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EPA

Municipal Waste Combustion Continuous Emission Monitoring

Emission Test Report

Wheelabrator Millbury, Inc. Millbury, Massachusetts

EMISSION TEST REPORT

MUNICIPAL WASTE COMBUSTION
CONTINUOUS EMISSION MONITORING PROGRAM

WHEELABRATOR RESOURCE RECOVERY FACILITY
MILLBURY, MASSACHUSETTS

EPA Contract No. 68-02-4336
Work Assignment Number 29

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TABLE OF CONTENTS

1.0 Introduction 1-1
- 1.1 Background 1-1
- 1.2 Purpose and Description of the Project 1-1
- 1.3 Project Organization 1-2

2.0 Summary and Discussion of Results 2-1

3.0 Quality Assurance Procedures 3-1
- 3.1 Anarad CEMS's 3-2
- 3.2 HCl CEMS's 3-5
- 3.3 Opacity CEMS 3-8

4.0 Facility and Process Description 4-1
- 4.1 Waste Separation 4-1
- 4.2 Combustion Air 4-1
- 4.3 Combustor and Boiler 4-1
- 4.4 Spray Dryer and ESP 4-3
- 4.5 Ash Handling 4-6

5.0 Monitoring System Descriptions 5-1
- 5.1 Thermo Environmental Model 15 HCl Analyzer/Model 200 Dilution System 5-1
- 5.2 Bran & Luebbe Ecometer HCl Monitoring System 5-5
- 5.3 Data Acquisition System (IBM Portable PC) 5-6
- 5.4 Thermo Environmental Instruments, Inc. NO_x Analyzer 5-6
- 5.5 Thermox O_2 Analyzer 5-6
- 5.6 Anarad AR-50C CO Analyzer 5-7
- 5.7 Anarad AR-30C SO_2 Analyzer 5-7
- 5.8 Thermo Environmental Instruments Model 400 Transmissometer 5-7
- 5.9 Thermo Environmental Instruments Model 701 Multi-Signal Totalizer (Combiner) 5-8
- 5.10 Millbury Data Acquisition System 5-8

Appendix A. "Test Request"

Appendix B. Daily Data Summaries

Appendix C. Anarad Gas CEMS's
- Daily and Periodic Check Forms

Appendix D. Anarad Opacity CEMS
- Daily and Periodic Check Forms
- Performance Audit Results

Appendix E. HCl CEMS's
- Daily and Periodic Check Forms
- TECO Daily Calibration Summaries

(continued)

TABLE OF CONTENTS (CONTINUED)

Appendix F. Anarad Gas CEMS Audit Results
- Cylinder Gas Audits
- Relative Accuracy Audits

Appendix G. HCl CEMS Audit Results
- Relative Accuracy Audit Results
- Concurrent HCl Monitoring Data

Appendix H. Bran & Luebbe Ecometer Additional Information

Appendix I. Process Data

Appendix J. Correspondence

LIST OF TABLES

Table Number		Page Number
2.1	Cylinder Gas Audit Results, Unit 2 - SDA Inlet.....	2-4
2.2	Cylinder Gas Audit Results, Unit 2 - ESP Outlet.....	2-5
2.3	Relative Accuracy Audit Results, Unit 2.....	2-6
2.4	Relative Accuracy Audit Results, HCl Inlet.....	2-7
2.5	Relative Accuracy Audit Results, HCl Outlet.....	2-8
2.6	List of Process Parameters.....	2-13
3.1	Quality Assurance Requirements.....	3-1

LIST OF FIGURES

Figure Number		Page Number
1-1.	Organizational scheme for Millbury test program	1-3
2-1.	Typical Emissions Data (8/23/88)	2-2
2-2.	Typical Emissions Data (9/8/88)	2-3
3-1.	EPA Test Method Sampling Trains	3-4
3-2.	HCl Sampling Train	3-6
4-1.	Process Schematic, Millbury Resource Recovery Facility	4-2
4-2.	Process Data Sensor Locations for the Furnace System	4-4
4-3.	Process Data Sensor Locations for the ESP and Spray Dryer System at the Millbury Resource Recovery Facility	4-5
5-1.	Spray Dryer Inlet Sampling Location	5-2
5-2.	ESP Outlet Sampling Location	5-3

1.0 INTRODUCTION

1.1 BACKGROUND

This test report describes the continuous emission monitoring (CEM) program performed at the Wheelabrator Resource Recovery Facility in Millbury, Massachusetts as part of the EPA's on-going standards development efforts for municipal waste combustion (MWC) facilities. Specific background information about the testing program is included in the March 3, 1988 memorandum "Test Request - Continuous Monitoring of Emissions from Two Municipal Waste Combustors" from James U. Crowder, Chief ISB, ESD to George W. Walsh, Chief EMB, TSD. A copy of this memorandum is included as Appendix A to this document.

1.2 PURPOSE AND DESCRIPTION OF THE PROJECT

The purpose of the CEM project is to provide long-term data that are needed to establish the level and averaging period of emission standards and guidelines for SO_2, HCl, CO, and opacity, as appropriate, in any proposed regulations for municipal waste combustors. Source-installed continuous emission monitoring equipment was used to obtain measurements of SO_2, O_2, CO, and opacity levels; HCl concentrations were measured using monitors provided by the EPA. This 63-day field test program provided 42 valid days of controlled and uncontrolled emissions monitoring data for a state-of-the-art mass burn facility with current best available control technology.

The CEM project as described in the "Test Request":

> "The CEM test programs to be performed at the Millbury Resource Recovery facility and the Marion County SWE facility are designed to provide the long-term data necessary to determine the appropriate levels and averaging periods for pollutants for which direct emission monitoring for compliance may be required, and to select the appropriate surrogates for pollutants, such as dioxins/furans or HCl, that cannot practically be continuously monitored at this time...
>
> Continuous monitoring of the acid gases SO_2 and HCl simultaneously at the control system inlet and outlet will provide data to assess long-term achievable SO_2 and HCl removal efficiencies across the systems and the ultimate emissions. These data will be used to determine the achievable emissions levels and averaging periods for any proposed standard. Comparative analysis of the SO_2 and HCl removal efficiency data will provide information to determine if SO_2 removal is consistent indicator of HCl removal performance.

The O_2 and carbon dioxide (CO_2) CEM measurements are necessary to normalize the pollutant measurements to a standard basis (12 percent CO_2 and/or 7 percent O_2).

Measurement of CO will provide data to establish long-term achievable levels and trends in CO emissions. In addition, recent NSR permits for new MWC's have specified combustion efficiency as a surrogate measure of good combustion. The CO and CO_2 data collected in this program will be used to compute combustion efficiency for comparative purposes.

Opacity measurements at the control system outlet may be used to develop an opacity limitation and an appropriate averaging time.

In addition to the variables that have been specified for continuous flue gas measurements, various operations parameters have been specified for recording. These data are normally-recorded process control measurements that can provide surrogate information concerning the proper operation of the combustor and the emission control system."

1.3 PROJECT ORGANIZATION

Figure 1-1 illustrates the organizations and personnel involved in the CEM study. Entropy was responsible for field testing, on-site QA/QC activities, and the collection of CEM effluent measurement and process data. Wheelabrator Millbury personnel were responsible for maintaining proper operation of Millbury's installed CEMS's, which included performing all necessary adjustments and corrective action, and providing documentation of CEM maintenance activities and atypical process conditions that occurred during the project. Radian's responsibilities were to review the performance test procedures and criteria to ensure that the quality of the CEM data collected would be appropriate for use in standards development, and to perform post-test data analysis.

EPA representatives were responsible for defining the objectives of this project and resolving all decisions that may have significantly affected the project scope.

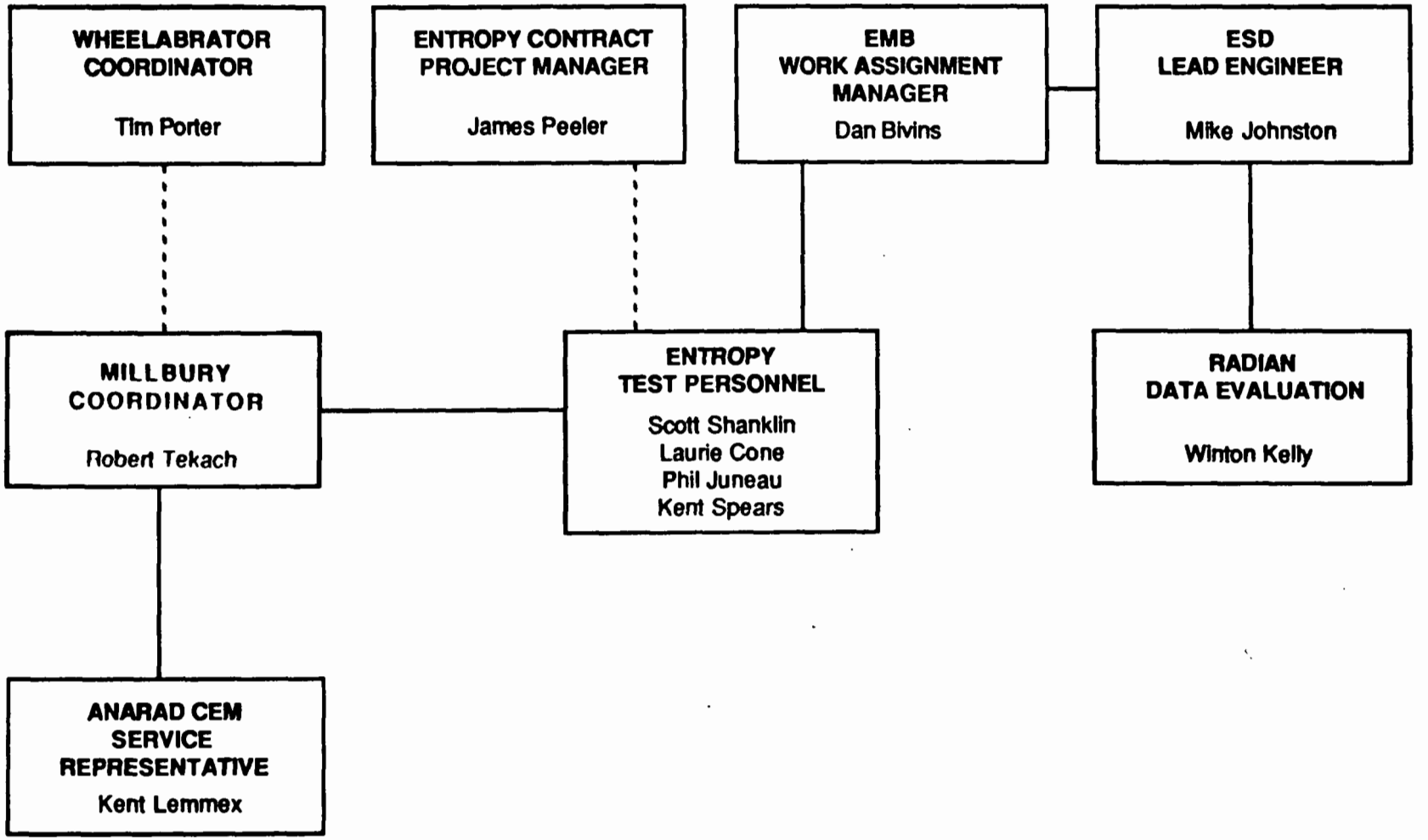

Figure 1-1. Organizational scheme for Millbury test program.

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2.0 SUMMARY AND DISCUSSION OF RESULTS

Emissions, CEM calibration, and process data were obtained daily throughout the two-month test period. Extensive CEM quality assurance activities were also performed and documented. These quality assurance activities included daily zero and upscale calibration checks, relative accuracy audits (RAA's), cylinder gas audits (CGA's), response time tests, and sampling system bias checks.

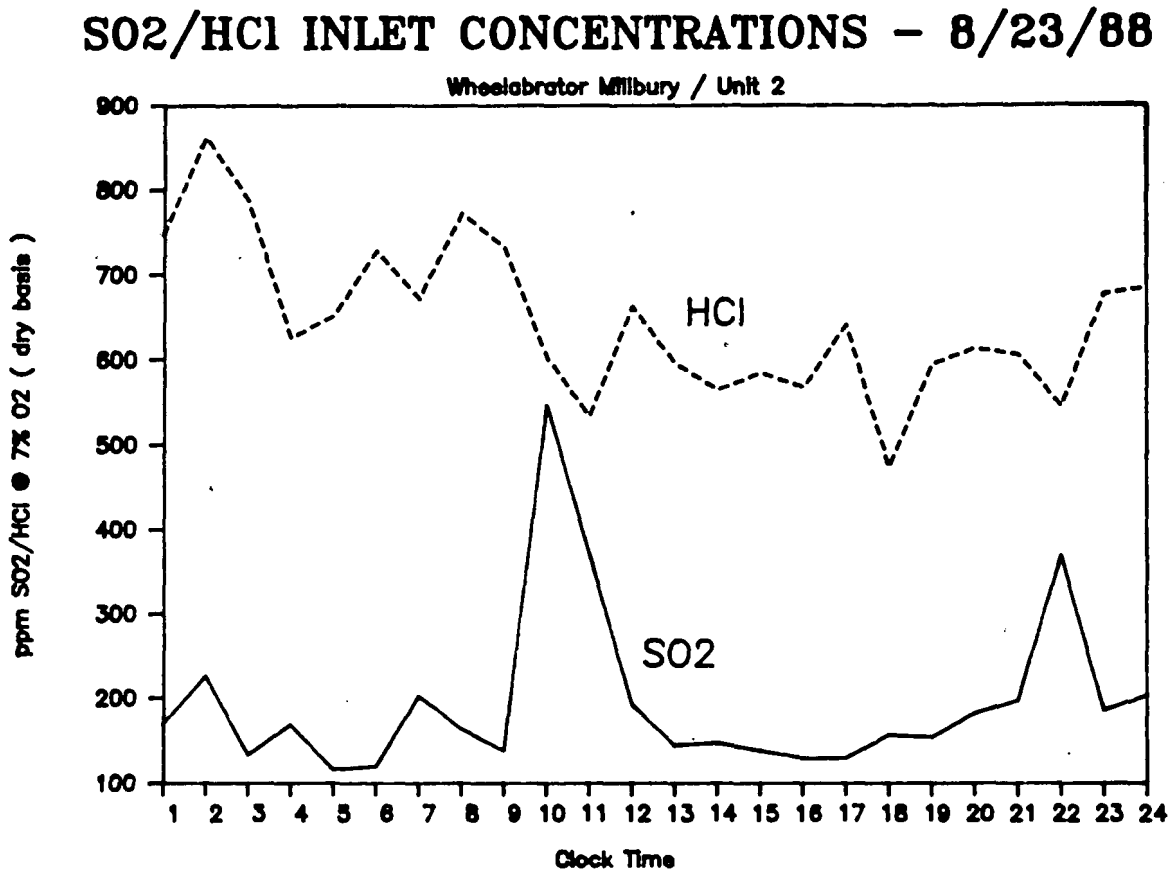
The daily emissions summaries, which comprise Appendix B, include hourly-averaged concentration data, emissions data normalized to 7% O_2, SO_2 and HCl removal efficiencies, and notes on the monitoring system and process operation. Figures 2-1 and 2-2 illustrate emissions data from two typical days of operation during the test program.

All SO_2, O_2, CO, HCl, and opacity daily calibration check values were within the $\pm$ 5% of span criteria during the data collection period. The CEM calibration results are recorded on the appropriate daily check forms, which can be found in Appendices C-E. Appendix E also contains TECO HCl analyzer calibration summary sheets. The calibration procedures and QA activities are described in more detail in Section 3.0. Records of the Anarad system and HCl CEM gas audits are located in Appendices F and G, respectively.

Excluding the CO analyzer, all Anarad analyzers produced acceptable results for the RAA's and CGA's. Tables 2.1 through 2.5 present summaries of the audit results for the Anarad and HCl CEMS's. The accuracy of the CO analyzer could not be verified by performing CGA's. As an attempt to compensate for the CO_2 interference in the Anarad CO analyzer measurement, the analyzer is calibrated using a calibration gas blend of CO and 10% CO_2. Since Entropy's CO audit gases did not contain CO_2, meaningful CGA results were not obtained. The CO RAA's performed also did not produce meaningful results; the cause of this problem could not be determined. The audit data are therefore not indicative of the Anarad CO analyzer performance. Acceptable performance was indicated by the results of the daily calibration checks which use a gas blend of CO and CO_2.

The O_2 monitors and the outlet SO_2 monitor occasionally had difficulty producing responses to the gas injections that were within the CGA specifications over the entire measurement range, but responded well to the audit gases at typical effluent levels. Since the analyzer calibrations could

Figure 2-1. Typical Emissions Data



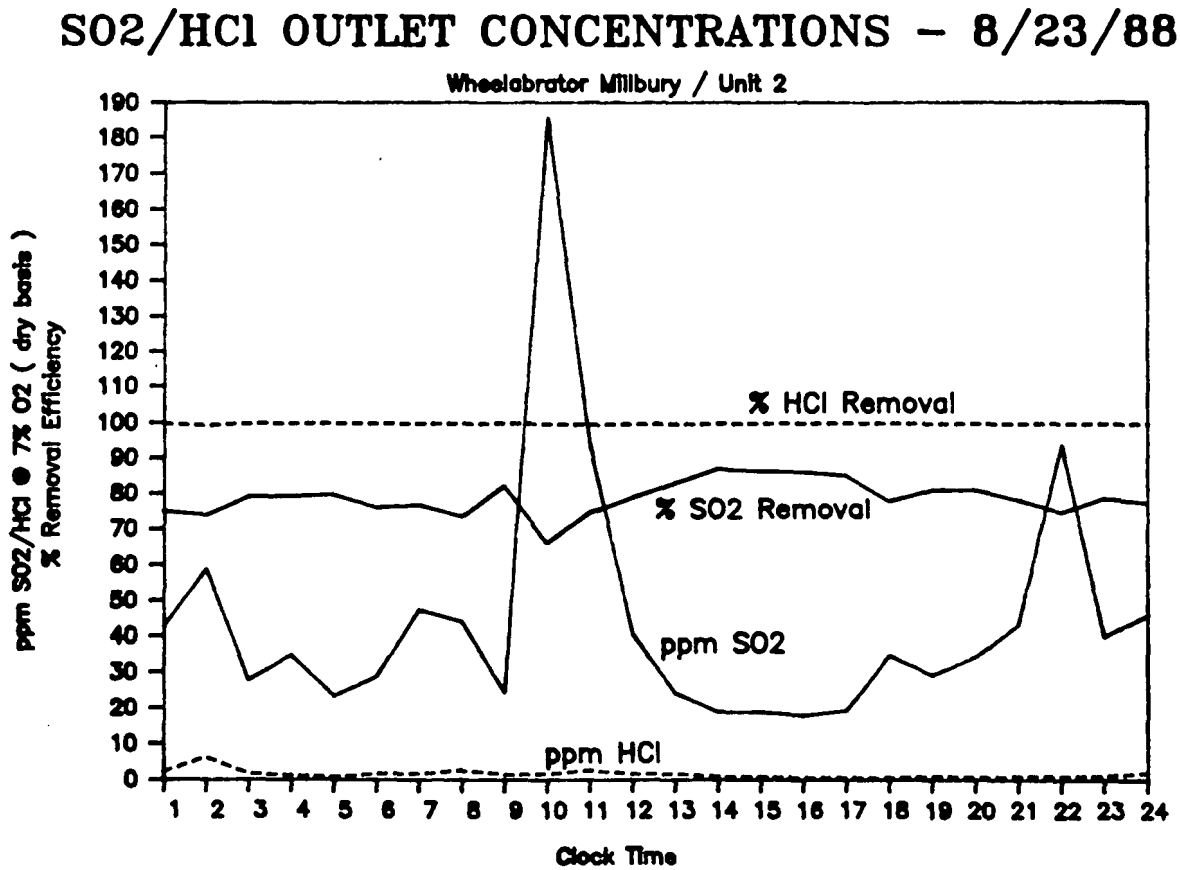
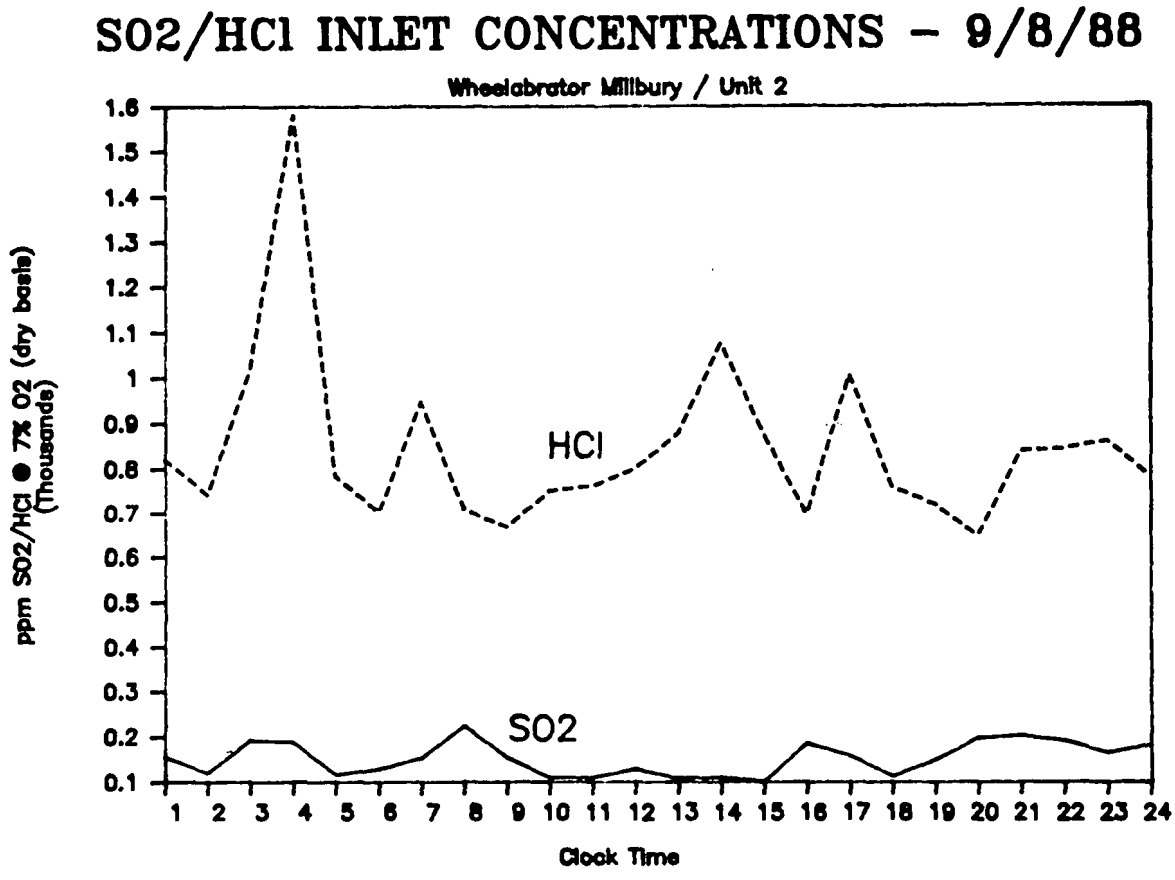


Figure 2-2. Typical Emissions Data



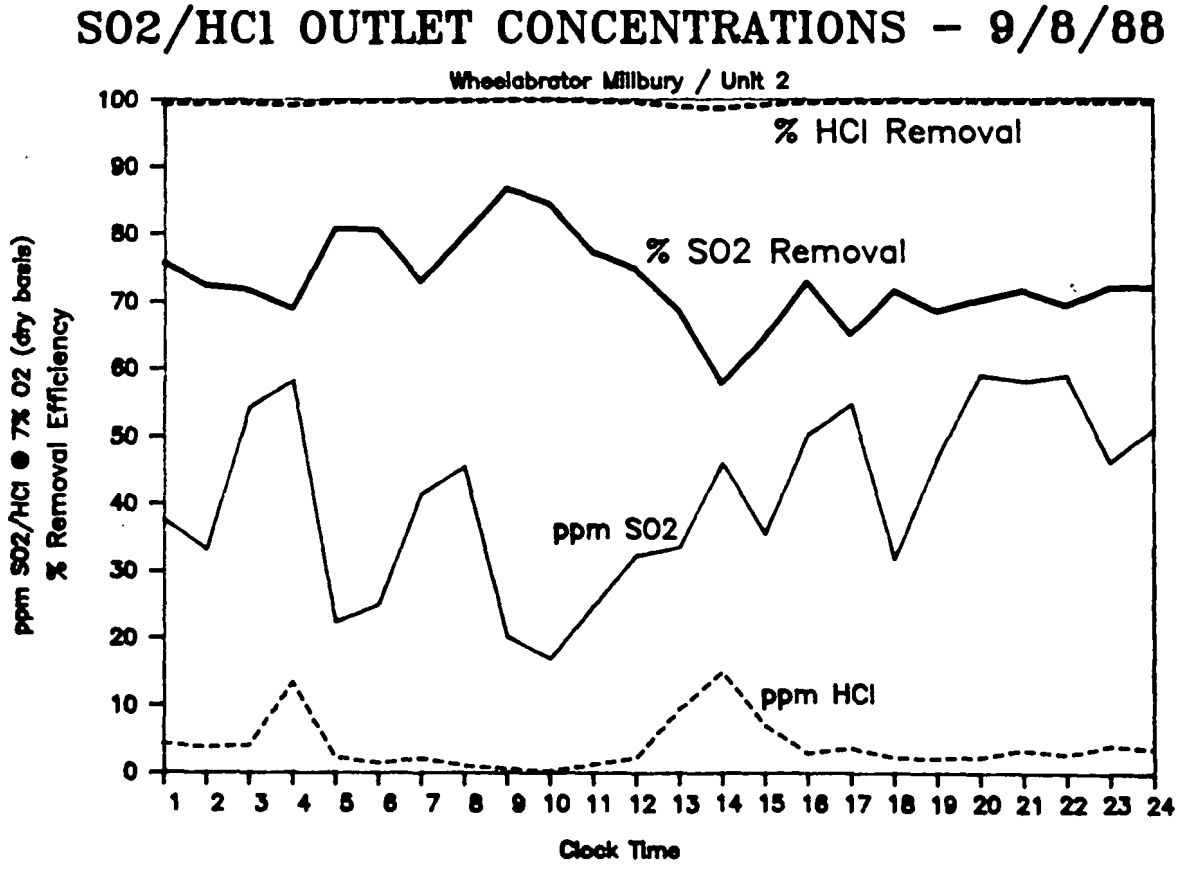


TABLE 2.1

CYLINDER GAS AUDIT RESULTS
Wheelabrator Millbury - Unit 2
SDA Inlet

Analyzer:	SO_2 (ppm)			O_2 (%)			CO (ppm)*		
Gas Range:	low	mid	high	low	mid	high	low	mid	high
Gas Value:	101	218	431	5.0	11.9	19.9	20	90	171
Average Response: 7/14/88	94	217	468	4.9	12.2	20.6	11	41	71
Accuracy (%)	-6.9	-0.5	8.6	-2.0	2.5	3.5	--	--	--
Average Response: 8/6/88	100	217	469	4.7	12.2	20.8	6	34	64
Accuracy (%)	-1.0	-0.5	8.8	-6.0	2.5	4.5	--	--	--
Average Response: 8/25/88	94	210	440	5.5	12.9	21.0	Not performed		
Accuracy (%)	-6.9	-3.7	2.1	10.0	8.4	5.5			

*Since the plant CO monitor calibration gas contains 10% CO_2, and the CO_2 interference could not be quantified, no meaningful results could be obtained using a cylinder gas audit.

$$\text{Accuracy (\%)} = \frac{\text{Average Analyzer Response - Gas Value}}{\text{Gas Value}} \times 100$$

A limit of $\pm$ 10% of gas value specified for an acceptable CGA result.

TABLE 2.2

CYLINDER GAS AUDIT RESULTS
Wheelabrator Millbury - Unit 2
ESP Outlet

Analyzer:	SO_2 (ppm)			O_2 (%)		
Gas Range:	low	mid	high	low	mid	high
Gas Value:	26	101	218	5.0	11.9	19.9
Average Response: 7/14/88	28	104	243	6.1	13.1	20.5
Accuracy (%)	7.7	3.0	11.5	22.0	10.1	3.0
Average Response: 8/3/88	24	95	218	6.0	12.6	19.8
Accuracy (%)	-7.7	-5.9	0.0	20.0	5.9	-0.5
Average Response: 8/27/88	27	102	242	6.0	12.5	19.9
Accuracy (%)	3.8	1.0	11.0	20.0	5.0	0.0

$$\text{Accuracy (\%)} = \frac{\text{Average Analyzer Response - Gas Value}}{\text{Gas Value}}$$

A limit of $\pm$ 10% of gas value specified for an acceptable CGA result.

TABLE 2.3

RELATIVE ACCURACY AUDIT RESULTS
Wheelabrator Millbury - Unit 2
July 15, 1988

Sampling Location	Monitor	Reference Measurement	Analyzer Response	Relative Accuracy(%)
Inlet	SO_2 (ppm,dry)	214	190	
		146	137	
		166	154	8.6
	O_2 (%,dry)	--	10.3	
		10.5	10.9	
		9.3	9.7	4.0
	CO (ppm,dry)	1	22.5	
		3	22.2	
		1	22.2	--*
Outlet	SO_2 (ppm,dry)	11.3	12.6	
		19.2	20.6	
		24.6	16.8	9.3
	O_2 (%,dry)	10.0	11.9	
		10.4	11.7	
		9.0	10.1	14.6

NOTE: A limit of 15% of the reference measurement mean is specified for an acceptable RAA result. (See equation in 40 CFR 60, Appendix F, Procedure 1.)

*A CO relative accuracy result was not calculated since the cause of the discrepancy between the two measurement sets could not be determined.

TABLE 2.4

RELATIVE ACCURACY AUDIT RESULTS
HCl Inlet - TECO Model 15/200

Date	Reference Measurements		TECO Model 15/200		Relative Accuracy (%)
	HCl (ppm_d)	Moisture (%)	HCl (ppm_w)	HCl (ppm_d)	
7/15/88	430	12.5	378	432	
	595	14.4	563	658	
	738	13.0	585	672	0.1
8/4/88	356	13.2	368	424	
	452	16.8	394	474	
	428	17.2	398	481	11.6
8/24/88	470	15.0	384	452	
	692	16.3	499	596	
	621	15.4	454	543	10.8

NOTE: A limit of 15% of the reference measurement mean specified for an acceptable RAA result. (See 40 CFR 60, App. F, Procedure 1 for equations.)

TABLE 2.5

RELATIVE ACCURACY AUDIT RESULTS
HCl Outlet - Bran & Luebbe Ecometer

Date	Reference Measurements		Bran & Luebbe Ecometer	
	HCl (ppm_d)	Moisture (%)	HCl (ppm_w)	HCl (ppm_d)
7/15/88	2.0	19.1	0.5	0.6
	4.1	18.5	0.5	0.6
	3.8	17.6	0.3	0.3
8/4/88	24.0	19.6	5.5	6.8
	36.0	21.7	9.5	12.1
8/13/88	6.6	20.0	1.2	1.5
	2.9	19.5	1.0	1.3
	3.3	17.0	0.8	1.0
8/15/88	40.0	20.9	17.7	22.0
	129.0	19.1	65.5	81.0
8/19/88	4.8	19.6	1.7	2.1
	3.8	20.0	1.6	2.0
	2.6	19.1	1.1	1.4
8/22/88	6.1	17.2	0.8	1.0
	8.2	18.1	1.4	1.7
	9.3	19.4	1.4	1.7
8/31/88	5.2	18.8	0.0	0.0
	4.7	21.2	0.0	0.0
	5.2	20.4	0.0	0.0
9/4/88	8.8	19.8	0.7	0.9
	8.0	20.1	1.3	1.6
	6.8	19.6	0.6	0.8
9/6/88	4.2	20.5	0.5	0.6
	3.3	21.1	0.6	0.7
	3.5	21.7	0.6	0.8
9/12/88	7.8	19.0*	3.1	3.8
	2.0	19.0*	1.5	1.8
	4.8	19.6	2.3	2.8
9/14/88	21.2	18.9	4.8	5.9
	4.9	22.4	1.0	1.3

(cont.)

Table 2.5 (cont.)

Date	Reference Measurements		Bran & Luebbe Ecometer	
	HCl (ppm_d)	Moisture (%)	HCl (ppm_w)	HCl (ppm_d)
9/15/88	4.1	19.9	1.8	2.2
	3.0	19.6	1.2	1.5
	5.4	18.6	1.7	2.1
	3.5	17.3	1.0	1.1
	2.6	18.0	0.6	0.7
	3.3	19.4	0.5	0.6
	2.9	19.5	0.6	0.7
	3.3	17.0	0.4	0.4
	6.6	18.3	1.6	2.0
	3.9	19.3	0.7	0.8
	3.5	17.3	1.0	1.1
	2.6	18.0	0.6	0.7
	3.3	19.4	0.5	0.6
	2.9	19.5	0.6	0.7
9/16/88	9.6	19.1	3.2	4.0
	10.6	20.3	3.1	3.9
	20.0	19.3	8.9	11.0
	10.7	17.8	3.1	3.7
	5.5	18.7	1.8	2.2
	3.3	20.9	0.4	0.5

*Moisture data were not available for these sample runs on 9/12; therefore, 19% H_2O was used for the conversion to dry-basis.

NOTE: The reference measurements obtained on 9/15 and 9/16 are averages of duplicate samples collected during each run.

not be improved further and since the RAA's indicated acceptable analyzer performance, it was decided that the $\leq$5% CGA criterion specified in the work plan for the mid- and high-level audit points should be relaxed to $\leq$10% of the gas value.

The results of these audits, though acceptable, did consistently indicate a positive bias in the O_2 measurements at both locations. Although the magnitude of the bias was not large enough to indicate poor analyzer performance, a correction for this bias was made to improve the accuracy of the emissions data. The audit data were graphed and linear regression analyses were performed. In the typical effluent measurement range, 8-12% O_2, the inlet and outlet O_2 analyzer readings appear to be biased approximately +0.5% and +0.8% O_2, respectively. The corrections for these biases, determined using all RAA and CGA results, have been incorporated in the daily summaries. (The SO_2 removal efficiencies increased by less than 1% with the changes to the O_2 data.) A specific example of how these corrections impact the actual emissions data and removal efficiencies can be found in Appendix J (Memo to EPA dated August 18, 1988, Attachment B).

All SO_2 and O_2 system bias checks were within the 5% limit specified in the work plan. The results indicated that the differences in response between direct gas injections and injections through the entire system are primarily due to early recordings of calibration readings by the DAS before stable responses were achieved. Records of these checks can be found on page 2 of the CEMS Daily Check Form. The response times of all the analyzers and sampling equipment were well within the 15 minute limit specified in the work plan. The response time tests were conducted in conjunction with the performance of the CGA's.

Each of the RAA's performed on the TECO HCl CEMS at the inlet indicated acceptable monitor performance. The RAA data for the HCl CEMS's are contained in Appendix G. Moisture determinations were made concurrently with all HCl RAA's to allow comparison between dry-basis reference measurements and wet-basis CEM responses. Based on the moisture results obtained during the initial RAA's, moisture values of 14 and 18 percent were used throughout the project to correct the inlet and outlet HCl data, respectively.

In addition to identifying extremely low HCl emissions, the initial relative accuracy testing performed on the Bran & Luebbe (B&L) CEMS at the outlet location indicated a consistent low bias in the analyzer measurements. (The mean of the B&L and reference measurements for this audit were 0.5 ppm and 3.3 ppm HCl, respectively.) Additional comparative samples were collected throughout the project in an attempt to quantify the bias and identify any change in the operational status of the B&L. (CGA's could not be used as an accuracy check due

to B&L design.) Computing relative accuracies using the mean reference value becomes unnecessarily restrictive at low pollutant levels. Therefore, the HCl relative accuracy specification was changed to $\leq$ 15% of the measured value or $\leq$ 5 ppm HCl, whichever is least restrictive.

Two sets of reference measurement data were obtained at the outlet: 30 single sampling train test runs conducted from July 15 through September 14, and 15 dual sampling train test runs conducted on September 15 and 16, 1988. The duplicate samples provided a means of minimizing the impact of imprecision in the reference sampling method. (The duplicate impinger sampling was performed to support another EPA project involving the measurement of HCl.)

Linear regression analysis was performed on these two relative accuracy data sets to determine if (1) a relationship exists between the B&L CEMS and reference measurement data, and (2) the bias can be quantified and the measurement data systematically corrected to improve the quality of the data. The analysis performed on the first data set, which included the first 30 test runs but excluded the five test runs with reference measurements over 10 ppm, provided a low correlation coefficient. This indicates that no conclusion could be drawn concerning the relationship between the B&L CEM and reference measurements at low HCl levels other than that the B&L measurements were lower than the reference measurements. In contrast, comparison of the B&L data with the dual sampling train data collected on September 15 and 16 produced a correlation coefficient of 0.96. Analysis of this second set of data indicates that a relationship or trend in the data does exist, and actual effluent measurement values may be estimated from the B&L data based on least squares analysis of relative accuracy test data. (As a simple approximation, the B&L measurement values < 10 ppm could be multiplied by a factor of 2, which would improve the accuracy of approximately 90% of all B&L measurements.) It should be noted that these performance audits provide point-in-time accuracy assessments and are limited to concentration levels occurring during the tests. Further analysis might show that the relationship indicated at the end of the study could be applied to the B&L measurement data collected during the previous two months.

The TECO HCl CEMS was installed at the outlet location and operated at a lower dilution ratio during the final four days of the field test. Comparison of continuous TECO/B&L CEM data provides additional verification that the variations in the B&L data are indicative of actual changes in the effluent HCl concentrations. Appendix H contains the additional information concerning the verification of accuracy of the B&L CEMS.

Although the correction previously mentioned increases the actual HCl outlet concentration, it does not significantly impact the HCl removal efficiencies. (A typical removal efficiency using uncorrected emissions was 99.5-99.9% versus 98.0-99.0% using corrected values.) No HCl corrections have been included in the data summaries contained in Appendix B.

CGA's were not performed on the TECO HCl CEMS because there were no independent HCl audit calibration gases available. Performance of the CGA using the daily calibration cylinder gases would not satisfy the objective of the audit.

Acceptable results were obtained during the opacity monitor performance audit conducted early in the test program. Except for several days of monitor down-time due to lightning damage, the monitor operated normally during the two-month test period. All opacity CEMS daily calibration checks were within $\pm$ 2.5% opacity relative to the calibration filter value. No adjustments to the instrument were needed during the test program. Opacity quality assurance activities are documented in Appendix D.

Seventeen operating parameters were monitored during the test program. The Bailey Net 90 operation control system was configured to record instantaneous values for each of the parameters once each hour during the entire test program. These data were printed once each day. It was not possible to output this information to a disk file with the equipment available. The operator's logbook was also reviewed to identify any process/control system conditions that may have influenced the emissions, but were not indicated by the point-in-time data recorded by the computer. This information is included on the corrected daily data summaries. The parameters monitored are listed in Table 2.6 and printouts of the recorded process data are in Appendix I. Schematics showing the monitoring points in the process are in Section 4.0.

TABLE 2.6. LIST OF PROCESS PARAMETERS

Total Steam Flow (klb/hr)
Natural Gas Flow (kscfh)
Primary Air Pressure ("H_2O)
Secondary Air Pressure ("H_2O)
Undergrate Air Temperature (°F)
O_2 Concentration (%)
Average Superheater Outlet Temperature (°F)
SDA Inlet Gas Pressure ("H_2O)
Precipitator Out Pressure ("H_2O)
Flue Gas Out Temperature (°F)
SDA Gas Out Temperature (°F)
Precipitator Out Temperature (°F)
ESP Voltage 1 (KV)
ESP Voltage 2 (KV)
ESP Voltage 3 (KV)
Lime Slurry Concentration (%)
SDA Dilution Water Flow (gpm)

3.0 QUALITY ASSURANCE PROCEDURES

Quality assurance (QA) activities were developed for use during this project to ensure that the effluent measurement data collected from the CEMS's were of the quality necessary for use in the development of emissions standards. These QA procedures and corresponding limits are derived from the QA/QC requirements specified in 40 CFR 60.13, Subparts D and Da, and Appendix F, Procedure 1. These criteria, shown in Table 3.1, were used to accept/reject data and/or to initiate corrective actions. The criteria reflect consideration of the specific CEMS operating conditions at the Millbury facility, the impact of measurement error on the EPA's use of the data to support standards with various averaging times, and the expected level of CEM performance. The criteria, agreed upon by EPA, Radian, and Entropy, were a compromise between competing constraints; namely, tighter specifications would improve accuracy and precision, but would exclude more data, possibly unnecessarily.

TABLE 3.1 QUALITY ASSURANCE REQUIREMENTS

QA Check	Acceptance Criteria
Cylinder Gas Audit	± 10% of gas value
Relative Accuracy Audit	± 15% of reference mean
Zero/Span Drift (24-hour)	± 5% of span
System Bias	± 5% of span
Response Time	< 15 minutes

In addition to the criteria established for specific QA procedures, a valid data day was defined as being ≥ 18 valid hours of monitoring data from all systems concurrently and a valid hour was defined as ≥ 50% data availability.

This section describes the QA activities performed on the monitoring equipment during this project. Data from the Anarad NO_x monitor located at the ESP outlet were recorded during the project; however, audits and other QA activities were not performed for the NO_x monitor.

3.1 ANARAD CEMS's

An initial CEMS performance evaluation was conducted to determine the operational status of the CEMS's at the outset of the project, and also to compare the results of the various performance tests. These comparisons were used to verify that the different audits provided the same indication of CEMS performance.

After an inspection of the CEMS's was performed to identify potential problems or malfunctions, a response time test was performed to quantify the system response time and to verify the absence of adsorption/desorption effects in the sampling system. An upscale response time was determined as the time required for the CEMS to achieve a stable response alternating between the zero gas and the effluent. Similarly, the downscale response time was measured for the step change between the high range gas and the effluent. Response times of less than 15 minutes indicated acceptable performance.

A sampling system bias check was performed to provide a check of the integrity of the sample handling/sample conditioning systems (e.g., presence of condensate in the system, sample line leaks, etc.). Since the daily calibration checks introduce calibration gases directly to the analyzers, the system calibrations were intended to verify that the analyzer calibration checks adequately reflect the status of the system. The difference, if any, between the analyzer and system calibration results was interpreted as system bias. Cylinder gas was injected directly into each analyzer and the responses recorded. The gas was then injected into the sampling system at a point downstream of the probe and upstream of the coalescing filter within the sample conditioning enclosure. The difference between the analyzer responses to the two gas injections was required to be less than 5 percent of the gas value. If the difference exceeded 5 percent, the effluent measurement data were corrected as necessary.

Two performance audit techniques were used to evaluate the quality of the data produced by the CEMS's. The cylinder gas audit (CGA) and the relative accuracy audit (RAA) provide point-in-time measurements of accuracy. Accuracy is measured relative to a reference value (i.e., cylinder gas concentration for the CGA and EPA test method mean for the RAA).

CGA's were performed using EPA Protocol 1 calibration gases to evaluate both the accuracy and linearity of each measurement system. The CEMS's were challenged with the cylinder gases three times at each of three audit points across the measurement range. The three audit points were approximately 20, 50,

cylinder gases were injected into the sampling system at a point immediately downstream of the sample probe and upstream of the coalescing filter. The gases were allowed to flow through the system until a stable response was indicated on the AR-2000 computer screen located in the CEM enclosure. The instantaneous readings were manually recorded from the Anarad data acquisition system (DAS) since the shortest averaging period available on the DAS printout was 6 minutes. Acceptable performance was indicated if the average of the three CEMS responses at each audit point was within ± 10% of the cylinder gas value.

An initial three-run RAA was conducted to further determine and document the accuracy of the CEMS data. EPA Methods 3, 6, and 10 were used to obtain the comparative effluent reference measurements. The equipment used to perform these test methods is illustrated in Figure 3-1. The analyses of the collected reference samples were performed on-site. The relative difference between the mean of the reference values and the mean CEMS responses were used to determine CEMS accuracy. The acceptance criterion used for this project was a mean difference of ≤ 15 percent of the reference value (based on the results of three test runs). If the CEMS only slightly exceeded the acceptance limit (i.e., 3-run accuracy audit value between 15 and 20 percent), the full 9-run relative accuracy test was to be completed and the ± 20 percent relative accuracy specification would be used as the acceptance criterion.

If problems were identified during this initial monitor evaluation, Wheelabrator personnel were to be notified and a decision made whether to fix the problem if possible, or to proceed with the study.

A daily check of the CEMS operation status was performed, and the results recorded on the gas CEMS daily check forms. The daily checks included:

(1) Examination of fault indicators or alarm messages, both in the actual instrumentation and the data acquisition system, including recorders and printers;

(2) Daily zero and span checks for each monitor (because of the CEMS design, the daily zero and span checks are performed by injecting calibration gases directly into the analyzers);

(3) Checks of other parameters found to be indicative of CEMS performance; and

(4) Review of the Millbury/Anarad records of CEMS maintenance, process problems, etc.

The following performance criteria were used for the daily checks:

(a) If zero or span drift exceeded ± 5 percent of span, the CEMS calibration was adjusted, and the zero and span check was repeated to demonstrate that the system was properly calibrated.

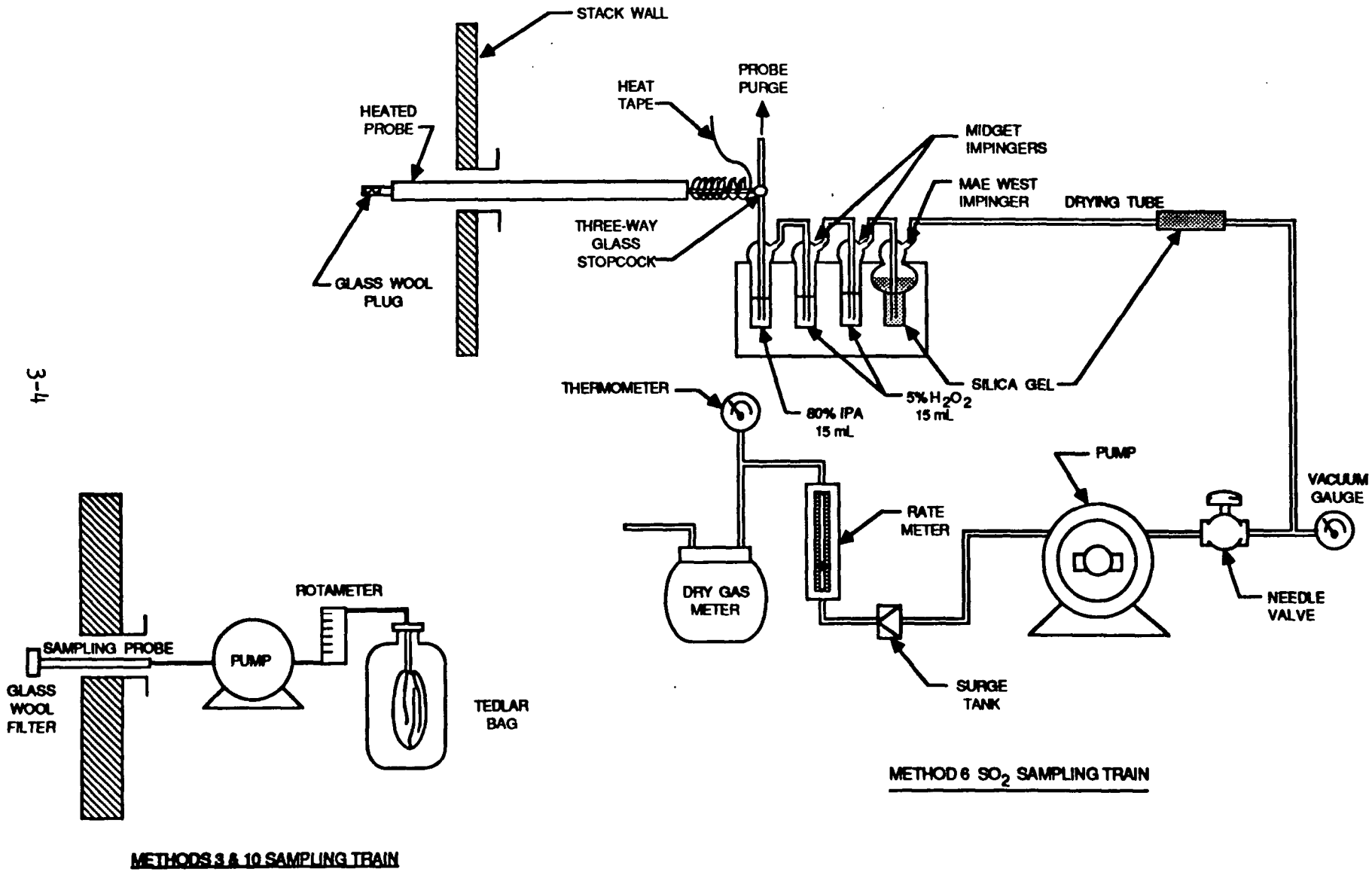


Figure 3-1. EPA Test Method SamplingTrains.

(b) If zero or span drift exceeds ± 10 percent of span, the 3-point CGA was performed. The cause of the drift was identified and resolved, and the monitor calibration adjusted to be within the ± 5 percent of span limit as indicated by a successful zero/span check following all adjustments. Data collected with zero/span errors greater than ± 10 percent of span were considered invalid unless the cause of drift was identified and an appropriate mathematical correction applied to the data on the CGA results.

Periodic checks involving more extensive evaluations of the CEMS were performed to supplement the daily checks. The periodic checks included:

(1) A detailed inspection of the entire CEMS;

(2) A three-point CGA (since acceptable results were obtained from the initial CGA's and RAA's, subsequent audits consisted only of CGA's); and

(3) Preventive and/or routine maintenance activities as recommended by the manufacturer and/or service personnel.

Wheelabrator and/or Anarad personnel were responsible for performing necessary adjustments and corrective action for the Anarad CEMS's and recording all adjustments, repairs, etc. in the CEMS log book.

3.2 HCl CEMS's

After the TECO CEMS was installed at the spray dryer inlet location and satisfactorily completed the start-up, the dilution ratio of the TECO probe was verified by injecting carbon monoxide (CO) calibration gases through the measurement system and recording the response of a CO analyzer. The TECO CEMS was calibrated using HCl cylinder gas. The gases were injected into the system at a point within the sample probe, upstream of the critical orifice, so that the calibration gas followed the same path as the flue gas sample.

A Relative Accuracy Audit (RAA) was performed on the TECO CEMS by conducting three runs of wet-chemical impinger sampling for HCl simultaneously with HCl monitoring during preliminary testing to validate the TECO measurement data. Concurrent moisture sampling was performed to facilitate comparison of the impinger sampling data and monitoring results. The HCl relative accuracy sampling was performed according to a proposed EPA test method for HCl. The sampling train for this method is shown in Figure 3-2. Although chlorine is not traditionally a combustion product from municipal waste combustors, the method is designed to capture only HCl in the impingers containing 0.1N H_2SO_4, while Cl_2

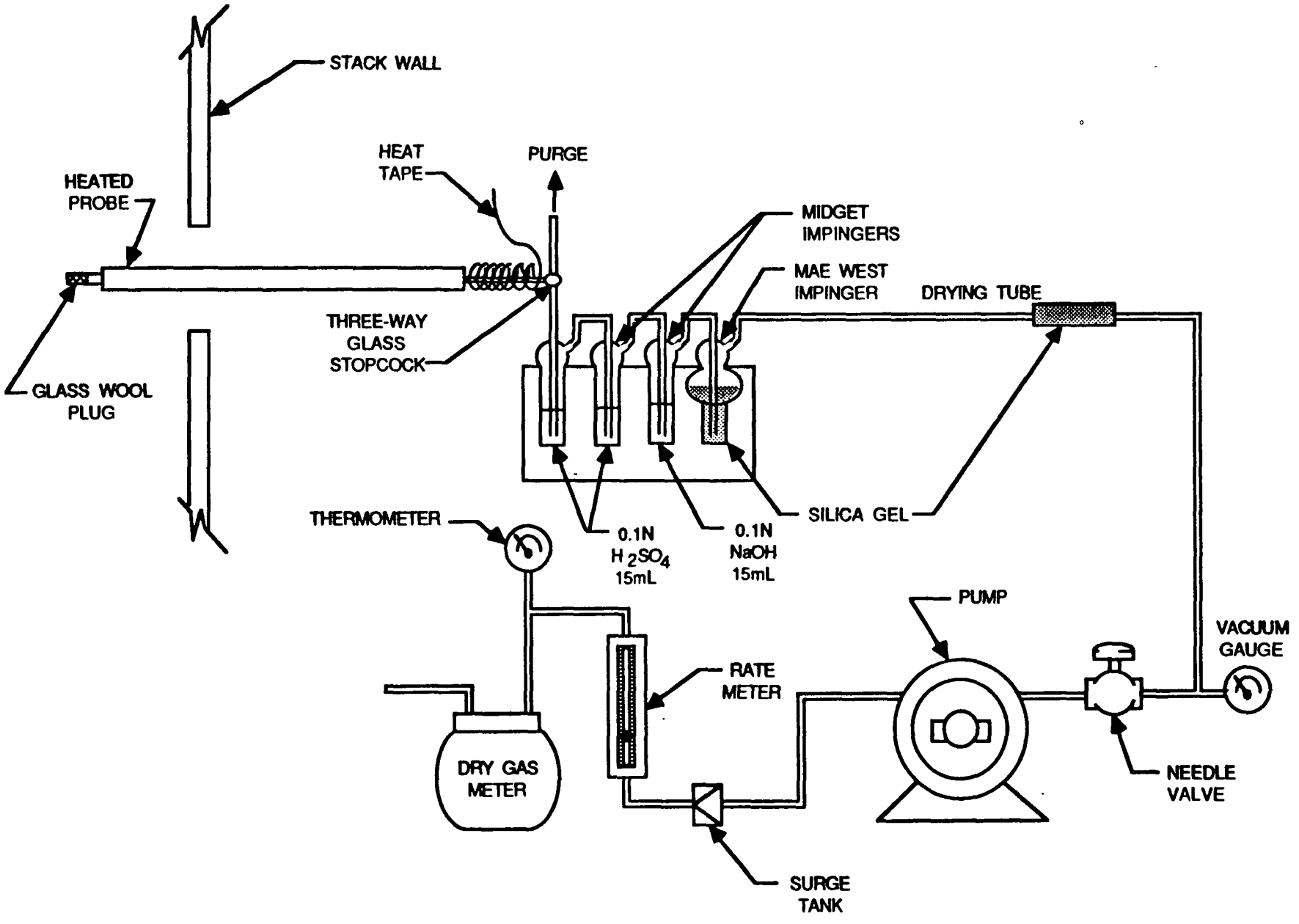


Figure 3-2. HCl SamplingTrain.

4128 6/88

would pass through these impingers and be removed by the caustic solution. The relative difference between the mean of the wet-chemical values and the mean of the TECO CEMS responses was used to assess the accuracy of the TECO measurement of the effluent. The acceptance criterion was a mean difference of $\leq$ 15% of the impinger sampling result. Preliminary results were obtained on the spray dryer inlet impinger samples by on-site mercuric nitrate titration, but final results were obtained by analysis using ion chromatography.

Initial performance testing on the Bran & Luebbe HCl CEMS at the ESP outlet also consisted of a three-run RAA, as described above for the TECO CEMS. Since the CEMS design does not allow the injection of calibration gases at any point along the sample handling system, a dynamic calibration using cylinder gas could not be conducted. On-site titration analysis was not performed on the ESP outlet impinger samples because the outlet HCl effluent concentrations were expected to be below the quantifiable detection limit of 20 ppm HCl for the mercuric nitrate titration. These samples were shipped to Entropy's laboratory for in-house analysis by ion chromatography.

Any problems indicated by either of the performance tests were investigated and resolved as necessary prior to the initiation of the test program.

A daily inspection of the HCl sampling systems was performed to determine the CEMS operation status. The results of these checks were recorded on the HCl daily check form.

Upon completion of the inspection of both systems (i.e., particulate filters, gas flow rates, pressures, vacuums, etc.), the daily zero and span check was performed on the TECO CEMS using calibration gases. The gases were injected into the sampling system at the probe. The following performance criteria were used for the daily checks:

(1) If the TECO zero or span drift was less than $\pm$ 5 percent of span, the CEMS calibration was adjusted. No adjustment was made if the response was within 10 ppm of the gas value (i.e., < 0.5 percent of span).

(2) If zero or span drift exceeded $\pm$ 5 percent of span, the cause of the drift was investigated and resolved, and the monitor calibration adjusted. The HCl measurement data collected during this drift period was adjusted assuming linear drift based on the pre- and post-period calibration results.

The daily check of the Bran & Luebbe CEMS involved only the internal calibration routine using two liquid standards because the CEMS design does not allow the introduction of calibration gases. The result of the calibration is used in the calculation of subsequent measurement values. If any of the

calibration parameters exceed a particular value, the CEMS generates a fault condition and ceases operation until the problem is resolved. The calibration parameters were recorded on the daily check form.

Periodic checks involving more extensive evaluations of the CEMS's were performed to supplement the daily checks. These checks included:

(1) Preventive maintenance activities as recommended by the manufacturer; and

(2) A three-run RAA conducted at approximately 2-3 week intervals.

3.3 OPACITY CEMS

The initial check of the opacity CEMS consisted of an audit in accordance with the procedures and acceptance criteria described in "Performance Audit Procedures for Opacity Monitors," EPA 600/8-87-025 (April 1987). The audit included a check of the simulated zero opacity condition using the audit jig provided by Entropy.

A simple daily check procedure and data form were developed. The daily check was performed from the monitor control unit and included a check of fault indicators and observation of the daily zero/span check results. If daily check results exceeded ± 2.5% opacity, the CEMS was adjusted. The calibration data for the Unit #2 transmissometer are recorded only on strip charts.

Periodic checks of the opacity CEMS included:

(1) cleaning of the optical windows;

(2) a check of the optical alignment;

(3) a check of the simulated zero level using the external audit jig; and

(4) inspection of the purge air system.

The periodic checks were documented on the appropriate data form. The hourly-averaged opacity data are included on the daily data summaries.

4.0 FACILITY AND PROCESS DESCRIPTION

The Millbury facility consists of two identical furnace, boiler, and flue gas treatment systems that exhaust into one common stack. The process schematic is shown in Figure 4-1. Municipal solid waste (MSW) is charged to a Babcock and Wilcox waterwall furnace and boiler unit that is equipped with a Von Roll reciprocating, inclined grate. Auxiliary fuel (natural gas) is generally used only during startup and shutdown. The furnace flue gases pass up through the waterwall section of the furnace and then into a superheater, generator, and economizer heat transfer passes. Each furnace is equipped with a spray dryer and electrostatic precipitator (ESP) system to control acid gases and particulate emissions. The flue gas then exhausts to the atmosphere through a 365-foot high reinforced concrete stack which is common to both units.

Each furnace is designed to process 750 tons/day of MSW. The Millbury facility was designed, constructed and is operated by Wheelabrator Environmental Systems, Inc. Each boiler is rated to produce about 190,000 lb/hr of superheated steam at 825°F and 850 psia. The combined steam from the two units is supplied to a turbine/generator set which is rated at 40 megawatts. The electricity is sold to a utility grid.

4.1 WASTE SEPARATION

The only waste preparation involves the removal of large pieces of metal prior to incineration. Hospital and radioactive wastes are not accepted at the facility.

4.2 COMBUSTION AIR

The forced-air combustion air fan draws air from the tipping floor area and enclosed receiving pit area. The air is split to provide the primary and secondary air supply. The primary air passes through a steam air heater prior to being directed to the undergrate air plenums. The secondary air is not heated and passes through a separate secondary air fan prior to the overfire nozzle headers. The slightly negative pressure in the tipping floor area prevents the release of odors created by the solid waste and dust.

4.3 COMBUSTOR AND BOILER

The combustor and boiler are combined into one unit that is manufactured by Babcock and Wilcox. The boiler is rated at 190,000 lb/hr of superheated system

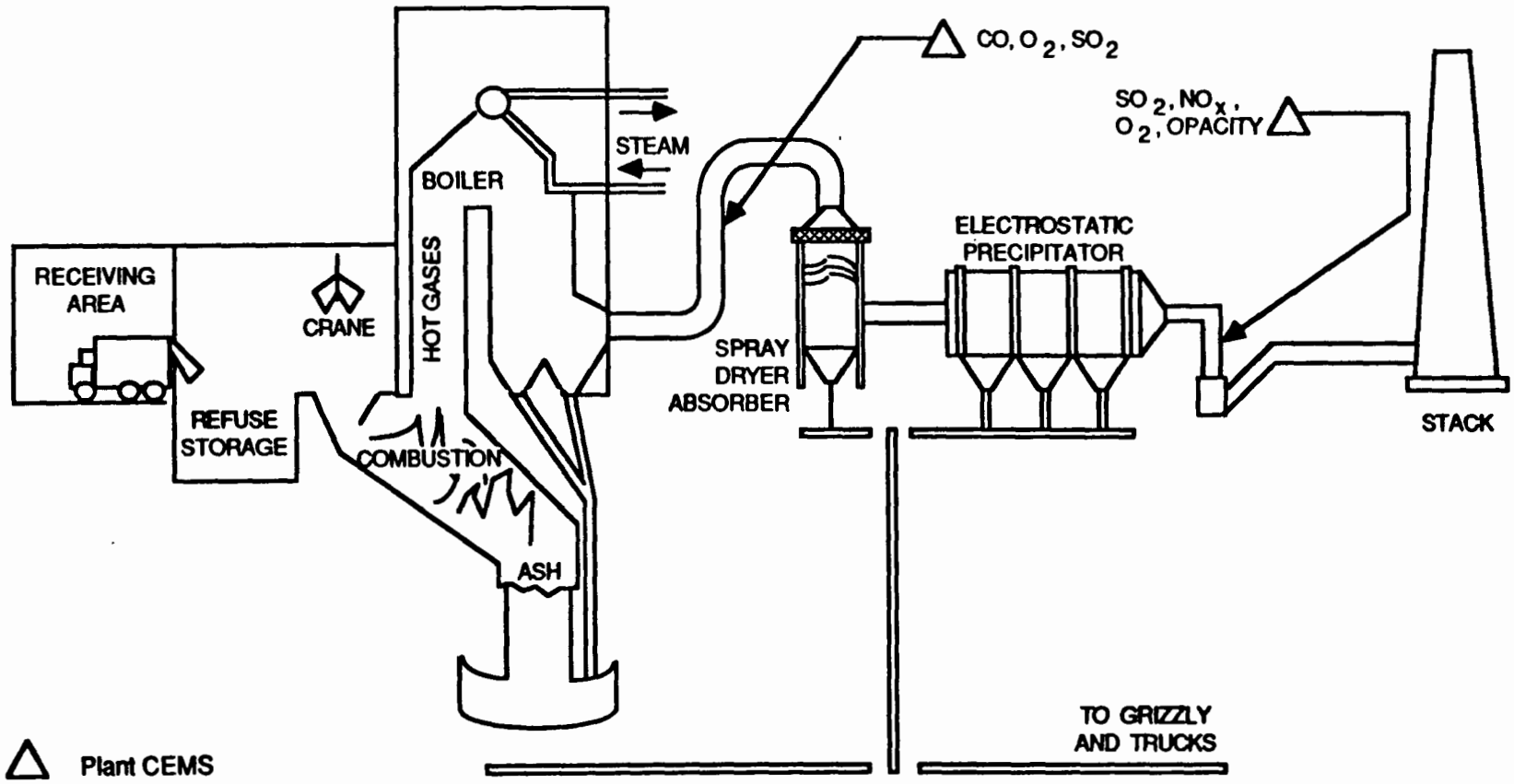


Figure 4-1. Process Schematic, Millbury Resource Recovery Facility.

at 825°F and 850 psia (323 million Btu/hr maximum Btu input). The combustor/boiler unit was designed to ensure the refuse is exposed to temperatures greater than 1800°F and a residence time of at least one second.

The grate is an inclined, reciprocating grate located at the bottom of the furnace. The fuel from the feed chute enters at the upper end of the grate. Auxiliary fuel (natural gas) is generally not needed to maintain steam load or minimum flue gas temperatures.

The furnace is maintained under a negative draft. An induced-draft fan, located just before the stack, is used to draw out the combustion gases. Two forced-draft fans are used to supply the primary and secondary combustion air.

In addition to the waterwalls in the furnace combustion zone, the heat recovery system includes superheater, generator, and economizer sections. At the exit of the economizer, the flue gas temperature is approximately 700°F. Figure 4-2 shows the locations of the process data sensors in the furnace system.

4.4 SPRAY DRYER AND ESP

The combustion gases from the furnace first enter a spray dryer designed by Wheelabrator Air Pollution Control Systems. Slaked lime, along with metered dilution water for temperature control, is injected into the dryer vessel. The slurry water is evaporated by the flue gas heat and the acid gases react with the lime. In addition, particulate and excess lime serve as nucleation points for volatile organic compounds (VOC) and metal adsorption and agglomeration.

The lime slurry feedrate varies according to the amount required to achieve either the outlet SO_2 concentration permitted emission limit or the percent SO_2 removal efficiency, whichever is more stringent. The spray dryer outlet temperature is typically about 255°F. The system is designed for automatic control of the lime feed rate and the dilution water. However, the lime feed control loop is operated manually at this time. The lime slurry ratio is adjusted by the operator to maintain the desired SO_2 emission levels.

The dry solids and flyash are then collected in a three-field ESP designed by Wheelabrator Air Pollution Control Systems. The ESP is cleaned according to various rapping cycle programs. The total time required to complete a cleaning cycle is about 10 to 12 minutes. A schematic illustrating the process data sensor locations in the spray dryer system and ESP is shown in Figure 4-3.

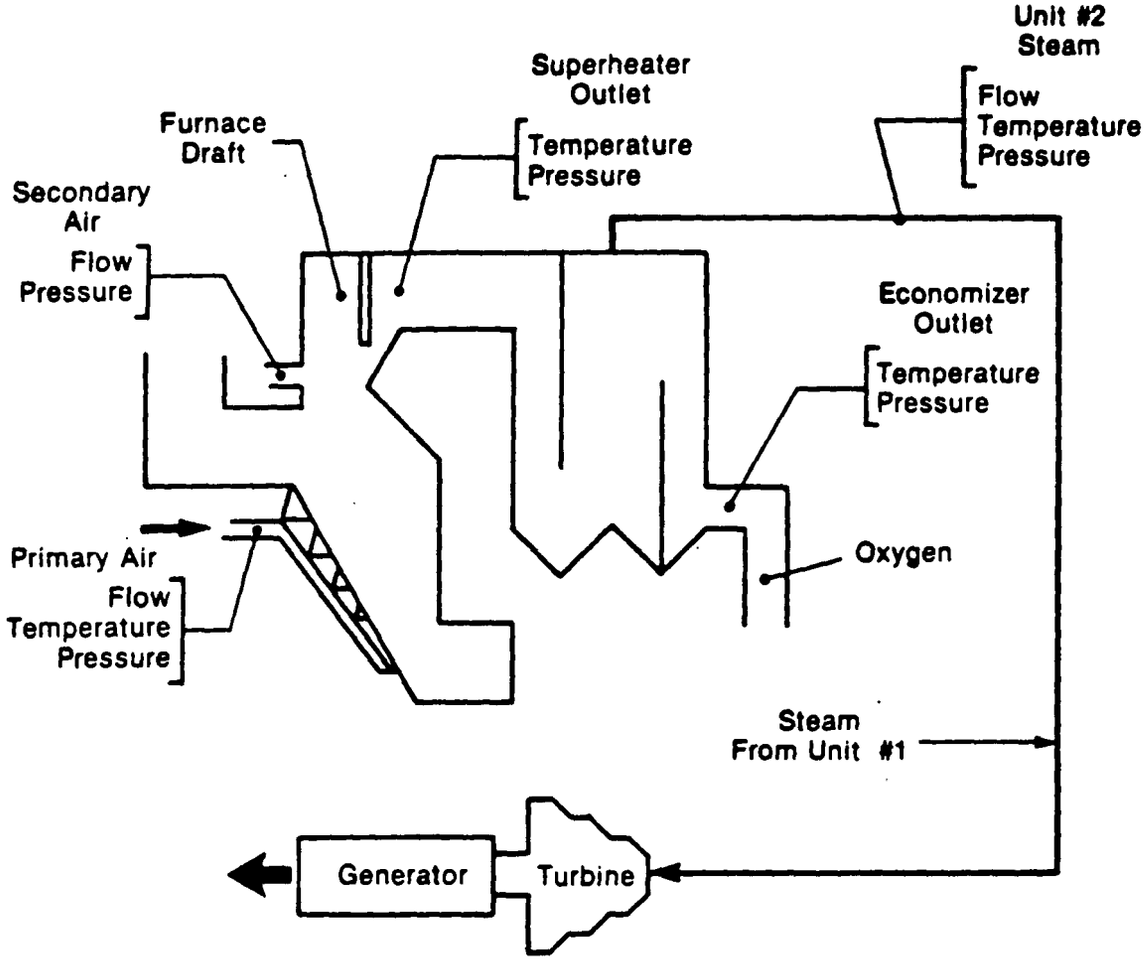


Figure 4-2. Process Data Sensor Locations for the Furnace System

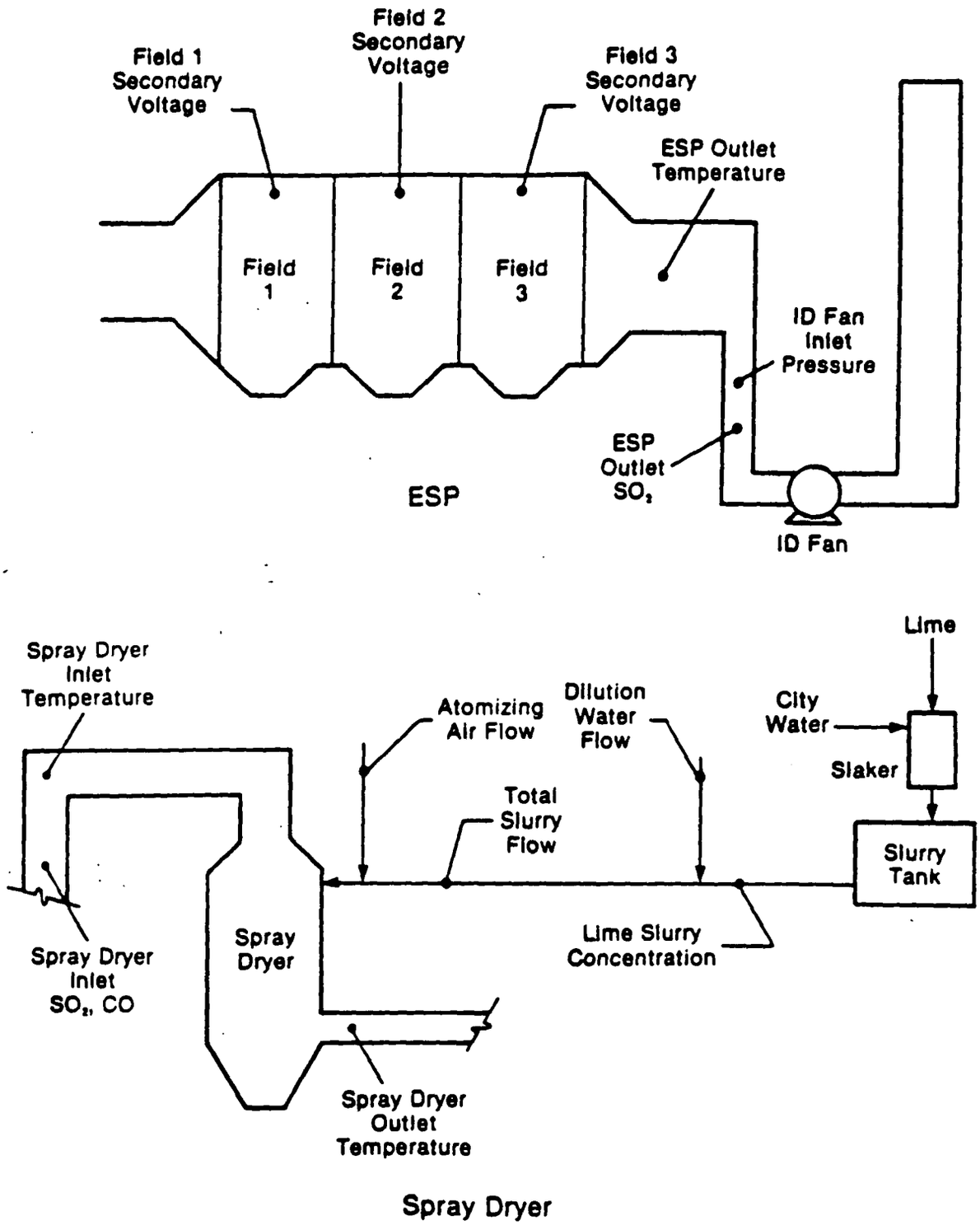


Figure 4-3. Process Data Sensor Locations for the ESP and Spray Dryer System at the Millbury Resource Recovery Facility

4.5 ASH HANDLING

The ash handling system removes ash from the grate discharges, superheater, generator and economizer tube banks, spray dryer, and ESP. The water-quenched bottom ash from the combined grates and the superheater, generator, and economizer ash are removed by vibrating conveyors to an enclosed ash handling area. ESP and spray dryer ash are drag-conveyed and mixed with the bottom ash mixture. The combined ash is then screened to remove large materials and landfilled. Any oversize materials are separated and are landfilled. Ferrous materials are reclaimed and sold.

5.0 MONITORING SYSTEM DESCRIPTIONS

Four independent monitoring systems were utilized during this project: two Millbury plant CEMS's consisting of separate inlet and outlet analyzers, and two CEMS's temporarily installed by Entropy for the monitoring of HCl at the SDA inlet and ESP outlet. This section contains descriptions of the analyzers used and their corresponding data acquisition systems. Figures 5-1 and 5-2 depict the two sampling locations.

5.1 THERMO ENVIRONMENTAL MODEL 15 HCl ANALYZER/MODEL 200 DILUTION SYSTEM

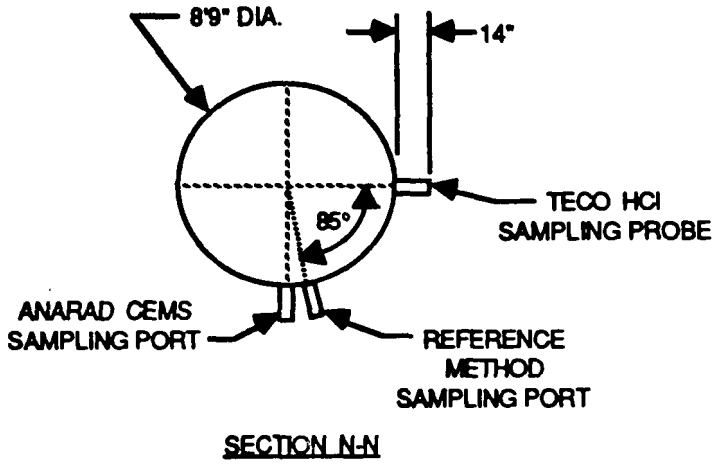
The Thermo Environmental (TECO) monitoring system is comprised of a Model 15 HCl analyzer (operated on the 0-50 ppm analyzer range), a Model 200 probe control unit, and a dilution probe (40:1 dilution ratio). The resultant operating range of the measurement system was 0-2000 ppm HCl (wet basis).

The TECO Model 15 Gas Filter Correlation (GFC) HCl analyzer is an analytical instrument for continuous, real time measurement of HCl on a wet basis.

GFC spectroscopy is based upon comparison of the absorption of a selected wavelength within the infrared (IR) absorption spectrum by the measured gas to that of other gases also present in the sample being analyzed. The technique is implemented by using a high concentration sample of the measured gas (i.e., HCl) as a filter for the IR radiation transmitted through the analyzer. The analyzer contains a correlation wheel that consists of two hemispherical cells, one filled with HCl and the other with N_2. Integral with the correlation wheel is the chopper pattern necessary to produce the high frequency chop required by the IR detector.

Radiation from an IR source is chopped and then passed through the gas filter, alternating between HCl and N_2 as the filter wheel rotates. The radiation then passes through a narrow bandpass interference filter and enters a multiple optical pass cell where it is absorbed by the sample gas. The IR radiation that is not absorbed then exits the sample cell and is measured by the IR detector.

The HCl gas filter produces a reference beam that cannot be further attenuated by HCl in the sample cell. The N_2 side of the filter wheel is transparent to the IR radiation and therefore produces a measure beam that can be absorbed by the HCl in the cell. The chopped detector signal is modulated by the alternation between the two gas filters with an amplitude related to the



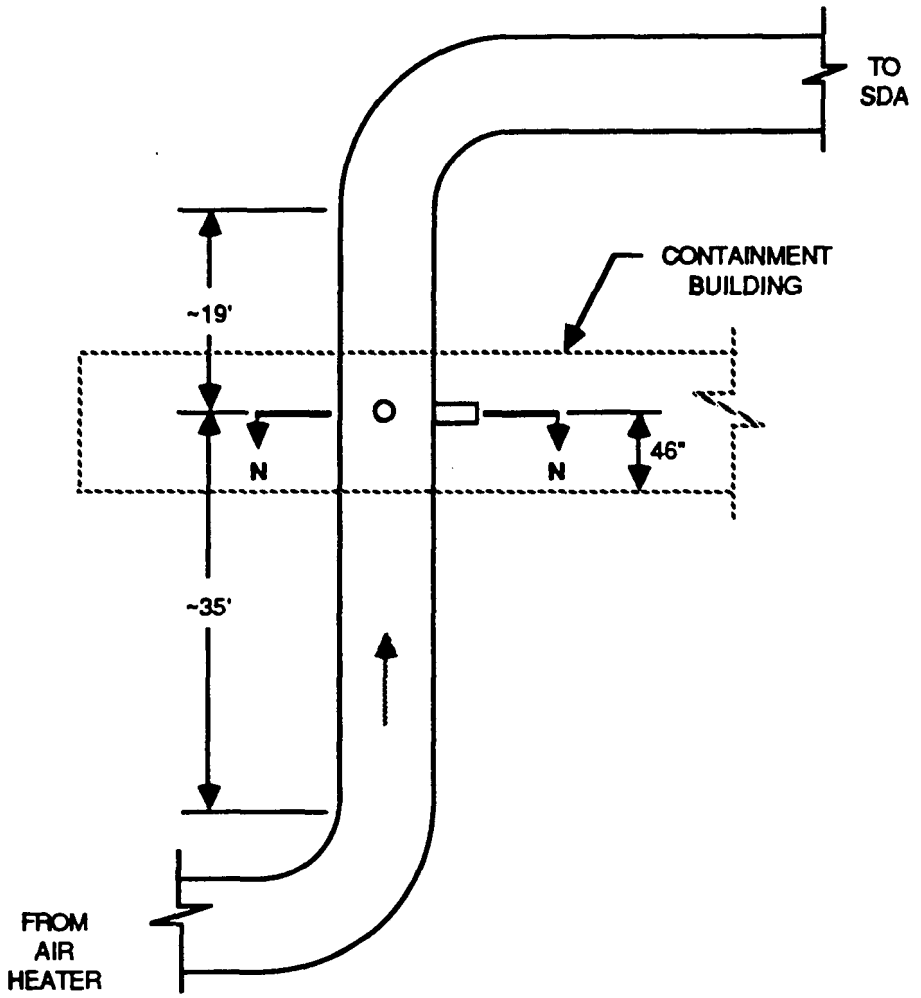
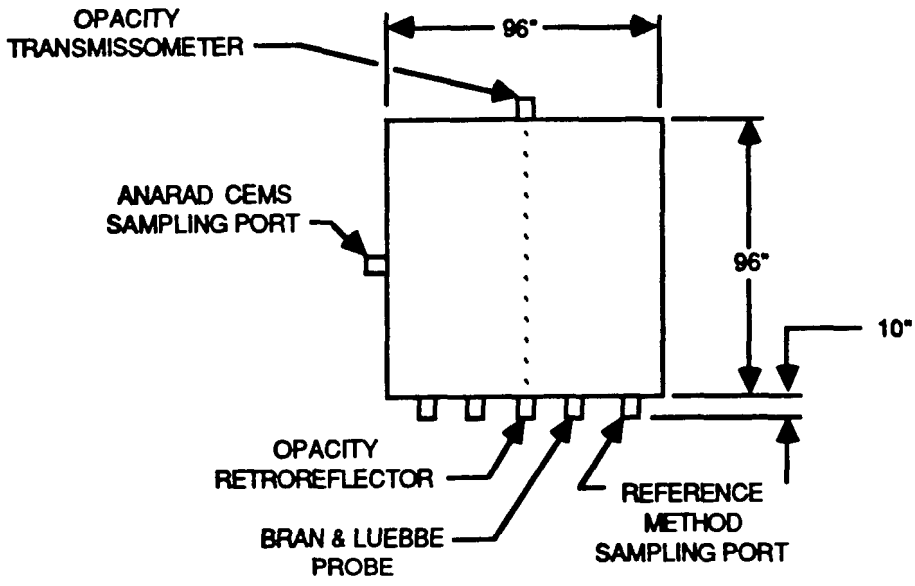


Figure 5-1. Spray Dryer Inlet Sampling Location.

3529 10/88



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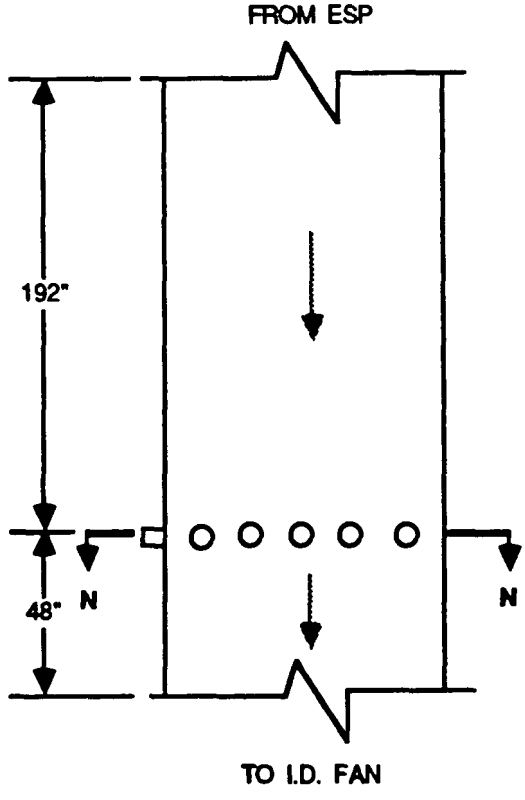

Figure 5-2. ESP Outlet Sampling Location.

3529 10/88

concentration of HCl in the sample cell. Other gases do not cause modulation of the detector signal because they absorb the reference and measure beams equally. Thus, the GFC system responds specifically to HCl. Also, the sensitivity of the analyzer is increased by using multiple pass optics in the sample cell, which lead to a large path length, and thus an improved sensitivity, in a small physical space. This allows full scale sensitivity down to 1 ppm.

Because IR absorption is a nonlinear measurement technique, the instrument electronics convert the basic analyzer signal into a linear output. The exact calibration curve is stored in the computer's memory and is used to linearize the instrument output over all the ranges. The microcomputer is used to process signals from both a pressure and temperature transducer to make corrections to the instrument output, resulting in HCl concentration measurements that are unaffected by changes in the temperature or pressure of the sample gas.

The analyzer has 10 selectable operating ranges from 0-5 ppm to 0-5000 ppm HCl. The vendor claims that the detection limit for this instrument is 0.1 ppm.

The Model 200 dilution system is comprised of the following components:

- In-situ dilution probe with sample orifice,
- Transport tubing, and
- M200 stack probe control unit.

The dilution probe is designed to extract a small amount of sample continuously through a fine filter. The sample flow rate is precisely controlled to within 2% by a glass critical orifice of low coefficient of expansion. By reducing the pressure after the fine filter with a precision aspirator to create a vacuum of 0.46 bar in the volume downstream of the critical orifice, a constant flow of flue gas sample is drawn through the orifice, thoroughly mixed with the aspirator air, and then transported through the sample line to the appropriate analyzer.

The sampling system is designed to permit stepwise dilution ratios of 12:1 to 350:1 within the probe by a single selected orifice.

Calibrations are performed by introducing calibration gas through a Teflon transport line to a point within the probe upstream of the first fine filter in the probe dilution orifice. In this way, the calibration gas follows all of the sample conditioning steps taken by the flue gas sample. The lines transporting flue gas sample and calibration gas are Teflon, and the dilution air and vacuum lines are polyethylene.

The dilution air and calibration gas flow controls are contained within the M200 control unit.

5.2 BRAN & LUEBBE ECOMETER HCl MONITORING SYSTEM

A Bran and Luebbe Ecometer HCl monitoring system was installed at the ESP outlet sampling location. The Ecometer was operated on a range of 0-60 ppm HCl.

The Ecometer operating principle, based on potentiometric measurement using a Cl^- ion-selective electrode, is as follows: A gas sampling system employing a stainless steel probe to extract a gas sample from the stack, filters and transports the stack gas to the Ecometer. A glass fiber filter is installed at the outlet of the probe to filter particulate matter. Both the probe and the filter are thermostatically heated. A flexible heat-traced Teflon line and special diaphragm pump are employed to transport the gas sample from the stack to the analyzer at a flow rate of approximately 1 liter/minute. The gas sample is kept at approximately 200°C prior to absorption to prevent condensation of water vapor in the sample lines, resulting in a loss of HCl.

The flue gas sample is chemically treated, resulting in the absorption of HCl and the formation of Cl^- ions. The chemical solution used to absorb HCl also buffers the pH and ionic strength of the absorbed solution and destroys possible undesirable interferences. The absorbing solution containing the Cl^- ions is degassed and conveyed to the ion-selective electrode to be quantified. After necessary amplification and conversion, a voltage signal proportional to the amount of Cl^- present is produced.

The Ecometer performs an internal calibration routine either automatically or by manual actuation. During the calibration routine, flue gas sampling is stopped and two calibration solutions are fed to the ion-selective electrode in sequence. The calibration results are stored in an internal microcomputer, and used for calculation of the subsequent stack gas measurement results. There are no provisions in the Ecometer system for the introduction of HCl cylinder gas.

The Ecometer measurement is made on a wet basis. The vendor claims the accuracy of the Ecometer to be $\pm$ 5% of full scale and the system response time to be less than 200 seconds.

The output of the Ecometer was fed to Entropy's data acquisition system (DAS) where the signal was converted to a concentration value. The DAS displayed the concentration value continuously on the system's monitor, and stored the one-minute averages on magnetic media. The DAS was programmed to provide 6-minute and 1-hour averages of the one-minute values during the test program.

5.3 DATA ACQUISITION SYSTEM (IBM PORTABLE PC)

The data acquisition system (DAS) that was used to record the HCl measurement data was developed by Entropy and uses an IBM Portable Personal Computer with a 10 MB hard disk and an internal 12-bit analog-to-digital converter with a 16 channel multiplexer. Surge suppressors and a back-up power supply were provided to minimize data loss in the event of electrical disturbances. In addition to providing an instantaneous display of analyzer responses, the DAS averaged the data and documented the TECO calibrations. The test results and calibrations were stored on the hard disk and printed on an Epson dot matrix printer.

5.4 THERMO ENVIRONMENTAL INSTRUMENTS, INC. (FORMERLY TECO) NO_x ANALYZER

The TECO Model 44 NO_x analyzer employs the chemiluminescent principle of NO detection. This measurement principle is based on the chemical reaction of ozone (O_3) and nitric oxide (NO) which produces nitrogen dioxide (NO_2) molecules at an elevated energy level. Upon return to the ground energy state, the NO_2 molecules emit light. The light produced is proportional to the concentration of NO in the gas stream. To measure NO concentrations, the effluent gas is mixed with ozone in a reaction chamber. The light that results from this reaction passes through a narrow-band optical filter and is detected by a photomultiplier in the reaction chamber. The photomultiplier produces an output signal which is linearly proportional to the NO concentration in the effluent gas.

The measurement of total NO_x in the effluent ($NO + NO_2$) requires the conversion of effluent NO_2 to NO. This conversion is accomplished by passing the sample gas through a converter which is comprised of a thermally insulated, resistance-heated stainless steel coil. The converter operates at a temperature of 650°C at which NO_2 molecules in the effluent gas are reduced to NO molecules. The output of the converter is connected to the reaction chamber, and the resultant NO measurement represents the total oxides of nitrogen (NO_x) in the effluent.

5.5 THERMOX O_2 ANALYZER

The Thermox Model WDG III O_2 analyzer employs an electrochemical technique to measure the oxygen concentration in the effluent gas. The detector element consists of a closed-end zirconium oxide cell. Half of the cell is exposed to ambient air (reference) and the other half is exposed to the effluent gas sample. When the cell is heated red hot, it conducts an electrical current between porous

platinum electrodes that consists of migrating oxygen ions. The ion migration produces a voltage output that is logarithmically proportional to the difference in oxygen concentration (partial pressures) between the reference side of the cell (ambient air) and the measurement side of the cell (sample gas). This voltage output is linearized and converted to a signal representing the oxygen concentration in the effluent gas.

5.6 ANARAD AR-50C CO ANALYZER

The AR-50C CO is a non-dispersive infrared (NDIR) gas analyzer. The theory of operation for this type of analyzer is based on the principle that CO has a unique absorption line spectrum in the infrared region. The AR-50C optical unit consists of an IR energy source, an optical chopper, sample and reference cells, optical filters, and a detector.

The infrared light beam emitted by the source passes through the measurement cell, which is filled with continuously flowing sample gas. The light beam is partially absorbed or attenuated before reaching the detector assembly. The detector senses the instantaneous IR radiation values alternately transmitted through the sample gas and the neutral reference optical path. The detector signal is a succession of alternate voltage pulses with amplitudes that reflect the degree of attenuation along the two paths. Although the output voltage after processing, filtering, and amplification is non-linear with respect to concentration, the calibration curve is well-defined for each range. The non-linear analog is scaled to meet the requirements of the AR-2000 A/D converter and subsequent linearizer.

5.7 ANARAD AR-30C SO_2 ANALYZER

The AR-30C SO_2 is a non-dispersive ultraviolet gas analyzer. The principle and design are identical to that of the AR-50C CO analyzer described above, with the exception of an ultraviolet energy source replacing the infrared source.

5.8 THERMO ENVIRONMENTAL INSTRUMENTS (FORMERLY THERMO ELECTRON) MODEL 400 TRANSMISSOMETER

The Model 400 transmissometer system consists of the transmissometer and the air-purging system. The transmissometer component consists of a transceiver unit mounted on one side of the duct and a retroreflector unit mounted on the opposite side. The transceiver unit contains a light source, a photodiode detector, and the optical, mechanical, and electronic components used in monitor operation and calibration.

The transceiver uses a single lamp single detector system, employing both internal and external choppers. The internal chopper modulates the measurement beam to eliminate interference from ambient light. The external three-segmented chopper produces alternating calibration and stack opacity measurements. Since the external chopper is exposed to stack conditions, it automatically compensates for dust accumulation on transceiver optics. The output signal from the transceiver (double-pass, uncorrected transmittance) is transmitted to the control unit.

The air purging system serves a threefold purpose: (1) it provides an air window to keep exposed optical surfaces clean; (2) it protects the optical surfaces from condensation of effluent moisture; and (3) it minimizes thermal conduction from the stack to the instrument. Each transmissometer has one air-purging system for the transceiver unit and one for the retroreflector unit; each system has a blower providing filtered air.

5.9 THERMO ENVIRONMENTAL INSTRUMENTS MODEL 701 MULTI-SIGNAL TOTALIZER (COMBINER)

The Model 701 combiner receives transmittance signals from each transmissometer and converts them to optical density. The optical density values are averaged together, and then the average is adjusted according to the ratio of the stack exit diameter to the duct widths. This stack exit optical density value is converted to units of opacity. Fault lamps on the Model 701 control panel indicate transmissometer fault conditions such as measurement lamp failure, power failure, excessive dust on optical surfaces, and failure of the purge air system. The Model 701 initiates the daily calibration of each transmissometer.

5.10 MILLBURY DATA ACQUISITION SYSTEM

The Millbury data acquisition system (DAS) utilizes Odessa Engineering software, an AR-2000 (Apple) computer, a DSM 3260 DAS Interface and a Compaq 286 computer. The AR-2000 controls automatic calibrations, system blowbacks and error detection It also performs A/D conversions on the analyzer outputs, linearizes the signals when appropriate, and corrects for zero and calibration drift. The corrected data are sent to the DSM 3260, which calculates 6-minute averages for all gases in concentration units. The DSM also converts pollutant concentrations to lb/MBtu values. The Compaq, located in the control room, computes additional averages, stores data, and writes reports. The report generating capabilities include 6-minute, daily, and monthly emission and/or calibration summary reports. The units and format can be chosen each time a printout or disk file is desired.

APPENDIX A.

"Test Request"

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

3 MAR 1989

MEMORANDUM

SUBJECT: Test Request - Continuous Monitoring of Emissions From Two Municipal Waste Combustors (MWC)

FROM: James U. Crowder, Chief
Industrial Studies Branch, ESD (MD-13)

TO: George W. Walsh, Chief
Emission Measurement Branch, TSD (MD-14)

This memorandum is to request that the Emission Measurement Branch (EMB) conduct continuous emission monitoring (CEM) tests at two MWC facilities. The result of the test program should be the collection of 30 days of CEM data and relevant process operation data at each facility. These data will be analyzed to determine emissions and emission control variabilities in order to select the appropriate averaging times for any proposed standards.

The two facilities are state-of-the-art, mass burn MWC facilities with current best available control technology (BACT) installed. The first facility is the Millbury Resource Recovery Facility in Millbury, Massachusetts. The second facility is the Marion County Solid Waste-to-Energy Facility in Brooks, Oregon.

Detailed information on the facilities to be tested and the required test program is presented below. Any questions concerning this request should be addressed to Mike Johnston.

I. RELATIONSHIP OF TEST DATA TO DEVELOPMENT OF STANDARDS

On July 7, 1987, the U. S. Environmental Protection Agency (EPA) issued an advance notice of proposed rulemaking for MWC's. This notice announced the EPA's intent to propose standards of performance for new or modified MWC's under Section 111(b) of the Clean Air Act and to issue existing source guidelines under Section 111(d). These guidelines will be used by the States in developing emission standards for existing MWC's.

On June 26, 1987, the Office of Air Quality Planning and Standards (OAQPS) issued operational guidance to the EPA Regions on the control of new

MWC's for the purpose of determining BACT under new source review (NSR) and prevention of significant deterioration (PSD) permitting activities. This guidance requires permitting authorities to consider a dry scrubber and a fabric filter or electrostatic precipitator as BACT for sulfur dioxide (SO_2) and particulate matter and combustion control as BACT for carbon monoxide (CO). Acid gas scrubbing, coupled with good particulate control, is also effective in controlling the emissions of hydrogen chloride (HCl), toxic organics (dioxins/furans), and metal pollutants.

The CEM tests requested will provide the long-term data needed to establish the level and averaging period for emission standards and guidelines for SO_2, HCl, CO, and opacity, as appropriate, in any proposed regulations.

II. PROCESS DESCRIPTION

Both facilities selected for inclusion in this CEM program are large mass burn MWC's. Mass burn MWC's were selected for testing because of the potential for larger variations in fuel composition, which leads to probable larger variations in uncontrolled emission loadings to the control devices, and larger variations in combustion conditions. A refuse derived fuel (RDF) fired facility was not selected because of the probability that the refuse processing would homogenize the fuel to some extent.

Both facilities combust municipal solid waste received from residential and commercial sources. On a general basis, no MSW processing is performed at either facility. However, a waste screening program is in place at the Marion County facility to reject building wastes that cause high SO_2 loadings to the spray dryer system. Further descriptions of the facilities are presented below.

Millbury Resource Recovery Facility

The Millbury facility consists of two identical furnace, boiler, and flue gas treatment systems that exhaust into one common stack. The process schematic is shown in Figure 1. Each unit is designed to process 750 tons/day of municipal solid waste. The refuse is charged to a Babcock and Wilcox water wall furnace and boiler unit that is equipped with a Von Roll reciprocating, inclined grate.

The furnace flue gases pass up through the water wall section of the furnace and then into superheater, boiler, and economizer heat transfer units. The recovered steam is used to generate electricity in a steam turbine-generator set. The boiler is rated to produce about 190,000 lb/hr of superheated steam at 850 psig and 825°F. The turbine generator that serves both units is rated at 40 megawatts.

Each furnace is equipped with a spray dryer-electrostatic precipitator (ESP) control system designed by Wheelabrator Air Pollution Control Systems. Slaked lime, along with metered dilution water for temperature control, is injected into the dryer vessel where the slurry droplets are evaporated and

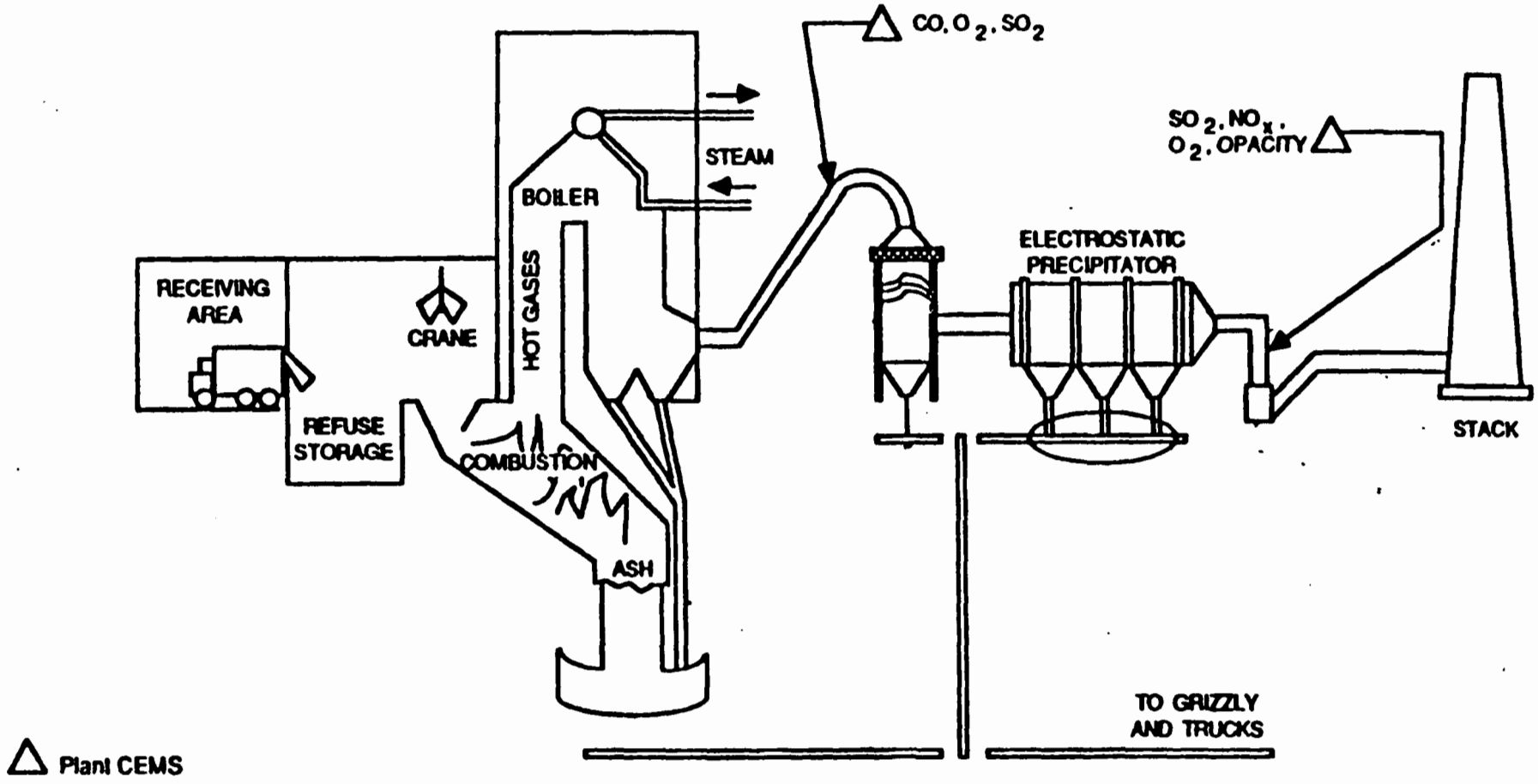

Figure 1. Process Schematic, Millbury Resource Recovery Facility

react with acid gases. The dry solids and flyash are collected in a three-field ESP. The flue gases are then exhausted to the common stack serving both units.

Each of the two units is currently equipped with CEM equipment. The location of these analyzers is also shown in Figure 1. Analyzers to measure CO, SO_2, and oxygen (O_2) are installed at the inlet to the spray dryer. In addition, a separate O_2 analyzer is installed at the economizer outlet for combustion control. Analyzers are also installed at the ESP outlet to measure SO_2, nitrogen oxide (NO_x), O_2, and opacity.

Data collection at each of the CEM locations is handled by a microcomputer system. A central data management computer compiles the data generated by the remote computers and generates reports. Data are presented on a six-minute average basis for opacity, CO, SO_2, and NO_x emissions, and SO_2 removal efficiency. Data are stored on disk for subsequent reports or analyses.

The furnace and flue gas treatment systems are controlled by a Bailey NET 90 distributed control system. All data from the system sensors are monitored by the computer system and are available for logging. Custom trend logs can be configured to either log to a printer or transmit to another computer.

Marion County Solid Waste-to-Energy Facility

The Marion County facility consists of two identical furnace, boiler, and flue gas treatment systems that exhaust into separate flues in a common stack shell. The process schematic is shown in Figure 2. Each unit is designed to process 275 tons/day of municipal solid waste. The refuse is charged to a membrane water wall furnace which is followed by a boiler composed of a convection section, a superheater, and an economizer. The stoker is a Martin GmbH inclined, reverse-reciprocating grate. The recovered energy as steam is used to generate electricity for sale. Each boiler is rated to produce 66,000 lb/hr of superheated steam 655 psig and 700°F. The turbine generator set that serves both boilers is rated at 13.1 megawatts.

Each furnace is equipped with a spray dryer fabric filter control system designed by Teller/American Air Filter. The flue gases first pass through an inertial separator to remove large particulates. After the cyclone, calcined lime slurry is injected into the flue gas. The current configuration of the system uses a dilute slurry for acid gas neutralization and temperature control at the absorber exit. Planned modifications will incorporate the use of a high density slurry for reagent feed and a separate dilution water stream for temperature control. The slurry and water will be mixed in-line just prior to injection in the air-atomized nozzles. The spray dryer is followed by a venturi section for injection of Tesisorb,

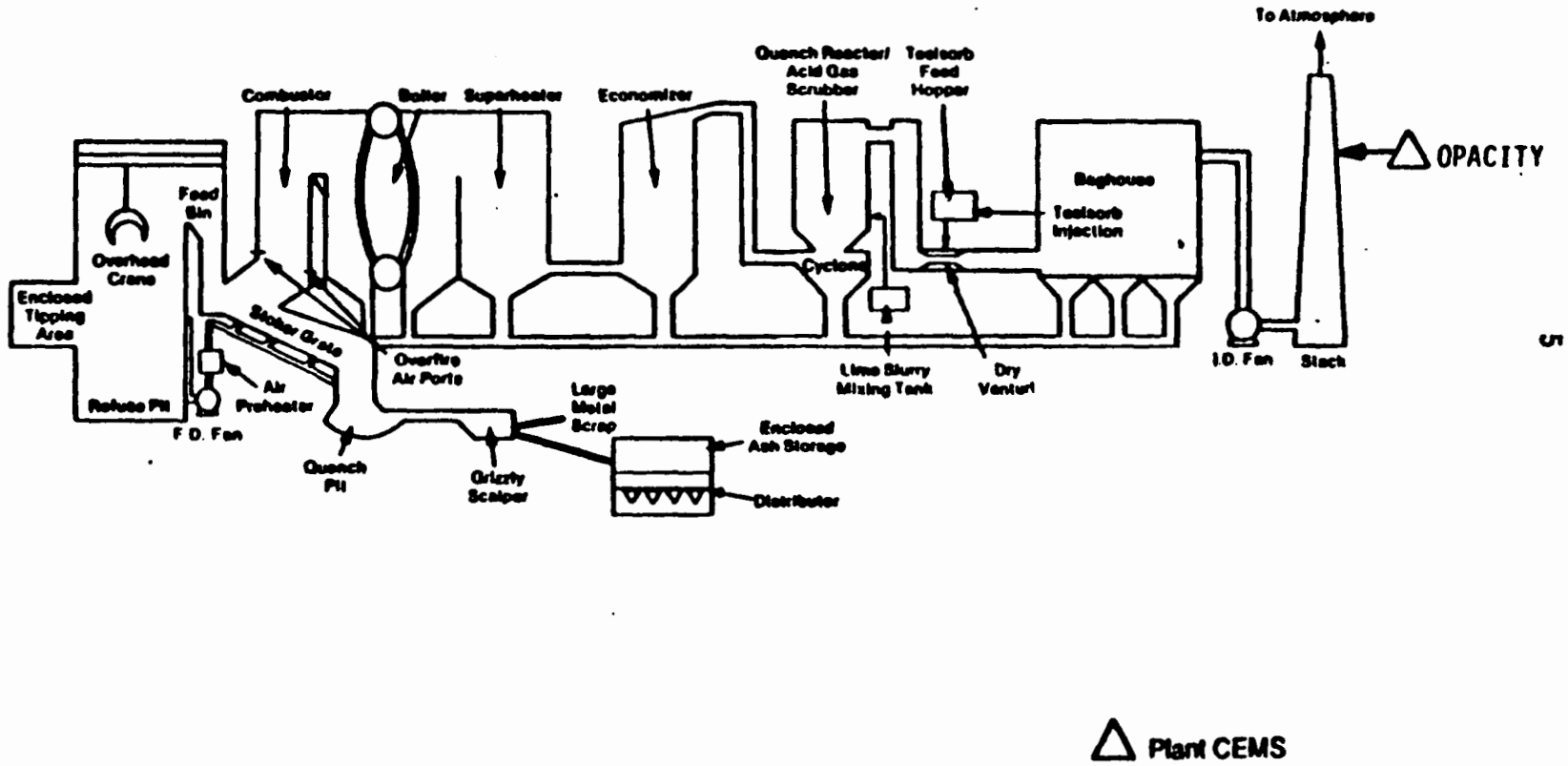

Figure 2. Process Schematic, Marion County SWE Facility

which is used as a filtration aide. The dry solids and flyash are removed in a six-compartment baghouse with a gross air/cloth ratio of 1.69:1. The design SO_2 and HCl removal efficiencies are 70 and 90 percent, respectively.

The CEM instrument systems that are presently installed are an O_2 analyzer at the economizer exit and an opacity analyzer at the stack. These analyzers are shown in Figure 2.

Ogden Systems, Inc., is currently evaluating a TECO FTIR instrument which is monitoring the flue gas composition at the ID fan exhaust. This system is reported to be operating well, but its availability for a CEM program has not been determined. Oxygen and opacity are currently recorded on strip charts.

The furnace is controlled by a proprietary Martin GmbH analog controller. This unit balances refuse feed rates, stoker rates, and air distribution and flow. The flue gas treatment system is controlled by analog controllers.

As a result of the planned EPA performance tests scheduled for this spring, analog interface connections will be available for data logging, but computer data logging equipment is not available as part of the plant equipment.

III. DESCRIPTION OF THE TEST PROGRAM

The CEM test programs to be performed at the Millbury Resource Recovery facility and the Marion County SWE facility are designed to provide the long-term data necessary to determine the appropriate levels and averaging periods for pollutants for which direct emission monitoring for compliance may be required, and to select the appropriate surrogates for pollutants, such as dioxins/furans or HCl, that cannot practically be continuously monitored at this time.

The test programs involve the collection of long-term CEM data and associated process operation information. The pollutants and other flue gases to be monitored by CEM and the process data that needs to be logged are presented in Tables 1 and 2 for Millbury and Marion County, respectively.

Continuous monitoring of the acid gases SO_2 and HCl simultaneously at the control system inlet and outlet will provide data to assess long-term achievable SO_2 and HCl removal efficiencies across the systems and the ultimate emissions. These data will be used to determine the achievable emission levels and averaging periods for any proposed standard. Comparative analysis of the SO_2 and HCl removal efficiency data will provide information to determine if SO_2 removal is a consistent indicator of HCl removal performance.

TABLE 1. CONTINUOUS MONITORING SCHEDULE
MILLBURY RESOURCE RECOVERY FACILITY
MILLBURY, MASSACHUSETTS

Monitoring Location	Parameter
Spray Dryer Inlet	SO_2[a]
	HCl
	O_2[a]
	CO[a]
	CO_2
ESP Outlet	SO_2[a]
	O_2[a]
	HCl
	Opacity[a]
Process Data	Steam Load
	Total Air Flow
	Boiler Master Output
	Grate Master Output
	Natural Gas Flow
	Primary Air Pressure
	Secondary Air Pressure
	Undergrate Air Temperature
	Oxygen
	Superheater Outlet Temperature
	Economizer Outlet Temperature
	Spray Dryer Inlet Pressure
	ESP Outlet Pressure
	Spray Dryer Inlet Temperature
	Spray Dryer Outlet Temperature
	Lime Slurry Concentration
	Dilution Water Flow
	Total Slurry Flow
	ESP Outlet Temperature
	Field 1 Secondary Voltage
	Field 2 Secondary Voltage
	Field 3 Secondary Voltage

[a]Plant CEM Instruments.

TABLE 2. CONTINUOUS MONITORING SCHEDULE
MARION COUNTY SWE FACILITY
BROOKS, OREGON

Monitoring Location	Parameter
Spray Dryer Inlet	SO_2
	HCl
	O_2
	CO
	CO_2
Fabric Filter Outlet	SO_2
	O_2
	CO_2
	HCl
	Opacity[a]
Process Data	Steam Load
	Combustion Air Flow
	Combustion Air Temperature
	Overfire Air Pressure
	Front
	Upper Rear
	Lower Rear
	Oxygen Concentration
	Quench Reactor Inlet Pressure
	Quench Reactor Outlet Pressure
	Quench Reactor Inlet Temperature
	Quench Reactor Outlet Temperature
	Quench Reactor Air Flow
	Dry Venturi Differential Pressure
	Fabric Filter Inlet Temperature
	Fabric Filter Oulet Temperature
	Fabric Filter Differential Pressure
	Lime Slurry Concentration[b]
	Dilution Water Flow[b]
	Total Slurry Flow[b]
	Temperatures
	Middle of Furnace, 1st Pass
	Top of Furnace, 1st Pass
	Superheater Flue Gas Outlet
	Economizer Flue Gas Outlet

[a]Plant CEM instrument.

[b]Process monitoring equipment not specified at this time.

The O_2 and carbon dioxide (CO_2) CEM measurements are necessary to normalize the pollutant measurements to a standard basis (12 percent CO_2 and/or 7 percent O_2).

Measurement of CO will provide data to establish long-term achievable levels and trends in CO emissions. In addition, recent NSR permits for new MWC's have specified combustion efficiency as a surrogate measure of good combustion. The CO and CO_2 data collected in this program will be used to compute combustion efficiency for comparative purposes.

Opacity measurements at the control system outlet may be used to develop an opacity limitation and an appropriate averaging time.

In addition to the variables that have been specified for continuous flue gas measurements, various operations parameters have been specified for recording. These data are normally-recorded process control measurements that can provide surrogate information concerning the proper operation of the combustor and the emission control system. Steam flow has been specified as the key indicator of process rate since there are no direct measures of refuse feed rate. Total air flow and key furnace temperatures are other indicators of typical furnace operations. Finally, various control device operating variables, such as temperatures, reagent flow rates, and fabric filter pressure drops/ESP voltages are specified to monitor proper operation of the spray dryer/fabric filter or ESP system.

The primary importance of these operating data in this program will be to document that the units were operating typically during the test period. They can also be used to explain any periods of atypical emissions. Analyses of these data may provide additional surrogate measures of good combustion or good control equipment operation.

The CEM and process monitoring data are required for a period of 30 days at each facility. For the purpose of this program, a day is defined as a clock 24-hour period where there are at least 18 valid 1-hour averages. A 1-hour average can be calculated if 75 percent of the data available during the hour were collected. It is preferred that 30 days of valid data be available for each parameter. However, it is possible that instrument problems could prevent achieving this data requirement for HCl removal efficiency. Sampling should continue for up to 60 days in an attempt to collect 30 days of data.

Instrument outages during the 30-day period may occur. However, it is preferred that the data be as continuous as possible for ease in statistical analysis.

The CEM guidelines given at 40 CFR 60.13(h) should be the basis for minimum data availability. For opacity, 24 equally spaced readings make up one 6-minute average. For other CEM variables, at least one instantaneous reading every 15 minutes is required. Sampling intervals more frequent than 15 minutes will improve the data.

The CEM data should be reported for each parameter measured and the raw data should be used to calculate normalized pollutant concentrations and emission factors (lb/10^6 Btu). The F-factor equations given in 40 CFR 60 Subpart Da should be used. Values for refuse F-factors are provided in EPA-450/2-78-042a.[1] All raw data and calculated results should be stored on disk or tape files in a compatible format for exchange with ISB and Radian for data analysis.

Since this data may be used to establish a standard, the data quality must be comparable to the quality required for compliance demonstration using CEM's. The QA/QC requirements of 40 CFR 60 Appendix F should be followed at a minimum.

At a minimum, an accuracy audit test is required at the beginning and end of the CEM test period. These relative accuracy tests may be a relative accuracy test audit (RATA) or a cylinder gas audit (CGA). The frequency of these audits should be increased to weekly if the accuracy audit results of the CEM's show that it could be reasonably expected to exceed the control limits occasionally. The data rejection criteria for out-of-control operation should be used for this program. The quality control documentation required by Appendix F should be generally followed.

Details regarding the test programs at the separate facilities are presented below.

Millbury

Either Unit 1 or 2 may be tested during this program.

This facility already has a CEM system installed for all the requested flue gas components except CO_2 and HCl. Measurement of CO_2 at either the spray dryer inlet or the ESP outlet will be sufficient to permit conversion of O_2-normalized data to a CO_2-normalized format using F_o factors. The HCl analyzers will be the responsibility of the test contractor.

The facility already has a data management system in operation at Millbury. The data logged by that system is stored on disk files and can be made available to the test contractor. Data points are averaged every 6 minutes. Various report formats are available for data listings.

The requested process data can be logged by the plant process control computer. Logs can be printed (or transmitted to a computer for logging) every shift or every day.

Process data readings should be recorded at 1-hour intervals.

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[1] Stack Sampling Technical Information - A Collection of Monographs and Papers. Vol 1. October 1978. p. 41.

Marion County

Unit 1 should be tested during the CEM program because that unit will be the only one that is equipped with process data logging equipment.

There is no permanently installed CEM equipment except for an opacity analyzer in the stack and an O_2 analyzer that is used for process control. The majority of the CEM equipment must be provided by the test contractor.

Ogden Projects Inc. is operating a prototype FTIR analyzer at the ID fan outlet on Unit 1. However, it is uncertain as to whether or not that instrument will be available during the CEM test period and if acceptable relative accuracy results will be achieved. In any case, it would be advantageous to plan to have a duplicate system at that location for the CEM test.

Interface equipment for hooking up process data logging equipment will be available in the plant control room.

IV. TEST PROGRAM COORDINATION

A final organization structure for this project cannot be established at this time. However, based on previous work at Millbury and Marion County the following general structure is proposed for each location.

Millbury

Since the CEM and data systems that will be used are part of the facility and the monitoring results must be reported to the Massachusetts DEQE, the primary responsibility for operation and maintenance should remain with Wheelabrator. The test contractor should overview the operation, record the quality control data for drift, and perform the required accuracy audits. The field test contractor will also be responsible for obtaining a copy of the CEM data on disk media at appropriate intervals.

The field test contractor will operate the HCl analyzer system and log the concentration results at time intervals compatible with the other CEM data.

Radian will provide a proposed final format for the compiled data set for statistical analysis. With respect to the field test, Radian will assist the facility and the test contractor in specifying and configuring trend logs for the process data. Radian will also assist the test contractor in setting up a system to capture the process data from the NET 90 system.

Due to the need for collecting data of known quality, test contractor personnel should be on site at least for the day shift on weekdays. This amount of time will be required to assemble and review data, compile quality control charts, and maintain logs, in addition to operating the HCl CEM system.

APPENDIX B.

Daily Data Summaries

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-15-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	128.9	9.2	26.2	541.1	32.2	10.4	160.6	3.3	1.9
2:00	106.4	9.0	26.2	452.0	12.3	10.2	167.0	1.4	1.9
3:00	117.2	8.8	25.6	588.0	14.5	10.1	161.2	1.1	1.8
4:00	118.6	8.9	25.7	463.7	11.3	10.2	171.6	0.9	1.8
5:00	137.0	8.7	25.3	450.3	13.2	10.0	175.1	0.8	1.8
6:00	151.9	8.8	25.0	534.2	17.3	10.0	178.8	0.9	2.0
7:00	162.0	8.5	24.9	604.6	20.4	9.8	178.5	1.0	1.7
8:00	179.8	8.6	24.8	1290.7	53.5	9.9	156.5	10.3	1.5
9:00	170.5	10.1	27.8	721.0	30.6	11.2	127.0	3.7	1.6
10:00	381.6	9.6	30.1		74.4	10.6	155.7		1.5
11:00	130.4	8.9	30.5		17.0	10.2	186.0		1.6
12:00	61.9	9.7	31.6		5.3	10.8	157.4		1.6
13:00	109.5	9.7	30.6	442.6	11.1	10.8	159.6	0.6	1.4
14:00	80.6	10.3	31.4	401.7	6.7	11.3	149.9	0.4	1.7
15:00	146.0	9.8	30.5	425.3	18.9	10.8	162.1	0.5	1.5
16:00	146.4	9.2	29.8	440.2	13.5	10.3	168.6	0.3	1.5
17:00	146.8	9.6	29.7	380.0	10.6	10.1	114.8	0.3	1.5
18:00	204.6	9.3	27.5	398.3	18.8	9.8	125.6	0.3	1.4
19:00	173.1	8.4	25.6	407.9	14.8	9.1	135.9	0.3	1.3
20:00	163.4	8.8	23.8	357.4	13.7	9.5	127.7	0.3	1.5
21:00	145.9	10.4	21.5	378.0	16.5	9.9	118.2	0.3	1.5
22:00	263.3	9.6	22.4	532.8	43.7	10.0	123.4	0.6	1.9
23:00	137.9	9.6	22.5	630.7	23.3	10.1	122.1	0.7	2.1
24:00	159.6	9.1	22.2	593.2	32.2	9.7	120.8	1.8	3.2
Daily Mean:	155.1	9.3	26.7	525.4	21.9	10.2	150.2	1.4	1.7
Valid Hours:	24	24	24	21	24	24	24	21	24

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-15-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	153.1	42.6	72.2	747.5	5.3	99.3	31.1	212.6
2:00	124.3	16.0	87.1	613.9	2.2	99.6	30.6	216.9
3:00	134.6	18.7	86.1	785.4	1.7	99.8	29.4	207.5
4:00	137.4	14.7	89.3	624.6	1.4	99.8	29.8	222.9
5:00	156.1	16.8	89.2	596.6	1.2	99.8	28.8	223.3
6:00	174.5	22.1	87.4	713.6	1.4	99.8	28.7	228.0
7:00	181.6	25.5	85.9	788.1	1.5	99.8	27.9	223.5
8:00	203.2	67.6	66.7	1696.0	15.9	99.1	28.0	197.8
9:00	219.4	43.8	80.0	1079.0	6.5	99.4	35.8	182.0
10:00	469.4	100.4	78.6				37.0	210.1
11:00	151.0	22.1	85.4				35.3	241.6
12:00	76.8	7.3	90.5				39.2	216.6
13:00	135.9	15.3	88.8	638.7	1.0	99.8	38.0	219.6
14:00	105.7	9.7	90.8	612.5	0.7	99.9	41.2	217.0
15:00	182.8	26.0	85.8	619.3	0.8	99.9	38.2	223.1
16:00	173.9	17.7	89.8	608.1	0.5	99.9	35.4	221.1
17:00	180.6	13.6	92.4	543.5	0.5	99.9	36.5	147.8
18:00	245.2	23.5	90.4	555.0	0.5	99.9	33.0	157.3
19:00	192.5	17.4	90.9	527.4	0.4	99.9	28.5	160.1
20:00	187.7	16.7	91.1	477.4	0.4	99.9	27.3	155.7
21:00	193.1	20.9	89.2	581.9	0.5	99.9	28.5	149.4
22:00	323.9	55.7	82.8	762.1	0.9	99.9	27.6	157.4
23:00	169.6	30.0	82.3	902.1	1.1	99.9	27.7	157.1
24:00	188.0	40.0	78.7	812.5	2.7	99.7	26.2	149.9
24-hour Mean:	185.9	28.5	85.5	727.9	2.3	99.8	32.1	195.8
Valid Hours:	24	24	24	21	21	21	24	24

Comments/Process Notes: Five SDA nozzles in service. (Out of six)

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-16-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	137.1	9.2	22.1	503.1	22.6	9.7	125.2	1.0	2.2
2:00	157.6	8.8	21.7	451.2	29.0	9.4	133.2	1.2	2.2
3:00	132.7	9.3	21.2	392.6	23.9	9.9	124.1	1.2	2.2
4:00	109.8	9.9	22.0	421.7	17.1	10.3	117.7	1.0	2.1
5:00	112.2	9.4	22.0	390.0	16.5	10.0	123.0	0.8	2.1
6:00	113.0	9.4	22.4	399.5	17.6	9.9	117.1	0.7	2.1
7:00	129.9	8.9	22.3	479.9	22.1	9.5	120.8	1.1	2.0
8:00	96.9	8.9	22.4	468.6	14.4	9.5	128.5	1.0	1.7
9:00	154.4	9.3	25.4	527.8	32.4	10.0	113.1	0.8	1.4
10:00	194.4	9.8	27.9	771.8	47.8	10.2	96.2	3.0	1.0
11:00	177.5	9.8	27.7	512.2	37.7	10.1	93.2	1.6	0.9
12:00	173.6	9.4	28.4	483.7	32.6	9.8	102.4	0.9	0.8
13:00	219.5	9.7	28.4	394.3	47.3	9.9	98.5	0.7	1.0
14:00	120.3	9.3	29.2		19.7	9.7	100.7		0.7
15:00	172.1	9.8	28.7		32.1	10.0	98.8		0.7
16:00	175.8	9.1	28.8		35.2	9.5	102.9		0.9
17:00	202.9	8.9	28.8	567.6	43.6	9.3	116.7	1.2	0.9
18:00	292.8	9.5	28.7	504.1	60.8	9.7	115.8	0.9	0.9
19:00	330.2	8.9	29.2	508.0	71.9	9.3	126.4	0.6	0.9
20:00	352.5	9.2	28.8	506.6	81.3	9.4	125.1	0.7	0.9
21:00	152.2	10.8	28.4	498.6	29.2	9.7	130.1	0.4	1.1
22:00	141.4	9.8	29.4	489.8	20.2	9.5	143.3	0.1	1.3
23:00	112.7	10.1	28.9	617.3	17.9	10.0	125.6	0.5	1.3
24:00	143.7	9.6	30.5	487.4	18.1	9.8	132.5	0.2	2.4
Daily Mean:	171.1	9.5	26.4	494.1	33.0	9.8	117.1	0.9	1.4
Valid Hours:	24	24	24	21	24	24	24	21	24

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-16-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	162.9	28.0	82.8	695.0	1.5	99.8	26.3	155.4
2:00	181.0	35.1	80.6	602.7	1.8	99.7	24.9	161.0
3:00	159.0	30.2	81.0	547.0	1.8	99.7	25.4	156.8
4:00	138.7	22.4	83.8	619.6	1.6	99.7	27.8	154.3
5:00	135.6	21.0	84.5	548.1	1.2	99.8	26.6	156.9
6:00	136.6	22.2	83.7	561.5	1.1	99.8	27.1	148.0
7:00	150.5	26.9	82.1	646.4	1.6	99.7	25.8	147.3
8:00	112.2	17.6	84.4	631.2	1.5	99.8	25.9	156.7
9:00	185.0	41.3	77.7	735.4	1.2	99.8	30.4	144.2
10:00	243.4	62.1	74.5	1123.8	4.8	99.6	34.9	125.0
11:00	222.3	48.5	78.2	745.8	2.5	99.7	34.7	120.0
12:00	209.8	40.8	80.5	679.8	1.4	99.8	34.3	128.2
13:00	272.4	59.8	78.1	569.0	1.1	99.8	35.2	124.5
14:00	144.2	24.4	83.0				35.0	125.0
15:00	215.5	40.9	81.0				35.9	126.0
16:00	207.1	42.9	79.3				33.9	125.5
17:00	235.0	52.2	77.8	764.5	1.8	99.8	33.4	139.8
18:00	357.0	75.5	78.9	714.7	1.4	99.8	35.0	143.7
19:00	382.5	86.2	77.5	684.2	0.9	99.9	33.8	151.5
20:00	418.8	98.3	76.5	699.8	1.0	99.9	34.2	151.2
21:00	209.5	36.2	82.7	797.9	0.6	99.9	39.1	161.5
22:00	177.1	24.6	86.1	713.2	0.1	100.0	36.8	174.7
23:00	145.0	22.8	84.3	923.8	0.8	99.9	37.2	160.2
24:00	176.8	22.7	87.2	697.1	0.3	100.0	37.5	165.9
24-hour Avg:	207.4	41.0	81.1	700.0	1.4	99.8	32.1	146.0
Valid Hours:	24	24	24	21	21	21	24	24

Comments/Process Notes:

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-17-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	136.2	8.9	30.0	472.8	14.5	9.2	144.8	0.1	1.3
2:00	151.4	8.9	28.9	465.8	20.8	9.3	142.6	0.1	1.3
3:00	133.5	9.3	28.8	650.1	22.4	9.6	138.8	0.4	1.3
4:00	151.7	9.6	29.0	753.1	38.1	9.8	133.3	3.2	1.4
5:00	160.5	9.6	29.2	697.1	28.3	9.8	126.6	1.7	1.4
6:00	198.1	9.2	28.4	788.7	42.3	9.5	135.3	2.1	1.5
7:00	161.1	9.4	28.1	604.3	29.0	9.7	135.7	1.2	1.4
8:00				681.3				1.0	1.4
9:00	133.7	11.1	27.3	886.6	30.1	10.9	119.9	4.3	1.4
10:00	142.3	11.0	28.2	541.8	22.0	10.7	123.2	3.3	1.1
11:00	164.1	9.7	28.8	531.1	23.4	10.1	132.3	1.6	1.0
12:00	291.2	10.1	29.3	679.2	59.0	10.3	117.9	2.3	0.8
13:00	205.9	9.5	29.7	746.5	42.8	9.9	135.0	2.9	0.8
14:00	274.4	10.0	29.3	568.3	48.7	10.2	139.9	2.1	0.9
15:00	103.1	10.3	29.1	613.2	16.0	10.5	132.2	1.4	0.8
16:00	164.1	9.3	29.2	784.5	43.3	9.7	140.6	5.0	0.9
17:00	212.1	9.7	29.5	841.7	50.6	10.0	137.8	4.2	0.9
18:00	152.7	10.1	28.8	566.0	28.7	10.4	132.6	2.1	1.0
19:00	174.9	10.1	28.5	553.5	36.0	10.3	127.4	2.1	1.0
20:00	124.0	10.4	28.7	509.0	22.6	10.6	132.0	1.7	1.0
21:00	191.3	10.0	28.5	618.0	44.3	10.3	156.9	4.0	1.9
22:00	248.9	9.7	28.5	572.3	55.0	10.0	161.7	3.6	2.5
23:00	157.6	10.1	28.0	483.3	26.2	10.3	139.7	2.0	2.9
24:00	151.2	9.2	28.9	531.6	31.4	9.5	154.2	2.8	3.3
Daily Mean:	173.2	9.8	28.8	630.8	33.7	10.0	136.5	2.3	1.4
Valid Hours:	23	23	23	24	23	23	23	24	24

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-17-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	157.8	17.2	89.1	636.8	0.1	100.0	34.8	172.0
2:00	175.4	24.9	85.8	627.4	0.1	100.0	33.5	170.9
3:00	160.0	27.6	82.8	905.8	0.6	99.9	34.5	170.7
4:00	186.6	47.7	74.4	1077.2	4.9	99.5	35.7	166.9
5:00	197.4	35.4	82.0	997.1	2.6	99.7	35.9	158.5
6:00	235.3	51.6	78.1	1089.5	3.1	99.7	33.7	165.0
7:00	194.7	36.0	81.5	849.3	1.8	99.8	34.0	168.4
8:00								
9:00	189.6	41.8	77.9	1462.2	7.3	99.5	38.7	166.7
10:00	199.8	30.0	85.0	884.5	5.5	99.4	39.6	167.9
11:00	203.7	30.1	85.2	766.4	2.5	99.7	35.7	170.3
12:00	374.8	77.4	79.4	1016.5	3.7	99.6	37.7	154.6
13:00	251.1	54.1	78.5	1058.4	4.5	99.6	36.2	170.6
14:00	349.9	63.3	81.9	842.7	3.3	99.6	37.4	181.7
15:00	135.2	21.4	84.2	935.0	2.3	99.8	38.2	176.7
16:00	196.6	53.7	72.7	1093.1	7.6	99.3	35.0	174.5
17:00	263.2	64.5	75.5	1214.7	6.5	99.5	36.6	175.7
18:00	196.5	38.0	80.7	847.0	3.4	99.6	37.1	175.5
19:00	225.1	47.2	79.0	828.3	3.4	99.6	36.7	167.1
20:00	164.2	30.5	81.4	783.5	2.8	99.6	38.0	178.1
21:00	244.0	58.1	76.2	916.4	6.4	99.3	36.3	205.7
22:00	308.9	70.1	77.3	825.9	5.6	99.3	35.4	206.2
23:00	202.8	34.4	83.1	723.3	3.2	99.6	36.0	183.2
24:00	179.6	38.3	78.7	734.4	4.2	99.4	34.3	188.0
24-hour Mean:	217.1	43.2	80.4	918.1	3.7	99.6	36.1	174.6
Valid Hours:	23	23	23	23	23	23	23	23

Comments/Process Notes:

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-18-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	135.1	9.0	29.0	519.2	28.4	9.4	154.1	3.2	2.0
2:00	158.8	9.3	29.2	452.8	37.1	9.7	155.8	2.9	1.9
3:00	179.1	8.9	28.8	438.2	43.6	9.3	158.2	3.5	1.8
4:00	157.2	9.3	29.2	397.2	33.9	9.5	153.2	2.4	1.8
5:00	156.1	9.0	28.8	404.5	32.2	9.5	156.6	1.5	1.8
6:00	164.9	9.1	28.9	418.3	39.6	9.4	155.6	1.9	1.9
7:00	182.7	9.1	28.7	519.0	44.9	9.5	149.6	3.1	1.7
8:00	130.4	9.4	28.6	444.0	26.6	9.8	156.2	2.5	1.3
9:00	124.6	9.6	28.5	449.8	22.5	10.0	137.6	1.7	1.3
10:00	132.4	8.8	28.4	458.1	48.5	9.2	144.6	16.5	1.1
11:00	123.4	8.8	28.7	424.7	30.5	9.3	148.0	14.8	1.0
12:00	143.8	9.3	29.1		33.2	9.5	144.9		1.1
13:00	107.9	9.7	27.9	413.6	16.8	9.9	143.1	1.7	1.0
14:00	101.7	10.8	27.5	473.7	16.0	10.2	146.4	2.0	1.1
15:00	81.0	10.0	28.6	516.9	9.6	10.0	145.4	1.2	1.0
16:00	89.8	9.1	28.5	577.0	12.6	9.5	146.2	1.2	0.9
17:00	141.2	9.6	28.2	875.1	40.4	9.8	141.4	15.6	1.4
18:00	137.5	9.3	27.6	826.1	37.7	9.6	148.0	11.4	1.2
19:00	105.8	10.7	27.2	545.6	17.9	10.3	136.8	3.1	1.2
20:00	229.4	8.9	28.5	885.2	51.3	9.2	142.1	5.5	1.4
21:00	241.2	8.9	28.2	632.1	54.2	9.2	150.6	4.4	1.3
22:00	135.0	9.5	28.2	608.3	24.9	9.6	151.9	2.6	1.5
23:00	152.6	9.2	28.6	753.0	38.0	9.3	144.6	6.0	1.6
24:00	120.7	8.9	28.9	655.1	24.7	9.2	153.5	4.6	2.6
Daily Mean:	143.0	9.3	28.5	551.6	31.9	9.6	148.5	4.9	1.5
Valid Hours:	24	24	24	23	24	24	24	23	24

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-18-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	157.8	34.3	78.2	705.2	4.7	99.3	33.9	186.3
2:00	190.3	46.0	75.8	630.9	4.4	99.3	35.0	193.4
3:00	207.5	52.2	74.8	590.2	5.1	99.1	33.4	189.6
4:00	188.4	41.3	78.1	553.4	3.6	99.4	35.0	186.8
5:00	182.3	39.3	78.5	549.4	2.2	99.6	33.6	190.9
6:00	194.2	47.9	75.4	573.0	2.8	99.5	34.0	188.1
7:00	215.2	54.7	74.6	710.9	4.6	99.4	33.8	182.4
8:00	157.6	33.3	78.9	624.0	3.8	99.4	34.6	195.6
9:00	153.3	28.7	81.3	643.4	2.6	99.6	35.1	175.5
10:00	152.1	57.6	62.1	611.9	23.9	96.1	32.6	171.8
11:00	141.8	36.5	74.2	567.3	21.6	96.2	33.0	177.3
12:00	172.3	40.5	76.5				34.9	176.7
13:00	133.9	21.2	84.1	596.9	2.6	99.6	34.6	180.8
14:00	140.0	20.8	85.1	758.1	3.2	99.6	37.8	190.2
15:00	103.3	12.2	88.1	766.5	1.9	99.8	36.5	185.4
16:00	105.8	15.4	85.5	790.3	1.8	99.8	33.6	178.3
17:00	173.7	50.6	70.9	1251.7	23.8	98.1	34.7	177.1
18:00	164.8	46.4	71.9	1151.0	17.1	98.5	33.1	182.1
19:00	144.2	23.5	83.7	864.6	5.0	99.4	37.1	179.4
20:00	265.7	60.9	77.1	1192.3	8.0	99.3	33.0	168.8
21:00	279.4	64.4	77.0	851.4	6.4	99.3	32.7	178.9
22:00	164.6	30.6	81.4	862.4	3.9	99.5	34.4	186.9
23:00	181.3	45.5	74.9	1040.2	8.8	99.2	34.0	173.3
24:00	139.8	29.3	79.0	882.4	6.7	99.2	33.5	182.4
24-hour Mean:	171.2	38.9	77.8	772.5	7.3	99.0	34.3	182.4
Valid Hours:	24	24	24	23	23	23	24	24

Comments/Process Notes:

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-19-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	97.5	10.8	26.5	473.2	14.5	9.9	145.7	2.4	1.7
2:00	100.5	9.7	28.2	460.0	11.6	9.7	149.0	1.3	1.7
3:00	98.9	9.5	28.3	534.5	13.5	9.7	140.4	1.3	1.8
4:00	117.9	9.2	28.1	477.9	16.1	9.4	156.4	1.3	1.9
5:00	111.6	9.8	27.3	497.2	16.4	9.9	144.2	1.6	2.0
6:00	104.9	10.1	27.1	615.2	17.1	10.0	146.2	1.6	2.1
7:00	189.2	10.0	27.4	833.5	46.2	9.9	142.8	7.1	2.0
8:00	137.5	10.2	27.0	612.5	25.6	9.4	154.1	2.9	2.1
9:00	78.9	15.1	22.6	650.5	21.6	10.3	136.6	1.6	2.1
10:00	95.5	12.5	26.0	694.7	14.6	9.5	153.4	3.9	2.1
11:00	160.3	8.8	29.3	549.2	13.9	9.2	181.1	2.2	1.9
12:00	90.2	9.7	30.8		3.3	10.2	170.8		2.3
13:00	91.4	9.9	30.4	595.8	5.7	10.2	146.7	1.6	2.6
14:00	93.1	10.2	30.5	435.6	4.0	10.4	142.1	0.9	2.2
15:00	63.9	10.2	31.0	392.3	1.4	10.5	151.1	0.8	2.1
16:00	84.1	9.7	29.7	557.9	4.1	10.1	163.7	0.7	2.0
17:00	106.8	9.6	29.8	481.4	8.0	9.9	161.1	0.9	1.9
18:00	158.6	9.7	28.9	484.3	19.2	9.9	169.9	1.1	2.0
19:00	139.7	8.8	28.2	509.6	16.8	9.2	181.7	1.4	1.8
20:00	150.2	9.4	28.0	467.8	23.1	9.7	164.7	2.0	1.7
21:00	235.7	8.7	28.0	508.5	42.2	9.1	174.1	3.0	1.7
22:00	139.5	9.2	27.8	448.3	15.4	9.6	169.4	1.6	1.6
23:00	124.0	9.0	28.0	439.9	13.7	9.3	166.2	1.4	1.7
24:00	110.9	9.4	28.1	474.1	13.6	9.6	164.5	1.3	2.7
Daily Mean:	120.0	10.0	28.2	530.2	15.9	9.8	157.3	1.9	2.0
Valid Hours:	24	24	24	23	24	24	24	23	24

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-19-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	134.2	18.3	86.3	757.3	3.7	99.5	36.5	184.1
2:00	124.7	14.4	88.5	663.8	2.0	99.7	35.0	184.9
3:00	120.6	16.8	86.1	757.8	2.0	99.7	34.5	174.2
4:00	140.1	19.5	86.1	660.2	1.9	99.7	33.4	189.0
5:00	139.8	20.7	85.2	724.0	2.5	99.7	34.2	182.2
6:00	135.0	21.8	83.8	920.7	2.5	99.7	34.9	186.4
7:00	241.3	58.4	75.8	1235.9	10.9	99.1	34.9	180.4
8:00	178.6	30.9	82.7	925.2	4.3	99.5	35.1	186.3
9:00	189.1	28.3	85.0	1812.7	2.6	99.9	54.2	179.1
10:00	158.0	17.8	88.7	1336.7	5.8	99.6	43.0	187.0
11:00	184.1	16.5	91.0	733.6	3.2	99.6	33.7	215.2
12:00	111.9	4.3	96.2				38.2	221.9
13:00	115.5	7.4	93.6	875.4	2.5	99.7	38.4	190.6
14:00	120.9	5.3	95.6	658.0	1.5	99.8	39.6	188.1
15:00	83.0	1.9	97.7	592.6	1.3	99.8	40.3	202.0
16:00	104.4	5.3	94.9	805.1	1.1	99.9	36.9	210.7
17:00	131.4	10.1	92.3	688.6	1.4	99.8	36.7	203.6
18:00	196.8	24.3	87.7	698.9	1.7	99.8	35.9	214.7
19:00	160.5	20.0	87.6	680.7	2.0	99.7	32.4	215.9
20:00	181.5	28.7	84.2	657.5	3.0	99.5	33.8	204.4
21:00	268.5	49.7	81.5	673.7	4.3	99.4	31.9	205.1
22:00	165.7	18.9	88.6	619.3	2.4	99.6	33.0	208.4
23:00	144.8	16.4	88.7	597.5	2.0	99.7	32.7	199.2
24:00	134.0	16.7	87.5	666.3	2.0	99.7	34.0	202.3
24-hour Mean:	152.7	19.7	88.1	814.8	2.9	99.7	36.4	196.5
Valid Hours:	24	24	24	23	23	23	24	24

Comments/Process Notes: Inlet Anarad CEM problem at 00:00-1:00 and 07:00-10:00 periods.

