505.95	506.02	77	203	246	46		62	52	2.0
8	30		0.76	2.2	507.64	507.63	77	209	245	46		62	52	2.0
	32				509.25	509.26								

Pre test leak check: Rate (cfm) / at / inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.004 at 10 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.04
RUN : T4BH-F
LOC. : BAGHOUSE

RUN TIME : 14:48 TO 16:06

FORMALDEHYDE CONCENTRATION	182.2 ug/DSm3	0.0796 gr/1000 DScf
	152.5 ug/Am3	0.0666 gr/1000 Acf
FORMALDEHYDE EMISSION RATE	1.487 mg/s	82.63 gr/hr
SAMPLE GAS VOLUME	1.7617 DSm3	62.206 DScf
AVERAGE ISOKINETICITY	99.9 %	

FLUE GAS CHARACTERISTICS

MOISTURE	1.10 %	
TEMPERATURE	26.0 deg C	78.8 deg F
FLOW	29378 DSm3/hr	17291 DScfm
	35112 Am3/hr	20666 Acfm
VELOCITY	18.80 m/s	3700.2 fpm

GAS ANALYSIS	O2	20.90 %
	CO2	0.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	28.95 g/gmole D.B.
	MOL. WT.	28.83 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.04
RUN : T4BH-F
LOC. : BAGHOUSE

STACK HEIGHT	6.1 m	20.0 ft.
STACK DIAMETER	0.81 m	32.0 in.
STACK AREA	0.519 m2	5.59 sq.ft.
BAROMETRIC PRESSURE	92.5 kPa	27.30 in.Hg
STATIC PRESSURE	-4980.0 Pa	-20.00 in.H20
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.766	
METER CORRECTION FACTOR	1.006	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	-19.2 g
CONDENSATION IN IMPINGER 2	15.6 g
CONDENSATION IN IMPINGER 3	3.3 g
SILICA GEL WEIGHT GAIN	14.9 g
TOTAL MOISTURE GAIN	14.6 g

FORMALDEHYDE COLLECTION

FILTER FORMALDEHYDE	0.0000 mg
WASHINGS FORMALDEHYDE	0.0000 mg
IMPINGER FORMALDEHYDE	0.3210 mg
TOTAL FORMALDEHYDE	0.3210 mg

TOTAL SAMPLING TIME 64.0 min.

FORMALDEHYDE EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.04
RUN : T4BH-F
LOC. : BAGHOUSE

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H2O	ORIF. PRES. in.H2O	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	81	1.500	4.40	509.65	48	241	245	33	4.0	1.1	99.6
1	2.0	81	1.400	4.20	511.86	47	226	243	39	4.0	1.1	103.6
2	4.0	81	1.500	4.40	514.08	48	216	244	40	4.0	3.4	104.5
2	6.0	81	1.500	4.20	516.40	48	207	246	40	4.0	3.4	101.8
3	8.0	81	1.500	4.20	518.66	48	201	245	39	4.0	6.2	100.3
3	10.0	81	1.500	4.20	520.89	49	196	245	37	4.0	6.2	99.2
4	12.0	81	1.500	4.20	523.10	50	191	245	37	4.0	10.3	97.3
4	14.0	81	1.450	4.10	525.27	51	187	245	38	4.0	10.3	99.6
5	16.0	81	1.400	4.00	527.46	52	186	245	38	4.0	21.7	100.3
5	18.0	81	1.300	3.80	529.63	52	184	245	39	4.0	21.7	100.1
6	20.0	80	1.300	3.80	531.72	52	183	246	39	4.0	25.8	100.5
6	22.0	81	1.250	3.70	533.82	53	182	246	40	4.0	25.8	101.0
7	24.0	74	0.980	2.70	535.89	54	192	244	40	4.0	28.6	97.5
7	26.0	73	0.980	2.70	537.68	54	195	244	41	4.0	28.6	98.5
8	28.0	73	0.540	1.60	539.49	54	202	245	42	4.0	30.9	100.9
8	30.0	73	0.540	1.60	540.87	54	207	245	42	4.0	30.9	99.4
	32.0				542.23							
TRAVERSE NO. 2												
1	0.0	80	1.200	3.40	542.38	51	248	242	31	4.0	1.1	99.8
1	2.0	80	1.200	3.40	544.38	52	223	245	36	4.0	1.1	100.0
2	4.0	80	1.200	3.40	546.39	53	212	244	36	4.0	3.4	100.4
2	6.0	80	1.200	3.40	548.41	54	202	244	36	4.0	3.4	100.2
3	8.0	80	1.200	3.40	550.43	54	196	246	36	4.0	6.2	99.1
3	10.0	80	1.250	3.60	552.43	55	190	245	37	4.0	6.2	100.5
4	12.0	80	1.300	3.70	554.50	55	185	244	37	4.0	10.3	99.9
4	14.0	80	1.300	3.70	556.60	56	181	244	37	4.0	10.3	100.3
5	16.0	80	1.400	3.90	558.71	56	178	244	38	4.0	21.7	98.8
5	18.0	80	1.450	4.10	560.87	57	176	244	38	4.0	21.7	98.8
6	20.0	78	1.400	4.00	563.07	58	174	244	38	4.0	25.8	99.3
6	22.0	79	1.400	4.00	565.25	58	172	245	39	4.0	25.8	99.4
7	24.0	73	1.200	3.60	567.43	58	181	244	40	4.0	28.6	101.2
7	26.0	76	1.200	3.60	569.50	58	185	244	40	4.0	28.6	100.0
8	28.0	76	0.900	2.50	571.54	58	192	246	41	4.0	30.9	99.3
8	30.0	76	0.900	2.50	573.30	58	197	245	41	4.0	30.9	98.2
	32.0				575.04							
		79	1.230	3.56		53	197	245	38	4.0		99.9

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT LOUISIANA-PACIFIC
CITY PROV. DAWSON CREEK
PROJECT # 5216618
TEST T4BH-F
SAMPLE LOCATION BAGHOUSE
DATE APR. 4/95
START TIME 14:48
FINISH TIME 16:06
BAROMETRIC PRESS.(in Hg) 27.3
STACK PRESS.(in H_2O) -20
PITOT COEFFICIENT 0.766
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0057
STACK HEIGHT(ft) 20
STACK DIAMETER(in) 32
LENGTH X WIDTH / X /
CO2(%) / O2(%) 20.9
CO(ppm) / OTHER /

IMPINGER NET 1 (g) -19.2
NET FILTER WT.(g) /
IMPINGER NET 2 (g) 15.6
NET PROBE WASH WT.(g) /
IMPINGER NET 3 (g) 3.3
IMP.RESIDUE WT.(g)
IMPINGER NET 4 (g) 14.9
FILTER # /
IMPINGER NET 5 (g)
IMPINGER NET 6 (g)

METER BOX ID √#1
PROBE ID T1 7'
NOZZLE ID T #8
OTHER
EQUIPMENT COMMENTS ~~FILT~~ FILTER BYPASS

SAMPLING COMMENTS TEFLON WRAPPED JOINTS

PROCESS RATE NORMAL
CONTROL EQUIP. OPERATION NORMAL
PROCESS COMMENTS

SIGNATURE

04/04/95
DATE

Moisture Analysis Data Sheet

Project #: 5216618 Client LOUISIANA PACIFIC -DC Test: T4BH-F

Test Date: APRIL 4/95 Sample Location: BAG HOUSE

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	604.5 ~~623.7~~ gr	623.7		-19.2
Impinger 2	589.2 ~~573.6~~ gr	573.6		15.6
Impinger 3	477.0 ~~473.7~~ gr	473.7		3.3
Impinger 4				
Impinger 5				
Silica gel impinger	801.8 ~~786.9~~ gr	786.9		14.9

Net Total Condensate 14.6 (g)

Signature

4/4/95
Date

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/04/9

Run # T4BH-F Traverse # 1 Traverse Direction OUT Start Time 14:48 Finish Time

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.50	~~4.5~~ 4.4		509.65	81	241	245	33		48	47	4.0
1	2		1.40	4.2	511.885	511.86	81	226	243	39		47	47	4.0
2	4		1.50	4.4	514.02	514.08	81	216	244	40		48	47	4.0
2	6		1.50	4.2	516.32	516.40	81	207	246	40		49	46	4.0
3	8		1.50	4.2	518.64	518.66	81	201	245	39		50	46	4.0
3	10		1.50	4.2	520.90	520.89	81	196	245	37		52	46	4.0
4	12		1.50	4.2	523.12	523.10	81	191	245	37		53	46	4.0
4	14		1.45	4.1	525.34	525.27	81	187	245	38		55	47	4.0
5	16		1.40	4.0	527.47	527.46	81	186	245	38		56	47	4.0
5	18		1.30	3.8	529.62	529.63	81	184	245	39		57	47	4.0
6	20		1.30	3.8	531.71	531.72	80	183	246	39		57	47	4.0
6	22		1.25	3.7	533.80	533.82	81	182	246	40		58	47	4.0

Pre test leak check: Rate (cfm) 0.009 at 16 inches Hg (Vacuum)

Post test leak check: Rate (cfm) — at — inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

17

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/04/9

Run # T4BH-F Traverse # 1 Traverse Direction OUT Start Time / Finish Time 15:20

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
7	24		0.98	~~2.7~~ 2.7	535.86	535.89	74	192	244	40		59	48	4.0
7	26		0.98	2.7	537.70	537.68	73	195	244	41		59	48	4.0
8	28		0.54	1.6	539.49	539.49	73	202	245	42		59	48	4.0
8	30		0.54	1.6	540.83	540.87	73	207	245	42		59	48	4.0
	32				542.21	542.23								

Pre test leak check: Rate (cfm) / at / inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.009 at 8 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM / MS Date 04/04/9

Run # T4BH-F Traverse # 2 Traverse Direction OUT Start Time 15:34 Finish Time /

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.20	3.4	/	542.38	80	248	242	31		52	49	4.0
1	2		1.20	3.4	544.38	544.38	80	223	245	36		55	49	4.0
2	4		1.20	3.4	546.38	546.39	80	212	244	36		56	49	4.0
2	6		1.20	3.4	548.39	548.41	80	202	244	36		57	50	4.0
3	8		1.20	3.4	550.41	550.43	80	196	246	36		58	50	4.0
3	10		1.25	3.6	552.43	552.43	80	190	245	37		59	50	4.0
4	12		1.30	3.7	554.47	554.50	80	185	244	37		60	50	4.0
4	14		1.30	3.7	556.58	556.60	80	181	244	37		61	50	4.0
5	16		1.40	3.9	558.72	558.71	80	178	244	38		62	50	4.0
5	18		1.45	4.1	560.91	560.87	80	176	244	38		63	51	4.0
6	20		1.40	4.0	563.11	563.07	78	174	244	38		64	51	4.0
6	22		1.40	4.0	565.27	565.25	79	172	245	39		64	51	4.0

Pre test leak check: Rate (cfm) 0.01 at 8 inches Hg (Vacuum)

Post test leak check: Rate (cfm) / at / inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature JM

.92 2.6

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/04/9

Run # T4BH-F Traverse # 2 Traverse Direction OUT Start Time — Finish Time 16:06

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
7	24		1.20	3.6	567.45	567.43	73	181	244	40		64	52	4.0
7	26		1.20	3.6	569.47	569.50	76	185	244	40		64	52	4.0
8	28		0.90	2.5	571.54	571.54	76	192	246	41		64	52	4.0
8	30		0.90	2.5	573.30	573.30	76	197	245	41		64	52	4.0
	32				575.06	575.04								

Pre test leak check: Rate (cfm) — at — inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.01 at 9 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

PHENOL EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC	DATE : 95.04.05
JOBSITE : DAWSON CREEK	RUN : T1BH-PH
REF.No. : 5216618	LOC. : BAG HOUSE

RUN TIME : 11:34 TO 13:22

PHENOL CONCENTRATION	1352.0 ug/DSm3	0.5909 gr/1000 DScf
	1122.1 ug/Am3	0.4904 gr/1000 Acf
PHENOL EMISSION RATE	10.863 mg/s	603.50 gr/hr
SAMPLE GAS VOLUME	2.6261 DSm3	92.731 DScf
AVERAGE ISOKINETICITY	100.9 %	

FLUE GAS CHARACTERISTICS

MOISTURE	1.52 %	
TEMPERATURE	27.1 deg C	80.8 deg F
FLOW	28921 DSm3/hr	17022 DScfm
	34845 Am3/hr	20509 Acfm
VELOCITY	18.65 m/s	3672.1 fpm

GAS ANALYSIS	O2	20.90 %
	CO2	0.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	28.95 g/gmole D.B.
	MOL. WT.	28.78 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

PHENOL EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.05
RUN : T1BH-PH
LOC. : BAG HOUSE

STACK HEIGHT	6.1 m	20.0 ft.
STACK DIAMETER	0.81 m	32.0 in.
STACK AREA	0.519 m2	5.59 sq.ft.
BAROMETRIC PRESSURE	92.5 kPa	27.30 in.Hg
STATIC PRESSURE	-4980.0 Pa	-20.00 in.H20
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.766	
METER CORRECTION FACTOR	1.006	

CONDENSATE COLLECTION

RESIN TRAP CONDENSATE	12.6 g
CONDENSATION IN IMPINGER 1	-92.4 g
CONDENSATION IN IMPINGER 2	89.7 g
CONDENSATION IN IMPINGER 3	0.7 g
SILICA GEL WEIGHT GAIN	19.8 g
TOTAL MOISTURE GAIN	30.4 g

PHENOL COLLECTION

FILTER PHENOL	0.0000 mg
WASHINGS PHENOL	0.0000 mg
RESIN PHENOL	0.0000 mg
IMPINGER PHENOL	3.5500 mg
TOTAL PHENOL	3.5500 mg

TOTAL SAMPLING TIME 96.0 min.

PHENOL EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.05
RUN : T1BH-PH
LOC. : BAG HOUSE

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H20	ORIF. PRES. in.H20	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	RES. TMP. F	EXIT TMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1													
1	0.0	80	1.300	3.70	576.79	46	240	242	32	36	8.0	1.1	103.3
1	3.0	80	1.200	3.50	579.98	46	220	244	33	39	8.0	1.1	103.2
2	6.0	80	1.300	3.60	583.04	46	190	245	34	39	8.0	3.4	101.7
2	9.0	81	1.200	3.50	586.18	47	180	245	34	38	8.0	3.4	101.0
3	12.0	81	1.300	3.70	589.18	48	174	245	34	38	8.0	6.2	99.8
3	15.0	81	1.300	3.70	592.27	49	170	245	35	39	8.0	6.2	100.3
4	18.0	81	1.300	3.70	595.38	50	167	245	35	39	8.0	10.3	99.7
4	21.0	81	1.300	3.70	598.48	51	165	245	35	39	8.0	10.3	99.9
5	24.0	82	1.300	3.70	601.59	51	164	245	35	39	9.0	21.7	99.3
5	27.0	81	1.300	3.70	604.68	52	163	244	35	40	9.0	21.7	99.6
6	30.0	80	1.300	3.70	607.79	53	162	244	35	40	9.5	25.8	100.1
6	33.0	81	1.300	3.70	610.92	54	160	245	34	40	9.5	25.8	100.3
7	36.0	76	1.250	3.60	614.06	54	168	244	34	41	9.5	28.6	100.5
7	39.0	78	1.250	3.60	617.16	55	175	244	34	41	9.5	28.6	99.8
8	42.0	78	0.720	2.10	620.24	55	182	244	34	41	6.0	30.9	98.7
8	45.0	78	0.740	2.10	622.56	55	190	245	34	42	6.0	30.9	98.6
	48.0				624.91								
TRAVERSE NO. 2													
1	0.0	80	1.400	4.20	625.18	52	240	245	36	37	10.0	1.1	104.2
1	3.0	82	1.400	4.10	628.55	54	215	246	37	37	10.0	1.1	100.7
2	6.0	82	1.400	4.10	631.82	55	202	248	38	37	10.0	3.4	100.6
2	9.0	82	1.400	4.10	635.09	55	192	246	38	38	10.0	3.4	102.1
3	12.0	82	1.400	4.10	638.41	56	185	245	38	38	10.0	6.2	101.7
3	15.0	82	1.400	4.10	641.72	56	181	244	39	39	10.0	6.2	101.9
4	18.0	82	1.400	4.10	645.04	57	178	243	39	39	10.0	10.3	102.1
4	21.0	83	1.300	3.90	648.37	57	175	244	39	40	10.0	10.3	102.1
5	24.0	83	1.200	3.60	651.58	58	174	246	39	40	10.0	21.7	102.4
5	27.0	83	1.300	3.80	654.68	58	173	245	38	41	10.0	21.7	101.5
6	30.0	81	1.200	3.60	657.88	59	173	245	38	41	10.0	25.8	101.0
6	33.0	83	1.200	3.50	660.95	59	172	245	38	41	10.0	25.8	101.5
7	36.0	79	1.100	3.20	664.03	60	181	245	38	42	9.0	28.6	100.9
7	39.0	81	1.100	3.10	666.98	60	188	245	38	42	9.0	28.6	99.7
8	42.0	81	0.680	2.00	669.89	60	196	244	37	42	6.0	30.9	99.1
8	45.0	81	0.660	2.00	672.17	60	203	245	37	42	6.0	30.9	100.6
	48.0				674.45								
		81	1.205	3.52		54	184	245	36	40	8.8		100.9

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT LOUISIANA-PACIFIC
CITY PROV. DAWSON CREEK
PROJECT # 5216618
TEST T1 BH-PM
SAMPLE LOCATION BAGHOUSE
DATE APR. 5/95
START TIME 11:34
FINISH TIME 13:22
BAROMETRIC PRESS.(in Hg) 27.3
STACK PRESS.(in H_2O) -20
PITOT COEFFICIENT 0.766
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0057
STACK HEIGHT(ft) 20
STACK DIAMETER(in) 32
LENGTH X WIDTH — X —
CO2(%) — O2(%) 20.9
CO(ppm) — OTHER —

IMPINGER NET 1 (g) -92.4
NET FILTER WT.(g)
IMPINGER NET 2 (g) 89.7
NET PROBE WASH WT.(g)
IMPINGER NET 3 (g) 0.7
IMP.RESIDUE WT.(g)
IMPINGER NET 4 (g) 0.8 } REGIN TRAP/KNOCKOUT
FILTER #
IMPINGER NET 5 (g) 11.8
IMPINGER NET 6 (g) 19.8

METER BOX ID V#1
PROBE ID T1 7'
NOZZLE ID T #8
OTHER
EQUIPMENT COMMENTS TEFLON SEALING RINGS ON GLASSWARE

SAMPLING COMMENTS

PROCESS RATE NORMAL
CONTROL EQUIP. OPERATION NORMAL
PROCESS COMMENTS

SIGNATURE

04/05/95
DATE

Moisture Analysis Data Sheet

Project #: 5218816 Client LOUISIANA PACIFIC Test: TIBM-PH

Test Date: APRIL 5/95 Sample Location: BAGHOUSE

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	601.0	693.4		-92.4
Impinger 2	780.2	690.5		89.7
Impinger 3	568.1 ~~[illegible]~~	567.4		0.7
CONDENSER Impinger 4	222.6	221.8		0.8
XAD, CLAMP, KNOCKOUT Impinger 5	782.8	771.0		11.8
Silica gel impinger	794.9	775.1		19.8

Net Total Condensate 30.4 (g)

Signature

April 5/95
Date

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 08/05/9

Run # 18H-PM Traverse # 1 Traverse Direction OUT Start Time 11:34 Finish Time

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.3	3.7		576.785	80	240	242	36	32	47	45	8.0
1	3		1.2	3.5	579.91	579.98	80	220	244	39	33	46	45	8.0
2	6		1.3	3.6	582.98	583.04	80	190	245	39	34	47	45	8.0
2	9		1.2	3.5	586.16	586.18	81	180	245	38	34	49	45	8.0
3	12		1.3	3.7	589.16	589.18	81	174	245	38	34	51	45	8.0
3	15		1.3	3.7	592.30	592.27	81	170	245	39	35	52	45	8.0
4	18		1.3	3.7	595.39	595.38	81	167	245	39	35	54	46	8.0
4	21		1.3	3.7	598.50	598.48	81	165	245	39	35	55	46	8.0
5	24		1.3	3.7	601.60	601.59	82	164	245	39	35	56	46	9.0
5	27		1.3	3.7	604.71	604.68	81	163	244	40	35	57	47	9.0
6	30		1.3	3.7	607.80	607.79	80	162	244	40	35	58	47	9.5
6	33		1.3	3.7	610.91	610.92	81	160	245	40	34	59	48	9.5

Pre test leak check: Rate (cfm) 0.01 at 15 inches Hg (Vacuum)

Post test leak check: Rate (cfm) at inches Hg (Vacuum)

K value calculated by checked by

Signature

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 521618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/05/9

