COMPLIANCE TEST REPORT

NUCOR PLATE MILL
COFIELD, NORTH CAROLINA IN HERTFORD COUNTY

MELTSHOP BAGHOUSE EXHAUST SYSTEM – CD01
(CEM, PARTICULATE, METALS, HEXCHROME, VOC)

Date Tested: May 1-3, 2007
Date Reported: June 4, 2007

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This certifies that the data collected and presented herein is true and accurate to the best of our knowledge. All attempts were made to collect and analyze the data within the applicable guidelines established by the United States Environmental Protection Agency.

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President / CEO
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1. INTRODUCTION

Source emission testing was conducted at Nucor Steel (Nucor), Cofield, North Carolina in fulfillment of permit conditions and to demonstrate compliance with applicable permit emission limits. The Melt Shop Baghouse was tested on May 1-3, 2007 Table 1.1 presents the emission species tested during the testing program, along with applicable emission limits. Testing was conducted by Mr. Brian Haffler, Mr. Chris Heilner and Mr. Mark Ready of Desert Air. Mr. Ready served as team leader.

Table 1.1 Emission Units, Emission Species, and Emission Limits

Melt Shop Baghouse	PM/PM_{10} – EPA Method 5/202	0.0018 / 0.0052 gr/dscf	2D .0530 [40 CFR 51.166] PSD
(CD01: ES01, ES02, ES03)	SO_2 – EPA Method 6C	0.35 lbs/ton	2D .0530 [40 CFR 51.166] PSD
	NO_X – EPA Method 7E	0.36 lbs/ton	2D .0530 [40 CFR 51.166] PSD
	CO – EPA Method 10	2.3 lbs/ton	2D .0530 [40 CFR 51.166] PSD
	O_2/CO_2 – EPA Method 3A		
	Mltpl Metals – EPA Method 29		2D .1100
	arsenic	50.0 lbs/year	
	beryllium	280.0 lbs/year	
	cadmium	1122.0 lbs/year	
	lead	0.0016 lbs/ton	
	manganese	67.5 lbs/24 hours	
	mercury	7.7 lbs/24 hours	
	nickel	13.4 lbs/24 hours	
	Chromium[6] – Method 0061	40.0 lbs/year	2D .1100
	VOC – EPA Method 18	0.13 lbs/ton	2D .0530 [40 CFR 51.166] PSD
	Benzene – EPA Method 18	199,720 lbs/year	2D .1100
	Opacity – EPA Method 9	3% (CD01) 10% (ES16) 20% (ES02, ES03)	2D .0524 [40 CFR Part 60, Subpart Aaa]

1.1 FACILITY DESCRIPTION

Nucor Steel located in Cofield, North Carolina is a steel recycling facility that utilizes a 250 ton direct current (DC) electric arc furnace (EAF) to produce molten steel from steel scrap. The molten steel is refined to produce chemically specific grades of steel and then cast via a water cooled continuous slab caster. These slabs are then reheated in a natural gas direct fired reheat furnace and rolled into finished steel sheets of various dimentions. The EAF exhausts through a direct shell evacuation system with a ConSteel to preheat scrap and through a melt shop roof canopy that vents exhaust into a fabric filter baghouse. Two ladle metallurgical stations (LMS) with one electrode also vents into the same fabric filter baghouse. The baghouse is a negative pressure design whereby emissions exhaust to the atmosphere via a single stack.

1.2 FACILITY AND TEST FIRM INFORMATION

Facility: Nucor Steel
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2. TEST CHRONOLOGY AND RESULTS SUMMARY

2.1 TEST CHRONOLOGY

Table 2.1 presents the chronology of tests that were conducted during the testing program.

Table 2.1 Source Testing Chronology

Date	Test Performed
5-1-07	Run 1 of EPA Methods 5/202, 29, 18, 1-4, 3A, 6C, 7E, 10 and OSW Method 0061
5-2-07	Run 2 of EPA Methods 5/202, 29, 18, 1-4, 3A, 6C, 7E, 10 and OSW Method 0061
5-3-07	Run 3 of EPA Methods 5/202, 29, 18, 1-4, 3A, 6C, 7E, 10 and OSW Method 0061

2.2 TEST RESULTS

Tables 2.2 through 2.6 present the results of all tests conducted during the testing program. All front half samples contained high levels of Arsenic. The blank value was subtracted from the average of runs 1-3 and reported in table 2.3. Support data and complete continuous emissions monitoring data are presented in the appendices to this report.

Table 2.2 Melt Shop Baghouse EPA Method 5/202/9 - Total Particulate Results

	Run 1	Run 2	Run 3	Average
Date	5-1-07	5-2-07	5-3-07	
Time	1505-1145	1416-0026	1600-0020	
Process Information				
Stack Temperature (F)	192.9	203.5	174	190.1
Moisture Content (%)	2.96	3.07	2.68	2.90
Volumetric Flow Rate (dscfm)	1118487	1093802	1145343	1119211
Process Rate (tph)	274.71	253.10	272.53	266.78
Filterable PM (EPA Method 5)				
gr/dscf	0.00010	0.00014	0.00009	0.00011
lb/hr	1.005	1.360	0.907	1.091
Emission Limit (gr/dscf)				**0.0018**
Inorganic Condensable PM_{10} (EPA Method 202)				
gr/dscf	0.00122	0.00194	0.00110	0.00142
lb/hr	11.686	18.228	10.769	13.561
Organic Condensable PM_{10} (EPA Method 202)				
gr/dscf	0.00025	0.00022	0.00022	0.00023
lb/hr	2.432	2.068	2.210	2.237
Total PM (EPA Method 5/202)				
gr/dscf	0.00157	0.00230	0.00141	0.00176
lb/hr	15.123	21.656	13.886	16.888
lb/ ton	0.055	0.086	0.051	0.064
Emission Limit (gr/dscf)				**0.0052**
Visual Emissions (EPA Method 9)				
Opacity (%)	0.00	0.00	0.00	0.00
Emission Limit (%)				**3**

Table 2.3 Melt Shop Baghouse EPA Method 29 - Multiple Metals Results

	Run 1	Run 2	Run 3	Average		
Date	5-1-07	5-2-07	5-3-07			
Time	1505-1145	1415-0025	1601-0022			
Process Information						
Stack Temperature (F)	193.1	200.0	173.7	188.9		
Moisture Content (%)	3.28	3.12	3.05	3.15		
Volumetric Flow Rate (dscfm)	1084985	1090676	1140834	1105499		
Process Rate (tph)	274.71	253.10	272.53	266.78		
Metals (EPA Method 29)	lb/hr	lb/hr	lb/hr	Average lb/hr	Average *	**Limit**
Arsenic, As	0.000633	0.000640	0.000595	0.000623	4.89 lb/yr	**50 lb/yr**
Beryllium, Be	0.0000264	0.0000267	0.0000270	0.0000267	0.21 lb/yr	**280 lb/yr**
Cadmium, Cd	0.000274	0.00346	0.00154	0.00176	13.81 lb/yr	**1122 lb/yr**
Lead, Pb	0.00401	0.00890	0.02970	0.01420	0.000053 lb/ton	**0.0016 lb/ton**
Manganese, Mn	0.00997	0.02000	0.01750	0.01582	0.3797 lb/24hr	**67.5 lb/24hr**
Mercury, Hg	0.0137	0.0301	0.0128	0.0189	0.4536 lb/24hr	**7.7 lb/24hr**
Nickel, Ni	0.00132	0.00128	0.00124	0.00128	0.0307 lb/24hr	**13.4 lb/24hr**

* The approximate annual operating hours is 7848, Appendix F.

Table 2.4 Melt Shop Baghouse OSW Method 0061 - Chrome^{+6} Results

	Run 1	Run 2	Run 3	Average
Date	5-1-07	5-2-07	5-3-07	
Time	1506-1146	1418-0027	1610-0025	
Process Information				
Stack Temperature (F)	195.1	198.5	168.3	187.3
Moisture Content (%)	2.72	2.77	2.58	2.69
Volumetric Flow Rate (dscfm)	1114709	1086588	1147299	1116199
Process Rate (tph)	274.71	253.10	272.53	266.78
Total Chrome^{+6} (OSW Method 0061)				
lb/hr	0.000920	0.000430	0.000583	
lb/year	7.22	3.37	4.58	5.06
Emission Limit (lb/year)				**40**

* The approximate annual operating hours is 7848, Appendix F.

Table 2.5 Melt Shop Baghouse EPA Method 18 - VOC Results

	Run 1	Run 2	Run 3	Average
Date	5-1-07	5-2-07	5-3-07	
Time	1505-1145	1416-0026	1600-0020	
Process Information				
Volumetric Flow Rate (dscfm)	1118404	1093469	1144962	1118945
Process Rate (tph)	274.71	253.10	272.53	266.78
Total VOC (EPA Method 18)				
lb/hr	1.172	0.463	2.768	1.468
lb/ ton	0.0043	0.0018	0.0102	0.0054
Emission Limit (lb/ton)				**0.13**
Benzene (EPA Method 18)				
lb/hr	0.2910	0.0624	1.6513	0.6682
lb/year	2283.5	490.1	12959.2	5244.3
Emission Limit (lb/year)				**199720**

* The approximate annual operating hours is 7848, Appendix F.

Table 2.6 Melt Shop Baghouse EPA Methods 6C, 7E, and 10 - SO_2, NOx, and CO Results

	Run 1	Run 2	Run 3	Average
Date	5-1-07	5-2-07	5-3-07	
Time	1300-2308	1420-0026	1618-0018	
Process Information				
Stack Temperature (F)	192.9	203.5	174	190.1
Moisture Content (%)	2.96	3.07	2.68	2.90
Volumetric Flow Rate (dscfm)	1118487	1093802	1145343	1119211
Process Rate (tph)	274.71	253.10	272.53	266.78
Oxides of Nitrogen (EPA Method 6C)				
ppm	5.35	6.93	5.93	6.07
lb/hr	42.864	54.262	48.653	48.593
lb/ ton	0.156	0.214	0.179	0.183
Emission Limit (lb/ton)				**0.36**
Sulfur Dioxide (EPA Method 7E)				
ppm	8.97	6.98	3.56	6.50
lb/hr	99.999	76.034	40.582	72.205
lb/ ton	0.364	0.300	0.149	0.271
Emission Limit (lb/ton)				**0.35**
Carbon Monoxide (EPA Method 10)				
ppm	108.76	99.23	160.35	122.78
lb/hr	530.318	473.177	800.681	601.392
lb/ ton	1.930	1.870	2.938	2.246
Emission Limit (lb/ton)				**2.3**

3. EMISSION UNIT INFORMATION

3.1 EMISSION UNIT DESCRIPTIONS

The Nucor facility employs a 250-ton Direct Current (DC) Electric Arc Furnace (EAF). The furnace is continually fed scrap steel via a Consteel conveyor system. After the roof is lifted and swung aside, scrap steel is also charged into the furnace from a scrap bucket attached to an overhead crane. Following the charge, the roof is rotated back into place over the shell. The scrap continues to be

melted by the electric arc for approximately 30 minutes until the molten steel reaches a predetermined temperature.

When melting is complete the furnace is tilted forward slightly, and slag is allowed to pour from the shell through the slag door into a waiting slag pot. The slag contains impurities that were lifted to the surface of the molten metal during the melting period. Once most of the slag is poured, the furnace is tilted back to an upright position to begin tapping the molten steel.
To tap the furnace, a ladle is moved into place under the shell, and a slide gate in the bottom of the shell is opened, allowing the molten steel to flow into the ladle. The shell is tipped slightly back to facilitate tapping. The slide gate is closed when much of the steel has been tapped into the ladle. A heel of molten steel and slag is left in the shell to help keep the shell hot and to allow for more efficient melting of the scrap upon the next charge. The ladle is then transported to the Ladle Metallurgical Facility (LMF) where it is further refined and the final chemical composition of the steel is adjusted. After the steel is adjusted to proper chemical composition, the ladle is transported to the continuous caster where the molten steel is cast into solid slabs.

In addition to the EAF and LMFs, other CO and NO_x emission sources within the melt shop include the ladle preheaters, the caster, and the caster cut-off torches. A process flow diagram is presented below.

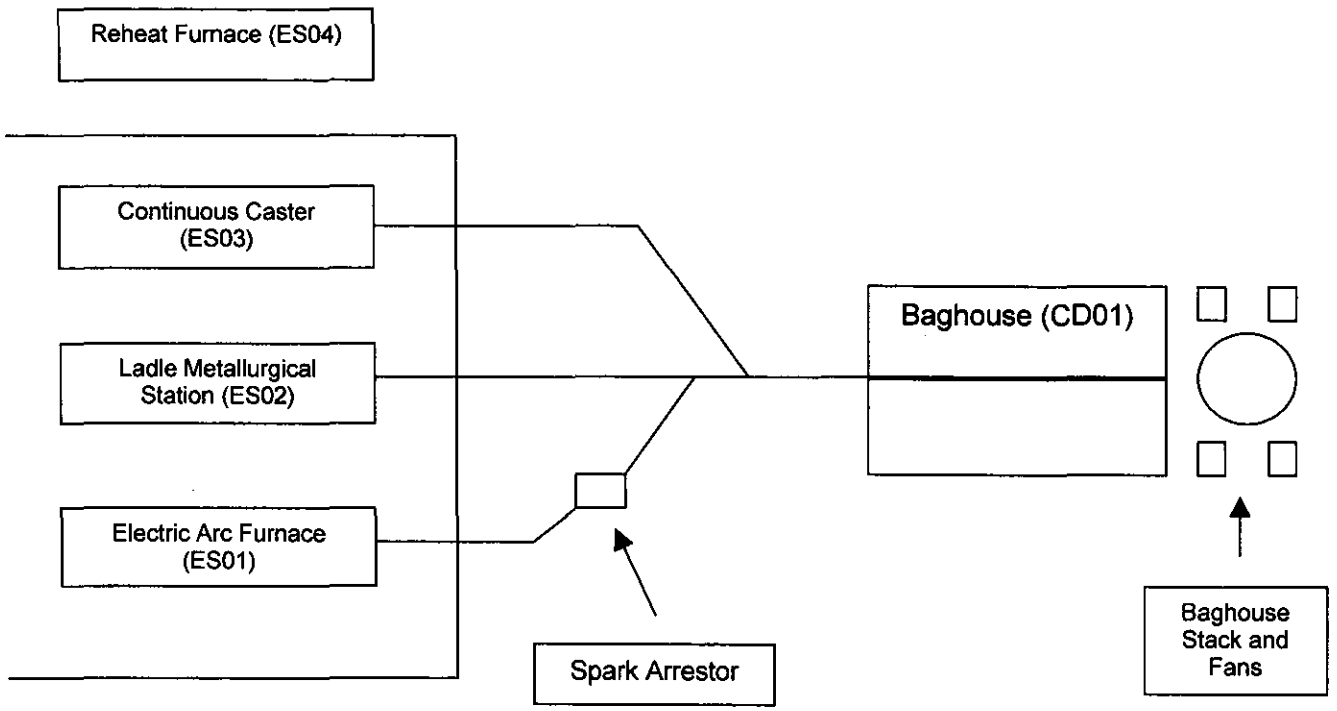


Figure 2.1 Process Flow Diagram

3.2 CONTROL SYSTEM DESCRIPTIONS

Emissions from the EAF are captured by a direct shell evacuation (DEC) system and through the melt shop roof canopy hoods. The DEC system collects the majority of EAF emissions through a duct attached to the furnace side wall often referred to as "the fourth hole". Furnace emissions not captured by the DEC are captured by a hood in the melt shop roof. DEC emissions are ducted to the spark arrestor that prevents hot gases and sparks from reaching the baghouse and burning the bags. LMF emissions are ducted to the melt shop canopy hoods. The melt shop canopy hood joins with the duct from a canopy hood over the continuous caster. Downstream of the spark arrestor and prior to the baghouse, the melt shop canopy duct joins the EAF duct. This is a negative pressure system. Four constant speed fans draw emissions from the melt shop through the baghouse. Three or four of these fans are in operation under normal conditions. During cold weather (dense air) or with certain scrap mixes one fan can be shut down and the system will operate properly with the three remaining fans. Total flow through the baghouse is approximately 1,500,000 acfm.

3.3 EMISSION AND CONTROL UNIT DESCRIPTIONS

Table 3.1 presents the applicable emission unit and control unit information.

Table 3.1 Emission Unit and Control Device Information

Process Unit(s)	Control Device	Emission Unit ID and/or Serial Number
Melt Shop Baghouse	Negative Pressure - Fabric filter baghouse	CDO1

3.4 PROCESS CONDITIONS

Plant process data detailing heats melted, heat numbers and tons per hour are presented in the Appendicies to this report.

3.5 EMISSION POINT INFORMATION

Figure 3.2 shows the sample port locations and appropriate stack dimensions. Traverse point locations were determined following EPA Method 1 prior to testing. Table 3.2 presents the traverse point locations for the PM, Metals and Hexchrome testing.

Table 3.2 Traverse Point Locations for the Melt Shop Baghouse

Isokinetic Tests	
Point Deep	Dist. from Stack Wall (in)
1	5.29
2	16.88
3	29.74
4	44.60
5	44.60
6	89.71

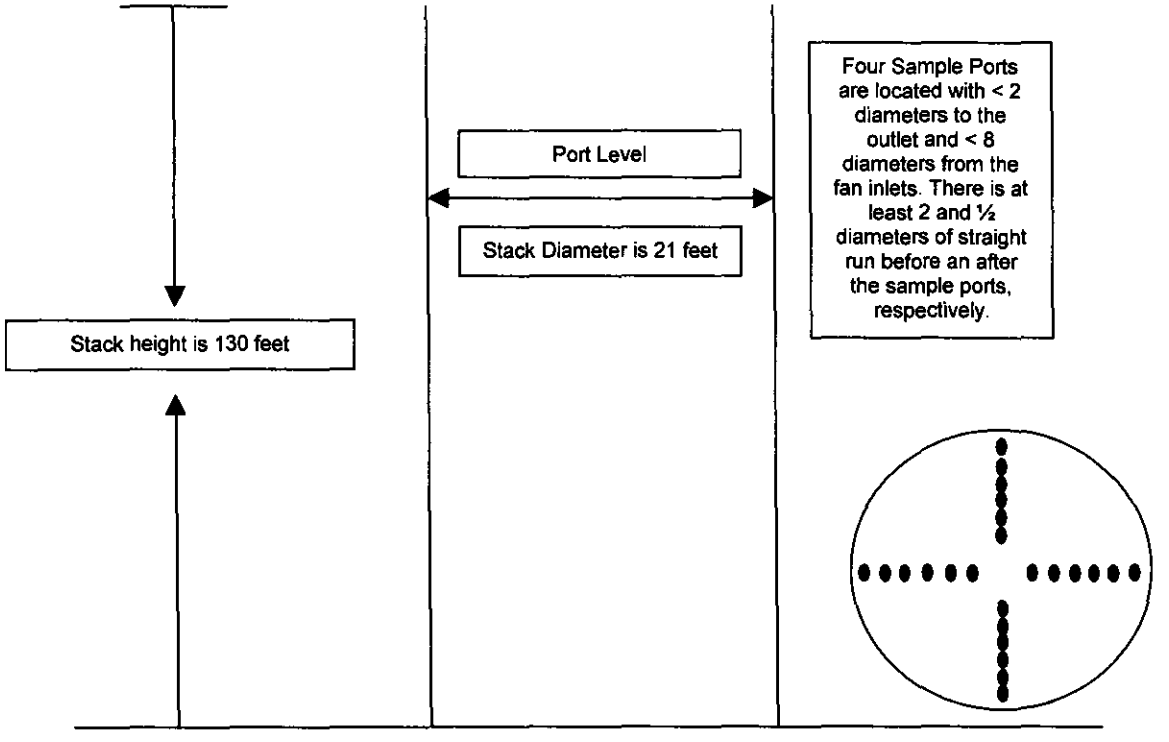


Figure 3.2 Sample port locations for the Melt Shop baghouse stack

4. TESTING METHODS AND PROCEDURES

4.1 TESTING METHODS

Table 4.1 specifies the test methods used for each emission unit and emission specie. Unless deviations are specified the Method Description Section or in Section 4.4 below, all tests conformed to the applicable methodologies specified in the appendices to 40 CFR Part 60 and the OSW 846. All tests consisted of three reference method test runs. Stack emissions were calculated as the average of the three test runs for comparison with applicable emission limits. All tests (PM, CEM, Metals, Chrome[6], VOCs, Benzene) were performed simultaneously. VOCs and Benzene were collected on adsorbent tubes as allowed by section 8.2.4 of EPA Method 18. Analysis of the tubes will follow EPA Method TO-15. An approximate sample rate of 0.3 liters per minute was established yielding 150 total liters sampled per run. Calibrated low flow sample systems were used for the spiked and unspiked trains.

Table 4.1 Test Methods

Target Pollutant	Proposed Test Method	Number of Test Runs	Test Run Duration in Hours	Number of Sampling Points	Comments
PM	EPA Method 5/202	3	8	24	
SO_2	EPA Method 6C	3	8	1	
NO_X	EPA Method 7E	3	8	1	
CO	EPA Method 10	3	8	1	
O_2/CO_2	EPA Method 3A	3	8	1	
Mltpl Metals	EPA Method 29	3	8	24	Audit sample (analysis only)
Chromium[6]	SW Method 0061	3	8	24	Audit sample (analysis only)
VOC	EPA Method 18/TO15	3	8	1	Triplicate spikes
Benzene	EPA Method 18/TO15	3	8	1	Triplicate spikes

4.2 SAMPLING EQUIPMENT DESCRIPTION

4.2.1 Gaseous Emission Sampling Equipment

Table 4.2 lists the gaseous analyzers used in the test program. Stack gas was extracted through a stainless steel in-stack probe, heated Teflon tubing and an on-stack condenser that cools and dries the gas sample. Conditioned sample gas continues through Teflon tubing to the gas manifold where it is distributed to the instrument analyzers. Excess stack gas is vented to the outside air. Zero and EPA Protocol 1 calibration gases were directed to the probe tip for bias checks (no dilution system). The gas manifold is constructed of Teflon tubing and stainless steel solenoids and fittings.

Table 4.2 Gaseous Emission Analyzers

Pollutant	USEPA Method	Make, Model #	Analytical Principle	Test Range	Protocol Gas Concentrations (approximate)
O_2	3A	Siemens 5E	Paramagnetic	0-25%	N_2, 12%, 21%
CO_2	3A	Siemens 22	NDIR	0-25%	N2, 12%, 24%
NO_X	7E	TECO 42CH	Chemiluminescense	0-100 ppm	N2, 45 ppm, 85 ppm
CO	10	TECO 48	NDIR	0-500 ppm	N2, 250 ppm, 450 ppm
SO_2	6C	Ametek 921	spectophotometric	0-100 ppm	N2, 45 ppm, 85 ppm

4.2.2 Isokinetic Sampling Trains

PM, Metals and chrome^{+6} are all isokinetic tests. Eight-hour runs were performed and 24 total points sampled (6 points from each of four ports). An approximate sample rate of 0.725 cubic feet per minute was established yielding approximately 350 total cubic feet sampled per run. Data readings were taken twice at each sampling point due to stack velocity head variability. Prior to the start of run 1 cyclonic flow was found to be minimal. Preliminary measurements were made prior to conducting the isokinetic tests based on EPA Methods 1, 2, and 3 as described previously. Percent water was determined by a psychometric chart or from combustion analysis of the stack gases. These preliminary results were used to determine an appropriate nozzle size for isokinetic sampling.

Sampling trains for particulate, multiple metals and chrome^{+6} conform to the guidelines specified in EPA Methods 5/202, 29, and OSW 846 Method 0061 respectively. These sampling trains were all based on EPA Method 5. A diagram of EPA Method 5 is presented in Figure 4.1.

The structure of the EPA Method 29 train differs from EPA Method 5 train in that it used a different series of impingers as indicated in section 4.3.12 below.

The sampling train for chrome^{+6} had no filter component and utilized a teflon probe liner and impingers. The nozzle and an extra impinger were pyrex glass. The chrome^{+6} train utilized a recirculation line from the first impinger to the probe which was attached just behind the nozzle. The sample probe was not heated. A diagram of the chrome^{+6} train can be found in the OSW Method 0061.

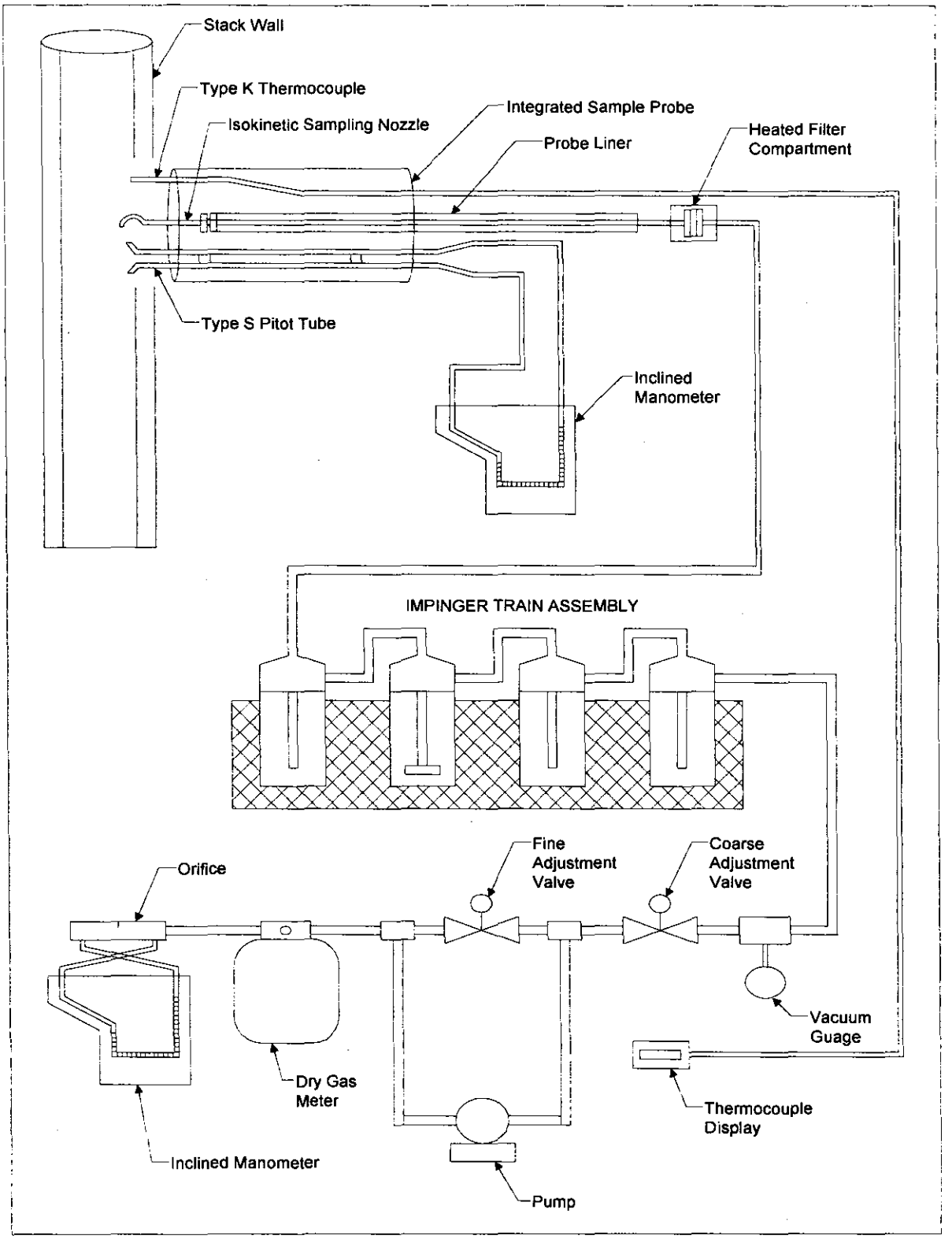


Figure 4.1 EPA Method 5 Sampling Train

4.3 METHOD DESCRIPTIONS

The following is a brief summary of each of the applicable test methodologies employed during the testing program. Complete method descriptions are presented in the appendices to 40 CFR Part 60 and OSW 846.

4.3.1 EPA Method 1: Sampling and Velocity Traverses for Stationary Sources

Prior to the source test, a site assessment was performed in order to locate sample points for obtaining the best representative measurements of pollution concentrations and volumetric flow rates. EPA Method 1 takes into account duct area, straight run and cyclonic or stratified flow patterns. Calculations were based on a 252" stack diameter.

4.3.2 EPA Method 2: Determination of Velocity and Volumetric Flow Rates

EPA Method 2 was used to determine stack gas velocity and volumetric flow rates. A calibrated type-S pitot tube was connected to an inclined manometer and leak checked. Stack gas temperature and manometer displacement (delta P) was then recorded at each traverse point and a duct static pressure was also measured and recorded. Stack gas velocity and volumetric flow rate were then calculated in accordance with EPA Method 2.

4.3.3 EPA Method 3A: Determination of CO_2, O_2, and Dry Molecular Weight by Instrumental Analyzer

A gas sample was continuously extracted from the stack through a stainless steel sample probe into a condenser to cool and dry the sample, through Teflon sample line, and continuous O_2 and CO_2 analyzers. Continuous O_2 and CO_2 measurements in percent are recorded on a strip chart recorder and/or a data acquisition system. The O_2 and CO_2 analyzers are calibrated prior to sampling using zero, mid-range, and high range EPA protocol gases. Following each test run, a sampling system bias check was performed by introducing zero and upscale (either mid-range or high range) EPA Protocol gas into the sampling system at the back end of the sample probe. Prior to and following each run, a zero and calibration check was performed by introducing zero and upscale (either mid or high range) EPA Protocol gas into the analyzer. Dry molecular weight of the stack gas was calculated using the measured O_2 and CO_2 concentrations.

4.3.4 EPA Method 4: Determination of Stack Gas Moisture Content

Stack gas moisture content was determined concurrently with each sample run. Impinger weights were determined prior to and following sampling. Stack gas moisture content was determined from the mass of the water collected and the sample gas volume.

4.3.5 EPA Method 5/202: Determination of Total Particulate Emissions

Stack gas samples were drawn isokinetically through a heated glass probe to a heated, tared glass fiber filter where filterable particulate matter was removed. The sample was then drawn through four chilled impingers for moisture collection. The total filterable particulate mass was determined gravimetrically after removal of uncombined water.

Condensable particulate matter (CPM) was collected in the impinger portion of the sampling train. The impinger contents were not purged after the run with nitrogen or air to remove sulfur dioxide gases (a pH test (> 4.5) confirmed the absence of SO_2). The impinger solution was then extracted with methylene chloride (triplicate 75 ml extractions in a seperatory funnel). The organic and aqueous fractions were then taken to dryness and the residues weighed. The total of both fractions represents the total CPM.

4.3.6 EPA Method 6C: Determination of Sulfur Dioxide Emissions

A gas sample was continuously extracted from the stack through a stainless steel sample probe, heated sample line, into a condenser to cool and dry the sample, through Teflon sample line, and into an UV photometric absorption SO_2 analyzer. Continuous SO_2 measurements were recorded on a strip chart recorder and/or data acquisition system. The SO_2 analyzer was calibrated prior to sampling using zero, mid-range, and high range EPA protocol gases. Following the test runs, a sampling system bias check was performed by introducing zero and upscale (either mid-range or high range) EPA Protocol gas into the sampling system at the back end of the sample probe. Prior to and following each run, a zero and calibration check was performed by introducing zero and upscale (either mid or high range) EPA Protocol gas into the analyzer.

4.3.7 EPA Method 7E: Determination of Nitrogen Oxides Emissions

A gas sample was continuously extracted from the stack through a stainless steel sample probe, into a condenser to cool and dry the sample, through a Teflon sample line, and into a chemiluminescent NO_x analyzer. Continuous NO_x measurements were recorded on a strip chart recorder and data acquisition system. The NO_x analyzer was calibrated prior to sampling using zero, mid-range, and high range EPA protocol gases. Following the test runs, a sampling system bias check was performed by introducing zero and upscale (either mid-range or high range) EPA Protocol gas into the sampling system at the back end of the sample probe. Prior to and following each run, a zero and calibration check was performed by introducing zero and upscale (either mid or high range) EPA Protocol gas into the analyzer.

4.3.8 EPA Method 9: Visual Determination Of Opacity

Visual emissions estimations were made to determine percent opacity by a certified observer following the procedures outlined in 40 CFR Part 60. Field information was recorded and includes: ambient conditions, stack location, facility information, plume description, and location of the observer relative to the plume. Observations were recorded to the nearest five percent opacity at 15 second intervals. Opacity results are included with the EPA Method 5 data.

4.3.9 EPA Method 10: Determination of Carbon Monoxide Emissions

A gas sample was continuously extracted from the stack through a stainless steel sample probe, into a condenser to cool and dry the sample, through Teflon sample line, and into a gas filter correlation CO analyzer. Continuous CO measurements were recorded on a strip chart recorder and/or data acquisition system. The CO analyzer was calibrated prior to sampling using zero, mid-range, and high range EPA protocol gases. Following the test runs, a sampling system bias check was performed by introducing zero and upscale (either mid-range or high range) EPA Protocol gas into the sampling system at the back end of the sample probe. Prior to and following each run, a zero and calibration

check was performed by introducing zero and upscale (either mid or high range) EPA Protocol gas into the analyzer.

4.3.10 EPA Method 18: Determination of Volatile Organic Compounds by GC/MS

This method employed the adsorbent tube sampling procedure. In this procedure a gas sample was continuously extracted from the stack through a stainless steel sample probe and through a Teflon® sample line into two SKC Tenax adsorbent tubes. The two tubes, in series, were maintained vertically during the test in order to prevent channeling. Flexible tubing was used to attatch the exhaust end of the rear tube to a Gilian Air Sampling pump. They were covered and maintained at a temperature less than 170 degrees F. A duplicate sample train was operated with a spiked adsorption tube in the first position in all three runs. At the beginning, end and periodically throughout each test run, the operator checked the sampling flow rate, and initial and final sampling time. The sample pumps were calibrated prior to and after each run with a Gilian Gilibrator Air Flow Calibration System. The Gilian Gilibrator is a primary standard bubble flow meter. Leak checks were performed by sealing the end of the sample probe until the flow rotameter registered zero flow. All leak checks indicated no leakage.

Tubes were spiked with Benzene, Toluene, Ethylbenzene and of 3 Xylene compounds. Recovery of all spiked compounds was greater than 90%. Analysis of the VOC and Benzene samples were performed on a GC/MS by EPA Method TO15.

4.3.11 OSW Method 0061: Determination of Hexavalent Chromium (Cr^{+6})

Method 0061 was employed for the determination of Cr^{+6}. Stack gases were sampled isokinetically through a teflon probe and teflon impinger set. The first impinger contained 150 ml of 0.1 M KOH and employed a recirculating line from the front end of the probe between the nozzle and the probe. The second and third impingers contained 75 ml each of 0.1M KOH. A fourth teflon impinger was empty and was followed by a glass impinger with 400 grams of silica gel. All sample contact areas were either teflon (probe, impingers, recirculating line, union for recirculation, and peristaltic pump) or glass (nozzle).

Following sampling, any reagent remaining in the recirculatory line was drained back into the first impinger. The pH was checked and foune to be greater than 8.5. A nitrogen purge was conducted at 10 l/min for 30 minutes prior to recovery.

4.3.12 EPA Method 29: Determination of Multiple Metals

EPA Method 29 was employed to determine the mass rate of the following metals: arsenic (As), beryllium (Be), cadmium (Cd), lead (Pb), manganese (Mn), mercury (Hg), and nickel, (Ni). An all glass Method 5 style sampling train was employed. The train employed a Pallflex 2500QAT-UP quartz filter. Impingers one and two contained 100 ml of 5% HNO_3/10%H_2O_2, impinger three was empty, impingers four and five contained 100 ml of acidified potassium permanganate, and the sixth impinger contained 400 grams of silica gel.

The baghouse exhaust gas contained less than 2% moisture thus eliminating the need for the optional knockout impinger in the M29 train. Therefore, the first, third, fourth, fifth and sixth impingers were modified Greenburg-Smith and the second was Greenburg-Smith.

4.4 METHOD DEVIATIONS

With Prior approval, provisions in EPA Method 5 and 29 allow the tester to separate the filter box and the impinger box and use a teflon line (sample line) as a connector. In addition to the normal method recovery procedures this deviation requires that a line wash be added to insure complete recovery of pollutants. A line wash is where a measured volume of rinse (water and $MeCl_2$ for method 5 and 0.1 N HNO_3 for method 29) is introduced to the leading end of the sample line and, with the pump on, is drawn into the first impinger. This additional volume is subtracted for moisture calculations.

Prior to testing in 2005, Desert Air consulted Gregg O'Neal with the North Carolina DAQ and received permission to separate the filter box and the impinger box and use a teflon sample line as a connector. In order to insure complete recovery of pollutants Desert Air agreed to provide additional "Blanks" of the sample line. After each run, the sample lines used in the Method 5 and 29 trains were rinsed again by soaking the inside of each line with the appropriate liquid for no less than 5 minutes. These blanks were analyzed for organic and inorganic PM and trace metals, respectively. Analysis results can be found in the Appendicies to this report.

5. QUALITY ASSURANCE / QUALITY CONTROL

Quality assurance procedures were performed in accordance with those listed in the appropriate test method and *the Quality Assurance Handbook for Air Pollution Measurement Systems, Volume 3.* Complete equipment certification and calibration information is presented in the Appendicies to this report. The Metals and Chrome^{+6} samples were recovered on site and then hand delivered to First Analytical Labs in Chapel Hill, NC. The VOC sample tubes were packed in a cooler with blue ice and shipped by FED-X overnite to Atmospheric Analysis & Consulting, Inc. in Ventura, CA. Particulate samples were hand delivered to Desert Air Environmental Services, LLC in Chandler, AZ. The quality assurance procedures included, but were not limited to the following:

- Inspection of the type-S pitot tube prior to and following use to confirm proper design criteria specified in EPA Method 2.
- Calibration of the stack temperature sensor against an ASTM thermometer prior to sampling.
- Leak checks of the sampling system after each sample run including the sample train, manometers and pitot tube lines.
- Calibration of the meter box and dry gas meter on a quarterly basis at a minimum.
- Inspection of the calibrated nozzle prior to and after each sample run to ensure its integrity.
- Assurance that the probe and filter holder heaters operated properly.
- Inspection of all glassware to ensure cleanliness and lack of contaminants.
- Preparation and analysis of a full set of field blanks.
- Complete multipoint calibration of gaseous analyzers at least once per test program using EPA Protocol gases.
- Zero and upscale checks of the gaseous analyzers before and after each test run.

