GROVE
SCIENTIFIC & ENGINEERING

February 4, 2009

Ajaya Satyal
Environmental Administrator
Florida Department of Environmental Protection - South District
2295 Victoria Avenue
P.O. Box 2549
Fort Myers, Florida 33902-2549

RECEIVED - D.E.P.
FEB 05 2009
SOUTH DISTRICT

RE: E-Stone USA Corporation
Title V Air Operating Permit Application
EPSAP Application No.: 2165-1

Dear Mr. Satyal:

Enclosed are the professional engineer signature document and the attachments for the above referenced facility. The application was submitted on February 3, 2009 via EPSAP.

If you have any questions, please call me at (407) 298-2282 or e-mail me at sara@grovescientific.com .

Respectfully,
GROVE SCIENTIFIC & ENGINEERING COMPANY

Sara Greivell

Sara Greivell
Environmental Scientist

cc: Jim Gorsuch - Trend USA Ltd.
Polly Mandrell- E-Stone USA Corporation

E-Stone oper Sub to FDEP 09 / 330700 / 020409

Electronic Permit Submittal and Processing System (EPSAP) Professional Engineer Signature Document

"This document is signed and sealed to secure the data in this permit application and any attached files that were submitted electronically as described in Florida Department of Business and Professional Regulation, Board of Professional Engineers, Procedures for Signing and Sealing Electronically Transmitted Plan, Specifications, Reports or other Documents, Rule 61G15-23.003., F.A.C.."

EPSAP Application Number: 2165-1
Facility Identification Number: 0550049
Facility Owner/Company Name: E-STONE USA CORPORATION

Purpose of Application:
Initial Title V air operation permit.

Signature File Created: 2/3/2009 4:15:05 PM

File Description	Authentication Code
Submitted Application Data	6746B2F67470000A2CFCB09214E336E62B7AEC3F
This Application Has No Uploaded Facility Documents.	
This Application Has No Uploaded Emissions Unit Documents.	
Final Signature File	3425D3AA888FE14DF754694BB026931A85BE42F2

Professional Engineer (PE): JAMES SHOW **License No:** 34361

(sign and affix PE seal below)

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SOUTH DISTRICT

James T. Show 2/3/09

PE Signature **Date**

Attachment A

Supplemental Information

Supplemental Information
E-Stone USA Corporation

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Introduction:

E-Stone USA Corporation, located at 420 Haywood Taylor Blvd. in Sebring, FL, is applying for their 5-year operating permit. Under the construction permit number 0550049-003-AC, E-Stone has completed construction and stack testing for Polymerizing Line 1. Polymerizing Line 2 is not complete and will not be completed until product demands require it. E-Stone is requesting to leave this current construction permit open until construction on Line 2 is completed and stack testing is done. At that time E-Stone will apply for a permit modification to close out the open construction permit and incorporate Polymerizing Line 2 into the operating permit.

Process for Making Cultured Marble:

First, the granite rock and various aggregates are dried, then crushed and then screened. Next, the crushed aggregates are mixed with polyester resin inside a total enclosure. Depending on the product, various additives are mixed with the granite and resin mixture.

Inside the polymerizing stations, the mixture is poured into the open mold to form a slab. Then, the slab gets a thin layer of limestone on the bottom in order to strengthen the finished product. The entire polymerizing station is in a Permanent Total Enclosure (PTE). The PTE is equipped with a dust collection system to control the PM emissions from the limestone. The RTO controls a portion of the VOC and HAP emissions from the pouring stations and polymerizing oven. The oven operates on electricity; therefore, the oven has no fuel emissions. The RTO and rotary dryer operate on natural gas. The RTO has a manufacturer's guarantee of 98% destruction efficiency and tested at 99.04% in the December 2008 stack test.

After the mixture has set and cooled, it goes to one of two polishing lines. Polishing Line1 uses a wet grinder to smooth the rough edges and polish the surface. If further touch-up is required then the slab goes to Polishing Line 2 that consists of an epoxy touch-up station, an oven and two dryers.

A process flow diagram is included in Attachment E.

Emission Calculations:

All of the materials listed on the attached spreadsheet are used inside the enclosure and are ultimately vented to two locations; the RTO and dust collector (DC3). The stack test results provided a measurement breakdown for the percentage of emissions vented to each location; 44.6% of the emissions are uncontrolled; vented to the dust collector;

55.4% of the emissions are vented to the RTO, which has a measured destruction efficiency of 99.04%. These emission data were then used to calculate the potential emissions, see Attachment H.

The emission factor for the resin was established in the stack test. The emission rate for styrene was 35.36 lbs of organic HAP (styrene) per ton of resin used.

The projected usage of each raw material other than resin was multiplied by the amount of organic HAP it contained, then multiplied by the 44.6% uncontrolled and 55.4% vented to the RTO with a 99.04% destruction efficiency.

The potential emissions before controls are included in Attachment I. Since the emissions are facility-wide and we do not have an actual measured emission rate for Polymerizing Line 2, the potential emissions before controls are calculated using the equation from Table 1 to 40 CFR Part 63 Subpart WWWW. It is expected that the emissions rate will be very closed to that of Line 1 however, we used the conservative calculated emission factor to calculate the potential emissions before controls until Line 2 is complete and tested.

A copy of the 2008 record keeping is included in Attachment G which shows the actual emissions.

List of Applicable Requirements:

This facility is subject to:
40 CFR Part 63, Subpart WWWW
62-210.300(1) Air Construction Permits
62-210.300(6) Emission Unit Reclassification
62-210.350 Public Notice and Comment
62-210.350(1) Public Notice of Proposed Agency Action
62-210.350(3) Additional Public Notice Requirements for Source Subject to Operation Permits for Title V Source
62-210.370(3) Annual Operating Report for Air Pollution Emitting Facility
62-210.400 Emission Estimates
62-210.650 Circumvention
62-210.700 Excess Emissions
62-213.205 Annual Emissions Fee
62-213.400 Permits and Permit Revision Required
62-213.900(1) Major Air Pollution Source Annual Emissions Fee Form
62-296.320(4)(c) Unconfined Emissions of Particulate Matter
62-296.320(2) Objectionable Odor Prohibited
62-297.310 General Test Requirements
62-297.330 Applicable Test Requirements
62-297.340 Frequency of Compliance Tests
62-297.345 Stack Sampling Provided by the Owner of an Emissions Unit

62-297.570 Test Report

Exempt Emissions Units:

Exempt emission unit include compressors and emergency generators. Attachment D contains the list of insignificant activities at this facility.

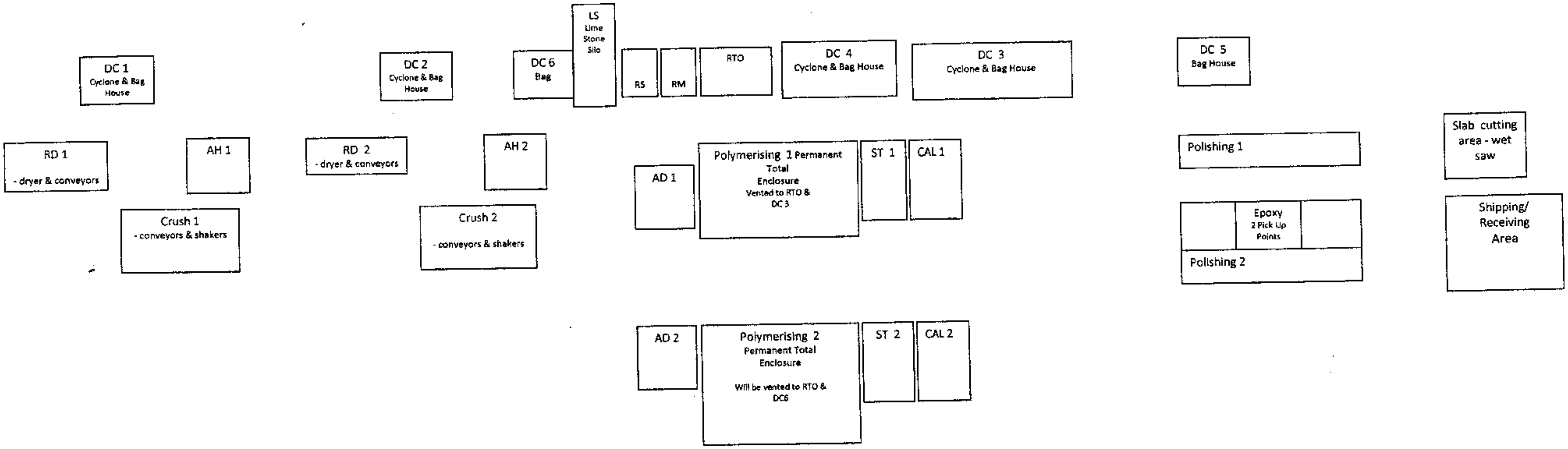
Requested Changes to Operating Permit:

Page 10 of 19, Specific Condition B.2 in the current construction permit states the Gas Exhaust Temperature shall be 70-100 ° F. This condition should not be included in the operating permit, is incorrect and has no bearing on the emissions.

Attachment B

Plot Plan

E-Stone USA Corporation
Process Layout
Revised 1-23-08



Process Equipment List

Equipment Identification	Equipment Description	Equipment Identification	Equipment Description
AH1	Aggregate Hopper #1	AD 1	Aggregate Dosing 1
RD1	Rotary Dryer #1	Polymerising 1	Polymerising 1
Crush 1	Mill #1		
AH2	Aggregate Hopper #2	CAL 1	Calibrator 1
RD2	Rotary Dryer #2	Polymerising 1	Polymerising 1
Crush 2	Mill #2		
AD2	Aggregate Dosing #1	Polymerising 2	Polymerising 2
Polymerising 2	Polymerising 2		
ST 2	Slab Take Off Area		
CAL 2	Calibrator 2	Polishing 2	Polishing 2
LS	Limestone Silo	Epoxy	Epoxy Touch Up
ST 1	Slab Take Off Area	RS	Resin Storage
		RM	Resin Mix Tanks

Control Device List

Equipment Identification	Equipment Description	Contols Emissions From
DC1	Cyclone & baghouse	Mill #1
DC2	Cyclone & baghouse	Mill #2
DC6	Baghouse	Polymerising 2
RTO	Regenerative Thermal Oxidizer	Polymerising 1
DC4	Cyclone & baghouse	ST 2 & CAL 2
DC3	Cyclone & baghouse	LS, ST 1, AD 1, CAL 1, Polymerizing Line 1
DC5	Baghouse	Epoxy & Polishing Line 2

Attachment C
Compliance Report

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January 14, 2009

Mr. Ajaya Satyal
District Air Program Administrator
FDEP - South District
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33902-2549

RE: E-Stone USA Corporation
FDEP Permit No 0550049-003-AC
Test Report Transmittal

Dear Mr Satyal,

Grove Scientific & Engineering Company has completed the compliance test report for E-Stone. Attached is a paper copy for your files. An electronic version has been also emailed to you.

If you have any questions regarding this test report, please call me at 407-298-2282 or email bruno@grovescientific.com.

Sincerely
Grove Scientific & Engineering Company

Bruno Ferraro, CEP, QEP
President

RECEIVED D.E.P.
FEB 05 2009
SOUTH DISTRICT

cc: James Gorsuch, CFO
Polly Mandrell, E-Stone

EMISSION TEST REPORT
FOR A CULTURED GRANITE MANUFACTURING PROCESS - LINE NO. 1

40 CFR PART 63 SUBPART WWWW
NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: REINFORCED PLASTICS COMPOSITES PRODUCTION

Prepared for

E-Stone USA Corporation
420 Haywood Taylor Boulevard
Sebring, Florida 33870

Prepared by

Grove Scientific & Engineering Company
6140 Edgewater Drive, Suite F
Orlando, Florida 32810
(407) 298-2282
www.grovescientific.com

December 2008

Project Number 330700

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LIST OF ATTACHMENTS

Report Certification

This test was conducted under my supervision and in accordance with the approved test protocol submitted to the Florida Department of Environmental Protection. All data submitted are true and correct and meet the requirements of the permit and test methods.

Bruno A. Ferraro, CEP, QEP **Date**

SECTION 1.0
INTRODUCTION

1.1 Background

E-Stone USA, located at 420 Haywood Taylor Boulevard, Sebring, Florida 33870, is authorized by FDEP construction permit 0550049-003-AC to construct a cultured granite reinforced plastics manufacturing facility with a permanent total enclosure around the polymerization line(s). This test addresses production line number 1 and its associated dust collector and regenerative thermal oxidizer. The following emission units were tested and are included in this report:

E.U. No.	Emission Unit Description
001	Non-metallic mineral processing line no. 1
002	Non-metallic mineral processing line no. 2
003	Polymerization line 1
005	Regenerative thermal oxidizer (RTO)
007	Polishing line no. 2

Polymerization line number 2 has not completed construction and has been placed on hold until production demands increase.

1.2 Test Protocol

Two locations will be monitored for VOC emissions; the outlet of the RTO and the outlet of the baghouse using EPA Methods 1-4, 9 and 25A. Preliminary test conducted in December 2006 indicated a styrene concentration of less than 25 ppm as styrene from the RTO outlet (2.74 ppm) and the baghouse outlet (14.02 ppm). This makes EPA Method 25A the preferred test method for determining styrene emissions. Also, since styrene is the only volatile organic compound (VOC) and organic hazardous air pollutant (HAP) in the resin used at E-Stone a response factor for styrene will be developed for each analyzer used during this test. We will also test the inlet of the RTO so that we can determine VOC destruction efficiency of the RTO.

1.2.1 40 CFR Part 63 Subpart SS Requirements

Air permit 0550049-002-AC and Subpart WWWW NESHAP references Subpart SS as required for testing the VOC control device. Subpart SS defines the RTO as an "incinerator" , therefore §63.988, §63.997, §63.998(a)(2) and §63.999(a)(2) apply. Each of the regulations that pertain to this test protocol are addressed below:

§63.988(c) requires a temperature monitoring device be installed in the combustion zone of the RTO. The RTO is equipped with a continuous temperature recorder as per §63.988(c)(1) and will be monitored during the compliance test per §63.998(b) and (c). During the compliance test, the minimum RTO operating temperature will be established as well as the continuous combustion chamber temperature recorded.

1.2.2 §63.997 Performance test and compliance assessment requirements for control devices

(c)(i) requires the test be performed within 180 days of start up. Since E-Stone has elected to not complete construction on Line 2 at this time, E-Stone is preparing for testing of Line 1 only by preparing and submitting this test protocol. Once the test protocol has been approved and all relevant details agreed to, the test will be scheduled with the FDEP South District Office.

(d)(1) requires sampling ports be installed adequate for test methods applicable to the source. Sampling ports have been installed and meet USEPA Method 1.

(d)(1)(i) require the air pollution control systems to be constructed such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures. Sampling ports have been installed and meet USEPA Method 1.

(d)(1)(ii) requires ducts and stacks free of cyclonic flow during performance test. Sampling ports have been installed and meet USEPA Method 1. Preliminary testing indicates the stacks are free of cyclonic flow.

(2) requires safe sampling platform(s); (3) requires safe access to sampling platform(s); (4) requires utilities for sampling and sampling equipment. The RTO and dust collector has safe testing platform(s), OSHA compliant caged ladders and utilities for conducting a safe compliance test.

(e) (1) requires the performance test on a continuous unit operation be tested at the maximum rate. The maximum production rate for Line 1 is 13 slabs/hour and will be the target production rate during the test (± 10%).

(v) requires a minimum test run of at least 1 hour and three separate runs conducted. The arithmetic mean of the three runs shall apply.
(e)(2)(i) through (iv) apply and reference test methods and reporting procedures as follows:

(i) requires the use of USEPA Method 1 for the selection of sampling sites. Each of the sample locations has been installed in accordance with Method 1.

(i)(A)(1) requires the inlet of the RTO to be tested and located downstream of the process but before the control device. E-Stone meets this requirement

(ii) requires volumetric flowrate to be determined by USEPA Methods2, 2A, 2C, 2D, 2F or 2G as appropriate and E-Stone will comply with this requirement.

(iii) requires the use of USEPA Method 18 or 25A as applicable to measure the total organic compound concentration. Since styrene is the only expected VOC and HAP at concentrations less than 50 ppm, we selected USEPA Method 25A as the appropriate test method. We will also determine the styrene response factor for each analyzer so that the data can be reported in pounds per hour "as styrene".

(iii)(A) requires a minimum sampling time of 1 hour per test run.

(iii)(B) dictates how the pollutant concentration will be calculated and the test report will comply with this requirement.

(iii)(C) requires the final organic concentration be corrected to 3% oxygen if combustion air is used to combust the emissions.

(iii)(D) In this application the total organic regulated material is equal to the TOC and are proposing to measure all of the TOC and report it as styrene therefore we elect to test using the more accurate test method 25A (see item (iii)(E) below).

(iii)(E) TOC concentration will be measured in accordance with USEPA Method 25A using a response factor for styrene. All TOC will be reported in pounds/hr "as styrene".

(iv) Percent reduction calculation: Subpart WWWW does not require a specific destruction efficiency or VOC reduction requirement. However, as part of this test, we will measure both inlet and outlet mass emissions and will calculate an overall VOC destruction efficiency and include this in the test report.

(iv)(A) requires a minimum sampling time of 1 hour per run.

(iv)(B) provides the method to calculate the mass rate of TOC or total organic regulated material. As stated above, the TOC will be reported as styrene using the instrument response factor established as part of this test. Since styrene is the only VOC and the only organic HAP used in the resin all of the TOC will be styrene and will be calculated in accordance with this section.

(iv)(C) Percent reduction, though not required in Subpart WWWW for sources under 100 TPY of organic HAP, will be determined and cacluated in accordance with this section.

(iv)(D) does not apply as the vent stream is not introduced with the combustion air.

(iv)(E) applies only to transfer racks, therefore, does not apply.

(iv)(F) see item (iii)(D) and (iii)(E) above.

(iv)(G) see item (iv)(H) below

(iv)(H)(1) and (2) specify the use of Method 25A in lieu of Method 25 when the expected concentrations are below 50 ppm as TNMO. During previous engineering tests, we measured the outlet of the RTO at 2.74 ppm as styrene and the dust collect at 22.53 ppm as styrene. The inlet to the RTO was measured at 208.71 ppm as styrene with a high control efficiency measured on the RTO (98.54%), therefore per section (iv)(H)(2) the inlet can be measured using Method 25A.

(iv)(I) does not apply since the inlet gas does not contain formaldehyde.

1.2.3 §63.998 Recordkeeping Requirements

(a)(2) Non-flare control device performance test records requires the owner record and maintain performance test records and make them available upon request.

(a)(2)(ii)(A) requires the owner record and maintain performance test records and make them available upon request.

(a)(2)(ii)(B)(1) requires the RTO combustion chamber temperature to recorded during the test. The RTO is equipped with a thermal couple and data logger that continuously records this parameter.

(2) and (3) do not apply.

(a)(2)(ii)(B)(4) E-Stone is not required to determine the reduction efficiency of the RTO, only the mass emission rate from both the RTO and the dust collector. However, at previously stated, we will determine reduction efficiency in accordance with the subpart and use it for ongoing record keeping.

(5) and (6) do not apply.

(a)(2)(ii)(C) and (D) do not apply

(a)(3)and (4) do not apply.

§63.998(b)(1) requires continuous records of the of the measurement device, in this case, the RTO combustion chamber temperature. Records will be collected and maintained in accordance with (b)(1)(iii) from the continuous recording device.

(b)(2)(i) through (iii) excludes temperature data from startup, shutdown and malfunctions from the data averages.

(b)(3)(b)(ii) addresses daily average temperatures when all recorded temperatures are within the acceptable range established during the compliance test. In this case, the RTO maintains a very steady temperature at or above the minimum set point except during startup, shutdown and malfunction.

(b)(5) we are not requesting an alternate recordkeeping procedure.

(b)(6)(i) addresses excursions of the RTO temperature values and applies to long-term recordkeeping, not specific to this test protocol.

(b)(6)(ii) addresses additional recordkeeping requirements for the continuous temperature monitor of the RTO and are not specific to the actual compliance test.

§63.998(c)(1)(i) the continuous temperature recorder will be calibrated prior to the test and a record of the calibration procedure and results retained. Also, (c)(1)(ii)(A) through (H) are specific to the calibration procedure and records that will be maintained on the continuous temperature monitoring system and not specific to the test protocol. These procedures will be followed and the records submitted with the test report.

(c)(2)(ii) addresses the RTO temperature records in (b)(3)(i) above and will be maintained. Additionally, (c)(2)(iii) requires E-Stone to maintain up-to-date records of the continuous temperature monitoring system.

(c)(3) does not apply to E-Stone.

§63.998(d)(1) does not apply to this test protocol.

(2) through (5) does not apply to this test protocol.

1.2.4 §63.999 Notification and Other Reports

(a)(1)(i) requires E-Stone to give as least 30 days notice before conducting the compliance test. Following approval of the test protocol, E-Stone will schedule the test with FDEP and provide at least 30 day notice as required or select a date mutually agreeable to both E-Stone and FDEP.

(ii) requires E-Stone to submit the compliance test report within 60 days of completion of the test.

(iii) pertains to a waiver of the compliance test which E-Stone is not requesting.

(iv) does not apply

(a)(2)(i) through (iii) E-Stone will submit a complete copy of the test report with all required components and records as required by this sub-section.

1.2.5 Summary

The following summarizes the proposed test protocol for polymerization line 1.

1. Demonstrate that the enclosure on polymerization line 1 meets the requirements of EPA Method 204 procedure T for 100% capture.
2. Sample the inlet and outlet of the RTO to determine overall VOC destruction efficiency and the outlet of the Zanetti dust collector using EPA methods 1-4, 9 (on outlets only) and 25A for three one-hour test runs. Visible emissions will be conducted for 1 hour only.
3. Determine the response factor of each flame ionization analyzer to styrene, the only VOC and HAP; measure total organic compounds of the RTO and Zanetti exhaust stacks using 25A and report the results in lbs/hr "as styrene". The combined results will equal the mass emission rate of styrene.
4. Establish the minimum RTO combustion chamber operating temperature using the continuous temperature recorder in accordance with 40 CFR part 63 Subpart SS including calibration determinations and records as required by the subpart.
5. Establish and record the minimum airflow rates through the RTO and the Zanetti dust collector using the magnahelic and record this data.
6. Establish and record the differential pressure on the enclosure's differential pressure gauge as required by Specific Condition B.4 and report this data.
7. Prepare a test report that complies with the reporting requirements of subpart SS and submit this report within 60 days of completing the compliance test.

SECTION 2.0

VISIBLE EMISSIONS TESTS E.U. 001, 002, 003 and 007

2.1 Description E.U. 001 and 002

Emission Units 001 and 002 are the non-metallic mineral processing lines 1 and 2 respectfully. Each line is essentially identical and are equipped with gas-fired rotary dryers, conveyors, hoppers, shakers and a crusher. Each line is equipped with a cyclone and baghouse to control particulate emissions. During the visible emission test process throughput was measured using the internal weigh hoppers; fuel was measured using the in-line fuel meters with a meter correction factor applied.

2.1.2 Test Data E.U. 001 and 002

Table 2-1 presents the fuel consumption and process rate measured during the emission test.

Table 2-1: Summary of Fuel Consumption Rate and Process Rate of Rotary Dryers 1 and 2

E.U No	Description	Fuel CF/hr	Process rate TPH
001	Line 1	620	2.77
002	Line 2	610	3.58

Visible emissions were 0% opacity. Field data sheets for E.U. 001 and 002 and visible emissions results are included in Attachment A along with the observer's certification.

2.2 Emission Unit 003 Dust Collector

Emission Unit 003 includes the Zanetti cyclone and baghouse (DC3) used to control particulate emissions from polymerization line-1 enclosure. A visible emission test on the outlet of this dust collector was conducted during run 3 of the stack test. Visible emissions were 0% opacity. Field data sheets for DC3 are included in Attachment A along with the observer's certification documentation.

Specific Condition B.3 of the permit and 40 CFR part 63 Subpart SS requires the use of a magnehelic pressure gauge to be installed in the outlet stack of DC3 and to establish operating parameters during the initial performance test that demonstrates compliance with the standards. This gauge was installed and read during the test to establish this baseline. The field data sheets are included in Attachment B and summarized below in Table 2-2. The magnehelics read in both inches of w.c. (in.w.c.)and feet per min (fpm) and both were recorded during each of the 3 runs and did not fluctuate.

Table 2-2: Summary of Parametric Data DC3

Run Number	1	2	3
Pressure (in. w.c.)	+0.4	+0.4	+0.4
Airspeed (fpm)	2400	2400	2400

2.3 Emissions Unit 007 Dust Collector

Emission Unit 007 includes a Zanetti baghouse. During the test, the line was actively polishing a slab. Visible emissions were 0% opacity. Field data sheets are included in Attachment A along with the observer's certification documentation.

SECTION 3.0
POLYMERIZATION LINE 1 E.U. 003

3.1 Description

Emission Unit 003 is polymerization line 1. Associated with this polymerization line is the Zanetti dust collector described in Section 2 of this report, the regenerative thermal oxidizer (EU 005), the enclosure around the process and the associated mixing and storage tanks. The enclosure is a permanent total enclosure (PTE) and must meet the requirements of 40 CFR part 52 EPA Method 204 - Procedure T. This was verified prior to this test and the results discussed below. During this stack test, the enclosures was tested again to verify the PTE parameters. The test data for the PTE verification is included in Attachment C.

3.2 Permanent Total Enclosure (PTE) Criteria

Procedure T establishes the criteria for verifying a permanent total enclosure (PTE). The principle behind the procedure is presented below and quoted form the USEPA method .

> *An enclosure is evaluated against a set of criteria. If the criteria are met and if all the exhaust gases are ducted to a control device, the volatile organic compounds capture efficiency (CE) is assumed to be 100% and CE need not be measured. However, if part of the exhaust gas stream is not ducted to a control device, CE must be determined.*

A summary of the design criteria follows:

1. Any natural draft opening (NDO) shall be at least 4 equivalent opening diameters from each VOC emitting point unless otherwise specified by the Administrator.
2. The total area of all NDOs shall not exceed 5% of the surface area of the enclosure's four walls, floor, and ceiling.
3. The average facial velocity of air through all NDOs shall be at least 200 feet per minute. The direction of air through the NDOs shall be into the enclosure.
4. All access doors and windows whose areas are not included in item 2 and are not included in the calculation in item 3 shall be closed during routine operation of the process.
5. All VOC emissions must be captured and contained for discharge through a control device.

3.2.1 Results of Procedure T

There are two (2) natural draft openings in polymerization line 1 enclosure; the dosing conveyor entrance and the slab discharge exit. The results of Procedure T are included in Table 3-1 below.

Emissions from the enclosure are vented to two control devices. One is the regenerative thermal oxidizer which controls VOC and HAP. The second is a cyclone-baghouse dust collector that control particulate matter from the process and is not a VOC control device.

The enclosure for polymerization line 1 meets all of the criteria of a PTE in accordance with Procedure T, when the RTO vacuum set point is 0.6 inches w.c or greater. During the stack test data were collected of airflow into the enclosure using a digital manometer, air current smoke tubes and the differential pressure gauges located in the upper and lower portions of the enclosure. All airflows were greater than -200 fpm through the NDO's. The lower differential pressure gauge (no. 1) read -0.005 inches w.c., the upper (no. 2) read -0.02 to -0.04. These data sheets are included in Attachment C and summarized in Table 3-2.

Table 3-1: Results of Procedure-T on Polymerization Line 1

Criteria	Dosing Conveyor Entrance NDO	Slab Discharge Exit NDO
Criteria 1: NDO > 4 Equivalent Diameters (> 4 = Pass)	> 30 diameters (pass)	> 7 diameters (pass)
Criteria 2: Total Area of NDOs Not More Than 5% of Surface Area (<= 5% = Pass)	< 0.28 % (pass)	< 0.28 % (pass)
Criterion 3a: Average Facial Velocity At Least 200 Feet Per Minute (>= 200 fpm = Pass)	- 285 fpm (pass) at -0.6 in. W.C. RTO set point	- 225 fpm (pass) at -0.6 in. W.C. RTO set point
Criterion 3b: Direction of Air Shall Be Into Enclosure (Results of Smoke Test)	Inward airflow verified	Inward airflow verified
Criterion 4: Access Doors / Windows To Be Closed When Not In Use Status During Operation	all doors and access areas closed during operation	all doors and access areas closed during operation
Criterion 5 VOC Emissions To Routed to Control Device	RTO and Dust Collector	RTO and Dust Collector

Table 3-2: Summary of Enclosure Air Pressure Data with RTO Vacuum Set Point is Set At -0.6 inches water column (in w.c.)

Run No	1	2	3
Magnehelic 1 (in w.c.)	-0.005	-0.005	-0.005
Magnehelic 2 (in w.c.)	-.002	-0.035	-0.04
NDO Inlet (fpm)	-365	-355	-319
NDO Outlet (fpm)	-204	-214	-220
Air Current Tubes Direction of flow	inward	inward	inward

SECTION 4.0
REGENERATIVE THERMAL OXIDIZER (E.U.005)

4.1 Description

The VOC/organic HAP control device is a Crawford Industrial Group Regenerative Thermal Oxidizer (RTO) equipped with a variable frequency drive motor. The RTO is computer controlled and can be programmed to operate at different vacuums. The RTO vacuum controls the negative pressure inside the polymerization line enclosure. The PTE demonstrated compliance during this test with the RTO vacuum set point at -0.6 in.w.c. and placed all NDO's under a negative flow greater than 200 fpm.

4.2 Parametric Monitoring

During the compliance test, several parameters were monitored as required by either a permit condition or by Subpart SS as presented in Section 1.2 of this report. Each of those parameters are presented below and the field data sheet and the RTO temperature chart are included in Attachment D.

4.2.1 Fuel consumption

Fuel consumption was determined by reading the in-line gas meter dedicated to the RTO. The data are presented in Table 4-1.

Table 4-1: RTO Fuel Consumption Data

Start Time	Stop Time	Start Reading	Stop Reading	Total Fuel Consumption	
0920 hrs	1505 hrs	181500 cf	184400 cf	2900 cf	504 cf/hr

4.2.2 RTO Parametric Data

The RTO parametric data are presented below in Table 4-2

Table 4-2: RTO Parametric Data

Run Number	**1**	**2**	**3**
Inlet Magnehelic Pressure (in.w.c.)	0.175	0.175	0.175
Inlet Magnehelic Flowrate (fpm)	1800	1800	1800
Outlet Magnehelic pressure (in.w.c.)	0.25	0.25	0.25
Outlet Magnehelic Flowrate (FPM)	2000	2000	2000
Stack Temperature (deg F)	235	235	235
Combustion Chamber Temp (deg F)	1577	1577	1577
Inlet vacuum set point (in.w.c.)	-0.6	-0.6	-0.6

All parameters remain constant through out all three runs.

SECTION 5.0
PRODUCTION DATA AND MASS ORGANIC HAP EMISSION RESULTS

5.1 Production Monitoring System

The robotic manufacturing process at E-Stone is computer controlled and monitored. The operator can select any time sequence and obtain real-time raw material consumption rate and production rate. The computer generated report and the AOC Resins MSDS are included in Attachment E.

The report includes the time between 09:12:25 hours to 15:04:52 hours for a total of 292 minutes during which 78 slabs were produced. This equates to 16 slabs/hr of production. A total of 1674.901 lbs of AOC polyester resin was used in 292 minutes or 344.158 lbs/hr. The resin is a 50/50 mixture of two AOC resins; A520-PKC-00 which is 35% styrene and A520-PKE-00 which is 35% styrene. A small amount of styrene is added to the batch as a diluent for the micro-additive Tinuvin. A summary of the raw material usage is presented below in Table 5-1.

Table 5-1: Summary of Raw Material Usage

Raw Material	Total Pounds used in 78 Slabs	Usage Rate (lbs/hr)
Limestone Rock (backing)	5850.000	1202.055
Decorative Aggregate	9069.984	1863.695
Catalyst (Norox 90 cc)	16.741	3.440
Styrene	4.68	0.96
Polyester Resin	1674.901	344.158

5.2 Emission Summary

The stack test report is included in its entirety in Attachment F. Three locations were tested for styrene using EPA Method 25A applying a measured response factor to styrene, the only organic HAP. The three locations tested were the inlet and outlet of the RTO and the dust collector outlet (DC3). The mass emissions are based on the combined emission rate of the RTO outlet and the DC3 outlet. The inlet of the RTO was measured to determine overall RTO destruction efficiency for in-house purposes only. The results of the destruction efficiency are summarized below in Table 5-2.

Table 5-2: Summary of RTO Destruction Efficiency

Run No.	RTO Inlet (lbs/hr as styrene)	RTO Outlet (lbs/hr as styrene)	Destruction Efficiency (%)
1	7.48	0.06	99.17
2	7.74	0.06	99.21
3	7.22	0.09	98.76
Average	**7.48**	**0.07**	**99.04**

The results of the mass styrene (HAP) emissions are presented below in Table 5-3.

Table 5-3: Summary of Mass Styrene (HAP) Emissions

Run No.	RTO Outlet (lbs/hr as styrene)	DC3 Outlet (lbs/hr as styrene)	Total Organic HAP Mass Emission Rate (lbs/hr as styrene)
1	0.06	5.39	5.45
2	0.06	6.60	6.66
3	0.09	6.12	6.21
Average	**0.07**	**6.03**	**6.10**

5.3 Compliance with HAP Emission Limit

In accordance with Specific Condition B.12 of the referenced construction permit, this open molding - non-CR/HS polymerization process is required to meet the organic HAP emission limit referenced in 40 Part 63 Subpart WWWW Table 3, item 2, of 88 pounds of organic HAP per ton of resin. As presented in Table 5-1, the hourly resin usage during the test was 344.158 lbs plus 0.96 lbs of additional styrene or 0.1725 tons/hr. Styrene is the only organic HAP in this product.

The emission limit is calculated as follows:

(6.10 lbs organic HAP) / (0.1725 tons of resin) = 35.36 lbs organic HAP/ton of resin.

ATTACHMENT A

E.U 001, 002 AND 007 FIELD DATA SHEETS, VISIBLE EMISSION RESULTS AND CERTIFICATION

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E-Stone Rotary Drier Process Data Sheet

Test Date 12-9-08

GSE Employee Name [illegible]

Drier Number 1 EU 001

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Time Start (fuel) 09:50
time start (aggregate) 1000

Fuel Meter Reading at Start 0247

Time End (fuel) 11:25
time end (aggregate) 11:22 (stopped going into dryer)

Fuel Meter Reading at End 0254

Total Time in Minutes fuel = 86 minutes aggregate = 82 minutes

Total Fuel Used 889 cf or 620 cf/hr

Total Quantity of Aggregate Processed 7566 lbs

Method of Determining Process Rate put dried material into empty bin & weigh at end

Comments meter reading correction factor = 1.27 X100

6140 EDGEWATER DRIVE # SUITE F # ORLANDO, FLORIDA 32810-4810 # (407)298-2282 # FAX(407)290-9038

GROVE
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VISIBLE EMISSIONS OBSERVATION FORM

COMPLIANCE STATUS: YES | NO | UNK

Source/Process Information

Facility Name: E-Stone USA Corporation
Source Name: Rotary Dryer #1
Permit No.: 0550049-003-A
Location Address: 420 Haywood Taylor blvd, Sebring FL
Contact: Bob Hykes
Phone No.: 863-655-1273
Process/Production Rate: aggregate drying
Control Equipment: cyclone/dust collector; DC1
Operating Mode: normal
Fuel Type/Rate: natural gas
Material Type/Rate: 2.77 t/hr
Permitted Rate: 5 ton/hr
Describe Emission Point: round metal stack
Height Above Ground Level: ~20 FT
Height Relative to Observer: ~20 FT

Emissions Description

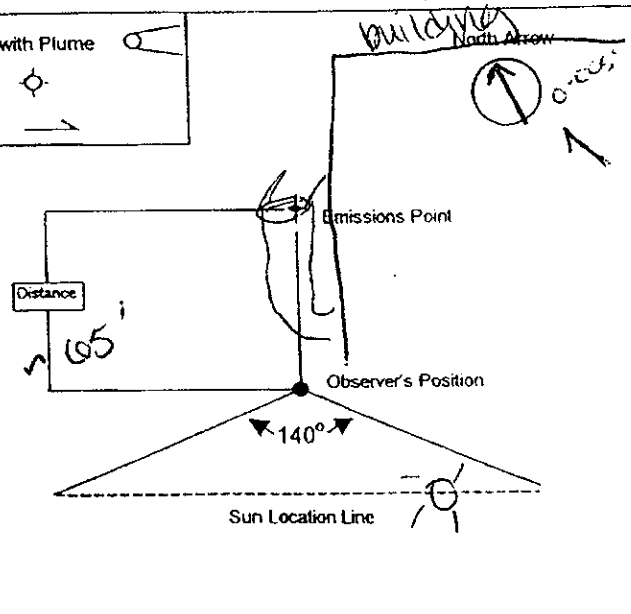
Describe Emissions: Start none visible End same
Plume Color: N/A
Plume Type: N/A
Water Droplets Present: Yes ☐ No ☑
If yes, is plume: Attached ☐ Detached ☐ N/A

Meteorological Information

Background: Start sky End same
Background Color: Start blue/white End white
Sky Conditions/% Cloud Cover: Start 25% End 35%
Ambient Temp.: Start 78°F End 77°F
Wind Speed: Start 5-10 mph End same
Wind Direction: Start SE End SE

Observation Data, Site Diagram

Stack with Plume
Sun
Wind



Observation Readings

Observation: EPA Method 9
Start Time: 10:08
Stop Time: 10:38

Min.	0	15	30	45	Min.	0	15	30	45
1	0	0	0	0	31				
2	0	0	0	0	32				
3	0	0	0	0	33				
4	0	0	0	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
7	0	0	0	0	37				
8	0	0	0	0	38				
9	0	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	0	0	0	46				
17	0	0	0	0	47				
18	0	0	0	0	48				
19	0	0	0	0	49				
20	0	0	0	0	50				
21	0	0	0	0	51				
22	0	0	0	0	52				
23	0	0	0	0	53				
24	0	0	0	0	54				
25	0	0	0	0	55				
26	0	0	0	0	56				
27	0	0	0	0	57				
28	0	0	0	0	58				
29	0	0	0	0	59				
30	0	0	0	0	60				

Compliance Information

Range of Opacity Readings: Min 0 Max 0
Average of Highest 24 Consecutive Readings: 0
Short Term Average Data Averaging Period: 3 minutes
Actual Average: 0 %
Comments: no objectional odors detected

Certification Data, Signatures

Observer's Name: Sara Greivell
Observer's Signature: Sara Greivell
Date: 12-9-08
Organization: Grove Scientific + Engineering Co
Certified By: Aeromet Engineering
Date: 4-08
I have received a copy of these observations Signature
Date
APIS Number

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E-Stone Rotary Drier Process Data Sheet

Test Date 12-9-08

GSE Employee Name [signature]

Drier Number 2 EU002

Time Start (fuel) 10:43

Start time (aggregate) 10:47

Fuel Meter Reading at Start 0165

Time End (fuel) 11:58

time end (aggregate) 11:47

Fuel Meter Reading at End 0171

Total Time in Minutes fuel = 75 minutes aggregate = 60 minutes

Total Fuel Used 762 CF 610 CF/hr

Total Quantity of Aggregate Processed 7150 lbs

Method of Determining Process Rate put dried material into empty bin & weigh at end

Comments meter reading correction factor = 1.27 x 100

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VISIBLE EMISSIONS OBSERVATION FORM

COMPLIANCE STATUS: YES | NO | UNK

Source/Process Information

Facility Name: P-Stone USA Corporation

Source Name: Rotary Dryer #2 — Permit No.: 0550049-003-AC

Location Address: 400 Haywood Taylor Blvd, Sebring

Contact: Bob Hykes — Phone No.: 863-655-1273

Process/Production Rate: Aggregate Drying

Control Equipment: Cyclone/Baghouse; DC-2 — Operating Mode: normal

Fuel Type/Rate: natural gas — Material Type/Rate: 3.58 ton/hr — Permitted Rate: 5 tons/hr

Describe Emission Point: Round Metal Stack

Height Above Ground Level: ~25 FT — Height Relative to Observer: ~0 FT

Emissions Description

Describe Emissions: Start none visible — End Same

Plume Color: N/A — Plume Type: N/A

Water Droplets Present: Yes ☐ No ☒ — If yes, is plume: Attached ☐ Detached ☐ N/A

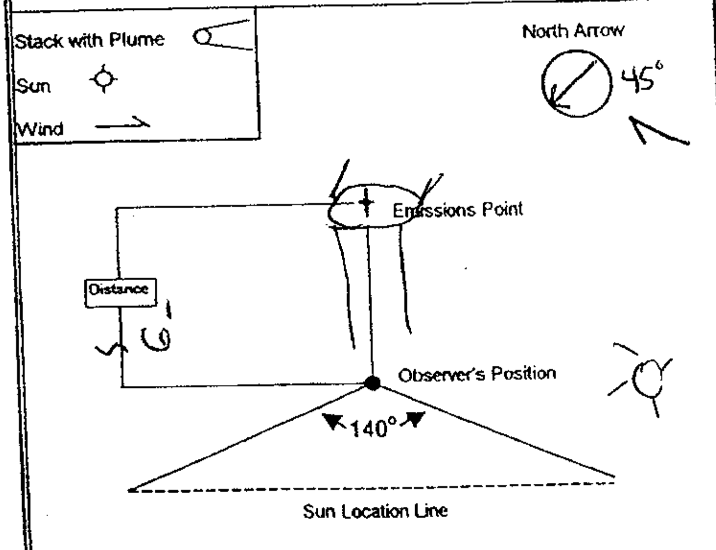
Meteorological Information

Background: Start dust collector — End Same — Background Color: Start Green — End Same

Sky Conditions/% Cloud Cover: Start 35% — End 40% — Ambient Temp: Start 77°F — End Same

Wind Speed: Start 5-10 mph — End Same — Wind Direction: Start SE — End Same

Observation Data, Site Diagram



Observation Readings

Observation: EPA Method 9 — Start Time: 10:52 — Stop Time: 11:22

Min.	0	15	30	45	Min.	0	15	30	45
1	0	0	0	0	31				
2	0	0	0	0	32				
3	0	0	0	0	33				
4	0	0	0	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
7	0	0	0	0	37				
8	0	0	0	0	38				
9	0	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	0	0	0	46				
17	0	0	0	0	47				
18	0	0	0	0	48				
19	0	0	0	0	49				
20	0	0	0	0	50				
21	0	0	0	0	51				
22	0	0	0	0	52				
23	0	0	0	0	53				
24	0	0	0	0	54				
25	0	0	0	0	55				
26	0	0	0	0	56				
27	0	0	0	0	57				
28	0	0	0	0	58				
29	0	0	0	0	59				
30	0	0	0	0	60				

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Compliance Information

Range of Opacity Readings: Min 0 — Max 0

Average of Highest 24 Consecutive Readings: 0

Short Term Average Data — Averaging Period: 3 minutes — Actual Average: 0 %

Comments:
* VE done on lift
no objectional odors detected

Certification Data, Signatures

Observer's Name: Sara Greivell

Observer's Signature: Sara Greivell — Date: 12-9-08

Organization: Grove Scientific + Engineering

Certified By: Aeromet Engineering — Date: 8-08

I have received a copy of these observations. Signature — Date

APIS Number

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VISIBLE EMISSIONS OBSERVATION FORM

COMPLIANCE STATUS: YES | NO | UNK

Source/Process Information

Facility Name: E-Stone USA Corporation

Source Name: Polishing line 2 EU007

Permit No.: 0550049-003-AC

Location Address: 420 Hayward Taylor Blvd, Sebring

Contact: Bob Hykes

Phone No.: 863-655-1273

Process/Production Rate: Polishing slabs

Control Equipment: dust collector DC 5

Operating Mode: Normal

Fuel Type/Rate: natural gas

Material Type/Rate: Polish slabs

Permitted Rate: N/A

Describe Emission Point: round metal stack on top of dust collector

Height Above Ground Level: ~35 FT

Height Relative to Observer: ~15 FT

Emissions Description

Describe Emissions, Start: none visible End: same

Plume Color: N/A

Plume Type: N/A

Water Droplets Present: Yes ☐ No ☑

If yes, is plume: Attached N/A Detached ☐

Meteorological Information

Background Start: settling tanks End: same

Background Color Start: tan End: same

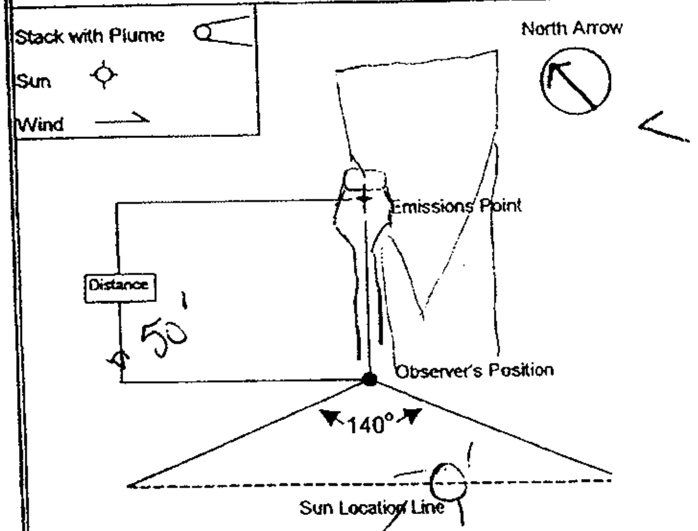
Sky Conditions/% Cloud Cover Start: 40% End: 40%

Ambient Temp Start: 78°F End: same

Wind Speed Start: 5-12mph End: 5-12 mph

Wind Direction Start: SE End: same

Observation Data, Site Diagram



Observation Readings

Observation: EPA Method 9 | Start Time: 11:38 | Stop Time: 12:08

Min.	0	15	30	45	Min.	0	15	30	45
1	0	0	0	0	31				
2	0	0	0	0	32				
3	0	0	0	0	33				
4	0	0	0	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
7	0	0	0	0	37				
8	0	0	0	0	38				
9	0	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	0	0	0	46				
17	0	0	0	0	47				
18	0	0	0	0	48				
19	0	0	0	0	49				
20	0	0	0	0	50				
21	0	0	0	0	51				
22	0	0	0	0	52				
23	0	0	0	0	53				
24	0	0	0	0	54				
25	0	0	0	0	55				
26	0	0	0	0	56				
27	0	0	0	0	57				
28	0	0	0	0	58				
29	0	0	0	0	59				
30	0	0	0	0	60				

Compliance Information

Range of Opacity Readings: Min 0 Max 0

Average of Highest 24 Consecutive Readings: 0

Short Term Average Data Averaging Period: 3 minutes Actual Average: 0 %

Comments: no objectionable odors detected
VE done on lower roof

Certification Data, Signatures

Observer's Name: Sara Greivell

Observer's Signature: Sara Greivell Date: 12-9-08

Organization: Grove Scientific & Engineering

Certified By: Aeromet Eng Date: 8-08

I have received a copy of these observations. Signature: Date:

APIS Number:

AeroMet
Engineering, Inc.
Solutions for a Changing Environment

Certification of Visible Opacity Reading

Sara Greivell

qualified to conduct EPA Method 9 Tests for visible opacity in accordance with the methods established for such qualification in 40 CFR Part 60 Appendix A on August 7, 2008

Date: 8/7/08

Signature:

Instructor, AeroMet Engineering

Certificate expires: ***02/07/09***

AeroMet
Engineering, Inc.
Solutions for a Changing Environment

Certification of Visible Opacity Reading

Bruno A. Ferraro

qualified to conduct EPA Method 9 Tests for visible opacity in accordance with the methods established for such qualification in 40 CFR Part 60 Appendix A on August 7, 2008

Date: 8/7/08

Signature:

Instructor, AeroMet Engineering

Certificate expires: ***02/07/09***

ATTACHMENT B

DUST COLLECTOR 3 (E.U. 003) FIELD DATA SHEET

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E-Stone Line 1 Dust Collector Test Data Sheet

Test Date 12-9-08

GSE Employee Name [illegible signature]

Dust Collector ID: Line 1 Zenetti EU003

Time 1020, 1145, 1300

Run Number 1, 2 & 3

Exhaust Stack Magnahelic Airflow Reading 0.4"WC 2400 PPM

Comments: Magnehelic checked all 3 runs - no chg in Pressure

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VISIBLE EMISSIONS OBSERVATION FORM

COMPLIANCE STATUS
YES | NO | UNK

Source/Process Information

Facility Name: E-Stone

Source Name: Poly Line / dust Collector DC3
Permit No: 0550049-003-AC

Location Address: 420 Haywood Taylor Blvd, Sebring FL 33870

Contact: Bob Hykes
Phone No: 863-655-1273

Process/Production Rate: Produce Granite Slabs 13/hr (see Production Report)

Control Equipment: Zennetti Dust Collector DC3
Operating Mode: -0.4" w.c.

Fuel Type/Rate: N/A
Material Type/Rate: see Prod. Report
Permitted Rate: N/A

Describe Emission Point: Silver Conical shaped stack

Height Above Ground Level: ~35 FT
Height Relative to Observer: ~2 FT

Emissions Description

Describe Emissions
Start: NONE visible
End: NONE visible

Plume Color: colorless
Plume Type: NONE visible

Water Droplets Present: Yes ☐ No ☒
If yes, is plume: Attached ☐ N/A Detached ☐

Meteorological Information

Background
Start: Bldg
End: Bldg

Background Color
Start: Blue
End: Blue

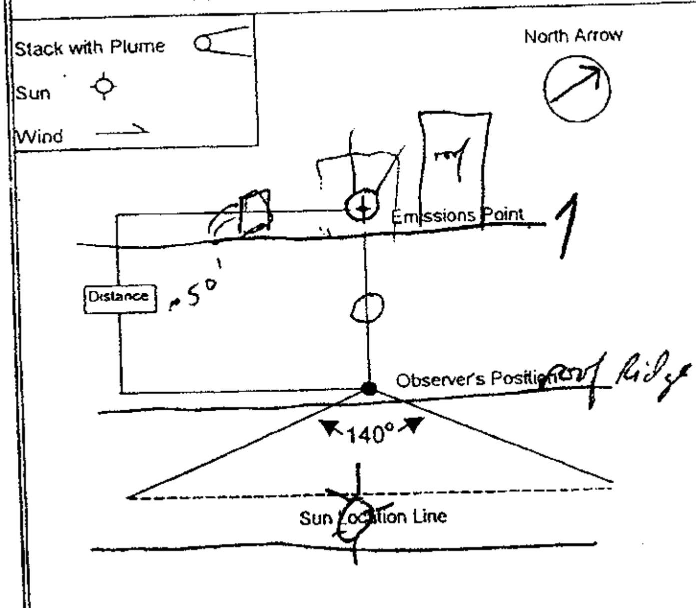
Sky Conditions/% Cloud Cover
Start: P-cldy 50%
End: P-cldy 50%

Ambient Temp
Start: 77°F
End: 77°F

Wind Speed
Start: 10-15
End: 10-15

Wind Direction
Start: SE
End: SE

Observation Data, Site Diagram



Observation Readings

Observation: Method 9
Start Time: 1210
Stop Time: 1240

Min. \ Sec.	0	15	30	45	Min. \ Sec.	0	15	30	45
1	0	0	0	0	31				
2	0	0	0	0	32				
3	0	0	0	0	33				
4	0	0	0	0	34				
5	0	0	0	0	35				
6	0	0	0	0	36				
7	0	0	0	0	37				
8	0	0	0	0	38				
9	0	0	0	0	39				
10	0	0	0	0	40				
11	0	0	0	0	41				
12	0	0	0	0	42				
13	0	0	0	0	43				
14	0	0	0	0	44				
15	0	0	0	0	45				
16	0	0	0	0	46				
17	0	0	0	0	47				
18	0	0	0	0	48				
19	0	0	0	0	49				
20	0	0	0	0	50				
21	0	0	0	0	51				
22	0	0	0	0	52				
23	0	0	0	0	53				
24	0	0	0	0	54				
25	0	0	0	0	55				
26	0	0	0	0	56				
27	0	0	0	0	57				
28	0	0	0	0	58				
29	0	0	0	0	59				
30	0	0	0	0	60				

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Compliance Information

Range of Opacity Readings: Min: 0 Max: 0

Average of Highest 24 Consecutive Readings: 0

Short Term Average Data Averaging Period: 3 minutes
Actual Average: 0 %

Comments: No odors
EU 003

Certification Data, Signatures

Observer's Name: Bruno Ferrer

Observer's Signature: [signature]
Date: 12-9-08

Organization: Grove Scientific & Engineering

Certified By: Aeromet
Date: Aug 08

I have received a copy of these observations. Signature:
Date:

APIS Number:

ATTACHMENT C

PTE TEST DATA SHEETS VERIFYING COMPLIANCE WITH PROCEDURE-T

EPA Method 204 Procedure-T
PTE Certification Data Sheet

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Each of the compliance and performance criteria have been tested and the data presented below. Calculations and notes are presented on the back of this worksheet.

Facility Name: E Stone

Facility Address: 420 Hayward Taylor Blvd, Sebring Fl

Production Line Number and Type: Polymerization Line 1

Area of natural Draft Opening(s) (NDO): 16.9" x 6" or 14.1' x 0.5' = 7.04 ft²

NDO Location and Description: Slab discharge / enclosure exit

EPA Method 204 Procedure-T referenced in 40 CFR Chapter I, Part 52 Appendix B requires that the following criteria be met.

1) Any NDO shall be at least 4 equivalent opening diameters from each VOC emitting point.
Equivalent opening diameters = 2.99 ft
4 equivalent diameters = 11.97 ft
Distance to VOC emitting point = > 20'

2) The total area of all NDO's shall not exceed 5% of the surface area of the enclosure.

Surface area of enclosure = ~~744 ft²~~ > 2632.6 ft²
Surface area of all NDO's = 7.4 ft²
% of area of enclosure = 0.28% (first floor + ceiling) ...

3) The facial velocity of the air into the NDO shall be greater than 200 fpm.

Measured velocity through NDO = 225 - 281 fpm

4) All lids and covers must be in place during operation.
Verified and dry-ice test passed by : yes

PTE Certified by: [signature] 10/30/08
Bruno A. Ferraro, CEP, QEP

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EPA Method 204 Procedure-T
PTE Certification Data Sheet

GROVE SCIENTIFIC & ENGINEERING

Each of the compliance and performance criteria have been tested and the data presented below. Calculations and notes are presented on the back of this worksheet.

Facility Name: E-Stone

Facility Address: 420 Haywood Taylor Blvd, Sebring Fl

Production Line Number and Type: Line 1 Polymerization / NDO ...

Area of natural Draft Opening(s) (NDO): (2"x3")+(2"x3")+(2"x3")+(2"x3")= 24" sq inches 0.12 sq ft

NDO Location and Description: Drying Conveyor Entrance

EPA Method 204 Procedure-T referenced in 40 CFR Chapter I, Part 52 Appendix B requires that the following criteria be met.

1) Any NDO shall be at least 4 equivalent opening diameters from each VOC emitting point.
Equivalent opening diameters = 0.39 ft
4 equivalent diameters = 1.56
Distance to VOC emitting point = >12 ft

2) The total area of all NDO's shall not exceed 5% of the surface area of the enclosure.

Surface area of enclosure = ~~74 ft²~~ >2636.6 ft² (Just floor & ceiling)
Surface area of all NDO's = 7.4 ft²
% of area of enclosure = 0.28% (just floor & ceiling)

3) The facial velocity of the air into the NDO shall be greater than 200 fpm.

Measured velocity through NDO = ~285 fpm ...

4) All lids and covers must be in place during operation.
Verified and dry-ice test passed by : yes

PTE Certified by: [signature] 12/30/08
Bruno A. Ferraro, CEP, QEP

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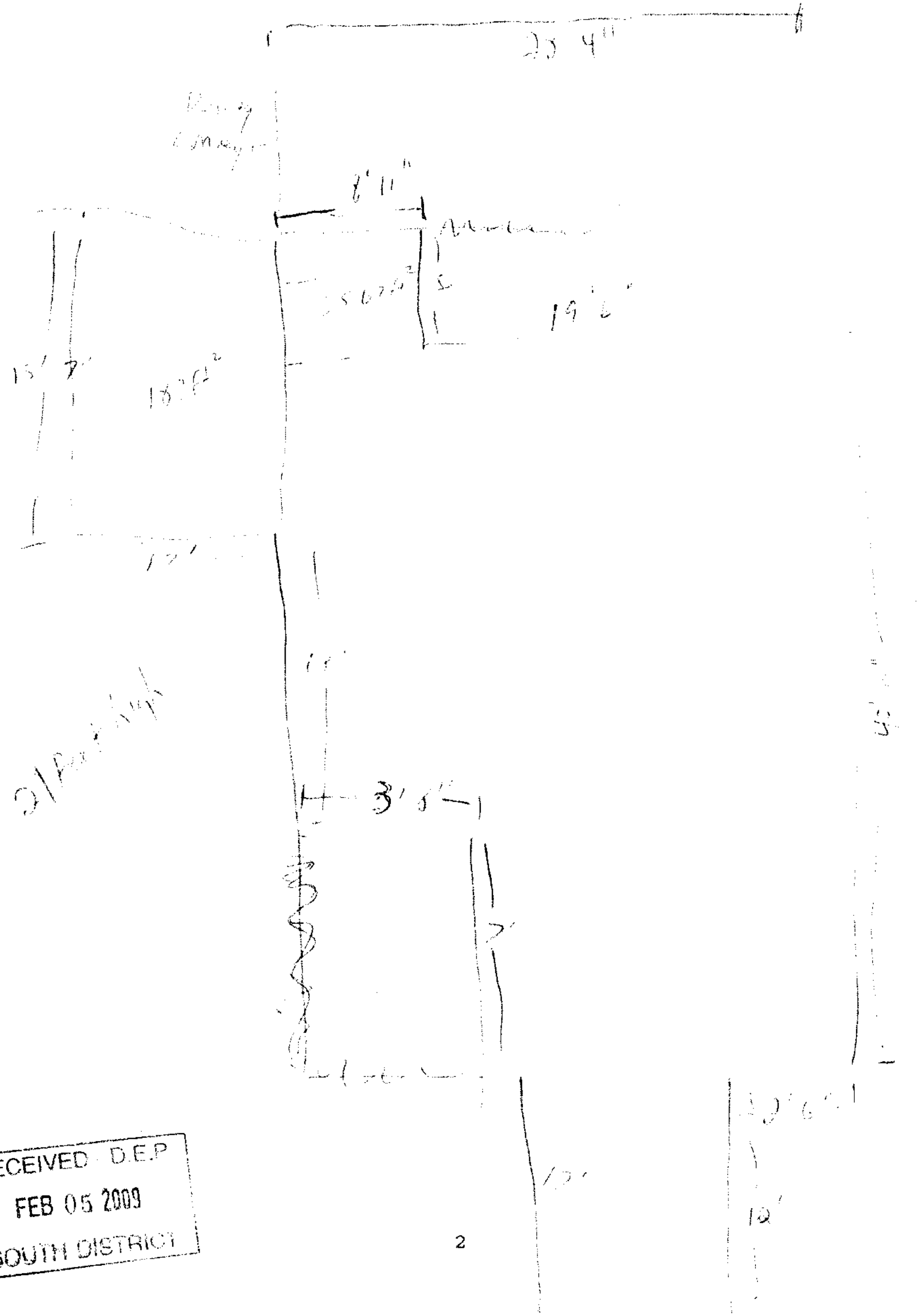

GROVE
SCIENTIFIC & ENGINEERING

E-Stone Enclosure Line 1 Test Data Sheet

Test Date 12-9-08

GSE Employee Name [signature]

Time Start 1015 Run 1

Time End 1115

Total Time in Minutes 60 min Run 1

Magnahelic 1 Reading -0.005" w.c.

Magnahelic 2 Reading -0.02" w.c.

NDO airspeed at conveyor inlet (fpm) -365 @ -0.6" wc set Point

NDO airspeed at slab outlet (fpm) -204 @ -0.6" w.c. set point

1-hour NDO Airflow Check Using Smoke Tubes

Time (minutes)	Inlet NDO	Outlet NDO
0	Neg	NeG
10	Neg	Neg
20	Neg	Neg
30	Neg	Neg
40	Neg	Neg
50	Neg	Neg
60	Neg	Neg

Comments:

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E-Stone Enclosure Line 1 Test Data Sheet

Test Date 12-9-08

GSE Employee Name [signature]

Time Start 1155

Time End 1255

Total Time in Minutes 60

Magnahelic 1 Reading 0.005

Magnahelic 2 Reading 0.035

NDO airspeed at conveyor inlet (fpm) -355 @ -0.6" w.c. set point

NDO airspeed at slab outlet (fpm) -214 @ -0.6" wc set point

1-hour NDO Airflow Check Using Smoke Tubes

Time (minutes)	Inlet NDO	Outlet NDO
0	NEG	NEG
10	NEG	NEG
20	NEG	NEG
30	NEG	NEG
40	NEG	NEG
50	NEG	NEG
60	NEG	NEG

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Comments:

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SCIENTIFIC & ENGINEERING

E-Stone Enclosure Line 1 Test Data Sheet

Test Date 12-9-08

GSE Employee Name [signature]

Time Start 1405

Time End 1505

Total Time in Minutes 60

Magnahelic 1 Reading -0.005

Magnahelic 2 Reading -0.04

NDO airspeed at conveyor inlet (fpm) -319 @ -0.6" w.c. set point

NDO airspeed at slab outlet (fpm) -220 @ 0.6" w.c. set point

1-hour NDO Airflow Check Using Smoke Tubes

Time (minutes)	Inlet NDO	Outlet NDO
0	NEG	NEG
10	NEG	NEG
20	NEG	NEG
30	NEG	NEG
40	NEG	NEG
50	NEG	NEG
60	NEG	NEG

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Comments:

6140 EDGEWATER DRIVE#SUITE F#ORLANDO, FLORIDA 32810-4810#(407)298-2282#FAX(407)290-9038

ATTACHMENT D
RTO FIELD DATA SHEETS AND RTO TEMPERATURE CHART

GROVE
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E-Stone RTO Parametric Data Sheet

Test Date 12-9-08

GSE Employee Name [signature]

Control Device Crawford Industrial Group RTO 7000

Time Start 0908 (computer time) start dosing
0914 Clock Time

Fuel Meter Reading at Start 181500 CF @ 0920 hrs

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Time End 1503 Computer Time Print
1505 clock Time

Fuel Meter Reading at End 184400 CF @ 1505

Total Time in Minutes 240 + 51 = 291 min

Total Fuel Used 2900 CF in 345 min or 504 CF/hr

	Same Run 2	Run 3
Inlet Duct Airflow Rate Magnahelic Reading 0.175 "wc 1800 FPM	✓	✓
Exhaust Stack Airflow Rate Magnahelic Reading 0.25 "w.c & 2000 FPM	✓	✓

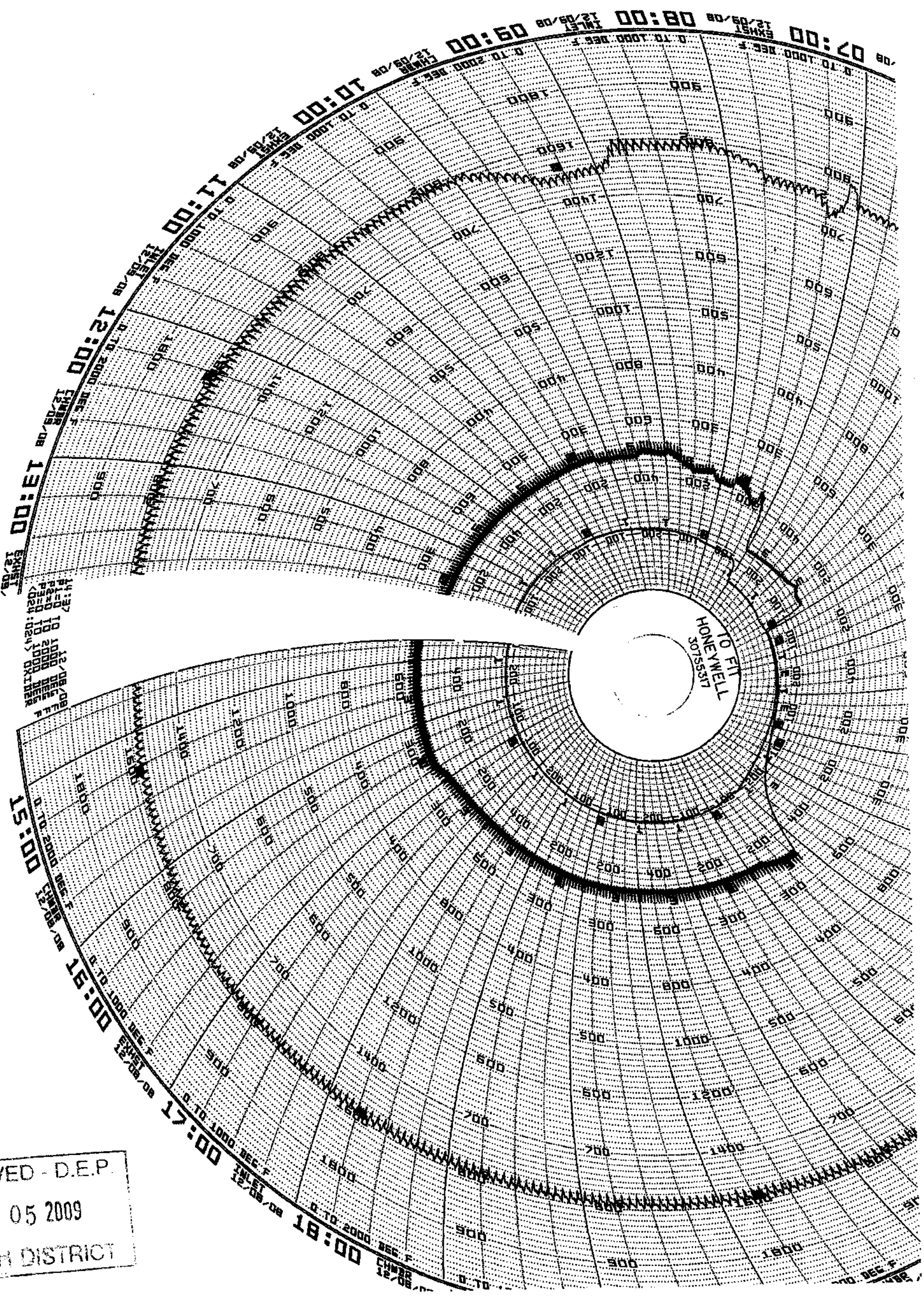
Vacuum Set-point − 0.6" w.c. All 3 runs

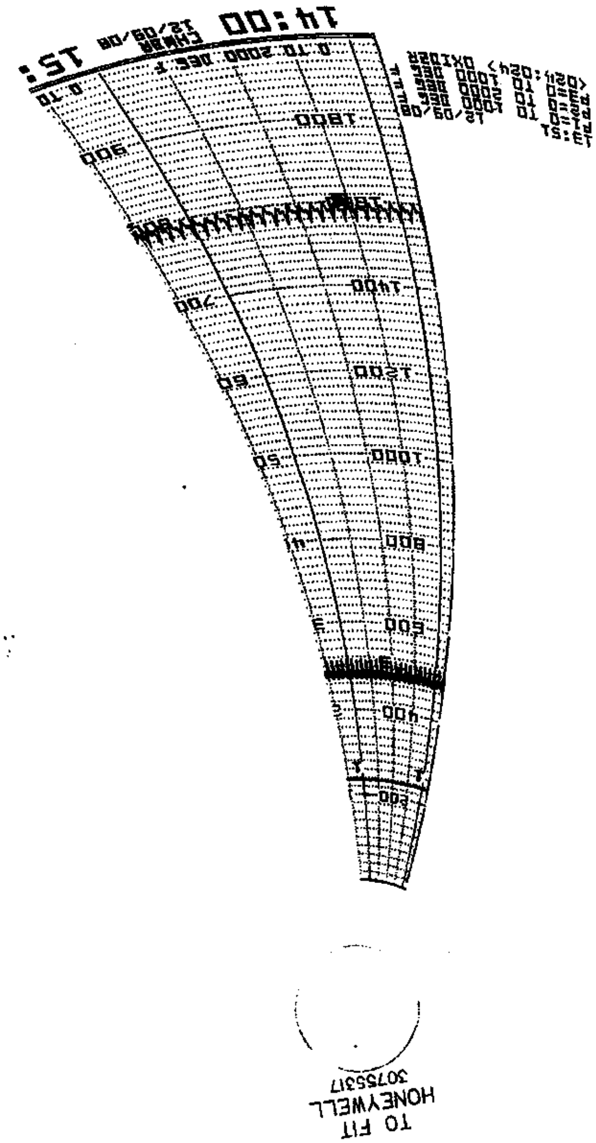
Combustion Chamber Temperature 1577F

Comments Product ID 635 Tropico - 13-14 Slabs/hr production Rate
resin

Test start 10:15 Run 1 - vacuum set point remaines @ -0.6"wc
Inlet & outlet Duct flow remained constant during all runs

6140 EDGEWATER DRIVE#SUITE F#ORLANDO, FLORIDA 32810-4810#(407)298-2282#FAX(407)290-9038


TO FIT
HONEYWELL
30755317
15:00
0 TO 2000 DEG F
CHMBR
12/08/08
16:00
0 TO 1000 DEG F
EXHST
12/08/08
17:00
0 TO 1000 DEG F
INLET
12/08/08
18:00
0 TO 2000 DEG F
CHMBR
12/08/08


TO FIT
HONEYWELL
30755317

ATTACHMENT E

COMPUTER GENERATED PRODUCTION REPORT AND MSDS FOR 2 AOC POLYESTER RESINS

MP 370 15" - Report New WKSESSE04

Recipe Production Code: US635 Desc: Tropico Order: ES81635

Main Screen

Raw Material Report:

Store & Clear Total | Stored Report

Star Time: 2008-12-09 09:12:10

Code: US635 Order: ES81635

Name: Tropico

Notes: revised 10/15/07

E-Stone USA Corporation

Total Slabs: 1

Bin/Slot									
A111	ID	G019485	Desc	Baltic Brown 48/5	Total Weight	11.596	lb	5.260	kg
A112	ID	G019484	Desc	Baltic Brown 48/4	Total Weight	33.598	lb	15.240	kg
A113	ID	G019483	Desc	Baltic Brown 48/3	Total Weight	9.877	lb	4.480	kg
A114	ID	GO19470	Desc	Baltic Brown 47	Total Weight	22.421	lb	10.170	kg
A115	ID	G019460	Desc	Baltic Brown 46	Total Weight	9.546	lb	4.330	kg
A116	ID	G019450	Desc	Baltic Brown 45	Total Weight	7.275	lb	3.300	kg
A117	ID	G012	Desc	Quartz GS20	Total Weight	5.666	lb	2.570	kg
A118	ID	G009	Desc	GS40	Total Weight	3.968	lb	1.800	kg
A119	ID	RM0009	Desc	Silcosil 125	Total Weight	12.610	lb	5.720	kg
A120	ID		Desc		Total Weight	0.000	lb	0.000	kg
A121	ID		Desc		Total Weight	0.000	lb	0.000	kg
A122	ID		Desc		Total Weight	0.000	lb	0.000	kg
A123	ID		Desc		Total Weight	0.000	lb	0.000	kg
A101-104	ID	RNTR	Desc	Poliester Resin 50/50 Nuetral	Total Weight	21.667	lb	9.828	kg
M1609	ID	RM0012	Desc	Norox 90cc	Total Weight	0.222	lb	0.101	kg

Print Screen 09:11:42 10 CALIBRATING NOT READY 05 2008-12-09 09:12:25

MP 370 15" - Report New WKSESSE04

Recipe Production Code: US635 Desc: Tropico Order: ES81635

Main Screen 7

Raw Material Report:

Store & Clear Total | Stored Report

Star Time: 2008-12-09 09:12:10

Code: US635 Order: ES81635

Name: Tropico

Notes: revised 10/15/07

E-Stone USA Corporation

Total Slabs: 78

Bin/Slot									
A111	ID	G019485	Desc	Baltic Brown 48/5	Total Weight	922.413	lb	418.400	kg
A112	ID	G019484	Desc	Baltic Brown 48/4	Total Weight	2634.390	lb	1194.940	kg
A113	ID	G019483	Desc	Baltic Brown 48/3	Total Weight	749.703	lb	340.060	kg
A114	ID	GO19470	Desc	Baltic Brown 47	Total Weight	1713.497	lb	777.230	kg
A115	ID	G019460	Desc	Baltic Brown 46	Total Weight	726.687	lb	329.620	kg
A116	ID	G019450	Desc	Baltic Brown 45	Total Weight	578.977	lb	262.620	kg
A117	ID	G012	Desc	Quartz GS20	Total Weight	434.420	lb	197.050	kg
A118	ID	G009	Desc	GS40	Total Weight	305.494	lb	138.570	kg
A119	ID	RM0009	Desc	Silcosil 125	Total Weight	1004.403	lb	455.590	kg
A120	ID		Desc		Total Weight	0.000	lb	0.000	kg
A121	ID		Desc		Total Weight	0.000	lb	0.000	kg
A122	ID		Desc		Total Weight	0.000	lb	0.000	kg
A123	ID		Desc		Total Weight	0.000	lb	0.000	kg
A101-104	ID	RNTR	Desc	Poliester Resin 50/50 Nuetral	Total Weight	1674.901	lb	759.723	kg
M1609	ID	RM0012	Desc	Norox 90cc	Total Weight	16.741	lb	7.594	kg

Print Screen 15:04:45 M1001 - WARNING INVERTER MOTOR M1001 - UNLOAD SLABS TROLLEY US 2008-12-09 15:04:52

MP 370 15" - Recipe: Dosing Formula WKSESSE04

Recipe Production Code US635 Desc Tropico Order ES81635

Main Screen

Recipe: Dosing Formula

Dosing Home Page

Archives

Code: US635

Name: Tropico

Notes: revised 10/15/07

Display Mode

Bin/Slot	ID	Desc	lb	kg
A111	ID G019485	Desc Baltic Brown 48/5	12.000 lb	5.443 kg
A112	ID G019484	Desc Baltic Brown 48/4	33.640 lb	15.259 kg
A113	ID G019483	Desc Baltic Brown 48/3	9.080 lb	4.119 kg
A114	ID GO19470	Desc Baltic Brown 47	21.890 lb	9.929 kg
A115	ID G019460	Desc Baltic Brown 46	9.680 lb	4.391 kg
A116	ID G019450	Desc Baltic Brown 45	7.320 lb	3.320 kg
A117	ID G012	Desc Quartz GS20	5.500 lb	2.495 kg
A118	ID G009	Desc GS40	4.000 lb	1.814 kg
A119	ID RM0009	Desc Silcosil 125	13.000 lb	5.897 kg
A120	ID	Desc	0.000 lb	0.000 kg
A121	ID	Desc	0.000 lb	0.000 kg
A122	ID	Desc	0.000 lb	0.000 kg
A123	ID	Desc	0.000 lb	0.000 kg
A101-104	ID RNTR	Desc Poliester Resin 50/50 Nuetral	21.500 lb	9.752 kg
M1609	ID RM0012	Desc Norox 90cc	0.200 lb	0.091 kg

Read Data From PLC

Write Data To PLC

Print Screen 09:11:42 CALIBRATING NOT READY US 2008-12-09 09:15:31

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E-Stone Polymerization Line Process Data Sheet

Test Date 12-9-08

GSE Employee Name [signature]

Polymerization Line Number 1

Time Start 0912 Computer Time

Time End 1504 Computer Time

Total Time in Minutes 292 min

78 slabs in 292 min = 16 slab/hr

Total Quantity of Slabs Produced 13-14 Panels or slabs/hr

Method of Determining Process Rate Automated data Collection System

Comments see production report generated by E-stone process computer

resin 50% - PKC AOC resin and 50% PKE AOC Resin

6140 EDGEWATER DRIVE#SUITE F#ORLANDO, FLORIDA 32810-4810#(407)298-2282#FAX(407)290-9038

Resin Preparation Verification Sheet

Date	12/8/08
Job #	5136-08
Silo #	103
Slab Color	635
Resin Blend Ratio / Code	50/50 RNTR

	Catalyzed Qty (Lbs)	Un-Catalyzed Qty (Lbs)
Existing Qty PKE		
Existing Qty PKC		
Resin Blend Ratio / Code		

	Qty (Lbs)	Qty (CC)	Manual Calculation (Lbs)
Added Qty PKE (PLC)	1245.2		1276
Added Qty PKC (PLC)	1250.3		1275
Added Qty of Tinuvin	9.0		
Added Qty of Styrene	70		2551
Added Qty of Silquest	7.2		
Added Qty of Coatosil		195	
Added Qty of NL 51P		177	2596
Added Qty of Pigment (1)			
Added Qty of Pigment (2)			
Added Qty of Pigment (3)			

	Checklist	Check @ completion
Pumping Resin	Verify Upper valve for selected silo open	/
	Verify that the bottom valve & downstream valve for selected silo are closed	/
	Verify that the upper valve is closed after charging material	/
Silo Identification	Verify that the silo is properly identified in PLC (ex. RNTR, R620)	/
	Verify that the silo is properly identified with label	/
	Verify that the cycle settings for silo is in Automatic @ PLC	/

Prepared by Marcus Johnson

Approved by [signature]

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AOC®
World Leader in Resin Technology

Material Safety Data Sheet

MSDS no. 12666V1

WHMIS (Canada)	NFPA (USA)	HMIS (USA)	Protective clothing
B-2 D-2A D-2B	Fire 3, Health 2, Reactivity 2, Specific hazard	Health hazards 2 Fire hazard 3 Reactivity 2 Personal protection X	

Section I. Chemical Product and Company Identification

Trade name	**A520-PKC-00**	**Product type**	**Polyester Resin Solution**
CAS #	Not applicable.	**Synonym**	None.
Chemical name	Not applicable.	**Chemical formula**	Not applicable.
Chemical family	Aromatic.		
Material uses	Used in the manufacture of thermoset plastic parts.		
TSCA	All ingredients are listed or compliant with TSCA.		
DSL	All ingredients are listed or compliant with the NSNR.		

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Manufacturer

AOC, LLC
950 Highway 57 East
Collierville, TN U.S.A. 38017
Phone Number: (901) 854-2800
8am-5pm (CST) Mon-Fri

In case of emergency

CHEMTREC (US): 24 hours/7 days (800) 424-9300
CANUTEC (Canada): 24 hours/7 days (613) 996-6666

Section II. Information on Hazardous Ingredients

Name	CAS #	% by weight
1) Styrene	100-42-5	35.0

Section III. Hazards Identification.

Potential acute health effects	Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness. Severe eye irritant which may result in redness, burning, tearing and blurred vision. Skin irritant which may result in burning sensation. Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea.
Potential chronic health effects	**CARCINOGENIC EFFECTS:** Styrene: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic. Lung effects have been observed in mouse studies following repeated exposure. **MUTAGENIC EFFECTS** Not available. **TERATOGENIC EFFECTS**

Section VI. Accidental Release Measures

Small Spill	Absorb with an inert material and place in an appropriate waste disposal container.
Large Spill	Stop leak if without risk. Eliminate all ignition sources. Contain with an inert material, recover as much as possible and place the remainder in an appropriate waste disposal container. Warn unauthorized personnel to move away. Prevent entry into sewers or confined areas.

Section VII. Handling and Storage

Precautions	WARNING! Use only in well-ventilated areas. Store away from direct sunlight. Avoid inhalation and contact with eyes, skin, and clothing. Wear appropriate personal protective equipment for your task. Ground and bond all containers when transferring the material. Empty containers may retain product and product vapor. Do not expose to heat, flame, sparks or other ignition sources such as cutting, welding, drilling, grinding or static electricity. Do not pressurize. Provide adequate safety showers and eyewashes in the area of use. Note: If product contains metal compounds (Section II), avoid dust from dried product or grinding of articles made from this material.
Storage	Keep away from heat. Keep away from sources of ignition. Keep container tightly closed. Keep in a cool, well-ventilated place. Containers should be grounded.

Section VIII. Exposure Controls/Personal Protection

Exposure limits	1) Styrene	**OSHA PEL (United States).** TWA: 100 ppm TWA: 426 mg/m³ **ACGIH TLV (United States).** TWA: 20 ppm TWA: 85 mg/m³
Engineering controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Provide adequate safety showers and eyewashes in the area of use.	
Personal protection	Personal protective equipment may vary depending on the job being performed. **Eye/Face:** Wear eye protection such as safety glasses with side shields, splash goggles or face shield with safety glasses. **Skin:** Avoid skin contact. Impervious gloves should be worn. Other items may include long sleeves, lab coats, or impervious jackets. **Respiratory:** Determine if airborne concentrations are below the recommended exposure limits in accordance your company's PPE program and regulatory requirements. If they are not, select a NIOSH-approved respirator that provides adequate protection from the concentration levels encountered. Air-purifying respirators are generally adequate for organic vapors. Use positive pressure, supplied-air respirators if there is potential for an uncontrolled release, if exposure levels are unknown, or under circumstances where air-purifying respirators may not provide adequate protection. Reference OSHA 29 CFR 1910.134	
Personal protection in case of a large spill	Chemical resistant gloves, full protective suit, and boots. Respiratory protection in accordance with OSHA regulation 29 CFR 1910.134. A self-contained breathing apparatus should be used to avoid inhalation of the product vapors.	

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Section IX. Physical and Chemical Properties

Physical state	Liquid.	**Odor**	Aromatic.
Color	Yellow.	**pH (1% soln/water)**	Not applicable.
Molecular weight (g/mol)	1000 to 15000	**Boiling point**	293°F (145°C) Styrene
Melting point	Not available.	**Specific gravity**	1.1 (Water = 1)
Vapor pressure	4.5 mm Hg @ 68°F (20°C) Styrene	**Vapor density**	3.59 Styrene (Air = 1)
Odor threshold	0.14 ppm Styrene	**Water/oil dist. coeff.**	Not available.

Section XIV. Transport Information

TDG - Shipping description	Resin Solution; 3; UN1866; III.	**Labels** 
IATA/IMDG - Shipping description	IATA: UN1866; Resin Solution; 3; III; Pkg. Inst.: Passenger - 309; Cargo - 310 IMDG: UN1866; Resin Solution; 3; III; FP=31°C; EmS No.: F-E, S-E	
Additional information	US regulations require the reporting of spills when the amount exceeds the Reportable Quantity (RQ) for specific components of this material. See CERCLA in Section 15, Regulatory Information, for the Reportable Quantities.	

Section XV. Other Regulatory Information

Other regulations

This section does not reference all applicable regulatory compliance lists.

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Proposition 65 Warning: This product contains a chemical(s) known to the State of California to cause cancer, birth defects and/or reproductive harm.

SARA 302 component(s): None.

SARA 313 component(s): Styrene.

CERCLA RQ(s):

Styrene-1000 lbs. (453.6 kg)

Section XVI. Other Information

References

-Transportation of Dangerous Goods Act - "Regulations respecting the handling, offering for transport and transporting of dangerous goods." Extract from the Canada Gazette Part II
-Canada Gazette Part II, Hazardous Products Act "Ingredient Disclosure List".
-Manufacturer's Material Safety Data Sheet.
-29 CFR 1910.1000, Z - Tables
-ACGIH 2000 TLVs for Chemical Substances and Physical Agents
-Registry of Toxic Effects of Chemical Substances (RTECS)
-California Code of Regulation Proposition 65

Prepared by AOC, LLC - Corporate Regulatory Affairs. FL

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The information contained in this data sheet is furnished in good faith and without warranty, representation, or inducement or license of any kind, except that it is accurate to the best of AOC, LLC's knowledge, or was obtained from sources believed by AOC, LLC to be reliable. The accuracy, adequacy or completeness of health and safety precautions set forth herein cannot b guaranteed, and the buyer is solely responsible for ensuring that the product is used, handled, stored, and disposed of safely an in compliance with applicable federal, state or provincial, and local laws. AOC, LLC disclaims liability for any loss, damage or personal injury that arises from, or is in any way related to, use of the information contained in this data shee.

World Leader in Resin Technology

Material Safety Data Sheet

MSDS no. 12795V3

WHMIS (Canada)	NFPA (USA)	HMIS (USA)	Protective clothing
B-2 D-2A D-2B	Fire: 3; Health; Reactivity: 2; Specific hazard	Health hazards * 2 Flammability 3 [illegible] 2 Personal protection X	

Section 1. Chemical product and company identification

Trade name	**A520-PKE-00**
Product type	Polyester Resin Solution
Chemical family	Aromatic.
Material uses	Used in the manufacture of thermoset plastic parts.

Manufacturer	In case of emergency
AOC, LLC 950 Highway 57 East Collierville, TN U.S.A. 38017 Website: www.aoc-resins.com Phone Number: (901) 854-2800 8am-5pm (Central Time) Mon-Fri	CHEMTREC (US): 24 hours/7 days (800) 424-9300 CANUTEC (Canada): 24 hours/7 days (613) 996-6666

Section 2. Hazards identification

OSHA status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Routes of entry	Eye contact, Skin contact, Inhalation, Ingestion
Potential acute health effects	**Eyes:** Severe eye irritant which may result in redness, burning, tearing and blurred vision. **Skin:** Skin irritant which may result in burning sensation. Repeated or prolonged skin contact may cause dermatitis. **Ingestion:** Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea. **Inhalation:** Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness.
Potential chronic health effects	**CARCINOGENIC EFFECTS:** Styrene:Classified A4 (not classifiable for human or animal) by ACGIH.Classified 2B (possible for human) by IARC.An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic to humans. Lung effects have been observed in mouse studies following repeated exposure. **MUTAGENIC or TERATOGENIC EFFECTS:** No known effect according to our database.

Section 3. Composition/information on ingredients

Name	CAS #	% by weight
1) Styrene	100-42-5	35.0

Section 4. First aid measures

Eye contact	Flush with a continuous flow of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Use of buffered baby shampoo will aid in removal. Seek medical attention.
Skin contact	Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. If irritation persists, seek medical attention.
Inhalation	Move the victim to a safe area as soon as possible. Allow the victim to rest in a well-ventilated area. If breathing is difficult, give oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
Ingestion	Do not induce vomiting. Seek immediate medical attention.

Section 5. Fire fighting measures

The product is:	Flammable liquid, Class IC.
Auto-ignition temperature	914°F (490°C) Styrene
Flash point	87.6°F (31°C) Styrene
Flammable limits	**Lower:** 0.9% **Upper:** 6.8% (Styrene)
Products of combustion	May produce carbon monoxide, carbon dioxide, and irritating or toxic vapors, gases or particulate.
Fire hazard	Flammable in the presence of open flames, sparks, or heat.
Explosion hazard	Can react with oxidizing materials. Explosive in the form of vapor when exposed to heat or flame. Material may polymerize when container is exposed to heat (fire) and polymerization will increase pressure in a closed container which may cause the container to rupture violently.
Fire-fighting media and instructions	SMALL FIRE: Use carbon dioxide, foam, dry chemical or water fog to extinguish. LARGE FIRE: Evacuate surrounding areas. Use carbon dioxide, foam, dry chemical or water fog to extinguish. Wear self-contained breathing apparatus (SCBA) and full fire-fighting protective clothing. Cool containing vessels with water spray in order to prevent pressure build-up, autoignition or explosion. Prevent run off to sewers or other water ways.

Section 6. Accidental release measures

Small spill	Absorb with an inert material and place in an appropriate waste disposal container.
Large spill	Stop leak if without risk. Eliminate all ignition sources. Contain with an inert material, recover as much as possible and place the remainder in an appropriate waste disposal container. Warn unauthorized personnel to move away. Prevent entry into sewers or confined areas.

Section 7. Handling and storage

Handling	WARNING! Use only in well-ventilated areas. Store away from direct sunlight. Avoid inhalation and contact with eyes, skin, and clothing. Wear appropriate personal protective equipment for your task. Ground and bond all containers when transferring the material. Empty containers may retain product and product vapor. Do not expose to heat, flame, sparks or other ignition sources such as cutting, welding, drilling, grinding or static electricity. Do not pressurize. Provide adequate safety showers and eyewashes in the area of use. Note: If product contains metal compounds (Section II), avoid dust from dried product or grinding of articles made from this material.
Storage	Keep away from heat. Keep away from sources of ignition. Keep container tightly closed. Keep in a cool, well-ventilated place. Containers should be grounded.

Section 8. Exposure controls/personal protection

Exposure limits	Styrene	**OSHA PEL (United States).** TWA: 100 ppm TWA: 426 mg/m³ **ACGIH TLV (United States).** TWA: 20 ppm TWA: 85 mg/m³
Engineering controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Provide adequate safety showers and eyewashes in the area of use.	
Personal protection	Personal protective equipment may vary depending on the job being performed. **Eye/Face:** Wear eye protection such as safety glasses with side shields, splash goggles or face shield with safety glasses. **Skin:** Avoid skin contact. Impervious gloves should be worn. Other items may include long sleeves, lab coats, or impervious jackets. **Respiratory:** Determine if airborne concentrations are below the recommended exposure limits in accordance your company's PPE program and regulatory requirements. If they are not, select a NIOSH-approved respirator that provides adequate protection from the concentration levels encountered. Air-purifying respirators are generally adequate for organic vapors. Use positive pressure, supplied-air respirators if there is potential for an uncontrolled release, if exposure levels are unknown, or under circumstances where air-purifying respirators may not provide adequate protection. Reference OSHA 29 CFR 1910.134	
Personal protection in case of a large spill	Chemical resistant gloves, full protective suit, and boots. Respiratory protection in accordance with OSHA regulation 29 CFR 1910.134. A self-contained breathing apparatus should be used to avoid inhalation of the product vapors.	