Run # T1BH-PH Traverse # 1 Traverse Direction OUT Start Time / Finish Time 12:22

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
7	36		1.25	3.6	614.04	614.06	76	168	244	41	34	59	48	9.5
7	39		1.25	3.6	617.12	617.16	78	175	244	41	34	60	49	9.5
8	42		0.72	2.1	620.22	620.24	78	182	244	41	34	60	49	6.0
8	45		0.74	2.1	622.56	622.56	78	190	245	42	34	60	49	6.0
	48				624.91	624.91								

Pre test leak check: Rate (cfm) / at / inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.01 at 12 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 521618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/05/9

Run # 1BH-PH Traverse # 2 Traverse Direction OUT Start Time 12:34 Finish Time

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.40	4.2		625.18	80	240	245	37	36	53	50	10.0
1	3		1.40	4.1	628.42	628.55	82	215	246	37	37	57	51	10.0
2	6		1.40	4.1	631.79	631.82	82	202	248	37	38	58	51	10.0
2	9		1.40	4.1	635.06	635.09	82	192	246	38	38	59	51	10.0
3	12		1.40	4.1	638.39	638.41	82	185	245	38	38	60	51	10.0
3	15		1.40	4.1	641.71	641.72	82	181	244	39	39	61	51	10.0
4	18		1.40	4.1	645.02	645.04	82	178	243	39	39	62	51	10.0
4	21		1.30	3.9	648.34	648.37	83	175	244	40	39	62	52	10.0
5	24		1.20	3.6	651.55	651.58	83	174	246	40	39	63	52	10.0
5	27		1.30	3.8	654.64	654.68	83	173	245	41	38	63	53	10.0
6	30		1.20	3.6	657.86	657.88	81	173	245	41	38	64	53	10.0
6	33		1.20	3.5	660.94	660.95	83	172	245	41	38	64	53	10.0

Pre test leak check: Rate (cfm) 0.014 at 12.0 inches Hg (Vacuum)

Post test leak check: Rate (cfm) at inches Hg (Vacuum)

K value calculated by checked by

Signature

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 546618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/05/19

Run # TIBM-01 Traverse # 2 Traverse Direction OUT Start Time / Finish Time 13:22

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
7	36		1.10	3.2	664.01	664.03	79	181	245	42	38	65	54	9.0
7	39		1.10	3.1	666.96	666.98	81	188	245	42	38	65	54	9.0
8	42		0.68	2.0	669.91	669.89	81	196	244	42	37	65	54	6.0
8	45		0.66	2.0	672.19	672.17	81	203	245	42	37	65	54	6.0
	48				674.44	674.45								

Pre test leak check: Rate (cfm) / at / inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.018 at 12 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

QA/QC CHECKLIST
METHOD 5/TFACE METALS AND MODIFIED METHOD 5 SAMPLING

1.0 PRETEST TRAIN ASSEMBLY/FINAL PREPARATION.

PROJECT NO. 5216618 CLIENT LOUISIANA-PACIFIC TEST(S) T1BH-PM / T2BH-PM
DATE(S) APR. SAMPLE LOCATION BAGHOUSE
OPERATOR(S) ____
Sampling Method (eg. MOE 5) US EPA 0010
Modifications to standard method NONE

Meter box #1 Probe T1 7'
Equipment identity matches pretest calibration list? ✓
Probe nozzle material: SS
cleaned according to sampling protocol? ✓
undamaged ✓
Probe liner material: GLASS
cleaned according to sampling protocol? ✓
heated? ✓ entire length? ✓ temperature 250
Pitot tube: Type S ✓ Other —
properly attached to probe (no interference with nozzle?) ✓
modifications NONE
pitot tube coefficient 0.766
Pitot tube connected to: inclined manometer ✓
or magnehelic gauge — range — division —
pitot lines checked for leaks? ✓ plugging? ✓
Meter box leveled? ✓ pitot pressure gauge zeroed? ✓
orifice pressure gauge zeroed? ✓
Gas temperature sensor: thermocouple? ✓ type K
temperature sensor checked against ambient temp.? ✓
Filter holder: borosilicate glass ✓ other —
frit material: teflon ✓ borosilicate glass —
other —
heated? ✓ temperature 250
cleaned according to sampling protocol? ✓
filter holder assembled correctly? ✓
Filter type : GLASS FIBER
filters checked visually for irregularities? ✓
filters properly centered? ✓ labelled? ✓
Recent calibration of orifice meter dry gas meter ✓
pitot tubes ✓ magnehelic gauges —
thermometers and thermocouples? ✓ nozzles ✓
Is gas meter calibration temperature compensated? NO
meter temp. ____

QA/QC CHECKLIST
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

XAD resin trap used ✓ glassware proofed? ✓
Impinger train: number of impingers 4
cleaned according to sampling protocol? ✓
contents: 1st 100ML DI H2O 2nd 100ML DI H2O 3rd EMPTY
4th SILICA GEL 5th ____ 6th ____
impinger weights recorded? ✓
impingers properly assembled? ✓
cooling system: CONDENSOR (ICE BATH) proper connections ✓
modifications: —
grease used on joints: — kind of grease —
Barometric pressure measured? ✓ source of data? PORTABLE BAROMETER
Was preliminary velocity profile performed? NO
Avg.delta P — Max. delta P — static —
Avg. Temp. —
Estimated moisture content % 1.0 how estimated? PREVIOUS DATA
Estimated O2 % 20.9 CO2 % — CO % — SO2 % —
how estimated? PREVIOUS DATA
Has an "isokinetic sheet" been completed? ✓
Nozzle size properly selected? ✓ nozzle diameter 0.24
K factor ____
nozzle properly attached to probe (correct orientation) ✓
Number of sampling points per traverse from Source Test Code 8
number to be used 8
probe markings correct? ✓
Length of sampling time per point desired 6 MIN
number to be used 6 MIN
Leak test performed before start of sampling? ✓
rate <0.02 cfm @ 15 in Hg

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

2.0 SAMPLING

All openings of sampling train sealed (pretest & posttest)? ✓

Leak performed before start of sampling? ✓
<0.02 cfm @ 15 in Hg.

Sampling train traversing technique:
- Is nozzle sealed when probe in stack with pump off? ✓
- Is care taken to avoid scraping nipple of stack wall? ✓
- Is an effective seal made around probe at port opening? ✓
- Is probe seal made without disturbing flow inside stack? ✓
- Is probe moved to each point at the proper time? ✓
- Is probe marking system adequate to locate each point? ✓
- Was pitot tube kept parallel to stack wall at each point? ✓
- If probe is disconnected from filter holder with probe in the stack on a negative pressure source how is particulate matter in the probe prevented from being sucked back into the stack? _____
- If filters are changed during a run was there any pariculate loss? —

Meterbox operation:
- Is data recorded in a permanent manner? ✓
- are data sheets complete? ✓
- Average time to reach isokinetic rate at each point 10 s.
- Are velocity pressures read and recorded accurately? ✓

Leak test performed at completion of test? <0.02 cfm @ 15 in Hg

Probe, filter holder, impingers sealed adequately after test? ✓

Gas analysis from stack? ✓ other? —
- from fyrites? ✓ integrated bag? — orsat? —
- continuous gas analysers? —
- models: —

Approximate stack temperature 80 °F gas sample volume ~90 ft³

First 8 velocity pressures measured ✓

Percent isokinetic calculated ✓

Data forms completed and data recorded properly ✓

General comment on sampling techniques ✓

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

3.0 SAMPLE RECOVERY

General environment - clean up area LAB AREA
Brushes: nylon bristle — other TEFLON
cleaned according to sampling protocol? ✓
Wash bottles: glass — polyethylene — other TEFLON
cleaned according to sampling protocol? ✓
Storage containers: borosilicate glass ✓ other —
cleaned according to sampling protocol? ✓
cap material TEFLON leak free? ✓
Petri dishes: plastic — other GLASS
cleaned according to sampling protocol? ✓
Graduated cylinder: borosilicate glass — other —
Subdivisions of graduated cylinder < 2 ml? —
cleaned according to sampling protocol? —
Balance type TRIPLE BEAM calibrated ✓
Probe allowed to cool sufficiently? ✓
Probe and sample train openins sealed? ✓
Silica gel colour: run 1 3/4 PINK run 2 1/2 PINK run 3 ____
weighed? run 1 ✓ run 2 ✓ run 3 ____
Probe handling: Acetone rinses — other $MeCl_2$/Methanol
Particulate recovery: probe nozzle ✓ probe fitting ✓
probe liner ✓ front half of filter holder ✓
Blanks collected: reagent(s) $MeCl_2$/Methanol/DI H_2O
acetone ✓ DI water — other —
Impinger rinses: DI — other ____
Samples labelled and stored properly? $MeCl_2$/Methanol
Liquid levels marked? ✓
Filter handling: tweezers used? ✓ surgical gloves ✓
Any particulate lost? Probe — Filter —
Description of particulate SAWDUST LIKE.

JOHN McDONALD
Name

Signature

PHENOL EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.05
RUN : T2BH-PH
LOC. : BAG HOUSE

RUN TIME : 15:32 TO 17:22

PHENOL CONCENTRATION	1254.9 ug/DSm3	0.5485 gr/1000 DScf
	1043.8 ug/Am3	0.4562 gr/1000 Acf
PHENOL EMISSION RATE	10.268 mg/s	570.44 gr/hr
SAMPLE GAS VOLUME	2.6459 DSm3	93.429 DScf
AVERAGE ISOKINETICITY	99.8 %	

FLUE GAS CHARACTERISTICS

MOISTURE	1.66 %	
TEMPERATURE	26.1 deg C	78.9 deg F
FLOW	29450 DSm3/hr	17334 DScfm
	35407 Am3/hr	20840 Acfm
VELOCITY	18.96 m/s	3731.3 fpm

GAS ANALYSIS	O2	20.90 %
	CO2	0.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	28.95 g/gmole D.B.
	MOL. WT.	28.77 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

PHENOL EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC	DATE : 95.04.05
JOBSITE : DAWSON CREEK	RUN : T2BH-PH
REF.No. : 5216618	LOC. : BAG HOUSE

STACK HEIGHT	6.1 m	20.0 ft.
STACK DIAMETER	0.81 m	32.0 in.
STACK AREA	0.519 m2	5.59 sq.ft.
BAROMETRIC PRESSURE	92.5 kPa	27.30 in.Hg
STATIC PRESSURE	-4980.0 Pa	-20.00 in.H2O
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.766	
METER CORRECTION FACTOR	1.006	
CONDENSATE COLLECTION		
RESIN TRAP CONDENSATE	13.4 g	
CONDENSATION IN IMPINGER 1	-1.8 g	
CONDENSATION IN IMPINGER 2	-1.1 g	
CONDENSATION IN IMPINGER 3	1.2 g	
SILICA GEL WEIGHT GAIN	21.7 g	
TOTAL MOISTURE GAIN	33.4 g	
PHENOL COLLECTION		
FILTER PHENOL	0.0000 mg	
WASHINGS PHENOL	0.0000 mg	
RESIN PHENOL	0.0000 mg	
IMPINGER PHENOL	3.3200 mg	
TOTAL PHENOL	3.3200 mg	
TOTAL SAMPLING TIME	96.0 min.	

PHENOL EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.05
RUN : T2BH-PH
LOC. : BAG HOUSE

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H2O	ORIF. PRES. in.H2O	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	RES. TMP. F	EXIT TMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1													
1	0.0	78	1.300	3.90	674.82	48	246	244	33	38	7.0	1.1	103.3
1	3.0	78	1.350	4.00	678.02	47	211	245	33	38	7.0	1.1	102.1
2	6.0	79	1.400	4.00	681.24	47	197	246	33	38	7.0	3.4	100.4
2	9.0	79	1.500	4.20	684.46	49	188	244	33	39	7.0	3.4	99.1
3	12.0	80	1.500	4.20	687.76	50	182	246	33	39	7.0	6.2	101.4
3	15.0	80	1.500	4.20	691.14	51	178	246	34	40	8.0	6.2	97.1
4	18.0	80	1.450	4.10	694.38	52	174	246	34	40	9.0	10.3	99.4
4	21.0	80	1.400	4.10	697.65	52	170	245	34	40	9.0	10.3	101.7
5	24.0	81	1.300	3.90	700.94	53	168	245	33	41	8.5	21.7	101.9
5	27.0	81	1.300	3.80	704.12	53	167	246	33	41	8.0	21.7	100.8
6	30.0	80	1.300	3.70	707.27	54	166	244	33	41	8.0	25.8	100.6
6	33.0	80	1.300	3.60	710.42	54	165	245	33	41	8.0	25.8	99.2
7	36.0	77	1.100	3.20	713.53	55	177	245	34	42	7.0	28.6	100.8
7	39.0	78	1.100	3.10	716.45	55	184	245	34	42	7.0	28.6	99.5
8	42.0	78	0.780	2.20	719.33	55	192	245	34	42	5.0	30.9	99.8
8	45.0	78	0.780	2.20	721.77	55	198	244	34	42	5.0	30.9	99.3
	48.0				724.20								
TRAVERSE NO. 2													
1	0.0	80	1.200	3.40	724.48	51	246	246	34	38	7.0	1.1	99.8
1	3.0	80	1.200	3.40	727.47	52	210	243	35	37	7.0	1.1	96.6
2	6.0	80	1.200	3.30	730.37	53	192	245	35	37	7.0	3.4	98.2
2	9.0	80	1.200	3.40	733.32	54	193	247	35	38	8.0	3.4	98.7
3	12.0	80	1.200	3.40	736.29	54	176	245	35	39	8.0	6.2	99.2
3	15.0	80	1.200	3.40	739.28	55	171	244	35	39	8.0	6.2	100.1
4	18.0	80	1.300	3.60	742.30	55	167	245	35	39	8.0	10.3	98.7
4	21.0	79	1.300	3.60	745.40	56	164	244	36	39	8.0	10.3	98.8
5	24.0	79	1.400	3.90	748.51	56	162	246	36	40	9.0	21.7	98.9
5	27.0	79	1.400	4.00	751.74	57	161	244	36	40	9.0	21.7	99.8
6	30.0	79	1.350	3.90	755.00	57	161	244	36	40	9.0	25.8	100.8
6	33.0	79	1.400	4.00	758.24	57	160	245	37	41	9.0	25.8	100.0
7	36.0	75	1.200	3.40	761.51	57	172	246	37	42	8.0	28.6	99.5
7	39.0	76	1.300	3.60	764.54	58	181	245	38	42	8.0	28.6	98.2
8	42.0	76	0.960	2.80	767.65	58	190	245	38	42	8.0	30.9	101.1
8	45.0	76	0.980	2.80	770.41	58	195	245	38	42	8.0	30.9	100.1
	48.0				773.17								
		79	1.248	3.57		53	183	245	35	40	7.7		99.8

CORE DRYER DOWN IMR 04/05/95

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT LOUISIANA-PACIFIC
CITY PROV. DAWSON CREEK
PROJECT # 5216618
TEST T2BH-PM
SAMPLE LOCATION BAGHOUSE
DATE 04/05/95
START TIME 15:32
FINISH TIME 17:22
BAROMETRIC PRESS.(in Hg) 27.3
STACK PRESS.(in H_2O) -20
PITOT COEFFICIENT 0.766
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0057
STACK HEIGHT(ft) 20
STACK DIAMETER(in) 32
LENGTH X WIDTH — X —
CO2(%) — O2(%) 20.9
CO(ppm) — OTHER —

IMPINGER NET 1 (g) -1.8
NET FILTER WT.(g)
IMPINGER NET 2 (g) -1.1
NET PROBE WASH WT.(g)
IMPINGER NET 3 (g) 1.2
IMP.RESIDUE WT.(g)
IMPINGER NET 4 (g) 1.0 } RESIN
FILTER #
IMPINGER NET 5 (g) 12.4 } TRAP/RINSE
IMPINGER NET 6 (g) 21.7

METER BOX ID V#1
PROBE ID T1 7'
NOZZLE ID T#8
OTHER
EQUIPMENT COMMENTS TEFLON SEALING RINGS ON IMPINGERS

SAMPLING COMMENTS

PROCESS RATE NORMAL
CONTROL EQUIP. OPERATION NORMAL
PROCESS COMMENTS

SIGNATURE

04/05/95
DATE

Moisture Analysis Data Sheet

Project #: 521 6618 Client LOUISIANA PACIFIC Test: T2BH-PH

Test Date: APRIL 5/95 Sample Location: BAGHOUSE

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	689.4	691.2		-1.8
Impinger 2	709.4	710.5		-1.1
Impinger 3	566.7	565.5		1.2
LOUISIANA Impinger 4	218.3	217.3 ~~222.0~~		1.0
HNO3, LOUIS, KMnO4 Impinger 5	769.6	757.2		12.4
Silica gel impinger	797.2	775.5		21.7

Net Total Condensate 33.4 (g)

Signature

April 5 95
Date

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/05/9

Run # T2BH-PH Traverse # 1 Traverse Direction OUT Start Time 15:32 Finish Time /

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.30	3.9	/	674.815	78	246	244	38	33	48	47	7.0
1	3		1.35	4.0	677.94	678.02	78	211	245	38	33	47	47	7.0
2	6		1.40	4.0	681.20	681.24	79	197	246	38	33	48	46	7.0
2	9		1.50	4.2	684.44	684.46	79	188	244	39	33	51	46	7.0
3	12		1.50	4.2	687.81	687.76	80	182	246	39	33	53	46	7.0
3	15		1.50	4.2	691.11	691.14	80	178	246	40	34	54	47	8.0
4	18		1.45	4.1	694.49	694.38	80	174	246	40	34	56	47	9.0
4	21		1.40	4.1	697.67	697.65	80	170	245	40	34	57	47	9.0
5	24		1.30	3.9	700.91	700.94	81	168	245	41	33	57	48	8.5
5	27		1.30	3.8	704.06	704.12	81	167	246	41	33	58	48	8.0
6	30		1.30	3.7	707.24	707.27	80	166	244	41	33	59	48	8.0
6	33		1.30	3.6	710.39	710.42	80	165	245	41	33	59	49	8.0

Pre test leak check: Rate (cfm) 0.008 at 15 inches Hg (Vacuum)

Post test leak check: Rate (cfm) / at / inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

B5
15R13

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/05/9

Run # T2BH-PH Traverse # 1 Traverse Direction OUT Start Time / Finish Time 16:20

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
7	36		1.10	3.2	713.54	713.53	77	177	245	42	34	60	49	7.0
7	39		1.10	3.1	716.40	716.45	78	184	245	42	34	60	49	7.0
8	42		0.78	2.2	719.32	719.33	78	192	245	42	34	60	50	5.0
8	45		0.78	2.2	721.75	721.77	78	198	244	42	34	60	50	5.0
	48				724.19	724.20								

Pre test leak check: Rate (cfm) / at / inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.01 at 12 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature JM

Sampling Trains Data Sheet

Client LOUISIANA PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/05/9

Run # T2BH-AH Traverse # 2 Traverse Direction OUT Start Time 16:34 Finish Time /

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.20	3.4	/	724.48	80	246	246	38	34	52	50	7.0
1	3		1.20	3.4	727.48	727.47	80	210	243	37	35	54	50	7.0
2	6		1.20	3.3	730.47	730.37	80	192	245	37	35	55	50	7.0
2	9		1.20	3.4	733.37	733.32	80	193	247	38	35	57	50	8.0
3	12		1.20	3.4	736.32	736.29	80	176	245	39	35	58	50	8.0
3	15		1.20	3.4	739.29	739.28	80	171	244	39	35	59	50	8.0
4	18		1.30	3.6	742.28	742.30	80	167	245	39	35	60	50	8.0
4	21		1.30	3.6	745.42	745.40	79	164	244	39	36	61	51	8.0
5	24		1.40	3.9	748.52	748.51	79	162	246	40	36	61	51	9.0
5	27		1.40	4.0	751.81	751.74	79	161	244	40	36	62	51	9.0
6	30		1.35	3.9	755.04	755.00	79	161	244	40	36	62	52	9.0
6	33		1.40	4.0	758.24	758.24	79	160	245	41	37	62	52	9.0

Pre test leak check: Rate (cfm) 0.008 at 12 inches Hg (Vacuum)

Post test leak check: Rate (cfm) / at / inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

2.7

773.30 774.30
Vac. 4" Hg

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/NS Date 04/05/9

Run # T2BH-PM Traverse # 2 Traverse Direction OUT Start Time ✓ Finish Time 17:22

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
7	36		1.20	3.4	761.54	761.51	75	172	246	42	37	62	52	8.0
7	39		1.30	3.6	764.57	764.54	76	181	245	42	38	63	52	8.0
8	42		0.96	2.8	767.72	767.65	76	190	245	42	38	63	53	8.0
8	45		0.98	2.8	770.38	770.41	76	195	245	42	38	63	53	8.0
	48				773.17	773.17								

Pre test leak check: Rate (cfm) ✓ at ✓ inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.08 at 12 inches Hg (Vacuum)

BLANK

K value calculated by _____ checked by _____

Signature _____

MDI EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC	DATE : 95.04.03
JOBSITE : DAWSON CREEK	RUN : T1BH-MDI
REF.No. : 5216618	LOC. : BAGHOUSE

RUN TIME : 17:41 TO 18:54

MDI CONCENTRATION	275.3 ug/DSm3	0.1203 gr/1000 DScf
	236.7 ug/Am3	0.1035 gr/1000 Acf
MDI EMISSION RATE	2.274 mg/s	126.31 gr/hr
SAMPLE GAS VOLUME	1.8163 DSm3	64.133 DScf
AVERAGE ISOKINETICITY	101.8 %	

FLUE GAS CHARACTERISTICS

MOISTURE	0.72 %	
TEMPERATURE	23.6 deg C	74.5 deg F
FLOW	29723 DSm3/hr	17495 DScfm
	34573 Am3/hr	20349 Acfm
VELOCITY	18.51 m/s	3643.5 fpm

GAS ANALYSIS	O2	20.90 %
	CO2	0.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	28.95 g/gmole D.B.
	MOL. WT.	28.87 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

MDI EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC	DATE : 95.04.03
JOBSITE : DAWSON CREEK	RUN : T1BH-MDI
REF.No. : 5216618	LOC. : BAGHOUSE

STACK HEIGHT	6.1 m	20.0 ft.
STACK DIAMETER	0.81 m	32.0 in.
STACK AREA	0.519 m2	5.59 sq.ft.
BAROMETRIC PRESSURE	93.8 kPa	27.70 in.Hg
STATIC PRESSURE	-4980.0 Pa	-20.00 in.H20
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.766	
METER CORRECTION FACTOR	1.006	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	-137.6 g
CONDENSATION IN IMPINGER 2	30.3 g
CONDENSATION IN IMPINGER 3	27.1 g
CONDENSATION IN IMPINGER 4	10.6 g
CONDENSATION IN IMPINGER 5	33.0 g
SILICA GEL WEIGHT GAIN	46.5 g
TOTAL MOISTURE GAIN	9.9 g

MDI COLLECTION

FILTER MDI	0.0000 mg
WASHINGS MDI	0.0000 mg
IMPINGER MDI	0.5000 mg
TOTAL MDI	0.5000 mg

TOTAL SAMPLING TIME 64.0 min.