APPENDIX A
METHOD 5/202/9 DATA

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 5/1-3/07
Emissions Unit: Baghouse
Project: Compliance
EPA Method: 5/202

E.P.A. Method 5 Results

	Run 1	Run 2	Run 3
Test Date	5/1/2007	5/2/2007	5/3/2007
Start Time	3:05 PM	2:16 PM	4:00 PM
End Time	11:45 PM	12:26 AM	12:20 AM
Dry Gas Volume at standard conditions, Vm-Std	280.07	266.17	267.56
Stack Gas Volumetric Flow Rate, (dscfm)	1118487	1093802	1145343
Water Vapor by Volume (%)	0.0296	0.0307	0.0268
Net Volume of O_2 (%)	20.02	20.11	20.01
Net Volume of CO_2 (%)	1.00	0.84	0.90

FILTERABLE PARTICULATE LABORATORY RESULTS AND PROCESS DATA (Method 5)

	Run 1	Run 2	Run 3	**Averages**
Average Material Process Rate (ton/hr)	274.71	253.10	272.53	**266.78**
Mass of Probe & Nozzle Rinse Particulate (g)	0.00110	0.00120	0.00110	**0.00113**
Filter Net Mass Gain (g)	0.00080	0.00130	0.00050	**0.00087**
Total Net Mass Recovered (g)	0.00190	0.00250	0.00160	**0.00200**

FILTERABLE PARTICULATE CONCENTRATIONS AND EMISSION RATES (Method 5)

	Run 1	Run 2	Run 3	**Averages**
Total Filterable Particulate Concentration (gr/dscf)	0.00010	0.00014	0.00009	**0.00011**
Total Filterable Particulate Emission Rate (lb/hr)	1.005	1.360	0.907	**1.091**

CONDENSABLE PARTICULATE LABORATORY RESULTS (Method 202)

	Run 1	Run 2	Run 3	**Averages**
Mass of Inorganic Impinger Particulate (g)	0.0221	0.0335	0.019	**0.02487**
Mass of Organic Impinger Particulate (g)	0.00460	0.0038	0.0039	**0.00410**
Total Net Mass Recovered (g)	0.02670	0.03730	0.02290	**0.02897**

CONDENSABLE PARTICULATE CONCENTRATIONS AND EMISSION RATES (Method 202)

	Run 1	Run 2	Run 3	**Averages**
Total Inorganic Particulate Concentration (gr/dscf)	0.00122	0.00194	0.00110	**0.00142**
Total Inorganic Particulate Emission Rate (lb/hr)	11.686	18.228	10.769	**13.561**
Total Organic Particulate Concentation (gr/dscf)	0.00025	0.00022	0.00022	**0.00023**
Total Organic Particulate Emission Rate (lb/hr)	2.432	2.068	2.210	**2.237**

TOTAL FILTERABLE PARTICULATE CONCENTRATIONS AND EMISSION RATES (Method 5/202)

	Run 1	Run 2	Run 3	**Averages**
Total Filterable and Condensable Particulate Net Mass (g)	0.02860	0.03980	0.02450	**0.03097**
Total Filterable and Condensable Particulate Concentration (gr/dscf)	0.00157	0.00230	0.00141	**0.00176**
Total Filterable and Condensable Particulate Emission Rate (lb/hr)	15.123	21.656	13.886	**16.888**
Total Filterable and Condensable Particulate Emission Rate (lb/process ton)	0.055	0.086	0.051	**0.064**

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 5/1/2007
Emissions Unit: Baghouse
Project: Compliance
EPA Method: 5/202

RUN DATA

	Run 1	Run 2	Run 3	**Averages**
Test Date	5/1/2007	5/2/2007	5/3/2007	
Start Time	3:05 PM	2:16 PM	4:00 PM	
Stop Time	11:45 PM	12:26 AM	12:20 AM	
Area of Stack (ft^2)	346.36	346.36	346.36	
Nozzle Diameter (ft)	0.01450	0.01450	0.01450	
Area of Nozzle (ft^2)	0.000165	0.000165	0.000165	
Pitot Tube Calibration Coefficient	0.840	0.840	0.840	
Dry Gas Meter Calibration Factor	0.99420	0.99420	0.99420	
Barometric Pressure ("Hg)	29.91	29.85	30.12	
Sampling Time (min)	480.0	480.0	480.0	
Dry Gas Volume (dcf)	294.27	285.35	273.50	284.37
Dry Gas Meter Temperature (°F)	93.0	102.9	81.5	
Dry Gas Meter Temperature (°R)	553.0	562.9	541.5	
Orifice Pressure Diff (delta H) ("H_2O)	1.202	1.029	1.008	
Volume Corrected to Standard Conditions (dscf)	280.07	266.17	267.56	271.27
Isokinetic Variation (%)	109.48	106.40	102.14	

STACK GAS VELOCITY AND VOLUMETRIC FLOW RATE (Method 2)

	Run 1	Run 2	Run 3	**Averages**
Stack Temperature (°F)	192.9	203.5	174.0	190.1
Stack Temperature (°R)	652.9	663.5	634.0	650.1
Stack Static Pressure ("H_20)	-0.55	-0.49	-0.48	-0.51
Stack Gas Pressure ("Hg)	29.87	29.81	30.08	29.92
Avg Delta P	1.202	1.171	1.208	1.194
Avg of Sqrt of Delta P	1.0953	1.0811	1.0983	1.0916
Stack Gas Velocity (ft/s)	68.70	68.47	67.63	68.27
Stack Gas Volumetric Flow Rate (dscf/h)	67109249	65628145	68720608	67152667
Stack Gas Volumetric Flow Rate (dscfm)	1118487	1093802	1145343	1119211
Stack Gas Volumetric Flow Rate (acfm)	1427685	1422997	1405543	1418742
Stack Gas Volumetric Flow Rate (scfm)	1152630	1128451	1176914	1152665

STACK GAS MOLECULAR WEIGHT (Method 3)

	Run 1	Run 2	Run 3	**Averages**
Net Volume of CO2 (%)	1.00	0.84	0.90	0.91
Net Volume of O2 (%)	20.02	20.11	20.01	20.05
Net Volume of N2 and CO (%)	78.98	79.05	79.09	79.04
Molecular Weight, Dry (g/g-mole)	28.96	28.94	28.94	28.95
Molecular Weight, Wet (g/g-mole)	28.64	28.60	28.65	28.63

STACK GAS MOISTURE CONTENT (Method 4)

	Run 1	Run 2	Run 3	**Averages**
Total Mass of Water Collected (g)	181.30	178.80	156.40	172.17
Total Volume of Water Collected in Impingers and Silica (ml)	181.63	179.12	156.68	172.48
Volume of Water Corrected to Standard Conditions (scf)	8.549	8.431	7.375	8.118
Water Vapor, Bws	0.0296	0.0307	0.0268	0.0290
Moisture Factor, (1- Bws)	0.9704	0.9693	0.9732	0.9710

FIELD DATA SPREADSHEET

Client: Nucor Steel, Hertford **Test Date:** 5/1/2007 **Run:** 1
Start Time: 3:05 PM **Emissions Unit:** Baghouse **EPA Method:** 5/202
Stop Time: 11:45 PM **Project:** Compliance

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	341.89						
1	10.00	348.08	1.20	1.20	0.96	203	91	91
2	20.00	354.29	1.20	1.20	1.00	185	98	92
3	30.00	360.68	1.30	1.30	1.08	188	100	93
4	40.00	366.99	1.20	1.20	0.98	201	102	94
5	50.00	373.43	1.10	1.10	0.89	203	102	94
6	60.00	380.49	1.40	1.40	1.20	171	103	96
7	70.00	386.49	1.20	1.20	0.99	195	106	97
8	80.00	392.89	1.10	1.10	0.90	201	107	98
9	90.00	399.14	1.30	1.30	1.07	198	105	98
10	100.00	405.24	1.40	1.40	1.19	180	103	98
11	110.00	411.38	1.20	1.20	0.99	193	102	97
12	120.00	417.41	0.99	0.99	0.80	208	102	96
13	130.00	423.61	1.20	1.20	0.96	210	98	95
14	140.00	429.91	1.30	1.30	1.10	179	99	95
15	150.00	436.14	1.20	1.20	0.97	204	99	94
16	160.00	442.33	1.20	1.20	0.97	204	99	94
17	170.00	448.84	1.30	1.30	1.06	199	100	94
18	180.00	455.01	1.50	1.50	1.29	170	102	95
19	190.00	461.29	1.20	1.20	0.99	192	102	96
20	200.00	467.48	1.20	1.20	0.97	211	102	96
21	210.00	473.67	1.10	1.10	0.89	209	102	96
22	220.00	479.95	1.20	1.20	0.99	192	101	97
23	230.00	486.15	1.30	1.30	1.10	174	99	95
24	240.00	492.29	1.00	1.00	0.80	208	98	94
25	250.00	498.8	1.30	1.30	1.06	193	92	93
26	260.00	505.1	1.20	1.20	0.97	197	93	90
27	270.00	511.4	1.10	1.10	0.89	201	95	89
28	280.00	517.4	1.00	1.00	0.81	201	95	89
29	290.00	523.4	1.20	1.20	0.97	201	94	89
30	300.00	529.2	1.30	1.30	1.08	179	93	88
31	310.00	536.0	1.20	1.20	0.97	193	91	86
32	320.00	540.8	1.20	1.20	0.96	199	89	85
33	330.00	546.6	1.20	1.20	0.96	198	89	83
34	340.00	552.4	1.20	1.20	0.99	181	89	82
35	350.00	558.2	1.20	1.20	0.98	188	89	82
36	360.00	564.1	1.00	1.00	0.81	193	89	82
37	370.00	570.1	1.20	1.20	0.99	175	80	79
38	380.00	576.1	1.10	1.10	0.88	197	84	78
39	390.00	582.0	1.20	1.20	0.95	202	88	79
40	400.00	588.0	1.20	1.20	0.96	195	89	80
41	410.00	594.1	1.30	1.30	1.08	174	91	81
42	420.00	600.1	1.20	1.20	0.99	184	92	83
43	430.00	606.1	1.20	1.20	0.98	190	93	83
44	440.00	612.1	1.20	1.20	0.98	189	94	84
45	450.00	618.1	1.20	1.20	0.98	190	95	85
46	460.00	624.1	1.30	1.30	1.10	171	95	85
47	470.00	630.0	1.20	1.20	0.98	193	97	86
48	480.00	636.158	1.00	1.00	0.81	197	97	86
Max/Avg.	480.00	294.266	1.202	1.202	0.985	192.896	96.146	89.833

FIELD DATA SPREADSHEET

Client: Nucor Steel, Hertford **Test Date:** 5/2/2007 **Run:** 2
Start Time: 2:16 PM **Emissions Unit:** Baghouse **EPA Method:** 5/202
Stop Time: 12:26 AM **Project:** Compliance

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	636.666						
1	10.00	642.9	1.20	1.20	0.96	220	104	102
2	20.00	649.1	1.20	1.20	1.02	185	110	102
3	30.00	654.8	1.10	1.00	0.90	211	111	102
4	40.00	659.9	1.20	1.20	0.98	212	111	102
5	50.00	667.0	1.30	1.20	1.06	215	112	103
6	60.00	672.9	1.20	1.20	0.87	297	112	103
7	70.00	678.9	1.20	1.20	0.99	205	112	103
8	80.00	686.0	1.20	1.20	0.98	215	112	104
9	90.00	690.9	1.10	1.00	0.90	212	113	104
10	100.00	696.9	1.10	1.00	0.90	210	112	103
11	110.00	702.7	1.00	1.00	0.85	191	114	104
12	120.00	708.4	1.00	1.00	0.83	207	112	104
13	130.00	714.9	1.30	1.20	1.07	206	109	104
14	140.00	720.2	1.30	1.30	1.11	184	115	105
15	150.00	727.8	1.20	1.10	1.00	205	117	106
16	160.00	733.8	1.10	1.00	0.92	204	117	107
17	170.00	739.9	1.20	1.10	0.99	211	115	107
18	180.00	745.9	1.10	1.10	0.94	185	115	107
19	190.00	752.0	1.20	1.00	1.00	203	116	107
20	200.00	757.9	1.20	1.00	1.00	205	116	107
21	210.00	763.7	1.20	1.00	0.99	213	117	107
22	220.00	769.7	1.30	1.10	1.10	195	117	106
23	230.00	775.6	1.20	1.00	1.04	181	116	106
24	240.00	780.6	1.00	0.80	0.86	185	115	107
25	250.00	786.8	1.30	1.10	1.08	203	111	106
26	260.00	792.2	1.30	1.10	1.08	202	114	106
27	270.00	797.9	1.20	1.00	1.03	185	115	106
28	280.00	803.3	1.20	1.00	1.01	194	113	103
29	290.00	808.9	1.20	1.00	1.00	200	110	100
30	300.00	814.9	1.00	0.80	0.82	203	109	98
31	310.00	821.0	1.10	0.90	0.90	205	109	98
32	320.00	827.0	1.10	0.90	0.92	193	107	97
33	330.00	833.1	1.30	1.10	1.10	185	107	97
34	340.00	839.2	1.10	0.90	0.90	205	105	95
35	350.00	844.3	1.00	0.80	0.81	210	105	94
36	360.00	850.4	1.20	1.00	0.97	208	105	93
37	370.00	856.4	1.20	1.00	0.96	212	99	89
38	380.00	862.5	1.30	1.10	1.04	208	98	89
39	390.00	868.5	1.20	1.00	0.97	205	98	89
40	400.00	874.5	1.20	1.00	0.97	205	97	87
41	410.00	880.4	1.10	0.90	0.88	210	96	85
42	420.00	886.8	1.40	1.20	1.16	185	94	85
43	430.00	892.8	1.20	1.00	0.99	185	94	87
44	440.00	898.9	1.20	1.00	0.97	193	90	84
45	450.00	904.8	1.10	0.90	0.89	193	90	83
46	460.00	910.7	1.10	0.90	0.88	203	90	83
47	470.00	916.7	1.10	0.90	0.87	207	87	81
48	480.00	922.015	1.00	0.80	0.79	210	85	81
Max/Avg.	480.00	285.349	1.171	1.029	0.963	203.458	107.250	98.500

FIELD DATA SPREADSHEET

Client: Nucor Steel, Hertford **Test Date:** 5/3/2007 **Run:** 3
Start Time: 4:00 PM **Emissions Unit:** Baghouse **EPA Method:** 5/202
Stop Time: 12:20 AM **Project:** Compliance

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	923.424						
1	10.00	929.00	1.20	1.00	0.94	183	59	59
2	20.00	935.00	1.30	1.10	1.02	185	63	59
3	30.00	941.00	1.30	1.10	1.04	178	69	62
4	40.00	946.60	1.30	1.10	1.04	180	68	62
5	50.00	951.90	1.40	1.20	1.13	177	72	62
6	60.00	957.40	1.20	1.00	1.00	160	72	63
7	70.00	963.00	1.20	1.00	0.99	169	74	65
8	80.00	968.50	1.20	1.00	0.95	190	74	65
9	90.00	974.30	1.30	1.10	1.04	185	75	66
10	100.00	980.40	1.30	1.10	1.06	177	75	66
11	110.00	986.00	1.40	1.20	1.19	150	75	66
12	120.00	991.92	1.30	1.10	1.10	149	75	66
13	130.00	997.80	1.30	1.10	1.06	170	67	66
14	140.00	1003.80	1.30	1.10	1.05	175	68	66
15	150.00	1008.90	1.00	0.80	0.80	180	69	66
16	160.00	1014.50	1.10	0.90	0.87	191	70	66
17	170.00	1020.60	1.20	1.00	0.97	177	74	67
18	180.00	1026.50	1.20	1.00	0.96	183	74	66
19	190.00	1032.40	1.20	1.00	0.96	185	75	67
20	200.00	1038.00	1.10	0.90	0.87	195	76	66
21	210.00	1044.00	1.30	1.10	1.08	165	76	67
22	220.00	1050.00	1.20	1.00	0.96	185	72	67
23	230.00	1055.30	1.20	1.00	0.97	178	70	67
24	240.00	1060.68	1.10	0.90	0.88	185	74	67
25	250.00	1066.70	1.10	0.90	0.92	155	73	67
26	260.00	1071.60	1.10	0.90	0.89	177	74	67
27	270.00	1076.50	1.20	1.00	0.99	166	75	66
28	280.00	1082.90	1.20	1.00	0.96	185	73	66
29	290.00	1088.50	1.30	1.10	1.07	171	74	66
30	300.00	1094.03	1.40	1.20	1.15	172	76	67
31	310.00	1100.20	1.20	1.00	1.02	150	77	67
32	320.00	1106.30	1.30	1.10	1.09	156	77	66
33	330.00	1112.10	1.30	1.10	1.08	165	76	66
34	340.00	1117.90	1.10	0.90	0.90	177	76	67
35	350.00	1123.80	1.10	0.90	0.89	180	76	67
36	360.00	1129.05	1.00	0.80	0.82	175	75	68
37	370.00	1135.60	1.30	1.10	1.16	180	180	66
38	380.00	1141.20	1.30	1.10	1.16	177	177	66
39	390.00	1147.00	1.20	1.00	1.07	180	180	66
40	400.00	1152.90	1.20	1.00	1.07	177	177	65
41	410.00	1157.70	1.20	1.00	1.09	151	151	65
42	420.00	1162.80	1.20	1.00	1.07	177	177	65
43	430.00	1168.20	1.10	0.90	0.99	165	165	64
44	440.00	1174.00	1.30	1.10	1.16	170	170	64
45	450.00	1179.90	1.00	0.80	0.89	172	172	64
46	460.00	1185.10	1.10	0.90	0.98	173	173	63
47	470.00	1191.20	1.10	0.90	0.97	181	181	63
48	480.00	1196.922	1.10	0.90	0.98	170	170	63
Max/Avg.	480.00	273.498	1.208	1.008	1.007	174.042	97.729	65.271

Desert Air Environmental Services, LLC

Client:	MCCR	Unit	Test Date	Time In	Time 1st	Time 2nd
Date:	5/3/07	24	5/1-3/07	5/6/07	5/7/07	5/7/07

Unit / Run	Sample #	Initial Tare	Post 1	Post 2	Post 3	Average	Net
F 1	1/134	.2723	.2730	.2732	-	.2731	.0008
P/N 1	2	1.9193	1.9205	1.9203	-	1.9204	.0011
IMPG 1	3	1.9188	1.9409	1.9409	-	1.9409	.0221
C.C. 1	4	1.9164	1.9209	1.9211	-	1.9210	.0046
F 2	5/229	.3691	.3704	.3704	-	.3704	.0013
P/N 2	6	1.9065	1.9076	1.9077	-	1.9077	.0012
IMPG 2	7	1.9071	1.9405	1.9406	-	1.9406	.0335
C.C. 2	8	1.9130	1.9158	1.9159	-	1.9159	.0029
F 3	9/233	.2711	.2716	.2716	-	.2716	.0005
P/N 3	10	1.9116	1.9126	1.9128	-	1.9127	.0011
IMPG 3	11	1.9122	[illegible]	1.9173	-	[illegible]	.0196
C.C. 3	12	1.9040	[illegible]	1.9080		1.9079	.0039
F B	13/236	.2724	.2725	.2725	-	.2725	.0001
P/N B	14	1.8971	1.8979	1.8981	-	1.8980	.0009
IMPG B	15	1.8970	1.8985	1.8987	-	1.8986	.0016
C.C. B	16	1.9105	1.9128	1.9127	-	1.9128	.0023
* LINE R 1	17	1.9158	1.9166	1.9166	-	1.9166	.0008
* LINE R 2	18	1.9213	1.9223	1.9222	-	1.9223	.0010
* LINE R 3	19	1.9182	1.9190	1.9191	-	1.9191	.0009
* LINE R [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	INTO SPIKE COMPANION		
ACCT BLANK	20	1.9064	1.9067	1.9066	-	1.9067	.0003
H2O BLANK	21	1.8990	1.9004	1.9003	-	1.9004	.0014
MeCl2 BLK	22	1.9159	1.9165	1.9161	-	1.9163	.0004

DESERT AIR ENVIRONMENTAL SERVICES, LLC

Recovery Data

Client: NUCOR
Emissions Unit: BH
EPA Method: 5/202

Test Date: 5-1-07
Project: Compliance

Impinger Contents	Run 1			Run 2			Run 3		
	Final	Initial	Net	Final	Initial	Net	Final	Initial	Net
H_2O	761.5	587.1	174.4	799.2	596.4	202.8	769.2	594.8	174.4
H_2O	630.3	609.3	21.0	620.7	610.8	9.9	613.8	608.9	4.9
H_2O	488.0	487.8	.20	487.9	484.6	3.3	487.4	489.0	-1.6
Silica	823.1	756.5	66.6	808.0	744.3	63.7	856.0	788.1	67.9
LineWash	NaOH		-40.1			-47.1			-47.3
LineWash	H_2O		-40.8			-53.8			-41.9
Filter #									
Tare Wt.									
Total Volume of H_2O, grams			181.30			178.8			156.4

Comments

% O_2	% O_2	% O_2
% CO_2	% CO_2	% CO_2

Impinger Contents	Run 4			Run 5			Run 6		
	Final	Initial	Net	Final	Initial	Net	Final	Initial	Net
Filter #									
Tare Wt.									
Total Volume of H_2O, grams									

Comments

% O_2	% O_2	% O_2
% CO_2	% CO_2	% CO_2

DESERT AIR ENVIRONM..TAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1001		Stack Diameter (in): 21'
Facility: Hartford County	Meter Delta H @: ~~2.005~~		Stack Static Pressure: -.55
Unit: Baghouse Stack	Meter Calibration Factor (Y): ~~.9463~~		Assumed Moisture: 2%
Date: 5/1/07	Probe #: 10'-1		Start time: ~~0~~ 1505 End Time:
Technicians: RJH Team Leader: Mark Reilly	Probe Liner Material: Glass		Nozzle Diameter (in):
Method / Run # PM R1	Pitot Tube Cp: .84		Initial Leak Rate: .008 @ 15"
Sheet 1 of 4	Ambient Temp.: 91	Pbarr: 29.91	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						341.842					
C 1	10	2	1.2	1.2	203	348.08	91	91	235	250	66
1	20	2	1.2	1.2	185	354.29	98	92			67
	~~30~~										
2	30	2	1.3	1.3	188	360.68	100	93	240	251	66
2	40	2	1.2	1.2	201	366.94	102	94	245	256	66
3	50	2	1.1	1.1	203	373.73	102	94	246	261	60
3	60	2.5	1.4	1.4	171	380.49	103	96	247	260	59
4	70	2	1.2	1.2	195	386.49	106	97	248	252	54
4	80	2	1.1	1.1	201	392.89	107	98	262	251	55
5	90	2	1.3	1.3	198	399.14	105	98	266	245	54
5	100	2.5	1.4	1.4	180	405.24	103	98	254	247	54
6	110	2	1.2	1.2	193	411.38	102	97	265	251	54
6	120	1.5	.99	.99	208	417.13	102	96	247	252	58
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM. .TAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1001		Stack Diameter (in): 21'
Facility: Hertford County	Meter Delta H @: ~~2.2057~~		Stack Static Pressure: -.55
Unit: Baghouse Stack	Meter Calibration Factor (Y): ~~.9963~~		Assumed Moisture: 2%
Date: 5/1/07	Probe #: 10'-1		Start time: - End Time: -
Technicians: DTA Team Leader: Mark Reddy	Probe Liner Material: Glass		Nozzle Diameter (in):
Method / Run # PM #2	Pitot Tube Cp: .84		Initial Leak Rate: -
Sheet 2 of 4	Ambient Temp.: 90°	Pbarr: 29.91	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						417.413					
1	10	2	1.2	1.2	210	423.61	98	95	247	251	68
1	20	2	1.3	1.3	179	429.91	99	95	248	251	57
2	30	2	1.2	1.2	204	436.14	99	94	247	251	58
2	40	2	1.2	1.2	204	442.33	99	94	249	252	62
3	50	2	1.3	1.3	199	448.84	100	94	247	253	65
3	60	3	1.5	1.5	170	455.07	102	95	251	256	65
4	70	2	1.2	1.2	192	461.29	102	96	257	257	66
4	80	2	1.2	1.2	211	467.48	102	96	255	257	67
5	90	2	1.1	1.1	209	473.67	102	96	240	249	68
5	100	2	1.2	1.2	192	479.95	101	97	261	250	62
6	110	2	1.3	1.3	174	486.15	99	95	261	256	62
6	120	2	1.0	1.0	204	492.294	98	94	259	251	63
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1001	Stack Diameter (in): 21'
Facility: Hertford County	Meter Delta H @: ~~2.0997~~	Stack Static Pressure: -.55
Unit: Baghouse Stack	Meter Calibration Factor (Y): ~~.9953~~	Assumed Moisture: 2%
Date: 5/1/07	Probe #: 10'-1	Start time: - End Time: -
Technicians: BJN Team Leader: Mark Reddy	Probe Liner Material: GLASS	Nozzle Diameter (in):
Method / Run #: PM R#1	Pitot Tube Cp: .84	Initial Leak Rate: -
Sheet 3 of 4	Ambient Temp.: 80 Pbarr: 29.91	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						492.244					
1	10	2	1.3	1.3	193	498.76	92	93	241	250	67
1	20	2	1.2	1.2	197	~~505.13~~	93	90	245	251	49
						505.13					
2	30	2	1.1	1.1	201	511.42	95	89	252	251	61
2	40	2	1.0	1.0	201	517.43	95	89	247	250	62
3	50	2	1.2	1.2	201	523.36	94	89	251	250	62
3	60	2	1.3	1.3	179	529.16	93	88	257	250	60
4	70	2	1.2	1.2	193	535.98	91	86	261	251	62
4	80	2	1.2	1.2	199	540.74	89	85	262	253	62
5	90	2	1.2	1.2	198	546.56	89	83	259	248	63
5	100	2	1.2	1.2	181	552.37	89	82	257	247	63
6	110	2	1.2	1.2	188	558.15	89	82	258	247	64
6	120	2	1.0	1.0	193	564.109	89	82	255	249	64
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM. .TAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1001			Stack Diameter (in): 21'	
Facility: Hereford County	Meter Delta H @: ~~2.2037~~			Stack Static Pressure: -.55	
Unit: Bughouse Stack	Meter Calibration Factor (Y): ~~.9963~~			Assumed Moisture: 2%	
Date: 5/1/07	Probe #: 10'-1			Start time: -	End Time: 23:45
Technicians: DJH Team Leader: Mark Reddy	Probe Liner Material: GLASS			Nozzle Diameter (in):	
Method / Run # PM R#1	Pitot Tube Cp: .84			Initial Leak Rate: -	
Sheet 4 of 4	Ambient Temp.: 75	Pbarr: 29.91		Final Leak rate: 0.008@13" Hg.	

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						564.109					
1	10	2.5	1.2	1.2	175	570.14	80	79	241	256	67
1	20	2	1.1	1.1	157	576.12	84	78	247	255	58
2	30	2.5	1.2	1.2	202	582.04	88	79	250	261	60
2	40	2.5	1.2	1.2	195	588.04	89	80	250	262	62
3	50	2.5	1.3	1.3	174	594.02	91	81	251	263	63
3	60	2.5	1.2	1.2	184	600.08	92	83	252	263	66
4	70	2.5	1.2	1.2	190	606.09	93	83	251	264	64
4	80	2.5	1.2	1.2	185	612.10	94	84	255	259	65
5	90	2.5	1.2	1.2	190	618.09	~~95~~	85	256	257	66
5	100	2.5	1.3	1.3	171	624.12	95	~~85~~	261	256	66
6	110	2.5	1.2	1.2	193	630.09	97	86	257	257	68
6	120	2	1.0	1.0	197	636.158	97	86	258	259	
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1001		Stack Diameter (in): 21'
Facility: Hertford County	Meter Delta H @: ~~2.2037~~ 1.8719		Stack Static Pressure: ~~4.9~~
Unit: Baghouse Stack	Meter Calibration Factor (Y): ~~.9463~~ .99420		Assumed Moisture: 2%
Date: 5/2/07	Probe #: 10'-1		Start time: 1410 End Time: —
Technicians: BJN Team Leader: Mark Reddy	Probe Liner Material: GLASS		Nozzle Diameter (in):
Method / Run # P/M RT#2	Pitot Tube Cp: .84		Initial Leak Rate: 0.001 @ 14" mH
Sheet 1 of 4	Ambient Temp.: ~~82~~ 90	Pbarr: 29.85	Final Leak rate:

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						636.666					
1	10	3	1.2	1.2	220	642.85	104	102	260	258	67
1	20	3	1.2	1.2	185	649.06	110	102	257	251	65
2	30	3	1.1	1.0	211	654.83	111	102	263	240	64
2	40	3	1.2	1.2	212	659.91	111	102	259	246	64
								10	~~259~~	~~246~~	
3	50	3.5	1.3	1.3	215	666.97	112	103	255	246	67
3	60	3	1.2	1.2	197	672.94	112	103	250	251	64
4	70	3	1.2	1.2	205	678.93	112	103	252	253	61
4	80	3	1.2	1.2	215	685.99	112	104	249	254	61
5	90	2	1.1	1.0	212	690.94	113	104	251	254	63
5	100	2	1.1	1.0	210	696.95	112	103	246	256	63
6	110	2	1.0	1.0	191	702.69	114	104	249	240	64
6	120	2	1.0	1.0	207	708.342	112	104	250	243	65
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1001		Stack Diameter (in): 21'
Facility: Hertford County	Meter Delta H @: ~~1.903~~ 1.8719		Stack Static Pressure: -.49
Unit: Bighouse Stack	Meter Calibration Factor (Y): ~~.9963~~ .9942		Assumed Moisture: 2%
Date: 5/3/01	Probe #: 10'-1		Start time: — End Time: —
Technicians: BTH Team Leader: Mark Reedy	Probe Liner Material: GLASS		Nozzle Diameter (in):
Method / Run # PM1 #2	Pitot Tube Cp: .84		Initial Leak Rate: —
Sheet 2 of 4	Ambient Temp.: 90	Pbarr: 29.85	Final Leak rate: —

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						708.392					
1	10	4	1.3	1.3	206	714.89	109	104	248	245	66
1	20	4	1.3	1.3	184	720.21	115	105	252	251	64
2	30	4	1.2	1.1	205	727.76	117	106	251	245	60
2	40	4	1.1	1.0	204	733 84	117	107	248	249	60
3	50	4	1.2	1.1	211	739.87	115	107	250	248	63
3	60	4	1.1	1.1	185	745.91	115	107	251	261	64
4	70	4	1.2	1.0	203	751.98	116	107	248	260	65
4	80	3.5	1.2	1.0	205	757.87	116	107	246	255	64
5	90	3.5	1.2	1.0	213	763.69	117	107	246	251	65
5	100	4	1.3	1.1	195	769.72	117	106	251	251	65
6	110	~~3.5~~	1.2	1.0	181	775.55	116	106	252	251	66
6	120	2	1.0	.8	185	780.644	115	107	250	250	64
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM..TAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1001			Stack Diameter (in): 21'	
Facility: Hartford County	Meter Delta H @: ~~2.203~~ 1.8719			Stack Static Pressure: -.49	
Unit: Baghouse Stack	Meter Calibration Factor (Y): ~~.9963~~ .9942			Assumed Moisture: 2%	
Date: 5/2/07	Probe #: 10'-1			Start time: -	End Time: -
Technicians: DJH Team Leader: Mark Kelly	Probe Liner Material: GLASS			Nozzle Diameter (in):	
Method / Run # Am RR3	Pitot Tube Cp: .84			Initial Leak Rate: -	
Sheet 3 of 4	Ambient Temp.: 85	Pbarr: 29.85		Final Leak rate: -	

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						760.644					
1	10	3	1.3	1.1	203	786.81	111	106	252	248	67
1	20	3	1.3	1.1	202	792.23	114	106	253	250	65
2	30	3	1.2	1.0	185	797.92	115	106	256	247	66
2	40	3	1.2	1.0	194	803.26	113	103	260	248	64
3	50	3	1.2	1.0	200	808.89	110	100	264	254	63
3	60	2.5	1.0	.8	203	814.99	109	98	263	252	62
4	70	3	1.1	.9	205	820.49	109	98	260	257	62
4	80	3	1.1	.9	193	827.04	107	97	265	258	61
5	90	3	1.3	1.1	185	833.04	107	97	263	258	60
5	100	3	1.1	.9	205	839.24	105	95	260	256	60
6	110	2.5	1.0	.8	210	844.34	105	94	264	256	59
6	120	3	1.2	1.0	208	850.354	105	93	259	260	59
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1001			Stack Diameter (in): 21'	
Facility: Hartford County	Meter Delta H @: ~~2.037~~ 1.8719			Stack Static Pressure: -.49	
Unit: Baghouse Stack	Meter Calibration Factor (Y): ~~.9963~~ .9942			Assumed Moisture: 2%	
Date: 5/2/07	Probe #: 10'-1			Start time: —	End Time: 2426
Technicians: BTK Team Leader: Mark Kelly	Probe Liner Material: GLASS			Nozzle Diameter (in):	
Method / Run # M5 1 of 2	Pitot Tube Cp: .84			Initial Leak Rate:	
Sheet 4 of 4	Ambient Temp.: 85	Pbarr: 29.85		Final Leak rate: 0.001 @ 5" Hg. vac	

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						850.354					
1	10	3	1.2	1.0	212	856.41	99	89	261	242	67
1	20	3	1.3	1.1	208	862.53	98	89	263	245	63
2	30	3	1.2	1.0	205	868.47	98	89	270	249	58
2	40	3	1.2	1.0	205	874.51	97	87	269	251	58
3	50	2.5	1.1	.9	210	880.43	96	85	263	253	56
3	60	3.5	1.4	1.2	185	886.75	94	85	260	250	53
4	70	3	1.2	1.0	195	892.81	94	87	254	247	53
4	80	3	1.2	1.0	193	898.87	90	84	251	246	52
5	90	2.5	1.1	.9	193	904.74	90	83	252	244	52
5	100	2.5	1.1	.9	203	910.74	90	83	254	251	53
6	110	2.5	1.1	.9	207	916.68	87	81	260	253	54
6	120	2	1.0	.8	210	922.015	85	81	259	252	55
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM[illegible]TAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1001		Stack Diameter (in): 21'
Facility: Hartford County	Meter Delta H @: 1.8719		Stack Static Pressure: -.48
Unit: Baghouse Stack	Meter Calibration Factor (Y): .9942		Assumed Moisture: 2%
Date: 5/3/07	Probe #: 10' - 1		Start time: 1600 End Time: ~~0000~~
Technicians: BTH Team Leader: Mark Coddy	Probe Liner Material: glass		Nozzle Diameter (in):
Method / Run # PM R # 3	Pitot Tube Cp: .84		Initial Leak Rate: 0.002 @ 15
Sheet 1 of 4	Ambient Temp.: 60	Pbarr: ~~29.85~~ 30.12	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (°F)	Dry Gas Meter Temp Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
						923.424					
1	10	3	1.2	1.0	183	929.0	59	59	242	232	59
1	20	3.5	1.3	1.1	185	935.0	63	59	250	248	52
2	30	3.5	1.3	1.1	178	941.0	69	62	250	249	48
2	40	3.5	1.3	1.1	180	946.6	68	62	251	251	49
3	50	3.5	1.4	1.2	177	951.9	72	62	252	248	50
3	60	3.	1.2	1.0	160	957.4	72	63	256	247	49
4	70	3	1.2	1.0	169	963.0	74	65	244	248	51
4	80	3	1.2	1.0	190	968.5	74	65	242	250	52
5	90	3.5	1.3	1.1	185	974.3	75	66	248	252	51
5	100	3.5	1.3	1.1	177	980.4	75	66	246	250	51
6	110	3.5	1.4	1.2	150	986.0	75	66	241	249	51
6	120	3.5	1.3	1.1	149	991.917	75	66	240	252	51
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM_ .TAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1001			Stack Diameter (in): 21'	
Facility: Hartford County	Meter Delta H @: 1.8719			Stack Static Pressure: -.48	
Unit: Baghouse Stack	Meter Calibration Factor (Y): .9942			Assumed Moisture: 2%	
Date: 5/2/07	Probe #: 10'-1			Start time: -	End Time: ~~0010~~
Technicians: BJH Team Leader: Mark Reddy	Probe Liner Material: GLASS			Nozzle Diameter (in):	
Method / Run # EPA RUN 3	Pitot Tube Cp: .84			Initial Leak Rate: -	
Sheet 2 of 4	Ambient Temp.: 60	Pbarr: ~~29.85~~ 30.12		Final Leak rate: -	

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						991.917					
1	10	3	1.3	1.1	170	997.8	67	66	244	251	53
1	20	3	1.3	1.1	175	1003.8	68	64	261	250	54
2	30	2.5	1.0	.8	180	008.9	69	66	262	252	54
2	40	2.5	1.1	.9	191	014.5	70	66	259	249	53
3	50	3	1.2	1.0	177	020.6	74	69	259	248	53
3	60	3	1.2	1.0	183	026.5	74	66	258	247	52
4	70	3	1.2	1.0	185	032.4	75	67	258	246	53
4	80	2.5	1.1	.9	195	038.0	76	66	258	243	53
5	90	3	1.3	1.1	165	044.0	76	67	261	243	53
5	100	3	1.2	1.0	185	050.0	72	67	260	244	54
6	110	3	1.2	1.0	178	055.3	70	67	258	251	55
6	120	2.5	1.1	.9	185	060.683	74	67	257	250	56
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1001			Stack Diameter (in): 21'	
Facility: Hertford County	Meter Delta H @: 1.8719			Stack Static Pressure: -.48	
Unit: Baghouse Stack	Meter Calibration Factor (Y): .9942			Assumed Moisture: 2%	
Date:	Probe #: 101-1			Start time: -	End Time: -
Technicians: BTH Team Leader: Mark Eddy	Probe Liner Material: GLASS			Nozzle Diameter (in):	
Method / Run # PM RUN 3	Pitot Tube Cp: .84			Initial Leak Rate: -	
Sheet 3 of 4	Ambient Temp.: 60	Pbarr: ~~29.55~~ 30.12		**Final Leak rate:** -	

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						060.683					
1	10	3	1.1	.9	153	066.7	73	67	259	251	54
1	20	3	1.1	.9	177	071.6	74	67	261	252	54
2	30	3	1.2	1.0	166	076.5	75	66	265	249	53
2	40	3	1.2	1.0	185	082.4	73	66	259	245	53
3	50	3	1.3	1.1	171	088.5	74	66	266	251	54
3	60	3.5	1.4	1.2	172	094.3	76	67	264	250	53
4	70	3	1.2	1.0	150	100.2	77	67	269	250	54
4	80	3.5	1.3	1.1	156	106.3	77	66	264	249	55
								67			
5	90	3.5	1.3	1.1	165	112.1	76	66	254	248	55
5	100	3	1.1	.9	177	117.9	76	67	258	248	55
6	110	3	1.1	.9	180	123.8	76	67	261	249	56
6	120	3.5	1.0	.8	175	129.052	75	68	260	257	56
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM. .TAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1001		Stack Diameter (in): 21'
Facility: Hertford County	Meter Delta H @: 1.8719		Stack Static Pressure: -.48
Unit: Baghouse Stack	Meter Calibration Factor (Y): .9942		Assumed Moisture: 2%
Date: 5/2/07	Probe #: 10'-1		Start time: - End Time: 1220AM
Technicians: BSN Team Leader: Mark Roddy	Probe Liner Material: GLASS		Nozzle Diameter (in):
Method / Run # PM RUN 3	Pitot Tube Cp: .84		Initial Leak Rate: -
Sheet 4 of 4	Ambient Temp.: 60	Pbarr: ~~29.85~~ 30.12	Final Leak rate: 0.005 @ 5"

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume (ft3) 129.052 ~~084.652~~	Dry Gas Meter Temp Inlet (°F)	Dry Gas Meter Temp Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
1	10	3	1.3	1.1	180	135.6	77	66	269	251	54
1	20	3	1.3	1.1	177	141.2	77	66	263	249	54
2	30	3	1.2	1.0	180	147.0	76	66	264	247	51
2	40	3	1.2	1.0	177	152.4	76	65	264	247	53
3	50	3	1.2	1.0	151	157.7	76	65	254	252	53
3	60	3	1.2	1.0	157	162.8	76	65	258	255	53
4	70	2.5	1.1	.9	165	168.2	75	64	257	261	54
4	80	3	1.3	1.1	170	174.0	75	64	253	260	49
5	90	2.5	1.0	.8	172	179.4	75	64	253	259	49
5	100	2.5	1.1	.9	173	185.1	74	63	247	258	49
6	110	2.5	1.1	.9	181	191.2	74	63	260	257	49
6	120	2.5	1.1	.9	170	196.922	73	63	259	250	50
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

SAMPLE CALCULATIONS
APPENDIX #

UNIT _____

TEST RUN_____

P_{bar}	pg	T_s	pg	O_2	vd	pg
P_{static}	pg	C_p	pg	CO_2	vd	pg
Δp_{avg}	pg	A ft^2	pg	N_2	vd	pg
M_s	pg			H_2O	vd	pg

STACK GAS PRESSURE

Page

$$P_s = P_{bar} + \frac{P_{static}}{13.6} = ____ + \frac{____}{13.6} = ____$$

AVERAGE STACK VELOCITY

$$V_s = K_p \; C_p \; x \sqrt{\Delta P_{avg}} \; x \sqrt{\frac{T_s(avg)}{P_s \, M_s}}$$

Page

$$= 85.49 \; x \qquad x \sqrt{} \; x \sqrt{\frac{(460 + \quad)}{(\quad x \quad)}}$$

$$= ____ \; fps$$

SAMPLE CALCULATIONS
APPENDIX #

UNIT _____

TEST RUN_____

AVERAGE STACK Q_{std} DSCFM
Eq. 2-10

Page

$$= 60 \times (1 - Bws) \times V_s \times A \left(\frac{T_{std}}{T_s (^\circ R)} \right) \left(\frac{P_s}{P_{std}} \right)$$

$$= 60 \times (1 - ____) \times ____ \times ____ \times \left(\frac{\quad}{\quad} \right) \left(\frac{\quad}{\quad} \right)$$

$$= _____ DSCFM$$

WET MOLECULAR WEIGHT, M_s

Page

$$[\{(0.44 \times \%\ CO_2) + (0.32 \times \%\ O_2) + (0.28 \times \%\ N_2)\} \times (1 - Bws)] + 18 \times Bws$$

$$= [\{(0.44 \times ____) + (0.32 \times ____) + (0.28 \times ____)\} \times (1 - ____)]$$

$$+ 18 \times ____$$

$$= _____$$

SAMPLE CALCULATIONS
APPENDIX

UNIT _____

TEST RUN_____

gms H_2O	pg	Y	pg	T_m	pg
V_m	pg	ΔH "H_2O	pg		

VOLUME H_2O COLLECTED AS GAS @ STP, Vwc

Page

$$V_{wc} = gms\ H_2O \times 0.04646 = _____ \times 0.04646$$

$$= _____ SCF$$

SAMPLE GAS VOLUME

Page

$$V_{m(std)} = V_m Y \times \frac{Pbar + \frac{\Delta H}{13.6}}{P_{std}} \times \frac{T_{std}}{T_m} =$$

$$____ \times ____ \times \frac{____ + \frac{____}{13.6}}{29.92} \times \frac{528}{460 + ____}$$

$$= _____ DSCF$$

MOISTURE CONTENT, % H_2O OR Bws AND MF

Page

$$= \frac{V_{wc}}{V_{m(std)} + V_{wc}} =$$

$$\frac{____}{____ + ____} = _____$$

and

$$MF = 1 - B_{ws} = 1 - _____ = _____$$

SAMPLE CALCULATIONS
APPENDIX #

UNIT _____

TEST RUN_____

mg P/N wash	pg	$V_{m(std)}$	pg
mg filter	pg	DSCFM	pg
mg H_2O(org)	pg		
mg H_2O(inorg)	pg		

PARTICULATE CONCENTRATION, gr/dscf

Page

$$(mg\ P/N + mg\ filter + mg\ condensable) \times 0.0154\ gr/mg \times \frac{1}{Vm_{std}}$$

$$(_____ + _____ + _____) \times 0.0154 \times \frac{1}{_____}$$

_____ = gr / DSCF

PARTICULATE EMISSIONS, lbs/hr

Page

$$\frac{gr}{DSCF} * 0.00858 * DSCFM$$

_____ * 0.00858 * _____

_____ = lbs/hr

SAMPLE CALCULATIONS
APPENDIX #

UNIT _____

TEST RUN_____

T_s		pg	P_{bar}	"Hg	pg	P_s	"Hg	pg
V_{lc}	mls	pg	ΔH	"H_2O	pg	θ	min	pg
V_m		pg	A_n	ft^2	pg	T_m	°R	pg
Y		pg	V_s		pg			

ISOKINETIC VARIATION, %I

Page

$$\frac{100 \times T_s \left[(Vlc \times 0.002669) + \frac{V_m Y}{Tm} \times \left(Pb + \frac{\Delta H}{13.6} \right) \right]}{60 \times A_n \times V_s \times P_s \times \theta}$$

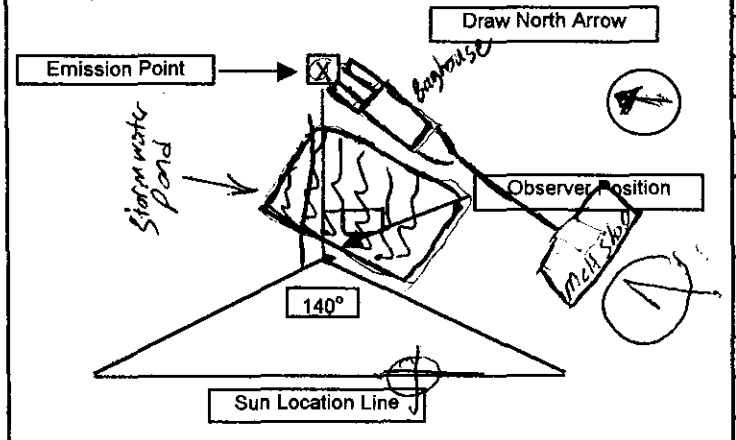
$$\frac{100 \times ____ \left((____ \times 0.002669) + \left(\frac{x}{____} \right) \times \left(____ + \frac{____}{13.6} \right) \right)}{60 \times \quad \times \quad \times \quad \times}$$

_____ % = *Isokinetic Variation*

Visible Emission Observation Form

Company: Nucor Steel – Hertford County		Observation Date: 5-1-07	Start Time: 16:46
Address: 1505 River Rd			Stop Time: 17:39
City: Cofield	State: NC Zip: 27922		
Contact Name: Terry Hairston			
Phone: 252-356-3707	Source ID Number		
Process Equipment EAF	Operating Mode online		
Control Equipment Baghouse	Operating Mode online		
Describe Emission Point - Start: Baghouse Stack	Describe Emission Point - End: Same		
Height Above Ground Level: Start 130' Stop same	Height Relative to Observer: Start 130' Stop Same		
Distance From Observer: Start 2000' Stop 2000'	Direction From Observer: Start NE Stop NE		
Describe Emissions - Start: None None	Describe Emissions - End: None		
Emission Color: Start None Stop None	Plume Type: Continuous ◇ NA Fugitive ◇ Intermittent ◇		
Water Droplets present: No ☑ Yes ◇	If Water Droplet plume: N/A Attached ◇ Detached ◇		
Point in the Plume at Which Opacity was Determined: Start 1' above stack Stop same			
Describe Background - Start: SKY	Describe Background - End: SKY		
Background Color: Start Grayish Blue Stop same	Sky Conditions: Start Clear Stop same		
Wind Speed: Start 6 mph Stop same	Wind Direction (coming from): Start S Stop same		
Ambient Temperature: Start 90° Stop 91°	Wet Bulb Temp.	RH % 27%	

Source Layout Sketch



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

Comments:

Average Opacity for Highest Period: 0	Number of Readings Above: 3 % were 0
Range of Opacity Readings: Minimum 0	Maximum 0
Observer's Name (Print): Jason Harrell	
Observer's Signature:	Date: 5-1-07
Organization: Nucor Steel – Hertford	
Certified By: ETA	Date: 2-28-07
Verified By:	Date:

