

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/](http://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.

**SAN JOAQUIN VALLEY UNIFIED  
AIR POLLUTION CONTROL DISTRICT**

**MEMORANDUM**

DATE: January 12, 1995  
TO: File  
SUBJECT: Review of Source Tests for Stratford Growers  
October 26-28, 1994  
ATC #C-1191-3-1  
Stratford, CA.

AIRx Testing performed source emissions tests for Total and PM-10 particulate matter on the Unloading, Hull Trash, Feeder Trash, Lint Cleaner, Cyclone Robber System, and Motes Trash Cyclones. The testing was performed to determine emission rates (lbs/hr) and emission factors (lbs/bale).

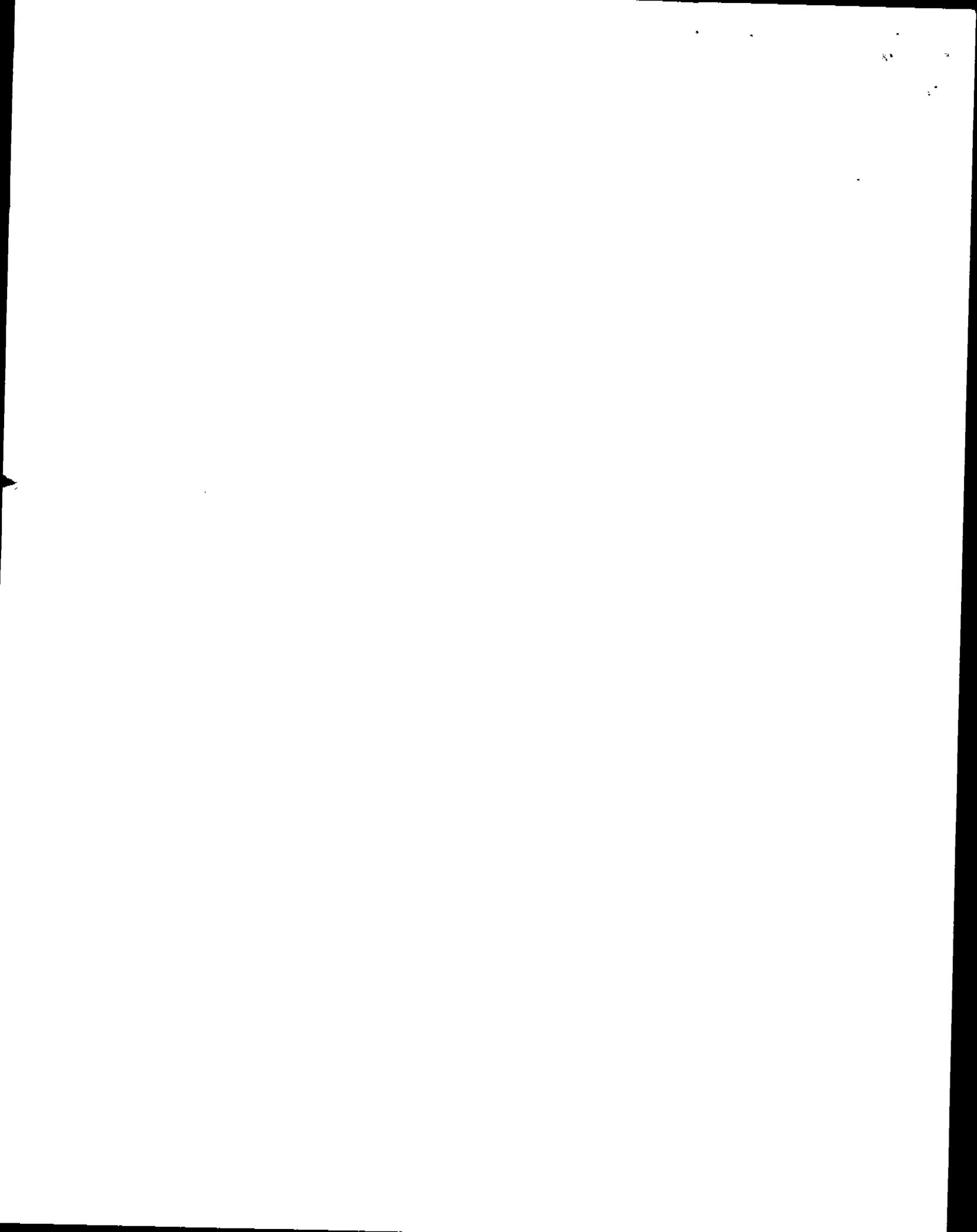
The data and calculations were reviewed to ensure accuracy. Two revisions of the data and summary sheets have been submitted by AIRx due to a spread-sheet calculation error of lbs/hr and numerous transposition errors of laboratory data to the *Data & Calculation* sheets.

**CONCLUSION AND RECOMMENDATIONS**

Stack emissions source tests have been completed in accordance with the above subject ATC. The ginning rate specified in condition #4 of the above subject ATC should be 720 bales/day, not 750 bales/day. Stratford Growers will submit an application for emission reduction credits based on these source test results. Convert ATC to PTO upon completion of review by Permit Services.

Gabor Lazar  
AQI

CC: Dave Warner, SJVUAPCD  
Roger Isom, CCGA

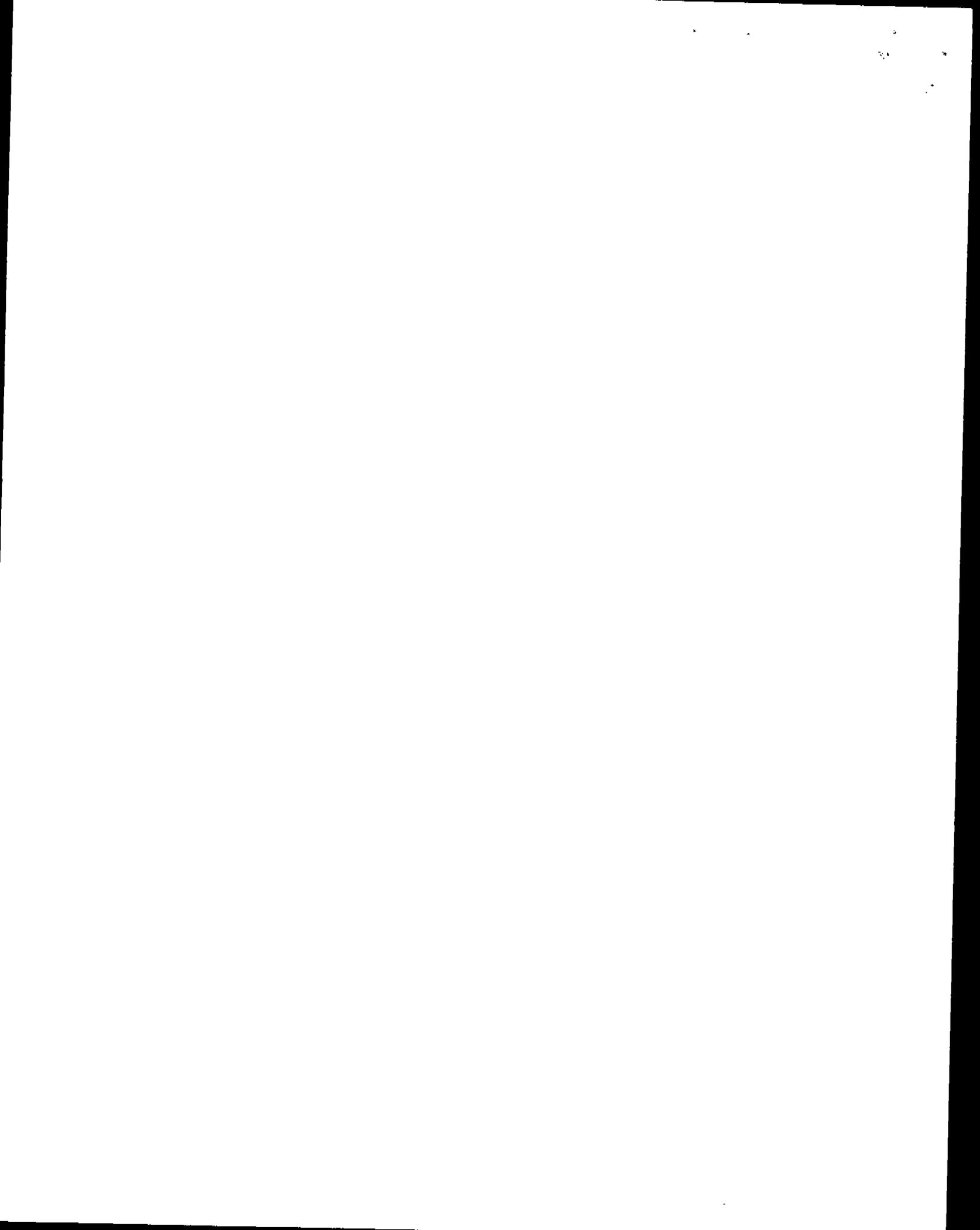


**San Joaquin Valley  
Unified Air Pollution Control District**

**SUMMARY OF SOURCE TEST RESULTS**

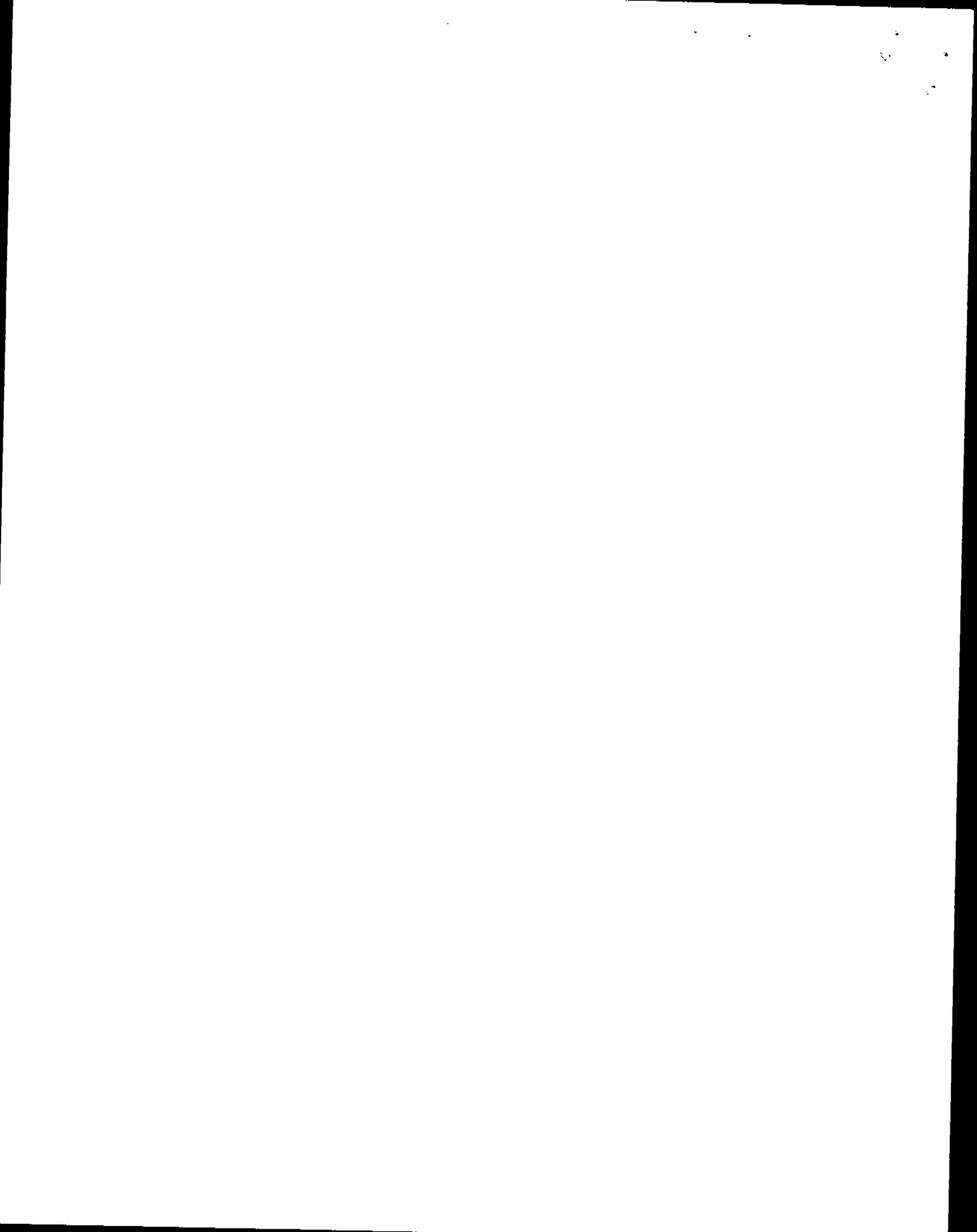
Equipment: Cotton GIN Rating: 720 BPD - May  
 Control Device: Cyclones  
 Facility: Stratford Growers Permit No.: 01191-37  
 Location: Stratford, CA Test Date: 26-28 Oct 94  
 Process Throughput/Fuel Usage Rate: \*See attached sheets  
 Source Test Company: AIRx TESTING

Pollutant	Outlet Conc. (ppmv, gr/scf, etc.)	Emission Factor (lb/MMBTU, lb/bale, etc.)	Mass Flow Rate (lb/hr, etc.)	Permitted Emission Levels (lb/hr, etc.)
Units				
VOC				
NOx				
SOx				
CO				
PM <sub>10</sub>	*			763.2 lb/day 1.06 lb/bale
Other (ETO, Chromium, etc.)				



PM-10 EMISSION SUMMARY BY TOTAL # OF CYCLONES

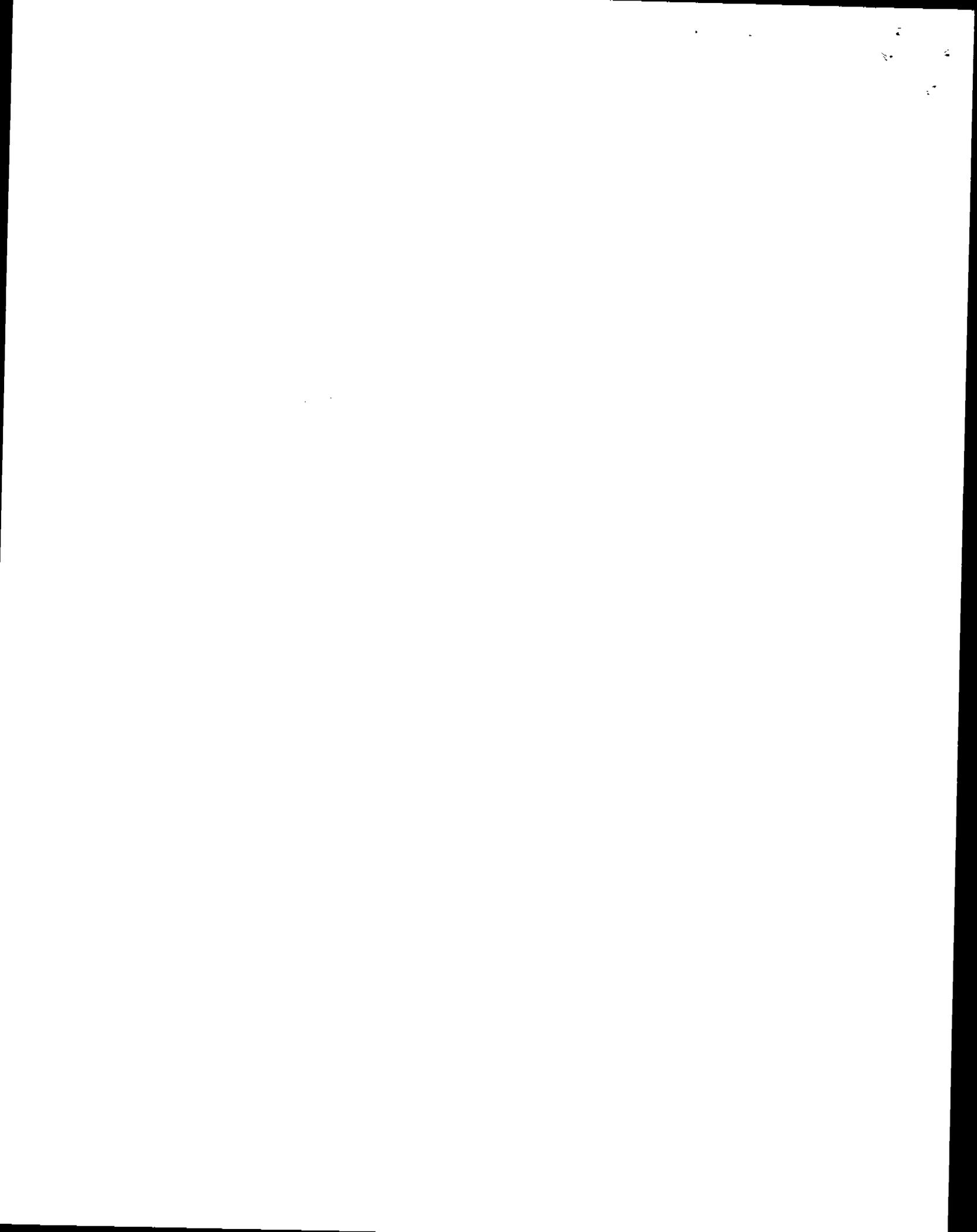
UNITS	UNLOADING (3)	HULL TRASH (1)	LINT CLEANER (6)	MOTES TRASH (1)	CYCLONE ROBBER (2)	FEEDER TRASH (1)	TOTALS
lbs/hour	1.32	0.63	1.92	0.4	0.98	.17	5.42
lbs/bale	0.06	0.03	.12	.02	0.06	0.01	0.3



## STRATFORD GROWERS

	Proposed		Tested**		New Proposed
	PM	PM10*	PM	PM10	PM10
Unloading	0.302	0.151	0.330	0.060	0.060
#1 Incline Cleaner	0.267	0.134			0.134
#2 Incline Cleaner	0.267	0.134			0.134
Hull Trash	0.233	0.117	0.110	0.030	0.030
Overflow	0.049	0.025			0.025
Feeder Trash	0.273	0.137	0.040	0.010	0.010
Motes	0.173	0.087			0.087
Lint Cleaner	0.127	0.064	0.240	0.120	0.120
Battery Condenser	0.060	0.030			0.030
Cyclone Robber System	0.172	0.086	0.180	0.060	0.060
Motes Cleaner	0.132	0.066	0.060	<u>0.020</u>	0.020
Motes Trash	0.070	0.035		0.3	0.035
TOTALS =	2.125	1.0625			0.745 ✓

NOTE: \* = Assume PM10 = 50%PM  
 \*\* = Source Test performed 10/94



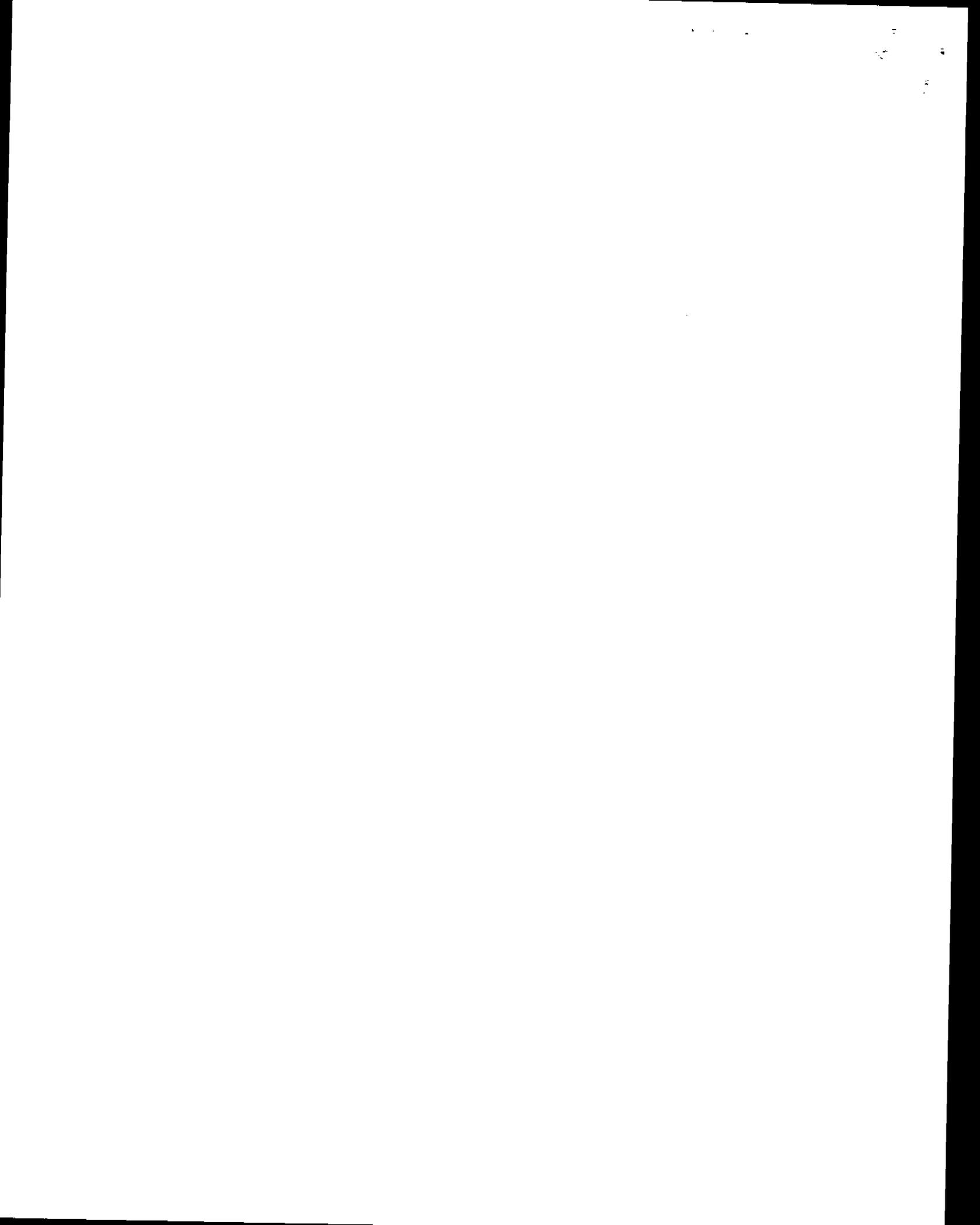
## PARTICULATE EMISSION SUMMARY

## UNLOADING CYCLONE X3

	Run #1	Run #2	Run #3	Average
<b>Total Particulate</b>				
gr/DSCF	0.0371	0.0485	0.0746	<b>0.0534</b>
lb/hr	1.35	1.78	2.81	<b>1.98</b>
lb/bale	0.08	0.10	0.15	<b>0.11</b>
<b>Particulate Size Distribution</b>				
+10 $\mu$ (%)	72.5	79.5	79.4	<b>77.1</b>
+10 $\mu$ (lb/hr)	0.98	1.41	2.23	<b>1.54</b>
+10 $\mu$ (lb/bale)	0.06	0.08	0.12	<b>0.09</b>
-10 $\mu$ (%)	27.5	20.5	20.6	<b>22.9</b>
-10 $\mu$ (lb/hr)	0.37	0.36	0.58	<b>0.44</b> $\times 3 = 1.32$
-10 $\mu$ (lb/bale)	0.02	0.02	0.03	<b>0.02</b> $\times 3 = 0.06$
<b>Average Bales/hr</b>	17.62	18.29	18.70	<b>18.20</b>

## HULL TRASH CYCLONE

	Run #1	Run #2	Run #3	Average
<b>Total Particulate</b>				
gr/DSCF	0.0382	0.0331	0.0307	<b>0.0340</b>
lb/hr	2.07	1.86	2.50	<b>2.14</b>
lb/bale	0.10	0.09	0.13	<b>0.11</b>
<b>Particulate Size Distribution</b>				
+10 $\mu$ (%)	60.1	54.8	90.3	<b>68.4</b>
+10 $\mu$ (lb/hr)	1.24	1.02	2.25	<b>1.50</b>
+10 $\mu$ (lb/bale)	0.06	0.05	0.12	<b>0.08</b>
-10 $\mu$ (%)	39.9	45.2	9.7	<b>31.6</b>
-10 $\mu$ (lb/hr)	0.82	0.84	0.24	<b>0.63</b>
-10 $\mu$ (lb/bale)	0.04	0.04	0.01	<b>0.03</b>
<b>Average Bales/hr</b>	20.54	21.49	19.34	<b>20.46</b>



## PARTICULATE EMISSION SUMMARY

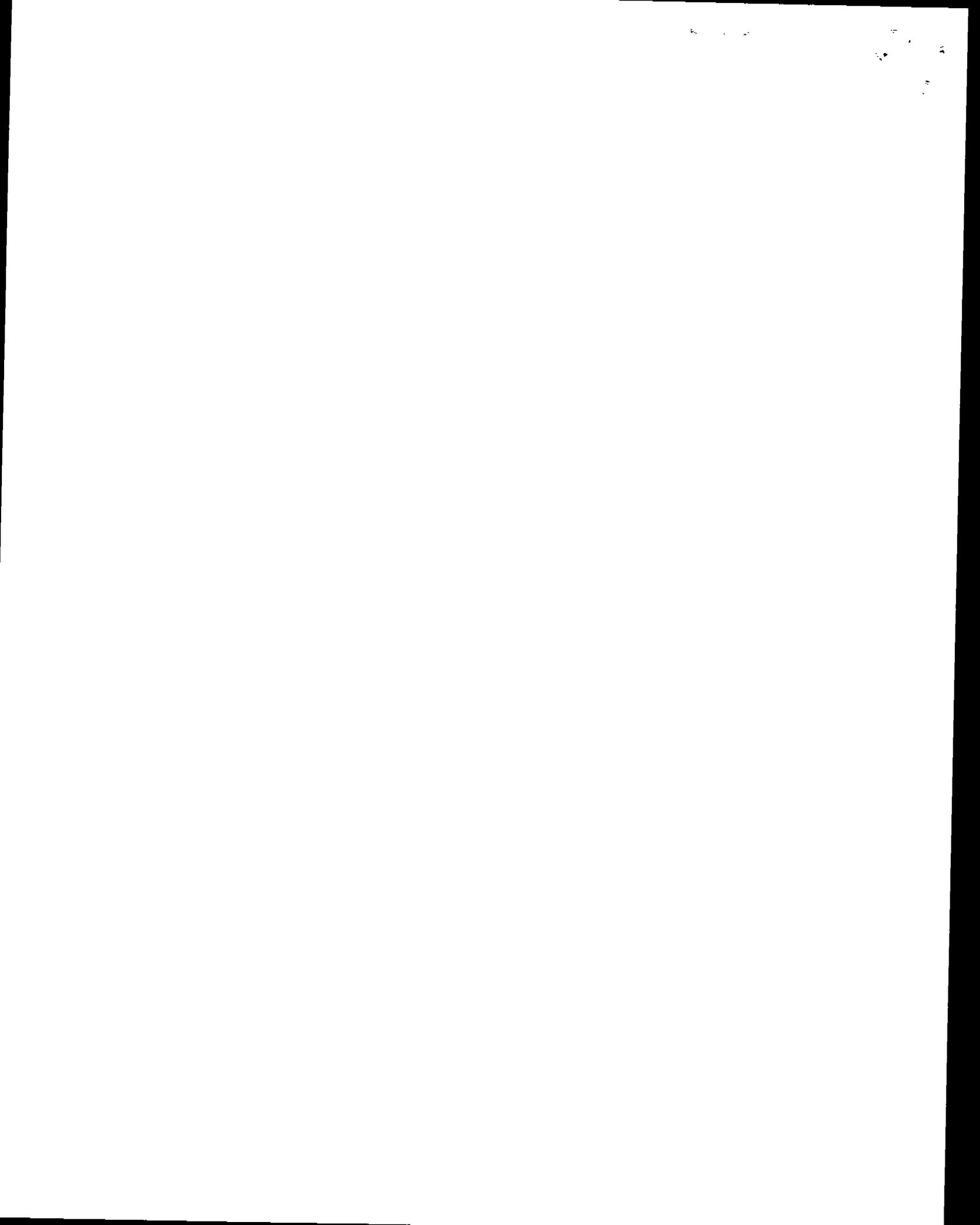
## LINT CLEANER CYCLONE X6

	Run #1	Run #2	Run #3	Average
<b>Total Particulate</b>				
gr/DSCF	0.0025	0.0129	0.0207	<b>0.0120</b>
lb/hr	0.19	1.02	0.71	<b>0.64</b>
lb/bale	0.01	0.06	0.04	<b>0.04</b>
<b>Particulate Size Distribution</b>				
+10 $\mu$ (%)	61.0	49.9	45.8	<b>52.2</b>
+10 $\mu$ (lb/hr)	0.11	0.51	0.32	<b>0.31</b>
+10 $\mu$ (lb/bale)	0.01	0.03	0.02	<b>0.02</b>
-10 $\mu$ (%)	39.0	50.1	54.2	<b>47.8</b>
-10 $\mu$ (lb/hr)	0.07	0.51	0.38	<b>0.32 x 6 = 1.92</b>
-10 $\mu$ (lb/bale)	<0.01	0.03	0.02	<b>0.02 x 6 = 0.12</b>
<b>Average Bales/hr</b>	18.63	18.23	19.66	<b>18.84</b>

## NOTES TRASH CYCLONE

	Run #1	Run #2	Run #3	Average
<b>Total Particulate</b>				
gr/DSCF	0.0813	0.0519	0.0513	<b>0.0615</b>
lb/hr	1.55	1.01	1.01	<b>1.19</b>
lb/bale	0.07	0.05	0.06	<b>0.06</b>
<b>Particulate Size Distribution</b>				
+10 $\mu$ (%)	66.2	66.0	67.4	<b>66.5</b>
+10 $\mu$ (lb/hr)	1.03	0.67	0.68	<b>0.79</b>
+10 $\mu$ (lb/bale)	0.05	0.03	0.04	<b>0.04</b>
-10 $\mu$ (%)	33.8	34.0	32.6	<b>33.5</b>
-10 $\mu$ (lb/hr)	0.52	0.34	0.33	<b>0.40</b>
-10 $\mu$ (lb/bale)	0.02	0.02	0.02	<b>0.02</b>
<b>Average Bales/hr</b>	22.08	19.49	17.64	<b>19.74</b>

0.71 lb/hr  
for Run 3,  
is wrong.  
lb/hr = 1.60



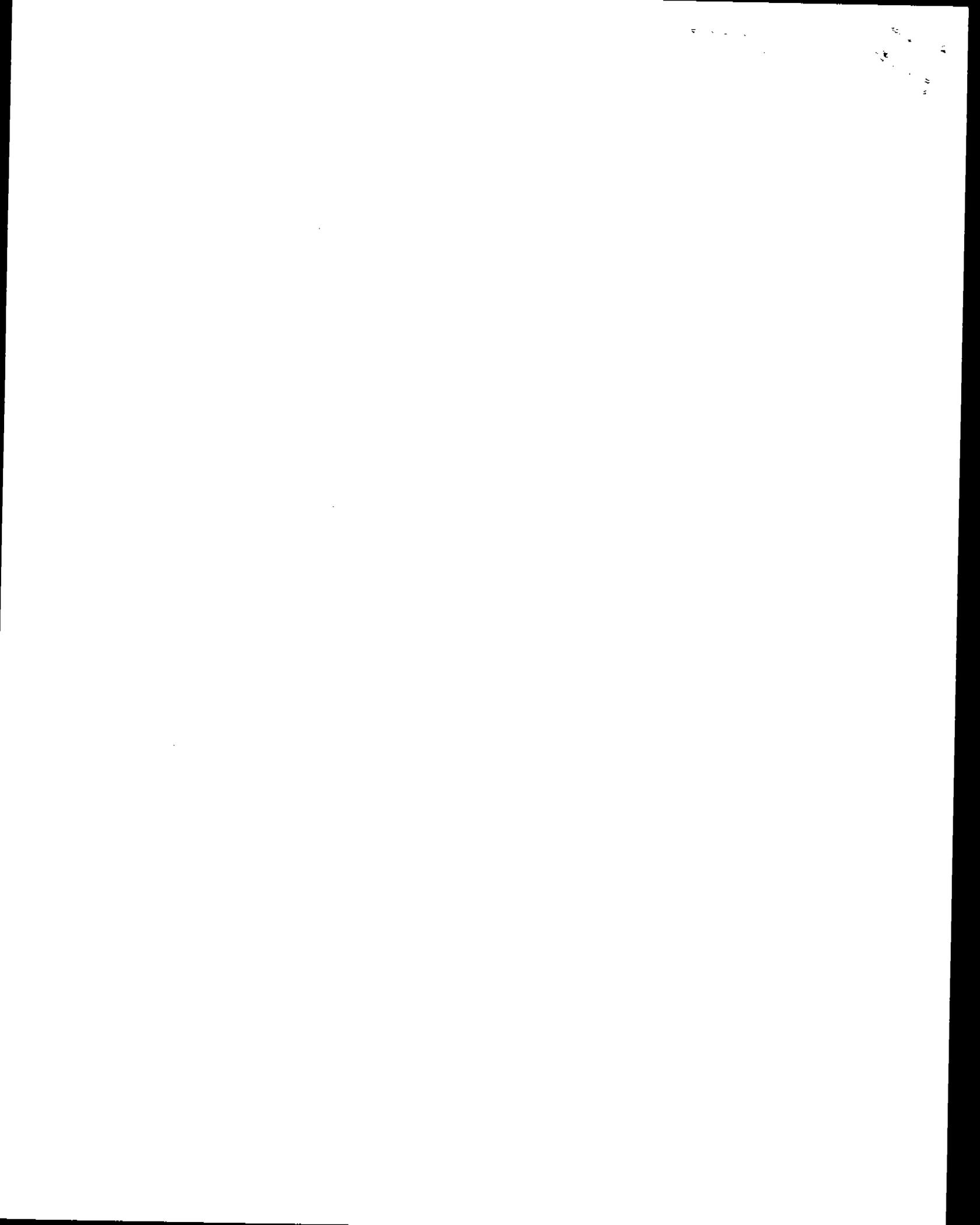
## PARTICULATE EMISSION SUMMARY

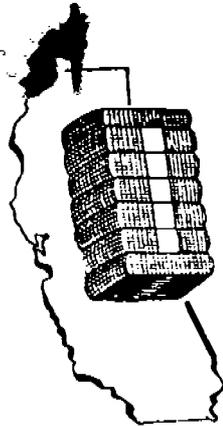
CYCLONE ROBBER SYSTEM  $\times 2$ 

	Run #1	Run #2	Run #3	Average
<b>Total Particulate</b>				
gr/DSCF	0.0321	0.0302	0.0355	<b>0.0326</b>
lb/hr	1.66	1.62	1.99	<b>1.76</b>
lb/bale	0.09	0.08	0.10	<b>0.09</b>
<b>Particulate Size Distribution</b>				
+10 $\mu$ (%)	56.0	79.5	79.6	<b>71.7</b>
+10 $\mu$ (lb/hr)	0.93	1.29	1.59	<b>1.27</b>
+10 $\mu$ (lb/bale)	0.05	0.06	0.08	<b>0.06</b>
-10 $\mu$ (%)	44.0	20.5	20.4	<b>28.3</b>
-10 $\mu$ (lb/hr)	0.73	0.33	0.41	<b>0.49</b> $\times 2 = .98$
-10 $\mu$ (lb/bale)	0.04	0.02	0.02	<b>0.03</b> $\times 2 = .06$
<b>Average Bales/hr</b>	18.58	20.43	19.70	<b>19.57</b>

## FEEDER TRASH CYCLONE

	Run #1	Run #2	Run #3	Average
<b>Total Particulate</b>				
gr/DSCF	0.0153	0.0159	0.0187	<b>0.0166</b>
lb/hr	0.73	0.76	0.87	<b>0.79</b>
lb/bale	0.04	0.04	0.04	<b>0.04</b>
<b>Particulate Size Distribution</b>				
+10 $\mu$ (%)	74.7	71.9	84.5	<b>77.0</b>
+10 $\mu$ (lb/hr)	0.54	0.55	0.73	<b>0.61</b>
+10 $\mu$ (lb/bale)	0.03	0.03	0.04	<b>0.03</b>
-10 $\mu$ (%)	25.3	28.1	15.5	<b>23.0</b>
-10 $\mu$ (lb/hr)	0.18	0.21	0.13	<b>0.17</b>
-10 $\mu$ (lb/bale)	0.01	0.01	0.01	<b>0.01</b>
<b>Average Bales/hr</b>	18.47	20.55	20.61	<b>19.88</b>





# CALIFORNIA COTTON GINNERS ASSOCIATION

1900 N. Gateway Blvd. - Suite 156  
Fresno Airport Center  
Fresno, California 93727  
Telephone 209 / 252-0684  
Fax 209 / 252 - 0551

RECEIVED

JAN 03 1994

San Joaquin Valley Unified  
Air Pollution Control District

December 28, 1994

Mr. Gabe Lazar  
SAN JOAQUIN VALLEY UNIFIED A.P.C.D.  
Central Region  
1999 Tuolumne, Suite 200  
Fresno, CA 93721

Re: Source Test Results - Stratford Growers Gin  
ATC# C-1191-3-1

Dear Gabe,

Enclosed is a copy of the source test results for Stratford Growers Gin. These tests were conducted October 26 through October 28, 1994 at the Stratford Growers Gin located at 19813 Madison Ave. Stratford, California. We have just received the results and are reviewing them ourselves. Once you have completed your review, please forward to Dave Warner, as these results will be used in an application for emission reduction credits.

These results should satisfy any and all requirements of Authority to Construct No. C-1191-3-1. We would also ask that you forward these results to Mr. Chuck Hanna, Air Quality Inspector, so that a permit to operate may be issued. If you have any questions, please feel free to contact me at (209)252-0684 or Mr. Joe Vierra at (209)947-3072.