MDI EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.03
RUN : T1BH-MDI
LOC. : BAGHOUSE

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H20	ORIF. PRES. in.H20	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	75	1.400	4.20	301.50	42	230	240	26	10.0	1.1	96.0
1	2.0	75	1.400	4.20	303.54	42	220	242	27	10.0	1.1	103.6
2	4.0	76	1.500	4.40	305.74	42	200	243	28	10.0	3.4	102.9
2	6.0	76	1.500	4.40	308.00	42	190	245	27	10.0	3.4	102.5
3	8.0	76	1.400	4.20	310.25	42	182	245	28	10.0	6.2	104.5
3	10.0	76	1.500	4.40	312.47	43	175	245	29	10.0	6.2	103.2
4	12.0	76	1.400	4.20	314.74	43	171	244	31	10.0	10.3	104.3
4	14.0	76	1.400	4.20	316.96	44	167	247	32	10.0	10.3	103.7
5	16.0	77	1.300	3.90	319.17	44	164	243	33	10.0	21.7	103.7
5	18.0	77	1.300	3.90	321.30	45	162	243	33	10.0	21.7	104.5
6	20.0	76	1.300	3.90	323.45	46	161	247	34	10.0	25.8	104.2
6	22.0	76	1.300	3.90	325.60	47	159	247	35	10.0	25.8	103.0
7	24.0	70	0.940	2.80	327.73	47	169	242	35	7.0	28.6	103.8
7	26.0	70	0.960	2.90	329.57	48	174	246	35	7.0	28.6	102.0
8	28.0	70	0.780	2.30	331.40	48	180	245	35	7.0	30.9	102.4
8	30.0	70	0.800	2.40	333.06	49	184	243	35	7.0	30.9	102.2
	32.0				334.74							
TRAVERSE NO. 2												
1	0.0	74	1.150	3.40	335.03	49	225	236	27	9.0	1.1	97.0
1	2.0	74	1.150	3.40	336.93	49	204	240	29	9.0	1.1	101.5
2	4.0	76	1.200	3.60	338.92	50	192	247	31	9.0	3.4	102.9
2	6.0	76	1.200	3.60	340.98	51	184	247	33	9.0	3.4	102.2
3	8.0	76	1.200	3.60	343.03	52	177	245	35	9.0	6.2	102.0
3	10.0	76	1.200	3.60	345.08	53	171	244	36	9.0	6.2	102.4
4	12.0	76	1.200	3.60	347.14	53	166	244	37	9.0	10.3	100.9
4	14.0	76	1.200	3.60	349.17	54	163	245	38	9.0	10.3	101.7
5	16.0	75	1.400	3.90	351.22	54	159	246	39	9.0	21.7	99.1
5	18.0	75	1.400	3.90	353.38	55	158	245	40	9.0	21.7	97.7
6	20.0	73	1.400	4.00	355.51	55	156	246	41	9.0	25.8	98.8
6	22.0	75	1.300	3.90	357.67	56	155	246	43	9.0	25.8	101.2
7	24.0	71	1.300	3.90	359.80	56	160	242	43	9.0	28.6	102.1
7	26.0	73	1.300	3.90	361.96	57	163	245	44	9.0	28.6	101.7
8	28.0	73	0.800	2.30	364.11	57	169	248	45	6.0	30.9	101.5
8	30.0	73	0.840	2.50	365.80	57	175	244	43	6.0	30.9	101.3
	32.0				367.53							
		75	1.222	3.65		49	177	244	35	8.9		101.8

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT LOUISIANA-PACIFIC
CITY PROV. DAWSON CREEK
PROJECT # 5216618
TEST T1BH-MD1
SAMPLE LOCATION BAGHOUSE
DATE APR. 3/95
START TIME 17:41
FINISH TIME 18:54
BAROMETRIC PRESS.(in Hg) 27.7
STACK PRESS.(in H_2O) -20
PITOT COEFFICIENT 0.766
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0057
STACK HEIGHT(ft) 20
STACK DIAMETER(in) 32
LENGTH X WIDTH / X /
CO2(%) 0 O2(%) 20.9
CO(ppm) / OTHER /

IMPINGER NET 1 (g) -137.6
NET FILTER WT.(g) /
IMPINGER NET 2 (g) 30.3
NET PROBE WASH WT.(g) /
IMPINGER NET 3 (g) 27.1
IMP.RESIDUE WT.(g)
IMPINGER NET 4 (g) 10.6
FILTER # /
IMPINGER NET 5 (g) 33.0
IMPINGER NET 6 (g) 46.5

METER BOX ID V#1
PROBE ID T1 #7'
NOZZLE ID #8 (T8)
OTHER
EQUIPMENT COMMENTS FILTER BYPASS

SAMPLING COMMENTS JOINTS TEFLON WRAPPED

PROCESS RATE NORMAL
CONTROL EQUIP. OPERATION NORMAL
PROCESS COMMENTS

SIGNATURE

04/03/95
DATE

Moisture Analysis Data Sheet

Project #: 5216618 Client LOUISIANA PACIFIC Test: TIBH-MD1

Test Date: APRIL 3/95 Sample Location: BAGHOUSE

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	512.6	650.2 g		-137.6
Impinger 2	639.5	609.2 g		30.3
Impinger 3	673.8	646.7 g		27.1
Impinger 4	489.8	479.2 g		10.6
Impinger 5	675.2	642.2		33.0
Silica gel impinger	823.9	777.4 g		46.5

Net Total Condensate 9.9 (g)

Signature

April 3/95
Date

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/03/9

Run # TIBH-MD1 Traverse # 1 Traverse Direction OUT Start Time 17:41 Finish Time

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.4	4.2		301.50	75	230	240	26		41	42	10.0
1	2		1.4	4.2	303.70	303.54	75	220	242	27		41	42	10.0
2	4		1.5	4.4	305.74	305.74	76	200	243	28		41	42	10.0
2	6		1.5	4.4	308.02	308.00	76	190	245	27		42	41	10.0
3	8		1.4	4.2	310.28	310.25	76	182	245	28		43	41	10.0
3	10		1.5	4.4	312.45	312.47	76	175	245	29		44	41	10.0
4	12		1.4	4.2	314.75	314.74	76	171	244	31		45	41	10.0
4	14		1.4	4.2	316.94	316.96	76	167	247	32		46	41	10.0
5	16		1.3	3.9	319.16	319.17	77	164	243	33		47	41	10.0
5	18		1.3	3.9	321.29	321.30	77	162	243	33		48	41	10.0
6	20		1.3	3.9	323.42	323.45	76	161	247	34		49	42	10.0
6	22		1.3	3.9	325.57	325.60	76	159	247	35		51	42	10.0

Pre test leak check: Rate (cfm) 0.005 at 15 inches Hg (Vacuum)

Post test leak check: Rate (cfm) at inches Hg (Vacuum)

K value calculated by checked by

Signature

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/03/9

Run # TIBH-MD1 Traverse # 1 Traverse Direction OUT Start Time / Finish Time 18:13

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
7	24		0.94	2.8	327.72	327.73	70	169	242	35		51	42	7.0
7	26		0.96	2.9	329.53	329.57	70	174	246	35		52	43	7.0
8	28		0.88	2.3	331.39	331.40	70	180	245	35		53	43	7.0
8	30		0.80	2.4	333.04	333.06	70	184	243	35		54	43	7.0
	32				334.72	334.74								

Pre test leak check: Rate (cfm) / at / inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.002 at 13 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/03/9

Run # TIBH-MD Traverse # 2 Traverse Direction OUT Start Time 18:20 Finish Time /

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.15	3.4	/	335.03	74	225	236	27		52	45	9.0
1	2		1.15	3.4	337.02	336.93	74	204	240	29		53	45	9.0
2	4		1.20	3.6	338.92	338.92	76	192	247	31		54	46	9.0
2	6		1.20	3.6	340.96	340.98	76	184	247	33		56	46	9.0
3	8		1.20	3.6	343.02	343.03	76	177	245	35		57	47	9.0
3	10		1.20	3.6	345.07	345.08	76	171	244	36		58	47	9.0
4	12		1.20	3.6	347.12	347.14	76	166	244	37		58	47	9.0
4	14		1.20	3.6	349.18	349.17	76	163	245	38		59	48	9.0
5	16		1.40	3.9	351.21	351.22	75	159	246	39		60	48	9.0
5	18		1.40	3.9	353.42	353.38	75	158	245	40		60	49	9.0
6	20		1.40	4.0	355.58	355.51	73	156	246	41		61	49	9.0
6	22		1.30	3.9	357.71	357.67	75	155	246	43		61	50	9.0

Pre test leak check: Rate (cfm) 0.00 at 13 inches Hg (Vacuum)

Post test leak check: Rate (cfm) / at / inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/03/9

Run # TIBH-MDI Traverse # 2 Traverse Direction OUT Start Time / Finish Time 18:54

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
7	24		1.30	3.9	359.79	359.80	71	160	242	43		62	50	9.0
7	26		1.30	3.9	361.92	361.96	73	163	245	44		62	51	9.0
8	28		0.80	2.3	364.08	364.11	73	169	248	45		62	51	6.0
8	30		0.84	2.5	365.77	365.80	73	175	244	43		62	52	6.0
	32				~~367.785~~	~~366~~								
					367.505	367.53								

Pre test leak check: Rate (cfm) / at / inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.008 at 13 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

QA/QC CHECKLIST
METHOD 5/TFACE METALS AND MODIFIED METHOD 5 SAMPLING

1.0 PRETEST TRAIN ASSEMBLY/FINAL PREPARATION

PROJECT NO. 5216618 CLIENT LOUISIANA-PACIFIC TEST(S) T1BH-MD1 T2BHMD1
DATE(S). APR. 4/95 SAMPLE LOCATION BAGHOUSE
OPERATOR(S) JM/MS
Sampling Method (eg. MOE 5) USEPA RESEARCH METHOD
Modifications to standard method

Meter box V#1 Probe T1 71
Equipment identity matches pretest calibration list? ✓
Probe nozzle material: SS
cleaned according to sampling protocol? ✓
undamaged ✓
Probe liner material: GLASS
cleaned according to sampling protocol? ✓
heated? ✓ entire length? ✓ temperature 250°F
Pitot tube: Type S ✓ Other
properly attached to probe (no interference with nozzle?) ✓
modifications NONE
pitot tube coefficient 0.766
Pitot tube connected to: inclined manometer ✓
or magnehelic gauge — range — division —
pitot lines checked for leaks? ✓ plugging? ✓
Meter box leveled? ✓ pitot pressure gauge zeroed? ✓
orifice pressure gauge zeroed? ✓
Gas temperature sensor: thermocouple? ✓ type K
temperature sensor checked against ambient temp.? ✓
Filter holder: borosilicate glass — other —
frit material: teflon — borosilicate glass —
other —
heated? — temperature —
cleaned according to sampling protocol? —
filter holder assembled correctly? —
Filter type : —
filters checked visually for irregularities? —
filters properly centered? — labelled? —
Recent calibration of orifice meter dry gas meter ✓
pitot tubes ✓ magnehelic gauges —
thermometers and thermocouples? ✓ nozzles ✓
Is gas meter calibration temperature compensated? No
meter temp. —

QA/QC CHECKLIST
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

XAD resin trap used ___ glassware proofed? ✓
Impinger train: number of impingers 6
cleaned according to sampling protocol? ✓
contents: 1st 300ML 1,2 PP 2nd 200ML 1,2-PP 3rd 200ML 1,2-PP
4th EMPTY 5th SILICA GEL 6th CARBON
impinger weights recorded? ✓
impingers properly assembled? ✓
cooling system: ✓ICE BATH proper connections ✓
modifications: NONE
grease used on joints: ___ kind of grease ___
Barometric pressure measured? ✓ source of data? PORTABLE BAROMETER
Was preliminary velocity profile performed? NO
Avg.delta P ___ Max. delta P ___ static ___
Avg. Temp. ___
Estimated moisture content % 1.0 how estimated? PREVIOUS DATA
Estimated O2 % 20.9 CO2 % ___ CO % ___ SO2 % ___
how estimated? PREVIOUS DATA
Has an "isokinetic sheet" been completed? ✓
Nozzle size properly selected? ✓ nozzle diameter 0.24
K factor ___
nozzle properly attached to probe (correct orientation) ✓
Number of sampling points per traverse from Source Test Code 8
number to be used 8
probe markings correct? ✓
Length of sampling time per point desired 4 MIN
number to be used 4 MIN
Leak test performed before start of sampling? ✓
rate <0.02 cfm @ 15 in Hg

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

2.0 SAMPLING

All openings of sampling train sealed (pretest & posttest)? ✓

Leak performed before start of sampling? ✓
<0.02 cfm @ 15 in Hg.

Sampling train traversing technique:
- Is nozzle sealed when probe in stack with pump off? ✓
- Is care taken to avoid scraping nipple of stack wall? ✓
- Is an effective seal made around probe at port opening? ✓
- Is probe seal made without disturbing flow inside stack? ✓
- Is probe moved to each point at the proper time? ✓
- Is probe marking system adequate to locate each point? ✓
- Was pitot tube kept parallel to stack wall at each point? ✓
- If probe is disconnected from filter holder with probe in the stack on a negative pressure source how is particulate matter in the probe prevented from being sucked back into the stack? ___
- If filters are changed during a run was there any pariculate loss? —

Meterbox operation:
- Is data recorded in a permanent manner? ✓
- are data sheets complete? ✓
- Average time to reach isokinetic rate at each point 10 s.
- Are velocity pressures read and recorded accurately? ✓

Leak test performed at completion of test? <0.02 cfm @ 15 in Hg
Probe, filter holder, impingers sealed adequately after test? ✓
Gas analysis from stack? ✓ other? —
- from fyrites? ✓ integrated bag? — orsat? —
- continuous gas analysers? —
- models: —

Approximate stack temperature 80 °F gas sample volume ~60 ft³
First 8 velocity pressures measured ✓
Percent isokinetic calculated ✓
Data forms completed and data recorded properly ✓
General comment on sampling techniques ✓

QA/QC Checklist
METHOD 5/TRACE METALS AND MODIFIED METHOD 5 SAMPLING

3.0 SAMPLE RECOVERY

General environment - clean up area LAB AREA
Brushes: nylon bristle — other TEFLON
cleaned according to sampling protocol? ✓
Wash bottles: glass — polyethylene — other TEFLON
cleaned according to sampling protocol? ✓
Storage containers: borosilicate glass ✓ other —
cleaned according to sampling protocol? ✓
cap material TEFLON leak free? ✓
Petri dishes: plastic — other —
cleaned according to sampling protocol? —
Graduated cylinder: borosilicate glass — other —
Subdivisions of graduated cylinder < 2 ml? —
cleaned according to sampling protocol? —
Balance type TRIPLE BEAM calibrated ✓
Probe allowed to cool sufficiently? ✓
Probe and sample train openins sealed? ✓
Silica gel colour: run 1 ½ PINK run 2 BLUE run 3 ____
weighed? run 1 ✓ run 2 ✓ run 3 ____
Probe handling: Acetone rinses — other TOLUENE/ACETONITRILE
Particulate recovery: probe nozzle — probe fitting —
probe liner — front half of filter holder —
Blanks collected: reagent(s) ✓
acetone — DI water — other TOLUENE/ACETONITRILE/DMF 1,2-PP
Impinger rinses: DI — other TOLUENE/ACETONITRILE
Samples labelled and stored properly? ✓
Liquid levels marked? ✓
Filter handling: tweezers used? — surgical gloves —
Any particulate lost? Probe — Filter —
Description of particulate —

JOHN MCDONAUGH.
Name

Signature

MDI EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC	DATE : 95.04.04
JOBSITE : DAWSON CREEK	RUN : T2BH-MDI
REF.No. : 5216618	LOC. : BAG HOUSE

RUN TIME : 9:32 TO 10:48

MDI CONCENTRATION	25.5 ug/DSm3	0.0111 gr/1000 DScf
	21.8 ug/Am3	0.0095 gr/1000 Acf
MDI EMISSION RATE	0.213 mg/s	11.83 gr/hr
SAMPLE GAS VOLUME	1.8055 DSm3	63.755 DScf
AVERAGE ISOKINETICITY	100.0 %	

FLUE GAS CHARACTERISTICS

MOISTURE	0.07 %	
TEMPERATURE	24.2 deg C	75.5 deg F
FLOW	30076 DSm3/hr	17702 DScfm
	35225 Am3/hr	20733 Acfm
VELOCITY	18.86 m/s	3712.2 fpm

GAS ANALYSIS	O2	20.90 %
	CO2	0.00 %
	CO	0.00 %
	SO2	0.00 %
	MOL. WT.	28.95 g/gmole D.B.
	MOL. WT.	28.94 g/gmole W.B.

*STANDARD CONDITIONS : METRIC 20 deg C, 101.3 kPa
: IMPERIAL 68 deg F, 29.92 in.Hg

MDI EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.04
RUN : T2BH-MDI
LOC. : BAG HOUSE

STACK HEIGHT	6.1 m	20.0 ft.
STACK DIAMETER	0.81 m	32.0 in.
STACK AREA	0.519 m2	5.59 sq.ft.
BAROMETRIC PRESSURE	92.8 kPa	27.40 in.Hg
STATIC PRESSURE	-4980.0 Pa	-20.00 in.H2O
NOZZLE DIAMETER	6.10 mm	0.2400 in.
PITOT COEFFICIENT	0.766	
METER CORRECTION FACTOR	1.006	

CONDENSATE COLLECTION

CONDENSATION IN IMPINGER 1	-156.5 g
CONDENSATION IN IMPINGER 2	27.0 g
CONDENSATION IN IMPINGER 3	31.2 g
CONDENSATION IN IMPINGER 4	11.2 g
CONDENSATION IN IMPINGER 5	33.7 g
SILICA GEL WEIGHT GAIN	54.4 g
TOTAL MOISTURE GAIN	1.0 g

MDI COLLECTION

FILTER MDI	0.0000 mg
WASHINGS MDI	0.0000 mg
IMPINGER MDI	0.0460 mg
TOTAL MDI	0.0460 mg

TOTAL SAMPLING TIME 64.0 min.