The Observer has Received a Copy of These Opacity Forms

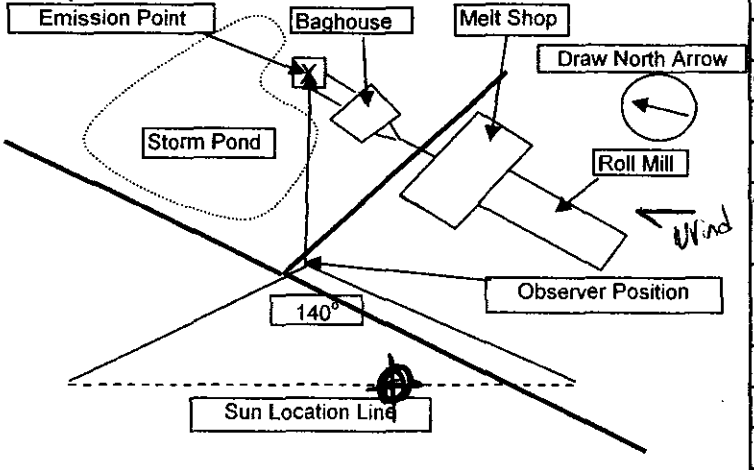
Initial:	Title:	Date:

Nucor Steel - Hertford County

Visible Emission Observation Form

Company: Nucor Steel - Hertford County		Observation Date: 5-2-07
Address: 1505 River Road		Start Time: 16:55
City: Cofield	State: NC Zip: 27922	Stop Time: 17:54
Contact Name: Terry Hairston		
Phone: (252) 356-3707	Source ID Number: ES01	
Process Equipment: Electric Arc Furnace	Operating Mode: Online	
Control Equipment: Baghouse	Operating Mode: Online	
Describe Emission Point - Start: 8"-12" Avove top of stack	Describe Emission Point - End: 8"-12" Above top of stack	
Height Above Ground Level — Start: 130' Stop: 130'	Height Relative to Observer — Start: 125' Stop: 125'	
Distance From Observer — Start: 2000' Stop: 2000'	Direction From Observer — Start: NE Stop: NE	
Describe Emissions - Start: None	Describe Emissions - End: Same	
Emission Color — Start: None Stop: Same	Plume Type — Continuous ◇ None; Fugitive ◇ Intermittent ◇	
Water Droplets present — No ✓ Yes ◇	If Water Droplet plume — Attached ◇ Detached ◇ N/A	
Point in the Plume at Which Opacity was Determined — Start: None Stop: Same		
Describe Background - Start: Sky	Describe Background - End: Sky	
Background Color — Start: light gray/blue Stop: Same	Sky Conditions — Start: scattered clouds Stop: Same	
Wind Speed — Start: 5-9 Stop: Same	Wind Direction (coming from) — Start: S Stop: Same	
Ambient Temperature — Start: 84° Stop: 85°	Wet Bulb Temp.	RH %: 36%

Source Layout Sketch



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

Comments:

Average Opacity for Highest Period: None	Number of Readings Above: 3 % were 0
Range of Opacity Readings — Minimum: 0	Maximum: 0
Observer's Name (Print): Jason Harrell	
Observer's Signature: [signature]	Date: 5-2-07
Organization: Nucor Steel - Hertford County	
Certified By: Eastern Technical Associates	Date: 2/28/07

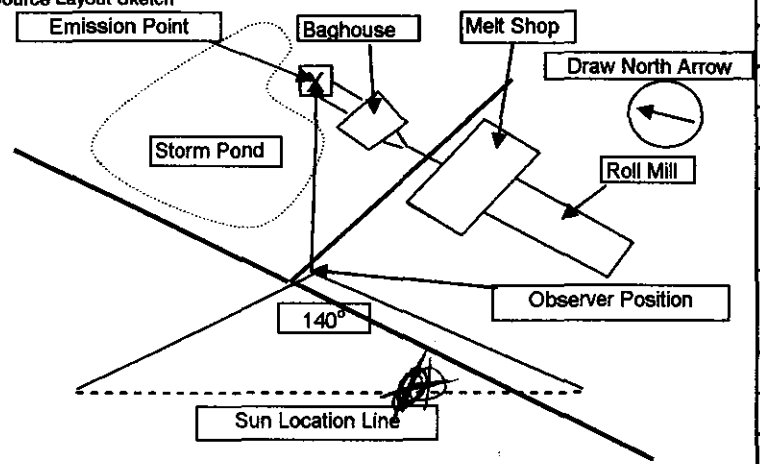
Nucor Steel - Hertford County

Visible Emission Observation Form

Company: Nucor Steel - Hertford County	Observation Date: 5-3-07	Start Time: 1635 / Stop Time: 1735
Address: 1505 River Road		
Cofield / State: NC / Zip: 27922		
Contact Name: Terry Hairston		
Phone: (252) 356-3707 / Source ID Number: ES01		
Process Equipment: Electric Arc Furnace / Operating Mode: Online		
Control Equipment: Baghouse / Operating Mode: Online		
Describe Emission Point - Start: 8"-12" Avove top of stack / Describe Emission Point - End: 8"-12" Above top of stack		
Height Above Ground Level — Start: 130' Stop: 130' / Height Relative to Observer — Start: 125' Stop: 125'		
Distance From Observer — Start: 2000' Stop: 2000' / Direction From Observer — Start: NE Stop: NE		
Describe Emissions - Start: None / Describe Emissions - End: None		
Emission Color — Start: None Stop: None / Plume Type — Continuous ◇ None; Fugitive ◇ Intermittent ◇		
Water Droplets present — No ◆ Yes ◇ / If Water Droplet plume — Attached ◇ Detached ◇		
Point in the Plume at Which Opacity was Determined — Start: 12" Above Stack Stop: 12" Above Stack		
Describe Background - Start: Sky / Describe Background - End: Sky		
Background Color — Start: Grey Stop: Grey / Sky Conditions — Start: Cloudy Stop: Cloudy		
Wind Speed — Start: 10mph Stop: 10mph / Wind Direction (coming from) — Start: NNE Stop: NNE		
Ambient Temperature — Start: 56° Stop: 56° / Wet Bulb Temp. / RH %: 75%		

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

Source Layout Sketch



Comments: Run #3

Average Opacity for Highest Period: 0	Number of Readings Above: 0 % were 0
Range of Opacity Readings — Minimum: 0	Maximum: 0
Observer's Name (Print): Timothy S. Hodges	
Observer's Signature: Timothy S. Hodges	Date: 5-3-07
Organization: Nucor Steel - Hertford County	
Certified By: Eastern Technical Associates	Date: 2/28/07

APPENDIX B
METHOD 29 DATA

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 5/1/2007
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA 29

E.P.A. Method 29 Results

	Run 1	Run 2	Run 3
Test Date	5/1/2007	5/2/2007	5/3/2007
Start Time	3:05 PM	2:15 PM	4:01 PM
End Time	11:45 PM	12:25 AM	12:22 AM
Dry Gas Volume at standard conditions, Vm-Std (dscf)	271.91	270.42	278.87
Dry Gas Volume at standard conditions, Vm-Std (dscm)	7.70	7.66	7.90
Stack Gas Volumetric Flow Rate, (dscfm)	1084985	1090676	1140834
Moisture (%)	3.28%	3.12%	3.05%
Net Volume of O_2 (%)	20.13	20.16	20.10
Net Volume of CO_2 (%)	1.00	1.00	1.00

TRACE METALS LABORATORY RESULTS AND PROCESS DATA (Method 29)

	Sample Results				Total mass	Emissions: Run 1		
		Front		Back	(ug)	ug/dscf	ug/dscm	lb/hr
Arsenic	<	0.50	<	0.70	1.20	4.41E-03	1.56E-01	6.33E-04
Beryllium	<	0.02	<	0.03	0.05	1.84E-04	6.49E-03	2.64E-05
Cadmium		0.33		0.19	0.52	1.91E-03	6.75E-02	2.74E-04
Lead		6.10		1.50	7.60	2.80E-02	9.87E-01	4.01E-03
Manganese		14.90		4.00	18.90	6.95E-02	2.45E+00	9.97E-03
Mercury		NA		26.00	26.00	9.56E-02	3.38E+00	1.37E-02
Nickel	<	1.00	<	1.50	2.50	9.19E-03	3.25E-01	1.32E-03

	Sample Results				Total mass	Emissions: Run 2		
		Front		Back	(ug)	ug/dscf	ug/dscm	lb/hr
Arsenic	<	0.50	<	0.70	1.20	4.44E-03	1.57E-01	6.40E-04
Beryllium	<	0.02	<	0.03	0.05	1.85E-04	6.53E-03	2.67E-05
Cadmium		0.51		0.14	0.65	2.40E-03	8.49E-02	3.46E-04
Lead		15.60		1.10	16.70	6.18E-02	2.18E+00	8.90E-03
Manganese		34.30		3.30	37.60	1.39E-01	4.91E+00	2.00E-02
Mercury		NA		56.40	56.40	2.09E-01	7.37E+00	3.01E-02
Nickel	<	1.00	<	1.40	2.40	8.88E-03	3.13E-01	1.28E-03

	Sample Results				Total mass	Emissions: Run 3		
		Front		Back	(ug)	ug/dscf	ug/dscm	lb/hr
Arsenic	<	0.50	<	0.60	1.10	3.94E-03	1.39E-01	5.95E-04
Beryllium	<	0.02	<	0.03	0.05	1.79E-04	6.33E-03	2.70E-05
Cadmium		0.86		1.98	2.84	1.02E-02	3.60E-01	1.54E-03
Lead		12.70		42.30	55.00	1.97E-01	6.96E+00	2.97E-02
Manganese		26.80		5.50	32.30	1.16E-01	4.09E+00	1.75E-02
Mercury		NA		23.70	23.70	8.50E-02	3.00E+00	1.28E-02
Nickel	<	1.00	<	1.30	2.30	8.25E-03	2.91E-01	1.24E-03

lb/hr= (ug/dscf * dscfm * 60) / 454000000

TEST DATA SUMMARY

Client: Nucor
Test Date: 5/1/2007
Emissions Unit: Baghouse
Project: Compliance Metals
EPA Method: 29

RUN DATA

	Run 1	Run 2	Run 3	**Averages**
Test Date	5/1/2007	5/2/2007	5/3/2007	
Start Time	3:05 PM	2:15 PM	4:01 PM	
Stop Time	11:45 PM	12:25 AM	12:22 AM	
Area of Stack (ft^2)	346.36	346.36	346.36	
Nozzle Diameter (ft)	0.01458	0.01500	0.01500	
Area of Nozzle (ft^2)	0.000167	0.000177	0.000177	
Pitot Tube Calibration Coefficient	0.840	0.840	0.840	
Dry Gas Meter Calibration Factor	0.99920	0.99920	0.99920	
Barometric Pressure ("Hg)	29.91	29.85	30.12	
Sampling Time (min)	480.0	480.0	480.0	
Dry Gas Volume (dcf)	291.15	288.93	277.84	285.97
Dry Gas Meter Temperature (°F)	106.3	103.8	70.4	
Dry Gas Meter Temperature (°R)	566.3	563.8	530.4	
Orifice Pressure Diff (delta H) ("H_2O)	1.138	1.033	1.004	
Volume Corrected to Standard Conditions (dscf)	271.91	270.42	278.87	273.73
Isokinetic Variation (%)	108.32	101.25	99.84	

STACK GAS VELOCITY AND VOLUMETRIC FLOW RATE (Method 2)

	Run 1	Run 2	Run 3	**Averages**
Stack Temperature (°F)	193.1	200.0	173.7	188.9
Stack Temperature (°R)	653.1	660.0	633.7	648.9
Stack Static Pressure ("H_20)	-0.55	-0.49	-0.48	-0.51
Stack Gas Pressure ("Hg)	29.87	29.81	30.08	29.92
Avg Delta P	1.138	1.160	1.206	1.168
Avg of Sqrt of Delta P	1.066	1.076	1.097	1.080
Stack Gas Velocity (ft/s)	66.88	67.98	67.61	67.49
Stack Gas Volumetric Flow Rate (dscf/h)	65103957	65471170	68472767	66349298
Stack Gas Volumetric Flow Rate (dscfm)	1085066	1091186	1141213	1105822
Stack Gas Volumetric Flow Rate (acfm)	1389944	1412760	1404964	1402556
Stack Gas Volumetric Flow Rate (scfm)	1121873	1126274	1177086	1141744

STACK GAS MOLECULAR WEIGHT (Method 3)

	Run 1	Run 2	Run 3	**Averages**
Net Volume of CO2 (%)	1.00	0.84	0.90	0.91
Net Volume of O2 (%)	20.02	20.11	20.01	20.05
Net Volume of N2 and CO (%)	78.98	79.05	79.09	79.04
Molecular Weight, Dry (g/g-mole)	28.96	28.94	28.94	28.95
Molecular Weight, Wet (g/g-mole)	28.60	28.60	28.61	28.60

STACK GAS MOISTURE CONTENT (Method 4)

	Run 1	Run 2	Run 3	**Averages**
Total Mass of Water Collected (g)	195.60	184.40	185.90	188.63
Total Volume of Water Collected in Impingers and Silica (ml)	195.95	184.73	186.24	188.97
Volume of Water Corrected to Standard Conditions (scf)	9.223	8.695	8.766	8.895
Water Vapor, Bws	0.0328	0.0312	0.0305	0.0315
Moisture Factor, (1- Bws)	0.9672	0.9688	0.9695	0.9685

FIELD DATA SPREADSHEET

Client: Nucor **Test Date:** 5/1/2007 **Run:** 1
Start Time: 3:05 PM **Emissions Unit:** Baghouse **EPA Method:** 29
Stop Time: 11:45 PM **Project:** Compliance Metals

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	271.652						
1	10.00	277.5	1.1	1.1	0.90	202	106	103
2	20.00	283.3	1.1	1.1	0.93	181	112	105
3	30.00	289.0	1.2	1.2	1.00	192	114	107
4	40.00	294.6	1.2	1.2	0.98	208	116	109
5	50.00	302.2	1.3	1.3	1.13	173	117	112
6	60.00	308.8	1.2	1.2	1.02	192	123	114
7	70.00	313.6	1.1	1.1	0.93	193	123	115
8	80.00	319.9	1.1	1.1	0.92	200	125	116
9	90.00	325.9	1.2	1.2	1.01	198	125	118
10	100.00	332.9	1.2	1.2	1.05	176	124	117
11	110.00	338.7	1.0	1.0	0.85	194	124	117
12	120.00	344.2	1.0	1.0	0.83	208	123	117
13	130.00	350.2	1.2	1.2	0.99	205	116	115
14	140.00	355.9	1.2	1.2	1.02	188	120	114
15	150.00	361.7	1.1	1.1	0.91	206	118	112
16	160.00	368.3	1.3	1.3	1.07	204	118	111
17	170.00	374.5	1.2	1.2	1.01	196	119	111
18	180.00	381.0	1.5	1.5	1.32	163	120	111
19	190.00	387.2	1.1	1.1	0.92	199	120	112
20	200.00	393.2	1.1	1.1	0.91	204	120	112
21	210.00	399.9	1.0	1.0	0.83	205	119	111
22	220.00	406.1	1.2	1.2	1.02	186	120	111
23	230.00	411.7	1.2	1.2	1.03	180	116	109
24	240.00	417.1	1.1	1.1	0.89	213	114	107
25	250.00	422.9	1.1	1.1	0.91	195	105	103
26	260.00	428.2	1.0	1.0	0.83	190	106	101
27	270.00	435.4	1.0	1.0	0.81	199	104	98
28	280.00	441.6	1.0	1.0	0.81	199	101	97
29	290.00	448.0	1.3	1.3	1.08	184	103	95
30	300.00	454.3	1.1	1.1	0.89	200	103	94
31	310.00	460.6	1.2	1.2	0.97	199	103	94
32	320.00	466.9	1.2	1.2	0.97	198	103	93
33	330.00	473.1	1.1	1.1	0.89	197	102	93
34	340.00	479.1	1.1	1.1	0.90	189	102	93
35	350.00	485.3	1.0	1.0	0.81	193	100	92
36	360.00	491.2	1.1	1.1	0.90	188	99	91
37	370.00	497.4	1.2	1.2	0.99	181	99	90
38	380.00	503.5	1.2	1.2	0.96	203	98	90
39	390.00	509.5	1.0	1.0	0.80	203	99	90
40	400.00	515.6	1.1	1.1	0.90	187	98	90
41	410.00	521.5	1.2	1.2	1.01	170	98	90
42	420.00	527.5	1.1	1.1	0.90	185	99	90
43	430.00	533.4	1.1	1.1	0.90	188	99	90
44	440.00	539.4	1.1	1.1	0.90	189	100	91
45	450.00	545.2	1.1	1.1	0.90	191	101	91
46	460.00	550.9	1.3	1.3	1.10	168	102	92
47	470.00	556.8	1.1	1.1	0.90	191	103	93
48	480.00	562.799	1.0	1.0	0.79	214	104	94
Max/Avg.	480.00	291.147	1.138	1.138	0.944	193.063	110.063	102.521

FIELD DATA SPREADSHEET

Client: Nucor **Test Date:** 5/2/2007 **Run:** 2
Start Time: 2:15 PM **Emissions Unit:** Baghouse **EPA Method:** 29
Stop Time: 12:25 AM **Project:** Compliance Metals

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	563.762						
1	10.00	569.8	1.20	1.20	1.05	217	92	91
2	20.00	575.5	1.10	1.10	1.02	182	94	92
3	30.00	581.1	1.00	1.00	0.89	212	97	93
4	40.00	587.0	1.00	1.00	0.89	213	102	95
5	50.00	592.8	1.10	1.10	0.98	215	101	97
6	60.00	599.0	1.10	1.10	1.02	188	106	99
7	70.00	605.2	1.20	1.20	1.10	198	108	100
8	80.00	611.3	1.20	1.20	1.08	215	110	102
9	90.00	617.3	1.10	1.10	0.99	214	112	104
10	100.00	623.6	1.20	1.20	1.12	193	111	104
11	110.00	629.8	1.20	1.20	1.13	191	115	105
12	120.00	636.1	1.00	1.00	0.92	207	114	107
13	130.00	642.4	1.20	1.20	1.11	203	112	108
14	140.00	648.9	1.40	1.40	1.35	178	114	110
15	150.00	655.4	1.10	1.00	1.02	205	121	112
16	160.00	661.6	1.10	1.00	1.03	203	121	113
17	170.00	667.6	1.00	0.90	0.92	211	122	114
18	180.00	673.5	1.10	1.10	1.07	177	122	114
19	190.00	679.6	1.20	1.10	1.12	203	119	112
20	200.00	685.6	1.10	1.00	1.02	207	118	112
21	210.00	691.4	1.20	1.00	1.10	213	118	112
22	220.00	697.4	1.20	1.00	1.16	180	119	112
23	230.00	703.4	1.30	1.10	1.25	180	117	112
24	240.00	709.0	1.10	0.90	1.05	186	117	111
25	250.00	714.9	1.20	1.00	1.11	203	113	110
26	260.00	720.7	1.20	1.00	1.11	202	114	108
27	270.00	726.9	1.30	1.10	1.24	184	113	108
28	280.00	732.9	1.20	1.00	1.12	193	112	108
29	290.00	738.8	1.20	1.00	1.11	203	112	107
30	300.00	744.1	1.00	0.80	0.91	210	112	106
31	310.00	750.3	1.20	1.00	1.09	208	110	105
32	320.00	756.4	1.20	1.00	1.11	195	109	100
33	330.00	762.4	1.30	1.10	1.22	185	109	100
34	340.00	768.4	1.20	1.00	1.09	203	108	99
35	350.00	774.0	1.00	0.80	0.91	205	107	98
36	360.00	780.3	1.10	0.90	1.00	207	107	98
37	370.00	786.4	1.30	1.10	1.17	203	102	93
38	380.00	792.5	1.30	1.10	1.18	200	101	94
39	390.00	798.4	1.10	0.90	1.00	194	99	90
40	400.00	804.0	1.00	0.80	0.88	212	97	91
41	410.00	810.9	1.40	1.20	1.30	178	96	88
42	420.00	816.8	1.20	1.00	1.07	205	94	87
43	430.00	822.9	1.20	1.00	1.07	200	92	87
44	440.00	828.9	1.20	1.00	1.08	193	91	87
45	450.00	834.9	1.20	1.00	1.06	207	90	85
46	460.00	840.8	1.10	0.90	0.96	211	90	84
47	470.00	846.7	1.10	0.90	0.97	203	89	84
48	480.00	852.693	1.10	0.90	0.97	203	87	82
Max/Avg.	480.00	288.931	1.160	1.033	1.065	199.958	107.000	100.625

FIELD DATA SPREADSHEET

Client: Nucor **Test Date:** 5/3/2007 **Run:** 3
Start Time: 4:01 PM **Emissions Unit:** Baghouse **EPA Method:** 29
Stop Time: 12:22 AM **Project:** Compliance Metals

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	852.491						
1	10.00	858.00	1.10	0.90	0.95	185	60	59
2	20.00	864.20	1.30	1.10	1.13	185	62	60
3	30.00	869.80	1.30	1.10	1.14	180	66	59
4	40.00	875.40	1.30	1.10	1.15	175	68	60
5	50.00	881.30	1.30	1.10	1.15	177	70	61
6	60.00	887.00	1.20	1.00	1.07	175	72	63
7	70.00	892.90	1.30	1.10	1.18	168	73	64
8	80.00	898.20	1.10	0.90	0.96	188	73	65
9	90.00	903.40	1.10	0.90	0.97	183	73	65
10	100.00	909.10	1.20	1.00	1.07	177	73	65
11	110.00	915.30	1.40	1.20	1.30	151	72	65
12	120.00	921.55	1.40	1.20	1.31	146	72	64
13	130.00	927.40	1.20	1.00	1.08	168	70	64
14	140.00	933.00	1.10	0.90	0.95	193	71	64
15	150.00	939.40	1.30	1.10	1.14	185	71	64
16	160.00	945.70	1.30	1.10	1.14	189	73	65
17	170.00	951.50	1.30	1.10	1.13	193	74	65
18	180.00	957.60	1.30	1.00	1.15	185	75	66
19	190.00	963.60	1.20	1.00	1.09	168	76	66
20	200.00	969.00	1.20	1.00	1.08	177	76	67
21	210.00	975.40	1.30	1.10	1.18	167	76	67
22	220.00	981.80	1.10	0.90	0.99	175	76	66
23	230.00	988.00	1.20	1.00	1.06	183	76	66
24	240.00	993.93	1.00	0.80	0.88	190	77	65
25	250.00	999.10	1.10	0.90	0.99	185	84	74
26	260.00	1005.00	1.30	1.10	1.18	180	84	74
27	270.00	1010.00	1.30	1.10	1.18	177	84	74
28	280.00	1015.00	1.20	1.00	1.15	145	83	74
29	290.00	1021.00	1.30	1.10	1.19	172	81	73
30	300.00	1027.20	1.20	1.00	1.09	175	79	72
31	310.00	1033.10	1.20	1.00	1.13	150	78	70
32	320.00	1039.30	1.20	1.00	1.11	163	78	70
33	330.00	1045.00	1.10	0.90	0.99	177	77	69
34	340.00	1051.00	1.10	0.90	0.98	185	77	69
35	350.00	1057.30	1.10	0.90	1.00	170	76	68
36	360.00	1063.82	1.20	1.00	1.08	172	76	67
37	370.00	1068.70	1.40	1.20	1.31	153	77	67
38	380.00	1073.80	1.20	1.00	1.09	170	77	67
39	390.00	1079.20	1.20	1.00	1.07	181	77	66
40	400.00	1084.10	1.00	0.80	0.90	172	77	67
41	410.00	1089.80	1.10	0.90	1.02	158	77	66
42	420.00	1094.80	1.10	0.90	1.01	161	76	65
43	430.00	1100.60	1.30	1.10	1.19	165	76	65
44	440.00	1106.50	1.20	1.00	1.08	172	75	64
45	450.00	1112.60	1.10	0.90	0.99	173	75	63
46	460.00	1118.70	1.20	1.00	1.07	175	75	63
47	470.00	1124.70	1.20	1.00	1.07	178	75	63
48	480.00	1130.327	1.10	0.90	1.00	165	75	62
Max/Avg.	480.00	277.836	1.206	1.004	1.086	173.688	74.875	65.979

First Analytical Laboratories
1126 Burning Tree Dr. Chapel Hill, NC 27517
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ANALYSIS REPORT

Project #: 70502
Client: Desert Air Environmental Services, LLC
Client Project ID: NUCOR

Report Date: 11-May-07
Date Received: 04-May-07

Total Micrograms in Sample

Sample	As μg	Be μg	Cd μg
Reagent Blank Front	< 0.5	< 0.02	0.11
Reagent Blank Back	< 1.0	< 0.04	< 0.04
Field Blank Front	< 0.5	< 0.02	0.34
Field Blank Back	< 0.7	< 0.03	0.03
Run 1 Front	< 0.5	< 0.02	0.33
Run 1 Back	< 0.7	< 0.03	0.19
Run 2 Front	< 0.5	< 0.02	0.51
Run 2 Back	< 0.7	< 0.03	0.14
Run 3 Front	< 0.5	< 0.02	0.86
Run 3 Back	< 0.6	< 0.03	1.98
Line Blank #1	< 0.5	< 0.02	< 0.02
Line Blank #2	< 0.5	< 0.02	0.08
Line Blank #3	< 0.5	< 0.02	0.05

QC SUMMARY

Spike, %Rec. Front	98%	89%	99%
Spike, %Rec. Back	97%	91%	99%

First Analytical Laboratories
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ANALYSIS REPORT

Project #: 70502
Client: Desert Air Environmental Services, LLC
Client Project ID: NUCOR

Report Date: 11-May-07
Date Received: 04-May-07

Total Micrograms in Sample

Sample	Pb µg	Mn µg	Ni µg
Reagent Blank Front	0.7	1.8	< 1.0
Reagent Blank Back	2.9	2.1	< 2.8
Field Blank Front	1.1	2.4	< 1.0
Field Blank Back	1.8	1.8	< 1.3
Run 1 Front	6.1	14.9	< 1.0
Run 1 Back	1.5	4.0	< 1.5
Run 2 Front	15.6	34.3	< 1.0
Run 2 Back	1.1	3.3	< 1.4
Run 3 Front	12.7	26.8	< 1.0
Run 3 Back	42.3	5.5	< 1.3
Line Blank #1	0.9	0.8	< 1.0
Line Blank #2	1.3	4.3	< 1.0
Line Blank #3	1.1	3.1	< 1.0

QC SUMMARY

Spike, %Rec. Front	100%	90%	101%
Spike, %Rec. Back	93%	78%	99%

First Analytical Laboratories
1126 Burning Tree Dr. Chapel Hill, NC 27517
Tel. (919) 942-8607
FAX (919) 929-8688
www.firstanalyticallabs.com

ANALYSIS REPORT

Project #: 70502
Client: Desert Air Environmental Services, LLC
Client Project ID: NUCOR

Report Date: 11-May-07
Date Received: 04-May-07

Total Micrograms of Mercury in Analytical Fraction

Sample	Frac1 µg	Frac2B µg	Frac3A µg	Frac3B µg	Frac3C µg	Total µg
Reagent Blank	< 0.4	< 0.4	< 0.2	< 0.1	< 0.5	< 1.6
Field Blank	< 0.4	< 0.8	< 0.1	< 0.2	< 0.5	< 2.0
Run 1	< 0.4	1.7	< 0.1	18.1	6.3	26.0
Run 2	< 0.4	< 1.4	< 0.1	50.6	5.8	56.4
Run 3	< 0.4	4.2	< 0.1	15.9	3.6	23.7
Line Blank #1						< 0.2
Line Blank #2						< 0.2
Line Blank #3						< 0.2

QC SUMMARY

Back Spike, %Recov.	110%

ARSENIC

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental Services, LLC
Proj. #: 70502
Date: 09-May-07

MDL = 5.0 µg/L
Postdig'n spike conc. = 100.0 µg/L

Sample ID / Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml	Total µg
FRONT HALVES								
Reagent Blank	70502.B-1	-3.6	-3.6	100	1			< 0.50
Field Blank	70502.FB-1	-2.3	-2.3	100	1			< 0.50
Run 1	70502.1-1	1.8	1.8	100	1			< 0.50
Run 2	70502.2-1	-0.2	-0.2	100	1			< 0.50
Run 3	70502.3-1	0.9	0.9	100	1			< 0.50
BACK HALVES								
Reagent Blank	70502.B-2A	-0.5	-0.5	100	1	100	50	< 1.00
Field Blank	70502.FB-2A	-2.6	-2.6	100	1	208	158	< 0.66
Run 1	70502.1-2A	0.4	0.4	100	1	320	220	< 0.73
Run 2	70502.2-2A	-0.1	-0.1	100	1	345	245	< 0.70
Run 3	70502.3-2A	-0.5	-0.5	100	1	464	364	< 0.64
Line Blanks								
Line Blank #1	70502.L1	1.1	1.1	100	1	100	100	< 0.50
Line Blank #2	70502.L2	0.4	0.4	100	1	100	100	< 0.50
Line Blank #3	70502.L3	0.7	0.7	100	1	100	100	< 0.50
FRONT SPIKE	70502.1-1S	97.7				% REC =	97.7%	
BACK SPIKE	70502.1-2AS	96.7				% REC =	96.7%	

ARSENIC

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental Services, LLC
Proj. #: 70502
Date: 09-May-07

Calibration Data	True Conc. µg/L	Abs.
Blank	0.0	0.000
Standard 1	10.0	0.035
Standard 2	50.0	0.164
Standard 3	100.0	0.316
Standard 4	200.0	0.614

Calibration Verifications

ICV = 100	94.2	CCV3 = 100	99.5
ICB = 0	-1.3	CCB3 = 0	3.1
CCV1 = 100	96.8		
CCB1 = 0	-0.5		
CCV2 = 100	99.5		
CCB2 = 0	-1.9		

BERYLLIUM

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental Services, LLC
Proj. #: 70502
Date: 10-May-07

MDL = 0.2 µg/L
Postdig'n spike conc. = 5.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml	Total µg
FRONT HALVES								
Reagent Blank	70502.B-1	-0.01	-0.01	100	1			< 0.020
Field Blank	70502.FB-1	-0.02	-0.02	100	1			< 0.020
Run 1	70502.1-1	-0.08	-0.08	100	1			< 0.020
Run 2	70502.2-1	0.03	0.03	100	1			< 0.020
Run 3	70502.3-1	-0.08	-0.08	100	1			< 0.020
BACK HALVES								
Reagent Blank	70502.B-2A	-0.07	-0.07	100	1	100	50	< 0.040
Field Blank	70502.FB-2A	-0.05	-0.05	100	1	208	158	< 0.026
Run 1	70502.1-2A	0.00	0.00	100	1	320	220	< 0.029
Run 2	70502.2-2A	-0.08	-0.08	100	1	345	245	< 0.028
Run 3	70502.3-2A	-0.04	-0.04	100	1	464	364	< 0.025
Line Blanks								
Line Blank #1	70502.L1	-0.06	-0.06	100	1	100	100	< 0.020
Line Blank #2	70502.L2	-0.04	-0.04	100	1	100	100	< 0.020
Line Blank #3	70502.L3	-0.04	-0.04	100	1	100	100	< 0.020
FRONT SPIKE	70502.1-1S	4.46				% REC =	89.2%	
BACK SPIKE	70502.1-2AS	4.53				% REC =	90.6%	

BERYLLIUM

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental Services, LLC
Proj. #: 70502
Date: 10-May-07

Calibration Data	True Conc. µg/L	Abs.
Blank	0.0	0.000
Standard 1	0.5	0.016
Standard 2	2.0	0.064
Standard 3	5.0	0.152
Standard 4	10.0	0.294

Calibration Verifications

ICV = 5	5.10
ICB = 0	0.08
CCV1 = 5	4.86
CCB1 = 0	-0.12
CCV2 = 5	4.74
CCB2 = 0	-0.08

CADMIUM

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental Services, LLC
Proj. #: 70502
Date: 09-May-07

MDL = 0.2 µg/L
Postdig'n spike conc. = 5.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml		Total µg
FRONT HALVES									
Reagent Blank	70502.B-1	1.11	1.11	100	1				0.111
Field Blank	70502.FB-1	3.40	3.40	100	1				0.340
Run 1	70502.1-1	3.30	3.30	100	1				0.330
Run 2	70502.2-1	5.14	5.14	100	1				0.514
Run 3	70502.3-1	8.61	8.61	100	1				0.861
BACK HALVES									
Reagent Blank	70502.B-2A	0.13	0.13	100	1	100	50	<	0.040
Field Blank	70502.FB-2A	0.22	0.22	100	1	208	158		0.029
Run 1	70502.1-2A	1.33	1.33	100	1	320	220		0.193
Run 2	70502.2-2A	0.98	0.98	100	1	345	245		0.138
Run 3	70502.3-2A	5.17	15.51	100	3	464	364		1.977
Line Blanks									
Line Blank #1	70502.L1	0.10	0.10	100	1	100	100	<	0.020
Line Blank #2	70502.L2	0.84	0.84	100	1	100	100		0.084
Line Blank #3	70502.L3	0.53	0.53	100	1	100	100		0.053
FRONT SPIKE	70502.1-1S	8.23				% REC =	98.6%		
BACK SPIKE	70502.1-2AS	6.27				% REC =	98.8%		

CADMIUM

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental Services, LLC
Proj. #: 70502
Date: 09-May-07

		Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor		
Audits							
M29-3287-01	70502.Fil-4557	4.51	45.1	100	10	µg	4.51

Calibration Data

	True Conc. µg/L	Abs.
Blank	0.0	0.000
Standard 1	0.5	0.048
Standard 2	2.0	0.170
Standard 3	5.0	0.390
Standard 4	10.0	0.709

Calibration Verifications

ICV = 5	5.00	CCV3 = 5	5.22
ICB = 0	0.03	CCB3 = 0	0.05
CCV1 = 5	5.12		
CCB1 = 0	0.05		
CCV2 = 5	5.21		
CCB2 = 0	0.03		

L E A D

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental Services, LLC
Proj. #: 70502
Date: 09-May-07

MDL = 5.0 µg/L
Postdig'n spike conc. = 100.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml	Total µg
FRONT HALVES								
Reagent Blank	70502.B-1	7.3	7.3	100	1			0.73
Field Blank	70502.FB-1	11.3	11.3	100	1			1.13
Run 1	70502.1-1	60.9	60.9	100	1			6.09
Run 2	70502.2-1	156.1	156.1	100	1			15.61
Run 3	70502.3-1	127.1	127.1	100	1			12.71
BACK HALVES								
Reagent Blank	70502.B-2A	10.5	10.5	100	1	100	36	2.92
Field Blank	70502.FB-2A	13.8	13.8	100	1	208	158	1.82
Run 1	70502.1-2A	10.1	10.1	100	1	320	220	1.47
Run 2	70502.2-2A	7.8	7.8	100	1	345	245	1.10
Run 3	70502.3-2A	110.6	331.8	100	3	464	364	42.30
Line Blanks								
Line Blank #1	70502.L1	9.2	9.2	100	1	100	100	0.92
Line Blank #2	70502.L2	12.6	12.6	100	1	100	100	1.26
Line Blank #3	70502.L3	11.0	11.0	100	1	100	100	1.10
FRONT SPIKE	70502.1-1S	161.2				% REC =	100.3%	
BACK SPIKE	70502.1-2AS	103.5				% REC =	93.4%	

L E A D

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental Services, LLC
Proj. #: 70502
Date: 09-May-07

		Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor		
Audits							
M29-3287-01	70502.Fil-4557	115.1	575.5	100	5	µg	57.55
M29-3287-02a	70502.AM-01276	95.9	1918	150	20	µg/mL	0.2557

Calibration Data	True Conc. µg/L	Abs.
Blank	0.0	0.000
Standard 1	10.0	0.035
Standard 2	50.0	0.140
Standard 3	100.0	0.264
Standard 4	200.0	0.450

Calibration Verifications

ICV = 100	100.2	CCV3 = 100	107.8
ICB = 0	0.4	CCB3 = 0	4.5
CCV1 = 100	106.9		
CCB1 = 0	2.5		
CCV2 = 100	107.8		
CCB2 = 0	2.9		

MANGANESE

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental Services, LLC
Proj. #: 70502
Date: 11-May-07

MDL = 5.0 µg/L
Postdig'n spike conc. = 50.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml	Total µg
FRONT HALVES								
Reagent Blank	70502.B-1	17.6	17.6	100	1			1.76
Field Blank	70502.FB-1	24.2	24.2	100	1			2.42
Run 1	70502.1-1	29.8	149.0	100	5			14.90
Run 2	70502.2-1	68.6	343.0	100	5			34.30
Run 3	70502.3-1	53.6	268.0	100	5			26.80
BACK HALVES								
Reagent Blank	70502.B-2A	7.7	7.7	100	1	100	36	2.14
Field Blank	70502.FB-2A	13.3	13.3	100	1	208	158	1.75
Run 1	70502.1-2A	27.2	27.2	100	1	320	220	3.96
Run 2	70502.2-2A	23.2	23.2	100	1	345	245	3.27
Run 3	70502.3-2A	42.9	42.9	100	1	464	364	5.47
Line Blanks								
Line Blank #1	70502.L1	7.9	7.9	100	1	100	100	0.79
Line Blank #2	70502.L2	42.9	42.9	100	1	100	100	4.29
Line Blank #3	70502.L3	31.3	31.3	100	1	100	100	3.13
FRONT SPIKE	70502.1-1S	74.6				% REC =	89.6%	
BACK SPIKE	70502.1-2AS	66.2				% REC =	78.0%	

MANGANESE

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental Services, LLC
Proj. #: 70502
Date: 11-May-07

		Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor		
Audits							
M29-3287-01	70502.Fil-4557	25.8	516.0	100	20	µg	51.60
M29-3287-02a	70502.AM-01276	67.3	673.0	150	10	µg/mL	0.0897

Calibration Data	True Conc. µg/L	Abs.
Blank	0.0	0.000
Standard 1	10.0	0.194
Standard 2	20.0	0.386
Standard 3	50.0	0.831
Standard 4	100.0	1.268

Calibration Verifications

ICV = 50	48.5	CCV3 = 50	52.2
ICB = 0	2.0	CCB3 = 0	2.7
CCV1 = 50	49.0		
CCB1 = 0	1.5		
CCV2 = 50	54.4		
CCB2 = 0	3.2		

NICKEL

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental Services, LLC
Proj. #: 70502
Date: 10-May-07

MDL = 10.0 µg/L
Postdig'n spike conc. = 100.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml		Total µg
FRONT HALVES									
Reagent Blank	70502.B-1	-0.6	-0.6	100	1			<	1.00
Field Blank	70502.FB-1	0.1	0.1	100	1			<	1.00
Run 1	70502.1-1	3.7	3.7	100	1			<	1.00
Run 2	70502.2-1	5.2	5.2	100	1			<	1.00
Run 3	70502.3-1	2.3	2.3	100	1			<	1.00
BACK HALVES									
Reagent Blank	70502.B-2A	0.9	0.9	100	1	100	36	<	2.78
Field Blank	70502.FB-2A	5.0	5.0	100	1	208	158	<	1.32
Run 1	70502.1-2A	2.0	2.0	100	1	320	220	<	1.45
Run 2	70502.2-2A	2.8	2.8	100	1	345	245	<	1.41
Run 3	70502.3-2A	4.3	4.3	100	1	464	364	<	1.27
Line Blanks									
Line Blank #1	70502.L1	0.1	0.1	100	1	100	100	<	1.00
Line Blank #2	70502.L2	-0.7	-0.7	100	1	100	100	<	1.00
Line Blank #3	70502.L3	-0.6	-0.6	100	1	100	100	<	1.00
FRONT SPIKE	70502.1-1S	100.9				% REC =	100.9%		
BACK SPIKE	70502.1-2AS	98.9				% REC =	98.9%		

NICKEL

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental Services, LLC
Proj. #: 70502
Date: 10-May-07

		Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor		
Audits							
M29-3287-01	70502.Fil-4557	84.2	421.0	100	5	µg	42.10
M29-3287-02a	70502.AM-01276	108.0	1080.0	150	10	µg/mL	0.1440

Calibration Data

	True Conc. µg/L	Abs.
Blank	0.0	0.000
Standard 1	20.0	0.011
Standard 2	50.0	0.056
Standard 3	100.0	0.117
Standard 4	200.0	0.248

Calibration Verifications

ICV = 100	95.6	CCV3 = 100	102.2
ICB = 0	-2.1	CCB3 = 0	3.5
CCV1 = 100	97.7		
CCB1 = 0	-2.9		
CCV2 = 100	96.6		
CCB2 = 0	3.1		

MERCURY

CVAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental Services, LLC
Proj. #: 70502
Date: 09-May-07

MDL = 0.2 µg/L
Spike conc. = 5.0 µg/L

Sample ID / Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Volume ml	Digst'd Vol. ml		Total µg
FRONT HALVES									
Reagent Blank	70502.B-1	0.01	0.01	100	1	100	5	<	0.40
Field Blank	70502.FB-1	0.01	0.01	100	1	100	5	<	0.40
Run 1	70502.1-1	0.02	0.02	100	1	100	5	<	0.40
Run 2	70502.2-1	0.05	0.05	100	1	100	5	<	0.40
Run 3	70502.3-1	0.10	0.10	100	1	100	5	<	0.40
FRACTIONS 2B									
Reagent Blank	70502.B-2B	0.05	0.05	100	1	100	5	<	0.40
Field Blank	70502.FB-2B	0.02	0.02	100	1	208	5	<	0.83
Run 1	70502.1-2B	0.26	0.26	100	1	320	5		1.66
Run 2	70502.2-2B	0.17	0.17	100	1	345	5	<	1.38
Run 3	70502.3-2B	0.45	0.45	100	1	464	5		4.18
BACK SPK	70502.1-2BS	5.78				%REC = 110.3%			
FRACTIONS 3A									
Reagent Blank	70502.B-3A	0.01	0.01	100	1	100	10	<	0.20
Field Blank	70502.FB-3A	0.01	0.01	100	1	37	10	<	0.07
Run 1	70502.1-3A	0.13	0.13	100	1	54	10	<	0.11
Run 2	70502.2-3A	0.12	0.12	100	1	44	10	<	0.09
Run 3	70502.3-3A	0.13	0.13	100	1	63	10	<	0.13
FRACTIONS 3B									
Reagent Blank	70502.B-3B	0.05	0.05	100	1	102	20	<	0.10
Field Blank	70502.FB-3B	0.04	0.04	100	1	148	20	<	0.15
Run 1	70502.1-3B	5.14	5.14	100	1	282	8		18.10
Run 2	70502.2-3B	6.28	6.28	100	1	242	3		50.62
Run 3	70502.3-3B	4.75	4.75	100	1	268	8		15.91

MERCURY

CVAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental Services, LLC
Proj. #: 70502
Date: 09-May-07

MDL = 0.2 µg/L
Spike conc. = 5.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Volume ml	Digst'd Vol. ml		Total µg
FRACTIONS 3C									
Reagent Blank	70502.B-3C	0.01	0.01	100	1	129	5	<	0.52
Field Blank	70502.FB-3C	0.01	0.01	100	1	123	5	<	0.49
Run 1	70502.1-3C	1.42	1.42	100	1	221	5		6.25
Run 2	70502.2-3C	2.47	2.47	100	1	118	5		5.82
Run 3	70502.3-3C	1.10	1.10	100	1	163	5		3.57
Line Blanks									
Line Blank #1	70502.L1	-0.04	-0.04	100	1	100	10	<	0.20
Line Blank #2	70502.L2	-0.02	-0.02	100	1	100	10	<	0.20
Line Blank #3	70502.L3	-0.01	-0.01	100	1	100	10	<	0.20
Audit							Aliquot, ml		
M29-3287-02b	70502.HG0787	5.22	5.22	100	1	200	0.30		17.38