Sincerely,

Roger A. Isom  
Director of Technical Services

c: Joe Vierra, STRATFORD GROWERS  
Dave Warner, SJVUAPCD - Central Region  
Donavon Heslep, DBI



100% COTTON



AP-42 Section 9.7  
Reference 22  
Report Sect. 4  
Reference 1A

**STRATFORD GROWERS, INC.**  
19813 Madison  
Stratford, CA 93266

**Attn: Joe Vierra**

**RECEIVED**  
**JAN 03 1994**  
San Joaquin Valley Unified  
Air Pollution Control District

**PM10 & TOTAL PARTICULATE TESTING  
UNLOADING, HULL TRASH, FEEDER TRASH,  
LINT CLEANER, CYCLONE ROBBER SYSTEM &  
MOTES TRASH CYCLONES**

**OCTOBER 26 - 28, 1994**

Prepared By:

**AIRx TESTING**  
2175 Goodyear Avenue Unit #105  
Ventura, CA 93003

Job Number  
19083

Laboratory Report Number  
294-136

Test Team Leader  
Cam Donnahoo

Results Verified By:  
Tom Porter  
Partner

December 19, 1994

*See Memo  
dated 1/12/95  
for corrected  
test results*

**X TESTING**



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## PARTICULATE EMISSION SUMMARY

### UNLOADING CYCLONE

	Run #1	Run #2	Run #3	Average
<b>Total Particulate</b>				
<b>gr/DSCF</b>	0.0371	0.0485	0.0780	<b>0.0545</b>
<b>lb/hr</b>	1.35	5.22	8.64	<b>5.07</b>
<b>lb/bale</b>	0.08	0.29	0.46	<b>0.28</b>
<b>Particulate Size Distribution</b>				
<b>+10<math>\mu</math> (%)</b>	67.7	79.5	84.9	<b>77.4</b>
<b>+10<math>\mu</math> (lb/hr)</b>	0.91	4.15	7.33	<b>4.13</b>
<b>+10<math>\mu</math> (lb/bale)</b>	0.05	0.23	0.39	<b>0.22</b>
<b>-10<math>\mu</math> (%)</b>	32.3	20.5	15.1	<b>22.6</b>
<b>-10<math>\mu</math> (lb/hr)</b>	0.43	1.07	1.30	<b>0.93</b>
<b>-10<math>\mu</math> (lb/bale)</b>	0.02	0.06	0.07	<b>0.05</b>
<b>Average Bales/hr</b>	17.62	18.29	18.70	<b>18.20</b>

### HULL TRASH CYCLONE

	Run #1	Run #2	Run #3	Average
<b>Total Particulate</b>				
<b>gr/DSCF</b>	0.0382	0.0331	0.0307	<b>0.0340</b>
<b>lb/hr</b>	4.85	4.33	0.53	<b>3.24</b>
<b>lb/bale</b>	0.24	0.20	0.02	<b>0.15</b>
<b>Particulate Size Distribution</b>				
<b>+10<math>\mu</math> (%)</b>	60.1	54.8	58.8	<b>57.9</b>
<b>+10<math>\mu</math> (lb/hr)</b>	2.92	2.37	0.31	<b>1.87</b>
<b>+10<math>\mu</math> (lb/bale)</b>	0.14	0.11	0.01	<b>0.09</b>
<b>-10<math>\mu</math> (%)</b>	39.9	45.2	41.2	<b>42.1</b>
<b>-10<math>\mu</math> (lb/hr)</b>	1.94	1.96	0.22	<b>1.37</b>
<b>-10<math>\mu</math> (lb/bale)</b>	0.09	0.09	0.01	<b>0.06</b>
<b>Average Bales/hr</b>	20.54	21.49	22.70	<b>21.58</b>

## PARTICULATE EMISSION SUMMARY

### LINT CLEANER CYCLONE

	Run #1	Run #2	Run #3	Average
<b>Total Particulate</b>				
gr/DSCF	0.0025	0.0129	0.0092	<b>0.0082</b>
lb/hr	0.41	2.46	1.60	<b>1.49</b>
lb/bale	0.02	0.14	0.08	<b>0.08</b>
<b>Particulate Size Distribution</b>				
+10 $\mu$ (%)	61.0	49.9	43.6	<b>51.5</b>
+10 $\mu$ (lb/hr)	0.25	1.23	0.70	<b>0.73</b>
+10 $\mu$ (lb/bale)	0.01	0.07	0.04	<b>0.04</b>
-10 $\mu$ (%)	39.0	50.1	56.4	<b>48.5</b>
-10 $\mu$ (lb/hr)	0.16	1.23	0.90	<b>0.76</b>
-10 $\mu$ (lb/bale)	0.01	0.07	0.05	<b>0.04</b>
<b>Average Bales/hr</b>	18.63	18.23	19.66	<b>18.84</b>

### MOTES TRASH CYCLONE

	Run #1	Run #2	Run #3	Average
<b>Total Particulate</b>				
gr/DSCF	0.0813	0.0519	0.0513	<b>0.0615</b>
lb/hr	3.40	2.44	2.46	<b>2.77</b>
lb/bale	0.15	0.13	0.14	<b>0.14</b>
<b>Particulate Size Distribution</b>				
+10 $\mu$ (%)	66.2	66.0	67.4	<b>66.5</b>
+10 $\mu$ (lb/hr)	2.25	1.61	1.66	<b>1.84</b>
+10 $\mu$ (lb/bale)	0.10	0.08	0.09	<b>0.09</b>
-10 $\mu$ (%)	33.8	34.0	32.6	<b>33.5</b>
-10 $\mu$ (lb/hr)	1.15	0.83	0.80	<b>0.93</b>
-10 $\mu$ (lb/bale)	0.05	0.04	0.05	<b>0.05</b>
<b>Average Bales/hr</b>	22.08	19.49	17.64	<b>19.74</b>

## PARTICULATE EMISSION SUMMARY

### CYCLONE ROBBER SYSTEM

	Run #1	Run #2	Run #3	Average
<b>Total Particulate</b>				
gr/DSCF	0.0321	0.0302	0.0355	<b>0.0326</b>
lb/hr	4.22	4.25	5.35	<b>4.61</b>
lb/bale	0.23	0.21	0.27	<b>0.24</b>
<b>Particulate Size Distribution</b>				
+10 $\mu$ (%)	56.0	79.5	79.6	<b>71.7</b>
+10 $\mu$ (lb/hr)	2.36	3.38	4.26	<b>3.33</b>
+10 $\mu$ (lb/bale)	0.13	0.17	0.22	<b>0.17</b>
-10 $\mu$ (%)	44.0	20.5	20.4	<b>28.3</b>
-10 $\mu$ (lb/hr)	1.86	0.87	1.09	<b>1.27</b>
-10 $\mu$ (lb/bale)	0.10	0.04	0.06	<b>0.07</b>
<b>Average Bales/hr</b>	18.58	20.43	19.70	<b>19.57</b>

### FEEDER TRASH CYCLONE

	Run #1	Run #2	Run #3	Average
<b>Total Particulate</b>				
gr/DSCF	0.0153	0.0159	0.0177	<b>0.0163</b>
lb/hr	2.06	2.15	2.22	<b>2.14</b>
lb/bale	0.11	0.10	0.11	<b>0.11</b>
<b>Particulate Size Distribution</b>				
+10 $\mu$ (%)	74.7	71.9	84.5	<b>77.0</b>
+10 $\mu$ (lb/hr)	1.54	1.55	1.87	<b>1.65</b>
+10 $\mu$ (lb/bale)	0.08	0.08	0.09	<b>0.09</b>
-10 $\mu$ (%)	25.3	28.1	15.5	<b>23.0</b>
-10 $\mu$ (lb/hr)	0.52	0.60	0.34	<b>0.49</b>
-10 $\mu$ (lb/bale)	0.03	0.03	0.02	<b>0.03</b>
<b>Average Bales/hr</b>	18.47	20.55	20.61	<b>19.88</b>

*I. INTRODUCTION*

## INTRODUCTION

On October 26-28, 1994, AIRx Testing performed source emissions tests for Total and PM-10 particulate matter on the Unloading, Hull Trash, Feeder Trash, Lint Cleaner, Cyclone Robber System and Motes Trash Cyclones. The cyclones are located at Stratford Growers, 19813 Madison, Stratford, California. Sampling was done in triplicate for total particulate and PM-10 particulate size distribution. Production rates, in bales per hour, were taken by Stratford Growers personnel. No problems were encountered during the sampling. The exhaust stacks were candy canes attached to the top of the cyclones and continued in a vertical position. The testing was conducted with two (2) ports. The Lint Cleaner Cyclone duct was 30 inches in diameter and the ports were located 72 inches upstream and 240 inches downstream from the nearest disturbance. A total of 12 sample points were taken (6 per port). All the other cyclones were 26 inches in diameter and the ports were located 50 inches upstream and 240 inches downstream from the nearest disturbance. A total of 12 sample points were taken (6 per port).

## SAMPLING AND ANALYTICAL PROCEDURES

**STACK GAS ANALYSIS:** The oxygen and carbon dioxide content of the exhaust gases were assumed to be ambient air. Oxygen = 20.9% and Carbon Dioxide = 0.05%.

**STACK GAS VELOCITY:** The stack gas velocity was determined using an "S" type pitot tube connected to a magnehelic gauge. The "S" type pitot was used to determine the stack velocity profile for each run. A total of 12 (6 points per port) traverse points were utilized on each duct.

The stack temperature was determined using a thermocouple and an indicating pyrometer. The proportion of water was determined gravimetrically and the dry molecular weight of the stack gas determined by E.P.A. Method 3. Stack velocities and gas volumetric flow rate were calculated using E.P.A. Method 2.

**TOTAL PARTICULATE EMISSIONS:** A CARB Method 5 sampling train was utilized to determine the total particulate emission from the cyclones. The sample train consisted of a stainless steel nozzle, a heated stainless steel probe, a heated glass fiber filter and cooled impingers. After the weight is obtained from the filter, probe and nozzle rinses; the total solids in the impingers is added to the front-end catch to satisfy SJVUAPCD rules.

**PARTICULE SIZE DISTRIBUTION:** A sample was taken isokinetically from the stack using a GII cascade impactor. A modified CARB Method 501 was utilized. The impactor consisted of two (2) slotted discs, a back up filter and cooled impingers. The nozzle, preseparator cyclone and the first two (2) discs are +10 $\mu$  and the backup filter, probe and impingers are -10 $\mu$ . The total weights obtained from each fraction were added together to obtain the total particulate weight. The total weight was used to determine the % of the +10 $\mu$  and the -10 $\mu$  fraction. The total weight obtained from the total particulate runs are used to determine the +10 $\mu$  and the -10 $\mu$  results reported in grains/dscf, lb/hr and lb/bale.

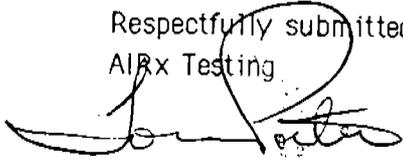
**LEAK CHECKS:** Leak rates were conducted on the sampling train and the pitot tubes before and after each test. The leak check for the sampling train was done at the nozzle. Any leak rate greater than 0.02 cfm was corrected for in the volume calculations.

All calculations for lb/hr were done by using the flow rate of the stack gas. All values were calculated by using SJVUAPCD standard conditions (60°F & 29.92 in Hg).

All glassware was inspected before and after each run to insure that no breakage had occurred during the sampling. No problems were encountered during the sampling.

If you have any questions concerning the above results please contact the undersigned at 805-644-1095.

Respectfully submitted,  
AIRx Testing



Tom Porter  
Partner

cc California Cotton Ginners Association  
Attn: Roger Isom

## **II. WET TEST METHODS DATA SUMMARIES**

UNLOADING  
CYCLONE

### FIELD DATA SUMMARY

#### UNLOADING

	Run#1	Run#2	Run#3
Vlc - Volume of water collected, ml	3.5	2.2	1.6
Vm - Gas volume, meter cond., dcf	49.454	50.616	50.640
Y - Meter calibration factor	0.957	0.957	0.957
Pbar - Barometric pressure, in. Hg	29.93	29.93	29.93
Pg - Stack static pressure, in. H2O	-0.05	-0.05	-0.05
$\Delta H$ - Avg. meter press. diff., in. H2O	2.000	1.929	2.027
Tm - Absolute meter temperature, °R	552.6	558.8	558.7
Vm(std) - Standard sample gas vol., dscf	44.7799 ✓	45.3184	45.3541
Bws - Water vapor part in gas stream	0.4 ✓	0.2	0.2
CO2 - Dry concentration, volume %	0.1	0.1	0.1
O2 - Dry concentration, volume %	20.9	20.9	20.9
Md - Mol wt. stack gas, dry, g/gmole	28.844 ✓	28.844	28.844
Ms - Mol wt. stack gas, wet, g/gmole	28.805 ✓	28.820	28.826
Cp - Pitot tube coef., dimensionless	0.833	0.833	0.833
$\Delta p$ - Avg. of sq. roots of each $\Delta p$	0.359	0.363	0.371
Ts - Absolute stack Temp. °R	557.4	558.2	554.2
A - Area of stack, square feet	3.69	3.69	3.69
Qstd - Volumetric flow rate, dscfm	4225 ✓	4279	4393
An - Area of nozzle, square feet	0.0006681	0.0006681	0.0006681
t - Sampling time, minutes	60	60	60
I - Isokinetic variation, percent	97.5 ✓	97.4	95.0

### PM10 FIELD DATA SUMMARY

#### UNLOADING

	Run#1	Run#2	Run#3
Vlc - Volume of water collected, ml	--	--	--
Vm - Gas volume, meter cond., dcf	37.981	42.278	42.651
Y - Meter calibration factor	0.972	0.972	0.972
Pbar - Barometric pressure, in. Hg	29.60	29.60	29.60
Pg - Stack static pressure, in. H2O	-0.05	-0.05	-0.05
ΔH - Avg. meter press. diff., in. H2O	1.500	1.500	1.500
Tm - Absolute meter temperature, °R	544.5	548.7	548.3
Vm(std) - Standard sample gas vol., dscf	35.0201 ✓	38.6861	39.0511
Bws - Water vapor part in gas stream	0.4 ✓	0.2	0.2
CO2 - Dry concentration, volume %	0.1	0.1	0.1
O2 - Dry concentration, volume %	20.9	20.9	20.9
Md - Mol wt. stack gas, dry, g/gmole	28.844 ✓	28.844	28.844
Ms - Mol wt. stack gas, wet, g/gmole	28.805 ✓	28.820	28.826
Cp - Pitot tube coef., dimensionless	0.833	0.833	0.833
Δp - Avg. of sq. roots of each Δp	0.316	0.362	0.363
Ts - Absolute stack Temp. °R	557.4	558.2	554.5
A - Area of stack, square feet	3.69	3.69	3.69
Qstd - Volumetric flow rate, dscfm	3704 ✓	4242	4272
An - Area of nozzle, square feet	0.0006681	0.0006681	0.0006681
ø - Sampling time, minutes	60	60	60
I - Isokinetic variation, percent	87.0 ✓	83.9	84.1

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Unloading**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **R1 - M5**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Wlc</b>	Water Condensate Weight	3.5	g		
<b>Vlc</b>	Water Condensate Volume	3.5	ml		
<b>Vm</b>	Metered Sample Gas Volume	49.454	dcf		
<b>Lp</b>	Avg. Leak Rate	0.006	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	49.454	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.957			
<b>Pbar</b>	Barometric Pressure	29.93	in. Hg		
<b>Pg</b>	Static Pressure	-0.05	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	29.93	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	2.000	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	92.6	deg. F	552.6	deg. R
<b>Vm(std)</b>	Sample Gas Volume	44.7799	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	44.9427	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.1628	scf		
<b>Bws</b>	Water Content of Stack Gas	0.004		0.362	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.805	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.833			
<b>Del. P</b>	Velocity Head, Average Square Root	0.359	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	97.4	deg. F	557.4	deg. R
<b>As</b>	Area of Stack	3.69	sq ft	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	20.54	ft/sec		
<b>Qa</b>	Actual Flow Rate	4.545	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	4.528	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	4.225	dscfm		
<b>An</b>	Nozzle Area	0.0006681	sq ft	0.350	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	97.5	%		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Unloading**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **R2 - M5**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Wlc</b>	Water Condensate Weight	2.2	g		
<b>Vlc</b>	Water Condensate Volume	2.2	ml		
<b>Vm</b>	Metered Sample Gas Volume	50.616	dcf		
<b>Lp</b>	Avg. Leak Rate	0.003	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	50.616	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.957			
<b>Pbar</b>	Barometric Pressure	29.93	in. Hg		
<b>Pg</b>	Static Pressure	-0.05	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	29.93	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	1.929	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	98.8	deg. F	558.8	deg. R
<b>Vm(std)</b>	Sample Gas Volume	45.3184	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	45.4208	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.1023	scf		
<b>Bws</b>	Water Content of Stack Gas	0.002		0.225	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.820	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.833			
<b>Del. P</b>	Velocity Head, Average Square Root	0.363	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	98.2	deg. F	558.2	deg. R
<b>As</b>	Area of Stack	3.69	sq ft	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	20.81	ft/sec		
<b>Qa</b>	Actual Flow Rate	4,603	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	4,592	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	4,279	dscfm		
<b>An</b>	Nozzle Area	0.0006681	sq ft	0.350	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	97.4	%		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Unloading**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **R3 - M5**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Wlc</b>	Water Condensate Weight	1.6	g		
<b>Vlc</b>	Water Condensate Volume	1.6	ml		
<b>Vm</b>	Metered Sample Gas Volume	50.640	dcf		
<b>Lp</b>	Avg. Leak Rate	0.004	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	50.640	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.957			
<b>Pbar</b>	Barometric Pressure	29.93	in. Hg		
<b>Pg</b>	Static Pressure	-0.05	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	29.93	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	2.027	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	98.7	deg. F	558.7	deg. R
<b>Vm(std)</b>	Sample Gas Volume	45.3541	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	45.4286	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.0744	scf		
<b>Bws</b>	Water Content of Stack Gas	0.002		0.164	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.826	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.833			
<b>Del. P</b>	Velocity Head, Average Square Root	0.371	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	94.2	deg. F	554.2	deg. R
<b>As</b>	Area of Stack	3.69	sq ft	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	21.19	ft/sec		
<b>Qa</b>	Actual Flow Rate	4,688	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	4,681	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	4,393	dscfm		
<b>An</b>	Nozzle Area	0.0006681	sq ft	0.350	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	95.0	%		

AIRx Testing - 1994

Client: **Stratford 6in**  
 Site: **Stratford**  
 Unit: **Unloading Fan**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **Run #1 PM-10**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Vm</b>	Metered Sample Gas Volume	<b>37.981</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	37.981	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.972</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.60</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.05</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.60	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.500</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	84.5	deg. F	<b>544.5</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>35.0201</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	35.1473	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.004</b>		<b>0.362</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.805</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.316</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>97.4</b>	deg. F	<b>557.4</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	18.21	ft/sec		
<b>Qa</b>	Actual Flow Rate	4,029	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	4,014	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>3,704</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0006681</b>	<b>sq ft</b>	0.350	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>86.95</b>	<b>%</b>		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Unloading Fan**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **Run #2 PM-10**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Vm</b>	Metered Sample Gas Volume	<b>42.278</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	42.278	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.972</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.60</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.05</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.60	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.500</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	88.7	deg. F	<b>548.7</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>38.6861</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	38.7733	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.002</b>		<b>0.225</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.820</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.362</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>98.2</b>	deg. F	<b>558.2</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	20.85	ft/sec		
<b>Qa</b>	Actual Flow Rate	4,613	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	4,603	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>4,242</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0006681</b>	<b>sq ft</b>	0.350	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>83.88</b>	<b>%</b>		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Unloading Fan**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **Run #3 PM-10**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Vm</b>	Metered Sample Gas Volume	<b>42.651</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	42.651	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.972</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.60</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.05</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.60	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.500</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	88.3	deg. F	<b>548.3</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>39.0511</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	39.1153	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.002</b>		<b>0.164</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.826</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.363</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>94.5</b>	deg. F	<b>554.5</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	20.85	ft/sec		
<b>Qa</b>	Actual Flow Rate	4,613	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	4,605	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>4,272</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0006681</b>	<b>sq ft</b>	0.350	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>84.08</b>	<b>%</b>		

HULL TRASH  
CYCLONE

### FIELD DATA SUMMARY

#### HULL TRASH

	Run# 1	Run# 2	Run# 3
Vlc - Volume of water collected, ml	12.1	1.6	6.3
Vm - Gas volume, meter cond., dcf	38.436	39.141	39.853
Y - Meter calibration factor	0.957	0.957	0.957
Pbar - Barometric pressure, in. Hg	29.93	29.93	29.93
Pg - Stack static pressure, in. H2O	-0.01	-0.01	-0.01
$\Delta H$ - Avg. meter press. diff., in. H2O	1.230	1.313	1.330
Tm - Absolute meter temperature, °R	529.3	545.0	549.7
Vm(std) - Standard sample gas vol., dscf	36.2636 ✓	35.8744	36.2157
Bws - Water vapor part in gas stream	1.5 ✓	0.2	0.8
CO2 - Dry concentration, volume %	0.1	0.1	0.1
O2 - Dry concentration, volume %	20.9	20.9	20.9
Md - Mol wt. stack gas, dry, g/gmole	28.844 ✓	28.844	28.844
Ms - Mol wt. stack gas, wet, g/gmole	28.678 ✓	28.822	28.757
Cp - Pitot tube coef., dimensionless	0.833	0.833	0.833
$\Delta p$ - Avg. of sq. roots of each $\Delta p$	0.537	0.555	0.559
Ts - Absolute stack Temp. °R	550.6	555.4	561.2
A - Area of stack, square feet	3.69	3.69	3.69
Qstd - Volumetric flow rate, dscfm	6307 ✓	6556	6542
An - Area of nozzle, square feet	0.0003547	0.0003547	0.0003547
$\theta$ - Sampling time, minutes	60	60	60
I - Isokinetic variation, percent	99.6 ✓	94.8	95.9

### PM10 FIELD DATA SUMMARY

HULL TRASH	Run#1	Run#2	Run#3
Vlc - Volume of water collected, ml	--	--	--
Vm - Gas volume, meter cond., dcf	37.264	38.808	37.319
Y - Meter calibration factor	0.972	0.972	0.972
Pbar - Barometric pressure, in. Hg	29.93	29.93	29.93
Pg - Stack static pressure, in. H2O	-0.01	-0.01	-0.01
$\Delta H$ - Avg. meter press. diff., in. H2O	1.261	1.390	1.329
Tm - Absolute meter temperature, °R	527.4	540.8	536.9
Vm(std) - Standard sample gas vol., dscf	35.8477	36.4212	35.2686
Bws - Water vapor part in gas stream	1.5 ✓	0.2	0.8
CO2 - Dry concentration, volume %	0.1	0.1	0.1
O2 - Dry concentration, volume %	20.9	20.9	20.9
Md - Mol wt. stack gas, dry, g/gmole	28.844 ✓	28.844	28.844
Ms - Mol wt. stack gas, wet, g/gmole	28.678 ✓	28.822	28.757
Cp - Pitot tube coef., dimensionless	0.833	0.833	0.833
$\Delta p$ - Avg. of sq. roots of each $\Delta p$	0.532	0.555	0.537
Ts - Absolute stack Temp. °R	549.9	561.2	556.1
A - Area of stack, square feet	3.69	3.69	3.69
Qstd - Volumetric flow rate, dscfm	6246 ✓	6522	6313
An - Area of nozzle, square feet	0.0003409	0.0003409	0.0003409
$\theta$ - Sampling time, minutes	60	60	60
I - Isokinetic variation, percent	103.5 ✓	100.7	100.7

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Hull Trash**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **R1 - M5**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Wlc</b>	Water Condensate Weight	12.1	g		
<b>Vlc</b>	Water Condensate Volume	12.1	ml		
<b>Vm</b>	Metered Sample Gas Volume	38.436	dcf		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	38.436	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.957			
<b>Pbar</b>	Barometric Pressure	29.93	in. Hg		
<b>Pg</b>	Static Pressure	-0.01	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	29.93	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	1.230	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	69.3	deg. F	529.3	deg. R
<b>Vm(std)</b>	Sample Gas Volume	36.2636	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	36.8264	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.5629	scf		
<b>Bws</b>	Water Content of Stack Gas	0.015		1.528	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.678	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.833			
<b>Del. P</b>	Velocity Head, Average Square Root	0.537	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	90.6	deg. F	550.6	deg. R
<b>As</b>	Area of Stack	3.69	sq ft	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	30.64	ft/sec		
<b>Qa</b>	Actual Flow Rate	6,779	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	6,676	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	6,307	dscfm		
<b>An</b>	Nozzle Area	0.0003547	sq ft	0.255	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	99.6	%		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Hull Trash**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **R2 - M5**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Wlc</b>	Water Condensate Weight	1.6	g		
<b>Vlc</b>	Water Condensate Volume	<b>1.6</b>	<b>ml</b>		
<b>Vm</b>	Metered Sample Gas Volume	<b>39.141</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.003	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	39.141	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.957</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.93</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.01</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.93	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.313</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	85.0	deg. F	<b>545.0</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>35.8744</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	35.9488	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.0744	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.002</b>		<b>0.207</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.822</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.555</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>95.4</b>	deg. F	<b>555.4</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	31.71	ft/sec		
<b>Qa</b>	Actual Flow Rate	7,015	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	7,000	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>6,556</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0003547</b>	<b>sq ft</b>	0.255	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>94.8</b>	<b>%</b>		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Hull Trash**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **R3 - M5**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Wlc</b>	Water Condensate Weight	6.3	g		
<b>Vlc</b>	Water Condensate Volume	<b>6.3</b>	<b>ml</b>		
<b>Vm</b>	Metered Sample Gas Volume	<b>39.853</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.004	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	39.853	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.957</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.93</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.01</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.93	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.330</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	89.7	deg. F	<b>549.7</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>36.2157</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	36.5087	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.2931	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.008</b>		<b>0.803</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.757</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.559</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>101.2</b>	deg. F	<b>561.2</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	32.16	ft/sec		
<b>Qa</b>	Actual Flow Rate	7,115	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	7,058	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>6.542</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0003547</b>	<b>sq ft</b>	0.255	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>95.9</b>	<b>%</b>		

Client: **Stratford Growers**  
 Site: **Stratford**  
 Unit: **Hull Trash**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **R1-PM10**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Vm</b>	Metered Sample Gas Volume	<b>37.264</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	37.264	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.972</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.93</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.01</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.93	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.261</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	67.4	deg. F	<b>527.4</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>35.8477</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	36.4040	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.015</b>		<b>1.528</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.678</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.532</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>89.9</b>	deg. F	<b>549.9</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	30.31	ft/sec		
<b>Qa</b>	Actual Flow Rate	6,706	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	6,603	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>6.246</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0003409</b>	<b>sq ft</b>	0.250	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>103.46</b>	<b>%</b>		

Client: **Stratford Growers**  
 Site: **Stratford**  
 Unit: **Hull Trash**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **R2-PM10**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Vm</b>	Metered Sample Gas Volume	<b>38.808</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	38.808	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.972</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.93</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.01</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.93	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.390</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	80.8	deg. F	<b>540.8</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>36.4212</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	36.4967	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.002</b>		<b>0.207</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.822</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.555</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>101.2</b>	deg. F	<b>561.2</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	31.87	ft/sec		
<b>Qa</b>	Actual Flow Rate	7,051	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	7,036	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>6.522</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0003409</b>	<b>sq ft</b>	0.250	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>100.66</b>	<b>%</b>		

Client: **Stratford Growers**  
 Site: **Stratford**  
 Unit: **Hull Trash**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **R3-PM10**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Vm</b>	Metered Sample Gas Volume	<b>37.319</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	37.319	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.972</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.93</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.01</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.93	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.329</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	76.9	deg. F	<b>536.9</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>35.2686</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	35.5541	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.008</b>		<b>0.803</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.757</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.537</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>96.1</b>	deg. F	<b>556.1</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	30.76	ft/sec		
<b>Qa</b>	Actual Flow Rate	6,804	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	6,749	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>6,313</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0003409</b>	<b>sq ft</b>	0.250	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>100.71</b>	<b>%</b>		

LINT CLEANER -  
CYCLONE

## FIELD DATA SUMMARY

### LINT CLEANER

	Run#1	Run#2	Run#3
Vlc - Volume of water collected, ml	6.9	6.2	1.4
Vm - Gas volume, meter cond., dcf	37.076	38.934	37.559
Y - Meter calibration factor	0.957	0.957	0.957
Pbar - Barometric pressure, in. Hg	29.90	29.95	29.95
Pg - Stack static pressure, in. H2O	-0.15	-0.15	-0.15
$\Delta H$ - Avg. meter press. diff., in. H2O	1.123	1.310	1.165
Tm - Absolute meter temperature, °R	552.8	524.8	538.5
Vm(std) - Standard sample gas vol., dscf	33.4563 ✓	37.0833	34.8506
Bws - Water vapor part in gas stream	1.0 ✓	0.8	0.2
CO2 - Dry concentration, volume %	0.1	0.1	0.1
O2 - Dry concentration, volume %	20.9	20.9	20.9
Md - Mol wt. stack gas, dry, g/gmole	28.844 ✓	28.844	28.844
Ms - Mol wt. stack gas, wet, g/gmole	28.741 ✓	28.760	28.824
Cp - Pitot tube coef., dimensionless	0.833	0.833	0.833
$\Delta p$ - Avg. of sq. roots of each $\Delta p$	0.550	0.581	0.566
Ts - Absolute stack Temp. °R	549.5	533.2	541.8
A - Area of stack, square feet	4.91	4.91	4.91
Qstd - Volumetric flow rate, dscfm	8637 ✓	9293	9020
An - Area of nozzle, square feet	0.0003274	0.0003274	0.0003274
$t$ - Sampling time, minutes	60	60	60
l - Isokinetic variation, percent	96.8 ✓	99.7	96.6

### PM10 FIELD DATA SUMMARY

Lint Fan	Run#1	Run#2	Run#3
Vlc - Volume of water collected, ml	--	--	--
Vm - Gas volume, meter cond., dcf	36.419	34.570	36.387
Y - Meter calibration factor	0.972	0.972	0.972
Pbar - Barometric pressure, in. Hg	29.60	29.60	29.60
Pg - Stack static pressure, in. H2O	-0.15	-0.15	-0.15
$\Delta H$ - Avg. meter press. diff., in. H2O	1.500	1.500	1.500
Tm - Absolute meter temperature, °R	541.5	523.7	532.4
Vm(std) - Standard sample gas vol., dscf	33.7633 ✓	33.1431	34.3118
Bws - Water vapor part in gas stream	1.0 ✓	0.8	0.2
CO2 - Dry concentration, volume %	0.1	0.1	0.1
O2 - Dry concentration, volume %	20.9	20.9	20.9
Md - Mol wt. stack gas, dry, g/gmole	28.844 ✓	28.844	28.844
Ms - Mol wt. stack gas, wet, g/gmole	28.741 ✓	28.760	28.824
Cp - Pitot tube coef., dimensionless	0.833	0.833	0.833
$\Delta p$ - Avg. of sq. roots of each $\Delta p$	0.530	0.550	0.602
Ts - Absolute stack Temp. °R	550.4	533.2	541.8
A - Area of stack, square feet	4.91	4.91	4.91
Qstd - Volumetric flow rate, dscfm	8282 ✓	8737	9527
An - Area of nozzle, square feet	0.0004276	0.0002592	0.0002592 ✓
$\phi$ - Sampling time, minutes	60	60	60
I - Isokinetic variation, percent	78.0 ✓	119.7	113.7

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Lint Cleaner**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **R1 - M5**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Wlc</b>	Water Condensate Weight	6.9	g		
<b>Vlc</b>	Water Condensate Volume	6.9	ml		
<b>Vm</b>	Metered Sample Gas Volume	37.076	dcf		
<b>Lp</b>	Avg. Leak Rate	0.003	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	37.076	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.957			
<b>Pbar</b>	Barometric Pressure	29.90	in. Hg		
<b>Pg</b>	Static Pressure	-0.15	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	29.89	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	1.123	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	92.8	deg. F	552.8	deg. R
<b>Vm(std)</b>	Sample Gas Volume	33.4563	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	33.7772	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.3210	scf		
<b>Bws</b>	Water Content of Stack Gas	0.010		0.950	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.741	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.833			
<b>Del. P</b>	Velocity Head, Average Square Root	0.550	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	89.5	deg. F	549.5	deg. R
<b>As</b>	Area of Stack	4.91	sq ft	30.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	31.32	ft/sec		
<b>Qa</b>	Actual Flow Rate	9,224	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	9,136	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	8,637	dscfm		
<b>An</b>	Nozzle Area	0.0003274	sq ft	0.245	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	96.8	%		

AIRx Testing -1994

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Lint Cleaner**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **R2 - M5**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Wlc</b>	Water Condensate Weight	6.2	g		
<b>Vlc</b>	Water Condensate Volume	<b>6.2</b>	<b>ml</b>		
<b>Vm</b>	Metered Sample Gas Volume	<b>38.934</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	38.934	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.957</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.95</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.15</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.94	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.310</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	64.8	deg. F	<b>524.8</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>37.0833</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	37.3717	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.2884	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.008</b>		<b>0.772</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.760</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.581</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>73.2</b>	deg. F	<b>533.2</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>4.91</b>	<b>sq ft</b>	30.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	32.58	ft/sec		
<b>Qa</b>	Actual Flow Rate	9,596	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	9,522	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>9,293</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0003274</b>	<b>sq ft</b>	0.245	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>99.7</b>	<b>%</b>		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Lint Cleaner**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **R3 - M5**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Wlc</b>	Water Condensate Weight	1.4	g		
<b>Vlc</b>	Water Condensate Volume	1.4	ml		
<b>Vm</b>	Metered Sample Gas Volume	37.559	dcf		
<b>Lp</b>	Avg. Leak Rate	0.003	cf		
<b>Vh</b>	Leak Corrected Sample Gas Volume	37.559	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.957			
<b>Pbar</b>	Barometric Pressure	29.95	in. Hg		
<b>Pg</b>	Static Pressure	-0.15	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	29.94	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	1.165	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	78.5	deg. F	538.5	deg. R
<b>Vm(std)</b>	Sample Gas Volume	34.8506	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	34.9157	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.0651	scf		
<b>Bws</b>	Water Content of Stack Gas	0.002		0.187	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.824	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.833			
<b>Del. P</b>	Velocity Head, Average Square Root	0.566	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	81.8	deg. F	541.8	deg. R
<b>As</b>	Area of Stack	4.91	sq ft	30.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	31.95	ft/sec		
<b>Qa</b>	Actual Flow Rate	9,410	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	9,392	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	9,020	dscfm		
<b>An</b>	Nozzle Area	0.0003274	sq ft	0.245	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	96.6	%		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Lint Fan II**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **Run #1 PM-10**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>V<sub>m</sub></b>	Metered Sample Gas Volume	<b>36.419</b>	<b>dcf</b>		
<b>L<sub>r</sub></b>	Avg. Leak Rate	0.000	cf		
<b>V<sub>r</sub></b>	Leak Corrected Sample Gas Volume	36.419	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.972</b>			
<b>P<sub>bar</sub></b>	Barometric Pressure	<b>29.60</b>	<b>in. Hg</b>		
<b>P<sub>g</sub></b>	Static Pressure	<b>-0.15</b>	<b>in. H2O</b>		
<b>P<sub>s</sub></b>	Stack Pressure, Absolute	29.59	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.500</b>	<b>in. H2O</b>		
<b>T<sub>m</sub></b>	Dry Gas Meter Temperature, Average	81.5	deg. F	<b>541.5</b>	<b>deg. R</b>
<b>V<sub>m</sub>(std)</b>	Sample Gas Volume	<b>33.7633</b>	<b>dscf</b>		
<b>V<sub>m</sub>(wet)</b>	Sample Gas Volume, Wet	34.0871	scf		
<b>B<sub>ws</sub></b>	Water Content of Stack Gas	<b>0.010</b>		<b>0.950</b>	<b>%</b>
<b>CO<sub>2</sub></b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O<sub>2</sub></b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N<sub>2</sub></b>	Nitrogen, Dry	79.1	%		
<b>M<sub>d</sub></b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>M<sub>s</sub></b>	Molecular Wt. of Stack Gas, Wet	<b>28.741</b>	<b>lb/lb mole</b>		
<b>P<sub>cp</sub></b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.530</b>	<b>in. H2O</b>		
<b>T<sub>s</sub></b>	Stack Gas Temperature, Average	<b>90.4</b>	deg. F	<b>550.4</b>	<b>deg. R</b>
<b>A<sub>s</sub></b>	Area of Stack	<b>4.91</b>	<b>sq ft</b>	30.0	in. dia.
<b>V<sub>s</sub></b>	Stack Gas Velocity	30.39	ft/sec		
<b>Q<sub>a</sub></b>	Actual Flow Rate	8,949	cfm		
<b>Q<sub>d</sub></b>	Actual Flow Rate, Dry	8,864	dcfm		
<b>Q<sub>(std)</sub></b>	Stack Gas Flow Rate	<b>8,282</b>	<b>dscfm</b>		
<b>A<sub>n</sub></b>	Nozzle Area	<b>0.0004276</b>	<b>sq ft</b>	0.280	in. dia.
<b>T<sub>eta</sub></b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>78.00</b>	<b>%</b>		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Lint Fan II**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **Run #2 PM-10**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Vm</b>	Metered Sample Gas Volume	<b>34.570</b>	<b>dcf</b>		
<i>Lp</i>	Avg. Leak Rate	0.000	cf		
<i>Vn</i>	Leak Corrected Sample Gas Volume	34.570	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.972</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.60</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.15</b>	<b>in. H2O</b>		
<i>Ps</i>	Stack Pressure, Absolute	29.59	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.500</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	63.7	deg. F	<b>523.7</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>33.1431</b>	<b>dscf</b>		
<i>Vm(wet)</i>	Sample Gas Volume, Wet	33.4010	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.008</b>		<b>0.772</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<i>N2</i>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.760</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.550</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>73.2</b>	deg. F	<b>533.2</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>4.91</b>	<b>sq ft</b>	30.0	in. dia.
<i>Vs</i>	Stack Gas Velocity	30.99	ft/sec		
<i>Qa</i>	Actual Flow Rate	9,129	cfm		
<i>Qad</i>	Actual Flow Rate, Dry	9,058	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>8,737</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0002592</b>	<b>sq ft</b>	0.218	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>119.74</b>	<b>%</b>		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Lint Fan II**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **Run #3 PM-10**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Vm</b>	Metered Sample Gas Volume	<b>36.387</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	36.387	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.972</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.60</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.15</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.59	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.500</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	72.4	deg. F	<b>532.4</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>34.3118</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	34.3761	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.002</b>		<b>0.187</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.824</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.602</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>81.8</b>	deg. F	<b>541.8</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>4.91</b>	<b>sq ft</b>	30.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	34.15	ft/sec		
<b>Qa</b>	Actual Flow Rate	10,057	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	10,038	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>9,527</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0002592</b>	<b>sq ft</b>	0.218	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>113.67</b>	<b>%</b>		

MOTES TRASH  
CYCLONE

### FIELD DATA SUMMARY

#### NOTES

	Run#1	Run#2	Run#3
Vlc - Volume of water collected, ml	3.2	3.3	3.0
Vm - Gas volume, meter cond., dcf	37.198	41.504	42.069
Y - Meter calibration factor	0.957	0.957	0.957
Pbar - Barometric pressure, in. Hg	29.96	29.95	29.95
Pg - Stack static pressure, in. H2O	-0.02	-0.02	-0.02
$\Delta H$ - Avg. meter press. diff., in. H2O	1.346	1.409	1.504
Tm - Absolute meter temperature, °R	549.3	558.0	562.9
Vm(std) - Standard sample gas vol., dscf	33.8612 ✓	37.1844	37.3760
Bws - Water vapor part in gas stream	0.4 ✓	0.4	0.4
CO2 - Dry concentration, volume %	0.1	0.1	0.1
O2 - Dry concentration, volume %	20.9	20.9	20.9
Md - Mol wt. stack gas, dry, g/gmole	28.844 ✓	28.844	28.844
Ms - Mol wt. stack gas, wet, g/gmole	28.797 ✓	28.799	28.804
Cp - Pitot tube coef., dimensionless	0.833	0.833	0.833
$\Delta p$ - Avg. of sq. roots of each $\Delta p$	0.187	0.192	0.195
Ts - Absolute stack Temp. °R	547.4	548.8	550.7
A - Area of stack, square feet	3.69	3.69	3.69
Qstd - Volumetric flow rate, dscfm	2221 ✓	2273	2309
An - Area of nozzle, square feet	0.0010704	0.0107040	0.0010704
$\theta$ - Sampling time, minutes	60	60	60
l - Isokinetic variation, percent	87.5 ✓	93.9	92.9