MDI EMISSION REPORT

CLIENT : LOUISIANA-PACIFIC
JOBSITE : DAWSON CREEK
REF.No. : 5216618

DATE : 95.04.04
RUN : T2BH-MDI
LOC. : BAG HOUSE

PT. NO.	TIME min.	STACK TEMP. F	VEL. PRES. in.H2O	ORIF. PRES. in.H2O	METER VOL. cu.ft.	MTR. TMP. F	PROB. TEMP. F	OVEN TEMP. F	EXIT TEMP. F	PUMP VAC. in.Hg	WALL DIST. in.	% ISO.
TRAVERSE NO. 1												
1	0.0	75	1.400	4.20	373.56	30	240	246	23	4.0	1.1	101.1
1	2.0	75	1.400	4.20	375.68	31	220	238	27	4.0	1.1	103.4
2	4.0	76	1.500	4.20	377.85	31	204	247	27	4.0	3.4	101.2
2	6.0	76	1.500	4.20	380.05	32	194	245	28	4.0	3.4	101.0
3	8.0	76	1.500	4.20	382.25	34	186	245	28	4.0	6.2	100.3
3	10.0	76	1.500	4.20	384.44	34	180	245	30	4.0	6.2	100.6
4	12.0	76	1.500	4.20	386.64	35	175	245	32	4.0	10.3	98.1
4	14.0	77	1.500	4.20	388.79	37	170	244	34	4.0	10.3	105.2
5	16.0	77	1.400	4.10	391.10	37	168	248	36	4.0	21.7	97.0
5	18.0	77	1.400	4.10	393.16	39	167	244	38	4.0	21.7	102.8
6	20.0	75	1.300	3.60	395.35	40	165	244	39	4.0	25.8	98.8
6	22.0	77	1.300	3.60	397.39	41	164	244	40	4.0	25.8	99.8
7	24.0	69	1.100	3.30	399.45	42	174	245	40	4.0	28.6	100.5
7	26.0	72	1.050	3.10	401.38	43	179	244	40	4.0	28.6	101.3
8	28.0	72	0.740	2.20	403.28	44	185	245	40	4.0	30.9	101.8
8	30.0	72	0.740	2.20	404.89	45	190	245	40	4.0	30.9	101.0
	32.0				406.49							
TRAVERSE NO. 2												
1	0.0	76	1.200	3.30	406.73	45	245	245	26	4.0	1.1	96.8
1	2.0	76	1.200	3.40	408.67	48	220	243	32	4.0	1.1	98.8
2	4.0	76	1.200	3.40	410.66	49	210	245	34	4.0	3.4	100.0
2	6.0	77	1.200	3.40	412.68	50	200	246	37	4.0	3.4	99.4
3	8.0	78	1.300	3.60	414.69	51	193	245	40	4.0	6.2	98.8
3	10.0	78	1.300	3.60	416.77	52	189	246	42	4.0	6.2	98.6
4	12.0	78	1.300	3.60	418.85	53	185	245	44	4.0	10.3	98.1
4	14.0	78	1.300	3.60	420.92	53	182	245	45	4.0	10.3	98.4
5	16.0	78	1.400	4.20	423.00	54	179	245	46	4.0	21.7	101.8
5	18.0	79	1.400	4.20	425.23	54	177	245	46	4.0	21.7	100.8
6	20.0	77	1.400	4.20	427.44	55	176	246	47	4.0	25.8	101.0
6	22.0	79	1.400	4.20	429.66	55	175	246	47	4.0	25.8	101.7
7	24.0	73	1.100	3.20	431.89	56	186	248	48	4.0	28.6	99.3
7	26.0	72	1.100	3.20	433.84	56	191	245	48	4.0	28.6	98.7
8	28.0	72	0.920	2.60	435.78	56	198	248	44	4.0	30.9	98.2
8	30.0	72	0.920	2.60	437.55	56	202	245	42	4.0	30.9	99.3
	32.0				439.34							
		76	1.255	3.63		45	190	245	38	4.0		100.0

METHOD 5, METALS, MM 5 DATA SHEET

CLIENT LOUISIANA-PACIFIC
CITY PROV. DAWSON CREEK
PROJECT # 5216618
TEST T2BH-MD1
SAMPLE LOCATION BAGHOUSE
DATE APR. 04/95
START TIME 9:32
FINISH TIME 10:48
BAROMETRIC PRESS.(in Hg) 27.4
STACK PRESS.(in H_2O) -20
PITOT COEFFICIENT 0.766
NOZZLE DIAMETER(in) 0.24
GAS METER FACTOR 1.0057
STACK HEIGHT(ft) 20
STACK DIAMETER(in) 32
LENGTH X WIDTH — X —
CO2(%) 0
O2(%) 20.9
CO(ppm) —
OTHER —

IMPINGER NET 1 (g) -156.5
IMPINGER NET 2 (g) 27.0
IMPINGER NET 3 (g) 31.2
IMPINGER NET 4 (g) 11.2
IMPINGER NET 5 (g) 33.7
IMPINGER NET 6 (g) 54.4

NET FILTER WT.(g) —
NET PROBE WASH WT.(g) —
IMP.RESIDUE WT.(g)
FILTER # —

METER BOX ID V #1
PROBE ID T1 7'
NOZZLE ID T#8
OTHER —
EQUIPMENT COMMENTS TEFLON WRAPED JOINTS
~~FILTE~~ FILTER BYPASS.

SAMPLING COMMENTS

PROCESS RATE NORMAL
CONTROL EQUIP. OPERATION NORMAL
PROCESS COMMENTS

SIGNATURE

04/04/95
DATE

Moisture Analysis Data Sheet

Project #: 521668 Client LOUISIANA PACIFIC DC Test: T2BH-MD1

Test Date: APR 4/95 Sample Location: BAG HOUSE

	A Final	B Initial	C Tare	Net Condensate (g)
Impinger 1	535.8	692.3		-156.5
Impinger 2	652.4	625.4		27.0
Impinger 3	641.2	610.0		31.2
Impinger 4	494.2	483.0		11.2
Impinger 5 CHARCOL	641.3	607.6		33.7
Silica gel impinger	801.9	747.5		54.4

Net Total Condensate 1.0 (g)

Signature

April 4/95
Date

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/04/9

Run # T2BH-MD1 Traverse # 1 Traverse Direction OUT Start Time 9:32 Finish Time /

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.4	4.2	/	373.555	75	240	246	23		31	29	4.0
1	2		1.4	4.2	375.67	375.68	75	220	238	27		32	29	4.0
2	4		1.5	4.2	377.80	377.85	76	204	247	27		33	29	4.0
2	6		1.5	4.2	380.04	380.05	76	194	245	28		35	29	4.0
3	8		1.5	4.2	382.24	382.25	76	186	245	28		37	30	4.0
3	10		1.5	4.2	384.44	384.44	76	180	245	30		38	30	4.0
4	12		1.5	4.2	386.63	386.64	76	175	245	32		40	30	4.0
4	14		1.5	4.2	388.83	388.79	77	170	244	34		42	31	4.0
5	16		1.4	4.1	390.98	391.10	77	168	248	36		43	31	4.0
5	18		1.4	4.1	393.22	393.16	77	167	244	38		45	32	4.0
6	20		1.3	3.6	395.28	395.35	75	165	244	39		47	33	4.0
6	22		1.3	3.6	397.39	397.39	77	164	244	40		48	33	4.0

Pre test leak check: Rate (cfm) 0.004 at 15 inches Hg (Vacuum)

Post test leak check: Rate (cfm) / at / inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5216618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/04/9

Run # T2BH-MD1 Traverse # 1 Traverse Direction OUT Start Time / Finish Time 10:04

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
7	24		1.10	3.3	399.47	399.45	69	174	245	40		50	34	4.0
7	26		1.05	3.1	401.36	401.38	72	179	244	40		51	35	4.0
8	28		0.74	2.2	403.25	403.28	72	185	245	40		52	36	4.0
8	30		0.74	2.2	404.85	404.89	72	190	245	40		53	37	4.0
	32				406.46	406.49								

Pre test leak check: Rate (cfm) / at / inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0 at 11 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 5246618 Sample Loc. BAGHOUSE Operators JH/MS Date 04/04/9

Run # T2BH-MD1 Traverse # 2 Traverse Direction OUT Start Time 10:16 Finish Time

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
1	0		1.20	3.3		406.735	76	245	245	26		47	43	4.0
1	2		1.20	3.4	408.73	408.67	76	220	243	32		53	43	4.0
2	4		1.20	3.4	410.67	410.66	76	210	245	34		54	44	4.0
2	6		1.20	3.4	412.66	412.68	77	200	246	37		55	45	4.0
3	8		1.30	3.6	414.68	414.69	78	193	245	40		57	45	4.0
3	10		1.30	3.6	416.77	416.77	78	189	246	42		58	46	4.0
4	12		1.30	3.6	418.85	418.85	78	185	245	44		59	46	4.0
4	14		1.30	3.6	420.93	420.92	78	182	245	45		60	46	4.0
5	16		1.40	4.2	423.00	423.00	78	179	245	46		60	47	4.0
5	18		1.40	4.2	425.20	425.23	79	177	245	46		61	47	4.0
6	20		1.40	4.2	427.43	427.44	77	176	246	47		61	48	4.0
6	22		1.40	4.2	429.64	429.66	79	175	246	47		61	48	4.0

Pre test leak check: Rate (cfm) 0.001 at 11 inches Hg (Vacuum)

Post test leak check: Rate (cfm) — at — inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

Sampling Trains Data Sheet

Client LOUISIANA-PACIFIC Project # 526618 Sample Loc. BAGHOUSE Operators JM/MS Date 04/04/9

Run # T2BH-MD1 Traverse # 2 Traverse Direction OUT Start Time / Finish Time 10:48

Pt.	Time (Min)	Clock 24 Hr	Vel. Press	Orifice Press	Gas Meter Reading Desired	Gas Meter Reading Actual	Stack Temp.	Probe Temp.	Box Temp.	Imp. Temp.	XAD Temp.	Meter Inlet	Meter Outlet	Vac
7	24		1.10	3.2	431.86	431.89	73	186	248	48		62	49	4.0
7	26		1.10	3.2	433.81	433.84	72	191	245	48		62	49	4.0
8	28		0.92	2.6	435.79	435.78	72	198	248	44		62	50	4.0
8	30		0.92	2.6	437.56	437.55	72	202	245	42		62	50	4.0
	32				439.33	439.34								

Pre test leak check: Rate (cfm) / at / inches Hg (Vacuum)

Post test leak check: Rate (cfm) 0.002 at 10 inches Hg (Vacuum)

K value calculated by _____ checked by _____

Signature _____

APPENDIX B

LABORATORY RESULTS

Zenon Environmental Laboratories

8577 Commerce Court
Burnaby B C
Canada V5A 4N5

Tel 604 444 4808
Fax 604 444 4511

May 1, 1995

Mr. John McDonaugh
Bovar-Concord Environmental
8563 Commerce Court
Burnaby, B.C.
V5A 4N5

RE: Project No. 521-6618

Regional Laboratories:
British Columbia
Ontario
Quebec

Dear John:

Please find attached results, chain of custodies and invoice for samples received April 11, 1995 as part of your Project No. 521-6618.

Methods used by Zenon to generate the attached data are based upon US EPA protocols found in the "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods, SW846", 3rd Edition or the "Quality Assurance Handbook for Air Pollution Measurement Systems Volume II: Stationary Sources Specific Methods", Interim Edition EPA/600/R-94/038C, April 1994. The following table summarizes parameters analysed and the method used:

PARAMETER	METHOD
Formaldehyde	USEPA Method 0011
MM5 Particulates	USEPA 600 Method 5
Condensable Organics	USEPA 600 Method 202
Phenol	USEPA Method 0010
MDI	USEPA Draft Method 94-TA27.01
Sodium Hydroxide	Modified APHA Method 2320 B

Please note that data has not been corrected for method blanks or surrogate recovery. The preparation of the DNPH derivatizing agent was modified from the procedure outlined in USEPA Method 0011. During the preparation of the saturated solution 100 mL of cyclohexane was included during the stirring procedure. Prior to filtering the saturated solution the cyclohexane layer was removed. After filtration the absorbance at 362 nm of the freshly prepared saturated solution was compared to that of a standard saturated DNPH solution. The standard saturated DNPH solution was prepared following USEPA Method 0011, however the recommended cleanup procedures were omitted from the procedure. This procedure verified that the DNPH solution sent to the field was saturated.

I trust that the enclosed is in accordance with your requirements. However, if you require any additional information or have any questions, please do not hesitate to call.

Sincerely yours,

Shawn D. Heier, BSc
Sales Manager - Western Canada

Encl.
SDH:sdh

SODIUM HYDROXIDE

Zenon ID	Client ID	Concentration NaOH (mg/L) Sodium Based*	Sample Volume (mL)	Comments
95009287	LAB BLANK	< 0.02	NA	No Sample Loss
95009288	FIELD BLANK	0.67	135	No Sample Loss
95009289	T2-PV-NaOH	0.66	750	No Sample Loss
95009290	T1-PV-NaOH	0.69	670	No Sample Loss
95009290 Duplicate	T1-PV-NaOH	0.68	670	No Sample Loss

NOTES: * = RESULTS ARE BASED UPON ANALYSING SODIUM CONCENTRATION BY FLAA AND CONVERTING TO NaOH (IE CORRECTION FACTOR OF 1.74).

MDI DATA / BOVAR-CONCORD PROJECT 521-6618

METHYLENE DIPHENYL DIISOCYANATE

Zenon ID	Client ID	Date Sampled	Concentration MDI (ug) UV	Comments
95009257	Solution Proof	941220	< 1	NO SAMPLE LOSS
95009258	Method Blank	941220	< 1	NO SAMPLE LOSS
95009259	MDI Field Blank	941221	< 1	NO SAMPLE LOSS
95009260	T1BH-MDI	941221	500	NO SAMPLE LOSS
95009261	T2BH-MDI	941221	46	NO SAMPLE LOSS
95009262	T1PV-MDI	941221	92	NO SAMPLE LOSS
95009262	T1PV-MDI	941221	114	Duplicate Injection -> 21% Difference
95009263	T2PV-MDI	941221	13	NO SAMPLE LOSS
	Blank Spike		46	Spiked @ 50 ug -> 92% Recovery

PHENOL DATA / BOVAR-CONCORD PROJECT 521-6618

Phenol

Zenon ID	Client ID	Date Sampled	Concentration Phenol (ug)	d5-Phenol Surrogate Recovery (%)
	XAD Proof	950405	< 0.2	66
	MM5 Train Proof - Glass	950405	< 0.2	84
95009253	Method Blank	950413	< 0.2	77
95009254	Field Blank	950405	0.3	63
95009255	T2BH-PH	950405	3320	Diluted Out
95009256	T1BH-PH	950405	3550	Diluted Out

MM5 PARTICULATES - BOVAR PROJECT 521-6618

Total Particulate Probe Wash

Zenon ID	Client ID	Date Sampled	Vol. Cont. 1 mL	Vol. Cont. 2 mL	Total Vol. mL	Initial Mass Beaker (g)	Final Mass Beaker (g)	Total Particulate (g)
95009283	Method Blank	950422	150	NA	150	129.0634	129.0635	0.0001
95009284	Field Blank	950406	110	NA	110	132.2034	132.2035	0.0001
95009285	T1K-P	950406	150	NA	150	130.2657	130.2859	0.0202
95009286	T2K-P	950406	140	NA	140	155.7544	155.7930	0.0386

Total Particulate Filter

Zenon ID	Client ID	Date Sampled	Total Particulate (g)	Observations
95009281	T1D-CO	950406	0.04886	Hole In Filter
95009282	T2D-CO	950406	0.04295	Hole In Filter
95009283	Method Blank	950422	0.00009	
95009283	Field Blank	950406	0.00011	
95009284	T1K-P	950406	0.16029	
95009285	T2K-P	950406	0.14635	

NOTES: 1. Total Particulate on the probe wash was combined with the inorganic fraction of the condensable organics procedure.

CONDENSABLE ORGANICS / BOVAR-CONCORD PROJECT 521-6618

Condensable Organics - Organic Fraction

Zenon ID	Client ID	pH	Total Vol. mL	Initial Mass Beaker (g)	Final Mass Beaker (g)	Condensable Organics (g)
95009279	Lab Blank	5.6	500	145.0267	145.0269	0.0004
95009280	CO Field Blank	6.8	525	143.9967	143.9971	0.0008
95009281	T1D-CO	8.1	675	131.5598	131.5662	0.0064
95009282	T2CD-CO	8.8	485	129.9947	130.0053	0.0106

Condensable Organics - Inorganic Fraction

Zenon ID	Client ID	Initial Mass Beaker (g)	Final Mass Beaker (g)	Inorganic Fraction (g)
95009279	Lab Blank	129.9949	129.9951	0.0002
95009280	CO Field Blank	131.1088	131.1091	0.0003
95009281	T1D-CO	130.2499	130.2731	0.0232
95009282	T2CD-CO	142.2333	142.2639	0.0306

FORMALDEHYDE DATA / BOVAR-CONCORD PROJECT 521-6618

Formaldehyde

Zenon ID	Client ID	Date Sampled	Concentration Formaldehyde (ug)	Comments
	Solution Proof	950404	2.0	NO SAMPLE LOSS
95009264	Method Blank	950429	2.0	NO SAMPLE LOSS
95009265	Spiked Blank	950429	710	NO SAMPLE LOSS
95009266	Field Blank	950405	2.7	NO SAMPLE LOSS
95009267	T1CD-F	950406	343	NO SAMPLE LOSS
95009268	T2CD-F	950406	332	NO SAMPLE LOSS
95009269	T3CD-F	950406	334	NO SAMPLE LOSS
95009270	T4CD-F	950406	475	NO SAMPLE LOSS
95009271	T1PV-F	950403	739	NO SAMPLE LOSS
95009272	T2PV-F	950403	214	NO SAMPLE LOSS
95009273	T3PV-F	950403	147	NO SAMPLE LOSS
95009274	T4PV-F	950403	252	NO SAMPLE LOSS
95009275	T1BH-F	950403	394	NO SAMPLE LOSS
95009276	T2BH-F	950403	362	NO SAMPLE LOSS
95009277	T3BH-F	950403	340	NO SAMPLE LOSS
95009278	T4BH-F	950403	321	NO SAMPLE LOSS

NOTES: 1. Solution Proof is concentration of formaldehyde in DNPH impinger solution prior to shipping to Bovar.

2. Spiked Blank was completed by spiking method blank with 714 ug of formaldehyde. This resulted in a recovery of 99%.

APPENDIX C

PROCESS DATA

Introduction

In accordance to monitoring requirements of PA 7596, stack sampling was conducted in the first quarter of 1995 by BOVAR-CONCORD Environmental. During the period of April 2 through April 6, 1995, twenty four stack samples were performed. Throughout the sampling period, plant process data was observed and recorded by BOVAR-CONCORD Environmental. Records were taken pertaining to dryer loading rate, dryer fuel feed rate, Konus fuel feed rate, and Press Vent resin application rates for both MDI and phenol glues.

Plant Operation Data

Summary tables of plant process data for the dryer stack, Konus stack, and Press Vent are presented below. Relevant calculations regarding the summary tables are also found below. Plant production charts and tables obtained from Louisiana-Pacific over the sample period are attached.

Dryer Stack Tests:

The Core Dryer was sampled on April 5 and 6, 1995. Plant operation data relevant to stack samples conducted are inlet/outlet temperatures of dryers, through-put rates, and dryer fuel rates.

Figure 1 gives a summary of data obtained.

Figure 1

DRYER LOADING RATE

Test Number	Stack Test location	Tested parm.	Test tn/hour	Inlet Temp. deg C	Outlet Temp. deg C	Surface Fuel tn/hour	Moisture In %	Moisture Out %
April 5TH								
15&17 19	core dryer	formaldehyde partic/cond. org	9.62	1154	225	2.12	46.5	5.6
April 6TH								
20 &21 23	core dryer	formaldehyde partic/cond. org	10.03	1236	233	2.41	46.8	5.4

Figure 2 below gives a summary of the data production information and total dryer through-put recorded. Detailed records and relevant calculations are attached.

Figure 2

PRODUCTION VALUES (12 HOUR PERIOD)

DATE	BOARD SIZE	PRESS LOADS	BOARD PER PRESS	UNIT WEIGHT lb/unit	TOTAL WEIGHT (lbs.)	TOTAL PRODUCTION Tonnes/hour	ESTIMATE OF TOTAL DRYER THOUGH PUT (tonnes/hour)
Apr. 2nd	7/16th	174	72	41.52	520,121	19.70	22.66
					520,121	**19.70**	**22.66**
Apr. 3rd	7/16th	77	72	41.80	231,739	8.78	10.09
	15/32nd	67	72	46.62	224,895	8.52	9.80
	19/32nd	45	72	58.20	188,568	7.14	8.21
					645,202	**24.44**	**28.11**
Apr. 4th	23/32	45	72	72.5	234,900	8.90	10.23
	7/16th	8	72	41.70	24,019	0.91	1.05
	3/8th	111	72	38.50	307,692	11.66	13.40
					566,611	**21.46**	**24.68**
Apr. 5th	7/16th	157	72	42.61	481,692	18.25	20.98
	7/8th	25	72	86.85	156,330	5.92	6.81
					638,022	**24.17**	**27.79**
Apr. 6th	7/16th	113	72	43.04	350,153	13.26	15.25
	19/32nd	41	72	60.73	179,260	6.79	7.81
	23/32nd	28	72	71.75	144,648	5.48	6.30
					674,061	**25.53**	**29.36**
				average production (tn/hour) over 5 days=		**23.06**	

Konus Stack Test:

The Konus Stack was tested for particulate matter on April 6,1995. Plant operation relevant to this test concern Konus feed rates. Konus burner K1 operated at a feed rate of 2.08 tn/hr. Konus burner K2 operated at a feed rate of 1.89 tn/hr. Detailed records and relevant calculations are attached.