MERCURY

CVAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental Services, LLC
Proj. #: 70502
Date: 09-May-07

Calibration Data		**Run1**	**Run2**
	True conc., µg/L	Abs.	Abs.
Blank	0.00	0.000	0.000
Standard 1	0.50	0.014	0.012
Standard 2	1.00	0.026	0.028
Standard 3	2.00	0.056	0.050
Standard 4	5.00	0.132	0.133
Standard 5	10.00	0.271	0.252

Calibration Verifications	**Run1**	**Run2**
ICV = 5	4.72	5.15
ICB = 0	-0.04	-0.08
CCV1 = 5	5.05	4.69
CCB1 = 0	0.00	-0.02
CCV2 = 5	5.15	
CCB2 = 0	0.00	
CCV3 = 5	5.28	
CCB3 = 0	0.01	
CCV4 = 5	5.27	
CCB4 = 0	-0.01	
CCV5 = 5	5.09	
CCB5 = 0	-0.03	

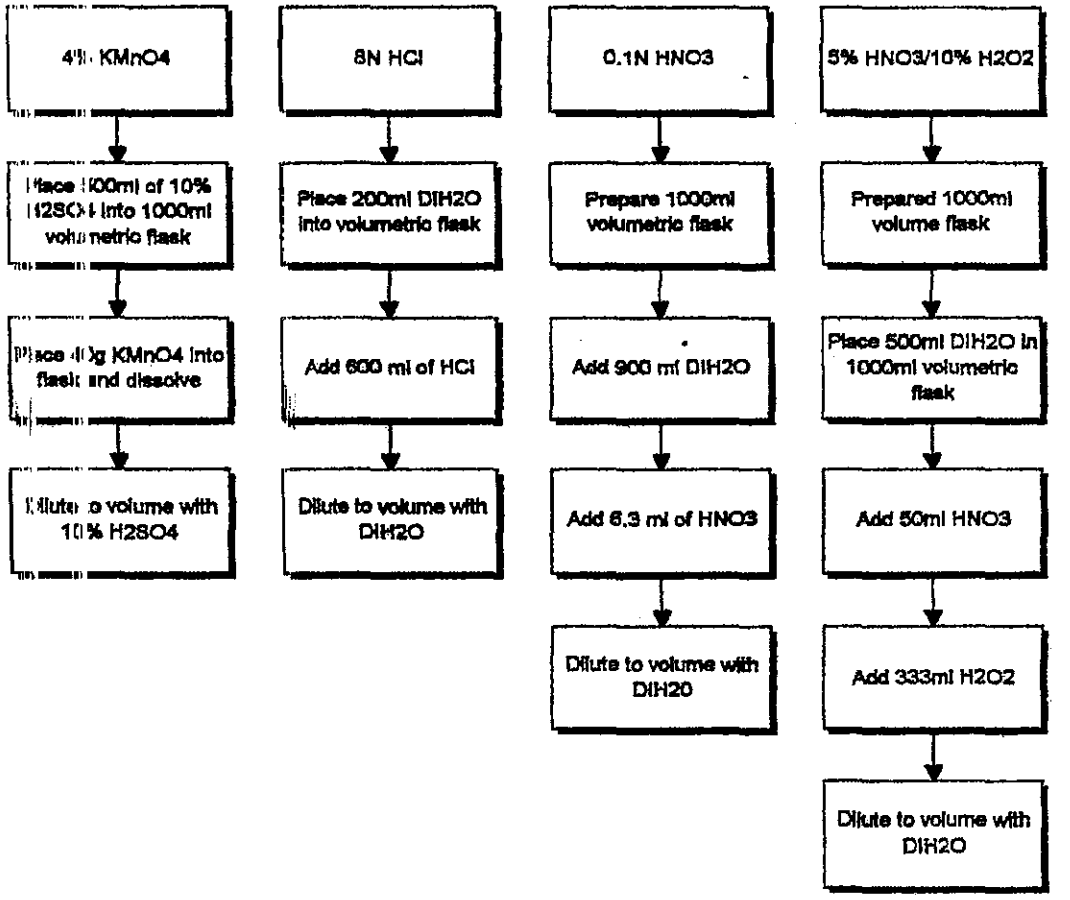


Figure 3-1. Method 29 Reagent Preparation

DESERT AIR ENVIRONMENTAL SERVICES, LLC

Recovery Data

Client: Nucor
Emissions Unit: BH
EPA Method: 29

Test Date: 5-1-07
Project: Compliance

Impinger Contents	Run 1			Run 2			Run 3		
	Final	Initial	Net	Final	Initial	Net	Final	Initial	Net
HNO3/H2O2	733.1	605.5	127.6	746.2	595.7	150.5	756.4	605.7	150.7
HNO3/H2O2	621.2	601.4	19.8	582.2	575.8	7.1	606.2	584.8	21.4
KO	497.3	494.2	3.1	499.8	494.5	4.8	495.2	494.9	.30
KMNO4	625.3	618.9	6.4	597.1	602.4	-5.3	632.8	635.4	-2.6
KMNO4	622.3	617.5	4.8	591.8	592.8	-1.0	593.6	596.4	-2.8
Silica	924.5	850.5	74.0	991.8	921.0	70.8	980.4	910.7	~~79.7~~ 69.7
Line wash			-40.1			-44.8			-50.8
Filter #									
Tare Wt.									
Total Volume of H_2O, grams			195.6			184.4			185.9

Comments

% O_2	% O_2	% O_2
% CO_2	% CO_2	% CO_2

Impinger Contents	Run 4			Run 5			Run 6		
	Final	Initial	Net	Final	Initial	Net	Final	Initial	Net
Filter #									
Tare Wt.									
Total Volume of H_2O, grams									

Comments

% O_2	% O_2	% O_2
% CO_2	% CO_2	% CO_2

DESERT AIR ENVIRONM. .TAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1501	Stack Diameter (in): 21"
Facility: Hartford County	Meter Delta H @: ~~1.5327~~	Stack Static Pressure: -.55
Unit: Baghouse Stack	Meter Calibration Factor (Y): ~~.9965~~	Assumed Moisture: 2%
Date: 5/1/07	Probe #: 10'-2	Start time: 1505 End Time:
Technicians: BJN Team Leader: Mark Reddy	Probe Liner Material: GLASS	Nozzle Diameter (in):
Method / Run # Metals R1	Pitot Tube Cp: .84	Initial Leak Rate: 0.005 @ 15"
Sheet 1 of 4	Ambient Temp.: 80 Pbarr: 29.91	Final Leak rate: ~~0.005 @ 15"~~

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						271.652					
D 1	10	4	1.1	1.09	202	277.48	106	103	271	262	67
1	20	4	1.1	1.09	181	283.07	112	105	270	265	64
2	30	4	1.2	1.19	192	289.02	114	107	271	265	63
2	40	4	1.2	1.19	208	294.62	116	109	273	265	66
			~~1.3~~					~~112~~			
3	50	4.5	1.3	1.29	173	302.21	117	112	269	265	68
3	60	4	1.2	1.19	192	~~308.62~~	123	114	266	260	68
4	70	4	1.1	1.09	193	313.62	123	115	267	260	67
4	80	4	1.1	1.09	200	319.86	125	116	267	263	66
5	90	4	1.2	1.19	198	325.85	125	118	270	267	68
5	100	4	1.2	1.19	176	330.91	124	117	273	266	59
6	110	3.5	1.0	.99	194	338.69	124	117	272	266	57
6	120	3.5	1.0	.99	208	344.226	123	117	253	246	58
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM..TAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 6501		Stack Diameter (in): 21'
Facility: Hartford County	Meter Delta H @: ~~2.1327~~		Stack Static Pressure: -.55
Unit: Baghouse Stack	Meter Calibration Factor (Y): ~~.9906~~		Assumed Moisture: 2%
Date: 5/1/07	Probe #: 10'-2		Start time: End Time:
Technicians: BJ DL Team Leader: Mark Reddy	Probe Liner Material: GLASS		Nozzle Diameter (in):
Method / Run # Metals R1	Pitot Tube Cp: .84		Initial Leak Rate: -
Sheet 2 of 4	Ambient Temp.: 80°	Pbarr: 29.91	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (°F)	Dry Gas Meter Temp Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
						344.226					
1	10	4	1.2	1.19	205	350.20	116	115	259	248	67
1	20	4	1.2	1.19	188	355.94	120	114	265	255	57
2	30	4	1.1	1.09	206	361.74	118	112	257	248	61
2	40	4.5	1.3	1.29	204	368.28	118	111	256	246	62
3	50	4	1.2	1.19	196	374.51	119	111	260	250	63
3	60	4.5	1.5	1.49	163	381.01	120	111	256	251	58
4	70	4	1.1	1.09	199	387.24	120	112	257	253	55
4	80	4	1.1	1.09	204	393.18	120	112	258	248	56
5	90	4	1.0	.99	205	399.54	119	111	256	251	57
5	100	4	1.2	1.19	186	406.08	120	111	259	248	58
6	110	4	1.2	1.19	180	411.68	116	109	258	252	59
6	120	4	1.1	1.09	213	417.068	114	107	255	248	59
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM. .TAL SERVICES,LLC

Field Data

Client: Nucor Steel	Meter Box: 1501	Stack Diameter (in): 21'
Facility: Hartford County	Meter Delta H @: ~~2.377~~	Stack Static Pressure: -.55
Unit: Reheat Stack	Meter Calibration Factor (Y): ~~.9705~~	Assumed Moisture: 2%
Date: 5/1/07	Probe #: 10'-2	Start time: - End Time: -
Technicians: BTH Team Leader: Mark Reddy	Probe Liner Material: G-1455	Nozzle Diameter (in):
Method / Run # Metals R1	Pitot Tube Cp: .84	Initial Leak Rate: -
Sheet 3 of 4	Ambient Temp.: 80 Pbarr: 29.91	**Final Leak rate:** -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume 417' (ft3)	Dry Gas Meter Temp Inlet (°F)	Dry Gas Meter Temp Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
						417.068					
1	10	5	1.1	1.09	195	422.93	105	103	253	250	66
1	20	5	1.0	.99	190	428.23	106	101	252	250	65
2	30	5	1.0	.99	199	435.44	104	98	253	248	61
2	40	4	1.0	.99	199	441.59	101	97	251	247	55
3	50	4	1.3	1.29	184	447.98	103	95	255	249	54
3	60	4	1.1	1.09	200	454.31	103	94	254	249	53
4	70	4	1.2	1.19	199	460.56	101	94	254	249	53
4	80	4	1.2	1.19	198	466.87	103	93	254	250	54
5	90	4	1.1	1.09	197	473.05	102	93	254	251	54
5	100	4	1.1	1.09	184	479.13	102	93	254	251	54
6	110	4	1.0	.99	193	485.25	100	92	254	249	55
6	120	4	1.1	1.09	188	491.198	99	91	256	249	55
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM. .TAL SERVICES,LLC

Field Data

Client: Nucor Steel	Meter Box: 1501			Stack Diameter (in): 21'	
Facility: Hereford County	Meter Delta H @: ~~2.1729~~			Stack Static Pressure: -.55	
Unit: Baghouse Stack	Meter Calibration Factor (Y): ~~.9209~~			Assumed Moisture: 2%	
Date: 5/1/07	Probe #: 10'-2			Start time: -	End Time: 23:45
Technicians: BJH Team Leader: Mark Reddy	Probe Liner Material: GLASS			Nozzle Diameter (in):	
Method / Run # Metals R#1	Pitot Tube Cp: .84			Initial Leak Rate:	
Sheet 4 of 4	Ambient Temp.: 80	Pbarr: 29.91		**Final Leak rate:** 0.005@17"	

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (°F)	Dry Gas Meter Temp Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
						491.198					
1	10	3	1.2	1.19	181	497.36	97	90	256	252	60
1	20	3	1.2	1.19	203	503.54	98	90	254	250	57
2	30	2.5	1.0	.99	203	509.52	99	90	257	250	61
2	40	2.5	1.1	1.09	187	515.57	98	90	255	251	61
3	50	3	1.2	1.19	170	521.54	98	90	258	250	61
3	60	3	1.1	1.09	185	527.47	99	90	256	242	62
4	70	3	1.1	1.09	188	533.34	99	90	255	250	62
4	80	3	1.1	1.09	189	539.36	100	91	254	248	65
5	90	3	1.1	1.09	191	545.15	101	91	254	253	66
5	100	3.5	1.3	1.29	168	550.87	102	92	256	249	67
6	110	3	1.1	1.09	191	556.63	103	93	257	250	67
6	120	3	1.0	.99	214	562.799	104	94	257	254	67
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM.. .TAL SERVICES,LLC

Field Data

Client: Nucor Steel	Meter Box: 1501	Stack Diameter (in): 21'
Facility: Hertford County	Meter Delta H @: 1.8116	Stack Static Pressure: -4.9
Unit: Baghouse Stack	Meter Calibration Factor (Y): .9992	Assumed Moisture: 2%
Date: 5/2/07	Probe #: 10'-2	Start time: 1415 End Time: -
Technicians: BTN Team Leader: Mark Reddy	Probe Liner Material: GLASS	Nozzle Diameter (in):
Method / Run # Metals 2 #2	Pitot Tube Cp: .84	Initial Leak Rate: 0.005 @ 15"
Sheet 1 of 4	Ambient Temp.: 85 Pbarr: 29.85	Final Leak rate:

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						563.262					
1	10	3	1.2	1.19	217	569.75	92	91	228	244	67
1	20	3	1.1	1.09	180	575.52	94	92	259	244	65
2	30	2.5	1.0	~~1.0~~ .99	~~212~~ 214	581.06	97	93	238	248	65
2	40	2.5	1.0	.99	213	587.03	102	95	240	253	65
3	50	3	1.1	1.09	215	592.78	101	97	242	250	64
3	60	3	1.1	1.09	188	599.01	106	99	261	253	67
4	70	3.5	1.2	1.19	198	605.15	108	100	271	251	67
4	80	3.5	1.2	1.19	215	611.31	110	102	272	253	65
5	90	3	1.1	1.09	214	617.28	112	104	256	254	65
5	100	3	1.2	1.19	193	623.57	111	104	262	247	65
6	110	3	1.2	1.19	191	629.82	115	105	267	248	64
6	120	3	1.0	.99	207	636.074	114	107	274	254	64
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM.. ..NTAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1501		Stack Diameter (in): 21'
Facility: Hertford County	Meter Delta H @: 1.8116		Stack Static Pressure: -.49
Unit: Baghouse Stack	Meter Calibration Factor (Y): .9992		Assumed Moisture: 2 %
Date: 5/2/17	Probe #: 10' - 2		Start time: - End Time: -
Technicians: BTH Team Leader: Mark Reedy	Probe Liner Material: GLASS		Nozzle Diameter (in):
Method / Run # Metals M#3	Pitot Tube Cp: .84		Initial Leak Rate: -
Sheet 2 of 4	Ambient Temp.: 85	Pbarr: 29.85	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						636.074					
1	10	3	1.2	1.19	203	642.42	112	108	273	248	67
1	20	4.5	1.4	1.39	178	648.91	114	110	274	251	64
2	30	3	1.1	1.0	205	655.44	121	112	274	254	62
2	40	3	1.1	1.0	203	661.58	121	113	268	249	65
3	50	3.5	1.0	~~1.0~~ .9	211	667.63	122	114	272	250	66
3	60	3	1.1	1.1	177	673.45	122	114	270	248	67
4	70	3	1.2	~~1.2~~ 1.1	203	679.57	119	112	271	249	65
4	80	3	1.1	1.0	207	685.57	118	112	272	250	67
5	90	3	1.2	1.0	213	691.41	118	112	273	251	67
5	100	3	1.2	1.0	180	697.35	119	113	268	247	66
6	110	3.5	1.3	1.1	180	703.38	117	112	265	247	68
6	120	3.5	1.1	.9	186	709.042	117	111	265	248	67
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM..TAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 150			Stack Diameter (in): 21'	
Facility: Hartford County	Meter Delta H @: 1.8116			Stack Static Pressure: -.49	
Unit: Brighouse Stack	Meter Calibration Factor (Y): .9992			Assumed Moisture: 2%	
Date: 5/5/17	Probe #: 10'-2			Start time: -	End Time: -
Technicians: BTN Team Leader: Mark Reddy	Probe Liner Material: GLASS			Nozzle Diameter (in):	
Method / Run # Metals Rn 2	Pitot Tube Cp: .84			Initial Leak Rate: -	
Sheet 3 of 4	Ambient Temp.: 85	Pbarr: 29.85		Final Leak rate: -	

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						709.042					
1	10	4	1.2	1.0	203	714.91	113	110	264	249	68
1	20	4	1.2	1.0	202	720.67	114	108	270	248	67
2	30	4	1.3	1.1	184	726.87	113	108	274	250	65
2	40	4	1.2	1.0	193	732.85	112	108	270	252	65
3	50	4	1.2	1.0	203	738.75	112	107	268	251	66
3	60	3.5	1.0	.8	210	744.06	112	106	267	250	67
4	70	4	1.2	1.0	204	750.24	110	105	264	248	65
4	80	4	1.2	1.0	195	756.35	109	100	264	246	65
5	90	4.5	1.3	1.1	185	762.44	109	100	264	254	65
5	100	4	1.2	1.0	203	768.34	108	99	260	250	64
6	110	3.5	1.0	.8	205	774.01	107	98	261	249	60
6	120	3.5	1.1	.9	207	780.348	107	98	262	251	61
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM...TAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1501		Stack Diameter (in): 21'
Facility: Hartford County	Meter Delta H @: 1.8116		Stack Static Pressure: -.49
Unit: Baghouse Stack	Meter Calibration Factor (Y): .9992		Assumed Moisture: 2%
Date: 5/2/07	Probe #: 10'-2		Start time: - End Time: 2425
Technicians: BJH Team Leader: Mark Reddy	Probe Liner Material: GLASS		Nozzle Diameter (in):
Method / Run # Metals #2	Pitot Tube Cp: .84		Initial Leak Rate: -
Sheet 4 of 4	Ambient Temp.: 85	Pbarr: 29.85	Final Leak rate: 0.005 @ 6" Hg.

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (°F)	Dry Gas Meter Temp Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
						780.348					
1	10	3.5	1.3	1.1	203	786.41	102	93	274	249	66
1	30	3.5	1.3	1.1	200	792.49	101	94	269	251	64
2	30	.3	1.1	.9	194	798.38	99	90	262	252	60
2	40	2.5	1.0	.8	212	804.04	97	91	263	254	60
3	50	4	1.4	1.2	178	810.85	96	88	267	254	58
3	60	3	1.2	1.0	205	816.84	94	87	264	260	57
4	70	3	1.2	1.0	200	822.91	92	87	259	262	57
4	40	3	1.2	1.0	193	828.93	91	87	255	249	56
5	90	3	1.2	1.0	207	834.87	90	85	256	248	54
5	100	3	1.1	.9	211	840.78	90	84	252	246	54
6	110	3	1.1	.9	203	846.71	89	84	256	251	56
6	120	3	1.1	.9	203	852.693	87	82	260	252	59
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM..NTAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1501		Stack Diameter (in): 21'
Facility: Hartford County	Meter Delta H @: 1.3116		Stack Static Pressure: 2% ; 48
Unit: Baghouse Stack	Meter Calibration Factor (Y): .9992		Assumed Moisture: 2%
Date: 5/3/07	Probe #: 10'-2		Start time: 1601 End Time: -
Technicians: BTH Team Leader: Mark Reddy	Probe Liner Material: GLASS		Nozzle Diameter (in):
Method / Run # Metals R#3	Pitot Tube Cp: .84		Initial Leak Rate: 0.005 @ 14" Hg.
Sheet 1 of 4	Ambient Temp.: 65	Pbarr: 30.12	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						853.491					
1	10	2	1.1	.9	185	858.0	60	59	238	240	57
1	20	2.5	1.3	1.1	185	864.2	62	60	242	250	48
2	30	2.5	1.3	1.1	180	869.8	66	59	252	242	44
2	40	2.5	1.3	1.1	175	875.4	68	60	254	244	45
3	50	2.5	1.3	1.1	177	881.3	70	61	261	250	45
3	60	2.5	1.2	1.0	175	887.0	72	63	260	251	46
4	70	3	1.3	1.1	168	892.9	73	64	253	250	46
4	80	2	1.1	.9	158	898.2	73	65	261	252	46
5	90	2	1.1	.9	183	903.4	73	65	258	248	47
5	100		1.2	1.0	177	909.1	73	65	261	245	47
6	110	3.5	1.4	1.2	151	915.3	72	65	257	247	47
6	120	3.5	1.4	1.2	146	921.550	72	64	255	248	48
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM..TAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1501		Stack Diameter (in): 21'
Facility: Hertford County	Meter Delta H @: 1.8116		Stack Static Pressure: -.48
Unit: Baghouse Stack	Meter Calibration Factor (Y): .9992		Assumed Moisture: 2%
Date: 5/2/07	Probe #: 10'-2		Start time: - End Time: -
Technicians: RTH Team Leader: Mark Reddy	Probe Liner Material: GLASS		Nozzle Diameter (in):
Method / Run # Meth 12 #3	Pitot Tube Cp: .84		Initial Leak Rate: -
Sheet 2 of 4	Ambient Temp.: 60	Pbarr: 30.12	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						921.550					
1	10	3	1.2	1.0	168	927.4	70	64	243	250	49
1	20	2.5	1.1	.9	193	933.0	71	64	245	254	49
2	30	3.5	1.3	1.1	185	939.4	71	64	251	251	50
2	40	2.5	1.3	1.1	169	945.7	73	65	253	252	50
3	50	3.5	1.3	1.1	193	951.5	74	65	260	256	50
3	60	3	1.2	1.0	185	957.6	75	66	266	245	51
4	70	3	1.2	1.6	168	963.6	76	66	267	250	51
4	80	3	1.2	1.0	177	969.0	76	67	261	255	51
5	90	3.5	1.3	1.1	167	975.4	76	67	263	247	53
5	100	2.5	1.1	.9	175	981.8	76	66	265	240	53
6	110	3.5	1.2	1.0	183	988.0	76	66	261	241	54
6	120	2	1.0	.8	190	993.92	77	65	259	243	54
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM. .TAL SERVICES,LLC
Field Data

Client: Nucor Steel				Meter Box: 1501					Stack Diameter (in): 21'				
Facility: Hertford County				Meter Delta H @: 1.8116					Stack Static Pressure: -.48				
Unit: Baghouse Stack				Meter Calibration Factor (Y): .9992					Assumed Moisture: 2%				
Date:				Probe #: 10'-2					Start time: - End Time: -				
Technicians: BH Team Leader: Mark Reddy				Probe Liner Material: GLASS					Nozzle Diameter (in):				
Method / Run # Metals R#3				Pitot Tube Cp: .84					Initial Leak Rate: -				
Sheet 3 of 4				Ambient Temp.: 61		Pbarr: 30.12			**Final Leak rate:** -				

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						993.932					
1	10	2.5	1.1	.4	185	999.1	84	74	260	250	51
1	20	3	1.3	1.1	180	005.0	84	74	258	249	45
2	30	3	1.3	1.1	177	010.0	84	74	262	248	46
2	40	3	1.2	1.0	145	015.0	83	74	250	250	46
3	50	3	1.3	1.1	172	021.0	81	73	261	249	49
3	60	3	1.2	1.0	175	027.2	79	72	260	250	50
4	70	3	1.2	1.0	150	033.1	78	70	258	251	50
4	80	3	1.2	1.0	163	039.3	78	70	259	249	50
5	90	2.5	1.1	.9	177	045.0	77	69	261	250	51
5	100	2.5	1.1	.9	185	051.0	77	69	263	251	52
6	110	2.5	1.1	.9	170	057.3	76	68	265	252	53
6	120	3	1.2	1.0	172	063.819	76	67	266	253	53
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM. .TAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1501	Stack Diameter (in): 21'
Facility: Baghouse Stack	Meter Delta H @: 1.8116	Stack Static Pressure: -.48
Unit: Hartford County	Meter Calibration Factor (Y): .9992	Assumed Moisture: 2%
Date: 5/2/07	Probe #: 10'-2	Start time: - End Time: 12.22
Technicians: BTH Team Leader: Mark Reddy	Probe Liner Material: GLASS	Nozzle Diameter (in):
Method / Run # Metals R03	Pitot Tube Cp: .84	Initial Leak Rate: -
Sheet 1 of 4	Ambient Temp.: 62 Pbarr: 30.12	**Final Leak rate:** 0.001 @ 6

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						063.819					
1	10	3.5	1.4	1.2	153	064.2	77	67	260	253	54
1	20	3	1.2	1.0	170	073.8	77	69	261	257	51
2	30	3	1.2	1.0	181	079.2	77	66	259	249	53
2	40	2.5	1.0	.8	172	084.1	77	67	258	247	53
3	50	3	1.1	.9	158	089.80	77	66	259	246	53
3	60	3	1.1	.9	161	094.8	76	65	254	247	53
4	70	3.5	1.3	1.1	165	100.6	76	65	261	251	54
4	80	3	1.2	1.0	172	1060.5	75	64	261	252	54
5	90	3	1.1	.9	173	112.6	75	63	254	253	55
5	100	3	1.2	1.0	175	118.7	75	63	254	254	55
6	110	3	1.2	1.0	178	124.7	75	63	257	256	55
6	120	3	1.1	.9	165	130.327	75	62	256	257	56
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

APPENDIX C
METHOD 0061 DATA

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 5/1-3/07
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA 0061

OSW Method 0061 Results

	Run 1	Run 2	Run 3
Test Date	5/1/2007	5/2/2007	5/3/2007
Start Time	3:06 PM	2:18 PM	4:10 PM
End Time	11:46 PM	12:27 AM	12:25 AM
Dry Gas Volume at standard conditions, Vm-Std (dscf)	304.20	300.42	312.20
Dry Gas Volume at standard conditions, Vm-Std (dscm)	8.61	8.51	8.84
Stack Gas Volumetric Flow Rate, (dscfm)	1114709	1086588	1147299
Moisture (%)	2.72%	2.77%	2.58%
Net Volume of O_2 (%)	20.02	20.11	20.01
Net Volume of CO_2 (%)	1.00	0.84	0.90

TRACE METALS LABORATORY RESULTS AND PROCESS DATA (Method 29)

	Sample Results		Total mass	Emissions: Run 1		
	Front	Back	(ug)	ug/dscf	ug/dscm	lb/hr
Chromium^{+6}	NA	1.9	1.9	6.25E-03	2.21E-01	9.20E-04

	Sample Results		Total mass	Emissions: Run 2		
	Front	Back	(ug)	ug/dscf	ug/dscm	lb/hr
Chromium^{+6}	NA	0.9	0.9	3.00E-03	1.06E-01	4.30E-04

	Sample Results		Total mass	Emissions: Run 3		
	Front	Back	(ug)	ug/dscf	ug/dscm	lb/hr
Chromium^{+6}	NA	1.2	1.2	3.84E-03	1.36E-01	5.83E-04

lb/hr= (ug/dscf * dscfm * 60) / 454000000

TEST DATA SUMMARY

Client: Nucor
Test Date: 5/1/2007
Emissions Unit: Baghouse
Project: Compliance Hexchrome
EPA Method: 0061

RUN DATA

	Run 1	Run 2	Run 3	**Averages**
Test Date	5/1/2007	5/2/2007	5/3/2007	
Start Time	3:06 PM	2:18 PM	4:10 PM	
Stop Time	11:46 PM	12:27 AM	12:25 AM	
Area of Stack (ft^2)	346.36	346.36	346.36	
Nozzle Diameter (ft)	0.01583	0.01583	0.01583	
Area of Nozzle (ft^2)	0.000197	0.000197	0.000197	
Pitot Tube Calibration Coefficient	0.840	0.840	0.840	
Dry Gas Meter Calibration Factor	1.00750	1.00750	1.00750	
Barometric Pressure ("Hg)	29.91	29.85	30.12	
Sampling Time (min)	480.0	480.0	480.0	
Dry Gas Volume (dcf)	321.42	315.90	315.05	317.46
Dry Gas Meter Temperature (°F)	103.7	99.6	81.9	
Dry Gas Meter Temperature (°R)	563.7	559.6	541.9	
Orifice Pressure Diff (delta H) ("H_2O)	1.277	1.103	1.105	
Volume Corrected to Standard Conditions (dscf)	304.20	300.42	312.20	305.61
Isokinetic Variation (%)	100.07	101.38	99.78	

STACK GAS VELOCITY AND VOLUMETRIC FLOW RATE (Method 2)

	Run 1	Run 2	Run 3	**Averages**
Stack Temperature (°F)	195.1	198.5	168.3	187.3
Stack Temperature (°R)	655.1	658.5	628.3	647.3
Stack Static Pressure ("H_2O)	-0.55	-0.49	-0.48	-0.51
Stack Gas Pressure ("Hg)	29.87	29.81	30.08	29.92
Avg Delta P	1.192	1.142	1.200	1.178
Avg of Sqrt of Delta P	1.091	1.068	1.095	1.084
Stack Gas Velocity (ft/s)	68.52	67.30	67.07	67.63
Stack Gas Volumetric Flow Rate (dscf/h)	66882520	65195265	68837962	66971916
Stack Gas Volumetric Flow Rate (dscfm)	1114709	1086588	1147299	1116199
Stack Gas Volumetric Flow Rate (acfm)	1423972	1398644	1393787	1405468
Stack Gas Volumetric Flow Rate (scfm)	1145829	1117561	1177712	1147034

STACK GAS MOLECULAR WEIGHT (Method 3)

	Run 1	Run 2	Run 3	**Averages**
Net Volume of CO2 (%)	1.00	0.84	0.90	0.91
Net Volume of O2 (%)	20.02	20.11	20.01	20.05
Net Volume of N2 and CO (%)	78.87	78.84	78.90	78.87
Molecular Weight, Dry (g/g-mole)	28.97	28.97	28.96	28.97
Molecular Weight, Wet (g/g-mole)	28.67	28.66	28.68	28.67

STACK GAS MOISTURE CONTENT (Method 4)

	Run 1	Run 2	Run 3	**Averages**
Total Mass of Water Collected (g)	180.10	181.60	175.50	179.07
Total Volume of Water Collected in Impingers and Silica (ml)	180.42	181.93	175.82	179.39
Volume of Water Corrected to Standard Conditions (scf)	8.493	8.563	8.276	8.444
Water Vapor, Bws	0.0272	0.0277	0.0258	0.0269
Moisture Factor, (1- Bws)	0.9728	0.9723	0.9742	0.9731

FIELD DATA SPREADSHEET

Client: Nucor **Test Date:** 5/1/2007 **Run:** 1
Start Time: 3:06 PM **Emissions Unit:** Baghouse **EPA Method:** 0061
Stop Time: 11:46 PM **Project:** Compliance Hexchrome

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	787.4						
1	10.00	794.1	1.2	1.3	1.36	205	110	111
2	20.00	801.5	1.2	1.3	1.37	198	114	111
3	30.00	808.0	1.3	1.4	1.51	190	116	110
4	40.00	815.1	1.3	1.4	1.49	198	117	107
5	50.00	822.2	1.3	1.4	1.47	203	110	107
6	60.00	830.0	1.3	1.4	1.50	189	111	107
7	70.00	836.1	1.2	1.3	1.38	194	112	107
8	80.00	843.1	1.2	1.3	1.37	198	112	107
9	90.00	849.6	1.1	1.2	1.27	195	114	110
10	100.00	856.3	1.1	1.2	1.26	198	115	111
11	110.00	862.8	1.1	1.2	1.27	194	117	112
12	120.00	869.7	1.1	1.1	1.26	198	117	112
13	130.00	876.9	1.2	1.2	1.34	213	112	112
14	140.00	884.4	1.2	1.2	1.38	194	111	111
15	150.00	890.9	1.1	1.1	1.24	205	108	112
16	160.00	897.3	1.1	1.1	1.23	210	110	110
17	170.00	904.3	1.2	1.3	1.40	180	110	108
18	180.00	910.8	1.2	1.3	1.42	175	110	108
19	190.00	917.8	1.2	1.3	1.36	203	111	109
20	200.00	924.0	1.1	1.2	1.23	211	111	109
21	210.00	930.9	1.2	1.3	1.34	207	109	106
22	220.00	937.3	1.1	1.2	1.27	183	107	104
23	230.00	944.6	1.2	1.3	1.35	205	108	104
24	240.00	950.7	1.2	1.3	1.32	215	105	101
25	250.00	957.7	1.2	1.3	1.33	209	105	100
26	260.00	964.2	1.1	1.2	1.21	209	103	99
27	270.00	971.3	1.2	1.3	1.37	185	102	98
28	280.00	977.4	1.2	1.3	1.36	190	102	98
29	290.00	983.4	1.2	1.2	1.34	198	102	96
30	300.00	990.5	1.3	1.3	1.46	198	104	96
31	310.00	996.9	1.2	1.3	1.37	187	106	98
32	320.00	1003.0	1.2	1.3	1.34	204	106	99
33	330.00	1010.0	1.1	1.2	1.23	200	106	99
34	340.00	1016.8	1.2	1.3	1.37	190	105	99
35	350.00	1024.3	1.4	1.6	1.65	169	105	99
36	360.00	1031.1	1.2	1.3	1.36	192	104	99
37	370.00	1037.7	1.2	1.3	1.36	192	103	99
38	380.00	1043.8	1.1	1.2	1.26	186	102	98
39	390.00	1050.9	1.1	1.2	1.25	189	101	96
40	400.00	1057.1	1.2	1.3	1.36	190	101	96
41	410.00	1064.2	1.3	1.4	1.43	204	98	94
42	420.00	1071.8	1.3	1.4	1.47	185	92	92
43	430.00	1078.4	1.4	1.6	1.61	169	89	89
44	440.00	1084.9	1.2	1.3	1.33	190	90	88
45	450.00	1091.4	1.2	1.3	1.33	189	89	86
46	460.00	1097.7	1.1	1.2	1.21	195	89	87
47	470.00	1103.1	1.1	1.2	1.22	192	92	87
48	480.00	1108.8	1.1	1.2	1.23	190	92	88
Max/Avg.	480.00	321.422	1.192	1.277	1.351	195.063	105.521	101.792

FIELD DATA SPREADSHEET

Client: Nucor **Test Date:** 5/2/2007 **Run:** 2
Start Time: 2:18 PM **Emissions Unit:** Baghouse **EPA Method:** 0061
Stop Time: 12:27 AM **Project:** Compliance Hexchrome

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	127.171						
1	10.00	133.5	1.10	1.10	1.18	218	95	95
2	20.00	140.1	1.20	1.30	1.37	181	98	95
3	30.00	146.4	1.10	1.10	1.19	215	98	95
4	40.00	152.7	1.10	1.10	1.20	210	98	96
5	50.00	159.1	1.20	1.20	1.30	217	99	96
6	60.00	165.7	1.20	1.20	1.30	215	99	96
7	70.00	172.2	1.20	1.20	1.33	208	105	101
8	80.00	178.4	1.10	1.10	1.21	216	108	101
9	90.00	183.5	1.10	1.10	1.22	210	110	102
10	100.00	191.2	1.10	1.10	1.23	208	111	103
11	110.00	197.4	1.20	1.30	1.39	185	112	104
12	120.00	204.0	1.10	1.20	1.27	189	112	104
13	130.00	210.9	1.20	1.25	1.36	201	113	102
14	140.00	217.4	1.20	1.25	1.37	195	114	103
15	150.00	224.1	1.10	1.20	1.24	207	115	104
16	160.00	230.6	1.10	1.20	1.30	176	116	105
17	170.00	237.1	1.20	1.20	1.35	210	117	108
18	180.00	243.7	1.20	1.20	1.35	210	118	109
19	190.00	250.1	1.00	1.10	1.13	205	118	109
20	200.00	256.8	1.20	1.25	1.34	211	113	108
21	210.00	263.3	1.20	1.10	1.34	212	112	109
22	220.00	270.1	1.30	1.20	1.53	177	112	111
23	230.00	276.6	1.30	1.20	1.53	178	112	111
24	240.00	283.1	1.10	1.00	1.27	190	111	107
25	250.00	289.5	1.20	1.10	1.36	201	111	107
26	260.00	295.6	1.00	0.90	1.13	205	111	106
27	270.00	302.1	1.20	1.10	1.36	200	111	105
28	280.00	309.2	1.20	1.10	1.34	208	109	104
29	290.00	315.1	1.00	0.92	1.13	195	101	100
30	300.00	321.6	1.10	1.00	1.25	185	100	98
31	310.00	328.6	1.20	1.10	1.34	190	95	90
32	320.00	335.7	1.20	1.10	1.34	189	90	88
33	330.00	342.2	1.10	1.00	1.23	185	89	85
34	340.00	348.3	1.00	0.92	1.12	180	89	83
35	350.00	353.4	1.00	0.92	1.11	185	89	83
36	360.00	359.5	1.00	0.92	1.10	190	89	82
37	370.00	366.6	1.20	1.10	1.33	193	90	88
38	380.00	373.1	1.10	1.00	1.19	208	90	88
39	390.00	380.1	1.20	1.10	1.29	212	90	88
40	400.00	386.3	1.00	0.92	1.08	210	90	88
41	410.00	393.4	1.20	1.10	1.32	195	90	88
42	420.00	400.3	1.30	1.20	1.45	190	91	88
43	430.00	407.3	1.20	1.10	1.35	185	92	88
44	440.00	414.4	1.20	1.10	1.34	189	93	88
45	450.00	421.5	1.10	1.00	1.22	195	93	88
46	460.00	428.4	1.00	1.00	1.09	208	94	88
47	470.00	435.5	1.10	1.00	1.21	200	94	87
48	480.00	442.654	1.20	1.10	1.35	184	94	87
Max/Avg.	480.00	315.483	1.142	1.103	1.278	198.458	102.104	97.063

FIELD DATA SPREADSHEET

Client: Nucor **Test Date:** 5/3/2007 **Run:** 3
Start Time: 4:10 PM **Emissions Unit:** Baghouse **EPA Method:** 0061
Stop Time: 12:25 AM **Project:** Compliance Hexchrome

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	402.663						
1	10.00	408.60	1.20	1.10	1.32	172	68	69
2	20.00	414.60	1.20	1.10	1.35	165	76	71
3	30.00	421.20	1.30	1.20	1.45	170	76	71
4	40.00	427.80	1.30	1.20	1.47	168	80	73
5	50.00	434.30	1.30	1.20	1.47	165	80	73
6	60.00	440.40	1.20	1.30	1.35	170	81	75
7	70.00	446.40	1.20	1.10	1.31	191	83	76
8	80.00	452.70	1.10	1.00	1.21	187	83	77
9	90.00	459.80	1.20	1.10	1.33	184	85	79
10	100.00	465.90	1.20	1.10	1.40	153	85	79
11	110.00	472.40	1.30	1.20	1.52	153	85	80
12	120.00	478.77	1.30	1.20	1.47	171	85	79
13	130.00	485.70	1.30	1.20	1.46	176	84	80
14	140.00	491.30	1.30	1.20	1.45	180	84	81
15	150.00	497.80	1.20	1.10	1.39	159	84	81
16	160.00	504.20	1.40	1.30	1.61	164	84	81
17	170.00	510.80	1.30	1.20	1.51	159	85	81
18	180.00	517.10	1.10	1.00	1.27	162	85	82
19	190.00	523.20	1.10	1.00	1.26	165	85	82
20	200.00	528.20	1.00	0.92	1.14	170	85	82
21	210.00	534.00	1.00	0.92	1.13	175	86	82
22	220.00	540.10	1.10	1.00	1.24	177	87	82
23	230.00	546.20	1.00	0.92	1.13	178	87	81
24	240.00	552.82	1.10	1.00	1.23	180	86	81
25	250.00	560.00	1.20	1.10	1.41	148	85	81
26	260.00	567.20	1.20	1.10	1.41	150	85	81
27	270.00	573.50	1.10	1.00	1.29	150	86	81
28	280.00	579.20	1.10	1.00	1.27	159	85	81
29	290.00	586.30	1.30	1.20	1.50	162	86	81
30	300.00	593.50	1.30	1.20	1.49	168	86	81
31	310.00	600.40	1.30	1.20	1.48	171	86	80
32	320.00	607.20	1.30	1.20	1.48	170	86	80
33	330.00	613.50	1.20	1.10	1.41	150	87	80
34	340.00	618.80	1.30	1.20	1.51	158	86	81
35	350.00	624.50	1.10	1.00	1.26	165	87	81
36	360.00	631.24	1.10	1.00	1.24	178	87	80
37	370.00	638.30	1.20	1.10	1.38	162	86	80
38	380.00	645.40	1.20	1.10	1.35	178	86	80
39	390.00	653.20	1.10	1.00	1.23	181	85	80
40	400.00	660.30	1.30	1.20	1.45	180	85	80
41	410.00	667.40	1.20	1.10	1.35	178	86	80
42	420.00	674.50	1.20	1.10	1.38	163	86	80
43	330.00	681.40	1.10	1.00	1.25	170	87	81
44	340.00	689.30	1.10	1.00	1.24	174	86	80
45	350.00	696.40	1.20	1.10	1.40	155	86	80
46	230.00	703.50	1.30	1.20	1.48	170	86	80
47	240.00	710.60	1.30	1.20	1.47	175	86	80
48	250.00	717.715	1.20	1.10	1.37	170	86	80
Max/Avg.	420.00	315.052	1.200	1.105	1.367	168.313	84.417	79.313

First Analytical Laboratories
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Tel. (919) 942-8607
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ANALYSIS REPORT

Project #: 70502
Client: Desert Air Environmental Services, LLC
Client Project ID: NUCOR

Report Date: 11-May-07
Date Received: 04-May-07

Hexavalent Chromium, Total µg

Sample	Cr^{+6} µg
Reagent Blank	< 0.1
Train Blank	< 0.1
Run 1	1.9
Run 2	0.9
Run 3	1.2
Spike, %Recovery	90%

HEXAVALENT CHROMIUM

IC ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental Services, LLC
Proj. #: 70502
Date: 10-May-07

MDL = 0.5 µg/L
Spike conc. = 15.0 µg/L

Sample ID / Client	FAL	Test Sol'n µg/L	Sample Volume ml	Peak Height	Dil'n Factor		Total Cr^{+6} µg
Reagent Blank	70502.B	0.31	209	0.15	1	<	0.10
Train Blank	70502.TB	0.21	216	0.10	1	<	0.11
Run 1	70502.1	3.31	564	1.60	1		1.87
Run 2	70502.2	2.17	420	1.05	1		0.91
Run 3	70502.3	2.28	515	1.10	1		1.17
Spike	70502.1S	16.78	564	8.10		%REC=	89.8%

QUALITY CONTROL DATA

Calibration	Peak Ht.	True conc.	Regr
Blank	0.00	0.0	0.00
Standard 1	2.50	5.0	2.41
Standard 2	4.95	10.0	4.83
Standard 3	9.55	20.0	9.66
Standard 4	14.50	30.0	14.48

Regression Statistics

R Square	0.99975	Intercept	0
Standard Error	0.092	X Variable	0.4828
Observations	5		