Section 9. Physical and chemical properties

Physical state	Liquid.
Color	Yellow.
Odor	Aromatic.
Molecular weight (g/mol)	1000 to 15000
Boiling point	293°F (145°C) Styrene
Melting point	Not available.
pH (1% soln/water)	Not applicable.
Vapor pressure	4.5 mm Hg @ 68°F (20°C) Styrene
Vapor density	3.59 Styrene (Air = 1)
Specific gravity	1.1 (Water = 1)
Water/oil dist. coeff.	Not available.
Evaporation rate	Not available.
Odor threshold	0.14 ppm Styrene
Solubility in water	Slight.
Dispersibility properties	Not dispersed in water.

Section 10. Stability and reactivity

Stability	This product is normally stable, but can become unstable at elevated temperatures and undergo polymerization, which could produce heat and fumes resulting in over-pressurization and rupture in a closed container.
Instability temperature	>170°F (77°C)
Conditions of instability	Heat.
Incompatibility with various substances	Polymerizes in the presence of organic peroxides, oxidizing materials, or heat.
Corrosivity	Our database contains no additional remark on the corrosivity of this product

Section 11. Toxicological information

	Name	Result	Species	Dose	Exposure
Toxicity to animals	Styrene	LD50 Oral	Rat	2650 mg/kg	-
		LC50 Inhalation Vapor	Rat	5634.2 ppm	4 hours

Special remarks on toxicity to animals	Lung effects have been observed in mouse studies following repeated exposure.
Special remarks on chronic effects on humans	No additional remark.
Special remarks on other toxic effects on humans	No additional remark.

Section 12. Ecological information

Ecotoxicity	Toxic to aquatic organisms. Should not be released to sewage system or other bodies of water at concentrations above limits established in regulations or permits.

Section 13. Disposal considerations

Waste disposal	Recycle to process, if possible. Consult your local or regional authorities. Ignitable characteristic.

Section 14. Transport information

DOT	UN1866; Resin Solution; 3; III.	Labels
TDG	UN1866; Resin Solution; 3; III.	
IATA/IMDG	IATA: UN1866; Resin Solution; 3; III; Pkg. Inst.: Passenger - 309; Cargo - 310 IMDG: UN1866; Resin Solution; 3; III; FP=31°C; EmS No.: F-E, S-E	
Additional information	US regulations require the reporting of spills when the amount exceeds the Reportable Quantity (RQ) for specific components of this material. See CERCLA in Section 15, Regulatory Information, for the Reportable Quantities.	

Section 15. Regulatory information

Other regulations	**This section does not reference all applicable regulatory compliance lists.** **TSCA**: All ingredients are listed or compliant with TSCA. **DSL**: All ingredients are listed or compliant with the NSNR. **Proposition 65 Warning:** This product contains a chemical(s) known to the State of California to cause cancer, birth defects and/or reproductive harm. **SARA 302 component(s)**: None. **SARA 313 component(s)**: Styrene. **CERCLA(RQ):** Styrene - 1000 lbs. (453.6 kg)

Section 16. Other information

Prepared by	AOC, LLC - Corporate Regulatory Affairs.	FL

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ATTACHMENT F

STACK TEST REPORT BY ANALYTICAL TESTING CONSULTANTS

STYRENE DESTRUCTION EFFICIENCY TESTING
ON A REGENERATIVE THERMAL OXIDIZERS (RTO)
AND STYRENE EMISSIONS FROM A BAGHOUSE

E-Stone USA
Corporation

420 Haywood Taylor Boulevard
Sebring, Florida 33870
(863) 655-1273 Plant Telephone Number
(863) 655-1309 Plant Facsimile Number
Test Date-December 9, 2008

ATC
ANALYTICAL TESTING

Providing Quality Air Testing and Consulting Services Since 1981.

ATC Project Number P-8192

Testing Conducted for:

Mr. Bruno Ferraro, C.E.P., Q.E.P.
Grove Scientific and Engineering
Orlando, Florida

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Accreditation limited to LELAP Scope
Louisiana Environmental Lab Accreditation Program
LELAP
Certificate #04044 Expiration Date 6/30/09

Distribution:
Mr. Bruno Ferraro
(One copy)

Issue Date:
January 8, 2009

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INTRODUCTION

This report presents the results of styrene destruction/removal efficiency (DRE) testing performed on a Regenerative Thermal Oxidizer (RTO) at E-Stone USA in Sebring, Florida. Styrene emissions were also continuously monitored on a baghouse exhaust.

The purpose of this test was to determine styrene inlet mass loading and mass emission rate of the RTO and also calculate destruction/removal efficiencies from the acquired data as required in the facility permit no. 0550049-001-AC.

ANALYTICAL TESTING CONSULTANTS, INC. of Kannapolis, North Carolina conducted the testing and associated measurements. Members of the ATC test team were Bill Kissel, Flavel Smith, James Roberts and Kent Childers.

CERTIFICATION OF RESULTS

"I certify under penalty of law that I believe the information provided in this document is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information."

W Keith Poole 1/7/09
Signature/Date

W. Keith Poole
Technical Director
Test Report Preparation

Bill K 1/7/09
Signature/Date

William G. "Bill" Kissel
President
On-site Supervisor/Report Review

Results Summary of Gaseous Emissions Testing

Client:	**E-Stone/Grove Scientific**
Location:	**Sebring, Florida**
Date:	**12/09/08**

General Stack Parameters	**Run #1**	**Run #2**	**Run #3**	**Average**
Run Times-				
Start	10:15 AM	11:55 AM	2:05 PM	
End	11:15 AM	12:55 PM	3:05 PM	
RTO Inlet				
Stack Velocity, feet per second	31.62	33.15	31.73	**32.17**
Actual Volumetric Air Flow Rate, cubic feet per minute	3,541	3,712	3,554	**3,602**
Stack moisture, percent	2.96	2.41	2.72	**2.70**
Stack temperature, degrees F	104.44	111.50	112.31	**109.4**
Standard Volumetric Air Flow Rate, cubic feet per minute	3,222	3,354	3,196	**3,257**
RTO Exhaust				
Stack Velocity, feet per second	39.97	40.98	42.46	**41.14**
Actual Volumetric Air Flow Rate, cubic feet per minute	6,622	6,789	7,034	**6,815**
Stack moisture, percent	1.68	1.38	2.93	**2.00**
Stack temperature, degrees F	238.94	218.13	224.44	**227.2**
Standard Volumetric Air Flow Rate, cubic feet per minute	4,939	5,235	5,290	**5,155**
Oxygen Concentration, percent (corrected per 7e-5b)	20.41	20.70	20.37	**20.49**
Carbon Dioxide concentration, percent (corrected per 7e-5b)	0.04	0.08	0.16	**0.09**
Baghouse Exhaust				
Stack Velocity, feet per second	47.75	46.77	45.52	**46.68**
Actual Volumetric Air Flow Rate, cubic feet per minute	16,506	16,166	15,733	**16,135**
Stack moisture, percent	2.61	2.44	2.61	**2.55**
Stack temperature, degrees F	88.63	88.94	94.44	**90.7**
Standard Volumetric Air Flow Rate, cubic feet per minute	15,538	15,236	14,655	**15,143**

Results Summary of Gaseous Emissions Testing

Client:	**E-Stone/Grove Scientific**
Location:	**Sebring, Florida**
Date:	**12/9/2008**

Measured Gaseous Pollutants	Run #1	Run #2	Run #3	Average
Volatile Organic Compounds				
RTO Inlet				
VOC, ppm as calibration gas v/v dry basis	436.46	434.17	424.79	**431.81**
VOC, ppm as styrene, v/v dry basis	142.90	142.15	139.08	**141.38**
VOC, lbs/hr as styrene	7.48	7.74	7.22	**7.48**
VOC, lbs/hr as carbon	2.63	2.73	2.67	**2.68**
Baghouse Exhaust				
VOC, ppm as calibration gas v/v dry basis	67.27	84.03	80.99	**77.43**
VOC, ppm as styrene, v/v dry basis	21.35	26.67	25.71	**24.58**
VOC, lbs/hr as styrene	5.39	6.60	6.12	**6.03**
VOC, lbs/hr as carbon	1.96	2.40	2.22	**2.19**
Annual Potential Uncontrolled VOC emissions (as carbon-8,760 hour basis)-includes RTO inlet and Baghouse Exhaust				**21.34**
RTO Exhaust				
VOC, ppm as calibration gas v/v dry basis	3.60	3.39	5.23	**4.07**
VOC, ppm as styrene, v/v dry basis	1.19	1.12	1.73	**1.35**
VOC, lbs/hr as styrene	0.06	0.06	0.09	**0.07**
VOC, lbs/hr as carbon	0.03	0.03	0.05	**0.04**
Annual Potential Controlled VOC emissions (as carbon-8,760 hour basis)-includes RTO Exhaust and Baghouse Exhaust				**9.77**

Removal Efficiency Calculations

	Inlet, lbs/hr Styrene	Outlet, lbs/hr Styrene		DRE, %
Run #1	7.48	0.06		**99.17%**
Run #2	7.74	0.06		**99.21%**
Run #3	7.22	0.09		**98.76%**
			Average	**99.04%**

t
22.44
.21
22.23

RESULTS, CONCLUSIONS AND COMMENTS

Results from the destruction efficiency testing are presented in the preceding test summaries. Additional information can be reviewed in the Calculations and Appendix sections of this report.

RTO Inlet

Mean velocity measurements on the eighteen (18) inch round diameter inlet stack were 32.16 feet per second (ft/s). This yielded a mean actual volumetric flow rate of 3,602 cubic feet per minute (acfm). A resultant mean standard flow rate of 3,257 scfm was utilized for calculation of inlet loading.

US EPA method 25a continuous emission monitoring results indicated a mean VOC concentration of 431.8 parts per million as propane (the calibration gas) dry basis. Upon conversion to styrene utilizing the generated response factor, a mean concentration of 141.38 ppm as styrene was calculated. This yields a styrene loading rate on the inlet to the RTO at 7.48 lbs/hr (2.68 lbs/hr as carbon).

RTO Outlet

Mean velocity measurements on the twenty-two point five (22.5) inch diameter round outlet stack were 41.14 feet per second (ft/s). This yielded a mean actual volumetric flow rate of 6,815 cubic feet per minute (acfm). A resultant mean standard flow rate of 5,155 scfm was utilized for calculation of VOC emissions.

US EPA method 25a continuous emission monitoring results indicated a mean VOC concentration of 4.1 parts per million as propane (the calibration gas) dry basis. This is the equivalent of 1.35 ppm as styrene which yields an RTO mass emission rate of 0.07 lbs-styrene/hr (0.04 lbs-carbon/hr).

The destruction/removal efficiency, based on these results, is 99.04%.

Baghouse Exhaust

Mean velocity measurements on the thirty-two point five (22.5) inch diameter round baghouse outlet stack were 46.68 feet per second (ft/s). This yielded a mean actual volumetric flow rate of 16,135 cubic feet per minute (acfm). A resultant mean standard flow rate of 15,143 scfm was utilized for calculation of VOC emissions.

US EPA method 25a continuous emission monitoring results indicated a mean VOC concentration of 77.4 parts per million as propane (the calibration gas) dry basis. This is the equivalent of 24.6 ppm as styrene which yields a baghouse mass emission rate of 6.0 lbs-styrene/hr (2.19 lbs-carbon/hr).

SAMPLING AND ANALYTICAL PROCEDURES

Volatile organic compound emissions testing were performed according to procedures developed by the U. S. Environmental Protection Agency (US EPA) and referred to as Method 25a. Sampling port locations and number of test points to be used were determined according to US EPA Method 1. Gas sampling and analysis for oxygen content were performed in accordance with US EPA Method 3a on the RTO exhaust. A dry, molecular weight of 29.0 was assigned to the RTO inlet stack gas and baghouse exhaust.

Flows were performed according to US EPA method 2 on all ducts and moistures by US EPA method 4, reference method on the RTO exhaust. Moisture was calculated for the RTO inlet and baghouse exhaust ducts by determining wet bulb/dry bulb temperatures. This data was collected for each Method 25a run. Prior to each moisture run, the sampling trains were leak-checked according to optional procedures outlined in method four. The inlet to the first impinger was plugged and a vacuum of 15" was pulled. Each train had a preliminary leak-check of less than 0.02 cfm. After reconnecting the probe, the runs were started. Prior to each traverse, the pitot tubes were also successfully leak-checked according to established procedures in US EPA method 2.

US EPA method 25a was conducted utilizing dual heated flame ionization detectors. US EPA method 205 (40CFR51, appendix M) was utilized in conjunction with an Environics 2020 gas dilution system, high purity nitrogen, and protocol gases of 20.9% and 10.50% oxygen, balance nitrogen to verify the dilution system prior to full step-down calibrations of the FIDs. Method 205 stipulates that the analyzer of choice (ATC utilizes a Servomex 1400B) must be successfully calibrated according to the appropriate reference method (3a). Once the Servomex was successfully calibrated, the gas in the 20.9% cylinder was diluted with nitrogen utilizing the Environics to post dilution levels of 2.5% and 10.0%. These dilutions were injected into the Servomex in triplicate and responses recorded on a DILUTION SYSTEM VERIFICATION form. Following this demonstration of the accuracy of the dilution system, the heated FIDs were calibrated by diluting a US EPA protocol mixture of 10,110 ppm propane in air with nitrogen to inlet levels of 1000, 500, and 250 parts per million with a span value of 1100 parts per million. The outlet analyzer was calibrated to a span value of 110 ppm with a high range of 100, mid range of 50, and low range of 25 parts per million. The baghouse analyzer was calibrated to a span value of 330 ppm with a high range of 300 ppm, a mid-range of 150 ppm and a low range of 75 ppm. All pre- and post-test calibration errors may be viewed on ATC form 18 and also as reflected on the raw test data.

Three one-hour instrumental sampling runs were conducted on the inlet and exhaust of each RTO. Immediately following each sampling period, zero and mid-level gases were introduced to the appropriate analyzer and responses recorded. Post-test calibrations included the intermediate level most closely matching the measured concentrations (in addition to zero gas). All calibrations were within specification.

SAMPLING AND ANALYTICAL PROCEDURES
(continued)

Styrene Response Factors

Styrene response factors were generated for each analyzer by introducing a concentration of 49.2 ppm styrene and determining the response. Results were as below:

Response Factor Summary

	VOC 1 11/10/2008	VOC 1 11/11/2008	VOC 2 11/10/2008	VOC 2 11/11/2008	VOC 3 12/9/2008	Average
PPM C3	147.912	149.436	160.413	149.963	150.256	151.596
Styrene Conc.	49.2	49.2	49.2	49.2	49.2	
ppm C3/C8H8	3.006	3.037	3.260	3.048	3.054	3.08122
ppm C8H8/C3	0.3326	0.3292	0.3067	0.3281	0.3274	0.32482

VOC 1 RF	0.3309
VOC 2 RF	0.3174
VOC 3 RF	0.3274

The above response factors were utilized in converting the instrument responses to a styrene basis.

Project Sampling Issues

Testing was completed according to the test plan submitted and approved. No deviations were necessary to accomplish sampling.

QA/QC Procedures

The following QA/QC steps were taken in preparing this report and reviewing the accompanying data.

1) All raw field data computer entry was re-checked for errors against the field data sheets,

2) All field data sheets were checked for completeness, accuracy, legibility, specifications, reasonableness and signatures.

3) All CEM raw data was reviewed, all calibration data was verified against

SAMPLING AND ANALYTICAL PROCEDURES
(continued)

calibration records and raw data compared to entries on ATC Form 18s.

4) Post-test calibrations were performed on all manual sampling equipment to method specifications and were within acceptable ranges.

5) All pre-and post-test on-site CEM calibrations were within method specifications. Oxygen and carbon dioxide measurements were adjusted for drift per equation 7e-5b of method 7e.

6) The assembled report was proof-read by the QA/QC officer prior to submittal to the client.

REFERENCES

1. CODE OF FEDERAL REGULATIONS, Title 40, Part 60, Appendix A, July 1, 2008.

CALCULATIONS

Air Flow Calculations

Supporting Measurements

VOC Data

Sample Calculations

Nomenclature

Calculation Formulae

FLOW CALCULATIONS

CLIENT:	**E-Stone/Grove Scientific**					
LOCATION:	**Sebring, FL**					
Run #	**1-In**	**2-In**	**3-In**	**1-Bag**	**2-Bag**	**3-Bag**
SOURCE		RTO Inlet			Baghouse Exhaust	
DATE	12/09/08	12/09/08	12/09/08	12/09/08	12/09/08	12/09/08
AVG DH (IN H2O)	0	0	0	0	0	0
P ATM (IN HG)	30.05	30.05	30.05	30.05	30.05	30.05
PM (IN HG)	30.05	30.05	30.05	30.05	30.05	30.05
PS (GAUGE)	-1.10	-1.20	-1.10	-0.25	-0.24	-0.25
PS (IN HG)	29.97	29.96	29.97	30.03	30.03	30.03
%M	2.956	2.412	2.724	2.607	2.441	2.607
MD	0.970	0.976	0.973	0.974	0.976	0.974
MWD	29.0	29.0	29.0	29.0	29.0	29.0
M	28.675	28.735	28.700	28.713	28.731	28.713
tS (DEG F)	104.4375	111.5	112.3125	88.625	88.9375	94.4375
TS (DEG R)	564.1075	571.17	571.9825	548.295	548.6075	554.1075
SUM SQRT DP	8.6953	9.0679	8.6696	13.3442	13.0703	12.6525
N DP	16	16	16	16	16	16
AVG SQRT DP	0.5435	0.5667	0.5419	0.8340	0.8169	0.7908
CP	0.84	0.84	0.84	0.84	0.84	0.84
VS (FT/SEC)	31.62	33.15	31.73	47.75	46.77	45.52
DS (IN)	18.5	18.5	18.5	32.5	32.5	32.5
AS (FT2)	1.867	1.867	1.867	5.761	5.761	5.761
QS, ACFM	3,541	3,712	3,554	16,506	16,166	15,733
Q STD (FT3/MIN)	3,320	3,437	3,286	15,954	15,617	15,048
Q STD DRY, SCFM	3,222	3,354	3,196	15,538	15,236	14,655

Volumetric Airflow Rate and Stack Moisture Determination

LOCATION:	***E-Stone/Grove***			
SOURCE:	***RTO Exhaust***			
DATA	***Run #1***	***Run #2***	***Run #3***	***AVERAGE***
Test Date	12/09/08	12/09/08	12/09/08	
Run Time (min)	60.00	60.00	60.00	
Average orifice reading (inches H_2O)	2.00	2.00	2.00	
Barometric pressure (inches Hg)	30.05	30.05	30.05	
Absolute meter pressure (inches Hg)	30.20	30.20	30.20	
Stack static pressure (inches H_2O)	-0.26	-0.22	-0.22	
Absolute stack pressure (inches H_2O)	30.03	30.03	30.03	
Meter temperature (F)	66.42	78.08	83.62	
Meter temperature (R)	526.09	537.75	543.29	
Dry gas meter sample volume (ft^3)	48.24	49.50	49.68	
Standard sample volume (ft^3)	47.00	47.19	46.88	
Volume of liquid collected (ml)	17.00	14.00	30.00	
Water vapor volume, std (ft^3)	0.80	0.66	1.41	
Total standard sample volume (ft^3)	47.81	47.85	48.29	
Percent moisture	1.68	1.38	2.93	**1.99**
% Moisture @ 100% saturation[1]	100.00	100.00	100.00	
Mole fraction of the dry gas	0.983	0.986	0.971	
Molecular weight of the dry gas	28.82	28.84	28.84	
Molecular weight of the wet gas	28.64	28.69	28.52	
Stack temperature (F)	238.94	218.13	224.44	**227.17**
Stack temperature (Rankine)	698.61	677.80	684.11	**686.84**
Sum of the square roots of delta Ps	9.88	10.29	10.59	
Number of data points	16.00	16.00	16.00	
Average square root of delta P	0.62	0.64	0.66	
Pitot tube coefficient	0.84	0.84	0.84	
Stack velocity (ft/s)	39.97	40.98	42.46	**41.14**
Diameter of the stack (inches)	22.50	22.50	22.50	
Area of the stack (ft2)	2.76	2.76	2.76	
Actual stack volumetric flow rate (ft3/min)	6,622	6,789	7,034	**6,815**
Stack volumetric flow, standard wet (ft3/min)	5,024	5,309	5,450	**5,261**
Stack volumetric flow, standard dry (ft3/min)	4,939	5,235	5,290	**5,155**
%Carbon Dioxide	0.04	0.08	0.16	**0.09**
% Oxygen	20.41	20.70	20.37	**20.49**
% Carbon Monoxide	0.00	0.00	0.00	
% Nitrogen	79.55	79.22	79.47	

[1] The % Moisture at 100% saturation is the theoretical amount of moisture the stack gas can hold at the measured stack temperature. If the measured moisture is greater than the calculated level, the mole fraction will be calculated using the saturation level.

Individual Velocity Head Readings
RTO Inlet

Point No.	Run # 1-In dP	sqrt dP	Ts
A1	0.290	0.5385	108
A2	0.340	0.5831	107
A3	0.380	0.6164	107
A4	0.370	0.6083	107
A5	0.330	0.5745	107
A6	0.300	0.5477	105
A7	0.310	0.5568	104
A8	0.280	0.5292	100
B1	0.260	0.5099	104
B2	0.320	0.5657	105
B3	0.310	0.5568	105
B4	0.250	0.5000	106
B5	0.280	0.5292	105
B6	0.240	0.4899	101
B7	0.230	0.4796	100
B8	0.260	0.5099	100
		8.6953	104.4

Point No.	Run # 2-In dP	sqrt dP	Ts
A1	0.340	0.5831	111
A2	0.350	0.5916	112
A3	0.340	0.5831	111
A4	0.330	0.5745	113
A5	0.300	0.5477	113
A6	0.290	0.5385	113
A7	0.340	0.5831	108
A8	0.320	0.5657	108
B1	0.290	0.5385	111
B2	0.400	0.6325	112
B3	0.380	0.6164	112
B4	0.340	0.5831	112
B5	0.350	0.5916	112
B6	0.290	0.5385	112
B7	0.250	0.5000	112
B8	0.250	0.5000	112
		9.0679	111.5

Point No.	Run # 3-In dP	sqrt dP	Ts
A1	0.340	0.5831	113
A2	0.350	0.5916	113
A3	0.330	0.5745	113
A4	0.320	0.5657	113
A5	0.300	0.5477	113
A6	0.280	0.5292	113
A7	0.270	0.5196	113
A8	0.260	0.5099	113
B1	0.310	0.5568	111
B2	0.340	0.5831	111
B3	0.330	0.5745	112
B4	0.330	0.5745	112
B5	0.240	0.4899	112
B6	0.240	0.4899	112
B7	0.240	0.4899	113
B8	0.240	0.4899	110
		8.6696	112.3

Individual Velocity Head Readings
Baghouse Exhaust

Point No.	Run # 1-Bag dP	sqrt dP	Ts
A1	0.530	0.7280	88
A2	0.690	0.8307	89
A3	0.830	0.9110	89
A4	0.900	0.9487	89
A5	0.890	0.9434	89
A6	0.870	0.9327	89
A7	0.890	0.9434	89
A8	0.870	0.9327	89
B1	0.550	0.7416	88
B2	0.580	0.7616	88
B3	0.590	0.7681	88
B4	0.580	0.7616	88
B5	0.570	0.7550	88
B6	0.580	0.7616	89
B7	0.620	0.7874	89
B8	0.700	0.8367	89
		13.3442	88.6

Point No.	Run # 2-Bag dP	sqrt dP	Ts
A1	0.440	0.6633	89
A2	0.510	0.7141	88
A3	0.530	0.7280	89
A4	0.560	0.7483	89
A5	0.720	0.8485	89
A6	0.770	0.8775	89
A7	0.780	0.8832	89
A8	0.800	0.8944	89
B1	0.460	0.6782	89
B2	0.550	0.7416	89
B3	0.760	0.8718	89
B4	0.800	0.8944	89
B5	0.800	0.8944	90
B6	0.790	0.8888	90
B7	0.760	0.8718	88
B8	0.760	0.8718	88
		13.0703	88.9

Point No.	Run # 3-Bag dP	sqrt dP	Ts
A1	0.46	0.6782	95
A2	0.55	0.7416	95
A3	0.57	0.7550	95
A4	0.59	0.7681	94
A5	0.64	0.8000	94
A6	0.65	0.8062	94
A7	0.65	0.8062	94
A8	0.65	0.8062	94
B1	0.5	0.7071	94
B2	0.57	0.7550	94
B3	0.6	0.7746	94
B4	0.71	0.8426	94
B5	0.74	0.8602	95
B6	0.71	0.8426	94
B7	0.72	0.8485	95
B8	0.74	0.8602	96
		12.6525	94.4

ISOKINETIC DATA AND CALCULATIONS

DATE 12/09/08
SOURCE RTO Exhaust

Run #1

POINT #	*Tm*	*Ts*	*dp*	*SQRT DP*
A1	59	217	0.10	0.316
A2	61	218	0.38	0.616
A3	63	222	0.52	0.721
A4	63	226	0.54	0.735
A5	64	229	0.46	0.678
A6	66	238	0.41	0.640
A7	68	240	0.35	0.592
A8	68	236	0.12	0.346
A9	70			
A10	70			
A11	72			
A12	73			
B1		236	0.47	0.686
B2		239	0.50	0.707
B3		250	0.50	0.707
B4		259	0.51	0.714
B5		263	0.47	0.686
B6		271	0.39	0.624
B7		250	0.33	0.574
B8		229	0.29	0.539
B9				
B10				
B11				
B12				
	66.42	***238.94***		***9.882***

Vm(ft3)	Initial	401.37
	Final	449.61
	Total	***48.24***

Station Pressure, inches Hg	30.05
Delta H for run, inches H2O	2.00
Stack Static Pressure, inches H2O	-0.26
Module Calibration Coefficient	0.962
Pitot Tube Coefficient	0.84
Stack Diameter, inches	22.5
Percent Oxygen	20.41
Percent Carbon Dioxide	0.04
Percent Carbon Monoxide	0
Percent Nitrogen	79.55

ISOKINETIC DATA AND CALCULATIONS

DATE 12/09/08
SOURCE RTO Exhaust

Run #2

POINT #	Tm	Ts	dp	SQRT DP
A1	75	241	0.54	0.735
A2	75	225	0.53	0.728
A3	76	220	0.51	0.714
A4	76	220	0.49	0.700
A5	77	221	0.46	0.678
A6	78	227	0.37	0.608
A7	78	226	0.35	0.592
A8	79	220	0.32	0.566
A9	80	227		
A10	80	212		
A11	81	209		
A12	82	209		
B1		210	0.42	0.648
B2		211	0.44	0.663
B3		212	0.45	0.671
B4		200	0.44	0.663
B5			0.40	0.632
B6			0.35	0.592
B7			0.32	0.566
B8			0.29	0.539
B9				
B10				
B11				
B12				
	78.08	**218.13**		**10.295**

Vm(ft3)	Initial	450.14
	Final	499.64
	Total	***49.50***

Station Pressure, inches Hg	30.05
Delta H for run, inches H2O	2
Stack Static Pressure, inches H2O	-0.22
Module Calibration Coefficient	0.962
Pitot Tube Coefficient	0.84
Stack Diameter, inches	22.5
Percent Oxygen	20.7
Percent Carbon Dioxide	0.08
Percent Carbon Monoxide	0
Percent Nitrogen	79.22

ISOKINETIC DATA AND CALCULATIONS

DATE 12/09/08
SOURCE RTO Exhaust

Run #3

POINT #	***Tm***	***Ts***	***dp***	***SQRT DP***
A1	82	260	0.62	0.787
A2	81	227	0.53	0.728
A3	81	218	0.52	0.721
A4	82	215	0.50	0.707
A5	83	215	0.46	0.678
A6	83	215	0.40	0.632
A7	84	215	0.33	0.574
A8	84	211	0.29	0.539
A9	85			
A10	85			
A11	85			
A12	86			
B1	86	235	0.35	0.592
B2		225	0.41	0.640
B3		226	0.44	0.663
B4		225	0.45	0.671
B5		221	0.45	0.671
B6		223	0.44	0.663
B7		227	0.44	0.663
B8		233	0.43	0.656
B9				
B10				
B11				
B12				
	83.62	***224.44***		***10.587***

Vm(ft3)	Initial	499.78
	Final	549.46
	Total	***49.68***

Station Pressure, inches Hg	30.05
Delta H for run, inches H2O	2
Stack Static Pressure, inches H2O	-0.22
Module Calibration Coefficient	0.962
Pitot Tube Coefficient	0.84
Stack Diameter, inches	22.5
Percent Oxygen	20.37
Percent Carbon Dioxide	0.16
Percent Carbon Monoxide	0
Percent Nitrogen	79.47

Modified Carrier Equation for Prediction of Stack Moisture with a Wet Bulb Thermometer

Client:	**E-Stone/Grove Scientific**
City, State:	**Sebring, FL**

Run #	Pbar, in. Hg	Ps, gauge-in. H2O	Ps, in. Hg	Tdry, deg. F	Tw, deg. F	%Moisture
1-In	30.05	-1.10	29.97	86.0	78.0	2.956
2-In	30.05	-1.20	29.96	98.0	77.0	2.412
3-In	30.05	-1.10	29.97	97.0	79.0	2.724
1-Bag	30.05	-0.25	30.03	88.0	76.0	2.607
2-Bag	30.05	-0.24	30.03	89.0	75.0	2.441
3-Bag	30.05	-0.25	30.03	88.0	76.0	2.607

$$\%Water = \left(\frac{100}{P_s}\right)\left[10\left(6.6912 - \left[\frac{3144}{T_w + 390.86}\right]\right)\right] - (0.0011)(P_s)(T_s - T_w)\left[1 + \frac{T_w - 32}{1571}\right]$$

Where:

Ps= stack pressure (absolute), inches of mercury
Ts= stack temperature, degrees F
Tw= stack wet bulb temperature, degrees F

MOISTURE DATA

RTO Exhaust
12/9/2008

Run #1

	1st Imp.	*2nd Imp.*	*3rd Imp.*	*4th Imp.*	***TOTALS***
BEGINNING	100	100	0	300.0	
ENDING	110	102	0	305.0	
NET	10	2	0	5.0	**17.0**

Run #2

	1st Imp.	*2nd Imp.*	*3rd Imp.*	*4th Imp.*	***TOTALS***
BEGINNING	100	100	0	300.0	
ENDING	104	100	0	310.0	
NET	4	0	0	10.0	**14**

Run #3

	1st Imp.	*2nd Imp.*	*3rd Imp.*	*4th Imp.*	***TOTALS***
BEGINNING	100	100	0	300.0	
ENDING	110	105	0	315.0	
NET	10	5	0	15.0	**30**

VOC Mass Rates and Destruction/Removal Efficiency

E-VOC = MG/M3 * Q STD DRY * 3.75E-06
WHERE
E-VOC = VOC EMISSION RATE, LBS/HR AS CARBON
Q std dry = FLOW RATE DRY SCFM
MG/M3 = CONCENTRATION OF VOC AS CARBON
3.75E-06 = 0.0022 LBS/GR*1G/1000MG * 60 MIN/HR * M3/35.31 FT3

CLIENT:	E-Stone/Grove Scientific
LOCATION:	Sebring, Florida
DATE:	12/9/2008
SOURCE:	RTO Inlet/Outlet and Baghouse Exhaust

Run One

	Unit Concentration			Mass Rate, lbs/hr	
	ppmv$_w$ as C_3H_8	ppmv$_d$ as C_3H_8	ppmv$_d$ as Styrene	as styrene	as carbon
RTO Inlet	423.56	436.46	142.90	7.48	2.63
RTO Outlet	3.54	3.60	1.19	0.06	0.03
Baghouse	65.52	67.27	21.35	5.39	1.96

Run Two

	Unit Concentration			Mass Rate, lbs/hr	
	ppmv$_w$ as C_3H_8	ppmv$_d$ as C_3H_8	ppmv$_d$ as Styrene	as styrene	as carbon
RTO Inlet	423.70	434.17	142.15	7.74	2.73
RTO Outlet	3.35	3.39	1.12	0.06	0.03
Baghouse	81.98	84.03	26.67	6.60	2.40

Run Three

	Unit Concentration			Mass Rate, lbs/hr	
	ppmv$_w$ as C_3H_8	ppmv$_d$ as C_3H_8	ppmv$_d$ as Styrene	as styrene	as carbon
RTO Inlet	413.22	424.79	139.08	7.22	2.67
RTO Outlet	5.08	5.23	1.73	0.09	0.05
Baghouse	78.88	80.99	25.71	6.12	2.22

Removal Efficiency Calculations

	Inlet, lbs/hr styrene	Outlet, lbs/hr styrene	DRE, %
Run #1	7.48	0.06	99.17%
Run #2	7.74	0.06	99.21%
Run #3	7.22	0.09	98.76%
		Average	99.04%

Sample Calculations

1) Calculation of average VOC concentration as propane wet

= mean logged reading as propane wet for the one hour run.

Run #1 RTO Inlet	423.56

2) Convert ppmv C3H8 wet to dry by dividing the concentration by the mole fraction of the dry gas.

	MD	ppmv dry as C_3H_8
Run #1 RTO Inlet	0.970	436.46

3) Convert to ppmvd as styrene by multiplying by the response factor for the inlet FID.

	RF (ppm C8H8/ppm C3H8)	ppmv dry as styrene
Run #1 RTO Inlet	0.3274	142.90

4) Convert ppmv to mg/m^3 at STP
(Equation F-1 in EPA Course 450-Source Sampling for Particulate Pollutants"

$$\boxed{\frac{mg}{dscm} = \frac{10^3 mg}{g} \times \frac{ppm \times MW\left(\frac{g}{g-mole}\right)}{22.414\frac{liters}{g-mole} \times 10^3 \frac{M^3}{liter} \times \left(\frac{293.15^\circ K}{273.15^\circ K}\right) \times 10^6\, ppm}}$$

= ppmvd as styrene x MW Styrene (104.088) x 0.0416

	mg/dscm
Run #1 RTO Inlet	618.75

5) Calculate mass rate of styrene.

$$\text{lbs/hr} = \boxed{\frac{mg}{dscm} \times \frac{ft^3}{\min} \times 3.75e^{-06}}$$

	Mass Rate, lbs/hr as styrene
Run #1 RTO Inlet	7.48

$$3.75\text{e-}06 = \boxed{\frac{0.0022 lbs}{g} \times \frac{g}{1000 mg} \times \frac{60 \min}{hr} \times \frac{m^3}{35.31 ft^3}}$$

Oxygen/Carbon Dioxide Concentration Measurements

Client:	**E-Stone/Grove Scientific**
Location:	**Sebring, Florida**
Source:	**RTO Exhaust**
Date:	12/9/08

Run One

Time	Oxygen	Carbon Dioxide	Comments
	unit concentrations in percent		
Uncorrected Average for Run #1	20.40	0.07	
Data corrected for Pre-/Post- Calibrations	20.41	0.04	

Run Two

Time	Oxygen	Carbon Dioxide	Comments
	unit concentrations in percent		
Uncorrected Average for Run #2	20.70	0.11	
Data corrected for Pre-/Post- Calibrations	20.70	0.08	

Run Three

Time	Oxygen	Carbon Dioxide	Comments
	unit concentrations in percent		
Uncorrected Average for Run #3	20.35	0.19	
Data corrected for Pre-/Post- Calibrations	20.37	0.16	

System Calibration Error Data

Client	E-Stone/Grove Scientific
Location	Sebring, Florida

Oxygen

Analyzer Model No.	Servomex 1400B	US EPA Method	3A
Gas Conc./Dilution Gas	20.9% Oxygen in N2	Protocol Expiration Date	8/20/11
Cylinder Number	CC166921	Technician	Smith

Initial Calibration

Range	Dilution %	Response %	Error %	%Error
Zero/Low	0	0.02	0.02	0.10%
Mid	10	10.01	0.01	0.05%
High	20.9	20.87	0.03	0.14%

	Actual Value		System Response		System Bias %		Calibration Drift %	
Time	Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale
7:02	0.00	20.90	0.02	20.88	0.10%	0.10%		
11:16	0.00	20.90	0.02	20.90	0.10%	0.00%	0.00%	0.10%
12:56	0.00	20.90	0.02	20.90	0.10%	0.00%	0.00%	0.00%
15:06	0.00	20.90	0.02	20.87	0.10%	0.14%	0.00%	0.14%

Carbon Dioxide

Analyzer Model No.	Servomex 1400B	US EPA Method	3A
Gas Conc./Dilution Gas	20.99% CO2 in N2	Protocol Expiration Date	2/12/11
Cylinder Number	CC100061	Technician	Smith

Initial Calibration

Range	Dilution %	Response %	Error %	%Error
Zero/Low	0	0.03	0.03	0.14%
Mid	10	9.96	0.04	0.19%
High	20.99	20.96	0.03	0.14%

	Actual Value		System Response		System Bias %		Calibration Drift %	
Time	Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale
7:02	0.00	10.00	0.03	9.99	0.14%	0.05%		
11:16	0.00	10.00	0.03	10.02	0.14%	0.10%	0.00%	0.14%
12:56	0.00	10.00	0.03	10.02	0.14%	0.10%	0.00%	0.00%
15:06	0.00	10.00	0.03	10.02	0.14%	0.10%	0.00%	0.00%

NOMENCLATURE

A_N	(square inches), cross sectional area of nozzle
A_S	(square feet), cross sectional area of stack
C_P	Pitot tube calibration coefficient, dimensionless
% EA	Percent excess air
F	(scfd/MMBtu), F factor
D_H	(inches of water) average orifice meter reading
HI	(MMBtu/hr), heat input rate
% I	Percent isokineticity
M	(lb/lb mole), molecular weight of wet gas
% M	Percent moisture
MD	Mole fraction of dry gas
MWD	(lb/lb mole) molecular weight of dry gas
N DP	Number of sampling data points
P_{ATM}	(in Hg), local atmospheric pressure
P_M	(in Hg), absolute pressure in dry gas meter
P_S	(in Hg), absolute stack pressure
P_S Gauge	(inches of water), measured static stack pressure gauge
P_{STD}	(29.92 in Hg), standard pressure
PMRC	(lb/hr), pollutant mass rate based on concentration
PMRU	(lb/mmBtu), specific emission rate

NOMENCLATURE
(continued)

D_P	(inches of water), velocity pressure
Q_S	(ft^3/min.), actual stack volume flow rate
Q_{STD}	(ft^3/min.), stack volume flow rate at standard conditions
Time(min)	duration of test
T_M	(^oR), average dry gas meter temperature
T_S	(^oR), average stack temperature
T_{STD}	(528 ^oR), standard temperature
VLQ	(ml), liquid volume
VM	(ft^3), sample volume measured by dry gas meter

VM_{STD}(ft^3), Sample volume at standard conditions

V_S	(ft/sec), stack velocity
VV_{STD}	(ft^3), volume of water vapor collected, corrected to standard conditions
WT	(grams), total weight of particulate collected

CALCULATION FORMULAE

1. Absolute pressure at the dry gas meter, P_m

$$P_m = P_{bar} \pm \left(\frac{dH}{13.6} \right)$$

2. Absolute stack pressure, P_s

$$P_s = P_{bar} \pm \left(\frac{P_g}{13.6} \right)$$

3. Sample volume at standard conditions, $Vm_{(std)}$

$$V_{m(std)} = K_1 \times V_m \times Y \times \frac{\left(P_{bar} + \frac{\Delta h}{13.6} \right)}{T_m}$$

$$= Y \times (V_m \times 528 \times P_m)/(T_m \times 29.92)$$

$$K_1 = \frac{528^\circ R}{29.92 inHg}$$

4. Volume of water collected, corrected to standard conditions, Vv(std)

$$V_{v(std)} = V_{v(std)w} + V_{v(std)sg}$$

$$V_{v(std)w} = 0.04706 \frac{ft^3}{ml} \times \frac{29.92'' Hg}{528^\circ R} \times ml$$

$$V_{v(std)g} = 0.04715 \frac{ft^3}{ml} \times \frac{29.92'' Hg}{528^\circ R} \times ml$$

5. Total sample volume at standard conditions, Vstd

$$V_{std} = V_{m(std)} + V_{v(std)}$$

6. Percent moisture in stack gas, %M

$$\%M = \frac{V_{v(std)}}{V_{(std)}} \times 100$$

7. Mole Fraction of the dry gas, MD

$$MD = \frac{(100 - \%M)}{100}$$

CALCULATION FORMULAE
(continued)

8. Molecular weight of the Dry Gas, MWD

$$MWD = 0.440(\%CO_2) + 0.320(\%O_2) + 0.280(\%N_2 + \%CO)$$

9. Molecular weight of stack gas, wet basis, g/g-mole (lb/lb-mole), M

$$M = MWD \times MD + 18(1 - MD)$$

10. Stack velocity, V_s

$$V_s = K_p \times C_p \sqrt{\Delta p_{avg}} \times \sqrt{\frac{T_{s(abs)}}{P_s \times M}}$$

11. Average stack gas dry volumetric flow rate, Qstd dry

$$Q_{s(dry)} = 17.647 \times 60 \times MD \times V_s \times A \times \left(\frac{P_s}{T_s}\right)$$

12. Pollutant mass rate, concentration basis, lbs/hr

$$PMRC = \frac{0.1323 lb - \min}{gram - hr} \times grams \times Q_{std} \div V_{std}$$

13. Percent Isokineticity

$$I = \frac{100T_s\left[K_3 V_{lc} + (V_m Y / T_m)(P_{bar} + \Delta h / 13.6)\right]}{60 \times \theta \times V_s \times P_s \times A_n}$$

14. % Excess Air

$$\%EA = \left(\frac{(\%O_2 - 0.5\%CO)}{(0.264 \times \%N_2) - \%O_2 + 0.5 \times \%CO}\right) \times 100$$

15. Dry Gas Meter Check

$$Y_c = \frac{10}{V_m}\left|0.0319\frac{T_m}{P_{bar}}\right|^{1/2}$$

CALCULATION FORMULAE
(continued)

16. Heat Input Rate, mmBtu/hr

$$HI = \frac{60\min/hr \times dscf/\min}{dscf/mmBtu} \times \frac{20.9 - \%O_2}{20.9}$$

17. Specific emission rate, lbs/mmBtu

$$PMRU = \frac{PMRC}{HI}$$

18. Modified Carrier Equation for Prediction of Stack Moisture with a Wet Bulb Thermometer

$$\%M = \left(\frac{100}{P_s}\right)\left[10^{\left(6.6911-\left[\frac{3144}{T_w+390.86}\right]\right)}\right] - (0.000367)(P_s)(T_d - T_w)\left[1 + \frac{T_w - 32}{1571}\right]$$

19. Correction of Gas Concentrations for Calibration Error, Equation 6c-1

$$C_{gas} = \left(\bar{C} - C_o\right)\frac{C_{ma}}{C_m - C_o}$$

20. VOC Emission Rate as {compound specified by molecular weight}

$$\frac{lbsC_1}{hr} = \frac{ppmvd \times M\left(\frac{g}{g-mole}\right)}{22.414\frac{liters}{g-mole} \times 10^3\frac{m^3}{liter} \times \frac{293.15^\circ K}{273.15^\circ K}} \times \frac{1}{1\times10^6\,ppm} \times \frac{10^3\,mg}{g} \times Q_{stddry} \times 3.75e^{-06}$$

where $3.75e^{-06} = \frac{0.0022lbs}{g} \times \frac{g}{1000mg} \times \frac{60\min}{hour} \times \frac{m^3}{35.315ft^3}$

APPENDIX

ATC Raw Data from Data Logger
Field Data Sheets
Calibration Data
LELAP Accreditation