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-20-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	70.8	10.1	27.9	442.5	5.4	10.0	155.2	1.1	1.8
2:00	99.6	9.5	28.2	429.0	10.1	9.6	160.6	1.0	1.6
3:00	84.3	12.8	24.5	402.6	16.3	10.5	147.6	1.0	1.8
4:00	81.4	10.8	27.3	421.0	7.9	10.3	150.1	0.8	1.8
5:00	33.8	18.3	9.2	471.3	18.4	9.7	160.4	1.1	2.1
6:00	4.0	21.5	2.3	407.0	17.0	10.9	145.0	1.3	2.3
7:00	4.4	21.5	2.7	383.4	9.0	10.7	149.6	1.0	2.2
8:00	5.8	21.5	1.9	428.5	9.7	9.9	152.9	0.8	2.3
9:00	3.6	21.5	2.3	697.2	26.3	10.3	124.7	12.8	2.4
10:00	2.2	21.6	2.8	523.5	32.0	10.3	129.1	4.6	2.6
11:00	2.2	21.6	1.8	481.0	17.8	9.6	153.2	3.3	2.1
12:00	2.4	21.6	1.0	413.1	29.1	9.5	135.2	1.8	1.9
13:00	3.6	21.6	1.9	513.2	16.0	9.5	146.1	1.3	1.9
14:00	4.0	21.7	2.9	494.8	7.6	9.9	149.8	1.4	1.9
15:00	10.6	20.6	6.2	458.9	3.3	9.7	160.1	0.9	1.9
16:00	83.7	9.4	30.0	416.0	7.6	9.7	159.1	0.7	2.0
17:00	116.8	9.6	30.8		19.9	8.2	122.3		2.1
18:00	190.7	8.8	30.9	527.1	31.7	8.9	134.3	1.3	2.0
19:00	180.9	8.8	28.9	484.4	29.0	9.1	145.9	1.0	2.0
20:00	141.1	9.8	28.4	477.3	17.5	9.9	140.8	1.1	2.0
21:00	107.5	8.9	27.8	450.0	10.6	9.2	143.8	0.9	1.8
22:00	152.3	9.8	27.6	438.6	20.4	9.9	141.1	0.9	2.0
23:00	109.4	9.7	27.5	439.6	10.8	9.9	146.6	1.1	2.1
24:00	91.4	9.8	27.1	488.3	9.6	10.0	140.2	1.1	3.3
Daily Mean:	66.1	15.0	16.7	464.7	16.0	9.8	145.6	1.8	2.1
Valid Hours:	24	24	24	23	24	24	24	23	24

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-20-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	91.1	6.9	92.4	662.2	1.7	99.7	35.9	197.9
2:00	121.4	12.4	89.8	608.2	1.5	99.8	34.4	197.6
3:00		21.8		803.4	1.6	99.8		197.3
4:00		10.4		673.7	1.3	99.8		196.8
5:00		22.8		680.1	1.7	99.8		199.1
6:00		23.6		657.8	2.2	99.7		201.6
7:00		12.3		607.5	1.7	99.7		203.9
8:00		12.3		629.6	1.2	99.8		193.2
9:00		34.5		1063.1	20.5	98.1		163.5
10:00		42.0		798.2	7.4	99.1		169.3
11:00		21.9		688.0	5.0	99.3		188.4
12:00		35.5		585.7	2.7	99.5		164.8
13:00		19.5		727.6	1.9	99.7		178.1
14:00		9.6		727.0	2.2	99.7		189.3
15:00		4.1		662.2	1.4	99.8		198.7
16:00	101.2	9.4	90.7	584.7	1.1	99.8	36.3	197.5
17:00	143.7						37.9	
18:00	219.1	36.7	83.2	704.1	1.8	99.7	35.5	155.6
19:00	207.8	34.2	83.6	647.0	1.4	99.8	33.2	171.9
20:00	176.7	22.1	87.5	695.0	1.7	99.8	35.6	177.9
21:00	124.5	12.6	89.9	606.1	1.3	99.8	32.2	170.8
22:00	190.7	25.8	86.5	638.6	1.4	99.8	34.6	178.3
23:00	135.8	13.6	89.9	634.4	1.7	99.7	34.1	185.2
24:00	114.5	12.2	89.3	711.0	1.7	99.8	33.9	178.8
24-hour Mean:	147.9	19.8	88.3	686.8	2.9	99.6	34.9	185.0
Valid Hours:	11	23	10	23	23	23	11	23

Comments/Process Notes: Inlet Anarad CEM problem from 02:00-15:00; used outlet O2 data to correct inlet HCl values during this time. Cal gas injection into Anarad outlet system during 16:00-17:00 hour. SDA lime feed fluctuating (8:00-10:00); SDA outlet temp. affected.

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-21-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	130.4	9.7	27.8	432.0	16.1	10.0	145.1	1.1	2.2
2:00	116.6	9.6	27.6	455.4	11.6	9.9	150.6	1.0	2.7
3:00	108.2	9.7	26.9	426.8	11.4	9.9	150.0	1.0	2.9
4:00	123.3	9.7	27.1	454.7	13.0	10.0	147.7	1.1	3.1
5:00	106.6	9.9	26.9	594.6	15.5	10.0	140.4	1.5	3.1
6:00	87.3	11.8	24.1	516.2	13.8	10.3	142.9	1.5	2.9
7:00	51.6	14.0	21.2	560.9	8.8	10.2	140.5	1.1	3.1
8:00	68.7	12.8	21.8	469.1	10.0	9.8	144.3	0.9	3.3
9:00	14.2	20.6	9.7	515.9	31.0	8.6	119.9	1.1	3.6
10:00	58.8	15.7	19.8	439.3	17.4	11.5	119.6	1.9	3.8
11:00	139.1	10.8	32.8		25.2	10.4	187.4		3.7
12:00	77.2	10.1	33.1		7.0	10.4	158.8		3.7
13:00	78.6	10.2	31.9		7.8	10.3	156.5		4.0
14:00	86.0	9.7	29.9		9.0	10.0	180.0		4.1
15:00	61.3	9.9	30.2		5.2	10.0	172.4		3.6
16:00	63.2	10.0	30.4	406.9	5.2	10.1	174.8	0.8	3.2
17:00	74.3	11.4	23.7	514.7	19.6	10.9	102.6	1.2	3.2
18:00	92.4	9.9	30.5	507.7	17.9	10.1	133.7	0.9	3.1
19:00	80.6	10.1	27.8	434.8	11.2	10.4	130.9	0.9	3.2
20:00	68.3	10.3	26.3	458.2	10.9	10.4	131.0	0.9	3.2
21:00	75.9	10.3	26.1	477.9	12.7	10.5	124.4	1.1	3.0
22:00	152.2	9.9	26.0	489.1	33.1	10.1	120.3	1.4	3.1
23:00	107.1	9.7	26.1	452.0	20.6	9.9	124.4	1.4	3.3
24:00	108.0	9.7	25.0	488.6	23.8	10.0	125.4	1.4	4.0
Daily Mean:	88.7	11.1	26.4	478.7	14.9	10.2	142.7	1.2	3.3
Valid Hours:	24	24	24	19	24	24	24	19	24

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-21-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	161.8	20.5	87.3	623.4	1.7	99.7	34.5	185.0
2:00	143.4	14.7	89.8	651.4	1.5	99.8	34.0	190.3
3:00	134.3	14.4	89.3	615.9	1.5	99.7	33.4	189.5
4:00	153.0	16.6	89.2	656.2	1.7	99.7	33.6	188.4
5:00	134.7	19.8	85.3	873.7	2.3	99.7	34.0	179.0
6:00	133.3	18.1	86.4	916.8	2.4	99.7	36.8	187.4
7:00	103.9	11.4	89.0	1313.9	1.7	99.9	42.7	182.5
8:00	117.9	12.5	89.4	936.0	1.4	99.9	37.4	180.7
9:00		35.0		677.9	1.5	99.8		135.5
10:00		25.7		755.4	3.4	99.5		176.9
11:00	191.4	33.4	82.6				45.1	248.1
12:00	99.4	9.3	90.7				42.6	210.2
13:00	102.1	10.2	90.0				41.4	205.2
14:00	106.7	11.5	89.2				37.1	229.5
15:00	77.5	6.6	91.4				38.2	219.8
16:00	80.6	6.7	91.7	603.4	1.3	99.8	38.8	225.0
17:00		27.2		831.9	2.0	99.8		142.6
18:00	116.8	23.0	80.3	746.0	1.4	99.8	38.5	172.1
19:00	103.7	14.8	85.7	650.7	1.5	99.8	35.8	173.3
20:00	89.6	14.4	83.9	698.7	1.5	99.8	34.5	173.4
21:00	99.5	17.0	82.9	728.7	1.8	99.8	34.2	166.3
22:00	192.3	42.6	77.8	718.7	2.2	99.7	32.9	154.8
23:00	132.9	26.0	80.4	652.3	2.2	99.7	32.4	157.2
24:00	134.0	30.4	77.4	705.1	2.2	99.7	31.0	159.9
24-hour Mean:	124.2	19.2	86.2	755.6	1.9	99.7	36.6	184.7
Valid Hours:	21	24	21	19	19	19	21	24

Comments/Process Notes: The Anarad Inlet CEM data from 9:00,10:00 and 17:00 have been removed due to calibration gas injections being taken as effluent. The inlet HCl data during these times have been corrected using the outlet O2 values. The inlet data from the 6:00-8:00 averages indicate some plugging at the inlet, but the correction to 7%O2 should compensate for the error.

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-22-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	109.4	9.7	26.1	656.8	40.4	9.8	119.3	9.1	3.0
2:00	82.3	9.9	26.3	482.5	42.3	10.1	117.1	17.6	2.8
3:00	70.6	9.7	25.8	642.3	40.4	9.7	113.2	31.4	2.7
4:00	61.6	10.1	25.6	440.7	35.7	10.1	110.3	25.5	2.7
5:00	67.2	10.1	26.3	421.2	41.6	10.1	114.2	21.8	2.8
6:00	86.7	9.8	24.7	453.0	49.4	9.9	117.0	21.2	3.1
7:00	83.4	10.2	25.0	453.2	41.8	10.0	115.5	18.6	3.0
8:00	97.3	9.5	25.6	494.9	47.9	9.7	131.4	15.2	3.2
9:00	99.8	10.4	29.3	501.9	38.2	10.7	107.5	12.0	3.7
10:00	70.1	10.0	31.7	421.0	26.3	10.1	118.6	8.4	3.2
11:00	62.0	10.2	31.8	405.4	26.3	10.2	122.8	8.7	2.9
12:00	64.5	13.4	26.1	383.3	25.0	10.4	120.0	4.5	2.8
13:00	90.9	10.7	32.8	477.0	30.1	10.6	119.9	5.7	2.6
14:00	60.2	11.3	26.2	433.3	17.4	10.6	188.1	4.2	2.3
15:00	95.5	10.0	29.5	503.4	29.8	10.3	225.3	5.4	2.2
16:00	86.2	9.8	28.0	661.6	35.8	10.0	230.9	18.7	2.2
17:00	3.9	21.2	1.1	652.4	44.5	10.2	230.6	17.9	2.5
18:00	2.2	21.5	0.4	623.5	44.4	10.5	229.4	11.6	2.5
19:00	11.9	20.3	5.6	415.2	44.7	10.5	218.9	6.2	2.3
20:00	22.3	18.9	9.6	414.1	35.5	10.3	233.3	5.8	2.2
21:00	35.3	18.2	10.9	419.1	50.0	10.3	215.1	6.3	2.3
22:00	10.5	20.5	5.5	443.0	53.1	10.6	204.1	5.4	2.2
23:00	37.9	17.5	13.3	625.6	60.5	10.1	213.2	11.2	2.4
24:00	41.7	18.6	10.6	403.8	84.9	10.2	208.5	5.5	3.4
Daily Mean:	60.6	13.4	20.7	492.8	41.1	10.2	163.5	12.4	2.7
Valid Hours:	24	24	24	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-22-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	135.8	50.6	62.7	947.8	13.9	98.5	32.4	149.4
2:00	104.0	54.4	47.7	709.0	27.6	96.1	33.2	150.7
3:00	87.6	50.1	42.8	926.9	47.5	94.9	32.0	140.5
4:00	79.3	45.9	42.0	659.5	40.0	93.9	32.9	142.0
5:00	86.5	53.5	38.1	630.3	34.2	94.6	33.8	147.0
6:00	108.6	62.4	42.5	659.6	32.7	95.0	30.9	147.8
7:00	108.3	53.3	50.8	684.6	28.9	95.8	32.5	147.3
8:00	118.6	59.4	49.9	701.7	23.0	96.7	31.2	163.1
9:00	132.1	52.1	60.6	772.6	19.9	97.4	38.8	146.5
10:00	89.4	33.8	62.1	624.3	13.2	97.9	40.4	152.6
11:00	80.5	34.2	57.6	612.4	13.8	97.7	41.3	159.5
12:00		33.1		590.0	7.3	98.8		158.9
13:00	123.9	40.6	67.2	755.8	9.4	98.8	44.7	161.8
14:00		23.5		679.9	6.9	99.0		253.8
15:00	121.8	39.1	67.9	746.5	8.6	98.8	37.6	295.4
16:00	107.9	45.7	57.7	963.4	29.1	97.0	35.1	294.5
17:00		57.8		985.5	28.4	97.1		299.6
18:00		59.3		969.0	18.9	98.0		306.6
19:00		59.7		645.3	10.1	98.4		292.6
20:00		46.6		631.4	9.3	98.5		305.9
21:00		65.6		639.0	10.1	98.4		282.1
22:00		71.7		695.2	8.9	98.7		275.4
23:00		77.9		936.2	17.6	98.1		274.4
24:00		110.3		610.0	8.7	98.6		270.9
24-hour Mean:	106.0	53.4	53.5	740.7	19.5	97.4	35.5	213.3
Valid Hours:	14	24	14	24	24	24	14	24

Comments/Process Notes: There was an Anarad inlet CEM problem from 12:00,14:00, and 17:00-24:00. The inlet HCl data during these periods were corrected using outlet O2 data.

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-23-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	51.7	16.7	15.5	493.9	43.0	9.9	224.5	4.8	2.4
2:00	80.1	15.4	17.6	396.7	43.3	10.0	213.2	2.4	2.5
3:00	53.3	15.2	17.6	494.2	19.9	9.8	226.6	1.6	2.7
4:00	82.4	14.2	18.5	560.7	31.6	9.8	217.8	1.7	2.8
5:00	45.0	16.6	15.1	610.7	27.1	10.3	208.0	1.9	2.9
6:00	52.9	15.4	16.9	515.5	20.8	10.1	203.9	1.2	2.9
7:00	94.0	11.7	22.0	574.7	28.7	9.7	197.1	2.6	2.8
8:00	73.6	12.2	21.9	512.8	23.2	9.9	193.7	5.7	2.6
9:00	105.7	11.3	25.9	455.8	57.8	10.9	154.6	37.0	2.3
10:00	74.2	11.3	27.5	517.1	16.6	10.1	172.1	5.9	1.9
11:00	96.9	11.9	27.5	498.0	24.6	10.0	198.4	3.0	2.0
12:00	83.3	11.5	28.2		19.5	10.4	201.0		2.2
13:00	94.0	12.3	27.3	445.3	18.5	10.3	194.1	1.1	2.2
14:00	123.5	11.0	28.9	591.0	20.7	9.9	197.0	1.3	2.3
15:00	153.7	9.2	30.8	509.1	24.3	9.8	190.6	1.0	2.3
16:00	177.1	9.4	30.8	548.3	31.5	9.8	191.6	1.0	2.3
17:00	196.0	9.6	30.4	533.5	35.3	10.0	194.0	1.1	2.4
18:00	131.0	9.9	30.6	455.7	18.9	10.4	197.4	0.7	2.3
19:00	248.8	9.6	29.5	459.1	52.8	10.0	184.9	0.8	2.3
20:00	202.3	9.4	30.1	489.7	34.0	9.9	195.8	0.8	2.4
21:00	177.9	8.5	29.3	486.2	30.5	9.1	198.1	0.8	2.5
22:00	179.4	8.0	29.1	538.5	33.5	8.8	201.4	1.0	2.7
23:00	242.6	7.9	28.8	673.0	56.8	8.7	203.8	1.4	2.7
24:00	139.0	9.7	29.2	792.9	46.3	10.2	177.8	9.1	3.8
Daily Mean:	123.3	11.6	25.4	528.4	31.6	9.9	197.4	3.8	2.5
Valid Hours:	24	24	24	23	24	24	24	23	24

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-23-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00		54.3		725.7	7.4	99.0		283.7
2:00		55.2		588.2	3.7	99.4		271.9
3:00		24.9		719.6	2.4	99.7		283.8
4:00		39.6		816.4	2.6	99.7		272.7
5:00		35.5		931.2	3.0	99.7		272.8
6:00		26.8		771.5	1.9	99.8		262.4
7:00	142.0	35.6	74.9	829.4	3.9	99.5	33.2	244.6
8:00	117.6	29.3	75.1	753.5	8.8	98.8	35.0	244.8
9:00	153.0	80.3	47.5	736.7	62.7	91.5	37.5	214.9
10:00	107.4	21.4	80.1	773.9	9.3	98.8	39.8	221.5
11:00	149.7	31.4	79.0	738.4	4.7	99.4	42.5	253.0
12:00	123.2	25.8	79.0				41.7	266.1
13:00	151.9	24.3	84.0	679.0	1.8	99.7	44.1	254.5
14:00	173.4	26.2	84.9	868.4	2.0	99.8	40.6	248.9
15:00	182.6	30.4	83.3	703.3	1.5	99.8	36.6	238.7
16:00	214.1	39.4	81.6	770.6	1.5	99.8	37.2	239.9
17:00	241.1	45.0	81.3	763.1	1.7	99.8	37.4	247.4
18:00	165.5	25.0	84.9	669.6	1.1	99.8	38.7	261.3
19:00	306.0	67.3	78.0	656.7	1.2	99.8	36.3	235.8
20:00	244.5	43.0	82.4	688.3	1.2	99.8	36.4	247.4
21:00	199.4	35.9	82.0	633.7	1.1	99.8	32.8	233.4
22:00	193.3	38.5	80.1	674.7	1.4	99.8	31.4	231.4
23:00	259.4	64.7	75.1	836.7	1.9	99.8	30.8	232.2
24:00	172.5	60.1	65.1	1144.2	14.4	98.7	36.2	231.0
24-hour Mean:	183.2	40.0	77.7	759.7	6.2	99.2	37.1	249.8
Valid Hours:	18	24	18	23	23	23	18	24

Comments/Process Notes: The 9:00 HCl outlet reading includes 4 6-minute averages which were off-scale on a 0-60ppm measurement range. The inlet HCl data from 0:00-14:00 were corrected using outlet O2 values. Six SDA nozzles were in operation at 02:30.

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-24-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	164.1	9.5	28.4	683.7	42.6	9.9	195.5	4.5	2.9
2:00	132.8	9.1	28.4	565.7	27.2	9.7	196.9	1.6	3.1
3:00	208.7	9.4	27.7	504.7	46.9	9.8	197.2	1.3	3.6
4:00	288.7	9.4	26.6	460.9	73.7	9.8	192.6	1.4	3.8
5:00	208.1	9.2	26.2	494.5	41.8	9.7	183.6	1.2	3.8
6:00	122.5	8.6	25.9	384.8	21.5	9.3	192.9	0.8	3.8
7:00	123.9	8.7	25.6	407.0	24.5	9.4	193.0	0.6	3.7
8:00	163.2	9.5	24.8	405.6	36.7	9.9	196.9	0.8	3.8
9:00	179.8	8.9	27.3	488.3	40.7	9.6	210.6	0.6	3.8
10:00	205.2	9.4	28.4	494.6	39.0	9.8	189.1	1.2	3.6
11:00	181.1	9.7	30.4		33.2	10.1	184.4		3.5
12:00	172.9	9.7	33.2	525.1	36.2	10.0	176.9	1.2	3.1
13:00	148.2	9.8	35.9	579.8	30.0	10.2	176.9	2.0	2.9
14:00	145.9	9.0	35.5	477.4	22.3	9.5	192.3	1.5	2.7
15:00	173.6	9.4	35.2	473.7	33.0	9.8	186.5	1.9	2.5
16:00	101.2	10.3	35.7	499.8	16.4	10.6	166.8	2.5	2.3
17:00	109.3	9.3	35.5	416.6	16.4	9.8	189.0	1.7	2.3
18:00	149.8	9.7	34.9	777.7	45.0	9.9	183.0	11.9	2.3
19:00	167.6	8.7	35.5	815.7	44.0	9.3	191.9	11.1	2.3
20:00	135.5	9.5	35.4	722.2	36.6	9.8	180.7	8.9	2.4
21:00	119.4	10.2	35.7	482.6	20.5	10.5	167.7	2.5	2.4
22:00	232.8	10.4	36.2	505.7	49.6	10.6	174.7	1.5	2.5
23:00	238.4	9.2	35.0	440.7	49.1	9.6	185.8	1.5	2.7
24:00	170.8	9.1	35.2	412.1	27.8	9.6	192.5	1.2	3.9
Daily Mean:	168.5	9.4	31.6	522.6	35.6	9.8	187.4	2.8	3.1
Valid Hours:	24	24	24	23	24	24	24	23	24

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-24-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	200.1	53.8	73.1	969.3	6.9	99.3	34.6	247.0
2:00	156.4	33.8	78.4	774.9	2.4	99.7	33.5	244.4
3:00	252.3	58.7	76.7	709.3	2.0	99.7	33.5	246.9
4:00	349.0	92.3	73.6	647.8	2.1	99.7	32.2	241.2
5:00	247.2	51.9	79.0	683.1	1.8	99.7	31.1	227.9
6:00	138.4	25.8	81.4	505.6	1.2	99.8	29.3	231.1
7:00	141.2	29.6	79.0	539.2	0.9	99.8	29.2	233.3
8:00	199.0	46.4	76.7	575.1	1.2	99.8	30.2	248.8
9:00	208.3	50.1	76.0	657.7	0.9	99.9	31.6	259.1
10:00	248.0	48.8	80.3	695.1	1.8	99.7	34.3	236.8
11:00	224.8	42.7	81.0				37.7	237.3
12:00	214.6	46.2	78.5	757.8	1.9	99.8	41.2	225.6
13:00	185.6	39.0	79.0	844.3	3.2	99.6	45.0	229.8
14:00	170.4	27.2	84.0	648.4	2.2	99.7	41.5	234.5
15:00	209.8	41.3	80.3	665.8	2.9	99.6	42.5	233.5
16:00	132.7	22.1	83.3	762.1	4.1	99.5	46.8	225.1
17:00	131.0	20.5	84.3	580.5	2.6	99.6	42.5	236.7
18:00	185.9	56.9	69.4	1122.3	18.3	98.4	43.3	231.2
19:00	191.0	52.7	72.4	1080.7	16.2	98.5	40.4	229.9
20:00	165.2	45.8	72.3	1023.9	13.6	98.7	43.2	226.3
21:00	155.1	27.4	82.3	729.0	4.1	99.4	46.4	224.1
22:00	308.2	66.9	78.3	778.4	2.5	99.7	47.9	235.8
23:00	283.2	60.4	78.7	608.8	2.3	99.6	41.6	228.6
24:00	201.2	34.2	83.0	564.5	1.8	99.7	41.5	236.8
24-hour Mean:	204.1	44.8	78.4	735.8	4.2	99.5	38.4	235.5
Valid Hours:	24	24	24	23	23	23	24	24

Comments/Process Notes: At 11:30, 5 SDA nozzles were operating. At 16:42, 6 nozzles were in service.

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-25-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	126.9	9.4	34.1	491.6	21.7	9.8	194.4	1.3	2.9
2:00	149.0	9.4	34.3	413.1	27.3	9.8	190.8	1.0	2.8
3:00	160.4	9.6	34.5	423.9	31.6	10.0	194.7	1.0	2.8
4:00	146.6	9.3	34.6	421.6	26.7	9.8	187.7	0.8	2.9
5:00	180.4	9.0	34.1	565.1	42.2	9.5	201.3	1.3	3.0
6:00	175.3	9.1	33.4	461.0	38.9	9.5	195.1	1.6	3.0
7:00	203.8	9.3	33.6	472.7	45.3	9.8	201.0	1.9	3.0
8:00	146.1	9.2	34.0	415.4	28.2	9.6	194.9	1.0	2.8
9:00	151.5	9.5	31.0	473.7	28.0	10.1	182.2	1.3	2.6
10:00	154.2	9.9	29.7	488.2	31.8	10.2	157.5	1.5	2.3
11:00	124.3	9.6	30.7		26.9	10.1	171.6		2.3
12:00	169.3	10.3	31.4	440.5	31.9	10.5	173.6	1.0	2.1
13:00	156.8	9.6	30.2	438.9	27.9	10.0	188.3	1.0	1.7
14:00	114.0	9.8	30.8	459.0	17.3	10.2	179.6	0.5	1.6
15:00	143.1	9.4	31.5	564.7	29.1	9.8	191.2	0.8	2.3
16:00	154.1	10.1	30.4	434.7	28.6	10.3	176.4	0.4	1.7
17:00	123.8	9.8	32.0	414.8	21.8	10.1	175.2	0.2	1.6
18:00	203.9	10.3	32.0	448.4	41.4	10.6	165.9	0.3	1.7
19:00	231.9	8.8	30.0	486.9	41.2	9.3	193.4	0.4	1.7
20:00	112.6	10.1	30.3	431.8	16.0	10.4	192.6	0.3	1.9
21:00	100.4	9.4	30.0	527.1	14.5	9.8	186.9	0.2	2.1
22:00	157.5	9.8	30.9	515.1	26.1	10.2	182.3	0.4	2.3
23:00	151.6	9.8	31.8	508.2	23.6	10.1	184.2	0.3	2.3
24:00	141.6	9.8	30.5	532.9	24.5	10.0	194.0	0.6	3.3
Daily Mean:	153.3	9.6	31.9	470.8	28.9	10.0	185.6	0.8	2.4
Valid Hours:	24	24	24	23	24	24	24	23	24

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-25-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	153.4	27.2	82.3	690.9	2.0	99.7	41.2	243.4
2:00	180.1	34.2	81.0	580.6	1.5	99.7	41.5	238.9
3:00	197.3	40.3	79.6	606.3	1.6	99.7	42.4	248.3
4:00	175.7	33.4	81.0	587.4	1.2	99.8	41.5	235.0
5:00	210.7	51.5	75.6	767.5	1.9	99.7	39.8	245.4
6:00	206.5	47.4	77.0	631.4	2.4	99.6	39.3	237.9
7:00	244.2	56.7	76.8	658.6	2.9	99.6	40.3	251.7
8:00	173.6	34.7	80.0	573.8	1.5	99.7	40.4	239.7
9:00	184.7	36.0	80.5	671.6	2.0	99.7	37.8	234.5
10:00	194.9	41.3	78.8	717.3	2.4	99.7	37.5	204.6
11:00	152.9	34.6	77.4				37.8	220.9
12:00	222.0	42.6	80.8	671.7	1.6	99.8	41.2	232.0
13:00	192.9	35.6	81.6	627.8	1.6	99.8	37.1	240.1
14:00	142.8	22.5	84.3	668.4	0.8	99.9	38.6	233.3
15:00	173.0	36.4	78.9	793.7	1.2	99.8	38.1	239.4
16:00	198.3	37.5	81.1	650.6	0.6	99.9	39.1	231.3
17:00	155.0	28.1	81.9	604.0	0.3	99.9	40.1	225.5
18:00	267.4	55.9	79.1	683.7	0.5	99.9	42.0	223.9
19:00	266.4	49.4	81.5	650.4	0.6	99.9	34.5	231.7
20:00	144.9	21.2	85.4	646.2	0.5	99.9	39.0	255.0
21:00	121.4	18.2	85.0	740.8	0.3	100.0	36.3	234.0
22:00	197.2	33.9	82.8	750.0	0.6	99.9	38.7	236.8
23:00	189.8	30.4	84.0	740.0	0.5	99.9	39.8	237.1
24:00	177.3	31.2	82.4	776.0	0.9	99.9	38.2	247.4
24-hour Mean:	188.4	36.7	80.8	673.4	1.3	99.8	39.3	236.2
Valid Hours:	24	24	24	23	23	23	24	24

Comments/Process Notes: At 17:20, 5 nozzles were in service.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 7/26/88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	118.4	10.0	30.1	441.7	20.1	10.4	188.8	0.4	2.4
2:00	152.8	9.5	29.7	587.5	33.1	10.0	186.3	0.6	2.4
3:00	150.1	9.4	29.7	524.2	31.4	9.9	182.5	0.9	2.4
4:00	123.9	10.0	30.4	491.3	24.8	10.3	194.1	0.7	2.6
5:00	274.0	8.8	29.8	559.2	54.0	9.3	198.1	0.8	2.6
6:00	172.6	9.2	29.5	497.8	32.3	9.7	190.3	0.7	2.7
7:00	196.1	9.5	30.9	409.3	37.3	9.9	186.0	0.6	2.6
8:00	137.1	9.1	30.8	457.1	22.7	9.7	185.1	0.4	2.4
9:00	151.1	10.5	31.9	398.2	28.6	10.9	168.0	0.4	2.1
10:00	121.8	9.9	32.8	505.2	18.1	10.3	174.4	1.3	1.6
11:00	94.7	9.9	31.4	464.2	10.7	10.3	195.8	0.7	1.4
12:00	105.2	10.1	33.2	441.0	14.5	10.4	184.5	0.8	1.5
13:00		-0.5		560.3	33.8	10.3	183.6	1.2	1.6
14:00	93.2	10.2	31.1	448.6	14.5	10.2	181.8	1.9	1.6
15:00	92.9	10.7	30.1	478.8	13.1	10.4	200.0	1.1	1.8
16:00	93.4	10.6	31.3	467.9	16.2	10.6	192.2	1.1	1.8
17:00	90.6	10.2	31.5	503.0	14.9	10.3	201.0	1.3	2.0
18:00	103.4	10.0	28.2	448.4	12.1	10.3	205.1	0.9	2.0
19:00	137.0	10.8	29.1	532.1	24.6	10.9	185.2	0.9	2.1
20:00	123.1	10.1	28.5	482.9	27.0	10.2	194.6	1.4	2.0
21:00	126.6	9.9	27.5	456.2	19.5	10.3	193.7	1.1	2.1
22:00	210.2	9.7	28.1	444.0	41.9	9.9	206.4	1.0	2.2
23:00	171.6	10.3	28.9	427.4	31.8	10.3	188.6	1.1	2.2
24:00	119.8	9.7	29.5	524.7	21.6	10.0	190.3	1.1	3.2
Daily Mean:	137.4	9.5	30.2	481.3	24.9	10.2	189.9	0.9	2.1
Valid Hours:	23	24	23	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 7/26/88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	151.0	26.6	82.4	655.0	0.6	99.9	38.4	249.9
2:00	186.3	42.2	77.3	833.0	0.9	99.9	36.2	237.6
3:00	181.4	39.7	78.1	736.7	1.4	99.8	35.9	230.6
4:00	158.0	32.5	79.4	728.5	1.1	99.8	38.8	254.5
5:00	314.8	64.7	79.4	747.0	1.2	99.8	34.2	237.4
6:00	205.1	40.1	80.5	687.7	1.1	99.8	35.0	236.2
7:00	239.1	47.1	80.3	580.3	0.9	99.8	37.7	235.0
8:00	161.5	28.2	82.6	626.1	0.6	99.9	36.3	229.7
9:00	202.0	39.8	80.3	618.8	0.7	99.9	42.6	233.5
10:00	153.9	23.7	84.6	742.3	2.1	99.7	41.4	228.7
11:00	119.7	14.0	88.3	682.1	1.1	99.8	39.7	256.8
12:00	135.4	19.2	85.8	660.0	1.3	99.8	42.7	244.2
13:00		44.3		924.1	1.9	99.8		240.8
14:00	121.1	18.8	84.4	677.6	3.0	99.6	40.4	236.2
15:00	126.6	17.3	86.3	758.7	1.8	99.8	41.0	264.8
16:00	126.0	21.9	82.7	734.2	1.8	99.8	42.2	259.4
17:00	117.7	19.5	83.4	759.8	2.1	99.7	40.9	263.6
18:00	131.9	15.9	88.0	664.9	1.4	99.8	36.0	269.0
19:00	188.5	34.2	81.9	851.5	1.5	99.8	40.0	257.4
20:00	158.4	35.1	77.9	722.7	2.2	99.7	36.7	252.8
21:00	160.0	25.6	84.0	670.3	1.8	99.7	34.8	254.0
22:00	260.9	52.9	79.7	640.7	1.5	99.8	34.9	260.8
23:00	225.0	41.7	81.5	651.7	1.8	99.7	37.9	247.3
24:00	148.7	27.5	81.5	757.2	1.7	99.8	36.6	242.7
24-hour Mean:	172.7	32.2	82.2	713.0	1.5	99.8	38.3	246.8
Valid Hours:	23	24	23	24	24	24	23	24

Comments/Process Notes: SDA Inlet SO2, O2, and CO CEM data were invalid during the hour of 1200-1300. The eductor wash was installed during this hour on the Unit 2 SDA Inlet conditioning box.

The Inlet HCl measurement value for the hour of 1200-1300 was corrected to ppm HCl @ 7% O2 using the outlet O2 value. Daily cal check on HCl CEMS was performed from 12:36-13:19; no HCl data was lost since >50% of data was collected during these hours.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 7/27/88
Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	123.0	9.7	29.5	524.4	21.3	10.0	191.9	1.2	2.2
2:00	151.5	9.6	29.7	473.1	25.6	9.8	195.2	1.1	2.2
3:00	125.0	9.4	30.6	508.7	19.6	9.8	193.3	0.9	2.1
4:00	172.5	9.3	30.5	477.6	27.1	9.6	201.3	0.9	2.4
5:00	176.1	9.4	30.3	487.2	33.6	9.5	191.8	1.0	2.7
6:00	173.4	9.6	30.0	497.1	34.5	9.8	191.2	1.0	3.0
7:00	146.9	9.8	29.1	527.3	32.4	9.9	192.4	1.1	2.6
8:00	175.8	9.1	29.2	461.6	36.7	9.3	198.2	1.4	2.4
9:00	151.1	9.3	29.4	507.8	30.0	9.9	177.2	1.1	2.3
10:00	149.0	10.1	32.0	499.6	29.9	10.3	197.8	1.3	2.0
11:00	100.2	9.8	30.6	545.9	16.5	9.3	231.0	0.7	1.6
12:00	124.5	9.4	29.9	711.2	43.0	9.8	248.7	5.9	1.6
13:00	66.1	16.6	17.2	658.5	26.5	13.5	137.8	4.2	1.6
14:00	11.5	21.1	6.9	514.0	46.7	10.6	192.8	2.1	
15:00	33.2	17.7	12.0	430.9	18.5	9.9	262.4	1.1	
16:00	129.3	9.6	29.5	487.8	22.0	9.9	242.4	0.7	1.0
17:00	103.0	9.9	29.2	589.4	16.5	10.1	249.6	0.7	1.2
18:00	79.3	9.9	28.4	564.0	11.2	10.2	246.9	0.7	1.4
19:00	94.7	9.9	28.0	448.9	9.7	10.1	248.9	0.6	1.4
20:00	97.5	9.7	27.1	529.8	14.8	10.1	233.6	0.7	1.4
21:00	94.1	10.4	27.5	457.6	15.3	10.6	223.4	0.8	1.6
22:00	115.2	10.1	27.2	424.1	12.9	10.3	240.8	0.6	1.7
23:00	142.9	9.9	27.0	477.7	15.4	10.2	246.4	0.6	1.7
24:00	112.2	10.9	28.6	480.8	12.6	11.0	222.4	0.6	2.9
Daily Mean:	118.3	10.8	27.1	511.9	23.8	10.2	214.9	1.3	2.0
Valid Hours:	24	24	24	24	24	24	24	24	22

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 7/27/88
Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	152.7	27.2	82.2	756.8	1.9	99.8	36.6	244.7
2:00	186.4	32.1	82.8	676.7	1.7	99.8	36.5	244.4
3:00	151.1	24.5	83.8	715.0	1.4	99.8	37.0	242.1
4:00	206.7	33.3	83.9	665.5	1.4	99.8	36.5	247.6
5:00	212.9	41.0	80.8	684.7	1.5	99.8	36.6	233.9
6:00	213.3	43.2	79.7	711.0	1.5	99.8	36.9	239.4
7:00	184.0	40.9	77.7	767.8	1.7	99.8	36.4	243.1
8:00	207.1	44.0	78.8	632.3	2.0	99.7	34.4	237.5
9:00	181.1	37.9	79.1	707.5	1.7	99.8	35.2	223.9
10:00	191.8	39.2	79.6	747.7	2.1	99.7	41.2	259.4
11:00	115.1	19.8	82.8	729.2	1.0	99.9	35.2	276.8
12:00	150.5	53.8	64.2	999.6	9.0	99.1	36.1	311.4
13:00		49.8		1612.6	9.6	99.4		258.8
14:00		64.3		893.3	3.5	99.6		265.3
15:00		33.4		692.8	1.7	99.8		331.6
16:00	159.1	27.8	82.5	697.7	1.1	99.8	36.3	306.3
17:00	130.2	21.2	83.7	866.0	1.1	99.9	36.9	321.2
18:00	100.2	14.5	85.5	828.7	1.1	99.9	35.9	320.7
19:00	106.1	11.2	89.4	653.6	0.9	99.9	35.1	320.3
20:00	121.0	19.0	84.3	764.6	1.1	99.9	33.6	300.7
21:00	124.6	20.6	83.4	704.4	1.3	99.9	36.4	301.5
22:00	148.3	16.9	88.6	634.7	1.0	99.8	35.0	315.8
23:00	130.6	20.0	98.9	701.9	1.0	99.9	34.1	320.1
24:00	156.0	17.7	88.7	777.1	1.0	99.9	39.8	312.3
24-hour Mean:	160.9	31.0	82.4	775.5	2.1	99.8	36.3	278.3
Valid Hours:	21	24	21	24	24	24	21	24

Comments/Process Notes: Solenoid valve for newly installed eductor wash on SDA Inlet malfunctioned. Anarad service representative removed solenoid and returned the sampling system to the original configuration (i.e., no automatic eductor wash) until a replacement solenoid can be installed (possibly tomorrow). SDA Inlet measurement data from 12:00-15:00 are invalid because of the valve problem.

Inlet HCl data from 12:00-15:00 were corrected to ppm HCl @ 7% O2 using outlet O2 values. HCl cal check conducted from 09:31-10:20. Opacity data from 13:00-15:00 are invalid because an audit was performed on the opacity CEM during this time.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 7/29/88
Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	120.9	9.4	27.6	511.4	11.2	9.8	239.5	0.6	1.8
2:00	132.5	9.5	27.6	584.2	21.3	9.9	225.2	2.8	1.8
3:00	123.8	9.3	27.7	514.5	14.5	9.8	236.0	1.3	1.8
4:00	150.7	9.1	27.3	696.3	24.4	9.5	237.1	2.2	1.8
5:00	139.9	9.4	28.0	606.2	21.5	9.8	225.3	3.0	1.8
6:00	141.6	9.0	27.8	526.6	16.2	9.4	229.9	1.2	1.9
7:00	148.8	8.8	27.5	499.2	17.1	9.3	243.6	1.2	1.9
8:00	168.6	9.0	28.3	910.1	42.7	9.4	236.3	6.7	2.0
9:00	113.5	10.3	32.1	1040.2	31.7	10.5	162.4	23.0	2.0
10:00	90.6	9.9	33.7	747.5	12.8	10.1	156.9	7.7	1.8
11:00	100.1	10.6	34.6	461.4	14.1	10.7	202.1	2.1	1.8
12:00	69.4	10.2	35.9	480.4	9.0	10.4	191.9	0.9	1.6
13:00	50.6	9.8	35.5	705.6	18.7	10.1	172.2	3.4	1.5
14:00	39.3	9.5	32.5	672.9	18.5	9.9	153.7	4.1	1.4
15:00	49.3	11.2	35.8	560.1	11.0	11.3	144.2	3.7	3.3
16:00	72.1	9.2	30.7	443.4	8.8	9.6	186.8	0.6	3.2
17:00	79.1	9.1	30.6	460.2	10.7	9.6	197.7	0.7	2.5
18:00	77.2	9.2	31.0	450.5	11.1	9.6	195.4	0.7	2.4
19:00	87.1	9.5	31.1	459.5	13.0	9.8	195.2	0.9	2.3
20:00	77.8	9.7	30.6	416.4	11.1	10.0	172.1	0.9	2.3
21:00	109.8	9.8	31.0	456.0	22.6	10.1	166.5	1.2	2.3
22:00	95.3	10.1	33.3	474.1	18.9	10.3	153.3	2.6	2.4
23:00	94.3	10.0	30.8	430.2	15.0	10.3	172.1	1.6	2.4
24:00	96.9	9.9	30.6	413.3	16.2	10.1	180.6	1.9	3.4
Daily Mean:	105.3	9.6	30.9	562.9	17.2	10.0	194.0	3.1	2.1
Valid Hours:	24	24	24	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 7/29/88
Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	146.1	14.0	90.4	718.8	0.9	99.9	33.4	299.9
2:00	161.6	26.9	83.3	828.3	4.3	99.5	33.7	284.6
3:00	148.3	18.2	87.8	716.9	2.0	99.7	33.2	295.5
4:00	177.5	29.8	83.2	953.7	3.3	99.7	32.2	289.1
5:00	169.1	26.9	84.1	852.0	4.6	99.5	33.8	282.1
6:00	165.4	19.6	88.2	715.2	1.8	99.8	32.5	277.9
7:00	170.9	20.5	88.0	653.5	1.8	99.7	31.9	291.9
8:00	196.9	51.6	73.8	1236.1	9.9	99.2	33.1	285.6
9:00	151.5	42.4	72.0	1586.1	37.5	97.6	42.1	217.1
10:00	114.5	16.5	85.6	1098.3	12.1	98.9	42.6	201.9
11:00	135.1	19.2	85.8	724.0	3.5	99.5	46.7	275.4
12:00	116.1	11.9	89.7	725.7	1.5	99.8	46.6	254.0
13:00	113.5	24.1	78.8	1027.4	5.3	99.5	44.5	221.6
14:00	108.9	23.4	78.5	954.0	6.3	99.3	39.6	194.2
15:00	70.6	15.9	77.5	933.3	6.5	99.3	51.3	208.8
16:00	85.7	10.8	87.4	612.5	0.9	99.9	36.5	229.8
17:00	93.2	13.2	85.9	630.3	1.1	99.8	36.0	243.2
18:00	91.7	13.7	85.1	622.3	1.1	99.8	36.8	228.1
19:00	106.2	16.3	84.7	651.5	1.4	99.8	37.9	231.9
20:00	91.6	14.2	84.5	600.9	1.4	99.8	38.0	219.5
21:00	137.5	29.1	78.8	664.0	1.9	99.7	38.8	214.3
22:00	109.9	24.8	77.4	709.5	4.2	99.4	42.9	201.0
23:00	120.3	19.7	83.6	637.9	2.6	99.6	39.3	225.7
24:00	122.4	20.9	83.0	607.3	3.0	99.5	38.7	232.4
24-hour Mean:	129.3	21.3	83.2	810.8	4.9	99.5	38.4	246.1
Valid Hours:	24	24	24	24	24	24	24	24

Comments/Process Notes:

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 7/29/88
Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	108.4	10.1	30.3	406.6	19.8	10.3	174.7	1.7	2.5
2:00	82.6	10.2	29.5	373.5	14.6	10.4	170.7	1.4	2.6
3:00	72.1	10.3	29.5	413.9	13.4	10.4	170.8	1.3	3.6
4:00	74.8	10.7	29.7	416.9	14.6	10.9	158.6	1.6	4.3
5:00	73.2	10.4	30.2	565.5	19.0	10.5	169.1	5.1	3.4
6:00	67.7	10.6	29.5	520.3	16.1	10.7	163.1	4.4	3.5
7:00	77.4	10.2	29.6	655.7	26.6	10.4	167.9	9.0	3.3
8:00	73.8	9.9	30.1	843.0	42.0	10.1	164.1	25.7	2.9
9:00	85.1	10.6	32.0	539.3	24.1	10.7	149.1	14.8	2.4
10:00	59.7	10.8	35.5	416.0	10.3	10.8	152.4	2.3	1.9
11:00	66.5	10.3	36.4	355.2	9.9	10.5	170.4	1.1	1.8
12:00	133.1	11.6	45.2	303.3	27.0	11.6	146.7	1.3	1.8
13:00	81.4	11.4	31.8	499.6	22.1	11.3	167.1	2.8	1.7
14:00	73.6	10.8	30.0	428.2	13.4	10.6	190.1	1.7	1.9
15:00	61.0	10.5	28.4	402.3	7.2	10.6	174.6	0.8	1.8
16:00	59.6	10.7	27.0	440.2	7.5	10.8	174.1	0.6	1.9
17:00	54.7	11.6	32.3	415.5	6.6	11.6	151.4	0.7	1.6
18:00	48.3	10.6	25.6	440.8	6.4	10.7	164.8	0.9	1.5
19:00	93.9	9.8	27.2	513.9	19.5	10.0	186.5	1.2	1.7
20:00	75.3	10.0	27.2	498.7	11.4	10.2	194.3	1.1	1.9
21:00	68.0	10.7	27.7	420.4	8.1	10.7	175.9	1.0	1.9
22:00	93.3	10.7	27.5	401.7	19.4	10.7	163.7	1.0	1.8
23:00	88.7	10.7	27.9	375.3	13.2	10.7	170.9	1.0	1.8
24:00	74.8	11.0	27.3	366.5	12.6	10.9	160.0	0.9	2.8
Daily Mean:	77.0	10.6	30.3	458.8	16.0	10.7	168.0	3.5	2.3
Valid Hours:	24	24	24	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 7/29/88
Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	139.5	26.0	81.4	608.5	2.7	99.6	39.0	229.1
2:00	107.3	19.3	82.0	564.2	2.3	99.6	38.3	226.0
3:00	94.5	17.7	81.2	631.1	2.1	99.7	38.7	226.1
4:00	101.9	20.3	80.1	660.6	2.7	99.6	40.5	220.5
5:00	96.9	25.4	73.8	870.5	8.3	99.0	40.0	226.0
6:00	91.4	21.9	76.0	816.5	7.3	99.1	39.8	222.3
7:00	100.5	35.2	65.0	990.5	14.5	98.5	38.5	222.3
8:00	93.3	54.1	42.0	1238.7	40.3	96.7	38.0	211.2
9:00	114.8	32.8	71.4	846.3	24.6	97.1	43.2	203.2
10:00	82.2	14.2	82.7	665.7	3.9	99.4	48.9	209.7
11:00	87.2	13.2	84.8	841.6	1.8	99.7	47.7	227.7
12:00	198.9	40.4	79.7	527.1	2.4	99.6	67.6	219.3
13:00	119.1	32.0	73.1	850.0	4.9	99.4	46.5	241.9
14:00	101.3	18.4	81.8	685.2	2.9	99.6	41.3	261.6
15:00	81.5	9.7	88.1	625.2	1.3	99.8	38.0	235.6
16:00	81.2	10.3	87.3	697.5	1.0	99.9	36.8	239.6
17:00	81.8	9.9	87.9	722.1	1.3	99.8	48.3	226.3
18:00	65.2	8.7	86.6	691.7	1.5	99.8	34.5	224.6
19:00	117.6	24.9	78.9	748.3	1.9	99.8	34.1	237.8
20:00	96.0	14.8	84.6	739.5	1.7	99.8	34.7	252.4
21:00	92.7	11.0	88.1	666.2	1.7	99.8	37.7	239.7
22:00	127.1	26.4	79.2	636.5	1.7	99.7	37.5	223.1
23:00	120.9	19.0	85.1	594.7	1.7	99.7	38.0	232.9
24:00	105.0	17.5	83.3	598.3	1.5	99.7	38.3	222.4
24-hour Mean:	104.1	21.3	79.3	717.4	5.7	99.3	41.1	228.4
Valid Hours:	24	24	24	24	24	24	24	24

Comments/Process Notes: HCl CEMS daily calibration check was conducted from 10:45-11:22. HCl values for the 10:00-11:00 and 11:00-12:00 hours are based on 42 and 31 minutes of valid data, respectively. Since effluent measurement data was collected for >50% of each hour, both hours are valid data hours.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 7/30/88
Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	64.2	11.1	27.9	346.4	9.1	11.0	165.2	1.0	2.0
2:00	65.8	10.7	27.0	424.2	7.7	10.7	164.8	0.8	2.1
3:00	84.5	10.6	27.5	499.4	12.2	10.6	170.4	1.1	2.1
4:00	58.8	10.9	28.6	388.4	7.3	10.9	181.0	0.8	2.1
5:00	66.9	10.6	27.4	403.8	9.5	10.6	177.8	0.8	2.2
6:00	71.1	10.8	28.3	471.5	11.5	10.9	167.3	1.6	2.2
7:00	90.1	11.4	33.4	412.0	13.8	11.3	171.5	2.0	2.2
8:00	184.1	10.4	27.7	799.7	40.6	10.3	170.1	5.0	1.7
9:00	125.0	11.7	30.0	638.0	30.8	11.7	141.1	11.3	1.6
10:00				420.0				1.1	1.2
11:00	97.4	10.4	35.0	525.1	23.9	10.6	150.2	1.0	1.1
12:00	86.3	10.6	31.9		19.7	10.7	138.7		1.1
13:00	102.2	10.1	29.5	365.9	27.9	10.2	143.4	1.0	1.1
14:00	164.0	10.1	28.0	448.0	37.2	10.4	146.3	1.7	1.1
15:00	79.7	9.5	27.2	459.7	22.1	9.9	154.6	1.3	1.0
16:00	72.0	9.2	26.3	506.3	43.7	9.6	185.8	9.7	1.0
17:00	36.5	9.4	26.7	535.8	31.4	9.7	176.0	4.5	1.0
18:00	86.1	9.6	27.1	559.1	31.4	9.9	163.5	2.6	1.1
19:00	92.7	9.8	26.8	385.1	49.1	10.0	147.8	12.2	1.2
20:00	77.3	9.3	26.9	726.3	33.2	9.5	154.3	5.1	1.2
21:00	89.7	9.4	27.0	1157.2	51.1	9.5	154.1	12.6	1.4
22:00	77.7	10.2	27.9	910.4	44.6	10.3	142.1	12.4	1.6
23:00	127.4	10.1	26.6	1078.1	136.0	10.0	147.6	35.4	1.5
24:00	113.4	10.7	28.4	578.3	50.1	10.7	176.4	10.8	2.8
Daily Mean:	92.5	10.3	28.4	588.6	32.3	10.4	160.9	5.9	1.6
Valid Hours:	23	23	23	23	23	23	23	23	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 7/30/88
Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	91.1	12.8	86.0	571.3	1.7	99.7	39.6	231.9
2:00	89.7	10.5	88.3	672.2	1.3	99.8	36.8	224.6
3:00	114.0	16.5	85.6	783.7	1.8	99.8	37.1	230.0
4:00	81.7	10.1	87.6	627.8	1.4	99.8	39.8	251.6
5:00	90.3	12.8	85.8	833.6	1.3	99.8	37.0	239.9
6:00	97.9	16.0	83.7	754.5	2.7	99.6	38.9	232.5
7:00	117.2	20.0	83.0	701.0	3.5	99.5	46.9	248.3
8:00	217.2	53.2	75.5	1231.0	8.0	99.4	36.7	223.1
9:00	188.9	46.5	75.4	1120.9	20.8	98.1	45.3	213.2
10:00								
11:00	128.9	32.3	75.0	808.3	1.6	99.8	46.3	202.7
12:00	116.5	26.8	76.9				43.0	189.0
13:00	131.5	36.2	72.4	547.6	1.6	99.7	38.0	186.3
14:00	211.1	49.2	76.7	670.5	2.7	99.6	36.0	193.7
15:00	96.0	27.9	70.9	651.8	2.0	99.7	33.2	208.0
16:00	85.5	53.8	37.2	699.4	14.6	97.9	31.2	228.6
17:00	104.6	39.0	62.7	753.0	6.8	99.1	32.3	218.4
18:00	105.9	39.7	62.5	799.7	4.0	99.5	33.3	206.6
19:00	116.1	62.6	46.1	1288.8	19.0	98.5	33.6	188.5
20:00	87.6	40.5	53.9	1012.0	7.6	99.3	32.2	188.1
21:00	108.4	62.3	42.5	1626.4	18.7	98.8	32.6	187.9
22:00	100.9	58.5	42.1	1375.2	19.8	98.6	36.2	186.3
23:00	164.0	173.4		1613.4	55.1		34.2	198.2
24:00	154.5	68.3	55.8	916.4	17.9	98.0	38.7	240.4
24-hour Mean:	121.7	42.1	69.3	902.7	9.7	99.2	37.4	213.4
Valid Hours:	23	23	22	22	22	21	23	23

Comments/Process Notes:

*Conducted sampling system bias check on Unit 2 inlet and outlet Anarad CEMS's during 09:00-10:00 hour following the daily cal routine. Because the analyzer responses to these cal gas injections are treated as effluent measurements, the measurement data recorded during this hour are invalid. No O2 values were available to correct the HCl data to ppm HCl @ 7% O2 for this hour.

*HCl data were lost during 11:00-12:00 hour; the dilution ratio of the TECO 200 sampling system was checked.

*During the 22:00-23:00 hour, the outlet SO2 analyzer essentially read the same as the inlet SO2 analyzer. Also, the outlet HCl analyzer responses were offscale (>60 ppm) from 22:42-23:00. No removal efficiencies were calculated for this hour. The boiler operator did not indicate any abnormal process operation.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 7/31/98
Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	44.9	10.1	27.9	476.8	9.2	10.1	172.0	1.6	1.7
2:00	45.7	9.8	27.0	499.7	20.1	9.8	174.9	11.8	1.8
3:00	68.8	9.5	26.5	351.0	46.3	9.6	168.8	16.9	1.8
4:00	90.2	10.1	26.1	549.5	37.0	10.2	168.1	5.8	1.8
5:00	92.2	10.1	26.7	540.4	30.8	10.2	170.4	3.0	1.8
6:00	70.2	10.2	27.4	463.6	19.7	10.2	178.1	2.7	1.8
7:00	65.6	9.9	26.5	471.5	16.4	10.0	170.3	1.6	1.8
8:00	78.6	10.3	27.0	573.9	23.9	10.4	164.0	2.9	1.9
9:00	81.5	11.1	27.6	493.6	29.8	11.1	159.0	2.4	1.8
10:00	110.2	11.1	29.5	538.6	40.6	10.9	150.8	2.7	1.7
11:00	113.0	11.4	30.2	465.7	39.1	11.1	150.1	1.8	1.9
12:00	115.5	11.0	28.9	420.7	37.5	10.7	160.1	1.9	2.0
13:00	90.1	11.3	30.4	472.1	24.0	11.0	169.0	1.5	2.3
14:00	79.3	10.7	30.3	526.0	23.9	10.5	174.2	2.0	2.2
15:00	71.5	10.7	29.8	357.8	20.4	10.5	153.9	1.1	1.8
16:00	83.6	11.3	29.6	425.3	23.7	10.9	151.7	0.9	1.7
17:00	59.3	10.7	29.4	511.9	18.2	10.5	157.9	1.1	1.7
18:00	64.0	11.1	29.3	492.2	19.2	10.8	158.0	1.0	1.8
19:00	52.8	10.8	29.2	444.1	11.9	10.5	169.0	0.8	1.7
20:00	44.4	10.7	29.0	427.1	9.7	10.5	170.5	0.4	1.8
21:00	60.2	11.0	29.2	376.8	12.5	10.8	162.1	0.4	2.0
22:00	55.9	11.2	30.4	364.3	14.7	10.9	161.9	0.4	2.0
23:00	67.3	10.7	29.4	461.5	24.7	10.4	166.6	1.1	2.0
24:00	58.2	11.2	30.1	589.6	28.6	10.8	158.6	3.4	3.2
Daily Mean:	73.5	10.7	28.6	493.9	24.2	10.5	164.6	2.9	1.9
Valid Hours:	24	24	24	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 7/31/88
Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	57.8	11.8	79.5	713.6	2.5	99.6	35.9	221.4
2:00	57.2	25.2	56.0	727.6	18.0	97.5	33.8	219.0
3:00	83.9	57.0	32.1	1206.5	25.4	97.9	32.3	207.6
4:00	116.1	48.1	58.6	822.4	9.2	98.9	33.6	218.4
5:00	118.7	40.0	66.3	808.7	4.8	99.4	34.4	221.4
6:00	91.2	25.6	71.9	730.5	4.3	99.4	35.6	231.4
7:00	82.9	20.9	74.8	692.8	2.5	99.6	33.5	217.2
8:00	103.1	31.6	69.3	875.1	4.7	99.5	35.4	217.1
9:00	115.6	42.3	63.4	814.1	4.2	99.5	39.1	225.5
10:00	156.3	56.4	63.9	888.3	4.6	99.5	41.8	209.6
11:00	165.3	55.5	66.5	792.3	3.1	99.6	44.2	212.9
12:00	162.2	51.1	68.5	686.8	3.2	99.5	40.6	218.2
13:00	130.5	33.7	74.2	794.8	2.6	99.7	44.0	237.3
14:00	108.1	31.9	70.4	833.5	3.3	99.6	41.3	232.8
15:00	97.4	27.3	72.0	630.3	1.8	99.7	40.6	205.7
16:00	121.0	32.9	72.8	716.0	1.5	99.8	42.9	210.9
17:00	80.8	24.3	69.9	811.2	1.8	99.8	40.1	224.4
18:00	90.8	26.4	70.9	811.8	1.7	99.8	41.6	217.4
19:00	72.7	15.9	78.1	710.7	1.3	99.8	40.2	225.9
20:00	60.5	11.6	80.8	676.8	0.7	99.9	39.5	227.9
21:00	84.5	17.2	79.6	615.2	0.7	99.9	41.0	223.1
22:00	80.1	20.4	74.5	607.0	0.7	99.9	43.6	225.0
23:00	91.7	32.7	64.3	731.3	1.8	99.8	40.1	220.5
24:00	83.4	39.4	52.8	982.4	5.7	99.4	43.1	218.3
24-hour Mean:	100.5	32.5	68.0	778.3	4.6	99.5	39.1	220.4
Valid Hours:	24	24	24	24	24	24	24	24

Comments/Process Notes:

MILLBURY RESOURCE RECOVERY FACILITY /UNIT 2 - DATE: 8/1/88
Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00				607.7				7.7	
2:00				415.8				2.8	
3:00				405.0				2.0	
4:00				488.6				3.1	
5:00				526.3				3.5	
6:00				378.3				1.9	
7:00				434.6				1.4	
8:00				436.7				2.0	
9:00				414.0				1.1	
10:00				358.5				0.9	
11:00				403.1				2.8	
12:00				503.7				4.6	
13:00				491.4				0.8	
14:00				424.4				0.8	
15:00				397.1				0.4	
16:00	61.3	9.0	33.5	512.4	4.1	9.5	185.7	0.4	1.5
17:00	74.0	9.2	30.0	684.5	9.9	9.6	188.1	1.8	1.6
18:00	82.5	9.4	28.4	458.6	8.3	9.7	186.3	1.1	1.7
19:00	93.8	9.2	27.1	430.2	9.4	9.4	189.1	0.9	1.8
20:00	82.2	9.1	25.9	415.3	9.2	9.4	180.6	1.2	1.6
21:00	113.9	8.6	25.5	661.6	28.1	9.1	184.6	3.0	1.6
22:00	158.1	8.9	25.5	814.4	40.8	9.3	160.2	11.3	1.7
23:00	167.6	8.8	26.2	574.8	36.7	9.1	173.0	6.0	1.8
24:00	110.1	9.7	26.1	507.0	19.6	9.9	172.4	3.4	2.8
Daily Mean:	104.5	9.1	27.6	469.3	18.5	9.4	180.0	2.7	1.8
Valid Hours:	9	9	9	24	9	9	9	24	9

MILLBURY RESOURCE RECOVERY FACILITY /UNIT 2 - DATE: 8/1/88
Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00								
2:00								
3:00								
4:00								
5:00								
6:00								
7:00								
8:00								
9:00								
10:00								
11:00								
12:00								
13:00								
14:00								
15:00								
16:00	71.6	5.0	93.0	696.0	0.6	99.9	39.1	226.4
17:00	87.9	12.2	86.1	945.6	2.7	99.7	35.6	231.4
18:00	99.7	10.3	89.7	644.5	1.7	99.7	34.3	231.2
19:00	111.4	11.4	89.8	594.3	1.3	99.8	32.2	228.6
20:00	96.8	11.1	88.5	568.8	1.8	99.7	30.5	218.3
21:00	128.7	33.1	74.3	869.4	4.3	99.5	28.8	217.5
22:00	179.7	48.9	72.8	1096.9	16.5	98.5	29.5	192.0
23:00	192.5	43.2	77.5	767.8	8.6	98.9	30.1	203.8
24:00	136.6	24.8	81.9	731.7	5.2	99.3	32.4	217.9
24-hour Mean:	122.8	22.2	83.7	768.3	4.7	99.4	32.5	218.5
Valid Hours:	9	9	9	9	9	9	9	9

Comments/Process Notes: The Millbury CEMS data aquisition system computer hard disk crashed at approximately 07:00. Data from midnight to 15:00 are not available. At 09:45, 5 SDA nozzles were in operation. At 15:46, 6 nozzles were in operation.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/2/89
Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	86.6	9.4	26.7	582.2	16.0	9.7	167.3	3.4	1.9
2:00	93.6	9.9	26.8	468.4	14.2	10.2	159.2	3.3	2.0
3:00	64.5	10.1	27.7	390.6	4.7	10.3	160.2	1.2	2.2
4:00	81.9	10.3	27.4	435.7	10.8	10.5	158.5	1.5	2.2
5:00	76.7	9.4	27.2	394.2	7.5	9.7	170.3	1.3	2.2
6:00	106.9	10.0	27.3	454.8	19.2	10.2	152.9	1.6	2.3
7:00	173.3	9.5	27.5	757.0	48.0	9.7	144.1	3.3	2.2
8:00	143.8	9.5	27.9	465.6	26.4	9.7	162.4	3.3	1.8
9:00	106.8	10.1	29.6	613.2	27.1	10.2	162.9	2.4	1.7
10:00	134.6	9.9	30.5	621.6	32.2	9.9	183.6	5.5	1.5
11:00	193.9	10.6	29.2	600.5	46.4	10.5	163.4	2.8	1.7
12:00	82.3	10.1	29.1	459.6	9.1	10.1	166.2	1.0	1.4
13:00	122.6	9.9	32.3	467.4	18.8	10.5	160.8	0.6	1.5
14:00	64.3	10.6	24.9	412.6				0.5	1.5
15:00	75.5	9.5	24.5	400.8				0.4	1.5
16:00	130.5	10.2	29.9	455.4				0.5	1.3
17:00	250.3	10.2	27.0	448.2	67.8	10.1	160.1	0.8	1.4
18:00	282.3	10.0	24.8	481.5	53.0	10.0	168.6	0.9	1.5
19:00	152.2	9.7	23.6	453.2	30.1	9.8	167.0	0.7	1.6
20:00	119.4	9.8	22.1	500.6	23.0	9.9	173.5	1.0	1.5
21:00	143.4	10.0	21.6	424.2	32.9	10.0	161.1	1.3	1.5
22:00	196.6	9.8	21.4	426.6	52.1	10.0	165.8	1.3	1.6
23:00	125.8	9.8	22.3	350.7	18.7	9.9	164.8	0.9	1.7
24:00	145.4	9.6	21.9	435.6	32.7	9.8	172.7	1.2	2.8
Daily Mean:	131.4	9.9	26.4	480.0	28.1	10.0	164.1	1.9	1.8
Valid Hours:	24	24	24	24	21	21	21	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/2/88
Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	104.7	19.9	81.0	818.3	5.1	99.4	32.3	207.6
2:00	118.3	18.4	84.4	688.2	5.2	99.2	33.9	206.8
3:00	83.0	6.2	92.6	584.6	1.9	99.7	35.7	210.1
4:00	107.4	14.4	86.6	664.4	2.4	99.6	35.9	211.8
5:00	92.7	9.3	90.0	554.0	2.0	99.6	32.9	211.4
6:00	136.3	24.9	81.7	674.4	2.5	99.6	34.8	198.6
7:00	211.3	59.6	71.8	1073.3	12.6	98.8	33.5	178.8
8:00	175.3	32.8	81.3	688.5	5.0	99.3	34.0	201.6
9:00	137.5	35.2	74.4	917.7	3.8	99.6	38.1	211.6
10:00	170.1	40.7	76.1	913.3	8.5	99.1	38.5	232.0
11:00	261.7	62.0	76.3	942.3	4.6	99.5	39.4	218.4
12:00	105.9	11.7	88.9	687.8	1.6	99.8	37.5	213.9
13:00	154.9	25.1	83.8	686.8	1.0	99.9	40.8	214.9
14:00	86.8			647.5	0.9	99.9	33.6	
15:00	92.1			568.2	0.6	99.9	29.9	
16:00	169.5			687.9	0.8	99.9	38.8	
17:00	325.2	87.3	73.2	677.0	1.3	99.8	35.1	206.1
18:00	360.0	67.6	81.2	714.0	1.4	99.8	31.6	215.0
19:00	188.9	37.7	80.0	654.0	1.1	99.8	29.3	209.1
20:00	149.5	29.1	80.6	728.9	1.5	99.8	27.7	219.2
21:00	182.9	42.0	77.1	629.0	2.0	99.7	27.5	205.4
22:00	246.2	66.4	73.0	621.2	2.0	99.7	26.8	211.4
23:00	157.5	23.6	85.0	510.7	1.4	99.7	27.9	208.2
24:00	178.9	40.9	77.1	623.1	1.8	99.7	26.9	216.3
24-hour Mean:	166.5	35.9	80.8	706.5	3.0	99.6	33.4	209.9
Valid Hours:	24	21	21	24	24	24	24	21

Comments/Process Notes: Calibration checks and adjustments were made on the outlet SO2 analyzer during 13:00-16:00 time period. The recorded ESP outlet data during this period are not valid measurement data. The outlet HCl data during this period were normalized to 7% O2 using the inlet O2 values.

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 3-3-88
Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	151.3	9.4	21.6	437.1	33.9	9.7	175.1	1.6	1.8
2:00	177.6	9.7	22.2	388.1	35.8	10.0	177.0	1.2	1.8
3:00	129.4	9.4	22.2	396.8	27.7	9.6	177.9	1.3	1.9
4:00	101.4	9.3	21.7	425.4	21.4	9.6	179.6	1.7	1.9
5:00	104.4	9.8	21.8	386.2	21.6	10.0	161.1	1.7	2.0
6:00	120.5	9.5	22.4	541.0	37.3	9.7	178.6	4.2	2.1
7:00	125.0	9.4	22.1	568.2	39.2	9.7	163.1	11.7	2.0
8:00	133.4	9.6	24.1	504.5	36.0	10.0	174.5	9.7	2.1
9:00	92.4	9.5	27.8	411.4	12.3	9.9	175.4	2.9	1.7
10:00	82.6	9.4	29.8	447.2	11.8	9.7	173.6	2.3	1.4
11:00	79.1	10.3	31.9	357.3	4.3	11.5	86.2	1.4	1.2
12:00	120.3	9.0	33.5	439.9	39.2	6.2	1.4	1.2	1.1
13:00	130.5	9.2	36.9	796.1	96.8	0.0	23.6	1.7	1.1
14:00	117.7	9.7	37.8	547.2	19.3	9.8	181.7	2.4	1.2
15:00	144.5	9.8	32.2	458.7	23.5	9.9	176.5	1.2	1.2
16:00	125.9	9.9	30.8	383.4	16.1	9.9	176.4	1.0	1.3
17:00	87.4	9.6	29.2	454.1	9.0	9.7	179.9	0.9	1.2
18:00	116.5	9.6	28.2	488.8	19.5	9.6	170.6	1.0	1.3
19:00	115.2	9.6	27.3	474.3	17.0	9.7	167.1	1.2	1.5
20:00	174.4	9.1	27.0	437.3	32.7	9.3	179.8	1.6	1.5
21:00	102.1	9.1	27.5	506.3	16.4	9.3	179.0	1.7	1.6
22:00	122.2	9.3	27.4	475.0	18.6	9.4	177.6	1.6	1.7
23:00	171.1	9.0	27.3	517.7	39.2	9.2	171.2	2.5	1.8
24:00	176.4	10.4	27.7	549.7	31.6	10.2	155.5	2.3	3.0
Daily Mean:	125.1	9.5	27.5	474.7	27.5	9.2	156.8	2.5	1.6
Valid Hours:	24	24	24	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 8-3-88
Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	182.9	42.1	77.0	614.3	2.4	99.6	26.1	217.3
2:00	220.4	45.7	79.3	560.1	1.9	99.7	27.6	225.7
3:00	156.4	34.1	78.2	557.7	2.0	99.7	26.8	218.8
4:00	121.5	26.3	78.3	592.7	2.6	99.6	26.0	220.9
5:00	130.7	27.5	79.9	562.3	2.6	99.5	27.3	205.4
6:00	146.9	46.3	68.5	767.0	6.4	99.2	27.3	221.7
7:00	151.1	48.7	67.8	758.6	17.7	97.8	26.7	202.4
8:00	167.1	45.9	72.5	734.6	13.5	98.2	30.2	222.5
9:00	112.7	15.5	86.2	583.3	4.5	99.2	33.9	221.6
10:00	99.8	14.6	85.3	628.5	3.5	99.4	36.0	215.5
11:00	103.7			544.8	2.2	99.6	41.8	
12:00	140.5			597.5	1.7	99.7	39.1	
13:00	155.0			1099.8	2.5	99.8	43.8	
14:00	146.1	24.2	83.5	789.7	3.7	99.5	46.9	227.5
15:00	181.0	29.7	83.6	667.9	1.8	99.7	40.3	223.0
16:00	159.1	20.3	87.2	563.3	1.5	99.7	38.9	222.9
17:00	107.5	11.2	89.6	649.5	1.4	99.8	35.9	223.3
18:00	143.3	24.0	83.3	699.1	1.5	99.8	34.7	209.9
19:00	141.7	21.1	85.1	678.4	1.8	99.7	33.6	207.4
20:00	205.4	39.2	80.9	599.0	2.3	99.6	31.8	215.5
21:00	120.3	19.7	83.7	693.5	2.5	99.6	32.4	214.5
22:00	146.4	22.5	84.6	661.8	2.4	99.6	32.8	214.7
23:00	199.9	46.6	76.7	703.1	3.6	99.5	31.9	203.4
24:00	233.5	41.3	82.3	846.2	3.6	99.6	36.7	202.0
24-hour Mean:	153.0	30.8	80.6	674.7	3.7	99.5	33.7	216.0
Valid Hours:	24	21	21	24	24	24	24	21

Comments/Process Notes: The outlet data from 11:00-13:00 consisted mainly of cylinder gas injections. The outlet HCl values during this period were corrected using inlet O2 values.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-4-89
Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	193.7	9.2	27.8	752.6	41.4	9.4	169.2	5.8	2.0
2:00	147.2	9.1	27.9	616.3	33.8	9.2	191.6	5.0	1.9
3:00	110.3	9.3	28.4	586.1	20.5	9.4	173.3	3.7	2.0
4:00	118.8	9.5	28.0	469.6	16.4	9.6	175.4	3.0	2.0
5:00	173.3	9.7	27.7	539.3	33.9	9.7	181.6	4.0	2.2
6:00	127.7	10.0	27.8	653.3	29.8	10.0	162.1	7.7	2.2
7:00	124.3	9.8	27.7	553.9	26.4	9.9	188.4	8.3	2.1
8:00	188.8	10.0	30.0	656.4	28.3	9.9	166.3	4.5	1.9
9:00	103.6	10.7	29.7	519.9	12.6	10.8	151.0	2.6	1.7
10:00	104.4	9.0	28.6	495.1	11.8	9.5	162.9	2.4	1.5
11:00	53.8	9.5	29.5	507.6	3.7	10.1	154.7	1.1	1.4
12:00	72.0	9.5	31.1	547.5	5.9	10.1	160.1	1.0	1.5
13:00	62.2	9.9	32.1	421.9	3.2	10.4	166.6	0.5	1.6
14:00	56.6	9.8	30.1		2.7	10.2	189.8		5.0
15:00	63.3	9.0	22.5	335.7	2.4	9.2	235.6	0.3	6.6
16:00	90.3	10.0	24.1	421.0	4.3	10.0	170.3	0.4	1.4
17:00	139.7	9.2	24.0	400.1	18.3	9.2	209.7	0.5	1.4
18:00	119.0	9.4	23.1	429.1	30.3	9.4	186.6	1.6	1.6
19:00	118.5	10.0	23.3	430.0	30.1	10.0	172.3	4.1	1.9
20:00	173.1	10.5	24.2	429.5	37.6	10.4	175.4	6.5	1.8
21:00	198.3	10.1	23.0	523.4	38.8	10.1	177.4	7.8	1.9
22:00	183.3	10.4	23.1	551.7	40.3	10.2	153.4	14.5	2.0
23:00	102.3	11.2	23.4	426.2	32.0	11.0	142.4	5.6	2.2
24:00	54.9	10.3	22.7	440.6	13.3	10.2	153.4	3.5	3.1
Daily Mean:	116.3	9.8	26.7	509.0	21.6	9.9	173.8	4.1	2.2
Valid Hours:	24	24	24	23	24	24	24	23	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-4-88
Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	230.1	50.0	78.3	1039.7	8.5	99.2	33.0	204.5
2:00	173.4	40.2	76.8	844.2	7.2	99.1	32.9	227.6
3:00	132.2	24.8	81.3	516.6	5.5	99.3	34.0	209.5
4:00	144.9	20.2	86.1	665.8	4.5	99.3	34.1	215.8
5:00	215.1	42.1	80.4	778.3	6.1	99.2	34.4	225.4
6:00	162.8	38.0	76.7	968.7	12.0	98.8	35.5	206.7
7:00	155.7	33.4	78.6	806.5	12.8	98.4	34.7	228.1
8:00	202.5	35.8	82.3	973.3	6.9	99.3	38.3	210.1
9:00	143.9	17.3	88.0	823.8	4.4	99.5	40.5	207.8
10:00	121.9	14.4	88.2	672.5	3.6	99.5	33.4	198.6
11:00	65.6	4.8	92.7	719.7	1.7	99.8	36.0	199.1
12:00	87.8	7.6	91.4	776.2	1.6	99.8	37.9	206.1
13:00	78.6	4.2	94.6	619.9	0.8	99.9	40.6	223.2
14:00	70.9	3.5	95.1				37.7	246.6
15:00	73.9	2.9	96.1	456.0	0.4	99.9	26.3	279.9
16:00	102.4	5.5	94.6	624.3	0.6	99.9	30.7	217.2
17:00	166.0	21.7	86.9	552.7	0.7	99.9	28.5	249.1
18:00	143.8	36.6	74.5	603.1	2.4	99.6	27.9	225.5
19:00	151.1	38.4	74.6	637.6	6.4	99.0	29.7	219.7
20:00	231.4	49.8	78.5	667.5	10.5	98.4	32.3	232.2
21:00	255.2	49.9	80.4	783.3	6.0	99.2	29.6	228.3
22:00	136.7	52.4	61.7	849.2	23.0	97.3	30.6	199.3
23:00	146.6	44.9	69.4	710.2	14.7	97.9	33.5	199.9
24:00	111.3	17.3	84.5	671.8	5.5	99.2	29.8	199.3
24-hour Mean:	146.0	27.3	83.0	741.8	6.3	99.2	33.4	219.6
Valid Hours:	24	24	24	23	23	23	24	24

Comments/Process Notes: The 14:00 averaging period for HCl was lost due to daily calibrations.
Lost precipitator field #1 and #2 from 13:53-15:15.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-5-88
Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	76.2	9.3	22.6	457.1	7.7	9.4	164.6	1.7	2.0
2:00	112.2	9.6	22.9	424.0	22.6	9.7	160.7	2.2	2.1
3:00	162.0	9.8	23.1	440.2	26.6	9.9	154.8	2.5	2.2
4:00	97.3	9.6	23.2	427.5	14.9	9.7	160.2	2.6	2.1
5:00	88.4	9.9	23.3	417.4	13.0	9.9	152.1	1.9	2.2
6:00	89.1	10.1	23.4	646.5	24.6	10.1	142.8	9.8	2.2
7:00	93.6	9.8	23.8	511.3	13.0	9.9	154.3	3.1	2.1
8:00	85.8	10.3	24.4	684.7	22.0	10.2	139.9	6.8	2.1
9:00	61.9	10.7	28.1	563.0	10.0	10.9	120.4	4.9	1.9
10:00	164.9	9.5	27.2	486.0	30.7	10.1	146.9	2.0	1.6
11:00	104.1	8.7	28.2	428.7	13.7	9.4	169.2	1.2	1.3
12:00	111.7	8.5	26.9	430.9	14.6	9.3	198.3	0.8	1.5
13:00	102.3	8.5	27.3		16.0	9.4	200.6		1.4
14:00	89.7	9.3	27.8		11.6	10.0	178.1		1.5
15:00	96.1	8.8	27.8		11.0	9.6	203.2		1.5
16:00	186.3	9.9	28.2	516.6	35.2	10.4	171.1	0.6	1.7
17:00	180.1	8.7	27.7	425.9	31.1	9.5	175.9	0.4	1.5
18:00	284.2	10.1	27.5	446.7	68.3	10.6	163.5	1.0	1.7
19:00	313.1	9.9	25.6	423.4	57.8	9.7	296.8	0.8	1.7
20:00	279.6	9.8	25.7	504.0	54.3	10.4	173.5	1.1	1.8
21:00	223.3	9.6	25.7	417.7	35.0	10.2	163.1	0.9	1.9
22:00	257.7	9.3	25.9	636.9	60.4	9.9	167.8	1.7	1.9
23:00	189.1	9.2	25.6	494.6	27.4	9.9	171.4	0.9	1.9
24:00	131.4	9.1	25.6	506.0	30.1	9.8	164.2	1.3	3.1
Daily Mean:	149.4	9.5	25.7	490.0	27.2	9.9	166.8	2.3	1.9
Valid Hours:	24	24	24	21	24	24	24	21	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-5-88
Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	91.3	9.3	89.8	636.9	2.5	99.6	27.1	199.0
2:00	138.0	28.0	79.7	606.5	3.3	99.5	28.2	199.4
3:00	202.9	33.6	83.4	641.0	3.9	99.4	29.9	195.6
4:00	120.3	18.5	84.6	611.5	3.9	99.4	28.5	198.8
5:00	111.7	16.4	85.3	613.3	2.9	99.5	29.4	192.2
6:00	113.4	31.7	72.1	967.5	15.4	98.4	30.1	183.8
7:00	104.7	16.4	84.3	744.5	4.8	99.4	29.8	195.0
8:00	112.5	28.6	74.6	1044.0	10.8	99.0	32.0	181.7
9:00	94.4	13.9	83.5	892.1	5.3	99.1	38.3	167.4
10:00	201.1	39.5	80.3	689.0	3.1	99.5	33.2	189.1
11:00	113.6	16.6	86.0	567.9	1.8	99.7	32.1	204.5
12:00	125.2	17.5	86.0	561.7	1.2	99.8	30.2	237.6
13:00	114.7	19.3	83.1				31.2	242.7
14:00	106.3	14.8	86.1				33.3	227.1
15:00	110.4	13.5	87.7				31.9	250.0
16:00	235.4	46.6	80.2	759.1	1.0	99.9	35.6	226.5
17:00	205.2	37.9	81.5	564.2	0.6	99.9	31.6	214.5
18:00	365.8	92.2	74.8	668.5	1.6	99.8	35.4	220.6
19:00	362.7	71.7	80.2	570.3	1.2	99.8	29.7	256.7
20:00	373.9	71.9	80.8	733.9	1.8	99.8	32.2	229.7
21:00	274.7	45.5	83.4	597.5	1.4	99.8	31.6	211.9
22:00	308.8	76.3	75.3	987.4	2.6	99.7	30.9	212.0
23:00	223.5	34.6	84.5	683.3	1.4	99.8	30.4	216.6
24:00	154.8	37.7	75.6	693.1	2.0	99.7	30.2	205.6
24-hour Mean:	181.7	34.7	81.8	701.6	3.6	99.5	31.3	210.7
Valid Hours:	24	24	24	21	21	21	24	24

Comments/Process Notes: The HCl data from 13:00-15:00 were lost due to the performance of periodic checks.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-6-88
Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	135.9	9.2	26.2	494.5	36.0	9.9	166.5	1.8	2.2
2:00	128.6	9.6	25.7	416.9	32.6	10.2	165.2	1.7	2.3
3:00	141.0	9.0	26.2	561.0	41.4	9.6	171.3	5.0	2.2
4:00	106.9	9.8	27.0	588.2	38.4	10.3	148.7	7.2	2.2
5:00	140.4	8.9	27.2	503.0	40.3	9.7	162.6	6.7	2.2
6:00	142.6	9.0	26.8	497.0	39.7	9.7	162.8	4.1	2.3
7:00	129.9	9.1	26.3	736.4	42.6	9.8	156.8	11.3	2.3
8:00	138.1	9.3	26.0	766.7	42.3	10.0	157.8	12.2	1.9
9:00	148.1	9.8	25.3	487.1	50.5	10.8	151.2	5.8	1.7
10:00	155.5	9.1	24.7	448.5	28.8	9.8	162.5	3.4	1.5
11:00	94.0	10.6	24.7	358.8	16.0	11.0	151.9	1.7	1.6
12:00	119.0	10.2	23.9	347.0	26.7	10.6	155.4	1.1	1.6
13:00	103.0	11.0	24.3	339.1	26.7	11.5	134.7	1.8	1.7
14:00	63.0	9.9	24.4		10.6	10.6	155.2		1.6
15:00				356.0	13.1	10.7	160.5	1.3	1.6
16:00				261.2	6.5	10.7	158.4	0.6	1.6
17:00				305.7	10.7	10.9	148.0	0.2	1.7
18:00				255.6	7.9	10.5	157.4	0.1	1.7
19:00	67.8	9.6	22.4	313.6	5.9	10.3	171.7	0.2	1.8
20:00	75.8	9.5	23.6	281.8	6.4	10.1	182.0	0.3	1.8
21:00	90.8	8.3	23.6	375.2	8.2	9.2	185.0	0.3	1.9
22:00	94.5	8.3	23.7	504.5	7.8	9.1	185.3	0.4	2.1
23:00	124.2	9.3	23.3	491.2	15.6	9.9	173.5	0.6	2.1
24:00	97.6	10.6	23.0	402.1	10.4	10.7	146.4	0.8	2.9
Daily Mean:	114.9	9.5	24.9	435.4	23.5	10.2	161.3	3.0	1.9
Valid Hours:	20	20	20	23	24	24	24	23	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-6-89
Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	161.5	45.5	71.8	683.1	2.8	99.6	31.1	210.4
2:00	158.2	42.3	73.2	596.3	2.7	99.5	31.6	214.6
3:00	164.7	50.9	69.1	762.0	7.5	99.0	30.6	210.7
4:00	136.4	50.4	63.1	856.5	11.5	98.7	33.8	195.0
5:00	162.6	50.0	69.2	677.5	10.1	98.5	31.5	201.8
6:00	166.6	49.3	70.4	675.0	6.2	99.1	31.3	202.0
7:00	153.0	53.3	65.1	1036.1	17.3	98.3	31.0	196.4
8:00	165.5	53.9	67.4	1068.3	19.0	98.2	31.2	201.2
9:00	185.5	69.5	62.5	709.3	9.7	98.6	31.7	208.1
10:00	183.2	36.1	80.3	614.3	5.2	99.2	29.1	203.5
11:00	126.9	22.5	82.3	563.0	2.9	99.5	33.3	213.3
12:00	154.6	36.0	76.7	524.2	1.8	99.7	31.0	209.7
13:00	144.6	39.5	72.7	553.6	3.2	99.4	34.1	199.2
14:00	79.6	14.3	82.0				30.8	209.4
15:00		17.9		564.1	2.2	99.6		218.7
16:00		8.9		413.9	1.0	99.8		215.9
17:00		14.9		332.5	0.3	99.9		205.7
18:00		10.6		397.2	0.2	100.0		210.4
19:00	83.4	7.7	90.7	448.6	0.3	99.9	27.6	225.2
20:00	92.4	8.2	91.1	399.5	0.5	99.9	28.8	234.2
21:00	100.2	9.7	90.3	485.1	0.4	99.9	26.0	219.8
22:00	104.3	9.2	91.2	647.2	0.6	99.9	26.1	218.3
23:00	148.8	19.7	86.8	684.4	0.9	99.9	27.9	219.2
24:00	131.7	14.2	89.2	631.0	1.3	99.8	31.0	199.5
24-hour Mean:	140.2	30.6	77.3	622.7	4.7	99.4	30.5	210.1
Valid Hours:	20	24	20	23	23	23	20	24

Comments/Process Notes: The HCl daily calibration was performed during the 14:00 period, and a cylinder gas audit was performed on the Anarad inlet monitors from 15:00-18:00. The inlet HCl data during this period were corrected using the outlet O2 values.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-7-88
Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	98.6	9.7	23.1	430.1	8.0	10.1	159.5	0.6	2.1
2:00	98.8	9.8	21.8	480.0	10.9	10.2	157.4	0.7	2.0
3:00	93.2	9.5	21.9	933.0	33.3	9.7	158.3	26.3	2.0
4:00	88.1	9.8	22.3	557.4	8.4	10.2	163.4	3.7	2.1
5:00	104.2	9.7	22.5	470.9	9.6	10.1	164.4	1.6	2.2
6:00	102.9	10.2	22.7	428.0	7.8	10.5	152.8	1.1	2.1
7:00	166.0	10.0	22.9	481.3	30.7	10.3	151.9	2.4	2.1
8:00	82.8	13.4	19.6	544.9	11.6	10.6	153.5	1.5	1.9
9:00	86.4	12.2	20.7	473.1	16.4	9.9	171.3	1.1	1.8
10:00	73.0	14.6	18.9	536.7	22.2	10.0	166.0	1.4	1.9
11:00	66.8	13.7	19.1	526.8	12.9	9.7	180.6	1.4	1.6
12:00	67.3	12.8	21.2	584.4	17.8	9.8	171.4	1.8	1.7
13:00	103.5	10.7	23.7	467.7	27.9	9.8	174.3	2.5	1.5
14:00	80.5	13.3	20.6	389.6	24.4	9.7	170.4	2.2	1.4
15:00	58.3	15.2	17.4	450.4	16.7	9.9	161.0	1.2	1.6
16:00	64.2	15.5	17.0	679.3	26.8	10.0	161.5	1.3	1.7
17:00	24.5	18.2	12.8	1054.3	17.6	10.1	167.1	2.0	1.7
18:00	36.1	16.4	15.7	693.9	7.4	10.6	159.8	1.3	1.8
19:00	3.4	21.4	1.3		6.0	10.5	157.5	0.7	1.9
20:00	3.7	21.6	0.7		24.9	13.6	157.8	1.4	2.0
21:00	3.9	21.6	0.6		41.1	10.4	111.4	2.3	2.1
22:00	5.4	21.6	0.7		35.5	10.9	48.0	3.6	2.3
23:00	103.5	12.4	20.2		34.5	11.0	48.9	1.8	2.3
24:00	115.3	9.5	25.1		28.3	10.6	52.9	1.7	3.2
Daily Mean:	72.1	13.9	17.2	565.7	20.0	10.2	146.7	2.7	2.0
Valid Hours:	24	24	24	18	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-7-88
Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	122.4	10.3	91.6	620.7	0.9	99.8	28.7	205.3
2:00	123.7	14.2	88.6	698.9	1.1	99.8	27.3	204.5
3:00	113.6	41.3	63.6	1322.8	39.8	97.0	26.7	196.5
4:00	110.3	10.9	90.1	811.6	5.9	99.3	27.9	212.3
5:00	129.3	12.4	90.4	679.6	2.5	99.6	27.9	211.6
6:00	133.7	10.4	92.2	646.5	1.8	99.7	29.5	204.2
7:00	211.7	40.3	81.0	713.7	3.8	99.5	29.2	199.2
8:00	153.5	15.7	99.5	855.1	2.5	99.7	36.3	207.2
9:00	138.0	20.7	85.0	695.1	1.7	99.8	33.1	216.5
10:00	161.1	28.3	82.4	795.8	2.2	99.7	41.7	211.7
11:00	129.0	16.0	87.6	760.2	2.1	99.7	36.9	224.1
12:00	115.5	22.3	80.7	850.9	2.7	99.7	36.4	214.6
13:00	141.0	34.9	75.2	681.0	3.8	99.4	32.3	218.3
14:00	147.2	30.3	79.4	562.2	3.3	99.4	37.7	211.5
15:00	142.2	21.1	85.2	661.8	1.8	99.7	42.4	203.4
16:00	165.3	34.2	79.3	1007.3	2.0	99.8	43.8	205.9
17:00		22.7		1577.8	3.1	99.8		215.1
18:00		10.0		1088.9	2.1	99.8		215.7
19:00		8.0			1.1			210.5
20:00		33.6			2.3			213.0
21:00		54.4			3.7			147.5
22:00		49.3			6.1			66.7
23:00	169.3	48.4	71.4		3.1		33.0	68.7
24:00	140.6	38.2	72.8		2.8		30.6	71.4
24-hour Mean:	141.5	26.2	82.6	835.0	4.3	99.5	33.4	189.8
Valid Hours:	18	24	18	18	24	18	18	24

Comments/Process Notes: The SDA inlet data are questionable from 8:00-22:00. Several problems have been identified at that location. Millbury and Anarad technicians are currently working to solve them. The 8:00-16:00 may still be valid. The HCl inlet data from 8:00-18:00 have been corrected using outlet O2 data. After 17:42, no valid data are available for the inlet HCl CEMS.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-8-88
Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	119.2	10.2	25.5		24.9	11.1	51.8	1.6	2.4
2:00	97.2	9.6	25.3		22.0	11.6	53.5	1.0	2.4
3:00	108.3	9.2	24.4		23.2	10.5	55.2	1.4	2.4
4:00	96.6	10.0	25.2		26.6	10.9	51.0	1.3	2.4
5:00	94.7	9.8	24.0		16.2	10.9	50.3	0.8	2.5
6:00	136.1	9.3	22.2		27.2	11.2	52.0	1.1	2.7
7:00	148.6	9.4	22.0		40.6	10.6	51.6	2.1	2.5
8:00	131.1	9.2	22.1		31.5	10.2	54.6	2.4	2.3
9:00	27.0	18.2	6.7		19.8	13.2	56.7	2.1	2.2
10:00	2.2	21.3	2.2		11.7	14.9	48.1	1.2	2.2
11:00	3.3	21.3	3.5		34.8	9.8	79.6		1.9
12:00	4.1	21.3	4.3		43.5	9.8	77.0	1.8	1.8
13:00	5.1	21.3	4.6		24.1	9.9	81.2	1.5	1.8
14:00	41.6	16.7	16.2		40.2	9.9	83.0	1.2	1.9
15:00	130.9	8.8	32.7		46.7	9.5	147.7	3.7	1.7
16:00	112.4	8.9	31.7		54.7	9.7	154.0	25.5	1.9
17:00	122.3	9.4	31.8		18.8	10.1	160.6	2.4	1.8
18:00	207.5	9.9	31.1		36.1	10.4	146.4	1.5	2.1
19:00	216.6	10.1	30.1	363.2	37.9	10.7	162.0	1.5	2.1
20:00	122.0	9.9	28.9	376.0	14.6	10.5	138.9	0.8	2.2
21:00	153.2	9.2	28.3	439.2	33.0	10.0	146.4	0.8	2.3
22:00	149.1	9.7	28.4	431.4	24.2	10.3	145.7	1.0	2.3
23:00	197.2	9.5	28.5	409.8	37.0	10.2	132.9	1.0	2.3
24:00	194.1	9.5	28.7	482.2	39.2	10.1	138.6	1.2	3.2
Daily Mean:	109.2	12.2	22.0	417.0	29.9	10.7	96.6	2.6	2.2
Valid Hours:	24	24	24	6	24	24	24	23	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-8-88
Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	154.8	35.3	77.2		2.8		33.1	73.5
2:00	119.6	32.9	72.5		1.8		31.1	80.0
3:00	128.7	31.0	75.9		2.3		29.0	73.8
4:00	123.2	37.0	70.0		2.2		32.1	70.9
5:00	118.6	22.5	81.0		1.4		30.1	69.9
6:00	163.1	39.0	76.1		1.9		26.6	74.5
7:00	179.6	54.8	69.5		3.5		26.6	69.6
8:00	155.8	40.9	73.7		3.8		26.3	70.9
9:00		35.7			4.6			102.4
10:00		27.1			3.4			111.4
11:00		43.6			0.0			99.7
12:00		54.5			2.7			96.4
13:00		30.5			2.3			102.6
14:00		50.8			1.8			104.9
15:00	150.4	56.9	62.1		5.5		37.6	180.1
16:00	130.2	67.9	47.9		38.6		36.7	191.1
17:00	147.8	24.2	83.6		3.8		38.4	206.7
18:00	262.2	47.8	81.8		2.4		39.3	193.8
19:00	278.8	51.6	81.5		2.5		38.7	220.8
20:00	154.2	19.5	87.3	552.5	1.3	99.8	36.5	185.6
21:00	182.0	29.3	83.9	606.7	1.2	99.8	33.6	186.7
22:00	185.0	31.7	82.9	622.6	1.6	99.7	35.2	191.1
23:00	240.4	48.1	80.0	581.0	1.6	99.7	34.8	172.6
24:00	236.7	50.5	78.7	683.7	1.9	99.7	35.0	178.4
24-hour Mean:	172.5	40.1	75.9	609.3	4.0	99.8	33.4	129.5
Valid Hours:	18	24	18	5	24	5	18	24

Comments/Process Notes: The SDA inlet data from 9:00-14:00 were lost due to plugging of the inertial filter and its subsequent replacement. The IR source on the inlet HCl analyzer was replaced and data acquisition resumed at 18:34.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-9-88
Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	168.3	9.4	28.5	424.8	26.6	10.2	141.8	1.1	2.4
2:00	126.9	9.3	28.0	573.4	28.7	10.1	131.9	2.4	2.4
3:00	140.9	8.9	27.2	648.6	41.2	9.7	141.5	7.3	2.4
4:00	142.9	9.2	26.5	422.6	25.4	10.0	144.9	2.3	2.5
5:00	130.8	9.7	27.0	532.4	39.2	10.3	125.7	2.0	2.6
6:00	129.1	9.8	27.2	533.2	35.3	10.5	141.1	2.6	2.7
7:00	113.3	9.8	28.3	573.9	25.1	10.5	127.5	2.7	2.5
8:00	137.1	9.1	28.8	474.7	20.6	9.9	143.5	2.1	2.2
9:00	123.1	10.0	30.2	418.8	13.8	10.8	140.8	1.1	2.2
10:00	100.4	10.3	30.6	368.8	10.4	10.8	121.2	0.9	1.9
11:00	139.7	9.4	31.1	414.4	45.3	10.2	130.8	4.2	1.7
12:00	117.9	9.5	30.4	381.2	46.9	10.2	133.3	31.2	1.8
13:00	211.9	10.1	31.1	413.6	105.5	10.6	135.3	31.1	1.8
14:00	126.4	9.2	31.8	376.7	39.0	9.9	202.4	26.7	1.7
15:00	204.4	10.0	37.4	474.0	50.8	8.8	127.7	2.5	2.2
16:00	127.1	9.4	36.2	446.2	27.0	10.2	238.8	7.4	2.0
17:00	131.6	9.3	32.0	421.5	14.9	10.1	243.1	1.1	2.0
18:00	116.1	10.0	30.4	343.2	12.8	10.7	218.5	0.7	2.2
19:00	141.1	10.3	29.6	333.2	15.8	10.9	196.1	0.6	2.3
20:00	150.5	11.0	28.4	358.7	24.6	11.5	178.4	0.9	2.4
21:00	161.1	9.2	26.7	366.3	21.4	10.0	237.8	0.7	2.2
22:00	171.6	9.2	26.0		26.9	10.0	231.2		2.2
23:00	230.6	9.6	26.2		38.6	10.3	218.1		2.4
24:00	192.9	9.4	26.5		37.8	10.2	222.7		3.2
Daily Mean:	151.7	9.6	29.4	447.6	32.2	10.3	169.8	6.3	2.2
Valid Hours:	24	24	24	21	24	24	24	21	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-9-88
Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	203.4	34.6	83.0	597.0	1.7	99.7	34.4	184.2
2:00	152.1	36.9	75.7	798.9	3.8	99.5	33.6	169.8
3:00	163.2	51.1	68.7	873.6	11.0	98.7	31.5	175.6
4:00	169.8	32.4	80.9	583.8	3.6	99.4	31.5	184.8
5:00	236.8	51.4	78.3	768.3	3.2	99.6	33.5	164.8
6:00	211.8	47.2	77.7	922.0	4.2	99.5	34.1	188.6
7:00	148.1	33.5	77.4	835.7	4.4	99.5	35.4	170.4
8:00	161.5	26.0	83.9	650.2	3.2	99.5	33.9	181.3
9:00	157.0	19.0	87.9	621.0	1.8	99.7	38.5	193.8
10:00	131.7	14.3	89.1	562.3	1.5	99.7	40.1	166.8
11:00	168.9	58.8	65.1	582.4	6.7	98.9	37.6	169.9
12:00	143.8	60.9	57.6	540.5	49.4	90.9	37.1	173.2
13:00	272.7	142.4	47.8	619.0	51.2	91.7	40.0	182.6
14:00	150.2	49.3	67.2	520.4	41.1	92.1	37.8	255.8
15:00	260.7	58.4	77.6	702.9	3.5	99.5	47.7	146.7
16:00	153.6	35.1	77.2	627.1	11.7	98.1	43.8	310.2
17:00	157.7	19.2	87.8	587.3	1.7	99.7	38.3	312.9
18:00	148.1	17.4	88.2	508.9	1.2	99.8	38.8	297.8
19:00	185.0	22.0	88.1	508.1	1.0	99.8	38.8	272.6
20:00	211.3	36.4	82.8	585.6	1.6	99.7	39.9	263.8
21:00	191.4	27.3	85.7	506.0	1.1	99.8	31.7	303.2
22:00	203.9	34.3	83.2				30.9	294.8
23:00	283.7	50.6	82.2				32.2	286.0
24:00	233.2	49.1	78.9				32.0	289.3
24-hour Mean:	187.5	42.0	78.0	642.9	9.9	98.3	36.4	222.5
Valid Hours:	24	24	24	21	21	21	24	24

Comments/Process Notes: The HCl data from 22:00-24:00 were lost due to printer problems. At 09:00, SDA filters were flushed and secured for maintenance. At 15:00, SDA filters were backwashed.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-10-88
Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	140.1	9.2	26.4		24.9	10.1	203.3		2.3
2:00	151.1	9.8	26.9		29.0	10.5	212.6		2.4
3:00	157.0	9.3	26.8		30.9	10.1	214.4		2.3
4:00	163.8	9.3	26.6		31.9	10.1	201.9		2.3
5:00	138.1	9.2	26.6		34.9	10.0	209.7		2.2
6:00	126.5	9.6	26.7		43.8	10.4	187.4		2.2
7:00	120.4	9.5	27.5		39.8	10.2	199.3		2.2
8:00	145.2	9.4	28.6		24.8	10.1	206.2		2.2
9:00	176.7	8.0	28.2		27.8	9.8	181.5		1.9
10:00	175.4	7.1	28.7		27.8	9.9	150.3		1.7
11:00	237.0	7.8	30.4		57.1	10.7	158.3		1.8
12:00	219.6	7.2	28.1	484.9	113.3	10.1	222.6	18.7	1.7
13:00	98.3	7.4	30.3	403.9	13.8	10.4	196.4	1.5	1.7
14:00	84.0	7.3	26.3	735.0	23.4	10.3	193.1	6.8	1.8
15:00	93.9	7.2	24.8	531.9	13.8	10.3	210.7	1.1	1.7
16:00	211.3	7.3	24.0	569.3	38.6	10.3	197.4	1.4	1.7
17:00	141.7	7.6	25.1	417.0	19.1	10.6	203.4	0.7	1.8
18:00	123.9	8.1	26.2	389.0	15.6	11.0	189.5	0.5	2.0
19:00	168.8	8.7	28.4	351.9	30.5	11.4	164.7	1.0	2.1
20:00	233.4	7.8	26.9	375.3	44.5	10.8	183.6	0.7	2.1
21:00	231.6	7.6	26.7	369.6	40.5	10.6	188.4	0.7	2.2
22:00	220.3	8.8	26.5	386.7	34.4	9.9	199.5	0.6	2.0
23:00	156.9	7.6	26.3	363.2	25.6	10.6	196.4	0.7	2.1
24:00	178.6	8.2	27.7	331.1	38.2	11.1	171.5	0.8	3.2
Daily Mean:	163.1	8.2	27.1	439.1	34.3	10.4	193.4	2.7	2.1
Valid Hours:	24	24	24	13	24	24	24	13	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-10-88
Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	166.4	32.0	80.7				31.4	261.7
2:00	189.2	38.8	79.5				33.7	284.1
3:00	188.1	39.8	78.9				32.1	275.9
4:00	196.3	41.1	79.1				31.9	259.9
5:00	164.1	44.5	72.9				31.6	267.4
6:00	155.6	58.0	62.7				32.8	248.1
7:00	146.8	51.7	64.8				33.5	259.6
8:00	175.5	31.9	81.8				34.6	265.4
9:00	221.3	34.8	84.3				35.3	227.3
10:00	221.6	35.1	84.2				36.3	189.9
11:00	323.0	77.8	75.9				41.4	215.7
12:00	282.6	145.8	48.4	725.7	29.4	96.0	36.2	286.5
13:00	130.1	18.3	86.0	621.7	2.4	99.6	40.1	260.0
14:00	110.2	30.7	72.1	1120.7	10.9	99.0	34.5	253.2
15:00	123.1	18.1	85.3	811.0	1.8	99.8	32.5	276.3
16:00	277.1	50.6	81.7	868.1	2.2	99.7	31.5	258.9
17:00	191.2	25.8	86.5	654.4	1.2	99.8	33.9	274.5
18:00	174.0	21.9	87.4	635.1	0.9	99.9	36.8	266.1
19:00	247.0	44.6	81.9	598.7	1.8	99.7	41.6	241.0
20:00	321.2	61.2	80.9	690.6	1.2	99.8	37.0	252.7
21:00	312.5	54.7	82.5	580.0	1.2	99.8	36.0	254.2
22:00	278.4	43.5	84.4	568.2	0.9	99.8	33.5	252.1
23:00	211.7	34.5	83.7	569.9	1.2	99.8	35.5	265.0
24:00	281.7	54.2	80.8	546.1	1.4	99.7	39.3	243.3
24-hour Mean:	212.0	45.4	78.6	684.6	4.3	99.4	35.1	255.8
Valid Hours:	24	24	24	13	13	13	24	24

Comments/Process Notes: HCl data prior to 11:20 were lost due to printer problems. The inlet O2 analyzer was not working properly from 9:00-24:00. The cell is scheduled to be replaced tomorrow. All inlet data from this period were corrected using outlet O2 data.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-11-88
Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	162.9	7.1	26.4	445.4	29.0	10.3	206.4	0.9	2.1
2:00	132.5	9.0	35.5	362.0	22.9	11.7	166.9	0.8	2.2
3:00	188.5	6.9	25.8	426.9	39.1	10.0	201.0	1.0	2.2
4:00	166.7	7.0	26.4	475.2	38.4	10.1	186.0	1.3	2.0
5:00	190.2	7.8	26.1	450.5	44.2	10.8	177.1	1.9	2.1
6:00	379.4	7.1	25.8	442.5	114.5	10.1	184.2	3.0	2.2
7:00	211.3	8.0	26.1	339.1	46.5	10.8	163.3	1.6	2.2
8:00	174.9	7.4	26.7	486.5	37.6	10.3	187.4	1.4	2.1
9:00	175.8	8.4	27.3	572.6	34.6	10.5	176.1	1.1	1.9
10:00	186.8	10.4	29.9	443.0	35.7	10.8	156.6	1.5	1.9
11:00	366.2	10.2	28.4	430.8	68.4	10.6	193.5	1.8	1.7
12:00	270.5	10.5	27.1	331.7	45.3	10.8	168.6	1.0	1.6
13:00	184.0	10.1	27.2		26.9	10.5	167.6	0.7	1.7
14:00	244.7	9.6	25.0		51.0	9.6	20.8	0.9	1.7
15:00	152.6	14.5	30.3	410.7	20.8	10.7	145.6	0.7	1.7
16:00	109.9	13.6	27.0	418.4	11.3	10.3	167.9	0.5	1.6
17:00	92.1	12.9	25.2	379.6	4.8	9.8	175.2	0.3	1.7
18:00	235.9	14.0	23.2	356.0	38.7	10.4	137.6	0.7	1.8
19:00	196.8	13.9	23.2	379.3	26.1	10.4	160.6	0.7	1.8
20:00	182.2	14.3	23.1	423.1	26.8	10.6	152.4	0.7	1.9
21:00	186.5	13.7	22.8	375.6	26.7	10.2	152.7	0.8	1.9
22:00	319.3	13.7	21.6	365.5	58.2	10.2	147.8	0.9	1.9
23:00	267.9	14.6	21.9	316.0	44.6	10.8	137.1	0.9	1.9
24:00	124.5	14.3	24.4	388.8	11.4	10.6	146.6	0.6	3.0
Daily Mean:	204.3	10.8	26.1	412.4	37.6	10.5	161.6	1.1	2.0
Valid Hours:	24	24	24	22	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-11-88
Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	213.6	38.0	82.2	679.1	1.4	99.8	34.6	270.7
2:00	200.2	34.6	82.7	636.0	1.5	99.8	53.6	252.2
3:00	240.4	49.9	79.3	633.0	1.6	99.8	32.9	256.3
4:00	214.5	49.4	77.0	711.2	2.0	99.7	34.0	239.4
5:00	261.8	60.8	76.8	720.9	3.2	99.6	35.9	243.7
6:00	488.3	147.4	69.8	662.2	4.7	99.3	33.2	237.1
7:00	290.8	64.0	78.0	622.7	2.7	99.6	35.9	224.7
8:00	229.4	49.3	78.5	741.8	2.2	99.7	35.0	245.7
9:00	235.0	46.2	80.3	889.9	1.8	99.8	36.5	235.4
10:00	257.1	49.1	80.9	708.9	2.5	99.6	41.1	215.5
11:00	494.2	92.3	81.3	676.0	3.0	99.6	38.3	261.1
12:00	372.3	62.3	83.3	530.8	1.7	99.7	37.3	232.0
13:00	245.9	36.0	85.4		1.1		36.4	224.0
14:00	301.0	62.7	79.2		1.4		30.8	25.6
15:00	208.0	28.3	86.4	650.8	1.2	99.8	41.3	198.4
16:00	144.1	14.8	89.7	638.0	0.8	99.9	35.4	220.2
17:00	115.3	6.0	94.8	552.7	0.5	99.9	31.6	219.4
18:00	312.3	51.2	83.6	548.0	1.1	99.8	30.7	182.2
19:00	260.5	34.6	86.7	583.9	1.1	99.8	30.7	212.6
20:00	245.9	36.2	85.3	663.9	1.2	99.8	31.2	205.7
21:00	242.3	34.7	85.7	571.9	1.3	99.8	29.6	198.4
22:00	414.6	75.6	81.8	552.1	1.4	99.7	28.1	192.0
23:00	368.7	61.4	83.4	505.7	1.5	99.7	30.1	188.7
24:00	168.0	15.4	90.8	610.1	1.0	99.8	32.9	197.8
24-hour Mean:	271.8	50.0	82.6	640.4	1.7	99.7	34.9	215.8
Valid Hours:	24	24	24	22	24	22	24	24

Comments/Process Notes: The inlet O2 values are questionable, even though the calibration was acceptable. The other inlet data have been corrected for the entire day using the outlet O2 values. Two hours of HCl inlet data were lost due to a TECO malfunction. It is expected that the inlet O2 cell will be replaced tomorrow.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/12/88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	197.1	13.6	25.3	346.7	28.3	10.2	168.3	0.7	2.0
2:00	192.3	14.1	25.6	412.9	34.9	10.5	148.4	1.2	2.1
3:00	212.2	14.3	26.2	397.1	34.1	10.5	153.3	2.1	2.2
4:00	189.3	13.5	26.1	403.0	27.0	10.2	164.7	1.7	2.2
5:00	162.1	14.0	25.9	405.0	23.5	10.4	156.3	1.5	2.1
6:00	170.2	14.4	26.1	450.5	28.2	10.7	146.9	1.5	2.2
7:00	162.9	14.5	26.1	411.2	22.5	10.6	144.5	1.4	2.2
8:00	182.5	15.5	24.6	421.6	29.3	11.2	137.0	1.1	2.2
9:00	263.3	14.6	25.4	464.7	48.7	10.9	151.1	1.1	1.9
10:00	376.6	13.3	28.2	418.5	91.3	10.2	147.9	1.1	1.6
11:00	224.5	12.4	27.6	403.8	38.2	9.8	174.4	0.7	1.5
12:00	206.4	10.9	28.5	462.1	29.6	10.3	171.8	0.7	1.6
13:00	166.3	12.7	26.5	1119.8	46.5	9.6	168.4	16.7	1.7
14:00	156.7	14.8	23.8	468.1	19.3	10.6	171.1	1.8	1.9
15:00	105.8	9.2	30.6	409.2	10.7	9.8	189.0	0.6	1.6
16:00	119.5	9.1	31.9	463.4	14.4	9.8	189.5	0.6	1.7
17:00	88.9	10.5	33.0	436.5	6.2	11.0	203.7	0.5	1.8
18:00	69.7	10.7	32.2	367.3	2.9	11.2	190.2	0.3	2.1
19:00	104.7	9.8	29.7	380.8	5.8	10.4	172.7	0.2	2.0
20:00	120.4	9.6	29.6	352.4	9.1	10.2	172.1	0.3	2.0
21:00	212.1	9.5	28.9	385.3	31.9	10.1	193.9	0.4	2.1
22:00	176.1	9.8	27.5	355.9	24.3	10.4	209.4	0.6	2.4
23:00	102.6	10.5	30.1	412.7	8.2	11.1	181.1	0.6 *	3.4
24:00	124.1	9.4	29.4	377.2	10.4	10.2	184.5	0.2	3.4
Daily Mean:	170.3	12.1	27.9	438.6	26.1	10.4	170.4	1.6	2.1
Valid Hours:	24	24	24	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/12/88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	256.0	36.8	85.6	523.7	1.1	99.8	32.9	218.6
2:00	257.0	46.6	81.9	641.7	2.0	99.7	34.2	198.3
3:00	283.6	45.6	83.9	617.1	3.4	99.4	35.0	204.9
4:00	245.9	35.1	85.7	608.7	2.7	99.6	33.9	214.0
5:00	214.6	31.1	85.5	623.4	2.4	99.6	34.3	206.9
6:00	231.9	38.4	83.4	713.9	2.5	99.7	35.6	200.2
7:00	219.8	30.4	86.2	645.3	2.3	99.6	35.2	195.0
8:00	261.5	42.0	83.9	702.5	1.9	99.7	35.3	196.3
9:00	366.0	67.7	81.5	751.1	1.9	99.8	35.3	210.0
10:00	489.2	118.6	75.8	632.2	1.7	99.7	36.6	192.1
11:00	281.1	47.8	83.0	588.0	1.1	99.8	34.6	218.4
12:00	270.7	38.8	85.7	704.6	1.1	99.8	37.4	225.3
13:00	204.6	57.2	72.0	1601.7	25.1	98.4	32.6	207.1
14:00	211.5	26.0	87.7	734.5	3.0	99.6	32.1	230.9
15:00	125.7	13.4	89.3	565.3	0.9	99.8	36.4	236.7
16:00	140.8	18.0	87.2	634.7	0.9	99.9	37.6	237.3
17:00	118.8	8.7	92.7	678.4	0.9	99.9	44.1	286.0
18:00	95.0	4.2	95.6	582.0	0.5	99.9	43.9	272.6
19:00	131.1	7.7	94.1	554.5	0.3	99.9	37.2	228.6
20:00	148.1	11.8	92.0	504.1	0.5	99.9	36.4	223.6
21:00	258.6	41.1	84.1	546.3	0.6	99.9	35.2	249.6
22:00	220.5	32.2	85.4	518.2	1.0	99.8	34.4	277.2
23:00	137.1	11.6	91.5	641.4	1.0	99.8	40.2	256.9
24:00	150.0	13.5	91.0	530.1	0.3	99.9	35.5	239.7
24-hour Mean:	221.6	34.3	86.0	660.1	2.5	99.7	36.1	226.1
Valid Hours:	24	24	24	24	24	24	24	24

Comments/Process Notes: Inlet O2 analyzer cell was replaced. Inlet O2 data prior to replacing the cell are considered invalid (00:00-14:00). Inlet SO2,CO, and HCl data were normalized to 7% O2 using the outlet O2 data during this period.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/13/88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	166.2	9.8	28.5	407.0	25.8	10.3	169.9	0.7	2.3
2:00	145.4	9.3	29.1	406.7	16.7	10.0	196.5	0.5	2.3
3:00	180.8	9.3	28.8	479.6	31.8	9.9	191.1	0.9	2.3
4:00	192.3	9.0	28.9	436.7	33.2	9.8	196.1	1.2	2.3
5:00	219.9	8.7	28.9	644.8	47.0	9.4	187.0	1.7	2.4
6:00	217.5	8.7	28.4	554.6	39.1	9.5	195.5	2.5	2.4
7:00	205.4	9.3	28.7	541.0	32.5	10.0	190.2	1.8	2.4
8:00	170.3	8.9	28.7	696.1	32.0	9.6	188.9	4.0	2.2
9:00	135.8	10.0	27.8	613.7	25.3	10.5	171.9	8.8	1.8
10:00	182.4	11.0	27.8	469.0	32.5	10.9	167.3	1.6	1.8
11:00	145.0	11.2	29.2	413.6	23.3	11.0	151.0	1.0	1.9
12:00	141.5	10.2	28.8	495.6	31.2	10.3	156.2	3.4	1.8
13:00	159.4	10.0	28.8		33.3	10.5	173.6		1.7
14:00	201.7	9.2	28.5	361.5	46.5	9.8	172.6	1.2	1.6
15:00	265.4	9.1	27.4	388.1	47.8	9.6	164.8	1.0	1.6
16:00	166.3	9.6	27.6	391.3	34.0	10.1	155.8	0.7	1.6
17:00	198.3	9.7	27.5	356.2	39.3	10.1	164.3	1.0	1.7
18:00	190.4	9.4	27.9	418.2	37.2	9.9	170.9	0.7	1.6
19:00	264.9	9.7	27.4	409.3	50.8	10.2	154.3	0.7	1.7
20:00	202.1	10.0	27.8	428.0	42.6	10.4	149.6	0.5	1.8
21:00	173.5	10.4	27.6	655.4	40.5	10.7	146.5	1.3	1.8
22:00	166.9	9.6	27.7	696.5	35.0	10.1	150.6	2.2	1.7
23:00	234.1	9.6	27.1	596.5	50.8	10.1	143.1	6.4	1.8
24:00	195.2	10.0	27.6	483.3	38.1	10.4	166.5	1.1	3.1
Daily Mean:	188.4	9.7	28.2	493.2	36.1	10.1	169.8	2.0	2.0
Valid Hours:	24	24	24	23	24	24	24	23	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/13/88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	208.1	33.8	83.7	592.6	1.1	99.8	35.7	222.8
2:00	174.2	21.3	87.8	566.7	0.8	99.9	34.9	250.6
3:00	216.6	40.2	81.5	668.2	1.4	99.8	34.5	241.5
4:00	224.6	41.6	81.5	593.1	1.8	99.7	33.8	245.6
5:00	250.5	56.8	77.3	854.2	2.5	99.7	32.9	226.0
6:00	247.8	47.7	80.8	734.7	3.7	99.5	32.4	238.4
7:00	246.1	41.4	83.2	753.8	2.8	99.6	34.4	242.5
8:00	197.3	39.4	80.0	937.6	6.0	99.4	33.2	232.4
9:00	173.2	33.8	80.5	910.0	14.3	98.4	35.5	229.8
10:00	256.1	45.2	82.4	765.7	2.7	99.6	39.0	232.5
11:00	207.8	32.7	84.3	689.2	1.7	99.8	41.8	212.0
12:00	183.8	40.9	77.7	748.6	5.4	99.3	37.4	204.8
13:00	203.3	44.5	78.1				36.7	232.0
14:00	239.6	58.2	75.7	499.4	1.8	99.6	33.9	216.1
15:00	312.6	58.8	81.2	531.6	1.5	99.7	32.3	202.7
16:00	204.6	43.8	78.6	559.7	1.1	99.8	34.0	200.5
17:00	246.1	50.6	79.4	514.0	1.6	99.7	34.1	211.5
18:00	230.1	47.0	79.6	587.8	1.1	99.8	33.7	216.0
19:00	328.8	66.0	79.9	590.7	1.1	99.8	34.0	200.4
20:00	257.7	56.4	78.1	634.6	0.8	99.9	35.5	198.0
21:00	229.7	55.2	76.0	1008.9	2.2	99.8	36.5	199.6
22:00	205.3	45.0	78.1	996.2	3.5	99.7	34.1	193.8
23:00	288.0	65.4	77.3	853.2	10.0	98.8	33.3	184.2
24:00	248.9	50.4	79.7	716.6	1.8	99.8	35.2	220.4
24-hour Mean:	232.5	46.5	80.1	709.0	3.1	99.6	34.9	218.9
Valid Hours:	24	24	24	23	23	23	24	24

Comments/Process Notes: HCl data lost during 12:00-13:00 hour because of daily cal check.