### PM10 FIELD DATA SUMMARY

NOTES	Run#1	Run#2	Run#3
Vlc - Volume of water collected, ml	--	--	--
Vm - Gas volume, meter cond., dcf	35.381	38.519	39.465
Y - Meter calibration factor	0.972	0.972	0.972
Pbar - Barometric pressure, in. Hg	29.96	29.95	29.95
Pg - Stack static pressure, in. H2O	-0.02	-0.02	-0.02
$\Delta H$ - Avg. meter press. diff., in. H2O	1.200	1.200	1.200
Tm - Absolute meter temperature, °R	541.0	548.1	550.8
Vm(std) - Standard sample gas vol., dscf	33.2048 ✓	35.6734	36.3726
Bws - Water vapor part in gas stream	0.4 ✓	0.4	0.4
CO2 - Dry concentration, volume %	0.1	0.1	0.1
O2 - Dry concentration, volume %	20.9	20.9	20.9
Md - Mol wt. stack gas, dry, g/gmole	28.844 ✓	28.844	28.844
Ms - Mol wt. stack gas, wet, g/gmole	28.797 ✓	28.799	28.799
Cp - Pitot tube coef., dimensionless	0.833	0.833	0.833
$\Delta p$ - Avg. of sq. roots of each $\Delta p$	0.186	0.187	0.192
Ts - Absolute stack Temp. °R	547.4	548.4	550.7
A - Area of stack, square feet	3.69	3.69	3.69
Qstd - Volumetric flow rate, dscfm	2206 ✓	2219	2269
An - Area of nozzle, square feet	0.0007670	0.0007670	0.0007670
$\theta$ - Sampling time, minutes	60	60	60
I - Isokinetic variation, percent	120.6 ✓	128.8	128.4

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Notes**

Date: **10/27/94**  
 Type: **T std = 60 F**  
 Run: **R1 - M5**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Wlc</b>	Water Condensate Weight	3.2	g		
<b>Vlc</b>	Water Condensate Volume	3.2	ml		
<b>Vm</b>	Metered Sample Gas Volume	37.198	dcf		
<b>Lp</b>	Avg. Leak Rate	0.002	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	37.198	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.957			
<b>Pbar</b>	Barometric Pressure	29.96	in. Hg		
<b>Pg</b>	Static Pressure	-0.02	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	29.96	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	1.346	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	89.3	deg. F	549.3	deg. R
<b>Vm(std)</b>	Sample Gas Volume	33.8612	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	34.0100	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.1489	scf		
<b>Bws</b>	Water Content of Stack Gas	0.004		0.438	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.797	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.833			
<b>Del. P</b>	Velocity Head, Average Square Root	0.187	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	87.4	deg. F	547.4	deg. R
<b>As</b>	Area of Stack	3.69	sq ft	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	10.60	ft/sec		
<b>Qa</b>	Actual Flow Rate	2,345	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	2,335	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	2.221	dscfm		
<b>An</b>	Nozzle Area	0.0010704	sq ft	0.443	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	87.5	%		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Notes**

Date: **10/27/94**  
 Type: **T std = 60 F**  
 Run: **R2 - M5**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Wlc</b>	Water Condensate Weight	3.3	g		
<b>Vlc</b>	Water Condensate Volume	3.3	ml		
<b>Vm</b>	Metered Sample Gas Volume	41.504	dcf		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vh</b>	Leak Corrected Sample Gas Volume	41.504	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.957			
<b>Pbar</b>	Barometric Pressure	29.95	in. Hg		
<b>Pg</b>	Static Pressure	-0.02	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	29.95	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	1.409	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	98.0	deg. F	558.0	deg. R
<b>Vm(std)</b>	Sample Gas Volume	37.1844	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	37.3380	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.1535	scf		
<b>Bws</b>	Water Content of Stack Gas	0.004		0.411	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.799	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.833			
<b>Del. P</b>	Velocity Head, Average Square Root	0.192	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	88.8	deg. F	548.8	deg. R
<b>As</b>	Area of Stack	3.69	sq ft	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	10.88	ft/sec		
<b>Qa</b>	Actual Flow Rate	2,407	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	2,397	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	2,273	dscfm		
<b>An</b>	Nozzle Area	0.0010704	sq ft	0.443	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	93.9	%		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Notes**

Date: **10/27/94**  
 Type: **T std = 60 F**  
 Run: **R3 - M5**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Wlc</b>	Water Condensate Weight	3.0	g		
<b>Vlc</b>	Water Condensate Volume	3.0	ml		
<b>Vm</b>	Metered Sample Gas Volume	42.069	dcf		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	42.069	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.957			
<b>Pbar</b>	Barometric Pressure	29.95	in. Hg		
<b>Pg</b>	Static Pressure	-0.02	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	29.95	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	1.504	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	102.9	deg. F	562.9	deg. R
<b>Vm(std)</b>	Sample Gas Volume	37.3760	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	37.5155	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.1396	scf		
<b>Bws</b>	Water Content of Stack Gas	0.004		0.372	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.804	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.833			
<b>Del. P</b>	Velocity Head, Average Square Root	0.195	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	90.7	deg. F	550.7	deg. R
<b>As</b>	Area of Stack	3.69	sq ft	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	11.08	ft/sec		
<b>Qa</b>	Actual Flow Rate	2.452	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	2.443	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	2,309	dscfm		
<b>An</b>	Nozzle Area	0.0010704	sq ft	0.443	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	92.9	%		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Notes**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **Run #1 PM-10**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Vm</b>	Metered Sample Gas Volume	<b>35.381</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vh</b>	Leak Corrected Sample Gas Volume	35.381	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.972</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.96</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.02</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.96	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.200</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	81.0	deg. F	<b>541.0</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>33.2048</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	33.3508	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.004</b>		<b>0.438</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.797</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.186</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>87.4</b>	deg. F	<b>547.4</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	10.53	ft/sec		
<b>Qa</b>	Actual Flow Rate	2,329	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	2,319	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>2,206</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.000767</b>	<b>sq ft</b>	0.375	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>120.61</b>	<b>%</b>		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Notes**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **Run 2 PM-10**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Vm</b>	Metered Sample Gas Volume	<b>38.519</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	38.519	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.972</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.95</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.02</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.95	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.200</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	88.1	deg. F	<b>548.1</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>35.6734</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	35.8207	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.004</b>		<b>0.411</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.799</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.187</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>88.4</b>	deg. F	<b>548.4</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	10.61	ft/sec		
<b>Qa</b>	Actual Flow Rate	2,348	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	2,338	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>2,219</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.000767</b>	<b>sq ft</b>	0.375	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>128.81</b>	<b>%</b>		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Notes**

Date: **10/26/94**  
 Type: **T std = 60 F**  
 Run: **Run #3 PM-10**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Vm</b>	Metered Sample Gas Volume	<b>39.465</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	39.465	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.972</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.95</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.02</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.95	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.200</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	90.8	deg. F	<b>550.8</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>36.3726</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	36.5227	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.004</b>		<b>0.411</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.799</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.192</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>90.7</b>	deg. F	<b>550.7</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	10.90	ft/sec		
<b>Qa</b>	Actual Flow Rate	2,411	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	2,401	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>2,269</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.000767</b>	<b>sq ft</b>	0.375	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>128.41</b>	<b>%</b>		

CYCLONE ROBBER  
SYSTEM

### FIELD DATA SUMMARY

#### CYCLONE ROBBER

	Run#1	Run#2	Run#3
Vlc - Volume of water collected, ml	6.2	0.1	1.9
Vm - Gas volume, meter cond., dcf	44.042	45.677	46.476
Y - Meter calibration factor	0.957	0.957	0.957
Pbar - Barometric pressure, in. Hg	29.95	29.95	29.95
Pg - Stack static pressure, in. H2O	-0.10	-0.10	-0.10
$\Delta H$ - Avg. meter press. diff., in. H2O	1.590	1.688	1.841
Tm - Absolute meter temperature, °R	560.8	563.2	561.1
Vm(std) - Standard sample gas vol., dscf	39.2825	40.5757	41.4573
Bws - Water vapor part in gas stream	0.7	<0.1	0.2
CO2 - Dry concentration, volume %	0.1	0.1	0.1
O2 - Dry concentration, volume %	20.9	20.9	20.9
Md - Mol wt. stack gas, dry, g/gmole	28.844	28.844	28.844
Ms - Mol wt. stack gas, wet, g/gmole	28.765	28.843	28.821
Cp - Pitot tube coef., dimensionless	0.833	0.833	0.833
$\Delta p$ - Avg. of sq. roots of each $\Delta p$	0.514	0.531	0.554
Ts - Absolute stack Temp. °R	560.2	560.0	556.6
A - Area of stack, square feet	3.69	3.69	3.69
Qstd - Volumetric flow rate, dscfm	6022 ✓	6256	6544
An - Area of nozzle, square feet	0.0004276	0.0004276	0.0004276
$\theta$ - Sampling time, minutes	60	60	60
I - Isokinetic variation, percent	93.7 ✓	93.2	91.0

### PM10 FIELD DATA SUMMARY

#### CYCLONE ROBBER

	Run# 1	Run# 2	Run# 3
Vlc - Volume of water collected, ml	--	--	--
Vm - Gas volume, meter cond., dcf	44.483	41.579	46.023
Y - Meter calibration factor	0.972	0.972	0.972
Pbar - Barometric pressure, in. Hg	29.92	29.92	29.92
Pg - Stack static pressure, in. H2O	-0.02	-0.02	-0.02
$\Delta H$ - Avg. meter press. diff., in. H2O	1.500	1.500	1.500
Tm - Absolute meter temperature, °R	552.3	547.7	549.8
Vm(std) - Standard sample gas vol., dscf	40.8814 ✓	38.5236	42.4762
Bws - Water vapor part in gas stream	0.7 ✓	<0.1	0.2
CO2 - Dry concentration, volume %	0.1	0.1	0.1
O2 - Dry concentration, volume %	20.9	20.9	20.9
Md - Mol wt. stack gas, dry, g/gmole	28.844	28.844	28.844
Ms - Mol wt. stack gas, wet, g/gmole	28.765	28.843	28.821
Cp - Pitot tube coef., dimensionless	0.833	0.833	0.833
$\Delta p$ - Avg. of sq. roots of each $\Delta p$	0.514	0.482	0.531
Ts - Absolute stack Temp. °R	560.1	560.2	556.4
A - Area of stack, square feet	3.69	3.69	3.69
Qstd - Volumetric flow rate, dscfm	6020 ✓	5678	6263
An - Area of nozzle, square feet	0.0004276	0.0004276	0.0004276
$\theta$ - Sampling time, minutes	60	60	60
I - Isokinetic variation, percent	97.6 ✓	97.5	97.5

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Cyclone Robber**

Date: **10/27/94**  
 Type: **T std = 60 F**  
 Run: **R1-M5**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Wlc</b>	Water Condensate Weight	6.2	g		
<b>Vlc</b>	Water Condensate Volume	6.2	ml		
<b>Vm</b>	Metered Sample Gas Volume	44.042	dcf		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	44.042	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.957			
<b>Pbar</b>	Barometric Pressure	29.95	in. Hg		
<b>Pg</b>	Static Pressure	-0.1	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	29.94	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	1.590	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	100.8	deg. F	560.8	deg. R
<b>Vm(std)</b>	Sample Gas Volume	39.2825	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	39.5709	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.2884	scf		
<b>Bws</b>	Water Content of Stack Gas	0.007		0.729	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.765	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.833			
<b>Del. P</b>	Velocity Head, Average Square Root	0.514	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	100.2	deg. F	560.2	deg. R
<b>As</b>	Area of Stack	3.69	sq ft	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	29.52	ft/sec		
<b>Qa</b>	Actual Flow Rate	6,530	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	6,483	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	6,022	dscfm		
<b>An</b>	Nozzle Area	0.0004276	sq ft	0.280	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	93.7	%		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Cyclone Robber**

Date: **10/27/94**  
 Type: **T std = 60 F**  
 Run: **R2-M5**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Wlc</b>	Water Condensate Weight	0.1	g		
<b>Vlc</b>	Water Condensate Volume	<b>0.1</b>	<b>ml</b>		
<b>Vm</b>	Metered Sample Gas Volume	<b>45.677</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.004	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	45.677	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.957</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.95</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.1</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.94	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.688</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	103.2	deg. F	<b>563.2</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>40.5757</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	40.5804	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.0047	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.000</b>		<b>0.011</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.843</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.531</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>100.0</b>	deg. F	<b>560.0</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	30.44	ft/sec		
<b>Qa</b>	Actual Flow Rate	6,733	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	6,732	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>6,256</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0004276</b>	<b>sq ft</b>	0.280	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>93.2</b>	<b>%</b>		

AIRx Testing -1994

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Cyclone Robber**

Date: **10/27/94**  
 Type: **T std = 60 F**  
 Run: **R3-M5**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Wlc</b>	Water Condensate Weight	1.9	g		
<b>Vlc</b>	Water Condensate Volume	1.9	ml		
<b>Vm</b>	Metered Sample Gas Volume	46.476	dcf		
<b>Lp</b>	Avg. Leak Rate	0.007	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	46.476	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.957			
<b>Pbar</b>	Barometric Pressure	29.95	in. Hg		
<b>Pg</b>	Static Pressure	-0.1	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	29.94	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	1.841	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	101.1	deg. F	561.1	deg. R
<b>Vm(std)</b>	Sample Gas Volume	41.4573	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	41.5457	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.0884	scf		
<b>Bws</b>	Water Content of Stack Gas	0.002		0.213	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.821	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.833			
<b>Del. P</b>	Velocity Head, Average Square Root	0.554	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	96.6	deg. F	556.6	deg. R
<b>As</b>	Area of Stack	3.69	sq ft	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	31.71	ft/sec		
<b>Qa</b>	Actual Flow Rate	7,014	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	6,999	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	6,544	dscfm		
<b>An</b>	Nozzle Area	0.0004276	sq ft	0.280	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	91.0	%		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Cyclone Robber**

Date: **10/27/94**  
 Type: **T std = 60 F**  
 Run: **Run #1 PM-10**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Vm</b>	Metered Sample Gas Volume	<b>44.483</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.003	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	44.483	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.972</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.92</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.02</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.92	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.500</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	92.2	deg. F	<b>552.2</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>40.8814</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	41.1816	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.007</b>		<b>0.729</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.765</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.514</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>100.1</b>	deg. F	<b>560.1</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	29.53	ft/sec		
<b>Qa</b>	Actual Flow Rate	6,532	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	6,485	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>6.020</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0004276</b>	<b>sq ft</b>	0.280	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>97.58</b>	<b>%</b>		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Cyclone Robber**

Date: **10/27/94**  
 Type: **T std = 60 F**  
 Run: **Run #2 PM-10**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Vm</b>	Metered Sample Gas Volume	<b>41.579</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	41.579	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.972</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.92</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.02</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.92	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.500</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	87.7	deg. F	<b>547.7</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>38.5236</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	38.5278	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.000</b>		<b>0.011</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.843</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.482</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>100.2</b>	deg. F	<b>560.2</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	27.65	ft/sec		
<b>Qa</b>	Actual Flow Rate	6,118	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	6,117	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>5,678</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0004276</b>	<b>sq ft</b>	0.280	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>97.50</b>	<b>%</b>		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Cyclone Robber**

Date: **10/27/94**  
 Type: **T std = 60 F**  
 Run: **Run #3 PM-10**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Vm</b>	Metered Sample Gas Volume	<b>46.023</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	46.023	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.972</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.92</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.02</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.92	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.500</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	89.8	deg. F	<b>549.8</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>42.4762</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	42.5669	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.002</b>		<b>0.213</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.821</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.531</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>96.4</b>	deg. F	<b>556.4</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	30.36	ft/sec		
<b>Qa</b>	Actual Flow Rate	6,717	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	6,702	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>6.263</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0004276</b>	<b>sq ft</b>	0.280	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>97.46</b>	<b>%</b>		

FEEDER TRASH  
CYCLONE

### FIELD DATA SUMMARY

#### FEEDER TRASH

	Run#1	Run#2	Run#3
V <sub>lc</sub> - Volume of water collected, ml	6.5	4.7	2.2
V <sub>m</sub> - Gas volume, meter cond., dcf	46.382	47.136	45.746
Y - Meter calibration factor	0.957	0.957	0.957
P <sub>bar</sub> - Barometric pressure, in. Hg	29.90	29.90	29.90
P <sub>g</sub> - Stack static pressure, in. H <sub>2</sub> O	-0.10	-0.10	-0.10
ΔH - Avg. meter press. diff., in. H <sub>2</sub> O	1.842	1.874	1.799
T <sub>m</sub> - Absolute meter temperature, °R	529.5	540.1	547.4
V <sub>m</sub> (std) - Standard sample gas vol., dscf	43.7685	46.6085	41.7511
B <sub>ws</sub> - Water vapor part in gas stream	0.7	0.5	0.2
CO <sub>2</sub> - Dry concentration, volume %	0.1	0.1	0.1
O <sub>2</sub> - Dry concentration, volume %	20.9	20.9	20.9
M <sub>d</sub> - Mol wt. stack gas, dry, g/gmole	28.844	28.844	28.844
M <sub>s</sub> - Mol wt. stack gas, wet, g/gmole	28.770	28.790	28.817
C <sub>p</sub> - Pitot tube coef., dimensionless	0.833	0.833	0.833
Δp - Avg. of sq. roots of each Δp	0.461	0.465	0.454
T <sub>s</sub> - Absolute stack Temp. °R	534.1	538.9	544.4
A - Area of stack, square feet	3.69	3.69	3.69
Q <sub>std</sub> - Volumetric flow rate, dscfm	5523	5564	5409
A <sub>n</sub> - Area of nozzle, square feet	0.0005140	0.0005140	0.0005140
τ - Sampling time, minutes	60	60	60
I - Isokinetic variation, percent	94.7	93.7	92.3

### PM10 FIELD DATA SUMMARY

FEEDER TRASH	Run#1	Run#2	Run#3
Vlc - Volume of water collected, ml	--	--	--
Vm - Gas volume, meter cond., dcf	33.835	39.272	39.919
Y - Meter calibration factor	0.972	0.972	0.972
Pbar - Barometric pressure, in. Hg	29.90	29.90	29.90
Pg - Stack static pressure, in. H2O	-0.10	-0.10	-0.10
$\Delta H$ - Avg. meter press. diff., in. H2O	1.200	1.200	1.200
Tm - Absolute meter temperature, °R	527.8	535.4	542.3
Vm(std) - Standard sample gas vol., dscf	32.4835 ✓	37.1693	37.3055
Bws - Water vapor part in gas stream	0.7	0.5	0.2
CO2 - Dry concentration, volume %	0.1	0.1	0.1
O2 - Dry concentration, volume %	20.9	20.9	20.9
Md - Mol wt. stack gas, dry, g/gmole	28.844 ✓	28.844	28.844
Ms - Mol wt. stack gas, wet, g/gmole	28.770 ✓	28.790	28.817
Cp - Pitot tube coef., dimensionless	0.833	0.833	0.833
$\Delta p$ - Avg. of sq. roots of each $\Delta p$	0.397	0.461	0.465
Ts - Absolute stack Temp. °R	534.1	538.9	543.9
A - Area of stack, square feet	3.69	3.69	3.69
Qstd - Volumetric flow rate, dscfm	4767 ✓	5507	5549
An - Area of nozzle, square feet	0.0004276	0.0004276	0.0004276
$\theta$ - Sampling time, minutes	60	60	60
I - Isokinetic variation, percent	97.9 ✓	97.0	96.6

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Feeder Trash**

Date: **10/28/94**  
 Type: **T std = 60 F**  
 Run: **R1 - M5**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Wlc</b>	Water Condensate Weight	6.5	g		
<b>Vlc</b>	Water Condensate Volume	<b>6.5</b>	<b>ml</b>		
<b>Vm</b>	Metered Sample Gas Volume	<b>46.382</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	46.382	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.957</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.90</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.1</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.89	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.842</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	69.5	deg. F	<b>529.5</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>43.7685</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	44.0709	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.3024	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.007</b>		<b>0.686</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.770</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.461</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>74.1</b>	deg. F	<b>534.1</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	25.84	ft/sec		
<b>Qa</b>	Actual Flow Rate	5,717	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	5,678	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>5.523</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.000514</b>	<b>sq ft</b>	0.307	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>94.7</b>	<b>%</b>		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Feeder Trash**

Date: **10/28/94**  
 Type: **T std = 60 F**  
 Run: **R2 - M5**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Wlc</b>	Water Condensate Weight	4.7	g		
<b>Vlc</b>	Water Condensate Volume	<b>4.7</b>	<b>ml</b>		
<b>Vm</b>	Metered Sample Gas Volume	<b>47.136</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.004	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	47.136	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.957</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.90</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.1</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.89	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.874</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	80.1	deg. F	<b>540.1</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>43.6085</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	43.8271	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.2186	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.005</b>		<b>0.499</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.790</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.465</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>78.9</b>	deg. F	<b>538.9</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	26.22	ft/sec		
<b>Qa</b>	Actual Flow Rate	5,800	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	5,771	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>5,564</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.000514</b>	<b>sq ft</b>	0.307	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>93.7</b>	<b>%</b>		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Feeder Trash**

Date: **10/28/94**  
 Type: **T std = 60 F**  
 Run: **R3 - M5**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Wlc</b>	Water Condensate Weight	2.2	g		
<b>Vlc</b>	Water Condensate Volume	2.2	ml		
<b>Vm</b>	Metered Sample Gas Volume	45.746	dcf		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	45.746	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	0.957			
<b>Pbar</b>	Barometric Pressure	29.90	in. Hg		
<b>Pg</b>	Static Pressure	-0.1	in. H2O		
<b>Ps</b>	Stack Pressure, Absolute	29.89	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	1.799	in. H2O		
<b>Tm</b>	Dry Gas Meter Temperature, Average	87.4	deg. F	547.4	deg. R
<b>Vm(std)</b>	Sample Gas Volume	41.7511	dscf		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	41.8535	scf		
<b>Vw(std)</b>	Water Vapor Volume	0.1023	scf		
<b>Bws</b>	Water Content of Stack Gas	0.002		0.245	%
<b>CO2</b>	Carbon Dioxide, Dry	0.1	%		
<b>O2</b>	Oxygen, Dry	20.9	%		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	28.844	lb/lb mole		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	28.817	lb/lb mole		
<b>Cp</b>	Pitot Calibration Factor	0.833			
<b>Del. P</b>	Velocity Head, Average Square Root	0.454	in. H2O		
<b>Ts</b>	Stack Gas Temperature, Average	84.4	deg. F	544.4	deg. R
<b>As</b>	Area of Stack	3.69	sq ft	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	25.68	ft/sec		
<b>Qa</b>	Actual Flow Rate	5,682	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	5,668	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	5,409	dscfm		
<b>An</b>	Nozzle Area	0.000514	sq ft	0.307	in. dia.
<b>Theta</b>	Sampling Time	60	min.		
<b>I</b>	Isokinetics	92.3	%		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Trash Feed**

Date: **10/28/94**  
 Type: **T std = 60 F**  
 Run: **Run #1 PM-10**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Vm</b>	Metered Sample Gas Volume	<b>33.835</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	33.835	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.972</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.90</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.1</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.89	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.200</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	67.8	deg. F	<b>527.8</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>32.4835</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	32.7078	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.007</b>		<b>0.686</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.770</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.397</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>74.1</b>	deg. F	<b>534.1</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	22.30	ft/sec		
<b>Qa</b>	Actual Flow Rate	4,934	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	4,900	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>4.767</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0004276</b>	<b>sq ft</b>	0.280	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>97.93</b>	<b>%</b>		

AIRx Testing - 1994

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Trash Feed**

Date: **10/28/94**  
 Type: **T std = 60 F**  
 Run: **Run #2 PM-10**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Vm</b>	Metered Sample Gas Volume	<b>39.272</b>	<b>dcf</b>		
<b>Lp</b>	Avg. Leak Rate	0.000	cf		
<b>Vn</b>	Leak Corrected Sample Gas Volume	39.272	dcf		
<b>Y</b>	Dry Gas Meter Calibration Factor	<b>0.972</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.90</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.1</b>	<b>in. H2O</b>		
<b>Pg</b>	Stack Pressure, Absolute	29.89	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.200</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	75.4	deg. F	<b>535.4</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>37.1693</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	37.3557	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.005</b>		<b>0.499</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.790</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.461</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>78.9</b>	deg. F	<b>538.9</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	25.95	ft/sec		
<b>Qa</b>	Actual Flow Rate	5,741	cfm		
<b>Qad</b>	Actual Flow Rate, Dry	5,712	dcfm		
<b>Q(std)</b>	Stack Gas Flow Rate	<b>5.507</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0004276</b>	<b>sq ft</b>	0.280	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>97.00</b>	<b>%</b>		

Client: **Stratford Gin**  
 Site: **Stratford**  
 Unit: **Trash Feed**

Date: **10/28/94**  
 Type: **T std = 60 F**  
 Run: **Run #3 PM-10**

**FIELD DATA & CALCULATIONS SUMMARY**

<b>Vm</b>	Metered Sample Gas Volume	<b>39.919</b>	<b>dcf</b>		
<b>Vp</b>	Avg. Leak Rate	0.000	cf		
<b>Vc</b>	Leak Corrected Sample Gas Volume	39.919	dcf		
<b>Ky</b>	Dry Gas Meter Calibration Factor	<b>0.972</b>			
<b>Pbar</b>	Barometric Pressure	<b>29.90</b>	<b>in. Hg</b>		
<b>Pg</b>	Static Pressure	<b>-0.1</b>	<b>in. H2O</b>		
<b>Ps</b>	Stack Pressure, Absolute	29.89	in. Hg		
<b>Del. H</b>	Dry Gas Meter Press. Differential, Average	<b>1.200</b>	<b>in. H2O</b>		
<b>Tm</b>	Dry Gas Meter Temperature, Average	82.3	deg. F	<b>542.3</b>	<b>deg. R</b>
<b>Vm(std)</b>	Sample Gas Volume	<b>37.3055</b>	<b>dscf</b>		
<b>Vm(wet)</b>	Sample Gas Volume, Wet	37.3971	scf		
<b>Bws</b>	Water Content of Stack Gas	<b>0.002</b>		<b>0.245</b>	<b>%</b>
<b>CO2</b>	Carbon Dioxide, Dry	<b>0.1</b>	<b>%</b>		
<b>O2</b>	Oxygen, Dry	<b>20.9</b>	<b>%</b>		
<b>N2</b>	Nitrogen, Dry	79.1	%		
<b>Md</b>	Molecular Wt. of Stack Gas, Dry	<b>28.844</b>	<b>lb/lb mole</b>		
<b>Ms</b>	Molecular Wt. of Stack Gas, Wet	<b>28.817</b>	<b>lb/lb mole</b>		
<b>Cp</b>	Pitot Calibration Factor	<b>0.833</b>			
<b>Del. P</b>	Velocity Head, Average Square Root	<b>0.465</b>	<b>in. H2O</b>		
<b>Ts</b>	Stack Gas Temperature, Average	<b>83.9</b>	deg. F	<b>543.9</b>	<b>deg. R</b>
<b>As</b>	Area of Stack	<b>3.69</b>	<b>sq ft</b>	26.0	in. dia.
<b>Vs</b>	Stack Gas Velocity	26.33	ft/sec		
<b>Qs</b>	Actual Flow Rate	5,824	cfm		
<b>Qsd</b>	Actual Flow Rate, Dry	5,810	dcfm		
<b>Qs(std)</b>	Stack Gas Flow Rate	<b>5,549</b>	<b>dscfm</b>		
<b>An</b>	Nozzle Area	<b>0.0004276</b>	<b>sq ft</b>	0.280	in. dia.
<b>Theta</b>	Sampling Time	<b>60</b>	<b>min.</b>		
<b>I</b>	Isokinetics	<b>96.60</b>	<b>%</b>		

AIRx Testing - 1994

BTC ENVIRONMENTAL  
EPA methods 2, 3, 4, 5, 6, 8

CONSTANTS & CONVERSIONS

Tstd = 60, 68, or 70 °F	1 in. Hg = 13.6 in. H <sub>2</sub> O
Pstd = 29.92 in. Hg	1 lb = 453.6 g
R = 21.85(in. Hg-cu ft/lb mole-°R)	1 lb = 7000 grain
Dw = 0.9982(g/ml)	1 g = 15.432 grain
MW(H <sub>2</sub> O) = 18.0 lb/lb mole	1 mg = 0.001 g
MW(Sulfur) = 32.03 lb/lb mole	1 hr = 60 min.
M(H <sub>2</sub> SO <sub>4</sub> ) = 98.08 lb/lb mole	1 part/vol X = 1*10 <sup>6</sup> ppmv X
MW(SO <sub>2</sub> ) = 64.06 lb/lb mole	1 bbl = 42 gal
K(H <sub>2</sub> SO <sub>4</sub> ) = 0.5 mg-g mole/g-meq	M = 1000
K(SO <sub>2</sub> ) = 0.5 mg-g mole/g-meq	La = 0.02 cfm
Kp = 85.49(ft/sec(sqrt(lb/lb mole-in.Hg/°R-in. H <sub>2</sub> O)))	
Kw,[cu ft/g-°R] = R / (453.6*MW(H <sub>2</sub> O)*Pstd)	
Kf,[scf-ppm/lb mole] = R * (Tstd+460) * (1*10 <sup>6</sup> ) / Pstd	

INTERMEDIATE CALCULATIONS

$$F, [\text{scf/MMBtu}] = F \text{ Factor} * (Tstd + 460) / 528$$

$$Ph, [\text{in. Hg}] = Pbar + (\Delta H / 13.6)$$

$$N_2, [\%] = 100 - (O_2\% + CO_2\%)$$

$$Vlc, [\text{ml}] = Ww / Dw$$

$$Qa, [\text{cfm}] = 60 * Vs * As$$

$$Qad, [\text{dcfm}] = Qa * (1 - Bws)$$

CFR 40 - EPA EQUATIONS

$$2-8 \quad T[^\circ R] = T[^\circ F] + 460$$

$$2-6 \quad Ps, [\text{in. Hg}] = Pbar + (Pg/13.6)$$

$$5-3 \quad Bws, [\%] = Vw(\text{std}) / \{ Vw(\text{std}) + Vm(\text{std}) \}$$

$$3-2 \quad Md, [\text{lb/lb-mole}] = 0.44 * CO_2\% + 0.32 * O_2\% + 0.28 * (N_2\% + CO\%)$$

$$2-5 \quad Ms, [\text{lb/lb mol}] = Md * (1 - Bws) + (MW(H_2O) * Bws)$$

$$5-2 \quad Vw(\text{std}), [\text{scf}] = Ww * Kw * (Tstd + 460)$$

$$5-1 \quad Vn, [\text{cf}] = Vm - ((Lp - La) * Theta)$$

$$5-1 \quad Vm(\text{std}), [\text{sdcf}] = Vm * Y * ((Tstd + 460) / (Tm + 460)) * Ph / Pstd$$

$$2-9 \quad Vs, [\text{ft./sec.}] = Kp * Cp * (\Delta P * (Ts + 460)) / (Ps * Ms)^{0.5}$$

$$2-10 \quad Qstd, [\text{dscfm}] = Qad * (Tstd + 460) * Ps / ((Ts + 460) * Pstd)$$

$$5-8 \quad I, [\%] = 100 * (Ts + 460) * Vm(\text{std}) * Pstd / (60 * Vs * Theta * An * Ps * (1 - Bws) * (Tstd + 460))$$

$$5-6 \quad Cx, [\text{grain/dscf}] = Wx, g * 15.432 / Vm(\text{std})$$

$$8-2,3 \quad Wx, [\text{mg}] = (Vt - Vtb) * N(\text{std}) * (Vsoln / Valq) * MWx * Kx$$

$$Cx, [\text{grain/dscf}] = Wx, mg * 0.001 * 15.432 / Vm(\text{std})$$

$$CWx, [\text{grain/scf}] = Cx * (1 - Bws)$$

$$CCx, [\text{grain/dscf @ 12\% CO}_2] = Cx * 12.0 / CO_2\%$$

$$CWCx, [\text{grain/scf @ 12\% CO}_2] = CCx$$

$$CPx, [\text{ppmv dry}] = Cx * Kf / (MWx * 7000)$$

$$CPCx, [\text{ppmv @ N\% O}_2] = CPx * ((20.9 - N\%) / (20.9 - O_2\%))$$

$$CFx, [\text{lb/hr}] = Cx * Q(\text{std}) * 60 / 7000$$

$$CEx, [\text{lb/MMBtu}] = F * (Cx / 7000) * (20.9 / (20.9 - O_2\%))$$

$$CBx, [\text{lb/bbl}] = CEx * (Fuel Btu/MM) * (Fuel lb/gal) * 42$$

$$CEsx, [\text{lb S/MMBtu}] = CEx * (MW(S) / MWx)$$

are x represents, Particulate, Sulfuric Acid, Sulfate, or Sulfur Dioxide respectively.

### III. WET TEST METHODS CALCULATIONS

UNLOADING  
CYCLONE

Client: **Stratford Gin**  
Site: **Stratford**  
Unit: **Unloading**

Date: **10/26/94**  
Type: **T std = 60 F**  
Run: **R1 - M5**

### CALCULATED EMISSION RESULTS

Bale Production	17.62	bales/hr
Particulate Weight	0.1078	gm
Particulate Emissions	0.0371	grain/dscf
Particulate Flow Rate	1.35	lb/hr
Particulate Flow Rate	0.08	lb/bale
+10 $\mu$ Particulate	67.7	%
+10 $\mu$ Particulate	0.91	lb/hr
+10 $\mu$ Particulate	0.05	lb/bale
-10 $\mu$ Particulate	32.3	%
-10 $\mu$ Particulate	0.43	lb/hr
-10 $\mu$ Particulate	0.02	lb/bale

AIRx Testing = 1994

Client: **Stratford Gin**  
Site: **Stratford**  
Unit: **Unloading**

Date: **10/26/94**  
Type: **T std = 60 F**  
Run: **R2 - M5**

### CALCULATED EMISSION RESULTS

Bale Production	18.29	bales/hr
Particulate Weight	0.1424	gm
Particulate Emissions	0.0485	grain/dscf
Particulate Flow Rate	5.22	lb/hr
Particulate Flow Rate	0.29	lb/bale
+10 $\mu$ Particulate	79.5	%
+10 $\mu$ Particulate	4.15	lb/hr
+10 $\mu$ Particulate	0.23	lb/bale
-10 $\mu$ Particulate	20.5	%
-10 $\mu$ Particulate	1.07	lb/hr
-10 $\mu$ Particulate	0.06	lb/bale

Client: **Stratford Gin**  
Site: **Stratford**  
Unit: **Unloading**

Date: **10/26/94**  
Type: **T std = 60 F**  
Run: **R3 - M5**

### CALCULATED EMISSION RESULTS

Bale Production	18.70	bales/hr
Particulate Weight	0.2294	gm
Particulate Emissions	0.0780	grain/dscf
Particulate Flow Rate	8.64	lb/hr
Particulate Flow Rate	0.46	lb/bale
+10 $\mu$ Particulate	84.9	%
+10 $\mu$ Particulate	7.33	lb/hr
+10 $\mu$ Particulate	0.39	lb/bale
-10 $\mu$ Particulate	15.1	%
-10 $\mu$ Particulate	1.30	lb/hr
-10 $\mu$ Particulate	0.07	lb/bale

HULL TRASH  
CYCLONE

Client: **Stratford Gin**  
Site: **Stratford**  
Unit: **Hull Trash**

Date: **10/26/94**  
Type: **T std = 60 F**  
Run: **R1 - M5**

### CALCULATED EMISSION RESULTS

Bale Production	20.54	bales/hr
Particulate Weight	0.0898	gm
Particulate Emissions	0.0382	grain/dscf
Particulate Flow Rate	4.85	lb/hr
Particulate Flow Rate	0.24	lb/bale
+10 $\mu$ Particulate	60.1	%
+10 $\mu$ Particulate	2.92	lb/hr
+10 $\mu$ Particulate	0.14	lb/bale
-10 $\mu$ Particulate	39.9	%
-10 $\mu$ Particulate	1.94	lb/hr
-10 $\mu$ Particulate	0.09	lb/bale

Client: **Stratford Gin**  
Site: **Stratford**  
Unit: **Hull Trash**

Date: **10/26/94**  
Type: **T std = 60 F**  
Run: **R2 - M5**

### CALCULATED EMISSION RESULTS

Bale Production	21.49	bales/hr
Particulate Weight	0.0770	gm
Particulate Emissions	0.0331	grain/dscf
Particulate Flow Rate	4.33	lb/hr
Particulate Flow Rate	0.20	lb/bale
+10 $\mu$ Particulate	54.8	%
+10 $\mu$ Particulate	2.37	lb/hr
+10 $\mu$ Particulate	0.11	lb/bale
-10 $\mu$ Particulate	45.2	%
-10 $\mu$ Particulate	1.96	lb/hr
-10 $\mu$ Particulate	0.09	lb/bale

Client: **Stratford Gin**  
Site: **Stratford**  
Unit: **Hull Trash**

Date: **10/26/94**  
Type: **T std = 60 F**  
Run: **R3 - M5**

### CALCULATED EMISSION RESULTS

Bale Production	19.34	bales/hr
Particulate Weight	0.1045	gm
Particulate Emissions	0.0445	grain/dscf
Particulate Flow Rate	5.86	lb/hr
Particulate Flow Rate	0.30	lb/bale
+10 $\mu$ Particulate	90.3	%
+10 $\mu$ Particulate	5.29	lb/hr
+10 $\mu$ Particulate	0.27	lb/bale
-10 $\mu$ Particulate	9.7	%
-10 $\mu$ Particulate	0.57	lb/hr
-10 $\mu$ Particulate	0.03	lb/bale

LINT CLEANER  
CYCLONE

Client: **Stratford Gin**  
Site: **Stratford**  
Unit: **Lint Cleaner**

Date: **10/26/94**  
Type: **T std = 60 F**  
Run: **R1 - H5**

### CALCULATED EMISSION RESULTS

Bale Production	18.63	bales/hr
Particulate Weight	0.0055	gm
Particulate Emissions	0.0025	grain/dscf
Particulate Flow Rate	.19 0.41	lb/hr
Particulate Flow Rate	0.02	lb/bale
+10 $\mu$ Particulate	61.0	%
+10 $\mu$ Particulate	0.25	lb/hr
+10 $\mu$ Particulate	0.01	lb/bale
-10 $\mu$ Particulate	39.0	%
-10 $\mu$ Particulate	0.16	lb/hr
-10 $\mu$ Particulate	0.01	lb/bale

Client: **Stratford Gin**  
Site: **Stratford**  
Unit: **Lint Cleaner**

Date: **10/26/94**  
Type: **T std = 60 F**  
Run: **R2 - M5**

### CALCULATED EMISSION RESULTS

Bale Production	18.23	bales/hr
Particulate Weight	0.0309	gm
Particulate Emissions	0.0129	grain/dscf
Particulate Flow Rate	2.46	lb/hr
Particulate Flow Rate	0.14	lb/bale
+10 $\mu$ Particulate	49.9	%
+10 $\mu$ Particulate	1.23	lb/hr
+10 $\mu$ Particulate	0.07	lb/bale
-10 $\mu$ Particulate	50.1	%
-10 $\mu$ Particulate	1.23	lb/hr
-10 $\mu$ Particulate	0.07	lb/bale

Client: **Stratford Gin**  
Site: **Stratford**  
Unit: **Lint Cleaner**

Date: **10/26/94**  
Type: **T std = 60 F**  
Run: **R3 - M5**

### CALCULATED EMISSION RESULTS

Bale Production	19.66	bales/hr
Particulate Weight	0.0207	gm
Particulate Emissions	0.0092	grain/dscf
Particulate Flow Rate	1.60	lb/hr
Particulate Flow Rate	0.08	lb/bale
+10 $\mu$ Particulate	43.6	%
+10 $\mu$ Particulate	0.70	lb/hr
+10 $\mu$ Particulate	0.04	lb/bale
-10 $\mu$ Particulate	56.4	%
-10 $\mu$ Particulate	0.90	lb/hr
-10 $\mu$ Particulate	0.05	lb/bale