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/8/2008	11:49:50	21.538	0.03	3.516	0.073	0.076		
12/8/2008	11:50:00	21.568	0.03	3.59	0.073	0.076		
12/8/2008	11:50:10	21.568	0.03	3.59	0.073	0.076		
12/8/2008	11:50:20	21.553	0.03	3.59	0.073	0.076		
12/8/2008	11:50:30	21.568	0.03	3.37	0.073	0.076		
12/8/2008	11:50:40	21.553	0.03	3.297	0.073	0.076		
12/8/2008	11:50:50	21.568	0.03	3.37	0.073	0.076		
12/8/2008	11:51:00	22.726	0.03	3.297	0.073	0.076		
12/8/2008	11:51:10	23.549	0.03	3.37	0	0.076		
12/8/2008	11:51:20	24.447	0.03	3.37	0.073	0.076		
12/8/2008	11:51:30	25.773	0.03	3.297	0.073	0.076		
12/8/2008	11:51:40	25.544	0.03	3.297	0.073	0.076		
12/8/2008	11:51:50	21.02	0.03	3.443	0.073	0.076	Method 205	
12/8/2008	11:52:00	20.929	0.03	3.37	0.073	0.076		
12/8/2008	11:52:10	20.959	0.03	3.516	0.073	0.076	High Protocol Gas	0.28%
12/8/2008	11:52:20	21.37	0.03	3.37	0.073	0.076		
12/8/2008	11:52:30	21.127	0.03	3.223	0.073	0.076		
12/8/2008	11:52:40	21.035	0.03	3.223	0.073	0.076		
12/8/2008	11:52:50	21.02	0.03	3.15	0	0.076		
12/8/2008	11:53:00	21.02	0.03	3.223	0.073	0.076		
12/8/2008	11:53:10	24.067	0.03	3.15	0.073	0.076		
12/8/2008	11:53:20	23.884	0.03	3.297	0.073	0.076		
12/8/2008	11:53:30	17.959	0.03	3.297	0.073	0.076		
12/8/2008	11:53:40	14.501	0.03	3.37	0.073	0.076		
12/8/2008	11:53:50	12.841	0.03	3.37	0.073	0.076		
12/8/2008	11:54:00	12.018	0.03	3.223	0.073	0.076		
12/8/2008	11:54:10	11.622	0.03	3.15	0.073	0.076		
12/8/2008	11:54:20	11.424	0.03	3.15	0.073	0.076		
12/8/2008	11:54:30	11.317	0.03	3.297	0.073	0.076		
12/8/2008	11:54:40	11.272	0.03	3.37	0.073	0.076		
12/8/2008	11:54:50	11.241	0.03	3.15	0.073	0.076		
12/8/2008	11:55:00	11.089	0.03	3.15	0.073	0.076		
12/8/2008	11:55:10	10.571	0.03	3.297	0.073	0.076		
12/8/2008	11:55:20	10.48	0.03	3.297	0.073	0.076		
12/8/2008	11:55:30	10.48	0.03	3.15	0.073	0.076		
12/8/2008	11:55:40	10.48	0.03	3.15	0.073	0.076	Mid Protocol Gas	0.10%
12/8/2008	11:55:50	10.48	0.03	3.15	0.073	0.076		
12/8/2008	11:56:00	9.352	0.03	3.223	0.073	0.076		
12/8/2008	11:56:10	9.962	0.03	3.297	0.073	0.076		
12/8/2008	11:56:20	7.342	0.03	3.297	0.073	0.076		
12/8/2008	11:56:30	2.94	0.03	3.223	0.073	0.076		
12/8/2008	11:56:40	0.685	0.03	3.15	0.073	0.076		
12/8/2008	11:56:50	0.015	0.03	3.15	0.073	0.076		
12/8/2008	11:57:00	0.015	0.03	3.15	0.073	0.076		
12/8/2008	11:57:10	0.015	0.03	3.15	0.073	0.076		
12/8/2008	11:57:20	0.015	0.03	3.223	0.073	0.076		
12/8/2008	11:57:30	0.015	0.03	3.223	0.073	0.076		
12/8/2008	11:57:40	0.015	0.03	3.297	0.073	0.076		
12/8/2008	11:57:50	0.015	0.03	3.297	0.073	0.076		
12/8/2008	11:58:00	0.015	0.03	3.297	0.073	0.076		
12/8/2008	11:58:10	0.015	0.03	3.37	0.073	0.076	Zero Gas	0.07%
12/8/2008	11:58:20	0.015	0.03	3.37	0	0.076		
12/8/2008	11:58:30	0.015	0.03	3.37	0.073	0.076		
12/8/2008	11:58:40	0.046	0.03	3.37	0.073	0.076		
12/8/2008	11:58:50	0.442	0.03	3.37	0.073	0.076		
12/8/2008	11:59:00	0.67	0.03	3.37	0.073	0.076		
12/8/2008	11:59:10	0.792	0.03	3.297	0.073	0.076		
12/8/2008	11:59:20	0.853	0.03	3.297	0.073	0.076		
12/8/2008	11:59:30	2.574	0.03	3.223	0.073	0.076		
12/8/2008	11:59:40	2.559	0.03	3.223	0.073	0.076		
12/8/2008	11:59:50	2.544	0.03	3.223	0.073	0.076		
12/8/2008	12:00:00	2.483	0.03	3.15	0.073	0.076		
12/8/2008	12:00:10	2.529	0.03	3.15	0.073	0.076		
12/8/2008	12:00:20	2.483	0.03	3.297	0.073	0.076		
12/8/2008	12:00:30	2.483	0.03	3.37	0.073	0.076	Trial #1-1st Dil'n (diff. from avg.)	0.015
12/8/2008	12:00:40	2.483	0.03	3.37	0.073	0.076		
12/8/2008	12:00:50	2.346	0.03	3.37	0.073	0.076		
12/8/2008	12:01:00	1.158	0.03	3.37	0.073	0.076		
12/8/2008	12:01:10	0.533	0.03	3.223	0.073	0.076		
12/8/2008	12:01:20	0.777	0.03	3.297	0.073	0.076		
12/8/2008	12:01:30	1.599	0.03	3.37	0.073	0.076		
12/8/2008	12:01:40	2.026	0.03	3.37	0.073	0.076		
12/8/2008	12:01:50	2.239	0.03	3.37	0.073	0.076		
12/8/2008	12:02:00	2.361	0.03	3.297	0.073	0.076		
12/8/2008	12:02:10	2.407	0.03	3.223	0.073	0.076		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/8/2008	12:02:20	2.437	0.03	3.15	0	0.076		
12/8/2008	12:02:30	2.407	0.03	3.15	0.073	0.076		
12/8/2008	12:02:40	2.62	0.03	3.37	0.073	0.076		
12/8/2008	12:02:50	2.544	0.03	3.37	0.073	0.076		
12/8/2008	12:03:00	2.498	0.03	3.223	0.073	0.076		
12/8/2008	12:03:10	2.513	0.03	3.223	0.073	0.076		
12/8/2008	12:03:20	2.513	0.03	3.297	0.073	0.076	Trial #2-1st Dil'n (diff. from avg.)	0.015
12/8/2008	12:03:30	2.498	0.03	3.37	0.073	0.076		
12/8/2008	12:03:40	2.193	0.03	3.297	0.073	0.076		
12/8/2008	12:03:50	1.081	0.03	3.223	0.073	0.076		
12/8/2008	12:04:00	1.447	0.03	3.223	0.073	0.076		
12/8/2008	12:04:10	1.965	0.03	3.37	0.073	0.076		
12/8/2008	12:04:20	2.224	0.03	3.297	0.073	0.076		
12/8/2008	12:04:30	2.376	0.03	3.15	0.073	0.076		
12/8/2008	12:04:40	2.437	0.03	3.223	0.073	0.076		
12/8/2008	12:04:50	2.468	0.03	3.37	0.073	0.076		
12/8/2008	12:05:00	2.483	0.03	3.223	0.073	0.076		
12/8/2008	12:05:10	2.483	0.03	3.15	0.073	0.076		
12/8/2008	12:05:20	2.498	0.03	3.297	0.073	0.076		
12/8/2008	12:05:30	2.483	0.03	3.37	0.073	0.076		
12/8/2008	12:05:40	2.498	0.03	3.223	0.073	0.076		
12/8/2008	12:05:50	2.498	0.03	3.15	0.073	0.076	Trial #3-1st Dil'n (diff. from avg.)	0.000
12/8/2008	12:06:00	1.889	0.03	3.223	0.073	0.076	Avg. of 3 trials-1st dil'n	2.498
12/8/2008	12:06:10	1.158	0.03	3.223	0.073	0.076	Precision of 2.5% split	0.60%
12/8/2008	12:06:20	2.041	0.03	3.297	0.073	0.076	Accuracy of 2.5% split	0.08%
12/8/2008	12:06:30	6.397	0.03	3.37	0.073	0.076		
12/8/2008	12:06:40	8.286	0.03	3.443	0.073	0.076		
12/8/2008	12:06:50	9.261	0.03	3.37	0.073	0.076		
12/8/2008	12:07:00	9.748	0.03	3.37	0.073	0.076		
12/8/2008	12:07:10	10.007	0.03	3.297	0.073	0.076		
12/8/2008	12:07:20	10.007	0.03	3.297	0.073	0.076		
12/8/2008	12:07:30	10.023	0.03	3.223	0.073	0.076		
12/8/2008	12:07:40	9.977	0.03	3.223	0.073	0.076	Trial #1-2nd Dil'n (diff. from avg.)	0.010
12/8/2008	12:07:50	10.007	0.03	3.15	0.073	0.076		
12/8/2008	12:08:00	10.099	0.03	3.223	0.073	0.076		
12/8/2008	12:08:10	10.068	0.03	3.297	0.073	0.076		
12/8/2008	12:08:20	8.53	0.03	3.37	0.073	0.076		
12/8/2008	12:08:30	5.103	0.03	3.443	0.073	0.076		
12/8/2008	12:08:40	3.869	0.03	3.37	0.073	0.076		
12/8/2008	12:08:50	7.205	0.03	3.443	0.073	0.076		
12/8/2008	12:09:00	8.621	0.03	3.443	0.073	0.076		
12/8/2008	12:09:10	9.337	0.03	3.516	0.073	0.076		
12/8/2008	12:09:20	9.688	0.03	3.443	0.073	0.076		
12/8/2008	12:09:30	9.87	0.03	3.37	0.073	0.076		
12/8/2008	12:09:40	10.007	0.03	3.37	0.073	0.076		
12/8/2008	12:09:50	9.962	0.03	3.223	0.073	0.076		
12/8/2008	12:10:00	9.992	0.03	3.223	0.073	0.076	Trial #2-2nd Dil'n (diff. from avg.)	0.005
12/8/2008	12:10:10	10.007	0.03	3.297	0.073	0.076		
12/8/2008	12:10:20	9.992	0.03	3.443	0.073	0.076		
12/8/2008	12:10:30	10.114	0.03	3.223	0.073	0.076		
12/8/2008	12:10:40	10.023	0.03	3.223	0.073	0.076		
12/8/2008	12:10:50	6.367	0.03	3.37	0.073	0.076		
12/8/2008	12:11:00	3.61	0.03	3.223	0.073	0.076		
12/8/2008	12:11:10	3.854	0.03	3.223	0.073	0.076		
12/8/2008	12:11:20	7.022	0.03	3.443	0.073	0.076		
12/8/2008	12:11:30	8.499	0.03	3.223	0.073	0.076		
12/8/2008	12:11:40	9.246	0.03	3.15	0.073	0.076		
12/8/2008	12:11:50	9.627	0.03	3.37	0.073	0.076		
12/8/2008	12:12:00	9.84	0.03	3.37	0.073	0.076		
12/8/2008	12:12:10	9.916	0.03	3.223	0.073	0.076		
12/8/2008	12:12:20	9.977	0.03	3.223	0.073	0.076		
12/8/2008	12:12:30	9.992	0.03	3.37	0.073	0.076		
12/8/2008	12:12:40	10.023	0.03	3.37	0.073	0.076		
12/8/2008	12:12:50	10.023	0.03	3.223	0.073	0.076		
12/8/2008	12:13:00	9.962	0.03	3.223	0.073	0.076		
12/8/2008	12:13:10	10.084	0.03	3.223	0.073	0.076		
12/8/2008	12:13:20	9.992	0.03	3.297	0.073	0.076	Trial #3-2nd Dil'n (diff. from avg.)	0.005
12/8/2008	12:13:30	8.301	0.03	3.37	0.073	0.076	Avg. of 3 trials-2nd dil'n	9.987
12/8/2008	12:13:40	3.823	0.03	3.37	0.073	0.076	Precision of 10.0% split	0.10%
12/8/2008	12:13:50	1.934	0.03	3.223	0.073	0.076	Accuracy of 10.0% split	0.13%
12/8/2008	12:14:00	3.382	0.03	3.223	0.073	0.076		
12/8/2008	12:14:10	7.525	0.03	3.223	0.073	0.076		
12/8/2008	12:14:20	9.535	0.03	3.37	0.073	0.076		
12/8/2008	12:14:30	10.556	0.03	3.297	0.073	0.076		
12/8/2008	12:14:40	11.074	0.03	3.297	0.073	0.076		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/8/2008	12:14:50	10.525	0.03	3.297	0.073	0.076		
12/8/2008	12:15:00	10.586	0.03	3.297	0.073	0.076		
12/8/2008	12:15:10	10.48	0.03	3.297	0.073	0.076		
12/8/2008	12:15:20	10.525	0.03	3.297	0.073	0.076		
12/8/2008	12:15:30	10.48	0.03	3.297	0.073	0.076		
12/8/2008	12:15:40	10.495	0.03	3.297	0.073	0.076	Mid-level audit-Trial #1 (10.50%)	0.000
12/8/2008	12:15:50	9.429	0.03	3.297	0.073	0.076		
12/8/2008	12:16:00	9.261	0.03	3.37	0.073	0.076		
12/8/2008	12:16:10	4.768	0.03	3.297	0.073	0.076		
12/8/2008	12:16:20	1.965	0.03	3.297	0.073	0.076		
12/8/2008	12:16:30	3.412	0.03	3.297	0.073	0.076		
12/8/2008	12:16:40	6.839	0.03	3.297	0.073	0.076		
12/8/2008	12:16:50	8.56	0.03	3.297	0.073	0.076		
12/8/2008	12:17:00	9.459	0.03	3.37	0.073	0.076		
12/8/2008	12:17:10	9.916	0.03	3.297	0.073	0.076		
12/8/2008	12:17:20	10.129	0.03	3.37	0.073	0.076		
12/8/2008	12:17:30	10.236	0.03	3.297	0.073	0.076		
12/8/2008	12:17:40	10.297	0.03	3.37	0.073	0.076		
12/8/2008	12:17:50	10.327	0.03	3.443	0.073	0.076		
12/8/2008	12:18:00	10.343	0.03	3.37	0.073	0.076		
12/8/2008	12:18:10	10.358	0.03	3.37	0.073	0.076		
12/8/2008	12:18:20	10.343	0.03	3.37	0.073	0.076		
12/8/2008	12:18:30	10.48	0.03	3.37	0.073	0.076		
12/8/2008	12:18:40	10.495	0.03	3.37	0.073	0.076		
12/8/2008	12:18:50	10.495	0.03	3.37	0.073	0.076	Mid-level audit-Trial #2 (10.50%)	0.000
12/8/2008	12:19:00	10.51	0.03	3.37	0.073	0.076		
12/8/2008	12:19:10	9.794	0.03	3.37	0.073	0.076		
12/8/2008	12:19:20	9.383	0.03	3.37	0.073	0.076		
12/8/2008	12:19:30	6.9	0.03	3.37	0.073	0.076		
12/8/2008	12:19:40	2.65	0.03	3.443	0.073	0.076		
12/8/2008	12:19:50	0.503	0.03	3.443	0.073	0.076		
12/8/2008	12:20:00	0.015	0.03	3.37	0.073	0.076		
12/8/2008	12:20:10	0.015	0.03	3.443	0.073	0.076		
12/8/2008	12:20:20	4.539	0.03	3.37	0.073	0.076		
12/8/2008	12:20:30	7.448	0.03	3.443	0.073	0.076		
12/8/2008	12:20:40	8.956	0.03	3.443	0.073	0.076		
12/8/2008	12:20:50	9.733	0.03	3.443	0.073	0.076		
12/8/2008	12:21:00	10.114	0.03	3.443	0.073	0.076		
12/8/2008	12:21:10	10.297	0.03	3.443	0.073	0.076		
12/8/2008	12:21:20	10.403	0.03	3.443	0.073	0.076		
12/8/2008	12:21:30	10.449	0.03	3.443	0.073	0.076		
12/8/2008	12:21:40	10.464	0.03	3.443	0.073	0.076		
12/8/2008	12:21:50	10.48	0.03	3.443	0.073	0.076		
12/8/2008	12:22:00	10.48	0.03	3.443	0.073	0.076		
12/8/2008	12:22:10	10.495	0.03	3.443	0.073	0.076		
12/8/2008	12:22:20	10.495	0.03	3.443	0.073	0.076	Mid-level audit-Trial #3 (10.50%)	0.000
12/8/2008	12:22:30	10.51	0.03	3.37	0.073	0.076	Avg of 3 Mid-level audit injections	10.495
12/8/2008	12:22:40	10.495	0.03	3.37	0.073	0.076	Precision of Mid-level audit	0.00%
12/8/2008	12:22:50	10.495	0.03	3.443	0.073	0.076	Accuracy of Mid-level audit	0.14%
12/8/2008	12:23:00	7.555	0.03	3.443	0.073	0.076		
12/8/2008	12:23:10	7.555	0.03	3.37	0.073	0.076		
12/8/2008	12:23:20	7.555	0.03	3.37	0.073	0.076		
12/8/2008	12:23:30	7.555	0.03	3.37	0.073	0.076		
12/8/2008	12:23:40	7.555	0.03	3.37	0.073	0.076		
12/8/2008	12:23:50	7.555	0.03	3.443	0.073	0.076		
12/8/2008	12:24:00	7.54	0.03	3.516	0.073	0.076		
12/8/2008	12:24:10	7.54	0.03	3.516	0.073	0.076		
12/8/2008	12:24:20	7.54	0.03	3.516	0.073	0.076		
12/8/2008	12:24:30	7.54	0.03	3.516	0.073	0.076		
12/8/2008	12:24:40	7.54	0.03	3.443	0.073	0.076		
12/8/2008	12:24:50	7.54	0.03	3.37	0.073	0.076		
12/8/2008	12:25:00	7.525	0.03	3.443	0.073	0.076		
12/8/2008	12:25:10	7.525	0.03	3.516	0.073	0.076		
12/8/2008	12:25:20	7.525	0.03	3.37	0.073	0.076		
12/8/2008	12:25:30	7.54	0.03	3.443	0.073	0.076		
12/8/2008	12:25:40	7.525	0.03	3.443	0.073	0.076		
12/8/2008	12:25:50	7.509	0.03	3.443	0.073	0.076		
12/8/2008	12:26:00	7.525	0.03	3.443	0.073	0.076		
12/8/2008	12:26:10	7.525	0.03	3.443	0.073	0.076		
12/8/2008	12:26:20	7.525	0.03	3.443	0.073	0.076		
12/8/2008	12:26:30	7.509	0.03	3.37	0.073	0.076		
12/8/2008	12:26:40	7.525	0.03	3.443	0.073	0.076		
12/8/2008	12:26:50	7.525	0.03	3.443	0.073	0.076		
12/8/2008	12:27:00	7.525	0.03	3.37	0.073	0.076		
12/8/2008	12:27:10	7.494	0.03	3.37	0.073	0.076		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/8/2008	12:27:20	7.509	0.03	3.37	0.073	0.076		
12/8/2008	12:27:30	7.509	0.03	3.37	0.073	0.076		
12/8/2008	12:27:40	7.509	0.03	3.37	0.073	0.076		
12/8/2008	12:27:50	7.509	0.03	3.37	0.073	0.076		
12/8/2008	12:28:00	7.509	0.03	3.37	0.073	0.076		
12/8/2008	12:28:10	7.494	0.03	3.297	0.073	0.076		
12/8/2008	12:28:20	7.509	0.03	3.37	0.073	0.076		
12/8/2008	12:28:30	7.494	0.03	3.297	0.073	0.076		
12/8/2008	12:28:40	7.494	0.03	3.297	0.073	0.076		
12/8/2008	12:28:50	7.494	0.03	3.37	0.073	0.076		
12/8/2008	12:29:00	7.494	0.03	3.37	0.073	0.076		
12/8/2008	12:29:10	7.494	0.03	3.297	0.073	0.076		
12/8/2008	12:29:20	7.494	0.03	3.37	0.073	0.076		
12/8/2008	12:29:30	7.494	0.03	3.37	0.073	0.076		
12/8/2008	12:29:40	7.494	0.03	3.37	0.073	0.076		
12/8/2008	12:29:50	7.494	0.03	3.37	0.073	0.076		
12/8/2008	12:30:00	7.494	0.03	3.37	0.073	0.076		
12/8/2008	12:30:10	7.494	0.03	3.297	0.073	0.076		
12/8/2008	12:30:20	7.494	0.03	3.297	0.073	0.076		
12/8/2008	12:30:30	7.494	0.03	3.297	0.073	0.076		
12/8/2008	12:30:40	7.494	0.03	3.37	0.073	0.076		
12/8/2008	12:30:50	7.479	0.03	3.443	0.073	0.076		
12/8/2008	12:31:00	7.494	0.03	3.37	0.073	0.076		
12/8/2008	12:31:10	7.494	0.03	3.37	0.073	0.076		
12/8/2008	12:31:20	7.494	0.03	3.37	0.073	0.076		
12/8/2008	12:31:30	7.494	0.03	3.37	0.073	0.076		
12/8/2008	12:31:40	7.479	0.03	3.37	0.073	0.076		
12/8/2008	12:31:50	7.479	0.03	3.37	0.073	0.076		
12/8/2008	12:32:00	7.479	0.03	3.443	0.073	0.076		
12/8/2008	12:32:10	7.479	0.03	3.37	0.073	0.076		
12/8/2008	12:32:20	7.479	0.03	3.443	0.073	0.076		
12/8/2008	12:32:30	7.479	0.03	3.37	0.073	0.076		
12/8/2008	12:32:40	7.479	0.03	3.443	0.073	0.076		
12/8/2008	12:32:50	7.479	0.03	3.37	0.073	0.076		
12/8/2008	12:33:00	7.479	0.03	3.443	0.073	0.076		
12/8/2008	12:33:10	7.479	0.03	3.37	0.073	0.076		
12/8/2008	12:33:20	7.464	0.03	3.37	0.073	0.076		
12/8/2008	12:33:30	7.464	0.03	3.37	0.073	0.076		
12/8/2008	12:33:40	7.479	0.03	3.37	0.073	0.076		
12/8/2008	12:33:50	7.479	0.03	3.37	0.073	0.076		
12/8/2008	12:34:00	7.479	0.03	3.37	0.073	0.076		
12/8/2008	12:34:10	7.479	0.03	3.37	0.073	0.076		
12/8/2008	12:34:20	7.479	0.03	3.443	0.073	0.076		
12/8/2008	12:34:30	7.464	0.03	3.37	0.073	0.076		
12/8/2008	12:34:40	7.479	0.03	3.37	0.073	0.076		
12/8/2008	12:34:50	7.479	0.03	3.37	0.073	0.076		
12/8/2008	12:35:00	7.464	0.03	3.37	0.073	0.076		
12/8/2008	12:35:10	7.464	0.03	3.37	0.073	0.076		
12/8/2008	12:35:20	7.464	0.03	3.516	0.073	0.076		
12/8/2008	12:35:30	7.479	0.03	3.443	0.073	0.076		
12/8/2008	12:35:40	7.464	0.03	3.37	0.073	0.076		
12/8/2008	12:35:50	7.464	0.03	3.37	0.073	0.076		
12/8/2008	12:36:00	7.448	0.03	3.37	0.073	0.076		
12/8/2008	12:36:10	7.479	0.03	3.443	0.073	0.076		
12/8/2008	12:36:20	7.479	0.03	3.443	0.073	0.076		
12/8/2008	12:36:30	7.464	0.03	2.711	0.073	0.076		
12/8/2008	12:36:40	7.464	0.03	2.784	0.073	0.076		
12/8/2008	12:36:50	7.464	0.03	2.711	0.073	0.076		
12/8/2008	12:37:00	7.464	0.03	1.026	0.073	0.076		
12/8/2008	12:37:10	7.464	0.03	0.073	0.073	0.076		
12/8/2008	12:37:20	7.464	0.03	0.073	0.073	0.076	VOC zero gas	0.02%
12/8/2008	12:37:30	7.464	0.03	0.073	0.073	0.076		
12/8/2008	12:37:40	7.448	0.03	0.147	0.073	0.076		
12/8/2008	12:37:50	7.464	0.03	0.147	0.073	0.076		
12/8/2008	12:38:00	7.448	0.03	0.073	0.073	0.076		
12/8/2008	12:38:10	7.464	0.03	0.147	0.073	0.076		
12/8/2008	12:38:20	7.464	0.03	0.806	0.073	0.076		
12/8/2008	12:38:30	7.464	0.03	0.879	0.073	0.076		
12/8/2008	12:38:40	7.464	0.03	0.879	0.073	0.076		
12/8/2008	12:38:50	7.464	0.03	0.513	0.073	0.076		
12/8/2008	12:39:00	7.448	0.03	0.293	0.073	0.076		
12/8/2008	12:39:10	7.448	0.03	0.22	0.073	0.076		
12/8/2008	12:39:20	7.448	0.03	0.293	0.073	0.076		
12/8/2008	12:39:30	7.464	0.03	0.44	0.073	0.076		
12/8/2008	12:39:40	7.464	0.03	0.513	0.073	0.076		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/8/2008	12:39:50	7.464	0.03	0.733	0.073	0.076		
12/8/2008	12:40:00	7.448	0.03	0.952	0.073	0.076		
12/8/2008	12:40:10	7.448	0.03	0.952	0.073	0.076		
12/8/2008	12:40:20	7.448	0.03	0.806	0.073	0.076		
12/8/2008	12:40:30	7.464	0.03	0.806	0.073	0.076		
12/8/2008	12:40:40	7.464	0.03	0.879	0.073	0.076		
12/8/2008	12:40:50	7.448	0.03	0.879	0.073	0.076		
12/8/2008	12:41:00	7.464	0.03	0.879	0.073	0.076		
12/8/2008	12:41:10	7.464	0.03	1.026	0.073	0.076		
12/8/2008	12:41:20	7.448	0.03	1.099	0.073	0.076		
12/8/2008	12:41:30	7.448	0.03	1.026	0.073	0.076		
12/8/2008	12:41:40	7.448	0.03	1.026	0.073	0.076		
12/8/2008	12:41:50	7.448	0.03	0.806	0.073	0.076		
12/8/2008	12:42:00	7.448	0.03	2.418	0.073	0.076		
12/8/2008	12:42:10	7.433	0.03	0.22	0.073	0.076		
12/8/2008	12:42:20	7.448	0.03	0.879	0.073	0.076		
12/8/2008	12:42:30	7.448	0.03	0.879	0.073	0.076		
12/8/2008	12:42:40	7.448	0.03	0.659	0.073	0.076		
12/8/2008	12:42:50	7.448	0.03	59.56	0.073	0.076		
12/8/2008	12:43:00	7.433	0.03	107.253	0.073	0.076		
12/8/2008	12:43:10	7.448	0.03	123.15	0.073	0.076		
12/8/2008	12:43:20	7.448	0.03	133.187	0.073	0.076		
12/8/2008	12:43:30	7.433	0.03	143.516	0.073	0.076		
12/8/2008	12:43:40	7.448	0.03	151.136	0.073	0.076		
12/8/2008	12:43:50	7.433	0.03	157.07	0.073	0.076		
12/8/2008	12:44:00	7.433	0.03	161.392	0.073	0.076		
12/8/2008	12:44:10	7.448	0.03	165.128	0.073	0.076		
12/8/2008	12:44:20	7.448	0.03	167.546	0.073	0.076		
12/8/2008	12:44:30	7.433	0.03	170.696	0.073	0.076		
12/8/2008	12:44:40	7.433	0.03	171.355	0.073	0.076		
12/8/2008	12:44:50	7.433	0.03	172.821	0.073	0.076		
12/8/2008	12:45:00	7.448	0.03	173.7	0.073	0.076		
12/8/2008	12:45:10	7.433	0.03	175.018	0.073	0.076		
12/8/2008	12:45:20	7.433	0.03	175.604	0.073	0.076		
12/8/2008	12:45:30	7.448	0.03	175.678	0.073	0.076		
12/8/2008	12:45:40	7.448	0.03	176.85	0.073	0.076		
12/8/2008	12:45:50	7.448	0.03	177.656	0.073	0.076		
12/8/2008	12:46:00	7.433	0.03	177.729	0.073	0.076		
12/8/2008	12:46:10	7.448	0.03	178.681	0.073	0.076		
12/8/2008	12:46:20	7.433	0.03	178.681	0.073	0.076		
12/8/2008	12:46:30	7.433	0.03	178.681	0.073	0.076		
12/8/2008	12:46:40	7.418	0.03	178.828	0.073	0.076		
12/8/2008	12:46:50	7.433	0.03	178.388	0.073	0.076		
12/8/2008	12:47:00	7.433	0.03	178.095	0.073	0.076		
12/8/2008	12:47:10	7.418	0.03	179.56	0.073	0.076		
12/8/2008	12:47:20	7.433	0.03	179.048	0.073	0.076		
12/8/2008	12:47:30	7.433	0.03	179.267	0.073	0.076		
12/8/2008	12:47:40	7.418	0.03	179.194	0.073	0.076		
12/8/2008	12:47:50	7.418	0.03	179.194	0.073	0.076		
12/8/2008	12:48:00	7.418	0.03	179.56	0.073	0.076		
12/8/2008	12:48:10	7.418	0.03	180.073	0.073	0.076		
12/8/2008	12:48:20	7.433	0.03	179.707	0.073	0.076		
12/8/2008	12:48:30	7.418	0.03	179.707	0.073	0.076		
12/8/2008	12:48:40	7.433	0.03	200.44	0.073	0.076		
12/8/2008	12:48:50	7.433	0.03	252.308	0.073	0.076		
12/8/2008	12:49:00	7.418	0.03	295.165	0.073	0.076		
12/8/2008	12:49:10	7.418	0.03	296.777	0.073	0.076		
12/8/2008	12:49:20	7.418	0.03	296.703	0.073	0.076		
12/8/2008	12:49:30	7.418	0.03	297.656	0.073	0.076		
12/8/2008	12:49:40	7.433	0.03	297.875	0.073	0.076		
12/8/2008	12:49:50	7.433	0.03	297.802	0.073	0.076	VOC high range gas	0.73%
12/8/2008	12:50:00	7.418	0.03	297.363	0.073	0.076		
12/8/2008	12:50:10	7.418	0.03	168.425	0.073	0.076		
12/8/2008	12:50:20	7.418	0.03	150.11	0.073	0.076		
12/8/2008	12:50:30	7.418	0.03	149.963	0.073	0.076		
12/8/2008	12:50:40	7.418	0.03	149.597	0.073	0.076	VOC mid range gas	0.27%
12/8/2008	12:50:50	7.418	0.03	149.304	0.073	0.076		
12/8/2008	12:51:00	7.433	0.03	149.524	0.073	0.076		
12/8/2008	12:51:10	7.433	0.03	130.403	0.073	0.076		
12/8/2008	12:51:20	7.418	0.03	76.264	0.073	0.076		
12/8/2008	12:51:30	7.418	0.03	75.678	0.073	0.076		
12/8/2008	12:51:40	7.418	0.03	75.678	0.073	0.076		
12/8/2008	12:51:50	7.418	0.03	75.531	0.073	0.076		
12/8/2008	12:52:00	7.418	0.03	75.531	0.073	0.076	VOC low range gas	0.71%
12/8/2008	12:52:10	7.418	0.03	75.385	0.073	0.076		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/8/2008	12:52:20	7.418	0.03	75.824	0.073	0.076		
12/8/2008	12:52:30	7.418	0.03	75.458	0.073	0.076		
12/8/2008	12:52:40	7.418	0.03	75.458	0.073	0.076		
12/8/2008	12:52:50	7.418	0.03	75.824	0.073	0.076		
12/8/2008	12:53:00	7.418	0.03	75.531	0.073	0.076		
12/8/2008	12:53:10	7.418	0.03	5.201	0.073	0.076		
12/8/2008	12:53:20	7.403	0.03	1.245	0.073	0.076		
12/8/2008	12:53:30	7.418	0.03	1.245	0.073	0.076		
12/8/2008	12:53:40	7.418	0.03	11.502	0.073	0.076		
12/8/2008	12:53:50	7.433	0.03	166.813	0.073	0.076		
12/8/2008	12:54:00	7.418	0.03	170.256	0.073	0.076		
12/8/2008	12:54:10	7.418	0.03	167.473	0.073	0.076		
12/8/2008	12:54:20	7.418	0.03	160.879	0.073	0.076		
12/8/2008	12:54:30	7.418	0.03	149.817	0.073	0.076		
12/8/2008	12:54:40	7.418	0.03	150.037	0.073	0.076		
12/8/2008	12:54:50	7.418	0.03	150.33	0.073	0.076		
12/8/2008	12:55:00	7.418	0.03	150.11	0.073	0.076		
12/8/2008	12:55:10	7.418	0.03	150.256	0.073	0.076	Inject 49.2 ppm Styrene	
12/8/2008	12:55:20	7.418	0.03	150.696	0.073	0.076	49.2 Styrene = 393.6 as C1	
12/8/2008	12:55:30	7.418	0.03	150.769	0.073	0.076	Actual response as styrene =	56.3460
12/8/2008	12:55:40	7.418	0.03	150.842	0.073	0.076	Response factor =	1.145
12/8/2008	12:55:50	7.403	0.03	151.136	0.073	0.076		
12/8/2008	12:56:00	7.433	0.03	145.934	0.073	0.076		
12/8/2008	12:56:10	7.433	0.03	145.495	0.073	0.076		
12/8/2008	12:56:20	7.433	0.03	145.495	0.073	0.076		
12/8/2008	12:56:30	7.433	0.03	145.568	0.073	0.076		
12/8/2008	12:56:40	7.433	0.03	145.568	0.073	0.076		
12/8/2008	12:56:50	7.433	0.03	142.051	0.073	0.076		
12/8/2008	12:57:00	7.418	0.03	5.201	0.073	0.076		
12/8/2008	12:57:10	7.433	0.03	1.538	0.073	0.076		
12/8/2008	12:57:20	7.433	0.03	1.172	0.073	0.076		
12/8/2008	12:57:30	7.433	0.03	1.099	0.073	0.076		
12/8/2008	12:57:40	7.418	0.03	40.733	0.073	0.076		
12/8/2008	12:57:50	7.433	0.03	14.359	0.073	0.076		
12/8/2008	12:58:00	7.433	0.03	10.037	0.073	0.076		
12/8/2008	12:58:10	7.433	0.03	7.985	0.073	0.076		
12/8/2008	12:58:20	7.418	0.03	6.74	0.073	0.076		
12/8/2008	12:58:30	7.433	0.03	5.788	0.073	0.076		
12/8/2008	12:58:40	7.433	0.03	5.128	0.073	0.076		
12/8/2008	12:58:50	7.418	0.03	4.615	0.073	0.076		
12/8/2008	12:59:00	7.433	0.03	4.176	0.073	0.076		
12/8/2008	12:59:10	7.418	0.03	3.81	0.073	0.076		
12/8/2008	12:59:20	7.418	0.03	3.516	0.073	0.076		
12/8/2008	12:59:30	7.433	0.03	3.223	0.073	0.076		
12/8/2008	12:59:40	7.433	0.03	3.004	0.073	0.076		
12/8/2008	12:59:50	7.418	0.03	2.857	0.073	0.076		
12/8/2008	13:00:00	7.433	0.03	2.637	0.073	0		
12/8/2008	13:00:10	7.448	0.03	2.418	0.073	0.076		
12/8/2008	13:00:20	7.433	0.03	1.465	0.073	0.076		
12/8/2008	13:00:30	7.433	0.03	1.245	0.073	0.076		
12/8/2008	13:00:40	7.448	0.03	1.099	0.073	0.076		
12/8/2008	13:00:50	7.433	0.03	1.026	0.073	0.076		
12/8/2008	13:01:00	7.433	0.03	0.952	0.073	0.076		
12/8/2008	13:01:10	7.418	0.03	0.879	0.073	0.076		
12/8/2008	13:01:20	7.418	0.03	0.513	0.073	0.076		
12/8/2008	13:01:30	7.433	0.03	0.659	0.073	0.076		
12/8/2008	13:01:40	7.418	0.03	0.586	0.073	0.076		
12/8/2008	13:01:50	7.433	0.03	0.586	0.073	0.076		
12/8/2008	13:02:00	7.433	0.03	0.44	0.073	0.076		
12/8/2008	13:02:10	7.433	0.03	0.366	0	0.076		
12/8/2008	13:02:20	7.433	0.03	0.366	0.073	0.076		
12/8/2008	13:02:30	7.433	0.03	0.22	0.073	0.076		
12/8/2008	13:02:40	7.433	0.03	0.22	0.073	0.076		
12/8/2008	13:02:50	7.433	0.03	81.612	0.073	0.076		
12/8/2008	13:03:00	7.433	0.03	135.018	0.073	0.076		
12/8/2008	13:03:10	7.433	0.03	140.513	0.073	0.076		
12/8/2008	13:03:20	7.433	0.03	141.026	0.073	0.076		
12/8/2008	13:03:30	7.418	0.03	141.685	0.073	0.076		
12/8/2008	13:03:40	7.433	0.03	142.491	0.073	0.076		
12/8/2008	13:03:50	7.433	0.03	146.886	0.073	0.076		
12/8/2008	13:04:00	7.418	0.03	150.476	0.073	0.076		
12/8/2008	13:04:10	7.433	0.03	150.989	0.073	0.076		
12/8/2008	13:04:20	7.418	0.03	150.037	0.073	0.076	Mid range calibration drift check	0.01%
12/8/2008	13:04:30	7.418	0.03	148.791	0.073	0.076		
12/8/2008	13:04:40	7.418	0.03	148.205	0.073	0.076		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/8/2008	13:04:50	7.418	0.03	150.037	0.073	0.076		
12/8/2008	13:05:00	7.418	0.03	52.674	0.073	0.076		
12/8/2008	13:05:10	7.418	0.03	0.806	0.073	0.076		
12/8/2008	13:05:20	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:05:30	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:05:40	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:05:50	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:06:00	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:06:10	7.433	0.03	0.073	0.073	0.076	Zero drift check	0.02%
12/8/2008	13:06:20	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:06:30	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:06:40	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:06:50	7.448	0.03	0.073	0	0.076		
12/8/2008	13:07:00	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:07:10	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:07:20	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:07:30	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:07:40	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:07:50	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:08:00	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:08:10	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:08:20	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:08:30	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:08:40	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:08:50	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:09:00	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:09:10	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:09:20	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:09:30	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:09:40	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:09:50	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:10:00	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:10:10	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:10:20	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:10:30	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:10:40	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:10:50	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:11:00	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:11:10	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:11:20	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:11:30	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:11:40	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:11:50	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:12:00	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:12:10	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:12:20	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:12:30	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:12:40	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:12:50	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:13:00	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:13:10	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:13:20	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:13:30	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:13:40	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:13:50	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:14:00	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:14:10	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:14:20	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:14:30	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:14:40	7.433	0.03	38.022	0.073	0.076		
12/8/2008	13:14:50	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:15:00	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:15:10	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:15:20	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:15:30	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:15:40	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:15:50	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:16:00	7.448	0.03	0.073	0	0.076		
12/8/2008	13:16:10	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:16:20	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:16:30	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:16:40	7.433	0.03	0.073	0.073	0.076		
12/8/2008	13:16:50	7.448	0.03	0.073	0.073	0.076		
12/8/2008	13:17:00	8.469	0.03	0.073	0.073	0.076		
12/8/2008	13:17:10	8.484	0.03	0.073	0.073	0.076		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/8/2008	13:17:20	10.51	0.396	0.073	0.073	0.076		
12/8/2008	13:17:30	13.846	0.122	0.073	0.073	0.076		
12/8/2008	13:17:40	15.476	0.03	0.073	0.073	0.076		
12/8/2008	13:17:50	13.846	0.03	0.073	0.073	0.076		
12/8/2008	13:18:00	9.596	0.03	0.073	0.073	0.076		
12/8/2008	13:18:10	5.697	0.03	0.073	0.073	0.076		
12/8/2008	13:18:20	2.772	0.03	0.073	0.073	0.076		
12/8/2008	13:18:30	0.914	0.03	0.073	0.073	0.076		
12/8/2008	13:18:40	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:18:50	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:19:00	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:19:10	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:19:20	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:19:30	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:19:40	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:19:50	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:20:00	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:20:10	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:20:20	0.015	0.03	0.073	0.073	0.076	Oxygen zero system bias check	1.43%
12/8/2008	13:20:30	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:20:40	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:20:50	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:21:00	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:21:10	1.569	0.03	0.073	0.073	0.076		
12/8/2008	13:21:20	3.976	0.03	0.073	0.073	0.076		
12/8/2008	13:21:30	5.636	0.03	0.073	0.073	0.076		
12/8/2008	13:21:40	6.763	0.03	0.073	0.073	0.076		
12/8/2008	13:21:50	7.388	0.03	0.073	0.073	0.076		
12/8/2008	13:22:00	7.768	0.03	0.073	0.073	0.076		
12/8/2008	13:22:10	8.027	0.03	0.073	0.073	0.076		
12/8/2008	13:22:20	8.134	0.03	0.073	0.073	0.076		
12/8/2008	13:22:30	8.241	0.03	0.073	0.073	0.076		
12/8/2008	13:22:40	8.241	0.03	0.073	0.073	0.076		
12/8/2008	13:22:50	8.301	0.03	0.073	0.073	0.076		
12/8/2008	13:23:00	8.637	0.03	0.073	0.073	0.076		
12/8/2008	13:23:10	9.794	0.03	0.073	0.073	0.076		
12/8/2008	13:23:20	9.886	0.03	0.073	0.073	0.076		
12/8/2008	13:23:30	9.946	0.03	0.073	0.073	0.076		
12/8/2008	13:23:40	9.977	0.03	0.073	0.073	0.076		
12/8/2008	13:23:50	9.992	0.03	0.073	0.073	0.076		
12/8/2008	13:24:00	10.007	0.03	0.073	0.073	0.076	Oxygen mid range system bias check	2.26%
12/8/2008	13:24:10	10.023	0.03	0.073	0.073	0.076		
12/8/2008	13:24:20	10.038	0.03	0.073	0.073	0.076		
12/8/2008	13:24:30	10.038	0.03	0.073	0.073	0.076		
12/8/2008	13:24:40	10.007	0.03	0.073	0.073	0.076		
12/8/2008	13:24:50	8.439	0.274	0.073	0.073	0.076		
12/8/2008	13:25:00	8.301	1.005	0.073	0.073	0.076		
12/8/2008	13:25:10	8.286	1.036	0.073	0.073	0.076		
12/8/2008	13:25:20	8.271	1.127	0.073	0.073	0.076		
12/8/2008	13:25:30	8.256	1.219	0.073	0.073	0.076		
12/8/2008	13:25:40	8.241	1.31	0.073	0.073	0.076		
12/8/2008	13:25:50	9.535	2.407	0.073	0.073	0.076		
12/8/2008	13:26:00	8.301	0.091	0.073	0.073	0.076		
12/8/2008	13:26:10	3.29	0.03	0.073	0.073	0.076		
12/8/2008	13:26:20	0.564	0.03	0.073	0.073	0.076		
12/8/2008	13:26:30	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:26:40	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:26:50	0.015	0.03	0.073	0.073	0.076	CO2 zero calibration	0.14%
12/8/2008	13:27:00	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:27:10	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:27:20	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:27:30	0.015	11.485	0.073	0.073	0.076		
12/8/2008	13:27:40	0.015	23.031	0.073	0.073	0.076		
12/8/2008	13:27:50	0.015	21.325	0.073	0.073	0.076		
12/8/2008	13:28:00	0.015	21.203	0.073	0.073	0.076		
12/8/2008	13:28:10	0.015	21.051	0.073	0.073	0.076		
12/8/2008	13:28:20	0.015	21.081	0.073	0.073	0.076		
12/8/2008	13:28:30	0.015	20.99	0.073	0.073	0.076	CO2 high range calibration	0.00%
12/8/2008	13:28:40	0.015	21.112	0.073	0.073	0.076		
12/8/2008	13:28:50	0.015	21.081	0.073	0.073	0.076		
12/8/2008	13:29:00	0.015	21.081	0.073	0.073	0.076		
12/8/2008	13:29:10	0.015	10.937	0.073	0.073	0.076		
12/8/2008	13:29:20	0.015	10.358	0.073	0.073	0.076		
12/8/2008	13:29:30	0.015	10.266	0.073	0.073	0.076		
12/8/2008	13:29:40	0.015	9.87	0.073	0.073	0.076		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/8/2008	13:29:50	0.015	9.992	0.073	0.073	0.076		
12/8/2008	13:30:00	0.015	10.114	0.073	0.073	0.076		
12/8/2008	13:30:10	0.015	10.114	0.073	0.073	0.076		
12/8/2008	13:30:20	0.015	10.114	0.073	0.073	0.076		
12/8/2008	13:30:30	0.015	10.114	0.073	0.073	0.076	CO2 mid range calibration	0.55%
12/8/2008	13:30:40	0.015	10.114	0.073	0.073	0.076		
12/8/2008	13:30:50	0.015	10.145	0.073	0.073	0.076		
12/8/2008	13:31:00	0.015	10.114	0.073	0.073	0.076		
12/8/2008	13:31:10	0.015	9.931	0.073	0	0.076		
12/8/2008	13:31:20	0.015	6.793	0.073	0.073	0.076		
12/8/2008	13:31:30	0.122	7.586	0.073	0.073	0.076		
12/8/2008	13:31:40	2.011	5.057	0.073	0.073	0.076		
12/8/2008	13:31:50	5.133	3.869	0.073	0.073	0.076		
12/8/2008	13:32:00	4.752	1.676	0.073	0.073	0.076		
12/8/2008	13:32:10	2.666	0.64	0.073	0.073	0.076		
12/8/2008	13:32:20	0.746	0.183	0.073	0.073	0.076		
12/8/2008	13:32:30	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:32:40	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:32:50	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:33:00	0.015	0.03	0.073	0.073	0.076	CO2 zero system bias check	0.00%
12/8/2008	13:33:10	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:33:20	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:33:30	0.015	0.03	0.073	0.073	0.076		
12/8/2008	13:33:40	0.015	1.158	0.073	0.073	0.076		
12/8/2008	13:33:50	0.015	5.575	0.073	0.073	0.076		
12/8/2008	13:34:00	0.015	7.921	0.073	0.073	0.076		
12/8/2008	13:34:10	0.015	9.017	0.073	0.073	0.076		
12/8/2008	13:34:20	0.015	9.444	0.073	0.073	0.076		
12/8/2008	13:34:30	0.015	9.657	0.073	0.073	0.076		
12/8/2008	13:34:40	0.015	9.779	0.073	0.073	0.076		
12/8/2008	13:34:50	0.015	9.84	0.073	0.073	0.076		
12/8/2008	13:35:00	0.015	9.901	0.073	0.073	0.076		
12/8/2008	13:35:10	0.015	9.931	0.073	0.073	0.076		
12/8/2008	13:35:20	0.015	9.962	0.073	0.073	0.076		
12/8/2008	13:35:30	0.015	9.962	0.073	0.073	0.076		
12/8/2008	13:35:40	0.015	10.205	0.073	0.073	0.076		
12/8/2008	13:35:50	0.015	10.114	0.073	0.073	0.076		
12/8/2008	13:36:00	0.015	10.175	0.073	0.073	0.076		
12/8/2008	13:36:10	0.015	10.145	0.073	0.073	0.076		
12/8/2008	13:36:20	0.015	10.145	0.073	0.073	0.076		
12/8/2008	13:36:30	0.015	10.023	0.073	0.073	0.076		
12/8/2008	13:36:40	0.015	10.023	0.073	0.073	0.076	CO2 mid range system bias check	0.43%
12/8/2008	13:36:50	0.015	10.023	0.073	0.073	0.076		
12/8/2008	13:37:00	0.015	10.023	0.073	0.073	0.076		
12/8/2008	13:37:10	0.015	8.682	0.073	0.073	0.076		
12/8/2008	13:37:20	1.645	4.326	0.073	0.073	0.076		
12/8/2008	13:37:30	8.408	1.493	0.073	0.073	0.076		
12/8/2008	13:37:40	14.044	0.579	0.073	0.073	0.076		
12/8/2008	13:37:50	17.669	0.152	0.073	0.073	0.076		
12/8/2008	13:38:00	19.832	0.03	0.073	0.073	0.076		
12/8/2008	13:38:10	21.005	0.03	0.073	0.073	0.076		
12/8/2008	13:38:20	21.827	0.03	0.073	0.073	0.076		
12/8/2008	13:38:30	22.223	0.03	0.073	0.073	0.076		
12/8/2008	13:38:40	22.452	0.03	0.073	0.073	0.076		
12/8/2008	13:38:50	22.589	0.03	0.073	0.073	0.076		
12/8/2008	13:39:00	22.665	0.03	0.073	0.073	0.076		
12/8/2008	13:39:10	22.711	0.03	0.073	0.073	0.076		
12/8/2008	13:39:20	22.772	0.03	0.073	0.073	0.076		
12/8/2008	13:39:30	22.711	0.03	0	0.073	0.076		
12/8/2008	13:39:40	22.696	0.03	0.073	0.073	0.076		
12/8/2008	13:39:50	22.711	0.03	0.073	0.073	0.076		
12/8/2008	13:40:00	22.711	0.03	0.073	0.073	0.076		
12/8/2008	13:40:10	22.696	0.03	0.073	0.073	0.076		
12/8/2008	13:40:20	22.726	0.03	0.073	0.073	0.076		
12/8/2008	13:40:30	22.757	0.03	0.073	0.073	0.076		
12/8/2008	13:40:40	22.65	0.03	0.073	0.073	0.076		
12/8/2008	13:40:50	22.65	0.03	0.073	0.073	0.076		
12/8/2008	13:41:00	22.62	0.03	0.073	0.073	0.076		
12/8/2008	13:41:10	22.62	0.03	0.073	0.073	0.076		
12/8/2008	13:41:20	22.559	0.03	0.073	0.073	0.076		
12/8/2008	13:41:30	22.604	0.03	0.073	0.073	0.076		
12/8/2008	13:41:40	22.665	0.03	0.073	0.073	0.076		
12/8/2008	13:41:50	22.665	0.03	0.073	0.073	0.076		
12/8/2008	13:42:00	22.665	0.03	0.073	0.073	0.076		
12/8/2008	13:42:10	22.65	0.03	0.073	0.073	0.076		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/8/2008	13:42:20	22.543	0.03	0.073	0.073	0.076		
12/8/2008	13:42:30	22.589	0.03	0.073	0.073	0.076		
12/8/2008	13:42:40	22.589	0.03	0.073	0.073	0.076		
12/8/2008	13:42:50	22.406	0.061	0.073	0.073	0.076		
12/8/2008	13:43:00	22.223	0.122	0.073	0.073	0.076		
12/8/2008	13:43:10	21.995	0.152	0.073	0.073	0.076		
12/8/2008	13:43:20	22.056	0.122	0.073	0.073	0.076		
12/8/2008	13:43:30	21.904	0.152	0.073	0.073	0.606		
12/8/2008	13:43:40	21.934	0.152	2.198	0.073	2.952		
12/8/2008	13:43:50	21.797	0.152	17.216	0.073	6.208		
12/8/2008	13:44:00	21.797	0.152	28.571	0.073	11.658		
12/8/2008	13:44:10	21.767	0.152	20.366	0.073	19.077		
12/8/2008	13:44:20	21.827	0.152	6.447	0.073	24.982		
12/8/2008	13:44:30	21.782	0.152	5.128	0.073	30.584		
12/8/2008	13:44:40	21.797	0.183	4.762	0.073	40.652		
12/8/2008	13:44:50	21.827	0.183	4.396	0.073	36.791		
12/8/2008	13:45:00	21.858	0.152	4.176	0.073	22.105		
12/8/2008	13:45:10	21.812	0.152	4.615	0.073	20.515		
12/8/2008	13:45:20	21.843	0.183	4.689	0.073	19.304		
12/8/2008	13:45:30	21.782	0.183	4.396	0.073	19.001		
12/8/2008	13:45:40	21.782	0.183	4.103	0.073	18.396		
12/8/2008	13:45:50	21.782	0.183	3.956	0.073	18.168		
12/8/2008	13:46:00	21.782	0.152	5.275	0.073	18.396		
12/8/2008	13:46:10	21.736	0.152	4.396	0.073	18.85		
12/8/2008	13:46:20	21.751	0.183	4.103	0.073	18.623		
12/8/2008	13:46:30	21.751	0.183	4.029	0.073	18.017		
12/8/2008	13:46:40	21.751	0.122	4.176	0.073	17.639		
12/8/2008	13:46:50	21.706	0.152	4.982	0.073	17.336		
12/8/2008	13:47:00	21.767	0.183	3.663	0.073	18.623		
12/8/2008	13:47:10	21.767	0.183	3.81	0.073	19.153		
12/8/2008	13:47:20	21.721	0.152	4.469	0.073	19.985		
12/8/2008	13:47:30	21.721	0.152	4.469	0.073	19.834		
12/8/2008	13:47:40	21.721	0.183	3.663	0.073	21.878		
12/8/2008	13:47:50	21.675	0.152	4.322	0.073	6.435		
12/8/2008	13:48:00	21.736	0.183	5.275	0.073	0.454		
12/8/2008	13:48:10	21.675	0.183	4.689	0.073	6.51		
12/8/2008	13:48:20	21.66	0.152	5.055	0.073	19.38		
12/8/2008	13:48:30	21.66	0.152	4.542	0.073	22.559		
12/8/2008	13:48:40	21.736	0.183	3.37	0.073	4.239		
12/8/2008	13:48:50	21.629	0.152	4.322	0.073	0.076		
12/8/2008	13:49:00	21.051	0.152	4.615	0.073	0.076		
12/8/2008	13:49:10	20.898	0.183	3.736	0.073	0.076		
12/8/2008	13:49:20	20.868	0.183	3.443	0.073	17.941		
12/8/2008	13:49:30	20.822	0.152	3.883	0.073	22.862		
12/8/2008	13:49:40	20.837	0.183	3.956	0.073	23.695		
12/8/2008	13:49:50	20.868	0.183	3.736	0.073	27.556		
[illegible]	[illegible]	[illegible]	[illegible]	4.029	0.073	29.751	Stratification Check Point No. 1	
[illegible]	[illegible]	[illegible]	[illegible]	3.956	0.073	28.237		
[illegible]	[illegible]	[illegible]	[illegible]	4.469	0.073	27.707	Average O2 =	20.859
[illegible]	[illegible]	[illegible]	[illegible]	4.176	0.073	32.779	Average CO2 =	0.170
[illegible]	[illegible]	[illegible]	[illegible]	3.59	0.073	27.707		
[illegible]	[illegible]	[illegible]	[illegible]	4.029	0.073	31.189		
[illegible]	[illegible]	[illegible]	[illegible]	3.956	0.073	30.129	Deviation from mean, O2 =	0.21%
[illegible]	[illegible]	[illegible]	[illegible]	4.103	0.073	28.918	Deviation from mean, CO2 =	3.09%
[illegible]	[illegible]	[illegible]	[illegible]	3.956	0.073	31.416		
[illegible]	[illegible]	[illegible]	[illegible]	4.249	0.073	31.671		
[illegible]	[illegible]	[illegible]	[illegible]	3.883	0.073	31.719		
[illegible]	[illegible]	[illegible]	[illegible]	3.663	0.073	31.189		
[illegible]	[illegible]	[illegible]	[illegible]	3.883	0.073	28.767	Stratification Check Point No. 2	
[illegible]	[illegible]	[illegible]	[illegible]	4.542	0.073	29.448		
[illegible]	[illegible]	[illegible]	[illegible]	4.615	0.073	27.404	Average O2 =	20.900
[illegible]	[illegible]	[illegible]	[illegible]	4.982	0.073	28.464	Average CO2 =	0.180
[illegible]	[illegible]	[illegible]	[illegible]	5.128	0.073	26.042		
[illegible]	[illegible]	[illegible]	[illegible]	4.615	0.073	28.313	Deviation from mean, O2 =	0.00%
[illegible]	[illegible]	[illegible]	[illegible]	4.249	0.073	27.556	Deviation from mean, CO2 =	1.95%
[illegible]	[illegible]	[illegible]	[illegible]	4.103	0.073	29.448		
[illegible]	[illegible]	[illegible]	[illegible]	4.029	0.073	27.253		
[illegible]	[illegible]	[illegible]	[illegible]	3.883	0.073	25.512		
[illegible]	[illegible]	[illegible]	[illegible]	3.736	0.073	25.612		
[illegible]	[illegible]	[illegible]	[illegible]	4.029	0.073	26.042		
[illegible]	[illegible]	[illegible]	[illegible]	4.322	0.073	25.057	Stratification Check Point No. 3	
[illegible]	[illegible]	[illegible]	[illegible]	4.322	0.073	26.42		
[illegible]	[illegible]	[illegible]	[illegible]	4.396	0.073	30.129	Average O2 =	20.949
[illegible]	[illegible]	[illegible]	[illegible]	4.469	0.073	30.659	Average CO2 =	0.180
[illegible]	[illegible]	[illegible]	[illegible]	4.322	0.073	27.707		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2	CO2	RTO Inlet VOC 3	RTO Outlet VOC 1	Baghouse VOC 2	Calibration Comments	Error
		%	%	ppm C_3H_8	ppm C_3H_8	ppm C_3H_8		%
[redacted]				4.908	0.073	29.145	Deviation from mean, O2 =	0.24%
				4.029	0.073	25.436	Deviation from mean, CO2 =	1.95%
				4.322	0.073	22.559		
				4.396	0.073	21.424	Overall Average, O2 =	20.800
				4.103	0.073	20.591	Overall Average, CO2 =	0.177
				1.319	0.073	19.304		
				1.245	0.073	19.38		
12/8/2008	13:56:00	21.066	0.183	1.392	0.073	19.228	Greatest Deviation	
12/8/2008	13:56:10	20.944	0.152	1.536	0.073	19.607	O2=	0.24%
12/8/2008	13:56:20	20.853	0.152	1.758	116.264	18.698	CO2 =	3.89%
12/8/2008	13:56:30	20.853	0.183	1.685	114.652	18.471		
12/8/2008	13:56:40	20.883	0.152	1.685	135.238	17.79	Largest CO2 difference is	0.010
12/8/2008	13:56:50	20.898	0.183	1.099	167.692	15.519	Single point sampling okay.	
12/8/2008	13:57:00	20.853	0.183	1.099	191.722	14.081		
12/8/2008	13:57:10	20.837	0.183	1.099	208.425	16.806		
12/8/2008	13:57:20	20.822	0.183	1.319	219.121	16.957		
12/8/2008	13:57:30	20.822	0.183	1.832	224.689	16.049		
12/8/2008	13:57:40	20.853	0.183	1.465	229.231	16.882		
12/8/2008	13:57:50	20.868	0.183	1.392	231.282	15.595		
12/8/2008	13:58:00	20.853	0.183	0.952	233.04	16.654		
12/8/2008	13:58:10	20.853	0.213	0.733	234.139	14.081		
12/8/2008	13:58:20	20.853	0.183	1.172	235.092	15.519		
12/8/2008	13:58:30	20.883	0.152	1.026	235.311	17.336		
12/8/2008	13:58:40	20.868	0.183	1.099	236.41	15.595		
12/8/2008	13:58:50	20.853	0.183	1.319	236.264	14.005		
12/8/2008	13:59:00	20.822	0.183	1.319	236.996	12.567		
12/8/2008	13:59:10	20.837	0.183	1.392	237.289	14.686		
12/8/2008	13:59:20	20.853	0.183	1.392	238.315	20.212		
12/8/2008	13:59:30	20.853	0.183	1.465	238.315	18.396		
12/8/2008	13:59:40	20.807	0.183	1.758	238.315	15.973		
12/8/2008	13:59:50	20.822	0.183	1.392	238.388	13.096		
12/8/2008	14:00:00	20.807	0.152	1.099	238.315	12.567		
12/8/2008	14:00:10	20.853	0.183	0.952	236.117	12.491		
12/8/2008	14:00:20	20.837	0.183	0.879	236.41	12.037		
12/8/2008	14:00:30	20.807	0.183	0.879	235.897	11.204		
12/8/2008	14:00:40	20.853	0.183	0.733	1.392	10.295		
12/8/2008	14:00:50	20.822	0.731	0.806	0.073	10.447		
12/8/2008	14:01:00	18.446	3.656	0.879	0.073	10.825		
12/8/2008	14:01:10	12.81	6.854	1.319	0.073	11.961		
12/8/2008	14:01:20	7.357	8.499	0.952	0.073	11.431		
12/8/2008	14:01:30	3.595	9.231	0.659	0.073	11.734		
12/8/2008	14:01:40	1.31	9.535	0.806	0.073	13.399		
12/8/2008	14:01:50	0.015	9.718	0.806	0.073	13.324		
12/8/2008	14:02:00	0.015	9.809	0.806	0.073	11.128		
12/8/2008	14:02:10	0.015	9.87	0.952	0.073	13.626		
12/8/2008	14:02:20	0.015	9.931	1.099	0.073	13.096		
12/8/2008	14:02:30	0.015	10.053	1.245	0.073	13.248	Post-test mid range drift check	0.14%
12/8/2008	14:02:40	0.015	10.084	1.612	0.073	12.794	Post-test zero drift check	0.00%
12/8/2008	14:02:50	0.015	9.931	1.465	0.073	13.778		
12/8/2008	14:03:00	0.015	9.627	1.392	0.073	14.535		
12/8/2008	14:03:10	0.015	7.068	0.806	0.073	19.607		
12/8/2008	14:03:20	3.991	3.503	0.879	0.073	19.985		
12/8/2008	14:03:30	9.992	1.371	0.952	0.073	18.85		
12/8/2008	14:03:40	14.638	0.579	1.612	0.073	18.093		
12/8/2008	14:03:50	17.578	0.213	1.319	0.073	22.181		
12/8/2008	14:04:00	19.268	0.091	0.586	0.073	23.241		
12/8/2008	14:04:10	20.228	0.03	1.026	0.073	15.67		
12/8/2008	14:04:20	20.716	0.03	1.319	0.073	14.913		
12/8/2008	14:04:30	20.974	0.03	0.879	0.073	12.794		
12/8/2008	14:04:40	21.112	0.03	1.392	0.073	11.355		
12/8/2008	14:04:50	21.157	0.03	0.879	0.073	11.734		
12/8/2008	14:05:00	20.853	0.03	1.099	0.073	11.204		
12/8/2008	14:05:10	20.776	0.03	1.026	0.073	10.901		
12/8/2008	14:05:20	20.868	0.03	1.026	0.073	11.204		
12/8/2008	14:05:30	20.883	0.03	1.245	0.073	15.14		
12/8/2008	14:05:40	20.898	0.03	0.806	0.073	14.383	Post-test zero drift check	0.00%
12/8/2008	14:05:50	20.914	0.03	1.465	0.073	13.324		
12/8/2008	14:06:00	20.929	0.03	0.879	0.073	13.929		
12/8/2008	14:06:10	20.853	0.03	0.879	0.073	14.762		
12/8/2008	14:06:20	20.883	0.03	1.538	0.073	12.339		
12/8/2008	14:06:30	20.853	0.03	0.879	0.073	15.897		
12/8/2008	14:06:40	20.914	0.03	0.733	0.073	15.67	Post-test mid range drift check	0.22%
12/8/2008	14:06:50	20.837	0.122	1.319	0.073	16.427		
12/8/2008	14:07:00	20.685	0.244	1.392	0.073	15.973		
12/8/2008	14:07:10	20.533	0.305	0.879	24.469	15.443		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/8/2008	14:07:20	20.426	0.335	1.099	125.861	12.945		
12/8/2008	14:07:30	20.365	0.335	1.685	230.696	14.535		
12/8/2008	14:07:40	20.304	0.335	1.099	196.484	10.977		
12/8/2008	14:07:50	20.319	0.335	0.879	200.806	13.096		
12/8/2008	14:08:00	20.304	0.335	1.245	219.56	16.579		
12/8/2008	14:08:10	20.289	0.335	1.319	232.088	16.579		
12/8/2008	14:08:20	20.289	0.335	1.099	237.856	13.778		
12/8/2008	14:08:30	20.335	0.336	0.879	240.806	12.339		
12/8/2008	14:08:40	20.335	0.335	0.952	242.418	9.614		
12/8/2008	14:08:50	20.304	0.335	1.392	244.542	9.841		
12/8/2008	14:09:00	20.304	0.335	1.685	246.96	11.204		
12/8/2008	14:09:10	20.304	0.366	0.952	248.205	11.053		
12/8/2008	14:09:20	20.304	0.366	0.733	249.158	11.734		
12/8/2008	14:09:30	20.304	0.366	0.806	251.355	10.674		
Test Day Calibrations and Data								
12/9/2008	6:46:14	18.324	0.03	0.244	0.024	0.076		
12/9/2008	6:46:24	18.309	0.03	0.244	0.024	0.076		
12/9/2008	6:46:34	18.324	0.03	0.244	0.024	0.076		
12/9/2008	6:46:44	18.309	0.03	0.244	0.024	0.076		
12/9/2008	6:46:54	18.324	0.03	0.244	0.024	0.076		
12/9/2008	6:47:04	18.644	0.305	0.244	0.024	0.076		
12/9/2008	6:47:14	20.335	0.03	0.244	0.024	0.076		
12/9/2008	6:47:24	20.914	0.03	0.244	0.024	0.076		
12/9/2008	6:47:34	20	0.03	0.244	0.024	0.076		
12/9/2008	6:47:44	18.613	0.03	0.244	0.024	0.076		
12/9/2008	6:47:54	18.309	0.03	0.244	0.024	0.076		
12/9/2008	6:48:04	18.233	0.03	0.244	0.024	0.076		
12/9/2008	6:48:14	18.233	0.03	0.244	0.024	0.076		
12/9/2008	6:48:24	18.949	0.03	0.244	0.024	0.076		
12/9/2008	6:48:34	21.584	0.03	0.244	0.024	0.076		
12/9/2008	6:48:44	21.706	0.03	0.244	0.024	0.076		
12/9/2008	6:48:54	21.401	0.03	0.244	0.024	0.076		
12/9/2008	6:49:04	20.868	0.03	0.244	0.024	0.076		
12/9/2008	6:49:14	20.883	0.03	0.244	0.024	0.076		
12/9/2008	6:49:24	20.914	0.03	0.244	0.024	0.076		
12/9/2008	6:49:34	20.868	0.03	0.244	0.024	0.076		
12/9/2008	6:49:44	20.868	0.03	0.244	0.024	0.076	Hi range calibration gas	0.15%
12/9/2008	6:49:54	20.868	0.03	0.244	0.024	0.076	Zero gas	0.14%
12/9/2008	6:50:04	20.015	0.03	0.244	0.024	0.076		
12/9/2008	6:50:14	20.182	0.03	0.244	0.024	0.076		
12/9/2008	6:50:24	14.272	0.03	0.244	0.024	0.076		
12/9/2008	6:50:34	11.272	0.03	0.244	0.024	0.076		
12/9/2008	6:50:44	10.068	0.03	0.244	0.024	0.076		
12/9/2008	6:50:54	9.55	0.03	0.244	0.024	0.076		
12/9/2008	6:51:04	9.352	0.03	0.244	0.024	0.076		
12/9/2008	6:51:14	9.246	0.03	0.244	0.024	0.076		
12/9/2008	6:51:24	9.474	0.03	0.244	0.024	0.076		
12/9/2008	6:51:34	9.886	0.03	0.244	0.024	0.076		
12/9/2008	6:51:44	9.886	0.03	0.244	0.024	0.076		
12/9/2008	6:51:54	9.931	0.03	0.244	0.024	0.076		
12/9/2008	6:52:04	9.916	0.03	0.244	0.024	0.076		
12/9/2008	6:52:14	0.015	0.03	0.244	0.024	0.076		
12/9/2008	6:52:24	8.439	0.03	0.244	0.024	0.076		
12/9/2008	6:52:34	8.408	0.03	0.244	0.024	0.076		
12/9/2008	6:52:44	0.015	0.03	0.244	0.024	0.076		
12/9/2008	6:52:54	8.454	0.03	0.244	0.024	0.076		
12/9/2008	6:53:04	8.469	0.03	0.244	0.024	0.076		
12/9/2008	6:53:14	8.469	0.03	0.244	0.024	0.076		
12/9/2008	6:53:24	8.484	0.03	0.244	0.024	0.076		
12/9/2008	6:53:34	8.499	0.03	0.244	0.024	0.076		
12/9/2008	6:53:44	8.637	0.03	0.244	0.024	0.908		
12/9/2008	6:53:54	9.733	0.03	0.244	0.024	3.255		
12/9/2008	6:54:04	7.707	0.03	0.244	0.024	0.757		
12/9/2008	6:54:14	9.124	0.03	0.244	0.024	0.076		
12/9/2008	6:54:24	9.52	0.03	0.244	0.024	0.076		
12/9/2008	6:54:34	9.672	0.03	0.244	0.024	0.076		
12/9/2008	6:54:44	9.748	0.03	0.244	0.024	0.076		
12/9/2008	6:54:54	9.794	0.03	0.244	0.024	0.076		
12/9/2008	6:55:04	9.962	0.03	0.244	0.024	0.076		
12/9/2008	6:55:14	9.946	0.03	0.244	0.024	0.076		
12/9/2008	6:55:24	9.962	0.03	0.244	0.024	0.076		
12/9/2008	6:55:34	9.962	0.03	0.244	0.024	0.076		
12/9/2008	6:55:44	10.007	0.03	0.244	0.024	0.303	Mid Range gas	0.03%
12/9/2008	6:55:54	10.007	0.03	0.244	0.024	0.379		
12/9/2008	6:56:04	8.911	0.03	0.244	0.024	0.076		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	6:56:14	9.764	0.487	0.244	0.024	0.076		
12/9/2008	6:56:24	7.266	20.228	0.244	0.024	0.076		
12/9/2008	6:56:34	2.072	20.898	1.221	0.024	0.076		
12/9/2008	6:56:44	0.015	20.959	3.419	0.024	0.076		
12/9/2008	6:56:54	0.015	21.02	5.128	0.024	0.076		
12/9/2008	6:57:04	0.015	21.02	3.663	0.024	0.076		
12/9/2008	6:57:14	0.015	21.051	0.244	0.024	0.606		
12/9/2008	6:57:24	0.015	20.959	0.244	0.024	0.681		
12/9/2008	6:57:34	0.015	20.959	0.244	0.024	0.681	Hi range calibration gas	0.15%
12/9/2008	6:57:44	0.015	20.959	0.244	0.024	0.379	Zero gas	0.07%
12/9/2008	6:57:54	0.015	14.349	0.244	0.024	0.379		
12/9/2008	6:58:04	0.015	10.449	0.244	0.024	0.076		
12/9/2008	6:58:14	0.015	10.145	0.244	0.024	0.076		
12/9/2008	6:58:24	0.015	9.779	0.244	0.024	0.076		
12/9/2008	6:58:34	0.015	9.505	1.221	0.024	0.076		
12/9/2008	6:58:44	0.015	9.139	2.93	0.024	0.076		
12/9/2008	6:58:54	0.015	8.987	1.954	0.024	0.076		
12/9/2008	6:59:04	0.015	8.895	1.954	0.024	0.379		
12/9/2008	6:59:14	0.015	8.621	1.709	0.024	0.454		
12/9/2008	6:59:24	0.015	8.408	1.465	0.024	0.53		
12/9/2008	6:59:34	0.015	8.804	0.733	0.024	0.454		
12/9/2008	6:59:44	0.015	9.413	0.733	0.024	0.379		
12/9/2008	6:59:54	0.015	9.322	2.198	0.024	0.303		
12/9/2008	7:00:04	0.015	9.231	3.175	0.024	0.303		
12/9/2008	7:00:14	0.015	9.078	5.128	0.024	0.076		
12/9/2008	7:00:24	0.015	9.383	3.663	0.024	0.303		
12/9/2008	7:00:34	0.015	9.931	0.244	0.024	0.908		
12/9/2008	7:00:44	0.015	9.901	0.244	0.024	1.06		
12/9/2008	7:00:54	0.015	10.053	0.244	0.024	0.984		
12/9/2008	7:01:04	0.015	9.992	0.244	0.024	1.136		
12/9/2008	7:01:14	0.015	9.962	0.244	0.024	0.757		
12/9/2008	7:01:24	0.015	9.962	0.244	0.024	0.757	Mid Range gas	0.13%
12/9/2008	7:01:34	0.015	10.053	0.244	0.024	0.833		
12/9/2008	7:01:44	0.015	9.992	0.244	0.024	0.908		
12/9/2008	7:01:54	0.015	9.962	0.244	0.024	1.211		
12/9/2008	7:02:04	0.015	9.901	0.244	0.024	1.211		
12/9/2008	7:02:14	0.015	9.931	2.198	0.024	0.681		
12/9/2008	7:02:24	0.015	9.779	3.419	0.024	0.151		
12/9/2008	7:02:34	0.015	0.426	0.244	0.024	0.53		
12/9/2008	7:02:44	3.503	0.03	0.244	0.024	0.908		
12/9/2008	7:02:54	9.535	0.03	0.244	0.024	1.287		
12/9/2008	7:03:04	13.221	0.03	0.244	0.024	1.287		
12/9/2008	7:03:14	17.593	0.03	3.175	0.024	0.379		
12/9/2008	7:03:24	20.045	0.03	0.733	0.024	0.53		
12/9/2008	7:03:34	20.548	0.457	0.244	0.024	1.136		
12/9/2008	7:03:44	20.457	0.426	0.244	0.024	1.211		
12/9/2008	7:03:54	20.67	0.274	1.221	0.024	0.984		
12/9/2008	7:04:04	20.898	0.03	2.442	0.024	0.379		
12/9/2008	7:04:14	20.959	0.03	0.244	0.024	0.681		
12/9/2008	7:04:24	21.188	0.03	0.244	0.024	1.06		
12/9/2008	7:04:34	21.294	0.03	0.244	0.024	1.514		
12/9/2008	7:04:44	20.807	0.03	0.244	0.024	1.363		
12/9/2008	7:04:54	20.837	0.03	0.244	0.024	1.211		
12/9/2008	7:05:04	20.929	0.03	0.244	0.024	1.136		
12/9/2008	7:05:14	20.944	0.03	0.244	0.024	1.136		
12/9/2008	7:05:24	20.99	0.03	0.244	0.024	1.287		
12/9/2008	7:05:34	20.883	0.03	0.244	0.024	1.363		
12/9/2008	7:05:44	20.868	0.03	0.244	0.024	1.363		
12/9/2008	7:05:54	20.883	0.03	0.244	0.024	1.136	Hi range system bias check	0.07%
12/9/2008	7:06:04	20.837	0.03	0.244	0.024	0.833	Zero system bias check	0.00%
12/9/2008	7:06:14	20.822	0.03	3.663	0.024	0.454		
12/9/2008	7:06:24	20.853	0.03	0.244	0.024	1.211		
12/9/2008	7:06:34	20.898	0.03	0.244	0.024	1.438		
12/9/2008	7:06:44	20.624	1.188	0.244	0.024	1.211		
12/9/2008	7:06:54	17.273	5.544	0.244	0.024	0.908		
12/9/2008	7:07:04	11.18	8.347	0.244	0.024	0.833		
12/9/2008	7:07:14	5.94	9.779	3.663	0.024	0.379		
12/9/2008	7:07:24	2.605	10.48	0.244	0.024	1.363		
12/9/2008	7:07:34	0.731	10.358	0.244	0.024	1.514		
12/9/2008	7:07:44	0.015	10.205	0.244	0.024	1.363		
12/9/2008	7:07:54	0.015	10.084	0.244	0.024	0.908		
12/9/2008	7:08:04	0.015	10.053	0.244	0.024	0.908		
12/9/2008	7:08:14	0.015	9.992	1.465	0.024	0.606		
12/9/2008	7:08:24	0.015	9.992	3.419	0.024	0.606		
12/9/2008	7:08:34	0.015	9.992	2.198	0.024	0.681		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	7:08:44	0.015	9.992	1.709	0.024	0.757		
12/9/2008	7:08:54	0.015	9.992	0.977	0.024	1.211		
12/9/2008	7:09:04	0.015	9.992	0.244	0.024	1.438	Mid range system bias check	0.14%
12/9/2008	7:09:14	0.015	9.992	0.244	0.024	1.59	Zero system bias check	0.00%
12/9/2008	7:09:24	0.015	9.992	0.244	0.024	1.59		
12/9/2008	7:09:34	0.015	8.195	0.244	0.024	1.59		
12/9/2008	7:09:44	2.254	4.448	0.244	0.024	1.59		
12/9/2008	7:09:54	8.317	1.98	0.244	0.024	1.665		
12/9/2008	7:10:04	13.374	0.883	0.244	0.024	1.665		
12/9/2008	7:10:14	16.709	0.366	0.244	0.024	1.287		
12/9/2008	7:10:24	18.69	0.122	0.244	0.024	1.514		
12/9/2008	7:10:34	19.756	0.03	0.244	0.024	1.287		
12/9/2008	7:10:44	20.35	0.03	0.244	0.024	1.136		
12/9/2008	7:10:54	20.609	0.03	0.244	0.024	1.136		
12/9/2008	7:11:04	20.761	0.03	0.244	0.024	1.665		
12/9/2008	7:11:14	20.868	0.03	0.244	61.905	2.271		
12/9/2008	7:11:24	20.898	0.03	0.244	86.349	2.725		
12/9/2008	7:11:34	20.914	0.03	0.244	64.2	3.558		
12/9/2008	7:11:44	20.929	0.03	0.244	60.073	4.466		
12/9/2008	7:11:54	20.944	0.03	0.244	58.828	4.391		
12/9/2008	7:12:04	20.959	0.03	0.244	61.05	4.239		
12/9/2008	7:12:14	20.944	0.061	0.733	78.974	3.937		
12/9/2008	7:12:24	20.959	0.03	0.244	93.7	3.937		
12/9/2008	7:12:34	20.959	0.03	0.244	99.096	4.088		
12/9/2008	7:12:44	20.959	0.03	0.244	98.926	4.088		
12/9/2008	7:12:54	20.959	0.03	0.244	98.706	3.785		
12/9/2008	7:13:04	20.959	0.03	0.488	98.584	3.634		
12/9/2008	7:13:14	20.959	0.03	0.977	98.437	3.709		
12/9/2008	7:13:24	20.959	0.03	1.221	98.755	3.634	Hi range calibration gas	1.25%
12/9/2008	7:13:34	20.974	0.03	0.733	99.023	3.709		
12/9/2008	7:13:44	20.959	0.03	3.663	53.773	3.558		
12/9/2008	7:13:54	20.944	0.03	0.244	44.689	3.709		
12/9/2008	7:14:04	20.944	0.03	0.244	44.713	3.634		
12/9/2008	7:14:14	20.929	0.03	0.977	44.689	3.634		
12/9/2008	7:14:24	21.035	0.03	0.977	44.811	3.558		
12/9/2008	7:14:34	21.035	0.03	0.977	44.908	3.558		
12/9/2008	7:14:44	21.035	0.03	0.244	45.006	3.634		
12/9/2008	7:14:54	21.02	0.03	0.488	45.055	3.558		
12/9/2008	7:15:04	21.02	0.03	0.733	45.006	3.558		
12/9/2008	7:15:14	21.02	0.03	0.244	45.177	3.634		
12/9/2008	7:15:24	21.005	0.03	2.442	44.982	3.482		
12/9/2008	7:15:34	21.02	0.03	4.64	45.128	3.255		
12/9/2008	7:15:44	21.005	0.03	0.977	44.762	3.558		
12/9/2008	7:15:54	21.005	0.03	1.221	48.23	3.558		
12/9/2008	7:16:04	21.005	0.03	2.442	50.085	3.255		
12/9/2008	7:16:14	21.035	0.03	1.709	50.183	3.407		
12/9/2008	7:16:24	21.035	0.03	1.954	50.281	3.709		
12/9/2008	7:16:34	21.02	0.03	0.977	50.501	3.709	Mid range calibration gas	1.00%
12/9/2008	7:16:44	21.02	0.03	0.244	50.476	3.861		
12/9/2008	7:16:54	21.02	0.03	0.244	50.623	3.861		
12/9/2008	7:17:04	21.005	0.03	0.244	50.769	3.937		
12/9/2008	7:17:14	21.02	0.03	0	36.777	3.407		
12/9/2008	7:17:24	21.051	0.03	0.244	21.319	3.709		
12/9/2008	7:17:34	21.035	0.03	0.244	0.024	3.558		
12/9/2008	7:17:44	17.837	0.03	0.244	0.024	0.076		
12/9/2008	7:17:54	17.684	0.03	0.244	0.024	0.076		
12/9/2008	7:18:04	17.684	0.03	0.244	0.024	0.076		
12/9/2008	7:18:14	21.005	0.03	2.198	8.107	3.634		
12/9/2008	7:18:24	21.035	0.03	0.244	9.695	3.861		
12/9/2008	7:18:34	21.035	0.03	0.244	9.719	3.861		
12/9/2008	7:18:44	21.035	0.03	0.244	9.988	3.709		
12/9/2008	7:18:54	21.02	0.03	2.442	10.061	3.331		
12/9/2008	7:19:04	21.02	0.03	0.244	10.281	3.407		
12/9/2008	7:19:14	21.005	0.03	0.244	10.379	3.709		
12/9/2008	7:19:24	21.035	0.03	0.244	10.379	3.709		
12/9/2008	7:19:34	21.051	0.03	0.244	10.696	3.558		
12/9/2008	7:19:44	21.02	0.03	0.244	10.549	3.407		
12/9/2008	7:19:54	21.02	0.03	0.244	31.551	3.179		
12/9/2008	7:20:04	21.035	0.03	0.244	31.6	2.877		
12/9/2008	7:20:14	21.02	0.03	0.244	31.795	3.179		
12/9/2008	7:20:24	21.02	0.03	0.488	32.332	3.179		
12/9/2008	7:20:34	21.005	0.03	0.733	31.038	3.331		
12/9/2008	7:20:44	21.02	0.03	0.244	29.963	3.331		
12/9/2008	7:20:54	21.005	0.03	0.733	33.431	3.407		
12/9/2008	7:21:04	21.005	0.03	1.465	37.485	3.407		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	7:21:14	21.005	0.03	0.733	42.491	3.407		
12/9/2008	7:21:24	21.02	0.03	0.733	47.326	3.255		
12/9/2008	7:21:34	21.005	0.03	0.244	49.866	3.482		
12/9/2008	7:21:44	21.02	0.03	3.663	50.72	3.028		
12/9/2008	7:21:54	21.02	0.03	2.686	51.331	3.028		
12/9/2008	7:22:04	21.005	0.03	0.733	51.917	3.407		
12/9/2008	7:22:14	21.02	0.03	0.244	50.085	3.482		
12/9/2008	7:22:24	21.005	0.03	0.244	22.125	3.407		
12/9/2008	7:22:34	20.974	0.03	0.244	18.486	3.331		
12/9/2008	7:22:44	20.974	0.03	0.244	18.608	3.104		
12/9/2008	7:22:54	20.99	0.03	0.244	18.632	3.255		
12/9/2008	7:23:04	20.99	0.03	0.244	18.535	3.255		
12/9/2008	7:23:14	21.005	0.03	0.244	18.852	3.179		
12/9/2008	7:23:24	21.005	0.03	0.244	22.882	3.255		
12/9/2008	7:23:34	21.005	0.03	0.244	25.275	3.255		
12/9/2008	7:23:44	20.974	0.03	0.244	25.592	3.104		
12/9/2008	7:23:54	20.99	0.03	0.244	24.908	3.255		
12/9/2008	7:24:04	21.005	0.03	0.244	24.908	3.104		
12/9/2008	7:24:14	21.005	0.03	0.244	25.006	3.255	Low range calibration gas	0.02%
12/9/2008	7:24:24	20.99	0.03	0.244	24.689	3.255		
12/9/2008	7:24:34	20.974	0.03	0.244	25.055	3.028		
12/9/2008	7:24:44	21.005	0.03	0.244	27.912	3.104		
12/9/2008	7:24:54	21.005	0.03	0.244	45.006	3.104		
12/9/2008	7:25:04	21.005	0.03	0.244	46.52	3.104		
12/9/2008	7:25:14	21.02	0.03	0.244	47.106	3.179		
12/9/2008	7:25:24	20.99	0.03	0.244	46.838	3.179		
12/9/2008	7:25:34	21.005	0.03	0.733	44.103	3.179		
12/9/2008	7:25:44	21.02	0.03	2.686	34.896	3.104		
12/9/2008	7:25:54	21.005	0.03	2.93	28.816	3.179		
12/9/2008	7:26:04	21.005	0.03	5.128	28.303	2.952		
12/9/2008	7:26:14	21.005	0.03	4.64	28.205	2.725		
12/9/2008	7:26:24	21.005	0.03	4.64	25.91	2.801		
12/9/2008	7:26:34	21.005	0.03	2.198	24.737	3.331		
12/9/2008	7:26:44	20.99	0.03	0.244	25.031	3.407		
12/9/2008	7:26:54	20.99	0.03	0.244	25.275	3.331		
12/9/2008	7:27:04	21.035	0.03	0.244	25.69	3.255		
12/9/2008	7:27:14	21.035	0.03	0.244	26.129	3.634		
12/9/2008	7:27:24	20.7	0.03	0.244	0.024	0.076		
12/9/2008	7:27:34	20.36	0.03	0.244	0.024	0.076		
12/9/2008	7:27:44	20.35	0.03	0.244	0.024	0.076		
12/9/2008	7:27:54	20.335	0.03	0.244	0.024	0.076	Zero gas	0.02%
12/9/2008	7:28:04	20.319	0.03	0.244	0.024	0.076		
12/9/2008	7:28:14	20.304	0.03	0.244	0.024	0.076		
12/9/2008	7:28:24	20.304	0.03	0.244	0.024	0.076		
12/9/2008	7:28:34	20.731	0.03	0.244	0.024	0.076		
12/9/2008	7:28:44	20.929	0.03	0.244	0.024	1.514		
12/9/2008	7:28:54	20.822	0.03	0.244	0.024	0.53		
12/9/2008	7:29:04	20.746	0.03	0.244	0.024	0.076		
12/9/2008	7:29:14	20.716	0.03	0.244	0.024	0.076		
12/9/2008	7:29:24	20.685	0.03	0.244	0.024	0.076		
12/9/2008	7:29:34	20.685	0.03	0.244	0.024	0.076		
12/9/2008	7:29:44	20.655	0.03	0.244	0.024	0.076		
12/9/2008	7:29:54	20.639	0.03	0.244	0.024	0.076		
12/9/2008	7:30:04	20.639	0.03	0.244	0.024	0.076		
12/9/2008	7:30:14	20.624	0.03	0.244	0.024	8.403		
12/9/2008	7:30:24	20.609	0.03	0.244	0.024	193.495		
12/9/2008	7:30:34	20.639	0.03	0.244	0.024	238.991		
12/9/2008	7:30:44	20.639	0.03	0.244	0.024	256.252		
12/9/2008	7:30:54	20.624	0.03	0.244	0.024	262.081		
12/9/2008	7:31:04	20.609	0.03	0.244	0.024	265.487		
12/9/2008	7:31:14	20.594	0.03	0.244	0.024	267.758		
12/9/2008	7:31:24	20.609	0.03	0.244	0.024	269.499		
12/9/2008	7:31:34	20.563	0.03	0.244	0.024	273.133		
12/9/2008	7:31:44	20.594	0.03	0.244	0.024	293.8		
12/9/2008	7:31:54	20.578	0.03	0.244	0.024	300.537		
12/9/2008	7:32:04	20.609	0.03	0.244	0.024	299.175		
12/9/2008	7:32:14	20.624	0.03	0.244	0.024	298.948		
12/9/2008	7:32:24	20.594	0.03	0.244	0.024	299.856		
12/9/2008	7:32:34	20.609	0.03	0.244	0.024	300.764		
12/9/2008	7:32:44	20.624	0.03	0.244	0.024	298.115		
12/9/2008	7:32:54	20.609	0.03	0.244	0.024	298.645		
12/9/2008	7:33:04	20.594	0.03	0.244	0.024	299.25		
12/9/2008	7:33:14	20.578	0.03	0.244	0.024	300.159		
12/9/2008	7:33:24	20.578	0.03	0.244	0.024	300.84	High range calibration gas	0.28%
12/9/2008	7:33:34	20.578	0.03	0.244	0.024	301.976		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	7:33:44	20.594	0.03	0.244	0.024	301.9		
12/9/2008	7:33:54	20.609	0.03	0.244	0.024	302.127		
12/9/2008	7:34:04	20.578	0.03	0.244	0.024	302.278		
12/9/2008	7:34:14	20.609	0.03	0.244	0.024	302.43		
12/9/2008	7:34:24	20.594	0.03	0.244	0.024	303.035		
12/9/2008	7:34:34	20.594	0.03	0	0.024	303.111		
12/9/2008	7:34:44	20.578	0.03	0.244	0.024	183.956		
12/9/2008	7:34:54	20.563	0.03	0.244	0.024	157.008		
12/9/2008	7:35:04	20.594	0.03	0.244	0.024	154.357		
12/9/2008	7:35:14	20.594	0.03	0.244	0.024	153.524		
12/9/2008	7:35:24	20.609	0.03	0.244	0.024	153.372		
12/9/2008	7:35:34	20.578	0.03	0.244	0.024	152.994		
12/9/2008	7:35:44	20.578	0.03	0.244	0.024	151.934		
12/9/2008	7:35:54	20.578	0.03	0.244	0.024	151.48		
12/9/2008	7:36:04	20.594	0.03	0.244	0.024	151.631		
12/9/2008	7:36:14	20.578	0.03	0.244	0.024	151.253		
12/9/2008	7:36:24	20.578	0.03	0.244	0.024	151.253		
12/9/2008	7:36:34	20.578	0.03	0.244	0.024	151.101		
12/9/2008	7:36:44	20.594	0.03	0.244	0.024	151.253		
12/9/2008	7:36:54	20.563	0.03	0.244	0.024	150.799		
12/9/2008	7:37:04	20.548	0.03	0.244	0.024	150.723	Mid range calibration gas	0.46%
12/9/2008	7:37:14	20.594	0.03	0.244	0.024	151.328		
12/9/2008	7:37:24	20.609	0.03	0.244	0.024	151.556		
12/9/2008	7:37:34	20.609	0.03	0.244	0.024	151.177		
12/9/2008	7:37:44	20.609	0.03	0.244	0.024	126.271		
12/9/2008	7:37:54	20.624	0.03	0.244	0.024	78.654		
12/9/2008	7:38:04	20.578	0.03	0.244	0.024	76.383		
12/9/2008	7:38:14	20.578	0.03	0.244	0.024	75.778		
12/9/2008	7:38:24	20.594	0.03	0.244	0.024	75.929		
12/9/2008	7:38:34	20.624	0.03	0.244	0.024	75.702		
12/9/2008	7:38:44	20.624	0.03	0.244	0.024	74.945		
12/9/2008	7:38:54	20.578	0.03	0.244	0.024	74.642		
12/9/2008	7:39:04	20.578	0.03	0.244	0.024	74.869		
12/9/2008	7:39:14	20.563	0.03	0.244	0.024	74.567		
12/9/2008	7:39:24	20.578	0.03	0.244	0.024	75.096		
12/9/2008	7:39:34	20.609	0.03	0.244	0.024	75.096	Low range calibration gas	0.13%
12/9/2008	7:39:44	20.639	0.03	0.244	0.024	74.718		
12/9/2008	7:39:54	20.609	0.03	0.244	0.024	74.339		
12/9/2008	7:40:04	20.594	0.03	0.244	0.024	74.188		
12/9/2008	7:40:14	20.563	0.03	0.244	0.024	74.339		
12/9/2008	7:40:24	20.578	0.03	0.244	0.024	74.112		
12/9/2008	7:40:34	20.578	0.03	0.244	0.024	62.151		
12/9/2008	7:40:44	20.563	0.03	0.244	0.024	1.665		
12/9/2008	7:40:54	20.563	0.03	0.244	0.024	0.076		
12/9/2008	7:41:04	20.578	0.03	0.244	0.024	0.076		
12/9/2008	7:41:14	20.578	0.03	0.244	0.024	0.076		
12/9/2008	7:41:24	20.594	0.03	0.244	0.024	0.076		
12/9/2008	7:41:34	20.594	0.03	0.244	0.024	0.076		
12/9/2008	7:41:44	20.609	0.03	0.244	0.024	0.076		
12/9/2008	7:41:54	20.609	0.03	0.244	0.024	0.076		
12/9/2008	7:42:04	20.594	0.03	0.244	0.024	0.076	Zero gas	0.02%
12/9/2008	7:42:14	20.609	0.03	0.244	0.024	0.076		
12/9/2008	7:42:24	20.594	0.03	0.244	0.024	0.076		
12/9/2008	7:42:34	20.594	0.03	897.436	0.024	0.076		
12/9/2008	7:42:44	20.624	0.03	921.367	0.024	0.076		
12/9/2008	7:42:54	20.594	0.03	925.519	0.024	0.076		
12/9/2008	7:43:04	20.609	0.03	928.205	0.024	0.076		
12/9/2008	7:43:14	20.578	0.03	933.089	0.024	0.076		
12/9/2008	7:43:24	20.563	0.03	934.554	0.024	0.076		
12/9/2008	7:43:34	20.578	0.03	937.729	0.024	0.076		
12/9/2008	7:43:44	20.563	0.03	938.706	0.024	0.076		
12/9/2008	7:43:54	20.563	0.03	938.95	0.024	0.076		
12/9/2008	7:44:04	20.563	0.03	938.462	0.024	0.076		
12/9/2008	7:44:14	20.563	0.03	938.462	0.024	0.076		
12/9/2008	7:44:24	20.578	0.03	940.659	0.024	0.076		
12/9/2008	7:44:34	20.563	0.03	941.636	0.024	0.076		
12/9/2008	7:44:44	20.578	0.03	940.904	0.024	0.076		
12/9/2008	7:44:54	20.578	0.03	999.756	0.024	0.076		
12/9/2008	7:45:04	20.594	0.03	965.568	0.024	0.076		
12/9/2008	7:45:14	20.609	0.03	979.976	0.024	0.076		
12/9/2008	7:45:24	20.578	0.03	999.512	0.024	0.076		
12/9/2008	7:45:34	20.609	0.03	999.756	0.024	0.076		
12/9/2008	7:45:44	20.594	0.03	999.756	0.024	0.076		
12/9/2008	7:45:54	20.594	0.03	999.756	0.024	0.076	High range calibration gas	0.02%
12/9/2008	7:46:04	20.578	0.03	999.756	0.024	0.076		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	7:46:14	20.578	0.03	570.696	0.024	0.076		
12/9/2008	7:46:24	20.563	0.03	508.913	0.024	0.076		
12/9/2008	7:46:34	20.548	0.03	508.161	0.024	0.076		
12/9/2008	7:46:44	20.578	0.03	502.808	0.024	0.076		
12/9/2008	7:46:54	20.578	0.03	498.168	0.024	0.076		
12/9/2008	7:47:04	20.578	0.03	501.099	0.024	0.076		
12/9/2008	7:47:14	20.548	0.03	503.297	0.024	0.076		
12/9/2008	7:47:24	20.578	0.03	501.343	0.024	0.076		
12/9/2008	7:47:34	20.578	0.03	499.145	0.024	0.076		
12/9/2008	7:47:44	20.578	0.03	497.192	0.024	0.076		
12/9/2008	7:47:54	20.548	0.03	500.366	0.024	0.076	Mid range calibration gas	0.07%
12/9/2008	7:48:04	20.548	0.03	504.029	0.024	0.076		
12/9/2008	7:48:14	20.548	0.03	503.297	0.024	0.076		
12/9/2008	7:48:24	20.578	0.03	502.32	0.024	0.076		
12/9/2008	7:48:34	20.563	0.03	500.122	0.024	0.076		
12/9/2008	7:48:44	20.563	0.03	498.901	0.024	0.076		
12/9/2008	7:48:54	20.578	0.03	492.552	0.024	0.076		
12/9/2008	7:49:04	20.594	0.03	492.552	0.024	0.076		
12/9/2008	7:49:14	20.609	0.03	494.017	0.024	0.076		
12/9/2008	7:49:24	20.624	0.03	498.168	0.024	0.076		
12/9/2008	7:49:34	20.609	0.03	496.948	0.024	0.076		
12/9/2008	7:49:44	20.594	0.03	497.68	0.024	0.076		
12/9/2008	7:49:54	20.578	0.03	499.634	0.024	0.076		
12/9/2008	7:50:04	20.563	0.03	499.878	0.024	0.076		
12/9/2008	7:50:14	20.578	0.03	354.335	0.024	0.076		
12/9/2008	7:50:24	20.563	0.03	249.328	0.024	0.076		
12/9/2008	7:50:34	20.563	0.03	248.107	0.024	0.076		
12/9/2008	7:50:44	20.578	0.03	248.352	0.024	0.076		
12/9/2008	7:50:54	20.578	0.03	248.352	0.024	0.076	Low range calibration gas	0.66%
12/9/2008	7:51:04	20.594	0.03	246.642	0.024	0.076		
12/9/2008	7:51:14	20.578	0.03	247.375	0.024	0.076		
12/9/2008	7:51:24	20.578	0.03	245.665	0.024	0.076		
12/9/2008	7:51:34	20.578	0.03	245.665	0.024	0.076		
12/9/2008	7:51:44	20.594	0.03	243.468	0.024	0.076		
12/9/2008	7:51:54	20.594	0.03	241.026	0.024	0.076		
12/9/2008	7:52:04	20.609	0.03	105.983	0.024	0.076		
12/9/2008	7:52:14	20.609	0.03	0.244	0.024	0.076		
12/9/2008	7:52:24	20.609	0.03	0.244	0.024	0.076		
12/9/2008	7:52:34	20.594	0.03	0.244	0.024	0.076		
12/9/2008	7:52:44	20.578	0.03	0.244	0.024	0.076		
12/9/2008	7:52:54	20.563	0.03	0.244	0.024	0.076		
12/9/2008	7:53:04	20.563	0.03	0.244	0.024	0.076		
12/9/2008	7:53:14	20.594	0.03	0.244	0.024	0.076	Zero gas	0.02%
12/9/2008	7:53:24	20.609	0.03	0.244	0.024	0.076		
12/9/2008	7:53:34	20.609	0.03	0.244	0.024	0.076		
12/9/2008	7:53:44	20.624	0.03	0.244	0.024	0.076		
12/9/2008	7:53:54	20.639	0.03	0.244	0.024	0.076		
12/9/2008	7:54:04	20.624	0.03	0.244	0.024	0.076		
12/9/2008	7:54:14	20.609	0.03	0.244	0.024	0.076		
12/9/2008	7:54:24	20.624	0.03	0.244	0.024	0.076		
12/9/2008	7:54:34	20.624	0.03	0.244	0.024	0.076		
12/9/2008	7:54:44	20.639	0.03	0.244	0.024	0.076		
12/9/2008	7:54:54	20.639	0.03	0.244	0.024	0.076		
12/9/2008	7:55:04	20.624	0.03	0.244	0.024	0.076		
12/9/2008	7:55:14	20.578	0.03	0.244	0.024	0.076		
12/9/2008	7:55:24	20.578	0.03	0.244	0.024	0.076		
12/9/2008	7:55:34	20.639	0.03	0.244	0.024	0.076		
12/9/2008	7:55:44	20.639	0.03	0.244	0.024	0.076		
12/9/2008	7:55:54	20.655	0.03	0.244	0.024	0.076		
12/9/2008	7:56:04	20.609	0.03	0.244	0.024	0.076		
12/9/2008	7:56:14	20.594	0.03	0.244	0.024	0.076		
12/9/2008	7:56:24	20.578	0.03	0.244	0.024	0.076		
12/9/2008	7:56:34	20.594	0.03	0.244	0.024	0.076		
12/9/2008	7:56:44	20.594	0.03	0.244	0.024	0.076		
12/9/2008	7:56:54	20.578	0.03	0.244	0.024	0.076		
12/9/2008	7:57:04	20.578	0.03	0.244	0.024	0.076		
12/9/2008	7:57:14	20.594	0.03	0.244	0.024	0.076		
12/9/2008	7:57:24	20.609	0.03	0.244	0.024	0.076		
12/9/2008	8:15:56	19.969	0.03	521.795	0.024	0.076		
12/9/2008	8:16:06	20.015	0.03	519.744	0.024	0.076		
12/9/2008	8:16:16	20.03	0.03	520	0.024	0.076		
12/9/2008	8:16:26	20.061	0.03	497.436	0	0.076		
12/9/2008	8:16:36	19.969	0.03	498.718	0.024	0.075		
12/9/2008	8:16:46	20.396	0.03	520.256	0.024	3.104		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	8:16:56	19.969	0.03	499.231	0.024	0.076		
12/9/2008	8:17:06	19.893	0.03	42.821	0.024	0.076		
12/9/2008	8:17:16	19.878	0.03	0.256	0.024	0.076		
12/9/2008	8:17:26	19.939	0.03	0.256	0.024	0.076		
12/9/2008	8:17:36	20.03	0.03	0.256	0.024	0.076		
12/9/2008	8:17:46	20.03	0.03	0.256	0.024	0.076		
12/9/2008	8:17:56	20	0.03	0.256	0.024	0.076		
12/9/2008	8:18:06	19.954	0.03	0.256	0.024	0.076		
12/9/2008	8:18:16	19.893	0.03	0.256	0.024	0.076		
12/9/2008	8:18:26	20.304	0.03	2.051	0.024	2.65		
12/9/2008	8:18:36	19.832	0.03	0.256	0.024	0.076		
12/9/2008	8:18:46	19.756	0.03	0.256	0.024	0.076		
12/9/2008	8:18:56	19.786	0.03	0.256	0.024	0.076		
12/9/2008	8:19:06	19.908	0.03	0.256	0.024	0.076		
12/9/2008	8:19:16	20.03	0.03	0.256	0.024	0.076		
12/9/2008	8:19:26	20.076	0.03	0.256	0.024	0.076		
12/9/2008	8:19:36	20.091	0.03	0.256	0.024	0.076		
12/9/2008	8:19:46	20.045	0.03	0.256	0.024	0.076		
12/9/2008	8:19:56	19.984	0.03	0.256	0.024	0.076		
12/9/2008	8:20:06	20.396	0.03	5.641	0.024	2.725		
12/9/2008	8:20:16	19.923	0.03	0.256	0.024	0.076		
12/9/2008	8:20:26	19.893	0.03	0.256	0.024	0.076		
12/9/2008	8:20:36	19.878	0.03	0.256	0.024	0.076		
12/9/2008	8:20:46	19.939	0.03	0.256	0.024	0.076		
12/9/2008	8:20:56	20.015	0.03	0.256	0.024	0.076		
12/9/2008	8:21:06	20.061	0.03	0.256	0.024	0.076		
12/9/2008	8:21:16	20.03	0.03	0.256	0.024	0.076		
12/9/2008	8:21:26	19.954	0.03	0.256	0.024	0.076		
12/9/2008	8:21:36	19.893	0.03	0.256	0.024	0.076		
12/9/2008	8:21:46	20.319	0.03	7.436	0.024	2.12		
12/9/2008	8:21:56	19.847	0.03	0.256	0.024	0.076		
12/9/2008	8:22:06	19.817	0.03	0.256	0.024	0.076		
12/9/2008	8:22:16	19.878	0.03	0.256	0.024	0.076		
12/9/2008	8:22:26	20.03	0.03	0.256	0.024	0.076		
12/9/2008	8:22:36	20.091	0.03	0.256	0.024	0.076		
12/9/2008	8:22:46	20.121	0.03	0.256	0.024	0.076		
12/9/2008	8:22:56	20.091	0.03	0.256	0.024	0.076		
12/9/2008	8:23:06	20.045	0.03	0.256	0.024	0.076		
12/9/2008	8:23:16	20	0.03	0.256	0.024	0.076		
12/9/2008	8:23:26	20.411	0.03	0.769	0.024	3.255		
12/9/2008	8:23:36	19.969	0.03	0.256	0.024	0.076		
12/9/2008	8:23:46	19.878	0.03	0.256	0.024	0.076		
12/9/2008	8:23:56	19.847	0.03	0.256	0.024	0.076		
12/9/2008	8:24:06	19.939	0.03	0.256	0.024	0.076		
12/9/2008	8:24:16	20.091	0.03	0.256	0.024	0.076		
12/9/2008	8:24:26	20.091	0.03	0.256	0.024	0.076		
12/9/2008	8:24:36	20.03	0.03	0.256	0.024	0.076		
12/9/2008	8:24:46	19.984	0.03	0.256	0.024	0.076		
12/9/2008	8:24:56	19.969	0.03	0.256	0.024	0.076		
12/9/2008	8:25:06	20.319	0.03	0.256	0.024	2.422		
12/9/2008	8:25:16	19.863	0.03	0.256	0.024	0.076		
12/9/2008	8:25:26	19.908	0.03	0.256	0.024	0.076		
12/9/2008	8:25:36	19.939	0.03	0.256	0.024	0.076		
12/9/2008	8:25:46	19.954	0.03	0.256	0.024	0.076		
12/9/2008	8:25:56	20	0.03	0.256	0.024	0.076		
12/9/2008	8:26:06	20.076	0.03	0.256	0.024	0.076		
12/9/2008	8:26:16	20.106	0.03	0.256	0.024	0.076		
12/9/2008	8:26:26	20.045	0.03	0.256	0.024	0.076		
12/9/2008	8:26:36	19.969	0.03	0.256	0.024	0.076		
12/9/2008	8:26:46	20.38	0.061	11.026	0.024	2.877		
12/9/2008	8:26:56	19.893	0.03	0.256	0.024	0.076		
12/9/2008	8:27:06	19.863	0.03	0.256	0.024	0.076		
12/9/2008	8:27:16	19.878	0.03	0.256	0.024	0.076		
12/9/2008	8:27:26	19.954	0.03	0.256	0.024	0.076		
12/9/2008	8:27:36	20.045	0.03	0.256	0.024	0.076		
12/9/2008	8:27:46	20.091	0.03	0.256	0.024	0.076		
12/9/2008	8:27:56	20.03	0.03	0.256	0.024	0.076		
12/9/2008	8:28:06	19.939	0.03	0.256	0.024	0		
12/9/2008	8:28:16	19.954	0.03	0.256	0.024	0.076		
12/9/2008	8:28:26	20.304	0.091	11.026	0.024	2.422		
12/9/2008	8:28:36	19.832	0.03	0.256	0.024	0.076		
12/9/2008	8:28:46	19.802	0.03	0.256	0.024	0.076		
12/9/2008	8:28:56	19.786	0.03	0.256	0.024	0.076		
12/9/2008	8:29:06	19.878	0.03	0.256	0.024	0.076		
12/9/2008	8:29:16	20	0.03	0.256	0.024	0.076		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	8:29:26	20.091	0.03	0.256	0.024	0		
12/9/2008	8:29:36	20.091	0.03	0.256	0.024	0.076		
12/9/2008	8:29:46	20.03	0.03	0.256	0.024	0.076		
12/9/2008	8:29:56	19.984	0.03	0.256	0.024	0.076		
12/9/2008	8:30:06	20.411	0.091	0.513	0.024	3.937		
12/9/2008	8:30:16	19.969	0.03	0.256	0.024	0.076		
12/9/2008	8:30:26	19.939	0.03	0.256	0.024	0.076		
12/9/2008	8:30:36	19.984	0.03	0.256	0.024	0.076		
12/9/2008	8:30:46	20.015	0.03	0.256	0	0.076		
12/9/2008	8:30:56	20.076	0.03	0.256	0.024	0.076		
12/9/2008	8:31:06	20.091	0.03	0.256	0.024	0.076		
12/9/2008	8:31:16	20.061	0.03	0.256	0.024	0.076		
12/9/2008	8:31:26	20	0.03	0.256	0.024	0.076		
12/9/2008	8:31:36	19.939	0.03	0.256	0.024	0.076		
12/9/2008	8:31:46	20.304	0.091	0.256	0.024	3.785		
12/9/2008	8:31:56	19.878	0.03	0.256	0.024	0.076		
12/9/2008	8:32:06	19.786	0.03	0.256	0.024	0.076		
12/9/2008	8:32:16	19.802	0.03	0.256	0.024	0.076		
12/9/2008	8:32:26	19.939	0.03	0.256	0	0.076		
12/9/2008	8:32:36	20.137	0.03	0.256	0.024	0.076		
12/9/2008	8:32:46	20.167	0.03	0.256	0.024	0.076		
12/9/2008	8:32:56	20.091	0.03	0.256	0.024	0.076		
12/9/2008	8:33:06	20.045	0.03	0.256	0.024	0.076		
12/9/2008	8:33:16	20.03	0.03	0.256	0.024	0.076		
12/9/2008	8:33:26	20.365	0.091	0.256	0.024	3.785		
12/9/2008	8:33:36	19.923	0.03	0.256	0.024	0.076		
12/9/2008	8:33:46	19.832	0.03	0.256	0.024	0.076		
12/9/2008	8:33:56	19.847	0.03	0.256	0	0.076		
12/9/2008	8:34:06	19.984	0.03	0.256	0.024	0.076		
12/9/2008	8:34:16	20.137	0.03	0.256	0.024	0.076		
12/9/2008	8:34:26	20.198	0.03	0.256	0.024	0.076		
12/9/2008	8:34:36	20.152	0.03	0.256	0.024	0.076		
12/9/2008	8:34:46	20.061	0.03	0.256	0.024	0.076		
12/9/2008	8:34:56	20.03	0.03	0.256	0.024	0.076		
12/9/2008	8:35:06	20.365	0.091	0.256	0.024	3.482		
12/9/2008	8:35:16	19.923	0.03	0.256	0.024	0.076		
12/9/2008	8:35:26	19.878	0.03	0.256	0.024	0.076		
12/9/2008	8:35:36	19.863	0.03	0.256	0.024	0.076		
12/9/2008	8:35:46	19.923	0.03	0.256	0.024	0.076		
12/9/2008	8:35:56	20	0.03	0.256	0.024	0.076		
12/9/2008	8:36:06	20.076	0.03	0.256	0.024	0.076		
12/9/2008	8:36:16	20.045	0.03	0.256	0.024	0.076		
12/9/2008	8:36:26	19.969	0.03	0.256	0.024	0.076		
12/9/2008	8:36:36	19.969	0.03	0.256	0.024	0.076		
12/9/2008	8:36:46	20.365	0.061	4.359	0.024	2.877		
12/9/2008	8:36:56	19.969	0.03	0.256	0.024	0.076		
12/9/2008	8:37:06	19.969	0.03	0.256	0.024	0.076		
12/9/2008	8:37:16	20	0.03	0.256	0.024	0.076		
12/9/2008	8:37:26	20.061	0.03	0.256	0.024	0.076		
12/9/2008	8:37:36	20.152	0.03	0.256	0.024	0.076		
12/9/2008	8:37:46	20.137	0.03	0.256	0.024	0.076		
12/9/2008	8:37:56	20.121	0.03	0.256	0.024	0.076		
12/9/2008	8:38:06	20.045	0.03	0.256	0.024	0.076		
12/9/2008	8:38:16	19.954	0.03	0.256	0.024	0.076		
12/9/2008	8:38:26	20.304	0.122	0.256	0.024	3.255		
12/9/2008	8:38:36	19.863	0.03	0.256	0.024	0.076		
12/9/2008	8:38:46	19.847	0.03	0.256	0.024	0.076		
12/9/2008	8:38:56	19.847	0.03	0.256	0.024	0.076		
12/9/2008	8:39:06	19.863	0.03	0.256	0.024	0.076		
12/9/2008	8:39:16	19.908	0.03	0.256	0.024	0.076		
12/9/2008	8:39:26	20	0.03	0.256	0.024	0.076		
12/9/2008	8:39:36	20.061	0.03	0.256	0.024	0.076		
12/9/2008	8:39:46	20.045	0.03	0.256	0.024	0.076		
12/9/2008	8:39:56	20	0.03	0.256	0.024	0.076		
12/9/2008	8:40:06	20.335	0.061	0.256	0.024	3.104		
12/9/2008	8:40:16	19.954	0.03	0.256	0.024	0.076		
12/9/2008	8:40:26	19.832	0.03	0.256	0.024	0.076		
12/9/2008	8:40:36	19.832	0.03	0.256	0.024	0.076		
12/9/2008	8:40:46	20.03	0.03	0.256	0.024	0.076		
12/9/2008	8:40:56	20.152	0.03	0.256	0.024	0.076		
12/9/2008	8:41:06	20.076	0.03	0.256	0.024	0.076		
12/9/2008	8:41:16	20.106	0.03	0.256	0.024	0.076		
12/9/2008	8:41:26	20	0.03	0.256	0.024	0.076		
12/9/2008	8:41:36	19.954	0.03	2.051	0.024	0.076		
12/9/2008	8:41:46	19.954	0.03	0.256	0.024	0.227		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	8:41:56	20.243	0.091	0.256	0.024	3.331		
12/9/2008	8:42:06	19.908	0.03	0.256	0.024	0.076		
12/9/2008	8:42:16	19.878	0.03	0.256	0.024	0.076		
12/9/2008	8:42:26	19.954	0.03	0.256	0.024	0.076		
12/9/2008	8:42:36	19.984	0.03	0.256	0.024	0.076		
12/9/2008	8:42:46	20.106	0.03	0.256	0.024	0.076		
12/9/2008	8:42:56	20.198	0.03	0.256	0.024	0.076		
12/9/2008	8:43:06	20.061	0.03	0.256	0.024	0.076		
12/9/2008	8:43:16	20	0.03	0.256	0.024	0.076		
12/9/2008	8:43:26	19.984	0.03	0.256	0.024	0.379		
12/9/2008	8:43:36	20	0.03	0.256	0.024	0.379		
12/9/2008	8:43:46	19.954	0.03	0.256	0.024	0.076		
12/9/2008	8:43:56	19.923	0.03	0.256	0.024	0.076		
12/9/2008	8:44:06	20.015	0.03	1.026	0.024	0.076		
12/9/2008	8:44:16	20.152	0.03	0.256	0.024	0.076		
12/9/2008	8:44:26	20.228	0.03	0.256	0.024	0.151		
12/9/2008	8:44:36	20.167	0.03	0.256	0.024	0.151		
12/9/2008	8:44:46	20.076	0.03	0.256	0.024	0.076		
12/9/2008	8:44:56	20.03	0.03	0.256	0.024	0.076		
12/9/2008	8:45:06	20	0.03	0.256	0.024	0.076		
12/9/2008	8:45:16	20.152	0.03	0.256	0.024	1.893		
12/9/2008	8:45:26	19.939	0.03	0.256	0.024	0.076		
12/9/2008	8:45:36	19.923	0.03	0.256	0.024	0.076		
12/9/2008	8:45:46	19.908	0.03	0.256	0.024	0.076		
12/9/2008	8:45:56	19.893	0.03	0.256	0.024	0.076		
12/9/2008	8:46:06	19.863	0.03	0.256	0.024	0.076		
12/9/2008	8:46:16	19.863	0.03	0.256	0.024	0.076		
12/9/2008	8:46:26	19.878	0.03	0.256	0.024	0.076		
12/9/2008	8:46:36	19.908	0.03	0.256	0.024	0.076		
12/9/2008	8:46:46	19.954	0.03	0.256	0.024	0.076		
12/9/2008	8:46:56	20.045	0.03	0.256	0.024	0.076		
12/9/2008	8:47:06	20	0.03	0.256	0.024	0.076		
12/9/2008	8:47:16	20	0.03	0.256	0.024	0.076		
12/9/2008	8:47:26	19.969	0.03	0.256	0.024	0.076		
12/9/2008	8:47:36	20	0.03	0.256	0.024	0.076		
12/9/2008	8:47:46	19.984	0.03	0.256	0.024	0.076		
12/9/2008	8:47:56	19.969	0.03	0.256	0.024	0.076		
12/9/2008	8:48:06	19.939	0.03	0.256	0.024	0.076		
12/9/2008	8:48:16	19.939	0.03	0.256	0.024	0.076		
12/9/2008	8:48:26	19.939	0.03	0.256	0.024	0.076		
12/9/2008	8:48:36	19.984	0.03	0.256	0.024	0.076		
12/9/2008	8:48:46	19.969	0.03	0.256	0.024	0.076		
12/9/2008	8:48:56	19.984	0.03	0.256	0.024	0.076		
12/9/2008	8:49:06	19.984	0.03	0.256	0.024	0.076		
12/9/2008	8:49:16	19.969	0.03	0	0.024	0.076		
12/9/2008	8:49:26	19.954	0.03	0.256	0.024	0.076		
12/9/2008	8:49:36	19.923	0.03	0.256	0.024	0.076		
12/9/2008	8:49:46	19.923	0.03	1.282	0.024	0.076		
12/9/2008	8:49:56	19.923	0.03	0.256	0.024	0.076		
12/9/2008	8:50:06	19.969	0.03	0.256	0.024	0.076		
12/9/2008	8:50:16	20.045	0.03	0.256	0.024	0.681		
12/9/2008	8:50:26	20.015	0.03	0.256	0.024	0.227		
12/9/2008	8:50:36	20.015	0.03	0.256	0.024	0.076		
12/9/2008	8:50:46	19.954	0.03	0.256	0.024	0.076		
12/9/2008	8:50:56	19.939	0.03	0.256	0.024	0.076		
12/9/2008	8:51:06	19.939	0.03	0.256	0.024	0.076		
12/9/2008	8:51:16	19.939	0.03	0.256	0.024	0.076		
12/9/2008	8:51:26	20	0.03	0.256	0.024	0.076		
12/9/2008	8:51:36	20.015	0.03	0.256	0.024	0.53		
12/9/2008	8:51:46	20.045	0.03	0.256	0.024	0.227		
12/9/2008	8:51:56	20.076	0.03	0.256	0.024	0.076		
12/9/2008	8:52:06	19.954	0.03	0.256	0.024	0.076		
12/9/2008	8:52:16	19.923	0.03	1.026	0.024	0.076		
12/9/2008	8:52:26	19.954	0.03	0.256	0.024	0.076		
12/9/2008	8:52:36	19.984	0.03	0.256	0.024	0.227		
12/9/2008	8:52:46	20.015	0.03	0.256	0.024	0.076		
12/9/2008	8:52:56	20.015	0.03	0.256	0.024	0.076		
12/9/2008	8:53:06	19.969	0.03	0.256	0.024	0.076		
12/9/2008	8:53:16	19.923	0.03	0.256	0.024	0.076		
12/9/2008	8:53:26	19.923	0.03	0.256	0.024	0.076		
12/9/2008	8:53:36	19.984	0.03	1.282	0.024	0.076		
12/9/2008	8:53:46	19.939	0.03	0.256	0.024	0.076		
12/9/2008	8:53:56	19.908	0.03	0.256	0.024	0.076		
12/9/2008	8:54:06	19.908	0.03	0.256	0.024	0.076		
12/9/2008	8:54:16	19.908	0.03	0.256	0.024	0.076		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	8:54:26	19.908	0.03	0.256	0.024	0.076		
12/9/2008	8:54:36	19.923	0.03	0.256	0.024	0.076		
12/9/2008	8:54:46	19.954	0.03	0.256	0.024	0.076		
12/9/2008	8:54:56	19.984	0.03	0.256	0.024	0.076		
12/9/2008	8:55:06	19.969	0.03	0.256	0.024	0.454		
12/9/2008	8:55:16	20.03	0.03	0.256	0.024	1.136		
12/9/2008	8:55:26	19.939	0.03	0.256	0.024	0.303		
12/9/2008	8:55:36	19.893	0.03	0.256	0.024	0.076		
12/9/2008	8:55:46	19.893	0.03	0.256	0.024	0.076		
12/9/2008	8:55:56	19.923	0.03	0.256	0.024	0.076		
12/9/2008	8:56:06	19.954	0.03	0.256	0.024	0.076		
12/9/2008	8:56:16	19.954	0.03	0.256	0.024	0.076		
12/9/2008	8:56:26	19.939	0.03	0.256	0.024	0.454		
12/9/2008	8:56:36	19.878	0.03	0.256	0.024	0.076		
12/9/2008	8:56:46	19.878	0.03	1.026	0.024	0.076		
12/9/2008	8:56:56	19.969	0.03	2.051	0.024	0.076		
12/9/2008	8:57:06	19.923	0.03	0.256	0.024	0.076		
12/9/2008	8:57:16	19.923	0.03	0.256	0.024	0.076		
12/9/2008	8:57:26	19.939	0.03	0.256	0.024	0.076		
12/9/2008	8:57:36	19.939	0.03	0.256	0.024	0.076		
12/9/2008	8:57:46	19.923	0.03	0.256	0.024	0.076		
12/9/2008	8:57:56	19.923	0.03	0.256	0.024	0.076		
12/9/2008	8:58:06	19.923	0.03	0.256	0.024	0.076		
12/9/2008	8:58:16	19.908	0.03	0.256	0.024	0.076		
12/9/2008	8:58:26	19.939	0.03	0.256	0.024	0.076		
12/9/2008	8:58:36	20	0.03	0.256	0.024	0.076		
12/9/2008	8:58:46	19.939	0.03	0.256	0.024	0.076		
12/9/2008	8:58:56	19.923	0.03	0.256	0.024	0.076		
12/9/2008	8:59:06	19.923	0.03	0.256	0.024	0.076		
12/9/2008	8:59:16	19.939	0.03	0.256	0.024	0.076		
12/9/2008	8:59:26	19.969	0.03	0.256	0.024	0.076		
12/9/2008	8:59:36	19.969	0.03	0.256	0.024	0.076		
12/9/2008	8:59:46	19.969	0.03	0.256	0.024	0.227		
12/9/2008	8:59:56	19.969	0.03	0.256	0.024	0.908		
12/9/2008	9:00:06	19.923	0.03	0.256	0.024	0.681		
12/9/2008	9:00:16	19.954	0.03	0.256	0.024	0.53		
12/9/2008	9:00:26	19.908	0.03	0.256	0.024	0.076		
12/9/2008	9:00:36	19.984	0.03	0.256	0.024	0.076		
12/9/2008	9:00:46	19.969	0.03	0.256	0.024	1.06		
12/9/2008	9:00:56	19.908	0.03	0.256	0.024	0.379		
12/9/2008	9:01:06	19.908	0.03	0.256	0.024	0.076		
12/9/2008	9:01:16	19.984	0.03	0.256	0.024	0.076		
12/9/2008	9:01:26	19.969	0.03	0.256	0.024	0.53		
12/9/2008	9:01:36	19.954	0.03	0.256	0.024	0.908		
12/9/2008	9:01:46	19.908	0.03	0.256	0.024	0.227		
12/9/2008	9:01:56	19.969	0.03	0.256	0.024	0.076		
12/9/2008	9:02:06	19.984	0.03	0.256	0.024	0.53		
12/9/2008	9:02:16	19.969	0.03	0.256	0.024	0.908		
12/9/2008	9:02:26	19.893	0.03	0.256	0.024	0.076		
12/9/2008	9:02:36	19.939	0.03	0.256	0.024	0.076		
12/9/2008	9:02:46	19.954	0.03	0.256	0.024	0.833		
12/9/2008	9:02:56	19.878	0.03	1.538	0.024	0.076		
12/9/2008	9:03:06	19.969	0.03	0.256	0.024	0.076		
12/9/2008	9:03:16	19.939	0.03	0.256	0.024	0.757		
12/9/2008	9:03:26	19.893	0.03	1.282	0.024	0.076		
12/9/2008	9:03:36	20.03	0.03	0.256	0.024	1.136		
12/9/2008	9:03:46	19.984	0.03	0.256	0.024	1.136		
12/9/2008	9:03:56	19.908	0.03	2.308	0.024	0.076		
12/9/2008	9:04:06	19.984	0.03	0.256	0.024	0.076		
12/9/2008	9:04:16	19.984	0.03	0.256	0.024	1.06		
12/9/2008	9:04:26	19.908	0.03	0.256	0.024	0.076		
12/9/2008	9:04:36	19.954	0.03	0.256	0.024	0.076		
12/9/2008	9:04:46	19.984	0.03	0.256	0.024	0.908		
12/9/2008	9:04:56	19.939	0.03	0.256	0.024	0.908		
12/9/2008	9:05:06	19.923	0.03	0.769	0.024	0.076		
12/9/2008	9:05:16	20.03	0.03	0.256	0.024	1.287		
12/9/2008	9:05:26	20	0.03	0.256	0.024	1.136		
12/9/2008	9:05:36	19.923	0.03	0.256	0.024	0.833		
12/9/2008	9:05:46	19.908	0.03	2.564	0.024	0.076		
12/9/2008	9:05:56	19.939	0.03	0.256	0.024	0.076		
12/9/2008	9:06:06	19.954	0.03	0.256	0.024	0.076		
12/9/2008	9:06:16	20	0.03	0.256	0.024	0.303		
12/9/2008	9:06:26	19.984	0.03	0.256	0.024	0.606		
12/9/2008	9:06:36	20	0.03	0.256	0.024	0.833		
12/9/2008	9:06:46	20	0.03	0.256	0.024	0.757		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	9:06:56	20.045	0.03	0.256	0.024	1.211		
12/9/2008	9:07:06	20.015	0.03	0.256	0.024	0.757		
12/9/2008	9:07:16	20	0.03	0.256	0.024	0.757		
12/9/2008	9:07:26	20	0.03	0.256	0.024	0.681		
12/9/2008	9:07:36	20	0.03	0.256	0.024	0.379		
12/9/2008	9:07:46	19.984	0.03	0.256	0.024	0.076		
12/9/2008	9:07:56	19.969	0.03	0	0.024	0.076		
12/9/2008	9:08:06	19.969	0.03	0.256	0.024	0.076		
12/9/2008	9:08:16	19.954	0.03	0.256	0.024	0.076		
12/9/2008	9:08:26	19.954	0.03	0.256	0.024	0.076		
12/9/2008	9:08:36	20	0.03	6.154	0.024	0.076		
12/9/2008	9:08:46	19.969	0.03	1.026	0.024	0.076		
12/9/2008	9:08:56	19.939	0.03	0.256	0.024	0.908		
12/9/2008	9:09:06	19.954	0.03	0.256	0.024	1.287		
12/9/2008	9:09:16	19.984	0.03	0.256	0.024	1.438		
12/9/2008	9:09:26	19.984	0.03	0.256	0.024	1.665		
12/9/2008	9:09:36	19.984	0.03	0.256	0.024	1.59		
12/9/2008	9:09:46	20	0.03	0.256	0.024	1.514		
12/9/2008	9:09:56	20	0.03	0.256	0.024	1.438		
12/9/2008	9:10:06	20.015	0.03	0.256	0.024	1.438		
12/9/2008	9:10:16	20.061	0.03	0.256	0.024	1.665		
12/9/2008	9:10:26	20.03	0.03	0.256	0.024	1.06		
12/9/2008	9:10:36	19.984	0.03	0.256	0.024	0.303		
12/9/2008	9:10:46	19.954	0.03	0.256	0.024	0.151		
12/9/2008	9:10:56	19.939	0.03	0.513	0.024	0.227		
12/9/2008	9:11:06	19.939	0.03	3.59	0.024	0.303		
12/9/2008	9:11:16	19.954	0.03	5.641	0.024	0.076		
12/9/2008	9:11:26	19.954	0.03	4.359	0.024	0.151		
12/9/2008	9:11:36	19.969	0.03	2.564	0.024	0.227		
12/9/2008	9:11:46	19.984	0.03	0.256	0.024	0.454		
12/9/2008	9:11:56	20.045	0.03	0.256	0.024	1.136		
12/9/2008	9:12:06	20.045	0.03	0.256	0.024	2.12		
12/9/2008	9:12:16	20.061	0.03	0.256	0.024	5.072		
12/9/2008	9:12:26	20.03	0.03	0.256	0.024	6.208		
12/9/2008	9:12:36	20.03	0.03	0.256	0.024	5.753		
12/9/2008	9:12:46	20.03	0.03	0	0.024	5.753		
12/9/2008	9:12:56	20.015	0.03	0.256	0.024	4.996		
12/9/2008	9:13:06	20.03	0.03	0.256	0.024	4.315		
12/9/2008	9:13:16	20.061	0.03	0.256	0.024	3.709		
12/9/2008	9:13:26	20.045	0.03	0.256	0.024	3.634		
12/9/2008	9:13:36	20.091	0.03	0.256	0.024	4.391		
12/9/2008	9:13:46	20.03	0.03	0.256	0.024	4.088		
12/9/2008	9:13:56	20.045	0.03	0.256	0.024	4.391		
12/9/2008	9:14:06	20.03	0.03	0.256	0.024	4.694		
12/9/2008	9:14:16	19.984	0.03	0.256	0.024	4.542		
12/9/2008	9:14:26	19.969	0.03	0.256	0.024	4.391		
12/9/2008	9:14:36	19.984	0.03	0.256	0.024	5.299		
12/9/2008	9:14:46	20	0.03	1.282	0.024	14.156		
12/9/2008	9:14:56	20	0.03	0.769	0.024	18.093		
12/9/2008	9:15:06	20.045	0.03	0.256	0.024	19.834		
12/9/2008	9:15:16	20.137	0.03	0.256	0.024	21.954		
12/9/2008	9:15:26	20.091	0.03	0.256	0.024	22.786		
12/9/2008	9:15:36	20	0.03	0.256	0.024	22.256		
12/9/2008	9:15:46	19.893	0.03	10.256	0.024	20.667		
12/9/2008	9:15:56	19.954	0.03	8.974	0.024	19.304		
12/9/2008	9:16:06	20.03	0.03	0.256	0.024	20.667		
12/9/2008	9:16:16	20.076	0.03	0.256	0.024	23.468		
12/9/2008	9:16:26	19.984	0.03	0.256	0.024	24.225		
12/9/2008	9:16:36	19.923	0.03	5.641	0.024	24.376		
12/9/2008	9:16:46	19.939	0.03	15.385	0.024	22.711		
12/9/2008	9:16:56	20.045	0.03	15.897	0.024	23.089		
12/9/2008	9:17:06	20.03	0.03	3.333	0.024	21.651		
12/9/2008	9:17:16	20.061	0.03	0.256	0.024	21.424		
12/9/2008	9:17:26	20.091	0.03	0.256	0.024	22.256		
12/9/2008	9:17:36	20.091	0.03	0.256	0.024	22.256		
12/9/2008	9:17:46	20.091	0.03	0.256	0.024	24.225		
12/9/2008	9:17:56	20.061	0.03	0.256	0.024	16.73		
12/9/2008	9:18:06	20.03	0.03	0.256	0.024	9.993		
12/9/2008	9:18:16	20	0.03	1.282	0.024	7.267		
12/9/2008	9:18:26	19.954	0.03	13.077	0.024	4.996		
12/9/2008	9:18:36	20.061	0.03	21.538	0.024	3.937		
12/9/2008	9:18:46	20.015	0.03	19.231	0.024	2.271		
12/9/2008	9:18:56	20	0.03	18.718	0.024	1.665		
12/9/2008	9:19:06	19.969	0.03	21.538	0.024	1.438		
12/9/2008	9:19:16	19.954	0.03	25.897	0.024	1.211		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	9:19:26	19.939	0.03	35.385	0.024	0.908		
12/9/2008	9:19:36	19.908	0.03	42.821	0.024	1.363		
12/9/2008	9:19:46	19.923	0.03	39.744	0.024	2.801		
12/9/2008	9:19:56	20	0.03	31.795	0.024	3.861		
12/9/2008	9:20:06	20.076	0.03	35.128	0.024	4.466		
12/9/2008	9:20:16	20.274	0.152	60.513	0.024	6.208		
12/9/2008	9:20:26	20.167	0.122	136.41	0.024	3.558		
12/9/2008	9:20:36	20.015	0.03	128.462	0.024	2.801		
12/9/2008	9:20:46	20	0.03	71.026	0.024	4.542		
12/9/2008	9:20:56	20.045	0.03	26.667	0.024	5.375		
12/9/2008	9:21:06	20.03	0.03	78.205	0.024	3.861		
12/9/2008	9:21:16	19.939	0.03	95.641	0.024	11.28		
12/9/2008	9:21:26	19.893	0.03	91.282	0.024	27.783		
12/9/2008	9:21:36	19.984	0.03	41.026	0.024	31.946		
12/9/2008	9:21:46	20.061	0.03	30.769	0.024	30.811		
12/9/2008	9:21:56	20.259	0.183	90.769	0.317	31.189		
12/9/2008	9:22:06	20.106	0.122	105.641	0	28.767		
12/9/2008	9:22:16	19.969	0.061	108.462	0.024	18.396		
12/9/2008	9:22:26	19.969	0.03	94.359	0.024	16.049		
12/9/2008	9:22:36	20.045	0.03	77.179	0.024	15.443		
12/9/2008	9:22:46	20.061	0.061	99.487	0.024	13.551		
12/9/2008	9:22:56	19.969	0.03	102.308	0.024	12.188		
12/9/2008	9:23:06	19.939	0.03	101.538	0.024	10.977		
12/9/2008	9:23:16	19.863	0.03	121.538	0.024	10.598		
12/9/2008	9:23:26	19.923	0.061	133.59	0.024	11.507		
12/9/2008	9:23:36	20.152	0.244	138.974	5.128	14.005		
12/9/2008	9:23:46	20.152	0.244	137.179	0.024	13.853		
12/9/2008	9:23:56	20.106	0.183	129.744	0.024	13.551		
12/9/2008	9:24:06	20.045	0.122	121.026	0.024	14.838		
12/9/2008	9:24:16	20	0.091	118.718	0.024	16.049		
12/9/2008	9:24:26	19.984	0.091	103.846	0.024	17.866		
12/9/2008	9:24:36	19.969	0.091	105.385	0.024	17.714		
12/9/2008	9:24:46	19.969	0.091	106.41	0.024	16.73		
12/9/2008	9:24:56	19.969	0.061	121.795	0.024	15.897		
12/9/2008	9:25:06	19.984	0.091	176.41	0.024	16.352		
12/9/2008	9:25:16	20.152	0.244	141.538	14.408	17.941		
12/9/2008	9:25:26	20.167	0.244	113.333	0.024	17.487		
12/9/2008	9:25:36	20.076	0.183	99.744	0.024	18.774		
12/9/2008	9:25:46	20.03	0.152	91.538	0.024	30.054		
12/9/2008	9:25:56	19.984	0.122	86.154	0.024	40.652		
12/9/2008	9:26:06	19.939	0.091	83.846	0.024	41.409		
12/9/2008	9:26:16	19.908	0.061	85.385	0.024	40.274		
12/9/2008	9:26:26	19.908	0.061	87.179	0.024	37.548		
12/9/2008	9:26:36	19.893	0.03	108.205	0.024	36.11		
12/9/2008	9:26:46	19.954	0.091	125.897	0.024	24.452		
12/9/2008	9:26:56	20.152	0.244	167.692	8.962	20.061		
12/9/2008	9:27:06	20.152	0.244	167.179	0.024	18.774		
12/9/2008	9:27:16	20.091	0.213	155.897	0.024	18.093		
12/9/2008	9:27:26	20	0.152	138.205	0.024	15.897		
12/9/2008	9:27:36	19.954	0.122	130.256	0.024	15.368		
12/9/2008	9:27:46	19.969	0.091	139.744	0.024	14.838		
12/9/2008	9:27:56	19.969	0.091	144.872	0.024	14.913		
12/9/2008	9:28:06	20	0.091	126.923	0.024	15.973		
12/9/2008	9:28:16	20	0.091	115.128	0.024	16.503		
12/9/2008	9:28:26	20.03	0.091	127.436	0.024	17.336		
12/9/2008	9:28:36	20.182	0.213	131.538	11.282	19.683		
12/9/2008	9:28:46	20.213	0.213	166.154	0.024	22.256		
12/9/2008	9:28:56	20.152	0.183	167.436	0.024	23.998		
12/9/2008	9:29:06	20.091	0.152	170.513	0.024	25.209		
12/9/2008	9:29:16	20.045	0.122	169.487	0.024	25.663		
12/9/2008	9:29:26	20.045	0.152	206.923	0.024	24.679		
12/9/2008	9:29:36	20	0.122	185.641	0.024	23.77		
12/9/2008	9:29:46	19.923	0.122	190.513	0.024	23.316		
12/9/2008	9:29:56	19.878	0.091	176.41	0.024	24.225		
12/9/2008	9:30:06	19.939	0.183	190	0.024	24.073		
12/9/2008	9:30:16	20.152	0.244	176.41	9.695	33.99		
12/9/2008	9:30:26	20.198	0.213	144.359	0.024	49.131		
12/9/2008	9:30:36	20.167	0.213	128.974	0.024	52.991		
12/9/2008	9:30:46	20.061	0.183	146.923	0.024	49.282		
12/9/2008	9:30:56	19.984	0.152	196.667	0.024	45.497		
12/9/2008	9:31:06	20	0.03	220	0.024	41.788		
12/9/2008	9:31:16	20.045	0.03	214.872	0.024	30.054		
12/9/2008	9:31:26	20.076	0.03	207.179	0.024	26.269		
12/9/2008	9:31:36	20.045	0.03	198.205	0.024	25.814		
12/9/2008	9:31:46	20.091	0.03	178.205	0.024	25.057		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	9:31:56	20.198	0.03	164.872	16.581	25.436		
12/9/2008	9:32:06	20.198	0.061	173.59	0.024	24.527		
12/9/2008	9:32:16	20.182	0.03	199.744	0.024	23.922		
12/9/2008	9:32:26	20.152	0.03	182.051	0.024	22.938		
12/9/2008	9:32:36	20.106	0.03	191.282	0.024	22.029		
12/9/2008	9:32:46	20.045	0.03	208.974	0.024	21.499		
12/9/2008	9:32:56	19.984	0.03	233.846	0.024	21.802		
12/9/2008	9:33:06	19.923	0.03	247.692	0.024	24.603		
12/9/2008	9:33:16	19.893	0.03	257.436	0.024	27.026		
12/9/2008	9:33:26	20.045	0.061	249.231	0.024	31.416		
12/9/2008	9:33:36	20.152	0.061	225.128	21.245	34.066		
12/9/2008	9:33:46	20.182	0.091	273.846	0.073	32.476		
12/9/2008	9:33:56	20.137	0.122	285.385	0.024	29.372		
12/9/2008	9:34:06	20.03	0.091	286.154	0	28.691		
12/9/2008	9:34:16	20	0.061	227.179	0.024	30.811		
12/9/2008	9:34:26	20.03	0.03	190	0.024	32.552		
12/9/2008	9:34:36	20.091	0.03	190.256	0.024	35.958		
12/9/2008	9:34:46	19.984	0.03	207.949	0.024	49.131		
12/9/2008	9:34:56	19.908	0.03	215.385	0.024	53.521		
12/9/2008	9:35:06	19.984	0.03	194.615	0.024	55.414		
12/9/2008	9:35:16	20.152	0.03	184.103	15.58	55.338		
12/9/2008	9:35:26	20.198	0.061	201.026	0.024	54.733		
12/9/2008	9:35:36	20.167	0.061	256.154	0.024	40.652		
12/9/2008	9:35:46	20.091	0.061	274.615	0.024	32.779		
12/9/2008	9:35:56	19.984	0.03	282.564	0.024	29.221		
12/9/2008	9:36:06	19.939	0.03	267.949	0.024	29.221		
12/9/2008	9:36:16	19.923	0.03	242.051	0.024	29.978		
12/9/2008	9:36:26	19.954	0.03	222.308	0.024	29.448		
12/9/2008	9:36:36	19.984	0.03	224.359	0.024	29.448		
12/9/2008	9:36:46	20.121	0.03	228.718	0.024	29.524		
12/9/2008	9:36:56	20.182	0.03	217.179	20.147	29.751		
12/9/2008	9:37:06	20.182	0.03	233.846	0.317	29.978		
12/9/2008	9:37:16	20.182	0.03	229.744	0.024	30.886		
12/9/2008	9:37:26	20.182	0.03	250	0.024	33.006		
12/9/2008	9:37:36	20.152	0.03	266.154	0.024	33.687		
12/9/2008	9:37:46	20.137	0.03	268.974	0.024	34.974		
12/9/2008	9:37:56	20.106	0.03	246.667	0.024	36.261		
12/9/2008	9:38:06	20.091	0.03	300.256	0.024	36.034		
12/9/2008	9:38:16	20.091	0.03	294.359	0.024	34.066		
12/9/2008	9:38:26	20.091	0.03	256.667	0.024	34.823		
12/9/2008	9:38:36	20.137	0.061	234.872	23.248	37.245		
12/9/2008	9:38:46	20.152	0.091	220.256	0.024	37.927		
12/9/2008	9:38:56	20.152	0.091	221.538	0.024	41.333		
12/9/2008	9:39:06	20.121	0.061	205.128	0.024	56.625		
12/9/2008	9:39:16	20.091	0.03	199.487	0.024	61.167		
12/9/2008	9:39:26	20.091	0.03	197.436	0.024	60.41		
12/9/2008	9:39:36	20.061	0.03	210.513	0.024	58.366		
12/9/2008	9:39:46	20.015	0.03	226.41	0.024	58.063		
12/9/2008	9:39:56	19.984	0.03	258.923	0.024	45.497		
12/9/2008	9:40:06	20.076	0.091	263.846	0.024	38.305		
12/9/2008	9:40:16	20.091	0.091	263.846	20.781	36.11		
12/9/2008	9:40:26	20.106	0.091	269.744	0.513	34.747		
12/9/2008	9:40:36	20.121	0.122	264.615	0.024	33.763		
12/9/2008	9:40:46	20.106	0.091	253.077	0.024	33.233		
12/9/2008	9:40:56	20.106	0.061	245.128	0.024	33.385		
12/9/2008	9:41:06	20.106	0.03	234.615	0.024	32.249		
12/9/2008	9:41:16	20.106	0.03	248.974	0.024	31.568		
12/9/2008	9:41:26	20.091	0.03	271.538	0.024	30.811		
12/9/2008	9:41:36	20.076	0.03	279.487	0.024	31.189		
12/9/2008	9:41:46	20.076	0.091	297.692	0.024	33.46		
12/9/2008	9:41:56	20.106	0.091	328.205	25.812	34.672		
12/9/2008	9:42:06	20.137	0.122	346.923	0.024	35.201		
12/9/2008	9:42:16	20.106	0.152	323.59	0.024	36.943		
12/9/2008	9:42:26	20.045	0.122	360.256	0.024	35.429		
12/9/2008	9:42:36	20	0.091	375.641	0.024	33.763		
12/9/2008	9:42:46	19.954	0.091	332.308	0.024	35.201		
12/9/2008	9:42:56	19.939	0.061	312.051	0.024	36.64		
12/9/2008	9:43:06	19.923	0.03	281.026	0.024	37.851		
12/9/2008	9:43:16	19.939	0.03	270.513	0.024	42.09		
12/9/2008	9:43:26	20.091	0.091	265.385	0.024	58.972		
12/9/2008	9:43:36	20.106	0.091	240.769	20.391	64.725		
12/9/2008	9:43:46	20.152	0.091	223.333	0.757	65.179		
12/9/2008	9:43:56	20.167	0.061	247.179	0.024	62.681		
12/9/2008	9:44:06	20.182	0.091	264.103	0.024	63.363		
12/9/2008	9:44:16	20.152	0.061	303.333	0.024	51.25		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	9:44:26	20.045	0.061	316.667	0.024	40.425		
12/9/2008	9:44:36	19.954	0.03	333.333	0.024	36.943		
12/9/2008	9:44:46	19.939	0.03	319.744	0.024	36.337		
12/9/2008	9:44:56	19.969	0.03	293.077	0.024	36.261		
12/9/2008	9:45:06	20.045	0.03	272.821	0.024	37.321		
12/9/2008	9:45:16	20.137	0.03	293.077	27.766	38.457		
12/9/2008	9:45:26	20.182	0.03	281.282	0.024	37.775		
12/9/2008	9:45:36	20.152	0.122	277.179	0.024	37.7		
12/9/2008	9:45:46	20.121	0.213	286.154	0.024	37.245		
12/9/2008	9:45:56	20.076	0.244	280.256	0.024	37.094		
12/9/2008	9:46:06	20.03	0.213	301.538	0.024	38.457		
12/9/2008	9:46:16	19.969	0.213	326.667	0.024	40.349		
12/9/2008	9:46:26	19.939	0.213	357.949	0.024	41.106		
12/9/2008	9:46:36	19.908	0.213	348.205	0.024	39.971		
12/9/2008	9:46:46	20.03	0.335	425.897	0.024	39.819		
12/9/2008	9:46:56	20.061	0.305	406.923	35.092	38.684		
12/9/2008	9:47:06	20.121	0.305	362.308	3.687	39.744		
12/9/2008	9:47:16	20.121	0.274	323.59	0.024	42.545		
12/9/2008	9:47:26	20.121	0.244	282.051	0.024	45.27		
12/9/2008	9:47:36	20.106	0.244	271.538	0.024	47.465		
12/9/2008	9:47:46	20.03	0.244	282.308	0.024	61.697		
12/9/2008	9:47:56	19.969	0.244	297.692	0.024	67.526		
12/9/2008	9:48:06	19.969	0.213	293.333	0.024	66.164		
12/9/2008	9:48:16	19.954	0.213	313.59	0.024	63.363		
12/9/2008	9:48:26	20	0.274	331.282	0	64.195		
12/9/2008	9:48:36	20.061	0.305	337.436	25.201	55.641		
12/9/2008	9:48:46	20.106	0.305	336.41	0.024	47.087		
12/9/2008	9:48:56	20.137	0.274	311.795	0.024	44.816		
12/9/2008	9:49:06	20.137	0.244	301.282	0.024	42.545		
12/9/2008	9:49:16	20.091	0.244	295.385	0.024	41.409		
12/9/2008	9:49:26	20.091	0.244	307.949	0.024	39.214		
12/9/2008	9:49:36	20.03	0.244	344.872	0.024	36.943		
12/9/2008	9:49:46	19.984	0.244	345.385	0.024	34.596		
12/9/2008	9:49:56	19.908	0.244	344.103	0.024	34.596		
12/9/2008	9:50:06	20.015	0.335	335.641	0.024	37.17		
12/9/2008	9:50:16	20.03	0.305	331.538	25.201	39.138		
12/9/2008	9:50:26	20.091	0.244	320.769	1.978	42.469		
12/9/2008	9:50:36	20.121	0.244	325.897	0.024	44.059		
12/9/2008	9:50:46	20.121	0.274	351.026	0.024	43.832		
12/9/2008	9:50:56	20.091	0.274	352.564	0.024	44.21		
12/9/2008	9:51:06	20.03	0.274	394.615	0.024	44.059		
12/9/2008	9:51:16	19.969	0.274	392.564	0.024	41.031		
12/9/2008	9:51:26	19.923	0.244	390.513	0.024	40.349		
12/9/2008	9:51:36	19.923	0.274	355.385	0.024	42.166		
12/9/2008	9:51:46	19.923	0.274	350.256	0.024	44.967		
12/9/2008	9:51:56	20.076	0.213	344.872	29.817	47.011		
12/9/2008	9:52:06	20.213	0.213	330.256	0.024	62		
12/9/2008	9:52:16	20.243	0.183	323.846	0.024	69.343		
12/9/2008	9:52:26	20.274	0.122	318.462	0.024	69.192		
12/9/2008	9:52:36	20.35	0.03	334.872	0.024	65.407		
12/9/2008	9:52:46	20.396	0.03	349.744	0.024	65.937		
12/9/2008	9:52:56	20.441	0.03	379.487	0.024	55.868		
12/9/2008	9:53:06	20.457	0.03	381.538	0.024	47.087		
12/9/2008	9:53:16	20.472	0.03	371.282	0.024	44.816		
12/9/2008	9:53:26	20.578	0.03	337.436	0.024	44.891		
12/9/2008	9:53:36	20.624	0.03	295.641	29.035	44.891		
12/9/2008	9:53:46	20.624	0.061	291.026	3.077	43.68		
12/9/2008	9:53:56	20.548	0.061	349.231	0.024	42.015		
12/9/2008	9:54:06	20.487	0.03	384.872	0.024	39.744		
12/9/2008	9:54:16	20.472	0.03	364.615	0.024	40.274		
12/9/2008	9:54:26	20.517	0.03	348.974	0.024	42.166		
12/9/2008	9:54:36	20.609	0.03	332.564	0.024	43.074		
12/9/2008	9:54:46	20.639	0.03	368.974	0.024	43.68		
12/9/2008	9:54:56	20.502	0.03	403.333	0.024	44.21		
12/9/2008	9:55:06	20.396	0.03	433.846	0.024	45.724		
12/9/2008	9:55:16	20.35	0.03	379.487	32.772	48.071		
12/9/2008	9:55:26	20.319	0.03	428.205	0.073	48.222		
12/9/2008	9:55:36	20.335	0.03	402.821	0.024	47.011		
12/9/2008	9:55:46	20.396	0.03	390.256	0.024	46.254		
12/9/2008	9:55:56	20.441	0.03	358.718	0.024	48.374		
12/9/2008	9:56:06	20.472	0.03	363.846	0.024	49.206		
12/9/2008	9:56:16	20.487	0.03	379.231	0.024	50.493		
12/9/2008	9:56:26	20.502	0.03	355.128	0.024	64.877		
12/9/2008	9:56:36	20.517	0.03	351.538	0.024	73.053		
12/9/2008	9:56:46	20.594	0.03	351.026	0.024	75.096		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	9:56:56	20.533	0.03	353.077	22.002	71.69		
12/9/2008	9:57:06	20.457	0.03	332.051	1.172	72.447		
12/9/2008	9:57:16	20.426	0.03	342.564	0.024	63.06		
12/9/2008	9:57:26	20.502	0.03	356.154	0.024	52.386		
12/9/2008	9:57:36	20.578	0.03	335.897	0.024	48.979		
12/9/2008	9:57:46	20.624	0.03	326.154	0.024	47.541		
12/9/2008	9:57:56	20.639	0.03	298.205	0.024	46.784		
12/9/2008	9:58:06	20.609	0.03	302.821	0.024	45.951		
12/9/2008	9:58:16	20.472	0.03	334.359	0.024	45.346		
12/9/2008	9:58:26	20.38	0.03	354.872	0.024	44.513		
12/9/2008	9:58:36	20.319	0.03	364.359	25.788	43.832		
12/9/2008	9:58:46	20.304	0.03	372.051	0.024	42.923		
12/9/2008	9:58:56	20.259	0.03	386.41	0.024	43.15		
12/9/2008	9:59:06	20.335	0.03	386.923	0.024	43.907		
12/9/2008	9:59:16	20.457	0.03	399.744	0.024	44.589		
12/9/2008	9:59:26	20.533	0.03	390.513	0.024	46.405		
12/9/2008	9:59:36	20.594	0.03	365.385	0.024	48.374		
12/9/2008	9:59:46	20.639	0.03	408.205	0.024	48.374		
12/9/2008	9:59:56	20.578	0.03	387.436	0.024	46.178		
12/9/2008	10:00:06	20.533	0.03	383.59	0.024	46.86		
12/9/2008	10:00:16	20.457	0.03	363.333	26.227	46.784		
12/9/2008	10:00:26	20.396	0.03	362.821	1.636	48.222		
12/9/2008	10:00:36	20.411	0.03	365.385	0.024	49.282		
12/9/2008	10:00:46	20.441	0.03	356.41	0.024	62.606		
12/9/2008	10:00:56	20.563	0.03	342.821	0.024	72.068		
12/9/2008	10:01:06	20.639	0.03	319.744	0.024	73.961		
12/9/2008	10:01:16	20.655	0.03	300	0.024	72.598		
12/9/2008	10:01:26	20.609	0.03	309.231	0.024	72.75		
12/9/2008	10:01:36	20.426	0.03	357.692	0.024	64.347		
12/9/2008	10:01:46	20.365	0.03	387.692	0.024	51.175		
12/9/2008	10:01:56	20.365	0.03	372.308	24.591	46.935		
12/9/2008	10:02:06	20.396	0.03	315.897	0.024	47.919		
12/9/2008	10:02:16	20.319	0.03	318.718	0.024	46.481		
12/9/2008	10:02:26	20.335	0.03	346.667	0.024	43.074		
12/9/2008	10:02:36	20.517	0.03	347.179	0.024	44.74		
12/9/2008	10:02:46	20.548	0.03	346.667	0.024	46.254		
12/9/2008	10:02:56	20.487	0.03	390.513	0.024	41.863		
12/9/2008	10:03:06	20.655	0.03	342.821	0.024	44.286		
12/9/2008	10:03:16	20.517	0.03	376.41	0.024	44.361		
12/9/2008	10:03:26	20.563	0.03	388.205	0.024	45.194		
12/9/2008	10:03:36	20.472	0.03	343.846	29.084	49.055		
12/9/2008	10:03:46	20.319	0.03	402.051	2.54	47.768		
12/9/2008	10:03:56	20.396	0.03	374.615	0.024	48.828		
12/9/2008	10:04:06	20.487	0.03	374.872	0.024	50.872		
12/9/2008	10:04:16	20.487	0.03	411.795	0.024	48.828		
12/9/2008	10:04:26	20.578	0.03	413.59	0.024	46.784		
12/9/2008	10:04:36	20.655	0.03	333.59	0.024	50.72		
12/9/2008	10:04:46	20.533	0.03	362.308	0.024	49.661		
12/9/2008	10:04:56	20.548	0.03	365.385	0.024	50.796		
12/9/2008	10:05:06	20.472	0.03	319.231	0.024	66.845		
12/9/2008	10:05:16	20.319	0.03	363.846	22.882	75.248		
12/9/2008	10:05:26	20.319	0.03	359.231	0.024	76.308		
12/9/2008	10:05:36	20.35	0.03	320	0.024	76.156		
12/9/2008	10:05:46	20.365	0.03	346.154	0.024	75.778		
12/9/2008	10:05:56	20.411	0.03	396.923	0.024	65.255		
12/9/2008	10:06:06	20.578	0.03	384.615	0.024	54.733		
12/9/2008	10:06:16	20.624	0.03	331.795	0.024	52.234		
12/9/2008	10:06:26	20.639	0.03	330.256	0.024	50.569		
12/9/2008	10:06:36	20.548	0.03	337.179	0.024	46.708		
12/9/2008	10:06:46	20.517	0.03	355.385	0.024	45.194		
12/9/2008	10:06:56	20.411	0.061	390.256	20.611	43.302		
12/9/2008	10:07:06	20.319	0.03	402.821	0.488	42.545		
12/9/2008	10:07:16	20.35	0.03	387.949	0.024	42.847		
12/9/2008	10:07:26	20.441	0.03	383.333	0.024	43.453		
12/9/2008	10:07:36	20.517	0.03	390.513	0.024	44.286		
12/9/2008	10:07:46	20.563	0.03	423.333	0.024	46.254		
12/9/2008	10:07:56	20.594	0.03	408.462	0.024	47.238		
12/9/2008	10:08:06	20.548	0.03	405.897	0.024	47.011		
12/9/2008	10:08:16	20.396	0.03	394.359	0.024	50.115		
12/9/2008	10:08:26	20.319	0.03	430.513	0.024	52.083		
12/9/2008	10:08:36	20.228	0.03	419.487	23.419	50.115		
12/9/2008	10:08:46	20.213	0.03	399.231	0.024	48.374		
12/9/2008	10:08:56	20.259	0.03	338.205	0.024	50.72		
12/9/2008	10:09:06	20.396	0.03	321.538	0.024	52.613		
12/9/2008	10:09:16	20.502	0.03	345.641	0.024	53.143		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	10:09:26	20.517	0.03	372.051	0.024	63.893		
12/9/2008	10:09:36	20.517	0.03	365.641	0.024	76.005		
12/9/2008	10:09:46	20.578	0.03	309.231	0.024	78.427		
12/9/2008	10:09:56	20.563	0.03	304.103	0.024	76.308		
12/9/2008	10:10:06	20.517	0.03	316.154	0.024	75.929		
12/9/2008	10:10:16	20.411	0.03	341.282	22.051	70.554		
12/9/2008	10:10:26	20.35	0.03	362.564	1.465	56.247		
12/9/2008	10:10:36	20.35	0.03	362.051	0.024	52.007		
12/9/2008	10:10:46	20.411	0.03	367.179	0.024	50.342		
12/9/2008	10:10:56	20.487	0.03	342.051	0.024	48.071		
12/9/2008	10:11:06	20.517	0.03	352.308	0.024	45.8		
12/9/2008	10:11:16	20.563	0.03	383.333	0.024	44.513		
12/9/2008	10:11:26	20.517	0.03	408.974	0.024	43.15		
12/9/2008	10:11:36	20.457	0.03	358.462	0.024	44.134		
12/9/2008	10:11:46	20.411	0.061	367.179	0.024	45.118		
12/9/2008	10:11:56	20.319	0.03	352.051	21.636	45.875		
12/9/2008	10:12:06	20.289	0.03	365.385	0.024	48.828		
12/9/2008	10:12:16	20.289	0.03	364.359	0.024	49.055		
12/9/2008	10:12:26	20.38	0.03	369.487	0.024	50.569		
12/9/2008	10:12:36	20.502	0.03	350.769	0.024	53.37		
12/9/2008	10:12:46	20.563	0.03	385.641	0.024	54.505		
12/9/2008	10:12:56	20.594	0.03	381.282	0.024	52.991		
12/9/2008	10:13:06	20.609	0.03	380.769	0.024	50.342		
12/9/2008	10:13:16	20.563	0.03	338.718	0.024	51.023		
12/9/2008	10:13:26	20.487	0.03	332.308	0.024	52.991		
12/9/2008	10:13:36	20.411	0.03	350.513	21.88	55.035		
12/9/2008	10:13:46	20.365	0.03	335.897	2.173	67.148		
12/9/2008	10:13:56	20.365	0.03	335.897	0.024	78.957		
12/9/2008	10:14:06	20.441	0.03	313.846	0.024	79.714		
12/9/2008	10:14:16	20.533	0.03	318.974	0.024	77.746		
12/9/2008	10:14:26	20.624	0.03	339.487	0.024	76.459		
12/9/2008	10:14:36	20.609	0.03	358.205	0.024	71.614		
12/9/2008	10:14:46	20.517	0.03	389.487	0.024	56.02		
12/9/2008	10:14:56	20.38	0.03	379.487	0.024	51.856		
12/9/2008	10:15:06	20.319	0.091	393.846	0.024	49.358	Start Run #1	
12/9/2008	10:15:16	20.259	0.061	364.615	20.586	47.768		
12/9/2008	10:15:26	20.259	0.091	337.692	0.024	45.951		
12/9/2008	10:15:36	20.274	0.03	352.308	0.024	46.405		
12/9/2008	10:15:46	20.396	0.03	363.59	0.024	46.103		