Impinger samples (HCl) collected at ESP outlet to check accuracy of Bran & Luebbe HCl CEMS. Control room operator (Bill) adjusted the SDA to provide us with slightly higher SO2 and HCl outlet emissions during the sample collection.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/14/88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	138.1	9.4	28.9	452.2	22.6	10.0	165.8	1.2	1.9
2:00	127.0	9.4	28.5	404.0	19.1	10.0	176.7	1.5	2.0
3:00	106.0	9.4	29.2	556.2	18.9	10.0	183.3	1.4	2.1
4:00	109.2	9.5	28.4	516.6	18.6	10.1	170.4	1.4	2.0
5:00	155.2	9.5	28.6	438.8	25.5	10.1	172.8	1.1	2.1
6:00	194.2	9.1	28.4	540.9	38.8	9.8	180.4	1.5	2.0
7:00	215.7	8.9	28.6	501.2	39.9	9.6	176.4	1.9	2.1
8:00	182.7	8.9	28.4	456.3	34.9	9.6	182.7	1.6	1.8
9:00	350.4	10.2	27.8	477.3	72.7	10.7	165.9	2.2	1.7
10:00	260.0	10.1	28.6	417.7	49.5	10.5	147.8	1.3	1.6
11:00	412.8	9.3	29.2	475.3	81.8	9.9	166.2	1.3	1.4
12:00	329.2	9.0	29.5	454.4	59.4	9.7	165.5	1.1	1.4
13:00	275.4	8.5	30.2	414.8	54.5	9.4	179.6	1.1	1.4
14:00	262.1	8.6	29.2	439.2	51.2	9.4	180.1	1.1	1.9
15:00	222.0	8.4	29.5	472.9	44.9	9.4	174.6	1.5	2.0
16:00	152.9	8.9	29.8		30.3	9.7	180.1		1.8
17:00	126.3	8.8	32.6	423.6	19.0	9.7	185.5	1.3	1.5
18:00	134.2	9.3	34.2	412.6	22.5	10.1	165.5	1.1	1.6
19:00	175.8	9.7	34.8	528.0	39.3	10.4	175.3	1.2	1.7
20:00	138.8	9.9	34.3	538.4	28.9	10.5	177.1	1.3	1.7
21:00	107.4	10.2	34.1	427.6	13.5	10.8	173.8	0.7	1.9
22:00	130.3	10.0	33.4	508.9	18.9	10.6	164.6	0.8	1.9
23:00	197.3	9.6	34.6	528.8	37.9	10.3	170.6	1.2	2.1
24:00	150.1	10.4	36.5	417.2	27.5	10.9	158.3	1.4	3.1
Daily Mean:	193.9	9.4	30.7	469.7	36.3	10.1	172.5	1.3	1.9
Valid Hours:	24	24	24	23	24	24	24	23	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/14/88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	166.9	28.8	82.7	635.5	1.9	99.7	34.9	211.4
2:00	153.5	24.4	84.1	567.8	2.3	99.6	34.4	225.3
3:00	128.1	24.1	81.2	781.7	2.2	99.7	35.3	233.7
4:00	133.1	23.9	82.0	732.4	2.2	99.7	34.6	219.3
5:00	189.2	32.8	82.7	622.1	1.7	99.7	34.9	222.4
6:00	228.8	48.6	78.8	740.9	2.3	99.7	33.5	225.9
7:00	249.9	49.1	80.4	675.1	2.9	99.6	33.1	217.0
8:00	211.6	42.9	79.7	614.6	2.4	99.6	32.9	224.7
9:00	455.2	99.1	78.2	721.0	3.7	99.5	36.1	226.1
10:00	334.6	66.2	80.2	625.1	2.1	99.7	36.8	197.5
11:00	494.6	103.4	79.1	662.3	2.0	99.7	35.0	210.0
12:00	384.5	73.7	80.8	617.2	1.7	99.7	34.5	205.4
13:00	308.7	65.9	78.7	540.7	1.6	99.7	33.9	217.1
14:00	296.2	61.9	79.1	577.1	1.6	99.7	33.0	217.7
15:00	246.9	54.3	78.0	611.5	2.2	99.6	32.8	211.0
16:00	177.1	37.6	78.8				34.5	223.5
17:00	145.1	23.6	83.7	565.8	2.0	99.7	37.4	230.2
18:00	160.8	29.0	82.0	574.9	1.7	99.7	41.0	213.0
19:00	218.2	52.0	76.2	762.0	1.9	99.7	43.2	232.1
20:00	175.4	38.6	78.0	791.1	2.1	99.7	43.3	236.7
21:00	139.5	18.6	86.7	645.9	1.2	99.8	44.3	239.2
22:00	166.2	25.5	84.7	754.6	1.3	99.8	42.6	222.1
23:00	242.7	49.7	79.5	756.4	1.9	99.7	42.6	223.7
24:00	198.7	38.2	80.8	642.2	2.4	99.6	48.3	220.0
24-hour Mean:	233.6	46.3	80.7	661.6	2.1	99.7	37.2	221.1
Valid Hours:	24	24	24	23	23	23	24	24

Comments/Process Notes: HCl data for 15:00-16:00 hour were lost while performing daily calibration check. At 10:30, the boiler operator noted that the SO2 inlet concentrations on both boilers had been high since 07:00 (300-500ppm), and that the SDA was not removing enough SO2 to avoid an outlet violation. The lime slurry tank level was in manual at 105%; increased waste water to slurry tank ratio from 0.7 to 0.9.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/15/88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	145.6	10.1	36.9	434.0	24.7	10.7	166.2	1.3	2.1
2:00	283.7	10.0	35.6	473.4	64.4	10.7	161.0	1.9	3.0
3:00	359.3	10.2	35.9	468.5	73.6	10.8	165.4	1.6	2.7
4:00	188.6	10.0	36.6	397.0	35.8	10.6	164.8	1.1	2.7
5:00	220.3	9.5	36.0	377.9	46.0	10.2	172.1	1.3	2.7
6:00	172.5	9.7	36.4	379.5	32.6	10.4	169.2	1.4	2.7
7:00	182.0	9.4	35.8	428.1	38.2	10.2	160.8	1.3	2.4
8:00	150.5	9.6	36.0	431.9	32.4	10.2	166.5	1.6	2.2
9:00	123.8	9.9	34.5	482.7	45.9	10.8	172.2	5.5	2.1
10:00	101.6	10.3	36.0	506.3	50.6	10.8	166.3	39.8	2.4
11:00	78.3	10.3	33.8	417.3	43.2	10.9	176.6	36.4	1.5
12:00	65.2	9.5	29.2	403.5	30.4	10.1	188.4	20.9	1.6
13:00	61.7	10.0	28.4	553.1	45.3	10.6	174.6	37.4	1.8
14:00	65.9	10.6	29.0	461.1	46.1	11.1	184.0	47.2	1.8
15:00	104.0	10.5	29.6	415.6	48.2	10.9	178.6	24.8	2.8
16:00	88.1	10.6	28.8	369.6	43.2	11.0	178.4	22.6	1.4
17:00	85.1	10.3	30.3	353.3	18.3	10.8	191.0	9.5	1.5
18:00	101.7	10.2	29.2	325.7	12.2	10.7	172.9	1.1	1.5
19:00	134.2	10.1	27.9	325.4	20.2	10.6	178.5	0.9	1.4
20:00	125.6	10.4	25.4	334.8	17.4	10.8	176.3	0.8	1.8
21:00	172.8	10.6	22.9	443.6	29.6	10.9	159.2	1.3	1.9
22:00	146.9	10.6	22.3	401.1	24.7	10.9	162.5	1.1	2.1
23:00	212.0	10.1	21.4	472.3	40.8	10.6	170.7	1.6	1.9
24:00	156.6	10.3	22.0	427.7	25.1	10.7	160.7	1.2	2.0
Daily Mean:	146.9	10.1	30.8	420.1	37.0	10.7	171.5	11.0	2.1
Valid Hours:	24	24	24	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/15/88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	187.4	33.7	82.0	649.5	2.2	99.7	47.5	226.5
2:00	361.8	87.8	75.7	702.0	3.2	99.6	45.4	219.4
3:00	466.8	101.3	78.3	707.7	2.7	99.6	46.6	227.6
4:00	240.5	48.3	79.9	588.7	1.8	99.7	46.7	222.4
5:00	268.6	59.8	77.8	535.8	2.1	99.6	43.9	223.6
6:00	214.1	43.2	79.8	547.7	2.3	99.6	45.2	224.0
7:00	220.0	49.6	77.4	601.7	2.1	99.7	43.3	208.9
8:00	185.1	42.1	77.3	617.8	2.5	99.6	44.3	216.3
9:00	156.4	63.2	59.6	709.3	9.2	98.7	43.6	237.0
10:00	133.2	69.6	47.7	772.0	66.8	91.3	47.2	228.9
11:00	102.7	60.0	41.5	636.3	61.7	90.3	44.3	245.5
12:00	79.5	39.1	50.8	572.1	32.8	94.3	35.6	242.5
13:00	78.7	61.1	22.3	820.2	61.6	92.5	36.2	235.6
14:00	88.9	65.4	26.5	723.6	81.6	88.7	39.1	261.0
15:00	139.0	67.0	51.8	645.9	42.0	93.5	39.6	248.3
16:00	118.9	60.7	49.0	580.0	38.7	93.3	38.9	250.5
17:00	111.6	25.2	77.4	538.7	15.9	97.0	39.7	262.9
18:00	132.1	16.6	87.4	492.0	1.8	99.6	37.9	235.6
19:00	172.7	27.3	84.2	487.0	1.5	99.7	35.9	240.9
20:00	166.3	23.9	85.6	515.4	1.3	99.7	33.6	242.6
21:00	233.2	41.1	82.4	696.1	2.2	99.7	30.9	221.3
22:00	198.2	34.3	82.7	629.4	1.9	99.7	30.1	225.9
23:00	272.9	55.1	79.8	706.8	2.6	99.6	27.5	230.4
24:00	205.4	34.2	83.3	652.2	2.0	99.7	28.8	219.0
24-hour Mean:	188.9	50.4	68.3	630.3	18.4	97.3	39.7	233.2
Valid Hours:	24	24	24	24	24	24	24	24

Comments/Process Notes: Outlet HCl hourly averaged values for 10:00, 13:00, and 14:00 are biased low because there were periods of offscale measurement (>60 ppm) during these three hours. The maximum signal output from the Bran & Luebbe analyzer is 60 ppm; measurement values greater than 60 ppm were observed on the analyzer digital display. The HCl excursions were caused by an upset condition on Unit 1, which affected the operation of Unit 2.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/16/88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	116.3	10.2	23.7	422.6	18.7	10.7	170.6	1.2	2.1
2:00	171.1	10.5	23.3	468.6	34.9	10.9	162.6	1.6	2.1
3:00	108.1	10.5	23.4	437.1	18.2	10.9	162.0	1.5	2.1
4:00	116.8	10.1	23.2	425.2	17.1	10.6	174.7	1.5	2.2
5:00	140.7	10.2	21.8	353.2	27.1	10.7	166.8	1.3	2.2
6:00	166.0	10.0	21.3	393.4	31.6	10.5	178.2	1.6	2.4
7:00	178.2	9.9	21.6	467.9	41.4	10.3	181.0	2.6	3.4
8:00	157.9	10.2	22.2	622.1	41.6	10.6	177.6	4.4	2.3
9:00	134.6	10.9	26.3	641.3	30.6	11.3	165.1	2.5	2.3
10:00	135.6	11.2	30.7	545.4	22.9	11.5	147.6	1.7	2.3
11:00	127.6	10.1	29.3	525.6	17.9	10.6	181.0	1.4	2.2
12:00	82.3	10.2	28.7	580.0	7.3	10.7	175.2	0.4	2.2
13:00	79.8	10.3	30.5	479.2	6.0	10.8	165.4	0.4	2.2
14:00	78.1	10.5	31.0	344.6	3.4	11.0	162.8	0.1	2.3
15:00	134.8	10.0	29.8	430.7	13.8	10.5	158.9	0.2	2.3
16:00	128.6	10.1	30.4	419.4	13.8	10.6	149.8	0.3	2.3
17:00	84.4	10.3	30.1	338.6	4.6	10.9	160.6	0.2	2.5
18:00	144.0	10.8	30.9	449.7	17.8	11.1	147.9	0.5	2.4
19:00	186.6	10.4	31.1	473.3	26.5	10.8	163.3	0.6	2.5
20:00	138.1	10.1	30.7	413.1	16.9	10.7	169.3	0.4	2.3
21:00	222.5	9.9	30.5	431.9	35.4	10.5	162.0	0.6	2.3
22:00	142.9	10.6	31.0	352.1	20.6	11.0	152.3	0.5	2.7
23:00	174.2	9.6	28.5	379.9	27.2	10.2	172.5	0.7	2.5
24:00	136.4	10.4	27.8	395.9	18.0	10.9	150.8	0.9	2.6
Daily Mean:	136.9	10.3	27.4	449.6	21.4	10.8	164.9	1.1	2.4
Valid Hours:	24	24	24	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/16/88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	151.1	25.5	83.1	638.4	2.0	99.7	30.8	232.5
2:00	228.7	48.5	78.8	728.3	2.7	99.6	31.1	226.0
3:00	144.5	25.3	82.5	679.3	2.5	99.6	31.3	225.2
4:00	150.3	23.1	84.6	636.3	2.5	99.6	29.9	235.8
5:00	182.8	36.9	79.8	533.5	2.2	99.6	28.3	227.3
6:00	211.7	42.2	80.0	583.3	2.6	99.6	27.2	238.2
7:00	225.2	54.3	75.9	687.5	4.2	99.4	27.3	237.3
8:00	205.1	56.1	72.6	939.7	7.2	99.2	28.8	239.7
9:00	187.1	44.3	76.3	1036.5	4.4	99.6	36.6	239.1
10:00	194.3	33.9	82.6	908.8	3.1	99.7	44.0	218.3
11:00	164.2	24.2	85.3	786.6	2.3	99.7	37.7	244.3
12:00	106.9	9.9	90.7	876.1	0.7	99.9	37.3	238.8
13:00	104.6	8.3	92.1	730.7	0.7	99.9	40.0	227.6
14:00	104.4	4.8	95.4	535.5	0.2	100.0	41.4	228.6
15:00	171.9	18.4	89.3	638.7	0.3	99.9	38.0	212.4
16:00	165.5	18.6	88.7	627.7	0.5	99.9	39.1	202.2
17:00	110.7	6.4	94.2	516.3	0.3	99.9	39.5	223.2
18:00	198.2	25.2	87.3	719.6	0.9	99.9	42.5	209.8
19:00	247.0	36.5	85.2	728.6	1.0	99.9	41.2	224.7
20:00	177.7	23.0	87.0	618.2	0.7	99.9	39.5	230.7
21:00	281.2	47.3	83.2	634.6	1.0	99.8	38.5	216.5
22:00	192.8	28.9	85.0	552.5	0.9	99.8	41.8	213.8
23:00	214.3	35.3	83.5	543.4	1.1	99.8	35.1	224.1
24:00	180.6	25.0	86.1	609.4	1.5	99.7	36.8	209.6
24-hour Mean:	179.2	29.3	84.6	687.1	1.9	99.7	36.0	226.1
Valid Hours:	24	24	24	24	24	24	24	24

Comments/Process Notes:

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/17/88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	133.8	10.2	27.9	371.9	16.7	10.8	159.4	0.9	2.7
2:00	120.9	10.7	27.2	341.3	13.4	11.1	150.7	0.7	2.9
3:00	152.8	9.7	26.8	428.5	18.9	10.4	151.6	0.7	2.7
4:00	141.7	10.1	27.3	479.9	18.0	10.8	155.4	0.9	2.8
5:00	175.3	9.8	26.4	384.5	28.2	10.5	160.0	1.0	3.0
6:00	128.3	10.4	27.6	366.5	12.8	11.0	162.7	0.8	3.2
7:00	152.0	10.5	27.8	443.5	20.2	11.0	151.6	0.9	4.0
8:00	135.3	10.1	28.6	448.1	11.7	10.7	160.7	0.8	2.7
9:00	127.3	10.8	28.2	458.1	16.3	11.4	130.9	0.5	2.1
10:00	223.3	9.8	29.9	386.6	37.2	10.3	137.9	1.0	1.8
11:00	116.2	9.5	31.4	462.6	11.1	10.2	158.0	0.8	1.7
12:00	114.2	10.0	31.6	982.2	22.8	10.6	152.4	22.2	1.9
13:00	123.0	9.8	32.1	740.5	36.2	10.3	143.9	23.7	1.7
14:00	96.1	9.5	31.9	465.0	10.7	10.2	168.2	9.5	1.6
15:00	115.2	9.4	29.9	444.3	8.4	10.2	170.9	1.0	1.4
16:00	128.2	9.9	32.4	413.6	9.9	10.5	158.4	0.8	1.7
17:00	157.5	10.3	31.9	374.9	17.9	10.8	153.6	0.7	1.6
18:00	157.5	9.9	30.9	412.9	18.2	10.4	166.1	0.4	1.7
19:00	331.1	8.2	31.0	521.2	53.3	9.1	183.8	1.0	1.6
20:00	241.5	7.9	30.7	459.8	45.1	8.9	181.4	0.9	1.5
21:00	293.0	8.7	30.1	418.0	59.7	9.4	174.3	1.2	1.7
22:00	194.4	9.6	30.6	437.8	38.4	10.1	162.7	1.2	1.7
23:00	150.9	10.0	30.8	412.2	27.5	10.5	152.6	1.0	1.8
24:00	214.1	9.0	30.3	416.4	45.0	9.7	170.3	1.1	1.8
Daily Mean:	163.5	9.7	29.7	461.3	24.9	10.4	159.1	3.1	2.1
Valid Hours:	24	24	24	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/17/88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	173.8	23.0	86.8	561.8	1.5	99.7	36.2	219.4
2:00	164.8	19.0	88.5	540.8	1.2	99.8	37.1	213.7
3:00	189.6	25.0	86.8	618.4	1.1	99.8	33.3	200.7
4:00	182.4	24.8	86.4	718.2	1.5	99.8	35.1	213.9
5:00	219.5	37.7	82.8	559.9	1.6	99.7	33.1	213.8
6:00	169.8	18.0	89.4	564.2	1.4	99.8	36.5	228.4
7:00	203.2	28.4	86.0	689.2	1.5	99.8	37.2	212.9
8:00	174.1	15.9	90.8	670.6	1.3	99.8	36.8	219.0
9:00	175.2	23.8	86.4	733.1	0.9	99.9	38.8	191.5
10:00	279.6	48.8	82.6	562.9	1.6	99.7	37.4	180.8
11:00	141.7	14.4	89.8	655.9	1.3	99.8	38.3	205.3
12:00	145.6	30.8	78.9	1456.4	36.5	97.5	40.3	205.7
13:00	154.0	47.5	69.2	1078.2	37.9	96.5	40.2	188.7
14:00	117.2	13.9	88.1	659.3	15.1	97.7	38.9	218.5
15:00	139.2	10.9	92.2	624.4	1.6	99.7	36.1	222.0
16:00	162.0	13.2	91.8	607.7	1.3	99.8	40.9	211.7
17:00	206.5	24.6	88.1	571.6	1.2	99.8	41.8	211.4
18:00	199.0	24.1	87.9	606.7	0.6	99.9	39.0	219.9
19:00	362.4	62.8	82.7	663.3	1.4	99.8	33.9	216.5
20:00	258.2	52.2	79.8	571.7	1.3	99.8	32.8	210.1
21:00	333.8	72.2	78.4	553.8	1.8	99.7	34.3	210.7
22:00	239.1	49.4	79.3	626.2	1.9	99.7	37.6	209.4
23:00	192.4	36.8	80.9	611.2	1.6	99.7	39.3	204.0
24:00	250.1	55.8	77.7	565.6	1.7	99.7	35.4	211.4
24-hour Mean:	201.4	32.2	84.6	669.6	5.0	99.5	37.1	210.0
Valid Hours:	24	24	24	24	24	24	24	24

Comments/Process Notes: The boiler operator (Jeff) stated that the process operation was normal during the 11:00-14:00 time period when the HCl outlet measurements were elevated.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/18/88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	186.6	8.1	30.3	419.9	38.9	9.1	192.4	1.5	1.8
2:00	392.0	8.9	30.2	465.9	105.5	9.6	170.9	1.9	2.0
3:00	200.0	8.6	30.8	402.4	34.8	9.4	181.9	1.1	2.1
4:00	168.3	8.2	29.7		33.7	9.2	176.5	1.3	2.1
5:00	123.8	10.0	30.6		21.2	10.5	155.8	1.5	2.5
6:00	153.3	9.5	30.3		27.4	10.1	176.6	1.3	2.3
7:00	124.3	10.5	31.5		38.8	10.9	154.5	21.8	3.4
8:00	142.1	9.0	30.9		35.5	9.7	174.4	7.5	2.2
9:00	107.5	9.5	29.5	565.7	23.8	10.3	154.8	27.5	1.9
10:00	79.2	9.7	29.7	322.9	6.8	10.3	143.7	1.8	1.8
11:00	104.6	9.0	29.7	349.2	11.5	9.8	178.4	1.5	1.8
12:00	116.0	8.9	29.8	562.9	15.3	9.8	175.0	3.0	1.9
13:00	117.2	9.5	30.0	907.4	35.3	10.1	166.0	20.8	2.0
14:00	84.0	9.6	30.3	699.0	15.4	10.2	168.6	10.1	2.1
15:00	78.9	9.5	28.2	606.4	12.9	10.2	181.9	7.6	2.1
16:00	91.6	10.4	25.8	324.7	8.2	10.3	167.4	1.6	2.3
17:00	116.9	9.8	29.3		12.6	10.4	161.4	1.1	2.4
18:00	119.4	9.1	28.4		15.7	9.9	167.4	1.3	2.5
19:00	154.5	8.8	28.1		21.2	9.6	177.4	1.0	2.5
20:00	235.7	10.4	26.1		46.4	10.8	165.5	1.5	2.6
21:00	191.0	9.3	27.2	346.5	34.2	9.9	162.2	1.4	2.7
22:00	154.5	9.2	26.4	368.0	29.3	9.9	167.8	1.6	2.9
23:00	144.7	9.3	26.3	354.4	27.1	10.0	168.5	1.9	3.0
24:00	168.8	8.9	25.8	336.0	32.8	9.7	175.4	1.9	3.1
Daily Mean:	148.1	9.3	29.0	468.8	28.5	10.0	169.4	5.1	2.3
Valid Hours:	24	24	24	15	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/18/88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	202.6	45.8	77.4	530.2	2.2	99.6	32.9	226.6
2:00	454.1	129.8	71.4	627.5	2.9	99.5	35.0	210.2
3:00	226.0	42.1	81.4	528.8	1.6	99.7	34.8	219.9
4:00	184.2	40.0	78.3		1.9		32.5	209.7
5:00	157.9	28.3	82.1		2.4		39.0	208.2
6:00	186.9	35.3	81.1		2.0		36.9	227.3
7:00	166.1	53.9	67.5		37.0		42.1	214.8
8:00	166.0	44.1	73.5		11.4		36.1	216.4
9:00	131.1	31.2	76.2	802.0	44.0	94.5	36.0	203.0
10:00	98.3	8.9	90.9	466.0	2.9	99.4	36.9	188.4
11:00	122.2	14.4	88.2	474.3	2.3	99.5	34.7	223.4
12:00	134.4	19.2	85.7	758.2	4.6	99.4	34.5	219.1
13:00	142.9	45.4	68.2	1286.5	32.6	97.5	36.6	213.6
14:00	103.3	20.0	80.6	999.8	16.0	98.4	37.3	219.0
15:00	96.2	16.8	82.6	859.7	12.0	98.6	34.4	236.3
16:00	121.3	10.8	91.1	499.8	2.6	99.5	34.2	219.5
17:00	146.4	16.7	88.6		1.8		36.7	213.7
18:00	140.6	19.8	85.9		2.0		33.5	211.5
19:00	177.5	26.1	85.3		1.5		32.3	218.2
20:00	312.0	63.9	79.5		2.5		34.6	227.8
21:00	228.9	43.2	81.1	482.8	2.2	99.6	32.6	205.0
22:00	183.6	37.0	79.8	508.4	2.5	99.5	31.4	212.0
23:00	173.4	34.6	80.1	493.8	3.0	99.4	31.5	214.9
24:00	195.5	40.7	79.2	452.6	2.9	99.4	29.9	217.7
24-hour Mean:	177.1	36.2	80.7	651.4	8.2	98.9	34.8	215.7
Valid Hours:	24	24	24	15	24	15	24	24

Comments/Process Notes: Inlet HCl data from 3:00-8:00 and 16:00-20:00 are invalid because of a TECO analyzer malfunction. The cause of this problem remains a mystery. The problem only occurs for short periods of time; the analzer returns to normal operation without corrective action taken.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/19/88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	205.2	8.7	25.3	393.4	48.7	9.5	170.4	2.5	3.3
2:00	292.1	9.6	25.7	433.2	77.2	10.2	157.3	2.9	3.6
3:00	137.2	8.4	24.7	391.6	26.0	9.3	162.0	2.0	3.6
4:00	149.7	8.7	27.9	362.5	26.6	9.5	170.1	2.0	3.7
5:00	158.2	8.9	25.5	377.1	30.6	9.6	181.8	2.7	3.8
6:00	147.1	8.7	23.7	378.0	28.3	9.5	177.6	2.7	3.9
7:00	191.4	9.1	22.8	377.7	39.6	9.8	178.7	2.8	4.9
8:00	159.1	9.3	23.9	403.5	31.7	10.0	164.3	2.5	3.3
9:00	113.8	10.5	27.6	721.1				4.1	3.1
10:00	131.1	9.3	29.7	487.9				1.3	2.5
11:00	139.9	8.9	31.5	467.7				0.8	2.3
12:00	145.2	8.9	32.7	445.4				0.8	2.4
13:00	209.2	9.0	34.9	827.6				12.0	2.2
14:00	191.5	9.6	36.7	560.2	26.4	10.3	161.7	2.8	3.3
15:00	113.1	9.1	34.5	428.4	10.6	9.9	165.8	1.4	3.2
16:00	174.9	8.7	33.6	381.6	24.3	9.6	157.9	1.8	2.0
17:00	146.9	9.3	33.6	422.4	16.9	10.0	171.8	1.5	2.1
18:00	132.5	9.4	32.7	367.6	13.0	10.1	175.9	1.1	2.2
19:00	171.5	9.8	33.5	413.0	22.0	10.4	162.2	0.9	2.3
20:00	183.1	8.9	33.5	390.9	27.9	9.7	167.1	1.5	2.4
21:00	166.0	8.5	32.4	429.8	29.3	9.4	164.8	2.1	2.5
22:00	289.3	8.2	32.5	494.6	67.7	9.2	171.1	2.3	2.9
23:00	209.8	8.7	32.9	507.5	46.1	9.4	161.4	6.3	2.8
24:00	180.1	9.3	32.9	398.9	40.1	10.0	159.9	3.8	3.0
Daily Mean:	172.4	9.1	30.2	452.6	33.3	9.8	167.5	2.7	3.0
Valid Hours:	24	24	24	24	19	19	19	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/19/88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	233.8	59.4	74.6	521.2	3.7	99.3	28.8	207.8
2:00	359.3	100.3	72.1	619.6	4.6	99.3	31.6	204.3
3:00	152.6	31.2	79.6	506.3	2.9	99.4	27.5	194.1
4:00	170.6	32.4	81.0	480.2	3.0	99.4	31.8	207.4
5:00	183.2	37.6	79.5	507.9	4.1	99.2	29.5	223.6
6:00	167.6	34.5	79.4	500.8	4.0	99.2	27.0	216.5
7:00	225.5	49.6	78.0	517.3	4.3	99.2	26.9	223.8
8:00	190.6	40.4	78.8	562.2	3.9	99.3	28.6	209.5
9:00	152.1			1120.7	6.7	99.4	36.9	
10:00	157.1			679.8	1.9	99.7	35.6	
11:00	162.1			629.9	1.1	99.8	36.5	
12:00	168.2			599.9	1.1	99.8	37.9	
13:00	244.4			1124.1	17.1	98.5	40.8	
14:00	235.6	34.6	85.3	801.3	4.5	99.4	45.1	212.0
15:00	133.2	13.4	89.9	586.8	2.2	99.6	40.6	209.5
16:00	199.3	29.9	85.0	505.6	2.7	99.5	38.3	194.2
17:00	176.0	21.6	87.8	588.5	2.3	99.6	40.3	219.1
18:00	160.2	16.7	89.6	516.6	1.7	99.7	39.5	226.4
19:00	214.8	29.1	86.4	601.4	1.5	99.8	42.0	214.7
20:00	212.1	34.6	83.7	526.5	2.3	99.6	38.8	207.4
21:00	186.1	35.4	81.0	560.2	3.1	99.4	36.3	199.2
22:00	316.6	80.4	74.6	629.5	3.3	99.5	35.6	203.3
23:00	239.0	55.7	76.7	672.3	9.3	98.6	37.5	195.1
24:00	215.8	51.1	76.3	555.8	5.9	98.9	39.4	203.9
24-hour Mean:	202.3	41.5	81.0	621.4	4.0	99.4	35.5	209.0
Valid Hours:	24	19	19	24	24	24	24	19

Comments/Process Notes: The Anarad representative left the valve open after he drained the water from the Unit 2 outlet CEMS TE cooler trap located inside the analyzer trailer. The open valve exhausted the gas sample before delivery to the outlet analyzers. The Anarad outlet CEMS data from 8:00-13:00 are thus invalid. The outlet HCl data were normalized to 7% O2 using the inlet O2 data during this 5-hour period. Millbury personnel finally discovered the cause of the lost flow to the analyzers after performing numerous checks of the sampling system.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-20-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	175.1	9.4	33.0	368.3	36.8	10.1	156.1	2.6	3.1
2:00	205.9	9.4	32.3	440.7	48.5	10.1	159.9	3.6	3.1
3:00	230.5	9.3	32.1	472.1	46.5	9.9	145.1	8.2	3.4
4:00	370.4	10.3	31.6	461.2	137.2	10.6	157.0	5.4	3.8
5:00	193.3	9.8	31.3	404.5	39.3	10.4	159.8	4.3	3.5
6:00	167.9	9.6	32.4	503.3	32.0	10.3	172.8	3.4	3.4
7:00	195.1	8.9	30.3	403.6	32.1	9.7	168.8	2.7	4.2
8:00	261.3	9.2	30.9	480.0	54.5	9.9	165.5	3.7	2.7
9:00	268.6	10.0	29.2	506.3	56.5	10.7	141.1	1.9	2.1
10:00	213.4	9.6	30.1	338.6	42.5	10.3	148.0	0.6	1.6
11:00	263.5	10.1	28.2	340.0	57.8	10.6	168.3	0.8	1.6
12:00	262.1	10.3	29.0	442.2	66.7	10.8	155.5	0.6	1.7
13:00	284.0	9.9	28.8	407.1	58.6	10.4	144.2	0.8	1.8
14:00	162.8	9.1	29.2	591.1	32.3	9.8	145.6	0.2	1.7
15:00	166.9	9.0	29.8	578.4	32.7	9.8	163.2	2.8	1.8
16:00	238.8	8.9	28.9	439.8	42.7	9.7	178.4	0.2	1.7
17:00	187.8	9.0	27.8	399.8	36.8	9.8	175.6	0.0	1.7
18:00	193.4	9.2	27.4	401.9	39.0	9.9	161.6	0.1	1.8
19:00	395.7	9.8	27.2	464.9	98.9	10.4	153.7	0.5	1.9
20:00	432.3	9.7	26.6	583.3	100.6	10.2	146.9	0.1	2.1
21:00	464.0	8.8	26.7	630.1	185.9	9.5	163.1	0.6	2.3
22:00	373.4	8.4	27.1	412.1	106.0	9.3	186.0	0.5	2.6
23:00	435.5	8.7	26.8	432.1	134.8	9.4	179.9	0.2	2.5
24:00	216.6	9.8	25.8	508.4	45.5	10.4	168.6	0.1	2.7
Daily Mean:	264.9	9.4	29.3	458.7	65.2	10.1	161.0	1.8	2.5
Valid Hours:	24	24	24	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-20-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	211.6	47.4	77.6	517.6	4.1	99.2	39.9	200.9
2:00	248.9	62.4	74.9	619.4	5.7	99.1	39.0	205.8
3:00	276.2	58.8	78.7	657.8	12.6	98.1	38.5	183.4
4:00	485.7	185.2	61.9	703.2	8.9	98.7	41.4	211.9
5:00	242.1	52.0	78.5	589.0	6.9	98.8	39.2	211.5
6:00	206.5	42.0	79.7	719.9	5.4	99.2	39.9	226.6
7:00	226.0	39.8	82.4	543.6	4.1	99.2	35.1	209.5
8:00	310.4	68.9	77.8	663.1	5.7	99.1	36.7	209.1
9:00	342.5	77.0	77.5	750.8	3.2	99.6	37.2	192.3
10:00	262.5	55.7	78.8	484.3	1.0	99.8	37.0	194.1
11:00	339.1	78.0	77.0	508.8	1.3	99.7	36.3	227.1
12:00	343.7	91.8	73.3	674.3	1.0	99.9	38.0	214.0
13:00	358.9	77.6	78.4	598.2	1.3	99.8	36.4	190.9
14:00	191.8	40.4	78.9	809.6	0.3	100.0	34.4	182.3
15:00	195.0	40.9	79.0	785.6	4.3	99.5	34.8	204.4
16:00	276.6	53.0	80.8	592.4	0.3	99.9	33.5	221.4
17:00	219.4	46.1	79.0	543.0	0.0	100.0	32.5	219.9
18:00	229.8	49.3	78.6	555.2	0.2	100.0	32.6	204.2
19:00	495.5	130.9	73.6	676.9	0.8	99.9	34.1	203.5
20:00	536.5	130.7	75.6	841.8	0.2	100.0	33.0	190.8
21:00	533.0	226.7	57.5	841.7	0.9	99.9	30.7	198.9
22:00	415.2	127.0	69.4	532.9	0.7	99.9	30.1	222.9
23:00	496.2	162.9	67.2	572.5	0.3	99.9	30.5	217.4
24:00	271.2	60.2	77.8	740.3	0.2	100.0	32.3	223.2
24-hour Mean:	321.4	83.5	75.6	646.7	2.9	99.6	35.5	206.9
Valid Hours:	24	24	24	24	24	24	24	24

Comments/Process Notes: At 19:00, high SO2 measurements were questioned by the control room operator. At 22:15, the crane operator reported feeding wet cardboard.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-21-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	149.4	10.2	25.9	443.6	30.3	10.7	172.1	0.0	2.9
2:00	195.5	9.7	28.0	416.7	37.9	10.3	167.4	0.1	3.0
3:00	158.1	9.6	27.7	355.5	27.6	10.2	178.2	0.0	3.0
4:00	252.7	8.8	28.1	491.7	53.4	9.6	171.0	0.2	3.0
5:00	164.4	10.0	29.0	535.4	34.2	10.6	164.4	0.6	3.1
6:00	160.4	9.1	29.9	547.5	38.2	9.8	165.8	2.2	3.1
7:00	259.4	8.9	29.2	512.5	48.0	9.6	187.0	0.5	4.0
8:00	234.7	9.5	29.3	543.8	49.5	10.1	165.8	0.4	2.8
9:00	254.1	9.4	29.6	524.3	52.0	10.2	176.0	0.3	2.3
10:00	180.7	8.6	29.4	409.7	36.0	9.4	181.1	1.0	1.7
11:00	135.2	8.6	29.3	405.7	18.9	9.5	176.2	0.8	1.4
12:00	291.9	9.6	28.9	445.2	69.6	10.1	163.8	0.8	1.8
13:00	219.4	9.8	29.4	327.7	42.6	10.4	163.4	0.4	1.8
14:00	252.1	9.0	28.3	395.7	51.8	9.7	166.9	0.6	1.9
15:00	265.4	8.9	28.7	452.9	52.5	9.6	177.2	0.6	1.8
16:00	329.9	8.2	34.6	439.1	95.8	8.9	182.9	0.8	2.2
17:00	341.4	7.7	29.9	444.5	109.1	8.6	192.3	0.8	2.2
18:00	258.8	8.1	28.9	397.6	55.0	8.9	183.6	0.9	2.2
19:00	202.4	7.8	30.2	603.8	46.6	8.6	185.9	1.2	2.3
20:00	172.8	7.7	29.2	569.5	38.7	8.6	181.3	1.3	2.4
21:00	255.9	8.7	27.6	481.1	84.5	9.4	175.3	1.6	2.8
22:00	199.6	8.7	26.8	534.5	46.9	9.4	180.7	1.1	2.9
23:00	231.9	8.9	27.1	595.8	52.9	9.5	174.1	2.0	2.9
24:00	222.6	8.9	28.8	584.9	47.9	9.6	172.2	1.9	3.2
Daily Mean:	224.5	8.9	28.9	477.4	50.8	9.6	175.2	0.8	2.5
Valid Hours:	24	24	24	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-21-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	194.1	41.3	78.7	670.1	0.0	100.0	33.6	234.5
2:00	242.6	49.7	79.5	601.3	0.2	100.0	34.8	219.5
3:00	194.5	35.9	81.6	508.5	0.0	100.0	34.1	231.5
4:00	290.3	65.7	77.4	656.8	0.3	100.0	32.3	210.3
5:00	209.6	46.2	78.0	793.9	1.0	99.9	37.0	221.9
6:00	188.9	47.8	74.7	749.9	3.4	99.6	35.2	207.6
7:00	300.5	59.0	80.3	690.3	0.8	99.9	33.8	230.0
8:00	286.2	63.7	77.7	771.0	0.6	99.9	35.7	213.4
9:00	307.1	67.6	78.0	736.9	0.5	99.9	35.8	228.6
10:00	204.2	43.5	78.7	538.4	1.5	99.7	33.2	218.9
11:00	152.8	23.0	84.9	533.1	1.2	99.8	33.1	214.8
12:00	359.1	89.6	75.1	636.8	1.3	99.8	35.5	210.8
13:00	274.7	56.4	79.5	477.2	0.6	99.9	36.8	216.3
14:00	294.5	64.3	78.2	537.4	0.9	99.8	33.1	207.1
15:00	307.4	64.6	79.0	610.0	0.9	99.9	33.2	218.0
16:00	361.1	111.0	69.3	558.8	1.1	99.8	37.9	211.9
17:00	359.5	123.3	65.7	544.3	1.1	99.8	31.5	217.3
18:00	281.0	63.7	77.3	502.1	1.3	99.7	31.4	212.7
19:00	214.8	52.7	75.5	745.0	1.7	99.8	32.0	210.1
20:00	182.0	43.7	76.0	697.3	1.8	99.7	30.7	204.9
21:00	291.6	102.1	65.0	637.4	2.4	99.6	31.4	211.9
22:00	227.4	56.7	75.1	708.1	1.6	99.8	30.5	218.4
23:00	268.6	64.5	76.0	802.5	3.0	99.6	31.4	212.3
24:00	257.8	58.9	77.1	787.8	2.9	99.6	33.4	211.8
24-hour Mean:	260.4	62.3	76.6	645.6	1.2	99.8	33.6	216.4
Valid Hours:	24	24	24	24	24	24	24	24

Comments/Process Notes:

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/22/88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	180.1	10.0	30.3	593.4	39.4	10.5	158.7	1.3	3.6
2:00	152.3	10.3	30.4	479.4	31.8	10.7	143.8	0.8	3.9
3:00	194.4	9.7	29.2	577.1	45.8	10.2	164.3	1.8	4.1
4:00	169.8	9.1	27.8	521.7	37.5	9.7	160.5	1.5	4.0
5:00	150.2	9.3	26.0	758.9	40.0	9.9	166.2	7.2	4.0
6:00	153.3	9.3	25.2	513.8	32.9	9.8	162.9	2.2	4.1
7:00	131.6	9.0	24.2	492.9	27.2	9.7	164.2	1.6	4.9
8:00	215.8	9.0	24.8	475.4	41.1	9.7	179.3	2.4	3.6
9:00	143.6	9.3	28.3	485.5	29.0	10.1	150.0	1.6	3.0
10:00	159.7	8.6	30.4	447.4	36.4	9.5	151.8	2.8	2.5
11:00	131.7	9.2	32.6	375.3	20.1	10.0	142.3	1.1	2.3
12:00	125.9	8.4	33.3	420.9	16.9	9.4	162.0	0.7	2.5
13:00	136.8	8.9	34.8	514.8	21.4	9.7	167.9	0.7	2.7
14:00	122.6	9.0	34.6	607.3	21.5	9.7	161.4	1.5	2.7
15:00	126.1	8.6	33.5	420.3	17.0	9.5	167.9	0.7	2.6
16:00	89.8	9.1	35.1	654.0	15.0	9.8	159.5	0.8	2.6
17:00	102.3	9.6	35.2	378.0	20.8	10.3	160.8	0.9	2.7
18:00	146.0	9.7	35.4	490.2	35.0	10.2	167.0	1.0	2.9
19:00	163.5	8.7	34.7	463.0	43.3	9.5	185.2	1.5	2.8
20:00	192.0	8.3	34.1	441.1	42.8	9.2	187.5	1.5	2.7
21:00	206.6	9.0	33.7	544.1	47.7	9.6	165.4	1.5	3.1
22:00	195.2	9.0	32.6	494.0	45.1	9.7	165.2	1.1	3.5
23:00	360.8	8.7	29.7	468.9	93.7	9.5	166.6	1.3	3.7
24:00	181.0	9.4	28.5	626.8	47.3	10.0	153.5	2.6	4.0
Daily Mean:	163.8	9.1	31.0	510.2	35.4	9.8	163.1	1.7	3.3
Valid Hours:	24	24	24	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/22/88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	229.7	52.7	77.1	879.9	2.1	99.8	38.6	212.1
2:00	199.7	43.3	78.3	731.0	1.3	99.8	39.9	196.0
3:00	241.3	59.5	75.3	832.8	2.9	99.7	36.2	213.4
4:00	200.0	46.5	76.7	714.6	2.3	99.7	32.7	199.2
5:00	180.0	50.5	71.9	1057.4	11.1	99.0	31.2	210.0
6:00	183.7	41.2	77.6	715.9	3.4	99.5	30.2	204.0
7:00	153.7	33.8	78.0	669.5	2.4	99.6	28.3	203.8
8:00	252.1	51.0	79.8	645.7	3.6	99.4	29.0	222.5
9:00	172.1	37.3	78.3	676.5	2.5	99.6	33.9	193.1
10:00	180.5	44.4	75.4	587.9	4.2	99.3	34.4	185.1
11:00	156.5	25.6	83.6	518.5	1.7	99.7	38.7	181.5
12:00	140.0	20.4	85.4	544.2	1.0	99.8	37.0	195.8
13:00	158.5	26.6	83.2	693.4	1.1	99.8	40.3	208.4
14:00	143.2	26.7	81.4	824.8	2.3	99.7	40.4	200.3
15:00	142.5	20.7	85.5	552.3	1.0	99.8	37.9	204.7
16:00	105.8	18.8	82.2	895.8	1.2	99.9	41.3	199.7
17:00	125.8	27.3	78.3	540.7	1.4	99.7	43.3	210.9
18:00	181.2	45.5	74.9	707.4	1.6	99.8	43.9	216.9
19:00	186.3	52.8	71.7	613.4	2.2	99.6	39.5	225.8
20:00	211.8	50.8	76.0	565.8	2.2	99.6	37.6	222.8
21:00	241.3	58.7	75.7	739.0	2.3	99.7	39.4	203.5
22:00	228.0	56.0	75.5	671.0	1.7	99.8	38.1	205.0
23:00	411.1	114.2	72.2	621.2	1.9	99.7	33.8	203.1
24:00	218.8	60.3	72.4	880.9	4.0	99.5	34.4	195.7
24-hour Mean:	193.5	44.4	77.8	703.3	2.6	99.6	36.7	204.7
Valid Hours:	24	24	24	24	24	24	24	24

Comments/Process Notes:

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-23-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	142.1	9.3	28.0	536.5	33.7	9.9	161.4	1.5	4.2
2:00	193.2	9.0	27.2	634.8	47.5	9.7	168.9	4.2	4.3
3:00	108.4	9.6	27.9	550.9	21.2	10.3	152.8	1.1	4.7
4:00	134.9	9.8	29.2	429.4	26.1	10.5	163.5	0.8	4.8
5:00	90.0	10.1	28.4	435.9	17.2	10.7	157.2	0.5	4.7
6:00	98.8	9.4	28.3	517.9	22.2	10.2	168.3	1.0	4.9
7:00	167.6	9.4	28.6	477.7	36.8	10.1	173.9	1.0	5.8
8:00	143.8	8.7	27.2	582.5	35.6	9.6	180.6	1.8	4.2
9:00	107.2	10.1	28.8	488.9	17.6	10.9	155.1	0.9	3.7
10:00	397.6	10.8	28.2	376.2	130.9	11.1	122.9	0.9	3.0
11:00	320.2	8.9	31.1	396.3	77.0	9.5	152.8	1.8	2.7
12:00	163.2	9.1	34.3	483.1	32.3	9.8	152.6	1.1	2.9
13:00	128.6	8.5	35.7	456.8	20.3	9.3	167.4	1.1	2.6
14:00	125.1	9.1	35.6	412.0	15.1	9.7	161.4	0.6	2.7
15:00	124.3	8.4	35.0	452.1	15.7	9.3	167.4	0.6	2.4
16:00	112.5	8.8	34.9	424.3	14.5	9.6	149.1	0.5	2.5
17:00	106.8	9.4	35.1	455.7	14.9	10.1	137.9	0.4	2.7
18:00	150.9	7.5	26.7	392.1	32.2	8.0	146.6	0.5	2.6
19:00	129.2	9.2	28.3	430.7	22.7	10.1	157.6	0.7	2.8
20:00	148.1	9.6	27.6	429.2	26.7	10.1	161.5	0.6	2.9
21:00	168.9	9.0	25.9	446.2	34.1	9.9	154.8	0.7	2.9
22:00	321.1	8.8	25.6	408.0	75.6	9.7	160.0	0.7	3.1
23:00	154.9	9.3	24.7	485.9	31.1	10.0	158.9	0.8	3.1
24:00	171.1	9.2	23.5	495.8	36.7	9.8	164.1	1.4	3.1
Daily Mean:	162.9	9.2	29.4	466.6	34.9	9.9	158.2	1.1	3.5
Valid Hours:	24	24	24	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-23-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	170.3	42.6	75.0	747.5	2.3	99.7	33.6	204.0
2:00	225.7	59.0	73.9	862.2	6.4	99.3	31.8	209.6
3:00	133.3	27.8	79.2	788.0	1.8	99.8	34.3	200.4
4:00	168.9	34.9	79.4	625.3	1.3	99.8	36.6	218.5
5:00	115.8	23.4	79.8	652.3	0.8	99.9	36.6	214.2
6:00	119.4	28.8	75.9	727.9	1.6	99.8	34.2	218.6
7:00	202.6	47.4	76.6	671.4	1.6	99.8	34.6	223.8
8:00	163.8	43.8	73.3	771.7	2.7	99.7	31.0	222.2
9:00	138.0	24.5	82.3	731.7	1.5	99.8	37.1	215.6
10:00	547.2	185.7	66.1	602.0	1.6	99.7	38.8	174.3
11:00	370.9	93.9	74.7	533.8	2.7	99.5	36.0	186.3
12:00	192.2	40.4	79.0	661.7	1.7	99.7	40.4	191.1
13:00	144.2	24.3	83.1	595.4	1.6	99.7	40.0	200.6
14:00	147.4	18.7	87.3	564.3	0.9	99.8	41.9	200.3
15:00	138.2	18.8	86.4	584.6	0.9	99.9	38.9	200.6
16:00	129.2	17.8	86.2	566.8	0.8	99.9	40.1	183.4
17:00	129.1	19.2	85.1	640.5	0.6	99.9	42.4	177.5
18:00	156.5	34.7	77.8	472.9	0.7	99.9	27.7	158.0
19:00	153.5	29.2	81.0	595.0	1.1	99.8	33.6	202.8
20:00	182.2	34.4	81.1	613.9	0.9	99.8	34.0	207.9
21:00	197.3	43.1	78.2	606.0	1.1	99.8	30.3	195.6
22:00	368.9	93.8	74.6	545.0	1.1	99.8	29.4	198.6
23:00	185.6	39.7	78.6	677.0	1.2	99.8	29.6	202.6
24:00	203.3	46.0	77.4	684.9	2.1	99.7	27.9	205.5
24-hour Mean:	195.1	44.7	78.8	646.7	1.6	99.8	35.0	200.5
Valid Hours:	24	24	24	24	24	24	24	24

Comments/Process Notes: Natural gas was fired from approximately 9:45-10:05 during trouble with the waste feed.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-24-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	171.9	8.7	23.4	409.1	34.0	9.7	167.5	0.8	3.2
2:00	161.5	9.0	23.2	400.3	33.9	9.9	161.9	0.9	3.3
3:00	195.7	9.5	24.1	434.0	46.1	10.2	164.8	0.7	3.5
4:00	228.1	9.4	24.1	398.1	46.4	10.1	171.0	0.8	3.7
5:00	188.9	7.9	22.4	459.0	32.2	9.1	187.2	0.8	3.8
6:00	170.8	8.7	22.2	424.5	29.9	9.6	178.4	0.8	3.8
7:00	144.5	9.2	21.9	429.9	22.5	10.0	178.3	0.8	5.0
8:00	150.4	9.7	21.8	444.9	27.3	10.5	162.1	0.5	4.3
9:00	128.2	9.4	26.7	509.3	19.4	10.2	212.6	0.6	4.5
10:00	88.5	10.2	30.6	457.4	11.6	10.6	196.7	0.3	4.8
11:00	110.4	9.6	30.8	576.2	19.8	10.1	226.7	0.5	4.7
12:00	170.7	9.2	30.3	762.9	39.3	9.6	250.7	2.6	4.6
13:00	116.5	9.7	31.7	684.8	33.8	10.0	224.4	5.6	4.6
14:00	149.9	9.7	31.8	447.5	22.7	10.0	237.2	0.9	4.3
15:00	102.8	9.1	32.7	446.1	12.4	9.7	248.1	0.2	4.0
16:00	111.6	9.8	33.6	450.2	14.1	10.0	230.4	0.3	3.9
17:00	84.4	9.7	34.6	569.3	11.8	10.2	228.4	0.6	3.7
18:00	156.4	9.3	34.1	429.3	20.2	9.7	244.8	0.2	3.6
19:00	137.1	8.9	33.1	457.2	17.3	9.4	254.2	0.5	3.3
20:00	157.1	9.0	33.4	470.8	25.0	9.6	240.3	0.7	3.1
21:00	130.6	9.9	34.1	411.5	14.4	10.3	220.5	0.1	3.2
22:00	187.4	9.7	32.8	434.5	26.8	10.1	228.7	0.2	3.3
23:00	150.9	10.0	31.3	477.1	19.8	10.2	233.0	0.3	3.3
24:00	123.3	9.9	30.8	485.7	11.7	10.2	231.0	0.1	4.2
Daily Mean:	146.6	9.4	29.0	477.9	24.7	10.0	211.6	0.8	3.9
Valid Hours:	24	24	24	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-24-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
			77.8					
1:00	195.9	42.2	78.5	542.0	1.2	99.8	26.7	207.9
2:00	188.6	42.8	77.3	543.7	1.4	99.7	27.1	204.6
3:00	238.6	59.9	74.9	615.3	1.1	99.8	29.4	214.1
4:00	275.7	59.7	78.3	559.5	1.3	99.8	29.1	220.1
5:00	202.0	37.9	81.2	570.7	1.1	99.8	24.0	220.5
6:00	194.6	36.8	81.1	562.4	1.2	99.8	25.3	219.4
7:00	171.7	28.7	83.3	593.9	1.2	99.8	26.0	227.4
8:00	186.7	36.5	80.5	642.0	0.8	99.9	27.1	216.7
9:00	155.0	25.2	83.7	715.8	1.0	99.9	32.3	276.2
10:00	115.0	15.7	86.4	690.9	0.5	99.9	39.8	265.4
11:00	135.8	25.5	81.2	824.2	0.8	99.9	37.9	291.8
12:00	202.8	48.3	76.2	1053.9	3.9	99.6	36.0	308.4
13:00	144.6	43.1	70.2	988.2	8.7	99.1	39.3	286.2
14:00	186.0	28.9	84.4	645.8	1.4	99.8	39.5	302.5
15:00	121.1	15.4	87.3	611.0	0.3	100.0	38.5	307.9
16:00	139.8	18.0	87.1	655.5	0.5	99.9	42.1	293.8
17:00	104.7	15.3	85.4	821.6	1.0	99.9	42.9	296.7
18:00	187.4	25.1	86.6	598.2	0.3	99.9	40.9	303.8
19:00	158.8	20.9	86.8	615.8	0.7	99.9	38.3	307.3
20:00	183.5	30.8	83.2	639.4	1.1	99.8	39.0	295.6
21:00	165.0	18.9	88.6	604.6	0.2	100.0	43.1	289.1
22:00	232.6	34.5	85.2	627.0	0.3	99.9	40.7	294.3
23:00	192.4	25.7	86.6	707.5	0.5	99.9	39.9	302.7
24:00	155.8	15.2	90.2	713.7	0.2	100.0	38.9	300.1
24-hour Mean:	176.4	31.3	82.7	672.6	1.3	99.8	35.2	268.8
Valid Hours:	24	24	24	24	24	24	24	24

Comments/Process Notes:

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-25-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	162.3	9.8	28.6	505.8	22.3	10.1	232.0	0.3	3.3
2:00	142.6	11.4	26.4	423.8	19.2	10.2	232.9	0.1	3.5
3:00	86.6	12.7	25.5	392.6	7.4	10.2	226.2	0.0	3.3
4:00	99.5	13.2	24.2	495.1	15.9	9.8	237.2	0.1	3.4
5:00	111.1	14.1	23.6	454.2	27.0	9.7	246.2	0.4	3.3
6:00	71.7	15.2	21.4	546.0	17.3	9.7	260.7	0.7	3.4
7:00	45.7	16.6	18.0	481.0	11.5	10.0	242.9	0.4	3.4
8:00	48.1	17.3	16.9	417.7	14.6	10.4	230.7	0.2	3.5
9:00	34.6	17.9	18.3	444.6	9.9	10.6	220.0	0.0	3.5
10:00	28.2	18.2	18.8	505.5	8.9	10.5	183.0	0.1	3.2
11:00	44.8	16.2	20.2	435.3	6.9	9.0	231.8	0.0	2.8
12:00	203.5	9.0	34.8	444.4	32.1	9.7	216.1	0.1	2.6
13:00	172.1	9.1	35.3	428.3	23.9	9.7	220.8	0.1	2.5
14:00	122.2	8.4	35.6	392.9	11.6	9.3	228.0	0.0	2.4
15:00	126.8	6.7	26.9	459.2	12.0	9.5	216.9	0.2	2.2
16:00	223.0		8.7	441.6	18.7	9.1	214.1	0.0	1.9
17:00	71.2	9.2	10.8	386.1	24.1	9.6	204.1	0.0	2.0
18:00	34.2	15.1	16.8	394.0	29.1	9.9	206.0	0.0	2.1
19:00	143.2	8.8	35.6	395.2	22.7	9.4	217.6	0.0	2.0
20:00	208.8	8.0	33.0	478.5	32.6	8.9	238.7	0.1	2.2
21:00	209.3	9.0	32.1	436.8	39.3	9.6	217.5	0.2	2.4
22:00	273.0	9.4	33.1	409.2	49.1	9.9	200.8	0.1	2.6
23:00	195.6	8.8	31.2	412.1	31.8	9.4	208.0	0.0	2.4
24:00	153.1	9.7	32.6	413.0	23.8	10.1	204.3	0.0	2.6
Daily Mean:	125.5	11.9	25.4	441.4	21.3	9.8	222.4	0.1	2.8
Valid Hours:	24	23	24	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-25-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	203.2	28.7	85.9	757.0	0.5	99.9	35.8	298.6
2:00	208.6	24.9	88.0	640.2	0.2	100.0	38.6	302.6
3:00		9.6		593.0	0.0	100.0		293.8
4:00		19.9		720.9	0.2	100.0		297.0
5:00		33.5		655.5	0.6	99.9		305.6
6:00		21.5		787.9	1.1	99.9		323.5
7:00		14.7		713.2	0.6	99.9		309.8
8:00		19.3		643.0	0.3	99.9		305.4
9:00		13.4		697.7	0.0	100.0		296.9
10:00		11.9		785.6	0.2	100.0		244.6
11:00		8.1		591.2	0.0	100.0		270.8
12:00	237.7	39.8	83.2	603.6	0.2	100.0	40.6	268.2
13:00	202.7	29.7	85.4	586.7	0.2	100.0	41.6	274.0
14:00	135.9	13.9	89.8	508.0	0.0	100.0	39.6	273.2
15:00		14.6		651.0	0.3	100.0		264.5
16:00		22.0		604.9	0.0	100.0		252.2
17:00		29.6		552.3	0.0	100.0		251.1
18:00		36.8		578.9	0.0	100.0		260.3
19:00	164.5	27.4	83.3	527.9	0.0	100.0	40.9	263.0
20:00	225.0	37.8	83.2	599.5	0.1	100.0	35.6	276.5
21:00	244.5	48.3	80.2	593.3	0.3	99.9	37.5	267.5
22:00	330.0	62.0	81.2	575.1	0.2	100.0	40.0	253.7
23:00	224.7	38.4	82.9	550.5	0.0	100.0	35.8	251.4
24:00	190.0	30.6	83.9	596.0	0.0	100.0	40.5	262.9
24-hour Mean:	215.2	26.5	84.3	629.7	0.2	100.0	38.8	277.8
Valid Hours:	11	24	11	24	24	24	11	24

Comments/Process Notes: Averages 3:00-11:00 removed due to problems with the inlet sampling system. Averages 15:00-18:00 removed due to cylinder gas injections. HCl inlet data from 0:00-11:00 and 15:00-18:00 were corrected using outlet O2 data.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-26-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	230.6	8.8	30.7	466.8	44.8	9.3	224.6	0.2	2.5
2:00	137.3	9.9	31.1	383.4	23.6	10.3	202.8	0.0	2.6
3:00	152.3	9.2	30.2	412.1	23.6	9.6	225.7	0.0	2.5
4:00	142.6	8.3	28.1	441.9	22.5	9.0	230.0	0.1	2.7
5:00	131.1	8.3	27.6	419.8	19.6	8.9	239.6	0.1	2.6
6:00	165.9	8.9	28.1	429.4	33.4	9.4	240.2	0.3	3.6
7:00	164.4	9.0	28.5	459.2	28.7	9.4	236.8	0.4	2.6
8:00	128.6	8.9	28.8	430.5	18.6	9.3	228.0	0.2	2.3
9:00	71.7	13.0	23.4	431.9	19.8	10.2	197.3	0.0	2.0
10:00	41.1	17.4	20.3	430.9	18.6	9.8	192.1	0.0	1.7
11:00	36.8	18.3	18.6	474.1	23.8	9.7	215.5	0.3	1.3
12:00	34.3	18.9	18.1	454.8	22.0	9.8	200.8	0.1	1.4
13:00	89.8	8.6	15.5	486.8	39.2	8.2	109.3	0.1	1.4
14:00	122.8	8.5	29.7	447.2	21.7	8.7	270.0	0.0	1.2
15:00	124.4	8.1	28.5	683.5	30.5	8.7	288.3	1.0	1.4
16:00	100.6	9.5	27.0	502.9	18.2	9.7	245.2	0.6	2.3
17:00	98.2	10.0	28.6	502.8	12.4	10.3	270.9	0.0	1.5
18:00	163.2	10.3	28.6	437.9	28.9	10.4	258.1	0.0	1.7
19:00	128.3	9.7	27.8	409.3	17.9	10.0	291.9	0.0	1.6
20:00	138.8	10.3	28.6	421.0	22.4	10.5	272.8	0.0	1.8
21:00	124.7	12.1	23.8	462.6	26.4	10.3	267.0	0.0	2.1
22:00	194.7	9.2	25.7	586.4	40.4	9.6	306.2	0.5	2.1
23:00	130.9	9.8	26.4	737.2	36.7	10.1	287.6	1.6	2.4
24:00	152.2	9.2	25.7	616.4	49.8	9.5	294.9	3.5	2.3
Daily Mean:	125.2	10.6	26.2	480.4	26.8	9.6	241.5	0.4	2.1
Valid Hours:	24	24	24	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-26-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	264.9	53.7	79.7	623.5	0.3	100.0	35.3	269.1
2:00	173.5	30.9	82.2	563.3	0.0	100.0	39.3	265.9
3:00	180.9	29.0	84.0	569.3	0.0	100.0	35.9	277.6
4:00	157.3	26.3	83.3	566.9	0.1	100.0	31.0	268.7
5:00	144.6	22.7	84.3	538.5	0.1	100.0	30.4	277.5
6:00	192.2	40.4	79.0	578.4	0.4	99.9	32.5	290.3
7:00	192.0	34.7	81.9	623.7	0.6	99.9	33.3	286.2
8:00	149.0	22.3	85.0	579.8	0.3	99.9	33.4	273.2
9:00		25.7		652.4	0.0	100.0	41.2	256.3
10:00		23.3		627.4	0.0	100.0		240.6
11:00		29.5		684.2	0.5	99.9		267.5
12:00		27.5		662.2	0.2	100.0		251.5
13:00		42.9		619.5	0.1	100.0	17.5	119.6
14:00	137.7	24.7	82.0	582.9	0.0	100.0	33.3	307.6
15:00	135.1	34.8	74.3	863.1	1.4	99.8	30.9	328.5
16:00	122.7	22.6	81.6	713.0	0.9	99.9	32.9	304.3
17:00	125.2	16.3	87.0	745.6	0.0	100.0	36.5	355.2
18:00	214.0	38.3	82.1	667.7	0.0	100.0	37.5	341.7
19:00	159.2	22.8	85.7	590.7	0.0	100.0	34.5	372.2
20:00	182.0	29.9	83.6	641.9	0.0	100.0	37.5	364.6
21:00	197.0	34.6	82.4	705.4	0.0	100.0	37.6	350.1
22:00	231.3	49.7	78.5	810.1	0.8	99.9	30.5	376.7
23:00	163.9	47.2	71.2	1073.4	2.5	99.8	33.1	370.2
24:00	180.8	60.7	66.4	851.5	5.2	99.4	30.5	359.6
24-hour Mean:	173.9	32.9	80.7	672.3	0.6	99.9	33.6	298.9
Valid Hours:	19	24	19	24	24	24	21	24

Comments/Process Notes: The HCl inlet data from 9:00-13:00 and 21:00 were corrected using outlet O2 data. The Anarad inlet data from 10:00-13:00 were removed because the O2 indicated too much dilution for meaningful corrected data.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-27-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	127.4	9.2	25.4	655.7	42.5	9.6	313.1	3.4	2.3
2:00	127.6	9.2	25.1	565.1	28.4	9.5	312.7	2.3	2.4
3:00	156.3	9.7	23.8	533.9	32.2	9.3	315.1	1.0	2.4
4:00	104.1	12.1	20.6	472.7	20.4	9.5	308.7	0.5	7.2
5:00	129.9	11.0	22.8	440.0	20.7	9.8	319.9	0.1	2.6
6:00	146.8	11.2	21.5	459.1	27.2	9.4	334.5	0.1	2.5
7:00	162.3	11.9	21.7	427.2	28.0	10.1	327.5	0.1	2.6
8:00	111.6	12.3	21.8	494.0	17.7	10.6	294.2	0.0	2.6
9:00	174.6	11.3	26.5	623.1	35.3	9.7	250.6	0.3	2.4
10:00	95.1	12.1	26.8	548.1	11.8	9.9	193.5	0.6	2.2
11:00	89.9	10.9	26.9	524.0				0.3	1.9
12:00	56.4	16.1	21.7	403.8				0.2	2.0
13:00	130.3	12.8	29.0	561.8	22.1	9.0	210.2	0.7	1.7
14:00	110.4	15.6	24.6	539.0	30.4	9.5	208.7	0.6	1.6
15:00	38.3	19.1	17.6	523.4	17.1	9.7	226.0	0.4	1.6
16:00	62.0	17.6	21.7	512.9	18.2	10.0	229.1	0.3	1.7
17:00	77.7	17.7	19.3	679.1	45.8	9.1	260.5	0.6	1.6
18:00	28.6	19.9	14.8	486.5	22.5	9.6	267.8	0.4	1.7
19:00	16.5	20.8	12.5	511.5	20.8	9.4	242.3	0.4	1.7
20:00	9.3	21.5	9.4	508.1	16.2	9.8	279.0	0.3	1.8
21:00	72.3	17.5	16.3	479.7	39.5	9.7	238.6	0.4	1.9
22:00	163.9	9.4	29.6	420.8	16.0	9.5	263.7	0.3	1.9
23:00	138.1	9.7	29.6	475.2	14.1	9.9	284.8	0.5	1.8
24:00	177.5	9.4	29.9	489.5	19.9	9.6	243.6	0.2	1.8
Daily Mean:	104.5	13.7	22.5	513.9	24.9	9.6	269.3	0.6	2.2
Valid Hours:	24	24	24	24	22	22	22	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-27-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	151.4	52.3	65.5	905.8	5.1	99.4	30.2	385.1
2:00	151.6	34.6	77.2	780.6	3.4	99.6	29.8	381.3
3:00	194.0	38.6	80.1	743.9	1.5	99.8	29.5	377.6
4:00	164.4	24.9	84.9	670.2	0.7	99.9	32.5	376.4
5:00	182.4	25.9	85.8	640.7	0.2	100.0	32.0	400.6
6:00	210.4	32.9	84.4	645.2	0.1	100.0	30.8	404.3
7:00	250.7	36.0	85.6	639.3	0.2	100.0	33.5	421.5
8:00	180.4	23.9	86.8	775.2	0.0	100.0	35.2	397.0
9:00	252.8	43.8	82.7	899.2	0.5	99.9	38.4	311.0
10:00	150.2	14.9	90.1	805.3	0.9	99.9	42.3	244.5
11:00	125.0			405.2	0.2	99.9	37.4	
12:00				312.3	0.2	99.9		
13:00		25.8		763.0	1.0	99.9		245.5
14:00		37.1		764.2	0.9	99.9		254.5
15:00		21.2		755.3	0.6	99.9		280.5
16:00		23.2		760.5	0.5	99.9		292.2
17:00		54.0		930.2	0.9	99.9		306.9
18:00		27.7		695.9	0.6	99.9		329.4
19:00		25.1		718.9	0.6	99.9		292.9
20:00		20.3		739.8	0.5	99.9		349.4
21:00		49.0		692.3	0.6	99.9		296.1
22:00	198.1	19.5	90.2	591.4	0.4	99.9	35.8	321.5
23:00	171.4	17.8	89.6	685.8	0.8	99.9	36.7	359.9
24:00	214.5	24.5	88.6	688.0	0.3	100.0	36.1	299.6
24-hour Mean:	185.5	30.6	83.9	708.7	0.9	99.9	34.3	333.1
Valid Hours:	14	22	13	24	24	24	14	22

Comments/Process Notes: The Anarad inlet data are invalid from 12:00-21:00. Inlet data from 3:00-12:00 indicate some problem, but the corrected values should be valid. The inlet HCl data from 3:00-21:00 have been corrected using outlet O2 data. Calibration gases were injected through the outlet Anarad CEMS during the 11:00 and 12:00 averaging periods.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-28-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	135.7	11.1	27.5	421.3	14.4	10.1	239.4	0.2	1.9
2:00	107.8	10.5	31.1	659.6	14.1	10.6	223.7	0.3	3.2
3:00	146.3	12.6	25.3	509.9	20.0	10.0	229.0	0.3	2.0
4:00	132.2	11.9	27.4	433.7	15.9	10.6	214.8	0.2	1.9
5:00	224.3	12.2	27.1	474.9	41.5	10.1	248.0	0.2	2.0
6:00	148.0	9.4	30.1	800.1	33.1	9.5	257.3	1.8	2.0
7:00	112.6	10.7	29.9	734.0	25.1	10.4	233.1	1.8	2.2
8:00	89.7	11.9	29.5	505.0	13.5	10.9	221.1	0.3	2.1
9:00	130.8	12.8	27.0	482.5	20.6	11.2	197.2	0.8	1.9
10:00	92.5	14.6	20.3	479.1	19.5	9.9	215.6	0.4	1.6
11:00	82.5	14.9	19.6	574.8	20.1	9.9	224.6	0.6	1.2
12:00	152.7	12.6	20.1	528.0	49.5	10.4	206.4	2.2	1.3
13:00	209.4	10.4	26.9	570.0	83.5	15.1	119.0	0.9	1.4
14:00	189.7	11.7	25.4	540.1	50.2	9.5	200.5	1.4	1.3
15:00	164.7	10.2	26.1	473.3	31.0	9.8	215.7	1.2	1.3
16:00	139.3	10.1	25.0	444.5	21.3	9.8	220.7	0.3	1.5
17:00	87.5	10.6	24.3	388.8	13.3	10.4	202.6	0.2	1.5
18:00	90.2	12.8	37.0	347.3	18.4	11.0	186.6	0.2	1.7
19:00	111.5	9.8	24.1	441.2	15.6	9.7	231.3	0.2	1.7
20:00	76.6	13.1	41.9	318.7	11.0	12.8	161.9	0.2	1.8
21:00	63.6	13.2	24.9	306.2	9.5	12.9	128.5	0.1	1.6
22:00	9.8	16.2	84.0	83.5	4.2	16.0	46.3	0.7	1.6
23:00	2.4	15.1	26.6	31.6	3.7	15.1	49.5	13.8	1.5
24:00	2.9	12.8	18.9	28.8	4.4	12.9	69.6	15.9	2.2
Daily Mean:	112.6	12.1	29.2	440.7	23.1	11.2	189.3	1.8	1.8
Valid Hours:	24	24	24	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-28-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	192.5	18.5	90.4	694.8	0.3	100.0	39.0	308.1
2:00	144.1	19.0	86.8	1025.1	0.5	100.0	41.6	301.9
3:00	245.0	25.5	89.6	992.9	0.5	100.0	42.4	292.0
4:00	204.2	21.5	89.5	778.9	0.3	100.0	42.3	289.9
5:00	358.4	53.4	85.1	882.3	0.3	100.0	43.3	319.2
6:00	178.9	40.4	77.4	1124.5	2.7	99.8	36.4	313.7
7:00	153.4	33.2	78.3	1163.1	2.9	99.8	40.7	308.6
8:00	138.5	18.8	86.5	906.9	0.5	99.9	45.6	307.3
9:00	224.5	29.5	86.8	962.8	1.4	99.9	46.3	282.6
10:00	204.1	24.6	87.9	1229.1	0.6	99.9	44.8	272.4
11:00	191.1	25.4	86.7	1548.4	0.9	99.9	45.4	283.8
12:00	255.7	65.5	74.4	1028.2	3.6	99.7	33.7	273.2
13:00	277.2			877.4	2.6	99.7	35.6	
14:00	286.6	61.2	78.6	948.9	2.1	99.8	38.4	244.5
15:00	214.0	38.8	81.9	714.9	1.8	99.7	33.9	270.1
16:00	179.3	26.7	85.1	665.2	0.5	99.9	32.2	276.4
17:00	118.1	17.6	85.1	610.1	0.3	99.9	32.8	268.2
18:00	154.8	25.8	83.3	693.0	0.3	100.0	63.5	262.0
19:00	139.6	19.4	86.1	642.4	0.3	100.0	30.2	287.1
20:00	136.5	18.9	86.2	660.4	0.4	99.9	74.7	277.8
21:00	114.8	16.5	85.6	642.7	0.2	100.0	44.9	223.3
22:00								
23:00								
24:00								
24-hour Mean:	195.8	30.0	84.6	894.9	1.1	99.9	42.3	283.1
Valid Hours:	21	20	20	21	21	21	21	20

Comments/Process Notes: The HCl values for the hours of 8:00-12:00 were corrected using the outlet O2 values instead of the inlet values. Calibration gases were injected at the outlet during the 13:00 period, therefore the outlet data for this period have been corrected using inlet O2 data. The unit was off-line beginning with the 22:00 average.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/29/88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	88.2	10.5	20.2	154.4	65.1	10.5	134.8	24.7	1.0
2:00	313.7	8.6	23.4	539.3	97.1	8.4	251.0	8.4	1.5
3:00	167.2	10.0	23.5	717.0	43.9	9.9	226.9	2.1	1.9
4:00	110.4	11.1	21.8	579.3	29.7	10.0	223.0	1.4	1.9
5:00	101.4	11.6	20.8	520.2	22.7	10.1	220.8	0.9	1.9
6:00	126.7	9.9	24.2	546.2	30.2	10.0	223.6	1.4	1.8
7:00	123.3	9.9	23.7		25.4	10.0	230.3	0.8	1.9
8:00	118.8	10.1	23.6	636.1	25.4	10.2	216.3	1.0	1.8
9:00	149.1	10.9	26.7	757.3	28.1	11.0	198.6	0.2	1.8
10:00	148.4	11.2	29.1	680.4	26.6	10.5	212.6	0.4	1.8
11:00	205.1	10.1	28.6	726.9	36.4	9.9	216.3	2.8	1.7
12:00	136.5	10.0	28.1	889.6	20.1	9.8	200.5	0.9	1.4
13:00	89.7	10.4	28.3	1407.4	27.3	10.0	185.8	8.0	1.6
14:00	69.8	10.3	28.6	909.8	8.4	10.0	209.3	0.7	1.7
15:00	78.0	10.3	28.5	655.2	6.1	10.1	209.1	0.3	1.7
16:00	12.9	20.3	5.1	685.9	6.0	10.0	207.9	0.1	1.7
17:00	106.8	10.4	28.5	612.8	8.3	10.1	203.6	0.1	1.6
18:00	104.6	13.2	26.4		12.9	10.9	177.7		2.1
19:00	78.4	10.3	31.8	544.2	5.5	10.1	211.6	0.0	2.2
20:00	143.7	9.9	30.4	522.6	11.1	9.7	225.0	0.1	2.7
21:00	124.6	9.2	29.5	520.8	10.0	9.1	230.5	0.1	2.9
22:00	123.5	10.3	30.8	503.9	9.4	10.2	219.0	0.1	2.8
23:00	145.7	11.6	26.1	582.6	28.0	9.6	243.6	0.1	3.7
24:00	169.0	9.7	28.1	640.2	22.1	9.5	218.3	0.3	2.3
Daily Mean:	126.5	10.8	25.7	651.5	25.2	10.0	212.3	2.4	2.0
Valid Hours:	24	24	24	22	24	24	24	23	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8/29/88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	117.9	87.0	26.2	240.0	40.3	83.2	27.0	180.2
2:00	354.5	108.0	69.5	708.7	11.4	98.4	26.4	279.1
3:00	213.2	55.5	74.0	1063.2	3.2	99.7	30.0	286.7
4:00	156.6	37.9	75.8	955.4	2.2	99.8	30.9	284.4
5:00	151.6	29.2	80.7	904.1	1.4	99.8	31.1	284.2
6:00	160.1	38.5	75.9	802.6	2.2	99.7	30.6	285.1
7:00	155.8	32.4	79.2		1.2		29.9	293.7
8:00	152.9	33.0	78.4	952.0	1.6	99.8	30.4	281.0
9:00	207.2	39.5	81.0	1224.0	0.3	100.0	37.1	278.8
10:00	212.7	35.6	83.3	1133.7	0.7	99.9	41.7	284.1
11:00	264.0	46.0	82.6	1087.8	4.3	99.6	36.8	273.3
12:00	174.1	25.2	85.5	1319.1	1.4	99.9	35.8	251.1
13:00	118.7	34.8	70.7	2166.4	12.4	99.4	37.5	236.9
14:00	91.5	10.7	88.3	1387.3	1.1	99.9	37.5	266.9
15:00	102.3	7.9	92.3	999.0	0.5	100.0	37.4	269.1
16:00		7.7		1017.1	0.2	100.0		265.1
17:00	141.4	10.7	92.4	943.3	0.2	100.0	37.7	262.0
18:00	188.8	17.9	90.5				47.7	247.0
19:00	102.8	7.1	93.1	829.8	0.0	100.0	41.7	272.3
20:00	181.6	13.8	92.4	767.9	0.2	100.0	38.4	279.2
21:00	148.0	11.8	92.0	719.5	0.1	100.0	35.0	271.5
22:00	161.9	12.2	92.5	768.3	0.2	100.0	40.4	284.5
23:00	217.8	34.4	84.2	833.3	0.2	100.0	39.0	299.6
24:00	209.7	26.9	87.2	923.9	0.4	100.0	34.9	266.2
24-hour Mean:	173.3	31.8	81.2	988.5	3.7	99.0	35.4	270.1
Valid Hours:	23	24	23	22	23	22	23	24

Comments/Process Notes: The inlet HCl 7:00 average was lost due to an instrument malfunction, the 18:00 average was lost due to daily calibrations. The inlet HCl data at 16:00 and 23:00 were corrected using outlet O2 data. The unit was off-line during most of the 1:00 average. Trash was fed to the boiler at 00:25 and the SDA went on-line at 00:40.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-30-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	137.2	9.6	27.6	537.2	12.0	9.5	216.3	0.4	2.4
2:00	152.2	9.7	27.4	653.5	20.0	9.5	212.8	0.5	2.5
3:00	92.8	9.8	27.5	559.7	7.4	9.7	217.0	0.3	2.6
4:00	98.0	9.7	27.3	537.0	7.9	9.7	222.7	0.2	2.8
5:00	131.6	10.3	27.3	618.5	13.9	10.2	207.5	0.2	2.8
6:00	229.6	10.4	26.7	607.8	36.5	10.2	198.8	0.5	2.8
7:00	163.0	9.4	27.0	640.9	17.9	9.3	227.7	0.5	3.0
8:00	142.9	9.3	26.6	763.1	18.1	9.2	208.7	0.8	2.9
9:00	119.2	11.5	25.9	654.2	16.3	10.4	223.7	0.6	3.2
10:00	106.8	12.5	27.3	749.8	14.8	10.4	234.7	0.3	3.3
11:00	89.5	12.9	30.0	583.0	9.5	11.1	214.1	0.2	3.0
12:00	71.9	12.7	25.8		34.7	9.2	167.8		2.6
13:00	55.9	13.4	26.6	462.2	15.1	10.0	167.9	0.6	2.4
14:00	41.0	15.0	25.4	801.8	7.6	10.5	160.9	0.1	2.4
15:00	40.7	15.6	23.3	448.4	7.2	11.0	149.0	0.0	2.4
16:00	93.5	14.6	23.9	659.7	26.9	10.2	159.2	0.2	2.5
17:00	63.8	14.9	23.4	519.9	13.3	10.8	146.0	0.0	3.3
18:00	92.2	13.0	29.1	543.9	12.7	11.3	156.6	0.0	2.6
19:00	203.1	13.4	27.4	637.3	44.5	10.8	156.7	0.0	2.7
20:00	129.7	11.2	28.0	629.1	17.7	9.3	188.9	0.0	2.8
21:00	163.0	10.1	28.0	659.5	27.7	9.3	193.7	0.1	2.9
22:00	201.4	10.3	26.9	701.5	36.0	9.5	177.4	0.2	3.0
23:00	119.8	10.1	26.2	692.3	22.3	9.4	192.9	0.1	3.2
24:00	95.3	10.3	25.5	707.0	14.9	9.7	191.2	0.1	4.3
Daily Mean:	118.1	11.7	26.7	624.7	19.0	10.0	191.3	0.3	2.9
Valid Hours:	24	24	24	23	24	24	24	23	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-30-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	168.8	14.6	91.3	768.4	0.6	99.9	34.0	263.7
2:00	188.9	24.4	87.1	943.1	0.7	99.9	34.0	259.5
3:00	116.2	9.2	92.1	815.0	0.5	99.9	34.4	269.3
4:00	121.6	9.8	91.9	774.9	0.3	100.0	33.9	276.4
5:00	172.6	18.1	89.5	943.1	0.3	100.0	35.8	269.6
6:00	303.9	47.4	84.4	935.6	0.8	99.9	35.3	258.3
7:00	197.0	21.4	89.1	900.8	0.7	99.9	32.6	272.8
8:00	171.2	21.5	87.4	1063.3	1.2	99.9	31.9	247.9
9:00	157.8	21.6	86.3	1007.0	1.0	99.9	34.3	296.1
10:00	141.4	19.6	86.1	1154.2	0.5	100.0	36.1	310.7
11:00	126.9	13.5	89.4	961.5	0.3	100.0	42.6	303.7
12:00	85.4	41.2	51.7				30.7	199.4
13:00	71.3	19.3	73.0	685.4	0.9	99.9	33.9	214.1
14:00	54.8	10.2	81.5	1246.1	0.2	100.0	33.9	215.0
15:00	57.1	10.1	82.3	732.1	0.0	100.0	32.7	209.2
16:00	121.5	34.9	71.2	996.5	0.3	100.0	31.0	206.8
17:00	87.8	18.3	79.2	832.0	0.0	100.0	32.2	200.9
18:00	133.5	18.4	86.2	915.7	0.0	100.0	42.1	226.7
19:00	279.5	61.2	78.1	1019.9	0.0	100.0	37.7	215.7
20:00	155.4	21.2	86.4	876.6	0.0	100.0	33.6	226.4
21:00	195.3	33.2	83.0	918.9	0.1	100.0	33.6	232.1
22:00	245.6	43.9	82.1	994.6	0.3	100.0	32.8	216.3
23:00	144.8	27.0	81.4	973.0	0.1	100.0	31.7	233.2
24:00	118.3	18.5	84.4	1020.3	0.2	100.0	31.6	237.3
24-hour Mean:	150.7	24.1	83.1	933.8	0.4	100.0	34.3	244.2
Valid Hours:	24	24	24	23	23	23	24	24

Comments/Process Notes: Lost 12:00 average due to TECO calibration. From 9:00 until 24:00 the inlet data were corrected using the outlet O2 values.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-31-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	139.8	10.6	26.4	787.7	20.4	10.0	174.9	0.1	3.5
2:00	118.7	9.9	25.1	882.3	18.4	9.4	188.6	0.1	3.6
3:00	205.3	9.9	25.5	853.1	30.7	9.5	188.4	0.1	3.7
4:00	170.9	11.0	24.7	793.0	33.4	10.3	161.2	0.1	3.7
5:00	125.1	10.9	25.3	643.5	19.1	10.2	172.5	0.1	3.8
6:00	149.8	10.4	24.6	526.9	23.5	9.9	184.2	0.2	3.7
7:00	134.0	10.4	23.8	504.4	22.0	9.8	177.2	0.2	3.7
8:00	149.1	9.8	24.3	435.4	26.2	9.1	192.4	0.1	3.4
9:00	148.9	10.3	26.5		25.0	9.7	180.9	0.2	3.0
10:00	164.0	10.4	29.9		32.2	9.5	162.3	0.1	2.3
11:00	130.5	10.3	31.0		24.4	9.2	205.7	0.1	1.9
12:00	125.2	10.3	31.3	521.8	26.9	9.3	193.7	0.2	3.1
13:00	90.0	10.3	32.3		16.1	9.3	189.3		2.1
14:00	171.8	10.7	32.2	453.7	31.3	9.7	182.0	0.0	2.2
15:00	87.1	10.1	31.7	448.6	13.3	9.7	185.6	0.0	2.0
16:00	111.6	10.1	31.8	451.0	18.1	9.8	193.1	0.0	2.0
17:00	142.3	10.1	32.0	458.4	28.9	9.8	188.7	0.0	2.0
18:00	113.5	10.2	31.6	455.2	19.1	9.9	195.3	0.0	2.1
19:00	154.6	10.5	31.1	467.9	35.8	10.3	185.4	0.0	2.3
20:00	210.4	9.9	31.0	480.4	45.7	9.5	190.6	0.1	2.6
21:00	131.1	9.8	29.0	496.1	25.8	9.6	201.6	0.0	3.0
22:00	251.6	9.6	27.6	410.1	58.8	9.4	180.3	0.0	3.1
23:00	148.3	10.1	27.7	386.9	32.4	10.1	182.4	0.0	3.0
24:00	143.4	9.5	27.9	440.6	33.9	9.5	189.1	0.0	4.1
Daily Mean:	146.5	10.2	28.5	544.8	27.6	9.7	185.2	0.1	2.9
Valid Hours:	24	24	24	20	24	24	24	23	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 8-31-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	188.7	26.0	86.2	1236.1	0.2	100.0	35.6	223.0
2:00	150.0	22.2	85.2	1296.4	0.1	100.0	31.7	228.0
3:00	259.4	37.4	85.6	1253.5	0.1	100.0	32.2	229.7
4:00	240.0	43.8	81.7	1294.7	0.2	100.0	34.7	211.4
5:00	173.9	24.8	85.7	1040.1	0.2	100.0	35.2	224.1
6:00	198.3	29.7	85.0	811.1	0.3	100.0	32.6	232.8
7:00	177.4	27.5	84.5	776.4	0.3	100.0	31.5	221.9
8:00	186.7	30.9	83.5	634.0	0.1	100.0	30.4	226.6
9:00	195.3	31.0	84.1		0.3		34.8	224.5
10:00	217.1	39.3	81.9		0.1		39.6	197.9
11:00	171.1	29.0	83.1		0.1		40.7	244.4
12:00	164.2	32.2	80.4	795.6	0.3	100.0	41.0	232.1
13:00	118.0	19.3	83.7				42.4	226.8
14:00	234.1	38.8	83.4	718.9	0.0	100.0	43.9	225.9
15:00	112.1	16.5	85.3	671.4	0.0	100.0	40.8	230.3
16:00	143.6	22.7	84.2	674.9	0.0	100.0	40.9	241.8
17:00	183.1	36.2	80.2	686.0	0.0	100.0	41.2	236.3
18:00	147.4	24.1	83.6	687.6	0.0	100.0	41.1	246.8
19:00	206.6	46.9	77.3	727.2	0.0	100.0	41.6	243.1
20:00	265.9	55.7	79.0	705.9	0.1	100.0	39.2	232.4
21:00	164.2	31.7	80.7	722.4	0.0	100.0	36.3	248.0
22:00	309.5	71.1	77.0	586.6	0.0	100.0	34.0	217.9
23:00	190.9	41.7	78.2	579.0	0.0	100.0	35.7	234.8
24:00	174.8	41.3	76.4	624.7	0.0	100.0	34.0	230.6
24-hour Mean:	190.5	34.2	82.3	826.1	0.1	100.0	37.1	229.6
Valid Hours:	24	24	24	20	23	20	24	24

Comments/Process Notes: HCl inlet averages from 9:00-11:00 were lost due to TECO analyzer problems. The 13:00 average was lost due to TECO calibration.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-01-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00				648.5				0.7	
2:00				822.8				4.4	
3:00				568.7				1.1	
4:00				565.1				0.6	
5:00				569.8				0.8	
6:00				535.3				1.2	
7:00				474.7				1.2	
8:00				421.8				0.3	
9:00				404.2				0.1	
10:00				371.8				0.2	
11:00									
12:00									
13:00				531.7				0.9	
14:00				505.9				0.9	
15:00	84.5	11.5	34.9	408.9	12.7	10.6	159.3	0.2	2.2
16:00	103.5	11.0	33.2		19.1	10.1	154.1	0.1	2.0
17:00	102.1	10.9	32.1		17.8	9.9	147.8	0.2	2.2
18:00	118.2	11.1	30.7		22.3	10.1	166.7	0.1	2.1
19:00	138.5	10.7	30.4	444.1	28.6	9.7	172.8	0.3	2.3
20:00	202.2	9.6	30.7	554.6	45.9	8.5	197.8	0.8	2.4
21:00	237.8	10.5	30.6	479.9	51.5	9.6	162.3	0.6	2.8
22:00	151.9	11.0	28.2	472.5	32.7	9.5	165.6	0.3	2.8
23:00	171.6	10.2	29.5	527.6	40.3	9.6	172.9	0.8	2.9
24:00	201.8	10.3	30.8	771.6	46.6	9.8	165.3	0.5	4.0
Daily Mean:	151.2	10.7	31.1	504.0	31.8	9.7	166.5	0.7	2.6
Valid Hours:	10	10	10	20	10	10	10	22	10

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-01-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00								
2:00								
3:00								
4:00								
5:00								
6:00								
7:00								
8:00								
9:00								
10:00								
11:00								
12:00								
13:00								
14:00								
15:00	114.0	17.1	85.0	641.6	0.3	99.9	47.1	215.0
16:00	133.2	24.6	81.5		0.2		42.7	198.3
17:00	129.0	22.5	82.6		0.3		40.6	186.8
18:00	152.1	28.7	81.1		0.2		39.5	214.5
19:00	171.9	35.5	79.4	640.9	0.5	99.9	37.7	214.5
20:00	226.7	51.5	77.3	722.9	1.1	99.8	34.4	221.7
21:00	292.5	63.3	78.3	686.4	0.9	99.9	37.6	199.6
22:00	185.2	39.9	78.5	669.9	0.4	99.9	34.4	201.9
23:00	211.1	49.6	76.5	754.6	1.2	99.8	36.3	212.7
24:00	252.7	58.4	76.9	1123.5	0.8	99.9	38.6	207.0
24-hour Mean:	186.8	39.1	79.7	748.6	0.6	99.9	38.9	207.2
Valid Hours:	10	10	10	7	10	7	10	10

Comments/Process Notes: Lost first 14 hours of plant CEMS data due to overload on plant DAS hard disk, therefore no corrected HCl data are available. From 15:00-24:00, all inlet data were normalized to 7%O2 using outlet O2 data because of questionable calibration corrections with the inlet O2 analyzer. Lost 11:00-12:00 HCl averages due to daily calibration and 16:00-18:00 inlet HCl averages due to analyzer malfunction.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-02-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	188.8	9.8	30.2	488.4	40.7	9.2	173.0	0.6	3.1
2:00	186.8	9.8	29.0	678.5	43.6	9.2	169.1	1.1	3.1
3:00	149.8	9.6	28.8	640.1	28.1	9.2	171.1	1.3	3.3
4:00	118.4	9.9	28.3	445.9	17.3	9.5	165.0	0.5	3.4
5:00	102.1	11.0	28.4	436.8	14.6	10.6	153.9	0.3	3.5
6:00	120.5	9.8	28.5	441.0	16.3	9.5	170.8	0.3	3.4
7:00	147.9	9.5	28.2	572.1	23.4	9.2	181.4	0.7	3.4
8:00	128.3	9.9	27.7	462.1	18.6	9.6	164.0	0.5	3.2
9:00	80.1	10.8	30.9	394.8	12.7	10.6	142.6	0.2	3.0
10:00	58.6	10.4	31.8		9.5	10.2	144.1		2.3
11:00	74.8	9.5	32.8	402.2	11.2	9.0	198.5	0.4	1.6
12:00	102.8	9.8	33.2	519.4	17.4	9.5	175.1	0.4	1.7
13:00	90.7	10.8	32.8	428.8	15.3	10.4	151.8	0.3	3.3
14:00	102.5	9.6	33.0	883.7	17.3	9.2	180.8	0.1	1.5
15:00	132.2	10.0	32.1	495.2	22.9	9.7	171.7	0.3	1.6
16:00	127.1	9.9	32.7	456.9	19.4	9.6	157.7	0.1	1.7
17:00	147.0	9.9	31.8	406.1	26.4	9.7	156.1	0.1	1.7
18:00	160.4	10.4	32.5	410.4	29.7	10.1	156.5	0.1	1.9
19:00	120.3	9.7	32.3	472.5	18.8	9.5	167.3	0.1	1.9
20:00	123.9	9.9	32.1	463.4	20.6	9.8	158.5	0.1	2.1
21:00	147.1	9.6	31.0	436.6	30.8	9.5	174.9	0.1	2.3
22:00	173.1	9.4	30.2		40.6	9.2	180.9		2.5
23:00	248.0	9.3	29.9	424.1	54.0	9.3	198.5	0.9	2.7
24:00	144.0	10.1	29.5	411.5	32.0	10.0	165.1	0.6	2.9
Daily Mean:	132.3	9.9	30.7	489.6	24.2	9.6	167.9	0.4	2.5
Valid Hours:	24	24	24	22	24	24	24	22	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-02-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	236.4	48.4	79.5	711.2	0.9	99.9	37.8	205.5
2:00	233.9	51.8	77.9	988.0	1.6	99.8	36.3	200.9
3:00	184.3	33.4	81.9	915.6	1.9	99.8	35.4	203.3
4:00	149.6	21.1	85.9	655.2	0.7	99.9	35.8	201.2
5:00	143.4	19.7	86.3	713.1	0.5	99.9	39.9	207.7
6:00	150.9	19.9	86.8	642.1	0.4	99.9	35.7	208.3
7:00	180.3	27.8	84.6	811.1	1.0	99.9	34.4	215.5
8:00	162.1	22.9	85.9	679.0	0.8	99.9	35.0	201.7
9:00	110.2	17.1	84.5	631.8	0.3	99.9	42.5	192.4
10:00	77.6	12.3	84.1				42.1	187.2
11:00	91.2	13.1	85.7	570.2	0.6	99.9	40.0	231.9
12:00	128.7	21.2	83.5	756.3	0.6	99.9	41.6	213.5
13:00	124.8	20.3	83.8	686.2	0.5	99.9	45.1	201.0
14:00	126.1	20.6	83.7	1264.0	0.1	100.0	40.6	214.8
15:00	168.6	28.4	83.1	734.3	0.5	99.9	40.9	213.1
16:00	160.6	23.9	85.1	671.3	0.2	100.0	41.3	194.0
17:00	185.8	32.8	82.4	596.7	0.2	100.0	40.2	193.7
18:00	212.3	38.2	82.0	631.7	0.2	100.0	43.0	201.4
19:00	149.3	22.9	84.6	681.9	0.1	100.0	40.1	204.0
20:00	156.6	25.8	83.5	680.9	0.2	100.0	40.6	198.5
21:00	180.9	37.6	79.2	624.5	0.1	100.0	38.1	213.3
22:00	209.2	48.2	76.9				36.5	214.9
23:00	297.2	64.7	78.2	590.9	1.3	99.8	35.8	237.9
24:00	185.3	40.8	78.0	615.8	0.9	99.8	38.0	210.5
24-hour Mean:	166.9	29.7	82.8	720.5	0.6	99.9	39.0	206.9
Valid Hours:	24	24	24	22	22	22	24	24

Comments/Process Notes: Lost 10:00 average during TECO calibration. Lost 22:00 average when TECO malfunctioned for most of the hour. Inlet O2 analyzer calibration looks better.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-03-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	132.4	9.9	29.0	556.3	31.9	9.9	162.2	0.8	3.0
2:00	107.6	10.2	29.4	642.7	24.2	10.1	162.7	0.9	3.1
3:00	129.5	9.9	28.6	674.1	30.9	9.9	180.1	1.3	3.1
4:00	100.5	10.5	29.9	416.2	16.2	10.5	172.0	0.6	3.2
5:00	123.7	11.4	31.5	403.8	24.3	11.3	143.6	0.1	3.6
6:00	136.8	11.0	32.9	433.1	25.2	10.8	149.0	0.2	3.3
7:00	224.6	10.3	33.3	415.2	40.8	10.1	162.6	0.5	3.3
8:00	188.2	9.8	32.9	426.3	37.5	9.7	160.0	0.7	2.9
9:00	140.4	10.2	30.2	392.8	22.2	10.1	147.1	0.3	2.8
10:00	169.0	9.8	27.9	393.5	33.1	9.7	141.7	1.6	2.2
11:00	152.4	10.2	27.3	419.8	30.1	9.9	150.1	1.1	2.0
12:00	163.8	9.5	27.6	708.2	40.4	9.3	160.6	2.4	1.8
13:00	192.8	9.7	27.4	661.6	40.3	9.4	166.9	2.0	1.8
14:00	125.3	11.2	26.3		23.1	10.1	156.0	0.8	2.6
15:00	99.7	9.8	26.8		21.1	9.1	184.9	1.4	1.7
16:00	107.5	10.4	25.8		24.7	9.6	159.6	1.3	1.8
17:00	185.6	10.1	26.1	443.3	43.2	9.8	168.1	0.7	2.0
18:00	152.9	9.2	25.7	398.4	30.7	9.0	180.8	0.4	1.9
19:00	149.5	9.5	25.7	488.5	34.7	9.3	157.6	0.5	1.9
20:00	277.8	9.5	25.4	577.6	68.0	9.1	163.7	1.0	2.2
21:00	224.8	9.4	24.7	592.9	49.1	8.8	178.8	0.6	2.3
22:00	235.6	9.0	24.7	465.9	49.6	8.9	178.3	0.8	2.4
23:00	174.8	10.1	23.9	435.8	42.3	9.4	174.4	0.6	2.5
24:00	146.6	10.1	24.3	452.6	34.2	9.5	176.9	0.7	2.6
Daily Mean:	160.1	10.0	27.8	495.2	34.1	9.7	164.1	0.9	2.5
Valid Hours:	24	24	24	21	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-03-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	167.3	40.3	75.9	817.4	1.2	99.8	36.6	205.0
2:00	139.8	31.1	77.7	970.8	1.4	99.9	38.2	209.4
3:00	163.6	39.0	76.1	990.5	2.0	99.8	36.1	227.6
4:00	134.3	21.7	83.9	646.8	1.0	99.8	40.0	229.9
5:00	181.0	35.2	80.6	687.0	0.2	100.0	46.1	207.9
6:00	192.1	34.7	81.9	707.1	0.3	100.0	46.2	205.1
7:00	294.5	52.5	82.2	633.1	0.8	99.9	43.7	209.3
8:00	235.7	46.5	80.3	620.7	1.1	99.8	41.2	198.6
9:00	182.4	28.6	84.3	593.3	0.5	99.9	39.2	189.3
10:00	211.6	41.1	80.6	573.0	2.4	99.6	34.9	175.9
11:00	198.0	38.0	80.8	634.1	1.7	99.7	35.5	189.7
12:00	199.7	48.4	75.8	1004.1	3.5	99.7	33.7	192.4
13:00	239.3	48.7	79.6	954.8	2.9	99.7	34.0	201.7
14:00	179.6	29.7	83.4		1.3		37.7	200.8
15:00	124.8	24.9	80.1		2.0		33.6	217.8
16:00	142.3	30.4	78.6		2.0		34.2	196.3
17:00	238.9	54.1	77.4	663.4	1.1	99.8	33.6	210.5
18:00	181.7	35.9	80.3	550.4	0.6	99.9	30.5	211.2
19:00	182.3	41.6	77.2	692.6	0.7	99.9	31.3	188.8
20:00	338.7	80.1	76.4	818.9	1.4	99.8	31.0	192.8
21:00	271.7	56.4	79.2	833.3	0.8	99.9	29.9	205.4
22:00	275.2	57.5	79.1	632.8	1.1	99.8	28.9	206.5
23:00	225.0	51.1	77.3	652.2	0.9	99.9	30.8	210.8
24:00	188.7	41.7	77.9	677.3	1.0	99.8	31.3	215.7
24-hour Mean:	203.7	42.0	79.4	731.1	1.3	99.8	35.7	204.1
Valid Hours:	24	24	24	21	24	21	24	24

Comments/Process Notes: Inlet HCl data were lost during the 14:00-16:00 averaging periods due to analyzer operating problems.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-04-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	160.1	11.0	23.9	509.6	36.3	9.8	170.9	0.6	2.7
2:00	175.1	9.7	25.0	503.1	35.8	9.6	172.7	0.6	2.9
3:00	138.2	9.6	26.9	456.6	24.0	9.5	175.2	0.4	2.8
4:00	136.3	9.6	27.6	462.8	27.7	9.5	167.9	0.4	2.9
5:00	149.4	9.2	27.7	567.4	31.2	9.2	173.1	0.6	2.9
6:00	167.5	9.8	27.0	437.2	35.6	9.8	170.9	0.7	3.0
7:00	135.9	9.6	26.6	373.2	24.8	9.7	170.7	0.4	2.9
8:00	130.8	10.3	28.2	397.5	23.4	10.3	163.9	0.4	2.9
9:00	183.3	10.7	29.0	409.9	33.8	10.6	147.5	0.5	2.9
10:00	242.5	9.3	27.8	444.5	51.7	9.3	160.4	0.4	3.0
11:00	273.7	10.2	26.3	643.7	51.4	9.4	164.1	0.7	3.0
12:00	157.5	10.3	26.5	711.4	36.0	10.1	161.5	1.1	4.0
13:00	142.8	10.5	25.8	472.8	23.2	10.4	168.5	0.7	3.1
14:00	105.6	11.0	25.2	523.1	13.9	10.7	165.0	0.3	3.6
15:00	101.2	10.8	24.7	424.6	11.6	10.6	161.1	0.1	3.6
16:00	184.8	10.5	24.8	469.9	37.8	10.2	154.5	0.3	3.7
17:00	270.7	9.5	24.7	658.0	62.0	9.3	167.8	0.7	4.0
18:00	178.0	10.6	24.4	705.0	35.5	10.2	157.7	0.6	4.0
19:00	147.3	10.8	23.5	542.6	27.0	9.8	171.3	0.7	3.7
20:00	162.3	10.4	25.2	524.8	37.4	9.8	173.9	1.1	3.7
21:00	104.3	13.0	22.6	466.6	22.1	9.9	171.3	0.8	3.4
22:00	106.9	11.4	25.4	457.7	14.4	9.7	169.9	0.5	3.0
23:00	166.1	10.9	27.2	416.0	29.1	10.4	146.0	0.5	2.9
24:00	152.4	9.9	27.2	453.0	24.2	9.3	180.0	0.4	2.8
Daily Mean:	161.4	10.4	26.0	501.3	31.2	9.9	166.1	0.6	3.2
Valid Hours:	24	24	24	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-04-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	224.8	45.5	79.8	832.0	0.9	99.9	33.6	214.0
2:00	217.3	44.0	79.7	726.0	0.9	99.9	31.0	212.4
3:00	170.0	29.3	82.8	653.1	0.6	99.9	33.1	213.6
4:00	167.7	33.8	79.9	662.0	0.6	99.9	34.0	204.7
5:00	177.5	37.1	79.1	783.8	0.9	99.9	32.9	205.6
6:00	209.8	44.6	78.7	636.6	1.1	99.8	33.8	214.0
7:00	167.2	30.8	81.6	533.8	0.6	99.9	32.7	211.9
8:00	171.5	30.7	82.1	606.1	0.6	99.9	37.0	214.9
9:00	249.8	45.6	81.7	649.5	0.8	99.9	39.5	199.1
10:00	290.6	62.0	78.7	619.3	0.6	99.9	33.3	192.2
11:00	355.6	62.1	82.5	972.3	1.0	99.9	34.2	198.3
12:00	206.5	46.3	77.6	1084.7	1.7	99.8	34.8	207.9
13:00	190.9	30.7	83.9	734.8	1.1	99.8	34.5	223.1
14:00	148.3	18.9	87.2	854.0	0.5	99.9	35.4	224.9
15:00	139.3	15.7	88.8	679.5	0.2	100.0	34.0	217.4
16:00	247.0	49.1	80.1	730.3	0.5	99.9	33.1	200.7
17:00	330.1	74.3	77.5	932.9	1.0	99.9	30.1	201.1
18:00	240.2	46.1	80.8	1106.3	1.0	99.9	32.9	204.9
19:00	202.7	33.8	83.3	868.3	1.1	99.9	32.3	214.5
20:00	214.9	46.8	78.2	807.8	1.7	99.8	33.4	217.8
21:00	183.5	27.9	84.8	954.6	1.2	99.9	39.8	216.5
22:00	156.4	17.9	88.6	778.7	0.8	99.9	37.2	210.9
23:00	230.9	38.5	83.3	672.4	0.8	99.9	37.8	193.3
24:00	192.6	29.0	84.9	665.6	0.6	99.9	34.4	215.7
24-hour Mean:	211.9	39.2	81.9	772.7	0.9	99.9	34.4	209.6
Valid Hours:	24	24	24	24	24	24	24	24

Comments/Process Notes: No worries mate.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-05-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	173.1	10.2	27.4	472.4	41.4	9.7	162.5	0.8	2.5
2:00	193.8	10.5	27.2	469.8	50.5	9.7	160.0	0.9	2.7
3:00	149.6	10.0	28.7	536.1	42.8	9.4	157.3	1.6	2.6
4:00	151.3	10.1	29.2	492.9	38.6	9.4	169.3	1.5	2.7
5:00	110.9	12.3	26.0	584.7	41.5	9.3	182.3	2.5	2.6
6:00	146.5	12.7	25.6	560.7	44.4	9.8	171.8	2.3	2.7
7:00	75.9	15.7	19.7	484.7	39.8	10.1	169.2	1.8	2.8
8:00	85.6	13.8	22.0	546.4	35.7	9.6	174.0	3.1	2.5
9:00	88.7	15.3	21.9	588.0	34.9	10.2	152.1	4.5	2.5
10:00	111.7	12.0	26.8	419.7	31.0	9.8	159.8	1.9	3.4
11:00	123.4	10.8	28.0	450.2	40.2	9.6	152.0	1.7	2.1
12:00	99.8	12.7	26.2	1203.4	48.5	10.0	132.2	10.9	1.8
13:00	115.8	12.2	27.3	1094.9	45.0	9.5	154.5	12.4	1.7
14:00	102.7	13.5	25.6	706.0	39.6	9.5	186.8	4.3	1.8
15:00				660.6	46.8	9.3	180.9	4.5	1.8
16:00				606.2	39.1	9.5	180.3	3.1	1.9
17:00				610.5	40.1	9.4	179.3	3.6	2.2
18:00				571.3	40.6	9.3	182.8	2.6	2.5
19:00				552.2	45.9	9.4	185.4	3.0	2.6
20:00				521.7	40.7	9.9	177.1	2.2	3.0
21:00				510.0	56.0	9.9	167.1	1.7	3.4
22:00				508.6	45.7	10.1	169.0	1.1	3.6
23:00				496.7	45.6	9.6	178.3	2.1	3.7
24:00				416.6	33.2	10.6	167.8	1.3	3.8
Daily Mean:	123.5	12.3	25.8	586.0	42.0	9.7	168.8	3.1	2.6
Valid Hours:	14	14	14	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-05-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	224.9	51.4	77.2	681.7	1.2	99.8	35.6	201.7
2:00	259.0	62.7	75.8	678.0	1.4	99.8	36.4	198.6
3:00	190.8	51.7	72.9	753.5	2.4	99.7	36.6	190.1
4:00	194.7	46.7	76.0	692.8	2.2	99.7	37.6	204.6
5:00	179.2	49.7	72.3	814.7	3.7	99.6	31.2	218.4
6:00	248.3	55.6	77.6	816.4	3.5	99.6	32.1	215.1
7:00	202.9	51.2	74.8	725.4	2.8	99.6	25.4	217.8
8:00	167.6	43.9	73.8	781.5	4.7	99.4	27.1	214.0
9:00	220.2	45.3	79.4	888.2	7.1	99.2	28.4	197.6
10:00	174.5	38.8	77.7	611.1	2.9	99.5	33.6	200.1
11:00	169.8	49.4	70.9	643.9	2.6	99.6	34.4	187.0
12:00	169.2	61.8	63.4	1784.4	17.0	99.1	33.4	168.6
13:00	185.0	54.9	70.3	1552.3	18.4	98.8	33.3	188.4
14:00	192.9	48.3	75.0	1001.0	6.4	99.4	31.2	227.8
15:00		56.1		920.4	6.6	99.3		216.8
16:00		47.7		859.5	4.6	99.5		219.8
17:00		48.5		858.0	5.3	99.4		216.7
18:00		48.7		796.0	3.8	99.5		219.0
19:00		55.5		776.1	4.4	99.4		224.1
20:00		51.4		766.6	3.4	99.6		223.8
21:00		70.8		749.4	2.6	99.7		211.2
22:00		58.8		761.1	1.7	99.8		217.5
23:00		56.1		710.4	3.2	99.6		219.3
24:00		44.8		653.7	2.1	99.7		226.4
24-hour Mean:	198.5	52.1	74.1	844.8	4.7	99.5	32.6	209.4
Valid Hours:	14	24	14	24	24	24	14	24

Comments/Process Notes: Inlet eductor appears to be plugging, so all inlet HCl data have been normalized to 7% O2 using outlet O2 data. Inlet Anarad data from 15:00-24:00 were lost due to system operating problems.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-06-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00				487.4	41.5	10.7	158.9	1.0	4.2
2:00				479.1	34.5	10.5	172.9	1.2	4.3
3:00				456.2	25.5	10.8	161.1	0.8	4.5
4:00				487.2	16.5	10.6	161.0	0.5	4.5
5:00				446.2	21.0	11.3	148.1	0.6	4.9
6:00				733.1	40.9	10.0	172.5	4.5	5.0
7:00				588.6	33.3	10.0	175.1	3.6	4.7
8:00				518.5	28.5	9.9	166.6	1.7	4.6
9:00				475.7	13.0	10.1	187.5	1.3	4.4
10:00					8.2	9.7	182.5		4.8
11:00				383.9	5.1	9.9	184.5	0.3	2.9
12:00				376.8	6.2	10.5	186.9	0.3	2.8
13:00				367.8	7.9	10.1	203.3	0.4	2.9
14:00				470.2	10.2	9.9	212.4	0.6	2.8
15:00				445.4	12.8	9.8	206.9	0.7	2.6
16:00				434.0	15.8	9.6	206.5	0.7	2.7
17:00				420.1	10.9	9.6	218.9	0.5	2.9
18:00				471.7	11.6	9.7	210.7	0.6	3.0
19:00				447.1	12.8	9.8	199.6	0.7	3.1
20:00				419.7	11.5	10.2	192.1	0.6	3.5
21:00				518.3	23.7	10.0	196.5	0.4	3.9
22:00				355.5	17.3	10.7	174.8	0.6	4.0
23:00				405.3	16.5	9.8	194.7	0.8	4.2
24:00				399.4	16.9	10.0	196.5	0.7	5.1
Daily Mean:				460.3	18.4	10.1	186.3	1.0	3.8
Valid Hours:	0	0	0	23	24	24	24	23	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-06-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00		56.6		772.3	1.7	99.8		216.5
2:00		46.1		744.6	2.0	99.7		231.1
3:00		35.1		730.0	1.3	99.8		221.7
4:00		22.3		764.5	0.8	99.9		217.3
5:00		30.4		751.2	1.1	99.9		214.4
6:00		52.2		1087.1	7.0	99.4		220.0
7:00		42.5		872.8	5.6	99.4		223.3
8:00		36.0		761.9	2.6	99.7		210.5
9:00		16.7		711.9	2.0	99.7		241.3
10:00		10.2						226.5
11:00		6.4		564.1	0.5	99.9		233.1
12:00		8.3		585.6	0.5	99.9		249.8
13:00		10.2		550.4	0.6	99.9		261.7
14:00		12.9		690.9	0.9	99.9		268.4
15:00		16.0		648.6	1.1	99.8		259.1
16:00		19.4		620.8	1.1	99.8		254.0
17:00		13.4		600.9	0.8	99.9		269.3
18:00		14.4		680.7	0.9	99.9		261.5
19:00		16.0		651.0	1.1	99.8		249.9
20:00		14.9		634.0	1.0	99.9		249.6
21:00		30.2		768.5	0.6	99.9		250.6
22:00		23.6		563.3	1.0	99.8		238.2
23:00		20.7		590.2	1.2	99.8		243.8
24:00		21.6		592.2	1.1	99.8		250.6
24-hour Mean:		24.0		692.9	1.6	99.8		240.1
Valid Hours:	0	24	0	23	23	23	0	24

Comments/Process Notes: Lo Span gas bottle (outlet) for calibration is empty so outlet numbers should be viewed considering this. Also the SO2 aspirator pump is not working. The eductor on the inlet remains plugged so there is no valid inlet data from the Anarad system. All inlet HCl numbers have been corrected using the outlet O2 numbers. The 10:00 HCl average was lost during TECO calibration.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-07-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00				448.1	13.6	9.5	203.5	0.5	4.4
2:00				447.9	10.6	10.2	171.1	0.5	4.5
3:00					13.6	10.1	202.9	0.4	4.7
4:00					8.8	10.0	185.8	0.4	4.7
5:00				376.5	14.8	10.0	190.2	0.4	4.7
6:00				347.5	21.0	10.2	176.1	0.6	4.7
7:00				378.0	12.7	10.0	191.0	0.5	4.6
8:00					14.8	11.2	166.1	0.8	4.8
9:00					15.3	10.4	188.4	1.2	3.9
10:00					13.9	11.4	149.9	0.4	3.3
11:00					14.7	9.5	191.1		2.4
12:00					43.4	9.5	169.7	1.3	2.3
13:00				1046.2	41.5	9.7	154.3	25.0	2.5
14:00				766.9	31.6	10.6	179.9	14.8	2.5
15:00				792.7	29.9	9.8	212.3	20.3	2.4
16:00	63.9	10.8	27.0	556.2	19.0	9.7	201.1	4.3	2.3
17:00	124.8	10.8	26.5	596.6	44.7	8.9	186.8	2.9	2.4
18:00	139.3	12.1	27.0	599.7	48.4	9.5	200.7	4.4	2.6
19:00	125.8	12.0	28.6	507.1	40.6	9.8	191.0	2.9	2.8
20:00	154.6	11.7	28.5	516.9	44.1	9.4	197.1	2.1	3.1
21:00	92.7	12.0	28.2	715.6	41.3	9.9	187.4	7.6	3.5
22:00	112.8	11.9	26.8	623.8	39.0	10.0	186.0	6.0	4.4
23:00	104.1	11.6	26.9	694.4	40.7	9.7	198.4	6.9	3.6
24:00	148.8	12.5	27.3	683.8	54.9	10.6	186.7	7.5	5.6
Daily Mean:	118.5	11.7	27.4	594.0	28.0	10.0	186.1	4.9	3.6
Valid Hours:	9	9	9	17	24	24	24	23	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-07-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00		16.6		635.3	0.7	99.9		248.1
2:00		13.8		676.6	0.8	99.9		222.3
3:00		17.5			0.6			261.1
4:00		11.2			0.6			236.9
5:00		18.9		558.3	0.6	99.9		242.5
6:00		27.3		524.9	1.0	99.8		228.8
7:00		16.2		560.5	0.8	99.9		243.6
8:00		21.2			1.4			238.0
9:00		20.3			1.9			249.4
10:00		20.3			0.7			219.3
11:00		17.9						233.0
12:00		52.9			1.9			206.9
13:00		51.5		1509.8	37.8	97.5		191.5
14:00		42.6		1203.4	24.4	98.0		242.8
15:00		37.4		1154.3	31.0	97.3		265.9
16:00	79.3	23.6	70.3	802.7	6.5	99.2	33.5	249.6
17:00	144.6	51.8	64.2	803.6	4.1	99.5	30.7	216.4
18:00	169.8	59.0	65.3	850.2	6.5	99.2	32.9	244.7
19:00	157.5	50.8	67.7	738.4	4.4	99.4	35.8	239.2
20:00	186.9	53.3	71.5	726.5	3.1	99.6	34.4	238.2
21:00	117.1	52.2	55.4	1051.5	11.7	98.9	35.6	236.8
22:00	143.8	49.7	65.4	925.0	9.3	99.0	34.2	237.2
23:00	129.2	50.5	60.9	1002.1	10.4	99.0	33.4	246.2
24:00	200.8	74.1	63.1	1073.0	12.3	98.8	36.8	252.0
24-hour Mean:	147.7	35.4	64.9	870.3	7.5	99.1	34.2	237.1
Valid Hours:	9	24	9	17	23	17	9	24

Comments/Process Notes: Lost the 3:00-4:00 inlet HCl averages and the 8:00-12:00 inlet HCl averages due to TECO operational problems. The 11:00 outlet HCl average was lost during calibration. Eductor was washed by Anarad around 15:00. Outlet O2 values have been used to correct the inlet data because of questionable calibration corrections with the inlet O2 analyzer.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-08-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	124.1	11.7	25.9	563.9	30.0	9.8	188.8	2.8	3.8
2:00	94.4	11.7	25.9	500.7	26.0	10.0	191.4	2.4	3.9
3:00	143.9	12.1	24.6	656.1	40.6	10.5	169.7	2.4	4.1
4:00	145.7	11.7	22.9	1056.0	45.2	10.1	171.5	8.5	4.1
5:00	87.6	11.7	24.1	508.8	16.8	10.4	194.4	1.4	4.3
6:00	100.8	11.2	22.5	474.5	19.5	10.0	209.0	0.9	4.3
7:00	112.4	11.8	23.6	596.7	30.4	10.7	179.1	1.3	4.4
8:00	161.9	11.7	24.7	438.7	32.7	10.9	183.6	0.6	4.6
9:00	105.1	11.8	31.4	391.9	13.8	11.4	175.3	0.3	4.0
10:00	80.8	11.9	32.7	478.3	12.5	10.6	162.3	0.1	3.0
11:00	80.7	12.0	33.2	485.0	18.3	10.6	173.5	0.8	2.2
12:00	100.6	11.6	32.9	538.8	25.3	10.0	191.7	1.4	2.3
13:00	84.8	11.6	33.8	596.9	26.5	9.9	207.7	6.1	2.4
14:00	87.5	11.6	33.1	738.0	36.8	9.8	187.4	9.8	2.1
15:00	83.1	11.3	32.9	623.6	29.4	9.4	202.4	4.8	2.1
16:00	141.7	12.2	33.5	456.7	38.4	10.3	187.8	1.8	2.3
17:00	119.7	12.0	34.7	660.4	41.7	10.3	168.6	2.3	2.4
18:00	91.4	11.2	34.1	535.2	26.0	9.5	208.1	1.5	2.5
19:00	121.1	11.3	34.3	503.0	38.1	9.6	189.8	1.4	2.5
20:00	160.6	11.3	35.3	453.9	47.9	9.6	188.2	1.5	2.7
21:00	162.7	11.4	33.9	575.4	46.3	9.8	174.4	2.2	3.1
22:00	150.2	11.5	33.9	568.5	46.1	10.0	182.2	1.7	4.4
23:00	129.1	11.4	32.9	579.9	36.2	10.0	176.9	2.6	3.6
24:00	146.0	11.1	31.7	536.1	40.8	9.8	187.9	2.4	3.7
Daily Mean:	117.3	11.6	30.4	563.2	31.9	10.1	185.5	2.5	3.3
Valid Hours:	24	24	24	24	24	24	24	24	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-08-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	155.4	37.6	75.8	821.1	4.3	99.5	32.4	236.4
2:00	120.4	33.2	72.5	742.5	3.7	99.5	33.0	244.1
3:00	192.3	54.3	71.8	1019.7	3.9	99.6	32.9	226.8
4:00	187.5	58.2	69.0	1580.4	13.3	99.2	29.5	220.7
5:00	116.0	22.2	80.8	783.2	2.3	99.7	31.9	257.3
6:00	128.5	24.9	80.7	703.6	1.4	99.8	28.7	266.5
7:00	153.2	41.4	73.0	945.5	2.2	99.8	32.2	244.1
8:00	225.0	45.5	79.8	709.1	1.0	99.9	34.3	255.2
9:00	153.8	20.2	86.9	666.8	0.5	99.9	45.9	256.5
10:00	109.0	16.9	84.5	750.5	0.2	100.0	44.1	219.0
11:00	108.9	24.7	77.3	761.1	1.3	99.8	44.8	234.1
12:00	128.3	32.3	74.9	798.9	2.2	99.7	42.0	244.5
13:00	107.2	33.5	68.8	877.1	9.4	98.9	42.7	262.5
14:00	109.6	46.1	57.9	1074.6	15.0	98.6	41.4	234.7
15:00	100.4	35.5	64.6	876.4	7.1	99.2	39.8	244.6
16:00	185.8	50.4	72.9	696.4	2.9	99.6	43.9	246.3
17:00	157.0	54.7	65.2	1007.0	3.7	99.6	45.5	221.1
18:00	111.4	31.7	71.6	758.8	2.2	99.7	41.6	253.7
19:00	149.0	46.9	68.5	719.5	2.1	99.7	42.2	233.5
20:00	197.6	58.9	70.2	649.2	2.3	99.7	43.4	231.5
21:00	203.7	58.0	71.5	837.8	3.4	99.6	42.5	218.4
22:00	191.5	58.8	69.3	843.0	2.6	99.7	43.2	232.3
23:00	164.6	46.2	72.0	859.9	4.0	99.5	42.0	225.6
24:00	182.8	51.1	72.1	780.6	3.7	99.5	39.7	235.3
24-hour Mean:	151.6	41.0	73.0	844.3	3.9	99.6	39.2	239.4
Valid Hours:	24	24	24	24	24	24	24	24

Comments/Process Notes: Because the inlet O2 analyzer does not appear to be calibrating properly, all inlet pollutant data have been corrected using the outlet O2 data.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-09-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	150.3	11.3	30.7	489.6	38.0	10.1	179.6	2.7	3.9
2:00	159.4	11.7	31.1	478.4	40.8	10.5	182.4	1.5	4.1
3:00	258.0	11.5	30.3	627.5	49.9	10.3	197.2	1.7	4.2
4:00	118.6	11.9	31.1	522.1	24.2	10.7	177.0	1.6	4.4
5:00	218.0	11.8	30.6	406.7	54.8	10.7	173.1	0.8	4.4
6:00	168.1	11.8	30.5	663.5	36.2	10.6	182.3	1.3	4.3
7:00	148.0	11.7	30.1	774.6	38.0	10.4	188.0	6.9	4.3
8:00	115.4	11.8	32.0	651.1	24.8	10.5	171.2	3.1	4.0
9:00	96.3	11.7	29.7	649.6	22.5	10.4	189.7	6.4	3.8
10:00	90.6	11.5	29.5	493.4	14.1	10.2	161.9	3.3	3.5
11:00	86.0	12.0	31.1		13.2	10.6	164.2		3.5
12:00	54.4	13.1	34.3	406.7	9.3	12.1	140.1	1.2	3.7
13:00	85.9	11.6	32.3	452.0	11.5	10.6	172.7	0.9	2.9
14:00	105.3	10.5	30.7	478.8	16.8	10.0	175.4	1.2	2.7
15:00	220.3	10.6	30.2		41.1	9.8	173.2	1.4	2.3
16:00	115.3	10.7	31.1		17.9	9.7	182.3	1.0	2.3
17:00	162.6	10.8	31.4		34.2	9.7	162.7	1.7	2.4
18:00	169.1	11.6	31.5		33.4	10.5	158.6	2.4	2.5
19:00	129.0	11.6	32.1	394.6	27.6	10.4	154.4	1.7	2.3
20:00	110.3	11.6	31.9		17.9	10.4	167.1	1.1	3.4
21:00	124.9	11.5	32.3	384.2	23.0	10.4	165.2	1.0	2.4
22:00	148.8	10.6	31.0	442.0	32.3	9.6	176.2	1.8	2.4
23:00	248.1	10.4	29.9		75.5	9.4	170.7	2.7	2.6
24:00	164.5	10.8	30.6	760.9	42.7	10.0	159.5	4.4	2.7
Daily Mean:	143.6	11.4	31.1	533.9	30.8	10.3	171.9	2.3	3.3
Valid Hours:	24	24	24	17	24	24	24	23	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-09-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	193.4	48.9	74.7	732.7	4.2	99.4	39.5	231.2
2:00	213.0	54.5	74.4	743.5	2.4	99.7	41.6	243.8
3:00	338.3	65.4	80.7	956.8	2.7	99.7	39.7	258.6
4:00	161.6	33.0	79.6	827.3	2.7	99.7	42.4	241.2
5:00	297.1	74.7	74.9	644.5	1.3	99.8	41.7	235.9
6:00	226.9	48.9	78.5	1041.2	2.1	99.8	41.2	246.0
7:00	195.9	50.3	74.3	1192.4	11.1	99.1	39.8	248.9
8:00	154.2	33.1	78.5	1011.9	5.1	99.5	42.8	228.8
9:00	127.5	29.8	76.6	999.9	10.3	99.0	39.3	251.1
10:00	117.7	18.3	84.4	745.3	5.2	99.3	38.3	210.3
11:00	116.1	17.8	84.7				42.0	221.6
12:00	85.9	14.7	82.9	747.0	2.3	99.7	54.2	221.3
13:00	115.9	15.5	86.6	709.3	1.5	99.8	43.6	233.1
14:00	134.3	21.4	84.0	710.0	1.9	99.7	39.1	223.7
15:00	275.9	51.5	81.3		2.1		37.8	216.9
16:00	143.1	22.2	84.5		1.5		38.6	226.2
17:00	201.8	42.4	79.0		2.6		39.0	201.9
18:00	226.0	44.6	80.2		3.9		42.1	212.0
19:00	170.8	36.5	78.6	607.4	2.7	99.5	42.5	204.4
20:00	146.0	23.7	83.8		1.8		42.2	221.2
21:00	165.3	30.4	81.6	591.4	1.6	99.7	42.8	218.7
22:00	183.0	39.7	78.3	632.2	2.7	99.6	38.1	216.7
23:00	299.9	91.3	69.6		4.0		36.1	206.3
24:00	209.8	54.5	74.0	1128.3	6.8	99.4	39.0	203.4
24-hour Mean:	187.5	40.1	79.4	824.8	3.6	99.6	41.0	226.0
Valid Hours:	24	24	24	17	23	17	24	24

Comments/Process Notes: TECO analyzer is acting up. Might be one of the circuit boards going. Lost the 15:00-18:00,20:00 and 23:00 HCl inlet averages due to TECO operating problems. The 11:00 HCl average was lost during the TECO calibration. Anarad and TECO calibrations look good.
All inlet data have been corrected using the outlet O2 data because of a questionable calibration correction with the inlet O2 analyzer.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-10-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	92.1	11.1	31.0	539.9	15.7	10.3	157.7	5.3	2.7
2:00	133.0	10.8	29.6		31.1	10.0	151.7	5.8	2.7
3:00	150.8	10.4	29.2	428.7	33.6	9.7	168.9	4.3	2.7
4:00	208.0	11.0	28.9	481.8	46.3	10.2	164.6	2.9	2.9
5:00	150.0	11.1	30.5	366.3	24.3	10.4	161.3	2.1	2.9
6:00	121.1	10.4	30.6	385.9	16.0	9.8	175.0	1.2	2.8
7:00	189.3	10.2	30.3	433.0	39.5	9.6	170.6	2.2	2.9
8:00	122.9	10.8	30.7		19.3	10.2	164.2	1.8	3.0
9:00	135.3	11.3	28.7		29.4	10.8	165.2	1.6	2.8
10:00	165.7	10.4	28.7		39.8	9.7	187.8		2.4
11:00	81.6	10.2	29.0		13.0	9.5	196.5		1.8
12:00	71.9	11.9	33.1		12.2	10.8	165.4		2.0
13:00	72.3	11.2	32.4	374.4	8.7	10.1	183.6	0.8	1.9
14:00	76.9	11.0	31.0	398.3	11.6	9.8	193.4	1.1	1.8
15:00	132.6	11.0	31.0	457.3	36.6	9.7	192.6	1.6	1.8
16:00	107.1	11.2	31.7	390.0	22.6	9.8	183.7	1.2	2.0
17:00	111.1	11.1	32.3	462.6	28.0	9.8	185.5	1.5	2.0
18:00	118.3	11.2	31.9	429.9	31.3	9.9	185.0	1.8	3.0
19:00	110.8	11.4	31.8	452.6	30.0	10.1	185.9	1.4	2.4
20:00	130.2	11.2	31.5	450.3	35.3	10.1	184.4	1.2	2.5
21:00	120.1	10.4	28.3	429.0	28.9	9.5	197.2	1.3	2.6
22:00	103.2	10.4	28.2	437.8	24.1	9.7	198.2	1.0	3.0
23:00	197.4	10.7	30.0	413.4	50.2	10.0	182.7	0.9	3.2
24:00	94.0	10.9	28.4	383.3	18.2	10.3	178.4	0.5	3.1
Daily Mean:	124.8	10.9	30.4	428.6	26.9	10.0	178.3	2.0	2.5
Valid Hours:	24	24	24	18	24	24	24	21	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-10-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	120.8	20.6	83.0	823.2	8.5	99.0	40.7	206.8
2:00	169.6	39.7	76.6		9.0		37.7	193.5
3:00	187.2	41.7	77.7	618.7	6.5	98.9	36.2	209.6
4:00	270.2	60.1	77.7	727.8	4.6	99.4	37.5	213.8
5:00	198.6	32.2	83.8	563.9	3.4	99.4	40.4	213.5
6:00	151.6	20.0	86.8	561.9	1.8	99.7	38.3	219.1
7:00	232.9	48.6	79.1	619.3	3.3	99.5	37.3	209.9
8:00	159.7	25.1	84.3		2.9		39.9	213.3
9:00	186.2	40.5	78.3		2.7		39.5	227.4
10:00	205.6	49.4	76.0				35.6	233.1
11:00	99.5	15.9	84.1				35.4	239.6
12:00	99.0	16.8	83.0				45.6	227.6
13:00	93.1	11.2	88.0	560.3	1.3	99.8	41.7	236.3
14:00	96.3	14.5	84.9	580.0	1.7	99.7	38.8	242.2
15:00	164.6	45.4	72.4	659.9	2.4	99.6	38.5	239.0
16:00	134.1	28.3	78.9	567.9	1.8	99.7	39.7	230.0
17:00	139.1	35.1	74.8	673.6	2.3	99.7	40.4	232.3
18:00	149.5	39.6	73.5	631.7	2.8	99.6	40.3	233.8
19:00	142.6	38.6	72.9	677.3	2.2	99.7	40.9	239.3
20:00	167.6	45.4	72.9	673.9	1.9	99.7	40.5	237.3
21:00	146.4	35.2	75.9	608.2	1.9	99.7	34.5	240.4
22:00	128.1	29.9	76.6	631.8	1.5	99.8	35.0	246.0
23:00	251.7	64.0	74.6	613.0	1.4	99.8	38.3	233.0
24:00	123.3	23.9	80.6	584.5	0.8	99.9	37.2	233.9
24-hour Mean:	159.0	34.2	79.0	632.0	3.1	99.6	38.7	227.1
Valid Hours:	24	24	24	18	21	18	24	24

Comments/Process Notes: The inlet HCl data from 2:00,8:00 and 9:00 were lost due to instrument problems. The HCl data from 10:00-12:00 were lost during calibration. All inlet data have been corrected using outlet O2 values because of a questionable calibration correction with the inlet O2 analyzer.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-11-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	90.8	11.6	28.7		18.2	11.1	158.1	0.6	3.1
2:00	146.2	11.0	29.2		37.9	10.4	162.4	1.4	3.1
3:00	166.3	10.7	29.4		41.7	10.1	178.1	1.8	3.3
4:00	156.2	10.9	28.5		42.0	10.4	161.6	1.6	3.4
5:00	173.2	10.8	30.8		38.4	10.3	158.4	1.2	3.6
6:00	204.8	12.3	30.2		50.7	11.5	133.3	1.7	3.6
7:00	165.1	11.7	28.8		53.0	11.0	133.9	1.9	3.7
8:00	282.9	11.0	28.7		120.3	10.4	148.5	4.5	3.8
9:00	283.2	11.6	30.8		115.2	11.0	147.6	3.9	3.3
10:00	250.5	11.0	30.7		92.9	10.4	166.3	3.6	2.8
11:00	266.0	10.8	30.2		103.7	10.2	159.9	5.6	2.3
12:00	253.3	11.1	32.7		94.4	10.5	162.8	4.9	2.3
13:00	175.3	11.1	33.8		41.3	10.4	155.6		2.5
14:00	185.0	10.4	34.4		44.8	9.8	163.8		2.5
15:00	164.2	10.5	35.0		38.7	9.9	169.0		2.6
16:00	122.1	10.9	36.7		23.3	10.4	172.3		3.7
17:00	115.6	10.4	38.3		20.5	9.9	177.4		2.9
18:00	126.4	9.8	38.1		27.7	9.4	184.7		2.9
19:00	101.6	11.7	42.1		24.3	11.3	155.8	0.9	3.5
20:00	118.7	12.0	40.5		38.7	11.5	155.3	2.0	3.4
21:00	109.4	10.4	36.7		28.9	10.1	190.7	1.9	3.4
22:00	97.7	11.1	36.5		21.2	10.8	165.8	1.3	3.6
23:00	118.0	10.8	36.9		31.9	10.6	176.3	3.6	3.8
24:00	155.3	10.5	35.5		34.1	10.4	172.1	1.8	5.0
Daily Mean:	167.8	11.0	33.5		49.3	10.5	162.9	2.5	3.3
Valid Hours:	24	24	24	0	24	24	24	17	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-11-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	135.7	25.8	81.0		0.7		42.9	224.2
2:00	205.3	50.2	75.6		1.5		41.0	215.0
3:00	226.6	53.7	76.3		1.9		40.1	229.2
4:00	217.1	55.6	74.4		1.7		39.6	213.9
5:00	238.4	50.4	78.9		1.3		42.4	207.7
6:00	331.0	75.0	77.4		2.1		48.8	197.1
7:00	249.4	74.4	70.2		2.2		43.5	188.0
8:00	397.2	159.3	59.9		4.9		40.3	196.6
9:00	423.3	161.7	61.8		4.5		46.0	207.2
10:00	351.7	123.0	65.0		3.9		43.1	220.1
11:00	366.1	134.7	63.2		6.0		41.6	207.7
12:00	359.3	126.2	64.9		5.4		46.4	217.6
13:00	248.6	54.7	78.0				47.9	206.0
14:00	244.9	56.1	77.1				45.5	205.1
15:00	219.5	48.9	77.7				46.8	213.6
16:00	169.7	30.8	81.8				51.0	228.1
17:00	153.0	25.9	83.1				50.7	224.2
18:00	158.3	33.5	78.8				47.7	223.2
19:00	153.5	35.2	77.1		1.1		63.6	225.6
20:00	185.4	57.2	69.1		2.4		63.3	229.6
21:00	144.8	37.2	74.3		2.0		48.6	245.4
22:00	138.6	29.2	78.9		1.5		51.8	228.2
23:00	162.4	43.0	73.5		4.0		50.8	237.9
24:00	207.6	45.1	78.3		2.0		47.4	227.8
24-hour Mean:	237.0	66.1	74.0				47.1	217.5
Valid Hours:	24	24	24	0	18	0	24	24

Comments/Process Notes: The TECO analyzer has been moved from the inlet to the outlet. The outlet HCl data were lost during this move.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-12-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	136.0	10.8	34.9		32.4	10.7	178.7	1.3	4.2
2:00	224.5	10.5	33.8		41.5	10.4	188.6	1.0	4.3
3:00	125.0	10.0	33.5		21.1	10.1	181.9	0.8	4.3
4:00	132.6	9.9	33.3		27.0	10.0	184.6	1.2	4.4
5:00	142.0	9.7	34.6		23.8	9.8	188.5	1.1	4.5
6:00	146.5	9.4	32.8		27.9	9.8	185.8	1.1	4.5
7:00	150.3	9.7	32.4		29.0	10.1	183.2	1.4	4.6
8:00	130.1	10.1	32.5		21.3	10.5	159.8	1.4	4.4
9:00	152.9	10.3	34.5		24.6	10.7	168.4		4.0
10:00	229.5	10.6	35.2		46.3	10.7	147.6		3.4
11:00	211.1	9.9	35.4		42.9	10.2	176.1	1.1	3.0
12:00	129.6	9.6	36.7		22.1	9.9	165.5	5.2	2.7
13:00	143.9	9.0	38.6		38.9	9.5	183.4	2.1	2.6
14:00	97.8	10.2	38.4		18.4	10.0	164.5	0.9	2.5
15:00	80.4	10.5	39.7		14.3	10.3	159.2	1.0	2.6
16:00	101.4	9.6	37.5		20.4	9.9	147.9	0.9	2.5
17:00	138.6	9.9	37.5		30.8	10.1	150.3	1.3	2.5
18:00	166.1	9.8	37.8		40.3	10.0	155.3	1.3	2.5
19:00	171.1	10.4	37.2		42.0	10.4	148.0	1.2	2.8
20:00	154.8	10.4	36.4		37.9	10.3	166.6	2.1	3.1
21:00	151.3	10.0	34.5		32.4	10.1	174.7	2.4	3.3
22:00	174.3	10.4	31.4		36.4	10.3	159.9	1.4	4.3
23:00	186.4	10.3	30.4		39.6	10.3	160.6	2.0	3.6
24:00	302.7	9.5	29.7		71.9	9.8	156.1	1.7	3.6
Daily Mean:	157.5	10.0	34.9		32.6	10.2	168.1	1.5	3.5
Valid Hours:	24	24	24	0	24	24	24	22	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-12-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	187.2	44.2	76.4		2.2		48.0	243.5
2:00	300.1	54.9	81.7		1.6		45.2	249.7
3:00	159.4	27.2	83.0		1.3		42.7	234.1
4:00	167.6	34.4	79.5		1.9		42.1	235.4
5:00	176.2	29.8	83.1		1.7		42.9	236.0
6:00	177.1	34.9	80.3		1.7		39.6	232.7
7:00	186.5	37.3	80.0		2.2		40.2	235.8
8:00	167.4	28.5	83.0		2.3		41.8	213.6
9:00	200.5	33.5	83.3				45.2	229.5
10:00	309.7	63.1	79.6				47.5	201.1
11:00	266.8	55.7	79.1		1.7		44.7	228.8
12:00	159.4	27.9	82.5		8.0		45.1	209.1
13:00	168.1	47.4	71.8		3.1		45.1	223.6
14:00	127.0	23.5	81.5		1.4		49.9	209.8
15:00	107.5	18.8	82.5		1.6		53.1	208.8
16:00	124.7	25.8	79.3		1.4		46.1	186.9
17:00	175.1	39.6	77.4		2.0		47.4	193.4
18:00	208.0	51.4	75.3		2.0		47.3	198.0
19:00	226.5	55.6	75.5		1.9		49.2	195.9
20:00	204.9	49.7	75.7		3.4		48.2	218.5
21:00	192.9	41.7	78.4		3.8		44.0	224.8
22:00	230.7	47.7	79.3		2.2		41.6	209.7
23:00	244.4	51.9	78.8		3.2		39.9	210.6
24:00	369.1	90.0	75.6		2.6		36.2	195.5
24-hour Mean:	201.5	42.3	79.3		2.4		44.7	217.7
Valid Hours:	24	24	24	0	22	0	24	24

Comments/Process Notes: The outlet HCl data were lost during calibration.