Plant production on April 6 was calculated at 25.53 tn/hr.

Press Vent Tests:

Press Vent #15 was tested for formaldehyde, MDI, and NaOH on April 2- 4, 1995. Figure 3 located below gives a summary of the data obtained.

Figure 3

PRESS VENT SAMPLES

PRESS VENT PARAMETER	TEST NO.	DATE	MIN. PER PRESS CYCLE	LBS. OF PRODUCT PER TEST	PHENOL (LB.)	MDI (LB.)	PHENOL %	MDI %	TIME OF TEST (min)
NaOH	1	2nd	4.14	43343	1856	573	4.28%	1.32%	60
NaOH	2	2nd	4.14	43343	1856	573	4.28%	1.32%	60
Formaldehyde	3	3rd	3.81	53767	1723	583	3.21%	1.08%	60
Formaldehyde	5	3rd	3.81	53767	1723	583	3.21%	1.08%	60
MDI	7	3rd	3.81	53767	1723	583	3.21%	1.08%	60
MDI	8	3rd	3.81	53767	1723	583	3.21%	1.08%	60
Formaldehyde	10	4th	4.39	47218	1631	506	3.45%	1.07%	60
Formaldehyde	12	4th	4.39	47218	1631	506	3.45%	1.07%	60

Bag House Tests

The Bag House (#11 on PA 7596 Site Plan) was tested for Formaldehyde and MDI on April 3, for Formaldehyde and MDI on April 4, and for Phenol on April 5. Process data that can be related to these tests concern resin glue rates, press rate and production value. The average tn/hr. of MDI and Phenol were 0.24 and 0.78 respectively. The production average was 23.36 tn/hr.

Discussion of Data

Dryer inlet temperature, dryer through-put rates, fuel feed rates, and MDI/Phenol resin application rates are discussed below. No problems have been noted in calculation procedures or record sources. During the first quarter sampling program, plant production remained high with the press load counts varying from 174 to 189 per day and the product total weight varying from 520,121 to 674,061 lbs. per day.

Dryer Inlet Temperatures:

Inlet/Outlet temperatures of the core dryer were found to be consistent with the calculated average and reasonably similar to historical data.

Dryer Through-put Rates:

Wafer processed through the core dryer was observed to be normal. Through-put did not vary substantially. The average dryer through-put for April 5 was 9.62 tn/hour and for April 6 was 10.03 tn/hour.

Dryer Fuel Feed Rates:

The core dryer fuel feed rates were stable and consistent. The averages for April 5 and 6 were 2.12 tn/hour and 2.41 tn/hour respectively.

Konus Fuel Feed Rates:

The Konus fuel feed rates were consistent.

MDI/Phenol Resin Application Rates:

Normal plant operation was observed during sample periods with regards to resin application. Calculations indicated that glue volume ratios remained consistent.

Plant Production and Daily Press Loads:

Plant production was consistent and remained high for the shift periods that sampling took place. Plant production on April 2 was down slightly (83% of the average production for April 3 - 6); however, only two NaOH tests on the press vent were performed on this day. Press loads varied from 174 to 189 loads/day which was down slightly from 4th quarter testing in December 1994. This was due to thicker board sizes which were produced this testing period. The total production rates (tonnes/hr) for this testing period were consistent with historical data.

BOARD PRODUCTION + DRYER LOADING RATES							
FIRST QUARTER STACK TESTING							
	PRODUCTION VALUES (12 HOUR PERIOD)						
DATE	BOARD SIZE	PRESS LOADS	BOARD PER PRESS	UNIT WEIGHT lb/unit	TOTAL WEIGHT (lbs.)	TOTAL PRODUCTION Tonnes/hour	ESTIMATE OF TOTAL DRYER THOUGH PUT (tonnes/hour)
Apr. 2nd	7/16th	174	72	41.52	520,121	19.70	22.66
					520,121	**19.70**	**22.66**
Apr. 3rd	7/16th	77	72	41.80	231,739	8.78	10.09
	15/32nd	67	72	46.62	224,895	8.52	9.80
	19/32nd	45	72	58.20	188,568	7.14	8.21
					645,202	**24.44**	**28.11**
Apr. 4th	23/32	45	72	72.5	234,900	8.90	10.23
	7/16th	8	72	41.70	24,019	0.91	1.05
	3/8th	111	72	38.50	307,692	11.66	13.40
					566,611	**21.46**	**24.68**
Apr. 5th	7/16th	157	72	42.61	481,692	18.25	20.98
	7/8th	25	72	86.85	156,330	5.92	6.81
					638,022	**24.17**	**27.79**
Apr. 6th	7/16th	113	72	43.04	350,153	13.26	15.25
	19/32nd	41	72	60.73	179,260	6.79	7.81
	23/32nd	28	72	71.75	144,648	5.48	6.30
					674,061	**25.53**	**29.36**
		average production (tn/hour) over 5 day				**23.06**	

Konus Fuel Feed Rate									
April 6th									
		K1	K2	K1	K2	K1	K2		K1+K2
Date	time		auger rev	difference	difference	feed in tonnes	feed in tonnes	min. per reading	tonnes/ hour
6th	9:19	3967	8104						
6th	9:47	4046	8158	79	54	0.72	0.53	28	2.68
6th	10:24	4205	8296	159	138	1.45	1.36	37	4.55
6th	11:07	4379	8432	174	136	1.58	1.34	43	4.08
6th	11:30	4455	8496	76	64	0.69	0.63	23	3.45
6th	12:03	4577	8598	122	102	1.11	1.01	33	3.85
6th	12:31	4674	8674	97	76	0.88	0.75	28	3.50
6th	12:58	4759	8754	85	80	0.77	0.79	27	3.47
6th	13:38	4919	8886	160	132	1.45	1.30	40	4.13
6th	14:12	5058	8993	139	107	1.26	1.06	34	4.09
6th	14:58	5256	9189	198	196	1.80	1.93	46	4.87
6th	15:44	5411	9328	155	139	1.41	1.37	46	3.63
6th	16:11	5547	9435	136	107	1.24	1.06	27	5.09
6th	16:33	5613	9496	66	61	0.60	0.60	22	3.28
6th	17:03	5740	9586	127	90	1.15	0.89	30	4.08
6th	17:23	5825	9660	85	74	0.77	0.73	20	4.51
				avg.	tonnes/hr	2.08	1.89		3.95

FIRST QUARTER DATA -- DRYER AND KONUS FEED RATES

Surface= N/A
Core = 8.37 lb/rev.
S/C = N/A

Core Dryer Feed Rate
April 5th

Date	time	auger rev	difference	feed in tonnes	min. per reading	tonnes/ hour	rev/min
5th	8:34	1047					
5th	9:19	1547	500	1.90	45	2.54	11
5th	9:59	2016	469	1.78	40	2.68	12
5th	10:39	2433	417	1.59	40	2.38	10
5th	11:15	2747	314	1.19	36	1.99	9
5th	11:45	2747	0	0.00	30	0.00	0
5th	12:10	2938	191	0.73	25	1.74	8
5th	13:00	3420	482	1.83	50	2.20	10
5th	13:38	3786	366	1.39	38	2.20	10
5th	14:18	4223	437	1.66	40	2.49	11
5th	14:55	4605	382	1.45	37	2.36	10
5th	15:20	4843	238	0.91	25	2.17	10
5th	15:51	5137	294	1.12	31	2.16	9
5th	16:26	5470	333	1.27	35	2.17	10
5th	17:11	5916	446	1.70	45	2.26	10
5th	17:42	6207	291	1.11	31	2.14	9
5th	18:20	6579	372	1.42	38	2.23	10
5th	18:54	6932	353	1.34	34	2.37	10
					t/hr. ave=	2.12	

Core Dryer Feed Rate
April 6th

Date	time	auger rev	difference	feed in tonnes	min. per reading	tonnes/ hour	rev/min
5th	9:21	1617					
5th	9:47	1926	309	1.18	26	2.71	12
5th	10:24	2351	425	1.62	37	2.62	11
5th	11:08	2871	520	1.98	44	2.70	12
5th	11:31	3143	272	1.03	23	2.70	12
5th	12:02	3524	381	1.45	31	2.81	12
5th	12:32	3888	364	1.38	30	2.77	12
5th	12:59	4203	315	1.20	27	2.66	12
5th	13:40	4663	460	1.75	41	2.56	11
5th	14:12	5035	372	1.42	32	2.65	12
5th	15:00	5512	477	1.81	48	2.27	10
5th	15:44	5978	466	1.77	44	2.42	11
					t/hr. ave=	2.41	

FIRST QUARTER DATA

DRYER TEMPERATURES

Date	Time	Inlet (F.)			Outlet (F.)		
		S	C	S/C	S	C	S/C
5th	8:34	no test	1286	no test	no test	234	no test
5th	9:18	no test	1297	no test	no test	233	no test
5th	9:59	no test	1324	no test	no test	235	no test
5th	10:39	no test	1257	no test	no test	236	no test
5th	11:15	no test	654	no test	no test	226	no test
5th	11:45	no test	144	no test	no test	133	no test
5th	12:09	no test	1272	no test	no test	235	no test
5th	12:59	no test	1169	no test	no test	235	no test
5th	13:38	no test	1237	no test	no test	237	no test
5th	14:18	no test	1273	no test	no test	232	no test
5th	14:55	no test	1233	no test	no test	230	no test
5th	15:20	no test	1221	no test	no test	227	no test
5th	15:50	no test	1241	no test	no test	226	no test
5th	16:26	no test	1206	no test	no test	224	no test
5th	17:11	no test	1259	no test	no test	227	no test
5th	17:42	no test	1216	no test	no test	226	no test
5th	18:20	no test	1288	no test	no test	227	no test
5th	18:54	no test	1188	no test	no test	230	no test
ave			**1154**			**225**	

Date	Time	Inlet (F.)			Outlet (F.)		
		S	C	S/C	S	C	S/C
6th	9:18	no test	1418	no test	no test	230	no test
6th	9:46	no test	1372	no test	no test	229	no test
6th	10:23	no test	1378	no test	no test	229	no test
6th	11:07	no test	1464	no test	no test	229	no test
6th	11:30	no test	1469	no test	no test	231	no test
6th	12:02	no test	1351	no test	no test	235	no test
6th	12:31	no test	1346	no test	no test	235	no test
6th	12:58	no test	1336	no test	no test	235	no test
6th	13:38	no test	1341	no test	no test	235	no test
6th	14:11	no test	1286	no test	no test	233	no test
6th	14:58	no test	1283	no test	no test	234	no test
6th	15:44	no test	1203	no test	no test	239	no test
ave			**1236**			**233**	

FIRST QUARTER MDI/PHENEL RESIN RECORDS

Apr. 2nd

Time	Phenol lb./min	lbs.	MDI lb./min	lbs.	Delt t mins.	Total time	Line % rate
13:09		7869		2298			
13:40	32.19	8867	9.48	2592	31	31	100.7
14:10	31.07	9799	9.63	2881	30	61	100.7
14:48	28.97	10900	8.53	3205	38	99	100.7
15:20	31.47	11907	9.81	3519	32	131	100.7
15:54	31.85	12990	10.09	3862	34	165	100.7
16:23	32.24	13925	10.24	4159	29	194	100.7
16:53	28.57	14782	8.97	4428	30	224	100.7
17:25	31.41	15787	9.78	4741	32	256	100.7
				Phenol		MDI	
	total lbs recorded			7918		2443	
	total time (minutes)			256		256	
	ave lbs/min			30.93		9.54	
	ave lbs/hour			1856		573	
		RATIO		76%		24%	

Apr. 3rd

Time	Phenol lb./min	lbs.	MDI lb./min	lbs.	Delt t mins.	Total time	Line % rate
8:20		3568		1005			94.4
8:53	27.79	4485	8.58	1288	33	33	94.4
9:34	31.88	5792	9.56	1680	41	74	94.5
10:10	32.67	6968	9.94	2038	36	110	94.2
10:46	31.58	8105	9.83	2392	36	146	94.3
11:24	32.34	9334	10.00	2772	38	184	90.1
12:07	29.74	10613	9.81	3194	43	227	90.1
12:49	26.21	11714	9.05	3574	42	269	90.1
13:23	27.79	12659	10.00	3914	34	303	90.2
13:57	29.85	13674	10.03	4255	34	337	90.2
14:28	31.03	14636	10.58	4583	31	368	90.2
15:13	28.22	15906	10.11	5038	45	413	72.0
15:41	26.71	16654	9.57	5306	28	441	72.0
16:10	29.93	17522	10.00	5596	29	470	65.0
17:01	24.88	18791	9.53	6082	51	521	60.0
17:37	23.42	19634	9.22	6414	36	557	60.0
18:08	26.55	20457	9.94	6722	31	588	60.0
				Phenol		MDI	
	total lbs recorded			16889		5717	
	total time (minutes)			588		588	
	ave lbs/min			28.72		9.72	
	ave lbs/hour			1723		583	
		RATIO		75%		25%	

	Apr. 4th						
Time	MDI	lbs.	Phenol	lbs.	Delt t	Total	Line
	lb./min		lb./min		mins.	time	% rate
8:14		3453		1099			
8:56	31.86	4791	10.14	1525	42	42	55.5
9:28	34.66	5900	10.91	1874	32	74	58.0
9:58	32.70	6881	10.50	2189	30	104	60.0
10:31	33.15	7975	10.55	2537	33	137	60.0
11:00	31.66	8893	9.34	2808	29	166	60.0
11:32	27.34	9768	8.47	3079	32	198	60.0
12:00	17.21	10250	4.79	3213	28	226	100.0
12:25	16.40	10660	5.88	3360	25	251	0.0
13:03	29.34	11775	8.50	3683	38	289	102.1
13:34	25.06	12552	7.48	3915	31	320	102.0
14:00	23.42	13161	7.69	4115	26	346	102.1
14:45	27.09	14380	8.27	4487	45	391	102.0
15:20	29.23	15403	8.54	4786	35	426	85.0
15:49	22.76	16063	7.14	4993	29	455	85.0
16:36	22.02	17078	7.30	5336	47	502	85.0
	total lbs recorded			Phenol		MDI	
	total time (minutes)			13645		4237	
	ave lbs/min			502		502	
	ave lbs/hour			27.18		8.44	
		RATIO		1631		506	
				76%		24%	
	Apr. 5th						
Time	MDI	lbs.	Phenol	lbs.	Delt t	Total	Line
	lb./min		lb./min		mins.	time	% rate
8:37		3865		1169			
9:15	23.97	4776	8.26	1483	38	38	40.2
9:56	25.34	5815	8.73	1841	41	79	40.3
10:42	24.52	6943	7.52	2187	46	125	40.2
11:10	27.29	7707	8.07	2413	28	153	40.2
11:48	21.87	8538	6.92	2676	38	191	40.3
12:16	35.68	9537	9.86	2952	28	219	90.1
12:54	34.26	10839	9.47	3312	38	257	100.2
13:35	32.93	12189	9.24	3691	41	298	100.2
14:22	32.53	13718	9.23	4125	47	345	100.2
14:50	28.14	14506	7.57	4337	28	373	100.2
15:47	32.30	16347	8.58	4826	57	430	100.4
16:23	32.92	17532	9.44	5166	36	466	100.3
17:06	30.05	18824	9.21	5562	43	509	100.2
17:46	33.63	20169	9.33	5935	40	549	100.3
				Phenol		MDI	
	total lbs recorded			16304		4766	
	total time (minutes)			549		549	
	ave lbs/min			29.70		8.68	
	ave lbs/hour			1782		521	
		RATIO		77%		23%	

FIRST QUARTER STACK SAMPLE TIMES									
Apr. 2nd									
14:00		Press Vent							
14:30	14:24	test #1	NaOH						
15:00		test #1	NaOH						
15:30		test #1	NaOH		Press Vent				
16:00	15:31	test #1	NaOH	15:53	test #2	NaOH			
16:30					test #2	NaOH			
17:00				16:59	test #2	NaOH			
Apr. 3rd									
10:00		Press Vent							
10:30	10:02	test #3	Form.		Bag House				
11:00		test #3	Form.	10:59	test #4	Form.			
11:30	11:09	test #3	Form.		test #4	Form.		Press Vent	
12:00					test #4	Form.	11:56	test #5	Form.
12:30				12:26	test #4	Form.		test #5	Form.
13:00								test #5	Form.
13:30		Bag House			Press Vent		13:03	test #5	Form.
14:00	13:44	test #6	Form.	13:50	test #7	MDI			
14:30		test #6	Form.		test #7	MDI			
15:00		test #6	Form.	14:56	test #7	MDI			
15:30		test #6	Form.					Press Vent	
16:00	15:47	test #6	Form.				15:45	test #8	MDI
16:30								test #8	MDI
17:00							16:53	test #8	MDI
17:30		Bag House							
18:00	17:41	test #9	MDI						
18:30		test #9	MDI						
19:00	18:54	test #9	MDI						
Apr. 4th									
9:00		Press Vent							
9:30	9:14	test #10	Form.		Bag House				
10:00		test #10	Form.	9:32	test #11	MDI			
10:30	10:20	test #10	Form.		test #11	MDI		Press Vent	
11:00				10:48	test #11	MDI	10:51	test #12	Form.
11:30								test #12	Form.
12:00		Bag House					11:57	test #12	Form.
12:30	12:04	test #13	Form.						
13:00		test #13	Form.						
13:30	13:21	test #13	Form.						
14:00									
14:30									
15:00				14:48	test #14	Form.			
15:30					test #14	Form.			
16:00					test #14	Form.			

16:30				16:06	test #14	Form.			
Apr. 5th									
10:00		Core Dryer							
10:30	10:19	test #15	Form.						
11:00		test #15	Form.						
11:30		test #15	Form.		Bag House				
12:00		test #15	Form.	11:34	test #16	Phenol			
12:30		test #15	Form.		test #16	Phenol			
13:00	12:35	test #15	Form.		test #16	Phenol			
13:30				13:22	test #16	Phenol			
14:00		Core Dryer							
14:30	14:01	test #17	Form.						
15:00		test #17	Form.						
15:30	15:12	test #17	Form.		Bag House				
16:00				15:32	test #18	Phenol			
16:30					test #18	Phenol			
17:00		Core Dryer			test #18	Phenol			
17:30	17:34	test #19	Cond. Org	17:22	test #18	Phenol			
18:00		test #19	Cond. Org.						
18:30		test #19	Cond. Org.						
19:00	18:44	test #19	Cond. Org.						
Apr. 6th									
9:30		Core Dryer							
10:00	9:40	test #20	Form.						
10:30		test #20	Form.						
11:00	10:48	test #20	Form.		Core Dryer			Konus	
11:30				11:23	test # 21	Form.	11:28	test #22	Particulat
12:00					test # 21	Form.		test #22	Particulat
12:30					test # 21	Form.		test #22	Particulat
13:00		Core Dryer		12:32	test # 21	Form.		test #22	Particulat
13:30	13:22	test #23	Cond. Org.				13:12	test #22	Particulat
14:00		test #23	Cond. Org.						
14:30	14:29	test #23	Cond. Org.						
15:00									
15:30					Konus				
16:00				15:43	test #24	Particulate			
16:30					test #24	Particulate			
17:00					test #24	Particulate			
17:30				17:18	test #24	Particulate			

	DRYER RATES (%)									
	1st QUARTER									
Day	Time	S	C	S/C		Day	Time	S	C	S/C
5th	8:34	79.8	79.7	84.5		6th	9:18	79.9	90.7	85.2
5th	9:18	79.7	79.6	84.5		6th	9:46	79.8	90.7	85.2
5th	9:59	79.7	79.6	80.2		6th	10:23	79.9	90.8	85.2
5th	10:39	79.7	80.2	79.7		6th	11:07	79.9	87.4	85.2
5th	11:15	77.3	28.8*	77.7		6th	11:30	79.9	87.4	85.2
5th	11:45	81.3	1.1*	81.9		6th	12:02	79.8	83.0	85.1
5th	12:09	74.3	69	74.5		6th	12:31	79.8	83.0	85.1
5th	12:59	74.3	68.9	74.5		6th	12:58	79.8	83.0	85.1
5th	13:38	79.4	74.1	1.4		6th	13:38	79.8	83.0	85.1
5th	14:18	82.6	82.8	1.5		6th	14:11	79.9	83.0	85.1
5th	14:55	79.5	79.5	38.8		6th	14:58	74.5	74.5	74.1
5th	15:20	79.7	79.6	74.2		6th	15:44	74.5	74.4	74.1
5th	15:50	79.7	79.6	80.1			avg	79.0	84.2	83.3
5th	16:26	79.8	79.7	80.2						
5th	17:11	79.7	79.7	80.1						
5th	17:42	79.8	79.7	80.2						
5th	18:20	79.8	79.7	80.2						
5th	18:54	82.9	83	83.5						
	avg	79.4	78.4	68.8						

* Values not included in average calculation. Dryer down during this period.