12/9/2008	10:15:56	20.502	0.03	360.256	0.024	45.194		
12/9/2008	10:16:06	20.578	0.03	357.692	0.024	44.589		
12/9/2008	10:16:16	20.639	0.03	356.667	0.024	45.118		
12/9/2008	10:16:26	20.67	0.03	363.846	0.024	47.087		
12/9/2008	10:16:36	20.594	0.03	378.462	0.024	48.374		
12/9/2008	10:16:46	20.517	0.03	383.333	0.781	51.099		
12/9/2008	10:16:56	20.411	0.03	380.256	23.37	56.701		
12/9/2008	10:17:06	20.335	0.03	391.795	1.929	57.155		
12/9/2008	10:17:16	20.365	0.03	402.821	0.024	54.505		
12/9/2008	10:17:26	20.457	0.03	384.872	0.024	51.175		
12/9/2008	10:17:36	20.517	0.03	374.103	0.024	51.856		
12/9/2008	10:17:46	20.594	0.03	373.59	0.024	52.991		
12/9/2008	10:17:56	20.609	0.061	381.282	0.024	53.824		
12/9/2008	10:18:06	20.548	0.122	396.154	0.024	63.438		
12/9/2008	10:18:16	20.426	0.183	370	0.024	78.049		
12/9/2008	10:18:26	20.35	0.244	357.692	0.024	80.471		
12/9/2008	10:18:36	20.289	0.213	352.821	18.706	78.427		
12/9/2008	10:18:46	20.274	0.244	374.103	0.024	77.595		
12/9/2008	10:18:56	20.274	0.152	369.744	0.024	76.611		
12/9/2008	10:19:06	20.35	0.061	381.282	0.024	61.773		
12/9/2008	10:19:16	20.487	0.03	368.974	0.024	57.155		
12/9/2008	10:19:26	20.594	0.03	355.128	0.024	54.43		
12/9/2008	10:19:36	20.639	0.03	333.846	0.024	53.143		
12/9/2008	10:19:46	20.594	0.03	335.128	0.024	51.402		
12/9/2008	10:19:56	20.441	0.122	376.154	0.024	49.206		
12/9/2008	10:20:06	20.396	0.213	413.077	0.024	48.904		
12/9/2008	10:20:16	20.35	0.213	374.103	23.932	50.039		
12/9/2008	10:20:26	20.335	0.183	342.308	2.344	50.418		
12/9/2008	10:20:36	20.319	0.122	347.692	0.024	50.418		
12/9/2008	10:20:46	20.35	0.061	386.923	0.024	51.553		
12/9/2008	10:20:56	20.457	0.03	401.282	0.024	53.219		
12/9/2008	10:21:06	20.502	0.03	399.487	0.024	54.051		
12/9/2008	10:21:16	20.517	0.091	421.282	0.024	54.808		
12/9/2008	10:21:26	20.502	0.152	396.41	0.024	56.852		
12/9/2008	10:21:36	20.426	0.183	407.692	0.024	57.079		
12/9/2008	10:21:46	20.365	0.213	385.641	0.024	55.111		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	10:21:56	20.274	0.213	372.051	23.98	56.322		
12/9/2008	10:22:06	20.274	0.213	343.846	0.293	57.382		
12/9/2008	10:22:16	20.289	0.122	356.41	0.024	58.139		
12/9/2008	10:22:26	20.38	0.03	365.897	0.024	63.665		
12/9/2008	10:22:36	20.487	0.03	359.744	0.024	79.033		
12/9/2008	10:22:46	20.578	0.03	356.154	0.024	81.001		
12/9/2008	10:22:56	20.563	0.03	372.564	0.024	79.033		
12/9/2008	10:23:06	20.533	0.061	379.231	0.024	77.595		
12/9/2008	10:23:16	20.472	0.122	375.641	0.024	77.822		
12/9/2008	10:23:26	20.426	0.183	385.128	0.024	65.179		
12/9/2008	10:23:36	20.35	0.183	374.359	27.619	56.171		
12/9/2008	10:23:46	20.319	0.183	364.615	3.101	53.37		
12/9/2008	10:23:56	20.35	0.091	357.949	0.024	50.039		
12/9/2008	10:24:06	20.426	0.03	332.308	0.024	49.131		
12/9/2008	10:24:16	20.517	0.061	364.103	0.024	49.206		
12/9/2008	10:24:26	20.578	0.03	393.846	0.024	49.812		
12/9/2008	10:24:36	20.578	0.03	395.897	0.024	49.812		
12/9/2008	10:24:46	20.487	0.03	397.692	0.024	49.055		
12/9/2008	10:24:56	20.35	0.03	412.051	0.024	48.374		
12/9/2008	10:25:06	20.289	0.091	412.308	0.024	49.433		
12/9/2008	10:25:16	20.213	0.091	419.231	24.762	51.705		
12/9/2008	10:25:26	20.198	0.091	422.564	0.024	52.537		
12/9/2008	10:25:36	20.213	0.03	434.872	0.024	53.521		
12/9/2008	10:25:46	20.304	0.03	411.795	0.024	54.203		
12/9/2008	10:25:56	20.38	0.03	459.744	0.024	53.624		
12/9/2008	10:26:06	20.472	0.03	446.41	0.024	53.143		
12/9/2008	10:26:16	20.533	0.03	437.436	0.024	53.748		
12/9/2008	10:26:26	20.548	0.03	396.923	0.024	55.338		
12/9/2008	10:26:36	20.502	0.03	378.718	0.024	57.382		
12/9/2008	10:26:46	20.441	0.03	376.667	0.024	60.259		
12/9/2008	10:26:56	20.35	0.061	358.974	26.642	76.989		
12/9/2008	10:27:06	20.274	0.03	361.795	2.682	84.786		
12/9/2008	10:27:16	20.304	0.03	345.128	0.024	84.105		
12/9/2008	10:27:26	20.426	0.03	358.462	0.024	80.926		
12/9/2008	10:27:36	20.517	0.03	360.256	0.024	81.91		
12/9/2008	10:27:46	20.609	0.03	383.333	0.024	72.75		
12/9/2008	10:27:56	20.624	0.03	378.974	0.024	61.546		
12/9/2008	10:28:06	20.548	0.03	373.846	0.024	57.004		
12/9/2008	10:28:16	20.411	0.03	377.179	0.024	53.143		
12/9/2008	10:28:26	20.319	0.03	346.923	0.024	52.007		
12/9/2008	10:28:36	20.243	0.03	353.333	23.101	51.099		
12/9/2008	10:28:46	20.198	0.03	383.59	0.024	51.25		
12/9/2008	10:28:56	20.198	0.03	400.513	0.024	50.569		
12/9/2008	10:29:06	20.304	0.03	408.974	0.024	51.326		
12/9/2008	10:29:16	20.396	0.03	422.308	0.024	50.19		
12/9/2008	10:29:26	20.487	0.03	431.026	0	50.115		
12/9/2008	10:29:36	20.548	0.03	425.128	0.024	50.947		
12/9/2008	10:29:46	20.594	0.03	432.564	0.024	52.689		
12/9/2008	10:29:56	20.548	0.03	426.41	0.024	56.852		
12/9/2008	10:30:06	20.457	0.03	406.154	0.024	60.335		
12/9/2008	10:30:16	20.35	0.061	426.41	31.722	60.637		
12/9/2008	10:30:26	20.289	0.03	403.333	4.2	58.063		
12/9/2008	10:30:36	20.304	0.03	392.564	0.024	56.322		
12/9/2008	10:30:46	20.396	0.03	362.821	0.024	57.306		
12/9/2008	10:30:56	20.517	0.03	376.154	0.024	57.988		
12/9/2008	10:31:06	20.594	0.03	380.513	0.024	62.606		
12/9/2008	10:31:16	20.609	0.03	377.949	0.024	79.714		
12/9/2008	10:31:26	20.563	0.03	351.538	0.024	85.619		
12/9/2008	10:31:36	20.441	0.03	342.051	0.024	86.755		
12/9/2008	10:31:46	20.335	0.061	364.359	0.024	82.894		
12/9/2008	10:31:56	20.289	0.061	379.487	25.128	82.212		
12/9/2008	10:32:06	20.259	0.061	397.179	0.049	68.965		
12/9/2008	10:32:16	20.274	0.03	396.718	0.024	58.745		
12/9/2008	10:32:26	20.365	0.03	406.154	0.024	55.641		
12/9/2008	10:32:36	20.487	0.03	390.513	0.024	54.657		
12/9/2008	10:32:46	20.563	0.03	354.103	0.024	53.9		
12/9/2008	10:32:56	20.624	0.03	353.077	0.024	53.748		
12/9/2008	10:33:06	20.624	0.03	399.231	0.024	54.733		
12/9/2008	10:33:16	20.533	0.03	380.769	0.024	55.111		
12/9/2008	10:33:26	20.441	0.03	376.667	0.024	54.884		
12/9/2008	10:33:36	20.335	0.03	404.359	27.228	54.278		
12/9/2008	10:33:46	20.259	0.03	392.308	3.585	55.338		
12/9/2008	10:33:56	20.274	0.03	406.41	0.024	57.458		
12/9/2008	10:34:06	20.335	0.03	432.051	0.024	57.836		
12/9/2008	10:34:16	20.441	0.03	432.308	0.024	60.259		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	10:34:26	20.517	0.03	427.692	0.024	61.016		
12/9/2008	10:34:36	20.533	0.03	447.436	0.024	60.335		
12/9/2008	10:34:46	20.472	0.03	430.513	0.024	59.199		
12/9/2008	10:34:56	20.365	0.061	422.564	0.024	58.972		
12/9/2008	10:35:06	20.289	0.091	398.974	0.024	59.578		
12/9/2008	10:35:16	20.228	0.091	389.231	24.713	62		
12/9/2008	10:35:26	20.243	0.061	387.692	0.708	64.347		
12/9/2008	10:35:36	20.274	0.03	380.513	0.024	80.244		
12/9/2008	10:35:46	20.35	0.03	375.385	0.024	85.241		
12/9/2008	10:35:56	20.472	0.03	388.462	0.024	83.651		
12/9/2008	10:36:06	20.487	0.03	417.692	0.024	81.38		
12/9/2008	10:36:16	20.533	0.03	417.949	0.024	82.137		
12/9/2008	10:36:26	20.533	0.03	438.205	0.024	71.463		
12/9/2008	10:36:36	20.441	0.03	429.744	0.024	60.864		
12/9/2008	10:36:46	20.365	0.091	408.205	0.024	57.306		
12/9/2008	10:36:56	20.274	0.091	412.564	28.059	54.808		
12/9/2008	10:37:06	20.213	0.091	383.846	3.126	53.597		
12/9/2008	10:37:16	20.228	0.03	382.564	0.024	52.84		
12/9/2008	10:37:26	20.335	0.03	394.872	0.024	54.203		
12/9/2008	10:37:36	20.457	0.03	388.974	0.024	56.474		
12/9/2008	10:37:46	20.548	0.03	407.692	0.024	56.474		
12/9/2008	10:37:56	20.548	0.03	412.051	0.024	54.96		
12/9/2008	10:38:06	20.457	0.03	437.179	0.024	54.96		
12/9/2008	10:38:16	20.319	0.091	463.846	0.024	56.322		
12/9/2008	10:38:26	20.304	0.091	437.692	0.024	60.032		
12/9/2008	10:38:36	20.259	0.061	410	29.133	63.665		
12/9/2008	10:38:46	20.213	0.091	397.692	1.343	66.164		
12/9/2008	10:38:56	20.182	0.03	468.462	0.024	63.893		
12/9/2008	10:39:06	20.304	0.03	445.641	0.024	60.259		
12/9/2008	10:39:16	20.472	0.03	404.359	0.024	61.243		
12/9/2008	10:39:26	20.502	0.03	385.128	0.024	61.546		
12/9/2008	10:39:36	20.533	0.03	419.487	0.024	59.653		
12/9/2008	10:39:46	20.639	0.03	409.487	0.024	64.877		
12/9/2008	10:39:56	20.548	0.03	371.538	0.024	82.969		
12/9/2008	10:40:06	20.38	0.091	417.179	0.024	87.436		
12/9/2008	10:40:16	20.319	0.061	405.128	28.449	87.436		
12/9/2008	10:40:26	20.319	0.03	389.487	4.127	86.073		
12/9/2008	10:40:36	20.304	0.03	380.513	0.024	87.436		
12/9/2008	10:40:46	20.335	0.03	421.795	0.024	73.607		
12/9/2008	10:40:56	20.411	0.03	452.564	0.024	62.227		
12/9/2008	10:41:06	20.502	0.03	451.538	0.024	57.988		
12/9/2008	10:41:16	20.533	0.03	447.436	0.024	55.263		
12/9/2008	10:41:26	20.472	0.061	417.692	0.024	54.203		
12/9/2008	10:41:36	20.35	0.091	415.897	0.024	53.446		
12/9/2008	10:41:46	20.259	0.122	437.179	0.024	53.976		
12/9/2008	10:41:56	20.167	0.122	453.333	30.354	55.414		
12/9/2008	10:42:06	20.182	0.091	433.333	1.368	56.701		
12/9/2008	10:42:16	20.228	0.03	418.974	0.024	57.231		
12/9/2008	10:42:26	20.38	0.03	427.949	0.024	57.079		
12/9/2008	10:42:36	20.441	0.03	475.897	0.024	56.322		
12/9/2008	10:42:46	20.472	0.03	474.359	0.024	57.685		
12/9/2008	10:42:56	20.563	0.03	451.538	0.024	62.681		
12/9/2008	10:43:06	20.624	0.03	417.436	0.024	65.104		
12/9/2008	10:43:16	20.548	0.03	477.949	0.024	63.893		
12/9/2008	10:43:26	20.38	0.122	486.718	0.024	59.805		
12/9/2008	10:43:36	20.259	0.091	456.923	35.751	61.167		
12/9/2008	10:43:46	20.243	0.061	386.667	6.422	63.136		
12/9/2008	10:43:56	20.289	0.061	405.641	0.781	62.833		
12/9/2008	10:44:06	20.35	0.091	453.333	0.024	64.801		
12/9/2008	10:44:16	20.411	0.061	419.487	0.024	83.424		
12/9/2008	10:44:26	20.578	0.03	385.385	0.024	90.313		
12/9/2008	10:44:36	20.609	0.091	389.487	0.024	90.313		
12/9/2008	10:44:46	20.487	0.213	430.769	0.024	85.846		
12/9/2008	10:44:56	20.35	0.244	421.282	0.024	86.982		
12/9/2008	10:45:06	20.319	0.213	409.231	0.024	74.567		
12/9/2008	10:45:16	20.259	0.213	418.205	33.675	64.952		
12/9/2008	10:45:26	20.228	0.244	425.641	2.32	60.032		
12/9/2008	10:45:36	20.198	0.213	442.051	0.024	56.171		
12/9/2008	10:45:46	20.289	0.122	417.179	0.024	55.187		
12/9/2008	10:45:56	20.38	0.061	392.821	0.024	54.808		
12/9/2008	10:46:06	20.517	0.03	392.308	0.024	57.231		
12/9/2008	10:46:16	20.609	0.03	397.949	0.024	58.366		
12/9/2008	10:46:26	20.609	0.061	413.077	0.024	57.534		
12/9/2008	10:46:36	20.517	0.183	438.974	0.024	57.231		
12/9/2008	10:46:46	20.335	0.244	472.564	0.024	58.291		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	10:46:56	20.259	0.244	482.821	36.068	60.486		
12/9/2008	10:47:06	20.213	0.244	459.487	6.203	62.833		
12/9/2008	10:47:16	20.213	0.183	466.923	0.806	65.104		
12/9/2008	10:47:26	20.304	0.091	434.615	0.024	67.148		
12/9/2008	10:47:36	20.441	0.061	448.205	0.024	67.223		
12/9/2008	10:47:46	20.517	0.03	435.641	0.024	65.482		
12/9/2008	10:47:56	20.578	0.061	432.821	0.024	64.044		
12/9/2008	10:48:06	20.517	0.152	408.974	0.024	64.65		
12/9/2008	10:48:16	20.396	0.213	420.769	0.024	66.088		
12/9/2008	10:48:26	20.289	0.244	438.718	0.024	69.116		
12/9/2008	10:48:36	20.228	0.274	440	33.529	85.77		
12/9/2008	10:48:46	20.152	0.274	433.846	2.32	91.07		
12/9/2008	10:48:56	20.152	0.213	419.744	0.024	91.372		
12/9/2008	10:49:06	20.259	0.122	438.205	0.024	89.404		
12/9/2008	10:49:16	20.411	0.03	430.769	0.024	90.54		
12/9/2008	10:49:26	20.517	0.03	424.359	0.024	78.125		
12/9/2008	10:49:36	20.609	0.03	430	0.024	66.694		
12/9/2008	10:49:46	20.639	0.03	433.333	0.024	61.319		
12/9/2008	10:49:56	20.533	0.03	441.538	0.024	57.988		
12/9/2008	10:50:06	20.411	0.061	411.282	0.024	57.382		
12/9/2008	10:50:16	20.335	0.061	427.692	28.523	57.079		
12/9/2008	10:50:26	20.304	0.061	475.128	4.518	58.896		
12/9/2008	10:50:36	20.304	0.03	452.051	0.024	59.653		
12/9/2008	10:50:46	20.396	0.03	450.256	0.024	60.713		
12/9/2008	10:50:56	20.487	0.03	452.051	0.024	60.864		
12/9/2008	10:51:06	20.578	0.03	448.205	0.024	62.53		
12/9/2008	10:51:16	20.578	0.03	434.872	0.024	64.044		
12/9/2008	10:51:26	20.472	0.03	436.667	0.024	64.952		
12/9/2008	10:51:36	20.335	0.091	440.513	0.024	65.785		
12/9/2008	10:51:46	20.198	0.122	463.077	0.024	69.495		
12/9/2008	10:51:56	20.198	0.122	506.154	36.264	67.829		
12/9/2008	10:52:06	20.243	0.091	477.692	3.468	65.785		
12/9/2008	10:52:16	20.228	0.03	439.231	0.488	64.952		
12/9/2008	10:52:26	20.259	0.03	424.359	0.024	64.347		
12/9/2008	10:52:36	20.335	0.03	471.538	0.024	64.422		
12/9/2008	10:52:46	20.457	0.03	482.821	0.024	68.359		
12/9/2008	10:52:56	20.563	0.03	445.897	0.024	86.603		
12/9/2008	10:53:06	20.609	0.03	427.179	0.024	91.675		
12/9/2008	10:53:16	20.578	0.03	418.205	0.024	91.07		
12/9/2008	10:53:26	20.457	0.061	447.949	0.024	88.647		
12/9/2008	10:53:36	20.335	0.091	457.436	36.117	88.117		
12/9/2008	10:53:46	20.259	0.091	484.615	5.885	73.431		
12/9/2008	10:53:56	20.243	0.03	502.308	0.659	65.558		
12/9/2008	10:54:06	20.335	0.03	507.692	0.024	61.773		
12/9/2008	10:54:16	20.426	0.03	485.385	0.024	60.183		
12/9/2008	10:54:26	20.487	0.03	466.154	0.024	57.912		
12/9/2008	10:54:36	20.517	0.03	462.308	0.024	58.063		
12/9/2008	10:54:46	20.457	0.03	472.821	0.024	59.576		
12/9/2008	10:54:56	20.365	0.091	478.718	0.024	60.259		
12/9/2008	10:55:06	20.274	0.091	476.41	0.024	60.562		
12/9/2008	10:55:16	20.213	0.091	491.282	37.118	59.956		
12/9/2008	10:55:26	20.198	0.091	466.41	3.59	60.107		
12/9/2008	10:55:36	20.182	0.061	464.103	0.073	62.454		
12/9/2008	10:55:46	20.228	0.03	473.333	0.024	64.65		
12/9/2008	10:55:56	20.35	0.03	465.128	0.024	66.845		
12/9/2008	10:56:06	20.457	0.03	455.641	0.024	69.343		
12/9/2008	10:56:16	20.548	0.03	468.974	0.024	69.419		
12/9/2008	10:56:26	20.594	0.03	452.308	0.024	67.375		
12/9/2008	10:56:36	20.548	0.03	454.103	0.024	66.315		
12/9/2008	10:56:46	20.441	0.03	416.41	0.024	66.845		
12/9/2008	10:56:56	20.335	0.061	447.949	35.531	67.526		
12/9/2008	10:57:06	20.228	0.091	475.385	5.763	71.236		
12/9/2008	10:57:16	20.198	0.03	491.538	0.586	87.436		
12/9/2008	10:57:26	20.289	0.03	463.846	0.024	93.643		
12/9/2008	10:57:36	20.396	0.03	425.385	0.024	93.871		
12/9/2008	10:57:46	20.533	0.03	434.615	0.024	91.978		
12/9/2008	10:57:56	20.594	0.03	421.538	0.024	93.114		
12/9/2008	10:58:06	20.548	0.03	473.846	0.024	79.26		
12/9/2008	10:58:16	20.35	0.091	504.615	0.024	67.451		
12/9/2008	10:58:26	20.259	0.122	480.256	0.024	63.817		
12/9/2008	10:58:36	20.228	0.061	437.949	38.584	62.151		
12/9/2008	10:58:46	20.243	0.091	411.026	3.614	59.956		
12/9/2008	10:58:56	20.182	0.061	458.205	0.024	58.215		
12/9/2008	10:59:06	20.274	0.03	464.103	0.024	62.454		
12/9/2008	10:59:16	20.457	0.03	437.949	0.024	63.438		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	10:59:26	20.517	0.03	476.923	0.024	61.016		
12/9/2008	10:59:36	20.517	0.03	492.308	0.024	60.032		
12/9/2008	10:59:46	20.563	0.03	473.077	0.024	62.908		
12/9/2008	10:59:56	20.548	0.03	458.205	0.024	65.709		
12/9/2008	11:00:06	20.441	0.03	489.744	0.024	65.179		
12/9/2008	11:00:16	20.274	0.091	503.333	39.927	64.725		
12/9/2008	11:00:26	20.213	0.122	500	6.227	69.495		
12/9/2008	11:00:36	20.213	0.03	488.974	1.294	72.75		
12/9/2008	11:00:46	20.35	0.03	448.718	0.024	69.04		
12/9/2008	11:00:56	20.472	0.03	474.103	0.024	67.526		
12/9/2008	11:01:06	20.563	0.03	480	0.024	68.586		
12/9/2008	11:01:16	20.594	0.03	484.103	0.024	68.889		
12/9/2008	11:01:26	20.502	0.03	465.128	0.024	71.084		
12/9/2008	11:01:36	20.38	0.091	461.282	0.024	86.906		
12/9/2008	11:01:46	20.304	0.091	466.923	0.024	91.751		
12/9/2008	11:01:56	20.259	0.091	441.026	40.098	91.372		
12/9/2008	11:02:06	20.228	0.061	494.103	3.956	89.404		
12/9/2008	11:02:16	20.228	0.03	471.026	0.342	84.559		
12/9/2008	11:02:26	20.304	0.03	431.538	0.024	83.575		
12/9/2008	11:02:36	20.396	0.03	407.692	0.024	82.061		
12/9/2008	11:02:46	20.472	0.03	403.59	0.024	79.639		
12/9/2008	11:02:56	20.533	0.03	412.564	0.024	78.654		
12/9/2008	11:03:06	20.548	0.03	419.231	0.024	80.32		
12/9/2008	11:03:16	20.487	0.03	417.692	0.024	81.834		
12/9/2008	11:03:26	20.35	0.061	425.897	0.024	81.531		
12/9/2008	11:03:36	20.274	0.091	443.333	31.966	83.424		
12/9/2008	11:03:46	20.259	0.091	425.128	4.835	85.241		
12/9/2008	11:03:56	20.289	0.03	403.59	0.586	72.447		
12/9/2008	11:04:06	20.38	0.03	408.462	0.024	66.012		
12/9/2008	11:04:16	20.426	0.03	425.897	0.024	62		
12/9/2008	11:04:26	20.487	0.03	459.231	0.024	56.549		
12/9/2008	11:04:36	20.548	0.03	419.744	0.024	56.398		
12/9/2008	11:04:46	20.533	0.03	394.872	0.024	56.701		
12/9/2008	11:04:56	20.411	0.03	406.923	0.024	58.215		
12/9/2008	11:05:06	20.335	0.061	394.103	0.024	60.259		
12/9/2008	11:05:16	20.274	0.03	400.256	36.972	59.502		
12/9/2008	11:05:26	20.213	0.061	418.718	3.199	58.139		
12/9/2008	11:05:36	20.167	0.091	448.462	0.024	57.155		
12/9/2008	11:05:46	20.198	0.03	482.821	0.024	57.231		
12/9/2008	11:05:56	20.335	0.03	507.949	0.024	59.199		
12/9/2008	11:06:06	20.457	0.061	478.205	0.024	61.167		
12/9/2008	11:06:16	20.548	0.061	474.872	0.024	63.363		
12/9/2008	11:06:26	20.563	0.122	516.667	0.024	62.984		
12/9/2008	11:06:36	20.472	0.213	500	0.024	61.394		
12/9/2008	11:06:46	20.319	0.274	511.538	0.024	60.713		
12/9/2008	11:06:56	20.213	0.274	453.59	39.78	63.06		
12/9/2008	11:07:06	20.198	0.244	419.231	6.74	66.012		
12/9/2008	11:07:16	20.243	0.152	409.231	1.465	69.57		
12/9/2008	11:07:26	20.365	0.03	425.641	0.024	85.77		
12/9/2008	11:07:36	20.472	0.03	401.282	0.024	93.114		
12/9/2008	11:07:46	20.548	0.03	397.692	0.024	92.886		
12/9/2008	11:07:56	20.594	0.061	410.513	0.024	90.388		
12/9/2008	11:08:06	20.533	0.152	415.385	0.024	90.767		
12/9/2008	11:08:16	20.411	0.183	432.308	0.024	82.137		
12/9/2008	11:08:26	20.304	0.213	433.846	0.024	69.267		
12/9/2008	11:08:36	20.228	0.244	426.41	39.878	63.741		
12/9/2008	11:08:46	20.182	0.244	409.231	3.59	60.032		
12/9/2008	11:08:56	20.167	0.183	401.538	0.024	58.139		
12/9/2008	11:09:06	20.243	0.122	410.513	0.024	58.745		
12/9/2008	11:09:16	20.365	0.091	461.795	0.024	60.259		
12/9/2008	11:09:26	20.441	0.061	492.564	0.024	59.805		
12/9/2008	11:09:36	20.517	0.061	468.462	0.024	59.88		
12/9/2008	11:09:46	20.578	0.091	450.513	0.024	59.805		
12/9/2008	11:09:56	20.533	0.152	438.462	0.024	61.924		
12/9/2008	11:10:06	20.426	0.213	437.692	0.024	66.088		
12/9/2008	11:10:16	20.335	0.183	459.231	43.492	67.148		
12/9/2008	11:10:26	20.228	0.213	455.897	7.766	67.905		
12/9/2008	11:10:36	20.243	0.152	477.179	1.441	70.706		
12/9/2008	11:10:46	20.289	0.091	473.846	0.024	72.22		
12/9/2008	11:10:56	20.38	0.091	481.795	0.024	69.267		
12/9/2008	11:11:06	20.441	0.03	526.41	0.024	65.482		
12/9/2008	11:11:16	20.487	0.03	503.333	0.024	65.104		
12/9/2008	11:11:26	20.441	0.03	488.205	0.024	66.996		
12/9/2008	11:11:36	20.335	0.091	489.231	0.024	70.024		
12/9/2008	11:11:46	20.259	0.122	481.026	0.024	85.998		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	11:11:56	20.182	0.122	486.154	39.756	92.054		
12/9/2008	11:12:06	20.182	0.122	500.769	2.686	91.07		
12/9/2008	11:12:16	20.152	0.061	496.154	0.024	88.647		
12/9/2008	11:12:26	20.274	0.03	482.564	0.024	84.408		
12/9/2008	11:12:36	20.396	0.03	455.128	0.024	82.667		
12/9/2008	11:12:46	20.502	0.03	455.385	0.024	82.212		
12/9/2008	11:12:56	20.578	0.03	424.359	0.024	79.109		
12/9/2008	11:13:06	20.609	0.03	424.872	0.024	76.535		
12/9/2008	11:13:16	20.533	0.03	436.667	0.024	77.443		
12/9/2008	11:13:26	20.396	0.061	448.462	0.024	75.778		
12/9/2008	11:13:36	20.274	0.091	450.769	39.243	74.642		
12/9/2008	11:13:46	20.198	0.091	454.359	5.934	73.507		
12/9/2008	11:13:56	20.213	0.03	484.359	0.073	71.69		
12/9/2008	11:14:06	20.304	0.03	479.231	0.024	70.403		
12/9/2008	11:14:16	20.396	0.03	464.615	0.024	69.192		
12/9/2008	11:14:26	20.472	0.03	450.256	0.024	68.056		
12/9/2008	11:14:36	20.517	0.03	445.128	0.024	68.283		
12/9/2008	11:14:46	20.441	0.03	432.564	0.024	68.51		
12/9/2008	11:14:56	20.35	0.091	426.923	0.024	67.602	End Run #1	
12/9/2008	11:15:06	20.243	0.091	408.462	0.024	64.498		
12/9/2008	11:15:16	20.198	0.091	391.026	33.993	63.136		
12/9/2008	11:15:26	20.182	0.091	376.667	2.54	62.908		
12/9/2008	11:15:36	20.167	0.03	365.385	0.024	63.06		
12/9/2008	11:15:46	20.259	0.03	367.436	0.024	63.06		
12/9/2008	11:15:56	20.38	0.03	364.103	0.024	62.757		
12/9/2008	11:16:06	20.487	0.03	350.769	0.024	63.287		
12/9/2008	11:16:16	20.594	0.03	346.923	0.024	66.391		
12/9/2008	11:16:26	20.578	0.03	332.308	0.024	66.315		
12/9/2008	11:16:36	20.502	0.03	331.538	0.024	65.179		
12/9/2008	11:16:46	20.152	0.792	321.282	0.024	64.12		
12/9/2008	11:16:56	17.288	4.082	320.513	26.667	63.211		
12/9/2008	11:17:06	11.729	6.885	315.385	3.785	62.681		
12/9/2008	11:17:16	6.656	8.286	316.923	0.024	62.303		
12/9/2008	11:17:26	3.168	8.956	318.205	0.024	61.167		
12/9/2008	11:17:36	1.158	9.2	316.667	0.024	60.637		
12/9/2008	11:17:46	0.061	9.413	318.462	0.024	59.426		
12/9/2008	11:17:56	0.015	9.535	328.974	0.024	59.048		
12/9/2008	11:18:06	0.015	9.596	319.744	0.024	59.426		
12/9/2008	11:18:16	0.015	9.657	311.282	0.024	58.669		
12/9/2008	11:18:26	0.015	9.87	313.59	0.024	57.685		
12/9/2008	11:18:36	0.015	9.87	307.949	22.344	56.928		
12/9/2008	11:18:46	0.015	9.992	309.744	0.855	57.534		
12/9/2008	11:18:56	0.015	10.023	306.41	0.024	56.625		
12/9/2008	11:19:06	0.015	10.023	320.256	0.024	55.565	Mid range drift check	0.15%
12/9/2008	11:19:16	0.015	10.053	337.436	0.024	54.278	Zero drift check	0.00%
12/9/2008	11:19:26	0.015	10.084	337.179	0.024	53.294		
12/9/2008	11:19:36	0.015	10.084	310.513	0.024	54.733		
12/9/2008	11:19:46	0.015	8.499	308.462	0.024	54.96		
12/9/2008	11:19:56	1.203	6.062	307.692	0.024	54.884		
12/9/2008	11:20:06	5.895	3.107	306.154	0.024	54.733		
12/9/2008	11:20:16	10.815	1.188	275.385	19.121	54.505		
12/9/2008	11:20:26	14.912	0.366	274.872	2.222	53.446		
12/9/2008	11:20:36	17.623	0.03	271.282	0.024	53.446		
12/9/2008	11:20:46	19.192	0.03	266.667	0.024	53.143		
12/9/2008	11:20:56	20.03	0.03	262.051	0.024	52.007		
12/9/2008	11:21:06	20.457	0.03	257.949	0.024	52.007		
12/9/2008	11:21:16	20.67	0.03	257.692	0.024	50.72		
12/9/2008	11:21:26	20.761	0.03	255.128	0.024	51.326		
12/9/2008	11:21:36	20.807	0.03	251.026	0.024	51.705		
12/9/2008	11:21:46	20.853	0.03	254.615	0.024	50.796		
12/9/2008	11:21:56	20.837	0.03	251.795	16.996	50.796		
12/9/2008	11:22:06	20.853	0.03	245.385	0.024	50.115		
12/9/2008	11:22:16	20.868	0.03	248.205	0.024	48.828		
12/9/2008	11:22:26	20.883	0.03	226.462	0.024	48.904		
12/9/2008	11:22:36	20.898	0.03	225.128	0.024	48.147		
12/9/2008	11:22:46	20.898	0.03	208.205	0.024	49.509		
12/9/2008	11:22:56	20.898	0.03	215.897	0.024	48.298	Hi range drift check	0.07%
12/9/2008	11:23:06	20.898	0.03	207.436	0.024	48.222	Zero drift check	0.00%
12/9/2008	11:23:16	20.898	0.03	212.308	0.415	48.071		
12/9/2008	11:23:26	20.914	0.03	213.333	0.024	47.011		
12/9/2008	11:23:36	20.822	0.03	221.026	7.863	47.465		
12/9/2008	11:23:46	20.655	0.03	238.462	33.553	47.087		
12/9/2008	11:23:56	20.517	0.03	245.128	39.902	45.724		
12/9/2008	11:24:06	20.472	0.03	253.077	42.491	46.027		
12/9/2008	11:24:16	20.517	0.03	253.333	42.857	45.8		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	11:24:26	20.563	0.03	250.769	42.906	45.724		
12/9/2008	11:24:36	20.517	0.03	259.744	39.438	45.648		
12/9/2008	11:24:46	20.411	0.03	242.564	35.702	49.282		
12/9/2008	11:24:56	20.319	0.061	221.538	31.282	56.095		
12/9/2008	11:25:06	20.259	0.03	191.282	27.619	60.259		
12/9/2008	11:25:16	20.243	0.03	200.513	24.298	65.937		
12/9/2008	11:25:26	20.289	0.061	215.128	22.466	66.694		
12/9/2008	11:25:36	20.182	0.091	257.949	22.857	48.752		
12/9/2008	11:25:46	20.213	0.03	259.744	23.907	42.545		
12/9/2008	11:25:56	20.319	0.03	226.923	25.739	43.15		
12/9/2008	11:26:06	20.472	0.03	209.744	27.155	41.636		
12/9/2008	11:26:16	20.563	0.03	221.538	25.568	40.046		
12/9/2008	11:26:26	20.457	0.03	241.282	24.469	37.473		
12/9/2008	11:26:36	20.38	0.03	227.436	25.788	40.122		
12/9/2008	11:26:46	20.319	0.03	210.513	25.714	41.56		
12/9/2008	11:26:56	20.259	0.061	233.077	26.545	39.516		
12/9/2008	11:27:06	20.213	0.244	259.231	27.009	39.138		
12/9/2008	11:27:16	20.213	0.152	248.462	25.446	40.576	Post-test low range calibration drift check	0.40%
12/9/2008	11:27:26	20.35	0.03	233.077	26.935	41.863		
12/9/2008	11:27:36	20.472	0.03	250	27.131	43.302		
12/9/2008	11:27:46	20.563	0.03	256.667	27.814	44.134		
12/9/2008	11:27:56	20.548	0.091	272.051	5.568	45.648		
12/9/2008	11:28:06	20.441	0.183	282.051	0.024	46.935		
12/9/2008	11:28:16	20.335	0.213	296.923	0.024	45.951		
12/9/2008	11:28:26	20.259	0.244	317.436	0.024	44.589		
12/9/2008	11:28:36	20.213	0.213	310.513	0.024	44.437		
12/9/2008	11:28:46	20.198	0.244	280.769	0.024	44.967	Post-test zero calibration drift check	0.00%
12/9/2008	11:28:56	20.182	0.244	278.205	0.024	46.178		
12/9/2008	11:29:06	20.213	0.152	287.179	0.024	62.984		
12/9/2008	11:29:16	20.335	0.061	270.256	0.024	75.021		
12/9/2008	11:29:26	20.457	0.03	272.821	0.024	77.67		
12/9/2008	11:29:36	20.533	0.091	267.436	0.024	77.973		
12/9/2008	11:29:46	20.472	0.152	271.795	0.024	76.232		
12/9/2008	11:29:56	20.396	0.183	274.103	0.024	76.459		
12/9/2008	11:30:06	20.304	0.213	278.718	1.954	59.275		
12/9/2008	11:30:16	20.259	0.213	271.282	18.193	51.099		
12/9/2008	11:30:26	20.213	0.183	262.051	2.637	49.358		
12/9/2008	11:30:36	20.228	0.091	255.128	0.024	46.86		
12/9/2008	11:30:46	20.335	0.03	252.564	0.024	45.497		
12/9/2008	11:30:56	20.457	0.03	245.385	0.024	31.038		
12/9/2008	11:31:06	20.548	0.03	265.128	0.024	12.718		
12/9/2008	11:31:16	20.533	0.091	286.667	0.024	8.479		
12/9/2008	11:31:26	20.457	0.183	312.564	0.024	5.905		
12/9/2008	11:31:36	20.319	0.244	311.538	0.024	5.602		
12/9/2008	11:31:46	20.274	0.244	281.795	0.293	6.586		
12/9/2008	11:31:56	20.228	0.183	300.769	16.264	5.678		
12/9/2008	11:32:06	20.213	0.152	336.667	0.342	3.861		
12/9/2008	11:32:16	20.167	0.061	340.513	0.024	2.574		
12/9/2008	11:32:26	20.243	0.03	320.769	0.024	3.028		
12/9/2008	11:32:36	20.396	0.03	301.538	0.024	4.391		
12/9/2008	11:32:46	20.517	0.03	289.744	0.024	4.164		
12/9/2008	11:32:56	20.578	0.03	319.744	0.024	2.877		
12/9/2008	11:33:06	20.517	0.03	328.718	0.024	1.514		
12/9/2008	11:33:16	20.38	0.091	317.949	0.024	1.514		
12/9/2008	11:33:26	20.304	0.061	285.385	3.175	3.482		
12/9/2008	11:33:36	20.243	0.03	277.436	17.705	3.028		
12/9/2008	11:33:46	20.228	0.061	307.436	2.1	1.287		
12/9/2008	11:33:56	20.213	0.03	313.59	0.024	0.53		
12/9/2008	11:34:06	20.319	0.03	311.538	0.024	1.741		
12/9/2008	11:34:16	20.441	0.03	298.205	0.024	3.028		
12/9/2008	11:34:26	20.533	0.03	287.179	0.024	2.65		
12/9/2008	11:34:36	20.548	0.03	315.897	0.024	1.817		
12/9/2008	11:34:46	20.457	0.03	323.333	0.024	0.908		
12/9/2008	11:34:56	20.335	0.061	340.513	0.024	0.379		
12/9/2008	11:35:06	20.243	0.091	325.897	0.024	0.151		
12/9/2008	11:35:16	20.213	0.091	308.974	15.556	0.151		
12/9/2008	11:35:26	20.198	0.091	308.718	0.293	0.681		
12/9/2008	11:35:36	20.213	0.03	296.667	0.024	1.893		
12/9/2008	11:35:46	20.304	0.03	291.026	0.024	2.422		
12/9/2008	11:35:56	20.411	0.03	342.051	0.024	0.908		
12/9/2008	11:36:06	20.487	0.03	341.795	0.024	0.076	Post-test zero calibration drift check	0.00%
12/9/2008	11:36:16	20.578	0.03	311.795	0.024	9.69		
12/9/2008	11:36:26	20.563	0.03	315.385	0.024	61.167		
12/9/2008	11:36:36	20.441	0.061	329.744	0.024	66.315		
12/9/2008	11:36:46	20.304	0.091	349.487	2.979	67.148		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	11:36:56	20.274	0.061	305.128	19.731	69.873		
12/9/2008	11:37:06	20.228	0.03	286.667	3.468	71.917		
12/9/2008	11:37:16	20.213	0.03	305.641	0.024	71.69		
12/9/2008	11:37:26	20.304	0.03	330.256	0.024	70.176		
12/9/2008	11:37:36	20.457	0.03	317.436	0.024	71.311		
12/9/2008	11:37:46	20.548	0.03	283.59	0.024	74.112		
12/9/2008	11:37:56	20.548	0.03	273.077	0.024	74.869	Post-test mid range calibration drift check	0.07%
12/9/2008	11:38:06	20.441	0.03	302.564	0.024	74.112		
12/9/2008	11:38:16	20.365	0.091	293.59	0.024	73.734		
12/9/2008	11:38:26	20.289	0.091	299.231	0.024	73.507		
12/9/2008	11:38:36	20.213	0.061	297.179	15.36	73.507		
12/9/2008	11:38:46	20.213	0.061	328.974	0.342	73.507		
12/9/2008	11:38:56	20.198	0.03	353.077	0.024	73.355		
12/9/2008	11:39:06	20.639	0.03	443.846	0.024	73.204		
12/9/2008	11:39:16	20.792	0.03	518.974	0.024	73.734		
12/9/2008	11:39:26	20.883	0.03	524.359	0.024	72.901		
12/9/2008	11:39:36	20.959	0.03	506.923	0.024	34.899		
12/9/2008	11:39:46	20.883	0.03	490.769	0.024	40.803		
12/9/2008	11:39:56	20.792	0.03	476.923	0.024	45.573		
12/9/2008	11:40:06	20.7	0.03	494.615	3.565	46.557		
12/9/2008	11:40:16	20.624	0.061	526.41	17.167	46.481		
12/9/2008	11:40:26	20.594	0.061	554.359	1.783	46.708		
12/9/2008	11:40:36	20.639	0.03	545.385	0.024	48.071		
12/9/2008	11:40:46	20.792	0.03	508.462	0.024	48.904		
12/9/2008	11:40:56	20.914	0.03	512.308	0.024	48.601		
12/9/2008	11:41:06	20.974	0.03	543.846	0.024	48.525		
12/9/2008	11:41:16	20.898	0.03	557.692	0.024	50.493		
12/9/2008	11:41:26	20.792	0.061	509.487	0.024	54.581		
12/9/2008	11:41:36	20.731	0.03	466.154	0.024	55.263		
12/9/2008	11:41:46	20.594	0.091	535.385	0.024	53.976		
12/9/2008	11:41:56	20.563	0.091	535.385	16.264	55.944		
12/9/2008	11:42:06	20.578	0.061	492.564	1.221	57.988		
12/9/2008	11:42:16	20.594	0.03	528.718	0.024	67.299		
12/9/2008	11:42:26	20.685	0.03	537.18	0.024	76.913		
12/9/2008	11:42:36	20.807	0.03	492.051	0.024	81.38		
12/9/2008	11:42:46	20.944	0.03	523.333	0.024	82.364		
12/9/2008	11:42:56	20.929	0.03	537.436	0.024	84.786		
12/9/2008	11:43:06	20.883	0.03	505.385	0.024	81.758		
12/9/2008	11:43:16	20.776	0.03	497.949	0.024	67.905		
12/9/2008	11:43:26	20.7	0.061	501.282	4.444	59.048	Post-test mid range calibration drift check	0.03%
12/9/2008	11:43:36	20.624	0.091	539.487	17.363	54.051		
12/9/2008	11:43:46	20.594	0.061	550.513	2.173	51.932		
12/9/2008	11:43:56	20.594	0.03	553.59	0.024	51.629		
12/9/2008	11:44:06	20.761	0.03	319.487	0.024	51.705		
12/9/2008	11:44:16	20.868	0.03	23.077	0.024	52.159		
12/9/2008	11:44:26	20.944	0.03	7.436	0.024	52.537		
12/9/2008	11:44:36	20.898	0.03	0.256	0.024	53.143		
12/9/2008	11:44:46	20.792	0.03	0.256	0.024	52.462		
12/9/2008	11:44:56	20.7	0.091	0.256	0.024	50.947		
12/9/2008	11:45:06	20.609	0.091	0.256	0.684	51.705		
12/9/2008	11:45:16	20.609	0.061	0.256	19.316	53.976	Post-test zero calibration drift check	0.00%
12/9/2008	11:45:26	20.548	0.091	0.256	1.49	57.382		
12/9/2008	11:45:36	20.548	0.03	2.308	0.024	58.215		
12/9/2008	11:45:46	20.67	0.03	2.051	0.024	57.534		
12/9/2008	11:45:56	20.807	0.03	1.538	0.024	57.079		
12/9/2008	11:46:06	20.883	0.03	0.513	0.024	56.398		
12/9/2008	11:46:16	20.929	0.03	0.256	0.024	55.792		
12/9/2008	11:46:26	20.868	0.03	0.256	0.024	55.565		
12/9/2008	11:46:36	20.761	0.03	0.256	0.024	70.933		
12/9/2008	11:46:46	20.639	0.061	0.256	2.198	83.045		
12/9/2008	11:46:56	20.594	0.061	0.256	18.828	86.679		
12/9/2008	11:47:06	20.563	0.03	0.256	2.662	86.527		
12/9/2008	11:47:16	20.578	0.03	0.256	0.024	88.344		
12/9/2008	11:47:26	20.761	0.03	1.538	0.024	78.2		
12/9/2008	11:47:36	20.883	0.061	4.359	0.024	64.952		
12/9/2008	11:47:46	20.929	0.091	116.923	0.024	59.426		
12/9/2008	11:47:56	20.883	0.152	330.769	0.024	57.004		
12/9/2008	11:48:06	20.776	0.183	338.462	0.024	54.43		
12/9/2008	11:48:16	20.685	0.213	326.923	0.024	52.84		
12/9/2008	11:48:26	20.609	0.213	358.974	0.024	52.689		
12/9/2008	11:48:36	20.563	0.213	392.564	21.221	54.581		
12/9/2008	11:48:46	20.533	0.274	398.205	1.197	55.111		
12/9/2008	11:48:56	20.563	0.213	406.154	0.024	54.278		
12/9/2008	11:49:06	20.655	0.091	400.769	0.024	54.884		
12/9/2008	11:49:16	20.776	0.061	407.436	0.024	56.928		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	11:49:26	20.883	0.03	416.667	0.024	58.896		
12/9/2008	11:49:36	20.929	0.061	398.974	0.024	59.605		
12/9/2008	11:49:46	20.883	0.152	384.103	0.024	61.092		
12/9/2008	11:49:56	20.761	0.213	404.872	0.024	61.849		
12/9/2008	11:50:06	20.67	0.213	427.436	1.612	61.092		
12/9/2008	11:50:16	20.609	0.244	400.256	25.348	58.139		
12/9/2008	11:50:26	20.578	0.213	362.821	4.249	57.988		
12/9/2008	11:50:36	20.594	0.091	345.385	0.537	59.048		
12/9/2008	11:50:46	20.716	0.061	365.641	0.024	61.092		
12/9/2008	11:50:56	20.837	0.03	369.487	0.024	75.324		
12/9/2008	11:51:06	20.914	0.061	371.026	0.024	87.739		
12/9/2008	11:51:16	20.883	0.152	349.487	0.024	88.42		
12/9/2008	11:51:26	20.792	0.213	363.846	0.024	86.149		
12/9/2008	11:51:36	20.685	0.213	366.41	0.024	85.619		
12/9/2008	11:51:46	20.609	0.244	374.103	0.024	78.73		
12/9/2008	11:51:56	20.578	0.213	385.641	22.637	65.634		
12/9/2008	11:52:06	20.548	0.244	401.795	1.441	60.335		
12/9/2008	11:52:16	20.563	0.183	408.718	0.024	58.063		
12/9/2008	11:52:26	20.7	0.03	369.487	0.024	57.306		
12/9/2008	11:52:36	20.837	0.03	363.846	0.024	56.474		
12/9/2008	11:52:46	20.898	0.03	387.436	0.024	56.095		
12/9/2008	11:52:56	20.929	0.03	407.436	0.024	56.247		
12/9/2008	11:53:06	20.898	0.03	397.179	0.024	56.095		
12/9/2008	11:53:16	20.807	0.061	422.308	0.024	55.792		
12/9/2008	11:53:26	20.7	0.091	431.282	0.806	54.96		
12/9/2008	11:53:36	20.624	0.091	428.718	24.054	56.247		
12/9/2008	11:53:46	20.563	0.03	433.077	4.054	59.048		
12/9/2008	11:53:56	20.639	0.03	425.897	0.024	61.697		
12/9/2008	11:54:06	20.746	0.03	421.282	0.024	63.287		
12/9/2008	11:54:16	20.837	0.03	459.231	0.024	62.984		
12/9/2008	11:54:26	20.898	0.03	429.487	0.024	62.908		
12/9/2008	11:54:36	20.898	0.03	439.487	0.024	62.151		
12/9/2008	11:54:46	20.807	0.03	390.256	0.024	60.94		
12/9/2008	11:54:56	20.7	0.091	414.615	0.024	60.183		
12/9/2008	11:55:06	20.609	0.122	452.051	0.024	63.211	Start Run #2	
12/9/2008	11:55:16	20.578	0.091	406.41	23.541	79.184		
12/9/2008	11:55:26	20.533	0.061	396.154	1.661	90.313		
12/9/2008	11:55:36	20.578	0.03	374.103	0.024	91.978		
12/9/2008	11:55:46	20.7	0.03	376.667	0.024	89.858		
12/9/2008	11:55:56	20.822	0.03	406.41	0.024	89.328		
12/9/2008	11:56:06	20.914	0.03	426.41	0.024	82.288		
12/9/2008	11:56:16	20.944	0.03	429.231	0.024	67.829		
12/9/2008	11:56:26	20.868	0.03	426.923	0.024	61.849		
12/9/2008	11:56:36	20.792	0.061	429.744	0.024	60.864		
12/9/2008	11:56:46	20.685	0.122	413.59	0.024	59.275		
12/9/2008	11:56:56	20.594	0.091	412.308	23.468	58.139		
12/9/2008	11:57:06	20.594	0.03	430.513	3.59	57.231		
12/9/2008	11:57:16	20.639	0.03	404.103	0.293	57.685		
12/9/2008	11:57:26	20.731	0.03	410.513	0.024	57.306		
12/9/2008	11:57:36	20.822	0.03	454.103	0.024	55.717		
12/9/2008	11:57:46	20.929	0.03	450.256	0.024	57.458		
12/9/2008	11:57:56	20.898	0.03	461.795	0.024	57.912		
12/9/2008	11:58:06	20.761	0.061	467.436	0.024	58.063		
12/9/2008	11:58:16	20.655	0.091	480.513	0.024	57.836		
12/9/2008	11:58:26	20.594	0.091	410.513	0.024	62.984		
12/9/2008	11:58:36	20.533	0.061	430	26.349	66.466		
12/9/2008	11:58:46	20.517	0.091	443.846	2.1	66.769		
12/9/2008	11:58:56	20.563	0.03	492.564	0.024	61.394		
12/9/2008	11:59:06	20.67	0.03	460.769	0.024	60.789		
12/9/2008	11:59:16	20.807	0.03	430.769	0.024	61.697		
12/9/2008	11:59:26	20.914	0.03	441.026	0.024	65.634		
12/9/2008	11:59:36	20.959	0.03	431.795	0.024	77.973		
12/9/2008	11:59:46	20.929	0.03	432.821	0.024	89.48		
12/9/2008	11:59:56	20.853	0.061	403.333	0.024	90.065		
12/9/2008	12:00:06	20.731	0.091	405.897	0.024	89.328		
12/9/2008	12:00:16	20.609	0.091	420.769	27.131	89.177		
12/9/2008	12:00:26	20.594	0.061	438.974	4.005	84.332		
12/9/2008	12:00:36	20.655	0.03	460.513	0.024	68.889		
12/9/2008	12:00:46	20.761	0.03	465.897	0.024	65.028		
12/9/2008	12:00:56	20.868	0.03	460.769	0.024	62.908		
12/9/2008	12:01:06	20.914	0.03	442.821	0.024	61.697		
12/9/2008	12:01:16	20.898	0.03	419.231	0.024	60.713		
12/9/2008	12:01:26	20.822	0.03	431.026	0.024	62.757		
12/9/2008	12:01:36	20.7	0.061	425.385	0.024	63.893		
12/9/2008	12:01:46	20.594	0.091	425.385	0.024	63.741		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	12:01:56	20.517	0.091	435.385	30.159	63.06		
12/9/2008	12:02:06	20.502	0.152	464.103	1.465	60.163		
12/9/2008	12:02:16	20.563	0.03	471.795	0.024	59.805		
12/9/2008	12:02:26	20.67	0.03	451.026	0.024	62.984		
12/9/2008	12:02:36	20.761	0.03	474.615	0.024	61.924		
12/9/2008	12:02:46	20.837	0.03	475.128	0.024	60.486		
12/9/2008	12:02:56	20.944	0.03	464.872	0.024	66.239		
12/9/2008	12:03:06	20.914	0.03	452.051	0.024	76.913		
12/9/2008	12:03:16	20.807	0.061	485.897	0.024	84.408		
12/9/2008	12:03:26	20.685	0.122	472.308	0.024	87.057		
12/9/2008	12:03:36	20.609	0.091	451.282	28.034	89.707		
12/9/2008	12:03:46	20.578	0.183	424.615	4.371	92.659		
12/9/2008	12:03:56	20.624	0.122	410.513	0.342	104.772		
12/9/2008	12:04:06	20.7	0.061	411.026	0.024	112.493		
12/9/2008	12:04:16	20.807	0.061	411.026	0.024	104.62		
12/9/2008	12:04:26	20.853	0.091	436.154	0.024	100.608		
12/9/2008	12:04:36	20.883	0.152	452.308	0.024	103.788		
12/9/2008	12:04:46	20.746	0.244	468.718	0.024	104.62		
12/9/2008	12:04:56	20.609	0.305	477.179	0.024	93.114		
12/9/2008	12:05:06	20.533	0.305	470.769	0.024	87.512		
12/9/2008	12:05:16	20.517	0.274	450.256	29.011	86.603		
12/9/2008	12:05:26	20.487	0.305	448.462	1.343	86.149		
12/9/2008	12:05:36	20.487	0.183	412.564	0.024	88.647		
12/9/2008	12:05:46	20.639	0.091	410.513	0.024	84.559		
12/9/2008	12:05:56	20.807	0.03	449.744	0.024	76.686		
12/9/2008	12:06:06	20.883	0.03	438.974	0.024	70.933		
12/9/2008	12:06:16	20.959	0.03	445.897	0.024	67.905		
12/9/2008	12:06:26	20.883	0.091	445.385	0.024	65.785		
12/9/2008	12:06:36	20.853	0.213	464.103	0.024	64.271		
12/9/2008	12:06:46	20.716	0.244	508.462	0.024	63.211		
12/9/2008	12:06:56	20.609	0.274	486.667	32.796	64.422		
12/9/2008	12:07:06	20.533	0.244	486.923	4.567	64.877		
12/9/2008	12:07:16	20.578	0.152	515.385	0.024	65.179		
12/9/2008	12:07:26	20.716	0.091	480.769	0.024	68.889		
12/9/2008	12:07:36	20.853	0.03	471.282	0.024	74.188		
12/9/2008	12:07:46	20.914	0.03	440.513	0.024	82.364		
12/9/2008	12:07:56	20.914	0.091	423.333	0.024	85.543		
12/9/2008	12:08:06	20.853	0.183	446.923	0.024	86.149		
12/9/2008	12:08:16	20.731	0.244	444.103	0.024	95.99		
12/9/2008	12:08:26	20.594	0.274	443.846	0.024	102.425		
12/9/2008	12:08:36	20.548	0.274	430.513	28.303	98.186		
12/9/2008	12:08:46	20.517	0.274	439.744	0.952	95.687		
12/9/2008	12:08:56	20.517	0.213	452.821	0.024	99.018		
12/9/2008	12:09:06	20.639	0.03	472.564	0.024	98.261		
12/9/2008	12:09:16	20.776	0.03	478.205	0.024	88.799		
12/9/2008	12:09:26	20.853	0.03	456.41	0.024	86.225		
12/9/2008	12:09:36	20.944	0.03	445.128	0.024	85.922		
12/9/2008	12:09:46	20.944	0.03	419.487	0.024	84.181		
12/9/2008	12:09:56	20.822	0.03	424.872	0.024	78.882		
12/9/2008	12:10:06	20.7	0.091	471.795	0.024	70.327		
12/9/2008	12:10:16	20.609	0.091	490.513	33.48	66.012		
12/9/2008	12:10:26	20.548	0.091	480.769	4.933	64.801		
12/9/2008	12:10:36	20.578	0.03	508.462	0.024	64.877		
12/9/2008	12:10:46	20.67	0.03	500.256	0.024	65.255		
12/9/2008	12:10:56	20.776	0.03	520.256	0.024	65.331		
12/9/2008	12:11:06	20.853	0.03	497.179	0.024	65.558		
12/9/2008	12:11:16	20.898	0.03	468.974	0.024	65.407		
12/9/2008	12:11:26	20.792	0.03	483.846	0.024	71.69		
12/9/2008	12:11:36	20.655	0.091	495.385	0.024	75.626		
12/9/2008	12:11:46	20.578	0.122	499.231	0.024	78.276		
12/9/2008	12:11:56	20.533	0.122	498.974	33.431	79.639		
12/9/2008	12:12:06	20.457	0.122	554.872	1.734	80.698		
12/9/2008	12:12:16	20.487	0.03	538.205	0.024	80.774		
12/9/2008	12:12:26	20.639	0.03	468.205	0.024	81.38		
12/9/2008	12:12:36	20.792	0.03	428.974	0.024	91.07		
12/9/2008	12:12:46	20.883	0.03	437.179	0.024	97.731		
12/9/2008	12:12:56	20.944	0.03	436.667	0.024	99.775		
12/9/2008	12:13:06	20.883	0.03	449.231	0.024	106.513		
12/9/2008	12:13:16	20.822	0.061	428.974	0.024	110.374		
12/9/2008	12:13:26	20.655	0.122	456.154	0.024	109.541		
12/9/2008	12:13:36	20.578	0.122	460.256	30.647	112.039		
12/9/2008	12:13:46	20.502	0.091	476.667	3.932	99.851		
12/9/2008	12:13:56	20.578	0.03	485.641	0.024	81.91		
12/9/2008	12:14:06	20.716	0.03	476.974	0.024	73.885		
12/9/2008	12:14:16	20.792	0.03	462.821	0.024	72.068		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	12:14:26	20.853	0.03	473.333	0.024	68.662		
12/9/2008	12:14:36	20.868	0.03	437.179	0.024	67.148		
12/9/2008	12:14:46	20.776	0.061	458.974	0.024	66.542		
12/9/2008	12:14:56	20.685	0.091	479.487	0.024	67.526		
12/9/2008	12:15:06	20.578	0.122	458.718	0.024	68.208		
12/9/2008	12:15:16	20.517	0.091	473.59	34.017	68.283		
12/9/2008	12:15:26	20.517	0.091	500.769	1.661	68.208		
12/9/2008	12:15:36	20.548	0.03	502.821	0.024	68.965		
12/9/2008	12:15:46	20.7	0.03	495.385	0.024	72.825		
12/9/2008	12:15:56	20.776	0.03	470.769	0.024	77.67		
12/9/2008	12:16:06	20.883	0.03	492.821	0.024	81.758		
12/9/2008	12:16:16	20.898	0.03	475.385	0.024	81.91		
12/9/2008	12:16:26	20.944	0.03	505.385	0.024	79.336		
12/9/2008	12:16:36	20.822	0.03	499.744	0.024	76.005		
12/9/2008	12:16:46	20.7	0.091	479.231	0.024	73.204		
12/9/2008	12:16:56	20.624	0.091	435.641	33.626	73.204		
12/9/2008	12:17:06	20.548	0.03	424.359	5.031	75.021		
12/9/2008	12:17:16	20.624	0.03	427.436	0.464	82.894		
12/9/2008	12:17:26	20.761	0.03	406.667	0.024	103.182		
12/9/2008	12:17:36	20.822	0.03	403.59	0.024	109.238		
12/9/2008	12:17:46	20.868	0.03	422.564	0.024	106.286		
12/9/2008	12:17:56	20.837	0.03	453.077	0.024	99.321		
12/9/2008	12:18:06	20.776	0.061	453.077	0.024	98.943		
12/9/2008	12:18:16	20.685	0.091	466.154	0.024	83.424		
12/9/2008	12:18:26	20.578	0.091	428.718	0.024	75.172		
12/9/2008	12:18:36	20.533	0.061	438.718	36.19	72.523		
12/9/2008	12:18:46	20.517	0.091	436.923	2.418	70.706		
12/9/2008	12:18:56	20.548	0.03	428.718	0.024	71.841		
12/9/2008	12:19:06	20.639	0.03	446.41	0.024	70.252		
12/9/2008	12:19:16	20.746	0.03	475.897	0.024	68.586		
12/9/2008	12:19:26	20.837	0.03	452.564	0.024	70.252		
12/9/2008	12:19:36	20.914	0.03	442.564	0.024	71.841		
12/9/2008	12:19:46	20.883	0.03	473.333	0.024	73.28		
12/9/2008	12:19:56	20.761	0.061	502.821	0.024	73.053		
12/9/2008	12:20:06	20.609	0.122	516.154	0.024	76.686		
12/9/2008	12:20:16	20.548	0.152	480	32.503	83.272		
12/9/2008	12:20:26	20.517	0.061	482.564	5.275	86.603		
12/9/2008	12:20:36	20.578	0.03	459.231	0.708	88.95		
12/9/2008	12:20:46	20.685	0.03	480.769	0.024	86.042		
12/9/2008	12:20:56	20.792	0.03	483.077	0.024	82.515		
12/9/2008	12:21:06	20.853	0.03	480.256	0.024	80.623		
12/9/2008	12:21:16	20.868	0.03	458.462	0.024	79.487		
12/9/2008	12:21:26	20.761	0.061	469.744	0.024	79.563		
12/9/2008	12:21:36	20.624	0.122	474.103	0.024	83.348		
12/9/2008	12:21:46	20.533	0.152	474.872	0.024	102.728		
12/9/2008	12:21:56	20.487	0.122	448.205	24.2	108.405		
12/9/2008	12:22:06	20.472	0.122	453.846	0.83	105.453		
12/9/2008	12:22:16	20.502	0.03	457.179	0.024	101.214		
12/9/2008	12:22:26	20.639	0.03	453.333	0.024	100.305		
12/9/2008	12:22:36	20.746	0.03	457.692	0.024	85.165		
12/9/2008	12:22:46	20.822	0.03	445.897	0.024	76.081		
12/9/2008	12:22:56	20.883	0.03	432.308	0.024	72.523		
12/9/2008	12:23:06	20.868	0.03	429.231	0.024	69.57		
12/9/2008	12:23:16	20.807	0.03	417.436	0.024	70.403		
12/9/2008	12:23:26	20.685	0.091	439.231	0.024	69.495		
12/9/2008	12:23:36	20.609	0.091	469.744	27.228	69.797		
12/9/2008	12:23:46	20.517	0.091	494.872	3.321	70.479		
12/9/2008	12:23:56	20.548	0.03	479.487	0.024	70.1		
12/9/2008	12:24:06	20.655	0.03	483.333	0.024	70.176		
12/9/2008	12:24:16	20.776	0.03	476.667	0.024	73.128		
12/9/2008	12:24:26	20.822	0.03	506.41	0.024	78.882		
12/9/2008	12:24:36	20.853	0.03	505.385	0.024	83.197		
12/9/2008	12:24:46	20.716	0.091	475.641	0.024	86.073		
12/9/2008	12:24:56	20.609	0.122	477.436	0.024	85.695		
12/9/2008	12:25:06	20.548	0.091	498.718	0.024	83.499		
12/9/2008	12:25:16	20.487	0.091	484.103	28.107	79.336		
12/9/2008	12:25:26	20.472	0.091	473.846	2.295	79.411		
12/9/2008	12:25:36	20.517	0.03	441.282	0.024	81.001		
12/9/2008	12:25:46	20.639	0.03	445.385	0.024	80.926		
12/9/2008	12:25:56	20.761	0.03	467.949	0.024	86.149		
12/9/2008	12:26:06	20.837	0.03	462.308	0.024	104.015		
12/9/2008	12:26:16	20.868	0.03	466.923	0.024	107.27		
12/9/2008	12:26:26	20.868	0.03	454.872	0.024	105.302		
12/9/2008	12:26:36	20.761	0.061	466.923	0.024	101.289		
12/9/2008	12:26:46	20.639	0.122	485.385	0.244	100.078		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	12:26:56	20.548	0.122	497.692	26.593	84.105		
12/9/2008	12:27:06	20.517	0.244	500.769	3.785	76.081		
12/9/2008	12:27:16	20.563	0.152	480.256	0.024	74.112		
12/9/2008	12:27:26	20.685	0.091	473.333	0.024	71.16		
12/9/2008	12:27:36	20.776	0.061	431.026	0.024	72.523		
12/9/2008	12:27:46	20.868	0.03	421.795	0.024	72.068		
12/9/2008	12:27:56	20.868	0.091	452.821	0.024	73.128		
12/9/2008	12:28:06	20.792	0.213	460.256	0.024	72.523		
12/9/2008	12:28:16	20.639	0.274	476.923	0.024	70.63		
12/9/2008	12:28:26	20.517	0.335	473.333	0.024	69.949		
12/9/2008	12:28:36	20.487	0.305	478.462	24.982	73.658		
12/9/2008	12:28:46	20.472	0.274	478.205	1.929	81.304		
12/9/2008	12:28:56	20.517	0.183	460	0.024	87.587		
12/9/2008	12:29:06	20.639	0.091	446.667	0.024	91.07		
12/9/2008	12:29:16	20.746	0.061	477.692	0.024	89.858		
12/9/2008	12:29:26	20.837	0.061	538.974	0.024	85.392		
12/9/2008	12:29:36	20.837	0.091	544.359	0.024	79.563		
12/9/2008	12:29:46	20.853	0.152	509.231	0.024	78.427		
12/9/2008	12:29:56	20.776	0.213	449.744	0.024	79.866		
12/9/2008	12:30:06	20.685	0.244	423.59	0.293	82.969		
12/9/2008	12:30:16	20.609	0.244	435.641	25.421	91.978		
12/9/2008	12:30:26	20.548	0.213	427.436	3.98	111.433		
12/9/2008	12:30:36	20.594	0.122	407.692	0.073	114.462		
12/9/2008	12:30:46	20.7	0.061	401.026	0.024	110.298		
12/9/2008	12:30:56	20.807	0.03	416.154	0.024	105.756		
12/9/2008	12:31:06	20.883	0.061	420.513	0.024	103.031		
12/9/2008	12:31:16	20.853	0.122	456.923	0.024	86.225		
12/9/2008	12:31:26	20.761	0.183	455.641	0.024	77.14		
12/9/2008	12:31:36	20.639	0.274	454.615	0.024	74.339		
12/9/2008	12:31:46	20.533	0.274	448.718	0	70.933		
12/9/2008	12:31:56	20.517	0.244	419.744	26.081	72.523		
12/9/2008	12:32:06	20.487	0.274	424.359	1.636	73.507		
12/9/2008	12:32:16	20.533	0.152	433.077	0.024	73.658		
12/9/2008	12:32:26	20.639	0.091	438.974	0.024	72.977		
12/9/2008	12:32:36	20.761	0.03	444.359	0.024	72.75		
12/9/2008	12:32:46	20.853	0.03	438.462	0.024	72.22		
12/9/2008	12:32:56	20.898	0.03	444.615	0.024	73.431		
12/9/2008	12:33:06	20.898	0.03	471.538	0.024	79.79		
12/9/2008	12:33:16	20.837	0.03	468.462	0.024	86.225		
12/9/2008	12:33:26	20.716	0.061	465.385	0.024	90.01		
12/9/2008	12:33:36	20.624	0.091	468.974	29.768	88.723		
12/9/2008	12:33:46	20.548	0.091	484.615	4.957	88.193		
12/9/2008	12:33:56	20.563	0.03	501.282	0.024	81.38		
12/9/2008	12:34:06	20.655	0.03	499.487	0.024	78.579		
12/9/2008	12:34:16	20.761	0.03	478.718	0.024	79.109		
12/9/2008	12:34:26	20.853	0.03	467.436	0.024	82.137		
12/9/2008	12:34:36	20.883	0.03	460.769	0.024	89.404		
12/9/2008	12:34:46	20.761	0.03	436.923	0.024	108.86		
12/9/2008	12:34:56	20.639	0.091	443.077	0.024	114.689		
12/9/2008	12:35:06	20.578	0.122	425.897	0.024	112.569		
12/9/2008	12:35:16	20.487	0.122	468.205	27.179	106.664		
12/9/2008	12:35:26	20.472	0.152	479.231	1.221	103.106		
12/9/2008	12:35:36	20.472	0.061	507.692	0.024	86.962		
12/9/2008	12:35:46	20.609	0.03	506.923	0.024	77.443		
12/9/2008	12:35:56	20.731	0.03	446.154	0.024	75.399		
12/9/2008	12:36:06	20.837	0.03	441.538	0.024	73.658		
12/9/2008	12:36:16	20.898	0.03	404.872	0.024	75.551		
12/9/2008	12:36:26	20.883	0.03	416.462	0.024	74.587		
12/9/2008	12:36:36	20.807	0.061	479.487	0.024	73.885		
12/9/2008	12:36:46	20.67	0.122	493.59	0.024	73.204		
12/9/2008	12:36:56	20.578	0.122	488.205	29.939	72.598		
12/9/2008	12:37:06	20.517	0.091	496.41	4.347	73.204		
12/9/2008	12:37:16	20.563	0.03	519.487	0.024	75.399		
12/9/2008	12:37:26	20.685	0.03	531.795	0.024	80.168		
12/9/2008	12:37:36	20.776	0.03	496.923	0.024	84.786		
12/9/2008	12:37:46	20.822	0.03	529.231	0.024	86.527		
12/9/2008	12:37:56	20.837	0.03	496.923	0.024	85.922		
12/9/2008	12:38:06	20.761	0.091	500.256	0.024	83.348		
12/9/2008	12:38:16	20.639	0.122	506.41	0.024	79.563		
12/9/2008	12:38:26	20.548	0.152	490.513	0.024	78.049		
12/9/2008	12:38:36	20.487	0.122	455.128	28.449	78.2		
12/9/2008	12:38:46	20.487	0.122	464.103	1.832	81.077		
12/9/2008	12:38:56	20.517	0.03	455.385	0.024	90.313		
12/9/2008	12:39:06	20.624	0.03	453.59	0.024	109.011		
12/9/2008	12:39:16	20.761	0.03	431.795	0.024	113.629		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	12:39:26	20.822	0.03	429.231	0.024	111.055		
12/9/2008	12:39:36	20.883	0.03	445.641	0.024	106.437		
12/9/2008	12:39:46	20.883	0.03	445.897	0.024	103.106		
12/9/2008	12:39:56	20.792	0.03	473.846	0.024	86.527		
12/9/2008	12:40:06	20.685	0.091	481.538	0.024	79.033		
12/9/2008	12:40:16	20.609	0.061	464.872	33.138	76.232		
12/9/2008	12:40:26	20.578	0.061	441.282	5.665	73.81		
12/9/2008	12:40:36	20.609	0.03	417.949	0.879	75.475		
12/9/2008	12:40:46	20.685	0.03	449.487	0.024	74.718		
12/9/2008	12:40:56	20.761	0.03	488.205	0.024	73.507		
12/9/2008	12:41:06	20.837	0.03	484.872	0.024	72.371		
12/9/2008	12:41:16	20.807	0.03	487.179	0.024	71.084		
12/9/2008	12:41:26	20.716	0.091	498.205	0.024	71.16		
12/9/2008	12:41:36	20.594	0.305	495.641	0.024	73.507		
12/9/2008	12:41:46	20.517	0.335	501.538	0.024	78.503		
12/9/2008	12:41:56	20.472	0.335	510	33.187	84.408		
12/9/2008	12:42:06	20.457	0.335	499.231	2.027	88.647		
12/9/2008	12:42:16	20.472	0.213	496.667	0.024	91.978		
12/9/2008	12:42:26	20.594	0.152	526.41	0.024	86.906		
12/9/2008	12:42:36	20.716	0.122	529.231	0.024	81.153		
12/9/2008	12:42:46	20.776	0.091	512.308	0.024	78.654		
12/9/2008	12:42:56	20.853	0.091	470.256	0.024	80.093		
12/9/2008	12:43:06	20.868	0.122	455.897	0.024	83.272		
12/9/2008	12:43:16	20.822	0.213	453.333	0.024	92.886		
12/9/2008	12:43:26	20.716	0.244	444.359	0.024	111.206		
12/9/2008	12:43:36	20.609	0.244	443.077	30.379	113.25		
12/9/2008	12:43:46	20.578	0.213	430.256	4.615	110.298		
12/9/2008	12:43:56	20.609	0.122	462.308	0.024	105.302		
12/9/2008	12:44:06	20.7	0.091	474.615	0.024	102.274		
12/9/2008	12:44:16	20.792	0.091	502.308	0.024	85.468		
12/9/2008	12:44:26	20.837	0.091	501.795	0.024	79.184		
12/9/2008	12:44:36	20.822	0.183	482.308	0.024	75.096		
12/9/2008	12:44:46	20.7	0.274	476.154	0.024	73.128		
12/9/2008	12:44:56	20.578	0.305	451.026	0.024	71.841		
12/9/2008	12:45:06	20.517	0.335	457.179	0.024	73.885		
12/9/2008	12:45:16	20.517	0.274	459.487	31.966	75.248		
12/9/2008	12:45:26	20.502	0.274	435.128	2.54	75.096		
12/9/2008	12:45:36	20.502	0.213	438.205	0.024	74.112		
12/9/2008	12:45:46	20.609	0.122	442.821	0.024	73.507		
12/9/2008	12:45:56	20.731	0.061	452.821	0.024	73.204		
12/9/2008	12:46:06	20.807	0.061	461.795	0.024	74.264		
12/9/2008	12:46:16	20.853	0.091	469.231	0.024	75.626		
12/9/2008	12:46:26	20.868	0.183	488.718	0.024	76.913		
12/9/2008	12:46:36	20.746	0.244	486.41	0.024	78.427		
12/9/2008	12:46:46	20.655	0.305	510.256	0.024	78.882		
12/9/2008	12:46:56	20.533	0.305	517.18	33.626	77.897		
12/9/2008	12:47:06	20.517	0.274	503.077	4.982	79.033		
12/9/2008	12:47:16	20.563	0.183	553.846	0.024	84.559		
12/9/2008	12:47:26	20.716	0.091	511.538	0.024	88.95		
12/9/2008	12:47:36	20.761	0.061	453.077	0.024	101.365		
12/9/2008	12:47:46	20.837	0.061	408.41	0.024	115.219		
12/9/2008	12:47:56	20.853	0.122	418.718	0.024	113.477		
12/9/2008	12:48:06	20.761	0.213	424.615	0.024	107.421		
12/9/2008	12:48:16	20.639	0.274	422.564	0.024	106.437		
12/9/2008	12:48:26	20.548	0.274	410.513	0.024	108.86		
12/9/2008	12:48:36	20.502	0.274	426.41	30.281	109.314		
12/9/2008	12:48:46	20.502	0.274	427.949	2.295	113.099		
12/9/2008	12:48:56	20.472	0.213	445.385	0.024	105.756		
12/9/2008	12:49:06	20.563	0.152	491.026	0.024	91.372		
12/9/2008	12:49:16	20.7	0.091	459.487	0.024	85.392		
12/9/2008	12:49:26	20.807	0.061	428.462	0.024	81.228		
12/9/2008	12:49:36	20.868	0.061	439.231	0.024	76.838		
12/9/2008	12:49:46	20.883	0.122	417.179	0.024	77.822		
12/9/2008	12:49:56	20.761	0.213	431.282	0.024	76.383		
12/9/2008	12:50:06	20.639	0.274	474.615	0.024	74.491		
12/9/2008	12:50:16	20.533	0.335	496.667	32.259	74.567		
12/9/2008	12:50:26	20.457	0.426	494.359	4.762	74.415		
12/9/2008	12:50:36	20.563	0.152	454.359	0.708	76.838		
12/9/2008	12:50:46	20.685	0.091	452.821	0.024	75.399		
12/9/2008	12:50:56	20.746	0.091	511.538	0.024	73.81		
12/9/2008	12:51:06	20.822	0.091	495.385	0.024	77.746		
12/9/2008	12:51:16	20.837	0.122	473.846	0.024	84.559		
12/9/2008	12:51:26	20.776	0.213	453.59	0.024	89.101		
12/9/2008	12:51:36	20.624	0.305	527.949	0.024	91.751		
12/9/2008	12:51:46	20.502	0.335	533.077	0.024	89.253		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	12:51:56	20.472	0.305	498.974	35.653	87.587		
12/9/2008	12:52:06	20.457	0.274	432.051	3.004	82.894		
12/9/2008	12:52:16	20.517	0.152	452.308	0.024	81.001		
12/9/2008	12:52:26	20.594	0.122	499.231	0.024	84.559		
12/9/2008	12:52:36	20.716	0.122	486.667	0.024	104.393		
12/9/2008	12:52:46	20.822	0.061	434.359	0.024	112.19		
12/9/2008	12:52:56	20.883	0.061	432.051	0.024	112.872		
12/9/2008	12:53:06	20.853	0.152	480.769	0.024	111.206		
12/9/2008	12:53:16	20.746	0.244	483.59	0.024	108.784		
12/9/2008	12:53:26	20.624	0.426	476.41	0.024	92.281		
12/9/2008	12:53:36	20.578	0.426	469.231	37.485	83.045		
12/9/2008	12:53:46	20.517	0.396	457.436	6.252	78.276		
12/9/2008	12:53:56	20.563	0.305	480.769	0.486	74.112		
12/9/2008	12:54:06	20.655	0.244	452.308	0.024	74.567		
12/9/2008	12:54:16	20.761	0.244	456.667	0.024	74.339		
12/9/2008	12:54:26	20.868	0.244	483.846	0.024	75.853		
12/9/2008	12:54:36	20.837	0.305	484.615	0.024	76.838		
12/9/2008	12:54:46	20.761	0.396	473.846	0.024	76.232		
12/9/2008	12:54:56	20.609	0.426	456.641	0.024	76.459	End Run #2	
12/9/2008	12:55:06	20.533	0.426	435.128	0.024	76.579		
12/9/2008	12:55:16	20.472	0.426	476.897	35.238	84.786		
12/9/2008	12:55:26	20.457	0.426	493.077	2.93	90.842		
12/9/2008	12:55:36	20.457	0.213	471.026	0.024	95.158		
12/9/2008	12:55:46	20.563	0.152	497.179	0.024	93.416		
12/9/2008	12:55:56	20.685	0.122	532.051	0.024	90.464		
12/9/2008	12:56:06	20.792	0.091	547.18	0.024	85.695		
12/9/2008	12:56:16	20.868	0.061	522.308	0.024	84.029		
12/9/2008	12:56:26	20.883	0.122	468.718	0.024	85.392		
12/9/2008	12:56:36	20.807	0.183	456.923	0.024	87.966		
12/9/2008	12:56:46	20.685	0.244	446.667	0.024	95.309		
12/9/2008	12:56:56	20.624	0.274	455.385	34.579	114.613		
12/9/2008	12:57:06	20.533	0.244	472.051	5.275	117.944		
12/9/2008	12:57:16	20.578	0.213	458.718	0.464	114.991		
12/9/2008	12:57:26	19.741	2.376	492.564	0.024	109.011		
12/9/2008	12:57:36	15.141	6.276	484.359	0.024	108.33		
12/9/2008	12:57:46	8.987	8.225	493.333	0.024	91.675		
12/9/2008	12:57:56	4.509	9.292	494.103	0.024	82.137		
12/9/2008	12:58:06	1.813	9.688	474.615	0.024	78.2		
12/9/2008	12:58:16	0.305	9.901	421.538	0.024	75.702		
12/9/2008	12:58:26	0.015	10.023	394.103	0.024	78.427		
12/9/2008	12:58:36	0.015	10.084	383.333	32.161	78.806		
12/9/2008	12:58:46	0.015	10.084	411.282	2.466	78.427		
12/9/2008	12:58:56	0.015	9.992	421.538	0.024	78.427		
12/9/2008	12:59:06	0.015	10.023	433.59	0.024	77.973		
12/9/2008	12:59:16	0.015	10.023	444.872	0.024	78.503	Mid range drift check	0.00%
12/9/2008	12:59:26	0.015	10.023	403.846	0.024	80.471	Zero drift check	0.00%
12/9/2008	12:59:36	0.015	9.992	423.077	0.024	83.272		
12/9/2008	12:59:46	0.015	8.073	423.846	0.024	87.057		
12/9/2008	12:59:56	1.995	5.209	455.128	0.024	89.707		
12/9/2008	13:00:06	7.464	2.681	451.795	0.024	93.038		
12/9/2008	13:00:16	12.399	1.158	459.487	35.971	93.341		
12/9/2008	13:00:26	15.994	0.487	417.436	6.74	87.966		
12/9/2008	13:00:36	18.248	0.091	420.769	1.294	84.938		
12/9/2008	13:00:46	19.588	0.03	435.897	0.024	83.802		
12/9/2008	13:00:56	20.335	0.03	441.795	0.024	86.225		
12/9/2008	13:01:06	20.731	0.03	431.795	0.024	93.795		
12/9/2008	13:01:16	20.944	0.03	426.154	0.024	113.25		
12/9/2008	13:01:26	20.883	0.03	401.026	0.024	116.808		
12/9/2008	13:01:36	20.944	0.03	382.821	0.024	112.569		
12/9/2008	13:01:46	20.914	0.03	384.872	0.024	109.389		
12/9/2008	13:01:56	20.914	0.03	381.026	31.355	108.405		
12/9/2008	13:02:06	20.868	0.03	416.41	2.637	92.735		
12/9/2008	13:02:16	20.898	0.03	430	0.024	83.651	Hi range drift check	0.00%
12/9/2008	13:02:26	20.868	0.03	413.59	0.024	81.228	Zero drift check	0.00%
12/9/2008	13:02:36	20.883	0.03	422.821	0.024	78.2		
12/9/2008	13:02:46	20.883	0.03	385.128	0.024	78.806		
12/9/2008	13:02:56	20.822	0.03	376.667	0.024	78.503		
12/9/2008	13:03:06	20.746	0.061	394.359	5.006	78.125		
12/9/2008	13:03:16	20.578	0.152	403.846	28.303	76.838		
12/9/2008	13:03:26	20.426	0.244	408.462	34.872	76.611		
12/9/2008	13:03:36	20.289	0.244	420.256	36.484	76.913		
12/9/2008	13:03:46	20.243	0.244	424.615	36.947	79.184		
12/9/2008	13:03:56	20.259	0.213	442.821	29.646	83.954		
12/9/2008	13:04:06	20.365	0.152	437.692	25.69	88.95		
12/9/2008	13:04:16	20.441	0.122	444.872	24.2	93.265		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	13:04:26	20.502	0.122	423.59	23.297	96.444		
12/9/2008	13:04:36	20.533	0.152	453.333	24.713	93.265		
12/9/2008	13:04:46	20.441	0.274	451.795	25.275	87.814		
12/9/2008	13:04:56	20.319	0.305	443.077	25.397	84.862		
12/9/2008	13:05:06	20.213	0.335	434.103	26.201	84.635	Post-test low range calibration drift check	0.18%
12/9/2008	13:05:16	20.152	0.335	425.128	25.69	87.69		
12/9/2008	13:05:26	20.137	0.335	437.949	39.634	95.365		
12/9/2008	13:05:36	20.152	0.213	427.949	0.024	114.31		
12/9/2008	13:05:46	20.259	0.152	417.692	0.024	118.928		
12/9/2008	13:05:56	20.396	0.091	393.333	0.024	116.733		
12/9/2008	13:06:06	20.487	0.061	398.718	0.024	112.116	Post-test zero calibration drift check	0.00%
12/9/2008	13:06:16	20.548	0.061	397.692	0.024	112.116		
12/9/2008	13:06:26	20.548	0.152	416.667	0.024	94.93		
12/9/2008	13:06:36	20.487	0.244	438.462	0.024	85.846		
12/9/2008	13:06:46	20.365	0.274	423.846	1.294	81.077		
12/9/2008	13:06:56	20.259	0.274	427.179	28.376	78.654		
12/9/2008	13:07:06	20.198	0.244	398.718	5.275	76.005		
12/9/2008	13:07:16	20.213	0.152	396.923	0.977	76.535		
12/9/2008	13:07:26	20.35	0.122	404.872	0.024	79.033		
12/9/2008	13:07:36	20.441	0.091	409.744	0.024	80.623		
12/9/2008	13:07:46	20.548	0.091	413.846	0.024	80.774		
12/9/2008	13:07:56	20.517	0.183	439.744	0.024	80.85		
12/9/2008	13:08:06	20.441	0.274	439.231	0.024	62.908		
12/9/2008	13:08:16	20.304	0.305	457.949	0.024	29.978		
12/9/2008	13:08:26	20.213	0.335	452.821	0.024	23.619		
12/9/2008	13:08:36	20.152	0.335	446.923	33.431	20.667		
12/9/2008	13:08:46	20.137	0.335	421.795	2.979	19.077		
12/9/2008	13:08:56	20.167	0.213	453.59	0.073	17.866		
12/9/2008	13:09:06	20.304	0.152	448.974	0.024	16.957		
12/9/2008	13:09:16	20.396	0.091	439.231	0.024	16.352		
12/9/2008	13:09:26	20.487	0.091	404.103	0.024	15.519		
12/9/2008	13:09:36	20.533	0.091	400.513	0.024	14.838		
12/9/2008	13:09:46	20.563	0.091	407.436	0.024	14.308		
12/9/2008	13:09:56	20.517	0.213	415.128	0.024	14.005		
12/9/2008	13:10:06	20.38	0.244	407.179	0.024	13.853		
12/9/2008	13:10:16	20.289	0.244	395.128	26.4	13.702		
12/9/2008	13:10:26	20.243	0.244	415.641	4.542	13.324		
12/9/2008	13:10:36	20.274	0.183	407.949	0.928	13.778		
12/9/2008	13:10:46	20.335	0.122	422.051	0.024	13.096		
12/9/2008	13:10:56	20.457	0.091	427.436	0.024	12.869		
12/9/2008	13:11:06	20.517	0.091	423.077	0.024	13.324		
12/9/2008	13:11:16	20.517	0.152	412.821	0.024	12.718		
12/9/2008	13:11:26	20.411	0.244	385.385	0.024	12.339		
12/9/2008	13:11:36	20.304	0.274	387.949	0.024	12.339		
12/9/2008	13:11:46	20.213	0.305	417.436	0.024	11.885		
12/9/2008	13:11:56	20.167	0.335	443.077	29.451	11.658		
12/9/2008	13:12:06	20.152	0.457	451.026	2.173	11.431		
12/9/2008	13:12:16	20.152	0.396	448.974	0.024	11.28		
12/9/2008	13:12:26	20.289	0.305	446.667	0.024	11.28		
12/9/2008	13:12:36	20.396	0.274	458.718	0.024	11.885		
12/9/2008	13:12:46	20.502	0.274	460.513	0.024	11.507		
12/9/2008	13:12:56	20.533	0.274	445.897	0.024	11.885		
12/9/2008	13:13:06	20.563	0.274	436.154	0.024	11.81		
12/9/2008	13:13:16	20.487	0.396	463.077	0.024	11.81		
12/9/2008	13:13:26	20.38	0.426	450.513	0.024	11.961		
12/9/2008	13:13:36	20.259	0.426	426.41	33.187	11.81		
12/9/2008	13:13:46	20.213	0.396	390	6.154	12.112		
12/9/2008	13:13:56	20.243	0.305	398.718	1.368	11.355		
12/9/2008	13:14:06	20.365	0.244	413.077	0.024	11.582		
12/9/2008	13:14:16	20.457	0.213	406.154	0.024	11.204		
12/9/2008	13:14:26	20.533	0.244	397.179	0.024	10.977		
12/9/2008	13:14:36	20.533	0.305	404.872	0.024	10.75		
12/9/2008	13:14:46	20.441	0.396	429.487	0.024	10.623		
12/9/2008	13:14:56	20.319	0.457	422.051	0.024	10.977		
12/9/2008	13:15:06	20.213	0.457	439.231	0.024	10.901		
12/9/2008	13:15:16	20.152	0.457	445.128	32.503	10.523		
12/9/2008	13:15:26	20.137	0.457	419.487	2.808	10.76		
12/9/2008	13:15:36	20.152	0.366	437.692	0.024	10.447		
12/9/2008	13:15:46	20.259	0.305	412.308	0.024	10.295		
12/9/2008	13:15:56	20.411	0.244	406.923	0.024	10.447		
12/9/2008	13:16:06	20.487	0.213	429.744	0.024	10.22		
12/9/2008	13:16:16	20.533	0.213	401.538	0.024	11.431		
12/9/2008	13:16:26	20.563	0.305	411.282	0.024	11.431		
12/9/2008	13:16:36	20.472	0.396	448.462	0.024	9.917		
12/9/2008	13:16:46	20.335	0.426	431.026	0.024	10.144		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	13:16:56	20.259	0.274	415.128	31.136	11.658		
12/9/2008	13:17:06	20.213	0.274	441.795	5.47	11.355		
12/9/2008	13:17:16	20.213	0.213	460.513	0.611	9.841		
12/9/2008	13:17:26	20.274	0.122	411.538	0.024	10.901		
12/9/2008	13:17:36	20.426	0.091	446.41	0.024	11.507		
12/9/2008	13:17:46	20.517	0.091	464.872	0.024	10.144		
12/9/2008	13:17:56	20.517	0.152	454.359	0.024	10.22		
12/9/2008	13:18:06	20.472	0.244	426.923	0.024	9.917		
12/9/2008	13:18:16	20.35	0.274	412.821	0.024	10.144		
12/9/2008	13:18:26	20.243	0.305	421.795	0.024	10.523		
12/9/2008	13:18:36	20.167	0.274	417.179	31.648	10.22		
12/9/2008	13:18:46	20.152	0.305	419.487	2.515	9.993		
12/9/2008	13:18:56	20.152	0.213	431.538	0.024	9.69		
12/9/2008	13:19:06	20.304	0.152	426.154	0.024	10.22		
12/9/2008	13:19:16	20.411	0.091	409.487	0.024	11.28		
12/9/2008	13:19:26	20.517	0.061	411.026	0.024	11.507		
12/9/2008	13:19:36	20.533	0.061	424.103	0.024	10.75		
12/9/2008	13:19:46	20.578	0.152	436.923	0.024	9.69		
12/9/2008	13:19:56	20.457	0.244	432.308	0.024	9.69		
12/9/2008	13:20:06	20.365	0.274	374.615	0.244	11.658		
12/9/2008	13:20:16	20.274	0.274	376.154	26.593	11.204		
12/9/2008	13:20:26	20.213	0.244	422.308	4.664	9.841		
12/9/2008	13:20:36	20.259	0.183	444.872	0.537	9.463		
12/9/2008	13:20:46	20.35	0.122	404.872	0.024	10.674		
12/9/2008	13:20:56	20.457	0.061	414.615	0.024	10.068		
12/9/2008	13:21:06	20.533	0.091	431.282	0.024	10.523		
12/9/2008	13:21:16	20.533	0.183	438.974	0.024	10.977		
12/9/2008	13:21:26	20.441	0.244	81.538	0.024	10.598		
12/9/2008	13:21:36	20.319	0.274	31.538	0.024	10.295		
12/9/2008	13:21:46	20.228	0.274	20.769	0.024	9.993		
12/9/2008	13:21:56	20.167	0.274	22.564	26.984	10.523		
12/9/2008	13:22:06	20.137	0.335	19.231	2.589	10.901		
12/9/2008	13:22:16	20.152	0.244	19.231	0.024	15.368		
12/9/2008	13:22:26	20.304	0.152	13.846	0.024	62.984		
12/9/2008	13:22:36	20.396	0.122	12.051	0.024	74.264		
12/9/2008	13:22:46	20.487	0.091	10.513	0.024	85.013		
12/9/2008	13:22:56	20.533	0.091	6.154	0.024	106.589		
12/9/2008	13:23:06	20.548	0.122	5.641	0.024	114.063		
12/9/2008	13:23:16	20.457	0.183	6.41	0.024	115.9		
12/9/2008	13:23:26	20.35	0.244	7.692	0.073	53.143		
12/9/2008	13:23:36	20.259	0.274	5.385	27.937	33.082		
12/9/2008	13:23:46	20.213	0.244	5.385	5.031	22.559		
12/9/2008	13:23:56	20.243	0.152	8.205	0.904	18.32		
12/9/2008	13:24:06	20.35	0.091	8.205	0.024	16.654		
12/9/2008	13:24:16	20.457	0.091	6.923	0.024	16.579		
12/9/2008	13:24:26	20.517	0.061	5.385	0.024	17.714		
12/9/2008	13:24:36	20.517	0.122	6.667	0.024	18.547		
12/9/2008	13:24:46	20.441	0.213	7.436	0.024	27.707		
12/9/2008	13:24:56	20.335	0.274	6.154	0.024	26.042		
12/9/2008	13:25:06	20.213	0.305	6.923	0.024	20.515		
12/9/2008	13:25:16	20.167	0.274	6.154	29.597	21.499		
12/9/2008	13:25:26	20.152	0.305	7.179	2.735	19.304		
12/9/2008	13:25:36	20.152	0.213	6.923	0.024	15.67		
12/9/2008	13:25:46	20.274	0.152	7.436	0.024	15.14		
12/9/2008	13:25:56	20.396	0.091	7.179	0.024	13.702		
12/9/2008	13:26:06	20.487	0.091	8.462	0.024	14.232		
12/9/2008	13:26:16	20.533	0.091	7.949	0.024	14.989		
12/9/2008	13:26:26	20.533	0.152	6.667	0.024	18.698		
12/9/2008	13:26:36	20.472	0.244	6.667	0.024	20.591		
12/9/2008	13:26:46	20.365	0.274	4.615	28.107	15.595		
12/9/2008	13:26:56	20.274	0.305	5.128	21.074	14.081		
12/9/2008	13:27:06	20.198	0.244	2.821	4.542	14.989		
12/9/2008	13:27:16	20.274	0.183	1.538	0.855	19.607		
12/9/2008	13:27:26	20.365	0.122	0.513	0.024	18.396		
12/9/2008	13:27:36	20.472	0.091	1.026	0.024	16.503		
12/9/2008	13:27:46	20.517	0.091	3.333	0.024	15.595		
12/9/2008	13:27:56	20.548	0.122	3.077	0.024	27.404		
12/9/2008	13:28:06	20.441	0.244	4.615	0.024	24.452		
12/9/2008	13:28:16	20.335	0.305	10.256	0.024	17.714		
12/9/2008	13:28:26	20.213	0.366	18.462	20.293	13.778		
12/9/2008	13:28:36	20.182	0.305	3.846	18.755	13.778		
12/9/2008	13:28:46	20.152	0.305	0.513	2.271	13.172		
12/9/2008	13:28:56	20.182	0.213	0.256	0.024	13.248		
12/9/2008	13:29:06	20.259	0.122	0.256	0.024	13.172	Post-test zero calibration drift check	0.00%
12/9/2008	13:29:16	20.411	0.091	0.256	0.024	12.491		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	13:29:26	20.517	0.061	1.026	0.024	13.172		
12/9/2008	13:29:36	20.548	0.091	6.41	0.024	14.005		
12/9/2008	13:29:46	20.563	0.122	7.949	0.024	13.929		
12/9/2008	13:29:56	20.487	0.213	456.41	0.024	12.037		
12/9/2008	13:30:06	20.365	0.274	491.026	33.968	14.005		
12/9/2008	13:30:16	20.304	0.305	494.103	22.589	15.519		
12/9/2008	13:30:26	20.213	0.274	503.846	4.298	12.945	Post-test mid range calibration drift check	0.32%
12/9/2008	13:30:36	20.274	0.183	493.077	0.879	12.491		
12/9/2008	13:30:46	20.335	0.122	495.128	0.024	12.339		
12/9/2008	13:30:56	20.441	0.091	493.846	0.024	14.232		
12/9/2008	13:31:06	20.517	0.091	495.697	0.024	15.216		
12/9/2008	13:31:16	20.533	0.152	379.487	0.024	12.869		
12/9/2008	13:31:26	20.457	0.244	449.231	0.024	11.885		
12/9/2008	13:31:36	20.304	0.274	461.026	0.024	11.734		
12/9/2008	13:31:46	20.228	0.305	448.205	20.586	11.734		
12/9/2008	13:31:56	20.167	0.274	442.821	17.265	13.172		
12/9/2008	13:32:06	20.152	0.305	456.41	1.734	12.794		
12/9/2008	13:32:16	20.182	0.213	453.846	0.024	17.941		
12/9/2008	13:32:26	20.304	0.122	474.872	0.024	24.603		
12/9/2008	13:32:36	20.396	0.091	478.462	0.024	62.227		
12/9/2008	13:32:46	20.472	0.061	461.026	0.024	18.244		
12/9/2008	13:32:56	20.563	0.03	446.718	0.024	13.626		
12/9/2008	13:33:06	20.548	0.152	399.744	0.024	11.734		
12/9/2008	13:33:16	20.502	0.366	397.692	0.024	11.128		
12/9/2008	13:33:26	20.38	0.457	448.718	34.799	10.068		
12/9/2008	13:33:36	20.243	0.426	432.564	23.004	10.068		
12/9/2008	13:33:46	20.198	0.396	411.538	4.444	10.674		
12/9/2008	13:33:56	20.259	0.305	403.59	0.635	11.431		
12/9/2008	13:34:06	20.335	0.244	389.487	0.024	11.431		
12/9/2008	13:34:16	20.457	0.244	422.308	0.024	11.053		
12/9/2008	13:34:26	20.533	0.274	467.179	0.024	9.841		
12/9/2008	13:34:36	20.548	0.335	458.462	0.024	10.371		
12/9/2008	13:34:46	20.441	0.396	466.154	0.024	10.144		
12/9/2008	13:34:56	20.319	0.457	447.179	0.024	9.614		
12/9/2008	13:35:06	20.213	0.457	440.769	22.564	10.295		
12/9/2008	13:35:16	20.198	0.457	460.513	19.56	10.371		
12/9/2008	13:35:26	20.167	0.457	447.179	2.222	10.523		
12/9/2008	13:35:36	20.167	0.366	415.641	0.024	10.598		
12/9/2008	13:35:46	20.274	0.274	392.308	0.024	10.598		
12/9/2008	13:35:56	20.396	0.244	393.077	0.024	10.447		
12/9/2008	13:36:06	20.502	0.183	390.769	0.024	11.053		
12/9/2008	13:36:16	20.517	0.213	400.769	0.024	10.371		
12/9/2008	13:36:26	20.563	0.244	369.744	0.024	10.674		
12/9/2008	13:36:36	20.502	0.366	379.744	0.024	10.295		
12/9/2008	13:36:46	20.38	0.396	394.103	30.696	10.598		
12/9/2008	13:36:56	20.319	0.426	393.59	20.195	10.447		
12/9/2008	13:37:06	20.182	0.396	414.103	3.883	10.447		
12/9/2008	13:37:16	20.228	0.305	418.205	0.024	9.766		
12/9/2008	13:37:26	20.38	0.244	406.923	0.024	10.523		
12/9/2008	13:37:36	20.472	0.091	425.385	0.024	9.841		
12/9/2008	13:37:46	20.517	0.091	414.615	0.024	9.387		
12/9/2008	13:37:56	20.548	0.152	409.231	0.024	9.841		
12/9/2008	13:38:06	20.441	0.244	416.41	0.024	9.463	Post-test zero calibration drift check	2.84%
12/9/2008	13:38:16	20.335	0.305	409.487	0.024	10.598		
12/9/2008	13:38:26	20.259	0.305	410	20.635	11.204		
12/9/2008	13:38:36	20.167	0.274	398.462	18.364	11.431		
12/9/2008	13:38:46	20.182	0.274	390.513	2.076	10.825		
12/9/2008	13:38:56	20.182	0.213	427.179	0	10.447		
12/9/2008	13:39:06	20.274	0.152	442.821	0.024	8.781		
12/9/2008	13:39:16	20.411	0.122	420.513	0.024	5.375		
12/9/2008	13:39:26	20.517	0.061	416.667	0.024	4.921		
12/9/2008	13:39:36	20.563	0.061	438.974	0.024	4.996		
12/9/2008	13:39:46	20.563	0.122	428.718	0.024	4.769		
12/9/2008	13:39:56	20.472	0.213	420.256	0.024	5.299		
12/9/2008	13:40:06	20.35	0.274	402.821	31.38	0.076		
12/9/2008	13:40:16	20.274	0.305	399.231	20.757	0.076		
12/9/2008	13:40:26	20.228	0.274	404.103	3.98	0.076		
12/9/2008	13:40:36	20.243	0.152	396.41	0.415	0.076		
12/9/2008	13:40:46	20.335	0.091	384.359	0.024	0.076		
12/9/2008	13:40:56	20.457	0.061	382.821	0.024	0.076		
12/9/2008	13:41:06	20.563	0.061	401.538	0.024	0.076		
12/9/2008	13:41:16	20.548	0.122	410.513	0.024	0.076		
12/9/2008	13:41:26	20.457	0.213	432.051	0.024	0.076		
12/9/2008	13:41:36	20.289	0.274	441.795	0.024	0.076		
12/9/2008	13:41:46	20.213	0.335	426.923	20.904	0.076		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2	CO2	RTO Inlet VOC 3	RTO Outlet VOC 1	Baghouse VOC 2	Calibration	Error
		%	%	ppm C_3H_8	ppm C_3H_8	ppm C_3H_8	Comments	%
12/9/2008	13:41:56	20.152	0.335	429.487	17.167	0.076		
12/9/2008	13:42:06	20.152	0.335	400.513	1.343	0.076		
12/9/2008	13:42:16	20.182	0.213	393.846	0.024	0.076		
12/9/2008	13:42:26	20.289	0.152	440	0.024	0.076		
12/9/2008	13:42:36	20.411	0.122	440.256	0.024	0.076		
12/9/2008	13:42:46	20.517	0.091	433.846	0.024	0.076		
12/9/2008	13:42:56	20.578	0.091	436.667	0.024	0.454		
12/9/2008	13:43:06	20.563	0.122	420	0.024	8.781		
12/9/2008	13:43:16	20.487	0.213	429.487	0.024	16.806		
12/9/2008	13:43:26	20.365	0.274	435.641	33.089	6.359		
12/9/2008	13:43:36	20.289	0.274	436.667	20.684	23.089		
12/9/2008	13:43:46	20.182	0.274	436.154	3.98	33.233		
12/9/2008	13:43:56	20.259	0.183	458.462	0.269	50.493		
12/9/2008	13:44:06	20.335	0.122	417.949	0.024	55.035		
12/9/2008	13:44:16	20.457	0.061	393.077	0.024	61.319		
12/9/2008	13:44:26	20.548	0.061	374.103	0.024	76.611		
12/9/2008	13:44:36	20.533	0.152	410.769	0.024	44.286		
12/9/2008	13:44:46	20.457	0.244	414.615	0.024	29.524		
12/9/2008	13:44:56	20.335	0.274	402.821	0.024	22.181		
12/9/2008	13:45:06	20.213	0.335	396.154	18.926	14.913		
12/9/2008	13:45:16	20.167	0.305	399.487	15.995	13.248		
12/9/2008	13:45:26	20.167	0.305	416.154	1.245	11.81		
12/9/2008	13:45:36	20.182	0.213	432.564	0.024	10.977		
12/9/2008	13:45:46	20.304	0.122	444.359	0.024	10.977		
12/9/2008	13:45:56	20.411	0.061	402.051	0.024	12.112		
12/9/2008	13:46:06	20.487	0.03	381.026	0.024	12.945		
12/9/2008	13:46:16	20.533	0.091	403.077	0.024	12.415		
12/9/2008	13:46:26	20.533	0.152	409.487	0.024	10.295		
12/9/2008	13:46:36	20.472	0.213	402.564	0.024	10.22		
12/9/2008	13:46:46	20.335	0.244	401.538	34.164	11.658		
12/9/2008	13:46:56	20.274	0.244	390.256	22.369	12.567		
12/9/2008	13:47:06	20.182	0.274	409.487	4.591	11.28		
12/9/2008	13:47:16	20.228	0.183	420.513	0.44	9.917		
12/9/2008	13:47:26	20.35	0.122	430.256	0.024	9.841		
12/9/2008	13:47:36	20.457	0.091	464.359	0.024	9.841		
12/9/2008	13:47:46	20.548	0.091	449.231	0.024	10.447		
12/9/2008	13:47:56	20.517	0.122	416.667	0.024	11.355		
12/9/2008	13:48:06	20.457	0.213	414.103	0.024	12.037		
12/9/2008	13:48:16	20.304	0.274	425.128	0.024	12.339		
12/9/2008	13:48:26	20.182	0.274	412.308	22.051	12.112		
12/9/2008	13:48:36	20.182	0.274	385.128	19.536	12.264		
12/9/2008	13:48:46	20.228	0.274	372.308	3.272	12.188		
12/9/2008	13:48:56	20.335	0.152	375.128	0.733	11.582		
12/9/2008	13:49:06	20.396	0.091	393.59	0.024	10.295		
12/9/2008	13:49:16	20.563	0.122	412.564	0.024	9.538		
12/9/2008	13:49:26	20.639	0.091	410.513	0.024	9.538		
12/9/2008	13:49:36	20.517	0.091	403.59	0.024	10.22		
12/9/2008	13:49:46	20.563	0.152	399.744	0.024	11.885		
12/9/2008	13:49:56	20.457	0.213	391.026	0.024	12.188		
12/9/2008	13:50:06	20.365	0.244	406.974	34.628	12.264		
12/9/2008	13:50:16	20.243	0.244	392.051	22.54	12.188		
12/9/2008	13:50:26	20.182	0.213	381.282	5.397	12.112		
12/9/2008	13:50:36	20.228	0.122	376.667	1.709	12.188		
12/9/2008	13:50:46	20.35	0.061	365.128	0.171	12.188		
12/9/2008	13:50:56	20.441	0.061	367.949	0.024	12.037		
12/9/2008	13:51:06	20.533	0.061	394.103	0.024	12.112		
12/9/2008	13:51:16	20.533	0.122	392.308	0.024	11.885		
12/9/2008	13:51:26	20.441	0.183	376.667	0.024	12.188		
12/9/2008	13:51:36	20.335	0.244	398.718	0.024	12.188		
12/9/2008	13:51:46	20.228	0.274	388.974	22.979	11.961		
12/9/2008	13:51:56	20.182	0.244	417.949	19.683	17.26		
12/9/2008	13:52:06	20.152	0.305	437.179	2.589	76.535		
12/9/2008	13:52:16	20.167	0.213	450.256	0.024	85.619		
12/9/2008	13:52:26	20.411	0.152	453.59	0.024	86.982		
12/9/2008	13:52:36	20.533	0.122	468.205	0.024	87.284		
12/9/2008	13:52:46	20.639	0.091	468.718	0.024	88.193		
12/9/2008	13:52:56	20.67	0.122	438.718	0.024	87.436		
12/9/2008	13:53:06	20.716	0.152	421.282	0.024	87.436		
12/9/2008	13:53:16	20.655	0.213	427.436	0.024	87.89		
12/9/2008	13:53:26	20.365	0.305	423.077	31.38	88.193		
12/9/2008	13:53:36	20.243	0.305	427.692	20.659	83.045		
12/9/2008	13:53:46	20.228	0.244	403.077	4.396	76.308		
12/9/2008	13:53:56	20.259	0.183	391.282	0.855	76.061		
12/9/2008	13:54:06	20.35	0.122	411.538	0.024	77.065		
12/9/2008	13:54:16	20.457	0.091	401.282	0.024	78.049		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	13:54:26	20.517	0.091	396.154	0.024	78.654		
12/9/2008	13:54:36	20.517	0.305	405.641	0.024	78.806		
12/9/2008	13:54:46	20.426	0.366	380.769	0.024	78.503		
12/9/2008	13:54:56	20.304	0.426	380.256	0.024	78.049		
12/9/2008	13:55:06	20.228	0.457	383.59	19.731	77.292		
12/9/2008	13:55:16	20.167	0.457	403.59	17.118	77.14		
12/9/2008	13:55:26	20.137	0.457	439.744	1.832	76.989		
12/9/2008	13:55:36	20.152	0.366	416.923	0.024	76.913	Post-test mid range calibration drift check	0.55%
12/9/2008	13:55:46	20.274	0.305	414.872	0.024	77.216		
12/9/2008	13:55:56	20.396	0.244	401.282	0.024	79.184		
12/9/2008	13:56:06	20.502	0.213	378.974	0.024	81.531		
12/9/2008	13:56:16	20.548	0.183	405.128	0.024	16.73		
12/9/2008	13:56:26	20.578	0.274	444.872	0.024	11.204		
12/9/2008	13:56:36	20.472	0.396	450.256	0.024	10.068		
12/9/2008	13:56:46	20.335	0.457	444.359	34.505	9.69		
12/9/2008	13:56:56	20.243	0.457	443.59	24.103	11.128		
12/9/2008	13:57:06	20.213	0.366	419.744	5.934	11.658		
12/9/2008	13:57:16	20.259	0.274	398.974	2.027	11.658		
12/9/2008	13:57:26	20.38	0.244	380.769	0.317	10.977		
12/9/2008	13:57:36	20.472	0.122	387.949	0.024	10.371		
12/9/2008	13:57:46	20.533	0.061	400.513	0.024	9.993		
12/9/2008	13:57:56	20.563	0.152	424.359	0.024	9.009		
12/9/2008	13:58:06	20.441	0.244	418.462	0.024	8.781		
12/9/2008	13:58:16	20.319	0.305	423.333	0.024	8.63		
12/9/2008	13:58:26	20.213	0.335	431.026	19.927	8.403		
12/9/2008	13:58:36	20.167	0.305	435.128	17.729	8.554		
12/9/2008	13:58:46	20.152	0.305	461.026	2.442	8.479		
12/9/2008	13:58:56	20.167	0.213	455.128	0.195	8.403		
12/9/2008	13:59:06	20.289	0.152	424.359	0.024	8.781		
12/9/2008	13:59:16	20.411	0.091	397.179	0.024	10.523		
12/9/2008	13:59:26	20.517	0.03	380.769	0.024	10.901		
12/9/2008	13:59:36	20.563	0.03	365.897	0.024	10.295		
12/9/2008	13:59:46	20.563	0.152	427.179	0.024	8.706		
12/9/2008	13:59:56	20.457	0.244	428.974	0.024	8.176		
12/9/2008	14:00:06	20.319	0.274	405.385	29.768	9.236		
12/9/2008	14:00:16	20.259	0.244	377.692	20.562	10.75		
12/9/2008	14:00:26	20.228	0.213	380.513	5.421	13.853		
12/9/2008	14:00:36	20.243	0.152	421.026	1.294	51.175		
12/9/2008	14:00:46	20.319	0.152	454.103	0.024	58.593		
12/9/2008	14:00:56	20.441	0.122	433.59	0.024	62.984		
12/9/2008	14:01:06	20.502	0.061	395.385	0.024	69.04		
12/9/2008	14:01:16	20.517	0.152	422.308	0.024	78.2		
12/9/2008	14:01:26	20.411	0.213	417.949	0.024	88.647		
12/9/2008	14:01:36	20.304	0.274	406.667	0.024	91.675		
12/9/2008	14:01:46	20.213	0.305	371.538	22.002	89.404		
12/9/2008	14:01:56	20.152	0.274	379.231	18.926	84.256		
12/9/2008	14:02:06	20.152	0.305	405.128	3.028	84.938		
12/9/2008	14:02:16	20.152	0.213	417.179	0.171	93.114		
12/9/2008	14:02:26	20.274	0.152	413.333	0.024	96.974		
12/9/2008	14:02:36	20.411	0.061	370	0.024	101.365		
12/9/2008	14:02:46	20.502	0.03	371.795	0.024	104.696		
12/9/2008	14:02:56	20.548	0.061	369.744	0.024	105.604		
12/9/2008	14:03:06	20.563	0.152	435.385	0.024	87.436		
12/9/2008	14:03:16	20.457	0.244	454.103	0.024	74.718		
12/9/2008	14:03:26	20.335	0.274	413.59	31.844	69.949		
12/9/2008	14:03:36	20.243	0.244	364.359	21.636	69.343		
12/9/2008	14:03:46	20.182	0.274	373.59	4.762	70.1		
12/9/2008	14:03:56	20.243	0.152	408.974	0.806	67.829		
12/9/2008	14:04:06	20.365	0.091	365.897	0.22	69.646		
12/9/2008	14:04:16	20.426	0.122	430	0.024	67.299		
12/9/2008	14:04:26	20.548	0.091	435.897	0.024	65.937		
12/9/2008	14:04:36	20.548	0.122	401.282	0.024	67.678		
12/9/2008	14:04:46	20.441	0.244	421.795	0.024	67.678		
12/9/2008	14:04:56	20.304	0.305	471.026	0.024	66.921		
12/9/2008	14:05:06	20.228	0.305	451.026	20.073	72.447	Start Run #3	
12/9/2008	14:05:16	20.167	0.274	412.051	20.073	83.197		
12/9/2008	14:05:26	20.152	0.244	393.333	3.419	89.783		
12/9/2008	14:05:36	20.182	0.183	419.487	0.928	86.83		
12/9/2008	14:05:46	20.289	0.122	399.231	0.024	82.818		
12/9/2008	14:05:56	20.411	0.091	387.949	0.024	76.156		
12/9/2008	14:06:06	20.502	0.061	362.051	0.024	72.75		
12/9/2008	14:06:16	20.548	0.061	378.205	0.024	72.977		
12/9/2008	14:06:26	20.563	0.122	424.359	0.024	83.197		
12/9/2008	14:06:36	20.472	0.244	421.538	0.024	98.488		
12/9/2008	14:06:46	20.335	0.305	403.846	28.669	102.122		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	14:06:56	20.259	0.457	377.949	19.17	103.636		
12/9/2008	14:07:06	20.213	0.396	373.59	4.713	101.441		
12/9/2008	14:07:16	20.274	0.274	375.897	1.441	95.082		
12/9/2008	14:07:26	20.365	0.244	402.564	0.024	78.049		
12/9/2008	14:07:36	20.457	0.213	426.154	0.024	71.463		
12/9/2008	14:07:46	20.517	0.244	425.385	0.024	67.678		
12/9/2008	14:07:56	20.517	0.335	425.641	0.024	66.542		
12/9/2008	14:08:06	20.411	0.426	404.872	0.024	64.801		
12/9/2008	14:08:16	20.304	0.457	411.538	0.024	66.164		
12/9/2008	14:08:26	20.228	0.457	413.077	20.83	67.148		
12/9/2008	14:08:36	20.167	0.426	383.59	19.316	67.451		
12/9/2008	14:08:46	20.152	0.426	379.487	3.175	68.283		
12/9/2008	14:08:56	20.182	0.305	388.974	0.684	69.343		
12/9/2008	14:09:06	20.304	0.244	400.513	0.024	67.829		
12/9/2008	14:09:16	20.426	0.244	432.051	0.024	67.602		
12/9/2008	14:09:26	20.502	0.274	454.872	0.024	67.223		
12/9/2008	14:09:36	20.533	0.274	469.487	0.024	67.905		
12/9/2008	14:09:46	20.533	0.152	468.462	0.024	69.192		
12/9/2008	14:09:56	20.426	0.244	451.795	0.024	72.295		
12/9/2008	14:10:06	20.335	0.274	432.051	32.601	80.623		
12/9/2008	14:10:16	20.228	0.274	420	22.979	91.6		
12/9/2008	14:10:26	20.182	0.213	382.821	5.91	94.552		
12/9/2008	14:10:36	20.243	0.091	371.026	1.758	90.085		
12/9/2008	14:10:46	20.35	0.061	379.487	0.22	94.703		
12/9/2008	14:10:56	20.457	0.061	390	0.024	99.548		
12/9/2008	14:11:06	20.533	0.03	371.538	0.024	98.186		
12/9/2008	14:11:16	20.548	0.091	370	0.024	99.775		
12/9/2008	14:11:26	20.472	0.213	371.282	0.024	101.516		
12/9/2008	14:11:36	20.365	0.274	396.667	0.024	104.469		
12/9/2008	14:11:46	20.243	0.305	420.769	20.171	93.114		
12/9/2008	14:11:56	20.182	0.305	453.077	18.608	83.121		
12/9/2008	14:12:06	20.167	0.274	446.154	2.344	74.718		
12/9/2008	14:12:16	20.182	0.213	414.872	0.073	69.419		
12/9/2008	14:12:26	20.319	0.152	403.077	0.024	70.479		
12/9/2008	14:12:36	20.396	0.091	371.026	0.024	72.144		
12/9/2008	14:12:46	20.517	0.03	359.744	0.024	71.69		
12/9/2008	14:12:56	20.563	0.061	392.564	0.024	71.387		
12/9/2008	14:13:06	20.548	0.122	398.718	0.024	69.873		
12/9/2008	14:13:16	20.457	0.213	397.179	0.024	68.359		
12/9/2008	14:13:26	20.335	0.274	423.333	30.256	68.056		
12/9/2008	14:13:36	20.228	0.305	440.513	20.781	67.299		
12/9/2008	14:13:46	20.198	0.274	434.359	4.444	66.769		
12/9/2008	14:13:56	20.243	0.183	440	0.757	67.602		
12/9/2008	14:14:06	20.35	0.122	434.103	0.024	70.63		
12/9/2008	14:14:16	20.441	0.091	448.718	0.024	76.005		
12/9/2008	14:14:26	20.533	0.061	418.718	0.024	83.424		
12/9/2008	14:14:36	20.548	0.091	396.667	0.024	87.209		
12/9/2008	14:14:46	20.472	0.213	407.436	0.024	83.878		
12/9/2008	14:14:56	20.335	0.305	418.974	0.024	79.411		
12/9/2008	14:15:06	20.228	0.305	415.128	19.389	74.415		
12/9/2008	14:15:16	20.182	0.305	421.538	17.827	83.272		
12/9/2008	14:15:26	20.152	0.274	415.385	2.491	94.325		
12/9/2008	14:15:36	20.167	0.213	409.744	0.122	98.11		
12/9/2008	14:15:46	20.289	0.122	403.333	0.024	101.516		
12/9/2008	14:15:56	20.426	0.091	429.487	0.024	103.333		
12/9/2008	14:16:06	20.502	0.03	400.256	0.024	99.321		
12/9/2008	14:16:16	20.548	0.091	445.385	0.024	79.79		
12/9/2008	14:16:26	20.517	0.152	443.333	0.024	71.387		
12/9/2008	14:16:36	20.441	0.244	425.385	0.024	67.602		
12/9/2008	14:16:46	20.319	0.274	421.538	29.109	66.542		
12/9/2008	14:16:56	20.243	0.274	402.564	20.537	68.056		
12/9/2008	14:17:06	20.182	0.274	413.333	4.493	67.451		
12/9/2008	14:17:16	20.259	0.152	444.359	0.757	68.435		
12/9/2008	14:17:26	20.35	0.122	442.051	0.024	68.965		
12/9/2008	14:17:36	20.457	0.091	434.359	0.024	68.132		
12/9/2008	14:17:46	20.502	0.091	443.846	0.024	67.148		
12/9/2008	14:17:56	20.517	0.152	413.846	0.024	69.57		
12/9/2008	14:18:06	20.426	0.213	427.949	0.024	73.734		
12/9/2008	14:18:16	20.335	0.244	392.564	0.024	77.897		
12/9/2008	14:18:26	20.228	0.274	402.051	20.513	81.531		
12/9/2008	14:18:36	20.167	0.274	420.769	19.023	80.774		
12/9/2008	14:18:46	20.152	0.305	460.769	2.442	78.654		
12/9/2008	14:18:56	20.167	0.213	462.564	0.073	75.475		
12/9/2008	14:19:06	20.289	0.152	433.59	0.024	72.598		
12/9/2008	14:19:16	20.411	0.091	382.308	0.024	74.112		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	14:19:26	20.517	0.03	367.692	0.024	75.702		
12/9/2008	14:19:36	20.548	0.061	408.205	0.024	86.755		
12/9/2008	14:19:46	20.533	0.152	413.846	0.024	99.018		
12/9/2008	14:19:56	20.457	0.244	395.641	0.024	103.182		
12/9/2008	14:20:06	20.335	0.244	372.051	32.967	102.803		
12/9/2008	14:20:16	20.259	0.274	393.333	21.783	98.034		
12/9/2008	14:20:26	20.182	0.274	422.564	4.906	90.237		
12/9/2008	14:20:36	20.228	0.152	442.308	1.49	76.913		
12/9/2008	14:20:46	20.365	0.091	401.026	0.391	72.068		
12/9/2008	14:20:56	20.457	0.061	393.59	0.024	68.813		
12/9/2008	14:21:06	20.502	0.091	420	0.024	67.299		
12/9/2008	14:21:16	20.502	0.183	402.308	0.024	66.088		
12/9/2008	14:21:26	20.441	0.244	384.103	0.024	67.98		
12/9/2008	14:21:36	20.319	0.396	395.385	0.024	68.662		
12/9/2008	14:21:46	20.213	0.426	390	20.928	68.813		
12/9/2008	14:21:56	20.167	0.426	397.949	19.609	68.056		
12/9/2008	14:22:06	20.152	0.426	432.564	2.857	66.542		
12/9/2008	14:22:16	20.198	0.335	451.795	0.22	65.482		
12/9/2008	14:22:26	20.289	0.305	456.41	0.024	66.164		
12/9/2008	14:22:36	20.396	0.274	450.513	0.024	71.084		
12/9/2008	14:22:46	20.487	0.244	463.077	0.024	77.746		
12/9/2008	14:22:56	20.517	0.244	446.923	0.024	81.91		
12/9/2008	14:23:06	20.533	0.305	473.59	0.024	82.137		
12/9/2008	14:23:16	20.457	0.396	465.385	0.024	79.411		
12/9/2008	14:23:26	20.35	0.457	437.949	31.038	76.156		
12/9/2008	14:23:36	20.228	0.426	414.103	21.123	73.507		
12/9/2008	14:23:46	20.213	0.396	404.872	5.275	74.415		
12/9/2008	14:23:56	20.243	0.305	417.436	1.612	86.603		
12/9/2008	14:24:06	20.35	0.244	396.667	0.147	99.624		
12/9/2008	14:24:16	20.487	0.061	379.487	0.024	101.819		
12/9/2008	14:24:26	20.533	0.091	379.487	0.024	104.166		
12/9/2008	14:24:36	20.548	0.122	412.308	0.024	103.106		
12/9/2008	14:24:46	20.441	0.244	400.769	0.024	95.158		
12/9/2008	14:24:56	20.319	0.274	440	0.024	79.184		
12/9/2008	14:25:06	20.228	0.305	437.949	20.342	72.523		
12/9/2008	14:25:16	20.182	0.305	409.744	19.683	68.737		
12/9/2008	14:25:26	20.137	0.305	416.41	2.662	68.662		
12/9/2008	14:25:36	20.182	0.183	394.103	0.22	68.586		
12/9/2008	14:25:46	20.289	0.122	415.128	0.024	67.678		
12/9/2008	14:25:56	20.411	0.091	438.462	0.024	68.283		
12/9/2008	14:26:06	20.517	0.061	392.308	0.024	69.04		
12/9/2008	14:26:16	20.548	0.03	394.872	0.024	67.072		
12/9/2008	14:26:26	20.578	0.122	456.41	0.024	65.407		
12/9/2008	14:26:36	20.472	0.213	470	0.024	69.116		
12/9/2008	14:26:46	20.35	0.274	434.615	33.162	75.399		
12/9/2008	14:26:56	20.259	0.244	410.769	23.785	78.2		
12/9/2008	14:27:06	20.198	0.213	411.282	5.91	78.352		
12/9/2008	14:27:16	20.243	0.152	446.923	1.392	79.487		
12/9/2008	14:27:26	20.38	0.091	436.667	0.562	79.487		
12/9/2008	14:27:36	20.441	0.061	420.513	0.024	73.81		
12/9/2008	14:27:46	20.517	0.091	440.256	0.024	70.479		
12/9/2008	14:27:56	20.517	0.152	407.949	0.024	73.204		
12/9/2008	14:28:06	20.457	0.213	387.949	0.024	78.049		
12/9/2008	14:28:16	20.319	0.244	391.538	0.024	90.313		
12/9/2008	14:28:26	20.243	0.274	390	18.828	102.046		
12/9/2008	14:28:36	20.167	0.274	409.231	18.462	103.182		
12/9/2008	14:28:46	20.152	0.305	417.692	2.54	98.64		
12/9/2008	14:28:56	20.198	0.213	436.154	0.293	96.066		
12/9/2008	14:29:06	20.304	0.152	434.872	0.024	90.313		
12/9/2008	14:29:16	20.441	0.091	449.231	0.024	76.308		
12/9/2008	14:29:26	20.502	0.091	431.282	0.024	72.447		
12/9/2008	14:29:36	20.548	0.091	412.821	0.024	70.1		
12/9/2008	14:29:46	20.563	0.122	395.128	0.024	68.965		
12/9/2008	14:29:56	20.502	0.213	375.128	0.024	69.949		
12/9/2008	14:30:06	20.35	0.244	380.256	28.742	70.63		
12/9/2008	14:30:16	20.289	0.244	393.59	22.515	70.857		
12/9/2008	14:30:26	20.228	0.213	394.103	5.446	69.722		
12/9/2008	14:30:36	20.243	0.152	392.821	1.783	68.435		
12/9/2008	14:30:46	20.335	0.091	386.41	0.44	67.98		
12/9/2008	14:30:56	20.441	0.091	390.256	0.024	70.933		
12/9/2008	14:31:06	20.502	0.091	425.385	0.024	76.156		
12/9/2008	14:31:16	20.487	0.183	439.487	0.024	79.563		
12/9/2008	14:31:26	20.396	0.274	448.205	0.024	79.184		
12/9/2008	14:31:36	20.274	0.305	450.513	0.024	76.838		
12/9/2008	14:31:46	20.228	0.274	482.051	21.074	75.324		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	14:31:56	20.167	0.244	443.077	21.245	74.188		
12/9/2008	14:32:06	20.167	0.274	395.641	3.932	75.324		
12/9/2008	14:32:16	20.182	0.213	379.744	1.319	75.853		
12/9/2008	14:32:26	20.259	0.152	412.051	0.024	76.762		
12/9/2008	14:32:36	20.411	0.091	431.282	0.024	87.436		
12/9/2008	14:32:46	20.487	0.091	419.487	0.024	99.624		
12/9/2008	14:32:56	20.563	0.091	401.538	0.024	102.803		
12/9/2008	14:33:06	20.563	0.122	391.795	0.024	102.501		
12/9/2008	14:33:16	20.487	0.213	408.974	0.024	100.002		
12/9/2008	14:33:26	20.35	0.274	416.667	31.697	93.946		
12/9/2008	14:33:36	20.259	0.274	425.897	22.637	78.427		
12/9/2008	14:33:46	20.198	0.244	419.231	5.91	71.993		
12/9/2008	14:33:56	20.243	0.152	391.538	1.954	70.403		
12/9/2008	14:34:06	20.35	0.091	382.308	0.659	70.024		
12/9/2008	14:34:16	20.426	0.091	374.359	0.024	71.538		
12/9/2008	14:34:26	20.517	0.091	412.051	0.024	69.797		
12/9/2008	14:34:36	20.517	0.183	444.872	0.024	69.419		
12/9/2008	14:34:46	20.457	0.244	432.564	0.024	68.662		
12/9/2008	14:34:56	20.304	0.244	396.667	0.024	68.51		
12/9/2008	14:35:06	20.213	0.274	389.744	18.437	69.267		
12/9/2008	14:35:16	20.167	0.274	392.564	19.683	71.084		
12/9/2008	14:35:26	20.106	0.305	455.385	2.857	72.901		
12/9/2008	14:35:36	20.152	0.213	453.59	0.317	76.611		
12/9/2008	14:35:46	20.304	0.122	455.385	0.024	79.184		
12/9/2008	14:35:56	20.396	0.183	431.026	0.024	78.654		
12/9/2008	14:36:06	20.502	0.213	436.41	0.024	78.957		
12/9/2008	14:36:16	20.517	0.213	425.897	0.024	77.216		
12/9/2008	14:36:26	20.533	0.274	437.436	0.024	74.264		
12/9/2008	14:36:36	20.457	0.396	421.026	0.024	71.614		
12/9/2008	14:36:46	20.35	0.426	411.795	28.449	72.674		
12/9/2008	14:36:56	20.274	0.426	403.077	21.538	84.786		
12/9/2008	14:37:06	20.198	0.366	371.026	5.495	98.943		
12/9/2008	14:37:16	20.228	0.274	362.821	2.1	102.803		
12/9/2008	14:37:26	20.335	0.244	358.974	0.708	103.56		
12/9/2008	14:37:36	20.426	0.213	399.231	0.024	99.548		
12/9/2008	14:37:46	20.517	0.244	426.41	0.024	90.842		
12/9/2008	14:37:56	20.487	0.335	459.231	0.024	75.853		
12/9/2008	14:38:06	20.411	0.396	418.974	0.024	70.252		
12/9/2008	14:38:16	20.289	0.426	388.205	0.024	69.419		
12/9/2008	14:38:26	20.198	0.457	385.897	18.51	68.586		
12/9/2008	14:38:36	20.137	0.274	392.564	18.291	68.359		
12/9/2008	14:38:46	20.137	0.305	411.026	2.515	67.829		
12/9/2008	14:38:56	20.152	0.183	402.308	0.855	69.646		
12/9/2008	14:39:06	20.243	0.091	389.231	0.293	70.554		
12/9/2008	14:39:16	20.38	0.091	385.897	0.024	69.722		
12/9/2008	14:39:26	20.457	0.122	439.744	0.024	68.056		
12/9/2008	14:39:36	20.517	0.091	461.795	0.024	68.208		
12/9/2008	14:39:46	20.533	0.152	457.692	0.024	73.885		
12/9/2008	14:39:56	20.487	0.213	408.462	0.024	80.093		
12/9/2008	14:40:06	20.335	0.213	406.154	28.694	83.575		
12/9/2008	14:40:16	20.259	0.213	406.923	22.637	84.862		
12/9/2008	14:40:26	20.213	0.213	420.256	6.056	83.499		
12/9/2008	14:40:36	20.259	0.122	399.744	2.344	80.244		
12/9/2008	14:40:46	20.335	0.091	390.769	0.781	76.005		
12/9/2008	14:40:56	20.457	0.061	366.154	0.073	74.415		
12/9/2008	14:41:06	20.502	0.061	375.385	0.024	75.778		
12/9/2008	14:41:16	20.502	0.122	382.308	0.024	87.284		
12/9/2008	14:41:26	20.396	0.213	382.821	0.024	103.182		
12/9/2008	14:41:36	20.274	0.244	369.487	0.024	107.421		
12/9/2008	14:41:46	20.213	0.274	369.231	16.974	107.421		
12/9/2008	14:41:56	20.152	0.213	383.59	19.341	102.728		
12/9/2008	14:42:06	20.121	0.244	393.59	3.492	96.369		
12/9/2008	14:42:16	20.182	0.183	435.128	1.074	79.941		
12/9/2008	14:42:26	20.289	0.122	451.026	0.024	71.236		
12/9/2008	14:42:36	20.396	0.091	438.974	0.024	67.98		
12/9/2008	14:42:46	20.457	0.091	435.897	0.024	66.618		
12/9/2008	14:42:56	20.517	0.091	402.564	0.024	68.359		
12/9/2008	14:43:06	20.533	0.122	394.103	0.024	70.024		
12/9/2008	14:43:16	20.441	0.213	394.359	0.024	70.933		
12/9/2008	14:43:26	20.335	0.213	390.513	31.136	70.479		
12/9/2008	14:43:36	20.274	0.213	391.282	23.516	69.722		
12/9/2008	14:43:46	20.228	0.213	405.641	6.252	69.495		
12/9/2008	14:43:56	20.243	0.122	400	2.393	71.766		
12/9/2008	14:44:06	20.335	0.091	400.256	0.83	76.308		
12/9/2008	14:44:16	20.457	0.061	404.359	0.122	79.411		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	14:44:26	20.487	0.061	398.718	0.024	82.061		
12/9/2008	14:44:36	20.487	0.152	400.769	0.024	81.834		
12/9/2008	14:44:46	20.365	0.244	431.282	0.024	80.396		
12/9/2008	14:44:56	20.259	0.244	421.282	0.024	77.065		
12/9/2008	14:45:06	20.182	0.274	407.949	19.463	72.825		
12/9/2008	14:45:16	20.152	0.274	409.744	19.536	70.706		
12/9/2008	14:45:26	20.121	0.305	433.077	2.833	71.841		
12/9/2008	14:45:36	20.182	0.213	455.128	0.44	82.44		
12/9/2008	14:45:46	20.274	0.152	428.974	0.024	96.899		
12/9/2008	14:45:56	20.38	0.091	422.051	0.024	100.381		
12/9/2008	14:46:06	20.457	0.091	404.872	0.024	102.046		
12/9/2008	14:46:16	20.517	0.061	422.051	0.024	100.154		
12/9/2008	14:46:26	20.517	0.122	436.41	0.024	96.066		
12/9/2008	14:46:36	20.487	0.244	455.128	0.024	79.487		
12/9/2008	14:46:46	20.335	0.274	443.846	29.011	72.447		
12/9/2008	14:46:56	20.228	0.274	415.897	23.907	70.857		
12/9/2008	14:47:06	20.198	0.213	392.051	6.252	70.024		
12/9/2008	14:47:16	20.243	0.091	346.41	2.125	71.387		
12/9/2008	14:47:26	20.38	0.061	371.795	0.611	71.463		
12/9/2008	14:47:36	20.472	0.03	397.949	0.024	70.63		
12/9/2008	14:47:46	20.533	0.03	388.462	0.024	69.949		
12/9/2008	14:47:56	20.533	0.152	408.974	0.024	67.526		
12/9/2008	14:48:06	20.426	0.244	437.949	0.024	66.542		
12/9/2008	14:48:16	20.274	0.274	431.538	0.024	68.132		
12/9/2008	14:48:26	20.198	0.305	450.769	18.193	73.582		
12/9/2008	14:48:36	20.137	0.305	453.333	20.024	78.276		
12/9/2008	14:48:46	20.121	0.274	424.872	3.565	83.121		
12/9/2008	14:48:56	20.167	0.152	407.436	1.27	82.894		
12/9/2008	14:49:06	20.289	0.091	428.974	0.317	79.487		
12/9/2008	14:49:16	20.396	0.061	431.795	0.024	76.156		
12/9/2008	14:49:26	20.502	0.091	433.59	0.024	71.69		
12/9/2008	14:49:36	20.533	0.061	407.436	0.024	70.781		
12/9/2008	14:49:46	20.548	0.122	418.462	0.024	72.447		
12/9/2008	14:49:56	20.457	0.213	426.154	0.024	83.575		
12/9/2008	14:50:06	20.35	0.244	413.077	28.132	98.564		
12/9/2008	14:50:16	20.259	0.396	401.795	20.928	101.516		
12/9/2008	14:50:26	20.228	0.396	391.282	4.347	101.516		
12/9/2008	14:50:36	20.228	0.335	410.769	0.781	98.337		
12/9/2008	14:50:46	20.335	0.244	428.462	0.024	93.568		
12/9/2008	14:50:56	20.426	0.244	435.385	0.024	78.276		
12/9/2008	14:51:06	20.487	0.244	418.205	0.024	71.69		
12/9/2008	14:51:16	20.487	0.305	386.667	0.024	70.252		
12/9/2008	14:51:26	20.365	0.366	386.923	0.024	70.252		
12/9/2008	14:51:36	20.243	0.396	365.385	0.024	71.084		
12/9/2008	14:51:46	20.152	0.426	370.769	18.144	69.116		
12/9/2008	14:51:56	20.152	0.396	402.821	19.316	68.737		
12/9/2008	14:52:06	20.152	0.426	408.462	3.004	67.98		
12/9/2008	14:52:16	20.167	0.335	411.795	0.317	66.239		
12/9/2008	14:52:26	20.259	0.274	426.41	0.024	65.407		
12/9/2008	14:52:36	20.365	0.091	434.103	0.024	66.996		
12/9/2008	14:52:46	20.441	0.091	454.359	0.024	73.204		
12/9/2008	14:52:56	20.517	0.091	440	0.024	78.2		
12/9/2008	14:53:06	20.517	0.122	461.282	0.024	81.38		
12/9/2008	14:53:16	20.441	0.244	445.385	0.024	81.001		
12/9/2008	14:53:26	20.319	0.274	461.026	30.794	81.228		
12/9/2008	14:53:36	20.213	0.274	439.231	24.151	77.595		
12/9/2008	14:53:46	20.182	0.244	398.974	6.349	75.096		
12/9/2008	14:53:56	20.243	0.122	372.051	2.222	74.415		
12/9/2008	14:54:06	20.35	0.061	362.821	0.635	75.021		
12/9/2008	14:54:16	20.441	0.061	400.256	0.024	82.667		
12/9/2008	14:54:26	20.487	0.091	426.154	0.024	98.64		
12/9/2008	14:54:36	20.472	0.183	407.949	0.024	103.409		
12/9/2008	14:54:46	20.396	0.213	362.051	0.024	107.648		
12/9/2008	14:54:56	20.274	0.213	377.179	0.024	102.955		
12/9/2008	14:55:06	20.213	0.305	411.282	16.239	96.623		
12/9/2008	14:55:16	20.152	0.274	444.103	18.388	79.563		
12/9/2008	14:55:26	20.137	0.274	429.231	3.248	72.598		
12/9/2008	14:55:36	20.152	0.183	380.769	1.172	70.327		
12/9/2008	14:55:46	20.274	0.122	398.205	0.024	67.072		
12/9/2008	14:55:56	20.38	0.091	390	0.024	68.965		
12/9/2008	14:56:06	20.472	0.091	394.103	0.024	68.813		
12/9/2008	14:56:16	20.533	0.03	384.615	0.024	69.797		
12/9/2008	14:56:26	20.548	0.091	390.513	0.024	68.889		
12/9/2008	14:56:36	20.426	0.213	426.41	0.024	67.223		
12/9/2008	14:56:46	20.304	0.274	433.59	28.596	67.223		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	14:56:56	20.213	0.244	386.667	23.932	69.267		
12/9/2008	14:57:06	20.182	0.213	412.564	5.665	72.523		
12/9/2008	14:57:16	20.228	0.152	432.564	1.148	77.822		
12/9/2008	14:57:26	20.35	0.091	438.205	0.024	82.288		
12/9/2008	14:57:36	20.426	0.061	407.949	0.024	84.635		
12/9/2008	14:57:46	20.517	0.03	433.077	0.024	83.121		
12/9/2008	14:57:56	20.533	0.122	446.667	0.024	78.654		
12/9/2008	14:58:06	20.411	0.244	451.282	0.024	73.431		
12/9/2008	14:58:16	20.289	0.091	387.179	0.024	75.626		
12/9/2008	14:58:26	20.182	0.091	380	16.752	74.718		
12/9/2008	14:58:36	20.198	0.091	430.256	18.071	80.547		
12/9/2008	14:58:46	20.198	0.091	368.718	3.297	99.775		
12/9/2008	14:58:56	20.228	0.03	395.897	0.293	103.182		
12/9/2008	14:59:06	20.319	0.03	392.821	0.024	103.409		
12/9/2008	14:59:16	20.472	0.03	368.974	0.024	99.851		
12/9/2008	14:59:26	20.578	0.03	405.641	0.024	94.022		
12/9/2008	14:59:36	20.578	0.03	432.564	0.024	79.79		
12/9/2008	14:59:46	20.594	0.03	403.846	0.024	71.993		
12/9/2008	14:59:56	20.487	0.091	430.256	0.024	67.451		
12/9/2008	15:00:06	20.335	0.091	420	27.326	67.299		
12/9/2008	15:00:16	20.259	0.061	363.59	22.637	69.949		
12/9/2008	15:00:26	20.228	0.061	410	4.664	68.132		
12/9/2008	15:00:36	20.289	0.03	399.744	1.856	70.252		
12/9/2008	15:00:46	20.426	0.03	398.718	0.269	69.495		
12/9/2008	15:00:56	20.533	0.03	432.051	0.024	66.618		
12/9/2008	15:01:06	20.563	0.03	442.821	0.024	66.315		
12/9/2008	15:01:16	20.578	0.03	418.718	0.024	69.57		
12/9/2008	15:01:26	20.487	0.03	415.897	0.024	74.339		
12/9/2008	15:01:36	20.38	0.061	407.436	0.024	78.654		
12/9/2008	15:01:46	20.274	0.091	392.051	17.265	82.061		
12/9/2008	15:01:56	20.198	0.061	395.641	20.269	82.212		
12/9/2008	15:02:06	20.228	0.091	441.026	3.126	79.714		
12/9/2008	15:02:16	20.228	0.03	446.923	0.366	74.642		
12/9/2008	15:02:26	20.35	0.03	441.538	0.024	71.009		
12/9/2008	15:02:36	20.487	0.03	411.795	0.024	69.797		
12/9/2008	15:02:46	20.563	0.03	410.769	0.024	70.403		
12/9/2008	15:02:56	20.609	0.03	444.872	0.024	80.244		
12/9/2008	15:03:06	20.624	0.03	427.179	0.024	96.217		
12/9/2008	15:03:16	20.609	0.061	421.795	0.024	98.488		
12/9/2008	15:03:26	20.35	0.091	423.59	24.615	99.7		
12/9/2008	15:03:36	20.259	0.122	423.333	21.343	96.444		
12/9/2008	15:03:46	20.213	0.061	428.718	4.591	93.416		
12/9/2008	15:03:56	20.289	0.03	447.179	1.001	77.595		
12/9/2008	15:04:06	20.38	0.03	446.923	0.024	69.116		
12/9/2008	15:04:16	20.487	0.03	431.026	0.024	67.072		
12/9/2008	15:04:26	20.563	0.03	423.846	0.024	66.921		
12/9/2008	15:04:36	20.563	0.03	393.333	0.024	68.965		
12/9/2008	15:04:46	20.457	0.061	372.564	0.024	68.965		
12/9/2008	15:04:56	20.35	0.061	384.359	0.024	69.343	End Run #3	
12/9/2008	15:05:06	20.259	0.061	381.795	17.314	68.813		
12/9/2008	15:05:16	20.213	0.091	398.974	19.536	67.072		
12/9/2008	15:05:26	20.182	0.122	428.974	2.442	66.315		
12/9/2008	15:05:36	20.182	0.03	425.385	0.122	67.829		
12/9/2008	15:05:46	20.472	0.03	446.923	0	72.144		
12/9/2008	15:05:56	20.594	0.03	440.513	0.024	79.109		
12/9/2008	15:06:06	20.655	0.03	407.692	0.024	84.406		
12/9/2008	15:06:16	20.594	0.03	379.231	0.024	84.862		
12/9/2008	15:06:26	20.594	0.03	419.231	0.024	82.742		
12/9/2008	15:06:36	20.502	0.03	407.179	0.024	77.595		
12/9/2008	15:06:46	20.35	0.061	395.128	24.347	74.945		
12/9/2008	15:06:56	20.289	0.061	372.051	22.173	74.567		
12/9/2008	15:07:06	19.817	1.889	392.821	5.104	73.582		
12/9/2008	15:07:16	15.415	5.605	426.923	1.221	80.774		
12/9/2008	15:07:26	9.718	7.494	406.923	0.024	97.429		
12/9/2008	15:07:36	5.423	8.743	359.231	0.024	102.652		
12/9/2008	15:07:46	2.468	9.292	358.718	0.024	102.803		
12/9/2008	15:07:56	0.777	9.566	430.256	0.024	97.883		
12/9/2008	15:08:06	0.015	9.718	421.026	0.024	94.779		
12/9/2008	15:08:16	0.015	9.688	438.974	0.024	79.639		
12/9/2008	15:08:26	0.015	9.748	430	11.209	71.69		
12/9/2008	15:08:36	0.015	9.779	389.231	22.247	69.873	Zero drift check	0.00%
12/9/2008	15:08:46	0.015	9.779	377.949	3.761	68.737		
12/9/2008	15:08:56	0.015	9.87	345.385	1.172	69.873		
12/9/2008	15:09:06	0.015	9.992	346.41	0.22	69.267		
12/9/2008	15:09:16	0.015	9.992	377.436	0.024	68.965		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	15:09:26	0.015	9.992	398.718	0.024	68.359		
12/9/2008	15:09:36	0.015	10.023	396.41	0.024	66.996		
12/9/2008	15:09:46	0.015	10.023	421.538	0.024	65.558	Mid range drift check	0.00%
12/9/2008	15:09:56	0.015	9.992	431.282	0.024	66.694		
12/9/2008	15:10:06	0.015	8.103	444.872	21.245	70.554		
12/9/2008	15:10:16	2.315	4.417	448.974	24.444	74.339		
12/9/2008	15:10:26	8.225	1.919	440.769	5.568	76.156		
12/9/2008	15:10:36	13.13	0.823	440.513	1.612	75.324		
12/9/2008	15:10:46	16.161	0.366	445.641	0.171	76.383		
12/9/2008	15:10:56	18.096	0.091	436.667	0.024	73.658		
12/9/2008	15:11:06	19.116	0.03	428.462	0.024	69.04		
12/9/2008	15:11:16	19.802	0.03	406.385	0.024	68.662		
12/9/2008	15:11:26	20.121	0.03	400.513	0.024	69.873		
12/9/2008	15:11:36	20.319	0.03	418.718	0.024	78.049		
12/9/2008	15:11:46	20.457	0.03	417.949	10.647	93.795		
12/9/2008	15:11:56	20.548	0.03	420	20.293	98.337		
12/9/2008	15:12:06	20.624	0.03	430.513	2.637	100.002		
12/9/2008	15:12:16	20.67	0.03	438.205	0.415	97.126		
12/9/2008	15:12:26	20.624	0.03	424.103	0.024	94.476		
12/9/2008	15:12:36	20.868	0.03	414.103	0.024	79.033	Hi range drift check	0.14%
12/9/2008	15:12:46	20.929	0.03	398.205	0.024	71.387		
12/9/2008	15:12:56	20.974	0.03	371.026	0.024	70.327		
12/9/2008	15:13:06	20.944	0.03	371.026	0.024	67.223		
12/9/2008	15:13:16	20.822	0.03	370.769	0.024	68.737		
12/9/2008	15:13:26	20.822	0.03	359.231	17.367	71.463		
12/9/2008	15:13:36	20.868	0.03	367.436	21.392	73.507		
12/9/2008	15:13:46	20.837	0.03	380	6.299	72.523		
12/9/2008	15:13:56	20.761	0.03	385.641	1.856	70.327		
12/9/2008	15:14:06	20.776	0.03	384.359	0.44	68.737		
12/9/2008	15:14:16	20.685	0.03	376.667	0.024	69.495		
12/9/2008	15:14:26	20.274	0.03	413.077	0.024	72.295		
12/9/2008	15:14:36	16.161	0.03	440.513	0.024	72.901		
12/9/2008	15:14:46	9.794	0.03	443.59	0.024	74.037		
12/9/2008	15:14:56	5.072	0.03	437.436	0.024	74.491		
12/9/2008	15:15:06	2.148	0.03	436.41	10.452	75.475		
12/9/2008	15:15:16	0.487	0.03	410	21.245	74.339		
12/9/2008	15:15:26	0.015	0.03	387.436	3.516	72.447		
12/9/2008	15:15:36	0.015	0.03	375.641	1.001	71.69		
12/9/2008	15:15:46	0.015	0.03	413.846	0.024	71.084		
12/9/2008	15:15:56	0.015	0.03	430.769	0.024	77.897		
12/9/2008	15:16:06	0.015	0.03	389.231	0.024	95.839		
12/9/2008	15:16:16	0.015	0.03	362.821	0.024	100.305		
12/9/2008	15:16:26	0.015	0.03	370	0.024	101.668		
12/9/2008	15:16:36	0.015	0.03	418.462	0.024	97.807		
12/9/2008	15:16:46	6.839	0.03	417.692	4.811	96.52		
12/9/2008	15:16:56	15.704	0.03	390	27.253	81.683		
12/9/2008	15:17:06	19.345	0.03	393.333	6.154	72.901		
12/9/2008	15:17:16	21.005	0.03	412.308	1.685	68.965		
12/9/2008	15:17:26	21.706	0.03	419.231	0.024	64.877		
12/9/2008	15:17:36	22.102	0.03	377.692	0.024	66.164		
12/9/2008	15:17:46	22.208	0.03	350.513	0.024	69.267		
12/9/2008	15:17:56	22.223	0.03	383.077	0.024	28.161		
12/9/2008	15:18:06	22.254	0.03	412.821	0.024	20.591		
12/9/2008	15:18:16	22.3	0.03	415.385	0.024	17.033		
12/9/2008	15:18:26	22.284	0.03	394.103	0.024	16.352		
12/9/2008	15:18:36	22.3	0.03	381.026	32.869	16.654		
12/9/2008	15:18:46	22.3	0.03	418.718	3.541	15.216		
12/9/2008	15:18:56	17.761	0.03	441.538	0.244	12.869		
12/9/2008	15:19:06	17.745	0.03	425.385	0.024	12.567		
12/9/2008	15:19:16	17.715	0.03	387.949	0.024	13.551		
12/9/2008	15:19:26	17.7	0.03	425.641	0.024	13.702		
12/9/2008	15:19:36	17.73	0.03	461.026	0.024	12.188		
12/9/2008	15:19:46	17.73	0.03	461.282	0.024	10.825		
12/9/2008	15:19:56	17.715	0.03	402.564	0.024	10.977		
12/9/2008	15:20:06	17.7	0.03	372.051	0.024	12.339		
12/9/2008	15:20:16	17.715	0.03	381.538	31.258	12.112		
12/9/2008	15:20:26	17.715	0.03	420.256	5.201	9.236		
12/9/2008	15:20:36	17.715	0.03	377.179	1.807	10.068		
12/9/2008	15:20:46	17.7	0.03	362.564	0.562	10.977		
12/9/2008	15:20:56	17.715	0.03	399.744	0.024	10.144		
12/9/2008	15:21:06	17.7	0.03	426.923	0.024	8.706		
12/9/2008	15:21:16	17.7	0.03	432.564	0.024	8.554		
12/9/2008	15:21:26	17.7	0.03	446.923	0.024	8.554		
12/9/2008	15:21:36	17.7	0.03	428.974	0.024	8.479		
12/9/2008	15:21:46	17.7	0.03	426.41	0.024	8.327		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	15:21:56	17.7	0.03	396.41	33.187	8.327	Zero drift check	0.14%
12/9/2008	15:22:06	17.7	0.03	392.051	3.223	8.327	Post-test zero calibration drift check	2.50%
12/9/2008	15:22:16	17.684	0.03	411.538	0.513	8.403		
12/9/2008	15:22:26	17.684	0.03	416.41	0.024	8.63		
12/9/2008	15:22:36	17.684	0.03	408.205	0.024	9.009		
12/9/2008	15:22:46	17.684	0.03	402.051	0.024	9.009		
12/9/2008	15:22:56	17.669	0.03	396.667	0.024	9.311		
12/9/2008	15:23:06	17.669	0.03	420.256	0.024	10.825		
12/9/2008	15:23:16	17.669	0.03	410	0.024	60.107		
12/9/2008	15:23:26	17.654	0.03	413.077	0.024	66.845		
12/9/2008	15:23:36	17.669	0.03	386.41	34.066	61.773		
12/9/2008	15:23:46	17.669	0.03	423.077	6.74	64.195		
12/9/2008	15:23:56	17.669	0.03	427.949	2.32	70.327		
12/9/2008	15:24:06	17.654	0.03	404.103	0.708	77.14		
12/9/2008	15:24:16	17.654	0.03	373.077	0.024	79.487		
12/9/2008	15:24:26	17.654	0.03	379.231	0.024	76.308		
12/9/2008	15:24:36	17.654	0.03	388.462	0.024	76.232		
12/9/2008	15:24:46	17.654	0.03	385.897	0.024	76.686		
12/9/2008	15:24:56	17.654	0.03	379.487	0.024	76.913		
12/9/2008	15:25:06	17.654	0.03	366.154	0.024	76.989		
12/9/2008	15:25:16	17.654	0.03	393.333	31.282	75.626		
12/9/2008	15:25:26	17.654	0.03	389.462	3.394	75.929		
12/9/2008	15:25:36	17.654	0.03	421.795	0.684	76.611		
12/9/2008	15:25:46	17.669	0.03	446.718	0.024	75.929		
12/9/2008	15:25:56	19.116	1.279	491.282	99.951	95.309		
12/9/2008	15:26:06	17.654	0.03	435.897	12.063	75.096	Post-test mid range calibration drift check	0.00%
12/9/2008	15:26:16	17.654	0.03	401.538	29.304	73.204		
12/9/2008	15:26:26	17.654	0.03	405.897	30.745	73.355		
12/9/2008	15:26:36	17.639	0.03	388.205	31.697	34.293		
12/9/2008	15:26:46	17.639	0.03	404.872	32.063	1.363		
12/9/2008	15:26:56	17.639	0.03	392.308	29.28	0.757		
12/9/2008	15:27:06	17.639	0.03	405.385	26.569	0.227		
12/9/2008	15:27:16	17.654	0.03	430	24.615	0.076		
12/9/2008	15:27:26	17.654	0.03	444.359	24.444	0.076		
12/9/2008	15:27:36	17.639	0.03	447.949	24.957	0.076		
12/9/2008	15:27:46	17.654	0.03	452.308	24.591	0.076		
12/9/2008	15:27:56	17.623	0.03	390.513	25.128	0.076	Post-test low range calibration drift check	0.11%
12/9/2008	15:28:06	17.623	0.03	429.231	25.617	0.076		
12/9/2008	15:28:16	17.623	0.03	421.026	25.446	0.076		
12/9/2008	15:28:26	17.639	0.03	431.795	24.786	0.076		
12/9/2008	15:28:36	17.639	0.03	415.128	24.64	0.076		
12/9/2008	15:28:46	17.623	0.03	409.744	2.002	0.076		
12/9/2008	15:28:56	17.593	0.03	386.41	0.024	0.076		
12/9/2008	15:29:06	17.593	0.03	374.359	0.024	0.076		
12/9/2008	15:29:16	17.562	0.03	384.872	0.024	0.076		
12/9/2008	15:29:26	17.547	0.03	397.179	0.024	0.076		
12/9/2008	15:29:36	17.562	0.03	414.103	0.024	0.076	Post-test zero calibration drift check	0.00%
12/9/2008	15:29:46	17.562	0.03	414.359	0.024	0.076		
12/9/2008	15:29:56	17.578	0.03	406.667	0.024	0.076		
12/9/2008	15:30:06	17.593	0.03	135.641	0.024	0.076		
12/9/2008	15:30:16	17.593	0.03	38.718	0.024	0.076		
12/9/2008	15:30:26	17.593	0.03	24.615	0.024	0.076		
12/9/2008	15:30:36	17.593	0.03	18.462	0.024	0.076		
12/9/2008	15:30:46	17.608	0.03	15.128	0.024	0.076		
12/9/2008	15:30:56	17.608	0.03	11.026	0.024	0.076		
12/9/2008	15:31:06	17.593	0.03	8.718	0.024	0.076		
12/9/2008	15:31:16	17.593	0.03	9.487	0.024	0.076		
12/9/2008	15:31:26	17.593	0.03	10	0.024	0.076		
12/9/2008	15:31:36	17.578	0.03	6.923	0.024	0.076		
12/9/2008	15:31:46	17.562	0.03	16.41	0.024	0.076		
12/9/2008	15:31:56	17.578	0.03	13.846	0.024	0.076		
12/9/2008	15:32:06	17.578	0.03	7.436	0.024	0.076		
12/9/2008	15:32:16	17.562	0.03	6.923	0.024	0.076		
12/9/2008	15:32:26	17.578	0.03	0.256	0.024	0.076		
12/9/2008	15:32:36	17.562	0.03	0.256	0.024	0.076	Post-test zero calibration drift check	0.00%
12/9/2008	15:32:46	17.562	0.03	1.026	0.024	0.076		
12/9/2008	15:32:56	17.562	0.03	0.256	0.024	0.076		
12/9/2008	15:33:06	17.547	0.03	5.641	0.024	0.076		
12/9/2008	15:33:16	17.562	0.03	10.256	0.024	0.076		
12/9/2008	15:33:26	17.562	0.03	14.615	0.024	0.076		
12/9/2008	15:33:36	17.547	0.03	8.718	0.024	0.076		
12/9/2008	15:33:46	17.547	0.03	9.231	0.024	0.076		
12/9/2008	15:33:56	17.562	0.03	203.333	0.024	0.076		
12/9/2008	15:34:06	17.547	0.03	353.077	0.024	0.076		
12/9/2008	15:34:16	17.532	0.03	359.487	0.024	0.076		