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-13-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	184.9	9.9	29.0		42.5	10.1	164.8		3.6
2:00	185.7	10.7	29.6		42.4	10.6	149.1		3.6
3:00	337.9	9.8	29.5		56.1	10.0	160.5	1.9	3.6
4:00	183.1	9.1	29.0		46.9	9.5	174.5	6.0	3.5
5:00	183.0	9.4	28.9		40.6	9.7	185.6	5.4	3.5
6:00	136.1	10.0	29.2		29.6	10.2	166.3	3.1	3.3
7:00	118.8	10.6	30.7		19.9	10.6	165.4	2.2	3.3
8:00	133.3	10.3	31.0		23.8	10.4	165.6	1.5	3.3
9:00	187.0	9.8	29.7		33.7	10.2	149.2	1.3	3.4
10:00	201.0	9.8	28.1		40.5	9.9	141.5		3.3
11:00	123.0	11.1	31.3		20.7	10.5	156.7		3.3
12:00	106.8	9.8	29.0		14.8	9.2	149.8		3.0
13:00	115.6	9.7	29.4		16.2	10.0	127.0	1.1	2.9
14:00	116.6	9.4	29.7		42.2	8.9	116.7	1.0	2.9
15:00	81.8	9.9	31.5		11.1	11.0	165.3	1.2	2.7
16:00	118.9	9.6	28.8		15.6	10.9	174.6	1.0	2.3
17:00	175.0	9.5	28.1		32.8	10.7	183.6	1.3	2.4
18:00	188.6	8.9	26.8		38.6	10.1	184.7	2.7	2.3
19:00	268.1	9.6	27.7		53.4	10.7	175.6	1.8	2.4
20:00	214.8	10.0	27.7		41.1	10.9	168.6	1.1	3.5
21:00	191.9	9.5	28.5		39.8	10.6	167.7	0.9	2.7
22:00	251.4	9.3	28.6		45.7	10.4	215.9	1.0	2.9
23:00	316.2	8.8	25.9		59.6	10.0	198.0	0.9	3.1
24:00	198.6	9.7	25.5		36.2	10.8	183.3	1.0	3.3
Daily Mean:	179.9	9.8	28.9		35.2	10.2	166.3	1.9	3.1
Valid Hours:	24	24	24	0	24	24	24	19	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-13-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	233.6	54.7	76.6				36.6	212.1
2:00	253.1	57.2	77.4				40.3	201.2
3:00	423.1	71.5	83.1		3.0		36.9	204.7
4:00	215.7	57.2	73.5		8.9		34.2	212.8
5:00	221.2	50.4	77.2		8.2		34.9	230.3
6:00	173.6	38.5	77.8		4.9		37.2	216.0
7:00	160.3	26.9	83.2		3.6		41.4	223.2
8:00	174.8	31.5	82.0		2.4		40.7	219.2
9:00	234.2	43.8	81.3		2.1		37.2	193.8
10:00	251.7	51.2	79.7				35.2	178.8
11:00	174.5	27.7	84.1				44.4	209.4
12:00	133.7	17.6	86.9				36.3	178.0
13:00	143.5	20.7	85.6		1.7		36.5	162.0
14:00	140.9	48.9	65.3		1.4		35.9	135.2
15:00	103.4	15.6	84.9		2.1		39.8	232.1
16:00	146.3	21.7	85.2		1.7		35.4	242.7
17:00	213.4	44.7	79.1		2.2		34.3	250.2
18:00	218.5	49.7	77.3		4.2		31.0	237.7
19:00	329.8	72.8	77.9		3.0		34.1	239.3
20:00	273.9	57.1	79.1		1.9		35.3	234.4
21:00	234.0	53.7	77.0		1.5		34.8	226.3
22:00	301.2	60.5	79.9		1.6		34.3	285.8
23:00	363.2	76.0	79.1		1.4		29.8	252.5
24:00	246.5	49.8	79.8		1.7		31.6	252.3
24-hour Mean:	223.5	45.8	79.7		3.0		36.2	217.9
Valid Hours:	24	24	24	0	19	0	24	24

Comments/Process Notes:

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-14-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	160.2	9.0	25.0		34.0	10.2	193.1	1.2	3.4
2:00	178.4	8.8	24.5		42.1	10.1	198.1	2.4	3.7
3:00	158.1	9.1	24.7		31.2	10.3	190.7	1.6	3.8
4:00	135.0	8.5	24.0		23.8	9.8	206.3	1.7	3.9
5:00	166.7	8.6	24.3		33.8	9.9	188.5	1.5	4.2
6:00	177.5	9.1	23.9		42.2	10.3	180.1	1.8	4.3
7:00	141.1	9.5	22.4		28.3	10.7	179.7	1.5	4.5
8:00	181.6	10.4	24.5		46.2	11.4	148.5	1.4	4.3
9:00	259.6	9.6	27.0		49.0	10.4	161.9		4.1
10:00	171.8	9.2	32.0		24.6	9.8	176.4		3.2
11:00	134.1	9.8	34.7		22.8	10.2	186.4		2.6
12:00	186.6	9.5	36.7		46.8	9.9	184.3	2.0	2.5
13:00	176.2	9.4	35.9		32.4	9.9	180.4	1.7	2.6
14:00	184.9	9.9	37.0		45.2	10.3	204.1	2.0	2.4
15:00	113.7	9.6	37.5		27.2	10.1	177.3	6.0	2.3
16:00	169.8	9.6	36.2		35.1	10.1	179.0	3.8	2.5
17:00	115.7	10.0	37.4		22.4	10.4	178.5	1.0	2.6
18:00	223.1	8.6	35.9		44.7	9.2	189.7	1.6	3.5
19:00	196.4	10.2	39.3		36.4	10.5	161.3	0.6	3.0
20:00	130.2	10.4	37.6		25.8	10.7	163.3	0.6	3.2
21:00	140.7	10.3	36.7		25.2	10.6	171.5	0.5	3.3
22:00	215.0	9.3	34.5		38.2	9.8	178.9	0.7	3.3
23:00	181.5	9.5	33.4		33.8	10.0	189.6		3.4
24:00	183.2	9.3	32.8		42.1	9.9	180.5		3.5
Daily Mean:	170.0	9.5	31.6		34.7	10.2	181.2	1.8	3.3
Valid Hours:	24	24	24	0	24	24	24	19	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-14-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	187.1	44.2	76.4		1.9		29.2	250.8
2:00	204.9	54.2	73.6		3.8		28.1	255.0
3:00	186.2	40.9	78.0		2.6		29.1	250.1
4:00	151.3	29.8	80.3		2.6		26.9	258.3
5:00	188.4	42.7	77.3		2.3		27.5	238.2
6:00	209.1	55.3	73.5		2.9		28.2	236.2
7:00	172.0	38.6	77.6		2.5		27.3	244.9
8:00	240.4	67.6	71.9		2.5		32.4	217.3
9:00	319.3	64.9	79.7				33.2	214.3
10:00	204.1	30.8	84.9				38.0	220.9
11:00	167.9	29.6	82.4				43.5	242.1
12:00	227.5	59.1	74.0		3.1		44.7	232.9
13:00	213.0	40.9	80.8		2.6		43.4	228.0
14:00	233.6	59.3	74.6		3.2		46.8	267.6
15:00	139.9	35.0	75.0		9.4		46.1	228.2
16:00	208.9	45.2	78.4		6.0		44.5	230.4
17:00	147.5	29.7	79.9		1.6		47.7	236.3
18:00	252.1	53.1	78.9		2.3		40.6	225.4
19:00	255.1	48.7	80.9		1.0		51.1	215.6
20:00	172.4	35.2	79.6		1.0		49.8	222.5
21:00	184.5	34.0	81.6		0.8		48.1	231.4
22:00	257.6	47.8	81.4		1.1		41.3	224.0
23:00	221.3	43.1	80.5				40.7	241.8
24:00	219.5	53.2	75.8				39.3	228.1
24-hour Mean:	206.8	45.1	78.2		2.8		38.6	235.0
Valid Hours:	24	24	24	0	19	0	24	24

Comments/Process Notes:

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-15-88

Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	145.6	9.8	33.1		27.8	10.3	176.9		3.7
2:00	96.7	10.3	33.9		18.8	10.7	165.6		3.8
3:00	108.3	9.5	32.6		18.4	10.1	180.0		3.8
4:00	122.8	10.3	33.2		22.2	10.7	174.9		3.9
5:00	122.6	10.4	34.3		23.1	10.8	157.3		4.1
6:00	174.5	9.5	31.8		38.5	10.0	199.9		4.4
7:00	203.3	9.5	31.6		45.9	10.1	182.1		4.4
8:00	186.1	9.8	32.0		40.9	10.3	161.3		4.6
9:00	159.0	9.9	32.3		32.3	10.4	158.7		4.3
10:00	146.1	9.4	30.8		25.3	10.0	151.4		3.6
11:00	157.8	9.3	32.2		24.1	9.9	166.7	1.6	3.4
12:00	166.7	9.7	33.3		31.4	10.2	196.0	1.2	3.3
13:00	205.4	9.4	33.7		34.6	10.0	176.6	1.3	3.3
14:00	110.2	11.1	30.2		16.7	11.4	140.2	0.8	3.1
15:00	93.1	9.8	32.4		15.2	10.3	150.6	0.5	3.1
16:00	87.0	9.9	32.4		12.9	10.4	162.2	0.6	4.4
17:00	127.8	9.2	31.6		25.8	9.9	177.2	1.2	3.6
18:00	153.8	9.9	31.6		27.9	10.4	169.9	0.9	3.8
19:00	94.6	10.6	33.6		11.6	10.8	164.4		3.9
20:00	119.2	9.8	31.7		15.9	10.4	172.8	0.4	3.9
21:00	120.1	9.1	30.4		16.3	9.8	178.8	0.6	4.0
22:00	89.2	10.5	29.8		10.9	10.7	161.0	0.4	4.5
23:00	275.1	9.8	27.9		50.3	10.3	166.5	0.8	4.7
24:00	116.2	10.5	29.3		19.6	10.9	147.9	0.6	5.7
Daily Mean:	140.9	9.9	31.9		25.3	10.4	168.3	0.8	4.0
Valid Hours:	24	24	24	0	24	24	24	13	24

MILLBURY RESOURCE RECOVERY FACILITY / UNIT 2 - DATE: 9-15-88

Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	182.3	36.5	80.0				41.4	232.0
2:00	126.8	25.6	79.8				44.5	225.7
3:00	132.1	23.7	82.1				39.7	231.7
4:00	161.0	30.3	81.2				43.5	238.3
5:00	162.3	31.8	80.4				45.4	216.5
6:00	212.8	49.1	76.9				38.8	254.9
7:00	247.9	59.1	76.2				38.5	234.4
8:00	233.0	53.6	77.0				40.1	211.5
9:00	200.9	42.8	78.7				40.8	210.1
10:00	176.6	32.3	81.7				37.2	193.1
11:00	189.1	30.5	83.9		2.5		38.6	210.6
12:00	206.9	40.8	80.3		1.9		41.3	254.6
13:00	248.3	44.1	82.2		2.0		40.7	225.2
14:00	156.3	24.4	84.4		1.4		42.8	205.1
15:00	116.6	19.9	82.9		0.8		40.6	197.5
16:00	109.9	17.1	84.5		1.0		40.9	214.7
17:00	151.8	32.6	78.5		1.8		37.5	223.9
18:00	194.3	36.9	81.0		1.5		39.9	224.9
19:00	127.7	16.0	87.5				45.3	226.3
20:00	149.3	21.0	85.9		0.6		39.7	228.8
21:00	141.5	20.4	85.6		0.9		35.8	223.9
22:00	119.2	14.9	87.5		0.7		39.8	219.4
23:00	344.5	66.0	80.9		1.3		34.9	218.3
24:00	155.3	27.2	82.5		1.0		39.2	205.6
24-hour Mean:	176.9	33.2	81.7		1.3		40.3	222.0
Valid Hours:	24	24	24	0	13	0	24	24

Comments/Process Notes:

APPENDIX C.

Anarad Gas CEMS's
- Daily and Periodic Check Forms

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	7-15-88
INITIALS:	LC

DAY 1

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46.6	20.9	174
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.6	0.9	0.3	0.5	0.3	2.6
Analyzer Span Response	206.1	14.7*	44.4	50.6	19.3	165.4
Percent Zero Drift *	0.3%	3.6%	0.2%	0.2%	1.2%	0.5%
Percent Span Drift *	0.6%	*	-0.1%	1.6%	-6.4%	-1.7%
If > 5%, was any adjustment made?		No			No	
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	span flashing
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

SPAN FACTOR:	209	x18.9	40	38	20.5	148

* The response time for the inlet O_2 monitor is longer than the calibration period. The response to the gas is actually 21% but the reading is taken before this time. The data will be corrected using the last acceptable span factor of 18.9.

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	7-16-88
INITIALS:	LC

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46.6	20.9	174.0
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.9	0.2	0.4	1.4	0.1	1.4
Analyzer Span Response	205.6	20.5	44.0	38.9	20.7	136.9
Percent Zero Drift *	0.4%	0.8%	0.2%	0.6%	0.4%	0.3%
Percent Span Drift *	0.5%	-1.6%	-0.3%	-3.1%	-0.8%	-7.4%
If > 5%, was any adjustment made?						NO
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	span flashing
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

SPANF:	214	19.5	42	x46	21.2	x174
ZOFF:	-2	.5	-1	-3	-1	1

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	7-17-88
INITIALS:	VC

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46.6	20.9	174
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.9	0.4	0.7	2.2	0.1	1.4
Analyzer Span Response	202.6	20.4	43.8	35.8	20.5	151.6
Percent Zero Drift *	0.4%	1.6%	0.4%	0.9%	0.4%	0.3%
Percent Span Drift *	-0.1%	-2.0%	-0.4%	4.3%	-1.6%	-4.5%
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	span flashing
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

SPAN F :	213	19.5	42	x46	21.1	152

At 11:00, Inlet SO_2 ~300 ppm, Outlet ~65 ppm
Unfortunately, HCl analyzers off-line for cal
so can't compare. (11:10 B&L 3.3 ppm)
11:15 4.3

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	7-18-88
INITIALS:	LC

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203.0	20.9	44.5	46.6	20.9	174
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.9	0.3	1.5	0.5	0.1	1.8
Analyzer Span Response	203.1	20.4	43.2	36.3	20.6	179.6
Percent Zero Drift *	0.4%	1.2%	0.8%	0.2%	0.4%	0.4%
Percent Span Drift *	0%	-2.0%	-0.7%	-4.1%	-1.2%	1.1%
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	span flashing
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS						
ZOFF:	-2	.6	1	-1	-1	-1
SPANF:	212	19.4	41	x 46	21.1	156

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	7-19-88
INITIALS:	LC

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46.6	20.9	174
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	3.8	0.3	0.4	1.7	0.1	1.4
Analyzer Span Response	202.1	20.3	44.8	35.6	20.6	170.6
Percent Zero Drift *	0.8%	1.2%	0.2%	0.7%	0.4%	0.3%
Percent Span Drift *	-0.2%	-2.4%	0.2%	-4.4%	-1.2%	-0.7%
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	span flashing
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	1	.6	1	2	-1	-1
SPANF:	211	19.3	41	x46	21.1	154

- Eductor cleaned by DK.
- At 11:30 - flowed 11.9% O_2 gas to outlet and got 12.6% O_2 response. (CGA result 13.1%)

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	7-20-88
INITIALS:	LC

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46	20.9	174
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	5.5	0.5	0.3	0.6	0.1	2.1
Analyzer Span Response	201.6	20.3	44.6	37.6	20.6	167.8
Percent Zero Drift *	1.1%	2.0%	0.2%	0.2%	0.4%	0.4%
Percent Span Drift *	-0.3%	-2.4%	0.1%	-3.4%	-1.2%	-1.2%
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	span flashing
Analyzers have adequate flow? Inlet sl. low (.3)	Outlet sl. high (.6)
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

When checked	ZOFF:	6	.7	0	-1	-1	0
at 9:00,	SPANF:	210	19	42	x46	21.1	149

the inlet monitors
were reading compressed air. (22.2% O_2)
The outlet appeared normal.

Checked outlet SO_2 with 101 ppm gas → 80 ppm response
26 ppm gas → 18 ppm

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	7-21-88
INITIALS:	LC

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46	20.9	174
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.9	.2	.3	.8	.1	1.3
Analyzer Span Response	204.1	20.6	43.8	40.6	20.8	166.9
Percent Zero Drift *	0.4%	0.8%	0.2%	0.3%	0.4%	0.3%
Percent Span Drift *	0.2%	-1.2%	-0.4%	-2.2%	-0.4%	-1.4%
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	no
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS						
ZOFF:	4	.7	-2	-2	-1	0
SPANF:	211	19	42	39	21.2	145

Performed system bias check on outlet CEMS. Inlet system apparently plugged - will check when back to normal.

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

Page 2

7-21-88
UC

	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
If adjustments were made:						
Time of final calibration: 16:49-17:18	203	20.9	44.5	46	20.9	174
Final: Analyzer Zero Response	1.9	0.6	1.9	0.6	0.1	6
Analyzer Span Response	206.8	18.6	44.5	41.7	21.1	98.1
Percent Zero Drift *						
Percent Span Drift *						
System calibration check: 8:50 ESP, 9:35 SO4						
System Zero Response	1	0	5	2	0	4
System Span Response	203	22.2	48	49	20.2	168
Percent Zero Drift *						
Percent Span Drift *						
System calibration bias: **						
Zero gas						
Span gas						
(If > 5%, data may be questionable.)						

COMMENTS

Flowrates during system bias checks were fine.

Response time ~10 minutes for inlet SO_2.

$$* \text{ Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

$$** \text{ System Bias} = \frac{\left[\text{System Response}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	7-22-88
INITIALS:	LC

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46	20.9	174
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.9	0.3	0.3	0.5	0.1	1.3
Analyzer Span Response	205.3	20.4	44.5	52.6	20.6	94.8
Percent Zero Drift *	0.4%	1.2%	0.2%	0.2%	0.4%	0.3%
Percent Span Drift *	0.5%	-2.0%	0%	2.6%	-1.2%	-15.8%
If > 5%, was any adjustment made?						NO
If > 10%, was a CGA conducted?						NO

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	span flashing
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-5	.7	-3	-10	-1	1
SPANF:	207	19	44	40	21.2	x174

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	7-23-88
INITIALS:	VC

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46	20.9	174
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.9	0.3	.4	.6	0.1	1.4
Analyzer Span Response	206.3	20.5	43.6	56.1	20.6	190.4
Percent Zero Drift *	0.4%	1.2%	0.2%	0.2%	0.4%	0.3%
Percent Span Drift *	0.7%	1.6%	-0.5%	4.0%	-1.2%	3.3%
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	no
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-3	.8	0	-2	-1	4
SPANF:	211	19.3	43	42	21.2	174

At 10:45 Inlet O_2 ~1% higher than outlet.
Checked daily summary and all inlet O_2 values so far are higher than the outlet.

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	7-24-88
INITIALS:	LC

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46	20.9	174
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.9	0.2	0.3	3.6	0.1	2.1
Analyzer Span Response	205.1	20.4	44.6	53.1	20.7	167.3
Percent Zero Drift *	0.4%	0.8%	0.2%	1.4%	0.4%	0.4%
Percent Span Drift *	0.4%	-2.0%	0.1%	2.8%	-0.8%	-1.3%
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	no
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-14	.8	-4	1	-1	6
SPANF:	213	19.3	44	44	21.3	168

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	7-25-88
INITIALS:	LC, SS

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46	20.9	174
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	7.4	0.2	6.6	4.9	0.1	1.4
Analyzer Span Response	201.6	20.4	42.6	51.9	20.5	161.8
Percent Zero Drift *	1.5%	0.8%	3.3%	2.0%	0.4%	0.3%
Percent Span Drift *	-0.3%	-2.0%	-1.0%	2.4%	-1.6%	-2.4%
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal? *	yes
Any alarm messages?	no
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-8	.8	2	4	-1	4
SPANF:	213	19.3	43	42	21.1	167

* SO_2 outlet needs a new pen on the stripchart.
→ replaced by Bob Tekach in afternoon (on 7/25/88)

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	7-26-88
INITIALS:	LC, SAS

	INLET			OUTLET		
fullscale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46	20.9	174
Time of initial calibration: 0810						
Initial: Analyzer Zero Response	1.8	0.3	1.3	6.5	0.1	1.4
Analyzer Span Response	202.1	20.4	44.3	49.1	20.6	152.5
Percent Zero Drift *	0.4%	1.2%	0.7%	2.6%	0.4%	0.3%
Percent Span Drift *	-0.2%	-2.0%	-0.1%	1.2%	-1.2%	-4.3%
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	~~yes~~ No
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-6	0.7	3	10	-1	4
SPANF:	213	19.4	43	40	21.1	147

Anarad service representatives on-site today. Water wash was installed in the inlet conditioning box to clean the eductor at certain time intervals.

→ H_2O is injected through the eductor for approx. 18 seconds during every blowback conducted at 1/2 hr intervals.

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	7-27-88
INITIALS:	SAS

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46.6	20.9	174
Time of initial calibration: 0810						
Initial: Analyzer Zero Response	3.6	0.3	1.3	4.7	0.1	1.8
Analyzer Span Response	201.1	20.3	44.6	52.1	20.6	167.8
Percent Zero Drift *	0.7%	1.2%	0.7%	1.9%	0.4%	0.4%
Percent Span Drift *	-0.4%	-2.4%	0.1%	2.2%	-1.2%	-1.2%
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	Span flashing
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-3	0.8	3	14	-1	4
SPANF:	210	19.3	43	41	21	X147

Solonoid valve for the SDA Inlet eductor wash malfunctioned at ~ 1300. Anarad service rep removed solonoid and returned sampling system to the original configuration (i.e., no automatic eductor wash) until the solonoid ~~could~~ can be replaced (possibly tomorrow).

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE: 7-28-88
INITIALS: SAS

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46.6	20.9	174
Time of initial calibration: 0810						
Initial: Analyzer Zero Response	3.8	0.2	0.4	1.8	0.1	1.9
Analyzer Span Response	202.8	20.7	42.8	53.3	20.7	220.5
Percent Zero Drift *	0.8%	0.8%	0.2%	0.7%	0.4%	0.4%
Percent Span Drift *	0%	0.8%	0.9%	2.7%	0.8%	9.3%
If > 5%, was any adjustment made?						No
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	no
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-1	0.8	4	14	-1	4
SPANF:	210	19.3	42	42	21	187

Anarad service rep flushed SDA Inlet eductor and checked for leaks.

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	7-29-88
INITIALS:	SAS

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46.6	20.9	174
Time of initial calibration: 0810						
Initial: Analyzer Zero Response	5.1	0.3	0.8	0.6	0.1	1.5
Analyzer Span Response	200.9	20.6	44.3	51.6	20.8	162.9
Percent Zero Drift *	1.0%	1.2%	0.4%	0.2%	0.4%	0.3%
Percent Span Drift *	-0.4%	-1.2%	-0.1%	2.0%	-0.4%	-2.2%
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	no
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	2	0.8	4	12	-1.0	5
SPANF:	209	19.3	43	42	21.0	175

Anarad service rep. cleaned the inlet eductor. Solenoid for eductor wash may be reinstalled at inlet early next week. In the meantime, the eductor cleaning will be performed manually.

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	7-30-88
INITIALS:	SAS

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46.6	20.9	174
Time of initial calibration: 0810						
Initial: Analyzer Zero Response	1.9	0.5	0.4	1.5	0.1	1.4
Analyzer Span Response	201.8	20.6	43.3	52.4	20.8	175.1
Percent Zero Drift *	0.4%	2.0%	0.2%	0.6%	0.4%	0.3%
Percent Span Drift *	-0.2%	-1.2%	-0.6%	2.3%	-0.4%	0.2%
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	no
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	2	1	4	11	-1	4
SPANF:	208	19.3	42	41	21.1	179

Performed sampling system bias check immediately after the ~~[illegible]~~ daily calibration routine (see page 2)

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

daily cal results from cal routine conducted immediately before the system bias checks

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

7-30-88
SAS

	INLET			OUTLET		
full scale	500	25	200	250	25	500
	SO_2	O_2	CO	SO_2	O_2	NO_x
If adjustments were made: (No adjustments)						
Time of final calibration: 0810 — cal values	203	20.9	44.5	46.6	20.9	174
Final: Analyzer Zero Response	1.9	0.5	0.4	1.5	0.1	1.4
Analyzer Span Response	201.8	20.6	43.3	52.4	20.8	175.1
Percent Zero Drift *						
Percent Span Drift *						
System calibration check: SDA Inlet 9:01-9:35; ESP Outlet 9:29-9:55						
System Zero Response	-2	-0.9	3	1	0	0
System Span Response	196	22.0	48	49	20.9	173
Percent Zero Drift *						
Percent Span Drift *						
System calibration bias: **						
Zero gas	-0.8%	-5.6%	1.3%	-0.2%	-0.4%	-0.2%
Span gas	-1.2%	5.6%	2.4%	-1.4%	0.4%	-0.4%
(If > 5%, data may be questionable.)						

Response time ~10 min

COMMENTS

The higher inlet O_2 analyzer response to the compressed air injected through the entire sampling system is consistent with the observed responses during the system bias check conducted on 7/21 and the CGA conducted on 7/14. The -0.9% O_2 response to the zero gas certainly indicates no leak in the sampling system. The differences between the analyzer and system responses for the inlet O_2 monitor may be due to the time the DAS records the response during the cal

$$* \text{ Drift} = \frac{[\text{Reference Value}] - [\text{Analyzer Response}]}{\text{Measurement Range}} \times 100$$

$$** \text{ System Bias} = \frac{[\text{System Response}] - [\text{Analyzer Response}]}{\text{Measurement Range}} \times 100$$

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	7-31-88
INITIALS:	SAS

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46.6	20.9	174
Time of initial calibration: 0810						
Initial: Analyzer Zero Response	2.0	0.4	0.4	1.5	0.1	1.5
Analyzer Span Response	200.8	20.4	45.2	53.3	20.8	165.5
Percent Zero Drift *	0.4%	1.6%	0.2%	0.6%	0.4%	0.3%
Percent Span Drift *	-0.4%	-2.0%	0.4%	2.7%	-0.4%	-1.7%
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	no
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZDFF:	3	1.0	1	11	-1.0	4
SPANF:	205	19.0	43	42	21.1	171

Entropy cleaned Units 1 and 2 inlet eductors at 1215

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-1-88
INITIALS:	SAS

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46.6	20.9	174
Time of initial calibration: 0810						
Initial: Analyzer Zero Response	1.9	0.3	1.9	2.4	0.1	1.4
Analyzer Span Response	204.9	20.7	44.1	51.3	20.6	169.3
Percent Zero Drift *	0.4%	1.2%	1.0%	1.0%	0.4%	0.3%
Percent Span Drift *	0.4%	-0.8%	-0.2%	1.9%	-1.2%	-0.9%
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	No
Strip charts / printer normal?	yes
Any alarm messages?	no
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	4	1.0	3	13	-1.0	4
SPANF:	207	19.0	43	40	21.1	169

Anarad computer hard disk crashed and was parked sometime around 0730. Dale K. was able to resolve the problem and created temporary files to retrieve the data not compiled with the hard disk in park. No effluent or calibration data are lost. Today's data can be retrieved tomorrow.

Process notes: only 5 of the 6 SDA spray nozzles were on from 0945-1500, and the Servomex O_2 analyzer was installed at inlet from 1400-1500

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-2-88
INITIALS:	SAS

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46.6	20.9	174
Time of initial calibration: 0810						
Initial: Analyzer Zero Response	1.9	0.3	0.4	0.5	0.1	1.8
Analyzer Span Response	204.1	20.7	44.0	51.1	20.7	171.1
Percent Zero Drift *	0.4%	1.2%	0.2%	0.2%	0.4%	0.4%
Percent Span Drift *	0.2%	-0.8%	-0.3%	1.8%	-0.8%	-0.6%
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	yes (SPAN flashing)
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	0	1.0	3	10	-1.0	5
SPANF:	207	19.1	42	(X40)	21.1	168
Strip chart readings — daily cal Zero:	0	0.1	0	1	0	0
Strip chart readings — span:	205	21.5	44	52	20.8	175

see page 2 for results

Anarad reps. performed manual local cal to recalibrate. They replaced Unit 1 inlet O_2 cell today. They only had 1 cell and Unit 1 inlet O_2 analyzer needed it worse than Unit 2 inlet. Unit 2 inlet O_2 analyzer's cell will be replaced probably sometime next week after they get another cell.

$$\text{* Drift} = \frac{[\text{Reference Value}] - [\text{Analyzer Response}]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

8-2-88

cal initiated after Anarad recalibrated analyzers

	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
If adjustments were made: yes						
Time of final calibration: 1350 - 1418	203	20.9	44.5	46.6	20.9	174
Final: Analyzer Zero Response	4.0	1.2	2.3	2.8	0.1	5.8
Analyzer Span Response	202.3	19.0	43.7	37.1	21.0	177.1
Percent Zero ~~Drift~~* Difference	0.8%	24.8%	1.2%	1.1%	0.4%	1.2%
Percent Span ~~Drift~~* Difference	-0.1%	-7.6%	-0.4%	-3.8%	0.4%	0.6%
~~System calibration check~~: Made cal adjustments and initiated cal routine						
~~System~~ Analyzer Zero Response 1448 - 1515	2.0	0.4	0.4	0.6	0.1	3.4
~~System~~ Analyzer Span Response	197.0	20.6	44.1	49.2	20.9	167.0
Percent Zero ~~Drift~~* Difference	0.4%	1.6%	0.2%	0.2%	0.4%	0.7%
Percent Span ~~Drift~~* Difference	-1.2%	-1.2%	-0.2%	1.0%	0%	-1.4%
System calibration bias: **						
Zero gas						
Span gas						
(If > 5%, data may be questionable.)						

Entropy initiated cal routine after adjustments

COMMENTS

[after 1350-1418 cal] ZOFF:	3	0.9	1	3	-1.0	5
SPANF:	203	19.2	44	X46	21.1	177

Since recalibration by Anarad did not eliminate alarm on inlet SO_2, checked calibration by local injections of our cal gases and then initiated cal routine

gas zero → response 0 ppm	adjusted outlet SO_2 analyzer span	gas zero → response 0 ppm
26 ppm SO_2 → 21 ppm		26 ppm → 24 ppm
101 ppm SO_2 → 89 ppm		101 ppm → 97 ppm
		46 ppm → 48 ppm

[after 1448-1515 cal] ZOFF:	4	1.0	-3	2	-1.0	6
SPANF:	198	19.3	44	42	21.2	170

$$\text{* Drift} = \frac{[\text{Reference Value}] - [\text{Analyzer Response}]}{\text{Measurement Range}} \times 100$$

$$\text{** System Bias} = \frac{[\text{System Response}] - [\text{Analyzer Response}]}{\text{Measurement Range}} \times 100$$

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-3-88
INITIALS:	SAS

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46.6	20.9	174
Time of initial calibration: 0810						
Initial: Analyzer Zero Response	1.9	0.4	0.4	0.6	0.1	1.4
Analyzer Span Response	209.5	20.4	44.5	53.3	20.7	173.6
Percent Zero Drift *						
Percent Span Drift *				2.7		
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	no
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-4	1.0	-8	0	-1.0	6
SPANF:	204	19.1	44	45	21.2	169

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-4-88
INITIALS:	LC

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46	20.9	174
Time of initial calibration: 810						
Initial: Analyzer Zero Response	1.9	1.1	1.3	0.6	0.1	1.4
Analyzer Span Response	205.3	20.5	43.8	51.7	20.6	172.8
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	no
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-7	1.3	-7	-2	-1	5
SPANF:	205	19.2	43	44	21.1	171

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-5-88
INITIALS:	LC

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value						
Time of initial calibration: 810						
Initial: Analyzer Zero Response	1.9	2.6	0.4	0.6	0.1	6.0
Analyzer Span Response	205.8	18.8	43.2	50.9	20.9	156.0
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	no
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-10	1.8	-3	-5	-1	5
SPANF:	206	18.4	43	46	21.1	157

$$* \text{Drift} = \frac{[\text{Reference Value}] - [\text{Analyzer Response}]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-6-88
INITIALS:	LC

A CGA was performed with good results, but indicated very slow response time.

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46	20.9	174
Time of initial calibration: 810						
Initial: Analyzer Zero Response	2.0	14.8	0.6	0.6	0.1	1.4
Analyzer Span Response	199.9	11.8	44.3	49.4	20.8	159.0
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes *1
Any alarm messages?	yes *2
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS						
ZOFF:	-10	x1.8	-3	-4	-1	6
SPANF:	203	x18.4	43	43	21.1	145

*1 Servomex strip chart needs new O_2 pen.

*2 Zero, Span, and Low Flow flashing. All the analyzers appear to have normal flow, but there is no SDA bypass flow and the SDA sample pressure is zero. Inlet O_2 effluent readings seem reasonable compared to the outlet.

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-7-88
INITIALS:	LC

	INLET			OUTLET		
full scale:	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46	20.9	176
Time of initial calibration: 810						
Initial: Analyzer Zero Response	5.1	13.4	0.4	0.6	0.1	1.4
Analyzer Span Response	207.6	12.9	44.1	53.8	20.8	185.4
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?		no				
If > 10%, was a CGA conducted?		no*				

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	yes SDA O_2 zero, span
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-8	x1.8	-4	-6	-1	6
SPANF:	208	x18.4	43	44	21.1	156

Servomex strip chart still needs new black pen, but red pen is now O_2.

*The CGA performed yesterday indicated that the analyzer was still responding accurately, just too slow for the calibration period. Since the previous good calibration is used to correct the data, the effluent readings should still be valid.

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-8-88
INITIALS:	LC

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46	20.9	176
Time of initial calibration: 810						
Initial: Analyzer Zero Response	4.3	5.8	0.4	1.9	0.1	1.4
Analyzer Span Response	196.4	20.8	45.0	52.4	20.9	71
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	no
Any alarm messages?	yes zero SO4 O2 span NOx
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-5	x1.8	-8	-5	-1	1
SPANF:	201	18.7	44	44	21.2	x156

Displays above stripchart 1 & 3 still not working properly. Charts themselves are fine.

Inlet system has plenty of flow again.

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

8-8-88
LC

	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
If adjustments were made:						
Time of final calibration: 1355						
Final: Analyzer Zero Response	7.5	0.1	3.7	0.6	0.1	1.4
Analyzer Span Response	199.4	21.1	44.1	52.2	20.7	144.8
Percent Zero Drift *						
Percent Span Drift *						
System calibration check:						
System Zero Response						
System Span Response						
Percent Zero Drift *						
Percent Span Drift *						
System calibration bias: **						
Zero gas						
Span gas						
(If > 5%, data may be questionable.)						

COMMENTS

Both inlet and outlet were recalibrated following the replacement of the inlet inertial filter.

$$* \text{ Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

$$** \text{ System Bias} = \frac{\left[\text{System Response}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-9-88
INITIALS:	LC

	INLET			OUTLET		
Full Scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46	20.9	174
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.9	0.4	0.4	0.6	0.1	3.6
Analyzer Span Response	207.1	20.7	44.3	51.2	20.7	140.9
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	yes - NOx
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-4	1	-5	-6	-1	4
SPANF:	202	19.2	42	43	21.2	x156

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-10-88
INITIALS:	LC

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46	20.9	174
Time of initial calibration: 810						
Initial: Analyzer Zero Response	2.0	3.4	0.4	1.0	0.1	1.4
Analyzer Span Response	203.1	18.6	44.8	52.4	20.7	215.0
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	yes - O_2 span
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-4	32	-4	-6	-1	0
SPANF:	200	x19.2	43	43	21.1	193

SO_2 - outlet effluent readings off scale (11:00)

O_2 - Inlet readings ~3% below outlet
Injected 11.9% O_2 and got 10.0% response
Bob said he thought the cell was too bad to use the data.
Later he said they would switch the good cell from #1 to #2 tomorrow.

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-11-88
INITIALS:	LC

	INLET			OUTLET		
full scale	500	25	200	250	25	500
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value						
Time of initial calibration: 810	203	20.9	44.5	46	20.9	174
Initial: Analyzer Zero Response	1.9	0.1	0.4	1.5	0.1	1.4
Analyzer Span Response	210.5	20.6	44.8	53.1	20.7	201.6
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	yes - NOx span
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-11	1	-6	-1	-5	-1
SPANF:	208	19	43	22	46	x 193

switch

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-12-88
INITIALS:	

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	45	47	20.9	174
Time of initial calibration: 810						
Initial: Analyzer Zero Response	5.1	1.0	0.4	0.6	0.1	1.4
Analyzer Span Response	202.1	25.0	43.6	52.9	20.7	172.8
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?		no *				

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	yes - NOx span
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

(Following	ZOFF:	-7	.6	-7	-3	-1	-2
afternoon cal)	SPANF:	201	21.3	43	42	21.1	x174

* O_2 analyzer at inlet had new cell installed at 1115. The system was recalibrated at 1430. (See page 2)

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

8-12-88
CC

	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
If adjustments were made:						
Time of final calibration: 1400	203	20.9	44	46	20.9	174
Final: Analyzer Zero Response	1.9	0.9	0.3	0.6	0.1	1.3
Analyzer Span Response	201.1	21.0	432	50.1	21.0	135.5
Percent Zero Drift *						
Percent Span Drift *						-7.8
System calibration check:						
System Zero Response						
System Span Response						
Percent Zero Drift *						
Percent Span Drift *						
System calibration bias: **						
Zero gas						
Span gas						
(If > 5%, data may be questionable.)						

COMMENTS

$$* \text{ Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

$$** \text{ System Bias} = \frac{\left[\text{System Response}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

65

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-13-88
INITIALS:	LC

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	46	20.9	174
Time of initial calibration: 310						
Initial: Analyzer Zero Response	1.9	0.1	0.4	0.6	11.2	1.4
Analyzer Span Response	203.1	20.5	46.1	105.6	20.7	66.5
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	yes - Outlet CEMS
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

Cal gas cylinder at outlet was empty during calibration.

Bob Tekach changed the gas cylinder and put new cal values into the AR and the Compaq in the control room.

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

8-13-88
LC

	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
If adjustments were made: *						
Time of final calibration: 1215	203	20.9	44	45	20.9	171
Final: Analyzer Zero Response	1.9	1.5	0.4	0.6	0.1	1.4
Analyzer Span Response	201.1	19.6	44	35	20.9	177.6
Percent Zero Drift *						
Percent Span Drift *						
System calibration check:						
System Zero Response						
System Span Response						
Percent Zero Drift *						
Percent Span Drift *						
System calibration bias: **						
Zero gas						
Span gas						
(If > 5%, data may be questionable.)						

COMMENTS

* 'cal gas cylinder at outlet was replaced.

new ZOFF:	-6	1.1	-5	-7	-1	-2
SPANF:	202	19.8	44	42	21.1	187

$$\text{* Drift} = \frac{[\text{Reference Value}] - [\text{Analyzer Response}]}{\text{Measurement Range}} \times 100$$

$$\text{** System Bias} = \frac{[\text{System Response}] - [\text{Analyzer Response}]}{\text{Measurement Range}} \times 100$$

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-14-88
INITIALS:	SAS

	INLET			OUTLET		
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203.0	20.9	44.5	45.8	20.9	171.0
Time of initial calibration: 0810						
Initial: Analyzer Zero Response	1.9	0.5	1.7	1.7	0.1	1.4
Analyzer Span Response	200.8	20.6	44.0	47.2	20.7	168.6
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	yes - flashing span
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-6	1.2	-4	-5	-1.0	-1
SPANF:	200	19.8	43	X42	21.0	185

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-15-88
INITIALS:	SAS

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203.0	20.9	44.5	45.8	20.9	171.0
Time of initial calibration: 0810						
Initial: Analyzer Zero Response	2.4	0.5	5.2	0.6	0.1	1.4
Analyzer Span Response	198.8	20.5	42.3	51.6	20.7	165.4
Percent Zero Drift *		2.0%				
Percent Span Drift *				2.3%		
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	NO
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-6	1.2	0	-7	-1.0	-1
SPANF:	195	19.7	42	43	21.0	180

Anarad cleaned eductor + checked for leaks. Also drained the TE Cooler H_2O traps.

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-16-88
INITIALS:	SAS

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203.0	20.9	44.5	45.8	20.9	171.0
Time of initial calibration: 0810						
Initial: Analyzer Zero Response	1.9	0.2	0.4	0.6	0.1	1.4
Analyzer Span Response	206.6	20.9	45.5	51.6	20.8	172.1
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	No
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS						
ZOFF:	-8	1.1	-8	-7	-1.0	-1
SPANF:	200	20.0	43	42	21.1	183

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-17-88
INITIALS:	SAS

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203.0	20.9	44.5	45.8	20.9	171.0
Time of initial calibration: 0810						
Initial: Analyzer Zero Response	1.9	0.4	0.4	0.6	0.1	1.4
Analyzer Span Response	203.6	20.5	43.8	52.4	20.9	174.6
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	No
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-10	1.2	-8	-11	-1.0	-2
SPANF:	200	19.8	43	41	21.2	188

Anarad cleaned the #2 inlet eductor, and set the blowback pressure @ 40 psi (through the sample nipple from the inertial filter). Anarad also drained the TE Cooler H_2O traps.

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-18-88
INITIALS:	SAS

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203.0	20.9	44.5	45.8	20.9	171.0
Time of initial calibration: 0810						
Initial: Analyzer Zero Response	1.9	0.3	2.8	3.4	0.1	1.8
Analyzer Span Response	201.6	20.6	43.6	52.1	20.6	166.4
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	NO
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-10	1.2	-5	-8	-1.0	-1
SPANF:	201	19.8	42	~~42~~	21.1	184

8/18

Dale installed a pressure gauge on the Unit 2 inlet sample probe. Also cleaned the inlet eductor and placed insulation on the inertial filter holder.

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE: 8-19-88	
INITIALS: SAS	

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203.0	20.9	44.5	45.8	20.9	171.0
Time of initial calibration: 0810						
Initial: Analyzer Zero Response	1.6	0.5	0.3	2.5	0.1	1.3
Analyzer Span Response	204.3	20.7	44.6	51.4	20.6	171.5
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	No
Analyzers have adequate flow?	No Resolved
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS						
ZOFF:	-14	1.2	-8	-5	-1.0	-2
SPANF:	202	19.9	42	42	21.0	185

8/19

Sample flow to the inlet analyzers is ~ .2 l/min, while the flow to the outlet analyzers is extremely low (the rotameters are not indicating any flow) → Resolved — When Anarad drained the H_2O from the Unit 2 TE cooler trap inside the analyzer trailer, the drain valve was left open. This caused the analyzer sample flow rate to decrease. ESP outlet data (Anarad) from 8:00-13:00 is invalid. The data normalized to 7% O_2 may be usable.

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-20-88
INITIALS:	SAS

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203.0	20.9	44.5	45.8	20.9	171.0
Time of initial calibration: 0810						
Initial: Analyzer Zero Response	5.0	0.2	3.7	0.6	0.1	1.4
Analyzer Span Response	199.3	21.0	45.9	50.9	20.8	169.1
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes.
Strip charts / printer normal?	yes
Any alarm messages?	No
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS						
ZOFF:	-10	1.0	-6	-10	-1.0	-2
SPANF:	199	20.3	45	41	21.0	184

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-21-88
INITIALS:	LC, SAS

	INLET			OUTLET		
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	45.8	20.9	171.0
Time of initial calibration: 810						
Initial: Analyzer Zero Response	4.1	0.4	2.6	0.6	0.1	1.4
Analyzer Span Response	201.1	20.5	42.3	50.6	20.8	169.6
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	no
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-6	1	-4	-11	-1	-1
SPANF:	198	20.3	43	40	21.1	185

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-22-88
INITIALS:	uc

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203.1	20.9	44.5	45.8	20.9	171.0
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.4	0.5	0.4	2.6	0.1	1.3
Analyzer Span Response	209.1	20.4	45.3	54.6	20.7	172.8
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	no
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS						
ZOFF:	-5	1.2	-7	-11	-1	-1
SPANF:	198	20.1	44	42	21	185

$$* \text{Drift} = \frac{[\text{Reference Value}] - [\text{Analyzer Response}]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-23-88
INITIALS:	LC

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203.1	20.9	44.5	45.8	20.9	171.0
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.6	0.4	3.6	3.1	0.1	1.1
Analyzer Span Response	209.9	20.6	39.6	27.9	20.8	174.6
Percent Zero Drift *						
Percent Span Drift *				7.22		
If > 5%, was any adjustment made?				no*		
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	yes
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

@0810	ZOFF:	-13	1.3	-3	-7	-1	-1
	SPANF:	206	19.9	39	x42	21.2	191

*A second calibration routine was initiated manually.

@1630	ZOFF:	-6	1.3	2	-7	-1.0	-2
	SPANF:	203	20.0	42	x42	21.1	189

Also, at 26 ppm SO_2 gas was injected locally with a 31 ppm analyzer response. This indicated adequate analyzer performance.

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

8-23-88
LC

	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
If adjustments were made:						
Time of final calibration: 16'35						
Final: Analyzer Zero Response	9.8	6.4	6.0	1.5	0.1	1.4
Analyzer Span Response	201.1	20.6	46.5	38.5	20.7	167.3
Percent Zero Drift *						
Percent Span Drift *						
System calibration check:						
System Zero Response						
System Span Response						
Percent Zero Drift *						
Percent Span Drift *						
System calibration bias: **						
Zero gas						
Span gas						
(If > 5%, data may be questionable.)						

COMMENTS

$$* \text{ Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

$$** \text{ System Bias} = \frac{\left[\text{System Response}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-24-88
INITIALS:	LC

	INLET			OUTLET		
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203.1	20.9	44.5	45.8	20.9	171.0
Time of initial calibration: 810						
Initial: Analyzer Zero Response	3.8	0.1	0.4	0.6	0.1	3.3
Analyzer Span Response	196.9	20.6	41.0	52.3	20.6	131.4
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	no
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-3	.9	-2	-10	-1	1
SPANF:	197	20	39	43	21	145

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-25-88
INITIALS:	CC

	INLET			OUTLET		
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203	20.9	44.5	45.8	20.9	171.0
Time of initial calibration: 810						
Initial: Analyzer Zero Response	1.9	0.5	0.4	0.6	0.1	1.4
Analyzer Span Response	210.5	20.5	51.6	51.6	20.7	169.1
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	no
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-7	1	-7	-17	-1	2
SPANF:	203	19.9	45	43	21.1	145

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-26-88
INITIALS:	LC

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	203.1	20.9	44.5	45	20.9	171.0
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.9	0.7	0.4	0.6	0.1	1.4
Analyzer Span Response	200.8	19.8	42.8	51.7	20.6	171.6
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes - O_2 inlet pen replaced
Any alarm messages?	no
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-9	-1	-7	-15	-1	2

Because of the high zero-offsets, the analyzers were adjusted and recalibrated.

There was a problem at inlet causing the system to sample compressed air for 3-4 hours.

The high cal gas cylinder was replaced prior to the second calibration.

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

8-26-88
LC

	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
If adjustments were made:						
Time of final calibration: 13:08 CONC:	207	20.9	44.	45.8	20.9	171.0
Final: Analyzer Zero Response	2.0	1.5	1.3	2.0	0.1	1.5
Analyzer Span Response	218.3	19.5	43.0	48.7	20.9	153.1
Percent Zero Drift *						
Percent Span Drift *						
System calibration check:						
System Zero Response						
System Span Response						
Percent Zero Drift *						
Percent Span Drift *						
System calibration bias: **						
Zero gas						
Span gas						
(If > 5%, data may be questionable.)						

COMMENTS

The O2 analyzer response to its span gas (when allowed to respond fully) was 22.3 ~~[illegible]~~ %. Kent Lemmex said that the span pot would easily take care of the difference. He said he would work on the NOx analyzer.

$$* \text{ Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

$$** \text{ System Bias} = \frac{\left[\text{System Response}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-27-88
INITIALS:	LC

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	207	20.9	44.7	45.8	20.9	171.0
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	2.0	0.6	0.4	3.1	0.6	3.8
Analyzer Span Response	209.0	20.3	45.3	50.9	20.7	219.4
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	yes - FLOW
Analyzers have adequate flow?	apparently
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	0	1.2	-5	1	-1	3
SPANF:	222	19.6	44	41	21.1	198

The inlet monitors response for the previous 8-10 hours has been erratic. It looks like there is a periodic plugging somewhere in the system.

The eductor was washed at 9:55. The compressed air line had a lot of water in it, even though the system wasn't in blowback. It may be that the water wash has been installed and isn't working properly. There aren't any notes in the CEM logbook

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-28-88
INITIALS:	LC

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	207.0	20.9	44.7	45.8	20.9	171.0
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	2.4	0.4	0.6	5.2	0.1	1.4
Analyzer Span Response	202.1	20.4	44.0	48.4	20.6	200.3
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	yes - FLOW
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

Dale K. worked on leak at inlet conditioning enclosure. He also disconnected the Servomex since no data ~~was~~ were being recorded and it required a large volume of sample gas.

The system was adjusted and recalibrated at 12:45.

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

Page 2

8-28-88
LC

	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
If adjustments were made:						
Time of final calibration: 12:42						
Final: Analyzer Zero Response	3.9	1.3	1.7	1.1	0.1	4.8
Analyzer Span Response	226.3	19.4	44.5	49.2	20.9	281.0
Percent Zero Drift *						
Percent Span Drift *						
System calibration check:						
System Zero Response						
System Span Response						
Percent Zero Drift *						
Percent Span Drift *						
System calibration bias: **						
Zero gas						
Span gas						
(If > 5%, data may be questionable.)						

COMMENTS

ZOFF:	2	.9	1	-1	-1	3
SPANF:	224	19.7	44	41	21.1	x 171

$$* \text{ Drift} = \frac{[\text{Reference Value}] - [\text{Analyzer Response}]}{\text{Measurement Range}} \times 100$$

$$** \text{ System Bias} = \frac{[\text{System Response}] - [\text{Analyzer Response}]}{\text{Measurement Range}} \times 100$$

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-29-88
INITIALS:	LC, KS

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	207.0	20.9	44.5	45.8	20.9	171.0
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.9	0.6	0.4	2.9	0.1	1.4
Analyzer Span Response	205.6	19.7	43.2	46.9	20.7	280.0
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	yes - NOx span
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS						
ZOFF:	-1	1.1	-3	1	-1	-1
SPANF:	224	18.8	43	42	21.1	x171

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-30-88
INITIALS:	KS LC

	INLET			OUTLET		
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	207.0	20.9	44.5	45.8	20.9	171.0
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.9	0.5	0.4	0.6	0.1	1.4
Analyzer Span Response	206.8	20.5	44.6	43.0	20.8	277.3
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	No
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

Dale K and Kenf L. working on inlet system

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

8-30-88

	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
If adjustments were made:						
Time of final calibration: 10:51 - 11:24						
Final: Analyzer Zero Response	2.0	1.5	0.4	1.1	0.1	1.5
Analyzer Span Response	223.6	19.0	44.1	49.9	21.1	172.9
Percent Zero Drift *						
Percent Span Drift *						
System calibration check:						
System Zero Response						
System Span Response						
Percent Zero Drift *						
Percent Span Drift *						
System calibration bias: **						
Zero gas						
Span gas						
(If > 5%, data may be questionable.)						

COMMENTS

ZOFF	-2	1.1	-3	-2	-1	-2
SPAN F	223	19.3	44	43	21.1	173

Apparently Kent L. worked on and fixed NOx analyzer 2nd cal is good will see!

$$* \text{ Drift} = \frac{[\text{Reference Value}] - [\text{Analyzer Response}]}{\text{Measurement Range}} \times 100$$

$$** \text{ System Bias} = \frac{[\text{System Response}] - [\text{Analyzer Response}]}{\text{Measurement Range}} \times 100$$

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	8-31-88
INITIALS:	WKS LC

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	207.0	20.9	44.8	45.8	20.9	171.0
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.9	0.5	0.4	0.6	0.1	1.4
Analyzer Span Response	209.9	20.5	43.8	35.3	20.8	174.6
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	Yes
Strip charts / printer normal?	No - inlet chart bunched (corrected)
Any alarm messages?	Yes SO_2 outlet span
Analyzers have adequate flow?	Yes
Wheelabrator / Anarad CEM activities reviewed?	Yes

COMMENTS						
ZOFF	-7	1.1	-5	-3	-1	-1
SPANF	228	19.4	43	43	21.2	178

SO_2 outlet cal was 10 ppm low for span injection. Will wait one day before action to see if it will exceed its ± 12.5 ppm limit or line out

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	9-1-88
INITIALS:	WKS

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	207.0	20.9	44.7	45.8	20.9	171.0
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.9	0.4	0.4	1.3	0.1	1.4
Analyzer Span Response	208.0	19.7	45.3	33.6	20.8	183.5
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	~~Yes~~ NO - hard disk crash
Strip charts / printer normal?	Yes
Any alarm messages?	Yes Span SO2 Inlet
Analyzers have adequate flow?	Yes
Wheelabrator / Anarad CEM activities reviewed?	Yes

COMMENTS

ZOFF	-8	1.1	-6	0	-1	-2
SPANF	229	18.1	44	X43	21.2	192

Inlet SO2 span appears to have leveled out but span alarm still remains
Unable to get plant data from their DAS due to problems. Dale K. said that
hard disc filled up and had to be cleared. Files taken off but problem w/
C: drive. Dale trying to correct. No data is being collected. Hope to get
8/31 Data and 9/1 Cal tomorrow

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	9-2-88
INITIALS:	WKS

CALIBRATION CHECK	INLET SO_2	INLET O_2	INLET CO	OUTLET SO_2	OUTLET O_2	OUTLET NO_x
Reference Calibration Value	207.0	20.9	44.7	45.8	20.9	171.0
Time of initial calibration: _____						
Initial: Analyzer Zero Response	1.9	0.4	0.4	0.6	0.1	1.4
Analyzer Span Response	204.6	20.4	44.0	36.8	20.7	166.9
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	Yes
Strip charts / printer normal?	Yes
Any alarm messages?	Yes INLET SPAN AGAIN
Analyzers have adequate flow?	Yes
Wheelabrator / Anarad CEM activities reviewed?	Yes

COMMENTS

ZOFF	-7	1.2	-6	-3	-1	-1
SPANF	226	17.9	45	X43	21.2	188

Inlet span SO_2 remained at 43 and heavy light continued to flash

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	9-3-88
INITIALS:	WKS

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	207.0	20.9	44.7	45.8	20.9	171.0
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.9	0.3	5.5	0.8	0.1	1.4
Analyzer Span Response	208.5	20.6	43.5	33.4	20.7	172.1
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	yes
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS						
ZOFF	-5	1.1	-1	-2	-1	-2
SPANF	730	18	44	X43	21.2	190

Span F Outlet SO_2 Alarm flashing - No entries made in Plant CEM Log since 8-30
SO_2 CAL getting very close to out

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	9-4-88
INITIALS:	WKS

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	207.0	20.9	44.7	45.8	20.9	171.0
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	2.0	0.5	1.5	0.6	0.1	1.4
Analyzer Span Response	202.6	20.5	44.1	38.2	20.8	168.3
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	NO
Any alarm messages?	yes
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS						
ZOFF	-4	1.2	0	-5	-1	-1
SPANF	226	18	43	X43	21.2	188

Unit 2 outlet stripchart on ANARAD out of paper. Outlet SO_2 span alarm flashing still
↳ Found about 9:00AM don't know how long its been out, last looked at it about 1:00pm
yesterday. Told control room operators and a man was supposed to replace it.

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	9-5-88
INITIALS:	WKS

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	207.0	20.9	44.7	45.8	20.9	171.0
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	2.0	0.3	1.3	0.6	0.1	1.5
Analyzer Span Response	202.1	20.7	44.0	55.8	20.9	161.8
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	NO - out of paper
Any alarm messages?	NO
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS						
ZOFF	-4	1	0	-6	-1	-2
SPANE	221	18.2	42	47	21.1	180

SDA Inlet and CO/NOx strip charts out of paper like I figured. SO2 outlet span alarm finally off. All unit 1 out of paper as well. SO2 outlet calibration value jumped 17ppm from yesterday to today. Told Bill about lack of strip chart paper

9-5 Wheelabrator Log Lo span gas bottle empty? Ball valve in B sample conditioner (SDA Blowback) needs replacing - on site somewhere - (or valve is bad) ICAL

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	9-6-88
INITIALS:	WKS

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	207.0	20.9	44.7	45.8	20.9	171.0
Time of initial calibration: 8.10						
Initial: Analyzer Zero Response	4.5	0.3	0.3	5.3	0.1	1.3
Analyzer Span Response	208.4	20.9	44.2	120.0	20.7	39.6
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	Yes
Strip charts / printer normal?	No - ESP eductor plugged
Any alarm messages?	Yes
Analyzers have adequate flow?	Yes
Wheelabrator / Anarad CEM activities reviewed?	Yes

COMMENTS

ZOFF	1	0.7	-5	0	-1	-1
SPANF	222	18.4	43	X47	21.2	X180

ESP Unit 2 stripchart off kilter. Anarad must be working on analyzers. Paper was replaced but Inlet O_2 at 22% since. Nope, eductor is plugged. Told Dale K. he said he knew all about it. All outlet cal numbers haywire.

11:00 AM CO 1-2ppm NOx 240ppm

ESP O_2 9.9% SO_2 (LED not reading Channel 1)

SDA O_2 22.0% SO_2 - 0

Worked on Unit 1 Sample Pump Cleaned Eductor etc.

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	9-7-88
INITIALS:	WKS

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	207.0	20.9	44.7	45.8	20.9	171.0
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.8	21.1	0.3	4.3	20.5	1.3
Analyzer Span Response	214.4	20.6	45.9	3.1	20.8	5.1
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	
Strip charts / printer normal?	
Any alarm messages?	Yes - zero & span
Analyzers have adequate flow?	
Wheelabrator / Anarad CEM activities reviewed?	

COMMENTS						
ZOFF	-1	X.7	-6	3	X-1	-1
SPANF	233	18.4	45	X47	21.2	X180

Replaced LO span gas bottle. Aspirator pump on SO2 Unit 2 outlet is bad. Have to replace Eductor still plugged.

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	9-8-88
INITIALS:	WICS

	INLET			47.8 OUTLET		~~193.0~~
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	207.0	20.9	44.7	~~45.8~~	20.9	193.0
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.9	0.3	0.4	0.5	0.1	3.1
Analyzer Span Response	216.4	18.3	44.0	54.5	20.5	191.3
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	Yes
Strip charts / printer normal?	Yes
Any alarm messages?	NO
Analyzers have adequate flow?	Yes
Wheelabrator / Anarad CEM activities reviewed?	Yes

COMMENTS

ZOFF	-12	1.1	-3	-3	-1	1
SPANF	228	17.7	43	43	20.8	203

Eductor on Unit 2 appears to be unplugged. ~~Had L.~~ Cleaned plug yesterday at #2 SDA sample conditioner. Replaced the ball valve in the blowback valve. Autocals and adjusted both Enclosures. Washed eductor at #2 SDA.

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	9-9-88
INITIALS:	WKS

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	207.0	20.9	44.7	47.8	20.9	193.0
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.9	0.4	2.4	1.9	0.1	1.4
Analyzer Span Response	206.1	19.3	43.6	53.1	20.6	194.1
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	Yes
Strip charts / printer normal?	Yes
Any alarm messages?	NO
Analyzers have adequate flow?	Yes
Wheelabrator / Anarad CEM activities reviewed?	Yes

COMMENTS						
ZOFF	-14	1.1	-1	-3	-1	0
SPANF	226	17.6	42	43	20.8	205

Bob T. at landfill today. Couldn't talk to him about Wheelabrator Process Log.
Kent L.
Cleaned eductors 1+2. All analyzers on line and in spec.

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	9-10-88
INITIALS:	WKS

	INLET			OUTLET		
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	207.0	20.9	44.7	47.8	20.9	193.0
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	2.0	0.6	1.5	0.6	0.1	1.4
Analyzer Span Response	207.1	19.3	45.0	49.4	20.6	184.4
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	Yes
Strip charts / printer normal?	Yes
Any alarm messages?	NO
Analyzers have adequate flow?	Yes
Wheelabrator / Anarad CEM activities reviewed?	Yes

COMMENTS

ZOFF	-15	1.1	-1	-8	-1	0
SPANF	230	17.6	43	40	20.9	199

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	9-11-88
INITIALS:	WKS

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	207.0	20.9	44.7	47.8	20.9	193.0
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.9	0.7	0.4	4.1	0.1	1.4
Analyzer Span Response	200.8	19.1	43.6	56.1	20.3	184.4
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	Yes
Strip charts / printer normal?	Yes
Any alarm messages?	No
Analyzers have adequate flow?	Yes
Wheelabrator / Anarad CEM activities reviewed?	Yes

COMMENTS						
ZOFF	-15	1.1	-2	-6	-1	0
SPANF	224	17.5	42	43	20.7	190

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	9-12-88
INITIALS:	LC

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	207	20.9	44.7	47	20.9	193
Time of initial calibration: 8:16						
Initial: Analyzer Zero Response	1.9	0.8	1.6	2.8	0.1	1.6
Analyzer Span Response	208.5	18.7	44.0	52.3	20.7	188.4
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	yes - O2 span
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS						
ZOFF:	-18	1.3	-1	-4	-1	0
SPANF:	225	x175	41	39	20.8	186

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	9-13-88
INITIALS:	LC

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	207.0	20.9	44.7	47.8	20.9	193
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	5.3	0.2	1.3	2.7	0.1	1.5
Analyzer Span Response	208.1	20.4	46.0	57.0	20.7	136.9
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						yes
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	yes - NOx-span
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-14	1	-1	-3	-1	0
SPANF:	224	18.1	42	46	20.9	x186

Dale K adjusted the NOx analyzer and recalibrated the system.

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

9-13-88
LC

	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
If adjustments were made:						
Time of final calibration: 13:48						
Final: Analyzer Zero Response	2.0	1.0	1.9	1.5	0.1	14.9
Analyzer Span Response	207.5	17.5	42.5	36.5	20.7	249.3
Percent Zero Drift *						
Percent Span Drift *						
System calibration check:						
System Zero Response						
System Span Response						
Percent Zero Drift *						
Percent Span Drift *						
System calibration bias: **						
Zero gas						
Span gas						
(If > 5%, data may be questionable.)						

COMMENTS

$$* \text{ Drift} = \frac{[\text{Reference Value}] - [\text{Analyzer Response}]}{\text{Measurement Range}} \times 100$$

$$** \text{ System Bias} = \frac{[\text{System Response}] - [\text{Analyzer Response}]}{\text{Measurement Range}} \times 100$$

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	9-14-88
INITIALS:	LC

	INLET			OUTLET		
CALIBRATION CHECK	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	207.0	20.9	44.7	46	20.9	193
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	1.9	0.6	0.3	0.5	0.1	1.3
Analyzer Span Response	210.4	19.7	44.2	55.3	22.0	206.1
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	no
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS

ZOFF:	-12	1	-6	-3	-1	-1
SPANF:	210	18.8	43	42	21	190

Date on Anarad 8200 display has been corrected!

$$* \text{Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS DAILY CHECK FORM

DATE:	9-15-88
INITIALS:	LC

CALIBRATION CHECK	INLET			OUTLET		
	SO_2	O_2	CO	SO_2	O_2	NO_x
Reference Calibration Value	207.0	20.9	44.7	47.8	20.9	193
Time of initial calibration: 8:10						
Initial: Analyzer Zero Response	5.0	0.5	2.0	7.1	0.1	1.4
Analyzer Span Response	206.1	19.7	43.6	53.5	20.5	186.4
Percent Zero Drift *						
Percent Span Drift *						
If > 5%, was any adjustment made?						
If > 10%, was a CGA conducted?						

DATA ACQUISITION AND SAMPLING SYSTEM	
Computer operating normally?	yes
Strip charts / printer normal?	yes
Any alarm messages?	no
Analyzers have adequate flow?	yes
Wheelabrator / Anarad CEM activities reviewed?	yes

COMMENTS						
ZOFF:	-7	1	-4	3	-1	0
SPANF:	209	18.8	42	43	20.9	18[illegible]

$$\text{* Drift} = \frac{\left[\text{Reference Value}\right] - \left[\text{Analyzer Response}\right]}{\text{Measurement Range}} \times 100$$

Continued on Page 2

5

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS PERIODIC CHECK FORM

DATE:	7-30-88
INITIALS:	SAS

SAMPLE ANALYSIS SYSTEM	
Agreement between data output devices?	yes (strip chart - Anarad 8200 display)
Strip chart paper or ink faults?	No
Computer normal?	yes
Sample filters clean and moisture-free?	yes
Sample lines free of moisture?	yes
Gas analyzer rotameters free of moisture?	yes
SO_2, CO, and O_2 analyzer sample flow rates = 0.4 LPM?	yes
NO_x sample pressure = 5.0 PSIG?	no (6.3 psig)
NO_x analyzer sample flow rate = 2 - 4 LPM?	yes (2)
NO_x instrument air ozone regulator pressure = 4 PSIG?	yes
Calibration switch set on "LOCAL"?	yes
Via cooler display temperature ~35° F?	yes (33.9 °F)

SAMPLING LOCATIONS	SDA	ESP
Verify analyzer O_2 with ORSAT?	no	no
Effluent flowing from eductor exhaust outlet?	*	yes
Sample line heat trace warm?	yes	yes
Polishing filter free of particulate or moisture?	no H_2O/little dirty	water + particulate visible
Sample flow = 1.5 - 2.0 LPM?	15	15
Eductor pressure = 80 - 90 PSIG?	85	85
Blowback pressure = 80 - 90 PSIG?	9.5	10
TE cooler trap free of moisture?	no	no
Eductor cleaned?	no	no
Sample/blowback switch in "sample" position	yes	yes

COMMENTS

* can no longer tell at the inlet because an exhaust line has been installed that vents outside where you cannot reach.

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

GAS CEMS PERIODIC CHECK FORM

DATE:	8-13-88
INITIALS:	LC

SAMPLE ANALYSIS SYSTEM	
Agreement between data output devices?	yes (strip charts - 8200 display)
Strip chart paper or ink faults?	~~yes~~ no
Computer normal?	yes
Sample filters clean and moisture-free?	yes
Sample lines free of moisture?	yes
Gas analyzer rotameters free of moisture?	yes
SO_2, CO, and O_2 analyzer sample flow rates = 0.4 LPM?	yes
NO_x sample pressure = 5.0 PSIG?	yes
NO_x analyzer sample flow rate = 2 - 4 LPM?	yes - 4 lpm
NO_x instrument air ozone regulator pressure = 4 PSIG?	no - 10 psig
Calibration switch set on "LOCAL"?	yes
Via cooler display temperature ~35° F?	yes - 34.1° F

SAMPLING LOCATIONS	SDA	ESP
Verify analyzer O_2 with ORSAT?	no	
Effluent flowing from eductor exhaust outlet?	—	yes
Sample line heat trace warm?	yes	yes
Polishing filter free of particulate or moisture?	no - some brown liquid	no - some liquid
Sample flow = 1.5 - 2.0 LPM? rotameter -	25	12
Eductor pressure = 80 - 90 PSIG?	yes	yes
Blowback pressure = 80 - 90 PSIG?	10 psig	12
TE cooler trap free of moisture?	no	no
Eductor cleaned?	no	no
Sample/blowback switch in "sample" position	yes	yes

COMMENTS

Air ~~flowing~~ line from "Dryer Eductor Pressure" valve disconnected and blowing on sample pump. (Inlet)

APPENDIX D.

Anarad Opacity CEMS
- Daily and Periodic Check Forms
- Performance Audit Results

cal routine conducted automatically @ 2100

MILLBURY RESOURCE RECOVERY FACILITY

OPACITY DAILY CHECK FORM

Week of: July 25-31, 1988	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Initials	SAS	SAS	SAS	SAS	SAS	SAS	SAS
Any fault lamps illuminated?	No	No	No	No	No	No	No
CALIBRATION CHECK							
Reference calibration value	61.4	61.4	61.4	61.4	61.4	61.4	61.4
Analyzer response	1.0/63	1.0/63	1.0/63	1.0/63	1.0/63	1.0/63	1.0/63
Calibration drift (Reference - Response)							
Any adjustments made?	No	No	No	No	No	No	No
COMMENTS:							

Week of: August 1-7, 1988	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Initials	SAS	LC	LC	LC	LC	LC	LC
Any fault lamps illuminated?	No	NO	NO	NO	NO	NO	NO
CALIBRATION CHECK							
Reference calibration value	61.4	61.4	61.4	61.4	61.4	61.4	61.4
Analyzer response	1/63	1/63	1/63	1/63	1/63	1/63	1/63
Calibration drift (Reference - Response)							
Any adjustments made?	No	NO	NO	NO	NO	NO	NO
COMMENTS: Around 12:00 8-4 opacity ~80% momentarily							

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

OPACITY DAILY CHECK FORM

Week of: August 8-14	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Initials LC	LC	LC	LC	LC	SAS	SAS	SAS
Any fault lamps illuminated?	NO	NO	NO	NO	NO	NO	NO
CALIBRATION CHECK							
Reference calibration value	61.4	61.4	61.4	61.4	61.4	61.4	61.4
Analyzer response	1/63	1/63	1/63	1/63	1/63	1/63	1/63
Calibration drift (Reference - Response)							
Any adjustments made?	NO	NO	NO	NO	NO	NO	NO
COMMENTS:							

Week of: Aug 15-21	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Initials	SAS	SAS	SAS	SAS	LC	LC	LC
Any fault lamps illuminated?	NO	NO	NO	NO	NO	NO	NO
CALIBRATION CHECK							
Reference calibration value	61.4						
Analyzer response	1/63	1/63	1/63	1/63	1/63	1/63	1/63
Calibration drift (Reference - Response)							
Any adjustments made?	NO	NO	NO	NO	NO	NO	NO
COMMENTS:							

MILLBURY RESOURCE RECOVERY FACILITY

OPACITY DAILY CHECK FORM

Week of: Aug 22-28	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Initials	LC	LC	LC	LC	LC	LC	LC
Any fault lamps illuminated?	no	no	no	no	no	no	no
CALIBRATION CHECK							
Reference calibration value	61.4 →						
Analyzer response	1/63	1/63	1/63	1/63	1/63	1/63	1/63
Calibration drift (Reference - Response)							
Any adjustments made?	no	no	no	no	no	no	no
COMMENTS:							

Week of: Aug 29-Sep 4	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Initials	WKS	WKS	WKS	WKS	WKS	WKS	WKS
Any fault lamps illuminated?	NO	NO	NO	NO	NO	NO	NO
CALIBRATION CHECK							
Reference calibration value	61.4 →						
Analyzer response	1/63	1/63	1/63	1/63	1/63	1/63	1/63
Calibration drift (Reference - Response)							
Any adjustments made?	NO	NO	NO	NO	NO	NO	NO
COMMENTS:							

MILLBURY RESOURCE RECOVERY FACILITY

OPACITY DAILY CHECK FORM

Week of: Sept 5 - 11	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Initials	WKS	WKS	WKS	WKS	WKS	WKS	LC
Any fault lamps illuminated?	NO	NO	NO	NO	NO	NO	NO
CALIBRATION CHECK							
Reference calibration value	61.4	→					
Analyzer response	1/63	1/62	1/63	1/63	1/63	0/62	1/63
Calibration drift (Reference - Response)							
Any adjustments made?	NO	NO	NO	NO	NO	NO	NO

COMMENTS: Unit 1 Transmissometer Fault Lamp ON

Week of: Sept. 12-15	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Initials	LC	LC	LC	LC			
Any fault lamps illuminated?	NO	NO	NO	NO			
CALIBRATION CHECK							
Reference calibration value	61.4	→					
Analyzer response	1/63	1/63	1/63	1/63			
Calibration drift (Reference - Response)							
Any adjustments made?	NO	NO	NO	NO			

COMMENTS:

MILLBURY RESOURCE RECOVERY FACILITY

OPACITY PERIODIC CHECK FORM

Date	7-27-88						
Initials	SAS						
TRANSMISSOMETER							
Alignment checked?	yes						
Transceiver optics cleaned?	yes						
Transceiver purge air inspected?	yes						
Retroreflector purge air inspected?	yes						
Simulated zero level checked?	yes						
COMMENTS:							

AUDIT DATA SHEET
THERMO ELECTRON (CONTRAVES GOERZ) MODEL 400 TRANSMISSOMETER AND MODEL 500 CONTROL UNIT

CEM SOURCE IDENTIFICATION: S/N 400-20239-189 CORPORATION: Wheelabrator Resource Recovery

PROCESS UNIT/STACK IDENTIFICATION: Unit 2 PLANT/SITE: Millbury, Mass.

AUDITOR: Scott Shanklin REPRESENTING: Entropy

ATTENDEES: None REPRESENTING:

REPRESENTING:

REPRESENTING:

REPRESENTING:

DATE: Wed. 7-27-88

PRELIMINARY DATA

1	Stack exit inside diameter (FT) = L_x	
2	Stack (or duct) inside diameter (or width) at transmissometer location (FT) = L_t	8 ft
3	Calculated STR = L_x / L_t	
4	Source-cited STR value	
5	Source-cited zero automatic calibration values (% opacity)	0
6	Source-cited span automatic calibration value (% opacity)	61.4

[GO TO DATA RECORDER LOCATION]

[INSPECT DATA RECORDING SYSTEM AND MARK WITH "OPACITY AUDIT," AUDITOR'S NAME, DATE, SOURCE, PROCESS UNIT/STACK IDENTIFICATION, AND THE TIME OF DAY.]

[GO TO CONTROL UNIT LOCATION]

FAULT LAMP INSPECTION

		ON	OFF
7	CAL FAULT [excessive zero and/or span error]		✓
8	DIRTY WINDOW [excessive dirt on transceiver optics]		✓
9	PURGE AIR [insufficient purge air flow]		✓
10	STACK POWER [no power to transmissometer]		✓
11	LAMP FAILURE [insufficient measurement lamp intensity]		✓
12	ALARM [effluent opacity exceeds source-selected limit]		✓

ZERO CHECK

[PRESS THE "ZERO/CAL" SWITCH]

[READ THE ZERO CALIBRATION VALUE FROM THE PANEL METER AND THE DATA RECORDER]

13	Panel Meter zero calibration value (%Op)	0.2
14	Opacity data recorder zero calibration value (%Op)	1.0

SPAN CHECK

[PRESS THE "SPAN/CAL" SWITCH]

[READ THE SPAN CALIBRATION VALUE FROM THE PANEL METER AND THE DATA RECORDER]

15	Panel Meter span calibration value (%Op)	62
16	Opacity data recorder span calibration value (%Op)	63.5

[GO TO TRANSMISSOMETER LOCATION]

AUDIT DATA SHEET
THERMO ELECTRON (CONTRAVES GOERZ) MODEL 400 TRANSMISSOMETER AND MODEL 500 CONTROL UNIT
(Continued)

RETROREFLECTOR DUST ACCUMULATION CHECK

[GET EFFLUENT OPACITY READING FROM THE OPACITY DATA RECORDER.]

17 Pre-cleaning effluent opacity (%Op) — 1.0
[Open retroreflector, inspect and clean retroreflector optical surface, and close retroreflector.]

18 Post-cleaning effluent opacity (%Op) — 1.0

[GO TO TRANSCEIVER LOCATION]

TRANSCEIVER DUST ACCUMULATION CHECK

[GET EFFLUENT OPACITY READINGS]
[TURN OFF CHOPPER MOTOR SWITCH ON TRANSCEIVER CONTROL PANEL]

19 Pre-cleaning effluent opacity (% Op) — 1.0
[Open transceiver, clean primary lens, close transceiver, and turn chopper motor switch on.]

20 Post-cleaning effluent opacity (% Op) — 1.0

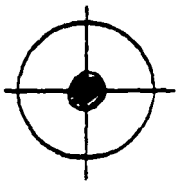
OPTICAL ALIGNMENT CHECK

[LOOK INTO VIEWING PORT ON BACK OF TRANSCEIVER AND OBSERVE POSITION OF BEAM IMAGE WITH RESPECT TO CROSS HAIRS]

21 Image centered?

YES	NO
✓	

[DRAW LOCATION OF BEAM IMAGE.]



CALIBRATION ERROR CHECK

[TURN OFF THE CHOPPER MOTOR SWITCH AND OPEN THE TRANSCEIVER]

[GET THE SOURCE'S CALIBRATION JIG AND INSTALL ON THE TRANSCEIVER]

NOTE: Source's audit jig did not have slots for square filters; therefore, we had to use our audit jig.

[NOTE: MOST SOURCES HAVE A CALIBRATION DEVICE SUPPLIED BY THE MONITOR MANUFACTURER THAT IS ADJUSTED FOR THE MONITOR'S OPTICAL PATH LENGTH. IF THIS DEVICE IS NOT AVAILABLE, THE AUDITOR MUST SUPPLY A SIMILAR DEVICE THAT CAN BE ADJUSTED TO COMPENSATE FOR THE MONITOR'S OPTICAL PATH LENGTH.]

[INSTALL THE AUDIT JIG ON THE TRANSCEIVER FACE IN FRONT OF THE PROJECTION LENS]

[RESTART THE CHOPPER MOTOR]

[RECORD AUDIT FILTER DATA.]

	FILTER	SERIAL NO.	% OPACITY
22	LOW	002-CL	8.8
23	MID	003-CL	20.4
24	HIGH	007-CL	47.5

audit filters calibrated 5/23/88

AUDIT DATA SHEET
THERMO ELECTRON (CONTRAVES GOERZ) MODEL 400 TRANSMISSOMETER AND MODEL 500 CONTROL UNIT
(Continued)

[REMOVE AUDIT FILTERS FROM PROTECTIVE COVERS, INSPECT, AND CLEAN.]

[INSERT EACH FILTER IN JIG. THEN WAIT APPROXIMATELY TWO MINUTES AND RECORD OPACITY VALUES REPORTED FROM OPACITY DATA RECORDER.]

readings from the transceiver analog display

ZERO	LOW	MID	HIGH	ZERO
3.0	8.0 (10)	20.0 (21.5)	44.5 (46.5)	3.0 (3)
	8.5 (10)	19.5 (21.5)	44.5 (46.5)	3.0 (3)
	8.5 (10.5)	20.0 (21.5)	44.5 (46.5)	3.0 (3)
	8.5 (10.5)	19.5 (21)	44.5 (46.5)	3.0 (3)
	9.0 (10)	19.5 (21)	44.0 (46.5)	3.0 (3)

[could not adjust the iris on our jig to produce a zero response < 3% opacity]

bracketed values are values read from the strip chart

[IF SIX-MINUTE INTEGRATED DATA ARE ALSO AVAILABLE, THEN ALLOW 13 MINUTES EACH FOR AN ADDITIONAL RUN OF THE ZERO, LOW, MID, HIGH, AND ZERO READINGS.]

ZERO	LOW	MID	HIGH	ZERO

[TURN CHOPPER OFF, REMOVE AUDIT JIG, RESTART CHOPPER, AND CLOSE TRANSCEIVER.]

[RETURN TO CONTROL UNIT LOCATION.]

[GET A COPY OF THE AUDIT DATA FROM THE OPACITY DATA RECORDER AND ENSURE THAT THE DATA CAN BE CLEARLY READ AND INTERPRETED.]

[READ AND TRANSCRIBE FINAL CALIBRATION ERROR DATA.]

ZERO	LOW	MID	HIGH	ZERO
3.0	10.0	21.5	46.5	3.0
25	26	27	28	29
	10.0	21.5	46.5	3.0
	30	31	32	33
	10.5	21.5	46.5	3.0
	34	35	36	37
	10.5	21.0	46.5	3.0
	38	39	40	41
	10.0	21.0	46.5	3.0
	42	43	44	45

[SIX-MINUTE AVERAGE DATA, IF APPLICABLE.]

46	47	48	49	50

AUDIT DATA SHEET
THERMO ELECTRON (CONTRAVES GOERZ) MODEL 400 TRANSMISSOMETER AND MODEL 500 CONTROL UNIT
(Continued)

CALCULATION OF AUDIT RESULTS

STACK EXIT CORRELATION ERROR (%):

51 $\left[\frac{(\text{BLANK 4}) - (\text{BLANK 3})}{(\text{BLANK 3})}\right] \times 100 =$ _____

ZERO ERROR (% Op):

52 Panel meter $\frac{0.2}{(\text{BLANK 13})} - \frac{0}{(\text{BLANK 5})} =$ 0.2

53 Opacity data recorder $\frac{1.0}{(\text{BLANK 14})} - \frac{0}{(\text{BLANK 5})} =$ 1.0

SPAN ERROR (% Op):

54 Panel Meter $\frac{62}{(\text{BLANK 15})} - \frac{61.4}{(\text{BLANK 6})} =$ 0.6

55 Opacity data recorder $\frac{63.5}{(\text{BLANK 16})} - \frac{61.4}{(\text{BLANK 6})} =$ 2.1

OPTICAL SURFACE DUST ACCUMULATION (% Op):

56 Retroreflector: $\frac{1.0}{(\text{BLANK 17})} - \frac{1.0}{(\text{BLANK 18})} =$ 0

57 Transceiver: $\frac{1.0}{(\text{BLANK 19})} - \frac{1.0}{(\text{BLANK 20})} =$ 0

58 Total: $\frac{0}{(\text{BLANK 56})} + \frac{0}{(\text{BLANK 57})} =$ 0

PATH LENGTH AND ZERO OFFSET CORRECTION OF AUDIT FILTERS:

59 Low: $\left[1 - \left[\left[1 - \frac{8.8}{(\text{BLANK 22})}{100}\right]^{\frac{1}{(\text{BLANK 4})}} \times \left[1 - \frac{3.0}{(\text{BLANK 45})}{100}\right]\right]\right] \times 100 =$ 11.5

60 Mid: $\left[1 - \left[\left[1 - \frac{20.4}{(\text{BLANK 23})}{100}\right]^{\frac{1}{(\text{BLANK 4})}} \times \left[1 - \frac{3.0}{(\text{BLANK 45})}{100}\right]\right]\right] \times 100 =$ 22.8

61 High: $\left[1 - \left[\left[1 - \frac{47.5}{(\text{BLANK 24})}{100}\right]^{\frac{1}{(\text{BLANK 4})}} \times \left[1 - \frac{3.0}{(\text{BLANK 45})}{100}\right]\right]\right] \times 100 =$ 49.1

recorded instantaneous values on strip chart are not corrected for stack opacity (STR)

CALIBRATION ERROR CALCULATIONS

n	LOW-RANGE DIFFERENCE		Δ_L	Δ_L^2
1	10.0 (BLANK 26)	11.5 (BLANK 59)	-1.5	2.25
2	10.0 (BLANK 30)	11.5 (BLANK 59)	-1.5	2.25
3	10.5 (BLANK 34)	11.5 (BLANK 59)	-1.0	1.0
4	10.5 (BLANK 38)	11.5 (BLANK 59)	-1.0	1.0
5	10.0 (BLANK 42)	11.5 (BLANK 59)	-1.5	2.25

$\Sigma\Delta_L$ = -6.5 $\Sigma\Delta_L^2$ = 8.75

ITEM NO.	MID-RANGE DIFFERENCE		Δ_M	Δ_M^2
	21.5 (BLANK 27)	22.8 (BLANK 60)	-1.3	1.69
	21.5 (BLANK 31)	22.8 (BLANK 60)	-1.3	1.69
	21.5 (BLANK 35)	22.8 (BLANK 60)	-1.3	1.69
	21.0 (BLANK 39)	22.8 (BLANK 60)	-1.8	3.24
	21.0 (BLANK 43)	22.8 (BLANK 60)	-1.8	3.24

$\Sigma\Delta_M$ = -7.5 $\Sigma\Delta_M^2$ = 11.55

ITEM NO.	HIGH RANGE DIFFERENCE		Δ_H	Δ_H^2
	46.5 (BLANK 28)	49.1 (BLANK 61)	-2.6	6.76
	46.5 (BLANK 32)	49.1 (BLANK 61)	-2.6	6.76
	46.5 (BLANK 36)	49.1 (BLANK 61)	-2.6	6.76
	46.5 (BLANK 40)	49.1 (BLANK 61)	-2.6	6.76
	46.5 (BLANK 44)	49.1 (BLANK 61)	-2.6	6.76

$\Sigma\Delta_H$ = -13.0 $\Sigma\Delta_H^2$ = 33.8

MEAN ERROR = $\overline{ME}_L$

$$\overline{ME}_L = \frac{\Sigma\Delta_L}{n} = \frac{(-6.5)}{(5)}$$

62 $\overline{ME}_L$ = ~~1.5~~ 1.3

CONFIDENCE INTERVAL = CI_L

$$CI_L = ((n \times \Sigma\Delta_L^2) - (\Sigma\Delta_L)^2)^{0.5} \times 0.2776$$

$$CI_L = ((5 \times 8.75) - (-6.5)^2)^{0.5} \times 0.2776$$

65 CI_L = 0.3

CALIBRATION ERROR = CE_L

$$CE_L = |\overline{ME}_L| + CI_L$$

$$CE_L = |1.3| + (0.3)$$

68 CE_L = 1.6%

MID-RANGE MEAN ERROR = $\overline{ME}_M$

$$\overline{ME}_M = \frac{\Sigma\Delta_M}{n} = \frac{(-7.5)}{(5)}$$

63 $\overline{ME}_M$ = 1.5

CONFIDENCE INTERVAL = CI_M

$$CI_M = ((n \times \Sigma\Delta_M^2) - (\Sigma\Delta_M)^2)^{0.5} \times 0.2776$$

$$CI_M = ((5 \times 11.55) - (-7.5)^2)^{0.5} \times 0.2776$$

66 CI_M = 0.3

CALIBRATION ERROR = CE_M

$$CE_M = |\overline{ME}_M| + CI_M$$

$$CE_M = |1.5| + (0.3)$$

69 CE_M = 1.8%

HIGH-RANGE MEAN ERROR = $\overline{ME}_H$

$$\overline{ME}_H = \frac{\Sigma\Delta_H}{n} = \frac{(-13.0)}{(5)}$$

64 $\overline{ME}_H$ = 2.6

CONFIDENCE INTERVAL = CI_H ?

$$CI_H = ((n \times \Sigma\Delta_H^2) - (\Sigma\Delta_H)^2)^{0.5} \times 0.2776$$

$$CI_H = ((5 \times 33.8) - (-13.0)^2)^{0.5} \times 0.2776$$

67 CI_H = 0

CALIBRATION ERROR = CE_H

$$CE_H = |\overline{ME}_H| + CI_H$$

$$CE_H = |2.6| + (0)$$

70 CE_H = 2.6%

SIX-MINUTE AVERAGED ERROR

$E(6)_L$ = ------- (BLANK 47) - ------- (BLANK 59)

71 $E(6)_L$ = _____

$E(6)_M$ = ------- (BLANK 48) - ------- (BLANK 60)

72 $E(6)_M$ = _____

$E(6)_H$ = ------- (BLANK 49) - ------- (BLANK 61)

73 $E(6)_H$ = _____

THERMO ELECTRON (CONTRAVES GOERZ) MODEL 400 TRANSMISSOMETER
AND MODEL 500 CONTROL UNIT
OPACITY CEMS PERFORMANCE AUDIT REPORT
DATA SUMMARY

AUDITOR Shanklin - Entropy DATE 7-27-88

SOURCE Wheelabrator Millbury UNIT 2

RESULTS CHECKED BY _____ DATE _____

PARAMETER		BLANK NO.	AUDIT RESULT	SPECIFICATION
FAULT LAMPS				
CAL FAULT		7	OFF	OFF
DIRTY WINDOW		8	OFF	OFF
PURGE AIR		9	OFF	OFF
STACK POWER		10	OFF	OFF
LAMP FAILURE		11	OFF	OFF
ALARM		12	OFF	OFF
STACK EXIT CORRELATION ERROR		51		± 2%
INTERNAL ZERO ERROR	PANEL METER	52	0.2%	± 4%Op
	DATA RECORDER	53	1.0 %	± 4% Op
INTERNAL SPAN ERROR	PANEL METER	54	0.6 %	± 4% Op
	DATA RECORDER	55	2.1 %	± 4%Op
MONITOR ALIGNMENT ANALYSIS		21	CENTERED	CENTERED
OPTICAL SURFACE DUST ACCUMULATION				
RETROREFLECTOR		56	0 %	≤ 2% Op
TRANSCEIVER		57	0 %	≤ 2% Op
TOTAL		58	0 %	≤ 4% Op
CALIBRATION ERROR ANALYSIS				
MEAN ERROR				
LOW		62	1.3	
		71 [a]	NA	
MID		63	1.5	
		72 [a]	NA	
HIGH		64	2.6	
		73 [a]	NA	
CONFIDENCE INTERVAL				
LOW		65	0.3	
MID		66	0.3	
HIGH		67	0	
CALIBRATION ERROR				
LOW		66	1.6 %	≤ 3% Op
MID		69	1.8 %	≤ 3% Op
HIGH		70	2.6 %	≤ 3% Op

[a] ERROR BASED ON SIX-MINUTE AVERAGED DATA FROM A SINGLE FILTER INSERTION.

APPENDIX E.

HCl CEMS's
- Daily and Periodic Check Forms
- TECO Daily Calibration Summaries

Enter "Y" for yes and "N" for no where appropriate, and record numerical values.
CA = corrective action

MILLBURY RESOURCE RECOVERY FACILITY

HCl CEMS CHECK FORM

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date					7-15-88	7-16-88	7-17-88
Initials					LC	LC	LC
DAILY CHECKS							
Check TECO probe; clean if necessary					✓	✓	✓
Drain compressor inside/outside trailer					✓	✓	✓
Calibrate TECO at 4 scfh							
Zero response					18.6	30.3	30.2
Adjusted zero					1.5	0.7	1.6
Cal gas concentration					367.8	367.8	367.8
Span response					383.3	394.6	387.5
Adjusted span							
Bran & Luebbe slope (mv/dec)						-44.6	-50.2
TECO operating parameters							
Orifice vacuum = 20"					✓	✓	✓
Dilution air pressure = 70 psi					✓	✓	✓
Pressure (mm)						814	748
Temperature (° C)						43.0	35.4
Intensity 1 (Hz)						24400	16900
Intensity 2 (Hz)						25400	17700
PERIODIC CHECKS							
Check TECO dilution ratio							
Check Bran & Luebbe probe							
Fill calibration solutions							✓
Clean gas correlation wheel							
Clean mirrors in TECO							

COMMENTS

3521 6/88

Enter "Y" for yes and "N" for no where appropriate, and record numerical values.
CA = corrective action

MILLBURY RESOURCE RECOVERY FACILITY

HCl CEMS CHECK FORM

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	7-18-88	7-19-88	7-20-88	7-21-88	7-22-88	7-23-88	7-24-88
Initials	LC	LC	LC	LC	LC	LC	LC
DAILY CHECKS							
Check TECO probe; clean if necessary	✓	✓	✓	✓	✓	✓	✓
Drain compressor inside/outside trailer	✓	✓	✓	✓	✓	✓	✓
Calibrate TECO at 4 scfh							
Zero response	12.6	0.2	22.2	2.1	1.4	2.3	2.5
Adjusted zero	5.9		8.7				
Cal gas concentration	367.8	367.8	367.8	367.8	367.8	367.8	367.8
Span response	389.3	373.3	403.3	379.1	381.9	395.4	387.8
Adjusted span							
Bran & Luebbe slope (mv/dec)	-50.2	-53.9	-53.6	-53.8	-50.8	-53.2	-51.6
TECO operating parameters							
Orifice vacuum = 20"	✓	✓	✓	✓	✓	✓	✓
Dilution air pressure = 70 psi	✓	✓	✓	✓	✓	✓	✓
Pressure (mm)	750	750	752	751	750	753	749
Temperature (° C)	34.0	32.7	34.9	29.8	30.5	38.2	30.3
Intensity 1 (Hz)	16800	16100	16700	18700	17200	17500	17200
Intensity 2 (Hz)	17600	16900	17500	19300	17900	18200	17900
PERIODIC CHECKS							
Check TECO dilution ratio							
Check Bran & Luebbe probe							
Fill calibration solutions							
Clean gas correlation wheel				✓			
Clean mirrors in TECO				✓			
COMMENTS		627→720	627→624	622→846/720	846/720	846/720	846/720

7-21 Cleaned mirror in front + correlation wheel twice since first time appeared to make things worse. After 2nd cleaning, zero pot was changed from 622 to 846.

Enter "Y" for yes and "N" for no where appropriate, and record numerical values.
CA = corrective action

MILLBURY RESOURCE RECOVERY FACILITY

HCl CEMS CHECK FORM

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	7-25-88	7-26-88	7-27-88	7-28-88	7-29-88	7-30-88	7-31-88
Initials	LC, SAS	LC, SAS	SAS	SAS	SAS	SAS	SAS
DAILY CHECKS							
Check TECO probe; clean if necessary	✓	✓	✓	✓	✓	✓	✓
Drain compressor inside/outside trailer	✓	✓	✓	✓	✓	✓	✓
Calibrate TECO at 4 scfh							
Zero response	0.5	-4.1 (0.2%)	6.8	12.4	2.3	12.7	15.7
Adjusted zero							1.4
Cal gas concentration	367.8	367.8 (~~[illegible]~~)	367.8	367.8	367.8	367.8	367.8
Span response	384.2	421.5 (27%)	385.6	386	384	386	395/364 after manual adj.
Adjusted span							
Bran & Luebbe slope (mv/dec)	-52.2	-54.9	-54.3	-53.3	-56.1	-52.9	-50.7
TECO operating parameters							
Orifice vacuum = 20"	✓	✓	✓	✓	✓	✓	✓
Dilution air pressure = 70 psi	✓	✓	✓	✓	✓	✓	✓
Pressure (mm)	750	751	752	752	753	750	749
Temperature (° C)	32.0	37.1	34.0	33.2	34.9	36.7	36.5
Intensity 1 (Hz)	17300	16500	17200	16100	16900	17,100	16600
Intensity 2 (Hz)	18000	17200	18000	16800	17600	17800	17300
PERIODIC CHECKS							
Check TECO dilution ratio						✓	
Check Bran & Luebbe probe						✓	
Fill calibration solutions	✓						
Clean gas correlation wheel							
Clean mirrors in TECO							
COMMENTS	846/720	846/720	846/720	846/720	846/720	846/720	846-842/720

7-30 TECO 200 Dilution ratio verified (~40:1) B+L extension tube looked just like it did after first 24 hours in ~~stack~~ the duct

7-31 First adjustment to TECO calibration since 7/21

Enter "Y" for yes and "N" for no where appropriate, and record numerical values.
CA = corrective action

MILLBURY RESOURCE RECOVERY FACILITY

HCl CEMS CHECK FORM

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	8-1-88	8-2-88	8-3-88	8-4-88	8-5-88	8-6-88	8-7-88
Initials	SAS	SAS	SAS	LC	LC	LC	LC
DAILY CHECKS							
Check TECO probe; clean if necessary	✓	✓	✓	✓	✓	✓	✓
Drain compressor inside/outside trailer	✓	✓	✓	✓	✓	✓	✓
Calibrate TECO at 4 scfh							
Zero response	14	10.6	12	20	36	6.9	3.0
Adjusted zero					2		
Cal gas concentration	367.8	367.8	↑ 388.0	↑ 390.5	367.8	367.8	367.8
Span response	367.0	357.0	↓ 367.8	↓ 367.8	357	350.4	340.4
Adjusted span							
Bran & Luebbe slope (mv/dec)	-53.5	-51.6	-54.4	-53.2	-48.8	-50.8	-54.1
TECO operating parameters							
Orifice vacuum = 20"	✓	✓	✓	✓	✓	✓	✓
Dilution air pressure = 70 psi	✓	✓	✓	✓	✓	✓	✓
Pressure (mm)	752	754	755	752	752	748	752
Temperature (° C)	35.1	35.7	35.1	40.7	38.7	32.0	37.2
Intensity 1 (Hz)	15,000	15,100	15000	15,900	12,400	12,800	12,100
Intensity 2 (Hz)	15600	15,700	15700	16,700	13,000	13,400	12,500
PERIODIC CHECKS							
Check TECO dilution ratio							
Check Bran & Luebbe probe							
Fill calibration solutions					✓		
Clean gas correlation wheel					✓		
Clean mirrors in TECO					✓		
COMMENTS	842/720	842/720	842/720	842/720	625/720	625/720	625/720
					↑ POST CLEANING		

8-6-88 Changed TECO averaging period during calibration from 0 to 4. 8-5-88 TECO detector frequencies did not change after cleaning.

8-7-88 [redacted] calibrations were performed w/ the averaging period on 4. The span response seemed to have a slower cycling above and below the gas value than normal.

Enter "Y" for yes and "N" for no where appropriate, and record numerical values.
CA = corrective action

MILLBURY RESOURCE RECOVERY FACILITY
HCl CEMS CHECK FORM

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	8-8-88	8-9-88	8-10-88	8-11-88	8-12-88	8-13-88	8-14-88
Initials	LC	LC	LC	LC	LC	LC	SAS
DAILY CHECKS							
Check TECO probe; clean if necessary	✓	✓	✓	✓	✓	✓	✓
Drain compressor inside/outside trailer	✓	✓	✓	✓	✓	✓	✓
Calibrate TECO at 4 scfh							
Zero response	2.8	5.2	0.3	4.0	7.2	12.1	2
Adjusted zero						5.1	
Cal gas concentration	367.8	367.8	367.8	367.8	367.8	367.8	349
Span response	356.3	361.4	350	349.3	365.5		334
Adjusted span			~~350~~				
Bran & Luebbe slope (mv/dec)	-53.4	-55.1	-54.4	-54.4	-52.3	-49.4	-53.4
TECO operating parameters							
Orifice vacuum = 20"	✓	✓	✓	✓	✓	✓	✓
Dilution air pressure = 70 psi	✓	✓	✓	✓	✓	✓	✓
Pressure (mm)	809	812	812	814	811	813	809
Temperature (° C)	41.6	41.2	42.3	41.7	43.9	41.6	44.1
Intensity 1 (Hz)	22,400	22,500	22,700	22,400	22,900	22,300	22,600
Intensity 2 (Hz)	23,400	23,500	23,700	23,500	23,900	23,300	23,600
PERIODIC CHECKS							
Check TECO dilution ratio							
Check Bran & Luebbe probe							
Fill calibration solutions							
Clean gas correlation wheel							
Clean mirrors in TECO							
COMMENTS	417/800	417/800	417/800	417/800	417/800	417→415/800	415/800

8-10 During cal. the B+L read full scale (160ppm). At 11:07 display showing 109 ppm, 11:12 + 159.4 ppm 11:14 + 190.1 ppm 11:19 + 205 ppm S/R 1.0698

8-11 The calibration was performed ~ 10:45-11:25. Soon after 12:00, the analyzer display "ERROR" and output full scale (1995.1 ppm) This wasn't discovered until 13:30. The only diagnostic switch that was abnormal was the S/R value which momentarily read 1.045 but then went up to 1.065. During the diagnostic checks the output returned to normal.

8-13 The cal gas cylinder was replaced with a 349 ppm cylinder. The response was only around 240. It is possible that the valve at the top of the cylinder needs to be conditioned, so no adjustments were made yet.

3521 6/88

37

Enter "Y" for yes and "N" for no where appropriate, and record numerical values.
CA = corrective action

MILLBURY RESOURCE RECOVERY FACILITY
HCl CEMS CHECK FORM

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	8-15-88	8-16-88	8-17-88	8-18-88	8-19-88	8-20-88	8-21-88
Initials	SAS	SAS	SAS	SAS	SAS	SAS	SAS
DAILY CHECKS							
Check TECO probe; clean if necessary	✓	✓	✓	✓	✓	✓	✓
Drain compressor inside/outside trailer	✓	✓	✓	✓	✓	✓	✓
Calibrate TECO at 4 scfh							
Zero response	2	5	5	-1.4	-15.6	3	-11
Adjusted zero					6		5
Cal gas concentration	349	349	349	349	349	349	349
Span response	350	358	341	336	346	344	346
Adjusted span							
Bran & Luebbe slope (mv/dec)	-52.9	-51.2	-53.5	-56.5	-56.0	-45.8	-54.8
TECO operating parameters							
Orifice vacuum = 20"	✓	✓	✓	✓	✓	✓	✓
Dilution air pressure = 70 psi	✓	✓	✓	✓	✓	✓	✓
Pressure (mm)	804	805	807	804	808	806	808
Temperature (° C)	41.7	40.1	39.1	40.5	37.0	38.4	41.4
Intensity 1 (Hz)	22,400	22,100	21,900	22,100	21,500	21,800	22,400
Intensity 2 (Hz)	23,400	23,000	22,900	23,100	22,400	22,700	23,400
PERIODIC CHECKS							
Check TECO dilution ratio							
Check Bran & Luebbe probe						✓ Looks Good!	
Fill calibration solutions							
Clean gas correlation wheel							
Clean mirrors in TECO							
COMMENTS	415	415	415	415	415→424	424	424→428
	800	800	800	800	↓ 800	800	800
			S/R 1.0695	S/R 1.0668	Check reagent + gas sample flow rates on B+L		

3521 6/88

Enter "Y" for yes and "N" for no where appropriate, and record numerical values.
CA = corrective action

MILLBURY RESOURCE RECOVERY FACILITY

HCl CEMS CHECK FORM

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	8-22-88	8-23	8-24	8-25	8-26	8-27	8-28
Initials	BAS	LC	LC	LC	LC	LC	LC
DAILY CHECKS							
Check TECO probe; clean if necessary	✓	✓	✓	✓	✓	✓	✓
Drain compressor inside/outside trailer	✓	✓	✓	✓	✓	✓	✓
Calibrate TECO at 4 scfh							
Zero response	11.6	13.2	6.2	5.1	3.0	16.5	4.8
Adjusted zero		2.1				4.9	
Cal gas concentration	349						
Span response	353	374.1	362.6	360.0	366.4	379.1	370.5
Adjusted span							
Bran & Luebbe slope (mv/dec)	-55.5	-52.4	-49.1	-48.0	-47.0	-52.4	-51.9
TECO operating parameters							
Orifice vacuum = 20"	✓	✓	✓	✓	✓	✓	✓
Dilution air pressure = 70 psi	✓	✓	✓	✓	✓	✓	✓
Pressure (mm)	814	814	808	804	806	811	812
Temperature (° C)	38.9	38.5	21,800	38.4	42.9	38.0	38.9
Intensity 1 (Hz)	22,000	21,800	38.1	21,900	21,900	21,000	21,500
Intensity 2 (Hz)	22,900	22,800	22,800	22,900	22,800	21,900	22,500
PERIODIC CHECKS							
Check TECO dilution ratio							
Check Bran & Luebbe probe							
Fill calibration solutions							
Clean gas correlation wheel							
Clean mirrors in TECO							

COMMENTS

Zero Pot 428 → 426

Adj. avg. periods for cals (noisy)

Zero Pot 426 → 424

3521 6/88

Enter "Y" for yes and "N" for no where appropriate, and record numerical values.
CA = corrective action

MILLBURY RESOURCE RECOVERY FACILITY

HCl CEMS CHECK FORM

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	8-29	8-30-88	8-31-88	9-1-88	9-2-88	9-3-88	9-4-88
Initials	LC, KS	LC KS	LC KS	KS	KS	KS	KS
DAILY CHECKS							
Check TECO probe; clean if necessary	✓	✓	✓	✓	✓	✓	✓
Drain compressor inside/outside trailer	✓	✓	✓	✓	✓	✓	✓
Calibrate TECO at 4 scfh							
Zero response	38.9	134.8	-3.9	9.6	8.6	12.1	10.9
Adjusted zero	5.6	-0.3					
Cal gas concentration	349						
Span response	360.8	317.0	362.7	334.4	355.7	352.8	365.2
Adjusted span							
Bran & Luebbe slope (mv/dec)	-52.0	-49.5	-47.6	-51.0	-52.8	-52.9	-55.8
TECO operating parameters							
Orifice vacuum = 20"	✓	✓	✓	✓	✓	✓	✓
Dilution air pressure = 70 psi	✓	✓	✓	✓	✓	✓	✓
Pressure (mm)	809	809	812	816	815	810	807
Temperature (° C)	38.0	37.5	39.0	37.9	37.5	37.8	37.5
Intensity 1 (Hz)	21,800	21,900	22100	22100	22000	22100	22100
Intensity 2 (Hz)	22,700	22,800	23200	23000	23000	23100	23000
PERIODIC CHECKS							
Check TECO dilution ratio							
Check Bran & Luebbe probe							
Fill calibration solutions					✓		
Clean gas correlation wheel	✓	✓					
Clean mirrors in TECO							
COMMENTS	Zero Pot						
	424 → 751	751 → 310					
	S/R = 1.08088	S/R 1.06583	S/R Not taken	S/R 1.06618	1.06636	1.06338	1.06270

3521 6/88

Enter "Y" for yes and "N" for no where appropriate, and record numerical values.
CA = corrective action

MILLBURY RESOURCE RECOVERY FACILITY

HCl CEMS CHECK FORM

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	9-5-88	9-6-88	9-7-88	9-8-88	9-9-88	9-10-88	9-11-88
Initials	WKS	WKS	WKS	WKS	WKS	WKS	WKS
DAILY CHECKS							
Check TECO probe; clean if necessary	✓	✓	✓	✓	✓	✓	
Drain compressor inside/outside trailer	✓	✓	✓	✓	✓	✓	✓
Calibrate TECO at 4 scfh							
Zero response	10.3	19.7	-1.8	7.8	16.8	6.1	3.5
Adjusted zero		-0.6			-3.4		
Cal gas concentration	349.0					(881)	
Span response	360.2	350.1	339.4	357.5	~~348.7~~	745.3	728.5
Adjusted span					349.5		
Bran & Luebbe slope (mv/dec)	-55.9	-57.1	-53.9	-53.2	-56.1	-54.6	-57.0
TECO operating parameters							
Orifice vacuum = 20"	✓	✓	✓	✓	✓	✓	✓
Dilution air pressure = 70 psi	✓	✓	✓	✓	✓	✓	✓
Pressure (mm)	794	805	808	813	811	808	811
Temperature (° C)	38.4	37.7	37.5	37.8	37.5	37.4	39.9
Intensity 1 (Hz)	22300	22200	22100	22200	21900	21900	22,200
Intensity 2 (Hz)	23300	23200	23100	23100	22800	22900	23,200
PERIODIC CHECKS							
Check TECO dilution ratio							
Check Bran & Luebbe probe							
Fill calibration solutions				✓			
Clean gas correlation wheel							
Clean mirrors in TECO		zero pot					
COMMENTS		(310→306)			306→302	~~[illegible]~~	
	S/R 1.06286	1.06608	1.06334	1.06349	1.06615	1.06602	1.06063
		HCl analyzer looked good as I came in but now I'm getting zero on computer					
		and error on HCl message on LED.					

3521 6/88

Enter "Y" for yes and "N" for no where appropriate, and record numerical values.
CA = corrective action

MILLBURY RESOURCE RECOVERY FACILITY
HCl CEMS CHECK FORM

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Date	9-12-88	9-13	9-14	9-15			
Initials	LC	LC	LC	LC			
DAILY CHECKS							
Check TECO probe; clean if necessary	✓	✓					
Drain compressor inside/outside trailer	✓	✓	✓	✓			
Calibrate TECO at 4 scfh							
Zero response	-0.3	.8	3.0	0.9			
Adjusted zero			1.7				
Cal gas concentration	46.6	47	47	47			
Span response	50.0	52.2	52.5	46.1			
Adjusted span			47.2				
Bran & Luebbe slope (mv/dec)	-55.8	-54.5	-55.1	-56.5			
TECO operating parameters							
Orifice vacuum = ~~20"~~ 15" 18"	✓	✓	✓	✓			
Dil air pressure = ~~70 psi~~ 50 psi	✓	✓	✓	✓			
Pressure (mm)	904	764	762	766			
Temperature (° C)	37.8	38.4	39.1	39.4			
Intensity 1 (Hz)	21,200	21,600	21,800	21,900			
Intensity 2 (Hz)	22,200	22,600	22,800	22,900			
PERIODIC CHECKS							
Check TECO dilution ratio							
Check Bran & Luebbe probe							
Fill calibration solutions							
Clean gas correlation wheel							
Clean mirrors in TECO							

COMMENTS

Zero pot 305 302
Span 400 500
12.8 response 20.3 to
to 9.7 ppm gas 18.4 gas

3521 6/88

CONTINUOUS EMISSIONS MONITORING SET-UP

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

DATE: 07-15-1988 TIME: 11:28

A/D CHAN	DESCRIP	UNITS	SPAN	INPUT VOLTAGE	ZERO OFFSET
1	Inlet	ppmHCl	2000	10.00 V	0%
2	Outlet	ppmHCl	60	5.00 V	0%

AVERAGING PERIODS: 6 MINUTES, ONE HOUR,
NO EMISSION RATE CALCULATIONS

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: Daily Calibration Check

DATE : 07-15-1988 TIME: 09:38 - 11:25

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	1.5
1	Inlet	ppmHCl	0.0	18.6
1	Inlet	ppmHCl	367.0	383.3

before adjustment

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 07-16-1988 TIME: 13:17 - 15:54

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	0.7
1	Inlet	ppmHCl	0.0	30.3
1	Inlet	ppmHCl	367.0	394.6

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 07-17-1988 TIME: 10:31 - 11:24

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	1.6
1	Inlet	ppmHCl	0.0	30.2
1	Inlet	ppmHCl	367.0	387.5

before adjustment

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 07-18-1988 TIME: 10:31 - 11:43

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	5.9
1	Inlet	ppmHCl	0.0	12.6
1	Inlet	ppmHCl	367.0	389.3

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 07-19-1988 TIME: 10:30 - 11:41

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	0.2
1	Inlet	ppmHCl	367.0	373.3

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM -- WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 07-20-1988 TIME: 15:32 -- 16:56

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	8.7
1	Inlet	ppmHCl	0.0	22.2
1	Inlet	ppmHCl	367.0	403.3

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 07-21-1988 TIME: 14:20 - 15:18

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	2.1
1	Inlet	ppmHCl	367.0	379.1

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 07-22-1988 TIME: 09:30 - 10:26

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	1.4
1	Inlet	ppmHCl	367.0	381.9

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 07-23-1988 TIME: 11:00 - 12:14

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	2.3
1	Inlet	ppmHCl	367.0	395.4

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 07-24-1988 TIME: 10:03 - 10:53

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	2.5
1	Inlet	ppmHCl	367.0	387.8

CALIBRATION SUMMARY

SOURCE: EMD TEST PROGRAM -- WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 07-25-1988 TIME: 09:34 - 10:52

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	0.5
1	Inlet	ppmHCl	367.0	384.2

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 07-26-1988 TIME: 12:36 - 13:19

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	-4.1
1	Inlet	ppmHCl	367.0	421.5

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 07-27-1988 TIME: 09:31 - 10:20

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	6.8
1	Inlet	ppmHCl	367.0	385.6

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 07-28-1988 TIME: 09:32 - 10:25

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	12.4
1	Inlet	ppmHCl	367.0	386.2

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 HCl CEMS Daily Calibration Check

DATE : 07-29-1988 TIME: 10:45 - 11:22

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	2.3
1	Inlet	ppmHCl	367.0	384.2

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 HCl CEMS Daily Calibration Check

DATE : 07-30-1988 TIME: 10:40 - 11:23

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	12.7
1	Inlet	ppmHCl	367.0	385.6

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 HCl CEMS Daily Calibration Check

DATE : 07-31-1988 TIME: 09:43 - 10:27

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	1.4
1	Inlet	ppmHCl	0.0	15.7
1	Inlet	ppmHCl	367.0	394.5
1	Inlet	ppmHCl	367.0	364.1

recorded responses prior to zero pot adjustment

responses after adjustment to zero pot — no adjustment made to span

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 HCl CEMS Daily Calibration Check

DATE : 08-01-1988 TIME: 09:37 - 10:23

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	14.0
1	Inlet	ppmHCl	367.0	367.1

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 HCl CEMS Daily Calibration Check

DATE : 08-02-1988 TIME: 09:41 - 10:23

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	10.6
1	Inlet	ppmHCl	367.0	356.8

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 HCl CEMS Daily Calibration Check

DATE : 08-03-1988 TIME: 08:36 - 09:26

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	11.8
1	Inlet	ppmHCl	367.0	388.2

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 HCl CEMS Daily Calibration Check

DATE : 08-04-1988 TIME: 12:50 - 13:27

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	20.0
1	Inlet	ppmHCl	367.0	390.5

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 08-05-1988 TIME: 11:51 - 15:08

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	2.0 - post-adj.
1	Inlet	ppmHCl	0.0	36.4 - pre-adj.
1	Inlet	ppmHCl	~~367.0~~ 0	14.9
1	Inlet	ppmHCl	367.0	357.4

rezero after GFC wheel + mirror cleaning

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 08-06-1988 TIME: 13:06 - 13:56

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	6.9
1	Inlet	ppmHCl	367.0	350.4

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 Daily Calibration Check

DATE : 08-07-1988 TIME: 11:31 - 12:18

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	3.0
1	Inlet	ppmHCl	367.0	340.4

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 08-08-1988 TIME: 18:00 - 18:21

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	2.8
1	Inlet	ppmHCl	367.0	356.3

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 08-09-1988 TIME: 10:48 - 11:18

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	5.2
1	Inlet	ppmHCl	367.0	361.4

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY UNIT

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 08-10-1988 TIME: 10:44 11:16

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	0.3
1	Inlet	ppmHCl	367.0	330.0

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 08-11-1988 TIME: 10:48 - 11:17

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	4.0
1	Inlet	ppmHCl	367.0	349.3

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 08-12-1988 TIME: 14:42 - 15:25

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	7.2
1	Inlet	ppmHCl	367.0	365.5

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 08-13-1988 TIME: 11:51 - 13:12

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	5.1
1	Inlet	ppmHCl	349.0	256.3

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 HCl CEMS Daily Calibration Check

DATE : 08-14-1988 TIME: 14:43 - 15:52

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	1.7
1	Inlet	ppmHCl	349.0	334.0

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 HCl CEMS Daily Calibration Check

DATE : 08-15-1988 TIME: 09:43 - 10:22

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	2.2
1	Inlet	ppmHCl	349.0	350.3

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 HCl CEMS Daily Calibration Check

DATE : 08-16-1988 TIME: 10:42 - 11:19

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	4.9
1	Inlet	ppmHCl	349.0	358.0

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 HCl CEMS Daily Calibration Check

DATE : 08-17-1988 TIME: 10:37 - 11:28

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	4.5
1	Inlet	ppmHCl	349.0	341.3

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 HCl CEMS Daily Calibration Check

DATE : 08-18-1988 TIME: 10:40 - 11:24

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	-1.4
1	Inlet	ppmHCl	349.0	335.9

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 HCl CEMS Daily Calibration Check

DATE : 08-19-1988 TIME: 09:36 - 10:24

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	5.9
1	Inlet	ppmHCl	0.0	-15.6
1	Inlet	ppmHCl	349.0	346.0

after zero pot adj

zero response before zero pot adj.

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 HCl CEMS Daily Calibration Check

DATE : 08-20-1988 TIME: 10:30 - 11:23

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	2.9
1	Inlet	ppmHCl	349.0	343.9

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 HCl CEMS Daily Calibration Check

DATE : 08-21-1988 TIME: 17:38 - 18:25

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	5.0
1	Inlet	ppmHCl	0.0	-11.3
1	Inlet	ppmHCl	349.0	346.1

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 08-22-1988 TIME: 15:43 - 16:14

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	11.6
1	Inlet	ppmHCl	349.0	353.2

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 08-23-1988 TIME: 15:37 - 16:18

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	2.1
1	Inlet	ppmHCl	0.0	13.2
1	Inlet	ppmHCl	349.0	374.1

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM -- WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 08-24-1988 TIME: 11:36 - 12:21

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	6.2
1	Inlet	ppmHCl	349.0	362.6

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 08-25-1988 TIME: 13:30 - 14:17

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	5.1
1	Inlet	ppmHCl	349.0	360.0

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 08-26-1988 TIME: 14:31 - 15:16

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	3.0
1	Inlet	ppmHCl	349.0	366.4

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 08-27-1988 TIME: 09:30 - 10:16

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	4.9
1	Inlet	ppmHCl	0.0	16.5
1	Inlet	ppmHCl	349.0	379.1

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 08-28-1988 TIME: 08:46 - 09:16

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	4.8
1	Inlet	ppmHCl	349.0	370.5

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 08-29-1988 TIME: 16:42 - 18:03

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	5.6
1	Inlet	ppmHCl	0.0	38.9
1	Inlet	ppmHCl	349.0	360.8

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 Calibration Bias Check

DATE : 08-30-1988 TIME: 10:34 - 12:37

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	-0.3
1	Inlet	ppmHCl	0.0	134.8 *
1	Inlet	ppmHCl	349.0	317.0

* Gas correlation wheel was cleaned, and the zero pot was adjusted.

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 08-31-1988 TIME: 12:00 - 12:55

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	-3.9
1	Inlet	ppmHCl	349.0	362.7

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: Calibration of TECO Model 15/200 HCl analyzer

DATE : 09-01-1988 TIME: 10:13 - 10:33

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	9.6
1	Inlet	ppmHCl	349.0	334.4

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO

DATE : 09-02-1988 TIME: 09:25 - 09:54

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	8.6
1	Inlet	ppmHCl	349.0	355.7

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 Calibration Check

DATE : 09-03-1988 TIME: 09:30 - 10:14

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	12.1
1	Inlet	ppmHCl	349.0	352.8

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 calibration check

DATE : 09-04-1988 TIME: 09:30 - 10:00

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	10.9
1	Inlet	ppmHCl	349.0	365.2

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 calibration check

DATE : 09-05-1988 TIME: 10:30 - 11:05

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	10.3
1	Inlet	ppmHCl	349.0	360.2

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 System calibration

DATE : 09-06-1988 TIME: 08:49 - 09:43

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	-0.6
1	Inlet	ppmHCl	0.0	19.7
1	Inlet	ppmHCl	349.0	350.1

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 calibration

DATE : 09-07-1988 TIME: 10:38 - 11:02

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	-1.8
1	Inlet	ppmHCl	349.0	339.4

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CAlibration

DATE : 09-08-1988 TIME: 09:30 - 10:01

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	7.8
1	Inlet	ppmHCl	349.0	357.5

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 Calibration Check

DATE : 09-09-1988 TIME: 09:30 - 10:21

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	-3.4
1	Inlet	ppmHCl	0.0	16.8
1	Inlet	ppmHCl	349.0	349.5

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 calibration check

DATE : 09-10-1988 TIME: 09:04 - 11:48

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	6.1
1	Inlet	ppmHCl	881.0	745.3

CALIBRATION SUMMARY

SOURCE: EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2

REASON: TECO 15/200 CEMS Daily Calibration Check

DATE : 09-11-1988 TIME: 12:22 - 12:58

A/D CHAN	MONITOR DESCRIPTION	UNITS	GAS VALUE	MONITOR RESPONSE
1	Inlet	ppmHCl	0.0	3.5
1	Inlet	ppmHCl	881.0	728.5

APPENDIX F.

Anarad Gas CEMS Audit Results
- Cylinder Gas Audits
- Relative Accuracy Audits

MILLBURY RESOURCE RECOVERY FACILITY

CYLINDER GAS AUDIT (CGA) DATA FORM

SAMPLING LOCATION

- [x] SDA INLET (SO_2, CO, O_2)
- [ ] ESP OUTLET (SO_2, NO_x, O_2)

DATE: 7-14-88

INITIALS: LC

ANALYZER OR CHANNEL	SO_2, PPM			O_2, %			CO, PPM		
CAL GAS RANGE	LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
C_a = CAL GAS VALUE	101	218	431	5.0	11.9	19.9	20	90	171
CAL GAS FLOW RATE	0.4 ℓ/min	→	→	0.5 ℓ/min	→	→	0.5 ℓ/min	→	→
RUN #									
1	93	216	470	4.9	12.2	20.6	11	40	71
2	95	217	467	4.9	12.3	20.6	12	41	70
3	95	217	468	4.9	12.2	20.7	11	41	71
Σ									
$C_m = \Sigma \div 3 =$	94.3	216.7	468.3	4.9	12.23	20.63	11.3	40.7	70.7
ACCURACY %: $\left[\frac{C_m - C_a}{C_a}\right] \times 100 =$	-6.6%	-0.6%	8.7%	-2.0%	2.8%	3.7%			

COMMENTS

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

CYLINDER GAS AUDIT (CGA) DATA FORM

SAMPLING LOCATION

☐ SDA INLET (SO_2, CO, O_2)

☒ ESP OUTLET (SO_2, NO_x, O_2)

SO2 (7-13-88)

DATE:	7-14-88
INITIALS:	LC

ANALYZER OR CHANNEL	SO_2, PPM			O_2, %			NO_x ~~CO~~, PPM		
CAL GAS RANGE	LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
C_a = CAL GAS VALUE	26	101	218	5.0	11.9	19.9			
CAL GAS FLOW RATE	0.6 ℓ/min →			0.6 ℓ/min →					
RUN #									
1	26	102	242	6.0	12.9	20.5			
2	28	104	244	6.1	13.2	20.6			
3	29	105	244	6.1	13.2	20.5			
Σ									
$C_m = \Sigma \div 3 =$	27.7	103.7	243.3	6.07	13.10	20.53			
ACCURACY %: $\left[\frac{C_m - C_a}{C_a}\right] \times 100 =$	4.1%	2.7%	11.6%	21.4%	10.1%	3.2%			

COMMENTS

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

CYLINDER GAS AUDIT (CGA) DATA FORM

SAMPLING LOCATION

☐ SDA INLET (SO_2, CO, O_2)

☒ ESP OUTLET (SO_2, NO_x, O_2)

DATE: 8-3-88

INITIALS: SAS

1030 -

ANALYZER OR CHANNEL	SO_2, PPM			O_2, %			NO_x, PPM		
CAL GAS RANGE	LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
C_a = CAL GAS VALUE	26	101	218	5.0	11.9	19.9			
CAL GAS FLOW RATE	0.5 ℓ/min →			0.6 ℓ/min →					
RUN #									
1	~~25~~ 23	96	219	6.0	12.6	19.8			
2	23	93	218	6.0	12.6	19.8			
3	25	95	216	6.0	12.6	19.8			
Σ									
C_m = Σ ÷ 3 =	23.7	94.7	217.7	6.0	12.6	19.8			
ACCURACY %: $\left[\frac{C_m - C_a}{C_a}\right] \times 100 =$	-8.8%	-6.2%	-0.1%	+20.0%	+5.9%	+0.5%			

COMMENTS

Previous CGA results (7-14-88): +4.1% +2.7% +11.6% +21.4% +10.1% +3.2%

			Response
Response to the Millbury low-level gas	46.6 ppm SO_2	→	50 ppm
	0% O_2	→	0%
	174 ppm NO	→	176 ppm

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

CYLINDER GAS AUDIT (CGA) DATA FORM

SAMPLING LOCATION

- [x] SDA INLET (SO_2, CO, O_2)
- [ ] ESP OUTLET (SO_2, NO_x, O_2)

DATE:	8-6-88
INITIALS:	LC

14:15 – 17:20

ANALYZER OR CHANNEL	SO_2, PPM			O_2, %			CO, PPM		
CAL GAS RANGE	LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
C_a = CAL GAS VALUE	100.5	218	431	5.0	11.9	19.9	20	90	171
CAL GAS FLOW RATE	0.6 l/min	→	→	0.6 l/min	→	→	0.6 l/min	→	→
RUN #									
1	99	216	470	4.6	12.1	20.7	6	34	64
2	104	218	471	4.7	12.2	20.8			
3	98	218	465	4.7	12.2	20.8			
Σ									
C_m = Σ ÷ 3 =	100.3	217	469	4.7	12.2	20.8			
ACCURACY %: $\left[\frac{C_m - C_a}{C_a}\right] \times 100 =$	-0.2%	-0.5%	+8.8%	-6.0%	+2.5%	+4.5%			

COMMENTS

The response time of the O_2 analyzer was much slower than normal. The SO_2 response time was 6-7 minutes.

The display above the first strip chart (SDA SO_2, O_2) stopped alternating between the two analyzers and displayed only the O_2 concentration, beginning around 14:30.

Since the CO analyzers problems haven't been resolved yet, only one injection was made at each level.

3521 6/88

Previous CGA results:

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-7.[illegible]	+7.8%	+3.7%	[illegible]	[illegible]

MILLBURY RESOURCE RECOVERY FACILITY

CYLINDER GAS AUDIT (CGA) DATA FORM

SAMPLING LOCATION

[X] SDA INLET (SO_2, CO, O_2)

[ ] ESP OUTLET (SO_2, NO_x, O_2)

DATE: 8-25-88

INITIALS: LC

14:40 – 17:45

ANALYZER OR CHANNEL	SO_2, PPM			O_2, %			CO, PPM		
CAL GAS RANGE	LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
C_a = CAL GAS VALUE	100.5	218	431	5.0	11.9	19.9			
CAL GAS FLOW RATE	0.5 lpm	→	→	0.5 lpm	→	→			
RUN #									
1	91	213	~~441~~ 437	5.4	12.9	20.9			
2	95	207	445	5.5	12.9	21.0			
3	95	210	435	5.5	12.8	21.1			
Σ									
$C_m = \Sigma \div 3 =$	93.7	210	440	5.5	12.9	21.0			
ACCURACY %: $\left[\frac{C_m - C_a}{C_a}\right] \times 100 =$	-6.8%	-3.7%	+2.1%	+10%	+8.4%	+5.5%			

COMMENTS

SO_2 response time: 4-5 minutes

During SO_2 gas injections, CO analyzer was reading 7 ppm

SO_2 response noisier than normal.

During O_2 gas injections both CO and SO_2 analyzers were reading 7-10 ppm. (Their zero offset values are -7.)

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

CYLINDER GAS AUDIT (CGA) DATA FORM

SAMPLING LOCATION

- [ ] SDA INLET (SO_2, CO, O_2)
- [x] ESP OUTLET (SO_2, NO_x, O_2)

DATE: 8-27-88

INITIALS: LC

10:25-12:00

ANALYZER OR CHANNEL	SO_2, PPM			O_2, %			~~CO, PPM~~		
CAL GAS RANGE	LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
C_a = CAL GAS VALUE	26	101	218	5.0	11.9	19.9			
CAL GAS FLOW RATE	0.5 l/min	→	→	→	→	→			
RUN #									
1	25	100	241	5.9	12.4	19.9			
2	27	103	242	6.0	12.5	19.8			
3	28	103	243	6.0	12.6	19.9			
Σ									
$C_m = \Sigma \div 3 =$	27	102	242	6.0	12.5	19.9			
ACCURACY %: $\left[\frac{C_m - C_a}{C_a}\right] \times 100 =$	+3.8%	+1.0%	11.0%	+20.0%	+5.0%	0%			

COMMENTS

During the 10:30 blowback, the inlet analyzers appeared to be sampling the cal gas being used at the outlet rather than the compressed they normally see.

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

RELATIVE ACCURACY DATA FORM

DATE:	7-15-88
INITIALS:	
POLLUTANT:	SO_2-Outlet

	REFERENCE METHOD		ANALYZER RESPONSE		DIFFERENCE
RUN	Concentration	lb/MMBtu	Concentration	lb/MMBtu	RM - CEM
1	11.3		12.6		+1.3
2	19.2		20.6		+1.4
3	24.6		~~+7.~~ 16.8		-7.8
4					
5					
6					
7					
8					
9					

COMMENTS	
	Σd = ~~10.5~~ 5.1
	$(\Sigma d)^2$ =
	$\lvert\bar{d}\rvert$ = ~~3.5~~ 1.7
	Σd^2 =

A calibration was performed between runs 2 & 3. The cal on the SO_2 outlet failed to meet the system criteria, so the span factor from the morning cal was used rather than the one based on current monitor performance. The cal gas read ~25% below its tag value which is consistent with our relative accuracy results.

Reference Method Mean = 18.4

S_d =

CC =

Relative Accuracy (RA) = 9.2%

Limit = 15% for 3-run RAA
20% for 9-run RATA

NOTE: Equations used are shown in 40 CFR 60 Appendix B, P.S. 2.

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

RELATIVE ACCURACY DATA FORM

DATE:	7-15-88
INITIALS:	
POLLUTANT:	SO_2 - Inlet

	REFERENCE METHOD		ANALYZER RESPONSE		DIFFERENCE
RUN	Concentration	lb/MMBtu	Concentration	lb/MMBtu	RM - CEM
1	214		190.1		-23.9
2	145.9		137.1		-8.8
3	166.3		154.0		-12.3
4					
5					
6					
7					
8					
9					

COMMENTS	
	Σd =
	$(\Sigma d)^2$ =
	$\lvert \bar{d} \rvert$ = 15
	Σd^2 =

Reference Method Mean = 175.4

S_d =

CC =

Relative Accuracy (RA) = 8.6 %

Limit = 15% for 3-run RAA
20% for 9-run RATA

NOTE: Equations used are shown in 40 CFR 60 Appendix B, P.S. 2.