PRESS VENT SAMPLES									
PRESS VENT PARAMETER	TEST NO.	DATE	MIN. PER PRESS CYCLE	LBS. OF PRODUCT PER TEST	PHENOL (LB.)	MDI (LB.)	PHENOL %	MDI %	TIME OF TEST (min)
NaOH	1	Apr. 2nd	4.14	43343	1856	573	4.28%	1.32%	60
NaOH	2	Apr. 2nd	4.14	43343	1856	573	4.28%	1.32%	60
ormaldehyd	3	Apr. 3rd	3.81	53767	1723	583	3.21%	1.08%	60
ormaldehyd	5	Apr. 3rd	3.81	53767	1723	583	3.21%	1.08%	60
MDI	7	Apr. 3rd	3.81	53767	1723	583	3.21%	1.08%	60
MDI	8	Apr. 3rd	3.81	53767	1723	583	3.21%	1.08%	60
ormaldehyd	10	Apr. 4th	4.39	47218	1631	506	3.45%	1.07%	60
ormaldehyd	12	Apr. 4th	4.39	47218	1631	506	3.45%	1.07%	60

	DRYER LOADING RATE						
Test	*Stack*	*Tested*	*Total Est.*	*Dryer ave.*	Core Dryer	Surface/Core	Estimated
Number	Test	parm.	Dryer Flake	% rate for	Dryer ave.	Dryer ave.	Core Flake
	location		tn/hr	Surface Dry	% rate for	% rate for	tn/hr
5TH				**S**	**C**	**S/C**	
15	core dryer	formaldehyd	27.79	79.4	78.4	68.8	9.62
17	core dryer	formaldehyd	27.79	79.4	78.4	68.8	9.62
19	core dryer	part./cond.	27.79	79.4	78.4	68.8	9.62
6TH							
20	core dryer	part./cond.	29.36	79.0	84.2	83.3	10.03
21	core dryer	formaldehyd	29.36	79.0	84.2	83.3	10.03
23	core dryer	formaldehyd	29.36	79.0	84.2	83.3	10.03
	BOARD SIZE + WEIGHT						
	Apr. 2nd	**Apr. 3rd**			**Apr. 4th**		
	7/16th	**7/16th**	**15/32nd**	**19/32nd**	**23/32nd**	**7/16th**	**3/8th**
	41.6	41.8	46.7	58.5	72.5	41.6	38.6
	41.1	41.8	46.8	58	72.5	41.8	38.4
	41.1	41.6	47	58.7			
	41.1	42	47.2	57.6			
	42.1		45.4				
	42.1						
lb/brd avg.	41.52	41.80	46.62	58.20	72.50	41.70	38.50
	Apr. 5th		**Apr. 6th**				
	7/8th	**7/16th**	**7/16th**	**19/32nd**	**23/32nd**		
	87.9	42.7	43.4	60.2	73.4		
	87.4	43.1	41.9	59.4	73		
	86.2	44.5	42.5	62	71.2		
	85.9	42.5	42.9	61.3	69.4		
		43.2	44.2				
		42.1	42.8				
		41.8	43.6				
		41.0	43				
lb/brd avg.	86.85	42.61	43.04	60.73	71.75		

PC1 PRODUCTION REPORT
LOUISIANA PACIFIC CANADA LTD
DAWSON CREEK BC
MONTH 4 DAY 7 YEAR 95

NIGHT SHIFT

NUMBER OF PRESS LOADS	144
FORMING LINE STOPS	25
FORMING LINE FAULTS	0
FORMING LINE DOWNTIME MINUTES	27
SURFACE BLENDER STARTS	5
CORE BLENDER STARTS	8
SURFACE BLENDER INFEED STARTS	182
CORE BLENDER INFEED STARTS	66
T&G AUTO RUN MINUTES	276

Nov 91
Loop in Denver

Slides of each
Job Station
[illegible] of [illegible] Council

Trena
Jim Called
Bag

PC1 PRODUCTION REPORT
LOUISIANA PACIFIC CANADA LTD
DAWSON CREEK BC
MONTH 4 DAY 7 YEAR 96

DAY SHIFT

NUMBER OF PRESS LOADS	187
FORMING LINE STOPS	0
FORMING LINE FAULTS	0
FORMING LINE DOWNTIME MINUTES	20
SURFACE BLENDER STARTS	1
CORE BLENDER STARTS	4
SURFACE BLENDER INFEED STARTS	67
CORE BLENDER INFEED STARTS	47
M&B AUTO RUN MINUTES	134

PCL PRODUCTION REPORT
LOUISIANA PACIFIC CANADA LTD
DAWSON CREEK BC
MONTH 4 DAY 1 YEAR 92

DAY SHIFT

NUMBER OF PRESS LOADS	182
FORMING LINE STOPS	19
FORMING LINE FAULTS	0
FORMING LINE DOWNTIME MINUTES	21
SURFACE BLENDER STARTS	2
CORE BLENDER STARTS	16
SURFACE BLENDER INFEED STARTS	136
CORE BLENDER INFEED STARTS	88
T&G AUTO RUN MINUTES	351

[illegible] PRODUCTION REPORT
[illegible] PACIFIC CANADA [illegible]
[illegible]
[illegible] DAY [illegible]

[illegible]

[illegible]	[illegible]
FORMING LINE STOPS	[illegible]
FORMING LINE [illegible]	[illegible]
FORMING LINE DOWN [illegible]	[illegible]
SURFACE BLENDER STARTS	0
CORE BLENDER STARTS	9
SURFACE BLENDER INFEED STARTS	129
CORE BLENDER INFEED STARTS	61
[illegible] AUTO RUN MINUTES	[illegible]

FC1 PRODUCTION REPORT
LOUISIANA PACIFIC CANADA LTD
DAWSON CREEK BC
MONTH 4 DAY 1 YEAR 85

NIGHT SHIFT

NUMBER OF PRESS LOADS	223
FORMING LINE STOPS	27
FORMING LINE FAULTS	0
FORMING LINE DOWN TIME MINUTES	26
SURFACE BLENDER STARTS	1
CORE BLENDER STARTS	7
SURFACE BLENDER INFEED STARTS	99
CORE BLENDER INFEED STARTS	40
T&G AUTO RUN MINUTES	270

[illegible] PRODUCTION REPORT
[illegible] FACILITY [illegible]
[illegible]
MONTH [illegible] DAY [illegible] YEAR [illegible]

[illegible] SHIFT

[illegible] WEBS LOADS	[illegible]
[illegible]	[illegible]
FORMING LINE FAULT	0
FORMING LINE DOWNTIME [illegible]	[illegible]
SURFACE BLENDER STARTS	2
CORE BLENDER STARTS	19
SURFACE BLENDER INFEED STARTS	150
CORE BLENDER INFEED STARTS	64
TAB AUTO RUN MINUTES	[illegible]

PD1 PRODUCTION REPORT
LOUISIANA PACIFIC CANADA LTD
DAWSON CREEK BC
MONTH 4 DAY 4 YEAR 95

NIGHT SHIFT

NUMBER OF PRESS LOADS	127
FORMING LINE STOPS	23
FORMING LINE FAULTS	0
FORMING LINE DOWNTIME MINUTES	43
SURFACE BLENDER STARTS	0
CORE BLENDER STARTS	27
SURFACE BLENDER INFEED STARTS	352
CORE BLENDER INFEED STARTS	144
T&D AUTO RUN MINUTES	0

PLI PRODUCTION REPORT
LOUISIANA PACIFIC CANADA LTD
DAWSON CREEK BC
MONTH [illegible] DAY [illegible] YEAR [illegible]

DAY SHIFT

NUMBER OF PRESS LOADS	[illegible]
FORMING LINE STOPS	27
FORMING LINE FAULTS	0
FORMING LINE DOWNTIME MINUTES	[illegible]
SURFACE BLENDER STARTS	2
CORE BLENDER STARTS	5
SURFACE BLENDER INFEED STARTS	180
CORE BLENDER INFEED STARTS	73
T&G AUTO RUN MINUTES	0

ALL COLLECTION REPORT
LOUISIANA PACIFIC CANADA LTD
DAWSON CREEK BC
MONDAY - DAY 0 YEAR 00

NIGHT SHIFT

NUMBER OF PRESS LOADS	12
FORMING LINE STOPS	40
FORMING LINE FAULTS	0
FORMING LINE DOWNTIME MINUTES	31
SURFACE BLENDER STARTS	0
CORE BLENDER STARTS	19
SURFACE BLENDER INFEED STARTS	148
CORE BLENDER INFEED STARTS	64
TMS AUTO RUN MINUTES	0

PDI PRODUCTION REPORT
LOUISIANA PACIFIC CANADA LTD
DAWSON CREEK BC
MONTH 4 DAY 1 YEAR 90

DAY SHIFT

NUMBER OF PRESS LOADS	174
FORMING LINE STOPS	29
FORMING LINE FAULTS	0
FORMING LINE DOWNTIME MINUTES	162
SURFACE BLENDER STARTS	2
CORE BLENDER STARTS	0
SURFACE BLENDER INFEED STARTS	155
CORE BLENDER INFEED STARTS	45
T&B AUTO RUN MINUTES	111

PC2 PRODUCTION REPORT
LOUISIANA PACIFIC PANEL PRODUCTS LTD
DAWSON CREEK BC
MONTH 4 DAY 3 YEAR 95

DAY SHIFT

WET BIN LIVE BOTTOM RUN MINUTES	SURF/CORE	558
	CORE	563
	SURFACE	543
WAFERIZER RUN MINUTES	SIDE 1	288
	SIDE 2	193
CENTRIFUGE DUMP CYCLES		0
FLAKES TO FIRE DUMP MINUTES	SURF/CORE	12
	CORE	20
	SURFACE	10
DRYER BURNER ON MINUTES	SURF/CORE	566
	CORE	560
	SURFACE	554
DRYER STARTS	SURF/CORE	1
	CORE	1
	SURFACE	1
DRYER BURNER ON GAS MINUTES	SURF/CORE	7
	CORE	4
	SURFACE	3
DRY FUEL METERING SCREWS TOTAL REVOLUTIONS	SURF/CORE	5990
	CORE	5573
	SURFACE	5296
BARK TO CLARKE BIN MINUTES		213
LOG COUNTS	DEBARKER #1	7120
	DEBARKER #2	3774
TROUGH OVERIDES	WAFERIZER #1	129
	WAFERIZER #2	142
TROUGH LOADS	WAFERIZER #1	339
	WAFERIZER #2	213
KONUS METERING SCREW REVOLUTIONS	#1	2456
	#2	2181
BAGHOUSE FINES TO FIRE DUMP MINUTES		78
ROTARY FINES TO FIRE DUMP MINUTES		78
# OF FINES TO FIRE DUMP TRIPS		4
JACKLADDER RUN MINUTES	#1	205
	#2	216
	#3	180
	#4	49
SUSTAINING GAS ON MINUTES	SURF/CORE	6
	CORE	11
	SURFACE	10

PC2 PRODUCTION REPORT
LOUISIANA PACIFIC PANEL PRODUCTS LTD
DAWSON CREEK. BC
MONTH 4 DAY 3 YEAR 95

NIGHT SHIFT

WET BIN LIVE BOTTOM RUN MINUTES	SURF/CORE	720
	CORE	685
	SURFACE	720
WAFERIZER RUN MINUTES	SIDE 1	308
	SIDE 2	248
CENTRIFUGE DUMP CYCLES		0
FLAKES TO FIRE DUMP MINUTES	SURF/CORE	14
	CORE	16
	SURFACE	0
DRYER BURNER ON MINUTES	SURF/CORE	720
	CORE	688
	SURFACE	720
DRYER STARTS	SURF/CORE	0
	CORE	1
	SURFACE	0
DRYER BURNER ON GAS MINUTES	SURF/CORE	4
	CORE	8
	SURFACE	0
DRY FUEL METERING SCREWS TOTAL REVOLUTIONS	SURF/CORE	7173
	CORE	6661
	SURFACE	6845
BARK TO CLARKE BIN MINUTES		151
LOG COUNTS	DEBARKER #1	7816
	DEBARKER #2	6325
TROUGH OVERIDES	WAFERIZER #1	12
	WAFERIZER #2	37
TROUGH LOADS	WAFERIZER #1	333
	WAFERIZER #2	283
KONUS METERING SCREW REVOLUTIONS	#1	3636
	#2	2773
BAGHOUSE FINES TO FIRE DUMP MINUTES		0
ROTARY FINES TO FIRE DUMP MINUTES		0
# OF FINES TO FIRE DUMP TRIPS		0
JACKLADDER RUN MINUTES	#1	229
	#2	247
	#3	191
	#4	191
SUSTAINING GAS ON MINUTES	SURF/CORE	168
	CORE	123
	SURFACE	163

PC2 PRODUCTION REPORT
LOUISIANA PACIFIC PANEL PRODUCTS LTD
DAWSON CREEK BC
MONTH 4 DAY 4 YEAR 95

DAY SHIFT

WET BIN LIVE BOTTOM RUN MINUTES	SURF/CORE	720
	CORE	515
	SURFACE	720
WAFERIZER RUN MINUTES	SIDE 1	289
	SIDE 2	281
CENTRIFUGE DUMP CYCLES		0
FLAKES TO FIRE DUMP MINUTES	SURF/CORE	11
	CORE	17
	SURFACE	0
DRYER BURNER ON MINUTES	SURF/CORE	720
	CORE	513
	SURFACE	720
DRYER STARTS	SURF/CORE	0
	CORE	1
	SURFACE	0
DRYER BURNER ON GAS MINUTES	SURF/CORE	4
	CORE	2
	SURFACE	0
DRY FUEL METERING SCREWS TOTAL REVOLUTIONS	SURF/CORE	7522
	CORE	5302
	SURFACE	7354
BARK TO CLARKE BIN MINUTES		293
LOG COUNTS	DEBARKER #1	6090
	DEBARKER #2	5873
TROUGH OVERIDES	WAFERIZER #1	69
	WAFERIZER #2	217
TROUGH LOADS	WAFERIZER #1	327
	WAFERIZER #2	322
KONUS METERING SCREW REVOLUTIONS	#1	2865
	#2	2352
BAGHOUSE FINES TO FIRE DUMP MINUTES		0
ROTARY FINES TO FIRE DUMP MINUTES		0
# OF FINES TO FIRE DUMP TRIPS		0
JACKLADDER RUN MINUTES	#1	178
	#2	187
	#3	304
	#4	36
SUSTAINING GAS ON MINUTES	SURF/CORE	4
	CORE	10
	SURFACE	1

PC2 PRODUCTION REPORT
LOUISIANA PACIFIC PANEL PRODUCTS LTD
DAWSON CREEK. BC
MONTH 4 DAY 4 YEAR 95

NIGHT SHIFT

WET BIN LIVE BOTTOM RUN MINUTES	SURF/CORE	719
	CORE	719
	SURFACE	674
WAFERIZER RUN MINUTES	SIDE 1	263
	SIDE 2	258
CENTRIFUGE DUMP CYCLES		0
FLAKES TO FIRE DUMP MINUTES	SURF/CORE	0
	CORE	0
	SURFACE	22
DRYER BURNER ON MINUTES	SURF/CORE	719
	CORE	719
	SURFACE	689
DRYER STARTS	SURF/CORE	0
	CORE	0
	SURFACE	1
DRYER BURNER ON GAS MINUTES	SURF/CORE	0
	CORE	0
	SURFACE	2
DRY FUEL METERING SCREWS TOTAL REVOLUTIONS	SURF/CORE	7179
	CORE	7407
	SURFACE	6010
BARK TO CLARKE BIN MINUTES		326
LOG COUNTS	DEBARKER #1	6199
	DEBARKER #2	5611
TROUGH OVERIDES	WAFERIZER #1	18
	WAFERIZER #2	45
TROUGH LOADS	WAFERIZER #1	294
	WAFERIZER #2	290
KONUS METERING SCREW REVOLUTIONS	#1	3070
	#2	2486
BAGHOUSE FINES TO FIRE DUMP MINUTES		7
ROTARY FINES TO FIRE DUMP MINUTES		0
# OF FINES TO FIRE DUMP TRIPS		0
JACKLADDER RUN MINUTES	#1	220
	#2	167
	#3	174
	#4	162
SUSTAINING GAS ON MINUTES	SURF/CORE	0
	CORE	0
	SURFACE	26

PC2 PRODUCTION REPORT
LOUISIANA PACIFIC PANEL PRODUCTS LTD
DAWSON CREEK, BC
MONTH 4 DAY 5 YEAR 95

NIGHT SHIFT

WET BIN LIVE BOTTOM RUN MINUTES	SURF/CORE	720
	CORE	720
	SURFACE	720
WAFERIZER RUN MINUTES	SIDE 1	315
	SIDE 2	258
CENTRIFUGE DUMP CYCLES		0
FLAKES TO FIRE DUMP MINUTES	SURF/CORE	0
	CORE	0
	SURFACE	0
DRYER BURNER ON MINUTES	SURF/CORE	720
	CORE	720
	SURFACE	720
DRYER STARTS	SURF/CORE	0
	CORE	0
	SURFACE	0
DRYER BURNER ON GAS MINUTES	SURF/CORE	0
	CORE	0
	SURFACE	1
DRY FUEL METERING SCREWS TOTAL REVOLUTIONS	SURF/CORE	7346
	CORE	7412
	SURFACE	6158
BARK TO CLARKE BIN MINUTES		385
LOG COUNTS	DEBARKER #1	7003
	DEBARKER #2	5460
TROUGH OVERIDES	WAFERIZER #1	52
	WAFERIZER #2	48
TROUGH LOADS	WAFERIZER #1	335
	WAFERIZER #2	290
KONUS METERING SCREW REVOLUTIONS	#1	3083
	#2	2514
BAGHOUSE FINES TO FIRE DUMP MINUTES		0
ROTARY FINES TO FIRE DUMP MINUTES		0
# OF FINES TO FIRE DUMP TRIPS		0
JACKLADDER RUN MINUTES	#1	216
	#2	208
	#3	165
	#4	158
SUSTAINING GAS ON MINUTES	SURF/CORE	0
	CORE	0
	SURFACE	8

PC2 PRODUCTION REPORT
LOUISIANA PACIFIC PANEL PRODUCTS LTD
DAWSON CREEK BC
MONTH 4 DAY 5 YEAR 95

DAY SHIFT

WET BIN LIVE BOTTOM RUN MINUTES	SURF/CORE	684
	CORE	178
	SURFACE	720
WAFERIZER RUN MINUTES	SIDE 1	237
	SIDE 2	192
CENTRIFUGE DUMP CYCLES		0
FLAKES TO FIRE DUMP MINUTES	SURF/CORE	30
	CORE	10
	SURFACE	1
DRYER BURNER ON MINUTES	SURF/CORE	687
	CORE	180
	SURFACE	720
DRYER STARTS	SURF/CORE	1
	CORE	1
	SURFACE	0
DRYER BURNER ON GAS MINUTES	SURF/CORE	11
	CORE	3
	SURFACE	0
DRY FUEL METERING SCREWS TOTAL REVOLUTIONS	SURF/CORE	7021
	CORE	1757
	SURFACE	6991
BARK TO CLARKE BIN MINUTES		393
LOG COUNTS	DEBARKER #1	5643
	DEBARKER #2	3802
TROUGH OVERIDES	WAFERIZER #1	33
	WAFERIZER #2	165
TROUGH LOADS	WAFERIZER #1	269
	WAFERIZER #2	228
KONUS METERING SCREW REVOLUTIONS	#1	2897
	#2	2539
BAGHOUSE FINES TO FIRE DUMP MINUTES		0
ROTARY FINES TO FIRE DUMP MINUTES		0
# OF FINES TO FIRE DUMP TRIPS		0
JACKLADDER RUN MINUTES	#1	158
	#2	170
	#3	170
	#4	54
SUSTAINING GAS ON MINUTES	SURF/CORE	8
	CORE	10
	SURFACE	1