MOTES TRASH  
CYCLONE

Client: **Stratford Gin**  
Site: **Stratford**  
Unit: **Notes**

Date: **10/27/94**  
Type: **T std = 60 F**  
Run: **R1 - M5**

### CALCULATED EMISSION RESULTS

Bale Production	22.08	bales/hr
Particulate Weight	0.1785	gm
Particulate Emissions	0.0813	grain/dscf
Particulate Flow Rate	3.40	lb/hr
Particulate Flow Rate	0.15	lb/bale
+10 $\mu$ Particulate	66.2	%
+10 $\mu$ Particulate	2.25	lb/hr
+10 $\mu$ Particulate	0.10	lb/bale
-10 $\mu$ Particulate	33.8	%
-10 $\mu$ Particulate	1.15	lb/hr
-10 $\mu$ Particulate	0.05	lb/bale

Client: **Stratford Gin**  
Site: **Stratford**  
Unit: **Notes**

Date: **10/27/94**  
Type: **T std = 60 F**  
Run: **R2 - M5**

### CALCULATED EMISSION RESULTS

Bale Production	19.49	bales/hr
Particulate Weight	0.1251	gm
Particulate Emissions	0.0519	grain/dscf
Particulate Flow Rate	2.44	lb/hr
Particulate Flow Rate	0.13	lb/bale
+10 $\mu$ Particulate	66.0	%
+10 $\mu$ Particulate	1.61	lb/hr
+10 $\mu$ Particulate	0.08	lb/bale
-10 $\mu$ Particulate	34.0	%
-10 $\mu$ Particulate	0.83	lb/hr
-10 $\mu$ Particulate	0.04	lb/bale

Client: **Stratford Gin**  
Site: **Stratford**  
Unit: **Notes**

Date: **10/27/94**  
Type: **T std = 60 F**  
Run: **R3 - M5**

### CALCULATED EMISSION RESULTS

Bale Production	17.64	bales/hr
Particulate Weight	0.1242	gm
Particulate Emissions	0.0513	grain/dscf
Particulate Flow Rate	2.46	lb/hr
Particulate Flow Rate	0.14	lb/bale
+10 $\mu$ Particulate	67.4	%
+10 $\mu$ Particulate	1.66	lb/hr
+10 $\mu$ Particulate	0.09	lb/bale
-10 $\mu$ Particulate	32.6	%
-10 $\mu$ Particulate	0.80	lb/hr
-10 $\mu$ Particulate	0.05	lb/bale

CYCLONE ROBBER  
SYSTEM

Client: **Stratford Gin**  
Site: **Stratford**  
Unit: **Cyclone Robber**

Date: **10/27/94**  
Type: **T std = 60 F**  
Run: **R1-M5**

### CALCULATED EMISSION RESULTS

Bale Production	18.58	bales/hr
Particulate Weight	0.0817	gm
Particulate Emissions	0.0321	grain/dscf
Particulate Flow Rate	4.22	lb/hr
Particulate Flow Rate	0.23	lb/bale
+10 $\mu$ Particulate	56.0	%
+10 $\mu$ Particulate	2.36	lb/hr
+10 $\mu$ Particulate	0.13	lb/bale
-10 $\mu$ Particulate	44.0	%
-10 $\mu$ Particulate	1.86	lb/hr
-10 $\mu$ Particulate	0.10	lb/bale

Client: **Stratford Gin**  
Site: **Stratford**  
Unit: **Cyclone Robber**

Date: **10/27/94**  
Type: **T std = 60 F**  
Run: **R2-M5**

### CALCULATED EMISSION RESULTS

Bale Production	20.43	bales/hr
Particulate Weight	0.0793	gm
Particulate Emissions	0.0302	grain/dscf
Particulate Flow Rate	4.25	lb/hr
Particulate Flow Rate	0.21	lb/bale
+10 $\mu$ Particulate	79.5	%
+10 $\mu$ Particulate	3.38	lb/hr
+10 $\mu$ Particulate	0.17	lb/bale
-10 $\mu$ Particulate	20.5	%
-10 $\mu$ Particulate	0.87	lb/hr
-10 $\mu$ Particulate	0.04	lb/bale

Client: **Stratford Gin**  
Site: **Stratford**  
Unit: **Cyclone Robber**

Date: **10/27/94**  
Type: **T std = 60 F**  
Run: **R3-M5**

### CALCULATED EMISSION RESULTS

Bale Production	19.70	bales/hr
Particulate Weight	0.0954	gm
Particulate Emissions	0.0355	grain/dscf
Particulate Flow Rate	5.35	lb/hr
Particulate Flow Rate	0.27	lb/bale
+10 $\mu$ Particulate	79.6	%
+10 $\mu$ Particulate	4.26	lb/hr
+10 $\mu$ Particulate	0.22	lb/bale
-10 $\mu$ Particulate	20.4	%
-10 $\mu$ Particulate	1.09	lb/hr
-10 $\mu$ Particulate	0.06	lb/bale

FEEDER TRASH  
CYCLONE

Client: **Stratford Gin**  
Site: **Stratford**  
Unit: **Feeder Trash**

Date: **10/28/94**  
Type: **T std = 60 F**  
Run: **R1 - M5**

### CALCULATED EMISSION RESULTS

Bale Production	18.47	bales/hr
Particulate Weight	0.0435	gm
Particulate Emissions	0.0153	grain/dscf ✓
Particulate Flow Rate	2.06	lb/hr
Particulate Flow Rate	0.11	lb/bale
+10 $\mu$ Particulate	74.7	%
+10 $\mu$ Particulate	1.54	lb/hr
+10 $\mu$ Particulate	0.08	lb/bale
-10 $\mu$ Particulate	25.3	%
-10 $\mu$ Particulate	0.52	lb/hr
-10 $\mu$ Particulate	0.03	lb/bale

Client: **Stratford Gin**  
Site: **Stratford**  
Unit: **Feeder Trash**

Date: **10/28/94**  
Type: **T std = 60 F**  
Run: **R2 - M5**

### CALCULATED EMISSION RESULTS

Bale Production	20.55	bales/hr
Particulate Weight	0.0450	gm
Particulate Emissions	0.0159	grain/dscf
Particulate Flow Rate	2.15	lb/hr
Particulate Flow Rate	0.10	lb/bale
+10 $\mu$ Particulate	71.9	%
+10 $\mu$ Particulate	1.54	lb/hr
+10 $\mu$ Particulate	0.08	lb/bale
-10 $\mu$ Particulate	28.1	%
-10 $\mu$ Particulate	0.60	lb/hr
-10 $\mu$ Particulate	0.03	lb/bale

Client: **Stratford Gin**  
Site: **Stratford**  
Unit: **Feeder Trash**

Date: **10/28/94**  
Type: **T std = 60 F**  
Run: **R3 - M5**

### CALCULATED EMISSION RESULTS

Bale Production	20.61	bales/hr
Particulate Weight	0.0478	gm
Particulate Emissions	0.0177	grain/dscf
Particulate Flow Rate	2.22	lb/hr
Particulate Flow Rate	0.11	lb/bale
+10 $\mu$ Particulate	84.5	%
+10 $\mu$ Particulate	1.87	lb/hr
+10 $\mu$ Particulate	0.09	lb/bale
-10 $\mu$ Particulate	15.5	%
-10 $\mu$ Particulate	0.34	lb/hr
-10 $\mu$ Particulate	0.02	lb/bale

*V. LABORATORY ANALYSIS*

UNLOADING  
CYCLONE

### IMPINGER WEIGHTS

Client : Stratford Growers  
 Site : Stratford  
 Unit: Unloading

Date : 10/26/94  
 Job #: 19083  
 Lab #: 294-136

Run#/Box#: 1

Imp. #1:

gross	625.2
tare	623.3
final	<u>1.9</u>

Imp. #2:

gross	588.4
tare	587.4
final	<u>1.0</u>

Imp. #3:

gross	463.0
tare	462.0
final	<u>1.0</u>

Imp. #4:

gross	576.8
tare	577.2
final	<u>-0.4</u>

**TOTAL** 3.5

Run#/Box#: 2

Imp. #1:

gross	577.3
tare	581.5
final	<u>-4.2</u>

Imp. #2:

gross	599.7
tare	599.5
final	<u>0.2</u>

Imp. #3:

gross	477.1
tare	477.1
final	<u>0.0</u>

Imp. #4:

gross	637.6
tare	631.4
final	<u>6.2</u>

**TOTAL** 2.2

Run#/Box#: 3

Imp. #1:

gross	605.7
tare	610.0
final	<u>-4.3</u>

Imp. #2:

gross	583.8
tare	584.9
final	<u>-1.1</u>

Imp. #3:

gross	468.3
tare	461.9
final	<u>6.4</u>

Imp. #4:

gross	577.4
tare	576.8
final	<u>0.6</u>

**TOTAL** 1.6

Run#/Box#: \_\_\_\_\_

Imp. #1:

gross	
tare	
final	<u>0.0</u>

Imp. #2:

gross	
tare	
final	<u>0.0</u>

Imp. #3:

gross	
tare	
final	<u>0.0</u>

Imp. #4:

gross	
tare	
final	<u>0.0</u>

**TOTAL** 0.0

HULL TRASH  
CYCLONE

**IMPINGER WEIGHTS**

Client : Stratford (  
 Site : Stratford  
 Unit: Hull Trash

Date : 10/26/94  
 Job # : 19083  
 Lab # : 294-136

Run#/Box#: 1

Imp. #1: 

gross	610.2
tare	606.1
final	<u>4.1</u>

Imp. #2: 

gross	563.2
tare	561.4
final	<u>1.8</u>

Imp. #3: 

gross	477.9
tare	477.8
final	<u>0.1</u>

Imp. #4: 

gross	627.9
tare	621.8
final	<u>6.1</u>

**TOTAL** 12.1

Run#/Box#: 2

Imp. #1: 

gross	645.9
tare	643.9
final	<u>2.0</u>

Imp. #2: 

gross	569.0
tare	570.7
final	<u>-1.7</u>

Imp. #3: 

gross	464.0
tare	464.0
final	<u>0.0</u>

Imp. #4: 

gross	577.2
tare	575.9
final	<u>1.3</u>

**TOTAL** 1.6

Run#/Box#: 3

Imp. #1: 

gross	621.6
tare	619.2
final	<u>2.4</u>

Imp. #2: 

gross	576.3
tare	575.8
final	<u>0.5</u>

Imp. #3: 

gross	477.6
tare	477.8
final	<u>-0.2</u>

Imp. #4: 

gross	631.4
tare	627.8
final	<u>3.6</u>

**TOTAL** 6.3

Run#/Box#: \_\_\_\_\_

Imp. #1: 

gross	
tare	
final	<u>0.0</u>

Imp. #2: 

gross	
tare	
final	<u>0.0</u>

Imp. #3: 

gross	
tare	
final	<u>0.0</u>

Imp. #4: 

gross	
tare	
final	<u>0.0</u>

**TOTAL** 0.0

LINT CLEANER  
CYCLONE

### IMPINGER WEIGHTS

Client : Stratford Growers  
 Site : Stratford  
 Unit: Lint Cleaner

Date : 10/26/94  
 Job #: 19083  
 Lab #: 294-136

Run#/Box#: 1

Imp. #1:

gross	603.6
tare	601.0
final	<u>2.6</u>

Imp. #2:

gross	589.1
tare	588.9
final	<u>0.2</u>

Imp. #3:

gross	476.5
tare	477.1
final	<u>-0.6</u>

Imp. #4:

gross	642.3
tare	637.6
final	<u>4.7</u>

**TOTAL** 6.9

Run#/Box#: 2

Imp. #1:

gross	597.7
tare	594.7
final	<u>3.0</u>

Imp. #2:

gross	595.0
tare	593.6
final	<u>1.4</u>

Imp. #3:

gross	469.2
tare	468.3
final	<u>0.9</u>

Imp. #4:

gross	578.2
tare	577.3
final	<u>0.9</u>

**TOTAL** 6.2

Run#/Box#: 3

Imp. #1:

gross	596.6
tare	600.7
final	<u>-4.1</u>

Imp. #2:

gross	607.7
tare	607.6
final	<u>0.1</u>

Imp. #3:

gross	477.2
tare	476.8
final	<u>0.4</u>

Imp. #4:

gross	647.3
tare	642.3
final	<u>5.0</u>

**TOTAL** 1.4

Run#/Box#: \_\_\_\_\_

Imp. #1:

gross	
tare	
final	<u>0.0</u>

Imp. #2:

gross	
tare	
final	<u>0.0</u>

Imp. #3:

gross	
tare	
final	<u>0.0</u>

Imp. #4:

gross	
tare	
final	<u>0.0</u>

**TOTAL** 0.0

MOTES TRASH  
CYCLONE

**IMPINGER WEIGHTS**

Client : Stratford Growers  
 Site : Stratford  
 Unit: Motes

Date : 10/27/94  
 Job #: 19083  
 Lab #: 294-136

Run#/Box#: 1

Imp. #1:	gross	606.3
	tare	603.8
	final	<u>2.5</u>

Imp. #2:	gross	585.9
	tare	585.6
	final	<u>0.3</u>

Imp. #3:	gross	468.2
	tare	467.8
	final	<u>0.4</u>

Imp. #4:	gross	578.3
	tare	578.3
	final	<u>0.0</u>

**TOTAL** 3.2

Run#/Box#: 2

Imp. #1:	gross	599.2
	tare	599.5
	final	<u>-0.3</u>

Imp. #2:	gross	610.5
	tare	608.9
	final	<u>1.6</u>

Imp. #3:	gross	477.9
	tare	477.5
	final	<u>0.4</u>

Imp. #4:	gross	648.9
	tare	647.3
	final	<u>1.6</u>

**TOTAL** 3.3

Run#/Box#: 3

Imp. #1:	gross	585.9
	tare	583.7
	final	<u>2.2</u>

Imp. #2:	gross	571.4
	tare	570.7
	final	<u>0.7</u>

Imp. #3:	gross	468.1
	tare	468.1
	final	<u>0.0</u>

Imp. #4:	gross	578.4
	tare	578.3
	final	<u>0.1</u>

**TOTAL** 3.0

Run#/Box#: \_\_\_\_\_

Imp. #1:	gross	
	tare	
	final	<u>0.0</u>

Imp. #2:	gross	
	tare	
	final	<u>0.0</u>

Imp. #3:	gross	
	tare	
	final	<u>0.0</u>

Imp. #4:	gross	
	tare	
	final	<u>0.0</u>

**TOTAL** 0.0

CYCLONE ROBBER  
SYSTEM

### IMPINGER WEIGHTS

Client : Stratford Growers  
 Site : Stratford  
 Unit : Cyclone Robber

Date : 10/27/94  
 Job # : 19083  
 Lab # : 294-136

Run#/Box# : 1

Imp. #1:	gross	633.4
	tare	628.7
	final	4.7

Imp. #2:	gross	597.3
	tare	596.2
	final	1.1

Imp. #3:	gross	477.5
	tare	477.8
	final	-0.3

Imp. #4:	gross	649.6
	tare	648.9
	final	0.7

**TOTAL** 6.2

Run#/Box# : 2

Imp. #1:	gross	594.2
	tare	598.2
	final	-4.0

Imp. #2:	gross	598.3
	tare	596.3
	final	2.0

Imp. #3:	gross	469.4
	tare	468.0
	final	1.4

Imp. #4:	gross	579.1
	tare	578.4
	final	0.7

**TOTAL** 0.1

Run#/Box# : 3

Imp. #1:	gross	577.8
	tare	581.7
	final	-3.9

Imp. #2:	gross	588.6
	tare	586.4
	final	2.2

Imp. #3:	gross	476.6
	tare	476.2
	final	0.4

Imp. #4:	gross	652.8
	tare	649.6
	final	3.2

**TOTAL** 1.9

Run#/Box# : \_\_\_\_\_

Imp. #1:	gross	
	tare	
	final	0.0

Imp. #2:	gross	
	tare	
	final	0.0

Imp. #3:	gross	
	tare	
	final	0.0

Imp. #4:	gross	
	tare	
	final	0.0

**TOTAL** 0.0

#1: 

gross	
tare	
final	

  
 #2: 

gross	
tare	
final	

FEEDER TRASH  
CYCLONE

### IMPINGER WEIGHTS

Client : Stratford Growers  
 Site : Stratford  
 Unit: Feeder Trash

Date : 10/28/94  
 Job #: 19083  
 Lab #: 294-136

Run#/Box#: 1

Imp. #1:

gross	580.9
tare	577.5
final	<u>3.4</u>

Imp. #2:

gross	582.7
tare	580.8
final	<u>1.9</u>

Imp. #3:

gross	468.4
tare	467.9
final	<u>0.5</u>

Imp. #4:

gross	579.8
tare	579.1
final	<u>0.7</u>

**TOTAL** 6.5

Run#/Box#: 2

Imp. #1:

gross	589.8
tare	585.0
final	<u>4.8</u>

Imp. #2:

gross	585.3
tare	584.4
final	<u>0.9</u>

Imp. #3:

gross	477.1
tare	476.7
final	<u>0.4</u>

Imp. #4:

gross	652.8
tare	654.2
final	<u>-1.4</u>

**TOTAL** 4.7

Run#/Box#: 3

Imp. #1:

gross	594.4
tare	592.1
final	<u>2.3</u>

Imp. #2:

gross	596.4
tare	596.7
final	<u>-0.3</u>

Imp. #3:

gross	468.3
tare	468.2
final	<u>0.1</u>

Imp. #4:

gross	579.8
tare	579.7
final	<u>0.1</u>

**TOTAL** 2.2

Run#/Box#: \_\_\_\_\_

Imp. #1:

gross	
tare	
final	<u>0.0</u>

Imp. #2:

gross	
tare	
final	<u>0.0</u>

Imp. #3:

gross	
tare	
final	<u>0.0</u>

Imp. #4:

gross	
tare	
final	<u>0.0</u>

**TOTAL** 0.0

UNLOADING  
CYCLONE



**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Stratford Gin  
Site : Stratford  
Unit : Unloading Fan  
Run : 2

Date : 10/26/94  
Job # : 19083  
Lab # : 292-136

**BLANKS**

Acetone  
Gross: 4.1584 gms.      Tare: 4.1558 gms.      Volume: 200 ml  
Residue: 0.0026 gms.

DI Water  
Gross: 4.0301 gms.      Tare: 4.0290 gms.      Volume: 200 ml  
Residue: 0.0011 gms.

**WEIGHTS & VOLUMES**

Filter      Gross: 0.4247 gms.      Tare: 0.3996 gms.      Net: 0.0251 gms. ✓

Probe Rinse -  
Acetone: 85 ml \* 1E-05 gms./ml      =      Net: -0.0011 gms. ✓

DI Water: 90 ml \* 6E-06 gms./ml      =      Net: -0.0005 gms. ✓

Gross: 4.0902 gms.      Tare: 3.9732 gms.      Net: 0.1170 gms. ✓

Impinger Catch -  
DI Water: 365 ml \* 6E-06 gms./ml      =      Net: -0.0020 gms. ✓

Total: 365 ml      Aliquot: 365 ml

Gross: 4.0470 gms.      Tare: 4.0431 gms.      Net: 0.0019 gms. ✓

**Total Particulate Weight = 0.1424 gms. ✓**

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Stratford Gin  
Site : Stratford  
Unit : Unloading Fan  
Run : 3

Date : 10/26/94  
Job # : 19083  
Lab # : 292-136

**BLANKS**

Acetone  
Gross: 4.1584 gms. Tare: 4.1558 gms. Volume: 200 ml  
Residue: 0.0026 gms.

DI Water  
Gross: 4.0301 gms. Tare: 4.0290 gms. Volume: 200 ml  
Residue: 0.0011 gms.

**WEIGHTS & VOLUMES**

Filter Gross: 0.4976 gms. Tare: 0.4005 gms. Net: 0.0971 gms.

Probe Rinse -  
Acetone: 75 ml \* 1E-05 gms./ml = Net: -0.0010 gms.

DI Water: 75 ml \* 6E-06 gms./ml = Net: -0.0004 gms.

Gross: 4.1024 gms. Tare: 3.9816 gms. Net: 0.1308 gms.

Impinger Catch -  
DI Water: 350 ml \* 6E-06 gms./ml = Net: -0.0019 gms.

Total: 350 ml Aliquot: 350 ml

Gross: 4.0142 gms. Tare: 4.0094 gms. Net: 0.0029 gms.

**Total Particulate Weight = 0.2294 gms.**

### PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : Stratford Gin  
 Site : Stratford  
 Unit : Unloading Fan  
 Run : 1

Date : 10/26/94  
 Job # : 19083  
 Lab # : 294-136

### BLANKS

Acetone	Gross: <u>4.1584</u> gms.	Tare: <u>4.1558</u> gms.	Volume: <u>200</u> ml
			Residue: <u>0.0026</u> gms.
DI Water	Gross: <u>4.0301</u> gms.	Tare: <u>4.0290</u> gms.	Volume: <u>200</u> ml
			Residue: <u>0.0011</u> gms.

### WEIGHTS & VOLUMES

Filter (F-35) Gross: <u>0.0900</u> gms.	Tare: <u>0.0855</u> gms.	Net: <u>0.0045</u> gms. ✓
Filter (F-36) Gross: <u>0.0880</u> gms.	Tare: <u>0.0853</u> gms.	Net: <u>0.0027</u> gms. ✓

+ 10 μ Rinse -

Acetone: <u>60</u> ml	* <u>1E-05</u> gm/ml	=	Net: <u>-0.0008</u> gms. ✓
DI Water: <u>65</u> ml	* <u>6E-06</u> gm/ml	=	Net: <u>-0.0004</u> gms. ✓
Gross: <u>3.9060</u> gms.	Tare: <u>3.8536</u> gms.		Net: <u>0.0524</u> gms. ✓

**+ 10 μ Total Weight = 0.0585 gms. ✓**

Filter (E-18) Gross: <u>0.1312</u> gms.	Tare: <u>0.1090</u> gms.	Net: <u>0.0222</u> gms. ✓
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- 10 μ Rinse

DI Water: <u>350</u> ml	* <u>6E-06</u> gm/ml	=	Net: <u>-0.0019</u> gms. ✓
Acetone: <u>50</u> ml	* <u>1E-05</u> gm/ml	=	Net: <u>-0.0007</u> gms. ✓
Total: <u>400</u> ml	Aliquot: <u>400</u> ml		Net: <u>0.0083</u> gms.
Gross: <u>68.5113</u> gms.	Tare: <u>68.5030</u> gms.		

**- 10 μ Total Weight = 0.0279 gms.**

**Total Weight = 0.0864 gms.**

+ 10 μ	<u>67.7</u> %
- 10 μ	<u>32.3</u> %

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Stratford Gin</u>	Date : <u>10/26/94</u>
Site : <u>Stratford</u>	Job # : <u>19083</u>
Unit : <u>Unloading Fan</u>	Lab # : <u>294-136</u>
Run : <u>2</u>	

**BLANKS**

Acetone	Gross: <u>4.1584</u> gms.	Tare: <u>4.1558</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0026</u> gms.
DI Water	Gross: <u>4.0301</u> gms.	Tare: <u>4.0290</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0011</u> gms.

**WEIGHTS & VOLUMES**

Filter (F-37) Gross: <u>0.0928</u> gms.	Tare: <u>0.0852</u> gms.	Net: <u>0.0076</u> gms.
Filter (F-38) Gross: <u>0.0882</u> gms.	Tare: <u>0.0856</u> gms.	Net: <u>0.0026</u> gms.

+ 10 μ Rinse -

Acetone: <u>60</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0008</u> gms.
DI Water: <u>65</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0004</u> gms.
Gross: <u>4.3239</u> gms.	Tare: <u>4.2332</u> gms.	Net: <u>0.0907</u> gms.

**+10μ Total Weight = 0.0998 gms.**

Filter (E-18) Gross: <u>0.1305</u> gms.	Tare: <u>0.1066</u> gms.	Net: <u>0.0239</u> gms.
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- 10 μ Rinse

DI Water: <u>340</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0019</u> gms.
Acetone: <u>50</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0007</u> gms.
Total: <u>390</u> ml	Aliquot: <u>390</u> ml	
Gross: <u>4.2862</u> gms.	Tare: <u>4.2818</u> gms.	Net: <u>0.0044</u> gms.

**-10μ Total Weight = 0.0258 gms.**

**Total Weight = 0.1255 gms.**

+ 10 μ	<u>79.5</u> %
- 10 μ	<u>20.5</u> % ✓

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Stratford Gin</u>	Date : <u>10/26/94</u>
Site : <u>Stratford</u>	Job # : <u>19083</u>
Unit : <u>Unloading Fan</u>	Lab # : <u>294-136</u>
Run : <u>3</u>	

**BLANKS**

Acetone	Gross: <u>4.1584</u> gms.	Tare: <u>4.1558</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0026</u> gms.
DI Water	Gross: <u>4.0301</u> gms.	Tare: <u>4.0290</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0011</u> gms.

**WEIGHTS & VOLUMES**

Filter (F-38) Gross: <u>0.0893</u> gms.	Tare: <u>0.0851</u> gms.	Net: <u>0.0042</u> gms.
Filter (F-40) Gross: <u>0.0908</u> gms.	Tare: <u>0.0844</u> gms.	Net: <u>0.0064</u> gms.

+ 10 μ Rinse -

Acetone: <u>70</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0009</u> gms.
DI Water: <u>70</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0004</u> gms.
Gross: <u>4.0817</u> gms.	Tare: <u>3.9478</u> gms.	Net: <u>0.1339</u> gms.

**+ 10μ Total Weight = 0.1432 gms.**

Filter (E-20) Gross: <u>0.1305</u> gms.	Tare: <u>0.1109</u> gms.	Net: <u>0.0196</u> gms.
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- 10 μ Rinse

DI Water: <u>350</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0019</u> gms.
Acetone: <u>50</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0007</u> gms.
Total: <u>400</u> ml	Aliquot: <u>400</u> ml	
Gross: <u>4.1960</u> gms.	Tare: <u>4.1875</u> gms.	Net: <u>0.0085</u> gms.

**- 10μ Total Weight = 0.0255 gms.**

**Total Weight = 0.1687 gms.**

+ 10 μ	<u>84.9</u> %
- 10 μ	<u>15.1</u> %

HULL TRASH  
CYCLONE

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Stratford Gin Date : 10/26/94  
Site : Stratford Job # : 19083  
Unit : Hull Trash Lab # : 292-136  
Run : 1

**BLANKS**

Acetone Gross: 4.1584 gms. Tare: 4.1558 gms. Volume: 200 ml  
Residue: 0.0026 gms.  
DI Water Gross: 4.0301 gms. Tare: 4.0290 gms. Volume: 200 ml  
Residue: 0.0011 gms.

**WEIGHTS & VOLUMES**

Filter Gross: 0.4076 gms. Tare: 0.3988 gms. Net: 0.0088 gms.  
Probe Rinse -  
Acetone: 50 ml \* 1E-05 gms./ml = Net: -0.0007 gms.  
DI Water: 50 ml \* 6E-06 gms./ml = Net: -0.0003 gms.  
Gross: 3.9298 gms. Tare: 3.8552 gms. Net: 0.0746 gms.  
Impinger Catch -  
DI Water: 280 ml \* 6E-06 gms./ml = Net: -0.0015 gms.  
Total: 280 ml Aliquot: 280 ml  
Gross: 4.1252 gms. Tare: 4.1163 gms. Net: 0.0074 gms.  
Total Particulate Weight = 0.0898 gms.

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Stratford Gin Date : 10/26/94  
Site : Stratford Job # : 19083  
Unit : Hull Trash Lab # : 292-136  
Run : 2

**BLANKS**

Acetone  
Gross: 4.1584 gms. Tare: 4.1558 gms. Volume: 200 ml  
Residue: 0.0026 gms.

DI Water  
Gross: 4.0301 gms. Tare: 4.0290 gms. Volume: 200 ml  
Residue: 0.0011 gms.

**WEIGHTS & VOLUMES**

Filter Gross: 0.4170 gms. Tare: 0.3976 gms. Net: 0.0194 gms.

Probe Rinse -  
Acetone: 90 ml \* 1E-05 gms./ml = Net: -0.0012 gms.

DI Water: 95 ml \* 6E-06 gms./ml = Net: -0.0005 gms.

Gross: 4.1450 gms. Tare: 4.0933 gms. Net: 0.0517 gms.

Impinger Catch -  
DI Water: 360 ml \* 6E-06 gms./ml = Net: -0.0020 gms.

Total: 360 ml Aliquot: 360 ml  
Gross: 4.1170 gms. Tare: 4.1074 gms. Net: 0.0076 gms.

**Total Particulate Weight = 0.0770 gms.**

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Stratford Gin                      Date : 10/26/94  
Site : Stratford                              Job # : 19083  
Unit : Hull Trash                          Lab # : 292-136  
Run : 3

**BLANKS**

Acetone                      Volume: 200 ml  
Gross: 4.1584 gms.      Tare: 4.1558 gms.      Residue: 0.0026 gms.  
DI Water                      Volume: 200 ml  
Gross: 4.0301 gms.      Tare: 4.0290 gms.      Residue: 0.0011 gms.

**WEIGHTS & VOLUMES**

Filter      Gross: 0.4206 gms.      Tare: 0.3974 gms.      Net: 0.0232 gms.  
Probe Rinse -  
Acetone: 70 ml \* 1E-05 gms./ml      =      Net: -0.0009 gms.  
DI Water: 70 ml \* 6E-06 gms./ml      =      Net: -0.0004 gms.  
Gross: 4.1147 gms.      Tare: 4.0400 gms.      Net: 0.0747 gms.  
Impinger Catch -  
DI Water: 380 ml \* 6E-06 gms./ml      =      Net: -0.0021 gms.  
Total: 380 ml      Aliquot: 380 ml  
Gross: 4.2176 gms.      Tare: 4.2076 gms.      Net: 0.0079 gms.  
**Total Particulate Weight**      =      0.1045 gms.

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Stratford Gin</u>	Date : <u>10/26/94</u>
Site : <u>Stratford</u>	Job # : <u>19083</u>
Unit : <u>Hull Trash</u>	Lab # : <u>294-136</u>
Run : <u>1</u>	

**BLANKS**

Acetone	Gross: <u>4.1584</u> gms.	Tare: <u>4.1558</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0026</u> gms.
DI Water	Gross: <u>4.0301</u> gms.	Tare: <u>4.0290</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0011</u> gms.

**WEIGHTS & VOLUMES**

Filter (F-29) Gross: <u>0.0870</u> gms.	Tare: <u>0.0871</u> gms.	Net: <u>-0.0001</u> gms.
Filter (F-30) Gross: <u>0.0876</u> gms.	Tare: <u>0.0867</u> gms.	Net: <u>0.0009</u> gms.

+ 10 μ Rinse -

Acetone: <u>75</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0010</u> gms.
DI Water: <u>75</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0004</u> gms.
Gross: <u>4.1559</u> gms.	Tare: <u>4.1180</u> gms.	Net: <u>0.0379</u> gms.

**+10μ Total Weight = 0.0373 gms.**

Filter (E-45) Gross: <u>0.1130</u> gms.	Tare: <u>0.1058</u> gms.	Net: <u>0.0072</u> gms.
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-10 μ Rinse

DI Water: <u>430</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0024</u> gms.
Acetone : <u>50</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0007</u> gms.
Total: <u>480</u> ml	Aliquot: <u>480</u> ml	
Gross: <u>4.1102</u> gms.	Tare: <u>4.0896</u> gms.	Net: <u>0.0206</u> gms.

**-10μ Total Weight = 0.0248 gms.**

**Total Weight = 0.0621 gms.**

+ 10 μ	<u>60.1</u> %
- 10 μ	<u>39.9</u> %

### PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : Stratford Gin  
 Site : Stratford  
 Unit : Hull Trash  
 Run : 2

Date : 10/26/94  
 Job # : 19083  
 Lab # : 294-136

### BLANKS

Acetone	Gross: <u>4.1584</u> gms.	Tare: <u>4.1558</u> gms.	Volume: <u>200</u> ml Residue: <u>0.0026</u> gms.
DI Water	Gross: <u>4.0301</u> gms.	Tare: <u>4.0290</u> gms.	Volume: <u>200</u> ml Residue: <u>0.0011</u> gms.

### WEIGHTS & VOLUMES

Filter (F-33) Gross: <u>0.0889</u> gms.	Tare: <u>0.0871</u> gms.	Net: <u>0.0018</u> gms.
Filter (F-34) Gross: <u>0.0893</u> gms.	Tare: <u>0.0855</u> gms.	Net: <u>0.0038</u> gms.

+10 μ Rinse -

Acetone: <u>75</u> ml	*	1E-05 gm/ml	=	Net: <u>-0.0010</u> gms.
DI Water: <u>75</u> ml	*	6E-06 gm/ml	=	Net: <u>-0.0004</u> gms.
Gross: <u>4.1472</u> gms.		Tare: <u>4.1070</u> gms.		Net: <u>0.0402</u> gms.

**+10μ Total Weight = 0.0444 gms.**

Filter (E-17) Gross: <u>0.1250</u> gms.	Tare: <u>0.1080</u> gms.	Net: <u>0.0170</u> gms.
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-10 μ Rinse

DI Water: <u>380</u> ml	*	6E-06 gm/ml	=	Net: <u>-0.0021</u> gms.
Acetone: <u>50</u> ml	*	1E-05 gm/ml	=	Net: <u>-0.0007</u> gms.
Total: <u>410</u> ml		Aliquot: <u>410</u> ml		Net: <u>0.0223</u> gms.
Gross: <u>4.2283</u> gms.		Tare: <u>4.2060</u> gms.		

**-10μ Total Weight = 0.0366 gms.**

**Total Weight = 0.0810 gms.**

	<b>+ 10 μ</b>	<u>54.8</u> %
	<b>- 10 μ</b>	<u>45.2</u> %



LINT CLEANER  
CYCLONE



**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Stratford Gin Date : 10/26/94  
Site : Stratford Job # : 19083  
Unit : Lint Cleaner Lab # : 292-136  
Run : 2

**BLANKS**

Acetone Volume: 200 ml  
Gross: 4.1584 gms. Tare: 4.1558 gms. Residue: 0.0026 gms.  
DI Water Volume: 200 ml  
Gross: 4.0301 gms. Tare: 4.0290 gms. Residue: 0.0011 gms.

**WEIGHTS & VOLUMES**

Filter Gross: 0.4100 gms. Tare: 0.3989 gms. Net: 0.0111 gms.  
Probe Rinse -  
Acetone: 40 ml \* 1E-05 gms./ml = Net: -0.0005 gms.  
DI Water: 40 ml \* 6E-06 gms./ml = Net: -0.0002 gms.  
Gross: 4.0596 gms. Tare: 4.0382 gms. Net: 0.0214 gms.  
Impinger Catch -  
DI Water: 375 ml \* 6E-06 gms./ml = Net: -0.0021 gms.  
Total: 375 ml Aliquot: 375 ml  
Gross: 78.5622 gms. Tare: 78.5610 gms. Net: -0.0009 gms.  
Total Particulate Weight = 0.0309 gms.

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Stratford Gin                      Date : 10/26/94  
Site : Stratford                              Job # : 19083  
Unit : Lint Cleaner                        Lab # : 292-136  
Run : 3

**BLANKS**

Acetone  
Gross: 4.1584 gms.      Tare: 4.1558 gms.      Volume: 200 ml  
Residue: 0.0026 gms.

DI Water  
Gross: 4.0301 gms.      Tare: 4.0290 gms.      Volume: 200 ml  
Residue: 0.0011 gms.

**WEIGHTS & VOLUMES**

Filter      Gross: 0.4038 gms.      Tare: 0.3998 gms.      Net: 0.0040 gms.

Probe Rinse -  
Acetone: 85 ml \* 1E-05 gms./ml      =      Net: -0.0011 gms.

DI Water: 85 ml \* 6E-06 gms./ml      =      Net: -0.0005 gms.

Gross: 79.1522 gms.      Tare: 79.1345 gms.      Net: 0.0177 gms.

Impinger Catch -  
DI Water: 330 ml \* 6E-06 gms./ml      =      Net: -0.0018 gms.

Total: 330 ml      Aliquot: 330 ml

Gross: 79.3340 gms.      Tare: 79.3316 gms.      Net: 0.0006 gms.

**Total Particulate Weight**      =      0.0207 gms.

### PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : <u>Stratford Gin</u>	Date : <u>10/26/94</u>
Site : <u>Stratford</u>	Job # : <u>19083</u>
Unit : <u>Lint Cleaner</u>	Lab # : <u>294-136</u>
Run : <u>1</u>	

### BLANKS

Acetone	Gross: <u>4.1584</u> gms.	Tare: <u>4.1558</u> gms.	Volume: <u>200</u> ml Residue: <u>0.0026</u> gms.
DI Water	Gross: <u>4.0301</u> gms.	Tare: <u>4.0290</u> gms.	Volume: <u>200</u> ml Residue: <u>0.0011</u> gms.

### WEIGHTS & VOLUMES

Filter (F-1)	Gross: <u>0.0861</u> gms.	Tare: <u>0.0856</u> gms.	Net: <u>0.0005</u> gms.
Filter (F-2)	Gross: <u>0.0862</u> gms.	Tare: <u>0.0854</u> gms.	Net: <u>0.0008</u> gms.
+ 10 μ Rinse -			
Acetone:	<u>65</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0008</u> gms.
DI Water:	<u>65</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0004</u> gms.
Gross:	<u>80.9306</u> gms.	Tare: <u>80.9148</u> gms.	Net: <u>0.0158</u> gms.
<b>+ 10μ Total Weight</b>			= <u>0.0159</u> gms.
Filter (E-1)	Gross: <u>0.1178</u> gms.	Tare: <u>0.1088</u> gms.	Net: <u>0.0090</u> gms.
- 10 μ Rinse			
DI Water:	<u>320</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0018</u> gms.
Acetone:	<u>50</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0007</u> gms.
Total:	<u>370</u> ml	Aliquot: <u>370</u> ml	Net: <u>0.0036</u> gms.
Gross:	<u>80.8828</u> gms.	Tare: <u>80.8792</u> gms.	
<b>- 10μ Total Weight</b>			= <u>0.0102</u> gms.
<b>Total Weight</b>			= <u>0.0261</u> gms.
<b>+ 10 μ</b>			<u>61.0</u> %
<b>- 10 μ</b>			<u>39.0</u> %

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Stratford Gin</u>	Date : <u>10/26/94</u>
Site : <u>Stratford</u>	Job # : <u>19083</u>
Unit : <u>Lint Cleaner</u>	Lab # : <u>294-136</u>
Run : <u>2</u>	

**BLANKS**

Acetone	Gross: <u>4.1584</u> gms.	Tare: <u>4.1558</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0026</u> gms.
DI Water	Gross: <u>4.0301</u> gms.	Tare: <u>4.0290</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0011</u> gms.

**WEIGHTS & VOLUMES**

Filter (F-43) Gross: <u>0.0874</u> gms.	Tare: <u>0.0864</u> gms.	Net: <u>0.0010</u> gms.
Filter (F-44) Gross: <u>0.0879</u> gms.	Tare: <u>0.0866</u> gms.	Net: <u>0.0013</u> gms.

+ 10 μ Rinse -

Acetone: <u>65</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0008</u> gms.
DI Water: <u>65</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0004</u> gms.
Gross: <u>80.8278</u> gms.	Tare: <u>80.8146</u> gms.	Net: <u>0.0132</u> gms.