Yellow, highlighted data represents calibrations.

RAW TEST DATA FROM ATC DATA LOGGER

Date	Time	O2 %	CO2 %	RTO Inlet VOC 3 ppm C_3H_8	RTO Outlet VOC 1 ppm C_3H_8	Baghouse VOC 2 ppm C_3H_8	Calibration Comments	Error %
12/9/2008	15:34:26	17.547	0.03	358.462	0.024	0.076		
12/9/2008	15:34:36	17.547	0.03	360	0.024	0.076		
12/9/2008	15:34:46	17.562	0.03	355.641	0.024	0.076		
12/9/2008	15:34:56	17.562	0.03	401.795	0.024	0.076		
12/9/2008	15:35:06	17.562	0.03	463.846	0.024	0.076		
12/9/2008	15:35:16	17.517	0.03	477.692	0.024	0.076		
12/9/2008	15:35:26	17.562	0.03	503.077	0.024	0.076	Post-test mid range calibration drift check	0.25%
12/9/2008	15:35:36	17.547	0.03	507.436	0.024	0.076		
12/9/2008	15:35:46	17.562	0.03	506.923	0.024	0.076		
12/9/2008	15:35:56	17.547	0.03	515.897	0.024	0.076		
12/9/2008	15:36:06	17.502	0.03	512.82	0.024	0.076		
12/9/2008	15:36:16	17.502	0.03	505.897	0.024	0.076		
12/9/2008	15:36:26	17.456	0.03	513.846	0.024	0.076		
12/9/2008	15:36:36	17.471	0.03	505.128	0.024	0.076		
12/9/2008	15:36:46	17.502	0.03	518.462	0.024	0.076		
12/9/2008	15:36:56	17.486	0.03	145.641	0.024	0.076		
12/9/2008	15:37:06	17.486	0.03	8.205	0.024	0.076		
12/9/2008	15:37:16	17.471	0.03	5.385	0.024	0.076		
12/9/2008	15:37:26	17.456	0.03	4.615	0.024	0.076		
12/9/2008	15:37:36	17.425	0.03	3.077	0.024	0.076		
12/9/2008	15:37:46	17.425	0.03	3.077	0.024	0.076		
12/9/2008	15:37:56	17.425	0.03	3.077	0.024	0.076		
12/9/2008	15:38:06	17.425	0.03	2.821	0.024	0.076		
12/9/2008	15:38:16	17.41	0.03	2.308	0.024	0.076		

Yellow, highlighted data represents calibrations.