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

RELATIVE ACCURACY DATA FORM

DATE:	7-15-88
INITIALS:	
POLLUTANT:	O_2 Inlet

	REFERENCE METHOD		ANALYZER RESPONSE		DIFFERENCE
RUN	Concentration	lb/MMBtu	Concentration	lb/MMBtu	RM - CEM
1	—		10.3		—
2	10.5 % O_2		10.9		0.4
3	9.3 % O_2		9.7		0.4
4					
5					
6					
7					
8					
9					

COMMENTS	
	Σd =
	$(\Sigma d)^2$ =
	$\lvert \bar{d} \rvert$ =
	Σd^2 =

Reference Method Mean = 9.9 % O_2

S_d =

CC =

Relative Accuracy (RA) = 4.0 %

Limit = 15% for 3-run RAA
20% for 9-run RATA

NOTE: Equations used are shown in 40 CFR 60 Appendix B, P.S. 2.

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

RELATIVE ACCURACY DATA FORM

DATE:	7-15-88
INITIALS:	
POLLUTANT:	O_2 Outlet

	REFERENCE METHOD		ANALYZER RESPONSE		DIFFERENCE
RUN	Concentration	lb/MMBtu	Concentration	lb/MMBtu	RM - CEM
1	10.0% O_2		11.9% O_2		1.9%
2	10.4% O_2		11.7% O_2		1.3%
3	9.0% O_2		10.1% O_2		1.1%
4					
5					
6					
7					
8					
9					

COMMENTS	
	Σd =
	$(\Sigma d)^2$ =
	$\lvert \bar{d} \rvert$ = 1.4% O_2
	Σd^2 =

Reference Method Mean = 9.8% O_2

S_d =

CC =

Relative Accuracy (RA) = 14.6%

Limit = 15% for 3-run RAA
20% for 9-run RATA

NOTE: Equations used are shown in 40 CFR 60 Appendix B, P.S. 2.

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

RELATIVE ACCURACY DATA FORM

DATE:	7-15-88
INITIALS:	
POLLUTANT:	CO Inlet

	REFERENCE METHOD		ANALYZER RESPONSE		DIFFERENCE
RUN	Concentration	lb/MMBtu	Concentration	lb/MMBtu	RM - CEM
1	1		22.5		21.5
2	3		22.2		19.5
3	1		22.2		21.5
4					
5					
6					
7					
8					
9					

COMMENTS	
	Σd =
	$(\Sigma d)^2$ =
	$\lvert \bar{d} \rvert$ = 20.8
	Σd^2 =

Reference Method Mean = 2 ppm

S_d =

CC =

Relative Accuracy (RA) = 1225 %

Limit = 15% for 3-run RAA
20% for 9-run RATA

NOTE: Equations used are shown in 40 CFR 60 Appendix B, P.S. 2.

3521 6/88

APPENDIX G.

HCl CEMS Audit Results
- Relative Accuracy Audit Results
- Concurrent HCl Monitoring Data

MILLBURY RESOURCE RECOVERY FACILITY

HCl RELATIVE ACCURACY DATA FORM

DATE:	7-15-88
INITIALS:	UC, SAS
LOCATION:	ESP Outlet

	REFERENCE METHOD	MOISTURE RESULTS	ANALYZER RESPONSE		DIFFERENCE
RUN	ppm (dry)	%	ppm (wet)	ppm (dry)	RM - CEM (dry)
1	2.0	19.1 ~~12.5~~	0.5	0.6	1.4
2	4.1	18.5 ~~14.4~~	0.5	0.6	3.5
3	3.8	17.6 ~~13.0~~	0.3	0.3	3.5
COMMENTS					$\lvert\bar{d}\rvert$ = 2.8

Reference Method Mean = 3.3 ppm

$\lvert\bar{d}\rvert$ = 2.8 ppm

Relative Accuracy (RA) =

Limit = 15%

NOTE: Equations used are shown in 40 CFR 60 Appendix F, Procedure 1.

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

HCl RELATIVE ACCURACY DATA FORM

DATE:	7-15-88
INITIALS:	UC, SAS
LOCATION:	Inlet

titration analysis

	REFERENCE METHOD	MOISTURE RESULTS	ANALYZER RESPONSE		DIFFERENCE
RUN	ppm (dry)	%	ppm (wet)	ppm (dry)	RM - CEM (dry)
1	442	12.5	377.8	431.8	-10.2
2	593	14.4	563.0	657.7	64.7
3	738	13.0	585.0	672.4	-66
COMMENTS					$\lvert\bar{d}\rvert$ = 11.5

7/20/88 IC analyses on these samples:

Run	
#1	430 ppm
#2	595 ppm
#3	717 ppm

Reference Method Mean = 591

$\lvert\bar{d}\rvert$ = 11.5

Relative Accuracy (RA) = 1.9%

Limit = 15%

NOTE: Equations used are shown in 40 CFR 60 Appendix F, Procedure 1.

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

HCl RELATIVE ACCURACY DATA FORM

DATE:	8-4-88
INITIALS:	LC, SAS
LOCATION:	Inlet

	REFERENCE METHOD	MOISTURE RESULTS	ANALYZER RESPONSE		DIFFERENCE
RUN	ppm (dry)	%	ppm (wet)	ppm (dry)	~~CEM~~ RM ~~—CEM~~ (dry)
1	356.0	13.2	367.9	423.8	67.8
2	452.4	16.8	394.0	473.6	21.2
3	428.3	17.2	398.0	480.7	52.4
COMMENTS					$\lvert\bar{d}\rvert$ = 47.1

Reference Method Mean = 412.2

$\lvert\bar{d}\rvert$ = 47.1

Relative Accuracy (RA) = 11.4%

Limit = 15%

NOTE: Equations used are shown in 40 CFR 60 Appendix F, Procedure 1.

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

HCl RELATIVE ACCURACY DATA FORM

DATE:	8-4-88
INITIALS:	LC, SAS
LOCATION:	Outlet

	REFERENCE METHOD	MOISTURE RESULTS	ANALYZER RESPONSE		DIFFERENCE
RUN	ppm (dry)	%	ppm (wet)	ppm (dry)	RM - CEM (dry)
1	23.7	19.6	5.5	6.8	-16.9
2	35.6	21.7	9.5	12.1	-23.5
3	47.8	20.2	3.5	4.4	-43.4
COMMENTS					$\lvert\bar{d}\rvert$ = 27.9

Reference Method Mean = 35.7

$\lvert\bar{d}\rvert$ = 27.9

Relative Accuracy (RA) =

Limit = 15%

NOTE: Equations used are shown in 40 CFR 60 Appendix F, Procedure 1.

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

HCl RELATIVE ACCURACY DATA FORM

DATE:	8/13/88
INITIALS:	LC, SAS
LOCATION:	Outlet

	REFERENCE METHOD	MOISTURE RESULTS	ANALYZER RESPONSE		DIFFERENCE
RUN	ppm (dry)	%	ppm (wet)	ppm (dry)	RM - CEM (dry)
1	6.6	20.0		1.5	-5.1
2	4.8	22.2		1.3	-3.5
3	4.0	20.1	0.8	1.0	-3.0
COMMENTS					$\lvert\bar{d}\rvert$ = 3.9

Reference Method Mean = 5.13

$\lvert\bar{d}\rvert$ = 3.9

Relative Accuracy (RA) =

Limit = 15%

NOTE: Equations used are shown in 40 CFR 60 Appendix F, Procedure 1.

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

HCl RELATIVE ACCURACY DATA FORM

DATE:	8-31-88
INITIALS:	WKS
LOCATION:	Unit 2 outlet

	REFERENCE METHOD	MOISTURE RESULTS	ANALYZER RESPONSE		DIFFERENCE
RUN	ppm (dry)	%	ppm (wet)	ppm (dry)	RM - CEM (dry)
1	5.2	18.8		~~1.0~~	
2	4.7	21.2		~~1.7~~	
3	5.2	20.4		~~1.7~~	

COMMENTS

$|\bar{d}|$ =

Reference Method Mean =

$|\bar{d}|$ =

Relative Accuracy (RA) =

Limit = 15%

NOTE: Equations used are shown in 40 CFR 60 Appendix F, Procedure 1.

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

HCl RELATIVE ACCURACY DATA FORM

DATE:	8-15-88
INITIALS:	OAS
LOCATION:	Outlet

	REFERENCE METHOD	MOISTURE RESULTS	ANALYZER RESPONSE		DIFFERENCE
RUN	ppm (dry)	%	ppm (wet)	ppm (dry)	RM - CEM (dry)
1	40	20.9	17.7	22	-18
2	129	19.1		81	-48
3					

COMMENTS	$\lvert \bar{d} \rvert$ =

Reference Method Mean =

$\lvert \bar{d} \rvert$ =

Relative Accuracy (RA) =

Limit = 15%

NOTE: Equations used are shown in 40 CFR 60 Appendix F, Procedure 1.

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

HCl RELATIVE ACCURACY DATA FORM

DATE:	8-19-88
INITIALS:	BAS
LOCATION:	Outlet

	REFERENCE METHOD	MOISTURE RESULTS	ANALYZER RESPONSE		DIFFERENCE
RUN	ppm (dry)	%	ppm (wet)	ppm (dry)	RM - CEM (dry)
1	4.8	19.6	1.7	2.1	-2.7
2	3.8	20.0	1.6	2.0	-1.8
3	2.6	19.1	1.1	1.4	-1.2
COMMENTS					$\lvert\bar{d}\rvert$ =

Reference Method Mean =

$\lvert\bar{d}\rvert$ =

Relative Accuracy (RA) =

Limit = 15%

NOTE: Equations used are shown in 40 CFR 60 Appendix F, Procedure 1.

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

HCl RELATIVE ACCURACY DATA FORM

DATE:	8-22-88
INITIALS:	LC, SAS
LOCATION:	Outlet

	REFERENCE METHOD	MOISTURE RESULTS	ANALYZER RESPONSE		DIFFERENCE
RUN	ppm (dry)	%	ppm (wet)	ppm (dry)	RM - CEM (dry)
1	6.1	17.2	0.8	1.0	-5.1
2	8.2	18.1	1.4	1.7	-6.5
3	9.3	19.4	1.4	1.7	-7.6

COMMENTS

$|\bar{d}|$ =

Reference Method Mean =

$|\bar{d}|$ =

Relative Accuracy (RA) =

Limit = 15%

NOTE: Equations used are shown in 40 CFR 60 Appendix F, Procedure 1.

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

HCl RELATIVE ACCURACY DATA FORM

DATE:	8-24-88
INITIALS:	[illegible]
LOCATION:	Inlet

	REFERENCE METHOD	MOISTURE RESULTS	ANALYZER RESPONSE		DIFFERENCE
RUN	ppm (dry)	%	ppm (wet)	ppm (dry)	RM - CEM (dry)
1	469.7	15.0	384	451.8	-17.9
2	692.4	16.3	499	595.9	-96.5
3	621.3	15.4	454	542.9	-78.4
COMMENTS					$\lvert\bar{d}\rvert$ = 64.3

Reference Method Mean = 594.4

$\lvert\bar{d}\rvert$ = 64.3

Relative Accuracy (RA) = 10.8%

Limit = 15%

NOTE: Equations used are shown in 40 CFR 60 Appendix F, Procedure 1.

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

HCl RELATIVE ACCURACY DATA FORM

DATE:	9-4-88
INITIALS:	WKS
LOCATION:	Outlet

	REFERENCE METHOD	MOISTURE RESULTS	ANALYZER RESPONSE		DIFFERENCE
RUN	ppm (dry)	%	ppm (wet)	ppm (dry)	RM - CEM (dry)
1	8.8	19.8	0.7	0.9	-7.9
2	8.0	20.1	1.3	1.4	-6.6
3	6.8	19.6	0.8	0.9	-5.7

COMMENTS	$\lvert \bar{d} \rvert$ =

Reference Method Mean =

$\lvert \bar{d} \rvert$ =

Relative Accuracy (RA) =

Limit = 15%

NOTE: Equations used are shown in 40 CFR 60 Appendix F, Procedure 1.

MILLBURY RESOURCE RECOVERY FACILITY

HCl RELATIVE ACCURACY DATA FORM

DATE:	9-6-88
INITIALS:	WKG
LOCATION:	Outlet

	REFERENCE METHOD	MOISTURE RESULTS	ANALYZER RESPONSE		DIFFERENCE
RUN	ppm (dry)	%	ppm (wet)	ppm (dry)	RM - CEM (dry)
1	4.2	20.5	0.5	0.56	-3.7
2	3.3	21.1	0.6	0.87	-2.5
3	3.5	20.7	0.6	0.98	-2.6

COMMENTS

$|\bar{d}|$ =

Reference Method Mean =

$|\bar{d}|$ =

Relative Accuracy (RA) =

Limit = 15%

NOTE: Equations used are shown in 40 CFR 60 Appendix F, Procedure 1.

3521 6/88

MILLBURY RESOURCE RECOVERY FACILITY

HCl RELATIVE ACCURACY DATA FORM

DATE:	9-12-88
INITIALS:	LC
LOCATION:	Outlet

	REFERENCE METHOD	MOISTURE RESULTS	ANALYZER RESPONSE		DIFFERENCE
RUN	ppm (dry)	%	ppm (wet)	ppm (dry)	RM - CEM (dry)
1	7.8			3.8	-4.0
2	2.0			1.8	-0.2
3	4.8			2.8	-2.0

COMMENTS

$|\bar{d}|$ =

Reference Method Mean =

$|\bar{d}|$ =

Relative Accuracy (RA) =

Limit = 15%

NOTE: Equations used are shown in 40 CFR 60 Appendix F, Procedure 1.

3521 6/88

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 07-15-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
11:42	461.5	0.4
11:48	446.1	0.4
11:54	470.8	0.6
12:00	493.3	0.8
AVERAGE VALUES FOR THE LAST HOUR: 29 MINUTES OF VALID DATA		
12:00	465.1	0.5
12:06	466.0	0.8
12:12	447.2	0.7
12:18	453.9	0.7
12:24	405.0	0.6
12:30	400.0	0.6
12:36	388.8	0.5
12:42	424.0	0.5
12:48	467.1	0.5
12:54	497.8	0.5
13:00	476.1	0.5
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
13:00	442.6	0.6
13:06	451.5	0.5
13:12	409.1	0.5
13:18	368.6	0.5
13:24	414.8	0.4
13:30	436.3	0.5
13:36	389.8	0.4
13:42	390.5	0.4

Run 1

0.5 ppmw (0.6 dry)

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 07-15-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
13:48	391.0	0.4
13:54	382.2	0.4
14:00	383.2	0.4
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
14:00	401.7	0.4
14:06	386.9	0.4
14:12	439.4	0.5
14:18	410.4	0.5
14:24	395.9	0.6
14:30	399.1	0.5
14:36	420.2	0.5
14:42	472.3	0.5
14:48	467.7	0.4
14:54	431.5	0.5
15:00	430.1	0.4
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
15:00	425.3	0.5
15:06	450.7	0.4
15:12	419.7	0.4
15:18	414.9	0.3
15:24	422.9	0.3
15:30	425.3	0.3
15:36	456.8	0.3
15:42	430.5	0.3
15:48	445.4	0.2

Run 2

0.5 ppmw (0.6 dry)

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 07-15-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
15:54	471.3	0.3
16:00	464.5	0.2
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
16:00	440.2	0.3
16:06	433.8	0.3
16:12	420.4	0.3
16:18	423.8	0.3
16:24	410.0	0.3
16:30	387.5	0.3
16:36	333.4	0.3
16:42	323.4	0.2
16:48	349.5	0.3
16:54	337.1	0.3
17:00	381.4	0.3
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
17:00	380.0	0.3
17:06	397.7	0.2
17:12	383.5	0.3
17:18	391.8	0.3
17:24	367.9	0.3
17:30	370.0	0.3
17:36	380.3	0.3
17:42	395.9	0.3
17:48	394.9	0.3
17:54	432.2	0.3

Run 3

0.3 ppmw

(0.3 dry)

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 07-15-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
18:00	469.3	0.3
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
18:00	398.3	0.3
18:06	452.3	0.4
18:12	406.9	0.4
18:18	406.7	0.4
18:24	419.4	0.3
18:30	393.6	0.3
18:36	377.7	0.3
18:42	409.6	0.3
18:48	403.8	0.3
18:54	403.8	0.3
19:00	405.4	0.3
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
19:00	407.9	0.3
19:06	414.7	0.3
19:12	375.5	0.3
19:18	386.9	0.3
19:24	366.2	0.3
19:30	345.3	0.3
19:36	325.5	0.3
19:42	327.2	0.3
19:48	338.0	0.3
19:54	330.4	0.3
20:00	364.6	0.3

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 07-15-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
20:00	357.4	0.3
20:06	400.5	0.3
20:12	395.5	0.4
20:18	400.4	0.3
20:24	403.8	0.3
20:30	358.8	0.3
20:36	349.8	0.3
20:42	381.2	0.3
20:48	369.6	0.3
20:54	360.7	0.4
21:00	360.0	0.4
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
21:00	378.0	0.3
21:06	380.5	0.4
21:12	418.4	0.4
21:18	441.7	0.4
21:24	471.9	0.5
21:30	529.9	0.5
21:36	613.3	0.5
21:42	671.1	0.7
21:48	649.5	0.8
21:54	582.1	0.9
22:00	569.8	0.6
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
22:00	532.8	0.6

377.8

12.5% H_2O
432 ppmd

Run 4

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 07-15-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
22:06	527.4	0.6
22:12	478.2	0.5
22:18	535.3	0.6
22:24	619.5	0.5
22:30	655.4	0.6
22:36	712.2	0.7
22:42	686.3	0.8
22:48	664.7	0.8
22:54	691.8	0.9
23:00	736.7	1.0
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
23:00	630.7	0.7
23:06	785.1	1.8
23:12	729.4	2.9
23:18	629.6	2.4
23:24	639.4	1.8
23:30	584.3	1.6
23:36	569.9	1.7
23:42	501.9	1.5
23:48	481.9	1.5
23:54	498.3	1.1
00:00	512.6	1.4
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
00:00	593.2	1.8
00:06	500.0	1.2

Run 5: 563.0 — 14.4% H_2O, 658 ppmd

Run 6: 585.0 — 13.0% H_2O, 672 ppmd

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 08-04-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
13:54	344.1	0.3
14:00	342.4	0.3
AVERAGE VALUES FOR THE LAST HOUR: 13 MINUTES OF VALID DATA		
14:00	343.0	0.3
14:06	324.7	0.4
14:12	302.3	0.4
14:18	280.1	0.3
14:24	311.2	0.3
14:30	299.1	0.3
14:36	321.7	0.3
14:42	310.4	0.3
14:48	362.5	0.2
14:54	421.6	0.3
15:00	423.1	0.3
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
15:00	335.7	0.3
15:06	407.3	0.3
15:12	466.6	0.3
15:18	478.5	0.4
15:24	457.7	0.4
15:30	423.5	0.5
15:36	432.7	0.3
15:42	398.2	0.5
15:48	387.3	0.3
15:54	381.5	0.3

Run 1 RAA Inlet

367.9 ppmw
423.8 dry

Run 2

394.0 ppmw
473.6 dry

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 08-04-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
16:00	376.8	0.3
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
16:00	421.0	0.4
16:06	387.2	0.4
16:12	394.4	0.4
16:18	407.1	0.3
16:24	388.3	0.3
16:30	398.3	0.4
16:36	390.3	0.4
16:42	385.6	0.5
16:48	428.8	0.6
16:54	418.9	0.8
17:00	402.1	0.7
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
17:00	400.1	0.5
17:06	430.3	0.8
17:12	470.8	1.1
17:18	441.8	1.3
17:24	430.2	2.4
17:30	398.8	1.9
17:36	421.5	1.5
17:42	399.6	1.5
17:48	419.6	1.7
17:54	444.6	2.0
18:00	433.2	1.9

Run 3

398.0 ppmw
480.7 dry

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 08-04-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
18:00	429.1	1.6
18:06	426.1	2.8
18:12	396.8	2.6
18:18	400.0	1.6
18:24	428.9	1.8
18:30	424.7	1.7
18:36	418.1	4.5
18:42	444.1	5.7
18:48	475.4	3.8
18:54	450.7	2.4
19:00	434.9	14.0
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
19:00	430.0	4.1
19:06	392.1	6.0
19:12	347.6	3.2
19:18	349.6	2.0
19:24	406.2	2.7
19:30	462.0	3.2
19:36	458.0	4.4
19:42	466.3	19.1
19:48	478.8	14.5
19:54	459.8	6.1
20:00	474.2	3.5
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
20:00	429.5	6.5

Run 1 RAA Outlet

5.5 ppmw
6.8 dry

Run 2

9.5 ppmw dry
12.1

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 08-04-1988

Run 3

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
20:06	464.5	4.6
20:12	453.0	4.1
20:18	483.4	3.2
20:24	549.3	3.2
20:30	634.3	3.1
20:36	648.6	4.1
20:42	564.4	5.1
20:48	521.3	3.2
20:54	458.0	2.6
21:00	457.2	5.2
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
21:00	523.4	3.8
21:06	492.2	4.8
21:12	516.3	10.1
21:18	534.3	12.5
21:24	537.8	6.9
21:30	580.6	5.6
21:36	584.3	18.1
21:42	572.9	33.5
21:48	577.5	11.8
21:54	583.0	7.2
22:00	537.5	34.2
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
22:00	551.7	14.5
22:06	521.9	22.8

3.5 ppm w
4.4 dry

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 08-13-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
AVERAGE VALUES FOR THE LAST HOUR: 42 MINUTES OF VALID DATA		
14:00	361.5	1.2
14:24	373.6	0.9
14:30	364.7	1.3
14:36	354.1	0.9
14:42	365.4	0.9
14:48	382.7	0.9
14:54	394.4	0.9
15:00	391.9	0.7
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
15:00	388.1	1.0
15:06	400.3	0.6
15:12	390.7	0.6
15:18	406.0	0.6
15:24	408.6	0.7
15:30	396.9	0.7
15:36	411.8	0.9
15:42	388.5	0.7
15:48	370.7	0.8
15:54	388.3	0.7
16:00	351.0	0.5
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
16:00	391.3	0.7
16:06	309.1	0.6
16:12	325.9	1.0

Run 3
0.8 ppmw
1.0 ppmd

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 08-15-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
10:36	435.7	44.7
10:42	434.1	40.4
10:48	437.9	41.7
10:54	408.2	29.9
11:00	397.1	25.7
AVERAGE VALUES FOR THE LAST HOUR: 32 MINUTES OF VALID DATA		
11:00	417.3	36.4
11:06	453.7	30.4
11:12	419.6	30.2
11:18	430.4	28.2
11:24	394.9	27.0
11:30	346.7	16.1
11:36	363.7	13.1
11:42	363.0	14.1
11:48	391.6	12.5
11:54	435.5	18.8
12:00	435.6	18.6
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
12:00	403.5	20.9
12:06	441.2	18.7
12:12	440.0	18.7
12:18	399.1	16.1
12:24	424.2	16.6
12:30	471.7	22.6
12:36	516.0	44.9

Run 1
Avg. 22 ppm(dry)

Run 2
(cont.)

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 08-15-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl

(cont.)

AVERAGE VALUES FOR THE LAST 6 MINUTES

12:42	644.1	57.4
12:48	724.8	60.0
12:54	763.3	60.0
13:00	706.7	59.0

Run 2

AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA

13:00	553.1	37.4

13:06	669.4	59.7
13:12	612.4	60.0
13:18	538.1	47.3
13:24	510.0	56.1
13:30	452.7	58.5
13:36	399.8	59.2
13:42	376.8	60.0
13:48	335.4	42.9
13:54	353.4	14.4
14:00	363.5	14.1

AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA

14:00	461.1	47.2

14:06	368.9	22.7
14:12	367.3	36.6
14:18	363.1	41.9
14:24	370.5	47.6
14:30	431.1	32.3
14:36	455.6	20.9
14:42	447.3	14.4

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 08-19-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
12:42	1037.8	27.0
12:48	1054.7	12.6
12:54	879.3	12.9
13:00	900.5	7.0
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
13:00	827.6	~~6.3~~ 12.0
13:06	709.5	5.1
13:12	601.8	4.0
13:18	519.0	3.7
13:24	516.5	3.1
13:30	497.2	2.5
13:36	492.2	1.7
13:42	618.0	2.1
13:48	566.7	2.6
13:54	539.4	1.6
14:00	542.0	1.9
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
14:00	560.2	2.8
14:06	478.6	1.9
14:12	462.7	1.6
14:18	486.2	1.2
14:24	427.3	1.3
14:30	451.5	1.1
14:36	404.8	1.3
14:42	384.0	1.1

30 mins. of valid data

Run 1 - RAA

[illegible] TEST [illegible] NO. 1 REP. 2 [illegible] COLLECTION COMPLETED [illegible]

		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		LB/HR	[illegible]	"H2O	"H2O	DEG F	%	DEG F	"H2O	"H2O	DEG F	DEG F
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	41[illegible].00	[illegible]
	[illegible]	[illegible]	4.[illegible]	[illegible]	[illegible]	[illegible]	10.[illegible]	[illegible].00	-1.[illegible]	[illegible]	41[illegible].00	[illegible]
	[illegible]	[illegible]	4.[illegible]	[illegible]	[illegible]	1[illegible].00	7.[illegible]	[illegible]	[illegible]	[illegible]	40[illegible].00	[illegible]55.00
	[illegible]	1[illegible].50	4.[illegible]	[illegible]	[illegible]	10[illegible].00	10.4[illegible]	[illegible].00	-1.[illegible]04	-2.[illegible]	407.00	[illegible]52.00
	[illegible]	15[illegible].00	5.[illegible]	[illegible]	[illegible].50	10[illegible].00	10.[illegible]0	[illegible].00	-1.[illegible]55	-2.7[illegible]	405.00	[illegible]57.00
	[illegible]	15[illegible]	4.[illegible]	11.[illegible]	[illegible]	[illegible].250	9.[illegible]13	[illegible].00	-1.[illegible]	-2.[illegible]	413.00	[illegible]
	[illegible]	15[illegible].00	4.671[illegible]	1[illegible].01[illegible]	27.000	[illegible]4.500	9.[illegible]500	[illegible].00	-1.[illegible]	-3.000	[illegible]417.00	[illegible].50
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	41[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	411.[illegible]	[illegible]
	[illegible]	15[illegible]	[illegible]	11.[illegible]	[illegible]	[illegible].000	9.[illegible]	[illegible]	-1.5[illegible]4	[illegible]16	41[illegible].00	[illegible]54.5[illegible]
	[illegible]	15[illegible]	[illegible]	[illegible]	[illegible]5.1[illegible]5	[illegible]	8.[illegible]	[illegible]4.00	-1.[illegible]0	[illegible]	40[illegible].00	[illegible]54.5[illegible]
[illegible]	[illegible]	15[illegible].5[illegible]	[illegible]	1[illegible]1	2[illegible]	[illegible].250	8.5313	[illegible].00	-1.[illegible]	[illegible]	40[illegible].00	[illegible]53.00
	[illegible]	15[illegible].00	[illegible]	11.[illegible]	[illegible]	[illegible]5.[illegible]	9.[illegible]5	[illegible].00	-1.4[illegible]	-2.5[illegible]	404.00	[illegible]54.50
	[illegible]	15[illegible].5[illegible]	[illegible]	1[illegible].15[illegible]	[illegible].200	[illegible]1.500	9.1563	[illegible].00	-1.5[illegible]	-2.[illegible]	40[illegible].00	[illegible].00
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-1.[illegible]	[illegible]	41[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.[illegible]7	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.[illegible]00	[illegible]	-1.[illegible]	[illegible]	41[illegible].00	[illegible]
	[illegible]	1[illegible]	[illegible].6[illegible]4	1[illegible]	[illegible]5.[illegible]	[illegible]4.000	8.[illegible]75	10[illegible]	-1.[illegible]	-2.[illegible]	41[illegible].00	[illegible]55.00
	[illegible]	1[illegible]5.5[illegible]	[illegible]54	1[illegible]1	26.1[illegible]	[illegible].500	9.0313	[illegible].00	-1.[illegible]	[illegible]	417.00	[illegible]55.50
	[illegible]	1[illegible].00	[illegible]125	1[illegible].156	26.[illegible]	8[illegible].000	8.[illegible]	[illegible]6.00	-1.[illegible]	[illegible]44	414.00	[illegible]57.00
	[illegible]	1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8.[illegible]	[illegible].00	-1.4[illegible]	[illegible]4	41[illegible].00	[illegible]
	[illegible]	1[illegible]	2.[illegible]	[illegible]	2[illegible].1[illegible]	[illegible]4.[illegible]	8.[illegible]	[illegible]	-1.[illegible]	[illegible]	41[illegible].00	[illegible]
	[illegible]	1[illegible]	[illegible]	[illegible]	[illegible]13	[illegible]7.[illegible]50	[illegible]5	[illegible]	-1.[illegible]	[illegible]	41[illegible].00	[illegible]

17JUL88 SUNDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW		PIC2023 BLR 2 PRI AIR PRESS		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AV SUP OUTGAS		PI2375 BLR 2 PRECIP OUT PR		TIC2551 BLR 2 SDA GAS OUT TMP
		FI2[illegible] BLR 2 NAT GAS FLOW		PIC[illegible] BLR 2 SEC AIR PRESS		AIC[illegible] BLR 2 [illegible]		FI[illegible] BLR 2 SDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT		
		FI2002B SMP KLB/HR	FI2[illegible] SMP KSCFH	PIC2023 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
17JUL88	13:00	155.50	3.8125	12.625	26.563	99.500	8.8125	[illegible]	-1.457	-2.500	404.00	256.00
	14:00	157.00	3.8125	12.313	26.688	100.00	8.8438	[illegible]	-1.156	-2.258	406.00	254.00
	15:00	160.50	4.6719	12.844	26.625	101.50	7.5313	[illegible]	-1.203	-2.203	403.00	253.50
	16:00	156.50	3.8125	12.438	26.125	97.500	8.0938	[illegible]	-1.188	-2.234	403.00	252.50
	17:00	154.00	3.8125	12.500	26.438	97.500	9.5313	992.00	-1.293	-2.383	399.00	256.00
	18:00	156.00	2.6954	12.156	26.375	95.750	9.2188	994.00	-1.524	-2.781	412.00	257.00
	19:00	156.50	3.8125	13.063	26.438	96.000	8.5313	1004.0	-1.430	-2.609	408.00	255.00
	20:00	[illegible]	3.8125	12.063	26.563	92.500	9.0938	[illegible]	-1.492	-2.672	411.00	253.50
	21:00	165.00	2.6954	13.469	25.375	85.750	7.7500	[illegible]	-1.660	-3.133	425.00	251.00
	22:00	165.00	2.6954	12.313	26.438	87.750	10.531	1014.0	-1.738	-2.945	427.00	255.00
	23:00	183.50	2.6954	12.125	26.750	87.500	8.3750	1026.0	-1.609	-3.344	432.00	253.00
17JUL88	00:00	178.50	3.8125	12.500	26.500	86.750	9.0000	1024.0	-1.770	-3.195	432.00	251.00
	01:00	170.00	2.6954	12.281	26.063	87.500	8.2500	1016.0	-1.442	-2.672	417.00	256.00
	02:00	168.00	2.6954	12.906	25.063	86.250	9.1250	1012.0	-1.590	-2.977	419.00	255.00
	03:00	169.00	2.6954	13.344	25.313	86.250	8.3750	1011.0	-1.457	-2.774	417.00	255.00
	04:00	167.50	3.8125	12.625	24.313	84.750	9.0938	1002.0	-1.363	-2.797	419.00	253.50
	05:00	168.00	3.8125	11.563	25.313	85.750	9.4063	1014.0	-1.422	-2.789	418.00	254.50
	06:00	169.50	2.6954	11.313	25.313	84.750	9.1563	1018.0	-1.816	-2.[illegible]	419.00	252.50
	07:00	165.00	2.6954	13.125	26.313	84.750	9.8750	1001.0	-1.918	-3.336	422.00	257.00
	08:00	168.50	2.6954	11.531	26.438	84.250	10.906	1000.0	-1.942	-3.391	432.00	250.50
	09:00	163.50	3.8125	12.188	26.500	87.000	10.063	1004.0	-1.847	-3.291	423.00	254.00
	10:00	[illegible]	3.8125	12.281	26.125	90.750	9.2500	[illegible]	-1.715	-2.945	429.00	240.00
	11:00	156.00	3.8125	12.594	26.625	94.500	8.7500	[illegible]	-1.234	-2.[illegible]	407.00	254.50
	12:00	159.50	4.6719	13.219	26.750	96.500	8.8125	[illegible]	-1.375	-2.947	418.00	253.00

16JUL88 SATURDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

	FI2002B BLR 2 TOTAL STM FLOW		PIC2023 BLR 2 FST AIR PRE		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AIR SMP OUTGAS		PI2275 BLR 2 PRE IP OUT PR		TIC2551 BLR 2 SDA GAS OUT TE
	FI 1553 WAT GAL	BLR 2 OUT	TIC 2 SEC AIR PRE		AIR P 4 D	PLT 2	TI 2 SDA INLET	BLR 2 GAS	TR 040 FLUE GAS	BLR OUT	
	FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2275 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
15JUL88 13:00	190.00	3.0125	11.313	26.375	95.250	9.6250	1010.0	-2.258	-4.250	453.00	266.00
14:00	194.00	2.6954	12.013	26.000	94.000	11.125	1010.0	-1.906	-3.883	459.00	273.00
15:00	194.00	3.3125	12.344	25.563	96.500	9.8875	996.00	-2.117	-3.820	449.00	258.00
16:00	189.00	3.3125	11.438	26.375	97.250	9.3438	1002.0	-1.809	-3.422	437.00	263.50
17:00	180.50	3.6125	13.094	25.688	95.500	9.9688	1014.0	-2.117	-3.688	436.00	251.00
18:00	186.00	4.6719	11.944	26.000	94.000	9.4688	1018.0	-1.668	-3.133	427.00	257.00
19:00	175.50	4.6719	12.719	26.313	95.250	7.10938	1004.0	-1.692	-3.008	422.00	254.00
20:00	157.00	2.6125	12.[illegible]	26.313	91.250	8.6250	976.00	-1.246	-2.414	410.00	256.00
21:00	153.50	3.6125	14.094	25.750	87.250	9.9688	970.00	-1.473	-2.719	409.00	255.00
22:00	153.00	0.0000	12.500	26.188	83.750	9.7188	982.00	-1.559	-2.774	404.00	253.00
23:00	175.50	0.0000	11.944	24.50	8[illegible].250	6.5157	994.00	-1.493	-2.672	403.00	253.00
16JUL88 00:00	155.50	0.0000	13.688	24.875	79.750	8.9688	972.00	-1.496	-2.649	409.00	251.00
01:00	155.00	0.0000	12.219	26.500	79.500	9.0000	980.00	-1.262	-2.336	399.00	254.00
02:00	156.00	0.0000	12.438	26.188	79.250	8.6563	988.00	-1.250	-2.406	400.00	253.00
03:00	155.00	0.0000	12.094	25.500	77.750	9.7188	976.00	-1.578	-2.820	409.00	255.00
04:00	156.50	0.0000	12.781	24.063	78.750	9.7813	994.00	-1.621	-2.867	408.00	253.00
05:00	151.00	0.0000	13.469	26.250	78.000	10.156	990.00	-1.465	-2.867	407.00	257.00
06:00	157.00	0.0000	11.906	26.375	79.250	9.2500	992.00	-1.359	-2.469	403.00	253.50
07:00	154.00	0.0000	13.125	26.563	81.250	9.3750	990.00	-1.274	-2.430	401.00	253.00
08:00	156.50	0.0000	12.469	25.188	85.500	7.9375	996.00	-1.141	-2.195	399.00	254.50
09:00	152.50	0.0000	12.219	26.375	86.750	9.5000	996.00	-1.422	-2.472	408.00	255.50
10:00	153.50	0.0000	12.375	26.688	91.250	10.031	986.00	-1.453	-2.617	408.00	255.00
11:00	157.50	0.0000	12.094	26.563	94.000	9.2188	994.00	-1.348	-2.508	409.00	252.00
12:00	156.50	2.6954	12.344	26.300	96.500	9.2500	994.00	-1.481	-2.555	403.00	252.50

15JUL88 FRIDAY ENTROPY TEST LOG NO. 2 BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

TI2376 BLR 2 PRECIP OUT TEMP
EI2587 BLR 2 ESP VOLT 2
HC2378 BLR 2 SL CONCEN.
EI2586 BLR 2 ESP VOLT
EI2588 BLR 2 ESP VOLT 3
FIC2580 BLR 2 SDA DIL WTR FL

	TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
14JUL88 13:00	268.00	42.125	47.250	53.500	59.375	16.938
14:00	252.00	61.875	46.875	53.750	25.000	29.563
15:00	251.50	60.125	46.375	50.875	25.000	33.375
16:00	251.50	56.000	47.875	52.125	25.000	32.750
17:00	261.00	61.375	45.375	51.375	25.000	23.563
18:00	257.00	46.625	45.625	51.750	43.625	20.750
19:00	251.00	61.500	46.000	51.375	25.000	27.000
20:00	252.50	37.750	47.625	52.125	70.000	13.031
21:00	251.00	49.500	45.750	52.500	25.000	27.250
22:00	252.00	58.875	47.750	53.625	25.313	28.563
23:00	251.00	52.000	46.375	53.125	69.750	12.594
15JUL88 00:00	250.50	55.750	46.875	53.875	25.000	31.375
01:00	250.00	61.000	46.875	51.500	25.000	29.938
02:00	249.50	59.000	48.000	53.625	40.000	32.438
03:00	250.50	58.875	47.000	53.750	40.000	23.688
04:00	251.00	59.625	46.125	53.750	40.000	24.875
05:00	250.50	49.375	47.500	53.250	40.000	23.188
06:00	251.00	54.750	43.000	52.625	40.000	24.313
07:00	251.50	55.375	48.500	53.625	40.000	22.438
08:00	252.00	63.625	47.375	53.625	40.000	25.500
09:00	259.00	38.375	47.625	52.250	79.750	13.375
10:00	253.50	55.500	46.625	51.625	79.250	13.656
11:00	251.00	54.750	47.500	52.500	40.000	25.500
12:00	263.00	56.375	47.250	52.375	40.000	27.138

20JUL88 THURSDAY [illegible] LOG NO. 2 - [illegible] 2 [illegible] LOG 12 COLLECTION COMPLETED 12:01

		TIC376 PRECIP OUT TEMP	BLR 2	EIC587 ESP VOLT 2	BLR 2	HCC376 SL CONCEN.	LTME
		EIC555 ESP VOLT 1	BLR 2	EIC588 ESP VOLT 3	BLR 2	FIC2530 SDA DIC VTR FL	BLR 2
		[illegible] SMP	[illegible] SMP	[illegible] SMP	[illegible] SMP	[illegible] SMP	FIC2580 SMP
		DEG F	KV	KV	KV		GPM
20JUL88	13:00	254.00	56.250	47.500	53.000	40.250	27.563
	14:00	251.50	57.625	47.375	52.750	40.250	26.938
	15:00	250.00	40.375	47.875	53.000	40.250	27.188
	16:00	[illegible]	[illegible]	50.875	54.125	40.250	26.000
	17:00	247.50	40.125	50.125	54.125	40.250	23.638
	18:00	250.50	54.875	50.500	55.125	40.250	19.563
	19:00	252.50	58.875	47.500	53.750	40.250	20.750
	20:00	253.00	41.875	47.625	53.750	40.250	20.438
	21:00	252.50	57.600	47.750	54.500	45.000	17.438
	22:00	251.50	59.625	49.375	54.125	45.000	17.063
	23:00	[illegible]	54.750	49.750	54.625	45.000	17.313
21JUL88	00:00	[illegible]	55.000	48.125	54.875	45.000	18.063
	01:00	251.50	53.375	47.750	55.750	45.000	19.938
	02:00	251.50	55.250	48.375	55.750	45.000	18.438
	03:00	251.50	57.750	49.125	55.375	45.000	19.500
	04:00	251.50	53.375	50.375	55.750	45.000	20.563
	05:00	[illegible]	57.125	50.375	55.[illegible]00	45.000	19.813
	06:00	250.50	53.375	51.125	55.625	45.000	19.563
	07:00	251.00	56.375	48.375	55.125	45.000	21.000
	08:00	250.50	55.500	49.625	54.875	45.000	25.625
	09:00	258.00	55.375	51.000	55.000	45.000	24.875
	10:00	256.00	58.500	48.375	54.000	45.000	25.198
	11:00	260.00	62.000	51.000	54.125	45.000	24.625
	12:00	268.00	55.250	46.625	53.250	39.875	26.563

20JUL88 WEDNESDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

	FI2002B BLR-2 TOTAL SIM FLOW		PIC2028 BLR-2 PRI AIR PRESS		TI2024 BLR-2 UNDERGRATE AIR		TI2010 BLR-2 AVG SUP OUTGAS		PI2375 BLR-2 PRECIP OUT PR		TIC2551 BLR 2 SDA GAS OUT TE
	FI2153 BLR-2 NAT GAS FLOW		PIC2026 BLR-2 SEC AIR PRESS		AI2064 BLR-2 O2		FI2039 BLR-2 SDA INLET GAS		TR2040 BLR-2 FLUE GAS OUT		
	FI2002B SMP	FI2153 SMP	PIC2028 SMP	PIC2026 SMP	TI2024 SMP	AIC2064 SMP	TI2010 SMP	FI2039 SMP	PI2375 SMP	TR2040 SMP	TIC2551 SMP
	KLB/HR	KSCFH	"H2O	"H2O	DEG F	%	DEG F	"H2O	"H2O	DEG F	DEG F
19JUL88 13:00	192.00	0.0000	12.125	26.313	86.500	10.000	1024.0	-1.617	-3.375	442.00	252.50
14:00	186.00	0.0000	12.250	25.125	85.500	10.281	101[illegible].0	-2.516	-4.609	459.00	270.00
15:00	188.50	0.0000	13.156	26.500	87.000	8.4375	1022.0	-1.601	-3.336	445.00	249.50
16:00	192.50	0.0000	11.281	25.938	86.000	9.4563	10[illegible].0	-2.250	-4.172	446.00	257.00
17:00	196.50	2.6954	12.906	25.938	86.000	9.4063	1024.0	-1.856	-3.461	445.00	250.00
18:00	182.50	2.6954	12.375	26.500	85.000	9.1250	1022.0	-1.781	-3.211	434.00	252.00
19:00	165.50	2.6954	11.969	26.250	84.000	9.9375	1006.0	-1.428	-2.875	417.00	257.00
20:00	167.50	2.6954	11.563	25.250	86.750	8.1250	101[illegible].0	-1.665	-2.797	415.00	253.00
21:00	162.50	2.6954	11.938	24.813	85.000	9.7500	1000.0	-1.734	-3.149	411.00	255.00
22:00	164.00	2.6954	12.313	26.000	84.500	9.7188	1001.0	-1.664	-3.024	414.00	253.50
23:00	163.50	0.0000	12.688	26.688	85.250	8.4688	1012.0	-1.641	-2.852	416.00	254.00
20JUL88 00:00	168.00	0.0000	12.219	27.000	84.750	9.0000	1012.0	-1.703	-2.969	420.00	250.00
01:00	162.00	2.6954	11.344	26.563	84.500	10.656	1006.0	-1.762	-3.102	419.00	253.50
02:00	160.50	2.6954	12.375	26.625	84.500	10.813	1004.0	-1.692	-3.047	416.00	254.00
03:00	163.00	2.6954	12.500	26.625	84.000	10.813	992.00	-1.934	-3.469	428.00	257.00
04:00	168.50	2.6954	12.750	26.750	84.750	7.2344	1012.0	-1.481	-2.858	426.00	253.50
05:00	163.50	2.6954	13.531	26.188	84.500	10.719	1000.0	-1.938	-3.406	424.00	256.00
06:00	159.50	0.0000	13.344	26.313	82.500	11.063	994.00	-2.494	-4.578	444.00	262.50
07:00	174.50	0.0000	12.594	25.625	84.000	9.1875	1004.0	-1.930	-3.609	434.00	254.50
08:00	182.50	0.0000	12.531	25.688	83.750	9.6875	1024.0	-2.016	-3.852	442.00	254.50
09:00	191.00	0.0000	12.562	25.812	82.500	9.7500	1023.0	-2.141	-3.797	441.00	257.00
10:00	182.50	0.0000	13.531	25.750	81.750	10.063	9[illegible].00	-2.445	-4.453	459.00	272.00
11:00	187.50	0.0000	12.563	26.188	82.250	10.281	1032.0	-1.981	-3.492	437.00	259.00
12:00	189.00	0.0000	12.875	25.750	83.000	7.4844	102[illegible].0	-1.984	-3.531	440.00	261.00

19JUL38 TUESDAY ENTROPY TEST LOG NO. 2 - BLR. 2 FIND LOG 19 COLLECTION COMPLETED 12:01

		FIC556 BLR 2 OUT LBS		FIC557 BLR 2		HC378 TIMF	
		FIC5		FI			
		FIC556 SMP	EI SMP	FIC557 SMP	FIC558 SMP	HC378 SMP	FIC2520 SMP
		DEG F	KV	KV	KV		GPM
18JUL38	10:00	251.00	41.[illegible]	[illegible]	57.[illegible]50	[illegible]	18.[illegible]
	11:00	251.50	4[illegible]	[illegible]	[illegible]	40.000	[illegible]
	12:00	[illegible]	[illegible]	49.000	57.[illegible]75	40.000	[illegible]
	16:00	[illegible]	51.375	51.125	50.375	40.000	19.062
	17:00	253.00	62.625	51.000	55.150	60.000	9.7188
	18:00	254.00	54.375	51.000	57.000	40.000	20.500
	19:00	254.00	58.875	49.125	56.875	40.000	18.275
	[illegible]	[illegible]	[illegible]	[illegible]	57.000	40.000	16.[illegible]
	21:00	[illegible]	[illegible]	[illegible]	[illegible]	40.000	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	57.375	40.000	[illegible]
	23:00	[illegible]	47.[illegible]	50.625	57.500	40.000	17.313
19JUL38	00:00	253.00	51.250	52.125	57.000	40.000	18.188
	01:00	253.00	45.250	50.375	57.625	40.000	19.188
	02:00	252.50	50.500	52.000	57.250	40.000	17.812
	[illegible]	[illegible]	56.125	50.750	57.125	40.000	19.750
	[illegible]	[illegible]	55.250	[illegible]	57.150	40.000	17.[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	57.125	40.000	[illegible]
	06:00	[illegible]	[illegible]	[illegible]	57.000	51.625	14.188
	07:00	251.00	[illegible]	47.500	56.[illegible]50	40.000	19.625
	08:00	[illegible]	[illegible]	50.750	57.[illegible]50	40.000	[illegible]
	09:00	251.00	55.[illegible]	50.000	45.375	40.000	27.188
	[illegible]	[illegible]	[illegible]	[illegible]	55.500	40.000	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	56.[illegible]0	40.000	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	53.125	40.000	26.750

19JUL88 MONDAY ENTHOPY TEST LOG NO. 2 - BLR. 2 [illegible] LOG 19 COLLECTION COMPLETED [illegible]

	TI2376 SMP DEG.F	EI2586 SMP kV	EI2587 SMP kV	EI2588 SMP kV	HCC378 SMP	FIC2580 SMP GPM
19JUL88 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15:00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16:00	[illegible]	47.125	50.000	55.750	43.750	15.932
17:00	253.00	56.250	50.250	55.750	46.750	9.3125
18:00	252.50	59.250	48.500	55.500	49.500	14.932
19:00	250.50	53.500	47.500	56.500	40.000	20.932
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	40.000	16.175
21:00	250.00	60.250	[illegible]	55.125	40.000	15.213
[illegible]	[illegible]	54.500	[illegible]	[illegible]	69.500	9.7500
23:00	251.00	55.000	49.500	56.375	40.000	16.250
19JUL88 00:00	251.50	48.375	49.125	56.500	40.000	14.813
01:00	251.50	56.625	49.500	56.500	40.000	16.875
02:00	251.50	49.750	49.750	56.125	40.000	16.188
03:00	251.50	57.250	51.250	57.125	40.000	16.188
04:00	251.50	58.500	50.500	56.750	40.000	17.000
05:00	250.00	58.375	50.375	56.125	39.500	18.500
06:00	252.50	55.625	50.250	56.125	37.250	17.750
07:00	250.50	56.875	50.125	56.500	36.125	18.813
08:00	250.00	50.375	50.625	56.875	40.000	17.500
09:00	251.50	53.250	48.625	55.750	40.000	16.813
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	51.375	14.594
[illegible]	[illegible]	51.125	[illegible]	[illegible]	[illegible]	17.375
[illegible]	[illegible]	41.750	[illegible]	[illegible]	40.000	[illegible]

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

16JUL88 SATURDAY ENTROPY TEST LOG NO. [illegible] BLR [illegible] TREND LOG 19[illegible] COLLECTION COMPLETED [illegible]:12:01

		TI2376 BLR 2 PRECIP OUT TEMP	EI2586 BLR 2 ESP VOLT 1	EI2587 BLR 2 ESP VOLT 2	EI2588 BLR 2 ESP VOLT 3	HC2378 [illegible] SL CONCEN.	FIC2580 BLR 2 SDA OIL MIR FL
		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
15JUL88	13:00	260.00	55.500	47.875	52.875	40.000	26.000
	14:00	26[illegible].00	41.000	46.375	52.875	40.000	27.313
	15:00	256.00	57.250	46.000	53.000	40.000	26.750
	16:00	252.00	59.625	49.500	53.625	51.375	19.625
	17:00	253.00	43.000	48.500	54.625	51.375	19.313
	18:00	252.50	46.500	46.875	54.000	51.375	15.938
	19:00	252.50	43.625	47.[illegible]	54.750	51.375	15.625
	20:00	253.00	55.750	47.125	54.375	51.375	13.875
	21:00	253.50	60.250	50.375	54.875	51.375	14.031
	22:00	252.50	62.125	49.000	54.625	43.750	14.938
	23:00	254.00	58.875	49.625	55.000	43.750	16.188
16JUL88	00:00	252.50	56.625	49.625	54.625	43.750	16.375
	01:00	253.00	59.375	51.000	55.000	43.750	16.781
	02:00	253.00	52.750	50.750	55.375	43.750	15.938
	03:00	253.00	58.125	50.750	55.875	43.750	17.250
	04:00	251.00	55.375	48.750	55.375	43.750	15.531
	05:00	252.00	57.500	48.375	55.625	43.750	15.938
	06:00	251.00	56.125	48.375	54.000	43.750	14.188
	07:00	251.00	56.500	49.750	54.875	43.750	13.625
	08:00	251.50	53.125	49.875	56.500	43.750	13.156
	09:00	252.00	54.875	50.375	55.125	50.500	12.594
	10:00	251.50	54.500	50.375	54.625	43.750	14.594
	11:00	251.00	40.875	49.375	55.625	43.750	15.313
	12:00	250.00	41.750	49.375	55.125	44.125	14.531

APPENDIX I.

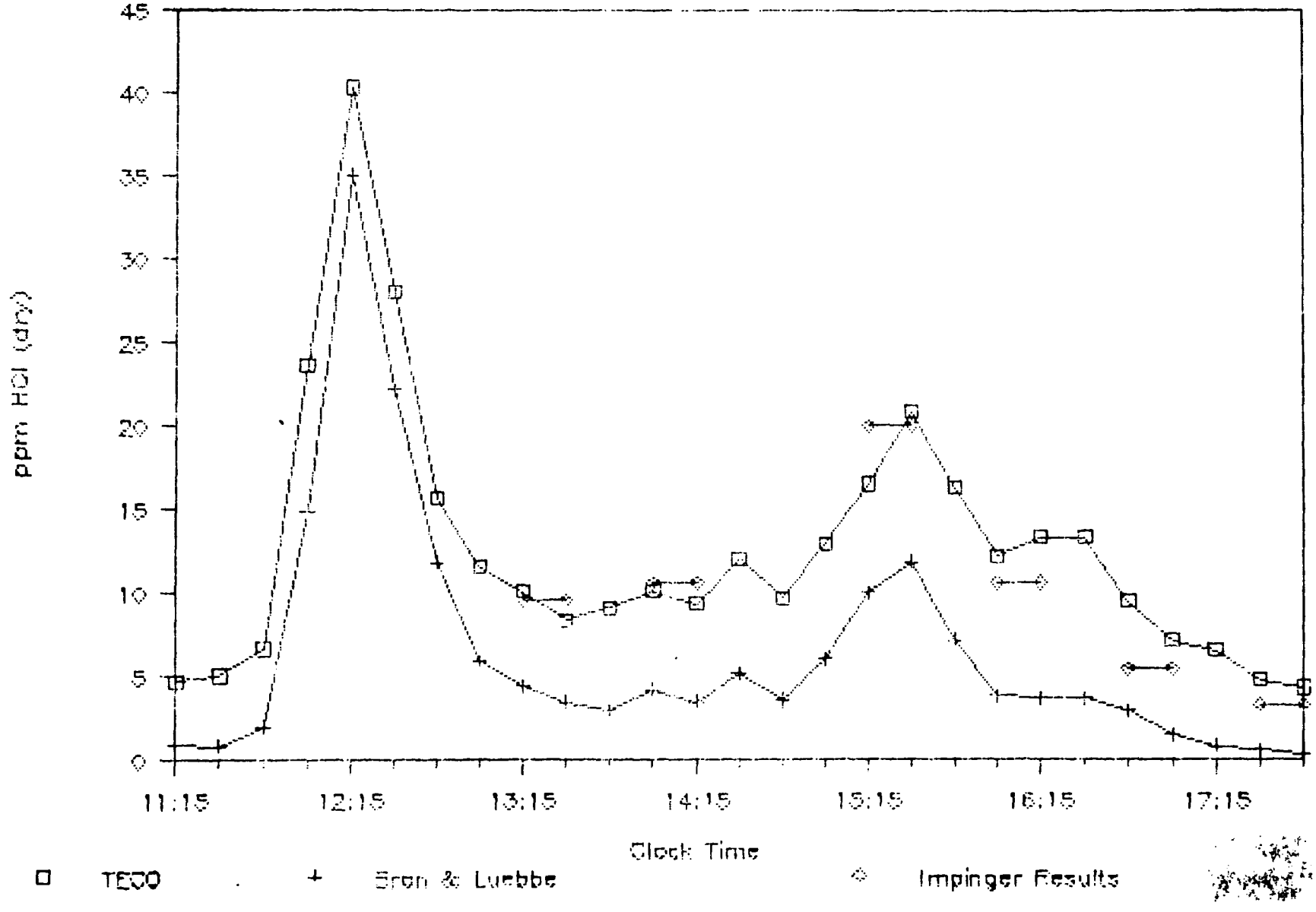
Process Data

15JUL88 FRIDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	T12024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	T12021C BLR 2 AVG SUP OUTGAS	P12039 BLR 2 SDA INLET GAS	P12375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	T12024 SMP DEG F	AIC2064 SMP %	T12021C SMP DEG F	P12039 SMP "H2O	P12375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
14JUL88	13:00	188.50	4.6719	12.188	25.688	99.250	9.8750	974.00	-2.000	-3.758	442.00	270.00
	14:00	187.50	4.6719	12.156	26.063	101.25	9.3750	978.00	-1.902	-3.508	439.00	257.00
	15:00	190.00	3.8125	12.750	25.625	99.500	9.5313	982.00	-2.211	-4.141	451.00	256.00
	16:00	181.00	3.8125	11.438	26.625	98.000	10.656	970.00	-2.328	-4.328	451.00	262.00
	17:00	188.50	3.8125	12.938	24.938	97.500	8.9063	936.00	-1.512	-2.961	431.00	266.00
	18:00	189.00	3.8125	12.281	26.125	94.000	8.6563	986.00	-1.664	-3.078	429.00	259.00
	19:00	192.50	2.8125	11.844	26.188	91.500	10.5938	992.00	-1.758	-3.109	432.00	262.00
	20:00	190.50	2.6954	12.500	26.375	88.500	9.2500	1014.0	-1.676	-3.320	439.00	255.00
	21:00	191.00	3.8125	12.656	25.813	87.000	8.4688	1005.0	-1.750	-3.305	432.00	252.50
	22:00	188.50	2.6954	12.469	25.875	84.250	8.5938	1006.0	-1.641	-3.234	434.00	256.00
	23:00	186.50	2.6954	12.281	26.125	83.500	9.7500	1000.0	-1.852	-3.602	436.00	255.50
15JUL88	00:00	190.00	0.0000	13.000	25.875	82.500	8.8438	1000.0	-1.918	-3.578	440.00	254.50
	01:00	191.50	2.6954	13.063	25.813	81.750	9.0000	1008.0	-1.914	-3.649	440.00	255.50
	02:00	189.00	0.0000	12.156	26.188	82.500	8.9375	1010.0	-1.863	-3.406	433.00	248.50
	03:00	190.00	2.6954	12.969	26.188	82.500	9.1250	1014.0	-2.188	-3.797	436.00	253.00
	04:00	191.00	2.6954	12.375	25.875	81.500	9.3438	1008.0	-1.738	-3.367	440.00	252.50
	05:00	190.00	0.0000	13.625	26.125	82.000	8.9063	1016.0	-1.867	-3.336	435.00	253.00
	06:00	188.50	0.0000	11.625	26.063	81.250	9.4688	1012.0	-1.750	-3.234	437.00	256.00
	07:00	190.50	0.0000	12.531	25.813	82.750	9.1250	1008.0	-1.832	-3.219	431.00	255.00
	08:00	190.00	0.0000	12.594	25.938	84.500	9.5313	1004.0	-1.867	-3.492	434.00	254.00
	09:00	189.50	0.0000	12.156	26.125	84.500	9.6875	1000.0	-2.352	-4.406	457.00	276.00
	10:00	191.50	0.0000	12.125	25.750	88.750	9.7500	1002.0	-1.949	-3.477	440.00	263.00
	11:00	182.00	0.0000	12.938	25.250	89.250	10.344	1006.0	-2.086	-3.934	442.00	256.00
	12:00	195.00	0.0000	12.125	26.063	92.750	9.1875	1012.0	-1.803	-3.641	452.00	268.00

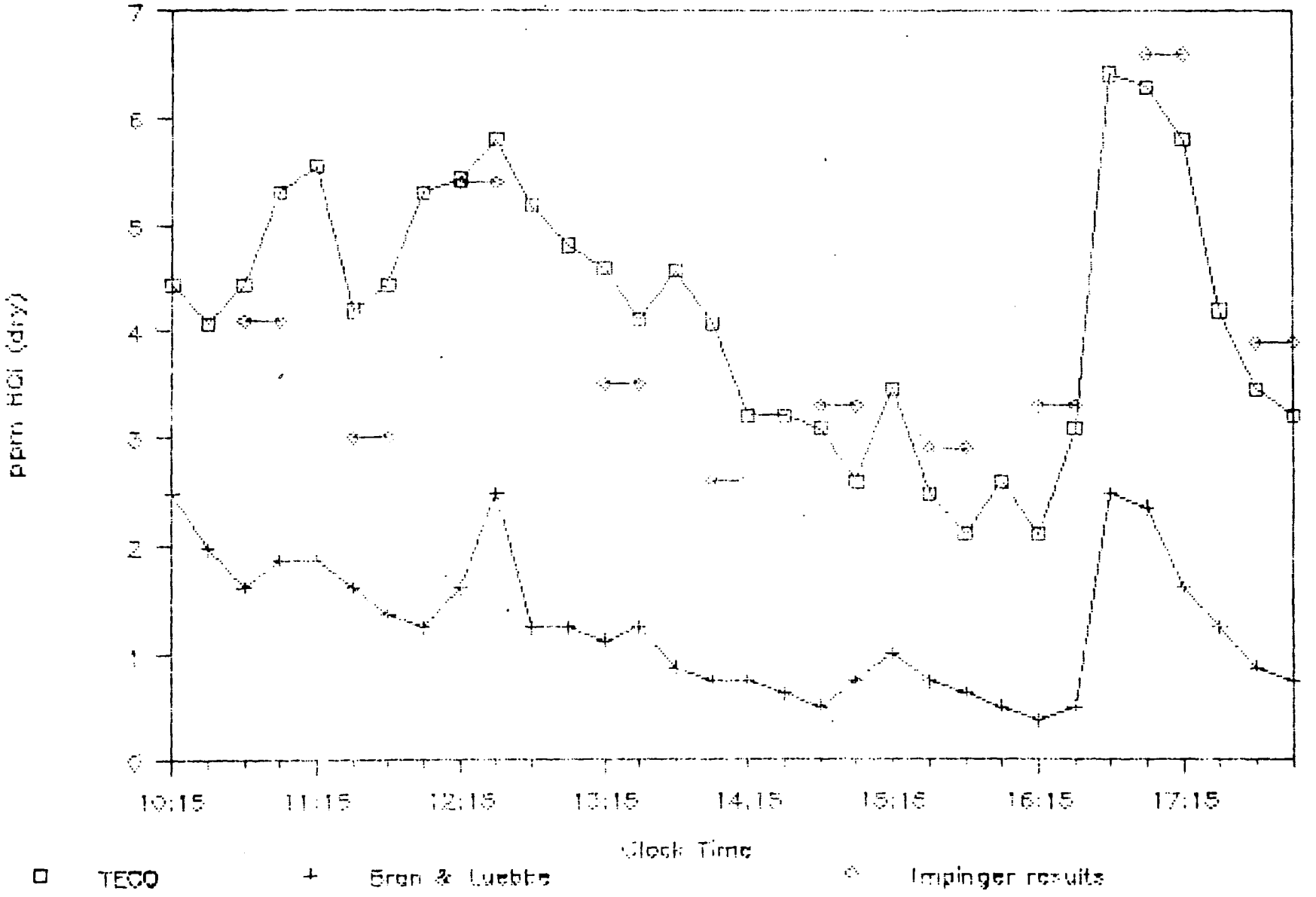
HCl OUTLET CONCENTRATIONS — 9/16/88

Wheelabrator Millbury — Unit 2



HCl OUTLET CONCENTRATIONS -- 9/15/88

Wheelabrator Millbury -- Unit 2



20JUL88 WEDNESDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP OUT TEMP	BLR 2	EI2587 ESP VOLT 2	BLR 2	HC2378 SL CONCEN.	LIME
		EI2586 ESP VOLT 1	BLR 2	EI2588 ESP VOLT 3	BLR 2	FIC2580 SDA DIL WTR FL	BLR 2
		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
19JUL88	13:00	255.00	54.500	48.625	54.250	40.000	27.375
	14:00	262.00	53.375	47.750	55.000	40.000	27.313
	15:00	257.50	51.375	47.125	54.000	40.000	19.688
	16:00	251.50	58.375	48.250	54.250	30.063	27.438
	17:00	250.00	59.250	49.500	54.500	30.063	26.750
	18:00	251.50	60.125	47.875	55.375	30.063	26.000
	19:00	252.00	56.500	49.500	55.625	30.063	20.625
	20:00	252.50	59.125	49.250	55.750	30.063	20.375
	21:00	252.50	58.500	51.375	56.000	40.250	18.188
	22:00	252.00	55.250	50.750	56.250	40.250	18.000
	23:00	252.50	56.875	50.250	56.250	40.250	17.625
20JUL88	00:00	253.00	53.750	49.375	56.500	40.250	23.063
	01:00	251.50	50.000	53.000	54.125	40.250	17.688
	02:00	252.50	50.375	52.000	55.625	40.250	18.438
	03:00	252.50	55.750	48.125	53.750	40.250	22.875
	04:00	251.50	55.250	47.625	54.000	40.250	19.625
	05:00	252.50	42.375	50.250	54.500	40.250	23.375
	06:00	252.50	57.500	42.250	54.750	40.250	27.375
	07:00	251.00	57.500	48.375	55.250	40.250	22.125
	08:00	251.50	59.750	49.625	55.375	40.250	25.688
	09:00	250.50	54.375	47.125	54.375	47.250	22.250
	10:00	260.00	41.125	47.125	52.750	40.250	27.063
	11:00	251.50	45.500	46.250	52.375	40.250	24.688
	12:00	251.00	57.250	45.625	52.375	40.250	24.250

19JUL88 TUESDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

	FI2002B BLR.2 TOTAL STM FLOW	FI153 BLR.2 NAT GAS FLOW	PIC2028 BLR.2 PRI AIR PRESS	PIC2026 BLR.2 SEC AIR PRESS	TI2024 BLR.2 UNDERGRATE AIR	AIC2064 BLR.2 O2	TI2021C BLR.2 AVG SUP OUTGAS	PI2039 BLR.2 SDA INLET GAS	PI2375 BLR.2 PRECIP OUT PR	TR2040 BLR.2 FLUE GAS OUT	TIC2551 BLR.2 SDA GAS OUT TMP
	FI2002B SMP KLB/HR	FI153 SMP KSLLH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
19JUL88 13:00	[illegible]	3.8125	12.344	26.250	101.75	9.1250	[illegible]	-1.461	-2.[illegible]	415.00	255.50
14:00	162.50	4.6719	12.375	26.813	101.25	10.063	[illegible]	-1.703	-3.055	427.00	253.50
15:00	167.50	4.6719	12.356	26.[illegible]	101.75	8.5938	1000.0	-1.524	-2.641	422.00	257.00
16:00	157.50	4.6719	11.750	26.438	103.00	10.813	988.00	-1.711	-3.031	418.00	258.00
17:00	169.50	3.8125	12.031	25.813	102.50	9.3125	996.00	-1.547	-2.805	419.00	256.00
18:00	151.50	5.3907	12.500	26.689	100.75	12.500	974.00	-1.738	-3.031	420.00	258.00
19:00	166.00	4.6719	13.031	25.188	98.750	7.7969	994.00	-1.469	-2.750	418.00	259.00
20:00	167.50	3.8125	12.406	26.000	95.000	8.3750	1002.0	-1.375	-2.586	408.00	254.50
21:00	166.50	4.6719	13.000	25.750	90.500	8.3750	1002.0	-1.503	-2.750	413.00	253.00
22:00	163.50	2.6954	12.688	25.125	87.500	7.7032	994.00	-1.477	-2.883	421.00	256.00
23:00	161.00	3.8125	13.063	26.125	87.750	9.7188	998.00	-1.652	-2.844	409.00	257.00
19JUL88 00:00	163.50	3.8125	12.438	25.375	86.250	9.7500	1000.0	-1.531	-2.813	415.00	257.00
01:00	164.50	2.6954	11.938	24.375	84.750	10.688	1010.0	-1.624	-2.891	421.00	253.00
02:00	166.00	2.6954	12.281	25.625	84.000	9.8688	1008.0	-1.348	-2.602	417.00	256.00
03:00	165.50	2.6954	12.500	26.188	82.750	9.0000	1000.0	-1.574	-2.820	419.00	254.50
04:00	165.50	0.0000	11.406	25.875	82.500	9.0625	1012.0	-1.473	-2.711	416.00	253.50
05:00	166.00	2.6954	12.594	25.938	80.750	9.2188	1000.0	-1.672	-3.133	427.00	255.00
06:00	162.50	0.0000	11.344	26.563	80.750	10.094	1000.0	-.9825	-2.477	419.00	253.00
07:00	163.50	0.0000	11.531	25.688	81.750	9.1875	1006.0	-1.563	-2.984	419.00	252.50
08:00	183.00	0.0000	12.000	25.875	85.500	9.5625	1036.0	-1.637	-3.172	432.00	255.50
09:00	194.00	2.6954	13.250	26.125	82.250	9.2500	1024.0	-1.836	-3.422	445.00	252.00
10:00	18[illegible].50	2.6954	12.906	26.125	84.250	9.4063	1029.0	-1.785	-3.477	442.00	252.00
11:00	186.50	2.6954	12.281	26.188	86.000	10.625	1044.0	-1.996	-3.602	436.00	251.50
12:00	194.50	0.0000	12.594	26.313	85.000	9.6875	10[illegible].0	-1.793	-3.503	452.00	262.00

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EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 08-19-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
16:54	406.7	1.2
17:00	400.0	1.3
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
17:00	422.4	1.5
17:06	410.5	1.4
17:12	395.0	1.4
17:18	393.8	1.2
17:24	385.7	1.2
17:30	351.4	1.0
17:36	335.6	1.0
17:42	313.9	1.0
17:48	359.2	1.1
17:54	341.1	1.0
18:00	390.0	0.8
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
18:00	367.6	1.1
18:06	400.8	0.8
18:12	374.3	0.7
18:18	345.8	0.8
18:24	361.2	0.8
18:30	420.9	0.9
18:36	422.8	0.8
18:42	435.4	0.8
18:48	478.6	1.1
18:54	474.8	1.2

Run 3 - RAA
1.1 ppmw
1.4 dry

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 08-22-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
16:36	363.0	1.0
16:42	363.1	0.9
16:48	358.8	0.8
16:54	387.5	0.8
17:00	421.4	0.7
AVERAGE VALUES FOR THE LAST HOUR: 34 MINUTES OF VALID DATA		
17:00	378.0	0.9
17:06	439.7	0.7
17:12	443.6	0.8
17:18	419.1	0.7
17:24	525.9	0.7
17:30	560.7	0.9
17:36	576.6	0.9
17:42	526.9	1.5
17:48	482.6	1.7
17:54	463.2	1.3
18:00	463.6	1.2
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
18:00	490.2	1.0
18:06	433.8	1.2
18:12	450.0	1.1
18:18	468.2	0.9
18:24	453.7	1.1
18:30	488.6	1.4
18:36	495.3	2.1

Run 1 - RAA
0.8 ppmw
1.0 dry

Run 2 - RAA
1.4 ppmw
1.7 dry

Run 3 - RAA
1.4 ppmw
1.7 dry

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 08-22-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
18:42	480.6	1.6
18:48	467.2	1.9
18:54	452.1	2.0
19:00	440.5	1.7
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
19:00	463.0	1.5
19:06	418.7	1.7
19:12	414.1	1.5
19:18	418.4	1.4
19:24	412.7	1.3
19:30	420.6	1.3
19:36	450.1	1.3
19:42	472.9	1.9
19:48	476.7	1.8
19:54	463.6	1.5
20:00	463.6	1.1
AVERAGE VALUES FOR THE LAST HOUR. 60 MINUTES OF VALID DATA		
20:00	441.1	1.5
20:06	477.9	1.1
20:12	475.4	1.1
20:18	518.2	1.1
20:24	578.1	1.2
20:30	568.2	2.0
20:36	552.7	1.8
20:42	568.4	1.8

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 08-24-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
12:36	835.3	9.8
12:42	688.0	6.1
12:48	647.9	3.4
12:54	610.2	2.8
13:00	568.2	2.3
AVERAGE VALUES FOR THE LAST HOUR: 32 MINUTES OF VALID DATA		
13:00	684.8	5.6
13:06	523.0	1.6
13:12	531.9	1.2
13:18	463.1	1.4
13:24	481.1	1.0
13:30	453.4	0.9
13:36	445.8	0.9
13:42	404.4	0.7
13:48	390.3	0.7
13:54	372.7	0.4
14:00	409.2	0.3
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
14:00	447.5	0.9
14:06	387.6	0.3
14:12	385.6	0.1
14:18	365.0	0.1
14:24	329.7	0.1
14:30	389.2	0.0
14:36	454.7	0.1

Run 1 - RAA 384.0 ppmw 451.8 dry

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 08-24-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
14:42	514.7	0.1
14:48	530.3	0.2
14:54	560.2	0.3
15:00	543.8	0.4

Run 2 - RAA
498.8 ppmw
595.9 dry

AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA

15:00	446.1	0.2

15:06	496.4	0.6
15:12	500.3	0.5
15:18	475.4	0.2
15:24	437.9	0.3
15:30	448.4	0.3
15:36	434.0	0.2
15:42	429.3	0.1
15:48	451.9	0.1
15:54	403.7	0.1
16:00	425.0	-0.0

Run 3 - RAA
453.9 ppmw
542.9 dry

AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA

16:00	450.2	0.3

16:06	454.3	0.1
16:12	486.0	0.1
16:18	556.5	0.1
16:24	566.7	0.4
16:30	760.9	0.5
16:36	747.3	0.7
16:42	622.7	1.2

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 08-31-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
15:24	443.2	-0.0
15:30	441.0	-0.0
15:36	477.9	-0.0
15:42	496.7	-0.0
15:48	487.1	-0.0
15:54	432.3	-0.0
16:00	408.6	-0.0
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
16:00	451.0	-0.0
16:06	408.9	-0.0
16:12	391.4	-0.0
16:18	449.4	-0.0
16:24	435.2	-0.0
16:30	425.0	-0.0
16:36	472.1	-0.0
16:42	477.5	-0.0
16:48	526.0	0.0
16:54	519.5	0.2
17:00	478.7	0.2
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
17:00	458.4	0.0
17:06	408.8	0.1
17:12	419.1	0.1
17:18	438.6	0.0
17:24	472.8	-0.0

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 08-31-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
17:30	480.0	-0.0
17:36	456.0	-0.0
17:42	490.8	-0.0
17:48	460.5	-0.0
17:54	455.5	-0.0
18:00	469.8	-0.0
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
18:00	455.2	0.0
18:06	540.4	-0.0
18:12	626.7	-0.0
18:18	620.9	-0.0
18:24	566.2	-0.0
18:30	508.7	0.0
18:36	390.9	0.0
18:42	341.8	-0.0
18:48	338.3	-0.0
18:54	364.6	-0.0
19:00	379.9	-0.0
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
19:00	467.9	-0.0
19:06	371.6	-0.0
19:12	452.7	-0.0
19:18	533.2	0.2
19:24	480.3	0.5
19:30	508.0	0.1

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 09-04-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
10:36	770.4	0.9
10:42	690.3	0.8
10:48	631.8	0.7
10:54	560.8	0.5
11:00	565.0	0.5
AVERAGE VALUES FOR THE LAST HOUR: 54 MINUTES OF VALID DATA		
11:00	661.3	0.8
11:06	598.8	0.4
11:12	628.4	0.4
11:18	769.5	0.9
11:24	919.7	1.6
11:30	889.0	1.1
11:36	790.5	1.0
11:42	655.8	1.0
11:48	634.2	1.4
11:54	628.6	1.7
12:00	599.6	1.4
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
12:00	711.4	1.1
12:06	539.5	1.1
12:12	515.6	1.0
12:18	464.5	1.0
12:24	447.8	0.7
12:30	443.3	0.6
12:36	407.1	0.5

Run 1

0.7 ppmw
0.9 ppmd

Run 2

1.3 ppmw
1.6 ppmd

Run 3

0.8 ppmw
1.0 ppmd

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 09-06-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
12:06	338.1	0.4
12:12	333.3	0.3
12:18	354.9	0.3
12:24	360.8	0.3
12:30	344.5	0.3
12:36	370.7	0.4
12:42	356.7	0.4
12:48	404.3	0.4
12:54	410.0	0.4
13:00	404.6	0.4
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
13:00	367.8	0.4
13:06	502.0	0.5
13:12	441.1	0.5
13:18	494.4	0.5
13:24	447.5	0.5
13:30	500.0	0.5
13:36	451.8	0.5
13:42	453.4	0.6
13:48	445.3	0.7
13:54	499.8	0.7
14:00	466.4	0.7
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
14:00	470.2	0.6
14:06	474.6	0.6

Run 1 0.5 ppmw 0.6 ppmd

Run 2 0.6 ppmw 0.7 ppmd

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 09-06-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
14:12	443.4	0.6
14:18	518.3	0.5
14:24	494.6	0.7
14:30	459.3	0.6
14:36	439.8	0.7
14:42	431.5	0.8
14:48	413.2	0.8
14:54	380.7	0.7
15:00	398.6	0.7
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
15:00	445.4	0.7
15:06	420.4	0.7
15:12	449.9	0.6
15:18	431.8	0.7
15:24	488.9	0.8
15:30	421.2	0.8
15:36	429.8	0.8
15:42	410.4	0.8
15:48	422.1	0.8
15:54	439.2	0.7
16:00	426.4	0.7
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
16:00	434.0	0.7
16:06	450.6	0.6
16:12	428.7	0.6

Run 3

0.6 ppmw
0.8 ppmd

APPENDIX H.

Bran & Luebbe Ecometer Additional Information

HCl OUTLET EMISSIONS
Reference Method vs. Bran & Luebbe
9/15-16/88

DATE	X	Y	XY	X2
9/15/88	4.1	1.6	6.56	16.81
	4.1	1.9	7.79	16.81
	3	1.6	4.8	9
	3	1.4	4.2	9
	5.4	1.6	8.64	29.16
	5.4	2.5	13.5	29.16
	3.5	1.1	3.85	12.25
	3.5	1.2	4.2	12.25
	2.6	0.7	1.82	6.76
	2.6	0.7	1.82	6.76
	3.3	0.5	1.65	10.89
	3.3	0.7	2.31	10.89
	2.9	0.7	2.03	8.41
	2.9	0.6	1.74	8.41
	3.3	0.4	1.32	10.89
	3.3	0.5	1.65	10.89
	6.6	2.3	15.18	43.56
	6.6	1.6	10.56	43.56
	3.9	0.9	3.51	15.21
	3.9	0.7	2.73	15.21
9/16/88	9.6	4.4	42.24	92.16
	9.6	3.5	33.6	92.16
	10.6	4.2	44.52	112.36
	10.6	3.5	37.1	112.36
	20	10	200	400
	20	11.9	238	400
	10.7	3.8	40.66	114.49
	10.7	3.7	39.59	114.49
	5.5	3	16.5	30.25
	5.5	1.5	8.25	30.25
	3.3	0.6	1.98	10.89
	3.3	0.4	1.32	10.89

Linear Regression Solution

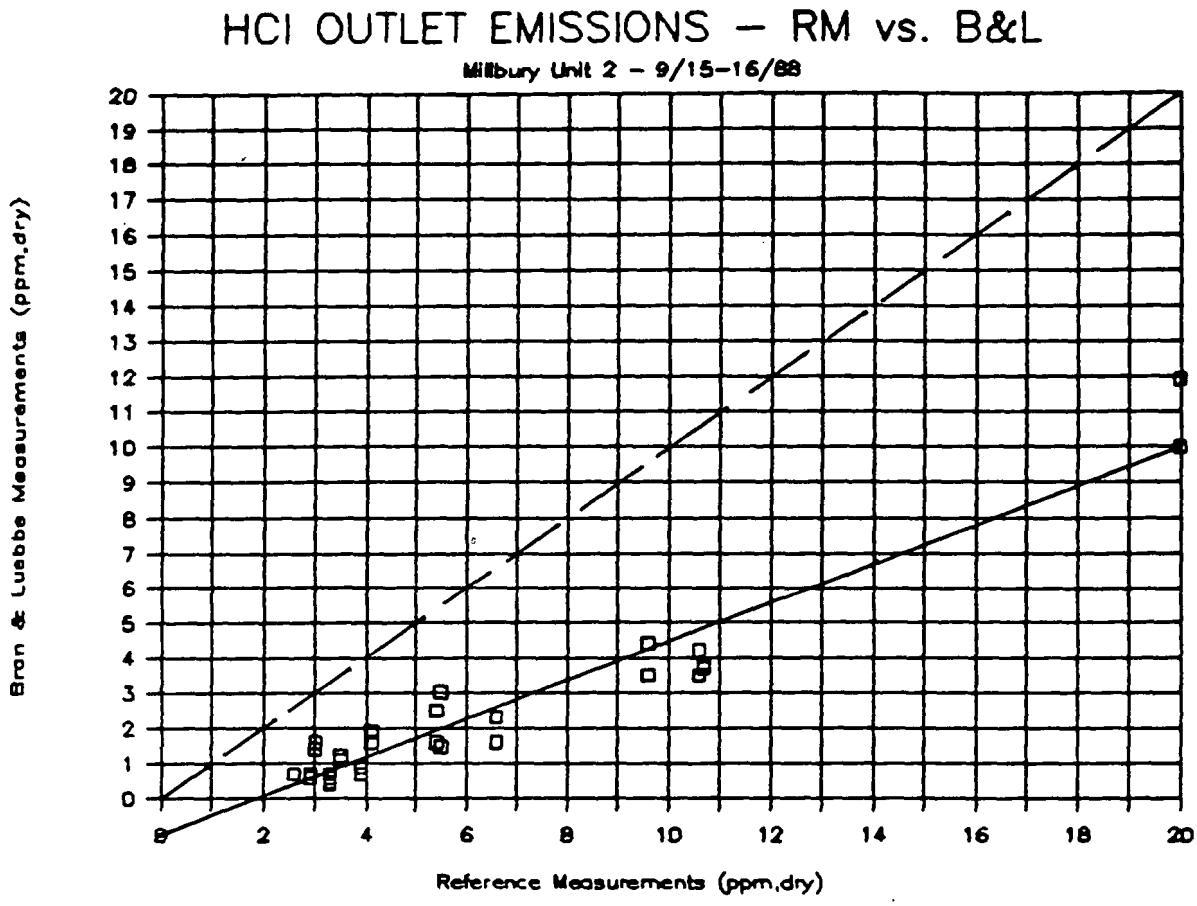
Σx =	196.6
Σy =	73.7
Σxy =	803.62
Σx2 =	1846.18
(Σx)2 =	38651.56
N =	32
m =	0.549608
b =	-1.07353
R =	0.963854

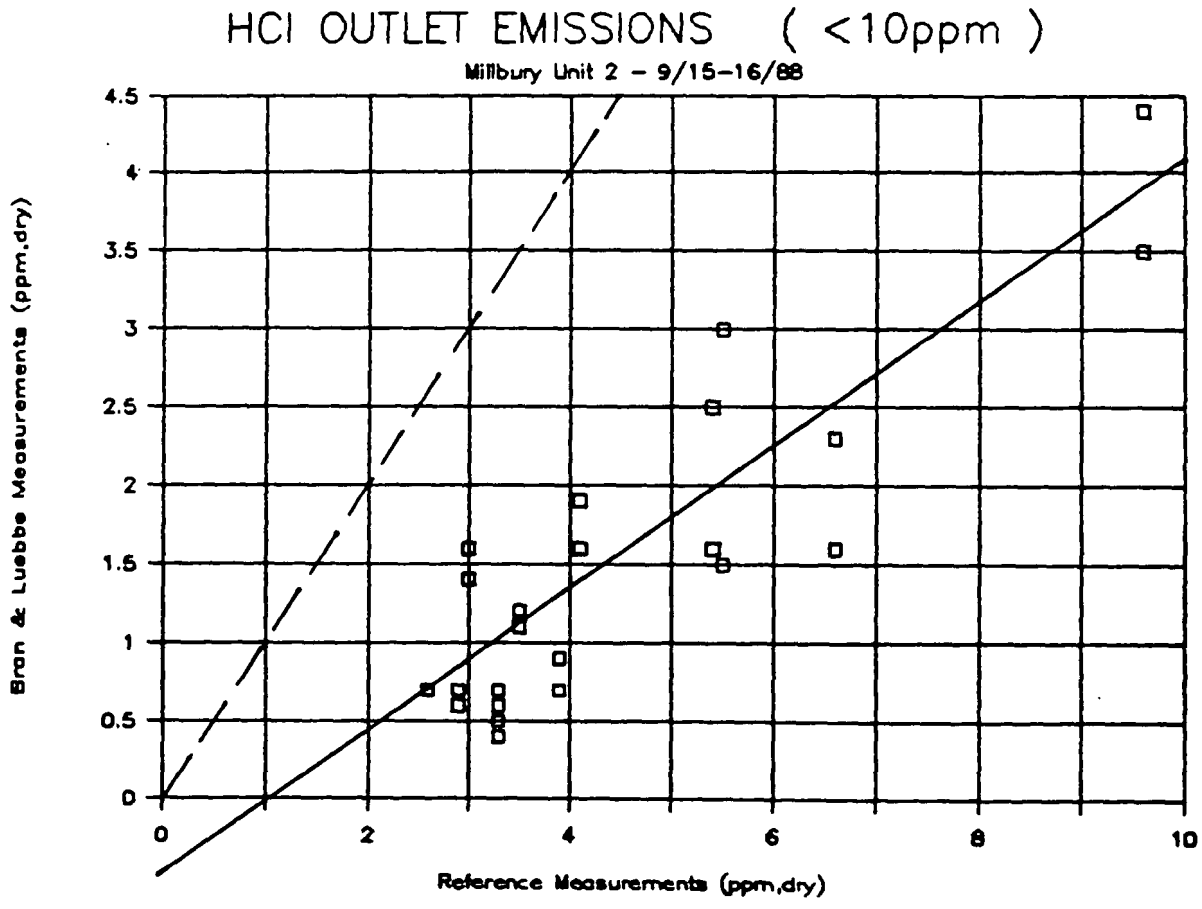
HCl OUTLET EMISSIONS (<10ppm)
Reference Method vs. Bran & Luebbe
9/15-16/88

DATE	X	Y	XY	X2
9/15/88	4.1	1.6	6.56	16.81
	4.1	1.9	7.79	16.81
	3	1.6	4.8	9
	3	1.4	4.2	9
	5.4	1.6	8.64	29.16
	5.4	2.5	13.5	29.16
	3.5	1.1	3.85	12.25
	3.5	1.2	4.2	12.25
	2.6	0.7	1.82	6.76
	2.6	0.7	1.82	6.76
	3.3	0.5	1.65	10.89
	3.3	0.7	2.31	10.89
	2.9	0.7	2.03	8.41
	2.9	0.6	1.74	8.41
	3.3	0.4	1.32	10.89
	3.3	0.5	1.65	10.89
	6.6	2.3	15.18	43.56
	6.6	1.6	10.56	43.56
	3.9	0.9	3.51	15.21
	3.9	0.7	2.73	15.21
9/16/88	9.6	4.4	42.24	92.16
	9.6	3.5	33.6	92.16
	5.5	3	16.5	30.25
	5.5	1.5	8.25	30.25
	3.3	0.6	1.98	10.89
	3.3	0.4	1.32	10.89

Linear Regression Solution

Σx =	114
Σy =	36.6
Σxy =	203.75
Σx2 =	592.48
(Σx)2 =	12996
N =	26
m =	0.467141
b =	-0.64054
R =	0.879413


HCl OUTLET EMISSIONS – RM vs. B&L
Millbury Unit 2 – 9/15-16/88
Bran & Luebbe Measurements (ppm,dry)
Reference Measurements (ppm,dry)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
0
2
4
6
8
10
12
14
16
18
20


HCl OUTLET EMISSIONS (<10ppm)
Millbury Unit 2 – 9/15-16/88
Bran & Luebbe Measurements (ppm,dry)
Reference Measurements (ppm,dry)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
0
2
4
6
8
10

RELATIVE ACCURACY CALCULATION SUMMARY

PLANT NAME: Wheelabrator Millbury - Unit 2 TEST DATE: 9/15/88

TYPE OF MONITOR: Bran & Luebbe Ecometer

COMPARISON: DRY BASIS REFERENCE VERSUS DRY BASIS SOURCE

RUN	TIME	--REFERENCE-- HCl (ppm)	--MONITOR-- HCl (ppm)	--DIFFERENCE-- HCl (ppm)
1	11:15 - 11:45	3.0	1.5	-1.5
2	12:00 - 12:30	5.4	2.1	-3.3
3	13:00 - 13:30	3.5	1.2	-2.3
4	13:45 - 14:15	2.6	0.7	-1.9
5	14:30 - 15:00	3.1	0.6	-2.5
6	15:15 - 15:45	2.9	0.7	-2.2
7	16:00 - 16:30	3.3	0.5	-2.8
8	16:45 - 17:15	6.6	2.0	-4.6
9	17:30 - 18:00	3.9	0.8	-3.1
	AVERAGE:	3.8	1.1	-2.7

RELATIVE ACCURACY CALCULATION SUMMARY

PLANT NAME: Wheelabrator Millbury - Unit 2 TEST DATE: 9/16/88

TYPE OF MONITOR: Bran & Luebbe Ecometer

COMPARISON: DRY BASIS REFERENCE VERSUS DRY BASIS SOURCE

RUN	TIME	--REFERENCE-- HCl (ppm)	--MONITOR-- HCl (ppm)	--DIFFERENCE-- HCl (ppm)
1	13:00 - 13:30	9.5	4.0	-5.5
2	13:45 - 14:15	10.5	3.9	-6.6
3	15:00- - 15:3	20.0	11.0	-9.0
4	15:45 - 16:15	10.7	3.8	-6.9
5	16:30 - 17:00	5.5	2.3	-3.2
6	17:15 - 17:45	3.3	0.5	-2.8
	AVERAGE:	9.9	4.3	-5.6

21JUL88 THURSDAY ENTROPY TEST LOG NO. 1 - BLR. 2 [illegible] LOG 18 COLLECTION COMPLETED 12:01

	FI2008 BLR 2 TOTAL STM FLOW		PIC2028 BLR 2 PRI AIR PRESS		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AVG SUP OUTGAS		PI2375 BLR 2 PRECIP OUT PR		TIC2551 BLR 2 SDA GAS OUT TMP
	FI2153 BLR 2 NAT GAS FLOW		PIC2026 BLR 2 SEC AIR PRESS		AIC2064 BLR 2 O2		PI2039 BLR 2 SDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT		
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	KLB/HR	KSCFH	"H2O	"H2O	DEG F	%	DEG F	"H2O	"H2O	DEG F	DEG F
20JUL88 13:00	180.50	0.0000	12.281	27.063	90.600	9.9063	1016.0	-2.203	-4.188	446.00	263.00
14:00	194.50	0.0000	12.594	25.500	88.750	7.6719	1032.0	-2.016	-3.719	449.00	253.00
15:00	192.50	0.0000	11.813	26.250	89.250	9.3438	1032.0	-1.707	-3.258	445.00	248.50
16:00	186.00	0.0000	11.906	26.000	88.250	9.5000	1030.0	-1.863	-3.407	445.00	260.00
17:00	148.50	0.0000	13.188	26.813	87.250	10.594	976.00	-1.551	-2.750	437.00	235.50
18:00	182.50	0.0000	12.844	25.813	87.500	10.281	1040.0	-2.117	-3.633	427.00	253.00
19:00	179.00	0.0000	13.094	26.188	87.000	8.9375	1024.0	-1.793	-3.242	429.00	255.00
20:00	162.00	0.0000	12.313	26.313	85.750	8.7813	984.00	-1.606	-2.945	420.00	258.00
21:00	164.50	0.0000	13.281	25.563	84.500	9.4688	1000.0	-1.727	-3.031	417.00	253.00
22:00	163.00	0.0000	12.750	26.875	83.750	9.6250	996.00	-1.797	-3.274	420.00	254.50
23:00	169.50	0.0000	11.125	26.500	83.250	10.750	1004.0	-1.711	-3.047	420.00	253.00
21JUL88 00:00	175.00	0.0000	11.375	26.000	82.500	9.4063	10[illegible].0	-1.752	-3.211	423.00	254.00
01:00	165.00	0.0000	12.313	25.813	81.000	9.4688	1004.0	-1.895	-3.445	426.00	252.50
02:00	169.00	0.0000	12.719	25.688	81.250	8.2813	1010.0	-1.352	-2.649	422.00	255.00
03:00	170.00	0.0000	11.625	25.188	80.250	9.5938	1012.0	-1.734	-2.953	424.00	252.00
04:00	162.50	0.0000	12.219	25.438	79.000	10.219	990.00	-1.879	-3.422	426.00	256.00
05:00	165.00	0.0000	13.156	26.375	78.750	8.0938	988.00	-1.852	-3.258	424.00	256.00
06:00	157.00	0.0000	12.156	26.625	77.750	11.344	990.00	-2.258	-3.828	429.00	255.00
07:00	180.50	0.0000	14.063	26.188	77.500	8.1875	1018.0	-2.008	-3.586	434.00	256.00
08:00	185.50	0.0000	11.875	25.500	77.750	10.125	1022.0	-2.359	-4.281	446.00	251.00
09:00	179.50	0.0000	12.406	25.875	75.250	11.313	1000.0	-3.141	-5.672	458.00	270.00
10:00	190.50	0.0000	13.188	26.000	78.250	10.813	1023.0	-2.375	-4.047	448.00	254.00
11:00	187.00	0.0000	10.813	26.688	77.750	9.8125	1024.0	-1.836	-3.625	449.00	272.00
12:00	194.50	0.0000	13.063	26.063	75.750	9.8125	1008.0	-2.430	-4.500	464.00	284.00

22JUL88 FRIDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

	FI2008B BLR 2 TOTAL STM FLOW		PIC2028 BLR 2 PRI AIR PRESS		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AVG SUP OUTGAS		PI2375 BLR 2 PRECIP OUT PR		TIC2551 BLR 2 SDA GAS OUT TM
	FI2[illegible] BLR 2 NAT GAS FLOW		PIC2026 BLR 2 SEC AIR PRESS		AIC2064 BLR 2 O2		TI2[illegible] BLR 2 SDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT		
	FI2008B SMP	FI2153 SMP	PIC2028 SMP	PIC2026 SMP	TI2024 SMP	AIC2064 SMP	TI2021C SMP	PI2039 SMP	PI2375 SMP	TR2040 SMP	TIC2551 SMP
	KLB/HR	KSCFH	"H2O	"H2O	DEG F	%	DEG F	"H2O	"H2O	DEG F	DEG F
21JUL88 13:00	187.00	0.0000	12.250	26.438	78.000	10.688	1032.0	-2.313	-4.078	445.00	255.00
14:00	183.00	0.0000	12.219	25.563	77.750	10.188	1024.0	-2.352	-4.328	446.00	260.00
15:00	195.00	0.0000	11.781	26.375	76.750	11.125	1040.0	-1.961	-3.695	455.00	270.00
16:00	180.50	0.0000	11.500	26.375	76.500	11.156	1022.0	-2.422	-4.484	450.00	253.50
17:00	182.50	0.0000	12.281	25.375	75.250	10.625	1022.0	-2.274	-4.281	451.00	255.50
18:00	182.00	0.0000	12.906	26.563	74.000	9.8750	1016.0	-2.117	-4.328	451.00	254.50
19:00	162.00	0.0000	11.[illegible]	26.500	74.250	9.9688	982.00	-1.379	-3.508	431.00	255.50
20:00	166.50	0.0000	12.438	26.500	75.750	10.188	9[illegible].00	-1.500	-2.914	424.00	249.50
21:00	166.50	0.0000	12.250	26.188	74.500	9.6563	9[illegible].00	-1.625	-3.039	430.00	246.50
22:00	163.00	0.0000	12.094	25.500	74.750	9.4063	9[illegible].00	-1.570	-3.164	422.00	258.00
23:00	167.50	0.0000	11.875	25.188	76.500	9.4375	1004.0	-1.449	-2.680	414.00	256.00
22JUL88 00:00	164.50	0.0000	12.250	26.750	75.000	10.406	990.00	-1.797	-3.172	421.00	257.00
01:00	166.00	0.0000	12.438	25.375	76.000	9.1250	1004.0	-1.574	-3.016	418.00	279.00
02:00	170.50	0.0000	12.094	25.188	75.500	9.6875	1012.0	-1.637	-2.930	419.00	297.00
03:00	162.50	0.0000	13.219	25.063	75.250	10.313	998.00	-1.961	-3.445	417.00	291.00
04:00	163.00	0.0000	12.688	26.563	75.250	10.156	1002.0	-1.932	-3.524	415.00	288.00
05:00	166.00	0.0000	12.013	25.000	74.750	9.4063	1002.0	-1.660	-3.094	419.00	296.00
06:00	162.50	0.0000	12.594	26.188	74.000	10.250	994.00	-1.824	-3.461	420.00	300.00
07:00	182.50	0.0000	12.688	26.000	74.000	8.7500	1020.0	-1.731	-3.422	430.00	301.00
08:00	1[illegible].00	0.0000	12.969	25.500	75.500	10.625	1022.0	-1.863	-3.727	435.00	302.00
09:00	1[illegible].00	0.0000	13.031	25.688	74.750	10.500	1020.0	-2.039	-3.906	447.00	298.00
10:00	1[illegible].00	0.0000	12.594	26.188	76.000	10.031	1016.0	-2.141	-4.156	450.00	297.00
11:00	1[illegible].00	0.0000	11.688	26.[illegible]00	76.750	10.281	1024.0	-2.180	-4.063	450.00	298.00
12:00	17[illegible].00	0.0000	11.812	25.875	77.750	11.563	9[illegible].00	-2.633	-5.125	459.00	301.00

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22JUL88 FRIDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

	TI2376 BLR 2	EI2587 BLR 2	HC2378 LINE			
	PRECIP OUT TEMP	ESP VOLT 2	SL CONCEN.			
	EI2586 BLR 2	EI2588 BLR 2	FIC2580 BLR 2			
	ESP VOLT 1	ESP VOLT 3	SDA DIL WTR FL			
	TI2376 SMP	EI2586 SMP	EI2587 SMP	EI2588 SMP	HC2378 SMP	FIC2580 SMP
	DEG F	KV	KV	KV		GPM
21JUL88 13:00	252.50	54.625	49.250	53.875	30.063	31.500
14:00	251.00	50.125	49.125	54.000	30.063	31.750
15:00	261.00	52.250	46.375	53.250	35.000	29.500
16:00	254.00	44.750	49.375	53.625	35.000	29.313
17:00	254.00	51.750	46.375	53.125	35.000	29.375
18:00	254.00	53.125	47.375	53.125	35.000	29.250
19:00	252.50	55.500	45.750	53.500	35.000	24.813
20:00	250.50	57.500	47.000	53.500	35.000	20.250
21:00	249.00	57.125	46.625	53.750	35.000	22.563
22:00	250.50	53.500	47.750	54.000	35.000	21.500
23:00	250.50	57.750	49.000	53.625	35.000	19.813
22JUL88 00:00	250.00	56.125	48.000	54.125	40.000	20.500
01:00	269.00	52.750	50.750	54.250	40.000	14.531
02:00	286.00	51.750	49.500	53.750	62.000	9.2500
03:00	282.00	50.000	49.375	53.250	40.000	14.688
04:00	284.00	53.875	50.125	53.875	40.000	14.281
05:00	290.00	50.750	49.750	54.250	40.000	14.281
06:00	291.00	54.375	49.375	54.375	64.000	8.3125
07:00	292.00	50.875	48.750	54.375	54.375	12.438
08:00	291.00	53.875	51.625	54.000	66.750	9.6563
09:00	291.00	52.625	52.000	53.250	40.000	21.688
10:00	291.00	49.250	52.000	53.875	40.000	21.688
11:00	290.00	54.500	51.500	58.125	40.000	20.313
12:00	291.00	51.750	51.875	53.125	40.000	25.688

23JUL88 SATURDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 BLR 2 FEED WATER INPUT TEMP	EI2586 BLR 2 ECON VOLT 1	EI2587 BLR 2 ECON VOLT 2	EI2589 BLR 2 ECON VOLT 3	HC2378 BLR 2 SI CONTIN. DRA OIL WTR FL	FIC2580 BLR 2 LIME
		TI2376 SMP DEG F	EI2586 SMP MV	EI2587 SMP MV	EI2589 SMP MV	HC2378 SMP	FIC2580 SMP GPM
22JUL88	13:00	289.00	43.000	51.625	58.000	40.000	21.750
	14:00	290.00	55.375	49.375	58.500	40.000	22.125
	15:00	291.00	53.250	53.250	58.250	40.000	22.250
	16:00	291.00	51.500	50.750	58.125	40.000	18.688
	17:00	292.00	52.375	50.000	58.250	61.125	14.656
	18:00	290.00	45.250	49.250	58.750	40.000	24.375
	19:00	290.00	49.250	52.000	58.250	18.000	8.0313
	20:00	291.00	54.375	49.375	58.250	40.000	14.781
	21:00	292.00	52.625	50.000	58.375	63.000	10.875
	22:00	291.00	55.375	52.625	58.750	42.750	15.000
	23:00	295.00	54.875	53.375	58.500	60.000	8.4688
23JUL88	00:00	295.00	48.625	54.625	59.000	65.000	9.4375
	01:00	283.00	55.500	52.125	59.375	40.000	14.813
	02:00	279.00	55.500	54.875	59.625	45.000	13.781
	03:00	264.00	58.500	52.625	59.375	43.500	15.844
	04:00	257.00	54.750	52.875	59.250	45.000	18.063
	05:00	254.50	45.625	53.375	59.250	45.000	19.438
	06:00	253.00	56.250	53.375	59.375	45.000	17.000
	07:00	254.00	55.750	54.375	59.625	45.000	17.188
	08:00	268.00	45.250	52.500	54.500	50.375	-.0401
	09:00	248.00	54.250	53.250	59.250	45.000	13.750
	10:00	255.00	51.375	51.250	58.750	45.000	18.000
	11:00	254.00	46.500	54.000	59.250	45.000	16.250
	12:00	253.50	54.000	53.250	59.250	45.000	20.813

23JUL88 SATURDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

	FI2028 BLR 2 TOTAL SIM FLOW		PIC2028 BLR 2 PRI AIR PRESS		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AVG SUP OUTGAS		PI2375 BLR 2 PRECIP OUT PR		TIC2551 BLR 2 SDA GAS OUT TMP
	FI2153 BLR 2 NAT GAS FLOW		PIC2026 BLR 2 SEC AIR PRESS		AIC2064 BLR 2 O2		PI2039 BLR 2 SDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT		
	FI2028 SMP	FI2153 SMP	PIC2028 SMP	PIC2026 SMP	TI2024 SMP	AIC2064 SMP	TI2021C SMP	PI2039 SMP	PI2375 SMP	TR2040 SMP	TIC2551 SMP
	KLB/HR	KLB/HR	"H2O	"H2O	DEG F	%	DEG F	"H2O	"H2O	DEG F	DEG F
22JUL88 13:00	194.50	0.0000	11.844	25.938	80.750	9.5938	1024.0	-1.762	-3.656	456.00	295.00
14:00	194.00	0.0000	11.500	26.125	81.250	11.750	1016.0	-2.524	-4.553	455.00	291.00
15:00	18[illegible].00	0.0000	12.938	25.875	81.000	9.9063	1016.0	-1.797	-3.836	450.00	298.00
16:00	187.00	0.0000	13.281	26.188	82.000	9.7500	1024.0	-2.313	-4.281	447.00	297.00
17:00	191.00	0.0000	12.750	25.750	81.750	9.1250	1014.0	-2.430	-4.453	454.00	303.00
18:00	194.50	0.0000	13.656	25.750	80.000	8.7500	1006.0	-2.149	-4.219	461.00	303.00
19:00	165.00	0.0000	12.875	25.375	81.250	11.219	988.00	-1.633	-3.203	431.00	301.00
20:00	170.50	0.0000	12.969	26.063	80.500	10.031	995.00	-1.531	-3.055	430.00	295.00
21:00	162.50	0.0000	13.156	26.500	78.750	10.000	981.00	-1.668	-3.453	432.00	302.00
22:00	166.50	0.0000	13.031	26.313	77.750	10.188	986.00	-1.918	-3.492	432.00	296.00
23:00	158.00	0.0000	12.563	26.688	76.750	11.344	986.00	-1.785	-3.570	429.00	299.00
23JUL88 00:00	160.00	0.0000	12.531	25.188	76.250	9.5938	984.00	-1.774	-3.375	425.00	303.00
01:00	169.00	0.0000	13.500	24.438	77.000	8.4375	1000.0	-1.598	-3.070	423.00	277.00
02:00	163.50	0.0000	12.219	26.500	76.750	9.9063	993.00	-1.793	-3.266	423.00	275.00
03:00	165.00	0.0000	11.875	26.125	77.500	8.6875	1002.0	-1.738	-3.016	417.00	265.00
04:00	164.00	0.0000	12.344	26.313	76.250	10.719	994.00	-1.828	-3.297	419.00	255.00
05:00	165.50	0.0000	13.469	25.875	76.250	9.2625	992.00	-1.707	-3.102	425.00	256.00
06:00	167.00	0.0000	12.375	26.188	77.750	9.9688	1000.0	-1.527	-2.828	417.00	254.00
07:00	165.50	0.0000	11.563	25.500	160.50	8.4375	998.00	-1.442	-2.774	414.00	258.00
08:00	110.25	0.0000	12.719	26.375	166.50	11.781	916.00	-1.117	-2.117	390.00	325.00
09:00	162.50	0.0000	12.344	26.063	170.00	10.750	1002.0	-1.386	-2.771	412.00	255.50
10:00	164.50	0.0000	12.031	25.125	169.00	10.344	991.00	-1.477	-2.891	420.00	264.00
11:00	161.00	0.0000	13.594	26.125	170.50	10.344	994.00	-2.141	-3.664	418.00	253.50
12:00	160.50	0.0000	12.250	26.563	166.50	11.688	986.00	-1.852	-3.492	423.00	256.00

24JUL88 SUNDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TIC376 BLR 2 FDP IP OUT TEMP	FI2588 BLR 2 FDP VOLT 1	FI2587 BLR 2 FDP VOLT 2	FI2589 BLR 2 FDP VOLT 3	HC2378 BLR 2 SI CONTEN.	FIC2580 BLR 2 SDA DIL NTRFTI
		TIC376 SMP DEG F	FI2588 SMP TV	FI2587 SMP TV	FI2589 SMP TV	HC2378 SMP	FIC2580 SMP DEM
23JUL88	13:00	254.00	53.125	56.500	59.000	45.000	21.250
	14:00	252.00	57.500	51.375	58.750	45.000	21.250
	15:00	254.00	56.750	52.375	58.250	45.000	22.250
	16:00	252.00	47.000	54.250	59.125	45.000	18.313
	17:00	254.00	41.000	53.750	59.750	45.000	19.563
	18:00	251.50	56.375	53.375	59.250	45.000	16.750
	19:00	251.50	59.250	54.000	59.625	45.000	18.813
	20:00	251.50	59.125	53.875	59.875	45.000	16.875
	21:00	253.00	57.250	55.250	59.750	45.000	15.375
	22:00	254.00	56.125	54.750	59.125	76.250	8.7500
	23:00	254.00	55.875	57.125	60.000	68.250	8.9688
24JUL88	00:00	253.00	57.375	53.250	59.750	45.000	18.938
	01:00	253.00	56.875	52.875	60.000	45.000	17.375
	02:00	252.50	55.375	55.000	60.000	45.000	15.969
	03:00	251.50	57.125	55.000	60.125	46.875	16.375
	04:00	251.00	51.875	55.125	60.000	54.375	15.813
	05:00	250.00	54.375	54.375	60.250	45.000	16.625
	06:00	250.50	54.000	54.125	59.875	40.250	18.313
	07:00	250.50	57.750	55.750	60.125	44.750	17.125
	08:00	250.00	55.125	56.000	60.250	40.250	17.000
	09:00	250.00	55.000	57.500	60.000	40.250	18.000
	10:00	249.50	57.500	55.375	60.375	40.250	18.188
	11:00	251.50	54.875	58.250	59.750	40.250	20.438
	12:00	251.50	55.250	56.250	59.500	40.250	21.625

24JUL88 SUNDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		PI2002B BLR 2 TOTAL STM FLOW		PIC2028 BLR 2 PRI AIR PRESS		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AVG SUP OUT GAS		PI2375 BLR 2 PRELIM OUT GAS		TIC2551 BLR 2 SDA GAS OUT TEMP
		[illegible] BLR 2 MAT GAS FLOW		PIC2026 BLR 2 SEC AIR PRESS		AIC2064 BLR 2 O2		[illegible] BLR 2 SDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT		
		PI2002B SMP	FI2153 SMP	PIC2028 SMP	PIC2026 SMP	TI2024 SMP	AIC2064 SMP	TI2021C SMP	PI2039 SMP	PI2375 SMP	TR2040 SMP	TIC2551 SMP
		MLB/HR	MLB/HR	"H2O	"H2O	DEG F	%	DEG F	"H2O	"H2O	DEG F	DEG F
23JUL88	13:00	152.00	0.0000	12.914	26.[illegible]	167.00	11.406	[illegible]	-1.867	-3.4[illegible]	424.00	258.00
	14:00	164.50	0.0000	12.1[illegible]	26.[illegible]	16[illegible].00	9.7183	[illegible]	-1.8[illegible]	-3.[illegible]	426.00	254.00
	15:00	16[illegible]	0.0000	12.7[illegible]	26.000	165.50	10.[illegible]	964.00	-2.039	-3.586	427.00	255.50
	16:00	164.00	0.0000	12.1[illegible]	26.500	173.50	9.0000	983.00	-1.109	-2.320	412.00	252.00
	17:00	162.50	0.0000	12.156	26.250	170.50	9.7188	980.00	-1.641	-3.063	420.00	255.50
	18:00	170.50	0.0000	12.375	25.875	169.00	9.2188	98[illegible].00	-1.367	-2.695	424.00	257.00
	19:00	164.50	0.0000	12.[illegible]	25.813	171.50	9.[illegible]	[illegible]	-1.715	-2.070	424.00	249.50
	20:00	167.50	0.0000	13.[illegible]	25.[illegible]	171.00	7.[illegible]	[illegible]	-1.[illegible]	-2.[illegible]	41[illegible].00	25[illegible].00
	21:00	166.00	0.0000	12.[illegible]	25.[illegible]	174.00	[illegible]	[illegible]	-1.192	-2.[illegible]	406.00	255.00
	22:00	165.50	0.0000	11.1[illegible]	26.750	172.50	9.1250	1010.0	-1.277	-2.586	409.00	25[illegible].50
	23:00	171.50	0.0000	12.[illegible]94	26.313	175.50	8.4[illegible]75	1003.0	-1.340	-2.399	405.00	255.00
24JUL88	00:00	171.50	0.0000	12.125	26.438	172.00	9.1875	1000.0	-1.453	-2.711	415.00	251.00
	01:00	170.00	0.0000	13.219	25.938	168.50	9.8438	1003.0	-1.555	-2.875	414.00	259.00
	02:00	168.00	0.0000	13.219	25.688	169.50	9.7183	1012.0	-1.633	-2.85[illegible]	411.00	255.00
	03:00	166.50	0.0000	12.813	25.313	167.50	10.281	1000.0	-1.848	-3.328	418.00	258.00
	04:00	161.50	0.0000	12.[illegible]	26.438	166.00	9.5[illegible]	99[illegible].00	-1.711	-3.133	419.00	251.00
	05:00	164.00	0.0000	10.[illegible]	26.188	162.50	9.[illegible]750	100[illegible].0	-1.481	-2.672	412.00	253.00
	06:00	171.00	0.0000	11.750	25.[illegible]	169.00	9.1250	100[illegible].0	-1.680	-2.953	415.00	255.50
	07:00	169.50	0.0000	13.594	25.500	169.00	9.4688	1010.0	-1.547	-2.906	415.00	254.00
	08:00	170.50	0.0000	12.313	26.183	169.00	9.5313	1012.0	-1.445	-2.641	417.00	256.00
	09:00	1[illegible].50	0.0000	11.[illegible]	26.063	170.50	9.8438	1024.0	-1.340	-3.[illegible]	421.00	254.00
	10:00	165.00	0.0000	12.563	26.[illegible]	168.00	9.2188	1000.0	-1.551	-2.[illegible]	416.00	255.00
	11:00	145.00	0.0000	15.000	26.125	162.50	11.375	96[illegible].00	-1.254	-2.664	420.00	253.00
	12:00	172.50	0.0000	12.688	26.189	165.50	9.8438	1001.0	-1.931	-3.516	423.00	258.00

ENTHALPY TEST LOG NO. 2 - BLR. 2 — THEED LOG 19 — COLLECTION COMPLETED 12:01

		[illegible] OUT TEMP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		[illegible] VOLT 1	[illegible]	[illegible] VOLT	[illegible]	[illegible] GPM OIL MIN FI	[illegible]
		[illegible] SMP 1	[illegible] SMP 2	[illegible] SMP	[illegible] SMP	[illegible] SMP	[illegible] SMP
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	14:00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	15:00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	16:00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	17:00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	18:00	[illegible]	[illegible]	57.625	[illegible]	40.250	19.250
	19:00	252.50	57.375	57.000	59.500	59.750	11.000
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	57.375	[illegible]	[illegible]	40.250	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	40.250	[illegible]
	[illegible]	[illegible]	57.[illegible]	54.750	[illegible]	[illegible]	10.094
	[illegible]	252.50	40.125	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]ULS8	00:00	254.00	47.250	55.000	60.125	40.250	22.563
	01:00	253.00	54.625	53.000	60.250	40.250	18.063
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	54.250	[illegible]	60.375	40.250	19.188
	04:00	[illegible]	53.000	[illegible]	[illegible]	40.250	19.250
	[illegible]	[illegible]	[illegible]	[illegible]	60.375	[illegible]	[illegible]
	[illegible]	252.00	[illegible]	[illegible]	[illegible]	40.250	[illegible]
	[illegible]	[illegible]	55.000	52.000	60.000	40.250	19.375
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

25JUL88 MONDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

	FI2002B BLR 2 TOTAL SIM FLOW		PIC2028 BLR 2 PRI AIR PRESS		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AV SUP OUTGAS		PI2375 BLR 2 PRECIP OUT PR		TIC2551 BLR 2 SDA GAS OUT TM
	FI2153 BLR 2 NAT GAS FLOW		PIC2026 BLR 2 SEC AIR PRESS		AIC2064 BLR 2 O2		PI2039 BLR 2 SDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT		
	FI2002B SMP	FI2153 SMP	PIC2028 SMP	PIC2026 SMP	TI2024 SMP	AIC2064 SMP	TI2021C SMP	PI2039 SMP	PI2375 SMP	TR2040 SMP	TIC2551 SMP
	KLB/HR	KSCFH	H2O	H2O	DEG F	%	DEG F	H2O	H2O	DEG F	DEG F
24JUL88 13:00	169.50	0.0000	11.719	26.063	163.00	10.313	1000.0	-1.770	-3.274	432.00	240.00
14:00	162.00	0.0000	13.438	26.063	168.50	10.406	992.00	-1.731	-3.125	416.00	257.00
15:00	164.00	0.0000	12.730	25.750	167.50	10.250	1002.0	-2.086	-3.539	422.00	256.00
16:00	170.50	0.0000	12.375	25.625	167.00	10.188	990.00	-1.680	-2.961	423.00	255.00
17:00	157.00	0.0000	12.250	26.250	166.00	10.938	980.00	-1.707	-3.297	418.00	256.00
18:00	165.50	0.0000	12.063	25.938	172.00	8.7813	996.00	-1.352	-2.508	408.00	254.00
19:00	162.50	0.0000	9.9688	26.063	172.00	9.3750	990.00	-1.473	-2.781	408.00	255.50
20:00	164.50	0.0000	11.625	25.438	171.00	9.6250	990.00	-1.484	-2.739	414.00	250.50
21:00	159.50	0.0000	12.094	26.250	164.00	12.281	984.00	-2.008	-3.539	423.00	254.50
22:00	164.50	0.0000	11.625	25.750	166.00	10.000	996.00	-1.789	-3.188	420.00	258.00
23:00	180.50	0.0000	12.344	25.750	170.50	9.0938	1028.0	-1.496	-2.680	416.00	248.50
25JUL88 00:00	161.50	0.0000	12.469	25.813	167.00	9.3750	998.00	-2.055	-3.508	423.00	261.00
01:00	166.50	0.0000	12.281	25.813	170.50	9.7500	1012.0	-1.406	-2.555	414.00	255.00
02:00	163.00	0.0000	13.219	25.688	168.50	9.8438	1004.0	-1.379	-2.703	416.00	264.00
03:00	167.50	0.0000	12.531	25.938	166.50	9.6250	1002.0	-1.719	-3.078	421.00	250.50
04:00	170.00	0.0000	11.063	26.750	168.00	9.4688	1012.0	-1.520	-2.859	421.00	254.50
05:00	170.00	0.0000	12.313	26.438	170.00	9.6563	1020.0	-1.758	-2.906	415.00	254.00
06:00	170.00	0.0000	11.625	25.875	170.00	9.3438	1024.0	-1.692	-3.078	417.00	253.50
07:00	172.00	0.0000	12.438	25.563	168.00	10.250	1020.0	-1.488	-2.977	423.00	254.50
08:00	174.00	0.0000	13.281	26.500	169.50	9.0625	1024.0	-1.727	-3.063	423.00	259.00
09:00	176.00	0.0000	11.813	25.063	171.50	8.9375	1024.0	-1.973	-3.399	425.00	258.00
10:00	172.50	0.0000	12.731	26.000	172.00	7.7657	1024.0	-1.633	-2.969	428.00	250.00
11:00	176.00	0.0000	12.344	25.500	169.00	10.313	1018.0	-2.336	-3.875	436.00	256.00
12:00	178.00	0.0000	12.656	26.125	172.00	10.313	1028.0	-1.899	-3.469	437.00	243.00

PRINTED IN U.S.A.