**+ 10μ Total Weight = 0.0143 gms.**

Filter (E-22) Gross: <u>0.1160</u> gms.	Tare: <u>0.1099</u> gms.	Net: <u>0.0061</u> gms.
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- 10 μ Rinse

DI Water: <u>340</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0019</u> gms.
Acetone: <u>50</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0007</u> gms.
Total: <u>390</u> ml	Aliquot: <u>390</u> ml	
Gross: <u>78.0433</u> gms.	Tare: <u>78.0325</u> gms.	Net: <u>0.0108</u> gms.

**- 10μ Total Weight = 0.0144 gms.**

**Total Weight = 0.0287 gms.**

+ 10 μ	<u>49.9</u> %
- 10 μ	<u>50.1</u> %

### PARTICULATE WEIGHTS : DATA & CALCULATIONS

Client : Stratford Gin  
 Site : Stratford  
 Unit : Lint Cleaner  
 Run : 3

Date : 10/26/94  
 Job # : 19083  
 Lab # : 294-136

### BLANKS

Acetone	Gross: <u>4.1584</u> gms.	Tare: <u>4.1558</u> gms.	Volume: <u>200</u> ml Residue: <u>0.0026</u> gms.
DI Water	Gross: <u>4.0301</u> gms.	Tare: <u>4.0290</u> gms.	Volume: <u>200</u> ml Residue: <u>0.0011</u> gms.

### WEIGHTS & VOLUMES

Filter (F-41) Gross: <u>0.0862</u> gms.	Tare: <u>0.0865</u> gms.	Net: <u>-0.0003</u> gms.
Filter (F-42) Gross: <u>0.0888</u> gms.	Tare: <u>0.0876</u> gms.	Net: <u>0.0012</u> gms.
 + 10 μ Rinse -		
Acetone: <u>65</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0008</u> gms.
DI Water: <u>65</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0004</u> gms.
Gross: <u>80.3294</u> gms.	Tare: <u>80.3168</u> gms.	Net: <u>0.0126</u> gms.
<b>+ 10μ Total Weight</b>		<b>= <u>0.0123</u> gms.</b>
 Filter (E-21) Gross: <u>0.1164</u> gms.	Tare: <u>0.1100</u> gms.	Net: <u>0.0064</u> gms.
 - 10 μ Rinse		
DI Water: <u>350</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0019</u> gms.
Acetone: <u>50</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0007</u> gms.
Total: <u>400</u> ml	Aliquot: <u>400</u> ml	Net: <u>0.0120</u> gms.
Gross: <u>77.3556</u> gms.	Tare: <u>77.3436</u> gms.	
<b>- 10μ Total Weight</b>		<b>= <u>0.0158</u> gms.</b>
<b>Total Weight</b>		<b>= <u>0.0281</u> gms.</b>
<b>+ 10 μ</b>		<b><u>43.6</u> %</b>
<b>- 10 μ</b>		<b><u>56.4</u> %</b>

MOTES TRASH  
CYCLONE

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Stratford Gin                      Date : 10/27/94  
Site : Stratford                              Job # : 19083  
Unit : Motes Trash                      Lab # : 292-136  
Run : 1

**BLANKS**

Acetone    Volume: 200 ml  
Gross: 4.1584 gms.      Tare: 4.1558 gms.      Residue: 0.0026 gms.  
DI Water    Volume: 200 ml  
Gross: 4.0301 gms.      Tare: 4.0290 gms.      Residue: 0.0011 gms.

**WEIGHTS & VOLUMES**

Filter      Gross: 0.5333 gms.      Tare: 0.3976 gms.      Net: 0.1357 gms.  
Probe Rinse -  
Acetone: 75 ml \* 1E-05 gms./ml      =      Net: -0.0010 gms.  
DI Water: 75 ml \* 6E-06 gms./ml      =      Net: -0.0004 gms.  
Gross: 77.3846 gms.      Tare: 77.3420 gms.      Net: 0.0426 gms.  
Impinger Catch -  
DI Water: 305 ml \* 6E-06 gms./ml      =      Net: -0.0017 gms.  
Total: 305 ml      Aliquot: 305 ml  
Gross: 80.2858 gms.      Tare: 80.2825 gms.      Net: 0.0016 gms.  
**Total Particulate Weight      =      0.1785 gms.**

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Stratford Gin Date : 10/27/94  
Site : Stratford Job # : 19083  
Unit : Motes Trash Lab # : 292-136  
Run : 2

**BLANKS**

Acetone  
Gross: 4.1584 gms. Tare: 4.1558 gms. Volume: 200 ml  
Residue: 0.0026 gms.

DI Water  
Gross: 4.0301 gms. Tare: 4.0290 gms. Volume: 200 ml  
Residue: 0.0011 gms.

**WEIGHTS & VOLUMES**

Filter Gross: 0.4558 gms. Tare: 0.3993 gms. Net: 0.0565 gms.

Probe Rinse -  
Acetone: 60 ml \* 1E-05 gms./ml = Net: -0.0008 gms.

DI Water: 65 ml \* 6E-06 gms./ml = Net: -0.0004 gms.

Gross: 79.3427 gms. Tare: 79.2761 gms. Net: 0.0666 gms.

Impinger Catch -  
DI Water: 420 ml \* 6E-06 gms./ml = Net: -0.0023 gms.

Total: 420 ml Aliquot: 420 ml

Gross: 80.4342 gms. Tare: 80.4288 gms. Net: 0.0031 gms.

**Total Particulate Weight = 0.1251 gms.**

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Stratford Gin Date : 10/27/94  
Site : Stratford Job # : 19083  
Unit : Motes Trash Lab # : 292-136  
Run : 3

**BLANKS**

Acetone Volume: 200 ml  
Gross: 4.1584 gms. Tare: 4.1558 gms. Residue: 0.0026 gms.  
DI Water Volume: 200 ml  
Gross: 4.0301 gms. Tare: 4.0290 gms. Residue: 0.0011 gms.

**WEIGHTS & VOLUMES**

Filter Gross: 0.4400 gms. Tare: 0.3984 gms. Net: 0.0416 gms.  
Probe Rinse -  
Acetone: 85 ml \* 1E-05 gms./ml = Net: -0.0011 gms.  
DI Water: 90 ml \* 6E-06 gms./ml = Net: -0.0005 gms.  
Gross: 3.9882 gms. Tare: 3.9162 gms. Net: 0.0720 gms.  
Impinger Catch -  
DI Water: 335 ml \* 6E-06 gms./ml = Net: -0.0018 gms.  
Total: 335 ml Aliquot: 335 ml  
Gross: 4.1372 gms. Tare: 4.1232 gms. Net: 0.0122 gms.  
**Total Particulate Weight = 0.1242 gms.**

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Stratford Gin</u>	Date : <u>10/27/94</u>
Site : <u>Stratford</u>	Job # : <u>19083</u>
Unit : <u>Motes Trash</u>	Lab # : <u>294-136</u>
Run : <u>1</u>	

**BLANKS**

Acetone	Gross: <u>4.1584</u> gms.	Tare: <u>4.1558</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0026</u> gms.
DI Water	Gross: <u>4.0301</u> gms.	Tare: <u>4.0290</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0011</u> gms.

**WEIGHTS & VOLUMES**

Filter (F-3)	Gross: <u>0.0914</u> gms.	Tare: <u>0.0847</u> gms.	Net: <u>0.0067</u> gms.
Filter (F-4)	Gross: <u>0.0952</u> gms.	Tare: <u>0.0853</u> gms.	Net: <u>0.0099</u> gms.

+10 μ Rinse -

Acetone: <u>80</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0010</u> gms.
DI Water: <u>80</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0004</u> gms.
Gross: <u>80.1085</u> gms.	Tare: <u>80.0116</u> gms.	Net: <u>0.0969</u> gms.

**+10μ Total Weight = 0.1120 gms.**

Filter (E-2)	Gross: <u>0.1615</u> gms.	Tare: <u>0.1103</u> gms.	Net: <u>0.0512</u> gms.
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-10 μ Rinse

DI Water: <u>345</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0019</u> gms.
Acetone: <u>50</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0007</u> gms.
Total: <u>395</u> ml	Aliquot: <u>395</u> ml	
Gross: <u>76.9750</u> gms.	Tare: <u>76.9664</u> gms.	Net: <u>0.0086</u> gms.

**-10μ Total Weight = 0.0573 gms.**

**Total Weight = 0.1693 gms.**

+ 10 μ	<u>66.2</u> %
- 10 μ	<u>33.8</u> %

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Stratford Gin</u>	Date : <u>10/27/94</u>
Site : <u>Stratford</u>	Job # : <u>19083</u>
Unit : <u>Motes Trash</u>	Lab # : <u>294-136</u>
Run : <u>2</u>	

**BLANKS**

Acetone	Gross: <u>4.1584</u> gms.	Tare: <u>4.1558</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0026</u> gms.
DI Water	Gross: <u>4.0301</u> gms.	Tare: <u>4.0290</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0011</u> gms.

**WEIGHTS & VOLUMES**

Filter (F-5)	Gross: <u>0.0941</u> gms.	Tare: <u>0.0854</u> gms.	Net: <u>0.0087</u> gms.
Filter (F-6)	Gross: <u>0.0895</u> gms.	Tare: <u>0.0848</u> gms.	Net: <u>0.0047</u> gms.
+ 10 μ Rinse -			
Acetone:	<u>65</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0008</u> gms.
DI Water:	<u>65</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0004</u> gms.
Gross:	<u>80.6213</u> gms.	Tare: <u>80.5475</u> gms.	Net: <u>0.0738</u> gms.
	<b>+ 10μ Total Weight</b>	=	<u>0.0860</u> gms.
Filter (E-3)	Gross: <u>0.1438</u> gms.	Tare: <u>0.1083</u> gms.	Net: <u>0.0355</u> gms.
- 10 μ Rinse			
DI Water:	<u>290</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0016</u> gms.
Acetone:	<u>50</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0007</u> gms.
Total:	<u>340</u> ml	Aliquot: <u>340</u> ml	
Gross:	<u>80.0150</u> gms.	Tare: <u>80.0040</u> gms.	Net: <u>0.0110</u> gms.
	<b>- 10μ Total Weight</b>	=	<u>0.0443</u> gms.
	<b>Total Weight</b>	=	<u>0.1303</u> gms.
	<b>+ 10 μ</b>		<u>66.0</u> %
	<b>- 10 μ</b>		<u>34.0</u> %

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Stratford Gin</u>	Date : <u>10/27/94</u>
Site : <u>Stratford</u>	Job # : <u>19083</u>
Unit : <u>Motes Trash</u>	Lab # : <u>294-136</u>
Run : <u>3</u>	

**BLANKS**

Acetone	Gross: <u>4.1584</u> gms.	Tare: <u>4.1558</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0026</u> gms.
DI Water	Gross: <u>4.0301</u> gms.	Tare: <u>4.0290</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0011</u> gms.

**WEIGHTS & VOLUMES**

Filter (F-7)	Gross: <u>0.0924</u> gms.	Tare: <u>0.0856</u> gms.	Net: <u>0.0068</u> gms.
Filter (F-8)	Gross: <u>0.0968</u> gms.	Tare: <u>0.0859</u> gms.	Net: <u>0.0109</u> gms.

+10 μ Rinse -

Acetone:	<u>75</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0010</u> gms.
DI Water:	<u>75</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0004</u> gms.
Gross:	<u>76.3698</u> gms.	Tare: <u>76.2990</u> gms.	Net: <u>0.0708</u> gms.

**+10μ Total Weight = 0.0871 gms.**

Filter (E-4)	Gross: <u>0.1518</u> gms.	Tare: <u>0.1096</u> gms.	Net: <u>0.0422</u> gms.
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-10 μ Rinse

DI Water:	<u>260</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0014</u> gms.
Acetone :	<u>50</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0007</u> gms.
Total:	<u>310</u> ml	Aliquot: <u>310</u> ml	
Gross:	<u>80.1006</u> gms.	Tare: <u>80.0985</u> gms.	Net: <u>0.0021</u> gms.

**-10μ Total Weight = 0.0422 gms.**

**Total Weight = 0.1293 gms.**

+ 10 μ	<u>67.4</u> %
- 10 μ	<u>32.6</u> %

CYCLONE ROBBER  
SYSTEM

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Stratford Gin Date : 10/27/94  
Site : Stratford Job # : 19083  
Unit : Cyclone Robber Lab # : 292-136  
Run : 1

**BLANKS**

Acetone  
Gross: 4.1584 gms. Tare: 4.1558 gms. Volume: 200 ml  
Residue: 0.0026 gms.

DI Water  
Gross: 4.0301 gms. Tare: 4.0290 gms. Volume: 200 ml  
Residue: 0.0011 gms.

**WEIGHTS & VOLUMES**

Filter Gross: 0.4304 gms. Tare: 0.3994 gms. Net: 0.0310 gms.

Probe Rinse -  
Acetone: 60 ml \* 1E-05 gms./ml = Net: -0.0008 gms.  
DI Water: 60 ml \* 6E-06 gms./ml = Net: -0.0003 gms.

Gross: 4.0105 gms. Tare: 3.9544 gms. Net: 0.0561 gms.

Impinger Catch -  
DI Water: 370 ml \* 6E-06 gms./ml = Net: -0.0020 gms.

Total: 370 ml Aliquot: 370 ml  
Gross: 4.0602 gms. Tare: 4.0625 gms. Net: -0.0043 gms.

**Total Particulate Weight = 0.0817 gms.**

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Stratford Gin  
Site : Stratford  
Unit : Cyclone Robber  
Run : 2

Date : 10/27/94  
Job # : 19083  
Lab # : 292-136

**BLANKS**

Acetone  
Gross: 4.1584 gms.      Tare: 4.1558 gms.      Volume: 200 ml  
Residue: 0.0026 gms.

DI Water  
Gross: 4.0301 gms.      Tare: 4.0290 gms.      Volume: 200 ml  
Residue: 0.0011 gms.

**WEIGHTS & VOLUMES**

Filter      Gross: 0.4166 gms.      Tare: 0.3976 gms.      Net: 0.0190 gms.

Probe Rinse -  
Acetone: 60 ml \* 1E-05 gms./ml      =      Net: -0.0008 gms.

DI Water: 65 ml \* 6E-06 gms./ml      =      Net: -0.0004 gms.

Gross: 3.9752 gms.      Tare: 3.9178 gms.      Net: 0.0574 gms.

Impinger Catch -  
DI Water: 300 ml \* 6E-06 gms./ml      =      Net: -0.0017 gms.

Total: 300 ml      Aliquot: 300 ml

Gross: 3.9413 gms.      Tare: 3.9356 gms.      Net: 0.0040 gms.

**Total Particulate Weight**      =      0.0793 gms.

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Stratford Gin      Date : 10/27/94  
Site : Stratford      Job # : 19083  
Unit : Cyclone Robber      Lab # : 292-136  
Run : 3

**BLANKS**

Acetone  
Gross: 4.1584 gms.      Tare: 4.1558 gms.      Volume: 200 ml  
Residue: 0.0026 gms.

DI Water  
Gross: 4.0301 gms.      Tare: 4.0290 gms.      Volume: 200 ml  
Residue: 0.0011 gms.

**WEIGHTS & VOLUMES**

Filter      Gross: 0.4219 gms.      Tare: 0.3971 gms.      Net: 0.0248 gms.

Probe Rinse -  
Acetone: 45 ml \* 1E-05 gms./ml      =      Net: -0.0006 gms.

DI Water: 50 ml \* 6E-06 gms./ml      =      Net: -0.0003 gms.

Gross: 4.1388 gms.      Tare: 4.0688 gms.      Net: 0.0700 gms.

Impinger Catch -  
DI Water: 320 ml \* 6E-06 gms./ml      =      Net: -0.0018 gms.

Total: 320 ml      Aliquot: 320 ml

Gross: 4.0267 gms.      Tare: 4.0235 gms.      Net: 0.0014 gms.

**Total Particulate Weight      =      0.0954 gms.**

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Stratford Gin</u>	Date : <u>10/27/94</u>
Site : <u>Stratford</u>	Job # : <u>19083</u>
Unit : <u>Cyclone Robber</u>	Lab # : <u>294-136</u>
Run : <u>1</u>	

**BLANKS**

Acetone	Gross: <u>4.1584</u> gms.	Tare: <u>4.1558</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0026</u> gms.
DI Water	Gross: <u>4.0301</u> gms.	Tare: <u>4.0290</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0011</u> gms.

**WEIGHTS & VOLUMES**

Filter (F-13)	Gross: <u>0.0872</u> gms.	Tare: <u>0.0850</u> gms.	Net: <u>0.0022</u> gms.
Filter (F-14)	Gross: <u>0.0865</u> gms.	Tare: <u>0.0848</u> gms.	Net: <u>0.0017</u> gms.
+10 μ Rinse -			
Acetone:	<u>60</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0008</u> gms.
DI Water:	<u>65</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0004</u> gms.
Gross:	<u>4.0580</u> gms.	Tare: <u>4.0060</u> gms.	Net: <u>0.0520</u> gms.
	<b>+10μ Total Weight</b>	=	<u>0.0548</u> gms.
Filter (E-7)	Gross: <u>0.1086</u> gms.	Tare: <u>0.0938</u> gms.	Net: <u>0.0148</u> gms.
-10 μ Rinse			
DI Water:	<u>340</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0019</u> gms.
Acetone:	<u>50</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0007</u> gms.
Total:	<u>390</u> ml	Aliquot: <u>390</u> ml	
Gross:	<u>4.0427</u> gms.	Tare: <u>4.0120</u> gms.	Net: <u>0.0307</u> gms.
	<b>-10μ Total Weight</b>	=	<u>0.0430</u> gms.
	<b>Total Weight</b>	=	<u>0.0977</u> gms.
	<b>+ 10 μ</b>		<u>56.0</u> %
	<b>- 10 μ</b>		<u>44.0</u> %

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Stratford Gin</u>	Date : <u>10/27/94</u>
Site : <u>Stratford</u>	Job # : <u>19083</u>
Unit : <u>Cyclone Robber</u>	Lab # : <u>294-136</u>
Run : <u>2</u>	

**BLANKS**

Acetone	Gross: <u>4.1584</u> gms.	Tare: <u>4.1558</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0026</u> gms.
DI Water	Gross: <u>4.0301</u> gms.	Tare: <u>4.0290</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0011</u> gms.

**WEIGHTS & VOLUMES**

Filter (F-11)	Gross: <u>0.0869</u> gms.	Tare: <u>0.0840</u> gms.	Net: <u>0.0029</u> gms.
Filter (F-12)	Gross: <u>0.0884</u> gms.	Tare: <u>0.0852</u> gms.	Net: <u>0.0032</u> gms.

+ 10 μ Rinse -

Acetone:	<u>60</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0008</u> gms.
DI Water:	<u>60</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0003</u> gms.
Gross:	<u>4.0365</u> gms.	Tare: <u>3.9610</u> gms.	Net: <u>0.0755</u> gms.

**+ 10μ Total Weight = 0.0805 gms.**

Filter (E-6)	Gross: <u>0.1252</u> gms.	Tare: <u>0.1106</u> gms.	Net: <u>0.0146</u> gms.
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- 10 μ Rinse

DI Water:	<u>300</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0017</u> gms.
Acetone:	<u>50</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0007</u> gms.
Total:	<u>350</u> ml	Aliquot: <u>350</u> ml	
Gross:	<u>4.1110</u> gms.	Tare: <u>4.1026</u> gms.	Net: <u>0.0084</u> gms.

**- 10μ Total Weight = 0.0207 gms.**

**Total Weight = 0.1012 gms.**

+ 10 μ	<u>79.5</u> %
- 10 μ	<u>20.5</u> %

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Stratford Gin</u>	Date : <u>10/27/94</u>
Site : <u>Stratford</u>	Job # : <u>19083</u>
Unit : <u>Cyclone Robber</u>	Lab # : <u>294-136</u>
Run : <u>3</u>	

**BLANKS**

Acetone	Gross: <u>4.1584</u> gms.	Tare: <u>4.1558</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0026</u> gms.
DI Water	Gross: <u>4.0301</u> gms.	Tare: <u>4.0290</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0011</u> gms.

**WEIGHTS & VOLUMES**

Filter (F-9)	Gross: <u>0.0886</u> gms.	Tare: <u>0.0856</u> gms.	Net: <u>0.0030</u> gms.
Filter (F-10)	Gross: <u>0.0874</u> gms.	Tare: <u>0.0852</u> gms.	Net: <u>0.0022</u> gms.

+ 10 μ Rinse -

Acetone:	<u>85</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0011</u> gms.
DI Water:	<u>85</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0005</u> gms.
Gross:	<u>4.0720</u> gms.	Tare: <u>3.9942</u> gms.	Net: <u>0.0778</u> gms.

**+ 10μ Total Weight = 0.0814 gms.**

Filter (E-5)	Gross: <u>0.1236</u> gms.	Tare: <u>0.1085</u> gms.	Net: <u>0.0151</u> gms.
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- 10 μ Rinse

DI Water:	<u>350</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0019</u> gms.
Acetone :	<u>50</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0007</u> gms.
Total:	<u>400</u> ml	Aliquot: <u>400</u> ml	Net: <u>0.0083</u> gms.
Gross:	<u>4.2459</u> gms.	Tare: <u>4.2376</u> gms.	

**- 10μ Total Weight = 0.0208 gms.**

**Total Weight = 0.1023 gms.**

+ 10 μ	<u>79.6</u> %
- 10 μ	<u>20.4</u> %

FEEDER TRASH  
CYCLONE

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Stratford Gin  
Site : Stratford  
Unit : Feeder Trash  
Run : 1

Date : 10/28/94  
Job # : 19083  
Lab # : 292-136

**BLANKS**

Acetone  
Gross: 4.1584 gms.      Tare: 4.1558 gms.      Volume: 200 ml  
Residue: 0.0026 gms.

DI Water  
Gross: 4.0301 gms.      Tare: 4.0290 gms.      Volume: 200 ml  
Residue: 0.0011 gms.

**WEIGHTS & VOLUMES**

Filter      Gross: 0.4100 gms.      Tare: 0.3962 gms.      Net: 0.0138 gms.

Probe Rinse -  
Acetone: 70 ml \* 1E-05 gms./ml      =      Net: -0.0009 gms.

DI Water: 70 ml \* 6E-06 gms./ml      =      Net: -0.0004 gms.

Gross: 4.0960 gms.      Tare: 4.0659 gms.      Net: 0.0301 gms.

Impinger Catch -  
DI Water: 295 ml \* 6E-06 gms./ml      =      Net: -0.0016 gms.

Total: 295 ml      Aliquot: 295 ml

Gross: 3.9808 gms.      Tare: 3.9783 gms.      Net: 0.0009 gms.

**Total Particulate Weight**      =      0.0435 gms.

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Stratford Gin Date : 10/28/94  
Site : Stratford Job # : 19083  
Unit : Feeder Trash Lab # : 292-136  
Run : 2

**BLANKS**

Acetone  
Gross: 4.1584 gms. Tare: 4.1558 gms. Volume: 200 ml  
Residue: 0.0026 gms.

DI Water  
Gross: 4.0301 gms. Tare: 4.0290 gms. Volume: 200 ml  
Residue: 0.0011 gms.

**WEIGHTS & VOLUMES**

Filter Gross: 0.3992 gms. Tare: 0.3929 gms. Net: 0.0063 gms.

Probe Rinse -  
Acetone: 45 ml \* 1E-05 gms./ml = Net: -0.0006 gms.

DI Water: 45 ml \* 6E-06 gms./ml = Net: -0.0002 gms.

Gross: 4.2359 gms. Tare: 4.1976 gms. Net: 0.0383 gms.

Impinger Catch -  
DI Water: 330 ml \* 6E-06 gms./ml = Net: -0.0018 gms.

Total: 330 ml Aliquot: 330 ml

Gross: 4.1208 gms. Tare: 4.1178 gms. Net: 0.0012 gms.

**Total Particulate Weight = 0.0450 gms.**

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Stratford Gin Date : 10/28/94  
Site : Stratford Job # : 19083  
Unit : Feeder Trash Lab # : 292-136  
Run : 3

**BLANKS**

Acetone Volume: 200 ml  
Gross: 4.1584 gms. Tare: 4.1558 gms. Residue: 0.0026 gms.  
DI Water Volume: 200 ml  
Gross: 4.0301 gms. Tare: 4.0290 gms. Residue: 0.0011 gms.

**WEIGHTS & VOLUMES**

Filter Gross: 0.4034 gms. Tare: 0.3900<sup>3900</sup> gms. Net: 0.0105 gms.  
Probe Rinse -  
Acetone: 50 ml \* 1E-05 gms./ml = Net: -0.0007 gms.  
DI Water: 50 ml \* 6E-06 gms./ml = Net: -0.0003 gms.  
Gross: 3.8658 gms. Tare: 3.8276 gms. Net: 0.0382 gms.  
Impinger Catch -  
DI Water: 330 ml \* 6E-06 gms./ml = Net: -0.0018 gms.  
Total: 330 ml Aliquot: 330 ml  
Gross: 3.9948 gms. Tare: 3.9930 gms. Net: 0.0000 gms.

**Total Particulate Weight = 0.0478 gms.**

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Stratford Gin</u>	Date : <u>10/28/94</u>
Site : <u>Stratford</u>	Job # : <u>19083</u>
Unit : <u>Feeder Trash</u>	Lab # : <u>294-136</u>
Run : <u>1</u>	

**BLANKS**

Acetone	Gross: <u>4.1584</u> gms.	Tare: <u>4.1558</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0026</u> gms.
DI Water	Gross: <u>4.0301</u> gms.	Tare: <u>4.0290</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0011</u> gms.

**WEIGHTS & VOLUMES**

Filter (F-17) Gross: <u>0.0876</u> gms.	Tare: <u>0.0862</u> gms.	Net: <u>0.0014</u> gms.
Filter (F-18) Gross: <u>0.0872</u> gms.	Tare: <u>0.0862</u> gms.	Net: <u>0.0010</u> gms.

+ 10 μ Rinse -

Acetone: <u>75</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0010</u> gms.
DI Water: <u>75</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0004</u> gms.
Gross: <u>3.8832</u> gms.	Tare: <u>3.8556</u> gms.	Net: <u>0.0276</u> gms.

**+ 10μ Total Weight = 0.0286 gms.**

Filter (E-9) Gross: <u>0.1168</u> gms.	Tare: <u>0.1100</u> gms.	Net: <u>0.0068</u> gms.
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- 10 μ Rinse

DI Water: <u>300</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0017</u> gms.
Acetone: <u>50</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0007</u> gms.
Total: <u>350</u> ml	Aliquot: <u>350</u> ml	
Gross: <u>4.0485</u> gms.	Tare: <u>4.0433</u> gms.	Net: <u>0.0052</u> gms.

**- 10μ Total Weight = 0.0097 gms.**

**Total Weight = 0.0383 gms.**

+ 10 μ	<u>74.7</u> %
- 10 μ	<u>25.3</u> %

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Stratford Gin</u>	Date : <u>10/28/94</u>
Site : <u>Stratford</u>	Job # : <u>19083</u>
Unit : <u>Feeder Trash</u>	Lab # : <u>294-136</u>
Run : <u>2</u>	

**BLANKS**

Acetone	Gross: <u>4.1584</u> gms.	Tare: <u>4.1558</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0026</u> gms.
DI Water	Gross: <u>4.0301</u> gms.	Tare: <u>4.0290</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0011</u> gms.

**WEIGHTS & VOLUMES**

Filter (F-19) Gross: <u>0.0871</u> gms.	Tare: <u>0.0866</u> gms.	Net: <u>0.0005</u> gms.
Filter (F-20) Gross: <u>0.0863</u> gms.	Tare: <u>0.0850</u> gms.	Net: <u>0.0013</u> gms.

+ 10 μ Rinse -

Acetone: <u>75</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0010</u> gms.
DI Water: <u>75</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0004</u> gms.
Gross: <u>4.0720</u> gms.	Tare: <u>4.0508</u> gms.	Net: <u>0.0212</u> gms.

**+ 10μ Total Weight = 0.0216 gms.**

Filter (E-10) Gross: <u>0.1142</u> gms.	Tare: <u>0.1109</u> gms.	Net: <u>0.0033</u> gms.
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- 10 μ Rinse

DI Water: <u>325</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0018</u> gms.
Acetone: <u>50</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0007</u> gms.
Total: <u>375</u> ml	Aliquot: <u>375</u> ml	Net: <u>0.0076</u> gms.
Gross: <u>3.9744</u> gms.	Tare: <u>3.9668</u> gms.	

**- 10μ Total Weight = 0.0085 gms.**

**Total Weight = 0.0301 gms.**

+ 10 μ	<u>71.9</u> %
- 10 μ	<u>28.1</u> %

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : <u>Stratford Gin</u>	Date : <u>10/28/94</u>
Site : <u>Stratford</u>	Job # : <u>19083</u>
Unit : <u>Feeder Trash</u>	Lab # : <u>294-136</u>
Run : <u>3</u>	

**BLANKS**

Acetone	Gross: <u>4.1584</u> gms.	Tare: <u>4.1558</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0026</u> gms.
DI Water	Gross: <u>4.0301</u> gms.	Tare: <u>4.0290</u> gms.	Volume: <u>200</u> ml	Residue: <u>0.0011</u> gms.

**WEIGHTS & VOLUMES**

Filter (F-15)	Gross: <u>0.0866</u> gms.	Tare: <u>0.0857</u> gms.	Net: <u>0.0009</u> gms.
Filter (F-16)	Gross: <u>0.0871</u> gms.	Tare: <u>0.0859</u> gms.	Net: <u>0.0012</u> gms.

+ 10 μ Rinse -

Acetone:	<u>75</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0010</u> gms.
DI Water:	<u>75</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0004</u> gms.
Gross:	<u>3.9803</u> gms.	Tare: <u>3.9454</u> gms.	Net: <u>0.0349</u> gms.

**+ 10μ Total Weight = 0.0356 gms.**

Filter (E-8)	Gross: <u>0.1130</u> gms.	Tare: <u>0.1085</u> gms.	Net: <u>0.0045</u> gms.
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- 10 μ Rinse

DI Water:	<u>370</u> ml * <u>6E-06</u> gm/ml	=	Net: <u>-0.0020</u> gms.
Acetone:	<u>50</u> ml * <u>1E-05</u> gm/ml	=	Net: <u>-0.0007</u> gms.
Total:	<u>420</u> ml	Aliquot: <u>420</u> ml	
Gross:	<u>4.0945</u> gms.	Tare: <u>4.0898</u> gms.	Net: <u>0.0047</u> gms.

**- 10μ Total Weight = 0.0065 gms.**

**Total Weight = 0.0421 gms.**

+ 10 μ	<u>84.5</u> %
- 10 μ	<u>15.5</u> %

UNLOADING  
CYCLONE

WEIGHT SHEET

Client : SG

Date : 10-26

Site : \_\_\_\_\_

Job# : \_\_\_\_\_

Unit : unbleached wax Part

Lab# : \_\_\_\_\_

#	Sample ID	Final	Tare
29	Puho 125 ml	4.2126 4.2130	4.1183 4.1188
37	Impo 315 ml	3.9851 <del>3.9760</del> 3.9754	4.0113 4.0129 4.0133
41	Puho 125 ml	4.0876 4.0902 4.0903	3.9693 3.9731 3.9733
95	Impo 365 ml	4.0465 4.0471 4.0470	4.0432 4.0430
93	Puho 150 ml	4.1025 4.1023	3.9791 3.9815 3.9818
31	Impo 350 ml	4.0118 4.0144 4.0140	4.0093 4.0095
10	R1 B30	0.4405/4404	0.3960
8	R2 B31	0.4245/4249	0.3496
1	R2 B32	0.4978/4973	0.4005

WEIGHT SHEET

Client : STRATFORD Gin PM-10  
 Site : \_\_\_\_\_  
 Unit : unloading Fan

Date : 10-26  
 Job# : 294-136  
 Lab# : \_\_\_\_\_

#	Sample ID	Final	Tare
✓ 89	+10	3.9057	3.8551
	125ml	3.9063	3.8541
		3.9059	3.8536
✓ 92	-10	4.1219	4.1189
	400ml	4.1212	4.1191
100 ✓	+10	4.3238	4.2334
	125ml	<del>4.3246</del>	4.2331
		4.3240	
✓ 86	-10	4.2861	4.2817
	290ml	4.2863	4.2819
✓ 90	+10	4.0814	3.9476
	140ml	4.0820	3.9481
		4.0818	
✓ 87	-10	4.1959	4.1876
	400ml	4.1969	4.1874
		4.1962	
✓ 8	R1 <del>F35</del> F35	.0901/.0900	0.0855
	F36	.0880/.0880	0.0853
	E18	.1311/.1313	0.1090
✓	R2 B37	.0927/.0929	0.0852
	F38	.0882/.0883	.0856
	E19	.1305/.1305	.1066
✓ 22	R3 F39	.0893/.0893	.0857
	F40	.0909/.0908	.0844
	E20	.1422/.1421	.1109

HULL TRASH  
CYCLONE

WEIGHT SHEET

Client : ST. G  
 Site : \_\_\_\_\_  
 Unit : HULL-TRASH

PART-

Date : 10-26  
 Job# : \_\_\_\_\_  
 Lab# : \_\_\_\_\_

#	Sample ID	Final	Tare
27 #	R-1 Probe 100ml	3.9296 3.9299	3.8550 3.8555
89 #	R-1 Impo 280ml	4.1249 4.1254	4.1163 4.1163
98 #	R-2 Purlop 185ml	4.1452 4.1448	4.0935 4.0931
85 #	R-2 Impo 360ml	4.1167 4.1172	4.1056 4.1096 10 <sup>74</sup>
94 #	R-3 Purlop 170ml	4.1155 4.1156 4.1148	4.0400 4.0400
97 #	R-3 Impo 380ml	4.2173 4.2178	4.2078 4.2075
7	R1 B27	0.4077/4.076	0.3988
8	R2 B28	0.4171/4.168	0.3976
9	R3 B29	0.4208/4.203	0.3974

✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓

WEIGHT SHEET

Client : SG Date : 10-26  
 Site : \_\_\_\_\_ Job# : \_\_\_\_\_  
 Unit : TRM PM-10 Lab# : \_\_\_\_\_

#	Sample ID	Final	Tare
✓ 91	+10 150ml	4,1557 4,1561	<del>4,1166</del> 4,1180 4,1179
✓ 39 R-1	-10 480ml	4,1100 4,1104	<del>4,0882</del> 4,0896 4,0895
✓ 33	+10 175ml	4,1471 4,1473	<del>4,1049</del> 4,1072 4,1069
✓ 88 4	-10 410ml	4,2282 4,2284	<del>4,2045</del> 4,2078 4,2061
✓ 99 #	+10 180ml	4,2331 4,2336 4,2333	<del>4,1780</del> 4,1740 4,1741
✓ 81 6	-10 360ml	3,9461 3,9460	3,9517 3,9516
✓ 7 61	F29	0,0868/0,0871	0,0871
	F30	0,0875/0,0877	0,0867
	E45	0,1129/0,1130	0,1058
✓ 8	R2 F33	0,0840/0,0888	0,0871
	F34	0,0842/0,0894	0,0855
	E17	0,1257/0,1250	0,1080
✓ 9	R3 F31	0,0880/0,0881	0,0872
	F32	0,0887/0,0888	0,0872
	E16	0,1216/0,1214	0,1073

LINT CLEANER  
CYCLONE

WEIGHT SHEET

Client : SI-G:IN      Date : 10-26  
 Site : \_\_\_\_\_      Job# : \_\_\_\_\_  
 Unit : INERS LINT      Lab# : \_\_\_\_\_

PAINT

43

#	Sample ID	Final	Tare
7	R-1 Probe 90	78.3426 78.3429	78.3409 78.3407
8	R-1 Imps 375	80.7228 80.7228	80.7213 80.7209
9	R-2 Probe 80	4.0597 4.0596	4.0384 4.0381
10	R-2 Imps 375	79.5620 79.5623	79.5608 79.5612
11	R-3 Probe 170	79.1523 79.1522	79.1343 79.1347
12	R-3 Imps 330	79.3339 79.3341	79.3316 79.3317
"	R1 B33	0.4063/0.4061	0.4015
"	R2 B34	0.4100/0.4100	0.3989
"	R3 B5	0.4038/0.4038	0.3998

✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓

WEIGHT SHEET

Client : STANTFORD Grial Date : 10-26  
 Site : \_\_\_\_\_ Job# : \_\_\_\_\_  
 Unit : LinA PM-10 Lab# : \_\_\_\_\_

#	Sample ID	Final	Tare
✓ 1	R-1 +10 130	80.9307 80.9306	80.9146 80.9149
✓ 2	R-1 -10 370	80.8828 80.8827	80.8791 80.8794
✓ 3	R-2 +10 130	80.8278 80.8279	80.8144 80.8147
✓ 4	R-2 -10 390	78.0434 78.0432	78.0316 78.0321 78.0323
✓ 5	R-3 +10 130	80.3294 80.3294	80.3166 80.3171
✓ 6	R-3 -10 100	77.3556 77.3555	77.3435 77.3438
✓ 7	R1 F1	0.0862/0.0860	0.0856
	F2	0.0863/0.0860	0.0857
	F3	0.1177/0.1179	0.1088
✓ 8	R2 F43	0.0871/0.0874	0.0864
	F44	0.0880/0.0878	0.0866
	F22	0.1161/0.1160	0.1099
✓ 9	R3 F41	0.0860/0.0863	0.0854
	F42	0.0888/0.0887	0.0876
	E21	0.1165/0.1164	0.1100

MOTES TRASH  
CYCLONE



WEIGHT SHEET

Client : ST Gil Date : 10-27  
 Site : \_\_\_\_\_ Job# : \_\_\_\_\_  
 Unit : WHITE'S PM-10 Lab# : \_\_\_\_\_

#	Sample ID	Final	Tare
✓ 13	R-1 +10 160	80.1086 <del>80.1084</del>	80.0115 <del>80.0118</del>
✓ 14	R-1 -10 395	76.9750 <del>76.9751</del>	76.9663 <del>76.9668</del>
✓ 15	R-2 +10 130	80.6213 <del>80.6213</del>	80.5473 <del>80.5477</del>
✓ 16	R-2 -10 340	80.0149 <del>80.0150</del>	80.0038 <del>80.0040</del>
✓ 17	R-3 +10 150	76.3698 <del>76.3698</del>	76.2988 <del>76.2992</del>
✓ 18	R-3 -10 210	80.1005 <del>80.1007</del>	<del>80.0965</del> 80.0987 <del>80.0983</del>
8	R1 F3	0.0914/0915	0.0847
	F4	0.0952/0953	0.0853
	E2	0.1616/1614	0.1103
8	R2 F5	0.0939/0943	0.0854
	F6	0.0875/10895	0.0848
	E3	0.1438/1438	0.1083
8	R3 F7	0.0922/0925	0.0850
	F8	0.0967/0969	0.0859
	E4	0.1516/1519	0.1096

CYCLONE ROBBER  
SYSTEM

WEIGHT SHEET

Client : ST-GIN  
 Site : \_\_\_\_\_  
 Unit : Cycle Roller

Date : 10-27  
 Job# : \_\_\_\_\_  
 Lab# : \_\_\_\_\_

#	Sample ID	Final	Tare
34	+10 125	4.0582	4.0059
	R-1	4.0578	4.0062
64	-10 390	4.0429	4.0118
		4.0425	4.0122
35	+10 120	4.0381	3.9610
	R-2	4.0363	3.9611
38	-10 350	4.1109	4.1023
		4.1110	4.1028
69	+10 170	4.0727	3.9942
	R-3	4.0718	3.9942
67	-10 400	4.2460	4.2377
		4.2458	4.2375
7	R1 B39	0.4303/4306	0.3994
8	R2 B40	0.4163/4168	0.3976
9	R3 B41	0.4218/4220	0.3971