Styrene Response Factor Determinations

		VOC 1	VOC 2			
11/10/2008	15:37:05	0.012	0.024	1.665		
11/10/2008	15:37:15	0	0.024	0.076		
11/10/2008	15:37:25	0.012	0.024	0.076		
11/10/2008	15:37:35	0.012	0.024	0.076		
11/10/2008	15:37:45	0.012	0.024	285.7		
11/10/2008	15:37:55	0.012	0.024	296.601		
11/10/2008	15:38:05	0.012	0.024	298.493		
11/10/2008	15:38:15	0.012	0.024	299.25		
11/10/2008	15:38:25	0	0.024	300.007	High range calibration gas	0.00%
11/10/2008	15:38:35	0.012	0.024	300.689		
11/10/2008	15:38:45	0	0.024	300.764		
11/10/2008	15:38:55	0.012	0.024	301.748		
11/10/2008	15:39:05	0.012	0.024	152.237		
11/10/2008	15:39:15	0.012	0.024	151.707		
11/10/2008	15:39:25	0.012	0.024	151.631	Mid range calibration gas	1.09%
11/10/2008	15:39:35	0.012	0.024	151.328		
11/10/2008	15:39:45	0.012	0.024	151.404		
11/10/2008	15:39:55	0.012	0.024	75.324		
11/10/2008	15:40:05	0.012	0.024	74.794	Low range calibration gas	0.27%
11/10/2008	15:40:15	0.012	0.024	74.567		
11/10/2008	15:40:25	0.012	0.024	74.415		
11/10/2008	15:40:35	0.012	0.024	74.491		
11/10/2008	15:40:45	0	0.024	2.725		
11/10/2008	15:40:55	0.012	0.024	0.076		
11/10/2008	15:41:05	0.012	0.024	0.076		
11/10/2008	15:41:15	0.012	0.024	0.076	Zero gas	0.02%
11/10/2008	15:41:25	0.012	0.024	0.076		
11/10/2008	15:41:35	0.012	0.024	0.076		
11/10/2008	15:41:45	0.012	0.024	4.164		
11/10/2008	15:41:55	0.012	0.024	145.197		
11/10/2008	15:42:05	0.012	0.024	152.918		
11/10/2008	15:42:15	0	0.024	154.811		
11/10/2008	15:42:25	0.012	0.024	156.325		
11/10/2008	15:42:35	0.012	0.024	157.309		
11/10/2008	15:42:45	0.012	0.024	157.612		
11/10/2008	15:42:55	0.012	0.024	157.99		
11/10/2008	15:43:05	0.012	0.024	158.293		
11/10/2008	15:43:15	0	0.024	158.672		
11/10/2008	15:43:25	0	0.024	158.672		
11/10/2008	15:43:35	0.012	0.024	159.201		
11/10/2008	15:43:45	0.012	0.024	159.201		
11/10/2008	15:43:55	0.012	0.024	159.277		
11/10/2008	15:44:05	0.012	0	159.353		
11/10/2008	15:44:15	0.012	0.024	159.58		
11/10/2008	15:44:25	0	0.024	159.731		
11/10/2008	15:44:35	0	0.024	159.277		
11/10/2008	15:44:45	0.012	0.024	159.656		
11/10/2008	15:44:55	0.012	0.024	159.656		

Styrene Response Factor Determinations

		VOC 1	VOC 2			
11/10/2008	15:45:05	0	0.024	160.034		
11/10/2008	15:45:15	0.012	0.024	160.034		
11/10/2008	15:45:25	0.012	0.024	159.958		
11/10/2008	15:45:35	0	0.024	160.186		
11/10/2008	15:45:45	0.012	0.024	160.186		
11/10/2008	15:45:55	0	0.024	160.261		
11/10/2008	15:46:05	0.012	0.024	160.034		
11/10/2008	15:46:15	0.012	0.024	160.186		
11/10/2008	15:46:25	0.012	0.024	160.413		
11/10/2008	15:46:35	0.012	0.024	160.488		
11/10/2008	15:46:45	0.012	0.024	160.413	49.2 ppm styrene	0.3067
11/10/2008	15:46:55	0	0.024	160.337		
11/10/2008	15:47:05	0.012	0.024	160.186		
11/10/2008	15:47:15	0	0.024	160.034		
11/10/2008	15:47:25	0	0.024	159.958		
11/10/2008	15:47:35	0.012	0.024	19.531		
11/10/2008	15:47:45	0.012	0.024	3.179		
11/10/2008	15:47:55	0.012	0.024	0.303		
11/10/2008	15:48:05	0	0.024	0.076		
11/10/2008	15:48:15	0.012	0.024	0.076		
11/10/2008	15:48:25	0.012	0.024	183.653		
11/10/2008	15:48:35	0.012	0.024	173.585		
11/10/2008	15:48:45	0	0.024	170.632		
11/10/2008	15:48:55	0	0.024	168.134		
11/10/2008	15:49:05	0.012	0.024	165.863		
11/10/2008	15:49:15	0	0.024	164.198		
11/10/2008	15:49:25	0.012	0.024	162.835		
11/10/2008	15:49:35	0.012	0.024	161.7		
11/10/2008	15:49:45	0.012	0.024	161.018		
11/10/2008	15:49:55	0.012	0.024	160.186		
11/10/2008	15:50:05	0.012	0.024	159.731		
11/10/2008	15:50:15	0.012	0.024	158.899		
11/10/2008	15:50:25	0.012	0.024	158.596		
11/10/2008	15:50:35	0.012	0.024	157.99		
11/10/2008	15:50:45	0.012	0.024	157.46		
11/10/2008	15:50:55	0.012	0.024	157.006		
11/10/2008	15:51:05	0.012	0.024	150.42	Mid range calibration drift check	0.37%
11/10/2008	15:51:15	0.012	0.024	148.83		
11/10/2008	15:51:25	0.012	0.024	143.758		
11/10/2008	15:51:35	0.012	0.024	5.299		
11/10/2008	15:51:45	0	0.024	2.195		
11/10/2008	15:51:55	0.012	0.024	1.514		
11/10/2008	15:52:05	0.012	0.024	0.908		
11/10/2008	15:52:15	0.012	0.024	0.681		
11/10/2008	15:52:25	0.012	0.024	0.076		
11/10/2008	15:52:35	0.012	0.024	0.076		
11/10/2008	15:52:45	0.012	0.024	0.076		
11/10/2008	15:52:55	0.012	0.024	0.076		
11/10/2008	15:53:05	0.012	0.024	0.076	Zero calibration drift check	0.02%

Styrene Response Factor Determinations

			VOC 1	VOC 2		
11/10/2008	15:53:15	0	0.024	0.076		
11/10/2008	15:53:25	0	0.024	0.076		
11/10/2008	15:53:35	0.012	0.024	0.076		
11/10/2008	15:53:45	0.012	0.024	0.076		
11/10/2008	15:53:55	0.012	0.024	0.076		
11/10/2008	15:54:05	0.012	0.024	0.076		
11/10/2008	16:05:01	0.012	0.073	0.076		
11/10/2008	16:05:11	0.012	0.073	0.076		
11/10/2008	16:05:21	0.012	0.073	0.076		
11/10/2008	16:05:31	0	0.073	0.076		
11/10/2008	16:05:41	0.012	300	0.076		
11/10/2008	16:05:51	0.012	300	0.076		
11/10/2008	16:06:01	0.024	300	0.076	High range calibration gas	0.00%
11/10/2008	16:06:11	0.012	300	0		
11/10/2008	16:06:21	0.012	294.579	0.076		
11/10/2008	16:06:31	0.012	299.707	0.076		
11/10/2008	16:06:41	0.024	300	0.076		
11/10/2008	16:06:51	0.024	149.817	0.076		
11/10/2008	16:07:01	0.024	148.205	0.076		
11/10/2008	16:07:11	0.012	150.769	0.076		
11/10/2008	16:07:21	0.012	150.842	0.076		
11/10/2008	16:07:31	0	150.842	0.076	Mid range calibration gas	0.56%
11/10/2008	16:07:41	0.024	151.062	0.076		
11/10/2008	16:07:51	0.024	73.26	0.076		
11/10/2008	16:08:01	0.037	73.333	0.076		
11/10/2008	16:08:11	0.037	73.7	0.076		
11/10/2008	16:08:21	0.024	74.359	0.076		
11/10/2008	16:08:31	0.024	74.945	0.076		
11/10/2008	16:08:41	0.024	74.799	0.076	Low range calibration gas	0.27%
11/10/2008	16:08:51	0.012	74.872	0.076		
11/10/2008	16:09:01	0.012	0.586	0.076		
11/10/2008	16:09:11	0.012	0.073	0.076		
11/10/2008	16:09:21	0.024	0.073	0.076		
11/10/2008	16:09:31	0.024	0.073	0.076		
11/10/2008	16:09:41	0.024	0.073	0.076		
11/10/2008	16:09:51	0.012	0.073	0.076	Zero gas	0.02%
11/10/2008	16:10:01	0.012	0.073	0.076		
11/10/2008	16:10:11	0.012	0.073	0.076		
11/10/2008	16:10:21	0.024	140.293	0.076		
11/10/2008	16:10:31	0.024	143.59	0.076		
11/10/2008	16:10:41	0.024	145.055	0.076		
11/10/2008	16:10:51	0.024	145.495	0.076		
11/10/2008	16:11:01	0.024	145.714	0.076		
11/10/2008	16:11:11	0.012	146.081	0.076		
11/10/2008	16:11:21	0.012	146.3	0.076		
11/10/2008	16:11:31	0.012	146.52	0.076		
11/10/2008	16:11:41	0.024	146.74	0.076		
11/10/2008	16:11:51	0.037	146.667	0.076		

Styrene Response Factor Determinations

			VOC 1	VOC 2		
11/10/2008	16:12:01	0.024	146.886	0.076		
11/10/2008	16:12:11	0.012	147.033	0.076		
11/10/2008	16:12:21	0.024	147.179	0.076		
11/10/2008	16:12:31	0.024	147.326	0.076		
11/10/2008	16:12:41	0.012	147.253	0.076		
11/10/2008	16:12:51	0.024	147.399	0.076		
11/10/2008	16:13:01	0.012	147.253	0.076		
11/10/2008	16:13:11	0.024	147.619	0.076		
11/10/2008	16:13:21	0.024	147.546	0.076		
11/10/2008	16:13:31	0.024	147.692	0.076		
11/10/2008	16:13:41	0.024	147.546	0.076		
11/10/2008	16:13:51	0.024	147.546	0.076		
11/10/2008	16:14:01	0.024	147.546	0.076		
11/10/2008	16:14:11	0.037	147.546	0.076		
11/10/2008	16:14:21	0.024	147.619	0.076		
11/10/2008	16:14:31	0.024	147.619	0.076		
11/10/2008	16:14:41	0.012	147.692	0.076		
11/10/2008	16:14:51	0.012	147.766	0.076		
11/10/2008	16:15:01	0.012	147.839	0.076		
11/10/2008	16:15:11	0.012	147.912	0.076	49.2 ppm styrene	0.3326
11/10/2008	16:15:21	0.012	147.839	0.076		
11/10/2008	16:15:31	0.024	147.985	0.076		
11/10/2008	16:15:41	0.024	5.201	0.076		
11/10/2008	16:15:51	0.024	0.073	0.076		
11/10/2008	16:16:01	0.024	0.073	0.076		
11/10/2008	16:16:11	0.012	177.582	0.076		
11/10/2008	16:16:21	0.012	174.872	0.076		
11/10/2008	16:16:31	0.012	172.015	0.076		
11/10/2008	16:16:41	0.012	169.377	0.076		
11/10/2008	16:16:51	0.012	167.473	0.076		
11/10/2008	16:17:01	0.012	166.154	0.076		
11/10/2008	16:17:11	0.024	164.908	0.076		
11/10/2008	16:17:21	0.024	164.029	0.076		
11/10/2008	16:17:31	0.024	159.853	0.076		
11/10/2008	16:17:41	0.024	150.769	0.076		
11/10/2008	16:17:51	0.024	150.842	0.076	Mid range calibration drift check	0.00%
11/10/2008	16:18:01	0.024	150.256	0		
11/10/2008	16:18:11	0.037	149.963	0.076		
11/10/2008	16:18:21	0.024	6.007	0.076		
11/10/2008	16:18:31	0.024	1.612	0.076		
11/10/2008	16:18:41	0.012	0.806	0.076		
11/10/2008	16:18:51	0.012	0.293	0.076		
11/10/2008	16:19:01	0.012	0.073	0.076		
11/10/2008	16:19:11	0	0.073	0.076		
11/10/2008	16:19:21	0	0.073	0.076	Zero calibration drift check	0.00%
11/10/2008	16:19:31	0.012	0.073	0.076		
11/10/2008	16:19:41	0.012	0.073	0.076		
		VOC 2				
11/11/2008	11:59:16	0.073	0.076			

Styrene Response Factor Determinations

		VOC 1	VOC 2		
11/11/2008	11:59:26	0.073	0.076		
11/11/2008	11:59:36	0.073	0.076		
11/11/2008	11:59:46	0.073	0.076		
11/11/2008	11:59:56	0.073	0.076		
11/11/2008	12:00:06	208.571	0.076		
11/11/2008	12:00:16	284.396	0.076		
11/11/2008	12:00:26	297.949	0.076		
11/11/2008	12:00:36	299.853	0.076		
11/11/2008	12:00:46	299.927	0.076		
11/11/2008	12:00:56	299.927	0.076		
11/11/2008	12:01:06	299.927	0.076	High range calibration gas	0.02%
11/11/2008	12:01:16	299.927	0.076		
11/11/2008	12:01:26	0.879	0.076		
11/11/2008	12:01:36	0.073	0.076		
11/11/2008	12:01:46	0.073	0.076		
11/11/2008	12:01:56	0.073	0.076		
11/11/2008	12:02:06	28.791	0.076		
11/11/2008	12:02:16	70.403	0.076		
11/11/2008	12:02:26	71.209	0.076		
11/11/2008	12:02:36	72.161	0.076		
11/11/2008	12:02:46	72.527	0.076		
11/11/2008	12:02:56	72.527	0.076		
11/11/2008	12:03:06	75.678	0.076		
11/11/2008	12:03:16	76.63	0.076		
11/11/2008	12:03:26	75.018	0.076		
11/11/2008	12:03:36	74.945	0.076		
11/11/2008	12:03:46	74.945	0.076	Low range calibration gas	0.07%
11/11/2008	12:03:56	74.872	0.076		
11/11/2008	12:04:06	154.579	0.076		
11/11/2008	12:04:16	153.26	0.076		
11/11/2008	12:04:26	153.187	0.076		
11/11/2008	12:04:36	150.623	0.076		
11/11/2008	12:04:46	150.549	0.076		
11/11/2008	12:04:56	149.89	0.076		
11/11/2008	12:05:06	149.67	0.076		
11/11/2008	12:05:16	148.791	0.076		
11/11/2008	12:05:26	148.352	0.076		
11/11/2008	12:05:36	148.132	0.076		
11/11/2008	12:05:46	148.205	0.076		
11/11/2008	12:05:56	150.476	0.076		
11/11/2008	12:06:06	149.597	0.076		
11/11/2008	12:06:16	148.938	0.076		
11/11/2008	12:06:26	148.571	0.076		
11/11/2008	12:06:36	151.795	0.076		
11/11/2008	12:06:46	150.037	0.076		
11/11/2008	12:06:56	149.377	0.076		
11/11/2008	12:07:06	150.476	0.076	Mid range calibration gas	0.32%
11/11/2008	12:07:16	149.744	0.076		
11/11/2008	12:07:26	149.231	0.076		

Styrene Response Factor Determinations

		VOC 1	VOC 2		
11/11/2008	12:07:36	149.158	0.076		
11/11/2008	12:07:46	152.747	0		
11/11/2008	12:07:56	0.073	0.076		
11/11/2008	12:08:06	0.073	0.076		
11/11/2008	12:08:16	0.073	0.076		
11/11/2008	12:08:26	0.073	0.076		
11/11/2008	12:08:36	0.073	0.076	Zero gas	0.02%
11/11/2008	12:08:46	0.073	0.076		
11/11/2008	12:08:56	0.073	0.076		
11/11/2008	12:09:06	0.073	0.076		
11/11/2008	12:09:16	131.722	0.076		
11/11/2008	12:09:26	138.681	0.076		
11/11/2008	12:09:36	139.414	0.076		
11/11/2008	12:09:46	141.685	0.076		
11/11/2008	12:09:56	143.516	0.076		
11/11/2008	12:10:06	145.055	0.076		
11/11/2008	12:10:16	145.495	0.076		
11/11/2008	12:10:26	147.766	0.076		
11/11/2008	12:10:36	148.205	0.076		
11/11/2008	12:10:46	148.205	0.076		
11/11/2008	12:10:56	147.985	0.076		
11/11/2008	12:11:06	147.985	0.076		
11/11/2008	12:11:16	148.205	0.076		
11/11/2008	12:11:26	148.571	0.076		
11/11/2008	12:11:36	148.498	0.076		
11/11/2008	12:11:46	148.718	0.076		
11/11/2008	12:11:56	148.718	0.076		
11/11/2008	12:12:06	149.084	0.076		
11/11/2008	12:12:16	149.084	0.076		
11/11/2008	12:12:26	149.084	0.076		
11/11/2008	12:12:36	149.011	0.076		
11/11/2008	12:12:46	148.864	0.076		
11/11/2008	12:12:56	148.645	0.076		
11/11/2008	12:13:06	148.645	0.076		
11/11/2008	12:13:16	148.645	0.076		
11/11/2008	12:13:26	148.498	0.076		
11/11/2008	12:13:36	148.645	0.076		
11/11/2008	12:13:46	148.718	0.076		
11/11/2008	12:13:56	148.864	0.076		
11/11/2008	12:14:06	149.011	0.076		
11/11/2008	12:14:16	148.938	0.076		
11/11/2008	12:14:26	149.011	0.076		
11/11/2008	12:14:36	149.084	0.076		
11/11/2008	12:14:46	149.084	0.076		
11/11/2008	12:14:56	149.158	0.076		
11/11/2008	12:15:06	149.011	0.076		
11/11/2008	12:15:16	149.304	0.076		
11/11/2008	12:15:26	149.158	0.076		
11/11/2008	12:15:36	149.084	0.076		

Styrene Response Factor Determinations

		VOC 1	VOC 2		
11/11/2008	12:15:46	149.231	0.076		
11/11/2008	12:15:56	149.304	0.076		
11/11/2008	12:16:06	149.158	0.076		
11/11/2008	12:16:16	149.304	0.076		
11/11/2008	12:16:26	149.231	0.076		
11/11/2008	12:16:36	149.304	0.076		
11/11/2008	12:16:46	149.377	0.076		
11/11/2008	12:16:56	149.231	0.076		
11/11/2008	12:17:06	149.084	0.076		
11/11/2008	12:17:16	149.084	0.076		
11/11/2008	12:17:26	149.084	0.076		
11/11/2008	12:17:36	148.938	0.076		
11/11/2008	12:17:46	149.084	0.076		
11/11/2008	12:17:56	149.011	0.076		
11/11/2008	12:18:06	149.084	0.076		
11/11/2008	12:18:16	149.304	0.076		
11/11/2008	12:18:26	149.304	0.076		
11/11/2008	12:18:36	149.304	0.076		
11/11/2008	12:18:46	149.231	0.076		
11/11/2008	12:18:56	149.304	0.076		
11/11/2008	12:19:06	149.377	0.076		
11/11/2008	12:19:16	149.377	0.076		
11/11/2008	12:19:26	149.451	0.076		
11/11/2008	12:19:36	149.597	0.076		
11/11/2008	12:19:46	149.67	0.076		
11/11/2008	12:19:56	149.963	0.076	49.2 ppm styrene	0.3281
11/11/2008	12:20:06	149.89	0.076		
11/11/2008	12:20:16	149.963	0.076		
11/11/2008	12:20:26	150.11	0.076		
11/11/2008	12:20:36	150.11	0.076		
11/11/2008	12:20:46	22.198	0.076		
11/11/2008	12:20:56	0.073	0.076		
11/11/2008	12:21:06	0.073	0.076		
11/11/2008	12:21:16	244.689	0.076		
11/11/2008	12:21:26	175.385	0.076		
11/11/2008	12:21:36	174.725	0.076		
11/11/2008	12:21:46	171.209	0.076		
11/11/2008	12:21:56	168.571	0.076		
11/11/2008	12:22:06	166.74	0.076		
11/11/2008	12:22:16	165.421	0.076		
11/11/2008	12:22:26	164.615	0.076		
11/11/2008	12:22:36	164.249	0.076		
11/11/2008	12:22:46	163.663	0.076		
11/11/2008	12:22:56	163.736	0.076		
11/11/2008	12:23:06	163.297	0.076		
11/11/2008	12:23:16	163.223	0.076		
11/11/2008	12:23:26	163.004	0.076		
11/11/2008	12:23:36	162.564	0.076		
11/11/2008	12:23:46	162.564	0.076		

Styrene Response Factor Determinations

		VOC 1	VOC 2
11/11/2008	12:23:56	162.271	0.076
11/11/2008	12:24:06	162.271	0.076
11/11/2008	12:24:16	161.978	0.076
11/11/2008	12:24:26	161.465	0.076
11/11/2008	12:24:36	161.172	0.076
11/11/2008	12:24:46	160.659	0.076
11/11/2008	12:24:56	160.586	0.076
11/11/2008	12:25:06	160.073	0.076
11/11/2008	12:25:16	159.707	0.076
11/11/2008	12:25:26	159.048	0.076
11/11/2008	12:25:36	158.535	0.076
11/11/2008	12:25:46	158.681	0.076
11/11/2008	12:25:56	158.315	0.076
11/11/2008	12:26:06	157.656	0.076
11/11/2008	12:26:16	157.436	0.076
11/11/2008	12:26:26	157.509	0.076
11/11/2008	12:26:36	157.143	0.076
11/11/2008	12:26:46	157.289	0.076
11/11/2008	12:26:56	156.923	0.076
11/11/2008	12:27:06	156.264	0.076
11/11/2008	12:27:16	156.19	0.076
11/11/2008	12:27:26	156.117	0.076
11/11/2008	12:27:36	156.044	0.076
11/11/2008	12:27:46	155.678	0.076
11/11/2008	12:27:56	155.678	0.076
11/11/2008	12:28:06	155.824	0.076
11/11/2008	12:28:16	155.678	0.076
11/11/2008	12:28:26	155.751	0.076
11/11/2008	12:28:36	155.751	0.076
11/11/2008	12:28:46	155.897	0.076
11/11/2008	12:28:56	155.751	0.076
11/11/2008	12:29:06	155.751	0.076
11/11/2008	12:29:16	156.484	0.076
11/11/2008	12:29:26	156.19	0.076
11/11/2008	12:29:36	155.971	0.076
11/11/2008	12:29:46	155.751	0.076
11/11/2008	12:29:56	155.824	0.076
11/11/2008	12:30:06	155.751	0.076
11/11/2008	12:30:16	155.751	0.076
11/11/2008	12:30:26	155.604	0.076
11/11/2008	12:30:36	155.531	0.076
11/11/2008	12:30:46	155.531	0.076
11/11/2008	12:30:56	155.824	0.076
11/11/2008	12:31:06	155.531	0.076
11/11/2008	12:31:16	155.531	0.076
11/11/2008	12:31:26	155.458	0.076
11/11/2008	12:31:36	155.238	0.076
11/11/2008	12:31:46	155.018	0.076
11/11/2008	12:31:56	155.311	0.076

Styrene Response Factor Determinations

		VOC 1	VOC 2
11/11/2008	12:32:06	155.458	0.076
11/11/2008	12:32:16	155.531	0.076
11/11/2008	12:32:26	155.018	0.076
11/11/2008	12:32:36	154.945	0.076
11/11/2008	12:32:46	154.725	0.076
11/11/2008	12:32:56	154.505	0.076
11/11/2008	12:33:06	154.505	0.076
11/11/2008	12:33:16	154.652	0.076
11/11/2008	12:33:26	154.579	0.076
11/11/2008	12:33:36	154.286	0.076
11/11/2008	12:33:46	154.139	0.076
11/11/2008	12:33:56	153.993	0.076
11/11/2008	12:34:06	154.359	0.076
11/11/2008	12:34:16	154.139	0.076
11/11/2008	12:34:26	154.139	0.076
11/11/2008	12:34:36	153.773	0.076
11/11/2008	12:34:46	153.773	0.076
11/11/2008	12:34:56	153.773	0.076
11/11/2008	12:35:06	153.773	0.076
11/11/2008	12:35:16	153.773	0.076
11/11/2008	12:35:26	153.7	0.076
11/11/2008	12:35:36	153.553	0.076
11/11/2008	12:35:46	153.626	0.076
11/11/2008	12:35:56	153.7	0.076
11/11/2008	12:36:06	150.183	0.076
11/11/2008	12:36:16	151.136	0.076
11/11/2008	12:36:26	150.842	0.076
11/11/2008	12:36:36	150.989	0.076
11/11/2008	12:36:46	150.183	0.076
11/11/2008	12:36:56	150.476	0.076
11/11/2008	12:37:06	2.711	0.076
11/11/2008	12:37:16	24.689	0.076
11/11/2008	12:37:26	0.073	0.076
11/11/2008	12:37:36	0.073	0.076
11/11/2008	12:37:46	0.073	0.076
11/11/2008	12:37:56	0.073	0.076
11/11/2008	12:38:06	0.073	0.076
11/11/2008	12:38:16	0.073	0.076
11/11/2008	12:38:26	0.073	0.076

Mid range calibration drift check 0.00%

Zero calibration drift check 0.00%

		VOC 1
11/11/2008	12:43:02	0
11/11/2008	12:43:12	0.076
11/11/2008	12:43:22	0.076
11/11/2008	12:43:32	0.076
11/11/2008	12:43:42	0.076
11/11/2008	12:43:52	0.076
11/11/2008	12:44:02	0.076
11/11/2008	12:44:12	309.394
11/11/2008	12:44:22	309.924

Styrene Response Factor Determinations

		VOC 1	VOC 2		
11/11/2008	12:44:32	310			
11/11/2008	12:44:42	309.924			
11/11/2008	12:44:52	309.924			
11/11/2008	12:45:02	309.924			
11/11/2008	12:45:12	310			
11/11/2008	12:45:22	309.924			
11/11/2008	12:45:32	310			
11/11/2008	12:45:42	309.924			
11/11/2008	12:45:52	309.924			
11/11/2008	12:46:02	310			
11/11/2008	12:46:12	309.924			
11/11/2008	12:46:22	310			
11/11/2008	12:46:32	310			
11/11/2008	12:46:42	309.924			
11/11/2008	12:46:52	310			
11/11/2008	12:47:02	310			
11/11/2008	12:47:12	309.924			
11/11/2008	12:47:22	309.924			
11/11/2008	12:47:32	309.924			
11/11/2008	12:47:42	310			
11/11/2008	12:47:52	309.924			
11/11/2008	12:48:02	310			
11/11/2008	12:48:12	309.924			
11/11/2008	12:48:22	310			
11/11/2008	12:48:32	310			
11/11/2008	12:48:42	310			
11/11/2008	12:48:52	309.924			
11/11/2008	12:49:02	310			
11/11/2008	12:49:12	309.924			
11/11/2008	12:49:22	309.773			
11/11/2008	12:49:32	301.824			
11/11/2008	12:49:42	301.446		High range calibration gas	0.48%
11/11/2008	12:49:52	301.597			
11/11/2008	12:50:02	302.43			
11/11/2008	12:50:12	303.035			
11/11/2008	12:50:22	303.868			
11/11/2008	12:50:32	305.306			
11/11/2008	12:50:42	301.219			
11/11/2008	12:50:52	302.278			
11/11/2008	12:51:02	20.137			
11/11/2008	12:51:12	3.709			
11/11/2008	12:51:22	1.817			
11/11/2008	12:51:32	1.136			
11/11/2008	12:51:42	0.681			
11/11/2008	12:51:52	0.53			
11/11/2008	12:52:02	0.379			
11/11/2008	12:52:12	0.076			
11/11/2008	12:52:22	0.076		Zero gas	0.02%
11/11/2008	12:52:32	0.076			

Styrene Response Factor Determinations

		VOC 1	VOC 2		
11/11/2008	12:52:42	49.661			
11/11/2008	12:52:52	67.072			
11/11/2008	12:53:02	70.554			
11/11/2008	12:53:12	71.917			
11/11/2008	12:53:22	72.22			
11/11/2008	12:53:32	77.897			
11/11/2008	12:53:42	76.611			
11/11/2008	12:53:52	76.383			
11/11/2008	12:54:02	75.475		Low range calibration gas	0.63%
11/11/2008	12:54:12	75.324			
11/11/2008	12:54:22	75.475			
11/11/2008	12:54:32	153.221			
11/11/2008	12:54:42	154.659			
11/11/2008	12:54:52	154.962			
11/11/2008	12:55:02	155.114			
11/11/2008	12:55:12	155.492			
11/11/2008	12:55:22	149.36			
11/11/2008	12:55:32	149.512			
11/11/2008	12:55:42	149.436		Mid range calibration gas	0.38%
11/11/2008	12:55:52	149.285			
11/11/2008	12:56:02	93.871			
11/11/2008	12:56:12	0.076			
11/11/2008	12:56:22	0.076			
11/11/2008	12:56:32	119.231			
11/11/2008	12:56:42	132.024			
11/11/2008	12:56:52	134.674			
11/11/2008	12:57:02	135.658			
11/11/2008	12:57:12	136.718			
11/11/2008	12:57:22	137.096			
11/11/2008	12:57:32	138.383			
11/11/2008	12:57:42	139.14			
11/11/2008	12:57:52	139.292			
11/11/2008	12:58:02	139.595			
11/11/2008	12:58:12	139.595			
11/11/2008	12:58:22	140.125			
11/11/2008	12:58:32	139.822			
11/11/2008	12:58:42	139.368			
11/11/2008	12:58:52	137.929			
11/11/2008	12:59:02	139.216			
11/11/2008	12:59:12	140.276			
11/11/2008	12:59:22	139.973			
11/11/2008	12:59:32	140.352			
11/11/2008	12:59:42	140.2			
11/11/2008	12:59:52	139.973			
11/11/2008	13:00:02	140.125			
11/11/2008	13:00:12	140.125			
11/11/2008	13:00:22	139.897			
11/11/2008	13:00:32	139.897			
11/11/2008	13:00:42	140.2			

Styrene Response Factor Determinations

		VOC 1	VOC 2		
11/11/2008	13:00:52	140.2			
11/11/2008	13:01:02	140.125			
11/11/2008	13:01:12	139.973			
11/11/2008	13:01:22	140.503			
11/11/2008	13:01:32	140.276			
11/11/2008	13:01:42	140.2			
11/11/2008	13:01:52	140.049			
11/11/2008	13:02:02	140.2			
11/11/2008	13:02:12	140.125			
11/11/2008	13:02:22	140.276			
11/11/2008	13:02:32	140.049			
11/11/2008	13:02:42	140.125			
11/11/2008	13:02:52	140.503			
11/11/2008	13:03:02	140.503			
11/11/2008	13:03:12	140.427			
11/11/2008	13:03:22	140.427			
11/11/2008	13:03:32	140.427		49.2 ppm styrene	0.3504
11/11/2008	13:03:42	140.2			
11/11/2008	13:03:52	140.125			
11/11/2008	13:04:02	140.2			
11/11/2008	13:04:12	140.125			
11/11/2008	13:04:22	140.2			
11/11/2008	13:04:32	140.2			
11/11/2008	13:04:42	140.2			
11/11/2008	13:04:52	140.125			
11/11/2008	13:05:02	139.897			
11/11/2008	13:05:12	139.822			
11/11/2008	13:05:22	139.822			
11/11/2008	13:05:32	140.049			
11/11/2008	13:05:42	139.973			
11/11/2008	13:05:52	139.973			
11/11/2008	13:06:02	139.973			
11/11/2008	13:06:12	139.897			
11/11/2008	13:06:22	139.746			
11/11/2008	13:06:32	139.595			
11/11/2008	13:06:42	139.67			
11/11/2008	13:06:52	139.746			
11/11/2008	13:07:02	139.519			
11/11/2008	13:07:12	139.746			
11/11/2008	13:07:22	139.519			
11/11/2008	13:07:32	139.822			
11/11/2008	13:07:42	139.67			
11/11/2008	13:07:52	139.519			
11/11/2008	13:08:02	139.519			
11/11/2008	13:08:12	139.216			
11/11/2008	13:08:22	139.292			
11/11/2008	13:08:32	139.519			
11/11/2008	13:08:42	139.14			
11/11/2008	13:08:52	139.368			

Styrene Response Factor Determinations

		VOC 1	VOC 2
11/11/2008	13:09:02	139.216	
11/11/2008	13:09:12	139.065	
11/11/2008	13:09:22	139.216	
11/11/2008	13:09:32	139.292	
11/11/2008	13:09:42	139.14	
11/11/2008	13:09:52	139.368	
11/11/2008	13:10:02	139.368	
11/11/2008	13:10:12	139.368	
11/11/2008	13:10:22	139.14	
11/11/2008	13:10:32	139.065	
11/11/2008	13:10:42	139.368	
11/11/2008	13:10:52	139.519	
11/11/2008	13:11:02	139.519	
11/11/2008	13:11:12	139.443	
11/11/2008	13:11:22	139.368	
11/11/2008	13:11:32	139.216	
11/11/2008	13:11:42	139.292	
11/11/2008	13:11:52	139.292	
11/11/2008	13:12:02	139.216	
11/11/2008	13:12:12	139.292	
11/11/2008	13:12:22	139.368	
11/11/2008	13:12:32	138.838	
11/11/2008	13:12:42	139.065	
11/11/2008	13:12:52	139.14	
11/11/2008	13:13:02	139.216	
11/11/2008	13:13:12	139.065	
11/11/2008	13:13:22	138.989	
11/11/2008	13:13:32	139.065	
11/11/2008	13:13:42	139.216	
11/11/2008	13:13:52	140.806	
11/11/2008	13:14:02	147.089	
11/11/2008	13:14:12	147.089	
11/11/2008	13:14:22	30.508	
11/11/2008	13:14:32	2.195	
11/11/2008	13:14:42	0.076	
11/11/2008	13:14:52	0.076	
11/11/2008	13:15:02	177.067	
11/11/2008	13:15:12	180.247	
11/11/2008	13:15:22	177.294	
11/11/2008	13:15:32	173.736	
11/11/2008	13:15:42	171.389	
11/11/2008	13:15:52	169.421	
11/11/2008	13:16:02	167.907	
11/11/2008	13:16:12	166.999	
11/11/2008	13:16:22	166.015	
11/11/2008	13:16:32	164.955	
11/11/2008	13:16:42	164.273	
11/11/2008	13:16:52	163.744	
11/11/2008	13:17:02	163.138	

Styrene Response Factor Determinations

		VOC 1	VOC 2
11/11/2008	13:17:12	162.532	
11/11/2008	13:17:22	161.548	
11/11/2008	13:17:32	161.17	
11/11/2008	13:17:42	160.715	
11/11/2008	13:17:52	159.883	
11/11/2008	13:18:02	159.05	
11/11/2008	13:18:12	158.293	
11/11/2008	13:18:22	157.839	
11/11/2008	13:18:32	157.385	
11/11/2008	13:18:42	156.93	
11/11/2008	13:18:52	156.855	
11/11/2008	13:19:02	156.476	
11/11/2008	13:19:12	156.173	
11/11/2008	13:19:22	155.795	
11/11/2008	13:19:32	155.795	
11/11/2008	13:19:42	155.871	
11/11/2008	13:19:52	155.492	
11/11/2008	13:20:02	155.492	
11/11/2008	13:20:12	155.416	
11/11/2008	13:20:22	155.189	
11/11/2008	13:20:32	155.038	
11/11/2008	13:20:42	155.114	
11/11/2008	13:20:52	155.038	
11/11/2008	13:21:02	154.886	
11/11/2008	13:21:12	154.357	
11/11/2008	13:21:22	154.508	
11/11/2008	13:21:32	154.357	
11/11/2008	13:21:42	154.129	
11/11/2008	13:21:52	148.755	
11/11/2008	13:22:02	149.663	
11/11/2008	13:22:12	149.512	
11/11/2008	13:22:22	149.436	
11/11/2008	13:22:32	149.587	
11/11/2008	13:22:42	149.209	
11/11/2008	13:22:52	160.488	
11/11/2008	13:23:02	3.709	
11/11/2008	13:23:12	1.06	
11/11/2008	13:23:22	0.076	
11/11/2008	13:23:32	0.076	
11/11/2008	13:23:42	0.076	
11/11/2008	13:23:52	0.076	
11/11/2008	13:24:02	0.076	
11/11/2008	13:24:12	0.076	
11/11/2008	13:24:22	0.076	

Mid range calibration drift check 0.00%

Zero calibration drift check 0.00%

CEM Event Log

Client: E Stone / Grove Date: 11/10/08 Project No. 8192

Location: Sebring, FL Techician: E Smith

Task	Start Time	End Time	Notes
VOC 2 CAL	1538	1541	
VOC 2 Styrene	1542	1547	
VOC 2 CAL	1548	1554	
VOC 1 CAL	1605	1609	
VOC 1 Styrene	1610	1615	
VOC 1 CAL	1616	1620	
VOC 1 CAL	1200	1208	11/11/08
VOC 1 Styrene	1209	1220	
VOC 1 CAL	1221	1238	
VOC 2 CAL	1243	1255	
VOC 2 Styrene	1256	1314	
VOC 2 CAL	1315	1324	

SYSTEM CALIBRATION ERROR DATA

Client: E Stone / Grove Date: 11/10/08

Location: Sebring, FL Project No.: 8192

Calibration Gas: 10110 ppm propane in air Cylinder No.: SG9140087CAH Exp. Date: 9/27/09

US EPA Method: 25A Analyzer ID: CAI 300M Cylinder Pressure (PSI): 500

Was instrument stable prior to beginning calibrations? YES

Initial Analyzer Calibration using Dilution System

Range	Dilution Target Level (ppm or %)	Instrument Response (ppm or %)	Difference (ppm or %)	Allowable Difference (ppm or %)	Specification
Zero	0.00	0.08	0.08	6.60	± 2% of Span
Low Range	75.00	74.79	0.21	3.75	± 5% of Gas Value-25A/B
Mid Range	150.00	151.63	1.63	7.50	± 5% of Gas Value-25A/B
High Range	300.00	300.01	0.01	15.00	± 5% of Gas Value-25A/B
Span Value	330.00				=110% of High Range Gas

Hourly System Calibration Error and Zero Drift Checks

	Run Time (24 Hour Clock)	Initial System Response (ppm or %)		Final System Response (ppm or %)		Drift Difference (ppm or %)		Calibration Drift (percent error)	
		Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale
Run 1	1548	0.08	151.63	0.08	150.42	0.00	1.21	0.00	0.37
Run 2									
Run 3									
Run 4									
Run 5									
Run 6									

Specification-All must be within ± 3% of span

Field Notes: 50 ppm Styrene = 160.4 ppm Response as propane (1546)

VOC 2

QA/QC Check

✓	✓	✓	✓	✓
Completeness	Legibility	Accuracy	Specifications	Reasonableness

[signature] 11/10/08
Technician (Signature/Date)

W. Kirk Pooh 12/16/08
Project Manager (Signature/Date)

SYSTEM CALIBRATION ERROR DATA

Client: E Stone/Grove Date: 11/10/08

Location: Sebring FL Project No.: 8192

Calibration Gas: 10110 [illegible] Cylinder No: SG9140087GAL Exp. Date: 9/27/09

US EPA Method: 25A Analyzer ID: CAI 300 Cylinder Pressure (PSI): 500

Was instrument stable prior to beginning calibrations? YES

Initial Analyzer Calibration using Dilution System

Range	Dilution Target Level (ppm or %)	Instrument Response (ppm or %)	Difference (ppm or %)	Allowable Difference (ppm or %)	Specification
Zero	0.00	0.07	0.07	6.60	±2% of Span
Low Range	75.00	74.80	0.20	3.75	±5% of Gas Value-25A/B
Mid Range	150.00	150.84	0.84	7.50	±5% of Gas Value-25A/B
High Range	300.00	300.00	0.00	15.00	±5% of Gas Value-25A/B
Span Value	330.00	[redacted]			=110% of High Range Gas

Hourly System Calibration Error and Zero Drift Checks

	Run Time (24 Hour Clock)	Initial System Response (ppm or %)		Final System Response (ppm or %)		Drift Difference (ppm or %)		Calibration Drift (percent error)	
		Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale
Run 1	1616	0.07	150.84	0.07	150.84	0.00	0.00	0.00	0.00
Run 2									
Run 3									
Run 4									
Run 5									
Run 6									

Specification-All must be within ± 3% of span

Field Notes: 50 ppm System = 147.91 ppm Response as Reported (1615)

VOC 1

QA/QC Check

✓ Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness

[signature] 11/10/08
Technician (Signature/Date)

W. Keith Porter 12/16/08
Project Manager (Signature/Date)

ATC @ 1-800-733-3193

Document2 ATC Form No. 18b-version 2.0 (7/13/07)

SYSTEM CALIBRATION ERROR DATA

Client: E Stone / Grove **Date:** 11/11/08

Location: Sebring FL **Project No.:** 8192

Calibration Gas: 1011 ppm Propane **Cylinder No.** SG9140087BAL **Exp. Date:** 9/22/09

US EPA Method: 25A **Analyzer ID:** CAI 300 **Cylinder Pressure (PSI):** 500

Was instrument stable prior to beginning calibrations? YES

Initial Analyzer Calibration using Dilution System

Range	Dilution Target Level (ppm or %)	Instrument Response (ppm or %)	Difference (ppm or %)	Allowable Difference (ppm or %)	Specification
Zero	0.00	0.07	0.07	6.60	±2% of Span
Low Range	75.00	74.95	0.05	3.75	±5% of Gas Value-25A/B
Mid Range	150.00	150.48	0.48	7.50	±5% of Gas Value-25A/B
High Range	300.00	299.93	0.07	15.00	±5% of Gas Value-25A/B
Span Value	330.00				=110% of High Range Gas

Hourly System Calibration Error and Zero Drift Checks

	Run Time (24 Hour Clock)	Initial System Response (ppm or %)		Final System Response (ppm or %)		Drift Difference (ppm or %)		Calibration Drift (percent error)	
		Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale
Run 1	1221	0.07	150.48	0.07	150.48	0.00	0.00	0.00	0.00
Run 2									
Run 3									
Run 4									
Run 5									
Run 6									

Specification-All must be within ±3% of span

Field Notes: 50ppm Styrene = 149.96 ppm Response as Propane (1219)

VOC 1

QA/QC Check

✓ Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness

[signature] 11/11/08
Technician (Signature/Date)

W. Kesselpar 12/16/08
Project Manager (Signature/Date)

ATC @ 1-800-733-3193

Document2 ATC Form No. 18b-version 2.0 (7/13/07)

SYSTEM CALIBRATION ERROR DATA

Client: E Stone / Grove Date: 11/11/08

Location: Sebring, FL Project No.: 8192

Calibration Gas: 1011ppm Propane in N2 Cylinder No.: SG914 OR 7BAL Exp. Date: 9/27/09

US EPA Method: 25A Analyzer ID: CAI 300M Cylinder Pressure (PSI): 500

Was instrument stable prior to beginning calibrations? yes

Initial Analyzer Calibration using Dilution System

Range	Dilution Target Level (ppm or %)	Instrument Response (ppm or %)	Difference (ppm or %)	Allowable Difference (ppm or %)	Specification
Zero	0.00	0.08	0.08	6.60	±2% of Span
Low Range	75.00	75.48	0.48	3.75	±5% of Gas Value-25A/B
Mid Range	150.00	149.44	0.56	7.50	±5% of Gas Value-25A/B
High Range	300.00	301.45	1.45	15.00	±5% of Gas Value-25A/B
Span Value	330.00				=110% of High Range Gas

Hourly System Calibration Error and Zero Drift Checks

	Run Time (24 Hour Clock)	Initial System Response (ppm or %)		Final System Response (ppm or %)		Drift Difference (ppm or %)		Calibration Drift (percent error)	
		Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale
Run 1	1315	0.08	149.44	0.08	149.44	0.00	0.00	0.00	0.00
Run 2									
Run 3									
Run 4									
Run 5									
Run 6									

Specification-All must be within ± 3% of span

Field Notes: 50ppm Styrene = 140.43ppm Response As Propane (503) VOC 2

QA/QC Check

✓ Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness

[signature] 11/11/08
Technician (Signature/Date)

W. Kettleford 12/16/09
Project Manager (Signature/Date)

ATC @ 1-800-733-3193

Document2 ATC Form No. 18b-version 2.0 (7/13/07)

CEM Event Log

Client: E Stone / Grove
Date: 12/8/08
Project No. 8192
Location: Sebring, FL
Techician: F Smith

Task	Start Time	End Time	Notes
205	1150	1224	
VOC 3 CAl	1236	1306	And Styrene Conv
Sys. CAl / O_2	1316	1325	
Direct CAl CO_2	1326	1330	
Sys CAl / CO_2	1331	1336	
Strat CK	1350	1400	
CAl	1401	1406	
Init CAl	0647	0754	12/9/08
Run 1	1015	1115	
CAl	1116	1147	
Run 2	1155	1255	
CAl	1256	1356	
Run 3	1405	1505	
CAl	1506	1538	

SYSTEM CALIBRATION ERROR DATA

Protocol Gases

Client: E Stone/Grove **Date:** 12/8/08

Location: Sebring, FL **Method:** 3A

Analyzer: Servomex 1400B **Technician:** F Smith

ATC Project No.: 8192 **Instrument stable prior to calibrations?** YES

PROTOCOL GAS DATA

Protocol Gas Concentration, %	Pollutant Gas	Dilution Gas	Cylinder Number	Expiration Date
10.50	Oxygen	Nitrogen	CC185468	08/27/11
20.9	Oxygen	Nitrogen	CC166921	08/20/11
20.9	Span Value (100% of high range calibration gas)			

INITIAL CALIBRATION

RANGE	Cylinder Pressure (psi)	Cylinder Value (%)	System Response (%)	Difference (%)	Calibration Error (%)
ZERO	1600	0.0	0.02	0.02	0.10
MID	1900	10.50	10.48	0.02	0.10
HIGH	1300	20.9	20.96	0.06	0.29

Specification-Methods 3a, 6c, 7e & 10 = ± 2% of span value

Field Notes:

QA/QC Check

✓ Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness

F Smith 12/8/08
Technician (Signature/Date)

W. Keith Poole 12/16/08
Project Manager (Signature/Date)

Dilution System Verification

US EPA Method 205-40CFR51, Appendix M

ATC Project No. 8192

Client: E Stone / Grove			Instrument Used: Servomex 1400 B					
Location: Sebring, FL			High Level Gas Type: Oxygen in Nitrogen					
Date: 12/8/08			Gas Concentration: 20.9% (Cylinder No. CC166921) exp. 8/20/11					
Technician(s): [illegible]			US EPA Method (s): 3A					
Cylinder Number	Gas Type	Protocol Gas Concentration	Actual Reading (ppm or %) 1	2	3	Average Response	Within ± 2% Precision	Accuracy
CC185468	Mid-level audit	10.50%	10.50	10.50	10.50	10.50	0.00	0.00
Dilution Number	MFC Flowrate	Dilution Concentration	Trial (record reading in ppm or %) 1	2	3	Average Response	Within ± 2% Precision	Accuracy
1	2999.3	10.0%	9.98	9.99	9.99	9.987	0.07	0.13
2	2999.5	2.5%	2.48	2.51	2.50	2.497	0.68	0.12
3								
4								
5								
6								
7								
8								
9								
10								

Precision-Calculate the % difference between the average response and the individual reading that most deviates.
Accuracy-Calculate the % difference between the average response and the predicted response.

QA/QC Check: ✓ Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness

Signatures: [signature] 12/8/08 Technician (Signature/Date) W. Keith [signature] 12/16/08 Project Manager (Signature/Date)

ATC @ (800) 733-3193

ATC Form 17B-version 4.0 (7/13/2007)

E-Stone USA for Grove Scientific and Engineering-(12/9/2008)

ATC Project No. P-8192

SYSTEM CALIBRATION ERROR DATA

Client: E Stone/Grove Date: 12/8/08

Location: Sebring, FL Project No.: 8192

Calibration Gas: 10110 ppm propane [illegible] Cylinder No. [illegible] Exp. Date: 9/27/09

US EPA Method: 25A Analyzer ID: JAI 300 Cylinder Pressure (PSI): 500

Was instrument stable prior to beginning calibrations? YES

Initial Analyzer Calibration using Dilution System

Range	Dilution Target Level (ppm or %)	Instrument Response (ppm or %)	Difference (ppm or %)	Allowable Difference (ppm or %)	Specification
Zero	0.00	0.07	0.07	6.60	± 2% of Span
Low Range	75.00	75.53	0.53	3.75	± 5% of Gas Value-25A/B
Mid Range	150.00	149.60	0.40	7.50	± 5% of Gas Value-25A/B
High Range	300.00	297.80	2.20	15.00	± 5% of Gas Value-25A/B
Span Value	330.00	[redacted]			=110% of High Range Gas

Hourly System Calibration Error and Zero Drift Checks

	Run Time (24 Hour Clock)	Initial System Response (ppm or %)		Final System Response (ppm or %)		Drift Difference (ppm or %)		Calibration Drift (percent error)	
		Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale
Run 1	1257	0.07	149.60	0.07	150.04	0.00	0.44	0.00	0.13
Run 2									
Run 3									
Run 4									
Run 5									
Run 6									

Specification-All must be within ± 3% of span

Field Notes: 50ppm Styrene = 150.26 ppm Response as propane (1255)
VOC 3

QA/QC Check ✓ ✓ ✓ ✓ ✓

Completeness Legibility Accuracy Specifications Reasonableness

[signature] 12/8/08 W. Kirk Pool 12/16/08

Technician (Signature/Date) Project Manager (Signature/Date)

Determination of Stratification

Client: E Stone/Grove Date: 12/8/08

Location: Sebring, FL Project No.: 8192

Analyzer ID: Servo 1400 Analyte: O_2

System Response Time:	1 min	Minimum Sampling Time	2 min

Stack Diameter (in):		22.5		Port Depth:	6
Point 1:	25.58	Point 2:	17.25	Point 3:	9.6

Point 1 Average:	20.85	Point 2 Average:	20.90	Point 3 Average:	20.95
Combined Average:	20.90		Largest Precision Error:	0.24	

Points used for test:

1. If the Largest Precision Error is 5.0% or less or if the greatest difference is less than +/- 0.5 ppm (0.3% O2/CO2) a single point traverse may be used.
2. If the Largest Precision Error is more than 5.0% but 10.0% or less or if the greatest difference is less than +/1 1.0 ppm (0.5% O2/CO2) a three point traverse may be used. *If stack is larger than 2.4 meters three point sampling can be placed at .4, 1.0 and 2.0 meters from the duct wall.
3. If the Largest Precision Error is more than 10.0% and the greatest difference is more than +/1 1.0 ppm (0.5% O2/CO2) a twelve point traverse must be used.

Field Notes: pt 1 1350-1351

pt 2 1352-1353

pt 3 1354-1355

Analyst: [signature]	Date: 12/8/08
Data Reviewed By: W Kirk Par[signature]	Date: 12/16/08

Determination of Stratification

Client: E Stone / Grove Date: 12/8/08

Location: Sebring, FL Project No.: 8192

Analyzer ID: Servo 1440 Analyte: CO_2

System Response Time:	1 min	Minimum Sampling Time	2 min

Stack Diameter (in):	22.5			Port Depth:	6
Point 1:	25.58	Point 2:	17.25	Point 3:	9.6

Point 1 Average:	0.17	Point 2 Average:	0.18	Point 3 Average:	0.18
Combined Average:	0.177	Largest Precision Error:	3.95		

Points used for test:

1. If the Largest Precision Error is 5.0% or less or if the greatest difference is less than +/- 0.5 ppm (0.3% O2/CO2) a single point traverse may be used.
2. If the Largest Precision Error is more than 5.0% but 10.0% or less or if the greatest difference is less than +/1 1.0 ppm (0.5% O2/CO2) a three point traverse may be used. *If stack is larger than 2.4 meters three point sampling can be placed at .4, 1.0 and 2.0 meters from the duct wall.
3. If the Largest Precision Error is more than 10.0% and the greatest difference is more than +/1 1.0 ppm (0.5% O2/CO2) a twelve point traverse must be used.

Field Notes: Pt 1 1350-1351 (Greatest diff. is .007)
Pt 2 1352-1353
Pt 3 1354-1355

Analyst:	[signature]	Date:	12/8/08
Data Reviewed By:	W Kirkpatrick	Date:	12/16/08

SYSTEM CALIBRATION ERROR DATA

Client: E Stone / Grove **Location:** Sortbairy, FL **Date:** 12/8/08 **Project No:** 8192

Calibration Gas: 20.9% O_2 in N_2 **Cylinder No.:** CC166921 **Exp. Date:** 8/20/11 **Cylinder Pressure (PSI):** 1300

US EPA Method: 3A **Analyzer ID:** SERVO 1400 **Was Instrument stable prior to beginning calibration?** YES

Initial Analyzer Direct Calibration using Dilution System

Range	Dilution Target Level (ppm or %)	Instrument Response (ppm or %)	Difference (ppm or %)	Allowable Difference (ppm or %)	Specification
Low Range (Zero)	0.00	0.02	0.02	0.42	±2% of Span
Mid Range	10.00	9.99	0.01	0.42	±2% of Span-3a, 6c, 7e, 10
High Range (Span)	20.90	20.96	0.06	0.42	±2% of Span-3a, 6c, 7e, 10

Initial and Post System Bias and Drift Checks

	Run Time (24 Hour Clock)	Direct Response (ppm or %)		System Response (ppm or %)		System Bias (ppm or %)		System Bias (percent error)		Calibration Drift (ppm or %)		Calibration Drift (percent error)	
		Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale
Pre	1316	0.00	10.00	0.02	10.01	0.02	0.01	0.10	0.05				
* Run 1	1401	0.00	20.90	0.02	20.91	0.02	0.01	0.10	0.05	0.00	N/A	0.00	N/A
Run 2													
Run 3													
Run 4													
Run 5													

Specification - System Bias: must be within ± 5% of Direct Response; Calibration Drift: must be within ± 3% of span of previous System Response

Field Notes: * Shot High Range due to #'s from Stack

QA/QC Check

✓ Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness

[signature] 12/8/08
Technician (Signature/Date)

W [signature] 12/16/08
Project Manager (Signature/Date)

ATC @ 1-800-733-3193

F:\WORK\All Forms-Field Data Sheets, Calc Formulae, Nomenclature,etc\Field\18a-System Calibration Error Data-Inorganic.dot
ATC Form No. 18a-version 2.0 (7/13/07)

E-Stone USA for Grove Scientific and Engineering-(12/9/2008)

ATC Project No. P-8192

SYSTEM CALIBRATION ERROR DATA

Client: E Stone / Grove | Location: Sebring, FL | Date: 12/8/08 | Project No: 8192

Calibration Gas: 20.99% CO2 in N2 | Cylinder No.: CC10006 / Exp. Date: 2/12/11 | Cylinder Pressure (PSI): 800

US EPA Method: 3A | Analyzer ID: Servo 1440 | Was Instrument stable prior to beginning calibration? yes

Initial Analyzer Direct Calibration using Dilution System

Range	Dilution Target Level (ppm or %)	Instrument Response (ppm or %)	Difference (ppm or %)	Allowable Difference (ppm or %)	Specification
					±2% of Span
Low Range (Zero)	0.00	0.03	0.03	0.42	±2% of Span-3a, 6c, 7e, 10
Mid Range	10.00	10.11	0.11	0.42	±2% of Span-3a, 6c, 7e, 10
High Range (Span)	20.99	20.99	0.00	0.42	

Initial and Post System Bias and Drift Checks

	Run Time (24 Hour Clock)	Direct Response (ppm or %)		System Response (ppm or %)		System Bias (ppm or %)		System Bias (percent error)		Calibration Drift (ppm or %)		Calibration Drift (percent error)	
		Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale
Pre	1316	0.00	10.00	0.03	10.02	0.03	0.02	0.14	0.10				
Run 1	1401	0.00	10.00	0.03	10.05	0.03	0.05	0.14	0.24	0.00	0.03	0.00	0.14
Run 2													
Run 3													
Run 4													
Run 5													

Specification - System Bias: must be within ±5% of Direct Response; Calibration Drift: must be within ±3% of span of previous System Response

Field Notes:

QA/QC Check

Completeness ✓ | Legibility ✓ | Accuracy ✓ | Specifications ✓ | Reasonableness ✓

[signature] 12/8/08
Technician (Signature/Date)

W. Kirkpatrick 12/16/08
Project Manager (Signature/Date)

ATC @ 1-800-733-3193

SYSTEM CALIBRATION ERROR DATA

Client: E-Stone/Grove Date: 12/9/08

Location: Seabring, FL Project No.: 8192

Calibration Gas: 10110 ppm Propane in Air Cylinder No.: SG9140087BAL Exp. Date: 9/22/09

US EPA Method: 25A Analyzer ID: CAI 300 Cylinder Pressure (PSI): 500

Was instrument stable prior to beginning calibrations? YES

Initial Analyzer Calibration using Dilution System

Range	Dilution Target Level (ppm or %)	Instrument Response (ppm or %)	Difference (ppm or %)	Allowable Difference (ppm or %)	Specification
Zero	0.00	0.02	0.02	2.20	±2% of Span
Low Range	25.00	25.01	0.01	1.25	±5% of Gas Value-25A/B
Mid Range	50.00	50.50	0.50	2.50	±5% of Gas Value-25A/B
High Range	100.00	98.76	1.24	5.00	±5% of Gas Value-25A/B
Span Value	110.00	[redacted]			=110% of High Range Gas

Hourly System Calibration Error and Zero Drift Checks

	Run Time (24 Hour Clock)	Initial System Response (ppm or %)		Final System Response (ppm or %)		Drift Difference (ppm or %)		Calibration Drift (percent error)	
		Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale
Run 1	1116	0.02	25.01	0.02	25.45	0.00	0.44	0.00	0.40
Run 2	1256	0.02	25.01	0.02	25.20	0.00	0.19	0.00	0.17
Run 3	1506	0.02	25.01	0.02	25.13	0.00	0.12	0.00	0.11
Run 4									
Run 5									
Run 6									

Specification-All must be within ± 3% of span

Field Notes: VOC

QA/QC Check

✓ Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness

[signature] 12/9/08
Technician (Signature/Date)

W. Keith Pugh 12/16/08
Project Manager (Signature/Date)

Document2 ATC Form No. 18b-version 2.0 (7/13/07)

ATC @ 1-800-733-3193

SYSTEM CALIBRATION ERROR DATA

Client: E Stone / Grove **Date:** 12/9/08

Location: Sebring, FL **Project No.:** 8192

Calibration Gas: 1010 ppm propane in air **Cylinder No.:** SG9140087BAL **Exp. Date:** 9/27/09

US EPA Method: 25A **Analyzer ID:** CAI 300M **Cylinder Pressure (PSI):** 500

Was instrument stable prior to beginning calibrations? YES

Initial Analyzer Calibration using Dilution System

Range	Dilution Target Level (ppm or %)	Instrument Response (ppm or %)	Difference (ppm or %)	Allowable Difference (ppm or %)	Specification
Zero	0.00	0.08	0.08	6.60	± 2% of Span
Low Range	75.00	75.10	0.10	3.75	± 5% of Gas Value-25A/B
Mid Range	150.00	150.72	0.72	7.50	± 5% of Gas Value-25A/B
High Range	300.00	300.84	0.84	15.00	± 5% of Gas Value-25A/B
Span Value	330.00				=110% of High Range Gas

Hourly System Calibration Error and Zero Drift Checks

	Run Time (24 Hour Clock)	Initial System Response (ppm or %)		Final System Response (ppm or %)		Drift Difference (ppm or %)		Calibration Drift (percent error)	
		Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale
Run 1	1116	0.08	75.10	0.08	74.87	0.00	0.23	0.00	0.07
Run 2	1256	0.08	75.10	9.46	76.91	9.38	[illegible]	2.84	0.55
Run 3	1506	0.08	75.10	8.33	75.10	8.25	[illegible]	2.50	0.00
Run 4									
Run 5									
Run 6									

Specification-All must be within ± 3% of span

Field Notes: VOC 2

QA/QC Check

✓ Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness

[signature] 12/9/08
Technician (Signature/Date)

W. Kirk Poole 12/16/08
Project Manager (Signature/Date)

SYSTEM CALIBRATION ERROR DATA

Client: E Stone/Grove Date: 12/9/08

Location: Sebring, FL Project No.: 8192

Calibration Gas: 1011.0ppm Propane in Air Cylinder No. SG914008764AL Exp. Date: 9/27/09

US EPA Method: 25A Analyzer ID: CAI 300 Cylinder Pressure (PSI): 500

Was instrument stable prior to beginning calibrations? YES

Initial Analyzer Calibration using Dilution System

Range	Dilution Target Level (ppm or %)	Instrument Response (ppm or %)	Difference (ppm or %)	Allowable Difference (ppm or %)	Specification
Zero	0.00	0.24	0.24	22.00	± 2% of Span
Low Range	250.00	248.35	1.65	12.50	± 5% of Gas Value-25A/B
Mid Range	500.00	500.37	0.37	25.00	± 5% of Gas Value-25A/B
High Range	1000.00	999.76	0.24	50.00	± 5% of Gas Value-25A/B
Span Value	1100.00				=110% of High Range Gas

Hourly System Calibration Error and Zero Drift Checks

	Run Time (24 Hour Clock)	Initial System Response (ppm or %)		Final System Response (ppm or %)		Drift Difference (ppm or %)		Calibration Drift (percent error)	
		Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale
Run 1	1116	0.24	500.37	0.26	501.28	0.02	0.91	0.002	0.08
Run 2	1256	0.24	500.37	0.26	503.85	0.02	3.48	0.002	0.32
Run 3	1506	0.24	500.37	0.26	503.08	0.02	2.71	0.002	0.25
Run 4									
Run 5									
Run 6									

Specification-All must be within ± 3% of span

Field Notes: VOC 3

QA/QC Check

✓	✓	✓	✓	✓
Completeness	Legibility	Accuracy	Specifications	Reasonableness

[signature] 12/9/08
Technician (Signature/Date)

W. Kirk Peel 12/16/08
Project Manager (Signature/Date)

ATC @ 1-800-733-3193

Document2 ATC Form No. 18b-version 2.0 (7/13/07)

SYSTEM CALIBRATION ERROR DATA

Client: E Stone / Grove **Location:** Seabring, FL **Date:** 12/9/08 **Project No:** 8192

Calibration Gas 20.9% O_2 in N_2 **Cylinder No.:** CC166921 **Exp. Date:** 8/20/11 **Cylinder Pressure (PSI):** 1300

US EPA Method: 3A **Analyzer ID:** Servo 1400 **Was Instrument stable prior to beginning calibration?** YES

Initial Analyzer Direct Calibration using Dilution System

Range	Dilution Target Level (ppm or %)	Instrument Response (ppm or %)	Difference (ppm or %)	Allowable Difference (ppm or %)	Specification
			0.02	0.42	±2% of Span
Low Range (Zero)	0.00	0.02	0.01	0.42	±2% of Span-3a, 6c, 7e, 10
Mid Range	10.00	10.01		0.42	±2% of Span-3a, 6c, 7e, 10
High Range (Span)	20.90	20.87	0.03		

Initial and Post System Bias and Drift Checks

	Run Time (24 Hour Clock)	Direct Response (ppm or %)		System Response (ppm or %)		System Bias (ppm or %)		System Bias (percent error)		Calibration Drift (ppm or %)		Calibration Drift (percent error)	
		Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale
					20.88	0.02	0.02	0.10	0.10				
Pre	0702	0.00	20.90	0.02	20.90	0.02	0.00	0.10	0.00	0.00	0.02	0.00	0.10
Run 1	1116	0.00	20.90	0.02	20.90	0.02	0.00	0.10	0.10	0.00	0.00	0.00	0.00
Run 2	1256	0.00	20.90	0.02	20.87	0.02	0.03	0.10	0.14	0.00	0.03	0.00	0.14
Run 3	1506	0.00	20.90	0.02									
Run 4													
Run 5													

Specification - System Bias: must be within ±5% of Direct Response; **Calibration Drift:** must be within ±3% of span of previous System Response

Field Notes:

QA/QC Check

✓ Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness

12/9/08
Technician (Signature/Date)

W. Keith Poole 12/16/08
Project Manager (Signature/Date)

ATC @ 1-800-733-3193

F:\WORK\All Forms-Field Data Sheets, Calc Formulae, Nomenclature,etc\Field\18a-System Calibration Error Data-Inorganic.dot
ATC Form No. 18a-version 2.0 (7/13/07)

E-Stone USA for Grove Scientific and Engineering-(12/9/2008)

ATC Project No. P-8192

SYSTEM CALIBRATION ERROR DATA

Client: E Stone / Grove Location: Sebring, FL Date: 12/9/08 Project No: 8192

Calibration Gas: 20.99% CO_2 in N_2 Cylinder No.: CC100061 Exp. Date: 2/12/11 Cylinder Pressure (PSI): 800

US EPA Method: 3A Analyzer ID: Servo 1440 Was Instrument stable prior to beginning calibration? YES

Initial Analyzer Direct Calibration using Dilution System

Range	Dilution Target Level (ppm or %)	Instrument Response (ppm or %)	Difference (ppm or %)	Allowable Difference (ppm or %)	Specification
Low Range (Zero)	0.00	0.03	0.03	0.42	±2% of Span
Mid Range	10.00	9.96	0.04	0.42	±2% of Span-3a, 6c, 7e, 10
High Range (Span)	20.99	20.96	0.03	0.42	±2% of Span-3a, 6c, 7e, 10

Initial and Post System Bias and Drift Checks

	Run Time (24 Hour Clock)	Direct Response (ppm or %)		System Response (ppm or %)		System Bias (ppm or %)		System Bias (percent error)		Calibration Drift (ppm or %)		Calibration Drift (percent error)	
		Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale	Zero	Midscale
Pre	0202	0.00	10.00	0.03	9.99	0.03	0.01	0.14	0.05				
Run 1	1116	0.00	10.00	0.03	10.02	0.03	0.02	0.14	0.10	0.00	0.03	0.00	0.14
Run 2	1256	0.00	10.00	0.03	10.02	0.03	0.02	0.14	0.10	0.00	0.00	0.00	0.00
Run 3	1506	0.00	10.00	0.03	10.02	0.03	0.02	0.14	0.10	0.00	0.00	0.00	0.00
Run 4													
Run 5													

Specification - System Bias: must be within ±5% of Direct Response; Calibration Drift: must be within ±3% of span of previous System Response

Field Notes:

QA/QC Check

✓ Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness

12/9/08
Technician (Signature/Date)

W. Keith Pe 12/16/08
Project Manager (Signature/Date)

ATC @ 1-800-733-3193

F:\WORK\All Forms-Field Data Sheets, Calc Formulas, Nomenclature,etc\Field\18a-System Calibration Error Data-Inorganic.dot
ATC Form No. 18a-version 2.0 (7/13/07)

Analytical Testing Consultants, Inc.

Kannapolis, NC (1-800-733-3193)

Traverse Data and Flow Computations

Client: E-Stone / Grove
Date: 12/8/06
Location: Sebring FL
Source: Baghouse
Test Team: BK JB
Run #: Prelim.
Project No.: 8192
Pbar: —
Dry Bulb, °F:
Wet Bulb, oF:
Time: 1200
sp, "Hg or "Wg: -0.52
Pitot Type: S Type
Pitot #: 57
Fs for Pitot: 0.84
Stack I.D.: 32.5

Traverse Point	Vp, in. H_2O	Square Root,Vp	Stack Temp, oF	Cyclonic Flow Data dP @ 0o	Cyclonic Flow Data Angle @ 0 dP
A1	0.52		59	ϕ	
A2	0.74		61		
A3	0.74		61		5
A4	0.76		62		
A5	0.81		63		0
A6	0.80		64		
A7	0.82		65		5
A8	0.70		66		
A9					
A10					
A11					
A12					
B1	0.51		68	ϕ	5
B2	0.60		68		
B3	0.66		67		2
B4	0.85		67		
B5	0.90		67		5
B6	0.67		67		
B7	0.65		67		
B8	0.65		67		
B9					
B10					
B11					
B12					

verify Not cyclonic
Previously tested source — Bill

Equations

Ts(Rankin) = ts(avg) + 459.69 =	
Duct Area (A = pi*r²) Ft² A=	
Ps= Pbar +sp	
Rho x (530/Ts) x (Ps/29.92) = (lbs/ft³)	
K = 1096.5/(Gas Density$^{1/2}$) =	
Velocity (ft/min)=K x Fs x (Vp avg)$^{1/2}$=	
Volume (avg ACFM)= A x V =	
SCFM(wet)=Volx(530/Ts)x(Ps/29.92)=	16401
SCFM(Dry)=A x V x MD x 17.647 x (Ps/Ts)=	16059

**Rho=0.075 lbs/ft³

Pm=Pbar+(avg.dH/13.6)=	
Vm =	
Vv std = (0.04706*SiO$_2$ in gms)+(0.04717*VLQ in ml)=	
Vm std=Y*(Vm*528*Pm)/(Tm*29.92)=	
V std= Vm std +Vv std =	
%M=Vv std/V std * 100=	
MD=(100-%M)/100 =	

Pitot Tube Leak Checks	Pre-test	Post-test
A	✓	✓
B	✓	✓

QA/QC Check: Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness ✓

Signatures: [signature] Technician (Signature/Date)   W Kh... 2/15/0? Project Manager (Signature/Date)

2006
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88F

F:\Work\All Forms-Field Data Sheets...\\15-Form 15.xlt   ATC Form 15 Version 4.0 July 2007

Analytical Testing Consultants, Inc.

Kannapolis, NC (1-800-733-3193)

Traverse Data and Flow Computations

Client: E-Stone/Grove
Date: 12/9/08
Location: Sebring, FL
Source: Baghouse
Test Team: BK JD
Run #: 1
Project No.: 8192

Pbar: 30.05
Dry Bulb, °F: 88
Wet Bulb, oF: 76
Time: 1135
sp, "Hg or "Wg: − 0.25
Pitot Type: S Type
Pitot #: 57
Fs for Pitot: 0.84
Stack I.D.: 32.5

Traverse Point	Vp, In. H_2O	Square Root,Vp	Stack Temp, oF	Cyclonic Flow Data dP @ 0o	Angle @ 0 dP
A1	0.53		88		
A2	0.69		89		
A3	0.88		89		
A4	0.90		89		
A5	0.89		89		
A6	0.87		89		
A7	0.89		89		
A8	0.87		89		
A9					
A10					
A11					
A12					
B1	0.55		88		
B2	0.58		88		
B3	0.59		88		
B4	0.58		88		
B5	0.57		88		
B6	0.58		89		
B7	0.62		89		
B8	0.70		89		
B9					
B10					
B11					
B12					

Equations

Ts(Rankin) = ts(avg) + 459.69 =

Duct Area (A =pi*r²) Ft² A=

Ps= Pbar +sp

Rho x (530/Ts) x (Ps/29.92) = (lbs/ft³)

K = 1096.5/(Gas Density^1/2) =

Velocity (ft/min)=K x Fs x (Vp avg)^1/2=

Volume (avg ACFM)= A x V =

SCFM(wet)=Volx(530/Ts)x(Ps/29.92)=

SCFM(Dry)=A x V x MD x 17.647 x (Ps/Ts)=

****Rho=0.075 lbs/ft³**

Pm=Pbar+(avg.dH/13.6)=

Vm =

Vv std = (0.04708*SIO_2 in gms)+(0.04717*VLQ in ml)=

Vm std=Y*(Vm*528*Pm)/(Tm*29.92)=

V std= Vm std +Vv std =

%M=Vv std/V std * 100=

MD=(100-%M)/100 =

Pitot Tube Leak Checks

	Pre-test		Post-test
A	✓	A	✓
B	✓	B	✓

QA/QC Check:

Completeness	Legibility	Accuracy	Specifications	Reasonableness
✓	✓	✓	✓	✓

Signatures: [signature] 12/9/08 Technician (Signature/Date) W. Kirk Pool 12/15/08 Project Manager (Signature/Date)

F:\Work\All Forms-Field Data Sheets...\\15-Form 15.xlt

ATC Form 15 Version 4.0 July 2007

Analytical Testing Consultants, Inc.

Kannapolis, NC (1-800-733-3193)

Traverse Data and Flow Computations

Client: E-Stone / Grove
Date: 12-9-08
Location: Sebring, FL
Source: Baghouse
Test Team: BK, JB
Run #: 2
Project No.: 8192
Pbar: 30.05
Dry Bulb, °F: ~~88~~ 89
Wet Bulb, oF: 75
Time: 1257
sp, "Hg or "Wg: - 0.24
Pitot Type: STYPE
Pitot #: 57
Fs for Pitot: 0.84
Stack I.D.: 32.5

Traverse Point	Vp, In. H_2O	Square Root,Vp	Stack Temp, oF	Cyclonic Flow Data dP @ 0o	Angle @ 0 dP
A1	0.44		82	~~108~~	89
A2	0.51		82	104	88
A3	0.53		82	107	89
A4	0.56		82	107	89
A5	0.72		82	106	89
A6	0.77		82	106	89
A7	0.78		82	106	89
A8	0.80		82	107	89
A9					
A10					
A11					
A12					
B1	0.46		82	106	89
B2	0.55		82	106	89
B3	0.76		82	107	89
B4	0.80		82	108	89
B5	0.80		82	108	90
B6	0.79		82	105	90
B7	0.76		82	106	88
B8	0.76		82	106	88
B9					
B10					
B11					
B12					

BK BK

Equations

Ts(Rankin) = ts(avg) + 459.69 =

Duct Area (A = $pi*r^2$) Ft^2 A=

Ps= Pbar +sp

Rho x (530/Ts) x (Ps/29.92) = (lbs/ft^3)

K = 1096.5/(Gas Density$^{1/2}$) =

Velocity (ft/min)=K x Fs x (Vp avg)$^{1/2}$=

Volume (avg ACFM)= A x V =

SCFM(wet)=Volx(530/Ts)x(Ps/29.92)=

SCFM(Dry)=A x V x MD x 17.647 x (Ps/Ts)=

**Rho=0.075 lbs/ft^3

Pm=Pbar+(avg.dH/13.6)=

Vm =

Vv std = (0.04708*SiO_2 in gms)+(0.04717*VLQ in ml)=

Vm std=Y*(Vm*528*Pm)/(Tm*29.92)=

V std= Vm std +Vv std =

%M=Vv std/V std * 100=

MD=(100-%M)/100 =

Pitot Tube Leak Checks

	Pre-test		Post-test
A	✓	A	✓
B	✓	B	✓

QA/QC Check: ✓ Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness

Signatures: [signature] 12/9/08 Technician (Signature/Date) W. [signature] 12/15/08 Project Manager (Signature/Date)

F:\Work\All Forms-Field Data Sheets...\\15-Form 15.xlt ATC Form 15 Version 4.0 July 2007

Analytical Testing Consultants, Inc.

Kannapolis, NC (1-800-733-3193)

Traverse Data and Flow Computations

Client: E-Stone / Grove
Date: 12-5-08
Location: Sebring, FL
Source: BAGHOUSE
Test Team: BK PD
Run #: 3
Project No.: 8192
Pbar: 30.05
Dry Bulb, °F: 88
Wet Bulb, oF: 76
Time: 1525
sp, "Hg or "Wg: -0.25
Pitot Type: S TYPE
Pitot #: 57
Fs for Pitot: 0.84
Stack I.D.: 32.5

Traverse Point	Vp, in. H_2O	Square Root,Vp	Stack Temp, oF	Cyclonic Flow Data dP @ 0o	Cyclonic Flow Data Angle @ 0 dP
A1	0.46		95		
A2	0.55		95		
A3	0.57		95		
A4	0.59		94		
A5	0.64		94		
A6	0.65		94		
A7	0.65		94		
A8	0.65		94		
A9					
A10					
A11					
A12					
B1	0.50		94		
B2	0.57		94		
B3	0.60		94		
B4	0.71		94		
B5	0.74		95		
B6	0.71		94		
B7	0.72		95		
B8	0.74		96		
B9					
B10					
B11					
B12					

Equations

Ts(Rankin) = ts(avg) + 469.69 =

Duct Area (A =pi*r²) Ft² A=

Ps= Pbar +sp

Rho x (530/Ts) x (Ps/29.92) = (lbs/ft³)

K = 1096.5/(Gas Density$^{1/2}$) =

Velocity (ft/min)=K x Fs x (Vp avg)$^{1/2}$=

Volume (avg ACFM)= A x V =

SCFM(wet)=Volx(530/Ts)x(Ps/29.92)=

SCFM(Dry)=A x V x MD x 17.647 x (Ps/Ts)=

****Rho=0.075 lbs/ft³**

Pm=Pbar+(avg.dH/13.6)=

Vm =

Vv std = (0.04708*SIO$_2$ in gms)+(0.04717*VLQ in ml)=

Vm std=Y*(Vm*528*Pm)/(Tm*29.92)=

V std= Vm std +Vv std =

%M=Vv std/V std * 100=

MD=(100-%M)/100 =

Pitot Tube Leak Checks

	Pre-test	Post-test
A	✓	✓
B	✓	✓

QA/QC Check: ✓ Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness

Signatures: [signature] 12-5-08 Technician (Signature/Date) [signature] 12/15/08 Project Manager (Signature/Date)

F:\Work\All Forms-Field Data Sheets...\15-Form 15.xlt ATC Form 15 Version 4.0 July 2007

SOURCE SURVEY AND DESCRIPTION

CLIENT: E-Stone / Grove Project No. 8192

PERSONNEL COMPLETING SURVEY: BK DATE: 12/8/08

SYSTEM TYPE: BOILER ____ PROCESS X OTHER Baghouse

NARRATIVE DESCRIPTION:

Baghouse Outlet

PURPOSE OF TESTING: COMPLIANCE X EVALUATION ____

PROCESS RATE OR CAPACITY: 135 lbs/hr ± 10% DETERMINED BY: Facility

CONTROL EQUIPMENT: MULTI-CLONE ____ SCRUBBER ____ BAGHOUSE X

ELECTROSTATIC PRECIPITATOR ____ OTHER ____

CONTROL EQUIPMENT OPERATING PARAMETERS:

PRESSURE DROP X OTHER ____

SAMPLING LOCATION DATA:

DISTANCE **DOWNSTREAM FROM FLOW DISTURBANCE**: 187

NATURE OF DISTURBANCE: BEND, FAN, EXPANSION, BYPASS, DUCT,

OTHER ~~187~~ BK

DISTANCE **UPSTREAM FROM FLOW DISTURBANCE:** 112

NATURE OF DISTURBANCE: STACK EXHAUST, FAN, EXPANSION, DUCT,

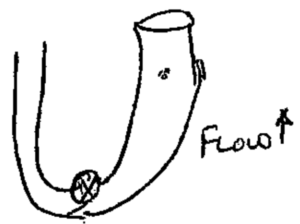
OTHER ____

INDIVIDUAL STACK X COMMON STACK ____

STACK DIAMETER OR DIMENSIONS: 32.5

NUMBER OF PORTS: 2 POINTS PER PORT: 8

SKETCH:



ESTIMATED TEMPERATURE: Ambient ESTIMATED MOISTURE: 2-3%

GAS COMPOSITION BY: FYRITE X OXYGEN METER X

INSTRUMENTAL ____ OTHER ____

LABORATORY INFORMATION:

SAMPLE RECOVERY: ATC LABORATORY ____ CLEAN FIELD AREA N/A

ATC VAN ____ OTHER ____

SAMPLE SHIPMENT: ATC VAN ____ OTHER ____

SAMPLE ANALYSIS: ATC ____ OTHER ____

FILTER MATERIAL: GELMAN A/E ____ WHATMAN 934AH ____ OTHER ____

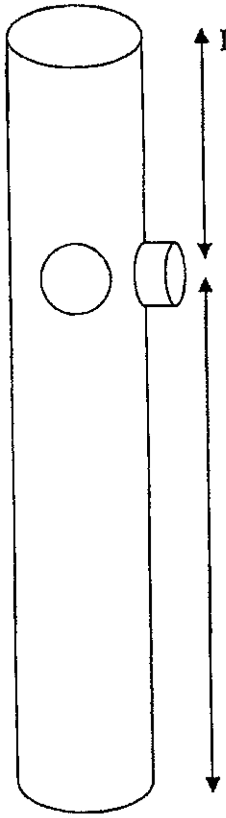
Form No. ATC 5 version 3.0 January 2005
F:\Work\All Forms-...\5-Source Test Survey.doc

ATC @ 1-800-733-3193

ANALYTICAL TESTING CONSULTANTS, INC.
EQUAL AREA CALCULATIONS
ROUND DUCT-8 POINT TRAVERSE

Project No.: 8192

Client:	E-Stone / Grove	**Location:**	Sebring, FL
Unit:	Baghouse Out.	**Date:**	12/8/08



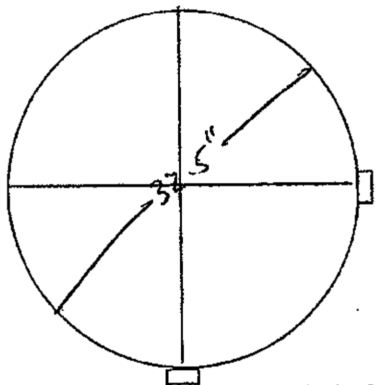
Distance A = 112"

Port Diameter = 3"

Distance B = 187"

Blue

Stack I.D. =		32.5
Port Depth =		4
Point No.	**% of Diameter**	**Distance (Inches)**
1	3.2%	5.04
2	10.5%	7.41
3	19.4%	10.31
4	32.3%	14.50
5	67.7%	26.00
6	80.6%	30.20
7	89.5%	33.09
8	96.8%	35.46



If a port depth is entered, then the measurements include that port depth.
Please note if adjustments are required to the outermost points.

QA/QC Check:

✓	✓	✓	✓	✓
Completeness	**Legibility**	**Accuracy**	**Specifications**	**Reasonableness**

Signatures: [signature] 12/8/08 **Technician (Signature/Date)** W. [signature] 12/15/08 **Project Manager (Signature/Date)**

Analytical Testing Consultants, Inc.

Kannapolis, NC (1-800-733-3193)

Traverse Data and Flow Computations

Client: E-Stone / Grove
Date: 12/8/08
Location: RTO INLET
Source: RTO INLET
Test Team: BK / TD
Run #: Prelim.
Project No.: 8192
Pbar: —
Dry Bulb, °F:
Wet Bulb, oF:
Time: 1210
sp, "Hg or "Wg: +0.50
Pitot Type: S TYPE
Pitot #: 57
Fs for Pitot: 0.84
Stack I.D.: 18.5

Traverse Point	Vp, in. H_2O	Square Root,Vp	Stack Temp, oF	Cyclonic Flow Data dP @ 0o	Angle @ 0 dP
A1	0.16		44	∅	0
A2	0.17		44		
A3	0.12		47		2
A4	0.08		59		
A5	0.15		60		5
A6	0.12		66		
A7	0.14		67		0
A8	0.10		69		
A9					
A10					
A11					
A12					
B1	0.16		48	∅	
B2	0.22		47		0
B3	0.20		48		
B4	0.18		48		0
B5	0.17		50		
B6	0.17		53		0
B7	0.12		57		
B8	0.10		65		
B9					
B10					
B11					
B12					

Verify Not Cyclonic
Previously tested Source - BK

Equations

Ts(Rankin) = ts(avg) + 459.69 =
Duct Area (A =pi*r²) Ft² A=
Ps= Pbar +sp
Rho x (530/Ts) x (Ps/29.92) = (lbs/ft³)
K = 1096.5/(Gas Density$^{1/2}$) =
Velocity (ft/min)=K x Fs x (Vp avg)$^{1/2}$=
Volume (avg ACFM)= A x V =
SCFM(wet)=Volx(530/Ts)x(Ps/29.92)= 2426
SCFM(Dry)=A x V x MD x 17.647 x (Ps/Ts)= 2402
**Rho=0.075 lbs/ft³

Pm=Pbar+(avg.dH/13.6)=
Vm =
Vv std = (0.04708*SiO_2 in gms)+(0.04717*VLQ in ml)=
Vm std=Y*(Vm*528*Pm)/(Tm*29.92)=
V std= Vm std +Vv std =
%M=Vv std/V std * 100=
MD=(100-%M)/100 =

Pitot Tube Leak Checks

	Pre-test		Post-test
A	✓	A	✓
B	✓	B	✓

QA/QC Check: ✓ Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness

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4059
110F

Signatures: [signature] 12/8/08 Technician (Signature/Date) [signature] 12/8/08 Project Manager (Signature/Date)

F:\Work\All Forms-Field Data Sheets...\15-Form 15.xlt ATC Form 15 Version 4.0 July 2007

Analytical Testing Consultants, Inc.