PC2 PRODUCTION REPORT
LOUISIANA PACIFIC PANEL PRODUCTS LTD
DAWSON CREEK, BC
MONTH 4 DAY 6 YEAR 95

NIGHT SHIFT

WET BIN LIVE BOTTOM RUN MINUTES	SURF/CORE	720
	CORE	661
	SURFACE	685
WAFERIZER RUN MINUTES	SIDE 1	337
	SIDE 2	252
CENTRIFUGE DUMP CYCLES		0
FLAKES TO FIRE DUMP MINUTES	SURF/CORE	0
	CORE	13
	SURFACE	5
DRYER BURNER ON MINUTES	SURF/CORE	720
	CORE	664
	SURFACE	692
DRYER STARTS	SURF/CORE	0
	CORE	2
	SURFACE	1
DRYER BURNER ON GAS MINUTES	SURF/CORE	3
	CORE	6
	SURFACE	2
DRY FUEL METERING SCREWS TOTAL REVOLUTIONS	SURF/CORE	7286
	CORE	6901
	SURFACE	6102
BARK TO CLARKE BIN MINUTES		224
LOG COUNTS	DEBARKER #1	7467
	DEBARKER #2	5542
TROUGH OVERIDES	WAFERIZER #1	48
	WAFERIZER #2	53
TROUGH LOADS	WAFERIZER #1	366
	WAFERIZER #2	279
KONUS METERING SCREW REVOLUTIONS	#1	2665
	#2	2438
BAGHOUSE FINES TO FIRE DUMP MINUTES		0
ROTARY FINES TO FIRE DUMP MINUTES		0
# OF FINES TO FIRE DUMP TRIPS		0
JACKLADDER RUN MINUTES	#1	292
	#2	180
	#3	199
	#4	190
SUSTAINING GAS ON MINUTES	SURF/CORE	0
	CORE	17
	SURFACE	16

PC2 PRODUCTION REPORT
LOUISIANA PACIFIC PANEL PRODUCTS LTD
DAWSON CREEK BC
MONTH 4 DAY 6 YEAR 95

DAY SHIFT

WET BIN LIVE BOTTOM RUN MINUTES	SURF/CORE	645
	CORE	686
	SURFACE	720
WAFERIZER RUN MINUTES	SIDE 1	301
	SIDE 2	229
CENTRIFUGE DUMP CYCLES		0
FLAKES TO FIRE DUMP MINUTES	SURF/CORE	0
	CORE	1
	SURFACE	0
DRYER BURNER ON MINUTES	SURF/CORE	647
	CORE	685
	SURFACE	720
DRYER STARTS	SURF/CORE	1
	CORE	1
	SURFACE	0
DRYER BURNER ON GAS MINUTES	SURF/CORE	4
	CORE	1
	SURFACE	0
DRY FUEL METERING SCREWS TOTAL REVOLUTIONS	SURF/CORE	6314
	CORE	6975
	SURFACE	6570
BARK TO CLARKE BIN MINUTES		312
LOG COUNTS	DEBARKER #1	6527
	DEBARKER #2	5197
TROUGH OVERIDES	WAFERIZER #1	34
	WAFERIZER #2	41
TROUGH LOADS	WAFERIZER #1	321
	WAFERIZER #2	251
KONUS METERING SCREW REVOLUTIONS	#1	2920
	#2	2221
BAGHOUSE FINES TO FIRE DUMP MINUTES		0
ROTARY FINES TO FIRE DUMP MINUTES		0
# OF FINES TO FIRE DUMP TRIPS		0
JACKLADDER RUN MINUTES	#1	201
	#2	192
	#3	206
	#4	133
SUSTAINING GAS ON MINUTES	SURF/CORE	53
	CORE	55
	SURFACE	54

PC2 PRODUCTION REPORT
LOUISIANA PACIFIC PANEL PRODUCTS LTD
DAWSON CREEK BC
MONTH 4 DAY 7 YEAR 95

DAY SHIFT

WET BIN LIVE BOTTOM RUN MINUTES	SURF/CORE	720
	CORE	681
	SURFACE	720
WAFERIZER RUN MINUTES	SIDE 1	352
	SIDE 2	215
CENTRIFUGE DUMP CYCLES		0
FLAKES TO FIRE DUMP MINUTES	SURF/CORE	10
	CORE	1
	SURFACE	0
DRYER BURNER ON MINUTES	SURF/CORE	719
	CORE	685
	SURFACE	720
DRYER STARTS	SURF/CORE	0
	CORE	1
	SURFACE	0
DRYER BURNER ON GAS MINUTES	SURF/CORE	9
	CORE	5
	SURFACE	0
DRY FUEL METERING SCREWS TOTAL REVOLUTIONS	SURF/CORE	7037
	CORE	7519
	SURFACE	6516
BARK TO CLARKE BIN MINUTES		239
LOG COUNTS	DEBARKER #1	7643
	DEBARKER #2	4698
TROUGH OVERIDES	WAFERIZER #1	15
	WAFERIZER #2	41
TROUGH LOADS	WAFERIZER #1	368
	WAFERIZER #2	230
KONUS METERING SCREW REVOLUTIONS	#1	2699
	#2	2275
BAGHOUSE FINES TO FIRE DUMP MINUTES		122
ROTARY FINES TO FIRE DUMP MINUTES		28
# OF FINES TO FIRE DUMP TRIPS		1
JACKLADDER RUN MINUTES	#1	207
	#2	267
	#3	193
	#4	94
SUSTAINING GAS ON MINUTES	SURF/CORE	3
	CORE	4
	SURFACE	2

PC2 PRODUCTION REPORT
LOUISIANA PACIFIC PANEL PRODUCTS LTD
DAWSON CREEK, BC
MONTH 4 DAY 7 YEAR 95

NIGHT SHIFT

WET BIN LIVE BOTTOM RUN MINUTES	SURF/CORE	710
	CORE	720
	SURFACE	471
WAFERIZER RUN MINUTES	SIDE 1	313
	SIDE 2	209
CENTRIFUGE DUMP CYCLES		0
FLAKES TO FIRE DUMP MINUTES	SURF/CORE	2
	CORE	0
	SURFACE	11
DRYER BURNER ON MINUTES	SURF/CORE	706
	CORE	720
	SURFACE	497
DRYER STARTS	SURF/CORE	0
	CORE	0
	SURFACE	2
DRYER BURNER ON GAS MINUTES	SURF/CORE	5
	CORE	0
	SURFACE	12
DRY FUEL METERING SCREWS TOTAL REVOLUTIONS	SURF/CORE	7208
	CORE	8085
	SURFACE	4399
BARK TO CLARKE BIN MINUTES		199
LOG COUNTS	DEBARKER #1	7495
	DEBARKER #2	5291
TROUGH OVERIDES	WAFERIZER #1	29
	WAFERIZER #2	34
TROUGH LOADS	WAFERIZER #1	344
	WAFERIZER #2	239
KONUS METERING SCREW REVOLUTIONS	#1	2650
	#2	2298
BAGHOUSE FINES TO FIRE DUMP MINUTES		0
ROTARY FINES TO FIRE DUMP MINUTES		0
# OF FINES TO FIRE DUMP TRIPS		0
JACKLADDER RUN MINUTES	#1	195
	#2	249
	#3	200
	#4	126
SUSTAINING GAS ON MINUTES	SURF/CORE	1
	CORE	0
	SURFACE	29

FUEL CALIBRATION REPORT

DATE of CALIBRATION: 2/2/95 BY: Russ Lees

CALIBRATION TO BE USED FOR MONTHS: Jan, Feb, March

SOURCE: #1 Konus

SAMPLE TAKEN AT: 12:30

COUNTS RECORDED AT: 1:00

FUEL BIN LEVEL: 60%

SAMPLE NUMBER	(A) COUNTS per SAMPLE	(B) GROSS WEIGHT	(C) CONTAINER WEIGHT	(D) NET WEIGHT (B - C)	(E) WEIGHT per COUNT (D '/. A)	(F) MOISTURE PERCENTAGE
1	1	18.1				
2	1	21.7				
3	1	20.2				

"A" TTL: 3 "D" TTL: 60.0 MOISTURE AVE: 29%

CALIBRATION = 20.0 (TTL "A" '/. TTL "D")

FUEL CALIBRATION REPORT

DATE of CALIBRATION: 2/2/95 BY: Russ Lees

CALIBRATION TO BE USED FOR MONTHS:

SOURCE: #2 Konus

SAMPLE TAKEN AT: 12:40

COUNTS RECORDED AT: 1:00

FUEL BIN LEVEL: 60%

SAMPLE NUMBER	(A) COUNTS per SAMPLE	(B) GROSS WEIGHT	(C) CONTAINER WEIGHT	(D) NET WEIGHT (B - C)	(E) WEIGHT per COUNT (D '/. A)	(F) MOISTURE PERCENTAGE
1	1	29.1				
2	1	17.6				
3	1	18.5				

"A" TTL: 3 "D" TTL: 65.2 MOISTURE AVE: 29%

CALIBRATION = 21.7 (TTL "A" '/. TTL "D")

FUEL CALIBRATION REPORT

DATE of CALIBRATION: 2/22/95 BY: R. LEES

CALIBRATION TO BE USED FOR MONTHS: Feb, March + Jan

SOURCE: CORE

SAMPLE TAKEN AT: 7:30

COUNTS RECORDED AT: Shaker Table

FUEL BIN LEVEL: Full

SAMPLE NUMBER	(A) COUNTS per SAMPLE	(B) GROSS WEIGHT	(C) CONTAINER WEIGHT	(D) NET WEIGHT (B - C)	(E) WEIGHT per COUNT (D '/. A)	(F) MOISTURE PERCENTAGE
1	1	8.3		8.3		
2	1	8.7		8.7		1.9%
3	1	8.1		8.1		

"A" TTL: 3 "D" TTL: 25.1 MOISTURE AVE:

CALIBRATION = 8.37 (TTL "A" '/. TTL "D")

FUEL CALIBRATION REPORT

DATE of CALIBRATION: BY:

CALIBRATION TO BE USED FOR MONTHS:

SOURCE:

SAMPLE TAKEN AT:

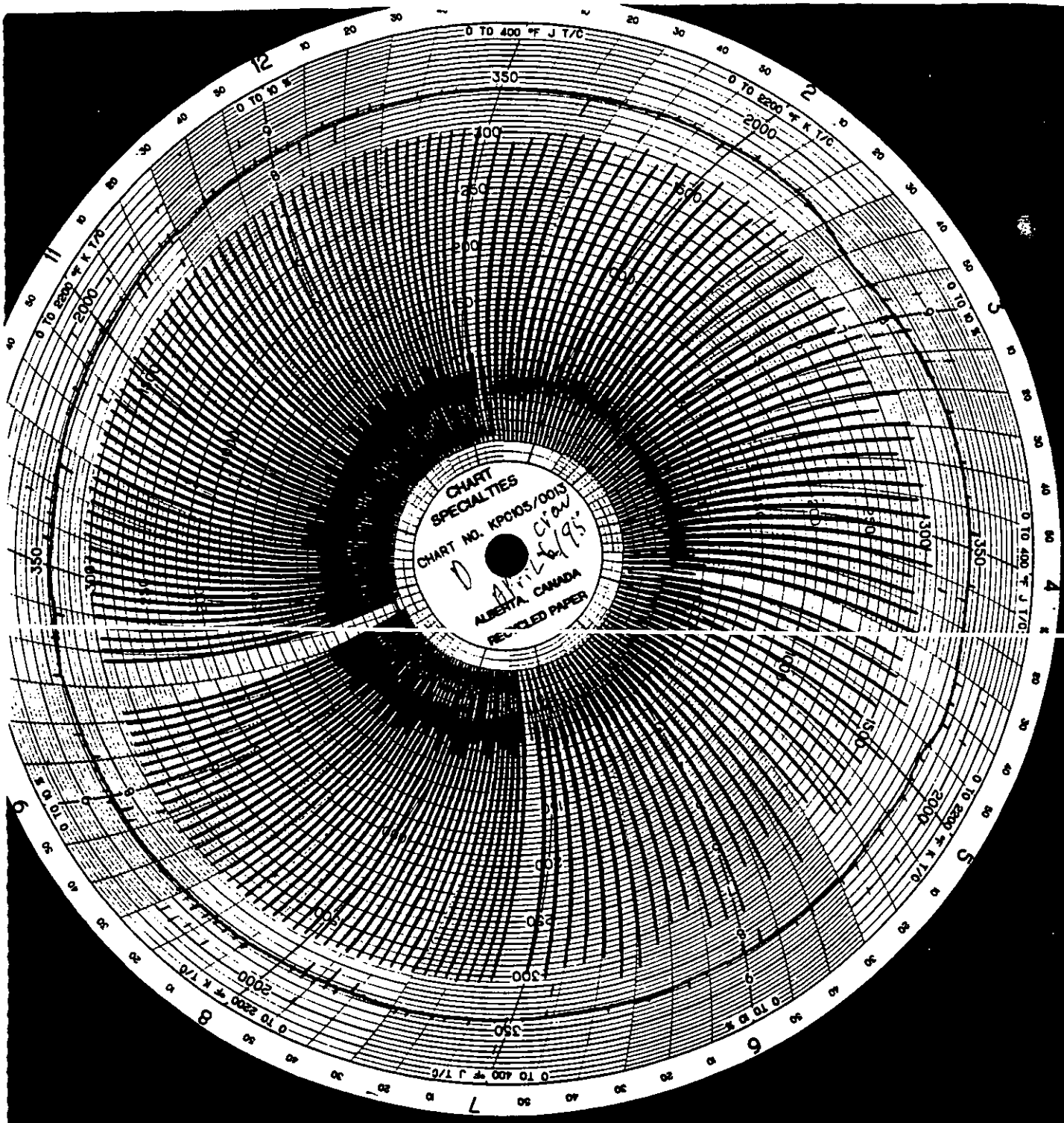
COUNTS RECORDED AT:

FUEL BIN LEVEL:

SAMPLE NUMBER	(A) COUNTS per SAMPLE	(B) GROSS WEIGHT	(C) CONTAINER WEIGHT	(D) NET WEIGHT (B - C)	(E) WEIGHT per COUNT (D '/. A)	(F) MOISTURE PERCENTAGE

"A" TTL: "D" TTL: MOISTURE AVE:

CALIBRATION = (TTL "A" '/. TTL "D")


0 TO 400 °F J T/C
0 TO 2200 °F K T/C
0 TO 10 %
CHART SPECIALTIES
CHART NO. KPC105/0013
ALBERTA, CANADA
RECYCLED PAPER

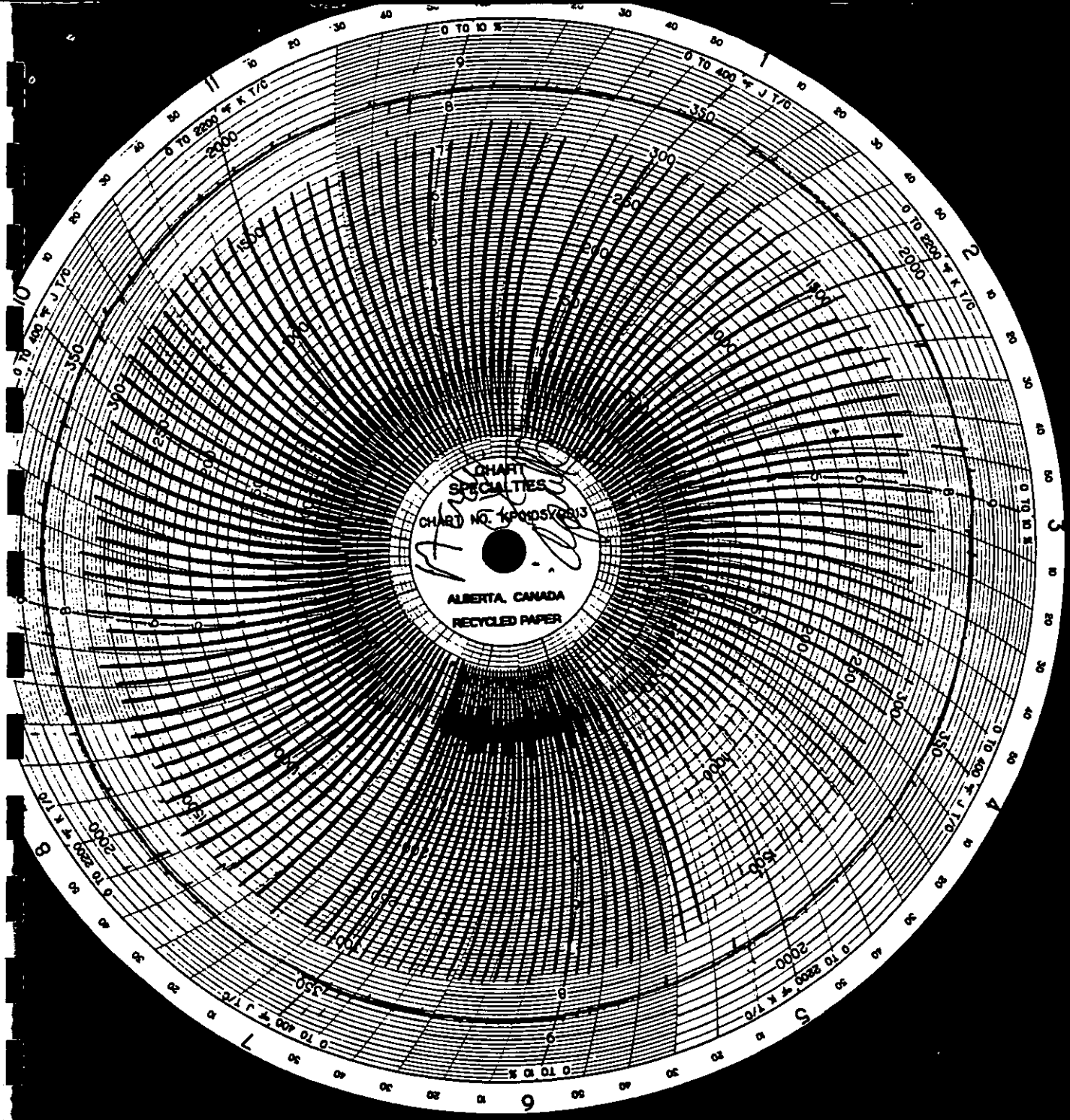
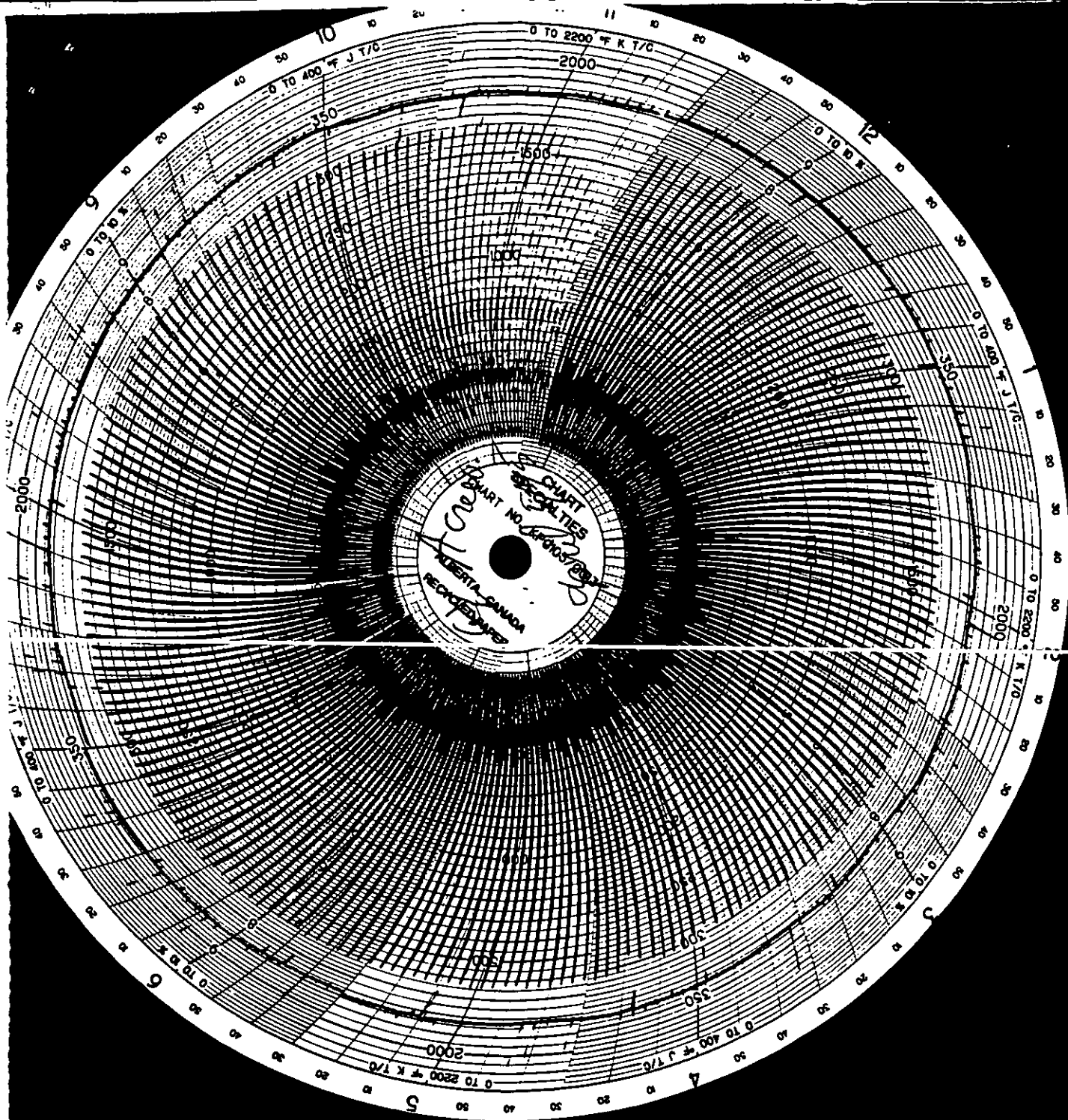