DESERT AIR ENVIRONMENTAL SERVICES, LLC

Recovery Data

Client: NUCOR
Emissions Unit: BH
EPA Method: 0061

Test Date: 5-1-07
Project: Compliance

Impinger Contents	Run 1			Run 2			Run 3		
	Final	Initial	Net	Final	Initial	Net	Final	Initial	Net
KOH	540.7	490.1	50.6	548.1	495.6	52.5	550.9	501.1	49.8
KOH	451.1	410.8	40.3	446.7	408.1	38.6	445.8	410.6	35.2
KOH	444.1	421.2	22.9	439.3	419.6	19.7	435.9	415.2	20.7
KO	378.5	331.6	46.9	381.2	340.5	40.7	386.2	351.1	35.1
Silica	876.7	816.5	60.2	896.9	815.2	81.7	894.5	821.9	72.6
SYS WASH			-40.8			-51.6			-37.9
Filter #									
Tare Wt.									
Total Volume of H_2O, grams			180.1			181.6			~~178.5~~ 175.5

Comments

% O_2	% O_2	% O_2
% CO_2	% CO_2	% CO_2

Impinger Contents	Run 4			Run 5			Run 6		
	Final	Initial	Net	Final	Initial	Net	Final	Initial	Net
Filter #									
Tare Wt.									
Total Volume of H_2O, grams									

Comments

% O_2	% O_2	% O_2
% CO_2	% CO_2	% CO_2

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR	Meter Box: CHEROKEE		Stack Diameter (in): 21
Facility: HERTFORD CTY, NC	Meter Delta H @: ~~2.0614~~		Stack Static Pressure: -.55
Unit: BAGHOUSE STACK	Meter Calibration Factor (Y): ~~.9945~~		Assumed Moisture: 2%
Date: 5/1/07	Probe #: CHEROKEE RENTAL 10'		Start time: 1506 End Time: 2346
Technicians: LCH Team Leader: MTR	Probe Liner Material: TEFLON		Nozzle Diameter (in):
Method / Run # 3W5A6-0061-R1(2)	Pitot Tube Cp: .84		Initial Leak Rate: 0.008@15"
Sheet 1 of 4	Ambient Temp.: 55	Pbarr: 29.91	Final Leak rate: 0.008@15"

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						787.348					
1	10	4	1.2	1.25	205	794.1	110	111	NA	NA	65
1	20	4	1.2	1.25	198	801.5	114	111			64
		4	1.3	1.40	190		116	110			60
2	30										
2	40	4	1.3	1.40	198	807.48	117	107			60
						815.10					
3	50	4	1.3	1.4	205	822.2	110	107			62
3	60	4	1.3	1.4	189	830.0	111	107			58
4	70	4	1.2	1.3	194	836.1	112	107			60
4	80	4	1.2	1.3	198	843.1	118	109			61
5	90	5	1.1	1.2	195	849.6	114	110			62
5	100	5	1.1	1.2	198	856.3	115	111			62
6	110	5	1.1	1.2	194	862.8	117	112			61
6	120	5	1.1	1.1	198	869.134	117	112			60
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM.. ..TAL SERVICES,LLC
Field Data

Client: NUCOR	Meter Box: CHEROKEE	Stack Diameter (in): 21'
Facility: HARTFORD CITY, NC	Meter Delta H @: ~~2.5410~~	Stack Static Pressure: ~~-.110~~ -.55
Unit: BAGHOUSE	Meter Calibration Factor (Y): ~~.9944~~	Assumed Moisture: 1.42%
Date: 5/1/07	Probe #: CHEMTEC RENTAL 10'	Start time: ~~1511~~ 1506 End Time:
Technicians: LCH Team Leader: MFR	Probe Liner Material: TEFLON	Nozzle Diameter (in):
Method / Run # SW846-0061-R1	Pitot Tube Cp: .84	Initial Leak Rate: -
Sheet 2 of 2	Ambient Temp.: 85 Pbarr: 29.91	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						869.734					
1	130	4	1.2	1.2	213	876.9	112	112	N/A	N/A	64
1	140	4	1.2	1.2	194	884.4	111	111			58
2	150	4	1.1	1.1	205	890.9	108	112			60
2	160	4	1.1	1.1	210	897.3	110	110			61
3	170	5	1.2	1.3	180	904.3	110	108			62
3	180	5	1.2	1.3	175	910.8	110	108			62
4	190	5	1.2	1.3	203	917.8	111	109			62
4	200	5	1.1	1.2	211	924.0	111	109			62
5	210	5	1.2	1.3	207.1	930.9	109	106			61
5	220	5	1.1	1.2	183	937.3	107	104			60
6	230	5	1.2	1.3	205	944.6	108	104			63
6	240	5	1.2	1.3	215	950.734	105	101			
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR	Meter Box: CHEROKEE		Stack Diameter (in): 21'
Facility: HERTFORD CTY, NC	Meter Delta H @: ~~2.0340~~		Stack Static Pressure: ~~-.75~~ -.55
Unit: BAGHOUSE	Meter Calibration Factor (Y): ~~.9255~~		Assumed Moisture: 2%
Date: 5/1/07	Probe #: CHEROKEE RENTAL 10'		Start time: End Time:
Technicians: LCH Team Leader: MTR	Probe Liner Material: TEFLON		Nozzle Diameter (in):
Method / Run # SW846-0061-R1	Pitot Tube Cp: .84		Initial Leak Rate: -
Sheet 3 of 4	Ambient Temp.: 84	Pbarr: 29.91	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						950.734					
1	250	5	1.2	1.3	204	957.7	105	100	N/A	N/A	63
1	300	5	1.1	1.2	209	964.2	103	99		-	64
2	270	5	1.2	1.25	185	971.3	102	98			65
2	330	5	1.2	1.25	190	977.4	102	98			64
3	240	5	1.2	1.2	198	983.4	102	96			65
3	300	5	1.3	1.3	198	990.5	104	96			65
4	310	5	1.2	1.3	187	996.9	106	98			63
4	320	5	1.2	1.3	204	1003.0	106	99			63
5	330	5	1.1	1.2	200	1010.0	106	99			61
5	340	5	1.2	1.3	190	1016.8	105	98 99			59
6	350	6	1.4	1.6	167	1024.3	105	99			60
6	360	6	1.2	1.3	192	1031.105	104	99			56
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR	Meter Box: CHEROKEE		Stack Diameter (in): 21
Facility: HERTFORD CTY NC	Meter Delta H @: ~~2.04.2~~		Stack Static Pressure: ~~-.55~~ -.55
Unit: FLAGHOUSE STACK	Meter Calibration Factor (Y): ~~.9855~~		Assumed Moisture: 2%
Date: 5/1/17	Probe #: CHEROKEE RENTAL		Start time: - End Time: 2346
Technicians: LCH Team Leader: MFR	Probe Liner Material: TEFLON		Nozzle Diameter (in):
Method / Run # SW846-0061-R1	Pitot Tube Cp: .84		Initial Leak Rate: -
Sheet 4 of 4	Ambient Temp.: 69	Pbarr: 29.91	Final Leak rate: 0.008 @ 8"Hg.

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						1031.105					
1	330	5	1.2	1.3	192	1037.7	103	99	N/A	N/A	~~58~~
1	340	5	1.1	1.2	186	1043.8	102	98			58
2	350	5	1.1	1.2	189	1050.4	101	96			59
2	400	5	1.2	1.3	190	1057.1	101	96			61
3	410	5	1.3	~~2.0~~ 1.4	204	1064.21	98	94			63
3	420	6	1.3	1.4	185	1071.8	92	92			64
4	430	7	1.4	1.6	164	1078.4	89	89			66
4	440	6	1.2	1.3	190	1084.9	90	88			66
5	450	6	1.2	1.3	189	1091.4	89	82			64
5	500	6	1.1	1.2	185	1097.7	89	87			65
						1103.13					
6	510	6	1.1	1.2	192	~~1104.3~~	92	91			64
6	520	6	1.1	1.2	190	1108.81	92	88			63
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC

Field Data

Client: NUCOR				Meter Box: CHEROKEE						Stack Diameter (in): 21			
Facility: HARTFORD ~~CITY NC~~				Meter Delta H @: ~~1.0975~~ 1.0075						Stack Static Pressure: -.49			
Unit: BAGHOUSE STACK				Meter Calibration Factor (Y): ~~1.7787~~ 1.7787						Assumed Moisture: 2%			
Date: 5/2/07				Probe #: CHEROKEE AGENCY 10						Start time: 1418 End Time:			
Technicians: CH Team Leader: MTR				Probe Liner Material: TEFLON						Nozzle Diameter (in):			
Method / Run # SW846-0061-R2				Pitot Tube Cp: .84						Initial Leak Rate: 0.000@ 15"			
Sheet 1 of 4				Ambient Temp.: 85		Pbarr: 29.85				Final Leak rate:			

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						127.171					
1	10	3	1.1	1.1	218	135.5	95	95	N/A	N/A	60
1	20	3	1.2	1.3	181	140.1	98	95			60
2	30	3	1.1	1.1	215	146.4	98	95			62
2	40	3	1.1	1.1	210	152.7	98	96			61
3	50	3	1.2	1.2	217	159.1	99	96			60
3	60	3	1.2	1.2	215	165.7	99	96			60
4	70	3	1.2	1.2	208	172.2	105	101			64
4	80	3	1.1	1.1	216	178.4	105	101			63
5	90	3	1.1	1.1	210	185.5	110	102			64
5	100	3	1.1	1.1	208	191.2	111	103			65
6	110	3	1.2	1.3	185	197.4	112	104			66
6	120	3	1.1	1.2	189	203.952	112	109			65
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM. .TAL SERVICES,LLC
Field Data

Client: NUCOR	Meter Box: CHEROKEE		Stack Diameter (in): 21
Facility: HERTFORD ~~CITY, NC~~	Meter Delta H @: ~~2.440~~ 1.7787		Stack Static Pressure: -.47
Unit: B36-HOUSE	Meter Calibration Factor (Y): ~~0.995~~ 1.0075		Assumed Moisture: 24
Date: 5/2/07	Probe #: CHEROKEE RENTAL		Start time: — End Time: —
Technicians: LCH Team Leader: MTR	Probe Liner Material: TEFLON		Nozzle Diameter (in):
Method / Run # 5W-46-CCCI-R2	Pitot Tube Cp: .84		Initial Leak Rate: —
Sheet 2 of 11	Ambient Temp.: 55	Pbarr: 29.85	Final Leak rate: —

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						~~203.452~~					
1	130	3	1.2	1.25	201	210.9	113	102	N/A	N/A	61
1	140	3	1.2	1.25	195	217.4	114	103			61
2	150	3	1.1	1.2	207	224.1	115	104			63
2	160	3	1.1	1.2	176	230.6	116	105			63
3	170	3	1.2	1.2	210	237.1	117	108			63
3	180	3	1.2	1.2	210	243.7	118	109			63
4	190	3	1.0	1.1	205	250.1	118	109			61
4	200	3	1.2	1.25	211	256.8	113	108			62
5	210	3	1.2	1.1	212	263.3	112	109			64
5	220	3	1.3	1.2	177	270.1	112	111			64
								~~111~~ 110			
6	230	3	1.3	1.2	178	276.6	112	111			61
6	240	3	1.1	1.0	190	283.1	111	107			61
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR	Meter Box: CHEROKEE		Stack Diameter (in): 21
Facility: HERTFORD ~~CITY~~ NC	Meter Delta H @: 1.7787		Stack Static Pressure: -.49
Unit: BAGHOUSE STACK	Meter Calibration Factor (Y): 1.0015		Assumed Moisture: 2 %
Date: 5/2/07	Probe #: CHEROKEE RENTAL		Start time: - End Time: -
Technicians: LCH Team Leader: MR	Probe Liner Material: TEFLON		Nozzle Diameter (in):
Method / Run # SWS-16-0061-RZ	Pitot Tube Cp: .84		Initial Leak Rate: -
Sheet 1 of 4	Ambient Temp.: 51	Pbarr: 29.85	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (°F)	Dry Gas Meter Temp Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
1	250	3	1.2	~~1.1~~	201	289.5	111	107	N/A	N/A	61
1	260	3	1.0	~~.90~~ .90	205	295.6	111	106			64
2	270	3	1.2	1.1	200	302.074	111	105			61
2	280	3	1.2	1.1	208	309.2	109	104			59
3	290	3	1.0	.92	195	315.1	101	100			58
3	300	3	1.1	1.0	185	321.6	100	98			58
4	310	3	1.2	1.1	190	328.6	95	90			58
4	320	3	1.2	1.1	189	335.7	90	88			58
5	330	3	~~1.1~~ 1.1	1.0	185	342.2	89	85			57
5	340	3	1.0	.92	180	348.3	89	83			57
6	350	3	1.0	.92	185	355.4	89	83			58
6	360	3	1.0	.92	190	359.521	89	82			59
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR	Meter Box: CHEROKEE		Stack Diameter (in): 21'
Facility: HERTFORD ~~CTY NC~~	Meter Delta H @: 1.7787		Stack Static Pressure: ~~-48~~ -.49
Unit: BAGHOUSE STACK	Meter Calibration Factor (Y): 1.0075		Assumed Moisture: 20/0
Date: 5/2/07	Probe #: CHEROKEE RENTAL		Start time: - End Time: 2427
Technicians: LCH Team Leader: MTR	Probe Liner Material: TEFLON		Nozzle Diameter (in):
Method / Run #: SW846-0061-R2	Pitot Tube Cp: .84		Initial Leak Rate: -
Sheet 4 of 4	Ambient Temp.: 80	Pbarr: 29.85	**Final Leak rate:** 0.005 @ 12 "Hg. WTR

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						359.521					
1	370	3	1.2	1.1	193	366.6	90	88	N/A	N/A	55
1	380	3	1.1	1.0	208	373.1	90	88			54
2	390	3	1.2	1.1	212	380.1	90	88			54
2	400	3	1.0	.92	210	386.3	90	88			55
3	410	3	1.2	1.1	195	393.4	90	88			55
3	420	3	1.3	1.2	190	400.3	91	88			57
4	430	3	1.2	1.1	185	407.3	92	88			58
4	440	3	1.2	1.1	189	414.4	93	88			59
5	450	3	1.1	1.0	195	421.5	93	88			62
5	460	3	1.0	1.0	208	428.4	94	88			62
6	470	3	1.1	1.0	200	435.5	94	87			62
6	480	3	1.2	1.1	184	442.659	94	87			
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM. .TAL SERVICES,LLC
Field Data

Client: NUCOR	Meter Box: CHEMICE	Stack Diameter (in): 21
Facility: HERTFORD CTY, NC	Meter Delta H @: 1.7787	Stack Static Pressure: -.48
Unit: BAGHOUSE STACK	Meter Calibration Factor (Y): 1.0075	Assumed Moisture: 2%
Date: 5/3/07	Probe #: CHEMICE RENTAL	Start time: 1610 End Time: -
Technicians: LCH Team Leader: MFR	Probe Liner Material: TEFLON	Nozzle Diameter (in):
Method / Run #: SW846-0061-R3	Pitot Tube Cp: .84	Initial Leak Rate: 0.000 @ 5"
Sheet 1 of 1	Ambient Temp.: 65 Pbarr: 30.12	Final Leak rate: ~~0.000 @ 5"~~

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						402.663					
1	10	3	1.2	1.1	172 H08.6 ~~414.6~~	~~421.3~~ 414.6	68	69	N/A	N/A	52
1	20	3	1.2	1.1	165	~~421.3~~ 421.2	76	71			48
2	30	3	1.3	1.2	170	421.2	76	71			47
2	40	3	1.3	1.2	168	427.8	80	73			50
3	50	3	1.3	1.2	165	434.3	80	73			51
3	60	3	1.2	1.1	170	440.4	81	75			50
4	70	3	1.2	1.1	191	446.4	83	76			51
4	80	3	1.1	1.0	~~157~~	452.7	83	77			52
5	90	3	1.2	1.1	184	459.8	85	79			53
5	100	3	1.2	1.1	153	465.9	85	79			55
6	110	3	1.3	1.2	153	472.4	85	80			53
6	120	3	1.3	1.2	171	478.767	55	79			53
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM. .TAL SERVICES,LLC
Field Data

Client: NUCOR	Meter Box: CHEROKEE		Stack Diameter (in): 21'
Facility: HERTFORD CITY NC	Meter Delta H @: 1.7787		Stack Static Pressure: -.48
Unit: BAGHOUSE STACK	Meter Calibration Factor (Y): 1.0075		Assumed Moisture: 2%
Date: 5/3/07	Probe #: CHEROKEE CENTAL		Start time: - End Time: -
Technicians: CCM Team Leader: MFR	Probe Liner Material: TEFLON		Nozzle Diameter (in):
Method / Run #: SW846-0Ni-R3	Pitot Tube Cp: .84		Initial Leak Rate: -
Sheet 2 of 4	Ambient Temp.: 60	Pbarr: 30.12	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						478.767					
1	130	3	1.3	1.2	176	485.7	84	80	N/A	N/A	52
1	140	3	1.3	1.2	180	491.3	84	81			52
2	150	3	1.2	1.1	154	497.8	84	81			52
2	160	3	1.4	1.3	164	504.2	84	81			52
3	170	3	1.3	1.2	159	510.8	85	81			52
3	180	3	1.1	1.0	162	517.1	85	82			52
4	190	3	1.1	1.0	165	523.2	85	82			52
4	200	3	1.0	.92	170	528.2	85	82			52
5	210	3	1.0	.92	175	534.0	86	82			52
5	220	3	1.1	1.0	177	540.1	87	82			52
6	230	3	1.0	.92	178	546.2	87	81			52
6	240	3	1.1	1.0	180	552.823	86	81			52
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM .TAL SERVICES,LLC
Field Data

Client: NUCOR	Meter Box: CHEROKEE		Stack Diameter (in): 21'
Facility: HERTFORD CTY NC	Meter Delta H @: 1.7787		Stack Static Pressure: -.48
Unit: BAGHOUSE STACK	Meter Calibration Factor (Y): 1.0075		Assumed Moisture: 2%
Date: 5/3/07	Probe #: CHEROKEE RENTAL 10'		Start time: - End Time: -
Technicians: LCH Team Leader: MFR	Probe Liner Material: TEFLON		Nozzle Diameter (in):
Method / Run #: SW846-0061-R3	Pitot Tube Cp: .84		Initial Leak Rate: -
Sheet 3 of 4	Ambient Temp.: 62	Pbarr: 30.12	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						552.823					
1	250	3	1.2	1.1	148	560.0	85	81	N/A	N/A	51
1	260	3	1.2	1.1	150	567.2	85	81			51
2	270	3	1.1	1.0	150	573.5	86	81			50
2	280	3	1.1	1.0	159	579.2	85	81			50
3	290	3	1.3	1.2	162	586.3	86	81			50
3	300	3	1.3	1.2	168	593.5	86	81			50
4	310	3	1.3	1.2	171	600.4	86	80			50
4	320	3	1.3	1.2	170	607.2	86	80			50
5	330	3	1.2	1.1	150	613.5	87	80			50
5	340	3	1.3	1.2	158	618.8	86	81			50
6	350	3	1.1	1.0	165	624.5	87	81			50
6	360	3	1.1	1.0	178	631.243	87	80			51
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM .TAL SERVICES,LLC
Field Data

Client: NUCOR	Meter Box: CHEROKEE		Stack Diameter (in): 21
Facility: HERTFORD CTY NC	Meter Delta H @: 1.7787		Stack Static Pressure: -.44
Unit: BAGHOUSE STACK	Meter Calibration Factor (Y): 1.0075		Assumed Moisture: 2%
Date: 5/3/17	Probe #: CHEROKEE RENTAL		Start time: - End Time: 1625
Technicians: LEH Team Leader: MFR	Probe Liner Material: TEFLON		Nozzle Diameter (in):
Method / Run #: 5.0596-0001-R3	Pitot Tube Cp: .85-1		Initial Leak Rate: -
Sheet 4 of 4	Ambient Temp.: 62	Pbarr: 30.12	Final Leak rate: 0.002 @ 8" Hg.

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						631.243					
1	370	3	1.2	1.1	162	638.3	86	80	N/A	N/A	51
1	390	3	1.2	1.1	178	645.4	86	80			51
2	340	3	1.1	1.0	181	653.2	85	80			51
2	400	3	1.3	1.2	180	660.3	85	80			51
3	410	3	1.2	1.1	178	667.4	86	80			50
3	420	3	1.2	1.1	163	674.5	86	80			50
4	430	3	1.1	1.0	170	681.4	87	81			48
4	440	3	1.1	1.0	174	689.3	86	80			49
5	450	3	1.2	1.1	155	696.4	86	80			49
5	460	3	1.3	1.2	170	703.5	86	80			51
6	470	3	1.3	1.2	175	710.6	86	80			53
6	480	3	1.2	1.1	170	717.715	86	80			54
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

APPENDIX D
METHOD 18 DATA

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 5/1/2007
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA TO-15

STACK RESULTS

	Run 1	
Test Date	5/1/2007	
Start Time	3:05 PM	
End Time	11:45 AM	
Dry Gas Volume at standard conditions, Vm-Std (scf)	5.12	
Dry Gas Volume at standard conditions, Vm-Std (scm)	0.14	
Stack Gas Volumetric Flow Rate, (dscfm)	1118404	(Method 5)
Process Rate (tons/hr)	274.71	

VOC RESULTS AND PROCESS DATA (EPA Method TO-15)

	Sample Results		Total mass	Emissions: Run 1		
	Tube 1	Tube 2	(ug)	ug/dscf	ug/dscm	lb/hr
Propylene	0.077	0.000	0.077	1.5039E-02	5.3110E-01	2.2229E-03
1,3-Butadiene	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Bromomethane	0.126	0.000	0.126	2.4609E-02	8.6907E-01	3.6374E-03
Ethanol	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Trichlorofluoromethane	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Acrylonitrile	0.176	0.000	0.176	3.4375E-02	1.2139E+00	5.0809E-03
Isopropyl Alcohol	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Carbon Disulfide	0.036	0.000	0.036	7.0313E-03	2.4830E-01	1.0393E-03
2-Butanone (MEK)	0.241	0.000	0.241	4.7070E-02	1.6623E+00	6.9573E-03
Hexane	0.182	0.000	0.182	3.5547E-02	1.2553E+00	5.2541E-03
Ethyl Acetate	0.039	0.000	0.039	7.6172E-03	2.6900E-01	1.1259E-03
Tetrahydrofuran	0.040	0.000	0.040	7.8125E-03	2.7589E-01	1.1547E-03
1,2-Dichloroethane	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Benzene	10.039	0.040	10.079	1.9686E+00	6.9518E+01	2.9097E-01
1,4-Dioxane	0.261	0.000	0.261	5.0977E-02	1.8002E+00	7.5347E-03
2,2,4-Trimethylpentane	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Heptane	0.444	0.000	0.444	8.6719E-02	3.0624E+00	1.2818E-02
4-Methyl-2-Pentanone (MiBK)	0.336	0.000	0.336	6.5625E-02	2.3175E+00	9.6998E-03
t-1,3-Dichloropropene	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Toluene	8.751	0.222	8.973	1.7525E+00	6.1890E+01	2.5904E-01
2-Hexanone	0.689	0.000	0.689	1.3457E-01	4.7523E+00	1.9890E-02
Tetrachloroethylene	0.055	0.000	0.055	1.0742E-02	3.7935E-01	1.5878E-03
Chlorobenzene	1.102	0.000	1.102	2.1523E-01	7.6009E+00	3.1813E-02
Ethylbenzene	1.557	0.000	1.557	3.0410E-01	1.0739E+01	4.4948E-02
m- & p-Xylenes	2.520	0.000	2.520	4.9219E-01	1.7381E+01	7.2749E-02
Styrene	10.906	0.000	10.906	2.1301E+00	7.5223E+01	3.1484E-01
o-Xylene	0.756	0.000	0.756	1.4766E-01	5.2144E+00	2.1825E-02
4-Ethyltoluene	0.231	0.000	0.231	4.5117E-02	1.5933E+00	6.6686E-03
1,3,5-Trimethylbenzene	0.297	0.000	0.297	5.8008E-02	2.0485E+00	8.5739E-03
1,2,4-Trimethylbenzene	0.478	0.000	0.478	9.3359E-02	3.2969E+00	1.3799E-02
Benzyl Chloride	0.395	0.000	0.395	7.71E-02	2.72E+00	1.14E-02
1,3-Dichlorobenzene	0.109	0.000	0.109	2.13E-02	7.52E-01	3.15E-03
1,4-Dichlorobenzene	0.055	0.000	0.055	1.07E-02	3.79E-01	1.59E-03
1,2-Dichlorobenzene	0.357	0.000	0.357	6.97E-02	2.46E+00	1.03E-02
1,2,4-Trichlorobenzene	0.077	0.000	0.077	1.50E-02	5.31E-01	2.22E-03

lb/hr = (ug/dscf * dscfm * 60) / 454000000

Total VOC, lb/hr	**1.172**
Process Rate VOC, lb/ton	**0.0043**
Benzene, lb/hr	**0.2910**
Benzene, lb/yr	**2283.5**

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 5/2/2007
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA TO-15

STACK RESULTS

	Run 2	
Test Date	5/2/2007	
Start Time	2:16 PM	
End Time	12:26 PM	
Dry Gas Volume at standard conditions, Vm-Std (scf)	5.33	
Dry Gas Volume at standard conditions, Vm-Std (scm)	0.15	
Stack Gas Volumetric Flow Rate, (dscfm)	1093469	(Method 5)
Process Rate (tons/hr)	253.10	

VOC RESULTS AND PROCESS DATA (EPA Method TO-15)

	Sample Results		Total mass	Emissions: Run 2		
	Tube 1	Tube 2	(ug)	ug/dscf	ug/dscm	lb/hr
Propylene	0.053	0.000	0.053	9.94E-03	3.51E-01	1.44E-03
1,3-Butadiene	0.023	0.000	0.023	4.32E-03	1.52E-01	6.24E-04
Bromomethane	0.053	0.000	0.053	9.94E-03	3.51E-01	1.44E-03
Ethanol	0.057	0.000	0.057	1.07E-02	3.78E-01	1.55E-03
Trichlorofluoromethane	0.065	0.000	0.065	1.22E-02	4.31E-01	1.76E-03
Acrylonitrile	0.042	0.000	0.042	7.88E-03	2.78E-01	1.14E-03
Isopropyl Alcohol	0.046	0.000	0.046	8.63E-03	3.05E-01	1.25E-03
Carbon Disulfide	0.052	0.000	0.052	9.76E-03	3.45E-01	1.41E-03
2-Butanone (MEK)	0.165	0.000	0.165	3.10E-02	1.09E+00	4.47E-03
Hexane	0.457	0.000	0.457	8.57E-02	3.03E+00	1.24E-02
Ethyl Acetate	0.168	0.000	0.168	3.15E-02	1.11E+00	4.55E-03
Tetrahydrofuran	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00
1,2-Dichloroethane	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00
Benzene	2.303	0.000	2.303	4.32E-01	1.53E+01	6.24E-02
1,4-Dioxane	0.138	0.000	0.138	2.59E-02	9.14E-01	3.74E-03
2,2,4-Trimethylpentane	0.038	0.000	0.038	7.13E-03	2.52E-01	1.03E-03
Heptane	0.263	0.000	0.263	4.93E-02	1.74E+00	7.13E-03
4-Methyl-2-Pentanone (MiBK)	0.182	0.000	0.182	3.41E-02	1.21E+00	4.93E-03
t-1,3-Dichloropropene	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00
Toluene	4.825	0.000	4.825	9.05E-01	3.20E+01	1.31E-01
2-Hexanone	0.304	0.000	0.304	5.70E-02	2.01E+00	8.24E-03
Tetrachloroethylene	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00
Chlorobenzene	0.543	0.000	0.543	1.02E-01	3.60E+00	1.47E-02
Ethylbenzene	0.748	0.000	0.748	1.40E-01	4.96E+00	2.03E-02
m- & p-Xylenes	1.188	0.000	1.188	2.23E-01	7.87E+00	3.22E-02
Styrene	4.445	0.000	4.445	8.34E-01	2.95E+01	1.21E-01
o-Xylene	0.356	0.000	0.356	6.68E-02	2.36E+00	9.65E-03
4-Ethyltoluene	0.097	0.000	0.097	1.82E-02	6.43E-01	2.63E-03
1,3,5-Trimethylbenzene	0.114	0.000	0.114	2.14E-02	7.55E-01	3.09E-03
1,2,4-Trimethylbenzene	0.195	0.000	0.195	3.66E-02	1.29E+00	5.29E-03
Benzyl Chloride	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00
1,3-Dichlorobenzene	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00
1,4-Dichlorobenzene	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00
1,2-Dichlorobenzene	0.141	0.000	0.141	2.65E-02	9.34E-01	3.82E-03
1,2,4-Trichlorobenzene	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00

Total VOC, lb/hr	**0.463**
Process Rate VOC, lb/ton	**0.0018**
Benzene, lb/hr	**0.0624**
Benzene, lb/yr	**490.1**

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 5/3/2007
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA TO-15

STACK RESULTS

	Run 3	
Test Date	5/3/2007	
Start Time	4:00 PM	
End Time	12:20 PM	
Dry Gas Volume at standard conditions, Vm-Std (scf)	5.04	
Dry Gas Volume at standard conditions, Vm-Std (scm)	0.14	
Stack Gas Volumetric Flow Rate, (dscfm)	1144962	(Method 5)
Process Rate (tons/hr)	272.53	

VOC RESULTS AND PROCESS DATA (EPA Method TO-15)

	Sample Results		Total mass	Emissions: Run 3		
	Tube 1	Tube 2	(ug)	ug/dscf	ug/dscm	lb/hr
Propylene	0.119	0.000	0.119	2.36E-02	8.34E-01	3.57E-03
1,3-Butadiene	0.051	0.000	0.051	1.01E-02	3.57E-01	1.53E-03
Bromomethane	0.040	0.000	0.040	7.94E-03	2.80E-01	1.20E-03
Ethanol	0.042	0.000	0.042	8.33E-03	2.94E-01	1.26E-03
Trichlorofluoromethane	0.050	0.000	0.050	9.92E-03	3.50E-01	1.50E-03
Acrylonitrile	0.301	0.000	0.301	5.97E-02	2.11E+00	9.04E-03
Isopropyl Alcohol	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00
Carbon Disulfide	0.031	0.000	0.031	6.15E-03	2.17E-01	9.31E-04
2-Butanone (MEK)	1.074	0.000	1.074	2.13E-01	7.53E+00	3.22E-02
Hexane	0.355	0.000	0.355	7.04E-02	2.49E+00	1.07E-02
Ethyl Acetate	0.052	0.000	0.052	1.03E-02	3.64E-01	1.56E-03
Tetrahydrofuran	0.213	0.000	0.213	4.23E-02	1.49E+00	6.39E-03
1,2-Dichloroethane	0.059	0.000	0.059	1.17E-02	4.13E-01	1.77E-03
Benzene	53.963	1.037	55.000	1.09E+01	3.85E+02	1.65E+00
1,4-Dioxane	0.336	0.000	0.336	6.67E-02	2.35E+00	1.01E-02
2,2,4-Trimethylpentane	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00
Heptane	0.560	0.000	0.560	1.11E-01	3.92E+00	1.68E-02
4-Methyl-2-Pentanone (MiBK)	0.383	0.000	0.383	7.60E-02	2.68E+00	1.15E-02
t-1,3-Dichloropropene	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00
Toluene	12.473	0.819	13.292	2.64E+00	9.31E+01	3.99E-01
2-Hexanone	0.690	0.000	0.690	1.37E-01	4.83E+00	2.07E-02
Tetrachloroethylene	0.055	0.000	0.055	1.09E-02	3.85E-01	1.65E-03
Chlorobenzene	1.147	0.000	1.147	2.28E-01	8.04E+00	3.44E-02
Ethylbenzene	1.641	0.000	1.641	3.26E-01	1.15E+01	4.93E-02
m- & p-Xylenes	2.756	0.000	2.756	5.47E-01	1.93E+01	8.27E-02
Styrene	11.464	0.000	11.464	2.27E+00	8.03E+01	3.44E-01
o-Xylene	0.868	0.000	0.868	1.72E-01	6.08E+00	2.61E-02
4-Ethyltoluene	0.263	0.000	0.263	5.22E-02	1.84E+00	7.90E-03
1,3,5-Trimethylbenzene	0.247	0.000	0.247	4.90E-02	1.73E+00	7.42E-03
1,2,4-Trimethylbenzene	0.472	0.000	0.472	9.37E-02	3.31E+00	1.42E-02
Benzyl Chloride	0.277	0.000	0.277	5.50E-02	1.94E+00	8.32E-03
1,3-Dichlorobenzene	0.091	0.000	0.091	1.81E-02	6.38E-01	2.73E-03
1,4-Dichlorobenzene	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00
1,2-Dichlorobenzene	0.283	0.000	0.283	5.62E-02	1.98E+00	8.50E-03
1,2,4-Trichlorobenzene	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00

Total VOC, lb/hr	**2.768**
Process Rate VOC, lb/ton	**0.0102**
Benzene, lb/hr	**1.6513**
Benzene, lb/yr	**12959.2**

Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Desert Air Environmental Services
PROJECT NO : 070470
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 05/08/07
DATE REPORTED : 05/22/07

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 1 Tube 2 of 2			Sample Reporting Limit (RLxDF's)	Run 1 Tube 1 of 2			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	070470-25344				070470-25345				
Date Sampled	5/1/2007				5/1/2007				
Date Analyzed	5/21/2007				5/21/2007				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Chlorodifluoromethane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
Propylene	ND	U	1.0	0.014	0.077		1.0	0.014	0.014
Dichlorodifluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
1,2-Dichloro-1,1,2,2-Tetrafluoroethane	ND	U	1.0	0.056	ND	U	1.0	0.056	0.056
Vinyl Chloride	ND	U	1.0	0.020	ND	U	1.0	0.020	0.020
1,3-Butadiene	ND	U	1.0	0.018	ND	U	1.0	0.018	0.018
Bromomethane	ND	U	1.0	0.031	0.126		1.0	0.031	0.031
Chloroethane	ND	U	1.0	0.021	ND	U	1.0	0.021	0.021
Dichlorofluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
Ethanol	ND	U	1.0	0.030	ND	U	1.0	0.030	0.030
Vinyl Bromide	ND	U	1.0	0.035	ND	U	1.0	0.035	0.035
Trichlorofluoromethane	ND	U	1.0	0.042	ND	U	1.0	0.042	0.042
Isopropyl Alcohol	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
Acrylonitrile	ND	U	1.0	0.017	0.176		1.0	0.017	0.017
1,1-Dichloroethylene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Allyl Chloride (Chloroprene)	ND	U	1.0	0.025	ND	U	1.0	0.025	0.025
Carbon Disulfide	ND	U	1.0	0.025	0.036		1.0	0.025	0.025
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
t-1,2-Dichloroethylene	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
MTBE	ND	U	1.0	0.029	ND	U	1.0	0.029	0.029
Vinyl Acetate	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
2-Butanone (MEK)	ND	U	1.0	0.024	0.241		1.0	0.024	0.024
cis-1,2- Dichloroethene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Hexane	ND	U	1.0	0.028	0.182		1.0	0.028	0.028
Chloroform	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
Ethyl Acetate	ND	U	1.0	0.029	0.039		1.0	0.029	0.029
Tetrahydrofuran	ND	U	1.0	0.024	0.040		1.0	0.024	0.024
1,2-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1,1-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Desert Air Environmental Services
PROJECT NO : 070470
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 05/08/07
DATE REPORTED : 05/22/07

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 1 Tube 2 of 2			Sample Reporting Limit (RLxDF's)	Run 1 Tube 1 of 2			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	070470-25344				070470-25345				
Date Sampled	5/1/2007				5/1/2007				
Date Analyzed	5/21/2007				5/21/2007				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Benzene	0.040		1.0	0.026	10.039		10.0	0.255	0.026
Carbon Tetrachloride	ND	U	1.0	0.050	ND	U	1.0	0.050	0.050
Cyclohexane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
1,2-Dichloropropane	ND	U	1.0	0.037	ND	U	1.0	0.037	0.037
Bromodichloromethane	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
1,4-Dioxane	ND	U	1.0	0.029	0.261		1.0	0.029	0.029
Trichloroethene	ND	U	1.0	0.043	ND	U	1.0	0.043	0.043
2,2,4-Trimethylpentane	ND	U	1.0	0.037	ND	U	1.0	0.037	0.037
Heptane	ND	U	1.0	0.033	0.444		1.0	0.033	0.033
cis-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
4-Methyl-2-Pentanone (MiBK)	ND	U	1.0	0.033	0.336		1.0	0.033	0.033
t-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
1,1,2-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044
Toluene	0.222		1.0	0.030	8.751		10.0	0.301	0.030
2-Hexanone	ND	U	1.0	0.033	0.689		1.0	0.033	0.033
Dibromochloromethane	ND	U	1.0	0.068	ND	U	1.0	0.068	0.068
1,2-Dibromoethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
Tetrachloroethylene	ND	U	1.0	0.054	0.055		1.0	0.054	0.054
Chlorobenzene	ND	U	1.0	0.037	1.102		1.0	0.037	0.037
Ethylbenzene	ND	U	1.0	0.035	1.557		1.0	0.035	0.035
m- & p-Xylenes	ND	U	1.0	0.069	2.520		1.0	0.069	0.069
Bromoform	ND	U	1.0	0.248	ND	U	1.0	0.248	0.248
Styrene	ND	U	1.0	0.034	10.906		10.0	0.341	0.034
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.055	ND	U	1.0	0.055	0.055
o-Xylene	ND	U	1.0	0.035	0.756		1.0	0.035	0.035
4-Ethyltoluene	ND	U	1.0	0.039	0.231		1.0	0.039	0.039
1,3,5-Trimethylbenzene	ND	U	1.0	0.039	0.297		1.0	0.039	0.039
1,2,4-Trimethylbenzene	ND	U	1.0	0.039	0.478		1.0	0.039	0.039
Benzyl Chloride	ND	U	1.0	0.207	0.395		1.0	0.207	0.207
1,3-Dichlorobenzene	ND	U	1.0	0.048	0.109		1.0	0.048	0.048
1,4-Dichlorobenzene	ND	U	1.0	0.048	0.055		1.0	0.048	0.048
1,2-Dichlorobenzene	ND	U	1.0	0.048	0.357		1.0	0.048	0.048
1,2,4-Trichlorobenzene	ND	U	1.0	0.059	0.077		1.0	0.059	0.059
Hexachlorobutadiene	ND	U	1.0	0.085	ND	U	1.0	0.085	0.085
BFB-Surrogate Std. % Recovery	99%				103%				70-130%

U - Compound was analyzed for, but was not detected.

Sucha S. Parmar, PhD
Technical Director

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Desert Air Environmental Services
PROJECT NO : 070470
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 05/08/07
DATE REPORTED : 05/22/07

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 2 Tube 2 of 2			Sample Reporting Limit (RLxDF's)	Run 2 Tube 1 of 2			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	070470-25346				070470-25347				
Date Sampled	5/2/2007				5/2/2007				
Date Analyzed	5/21/2007				5/21/2007				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Chlorodifluoromethane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
Propylene	ND	U	1.0	0.014	0.053		1.0	0.014	0.014
Dichlorodifluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
1,2-Dichloro-1,1,2,2-Tetrafluoroethane	ND	U	1.0	0.056	ND	U	1.0	0.056	0.056
Vinyl Chloride	ND	U	1.0	0.020	ND	U	1.0	0.020	0.020
1,3-Butadiene	ND	U	1.0	0.018	0.023		1.0	0.018	0.018
Bromomethane	ND	U	1.0	0.031	0.053		1.0	0.031	0.031
Chloroethane	ND	U	1.0	0.021	ND	U	1.0	0.021	0.021
Dichlorofluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
Ethanol	ND	U	1.0	0.030	0.057		1.0	0.030	0.030
Vinyl Bromide	ND	U	1.0	0.035	ND	U	1.0	0.035	0.035
Trichlorofluoromethane	ND	U	1.0	0.042	0.065		1.0	0.042	0.042
Isopropyl Alcohol	ND	U	1.0	0.039	0.046		1.0	0.039	0.039
Acrylonitrile	ND	U	1.0	0.017	0.042		1.0	0.017	0.017
1,1-Dichloroethylene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Allyl Chloride (Chloroprene)	ND	U	1.0	0.025	ND	U	1.0	0.025	0.025
Carbon Disulfide	ND	U	1.0	0.025	0.052		1.0	0.025	0.025
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
t-1,2-Dichloroethylene	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
MTBE	ND	U	1.0	0.029	ND	U	1.0	0.029	0.029
Vinyl Acetate	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
2-Butanone (MEK)	ND	U	1.0	0.024	0.165		1.0	0.024	0.024
cis-1,2- Dichloroethene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Hexane	ND	U	1.0	0.028	0.457		1.0	0.028	0.028
Chloroform	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
Ethyl Acetate	ND	U	1.0	0.029	0.168		1.0	0.029	0.029
Tetrahydrofuran	ND	U	1.0	0.024	ND	U	1.0	0.024	0.024
1,2-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1,1-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Desert Air Environmental Services
PROJECT NO : 070470
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 05/08/07
DATE REPORTED : 05/22/07

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 2 Tube 2 of 2			Sample Reporting Limit (RLxDF's)	Run 2 Tube 1 of 2			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	070470-25346				070470-25347				
Date Sampled	5/2/2007				5/2/2007				
Date Analyzed	5/21/2007				5/21/2007				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Benzene	ND	U	1.0	0.026	2.303		10.0	0.255	0.026
Carbon Tetrachloride	ND	U	1.0	0.050	ND	U	1.0	0.050	0.050
Cyclohexane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
1,2-Dichloropropane	ND	U	1.0	0.037	ND	U	1.0	0.037	0.037
Bromodichloromethane	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
1,4-Dioxane	ND	U	1.0	0.029	0.138		1.0	0.029	0.029
Trichloroethene	ND	U	1.0	0.043	ND	U	1.0	0.043	0.043
2,2,4-Trimethylpentane	ND	U	1.0	0.037	0.038		1.0	0.037	0.037
Heptane	ND	U	1.0	0.033	0.263		1.0	0.033	0.033
cis-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
4-Methyl-2-Pentanone (MiBK)	ND	U	1.0	0.033	0.182		1.0	0.033	0.033
t-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
1,1,2-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044
Toluene	ND	U	1.0	0.030	4.825		10.0	0.301	0.030
2-Hexanone	ND	U	1.0	0.033	0.304		1.0	0.033	0.033
Dibromochloromethane	ND	U	1.0	0.068	ND	U	1.0	0.068	0.068
1,2-Dibromoethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
Tetrachloroethylene	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
Chlorobenzene	ND	U	1.0	0.037	0.543		1.0	0.037	0.037
Ethylbenzene	ND	U	1.0	0.035	0.748		1.0	0.035	0.035
m- & p-Xylenes	ND	U	1.0	0.069	1.188		1.0	0.069	0.069
Bromoform	ND	U	1.0	0.248	ND	U	1.0	0.248	0.248
Styrene	ND	U	1.0	0.034	4.445		10.0	0.341	0.034
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.055	ND	U	1.0	0.055	0.055
o-Xylene	ND	U	1.0	0.035	0.356		1.0	0.035	0.035
4-Ethyltoluene	ND	U	1.0	0.039	0.097		1.0	0.039	0.039
1,3,5-Trimethylbenzene	ND	U	1.0	0.039	0.114		1.0	0.039	0.039
1,2,4-Trimethylbenzene	ND	U	1.0	0.039	0.195		1.0	0.039	0.039
Benzyl Chloride	ND	U	1.0	0.207	ND	U	1.0	0.207	0.207
1,3-Dichlorobenzene	ND	U	1.0	0.048	ND	U	1.0	0.048	0.048
1,4-Dichlorobenzene	ND	U	1.0	0.048	ND	U	1.0	0.048	0.048
1,2-Dichlorobenzene	ND	U	1.0	0.048	0.141		1.0	0.048	0.048
1,2,4-Trichlorobenzene	ND	U	1.0	0.059	ND	U	1.0	0.059	0.059
Hexachlorobutadiene	ND	U	1.0	0.085	ND	U	1.0	0.085	0.085
BFB-Surrogate Std. % Recovery	98%				97%				70-130%

U - Compound was analyzed for, but was not detected.