Kannapolis, NC (1-800-733-3193)

Traverse Data and Flow Computations

Client: E-Stone / Grove
Location: Sebring, FL
Test Team: BK, JD
Project No.: 8192
Pbar: 30.05
Time: 1125
Pitot #: 57
Dry Bulb, °F: 86
sp, "Hg or "Wg: -1.10
Fs for Pitot: 0.84
Date: 12/9/08
Source: RTO Inlet
Run #: 1
Wet Bulb, oF: 78
Pitot Type: STYPE
Stack I.D.: 18.5

Traverse Point	Vp, In. H_2O	Square Root,Vp	Stack Temp, oF	Cyclonic Flow Data dP @ 0o	Angle @ 0 dP
A1	0.29		108		
A2	0.34		107		
A3	0.38		107		
A4	0.37		107		
A5	0.33		107		
A6	0.30		105		
A7	0.31		104		
A8	0.28		100		
A9					
A10					
A11					
A12					
B1	0.26		104		
B2	0.32		105		
B3	0.31		105		
B4	0.25		106		
B5	0.28		105		
B6	0.24		101		
B7	0.23		100		
B8	0.26		100		
B9					
B10					
B11					
B12					

Equations

Ts(Rankin) = ts(avg) + 459.69 =

Duct Area (A = pi*r²) Ft² A=

Ps= Pbar +sp

Rho x (530/Ts) x (Ps/29.92) = (lbs/ft³)

K = 1096.5/(Gas Density$^{1/2}$) =

Velocity (ft/min)=K x Fs x (Vp avg)$^{1/2}$=

Volume (avg ACFM)= A x V =

SCFM(wet)=Volx(530/Ts)x(Ps/29.92)=

SCFM(Dry)=A x V x MD x 17.647 x (Ps/Ts)=

****Rho=0.075 lbs/ft³**

Pm=Pbar+(avg.dH/13.6)=

Vm =

Vv std = (0.04708*SiO_2 in gms)+(0.04717*VLQ in ml)=

Vm std=Y*(Vm*528*Pm)/(Tm*29.92)=

V std= Vm std +Vv std =

%M=Vv std/V std * 100=

MD=(100-%M)/100 =

Pitot Tube Leak Checks

	Pre-test		Post-test
A	✓	A	✓
B	✓	B	✓

QA/QC Check: ✓ Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness

Signatures: [signature] 12/9/08 Technician (Signature/Date) [signature] 12/15/08 Project Manager (Signature/Date)

F:\Work\All Forms-Field Data Sheets...\16-Form 15.xlt ATC Form 15 Version 4.0 July 2007

Analytical Testing Consultants, Inc.

Kannapolis, NC (1-800-733-3193)

Traverse Data and Flow Computations

Client: E-Stone / Grove
Date: 12.9.08
Location: Sebring, FL
Source: RTO INLET
Test Team: BK, JB
Run #: 2
Project No.: 8192
Pbar: 30.05
Dry Bulb, °F: 98
Wet Bulb, oF: 77
Time: 1310
sp, "Hg or "Wg: -0.2
Pitot Type: STYPE
Pitot #: 57
Fs for Pitot: 0.84
Stack I.D.: 16.5

Traverse Point	Vp, in. H_2O	Square Root,Vp	Stack Temp, oF	Cyclonic Flow Data dP @ 0o	Angle @ 0 dP
A1	0.34		111		
A2	0.35		112		
A3	0.34		111		
A4	0.33		113		
A5	0.30		113		
A6	0.29		113		
A7	0.34		108		
A8	0.32		108		
A9					
A10					
A11					
A12					
B1	0.29		111		
B2	0.40		112		
B3	0.38		112		
B4	0.34		112		
B5	0.35		112		
B6	0.29		112		
B7	0.25		112		
B8	0.25		112		
B9					
B10					
B11					
B12					

Equations

Ts(Rankin) = ts(avg) + 459.69 =

Duct Area (A =pi*r²) Ft² A=

Ps= Pbar +sp

Rho x (530/Ts) x (Ps/29.92) = (lbs/ft³)

K = 1096.5/(Gas Density^1/2) =

Velocity (ft/min)=K x Fs x (Vp avg)^1/2=

Volume (avg ACFM)= A x V =

SCFM(wet)=Volx(530/Ts)x(Ps/29.92)=

SCFM(Dry)=A x V x MD x 17.647 x (Ps/Ts)=

**Rho=0.075 lbs/ft³

Pm=Pbar+(avg.dH/13.6)=

Vm =

Vv std = (0.04708*SIO₂ in gms)+(0.04717*VLQ in ml)=

Vm std=Y*(Vm*528*Pm)/(Tm*29.92)=

V std= Vm std +Vv std =

%M=Vv std/V std * 100=

MD=(100-%M)/100 =

Pitot Tube Leak Checks

	Pre-test	Post-test
A	✓	✓
B	✓	✓

QA/QC Check: ✓ Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness

Signatures: [signature] 12.9.08 Technician (Signature/Date) W. Kirk Parker 12/15/08 Project Manager (Signature/Date)

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ATC Form 15 Version 4.0 July 2007

Analytical Testing Consultants, Inc.

Kannapolis, NC (1-800-733-3193)

Traverse Data and Flow Computations

Client: E-Stone / Grove
Date: 12-9-08
Location: Sebring, FL
Source: RTO INLET
Test Team: BK JD
Run #: 3
Project No.: 8192

Pbar: 30.05 | Dry Bulb, °F: 97 | Wet Bulb, oF: 79
Time: 1512 | sp, "Hg or "Wg: -1.10 | Pitot Type: S TYPE
Pitot #: 57 | Fs for Pitot: 0.84 | Stack I.D.: 18.5

Traverse Point	Vp, in. H_2O	Square Root,Vp	Stack Temp, oF	Cyclonic Flow Data dP @ 0o	Cyclonic Flow Data Angle @ 0 dP
A1	0.34		113		
A2	0.35		113		
A3	0.33		113		
A4	0.32		113		
A5	0.30		113		
A6	0.28		113		
A7	0.27		113		
A8	0.26		113		
A9					
A10					
A11					
A12					
B1	0.31		111		
B2	0.34		111		
B3	0.33		112		
B4	0.33		112		
B5	0.27		112		
B6	0.24		112		
B7	0.24		113		
B8	0.24		110		
B9					
B10					
B11					
B12					

Equations

Ts(Rankin) = ts(avg) + 459.69 =
Duct Area (A =pi*r²) Ft² A=
Ps= Pbar +sp
Rho x (530/Ts) x (Ps/29.92) = (lbs/ft³)
K = 1096.5/(Gas Density$^{1/2}$) =
Velocity (ft/min)=K x Fs x (Vp avg)$^{1/2}$=
Volume (avg ACFM)= A x V =
SCFM(wet)=Volx(530/Ts)x(Ps/29.92)=
SCFM(Dry)=A x V x MD x 17.647 x (Ps/Ts)=
****Rho=0.075 lbs/ft³**

Pm=Pbar+(avg.dH/13.6)=
Vm =
Vv std = (0.04706*SiO_2 in gms)+(0.04717*VLQ in ml)=
Vm std=Y*(Vm*528*Pm)/(Tm*29.92)=
V std= Vm std +Vv std =
%M=Vv std/V std * 100=
MD=(100-%M)/100 =

Pitot Tube Leak Checks	Pre-test	Post-test
A	✓	✓
B	✓	✓

QA/QC Check: Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness ✓

Signatures: [signature] 12.9.08 Technician (Signature/Date) W Kittelforth 12/15/08 Project Manager (Signature/Date)

F:\Work\All Forms-Field Data Sheets...\15-Form 15.xlt ATC Form 15 Version 4.0 July 2007

SOURCE SURVEY AND DESCRIPTION

CLIENT: E-Stone /Grove Project No. 8192

PERSONNEL COMPLETING SURVEY: BR DATE: 12/8/08

SYSTEM TYPE: BOILER____ PROCESS____ OTHER RTO

NARRATIVE DESCRIPTION:

RTO INLET

PURPOSE OF TESTING: COMPLIANCE X EVALUATION____

PROCESS RATE OR CAPACITY: 13 SLABS/HR ±10% DETERMINED BY: FACILITY

CONTROL EQUIPMENT: MULTI-CLONE____ SCRUBBER____ BAGHOUSE____

ELECTROSTATIC PRECIPITATOR____ OTHER RTO

CONTROL EQUIPMENT OPERATING PARAMETERS:

PRESSURE DROP____ OTHER Temperature

SAMPLING LOCATION DATA:

DISTANCE **DOWNSTREAM FROM ~~FLOW~~ DISTURBANCE**:____

NATURE OF DISTURBANCE: BEND, FAN, EXPANSION, BYPASS, DUCT,

OTHER ~~79.5~~ 109.5

DISTANCE **UPSTREAM FROM FLOW DISTURBANCE**: 79.5

NATURE ~~OF DIS~~TURBANCE: STACK EXHAUST, FAN, EXPANSION, DUCT,

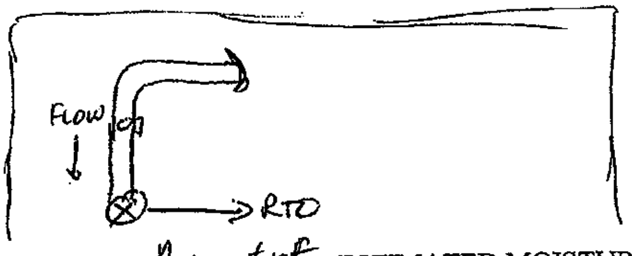
OTHER DAMPER

INDIVIDUAL STACK X COMMON STACK____

STACK DIAMETER OR DIMENSIONS: 18.5

NUMBER OF PORTS: 2 POINTS PER PORT: 8

SKETCH:



ESTIMATED TEMPERATURE: Ambient ±10F ESTIMATED MOISTURE: 2-3%

GAS COMPOSITION BY: FYRITE X OXYGEN METER X

INSTRUMENTAL____ OTHER____

LABORATORY INFORMATION:

SAMPLE RECOVERY: ATC LABORATORY____ CLEAN FIELD AREA____

ATC VAN____ OTHER N/A

SAMPLE SHIPMENT: ATC VAN____ OTHER ↓

SAMPLE ANALYSIS: ATC____ OTHER ↓

FILTER MATERIAL: GELMAN A/E____ WHATMAN 934AH____ OTHER____

Form No. ATC 5 version 3.0 January 2005
F:\Work\All Forms-...\5-Source Test Survey.doc

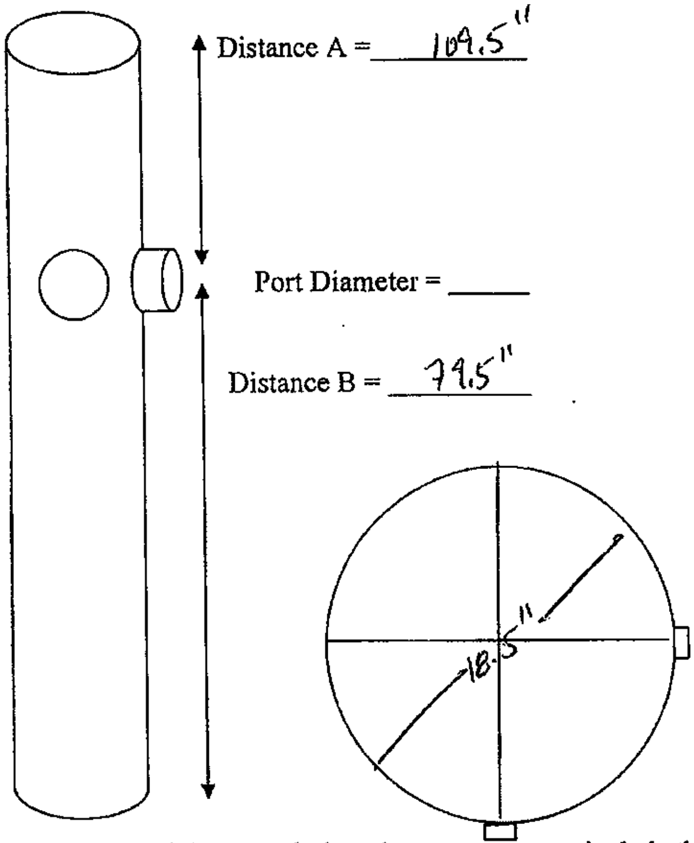
ATC @ 1-800-733-3193

ANALYTICAL TESTING CONSULTANTS, INC.

EQUAL AREA CALCULATIONS
ROUND DUCT-8 POINT TRAVERSE

Project No.: 8192

Client:	E-Stone / Grove	**Location:**	Sebring, FL
Unit:	RTO Inlet	**Date:**	12/8/08



RED

Stack I.D. =		18.5
Port Depth =		0"
Point No.	**% of Diameter**	**Distance (Inches)**
1	3.2%	0.59
2	10.5%	1.94
3	19.4%	3.59
4	32.3%	5.98
5	67.7%	12.52
6	80.6%	14.91
7	89.5%	16.56
8	96.8%	17.91

If a port depth is entered, then the measurements include that port depth.
Please note if adjustments are required to the outermost points.

QA/QC Check:

✓	✓	✓	✓	✓
Completeness	**Legibility**	**Accuracy**	**Specifications**	**Reasonableness**

Signatures: [signature] 12/8/08 **Technician (Signature/Date)** W. Kirk Posh 12/15/08 **Project Manager (Signature/Date)**

Form No. ATC 8-8
1-800-733-3193

F:\WORK\All Forms-Field Data Sheets, Calc Formulae, Nomenclature,etc\Field\8-8 TRAVERSE.doc
Ver 4.0 6 July 2007

Analytical Testing Consultants, Inc.

Kannapolis, NC (1-800-733-3193)

Traverse Data and Flow Computations

Client: E-Stone / Grove
Date: 12/8/08
Location: Sebring, FL
Source: RTO Outlet
Test Team: BK JD
Run #: Prelim.
Project No.: 8192
Pbar: –
Dry Bulb, °F:
Wet Bulb, oF:
Time: 1217
sp, "Hg or "Wg: -0.12
Pitot Type: S Type
Pitot #: 57
Fs for Pitot: 0.84
Stack I.D.: 22.5

Traverse Point	Vp, in. H_2O	Square Root,Vp	Stack Temp, oF	Cyclonic Flow Data dP @ 0o	Cyclonic Flow Data Angle @ 0 dP
A1	0.30		238	ϕ	
A2	0.36		251		0
A3	0.36		262		
A4	0.35		240		0
A5	0.24		236		
A6	0.30		250		
A7	0.27		246		0
A8	0.26		237		
A9					
A10					
A11					
A12					
B1	0.32		266	ϕ	
B2	0.30		236		5
B3	0.31		230		
B4	0.31		216		5
B5	0.30		214		
B6	0.28		214		0
B7	0.25		212		
B8	0.20		212		
B9					0
B10					
B11					
B12					

Verify not cyclonic
Previously tested source.

Equations

Ts(Rankin) = ts(avg) + 459.69 =	
Duct Area (A =pi*r²) Ft² A=	
Ps= Pbar +sp	
Rho x (530/Ts) x (Ps/29.92) = (lbs/ft³)	
K = 1096.5/(Gas Density$^{1/2}$) =	
Velocity (ft/min)=K x Fs x (Vp avg)$^{1/2}$=	
Volume (avg ACFM)= A x V =	5915
SCFM(wet)=Volx(530/Ts)x(Ps/29.92)=	4400
SCFM(Dry)=A x V x MD x 17.647 x (Ps/Ts)=	4297

**Rho=0.075 lbs/ft³

Pm=Pbar+(avg.dH/13.6)=	
Vm =	
Vv std = (0.04708*SiO_2 in gms)+(0.04717*VLQ in ml)=	
Vm std=Y*(Vm*528*Pm)/(Tm*29.92)=	
V std= Vm std +Vv std =	
%M=Vv std/V std * 100=	
MD=(100-%M)/100 =	

Pitot Tube Leak Checks

	Pre-test	Post-test
A	✓	✓
B	✓	✓

QA/QC Check:

Completeness	Legibility	Accuracy	Specifications	Reasonableness
✓	✓	✓	✓	✓

Signatures: [signature] 12.8.08 Technician (Signature/Date) [signature] 12/15/08 Project Manager (Signature/Date)

2006
5398
230F

F:\Work\All Forms-Field Data Sheets...\15-Form 15.xlt ATC Form 15 Version 4.0 July 2007

Analytical Testing Consultants, Inc.

Kannapolis, NC (1-800-733-3193)

Traverse Data and Flow Computations

Client: E-Stone / Grove
Location: Sebring, FL
Test Team: BK TN
Project No.: 8192
Pbar: 30.05
Time: 1115
Pitot #: 57
Dry Bulb, °F: —
sp, "Hg or "Wg: -0.26
Fs for Pitot: 0.84
Date: 12/9/08
Source: RTO OUT
Run #: 1
Wet Bulb, oF: —
Pitot Type: S TYPE
Stack I.D.: 22.5

Traverse Point	Vp, in. H_2O	Square Root,Vp	Stack Temp, oF	Cyclonic Flow Data dP @ 0o	Angle @ 0 dP
A1	0.10		217		
A2	0.38		218		
A3	0.52		222		
A4	0.54		226		
A5	0.46		229		
A6	0.41		238		
A7	0.35		240		
A8	0.12		236		
A9					
A10					
A11					
A12					
B1	0.47		236		
B2	0.50		239		
B3	0.50		250		
B4	0.51		259		
B5	0.47		263		
B6	0.39		271		
B7	0.33		250		
B8	0.29		229		
B9					
B10					
B11					
B12					

Equations

Ts(Rankin) = ts(avg) + 459.69 =
Duct Area (A =pi*r²) Ft² A=
Ps= Pbar +sp
Rho x (530/Ts) x (Ps/29.92) = (lbs/ft³)
K = 1096.5/(Gas Density$^{1/2}$) =
Velocity (ft/min)=K x Fs x (Vp avg)$^{1/2}$=
Volume (avg ACFM)= A x V =
SCFM(wet)=Vol x(530/Ts)x(Ps/29.92)=
SCFM(Dry)=A x V x MD x 17.647 x (Ps/Ts)=
**Rho=0.075 lbs/ft³

Pm=Pbar+(avg.dH/13.6)=
Vm =
Vv std = (0.04706*SIO$_2$ in gms)+(0.04717*VLQ in ml)=
Vm std=Y*(Vm*528*Pm)/(Tm*29.92)=
V std= Vm std +Vv std =
%M=Vv std/V std * 100=
MD=(100-%M)/100 =

Pitot Tube Leak Checks

	Pre-test		Post-test
A	✓	A	✓
B	✓	B	✓

QA/QC Check: Completeness Legibility Accuracy Specifications Reasonableness

Signatures: BKK 12/9/08 Technician (Signature/Date) [signature] 12/15/08 Project Manager (Signature/Date)

F:\Work\All Forms-Field Data Sheets...\\15-Form 15.xlt

ATC Form 15 Version 4.0 July 2007

Analytical Testing Consultants, Inc.

Kannapolis, NC (1-800-733-3193)

Traverse Data and Flow Computations

Client: E-Stone / Grove
Location: Sebring, FL
Test Team: BL DD
Project No. 8192
Date: 12.9.08
Source: RTO OUT
Run #: 2
Pbar: 30.05
Time: 1305
Pitot #: 57
Dry Bulb, °F: —
sp, "Hg or "Wg: − 0.22
Fs for Pitot: 0.84
Wet Bulb, oF: —
Pitot Type: S TYPE
Stack I.D.: 22.5

Traverse Point	Vp, in. H_2O	Square Root,Vp	Stack Temp, oF	Cyclonic Flow Data: dP @ 0o	Cyclonic Flow Data: Angle @ 0 dP
A1	0.54		241		
A2	0.53		225		
A3	0.51		220		
A4	0.49		220		
A5	0.46		221		
A6	0.37		227		
A7	0.35		226		
A8	0.32		220		
A9					
A10					
A11					
A12					
B1	0.42		207		
B2	0.44		212		
B3	0.45		209		
B4	0.44		209		
B5	0.40		210		
B6	0.35		211		
B7	0.32		212		
B8	0.29		200		
B9					
B10					
B11					
B12					

Equations

Ts(Rankin) = ts(avg) + 459.69 =
Duct Area (A = $pi*r^2$) Ft^2 A=
Ps= Pbar +sp
Rho x (530/Ts) x (Ps/29.92) = (lbs/ft^3)
K = 1096.5/(Gas Density$^{1/2}$) =
Velocity (ft/min)=K x Fs x (Vp avg)$^{1/2}$=
Volume (avg ACFM)= A x V =
SCFM(wet)=Volx(530/Ts)x(Ps/29.92)=
SCFM(Dry)=A x V x MD x 17.647 x (Ps/Ts)=
Rho=0.075 lbs/ft^3

Pm=Pbar+(avg.dH/13.6)=
Vm =
Vv std = (0.04708*SiO_2 in gms)+(0.04717*VLQ in ml)=
Vm std=Y*(Vm*528*Pm)/(Tm*29.92)=
V std= Vm std +Vv std =
%M=Vv std/V std * 100=
MD=(100-%M)/100 =

Pitot Tube Leak Checks

	Pre-test		Post-test
A	✓	A	✓
B	✓	B	✓

QA/QC Check: Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness ✓

Signatures: [signature] 12.9.08 Technician (Signature/Date) W. [signature] 12/15/08 Project Manager (Signature/Date)

F:\Work\All Forms-Field Data Sheets...\15-Form 15.xlt ATC Form 15 Version 4.0 July 2007

Analytical Testing Consultants, Inc.

Kannapolis, NC (1-800-733-3193)

Traverse Data and Flow Computations

Client	E-Stone / Grove	Date	12.9.08		
Location	Slenna, PL	Source	RTO out		
Test Team	BK JD	Run #	3		
Project No.	8192				
Pbar	30.05	Dry Bulb, °F	—	Wet Bulb, oF	—
Time	1520	sp, "Hg or "Wg	-0.22	Pitot Type	S Type
Pitot #	51	Fs for Pitot	0.84	Stack I.D.	22.5

Traverse Point	Vp, in. H_2O	Square Root,Vp	Stack Temp, oF	Cyclonic Flow Data dP @ 0o	Angle @ 0 dP
A1	0.62		260		
A2	0.53		227		
A3	0.52		218		
A4	0.50		215		
A5	0.46		215		
A6	0.40		215		
A7	0.33		215		
A8	0.29		211		
A9					
A10					
A11					
A12					
B1	0.35		235		
B2	0.41		225		
B3	0.44		226		
B4	0.45		225		
B5	0.45		221		
B6	0.44		223		
B7	0.44		227		
B8	0.43		233		
B9					
B10					
B11					
B12					

Equations

Ts(Rankin) = ts(avg) + 459.69 =

Duct Area (A = pi*r²) Ft² A=

Ps= Pbar +sp

Rho x (530/Ts) x (Ps/29.92) = (lbs/ft³)

K = 1096.5/(Gas Density$^{1/2}$) =

Velocity (ft/min)=K x Fs x (Vp avg)$^{1/2}$=

Volume (avg ACFM)= A x V =

SCFM(wet)=Volx(530/Ts)x(Ps/29.92)=

SCFM(Dry)=A x V x MD x 17.647 x (Ps/Ts)=

Rho=0.075 lbs/ft³

Pm=Pbar+(avg.dH/13.6)=

Vm =

Vv std = (0.04708*SiO_2 in gms)+(0.04717*VLQ in ml)=

Vm std=Y*(Vm*528*Pm)/(Tm*29.92)=

V std= Vm std +Vv std =

%M=Vv std/V std * 100=

MD=(100-%M)/100 =

Pitot Tube Leak Checks

	Pre-test		Post-test
A	✓	A	✓
B	✓	B	✓

QA/QC Check: ✓ Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness

Signatures: [signature] 12.9.08 Technician (Signature/Date) [signature] 12/15/08 Project Manager (Signature/Date)

F:\Work\All Forms-Field Data Sheets...\\15-Form 15.xlt ATC Form 15 Version 4.0 July 2007

ATC

ISOKINETIC SAMPLING DATA SHEET

CLIENT E-Stone/Grove DATE 12/9/08 P_{bar} 30.05 Module No. ATC 1
LOCATION Sebring, FL SOURCE RTO Outlet P_s — Filter No. —
TEST TEAM BK JD RUN # 1 Methods 1-4 Pitot No. —

MODULE LEAK RATE
start 0.001 @ 14 "Hg
end 0.000 @ 10 "Hg

Pitot Leak Check:
start end
A ___ " A ___ "H_2O
B ___ " B ___ "H_2O

SAMPLING RATE SETUP
ΔH@ 1.806
NOZZLE — (#)
Tm
% H_2O —
Ts
Cal. Factor 0.962
Md
Pm
K
Y_c

Comments (list other personnel on site):

ATC Project No. 8192
Start 1015 Finish 1115

Time	Point	Line Vacuum	T_M °F	T_s °F	T_P °F	T_f °F	T_i °F	ΔPs (in.)H_2O	ΔH (in.)H_2O	V_M Ft^3	REMARKS WB/DB
0		2.0	59				46		2.0	401.368	78/86 RTO IN
5		2.0	61				45			405.100	76/88 BH
10		2.0	63				49			409.600	
15		2.0	63				50			413.200	
20		2.0	64				57			417.200	
25		2.0	66				59			421.200	
30		2.0	68				59			425.700	
35		2.0	68				58			429.100	
40		2.0	70				59			433.000	
45		2.0	70				59			437.500	
50		2.0	72				60			441.400	
55		2.0	73				60			445.500	
60										449.605	

T_m=meter temperature T_s=stack temperature T_p=probe temperature T_f=filter temperature, V_m (ft^3)=gas sample volume
T_i=exhaust temperature of last impinger, ΔP_s =velocity head differential pressure ΔH =pressure differential across the orifice meter

QA/QC Check: Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness ✓
Checked by: 12/9/08 W. Keith Pugh 12/15/08
Module Operator (Signature/Date) Data Review (Signature/Date)

ATC Form 16-revision 5.1 (7/13/07)
F:\Work\All Forms-Field Data Sheets,Calc Formulae,Nomenclature,etc\Field\16-Isokinetic Sampling Data Sheet.dot

ATC © 1-800-733-3193

ATC

ISOKINETIC SAMPLING DATA SHEET

CLIENT E-Stone/Grove DATE 12/9/08 P_{bar} 30.05 Module No. ATC 1
LOCATION Sebring, FL SOURCE RTO OUTLET P_s — Filter No. /
TEST TEAM BK JD RUN # 2 Methods 1-4 Pitot No. /

MODULE LEAK RATE
start 0.000 @ 16 "Hg
end 0.000 @ 10 "Hg

Pitot Leak Check
start end
A " A "H_2O
B " B "H_2O

SAMPLING RATE SETUP
▲H@ 1.806 NOZZLE (#)
Tm % H_2O
T_S Cal. Factor 0.962
Md Pm
K Y_c

Comments (list other personnel on site):

ATC Project No. 892
Start 1155 Finish 1255

Time	Point	Line Vacuum	T_M °F	T_S °F	T_P °F	T_f °F	T_i °F	▲P_s (in.) H_2O	▲H (in.) H_2O	V_M Ft^3	REMARKS
0		2.0	75				53		2.0	450.142	
5		2.0	75				53			454.000	
10		2.0	76				55			458.500	
15		2.0	76				55			462.500	
20		2.0	77				58			467.100	
25		2.0	78				62			471.200	
30		2.0	78				64			475.400	
35		2.0	79				59			479.200	
40		2.0	80				60			483.500	
45		2.0	80				60			487.800	
50		2.0	81				60			491.700	
55		2.0	82				60			496.400	
60										499.642	

T_m=meter temperature T_s=stack temperature T_p=probe temperature T_f=filter temperature, V_m (ft^3)=gas sample volume
T_i=exhaust temperature of last impinger, ▲P_s=velocity head differential pressure ▲H=pressure differential across the orifice meter

QA/QC Check: Completeness Legibility Accuracy Specifications Reasonableness
Checked by: 12/9/08 12/15/08
Module Operator (Signature/Date) Data Review (Signature/Date)

ATC Form 16-revision 5.1 (7/13/07) ATC ☎ 1-800-733-3193
F:\Work\All Forms\Field Data Sheets,Calc Formulae,Nomenclature,etc\Field\16-Isokinetic Sampling Data Sheet.dot

ATC

ISOKINETIC SAMPLING DATA SHEET

CLIENT E-Stone/Grove DATE 12.9.08 P_{bar} 30.05 Module No. ATC 1
LOCATION Sebring, FL SOURCE RTO OUT P_s — Filter No. /
TEST TEAM BZ JD RUN # 3 Methods 1-4 Pitot No. /

MODULE LEAK RATE
start 0.000 @ 16 "Hg
end 0.0 @ 5 "Hg

Pitot Leak Check:
start end
A ___ " A ___ "H_2O
B ___ " B ___ "H_2O

SAMPLING RATE SETUP
▲H@ 1.806 NOZZLE ___ (#)
Tm ___ % H_2O ___
T_s ___ Cal. Factor 0.962
Md ___ Pm ___
K ___ Y_c ___

Comments (list other personnel on site):

ATC Project No. 8192
Start 1405 Finish 1505

Time	Point	Line Vacuum	T_M °F	T_S °F	T_P °F	T_f °F	T_i °F	▲P_s (in.) H_2O	▲H (in.) H_2O	V_M Ft^3	REMARKS
0		2	82				50		2.0	499.781	
5		2	81				43			503.1	
10		2	81				43			506.7	
15		2	82				48			510.8	
20		2	83				54			515.7	
25		2	83				56			519.7	
30		2	84				58			523.9	
35		2	84				59			528.1	
40		2	85				61			533.1	
45		2	85				61			536.5	
50		2	85				62			~~345~~ 541.3	
55		2	86				62			545.3	
60		2	86				62			549.460	

T_m=meter temperature T_s=stack temperature T_p=probe temperature T_f=filter temperature, V_m (ft^3)=gas sample volume
T_i=exhaust temperature of last impinger ▲P_s=Velocity head differential pressure ▲H =pressure differential across the orifice meter

QA/QC Check: Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness ✓
Checked by: [signature] 12.9.08 W. [signature] 12/15/08
Module Operator (Signature/Date) Data Review (Signature/Date)

ATC Form 16-revision 5.1 (7/13/07) ATC ☎ 1-800-733-3193
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ANALYTICAL TESTING CONSULTANTS, INC.

KANNAPOLIS, N.C.

Project No. 8192 IMPINGER DATA SHEET

CLIENT E-Stone / Grove LOCATION Sebring, FL UNIT RTO Outlet

RUN#		DATE 12/9	IMPINGER CONTENTS DI H_2O 1	DI H_2O 2	∅ 3	S.G. 4	TOTAL CONDENSATE (VLQ)	REMARKS
1	START		100	100	∅	300		M 1-4
	END		110	102	∅	305.0		
	dV		10	2	∅	5.0	17.0 ML	
2	START		100	100	∅	300		
	END		104	100	∅	310		
	dV		4	∅	∅	10.0	14.0 ML	
3	START		100	100	0	305.0		
	END		110	105	0	315		
	dV		10	5	0	~~10~~ 15	30 ~~25~~ ML WKP	
	START							
	END							
	dV						ML	
	START							
	END							
	dV						ML	
	START							
	END							
	dV						ML	

Data by Bill K[illegible] Approved by WKP[illegible]

Date 12.9.08 Date 12/15/08

FORM No. ATC 11
F:\WORK\All Forms-Field Data Sheets…\\11-Impinger Data Sheet-blank.doc

ATC ☎ 1-800-733-3193
Ver 5.0 January 2001

SOURCE SURVEY AND DESCRIPTION

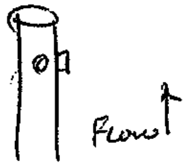
CLIENT: E-Stone /Grove Project No. 8192

PERSONNEL COMPLETING SURVEY: BK DATE: 12/8/08

SYSTEM TYPE: BOILER ____ PROCESS ____ OTHER RTO
NARRATIVE DESCRIPTION:

RTO OUTLET

PURPOSE OF TESTING: COMPLIANCE X EVALUATION ____
PROCESS RATE OR CAPACITY: 13 Slabs/HR ± 10% DETERMINED BY: ____
CONTROL EQUIPMENT: MULTI-CLONE ____ SCRUBBER ____ BAGHOUSE ____
ELECTROSTATIC PRECIPITATOR ____ OTHER RTO
CONTROL EQUIPMENT OPERATING PARAMETERS:
PRESSURE DROP ____ OTHER Temperature
SAMPLING LOCATION DATA:
DISTANCE **DOWNSTREAM FROM FLOW DISTURBANCE**: 125"
NATURE OF DISTURBANCE: BEND, FAN, EXPANSION, BYPASS, DUCT,
OTHER ____
DISTANCE **UPSTREAM FROM FLOW DISTURBANCE:** 108.5"
NATURE OF DISTURBANCE: STACK EXHAUST, FAN, EXPANSION, DUCT,
OTHER ____
INDIVIDUAL STACK X COMMON STACK ____
STACK DIAMETER OR DIMENSIONS: 22.5
NUMBER OF PORTS: 2 POINTS PER PORT: 8
SKETCH:



ESTIMATED TEMPERATURE: 250 F ESTIMATED MOISTURE: 10%
GAS COMPOSITION BY: FYRITE ____ OXYGEN METER ____
INSTRUMENTAL X 3A OTHER ____
LABORATORY INFORMATION:
SAMPLE RECOVERY: ATC LABORATORY ____ CLEAN FIELD AREA N/A
ATC VAN ____ OTHER ____
SAMPLE SHIPMENT: ATC VAN ____ OTHER ____
SAMPLE ANALYSIS: ATC ____ OTHER ____
FILTER MATERIAL: GELMAN A/E ____ WHATMAN 934AH ____ OTHER ____

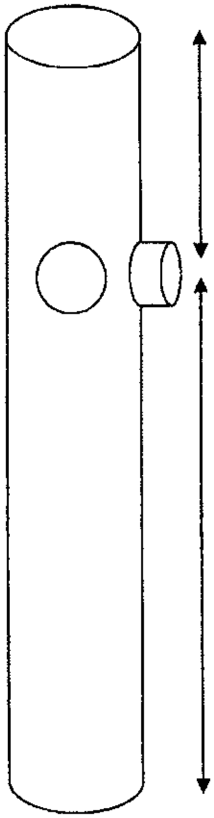
Form No. ATC 5 version 3.0 January 2005
F:\Work\All Forms-...\5-Source Test Survey.doc

ATC @ 1-800-733-3193

ANALYTICAL TESTING CONSULTANTS, INC.
EQUAL AREA CALCULATIONS
ROUND DUCT-8 POINT TRAVERSE

Project No.: 8192

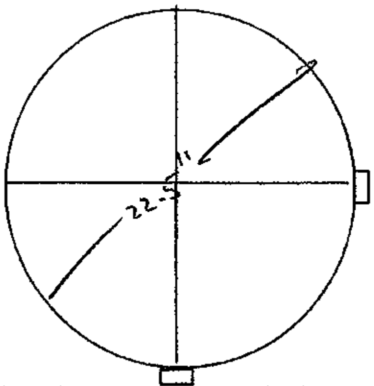
Client:	E-Stone / Grove	**Location:**	Sebring, FL
Unit:	RTO Outlet	**Date:**	12/8/08



Distance A = 108.5"

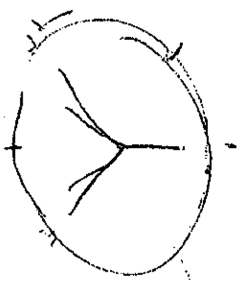
Port Diameter = 4"

Distance B = ~~125.0"~~ BL 125"



BLACK

Stack I.D. =		22.5"
Port Depth =		6"
Point No.	% of Diameter	Distance (Inches)
1	3.2%	6.72
2	10.5%	8.36
3	19.4%	10.37
4	32.3%	13.27
5	67.7%	21.23
6	80.6%	24.14
7	89.5%	26.14
8	96.8%	27.78



If a port depth is entered, then the measurements include that port depth.
Please note if adjustments are required to the outermost points.

QA/QC Check:

✓	✓	✓	✓	✓
Completeness	**Legibility**	**Accuracy**	**Specifications**	**Reasonableness**

Signatures: [signature] 12/8/08 **Technician (Signature/Date)** W. [signature] 12/15/08 **Project Manager (Signature/Date)**

Form No. ATC 8-8
1-800-733-3193

F:\WORK\All Forms-Field Data Sheets, Calc Formulae, Nomenclature,etc\Field\8-8 TRAVERSE.doc
Ver 4.0 6 July 2007

Report on Calibration of Field Barometers

The following barometers were calibrated:

By: Kent Chelders
Date: 12-1-08

	Pre-Calibration Reading	Adjustment Needed
ATC 1	28.80	+0.095
ATC 2	28.95	-0.055
ATC 3	28.82	+0.075
ATC 4	29.50	-0.605

Barometer adjusted to reading obtained from National Weather Service website. Reading adjusted for elevation of 835 ft.

National Weather Service Barometer reading, adjusted= 28.895

Calibration of ATC Field Barometers[1]

Barometer #1				
Date	Station Pressure, in. Hg	Barometer Reading, in. Hg	Adjustment Needed	Technician
12/17/2007	29.365	29.400	0.035	Childers, K
1/4/2008	29.895	29.820	0.075	Childers, K
3/31/2008	29.515	29.560	0.045	Childers, K
4/7/2008	29.345	29.420	0.075	Childers, K
5/5/2008	29.205	29.240	0.035	Burgess, T
6/23/2008	29.205	29.140	0.065	Poole, K
7/1/2008	29.235	29.280	0.045	Childers, K
9/8/2008	29.285	29.250	0.035	Burgess, T
10/17/2008	29.145	29.100	0.045	Poole, K
11/10/2008	29.355	29.220	0.135	Poole, M
12/1/2008	28.895	28.800	0.095	Childers, K

Barometer #2				
Date	Station Pressure, in. Hg	Barometer Reading, in. Hg	Adjustment Needed	Technician
12/17/2007	29.365	29.400	0.035	Childers, K
1/4/2008	29.895	29.950	0.055	Childers, K
3/31/2008	29.515	Unavailable	#VALUE!	Childers, K
4/7/2008	29.345	29.420	0.075	Childers, K
5/5/2008	29.205	Out of service		Burgess, T
6/23/2008	29.205	29.390	0.185	Poole, K
7/1/2008	29.235	29.280	0.045	Childers, K
9/8/2008	29.285	29.490	0.205	Burgess, T
10/17/2008	29.145	Unavailable	#VALUE!	Poole, K
11/10/2008	29.355	29.550	0.195	Poole, M
12/1/2008	28.895	28.950	0.055	Childers, K

Barometer #3				
Date	Station Pressure, in. Hg	Barometer Reading, in. Hg	Adjustment Needed	Technician
12/17/2007	29.365	29.620	0.255	Childers, K
1/4/2008	29.895	30.050	0.155	Childers, K
3/31/2008	29.515	29.350	0.165	Childers, K
4/7/2008	29.345	Out of service		Childers, K
5/5/2008	29.205	29.180	0.025	Burgess, T
6/23/2008	29.205	29.355	0.150	Poole, K
7/1/2008	29.235	29.180	0.055	Childers, K
9/8/2008	29.285	29.300	0.015	Burgess, T
10/17/2008	29.145	29.550	0.405	Poole, K
11/10/2008	29.355	29.480	0.125	Poole, M
12/1/2008	28.895	28.820	0.075	Childers, K

Barometer #4 (new 12/17/2007)				
Date	Station Pressure, in. Hg	Barometer Reading, in. Hg	Adjustment Needed	Technician
12/17/2007	29.365	29.160	0.205	Childers, K
1/4/2008	29.895	Unavailable	#VALUE!	Childers, K
3/31/2008	29.515		29.515	Childers, K
4/7/2008	29.345	29.350	0.005	Childers, K
5/5/2008	29.205	29.240	0.035	Burgess, T
6/23/2008	29.205	29.030	0.175	Poole, K
7/1/2008	29.235	29.260	0.025	Childers, K
9/8/2008	29.285	29.320	0.035	Burgess, T
10/17/2008	29.145	29.200	0.055	Poole, K
11/10/2008	29.355	29.330	0.025	Poole, M
12/1/2008	28.895	29.500	0.605	Childers, K

Shop Elevation = 835

Charlotte-Douglas Airport Elevation= 836

[1] Data provided by NOAA National Weather Service for Charlotte-Douglas Airport.

Primary Module Calibration Calculation

Date:	1/3/2008		Calibrations by:	Kent Childers
Pbar:	29.22		Wet Test Serial No. or DGM #	17562
Module ID:	ATC 1		Pre-test Calibration Factor	0.984

Orifice	Vw, ft^3	Vd, ft^3	Tw, °F	Td, °F	Time, minutes	dH@i	Yi
0.50	5.72	5.89	60.0	59.0	14.0	1.705	0.968
1.00	5.70	5.93	60.0	62.0	10.0	1.744	0.963
1.50	6.26	6.53	60.0	64.0	9.0	1.752	0.962
2.00	5.61	5.86	60.0	65.5	7.0	1.757	0.962
3.00	6.86	7.27	60.0	67.5	7.0	1.761	0.950
4.00	5.66	5.92	60.0	68.5	5.0	1.760	0.963
						1.746	0.961

Specifications (QA Handbook-Vol III CD5-1, 9/30/94)

1) No value of ΔH@i shall vary from the average ΔH@ by more than 0.20.
2) No value of Yi shall vary from Yavg by more than 0.02.

$$dH@ = \frac{0.0319\Delta H\left(P_b + \frac{\Delta H}{13.6}\right)}{\left(t_d + 459.69\right)}\left[\frac{\left(t_w + 459.69\right)\Theta}{V_w P_b}\right]^2$$

$$Y_i = \frac{V_w P_b\left(t_d + 459.69\right)}{V_d\left(P_{b+}\frac{\Delta H}{13.6}\right)\left(t_w + 459.69\right)}$$

QA/QC Check

Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness ✓

Checked by: Kent Childers 1-2-08 — Personnel (Signature/Date)

W. Stewart Meadows 1-28-08 — Team Leader (Signature/Date)

ATC Form 34c-Primary Module Calibration Record
version 3.1 May 2006

F:\Work\All Forms-Field Data Sheets, Calc Formulae...\34-Primary Module Calibration Record Blank.qpw
ATC (800) 733-3193

The above equations may be found in EPA/600/R-94/038c, Quality Assurance Handbook, Volume III-CD5-1

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E-Stone USA for Grove Scientific and Engineering-(12/9/2008) ATC Project No. P-8192

PRIMARY MODULE CALIBRATION CALCULATION

Module I.D.	ATC 1	Personnel	Kent Childers
Barometric Pressure, Pb	29.22	Date	1-2-2008
Pre-test Calibration Factor, Y=	0.984	Wet Test Meter Serial #	17562

Orifice Setting	V_w		V_d		T_w		T_d	
	Initial, ft^3	Final, ft^3	Initial, ft^3	Final, ft^3	Initial, °F	Final, °F	Initial, °F	Final, °F
0.50	88.900	94.620	249.235	255.124	60	60	58	60
1.00	95.200	100.98 ~~1.900~~ WCH 1-2-08	255.725	261.653	60	60	61	63
1.50	2.030	8.290	262.890	269.362	60	60	63	65
2.00	9.610	15.220	270.745	276.609	60	60	65	66
3.00	18.521	25.380	280.060	287.333	60	60	67	68
4.00	26.610	32.270	288.520	294.435	60	60	68	69

Specifications (QA Handbook-Vol III CD5-1, 9/30/94)

1) No value of ΔH@i shall vary from the average ΔH@ by more than 0.20

2) No value of Y_i shall vary from the average Y by more than 0.02.

$$dH@ = \frac{0.0319\Delta H\left(P_b + \frac{\Delta H}{13.6}\right)}{(t_d + 459.69)}\left[\frac{(t_w + 459.69)\Theta}{V_w P_b}\right]^2$$

$$Y_i = \frac{V_w P_b (t_d + 459.69)}{V_d\left(P_{b+}\frac{\Delta H}{13.6}\right)(t_w + 459.69)}$$

Orifice Setting	TIME min.	ΔH@i	Y_i
0.50	14	1.705	0.968
1.00	10	1.744	0.963
1.50	9	1.752	0.962
2.00	7	1.757	0.962
3.00	7	1.761	0.950
4.00	5	1.760	0.963
		1.746	0.961

Legend

Vw = Volume of Wet Test Meter, ft^3

Vd = Volume of Dry Gas Meter, ft^3

Tw = Temperature of Wet Test Meter, °F

Td = Temperature of Dry Gas Meter, °F

ΔH@i = Pressure differential across the orifce meter, in. H_2O

Y_i = Dry Gas Meter Calibration Coefficient, dimensionless

QA/QC Check:

Completeness	Legibility	Accuracy	Specifications	Reasonableness
✓	✓	✓	✓	✓

Signatures: Kent Childers 1-2-2008 Technician (Signature/Date) W. Stewart Meadows 1-2-08 Project Manager (Signature/Date)

ATC Form 34-Primary Module Calibration Record F:\Work\All Forms-Field Data Sheets, Calc Formulae...\34-Primary Module Calibration Record Blank.qpw

version 3.1 May 2006 ATC (800) 733-3193

POST-TEST MODULE CALIBRATION CALCULATION

Module I.D.	ATC 1	Personnel	M. Poole
Barometric Pressure, Pb	29.638	Date	12/11/08
Pre-test Calibration Factor, Y=	0.962	Wet Test Meter Serial #	17562

Orifice	Vacuum	V_w		V_d		T_w		T_d	
from field test data		Initial, ft^3	Final, ft^3	Initial, ft^3	Final, ft^3	Initial, °F	Final, °F	Initial, °F	Final, °F
2.0	5	68.26	76.41	590.790	599.166	65	65	69	70
2.0	5	76.41	84.57	599.166	607.569	65	65	70	71
2.0	5	84.57	92.73	607.569	615.988	65	65	71	71

Specifications (QA Handbook-Vol III CD5-1, 9/30/94)

1) The average post-test meter calibration factor (YI) shall be within ±5% of the pre-test calibration factor, as stated by the equation below.

$$0.95 \times Y < Y_{avg} < 1.05 \times Y$$

$$Y_i = \frac{V_w P_b (t_d + 459.69)}{V_d \left(P_{b+} \frac{\Delta H}{13.6}\right)(t_w + 459.69)}$$

Orifice Setting	TIME min.	ΔH@I	Y_i
2.0	10	1.694	0.977
2.0	10	1.687	0.976
2.0	10	1.685	0.975
		1.689	0.976

Post-test calibration factor acceptable? YES

Legend

Vw = Volume of Wet Test Meter, ft^3
Vd = Volume of Dry Gas Meter, ft^3
Tw = Temperature of Wet Test Meter, °F
Td = Temperature of Dry Gas Meter, °F
ΔH@I = Pressure differential across the orifce meter, in. H_2O
Y_i = Dry Gas Meter Calibration Coefficient, dimensionless

Project No.

8192

QA/QC Check: ✓ Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness

Signatures: Mallory Poole 12/11/08 Technician (Signature/Date) W. Kirk Poole 12/15/08 Project Manager (Signature/Date)

ATC Form 35-Post-test Module Calibration Record
Version 4.0 July 2007

F:\Work\All Forms-Field Data Sheets, Calc Formulas...\34-Primary Module Calibration Record Blank.qpw
ATC (800) 733-3193

POST TEST MODULE CALIBRATION CALCULATION

E-Stone/Grove

Date:	12/11/2008
Pbar:	29.64
Module ID:	ATC 1
Calibration by:	Mallory Poole

8192	Client Project Number
17562	Wet Test Serial No. or DGM #
0.962	Pre-test Calibration Factor
Acceptable	Post-test Calibration Acceptable?[1]

Orifice	Vac, "Hg	Vw	Vd	Tw	Td	Time	dH@	Y
2.00	5.00	8.15	8.38	65.0	69.5	10.0	1.694	0.977
2.00	5.00	8.16	8.40	65.0	70.5	10.0	1.687	0.976
2.00	5.00	8.16	8.42	65.0	71.0	10.0	1.685	0.975
							1.689	0.976

[1]Requirement-40CFR60 App A Method 5 10.3.1.1

$$dH@=\frac{0.0319\Delta H\left(P_b+\frac{\Delta H}{13.6}\right)}{\left(t_d+459.69\right)}\left[\frac{\left(t_w+459.69\right)\Theta}{V_w P_b}\right]^2$$

$$Y_i=\frac{V_w P_b\left(t_d+459.69\right)}{V_d\left(P_{b+}\frac{\Delta H}{13.6}\right)\left(t_w+459.69\right)}$$

The above equations may be found in EPA/600/R-94/038c, Quality Assurance Handbook, Volume III-CDS-1

F:\WORK\Client Files\Grove Scientific\Sebring, FL - December 2008\

STANDARD GAS METER SALES AND REPAIR INC
537 WEST MAIN ST
PO BOX 273
ALBEMARLE NC 28001
704-982-9601 FAX 704-982-9705
standard gas@ctc.net

Analytical Testing Consultants
Kannapolis NC

03-19-08

Testing conditions for American AL19#17562:

Barometer---30.15", Prover Air Temp 70.75F, Meter Water Temp 69.75F'
1.5" WC pressure.

With meter at exact level position, meter water level was adjusted to give a reading of exactly 2 CF on the meter and exactly 2CF on the prover. Meniscus indicator was then set to this point and checked after operation. All tests were satisfactory.

Calibrated on RW Prover#81, Certified tape #26727. Douglas P Miller

Douglas P Miller---SGM

RECEIVED

MAR 19 2008

BY: WKP

Thermocouple Post-test Calibration Data Form

according to Alternative Method 2 Procedures (ALT-011)

Client: E-Stone/Grove
Test Location: Sebring, FL
Ambient Temp., °F 64°
Technician M. Poole

Test Date: 12/9/08
Calibration Date 12/11/08
Thermocouple Number 57
Reference Thermometer (List ID #)[1] F7

Thermocouple	Source[2] (Specify)	Reference Temperature °F	Thermocouple Potentiometer Temperature, °F	Temperature Difference °F[3]
Stack				
Probe	Ambient	64°	63°	1°F

[1] Reference thermometer-mercury in glass
[2] May be ambient air or other
[3] Difference msut be 2 °F or less.

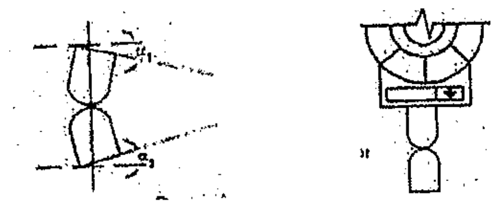
QA/QC Check

Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness ✓

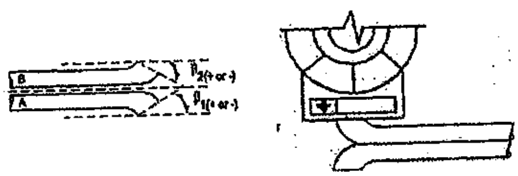
Checked by: Mallory Poole 12/11/08
Calibration Technician
(Signature/Date)

W. Kirk Poole 12/15/08
Test Team Leader
(Signature/Date)

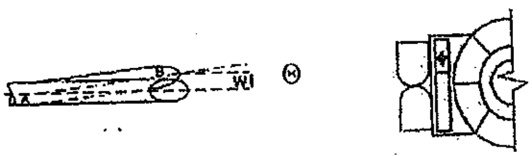
Analytical Testing Consultants, Inc.
Post-test Type S Pitot Tube Inspection Sheet



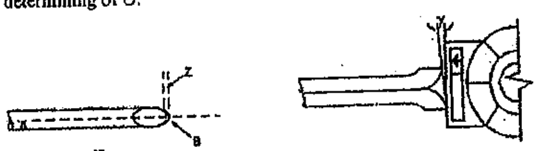
Degree indicating level position for determining α_1 and α_2.



Degree indicated level position for determining β_1 and β_2.



Degree indicating level position for determining of Θ.



Degrees indicating level position for determining γ then calculate Z.

Level and Perpendicular?	Y
Obstruction?	N
Damaged?	N
α_1 $(-10^o \leq \alpha 1 \leq +10^o)$	2
α_2 $(-10^o \leq \alpha_2 \leq +10^o)$	2
β_1 $(-5^o \leq \beta_1 \leq +5^o)$	0
β_2 $(-5^o \leq \beta_2 \leq +5^o)$	0
γ	1
Θ	1
Z=A tan γ (≤0.125")	0.015
W= A tan Θ (≤ 0.03125")	0.015
D_t (3/16" ≤ D_t ≤ 3/8")	.385
A	.864
$A/2D_t$ $(1.05 \leq P_A/D_t \leq 1.50)$	1.122
If temperature sensor is flush with pitot tube opening, is Z ≥¾"?	Y
If temperature sensor is set back from pitot tube opening, is W > 2"?	N/A
Is X ≥ ¾" for Dn =½"	Y
Is impact side of pitot tube even with or above nozzle entry plane?	Y
Is Y≥ 3" for 3/16" < Dt < 3/8"?	Y

QA/QC Check

Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness ✓

Certification

I certify that the Type S pitot tube/probe ID # 57 meets or exceeds all specifications, criteria and/or applicable design features and is hereby assigned a pitot tube calibration factor C_p of 0.84[1].

Certified by: Mallory Poole, 12/11/08 W. Kin Pol 12/15/08

[1] This certification also applies to the specifications of EPA Method 2, section 10.1.4.1.1 regarding inter-component spacing of pitot tube-sampling probe assemblies. Refer to the figures on the reverse side of this page for specifics.

ATC Form 36-Post-test S-type Pitot Tube Calibrations-version 3.0 September 2007 ATC @ (800) 733-3193

National Specialty Gases
P. O. Box 12013
Research Triangle Park, NC 27709
Phone 919/544 3772

CERTIFICATE OF ANALYSIS: EPA PROTOCOL GAS MIXTURE

Customer:	National Welders, Concord, NC	Reference #	88-106317	
NSG PO#	5667067	Certification Date:	09/27/06	
Customer PO#		Expiration Date:	09/27/09	
Cylinder #	SG-9140087-BAL	Pressure, psig*	2000	CGA 590
		Product Code:	781081	

ANALYTICAL INFORMATION

METHOD: This standard was analyzed according to EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards; Procedure G1 (September 1997)

ANALYZED CYLINDER Components	Certified Concentration	Analytical Accuracy**
Propane	10110 ppm	+/-1%
Balance - Air		

REFERENCE STANDARD Type/SRM Sample #	Cylinder #	Concentration
GMIS (Traceable to SRM # 2648a)	CC35920	5000 ppm C3H8/AIR

INSTRUMENTATION Instrument/Model/Serial #	Last Date Calibrated	Analytical Method
Rosemount 400A THC 2000335	08/28/06	Flame Ionization Detector

Analyst: Nicole Ishak Nicole Ishak

This report states accurately the results of the investigation made upon the material submitted to the analytical laboratory. Every effort has been made to determine objectively the information requested. However, in connection with this report, National Specialty Gases shall have no liability in excess of established charge for this service. Assayed at National Specialty Gases, 630 United Drive, Durham, NC 27713 (919) 544-3772

*Do not use this standard when cylinder pressure is below 150 psig.

**Analytical accuracy includes typical known error sources which, at least, include precision of the analytical instrument.

NSG 020149L

Airgas
National Welders

RECEIVED
SEP 9 2008
BY: WKP

CERTIFICATE OF ANALYSIS
EPA PROTOCOL GAS MIXTURE

Manufactured and Assayed at:
NATIONAL WELDERS SUPPLY CO.
4236 STATESVILLE RD
CHARLOTTE, NC 28269
704-596-6262

Produced for customer:
NATIONAL WELDERS SUPPLY CO.,
287 EXECUTIVE PARK DRIVE
CONCORD, NC 28025
704-788-6615

94 - Concord

Product Code:	780981		
Product Description:	EPA PROTOCOL MIX 2PT BAL N2	Certification Date:	08/26/08
Lot #	CU99H8200DA	Expiration Date:	08/27/11
Order #	6943906	Pressure, psig*	2000
Cylinder #	CC185468	CGA	CGA 590
Page #	1 of 1	Certificate #	LC1-CU99H8200DA

This standard was analyzed according to EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards: Procedure G1 (September 1997)

Components	Requested Concentration	Certified Concentration and Expanded Uncertainty	Units	Analytical Accuracy	Procedure
Oxygen	10.5	10.5 +/- 0.1	%	+/- 1%	304.LAB.0030, R-00
Nitrogen			Balance		

Reference Standard #	Standard Type	Cylinder #	Concentration			Expiration Date
2349	GMIS	112347	10.01	%	O2 / N2	01/17/10

Instrument #	Instrument	Serial #	Analytical Method	Calibration Date
154	Teledyne 3000M	240141	Paramagnetic	08/26/08

Analytical Report Approved by: LC

Lance Crayton
Lab Analyst

All analyses are performed under controlled environmental conditions. This product is manufactured using equipment which has been calibrated with NIST traceable, or equivalent, standards, weights, or equipment.

*Do not use this standard when cylinder pressure is below 150 psig.

CU.LAB.0100.B
Rev 01

Airgas
National Welders™

RECEIVED
AUG 26 2008
BY: WKP

CERTIFICATE OF ANALYSIS
EPA PROTOCOL GAS MIXTURE

Manufactured and Assayed at:
NATIONAL WELDERS SUPPLY CO.
4236 STATESVILLE RD
CHARLOTTE, NC 28269
704-596-6262

Produced for customer:
NATIONAL WELDERS SUPPLY CO., **94 - Concord**
287 EXECUTIVE PARK DRIVE
CONCORD, NC 28025
704-788-6615

Product Code:	780981		
Product Description:	EPA PROTOCOL	Certification Date:	08/19/08
Lot #	CU99H8150DA	Expiration Date:	08/20/11
Order #	6935693	Pressure, psig*	2000
Cylinder #	CC166921	CGA	CGA 590
Page #	1 of 1	Certificate #	LC1-CU99H8150DA

This standard was analyzed according to EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards: Procedure G1 (September 1997)

Components	Requested Concentration	Certified Concentration and Expanded Uncertainty	Units	Analytical Accuracy	Procedure
Oxygen	20.9	20.9 +/- 0.2	%	+/- 1%	304.LAB.0030, R-00
Nitrogen			Balance		

Reference Standard #	Standard Type	Cylinder #	Concentration			Expiration Date
2291	GMIS	AT9284	21.03	%	O2 / N2	01/17/10

Instrument #	Instrument	Serial #	Analytical Method	Calibration Date
154	Teledyne 3000M	240141	Paramagnetic	08/19/08

Analytical Report Approved by: ZS

Lance Crayton
Lab Analyst

All analyses are performed under controlled environmental conditions. This product is manufactured using equipment which has been calibrated with NIST traceable, or equivalent, standards, weights, or equipment.

*Do not use this standard when cylinder pressure is below 150 psig.

CU.LAB.0100.B
Rev 01

National Specialty Gases

P. O. Box 12013
Research Triangle Park, N.C. 27709
Phone 919/544-3772

CERTIFICATE OF ANALYSIS: EPA PROTOCOL GAS MIXTURE

Customer:	National Welders, Concord, NC	Reference #	88-115014	
NSG PO#	6541039	Certification Date:	02/12/08	
Customer PO#		Expiration Date:	02/12/11	
Cylinder #	CC100061	Pressure, psig*	2000	CGA 580
		Product Code:	780281	

ANALYTICAL INFORMATION

METHOD: This standard was analyzed according to EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards: Procedure G1 (September 1997)

ANALYZED CYLINDER

Components	Certified Concentration	Analytical Accuracy**
Carbon Dioxide	20.99%	+/-1%
Balance - Nitrogen		

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REFERENCE STANDARD

Type/SRM Sample #	Cylinder #	Concentration	
GMIS (Traceable to NTRM # 82745x)	CC117299	19.02 %	CO2/N2

INSTRUMENTATION

Instrument/Model/Serial #		Last Date Calibrated	Analytical Method
KVB Analect	EN-844A	01/12/08	Fourier Transform Infrared

Analyst: Richard Sykes Richard Sykes

This report states accurately the results of the investigation made upon the material submitted to the analytical laboratory. Every effort has been made to determine objectively the information requested. However, in connection with this report, National Specialty Gases shall have no liability in excess of established charge for this service. Assayed at National Specialty Gases, 630 United Drive, Durham, NC 27713 (919) 544-3772

*Do not use this standard when cylinder pressure is below 150 psig.
**Analytical accuracy includes typical known error sources which, at least, include precision of the analytical instrument. NSG 020149L

E-Stone USA for Grove Scientific and Engineering-(12/9/2008) ATC Project No. P-8192

MATHESON TRI•GAS

ask. . .The Gas Professionals™

Certified Mixture Grade

Matheson Tri-Gas Inc.
6374 S. Main Street
Morrow GA 30260
Phone: 770-961 4606
Fax: 770-968 1268

TO: Enthalpy Analytical
2202 Ellis Rd Suite A
Durham, NC 27703

TO AVOID BACKFILL, CYLINDER PRESSURE MUST BE GREATER THAN PROCESS PRESSURE

PHONE:
FAX:

SALES ORDER NUMBER: 429723
P.O. NUMBER: C-BDT0108-01
LOT NUMBER: 1057610195

PRODUCT:

~300 psi
11/3/08

CYLINDER NUMBER: SX18013
SIZE: 1R
CGA/DISS OUTLET: 350
CONTENT: 29.7 cu. ft.
PRESSURE: 420 psig

FILL DATE: Dec 11, 2007
CERTIFICATION DATE: Dec 11, 2007
EXPIRATION DATE: Dec 11, 2008

COMPONENT	REQUESTED CONCENTRATION	BLEND TOLERANCE (+/-)	CERTIFIED CONCENTRATION	CERTIFICATION ACCURACY
vinyl-Benzene	50 ppm	10 %	49.2 ppm	+/- 2%
Nitrogen, Balance				

TRACEABLE TO REFERENCE STANDARD SOURCE/NUMBER:
TRACEABLE TO NIST TRACEABLE WEIGHT CERTIFICATE:

SPECIAL INFORMATION / ADDITIONAL COMMENTS

The product listed above and furnished under the referenced purchase order has been tested and found to contain the component concentration listed above. All values in mole/mole basis gas phase unless otherwise indicated. Matheson Tri-Gas Inc. warrants that the above product(s) conform at the time of shipment to the above description. Matheson Tri-Gas Inc. liability does not exceed the value of the product purchased.

Derek Stuck	Derek St	Dec 11, 2007
ANALYST	**SIGNATURE**	**DATE SIGNED**

Environics

ISO 9001 Registered ANAB

Series 2020

System S/N 1549

ENVIRONICS FLOW CONTROLLER CALIBRATION SHEET

MFC#: 1 Size: 10000 SCCM

SERIAL NUMBER AW9404312

This flow controller was calibrated using a Sierra Cal Bench ™, a NIST traceable Primary Flow Standard Calibration System. This calibration was performed with Nitrogen at a standard reference temperature and pressure of 32° and 29.92 in.HG. This is not performance data. This data is used by the system operating modes to improve the flow accuracy.

	Set Flow	True Flow
5 %	500.0 CCM	498.037 CCM
10 %	1000.0 CCM	998.684 CCM
20 %	2000.0 CCM	1999.357 CCM
30 %	3000.0 CCM	3007.361 CCM
40 %	4000.0 CCM	4018.146 CCM
50 %	5000.0 CCM	5026.669 CCM
60 %	6000.0 CCM	6030.894 CCM
70 %	7000.0 CCM	7137.938 CCM
80 %	8000.0 CCM	8103.815 CCM
90 %	9000.0 CCM	9089.607 CCM
100 %	10000.0 CCM	10093.105 CCM

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OCT 13 2008
BY: WKP

Verified by: [signature]

Date: 10-9-08

Computerized Gas Mixing / Dilution / Calibration Systems

Environics Inc. • 69 Industrial Park Road East • Tolland, CT 06084 • (860) 872-1111 • Fax (860) 870-9333
World Wide Web: http://www.environics.com E-mail: info@environics.com

Environics

ATC Project No. P-8192

ISO 9001 Registered

ANAB

Series 2020

System S/N 1549

ENVIRONICS FLOW CONTROLLER CALIBRATION SHEET

MFC#: 2 Size: 10000 SCCM

SERIAL NUMBER 2278700001

This flow controller was calibrated using a Sierra Cal Bench ™, a NIST traceable Primary Flow Standard Calibration System. This calibration was performed with Nitrogen at a standard reference temperature and pressure of 32° and 29.92 in.HG. This is not performance data. This data is used by the system operating modes to improve the flow accuracy.

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	Set Flow	True Flow
5 %	500.0 CCM	520.811 CCM
10 %	1000.0 CCM	1047.725 CCM
20 %	2000.0 CCM	2064.903 CCM
30 %	3000.0 CCM	3076.453 CCM
40 %	4000.0 CCM	4076.480 CCM
50 %	5000.0 CCM	5066.699 CCM
60 %	6000.0 CCM	6051.525 CCM
70 %	7000.0 CCM	7039.665 CCM
80 %	8000.0 CCM	8020.777 CCM
90 %	9000.0 CCM	8987.212 CCM
100 %	10000.0 CCM	10080.691 CCM

Verified by: [signature]

Date: 10-9-08

Computerized Gas Mixing / Dilution / Calibration Systems

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World Wide Web: http://www.environics.com E-mail: info@environics.com

Environics

ISO 9001 Registered ANAB

Series 2020

System S/N 1549

ENVIRONICS FLOW CONTROLLER CALIBRATION SHEET

MFC#: 3 Size: 1000 SCCM

SERIAL NUMBER AW9603228

This flow controller was calibrated using a Sierra Cal Bench ™, a NIST traceable Primary Flow Standard Calibration System. This calibration was performed with Nitrogen at a standard reference temperature and pressure of 32° and 29.92 in.HG. This is not performance data. This data is used by the system operating modes to improve the flow accuracy.

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BY: WKP

	Set Flow	True Flow
5 %	50.0 CCM	50.480 CCM
10 %	100.0 CCM	101.310 CCM
20 %	200.0 CCM	202.296 CCM
30 %	300.0 CCM	302.715 CCM
40 %	400.0 CCM	403.698 CCM
50 %	500.0 CCM	504.749 CCM
60 %	600.0 CCM	605.013 CCM
70 %	700.0 CCM	705.543 CCM
80 %	800.0 CCM	807.418 CCM
90 %	900.0 CCM	914.259 CCM
100 %	1000.0 CCM	1017.477 CCM

Verified by: ________ Date: 10-9-08

Environics Inc. • 69 Industrial Park Road East • Tolland, CT 06084 • (860) 872-1111 • Fax (860) 870-9333
World Wide Web: http://www.environics.com E-mail: info@environics.com

Environics

ISO 9001 Registered ANAB

Series 2020

System S/N 1549

ENVIRONICS FLOW CONTROLLER CALIBRATION SHEET

MFC#: 4 Size: 100 SCCM

SERIAL NUMBER AW9804034

This flow controller was calibrated using a Sierra Cal Bench ™, a NIST traceable Primary Flow Standard Calibration System. This calibration was performed with Nitrogen at a standard reference temperature and pressure of 32° and 29.92 in.HG. This is not performance data. This data is used by the system operating modes to improve the flow accuracy.

	Set Flow	True Flow
5 %	5.0 CCM	5.160 CCM
10 %	10.0 CCM	10.124 CCM
20 %	20.0 CCM	20.076 CCM
30 %	30.0 CCM	30.140 CCM
40 %	40.0 CCM	40.023 CCM
50 %	50.0 CCM	49.984 CCM
60 %	60.0 CCM	60.292 CCM
70 %	70.0 CCM	70.461 CCM
80 %	80.0 CCM	80.329 CCM
90 %	90.0 CCM	90.898 CCM
100 %	100.0 CCM	101.009 CCM

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BY: WKP

Verified by: [signature]

Date: 10-9-08

Environics® Stone USA for Grove Scientific and Engineering-(12/9/2008) ATC Project No. P-8192 ISO 9001 Registered ANAB

Series 2020

System S/N 1549

ENVIRONICS FLOW CONTROLLER CALIBRATION SHEET

MFC#: 5 Size: 10 SCCM

SERIAL NUMBER AW9711212

This flow controller was calibrated using a Sierra Cal Bench ™, a NIST traceable Primary Flow Standard Calibration System. This calibration was performed with Nitrogen at a standard reference temperature and pressure of 32° and 29.92 in.HG. This is not performance data. This data is used by the system operating modes to improve the flow accuracy.

	Set Flow	True Flow
5 %	0.5 CCM	0.535 CCM
10 %	1.0 CCM	1.042 CCM
20 %	2.0 CCM	2.063 CCM
30 %	3.0 CCM	3.075 CCM
40 %	4.0 CCM	4.078 CCM
50 %	5.0 CCM	5.085 CCM
60 %	6.0 CCM	6.077 CCM
70 %	7.0 CCM	7.080 CCM
80 %	8.0 CCM	8.084 CCM
90 %	9.0 CCM	9.080 CCM
100 %	10.0 CCM	10.072 CCM

RECEIVED
OCT 13 2008
BY: WKP

Verified by: [signature]

Date: 10-9-08

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World Wide Web: http://www.environics.com E-mail: info@environics.com

BOBBY JINDAL
GOVERNOR

HAROLD LEGGETT, PH.D.
SECRETARY

State of Louisiana

DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL ASSESSMENT
LABORATORY SERVICES DIVISION

CERTIFIED MAIL #7007 0710 0005 6108 4374
Return Receipt Requested

June 23, 2008

AI #94216 **LELAP Lab ID #04044**

Mr. W. Keith Poole
Analytical Testing Consultants, Inc.
301 Brookdale Street
Kannapolis, NC 28083-2787

RE: Accreditation Certificate

Dear Mr. Poole:

In accordance with Louisiana Administrative Code, Title 33, Part I, Subpart 3, Laboratory Accreditation, the State of Louisiana formally recognizes that this laboratory has successfully completed the accreditation process and is technically competent to perform the environmental analyses listed on the scope of accreditation detailed in the attachment. Accreditation does not constitute an endorsement of the suitability of the listed methods for any specific purpose. Parameters or analytes that the laboratory has applied for accreditation not included in the scope of accreditation attachment are not accredited. The laboratory will be accredited for the method as identified on the application for accreditation; if the method is partially identified on the application for accreditation, the laboratory will be accredited for all versions of the method.

NELAP accreditation is granted **only** for those methods/analytes for which "NELAP" is indicated as the type of accreditation. "STATE" is indicated as the type of accreditation for those methods/analytes for which NELAP accreditation is not available. Accreditation is dependent on the laboratory's successful ongoing compliance with regulations as outlined in the Louisiana Administrative Code, Title 33, Part I, Subpart 3, Laboratory Accreditation.

The enclosed accreditation certificate is property of the State of Louisiana. Should a change in accreditation status occur, the Department may recall the original accreditation certificate and attachments. The recalled certificate and attachments should be returned

Mr. W. Keith Poole
Analytical Testing Consultants, Inc.
June 23, 2008
Page 2 of 2

to the Office of Environmental Assessment, Louisiana Environmental Laboratory Accreditation Program, P.O. Box 4314, Baton Rouge, LA 70821-4314, Attention: Paul Bergeron.

LAC 33:I.5313.A requires that the laboratory report must include all relevant information. Therefore, the certificate number shall be placed in the upper right corner of all laboratory reports. If the test report includes results of any test for which the laboratory is not accredited, the unaccredited results must be clearly identified as such.

Please be advised that it is your responsibility to examine the scope of accreditation attachment for accuracy and completeness. If you find that an analyte for which you expected to be accredited is not listed, please examine your records to ensure that:

1. You have met the requirements for successful participation in proficiency test studies as outlined in LAC 33:I.4711 and in the NELAC Standard 2.7.2.

2. In the case of accreditation by recognition, the requested analyte must be listed for the requested method and matrix on both the certificate issued by the Primary Accreditation Body ***and*** on the Louisiana application form.

If you have any questions, please contact the Louisiana Environmental Laboratory Accreditation Program at (225) 219-9800.

Sincerely,

Paul Bergeron

Paul Bergeron, Supervisor
Louisiana Environmental Laboratory Accreditation Program

PB:clg

Enclosure

Louisiana Environmental Laboratory

LELAP

Accreditation Program

Laboratory Scope of Accreditation

E-Stone USA for Grove Scientific and Engineering-(12/9/2008)

Organization

04044
Analytical Testing Consultants Inc.
301 Brookdale Street
Kannapolis, NC 28083-2787
(704) 932-3193

Louisiana Stack Testing Program Certification

Method Code	Method Ref	Analyte	Status	Date Effective	Type	AA
754	Performance Specification 2	Oxides of nitrogen	Accredited	6/2/2004	STATE	LA
754	Performance Specification 2	Sulfur dioxide	Accredited	6/2/2004	STATE	LA
755	Performance Specification 3	Carbon dioxide	Accredited	6/2/2004	STATE	LA
755	Performance Specification 3	Oxygen	Accredited	6/2/2004	STATE	LA
756	Performance Specification 4	Carbon monoxide (CO)	Accredited	6/2/2004	STATE	LA
759	Performance Specification 6	Emission Rate	Accredited	6/2/2004	STATE	LA
761	Performance Specification 8	VOC's	Accredited	6/2/2004	STATE	LA
1117	ALT-008	Moisture Midget Impingers	Accredited	6/2/2004	STATE	LA
1217	Method 1 40 CFR 60 App. A	Traverse Points	Accredited	6/2/2004	STATE	LA
1245	Method 17 40 CFR 60 App. A	Particulates	Accredited	6/2/2004	STATE	LA
1248	Method 1A 40 CFR 60 App. A	Traverse Points	Accredited	6/2/2004	STATE	LA
1249	Method 2 40 CFR 60 App. A	Stack gas velocity volume flow rate	Accredited	6/2/2004	STATE	LA
1251	Method 201A 40 CFR 51 App. M	Particulates <10 um	Accredited	6/2/2004	STATE	LA
1252	Method 202 40 CFR 51 App. M	Particulate Matter <2.5 um	Accredited	6/2/2004	STATE	LA
1271	Method 2A 40 CFR 60 App. A	Stack gas velocity volume flow rate in small stacks/ducts	Accredited	6/2/2004	STATE	LA
1272	Method 2B 40 CFR 60 App. A	Stack gas velocity volume flow rate	Accredited	6/2/2004	STATE	LA
1279	Method 3 40 CFR 60 App. A	Carbon dioxide oxygen dry molecular weight	Accredited	6/2/2004	STATE	LA
1296	Method 3A 40 CFR 60 App. A	Carbon dioxide	Accredited	6/2/2004	STATE	LA
1296	Method 3A 40 CFR 60 App. A	Oxygen	Accredited	6/2/2004	STATE	LA
1297	Method 3B 40 CFR 60 App. A	Emission Rate Correction Factors	Accredited	6/2/2004	STATE	LA
1302	Method 4 40 CFR 60 App. A	Moisture content	Accredited	6/2/2004	STATE	LA
1303	Method 5 40 CFR 60 App. A	Particulates	Accredited	6/2/2004	STATE	LA
1304	Method 5A 40 CFR 60 App. A	Particulates from asphalt processing	Accredited	6/2/2004	STATE	LA
1305	Method 5B 40 CFR 60 App. A	Particulates	Accredited	6/2/2004	STATE	LA
1306	Method 5D 40 CFR 60 App. A	Particulates from fabric filters	Accredited	6/2/2004	STATE	LA
1308	Method 5F 40 CFR 60 App. A	Particulates	Accredited	6/2/2004	STATE	LA
1757	Method 10 40 CFR 60 App. A (Sample Only)	Carbon monoxide (CO)	Accredited	7/1/2003	STATE	LA

Report Appendix Page 129 of 131

ATC Project No. P-8192

Issue Date: July 1, 2008
Expiration Date: June 30, 2009

Print Date 6/17/2008 9:22:25 AM

Louisiana Environmental Laboratory
LELAP
Accreditation Program

Laboratory Scope of Accreditation

Organization

04044 **(704) 932-3193**
Analytical Testing Consultants Inc.
301 Brookdale Street
Kannapolis, NC 28083-2787

Louisiana Stack Testing Program Certification

Method Code	Method Ref	Analyte	Status	Date Effective	Type	AA
1813	Method 18 40 CFR 60 App. A (Sample Only)	Gaseous Organic Compound Emissions	Accredited	6/2/2004	STATE	LA
1841	Method 205 40 CFR 51 App. M (Sample Only)	Verification of Gas Dilution Systems for Field Instrument Calibration	Accredited	6/2/2004	STATE	LA
1851	Method 25A 40 CFR 60 App. A (Sample Only)	Gaseous Organic Emissions	Accredited	6/2/2004	STATE	LA
1951	Method 6C 40 CFR 60 App. A (Sample Only)	Sulfur dioxide	Accredited	6/2/2004	STATE	LA
1963	Method 7E 40 CFR 60 App. A (Sample Only)	Nitrogen Oxides (NOx)	Accredited	6/2/2004	STATE	LA
2163	Method 25B 40 CFR 60 App. A	Total Organic Compounds	Accredited	6/2/2004	STATE	LA

Issue Date: July 1, 2008
Expiration Date: June 30, 2009

Print Date 6/17/2008 9:22:25 AM

DEQ
LOUISIANA

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY

Is hereby granting a Louisiana Environmental Laboratory Accreditation to

Louisiana Environmental Lab Accreditation Program LELAP

Analytical Testing Consultants Inc.
301 Brookdale Street
Kannapolis, NC 28083-2787

Agency Interest No. 94216

According to the Louisiana Administrative Code, Title 33, Part I, Subpart 3, LABORATORY ACCREDITATION, the State of Louisiana formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed in the attachment.

The laboratory agrees to perform all analyses listed on this scope of accreditation according to the Part I, Subpart 3 requirements and acknowledges that continued accreditation is dependent on successful ongoing compliance with the applicable requirements of Part I. Please contact the Department of Environmental Quality, Louisiana Environmental Laboratory Accreditation Program (LELAP) to verify the laboratory's scope of accreditation and accreditation status. Accreditation by the State of Louisiana is not an endorsement or a guarantee of validity of the data generated by the laboratory, and does not constitute an endorsement of the suitability of the listed methods for any specific application.

To be accredited initially and maintain accreditation, the laboratory agrees to participate in two single-blind, single-concentration PT studies, where available, per year for each field of testing for which it seeks accreditation or maintains accreditation as required in LAC 33:I.4711.

Melvin C. Mitchell Sr., Accreditation Officer
Louisiana Environmental Laboratory Accreditation Program

Certificate Number: 04044
Expiration Date: June 30, 2009
Issued On: July 1, 2008

Attachment D

List of Insignificant Activities

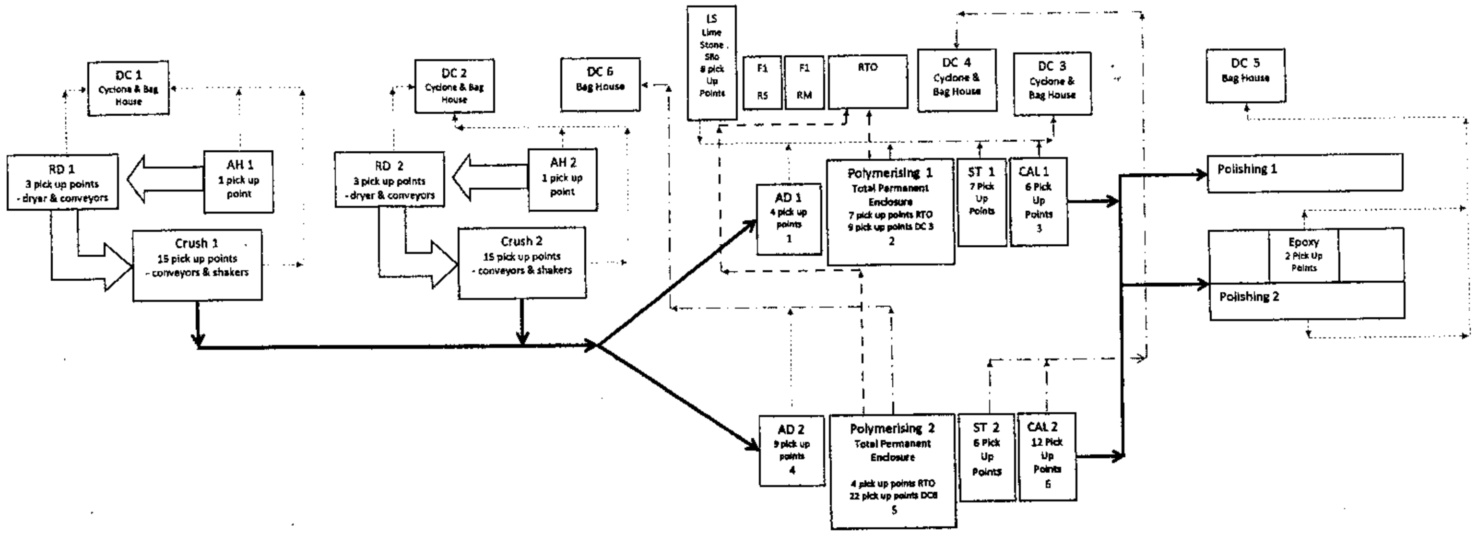
List of Insignificant Activities:

- Fire extinguishers
- Cleaning and sweeping of streets & paved surfaces
- Emergency backup generators (4)
- Non-routine clean out of tanks and equipment for the purposes of worker entry or in preparation for maintenance or decommissioning
- Research and development, quality control
- Water treatment
- Bulk propane storage tank
- Bulk resin storage tank
- Portable totes of aggregate
- Polishing Line 1 – wet process and no ovens or dryers
- Slab cutting – wet saw
- Product packaging
- Aggregate storage bins (outdoors)

Attachment E

Process Flow

E-Stone USA Corporation
Process Layout
Revised 1-23-08



Emission Unit	Emission Point	Emission Point Description	Equipment Identification	Equipment Description	# of Pick Up Points	Pick Up Point Location	Pick Up Point Internal to PTE	Emission
01	DC 1	Cyclone & Bag House	AH1	Aggregate Hopper #1	1	Hopper	——	Particulate Matter (PM)
			RD1	Rotary Dryer #1	3	Dryer & Conveyors	——	Particulate Matter (PM)
			Crush 1	Mill #1	15	Conveyores & Shakers	——	Particulate Matter (PM)
02	DC 2	Cyclone & Bag House	AH2	Aggregate Hopper #2	1	Hopper	——	Particulate Matter (PM)
			RD2	Rotary Dryer #2	3	Dryer & Conveyors	——	Particulate Matter (PM)
			Crush 2	Mill #2	15	Conveyores & Shakers	——	Particulate Matter (PM)
03	DC 6	Bag House	AD2 (4)	Aggregate Dosing #1	8	Aggregate Dosing	——	Particulate Matter (PM)
					1	Limestone Conveyor	——	Particulate Matter (PM)
			Polymerising 2 (5)	Polymerising 2	22	Mixers, Upper Trolley (Loading Area)	Yes	PM & VOC/HAP
04	DC 4	Cyclone & Bag House	ST 2	Slab Take Off Area	6	Slab Take Off Area	——	Particulate Matter (PM)
			CAL 2 (6)	Calibrator 2	12	Calibrator	——	Particulate Matter (PM)
05	DC3	Cyclone & Bag House	LS	Limestone Silo	8	Conveyors & Hopper	——	Particulate Matter (PM)
			ST 1	Slab Take Off Area	7	Slab Take Off Area	——	Particulate Matter (PM)
			AD 1 (1)	Aggregate Dosing 1	4	Aggregate Dosing	——	Particulate Matter (PM)
			Polymerising 1	Polymerising 1	9	Upper oven, mixers,	Yes	PM & VOC/HAP
						limestone hopper, conveyors	Yes	PM & VOC/HAP
			CAL 1 (3)	Calibrator 1	6	Calibrator	——	Particulate Matter (PM)
06	RTO	Regenerative Thermal Oxidizer	Polymerising 1 (2)	Polymerising 1	1	Robot Station	Yes	PM & VOC/HAP
					2	Limestone & Fiberglass Station	Yes	PM & VOC/HAP
					4	Upper Trolley System (load area)	Yes	PM & VOC/HAP
			Polymerising 2	Polymerising 2	1	Limestone Station	Yes	PM & VOC/HAP
					1	Fiberglass Station	Yes	PM & VOC/HAP
					2	Robot Station	Yes	PM & VOC/HAP
07	DC 5	Bag House	Polishing 2	Polishing 2	4	Edge Grinding Booth	Yes	Particulate Matter (PM)
			Epoxy	Epoxy Touch Up	2	Epoxy Touch Up	Yes	Epoxy Odor
08	F1	Fugitive Emission	RS	Resin Storage	0		Yes	VOC/HAP
			RM	Resin Mix Tanks	0		Yes	VOC/HAP

Key

Material Flow - Mill

Process Flow

Particulate Matter (PM) Emission

VOC/HAP Emission

PM & VOC/HAP Emission

Attachment F

OM&M

E-Stone USA corporation

OPERATION, MAINTENANCE AND MONITORING PLAN
STARTUP, SHUTDOWN AND MALFUNCTION PLAN
FOR E-STONE'S MANUFACTURING PROCESS

PREPARED

JANUARY 2009

TITLE V PERMIT

0550049-004-AV

E-Stone USA corporation

TABLE OF CONTENTS

TABLE OF CONTENTS
(continued)

LIST OF TABLES

LIST OF ATTACHMENTS

E-Stone USA
corporation

CERTIFICATION

Based upon information and belief formed after a reasonable inquiry, I, as a responsible official of E-Stone USA Corporation certify that the information in this Operation, Maintenance and Monitoring Plan and Startup, Shutdown and Malfunction Plan is true, accurate and complies with the requirements as set forth in 40 CFR Part 63 Subpart WWWW, National Emission Standards for Hazardous Air Pollutants: Reinforced Plastics Composites Production and Subpart SS, National Emission Standards for Hazardous Air Pollutants: Closed Vent Systems, Control Devices, Recovery Devices and Routing to a fuel Gas System or a Process.

Name of Responsible Official: **James Gorsuch**

Title of Responsible Official: **Chief Financial Officer**

CFO

Signature

JAN 24, 2009

Date

E-Stone USA
corporation

SECTION 1.0
INTRODUCTION

1.1 Purpose and Scope

The purpose of this manual is to establish a uniform procedure for operation and maintenance of the mill area and operations with dust collection units, at E-Stone USA, regarding air emissions. The steps outlined in this plan are applicable for all E-Stone employees. This "Plan" is required by FDEP Permit 0550049-003-AC in Specific Condition B.9. Also, 40 CFR Part 63 Subpart SS, "National Emission Standards for Closed-vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process", requires E-Stone to establish operating parameters of certain processes during our successful emission compliance test, and maintain records of these as part of our routing compliance demonstration.

1.2 Startup, Shutdown and Malfunction Plan

This plan is written in a manner consistent with safety and good air pollution control practices for minimizing emissions at all times. To the extent that an unexpected event arises during startup, shutdown or malfunction, E-Stone will comply by minimizing emissions during startup, shutdown or malfunction event consistent with safety and good air pollution control practices as a priority.

SECTION 2.0

MILLS 1 AND 2

2.1 Startup Procedures for the Mill

Before **ANY** production or processing of materials begins the following procedures must be taken:

1. Turn on the “Main Power” switch on the electric panel.
2. Reset the “Restore Button” on the electric panel.
3. Check to ensure that the dust collection bags are in place and secured to the ventilation outlet (Outside).
4. Check that the Ventilation arm is set correctly “Open and Close”, (outside).
5. Make sure that the “Demand/Continuous” switch on the ventilation panel is set to “Demand” to insure proper air flow through the dust tubes.
6. Press the “Start Button” to start the entire ventilation system.
7. Insure the Indicator (LED) is reading 1.0 or below (located on the ventilation electrical panel).
8. If the Indicator (LED) is reading above 1.0 switch the “Demand/Continuous” switch to “Continuous” until the

LED reads below 1.0. This usually takes 2-3 minutes. Return the switch back to the demand position.

9. Once the ventilation system is started, visibly check for negative pressure by watching the operation of the vapor locks and suction on the bags.
10. Once all of the above steps are complete, the Milling machine is started and the "grinding" process begins.
11. During the process view the outlet of the dust collector stack to assure there are no visible emission of dust. If dust is noted, check the bags in the dust collector for leaks.

2.2 Operation and Maintenance

The following maintenance procedures are to be performed and documented weekly to insure proper function of the entire ventilation systems for both mills. These documents are maintained and filed in the Maintenance office for future reference:

1. Inspect and replace (if needed) all drive belts
2. Inspect and replace (if needed) all drive bearings and main shaft.
3. Insure that the 4 vapor lock valves are properly opening and closing to insure that there is no "blow-by".
4. Inspect and replace (if needed) any bearings on the vapor locks.