CHART
SPECIALTIES
CHART NO. KP0105/0013
ALBERTA, CANADA
RECYCLED PAPER
0 TO 10 %
0 TO 400 °F J T/C
0 TO 2200 °F K T/C


0 TO 2200 °F K T/C
0 TO 400 °F J T/C
0 TO 10 %
CHART SPECIALTIES
CHART NO.
ALBERTA, CANADA
RECYCLED PAPER

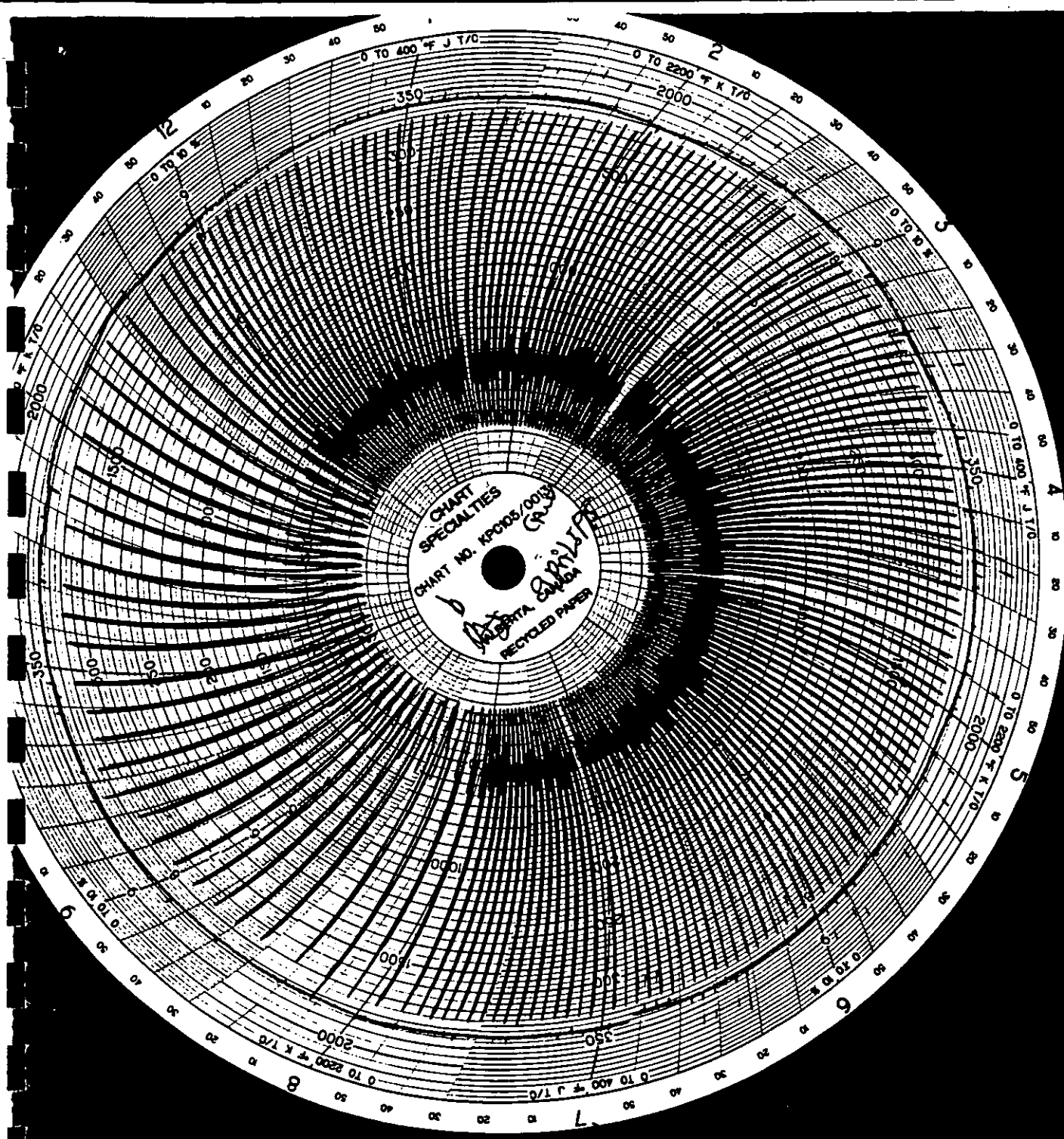
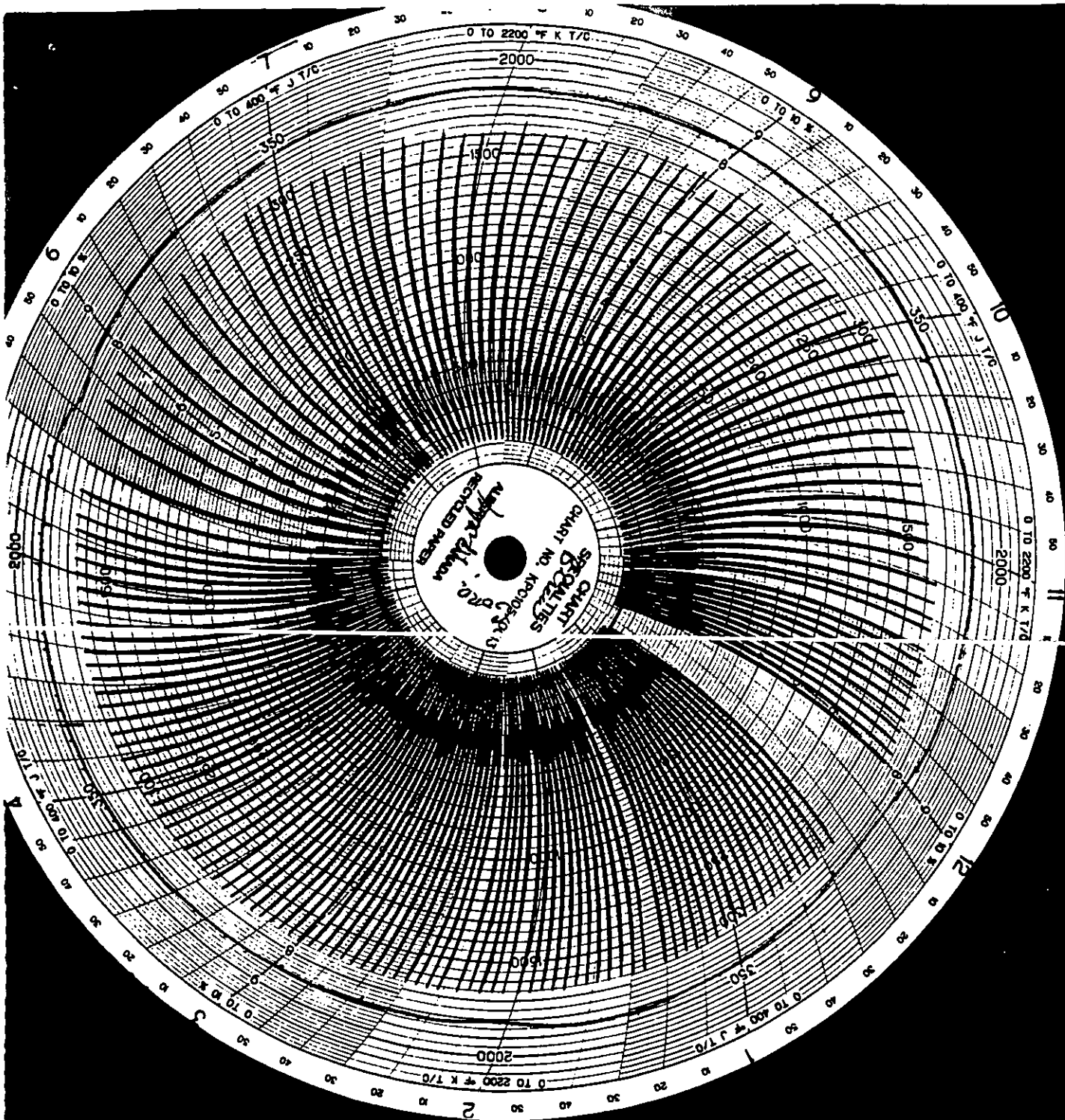


CHART SPECIALTIES
CHART NO. KPC105/0013
ALBERTA, CANADA
RECYCLED PAPER
0 TO 400 °F J T/C
0 TO 2200 °F K T/C
0 TO 10 %


0 TO 2200 °F K T/C
0 TO 400 °F J T/C
0 TO 10 %
CHART
SPECIALTIES
CHART NO. KP0105-Q13
RECYCLED PAPER

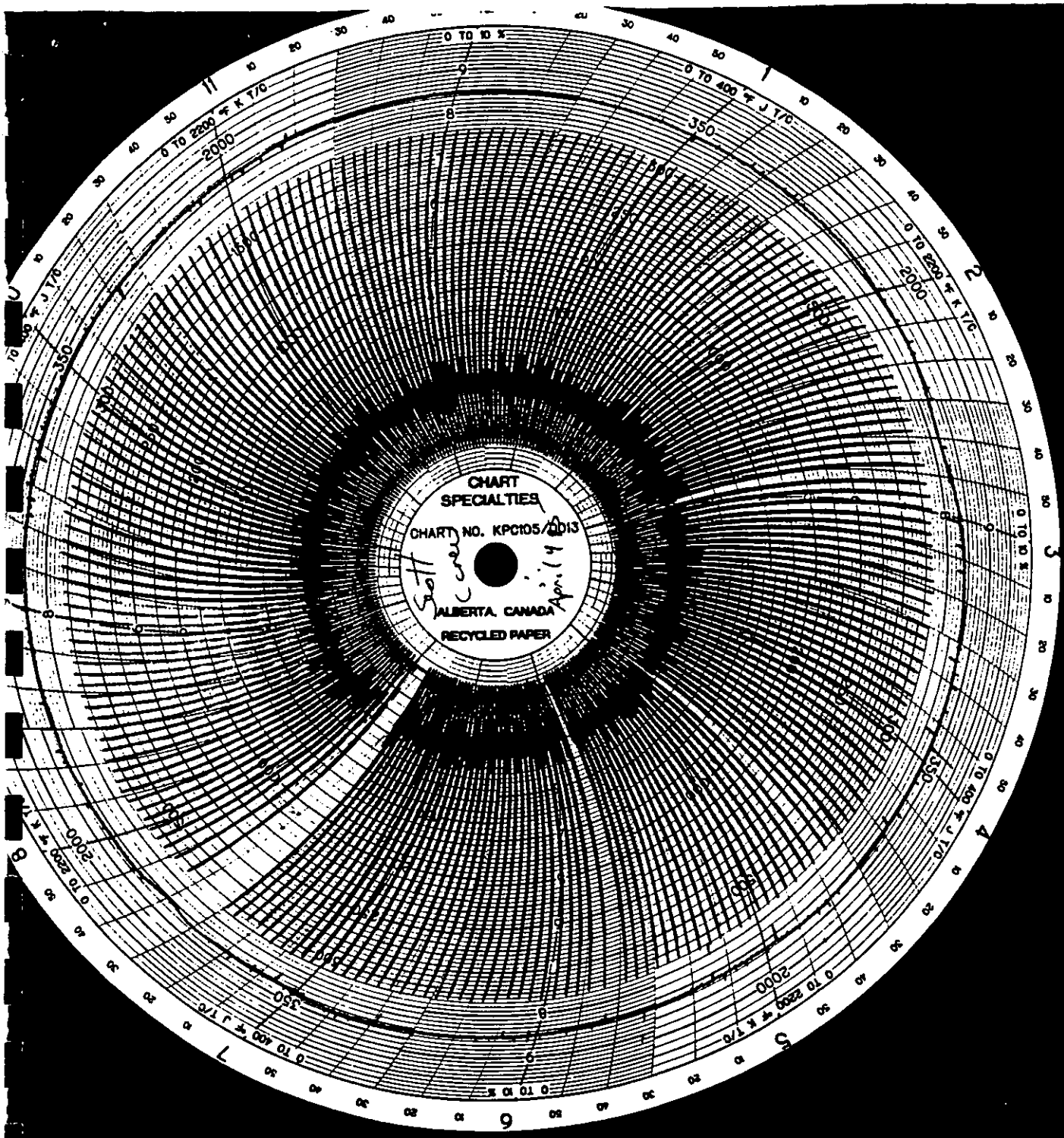


CHART
SPECIALTIES
CHART NO. KPC105/2013
ALBERTA, CANADA
RECYCLED PAPER
0 TO 10 %
0 TO 400 °F J T/C
0 TO 2200 °F K T/C

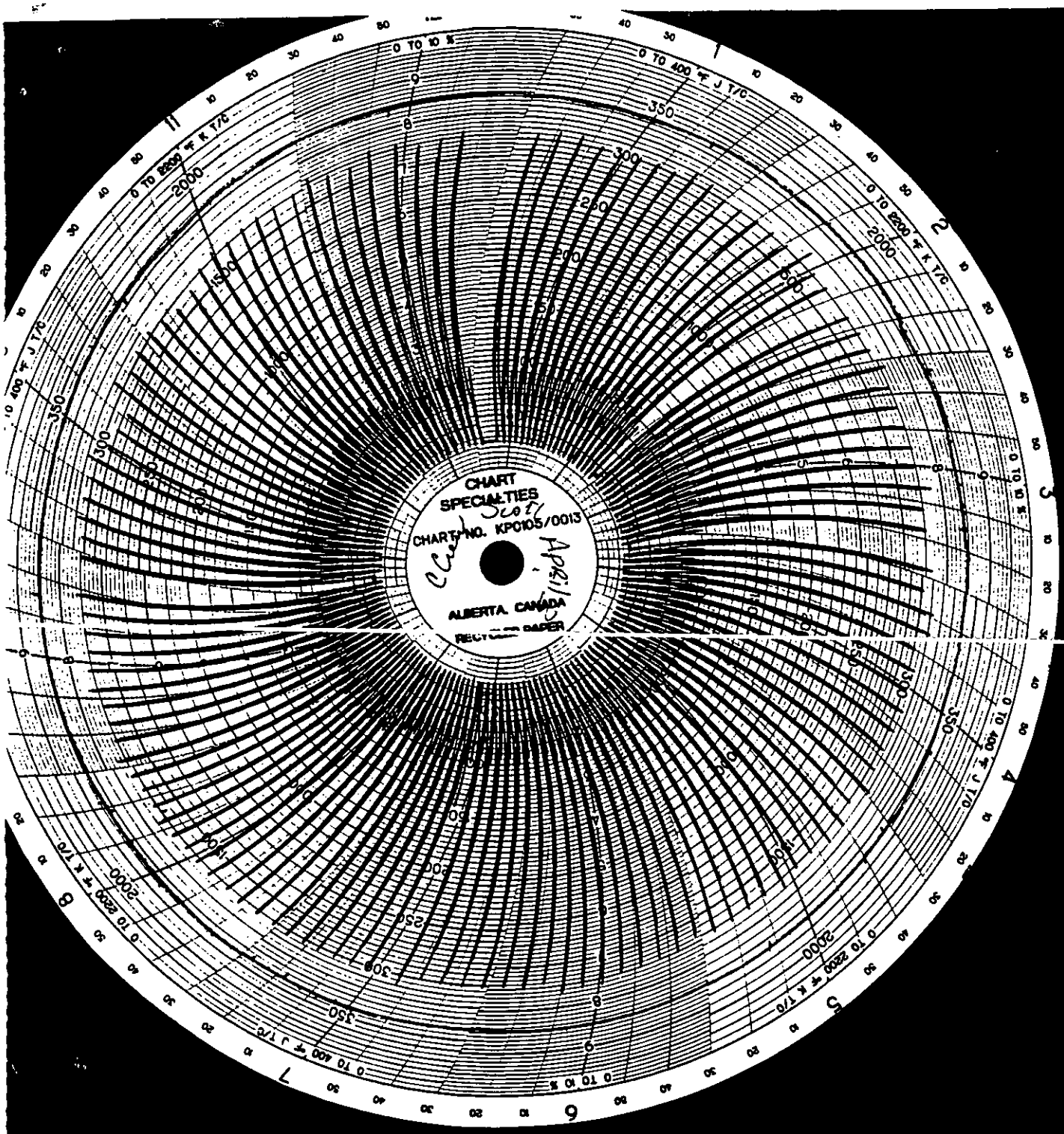
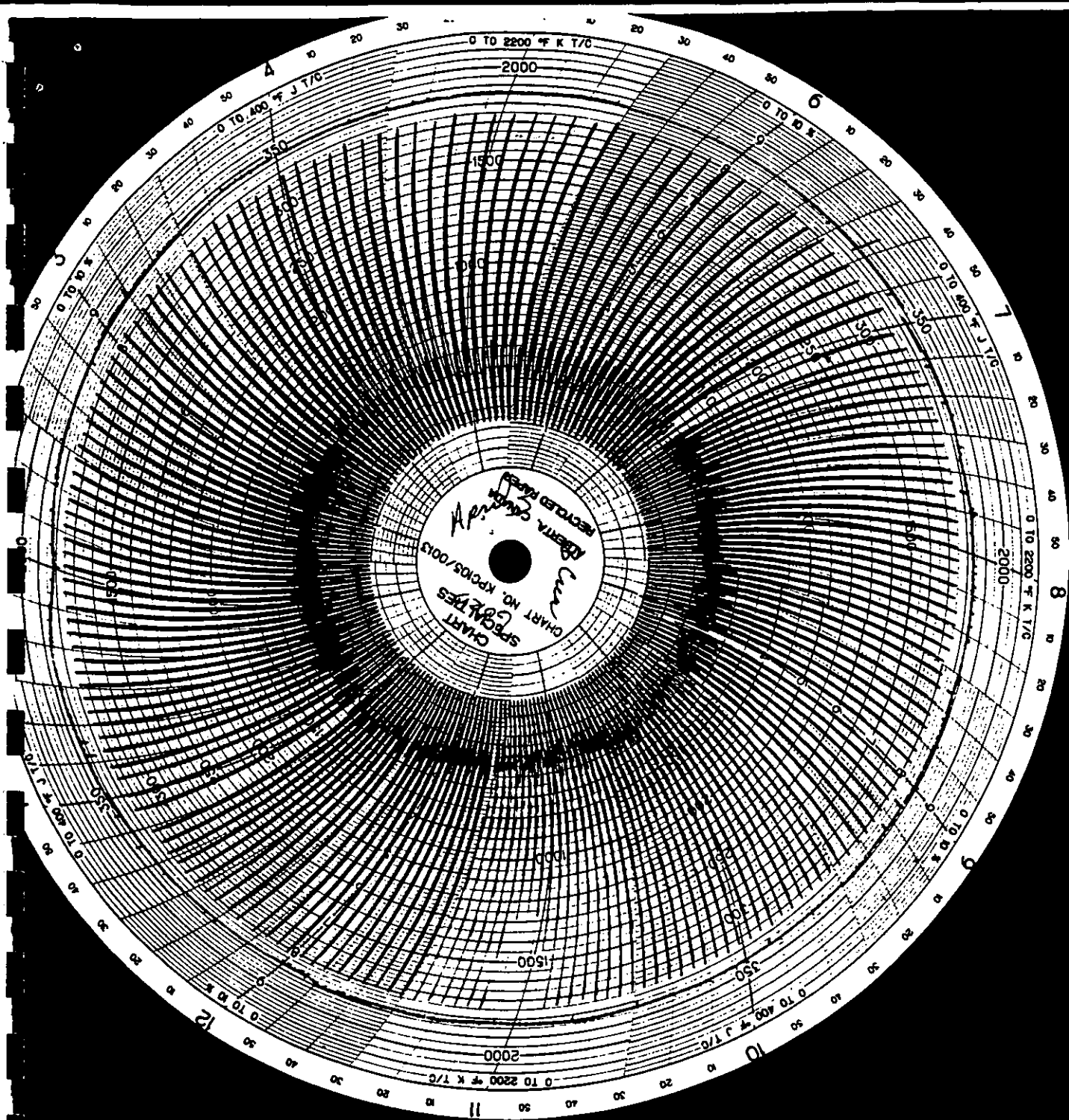


CHART
SPECIALTIES
CHART NO. KPC105/0013
ALBERTA, CANADA
RECTANGULAR PAPER
0 TO 10 %
0 TO 400 °F J T/C
0 TO 2200 °F K T/C


0 TO 2200 °F K T/C
0 TO 400 °F J T/C
0 TO 10 %
CHART
SPECIALTIES
CHART NO. KPC105/0013
ALBERTA, CANADA
RECYCLED PAPER
2000
1500
1000
350
300
250
200
150
100
50
0
1
2
3
4
6
7
8
9
10
11
12