26JUL88 TUESDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
JUL88 10:00	251.[illegible]	59.[illegible]	54.[illegible]50	59.[illegible]50	[illegible].250	24.[illegible]
11:00	250.00	57.250	56.250	59.500	40.250	23.000
15:00	250.00	57.750	59.[illegible]50	57.[illegible]50	40.250	22.[illegible]
16:00	246.50	59.125	59.250	57.000	40.250	19.063
17:00	250.00	41.125	56.125	56.250	40.250	22.500
18:00	251.00	49.875	53.375	58.000	72.250	11.594
19:00	[illegible]	42.375	54.500	59.125	40.250	21.[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	40.250	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	40.250	[illegible]
[illegible]	[illegible]	[illegible]	50.375	[illegible]	40.250	[illegible]
23:00	254.50	57.250	54.125	59.000	40.250	25.250
6JUL88 00:00	251.00	58.125	54.125	59.125	40.250	19.500
01:00	250.50	54.375	52.625	59.000	40.250	22.250
02:00	251.50	51.125	[illegible]	[illegible]	40.250	[illegible]
03:00	253.00	55.125	54.250	59.500	40.250	24.250
04:00	251.00	[illegible]	51.875	[illegible]	40.250	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	59.500	40.250	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	59.375	40.250	[illegible]
07:00	251.00	55.125	55.750	59.250	40.250	23.4[illegible]
[illegible]	[illegible]	49.[illegible]	[illegible].625	59.375	40.250	26.158
[illegible]	[illegible]	57.[illegible]	[illegible]	59.250	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	42.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	25.000	31.750

[illegible]JUL88 TUE DAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED [illegible]

	FI[illegible]	FI[illegible]15[illegible]	[illegible]	PI[illegible]026	TI[illegible]024	AIC2064	[illegible]	PI[illegible]	PI[illegible]75	TR2040	TI[illegible]551
	[illegible]	SMP	SMP	SMP	SMP	SMP	MP	SMP	SMP	SMP	SMP
	[illegible]	[illegible]	[illegible]	[illegible]	DEG F	[illegible]	[illegible]	[illegible]	[illegible]	DEG F	DEG F
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-1.727	-3.117	4[illegible].00	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10.[illegible]	[illegible]	[illegible]	-3.[illegible]	4[illegible]4.00	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible].00	[illegible]	[illegible]	-1.[illegible]	-2.4[illegible]	42[illegible]	[illegible]
1[illegible]:00	177.[illegible]	[illegible]	[illegible]	[illegible]	17[illegible].00	[illegible].1875	[illegible]	-1.372	-2.8[illegible]	431.00	251.00
17:[illegible]	1[illegible]	3.3125	1[illegible].4[illegible]8	[illegible]	17[illegible].00	9.4[illegible]75	[illegible]	-1.590	-2.[illegible]06	43[illegible].00	252.00
18:00	17[illegible].00	3.3125	1[illegible].[illegible]500	26.625	172.00	8.7500	[illegible]1.00	-1.770	-3.48[illegible]	441.00	25[illegible].50
19:00	17[illegible]	[illegible]	[illegible]	[illegible]	17[illegible]	10.[illegible]	[illegible]	-1.[illegible]	-3.[illegible]	4[illegible].00	[illegible]
[illegible]	171.[illegible]	[illegible]	1[illegible]	[illegible]	17[illegible]	10.[illegible]	[illegible]	-1.[illegible]	-3.[illegible]	4[illegible].00	[illegible]
[illegible]:00	17[illegible]	[illegible]	12.[illegible]4	26.[illegible]5	17[illegible].00	10.[illegible]	[illegible]	-1.[illegible]4	-3.[illegible]	4[illegible].00	[illegible]
[illegible]	174.00	2.[illegible]54	10.155	26.313	1[illegible].00	10.[illegible]	10[illegible].0	-1.973	-2.[illegible]	437.00	254.00
23:00	171.50	2.6954	11.750	26.313	15[illegible].50	10.[illegible]	1014.0	-2.090	-3.649	432.00	262.00
[illegible]JUL88 00:00	174.50	0.0000	13.46[illegible]	26.063	16[illegible].00	9.[illegible]063	10[illegible]1.0	-1.867	-3.484	427.00	253.00
01:00	174.00	0.0000	12.188	26.438	165.00	10.156	1014.0	-1.[illegible]94	-3.102	432.00	251.50
02:00	17[illegible].00	0.0000	1[illegible]	[illegible]	1[illegible]	9.[illegible]13	101[illegible].0	-1.[illegible]	-3.[illegible]	4[illegible].00	25[illegible].50
0[illegible]:00	171.[illegible]	0.0000	1[illegible].406	2[illegible].[illegible]50	1[illegible].50	9.[illegible]	10[illegible].0	-1.676	-3.1[illegible]	42[illegible].00	255.00
[illegible]:00	1[illegible].5[illegible]	0.0000	1[illegible].[illegible]31	26.063	1[illegible].50	8.[illegible]	10[illegible].0	-1.707	-3.[illegible]	43[illegible].00	24[illegible].00
05:00	1[illegible]1.00	0.0000	1[illegible].1[illegible]5	25.[illegible]8	1[illegible].50	7.[illegible]75	10[illegible].0	-1.753	-3.156	424.00	252.[illegible]
06:00	17[illegible].50	0.0000	12.750	25.688	1[illegible]4.50	10.[illegible]44	1010.0	-2.289	-4.000	433.00	253.50
07:00	187.00	0.0000	11.219	26.000	79.000	9.8750	10[illegible]6.0	-2.047	-3.875	440.00	261.00
08:00	18[illegible].50	0.0000	12.500	25.750	80.750	9.4375	10[illegible]3.0	-2.305	-4.063	446.00	255.50
[illegible]:00	18[illegible].50	[illegible]	1[illegible]	25.[illegible]	[illegible].000	10.[illegible]	101[illegible].0	-2.[illegible]	-4.[illegible]	4[illegible].00	[illegible]
10:00	18[illegible].50	2.[illegible]54	1[illegible]	25.[illegible]	[illegible].500	9.5313	101[illegible].0	-2.570	-4.516	454.00	265.00
11:00	1[illegible]	3.3125	12.[illegible]25	26.000	9[illegible].500	10.[illegible]19	101[illegible].0	-2.242	-4.047	448.00	257.00
12:00	1[illegible].00	4.[illegible]	1[illegible].656	25.875	95.[illegible]50	9.5313	10[illegible].0	-2.[illegible]	-4.111	454.00	264.00

[illegible] HEJHCDA EXTENDED TEST LOG NO. 2 - PER. 2 IPS 90 LOG 1° COLLECTION COMPLETED 12:01

		[illegible] PER 2	[illegible] PER 2	[illegible]	[illegible]	[illegible]	[illegible]
		[illegible]		[illegible] VOL	[illegible]	[illegible] 2PR DIL WTR	[illegible]
		[illegible]	[illegible] SM	[illegible] SMP	[illegible] SMP	[illegible] 73 SMP	[illegible] SMP
[illegible]	[illegible]	[illegible]	41.500	[illegible]	58.375	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	35.000	[illegible]
	17:00	[illegible]	[illegible]	[illegible]	59.375	35.000	29.125
	18:00	[illegible]	41.000	51.250	58.125	35.000	28.875
	19:00	257.00	59.000	50.000	58.750	35.000	29.938
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	35.000	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	61.000	51.500	58.125	35.000	23.313
	[illegible]	[illegible]	54.875	50.375	58.375	35.000	23.688
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	57.375	51.875	58.625	40.000	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	40.000	19.500
	[illegible]	[illegible]	[illegible]	54.125	[illegible]	40.000	20.500
	[illegible]	[illegible]	[illegible]	51.500	59.125	40.000	18.813
	07:00	[illegible]	55.875	52.875	59.250	40.000	21.188
	08:00	[illegible]	58.000	55.375	59.250	40.000	19.125
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	50.000	[illegible]
	10:00	[illegible]	44.75	[illegible]	58.750	40.000	[illegible]
	11:00	[illegible]	[illegible]	53.250	58.375	30.063	23.750
	[illegible]	[illegible]	[illegible]	54.000	59.125	51.375	[illegible]

7JUL88 WEDNESDAY ENINDEX TEST LOG NO. 1 - BLR. 2 [illegible] LOG 18 COLLECTION COMPLETED 12:01

		FI2028 BLR 2 TOTAL FIN FLOW	FI2029 BLR 2 SEC AIR FLOW	FI2024 BLR 2 OVERGRATE AIR	TI2064 BLR 2 [illegible]	TI2010 BLR 2 [illegible]	PI2039 BLR 2 SDA INLET GAS	TI2375 BLR 2 FLUE GAS OUT	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TO
		FI2028 MF SMP PLIFMP	FI2029 SMP TEMPER	PIC2028 SMP PSIG	PIC2026 SMP PSIG	TI2024 SMP DEG F	AIC2064 SMP [illegible]	TI2010 SMP [illegible]	PI2039 SMP PSIG	PI2375 SMP PSIG	TR2040 SMP DEG F	TIC2551 SMP DEG F
00:00	11:00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	445.00	255.00
	14:00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10.138	[illegible]	-1.201	-3.4[illegible]	446.00	255.00
	15:00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11.053	1011.0	-2.005	-4.[illegible]	454.00	267.00
	16:00	195.50	4.6719	12.000	25.238	95.250	9.6563	1014.0	-1.801	-3.769	463.00	280.00
	17:00	195.50	4.6719	11.531	26.250	93.500	10.031	1014.0	-1.957	-3.742	453.00	265.00
	18:00	174.50	3.8125	12.938	25.938	89.750	8.9688	983.00	-2.063	-3.797	448.00	263.00
	19:00	142.50	3.8125	[illegible]	[illegible]	[illegible]	11.721	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	171.00	[illegible]	[illegible]	[illegible]	87.000	[illegible]	[illegible]	-1.040	[illegible]	[illegible]	[illegible]
	[illegible]	172.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-1.[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	172.00	0.0000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-1.[illegible]	[illegible]	440.00	[illegible]
	23:00	172.00	2.6934	12.313	25.813	83.000	9.6875	991.00	-2.016	-3.605	439.00	255.00
7JUL88	00:00	172.00	2.6954	14.188	25.375	83.750	8.1875	1000.0	-1.641	-3.939	433.00	253.50
	01:00	170.50	2.6954	11.250	26.313	83.250	9.9063	993.00	-1.695	-3.610	433.00	259.00
	02:00	171.50	0.0000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-1.[illegible]	[illegible]	[illegible]	[illegible]
	03:00	162.50	0.0000	12.313	[illegible]	81.750	[illegible]	[illegible]	-1.117	-4.01[illegible]	441.00	265.00
	04:00	167.00	0.0000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-1.[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	0.0000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-1.107	[illegible]	[illegible]	[illegible]
	07:00	171.50	0.0000	12.021	25.188	81.250	8.9063	[illegible]	-1.[illegible]	-3.074	425.00	254.00
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-1.[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-1.41	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.[illegible]	44[illegible].00	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-1.711	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-4.[illegible]	[illegible]	[illegible]

DISKETTE NAME: ARCH COLLECTION INTERVAL: 15 MIN PERIOD OF ARCHIVING: 26 HOUR

T12376 PRECIP	BLR 2 OUT TEMP	E12587 ESP VOLT 2	BLR 2

E12586 ESP VOLT 1	BLR 2	E12588 ESP VOLT 3	BLR 2

		T12376 SMP DEG F	E12586 SMP KV	E12587 SMP KV	E12588 SMP KV
28JUL88	10:39	264.00	47.250	50.875	57.500
	10:54	259.00	54.250	51.500	57.875
	11:09	263.00	57.625	49.750	57.625
	11:24	255.50	53.625	51.250	57.875
	11:39	254.00	43.375	50.500	57.875
	11:54	256.00	39.750	50.875	58.375
	12:09	251.00	40.125	47.000	57.375
	12:24	252.50	57.750	52.750	57.875
	12:39	254.50	55.625	51.000	57.500
	12:54	252.00	49.125	51.375	57.375
	13:09	250.50	43.750	51.000	57.625
	13:24	253.50	60.750	51.250	58.125
	13:39	254.50	60.375	52.125	57.875
	13:54	264.00	59.625	51.125	54.750
	14:09	270.00	53.500	47.625	56.750
	14:24	275.00	58.000	49.625	57.375
	14:39	258.00	56.875	48.000	57.125
	14:54	255.50	51.625	51.125	57.125
	15:09	254.00	59.250	48.750	57.000
	15:24	254.50	56.125	49.375	57.625
	15:39	253.50	57.500	48.875	57.125
	15:54	253.50	59.375	50.125	57.625
	16:09	252.50	51.750	50.625	57.625
	16:24	253.00	59.000	48.750	57.625
	16:39	253.50	52.375	50.000	57.250
	16:54	254.00	56.250	50.375	57.125
	17:09	253.00	52.750	51.000	57.500
	17:24	253.00	56.000	50.375	57.375
	17:39	252.50	51.375	50.250	58.000
	17:54	251.50	50.625	49.375	57.750
	18:09	253.00	59.375	50.000	57.375
	18:24	251.00	56.000	51.000	57.375
	18:39	252.50	56.500	51.375	57.125
	18:54	254.50	56.000	49.875	57.500
	19:09	254.00	46.875	49.625	57.500
	19:24	255.00	58.500	51.750	57.625
	19:39	252.00	51.375	50.750	57.875
	19:54	252.50	59.250	51.000	57.750
	20:09	252.50	48.750	51.500	57.500
	20:24	253.50	58.500	49.125	57.500
	20:39	250.00	50.375	51.375	57.500
	20:54	252.50	55.750	49.250	57.750
	21:09	253.00	54.250	51.000	57.875
	21:24	253.00	49.875	50.375	53.750
	21:39	253.00	56.250	50.625	58.000
	21:54	253.50	56.750	50.625	58.000
	22:09	253.50	57.000	49.875	58.250
	22:24	254.50	57.000	50.625	58.250
	22:39	253.00	53.500	53.125	58.000
	22:54	253.00	53.500	51.000	58.500

DISKETTE NAME: ARCH COLLECTION INTERVAL: 15 MIN PERIOD OF ARCHIVING: 26 HOUR

T12376 BLR 2 E12587 BLR 2
PRECIP OUT TEMP ESP VOLT 2

E12586 BLR 2 E12588 BLR 2
ESP VOLT 1 ESP VOLT 3

		T12376 SMP DEG F	E12586 SMP KV	E12587 SMP KV	E12588 SMP KV
27JUL88	21:09	******	******	******	******
	21:24	254.00	53.750	50.000	59.750
	21:39	256.00	39.875	50.875	58.750
	21:54	255.00	57.125	50.750	58.625
	22:09	256.00	56.000	50.500	58.750
	22:24	255.50	57.750	51.250	58.250
	22:39	256.00	45.500	49.500	58.500
	22:54	257.00	41.250	53.500	58.250
	23:09	256.00	46.750	54.500	59.000
	23:24	258.00	54.875	51.625	59.125
	23:39	258.00	57.000	52.625	58.500
	23:54	254.50	56.875	51.875	58.625
28JUL88	00:09	255.50	57.875	51.500	58.750
	00:24	255.00	59.000	53.750	58.750
	00:39	255.50	57.125	51.500	58.250
	00:54	256.00	44.000	52.500	58.375
	01:09	256.00	34.125	52.000	56.125
	01:24	256.00	45.625	51.000	58.875
	01:39	256.00	55.000	53.250	58.625
	01:54	255.00	57.375	51.750	58.750
	02:09	257.00	57.750	52.000	58.750
	02:24	256.00	58.000	49.250	58.875
	02:39	255.50	58.375	52.875	59.000
	02:54	257.00	54.875	53.250	58.875
	03:09	256.00	59.250	54.125	58.875
	03:24	256.00	55.375	51.625	58.875
	03:39	256.00	60.875	53.000	59.000
	03:54	256.00	52.375	53.250	58.875
	04:09	258.00	53.250	52.500	58.875
	04:24	254.50	54.125	53.375	50.750
	04:39	255.50	53.000	53.250	58.875
	04:54	255.50	58.125	52.000	59.000
	05:09	255.50	56.250	51.750	59.250
	05:24	255.50	55.625	53.250	59.125
	05:39	256.00	56.125	53.250	58.625
	05:54	255.50	56.250	52.000	58.750
	06:09	255.00	54.750	51.875	59.000
	06:24	255.50	55.125	52.875	59.000
	06:39	255.50	50.625	51.500	58.375
	06:54	255.50	46.375	51.375	58.750
	07:09	256.00	56.500	52.000	58.875
	07:24	256.00	59.500	51.500	58.625
	07:39	255.00	59.625	51.625	58.375
	07:54	253.50	58.625	53.375	58.750
	08:09	254.00	62.125	53.625	58.625
	08:24	255.50	57.875	52.375	58.125
	08:39	255.00	58.875	51.500	59.125
	08:54	256.00	58.125	51.250	58.375
	09:09	255.50	52.250	50.500	58.750
	09:24	255.00	58.000	51.375	58.625
	09:39	254.50	54.000	50.875	58.375
	09:54	255.00	45.000	51.500	58.250
	10:09	253.00	59.750	52.875	58.500
	10:24	255.00	49.000	51.250	58.250

DISKETTE NAME: ARCH COLLECTION INTERVAL: 15 MIN PERIOD OF ARCHIVING: 26 HOUR

	F12002B TOTAL STM FLOW	BLR 2	P1C2028 PRI AIR PRESS	BLR 2	T12024 UNDERGRATE AIR	BLR 2	T12021C AVG-SUP OUTGAS	BLR 2	P12375 PRECIP-OUT PR	BLR 2	T1C2551 SDA-GAS OUT TMP	BLR 2
	F12153 NAT GAS FLOW	BLR 2	P1C2026 SEC AIR PRESS	BLR 2	A1C2064 O2	BLR 2	P12039 SDA INLET GAS	BLR 2	TR2040 FLUE GAS OUT	BLR 2		

	F12002B SMP KLB/HR	F12153 SMP KSCFH	P1C2028 SMP "H2O	P1C2026 SMP "H2O	T12024 SMP DEG F	A1C2064 SMP %	T12021C SMP DEG F	P12039 SMP "H2O	P12375 SMP "H2O	TR2040 SMP DEG F	T1C2551 SMP DEG F
28JUL88 10:39	195.00	3.8125	12.219	26.125	168.50	9.0938	1012.0	-2.250	-4.391	463.00	270.00
10:54	187.00	2.6954	12.156	25.938	170.50	10.375	1022.0	-2.639	-4.719	459.00	256.00
11:09	196.50	3.8125	12.125	26.500	171.00	10.375	1024.0	-2.117	-3.867	461.00	263.00
11:24	194.50	3.8125	12.813	25.375	171.00	10.000	1018.0	-2.149	-3.375	455.00	256.00
11:39	191.00	3.8125	12.125	26.188	173.00	9.8750	1028.0	-2.031	-3.781	449.00	252.50
11:54	189.00	3.8125	12.375	25.750	171.50	9.9063	1016.0	-2.453	-4.375	450.00	264.00
12:09	192.50	3.8125	13.031	25.938	175.50	7.9844	1036.0	-2.024	-3.672	445.00	252.00
12:24	187.00	3.8125	12.281	26.500	176.50	9.5938	1028.0	-1.598	-3.344	439.00	251.50
12:39	186.50	4.6719	13.188	25.875	174.00	10.063	1020.0	-2.250	-4.141	446.00	255.00
12:54	191.50	4.6719	12.594	25.813	174.00	9.4063	1024.0	-2.109	-3.828	447.00	253.50
13:09	197.00	4.6719	12.750	25.813	177.50	9.0000	1044.0	-1.660	-3.063	441.00	243.50
13:24	195.00	4.6719	13.031	25.750	178.50	8.1875	1028.0	-1.652	-3.024	436.00	256.00
13:39	186.50	4.6719	11.750	26.000	177.50	10.813	1024.0	-2.078	-3.734	436.00	260.00
13:54	188.50	2.6954	12.188	26.500	174.00	12.250	1010.0	-2.914	-5.641	466.00	275.00
14:09	186.50	0.0000	13.250	25.875	170.00	11.781	988.00	-3.406	-6.469	474.00	277.00
14:24	189.50	0.0000	12.844	25.750	168.00	9.0000	976.00	-2.297	-4.375	478.00	281.00
14:39	193.00	0.0000	12.094	26.375	171.00	9.3438	1020.0	-1.867	-3.399	450.00	255.00
14:54	184.50	0.0000	12.000	26.688	171.00	9.3750	1028.0	-1.809	-3.516	441.00	255.50
15:09	193.00	0.0000	12.094	25.813	171.00	9.2813	1032.0	-1.750	-3.242	440.00	252.00
15:24	185.00	0.0000	12.281	26.000	169.50	10.531	1024.0	-2.133	-3.891	439.00	254.50
15:39	192.50	0.0000	13.406	25.875	170.00	7.9844	1036.0	-1.871	-3.477	441.00	251.50
15:54	191.00	0.0000	12.406	26.250	172.00	9.4375	1040.0	-1.793	-3.383	435.00	257.00
16:09	184.50	0.0000	12.594	26.250	171.00	9.6875	1036.0	-2.117	-3.789	435.00	254.50
16:24	194.50	0.0000	13.125	26.000	169.50	8.3125	1028.0	-2.086	-3.742	441.00	251.00
16:39	189.50	0.0000	12.250	26.438	170.50	9.2188	1036.0	-1.508	-3.141	439.00	255.50
16:54	195.50	0.0000	12.063	26.188	169.00	9.5000	1022.0	-1.879	-3.438	442.00	258.00
17:09	190.00	0.0000	12.500	25.875	171.50	8.6250	1040.0	-1.856	-3.524	439.00	257.00
17:24	187.00	0.0000	13.031	25.938	170.00	10.156	1032.0	-2.266	-4.063	442.00	255.00
17:39	185.50	0.0000	12.188	26.063	103.00	9.8438	1032.0	-2.445	-4.250	447.00	253.00
17:54	189.00	0.0000	11.969	25.625	84.750	9.5938	1032.0	-2.492	-4.313	451.00	250.50
18:09	192.00	0.0000	11.125	26.250	83.000	8.8125	1032.0	-2.016	-3.750	449.00	257.00
18:24	168.50	0.0000	12.188	26.188	82.500	8.9688	1010.0	-1.777	-3.524	437.00	255.50
18:39	169.50	0.0000	12.563	26.438	82.250	9.5625	1004.0	-1.555	-3.055	434.00	254.50
18:54	175.00	0.0000	12.906	26.188	82.250	8.9688	992.00	-1.502	-3.109	438.00	257.00
19:09	171.50	0.0000	12.406	25.375	82.500	8.7813	998.00	-1.918	-3.531	438.00	263.00
19:24	166.50	0.0000	12.594	27.000	81.750	10.750	1004.0	-1.465	-3.109	437.00	264.00
19:39	175.50	0.0000	12.844	26.000	81.750	8.2500	1000.0	-1.586	-3.031	440.00	250.00
19:54	169.00	0.0000	11.563	25.563	81.750	9.9063	1008.0	-2.102	-3.719	434.00	256.00
20:09	170.00	0.0000	11.438	26.063	81.000	8.2813	1002.0	-1.859	-3.609	441.00	255.50
20:24	168.00	0.0000	12.044	25.563	80.500	9.6875	994.00	-2.055	-3.891	433.00	261.00
20:39	167.50	0.0000	11.625	25.813	80.500	10.938	1006.0	-2.008	-3.719	434.00	242.00
20:54	171.00	0.0000	11.500	25.875	80.000	9.9688	1010.0	-2.024	-3.578	436.00	244.50
21:09	166.00	0.0000	12.313	25.688	80.250	10.469	1020.0	-1.766	-3.383	429.00	257.00
21:24	168.50	0.0000	12.625	26.438	79.250	9.0938	1006.0	-2.633	-4.469	436.00	250.00
21:39	170.50	0.0000	13.219	26.438	79.750	10.000	1012.0	-2.000	-3.774	437.00	252.50
21:54	169.00	0.0000	13.000	25.375	79.250	9.7813	1008.0	-1.945	-3.609	434.00	254.50
22:09	171.50	0.0000	12.313	25.563	78.750	8.6875	1004.0	-1.981	-3.688	439.00	254.50
22:24	170.50	0.0000	12.719	26.375	78.750	8.7813	1006.0	-1.824	-3.477	436.00	261.00
22:39	167.00	0.0000	12.875	26.500	78.500	10.531	1014.0	-1.914	-3.703	437.00	253.50
22:54	174.50	0.0000	13.188	25.250	78.750	8.2500	1012.0	-2.250	-3.781	436.00	253.00

C

DISKETTE NAME: ARCH COLLECTION INTERVAL: 15 MIN PERIOD OF ARCHIVING: 26 HOUR

	FI2002B TOTAL SIM FLOW	BLR 2	PIC2028 PRI AIR PRESS	BLR 2	TI2024 UNDERGRATE AIR	BLR 2	TI2021C AVG SUP OUTGAS	BLR 2	PI2375 PRECIP OUT PR	BLR 2	TIC2551 SDA GAS OUT TMP	BLR 2
	FI2153 MAT GAS FLOW	BLR 2	PIC2026 SEC AIR PRESS	BLR 2	AIC2064 O2	BLR 2	PI2039 SDA INLET GAS	BLR 2	TR2040 FLUE GAS OUT	BLR 2		

		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
27JUL88	21:09	******	******	******	******	******	******	******	******	******	******	******
	21:24	170.50	3.8125	12.781	26.000	167.50	9.1250	994.00	-1.764	-3.227	437.00	249.50
	21:39	167.50	2.6954	11.938	26.500	167.50	10.375	992.00	-1.910	-3.500	433.00	255.50
	21:54	171.50	2.6954	11.594	25.875	166.00	9.9688	992.00	-2.234	-3.938	437.00	255.00
	22:09	169.50	2.6954	12.219	25.500	168.00	9.2813	996.00	-2.000	-3.469	433.00	260.00
	22:24	168.00	2.6954	13.375	26.063	167.50	10.531	998.00	-2.313	-4.063	438.00	256.00
	22:39	168.00	2.6954	11.500	26.625	165.50	10.469	996.00	-2.063	-3.688	437.00	252.50
	22:54	170.00	2.6954	12.125	26.063	164.50	10.969	1000.0	-1.797	-3.531	437.00	261.00
	23:09	168.00	2.6954	12.406	25.125	163.50	10.125	990.00	-1.992	-3.938	439.00	261.00
	23:24	165.50	2.6954	12.594	26.250	161.00	11.125	986.00	-2.422	-4.375	441.00	254.50
	23:39	168.00	2.6954	12.688	25.688	161.50	9.2500	982.00	-1.844	-3.594	442.00	267.00
	23:54	177.00	2.6954	12.844	26.125	165.00	8.1875	1012.0	-1.809	-3.281	438.00	256.00
28JUL88	00:09	171.50	2.6954	12.563	26.625	167.50	9.2813	1012.0	-1.813	-3.297	430.00	254.50
	00:24	170.00	2.6954	12.188	26.250	169.00	10.063	1018.0	-1.887	-3.344	425.00	256.00
	00:39	168.50	0.0000	11.500	26.063	169.50	9.7188	1022.0	-1.692	-3.164	423.00	253.50
	00:54	165.00	0.0000	11.563	26.188	168.50	9.8125	1012.0	-1.922	-3.531	423.00	255.50
	01:09	169.00	0.0000	12.844	25.438	167.50	8.6563	1004.0	-1.883	-3.477	426.00	258.00
	01:24	172.50	0.0000	12.938	26.063	168.00	8.0625	1018.0	-1.742	-3.242	426.00	254.50
	01:39	170.00	0.0000	13.250	26.188	169.50	8.8438	1012.0	-1.938	-3.367	422.00	255.50
	01:54	170.50	0.0000	10.969	26.188	170.50	8.8750	1018.0	-1.625	-2.906	420.00	252.50
	02:09	170.00	0.0000	13.125	26.188	168.00	8.5625	1008.0	-1.981	-3.461	424.00	257.00
	02:24	170.00	0.0000	11.875	25.438	169.00	9.8438	1012.0	-1.809	-3.172	423.00	255.50
	02:39	168.50	0.0000	12.313	25.750	169.00	9.3125	1012.0	-1.785	-3.281	422.00	254.00
	02:54	171.00	0.0000	11.969	26.438	168.50	9.5938	1016.0	-1.758	-3.195	424.00	259.00
	03:09	169.00	0.0000	12.438	26.625	169.50	9.4063	1012.0	-1.637	-3.125	421.00	261.00
	03:24	172.50	0.0000	12.469	25.250	171.00	8.2813	1022.0	-1.336	-2.703	420.00	256.00
	03:39	170.50	0.0000	12.219	26.438	172.00	9.4688	1018.0	-1.586	-2.836	416.00	256.00
	03:54	167.50	0.0000	11.906	26.438	170.50	9.4688	1012.0	-1.715	-3.078	416.00	259.00
	04:09	168.00	0.0000	12.844	25.625	166.00	7.9688	994.00	-2.070	-3.789	428.00	261.00
	04:24	171.50	0.0000	12.469	25.438	168.00	8.8750	1006.0	-1.902	-3.328	426.00	257.00
	04:39	169.50	0.0000	11.906	25.438	169.50	9.0938	1010.0	-1.817	-3.297	423.00	254.50
	04:54	171.00	0.0000	12.125	26.000	170.00	8.8125	1016.0	-1.590	-2.859	421.00	255.50
	05:09	167.50	0.0000	12.125	25.875	170.00	9.0625	1012.0	-1.848	-3.219	420.00	254.00
	05:24	169.50	0.0000	13.125	26.000	169.50	9.1563	1010.0	-2.039	-3.477	423.00	252.50
	05:39	168.50	0.0000	12.469	25.938	170.50	8.2500	1016.0	-1.613	-3.133	423.00	256.00
	05:54	171.00	0.0000	12.500	25.500	170.00	9.0000	1020.0	-1.488	-2.883	423.00	254.50
	06:09	176.50	0.0000	12.094	26.188	172.00	7.4219	1024.0	-1.606	-2.984	420.00	257.00
	06:24	177.00	0.0000	11.406	25.375	171.50	9.4688	1028.0	-2.203	-3.727	423.00	256.00
	06:39	174.50	0.0000	12.156	26.375	168.50	9.7188	1014.0	-1.594	-3.227	431.00	253.00
	06:54	178.50	0.0000	13.125	25.688	169.50	7.8750	1024.0	-1.879	-3.274	431.00	253.00
	07:09	181.00	0.0000	13.594	25.875	172.00	8.1250	1036.0	-1.723	-3.172	425.00	261.00
	07:24	184.50	0.0000	12.469	25.500	172.00	9.3125	1032.0	-1.555	-3.102	427.00	262.00
	07:39	191.00	0.0000	12.469	26.000	173.00	9.5313	1040.0	-2.016	-3.547	431.00	256.00
	07:54	188.50	0.0000	11.875	25.688	173.50	9.6563	1036.0	-1.910	-3.484	431.00	251.00
	08:09	192.00	0.0000	13.031	25.625	172.50	9.1563	1024.0	-1.848	-3.313	433.00	248.50
	08:24	187.00	0.0000	11.969	26.375	172.00	10.531	1024.0	-1.809	-3.516	435.00	258.00
	08:39	187.00	0.0000	12.406	26.000	169.00	9.6563	1024.0	-2.149	-4.016	443.00	257.00
	08:54	194.00	0.0000	13.125	25.500	166.00	9.4688	1010.0	-2.219	-4.125	457.00	261.00
	09:09	198.00	0.0000	12.313	26.000	168.50	9.5625	1036.0	-2.320	-3.961	453.00	260.00
	09:24	195.50	0.0000	12.344	26.063	172.00	9.4375	1044.0	-1.887	-3.383	443.00	259.00
	09:39	189.00	2.6954	12.188	26.250	174.00	10.469	1048.0	-1.961	-3.516	436.00	261.00
	09:54	190.00	2.6954	11.969	26.063	172.50	10.313	1040.0	-2.102	-3.695	441.00	256.00
	10:09	188.50	2.6954	12.313	26.125	173.50	9.5000	1032.0	-1.887	-3.555	439.00	250.00
	10:24	167.00	2.6954	13.406	26.250	165.00	11.500	980.00	-2.617	-4.953	456.00	280.00

Attempted print - printer ribbon broke

PRINTED IN U.S.A.

DISKETTE NAME: ARCH COLLECTION INTERVAL: 15 MIN PERIOD OF ARCHIVING: 26 HOUR

TI2376 BLR 2 PRECIP OUT TEMP EI2587 BLR 2 ESP VOLT 2

EI2586 BLR 2 ESP VOLT 1 EI2588 BLR 2 ESP VOLT 3

		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV
26JUL88	21:24	******	******	******	******
	21:39	254.00	40.750	53.125	56.750
	21:54	253.50	54.625	49.000	58.750
	22:09	253.00	40.250	51.125	58.875
	22:24	254.50	56.250	50.125	58.875
	22:39	252.00	40.625	51.125	58.750
	22:54	252.00	50.750	50.125	57.875
	23:09	254.00	56.250	51.250	58.625
	23:24	254.00	57.375	50.750	58.375
	23:39	252.50	53.500	51.125	58.500
	23:54	252.50	60.125	51.625	58.875
27JUL88	00:09	252.50	60.625	51.875	58.500
	00:24	254.00	56.500	51.875	58.000
	00:39	252.00	57.875	50.500	58.125
	00:54	253.50	54.750	51.000	58.750
	01:09	254.00	54.875	52.875	58.500
	01:24	253.50	57.375	51.375	58.750
	01:39	253.00	57.375	51.125	58.875
	01:54	254.00	57.750	50.500	58.625
	02:09	254.00	57.625	50.125	59.000
	02:24	254.50	51.250	51.250	59.000
	02:39	255.50	49.875	52.500	58.625
	02:54	254.50	58.875	51.125	58.250
	03:09	255.00	51.125	51.375	58.375
	03:24	253.00	57.375	51.875	58.125
	03:39	253.00	58.125	50.750	58.500
	03:54	255.00	58.000	52.125	58.625
	04:09	253.50	59.125	52.125	58.875
	04:24	253.50	60.750	51.375	59.250
	04:39	253.50	55.500	52.625	58.625
	04:54	253.50	58.875	52.875	59.000
	05:09	254.00	53.375	53.125	58.500
	05:24	251.50	56.750	53.500	59.250
	05:39	253.00	50.250	51.375	59.375
	05:54	253.50	55.000	53.250	59.250
	06:09	253.50	47.375	54.625	59.250
	06:24	251.50	54.500	51.250	58.875
	06:39	254.50	58.750	53.375	59.250
	06:54	252.50	56.250	53.125	59.250
	07:09	253.00	55.375	52.875	58.875
	07:24	253.50	50.500	53.875	59.250
	07:39	253.50	59.750	52.875	59.375
	07:54	253.50	50.875	54.500	59.250
	08:09	253.50	57.375	54.875	59.125
	08:24	252.50	40.000	54.875	59.375
	08:39	253.50	50.625	53.625	59.125
	08:54	254.00	39.750	53.375	58.125
	09:09	256.00	56.750	52.500	59.250
	09:24	252.50	54.500	50.750	59.250
	09:39	254.50	38.875	51.750	59.125
	09:54	254.00	49.500	50.500	58.250
	10:09	250.50	54.500	50.375	58.375
	10:24	251.00	57.500	53.250	58.750
	10:39	251.50	56.875	52.250	59.125

DISKETTE NAME: ARCH COLLECTION INTERVAL: 15 MIN PERIOD OF ARCHIVING: 26 HOUR

		FI2002B TOTAL STM FLOW	FI2153 NAT GAS FLOW	PIC2028 PRI AIR PRESS	PIC2026 SEC AIR PRESS	TI2024 UNDERGRATE AIR	AIC2064 O2	TI2021C AVG SUP OUTGAS	PI2039 SDA INLET GAS	PI2375 PRECIP OUT PR	TR2040 FLUE GAS OUT	TIC2651 SDA GAS OUT TMP
		BLR 2	BLR 2	BLR 2	BLR 2	BLR 2	BLR 2	BLR 2	BLR 2	BLR 2	BLR 2	BLR 2
		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2651 SMP DEG F
27JUL88	10:54	187.00	3.8125	11.719	26.375	91.250	9.9375	1023.0	-1.899	-3.399	431.00	257.00
	11:09	187.50	3.8125	11.781	26.250	92.000	9.0000	1028.0	-1.770	-3.391	436.00	257.00
	11:24	192.00	2.6954	12.688	26.000	92.250	8.9063	1040.0	-2.117	-3.656	440.00	253.00
	11:39	186.50	3.8125	13.031	25.750	92.000	7.7344	1024.0	-2.055	-3.914	443.00	259.00
	11:54	189.50	3.8125	12.719	25.938	92.000	10.469	1016.0	-2.359	-4.359	453.00	266.00
	12:09	186.50	3.8125	12.031	26.500	93.500	10.781	1018.0	-2.172	-4.219	456.00	268.00
	12:24	198.00	3.3125	12.313	26.250	154.50	10.531	1044.0	-1.789	-3.250	453.00	269.00
	12:39	192.50	4.6719	12.219	26.125	163.50	10.250	1016.0	-2.195	-3.836	450.00	259.00
	12:54	186.00	4.6719	12.719	25.813	164.50	10.688	1010.0	-2.625	-4.688	454.00	264.00
	13:09	190.50	4.6719	11.563	26.000	169.00	11.406	1022.0	-2.266	-4.031	450.00	258.00
	13:24	192.00	4.6719	13.219	25.750	169.00	8.2188	1022.0	-2.133	-3.984	454.00	264.00
	13:39	164.00	4.6719	10.719	26.125	167.00	13.406	998.00	-2.867	-5.484	455.00	270.00
	13:54	179.50	4.6719	12.156	26.375	166.50	9.0625	978.00	-2.813	-5.078	462.00	286.00
	14:09	195.00	4.6719	12.375	26.125	173.50	9.5000	1028.0	-2.078	-4.313	453.00	268.00
	14:24	190.50	4.6719	11.344	25.375	172.50	8.5000	1012.0	-2.359	-4.266	452.00	263.00
	14:39	189.50	4.6719	12.188	25.688	174.50	8.8438	1020.0	-2.242	-4.031	449.00	257.00
	14:54	188.00	4.6719	12.438	25.813	174.50	9.8125	1014.0	-2.555	-4.391	448.00	253.50
	15:09	189.50	4.6719	12.719	26.375	175.50	9.8625	1024.0	-2.242	-3.914	447.00	253.00
	15:24	188.00	4.6719	12.031	26.188	176.50	9.9688	1028.0	-2.047	-3.625	443.00	250.50
	15:39	188.00	4.6719	12.406	25.938	175.00	8.7188	1018.0	-2.242	-4.109	446.00	257.00
	15:54	191.00	4.6719	12.375	25.938	176.00	9.3438	1020.0	-2.109	-3.836	446.00	258.00
	16:09	188.50	4.6719	12.063	25.938	174.50	11.344	1016.0	-2.234	-3.899	448.00	258.00
	16:24	191.50	4.6719	11.531	26.375	174.50	10.313	1020.0	-2.109	-3.813	450.00	257.00
	16:39	191.00	4.6719	12.719	25.938	175.50	9.0313	1020.0	-2.063	-3.781	448.00	255.00
	16:54	185.50	4.6719	11.656	25.938	174.50	9.6250	1022.0	-2.375	-4.234	447.00	253.00
	17:09	193.50	4.6719	12.344	26.000	175.00	9.5313	1020.0	-1.918	-3.570	446.00	255.50
	17:24	191.00	4.6719	13.000	26.000	174.00	9.1875	1016.0	-2.164	-3.984	447.00	258.00
	17:39	184.50	4.6719	12.250	26.063	173.00	10.844	1016.0	-2.266	-4.203	447.00	264.00
	17:54	186.00	4.6719	11.563	26.500	174.00	10.156	1022.0	-2.508	-4.297	450.00	250.00
	18:09	191.00	4.6719	13.219	26.000	172.50	8.0313	1016.0	-1.859	-3.508	451.00	251.00
	18:24	184.50	4.6719	12.375	26.125	174.00	10.438	1016.0	-1.902	-3.594	442.00	259.00
	18:39	184.00	4.6719	13.063	26.125	173.50	9.3750	1018.0	-1.637	-3.141	441.00	253.50
	18:54	172.50	4.6719	12.375	26.125	172.00	9.6250	1000.0	-1.797	-3.367	436.00	253.00
	19:09	168.00	3.8125	12.125	26.375	171.50	10.313	1000.0	-2.047	-3.672	432.00	256.00
	19:24	172.00	3.8125	13.031	26.250	172.50	9.3750	1004.0	-2.047	-3.578	430.00	252.50
	19:39	172.00	3.8125	12.938	25.688	171.00	9.3125	998.00	-1.637	-3.281	433.00	253.50
	19:54	168.00	2.6954	12.500	26.313	170.00	10.531	994.00	-2.133	-3.844	432.00	258.00
	20:09	171.50	3.8125	12.719	26.250	166.00	10.281	990.00	-2.274	-3.961	438.00	258.00
	20:24	176.50	2.6954	13.031	26.500	166.00	10.375	988.00	-1.770	-3.359	437.00	260.00
	20:39	173.00	2.6954	12.156	25.938	166.00	11.250	992.00	-1.781	-3.352	439.00	255.00
	20:54	168.00	2.6954	12.000	25.688	166.00	10.500	986.00	-2.102	-3.914	438.00	254.00
	21:09	169.50	2.6954	11.938	26.250	166.00	9.6875	988.00	-2.281	-4.156	441.00	254.50
	21:24	175.50	3.3125	12.781	26.000	167.50	9.1250	994.00	-1.754	-3.227	437.00	249.50
	21:39	167.50	2.6954	11.938	26.500	167.50	10.375	992.00	-1.910	-3.500	433.00	255.50
	21:54	171.50	2.6954	11.594	25.375	166.00	9.9688	992.00	-2.234	-3.933	437.00	255.00
	22:09	169.50	2.6954	12.219	25.500	168.00	9.2813	996.00	-2.000	-3.469	433.00	260.00
	22:24	168.00	2.6954	13.375	26.063	167.50	10.531	998.00	-2.313	-4.063	433.00	256.00
	22:39	168.00	2.6954	11.500	26.625	165.50	10.469	996.00	-2.063	-3.688	437.00	252.50
	22:54	170.00	2.6954	12.125	26.063	164.50	10.969	1000.0	-1.797	-3.531	437.00	261.00
	23:09	168.00	2.6954	12.406	25.125	163.50	10.125	990.00	-1.992	-3.938	439.00	261.00

DISKETTE NAME: ARCH COLLECTION INTERVAL: 15 MIN PERIOD OF ARCHIVING: 26 HOUR

T12376 BLR 2 E12587 BLR 2
PRECIP OUT TEMP ESP VOLT 2

E12586 BLR 2 E12588 BLR 2
ESP VOLT 1 ESP VOLT 3

		T12376 SMP DEG F	E12586 SMP KV	E12587 SMP KV	E12588 SMP KV
27JUL88	10:54	253.50	61.000	54.125	58.750
	11:09	253.00	58.500	54.000	58.750
	11:24	252.50	49.500	52.500	58.250
	11:39	254.00	51.625	53.875	59.000
	11:54	257.00	45.875	51.875	58.500
	12:09	261.00	46.875	52.500	58.250
	12:24	267.00	52.000	51.625	58.375
	12:39	259.00	47.125	50.500	58.375
	12:54	258.00	38.000	49.625	57.875
	13:09	253.00	39.625	52.375	58.875
	13:24	259.00	39.000	49.750	58.250
	13:39	262.00	33.375	50.875	55.125
	13:54	276.00	39.125	49.000	57.500
	14:09	273.00	59.000	50.375	55.625
	14:24	265.00	56.125	49.875	56.875
	14:39	260.00	58.750	50.500	57.250
	14:54	256.00	53.000	50.625	57.250
	15:09	254.50	59.875	50.250	52.875
	15:24	254.50	59.500	49.750	57.750
	15:39	257.00	59.250	50.000	57.875
	15:54	255.50	59.625	49.500	57.500
	16:09	256.00	59.125	51.625	57.750
	16:24	258.00	60.375	50.375	57.625
	16:39	256.00	55.125	50.500	58.125
	16:54	254.00	42.250	51.000	58.500
	17:09	254.50	43.000	51.125	58.125
	17:24	256.00	46.375	49.625	57.875
	17:39	256.00	59.250	51.250	58.250
	17:54	254.00	36.875	51.125	58.000
	18:09	255.00	61.000	49.125	58.625
	18:24	255.50	42.750	52.500	58.500
	18:39	254.50	58.875	50.625	57.875
	18:54	255.50	35.000	49.875	58.250
	19:09	255.50	41.125	50.000	58.000
	19:24	255.50	42.250	50.750	58.500
	19:39	255.50	58.000	49.250	58.375
	19:54	256.00	39.875	50.875	58.375
	20:09	256.00	41.375	51.125	58.625
	20:24	255.50	56.375	48.375	58.750
	20:39	255.50	41.250	49.875	58.125
	20:54	254.50	56.125	51.500	58.500
	21:09	255.50	55.625	48.750	58.750
	21:24	254.00	53.750	50.000	58.750
	21:39	256.00	39.375	50.875	58.750
	21:54	255.00	57.125	50.750	58.625
	22:09	256.00	56.000	50.500	58.750
	22:24	255.50	57.750	51.250	58.250
	22:39	256.00	45.500	49.500	58.500
	22:54	257.00	41.250	53.500	58.250
	23:09	256.00	46.750	54.500	59.000

DISKETTE NAME: ARCH COLLECTION INTERVAL: 15 MIN PERIOD OF ARCHIVING: 26 HOUR

	FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
	FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
26JUL88 21:24	******	******	******	******	******	******	******	******	******	******	******
21:39	169.50	2.6954	12.563	26.375	84.000	9.1875	992.00	-1.836	-3.578	438.00	256.00
21:54	177.00	2.6954	14.031	25.813	83.500	9.0750	992.00	-1.875	-3.469	439.00	251.00
22:09	171.00	2.6954	12.719	26.563	83.250	10.625	990.00	-1.766	-3.399	439.00	257.00
22:24	175.00	2.6954	11.500	26.063	82.750	10.188	986.00	-2.086	-3.719	442.00	259.00
22:39	172.50	2.6954	13.313	25.938	83.000	9.9063	996.00	-1.824	-3.586	440.00	258.00
22:54	177.50	2.6954	12.969	25.813	83.750	8.4375	994.00	-1.959	-3.344	436.00	254.50
23:09	166.00	2.6954	12.469	25.563	83.500	11.500	990.00	-2.102	-3.891	433.00	259.00
23:24	173.00	2.6954	12.719	25.813	83.000	9.3750	990.00	-2.180	-3.867	440.00	253.00
23:39	178.00	2.6954	12.656	26.000	83.500	9.3125	998.00	-1.774	-3.250	436.00	259.00
23:54	173.50	2.6954	12.594	26.438	83.750	9.8125	1000.0	-2.008	-3.531	430.00	256.00
27JUL88 00:09	170.50	2.6954	11.344	25.688	83.250	10.594	1002.0	-1.727	-3.227	431.00	253.50
00:24	166.50	2.6954	13.688	26.625	82.750	10.531	998.00	-2.016	-3.594	433.00	260.00
00:39	171.50	2.6954	13.219	26.563	83.500	9.0625	996.00	-1.785	-3.320	434.00	252.00
00:54	171.00	0.0000	13.000	26.000	83.250	10.031	992.00	-1.695	-3.070	433.00	255.00
01:09	171.00	0.0000	13.219	25.500	82.750	9.5625	994.00	-1.938	-3.453	433.00	256.00
01:24	173.00	2.6954	12.844	26.375	83.250	8.7813	992.00	-1.891	-3.281	433.00	254.50
01:39	171.50	0.0000	13.219	26.313	83.750	8.6563	996.00	-1.828	-3.156	426.00	256.00
01:54	171.50	2.6954	12.938	25.875	83.250	8.5000	996.00	-1.812	-2.859	425.00	256.00
02:09	170.50	2.6954	12.594	26.063	83.500	8.9375	998.00	-1.570	-2.977	425.00	257.00
02:24	170.50	0.0000	12.375	25.313	82.750	8.6875	992.00	-1.734	-3.242	430.00	258.00
02:39	164.00	0.0000	12.406	25.563	82.000	10.281	986.00	-2.102	-3.813	434.00	261.00
02:54	173.00	0.0000	12.625	25.563	82.500	9.3438	988.00	-1.805	-3.320	439.00	249.00
03:09	172.50	0.0000	13.563	26.188	82.500	9.5625	992.00	-1.981	-3.406	437.00	266.00
03:24	173.00	0.0000	13.688	25.625	83.000	9.1375	1010.0	-1.797	-3.320	439.00	255.00
03:39	171.50	0.0000	11.938	25.938	83.000	9.4063	1002.0	-1.418	-2.820	429.00	253.00
03:54	166.00	0.0000	13.219	26.125	82.500	9.1250	994.00	-2.016	-3.461	428.00	260.00
04:09	169.00	0.0000	11.688	26.125	83.250	9.6563	1012.0	-1.793	-3.203	424.00	259.00
04:24	168.50	0.0000	12.688	25.938	82.500	9.2500	1008.0	-1.961	-3.586	428.00	253.50
04:39	170.50	0.0000	11.563	25.813	82.500	9.5938	1008.0	-1.832	-3.219	427.00	254.50
04:54	170.50	0.0000	12.438	26.125	82.000	9.7813	1008.0	-1.645	-3.031	428.00	255.00
05:09	169.00	0.0000	12.406	26.125	81.000	9.8125	988.00	-1.524	-3.109	430.00	260.00
05:24	169.00	0.0000	12.344	26.063	81.750	9.6250	1002.0	-1.684	-3.164	425.00	253.50
05:39	171.50	0.0000	12.625	25.875	80.750	8.4063	998.00	-1.840	-3.219	427.00	252.00
05:54	170.00	0.0000	11.906	26.375	81.500	9.1250	1002.0	-1.660	-2.984	423.00	258.00
06:09	162.00	0.0000	13.063	26.188	80.750	11.125	994.00	-1.981	-3.609	424.00	259.00
06:24	174.00	0.0000	12.063	26.250	81.250	8.9688	1008.0	-1.766	-3.078	429.00	247.50
06:39	170.50	0.0000	12.438	25.938	81.750	8.9375	1002.0	-1.789	-3.133	423.00	261.00
06:54	170.00	0.0000	13.906	26.500	82.250	8.0625	1012.0	-1.676	-3.016	422.00	254.50
07:09	170.00	0.0000	12.125	25.813	84.500	8.8750	1008.0	-1.574	-2.797	422.00	256.00
07:24	171.00	0.0000	12.688	26.563	84.500	8.7188	1010.0	-1.277	-2.609	423.00	256.00
07:39	177.50	0.0000	12.844	25.938	85.000	8.0625	1014.0	-1.520	-2.750	425.00	256.00
07:54	175.00	0.0000	12.813	25.938	84.500	8.5938	1014.0	-1.981	-3.406	425.00	257.00
08:09	177.50	0.0000	12.063	26.500	84.250	9.5938	1016.0	-1.590	-3.086	428.00	260.00
08:24	191.50	0.0000	12.938	26.000	85.250	9.7188	1036.0	-1.692	-3.149	433.00	253.50
08:39	191.00	2.6954	12.094	26.250	86.750	9.3125	1028.0	-1.836	-3.289	435.00	255.00
08:54	176.50	2.6954	12.656	26.125	85.750	11.031	1032.0	-2.445	-4.641	440.00	262.00
09:09	191.50	0.0000	11.969	26.375	86.000	9.6563	1032.0	-1.828	-3.641	450.00	262.00
09:24	186.50	2.6954	12.063	26.063	86.750	10.031	1022.0	-1.836	-3.633	447.00	251.00
09:39	194.50	2.6954	13.406	25.500	86.750	9.2813	1008.0	-2.008	-3.680	452.00	264.00
09:54	196.00	2.6954	13.125	25.750	87.000	8.9063	1014.0	-1.973	-3.586	451.00	260.00
10:09	193.00	2.6954	12.000	25.938	89.500	8.1250	1014.0	-2.008	-3.625	443.00	257.00
10:24	192.50	2.6954	12.813	25.375	91.000	8.5000	1036.0	-1.910	-3.297	435.00	254.00
10:39	189.00	3.8125	12.781	25.938	91.250	8.7500	1040.0	-1.750	-3.172	430.00	253.00

29JUL88 FRIDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

	T12376 PRECIP OUT TEMP BLR 2	E12587 ESP VOLT 2 BLR 2	HC2378 SL CONCEN. LINE			
	E12586 ESP VOLT 1 BLR 2	E12588 ESP VOLT 3 BLR 2	FIC2880 SDA DIL WTR FL BLR 2			
	T123T6 SMP DEG F	E12586 SMP KV	E12587 SMP KV	E12588 SMP KV	HC2378 SMP	FIC2880 SMP GPM
28JUL88 13:00	255.00	55.375	50.200	57.375	30.000	34.500
14:00	257.00	41.625	53.250	46.000	30.000	33.375
15:00	259.00	56.000	50.750	57.375	30.000	29.125
16:00	252.00	56.625	49.750	57.500	30.000	24.875
17:00	252.50	55.000	50.250	57.625	30.000	27.625
18:00	255.00	58.875	50.125	57.625	30.000	35.375
19:00	253.50	58.000	51.000	57.500	30.000	25.688
20:00	251.00	50.875	50.500	57.750	30.000	23.688
21:00	254.00	49.125	51.000	57.750	30.000	26.938
22:00	253.50	55.250	51.250	55.000	30.000	26.125
23:00	254.50	55.250	51.375	58.250	30.000	28.188
29JUL88 00:00	253.00	51.875	51.875	58.250	30.000	26.438
01:00	254.00	56.500	51.625	58.625	30.000	27.563
02:00	254.00	42.875	52.375	58.500	30.000	30.375
03:00	252.00	49.250	36.375	33.625	30.000	25.188
04:00	257.00	41.375	43.625	38.000	30.000	38.125
05:00	251.50	57.375	45.750	40.750	30.000	22.688
06:00	252.00	58.125	48.125	40.500	30.000	27.375
07:00	254.00	58.625	47.875	43.000	31.500	30.688
08:00	255.00	61.250	49.625	44.000	30.000	32.750
09:00	253.50	37.750	47.875	49.750	30.000	34.750
10:00	252.50	53.750	47.750	50.625	35.000	32.375
11:00	255.00	55.500	50.125	48.375	35.000	29.375
12:00	255.00	39.750	50.125	53.500	35.000	27.438

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29JUL88 FRIDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		F12002B BLR 2 TOTAL STM FLOW	F12153 BLR 2 NAT GAS FLOW	P1C2020 BLR 2 PRI AIR PRESS	P1C2026 BLR 2 SEC AIR PRESS	T12024 BLR 2 UNDERGRATE AIR	A1C2064 BLR 2 O2	T12021C BLR 2 AVG SUP OUTGAS	P12039 BLR 2 SDA INLET GAS	P12375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	T1C2551 BLR 2 SDA GAS OUT TMP
		F12002B SMP	F12153 SMP	P1C2020 SMP	P1C2026 SMP	T12024 SMP	A1C2064 SMP	T12021C SMP	P12039 SMP	P12375 SMP	TR2040 SMP	T1C2551 SMP
		KLB/HR	KSCFH	"H2O	"H2O	DEG F	%	DEG F	"H2O	"H2O	DEG F	DEG F
28JUL88	13:00	191.50	4.6719	12.438	25.938	173.00	9.5313	1020.0	-2.055	-3.750	449.00	255.50
	14:00	184.50	3.8125	11.531	26.250	175.00	12.156	1013.0	-3.047	-5.906	450.00	266.00
	15:00	191.50	0.0000	12.313	25.875	172.00	9.0313	1020.0	-1.836	-3.477	443.00	257.00
	16:00	192.00	0.0000	12.625	26.250	171.00	8.5938	1036.0	-1.883	-3.266	437.00	253.00
	17:00	184.50	0.0000	11.656	26.063	169.50	10.969	1032.0	-2.305	-3.914	439.00	253.00
	18:00	188.50	0.0000	12.406	26.125	83.500	9.3750	1022.0	-2.258	-4.141	450.00	260.00
	19:00	165.50	0.0000	11.844	26.250	82.000	10.125	990.00	-1.504	-3.203	434.00	260.00
	20:00	172.00	0.0000	12.594	26.000	82.250	8.3438	1004.0	-1.766	-3.258	435.00	255.00
	21:00	164.00	0.0000	12.313	26.438	79.750	10.906	1002.0	-1.887	-3.836	437.00	267.00
	22:00	171.50	0.0000	12.781	25.500	79.750	9.5625	1010.0	-2.133	-3.695	435.00	255.50
	23:00	174.00	0.0000	12.313	25.313	78.500	8.3750	1000.0	-2.008	-3.609	439.00	259.00
29JUL88	00:00	170.00	0.0000	12.688	25.625	78.250	9.4688	1006.0	-2.102	-3.789	436.00	253.00
	01:00	169.50	0.0000	11.906	25.750	78.250	10.750	1010.0	-1.875	-3.524	437.00	260.00
	02:00	166.50	0.0000	13.219	26.313	76.500	9.5938	983.00	-2.149	-4.109	443.00	264.50
	03:00	169.00	0.0000	13.156	26.500	77.250	9.8438	1012.0	-2.078	-3.625	432.00	257.00
	04:00	174.00	0.0000	13.344	25.500	75.250	9.1875	976.00	-2.281	-4.297	454.00	266.00
	05:00	172.50	0.0000	12.094	26.250	76.500	9.8750	1006.0	-1.832	-3.383	436.00	252.00
	06:00	173.00	0.0000	11.933	26.438	75.500	10.031	1000.0	-1.906	-3.531	441.00	247.50
	07:00	188.00	0.0000	13.000	25.688	76.750	7.7188	1024.0	-2.242	-3.977	443.00	262.00
	08:00	184.50	0.0000	13.500	26.313	78.750	8.1250	1010.0	-2.328	-4.141	446.00	261.00
	09:00	182.50	0.0000	12.250	25.875	82.500	10.469	1020.0	-2.891	-5.109	454.00	258.00
	10:00	190.50	2.6954	13.063	26.000	86.250	11.188	1020.0	-2.211	-3.969	453.00	253.50
	11:00	192.50	3.8125	12.281	25.938	92.000	9.9063	1036.0	-2.109	-3.836	452.00	257.00
	12:00	135.50	3.8125	12.250	25.500	153.50	11.813	886.00	-2.211	-3.922	436.00	263.00

30JUL88 SATURDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

TI2376 BLR 2 PRECIP OUT TEMP
EI2587 BLR 2 ESP VOLT 2
HC2378 LIME SL CONCEN.
EI2586 BLR 2 ESP VOLT 1
EI2588 BLR 2 ESP VOLT 3
FIC2580 BLR 2 SDA DIL WTR FL

		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
29JUL88	13:00	269.00	40.625	49.375	52.000	35.000	35.625
	14:00	256.00	41.125	49.750	55.500	35.000	30.875
	15:00	256.00	41.500	51.750	55.500	35.000	32.625
	16:00	256.00	44.000	51.125	56.000	35.000	35.625
	17:00	253.00	46.625	52.625	57.375	35.000	20.750
	18:00	255.00	56.625	48.875	56.500	35.000	24.000
	19:00	252.50	42.375	50.000	56.250	35.000	26.500
	20:00	259.00	40.750	51.125	57.000	35.000	32.750
	21:00	254.00	40.250	52.000	59.000	35.000	24.813
	22:00	256.00	40.375	54.375	58.875	40.500	25.125
	23:00	255.50	40.000	55.500	59.500	35.000	26.125
30JUL88	00:00	255.50	51.750	52.875	59.750	35.000	27.125
	01:00	256.00	40.000	49.000	54.125	35.000	31.813
	02:00	255.50	57.250	50.000	57.000	35.000	29.188
	03:00	253.50	36.375	49.625	57.875	35.000	24.063
	04:00	253.00	55.750	49.375	57.500	35.000	27.875
	05:00	256.00	58.000	50.625	57.625	35.000	33.250
	06:00	256.00	54.875	49.750	55.875	35.000	32.000
	07:00	259.00	50.375	50.625	56.875	35.000	32.250
	08:00	255.00	56.250	51.750	57.625	61.750	16.688
	09:00	251.50	56.625	50.125	57.375	35.000	29.125
	10:00	251.50	44.875	52.875	56.875	35.000	22.500
	11:00	251.00	40.375	52.125	57.750	35.000	25.250
	12:00	252.00	49.375	51.375	57.500	35.000	30.438

30JUL88 SATURDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
29JUL88	13:00	191.50	4.6719	12.188	26.313	169.50	11.531	1008.0	-2.367	-4.563	469.00	279.00
	14:00	189.50	4.6719	12.469	26.125	175.50	11.281	1024.0	-2.102	-4.031	454.00	260.00
	15:00	188.00	4.6719	11.781	25.938	177.00	12.000	1024.0	-2.274	-4.141	452.00	263.00
	16:00	188.50	4.6719	12.219	26.063	174.50	10.438	1012.0	-2.625	-4.797	462.00	262.00
	17:00	130.00	4.6719	10.938	27.063	102.25	12.063	906.00	-.9942	-2.297	424.00	260.00
	18:00	180.50	4.6719	12.469	25.938	99.250	9.5313	1018.0	-1.781	-3.305	433.00	258.00
	19:00	188.50	4.6719	12.469	25.813	94.500	10.125	1028.0	-2.219	-4.125	452.00	249.50
	20:00	189.00	3.8125	12.719	25.813	88.750	9.4375	1016.0	-2.344	-4.328	458.00	263.00
	21:00	173.00	3.8125	12.844	26.500	87.500	9.9063	996.00	-1.820	-3.352	446.00	255.00
	22:00	170.00	2.6954	12.438	26.500	86.250	9.7500	1002.0	-2.125	-3.914	442.00	254.00
	23:00	175.50	2.6954	12.656	26.000	85.500	10.438	1012.0	-1.594	-3.063	439.00	256.00
30JUL88	00:00	174.50	0.0000	12.500	25.750	84.000	10.063	1000.0	-1.902	-3.649	444.00	258.00
	01:00	170.50	0.0000	12.844	25.688	83.000	10.594	998.00	-2.172	-4.063	449.00	255.00
	02:00	170.50	0.0000	13.063	25.875	82.500	10.281	994.00	-2.031	-3.789	442.00	259.00
	03:00	168.00	0.0000	12.281	25.875	82.750	10.844	1008.0	-2.047	-3.680	433.00	259.00
	04:00	174.00	0.0000	12.938	26.250	81.500	9.7813	998.00	-2.008	-3.813	444.00	252.50
	05:00	171.50	0.0000	13.563	26.125	81.250	10.750	1006.0	-2.117	-3.547	440.00	260.00
	06:00	164.50	0.0000	12.438	25.938	79.750	13.156	980.00	-3.453	-6.500	449.00	264.00
	07:00	169.00	2.6954	12.750	25.563	82.000	10.094	992.00	-1.895	-3.633	442.00	273.00
	08:00	160.50	2.6954	11.406	25.938	86.250	11.500	994.00	-2.031	-3.688	432.00	260.00
	09:00	173.00	3.8125	12.063	26.188	88.750	10.844	1000.0	-2.352	-3.922	445.00	250.50
	10:00	174.50	4.6719	13.031	26.000	94.250	9.6250	1012.0	-1.871	-3.180	433.00	257.00
	11:00	171.00	4.6719	12.344	26.438	96.750	9.8125	998.00	-1.786	-3.305	435.00	253.00
	12:00	172.00	5.3907	12.188	26.250	99.250	10.375	990.00	-1.781	-3.477	442.00	252.00

31JUL88 SUNDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

	FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 OZ	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
	FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
30JUL88 13:00	172.50	5.3907	13.688	26.188	103.50	9.4375	1010.0	-1.727	-3.133	427.00	254.00
14:00	170.50	5.3907	10.594	25.813	104.25	10.719	990.00	-1.820	-3.297	436.00	263.00
15:00	170.50	5.3907	12.188	26.375	105.50	9.1250	1012.0	-1.613	-2.938	425.00	257.00
16:00	171.50	6.0313	12.563	25.625	105.00	8.7813	1004.0	-1.684	-3.078	427.00	272.00
17:00	167.50	5.3907	12.313	25.938	104.25	9.4688	1012.0	-1.676	-3.117	427.00	264.00
18:00	174.00	5.3907	12.938	25.813	102.50	8.5000	1010.0	-1.664	-2.914	429.00	254.50
19:00	171.00	5.3907	13.219	26.125	97.500	9.0313	1002.0	-1.961	-3.414	427.00	262.00
20:00	172.00	4.6719	12.656	25.688	94.750	8.6563	1002.0	-1.789	-3.266	429.00	258.00
21:00	168.50	4.6719	12.813	26.000	92.250	10.094	1032.0	-2.438	-4.125	440.00	257.00
22:00	173.50	3.8125	12.594	25.563	90.000	10.563	1000.0	-1.652	-3.289	444.00	257.00
23:00	168.50	3.8125	12.438	25.625	89.500	10.406	996.00	-1.684	-3.274	433.00	248.50
31JUL88 00:00	172.00	3.8125	13.469	25.938	88.500	10.781	996.00	-1.617	-3.242	440.00	243.50
01:00	169.00	3.8125	13.344	26.875	88.000	9.5938	996.00	-1.727	-3.250	433.00	253.00
02:00	171.00	4.6719	11.844	26.188	86.750	8.3125	1002.0	-1.703	-3.156	431.00	252.50
03:00	179.50	3.8125	12.500	25.750	85.500	8.6875	1004.0	-1.942	-3.625	439.00	253.00
04:00	168.00	3.8125	13.094	26.000	85.000	10.844	998.00	-2.453	-4.266	442.00	253.00
05:00	167.50	3.8125	12.656	26.438	84.250	10.063	1008.0	-1.801	-3.492	435.00	254.50
06:00	169.00	3.8125	12.250	26.125	84.750	9.1250	1024.0	-1.949	-3.492	432.00	247.00
07:00	176.00	3.8125	12.000	25.813	84.500	10.563	1022.0	-1.777	-3.500	437.00	252.00
08:00	170.50	3.8125	12.000	25.625	84.250	10.750	1006.0	-2.086	-3.625	438.00	252.50
09:00	168.50	3.8125	12.188	25.813	84.250	10.656	1000.0	-1.922	-3.727	439.00	249.50
10:00	170.50	4.6719	12.250	25.813	86.000	11.094	992.00	-2.219	-3.984	447.00	259.00
11:00	171.50	3.8125	13.594	25.813	86.750	10.375	1002.0	-2.375	-4.219	442.00	244.50
12:00	168.50	3.8125	13.094	25.500	84.500	9.5313	996.00	-1.926	-4.031	446.00	250.50

31JUL88 SUNDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

T12376 BLR 2 PRECIP OUT TEMP
E12587 BLR 2 ESP VOLT 2
HC2378 LIME SL CONCEN.

E12586 BLR 2 ESP VOLT 1
E12588 BLR 2 ESP VOLT 3
FIC2580 BLR 2 SDA DIL WTR FL

		T12376 SMP DEG F	E12586 SMP KV	E12587 SMP KV	E12588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
30JUL88	13:00	252.00	44.750	52.375	57.500	73.500	9.9063
	14:00	252.50	41.125	51.375	57.500	35.000	20.625
	15:00	254.00	49.750	50.500	58.125	35.000	25.625
	16:00	270.00	57.250	53.250	58.000	40.000	21.938
	17:00	260.00	43.625	49.125	58.250	40.000	20.563
	18:00	258.00	59.250	51.625	58.500	40.000	21.375
	19:00	258.00	51.875	53.125	58.125	40.750	19.125
	20:00	258.00	58.375	51.000	58.000	45.625	19.000
	21:00	257.00	61.375	54.750	58.125	57.250	17.188
	22:00	256.00	58.125	50.625	58.125	62.000	26.063
	23:00	255.00	58.625	51.000	57.000	80.000	27.250
31JUL88	00:00	246.50	50.125	52.875	57.375	35.000	25.563
	01:00	249.00	42.000	52.250	58.375	35.000	26.750
	02:00	251.50	41.625	51.875	57.875	35.000	20.938
	03:00	250.50	56.500	50.000	57.375	40.000	25.500
	04:00	251.00	57.875	51.750	57.250	44.250	25.500
	05:00	250.00	56.875	51.500	58.750	35.000	26.500
	06:00	247.50	49.125	53.125	58.750	35.000	22.688
	07:00	248.50	50.000	53.250	58.500	35.000	24.938
	08:00	249.50	49.375	51.625	58.875	35.000	27.438
	09:00	249.00	43.500	53.500	59.000	35.000	27.375
	10:00	250.00	41.625	52.500	55.500	35.000	30.625
	11:00	247.00	40.375	52.625	58.875	35.000	26.563
	12:00	249.50	51.750	50.750	59.250	35.000	29.750

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01AUG88 MONDAY ENTROPY TEST LOG NO. 2 - [redacted]. 2 TREND LOG 19 COLLECTION COMPLETED 12:[redacted]

		TI2376 PRECIP OUT TEMP	BLR 2	EI2587 ESP VOLT 2	BLR 2	HC2378 SL CONCEN.	LINE
		EI2586 ESP VOLT 1	BLR 2	EI2588 ESP VOLT 3	BLR 2	FIC2580 SDA DIL	BLR 2 WTR FL
		TI2376 SMP	EI2586 SMP	EI2587 SMP	EI2588 SMP	HC2378 SMP	FIC2580 SMP
		DEG F	KV	KV	KV		GPM
31JUL88	13:00	249.00	55.500	52.750	58.875	35.000	31.375
	14:00	247.00	41.000	54.500	59.000	35.000	25.750
	15:00	245.00	40.600	53.250	59.750	35.000	25.875
	16:00	246.00	55.625	50.375	58.875	35.000	30.500
	17:00	246.50	41.750	50.750	59.250	35.000	29.250
	18:00	249.00	42.375	51.125	56.750	35.000	32.875
	19:00	246.50	51.625	53.125	53.750	50.000	20.000
	20:00	246.50	43.125	53.125	59.000	40.000	24.750
	21:00	248.00	41.375	52.625	53.500	40.000	28.250
	22:00	254.50	43.875	51.625	58.875	35.000	26.250
	23:00	256.00	54.375	50.625	53.750	35.000	24.375
01AUG88	00:00	257.00	60.750	51.125	58.750	48.625	20.813
	01:00	255.00	53.625	51.625	58.375	35.000	23.750
	02:00	257.00	55.750	52.000	58.625	35.000	23.563
	03:00	257.00	51.000	52.500	59.250	35.000	24.688
	04:00	254.50	55.500	52.875	59.000	35.000	24.375
	05:00	257.00	51.500	52.000	59.250	35.000	32.500
	06:00	254.00	55.500	51.375	58.625	35.000	26.813
	07:00	253.50	54.125	51.750	58.875	35.000	25.250
	08:00	255.50	47.375	52.625	59.000	35.000	31.313
	09:00	265.00	40.500	48.625	53.125	30.000	37.250
	10:00	273.00	54.125	52.875	58.000	30.000	31.500
	11:00	288.00	49.875	41.875	45.250	30.000	32.750
	12:00	263.00	52.500	47.875	55.750	30.000	31.625

01AUG88 MONDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

	FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
	FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
31JUL88 13:00	170.50	3.8125	12.406	26.375	84.000	10.844	998.00	-2.164	-4.141	450.00	249.50
14:00	170.50	3.8125	12.313	25.500	84.750	10.469	1008.0	-1.945	-3.688	442.00	253.50
15:00	170.50	3.8125	11.813	25.938	87.750	11.719	1002.0	-2.234	-3.891	443.00	250.50
16:00	175.50	3.8125	13.094	26.000	89.250	9.0000	994.00	-2.609	-4.313	451.00	246.50
17:00	165.50	3.8125	13.156	26.625	90.000	10.219	1002.0	-2.289	-4.391	449.00	250.50
18:00	171.00	4.6719	11.906	26.125	91.000	10.938	996.00	-2.063	-3.703	446.00	256.00
19:00	165.50	4.6719	11.313	25.875	90.500	10.406	996.00	-2.102	-4.016	443.00	255.00
20:00	170.50	4.6719	12.156	26.000	88.000	10.344	1000.0	-2.094	-3.680	440.00	249.50
21:00	168.00	3.8125	12.750	26.000	84.750	9.8125	994.00	-2.047	-3.914	440.00	254.50
22:00	172.00	3.8125	12.906	25.813	84.000	8.9063	1004.0	-2.078	-3.797	443.00	258.00
23:00	167.50	2.6954	12.781	26.000	83.750	11.500	1014.0	-2.149	-3.742	436.00	263.00
01AUG88 00:00	170.50	2.6954	12.125	26.625	83.750	9.1563	1010.0	-2.016	-3.563	436.00	265.00
01:00	170.50	2.6954	11.406	25.438	83.750	9.5313	1018.0	-1.652	-3.149	433.00	254.50
02:00	168.50	2.6954	12.063	25.688	83.250	10.656	1008.0	-2.008	-3.703	436.00	263.00
03:00	166.50	2.6954	11.938	26.125	81.250	12.000	1000.0	-2.430	-4.266	444.00	258.00
04:00	169.00	2.6954	11.375	25.375	82.250	11.344	1010.0	-1.930	-3.688	445.00	252.50
05:00	166.00	2.6954	12.344	26.125	79.500	11.375	988.00	-2.625	-5.063	458.00	263.00
06:00	173.50	2.6954	11.938	26.250	80.250	11.656	1004.0	-2.149	-3.797	449.00	251.50
07:00	179.50	2.6954	12.406	26.375	80.500	10.531	1016.0	-2.149	-3.984	450.00	248.00
08:00	182.50	2.6954	12.313	26.000	81.750	10.781	1014.0	-2.609	-4.750	461.00	259.00
09:00	189.50	0.0000	12.656	26.063	83.750	11.156	1006.0	-2.742	-5.406	473.00	274.00
10:00	194.50	2.6954	12.250	26.125	88.250	10.000	1018.0	-2.305	-4.125	472.00	281.00
11:00	182.50	2.6954	11.156	26.125	90.250	13.500	996.00	-3.399	-6.438	482.00	306.00
12:00	184.50	4.6719	12.188	26.250	96.500	9.6563	1032.0	-2.039	-3.844	454.00	256.00

02AUG88 TUESDAY ENTROPY TEST LOG NO. 1 [illegible]R. 2 TREND LOG 18 COLLECTION COMPLETED 12:[illegible]

		FI2002B BLR 2 TOTAL STM FLOW		PIC2028 BLR 2 PRI AIR PRESS		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AVG SUP OUTGAS		PI2375 BLR 2 PRECIP OUT PR		TIC2551 BLR 2 SDA GAS OUT TMP
		FI2153 BLR 2 NAT GAS FLOW		PIC2026 BLR 2 SEC AIR PRESS		AIC2064 BLR 2 O2		PI2039 BLR 2 SDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT		
		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
01AUG88	13:00	192.50	5.3907	12.375	26.250	99.500	9.0938	1044.0	-2.000	-3.531	441.00	264.00
	14:00	184.00	5.3907	11.938	25.938	98.750	10.469	1018.0	-2.430	-4.500	455.00	262.00
	15:00	195.50	5.3907	13.000	25.750	101.50	9.4375	1036.0	-2.172	-3.703	451.00	261.00
	16:00	189.50	5.3907	12.563	25.313	102.00	8.9375	1028.0	-2.274	-4.156	443.00	258.00
	17:00	189.50	5.3907	12.500	25.688	102.50	8.9063	1036.0	-1.930	-3.570	444.00	261.00
	18:00	190.50	5.3907	13.281	25.563	98.750	7.3438	1024.0	-2.039	-3.789	451.00	264.00
	19:00	168.50	5.3907	13.563	25.813	94.750	10.250	1018.0	-1.879	-3.305	434.00	260.00
	20:00	170.50	4.6719	11.938	26.500	92.500	8.5625	1016.0	-1.836	-3.133	426.00	260.00
	21:00	172.00	3.8125	11.781	25.813	92.000	8.4063	1024.0	-1.348	-2.609	419.00	258.00
	22:00	170.00	3.8125	12.375	26.125	90.000	9.0313	1008.0	-1.524	-2.859	419.00	262.00
	23:00	170.00	3.8125	12.344	25.875	88.750	8.8125	1032.0	-1.828	-3.211	418.00	259.00
02AUG88	00:00	167.00	3.8125	13.031	26.000	85.250	9.4375	1020.0	-2.297	-3.930	430.00	258.00
	01:00	169.50	2.6954	12.313	26.313	85.250	8.5938	1028.0	-1.609	-2.953	422.00	258.00
	02:00	169.50	2.6954	12.125	26.063	83.000	10.438	1006.0	-1.836	-3.516	437.00	262.00
	03:00	172.00	2.6954	12.406	26.313	82.750	9.4688	1014.0	-2.024	-3.539	434.00	260.00
	04:00	173.50	0.0000	12.469	25.938	82.500	7.9688	1016.0	-1.684	-3.102	436.00	257.00
	05:00	170.00	0.0000	12.563	26.188	81.750	9.3438	1018.0	-1.758	-3.156	429.00	260.00
	06:00	174.00	0.0000	12.344	25.750	81.750	8.3750	1014.0	-1.715	-3.109	430.00	259.00
	07:00	183.50	2.6954	12.875	26.313	82.500	10.156	1040.0	-1.817	-3.422	430.00	263.00
	08:00	191.50	0.0000	13.094	26.188	85.500	9.3750	1044.0	-1.613	-3.305	450.00	261.00
	09:00	188.50	2.6954	12.500	25.938	89.500	9.6875	1036.0	-2.266	-3.984	446.00	262.00
	10:00	191.50	3.8125	11.813	26.000	93.250	9.5313	1048.0	-1.734	-3.141	442.00	255.00
	11:00	193.00	5.3907	11.969	26.000	96.500	10.750	1032.0	-1.734	-3.445	453.00	257.00
	12:00	191.50	5.3907	12.438	26.250	99.000	9.3438	1040.0	-1.969	-3.781	458.00	255.50

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02AUG88 TUESDAY — ENTROPY TEST LOG NO. 2 - BLR. 2 — TREND LOG 19 — COLLECTION COMPLETED 12:01

		TI2376 PRECIP OUT TEMP BLR 2	EI2586 ESP VOLT 1 BLR 2	EI2587 ESP VOLT 2 BLR 2	EI2588 ESP VOLT 3 BLR 2	HC2378 SL CONCEN. LIME	FIC2580 SDA DIL MTR FL BLR 2
		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
01AUG88	13:00	258.00	42.875	50.375	57.625	35.000	26.688
	14:00	259.00	60.375	50.500	59.000	35.000	33.500
	15:00	257.00	42.500	50.125	57.500	35.000	29.625
	16:00	259.00	43.625	50.625	58.500	35.000	29.500
	17:00	259.00	49.500	51.875	59.625	35.000	26.688
	18:00	260.00	41.250	50.500	59.375	35.000	31.500
	19:00	258.00	40.625	51.625	60.125	35.000	24.375
	20:00	259.00	43.250	52.250	59.625	35.000	20.188
	21:00	258.00	44.375	52.375	59.500	57.500	10.688
	22:00	258.00	43.375	53.750	60.625	35.000	21.188
	23:00	258.00	58.375	56.000	60.500	35.000	21.250
02AUG88	00:00	258.00	41.500	56.875	60.500	35.000	22.375
	01:00	258.00	57.875	57.125	60.625	35.000	21.313
	02:00	258.00	55.500	50.750	59.625	35.000	29.688
	03:00	257.00	56.000	50.875	59.625	35.000	26.750
	04:00	254.50	57.875	52.125	59.375	35.000	23.750
	05:00	256.00	58.125	52.625	59.875	35.000	23.375
	06:00	255.00	49.375	50.375	59.625	35.000	21.938
	07:00	257.00	58.875	53.125	59.500	61.375	14.438
	08:00	256.00	50.375	52.500	59.750	35.000	28.375
	09:00	257.00	58.250	53.500	59.625	35.000	27.688
	10:00	255.00	61.000	54.375	59.500	35.000	25.688
	11:00	256.00	42.125	49.875	60.250	35.000	32.875
	12:00	254.50	50.500	51.250	59.625	35.000	31.625

03AU688 WEDNESDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP OUT TEMP BLR 2	EI2506 ESP VOLT 1 BLR 2	EI2507 ESP VOLT 2 BLR 2	EI2508 ESP VOLT 3 BLR 2	HC2378 SL CONCEN. LIME	FIC2580 SUA DIL WTR FL BLR 2
		TI2376 SMP	EI2506 SMP	EI2507 SMP	EI2508 SMP	HC2378 SMP	FIC2580 SMP
		DEG F	KV	KV	KV		GPM
02AU688	13:00	257.00	41.250	52.625	60.125	35.000	29.625
	14:00	257.00	49.125	53.500	60.125	35.000	29.438
	15:00	257.00	53.875	52.750	60.000	35.125	29.625
	16:00	257.00	45.375	54.500	59.875	35.000	31.625
	17:00	258.00	35.625	53.000	60.250	80.000	15.469
	18:00	255.00	39.000	50.625	60.250	35.000	24.500
	19:00	255.50	36.500	54.250	60.375	35.000	22.250
	20:00	257.00	62.375	53.000	60.375	35.000	23.938
	21:00	254.50	42.500	53.250	60.125	35.000	21.625
	22:00	257.00	42.125	54.250	60.375	58.750	16.375
	23:00	254.50	43.500	51.000	60.375	35.000	19.563
03AU688	00:00	254.50	59.125	54.125	60.750	35.000	19.875
	01:00	255.50	43.250	54.125	60.875	35.000	22.063
	02:00	254.50	55.125	53.250	60.250	35.000	22.500
	03:00	256.00	60.500	54.000	60.875	35.000	21.875
	04:00	256.00	55.250	55.625	61.125	35.000	22.063
	05:00	255.50	42.125	54.000	60.875	35.000	23.438
	06:00	256.00	41.500	52.250	60.250	36.250	20.000
	07:00	256.00	40.750	54.000	60.250	35.000	26.250
	08:00	255.00	42.250	53.500	60.250	35.000	28.000
	09:00	253.00	44.000	53.875	59.875	35.000	25.439
	10:00	253.50	46.875	51.000	60.250	35.000	26.938
	11:00	253.50	41.875	53.625	59.375	35.000	27.875
	12:00	255.00	57.000	54.000	59.875	67.250	12.125

03AUG88 WEDNESDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B TOTAL STM FLOW BLR-2	FI2153 NAT GAS FLOW BLR 2	PIC2028 PRI AIR PRESS BLR-2	PIC2026 SEC AIR PRESS BLR 2	TI2024 UNDERGRATE AIR BLR-2	AIC2064 O2 BLR 2	TI2021C AVG SUP OUTGAS BLR 2	PI2039 SDA INLET GAS BLR 2	PI2375 PRECIP OUT PR BLR-2	TR2040 FLUE GAS OUT BLR 2	TIC2551 SDA GAS OUT TMP BLR-2
		FI2002B SMP	FI2153 SMP	PIC2028 SMP	PIC2026 SMP	TI2024 SMP	AIC2064 SMP	TI2021C SMP	PI2039 SMP	PI2375 SMP	TR2040 SMP	TIC2551 SMP
		KLB/HR	KSCFH	"H20	"H20	DEG-F	%	DEG F	"H20	"H20	DEG F	DEG F
02AUG88	13:00	184.50	5.3907	12.750	26.000	103.00	10.906	1044.0	-2.125	-3.883	447.00	264.00
	14:00	184.00	5.3907	12.531	25.638	103.00	10.938	1032.0	-2.570	-4.453	452.00	262.00
	15:00	185.00	6.0313	12.063	26.125	102.25	9.7500	1040.0	-2.149	-3.984	449.00	265.00
	16:00	182.00	5.3907	12.844	26.375	101.75	10.750	1032.0	-2.133	-3.961	457.00	262.00
	17:00	186.50	5.3907	13.344	26.125	101.75	9.0000	1032.0	-1.820	-3.680	452.00	263.00
	18:00	193.00	5.3907	12.844	26.000	101.25	8.6563	1043.0	-1.938	-3.445	447.00	256.00
	19:00	167.50	5.3907	12.969	26.000	97.250	11.094	1016.0	-2.070	-3.609	434.00	259.00
	20:00	172.00	5.3907	12.531	25.688	94.500	9.6875	1018.0	-1.649	-3.156	429.00	260.00
	21:00	173.00	4.6719	13.438	26.063	92.000	10.000	1018.0	-1.895	-3.367	431.00	267.00
	22:00	171.50	4.6719	12.156	25.500	89.250	10.219	1000.0	-1.684	-3.133	434.00	261.00
	23:00	176.00	4.6719	12.063	25.813	89.250	9.3125	1032.0	-1.547	-2.867	429.00	260.00
03AUG88	00:00	172.50	3.8125	11.781	26.000	88.500	7.9688	1028.0	-1.668	-3.008	424.00	259.00
	01:00	165.50	3.8125	12.594	26.125	86.500	9.9688	1014.0	-1.840	-3.250	428.00	260.00
	02:00	169.50	3.8125	12.500	25.500	86.250	9.8438	1020.0	-1.777	-3.313	429.00	259.00
	03:00	171.50	2.6954	12.250	26.125	85.500	8.9375	1040.0	-1.883	-3.234	423.00	260.00
	04:00	168.00	2.6954	12.594	26.188	84.750	9.7188	1023.0	-1.809	-3.250	424.00	259.00
	05:00	173.00	2.6954	12.406	25.688	83.250	9.3125	1024.0	-1.828	-3.219	431.00	257.00
	06:00	172.00	2.6954	12.438	26.375	84.500	8.5625	1040.0	-1.547	-2.844	423.00	260.00
	07:00	179.50	0.0000	12.813	25.875	83.500	9.6875	1040.0	-1.859	-3.406	436.00	260.00
	08:00	190.00	2.6954	12.406	26.063	86.500	8.2188	1056.0	-1.969	-3.672	443.00	262.00
	09:00	191.00	2.6954	11.906	26.250	90.500	8.5938	1072.0	-1.797	-3.422	443.00	258.00
	10:00	185.00	2.6954	11.313	25.875	92.750	11.031	1056.0	-2.008	-3.711	444.00	261.00
	11:00	198.00	4.6719	12.781	25.938	96.500	8.5313	1064.0	-1.848	-3.305	451.00	252.00
	12:00	183.50	5.3907	12.313	26.188	101.75	8.0313	1064.0	-1.750	-3.172	436.00	260.00

04AUG88 THURSDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2661 BLR 2 SDA GAS OUT TMP
		FI2002B SMP	FI2153 SMP	PIC2028 SMP	PIC2026 SMP	TI2024 SMP	AIC2064 SMP	TI2021C SMP	PI2039 SMP	PI2375 SMP	TR2040 SMP	TIC2661 SMP
		KLB/HR	KSCFH	"H2O	"H2O	DEG F	%	DEG F	"H2O	"H2O	DEG F	DEG F
03AUG88	13:00	190.00	6.0313	12.063	26.125	103.25	9.6875	1056.0	-2.086	-3.649	441.00	261.00
	14:00	195.50	6.0313	13.531	25.813	105.50	8.5313	1064.0	-1.715	-3.227	446.00	261.00
	15:00	192.00	6.0313	12.531	26.125	105.00	10.375	1052.0	-2.016	-3.703	455.00	258.00
	16:00	192.00	5.3907	12.781	25.750	104.75	10.125	1052.0	-2.078	-3.913	451.00	260.00
	17:00	187.00	4.6719	12.813	25.875	103.50	9.8125	1052.0	-2.070	-3.630	443.00	262.00
	18:00	187.50	4.6719	11.844	25.500	100.00	9.5000	1048.0	-2.070	-3.602	440.00	262.00
	19:00	176.00	4.6719	11.344	25.625	96.500	10.563	1032.0	-1.551	-3.234	440.00	260.00
	20:00	167.50	3.8125	13.031	26.063	95.250	9.6250	1028.0	-1.738	-3.109	417.00	262.00
	21:00	172.50	2.6954	12.094	25.438	93.500	9.0625	1032.0	-1.582	-2.703	417.00	262.00
	22:00	171.50	2.6954	12.563	25.750	92.000	8.7188	1040.0	-1.371	-2.781	417.00	265.00
	23:00	162.50	2.6954	13.594	26.563	89.000	11.594	1019.0	-1.809	-3.344	420.00	252.50
04AUG88	00:00	171.50	2.6954	11.438	25.500	88.500	8.8750	1032.0	-1.481	-2.750	426.00	253.50
	01:00	171.00	3.8125	12.688	26.313	87.250	8.3438	1032.0	-1.656	-2.953	421.00	256.00
	02:00	170.50	3.8125	12.500	25.688	87.500	9.4688	1026.0	-1.598	-2.781	417.00	254.00
	03:00	172.00	3.8125	12.000	26.438	87.250	9.3438	1040.0	-1.617	-2.945	422.00	255.00
	04:00	172.50	2.6954	12.219	26.438	86.000	9.6250	1044.0	-1.551	-2.953	424.00	256.00
	05:00	174.00	2.6954	12.656	25.688	85.750	8.8438	1032.0	-1.340	-2.617	426.00	259.00
	06:00	175.50	2.6954	11.656	26.500	84.500	10.125	1036.0	-1.699	-3.086	428.00	254.00
	07:00	173.50	2.6954	12.969	26.375	83.250	12.188	1024.0	-2.344	-4.125	444.00	259.00
	08:00	186.00	0.0000	12.313	25.938	87.500	10.719	1052.0	-2.281	-3.899	448.00	259.00
	09:00	192.00	2.6954	12.063	25.938	89.250	9.7500	1040.0	-2.133	-3.797	454.00	256.00
	10:00	188.50	2.6954	12.344	25.875	93.250	9.9063	1052.0	-2.149	-3.789	450.00	256.00
	11:00	192.00	2.6954	12.906	25.875	98.000	10.500	1064.0	-1.883	-3.430	447.00	253.00
	12:00	189.00	3.8125	12.344	25.938	99.250	10.750	1056.0	-2.289	-3.930	449.00	253.00

04AUG88 THURSDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

	TI2376 PRECIP OUT TEMP BLR-2	EI2586 ESP VOLT 1 BLR 2	EI2587 ESP VOLT 2 BLR 2	EI2588 ESP VOLT 3 BLR 2	HC2370 SL CONCEN. LIME	FIC2580 SDA DIL WTR FL BLR 2
	TI2376 SMP	EI2586 SMP	EI2587 SMP	EI2588 SMP	HC2370 SMP	FIC2580 SMP
	DEG F	KV	KV	KV		GPM
03AUG88 13:00	254.50	53.125	52.250	59.500	35.000	25.938
14:00	254.00	43.625	51.500	59.000	35.000	25.063
15:00	256.00	47.125	50.750	59.000	35.000	32.000
16:00	256.00	50.125	52.750	60.000	35.000	28.375
17:00	257.00	46.125	52.375	60.875	35.000	26.375
18:00	257.00	43.375	54.375	60.750	35.000	25.125
19:00	257.00	36.125	53.750	60.750	35.000	26.063
20:00	258.00	39.875	55.375	60.375	35.000	20.250
21:00	253.50	42.750	54.750	60.000	40.000	19.250
22:00	253.00	43.625	53.250	60.375	40.000	18.688
23:00	253.00	41.750	57.125	60.000	43.750	12.594
04AUG88 00:00	250.00	59.750	54.000	59.500	44.000	11.188
01:00	253.00	56.750	54.250	60.625	40.000	22.313
02:00	252.50	58.875	54.875	60.625	40.000	19.750
03:00	253.00	55.000	54.500	60.250	40.000	21.063
04:00	251.50	58.375	54.875	60.250	40.000	18.813
05:00	251.00	55.375	54.000	60.125	44.750	18.813
06:00	250.50	61.125	55.250	60.250	40.000	21.375
07:00	255.00	49.500	56.500	61.125	40.000	31.563
08:00	253.00	37.375	54.750	60.375	40.000	29.125
09:00	250.50	42.000	54.875	60.500	40.000	28.625
10:00	252.00	54.125	51.250	59.500	40.000	29.438
11:00	250.50	61.000	52.750	59.875	40.000	26.938
12:00	250.50	43.500	52.125	59.750	35.000	30.000

05AU080 FRIDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

TI2376 BLR 2 PRECIP OUT TEMP
EI2587 BLR 2 ESP VOLT 2
HC2378 LINE SL CONCEN.
EI2586 BLR 2 ESP VOLT 1
EI2588 BLR 2 ESP VOLT 3
FIC2580 BLR 2 GDA DIL WTR FL

		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
04AU080	13:00	251.00	60.250	53.250	59.250	35.000	31.625
	14:00	247.00	4.9844	32.375	62.500	35.000	22.938
	15:00	250.00	54.375	63.875	61.875	35.000	22.000
	16:00	252.00	50.375	51.250	62.500	39.875	29.813
	17:00	250.50	51.500	50.375	62.125	20.000	34.000
	18:00	251.50	41.375	51.375	62.000	26.563	30.938
	19:00	260.00	39.750	49.875	61.250	20.000	42.875
	20:00	261.00	43.000	50.250	61.625	66.750	11.656
	21:00	258.00	43.750	51.500	57.625	20.313	35.625
	22:00	267.00	41.875	51.875	61.875	33.125	35.500
	23:00	253.50	43.375	49.375	56.875	20.000	27.188
05AU080	00:00	253.50	41.500	50.125	61.500	40.250	21.125
	01:00	255.00	40.875	50.000	61.500	40.250	18.063
	02:00	257.00	52.625	50.750	61.750	75.250	11.688
	03:00	257.00	51.125	49.875	62.250	40.250	20.125
	04:00	255.50	49.125	51.750	62.000	40.250	19.750
	05:00	255.00	50.750	51.375	62.125	40.250	18.063
	06:00	256.00	49.750	51.000	61.875	40.250	22.563
	07:00	257.00	51.500	52.125	60.875	40.250	22.875
	08:00	256.00	54.375	50.375	61.500	40.250	26.250
	09:00	253.00	41.250	47.750	61.625	40.250	24.313
	10:00	255.00	42.375	48.875	61.125	40.250	23.938
	11:00	255.50	57.250	49.750	60.125	40.250	21.875
	12:00	256.00	49.750	49.125	60.375	40.250	23.313

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05AUG88 FRIDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2651 BLR 2 SDA GAS OUT TMP
		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP X	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2651 SMP DEG F
04AUG88	13:00	189.50	4.6719	13.125	25.938	100.25	10.375	1056.0	-2.117	-3.797	454.00	258.00
	14:00	194.00	5.3907	12.250	26.188	103.00	8.4375	1072.0	-1.465	-2.859	437.00	255.00
	15:00	174.00	5.3907	12.781	26.250	105.00	10.375	1023.0	-1.637	-3.047	429.00	254.50
	16:00	189.50	5.3907	13.313	25.750	102.75	8.5938	1040.0	-2.156	-4.031	455.00	259.00
	17:00	191.00	6.3907	12.625	25.938	103.25	8.6563	1048.0	-1.664	-3.203	446.00	256.50
	18:00	190.50	4.6719	12.906	25.875	99.250	9.0938	1048.0	-1.817	-3.375	446.00	258.00
	19:00	171.50	4.6719	13.625	26.000	96.500	14.000	1002.0	-2.305	-4.281	471.00	270.00
	20:00	174.00	3.8125	13.625	25.375	94.750	8.4688	1028.0	-1.539	-2.930	429.00	271.00
	21:00	170.00	3.8125	12.138	25.688	92.750	12.625	992.00	-2.234	-4.219	456.00	257.00
	22:00	175.50	3.8125	12.844	26.000	90.250	11.656	1018.0	-2.531	-4.688	455.00	279.00
	23:00	167.00	3.8125	13.719	25.813	88.750	10.469	1004.0	-1.895	-3.414	439.00	255.50
05AUG88	00:00	175.00	3.8125	12.656	25.875	88.250	7.9844	1018.0	-1.727	-3.070	434.00	255.00
	01:00	167.50	3.8125	12.031	25.625	88.000	9.4063	1022.0	-1.348	-3.149	423.00	261.00
	02:00	166.50	2.6954	11.813	25.750	86.000	10.594	1014.0	-1.715	-3.367	432.00	256.00
	03:00	173.00	3.8125	12.969	25.438	86.000	8.3750	1028.0	-1.567	-2.859	424.00	260.00
	04:00	169.00	2.6954	12.406	25.438	85.250	9.7188	1022.0	-1.645	-3.086	426.00	256.00
	05:00	169.00	3.8125	12.344	25.688	85.500	9.1563	1020.0	-1.598	-2.367	424.00	258.00
	06:00	166.50	2.6954	11.563	25.938	84.000	11.094	1012.0	-2.024	-3.641	433.00	258.00
	07:00	174.50	2.6954	12.500	26.375	85.000	10.688	1028.0	-2.070	-3.602	433.00	262.00
	08:00	188.50	0.0000	12.031	26.188	88.000	10.688	1048.0	-2.016	-3.750	450.00	259.00
	09:00	191.00	0.0000	12.500	25.813	92.000	10.138	1032.0	-2.125	-3.828	455.00	257.00
	10:00	188.50	2.6954	11.969	26.125	94.500	9.2813	1048.0	-1.492	-3.039	439.00	264.00
	11:00	187.00	2.6954	12.813	26.188	99.250	8.5313	1056.0	-1.945	-3.578	438.00	259.00
	12:00	190.00	2.6954	12.594	26.000	100.00	8.8125	1056.0	-1.922	-3.477	440.00	259.00

06AUG88 SATURDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

TI2376 BLR 2 PRECIP OUT TEMP
EI2587 BLR 2 ESP VOLT 2
HC2378 LIME SL CONCEN.
EI2586 BLR 2 ESP VOLT 1
EI2588 BLR 2 ESP VOLT 3
FIC2680 BLR 2 SDA DIL WTR FL

		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2680 SMP GPM
05AUG88	13:00	255.50	61.125	50.750	60.250	40.250	21.313
	14:00	258.00	56.500	49.625	60.750	40.250	26.813
	15:00	257.00	38.750	50.375	61.125	40.250	26.000
	16:00	257.00	47.250	48.625	60.875	40.250	29.938
	17:00	258.00	44.250	51.500	61.000	40.250	23.875
	18:00	256.00	56.875	48.375	61.750	40.250	24.625
	19:00	257.00	54.625	50.125	61.875	79.750	9.9688
	20:00	256.00	54.750	49.250	61.000	74.750	10.406
	21:00	257.00	42.125	48.375	61.500	30.063	27.313
	22:00	256.00	58.500	49.250	61.625	72.000	10.781
	23:00	256.00	43.375	50.500	62.000	30.063	22.313
06AUG88	00:00	256.00	54.625	50.000	62.000	30.063	23.938
	01:00	256.00	54.500	52.375	61.375	30.063	22.625
	02:00	256.00	42.625	50.875	62.625	30.688	24.938
	03:00	256.00	51.875	51.375	61.375	30.063	22.125
	04:00	256.00	55.875	49.000	60.875	30.063	25.250
	05:00	255.00	41.375	51.875	61.250	30.063	22.250
	06:00	255.50	55.625	51.000	61.125	50.125	16.063
	07:00	255.50	57.125	49.625	61.125	50.125	15.531
	08:00	256.00	57.750	50.250	60.625	30.063	24.375
	09:00	255.50	34.875	50.375	61.125	71.250	9.9688
	10:00	255.50	40.375	49.750	60.500	30.063	26.500
	11:00	256.00	54.500	51.250	60.125	30.063	28.625
	12:00	255.50	50.000	50.375	60.125	30.063	24.625

06AUG88 SATURDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

	FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
	FI2002B SMP	FI2153 SMP	PIC2028 SMP	PIC2026 SMP	TI2024 SMP	AIC2064 SMP	TI2021C SMP	PI2039 SMP	PI2375 SMP	TR2040 SMP	TIC2551 SMP
	KLB/HR	KSCFH	"H2O	"H2O	DEG F	%	DEG F	"H2O	"H2O	DEG F	DEG F
05AUG88 13:00	187.50	3.8125	12.063	26.000	102.25	9.2813	1056.0	-1.977	-3.492	433.00	260.00
14:00	189.00	4.6719	12.031	26.000	100.50	9.3750	1044.0	-2.375	-4.219	454.00	263.00
15:00	186.00	4.6719	12.969	25.875	103.50	9.4375	1040.0	-2.391	-4.203	451.00	264.00
16:00	193.50	3.8125	12.688	25.938	102.75	9.0000	1044.0	-1.981	-3.695	457.00	256.00
17:00	183.00	3.8125	12.000	26.000	101.25	9.6563	1040.0	-2.227	-4.031	444.00	263.00
18:00	173.50	3.8125	12.844	26.125	98.000	9.7500	1014.0	-1.758	-3.258	444.00	255.00
19:00	168.00	2.6954	12.656	26.125	97.000	9.9375	1018.0	-1.680	-3.031	424.00	257.00
20:00	173.00	2.6954	12.531	26.500	94.000	9.0313	1014.0	-1.652	-3.102	433.00	260.00
21:00	176.00	0.0000	12.500	25.875	90.750	9.6250	1008.0	-1.492	-2.883	437.00	256.00
22:00	168.50	0.0000	12.438	26.563	90.000	10.000	1018.0	-2.031	-3.539	429.00	255.00
23:00	170.50	2.6954	12.313	25.938	88.750	9.3438	1020.0	-1.660	-3.031	424.00	260.00
06AUG88 00:00	168.00	0.0000	12.531	26.375	87.250	10.031	1024.0	-1.711	-3.063	426.00	258.00
01:00	166.50	0.0000	13.875	26.063	86.500	9.4063	1022.0	-1.703	-3.195	425.00	261.00
02:00	170.00	0.0000	13.125	26.375	85.500	9.2813	1020.0	-1.992	-3.516	432.00	259.00
03:00	168.50	0.0000	12.156	26.625	86.750	10.125	1028.0	-1.621	-2.961	422.00	260.00
04:00	173.00	2.6954	12.688	26.000	85.250	8.9375	1024.0	-1.668	-3.102	431.00	257.00
05:00	169.50	0.0000	12.500	25.625	84.750	9.5625	1032.0	-1.750	-3.180	426.00	260.00
06:00	168.00	0.0000	11.906	25.313	85.000	8.9063	1032.0	-1.656	-3.078	423.00	260.00
07:00	169.50	0.0000	11.188	26.563	85.500	9.0938	1028.0	-1.586	-2.899	423.00	261.00
08:00	170.50	0.0000	12.406	25.750	87.750	10.031	1020.0	-1.754	-3.078	427.00	261.00
09:00	172.00	0.0000	12.688	25.938	91.000	8.7188	1032.0	-1.410	-2.594	426.00	257.00
10:00	167.00	0.0000	12.563	25.875	93.000	10.750	1020.0	-1.770	-3.305	435.00	260.00
11:00	166.00	2.6954	12.625	26.188	94.000	10.531	1000.0	-1.930	-3.649	445.00	260.00
12:00	170.00	2.6954	12.594	26.625	99.500	9.7500	1020.0	-1.777	-3.149	433.00	261.00

07AUG88 SUNDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

TI2376 BLK 2 PRECIP OUT TEMP
EI2587 BLK 2 ESP VOLT 2
HC2378 LIME SL CONCEN.
EI2586 BLK 2 ESP VOLT 1
EI2588 BLK 2 ESP VOLT 3
FIC2580 BLR 2 SDA DIL WTR FL

		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
06AUG88	13:00	257.00	39.750	47.625	60.625	30.063	35.625
	14:00	260.00	50.750	50.125	59.625	35.000	34.500
	15:00	255.00	37.375	48.125	60.000	40.000	21.625
	16:00	257.00	37.750	50.750	60.125	40.000	27.813
	17:00	254.50	56.375	49.250	60.125	40.000	23.500
	18:00	253.50	56.500	50.250	60.000	40.000	20.875
	19:00	257.00	40.875	54.250	60.500	40.000	23.438
	20:00	255.00	43.125	51.750	60.625	40.000	20.375
	21:00	256.00	42.875	50.500	60.750	45.000	16.813
	22:00	257.00	43.500	51.000	60.875	45.000	19.250
	23:00	254.00	56.125	52.625	60.625	45.000	19.313
07AUG88	00:00	254.50	51.000	48.000	60.750	45.000	22.063
	01:00	254.50	56.125	50.000	60.750	45.000	17.375
	02:00	256.00	52.875	51.000	60.750	45.000	19.813
	03:00	257.00	54.375	47.250	60.500	45.000	18.813
	04:00	257.00	40.500	49.125	60.625	45.000	23.375
	05:00	256.00	39.750	49.500	60.500	45.000	21.938
	06:00	254.50	35.000	50.000	60.750	45.000	17.688
	07:00	254.00	55.375	51.375	60.625	45.000	20.563
	08:00	255.00	41.375	49.750	60.875	45.000	22.250
	09:00	254.50	35.500	49.125	60.625	45.000	19.000
	10:00	255.50	43.500	51.125	60.875	45.000	20.375
	11:00	255.00	43.375	50.750	60.750	45.000	18.688
	12:00	264.00	41.625	50.000	61.000	35.000	24.188

07AUG88 SUNDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
06AUG88	13:00	173.50	3.8125	12.688	25.938	90.500	9.8750	974.00	-1.953	-3.281	463.00	253.50
	14:00	170.50	3.8125	12.406	25.875	100.00	11.906	986.00	-2.789	-5.047	463.00	262.00
	15:00	174.00	3.8125	12.250	26.063	101.75	9.2500	1020.0	-1.660	-3.149	437.00	251.50
	16:00	159.00	3.8125	12.875	25.938	98.750	12.344	980.00	-2.172	-4.313	450.00	262.00
	17:00	177.50	2.6954	12.406	26.125	97.500	9.6375	1024.0	-1.656	-3.039	440.00	255.50
	18:00	174.50	0.0000	12.813	25.938	97.000	9.5938	1010.0	-1.660	-3.141	441.00	256.00
	19:00	169.50	0.0000	12.563	25.938	94.500	10.781	1000.0	-2.070	-3.586	436.00	262.00
	20:00	170.50	0.0000	13.344	25.875	92.000	9.0313	1016.0	-1.430	-2.891	429.00	257.00
	21:00	169.00	0.0000	12.688	26.313	91.500	8.6563	1024.0	-1.434	-2.734	420.00	259.00
	22:00	169.00	0.0000	12.031	26.000	88.750	9.2188	1016.0	-1.734	-3.180	425.00	263.00
	23:00	169.00	0.0000	13.219	26.063	88.250	10.375	1023.0	-2.024	-3.594	430.00	256.00
07AUG88	00:00	173.50	0.0000	12.844	25.438	87.000	10.313	1036.0	-1.899	-3.406	430.00	252.00
	01:00	170.00	0.0000	12.094	26.625	88.000	9.6875	1032.0	-1.633	-2.930	427.00	259.00
	02:00	168.00	2.6954	12.188	25.625	87.250	10.406	1018.0	-1.840	-3.344	429.00	265.00
	03:00	167.00	3.8125	12.563	26.125	87.750	10.125	1032.0	-1.777	-3.219	423.00	260.00
	04:00	169.50	2.6954	12.875	25.813	85.750	10.344	1020.0	-1.707	-3.305	432.00	262.00
	05:00	169.50	0.0000	12.750	25.875	85.750	10.500	1014.0	-2.000	-3.516	433.00	260.00
	06:00	172.50	2.6954	11.719	25.938	86.250	10.188	1036.0	-1.530	-2.961	430.00	258.00
	07:00	171.00	3.8125	12.563	25.875	84.500	10.844	1022.0	-1.945	-3.594	441.00	252.00
	08:00	176.50	0.0000	13.125	25.688	87.500	9.1250	1016.0	-1.817	-3.297	441.00	259.00
	09:00	181.00	2.6954	12.156	26.000	88.750	9.1875	1048.0	-1.688	-3.055	433.00	259.00
	10:00	172.50	3.8125	12.469	26.000	89.500	9.4688	1024.0	-1.539	-2.922	431.00	257.00
	11:00	172.50	3.8125	12.013	26.313	92.750	8.8750	1023.0	-1.633	-2.859	426.00	256.00
	12:00	177.50	3.8125	12.375	26.000	92.250	9.6250	1024.0	-1.543	-3.016	434.00	271.00

08AUG88 MONDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

	FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
	FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
07AUG88 13:00	169.00	4.6719	11.938	26.313	94.000	11.375	1020.0	-1.844	-3.438	434.00	271.00
14:00	173.50	5.3907	12.313	26.125	98.250	9.2500	1028.0	-1.785	-3.219	430.00	267.00
15:00	177.00	5.3907	12.344	25.813	98.750	9.1563	1023.0	-1.862	-3.320	439.00	255.00
16:00	178.50	5.3907	12.625	25.750	99.500	9.8125	1024.0	-1.828	-3.242	439.00	256.00
17:00	168.50	6.0313	12.844	26.063	97.500	10.906	1008.0	-2.195	-4.078	445.00	264.00
18:00	172.50	5.3907	11.781	26.188	97.500	11.688	1014.0	-2.016	-3.641	445.00	260.00
19:00	168.00	6.0313	12.063	25.813	92.750	11.281	1012.0	-2.188	-3.992	441.00	265.00
20:00	171.50	4.6719	12.875	26.063	90.750	12.000	1018.0	-1.942	-3.703	437.00	264.00
21:00	169.50	4.6719	12.531	25.938	89.000	11.313	1002.0	-2.188	-3.992	441.00	268.00
22:00	176.50	4.6719	12.375	26.125	88.500	9.9688	1010.0	-1.961	-3.609	442.00	260.00
23:00	182.00	3.8125	12.656	25.875	86.750	10.563	1022.0	-1.715	-3.149	440.00	252.50
08AUG88 00:00	174.00	3.8125	13.250	25.563	85.750	9.4688	1006.0	-1.750	-3.383	436.00	262.00
01:00	169.00	2.6954	13.188	26.063	84.500	11.625	1014.0	-2.109	-3.774	439.00	257.00
02:00	171.00	3.8125	12.250	25.938	85.250	10.500	1020.0	-1.703	-3.047	429.00	262.00
03:00	167.50	2.6954	12.719	26.000	84.750	10.344	1020.0	-1.926	-3.406	429.00	259.00
04:00	166.00	2.6954	13.125	25.813	83.750	11.219	1004.0	-2.281	-3.992	441.00	254.00
05:00	165.00	2.6954	12.063	26.125	82.500	10.231	1002.0	-1.895	-3.703	437.00	259.00
06:00	169.00	2.6954	12.875	25.688	82.000	9.5313	1012.0	-1.887	-3.289	429.00	256.00
07:00	167.50	0.0000	12.031	26.125	82.000	10.125	1010.0	-1.957	-3.492	433.00	256.00
08:00	185.00	0.0000	12.781	26.125	85.000	9.8938	1044.0	-1.891	-3.500	441.00	256.00
09:00	*	*	*	*	*	*	*	*	*	*	*
10:00	191.00	3.8125	12.031	25.875	89.250	10.000	1036.0	-2.422	-4.094	460.00	245.50
11:00	186.50	4.6719	12.813	25.750	93.250	8.4063	1048.0	-1.754	-3.219	439.00	251.00
12:00	187.50	4.6719	13.094	26.250	96.500	9.2500	1048.0	-1.692	-3.109	438.00	252.50

08AUG88 MONDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP OUT TEMP BLR 2	EI2586 ESP VOLT 1 BLR 2	EI2587 ESP VOLT 2 BLR 2	EI2588 ESP VOLT 3 BLR 2	HC2378 SL CONCEN. LIME	FIC2580 SDA DIL WTR FL BLR 2
		TI2376 SMP	EI2586 SMP	EI2587 SMP	EI2588 SMP	HC2378 SMP	FIC2580 SMP
		DEG F	KV	KV	KV		GPM
07AUG88	13:00	265.00	55.375	52.875	61.000	35.000	21.938
	14:00	261.00	35.875	51.250	61.000	44.875	18.938
	15:00	255.00	45.750	50.375	61.000	44.875	20.500
	16:00	255.50	55.375	50.125	60.750	44.875	21.938
	17:00	259.00	40.625	51.000	61.125	44.875	26.500
	18:00	256.00	41.250	50.625	60.500	44.875	22.688
	19:00	256.00	55.000	50.500	60.750	40.000	24.125
	20:00	260.00	55.375	51.125	60.500	30.000	25.938
	21:00	262.00	49.500	52.750	60.375	53.500	18.938
	22:00	260.00	42.125	49.750	60.750	64.500	17.875
	23:00	254.50	54.750	49.375	60.625	40.000	24.625
08AUG88	00:00	256.00	47.125	49.875	61.250	40.000	24.125
	01:00	256.00	54.625	49.500	60.500	40.000	25.750
	02:00	254.00	55.500	49.500	60.750	40.000	22.125
	03:00	255.50	56.000	51.750	61.125	40.000	19.938
	04:00	251.00	54.625	51.500	60.500	50.000	21.938
	05:00	252.50	52.875	50.375	61.000	50.000	19.938
	06:00	252.00	54.750	50.750	60.875	35.000	24.875
	07:00	251.00	53.750	50.875	61.000	35.000	24.063
	08:00	252.00	53.625	50.125	60.625	35.000	28.813
	09:00	*	*	*	*	*	*
	10:00	250.00	55.875	48.875	60.375	35.000	32.875
	11:00	250.00	55.500	49.375	60.000	35.000	26.563
	12:00	250.50	42.000	50.000	59.875	50.000	19.188

09AUG88 TUESDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP	BLR 2 OUT TEMP	EI2587 ESP VOLT	BLR 2 2	HC2370 LIME SL CONCEN.
		EI2586 ESP VOLT	BLR 2 1	EI2588 ESP VOLT	BLR 2 3	FIC2580 BLR 2 SDA DIL WTR FL

		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2370 SMP	FIC2580 SMP GPM
08AUG88	13:00	251.00	34.375	47.000	60.250	35.000	28.375
	14:00	251.50	57.625	51.750	60.875	35.000	24.938
	15:00	255.00	35.625	50.750	55.750	42.125	28.875
	16:00	253.50	43.750	47.125	60.000	35.000	29.438
	17:00	251.50	42.125	47.500	60.375	35.000	27.438
	18:00	251.00	42.000	48.750	58.625	35.000	27.813
	19:00	252.00	42.750	48.000	60.375	35.000	32.250
	20:00	251.00	42.625	47.625	60.500	35.000	28.000
	21:00	252.00	44.000	50.125	61.375	35.000	22.375
	22:00	251.50	44.500	50.375	61.375	35.000	22.688
	23:00	252.50	42.125	48.500	61.000	44.500	22.000
09AUG88	00:00	251.50	43.125	50.750	61.375	64.000	12.906
	01:00	251.00	54.875	50.125	61.250	35.000	21.625
	02:00	251.50	57.750	49.375	61.250	35.000	21.375
	03:00	251.50	54.750	49.125	61.375	35.000	23.375
	04:00	251.50	56.000	50.375	61.500	35.000	21.938
	05:00	251.50	55.500	51.625	61.125	71.750	10.438
	06:00	250.00	54.375	50.125	60.875	35.000	22.188
	07:00	251.50	54.250	49.500	61.125	35.000	27.688
	08:00	251.00	54.375	49.875	60.750	35.000	29.563
	09:00	250.50	55.375	50.750	60.375	35.000	29.438
	10:00	253.50	42.250	43.875	57.750	35.000	34.625
	11:00	259.00	41.625	48.750	60.125	43.875	29.563
	12:00	268.00	40.625	52.125	60.250	46.500	27.938

09AUG88 TUESDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR-2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR-2 SDA GAS OUT TMP
		FI2002B SMP	FI2153 SMP	PIC2028 SMP	PIC2026 SMP	TI2024 SMP	AIC2064 SMP	TI2021C SMP	PI2039 SMP	PI2375 SMP	TR2040 SMP	TIC2551 SMP
		KLB/HR	KSCFH	"H20	"H20	DEG-F	%	DEG-F	"H20	"H20	DEG-F	DEG-F
08AUG88	13:00	180.00	5.3907	12.594	25.875	97.250	9.0000	1036.0	-1.953	-3.500	444.00	254.50
	14:00	181.00	5.3907	12.250	26.375	99.000	10.500	1040.0	-1.817	-3.484	438.00	255.50
	15:00	184.50	5.3907	12.594	25.625	100.50	8.7188	1032.0	-1.750	-3.375	437.00	272.00
	16:00	185.50	6.0313	12.031	25.938	99.250	10.438	1036.0	-1.945	-3.445	442.00	246.50
	17:00	183.50	5.3907	12.188	26.250	99.500	10.531	1036.0	-2.008	-3.703	447.00	252.50
	18:00	182.00	5.3907	12.094	25.938	97.000	10.688	1028.0	-2.289	-4.156	450.00	251.50
	19:00	179.50	5.3907	13.219	25.938	93.500	11.031	1010.0	-2.180	-3.938	456.00	247.50
	20:00	173.50	4.6719	12.719	26.188	90.000	9.4688	1008.0	-1.840	-3.438	442.00	247.50
	21:00	168.50	3.8125	12.138	25.750	88.500	10.313	1014.0	-1.664	-3.094	426.00	254.50
	22:00	168.00	3.8125	12.031	26.438	86.500	9.9375	1016.0	-1.750	-3.149	430.00	255.00
	23:00	168.50	3.8125	12.375	25.750	85.250	10.375	1012.0	-1.883	-3.453	433.00	256.00
09AUG88	00:00	169.00	2.6954	12.813	26.063	84.500	10.844	1024.0	-1.887	-3.438	430.00	253.00
	01:00	167.50	2.6954	13.063	26.438	84.000	10.281	1036.0	-1.727	-3.195	426.00	254.50
	02:00	173.00	2.6954	11.688	25.938	83.750	8.6250	1032.0	-1.508	-2.844	424.00	253.50
	03:00	172.00	2.6954	12.438	25.938	82.750	9.4375	1036.0	-1.793	-3.164	428.00	251.00
	04:00	168.50	0.0000	12.469	25.688	83.250	9.9688	1032.0	-1.649	-2.977	425.00	255.00
	05:00	171.50	0.0000	11.625	26.000	82.250	9.3438	1032.0	-1.676	-3.016	426.00	255.50
	06:00	170.50	0.0000	12.781	25.688	81.250	10.500	1024.0	-1.817	-3.203	431.00	252.50
	07:00	180.00	0.0000	11.781	25.375	81.250	9.8750	1028.0	-2.805	-4.344	438.00	255.00
	08:00	190.50	0.0000	12.500	25.938	85.000	10.063	1052.0	-2.031	-3.656	448.00	257.00
	09:00	186.50	2.6954	13.188	25.375	88.500	10.969	1044.0	-2.375	-4.188	454.00	257.00
	10:00	191.00	3.8125	12.313	26.125	92.750	9.5938	1044.0	-2.149	-3.914	457.00	259.00
	11:00	191.50	4.6719	11.469	26.563	96.000	9.5313	1064.0	-2.016	-3.633	460.00	264.00
	12:00	184.50	5.3907	11.625	26.000	97.250	10.594	1052.0	-2.102	-3.844	450.00	268.00

10AUG88 WEDNESDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

TI2376 BLR 2 PRECIP OUT TEMP
EI2587 BLR 2 ESP VOLT 2
HC2378 LINE SL CONCEN.
EI2586 BLR 2 ESP VOLT 1
EI2588 BLR 2 ESP VOLT 3
FIC2580 BLR 2 SDA DIL WTR FL

		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
09AUG88	13:00	279.00	38.125	48.000	59.250	30.000	13.781
	14:00	255.50	45.625	50.375	59.375	35.000	26.563
	15:00	255.50	37.250	48.500	58.625	35.000	35.000
	16:00	254.00	42.625	48.000	59.000	35.000	30.438
	17:00	252.00	56.250	47.250	59.625	35.000	31.188
	18:00	252.50	36.875	48.625	59.875	35.000	35.000
	19:00	251.00	42.500	48.125	60.500	35.000	30.750
	20:00	250.50	44.250	49.750	60.250	35.000	26.563
	21:00	251.00	43.875	48.750	60.375	35.000	20.500
	22:00	252.50	59.125	49.625	61.125	35.000	23.000
	23:00	251.00	43.500	48.500	60.375	35.000	21.750
10AUG88	00:00	251.50	43.250	49.125	58.250	35.000	22.250
	01:00	252.00	41.875	50.625	61.000	35.000	20.250
	02:00	250.50	43.000	49.125	60.875	35.000	22.188
	03:00	251.50	42.875	49.500	61.125	35.000	21.875
	04:00	250.50	56.875	49.500	61.000	35.000	20.500
	05:00	252.00	58.000	50.750	60.375	35.000	22.625
	06:00	252.50	43.875	51.125	60.875	41.000	21.438
	07:00	253.50	56.750	48.250	60.625	35.000	26.000
	08:00	250.50	46.250	48.500	60.250	35.000	25.688
	09:00	251.00	41.500	50.250	59.625	35.000	25.750
	10:00	249.00	42.625	48.750	60.000	35.000	26.375
	11:00	283.00	44.625	42.000	56.125	80.000	16.563
	12:00	258.00	37.875	47.750	58.875	35.000	25.750

10AUG88 WEDNESDAY ENTROPY TEST LOG NO. 1 BLR. 2 TREND LOG 10 COLLECTION COMPLETED 12:01

		FI2002B BLR-2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR-2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR-2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR-2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2376 BLR-2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2661 BLR-2 SDA GAS OUT TMP
		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2376 SMP "H2O	TR2040 SMP DEG F	TIC2661 SMP DEG F
09AUG88	13:00	195.50	5.3907	12.188	26.063	100.00	9.2813	1056.0	-2.126	-3.922	452.00	297.00
	14:00	182.50	5.3907	12.625	26.438	101.50	11.406	1040.0	-1.852	-3.836	449.00	255.50
	15:00	193.50	5.3907	11.563	26.563	100.00	9.5625	1060.0	-2.250	-4.078	460.00	266.00
	16:00	186.00	5.3907	11.813	26.250	100.75	9.9688	1044.0	-2.453	-4.281	453.00	258.00
	17:00	193.00	4.6719	11.750	25.813	100.25	8.7188	1052.0	-2.117	-3.805	456.00	255.00
	18:00	191.00	4.6719	13.313	25.750	94.500	8.4688	1026.0	-2.508	-4.609	469.00	254.00
	19:00	186.50	4.6719	11.969	26.125	93.500	11.000	1032.0	-2.078	-3.899	440.00	255.50
	20:00	173.00	3.8125	12.375	26.188	90.750	11.063	1008.0	-1.859	-3.445	447.00	260.00
	21:00	171.50	2.6954	11.938	25.688	90.500	8.8438	1036.0	-1.676	-3.008	427.00	251.50
	22:00	168.00	3.8125	11.750	26.063	87.500	10.781	1012.0	-1.942	-3.453	430.00	255.50
	23:00	172.00	2.6954	11.188	25.938	87.250	8.6250	1024.0	-1.867	-2.906	427.00	251.50
10AUG88	00:00	166.50	2.6954	12.438	26.000	85.500	10.344	1020.0	-1.942	-3.414	427.00	256.00
	01:00	166.50	2.6954	12.781	25.813	85.250	9.8438	1022.0	-1.617	-3.031	422.00	255.00
	02:00	172.50	2.6954	13.344	26.250	84.250	8.9688	1024.0	-1.695	-3.149	432.00	254.00
	03:00	169.00	2.6954	13.719	26.625	84.750	9.9688	1023.0	-1.715	-3.156	428.00	255.50
	04:00	171.00	2.6954	12.000	25.938	85.250	8.8438	1036.0	-1.613	-2.945	425.00	252.50
	05:00	169.00	2.6954	13.344	26.250	85.250	9.3438	1024.0	-1.867	-3.367	426.00	257.00
	06:00	168.00	3.8125	13.000	25.813	84.500	9.9375	1018.0	-1.758	-3.297	431.00	255.50
	07:00	191.50	2.6954	12.781	25.875	85.250	9.2188	1056.0	-1.606	-3.172	440.00	259.00
	08:00	185.50	0.0000	12.000	26.313	88.750	10.094	1048.0	-1.914	-3.461	444.00	251.50
	09:00	191.50	0.0000	12.719	26.063	91.250	9.6313	1072.0	-1.920	-3.258	440.00	254.00
	10:00	185.50	2.6954	11.625	26.188	94.000	10.031	1048.0	-1.981	-3.586	447.00	250.50
	11:00	195.50	2.6954	12.344	26.125	95.250	9.3438	1044.0	-2.219	-3.984	457.00	334.00
	12:00	189.00	3.8125	12.625	26.063	98.500	9.3125	1040.0	-2.063	-3.781	449.00	252.00

11AUG88 THURSDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 10 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2023 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2023 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
10AUG88	13:00	191.00	4.6719	13.625	26.000	101.25	9.6875	1044.0	-2.031	-3.680	448.00	256.00
	14:00	189.50	5.3907	12.969	26.193	102.50	10.500	1052.0	-2.242	-4.094	455.00	254.50
	15:00	192.50	4.6719	12.719	26.000	103.00	9.0000	1048.0	-2.141	-3.703	451.00	257.00
	16:00	192.50	5.3907	12.719	25.500	102.50	9.6250	1040.0	-1.973	-3.734	459.00	253.50
	17:00	188.50	5.3907	12.219	26.188	101.25	10.656	1036.0	-2.070	-4.047	463.00	256.00
	18:00	180.50	4.6719	11.938	25.375	96.250	13.344	1004.0	-3.266	-5.375	477.00	270.00
	19:00	193.50	3.8125	13.031	25.875	94.500	10.313	1040.0	-2.320	-4.109	470.00	255.50
	20:00	187.00	3.8125	12.313	25.688	91.500	9.7500	1032.0	-2.524	-4.609	465.00	257.00
	21:00	190.50	3.8125	12.531	25.750	90.500	9.4688	1044.0	-2.070	-3.892	455.00	253.00
	22:00	171.50	3.3125	11.500	26.375	90.500	9.2313	1023.0	-1.465	-2.359	433.00	252.50
	23:00	162.50	3.8125	12.500	25.750	87.500	11.813	996.00	-2.484	-4.188	439.00	256.00
11AUG88	00:00	174.00	3.8125	11.438	26.500	87.500	10.375	1020.0	-1.957	-3.469	437.00	253.00
	01:00	169.00	3.8125	11.719	25.750	86.750	11.500	1018.0	-1.762	-3.375	430.00	254.50
	02:00	161.50	3.8125	13.375	26.313	87.500	10.406	990.00	-1.305	-3.211	424.00	257.00
	03:00	171.00	3.8125	12.281	26.063	88.000	9.1563	1018.0	-1.457	-2.774	421.00	254.50
	04:00	170.50	3.8125	12.406	25.438	87.000	10.031	1010.0	-1.543	-2.391	423.00	253.00
	05:00	165.00	3.8125	12.625	25.875	88.000	8.5313	1000.0	-1.426	-2.695	418.00	251.50
	06:00	164.50	2.6954	11.500	26.000	86.250	11.563	1002.0	-1.859	-3.539	435.00	255.00
	07:00	191.50	3.8125	12.813	25.875	86.750	9.9063	1024.0	-2.383	-4.047	446.00	254.50
	08:00	193.50	3.3125	12.375	25.750	89.000	9.5000	1044.0	-2.211	-3.984	457.00	252.00
	09:00	190.50	4.6719	13.375	26.250	91.500	9.8750	1040.0	-1.879	-3.484	445.00	251.00
	10:00	180.50	3.8125	12.281	25.938	93.750	11.250	1006.0	-2.492	-4.391	454.00	258.00
	11:00	184.00	4.6719	12.656	25.938	96.500	10.688	1024.0	-1.938	-3.656	450.00	256.00
	12:00	184.50	5.3907	12.594	26.125	99.250	11.125	1013.0	-2.242	-3.984	457.00	257.00

11AUG88 THURSDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP OUT TEMP	BLR 2	EI2537 ESP VOLT 2	BLR 2	HC2378 SL CONCEN.	LIME
		EI2536 ESP VOLT 1	BLR 2	EI2538 ESP VOLT 3	BLR 2	FIC2580 SUA DIL WTR FL	BLR 2
		TI2376 SMP DEG F	EI2536 SMP KV	EI2537 SMP KV	EI2538 SMP KV	HC2378 SMP	FIC2580 SMP GPM
10AUG88	13:00	252.50	55.625	48.125	57.375	35.000	27.625
	14:00	251.50	41.250	46.750	58.250	35.000	28.438
	15:00	251.50	58.000	47.750	58.250	35.000	27.375
	16:00	251.50	55.125	47.125	53.500	35.000	31.125
	17:00	252.00	36.125	48.500	58.875	35.000	32.875
	18:00	257.00	37.000	50.500	56.625	35.000	35.500
	19:00	253.50	36.125	47.750	59.125	35.000	34.750
	20:00	254.50	41.250	43.500	59.375	35.000	34.000
	21:00	253.00	41.500	49.375	59.750	44.750	27.500
	22:00	250.50	42.250	50.750	60.250	35.000	21.063
	23:00	252.50	42.875	53.125	59.125	35.000	25.813
11AUG88	00:00	250.50	41.625	53.250	60.750	35.000	24.750
	01:00	251.50	43.375	48.250	59.375	35.000	24.625
	02:00	252.50	47.250	49.250	59.375	35.000	22.500
	03:00	252.00	42.875	47.750	59.875	35.000	20.125
	04:00	252.00	43.000	48.375	60.125	35.000	23.500
	05:00	251.00	55.500	49.000	59.875	74.000	8.4063
	06:00	252.00	42.500	50.125	60.125	35.000	24.125
	07:00	252.50	53.500	49.250	59.875	35.000	28.563
	08:00	250.00	40.375	47.750	59.375	35.000	30.125
	09:00	249.50	45.125	50.750	60.750	35.000	26.125
	10:00	251.50	54.375	48.125	59.750	46.750	26.938
	11:00	251.00	40.250	49.125	59.250	70.500	13.531
	12:00	251.50	56.000	49.375	59.250	35.000	31.875

12AUG88 FRIDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2376 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
		FI2002B SMP	FI2153 SMP	PIC2028 SMP	PIC2026 SMP	TI2024 SMP	AIC2064 SMP	TI2021C SMP	PI2039 SMP	PI2376 SMP	TR2040 SMP	TIC2551 SMP
		KLB/HR	KSCFH	"H2O	"H2O	DEG F	%	DEG F	"H2O	"H2O	DEG F	DEG F
11AUG88	13:00	184.00	6.0313	12.500	25.688	102.25	9.0938	1024.0	-1.984	-3.844	451.00	254.00
	14:00	185.00	6.0313	12.531	25.750	103.25	10.313	1012.0	-2.149	-3.977	451.00	259.00
	15:00	184.50	6.0313	13.094	26.438	105.00	9.7313	1013.0	-1.984	-3.750	456.00	255.00
	16:00	184.50	6.6094	12.406	25.938	106.00	10.594	1032.0	-1.996	-3.831	444.00	251.50
	17:00	182.00	6.0313	12.844	26.500	102.50	10.406	1028.0	-2.086	-3.656	443.00	255.00
	18:00	188.50	6.0313	11.438	26.188	98.750	10.281	1028.0	-1.809	-3.414	444.00	252.00
	19:00	191.50	6.3907	11.063	25.313	97.250	9.9438	1028.0	-2.070	-3.609	443.00	253.50
	20:00	186.00	6.3907	14.813	25.750	93.500	10.750	1032.0	-2.813	-4.766	456.00	250.00
	21:00	184.50	6.3907	13.156	26.133	92.500	10.344	1040.0	-2.094	-3.774	443.00	253.50
	22:00	168.50	4.6719	12.438	25.688	91.500	10.375	1012.0	-1.492	-2.953	434.00	254.50
	23:00	170.50	6.3907	11.938	25.313	88.750	10.531	1010.0	-2.250	-3.969	444.00	258.00
12AUG88	00:00	172.50	4.6719	12.063	25.875	89.250	9.6750	1012.0	-2.117	-3.680	437.00	252.50
	01:00	168.00	4.6719	12.406	26.000	89.250	10.594	1016.0	-1.806	-3.141	428.00	255.00
	02:00	170.50	4.6719	12.750	25.688	87.500	10.031	1012.0	-1.879	-3.399	435.00	255.50
	03:00	170.00	3.8125	13.094	26.750	87.250	10.469	1010.0	-2.008	-3.536	434.00	256.00
	04:00	169.50	3.8125	11.938	26.500	87.500	9.3125	1016.0	-1.750	-3.117	429.00	255.50
	05:00	172.00	3.3125	14.094	25.625	87.250	10.219	1016.0	-2.031	-3.531	436.00	251.50
	06:00	169.00	2.6954	13.375	25.563	86.500	10.531	1004.0	-1.750	-3.344	438.00	253.00
	07:00	192.00	3.8125	11.938	26.063	86.750	10.031	1048.0	-2.063	-3.649	454.00	253.50
	08:00	142.00	4.6719	12.219	25.750	89.750	10.219	928.00	-1.910	-3.359	431.00	258.00
	09:00	184.00	3.8125	12.719	26.013	91.250	10.969	1028.0	-1.934	-3.600	447.00	255.00
	10:00	190.50	3.8125	12.781	26.063	95.000	9.4063	1044.0	-2.141	-3.672	449.00	255.50
	11:00	189.00	6.0313	12.313	26.938	98.250	10.281	1044.0	-2.086	-3.750	451.00	256.00
	12:00	192.00	6.6094	12.594	26.125	102.25	9.4063	1040.0	-2.086	-3.695	450.00	254.50

12AUG88 FRIDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

	TI2376 BLR-2 PRECIP OUT TEMP	EI2586 BLR 2 ESP VOLT 1	EI2587 BLR 2 ESP VOLT 2	EI2588 BLR 2 ESP VOLT 3	HC2378 LIME SL CONCEN.	FIC2580 BLR 2 SDA DIL WTR FL
	TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
11AUG88 13:00	251.00	54.375	40.625	59.000	35.000	29.063
14:00	253.00	49.250	50.250	59.375	35.000	31.250
15:00	251.50	40.125	50.375	59.375	35.000	31.188
16:00	250.00	57.375	47.875	58.625	35.000	25.625
17:00	252.00	54.500	48.625	59.750	35.000	25.375
18:00	251.50	40.000	51.000	59.375	35.000	26.625
19:00	251.00	58.625	49.125	59.250	35.000	26.813
20:00	251.00	57.375	49.125	59.250	35.000	33.000
21:00	251.50	57.000	48.375	59.625	35.000	26.313
22:00	251.00	59.875	50.750	59.750	67.750	12.375
23:00	253.00	42.500	50.125	60.375	35.000	29.813
12AUG88 00:00	251.00	43.875	48.875	60.250	35.000	25.625
01:00	251.50	44.375	52.375	60.250	35.000	22.125
02:00	251.50	43.250	49.875	60.500	35.000	24.813
03:00	251.50	43.625	51.125	60.375	35.000	22.750
04:00	251.50	58.250	52.375	60.625	35.000	22.563
05:00	250.50	53.125	53.000	60.500	35.000	23.125
06:00	251.00	56.500	52.750	60.500	35.000	25.563
07:00	250.00	57.375	47.375	60.125	35.000	27.500
08:00	251.00	52.125	51.500	59.875	35.000	23.625
09:00	251.00	44.000	53.375	60.375	47.000	22.250
10:00	251.00	42.500	50.625	60.125	35.000	27.938
11:00	251.50	57.625	51.375	59.875	63.500	17.063
12:00	249.50	58.000	49.500	59.625	35.000	27.688

13AUG88 SATURDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 BLR 2 PRECIP OUT TEMP	EI2587 BLR 2 ESP VOLT 2	HC2378 LINE SL CONCEN.	
		EI2586 BLR 2 ESP VOLT 1	EI2588 BLR 2 ESP VOLT 3	FIC2580 BLR 2 SDA DIL WTR FL	
		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
12AUG88	13:00	253.50	54.000	51.625	60.000	57.500	20.625
	14:00	250.50	36.125	47.375	59.625	35.000	27.813
	15:00	251.50	53.000	49.750	60.000	35.000	28.000
	16:00	252.00	58.375	51.125	60.250	35.000	30.000
	17:00	250.50	54.000	50.625	60.125	35.000	32.375
	18:00	253.00	41.250	48.500	60.000	35.000	35.000
	19:00	252.50	37.000	48.875	51.875	35.000	33.000
	20:00	253.50	53.875	47.500	59.875	35.000	29.438
	21:00	253.00	42.750	47.625	59.375	35.000	27.313
	22:00	253.00	46.250	52.375	60.625	35.000	26.875
	23:00	252.50	34.375	50.875	59.125	35.000	30.438
13AUG88	00:00	252.50	44.000	48.375	60.000	35.000	25.125
	01:00	252.50	43.875	51.250	60.250	35.000	25.563
	02:00	252.50	54.000	52.625	60.125	35.000	23.500
	03:00	252.00	54.000	52.625	60.000	35.000	21.750
	04:00	251.50	57.625	51.250	60.125	35.000	20.500
	05:00	252.50	57.625	53.500	60.250	47.250	15.094
	06:00	252.50	56.375	53.250	60.500	40.000	19.688
	07:00	252.00	32.375	50.875	60.375	40.000	21.188
	08:00	252.00	56.375	50.375	60.125	40.000	20.438
	09:00	252.00	41.250	51.000	60.750	40.000	23.313
	10:00	253.00	41.750	51.125	60.500	40.000	29.500
	11:00	251.00	35.375	49.750	60.125	30.000	26.438
	12:00	251.00	53.125	49.250	59.875	30.000	26.188

13AUG88 SATURDAY ENTROPY TEST LOG NO. 1 BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

	F12002B BLR 2 TOTAL STM FLOW		P1C2028 BLR 2 PRI AIR PRESS		T12024 BLR 2 UNDERGRATE AIR		T12021C BLR 2 AVG SUP OUTGAS		P12375 BLR 2 PRECIP OUT PR		TIC2551 BLR 2 SDA GAS OUT TMP
	F12153 BLR 2 NAT GAS FLOW		P1C2026 BLR 2 SEC AIR PRESS		A1C2064 BLR 2 O2		P12039 BLR 2 SDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT		
	F12002B SMP KLB/HR	F12153 SMP KSCFH	P1C2028 SMP "H2O	P1C2026 SMP "H2O	T12024 SMP DEG F	A1C2064 SMP %	T12021C SMP DEG F	P12039 SMP "H2O	P12375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
12AUG88 13:00	187.00	6.6094	12.656	26.000	102.75	11.188	1032.0	-2.195	-3.844	449.00	259.00
14:00	191.50	6.6094	12.750	25.438	103.00	9.8125	1044.0	-2.149	-3.914	458.00	254.00
15:00	190.00	6.6094	13.031	25.688	105.50	8.8125	1048.0	-1.922	-3.524	449.00	253.00
16:00	187.00	6.6094	13.563	25.750	102.50	10.938	1040.0	-2.492	-4.219	456.00	253.50
17:00	182.50	6.6094	11.563	25.750	101.50	12.563	1024.0	-2.524	-4.625	470.00	251.50
18:00	196.00	6.0313	12.000	25.938	96.000	9.9375	1032.0	-2.242	-4.109	473.00	250.50
19:00	186.50	4.6719	12.375	26.000	94.250	11.344	1032.0	-2.531	-4.438	463.00	256.00
20:00	171.00	5.3907	13.344	26.438	92.000	9.4688	1004.0	-1.727	-3.266	445.00	257.00
21:00	169.50	4.6719	14.125	26.500	90.000	10.906	1010.0	-2.016	-3.570	441.00	253.00
22:00	172.00	4.6719	12.656	26.250	88.000	11.281	1008.0	-1.824	-3.328	439.00	252.00
23:00	176.00	3.8125	12.563	25.313	85.750	10.313	1004.0	-2.484	-4.094	451.00	259.00
13AUG88 00:00	167.00	3.8125	12.625	26.000	86.500	10.688	1014.0	-1.879	-3.289	431.00	257.00
01:00	167.50	3.8125	14.219	26.063	86.000	10.844	1018.0	-2.070	-3.641	435.00	259.00
02:00	172.50	3.8125	12.406	26.188	86.750	9.0000	1028.0	-1.672	-2.844	427.00	257.00
03:00	173.00	3.8125	12.438	26.625	86.750	9.9063	1032.0	-1.547	-2.914	428.00	255.50
04:00	173.00	3.8125	12.638	25.500	86.000	9.1250	1023.0	-1.535	-2.734	428.00	254.00
05:00	170.50	2.6954	12.875	26.063	86.750	8.5625	1036.0	-1.742	-3.024	420.00	255.00
06:00	163.50	2.6954	13.938	25.625	84.750	10.063	1024.0	-1.836	-3.258	427.00	255.00
07:00	172.00	0.0000	11.938	26.250	85.500	10.063	1032.0	-1.602	-2.703	428.00	253.00
08:00	171.00	0.0000	12.688	26.250	88.500	9.5313	1028.0	-1.692	-2.992	427.00	255.00
09:00	165.00	2.6954	11.500	26.313	90.750	11.063	1024.0	-1.875	-3.367	433.00	256.00
10:00	161.00	4.6719	12.906	25.375	92.000	11.406	998.00	-2.313	-4.406	454.00	259.00
11:00	175.50	5.3907	13.031	25.875	97.500	9.7813	1028.0	-1.641	-2.922	437.00	262.00
12:00	172.50	5.3907	12.438	26.313	93.750	8.4375	1016.0	-1.734	-3.133	438.00	252.00

14AUG88 SUNDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP OUT TEMP	BLR 2	EI2587 ESP VOLT 2	BLR 2	HC2370 SL CONCEN.	LIME
		EI2586 ESP VOLT 1	BLR 2	EI2588 ESP VOLT 3	BLR 2	FIC2580 SDA DIL WTR FL	BLR 2
		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2370 SMP	FIC2580 SMP GPM
13AUG88	13:00	251.50	35.625	49.500	60.375	26.000	28.125
	14:00	253.00	43.750	49.250	60.125	65.000	14.000
	15:00	252.00	36.375	49.375	60.250	34.000	23.875
	16:00	252.00	54.750	49.375	60.375	38.000	22.063
	17:00	251.50	52.250	50.250	60.375	38.000	20.875
	18:00	252.00	46.500	49.250	59.875	38.000	20.438
	19:00	251.50	46.000	49.500	60.250	33.000	25.813
	20:00	253.50	55.125	52.000	60.625	38.000	28.875
	21:00	252.00	49.375	51.000	60.625	66.375	16.313
	22:00	252.00	48.875	49.500	60.250	38.000	19.375
	23:00	252.50	42.500	49.500	60.750	38.000	23.313
14AUG88	00:00	253.00	43.625	50.250	60.375	57.750	16.063
	01:00	252.00	54.500	50.750	60.500	38.000	21.250
	02:00	252.00	43.625	51.750	60.875	38.000	23.313
	03:00	252.00	43.625	50.000	60.625	33.000	22.063
	04:00	252.00	42.000	50.000	61.000	38.000	21.750
	05:00	251.50	42.375	49.250	61.125	38.000	21.125
	06:00	252.00	58.000	49.750	61.250	38.000	20.250
	07:00	252.00	42.250	50.000	60.375	38.000	23.375
	08:00	250.50	43.500	52.375	60.750	72.750	10.219
	09:00	251.00	43.000	50.125	60.750	79.500	11.813
	10:00	251.00	35.375	49.750	60.500	80.000	12.531
	11:00	250.50	59.750	50.000	60.125	80.000	10.156
	12:00	251.00	46.250	50.375	60.375	65.500	11.156

14AUG88 SUNDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 10 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
13AUG88	13:00	171.50	6.0313	13.344	25.375	100.75	8.4375	1020.0	-1.438	-2.875	436.00	255.00
	14:00	169.50	6.6094	13.406	25.125	103.00	9.3750	1018.0	-1.715	-3.234	436.00	257.00
	15:00	170.50	6.6094	12.563	25.563	105.00	9.8125	1018.0	-1.656	-3.008	430.00	255.50
	16:00	169.00	6.0313	12.375	25.563	104.25	9.8750	1024.0	-1.570	-3.094	431.00	258.00
	17:00	169.50	6.0313	12.469	26.125	104.25	10.719	1032.0	-1.680	-2.984	432.00	254.00
	18:00	172.00	6.6094	12.063	25.938	103.75	8.7500	1028.0	-1.582	-2.820	431.00	255.50
	19:00	175.50	6.0313	12.531	26.563	99.000	9.0938	1024.0	-1.719	-3.055	443.00	244.00
	20:00	163.00	6.0313	12.688	26.188	94.500	11.813	1000.0	-2.695	-4.563	448.00	256.00
	21:00	169.50	4.6719	12.500	26.000	94.250	10.500	1013.0	-1.758	-3.180	435.00	256.00
	22:00	171.50	5.3907	11.750	26.000	94.500	9.7500	1028.0	-1.492	-2.742	426.00	259.00
	23:00	169.00	5.3907	12.500	25.750	92.000	9.8438	1022.0	-1.844	-3.399	430.00	257.00
14AUG88	00:00	170.50	5.3907	12.125	26.313	91.250	10.219	1032.0	-1.801	-3.133	431.00	258.00
	01:00	167.00	4.6719	12.906	26.063	90.500	10.125	1032.0	-2.016	-3.531	429.00	256.00
	02:00	170.50	3.8125	13.156	26.375	89.250	9.2188	1036.0	-1.988	-3.430	429.00	254.50
	03:00	169.50	3.8125	13.156	25.375	89.250	9.2313	1036.0	-1.817	-3.234	426.00	254.00
	04:00	170.00	3.8125	12.031	25.688	88.250	10.250	1036.0	-1.606	-3.000	430.00	254.50
	05:00	170.50	4.6719	11.469	26.250	88.750	8.8750	1040.0	-1.508	-2.844	429.00	257.00
	06:00	173.00	2.6954	12.969	25.625	88.750	8.1250	1048.0	-1.399	-2.594	424.00	254.50
	07:00	171.50	4.6719	12.125	26.375	88.250	9.8750	1040.0	-1.867	-3.133	428.00	254.50
	08:00	168.50	3.8125	11.938	25.563	90.250	9.5313	1044.0	-1.504	-2.805	425.00	255.00
	09:00	167.50	3.8125	12.156	25.563	91.500	11.688	1036.0	-2.156	-3.625	433.00	254.50
	10:00	176.50	3.8125	12.969	25.688	93.750	9.5625	1028.0	-1.895	-3.156	440.00	255.50
	11:00	170.00	5.3907	12.138	26.125	97.750	9.5000	1040.0	-1.598	-2.899	428.00	253.00
	12:00	170.00	5.3907	11.500	25.875	101.25	8.5625	1040.0	-1.590	-2.875	425.00	253.00

15AUG88 MONDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

TI2376 BLR 2 PRECIP OUT TEMP
EI2587 BLR 2 ESP VOLT 2
HC2378 LIME SL CONCEN.
EI2586 BLR 2 ESP VOLT 1
EI2588 BLR 2 ESP VOLT 3
FIC2580 BLR 2 GDA DIL WTR FL