5. Check for proper air supply to the vacuum system (gauged).
6. Inspect all duct work for air leaks and repair as needed.
7. Follow the dust collector manufacturer's schedule for daily, weekly, monthly and annual maintenance. A copy of this RTO manual is adopted by reference as part of this OM&M Plan.

2.3 Monitoring and Malfunction

1. Once the operation begins, the pressure gauge (LED readout on panel) is monitored periodically by the Lead Operators to ensure that it maintains a read out of 1.0 or less.
2. If in the event that the LED readout is greater than 1.0 during Operation, the "Demand/Continuous" switch should be switched over to "Continuous" until the proper LED readout level is achieved and then switched back to the "Demand" position.
3. The dust bags underneath the system outside are checked hourly by the lead operator for any visible emissions and changed when the bags are ¾ full to avoid any emissions of material and to insure proper ventilation during the run.
4. In order to change the dust bags during operation, the "grinding" process must be shut down, as well as the ventilation system.

5. Once all operations are properly shut down, the bags are changed and the start up procedures is followed beginning with step #6 in the "Start Up" procedures

2.3 Shutdown

To shutdown the ventilation system after all grinding operations have stopped, activate the "Stop" switch on the panel .This stops all ventilation and shuts down the entire system. The large dust collection sacks are replaced with empty ones for a smooth start up the following shift or day. The full sacks are closed and staged for pick up by our waste management company.

If visible emissions were noted from the exhaust stack, inspect the dust collector while the system is down and replace the dust tubes as necessary.

2.4 Recordkeeping Forms

A form is to be filled out as part of E-Stone's recordkeeping procedures. A copy of this form is included in Attachment A.

E-Stone USA corporation

SECTION 3.0

REGENERATIVE THERMAL OXIDIZER and DUST COLLECTOR 3

3.1 Startup Procedure for the RTO

Before **ANY** production or processing of materials begins the following procedures must be taken:

1. Verify power at the main control panel located on the RTO is "ON".
2. To prepare the RTO for start-up at the PLC (which is located behind the oven by the door closest to the RTO) the following steps must be done:

   a. From "Alarms" screen, upon start up you need to acknowledge and reset any alarms that are present. Press "Alarm Silence" and then "Alarm Reset" and hold for 10 seconds. If everything is correct all indicators will be green. Green=OK Blue=Off Red=Failure
   b. Screens - Select "Valve Position" to verify that Line #1 valve is open. To open, touch the "white square" and

drag upward to 100%. A red line will indicate "as open" as well as "Valve #1 POS Feedback" will read "100%".

c. System Start Screen - turn chart recorder on by pressing blue chart recorder icon. Set process to online; now startup procedures can begin from this screen.
    1) Set system to on (Green) burner fan and process fan will activate (Green)
    2) Enable burner (Green). If all is ok, remaining icons will activate automatically.
d. Select Overview - From this screen you can monitor the poppet valve cycling and that the burner is on.

(Note: At 1575 °F the ISO (damper isolation) valve will open and the RTO is ready to go. Turn on the dust collection system (DC3) and start production.

3.1.2 DC3 Startup Procedure

Before <u>**ANY**</u> production or processing of materials begins the following procedures must be taken:

1. First verify that the main power is on (this can be found at the outside wall where the DC3 is located).
2. After main power is verified, return to the oven control panel and from the main screen select the "Utility" icon.
3. Select "Suction On". This will automatically start all of the components. The operator is then to verify and check for alarms. If there are no alarms production may proceed.

3.2 RTO Maintenance

1. The RTO is to be turned off during cleaning and maintenance.
2. During color changes that require intense cleaning (blowing down inside the enclosure). The operator MUST close the line valve (enclosure exhaust damper) to prevent dust from being suctioned into RTO. The dust collector must be kept operating during enclosure or equipment cleaning.
3. Follow the RTO manufacturer's schedule for daily, weekly, monthly and annual maintenance. A copy of this RTO manual is adopted by reference as part of this OM&M Plan.
4. The structured ceramic media will require period cleaning when the airflow in the RTO starts to drop. Follow the RTO manufacturer's procedure for this cleaning process.

3.2.1 DC3 Maintenance

Follow the Maintenance supervisors schedule for daily, weekly, monthly and annual maintenance. A copy can be obtained from the Maintenance supervisor. It is located in the Maintenance office inside the plant.

3.3 RTO Monitoring

During polymerization the operator must monitor the following:

- hourly verification of alarms screen,

- overview screen for average temp,
- poppet cycling,
- ISO Process valve.
- Magnehelic readings as instructed by OMM plan.

3.3.1 DC3 Monitoring

During production the operator must monitor the following:

- Every 30 minutes the operator must verify visually that the dust bags are secured properly and changed as needed
- Hourly verify visually that the airlocks are cycling properly
- Daily verifications for visible emissions at all collection points - this includes airlocks and dust bags
- Daily verification of the magnehelic gauge

3.4 RTO Shutdown

To shutdown the RTO at the end of production,

1. Go to the "System Start" screen and press the "Retained Heat Shutdowns" and then select "Chart Recorder Off" and "Process Off-Line."
2. Turn off main power supply only if performing maintenance on the machine and follow "Lockout/Tagout Procedures" (see Attachment B).

3.4.1 DC3 Shutdown

At the Oven Control Panel, access the utility screen and select "Suction Off". This will automatically shut down all components.

3.5 RTO and DC3 Malfunction

If the RTO or DC3 ventilation systems malfunctions during startup, shutdown or normal operation E-Stone will immediately cease all polymerization and processing of organic HAP containing materials until the RTO and ventilation system are back in operation and functioning properly.

The operator will correct malfunctions as soon as practicable after the occurrence in order to minimize excess emissions of hazardous air pollutants and restore malfunctioning process and air pollution control equipment to its normal manner of operation.

When actions taken to address problems during a startup, shutdown or malfunction are consistent with the procedures specified in the plan, E-Stone will keep records for that event which demonstrate that the procedures specified in this plan were followed.

The operator will keep records of the malfunction events including records of the occurrence and duration of each startup, shutdown and malfunction of operation and each malfunction of the RTO and/or dust collection systems. E-Stone has a form to record all of the required information for such an occurrence.

The operator will confirm that actions taken during the relevant reporting period during periods of startup, shutdown and malfunction were consistent with this plan in the semiannual startup, shutdown and malfunction report required in 40 CFR 63.10(d)(5).

If an action taken by the operator during a startup, shutdown or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in this plan, and the facility exceeds any applicable emission limitation in the relevant emission standard, then the operator must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan (Correction Action Record Sheet is attached) , followed by a letter within 7 working days after the end of the event, in accordance with 40 CFR 63.10(d)(5).

Note: If a malfunction occurs during operation and the RTO is shut down for repairs, upon verification of completion of work, the operator can restart the RTO as per the Start Up procedure. If the RTO was down for less than 8 hours, when the temperature is it's set point (1575°F) the operator can select the "Purge Bypass" by selecting "Screens" at the panel view screen and then select "Time Adjust" and finally select "Purge Bypass".

3.6 RTO and DC3 Recordkeeping Forms

Copy of this form is included in Attachment A.

E-Stone USA corporation

SECTION 4.0

PARAMETRIC MONITORING REQUIRMENTS

4.1 Purpose

Parametric monitoring is required by Subpart SS as referenced in E-Stone's Title V air permit. These are parameters that were established during the December 2008 compliance test that demonstrated compliance with the emission limiting standards of subpart WWWW that regulates E-Stones polymerization process.

During this compliance test, these parameters were monitored and reported to the Florida Department of Environmental Protection (FDEP) and are used as surrogate parameters to assure continued compliance. E-Stone must operate the referenced processes and equipment within these parameters, record the required data at the frequency stated in this plan and when necessary correct systems when they deviate from these parameters.

4.2 Parametric Monitoring Limits

The parametric monitoring requirements are summarized below in Table 4-1. They have been established as part of the continuous compliance program for the manufacturing process and required by E-Stones Title V permit.

Table 4-1: Parametric Monitoring Limits

E.U. No.	Control Device	Monitoring Device	Minimum Parameter Limit
003	DC3	Magnehelic outlet stack	+0.4 inches water gauge or 2400 ft/min
003	PTE	Magnehelic 1	-0.005 inches water gauge
003	PTE	Magnehelic 2	-0.02 inches water gauge
003	PTE	Slab production	Maximum 16 slabs/hr
005	RTO	Inlet magnehelic	0.175 inches water gauge or 1800 ft/min
005	RTO	Outlet magnehelic	0.25 inches water gauge or 2000 ft/min
005	RTO	Combustion chamber temperature	1577 deg F 15-minute block average temperature
005	RTO	Inlet vacuum setting	-0.6 inches water gauge

Recordkeeping forms for these parameters and the PTE are included in Attachment A as previously stated.

4.3 Raw Material Usage Recordkeeping

The air permit requires E-Stone to keep monthly records of chemical usage and calculations of emissions. An Excel spreadsheet has been prepared for this purpose and is included in Attachment C for reference purpose only. Operators complete the daily log sheets and send them to the Chief Document Coordinator (Polly Mandrell) for entering into the spreadsheet. The following data must be maintained for a period of five (5) years in a manner suitable for inspection by a regulatory inspector:

Mills 1 and 2

- The amount of aggregate throughput (processed)
- Rotary dryer operating rates
- Fuel usage rate
- Hours of operation

Polymerization Line 1

- The amount of all raw materials used (resin, aggregate, catalyst, ect)
- RTO fuel usage
- Production rate slabs/hr

Polishing Line No. 2 Epoxy Station

- Type and amount of fuel burned

4.4 Weekly Calibration Procedures

The parametric monitoring is dependent on accurate measurement of the device doing the measuring. E-Stone has a routine calibration program and procedure for each of these categories of measurement devices. A copy of this procedure in included in Attachment D.

ATTACHMENT A

MILLS 1 AND 2 /RTO/DC3/PTE RECORDKEEPING FORMS

E-Stone USA

Shift Supervisors Daily Production Report

Shift: ______________ **Date:** ______________ **Supervisor:** ______________

Mill #1

# of Pounds Ground/Color ______________ **# of Pounds Blended** ______________ **Hours of Operation** ______________

# of Pounds Regrinding ______________

Fuel Meter Reading	Start	End
Natural Gas 1		

Comments:

Mill #2

# of Pounds Ground/Color ______________ **# of Pounds Blended** ______________ **Hours of Operation** ______________

# of Pounds Regrinding ______________

Fuel Meter Reading	Start	End
Natural Gas 1		

Comments:

Oven #1

# of Slabs Produced/Color ______________

RTO Fuel Meter Reading	Start	End
Natural Gas 1		

Magnehelic Readings

DC3 ______________
Time Read ______________

RTO Inlet ______________
Time Read ______________
RTO Outlet ______________
Time Read ______________

Differential Pressure Gauge Reading

1 ______________
Time Read ______________
2 ______________
Time Read ______________

Comments:

Polish Line #2

Total Slabs Polished ______________

Fuel Meter Readings - Natural Gas

Oven 1: Start ______________ End ______________

Oven 2: Start ______________ End ______________

Oven 3: Start ______________ End ______________

Dryer 1: Start ______________ End ______________

Dryer 2: Start ______________ End ______________

Dryer 3: Start ______________ End ______________

Dryer 4: Start ______________ End ______________

ATTACHMENT B

LOCKOUT TAGOUT PROCEDURE

E-Stone USA

Lockout/Tagout Procedures

PURPOSE

This procedure establishes the minimum requirements for the lockout or tagout of energy isolating devices. Lockout is the preferred method of isolating fixtures, equipment or machinery from energy sources. It shall be used to ensure that the fixture, equipment, or machinery is isolated from all potentially hazardous energy and locked out or tagged out before employees perform any servicing or maintenance activities where the unexpected energization, start-up or release of stored energy could cause bodily injury and/or to prevent damage to fixtures, equipment, machinery or the environment. (Ref. 29CFR 1910.147)

DEFINITIONS

Affected Employee - An employee who works in an area where servicing or maintenance operations are performed. An affected employee does not perform servicing or maintenance on machines or equipment and, consequently, is not responsible for implementing lockout/tagout procedures. However, an authorized employee and an affected employee may be the same person when the affected employee's duties also involve performing maintenance or service. An affected employee becomes an authorized employee whenever he or she performs servicing or maintenance functions.

Authorized Employee - An employee who performs servicing or maintenance on equipment and machinery. This employee implements lockout/tagout procedures to guarantee his or her own protection.

Capability of being locked out - an energy-isolating device is considered capable of being locked out if it meets one of the following requirements:

1. It is designed with a hasp to which a lock can attached.
2. It is designed with any other integral part through which a lock can be affixed.
3. It has a locking mechanism built into it.
4. It can be locked without dismantling, rebuilding, or replacing the energy-isolating device or permanently altering its energy control capability.

Energized - Equipment and machinery is energized when they are connected to an energy source or contain residual or stored energy.

Energy Control Procedure - A written document (See Attachment 1.) that contains the steps an authorized employee must follow to safely control hazardous energy during servicing or maintenance of equipment or machinery.

Energy Control Program - A program intended to prevent the unexpected energizing or the release of stored energy in equipment or machinery. The program consists of:

1. Energy Control Procedures.
2. An employee training program.
3. A Lockout/Tagout work station
4. Periodic inspections of the employees using the procedures and a procedure review.

Energy Isolating Device - A mechanical device that physically prevents the transmission or release of energy.

Energy Source - Any source of electrical, mechanical, hydraulic, pneumatic, chemical, steam, thermal or other energy.

Lockout - Placing a lock on an energy-isolating device according to an established procedure, that ensures that the fixture, equipment or machinery cannot be energized until the lock is removed by the person who placed it there.

Lockout Device - A device that utilizes a positive means such as a lock to hold an energy-isolating device in a safe position and prevent the energizing of fixtures, equipment or machinery.

Tagout - The placement of a tagout device on an energy-isolating device, according to an established procedure, clearly marked by means of a tag that states who has the fixture, equipment, or machinery shut down and that the equipment or machinery must not be operated until the tagout device is removed by the employee who places it there.

Tagout Device - Any prominent warning device, such as a tag and a means of attachment that can be securely fastened to an energy-isolating device according to established procedure. The tag indicates that the equipment or machinery to which it is attached must not be operated until the tagout device is removed according to the energy control procedure. The attachment method must be substantial and not easily removed.

Zero Energy State - All sources of energy have been controlled and/or dissipated.

RESPONSIBILITIES

Plant Manager:
Overall responsibility for this procedure.

Maintenance Manager:
Responsible to ensure that all maintenance employees are aware of this procedure and are trained in its use and application. Names and Job Titles of employees who are authorized to lockout or tagout shall be documented and copies placed in the Lockout/Tagout Documentation File. Each new or transferred employee and other employees whose work operations are or may be in the area shall be trained in the purpose and use of this lockout or tagout procedure. The Maintenance Manager shall verify the accuracy of existing written Energy Control (shutdown/startup) Procedures, write them if they are non-existent, obtain adequate supplies, maintain the inventory and document the issuance of locks, tags, and locking devices. All training is to be documented and signed by employees attending training. The original signed copy will be kept in the Lockout/Tagout Training Documentation Folder, which is located in the locked Personnel File, and a copy of the documentation is to be placed in each trained employee. An up-to-date schedule of training dates and employees attending each training session shall also be kept in the Lockout/Tagout Training Documentation Folder. It is also the responsibility of the Maintenance Manager to ensure that contractors are aware of E-Stone's Lockout/Tagout procedures.

Safety Manager:
The Senior Accountant shall be responsible for auditing this procedure, that procedures are consistent throughout the plant, that Energy Control Procedure is posted, that the Lockout/Tagout checklist is used as required and included in the documentation file, that training occurs and is scheduled for employees in a timely manner, and that the Lockout/Tagout Procedures are documented properly.

Maintenance Employees:
Responsible to know and to understand the important safety significance of this procedure and its proper application. If violations of this procedure are observed notify your supervisor and the Plant Manager immediately.

HAZARD ANALYSIS

- A written Hazard Analysis shall be performed by Scheduled Maintenance employees for each piece of equipment and machinery that is used, serviced or maintained. Be sure to include stored equipment and machinery. This begins with an inventory to be recorded on the ENERGY HAZARD ASSESSMENT INVENTORY FORM, attachment 2 of this procedure. Send copy of this form to the Safety Manager.

- As the inventory is completed for each building, a more detailed evaluation of each piece of equipment or machinery shall be completed. Document all energy sources (direct and hidden), the hazards posed, the magnitude or measurable degree of danger, any special or unusual conditions, and the proper isolation methods and devices. Record these items on the DETAILED ENERGY HAZARD ASSESSMENT FORM, attachment 3 of this procedure. (Attachments 2 & 3 may be filled out at the same time) Send a copy of this form to the Safety Manager.

- Attachments 2 & 3, when used together, serve as the building blocks for developing written Energy Control (shutdown and startup) Procedures. As these Energy Control Procedures are completed send them to the Safety Manager for review.

PROCEDURE

Basic Rules for Using Lockout or Tagout System Procedures

- ALL energy sources to fixtures, equipment and/or machinery shall be locked out or tagged out to protect against accidental or inadvertent operation when such operation could cause injury to personnel.

  NOTE: Isolating a piece of equipment from its source may not eliminate all potential hazards. Stored energy may be present within the equipment or machinery.

- Do not attempt to operate any switch, valve or other energy isolation device when it is locked or tagged out.

- Never remove a lock or tag for another employee. Only the employee placing the lock or tag may remove it. If there is a need to remove another employee's lock or tag in an emergency, ONLY the maintenance manager may do so AFTER MAKING EVERY EFFORT TO CONTACT THE OWNER OF THE LOCK OR TAG.

Sequence to lockout or tagout:

1. The Maintenance Supervisor shall make a survey to locate and identify all isolating devices to be certain which switch(s), valve(s) or other energy isolating devices apply to the equipment to be locked or tagged out. More than one energy source (electrical, mechanical or others) may be involved. (See LOCKOUT/TAGOUT FLOWCHART).

2. Verify the written Energy Control (shutdown/startup) Procedure attached to the equipment or machinery, make necessary changes, supply the written procedure in the absence thereof, and send a copy of the procedure or changes to an existing procedure to the Safety Manager for review.

3. The maintenance supervisor or shop leadman shall notify all affected employees and customers that a lockout or tagout system is going to be utilized and the reason therefore. The authorized employee shall know the type and magnitude of energy that the machine or equipment utilizes and shall understand the hazards thereof.

4. If the machine or equipment is operating, shut it down by the written Energy Control (shutdown) Procedure attached to the equipment or machine (depress stop button, open toggle switch, etc.).

5. Operate the switch, valve or other energy isolating device(s) to ensure that the equipment is isolated from its energy source(s). Stored energy (such as that in spring, elevated machine members, rotating flywheels, hydraulic systems and air, gas, steam and water pressure, etc.) MUST be dissipated or restrained by methods such as repositioning, double blocking and bleeding down, etc.

6. Lockout and/or tagout the energy isolating devices with assigned individual lock(s) or tag(s). Tags shall indicate that the energy-isolated device(s) shall not be operated until after the removal of the tag.

7. After ensuring that no personnel are exposed, and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate.

   CAUTION: Return operating control(s) to "neutral" or "off" position after the test.

8. The equipment is now locked out or tagged out.

Restoring Machines or Equipment to Normal Production Operations.

1. After servicing and/or maintenance is completed and the fixture, equipment or machinery is ready for normal operation, check the area around the fixture, equipment or machinery to ensure that no one is exposed.

2. After all tools have been removed from the fixture, equipment, or machinery, guards have been reinstalled and employees are in the clear, remove all lockout or tagout devices. Notify all affected persons that the Lockout or Tagout has been removed. Operate the energy isolating devices to restore energy to the fixture, equipment or machinery following the written Energy Control (startup) Procedure.

Procedure Involving More Than One Person

- In the preceding steps, if more than one individual is required to work on the equipment or machinery, each shall place his/her own personal lockout device and/or tagout device on the energy isolating device(s). When an energy-isolating device cannot accept multiple locks and tags, a multiple lockout or tagout device (box or hasp) may be used.

- If lockout is used, a single lock may be used to lockout the machine or equipment with the key being placed in a lockout box or cabinet which allows the use of multiple locks to secure it. Each employee will than use his/her own lock to secure the box or cabinet. As each person no longer needs to maintain his or her lockout protection, that person will remove his/her lock from the box or cabinet.

- When work must continue over a shift change the supervisor or lead worker must ensure that all employees are aware of which locks are to be replaced or left in place. All employees in the oncoming shift must be informed of the Lockout/Tagout conditions.

Additional Requirements

- Plant Manager, Maintenance Managers and Supervisors should annually verify that all employees are in compliance with the requirements of this procedure. The Periodic Lockout/Tagout Inspection Form (Attachment 6) shall be used and a copy of the completed form sent to the Safety Manager.

- Initial training must be provided for all authorized and affected employees, repeated annually and documented. Additional retraining for all authorized and affected employees must be provided whenever there is a change in equipment, machinery, procedures or whenever there is evidence that this procedure is being violated.

- Locks provided by E-Stone are the ONLY authorized locks to be used for equipment or machine lockout. Each lock should be keyed separately. One key issued to the authorized employee possessing the lock and the other key kept by the supervisor for emergency situations only.

- Each lock should be identified as to its owner. In lieu of identification on the lock, an authorized employee's personal tag can be applied in addition to his/her lock when locking out the equipment or machinery so that the lock's owner can be readily identified.

- The tags, padlocks and lockout devices used for locking out machinery and equipment should ONLY be used for lockout and not for any other activity.

- All equipment or machinery should be provided with appropriate energy isolating devices. Each such energy isolating device should be clearly identified by a label. ONLY where such devices are not now existent, may TAGOUT be used.

1. Whenever the equipment or machinery is modified or rebuilt, the energy control device must be altered to allow the incorporation of a lock for lockout purposes.

2. When new or replacement equipment or machinery is ordered the specifications shall include the capability of locking out the energy source(s). NOTE: After October 31, 1989, whenever renovation, major replacement, repair, or modification of machines or equipment is performed, and whenever new machines or equipment are installed, energy isolating devices for such machines or equipment shall be designed to accept a lockout device. (VOSH: 1910.147, (c), 2,iii)

- All equipment or machinery that is required to be locked or tagged out shall have a written Energy Control (shutdown/startup) Procedure attached to or near the main power switch for that equipment or machinery. This procedure is to identify all the energy sources which may be acting on this equipment and detail how each energy source is to be locked or tagged out. A copy of these procedures is to be sent to the Safety Manager for review.

- The removal of a lock or tag by anyone other than the assigned employee who placed the lock or tag on the equipment or machinery is a very serious event and shall be documented with a copy of the documentation being sent to the Safety Manager. The supervisor should make every effort to locate the responsible employee to be sure that he/she is not present on site, make a thorough examination of all machinery or equipment protected by the lockout or tagout to ensure that personnel, tools, and equipment are clear, and notify the Manager before removing the lock or tag. Continue to make all reasonable efforts to contact the employee to inform him/her that his/her lockout or tagout device has been removed and to ensure that the employee has this knowledge before he/she resumes work at the site.

- A tagout device, including the means of attachment, shall be substantial enough to prevent inadvertent or accidental removal. Tagout device attachment shall meet the following:

  1.1.4.1. Be able to be affixed by hand.

  1.1.4.2. Be non-reusable.

  1.1.4.3. Be self locking.

  1.1.4.4. Requires a minimum unlocking strength of 50 pounds.

- Cord and plug equipment is exempt from the provisions of this procedure provided that the following two conditions are met.

- Power to the equipment or machine must be completely removed by unplugging.

- The authorized employee must have the plug under his or her exclusive control (i.e. in sight at all times). If not, the plug must be locked out.

- An audit shall be performed annually by the Safety Manager to ensure compliance with this written procedure.

- Violations of this procedure shall be considered a serious conduct violation and may lead to dismissal of the employee.

- This procedure shall be reviewed annually.

TRAINING

- All personnel authorized to do maintenance and affected employees (those using or capable of starting a machine or any equipment) shall be trained annually on this procedure.

- All new employees shall be properly trained on this procedure before working in an area where lockout or tagout is in use.

- Supervisors must document that employee training has been accomplished. Copies of this documentation are to be sent to the Safety Manager.

- Documentation must include the names of all employees participating, the date of the training, a copy of the curriculum, and the name of the trainer.

- To ensure that the necessary information has been learned a written test shall be administered by the trainer and the results recorded. Employees who do not achieve at least a 75% score on the written test must be retrained.

- Written test results are to be retained by the Safety Manager.

- Training should include the following:

    1. Ensure that all employees know the details of this procedure and that they know what to do and what not to do when they encounter a lock or a tag on a switch or a device they wish to operate. See Quiz, Attachment 4 & 5.

    2. Employees must be aware that a tag is not a physical restraint. They must be aware of the false sense of security that tagout systems can present.

- Retraining should take place:

1. When an employee is re-assigned to a different area or machine.

2. When there is a change in the tag and lockout procedure.

3. When there is a change in equipment or machinery.

4. When a periodic inspection or audit reveals inadequacies in the employee's knowledge or use of Energy Control Procedures or this Energy Control Program.

E-Stone

LOCK/OUT TAGOUT **ATTACHMENT 1**

ENERGY CONTROL PROCEDURE

The purpose of this procedure is to prevent injuries to employees from the unexpected energizing, start-up, or release of stored energy from machines, equipment, or processes when such employees are engaged in activities where they are at risk. Only Authorized personnel having an intimate knowledge of the work to be performed shall perform this ENERGY CONTROL PROCEDURE.

1) An Authorized person is considered a qualified person to whom the authority and responsibility to perform a specific lockout and/or tagout assignment has been given by E-Stone. An example of an Authorized person may Maintenance Manager. This person would be considered qualified if they can demonstrate by experience or training the ability to recognize potentially hazardous energy and its potential impact on workplace conditions, and has the knowledge to implement adequate methods and means for the control and isolation of such energy.
2) All lockouts and tagouts shall be recorded in a log book maintained in the Maintenance Manager's area. The log book shall be used to identify lockouts in sequential order, name and location of equipment and/or system affected, authorized persons involved, dates, times, and supplies. Only approved locks, hasps, and tags shall be used.
3) The first step of any lockout is to have a qualified person determine what needs to be locked out. The latest drawings, sketches, and/or notes should be analyzed to identify all energy sources to the equipment. Drawings typically reviewed are electrical single-lines and mechanical piping and instrument diagrams (P&IDs). Particular attention should be given to temporary feeds, back-feeds and alternate feeds including all sources of control voltage.
4) After identifying all the energy sources and isolation points, the equipment shall be shutdown and the disconnecting means (breakers, switches, valves, etc) shall be opened or positioned in the "OFF" position for all of the energy sources using the Personal Protective Equipment (PPE) designated to accomplish this safely.
5) Verification that all potential energy sources are eliminated must be made before applying the Lock and Tag. These energy sources may be electrical, mechanical, or both. Mechanics must follow procedures unique to each equipment or system that are designed to eliminate both of these energy sources.

    i) Electrical - A visual inspection by a Qualified electrician must be made to verify the circuit is open. Where possible, disconnect switches shall be inspected to assure that all blades are in the full open position. Where visual verification is not possible, other means of providing a visible break may be necessary, for example a Qualified electrician will test for the absence of voltage and remove the fuses or lift the wires. An example may be a foreign disconnect switch provided by a vendor and no prints or manuals are available.

(b) Mechanical - Release any residual energy by opening drains, vents, and bleeds employed with double-block valving arrangements inside the lockout boundary. Release any chemical energy by draining any remaining material in pipes and equipment into controlled containers while proper personnel protective equipment (PPE) is utilized. Latch in place any travel stops necessary to prevent the release of any potential or stored energy. Engaging travel stops may be required to protect against any sudden movement of an elevator.

6) Try the electrical circuit and/or mechanical system to verify that it is isolated, de-energized, and free from stored energies. Once the verification is made, then the Authorized person shall install his/her Lock and Tag:

The Tag must have the person's name, shop, radio # (if the person is assigned radio) and reason for the tag. The time and date must be on the Tag as well.

(a) If a change of shift should occur while the equipment and/or system is locked and tagged and work must continue, the next shift Authorized individual shall put their lock on and former shift shall remove theirs. In the case where work is continued the next day or at some future time, then the equipment and/or system shall remain locked and tagged for the duration.

7) · **NO ONE** shall remove another person's lock.

8) PROCEDURE INVOLVING MORE THAN ONE PERSON In the preceding steps, if more than one individual is required to lockout or tagout equipment, each shall place his/her own personal lockout/tagout device on the energy isolating device(s). When an energy isolating device cannot accept multiple locks or tags, a multiple lockout or tagout device (hasp) may be used. If lockout is used, a single lock may be used to lockout the machine or equipment with the key being place in a lockout box or cabinet which allows the use of multiple locks to secure it. Each employee will then use his/her own lock to secure the box or cabinet. As each person no longer needs to maintain his or her lockout protection, that person will remove his/her lock from the box or cabinet.

9) TEMPORARY REMOVAL OF LOCKOUT/TAGOUT DEVICES in situations where lockout/tagout devices must be temporarily removed from the energy isolating device and the machine or equipment energized to test or position the machine, equipment or component thereof, the following sequence of actions will be followed:
   i) Remove non-essential items and ensure that machine or equipment components are operationally intact.

ii) Notify affected employees that lockout/tagout devices have been removed and ensure that all employees have been safely positioned or removed from the area.

iii) Have employees who applied the lockout/tagout devices remove the lockout/tagout devices.

iv) Energize and proceed with testing or positioning.

v) Deenergize all systems and reapply energy control measures in accordance with section 5.2 of these procedures.

10) MAINTENANCE REQUIRING UNDISRUPTED ENERGY SUPPLY where maintenance, repairing, cleaning, servicing, adjusting, or setting up operations cannot be accomplished with the prime mover or energy source disconnected, such operations may only be performed under the following conditions:

i) The operating station (e.g. external control panel) where the machine may be activated must at all times be under the control of a qualified operator.

ii) All participants must be in clear view of the operator or in positive communication with each other.

iii) All participants must be beyond the reach of machine elements which may move rapidly and present a hazard.

iv) Where machine configuration or size requires that the operator leave the control station to install tools, and where there are machine elements which may move rapidly, if activated, such elements must be separately locked out.

v) During repair procedures where mechanical components are being adjusted or replaced, the machine shall be de-energized or disconnected from its power source.

E-Stone USA

LOCKOUT/TAGOUT
ENERGY CONTROL PROCEDURE CHECKLIST

Machine/Area:		
Date:	Time:	Technician(s):

☐ Notify affected employees that a lockout or tagout system is going to be utilized and the reason therefore.

☐ If the machine or equipment is operating, shut it down by the normal stopping procedure (depress stop button, open toggle switch, etc.)

☐ Operate the switch, valve, or other energy isolating device(s) so that the equipment is isolated from it energy source(s). Stored energy (such as that in springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, etc.

☐ Lockout/Tagout the energy isolating devices with assigned individual lock(s) or tag(s).

☐ After ensuring that no personnel are exposed, and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate. CAUTION: Return operating control(s) to neutral or off position after the test.

☐ The equipment is now locked out or tagged out.

RESTORING MACHINES OR EQUIPMENT TO NORMAL OPERATIONS

☐ After the servicing and/or maintenance is complete and equipment is ready for normal production operations, check the area around the machines or equipment to ensure that no one is exposed.

☐ After all tools have been removed from the machine or equipment, guards have been reinstalled and employees are in the clear, remove all lockout or tagout devices. Operate the energy isolating devices to restore energy to the machine or equipment.

SIGNATURE ______________________________ **DATE** ____________

ATTACHMENT C

RECORDKEEPING SPREADSHEET

E-Stone USA Corporation

Facility-wide Monthly VOC & HAP Emissions
Controlled by 7000 scfm Crawford RTO

EXAMPLE ONLY

Material	E-Stone Item Number	Material Usage (lbs)	VOC Content (%)	Emission Factor[1] (%)	VOC Emissions (Tons)	VOS Content (%)	VOS Emissions (Tons)	Styrene Content (%)	Styrene Emissions (Tons)	Dimethyl Phthalate Content (%)	Dimethyl Phthalate Emissions (Tons)	Methanol Content (%)	Methanol Emissions (Tons)	MIBK Content (%)	MIBK Emissions (Tons)	Total HAPs (Tons)
Resin & Styrene [3]	RM0002		36.198%	1.77%	0.0000			36.198%	0.0000							
Epoxy Resin 4030 Transparent	CN0043		0.00%													
Epoxy Resin 4030 White	CN0045		0.00%													
Epoxy Hardner MR50L	CN0046		0.00%													
Styrene - (add to resin)	CN0002		100.00%		0.0000			100.00%	0.0000							
Tinuvin	RM0006		100.00%		0.0000					40.00%	0.0000					
Initiator Norox MEKP-9H [2]	RM0012		100.00%	0.04%	0.0000											
Surfactant (CoatOsil 7500)	RM0001		1.00%		0.0000											
Accelerator (Westdry Cobalt 6%)	RM0003		100.00%		0.0000											
Accelerator (NL51 P)	RM0017		100.00%		0.0000											
Accelerator (12% Cobalt Hex-Cem)	RM0025		100.00%		0.0000							0.20%	0.0000			
Silane	RM0005		100.00%		0.0000											
Tronox CR-826	RM0020		2.00%		0.0000											
Alcohol (IPA) (gallons X 6.8)	CN0057		100.00%		0.0000											
Acrastrip (gallons x 8.8)	CN000100		60.00%		0.0000											
Acetone	CN0001					100.00%	0.00									
Monthly Total		0			0.0000		0.0000		0.0000		0.0000		0.0000		0.0000	0.0000
Year-To-Date Total		0			0.0000		0.0000		0.0000		0.0000		0.0000		0.0000	0.0000
12 Month Rolling Total		0			0.0000		0.0000		0.0000		0.0000		0.0000		0.0000	0.0000

Notes:

1. Per CFR 40 Part 63 Subpart W W W W, 65.5799(b)(1) for non-atomized mechanical resin application, the calculated emission factor is 4.03% (calculation = ((0.157 x .36198)-.0165) x 2000 = 80.66 lbs styrene / ton resin = .0403 = 4.03%)

Actual measured emission factor is 1.768% based on a measured emission rate of 35.36 lbs organic HAP/ton resin used. Data from December 2008 stack test.

2. Emission factor for Initiator VOC & DMP is 0.04%, see engineering calculations provided by AOC, resin supplier.

3. 22,800 pounds of styrene will be added to the general purpose resin. The styrene content of the resin was raised from 35.9% to 36.198% to account for the addition of the used styrene as a diluent.

· According to the permit, page 13 of 19, "the limits in the table are not enforceable limits. The enforceable HAP limits are defined in 40 CFR 63 Subpart WWWW". Table 3 in Subpart WWWW for open molding - non-CR/HS, mechanical resin application the HAP emissions limit is 88 lb/ton

*emission calculation for chemicals used in the enclosure - 44.63% are uncontrolled (vented to baghouse and mold cooling vent) and 55.37% are vented to RTO with 99.04% destruction efficiency based on the stack test conducted December 2008

Product Usage: (lbs)	Year-to-Date (lbs)	12 Month Rolling Total (lbs)
Resin & Styrene	0	0
Epoxy Resin 4030 Transparent	0	0
Epoxy Resin 4030 White	0	0
Epoxy Hardner MR50L	0	0
Styrene - (added to resin)	0	0
Tinuvin	0	0
Initiator Norox MEKP-9H	0	0
Surfactant (CoatOsil 7500)	0	0
Accelerator (Westdry Cobalt 6%)	0	0
Accelerator (NL51 P)	0	0
Accelerator (12% Cobalt Hex-Cem)	0	0
Silane	0	0
Tronox CR-826	0	0
Alcohol (IPA)	0	0
Acetone	0	0

Aggregate Thruput	Monthly	12-months	Limit
line 1 (tons)			30,530
line 2 (tons)			30,530
Hours of Operation			
line 1 (hours)			6,106
line 2 (hours)			6,106

Table 1 Calculated Emissions from Combustion of Natural Gas for RTO
Emission factors from AP-42 Table 1.5-1

EXAMPLE ONLY

2008 Period	SC306	ST775	Therms/Month	Heat Input MMBTU/Month	Emission Factor, lb/1,000,000 scf* NOx	VOC	CO	SO2	PM	PM10	Emissions, lb/month NOx	VOC	CO	SO2	PM	PM10
January			0.00	0.00	100	5.5	84	0.6	3	3	0.00	0.00	0.00	0.00	0.00	0.00
February			0.00	0.00	100	5.5	84	0.6	3	3	0.00	0.00	0.00	0.00	0.00	0.00
March			0.00	0.00	100	5.5	84	0.6	3	3	0.00	0.00	0.00	0.00	0.00	0.00
April	2241.7		0.00	0.00	100	5.5	84	0.6	3	3	0.00	0.00	0.00	0.00	0.00	0.00
May	860.2		0.00	0.00	100	5.5	84	0.6	3	3	0.00	0.00	0.00	0.00	0.00	0.00
June	547		0.00	0.00	100	5.5	84	0.6	3	3	0.00	0.00	0.00	0.00	0.00	0.00
July	658.8		0.00	0.00	100	5.5	84	0.6	3	3	0.00	0.00	0.00	0.00	0.00	0.00
August	1195.9		0.00	0.00	100	5.5	84	0.6	3	3	0.00	0.00	0.00	0.00	0.00	0.00
September	1322		0.00	0.00	100	5.5	84	0.6	3	3	0.00	0.00	0.00	0.00	0.00	0.00
October	1874.3		0.00	0.00	100	5.5	84	0.6	3	3	0.00	0.00	0.00	0.00	0.00	0.00
November	1321.8		0.00	0.00	100	5.5	84	0.6	3	3	0.00	0.00	0.00	0.00	0.00	0.00
December	2231.7		0.00	0.00	100	5.5	84	0.6	3	3	0.00	0.00	0.00	0.00	0.00	0.00
Annual	**12253.40**	**0.00**	**0.00**	**0.00**							**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
TOTALS, TPY											**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

*Emission factor is lb/1,000,000 scf

Rolling Totals	Heat Input MMBTU/Year	NOx	VOC	CO	SO2	PM	PM10
January	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
February	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
March	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
April	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
May	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
June	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
July	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
August	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
September	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
October	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
November	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
December	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Permitted Limit		September (cubic feet)	October (cubic feet)	November (cubic feet)	December (cubic feet)
[illegible]	Fuel Rotary Dryer #1				
[illegible]	Fuel Rotary Dryer #2				
[illegible]	Fuel for RTO				
[illegible]	Fuel for Dryer 1- Polish Line 2				
[illegible]	Fuel for Dryer 2- Polish Line 2				
[illegible]	Fuel for Oven - Polish Line 2				

ATTACHMENT D

CALIBRATION PROCEDURES

E-Stone USA corporation

E-Stone Calibration and Monitoring System Checklist

Purpose

The purpose of these procedures is to confirm that the various monitoring systems used to demonstrate compliance with E-Stone's Title V permit are operating correctly and if not, replaced and re-calibrated according to manufacturer's specifications.

Thermocouples

Thermocouples are electronic and calibrated by the manufacturer. They are read by the operators daily and included in the daily record keeping system. E-Stone verifies temperature stability by using a Fluke Infrared Thermometer. If a thermocouple fails, it will register an error message on the digital readout or fail to register a temperature on the chart recorder.

Replace thermocouples when they fail. Thermocouples may be checked quarterly for proper function following the manufacturer's procedure. As part of E-Stone's recordkeeping program, document all service, replacement and calibration of these systems.

Magnehelic and Differential Pressure Gauges

Magnehelic and differential pressure gauges are monitored daily and the data entered into the recordkeeping system. During this daily reading, the observer should do the following:

- Make sure the Pitot tube is facing the correct direction and is perpendicular to the airflow.
- Make sure the air tubes are free of dust and are not clogged.
- Check for condensation in the gauge and clean if necessary.
- If the pressure changes from the expected range, check to make sure the Pitot tube is not clogged with dust.

  As part of E-Stone's recordkeeping program, document all service, replacement and calibration of these systems.

Fuel Meters

Fuel meters come calibrated from the manufacturer and are not to be calibrated by E-Stone personnel due to safety issues handling natural gas lines. A simple calibration check is to add up all the monthly readings and compare them with the monthly fuel bill.

Weekly flow checks are performed on all fuel meters.

Scales and Load Cells

On a semi-annual basis, load cells and scales used to weigh product and raw materials should be calibrated by a qualified service company. This calibration record must be maintained as part of E-Stone's compliance recordkeeping.

Thermocouples
Weekly Checklist

I.

Date ______________
Time ______________
As Found ______________
As Left ______________
Start Time ______________
Duration ______________

II.

Date ______________
Time ______________
As Found ______________
As Left ______________
Start Time ______________
Duration ______________

Comments: ______________________________
____
____

Magnehelic Gauges
Weekly Checklist

I. DC3

Date ______
Time ______
As Found ______
As Left ______
Start Time ______
Duration ______

II. RTO Inlet

Date ______
Time ______
As Found ______
As Left ______
Start Time ______
Duration ______

III. RTO Outlet

Date ______
Time ______
As Found ______
As Left ______
Start Time ______
Duration ______

Comments: ______

______

______

Differential Pressure Gauge
Weekly Checklist

I.

Date ________________

Time ________________

As Found ________________

As Left ________________

Start Time ________________

Duration ________________

II.

Date ________________

Time ________________

As Found ________________

As Left ________________

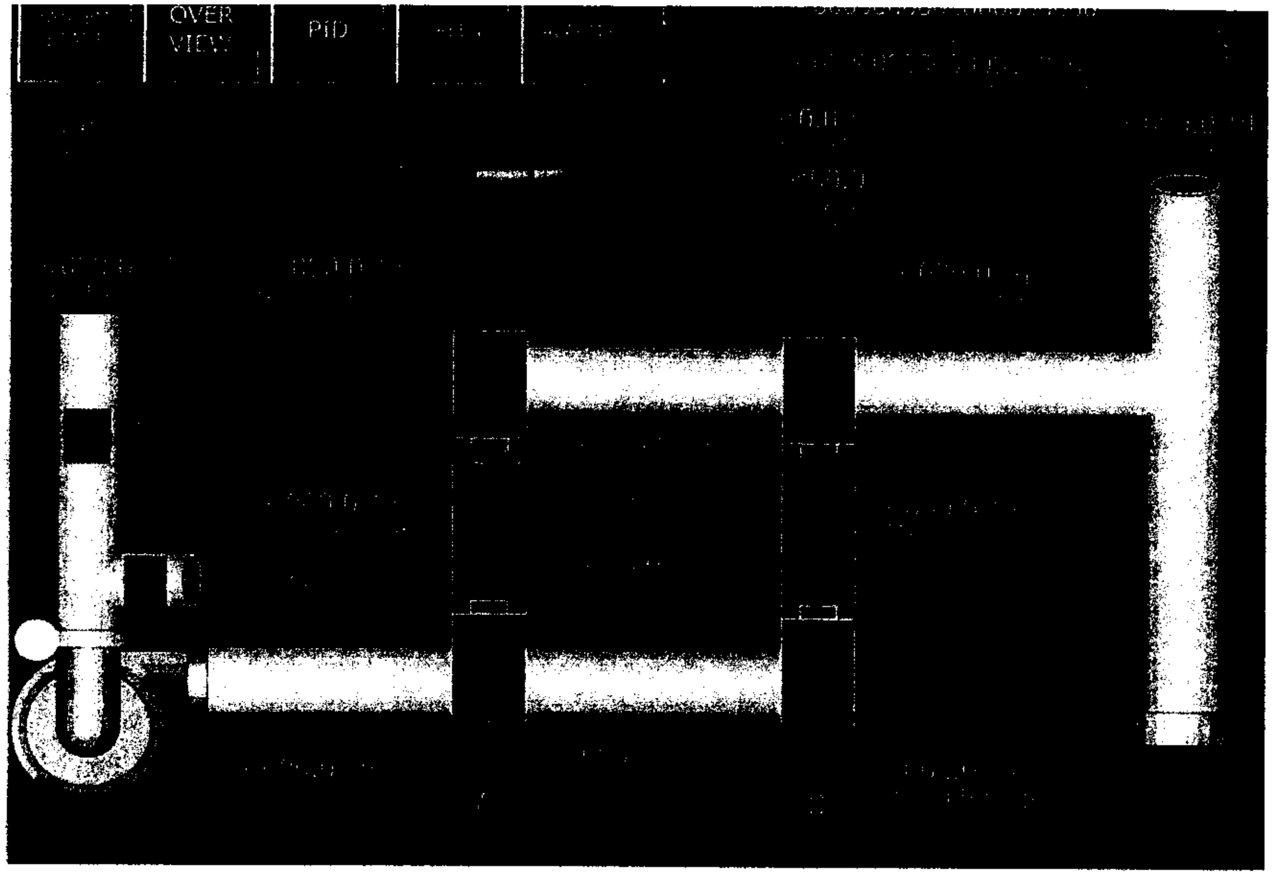
Start Time ________________

Duration ________________

Comments: ________________________________

____

____



Check ISO Valve OPEN ________ CLOSED ________
Poppets A&B OPERATING ____________________
Fresh Air Valve OPEN ________ CLOSED ________
Outlet Temp ______________________
Inlet Temp ______________________
Chart Recorder ONLINE ________ OFFLINE ________
Chart Recorder Print Quality GOOD ________ MEDIUM ________ POOR ______
Chamber Temp Average ______________________
Main Screen ______________________
Alarm Screen ______________________
Rubber Airlines to Poppets ______________________
Flame Scanner ______________________
Actuator and Linkage ______________________
Air Supply ______________________
Inlet Air Blower ______________________
Bed A Temp ______________________
Bed B Temp ______________________

Comments: ____

____

____

E-Stone USA Corporation

Corrective Action Record Sheet

☐ Occurrence of startup, shutdown or malfunction of operation (process equipment)

☐ Occurrence of malfunction of required air pollution control & monitoring equipment

Date:__________ Name:______________________

Time occurrence began_____________ Time occurrence was resolved__________

Description of occurrence ____
____
____
____

Action taken during periods of startup, shutdown and malfunction, including corrective actions to restore malfunctioning process and air pollution control devices back to normal operation____
____
____
____
____
____
____

Were procedures consistent with procedures outlined in the Operation & Maintenance Plan? YES / NO (circle one)

If no, explain and attach copy of notification to the Department ___________________
____
____
____
____

Does the corrective action require a revision of the operation & maintenance plan? YES / NO (circle one)

If yes, explain____
____
____
____

Attachment G

2008 Record Keeping

E-Stone USA Corporation

Facility-wide Monthly VOC & HAP Emissions
Controlled by 7000 scfm Crawford RTO
January-08

Material	E-Stone Item Number	Material Usage (lbs)	VOC Content (%)	Emission Factor[1] (%)	VOC Emissions (Tons)	VOS Content (%)	VOS Emissions (Tons)	Styrene Content (%)	Styrene Emissions (Tons)	Dimethyl Phthalate Content (%)	Dimethyl Phthalate Emissions (Tons)	Methanol Content (%)	Methanol Emissions (Tons)	MIBK Content (%)	MIBK Emissions (Tons)	Total HAPs (Tons)
Resin & Styrene[3]	RM0002	144,471	36.198%	1.79%	1.2930			36.198%	1.2930							
Epoxy Resin 4030 Transparent	CN0044	439	0.00%													
Epoxy Resin 4030 White	CN0045	154	0.00%													
Epoxy Hardner MR50L	CN0046	147	0.00%													
Styrene - (add to resin)	CN0002		100.00%		0.0000			100.00%	0.0000							
Tinuvin	RM0006	513	100.00%		0.0863											
Initiator Norox MEKP-9H[2]	RM0012	1,567	100.00%	0.04%	0.0001					40.00%	0.0000					
Surfactant (CoatOsil 7500)	RM0001	41	1.00%		0.0001											
Accelerator (Westdry Cobalt 6%)	RM0003		100.00%		0.0000											
Accelerator (NL51 P)	RM0017	13	100.00%		0.0022											
Accelerator (12% Cobalt Hex-Cem)	RM0025		100.00%		0.0000											
Silane	RM0005	411	100.00%		0.0691							0.20%	0.0001			
Tronox CR-826	RM0020	2,230	2.00%		0.0075											
Alcohol (IPA) (gallons X 6.8)	CN0057	34	100.00%		0.0170											
Acrastrip			60.00%		0.0000											
Acetone	CN0001	793				100.00%	0.40									
Monthly Total		**150,815**			**1.4753**		**0.3965**		**1.2930**		**0.0000**		**0.0001**		**0.0000**	**1.2932**
Year-To-Date Total		**150,815**			**1.4753**		**0.3965**		**1.2930**		**0.0000**		**0.0001**		**0.0000**	**1.2932**
12 Month Rolling Total		**1,570,964**			**19.7369**		**4.9580**		**16.8461**		**0.0004**		**0.0016**		**0.0000**	**16.8481**

Notes:

1. HAP emission rate was 35.88 lbs organic HAP/ton resin used from engineering test dates 12-06
2. Emission factor for Initiator VOC & DMP is 0.04%, see engineering calculations provided by AOC, resin supplier.
3. 22,800 pounds of styrene will be added to the general purpose resin. The styrene content of the resin was raised from 35.9% to 36.198% to account for the addition of the used styrene as a diluent.

*emission calculation for chemicals used in the enclosure - 32.6% are uncontrolled (vented to baghouse and mold cooling vent) and 67.4% are vented to RTO with 98.5% destruction efficiency

E-Stone USA Corporation

Facility-wide Monthly VOC & HAP Emissions
Controlled by 7000 scfm Crawford RTO
February-08

Material	E-Stone Item Number	Material Usage (lbs)	VOC Content (%)	Emission Factor[1] (%)	VOC Emissions (Tons)	VOS Content (%)	VOS Emissions (Tons)	Styrene Content (%)	Styrene Emissions (Tons)	Dimethyl Phthalate Content (%)	Dimethyl Phthalate Emissions (Tons)	Methanol Content (%)	Methanol Emissions (Tons)	MIBK Content (%)	MIBK Emissions (Tons)	Total HAPs (Tons)
Resin & Styrene [3]	RM0002	133,455	36.198%	1.79%	1.1944			36.198%	1.1944							
Epoxy Resin 4030 Transparent	CN0044	1,730	0.00%													
Epoxy Resin 4030 White	CN0045	0	0.00%													
Epoxy Hardner MR50L	CN0046	0	0.00%													
Styrene - (add to resin)	CN0002		100.00%		0.0000			100.00%	0.0000							
Tinuvin	RM0006	431	100.00%		0.0724											
Initiator Norox MEKP-9H [2]	RM0012	1,643	100.00%	0.04%	0.0001					40.00%	0.0000					
Surfactant (CoatOsil 7500)	RM0001	36	1.00%		0.0001											
Accelerator (Westdry Cobalt 6%)	RM0003		100.00%		0.0000											
Accelerator (NL51 P)	RM0017	11	100.00%		0.0019											
Accelerator (12% Cobalt Hex-Cem)	RM0025		100.00%		0.0000											
Silane	RM0005	359	100.00%		0.0603							0.20%	0.0001			
Tronox CR-826	RM0020	2,050	2.00%		0.0069											
Alcohol (IPA) (gallons X 6.8)	CN0057	0	100.00%		0.0000											
Acrastrip			60.00%		0.0000											
Acetone	CN0001	358				100.00%	0.18									
Monthly Total		140,073			1.3361		0.1790		1.1944		0.0000		0.0001		0.0000	1.1946
Year-To-Date Total		290,888			2.8114		0.6755		2.4874		0.0001		0.0003		0.0000	2.4878
12 Month Rolling Total		1,623,488			19.3975		4.4080		16.0685		0.0005		0.0015		0.0000	16.0705

Notes:

1. HAP emission rate was 35.88 lbs organic HAP/ton resin used from engineering test dates 12-06
2. Emission factor for Initiator VOC & DMP is 0.04%, see engineering calculations provided by AOC, resin supplier.
3. 22,800 pounds of styrene will be added to the general purpose resin. The styrene content of the resin was raised from 35.9% to 36.198% to account for the addition of the used styrene as a diluent.

*emission calculation for chemicals used in the enclosure - 32.6% are uncontrolled (vented to baghouse and mold cooling vent) and 67.4% are vented to RTO with 98.5% destruction efficiency

E-Stone USA Corporation

Facility-wide Monthly VOC & HAP Emissions
Controlled by 7000 scfm Crawford RTO
March-08

Material	E-Stone Item Number	Material Usage (lbs)	VOC Content (%)	Emission Factor[1] (%)	VOC Emissions (Tons)	VOS Content (%)	VOS Emissions (Tons)	Styrene Content (%)	Styrene Emissions (Tons)	Dimethyl Phthalate Content (%)	Dimethyl Phthalate Emissions (Tons)	Methanol Content (%)	Methanol Emissions (Tons)	MIBK Content (%)	MIBK Emissions (Tons)	Total HAPs (Tons)
Resin & Styrene[3]	RM0002	122,099	36.198%	1.79%	1.0928			36.198%	1.0928							
Epoxy Resin 4030 Transparent	CN0044	1,071	0.00%													
Epoxy Resin 4030 White	CN0045	492	0.00%													
Epoxy Hardner MR50L	CN0046	155	0.00%													
Styrene - (add to resin)	CN0002		100.00%		0.0000			100.00%	0.0000							
Tinuvin	RM0006	477	100.00%		0.0801											
Initiator Norox MEKP-9H[2]	RM0012	1,564	100.00%	0.04%	0.0001					40.00%	0.0000					
Surfactant (CoatOsil 7500)	RM0001	77	1.00%		0.0001											
Accelerator (Westdry Cobalt 6%)	RM0003		100.00%		0.0000											
Accelerator (NL51 P)	RM0017	38	100.00%		0.0064											
Accelerator (12% Cobalt Hex-Cem)	RM0025		100.00%		0.0000											
Silane	RM0005	425	100.00%		0.0713							0.20%	0.0001			
Tronox CR-826	RM0020	5,203	2.00%		0.0175											
Alcohol (IPA) (gallons X 6.8)	CN0057	2	100.00%		0.0009											
Acrastrip			60.00%		0.0000											
Acetone	CN0001	716				100.00%	0.36									
Monthly Total		**132,318**			**1.2692**		**0.3580**		**1.0928**		**0.0000**		**0.0001**		**0.0000**	**1.0930**
Year-To-Date Total		**423,206**			**4.0806**		**0.9335**		**3.6802**		**0.0001**		**0.0004**		**0.0000**	**3.6807**
12 Month Rolling Total		**1,632,241**			**18.9743**		**4.3835**		**15.9704**		**0.0005**		**0.0015**		**0.0000**	**15.9724**

Notes:

1. HAP emission rate was 35.88 lbs organic HAP/ton resin used from engineering test dates 12-06
2. Emission factor for initiator VOC & DMP is 0.04%, see engineering calculations provided by AOC, resin supplier.
3. 22,800 pounds of styrene will be added to the general purpose resin. The styrene content of the resin was raised from 35.9% to 36.198% to account for the addition of the used styrene as a diluent.

*emission calculation for chemicals used in the enclosure - 32.6% are uncontrolled (vented to baghouse and mold cooling vent) and 67.4% are vented to RTO with 98.5% destruction efficiency

E-Stone USA Corporation

Facility-wide Monthly VOC & HAP Emissions
Controlled by 7000 scfm Crawford RTO

April-08

Material	E-Stone Item Number	Material Usage (lbs)	VOC Content (%)	Emission Factor[1] (%)	VOC Emissions (Tons)	VOS Content (%)	VOS Emissions (Tons)	Styrene Content (%)	Styrene Emissions (Tons)	Dimethyl Phthalate Content (%)	Dimethyl Phthalate Emissions (Tons)	Methanol Content (%)	Methanol Emissions (Tons)	MIBK Content (%)	MIBK Emissions (Tons)	Total HAPs (Tons)
Resin & Styrene[3]	RM0002	85,718	36.198%	1.79%	0.7672			36.198%	0.7672							
Epoxy Resin 4030 Transparent	CN0044	1,082	0.00%													
Epoxy Resin 4030 White	CN0045	0	0.00%													
Epoxy Hardner MR50L	CN0046	76	0.00%													
Styrene - (add to resin)	CN0002		100.00%		0.0000			100.00%	0.0000							
Tinuvin	RM0006	301	100.00%		0.0507											
Initiator Norox MEKP-9H[2]	RM0012	1,003	100.00%	0.04%	0.0001					40.00%	0.0000					
Surfactant (CoatOsil 7500)	RM0001	24	1.00%		0.0000											
Accelerator (Westdry Cobalt 6%)	RM0003		100.00%		0.0000											
Accelerator (NL51 P)	RM0017	8	100.00%		0.0013											
Accelerator (12% Cobalt Hex-Cem)	RM0025		100.00%		0.0000											
Silane	RM0005	242	100.00%		0.0406							0.20%	0.0001			
Tronox CR-826	RM0020	37	2.00%		0.0001											
Alcohol (IPA) (gallons X 6.8)	CN0057	2	100.00%		0.0009											
Acrastrip			60.00%		0.0000											
Acetone	CN0001	358				100.00%	0.18									
Monthly Total		88,851			0.8608		0.1790		0.7672		0.0000		0.0001		0.0000	0.7673
Year-To-Date Total		512,057			4.9414		1.1125		4.3474		0.0002		0.0005		0.0000	4.3480
12 Month Rolling Total		1,596,577			18.2402		4.1975		15.5664		0.0005		0.0015		0.0000	15.5673

Notes:

1. HAP emission rate was 35.88 lbs organic HAP/ton resin used from engineering test dates 12-05
2. Emission factor for initiator VOC & DMP is 0.04%, see engineering calculations provided by AOC, resin supplier.
3. 22,800 pounds of styrene will be added to the general purpose resin. The styrene content of the resin was raised from 35.9% to 36.198% to account for the addition of the used styrene as a diluent.

*emission calculation for chemicals used in the enclosure - 32.6% are uncontrolled (vented to baghouse and mold cooling vent) and 67.4% are vented to RTO with 98.5% destruction efficiency

E-Stone USA Corporation

Facility-wide Monthly VOC & HAP Emissions
Controlled by 7000 scfm Crawford RTO
May-08

Material	E-Stone Item Number	Material Usage (lbs)	VOC Content (%)	Emission Factor[1] (%)	VOC Emissions (Tons)	VOS Content (%)	VOS Emissions (Tons)	Styrene Content (%)	Styrene Emissions (Tons)	Dimethyl Phthalate Content (%)	Dimethyl Phthalate Emissions (Tons)	Methanol Content (%)	Methanol Emissions (Tons)	MIBK Content (%)	MIBK Emissions (Tons)	Total HAPs (Tons)
Resin & Styrene[3]	RM0002	100,863	36.198%	1.79%	0.9027			36.198%	0.9027							
Epoxy Resin 4030 Transparent	CN0044	1,094	0.00%													
Epoxy Resin 4030 White	CN0045	0	0.00%													
Epoxy Hardner MR50L	CN0046	244	0.00%													
Styrene - (add to resin)	CN0002		100.00%		0.0000			100.00%	0.0000							
Tinuvin	RM0006	362	100.00%		0.0608											
Initiator Norox MEKP-9H[2]	RM0012	1,070	100.00%	0.04%	0.0001					40.00%	0.0000					
Surfactant (CoatOsil 7500)	RM0001	28	1.00%		0.0000											
Accelerator (Westdry Cobalt 6%)	RM0003		100.00%		0.0000											
Accelerator (NL51 P)	RM0017	100	100.00%		0.0168											
Accelerator (12% Cobalt Hex-Cem)	RM0025		100.00%		0.0000							0.20%	0.0001			
Silane	RM0005	335	100.00%		0.0563											
Tronox CR-826	RM0020	350	2.00%		0.0012											
Alcohol (IPA) (gallons X 6.6)	CN0057	0	100.00%		0.0000											
Acrastrip			60.00%		0.0000											
Acetone	CN0001	716				100.00%	0.36									
Monthly Total		105,164			1.0380		0.3580		0.9027		0.0000		0.0001		0.0000	0.9029
Year-To-Date Total		617,220			5.9794		1.4706		5.2501		0.0002		0.0006		0.0000	5.2509
12 Month Rolling Total		1,568,311			17.6877		4.3730		15.1607		0.0005		0.0015		0.0000	15.1627

Notes:

1. HAP emission rate was 35.88 lbs organic HAP/ton resin used from engineering test dates 12-06
2. Emission factor for initiator VOC & DMP is 0.04%, see engineering calculations provided by AOC, resin supplier.
3. 22,800 pounds of styrene will be added to the general purpose resin. The styrene content of the resin was raised from 35.9% to 36.198% to account for the addition of the used styrene as a diluent.

*emission calculation for chemicals used in the enclosure - 32.6% are uncontrolled (vented to baghouse and mold cooling vent) and 67.4% are vented to RTO with 98.5% destruction efficiency

E-Stone USA Corporation

Facility-wide Monthly VOC & HAP Emissions
Controlled by 7000 scfm Crawford RTO
June-08

Material	E-Stone Item Number	Material Usage (lbs)	VOC Content (%)	Emission Factor[1] (%)	VOC Emissions (Tons)	VOS Content (%)	VOS Emissions (Tons)	Styrene Content (%)	Styrene Emissions (Tons)	Dimethyl Phthalate Content (%)	Dimethyl Phthalate Emissions (Tons)	Methanol Content (%)	Methanol Emissions (Tons)	MIBK Content (%)	MIBK Emissions (Tons)	Total HAPs (Tons)
Resin & Styrene[3]	RM0002	80,345	36.198%	1.79%	0.7191			36.198%	0.7191							
Epoxy Resin 4030 Transparent	CN0044	1,048	0.00%													
Epoxy Resin 4030 White	CN0045	356	0.00%													
Epoxy Hardner MR50L	CN0046	0	0.00%													
Styrene - (add to resin)	CN0002		100.00%		0.0000			100.00%	0.0000							
Tinuvin	RM0006	282	100.00%		0.0473											
Initiator Norox MEKP-9H[2]	RM0012	1,011	100.00%	0.04%	0.0001					40.00%	0.0000					
Surfactant (CoatOsil 7500)	RM0001	23	1.00%		0.0000											
Accelerator (Westdry Cobalt 6%)	RM0003		100.00%		0.0000											
Accelerator (NL51 P)	RM0017	7	100.00%		0.0012											
Accelerator (12% Cobalt Hex-Cem)	RM0025		100.00%		0.0000											
Silane	RM0005	226	100.00%		0.0379							0.20%	0.0001			
Tronox CR-826	RM0020	5,659	2.00%		0.0190											
Alcohol (IPA) (gallons X 6.8)	CN0057	2	100.00%		0.0009											
Acrastrip			60.00%		0.0000											
Acetone	CN0001	715				100.00%	0.36									
Monthly Total		**89,673**			**0.8255**		**0.3575**		**0.7191**		**0.0000**		**0.0001**		**0.0000**	**0.7192**
Year-To-Date Total		**706,893**			**6.8049**		**1.8280**		**5.9692**		**0.0002**		**0.0007**		**0.0000**	**5.9701**
12 Month Rolling Total		**1,482,061**			**16.1179**		**4.0005**		**14.1868**		**0.0004**		**0.0014**		**0.0000**	**14.1886**

Notes:

1. HAP emission rate was 35.88 lbs organic HAP/ton resin used from engineering test dates 12-06
2. Emission factor for Initiator VOC & DMP is 0.04%, see engineering calculations provided by AOC, resin supplier.
3. 22,800 pounds of styrene will be added to the general purpose resin. The styrene content of the resin was raised from 35.9% to 36.198% to account for the addition of the used styrene as a diluent.

*emission calculation for chemicals used in the enclosure - 32.6% are uncontrolled (vented to baghouse and mold cooling vent) and 67.4% are vented to RTO with 98.5% destruction efficiency

E-Stone USA Corporation

Facility-wide Monthly VOC & HAP Emissions
Controlled by 7000 scfm Crawford RTO
July-08

Material	E-Stone Item Number	Material Usage (lbs)	VOC Content (%)	Emission Factor[1] (%)	VOC Emissions (Tons)	VOS Content (%)	VOS Emissions (Tons)	Styrene Content (%)	Styrene Emissions (Tons)	Dimethyl Phthalate Content (%)	Dimethyl Phthalate Emissions (Tons)	Methanol Content (%)	Methanol Emissions (Tons)	MIBK Content (%)	MIBK Emissions (Tons)	Total HAPs (Tons)
Resin & Styrene [3]	RM0002	60,251	36.198%	1.79%	0.5392			36.198%	0.5392							
Epoxy Resin 4030 Transparent	CN0044	1,292	0.00%													
Epoxy Resin 4030 White	CN0045	134	0.00%													
Epoxy Hardner MR50L	CN0046	0	0.00%													
Styrene - (add to resin)	CN0002		100.00%		0.0000			100.00%	0.0000							
Tinuvin	RM0006	215	100.00%		0.0362											
Initiator Norox MEKP-9H [2]	RM0012	667	100.00%	0.04%	0.0000					40.00%	0.0000					
Surfactant (CoatOsil 7500)	RM0001	17	1.00%		0.0000											
Accelerator (Westdry Cobalt 6%)	RM0003		100.00%		0.0000											
Accelerator (NL51 P)	RM0017	5	100.00%		0.0009											
Accelerator (12% Cobalt Hex-Cem)	RM0025		100.00%		0.0000											
Silane	RM0005	173	100.00%		0.0291							0.20%	0.0001			
Tronox CR-826	RM0020	2,917	2.00%		0.0098											
Alcohol (IPA) (gallons X 6.8)	CN0057	36	100.00%		0.0179											
Acrastrip			60.00%		0.0000											
Acetone	CN0001	714				100.00%	0.36									
Monthly Total		66,422			0.6332		0.3570		0.6392		0.0000		0.0001		0.0000	0.5393
Year-To-Date Total		773,316			7.4381		2.1850		6.5085		0.0002		0.0007		0.0000	6.5094
12 Month Rolling Total		1,437,578			15.4807		4.1750		13.7129		0.0004		0.0014		0.0000	13.7146

Notes:

1. HAP emission rate was 35.88 lbs organic HAP/ton resin used from engineering test dates 12-06
2. Emission factor for Initiator VOC & DMP is 0.04%, see engineering calculations provided by AOC, resin supplier.
3. 22,800 pounds of styrene will be added to the general purpose resin. The styrene content of the resin was raised from 35.9% to 36.198% to account for the addition of the used styrene as a diluent.

*emission calculation for chemicals used in the enclosure - 32.6% are uncontrolled (vented to baghouse and mold cooling vent) and 67.4% are vented to RTO with 98.5% destruction efficiency

E-Stone USA Corporation

Facility-wide Monthly VOC & HAP Emissions
Controlled by 7000 scfm Crawford RTO
August-08

Material	E-Stone Item Number	Material Usage (lbs)	VOC Content (%)	Emission Factor[1] (%)	VOC Emissions (Tons)	VOS Content (%)	VOS Emissions (Tons)	Styrene Content (%)	Styrene Emissions (Tons)	Dimethyl Phthalate Content (%)	Dimethyl Phthalate Emissions (Tons)	Methanol Content (%)	Methanol Emissions (Tons)	MIBK Content (%)	MIBK Emissions (Tons)	Total HAPs (Tons)
Resin & Styrene[3]	RM0002	64,676	36.198%	1.79%	0.5789			36.198%	0.5789							
Epoxy Resin 4030 Transparent	CN0044	572	0.00%													
Epoxy Resin 4030 White	CN0045	18	0.00%													
Epoxy Hardner MR50L	CN0046	107	0.00%													
Styrene - (add to resin)	CN0002		100.00%		0.0000			100.00%	0.0000							
Tinuvin	RM0006	233	100.00%		0.0391											
Initiator Norox MEKP-9H[2]	RM0012	725	100.00%	0.04%	0.0000					40.00%	0.0000					
Surfactant (CoatOsil 7500)	RM0001	19	1.00%		0.0000											
Accelerator (Westdry Cobalt 6%)	RM0003		100.00%		0.0000											
Accelerator (NL51 P)	RM0017	15	100.00%		0.0025											
Accelerator (12% Cobalt Hex-Cem)	RM0025		100.00%		0.0000							0.20%	0.0001			
Silane	RM0005	186	100.00%		0.0313											
Tronox CR-826	RM0020	1,105	2.00%		0.0037											
Alcohol (IPA) (gallons X 6.8)	CN0057	49	100.00%		0.0245											
Acrastrip			60.00%		0.0000											
Acetone	CN0001	714				100.00%	0.36									
Monthly Total		68,418			0.6800		0.3570		0.5789		0.0000		0.0001		0.0000	0.5789
Year-To-Date Total		841,733			8.1182		2.5420		7.0873		0.0002		0.0008		0.0000	7.0883
12 Month Rolling Total		1,355,057			13.0654		4.1495		11.3865		0.0004		0.0013		0.0000	11.3882

Notes:

1. HAP emission rate was 35.88 lbs organic HAP/ton resin used from engineering test dates 12-06
2. Emission factor for Initiator VOC & DMP is 0.04%, see engineering calculations provided by AOC, resin supplier.
3. 22,800 pounds of styrene will be added to the general purpose resin. The styrene content of the resin was raised from 35.9% to 36.198% to account for the addition of the used styrene as a diluent.

*emission calculation for chemicals used in the enclosure - 32.6% are uncontrolled (vented to baghouse and mold cooling vent) and 67.4% are vented to RTO with 98.6% destruction efficiency

E-Stone USA Corporation

Facility-wide Monthly VOC & HAP Emissions
Controlled by 7000 scfm Crawford RTO

September-08

Material	E-Stone Item Number	Material Usage (lbs)	VOC Content (%)	Emission Factor[1] (%)	VOC Emissions (Tons)	VOS Content (%)	VOS Emissions (Tons)	Styrene Content (%)	Styrene Emissions (Tons)	Dimethyl Phthalate Content (%)	Dimethyl Phthalate Emissions (Tons)	Methanol Content (%)	Methanol Emissions (Tons)	MIBK Content (%)	MIBK Emissions (Tons)	Total HAPs (Tons)
Resin & Styrene[3]	RM0002	65,383	36.198%	1.79%	0.5852			36.198%	0.5852							
Epoxy Resin 4030 Transparent	CN0044	1,243	0.00%													
Epoxy Resin 4030 White	CN0045	0	0.00%													
Epoxy Hardner MR50L	CN0046	0	0.00%													
Styrene - (add to resin)	CN0002		100.00%		0.0000			100.00%	0.0000							
Tinuvin	RM0006	226	100.00%		0.0380											
Initiator Norox MEKP-9H[2]	RM0012	716	100.00%	0.04%	0.0000					40.00%	0.0000					
Surfactant (CoatOsil 7500)	RM0001	18	1.00%		0.0000											
Accelerator (Westdry Cobalt 6%)	RM0003		100.00%		0.0000											
Accelerator (NL51 P)	RM0017	6	100.00%		0.0010											
Accelerator (12% Cobalt Hex-Cem)	RM0025		100.00%		0.0000							0.20%	0.0001			
Silane	RM0005	181	100.00%		0.0304											
Tronox CR-826	RM0020	1,601	2.00%		0.0054											
Alcohol (IPA) (gallons X 6.8)	CN0057	112	100.00%		0.0561											
Acrastrip (gallons x 8.6)	CN000100	172	60.00%		0.0516											
Acetone	CN0001	0				100.00%	0.00									
Monthly Total		69,658			0.7677		0.0000		0.5852		0.0000		0.0001		0.0000	0.5853
Year-To-Date Total		911,391			8.8859		2.5420		7.6725		0.0003		0.0009		0.0000	7.6736
12 Month Rolling Total		1,294,352			12.5621		3.7845		10.8545		0.0004		0.0012		0.0000	10.8561

Notes:

1. HAP emission rate was 35.88 lbs organic HAP/ton resin used from engineering test dates 12-06
2. Emission factor for Initiator VOC & DMP is 0.04%, see engineering calculations provided by AOC, resin supplier.
3. 22,800 pounds of styrene will be added to the general purpose resin. The styrene content of the resin was raised from 35.9% to 36.198% to account for the addition of the used styrene as a diluent.

E-Stone USA Corporation

Facility-wide Monthly VOC & HAP Emissions
Controlled by 7000 scfm Crawford RTO
October-08

Material	E-Stone Item Number	Material Usage (lbs)	VOC Content (%)	Emission Factor[1] (%)	VOC Emissions (Tons)	VOS Content (%)	VOS Emissions (Tons)	Styrene Content (%)	Styrene Emissions (Tons)	Dimethyl Phthalate Content (%)	Dimethyl Phthalate Emissions (Tons)	Methanol Content (%)	Methanol Emissions (Tons)	MIBK Content (%)	MIBK Emissions (Tons)	Total HAPs (Tons)
Resin & Styrene[3]	RM0002	47,059	36.198%	1.79%	0.4212			36.198%	0.4212							
Epoxy Resin 4030 Transparent	CN0044	263	0.00%													
Epoxy Resin 4030 White	CN0045	81	0.00%													
Epoxy Hardner MR50L	CN0046	0	0.00%													
Styrene - (add to resin)	CN0002		100.00%		0.0000			100.00%	0.0000							
Tinuvin	RM0006	168	100.00%		0.0282											
Initiator Norox MEKP-9H[2]	RM0012	517	100.00%	0.04%	0.0000					40.00%	0.0000					
Surfactant (CoatOsil 7500)	RM0001	13	1.00%		0.0000											
Accelerator (Westdry Cobalt 6%)	RM0003		100.00%		0.0000											
Accelerator (NL51 P)	RM0017	4	100.00%		0.0007											
Accelerator (12% Cobalt Hex-Cem)	RM0025		100.00%		0.0000							0.20%	0.0000			
Silane	RM0005	135	100.00%		0.0227											
Tronox CR-826	RM0020	1,407	2.00%		0.0047											
Alcohol (IPA) (gallons X 6.8)	CN0057	56	100.00%		0.0281											
Acrastrip (gallons x 8.6)	CN000100	0	60.00%		0.0000											
Acetone	CN0001	0				100.00%	0.00									
Monthly Total		**49,704**			**0.5067**		**0.0000**		**0.4212**		**0.0000**		**0.0000**		**0.0000**	**0.4212**
Year-To-Date Total		**961,095**			**9.3916**		**2.5420**		**8.0937**		**0.0003**		**0.0009**		**0.0000**	**8.0948**
12 Month Rolling Total		**1,194,286**			**11.6148**		**3.7845**		**10.0001**		**0.0003**		**0.0011**		**0.0000**	**10.0015**

Notes:

1. HAP emission rate was 35.88 lbs organic HAP/ton resin used from engineering test dates 12-06
2. Emission factor for initiator VOC & DMP is 0.04%, see engineering calculations provided by AOC, resin supplier.
3. 22,800 pounds of styrene will be added to the general purpose resin. The styrene content of the resin was raised from 35.9% to 36.198% to account for the addition of the used styrene as a diluent.

· According to the permit, page 13 of 19, "the limits in the table are not enforceable limits. The enforceable HAP limits are defined in 40 CFR 63 Subpart WWWW". Table 3 in Subpart WWWW for open molding - non-CR/HS, mechanical resin application the HAP emissions limit is 88 lb/ton.

*emission calculation for chemicals used in the enclosure - 32.6% are uncontrolled (vented to baghouse and mold cooling vent) and 67.4% are vented to RTO with 98.5% destruction efficiency based on the engineering test conducted December 2006

E-Stone USA Corporation

Facility-wide Monthly VOC & HAP Emissions
Controlled by 7000 scfm Crawford RTO
November-08

Material	E-Stone Item Number	Material Usage (lbs)	VOC Content (%)	Emission Factor[1] (%)	VOC Emissions (Tons)	VOS Content (%)	VOS Emissions (Tons)	Styrene Content (%)	Styrene Emissions (Tons)	Dimethyl Phthalate Content (%)	Dimethyl Phthalate Emissions (Tons)	Methanol Content (%)	Methanol Emissions (Tons)	MIBK Content (%)	MIBK Emissions (Tons)	Total HAPs (Tons)
Resin & Styrene [3]	RM0002	36,233	36.198%	1.79%	0.3243			36.198%	0.3243							
Epoxy Resin 4030 Transparent	CN0044	392	0.00%													
Epoxy Resin 4030 White	CN0045	0	0.00%													
Epoxy Hardner MR50L	CN0046	0	0.00%													
Styrene - (add to resin)	CN0002		100.00%		0.0000			100.00%	0.0000							
Tinuvin	RM0008	129	100.00%		0.0217											
Initiator Norox MEKP-9H [2]	RM0012	391	100.00%	0.04%	0.0000					40.00%	0.0000					
Surfactant (CoatOsil 7500)	RM0001	9	1.00%		0.0000											
Accelerator (Westdry Cobalt 6%)	RM0003		100.00%		0.0000											
Accelerator (NL51 P)	RM0017	3	100.00%		0.0006											
Accelerator (12% Cobalt Hex-Cem)	RM0025		100.00%		0.0000							0.20%	0.0000			
Silane	RM0005	103	100.00%		0.0173											
Tronox CR-826	RM0020	1,150	2.00%		0.0039											
Alcohol (IPA) (gallons X 6.8)	CN0057	36	100.00%		0.0180											
Acrastrip (gallons x 8.6)	CN000100	43	60.00%		0.0129											
Acetone	CN0001	0				100.00%	0.00									
Monthly Total		38,490			0.3987		0.0000		0.3243		0.0000		0.0000		0.0000	0.3243
Year-To-Date Total		999,585			9.7902		2.6420		8.4179		0.0003		0.0009		0.0000	8.4192
12 Month Rolling Total		1,097,425			10.7283		2.8720		9.2064		0.0003		0.0010		0.0000	9.2078

Notes:

1. HAP emission rate was 35.88 lbs organic HAP/ton resin used from engineering test dates 12-06
2. Emission factor for Initiator VOC & DMP is 0.04%, see engineering calculations provided by AOC, resin supplier.
3. 22,800 pounds of styrene will be added to the general purpose resin. The styrene content of the resin was raised from 35.9% to 36.198% to account for the addition of the used styrene as a diluent.

· According to the permit, page 13 of 19, "the limits in the table are not enforceable limits. The enforceable HAP limits are defined in 40 CFR 63 Subpart WWWW". Table 3 in Subpart WWWW for open molding - non-CR/HS, mechanical resin application the HAP emissions limit is 88 lb/ton

*emission calculation for chemicals used in the enclosure - 32.6% are uncontrolled (vented to baghouse and mold cooling vent) and 67.4% are vented to RTO with 98.5% destruction efficiency based on the engineering test conducted December 2006

E-Stone USA Corporation

Facility-wide Monthly VOC & HAP Emissions
Controlled by 7000 scfm Crawford RTO
December-08

Material	E-Stone Item Number	Material Usage (lbs)	VOC Content (%)	Emission Factor[1] (%)	VOC Emissions (Tons)	VOS Content (%)	VOS Emissions (Tons)	Styrene Content (%)	Styrene Emissions (Tons)	Dimethyl Phthalate Content (%)	Dimethyl Phthalate Emissions (Tons)	Methanol Content (%)	Methanol Emissions (Tons)	MIBK Content (%)	MIBK Emissions (Tons)	Total HAPs (Tons)
Resin & Styrene[3]	RM0002	36,938	36.198%	1.79%	0.3306			36.198%	0.3306							
Epoxy Resin 4030 Transparent	CN0044	486	0.00%													
Epoxy Resin 4030 White	CN0045	0	0.00%													
Epoxy Hardner MR50L	CN0046	0	0.00%													
Styrene - (add to resin)	CN0002		100.00%		0.0000			100.00%	0.0000							
Tinuvin	RM0006	149	100.00%		0.0251											
Initiator Norox MEKP-9H[2]	RM0012	432	100.00%	0.04%	0.0000					40.00%	0.0000					
Surfactant (CoatOsil 7500)	RM0001	7	1.00%		0.0000											
Accelerator (Westdry Cobalt 6%)	RM0003		100.00%		0.0000											
Accelerator (NL51 P)	RM0017	4	100.00%		0.0006											
Accelerator (12% Cobalt Hex-Cem)	RM0025		100.00%		0.0000											
Silane	RM0005	119	100.00%		0.0200							0.20%	0.0000			
Tronox CR-826	RM0020	1,050	2.00%		0.0035											
Alcohol (IPA) (gallons X 6.6)	CN0057	131	100.00%		0.0655											
Acrastrip (gallons x 8.6)	CN000100	5	60.00%		0.0015											
Acetone	CN0001	0				100.00%	0.00									
Monthly Total		39,320			0.4468		0.0000		0.3306		0.0000		0.0000		0.0000	0.3306
Year-To-Date Total		1,038,906			10.2370		2.5420		8.7485		0.0003		0.0010		0.0000	8.7498
12 Month Rolling Total		1,038,905			10.2370		2.5420		8.7486		0.0003		0.0010		0.0000	8.7498

Notes:

1. HAP emission rate was 35.88 lbs organic HAP/ton resin used from engineering test dates 12-06
2. Emission factor for initiator VOC & DMP is 0.04%, see engineering calculations provided by AOC, resin supplier.
3. 22,800 pounds of styrene will be added to the general purpose resin. The styrene content of the resin was raised from 35.9% to 36.198% to account for the addition of the used styrene as a diluent.

* According to the permit, page 13 of 19, "the limits in the table are not enforceable limits. The enforceable HAP limits are defined in 40 CFR 63 Subpart WWWW". Table 3 in Subpart WWWW for open molding - non-CR/HS, mechanical resin application the HAP emissions limit is 88 lb/ton.

*emission calculation for chemicals used in the enclosure - 32.6% are uncontrolled (vented to baghouse and mold cooling vent) and 67.4% are vented to RTO with 98.5% destruction efficiency based on the engineering test conducted December 2006

<u>Attachment H</u>
Potential Emissions
With Controls

E-Stone USA Corporation

Facility-wide Potential VOC & HAP Emissions
Controlled by 7000 scfm Crawford RTO

E-Stone's 5-Year Projection - based on 4,900,065 lbs of resin for both Line 1 and Line 2**

Material	E-Stone Item Number	Material Usage (lbs)	VOC Content (%)	Emission Factor (%)	VOC Emissions (Tons)	VOS Content (%)	VOS Emissions (Tons)	Styrene Content (%)	Styrene Emissions (Tons)	Dimethyl Phthalate Content (%)	Dimethyl Phthalate Emissions (Tons)	Methanol Content (%)	Methanol Emissions (Tons)	Total HAPs (Tons)
Polyester Resin	RM0002	4,900,065	36.198%	1.77%	43.3656			36.198%	43.3656					
Epoxy Resin 4030 Transparent	CN0043	20,648	0.00%		0.0000									
Epoxy Hardner MR50L	CN0046	10,240	0.00%		0.0000									
Styrene	CN0002	0	100.00%		0.0000			100.00%	0.0000					
Tinuvin 328	RM0006	17,437	100.00%		3.9348									
Initiator Norox MEKP-9H	RM0012	54,163	100.00%	0.04%	0.0049					43.00%	0.0021			
Surfactant (CoatOsil 7500)	RM0001	1,398	1.00%		0.0032									
Accelerator NL51-P	RM0017	439	100.00%		0.0991									
Silane Silquest A174 NT	RM0005	14,047	100.00%		3.1719							0.20%	0.0063	
Titanium Dioxide Tronox CR-826	RM0020	50,966	2.00%		0.2302									
Isopropyl Alcohol	CN0057	2,350	100.00%		1.1750									
Acetone	CN0001	18,771				100.00%	9.39							
Yearly Total		**5,090,524**			**51.9847**		**9.3855**		**43.3656**		**0.0021**		**0.0063**	**43.3740**

Destruction efficiency measured 99.04% December 2008 → 55.37% of emissions vented to RTO with a destruction efficiency of 99.04% and 44.63% vented to duct collector with no controls
Emission Factor based on actual emissions taken from stack test 12-08 →-35.36 lbs of organic HAP/ton of resin used.
Allowable Limit is 88 lbs organic HAP/ton of resin used
**Polymerizing Line 2 is not in operation at this time. It must be tested and then E-Stone will apply for an operating permit amendment to include Line 2.

Attachment I

Potential Emissions

Before Controls

E-Stone USA Corporation

Facility-wide Potential VOC & HAP Emissions With No Controls

E-Stone's 5-Year Projection based on 4,900,065 lbs of resin

Material	E-Stone Item Number	Material Usage (lbs)	VOC Content (%)	Emission Factor (%)	VOC Emissions (Tons)	VOS Content (%)	VOS Emissions (Tons)	Styrene Content (%)	Styrene Emissions (Tons)	ethyl Phtha Content (%)	ethyl Phtha Emissions (Tons)	Methanol Content (%)	Methanol Emissions (Tons)	Total HAPs (Tons)
Polyester Resin see not	RM0002	4,900,065	36.198%	4.03%	98.7853			36.198%	98.7853					
Epoxy Resin 4030 Trans	CN0043	20,648	0.00%		0.0000									
Epoxy Hardner MR50L	CN0046	10,240	0.00%		0.0000									
Styrene see note [3]	CN0002	0	100.00%		0.0000			100.00%	0.0000					
Tinuvin 328	RM0006	17,437	100.00%		8.7185									
Initiator Norox MEKP-9H	RM0012	54,163	100.00%	0.04%	0.0108					43.00%	0.0047			
Surfactant (CoatOsil 750	RM0001	1,398	1.00%		0.0070									
Accelerator NL51-P	RM0017	439	100.00%		0.2195									
Silane Silquest A174 NT	RM0005	14,047	100.00%		7.0235							0.20%	0.0140	
Titanium Dioxide Tronox	RM0020	50,966	2.00%		0.5097									
Isopropyl Alcohol	CN0057	2,350	100.00%		1.1750									
Acetone	CN0001	18,771				100.00%	9.39							
Yearly Total		**5,090,524**			**116.4493**		**9.3855**		**98.7853**		**0.0047**		**0.0140**	**98.8040**

Notes:

1. Per CFR 40 Part 63 Subpart W W W W, 65.5799(b)(1) for non-atomized mechanical resin application, the calculated emission factor is 4.03% (calculation = ((0.157 x .36198)-.0165) x 2000 = 80.66 lbs styrene / ton resin = .0403 = 4.03%)
2. Emission factor for Initiator VOC & DMP is 0.04%, see engineering calculations provided by AOC, resin supplier.
3. 22,800 pounds of styrene will be added to the general purpose resin. The styrene content of the resin was raised from 35.9% to 36.198% to account for the addition of the used styrene as a diulent.

Attachment J

Summary of Criteria Pollutants

E-Stone Summary of Criteria Pollutants After Controls

	Potential Emissions After Controls (TPY)						Corresponding Control Equipment	Allowable Emissions
	CO	NOX	SOX	PM	PM10	VOC		
Mill #1								
Rotary dryer (fuel)	0.2566	0.3055	0.0018	0.0092	0.0092	0.0168		
Crushing				0.6167	0.5175		DC 1	Visible Emissions for all
Drying				0.4091	0.2229		DC 1	cyclones and baghouses
Classifying				0.3435	0.1588		DC 1	shall not exceed 5% opcaity
sub-total for mill#1	**0.2566**	**0.3055**	**0.0018**	**1.3785**	**0.9084**	**0.0168**		
Mill #2								
Rotary dryer (fuel)	0.2566	0.3055	0.0018	0.0092	0.0092	0.0168		
Crushing				0.6167	0.5175		DC 2	Visible Emissions for all
Drying				0.4091	0.2229		DC 2	cyclones and baghouses
Classifying				0.3435	0.1588		DC 2	shall not exceed 5% opcaity
sub-total for mill#2	**0.2566**	**0.3055**	**0.0018**	**1.3785**	**0.9084**	**0.0168**		
Polymerizing #1								
RTO (fuel)	0.3679	0.438	0.0026	0.0131	0.0131	0.0241		88 lbs/ton of HAP AND under
Polymerization						17.33	RTO	
Classifying -drop point 1				0.229	0.106		DC 3	
Classifying -drop point 2				0.229	0.106		DC 3	100 tpy HAP before controls
Classifying -drop point 3				0.229	0.106		DC 3	Visible Emissions for all
sub-total for poly. Line #1	**0.3679**	**0.438**	**0.0026**	**0.7001**	**0.3311**	**17.3541**		shall not exceed 5% opcaity
Polymerizing #2								
RTO (fuel)**								88 lbs/ton of HAP AND under
Polymerization						34.66	RTO	100 tpy HAP before controls
Classifying -drop point 4				0.458	0.212		DC 6	
Classifying -drop point 5				0.458	0.212		DC 6	
Classifying -drop point 6				0.458	0.212		DC 4	Visible Emissions for all
sub-total for poly. Line #2	**0**	**0**	**0**	**1.374**	**0.636**	**34.66**		shall not exceed 5% opcaity
Polishing Line #2								
1 Oven	0.4603	0.548	0.0033	0.0164	0.0164	0.0301	DC 5	
2 Dryers	0.2251	0.268	0.0016	0.008	0.008	0.0147	DC 5	
Grinding edges of slabs				0.3	0.3		DC 5	Visible Emissions for all
sub-total for polishing #2	**0.6854**	**0.816**	**0.0049**	**0.3244**	**0.3244**	**0.0448**		shall not exceed 5% opcaity
Facility-Wide (TPY)	**1.5665**	**1.865**	**0.0111**	**5.1555**	**3.1083**	**52.0925**		

**RTO fuel emission accounted for in polymerizing line 1

Emissions from combustion of natural gas for Rotary Dryer is based on operating 6106 hour/year

Emissions from combustion of natural gas for the RTO is based on operating 8760 hour/year

Emissions from combustion of natural gas for the ovens & dryers on polishing line2 are based on operating 8760 hour/year