FEEDER TRASH  
CYCLONE

WEIGHT SHEET

Client : Stratford G'm  
 Site : \_\_\_\_\_  
 Unit : Feeder

Date : 10-28  
 Job# : \_\_\_\_\_  
 Lab# : \_\_\_\_\_

#	Sample ID	Final	Tare
✓ 44	+10 150	3.8832	3.8559
		3.8833	3.8554
✓ 32	R-1 -10 350	4.0484	4.0435
		4.0486	4.0431
✓ 53	+10 150	4.0719	<del>4.0501</del>
		4.0722	4.0510
			4.0505
✓ 26	R-2 -10 375	<del>3.9754</del>	3.9669
		3.9742	3.9666
		3.9745	
✓ 30	+10 150	3.9802	3.9456
		3.9804	3.9452
✓ 78	R-3 -10 420	4.0944	4.0899
		4.0946	4.0894
7	R-1 B42	0.4102/4.101	0.3962
8	R-2 B43	0.3990/0.3995	0.3929
9	R-3 B44	0.4034/4.035	0.3900

WT. Tare

WEIGHT SHEET

Client : STRAT GIN  
 Site : \_\_\_\_\_  
 Unit : Feeder

Part

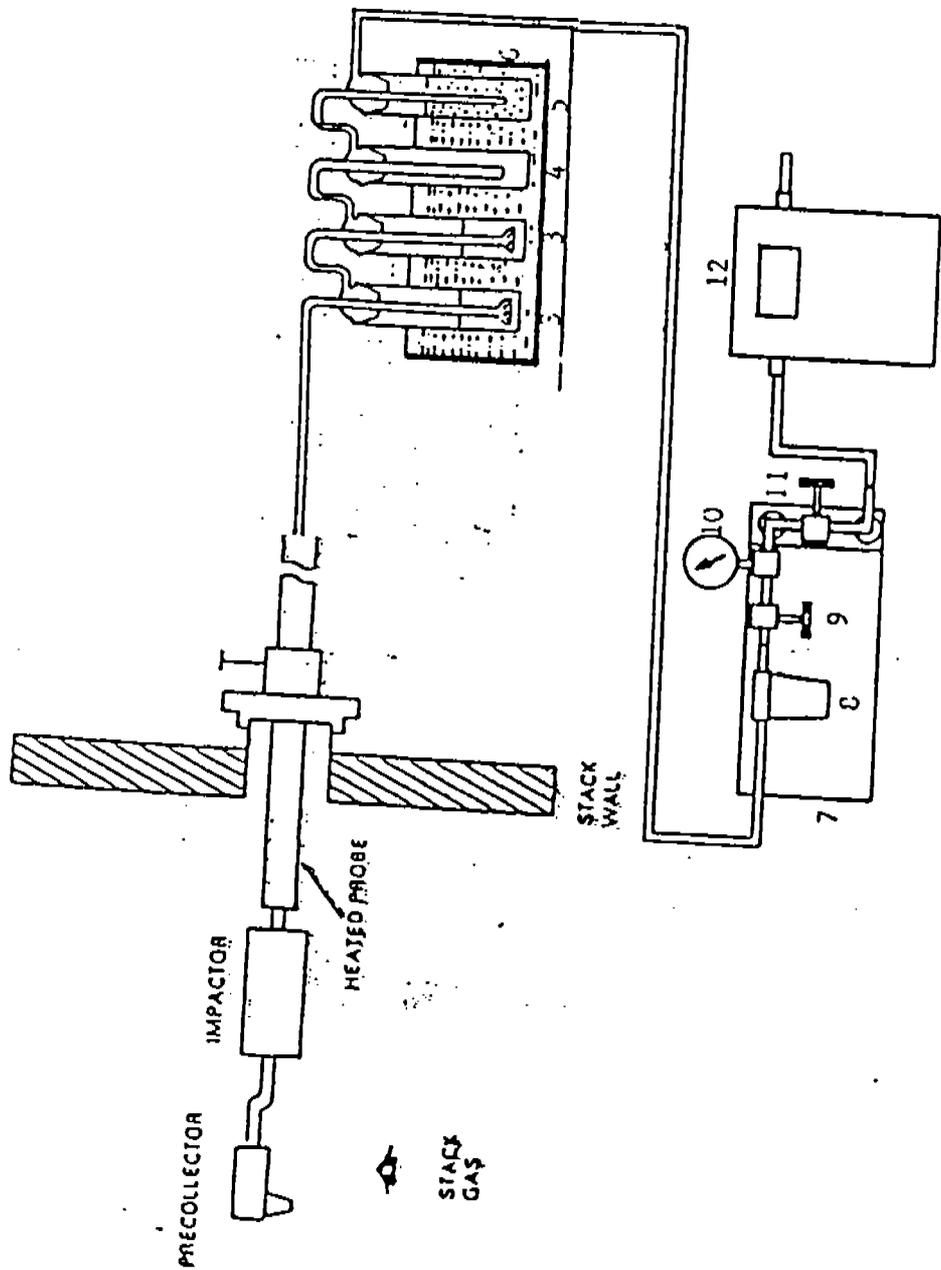
Date : 10-28  
 Job# : \_\_\_\_\_  
 Lab# : \_\_\_\_\_

#	Sample ID	Final	Tare
46	R-1 Probe 140	4.0958 4.0963	<del>4.0645</del> 4.0660 4.0658
57	R-1 Imp 295	3.9822 3.9806 3.9809	3.9783 3.9783
84	R-2 Probe 90	4.2357 4.2361	4.1976 4.1977
73	R-2 Imp 330	4.1208 4.1209	4.1178 4.1179
28	R-3 Probe 100	3.8657 3.8659	3.8278 3.8274
25	R-3 Imp 330	3.9950 3.9947	3.9932 3.9927
✓ 74	Acetone Blank 200	4.1584 4.1585	4.1556 4.1559
✓ 82	DI BLANK 200	4.0297 4.0303	4.0288 4.0291
9	B F17	0.0870 / 0.0877	0.0862
	F18	0.0872 / 0.0871	0.0862
	E9	0.1167 / 0.1169	0.1100

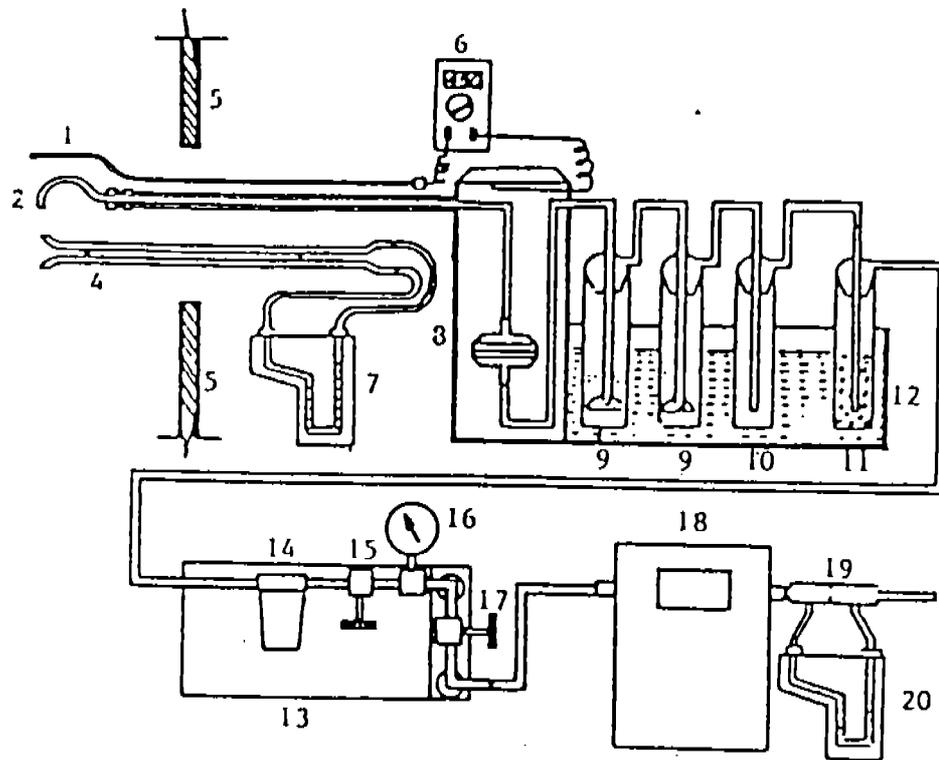
R2	F19	0.0872 / 0.0870	0.0866
	F20	0.0862 / 0.0864	0.0850
	E10	0.1142 / 0.1142	0.1109
R1	F15	0.0866 / 0.0865	0.0817
	F16	0.0870 / 0.0872	0.0859
		0.0294 / 0.1131	0.1085

## VI. METHODOLOGY

# PM-10 PARTICULATE SAMPLING TRAIN



- |   |   |
|---|---|
| 1. Stack Wall                               | 8. Filter for Pump                        |
| 2. Probe                                    | 9. Metering Valve                         |
| 3. Impinger with 100 ml of H <sub>2</sub> O | 10. Vacuum Gauge                          |
| 4. Empty Bubbler                            | 11. By-pass Valve                         |
| 5. Bubbler with Silica Gel                  | 12. Temperature Compensated Dry Gas Meter |
| 6. Ice Bath                                 |   |
| 7. Sealed Pump (Leak Free)                  |   |



- |   |   |
|---|---|
| 1. Temperature Sensor                       | 11. Bubbler with Silica Gel               |
| 2. Nozzle                                   | 12. Ice Bath                              |
| 3. Glass lined Stainless Steel Probe-Heated | 13. Sealed Pump (Leak Free)               |
| 4. S-type Pitot Tube                        | 14. Filter for Pump                       |
| 5. Stack Wall                               | 15. Metering Valve                        |
| 6. Temperature Sensor Meter                 | 16. Vacuum Gauge                          |
| 7. Pitot Tube Inclined Manometer            | 17. By-pass Valve                         |
| 8. Heated Box with Filter                   | 18. Temperature Compensated Dry Gas Meter |
| 9. Impinger with 100 ml H <sub>2</sub> O    | 19. Orifice                               |
| 10. Empty Bubbler                           | 20. Orifice Inclined Manometer            |

Particulate Sampling Train Set-up with Heated Probe and Heated Filter

*VII. RAW DATA*

UNLOADING  
CYCLONE

Plant: <u>Stratford GIN</u>	Filler: <u>B-30</u>	Box Heat: <u>ON</u>
Locallon: <u>Stratford</u>	Am Temp: <u>78</u>	Nozzel: <u>#37.35</u>
Unit: <u>unloaded CAN</u>	P. Bar: <u>29.93</u>	Prob Heat: <u>ON</u>
Date: <u>10/26/94</u>	Pilot: <u>#1 883</u>	Wind Vel: <u>0.1</u>
Run#: <u>NA S R1</u>	Pyro: <u>#1 1.0</u>	Static Ps: <u>0.05</u>
Cold Box: <u>3</u>	Mag ΔP: <u>1.1</u>	O2: <u>20.9</u>
Meter #: <u>A</u>	Map ΔH: <u>1.9 999</u>	CO2: <u>0.05</u>
Meter Fac: <u>9572 AHO</u>	% H2O: <u>0.03</u>	
	<u>1.7813</u>	

Stack Dia: 26  
 "A" 48  
 "B" >200

Imp	Gross	Tare	Final
1		623.9	625.2
2		587.4	588.4
3		462.0	463.0
4		577.2	576.8

	Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vcc.
1	1.2		2.00	0.0	97	.12	2.18	769.769	86	86	
2	3.8			5	95	.17	2.47	775.1	87	88	2
3	7.7			10	96	.15	2.16	778.4	87	86	
4	18.3			15	96	.17	2.47	782.7	90	87	3
5	22.2			20	97	.14	2.04	787.0	91	90	
6	24.8		2.30	25	98	.13	1.89	792.1	94	92	
7			2.35	30	98	.06	.87	795.562	95	95	
8				35	94	.09	1.31	799.2	95	95	
9				40	99	.12	1.79	802.6	96	95	
10				45	101	.17	2.47	806.3	97	99	
11				50	99	.14	2.04	807.4	96	97	
12				55	99	.16	2.33	814.9	98	97	
1				60				819.223			
2			3.05								
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
0											

Leak Checks:

ΔP: <u>.23</u>	ΔP: <u>.37</u>	CFM: <u>20.002</u>	IN, HG: <u>26</u>
ΔP: <u>.23</u>	ΔP: <u>.37</u>	CFM: <u>0.006</u>	IN, HG: <u>10</u>
ΔH: <u>.25</u>	ΔH: <u>.20</u>	Notes: <u>14.57</u>	
ΔH: <u>.25</u>	ΔH: <u>.20</u>		

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Plant: Standard Oil Filler: B-31 Box Heat: ON  
 Location: Standard Am Temp: \_\_\_\_\_ Nozzel: \_\_\_\_\_  
 Unit: Wilmington PA P. Bar: \_\_\_\_\_ Prob Heat: ON  
 Date: 10/26/94 Pilot: #1, 823 Wind Vel: 0.15  
 Run #: 7 K/S Pyro: #1, 1A Static Ps: \_\_\_\_\_  
 Cold Box: 1 Mag ΔP: \_\_\_\_\_ O2: 20.91  
 Meter #: PA Map ΔH: 11.9, 9.97 CO2: 0.05  
 Meter Fac: .7572 LFE % H2O: 0.03  
1.7813

Stack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1		581.5	577.3
2		599.5	599.7
3		477.1	477.1
4		631.4	637.6

Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1		3.25	0.0	91	.13	1.87	819.386	97	96	
2			5	99	.12	1.75	824.0	97	95	2
3			10	100	.14	2.03	826.8	99	97	
4		5.05	15	104	.12	1.75	831.9	98	98	
5			20	100	.15	2.19	835.7	100	99	
6			25	99	.13	1.89	840.5	100	99	
7		11.02	30	99	.10	1.46	844.187	100	99	
8			35	97	.12	1.75	850.4	100	98	
9			40	97	.15	2.19	853.0	100	99	3
10			45	98	.14	2.04	857.8	100	99	
11			50	97	.17	2.47	861.2	100	100	
12			55	97	.12	1.75	866.6	100	100	
1		4.37	60				870.002			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>.17</u>	ΔP <u>.23</u>	CFM: <u>10.002</u>	IN, HG: <u>79</u>
ΔP <u>.17</u>	ΔP <u>.23</u>	CFM: <u>0.003</u>	IN, HG: <u>7</u>
ΔH <u>.36</u>	ΔH <u>.09</u>	Notes: <u>14.57</u>	
ΔH <u>.36</u>	ΔH <u>.09</u>		

Plant: Stratco Gas Filler: B-32 Box Heat: on  
 Location: Stratco Am Temp: \_\_\_\_\_ Nozzel: \_\_\_\_\_  
 Unit: Unloading Crv P. Bar: \_\_\_\_\_ Prob Heat: on  
 Date: 10/26/2011 Pilot: #1 0.833 Wind Vel: None  
 Run #: N.S Run #3 Pyro: #1 1.0 Static Ps: \_\_\_\_\_  
 Cold Box: on Mag ΔP: \_\_\_\_\_ O2: 20.9  
 Meter #: A Map ΔH: M-9 0909 CO2: 0.05  
 Meter Fac: 9672 % H2O: 0.03  
 AME 1.7813

Stack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1		610.5	605.7
2		584.7	583.8
3		461.9	468.3
4		576.8	577.4

Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1		4.53	0.0	98	.14	2.04	871.203	99	99	
2			3	98	.16	2.33	875.9	101	98	
3		03	10	98	.12	1.71	881.1	99	99	
4			15	95	.17	2.47	883.3	100	98	
5			20	95	.16	2.33	887.5	100	98	
6			25	93	.13	1.89	892.2	100	98	
7		5:22	30	89	.08	1.16	897.382	99	100	
8		5:26	35	93	.12	1.71	901.1	98	98	
9			40	94	.16	2.33	905.3	98	98	
10			45	98	.17	2.47	909.7	97	97	2
11			50	93	.14	2.04	913.6	100	98	
12			55	93	.12	1.71	917.9	98	98	
1		5:56	60				921.843			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>.18</u>	ΔP <u>.20</u>	CFM: <u>0.002</u>	IN, HG <u>18</u>
ΔP <u>.18</u>	ΔP <u>.20</u>	CFM: <u>0.001</u>	IN, HG <u>7</u>
ΔH <u>.09</u>	ΔH <u>.26</u>	Notes: <u>14.57</u>	
ΔH <u>.09</u>	ΔH <u>.26</u>		

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0.00225

Plant: <u>STANTON</u>	Filler: <u>E19, F37, F38</u>	Box Heat: <u>on</u>
Location: <u>STANTON</u>	Am Temp: <u>78</u>	Nozzel: <u>35</u>
Unit: <u>woodbury</u>	P. Bar: <u>29.93</u>	Prob Heat: <u>on</u>
Date: <u>10/26/94</u>	Pilot: <u>#1 .833</u>	Wind Vel: <u>calm</u>
Run#: <u>2 PM-10</u>	Pyro: <u>#1 1.00</u>	Static Ps: _____
Cold Box: <u>2</u>	Mag ΔP: _____	O2: <u>20.9</u>
Meter #: <u>B</u>	Map ΔH: <u>M-1 1.010</u>	CO2: <u>0.03</u>
Meter Fac: <u>.9723 ΔH@</u>	% H2O: <u>0.02</u>	
	<u>2.0441</u>	

Slack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1			
2			
3			
4			

Trav Point	O2 %	CO2 %	Time Min	Slack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1		3.25	0.0	91	.12	.15	105.972	84	82	
2			5	99	.17		108.6	83	87	S
3			10	100	.15		111.7	89	81	
4			15	104	.17		116.4	88	93	S
5			20	100	.14		120.2	89	85	
6			25	99	.13		124.4	92	86	
7		4.00	30	94	.106		127.634	92	91	
8		4.02	35	97	.09		131.8	92	86	
9			40	97	.12		134.3	88	93	
10			45	98	.17		137.7	94	88	
11			50	97	.14		140.1	94	88	
12			55	97	.16		144.7	96	88	
1		4.35	60				148.250			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP: <u>.17</u>	ΔP: <u>.23</u>	CFM: <u>&lt;0.002</u>	IN, HG: <u>26</u>
ΔP: <u>.17</u>	ΔP: <u>.22</u>	CFM: <u>0.000</u>	IN, HG: <u>6</u>
ΔH: <u>.36</u>	ΔH: <u>.09</u>	Notes: <u>12.43</u>	
ΔH: <u>.36</u>	ΔH: <u>.09</u>		

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0.00164

Plant: <u>Standard Giv</u>	Filler: <u>E20, F40 F37</u>	Box Heal: <u>an</u>
Location: <u>Standard</u>	Am Temp: _____	Nozzel: <u>35</u>
Unit: <u>1/16" Landing Fan</u>	P. Bar: _____	Prob Heal: <u>owl</u>
Date: <u>10/26/04</u>	Pilot: <u>#1 .833</u>	Wind Vel: <u>an</u>
Run #: <u>3 Pm-10</u>	Pyro: <u>#1 1.0</u>	Static Ps: _____
Cold Box: <u>4</u>	Mag ΔP: _____	O2: <u>20.9</u>
Meter #: <u>B</u>	Map ΔH: <u>M-1 1.010</u>	CO2: <u>0.05</u>
Meter Fac: <u>9723 ΔHe</u>	Σ H2O: <u>0.03</u>	
	<u>2.0441</u>	

Stack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1			
2			
3			
4			

Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1		4.53	0.0	98	.12	1.5	149.145	86	85	
2			5	98	.17		152.8	86	82	
3			10	96	.14		157.5	89	89	
4			15	95	.15		159.6	90	89	4
5			20	95	.12		162.7	91	86	
6			25	93	.10		166.6	93	86	
7		5.23	30	90	.13		170.700	90	85	
8		5.26	35	93	.15		174.5	87	92	
9			40	93	.17		178.1	93	87	
10			45	97	.14		181.5	87	93	
11			50	93	.12		184.2	93	82	
12			55	93	.13		188.0	92	87	
1		5.8	60				191.796			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>.18</u>	ΔP <u>.20</u>	CFM: <u>40,000</u>	IN, HG <u>22</u>	171
ΔP <u>.18</u>	ΔP <u>.20</u>	CFM: <u>0.000</u>	IN, HG <u>9</u>	
ΔH <u>.09</u>	ΔH <u>.26</u>	Notes: <u>12.43</u>		
ΔH <u>.09</u>	ΔH <u>.20</u>			







HULL TRASH  
CYCLONE

Plant: Stratford Gas Filler: B-27 Box Heat: 24  
 Locallon: Stratford Am Temp: 59 Nozzel: 23 0255  
 Unit: Truck (2011) P. Bar: 29.93 Prob Heat: 21  
 Date: 10/26/94 Pilot: #1, 833 Wind Vel: 0.1  
 Run#: Zuni m-S Pyro: #1 110 Static Ps: +0.01  
 Cold Box: 1 Mag ΔP: 11.7, 999 O2: 20.4  
 Meter #: A Map ΔH: 11.9, 999 CO2: 0.05  
 Meter Fac: 9572 1A2 % H2O: .83  
 17813

Slack Dia: 26 Dia  
 "A" 52 = 20  
 "B" 2240 = 90

Imp	Gross	Tare	Final
1		606.1	600.2
2		561.4	563.2
3		477.8	477.9
4		621.8	627.9

8:40

Trav Point	O2 %	CO2 %	Time Min	Slack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vcc.
1			0.0	83	.30	1.24	651.712	58	59	
2			5	86	.	1.24	654.7	58	60	
3			10	90	.25	1.09	658.0	52	60	
4			15	90	.2	.83	661.0	60	63	
5			20	91	.25	1.04	663.7	67	65	
6			25	92	.2	.83	666.6	69	62	
7			30	92	.4	1.65	669.115	68	68	3
8			35	90	.5	2.07	672.7	75	70	4
9			40	97	.45	1.86	677.9	79	80	
10			45	93	.25	1.04	681.0	79	77	
11			50	94	.25	1.04	684.0	80	78	
12			55	93	.2	.83	687.4	81	80	
1		91.15	60		.715		690.148			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>1.9</u>	ΔP <u>7.0</u>	CFM: <u>&lt;0.002</u>	IN, HG <u>20</u>
ΔP <u>1.9</u>	ΔP <u>2.0</u>	CFM: <u>200</u>	IN, HG <u>6</u>
ΔH <u>23</u>	ΔH <u>2.7</u>	Notes: <u>4.14</u>	
ΔH <u>1.2</u>	ΔH <u>2</u>		

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Plant: Stratford Gen  
 Location: Stratford  
 Unit: Frash (Hull)  
 Date: 10/26/94  
 Run#: 2-MS  
 Cold Box: 3  
 Meter #: A  
 Meter Fac: 9572 AHC  
1.7813

Filter: R-28  
 Am Temp: 64  
 P. Bar: 29.93  
 Pilot: #1 833  
 Pyro: #1 1.0  
 Mag ΔP: M-7 .999  
 Map ΔH: M-9 .999  
 X H2O: 0.03

Box Heat: on  
 Nozzel: \_\_\_\_\_  
 Prob Heat: on  
 Wind Vel: Calm  
 Static Ps: - .01  
 O2: 20.9  
 CO2: 0.05

Slack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1		643.9	645.9
2		570.7	569.0
3		461.0	464.0
4		575.9	577.2

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
0

Trav Point	O2 %	CO2 %	Time Min	Slack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vcc.
		10.10	0.0	80	.3	1.24	690.435	82	83	
			5	96	.3	1.24	693.5	85	83	
			10	97	.3	1.24	697.5	83	82	2
			15	97	.25	1.04	700.0	85	85	
			20	98	.25	1.04	703.4	84	83	
			25	97	.2	.83	707.0	85	84	
		10.40 10.143	30	90	.5	2.07	709.650	85	85	
			35	96	.5	2.07	713.5	88	86	
			40	98	.5	2.07	716.7	86	88	3
			45	99	.25	1.64	721.5	89	90	
			50	98	.2	.83	723.9	91	87	
			55	99	.25	1.04	726.6	89	88	
		11.15	60				729.576			

Leak Checks:

ΔP 2.1  
 ΔP 2.1

ΔP 1.9  
 ΔP 1.9

CFM: 50.002 IN.HG 20  
 CFM: 0.003 IN.HG 4

17.7

ΔH 1.0  
 ΔH 1.0

ΔH 1.5  
 ΔH 1.0

Notes: 4.14

Plant: Stratford Gas Filler: B-29 Box Heat: on  
 Location: Stratford Am Temp: \_\_\_\_\_ Nozzel: \_\_\_\_\_  
 Unit: Trash CHILL P. Bar: 29.50 Prob Heat: on  
 Date: 10/26/94 Pilot: #1 0.833 Wind Vel: 2.5  
 Run #: 3 PAT M-S Pyro: #1 1.0 Static Ps: -1.9  
 Cold Box: 1 Mag ΔP: 11-7 0.999 O2: 20.9  
 Meter #: A Map ΔH: 11-9 0.99 CO2: 0.05  
 Meter Fac: 9577 LHO % H2O: 0.03  
1.7813

Stack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1		619.2	621.6
2		575.8	576.3
3		477.8	477.6
4		627.8	631.4

Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vcc.
1		11.35	0.0	99	.3	1.24	729.791	88	87	
2			5	101	.3	1.24	733.1	87	87	
3			10	101	.25	1.09	735.9	87	88	
4			15	100	.3	1.24	739.1	89	88	
5			20	101	.25	1.04	747.5	89	88	
6			25	101	.2	.83	745.5	89	89	
7		12.05	30	101	.5	2.07	748.105	91	91	5
8		12.02	35	100	.5	2.07	752.9	91	90	
9			40	102	.5	2.07	756.7	92	90	
10			45	102	.25	1.04	760.1	91	90	
11			50	103	.25	1.04	763.4	94	92	
12			55	103	.25	1.09	766.6	93	92	
1		12:37	60				769.644			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>2.1</u>	ΔP <u>2.9</u>	CFM: <u>4.002</u>	IN.HG <u>17</u>	178
ΔP <u>2.1</u>	ΔP <u>2.9</u>	CFM: <u>6.004</u>	IN.HG <u>6</u>	
ΔH <u>.4</u>	ΔH <u>.9</u>	Notes: <u>4.14</u>		
ΔH <u>.4</u>	ΔH <u>.9</u>			

Plant: <u>STASOLD Gin</u>	Filler: <u>E-15 E74 F30</u>	Box Heat: <u>on</u>
Location: <u>Stratford</u>	Am Temp: <u>59</u>	Nozzel: <u>2.25</u>
Unit: <u>Truck (Hull)</u>	P. Bar: <u>29.93</u>	Prob Heat: <u>on</u>
Date: <u>12/26/91</u>	Pilot: <u>#1 .833</u>	Wind Vel: <u>Caln</u>
Run#: <u>1 PM-10</u>	Pyro: <u>#1 1.0</u>	Static Ps: <u>-0.01</u>
Cold Box: <u>2</u>	Mag ΔP: <u>M-7 .999</u>	O2: <u>20.9</u>
Meter #: <u>B</u>	Map ΔH: <u>M-1 1.010</u>	CO2: <u>0.05</u>
Meter Fac: <u>.9723 AHC</u>	% H2O: _____	
	<u>2.0441</u>	

Stack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1			
2			
3			
4			

8:40

Tray Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Ycc.
1			0.0	85	.25	1.1	953.684	54	54	
2			5	86	.25	1.1	958.1	57	56	
3			10	90	.30	1.31	969.3	61	59	
4			15	90	.40	1.25	962.3	65	62	S
5			20	91	.45	1.98	965.9	60	64	
6			25	92	.30	1.31	969.5	70	67	
7	5.00	9.10 / 4.15	30	92	.15	.66	977.667	69	69	
8			35	90	.25	1.1	974.9	73	67	
9			40	93	.25	1.1	976.1	75	71	
10			45	93	.30	1.31	980.7	77	72	
11			50	94	.30	1.31	983.9	78	73	
12			55	93	.25	1.1	986.9	80	71	
1		9.45	60				990.948			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>1.9</u>	ΔP <u>7.0</u>	CFM: <u>0.002</u> IN.HG <u>24</u>
ΔP <u>1.9</u>	ΔP <u>7.0</u>	CFM: <u>0.000</u> IN.HG <u>7</u>
ΔH <u>2.3</u>	ΔH <u>7</u>	Notes: <u>4.39</u>
ΔH <u>2.3</u>	ΔH <u>7</u>	

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Plant: Stratford Gin Filler: E-17 F33 D20 Box Heat: on  
 Location: Stratford Am Temp: 64 Nozzel: \_\_\_\_\_  
 Unit: Trash (Hill) P. Bar: 29.93 Prob Heat: on  
 Date: 10/26/94 Pilot: #1 .833 Wind Vel: Calm  
 Run #: R2 PM-10 Pyro: #1 100 Static Ps: -01  
 Cold Box: 4 Mag ΔP: M-7 .999 O2: 20.9  
 Meter #: B Map ΔH: M-9 .999 CO2: 0.05  
 Meter Fac: 9723 AHD % H2O: 0.03  
2.044

Stack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1			
2			
3			
4			

Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1		10:10	0.0	85	.7	.87	990.368	71	69	
2			5	96	.25	1.1	993.0	73	69	
3			10	97	.28	.87	996.2	75	71	
4			15	97	.25	1.1	998.5	72	73	
5			20	98	.7	1.31	1001.3	79	75	4
6			25	97	.7	1.31	5.1	80	76	
7		10:40 10:43	30	90	.7	.87	1007.992	78	75	
8			35	06	.25	1.1	10.5	71	76	
9			40	98	.25	1.1	12.8	82	77	
10			45	90	.95	2.37	16.2	83	78	5
11			50	98	.5	2.20	79.8	85	78	
12			55	99	.4	1.75	24.1	86	79	
1		11:43	60				1027.677			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>2.1</u>	ΔP <u>1.7</u>	CFM: <u>40007</u>	IN.HG <u>18</u>	180
ΔP <u>2.1</u>	ΔP <u>1.9</u>	CFM: <u>0.000</u>	IN.HG <u>7</u>	
ΔH <u>.6</u>	ΔH <u>1.0</u>	Notes: <u>1139</u>		
ΔH <u>.6</u>	ΔH <u>1.0</u>	_____		

Plant: Stratford, Conn Filler: E-17, I 33, F 34 Box Heal: on  
 Location: Stratford Am Temp: \_\_\_\_\_ Nozzel: \_\_\_\_\_  
 Unit: Trash (Hull) P. Bar: \_\_\_\_\_ Prob Heal: on  
 Date: 10/26/94 Pilot: #7 .833 Wind Vel: Calve  
 Run #: 3 Pm-10 Pyro: #1 & 10 Static Ps: -0.1  
 Cold Box: 2 Mag ΔP: M-7.909 O2: 20.9  
 Meter #: B Map ΔH: M-9.949 CO2: 0.03  
 Meter Fac: 9723 % H2O: 0.03

Stack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1			
2			
3			
4			

Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Ycc.
1		11:35	0.0	99	.25	1.1	27.932	76	74	
2			5	101	.2	.89	31.0	74	74	
3			10	101	.25	1.1	33.4	79	75	
4			15	100	.5	2.2	36.3	81	72	50
5			20	101	.5	2.2	40.0	80	78	
6			25	101	.5	2.2	44.6	83	79	
7		12:05	30	101	.2	.89	48.530	84	80	
8		12:07	35	100	.25	1.1	52.1	85	80	
9			40	102	.25	1.1	54.7	86	80	
10			45	102	.3	1.3	57.7	87	81	
11			50	103	.3	1.3	60.0	87	82	
12			55	103	.3	1.3	63.7	88	82	
1		12:32	60				66.740			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>2.4</u>	ΔP <u>2.9</u>	CFM: <u>40.002</u>	IN. HG <u>20</u>
ΔP <u>2.4</u>	ΔP <u>2.9</u>	CFM: <u>0.000</u>	IN. HG <u>6.0</u>
ΔH <u>.4</u>	ΔH <u>.9</u>	Notes: <u>4.39</u>	
ΔH <u>.4</u>	ΔH <u>.9</u>		

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LINT CLEANER  
CYCLONE

Plant: STANDARD CIV Filler: B33 Box Heat: on  
 Location: STANDARD Am Temp: 71 Nozzel: .25 #24  
 Unit: LINK II P. Bar: 2190 Prob Heat: on  
 Date: 10/26/94 Pilot: #1 833 Wind Vel: calm  
 Run #: 1 M-5 Pyro: #1 1.0 Static Ps: -0.05  
 Cold Box: 1 Mag ΔP: \_\_\_\_\_ O2: 22.9  
 Meter #: A Map ΔH: M-9 999 CO2: 0.05  
 Meter Fac: 0.9572 % H2O: 0.05

Slack Dia: 30  
 "A"  $\frac{72}{2} = 2.4$   
 "B"  $> 240 = 8$

Imp	Gross	Tare	Final
1		601.0	603.6
2		588.9	587.1
3		477.1	476.5
4		637.4	642.3

Trav Point	O2 %	CO2 %	Time Min	Slack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Ycc.
1			0.0	87						
2		6.41	5	87	0.1	.34	922.104	91	94	
3			10	89	0.1	.34	925.3	91	91	
4			15	90	0.15	.52	926.1	90	91	
5			20	91	.35	1.211	929.4	91	95	
6			25	91	.5	1.73	931.7	91	92	
7		7.11	30	88	.6	2.076	935.8	93	93	7
8		7.14	35	95	.45	1.55	939.619	92	92	
9			40	91	.4	1.38	943.0	93	92	
10			45	89	.5	1.73	946.6	94	93	
11			50	89	0.8	1.04	951.0	93	93	
12			55	89	6.25	1.865	954.1	98	94	
1		7.44	60		.2	.69	956.5	98	93	
2							959.180			
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks: 3.46

ΔP <u>1.3</u>	ΔP <u>1.8</u>	CFM: <u>20.002</u> IN.HG <u>24</u>
ΔP <u>1.3</u>	ΔP <u>1.8</u>	CFM: <u>0.003</u> IN.HG <u>10</u>
ΔH <u>1.4</u>	ΔH <u>2.0</u>	Notes: _____
ΔH <u>1.4</u>	ΔH <u>2.0</u>	

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Plant: Stratton A Gen Filler: B-35 B-34 Box Heat: on  
 Location: Stratton Rd. Am Temp: 55 Nozzle: .245 #24  
 Unit: Lint II P. Bar: 29.95 Prob Heat: on  
 Date: 10/27/94 Pilot: #1 .823 Wind Vel: Null  
 Run #: Run #2 MS Pyro: #1 1.0 Static Ps: \_\_\_\_\_  
 Cold Box: S Mag ΔP: M-21,005 O2: 20.9  
 Meter #: A Map ΔH: M-9,999 CO2: 0.05  
 Meter Fac: 9572 A 1.7813 % H2O: \_\_\_\_\_

Slack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1		574.7	597.7
2		593.6	595.0
3		468.3	469.2
4		577.3	578.2

Trav Point	O2 %	CO2 %	Time Min	Slack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vcc.
1		7.19	0.0	71	.5	1.74	959.305	54	50	
2			5	72	.52	1.81	963.7	55	55	
3			10	72	.4	1.35	966.8	58	60	
4			15	73	.25	.87	970.4	62	60	
5			20	73	.25	.87	972.9	63	62	
6		7.09	25	77	.25	.87	975.4	66	60	
7		7.52	30	73	.55	1.91	977.945	67	66	4
8			35	74	.6	2.08	981.6	69	65	
9			40	73	.5	1.71	985.4	72	69	
10			45	74	.25	.87	989.5	72	71	
11			50	75	.3	1.04	992.9	73	71	
12			55	76	.15	.52	995.5	72	72	
1		8.22	60				998.234			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>.75</u>	ΔP <u>.125</u>	CFM: <u>60.002</u>	IN.HG <u>16</u>
ΔP <u>.75</u>	ΔP <u>.125</u>	CFM: <u>60.000</u>	IN.HG <u>7</u>
ΔH <u>.65</u>	ΔH <u>1.0</u>	Notes: <u>3.48</u>	
ΔH <u>.65</u>	ΔH <u>1.0</u>		

187

Plant: ATCO Gas  
 Location: STRATON  
 Unit: LIQUID  
 Date: 10/27/94  
 Run #: RUN #3 M-S  
 Cold Box: 7  
 Meter #: BA  
 Meter Fac: .9572 AHG  
17813

Filler: B-35  
 Am Temp: 62  
 P. Bar: 29.95  
 Pilot: #1 837  
 Pyro: #1 10  
 Mag ΔP: M-7999  
 Map ΔH: M-9, 919  
 X H2O: 0.03

Box Heat: on  
 Nozzel: 7.5 #24  
 Prob Heat: on  
 Wind Vel: None  
 Static Ps: -1.5  
 O2: 20.9  
 CO2: 0.05

Stack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1		600.7	596.6
2		607.6	607.7
3		476.8	477.2
4		642.3	647.3

Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Ycc.
1		8.10	0.0	77	.5	1.71	9156.000	75	75	
2			5	79	.45	1.55	1.9	75	76	
3			10	80	.35	1.21	5.2	75	76	
4			15	80	.2	.69	9.0	76	76	
5			20	81	.2	.69	11.5	77	76	
6			25	81	.2	.69	13.7	78	77	
7	9.14		30	82	.15	.52	16.391	81	79	
8	9.16		35	83	.2	.69	18.8	81	78	
9			40	84	.25	.86	20.9	81	78	
10			45	84	.4	1.38	23.7	80	79	
11			50	85	.55	1.89	26.9	81	82	
12	9.16		55	86	.6	2.07	28.7	84	83	4
1			60				25.959			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP .28  
 ΔP .28

ΔP 1.23  
 ΔP 1.23

CFM: 10.007 IN.HG 21  
 CFM: 0.003 IN.HG 2

ΔH .81  
 ΔH .59

ΔH .54  
 ΔH .54

Notes: 3.16





000182

Plant: STRATFORD GIN Filler: E21, F41, F42 Box Heat: 0.1  
 Location: STRATFORD Am Temp: 67 Nozzel: 208  
 Unit: Line II P. Bar: 20.92 Prob Heat: an  
 Date: 10/1/94 Pilot: #1-833 Wind Vel: an  
 Run#: RUN 3 PM-10 Pyro: #1 1.0 Static Ps: -1.5  
 Cold Box: 2 Mag ΔP: \_\_\_\_\_ 02: 20.4  
 Meter #: B Map ΔH: M-1 1.010 CO2: 0.05  
 Meter Fac: .9723 A40 2.044 % H2O: 0.03

Stack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1			
2			
3			
4			

Tray Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1		2.4	0.0	77	.5	1.5	263.302	66	66	
2			5.0	79	.3		265.5	67	66	
3			10	85	.25		268.0	67	66	
4			15	80	.5	1.1	271.2	72	68	1
5			20	81	.6		274.4	72	69	5
6			25	81	.55		275.3	72	70	
7		4.4	30	82	.7		280.995	74	71	
8		9.16	35	83	.7		283.9	76	71	
9			40	81	.7		286.3	78	73	
10			45	81	.7		288.8	79	74	
11			50	85	.75		292.3	88	75	
12			55	86	.5	1.1	296.4	82	76	
1		9.46	60				299.699			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP: .78 ΔP: 1.23 CFM: 60.007 IN.HG: 13  
 ΔP: .78 ΔP: 1.23 CFM: 0.000 IN.HG: 10 **191**

ΔH: .89 ΔH: .00 Notes: 2.12  
 ΔH: .86 ΔH: .51

**PARTICULATE WEIGHTS : DATA & CALCULATIONS**

Client : Stratford Gin Date : 10/26/94  
Site : Stratford Job # : 19083  
Unit : Hull Trash Lab # : 292-136  
Run : 1

**BLANKS**

Acetone  
Gross: 4.1584 gms. Tare: 4.1558 gms. Volume: 200 ml  
Residue: 0.0026 gms.