		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
14AUG88	13:00	252.00	39.000	51.375	60.000	69.625	13.188
	14:00	251.00	47.250	0.5840	60.000	50.125	16.750
	15:00	252.00	58.125	0.6204	59.375	35.000	22.125
	16:00	251.50	50.750	52.375	58.000	40.000	18.750
	17:00	252.50	56.000	54.250	59.125	40.000	20.813
	18:00	252.50	53.875	53.625	59.500	40.000	22.313
	19:00	251.50	56.750	50.750	59.500	40.000	21.938
	20:00	253.00	57.125	50.750	59.875	40.000	26.875
	21:00	250.50	56.750	51.750	59.625	40.000	25.500
	22:00	251.50	39.500	50.000	59.500	40.000	23.563
	23:00	251.00	58.000	52.750	60.250	35.000	25.750
15AUG88	00:00	251.00	42.500	52.500	58.625	35.000	27.000
	01:00	250.00	43.500	50.375	60.125	35.000	23.625
	02:00	251.50	56.625	50.375	60.000	68.500	12.969
	03:00	250.50	50.250	51.000	60.125	80.000	11.844
	04:00	251.50	53.625	53.625	60.375	35.000	27.813
	05:00	250.50	56.500	51.750	60.250	35.000	25.750
	06:00	249.00	56.375	51.375	60.375	35.000	23.563
	07:00	250.50	58.000	50.625	60.125	35.000	25.563
	08:00	251.00	56.125	51.500	60.000	35.000	26.625
	09:00	290.00	9.8438	22.125	42.250	80.000	39.125
	10:00	273.00	34.000	47.125	45.875	35.000	35.125
	11:00	278.00	37.500	47.250	56.625	35.000	35.750
	12:00	265.00	50.125	46.375	55.375	35.000	35.125

15AUG88 MONDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 10 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW		PIC2028 BLR 2 PRI AIR PRESS		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AVG SUP OUTGAS		PI2375 BLR 2 PRECIP OUT PR	TIC2551 BLR 2 SDA GAS OUT TMP
		FI2153 BLR 2 NAT GAS FLOW		PIC2026 BLR 2 SEC AIR PRESS		AIC2064 BLR 2 O2		PI2039 BLR 2 GDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT	
		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
14AUG88	13:00	172.50	5.3907	12.719	25.625	103.00	8.4688	1044.0	-1.516	-2.305	425.00	256.00
	14:00	170.50	5.3907	13.594	25.938	103.50	8.5000	1040.0	-2.008	-3.109	425.00	257.00
	15:00	167.00	5.3907	12.000	26.063	104.00	9.1250	1040.0	-1.461	-2.836	426.00	257.00
	16:00	168.00	6.0313	11.906	26.313	104.75	10.094	1048.0	-1.734	-3.070	424.00	253.00
	17:00	168.50	4.6719	12.875	25.875	103.00	10.344	1044.0	-1.606	-2.867	427.00	255.50
	18:00	165.00	4.6719	11.344	25.938	99.500	10.875	1032.0	-2.102	-3.625	434.00	255.50
	19:00	171.00	4.6719	12.594	26.000	97.750	9.9375	1036.0	-1.633	-3.047	436.00	253.50
	20:00	166.00	4.6719	13.344	26.375	94.750	10.969	1024.0	-2.313	-4.016	446.00	256.00
	21:00	172.50	4.6719	12.344	25.875	93.500	10.188	1028.0	-1.801	-3.313	447.00	251.50
	22:00	172.50	3.8125	13.656	26.375	92.250	10.094	1032.0	-1.910	-3.453	445.00	254.50
	23:00	166.50	4.6719	12.781	26.188	90.750	10.750	1036.0	-1.766	-3.313	437.00	252.00
15AUG88	00:00	135.00	5.3907	12.375	25.750	88.750	12.063	958.00	-2.531	-4.172	437.00	253.00
	01:00	171.50	5.3907	12.688	25.813	90.750	9.7188	1044.0	-1.902	-3.352	434.00	252.00
	02:00	167.50	4.6719	12.844	26.063	87.250	11.031	1028.0	-1.840	-3.063	438.00	258.00
	03:00	170.00	4.6719	13.125	26.375	87.250	10.188	1024.0	-1.910	-3.469	440.00	257.00
	04:00	167.00	2.6954	12.906	25.500	86.000	9.6563	1014.0	-2.531	-4.313	444.00	256.00
	05:00	171.50	3.8125	12.531	25.138	86.750	9.3438	1032.0	-1.930	-3.359	434.00	256.00
	06:00	169.50	3.8125	12.094	26.438	86.500	10.344	1032.0	-1.844	-3.391	438.00	253.00
	07:00	173.50	3.8125	12.594	26.563	87.000	9.0625	1032.0	-1.524	-2.891	435.00	254.50
	08:00	172.00	2.6954	11.375	26.188	90.500	9.0938	1022.0	-2.078	-3.734	440.00	257.00
	09:00	180.00	3.8125	12.281	25.688	93.500	10.000	1032.0	-2.047	-3.953	445.00	369.00
	10:00	192.50	3.8125	13.031	25.813	94.500	10.250	1040.0	-2.969	-5.266	477.00	291.00
	11:00	192.00	3.8125	11.656	26.250	97.750	10.375	1048.0	-2.399	-4.453	471.00	284.00
	12:00	191.50	4.6719	11.656	26.000	102.75	9.1875	1056.0	-2.016	-3.789	457.00	262.00

16AU888 TUESDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 BLR 2 PRECIP OUT TEMP	E12586 BLR 2 ESP VOLT 1	E12587 BLR 2 ESP VOLT 2	E12588 BLR 2 ESP VOLT 3	HC2378 LIME SL CONCEN.	FIC2580 BLR 2 BDA DIL WTR FL
		TI2376 SMP	E12586 SMP	E12587 SMP	E12588 SMP	HC2378 SMP	FIC2580 SMP
		DEG F	KV	KV	KV		GPM
15AU888	13:00	277.00	40.000	43.375	55.250	45.125	29.938
	14:00	300.00	49.500	46.625	56.250	35.000	35.625
	15:00	288.00	46.000	47.375	57.375	50.875	27.063
	16:00	287.00	32.750	46.375	57.375	35.000	34.875
	17:00	260.00	34.875	46.875	57.375	35.000	29.938
	18:00	254.00	36.000	47.125	56.625	35.000	26.625
	19:00	252.00	56.625	49.125	57.125	35.000	25.313
	20:00	253.00	42.250	47.875	57.750	35.000	26.625
	21:00	252.50	42.000	48.875	57.750	35.000	27.375
	22:00	251.50	40.500	48.250	58.125	35.000	25.375
	23:00	253.50	50.625	50.000	58.875	63.125	13.313
16AU888	00:00	253.50	45.750	50.000	59.000	35.000	25.125
	01:00	253.50	38.625	51.250	58.625	35.000	26.125
	02:00	255.50	54.625	49.875	59.000	35.000	30.125
	03:00	250.50	52.500	46.625	58.875	35.000	25.375
	04:00	252.00	53.250	51.000	58.375	35.000	23.250
	05:00	254.00	41.375	0.6856	58.250	35.000	29.250
	06:00	253.00	54.250	51.625	53.500	35.000	27.250
	07:00	251.00	56.125	50.750	58.875	35.000	28.063
	08:00	252.50	54.125	50.500	59.125	35.000	30.750
	09:00	252.50	54.125	51.250	58.625	35.000	35.875
	10:00	255.00	53.125	49.875	58.875	35.000	35.000
	11:00	249.50	53.875	51.375	58.500	35.000	29.563
	12:00	251.50	55.000	50.625	58.125	35.000	34.500

16AUG88 TUESDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI20028 BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
		FI20028 SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
15AUG88	13:00	188.50	5.3907	12.375	25.688	102.50	11.063	1036.0	-2.500	-4.594	472.00	286.00
	14:00	193.00	6.0313	12.344	25.375	102.25	10.438	1023.0	-2.484	-4.719	432.00	305.00
	15:00	189.50	5.3907	11.688	26.063	102.75	11.531	1044.0	-2.195	-4.016	472.00	285.00
	16:00	188.50	6.0313	11.906	26.125	96.500	11.656	1040.0	-2.711	-4.734	474.00	290.00
	17:00	186.00	6.0313	12.375	25.875	99.000	9.7500	1040.0	-2.227	-4.047	459.00	260.00
	18:00	179.50	6.0313	11.969	26.313	97.250	11.313	1032.0	-2.172	-4.047	451.00	258.00
	19:00	173.00	6.6094	11.188	26.375	94.750	10.875	1028.0	-1.707	-3.320	448.00	252.00
	20:00	174.00	6.0313	12.063	26.250	92.500	10.438	1016.0	-1.817	-3.289	444.00	255.50
	21:00	168.00	6.0313	12.344	25.875	89.750	11.375	1016.0	-1.887	-3.547	443.00	255.50
	22:00	172.00	5.3907	13.031	26.188	88.500	11.031	1028.0	-2.102	-3.742	442.00	253.00
	23:00	169.00	4.6719	11.469	25.813	88.250	10.063	1032.0	-1.914	-3.477	433.00	258.00
16AUG88	00:00	167.00	3.8125	11.313	25.938	87.000	10.500	1024.0	-1.649	-3.344	435.00	260.00
	01:00	167.00	4.6719	11.719	26.188	85.750	9.9063	1028.0	-2.000	-3.766	441.00	257.00
	02:00	170.00	4.6719	13.656	25.875	84.750	10.438	1028.0	-2.180	-4.000	446.00	260.00
	03:00	174.00	3.8125	12.063	25.875	85.000	10.563	1024.0	-1.848	-3.336	443.00	247.50
	04:00	169.50	2.6954	12.250	26.375	85.500	10.000	1036.0	-1.762	-3.211	433.00	253.50
	05:00	176.00	3.8125	12.094	25.875	84.000	9.4375	1024.0	-1.902	-3.383	446.00	255.00
	06:00	169.50	2.6954	13.781	26.313	83.750	10.375	1032.0	-2.102	-3.617	441.00	251.50
	07:00	186.50	2.6954	13.313	25.500	82.500	10.531	1048.0	-2.703	-4.672	460.00	247.50
	08:00	191.50	3.8125	12.313	25.563	84.500	10.156	1052.0	-2.430	-4.422	466.00	253.00
	09:00	190.50	4.6719	12.375	25.750	84.500	11.219	1040.0	-2.859	-5.031	475.00	255.50
	10:00	191.00	4.6719	12.688	25.688	84.500	10.250	1020.0	-2.758	-4.641	476.00	255.00
	11:00	187.50	3.8125	11.375	25.500	86.750	10.719	1040.0	-2.024	-4.016	463.00	246.00
	12:00	190.00	4.6719	12.906	26.313	86.500	10.688	1028.0	-2.188	-4.031	464.00	250.00

17AUG88 WEDNESDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		T12376 PRECIP OUT TEMP BLR-2	E12586 ESP VOLT 1 BLR 2	E12587 ESP VOLT 2 BLR-2	E12588 ESP VOLT 3 BLR 2	HC2378 SL CONCEN. LIME	FIC2580 SDA DIL WTR FL BLR 2
		T12376 SMP	E12586 SMP	E12587 SMP	E12588 SMP	HC2378 SMP	FIC2580 SMP
		DEG F	KV	KV	KV		GPM
16AUG88	13:00	252.50	53.750	50.500	58.500	35.000	35.125
	14:00	251.50	54.875	46.875	57.375	35.000	35.125
	15:00	252.00	56.000	51.750	59.250	35.000	32.125
	16:00	250.00	57.375	50.625	59.000	35.000	29.063
	17:00	254.00	59.000	54.625	56.625	35.000	35.500
	18:00	255.50	36.375	50.750	60.125	35.000	33.875
	19:00	251.50	52.875	48.875	59.625	35.000	29.938
	20:00	253.00	43.625	49.500	59.125	35.000	30.125
	21:00	253.00	57.000	0.8887	59.875	35.000	25.063
	22:00	252.00	51.500	49.250	58.375	35.000	24.188
	23:00	252.00	55.125	53.125	59.875	40.000	23.250
17AUG88	00:00	253.00	53.875	50.125	58.625	40.000	25.375
	01:00	249.50	56.250	52.375	59.000	40.000	19.875
	02:00	252.50	54.875	51.625	59.000	40.000	26.438
	03:00	252.00	54.625	51.750	59.500	40.000	21.875
	04:00	250.50	54.250	53.250	59.375	40.000	19.313
	05:00	252.00	51.750	51.750	58.750	40.000	23.500
	06:00	251.50	52.000	52.125	59.125	40.000	24.125
	07:00	251.00	50.875	53.125	59.250	40.000	27.938
	08:00	250.50	54.500	54.500	59.625	40.000	27.188
	09:00	255.50	51.250	51.000	60.000	40.000	33.750
	10:00	250.00	56.000	52.375	59.000	40.000	23.188
	11:00	252.00	54.125	48.125	58.875	40.000	27.938
	12:00	251.50	54.250	49.000	58.125	47.750	21.688

17AUG88 WEDNESDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		F12002B BLR 2 TOTAL STM FLOW	F12153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
		F12002B SMP KLB/HR	F12153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
16AUG88	13:00	190.50	4.6719	12.563	25.375	88.000	11.000	1040.0	-2.453	-4.438	470.00	252.50
	14:00	183.50	4.6719	12.656	25.625	83.000	10.563	1032.0	-2.609	-4.609	472.00	253.00
	15:00	181.00	4.6719	11.406	25.563	89.750	11.344	1032.0	-2.188	-4.219	460.00	260.00
	16:00	192.50	5.3907	12.344	25.625	88.000	9.4063	1032.0	-2.234	-4.047	464.00	250.50
	17:00	180.00	4.6719	11.438	25.250	85.750	12.531	1008.0	-3.180	-5.906	475.00	261.00
	18:00	190.00	5.3907	12.906	25.750	84.250	8.7813	1014.0	-2.289	-4.422	472.00	265.00
	19:00	191.00	4.6719	12.375	25.625	84.500	9.2500	1040.0	-1.938	-3.813	463.00	253.00
	20:00	172.00	3.8125	12.638	26.500	82.500	9.5000	1013.0	-2.094	-3.891	451.00	254.50
	21:00	168.00	2.6954	12.188	26.500	82.750	10.719	1028.0	-1.754	-3.524	436.00	262.00
	22:00	169.50	2.6954	13.063	25.375	80.500	10.625	1016.0	-2.086	-3.328	439.00	252.50
	23:00	169.00	2.6954	11.625	26.438	80.000	9.5000	1020.0	-1.766	-3.359	436.00	252.00
17AUG88	00:00	173.00	2.6954	13.219	25.188	79.250	9.7813	1024.0	-1.848	-3.336	440.00	256.00
	01:00	171.50	0.0000	13.094	25.563	78.000	9.9688	1028.0	-2.016	-3.570	441.00	253.50
	02:00	171.00	0.0000	12.781	26.000	76.750	9.4063	1010.0	-1.918	-3.453	448.00	257.00
	03:00	170.00	0.0000	12.156	26.313	77.250	9.8125	1022.0	-1.813	-3.250	433.00	257.00
	04:00	171.00	0.0000	13.063	26.125	76.250	10.156	1028.0	-2.016	-3.492	435.00	258.00
	05:00	165.00	0.0000	13.844	26.313	74.750	10.156	1010.0	-2.188	-3.930	438.00	253.00
	06:00	169.50	0.0000	12.094	25.500	73.750	10.656	1016.0	-2.055	-3.766	445.00	255.00
	07:00	191.50	0.0000	12.969	25.938	74.750	10.031	1036.0	-2.266	-4.188	460.00	254.50
	08:00	197.50	0.0000	12.156	25.563	77.750	10.000	1040.0	-1.754	-3.328	462.00	253.00
	09:00	189.50	2.6954	15.094	25.500	80.750	9.0625	1014.0	-2.531	-4.734	466.00	270.00
	10:00	187.00	3.8125	11.313	26.000	85.500	9.4688	1040.0	-2.125	-3.844	460.00	257.00
	11:00	192.00	3.8125	13.000	25.688	87.750	9.3125	1036.0	-2.211	-4.000	462.00	259.00
	12:00	191.50	3.8125	12.406	25.438	91.750	9.3750	1032.0	-1.988	-3.531	450.00	258.00

18AUG88 THURSDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 13 COLLECTION COMPLETED 12:01

		F12002B BLR 2 TOTAL STM FLOW	F12153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2651 BLR 2 SDA GAS OUT TMP
		F12002B SMP KLB/HR	F12153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2651 SMP DEG F
17AUG88	13:00	191.00	3.8125	12.000	25.625	95.500	9.3125	1043.0	-1.738	-3.234	451.00	251.00
	14:00	191.00	5.3907	12.844	25.438	95.250	9.6875	1040.0	-2.102	-3.075	459.00	255.00
	15:00	185.00	5.3907	13.000	26.625	95.000	10.438	1032.0	-2.211	-3.992	453.00	251.50
	16:00	191.00	4.6719	12.094	26.875	96.500	10.125	1036.0	-1.984	-3.813	462.00	258.00
	17:00	184.50	4.6719	13.344	25.563	93.750	10.438	1014.0	-2.203	-4.141	467.00	266.00
	18:00	176.50	3.8125	13.938	25.563	91.250	9.1563	1024.0	-1.719	-3.047	438.00	257.00
	19:00	189.50	4.6719	13.563	26.125	89.500	8.0625	1043.0	-1.636	-2.930	439.00	254.50
	20:00	187.00	3.8125	12.031	26.375	89.500	8.3438	1052.0	-1.890	-2.977	431.00	257.00
	21:00	163.50	3.8125	13.094	26.000	88.500	9.4063	1024.0	-1.309	-2.727	421.00	256.00
	22:00	165.50	3.8125	13.344	25.938	86.000	10.656	1018.0	-2.266	-3.906	432.00	256.00
	23:00	174.00	2.6954	13.125	26.438	85.500	8.7188	1023.0	-1.902	-3.344	436.00	257.00
18AUG88	00:00	171.00	2.6954	12.969	25.188	87.250	7.8750	1040.0	-1.707	-2.961	421.00	254.00
	01:00	170.00	4.6719	12.906	26.375	87.000	8.6563	1036.0	-1.473	-2.805	417.00	254.00
	02:00	167.00	2.6954	12.344	25.938	83.500	10.125	1020.0	-2.021	-3.703	432.00	255.50
	03:00	170.50	0.0000	12.188	26.563	85.000	7.5469	1040.0	-1.453	-2.672	419.00	253.00
	04:00	169.00	0.0000	12.469	24.875	82.000	9.5625	1024.0	-1.805	-3.234	426.00	256.00
	05:00	174.00	0.0000	12.731	26.250	82.000	8.8750	1022.0	-1.504	-2.813	438.00	251.00
	06:00	163.00	0.0000	12.438	25.875	81.000	11.250	1022.0	-1.918	-3.624	436.00	255.00
	07:00	196.00	3.8125	12.750	25.563	80.750	8.3438	1052.0	-1.988	-3.563	453.00	256.00
	08:00	187.50	3.8125	11.813	25.750	82.750	9.5625	1044.0	-2.164	-3.891	448.00	258.00
	09:00	187.00	2.6954	12.750	25.813	84.750	10.219	1052.0	-2.211	-3.969	449.00	257.00
	10:00	182.50	2.6954	12.125	25.813	84.500	10.031	1056.0	-2.109	-3.805	448.00	259.00
	11:00	193.50	3.8125	11.906	26.125	85.500	9.0313	1060.0	-1.840	-3.375	451.00	252.00
	12:00	189.00	2.6954	13.656	25.813	87.500	8.0438	1056.0	-2.203	-3.781	447.00	255.00

18AUG88 THURSDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

	T12376 PRECIP	BLR 2 OUT TEMP	E12587 ESP VOLT	BLR 2 2	HC2378 SL CONCEN.	LIME
	E12536 ESP VOLT	BLR 2 1	E12588 ESP VOLT	BLR 2 3	FIC2580 SDA DIL WTR FL	BLR 2
	T12376 SMP DEG F	E12536 SMP KV	E12587 SMP KV	E12588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
17AUG88 13:00	250.50	42.250	49.250	58.125	40.000	24.625
14:00	252.00	54.125	47.375	59.000	40.000	30.375
15:00	251.00	41.625	50.000	58.875	40.000	27.375
16:00	251.50	42.000	49.000	53.125	40.000	30.250
17:00	254.50	53.125	48.375	58.000	40.000	32.000
18:00	251.00	42.375	47.125	59.000	60.375	15.219
19:00	251.50	41.125	47.500	59.125	36.875	23.938
20:00	252.00	51.250	47.375	53.500	80.000	11.719
21:00	252.00	55.625	49.625	59.125	36.875	19.750
22:00	252.00	53.750	53.750	53.375	36.375	22.188
23:00	252.50	52.125	48.000	59.250	36.875	24.750
18AUG88 00:00	251.00	54.625	49.125	59.125	36.875	18.875
01:00	251.50	54.250	48.875	59.250	40.000	17.500
02:00	253.50	52.750	51.250	59.125	75.500	12.125
03:00	251.00	55.125	49.125	59.125	40.000	16.688
04:00	253.00	53.500	52.125	59.250	40.000	22.063
05:00	249.50	51.375	49.125	58.750	40.000	21.000
06:00	251.50	55.250	54.375	59.000	40.000	22.250
07:00	251.50	50.750	49.375	59.500	40.000	27.938
08:00	252.50	51.500	48.500	59.000	41.750	25.063
09:00	252.00	51.750	49.125	59.250	35.000	27.125
10:00	252.00	50.500	50.875	59.500	35.000	26.438
11:00	251.50	51.875	50.875	59.750	35.000	28.500
12:00	250.50	54.375	50.375	59.250	35.000	25.563

19AUG88 FRIDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 10 COLLECTION COMPLETED 12:01

	FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2026 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
	FI2002B SMP	FI2153 SMP	PIC2026 SMP	PIC2026 SMP	TI2024 SMP	AIC2064 SMP	TI2021C SMP	PI2039 SMP	PI2375 SMP	TR2040 SMP	TIC2551 SMP
	KLB/HR	KSCFH	"H2O	"H2O	DEG F	%	DEG F	"H2O	"H2O	DEG F	DEG F
18AUG88 13:00	192.00	3.0125	13.250	26.438	89.000	10.563	1064.0	-2.016	-3.633	453.00	245.00
14:00	189.00	2.6954	12.469	25.875	90.500	9.6875	1048.0	-1.945	-3.633	454.00	258.00
15:00	195.50	3.0125	12.594	26.563	90.500	9.1250	1056.0	-2.149	-3.313	460.00	247.50
16:00	181.00	2.6954	13.063	26.375	89.250	11.625	1036.0	-2.012	-3.188	447.00	260.00
17:00	192.50	2.6954	13.875	25.938	90.000	8.7188	1056.0	-1.969	-3.445	446.00	252.50
18:00	187.00	2.6954	13.000	26.013	86.500	9.2813	1044.0	-1.899	-3.531	456.00	250.00
19:00	181.50	0.0000	11.156	26.688	86.000	9.7188	1048.0	-1.656	-3.000	441.00	255.00
20:00	160.00	0.0000	13.469	26.125	80.750	10.844	1000.0	-2.102	-3.633	444.00	258.00
21:00	171.50	0.0000	13.219	25.625	80.750	8.3438	1032.0	-1.461	-2.719	424.00	254.00
22:00	170.50	0.0000	12.313	25.938	77.250	9.1563	1020.0	-1.512	-2.899	432.00	257.00
23:00	173.00	0.0000	13.000	25.375	76.750	7.8594	1032.0	-1.649	-2.938	425.00	254.50
19AUG88 00:00	172.50	0.0000	12.063	26.125	75.250	9.2188	1044.0	-1.500	-2.781	425.00	255.00
01:00	163.00	0.0000	12.000	26.313	74.250	9.2188	1028.0	-1.539	-2.930	420.00	256.00
02:00	174.50	0.0000	13.000	26.125	73.000	8.3125	1040.0	-1.656	-2.922	420.00	253.00
03:00	170.00	0.0000	12.969	26.063	73.250	9.1563	1040.0	-1.602	-2.709	418.00	254.50
04:00	169.00	0.0000	11.656	26.125	72.000	9.0313	1036.0	-1.609	-2.820	422.00	252.50
05:00	171.00	0.0000	11.638	26.688	71.250	9.3125	1036.0	-1.629	-2.797	423.00	256.00
06:00	167.00	0.0000	12.563	25.875	69.250	10.250	1032.0	-1.910	-3.313	426.00	253.50
07:00	193.50	0.0000	12.344	26.688	69.500	9.3438	1068.0	-2.047	-3.536	450.00	250.00
08:00	185.50	0.0000	13.781	26.750	73.250	9.7188	1052.0	-2.344	-4.125	455.00	260.00
09:00	202.00	0.0000	12.063	26.750	76.000	9.0938	1044.0	-1.942	-3.461	461.00	261.00
10:00	193.50	0.0000	13.219	26.750	80.000	8.4375	1064.0	-1.766	-3.258	448.00	264.00
11:00	190.00	0.0000	13.125	26.438	84.000	9.2188	1064.0	-2.000	-3.625	449.00	252.50
12:00	187.50	0.0000	12.719	26.625	86.250	9.6250	1056.0	-2.109	-3.695	450.00	256.00

19AUG88 FRIDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP OUT TEMP BLR 2	EI2586 ESP VOLT 1 BLK 2	EI2587 ESP VOLT 2 BLR 2	EI2588 ESP VOLT 3 BLK 2	HC2378 SL CONCEN. SL LINE	FIC2580 SDA DIL WTR FL BLR 2
		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
18AUG88	13:00	249.50	53.125	48.250	59.000	35.000	27.125
	14:00	252.00	54.875	48.750	58.125	35.000	26.313
	15:00	250.00	53.500	46.750	53.375	35.000	30.000
	16:00	253.50	51.250	49.625	57.125	35.000	33.125
	17:00	249.50	53.250	48.500	53.250	35.000	23.375
	18:00	252.00	52.500	48.875	58.125	35.000	30.438
	19:00	251.50	54.750	49.125	58.250	35.000	22.938
	20:00	254.00	53.500	49.750	58.750	65.750	14.156
	21:00	251.50	54.500	49.125	59.125	35.000	21.625
	22:00	253.00	52.875	49.250	59.625	35.000	24.938
	23:00	252.00	50.000	50.000	59.625	35.000	22.063
19AUG88	00:00	251.00	51.625	50.625	59.875	35.000	21.188
	01:00	251.50	52.625	53.750	59.625	80.000	8.9375
	02:00	250.00	52.125	51.000	60.000	35.000	20.188
	03:00	250.50	51.375	52.500	60.625	35.000	19.250
	04:00	250.00	51.000	51.750	60.500	35.000	18.188
	05:00	251.00	50.250	50.500	60.500	35.000	20.875
	06:00	250.50	50.875	53.750	60.375	35.000	21.750
	07:00	250.50	49.625	51.500	60.375	35.000	29.313
	08:00	251.00	51.750	53.000	58.125	35.000	28.813
	09:00	250.00	48.750	50.625	59.750	80.000	14.375
	10:00	250.50	49.125	48.875	60.375	80.000	12.781
	11:00	249.50	52.250	50.125	59.750	79.750	25.500
	12:00	250.50	53.375	50.875	59.875	80.000	12.875

20AU88 SATURDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2020 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2661 BLR 2 SDA GAS OUT TMP
		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2020 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2661 SMP DEG F
19AU88	13:00	187.50	0.0000	10.594	26.500	89.250	9.4063	1052.0	-1.856	-3.359	445.00	250.00
	14:00	190.50	0.0000	12.375	25.375	90.750	9.2133	1076.0	-1.676	-3.313	452.00	247.00
	15:00	194.50	3.8125	13.469	26.250	91.500	8.7813	1060.0	-2.297	-3.938	458.00	248.00
	16:00	185.50	3.8125	13.250	25.188	93.500	9.8125	1064.0	-2.003	-3.649	442.00	254.50
	17:00	192.00	3.8125	12.719	25.375	91.500	9.5000	1064.0	-1.969	-3.461	453.00	255.50
	18:00	189.00	2.6954	12.156	26.313	88.000	9.3125	1060.0	-1.938	-3.617	455.00	254.00
	19:00	175.00	3.8125	12.750	25.250	84.000	11.313	1044.0	-2.156	-3.742	451.00	253.50
	20:00	174.00	0.0000	12.375	25.750	82.000	8.1875	1036.0	-1.555	-2.781	427.00	253.50
	21:00	173.50	0.0000	12.938	26.313	79.750	8.2500	1044.0	-1.847	-2.695	423.00	256.00
	22:00	170.50	0.0000	12.594	26.625	77.500	8.9063	1036.0	-1.563	-2.727	418.00	256.00
	23:00	171.50	0.0000	13.125	25.875	75.750	9.1875	1044.0	-1.582	-2.781	421.00	253.50
20AU88	00:00	170.50	0.0000	13.375	26.313	72.500	10.031	1024.0	-1.352	-3.391	435.00	255.50
	01:00	171.00	0.0000	11.469	25.063	72.500	9.3750	1048.0	-1.766	-3.141	429.00	253.00
	02:00	172.00	0.0000	11.719	25.188	71.250	9.7813	1036.0	-1.688	-2.934	430.00	251.50
	03:00	171.50	0.0000	11.563	25.375	71.750	9.0625	1040.0	-1.453	-2.672	423.00	255.50
	04:00	168.50	0.0000	11.563	25.688	69.250	10.625	1032.0	-1.934	-3.516	440.00	261.00
	05:00	167.00	0.0000	11.781	26.313	68.750	10.344	1024.0	-2.039	-3.883	442.00	258.00
	06:00	173.50	0.0000	11.344	25.063	70.500	9.0625	1043.0	-1.621	-2.945	434.00	258.00
	07:00	171.50	0.0000	13.156	26.125	72.000	9.1250	1044.0	-1.617	-2.766	426.00	253.00
	08:00	171.00	0.0000	12.156	25.938	75.000	8.9688	1044.0	-1.668	-2.961	429.00	254.50
	09:00	170.00	0.0000	12.906	26.125	78.500	10.313	1032.0	-1.965	-3.336	435.00	255.00
	10:00	170.50	0.0000	11.969	26.375	82.000	9.9688	1028.0	-2.078	-3.547	438.00	258.00
	11:00	164.50	0.0000	11.938	26.375	85.500	10.375	1010.0	-2.133	-4.031	446.00	260.00
	12:00	164.00	0.0000	11.344	26.188	87.750	11.875	1022.0	-2.203	-3.813	441.00	253.50

20AUG88 SATURDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		T12376 BLR 2 PRECIP OUT TEMP	E12586 BLR 2 ESP VOLT 1	E12587 BLR 2 ESP VOLT 2	E12588 BLR 2 ESP VOLT 3	HC2378 LIME SL CONCEN.	FIC2580 BLR 2 SDA-DIL WTR FL
		T12376 SMP	E12586 SMP	E12587 SMP	E12588 SMP	HC2378 SMP	FIC2580 SMP
		DEG F	KV	KV	KV		GPM
19AUG88	13:00	249.50	54.375	51.500	59.375	35.000	22.875
	14:00	247.00	53.125	48.625	0.2452	35.000	28.063
	15:00	250.50	53.375	50.125	59.750	35.000	30.125
	16:00	251.50	53.750	49.750	59.375	35.000	25.125
	17:00	252.00	52.250	48.625	59.000	35.000	20.125
	18:00	251.00	53.375	49.375	59.375	35.000	27.438
	19:00	251.00	53.375	49.375	60.125	35.000	25.625
	20:00	252.00	53.750	50.125	60.500	35.000	20.063
	21:00	252.50	54.750	50.125	60.375	35.000	19.813
	22:00	253.00	52.375	52.750	60.625	35.000	20.000
	23:00	252.50	50.875	52.625	60.500	35.000	19.875
20AUG88	00:00	252.50	47.750	52.375	60.625	35.000	24.875
	01:00	252.50	51.000	51.125	60.625	35.000	21.375
	02:00	252.00	49.250	53.500	60.125	40.875	13.250
	03:00	252.50	51.625	51.125	60.375	68.500	10.875
	04:00	253.00	50.375	54.000	59.375	35.000	26.938
	05:00	252.50	51.250	53.875	60.500	35.000	28.563
	06:00	251.00	50.500	52.250	53.625	35.000	22.313
	07:00	251.00	52.250	54.000	60.250	35.375	20.500
	08:00	250.50	53.750	54.625	60.000	46.625	16.563
	09:00	251.00	51.250	54.000	60.375	59.750	14.438
	10:00	250.00	54.500	52.375	59.625	66.000	12.031
	11:00	253.00	53.750	53.375	59.375	40.000	25.750
	12:00	252.00	52.000	50.750	59.500	69.750	11.750

21AUG80 SUNDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 10 COLLECTION COMPLETED 12:01

	FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2020 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
	FI2002B GMP KLB/HR	FI2153 GMP KSCFH	PIC2020 GMP "H2O	PIC2026 GMP "H2O	TI2024 GMP DEG F	AIC2064 GMP %	TI2021C GMP DEG F	PI2039 GMP "H2O	PI2375 GMP "H2O	TR2040 GMP DEG F	TIC2551 GMP DEG F
20AUG80 13:00	174.50	2.6954	12.000	26.250	89.500	8.3125	1036.0	-1.633	-2.977	438.00	255.00
14:00	177.00	3.8125	13.625	26.625	90.000	8.5313	1040.0	-1.625	-2.859	428.00	258.00
15:00	171.00	4.6719	13.125	26.500	89.000	9.1250	1022.0	-1.902	-3.227	432.00	257.00
16:00	181.00	3.8125	11.719	26.625	89.000	9.0625	1044.0	-1.436	-2.711	431.00	254.50
17:00	170.00	3.8125	11.625	25.125	83.000	9.5313	1036.0	-1.617	-2.859	427.00	250.50
18:00	170.50	3.8125	12.894	25.625	86.000	8.6250	1032.0	-1.992	-3.234	441.00	268.00
19:00	172.50	3.8125	13.313	26.250	84.000	9.2313	1012.0	-2.039	-3.539	446.00	257.00
20:00	171.50	2.6954	13.375	26.438	82.000	9.2188	1032.0	-1.699	-2.938	427.00	255.00
21:00	165.50	0.0000	12.231	24.563	79.250	10.250	1036.0	-2.078	-3.492	427.00	255.50
22:00	176.50	0.0000	11.906	26.000	78.500	9.0313	1052.0	-1.800	-2.734	432.00	256.00
23:00	169.50	0.0000	13.469	26.750	76.250	9.8438	1036.0	-2.008	-3.414	429.00	254.50
21AUG80 00:00	168.50	0.0000	12.656	25.125	73.250	9.7500	1016.0	-2.234	-3.961	444.00	262.00
01:00	162.50	0.0000	12.250	25.063	72.250	11.062	1014.0	-2.258	-4.188	443.00	258.00
02:00	170.00	0.0000	13.594	26.438	72.000	9.6563	1040.0	-2.180	-3.649	441.00	255.50
03:00	172.50	0.0000	11.969	26.313	71.500	10.000	1032.0	-1.309	-3.227	437.00	260.00
04:00	162.00	0.0000	12.094	25.938	70.750	10.563	1024.0	-1.789	-3.406	429.00	260.00
05:00	180.00	0.0000	13.375	26.063	70.750	8.5938	1040.0	-1.695	-3.344	433.00	257.00
06:00	195.50	0.0000	12.719	26.188	70.250	8.6875	1068.0	-2.664	-4.250	450.00	253.00
07:00	186.50	0.0000	13.156	26.625	71.000	10.563	1063.0	-2.367	-4.016	442.00	256.00
08:00	191.00	0.0000	12.688	26.063	73.250	8.8438	1076.0	-1.922	-3.516	441.00	253.50
09:00	187.50	0.0000	12.469	25.500	76.500	9.0625	1080.0	-1.910	-3.399	435.00	254.00
10:00	193.50	0.0000	13.406	26.375	80.000	8.0938	1080.0	-1.967	-3.422	434.00	249.00
11:00	192.00	2.6954	11.906	26.313	82.500	9.2500	1072.0	-2.133	-3.867	441.00	252.00
12:00	193.00	2.6954	12.800	26.375	84.000	10.156	1064.0	-2.133	-4.016	451.00	249.00

21AUG88 SUNDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

TI2376 BLR 2 PRECIP OUT TEMP
EI2587 BLR 2 ESP VOLT 2
HC2378 LIME SL CONCEN.
EI2586 BLR 2 ESP VOLT 1
EI2588 BLR 2 ESP VOLT 3
FIC2580 BLR 2 SDA DIL WTR FL

		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
20AUG88	13:00	251.50	39.750	43.000	60.000	40.000	20.063
	14:00	251.00	51.750	51.125	59.750	40.000	15.000
	15:00	250.50	54.500	49.000	59.625	40.000	19.750
	16:00	251.50	54.875	51.750	60.000	40.000	19.375
	17:00	250.50	54.500	43.625	60.000	40.000	13.313
	18:00	256.00	40.500	53.000	60.375	43.625	26.500
	19:00	254.50	52.375	49.250	59.750	80.000	13.625
	20:00	252.50	56.000	51.000	59.500	80.000	9.7500
	21:00	254.00	53.000	51.000	59.250	80.000	14.313
	22:00	254.00	54.125	50.875	60.000	76.000	10.250
	23:00	254.50	53.500	53.625	59.875	79.500	10.844
21AUG88	00:00	255.50	50.750	53.125	60.250	30.938	30.813
	01:00	252.00	48.625	54.875	60.625	47.750	21.000
	02:00	251.50	50.375	52.375	60.375	30.938	26.000
	03:00	251.50	50.000	52.875	60.625	30.938	25.688
	04:00	252.50	50.375	55.000	60.750	67.250	11.813
	05:00	251.50	51.125	54.000	61.000	30.938	25.250
	06:00	251.50	49.750	50.500	60.625	30.938	31.688
	07:00	250.50	51.125	54.375	61.125	35.375	25.625
	08:00	249.50	50.750	53.000	57.625	76.500	11.563
	09:00	251.00	51.625	51.875	60.375	35.125	23.688
	10:00	248.50	50.750	49.625	60.250	44.750	18.188
	11:00	250.50	54.250	49.625	60.125	44.750	24.000
	12:00	250.00	51.750	49.750	59.750	47.250	14.094

22AUG88 MONDAY ENTROPY TEST LOG NO. 1 BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

	F12002B TOTAL STM FLOW BLR 2	F12163 NAT GAS FLOW BLR 2	PIC2028 PRI AIR PRESS BLR 2	PIC2026 SEC AIR PRESS BLR 2	TI2024 UNDERGRATE AIR BLR 2	AIC2064 O2 BLR 2	TI2021C AVG SUP OUTGAS BLR 2	PI2039 SDA INLET GAS BLR 2	PI2375 PRECIP OUT PR BLR 2	TR2040 FLUE GAS OUT BLR 2	TIC2551 SDA GAS OUT TMP BLR 2
	F12002B SMP KLB/HR	F12163 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
21AUG88 13:00	194.00	3.8125	12.969	25.688	86.500	7.7344	1056.0	-1.938	-3.508	446.00	257.00
14:00	183.50	2.6954	11.969	25.438	86.500	10.906	1064.0	-2.008	-3.781	438.00	256.00
15:00	196.50	2.6954	12.406	25.438	87.750	8.8125	1088.0	-1.840	-3.281	433.00	253.00
16:00	188.50	2.6954	12.313	25.188	89.250	9.0000	1072.0	-2.078	-3.758	429.00	254.50
17:00	190.50	0.0000	12.094	26.125	88.750	8.1563	1080.0	-1.781	-3.203	425.00	252.50
18:00	192.50	0.0000	12.031	25.438	88.750	8.4688	1068.0	-1.856	-3.211	424.00	254.00
19:00	191.50	0.0000	13.438	26.500	86.750	7.8938	1076.0	-1.926	-3.328	419.00	254.50
20:00	186.00	0.0000	12.250	26.813	81.250	9.7188	1060.0	-1.637	-3.195	424.00	259.00
21:00	190.50	0.0000	11.688	26.000	78.500	9.1563	1072.0	-1.840	-3.477	430.00	255.50
22:00	192.00	0.0000	12.125	25.250	76.500	8.5625	1072.0	-1.570	-3.047	427.00	254.00
23:00	190.50	0.0000	11.813	25.438	74.750	9.2188	1076.0	-1.969	-3.555	429.00	252.50
22AUG88 00:00	189.00	0.0000	12.781	26.500	72.500	9.6250	1072.0	-1.945	-3.594	427.00	256.00
01:00	190.50	0.0000	12.406	26.438	69.250	11.031	1056.0	-2.406	-4.344	452.00	254.00
02:00	195.00	0.0000	11.938	25.875	68.750	10.375	1072.0	-2.078	-3.695	443.00	258.00
03:00	188.50	0.0000	13.094	25.500	68.000	9.8125	1056.0	-2.000	-3.961	445.00	261.00
04:00	194.00	0.0000	12.406	26.000	68.500	8.7500	1076.0	-1.992	-3.438	432.00	254.50
05:00	190.00	0.0000	13.188	26.063	67.000	10.219	1060.0	-2.188	-3.945	436.00	257.00
06:00	192.50	0.0000	12.188	26.188	66.000	9.8438	1076.0	-2.195	-3.734	438.00	254.00
07:00	188.00	0.0000	11.906	26.500	66.500	10.156	1064.0	-2.274	-4.031	440.00	259.00
08:00	187.50	0.0000	12.250	26.563	70.750	9.8125	1068.0	-2.164	-3.899	437.00	258.00
09:00	192.00	0.0000	11.781	25.688	75.750	8.2813	1084.0	-2.008	-3.281	429.00	255.50
10:00	189.00	0.0000	12.813	26.000	76.750	9.7813	1068.0	-1.984	-3.463	428.00	253.00
11:00	193.50	0.0000	12.781	26.250	78.000	8.5313	1072.0	-2.211	-3.805	438.00	255.50
12:00	185.50	0.0000	12.156	25.438	80.500	9.4375	1072.0	-1.750	-3.406	429.00	255.50

22AU888 MONDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

	TI2376 BLR 2		EI2587 BLR 2		HC2378 LIME	
	PRECIP OUT TEMP		ESP VOLT 2		SL CONCEN.	
	EI2586 BLR 2		EI2588 BLR 2		FIC2580 BLR 2	
	ESP VOLT 1		ESP VOLT 3		SDA DIL WTR FL	
	TI2376 SMP	EI2586 SMP	EI2587 SMP	EI2588 SMP	HC2378 SMP	FIC2580 SMP
	DEG F	KV	KV	KV		GPM
21AU888 13:00	253.00	51.375	48.625	59.250	65.250	16.438
14:00	252.50	53.250	49.625	59.875	56.125	17.438
15:00	250.50	51.875	48.625	59.750	80.000	10.250
16:00	252.00	56.500	50.125	60.000	44.750	20.625
17:00	253.00	53.375	49.625	59.875	80.000	10.750
18:00	252.50	55.375	52.750	60.250	64.750	10.969
19:00	252.50	55.250	52.500	60.500	58.375	12.875
20:00	253.50	52.875	53.375	60.250	44.750	19.625
21:00	252.50	54.125	53.875	60.375	79.750	11.188
22:00	251.50	51.375	51.625	59.875	60.000	12.844
23:00	251.50	50.000	53.375	60.625	70.750	11.000
22AU888 00:00	252.00	50.500	53.875	60.375	77.750	11.594
01:00	252.00	50.625	53.125	61.250	44.750	27.125
02:00	250.50	51.750	52.250	60.875	44.750	23.000
03:00	251.00	50.125	51.375	61.375	46.000	23.438
04:00	250.50	55.750	51.500	60.625	44.750	20.313
05:00	250.50	50.625	51.625	60.250	44.750	20.375
06:00	251.00	54.750	50.500	60.250	44.750	21.500
07:00	252.00	50.250	50.375	60.625	44.750	24.563
08:00	251.50	53.375	49.125	59.250	55.000	19.938
09:00	249.50	53.125	50.500	60.875	35.000	20.375
10:00	250.50	50.500	51.375	60.625	55.000	15.375
11:00	251.00	49.125	50.625	60.500	55.000	17.375
12:00	251.00	50.625	51.875	60.625	55.000	15.875

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23AU888 TUESDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS LOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
		FI2002B SMP	FI2153 SMP	PIC2028 SMP	PIC2026 SMP	TI2024 SMP	AIC2064 SMP	TI2021C SMP	PI2039 SMP	PI2375 SMP	TR2040 SMP	TIC2551 SMP
		KLB/HR	KSCFH	"H2O	"H2O	DEG-F	%	DEG-F	"H2O	"H2O	DEG-F	DEG-F
22AU888	13:00	192.00	0.0000	11.688	26.563	84.250	9.0000	1064.0	-1.836	-3.406	435.00	257.00
	14:00	191.50	0.0000	11.906	25.500	86.000	7.9375	1068.0	-1.973	-3.641	436.00	256.00
	15:00	189.00	0.0000	13.250	26.063	86.000	9.4688	1072.0	-2.156	-3.750	434.00	259.00
	16:00	193.00	0.0000	13.031	26.188	83.750	8.0000	1076.0	-1.924	-3.469	438.00	255.50
	17:00	191.50	0.0000	12.875	25.125	81.250	9.6563	1056.0	-2.375	-4.141	452.00	254.50
	18:00	187.00	0.0000	12.063	26.563	77.500	9.6563	1060.0	-2.281	-4.078	448.00	253.00
	19:00	193.00	0.0000	12.094	25.625	76.500	7.4688	1080.0	-1.590	-2.969	433.00	259.00
	20:00	190.00	0.0000	12.438	26.250	74.250	8.4688	1076.0	-2.117	-3.711	437.00	256.00
	21:00	188.50	0.0000	12.156	26.063	70.500	10.156	1068.0	-2.524	-4.234	445.00	257.00
	22:00	190.00	0.0000	11.563	25.375	69.750	9.2813	1080.0	-1.895	-3.461	439.00	259.00
	23:00	185.00	0.0000	11.656	26.438	68.000	10.469	1072.0	-2.336	-4.047	430.00	254.50
23AU888	00:00	188.00	0.0000	11.563	26.438	66.500	10.094	1072.0	-2.125	-3.727	432.00	256.00
	01:00	193.50	0.0000	12.688	25.688	65.750	8.9688	1084.0	-1.785	-3.274	433.00	255.50
	02:00	190.50	0.0000	12.156	26.813	63.625	10.781	1064.0	-2.125	-3.969	444.00	252.00
	03:00	189.00	0.0000	13.219	26.125	62.750	9.0938	1068.0	-2.453	-4.250	442.00	258.00
	04:00	186.50	0.0000	12.594	25.188	61.375	10.844	1068.0	-2.516	-4.719	455.00	253.00
	05:00	193.00	0.0000	12.719	25.250	60.250	8.9688	1064.0	-2.117	-3.938	455.00	253.00
	06:00	188.00	0.0000	11.906	26.500	60.500	10.969	1060.0	-2.258	-3.984	451.00	241.50
	07:00	196.50	0.0000	13.063	26.250	61.500	7.8282	1088.0	-2.234	-3.820	451.00	254.50
	08:00	188.00	0.0000	11.219	26.500	66.250	10.375	1072.0	-2.149	-3.899	444.00	253.00
	09:00	192.50	0.0000	13.625	25.250	70.250	8.9375	1068.0	-2.109	-3.758	446.00	247.00
	10:00	123.50	11.125	13.875	25.313	78.500	9.7188	934.00	-1.362	-2.445	398.00	248.50
	11:00	183.00	0.0000	10.906	27.750	82.000	10.219	1060.0	-2.102	-3.688	435.00	245.50
	12:00	192.00	0.0000	12.313	26.188	84.250	8.9063	1080.0	-2.336	-3.984	436.00	254.50

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23AUG88 TUESDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

TI2376 BLR 2 PRECIP OUT TEMP
EI2587 BLR 2 ESP VOLT 2
HC2378 LIME SL CONCEN.
EI2586 BLR 2 ESP VOLT 1
EI2588 BLR 2 ESP VOLT 3
FIC2580 BLR 2 SDA DIL WTR FL

		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
22AUG88	13:00	252.50	50.875	51.750	61.000	55.000	18.250
	14:00	250.50	48.875	51.000	60.875	55.000	16.000
	15:00	252.00	49.000	53.625	61.000	55.000	15.938
	16:00	252.00	51.375	52.250	61.125	34.750	25.813
	17:00	252.00	49.125	52.375	61.125	34.750	29.375
	18:00	252.00	48.500	53.000	61.375	34.750	28.188
	19:00	256.00	48.250	54.250	61.125	39.625	21.063
	20:00	254.50	49.125	53.625	61.375	40.000	23.063
	21:00	253.50	48.250	57.500	61.375	46.500	23.375
	22:00	253.50	49.750	56.250	61.250	80.000	11.594
	23:00	251.50	53.500	56.750	61.250	80.000	9.9688
23AUG88	00:00	252.00	53.750	55.875	61.375	40.625	22.938
	01:00	252.50	59.250	49.375	59.625	40.000	22.375
	02:00	252.50	54.500	45.875	59.625	45.125	23.750
	03:00	252.00	35.250	49.125	57.625	45.125	21.938
	04:00	251.00	52.000	49.125	58.750	41.750	24.875
	05:00	253.00	53.375	49.125	58.375	41.750	28.188
	06:00	251.50	47.125	48.000	58.375	40.000	27.188
	07:00	253.00	54.000	46.375	53.000	40.000	29.313
	08:00	250.50	47.250	48.000	58.625	40.000	21.125
	09:00	246.00	42.625	48.625	59.000	40.000	22.750
	10:00	245.00	54.250	48.250	58.500	80.000	6.5469
	11:00	247.50	52.750	49.375	56.125	40.000	23.688
	12:00	252.00	50.875	50.500	59.375	40.000	23.438

24AUG88 WEDNESDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP OUT TEMP BLR 2	EI2586 ESP VOLT 1 BLR 2	EI2587 ESP VOLT 2 BLR 2	EI2588 ESP VOLT-3 BLR 2	HC2378 SL CONCEN. LIME	FIC2580 SDA DIL-WTR FL BLR 2
		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
23AUG88	13:00	253.50	51.125	49.750	59.125	40.000	27.688
	14:00	249.00	51.375	50.125	59.500	40.000	23.500
	15:00	247.50	53.375	52.250	59.500	40.000	19.313
	16:00	243.00	53.125	52.750	59.250	40.000	22.938
	17:00	246.50	51.875	48.625	59.125	40.000	23.125
	18:00	243.00	50.750	50.625	59.750	40.000	21.500
	19:00	248.00	51.875	51.875	59.875	40.000	26.625
	20:00	247.50	54.750	52.375	60.125	40.000	23.313
	21:00	247.50	50.375	53.375	60.250	40.000	23.063
	22:00	246.50	56.125	52.500	60.250	43.500	20.063
	23:00	248.50	54.500	50.375	60.250	40.000	27.813
24AUG88	00:00	252.00	51.125	50.625	60.000	40.000	25.750
	01:00	250.00	51.000	49.625	59.875	40.000	20.938
	02:00	249.50	50.000	51.250	60.125	40.000	20.875
	03:00	252.50	50.500	51.625	57.375	80.000	14.375
	04:00	250.50	51.625	43.625	59.625	59.250	17.125
	05:00	251.50	50.375	50.250	60.125	40.000	23.375
	06:00	252.00	50.250	51.875	60.125	40.000	24.438
	07:00	251.00	50.875	52.375	59.000	40.000	22.875
	08:00	253.50	49.500	49.500	60.375	40.000	29.750
	09:00	250.00	52.125	49.625	59.875	40.000	25.125
	10:00	249.00	56.625	43.750	58.750	40.000	27.438
	11:00	249.00	52.125	48.000	56.500	48.375	20.688
	12:00	249.00	57.250	47.750	53.500	40.000	20.688

24AUG88 WEDNESDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

FI2002B BLR 2 TOTAL STM FLOW
PIC2026 BLR 2 PRI AIR PRESS
TI2024 BLR 2 UNDERGRATE AIR
TI2021C BLR 2 AVG SUP OUTGAS
PI2375 BLR 2 PRECIP OUT PR
TIC2551 BLR 2 SDA GAS OUT TMP
FI2153 BLR 2 NAT GAS FLOW
PIC2026 BLR 2 SEC AIR PRESS
AIC2064 BLR 2 O2
PI2039 BLR 2 SDA INLET GAS
TR2040 BLR 2 FLUE GAS OUT

		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2026 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
23AUG88	13:00	188.00	0.0000	12.375	25.813	86.750	10.094	1080.0	-2.375	-4.109	438.00	255.50
	14:00	192.50	0.0000	12.344	25.875	87.500	8.4063	1080.0	-2.102	-3.680	437.00	249.50
	15:00	188.00	0.0000	11.188	26.250	92.500	8.8438	1084.0	-1.777	-3.266	428.00	250.50
	16:00	187.50	0.0000	13.344	26.625	87.250	9.3438	1072.0	-2.180	-3.328	437.00	249.00
	17:00	192.00	0.0000	12.156	26.188	84.000	8.9375	1084.0	-1.953	-3.438	437.00	246.00
	18:00	185.50	0.0000	12.375	26.125	81.750	9.4688	1076.0	-2.109	-3.633	424.00	251.00
	19:00	186.00	0.0000	11.938	25.875	77.750	10.156	1072.0	-2.219	-4.000	438.00	253.00
	20:00	188.00	0.0000	11.750	25.500	76.000	8.6875	1072.0	-2.375	-4.219	440.00	252.50
	21:00	188.00	0.0000	13.063	25.875	74.000	8.4688	1068.0	-2.352	-4.094	441.00	252.50
	22:00	189.00	0.0000	13.219	25.500	73.250	9.4688	1076.0	-2.016	-3.586	429.00	250.00
	23:00	193.50	0.0000	11.219	25.875	71.750	8.4375	1076.0	-2.195	-3.742	439.00	251.50
24AUG88	00:00	189.50	0.0000	12.894	26.063	70.750	8.9375	1064.0	-2.094	-3.820	435.00	256.00
	01:00	190.00	0.0000	12.156	25.875	71.000	8.8125	1080.0	-1.895	-3.461	429.00	251.50
	02:00	189.50	0.0000	12.250	26.375	70.500	9.3750	1080.0	-2.406	-4.078	434.00	252.50
	03:00	193.50	0.0000	13.125	25.438	69.000	9.0000	1072.0	-2.039	-3.828	447.00	256.00
	04:00	196.00	0.0000	12.875	26.125	69.750	7.7657	1092.0	-2.156	-3.719	444.00	247.00
	05:00	186.50	0.0000	12.250	25.375	69.250	7.5782	1080.0	-2.242	-3.945	432.00	254.00
	06:00	184.00	0.0000	12.719	26.375	68.250	9.3750	1072.0	-2.664	-4.547	439.00	258.00
	07:00	190.00	0.0000	12.969	26.500	68.500	9.5313	1076.0	-2.406	-4.266	444.00	263.00
	08:00	190.50	0.0000	12.688	26.250	68.000	8.8125	1064.0	-2.258	-4.188	450.00	263.00
	09:00	190.00	0.0000	11.969	26.063	69.500	9.1875	1076.0	-2.297	-4.109	450.00	255.50
	10:00	196.50	0.0000	12.250	25.875	68.500	10.125	1080.0	-2.141	-3.375	455.00	254.00
	11:00	194.00	0.0000	13.469	26.000	68.500	8.7188	1076.0	-2.242	-3.914	448.00	253.50
	12:00	189.00	0.0000	11.813	26.125	69.750	9.3438	1076.0	-2.102	-3.703	434.00	250.50

25AUG88 THURSDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		F12002B BLR 2 TOTAL STM FLOW		PIC2028 BLR 2 PRI AIR PRESS		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AVG SUP OUTGAS		PI2375 BLR 2 PRECIP OUT PR		TIC2551 BLR 2 SDA GAS OUT TMP
		FI2153 BLR 2 NAT GAS FLOW		PIC2026 BLR 2 SEC AIR PRESS		AIC2064 BLR 2 O2		PI2039 BLR 2 SDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT		
		F12002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
24AUG88	13:00	187.50	0.0000	11.875	26.375	71.000	10.750	1064.0	-2.195	-4.078	443.00	251.50
	14:00	189.00	0.0000	12.531	26.000	72.500	8.4063	1080.0	-2.242	-3.961	443.00	247.50
	15:00	193.00	0.0000	13.063	25.625	71.750	8.9375	1068.0	-2.125	-3.969	448.00	258.00
	16:00	194.00	0.0000	13.688	25.750	72.750	8.6250	1063.0	-2.141	-3.969	448.00	252.00
	17:00	191.00	0.0000	12.781	25.938	70.750	9.9063	1060.0	-2.867	-4.734	456.00	259.00
	18:00	184.50	0.0000	11.031	25.638	70.500	10.063	1068.0	-2.203	-4.078	444.00	253.50
	19:00	189.00	0.0000	13.438	25.875	70.750	8.0625	1072.0	-2.359	-4.000	436.00	260.00
	20:00	188.00	0.0000	11.625	26.313	70.500	9.8750	1063.0	-2.227	-4.188	447.00	251.50
	21:00	189.00	0.0000	12.406	25.375	69.750	9.5625	1068.0	-2.516	-4.375	451.00	253.50
	22:00	195.50	0.0000	12.094	26.313	70.000	9.2500	1072.0	-1.945	-3.649	449.00	253.00
	23:00	191.00	0.0000	12.625	25.688	69.250	9.6250	1060.0	-2.516	-4.484	449.00	261.00
25AUG88	00:00	189.50	0.0000	13.344	25.750	70.250	8.6250	1076.0	-1.906	-3.609	443.00	254.50
	01:00	193.50	0.0000	12.406	26.188	69.750	8.9063	1080.0	-2.266	-3.906	445.00	252.50
	02:00	185.00	0.0000	12.188	25.813	68.500	8.7813	1063.0	-2.367	-4.500	443.00	259.00
	03:00	188.50	0.0000	11.969	26.813	69.250	9.0625	1068.0	-2.094	-3.930	445.00	257.00
	04:00	187.00	0.0000	12.563	26.000	69.750	9.7188	1068.0	-2.305	-4.141	438.00	256.00
	05:00	191.50	0.0000	12.469	26.000	70.250	7.6094	1080.0	-1.977	-3.617	435.00	254.00
	06:00	185.50	0.0000	12.000	26.000	69.250	9.5938	1063.0	-1.953	-3.336	439.00	258.00
	07:00	193.50	0.0000	12.344	25.875	70.000	8.6563	1076.0	-2.086	-3.625	441.00	251.50
	08:00	185.50	0.0000	12.344	26.063	72.500	10.094	1060.0	-2.609	-4.578	448.00	255.50
	09:00	188.00	0.0000	13.063	26.563	75.250	8.6563	1064.0	-2.641	-4.500	447.00	263.00
	10:00	192.00	0.0000	12.156	26.313	73.500	9.2188	1064.0	-1.977	-3.695	447.00	256.00
	11:00	186.50	0.0000	13.688	26.000	82.250	8.7813	1076.0	-2.195	-3.859	431.00	253.50
	12:00	194.50	0.0000	12.250	26.188	83.750	9.4063	1084.0	-1.356	-3.320	437.00	251.50

25AUG88 THURSDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP	BLR 2 OUT TEMP	EI2587 ESP VOLT	BLR 2 2	HC2378 SL CONCEN.	LIME
		EI2586 ESP VOLT	BLR 2 1	EI2588 ESP VOLT	BLR 2 3	FIC2580 SDA DIL	BLR 2 WTR FL
		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
24AUG88	13:00	248.50	56.125	48.250	58.250	40.000	22.188
	14:00	248.50	53.750	48.000	58.250	40.000	22.500
	15:00	252.50	52.375	46.625	58.500	40.000	28.500
	16:00	250.50	49.250	47.625	57.375	40.000	27.125
	17:00	250.00	49.125	46.125	57.000	40.000	26.500
	18:00	249.00	49.125	46.750	56.625	40.000	22.813
	19:00	251.50	49.875	47.125	57.125	40.000	24.438
	20:00	250.50	51.000	47.000	57.375	40.000	25.500
	21:00	251.00	49.500	47.000	57.500	40.000	28.063
	22:00	248.50	53.000	46.375	55.375	40.000	26.500
	23:00	251.00	48.875	49.625	54.250	40.000	27.688
25AUG88	00:00	250.50	50.625	47.750	57.375	40.000	26.813
	01:00	250.00	49.125	46.375	57.375	40.000	25.750
	02:00	251.00	48.375	49.375	57.500	40.000	25.250
	03:00	251.50	48.375	49.625	57.750	40.000	24.750
	04:00	252.00	51.625	49.750	58.375	40.000	24.938
	05:00	250.00	51.375	50.500	58.250	40.000	21.375
	06:00	251.50	51.000	50.125	58.375	40.000	23.188
	07:00	249.50	52.250	49.125	58.500	40.000	22.625
	08:00	250.00	51.000	51.000	58.500	42.000	21.750
	09:00	252.50	49.875	48.375	58.625	42.000	25.688
	10:00	251.50	47.625	48.000	58.125	42.000	26.250
	11:00	251.00	50.000	49.250	58.000	42.000	20.938
	12:00	250.50	50.375	47.500	58.750	42.000	21.438

26AUG88 FRIDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
		FI2002B SMP	FI2153 SMP	PIC2028 SMP	PIC2026 SMP	TI2024 SMP	AIC2064 SMP	TI2021C SMP	PI2039 SMP	PI2375 SMP	TR2040 SMP	TIC2551 SMP
		KLB/HR	KSCFH	"H2O	"H2O	DEG F	%	DEG F	"H2O	"H2O	DEG F	DEG F
25AUG88	13:00	189.50	0.0000	12.936	25.938	84.750	8.5625	1072.0	-2.219	-3.797	438.00	250.50
	14:00	192.00	0.0000	13.313	26.125	87.750	8.2500	1084.0	-2.047	-3.617	435.00	254.00
	15:00	196.50	0.0000	12.781	25.875	90.750	7.7969	1064.0	-2.086	-3.688	446.00	250.50
	16:00	188.00	0.0000	13.313	25.625	89.500	9.0625	1068.0	-2.492	-4.453	447.00	248.50
	17:00	189.50	0.0000	12.344	26.125	89.500	10.344	1064.0	-1.875	-3.680	450.00	254.50
	18:00	191.50	0.0000	13.594	25.813	87.500	8.9375	1068.0	-2.219	-3.399	444.00	253.00
	19:00	194.00	0.0000	13.188	25.938	83.750	8.5000	1072.0	-1.988	-3.578	446.00	257.00
	20:00	190.00	0.0000	12.125	26.375	81.000	8.5938	1076.0	-1.785	-3.266	433.00	257.00
	21:00	191.50	0.0000	12.781	25.875	78.000	8.8125	1056.0	-2.281	-4.156	448.00	258.00
	22:00	189.50	0.0000	12.594	25.938	77.000	7.8125	1044.0	-2.531	-4.484	447.00	258.00
	23:00	190.50	0.0000	12.563	26.063	76.500	9.8125	1056.0	-2.109	-3.781	439.00	254.50
26AUG88	00:00	193.50	0.0000	12.656	25.875	76.500	7.9532	1068.0	-2.078	-3.633	438.00	255.50
	01:00	185.00	0.0000	11.563	25.813	76.500	9.3750	1056.0	-1.996	-3.688	434.00	259.00
	02:00	193.00	0.0000	11.375	26.138	75.000	8.8438	1056.0	-2.227	-4.234	448.00	252.00
	03:00	194.00	0.0000	12.406	25.750	75.250	7.8594	1064.0	-2.070	-3.508	438.00	256.00
	04:00	190.50	0.0000	12.094	26.063	74.500	7.9375	1056.0	-2.133	-3.609	430.00	258.00
	05:00	188.00	0.0000	12.625	25.438	74.750	8.0313	1064.0	-2.133	-3.766	430.00	255.00
	06:00	196.00	0.0000	11.906	26.375	74.250	9.3125	1068.0	-2.055	-3.563	440.00	250.50
	07:00	192.50	0.0000	12.813	25.938	76.000	8.2500	1064.0	-1.996	-3.524	433.00	259.00
	08:00	189.50	0.0000	12.125	26.313	79.000	8.7188	1060.0	-2.024	-3.680	435.00	258.00
	09:00	180.50	0.0000	12.688	25.875	82.500	10.219	1048.0	-2.547	-4.391	441.00	259.00
	10:00	183.00	0.0000	12.500	26.063	87.500	9.0625	1056.0	-2.336	-3.891	423.00	257.00
	11:00	186.50	2.6954	11.656	26.125	92.500	9.6875	1060.0	-1.926	-3.547	433.00	253.50
	12:00	190.00	2.6954	12.125	26.000	95.500	8.9375	1056.0	-1.981	-3.711	440.00	256.00

26AUG88 FRIDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP OUT	BLR 2 TEMP	EI2587 ESP VOLT	BLR 2 2	HC2378 SL CONCEN.	LIME
		EI2586 ESP VOLT	BLR 2 1	EI2588 ESP VOLT	BLR 2 3	FIC2580 SDA DIL WTR FL	BLR 2
		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
25AUG88	13:00	251.50	48.125	47.125	58.250	42.000	22.250
	14:00	251.50	51.500	45.625	58.625	42.000	22.063
	15:00	250.50	51.750	45.125	57.500	42.000	23.688
	16:00	249.50	50.125	47.250	58.000	42.000	22.750
	17:00	252.00	52.875	48.125	58.750	42.000	26.750
	18:00	250.50	51.500	46.000	58.375	42.000	22.563
	19:00	253.00	47.250	45.875	58.125	42.000	26.875
	20:00	251.50	53.875	48.500	58.250	42.000	21.063
	21:00	253.00	50.500	47.500	58.625	79.250	13.875
	22:00	252.50	50.875	48.250	58.375	42.000	26.750
	23:00	251.50	54.375	48.750	58.875	42.000	25.938
26AUG88	00:00	251.50	53.750	48.000	58.500	42.000	25.188
	01:00	251.00	50.875	49.000	58.125	76.500	10.156
	02:00	251.00	48.750	49.125	58.375	44.750	23.125
	03:00	253.50	50.875	49.500	57.875	44.750	22.125
	04:00	253.50	48.250	48.000	58.500	44.750	20.625
	05:00	251.50	49.625	51.250	58.375	44.750	19.250
	06:00	252.00	51.000	48.500	58.375	44.750	24.938
	07:00	252.00	48.750	49.625	58.750	44.750	20.688
	08:00	251.50	53.125	49.500	58.750	44.750	19.313
	09:00	253.00	50.250	49.000	58.875	44.750	23.000
	10:00	251.50	31.875	47.625	58.500	44.750	19.313
	11:00	251.00	48.500	48.125	58.250	44.750	19.438
	12:00	250.50	41.375	51.375	56.375	44.750	18.500

27AUG88 SATURDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
		FI2002B SMP	FI2153 SMP	PIC2028 SMP	PIC2026 SMP	TI2024 SMP	AIC2064 SMP	TI2021C SMP	PI2039 SMP	PI2375 SMP	TR2040 SMP	TIC2551 SMP
		KLB/HR	KSCFH	"H2O	"H2O	DEG F	%	DEG F	"H2O	"H2O	DEG F	DEG F
26AUG88	13:00	190.50	3.8125	12.125	25.938	98.500	8.7188	1056.0	-2.078	-3.891	445.00	250.00
	14:00	188.50	3.8125	11.500	25.938	102.25	7.9219	1068.0	-1.867	-3.406	427.00	255.50
	15:00	192.00	3.8125	12.438	25.813	102.25	8.7813	1060.0	-1.813	-3.211	426.00	253.00
	16:00	195.50	3.8125	13.000	26.000	98.750	8.3125	1056.0	-2.375	-4.031	440.00	256.00
	17:00	184.00	3.8125	11.938	26.063	93.750	11.625	1028.0	-2.899	-5.297	461.00	255.50
	18:00	190.00	3.8125	13.531	26.063	91.500	9.2500	1052.0	-2.055	-3.789	446.00	260.00
	19:00	191.00	3.8125	12.688	25.875	88.750	9.3125	1044.0	-2.422	-4.250	450.00	256.00
	20:00	188.00	3.8125	12.188	26.000	85.250	10.594	1036.0	-2.680	-4.906	458.00	262.00
	21:00	198.50	2.6954	12.813	25.938	84.500	8.7500	1048.0	-1.902	-3.539	449.00	250.00
	22:00	190.00	2.6954	12.469	25.875	82.750	8.4375	1072.0	-1.981	-3.727	437.00	255.00
	23:00	194.00	2.6954	13.844	25.500	81.000	8.2500	1072.0	-2.344	-4.047	443.00	255.50
27AUG88	00:00	191.00	0.0000	12.063	26.125	80.000	9.5000	1072.0	-1.879	-3.383	441.00	254.50
	01:00	191.00	2.6954	11.781	26.188	78.750	8.7500	1072.0	-1.887	-3.492	445.00	249.00
	02:00	193.50	0.0000	12.469	25.813	78.000	8.9688	1060.0	-2.313	-3.867	451.00	258.00
	03:00	190.50	0.0000	12.344	25.875	78.250	9.0938	1068.0	-2.102	-3.672	445.00	257.00
	04:00	190.50	0.0000	12.344	25.875	77.250	9.0000	1072.0	-2.130	-3.914	452.00	254.50
	05:00	190.00	0.0000	12.344	25.875	77.500	9.5938	1064.0	-1.981	-3.656	451.00	253.00
	06:00	190.00	0.0000	11.750	25.688	76.500	7.6875	1064.0	-2.039	-3.734	452.00	254.00
	07:00	189.00	0.0000	11.875	25.750	75.750	10.406	1060.0	-2.016	-3.703	456.00	256.00
	08:00	177.00	0.0000	12.594	25.683	77.750	10.594	1036.0	-2.156	-3.875	450.00	252.00
	09:00	191.00	0.0000	12.438	26.063	81.500	8.8125	1072.0	-1.660	-3.016	436.00	257.00
	10:00	187.50	0.0000	12.656	25.875	81.250	9.3438	1040.0	-2.016	-3.524	452.00	253.50
	11:00	186.00	0.0000	11.719	26.188	85.250	9.5625	1052.0	-2.070	-3.641	443.00	260.00
	12:00	121.50	0.0000	12.844	26.625	86.500	11.656	910.00	-1.594	-2.852	425.00	261.00

27AUG88 SATURDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP	BLR 2 OUT TEMP	EI2587 ESP VOLT	BLR 2 2	HC2378 SL CONCEN.	LIME
		EI2586 ESP VOLT	BLR 2 1	EI2588 ESP VOLT	BLR 2 3	FIC2580 SDA DIL	BLR 2 WTR FL
		TI2376 SMP	EI2586 SMP	EI2587 SMP	EI2588 SMP	HC2378 SMP	FIC2580 SMP
		DEG F	KV	KV	KV		GPM
26AUG88	13:00	252.00	41.875	49.125	57.000	44.750	23.750
	14:00	251.50	50.750	47.875	56.625	44.750	17.438
	15:00	252.50	55.125	48.125	57.875	44.750	20.125
	16:00	252.00	56.875	68.625	60.250	44.750	21.250
	17:00	254.50	37.625	48.250	60.125	44.750	29.500
	18:00	253.00	43.500	50.375	60.125	44.750	23.625
	19:00	255.00	42.250	49.000	59.875	44.750	25.188
	20:00	254.50	54.250	52.500	56.250	44.750	27.063
	21:00	253.50	41.250	50.875	60.250	44.750	25.625
	22:00	255.50	55.750	50.750	60.750	44.750	23.563
	23:00	253.50	54.625	50.125	59.625	61.125	15.313
27AUG88	00:00	254.00	54.500	49.375	60.000	44.750	22.438
	01:00	253.50	56.750	49.625	60.250	44.750	22.063
	02:00	255.50	60.125	48.625	58.500	44.750	25.813
	03:00	254.00	57.125	49.125	59.125	44.750	22.188
	04:00	253.00	53.625	49.375	58.750	44.750	23.563
	05:00	252.50	50.375	47.625	58.750	44.750	23.625
	06:00	252.00	52.000	47.750	59.125	44.750	23.938
	07:00	252.50	51.375	49.500	59.500	44.750	25.750
	08:00	251.50	51.625	47.375	59.375	44.750	24.063
	09:00	253.00	54.375	49.000	59.750	44.750	19.563
	10:00	252.50	52.500	48.125	59.750	44.750	23.750
	11:00	252.50	53.000	48.500	59.875	80.000	21.625
	12:00	250.50	45.375	48.125	59.375	44.750	17.438

28AUG88 SUNDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW		PIC2028 BLR 2 PRI AIR PRESS		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AVG SUP OUTGAS		PI2375 BLR 2 PRECIP OUT PR		TIC2551 BLR 2 SDA GAS OUT TMP
		FI2153 BLR 2 NAT GAS FLOW		PIC2026 BLR 2 SEC AIR PRESS		AIC2064 BLR 2 O2		PI2039 BLR 2 SDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT		
		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
27AUG88	13:00	192.50	0.0000	12.469	25.938	92.000	8.4063	1060.0	-1.785	-3.156	440.00	255.00
	14:00	190.00	2.6954	13.531	26.000	92.500	8.3125	1056.0	-2.266	-3.844	449.00	253.50
	15:00	175.00	3.8125	13.125	26.313	92.750	9.1875	1012.0	-2.102	-3.813	458.00	256.00
	16:00	195.50	3.8125	12.281	25.750	94.500	9.1375	1060.0	-2.164	-3.719	456.00	252.00
	17:00	188.00	4.6719	11.844	26.000	94.250	8.7813	1060.0	-1.813	-3.250	441.00	256.00
	18:00	192.50	3.8125	12.250	26.250	92.500	8.5313	1068.0	-1.641	-3.055	445.00	249.50
	19:00	188.50	3.8125	11.219	26.250	89.250	10.719	1060.0	-1.992	-3.570	450.00	250.50
	20:00	190.50	2.6954	13.719	26.063	86.250	9.0000	1060.0	-1.719	-3.211	449.00	257.00
	21:00	189.00	0.0000	12.031	26.063	84.500	10.094	1076.0	-2.313	-3.984	448.00	250.50
	22:00	190.50	2.6954	11.563	26.188	84.500	9.7188	1072.0	-1.746	-3.149	441.00	253.00
	23:00	190.50	2.6954	11.719	25.688	84.500	9.3438	1076.0	-1.988	-3.383	446.00	252.50
28AUG88	00:00	192.00	2.6954	13.625	26.063	84.000	8.7500	1076.0	-1.934	-3.422	445.00	250.50
	01:00	191.00	2.6954	13.188	25.750	82.000	8.7813	1052.0	-2.227	-3.930	457.00	262.00
	02:00	196.50	2.6954	12.969	25.750	83.500	10.344	1036.0	-2.766	-5.047	487.00	277.00
	03:00	190.00	2.6954	12.500	26.250	82.750	9.6250	1068.0	-1.774	-3.227	447.00	256.00
	04:00	176.00	2.6954	12.138	25.875	81.750	9.4688	1032.0	-1.785	-3.477	448.00	255.00
	05:00	194.50	3.8125	12.688	25.688	82.500	9.0625	1064.0	-1.902	-3.524	454.00	260.00
	06:00	191.50	3.8125	12.344	26.313	82.250	10.219	1064.0	-2.078	-3.797	454.00	258.00
	07:00	184.00	2.6954	12.563	26.063	80.500	11.594	1040.0	-2.656	-4.516	462.00	254.00
	08:00	155.00	2.6954	12.719	26.438	80.750	12.125	1008.0	-1.844	-3.438	459.00	249.00
	09:00	192.50	2.6954	11.625	26.188	83.750	9.7188	1060.0	-2.000	-3.633	456.00	253.00
	10:00	193.50	0.0000	11.844	26.000	88.500	9.2500	1072.0	-2.109	-3.609	452.00	251.50
	11:00	188.50	2.6954	12.781	26.063	89.500	9.9375	1052.0	-2.125	-4.047	458.00	255.50
	12:00	189.50	3.8125	12.156	25.938	92.750	9.3125	1056.0	-1.727	-3.102	436.00	251.00

28AUG88 SUNDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

TI2376 BLR 2	EI2587 BLR 2
PRECIP OUT TEMP	ESP VOLT 2
EI2586 BLR 2	EI2588 BLR 2
ESP VOLT 1	ESP VOLT 3

HC2378 LIME
SL CONCEN.

FIC2580 BLR 2
SDA DIL WTR FL

		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
27AUG88	13:00	251.00	53.875	46.625	59.250	44.750	20.688
	14:00	250.00	42.125	49.125	58.875	44.750	22.375
	15:00	253.00	54.875	47.000	58.625	44.750	29.438
	16:00	248.50	55.625	49.250	58.625	44.750	21.688
	17:00	252.00	57.250	51.000	59.000	44.750	21.125
	18:00	251.50	42.500	48.875	58.875	44.750	22.313
	19:00	251.00	56.000	48.875	59.250	44.750	21.375
	20:00	253.00	41.000	49.875	59.750	44.750	22.875
	21:00	250.50	55.125	50.500	59.500	44.750	20.813
	22:00	250.00	54.375	49.250	59.375	44.750	17.875
	23:00	250.50	55.250	49.250	59.500	44.750	22.500
28AUG88	00:00	250.50	56.625	49.125	59.750	44.750	22.000
	01:00	253.50	34.500	49.250	60.625	44.750	27.938
	02:00	266.00	51.375	49.125	60.000	44.750	29.875
	03:00	252.50	56.000	48.500	59.500	44.750	23.125
	04:00	251.00	55.250	48.375	60.000	44.750	23.625
	05:00	250.50	55.125	47.875	59.500	35.000	25.063
	06:00	252.50	58.125	48.000	59.750	35.000	30.625
	07:00	250.00	54.000	48.625	60.000	35.000	30.063
	08:00	249.50	53.625	47.625	58.750	35.000	31.375
	09:00	251.00	34.250	46.500	59.250	35.000	29.313
	10:00	250.00	52.375	46.750	59.000	35.000	27.250
	11:00	251.00	43.125	47.375	59.375	35.000	29.313
	12:00	250.50	55.750	47.250	58.750	43.000	21.813

29AUG83 MONDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 13 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW		PIC2028 BLR 2 PRI AIR PRESS		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AVG SUP OUTGAS		PI2375 BLR 2 PRECIP OUT PR		TIC2551 BLR 2 SDA GAS OUT TMP
		FI2153 BLR 2 NAT GAS FLOW		PIC2026 BLR 2 SEC AIR PRESS		AIC2064 BLR 2 O2		PI2039 BLR 2 SDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT		
		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
28AUG83	13:00	139.50	3.8125	12.375	26.000	91.500	13.344	992.00	-1.532	-2.391	445.00	250.50
	14:00	177.50	4.6719	11.969	26.188	93.000	12.875	1036.0	-2.555	-4.875	462.00	257.00
	15:00	188.00	4.6719	12.125	25.313	93.250	9.5938	1040.0	-2.016	-3.922	460.00	261.00
	16:00	193.00	4.6719	13.188	25.938	94.750	8.9688	1056.0	-2.063	-3.633	452.00	257.00
	17:00	157.00	3.8125	12.750	26.313	90.500	14.188	1008.0	-2.078	-3.969	466.00	253.00
	18:00	196.50	3.8125	13.375	25.875	90.250	8.0313	1060.0	-2.281	-4.063	470.00	256.00
	19:00	186.00	4.6719	12.031	26.063	87.750	11.231	1036.0	-2.766	-4.891	470.00	255.00
	20:00	134.00	51.750	12.125	25.875	88.000	12.438	908.00	-2.188	-3.766	446.00	258.00
	21:00	119.50	35.375	12.313	25.625	87.000	16.125	924.00	-2.492	-4.297	445.00	248.00
	22:00	43.875	51.375	-.0401	0.2998	83.500	15.344	732.00	-.6036	-1.055	370.00	309.00
	23:00	40.375	51.750	-.0400	0.2100	83.750	15.313	733.00	-.6172	-1.063	353.00	327.00
29AUG88	00:00	71.000	105.50	-.0400	0.2198	83.250	11.219	840.00	-.6192	-1.141	337.00	331.00
	01:00	173.50	2.6954	12.469	26.250	87.500	6.6094	1020.0	-1.453	-2.594	394.00	264.00
	02:00	189.50	2.6954	12.281	26.313	84.500	9.7500	1048.0	-1.746	-3.297	433.00	254.50
	03:00	188.50	2.6954	13.375	25.688	84.000	9.6875	1040.0	-2.656	-4.438	446.00	255.00
	04:00	193.00	2.6954	13.156	26.188	83.500	9.2188	1040.0	-2.016	-3.836	450.00	253.00
	05:00	183.50	2.6954	13.438	26.063	82.750	10.531	1028.0	-2.672	-4.656	452.00	258.00
	06:00	195.50	2.6954	12.438	25.875	83.250	7.8438	1040.0	-1.930	-3.461	451.00	252.50
	07:00	191.50	3.8125	12.344	26.500	83.750	9.5313	1044.0	-1.961	-3.461	450.00	251.50
	08:00	191.50	3.8125	12.344	26.563	84.000	8.4688	1040.0	-1.766	-3.453	452.00	256.00
	09:00	188.00	3.8125	12.719	26.375	86.750	10.125	1028.0	-2.336	-4.297	461.00	259.00
	10:00	194.50	3.8125	12.281	25.938	88.250	8.1563	1048.0	-2.336	-3.969	456.00	253.00
	11:00	189.50	3.8125	12.719	26.438	90.000	8.2813	1036.0	-2.242	-3.984	456.00	250.00
	12:00	193.00	4.6719	11.875	25.125	92.250	8.7500	1040.0	-2.258	-3.789	452.00	254.50

29AUG88 MONDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

TI2376 BLR 2 PRECIP OUT TEMP
EI2587 BLR 2 ESP VOLT 2
HC2378 LIME SL CONCEN.
EI2586 BLR 2 ESP VOLT 1
EI2588 BLR 2 ESP VOLT 3
FIC2580 BLR 2 SDA DIL WTR FL

		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
28AUG88	13:00	249.50	40.625	49.500	59.250	35.000	27.813
	14:00	253.00	42.500	49.500	59.125	35.000	35.125
	15:00	252.50	42.125	43.250	58.375	35.000	30.000
	16:00	251.50	38.750	45.875	58.125	35.000	27.563
	17:00	252.00	42.500	43.875	53.500	35.000	35.375
	18:00	253.50	41.500	46.125	58.125	35.000	35.000
	19:00	252.50	57.500	47.375	57.000	35.000	35.125
	20:00	252.50	56.250	48.000	58.625	35.000	28.375
	21:00	251.00	55.000	50.500	53.375	35.000	28.000
	22:00	256.00	-.0422	-.0086	29.250	35.000	0.1202
	23:00	285.00	-.0254	0.0422	51.000	35.000	0.1402
29AUG88	00:00	304.00	-.0254	0.0422	51.750	35.000	0.0601
	01:00	294.00	41.375	50.500	59.375	73.750	8.6875
	02:00	262.00	50.625	50.750	59.500	54.875	17.875
	03:00	255.50	53.625	50.625	59.250	35.000	27.438
	04:00	253.50	54.125	49.375	57.750	35.000	27.125
	05:00	254.00	35.500	43.500	58.625	35.000	28.875
	06:00	253.00	49.250	46.625	58.250	35.000	27.500
	07:00	252.00	55.625	47.375	58.250	33.375	26.125
	08:00	252.00	54.875	49.625	58.375	38.375	24.688
	09:00	254.00	39.375	43.375	58.125	38.375	32.125
	10:00	252.00	54.375	46.750	58.000	38.375	27.938
	11:00	252.50	40.750	46.625	58.000	38.375	29.688
	12:00	251.50	57.750	45.875	58.125	38.375	25.813

30AUG88 TUESDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B	BLR 2	PIC2023	BLR 2	TI2024	BLR 2	TI2021C	BLR 2	PI2375	BLR 2	TIC2551	BLR 2
		TOTAL STM FLOW		PRI AIR PRESS		UNDERGRATE AIR		AVG SUP OUTGAS		PRECIP OUT PR		SDA GAS OUT TMP	
		FI2153	BLR 2	PIC2026	BLR 2	AIC2064	BLR 2	PI2039	BLR 2	TR2040	BLR 2		
		NAT GAS FLOW		SEC AIR PRESS		O2		SDA INLET GAS		FLUE GAS OUT			
		FI2002B	FI2153	PIC2023	PIC2026	TI2024	AIC2064	TI2021C	PI2039	PI2375	TR2040	TIC2551	
		SMP	SMP	SMP	SMP	SMP	SMP	SMP	SMP	SMP	SMP	SMP	
		KLB/HR	KSCFH	"H2O	"H2O	DEG F	%	DEG F	"H2O	"H2O	DEG F	DEG F	
29AUG88	13:00	192.50	4.6719	12.313	25.875	93.250	8.8750	1040.0	-1.906	-3.516	452.00	258.00	
	14:00	194.00	3.8125	12.563	26.063	94.000	9.4688	1040.0	-2.031	-3.609	455.00	253.50	
	15:00	192.00	4.6719	12.625	25.375	91.000	9.3125	1040.0	-2.250	-3.984	457.00	257.00	
	16:00	193.00	3.3125	12.031	26.250	92.000	9.5625	1036.0	-2.211	-3.852	453.00	251.50	
	17:00	180.50	4.6719	12.344	25.813	89.000	10.938	1024.0	-2.578	-4.391	453.00	260.00	
	18:00	139.00	3.3125	12.625	26.188	83.250	10.231	1022.0	-2.719	-4.906	473.00	259.00	
	19:00	190.00	4.6719	12.594	25.938	84.000	9.2813	1048.0	-2.180	-3.789	453.00	257.00	
	20:00	193.50	0.0000	12.188	25.813	82.500	7.6875	1052.0	-2.055	-3.609	452.00	250.50	
	21:00	189.50	0.0000	12.156	26.625	81.000	8.7500	1044.0	-1.817	-3.469	448.00	256.00	
	22:00	194.50	2.6954	12.844	25.625	83.250	8.1875	1044.0	-1.926	-3.617	462.00	254.00	
	23:00	194.00	0.0000	12.063	26.313	84.750	8.4063	1056.0	-1.895	-3.336	447.00	252.50	
30AUG88	00:00	194.50	0.0000	12.469	25.438	84.000	3.9063	1052.0	-1.777	-3.227	447.00	255.50	
	01:00	191.00	3.8125	12.781	26.313	83.000	8.8125	1060.0	-2.070	-3.570	440.00	258.00	
	02:00	194.00	2.6954	13.231	26.313	78.750	8.4063	1048.0	-2.258	-3.399	452.00	255.00	
	03:00	193.00	0.0000	12.781	25.563	79.000	8.0000	1064.0	-1.910	-3.445	445.00	249.50	
	04:00	188.50	0.0000	12.906	25.438	77.500	9.8438	1048.0	-2.297	-4.000	452.00	254.00	
	05:00	190.00	0.0000	13.188	25.250	77.500	9.6250	1048.0	-2.297	-4.078	454.00	252.50	
	06:00	185.50	0.0000	9.8750	26.063	77.000	8.7188	1024.0	-1.371	-2.875	446.00	250.50	
	07:00	189.00	0.0000	12.219	26.188	76.000	9.0000	1056.0	-1.895	-3.383	444.00	256.00	
	08:00	186.00	0.0000	11.938	26.250	77.250	9.9063	1060.0	-1.902	-3.570	441.00	253.00	
	09:00	185.00	0.0000	11.938	26.250	75.750	9.9688	1044.0	-1.953	-3.711	449.00	254.50	
	10:00	188.50	0.0000	12.063	26.188	76.750	9.3125	1040.0	-2.367	-4.156	457.00	258.00	
	11:00	192.00	0.0000	13.656	25.813	78.500	9.5000	1044.0	-2.211	-4.016	462.00	257.00	
	12:00	186.50	0.0000	13.469	26.688	81.750	9.5313	1048.0	-1.750	-3.219	437.00	259.00	

30AUG88 TUESDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP OUT TEMP	BLR 2	EI2537 ESP VOLT 2	BLR 2	HC2378 SL CONCEN.	LIME
		EI2536 ESP VOLT 1	BLR 2	EI2538 ESP VOLT 3	BLR 2	FIC2580 SDA DIL WTR FL	BLR 2
		TI2376 SMP	EI2536 SMP	EI2537 SMP	EI2538 SMP	HC2378 SMP	FIC2580 SMP
		DEG F	KV	KV	KV		GPM
29AUG88	13:00	251.00	43.375	46.750	58.250	38.375	25.000
	14:00	252.00	43.500	46.625	57.375	38.375	28.313
	15:00	253.00	57.750	47.000	58.125	38.375	30.625
	16:00	251.00	43.125	48.375	53.500	38.375	28.625
	17:00	252.50	57.125	49.000	56.750	38.375	27.875
	18:00	252.00	55.000	46.375	53.125	38.375	33.250
	19:00	252.00	56.125	46.500	57.625	38.375	28.438
	20:00	250.00	54.125	46.000	53.125	38.375	25.125
	21:00	252.00	58.375	48.125	58.375	38.375	26.000
	22:00	243.50	55.750	48.125	58.250	38.375	26.938
	23:00	250.00	54.875	45.875	58.125	38.375	25.188
30AUG88	00:00	252.00	59.000	43.000	53.000	38.375	27.063
	01:00	251.00	41.125	46.250	57.625	38.375	22.500
	02:00	253.00	51.000	47.375	57.375	38.375	27.563
	03:00	250.00	52.125	46.500	58.000	38.375	22.938
	04:00	251.50	51.375	48.250	53.375	38.375	25.875
	05:00	250.50	50.625	46.750	57.750	38.375	25.313
	06:00	251.00	51.500	46.250	57.375	38.375	27.188
	07:00	251.50	50.750	48.875	58.250	38.375	23.000
	08:00	251.50	50.000	47.375	53.750	38.375	23.625
	09:00	252.50	53.500	51.000	58.875	38.375	26.063
	10:00	251.50	49.000	48.375	53.500	38.375	26.313
	11:00	251.50	49.250	46.000	58.625	38.375	29.250
	12:00	252.00	56.750	48.750	53.625	59.375	15.594

31AUG88 WEDNESDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 13 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW		PIC2028 BLR 2 PRI AIR PRESS		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AVG SUP OUTGAS		PI2375 BLR 2 PRECIP OUT PR		TIC2551 BLR 2 SDA GAS OUT TMP
		FI2153 BLR 2 NAT GAS FLOW		PIC2026 BLR 2 SEC AIR PRESS		AIC2064 BLR 2 O2		PI2039 BLR 2 SDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT		
		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
30AUG88	13:00	186.50	0.0000	13.125	25.875	83.750	9.6250	1044.0	-2.563	-4.313	453.00	255.50
	14:00	189.00	0.0000	12.344	26.000	82.500	10.344	1022.0	-2.820	-5.047	474.00	270.00
	15:00	195.00	0.0000	12.375	25.933	84.000	10.000	1036.0	-2.297	-3.899	469.00	245.50
	16:00	194.00	0.0000	11.906	25.625	84.000	9.5313	1036.0	-2.656	-4.406	470.00	257.00
	17:00	193.50	0.0000	12.406	26.000	80.750	11.063	1016.0	-2.641	-4.672	473.00	263.00
	18:00	180.00	0.0000	12.438	26.688	78.750	12.063	1024.0	-2.633	-5.000	478.00	258.00
	19:00	183.50	0.0000	11.563	26.063	77.750	9.7813	1024.0	-2.570	-4.734	466.00	250.00
	20:00	191.00	0.0000	11.594	26.250	78.500	7.8282	1052.0	-1.684	-3.227	449.00	251.50
	21:00	191.50	0.0000	11.656	25.500	76.000	7.5469	1044.0	-1.918	-3.453	449.00	252.00
	22:00	184.00	0.0000	13.688	24.875	73.500	9.2813	1028.0	-2.649	-4.563	452.00	260.00
	23:00	188.50	0.0000	11.625	26.188	74.000	8.9063	1043.0	-1.852	-3.352	445.00	258.00
31AUG88	00:00	191.50	0.0000	13.406	26.125	71.750	9.1875	1044.0	-2.133	-3.711	453.00	251.50
	01:00	192.00	0.0000	13.594	25.375	71.000	9.5000	1040.0	-2.180	-3.719	459.00	249.50
	02:00	189.00	0.0000	11.750	25.625	70.500	9.8438	1040.0	-2.125	-3.766	451.00	253.50
	03:00	189.50	0.0000	11.969	26.063	71.250	9.6563	1043.0	-1.914	-3.430	443.00	251.00
	04:00	187.50	0.0000	13.031	25.625	70.000	2.4375	1043.0	-2.508	-4.281	456.00	251.50
	05:00	190.50	0.0000	13.469	25.750	70.000	8.3750	1056.0	-1.945	-3.578	447.00	253.00
	06:00	186.50	0.0000	12.344	26.438	71.500	6.6407	1060.0	-1.867	-3.336	440.00	245.50
	07:00	168.00	0.0000	12.625	26.313	69.750	9.4375	1008.0	-1.926	-3.323	440.00	246.00
	08:00	184.00	0.0000	12.875	26.375	73.250	10.344	1056.0	-2.000	-3.617	438.00	257.00
	09:00	191.00	0.0000	11.938	25.875	78.750	8.5313	1072.0	-1.817	-3.141	434.00	254.50
	10:00	190.00	0.0000	12.531	25.563	80.500	8.9375	1056.0	-1.922	-3.492	447.00	254.00
	11:00	191.50	0.0000	11.125	26.125	85.500	8.5313	1064.0	-1.852	-3.242	441.00	252.00
	12:00	186.00	0.0000	12.156	26.250	85.500	10.438	1044.0	-1.926	-3.602	447.00	255.50

31AUG88 WEDNESDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

TI2376 BLR 2 PRECIP OUT TEMP
EI2587 BLR 2 ESP VOLT 2
HC2378 LIME SL CONCEN.

EI2586 BLR 2 ESP VOLT 1
EI2588 BLR 2 ESP VOLT 3
FIC2580 BLR 2 SDA DIL WTR FL

		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
30AUG88	13:00	251.50	52.250	48.000	58.625	38.375	25.750
	14:00	257.00	48.000	47.125	57.625	38.375	34.500
	15:00	251.00	53.750	47.250	57.625	38.375	30.563
	16:00	254.00	55.000	49.250	57.250	38.375	34.000
	17:00	256.00	51.375	47.625	58.250	44.000	30.250
	18:00	257.00	53.750	49.000	59.500	44.000	29.063
	19:00	256.00	54.375	46.250	59.250	44.000	29.438
	20:00	252.00	52.875	47.375	59.375	36.000	26.313
	21:00	252.00	51.750	47.375	59.125	36.000	27.375
	22:00	253.00	51.000	49.125	59.250	36.000	29.625
	23:00	251.50	51.375	49.000	59.500	36.000	28.500
31AUG88	00:00	249.00	52.500	48.125	59.625	37.875	24.875
	01:00	250.00	49.250	49.750	59.375	37.375	28.875
	02:00	252.00	50.875	49.250	59.375	37.875	27.938
	03:00	250.50	51.750	50.125	59.250	39.625	25.250
	04:00	252.00	51.625	48.250	59.500	37.875	32.000
	05:00	249.50	49.375	48.500	59.625	37.875	25.313
	06:00	247.50	51.000	49.250	59.375	37.875	20.063
	07:00	249.50	49.000	48.625	59.375	37.875	21.375
	08:00	252.50	51.250	51.250	60.125	37.875	23.688
	09:00	251.50	52.125	50.375	60.000	37.875	21.938
	10:00	251.50	52.000	48.000	60.250	37.875	24.938
	11:00	251.00	57.750	48.375	59.625	37.875	24.688
	12:00	253.00	52.000	50.375	60.000	37.875	26.875

01SEP88 THURSDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2023 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2023 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
31AUG88	13:00	188.50	0.0000	12.094	26.563	90.000	8.5625	1064.0	-1.875	-3.242	440.00	255.50
	14:00	187.50	0.0000	12.313	26.250	89.250	10.531	1064.0	-2.003	-3.656	451.00	256.00
	15:00	187.00	0.0000	12.844	26.688	88.250	10.000	1044.0	-2.289	-4.047	457.00	255.00
	16:00	187.00	2.6954	12.731	25.000	90.250	9.5313	1040.0	-2.578	-4.453	458.00	260.00
	17:00	180.00	2.6954	14.656	26.500	89.750	10.469	1040.0	-2.359	-3.922	456.00	264.00
	18:00	191.50	2.6954	12.375	25.938	87.000	8.9063	1060.0	-1.313	-3.320	450.00	254.50
	19:00	142.50	0.0000	12.250	25.250	84.750	10.875	984.00	-1.293	-2.359	424.00	249.50
	20:00	191.50	0.0000	13.406	26.125	79.500	9.5000	1052.0	-2.172	-3.336	453.00	257.00
	21:00	187.50	0.0000	11.094	25.313	78.250	9.5000	1060.0	-2.172	-3.922	447.00	255.50
	22:00	186.50	0.0000	12.625	26.125	76.750	9.5313	1052.0	-2.086	-3.766	445.00	257.00
	23:00	153.50	0.0000	12.938	26.125	75.250	11.563	1020.0	-1.750	-2.984	438.00	255.50
01SEP88	00:00	192.00	0.0000	12.375	25.313	75.750	8.4375	1076.0	-1.758	-3.047	435.00	252.00
	01:00	188.00	0.0000	11.656	26.125	74.000	8.7188	1060.0	-1.656	-3.164	432.00	255.00
	02:00	190.00	0.0000	12.250	26.438	71.500	9.3750	1048.0	-1.926	-3.391	445.00	257.00
	03:00	194.50	0.0000	13.250	26.125	72.500	7.6563	1064.0	-1.848	-3.274	445.00	252.00
	04:00	190.50	0.0000	12.313	25.750	71.750	8.6875	1060.0	-1.844	-3.281	439.00	256.00
	05:00	190.50	0.0000	13.906	26.625	71.750	9.0938	1064.0	-2.047	-3.422	438.00	252.00
	06:00	193.50	0.0000	12.625	25.313	72.000	8.5625	1072.0	-1.887	-3.297	437.00	253.00
	07:00	192.00	0.0000	11.031	25.438	70.750	8.8438	1072.0	-1.902	-3.359	446.00	250.50
	08:00	191.50	0.0000	12.719	26.625	73.000	3.9063	1060.0	-1.953	-3.434	449.00	257.00
	09:00	189.50	0.0000	12.125	26.688	77.250	8.9063	1060.0	-1.805	-3.320	445.00	254.50
	10:00	197.00	0.0000	13.594	25.313	79.000	7.1250	1056.0	-2.500	-4.328	465.00	259.00
	11:00	186.50	0.0000	13.688	25.750	84.500	10.031	1060.0	-2.078	-3.617	447.00	252.50
	12:00	191.00	0.0000	13.250	26.250	86.250	8.1563	1052.0	-2.438	-4.031	452.00	264.00

01SEP88 THURSDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP	BLR 2 OUT TEMP	EI2587 ESP VOLT	BLR 2 2	HC2378 SL CONCEN.	LIME
		EI2586 ESP VOLT	BLR 2 1	EI2588 ESP VOLT	BLR 2 3	FIC2580 SDA DIL WTR FL	BLR 2
		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
31AUG88	13:00	252.00	53.125	49.500	59.375	50.125	18.438
	14:00	252.50	52.625	48.375	58.375	45.125	22.500
	15:00	253.50	55.250	50.500	59.500	39.875	28.563
	16:00	254.50	51.375	47.375	59.375	39.375	29.750
	17:00	255.00	51.750	48.500	60.750	39.875	28.313
	18:00	253.50	53.375	48.375	59.750	39.375	25.813
	19:00	251.50	53.375	48.125	59.875	39.875	16.438
	20:00	254.50	50.750	49.500	59.625	39.375	27.688
	21:00	252.50	54.000	50.875	60.125	39.875	24.125
	22:00	254.00	52.125	50.750	59.375	39.875	25.813
	23:00	251.00	51.375	47.750	59.875	35.000	22.938
01SEP88	00:00	251.50	51.625	52.000	59.625	35.000	24.000
	01:00	253.00	55.375	51.250	59.750	35.000	25.000
	02:00	254.00	52.250	49.500	60.000	35.000	30.875
	03:00	249.50	51.375	52.125	58.500	35.000	25.125
	04:00	252.00	51.375	49.125	59.375	35.000	25.313
	05:00	250.50	52.750	49.500	59.625	35.000	23.750
	06:00	250.50	53.625	49.500	59.250	40.625	22.125
	07:00	250.00	51.625	50.250	59.250	35.000	25.563
	08:00	251.50	50.750	49.750	59.750	35.000	27.750
	09:00	252.00	51.125	48.625	59.625	35.000	27.500
	10:00	252.50	43.625	46.625	60.000	35.000	32.625
	11:00	251.50	54.125	49.875	58.875	80.000	12.813
	12:00	254.50	52.375	48.000	60.375	35.000	30.688

02SEP88 FRIDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

	FI2002B BLR 2 TOTAL STM FLOW		PIC2028 BLR 2 PRI AIR PRESS		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AVG SUP OUTGAS		PI2375 BLR 2 PRECIP OUT PR		TIC2551 BLR 2 SDA GAS OUT TMP
	FI2153 BLR 2 NAT GAS FLOW		PIC2026 BLR 2 SEC AIR PRESS		AIC2064 BLR 2 O2		PI2039 BLR 2 SDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT		
	FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
01SEP88 13:00	192.00	0.0000	13.219	25.000	88.500	7.5469	1056.0	-1.930	-3.438	450.00	260.00
14:00	189.00	0.0000	13.188	24.813	93.000	9.1375	1064.0	-1.988	-3.609	452.00	256.00
15:00	193.00	2.6954	12.688	25.875	94.000	8.5938	1060.0	-2.266	-3.984	462.00	257.00
16:00	196.00	2.6954	13.594	26.375	90.750	8.3438	1064.0	-2.141	-3.766	460.00	254.00
17:00	197.00	3.8125	12.875	25.438	90.000	9.6875	1056.0	-1.973	-3.609	463.00	254.50
18:00	132.00	3.3125	11.731	26.875	83.750	10.156	1052.0	-1.777	-3.406	444.00	257.00
19:00	181.50	3.8125	11.875	26.688	85.000	8.9063	1052.0	-1.836	-3.234	437.00	254.00
20:00	192.00	2.6954	13.188	25.313	82.000	8.5625	1060.0	-1.637	-2.945	435.00	256.00
21:00	188.50	0.0000	13.063	24.625	78.000	9.9063	1048.0	-2.164	-3.961	450.00	257.00
22:00	183.00	0.0000	12.000	26.375	76.500	9.0938	1056.0	-2.211	-3.742	444.00	256.00
23:00	191.00	0.0000	12.188	25.813	75.750	9.0625	1060.0	-2.078	-3.547	443.00	257.00
02SEP88 00:00	181.00	0.0000	11.344	26.500	74.500	8.5625	1052.0	-2.063	-3.516	435.00	255.00
01:00	190.00	0.0000	13.438	26.813	74.000	8.7813	1064.0	-2.203	-3.680	442.00	254.00
02:00	183.00	0.0000	13.563	26.688	73.250	9.4688	1060.0	-2.141	-3.633	438.00	253.50
03:00	191.50	0.0000	12.750	25.313	72.250	8.8125	1060.0	-1.789	-3.094	438.00	255.00
04:00	186.00	0.0000	13.969	25.938	70.750	4.2500	1056.0	-2.359	-3.906	444.00	254.00
05:00	194.00	0.0000	13.719	25.938	69.750	9.3125	1056.0	-2.367	-3.977	453.00	251.50
06:00	190.50	0.0000	11.563	25.375	70.750	8.5625	1068.0	-1.801	-3.242	440.00	256.00
07:00	192.00	0.0000	12.406	26.313	72.000	8.5313	1072.0	-1.953	-3.297	442.00	253.00
08:00	191.50	0.0000	13.125	25.188	72.000	8.9375	1060.0	-2.070	-3.750	450.00	253.50
09:00	192.00	0.0000	12.813	25.125	74.750	8.9063	1048.0	-2.078	-3.781	462.00	246.50
10:00	193.00	0.0000	12.656	26.000	81.750	8.4688	1056.0	-2.195	-3.766	455.00	253.00
11:00	188.00	2.6954	12.063	26.563	88.500	8.4063	1076.0	-1.910	-3.297	438.00	254.50
12:00	192.00	2.6954	12.563	26.250	91.750	9.1563	1076.0	-1.590	-2.883	441.00	251.50

02SEP88 FRIDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

TI2376 PRECIP OUT TEMP	BLR 2
EI2587 ESP VOLT 2	BLR 2
HC2378 SL CONCEN.	LIME
EI2586 ESP VOLT 1	BLR 2
EI2588 ESP VOLT 3	BLR 2
FIC2580 SDA DIL WTR FL	BLR 2

		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
01SEP88	13:00	252.50	35.375	49.375	61.000	80.000	13.188
	14:00	252.50	53.000	48.875	60.375	35.000	30.500
	15:00	250.50	52.750	47.375	59.375	35.000	28.688
	16:00	252.00	53.125	47.125	58.625	35.000	30.938
	17:00	254.00	55.375	48.750	59.250	35.000	34.250
	18:00	254.50	54.750	49.375	59.375	35.000	26.688
	19:00	253.50	56.125	47.750	59.750	35.000	23.375
	20:00	254.50	55.250	49.750	59.625	48.750	18.875
	21:00	254.00	53.250	49.500	59.250	54.500	20.875
	22:00	253.00	52.875	51.250	59.875	35.000	25.625
	23:00	252.00	49.625	49.000	60.125	43.750	19.688
02SEP88	00:00	253.00	52.375	51.625	60.250	35.000	23.313
	01:00	253.00	52.750	50.000	59.750	40.125	23.813
	02:00	252.00	52.625	51.000	59.625	40.125	21.875
	03:00	251.50	52.750	51.375	59.750	40.125	21.750
	04:00	252.00	50.500	50.750	60.250	40.125	23.688
	05:00	252.00	51.625	47.125	60.000	40.125	27.625
	06:00	251.50	50.750	49.875	59.875	40.125	22.875
	07:00	251.00	51.625	50.250	60.000	40.125	21.625
	08:00	252.00	51.250	50.125	60.500	40.125	27.250
	09:00	250.00	49.125	50.875	60.500	40.125	26.063
	10:00	250.50	52.250	47.000	60.000	40.125	26.438
	11:00	251.50	52.375	49.250	60.750	40.125	22.063
	12:00	251.00	56.000	50.000	60.000	40.125	21.688

03SEP88 SATURDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 13 COLLECTION COMPLETED 12:01

	FI2002B BLR 2 TOTAL STM FLOW		PIC2028 BLR 2 PRI AIR PRESS		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AVG SUP OUTGAS		PI2375 BLR 2 PRECIP OUT PR		TIC2551 BLR 2 SDA GAS OUT TMP
	FI2153 BLR 2 NAT GAS FLOW		PIC2026 BLR 2 SEC AIR PRESS		AIC2064 BLR 2 O2		PI2039 BLR 2 SDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT		
	FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
02SEP88 13:00	186.50	3.8125	13.219	26.375	91.000	10.875	1036.0	-2.414	-4.375	466.00	262.00
14:00	187.50	3.8125	11.938	26.625	96.000	9.2188	1072.0	-1.949	-3.289	440.00	258.00
15:00	192.00	3.8125	12.094	25.563	95.250	8.9063	1056.0	-2.258	-3.961	455.00	256.00
16:00	192.50	3.8125	11.938	25.875	98.500	8.5313	1064.0	-1.734	-3.086	445.00	252.00
17:00	184.50	3.8125	12.031	25.563	92.500	9.2188	1044.0	-2.367	-4.078	449.00	258.00
18:00	191.50	3.8125	11.844	26.438	89.500	8.7813	1060.0	-1.984	-3.531	450.00	252.50
19:00	188.50	3.8125	12.563	26.375	85.500	9.0625	1056.0	-2.070	-3.609	443.00	255.50
20:00	190.00	2.6954	12.344	26.000	81.250	9.2813	1048.0	-2.172	-3.672	448.00	253.50
21:00	189.00	2.6954	12.031	25.375	79.250	8.3438	1056.0	-2.055	-3.672	447.00	256.00
22:00	188.50	0.0000	13.125	26.313	78.250	8.7188	1060.0	-1.942	-3.492	444.00	255.50
23:00	190.00	0.0000	12.531	25.438	76.500	9.5000	1063.0	-2.031	-3.547	442.00	253.50
03SEP88 00:00	191.00	0.0000	11.875	26.063	74.500	8.7813	1068.0	-1.754	-3.367	449.00	254.50
01:00	193.50	0.0000	13.781	25.375	72.750	8.5000	1063.0	-2.078	-3.758	453.00	261.00
02:00	187.50	0.0000	12.625	25.188	72.500	9.8438	1064.0	-2.336	-4.094	453.00	256.00
03:00	189.50	0.0000	12.750	26.000	72.750	9.4638	1063.0	-2.000	-3.547	448.00	256.00
04:00	189.00	0.0000	11.813	25.500	70.750	12.031	1048.0	-2.570	-4.641	470.00	257.00
05:00	184.00	0.0000	12.719	26.250	63.750	10.844	1023.0	-2.617	-4.375	433.00	268.00
06:00	193.00	0.0000	13.469	25.313	70.000	10.031	1060.0	-2.375	-4.031	469.00	253.00
07:00	192.00	0.0000	13.156	25.500	71.250	9.1250	1060.0	-2.344	-4.031	453.00	252.00
08:00	193.00	0.0000	13.250	25.563	73.750	9.1250	1044.0	-1.734	-3.305	455.00	258.00
09:00	190.00	0.0000	12.469	26.188	76.500	9.2500	1063.0	-2.203	-3.813	452.00	252.50
10:00	188.00	0.0000	12.594	26.688	79.750	9.9063	1056.0	-2.149	-3.875	456.00	262.00
11:00	189.50	0.0000	12.625	25.313	83.250	9.0313	1048.0	-2.234	-4.078	459.00	256.00
12:00	184.50	2.6954	12.500	26.563	86.000	9.6563	1064.0	-2.000	-3.609	443.00	257.00

03SEP88 SATURDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP OUT TEMP	BLR 2	EI2587 ESP VOLT 2	BLR 2	HC2378 SL CONCEN.	LIME
		EI2586 ESP VOLT 1	BLR 2	EI2588 ESP VOLT 3	BLR 2	FIC2580 SDA DIL WTR FL	BLR 2
		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
02SEP88	13:00	256.00	53.125	48.625	59.125	40.125	32.375
	14:00	253.50	57.000	48.125	59.375	40.125	22.000
	15:00	253.00	53.375	48.375	59.375	45.000	25.500
	16:00	251.50	54.875	47.375	59.000	45.000	21.938
	17:00	252.50	45.625	51.625	58.500	45.000	22.000
	18:00	252.00	55.000	49.250	59.375	45.000	22.438
	19:00	253.50	53.750	48.000	59.375	45.000	22.500
	20:00	253.50	46.875	48.125	59.250	45.000	22.000
	21:00	253.50	53.500	50.125	59.375	35.000	26.875
	22:00	253.50	53.000	49.500	60.125	35.000	26.875
	23:00	253.50	52.000	50.625	59.500	35.000	26.375
03SEP88	00:00	253.00	50.500	49.250	59.750	35.000	28.688
	01:00	254.00	51.500	49.375	59.375	35.000	31.813
	02:00	251.00	54.375	50.375	59.750	35.000	28.688
	03:00	251.00	49.500	49.500	59.625	35.000	25.938
	04:00	251.50	49.875	50.875	59.500	35.000	34.375
	05:00	260.00	48.875	49.500	60.125	35.000	35.250
	06:00	251.00	48.875	47.750	59.750	35.000	30.750
	07:00	251.00	49.125	47.125	60.625	35.000	29.875
	08:00	253.00	52.500	49.125	60.750	35.000	31.063
	09:00	249.50	53.500	49.750	61.000	35.000	24.750
	10:00	253.00	54.250	49.500	60.375	35.000	31.000
	11:00	252.50	51.125	47.375	59.375	35.000	30.438
	12:00	252.50	56.625	48.875	60.125	35.000	25.313

04SEP88 SUNDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

	FI2002B BLR 2 TOTAL STM FLOW		PIC2023 BLR 2 PRI AIR PRESS		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AVG SUP OUTGAS		PI2375 BLR 2 PRECIP OUT PR		TIC2551 BLR 2 SDA GAS OUT TMP
	FI2153 BLR 2 NAT GAS FLOW		PIC2026 BLR 2 SEC AIR PRESS		AIC2064 BLR 2 O2		PI2039 BLR 2 SDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT		
	FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2023 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
03SEP88 13:00	191.50	2.6954	12.156	25.375	87.500	8.7813	1068.0	-1.902	-3.391	445.00	256.00
14:00	161.00	2.6954	13.188	26.250	92.500	9.9688	1002.0	-1.570	-2.906	435.00	258.00
15:00	190.50	3.8125	12.063	25.375	94.000	9.0000	1076.0	-1.754	-3.188	437.00	256.00
16:00	191.00	2.6954	12.125	26.125	90.250	9.1875	1060.0	-2.109	-3.656	449.00	253.00
17:00	192.00	2.6954	12.344	26.000	88.500	9.1875	1068.0	-2.039	-3.570	451.00	251.00
18:00	190.50	2.6954	13.438	26.563	88.000	7.9219	1076.0	-1.992	-3.414	440.00	251.00
19:00	188.50	3.8125	12.438	26.063	85.250	9.0313	1064.0	-2.336	-3.953	445.00	255.50
20:00	190.00	3.8125	13.500	25.125	83.000	8.3125	1072.0	-2.102	-3.578	439.00	250.50
21:00	191.00	2.6954	12.219	26.313	82.500	7.9532	1088.0	-1.754	-3.117	433.00	256.00
22:00	189.00	2.6954	12.688	25.750	80.500	8.7813	1076.0	-2.039	-3.633	440.00	256.00
23:00	183.50	0.0000	12.469	26.688	78.500	10.156	1068.0	-2.266	-3.992	446.00	256.00
04SEP88 00:00	185.00	0.0000	12.438	26.625	78.000	9.2188	1080.0	-1.926	-3.656	448.00	253.00
01:00	191.50	0.0000	12.375	25.438	77.250	8.8125	1072.0	-2.063	-3.633	449.00	254.50
02:00	190.50	0.0000	13.094	26.375	77.250	9.5938	1076.0	-2.094	-3.672	448.00	256.00
03:00	191.00	0.0000	12.438	25.938	77.000	8.8125	1080.0	-1.957	-3.461	446.00	253.50
04:00	192.50	0.0000	12.563	26.188	75.000	8.9375	1076.0	-1.828	-3.328	449.00	251.00
05:00	191.00	0.0000	12.031	26.000	76.250	8.0000	1084.0	-1.930	-3.320	441.00	258.00
06:00	193.00	0.0000	12.375	26.250	74.750	8.9375	1076.0	-1.977	-3.438	452.00	249.50
07:00	179.00	0.0000	11.656	25.188	74.000	10.219	1064.0	-2.258	-4.266	451.00	262.00
08:00	187.50	0.0000	13.313	25.125	74.000	10.031	1056.0	-2.680	-4.594	463.00	255.50
09:00	194.50	0.0000	12.031	25.875	76.500	8.3750	1080.0	-2.203	-3.766	455.00	254.00
10:00	190.00	0.0000	12.625	26.000	77.750	8.3125	1088.0	-1.852	-3.239	444.00	245.50
11:00	187.50	0.0000	12.813	25.000	78.000	10.250	1072.0	-2.414	-4.078	450.00	251.00
12:00	190.00	0.0000	12.375	25.938	77.750	9.5313	1068.0	-2.219	-3.906	453.00	259.00

04SEP88 SUNDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 BLR 2 PRECIP OUT TEMP	EI2587 BLR 2 ESP VOLT 2	HC2378 LIME SL CONCEN.		
		EI2536 BLR 2 ESP VOLT 1	EI2583 BLR 2 ESP VOLT 3	FIC2580 BLR 2 SDA DIL WTR FL		
		TI2376 SMP	EI2536 SMP	EI2587 SMP	EI2583 SMP	HC2378 SMP	FIC2580 SMP
		DEG F	KV	KV	KV		GPM
03SEP88	13:00	253.00	48.875	47.625	59.375	39.500	25.000
	14:00	251.00	54.250	47.125	59.375	35.000	21.313
	15:00	253.50	43.125	48.750	59.875	35.000	24.188
	16:00	253.50	54.125	47.750	59.375	35.000	28.813
	17:00	253.50	44.375	49.375	59.625	35.000	27.563
	18:00	253.00	57.875	48.250	59.750	35.000	23.188
	19:00	253.50	52.750	47.250	59.625	35.000	26.313
	20:00	252.00	55.125	50.625	59.000	72.750	12.344
	21:00	253.50	53.125	49.875	59.125	79.250	12.063
	22:00	253.50	53.000	48.250	59.750	40.000	22.125
	23:00	254.00	56.125	49.750	60.000	35.000	29.063
04SEP88	00:00	252.00	51.750	48.750	59.625	35.000	28.000
	01:00	252.50	51.625	49.625	59.500	35.000	31.313
	02:00	252.00	52.000	47.750	60.125	35.000	25.875
	03:00	251.50	50.375	48.625	59.875	35.000	26.438
	04:00	251.50	52.625	48.750	60.250	35.000	25.500
	05:00	252.50	50.000	49.375	60.125	35.000	24.813
	06:00	250.00	51.625	50.125	60.375	35.000	27.188
	07:00	253.50	52.250	51.250	54.375	35.000	17.750
	08:00	252.00	51.750	50.375	61.000	35.000	31.750
	09:00	251.50	53.250	49.500	60.750	35.000	26.563
	10:00	250.50	54.625	51.625	60.375	58.250	15.688
	11:00	251.50	55.250	50.875	60.625	35.000	28.688
	12:00	253.50	51.750	50.750	60.500	35.000	28.563

Orginal
All done

05SEP83 MONDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 13 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW		PIC2028 BLR 2 PRI AIR PRESS		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AVG SUP OUTGAS		PI2375 BLR 2 PRECIP OUT PR		TIC2551 BLR 2 SDA GAS OUT TMP
		FI2153 BLR 2 NAT GAS FLOW		PIC2026 BLR 2 SEC AIR PRESS		AIC2064 BLR 2 O2		PI2039 BLR 2 SDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT		
		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
04SEP83	13:00	131.50	0.0000	11.344	24.563	76.500	11.250	1060.0	-2.359	-4.934	464.00	256.00
	14:00	193.00	0.0000	12.469	25.625	76.250	10.875	1060.0	-3.024	-5.016	479.00	259.00
	15:00	192.00	0.0000	12.750	26.125	75.500	9.5313	1060.0	-2.109	-3.774	467.00	256.00
	16:00	166.00	0.0000	13.750	26.750	75.750	8.9688	1016.0	-1.777	-3.336	447.00	253.50
	17:00	136.50	0.0000	12.250	26.125	74.750	9.7313	1063.0	-2.094	-3.641	442.00	264.00
	18:00	182.00	0.0000	12.844	26.625	75.250	10.938	1064.0	-2.180	-3.984	450.00	264.00
	19:00	186.00	0.0000	11.750	25.750	76.750	9.0625	1072.0	-1.332	-3.453	442.00	261.00
	20:00	183.50	0.0000	12.188	26.438	77.250	10.281	1072.0	-1.988	-3.766	444.00	263.00
	21:00	192.00	0.0000	11.933	26.000	73.250	9.3125	1034.0	-2.003	-3.656	449.00	262.00
	22:00	192.00	0.0000	12.188	25.813	79.750	9.8438	1076.0	-1.945	-3.524	446.00	261.00
	23:00	195.00	0.0000	11.594	26.125	76.750	8.3125	1060.0	-2.195	-3.333	456.00	250.50
05SEP88	00:00	189.00	0.0000	12.531	26.625	79.000	8.6563	1072.0	-1.867	-3.297	442.00	263.00
	01:00	192.50	0.0000	13.219	26.125	79.250	3.6375	1076.0	-1.379	-3.359	446.00	254.50
	02:00	192.50	0.0000	13.188	25.000	77.500	7.9688	1068.0	-1.945	-3.516	447.00	261.00
	03:00	136.00	0.0000	13.133	25.133	76.750	3.5625	1056.0	-2.253	-3.953	448.00	264.00
	04:00	189.00	0.0000	13.719	26.625	78.000	8.9063	1080.0	-1.906	-3.414	444.00	259.00
	05:00	134.00	0.0000	12.094	26.250	77.500	10.406	1063.0	-2.336	-3.934	448.00	259.00
	06:00	189.00	0.0000	12.781	26.188	77.750	10.063	1060.0	-2.102	-3.570	448.00	261.00
	07:00	134.50	0.0000	12.750	27.133	76.750	9.9063	1043.0	-2.242	-4.156	454.00	263.00
	08:00	185.00	0.0000	12.625	25.125	78.000	9.7500	1060.0	-1.844	-3.422	443.00	262.00
	09:00	183.50	0.0000	12.438	24.625	73.500	10.156	1060.0	-2.063	-3.766	446.00	262.00
	10:00	194.00	0.0000	12.438	25.875	80.750	8.2500	1068.0	-1.988	-3.406	450.00	263.00
	11:00	137.50	2.6954	11.969	26.500	31.500	10.000	1060.0	-2.130	-3.742	449.00	258.00
	12:00	192.50	2.6954	14.406	25.875	85.000	8.5938	1060.0	-1.750	-3.219	445.00	262.00

05SEP33 MONDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP	BLR 2 OUT TEMP	EI2587 ESP VOLT	BLR 2 2	HC2378 SL CONCEN.	LIME
		EI2586 ESP VOLT	BLR 2 1	EI2588 ESP VOLT	BLR 2 3	FIC2580 SDA DIL	BLR 2 WTR FL
		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
04SEP33	13:00	253.50	52.375	50.750	60.750	35.000	27.313
	14:00	255.50	51.500	50.375	60.500	35.000	30.813
	15:00	253.00	50.750	49.125	60.000	35.000	29.750
	16:00	249.50	49.750	48.375	60.125	35.000	26.500
	17:00	254.50	52.500	51.750	59.375	55.750	18.688
	18:00	256.00	52.875	50.250	60.125	35.000	23.313
	19:00	255.00	51.750	52.125	60.375	35.000	19.938
	20:00	254.50	51.375	51.625	60.000	35.000	20.938
	21:00	253.00	53.625	50.125	59.875	35.000	19.500
	22:00	253.50	36.375	49.750	60.000	35.000	16.438
	23:00	253.00	51.750	47.750	59.500	35.000	22.938
05SEP88	00:00	255.00	50.750	51.375	59.875	35.000	22.625
	01:00	254.00	53.750	48.750	59.750	35.000	21.875
	02:00	256.00	52.875	49.250	60.375	35.000	21.500
	03:00	257.00	53.375	50.375	60.375	73.000	13.938
	04:00	255.50	52.250	48.750	59.875	35.000	27.688
	05:00	256.00	35.625	49.625	60.125	35.000	26.250
	06:00	257.00	53.375	49.250	60.625	51.125	20.500
	07:00	253.00	53.500	50.375	60.375	73.500	13.719
	08:00	257.00	36.875	49.500	61.250	45.500	22.750
	09:00	257.00	51.375	48.625	61.125	35.000	26.750
	10:00	255.00	54.375	48.625	60.125	35.000	24.938
	11:00	256.00	54.500	48.000	60.000	35.000	29.063
	12:00	255.00	55.750	46.250	59.125	60.875	14.781

06SEP88 TUESDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 13 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW		PIC2028 BLR 2 PRI AIR PRESS		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AVG SUP OUTGAS		PI2375 BLR 2 PRECIP OUT PR		TIC2551 BLR 2 SDA GAS OUT TMP
		FI2153 BLR 2 NAT GAS FLOW		PIC2026 BLR 2 SEC AIR PRESS		AIC2064 BLR 2 O2		PI2039 BLR 2 SDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT		
		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
05SEP88	13:00	183.00	2.6954	12.969	24.933	85.500	9.9688	1044.0	-2.328	-3.906	442.00	262.00
	14:00	189.00	3.8125	13.250	25.813	86.500	8.2500	1056.0	-1.762	-3.211	442.00	262.00
	15:00	134.50	3.3125	12.906.	26.688	88.000	10.031	1064.0	-2.203	-3.820	444.00	262.00
	16:00	191.50	3.8125	12.531	26.500	86.750	7.6719	1068.0	-1.738	-3.203	445.00	261.00
	17:00	184.50	3.8125	12.375	27.000	82.750	10.375	1052.0	-2.138	-3.922	451.00	260.00
	18:00	186.00	2.6954	12.125	26.125	80.250	9.5625	1056.0	-2.070	-3.719	443.00	262.00
	19:00	189.00	0.0000	13.031	25.750	78.250	8.8125	1060.0	-2.016	-3.547	447.00	261.00
	20:00	190.50	0.0000	12.500	25.875	74.250	10.438	1052.0	-2.531	-4.313	460.00	265.00
	21:00	190.00	0.0000	10.625	26.000	72.750	9.5313	1068.0	-1.973	-3.633	459.00	260.00
	22:00	192.50	0.0000	11.813	25.688	71.500	8.9375	1072.0	-1.930	-3.602	452.00	260.00
	23:00	188.50	0.0000	13.000	26.250	69.750	9.4063	1064.0	-2.531	-4.313	452.00	262.00
06SEP88	00:00	187.50	0.0000	12.313	26.063	66.500	11.781	1056.0	-2.656	-4.906	473.00	262.00
	01:00	194.50	0.0000	11.594	26.313	67.000	10.313	1072.0	-2.313	-3.953	463.00	258.00
	02:00	191.00	0.0000	11.594	25.938	65.750	10.750	1080.0	-2.086	-3.867	459.00	257.00
	03:00	195.50	0.0000	12.313	26.188	65.250	10.906	1084.0	-2.195	-3.914	471.00	250.50
	04:00	184.50	0.0000	12.000	26.000	64.000	11.000	1060.0	-2.227	-4.125	460.00	262.00
	05:00	192.50	0.0000	12.906	26.313	59.375	11.156	1044.0	-2.867	-5.250	490.00	275.00
	06:00	189.00	0.0000	10.906	25.813	62.000	9.4688	1068.0	-1.879	-3.477	451.00	256.00
	07:00	192.50	0.0000	12.156	26.188	62.750	10.031	1064.0	-2.109	-3.617	450.00	260.00
	08:00	189.50	0.0000	11.813	25.500	63.875	10.156	1064.0	-2.070	-3.742	450.00	259.00
	09:00	189.50	0.0000	13.156	26.250	67.250	8.0625	1076.0	-2.070	-3.750	450.00	259.00
	10:00	186.50	0.0000	12.750	26.063	69.250	10.625	1056.0	-2.602	-4.359	456.00	263.00
	11:00	189.00	0.0000	12.656	26.000	73.000	9.7500	1072.0	-2.180	-3.731	452.00	261.00
	12:00	186.00	0.0000	12.719	26.813	75.000	10.750	1064.0	-2.422	-4.391	465.00	251.50

06SEP88 TUESDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 BLR 2 PRECIP OUT TEMP	EI2587 BLR 2 ESP VOLT 2		HC2378 LIME SL CONCEN.	
		EI2586 BLR 2 ESP VOLT 1	EI2588 BLR 2 ESP VOLT 3		FIC2580 BLR 2 SDA DIL WTR FL	
		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
05SEP88	13:00	256.00	35.750	47.750	59.625	48.250	19.250
	14:00	256.00	36.125	47.375	60.375	35.000	25.063
	15:00	257.00	46.375	48.750	60.125	42.625	22.500
	16:00	258.00	58.375	47.875	59.250	43.750	20.250
	17:00	258.00	38.750	46.875	59.750	35.000	24.750
	18:00	258.00	59.125	49.500	57.625	38.375	22.688
	19:00	257.00	56.625	48.750	60.125	48.250	20.250
	20:00	259.00	51.625	46.875	60.250	35.000	30.063
	21:00	258.00	54.375	49.625	60.000	30.000	14.000
	22:00	256.00	52.375	46.750	60.125	35.000	25.688
	23:00	256.00	50.625	49.250	60.500	35.000	29.188
06SEP88	00:00	255.50	50.125	49.500	57.375	35.000	32.375
	01:00	253.00	50.500	49.125	59.625	48.875	21.438
	02:00	253.50	50.750	49.500	59.750	35.000	28.563
	03:00	253.50	51.500	46.375	59.500	35.000	34.625
	04:00	254.00	55.875	48.500	58.500	35.000	25.750
	05:00	262.00	55.500	49.375	58.125	35.000	30.938
	06:00	254.00	55.625	48.250	57.625	69.250	29.063
	07:00	254.00	37.000	47.750	58.500	47.875	26.000
	08:00	254.00	54.375	49.625	59.125	35.000	25.125
	09:00	253.00	38.375	0.5996	57.375	35.000	23.438
	10:00	254.00	39.875	46.000	57.500	30.000	19.188
	11:00	255.00	49.375	48.125	58.000	30.000	27.938
	12:00	252.00	49.625	48.125	58.250	30.000	28.625

07SEP88 WEDNESDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW		PIC2028 BLR 2 PRI AIR PRESS		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AVG SUP OUTGAS		PI2375 BLR 2 PRECIP OUT PR		TIC2551 BLR 2 SDA GAS OUT TMP
		FI2153 BLR 2 NAT GAS FLOW		PIC2026 BLR 2 SEC AIR PRESS		AIC2064 BLR 2 O2		PI2039 BLR 2 SDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT		
		FI2002B SMP	FI2153 SMP	PIC2028 SMP	PIC2026 SMP	TI2024 SMP	AIC2064 SMP	TI2021C SMP	PI2039 SMP	PI2375 SMP	TR2040 SMP	TIC2551 SMP
		KLB/HR	KSCFH	"H2O	"H2O	DEG F	%	DEG F	"H2O	"H2O	DEG F	DEG F
06SEP88	13:00	187.50	0.0000	11.875	25.375	77.750	9.2813	1068.0	-2.117	-3.695	457.00	261.00
	14:00	188.00	0.0000	12.375	25.563	81.500	10.656	1060.0	-2.453	-4.094	462.00	261.00
	15:00	194.00	0.0000	12.750	25.625	81.250	8.1875	1064.0	-1.969	-3.586	460.00	257.00
	16:00	190.50	0.0000	11.250	26.375	82.750	10.313	1072.0	-2.109	-3.774	457.00	259.00
	17:00	192.50	0.0000	12.688	25.188	79.250	9.0938	1064.0	-1.922	-3.672	458.00	261.00
	18:00	188.50	0.0000	13.469	25.188	76.250	10.438	1060.0	-2.070	-3.758	454.00	263.00
	19:00	186.00	0.0000	12.906	26.625	72.250	10.500	1068.0	-2.313	-4.156	453.00	260.00
	20:00	192.00	0.0000	12.938	25.813	63.500	9.9688	1064.0	-2.438	-4.234	465.00	251.00
	21:00	166.50	0.0000	13.313	26.625	65.750	10.719	1024.0	-2.133	-3.711	453.00	252.50
	22:00	163.00	0.0000	12.813	26.375	64.750	9.6875	1004.0	-1.801	-3.266	436.00	259.00
	23:00	179.00	0.0000	11.781	26.125	63.625	9.8750	1044.0	-2.461	-4.250	446.00	260.00
07SEP88	00:00	188.50	0.0000	12.031	25.875	63.000	9.3438	1056.0	-2.070	-3.703	454.00	258.00
	01:00	187.00	0.0000	12.719	25.875	62.500	9.1563	1056.0	-2.188	-3.711	449.00	258.00
	02:00	184.50	0.0000	12.719	25.125	59.625	10.125	1028.0	-2.461	-4.438	466.00	275.00
	03:00	183.50	0.0000	11.938	26.250	60.500	10.156	1044.0	-2.742	-4.734	459.00	259.00
	04:00	186.50	0.0000	13.750	26.250	60.375	9.6563	1044.0	-2.289	-4.016	457.00	261.00
	05:00	191.50	0.0000	11.531	26.188	61.375	9.7813	1052.0	-1.902	-3.422	453.00	258.00
	06:00	192.00	0.0000	12.469	25.313	59.625	9.9063	1032.0	-2.508	-4.359	466.00	258.00
	07:00	185.00	0.0000	11.969	25.938	60.750	10.156	1040.0	-2.156	-4.078	460.00	262.00
	08:00	190.00	0.0000	12.500	26.000	65.500	9.5000	1044.0	-2.149	-3.719	463.00	277.00
	09:00	186.00	0.0000	11.469	26.188	67.750	11.438	1036.0	-2.297	-4.141	464.00	276.00
	10:00	194.00	0.0000	13.406	25.688	71.500	9.2188	1036.0	-2.320	-4.109	477.00	266.00
	11:00	194.00	0.0000	12.563	25.750	76.750	8.8750	1040.0	-2.149	-3.688	456.00	274.00
	12:00	187.50	0.0000	11.344	25.938	80.000	10.625	1040.0	-2.141	-3.914	448.00	275.00

07SEP88 WEDNESDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP	BLR 2 OUT TEMP	EI2587 ESP VOLT	BLR 2 2	HC2378 SL CONCEN.	LIME
		EI2586 ESP VOLT	BLR 2 1	EI2588 ESP VOLT	BLR 2 3	FIC2580 SDA DIL WTR FL	BLR 2
		TI2376 SMP	EI2586 SMP	EI2587 SMP	EI2588 SMP	HC2378 SMP	FIC2580 SMP
		DEG F	KV	KV	KV		GPM
06SEP88	13:00	256.00	53.500	48.375	58.625	30.000	29.313
	14:00	255.50	49.500	48.125	53.625	30.000	30.625
	15:00	255.00	49.000	47.875	58.375	30.000	28.375
	16:00	255.50	48.875	50.750	58.375	38.125	26.500
	17:00	257.00	49.500	48.125	60.000	38.125	23.750
	18:00	257.00	48.625	50.250	59.750	38.125	26.500
	19:00	257.00	50.625	50.125	59.875	38.125	25.000
	20:00	255.00	49.500	49.125	59.375	38.125	24.188
	21:00	255.00	50.875	48.500	59.625	35.000	24.313
	22:00	256.00	53.375	50.250	60.000	35.000	21.625
	23:00	256.00	52.500	47.875	59.875	35.000	24.188
07SEP88	00:00	255.00	56.750	47.125	59.125	35.000	26.875
	01:00	255.00	49.000	49.500	59.500	35.000	26.938
	02:00	258.00	54.750	47.875	57.500	35.000	32.625
	03:00	254.50	46.125	48.750	59.750	35.000	28.813
	04:00	253.50	56.375	47.000	59.250	35.000	26.750
	05:00	254.50	57.750	48.625	59.500	35.000	27.000
	06:00	254.00	51.625	45.750	58.500	35.000	31.938
	07:00	254.00	53.375	46.375	59.000	35.000	27.813
	08:00	271.00	36.625	47.625	58.250	35.000	28.813
	09:00	268.00	55.000	46.250	58.750	35.000	28.625
	10:00	267.00	50.625	48.250	57.750	37.750	21.625
	11:00	269.00	49.000	47.000	58.625	32.000	30.438
	12:00	269.00	48.625	50.375	59.000	32.500	19.938

08SEP88 THURSDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 13 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
		FI2002B SMP	FI2153 SMP	PIC2028 SMP	PIC2026 SMP	TI2024 SMP	AIC2064 SMP	TI2021C SMP	PI2039 SMP	PI2375 SMP	TR2040 SMP	TIC2551 SMP
		KLB/HR	KSCFH	"H2O	"H2O	DEG F	%	DEG F	"H2O	"H2O	DEG F	DEG F
07SEP88	13:00	183.00	0.0000	11.781	26.625	80.750	11.375	1028.0	-2.391	-4.078	448.00	276.00
	14:00	183.00	0.0000	13.406	26.625	85.500	8.9688	1032.0	-1.520	-3.156	436.00	273.00
	15:00	189.00	0.0000	13.000	25.938	84.500	9.8438	1040.0	-2.117	-3.703	446.00	269.00
	16:00	190.50	0.0000	13.063	25.938	84.500	9.6250	1036.0	-2.149	-3.797	450.00	272.00
	17:00	187.00	0.0000	12.719	26.375	85.250	9.3750	1040.0	-2.391	-4.219	451.00	272.00
	18:00	185.00	0.0000	12.938	25.688	80.750	10.156	1040.0	-2.149	-3.797	447.00	275.00
	19:00	191.50	0.0000	11.844	26.188	75.750	10.188	1048.0	-2.016	-3.594	451.00	274.00
	20:00	187.00	0.0000	13.125	26.125	71.500	10.000	1044.0	-2.406	-4.156	450.00	271.00
	21:00	191.00	0.0000	12.625	26.563	69.750	9.0000	1044.0	-1.363	-3.492	451.00	275.00
	22:00	190.50	0.0000	13.594	26.313	67.750	9.5000	1036.0	-2.305	-4.094	461.00	275.00
	23:00	189.50	0.0000	11.375	25.438	66.750	9.8125	1044.0	-2.352	-4.047	459.00	266.00
08SEP88	00:00	194.00	0.0000	13.594	24.875	64.500	7.1094	1036.0	-2.977	-5.375	476.00	280.00
	01:00	190.00	0.0000	11.313	25.563	64.500	9.8438	1060.0	-2.117	-3.953	457.00	272.00
	02:00	186.50	0.0000	12.969	26.938	64.750	10.656	1060.0	-2.078	-3.836	453.00	272.00
	03:00	192.50	0.0000	12.094	26.000	64.750	9.1563	1060.0	-2.008	-3.664	454.00	276.00
	04:00	185.00	0.0000	12.406	24.938	63.875	10.656	1052.0	-2.461	-4.375	458.00	252.50
	05:00	191.00	0.0000	12.750	25.938	63.625	9.5000	1068.0	-2.133	-3.797	457.00	259.00
	06:00	186.00	0.0000	12.281	25.375	62.875	9.8750	1052.0	-2.188	-4.109	462.00	261.00
	07:00	186.00	0.0000	11.875	26.875	63.500	10.375	1052.0	-2.461	-4.500	474.00	256.00
	08:00	195.50	0.0000	13.000	26.188	66.500	9.4375	1068.0	-2.375	-4.094	470.00	256.00
	09:00	190.50	0.0000	11.500	25.875	68.750	11.656	1048.0	-2.750	-4.813	436.00	269.00
	10:00	177.50	0.0000	11.156	25.875	76.500	11.844	1048.0	-2.445	-4.484	462.00	260.00
	11:00	193.00	0.0000	11.719	25.188	80.500	8.9063	1064.0	-2.195	-3.805	461.00	264.00
	12:00	193.50	0.0000	12.625	26.063	84.250	8.3125	1064.0	-1.988	-3.539	450.00	264.00

08SEP88 THURSDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP	BLR 2 OUT TEMP	EI2587 ESP VOLT	BLR 2 2	HC2378 SL CONCEN.	LIME
		EI2586 ESP VOLT	BLR 2 1	EI2588 ESP VOLT	BLR 2 3	FIC2580 SDA DIL	BLR 2 WTR FL
		TI2376 SMP	EI2586 SMP	EI2587 SMP	EI2588 SMP	HC2378 SMP	FIC2580 SMP
		DEG F	KV	KV	KV		GPM
07SEP88	13:00	270.00	49.625	48.250	58.625	32.000	25.125
	14:00	268.00	53.500	48.125	58.250	67.250	8.5625
	15:00	267.00	49.625	47.625	56.750	32.000	23.875
	16:00	269.00	51.875	49.250	59.250	32.000	25.125
	17:00	268.00	53.625	48.875	59.875	32.000	23.625
	18:00	269.00	48.125	50.875	59.875	54.250	15.000
	19:00	269.00	48.250	48.875	59.875	50.625	17.313
	20:00	269.00	50.500	49.000	59.750	32.000	38.500
	21:00	269.00	53.375	48.000	59.625	34.000	26.750
	22:00	269.00	48.625	45.500	60.250	32.000	29.938
	23:00	268.00	53.375	48.500	59.500	32.000	27.125
08SEP88	00:00	271.00	49.250	48.125	60.000	62.750	20.125
	01:00	268.00	47.375	47.750	59.500	32.000	30.125
	02:00	268.00	34.125	49.125	59.750	32.000	27.063
	03:00	267.00	54.625	47.250	58.375	71.250	11.969
	04:00	262.00	54.250	47.875	59.000	32.000	32.625
	05:00	255.00	54.125	45.750	58.500	32.000	30.438
	06:00	256.00	34.250	48.375	59.125	32.000	32.750
	07:00	253.50	53.625	48.250	58.750	32.000	35.250
	08:00	254.00	53.750	47.375	59.625	32.000	32.875
	09:00	263.00	48.375	46.125	59.125	32.000	37.250
	10:00	253.50	46.875	47.250	59.125	32.000	28.188
	11:00	260.00	51.125	47.250	56.375	32.000	31.125
	12:00	255.00	55.000	49.250	53.250	39.000	22.125

09SEP88 FRIDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
		FI2002B SMP	FI2153 SMP	PIC2028 SMP	PIC2026 SMP	TI2024 SMP	AIC2064 SMP	TI2021C SMP	PI2039 SMP	PI2375 SMP	TR2040 SMP	TIC2551 SMP
		KLB/HR	KSCFH	"H2O	"H2O	DEG F	%	DEG F	"H2O	"H2O	DEG F	DEG F
08SEP88	13:00	192.00	2.6954	12.406	26.250	86.750	9.1875	1060.0	-1.969	-3.524	451.00	263.00
	14:00	196.00	2.6954	12.750	25.313	87.000	8.4063	1060.0	-2.008	-3.375	453.00	264.00
	15:00	187.00	2.6954	12.813	26.375	89.250	9.4375	1060.0	-2.250	-3.820	449.00	259.00
	16:00	183.50	2.6954	12.094	25.875	87.250	11.469	1032.0	-2.625	-4.609	466.00	267.00
	17:00	187.50	2.6954	13.219	25.375	87.000	10.688	1056.0	-2.234	-3.945	456.00	267.00
	18:00	194.00	2.6954	13.531	25.500	84.750	8.0313	1063.0	-1.977	-3.399	447.00	260.00
	19:00	188.00	2.6954	13.563	26.125	78.000	9.4375	1056.0	-2.297	-4.031	454.00	262.00
	20:00	134.00	0.0000	12.313	26.000	74.500	11.063	1048.0	-2.422	-4.375	461.00	263.00
	21:00	186.00	0.0000	12.563	26.438	72.750	0.1184	1052.0	-2.274	-4.109	452.00	259.00
	22:00	193.00	0.0000	13.250	26.625	69.750	0.0999	1052.0	-2.156	-3.399	460.00	257.00
	23:00	190.00	0.0000	12.500	26.313	67.750	0.0935	1052.0	-2.422	-4.203	461.00	267.00
09SEP88	00:00	193.00	0.0000	12.094	25.313	68.000	0.0874	1063.0	-2.073	-3.539	453.00	261.00
	01:00	185.00	0.0000	11.781	26.438	64.750	0.0874	1044.0	-2.391	-4.438	464.00	257.00
	02:00	190.00	0.0000	11.281	26.188	64.750	0.0874	1048.0	-1.883	-3.578	461.00	262.00
	03:00	194.00	0.0000	12.688	25.875	65.000	0.0811	1064.0	-2.156	-3.852	461.00	257.00
	04:00	136.50	0.0000	12.231	25.938	63.625	0.0874	1028.0	-2.688	-4.922	474.00	260.00
	05:00	189.00	0.0000	12.344	26.000	65.250	0.0811	1044.0	-2.438	-4.406	468.00	269.00
	06:00	190.00	0.0000	12.406	26.375	66.750	0.0811	1048.0	-2.109	-4.031	464.00	259.00
	07:00	188.00	0.0000	12.719	25.688	67.250	0.0811	1036.0	-2.359	-4.156	460.00	260.00
	08:00	193.00	0.0000	13.125	25.688	72.000	0.0811	1052.0	-2.219	-3.992	462.00	252.50
	09:00	193.50	0.0000	12.656	25.813	73.250	0.0811	1052.0	-2.094	-3.641	455.00	258.00
	10:00	187.50	0.0000	11.719	26.250	74.250	0.0811	1040.0	-2.469	-4.391	460.00	265.00
	11:00	191.00	0.0000	11.281	26.250	75.500	-6.219	1052.0	-2.555	-4.375	465.00	263.00
	12:00	187.50	0.0000	12.344	26.313	77.000	11.938	1018.0	-2.156	-4.203	480.00	261.00

09SEP88 FRIDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP	BLR 2 OUT TEMP	EI2537 ESP VOLT	BLR 2 2	HC2378 SL CONCEN.	LIME
		EI2536 ESP VOLT	BLR 2 1	EI2538 ESP VOLT	BLR 2 3	FIC2580 SDA DIL	BLR 2 WTR FL
		TI2376 SMP DEG F	EI2536 SMP KV	EI2537 SMP KV	EI2538 SMP KV	HC2378 SMP	FIC2580 SMP GPM
08SEP88	13:00	255.50	53.625	47.875	58.375	34.125	27.625
	14:00	256.00	53.250	48.125	59.000	32.000	28.188
	15:00	257.00	53.375	48.750	59.500	32.000	29.500
	16:00	258.00	52.875	51.625	59.750	32.000	35.000
	17:00	257.00	39.875	51.750	59.375	32.000	28.500
	18:00	257.00	53.000	49.500	60.500	32.000	26.375
	19:00	258.00	52.625	51.625	60.375	35.125	30.563
	20:00	253.00	46.750	52.750	60.750	32.000	31.063
	21:00	255.50	46.875	54.625	60.250	32.000	26.438
	22:00	257.00	48.750	54.125	60.625	32.000	34.625
	23:00	257.00	47.375	53.750	60.750	32.000	30.938
09SEP88	00:00	256.00	49.375	54.375	60.375	33.375	28.625
	01:00	255.50	55.250	59.750	61.125	32.000	31.875
	02:00	256.00	47.625	57.000	61.000	46.000	26.625
	03:00	254.50	48.000	54.125	61.375	32.000	31.938
	04:00	257.00	49.500	47.875	54.750	32.000	35.750
	05:00	261.00	52.375	48.000	56.625	79.750	16.625
	06:00	257.00	53.250	49.500	54.625	42.750	25.688
	07:00	258.00	51.000	49.750	57.875	32.000	32.625
	08:00	255.50	54.750	50.250	57.375	32.000	28.125
	09:00	258.00	49.125	48.375	58.375	32.000	26.813
	10:00	253.00	47.625	50.000	58.375	30.000	29.875
	11:00	257.00	49.250	48.750	58.000	30.000	31.375
	12:00	265.00	48.375	48.875	57.375	30.000	33.875

10SEP88 SATURDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

	FI2002B BLR 2 TOTAL STM FLOW	PIC2028 BLR 2 PRI AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	TI2021C BLR 2 AVG SUP OUTGAS	PI2375 BLR 2 PRECIP OUT PR	TIC2551 BLR 2 SDA GAS OUT TMP
	FI2153 BLR 2 NAT GAS FLOW	PIC2026 BLR 2 SEC AIR PRESS	AIC2064 BLR 2 O2	PI2039 BLR 2 SDA INLET GAS	TR2040 BLR 2 FLUE GAS OUT	

		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
09SEP88	13:00	196.50	0.0000	12.406	26.000	82.500	8.7188	1048.0	-2.094	-3.602	459.00	264.00
	14:00	195.00	0.0000	13.813	26.250	84.250	9.5625	1048.0	-1.719	-3.250	452.00	258.00
	15:00	194.00	0.0000	12.813	25.563	85.250	9.2188	1040.0	-2.149	-3.828	461.00	258.00
	16:00	192.00	0.0000	11.625	26.250	84.000	8.5938	1056.0	-1.867	-3.445	449.00	260.00
	17:00	187.00	0.0000	12.375	26.250	81.250	10.844	1036.0	-2.336	-4.250	455.00	260.00
	18:00	191.00	2.6954	12.719	26.063	78.500	9.3438	1032.0	-2.063	-3.992	463.00	263.00
	19:00	191.00	2.6954	11.969	26.250	78.000	10.563	1044.0	-2.563	-4.438	464.00	257.00
	20:00	181.50	2.6954	12.375	25.875	76.750	11.594	1024.0	-2.336	-4.734	464.00	272.00
	21:00	195.00	2.6954	12.063	25.813	78.500	9.3438	1056.0	-2.078	-3.688	458.00	256.00
	22:00	194.50	0.0000	11.563	26.063	77.750	8.3438	1056.0	-1.770	-3.250	452.00	258.00
	23:00	186.00	0.0000	11.781	26.250	75.750	9.8750	1044.0	-2.406	-4.438	463.00	261.00
10SEP88	00:00	192.50	0.0000	12.063	25.438	76.000	10.000	1052.0	-1.945	-3.617	452.00	258.00
	01:00	196.50	2.6954	13.031	25.875	75.250	10.813	1056.0	-2.289	-4.000	463.00	256.00
	02:00	189.00	0.0000	12.844	25.438	75.000	10.313	1056.0	-2.484	-4.219	455.00	260.00
	03:00	189.50	0.0000	11.625	25.750	75.000	9.2813	1056.0	-2.195	-3.836	450.00	263.00
	04:00	196.00	0.0000	12.625	26.000	73.750	9.2188	1048.0	-2.219	-3.797	460.00	264.00
	05:00	190.50	0.0000	12.188	26.813	72.750	10.844	1048.0	-2.289	-4.281	465.00	258.00
	06:00	190.50	0.0000	12.063	26.250	73.000	9.0625	1048.0	-2.399	-4.125	457.00	261.00
	07:00	190.50	0.0000	12.594	26.250	73.250	8.5938	1056.0	-2.094	-3.859	453.00	259.00
	08:00	154.00	0.0000	12.688	26.063	72.750	12.500	1024.0	-1.945	-3.484	446.00	261.00
	09:00	175.00	0.0000	13.188	25.313	75.750	10.313	1032.0	-2.039	-3.852	445.00	258.00
	10:00	190.00	2.6954	13.438	26.438	79.750	8.1875	1056.0	-2.195	-4.016	452.00	263.00
	11:00	188.50	2.6954	13.375	26.688	84.000	10.188	1060.0	-2.336	-4.047	452.00	260.00
	12:00	192.00	3.3125	11.531	26.000	84.750	10.719	1032.0	-2.313	-4.141	482.00	261.00

10SEP88 SATURDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

TI2376 BLR 2 PRECIP OUT TEMP
EI2587 BLR 2 ESP VOLT 2
HC2378 LIME SL CONCEN.