Sucha S. Parmar, PhD
Technical Director

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Desert Air Environmental Services
PROJECT NO : 070470
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 05/08/07
DATE REPORTED : 05/22/07

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 3 Tube 2 of 2			Sample Reporting Limit (RLxDF's)	Run 3 Tube 1 of 2			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	070470-25348				070470-25349				
Date Sampled	5/3/2007				5/3/2007				
Date Analyzed	5/21/2007				5/21/2007				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Chlorodifluoromethane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
Propylene	ND	U	1.0	0.014	0.119		1.0	0.014	0.014
Dichlorodifluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
1,2-Dichloro-1,1,2,2-Tetrafluoroethane	ND	U	1.0	0.056	ND	U	1.0	0.056	0.056
Vinyl Chloride	ND	U	1.0	0.020	ND	U	1.0	0.020	0.020
1,3-Butadiene	ND	U	1.0	0.018	0.051		1.0	0.018	0.018
Bromomethane	ND	U	1.0	0.031	0.040		1.0	0.031	0.031
Chloroethane	ND	U	1.0	0.021	ND	U	1.0	0.021	0.021
Dichlorofluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
Ethanol	ND	U	1.0	0.030	0.042		1.0	0.030	0.030
Vinyl Bromide	ND	U	1.0	0.035	ND	U	1.0	0.035	0.035
Trichlorofluoromethane	ND	U	1.0	0.042	0.050		1.0	0.042	0.042
Isopropyl Alcohol	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
Acrylonitrile	ND	U	1.0	0.017	0.301		1.0	0.017	0.017
1,1-Dichloroethylene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Allyl Chloride (Chloroprene)	ND	U	1.0	0.025	ND	U	1.0	0.025	0.025
Carbon Disulfide	ND	U	1.0	0.025	0.031		1.0	0.025	0.025
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
t-1,2-Dichloroethylene	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
MTBE	ND	U	1.0	0.029	ND	U	1.0	0.029	0.029
Vinyl Acetate	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
2-Butanone (MEK)	ND	U	1.0	0.024	1.074		1.0	0.024	0.024
cis-1,2- Dichloroethene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Hexane	ND	U	1.0	0.028	0.355		1.0	0.028	0.028
Chloroform	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
Ethyl Acetate	ND	U	1.0	0.029	0.052		1.0	0.029	0.029
Tetrahydrofuran	ND	U	1.0	0.024	0.213		1.0	0.024	0.024
1,2-Dichloroethane	ND	U	1.0	0.032	0.059		1.0	0.032	0.032
1,1,1-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Desert Air Environmental Services
PROJECT NO : 070470
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 05/08/07
DATE REPORTED : 05/22/07

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 3 Tube 2 of 2			Sample Reporting Limit (RLxDF's)	Run 3 Tube 1 of 2			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	070470-25348				070470-25349				
Date Sampled	5/3/2007				5/3/2007				
Date Analyzed	5/21/2007				5/21/2007				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Benzene	1.037		1.0	0.026	53.963		50.0	1.276	0.026
Carbon Tetrachloride	ND	U	1.0	0.050	ND	U	1.0	0.050	0.050
Cyclohexane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
1,2-Dichloropropane	ND	U	1.0	0.037	ND	U	1.0	0.037	0.037
Bromodichloromethane	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
1,4-Dioxane	ND	U	1.0	0.029	0.336		1.0	0.029	0.029
Trichloroethene	ND	U	1.0	0.043	ND	U	1.0	0.043	0.043
2,2,4-Trimethylpentane	ND	U	1.0	0.037	ND	U	1.0	0.037	0.037
Heptane	ND	U	1.0	0.033	0.560		1.0	0.033	0.033
cis-1a3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
4-Methyl-2-Pentanone (MiBK)	ND	U	1.0	0.033	0.383		1.0	0.033	0.033
t-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
1,1,2-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044
Toluene	0.819		1.0	0.030	12.473		10.0	0.301	0.030
2-Hexanone	ND	U	1.0	0.033	0.690		1.0	0.033	0.033
Dibromochloromethane	ND	U	1.0	0.068	ND	U	1.0	0.068	0.068
1,2-Dibromoethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
Tetrachloroethylene	ND	U	1.0	0.054	0.055		1.0	0.054	0.054
Chlorobenzene	ND	U	1.0	0.037	1.147		1.0	0.037	0.037
Ethylbenzene	ND	U	1.0	0.035	1.641		1.0	0.035	0.035
m- & p-Xylenes	ND	U	1.0	0.069	2.756		1.0	0.069	0.069
Bromoform	ND	U	1.0	0.248	ND	U	1.0	0.248	0.248
Styrene	ND	U	1.0	0.034	11.464		10.0	0.341	0.034
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.055	ND	U	1.0	0.055	0.055
o-Xylene	ND	U	1.0	0.035	0.868		1.0	0.035	0.035
4-Ethyltoluene	ND	U	1.0	0.039	0.263		1.0	0.039	0.039
1,3,5-Trimethylbenzene	ND	U	1.0	0.039	0.247		1.0	0.039	0.039
1,2,4-Trimethylbenzene	ND	U	1.0	0.039	0.472		1.0	0.039	0.039
Benzyl Chloride	ND	U	1.0	0.207	0.277		1.0	0.207	0.207
1,3-Dichlorobenzene	ND	U	1.0	0.048	0.091		1.0	0.048	0.048
1,4-Dichlorobenzene	ND	U	1.0	0.048	ND	U	1.0	0.048	0.048
1,2-Dichlorobenzene	ND	U	1.0	0.048	0.283		1.0	0.048	0.048
1,2,4-Trichlorobenzene	ND	U	1.0	0.059	ND	U	1.0	0.059	0.059
Hexachlorobutadiene	ND	U	1.0	0.085	ND	U	1.0	0.085	0.085
BFB-Surrogate Std. % Recovery	98%				95%				70-130%

U - Compound was analyzed for, but was not detected.

Sucha S. Parmar, PhD
Technical Director

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 6/20/2006
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA TO-15

STACK RESULTS

	Run 1	
Test Date	5/1/2007	
Start Time	3:05 PM	
End Time	11:45 AM	
Dry Gas Volume at standard conditions, Vm-Std (scf)	5.15	
Dry Gas Volume at standard conditions, Vm-Std (scm)	0.15	
Stack Gas Volumetric Flow Rate, (dscfm)	1118404	(Method 5)

VOC RESULTS AND PROCESS DATA (EPA Method TO-15)

	Sample Results		Total mass	Emissions: Run 1		
	Tube 1 - Spiked	Tube 2	(ug)	ug/dscf	ug/dscm	lb/hr
Propylene	0.061	0.014	0.075	1.4563E-02	5.1429E-01	2.1525E-03
1,3-Butadiene	0.086	0.000	0.086	1.6699E-02	5.8972E-01	2.4682E-03
Bromomethane	0.152	0.000	0.152	2.9515E-02	1.0423E+00	4.3625E-03
Ethanol	0.079	0.000	0.079	1.5340E-02	5.4172E-01	2.2673E-03
Trichlorofluoromethane	0.053	0.000	0.053	1.0291E-02	3.6343E-01	1.5211E-03
Acrylonitrile	0.260	0.000	0.260	5.0485E-02	1.7829E+00	7.4621E-03
Isopropyl Alcohol	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Carbon Disulfide	0.063	0.000	0.063	1.2233E-02	4.3200E-01	1.8081E-03
2-Butanone (MEK)	0.260	0.000	0.260	5.0485E-02	1.7829E+00	7.4621E-03
Hexane	0.289	0.045	0.334	6.4854E-02	2.2903E+00	9.5859E-03
Ethyl Acetate	0.115	0.000	0.115	2.2330E-02	7.8858E-01	3.3005E-03
Tetrahydrofuran	0.053	0.000	0.053	1.0291E-02	3.6343E-01	1.5211E-03
1,2-Dichloroethane	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Benzene	8.741	0.370	9.111	1.7691E+00	6.2476E+01	2.6149E-01
1,4-Dioxane	0.225	0.000	0.225	4.3689E-02	1.5429E+00	6.4576E-03
2,2,4-Trimethylpentane	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Heptane	0.291	0.000	0.291	5.6505E-02	1.9954E+00	8.3518E-03
4-Methyl-2-Pentanone (MiBK)	0.255	0.000	0.255	4.9515E-02	1.7486E+00	7.3186E-03
t-1,3-Dichloropropene	0.043	0.000	0.043	8.3495E-03	2.9486E-01	1.2341E-03
Toluene	6.932	0.286	7.218	1.4016E+00	4.9495E+01	2.0716E-01
2-Hexanone	0.327	0.000	0.327	6.3495E-02	2.2423E+00	9.3850E-03
Tetrachloroethylene	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Chlorobenzene	0.636	0.000	0.636	1.2350E-01	4.3612E+00	1.8253E-02
Ethylbenzene	1.547	0.000	1.547	3.0039E-01	1.0608E+01	4.4399E-02
m- & p-Xylenes	3.093	0.000	3.093	6.0058E-01	2.1209E+01	8.8770E-02
Styrene	5.773	0.000	5.773	1.1210E+00	3.9586E+01	1.6569E-01
o-Xylene	1.192	0.049	1.241	2.4097E-01	8.5098E+00	3.5617E-02
4-Ethyltoluene	0.159	0.000	0.159	3.0874E-02	1.0903E+00	4.5634E-03
1,3,5-Trimethylbenzene	0.251	0.000	0.251	4.8738E-02	1.7212E+00	7.2038E-03
1,2,4-Trimethylbenzene	0.408	0.000	0.408	7.9223E-02	2.7977E+00	1.1710E-02
Benzyl Chloride	0.223	0.000	0.223	4.33E-02	1.53E+00	6.40E-03
1,3-Dichlorobenzene	0.053	0.000	0.053	1.03E-02	3.63E-01	1.52E-03
1,4-Dichlorobenzene	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00
1,2-Dichlorobenzene	0.183	0.000	0.183	3.55E-02	1.25E+00	5.25E-03
1,2,4-Trichlorobenzene	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 6/21/2006
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA TO-15

STACK RESULTS

	Run 2	
Test Date	5/2/2007	
Start Time	2:16 PM	
End Time	12:26 PM	
Dry Gas Volume at standard conditions, Vm-Std (scf)	4.96	
Dry Gas Volume at standard conditions, Vm-Std (scm)	0.14	
Stack Gas Volumetric Flow Rate, (dscfm)	1093469	(Method 5)

VOC RESULTS AND PROCESS DATA (EPA Method TO-15)

	Sample Results		Total mass	Emissions: Run 2		
	Tube 1 - Spiked	Tube 2	(ug)	ug/dscf	ug/dscm	lb/hr
Propylene	0.051	0.000	0.051	1.0282E-02	3.6311E-01	1.4859E-03
1,3-Butadiene	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Bromomethane	0.051	0.000	0.051	1.0282E-02	3.6311E-01	1.4859E-03
Ethanol	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Trichlorofluoromethane	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Acrylonitrile	0.036	0.000	0.036	7.2581E-03	2.5631E-01	1.0489E-03
Isopropyl Alcohol	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Carbon Disulfide	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
2-Butanone (MEK)	0.161	0.000	0.161	3.2460E-02	1.1463E+00	4.6908E-03
Hexane	0.062	0.000	0.062	1.2500E-02	4.4143E-01	1.8064E-03
Ethyl Acetate	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Tetrahydrofuran	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
1,2-Dichloroethane	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Benzene	3.028	0.336	3.364	6.7823E-01	2.3951E+01	9.8011E-02
1,4-Dioxane	0.118	0.000	0.118	2.3790E-02	8.4014E-01	3.4380E-03
2,2,4-Trimethylpentane	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Heptane	0.219	0.000	0.219	4.4153E-02	1.5592E+00	6.3806E-03
4-Methyl-2-Pentanone (MiBK)	0.152	0.000	0.152	3.0645E-02	1.0822E+00	4.4286E-03
t-1,3-Dichloropropene	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Toluene	6.100	1.592	7.692	1.5508E+00	5.4766E+01	2.2411E-01
2-Hexanone	0.255	0.000	0.255	5.1411E-02	1.8156E+00	7.4295E-03
Tetrachloroethylene	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Chlorobenzene	0.463	0.000	0.463	9.3347E-02	3.2965E+00	1.3490E-02
Ethylbenzene	1.365	0.000	1.365	2.7520E-01	9.7186E+00	3.9770E-02
m- & p-Xylenes	2.339	0.000	2.339	4.7157E-01	1.6653E+01	6.8148E-02
Styrene	4.121	0.000	4.121	8.3085E-01	2.9341E+01	1.2007E-01
o-Xylene	0.935	0.000	0.935	1.8851E-01	6.6571E+00	2.7242E-02
4-Ethyltoluene	0.083	0.000	0.083	1.6734E-02	5.9095E-01	2.4182E-03
1,3,5-Trimethylbenzene	0.096	0.000	0.096	1.9355E-02	6.8351E-01	2.7970E-03
1,2,4-Trimethylbenzene	0.164	0.000	0.164	3.3065E-02	1.1677E+00	4.7782E-03
Benzyl Chloride	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00
1,3-Dichlorobenzene	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00
1,4-Dichlorobenzene	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00
1,2-Dichlorobenzene	0.122	0.000	0.122	2.46E-02	8.69E-01	3.55E-03
1,2,4-Trichlorobenzene	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 6/22/2006
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA TO-15

STACK RESULTS

	Run 3	
Test Date	5/3/2007	
Start Time	4:00 PM	
End Time	12:20 PM	
Dry Gas Volume at standard conditions, Vm-Std (scf)	4.78	
Dry Gas Volume at standard conditions, Vm-Std (scm)	0.14	
Stack Gas Volumetric Flow Rate, (dscfm)	1144962	(Method 5)

VOC RESULTS AND PROCESS DATA (EPA Method TO-15)

	Sample Results		Total mass	Emissions: Run 2		
	Tube 1 - Spiked	Tube 2	(ug)	ug/dscf	ug/dscm	lb/hr
Propylene	0.070	0.015	0.085	1.7782E-02	6.2798E-01	2.6908E-03
1,3-Butadiene	0.054	0.000	0.054	1.1297E-02	3.9895E-01	1.7094E-03
Bromomethane	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Ethanol	0.046	0.000	0.046	9.6234E-03	3.3985E-01	1.4562E-03
Trichlorofluoromethane	0.075	0.000	0.075	1.5690E-02	5.5410E-01	2.3742E-03
Acrylonitrile	0.345	0.000	0.345	7.2176E-02	2.5488E+00	1.0921E-02
Isopropyl Alcohol	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Carbon Disulfide	0.038	0.000	0.038	7.9498E-03	2.8074E-01	1.2029E-03
2-Butanone (MEK)	0.818	0.039	0.857	1.7929E-01	6.3315E+00	2.7129E-02
Hexane	0.460	0.030	0.490	1.0251E-01	3.6201E+00	1.5512E-02
Ethyl Acetate	0.108	0.000	0.108	2.2594E-02	7.9790E-01	3.4189E-03
Tetrahydrofuran	0.197	0.000	0.197	4.1213E-02	1.4554E+00	6.2363E-03
1,2-Dichloroethane	0.057	0.000	0.057	1.1925E-02	4.2111E-01	1.8044E-03
Benzene	23.258	0.548	23.806	4.9803E+00	1.7588E+02	7.5361E-01
1,4-Dioxane	0.238	0.000	0.238	4.9791E-02	1.7583E+00	7.5342E-03
2,2,4-Trimethylpentane	0.047	0.000	0.047	9.8326E-03	3.4723E-01	1.4878E-03
Heptane	0.277	0.000	0.277	5.7950E-02	2.0465E+00	8.7688E-03
4-Methyl-2-Pentanone (MiBK)	0.176	0.000	0.176	3.6820E-02	1.3003E+00	5.5715E-03
t-1,3-Dichloropropene	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Toluene	5.303	0.672	5.975	1.2500E+00	4.4143E+01	1.8915E-01
2-Hexanone	0.305	0.000	0.305	6.3808E-02	2.2533E+00	9.6551E-03
Tetrachloroethylene	0.000	0.000	0.000	0.0000E+00	0.0000E+00	0.0000E+00
Chlorobenzene	0.512	0.000	0.512	1.0711E-01	3.7826E+00	1.6208E-02
Ethylbenzene	1.548	0.000	1.548	3.2385E-01	1.1437E+01	4.9004E-02
m- & p-Xylenes	2.719	0.000	2.719	5.6883E-01	2.0088E+01	8.6073E-02
Styrene	5.111	0.000	5.111	1.0692E+00	3.7760E+01	1.6179E-01
o-Xylene	1.104	0.000	1.104	2.3096E-01	8.1563E+00	3.4948E-02
4-Ethyltoluene	0.116	0.000	0.116	2.4268E-02	8.5700E-01	3.6721E-03
1,3,5-Trimethylbenzene	0.124	0.000	0.124	2.5941E-02	9.1611E-01	3.9254E-03
1,2,4-Trimethylbenzene	0.247	0.000	0.247	5.1674E-02	1.8248E+00	7.8191E-03
Benzyl Chloride	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00
1,3-Dichlorobenzene	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00
1,4-Dichlorobenzene	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00
1,2-Dichlorobenzene	0.128	0.000	0.128	2.68E-02	9.46E-01	4.05E-03
1,2,4-Trichlorobenzene	0.000	0.000	0.000	0.00E+00	0.00E+00	0.00E+00

Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Desert Air Environmental Services
PROJECT NO : 070470
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 05/08/07
DATE REPORTED : 05/22/07

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 1 Tube 2 of 2 not spiked			Sample Reporting Limit (RLxDF's)	Run 1 Tube 1 of 2 spiked			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	070470-25350				070470-25351				
Date Sampled	5/1/2007				5/1/2007				
Date Analyzed	5/21/2007				5/21/2007				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Chlorodifluoromethane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
Propylene	0.014		1.0	0.014	0.061		1.0	0.014	0.014
Dichlorodifluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
1,2-Dichloro-1,1,2,2-Tetrafluoroethane	ND	U	1.0	0.056	ND	U	1.0	0.056	0.056
Vinyl Chloride	ND	U	1.0	0.020	ND	U	1.0	0.020	0.020
1,3-Butadiene	ND	U	1.0	0.018	0.086		1.0	0.018	0.018
Bromomethane	ND	U	1.0	0.031	0.152		1.0	0.031	0.031
Chloroethane	ND	U	1.0	0.021	ND	U	1.0	0.021	0.021
Dichlorofluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
Ethanol	ND	U	1.0	0.030	0.079		1.0	0.030	0.030
Vinyl Bromide	ND	U	1.0	0.035	ND	U	1.0	0.035	0.035
Trichlorofluoromethane	ND	U	1.0	0.042	0.053		1.0	0.042	0.042
Isopropyl Alcohol	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
Acrylonitrile	ND	U	1.0	0.017	0.260		1.0	0.017	0.017
1,1-Dichloroethylene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Allyl Chloride (Chloroprene)	ND	U	1.0	0.025	ND	U	1.0	0.025	0.025
Carbon Disulfide	ND	U	1.0	0.025	0.063		1.0	0.025	0.025
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
t-1,2-Dichloroethylene	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
MTBE	ND	U	1.0	0.029	ND	U	1.0	0.029	0.029
Vinyl Acetate	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
2-Butanone (MEK)	ND	U	1.0	0.024	0.260		1.0	0.024	0.024
cis-1,2- Dichloroethene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Hexane	0.045		1.0	0.028	0.289		1.0	0.028	0.028
Chloroform	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
Ethyl Acetate	ND	U	1.0	0.029	0.115		1.0	0.029	0.029
Tetrahydrofuran	ND	U	1.0	0.024	0.053		1.0	0.024	0.024
1,2-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1,1-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Desert Air Environmental Services
PROJECT NO : 070470
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 05/08/07
DATE REPORTED : 05/22/07

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 1 Tube 2 of 2 not spiked			Sample Reporting Limit (RLxDF's)	Run 1 Tube 1 of 2 spiked			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	070470-25350				070470-25351				
Date Sampled	5/1/2007				5/1/2007				
Date Analyzed	5/21/2007				5/21/2007				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Benzene	0.370		1.0	0.026	8.741		10.0	0.255	0.026
Carbon Tetrachloride	ND	U	1.0	0.050	ND	U	1.0	0.050	0.050
Cyclohexane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
1,2-Dichloropropane	ND	U	1.0	0.037	ND	U	1.0	0.037	0.037
Bromodichloromethane	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
1,4-Dioxane	ND	U	1.0	0.029	0.225		1.0	0.029	0.029
Trichloroethene	ND	U	1.0	0.043	ND	U	1.0	0.043	0.043
2,2,4-Trimethylpentane	ND	U	1.0	0.037	ND	U	1.0	0.037	0.037
Heptane	ND	U	1.0	0.033	0.291		1.0	0.033	0.033
cis-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
4-Methyl-2-Pentanone (MiBK)	ND	U	1.0	0.033	0.255		1.0	0.033	0.033
t-1,3-Dichloropropene	ND	U	1.0	0.036	0.043		1.0	0.036	0.036
1,1,2-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044
Toluene	0.286		1.0	0.030	6.932		10.0	0.301	0.030
2-Hexanone	ND	U	1.0	0.033	0.327		1.0	0.033	0.033
Dibromochloromethane	ND	U	1.0	0.068	ND	U	1.0	0.068	0.068
1,2-Dibromoethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
Tetrachloroethylene	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
Chlorobenzene	ND	U	1.0	0.037	0.636		1.0	0.037	0.037
Ethylbenzene	ND	U	1.0	0.035	1.547		1.0	0.035	0.035
m- & p-Xylenes	ND	U	1.0	0.069	3.093		1.0	0.069	0.069
Bromoform	ND	U	1.0	0.248	ND	U	1.0	0.248	0.248
Styrene	ND	U	1.0	0.034	5.773		10.0	0.341	0.034
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.055	ND	U	1.0	0.055	0.055
o-Xylene	0.049		1.0	0.035	1.192		1.0	0.035	0.035
4-Ethyltoluene	ND	U	1.0	0.039	0.159		1.0	0.039	0.039
1,3,5-Trimethylbenzene	ND	U	1.0	0.039	0.251		1.0	0.039	0.039
1,2,4-Trimethylbenzene	ND	U	1.0	0.039	0.408		1.0	0.039	0.039
Benzyl Chloride	ND	U	1.0	0.207	0.223		1.0	0.207	0.207
1,3-Dichlorobenzene	ND	U	1.0	0.048	0.053		1.0	0.048	0.048
1,4-Dichlorobenzene	ND	U	1.0	0.048	ND	U	1.0	0.048	0.048
1,2-Dichlorobenzene	ND	U	1.0	0.048	0.183		1.0	0.048	0.048
1,2,4-Trichlorobenzene	ND	U	1.0	0.059	ND	U	1.0	0.059	0.059
Hexachlorobutadiene	ND	U	1.0	0.085	ND	U	1.0	0.085	0.085
BFB-Surrogate Std. % Recovery	97%				98%				70-130%

U - Compound was analyzed for, but was not detected.

Sucha S. Parmar, PhD
Technical Director

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Desert Air Environmental Services
PROJECT NO : 070470
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 05/08/07
DATE REPORTED : 05/22/07

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 2 Tube 2 of 2 not spiked			Sample Reporting Limit (RLxDF's)	Run 2 Tube 1 of 2 spiked			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	070470-25352				070470-25353				
Date Sampled	5/2/2007				5/2/2007				
Date Analyzed	5/21/2007				5/21/2007				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Chlorodifluoromethane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
Propylene	ND	U	1.0	0.014	0.051		1.0	0.014	0.014
Dichlorodifluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
1,2-Dichloro-1,1,2,2-Tetrafluoroethane	ND	U	1.0	0.056	ND	U	1.0	0.056	0.056
Vinyl Chloride	ND	U	1.0	0.020	ND	U	1.0	0.020	0.020
1,3-Butadiene	ND	U	1.0	0.018	ND	U	1.0	0.018	0.018
Bromomethane	ND	U	1.0	0.031	0.051		1.0	0.031	0.031
Chloroethane	ND	U	1.0	0.021	ND	U	1.0	0.021	0.021
Dichlorofluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
Ethanol	ND	U	1.0	0.030	ND	U	1.0	0.030	0.030
Vinyl Bromide	ND	U	1.0	0.035	ND	U	1.0	0.035	0.035
Trichlorofluoromethane	ND	U	1.0	0.042	ND	U	1.0	0.042	0.042
Isopropyl Alcohol	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
Acrylonitrile	ND	U	1.0	0.017	0.036		1.0	0.017	0.017
1,1-Dichloroethylene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Allyl Chloride (Chloroprene)	ND	U	1.0	0.025	ND	U	1.0	0.025	0.025
Carbon Disulfide	ND	U	1.0	0.025	ND	U	1.0	0.025	0.025
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
t-1,2-Dichloroethylene	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
MTBE	ND	U	1.0	0.029	ND	U	1.0	0.029	0.029
Vinyl Acetate	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
2-Butanone (MEK)	ND	U	1.0	0.024	0.161		1.0	0.024	0.024
cis-1,2- Dichloroethene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Hexane	ND	U	1.0	0.028	0.062		1.0	0.028	0.028
Chloroform	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
Ethyl Acetate	ND	U	1.0	0.029	ND	U	1.0	0.029	0.029
Tetrahydrofuran	ND	U	1.0	0.024	ND	U	1.0	0.024	0.024
1,2-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1,1-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Desert Air Environmental Services
PROJECT NO : 070470
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 05/08/07
DATE REPORTED : 05/22/07

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 2 Tube 2 of 2 not spiked			Sample Reporting Limit (RLxDF's)	Run 2 Tube 1 of 2 spiked			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	070470-25352				070470-25353				
Date Sampled	5/2/2007				5/2/2007				
Date Analyzed	5/21/2007				5/21/2007				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Benzene	0.336		1.0	0.026	3.028		10.0	0.255	0.026
Carbon Tetrachloride	ND	U	1.0	0.050	ND	U	1.0	0.050	0.050
Cyclohexane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
1,2-Dichloropropane	ND	U	1.0	0.037	ND	U	1.0	0.037	0.037
Bromodichloromethane	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
1,4-Dioxane	ND	U	1.0	0.029	0.118		1.0	0.029	0.029
Trichloroethene	ND	U	1.0	0.043	ND	U	1.0	0.043	0.043
2,2,4-Trimethylpentane	ND	U	1.0	0.037	ND	U	1.0	0.037	0.037
Heptane	ND	U	1.0	0.033	0.219		1.0	0.033	0.033
cis-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
4-Methyl-2-Pentanone (MiBK)	ND	U	1.0	0.033	0.152		1.0	0.033	0.033
t-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
1,1,2-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044
Toluene	1.592		2.0	0.060	6.100		10.0	0.301	0.030
2-Hexanone	ND	U	1.0	0.033	0.255		1.0	0.033	0.033
Dibromochloromethane	ND	U	1.0	0.068	ND	U	1.0	0.068	0.068
1,2-Dibromoethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
Tetrachloroethylene	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
Chlorobenzene	ND	U	1.0	0.037	0.463		1.0	0.037	0.037
Ethylbenzene	ND	U	1.0	0.035	1.365		1.0	0.035	0.035
m- & p-Xylenes	ND	U	1.0	0.069	2.339		1.0	0.069	0.069
Bromoform	ND	U	1.0	0.248	ND	U	1.0	0.248	0.248
Styrene	ND	U	1.0	0.034	4.121		10.0	0.341	0.034
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.055	ND	U	1.0	0.055	0.055
o-Xylene	ND	U	1.0	0.035	0.935		1.0	0.035	0.035
4-Ethyltoluene	ND	U	1.0	0.039	0.083		1.0	0.039	0.039
1,3,5-Trimethylbenzene	ND	U	1.0	0.039	0.096		1.0	0.039	0.039
1,2,4-Trimethylbenzene	ND	U	1.0	0.039	0.164		1.0	0.039	0.039
Benzyl Chloride	ND	U	1.0	0.207	ND	U	1.0	0.207	0.207
1,3-Dichlorobenzene	ND	U	1.0	0.048	ND	U	1.0	0.048	0.048
1,4-Dichlorobenzene	ND	U	1.0	0.048	ND	U	1.0	0.048	0.048
1,2-Dichlorobenzene	ND	U	1.0	0.048	0.122		1.0	0.048	0.048
1,2,4-Trichlorobenzene	ND	U	1.0	0.059	ND	U	1.0	0.059	0.059
Hexachlorobutadiene	ND	U	1.0	0.085	ND	U	1.0	0.085	0.085
IBFB-Surrogate Std. % Recovery	95%				97%				70-130%

U - Compound was analyzed for, but was not detected.

Sucha S. Parmar, PhD
Technical Director

1534 Eastman Avenue • Suite A • Ventura, California 93003 (805) 650-1642 • FAX (805) 650-1644

Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Desert Air Environmental Services
PROJECT NO : 070470
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 05/08/07
DATE REPORTED : 05/22/07

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 3 Tube 2 of 2 not spiked			Sample Reporting Limit (RLxDF's)	Run 3 Tube 1 of 2 spiked			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	070470-25354				070470-25355				
Date Sampled	5/3/2007				5/3/2007				
Date Analyzed	5/21/2007				5/21/2007				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Chlorodifluoromethane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
Propylene	0.015		1.0	0.014	0.070		1.0	0.014	0.014
Dichlorodifluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
1,2-Dichloro-1,1,2,2-Tetrafluoroethane	ND	U	1.0	0.056	ND	U	1.0	0.056	0.056
Vinyl Chloride	ND	U	1.0	0.020	ND	U	1.0	0.020	0.020
1,3-Butadiene	ND	U	1.0	0.018	0.054		1.0	0.018	0.018
Bromomethane	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Chloroethane	ND	U	1.0	0.021	ND	U	1.0	0.021	0.021
Dichlorofluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
Ethanol	ND	U	1.0	0.030	0.046		1.0	0.030	0.030
Vinyl Bromide	ND	U	1.0	0.035	ND	U	1.0	0.035	0.035
Trichlorofluoromethane	ND	U	1.0	0.042	0.075		1.0	0.042	0.042
Isopropyl Alcohol	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
Acrylonitrile	ND	U	1.0	0.017	0.345		1.0	0.017	0.017
1,1-Dichloroethylene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Allyl Chloride (Chloroprene)	ND	U	1.0	0.025	ND	U	1.0	0.025	0.025
Carbon Disulfide	ND	U	1.0	0.025	0.038		1.0	0.025	0.025
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
t-1,2-Dichloroethylene	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
MTBE	ND	U	1.0	0.029	ND	U	1.0	0.029	0.029
Vinyl Acetate	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
2-Butanone (MEK)	0.039		1.0	0.024	0.818		1.0	0.024	0.024
cis-1,2- Dichloroethene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Hexane	0.030		1.0	0.028	0.460		1.0	0.028	0.028
Chloroform	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
Ethyl Acetate	ND	U	1.0	0.029	0.108		1.0	0.029	0.029
Tetrahydrofuran	ND	U	1.0	0.024	0.197		1.0	0.024	0.024
1,2-Dichloroethane	ND	U	1.0	0.032	0.057		1.0	0.032	0.032
1,1,1-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044

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Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : Desert Air Environmental Services
PROJECT NO : 070470
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 05/08/07
DATE REPORTED : 05/22/07

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 3 Tube 2 of 2 not spiked			Sample Reporting Limit (RLxDF's)	Run 3 Tube 1 of 2 spiked			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	070470-25354				070470-25355				
Date Sampled	5/3/2007				5/3/2007				
Date Analyzed	5/21/2007				5/21/2007				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Benzene	0.548		1.0	0.026	23.258		20.0	0.510	0.026
Carbon Tetrachloride	ND	U	1.0	0.050	ND	U	1.0	0.050	0.050
Cyclohexane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
1,2-Dichloropropane	ND	U	1.0	0.037	ND	U	1.0	0.037	0.037
Bromodichloromethane	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
1,4-Dioxane	ND	U	1.0	0.029	0.238		1.0	0.029	0.029
Trichloroethene	ND	U	1.0	0.043	ND	U	1.0	0.043	0.043
2,2,4-Trimethylpentane	ND	U	1.0	0.037	0.047		1.0	0.037	0.037
Heptane	ND	U	1.0	0.033	0.277		1.0	0.033	0.033
cis-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
4-Methyl-2-Pentanone (MiBK)	ND	U	1.0	0.033	0.176		1.0	0.033	0.033
t-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
1,1,2-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044
Toluene	0.672		1.0	0.030	5.303		10.0	0.301	0.030
2-Hexanone	ND	U	1.0	0.033	0.305		1.0	0.033	0.033
Dibromochloromethane	ND	U	1.0	0.068	ND	U	1.0	0.068	0.068
1,2-Dibromoethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
Tetrachloroethylene	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
Chlorobenzene	ND	U	1.0	0.037	0.512		1.0	0.037	0.037
Ethylbenzene	ND	U	1.0	0.035	1.548		1.0	0.035	0.035
m- & p-Xylenes	ND	U	1.0	0.069	2.719		1.0	0.069	0.069
Bromoform	ND	U	1.0	0.248	ND	U	1.0	0.248	0.248
Styrene	ND	U	1.0	0.034	5.111		10.0	0.341	0.034
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.055	ND	U	1.0	0.055	0.055
o-Xylene	ND	U	1.0	0.035	1.104		1.0	0.035	0.035
4-Ethyltoluene	ND	U	1.0	0.039	0.116		1.0	0.039	0.039
1,3,5-Trimethylbenzene	ND	U	1.0	0.039	0.124		1.0	0.039	0.039
1,2,4-Trimethylbenzene	ND	U	1.0	0.039	0.247		1.0	0.039	0.039
Benzyl Chloride	ND	U	1.0	0.207	ND	U	1.0	0.207	0.207
1,3-Dichlorobenzene	ND	U	1.0	0.048	ND	U	1.0	0.048	0.048
1,4-Dichlorobenzene	ND	U	1.0	0.048	ND	U	1.0	0.048	0.048
1,2-Dichlorobenzene	ND	U	1.0	0.048	0.128		1.0	0.048	0.048
1,2,4-Trichlorobenzene	ND	U	1.0	0.059	ND	U	1.0	0.059	0.059
Hexachlorobutadiene	ND	U	1.0	0.085	ND	U	1.0	0.085	0.085
BFB-Surrogate Std. % Recovery	94%				97%				70-130%

U - Compound was analyzed for, but was not detected.

Sucha S. Parmar, PhD
Technical Director

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EPA Method 18 - Sample Rates for VOC

Date	Run #	Start Time	End Time	Start Time	End Time	Sample Train, cc/min **	Spiked Train, cc/min **	Average Sample Rate, cc/min	Total Minutes Sampled *	Total Volume Sampled, vmstd cf	Average Sample Rate, l/min
5/1/2007	1	0105	1005	NA	NA	278.3 279.0		278.65	520	5.12	0.279
5/2/2007	2	0025	0920	NA	NA	295.7 296.0		295.85	510	5.33	0.296
5/3/2007	3	0015	0920	NA	NA	285.5 285.8		285.65	500	5.04	0.286
5/1/2007	1	0105	1005	NA	NA		280.1 280.9	280.50	520	5.15	0.281
5/2/2007	2	0025	0920	1310	2010		275.0 275.9	275.45	510	4.96	0.275
5/3/2007	3	0015	0920	NA	NA		271.0 270.5	270.75	500	4.78	0.271

** Sample pump flow rates were calibrated with a Gilian Gilibrator Air Flow Calibration System at the beginning and end of each run. Flow rates were verified during the runs with a flow rotameter built into the sample pump.

* Sample pumps were on during port changes and delays.

Laboratory Analysis Report

CLIENT : **Desert Air Environmental** **DATE RECEIVED** : **5-8-07**
PROJECT NO : **70470** **DATE REPORTED** : **5-22-07**
MATRIX : **Tenax Sorbent Tube**
UNITS : **ug/sample**

Analyte	Lab Spike (ug)	Field Spike (ug)
Benzene	0.611	0.680
Toluene	0.639	0.658
Ethylbenzene	0.872	0.828
Xylenes	2.363	2.313

Provided by AAC

APPENDIX E
CEM DATA

CONTINUOUS EMISSIONS MONITORING
TEST RESULTS

Client: Nucor Steel, Hertford
Test Date: May-01-07
Start Time: 3:00 PM **Stop Time:** 11:08 AM
Emissions Unit: Baghouse
Project: Compliance

RUN 1

Calibration Data

	O_2 (%)	CO_2 (%)	NO_x (ppm)	CO (ppm)	SO_2 (ppm)
Initial Zero	0.03	0.02	0.48	0.36	0.07
Initial Span	10.11	9.95	46.72	454.16	44.91
Final Zero	-0.34	0.02	0.25	0.29	-0.20
Final Span	9.73	9.96	47.01	473.72	45.17
Zero Drift	-0.37	0.00	-0.23	-0.07	-0.27
Span Drift	-0.38	0.01	0.29	19.84	0.26
Drift Limit	0.63	0.71	2.86	29.85	2.83
Span Gas Value	10.10	9.94	46.81	460.24	45.24
Full Scale Range	20.9	23.8	95.4	994.9	94.4
Method Drift Limit (%)	3%	3%	3%	3%	3%
Analyte Mol Weight	32	44	46	28	64

Stack Gas Parameters

Average Temperature (°F)	192.9	
Moisture Content (%)	2.96%	*flow rates by pitot tube traverse from EPA Method 5*
Process Rate (tons/hr)	274.7	
Flow rate (dscfm)	1118487	

Emission Data

	O_2 (%)	CO_2 (%)	NO_x (ppm)	CO (ppm)	SO_2 (ppm)
Dry average (uncorrected)	19.82	1.02	5.68	109.88	8.88
Dry average (drift corrected)	20.02	1.00	5.35	108.76	8.97
Emission Rate (lb/hr)			42.864	530.318	99.999
Emission Rate (lb/ton)			0.156	1.930	0.364

P-Bar	29.91	BH NO_X	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/01/07	7:26 AM						
05/01/07	7:27 AM	2.22	20.55	0.19	21.34	6.92	
05/01/07	7:28 AM	4.10	20.56	0.17	14.55	5.94	
05/01/07	7:29 AM	5.72	20.59	0.14	11.60	5.60	
05/01/07	7:30 AM	6.64	20.60	0.13	10.69	5.24	
05/01/07	7:31 AM	7.48	20.50	0.27	14.59	5.08	
05/01/07	7:32 AM	6.12	20.19	0.70	33.72	7.26	
05/01/07	7:33 AM	5.95	20.29	0.52	56.24	7.27	
05/01/07	7:34 AM	6.45	20.46	0.26	41.37	5.47	
05/01/07	7:35 AM	8.87	20.58	0.14	14.11	4.47	
05/01/07	7:36 AM	10.79	20.61	0.11	10.53	4.18	
05/01/07	7:37 AM	10.98	20.63	0.10	8.60	3.76	
05/01/07	7:38 AM	9.48	20.64	0.10	8.34	3.00	
05/01/07	7:39 AM	9.47	20.66	0.09	8.29	2.32	
05/01/07	7:40 AM	10.36	20.66	0.10	6.34	1.88	
05/01/07	7:41 AM	9.81	20.63	0.16	6.66	1.67	
05/01/07	7:42 AM	7.66	20.26	0.63	36.14	3.13	
05/01/07	7:43 AM	2.81	19.17	2.37	40.78	7.10	
05/01/07	7:44 AM	1.35	9.77	10.37	8.52	0.30	Calibrate
05/01/07	7:45 AM	0.27	10.10	9.94	0.72	6.20	
05/01/07	7:46 AM	15.80	0.05	0.02	35.91	44.21	
05/01/07	7:47 AM	45.25	0.00	0.02	46.36	44.62	
05/01/07	7:48 AM	47.32	0.01	0.02	46.33	45.12	
05/01/07	7:49 AM	46.90	11.39	1.11	75.76	27.88	
05/01/07	7:50 AM	20.19	19.44	1.76	164.79	10.37	
05/01/07	7:51 AM	6.49	19.36	1.83	212.25	7.39	
05/01/07	7:52 AM	7.69	19.47	1.62	229.09	8.33	
05/01/07	7:53 AM	6.61	19.70	1.40	175.05	9.10	
05/01/07	7:54 AM	3.64	19.73	1.41	156.05	11.15	
05/01/07	7:55 AM	2.92	19.73	1.49	153.49	11.19	On Line
05/01/07	7:56 AM	2.63	19.68	1.56	138.24	8.84	
05/01/07	7:57 AM	2.66	19.61	1.62	162.63	8.34	Standby
05/01/07	7:58 AM	2.83	19.59	1.64	173.10	8.79	
05/01/07	7:59 AM	2.83	19.56	1.65	210.76	9.02	
05/01/07	8:00 AM	2.87	19.64	1.55	198.82	8.95	
05/01/07	8:01 AM	2.65	19.68	1.52	160.48	9.28	
05/01/07	8:02 AM	2.57	19.66	1.54	157.08	9.52	
05/01/07	8:03 AM	2.58	19.68	1.52	144.38	9.21	
05/01/07	8:04 AM	2.66	19.66	1.54	127.79	9.22	
05/01/07	8:05 AM	2.77	19.63	1.57	130.03	9.78	
05/01/07	8:06 AM	3.04	19.65	1.57	136.08	9.16	
05/01/07	8:07 AM	2.87	19.66	1.53	139.75	7.72	
05/01/07	8:08 AM	2.66	19.68	1.49	129.08	6.53	
05/01/07	8:09 AM	2.45	19.70	1.47	129.69	5.86	
05/01/07	8:10 AM	2.29	19.65	1.52	149.17	5.51	
05/01/07	8:11 AM	2.30	19.54	1.61	182.37	5.69	
05/01/07	8:12 AM	2.57	19.58	1.53	175.16	7.26	
05/01/07	8:13 AM	2.78	19.71	1.42	138.55	8.19	
05/01/07	8:14 AM	2.58	19.75	1.41	110.21	7.51	
05/01/07	8:15 AM	2.39	19.77	1.36	106.74	7.54	
05/01/07	8:16 AM	2.19	20.01	1.03	112.29	6.65	
05/01/07	8:17 AM	1.75	20.14	0.82	113.80	5.08	
05/01/07	8:18 AM	1.72	20.36	0.46	94.14	4.75	
05/01/07	8:19 AM	5.82	20.50	0.27	61.45	5.39	
05/01/07	8:20 AM	9.79	20.54	0.21	40.61	5.13	
05/01/07	8:21 AM	9.63	20.56	0.18	32.40	4.25	
05/01/07	8:22 AM	9.40	20.56	0.17	32.73	3.14	
05/01/07	8:23 AM	9.17	20.50	0.25	43.40	2.31	
05/01/07	8:24 AM	9.21	20.51	0.21	43.20	2.02	
05/01/07	8:25 AM	11.71	20.24	0.57	30.94	2.12	
05/01/07	8:26 AM	8.86	19.99	0.92	31.94	4.39	
05/01/07	8:27 AM	6.18	19.87	1.05	27.90	6.63	
05/01/07	8:28 AM	6.42	19.81	1.09	34.78	7.55	
05/01/07	8:29 AM	6.84	19.78	1.12	37.84	7.96	