DI Water  
Gross: 4.0301 gms. Tare: 4.0290 gms. Volume: 200 ml  
Residue: 0.0011 gms.

**WEIGHTS & VOLUMES**

Filter Gross: 0.4076 gms. Tare: 0.3988 gms. Net: 0.0088 gms.

Probe Rinse -  
Acetone: 50 ml \* 1E-05 gms./ml = Net: -0.0007 gms.  
DI Water: 50 ml \* 6E-06 gms./ml = Net: -0.0003 gms.  
Gross: 3.9298 gms. Tare: 3.8552 gms. Net: 0.0746 gms.

Impinger Catch -  
DI Water: 280 ml \* 6E-06 gms./ml = Net: -0.0015 gms.  
Total: 280 ml Aliquot: 280 ml  
Gross: 4.1252 gms. Tare: 4.1163 gms. Net: 0.0074 gms.

**Total Particulate Weight = 0.0898 gms.**







MOTES TRASH  
CYCLONE

Plant: <u>Stratford C. in</u>	Filler: <u>B-36</u>	Box Heat: <u>0.1</u>
Location: <u>" "</u>	Am Temp: <u>72</u>	Nozzel: <u>F .043 (GLASS #F)</u>
Unit: <u>MOSES</u>	P. Bar: <u>29.96</u>	Prob Heat: <u>0.1</u>
Date: <u>10/22/94</u>	Pilot: <u>#1 833</u>	Wind Vol: <u>0.1</u>
Run #: <u>Run 1 M-S</u>	Pyro: <u>#1 1.0</u>	Static Ps: <u>0.02</u>
Cold Box: <u>          </u>	Mag ΔP: <u>M-2 1.005</u>	02: <u>20.9</u>
Meter #: <u>A</u>	Map ΔH: <u>M-9 .999</u>	CO2: <u>0.05</u>
Meter Fac: <u>.9572 AHE</u>	Σ H2O: <u>0.03</u>	
	<u>1.783</u>	

Stack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1		605.8	606.3
2		585.6	585.9
3		467.8	468.2
4		578.7	578.3

Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1		10.36	0.0	85	.045	1.71	36.202	86	86	
2			5	86	.05	1.9	40.41	86	83	
3			10	88	.05	1.9	43.6	85	85	
4			15	88	.03	1.14	49.2	87	85	
5			20	89	.025	.95	50.5	88	86	
6			25	89	.025	.95	53.9	88	89	
7		11.06	30	86	.05	1.23	56.6	86	90	
8		11.11	35	87	.02	1.14	59.5	92	90	
9			40	88	.01	1.52	62.5	94	91	
10			45	87	.025	1.33	67.4	95	92	
11			50	88	.03	1.14	70.0	94	93	
12			55	88	.03	1.14	73.4	97	94	
1		11.11	65							
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>.27</u>	ΔP <u>.31</u>	CFM: <u>20.00?</u> IN.HG <u>20</u>	100
ΔP <u>.27</u>	ΔP <u>.31</u>	CFM: _____ IN.HG _____	
ΔH _____	ΔH _____	Notes: <u>38.</u>	
ΔH _____	ΔH _____	_____	

Plant: <u>Stratford Gin</u>	Filler: <u>B-37</u>	Box Heat: <u>on</u>
Location: <u>" "</u>	Am Temp: <u>74</u>	Nozzel: _____
Unit: <u>Mofes</u>	P. Bar: <u>29.95</u>	Prob Heat: <u>on</u>
Date: <u>10/27/94</u>	Pilot: <u>#1</u>	Wind Vel: <u>None</u>
Run #: <u>2 m-s</u>	Pyro: <u>#1</u>	Static Ps: _____
Cold Box: <u>4</u>	Mag ΔP: <u>m-2</u>	O2: <u>20.9</u>
Meter #: <u>A</u>	Map Alt: <u>m-29</u>	CO2: <u>0.05</u>
Meter Fac: <u>9.872</u>	% H2O: <u>0.03</u>	

Stack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1		5995	5992
2		6089	6105
3		4775	4777
1		6473	6489

Tray Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1		12.14	0.0	83	.04	1.52	76.733	96	97	
2			5	86	.05	1.14	80.1	95	94	
3			10	87	.07	1.52	83.4	96	95	
4			15	88	.085	1.33	87.2	97	95	
5			20	89	.085	1.33	89.2	95	96	
6			25	90	.08	1.14	94.3	97	96	
7		12.48	30	91	.085	1.71	97.2	98	100	
8		12.51	35	90	.08	1.9	101.2	98	99	
9			40	91	.085	1.9	104.9	100	100	
10			45	90	.085	1.33	109.1	100	107	
11			50	90	.08	1.14	112.4	101	100	
12			55	90	.085	.95	115.9	107	101	
1		12.21	60				118.287			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>.27</u>	ΔP <u>.47</u>	CFM: <u>.002</u>	IN, HG <u>15</u>
ΔP <u>.37</u>	ΔP <u>.42</u>	CFM: <u>0.000</u>	IN, HG <u>2</u>
ΔH <u>.65</u>	ΔH <u>.25</u>	Notes: <u>38.0</u>	
ΔH <u>.65</u>	ΔH <u>.25</u>		

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Plant: <u>Strosser Gin</u>	Filler: <u>B-38</u>	Box Heat: <u>on</u>
Location: <u>Strosser</u>	Am Temp: <u>86</u>	Nozzel: _____
Unit: <u>Notes</u>	P. Bar: <u>29.95</u>	Prob Heat: <u>on</u>
Date: <u>10/27/94</u>	Pilot: <u>#1</u>	Wind Vol: <u>Calm</u>
Run#: <u>3 M-S</u>	Pyro: <u>#1</u>	Static Ps: _____
Cold Box: <u>3</u>	Mag ΔP: <u>M-2</u>	O2: <u>20.9</u>
Meter #: <u>B-A</u>	Mag ΔH: <u>M-9</u>	CO2: <u>0.02</u>
Meter Fac: <u>0.9572</u>	% H2O: <u>0.05</u>	

Slack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1		583.7	585.9
2		570.7	571.4
3		468.1	468.1
1		578.3	578.4

Trav Point	O2 %	CO2 %	Time Min	Slack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1		1.37	0.0	90	0.05	1.71	118,427	101	102	
2			5	96	.05	1.9	121.6	104	104	
3			10	91	.05	1.9	124.5	103	102	2
4			15	92	.01	1.52	129.8	104	102	
5			20	90	0.25	.95	133.6	102	103	
6			25	91	.02	.76	136.4	105	102	
7		2.02	30	90	.03	1.14	139,021	102	102	
8		2.10	35	91	.04	1.52	142.3	104	103	
9			40	90	.04	1.52	145.7	103	104	
10			45	92	.05	1.9	150.5	104	103	
11			50	91	.05	1.9	153.7	104	103	
12		2.40	55	90	0.25	.95	157.6	103	103	
1			60				160,496			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>36</u>	ΔP <u>.24</u>	CFM: <u>0.000</u>	IN, HG <u>10</u>	198
ΔP <u>.36</u>	ΔP <u>.24</u>	CFM: <u>0.000</u>	IN, HG <u>5</u>	
ΔH <u>.40</u>	ΔH <u>.37</u>	Notes: <u>38</u>		
ΔH <u>.40</u>	ΔH <u>.32</u>			

000436

Plant: Staircord Gra Filler: EZF3.F4 Box Heat: on  
 Location: Staircord A Am Temp: 72 Nozzel: #5 .275  
 Unit: notes P. Bar: 29.96 Prob Heat: on  
 Date: 10/27/94 Pilot: #1 .833 Wind Vol: Calu  
 Run#: 1 PM-10 Pyro: #1 1.0 Static Ps: 0.02  
 Cold Box: \_\_\_\_\_ Mag ΔP: M-2 1.005 02: 20.4  
 Meter #: B Map ΔH: M-1 1.010 CO2: 0.05  
 Meter Fac: .9723 % H2O: 0.00  
2.0441

Stack Dia: 26 Dia  
 "A" 50 = 1.9D  
 "B" 240 = 9 D<sup>2</sup>

Imp	Gross	Tare	Final
1			
2			
3			
4			

	Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1	1.2		10.38	0.0	85	.02	1.2	300.019	71	71	
2	3.8			5	86	.03		303.0	74	72	
3	7.7			10	88	.04		305.2	77	73	3
4	16.3			15	88	.035		305.8	80	76	
5	22.2			20	89	.05		311.0	82	77	
6	24.8			25	89	.03		314.9	83	79	
7			11.04	30	88	.045		312.9	83	80	
8			11.11	35	87	.05		321.0	86	81	
9				40	86	.095		324.2	88	82	
10				45	87	.01		329.2	89	84	
11				50	88	.03		332.3	90	85	
12				55	88	.025		335.400	91	86	
1			11.41	60							
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
0											

Leak Checks:

ΔP <u>27</u>	ΔP <u>.36</u>	CFM: <u>10000</u>	IN.HG <u>7.0</u>	199
ΔP <u>.27</u>	ΔP <u>.36</u>	CFM: <u>0.000</u>	IN.HG <u>5</u>	
ΔH <u>30</u>	ΔH <u>.41</u>	Notes: <u>37.0</u>		
ΔH <u>30</u>	ΔH <u>.41</u>			

010011

Plant: <u>STAFFORD</u>	Filler: <u>ES, PS, PG</u>	Box Heat: <u>on</u>
Location: <u>1C 4</u>	Am Temp: <u>74</u>	Nozzel: <u>PS</u>
Unit: <u>MOSES</u>	P. Bar: <u>27.95</u>	Prob Heat: <u>on</u>
Date: <u>10/1/94</u>	Pilot: <u>+1</u>	Wind Vol: <u>0.00</u>
Run #: <u>2 PM-10</u>	Pyro: <u>#1</u>	Static Ps: _____
Cold Box: <u>2</u>	Mag ΔP: <u>m-2</u>	02: <u>20.9</u>
Meter #: <u>B</u>	Map ΔH: <u>m-1</u>	CO2: <u>0.00</u>
Meter Fac: <u>.9723</u>	Σ H2O: <u>0.00</u>	

Stack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1			
2			
3			
4			

Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1		12:18	0.0	78	.03	1.2	338.338	81	81	
2			5	86	.03		341.1	82	84	
3			10	87	.035		343.8	84	86	
4			15	89	.04		347.0	87	88	
5			20	89	.03		350.1	89	84	
6			25	90	.035		353.4	91	86	5
7		12:42	30	91	.035		356.4	90	92	
8		12:51	35	90	.025		359.8	92	87	
9			40	91	.03		362.7	93	88	
10			45	90	.035		366.2	95	89	5
11			50	90	.035		369.6	96	91	
12			55	90	.035		373.9	97	91	
1		1:21	60				376.857			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>.37</u>	ΔP <u>.47</u>	CFM: <u>.001</u>	IN.HG <u>15</u>	200
ΔP <u>.32</u>	ΔP <u>.47</u>	CFM: <u>0.000</u>	IN.HG <u>7</u>	
ΔH <u>.65</u>	ΔH <u>.29</u>	Notes: <u>37.0</u>		
ΔH <u>.65</u>	ΔH <u>.29</u>			

0.00372

Plant: <u>Stratford, Va</u>	Filler: <u>F1, F7, F8,</u>	Box Heat: <u>on</u>
Location: <u>" 4 "</u>	Am Temp: <u>21</u>	Nozzel: <u>223</u>
Unit: <u>MOIES</u>	P. Bar: <u>2075</u>	Prob Heat: <u>on</u>
Date: <u>10/28/94</u>	Pilot: <u>#1</u>	Wind Vel: <u>Calder</u>
Run #: <u>3 PM-10</u>	Pyro: <u>#1</u>	Static Ps: <u>0.02</u>
Cold Box: _____	Mag ΔP: <u>M7</u>	O2: <u>20.9</u>
Meter #: <u>P</u>	Map ΔH: <u>M-1</u>	CO2: <u>0.05</u>
Meter Fac: <u>0.9723</u>	X H2O: <u>0.03</u>	

Stack Dia: 26  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1			
2			
3			
4			

Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1		1.37	0.0	90	.04	1.2	377.000	90	87	
2			5	90	.03		380.7	91	86	
3			10	91	.04		383.6	92	87	
4			15	92	.05		387.0	93	88	
5			20	90	.05	1.5	390.6	94	88	
6			25	91	.03		393.5	94	88	
7		2.07	30	96	.04		396.475	92	88	4
8		2.10	35	91	.05		399.5	94	88	
9			40	90	.05		403.1	94	88	
10			45	92	.05		408.2	95	89	
11			50	91	.03		410.7	95	89	
12		2.40	55	90	.025	1.0	413.3	95	89	
1			60				416.465			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>36</u>	ΔP <u>24</u>	CFM: <u>0.002</u>	IN, HG <u>17</u>	201
ΔP <u>36</u>	ΔP <u>24</u>	CFM: <u>0.000</u>	IN, HG <u>6</u>	
ΔH <u>40</u>	ΔH <u>.37</u>	Notes: <u>27</u>		
ΔH <u>40</u>	ΔH <u>.37</u>			







CYCLONE ROBBER  
SYSTEM

Plant: Stratford Gas Filler: B-39 Box Heat: on  
 Location: Stratford Am Temp: 82 Nozzel: 28, 28  
 Unit: Cyflone Polbersys P. Bar: 29.95 Prob Heat: on  
 Date: 10/27/94 Pilot: # 1 283 Wind Vel: 0.0  
 Run #: M-S R-1 Pyro: # 1 1.5 Static Ps: -0.1  
 Cold Box: 4 Mag ΔP: 11.7 1.005 O2: 20.9  
 Meter #: A Map ΔH: 11.9 0.994 CO2: 0.05  
 Meter Fac: 0.9872 AH % H2O: 0.03  
1.7813

Stack Dia: 26  
 "A" 48  
 "B" 7240

Imp	Gross	Tare	Final
1		628.7	653.4
2		596.2	577.3
3		477.6	477.5
4		648.9	649.6

	Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1	1.2		3.12	0.0	97	.3	1.79	166.542	101	102	
2	3.8			5	97	.35	2.09	164.7	100	101	
3	7.7			10	99	.35	2.09	168.11	100	101	
4	18.3			15	100	.3	1.79	172.6	101	100	
5	22.2			20	101	.28	1.49	176.4	99	100	
6	24.8			25	100	.2	1.19	181.2	100	101	
7			3:42	35	100	.2	1.19	183.4	100	100	
8			3:47	35	100	.25	1.49	186.3	100	100	
9				40	102	.25	1.49	190.2	101	102	
10				45	102	.25	1.49	193.6	101	102	
11				50	102	.3	1.79	196.9	102	102	
12				55	102	.2	1.19	200.10	102	101	
1			4:17	60				204.634			
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
0											

Leak Checks:

ΔP .75  
 ΔP .75

ΔP 1.2  
 ΔP 1.2

CFM: 20.02 IN.HG 70  
 CFM:        IN.HG       

206

ΔH         
 ΔH       

ΔH         
 ΔH       

Notes: 5.97

Plant: Stratford Gin      Filter: B-40      Box Heat: on  
 Location: Stratford      Am Temp: 79      Nozzel: \_\_\_\_\_  
 Unit: Cyclone (Bod)      P. Bar: 25.95      Prob Heat: on  
 Date: 10/27/94      Pilot: #1      Wind Vol: None  
 Run#: 2 M-5      Pyro: #1      Static Ps: -1  
 Cold Box: 3      Mag ΔP: M-2      O2: 10.9  
 Meter #: A      Map ΔH: M-9      CO2: 0.05  
 Meter Fac: 9572      X.H2O: 0.03

Slack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1		596.2	594.2
2		596.3	598.3
3		466.0	467.4
4		578.4	579.1

Tray Point	O2 %	CO2 %	Time Min	Slack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1										
2		4.84	0.0	94	.2	1.19	264.882	101	102	
3			5	102	.25	1.49	206.9	104	107	
4			10	102	.3	1.79	211.3	102	106	
5			15	102	.25	1.49	215.5	104	103	
6			20	101	.25	1.49	219.5	103	103	
7			25	100	.25	1.49	223.6	103	104	
8		5.04	30	100	.30	1.79	226.578	103	103	
9		5.08	35	99	.35	2.08	230.7	103	104	5
10			40	100	.30	1.79	235.3	103	103	
11			45	100	.35	2.08	239.9	103	104	
12			50	100	.30	1.79	242.6	104	103	
1			55	100	.30	1.79	246.9	103	106	
2		5.32	60				250.559			
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>2.0</u>	ΔP <u>1.3</u>	CFM: <u>60.002</u>	IN.HG <u>78</u>	207
ΔP <u>2.0</u>	ΔP <u>1.3</u>	CFM: <u>60.004</u>	IN.HG <u>9</u>	
ΔH <u>.75</u>	ΔH <u>.36</u>	Notes: <u>5.97</u>		
ΔH <u>.75</u>	ΔH <u>.36</u>	_____		

Plant: <u>STROGARD</u>	Filler: <u>B-41</u>	Box Heat: <u>on</u>
Location: <u>5000-3</u>	Am Temp: <u>75</u>	Nozzel: _____
Unit: <u>(100000000)</u>	P. Bar: <u>29.95</u>	Prob Heat: <u>on</u>
Date: <u>10/27/98</u>	Pilot: <u>#1</u>	Wind Vol: <u>Calor</u>
Run #: <u>3 M-S</u>	Pyro: <u>#1</u>	Static Ps: _____
Cold Box: <u>S</u>	Mag ΔP: <u>m-2</u>	O2: <u>20.9</u>
Meter #: <u>A</u>	Map ΔH: <u>m-9</u>	CO2: <u>0.05</u>
Meter Fac: <u>0.9572</u>	% H2O: <u>0.03</u>	

Stack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1		581.7	577.8
2		586.7	583.6
3		476.2	476.6
4		649.6	652.8

	Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1			5.57	0.0	97	.35	2.09	256.711	103	104	4
2				5	97	.35	2.09	254.8	103	103	4
3				10	98	.20	1.79	259.0	103	103	
4				15	97	.3	1.79	263.5	101	101	
5				20	97	.3	1.79	266.4	101	101	
6				25	97	.25	1.49	276.0	100	100	
7			6.27	30	97	.3	1.79	273.904	100	100	
8			6.29	35	96	.35	2.09	277.9	101	100	5
9				40	96	.35	2.09	281.5	100	100	5
10				45	96	.3	1.79	285.7	102	100	
11				50	96	.3	1.79	289.7	100	100	
12				55	95	.25	1.49	293.6	100	100	
1			6.59	60				297.187			
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
0											

Leak Checks:

ΔP <u>1.25</u>	ΔP <u>.85</u>	CFM: <u>6.002</u>	IN.HG <u>20</u>
ΔP <u>1.25</u>	ΔP <u>.85</u>	CFM: <u>6.007</u>	IN.HG <u>10</u>
ΔH <u>.90</u>	ΔH <u>1.5</u>	Notes: <u>5.92</u>	
ΔH <u>.90</u>	ΔH <u>1.5</u>	_____	

208

0100729

Plant: <u>Stratco d.r.</u>	Filler: <u>EG 512 F11</u>	Box Heat: <u>        </u>
Location: <u>Stratco d.</u>	Am Temp: <u>79</u>	Nozzel: <u>28</u>
Unit: <u>Outlet (West)</u>	P. Bar: <u>27.92</u>	Prob Heat: <u>        </u>
Date: <u>10/2/98</u>	Pilot: <u>#1 .832</u>	Wind Vel: <u>        </u>
Run #: <u>1 P10-10</u>	Pyro: <u>#1 1.0</u>	Static Ps: <u>        </u>
Cold Box: <u>2</u>	Mag ΔP: <u>M-2 1.002</u>	O2: <u>20.9</u>
Meter #: <u>B</u>	Map ΔH: <u>M-1 1.010</u>	CO2: <u>0.05</u>
Meter Fac: <u>9773</u>	X. H2O: <u>0.05</u>	

20441

Stack Dia: 26

"A" \_\_\_\_\_

"B" \_\_\_\_\_

Imp	Gross	Tare	Final
1			
2			
3			
4			

Tray Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1		0.24	0.0	26	.3	19	458.405	96	88	
2			5	157	.35		462.4	92	87	6
3			10	102	.35		466.3	94	88	
4			15	102	.3		470.8	90	95	
5			20	107	.25		474.7	90	94	
6			25	100	.2		479.6	96	90	
7		5.00	30	100	.2		482.752	94	90	
8		5.02	35	99	.25		486.1	96	90	
9			40	100	.25		489.9	96	91	
10			45	100	.25		493.4	97	91	
11			50	100	.3		495.9	97	91	
12			55	100	.2	①	499.5	97	92	
1		5.37	6.0				502.888			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>7.0</u>	ΔP <u>1.3</u>	CFM: <u>1.002</u>	IN, HG: <u>24</u>	299
ΔP <u>2.0</u>	ΔP <u>1.3</u>	CFM: <u>0.003</u>	IN, HG: <u>10</u>	
ΔH <u>.75</u>	ΔH <u>.76</u>	Notes: <u>G.75</u>		
ΔH <u>.75</u>	ΔH <u>.36</u>			

0.00011

Plant: <u>Stratford, Gt</u>	Filler: <u>1-5, F9, F10,</u>	Box Heat: <u>    </u>
Location: <u>    </u>	Am Temp: <u>82</u>	Nozzel: <u>26</u>
Unit: <u>Cup (max) 1100</u>	P. Bar: <u>29.95</u>	Prob Heat: <u>    </u>
Date: <u>10/27/94</u>	Pilot: <u>#1</u>	Wind Vol: <u>    </u>
Run#: <u>2 PM-10</u>	Pyro: <u>51</u>	Static Ps: <u>    </u>
Cold Box: <u>2</u>	Mag ΔP: <u># MZ</u>	O2: <u>20.9</u>
Meter #: <u>E</u>	Map ΔH: <u># M-1</u>	CO2: <u>0.05</u>
Meter Fac: <u>0.9723</u>	Σ H2O: <u>0.03</u>	

Stack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1			
2			
3			
4			

	Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1			3.12	0.0	97	.2	1.5	4116.621	83	81	3
2				10	97	.25	1.5	420.3	81	80	
3				40	99	.3		423.3	86	81	
4				15	100	.25		4127.1	84	82	
5				20	101	.25		4306	90	85	
6				75	100	.2		435.0	91	82	
7			3.42	70	100	.2		437.7	98	87	
8				25	100	.2		440.6	91	88	
9				60	102	.2		444.4	92	87	
10				45	107	.25		447.5	94	93	
11				50	102	.25		450.7	95	88	
12				55		.25	▽	454.4	95	88	
1			4.17	60				458.2			
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
0											

Leak Checks:

ΔP <u>.75</u>	ΔP <u>1.2</u>	CFM: <u>50.002</u>	IN.HG <u>17</u>	210
ΔP <u>.75</u>	ΔP <u>1.2</u>	CFM: <u>0.00</u>	IN.HG <u>5</u>	
ΔH <u>1.3</u>	ΔH <u>1.0</u>	Notes: <u>6.75 /</u>		
ΔH <u>1.3</u>	ΔH <u>1.0</u>			

0.00213

Plant: <u>Stratford</u>	Filler: <u>E-7, E14, F13</u>	Box Heat: <u>on</u>
Location: <u>11</u>	Am Temp: <u>75</u>	Nozzel: <u>off</u>
Unit: <u>C4 (low/red)</u>	P. Bar: <u>29.95</u>	Prob Heat: <u>on</u>
Date: <u>10/27/91</u>	Pilot: <u>#1</u>	Wind Vol: <u>Calu</u>
Run#: <u>3 PM-10</u>	Pyro: <u>#1</u>	Static Ps: _____
Cold Box: <u>3</u>	Mag ΔP: <u># M-2</u>	O2: <u>20.9</u>
Meter #: <u>B</u>	Map ΔH: <u>m-1</u>	CO2: <u>0.05</u>
Meter Fac: <u>.9723</u>	% H2O: <u>0.03</u>	

Stack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1			
2			
3			
4			

Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1		5.57	0.0	97	.3	1.5	503.018	89	86	
2			5	97	.3		507.0	89	86	
3			10	98	.35		511.1	89	86	
4			15	97	.3		515.9	92	86	
5			20	97	.35		519.0	93	86	5
6			25	97	.30		522.9	94	87	
7		6.27	30	95	.25		527.660	88	87	
8		6.29	35	96	.25		531.0	94	88	
9			40	96	.25		534.9	94	87	
10			45	96	.3		538.8	94	87	
11			50	96	.25		542.7	95	88	
12			55	95	.2		545.9	89	88	
1		6.59	68				549.041			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>1.25</u>	ΔP <u>.85</u>	CFM: <u>26.002</u>	IN, HG <u>17</u>	211
ΔP <u>1.25</u>	ΔP <u>.85</u>	CFM: <u>0.000</u>	IN, HG <u>7</u>	
ΔH <u>.9</u>	ΔH <u>1.5</u>	Notes: <u>6.75</u>		
ΔH <u>.9</u>	ΔH <u>1.5</u>	_____		



# COTTON GIN SOURCE TEST DATA

Date: 10/27/94

GINNING PROCESS - Cyclone Robber Sys

RUN # 2

START	BALE #	BALE WT	TIME		BALE #	BALE WT	TIME
			4:34				
	3772653	482	4:36				
	4	488	4:39				
	5	495	4:42				
	6	475	4:45				
	7	485	4:48				
	8	497	4:50				
	9	497	4:52				
	3772660	484	4:55				
	1	494	4:59				
	2	498	5:01				
	3	479	5:04				
	5	499	5:11				
	6	481	5:14				
	7	491	5:17				
	8	482	5:20				
	9	485	5:22				
	3772670	484	5:25				
	1	493	5:27				
	2	485	5:30				
	3	472	5:33				
	4	473	5:36				
TOTAL	21	10213	60 min				

213

A. TOTAL LINT GINNED (lbs.)	<u>10,213</u>
B. TOTAL STANDARDS BALES (A/500)	<u>20.426</u>
C. TIME (hrs.)	<u>1.00</u>
D. TOTAL STD. BALES PER HOUR (B/C)	<u>20.43</u>



FEEDER TRASH  
CYCLONE

Plant: Stratford Gin Filler: b-42 Box Heat: 0  
 Location: Stratford Am Temp: 58 Nozzel: 2 3/8 702  
 Unit: Feeder Truck P. Bar: 29.90 Prob Heat: 0  
 Date: 10/28/94 Pilot: #1 830 Wind Vel: 0  
 Run #: Run 1 m-5 Pyro: #1 1.0 Static Ps: \_\_\_\_\_  
 Cold Box: 2 Mag ΔP: M2 1.005 02: 20.9  
 Meter #: A Map ΔH: M-1 0.99 CO2: 20.9  
 Meter Fac: 9572 AHC % H2O: 0.03  
19913

Slack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

580.04

Imp	Gross	Tare	Final
1	577.5	<del>600.0</del>	580.9
2		580.8	582.7
3		467.9	468.4
4		579.1	579.8

Trav Point	O2 %	CO2 %	Time Min	Slack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vcc.
1		7.04	0.0	73	.12	1.02	297.473	60	60	2
2				74	.12	1.02	300.321	60	60	
3			10	73	.15	1.28	303.1	65	62	
4			15	73	.22	1.88	306.6	64	63	
5			20	73	-.2	1.7	310.9	67	65	
6			25	74	.25	2.13	313.6	71	72	
7		7.34	30	74	.25	2.13	318.11	72	70	
8		7.37	35	73	-.3	2.50	322.3	70	70	4
9			40	76	.25	2.73	327.0	76	73	
10			45	75	.25	2.13	332.2	77	76	
11			50	76	.22	1.88	335.4	78	76	
12			55	75	-.2	1.7	329.4	78	77	
1		8.62	60				343.855			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>.55</u>	ΔP <u>.12</u>	CFM: <u>60.000</u>	IN.HG <u>211</u>	216
ΔP <u>.55</u>	ΔP <u>.12</u>	CFM: <u>60.000</u>	IN.HG <u>7</u>	
ΔH <u>1.05</u>	ΔH <u>1.35</u>	Notes: <u>7.54</u>		
ΔH <u>1.05</u>	ΔH <u>1.35</u>	_____		

Plant: Stratford Grain Filler: 6-43 Box Heat: M  
 Location: Stratford Am Temp: \_\_\_\_\_ Nozzel: \_\_\_\_\_  
 Unit: Feeder/Truck P. Bar: \_\_\_\_\_ Prob Heat: on  
 Date: 10/1/94 Pilot: #1 883 Wind Vel: Calder  
 Run #: 2 M-5 Pyro: #1 10 Static Ps: \_\_\_\_\_  
 Cold Box: \_\_\_\_\_ Mag ΔP: M-2 1.005 O2: 20.9  
 Meter #: A Map ΔH: M-9 499 CO2: 0.05  
 Meter Fac: 9572 @ 1.7813 % H2O: 0.02

Stack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1	5850	589.8	
2	584.7	585.3	
3	476.7	477.1	
4	654.2	652.8	

Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1		822	0.0	76	.25	2.13				
2			5	78	.3	2.56	343.985	78	77	
3			10	78	.32	2.73	348.5	78	78	
4			15	79	.25	2.13	352.3	79	72	S
5			20	79	.2	1.73	357.7	80	78	
6			25	79	.17	1.45	360.6	80	78	
7		8.37	30	79	.2	1.73	364.8	80	79	
8		8.55	35	78	.15	1.28	369.3	81	80	
9			40	79	.17	1.45	371.9	81	80	
10			45	80	.22	1.89	376.5	81	82	
11			50	81	.2	1.71	379.0	82	82	
12			55	81	.2	1.71	381.6	82	83	
1		9.25	60				386.6	84	84	
2							391.121			
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>5</u>	ΔP <u>.66</u>	CFM: <u>0.007</u>	IN, HG: <u>26</u>
ΔP <u>5</u>	ΔP <u>.55</u>	CFM: <u>0.004</u>	IN, HG: <u>10</u>
ΔH <u>1.25</u>	ΔH <u>1.00</u>	Notes: <u>8.54</u>	
ΔH <u>1.25</u>	ΔH <u>1.60</u>		

217

Plant: Stratford Gin Filler: 6-44 Box Heat: on  
 Location: Stratford Am Temp: \_\_\_\_\_ Nozzel: \_\_\_\_\_  
 Unit: Feeder Truck P. Bar: \_\_\_\_\_ Prob Heat: on  
 Date: 10/194 Pilot: #1 833 Wind Vel: 15.5  
 Run#: M-5 Run 3 Pyro: #1 1.0 Static Ps: \_\_\_\_\_  
 Cold Box: \_\_\_\_\_ Mag ΔP: M-2 1.005 O2: 20.9  
 Meter #: A Map ΔH: M-9 999 CO2: 0.05  
 Meter Fac: 4572 ΔH % H2O: 0.03  
17813

Stack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1		594.4	592.1
2		596.4	596.7
3		468.3	468.2
4		579.8	579.7

Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1		9.37	0.0	74	.1	.85	291.218	86	85	
2			5	82	.15	1.28	341.6	84	84	
3			10	83	.15	1.28	397.7	85	85	
4			15	84	.22	1.88	403.9	88	88	
5			20	85	.17	1.45	404.4	87	86	
6			25	85	.2	1.71	407.9	89	86	
7		10.08	30	85	.30	2.56	411.6	89	86	
8		10.11	35	86	.3	2.56	414.4	88	86	
9			40	86	.32	2.73	419.3	88	84	4
10			45	86	.22	1.88	425.7	90	90	
11			50	89	.2	1.71	428.2	91	90	
12			55	88	.2	1.71	432.3	92	89	
1			60				437.064			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>1.6</u>	ΔP <u>.99</u>	CFM: <u>10.00</u>	IN, HG <u>23</u>	218
ΔP <u>1.0</u>	ΔP <u>.95</u>	CFM: <u>0.000</u>	IN, HG <u>8</u>	
ΔH <u>.45</u>	ΔH <u>.96</u>	Notes: <u>8.501</u>		
ΔH <u>.45</u>	ΔH <u>.90</u>			

000686

Plant: STRATED Filter: E-8, FIG, FIS Box Heat: on  
 Location: STRATED Am Temp: 58 Nozzel: 4 .280  
 Unit: Dunkin' P Bar: 29.90 Prob Heat: 0  
 Date: 10/28/94 Pitot: #1 1.823 Wind Vel: 0.0  
 Run#: 1-PW10 Pyro: #1 1.0 Static Ps: -0.1  
 Cold Box: S Mag ΔP: M-2 1.002 O2: 20.9  
 Meter #: B Map ΔH: M-1 1.010 CO2: 0.05  
 Meter Fac: 9723 AH 2.044 % H2O: 0.03

Stack Dia: 26  
 "A" 50  
 "B" 240

Imp	Gross	Tare	Final
1			
2			
3			
4			

Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1		7.04	0.0	73	.17	1.2	549.242	58	58	
2			5	74	.2		552.158	62	59	
3			10	73	.25		554.9	64	61	4
4			15	73	.2		558.3	67	63	
5			20	73	.17		561.5	69	65	
6			25	74	.15		564.2	71	66	
7		7.34	30	74	.05		567.5	71	68	
8		7.37	35	73	.1		569.6	73	69	
9			40	76	.1		571.6	74	70	
10			45	75	.17		574.2	74	70	
11			50	76	.2		576.5	76	71	
12			55	75	.2	Δ	579.7	78	72	
1		7.07	1.0				583.077			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP .55 ΔP .12 CFM: 4.002 IN.HG 71 219  
 ΔP .55 ΔP .12 CFM: 0.000 IN.HG 6  
 ΔH 1.05 ΔH 1.35 Notes: 0.56  
 ΔH 1.05 ΔH 1.35

000499

Plant: <u>STRATFORD GIN</u>	Filler: <u>E10, C19, F20</u>	Box Heat: <u>ON</u>
Location: <u>STRATFORD</u>	Am Temp: <u>58</u>	Nozzel: <u>4.20</u>
Unit: <u>FRACK TROUGH</u>	P. Bar: <u>79.9</u>	Prob Heat: <u>ON</u>
Date: <u>10/28/94</u>	Pilot: <u>#1 833</u>	Wind Vel: <u>Calu</u>
Run#: <u>2 PM-10</u>	Pyro: <u>#1</u>	Static Ps: _____
Cold Box: <u>2</u>	Mag ΔP: <u>M-2</u>	02: <u>20.9</u>
Meter #: <u>B</u>	Map ΔH: <u>M-1</u>	CO2: <u>0.08</u>
Meter Fac: <u>.973 AH</u>	% H2O: <u>0.05</u>	
	<u>2.0041</u>	

Stack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1			
2			
3			
4			

Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1		8.22	0.0	76	.2	1.2	583.225	76	68	
2			5	78	.22		586.1	72	68	
3			10	78	.25	1.7	589.9	74	69	
4			15	79	.32		594.0	76	70	6
5			20	79	.3		596.4	77	71	
6			25	79	.25		600.9	73	78	
7		8.52	30	79	.25		505.7	78	74	
8		8.55	35	78	.2		607.7	75	79	
9		<del>8.65</del>	40	79	.22		611.1	81	87.6	
10			45	80	.15		613.9	82	77	
11			50	81	.12		616.2	83	77	
12			55	81	.12	9	619.2	84	78	
1		9.25	60				622.497			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>.8</u>	ΔP <u>.55</u>	CFM: <u>0.000</u>	IN, HG <u>7</u>	220
ΔP <u>1.8</u>	ΔP <u>.55</u>	CFM: <u>0.000</u>	IN, HG <u>8</u>	
ΔH <u>1.25</u>	ΔH <u>1.6</u>	Notes: <u>6.82</u>		
ΔH <u>1.25</u>	ΔH <u>1.6</u>	_____		

0.00265

Plant: Stratford Gas Filler: 5-9 F-18 F-19 Box Heat: on  
 Location: Stratford Am Temp: \_\_\_\_\_ Nozzel: \_\_\_\_\_  
 Unit: Feed truck P. Bar: \_\_\_\_\_ Prob Heat: on  
 Date: 10/1/94 Pilot: #1 Wind Vel: Calm  
 Run#: 3 PM-10 Pyro: #1 Static Ps: \_\_\_\_\_  
 Cold Box: \_\_\_\_\_ Mag ΔP: DM-2 O2: 20.9  
 Meter #: B Map ΔH: M-1 CO2: 0.05  
 Meter Fac: .9723 % H2O: 0.03

Stack Dia: \_\_\_\_\_  
 "A" \_\_\_\_\_  
 "B" \_\_\_\_\_

Imp	Gross	Tare	Final
1			
2			
3			
4			

Trav Point	O2 %	CO2 %	Time Min	Stack Temp	ΔP	ΔH	Dry Gas Meter Vol	Inlet Temp	Outlet Temp	Vec.
1										
2		9.32	0.0	71	.2	1.20	622.650	79	76	
3			5	82	.2		626.0	80	75	
4			10	83	.22		628.9	81	72	
5			15	84	.17		632.8	83	78	
6			20	85	.15		634.8	81	79	
7			25	85	.2		638.0	85	70	
8	10.08		30	85	.17		641.0	86	80	
9	10.11		35	86	.2		642.7	84	81	
10			40	86	.25		646.0	86	84	5
11			45	86	.37		650.0	88	81	6
12			50	86	.3		653.6	88	82	
1			55	88	.25	4	658.8	89	83	
2		10.41	60				662.569			
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
0										

Leak Checks:

ΔP <u>1.6</u>	ΔP <u>.95</u>	CFM: <u>6.0m?</u>	IN.HG <u>20</u>	221.
ΔP <u>1.0</u>	ΔP <u>.95</u>	CFM: <u>0.000</u>	IN.HG <u>9</u>	
ΔH <u>.45</u>	ΔH <u>.95</u>	Notes: <u>6.82</u>		
ΔH <u>.45</u>	ΔH <u>.90</u>			

COTTON GIN SOURCE TEST DATA				Date: <u>10/28/94</u>			
GINNING PROCESS - <u>Run #1 Feeder Trash</u>				RUN # <u>1</u>			
	BALE #	BALE WT.	TIME		BALE #	BALE WT.	TIME
START		START	7:04				
	3793145	490	7:07				
	6	483	7:10				
	7	445	7:13				
	8	504	7:20				
	9	494	7:23				
	3793150	481	7:27				
	1	488	7:30				
	2	489	7:32				
	4	478	7:38				
	5	488	7:42				
	6	487	7:44				
	7	497	7:47				
	8	483	7:49				
	9	476	7:53				
	3793160	481	7:55				
	1	492	7:58				
	2	493	8:00				
	3	493	8:02				
	4	493	8:05				
TOTALS =		End	8:07				
	19	9,235 <sup>LB</sup>	60 <sup>min</sup>				
							222
				A. TOTAL LINT GINNED (lbs.)		9235	
				B. TOTAL STANDARDS BALES (A/500)		18.47	
				C. TIME (hrs.)		1.00	
				D. TOTAL STD. BALES PER HOUR (B/C)		18.47	





**VIII. QUALITY ASSURANCE**

### DRY GAS METER CALIBRATION

Date: 6/22/94

Unit: A

Ambient Conditions

Temp: 70 F/C

Baro: 29.95 in.Hg

ORIFICE MANOMETER SETTING D,H	GASVOL WET TEST METER V,w	GASVOL DRY GAS METER Vb,	wet test tw	Temperature				Y	DH@Y
				Dry IN	Dry Out	Ave f	Time e		
				TD, IN	Tdo,	Td,	min		
1.0	5	274.432	70	82	81	81.75	9.31	0.9436	1.9027
		269.029	70	82	82				
2.0	5	279.920	70	82	82	82.25	6.36	0.9605	1.7743
		274.620	70	82	83				
3.0	5	288.434	70	83	83	83.00	5.2	0.9606	1.7767
		283.140	70	83	83				
4.0	5	293.947	70	83	83	83.50	4.37	0.9640	1.6715
		288.680	70	84	84				
								0.957	1.7812756

Calibration by: K.K

**Meter Factor: 0.9572**

Reviewed by: \_\_\_\_\_

**Delta H: 1.7813**

Equations:

$$Y = (V_w * P_b) * (T_d + 460) / (V_d t - V_d b) + (D_e l H / 13.6) * (((W_t + w_t) / 2) + 460)$$

$$D_e l H = (0.0317 * D_e l) * (((((W_t + w_t) / 2) + 460) * e) / V_w)^2 / ((P_b * (T_d + 460))$$

### DRY GAS METER CALIBRATION

Date: 8/17/94

Unit: B

Ambient Conditions

Temp: 70 F/C

Baro: 29.82 in.Hg

ORIFICE MANOMETER SETTING D,H	GAS VOL WET TEST METER V,w	GAS VOL DRY GAS METER Vb,	wet test tw	Temperature				Y	DH@Y
				Dry IN	Dry Out	Ave f	Time e min		
				TD, IN	Tdo,	Td,			
1.0	5	045.253	70	79	75	76.50	9.73	0.9530	2.1078
		039.955	70	77	75				
2.0	5	039.717	70	79	75	76.25	6.8	0.9696	2.0599
		034.525	70	77	74				
3.0	5	034.215	70	79	74	76.00	5.36	0.9804	1.9207
		029.095	70	77	74				
5.0	5	028.680	70	79	74	76.25	4.33	0.9863	2.0881
		023.613	70	76	76				
								0.972	2.044125

Calibration by: K.K

Meter Factor: 0.9723

Reviewed by: CD

Delta H: 2.0441

Equations:

$$Y = (V_w \cdot P_b) \cdot (T_d + 460) / (V_d \cdot T - V_b \cdot T) + (D_e \cdot H / 13.6) \cdot (((W_t + w_t) / 2) + 460)$$

$$D_e \cdot H = (0.0317 \cdot D_e) \cdot (((((W_t + w_t) / 2) + 460) \cdot e) / V_w)^2 / ((P_b \cdot (T_d + 460))$$

## PITOT TUBE CALIBRATION

Ambient Conditions

DATE: 7/13/94  
 UNIT NUMBER: 1

TEMPERATURE 68 F  
 RH: 0.00 %  
 BAROMETER: 29.93 in. hg.