EI2586 BLR 2 ESP VOLT 1
EI2588 BLR 2 ESP VOLT 3
FIC2580 BLR 2 SDA DIL WTR FL

		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
09SEP88	13:00	259.00	50.375	39.750	57.625	30.000	30.125
	14:00	256.00	50.500	47.500	58.000	30.000	24.438
	15:00	258.00	51.875	47.125	58.125	30.000	31.000
	16:00	257.00	52.625	47.000	58.625	30.000	25.500
	17:00	259.00	51.125	49.625	58.875	35.000	26.875
	18:00	259.00	49.375	47.250	59.250	30.000	31.188
	19:00	258.00	51.375	48.000	52.250	30.000	29.500
	20:00	261.00	40.250	48.375	59.000	30.000	34.375
	21:00	257.00	53.375	49.000	58.875	30.000	28.125
	22:00	258.00	53.125	49.125	58.125	45.625	21.875
	23:00	260.00	53.250	48.625	57.750	47.000	27.875
10SEP88	00:00	259.00	54.625	48.500	58.125	30.000	31.688
	01:00	257.00	51.875	49.000	58.375	30.000	34.000
	02:00	257.00	48.375	49.625	58.625	30.000	31.313
	03:00	259.00	47.750	49.125	58.250	30.000	28.625
	04:00	259.00	49.625	49.375	59.125	66.500	15.750
	05:00	258.00	49.500	49.000	58.750	30.000	33.625
	06:00	259.00	50.875	49.125	59.250	30.000	31.563
	07:00	256.00	50.125	48.125	59.125	30.000	25.563
	08:00	257.00	48.000	49.750	59.500	30.000	29.750
	09:00	257.00	50.125	50.875	59.375	37.250	24.063
	10:00	258.00	51.375	48.625	59.375	30.000	30.625
	11:00	257.00	53.500	47.750	59.000	30.000	28.500
	12:00	263.00	46.000	47.375	58.750	30.000	38.500

11SEP88 SUNDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

	FI2002B BLR 2 TOTAL STM FLOW		PIC2028 BLR 2 PRI AIR PRESS		TI2024 BLR 2 UNDERGRATE AIR		TI2021C BLR 2 AVG SUP OUTGAS		PI2375 BLR 2 PRECIP OUT PR		TIC2551 BLR 2 SDA GAS OUT TMP
	FI2153 BLR 2 NAT GAS FLOW		PIC2026 BLR 2 SEC AIR PRESS		AIC2064 BLR 2 O2		PI2039 BLR 2 SDA INLET GAS		TR2040 BLR 2 FLUE GAS OUT		
	FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
10SEP88 13:00	189.00	4.6719	12.969	26.563	88.750	9.1563	1052.0	-2.078	-3.859	463.00	254.00
14:00	196.00	4.6719	12.438	26.000	89.500	9.1250	1060.0	-1.867	-3.266	456.00	258.00
15:00	188.50	4.6719	12.125	25.875	90.250	10.719	1048.0	-2.250	-3.906	459.00	255.00
16:00	187.50	4.6719	11.250	26.500	86.750	10.938	1060.0	-1.992	-3.602	452.00	256.00
17:00	187.00	4.6719	13.313	26.125	85.500	9.2813	1052.0	-2.391	-4.203	458.00	264.00
18:00	190.00	4.6719	12.750	26.313	84.000	9.9063	1060.0	-1.981	-3.774	459.00	258.00
19:00	192.00	3.8125	12.344	25.813	79.500	10.344	1044.0	-2.313	-4.172	468.00	258.00
20:00	193.50	3.8125	12.469	26.500	77.750	9.3438	1048.0	-2.109	-3.758	463.00	258.00
21:00	186.00	0.0000	13.063	26.375	75.750	9.2813	1048.0	-2.539	-4.359	456.00	255.00
22:00	189.50	0.0000	12.938	25.875	74.750	9.5625	1052.0	-2.164	-3.731	456.00	259.00
23:00	189.50	0.0000	12.344	25.375	72.500	10.469	1056.0	-2.211	-4.156	461.00	255.00
11SEP88 00:00	183.50	0.0000	12.188	25.750	72.000	12.063	1048.0	-3.156	-5.797	469.00	267.00
01:00	148.50	0.0000	12.750	26.188	72.500	12.031	998.00	-2.008	-3.367	443.00	252.50
02:00	178.00	0.0000	12.688	25.875	72.250	9.6875	1036.0	-2.133	-3.742	445.00	261.00
03:00	169.50	0.0000	11.781	25.938	70.500	12.688	1020.0	-1.559	-3.172	457.00	255.00
04:00	192.50	0.0000	11.813	26.250	71.250	9.9375	1052.0	-1.699	-3.047	440.00	265.00
05:00	193.00	0.0000	11.906	26.438	69.750	11.469	1048.0	-2.320	-4.000	464.00	248.50
06:00	152.50	0.0000	12.250	26.375	68.250	12.438	966.00	-2.125	-3.781	449.00	264.00
07:00	184.00	0.0000	11.750	26.438	67.750	10.688	1032.0	-2.117	-3.867	451.00	267.00
08:00	190.50	0.0000	12.750	25.625	67.750	11.125	1032.0	-2.281	-4.328	469.00	264.00
09:00	191.00	0.0000	12.906	26.938	70.500	11.906	1040.0	-2.227	-4.203	477.00	261.00
10:00	192.00	0.0000	12.219	25.813	74.000	10.063	1056.0	-2.274	-3.930	460.00	263.00
11:00	190.00	2.6954	12.406	26.375	76.000	11.125	1048.0	-2.422	-4.172	457.00	264.00
12:00	189.00	2.6954	12.406	25.125	78.000	10.906	1040.0	-2.367	-4.000	455.00	259.00

11SEP88 SUNDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP	BLR 2 OUT TEMP	EI2587 ESP VOLT	BLR 2 2	HC2378 SL CONCEN.	LIME
		EI2586 ESP VOLT	BLR 2 1	EI2588 ESP VOLT	BLR 2 3	FIC2580 SDA DIL	BLR 2 WTR FL
		TI2376 SMP	EI2586 SMP	EI2587 SMP	EI2588 SMP	HC2378 SMP	FIC2580 SMP
		DEG F	KV	KV	KV		GPM
10SEP88	13:00	256.00	48.375	46.875	59.250	30.000	30.813
	14:00	256.00	43.375	47.375	58.250	30.000	27.625
	15:00	257.00	55.875	48.625	59.750	30.000	30.125
	16:00	257.00	56.125	47.750	59.625	30.000	27.438
	17:00	259.00	51.000	49.625	60.000	30.000	30.875
	18:00	257.00	55.000	49.000	59.750	30.000	29.500
	19:00	257.00	36.375	47.500	59.250	30.000	32.125
	20:00	257.00	54.000	47.000	58.750	30.000	33.250
	21:00	257.00	51.500	48.750	59.250	30.000	30.375
	22:00	257.00	52.125	47.250	59.250	30.000	30.750
	23:00	255.50	50.875	48.375	59.625	30.000	32.375
11SEP88	00:00	259.00	51.375	52.375	55.625	30.000	37.250
	01:00	255.50	51.375	50.375	60.125	30.000	25.938
	02:00	258.00	50.250	49.750	59.750	70.000	13.094
	03:00	256.00	49.500	49.000	60.375	30.000	30.813
	04:00	253.00	51.500	50.375	59.625	76.750	11.531
	05:00	255.00	52.250	49.250	60.125	30.000	33.000
	06:00	255.50	52.625	50.375	59.500	30.000	27.688
	07:00	261.00	55.250	51.750	60.500	79.500	13.156
	08:00	261.00	51.000	52.375	60.625	79.750	36.500
	09:00	260.00	50.500	51.750	60.000	77.250	37.000
	10:00	259.00	51.000	50.625	59.750	80.000	30.938
	11:00	260.00	50.625	51.375	60.125	80.000	27.563
	12:00	253.50	52.750	50.125	59.750	79.750	26.375

12SEP88 MONDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
		FI2002B SMP	FI2153 SMP	PIC2028 SMP	PIC2026 SMP	TI2024 SMP	AIC2064 SMP	TI2021C SMP	PI2039 SMP	PI2375 SMP	TR2040 SMP	TIC2551 SMP
		KLB/HR	KSCFH	"H2O	"H2O	DEG F	%	DEG F	"H2O	"H2O	DEG F	DEG F
11SEP88	13:00	195.50	0.0000	12.500	26.250	78.750	11.125	1040.0	-1.926	-3.422	461.00	250.00
	14:00	192.00	0.0000	12.563	25.313	78.500	9.0313	1048.0	-2.156	-3.758	456.00	251.50
	15:00	192.00	0.0000	12.281	26.563	78.750	10.000	1052.0	-1.931	-3.672	459.00	239.50
	16:00	192.00	0.0000	12.813	26.188	79.250	10.125	1040.0	-2.266	-4.094	464.00	258.00
	17:00	191.50	2.6954	13.406	26.375	80.500	9.3750	1052.0	-2.149	-3.656	455.00	246.50
	18:00	188.50	0.0000	12.938	25.500	79.750	9.4375	1052.0	-2.047	-3.633	450.00	248.50
	19:00	191.00	0.0000	11.594	26.438	76.500	12.375	1012.0	-3.039	-5.563	439.00	272.00
	20:00	194.50	0.0000	12.719	26.375	72.750	10.219	1028.0	-2.578	-4.359	478.00	272.00
	21:00	186.00	0.0000	12.188	25.750	72.000	10.938	1040.0	-2.250	-4.109	461.00	264.00
	22:00	192.00	0.0000	12.438	25.125	70.000	9.8438	1040.0	-2.414	-4.172	469.00	249.50
	23:00	192.00	0.0000	13.406	25.188	67.500	9.9063	1036.0	-2.070	-4.109	478.00	266.00
12SEP88	00:00	189.50	0.0000	12.875	26.000	66.000	10.219	1044.0	-2.633	-4.500	465.00	256.00
	01:00	193.50	0.0000	13.188	26.188	66.500	10.438	1056.0	-2.524	-4.141	461.00	250.50
	02:00	188.50	0.0000	12.469	25.375	65.000	10.719	1052.0	-2.617	-4.422	462.00	253.50
	03:00	190.50	0.0000	11.219	25.625	65.000	9.7188	1052.0	-2.138	-3.727	453.00	260.00
	04:00	185.50	0.0000	12.719	25.688	62.625	10.156	1052.0	-2.899	-4.906	461.00	257.00
	05:00	191.00	0.0000	13.188	25.750	63.375	9.0000	1056.0	-2.000	-3.531	453.00	255.50
	06:00	187.50	0.0000	12.250	25.938	62.625	10.125	1052.0	-2.344	-4.156	457.00	259.00
	07:00	195.50	0.0000	12.906	26.313	63.875	9.5000	1052.0	-2.063	-3.586	458.00	257.00
	08:00	191.50	0.0000	13.344	25.813	64.750	9.8750	1028.0	-2.688	-4.578	469.00	260.00
	09:00	192.00	0.0000	12.531	25.625	68.750	10.344	1044.0	-2.250	-3.984	463.00	257.00
	10:00	194.50	0.0000	11.969	26.125	73.000	9.9375	1052.0	-2.219	-3.836	463.00	252.50
	11:00	192.50	0.0000	12.438	25.750	75.750	9.9375	1044.0	-2.016	-3.594	460.00	256.00
	12:00	191.50	0.0000	11.000	25.813	78.750	9.0625	1052.0	-1.930	-3.383	450.00	255.00

12SEP88 MONDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 PRECIP	BLR 2 OUT TEMP	EI2587 ESP VOLT	BLR 2 2	HC2378 SL CONCEN.	LIME
		EI2586 ESP VOLT	BLR 2 1	EI2588 ESP VOLT	BLR 2 3	FIC2580 SDA DIL	BLR 2 WTR FL
		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
11SEP88	13:00	252.50	51.500	48.500	59.375	31.750	32.875
	14:00	251.00	51.125	47.500	60.375	30.000	32.500
	15:00	246.00	51.375	48.000	59.750	30.000	30.563
	16:00	250.50	39.250	47.500	59.875	30.000	38.250
	17:00	247.50	52.500	46.375	60.000	30.000	30.000
	18:00	249.00	54.625	49.125	60.000	30.000	29.375
	19:00	274.00	53.000	52.625	59.500	30.000	36.250
	20:00	272.00	49.500	47.750	59.375	30.000	35.750
	21:00	265.00	51.375	51.125	59.125	30.000	29.188
	22:00	256.00	49.625	49.250	59.375	30.000	30.688
	23:00	260.00	51.750	49.500	52.375	63.625	22.188
12SEP88	00:00	256.00	49.500	49.250	59.750	30.000	36.250
	01:00	251.00	51.625	49.750	59.375	30.000	32.750
	02:00	251.00	48.500	48.375	59.500	30.000	32.375
	03:00	253.00	49.625	48.625	59.125	30.000	31.875
	04:00	253.00	49.000	50.625	58.250	30.000	34.875
	05:00	252.00	49.375	49.250	59.625	30.000	29.375
	06:00	253.00	49.500	49.375	59.500	30.000	31.750
	07:00	253.00	50.750	48.375	59.125	30.000	34.375
	08:00	252.50	48.125	49.250	59.625	30.000	38.125
	09:00	250.50	48.375	49.750	59.125	30.000	29.938
	10:00	250.00	48.375	48.250	59.875	30.000	30.000
	11:00	252.00	52.000	51.125	60.250	30.000	31.500
	12:00	253.00	50.375	49.125	60.625	30.000	30.500

13SEP88 TUESDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
12SEP88	13:00	194.50	0.0000	12.656	25.688	81.000	9.2500	1056.0	-2.156	-3.539	449.00	254.00
	14:00	191.50	0.0000	12.344	26.063	82.250	10.594	1044.0	-1.879	-3.344	456.00	259.00
	15:00	190.50	0.0000	12.750	26.188	84.250	10.531	1048.0	-1.984	-3.578	455.00	262.00
	16:00	190.00	0.0000	12.594	26.438	84.750	9.4375	1044.0	-1.930	-3.855	450.00	255.00
	17:00	191.00	2.6954	11.531	26.375	82.750	10.063	1040.0	-1.617	-3.172	453.00	257.00
	18:00	189.00	0.0000	12.438	26.563	79.500	9.5000	1040.0	-2.211	-3.945	455.00	251.00
	19:00	191.50	0.0000	12.719	26.063	74.750	9.4063	1044.0	-2.234	-3.891	460.00	251.50
	20:00	193.50	0.0000	12.813	26.188	73.250	9.8313	1056.0	-2.391	-4.047	463.00	248.50
	21:00	186.00	0.0000	12.875	25.875	71.750	10.188	1044.0	-2.438	-4.234	458.00	262.00
	22:00	193.00	0.0000	12.594	25.938	71.000	9.1875	1048.0	-2.149	-3.719	459.00	259.00
	23:00	194.50	0.0000	12.406	26.063	70.000	9.9375	1044.0	-2.180	-3.820	463.00	249.00
13SEP88	00:00	191.00	0.0000	12.063	25.688	70.500	8.5313	1052.0	-1.902	-3.352	446.00	252.00
	01:00	191.50	0.0000	11.750	26.000	69.500	10.625	1060.0	-2.031	-3.539	455.00	248.00
	02:00	194.00	0.0000	14.281	25.875	68.750	10.375	1044.0	-2.469	-4.231	463.00	258.00
	03:00	188.00	0.0000	12.344	26.125	71.250	9.3125	1052.0	-1.930	-3.430	448.00	249.00
	04:00	192.50	0.0000	12.656	25.813	71.750	9.0938	1060.0	-2.016	-3.438	444.00	255.50
	05:00	189.50	0.0000	12.688	26.063	70.750	9.6563	1044.0	-2.375	-4.047	449.00	256.00
	06:00	191.00	0.0000	11.969	25.938	71.250	9.9063	1048.0	-2.172	-3.703	456.00	255.00
	07:00	190.50	0.0000	12.531	25.375	70.750	9.8125	1032.0	-2.516	-4.500	467.00	263.00
	08:00	191.50	0.0000	13.344	25.750	74.500	9.9688	1048.0	-2.219	-3.953	456.00	256.00
	09:00	192.00	0.0000	12.500	25.750	76.500	8.3750	1056.0	-2.031	-3.531	449.00	255.00
	10:00	183.00	0.0000	11.938	26.438	74.500	12.406	1040.0	-2.625	-4.641	463.00	256.00
	11:00	192.00	0.0000	11.875	26.313	78.500	9.1250	1060.0	-1.973	-3.524	457.00	249.50
	12:00	191.00	0.0000	12.688	26.125	79.500	8.7188	1068.0	-1.898	-3.047	446.00	252.50

13SEP88 TUESDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 BLR 2 PRECIP OUT TEMP	EI2586 BLR 2 ESP VOLT 1	EI2587 BLR 2 ESP VOLT 2	EI2588 BLR 2 ESP VOLT 3	HC2378 LIME SL CONCEN.	FIC2580 BLR 2 SDA DIL WTR FL
		TI2376 SMP DEG F	EI2536 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
12SEP88	13:00	252.50	54.125	48.250	59.500	30.000	28.938
	14:00	253.50	49.500	48.000	59.375	30.000	31.625
	15:00	253.00	54.375	49.125	59.625	30.000	30.750
	16:00	252.50	50.625	48.000	59.750	30.000	27.875
	17:00	252.50	51.250	48.625	59.875	30.000	26.750
	18:00	252.00	53.250	47.375	60.125	36.500	26.375
	19:00	252.00	52.125	48.375	59.375	30.000	30.813
	20:00	251.50	54.250	47.375	59.125	30.000	36.250
	21:00	253.00	56.625	49.750	59.875	30.000	29.188
	22:00	253.00	51.250	48.250	59.250	30.000	32.625
	23:00	249.00	41.375	48.375	58.750	40.375	24.813
13SEP88	00:00	250.50	54.625	49.250	59.250	30.000	26.750
	01:00	250.50	52.500	47.875	59.000	30.000	28.500
	02:00	254.50	51.250	49.750	59.000	76.000	15.750
	03:00	249.50	54.375	49.375	59.250	30.000	23.750
	04:00	252.00	56.000	49.625	59.250	46.125	21.375
	05:00	252.50	54.625	49.375	59.250	32.250	27.625
	06:00	252.50	49.375	48.500	59.500	30.000	30.125
	07:00	255.00	49.250	45.500	59.250	30.000	39.125
	08:00	253.00	53.125	47.500	58.625	30.000	30.000
	09:00	253.00	52.375	47.750	58.375	30.000	27.688
	10:00	254.00	52.625	50.000	59.000	30.000	33.250
	11:00	251.50	52.500	46.250	58.500	30.000	29.250
	12:00	252.00	56.000	47.750	58.375	30.000	25.875

14SEP88 WEDNESDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375- BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
		FI2002B SMP KLB/HR	FI2153 SMP KSCFH	PIC2028 SMP "H2O	PIC2026 SMP "H2O	TI2024 SMP DEG F	AIC2064 SMP %	TI2021C SMP DEG F	PI2039 SMP "H2O	PI2375 SMP "H2O	TR2040 SMP DEG F	TIC2551 SMP DEG F
13SEP88	13:00	188.00	0.0000	13.125	25.500	79.500	10.469	1056.0	-2.156	-4.063	460.00	253.00
	14:00	190.50	0.0000	13.469	25.250	80.750	10.469	1048.0	-3.047	-5.391	471.00	276.00
	15:00	191.00	0.0000	11.969	26.375	82.750	10.438	1052.0	-2.219	-3.883	464.00	260.00
	16:00	181.50	2.6954	12.344	26.063	82.500	12.000	1048.0	-2.563	-4.000	463.00	254.00
	17:00	190.50	0.0000	12.250	26.125	82.750	9.2813	1072.0	-2.078	-3.555	451.00	256.00
	18:00	192.00	2.6954	12.500	25.313	82.000	10.231	1060.0	-1.837	-3.203	446.00	253.50
	19:00	188.50	2.6954	12.375	25.375	78.500	10.250	1040.0	-2.500	-4.500	463.00	250.50
	20:00	194.00	0.0000	12.375	25.750	77.750	10.000	1048.0	-2.406	-4.125	468.00	256.00
	21:00	191.50	0.0000	11.406	25.875	76.750	9.3125	1048.0	-1.988	-3.563	457.00	250.50
	22:00	189.50	0.0000	12.094	26.063	74.750	9.8125	1056.0	-2.297	-4.000	452.00	256.00
	23:00	186.00	0.0000	12.656	26.188	73.250	10.156	1052.0	-2.484	-4.328	448.00	250.00
14SEP88	00:00	190.00	0.0000	13.231	26.313	71.500	10.750	1056.0	-2.188	-3.820	457.00	252.50
	01:00	191.50	0.0000	13.500	26.250	71.250	9.3125	1056.0	-1.867	-3.445	447.00	250.50
	02:00	191.50	0.0000	13.219	25.938	68.750	9.7500	1044.0	-2.063	-3.867	455.00	265.00
	03:00	194.50	0.0000	12.188	25.938	69.750	9.0938	1064.0	-2.102	-3.547	453.00	256.00
	04:00	194.00	0.0000	12.469	26.250	69.500	9.0313	1056.0	-1.688	-3.109	446.00	255.00
	05:00	196.50	0.0000	12.594	25.813	67.000	9.4375	1048.0	-2.289	-3.758	456.00	252.50
	06:00	193.50	0.0000	12.469	25.938	64.500	8.8125	1060.0	-2.234	-3.867	456.00	248.50
	07:00	187.00	0.0000	12.375	26.188	62.250	11.031	1040.0	-2.234	-4.172	464.00	257.00
	08:00	197.50	0.0000	11.500	26.000	65.500	10.313	1052.0	-2.141	-3.703	469.00	251.50
	09:00	195.00	0.0000	12.875	26.063	69.000	9.0625	1052.0	-2.024	-3.594	460.00	255.00
	10:00	181.00	0.0000	11.594	26.375	72.500	11.219	1056.0	-2.483	-4.375	457.00	244.00
	11:00	192.00	0.0000	12.813	25.563	72.500	9.6875	1028.0	-2.422	-4.281	468.00	267.00
	12:00	190.50	0.0000	12.250	25.375	76.250	10.094	1044.0	-2.211	-4.078	466.00	258.00

14SEP88 WEDNESDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 BLR 2 PRECIP OUT TEMP		EI2587 BLR 2 ESP VOLT 2		HC2378 LIME SL CONCEN.
		EI2586 BLR 2 ESP VOLT 1		EI2588 BLR 2 ESP VOLT 3		FIC2580 BLR 2 SDA DIL WTR FL
		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
13SEP88	13:00	254.00	52.750	46.750	58.875	30.000	34.000
	14:00	260.00	53.750	49.250	57.375	30.000	37.625
	15:00	254.50	52.750	46.000	58.000	30.000	33.500
	16:00	252.00	50.125	48.250	58.875	30.000	33.375
	17:00	255.00	55.875	47.750	58.375	30.000	28.313
	18:00	253.00	59.000	43.250	59.250	30.000	25.313
	19:00	252.50	54.500	48.125	58.875	54.750	19.813
	20:00	252.50	57.250	48.125	59.500	30.000	33.125
	21:00	251.00	53.625	47.750	59.000	30.000	23.063
	22:00	252.00	53.750	48.125	59.375	70.500	11.125
	23:00	254.00	55.125	50.250	59.625	51.750	20.750
14SEP88	00:00	253.00	52.625	50.000	59.625	30.000	29.563
	01:00	253.50	54.250	50.500	58.875	30.000	28.313
	02:00	257.00	54.250	50.750	59.125	44.375	25.938
	03:00	253.50	53.125	49.500	59.625	30.000	30.563
	04:00	252.00	54.250	50.625	59.625	30.000	25.313
	05:00	253.50	53.000	48.000	59.500	30.000	30.063
	06:00	252.00	52.375	50.500	59.750	30.000	29.938
	07:00	253.00	50.500	50.750	59.875	30.000	30.250
	08:00	253.00	52.250	49.250	59.375	74.250	13.969
	09:00	254.50	53.500	50.250	59.750	59.375	21.938
	10:00	250.00	53.375	50.750	59.375	30.000	25.313
	11:00	259.00	50.125	49.000	60.000	30.000	37.875
	12:00	256.00	52.375	49.250	60.000	53.000	24.563

15SEP88 THURSDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 18 COLLECTION COMPLETED 12:01

		F12002B BLR 2 TOTAL STM FLOW	F12153 BLR 2 NAT GAS FLOW	P1C2028 BLR 2 PRI AIR PRESS	P1C2026 BLR 2 SEC AIR PRESS	T12024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 O2	T12021C BLR 2 AVG SUP OUTGAS	P12039 BLR 2 SDA INLET GAS	P12375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	T1C2551 BLR 2 SDA GAS OUT TMP
		F12002B SMP KLB/HR	F12153 SMP KSCFH	P1C2028 SMP "H2O	P1C2026 SMP "H2O	T12024 SMP DEG F	AIC2064 SMP %	T12021C SMP DEG F	P12039 SMP "H2O	P12375 SMP "H2O	TR2040 SMP DEG F	T1C2551 SMP DEG F
14SEP88	13:00	193.00	0.0000	13.313	26.250	80.500	9.0938	1052.0	-2.234	-3.688	456.00	250.00
	14:00	191.50	0.0000	12.500	25.313	81.250	9.2313	1040.0	-2.352	-4.156	468.00	238.00
	15:00	191.50	2.6954	12.781	26.188	83.000	8.5313	1048.0	-1.742	-3.258	452.00	267.00
	16:00	179.50	2.6954	11.781	26.375	82.750	11.313	1036.0	-2.461	-4.547	463.00	261.00
	17:00	193.00	2.6954	11.906	26.125	80.750	9.1250	1044.0	-1.777	-3.399	458.00	257.00
	18:00	189.50	0.0000	11.781	26.000	80.000	8.9688	1048.0	-1.785	-3.250	449.00	253.00
	19:00	193.00	0.0000	11.406	26.000	74.000	11.750	1040.0	-2.180	-3.953	469.00	246.50
	20:00	189.00	0.0000	12.063	25.875	70.750	11.125	1028.0	-2.688	-4.688	475.00	254.50
	21:00	192.00	0.0000	12.250	25.875	71.750	9.4063	1032.0	-2.656	-4.547	476.00	252.00
	22:00	191.50	0.0000	12.625	25.813	71.250	9.2500	1052.0	-1.973	-3.492	458.00	251.00
	23:00	195.00	0.0000	11.938	26.250	69.250	8.9063	1060.0	-1.934	-3.445	460.00	258.00
15SEP88	00:00	189.50	0.0000	12.250	26.063	68.000	8.9375	1044.0	-2.274	-4.172	460.00	257.00
	01:00	188.00	0.0000	12.344	25.875	68.500	9.7500	1048.0	-2.438	-4.141	458.00	260.00
	02:00	192.00	0.0000	12.313	26.125	67.500	8.7813	1044.0	-2.469	-4.406	474.00	252.00
	03:00	185.00	0.0000	12.594	25.563	67.250	11.000	1036.0	-2.469	-4.563	465.00	251.00
	04:00	195.00	0.0000	11.563	26.063	66.500	10.656	1032.0	-2.531	-4.609	473.00	261.00
	05:00	195.00	0.0000	12.719	25.938	66.000	10.156	1044.0	-2.383	-4.063	472.00	251.50
	06:00	190.50	0.0000	13.188	25.750	65.750	9.0000	1052.0	-2.297	-4.094	469.00	253.50
	07:00	185.00	0.0000	11.375	25.563	64.000	11.313	1036.0	-2.664	-4.563	462.00	254.50
	08:00	192.00	0.0000	12.188	25.375	66.750	9.2313	1040.0	-2.453	-4.188	463.00	260.00
	09:00	194.00	0.0000	14.406	25.688	66.750	8.6563	1032.0	-2.039	-3.758	465.00	257.00
	10:00	187.50	0.0000	12.281	26.063	69.000	9.9063	1044.0	-2.047	-3.875	458.00	247.50
	11:00	188.00	0.0000	12.469	26.125	71.000	9.5000	1044.0	-1.785	-3.477	450.00	264.00
	12:00	193.50	0.0000	11.750	25.938	73.250	9.3000	1052.0	-2.016	-3.524	464.00	243.50

15SEP88 THURSDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

		TI2376 BLR 2 PRECIP OUT TEMP	EI2587 BLR 2 ESP VOLT 2		HC2378 LIME SL CONCEN.	
		EI2586 BLR 2 ESP VOLT 1	EI2588 BLR 2 ESP VOLT 3		FIC2580 BLR 2 SDA DIL WTR FL	
		TI2376 SMP	EI2586 SMP	EI2587 SMP	EI2588 SMP	HC2378 SMP	FIC2580 SMP
		DEG F	KV	KV	KV		GPM
14SEP88	13:00	253.50	54.125	49.375	60.000	49.750	18.750
	14:00	269.00	47.250	50.375	59.250	60.000	21.750
	15:00	265.00	54.750	46.250	59.375	30.000	30.063
	16:00	256.00	55.000	51.500	57.375	34.250	30.813
	17:00	253.50	55.500	46.375	59.125	30.000	31.188
	18:00	253.00	57.125	47.625	60.000	49.625	21.563
	19:00	250.00	54.875	46.625	59.500	30.000	33.125
	20:00	252.00	52.250	48.000	59.500	30.000	35.875
	21:00	250.50	50.875	46.625	58.750	30.000	35.250
	22:00	250.00	53.750	47.375	58.625	42.375	25.500
	23:00	253.50	53.000	47.000	58.375	30.875	36.375
15SEP88	00:00	252.00	54.375	48.250	58.375	30.000	31.750
	01:00	253.50	51.125	47.750	59.125	30.000	31.188
	02:00	252.00	52.250	46.625	58.375	30.000	35.875
	03:00	251.50	49.750	48.000	59.125	30.000	34.750
	04:00	257.00	52.625	47.250	57.125	30.000	38.000
	05:00	252.00	52.500	46.375	55.750	30.000	30.438
	06:00	252.00	51.375	48.000	58.250	32.000	29.438
	07:00	253.00	52.250	48.000	59.625	41.625	27.188
	08:00	252.50	50.375	46.250	57.375	48.000	23.813
	09:00	253.00	48.500	46.750	59.000	30.000	32.250
	10:00	250.50	51.000	47.625	52.125	30.000	28.063
	11:00	253.50	56.750	48.500	59.125	30.875	27.813
	12:00	250.00	51.625	48.375	59.000	33.750	28.938

16SEP83 FRIDAY ENTROPY TEST LOG NO. 1 - BLR. 2 TREND LOG 13 COLLECTION COMPLETED 12:01

		FI2002B BLR 2 TOTAL STM FLOW	FI2153 BLR 2 NAT GAS FLOW	PIC2028 BLR 2 PRI AIR PRESS	PIC2026 BLR 2 SEC AIR PRESS	TI2024 BLR 2 UNDERGRATE AIR	AIC2064 BLR 2 OZ	TI2021C BLR 2 AVG SUP OUTGAS	PI2039 BLR 2 SDA INLET GAS	PI2375 BLR 2 PRECIP OUT PR	TR2040 BLR 2 FLUE GAS OUT	TIC2551 BLR 2 SDA GAS OUT TMP
		FI2002B SMP	FI2153 SMP	PIC2028 SMP	PIC2026 SMP	TI2024 SMP	AIC2064 SMP	TI2021C SMP	PI2039 SMP	PI2375 SMP	TR2040 SMP	TIC2551 SMP
		KLB/HR	KSCFH	"H2O	"H2O	DEG F	%	DEG F	"H2O	"H2O	DEG F	DEG F
15SEP88	13:00	196.00	0.0000	12.781	25.563	75.250	9.4063	1048.0	-1.871	-3.352	457.00	254.00
	14:00	192.00	0.0000	13.156	25.813	76.750	8.6875	1044.0	-1.793	-3.391	456.00	255.50
	15:00	191.50	0.0000	11.719	26.125	76.750	9.5625	1040.0	-2.414	-4.125	465.00	253.50
	16:00	191.50	0.0000	13.781	26.438	74.750	10.219	1040.0	-2.078	-3.891	466.00	248.50
	17:00	188.50	0.0000	12.719	25.813	76.000	9.7188	1036.0	-2.156	-3.359	456.00	256.00
	18:00	186.50	0.0000	12.938	25.438	70.250	9.6875	1018.0	-2.781	-5.047	472.00	266.00
	19:00	189.00	0.0000	12.156	26.313	67.750	10.406	1044.0	-2.414	-4.297	476.00	253.00
	20:00	189.00	0.0000	13.500	25.938	66.000	9.1250	1032.0	-2.531	-4.516	466.00	260.00
	21:00	188.50	0.0000	12.219	26.188	64.500	9.4375	1040.0	-2.266	-3.938	456.00	261.00
	22:00	195.00	0.0000	11.875	26.375	63.250	10.375	1044.0	-2.344	-4.031	476.00	246.00
	23:00	188.50	0.0000	12.563	25.875	60.375	10.063	1040.0	-2.906	-4.813	464.00	264.00
16SEP88	00:00	186.00	0.0000	12.031	25.938	60.125	11.406	1036.0	-2.813	-4.750	469.00	254.50
	01:00	192.50	0.0000	13.906	26.125	61.500	10.281	1056.0	-2.313	-3.836	454.00	252.00
	02:00	191.00	0.0000	13.625	25.688	59.875	8.2813	1044.0	-2.406	-4.156	455.00	258.00
	03:00	191.50	0.0000	12.625	26.313	60.000	9.0313	1056.0	-1.856	-3.500	452.00	255.00
	04:00	188.50	0.0000	13.438	25.938	58.750	10.281	1048.0	-2.781	-4.703	457.00	254.00
	05:00	189.50	0.0000	12.656	25.438	58.000	9.2188	1044.0	-2.781	-4.703	463.00	257.00
	06:00	195.50	0.0000	12.594	25.813	56.875	9.4063	1032.0	-2.563	-4.375	476.00	252.50
	07:00	191.00	0.0000	14.000	25.688	56.125	9.5938	1022.0	-2.805	-4.359	480.00	258.00
	08:00	182.00	0.0000	12.000	26.375	60.000	12.156	1024.0	-2.805	-5.141	476.00	254.00
	09:00	193.50	0.0000	13.000	26.063	64.000	9.3125	1016.0	-2.195	-4.078	483.00	261.00
	10:00	190.50	0.0000	13.969	25.688	68.000	9.3438	1040.0	-2.695	-4.672	468.00	257.00
	11:00	190.00	0.0000	12.594	26.250	71.250	11.000	1020.0	-2.531	-4.547	485.00	259.00
	12:00	191.50	0.0000	11.875	25.563	76.750	9.6875	1044.0	-2.031	-3.695	461.00	258.00

16SEP88 FRIDAY ENTROPY TEST LOG NO. 2 - BLR. 2 TREND LOG 19 COLLECTION COMPLETED 12:01

TI2376 BLR 2 PRECIP OUT TEMP
EI2587 BLR 2 ESP VOLT 2
HC2378 LIME SL CONCEN.
EI2586 BLR 2 ESP VOLT 1
EI2588 BLR 2 ESP VOLT 3
FIC2580 BLR 2 SDA DIL WTR FL

		TI2376 SMP DEG F	EI2586 SMP KV	EI2587 SMP KV	EI2588 SMP KV	HC2378 SMP	FIC2580 SMP GPM
15SEP88	13:00	253.00	56.125	48.000	59.250	30.000	29.438
	14:00	253.00	52.500	47.250	59.750	30.000	29.750
	15:00	252.00	52.000	47.875	59.500	30.000	33.125
	16:00	251.50	52.125	48.125	59.625	30.000	32.375
	17:00	253.00	55.750	50.750	60.500	30.000	28.813
	18:00	255.50	53.250	51.000	61.000	30.000	38.500
	19:00	252.00	52.000	47.375	60.375	30.000	37.000
	20:00	252.00	52.750	50.875	61.000	30.000	31.500
	21:00	252.50	51.500	49.625	60.375	30.000	29.688
	22:00	251.50	53.625	47.375	59.375	30.000	32.375
	23:00	254.50	57.750	50.250	60.500	30.000	33.125
16SEP88	00:00	251.00	54.500	49.875	58.375	30.000	32.625
	01:00	250.50	53.375	49.375	59.375	30.000	27.313
	02:00	252.00	53.000	51.750	60.125	30.000	28.313
	03:00	252.00	54.750	49.250	60.000	30.000	27.688
	04:00	252.00	53.250	50.875	60.250	30.000	29.313
	05:00	254.50	55.375	49.750	60.000	30.000	33.500
	06:00	251.50	52.875	50.250	59.500	30.000	37.000
	07:00	254.50	52.250	49.125	59.625	30.000	34.750
	08:00	253.50	52.750	50.250	57.875	30.000	36.625
	09:00	259.00	48.625	47.125	59.875	30.000	37.625
	10:00	253.50	54.750	48.125	52.875	20.813	37.250
	11:00	257.00	51.250	48.250	60.000	20.750	42.375
	12:00	253.50	49.875	47.500	59.125	79.750	32.875

APPENDIX J.

Correspondence

ENTROPY
ENVIRONMENTALISTS INC

POST OFFICE BOX 12291
RESEARCH TRIANGLE PARK
NORTH CAROLINA 27709-2291
919-781-3550

May 6, 1988

Mr. Tim Porter
Wheelabrator Environmental Systems, Inc.
1 Corporate Place
55 Ferncroft Road
Danvers, Massachusetts 01923

Dear Mr. Porter:

As we discussed on May 5, 1988, Entropy has reviewed the Millbury Unit 2 CEMS data acquired during March 1988 as a preliminary step in planning of the EPA long term monitoring project that will be conducted at Millbury. Our review was limited to an examination of the inlet and outlet gas CEMS effluent data (hourly averages) and calibration data. (Preliminary graphs of the effluent concentration data are attached.) Our review of the data revealed circumstances that may affect the EPA study, including:

1. Unit 2 operated for approximately 17 of 31 days during March;

2. The inlet O_2 monitor exhibited some instability beginning about March 13 and increasing around March 17 with the monitor response subsequently increasing to approximately 21% O_2, indicating that the system was sampling air rather than stack gas. (The outlet CEMS shows that Unit 2 was operating.)

3. The above problem indicated by the inlet O_2 monitor did not substantially affect the response of the inlet SO_2 monitor until one or two days later. (This behavior, coupled with the observation of moisture within the sampling system, may indicate an excessively long response time.)

4. Exceedances of the zero and span drift limits and out-of-control limits proposed for the study are summarized as follows:

Days Exceeding Limits	SO_2 Inlet		SO_2 Outlet	
	zero	span	zero	span
±2.5 percent adjustment limit	9	9	6	3
±5 percent control limit	7	8	5	3

5. The outlet CO monitor exceeded the zero drift limit on 10 occasions, while the span check responses indicated a monitor malfunction for about seven consecutive days.

Based on our preliminary findings, we believe that most of the above problems can be resolved during the proposed project by adherence to the procedures detailed in the draft work plan. However, we are particularly concerned about plugging of the eductor and moisture in the sampling system. According to the information you provided during our meeting and subsequent discussions with Joe Aldina, it seems that the unusual behavior of the inlet O_2 and SO_2 monitors is likely due to plugging of the eductor system rather than development of a leak in the sampling system. In order to determine the most effective approach for resolving the apparent problem we request that Wheelabrator perform a response time test for both the inlet and outlet CEMS's on Unit 2. The following procedures should be used:

1. SO_2 calibration gases should be injected as near the probe outlet as possible and must be upstream of the coalescing filter.

2. The test should be performed with the CEMS operating normally (e.g., sampling effluent and moisture in filters).

3. The following should be determined and recorded:

   a. time to go from effluent concentration to 95% of the stable high range calibration gas response;

   b. time to return from high range calibration gas response to the approximate effluent concentration;

   c. time to go from effluent concentration to zero gas response; and

   d. time to go from zero gas response to the approximate effluent concentration.

4. The above procedures should be repeated three times to achieve consistent results. The values of the calibration gases and monitor responses should also be reported.

In addition, we will request copies of the CEMS data for the months of April and May 1988 to provide an additional basis for evaluating the Millbury CEMS performance.

We sincerely appreciate your assistance and the cooperation of the personnel at the Millbury facility in this project. If you or others have any questions about this matter, please do not hesitate to contact Scott Shanklin or me at (919) 781-3550.

Sincerely,

James W. Peeler

James W. Peeler
Director
CEM/Engineering Division

cc: Robert Tekach, Wheelabrator Millbury
Dan Bivins, U. S. EPA

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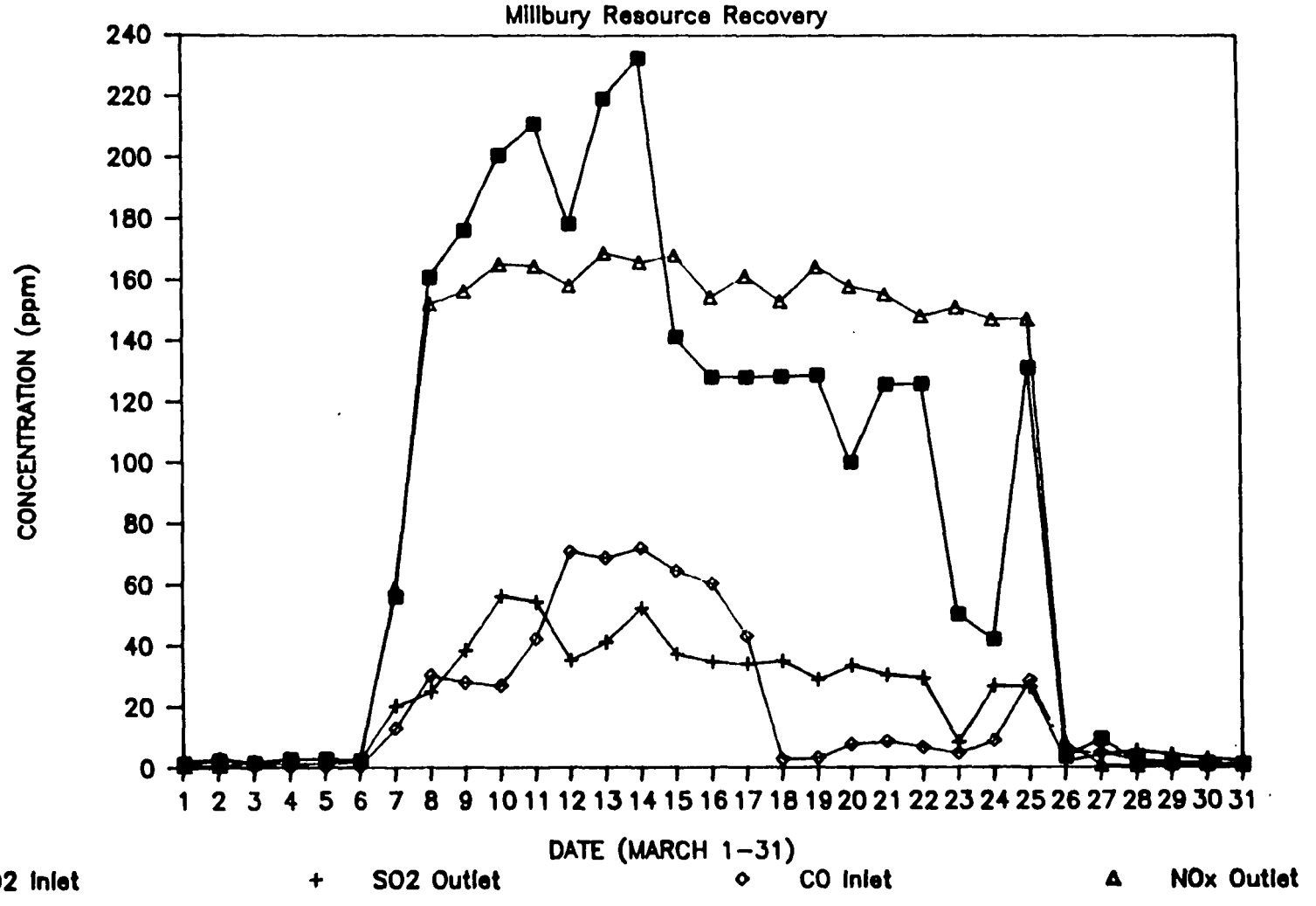
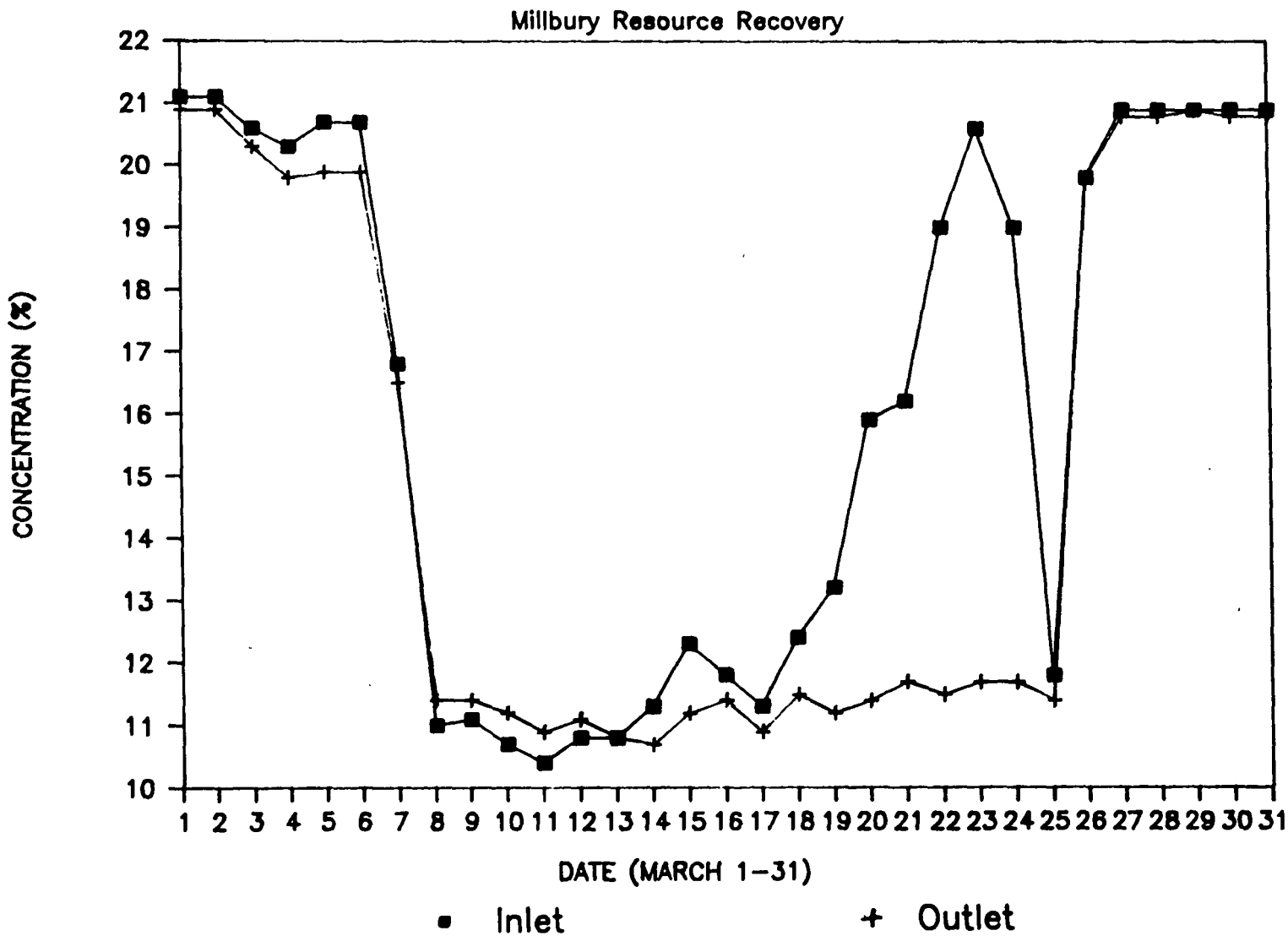
ENTROPY

POLLUTANT EMISSIONS



DILUENT EMISSIONS (O_2)



RADIAN CORPORATION

Scott Shanklin/Entropy

MEMORANDUM

SUBJECT: Millbury CEM Planning Meeting Report

TO: MWC Project Files

FROM: Winton Kelly

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1. Introduction

On June 17, 1988, representatives of Radian and Entropy Environmentalists met at Entropy's offices to discuss the Millbury CEM Project. The major purposes of the meeting were to clarify the quality control requirements for the data and to review the formats in which the data will be presented. The meeting participants were:

Entropy	Jim Peeler
	Scott Shanklin
	Laurie Cone
Radian	Winton Kelly
	Kathy Wertz

The current schedule for the project is to set up equipment after the July 4 holiday, and to begin data collection about July 11.

2. Discussion

There will be three different instrument and data systems that will provide inputs to the final results:

- the Millbury CEM instruments,
- Entropy's HCl analyzers, and
- the Millbury process data computer.

The Millbury CEM system will provide sulfur dioxide (SO_2) concentration at the control system inlet and outlet, oxygen (O_2) concentration at the inlet and outlet, carbon monoxide (CO) concentration at the inlet, and nitrogen oxides (NO_x) concentrations at the outlet. These instruments will permit correction of all measurements to 7 percent O_2. However, direct corrections to 12 percent carbon dioxide (CO_2) will not be possible since a CO_2 analyzer is not included in the Millbury system and will not be available in the Entropy system due to project cost considerations. The calculation of combustion efficiency will also not be possible. However, CO data corrected to 7 percent O_2 will be equally useful.

The Millbury system also includes opacity monitors. However, the range of the instruments will not provide good resolution of readings that are generally always less than 2 percent.

The Entropy HCl system will consist of a TECO model 15 HCl analyses to monitor the inlet HCl concentration and a Braun and Luebbe Ecometer system to measure the outlet HCl concentrations.

The Millbury CEM data acquisition system will provide a daily listing of 6-minute averages on floppy disk which Entropy will compile into a summary of 1-hour raw data averages for each day. The Entropy HCl system data will be recorded using a digital data acquisition system, and these data will also be compiled into the daily 1-hour average listings. These averages will then be used to calculate corrected emission data (at 7 percent O_2) and emission reduction efficiency for SO_2 and HCl.

At this time, the data calculations do not include a listing of emissions in units of pounds per million BTU heat input. These data differ from concentrations at 7 percent O_2 only by a constant, and elimination of these calculations reduces the volume of results that must be generated and stored.

Examples of the Daily Data Summary and Corrected Data Summary are attached. These summaries will be the final, edited data that will be supplied to EPA/Radian. All other versions of the data will be archived by Entropy.

The data auditing and editing that will be performed during the preparation of the daily data summaries will be related the the CEM system alone. Corrections for drift, bias, and elimination of averages due to

insufficient data are examples of these edits. All data editing will be noted on the daily summary form. CEM data will not be eliminated because of control system upsets or malfunctions in these summaries.

The daily summaries of 1-hour averages will be provided on floppy disk in Lotus[R] spreadsheet format. Each day will be a separate file. Hard copy printouts will also be provided. It is anticipated that preparation of the daily summaries will not lag the test day by more than 2-3 days, so data will be available for review early in the program.

The quality control program that will be followed was also discussed. Entropy has developed daily checklist and recording forms that will be used to document normal and abnormal instrument operations. These logs will be used in preparation of the daily summaries to identify valid data and any data corrections that are needed. The control limits for drift and accuracy have been selected based on the specific range of each analyzer to assure that the final results will have a precision in the range of 20-25 percent or less.

The final subject that was discussed was the collection of process data and procedures by which periods of emission control system or combustor upsets and malfunctions could be identified. Various approaches have been proposed by Wheelabrator personnel, but a decision has not been reached as to the best option. Radian's experience at facilities equipped with Bailey NET 90 system is that the easiest way to obtain a process data listing is to configure trend logs on an Operator Interface Unit that accumulates the desired data at 1-hour intervals and print a report at midnight each day. Radian will assist Entropy by contacting the Millbury personnel to describe the data requirements and the suggested approach.

The potential approaches that could be used to provide a daily narrative of process operation upsets include a daily discussion with the operators and a review of the operator's record books, and a review of the daily listing of alarms generated by the NET 90 System. The purpose for these reviews is to identify equipment malfunctions (pump failures, controller excursions, etc) or upsets that can be related to a specific

cause. The purpose for identifying these periods is to permit the deletion of data that would be exempted from routine CEM reporting periods. This does not necessarily require that an explanation be available for every excursion in the emissions data.

Entropy will include a cover sheet with each daily report that lists any known process problems that occurred during that day.

3. Conclusions and Recommendations

The CEM program that is now planned differs from the test request in several areas. Each of these is listed and the impact is discussed below.

Quality Control Program. Entropy's proposed program exceeds the requirements of 40 CFR 60 Appendix F and will result in data of sufficient quality for Radian's time series analyses.

Data Normalization. The emissions data will be adjusted to 7 percent O_2 only. No CO_2 measurements will be available for correction to 12 percent CO_2. This will not have a significant impact on the data analysis. If necessary, theoretical relationships between O_2 and CO_2 can be used to estimate the emissions at 12 percent CO_2. The calculation of emissions factors in terms of lb/10^6 BTU will also not be performed by Entropy. The difference between ppmv at 7 percent O_2 and lb/10^6 BTU is simply a units conversion and the F-factor, which is a constant. All data analyses can be performed using adjusted concentration data. If necessary the final data analysis results can be converted to an emission factor basis. This plan is subject to approval by EPA and emission factors can be calculated daily if necessary.

Overall, the data collection and reporting plan will result in daily summaries that will be well documented and compatible with any of Radian's data reduction software. The combination of Entropy's field quality control and Radian's review of operating data will provide high data confidence for further analyses.

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MEMORANDUM

TO: Dan Bivins, U. S. EPA, Emissions Measurement Branch
FROM: Scott Shanklin and Laurie Cone, Entropy
DATE: July 29, 1988

This memorandum provides an update on the status of the field test program in progress at the Wheelabrator facility in Millbury, Massachusetts (U. S. EPA Contract No. 68-02-4336, Work Assignment No. 21). Attached are copies of the daily data summaries that are being produced on-site each day. CEMS calibration data and process data are also recorded daily, and will be included in the project report.

Entropy personnel arrived at the Millbury site on Thursday, July 7, 1988. The first day of valid data collection was Friday, July 15, following the successful completion of the initial performance tests on the Unit 2 CEMS's.

The following field activities were performed from July 7-15:

- The test program activities were discussed with plant personnel, including the recording and collection of plant CEM and process data, and the CEM performance tests scheduled throughout the test program.

- With assistance from Millbury personnel, Entropy personnel became familiar with the operation of the Anarad CEMS and data acquisition system. Entropy's questions which were unanswered by Millbury and Anarad field service personnel were directed to Wheelabrator and Anarad Corporate personnel familiar with the equipment installed at this facility.

- The initial performance checks were conducted on the Anarad CEMS's installed at the SDA Inlet and ESP Outlet locations.

  1. The response time and sampling system bias checks produced results that were within the specifications stated in the test plan.

  2. The cylinder gas audits (CGA's) provided results that indicated linearity problems with the SO_2 analyzers, calibration correction problems with the O_2 analyzers, and an apparent problem when attempting to audit the CO analyzers using CO in N_2 calibration gas instead of a blended mixture of CO and CO_2. The Anarad data acquisition (DAS) corrects the CO measurement data for an assumed CO_2 concentration in the sample to eliminate the interference caused by CO_2. Since Entropy's CO calibration gases are not blended with CO_2, the Anarad DAS is incorrectly adjusting the analyzer responses to our calibration gas injections. After discussing the CGA results with Millbury and Anarad personnel, Entropy gained approval to make adjustments to the individual analyzer calibrations in an attempt to improve the responses to each of three audit gases. The CGA's were then repeated. The results were improved, but only the inlet O_2

ENTROPY

analyzer responded within the CGA limits to all three audit gases. The other analyzers responded well to two of the three gases. Since the acceptable results were at points along the analyzer measurement range where typical effluent concentrations were measured, and because the analyzer calibrations could not be improved further, it was decided that the ≤5% CGA specification should be relaxed to ≤10%. This change is not expected to affect the data quality if the relative accuracy audit (RAA) provides the same indication of CEMS performance.

3. With the exception of the CO analyzer, all the RAA results were within the ≤ 15% specification. The problems with the CO analyzer have been brought to the attention of both Millbury and Anarad personnel and will be resolved as soon as possible.

- The HCl sampling systems were installed at the SDA Inlet and ESP Outlet locations. The start-up of the HCl monitoring equipment was delayed until Tuesday, July 12 when plant personnel completed connecting power to the portable trailer housing the HCl CEMS's. It should be noted that plant personnel responded to our requests for assistance as quickly as possible. No operational problems were encountered during the start-up.

As of Thursday, July 28, we have collected eleven days of valid effluent measurement and process data. Since the initiation of the data collection on July 15, only three days have been lost due to the collection of less than 18 hours of valid data during a 24-hour period. Each of these three occasions were caused by eductor plugging problems at the inlet location. All other CEM and process data collected were valid during these three periods.

Anarad has recently installed a water wash on the Inlet CEMS which is intended to keep the eductor clean. The eductor wash could eliminate the primary cause of lost data for the Anarad CEMS located at the Inlet.

Daily checks, calibrations, and data review, as well as the periodic CEMS checks and audits are being performed as stated in the test plan.

If you have any questions or comments about this information, please do not hesitate to contact our office.

TO: Dan Bivins, U. S. EPA, Emissions Measurement Branch
FROM: Scott Shanklin and Laurie Cone, Entropy
DATE: August 18, 1988

This memorandum provides an update on the status of the field test program in progress at the Wheelabrator facility in Millbury, Massachusetts (U.S. EPA Contract No. 68-02-4336, Work Assignment No. 21). Attached are copies of several daily data summaries and preliminary graphs.

As of August 16, 25 days of valid effluent measurement and process data have been collected (i.e. > 18 hours of valid data collected from all monitoring equipment during a 24-hour period). The individual system totals are shown below:

	SDA Inlet	ESP Outlet	HCl Inlet	HCl Outlet	Process
Number of Valid days (as of 8-16)	29 SO_2 29 CO 26 O_2	33	31	32	33

In addition to the SDA Inlet eductor plugging discussed in the previous memo, additional data have been lost due to:

- failure and replacement of the Inlet O_2 analyzer measurement cell,
- failure and replacement of the Inlet HCl analyzer light source, and
- an HCl data acquisition system printer malfunction.

Cost expenditures through August 16, 1988 are approximately $63,000. The balance of $35,000 allows several options concerning the length of the field test to be considered. The estimates of possible valid days obtained by a stated date with the corresponding funds remaining are projected from actual information to date.

End of Field test	Number of Test Days	Possible Valid Data Days	Funds Remaining*
8-21-88	38	30	$16,000
9-5-88	53	40 - 45	$7,000
9-16-88	64	50 - 56	-

*Estimated funds remaining following all post-test activities, including report preparation.

A prompt decision concerning the duration of the field test is requested so that unnecessary expenditures can be avoided.

ENTROPY

Several other items may be of interest:

- The water wash installed at the inlet location did not work properly, so it has been removed. It will be reinstalled later this week, if possible.

- The second relative accuracy audit performed on the outlet HCl analyzer indicated a significantly low bias in the analyzer measurements. (During the 3-run audit, the average CEMS response was 8 ppm versus a 35 ppm average for the reference method.) Five additional relative accuracy test runs have been conducted at the outlet since the performance of this second audit and the results of these tests, available later this week, should help identify the problem. The first accuracy audit indicated good agreement between the reference method and the analyzer response (i.e. 2 ppm reference method versus 1 ppm CEMS response).

- The problems with the CO analyzer accuracy checks have not yet been resolved. Additional cylinder gas audits and relative accuracy audits were consistent with those performed during the preliminary testing. A likely cause of the CGA discrepancies is the automatic CO_2 correction in the data acquisition software, but the equation used has not yet been provided to Wheelabrator or Entropy. The daily calibrations, however, continue to meet the drift criteria.

Daily checks, calibrations and data review, as well as the periodic CEMS checks and audits continue to be performed as stated in the test plan.

If you have any questions or comments about this information, please do not hesitate to contact our office.

ATTACHMENT B.

Original Data

HILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-15-88
Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	128.9	9.7	26.2	541.1	32.2	11.2	160.6	3.3	1.9
2:00	106.4	9.5	26.2	452.0	12.3	11.0	167.0	1.4	1.9
3:00	117.2	9.3	25.6	588.0	14.5	10.9	161.2	1.1	1.8
4:00	118.6	9.4	25.7	463.7	11.3	11.0	171.6	0.9	1.8
5:00	137.0	9.2	25.3	450.3	13.2	10.8	175.1	0.8	1.8
6:00	151.9	9.3	25.0	534.2	17.3	10.8	178.8	0.9	2.0
7:00	162.0	9.0	24.9	604.6	20.4	10.6	178.5	1.0	1.7
8:00	179.8	9.1	24.8	1290.7	53.5	10.7	156.5	10.3	1.5
9:00	170.5	10.6	27.8	721.0	30.6	12.0	127.0	3.7	1.6
10:00	381.6	10.1	30.1		74.4	11.4	155.7		1.5
11:00	130.4	9.4	30.5		17.0	11.0	186.0		1.6
12:00	61.9	10.2	31.6		5.3	11.6	157.4		1.6
13:00	109.5	10.2	30.6	442.6	11.1	11.6	159.6	0.6	1.4
14:00	80.6	10.8	31.4	401.7	6.7	12.1	149.9	0.4	1.7
15:00	146.0	10.3	30.5	425.3	18.9	11.6	162.1	0.5	1.5
16:00	146.4	9.7	29.8	440.2	13.5	11.1	168.6	0.3	1.5
17:00	146.8	10.1	29.7	380.0	10.6	10.9	114.8	0.3	1.5
18:00	204.6	9.8	27.5	398.3	18.8	10.6	125.6	0.3	1.4
19:00	173.1	8.9	25.6	407.9	14.8	9.9	135.9	0.3	1.3
20:00	163.4	9.3	23.8	357.4	13.7	10.3	127.7	0.3	1.5
21:00	145.9	10.9	21.5	378.0	16.5	10.7	118.2	0.3	1.5
22:00	263.3	10.1	22.4	532.8	43.7	10.8	123.4	0.6	1.9
23:00	137.9	10.1	22.5	630.7	23.3	10.9	122.1	0.7	2.1
24:00	159.6	9.6	22.2	593.2	32.2	10.5	120.8	1.8	3.2
Daily Mean:	155.1	9.8	26.7	525.4	21.9	11.0	150.2	1.4	1.7
Valid Hours:	24	24	24	21	24	24	24	21	24

Channel	Adjustment to Data
Inlet O2	-0.5% O2
Outlet O2	-0.8% O2
Outlet HCl	(B&L +0.9)/0.429

HILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-15-88
Daily Data Summary

TIME	Inlet ppm SO2	Inlet %O2	Inlet ppm CO	Inlet ppm HCl	Outlet ppm SO2	Outlet %O2	Outlet ppm NOx	Outlet ppm HCl	Opacity %
1:00	128.9	9.2	26.2	541.1	32.2	10.4	160.6	9.8	1.9
2:00	106.4	9.0	26.2	452.0	12.3	10.2	167.0	5.4	1.9
3:00	117.2	8.8	25.6	588.0	14.5	10.1	161.2	4.7	1.8
4:00	118.6	8.9	25.7	463.7	11.3	10.2	171.6	4.2	1.8
5:00	137.0	8.7	25.3	450.3	13.2	10.0	175.1	4.0	1.8
6:00	151.9	8.8	25.0	534.2	17.3	10.0	178.8	4.2	2.0
7:00	162.0	8.5	24.9	604.6	20.4	9.8	178.5	4.4	1.7
8:00	179.8	8.6	24.8	1290.7	53.5	9.9	156.5	26.1	1.5
9:00	170.5	10.1	27.8	721.0	30.6	11.2	127.0	10.7	1.6
10:00	381.6	9.6	30.1		74.4	10.6	155.7		1.5
11:00	130.4	8.9	30.5		17.0	10.2	186.0		1.6
12:00	61.9	9.7	31.6		5.3	10.8	157.4		1.6
13:00	109.5	9.7	30.6	442.6	11.1	10.8	159.6	3.5	1.4
14:00	80.6	10.3	31.4	401.7	6.7	11.3	149.9	3.0	1.7
15:00	146.0	9.8	30.5	425.3	18.9	10.8	162.1	3.3	1.5
16:00	146.4	9.2	29.8	440.2	13.5	10.3	168.6	2.8	1.5
17:00	146.8	9.6	29.7	380.0	10.6	10.1	114.8	2.8	1.5
18:00	204.6	9.3	27.5	398.3	18.8	9.8	125.6	2.8	1.4
19:00	173.1	8.4	25.6	407.9	14.8	9.1	135.9	2.8	1.3
20:00	163.4	8.8	23.8	357.4	13.7	9.5	127.7	2.8	1.5
21:00	145.9	10.4	21.5	378.0	16.3	9.9	118.2	2.8	1.5
22:00	263.3	9.6	22.4	332.8	43.7	10.0	123.4	3.5	1.9
23:00	137.9	9.6	22.5	630.7	23.3	10.1	122.1	3.7	2.1
24:00	159.6	9.1	22.2	593.2	32.2	9.7	120.8	6.3	3.2
Daily Mean:	155.1	9.3	26.7	525.4	21.9	10.2	150.2	5.0	1.7
Valid Hours:	24	24	24	21	24	24	24	24	24

Original Data

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-15-88
Corrected Data Summary

TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	160.0	46.1	71.2	780.9	5.8	99.3	32.5	230.1
2:00	129.7	17.3	86.7	640.8	2.4	99.6	31.9	234.5
3:00	140.4	20.2	85.6	819.3	1.9	99.8	30.7	224.1
4:00	143.4	15.9	88.9	651.7	1.5	99.8	31.1	240.9
5:00	162.8	18.2	88.8	622.1	1.3	99.8	30.1	241.0
6:00	182.0	23.8	86.9	744.3	1.5	99.8	30.0	246.1
7:00	189.2	27.5	85.5	821.2	1.6	99.8	29.1	240.9
8:00	211.8	72.9	65.6	1767.9	17.1	99.0	29.2	213.3
9:00	230.1	47.8	79.2	1131.4	7.0	99.4	37.5	198.3
10:00	491.1	108.9	77.8				38.7	227.8
11:00	157.6	23.9	84.9				36.9	261.2
12:00	80.4	7.9	90.1				41.1	235.3
13:00	142.2	16.6	88.3	668.6	1.1	99.8	39.8	238.5
14:00	110.9	10.6	90.5	642.8	0.8	99.9	43.2	236.8
15:00	191.5	28.2	85.2	648.5	0.9	99.9	40.0	242.3
16:00	181.7	19.1	89.5	635.3	0.5	99.9	37.0	239.1
17:00	188.9	14.7	92.2	568.7	0.5	99.9	38.2	159.6
18:00	256.2	25.4	90.1	580.0	0.5	99.9	34.4	169.5
19:00	200.5	18.7	90.7	549.4	0.5	99.9	29.7	171.7
20:00	195.8	18.0	90.8	498.0	0.5	99.9	28.5	167.5
21:00	202.8	22.5	88.9	611.0	0.5	99.9	29.9	161.1
22:00	338.9	40.1	82.3	797.4	1.0	99.9	28.8	169.8
23:00	177.5	32.4	81.8	943.9	1.2	99.9	29.0	169.7
24:00	196.3	43.0	78.1	848.5	2.9	99.7	27.3	161.5
24-hour Mean:	194.2	30.8	85.0	760.5	2.4	99.7	33.5	211.7
Valid Hours:	24	24	24	21	21	21	24	24

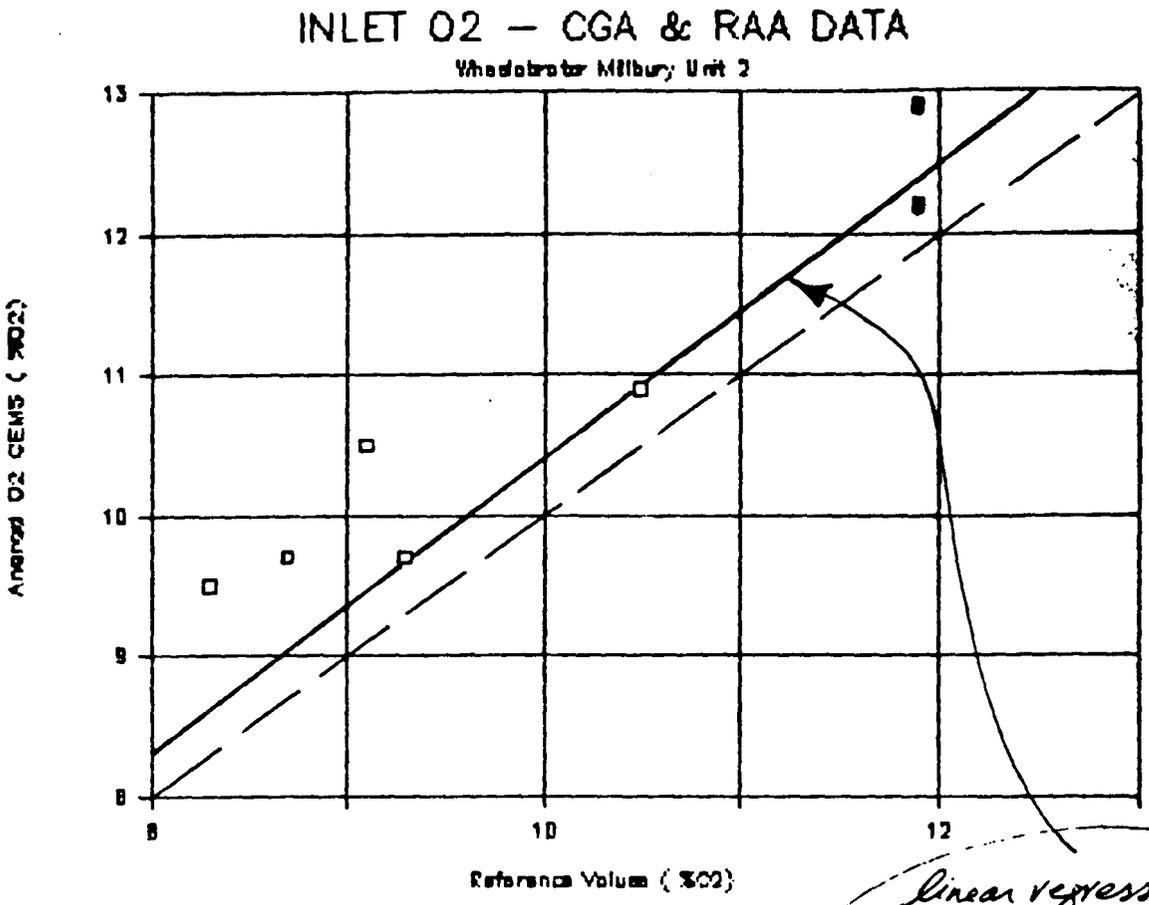
Comments/Process Notes:

Inlet O_2
Outlet O_2
Outlet HCl } data adjusted for observed bias

MILLBURY RESOURCE RECOVERY FACILITY - DATE: 7-15-88
Corrected Data Summary

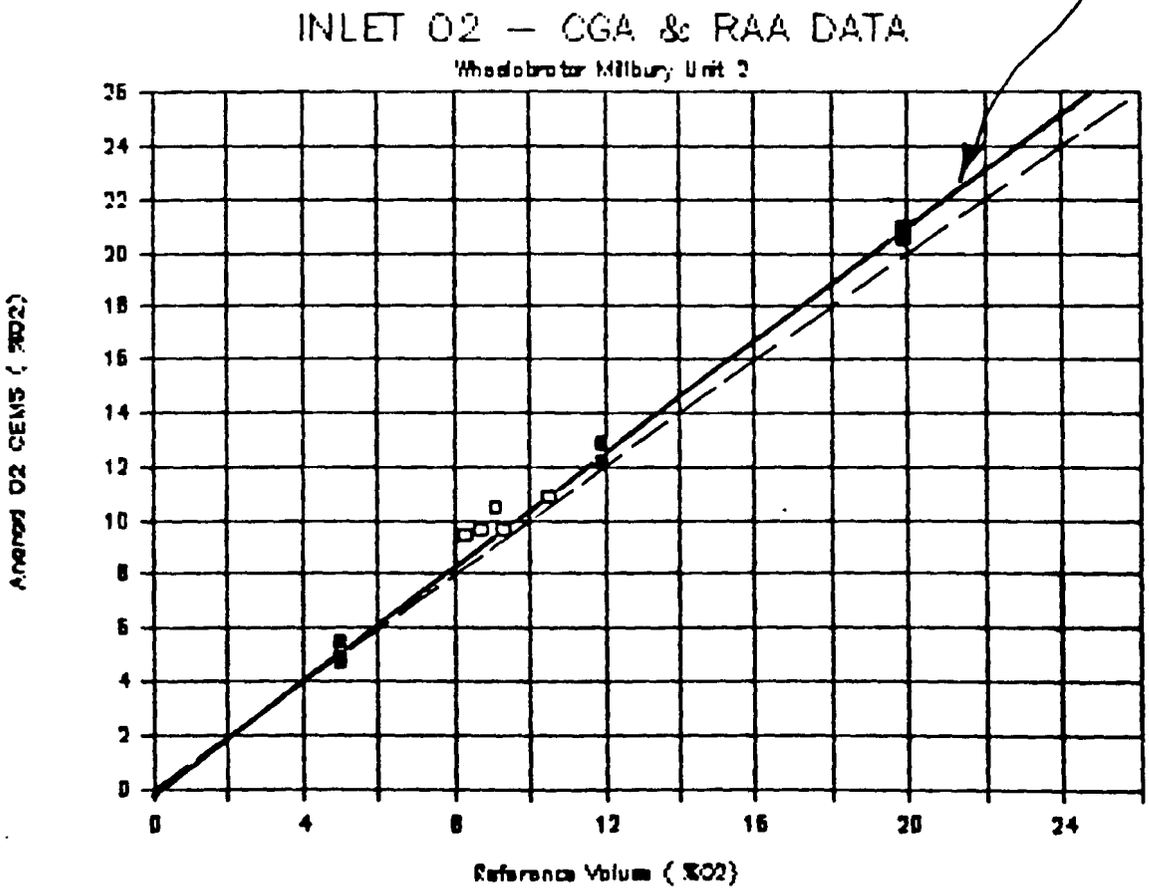
TIME	Inlet ppm SO2 @7% O2	Outlet ppm SO2 @7% O2	% SO2 Removal Efficiency	Inlet ppm HCl @7% O2	Outlet ppm HCl @7% O2	% HCl Removal Efficiency	Inlet ppm CO @7% O2	Outlet ppm NOx @7% O2
1:00	153.1	42.6	72.2	747.5	15.8	97.9	31.1	212.6
2:00	124.3	16.0	87.1	613.9	8.5	98.6	30.6	216.9
3:00	134.6	18.7	86.1	785.4	7.3	99.1	29.4	207.5
4:00	137.4	14.7	89.3	624.6	6.6	98.9	29.8	222.9
5:00	156.1	16.8	89.2	596.6	6.2	99.0	28.8	223.3
6:00	174.5	22.1	87.4	713.6	6.5	99.1	28.7	228.0
7:00	181.6	25.5	85.9	788.1	6.8	99.1	27.9	223.5
8:00	203.2	67.6	66.7	1696.0	40.2	97.6	28.0	197.8
9:00	219.4	43.8	80.0	1079.0	18.7	98.3	35.8	187.0
10:00	469.4	100.4	78.6				37.0	210.1
11:00	151.0	22.1	85.4				35.3	241.6
12:00	76.8	7.3	90.5				39.2	216.6
13:00	135.9	15.3	88.8	638.7	5.9	99.1	38.0	219.6
14:00	105.7	9.7	90.8	612.5	5.4	99.1	41.2	217.0
15:00	182.8	26.0	85.8	619.3	5.5	99.1	38.2	223.1
16:00	173.9	17.7	89.8	608.1	4.5	99.3	35.4	221.1
17:00	180.6	13.6	92.4	543.5	4.4	99.2	36.5	147.8
18:00	245.2	23.5	90.4	555.0	4.3	99.2	33.0	157.3
19:00	192.5	17.4	90.9	527.4	4.0	99.2	28.5	160.1
20:00	187.7	16.7	91.1	477.4	4.2	99.1	27.3	155.7
21:00	193.1	20.9	89.2	581.9	4.3	99.3	28.5	149.4
22:00	323.9	55.7	82.8	762.1	5.4	99.3	27.6	157.4
23:00	169.6	30.0	82.3	902.1	5.9	99.4	27.7	157.1
24:00	188.0	40.0	78.7	812.5	9.5	98.8	26.2	149.9
24-hour Mean:	185.9	28.5	85.5	727.9	8.6	98.9	32.1	195.8
Valid Hours:	24	24	24	21	21	21	24	24

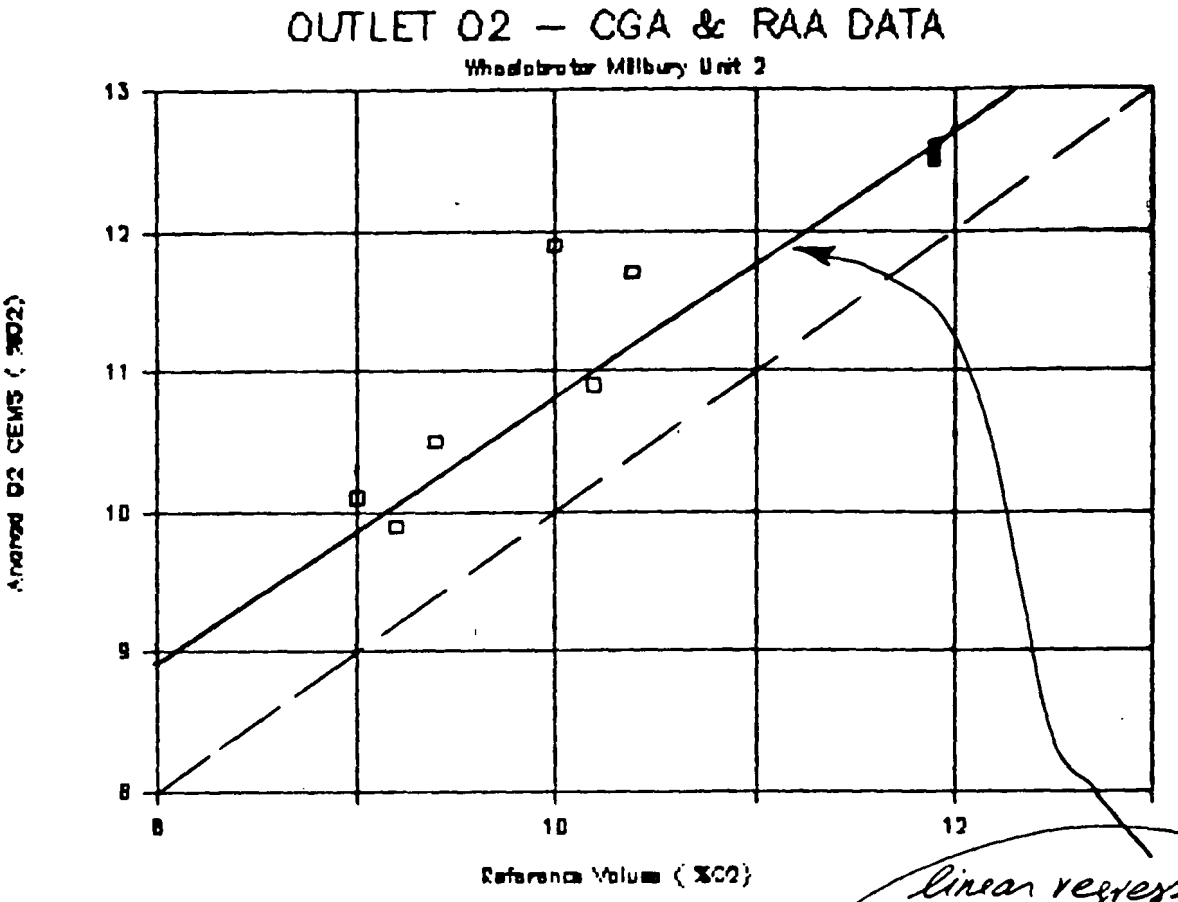
Comments/Process Notes:



linear regression
$y = (1.0x) - 0.2$
based on all CGA data

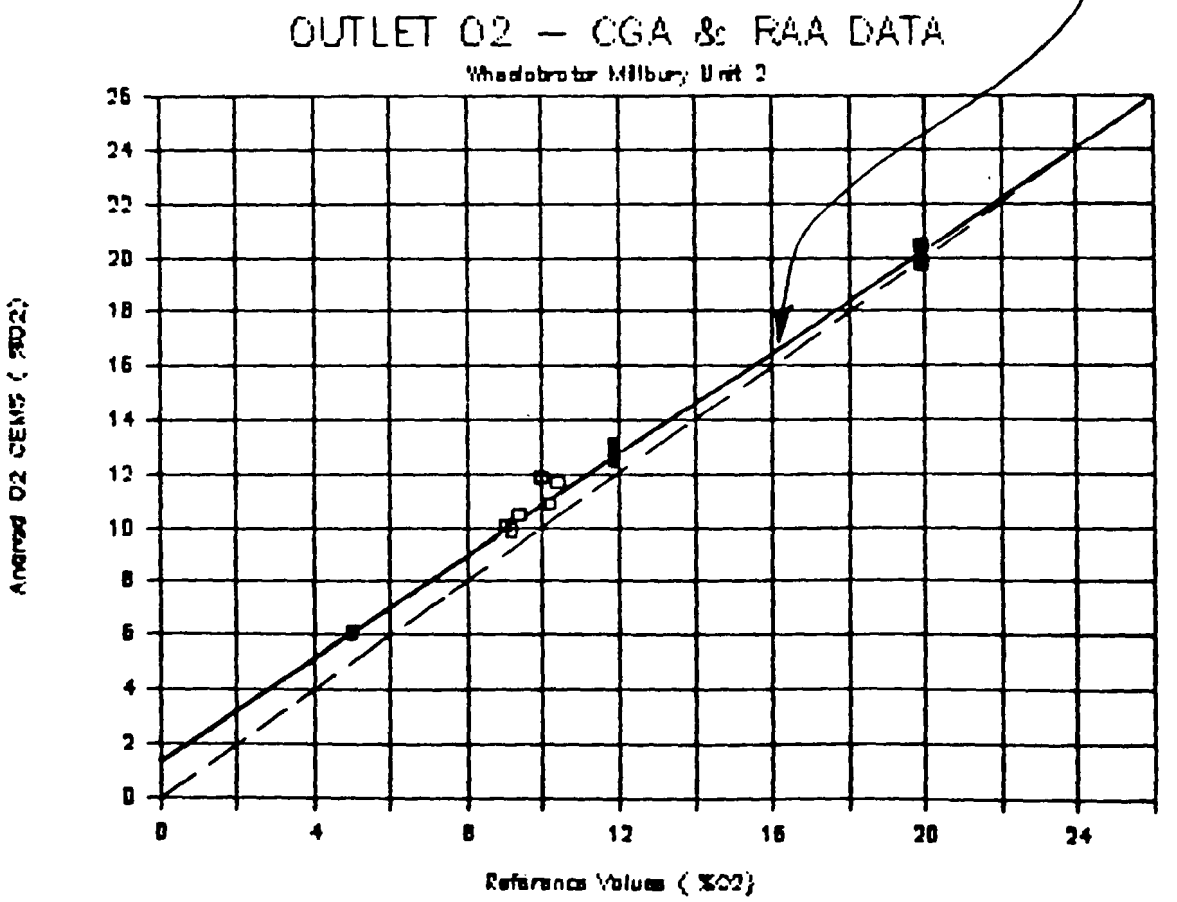
■ CGA test data
□ RAA test data





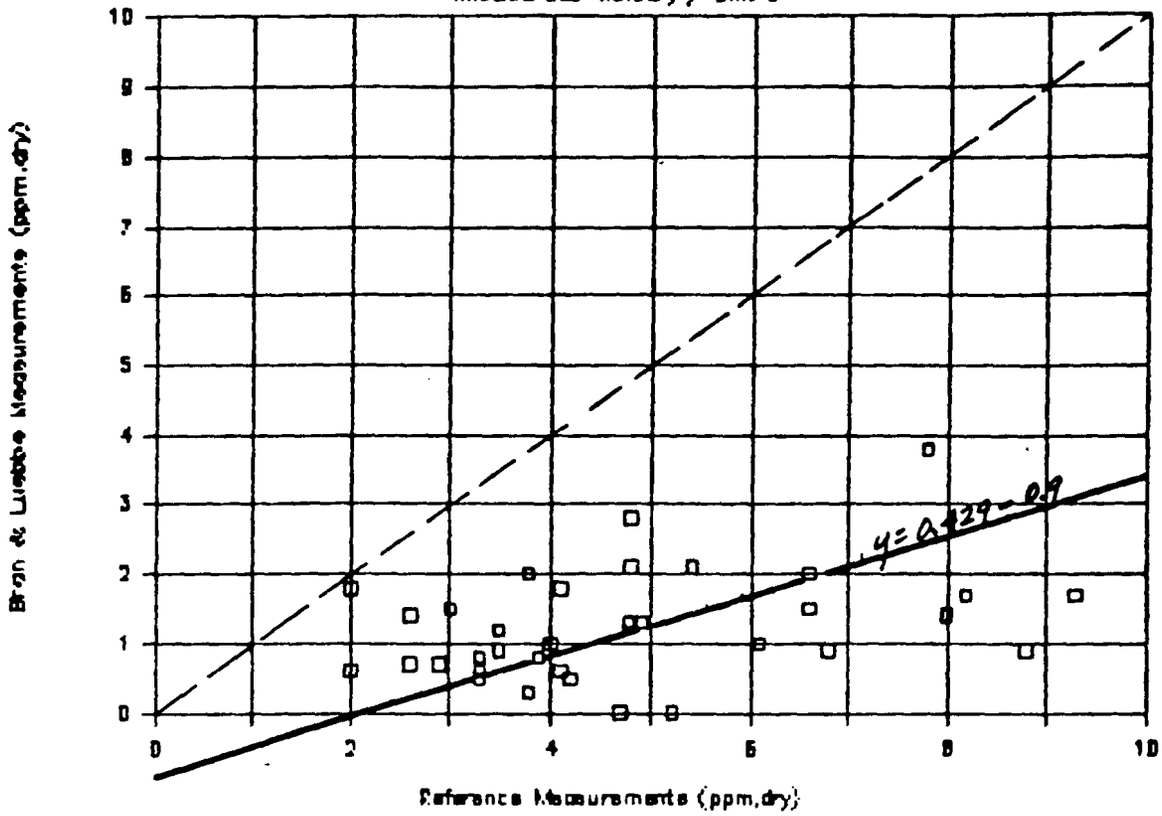
linear regression
y = (0.941x) + 1.4
based on all CGA data

■ CGA test data
□ RAA test data



HCl OUTLET EMISSIONS — RM vs. B&L

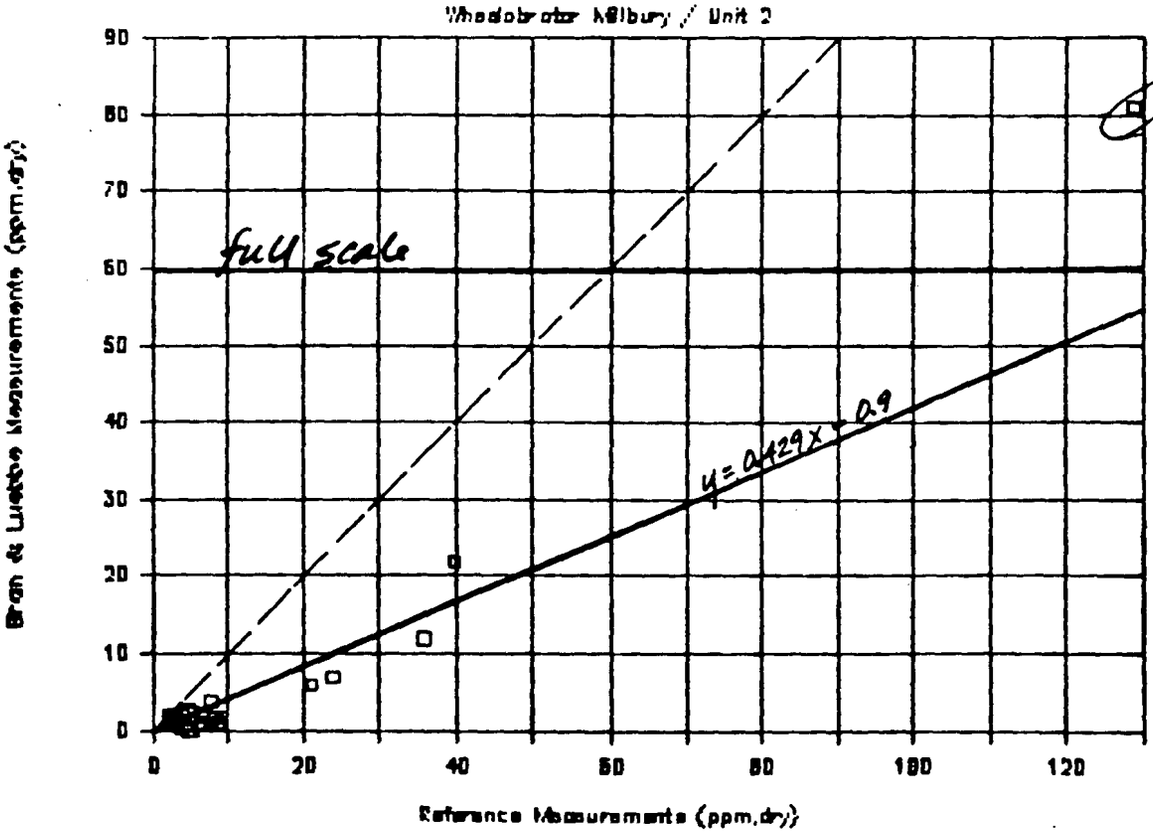
Wheelabrator Millbury / Unit 2



□ B&L measurements recorded during the RAAs

HCl OUTLET EMISSIONS — RM vs. B&L

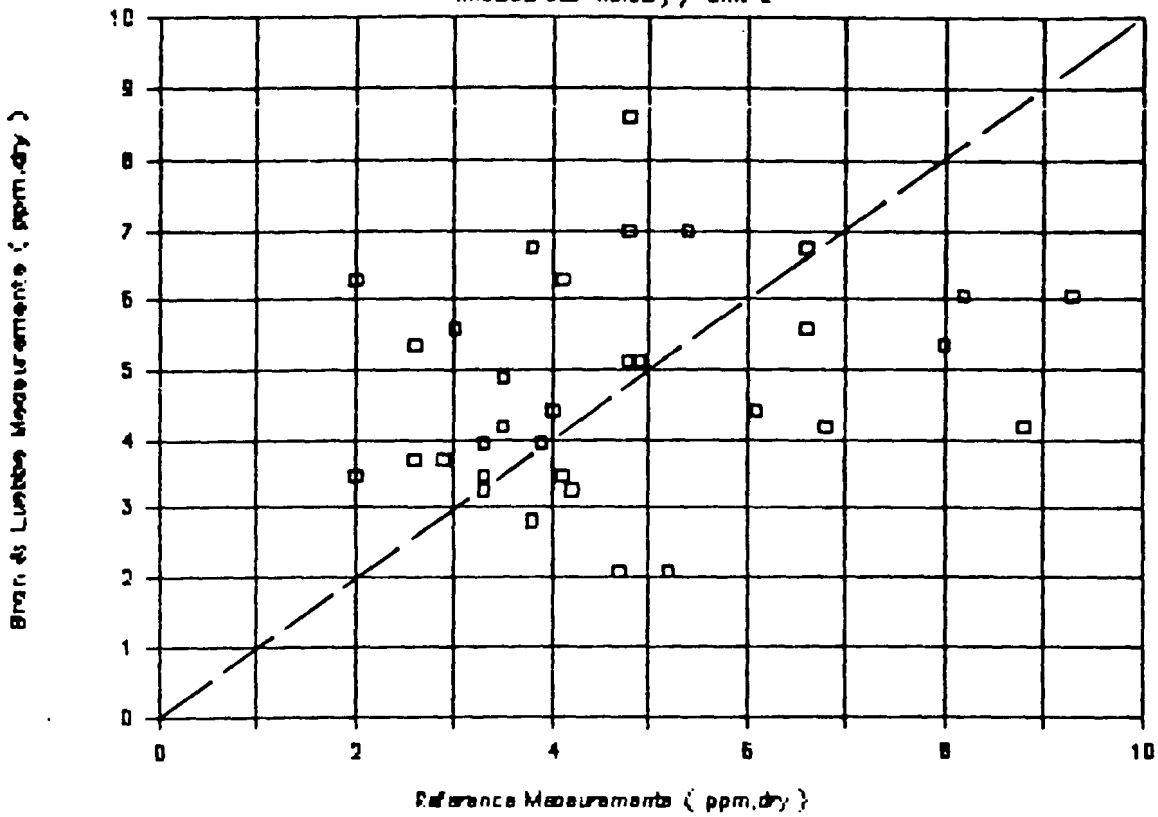
Wheelabrator Millbury / Unit 2



questionable value since offscale measurem so did n use

HCl OUTLET EMISSIONS – RM vs. B&L (adjusted)

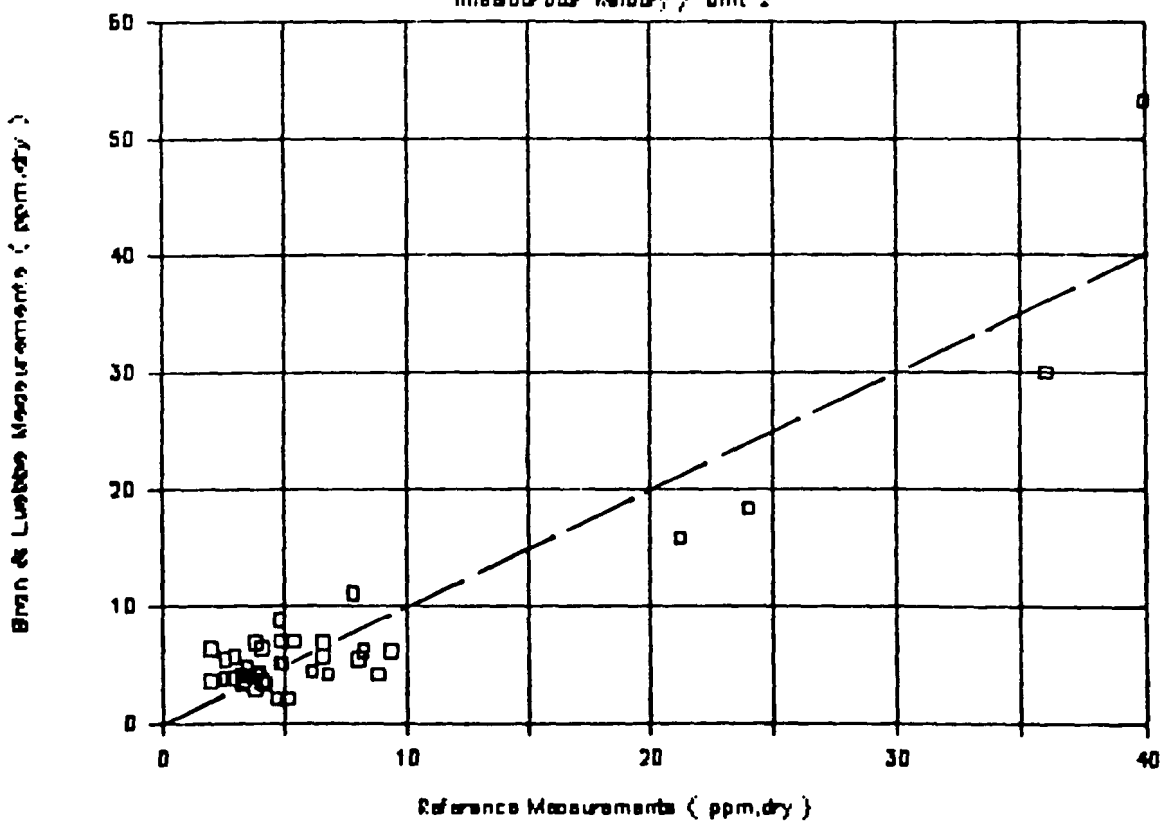
Wheelabrator Millbury / Unit 2



□ B&L measurements adjusted based on linear regression analysis of all comparative test data ((y+0.9)/0.429)

HCl OUTLET EMISSIONS – RM vs. B&L (adjusted)

Wheelabrator Millbury / Unit 2



COMPARATIVE DATA - MILLBURY UNIT 2 ESP OUTLET

Test Date	Impinger Result (ppm,dry)	B&L Measure (ppm,dry)
7-15-88	2	0.6
	4.1	0.6
	3.8	0.3
8-4-88	24	7
	36	12
8-13-88	6.6	1.5
	4.8	1.3
	4	1
8-15-88	40	22
	129	81
8-19-88	4.8	2.1
	3.8	2
	2.6	1.4
8-22-88	6.1	1
	8.2	1.7
	9.3	1.7
8-31-88	5.2	0
	4.7	0
	5.2	0
9-4-88	8.8	0.9
	8	1.4
	6.8	0.9
9-6-88	4.2	0.5
	3.3	0.8
	3.5	0.9
9-12-88	7.8	3.8
	2	1.8
	4.8	2.8
9-14-88	21.2	5.9
	4.9	1.3
9-15-88	4.1	1.8
	3	1.5
	5.4	2.1
	3.5	1.2
	2.6	0.7
	3.3	0.6
	2.9	0.7
	3.3	0.5
	6.6	2
	3.9	0.8

did not use – questionable value since off-scale measurement (i.e., > 60 ppm)

MEMORANDUM

TO: David White, Radian
FROM: Scott Shanklin and Laurie Cone, Entropy
DATE: September 20, 1988

This memorandum provides additional information obtained from the recently completed field test program conducted from July 15 to September 15, 1988 at the Wheelabrator facility in Millbury, Massachusetts for the U. S. EPA, EMB (Contract No. 68-02-4336, Work Assignment No. 21). Included are process and effluent measurement data and information that address possible adjustments for the observed biases in some of the CEM measurements. Also included are the original process data printouts and diskettes containing final CEM data summaries.

Copies of the daily data summaries and corrected data summaries generated each day for the entire field project are included in Attachment A. The corrected data summaries present measurement data normalized to 7% O_2 and the SO_2 and HCl removal efficiencies. These copies have been reviewed and are considered final data. Boiler and pollution control equipment operation that were documented in the boiler operator's log book are noted on the corrected daily summaries. This process information is intended to supplement the process data collected as "point-in-time" recordings once each hour.

Cylinder Gas Audits (CGA's) and/or Relative Accuracy Audits (RAA's) were conducted periodically throughout the field project to provide assessments of the quality of the CEM data in terms of accuracy. The results of these audits consistently indicated a bias in the measurement of O_2 at the SDA Inlet, and O_2 and HCl at the ESP Outlet. Attachment B contains graphs presenting the audit results for these CEMS's. The audit data were graphed and linear regression analyses were performed in an attempt to estimate the bias of each of the three measurements. The range of inlet and outlet O_2 effluent measurements was 8-12% O_2. In this region of the O_2 analyzer operating range, the inlet and outlet O_2 analyzer readings appear to be biased approximately +0.5% and +0.8% O_2, respectively (based on the CGA and RAA results). The outlet HCl data appear to be biased low, based on the results of numerous RAAs performed throughout the project. Comparative HCl data are limited at effluent levels greater than 10 ppm HCl because there were few excursions above this level; therefore, it would be difficult to quantify the bias across the entire measurement range (i.e., 60 ppm). Included in Attachment B are example adjustments to the data collected on ~~August~~ July 15, 1988 that are considered biased and comparisons to the original data set. Entropy suggests that adjustments would improve the accuracy of the inlet and outlet O_2 and outlet HCl measurement data collected during the entire project.

Attachment C contains a copy of the process data recorded each day during the entire project.

If you have any questions concerning the information provided in this memorandum, please do not hesitate to contact our office.

ENTROPY

ENTROPY
ENVIRONMENTALISTS INC

POST OFFICE BOX 12291
RESEARCH TRIANGLE PARK
NORTH CAROLINA 27709-2291
919-781-3550

October 3, 1988

Mr. Tim Porter
Wheelabrator Environmental Systems, Inc.
1 Corporate Place
55 Ferncroft Road
Danvers, Massachusetts 01923

Dear Mr. Porter:

Enclosed are copies of the daily CEMS data summaries and records of all quality assurance activities performed during the EPA project at the Wheelabrator facility in Millbury, Massachusetts. The daily summaries include hourly-averaged concentration data, emissions data corrected to 7% O_2, SO_2 and HCl removal efficiencies, and notes on the monitoring system and process operation.

In general, the Anarad CEMS's installed on Unit 2 operated well throughout the test program. Problems in the SDA Inlet sample conditioning enclosure caused the largest loss of data during the program (i.e., 13 days lost out of 63 possible, a valid day being defined as $\geq$ 18 hours of valid measurement data collected in a 24-hour period). Data were also lost due to a bad cell in the inlet O_2 analyzer, Anarad computer malfunctions, and TECO HCl analyzer problems.

Excluding the CO analyzer, all analyzers responded adequately to the relative accuracy and cylinder gas audits (RAA and CGA's). Summary tables presenting the audit results are included in Attachment A. The O_2 monitors and the SO_2 outlet monitor occasionally had difficulty producing responses that were within the CGA specifications over the entire measurement range, but responded well to the audit gases at typical effluent levels. The Anarad data acquisition system (DAS) automatically corrects the Anarad CO analyzer responses for an assumed CO_2 concentration in the gas sample to eliminate the interference caused by CO_2. Since the CO calibration gases used by Entropy to conduct the CGA's contained no CO_2, the Anarad DAS incorrectly adjusted the CO analyzer responses to the Entropy CO calibration gas injections. This correction factor was not provided to Entropy or Wheelabrator. Acceptable results were obtained during the opacity monitor performance audit conducted early in the test program. Except for several days of monitor down-time due to lightning damage, the monitor operated normally during the two-month test period.

The following is taken from the memorandum submitted to Radian concerning possible corrections to effluent data:

> "Adjustments may be made to improve the accuracy of the inlet and outlet O_2 and outlet HCl measurement data collected during the entire project. The results of the audits consistently indicated a bias in the measurement of O_2 at the SDA Inlet, and O_2 and HCl at the ESP Outlet. The audit data were graphed and linear regression analyses were performed in an attempt to estimate the bias of each of the three measurements. The range of inlet and outlet O_2 effluent measurements was 8-12% O_2. In this region of the O_2 analyzer operating range, the inlet and outlet O_2 analyzer readings appear to be biased approximately +0.5% and +0.8% O_2, respectively (based on

the CGA and RAA results). The outlet HCl data appear to be biased low, based on the results of numerous RAAs performed throughout the project. Comparative HCl data are limited at effluent levels greater than 10 ppm HCl because there were few excursions above this level; therefore, it would be difficult to quantify the bias across the entire measurement range (i.e., 60 ppm)."

Any changes made to the data will be incorporated in a draft test report, which will be submitted to the EPA by October 24, 1988. The EPA Work Assignment Manager will then forward a copy of the draft report to you. If any information regarding the CO_2 correction factor has been provided to you since the completion of the field test, please forward it to us, so that the CO analyzer responses during the CGA's can be corrected for the report. Entropy greatly appreciates the cooperation of Wheelabrator and Millbury personnel and their assistance in the successful completion of the field test program. If you have any questions, please do not hesitate to contact our office.

Sincerely,

Scott Shanklin
Senior Project Manager
CEM/Engineering Division

cc: Dan Bivins, Emissions Measurement Branch, U.S. EPA

ATTACHMENT A.

CYLINDER GAS AUDIT RESULTS
Wheelabrator Millbury - Unit 2
SDA Inlet

Analyzer:	SO_2 (ppm)			O_2 (%)			CO (ppm)*		
Gas Range:	low	mid	high	low	mid	high	low	mid	high
Gas Value:	101	218	431	5.0	11.9	19.9	20	90	171
7/14/88 Average Response:	94	217	468	4.9	12.2	20.6	11	41	71
Accuracy(%):	-6.9	-0.5	8.6	-2.0	2.5	3.5	-45.0	-54.4	-58.5
8/6/88 Average Response:	100	217	469	4.7	12.2	20.8	6	34	64
Accuracy(%):	-1.0	-0.5	8.8	-6.0	2.5	4.5	-70.0	-62.2	-62.6
8/25/88 Average Response:	94	210	440	5.5	12.9	21.0	Not performed		
Accuracy(%):	-6.9	-3.7	2.1	10.0	8.4	5.5			

*The accuracy of the CO monitor could not be verified due to a CO_2 correction factor automatically applied by the data acquisition system.

NOTE: Limit of ± 10% of gas value specified for an acceptable CGA result.

CYLINDER GAS AUDIT RESULTS
Wheelabrator Millbury - Unit 2
ESP Outlet

Analyzer:	SO_2 (ppm)			O_2 (%)		
Gas Range:	low	mid	high	low	mid	high
Gas Value:	26	101	218	5.0	11.9	19.9
7/14/88 Average Response:	28	104	243	6.1	13.1	20.5
Accuracy(%):	7.7	3.0	11.5	22.0	10.1	3.0
8/3/88 Average Response:	24	95	218	6.0	12.6	19.8
Accuracy(%):	-7.7	-5.9	0.0	20.0	5.9	-0.5
8/27/88 Average Response:	27	102	242	6.0	12.5	19.9
Accuracy(%):	3.8	1.0	11.0	20.0	5.0	0.0

NOTE: Limit of ± 10% of gas value specified for an acceptable CGA result.

RELATIVE ACCURACY AUDIT RESULTS
Wheelabrator Millbury - Unit 2
July 15, 1988

Sampling Location	Monitor	Reference Method	Analyzer Response	Relative Accuracy (%)
Inlet	SO_2 (ppm,dry)	214	190	
		146	137	
		166	154	8.6
	O_2 (%,dry)	--	10.3	
		10.5	10.9	
		9.3	9.7	4.0
	CO (ppm,dry)	1	22.5	
		3	22.2	
		1	22.2	--
Outlet	SO_2 (ppm,dry)	11.3	12.6	
		19.2	20.6	
		24.6	16.8	9.3
	O_2 (%,dry)	10.0	11.9	
		10.4	11.7	
		9.0	10.1	14.6

NOTE: Limit of 15% of reference method mean specified for an acceptable RAA result.

RELATIVE ACCURACY AUDIT RESULTS
Wheelabrator Millbury - Unit 2
HCl Inlet - (ppm, dry)

Date	Reference Method	Analyzer Response	Relative Accuracy (%)
7/15/88	430	432	
	595	658	
	738	672	0.1
8/4/88	356	424	
	452	474	
	428	481	11.6
8/24/88	470	452	
	692	596	
	621	543	10.8

NOTE: Limit of 15% of reference method mean specified for an acceptable RAA result.

RELATIVE ACCURACY AUDIT RESULTS
Wheelabrator Millbury - Unit 2
HCl Outlet - (uncorrected ppm, dry)

Date	Reference Method	Analyzer Response
7/15/88	2.0	0.6
	4.1	0.6
	3.8	0.3
8/4/88	24.0	7.0
	36.0	12.0
8/13/88	6.6	1.5
	4.8	1.3
	4.0	1.0
8/15/88	40.0	22.0
	129.0	81.0
8/19/88	4.8	2.1
	3.8	2.0
	2.6	1.4
8/22/88	6.1	1.0
	8.2	1.7
	9.3	1.7
8/31/88	5.2	0.0
	4.7	0.0
	5.2	0.0
9/4/88	8.8	0.9
	8.0	1.4
	6.8	0.9
9/6/88	4.2	0.5
	3.3	0.8
	3.5	0.9
9/12/88	7.8	3.8
	2.0	1.8
	4.8	2.8
9/14/88	21.2	5.9
	4.9	1.3

RELATIVE ACCURACY AUDIT RESULTS
Wheelabrator Millbury - Unit 2
HCl Outlet - (uncorrected ppm, dry)
Page two

Date	Reference Method	Analyzer Response
9/15/88	4.1	1.8
	3.0	1.5
	5.4	2.1
	3.5	1.2
	2.6	0.7
	3.3	0.6
	2.9	0.7
	3.3	0.5
	6.6	2.0
	3.9	0.8

EMB TEST PROGRAM - WHEELABRATOR MILLBURY / UNIT 2 08-19-1988

TIME	CHAN 1 Inlet ppmHCl	CHAN 2 Outlet ppmHCl
AVERAGE VALUES FOR THE LAST 6 MINUTES		
14:48	391.4	1.0
14:54	397.0	1.2
15:00	400.7	2.7
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
15:00	428.4	1.4
15:06	395.1	4.1
15:12	348.5	2.0
15:18	334.3	1.3
15:24	319.4	1.6
15:30	383.2	1.3
15:36	357.4	1.1
15:42	373.3	1.3
15:48	397.0	1.7
15:54	444.7	1.6
16:00	463.4	1.7
AVERAGE VALUES FOR THE LAST HOUR: 60 MINUTES OF VALID DATA		
16:00	381.6	1.8
16:06	456.8	1.9
16:12	478.0	1.8
16:18	448.5	1.9
16:24	419.5	1.5
16:30	375.7	1.4
16:36	395.6	1.3
16:42	417.6	1.3
16:48	425.4	1.1

Run 1 - RAA 1.7 ppmw 2.1 dry

Run 2 - RAA 1.6 ppmw 2.0 dry

For 787-8442
G-2-pg

WHEELABRATOR ENVIRONMENTAL SYSTEMS INC.

Corporate Place
55 Ferncroft Road
Danvers, MA 01923
(508) 777-2207

December 9, 1988

Mr. Dan Bivins
U.S. EPA
OAQPS
Emission Measurement Branch
Mail Drop 13
RTP, NC 27711

RE: **Comments to Millbury Draft Emission Test Report**
MWC CEM Program

Dear Dan:

I have completed a review of the above referenced report and have the following comments:

1. General Comment - CO Analyzer The CO analyzer did not produce acceptable results for the CGA's because CO_2 was not included in the CO audit gas cylinders. CO_2 interference with the CO measurement is corrected by performing daily CO analyzer calibrations with a mixture of CO and CO_2. The CO_2 correction is not applied by the data acquisition system. The CO QA/QC results should be omitted from the tables and an appropriate explanation provided. The daily calibration results will be the only QA/QC check for the CO analyzer.

2. Inlet and Outlet O_2 Analyzer Bias Corrections It would seem acceptable to apply a bias correction to the O_2 analyzers. However, a brief discussion must be included on the differences in calculated emission concentrations and removal efficiencies using the uncorrected O_2 data and bias corrected O_2 data. A bias correction normally would not be applied to CEM data submitted to an agency if the established CEM QA/QC criteria were met.

   see bottom p 2-1

3. Table 2.1 CGA results for the CO analyzer should be eliminated as they are not representative of CO analyzer performance as described in comment 1 above.

   o.k.

4. Table 2.3 The reference method results for the CO relative accuracy audit are not representative of the actual CO concentrations. Typically, CO concentrations are between 10-40 ppm at a steamflow of 190,000 lbs/hr. An explanation for these low reported concentrations should be provided. Compliance CO levels were approximately 10 ppm. The CO RAA results should be eliminated from the report.

   see p. 2-10

need to talk with Tim

5. Page 2-10 The discussion on the CO analyzer CO_2 interference correction needs to be revised.

6. Page 2-10 HCl Moisture Corrections Moisture data would have been collected with each HCl RAA test. This data should be summarized to "qualify" using the 14% and 18% inlet and outlet moisture correction values to correct the HCl data. Flue gas moisture concentrations are not constant when MSW is combusted.

Higher % moisture would make emission appear lower

Check about this for response to Tim.

7. Please provide the CEM summary data sheets (hourly and daily averages) on 5½ inch or 3½ floppy disks. This will facilitate putting the data into our in-house data base. The data format should be compatible with Lotus software.

Discussed I have hourly ave. only from their system.

I shortly will be sending you comments to the draft summary report on the combined dioxin and compliance test program results.

If you have any questions, please give me a call.

Sincerely,

Tim Porter

Timothy J. Porter
Environmental Engineer

/tjp100

cc: F. Ferraro