P-Bar	29.91	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/01/07	8:30 AM	7.07	19.68	1.23	57.49	8.40	
05/01/07	8:31 AM	5.44	19.70	1.25	73.65	7.67	
05/01/07	8:32 AM	4.28	19.06	2.11	102.81	6.77	
05/01/07	8:33 AM	5.30	19.05	1.99	162.18	4.72	
05/01/07	8:34 AM	5.42	19.46	1.55	196.36	3.34	
05/01/07	8:35 AM	3.88	19.51	1.50	151.67	2.99	
05/01/07	8:36 AM	3.58	19.56	1.44	143.49	3.21	
05/01/07	8:37 AM	3.39	19.61	1.41	144.49	3.54	
05/01/07	8:38 AM	3.13	19.66	1.37	150.37	3.71	
05/01/07	8:39 AM	2.94	19.68	1.35	141.99	3.73	
05/01/07	8:40 AM	2.87	19.66	1.40	136.00	4.63	
05/01/07	8:41 AM	2.68	19.66	1.40	137.65	5.56	
05/01/07	8:42 AM	2.91	19.65	1.41	149.33	5.50	
05/01/07	8:43 AM	4.67	19.63	1.42	159.52	6.49	
05/01/07	8:44 AM	5.32	19.59	1.45	151.03	6.83	
05/01/07	8:45 AM	3.99	19.57	1.45	158.86	7.59	
05/01/07	8:46 AM	3.18	19.55	1.42	179.53	8.22	
05/01/07	8:47 AM	3.05	19.58	1.37	186.01	8.02	
05/01/07	8:48 AM	3.02	19.57	1.37	173.17	7.74	
05/01/07	8:49 AM	2.87	19.62	1.32	158.01	7.26	
05/01/07	8:50 AM	2.87	19.61	1.33	160.52	7.18	
05/01/07	8:51 AM	2.94	19.61	1.32	156.84	7.98	
05/01/07	8:52 AM	3.08	19.58	1.35	148.67	6.43	
05/01/07	8:53 AM	3.01	19.62	1.34	141.11	5.22	
05/01/07	8:54 AM	3.09	19.65	1.33	133.81	5.51	
05/01/07	8:55 AM	3.19	19.70	1.29	130.40	5.81	
05/01/07	8:56 AM	3.11	19.70	1.29	117.59	5.88	
05/01/07	8:57 AM	3.00	19.70	1.26	111.32	6.36	
05/01/07	8:58 AM	3.00	20.02	0.78	106.19	6.55	
05/01/07	8:59 AM	3.61	20.35	0.30	75.37	6.84	
05/01/07	9:00 AM	8.00	20.43	0.19	51.59	6.85	
05/01/07	9:01 AM	8.93	20.46	0.17	39.73	6.23	
05/01/07	9:02 AM	9.46	20.50	0.15	35.24	5.68	
05/01/07	9:03 AM	10.90	20.33	0.34	41.20	4.39	
05/01/07	9:04 AM	11.75	20.33	0.32	52.67	4.41	
05/01/07	9:05 AM	16.63	20.37	0.34	33.54	3.79	
05/01/07	9:06 AM	19.75	20.07	0.74	40.58	7.07	
05/01/07	9:07 AM	9.44	19.96	0.90	29.86	10.38	
05/01/07	9:08 AM	5.79	19.92	0.98	32.32	12.07	
05/01/07	9:09 AM	5.20	19.94	1.00	37.41	13.37	
05/01/07	9:10 AM	4.91	19.92	1.03	41.21	13.25	
05/01/07	9:11 AM	4.11	19.86	1.12	45.93	12.16	
05/01/07	9:12 AM	4.34	19.81	1.18	51.46	10.51	
05/01/07	9:13 AM	4.57	19.77	1.27	62.73	9.47	
05/01/07	9:14 AM	3.10	19.81	1.28	80.66	8.75	
05/01/07	9:15 AM	2.63	19.84	1.28	96.26	7.81	
05/01/07	9:16 AM	2.68	19.81	1.32	91.38	7.13	
05/01/07	9:17 AM	2.82	19.69	1.51	100.55	6.78	
05/01/07	9:18 AM	4.54	19.47	1.81	146.02	5.67	
05/01/07	9:19 AM	7.26	19.05	2.29	169.21	4.15	
05/01/07	9:20 AM	8.58	19.19	1.94	207.32	3.43	
05/01/07	9:21 AM	7.99	19.36	1.86	216.09	2.94	
05/01/07	9:22 AM	5.22	19.42	1.81	225.67	3.25	
05/01/07	9:23 AM	3.86	19.51	1.72	199.68	3.88	
05/01/07	9:24 AM	3.48	19.53	1.69	173.42	4.68	
05/01/07	9:25 AM	3.61	19.50	1.72	170.40	6.63	
05/01/07	9:26 AM	3.69	19.52	1.69	159.13	9.12	
05/01/07	9:27 AM	3.42	19.48	1.75	149.73	11.57	
05/01/07	9:28 AM	3.44	19.44	1.79	169.28	13.67	
05/01/07	9:29 AM	4.63	19.41	1.84	156.97	13.40	
05/01/07	9:30 AM	6.04	19.37	1.85	162.32	12.33	
05/01/07	9:31 AM	5.82	19.32	1.90	172.09	11.59	
05/01/07	9:32 AM	4.38	19.45	1.71	155.57	12.02	
05/01/07	9:33 AM	3.92	19.65	1.53	145.64	12.00	

P-Bar	29.91	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/01/07	9:34 AM	3.28	19.83	1.33	128.60	10.46	
05/01/07	9:35 AM	2.67	19.61	1.60	126.17	12.78	
05/01/07	9:36 AM	3.27	19.58	1.60	135.69	15.74	
05/01/07	9:37 AM	4.68	19.86	1.18	128.12	13.99	
05/01/07	9:38 AM	3.11	20.20	0.71	105.51	11.75	
05/01/07	9:39 AM	6.84	20.41	0.43	82.24	11.98	
05/01/07	9:40 AM	10.22	20.46	0.37	54.47	11.97	
05/01/07	9:41 AM	9.48	20.48	0.33	42.41	11.14	
05/01/07	9:42 AM	9.71	20.50	0.32	38.36	9.97	
05/01/07	9:43 AM	9.68	20.51	0.33	40.22	7.17	
05/01/07	9:44 AM	9.37	20.52	0.32	42.33	4.66	
05/01/07	9:45 AM	9.87	20.53	0.31	37.95	2.89	
05/01/07	9:46 AM	14.79	20.53	0.30	32.14	2.03	
05/01/07	9:47 AM	16.73	20.44	0.43	35.13	1.71	
05/01/07	9:48 AM	12.65	19.98	1.03	40.25	3.45	
05/01/07	9:49 AM	7.50	19.79	1.21	43.54	6.78	
05/01/07	9:50 AM	6.87	19.72	1.27	54.13	8.80	
05/01/07	9:51 AM	6.27	19.75	1.24	60.33	9.25	
05/01/07	9:52 AM	5.94	19.72	1.30	56.08	8.92	
05/01/07	9:53 AM	3.61	19.71	1.31	59.20	8.73	
05/01/07	9:54 AM	4.63	19.44	1.64	86.60	8.54	
05/01/07	9:55 AM	6.10	19.14	1.92	152.62	6.39	
05/01/07	9:56 AM	6.83	19.29	1.82	152.50	4.57	
05/01/07	9:57 AM	7.44	19.41	1.71	153.69	3.56	
05/01/07	9:58 AM	7.18	19.52	1.62	137.54	3.46	
05/01/07	9:59 AM	5.82	19.62	1.56	137.86	3.51	
05/01/07	10:00 AM	3.27	19.63	1.56	135.69	3.77	
05/01/07	10:01 AM	2.84	19.58	1.62	147.03	4.40	
05/01/07	10:02 AM	2.83	19.56	1.63	150.32	5.55	
05/01/07	10:03 AM	2.77	19.55	1.63	145.41	7.16	
05/01/07	10:04 AM	3.51	19.56	1.60	134.89	8.62	
05/01/07	10:05 AM	5.83	19.55	1.57	134.77	8.66	
05/01/07	10:06 AM	6.06	19.56	1.55	142.40	8.02	
05/01/07	10:07 AM	3.81	19.69	1.45	130.31	7.26	
05/01/07	10:08 AM	2.62	19.69	1.48	111.00	8.73	
05/01/07	10:09 AM	2.57	19.68	1.48	96.49	10.68	
05/01/07	10:10 AM	2.63	19.68	1.50	91.11	12.63	
05/01/07	10:11 AM	2.92	19.63	1.55	96.42	14.22	
05/01/07	10:12 AM	2.95	19.56	1.58	125.42	15.61	
05/01/07	10:13 AM	4.63	19.55	1.55	137.84	17.10	
05/01/07	10:14 AM	6.12	19.57	1.52	135.45	17.28	
05/01/07	10:15 AM	5.73	19.62	1.49	135.62	16.46	
05/01/07	10:16 AM	3.42	19.64	1.47	125.44	15.44	
05/01/07	10:17 AM	3.04	19.65	1.46	123.61	15.81	
05/01/07	10:18 AM	2.79	19.67	1.43	120.95	15.55	
05/01/07	10:19 AM	2.78	19.70	1.39	107.38	14.58	
05/01/07	10:20 AM	3.20	19.77	1.27	97.80	14.81	
05/01/07	10:21 AM	4.96	19.80	1.21	102.92	12.74	
05/01/07	10:22 AM	4.08	19.81	1.17	99.19	10.41	
05/01/07	10:23 AM	3.55	19.88	1.10	91.14	8.67	
05/01/07	10:24 AM	3.51	20.12	0.74	90.94	9.46	
05/01/07	10:25 AM	4.55	20.36	0.46	67.42	12.86	
05/01/07	10:26 AM	8.76	20.45	0.32	31.41	12.23	
05/01/07	10:27 AM	10.39	20.49	0.28	17.12	8.80	
05/01/07	10:28 AM	10.62	20.51	0.29	12.68	6.97	
05/01/07	10:29 AM	10.33	20.52	0.27	10.34	5.85	
05/01/07	10:30 AM	10.12	20.54	0.27	10.96	5.00	
05/01/07	10:31 AM	9.27	20.38	0.48	17.99	5.57	
05/01/07	10:32 AM	6.14	19.98	0.96	49.69	8.51	
05/01/07	10:33 AM	8.34	19.87	1.10	45.00	10.11	
05/01/07	10:34 AM	10.24	19.81	1.19	47.03	12.51	
05/01/07	10:35 AM	8.99	19.76	1.25	50.37	13.34	
05/01/07	10:36 AM	7.64	19.72	1.31	51.01	13.32	
05/01/07	10:37 AM	7.55	19.68	1.35	56.02	13.99	

P-Bar	29.91	BH NO_X	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/01/07	10:38 AM	7.02	19.64	1.41	70.03	14.36	
05/01/07	10:39 AM	5.68	19.58	1.49	89.02	14.10	
05/01/07	10:40 AM	4.70	19.62	1.48	101.36	13.05	
05/01/07	10:41 AM	5.50	19.63	1.50	105.02	12.21	
05/01/07	10:42 AM	6.38	19.67	1.46	105.01	11.19	
05/01/07	10:43 AM	6.26	19.68	1.46	127.00	11.58	
05/01/07	10:44 AM	6.24	19.66	1.46	123.68	12.26	
05/01/07	10:45 AM	6.07	19.66	1.14	121.35	12.33	
05/01/07	10:46 AM	5.15	19.78	1.04	116.70	11.51	
05/01/07	10:47 AM	3.56	19.79	1.05	101.01	11.75	
05/01/07	10:48 AM	5.13	19.78	1.05	105.68	13.10	
05/01/07	10:49 AM	5.52	19.76	1.08	104.68	14.85	
05/01/07	10:50 AM	4.46	19.77	1.08	90.35	15.25	
05/01/07	10:51 AM	3.20	19.79	1.08	88.67	16.67	
05/01/07	10:52 AM	2.90	19.83	1.02	95.02	16.96	
05/01/07	10:53 AM	2.82	19.96	0.80	84.05	14.39	
05/01/07	10:54 AM	3.00	20.25	0.40	101.16	17.21	
05/01/07	10:55 AM	6.00	20.43	0.15	80.23	21.75	
05/01/07	10:56 AM	8.62	20.51	0.05	43.39	18.19	
05/01/07	10:57 AM	9.71	20.52	0.04	27.48	12.21	
05/01/07	10:58 AM	11.16	20.53	0.05	16.88	10.06	
05/01/07	10:59 AM	12.42	20.53	0.04	13.96	9.46	
05/01/07	11:00 AM	13.94	20.54	0.04	12.67	10.23	
05/01/07	11:01 AM	12.01	20.57	0.02	14.61	7.19	
05/01/07	11:02 AM	7.84	20.60	0.02	10.93	5.72	
05/01/07	11:03 AM	6.09	20.60	0.02	10.97	3.50	
05/01/07	11:04 AM	6.88	20.60	0.02	10.30	2.14	
05/01/07	11:05 AM	7.60	20.60	0.02	10.30	1.58	
05/01/07	11:06 AM	7.96	20.60	0.02	10.30	1.26	
05/01/07	11:07 AM	8.70	20.60	0.02	8.62	1.03	
05/01/07	11:08 AM	8.74	20.61	0.02	8.37	0.99	
05/01/07	11:09 AM	8.84	20.61	0.02	8.34	0.92	
05/01/07	11:10 AM	8.68	20.61	0.02	8.35	0.93	
05/01/07	11:11 AM	8.30	20.61	0.02	8.34	0.86	
05/01/07	11:12 AM	6.61	20.61	0.02	8.35	0.75	
05/01/07	11:13 AM	6.83	20.62	0.02	8.39	0.68	
05/01/07	11:14 AM	7.96	20.62	0.02	8.35	0.64	
05/01/07	11:15 AM	8.41	20.62	0.02	8.36	0.88	
05/01/07	11:16 AM	8.82	20.62	0.02	8.35	1.37	
05/01/07	11:17 AM	8.90	20.62	0.02	8.34	1.81	
05/01/07	11:18 AM	8.69	20.62	0.02	8.35	2.33	
05/01/07	11:19 AM	6.86	20.63	0.02	8.34	2.69	
05/01/07	11:20 AM	6.17	20.63	0.02	8.35	3.12	
05/01/07	11:21 AM	6.05	20.63	0.02	8.33	3.72	
05/01/07	11:22 AM	6.00	20.63	0.02	8.33	4.13	
05/01/07	11:23 AM	6.11	20.64	0.02	8.35	4.42	
05/01/07	11:24 AM	6.25	20.64	0.02	8.35	4.31	
05/01/07	11:25 AM	6.31	20.64	0.02	8.34	3.35	
05/01/07	11:26 AM	6.40	20.65	0.02	7.27	3.17	
05/01/07	11:27 AM	5.85	20.65	0.02	6.34	3.03	
05/01/07	11:28 AM	5.95	20.65	0.02	6.74	2.50	
05/01/07	11:29 AM	6.23	20.65	0.02	8.33	2.26	
05/01/07	11:30 AM	5.93	20.66	0.02	8.36	2.39	
05/01/07	11:31 AM	5.88	20.66	0.02	8.36	2.30	
05/01/07	11:32 AM	6.10	20.66	0.02	7.63	1.98	
05/01/07	11:33 AM	6.15	20.66	0.02	6.38	2.30	
05/01/07	11:34 AM	6.06	20.66	0.02	6.37	2.48	
05/01/07	11:35 AM	5.99	20.66	0.02	6.36	2.59	
05/01/07	11:36 AM	6.93	20.62	0.06	7.54	1.87	
05/01/07	11:37 AM	9.82	20.58	0.10	12.32	1.41	
05/01/07	11:38 AM	9.32	20.60	0.09	11.60	1.09	
05/01/07	11:39 AM	9.39	20.61	0.07	9.92	0.95	
05/01/07	11:40 AM	8.86	20.61	0.08	7.61	0.92	
05/01/07	11:41 AM	9.94	20.54	0.14	13.13	0.93	

P-Bar	29.91	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/01/07	11:42 AM	6.73	20.49	0.18	25.24	1.05	
05/01/07	11:43 AM	3.20	20.43	0.21	17.63	1.24	
05/01/07	11:44 AM	1.67	20.42	0.23	9.48	1.50	
05/01/07	11:45 AM	1.74	20.42	0.24	8.36	1.77	
05/01/07	11:46 AM	1.80	20.43	0.24	9.53	1.80	
05/01/07	11:47 AM	1.79	20.41	0.26	12.32	1.81	
05/01/07	11:48 AM	1.78	20.35	0.35	15.53	2.23	
05/01/07	11:49 AM	1.66	19.97	0.90	17.83	4.64	
05/01/07	11:50 AM	1.88	19.76	1.18	38.44	8.36	
05/01/07	11:51 AM	2.27	19.72	1.25	63.16	9.25	
05/01/07	11:52 AM	2.32	19.69	1.28	77.29	8.91	
05/01/07	11:53 AM	2.33	19.70	1.28	87.29	8.70	
05/01/07	11:54 AM	2.23	19.63	1.36	93.89	8.39	
05/01/07	11:55 AM	2.68	19.44	1.56	106.56	8.41	
05/01/07	11:56 AM	3.90	19.33	1.67	139.10	7.92	
05/01/07	11:57 AM	4.35	19.29	1.71	140.69	6.41	
05/01/07	11:58 AM	4.68	19.41	1.59	142.22	5.77	
05/01/07	11:59 AM	4.70	19.46	1.52	158.50	5.58	
05/01/07	12:00 PM	4.73	19.53	1.47	167.32	6.24	
05/01/07	12:01 PM	4.30	19.52	1.52	166.56	6.09	
05/01/07	12:02 PM	4.02	19.71	1.29	177.26	5.09	
05/01/07	12:03 PM	2.77	19.79	1.22	183.66	4.46	
05/01/07	12:04 PM	2.44	19.72	1.32	185.00	4.79	
05/01/07	12:05 PM	2.84	19.66	1.37	187.83	5.09	
05/01/07	12:06 PM	3.06	19.62	1.41	208.69	5.15	
05/01/07	12:07 PM	3.08	19.68	1.32	210.39	4.68	
05/01/07	12:08 PM	3.03	19.71	1.26	200.47	4.72	
05/01/07	12:09 PM	3.09	19.76	1.20	191.60	4.67	
05/01/07	12:10 PM	3.11	19.80	1.15	179.87	4.47	
05/01/07	12:11 PM	3.13	19.77	1.21	168.68	4.44	
05/01/07	12:12 PM	3.38	19.73	1.23	166.27	4.25	
05/01/07	12:13 PM	3.39	19.71	1.26	178.46	3.70	
05/01/07	12:14 PM	3.33	19.74	1.22	181.87	3.30	
05/01/07	12:15 PM	3.13	19.72	1.26	167.20	3.17	
05/01/07	12:16 PM	3.31	19.61	1.41	182.53	2.96	
05/01/07	12:17 PM	3.66	19.57	1.45	212.59	2.44	
05/01/07	12:18 PM	3.86	19.60	1.39	205.39	1.98	
05/01/07	12:19 PM	3.70	19.76	1.14	178.54	2.13	
05/01/07	12:20 PM	3.68	19.76	1.18	128.57	3.29	
05/01/07	12:21 PM	3.74	19.86	1.03	107.92	3.88	
05/01/07	12:22 PM	3.57	20.02	0.83	85.37	3.38	
05/01/07	12:23 PM	2.90	20.15	0.62	64.65	3.44	
05/01/07	12:24 PM	2.48	20.13	0.68	87.77	3.81	
05/01/07	12:25 PM	2.18	20.08	0.77	95.78	4.60	
05/01/07	12:26 PM	2.98	20.08	0.75	100.05	4.73	
05/01/07	12:27 PM	3.48	20.25	0.51	114.38	4.28	
05/01/07	12:28 PM	2.53	20.30	0.44	119.06	4.52	
05/01/07	12:29 PM	4.84	20.45	0.19	96.58	3.83	
05/01/07	12:30 PM	6.82	20.53	0.06	61.75	3.55	
05/01/07	12:31 PM	7.41	20.57	0.02	50.87	4.05	
05/01/07	12:32 PM	7.68	20.40	0.24	49.70	4.55	
05/01/07	12:33 PM	4.86	20.17	0.54	59.38	6.71	
05/01/07	12:34 PM	4.75	20.02	0.70	59.71	7.73	
05/01/07	12:35 PM	9.45	19.91	0.82	59.03	7.58	
05/01/07	12:36 PM	9.69	19.78	1.00	63.53	7.19	
05/01/07	12:37 PM	8.38	19.27	1.64	116.72	7.23	
05/01/07	12:38 PM	7.77	19.33	1.56	208.40	4.67	
05/01/07	12:39 PM	7.34	19.54	1.30	228.07	2.93	
05/01/07	12:40 PM	7.51	19.54	1.33	213.38	2.35	
05/01/07	12:41 PM	7.80	19.58	1.35	228.74	1.81	
05/01/07	12:42 PM	6.57	19.64	1.35	215.57	1.64	
05/01/07	12:43 PM	5.63	19.61	1.40	183.23	2.13	
05/01/07	12:44 PM	6.15	19.57	1.42	166.08	3.42	
05/01/07	12:45 PM	7.45	19.46	1.48	180.08	5.14	

P-Bar	29.91	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/01/07	12:46 PM	8.50	19.61	1.31	182.24	6.33	
05/01/07	12:47 PM	8.15	19.65	1.28	163.57	7.03	
05/01/07	12:48 PM	8.25	19.65	1.24	161.25	8.14	
05/01/07	12:49 PM	8.89	19.68	1.20	148.73	9.28	
05/01/07	12:50 PM	8.73	19.73	1.17	132.88	10.03	
05/01/07	12:51 PM	5.22	19.71	1.20	120.86	10.49	
05/01/07	12:52 PM	5.93	19.75	1.16	112.70	9.91	
05/01/07	12:53 PM	8.60	19.67	1.23	141.38	9.47	
05/01/07	12:54 PM	9.69	19.68	1.18	161.58	9.61	
05/01/07	12:55 PM	9.93	19.69	1.17	160.59	9.92	
05/01/07	12:56 PM	9.86	19.72	1.14	146.52	10.15	
05/01/07	12:57 PM	9.37	19.75	1.13	145.39	8.55	
05/01/07	12:58 PM	7.49	19.77	1.13	136.85	7.10	
05/01/07	12:59 PM	7.87	19.84	1.04	117.51	7.11	
05/01/07	1:00 PM	8.14	19.85	1.04	95.50	8.10	
05/01/07	1:01 PM	8.50	19.82	1.09	89.97	8.67	
05/01/07	1:02 PM	8.75	19.78	1.14	104.94	8.90	
05/01/07	1:03 PM	8.63	19.89	0.96	116.51	8.69	
05/01/07	1:04 PM	8.72	20.05	0.75	106.65	9.17	
05/01/07	1:05 PM	8.60	20.13	0.65	80.85	9.98	
05/01/07	1:06 PM	6.78	20.31	0.43	71.42	9.44	
05/01/07	1:07 PM	4.80	20.44	0.27	62.18	10.48	
05/01/07	1:08 PM	6.04	20.51	0.19	44.79	12.72	
05/01/07	1:09 PM	7.03	20.61	0.09	32.32	14.19	
05/01/07	1:10 PM	11.04	20.66	0.03	21.80	10.80	
05/01/07	1:11 PM	10.52	20.69	0.02	17.48	9.72	
05/01/07	1:12 PM	9.40	20.72	0.02	17.24	10.55	
05/01/07	1:13 PM	11.67	20.62	0.15	22.68	10.24	
05/01/07	1:14 PM	14.34	20.63	0.17	18.90	10.27	
05/01/07	1:15 PM	17.70	20.32	0.62	22.85	15.15	
05/01/07	1:16 PM	10.73	20.15	0.81	20.98	19.02	
05/01/07	1:17 PM	7.19	20.05	0.96	24.78	19.28	
05/01/07	1:18 PM	6.35	19.99	1.04	47.39	20.28	
05/01/07	1:19 PM	7.03	20.01	1.08	56.17	20.07	
05/01/07	1:20 PM	6.50	20.03	1.09	61.98	17.76	
05/01/07	1:21 PM	6.26	20.02	1.08	71.57	15.84	
05/01/07	1:22 PM	6.07	20.02	1.08	87.19	14.26	
05/01/07	1:23 PM	4.76	20.03	1.10	89.64	11.88	
05/01/07	1:24 PM	3.35	20.02	1.13	103.63	8.50	
05/01/07	1:25 PM	5.71	20.01	1.16	100.96	6.57	
05/01/07	1:26 PM	6.20	20.01	1.20	112.68	5.69	
05/01/07	1:27 PM	6.40	19.93	1.34	124.12	5.61	
05/01/07	1:28 PM	6.86	19.81	1.47	168.51	5.73	
05/01/07	1:29 PM	6.88	19.90	1.37	180.23	5.49	
05/01/07	1:30 PM	6.92	19.95	1.32	133.24	5.74	
05/01/07	1:31 PM	6.58	20.00	1.26	114.18	5.71	
05/01/07	1:32 PM	6.73	19.86	1.44	129.99	5.99	
05/01/07	1:33 PM	7.69	19.87	1.42	153.12	6.30	
05/01/07	1:34 PM	6.87	19.93	1.39	141.95	6.02	
05/01/07	1:35 PM	5.01	19.89	1.44	133.12	7.40	
05/01/07	1:36 PM	4.27	19.92	1.37	155.82	8.08	
05/01/07	1:37 PM	4.22	19.98	1.30	140.93	6.73	
05/01/07	1:38 PM	3.88	19.96	1.33	136.85	6.06	
05/01/07	1:39 PM	3.70	19.98	1.33	138.84	5.86	
05/01/07	1:40 PM	3.67	19.99	1.33	137.79	6.16	
05/01/07	1:41 PM	3.78	20.06	1.25	135.75	6.00	
05/01/07	1:42 PM	3.58	20.04	1.30	107.81	6.15	
05/01/07	1:43 PM	3.31	20.12	1.17	87.96	5.68	
05/01/07	1:44 PM	3.06	20.43	0.72	77.24	6.03	
05/01/07	1:45 PM	2.60	20.58	0.31	94.05	7.95	
05/01/07	1:46 PM	2.29	20.42	0.60	74.98	10.41	
05/01/07	1:47 PM	5.27	20.61	0.24	59.65	10.06	
05/01/07	1:48 PM	9.08	20.74	0.08	47.92	8.27	
05/01/07	1:49 PM	8.95	20.77	0.05	30.11	8.78	

P-Bar	29.91	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/01/07	1:50 PM	10.76	20.80	0.03	26.43	8.27	
05/01/07	1:51 PM	13.96	20.77	0.11	23.31	6.41	
05/01/07	1:52 PM	15.35	20.65	0.26	22.36	6.22	
05/01/07	1:53 PM	18.58	20.68	0.22	14.73	6.04	
05/01/07	1:54 PM	22.04	20.76	0.11	12.39	6.74	
05/01/07	1:55 PM	22.36	20.79	0.06	12.33	7.12	
05/01/07	1:56 PM	22.21	20.82	0.04	11.06	7.29	
05/01/07	1:57 PM	21.87	20.83	0.03	10.32	7.24	
05/01/07	1:58 PM	20.95	20.84	0.02	8.43	7.82	
05/01/07	1:59 PM	20.81	20.55	0.41	9.89	10.04	
05/01/07	2:00 PM	11.90	20.06	0.95	14.53	16.62	
05/01/07	2:01 PM	6.14	19.96	1.09	25.65	19.12	
05/01/07	2:02 PM	6.51	19.94	1.16	35.92	18.96	
05/01/07	2:03 PM	6.61	19.95	1.14	46.44	18.21	
05/01/07	2:04 PM	6.22	19.97	1.10	54.20	16.50	
05/01/07	2:05 PM	5.63	19.85	1.23	59.98	16.14	
05/01/07	2:06 PM	6.45	19.69	1.42	81.43	15.05	
05/01/07	2:07 PM	6.87	19.51	1.70	132.48	12.52	
05/01/07	2:08 PM	5.81	19.39	1.83	195.73	11.46	
05/01/07	2:09 PM	4.59	19.50	1.72	229.04	8.94	
05/01/07	2:10 PM	5.68	19.61	1.65	254.09	7.50	
05/01/07	2:11 PM	5.91	19.98	1.14	233.84	6.51	
05/01/07	2:12 PM	4.26	20.30	0.80	149.49	7.02	
05/01/07	2:13 PM	3.95	20.00	1.28	96.19	8.22	
05/01/07	2:14 PM	3.17	19.89	1.46	139.56	7.87	
05/01/07	2:15 PM	2.53	19.79	1.56	168.68	8.90	
05/01/07	2:16 PM	3.37	19.81	1.49	177.24	9.53	
05/01/07	2:17 PM	4.12	19.90	1.38	177.54	9.84	
05/01/07	2:18 PM	3.00	19.88	1.42	166.74	9.78	
05/01/07	2:19 PM	2.61	19.87	1.42	170.69	9.45	
05/01/07	2:20 PM	2.90	19.91	1.40	176.02	9.72	
05/01/07	2:21 PM	3.86	19.93	1.41	185.51	9.68	
05/01/07	2:22 PM	3.53	19.95	1.40	168.65	8.22	
05/01/07	2:23 PM	3.35	19.92	1.44	150.55	8.03	
05/01/07	2:24 PM	3.79	19.86	1.48	152.02	9.74	
05/01/07	2:25 PM	4.61	19.89	1.45	159.51	9.35	
05/01/07	2:26 PM	3.97	19.90	1.43	162.38	7.14	
05/01/07	2:27 PM	4.67	19.89	1.45	177.57	6.50	
05/01/07	2:28 PM	5.62	19.93	1.37	163.81	6.61	
05/01/07	2:29 PM	5.49	19.95	1.33	152.54	8.17	
05/01/07	2:30 PM	3.57	19.99	1.30	140.60	10.38	
05/01/07	2:31 PM	2.95	20.19	1.02	118.22	10.53	
05/01/07	2:32 PM	2.72	20.32	0.90	91.39	10.64	
05/01/07	2:33 PM	2.59	20.43	0.72	91.37	10.51	
05/01/07	2:34 PM	2.18	20.54	0.52	83.36	12.15	
05/01/07	2:35 PM	4.42	20.63	0.36	70.72	15.60	
05/01/07	2:36 PM	10.95	20.67	0.26	56.72	19.40	
05/01/07	2:37 PM	11.18	18.66	2.00	56.69	18.10	
05/01/07	2:38 PM	6.54	10.36	9.74	10.02	0.49	
05/01/07	2:39 PM	0.48	10.11	9.95	0.36	0.07	
05/01/07	2:40 PM	1.19	5.54	4.24	8.69	23.03	Calibrate
05/01/07	2:41 PM	30.97	0.03	0.02	45.06	44.48	
05/01/07	2:42 PM	46.72	0.03	0.02	46.36	44.91	
05/01/07	2:43 PM	61.19	0.11	0.03	171.40	190.21	
05/01/07	2:44 PM	236.83	0.04	0.02	454.16	250.32	
05/01/07	2:45 PM	249.83	14.13	0.82	296.45	74.52	
05/01/07	2:46 PM	70.84	19.96	1.23	35.40	12.82	
05/01/07	2:47 PM	2.87	19.90	1.32	45.05	12.21	
05/01/07	2:48 PM	2.56	19.86	1.35	59.37	12.29	On Line
05/01/07	2:49 PM	2.56	19.86	1.34	70.03	11.59	
05/01/07	2:50 PM	2.97	19.89	1.26	87.36	9.34	
05/01/07	2:51 PM	4.25	19.84	1.29	95.37	6.99	
05/01/07	2:52 PM	4.84	19.65	1.49	108.73	6.47	
05/01/07	2:53 PM	5.69	19.51	1.66	151.06	5.12	

P-Bar	29.91	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/01/07	2:54 PM	6.85	19.58	1.62	185.09	4.13	
05/01/07	2:55 PM	6.32	19.65	1.56	186.44	4.89	
05/01/07	2:56 PM	3.83	19.67	1.54	190.85	5.46	
05/01/07	2:57 PM	3.23	19.69	1.49	189.86	7.35	
05/01/07	2:58 PM	3.37	19.74	1.43	195.64	8.69	
05/01/07	2:59 PM	3.25	19.79	1.35	187.57	9.26	
05/01/07	3:00 PM	3.14	19.76	1.38	178.70	9.42	
05/01/07	3:01 PM	3.17	19.78	1.36	175.06	9.91	
05/01/07	3:02 PM	3.83	19.67	1.54	190.85	5.46	
05/01/07	3:03 PM	3.23	19.69	1.49	189.86	7.35	
05/01/07	3:04 PM	3.37	19.74	1.43	195.64	8.69	
05/01/07	3:05 PM	3.25	19.79	1.35	187.57	9.26	Start Run 1
05/01/07	3:06 PM	3.14	19.76	1.38	178.70	9.42	
05/01/07	3:07 PM	4.24	19.75	1.40	125.14	5.59	
05/01/07	3:08 PM	5.97	19.72	1.41	139.64	4.83	
05/01/07	3:09 PM	5.40	19.69	1.38	146.65	5.21	
05/01/07	3:10 PM	6.11	20.03	0.84	139.12	5.86	
05/01/07	3:11 PM	5.83	20.24	0.52	136.32	9.90	
05/01/07	3:12 PM	5.61	20.26	0.49	180.73	15.94	
05/01/07	3:13 PM	4.55	20.22	0.51	173.19	19.80	
05/01/07	3:14 PM	2.77	20.38	0.36	93.38	16.47	
05/01/07	3:15 PM	4.87	20.51	0.23	40.29	15.40	
05/01/07	3:16 PM	6.51	20.52	0.24	30.69	15.69	
05/01/07	3:17 PM	7.86	20.61	0.08	21.75	11.84	
05/01/07	3:18 PM	8.91	20.62	0.06	16.46	8.41	
05/01/07	3:19 PM	9.22	20.65	0.03	14.87	6.37	
05/01/07	3:20 PM	11.49	20.50	0.28	22.30	4.49	
05/01/07	3:21 PM	15.48	20.45	0.33	21.65	3.78	
05/01/07	3:22 PM	19.23	20.25	0.65	23.39	5.75	
05/01/07	3:23 PM	9.77	20.07	0.87	31.37	8.13	
05/01/07	3:24 PM	6.15	20.01	0.97	29.93	8.47	
05/01/07	3:25 PM	5.92	19.98	0.99	27.02	8.85	
05/01/07	3:26 PM	5.67	19.95	1.02	30.77	8.60	
05/01/07	3:27 PM	5.17	19.95	1.01	40.25	7.26	
05/01/07	3:28 PM	5.48	19.93	1.00	42.86	6.29	
05/01/07	3:29 PM	5.46	19.90	1.04	50.68	5.87	
05/01/07	3:30 PM	5.09	19.90	1.05	44.30	5.22	
05/01/07	3:31 PM	5.10	19.90	1.08	45.44	4.39	
05/01/07	3:32 PM	5.48	19.82	1.17	58.86	4.49	
05/01/07	3:33 PM	6.45	19.80	1.16	89.68	7.08	
05/01/07	3:34 PM	4.37	19.79	1.14	115.47	6.55	
05/01/07	3:35 PM	2.92	19.84	1.05	126.57	6.82	
05/01/07	3:36 PM	2.84	19.85	1.03	121.81	8.02	
05/01/07	3:37 PM	2.60	19.87	1.01	123.68	8.78	
05/01/07	3:38 PM	2.52	19.88	0.99	112.39	9.15	
05/01/07	3:39 PM	2.51	19.90	0.97	104.42	8.65	
05/01/07	3:40 PM	2.47	19.95	0.91	97.56	6.22	
05/01/07	3:41 PM	2.36	19.95	0.93	84.74	5.81	
05/01/07	3:42 PM	2.43	19.91	0.96	97.48	8.42	
05/01/07	3:43 PM	2.63	19.88	0.98	94.35	10.43	
05/01/07	3:44 PM	3.54	19.66	1.25	116.23	12.02	
05/01/07	3:45 PM	6.19	19.80	1.02	158.17	10.50	
05/01/07	3:46 PM	4.21	19.91	0.91	105.42	10.42	
05/01/07	3:47 PM	3.33	19.92	0.90	96.35	11.66	
05/01/07	3:48 PM	3.35	19.96	0.83	74.34	11.13	
05/01/07	3:49 PM	3.12	19.95	0.91	47.96	7.53	
05/01/07	3:50 PM	3.08	19.84	1.04	73.96	6.12	
05/01/07	3:51 PM	2.88	20.05	0.69	141.71	5.65	
05/01/07	3:52 PM	2.84	20.28	0.35	166.46	7.54	
05/01/07	3:53 PM	3.81	20.42	0.13	178.92	9.28	
05/01/07	3:54 PM	4.98	20.53	0.03	120.31	11.39	
05/01/07	3:55 PM	8.25	20.56	0.02	57.97	9.38	
05/01/07	3:56 PM	8.80	20.56	0.03	31.73	7.00	
05/01/07	3:57 PM	10.15	20.58	0.02	32.97	5.00	

P-Bar	29.91	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/01/07	3:58 PM	12.90	20.58	0.04	29.27	3.26	
05/01/07	3:59 PM	14.72	20.44	0.27	21.95	2.62	
05/01/07	4:00 PM	17.64	20.43	0.28	15.45	2.46	
05/01/07	4:01 PM	23.00	20.49	0.20	13.47	2.49	
05/01/07	4:02 PM	23.46	20.47	0.25	13.93	3.27	
05/01/07	4:03 PM	14.74	20.13	0.70	22.96	7.91	
05/01/07	4:04 PM	3.20	19.99	0.90	19.77	10.19	
05/01/07	4:05 PM	2.08	19.85	1.12	18.81	11.75	
05/01/07	4:06 PM	2.06	19.79	1.19	27.56	11.52	
05/01/07	4:07 PM	2.02	19.75	1.25	39.36	10.00	
05/01/07	4:08 PM	2.08	19.77	1.21	52.19	8.40	
05/01/07	4:09 PM	2.08	19.79	1.16	58.01	7.49	
05/01/07	4:10 PM	2.09	19.77	1.24	63.03	7.27	
05/01/07	4:11 PM	2.39	19.00	2.23	91.19	8.86	
05/01/07	4:12 PM	3.03	19.48	1.55	177.38	7.05	
05/01/07	4:13 PM	2.68	19.72	1.28	162.55	5.02	
05/01/07	4:14 PM	3.29	19.73	1.29	135.53	4.30	
05/01/07	4:15 PM	4.93	19.72	1.31	118.35	3.75	
05/01/07	4:16 PM	5.12	19.73	1.34	105.03	3.46	
05/01/07	4:17 PM	3.99	19.75	1.33	89.52	3.61	
05/01/07	4:18 PM	2.98	19.76	1.36	77.49	4.13	
05/01/07	4:19 PM	2.94	19.71	1.43	89.49	4.46	
05/01/07	4:20 PM	2.90	19.75	1.36	119.67	4.74	
05/01/07	4:21 PM	2.80	19.78	1.32	117.01	5.22	
05/01/07	4:22 PM	2.61	19.83	1.25	130.19	5.42	
05/01/07	4:23 PM	3.18	19.82	1.22	134.70	4.22	
05/01/07	4:24 PM	3.46	19.85	1.15	132.86	3.49	
05/01/07	4:25 PM	3.18	19.76	1.21	169.20	3.67	
05/01/07	4:26 PM	2.91	19.83	1.13	176.21	3.45	
05/01/07	4:27 PM	3.54	19.93	1.04	149.68	2.83	
05/01/07	4:28 PM	4.22	19.96	1.01	130.86	2.21	
05/01/07	4:29 PM	4.00	19.99	0.98	110.88	1.95	
05/01/07	4:30 PM	2.71	20.04	0.90	89.99	2.35	
05/01/07	4:31 PM	2.19	20.21	0.63	67.31	3.28	
05/01/07	4:32 PM	2.21	20.39	0.38	66.97	6.56	
05/01/07	4:33 PM	4.04	20.45	0.32	53.55	9.90	
05/01/07	4:34 PM	3.48	20.51	0.25	35.87	11.98	
05/01/07	4:35 PM	8.70	20.53	0.21	21.29	12.00	
05/01/07	4:36 PM	9.69	20.57	0.15	15.24	9.36	
05/01/07	4:37 PM	10.25	20.59	0.14	13.35	7.36	
05/01/07	4:38 PM	12.14	20.61	0.12	14.33	5.14	
05/01/07	4:39 PM	13.81	20.57	0.19	16.78	3.55	
05/01/07	4:40 PM	13.36	20.45	0.32	20.89	2.98	
05/01/07	4:41 PM	14.10	20.25	0.67	19.80	4.76	
05/01/07	4:42 PM	11.62	19.90	1.04	26.90	10.68	
05/01/07	4:43 PM	7.44	19.87	1.10	26.08	11.06	
05/01/07	4:44 PM	7.14	19.81	1.18	25.63	10.59	
05/01/07	4:45 PM	6.47	19.76	1.25	47.22	11.44	
05/01/07	4:46 PM	6.40	19.76	1.27	76.07	11.79	
05/01/07	4:47 PM	6.18	19.76	1.37	103.82	9.82	
05/01/07	4:48 PM	5.78	19.74	1.37	137.22	7.44	
05/01/07	4:49 PM	5.30	19.67	1.54	153.44	6.46	
05/01/07	4:50 PM	5.22	19.62	1.63	164.99	5.49	
05/01/07	4:51 PM	6.89	19.38	1.99	160.91	5.18	
05/01/07	4:52 PM	6.84	19.39	1.81	192.38	5.40	
05/01/07	4:53 PM	5.19	19.58	1.65	184.19	5.86	
05/01/07	4:54 PM	4.22	19.60	1.65	195.84	6.31	
05/01/07	4:55 PM	3.79	19.50	1.80	189.47	6.58	
05/01/07	4:56 PM	4.13	19.48	1.79	190.77	7.25	
05/01/07	4:57 PM	4.48	19.46	1.77	208.70	8.61	
05/01/07	4:58 PM	4.47	19.50	1.70	235.89	10.71	
05/01/07	4:59 PM	4.00	19.56	1.64	251.83	11.32	
05/01/07	5:00 PM	3.61	19.57	1.63	238.80	11.45	
05/01/07	5:01 PM	4.46	19.56	1.64	246.42	11.75	