Run #	Velocity fpm	ΔP (std) in. H2O	ΔP (s) in. H2O		Cp(s)   Dev		Cp(s)   Dev	
			A	B	A	A	B	B
1	3327	0.69	0.94	0.90	0.848	0.001	0.867	0.002
2		0.69	0.95	0.91	0.844	0.003	0.862	0.003
3		0.69	0.94	0.90	0.848	0.001	0.867	0.002
Avg		0.69	0.94	0.90	~0.847	0.002*	~0.865	0.002*

AVERAGE: (Cp(s)A+Cp(s)B)/2 0.856

| ~Cp(s)A-~Cp(s)B | = 0.019 \*

1	3278	0.67	0.96	0.92	0.827	0.000	0.827	0.000
2		0.67	0.96	0.92	0.827	0.000	0.827	0.000
3		0.67	0.96	0.92	0.827	0.000	0.827	0.000
Avg		0.67	0.96	0.92	~0.827	0.000*	~0.827	0.000*

AVERAGE: ( Cp(s)A+Cp(s)B)/2 0.827

| ~Cp(s)A-~Cp(s)B | = 0.000 \*

1	3229	0.65	0.96	0.90	0.815	0.000	0.815	0.000
2		0.65	0.96	0.91	0.815	0.000	0.815	0.000
3		0.65	0.96	0.90	0.815	0.000	0.815	0.000
Avg		0.65	0.96	0.90	~0.815	0.000*	~0.815	0.000*

AVERAGE: (Cp(s)A+Cp(s)B)/2 0.815

|~Cp(s)A-~Cp(s)B | = 0.000 \*

**PITOT CALIBRATION VALUE:** 0.833

~ Denotes average value

\* Denotes values which must be ≤ to 0.01 for calibration to be valid.

Calibrated by: KK

Reviewed by: CD

## THERMO COUPLE CALIBRATION

Date: 6/28/94

Unit: 1

Point	* Standard Temperature <i>T<sub>std</sub></i>		Pyrometer Temperature <i>T<sub>pyr</sub></i>		Error % ** $(T_{std}-T_{pyr})/T_{std}$
	deg. F		deg. F		
1 Ambient	70.0		70.0		0.00%
	70.0		70.0		
2 Ice	32.0		32.0		0.00%
	32.0		32.0		
3 Boil	212.0		212.0		0.00%
	212.0		212.0		
4 Oil	0.0		0.0		0.00%

Std. Corr. Factor 1.000

Calibration by: KK

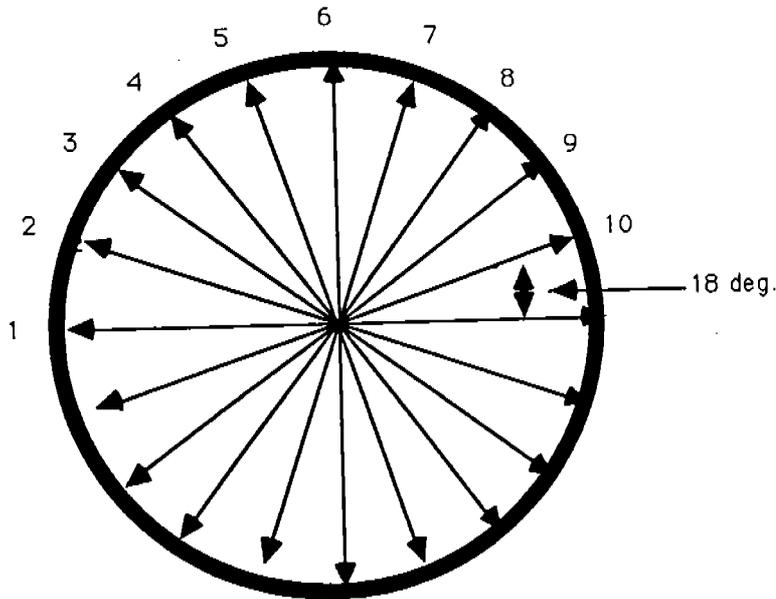
\* Standard ID: \_\_\_\_\_  
 \_\_\_\_\_

Reviewed by: (D)

\* \* in deg. K

# Nozzle Calibration

Nozzle I.D. PM 10



Points	Value
1	<u>0.350</u>
2	<u>0.351</u>
3	<u>0.350</u>
4	<u>0.349</u>
5	<u>0.351</u>
6	<u>0.350</u>
7	<u>          </u>
8	<u>          </u>
9	<u>          </u>
10	<u>          </u>

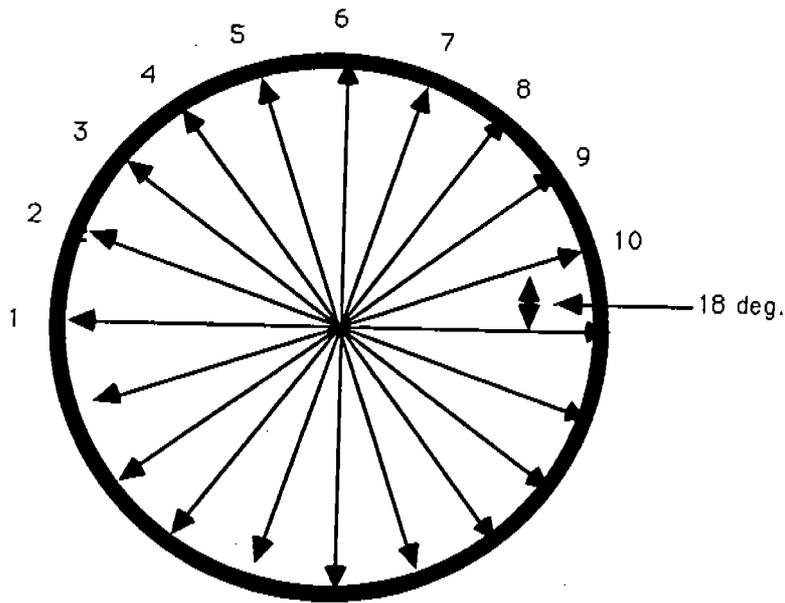
Average Nozzle Diameter = **0.350**

Analyst KK

Date 6/28/94

# Nozzle Calibration

Nozzle I.D. PM 7



Points	
1	<u>0.250</u>
2	<u>0.251</u>
3	<u>0.251</u>
4	<u>0.250</u>
5	<u>0.249</u>
6	<u>0.249</u>
7	<u>          </u>
8	<u>          </u>
9	<u>          </u>
10	<u>          </u>

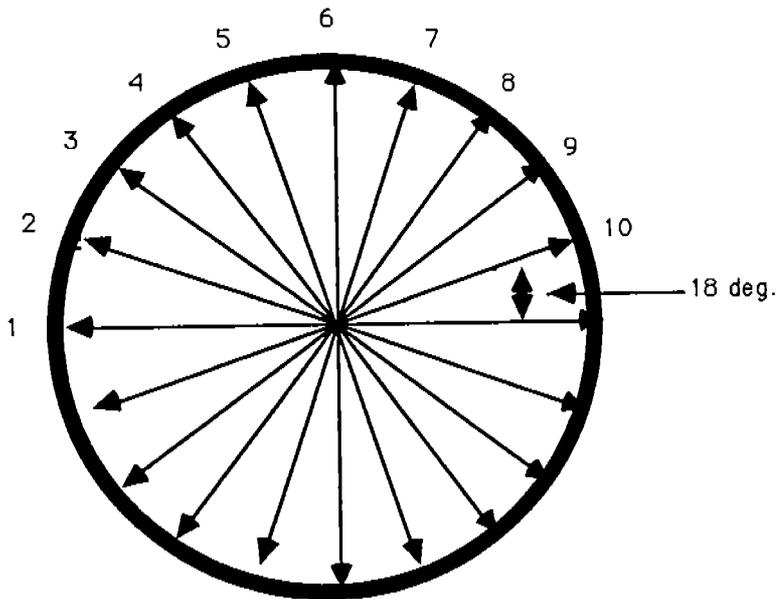
Average Nozzle Diameter = **0.250**

Analyst KK

Date 6/28/94

# Nozzle Calibration

Nozzle I.D. PM 8



Points	
1	<u>0.281</u>
2	<u>0.280</u>
3	<u>0.281</u>
4	<u>0.279</u>
5	<u>0.280</u>
6	<u>0.280</u>
7	<u>          </u>
8	<u>          </u>
9	<u>          </u>
10	<u>          </u>

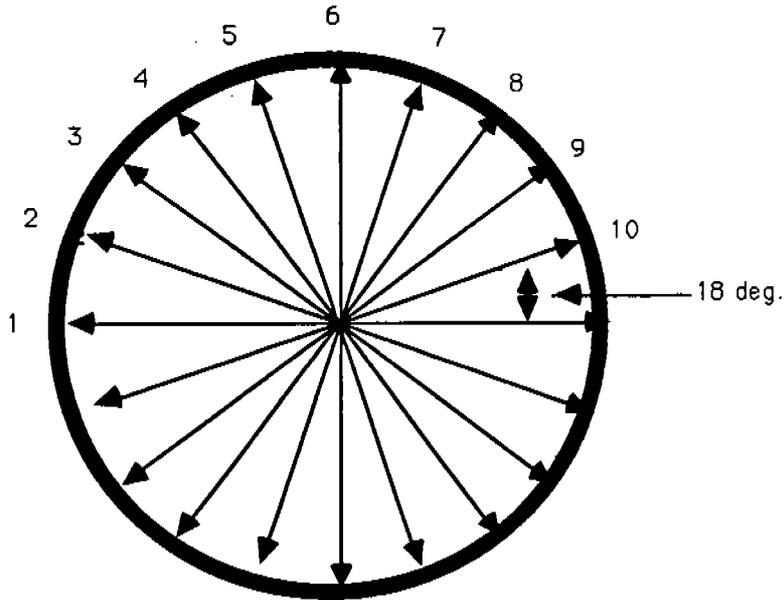
Average Nozzle Diameter = **0.280**

Analyst KK

Date 6/28/94

# Nozzle Calibration

Nozzle I.D.     #45    



Points	
1	<u>    0.350    </u>
2	<u>    0.350    </u>
3	<u>    0.352    </u>
4	<u>    0.348    </u>
5	<u>    0.351    </u>
6	<u>    0.350    </u>
7	<u>                    </u>
8	<u>                    </u>
9	<u>                    </u>
10	<u>                    </u>

Average Nozzle Diameter =     **0.350**    

Analyst     KK    

Date     6/28/94

**PM-10  
NOZZLE DATA  
6/28/94**

Nozzle ID	PM-1	Nozzle ID	PM-2	Nozzle ID	PM-3
Point		Point		Point	
1	<u>0.152</u>	1	<u>0.190</u>	1	<u>0.218</u>
2	<u>0.150</u>	2	<u>0.190</u>	2	<u>0.218</u>
3	<u>0.151</u>	3	<u>0.191</u>	3	<u>0.218</u>
4	<u>0.152</u>	4	<u>0.191</u>	4	<u>0.218</u>
5	<u>0.152</u>	5	<u>0.191</u>	5	<u>0.218</u>
6	<u>0.151</u>	6	<u>0.190</u>	6	<u>0.217</u>
7	<u>0.152</u>	7	<u>0.191</u>	7	<u>0.217</u>
8	<u>0.152</u>	8	<u>0.191</u>	8	<u>0.218</u>
Average	<u>0.152</u>	Average	<u>0.191</u>	Average	<u>0.218</u>
Nozzle ID	PM-4	Nozzle ID	PM-5	Nozzle ID	PM-6
Point		Point		Point	
1	<u>0.280</u>	1	<u>0.374</u>	1	<u>0.500</u>
2	<u>0.279</u>	2	<u>0.375</u>	2	<u>0.500</u>
3	<u>0.280</u>	3	<u>0.375</u>	3	<u>0.499</u>
4	<u>0.280</u>	4	<u>0.375</u>	4	<u>0.500</u>
5	<u>0.279</u>	5	<u>0.374</u>	5	<u>0.500</u>
6	<u>0.280</u>	6	<u>0.375</u>	6	<u>0.500</u>
7	<u>0.280</u>	7	<u>0.375</u>	7	<u>0.500</u>
8	<u>0.280</u>	8	<u>0.375</u>	8	<u>0.500</u>
Average	<u>0.280</u>	Average	<u>0.375</u>	Average	<u>0.500</u>
Nozzle ID	IMP-19	Nozzle ID		Nozzle ID	
Point		Point		Point	
1	<u>0.181</u>	1	<u>          </u>	1	<u>          </u>
2	<u>0.180</u>	2	<u>          </u>	2	<u>          </u>
3	<u>0.181</u>	3	<u>          </u>	3	<u>          </u>
4	<u>0.181</u>	4	<u>          </u>	4	<u>          </u>
5	<u>0.181</u>	5	<u>          </u>	5	<u>          </u>
6	<u>0.181</u>	6	<u>          </u>	6	<u>          </u>
7	<u>0.180</u>	7	<u>          </u>	7	<u>          </u>
8	<u>0.181</u>	8	<u>          </u>	8	<u>          </u>
Average	<u>0.181</u>	Average	<u>#DIV/0!</u>	Average	<u>#DIV/0!</u>

**STAINLESS  
PROBE & NOZZEL UNIT  
6/20/94**

Nozzle ID <u>HAST-12</u>	
Point	
1	<u>0.123</u>
2	<u>0.123</u>
3	<u>0.123</u>
4	<u>0.123</u>
5	<u>0.123</u>
6	<u>0.123</u>
7	<u>0.123</u>
8	<u>0.123</u>

Average 0.123

Nozzle ID <u>S-14</u>	
Point	
1	<u>0.160</u>
2	<u>0.160</u>
3	<u>0.160</u>
4	<u>0.160</u>
5	<u>0.160</u>
6	<u>0.160</u>
7	<u>0.160</u>
8	<u>0.160</u>

Average 0.160

Nozzle ID <u>S-18</u>	
Point	
1	<u>0.185</u>
2	<u>0.184</u>
3	<u>0.185</u>
4	<u>0.186</u>
5	<u>0.186</u>
6	<u>0.185</u>
7	<u>0.184</u>
8	<u>0.185</u>

Average 0.185

Nozzle ID <u>S-21</u>	
Point	
1	<u>0.213</u>
2	<u>0.212</u>
3	<u>0.212</u>
4	<u>0.212</u>
5	<u>0.212</u>
6	<u>0.212</u>
7	<u>0.212</u>
8	<u>0.212</u>

Average 0.212

Nozzle ID <u>S-22</u>	
Point	
1	<u>0.222</u>
2	<u>0.222</u>
3	<u>0.223</u>
4	<u>0.224</u>
5	<u>0.225</u>
6	<u>0.226</u>
7	<u>0.225</u>
8	<u>0.225</u>

Average 0.224

Nozzle ID <u>S-23</u>	
Point	
1	<u>0.255</u>
2	<u>0.255</u>
3	<u>0.255</u>
4	<u>0.255</u>
5	<u>0.255</u>
6	<u>0.254</u>
7	<u>0.255</u>
8	<u>0.255</u>

Average 0.255

Nozzle ID <u>HAST-24</u>	
Point	
1	<u>0.245</u>
2	<u>0.245</u>
3	<u>0.244</u>
4	<u>0.244</u>
5	<u>0.245</u>
6	<u>0.245</u>
7	<u>0.245</u>
8	<u>0.245</u>

Average 0.245

Nozzle ID <u>HAST-26</u>	
Point	
1	<u>0.178</u>
2	<u>0.179</u>
3	<u>0.179</u>
4	<u>0.180</u>
5	<u>0.181</u>
6	<u>0.180</u>
7	<u>0.179</u>
8	<u>0.179</u>

Average 0.179

Nozzle ID <u>S-28</u>	
Point	
1	<u>0.280</u>
2	<u>0.280</u>
3	<u>0.280</u>
4	<u>0.280</u>
5	<u>0.280</u>
6	<u>0.280</u>
7	<u>0.280</u>
8	<u>0.280</u>

Average 0.280

**STAINLESS  
PROBE & NOZZEL UNIT  
6/20/94**

Nozzle ID <u>S-34</u>	Nozzle ID <u>S-35</u>	Nozzle ID <u>S-36</u>
Point	Point	Point
1 <u>0.295</u>	1 <u>0.311</u>	1 <u>0.310</u>
2 <u>0.295</u>	2 <u>0.311</u>	2 <u>0.309</u>
3 <u>0.296</u>	3 <u>0.311</u>	3 <u>0.310</u>
4 <u>0.295</u>	4 <u>0.311</u>	4 <u>0.306</u>
5 <u>0.295</u>	5 <u>0.311</u>	5 <u>0.305</u>
6 <u>0.294</u>	6 <u>0.311</u>	6 <u>0.306</u>
7 <u>0.295</u>	7 <u>0.311</u>	7 <u>0.304</u>
8 <u>0.295</u>	8 <u>0.311</u>	8 <u>0.305</u>
Average <u>0.295</u>	Average <u>0.311</u>	Average <u>0.307</u>

Nozzle ID <u>HAST-37</u>	Nozzle ID <u>S-40</u>	Nozzle ID <u>S-49</u>
Point	Point	Point
1 <u>0.370</u>	1 <u>0.420</u>	1 <u>0.410</u>
2 <u>0.370</u>	2 <u>0.420</u>	2 <u>0.410</u>
3 <u>0.370</u>	3 <u>0.420</u>	3 <u>0.410</u>
4 <u>0.369</u>	4 <u>0.419</u>	4 <u>0.410</u>
5 <u>0.370</u>	5 <u>0.418</u>	5 <u>0.408</u>
6 <u>0.370</u>	6 <u>0.419</u>	6 <u>0.408</u>
7 <u>0.370</u>	7 <u>0.420</u>	7 <u>0.410</u>
8 <u>0.370</u>	8 <u>0.420</u>	8 <u>0.410</u>
Average <u>0.370</u>	Average <u>0.420</u>	Average <u>0.410</u>

Nozzle ID _____	Nozzle ID _____	Nozzle ID _____
Point	Point	Point
1 _____	1 _____	1 _____
2 _____	2 _____	2 _____
3 _____	3 _____	3 _____
4 _____	4 _____	4 _____
5 _____	5 _____	5 _____
6 _____	6 _____	6 _____
7 _____	7 _____	7 _____
8 _____	8 _____	8 _____
Average <u>#DIV/0!</u>	Average <u>#DIV/0!</u>	Average <u>#DIV/0!</u>

**QUARTZ  
NOZZLE DATA  
6/16/94**

Nozzle II Point	A
1	0.225
2	0.225
3	0.225
4	0.225
5	0.225
6	0.225
7	0.225
8	0.225

Average 0.225

Nozzle II Point	B-O
1	0.235
2	0.235
3	0.235
4	0.235
5	0.235
6	0.235
7	0.235
8	0.235

Average 0.235

Nozzle II Point	C-O
1	0.307
2	0.307
3	0.307
4	0.307
5	0.307
6	0.307
7	0.307
8	0.307

Average 0.307

Nozzle II Point	D-O
1	0.374
2	0.375
3	0.375
4	0.374
5	0.375
6	0.375
7	0.375
8	0.374

Average 0.375

Nozzle II Point	E-O
1	0.373
2	0.373
3	0.373
4	0.373
5	0.373
6	0.373
7	0.373
8	0.373

Average 0.373

Nozzle II Point	F-O
1	0.443
2	0.443
3	0.443
4	0.443
5	0.443
6	0.443
7	0.443
8	0.443

Average 0.443

Nozzle II Point	G-O
1	0.471
2	0.470
3	0.470
4	0.470
5	0.470
6	0.470
7	0.470
8	0.470

Average 0.470

Nozzle II Point	H-O
1	0.475
2	0.475
3	0.475
4	0.475
5	0.475
6	0.475
7	0.475
8	0.475

Average 0.475

Nozzle II Point	I-O
1	0.624
2	0.627
3	0.629
4	0.629
5	0.626
6	0.626
7	0.626
8	0.625

Average 0.627

### MAGNEHELIC CALIBRATION

DATE: 6/27/94  
 GAGE ID # M - 1  
 RANGE 0 - 5 in. H2O

SCHEDULED CALIBRATION:  
 SEMI ANNUAL  XXX  
 BI-MONTHLY   
 OTHER

REFERENCE  
 ID # M - 1

**LEAK CHECK :**

System:	† Set @ 10 in. H2O	vacuum 10 in. P F	pressure 10 in. P F
Point:	†† Set @ 90 % FS in. H2O	vacuum in. P F	pressure in. P F

Point	Incline Delta P Pinc	Magnehelic Delta P Pmag	% Deviation (Pinc-Pmag)/Pinc x 100
1	1.00	1.00	0.000%
	1.00	1.00	0.000%
	1.00	1.00	0.000%
average	1.00	1.00	** 0.000%
2	2.00	1.99	0.500%
	2.00	1.97	1.500%
	2.00	1.97	1.500%
average	2.00	1.98	** 1.167%
3	3.00	3.00	0.000%
	3.00	3.00	0.000%
	3.00	2.99	0.333%
average	3.00	3.00	** 0.111%
4	4.00	3.88	3.000%
	4.00	3.86	3.500%
	4.00	3.86	3.500%
average	4.00	3.87	** 3.333%
5	5.00	4.97	0.600%
	5.00	4.98	0.400%
	5.00	4.98	0.400%
average	5.00	4.98	** 0.467%

**STANDARD CORRECTION FACTOR**  
 AVERAGE DEVIATION  
 STANDARD DEVIATION  
 95% CONFIDENCE INTERVAL  
 PRECISION( within +/- 3%)

1.010
0.010
0.013
0.032
-1.00

† If pressure or vacuum decreases by more than 1 in. in 5 minutes then remove from service.  
 †† If pressure or vacuum decreases by more than 5% in 5 minutes then remove from service.  
 \*\* These values must be within +/- 5% before the magnehelic can be put into operation.

Calibration by: KK Reviewed by: \_\_\_\_\_

## MAGNEHELIC CALIBRATION

DATE: 6/21/94  
 GAGE ID # M-7  
 RANGE 0-5 in. H2O

SCHEDULED CALIBRATION:  
 SEMI ANNUAL   
 BI-MONTHLY   
 OTHER

REFERENCE ID # M-7

**LEAK CHECK :**

System:	† Set @ 10 in. H2O	vacuum 10 in. P F	pressure 10 in. P F
Point:	†† Set @ 90 % FS in. H2O	vacuum in. P F	pressure in. P F

Point	Incline Delta P <i>Pinc</i>	Magnehelic Delta P <i>Pmag</i>	% Deviation $(Pinc - Pmag) / Pinc \times 100$
1	1.00	0.99	1.000%
	1.00	1.00	0.000%
	1.00	1.00	0.000%
average	1.00	1.00	** 0.333%
2	2.00	2.00	0.000%
	2.00	2.00	0.000%
	2.00	2.00	0.000%
average	2.00	2.00	** 0.000%
3	3.00	3.00	0.000%
	3.00	3.01	0.333%
	3.00	3.01	0.333%
average	3.00	3.01	** 0.222%
4	4.00	4.00	0.000%
	4.00	4.00	0.000%
	4.00	4.00	0.000%
average	4.00	4.00	** 0.000%
5	5.00	5.00	0.000%
	5.00	5.00	0.000%
	5.00	5.01	0.200%
average	5.00	5.00	** 0.067%

**STANDARD CORRECTION FACTOR**  
 AVERAGE DEVIATION  
 STANDARD DEVIATION  
 95% CONFIDENCE INTERVAL  
 PRECISION( within +/- 3%)

0.999
0.001
0.003
0.007
-1.00

† If pressure or vacuum decreases by more than 1 in. in 5 minutes then remove from service.  
 †† If pressure or vacuum decreases by more than 5% in 5 minutes then remove from service.  
 \*\* These values must be within +/- 5% before the magnehelic can be put into operation.

Calibration by: KK

Reviewed by: \_\_\_\_\_

## MAGNEHELIC CALIBRATION

DATE: 6/21/94  
 GAGE ID # M-9  
 RANGE 0-5 in. H2O

SCHEDULED CALIBRATION:  
 SEMI ANNUAL   
 BI-MONTHLY   
 OTHER

REFERENCE  
 ID # M-9

**LEAK CHECK :**

System:	† Set @ 10 in. H2O	vacuum 10 in. P F	pressure 10 in. P F
Point:	†† Set @ 90 % FS in. H2O	vacuum in. P F	pressure in. P F

Point	Incline Delta P Pinc	Magnehelic Delta P Pmag	% Deviation (Pinc-Pmag)/Pinc x 100
1	1.00	0.99	1.000%
	1.00	1.00	0.000%
	1.00	1.00	0.000%
average	1.00	1.00	** 0.333%
2	2.00	2.00	0.000%
	2.00	2.00	0.000%
	2.00	2.01	0.500%
average	2.00	2.00	** 0.167%
3	3.00	3.00	0.000%
	3.00	3.01	0.333%
	3.00	3.01	0.333%
average	3.00	3.01	** 0.222%
4	4.00	4.00	0.000%
	4.00	4.00	0.000%
	4.00	4.00	0.000%
average	4.00	4.00	** 0.000%
5	5.00	5.00	0.000%
	5.00	5.00	0.000%
	5.00	5.00	0.000%
average	5.00	5.00	** 0.000%

**STANDARD CORRECTION FACTOR**  
 AVERAGE DEVIATION  
 STANDARD DEVIATION  
 95% CONFIDENCE INTERVAL  
 PRECISION( within +/- 3%)

0.999
0.001
0.003
0.007
-1.00

† If pressure or vacuum decreases by more than 1 in. in 5 minutes then remove from service.  
 †† If pressure or vacuum decreases by more than 5% in 5 minutes then remove from service.  
 \*\* These values must be within +/- 5% before the magnehelic can be put into operation.

Calibration by: KK

Reviewed by: \_\_\_\_\_







**BIC** ANALYTICAL  
 INCORPORATED  
 1536 Eastman Avenue  
 Ventura, CA 93003  
 (805) 644-1095 Fax 644-8947

**BILL TO:**  
 Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 Phone \_\_\_\_\_ Contact \_\_\_\_\_  
 P.O.# \_\_\_\_\_

**CHAIN OF CUSTODY RECORD**

PROJ. NO. **294-136**  
 PROJECT NAME **STRATFORD GIN (Notes)**

SAMPLERS: (Signature) *[Signature]*  
 CONTAINER TYPES  
 A = AMBER B = BRASS G = GLASS  
 P = PLASTIC V = VOA VIAL O = OTHER

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	GPS	SAMPLE DESCRIPTION	MATRIX			CONTAINER #	TYPE
					WATER	SOIL	SUDGE/OTHER		
28	10-27			R-1 Probe			1	P	X
29				R-1 Imps					X
30				R-1 Filter B-36					X
31				R-2 Probe					X
32				R-2 Imps					X
33				R-2 Filter B-37					X
34				R-3 Probe					X
35				R-3 Imps					X
36				R-3 Filter B-38					X

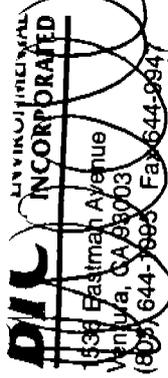
REMARKS  
*Handwritten notes in the remarks section, including a signature and some illegible text.*

CHECK ONE BOX:  
 DISPOSE SAMPLES  
 RETURN SAMPLES

The undersigned hereby acknowledges having received a copy of the Fee Schedule/General Information and Conditions, the provisions of which are a part of this agreement.

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

TURN AROUND TIME  
 24 Hr.  
 48 Hr.  
 72 Hr.



**REPORT**  
 Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 Phone \_\_\_\_\_

**BILL TO:**  
 Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 Phone \_\_\_\_\_

P.O.# \_\_\_\_\_

**CHAIN OF CUSTODY RECORD**

PROJ. NO. 294436 PROJECT NAME STAFFORD GIN (B. Robber Cycle) CONTACT \_\_\_\_\_  
 DATE SAMPLED \_\_\_\_\_ TIME SAMPLED \_\_\_\_\_  
 SAMPLES: (Signature) \_\_\_\_\_

CONTAINER TYPES  
 A = AMBER B = BRASS G = GLASS  
 P = PLASTIC V = VOA VIAL O = OTHER

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	G.M.	SAMPLE DESCRIPTION	MATRIX			CONTAINER #	TYPE	REMARKS
					WATER	SOIL	OTHER			
37	10-27		X	R-1 Tank 120			1	P		
38				R-1 Tank 370						
39				R-1 Filter B-39						
40				R-2 Tank 125						
41				R-2 Tank 300						
42				R-2 Filter B-40						
43				R-3 Tank 95						
44				R-3 Tank 320						
45				R-3 Filter B-41						

ANALYSIS  
 Total Metals  
 Lead  
 Cadmium  
 Copper  
 Nickel  
 Zinc  
 Manganese  
 Iron  
 Barium  
 Strontium  
 Vanadium  
 Selenium  
 Tellurium  
 Antimony  
 Arsenic  
 Bismuth  
 Molybdenum  
 Niobium  
 Rhenium  
 Silver  
 Tin  
 Tellurium  
 Uranium  
 Vanadium  
 Zirconium  
 Barium  
 Strontium  
 Calcium  
 Magnesium  
 Sodium  
 Potassium  
 Chloride  
 Sulfate  
 Nitrate  
 Phosphate  
 Silica  
 Fluoride  
 Bromide  
 Iodide  
 Cyanide  
 Fluoride  
 Chloride  
 Sulfate  
 Nitrate  
 Phosphate  
 Silica  
 Fluoride  
 Bromide  
 Iodide  
 Cyanide

The undersigned hereby acknowledges having received a copy of the Fee Schedule/General Information and Conditions, the provisions of which are a part of this agreement.

Relinquished by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_ Received by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Relinquished by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_ Received by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

TURN AROUND TIME  
 24 Hr. \_\_\_\_\_  
 48 Hr. \_\_\_\_\_  
 72 Hr. \_\_\_\_\_

WHITE COPY \_\_\_\_\_ CANARY COPY \_\_\_\_\_ PINK COPY \_\_\_\_\_



**CHAIN OF CUSTODY RECORD**

PROJ. NO. **294-136** PROJECT NAME **STRAITford Gin (Unloading Fan)** Company \_\_\_\_\_ Address \_\_\_\_\_ Phone \_\_\_\_\_ Contact \_\_\_\_\_

SAMPLERS: (Signature) \_\_\_\_\_

CONTAINER TYPES  
A = AMBER B = BRASS G = GLASS  
P = PLASTIC V = VOA VIAL O = OTHER

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	SIG	SIG	SAMPLE DESCRIPTION	MATRIX			CONTAINER #	TYPE	REMARKS
						WATER	SOIL	SLUDGE/OTHER			
1	10-26		X		Front 1/2 125nd+10				1	P	
2					BACK 1/2 40nd -10						
3					F-35 -10						
4					F-36 -10						
5					E-18 -10						
6					Front 1/2 125nd+10						
7					BACK 1/2 35nd -10						
8					F-37 -10						
9					F-38 -10						
10					E-19 -10						
11					Front 1/2 140nd+10						
12					BACK 1/2 40nd -10						
13					F-39 -10						
14					F-40 -10						
15					E-20 -10						

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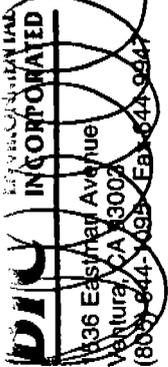
Relinquished by: (Signature) _____	Date/Time _____	Received by: (Signature) _____	Date/Time _____
Relinquished by: (Signature) _____	Date/Time _____	Received by: (Signature) _____	Date/Time _____

TURN AROUND TIME

24 Hr.	5 Day
48 Hr.	Standard
72 Hr.	Other

WHITE COPY \_\_\_\_\_ CANARY COPY \_\_\_\_\_ PINK COPY \_\_\_\_\_





Company \_\_\_\_\_  
Address \_\_\_\_\_  
Phone \_\_\_\_\_ Contact \_\_\_\_\_

Company \_\_\_\_\_  
Address \_\_\_\_\_  
Phone \_\_\_\_\_ Contact \_\_\_\_\_

Company \_\_\_\_\_  
Address \_\_\_\_\_  
Phone \_\_\_\_\_ Contact \_\_\_\_\_

**CHAIN OF CUSTODY RECORD**

PROJ. NO. **294-136** PROJECT NAME **STRATFORD GIN (FEEDER)**

SAMPLERS: (Signature) \_\_\_\_\_

CONTAINER TYPES  
A = AMBER B = BRASS G = GLASS  
P = PLASTIC V = VOA VIAL O = OTHER

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	Q1	Q2	SAMPLE DESCRIPTION	MATRIX			CONTAINER #	TYPE	REMARKS
						WATER	SOIL	SLUDGE/OTHER			
31	10-26		X		Front 1/2 +10				1	P	
32					BACK 1/2 -10						
33					F-15 -10						
34					F-16 -10						
35					E-8 -10						
36					Front 1/2 +10						
37					BACK 1/2 -10						
38					F-19 -10						
39					F-20 -10						
40					E-10 -10						
41					Front 1/2 +10						
42					BACK 1/2 -10						
43					F-17 -10						
44					F-18 -10						
45					E-9 -10						

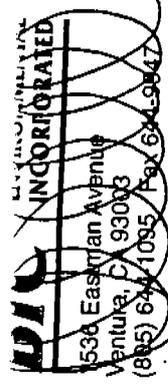
CHECK ONE BOX:  
DISPOSE SAMPLES  
RETURN SAMPLES

The undersigned hereby acknowledges having received a copy of the Fee Schedule/General Information and Conditions, the provisions of which are a part of this agreement.

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
2							
3							
				<b>TURN AROUND TIME</b>			
				24 Hr. 5 Day			
				48 Hr. Standard			
				72 Hr. Other			

WHITE COPY \_\_\_\_\_ CANARY COPY \_\_\_\_\_ PINK COPY \_\_\_\_\_





**CHAIN OF CUSTODY RECORD**

PROJ. NO. **294-136** PROJECT NAME **STRATFORD GIN (NOTES)**

SAMPLERS: (Signature)

CONTAINER TYPES  
 A = AMBER B = BRASS G = GLASS  
 P = PLASTIC V = VOA VIAL O = OTHER

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	GPS	SAMPLE DESCRIPTION	MATRIX			CONTAINER #	TYPE
					WATER	SOIL	SLUDGE/OTHER		
61	10-27		X	Front 1/2 +10				1	P
62				BACK 1/2 -10					
63				F-3 -10					
64				F-4 -10					
65				E-2 -10					
66				Front 1/2 +10					
67				BACK 1/2 -10					
68				F-5 -10					
69				F-6 -10					
70				E-3 -10					
71				Front 1/2 +10					
72				BACK 1/2 -10					
73				F-7 -10					
74				F-8 -10					
75				E-4 -10					

REMARKS

ANALYSIS

CHECK ONE BOX:

DISPOSE SAMPLES

RETURN SAMPLES

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Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
TURN AROUND TIME		TURN AROUND TIME	
24 Hr.	5 Day	24 Hr.	5 Day
48 Hr.	Standard	48 Hr.	Standard
72 Hr.	Other	72 Hr.	Other

WHITE COPY \_\_\_\_\_ CANARY COPY \_\_\_\_\_ PINK COPY \_\_\_\_\_

BILL TO: P.O.#

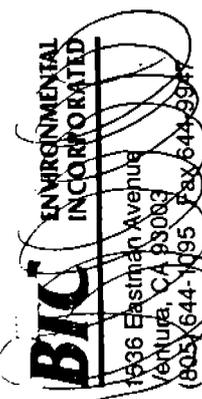
Company Address

Phone Contact

Fax

Company Address

Phone Contact



**REPORT**  
 Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 Phone \_\_\_\_\_

**BILL TO:**  
 Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 Phone \_\_\_\_\_

P.O.# \_\_\_\_\_

**CHAIN OF CUSTODY RECORD**

PROJ. NO **294136** PROJECT NAME **STRATFORD GIN (Lint)**  
 ANALYSIS \_\_\_\_\_  
 SAMPLERS: (Signature) \_\_\_\_\_  
 CONTAINER TYPES  
 A = AMBER B = BRASS G = GLASS  
 P = PLASTIC V = VOA VIAL O = OTHER

Phone \_\_\_\_\_ Contact \_\_\_\_\_  
 Phone \_\_\_\_\_ Contact \_\_\_\_\_  
 REMARKS

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX			CONTAINER #	TYPE
				WATER	SOIL	SLUDGE/OTHER		
76	10-28		Front 1/2 +10 <del>4</del> K-1				7	P
77			BACK 1/2 -10 <del>4</del>					
78			F-1 -10 <del>4</del>					
79			F-2 -10					
80			E-1 -10					
81			Front 1/2 +10 <del>4</del> K-2					
82			BACK 1/2 -10 <del>4</del>					
83			F-43 -10					
84			F-44 -10					
85			E-22 -10					
86			Front 1/2 +10 <del>4</del> K-3					
87			BACK 1/2 -10 <del>4</del>					
88			F-41 -10					
89			F-42 -10					
90			E-21 -10					

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Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

**TURN AROUND TIME**

24 Hr.	5 Day
48 Hr.	Standard
72 Hr.	Other