P-Bar	29.91	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/01/07	5:02 PM	6.83	19.55	1.62	260.09	11.16	
05/01/07	5:03 PM	4.68	19.59	1.59	245.95	10.31	
05/01/07	5:04 PM	3.16	19.64	1.53	224.01	8.59	
05/01/07	5:05 PM	2.98	19.65	1.51	203.06	7.71	
05/01/07	5:06 PM	3.22	19.54	1.61	208.40	6.92	
05/01/07	5:07 PM	4.65	19.55	1.59	225.37	5.47	
05/01/07	5:08 PM	5.10	19.54	1.58	230.19	4.65	
05/01/07	5:09 PM	4.35	19.59	1.52	216.37	5.76	
05/01/07	5:10 PM	3.74	19.64	1.47	192.03	7.09	
05/01/07	5:11 PM	3.38	19.74	1.36	154.14	7.90	
05/01/07	5:12 PM	3.05	20.06	0.87	170.49	7.53	
05/01/07	5:13 PM	2.01	20.22	0.66	121.60	8.11	
05/01/07	5:14 PM	2.10	20.31	0.53	106.20	10.35	
05/01/07	5:15 PM	2.35	20.41	0.38	86.99	10.84	
05/01/07	5:16 PM	8.06	20.49	0.27	52.11	9.25	
05/01/07	5:17 PM	9.35	20.51	0.23	37.75	8.15	
05/01/07	5:18 PM	8.68	20.53	0.19	33.47	7.85	
05/01/07	5:19 PM	8.50	20.53	0.20	36.76	6.95	
05/01/07	5:20 PM	10.52	20.45	0.34	36.21	5.25	
05/01/07	5:21 PM	12.91	20.36	0.43	32.28	4.38	
05/01/07	5:22 PM	17.28	20.19	0.74	32.31	6.20	
05/01/07	5:23 PM	13.63	19.83	1.14	32.91	10.58	
05/01/07	5:24 PM	7.83	19.74	1.25	49.22	12.84	
05/01/07	5:25 PM	6.74	19.70	1.33	83.95	12.29	
05/01/07	5:26 PM	6.32	19.64	1.39	103.75	11.00	
05/01/07	5:27 PM	6.23	19.63	1.39	133.16	10.52	
05/01/07	5:28 PM	6.21	19.57	1.49	149.25	10.57	
05/01/07	5:29 PM	5.28	19.50	1.55	142.55	10.79	
05/01/07	5:30 PM	5.12	19.49	1.58	154.72	10.98	
05/01/07	5:31 PM	5.01	19.50	1.61	154.58	10.44	
05/01/07	5:32 PM	5.76	19.41	1.71	180.72	9.29	
05/01/07	5:33 PM	6.85	19.57	1.50	197.83	8.02	
05/01/07	5:34 PM	6.68	19.56	1.51	163.00	7.66	
05/01/07	5:35 PM	5.08	19.46	1.60	179.58	7.84	
05/01/07	5:36 PM	5.63	19.66	1.39	179.65	6.53	
05/01/07	5:37 PM	6.32	19.62	1.44	154.14	5.02	
05/01/07	5:38 PM	5.65	19.56	1.49	181.54	4.41	
05/01/07	5:39 PM	4.59	19.70	1.30	186.26	4.46	
05/01/07	5:40 PM	3.43	19.72	1.28	159.27	5.40	
05/01/07	5:41 PM	3.80	19.78	1.22	127.40	6.68	
05/01/07	5:42 PM	5.41	19.73	1.28	114.56	8.34	
05/01/07	5:43 PM	6.41	19.71	1.28	138.16	10.42	
05/01/07	5:44 PM	7.16	19.73	1.28	117.55	11.85	
05/01/07	5:45 PM	8.02	19.80	1.20	100.32	12.37	
05/01/07	5:46 PM	8.20	19.77	1.31	74.85	11.08	
05/01/07	5:47 PM	6.47	19.44	1.74	104.40	8.32	
05/01/07	5:48 PM	4.69	19.55	1.58	184.27	6.99	
05/01/07	5:49 PM	6.25	19.62	1.50	202.91	9.27	
05/01/07	5:50 PM	7.28	19.66	1.39	175.76	10.87	
05/01/07	5:51 PM	7.62	19.90	0.97	136.46	12.18	
05/01/07	5:52 PM	7.15	20.20	0.55	133.68	13.70	
05/01/07	5:53 PM	6.56	20.38	0.32	90.26	15.02	
05/01/07	5:54 PM	8.64	20.50	0.15	51.79	16.05	
05/01/07	5:55 PM	10.28	20.54	0.09	34.26	11.74	
05/01/07	5:56 PM	8.27	20.56	0.07	25.77	8.88	
05/01/07	5:57 PM	8.40	20.56	0.07	21.78	7.47	
05/01/07	5:58 PM	8.90	20.55	0.07	17.74	7.56	
05/01/07	5:59 PM	9.39	20.55	0.09	14.35	8.31	
05/01/07	6:00 PM	9.57	20.56	0.08	14.01	7.14	
05/01/07	6:01 PM	9.51	20.59	0.06	11.68	6.28	
05/01/07	6:02 PM	9.53	20.60	0.06	10.30	4.62	
05/01/07	6:03 PM	11.38	20.55	0.13	11.94	3.48	
05/01/07	6:04 PM	12.26	20.39	0.30	21.22	3.46	
05/01/07	6:05 PM	15.29	20.46	0.21	16.44	3.70	

P-Bar	29.91	BH NO_X	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/01/07	6:06 PM	26.67	20.52	0.12	13.67	3.68	
05/01/07	6:07 PM	26.59	20.37	0.38	16.96	4.57	
05/01/07	6:08 PM	13.84	19.96	0.84	22.37	9.75	
05/01/07	6:09 PM	6.40	19.85	1.01	22.05	11.65	
05/01/07	6:10 PM	5.89	19.73	1.17	42.37	13.83	
05/01/07	6:11 PM	6.39	19.73	1.22	51.35	14.29	
05/01/07	6:12 PM	6.51	19.68	1.30	59.38	13.44	
05/01/07	6:13 PM	6.47	19.66	1.28	82.01	12.11	
05/01/07	6:14 PM	6.44	19.61	1.30	96.01	10.76	
05/01/07	6:15 PM	5.52	19.44	1.60	143.37	8.93	
05/01/07	6:16 PM	5.23	19.22	1.93	208.35	6.48	
05/01/07	6:17 PM	4.25	19.18	1.99	238.71	5.66	
05/01/07	6:18 PM	3.36	19.14	1.97	293.09	6.27	
05/01/07	6:19 PM	3.51	19.23	1.83	253.39	7.30	
05/01/07	6:20 PM	3.74	19.37	1.66	252.72	8.53	
05/01/07	6:21 PM	3.28	19.72	1.17	250.73	9.22	
05/01/07	6:22 PM	2.38	19.74	1.26	168.38	10.33	
05/01/07	6:23 PM	2.34	19.51	1.56	181.04	11.02	
05/01/07	6:24 PM	2.67	19.39	1.64	223.71	11.42	
05/01/07	6:25 PM	2.75	19.47	1.59	226.71	12.69	
05/01/07	6:26 PM	2.79	19.47	1.61	223.04	13.94	
05/01/07	6:27 PM	2.75	19.51	1.58	216.36	13.93	
05/01/07	6:28 PM	2.69	19.54	1.55	192.71	12.84	
05/01/07	6:29 PM	2.90	19.56	1.52	187.39	13.18	
05/01/07	6:30 PM	4.84	19.50	1.55	192.71	15.61	
05/01/07	6:31 PM	4.80	19.50	1.54	212.43	13.33	
05/01/07	6:32 PM	3.33	19.40	1.63	241.41	10.97	
05/01/07	6:33 PM	3.13	19.50	1.52	250.73	8.55	
05/01/07	6:34 PM	3.11	19.54	1.46	228.51	6.94	
05/01/07	6:35 PM	3.24	19.56	1.45	231.82	6.32	
05/01/07	6:36 PM	3.01	19.61	1.41	192.66	6.12	
05/01/07	6:37 PM	2.98	19.63	1.40	153.49	6.40	
05/01/07	6:38 PM	2.88	19.84	1.07	146.11	6.44	
05/01/07	6:39 PM	2.59	20.03	0.83	101.87	6.24	
05/01/07	6:40 PM	2.10	20.13	0.72	65.86	7.20	
05/01/07	6:41 PM	1.80	20.18	0.63	48.75	8.07	
05/01/07	6:42 PM	2.31	20.34	0.40	49.61	9.59	
05/01/07	6:43 PM	2.56	20.41	0.27	42.48	11.75	
05/01/07	6:44 PM	5.32	20.47	0.18	29.52	15.78	
05/01/07	6:45 PM	8.55	20.53	0.08	20.92	15.64	
05/01/07	6:46 PM	9.45	20.54	0.07	16.95	9.95	
05/01/07	6:47 PM	9.21	20.55	0.06	14.62	7.49	
05/01/07	6:48 PM	9.22	20.55	0.07	14.72	6.18	
05/01/07	6:49 PM	12.52	20.36	0.31	20.33	5.07	
05/01/07	6:50 PM	16.50	20.42	0.22	15.31	4.91	
05/01/07	6:51 PM	22.39	20.25	0.47	17.80	10.02	
05/01/07	6:52 PM	11.62	20.09	0.72	22.33	13.63	
05/01/07	6:53 PM	4.84	19.98	0.91	21.33	12.90	
05/01/07	6:54 PM	4.04	19.88	1.06	27.40	13.40	
05/01/07	6:55 PM	3.12	19.82	1.15	52.42	13.83	
05/01/07	6:56 PM	2.81	19.73	1.23	79.01	14.68	
05/01/07	6:57 PM	3.25	19.63	1.35	100.82	14.84	
05/01/07	6:58 PM	3.94	19.48	1.49	140.63	15.35	
05/01/07	6:59 PM	4.40	19.41	1.60	186.91	13.76	
05/01/07	7:00 PM	4.96	19.38	1.64	220.83	11.60	
05/01/07	7:01 PM	5.67	19.37	1.66	238.18	10.61	
05/01/07	7:02 PM	5.94	19.42	1.62	218.57	12.98	
05/01/07	7:03 PM	4.96	19.25	1.84	258.99	15.82	
05/01/07	7:04 PM	4.11	19.07	2.02	333.74	15.13	
05/01/07	7:05 PM	4.37	19.08	1.94	398.36	14.63	
05/01/07	7:06 PM	6.27	19.19	1.84	429.58	12.84	
05/01/07	7:07 PM	6.76	19.37	1.64	421.06	10.36	
05/01/07	7:08 PM	6.19	19.41	1.61	393.25	9.72	
05/01/07	7:09 PM	6.11	19.53	1.46	321.02	10.45	

P-Bar	29.91	BH NO_X	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/01/07	7:10 PM	5.64	19.69	1.32	227.46	10.01	
05/01/07	7:11 PM	5.71	19.68	1.37	175.18	10.24	
05/01/07	7:12 PM	5.47	19.68	1.37	139.96	10.22	
05/01/07	7:13 PM	5.61	19.66	1.41	126.42	10.07	
05/01/07	7:14 PM	4.46	19.62	1.47	137.81	9.61	
05/01/07	7:15 PM	3.06	19.53	1.61	177.18	9.29	
05/01/07	7:16 PM	3.41	19.50	1.59	196.91	7.88	
05/01/07	7:17 PM	4.51	19.82	1.14	166.04	6.27	
05/01/07	7:18 PM	4.09	19.91	1.03	101.47	6.62	
05/01/07	7:19 PM	4.41	20.00	0.89	66.62	8.42	
05/01/07	7:20 PM	3.48	20.11	0.70	52.40	11.64	
05/01/07	7:21 PM	2.54	20.20	0.58	53.54	14.57	
05/01/07	7:22 PM	2.52	20.16	0.57	62.55	13.18	
05/01/07	7:23 PM	3.64	19.70	1.19	59.66	10.62	
05/01/07	7:24 PM	4.55	19.30	1.59	132.44	8.42	
05/01/07	7:25 PM	3.97	19.34	1.76	318.13	6.82	
05/01/07	7:26 PM	3.33	19.44	1.67	418.08	5.74	
05/01/07	7:27 PM	3.29	19.47	1.63	403.37	5.21	
05/01/07	7:28 PM	3.33	19.50	1.52	349.85	5.50	
05/01/07	7:29 PM	3.70	19.53	1.40	307.42	8.18	
05/01/07	7:30 PM	4.22	19.72	1.08	289.46	11.31	
05/01/07	7:31 PM	3.31	20.13	0.54	279.41	11.40	
05/01/07	7:32 PM	1.71	20.28	0.36	234.29	13.67	
05/01/07	7:33 PM	2.99	20.39	0.22	174.14	16.59	
05/01/07	7:34 PM	9.40	20.42	0.18	108.08	14.66	
05/01/07	7:35 PM	9.45	20.41	0.18	70.02	12.80	
05/01/07	7:36 PM	8.61	20.45	0.13	66.51	10.79	
05/01/07	7:37 PM	11.57	20.35	0.33	71.55	7.56	
05/01/07	7:38 PM	13.49	20.24	0.42	62.70	6.87	
05/01/07	7:39 PM	16.05	20.24	0.46	54.71	6.83	
05/01/07	7:40 PM	13.80	19.75	1.07	62.58	11.80	
05/01/07	7:41 PM	4.75	19.67	1.18	65.43	14.90	
05/01/07	7:42 PM	4.03	19.62	1.25	64.78	15.37	
05/01/07	7:43 PM	3.99	19.60	1.30	67.53	15.93	
05/01/07	7:44 PM	2.91	19.57	1.36	80.08	16.37	
05/01/07	7:45 PM	3.69	19.57	1.35	96.73	15.45	
05/01/07	7:46 PM	5.72	19.58	1.31	105.62	14.80	
05/01/07	7:47 PM	6.11	19.55	1.38	111.86	13.02	
05/01/07	7:48 PM	5.73	19.50	1.44	125.35	9.76	
05/01/07	7:49 PM	5.08	19.51	1.43	140.20	7.86	
05/01/07	7:50 PM	4.93	19.55	1.40	149.11	6.30	
05/01/07	7:51 PM	5.51	19.50	1.46	153.45	6.64	
05/01/07	7:52 PM	6.11	19.51	1.42	173.23	7.90	
05/01/07	7:53 PM	4.29	19.54	1.39	167.78	7.76	
05/01/07	7:54 PM	3.26	19.51	1.41	192.04	7.86	
05/01/07	7:55 PM	2.97	19.70	1.19	170.91	7.77	
05/01/07	7:56 PM	2.49	19.71	1.17	137.42	7.84	
05/01/07	7:57 PM	2.50	19.71	1.18	126.14	8.33	
05/01/07	7:58 PM	2.50	19.68	1.19	114.54	8.47	
05/01/07	7:59 PM	2.59	19.60	1.34	106.27	8.56	
05/01/07	8:00 PM	3.01	19.58	1.35	106.07	8.84	
05/01/07	8:01 PM	3.11	19.54	1.41	117.76	9.90	
05/01/07	8:02 PM	3.29	19.58	1.34	124.73	10.01	
05/01/07	8:03 PM	3.06	19.62	1.28	126.28	8.80	
05/01/07	8:04 PM	3.07	19.65	1.22	123.40	7.15	
05/01/07	8:05 PM	2.81	19.66	1.25	96.33	5.84	
05/01/07	8:06 PM	2.72	19.79	1.02	102.43	5.30	
05/01/07	8:07 PM	3.01	20.10	0.54	99.54	5.37	
05/01/07	8:08 PM	2.94	20.31	0.28	75.46	8.31	
05/01/07	8:09 PM	6.07	20.40	0.14	42.66	11.15	
05/01/07	8:10 PM	8.62	20.41	0.12	27.33	9.25	
05/01/07	8:11 PM	7.81	20.43	0.09	24.17	8.23	
05/01/07	8:12 PM	9.10	20.38	0.17	22.87	7.11	
05/01/07	8:13 PM	11.43	20.32	0.22	21.37	5.83	

P-Bar	29.91	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/01/07	8:14 PM	15.21	20.26	0.32	17.47	5.34	
05/01/07	8:15 PM	13.69	19.84	0.85	23.32	10.08	
05/01/07	8:16 PM	4.26	19.67	1.03	18.31	13.06	
05/01/07	8:17 PM	4.32	19.63	1.12	21.69	14.97	
05/01/07	8:18 PM	4.14	19.65	1.14	45.02	14.64	
05/01/07	8:19 PM	3.23	19.61	1.19	64.17	13.45	
05/01/07	8:20 PM	4.48	19.59	1.21	70.50	11.12	
05/01/07	8:21 PM	4.76	19.56	1.24	82.49	9.65	
05/01/07	8:22 PM	4.93	19.55	1.21	96.31	8.85	
05/01/07	8:23 PM	4.55	19.55	1.24	109.34	7.30	
05/01/07	8:24 PM	4.71	19.58	1.21	143.68	5.58	
05/01/07	8:25 PM	4.53	19.55	1.26	149.15	5.20	
05/01/07	8:26 PM	4.72	19.23	1.66	181.52	5.35	
05/01/07	8:27 PM	5.38	19.14	1.74	232.17	5.30	
05/01/07	8:28 PM	5.56	19.13	1.74	263.18	4.79	
05/01/07	8:29 PM	5.54	19.22	1.65	258.88	3.52	
05/01/07	8:30 PM	5.23	19.71	0.95	244.20	2.76	
05/01/07	8:31 PM	2.98	19.90	0.87	169.02	3.53	
05/01/07	8:32 PM	2.56	19.64	1.24	115.72	5.26	
05/01/07	8:33 PM	4.47	19.48	1.43	179.62	4.68	
05/01/07	8:34 PM	4.89	19.45	1.45	227.09	3.96	
05/01/07	8:35 PM	4.86	19.55	1.33	181.35	3.82	
05/01/07	8:36 PM	4.22	19.58	1.30	164.36	4.96	
05/01/07	8:37 PM	3.06	19.63	1.19	148.94	6.89	
05/01/07	8:38 PM	3.10	19.64	1.10	138.86	7.82	
05/01/07	8:39 PM	4.63	19.62	1.11	118.79	7.53	
05/01/07	8:40 PM	5.52	19.55	1.21	117.72	7.71	
05/01/07	8:41 PM	5.65	19.47	1.40	137.79	7.48	
05/01/07	8:42 PM	3.82	19.49	1.39	161.09	5.89	
05/01/07	8:43 PM	2.95	19.50	1.36	229.24	5.94	
05/01/07	8:44 PM	2.58	19.54	1.29	245.49	5.91	
05/01/07	8:45 PM	3.10	19.55	1.29	224.54	7.29	
05/01/07	8:46 PM	2.98	19.74	0.97	215.34	8.82	
05/01/07	8:47 PM	2.28	20.09	0.47	191.74	8.32	
05/01/07	8:48 PM	2.61	20.24	0.31	124.07	10.09	
05/01/07	8:49 PM	3.43	20.32	0.19	92.80	12.23	
05/01/07	8:50 PM	8.80	20.35	0.15	50.84	11.71	
05/01/07	8:51 PM	9.36	20.37	0.11	32.25	9.18	
05/01/07	8:52 PM	8.94	20.38	0.08	23.90	7.69	
05/01/07	8:53 PM	8.69	20.39	0.07	22.53	7.33	
05/01/07	8:54 PM	8.14	20.41	0.05	27.59	6.98	
05/01/07	8:55 PM	10.76	20.39	0.13	33.05	6.01	
05/01/07	8:56 PM	13.40	20.18	0.37	37.79	5.29	
05/01/07	8:57 PM	12.79	20.23	0.32	29.99	4.33	
05/01/07	8:58 PM	15.21	19.87	0.79	41.68	6.13	
05/01/07	8:59 PM	7.24	19.72	0.99	33.06	9.76	
05/01/07	9:00 PM	6.07	19.65	1.11	29.10	11.01	
05/01/07	9:01 PM	6.10	19.62	1.16	46.32	10.85	
05/01/07	9:02 PM	5.21	19.56	1.25	66.53	10.02	
05/01/07	9:03 PM	5.28	19.59	1.22	83.60	8.53	
05/01/07	9:04 PM	5.90	19.63	1.16	101.49	6.98	
05/01/07	9:05 PM	5.91	19.64	1.16	102.95	5.90	
05/01/07	9:06 PM	3.57	19.61	1.22	102.68	5.39	
05/01/07	9:07 PM	2.35	19.60	1.24	116.31	5.32	
05/01/07	9:08 PM	2.23	19.61	1.20	137.08	5.06	
05/01/07	9:09 PM	2.27	19.58	1.27	152.07	4.66	
05/01/07	9:10 PM	2.28	19.50	1.32	192.74	4.42	
05/01/07	9:11 PM	2.30	19.56	1.25	170.58	4.37	
05/01/07	9:12 PM	2.28	19.63	1.20	169.75	4.21	
05/01/07	9:13 PM	2.32	19.67	1.13	147.63	3.47	
05/01/07	9:14 PM	2.79	19.63	1.16	129.47	2.82	
05/01/07	9:15 PM	4.12	19.60	1.16	121.13	2.42	
05/01/07	9:16 PM	4.34	19.63	1.11	122.48	2.69	
05/01/07	9:17 PM	2.55	19.72	1.06	104.75	3.75	

P-Bar	29.91	BH NO_X	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/01/07	9:18 PM	2.01	19.74	1.08	78.96	4.55	
05/01/07	9:19 PM	1.98	19.68	1.20	63.10	5.27	
05/01/07	9:20 PM	2.20	19.47	1.47	67.64	6.79	
05/01/07	9:21 PM	2.69	19.37	1.58	119.54	7.75	
05/01/07	9:22 PM	2.92	19.53	1.33	118.65	7.61	
05/01/07	9:23 PM	2.59	19.54	1.27	101.86	8.01	
05/01/07	9:24 PM	4.01	19.61	1.16	84.64	8.96	
05/01/07	9:25 PM	4.92	19.83	0.89	62.23	8.99	
05/01/07	9:26 PM	3.36	19.94	0.71	47.98	8.89	
05/01/07	9:27 PM	1.86	20.16	0.38	44.92	11.67	
05/01/07	9:28 PM	7.21	20.32	0.19	22.64	15.54	
05/01/07	9:29 PM	9.14	20.33	0.15	13.12	14.02	
05/01/07	9:30 PM	8.31	20.36	0.12	10.28	11.42	
05/01/07	9:31 PM	9.66	20.39	0.11	11.57	7.87	
05/01/07	9:32 PM	12.70	20.08	0.53	14.24	6.49	
05/01/07	9:33 PM	14.72	20.14	0.42	11.39	6.82	
05/01/07	9:34 PM	19.47	20.22	0.31	10.26	6.62	
05/01/07	9:35 PM	15.88	19.98	0.59	17.55	10.25	
05/01/07	9:36 PM	4.83	19.60	1.02	19.77	17.92	
05/01/07	9:37 PM	3.52	19.54	1.10	19.78	19.58	
05/01/07	9:38 PM	3.38	19.53	1.13	28.22	19.84	
05/01/07	9:39 PM	3.46	19.50	1.19	20.90	19.78	
05/01/07	9:40 PM	4.31	19.52	1.22	19.91	16.45	
05/01/07	9:41 PM	4.41	19.52	1.25	20.90	14.05	
05/01/07	9:42 PM	2.99	19.50	1.26	28.46	13.43	
05/01/07	9:43 PM	3.62	19.48	1.31	51.98	13.47	
05/01/07	9:44 PM	4.34	19.47	1.35	64.86	13.63	
05/01/07	9:45 PM	2.98	19.09	1.89	115.60	13.41	
05/01/07	9:46 PM	3.38	18.85	2.06	199.23	11.15	
05/01/07	9:47 PM	4.66	18.77	2.09	198.06	7.77	
05/01/07	9:48 PM	4.89	18.97	1.91	225.23	5.26	
05/01/07	9:49 PM	5.41	18.99	1.91	251.41	5.16	
05/01/07	9:50 PM	5.63	19.07	1.83	270.50	5.83	
05/01/07	9:51 PM	4.29	19.19	1.73	279.46	6.64	
05/01/07	9:52 PM	2.72	19.33	1.61	292.05	7.77	
05/01/07	9:53 PM	2.26	19.44	1.50	246.38	8.85	
05/01/07	9:54 PM	2.10	19.44	1.51	220.49	9.26	
05/01/07	9:55 PM	2.27	19.43	1.53	223.71	6.91	
05/01/07	9:56 PM	2.24	19.38	1.61	229.27	7.01	
05/01/07	9:57 PM	2.45	19.43	1.49	212.02	8.59	
05/01/07	9:58 PM	3.33	19.51	1.31	157.78	8.04	
05/01/07	9:59 PM	5.13	19.60	1.14	113.48	6.09	
05/01/07	10:00 PM	6.61	19.61	1.17	84.33	4.98	
05/01/07	10:01 PM	7.49	19.46	1.38	120.71	5.42	
05/01/07	10:02 PM	4.35	19.51	1.28	145.03	5.78	
05/01/07	10:03 PM	2.77	19.48	1.23	124.13	7.00	
05/01/07	10:04 PM	2.91	19.51	1.18	102.82	8.87	
05/01/07	10:05 PM	2.90	19.71	0.95	81.70	9.08	
05/01/07	10:06 PM	2.84	20.01	0.51	67.34	8.84	
05/01/07	10:07 PM	2.85	20.01	0.47	53.37	12.51	
05/01/07	10:08 PM	1.89	19.91	0.69	35.51	15.78	
05/01/07	10:09 PM	1.96	19.76	0.95	25.42	11.41	
05/01/07	10:10 PM	2.12	19.72	0.97	19.97	8.59	
05/01/07	10:11 PM	2.28	19.80	0.78	16.27	8.01	
05/01/07	10:12 PM	4.78	20.13	0.34	23.99	8.02	
05/01/07	10:13 PM	7.92	20.09	0.38	47.96	7.67	
05/01/07	10:14 PM	7.11	20.19	0.25	31.29	7.70	
05/01/07	10:15 PM	8.51	20.23	0.18	21.00	7.58	
05/01/07	10:16 PM	9.37	20.27	0.14	17.28	7.58	
05/01/07	10:17 PM	8.96	20.28	0.11	14.94	7.00	
05/01/07	10:18 PM	9.75	20.31	0.10	12.25	5.96	
05/01/07	10:19 PM	12.51	20.06	0.44	14.26	4.71	
05/01/07	10:20 PM	13.82	20.07	0.43	11.26	4.51	
05/01/07	10:21 PM	13.22	19.90	0.65	16.93	6.61	

P-Bar	29.91	BH NO_X	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/01/07	10:22 PM	7.01	19.72	0.84	15.26	10.41	
05/01/07	10:23 PM	5.22	19.64	0.91	12.26	11.69	
05/01/07	10:24 PM	5.30	19.57	1.01	14.26	13.38	
05/01/07	10:25 PM	4.06	19.64	1.02	26.31	12.53	
05/01/07	10:26 PM	3.90	19.62	1.10	22.66	10.57	
05/01/07	10:27 PM	5.08	19.54	1.21	33.29	9.88	
05/01/07	10:28 PM	4.79	19.54	1.17	47.29	9.50	
05/01/07	10:29 PM	4.43	19.55	1.13	56.64	9.44	
05/01/07	10:30 PM	4.28	19.53	1.13	72.31	9.49	
05/01/07	10:31 PM	3.07	19.51	1.14	66.31	10.29	
05/01/07	10:32 PM	2.15	19.51	1.14	67.97	11.32	
05/01/07	10:33 PM	2.03	19.56	1.10	78.64	10.97	
05/01/07	10:34 PM	2.97	19.55	1.08	96.72	9.16	
05/01/07	10:35 PM	4.11	19.62	1.01	86.76	8.35	
05/01/07	10:36 PM	4.48	19.65	0.99	63.49	8.61	
05/01/07	10:37 PM	3.49	19.67	0.96	64.46	9.88	
05/01/07	10:38 PM	2.07	19.66	0.97	68.13	11.27	
05/01/07	10:39 PM	2.01	19.61	1.02	60.30	12.13	
05/01/07	10:40 PM	2.04	19.57	1.07	58.04	12.07	
05/01/07	10:41 PM	2.57	19.48	1.13	69.43	14.78	
05/01/07	10:42 PM	2.77	19.46	1.15	68.56	17.34	
05/01/07	10:43 PM	2.76	19.45	1.17	64.57	18.48	
05/01/07	10:44 PM	2.79	19.46	1.16	57.12	18.37	
05/01/07	10:45 PM	2.98	19.45	1.15	47.85	19.63	
05/01/07	10:46 PM	3.07	19.46	1.11	44.05	20.94	
05/01/07	10:47 PM	2.89	19.72	0.77	46.49	17.88	
05/01/07	10:48 PM	2.58	19.81	0.66	39.18	15.97	
05/01/07	10:49 PM	2.24	19.81	0.64	35.71	16.11	
05/01/07	10:50 PM	2.22	19.74	0.81	37.95	15.84	
05/01/07	10:51 PM	2.59	19.58	1.04	38.48	16.45	
05/01/07	10:52 PM	4.20	19.44	1.23	70.90	17.04	
05/01/07	10:53 PM	5.29	19.54	1.07	106.82	15.59	
05/01/07	10:54 PM	3.46	19.84	0.59	188.07	10.84	
05/01/07	10:55 PM	2.10	19.82	0.69	276.73	8.57	
05/01/07	10:56 PM	2.12	19.23	1.49	167.10	10.53	
05/01/07	10:57 PM	2.88	19.26	1.50	120.94	11.45	
05/01/07	10:58 PM	3.64	19.59	0.95	91.10	11.36	
05/01/07	10:59 PM	3.87	20.06	0.35	64.09	9.65	
05/01/07	11:00 PM	5.98	20.17	0.21	26.70	7.89	
05/01/07	11:01 PM	7.54	20.21	0.17	13.99	7.14	
05/01/07	11:02 PM	9.66	20.24	0.13	11.71	5.82	
05/01/07	11:03 PM	11.92	20.22	0.17	16.19	3.90	
05/01/07	11:04 PM	12.75	20.14	0.28	18.75	2.85	
05/01/07	11:05 PM	14.62	20.14	0.27	15.17	2.38	
05/01/07	11:06 PM	18.29	20.01	0.45	17.66	2.72	End Run 1
05/01/07	11:07 PM	9.95	19.65	0.87	25.49	6.99	
05/01/07	11:08 PM	4.92	19.48	1.03	22.69	12.08	
Averages		**5.68**	**19.82**	**1.02**	**109.88**	**8.88**	
05/01/07	11:09 PM	4.87	15.43	5.51	23.17	9.86	
05/01/07	11:10 PM	2.31	9.76	10.14	2.59	-0.03	
05/01/07	11:11 PM	0.33	9.73	9.96	0.29	-0.20	Calibrate
05/01/07	11:12 PM	0.25	9.69	9.51	0.33	0.87	
05/01/07	11:13 PM	12.15	0.46	0.02	31.82	42.70	
05/01/07	11:14 PM	44.14	-0.34	0.02	48.28	44.91	
05/01/07	11:15 PM	47.01	-0.34	0.02	48.28	45.17	
05/01/07	11:16 PM	51.42	-0.23	0.02	91.90	138.24	
05/01/07	11:17 PM	224.51	0.00	0.02	454.60	250.40	
05/01/07	11:18 PM	250.31	0.00	0.02	473.72	250.40	

CONTINUOUS EMISSIONS MONITORING
TEST RESULTS

Client: Nucor Steel, Hertford
Test Date: May-02-07
Start Time: 2:20 PM **Stop Time:** 12:26 AM
Emissions Unit: Baghouse
Project: Compliance

RUN 2

Calibration Data

	O_2 (%)	CO_2 (%)	NO_x (ppm)	CO (ppm)	SO_2 (ppm)
Initial Zero	0.00	0.02	0.28	0.38	-0.29
Initial Span	10.00	9.94	47.25	460.96	45.46
Final Zero	-0.04	0.02	0.28	0.27	-0.08
Final Span	9.73	10.13	47.12	459.67	45.81
Zero Drift	-0.04	0.00	0.00	-0.11	0.21
Span Drift	-0.27	0.19	-0.13	-1.29	0.35
Drift Limit	0.63	0.71	2.86	29.85	2.83
Span Gas Value	10.10	9.94	46.81	460.24	45.24
Full Scale Range	20.9	23.8	95.4	994.9	94.4
Method Drift Limit (%)	3%	3%	3%	3%	3%
Analyte Mol Weight	32	44	46	28	64

Stack Gas Parameters

Average Temperature (°F)	203.5	
Moisture Content (%)	3.07%	*flow rates by pitot tube*
Process Rate (tons/hr)	253.1	*traverse from EPA Method 5*
Flow rate (dscfm)	1093802	

Emission Data

	O_2 (%)	CO_2 (%)	NO_x (ppm)	CO (ppm)	SO_2 (ppm)
Dry average (uncorrected)	19.66	0.87	7.22	99.50	6.88
Dry average (drift corrected)	20.11	0.84	6.93	99.23	6.98
Emission Rate (lb/hr)			54.262	473.177	76.034
Emission Rate (lb/ton)			0.214	1.870	0.300

P-Bar	29.85	BH NO_X	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/02/07	10:02 AM	0.44	20.43	0.45	0.43	0.91	
05/02/07	10:03 AM	0.44	20.43	0.46	0.42	0.84	
05/02/07	10:04 AM	0.44	20.44	0.47	0.42	0.87	
05/02/07	10:05 AM	0.44	20.44	0.50	0.41	0.89	
05/02/07	10:06 AM	0.44	20.44	0.48	0.43	0.88	
05/02/07	10:07 AM	0.44	20.44	0.50	0.44	0.89	
05/02/07	10:08 AM	0.44	20.44	0.51	0.42	0.86	
05/02/07	10:09 AM	0.44	20.43	0.51	0.42	0.85	
05/02/07	10:10 AM	0.44	20.43	0.49	0.43	0.85	
05/02/07	10:11 AM	0.44	20.43	0.49	0.40	0.84	
05/02/07	10:12 AM	0.44	20.43	0.48	0.43	0.84	
05/02/07	10:13 AM	0.44	20.43	0.46	0.42	0.83	
05/02/07	10:14 AM	0.44	20.43	0.45	0.42	0.84	
05/02/07	10:15 AM	0.44	20.43	0.46	0.41	0.83	
05/02/07	10:16 AM	0.44	20.43	0.45	0.43	0.85	
05/02/07	10:17 AM	0.44	20.43	0.45	0.39	0.81	
05/02/07	10:18 AM	0.44	20.43	0.44	0.41	0.84	
05/02/07	10:19 AM	0.44	20.43	0.44	0.42	0.82	
05/02/07	10:20 AM	0.44	20.43	0.43	0.41	0.82	
05/02/07	10:21 AM	0.44	20.42	0.42	0.39	0.82	
05/02/07	10:22 AM	0.44	20.42	0.41	0.38	0.82	
05/02/07	10:23 AM	0.44	20.43	0.39	0.42	0.85	
05/02/07	10:24 AM	0.44	20.43	0.38	0.40	0.84	
05/02/07	10:25 AM	0.44	20.44	0.36	0.38	0.85	
05/02/07	10:26 AM	0.44	20.45	0.34	0.41	0.83	
05/02/07	10:27 AM	0.44	20.45	0.37	0.41	0.84	
05/02/07	10:28 AM	0.44	20.45	0.32	0.41	0.85	
05/02/07	10:29 AM	0.39	20.28	0.48	29.74	1.93	
05/02/07	10:30 AM	0.37	20.47	0.17	20.42	3.40	
05/02/07	10:31 AM	0.58	20.50	0.17	11.40	3.02	
05/02/07	10:32 AM	0.83	17.99	3.48	11.05	4.70	
05/02/07	10:33 AM	1.29	10.37	10.19	2.72	0.71	
05/02/07	10:34 AM	0.37	10.15	10.02	0.39	-0.04	
05/02/07	10:35 AM	0.41	10.11	10.01	0.40	-0.22	
05/02/07	10:36 AM	0.40	10.11	10.01	0.38	-0.23	
05/02/07	10:37 AM	2.87	2.89	1.45	22.08	34.57	Calibrate
05/02/07	10:38 AM	27.16	-0.01	0.02	46.40	43.76	
05/02/07	10:39 AM	39.96	-0.01	0.02	46.40	44.77	
05/02/07	10:40 AM	46.74	-0.01	0.02	46.40	45.40	
05/02/07	10:41 AM	46.32	0.00	0.03	50.72	93.44	
05/02/07	10:42 AM	171.40	0.00	0.02	389.07	250.30	
05/02/07	10:43 AM	250.41	0.00	0.02	458.48	250.30	
05/02/07	10:44 AM	250.38	14.75	1.38	361.73	60.07	
05/02/07	10:45 AM	107.77	19.66	1.64	227.91	2.95	
05/02/07	10:46 AM	6.36	19.68	1.61	340.29	1.81	
05/02/07	10:47 AM	4.95	19.72	1.55	387.23	1.56	
05/02/07	10:48 AM	4.14	19.77	1.47	364.17	1.57	
05/02/07	10:49 AM	3.63	19.82	1.40	342.38	1.71	
05/02/07	10:50 AM	3.45	19.79	1.44	314.45	1.88	On Line
05/02/07	10:51 AM	3.69	19.80	1.45	252.08	2.12	
05/02/07	10:52 AM	3.98	19.77	1.46	225.40	2.44	St - By
05/02/07	10:53 AM	4.20	19.87	1.34	201.20	2.56	
05/02/07	10:54 AM	4.26	19.91	1.32	148.72	2.48	
05/02/07	10:55 AM	4.09	19.91	1.32	122.34	2.14	
05/02/07	10:56 AM	4.27	19.86	1.37	128.54	1.79	
05/02/07	10:57 AM	4.29	19.86	1.35	152.04	1.50	
05/02/07	10:58 AM	4.15	19.87	1.35	150.57	1.29	
05/02/07	10:59 AM	3.95	19.90	1.30	185.14	1.12	
05/02/07	11:00 AM	3.76	19.89	1.29	236.27	1.05	
05/02/07	11:01 AM	3.48	19.88	1.29	240.63	0.99	
05/02/07	11:02 AM	3.18	19.86	1.30	245.91	0.96	
05/02/07	11:03 AM	3.07	19.92	1.21	235.40	0.99	
05/02/07	11:04 AM	2.87	20.01	1.11	168.75	1.00	
05/02/07	11:05 AM	3.28	20.03	1.10	98.67	1.08	

P-Bar	29.85	BH NO_X	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/02/07	11:06 AM	3.27	20.03	1.11	72.00	1.29	
05/02/07	11:07 AM	2.98	20.05	1.07	98.88	1.76	
05/02/07	11:08 AM	4.15	20.33	0.62	88.00	2.61	
05/02/07	11:09 AM	11.71	20.59	0.31	57.48	4.85	
05/02/07	11:10 AM	16.29	20.64	0.26	37.68	4.92	
05/02/07	11:11 AM	13.82	20.67	0.25	29.54	5.01	
05/02/07	11:12 AM	13.41	20.68	0.25	24.62	4.55	
05/02/07	11:13 AM	14.59	20.69	0.25	21.68	3.73	
05/02/07	11:14 AM	15.02	20.72	0.25	20.45	3.06	
05/02/07	11:15 AM	18.56	20.37	0.66	52.33	2.89	
05/02/07	11:16 AM	17.34	20.38	0.61	65.81	4.60	
05/02/07	11:17 AM	18.50	20.32	0.80	45.52	5.79	
05/02/07	11:18 AM	13.51	20.05	1.10	44.68	9.86	
05/02/07	11:19 AM	6.12	20.04	1.12	30.80	11.45	
05/02/07	11:20 AM	4.50	20.04	1.14	27.13	13.50	
05/02/07	11:21 AM	5.55	20.07	1.14	30.68	13.81	
05/02/07	11:22 AM	5.65	20.04	1.21	43.07	12.78	
05/02/07	11:23 AM	6.15	20.02	1.24	50.55	11.48	
05/02/07	11:24 AM	6.12	20.02	1.26	47.01	10.12	
05/02/07	11:25 AM	4.49	20.04	1.28	46.72	8.83	
05/02/07	11:26 AM	4.43	20.03	1.32	48.40	7.36	
05/02/07	11:27 AM	4.85	19.83	1.59	73.01	7.82	
05/02/07	11:28 AM	5.83	19.44	2.08	184.91	8.00	
05/02/07	11:29 AM	6.68	19.17	2.39	202.46	7.69	
05/02/07	11:30 AM	6.05	19.25	2.32	229.42	7.30	
05/02/07	11:31 AM	5.23	19.48	2.03	336.27	7.10	
05/02/07	11:32 AM	5.14	19.61	1.90	348.03	7.51	
05/02/07	11:33 AM	3.91	19.54	2.11	412.19	8.35	
05/02/07	11:34 AM	4.42	19.39	2.29	381.01	9.30	
05/02/07	11:35 AM	4.90	19.55	2.16	342.54	10.08	
05/02/07	11:36 AM	5.53	19.48	2.30	446.56	12.22	
05/02/07	11:37 AM	5.27	19.56	2.17	370.81	15.49	
05/02/07	11:38 AM	5.54	19.66	2.03	320.97	17.49	
05/02/07	11:39 AM	5.17	19.67	2.02	277.28	12.52	
05/02/07	11:40 AM	5.40	19.69	1.99	264.58	10.77	
05/02/07	11:41 AM	6.27	19.69	1.99	258.58	10.35	
05/02/07	11:42 AM	6.44	19.68	2.04	252.23	10.59	
05/02/07	11:43 AM	6.12	19.66	2.07	273.66	10.49	
05/02/07	11:44 AM	6.09	19.67	2.11	261.35	10.64	
05/02/07	11:45 AM	6.12	19.66	2.10	324.34	9.76	
05/02/07	11:46 AM	5.01	19.69	2.11	315.43	9.52	
05/02/07	11:47 AM	3.74	19.75	2.06	293.60	7.67	
05/02/07	11:48 AM	4.50	19.83	1.98	256.20	6.05	
05/02/07	11:49 AM	5.30	19.85	1.99	203.22	5.01	
05/02/07	11:50 AM	5.14	19.85	2.03	151.14	4.44	
05/02/07	11:51 AM	5.52	19.83	2.06	134.88	4.77	
05/02/07	11:52 AM	5.46	19.94	1.88	164.00	4.51	
05/02/07	11:53 AM	5.24	20.23	1.45	172.05	5.25	
05/02/07	11:54 AM	4.29	20.40	1.21	147.90	7.50	
05/02/07	11:55 AM	4.00	20.47	1.09	119.28	10.12	
05/02/07	11:56 AM	4.56	20.50	1.01	103.75	11.71	
05/02/07	11:57 AM	5.15	20.63	0.83	72.48	13.38	
05/02/07	11:58 AM	8.58	20.74	0.70	34.41	13.90	
05/02/07	11:59 AM	11.84	20.75	0.67	22.68	10.37	
05/02/07	12:00 PM	10.31	20.77	0.67	17.81	8.01	
05/02/07	12:01 PM	10.15	20.78	0.66	15.25	6.33	
05/02/07	12:02 PM	11.17	20.78	0.66	14.38	4.60	
05/02/07	12:03 PM	10.91	20.71	0.77	18.38	3.92	
05/02/07	12:04 PM	9.55	20.37	1.25	69.73	6.44	
05/02/07	12:05 PM	3.95	20.20	1.45	129.97	8.03	
05/02/07	12:06 PM	3.36	20.29	1.29	151.24	8.14	
05/02/07	12:07 PM	3.11	20.57	0.91	142.83	7.36	
05/02/07	12:08 PM	3.62	20.67	0.77	63.60	6.76	
05/02/07	12:09 PM	5.27	20.73	0.72	32.75	5.67	

P-Bar	29.85	BH NO_X	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/02/07	12:10 PM	6.43	20.76	0.68	26.81	3.91	
05/02/07	12:11 PM	7.21	20.78	0.67	22.62	2.88	
05/02/07	12:12 PM	7.80	20.80	0.64	21.01	2.17	
05/02/07	12:13 PM	5.78	20.81	0.64	13.64	1.74	
05/02/07	12:14 PM	5.00	20.81	0.64	9.91	1.67	
05/02/07	12:15 PM	5.80	20.82	0.64	8.42	1.82	
05/02/07	12:16 PM	5.74	20.82	0.63	8.40	1.59	
05/02/07	12:17 PM	5.99	20.81	0.64	8.41	1.42	
05/02/07	12:18 PM	6.40	20.81	0.64	8.40	1.33	
05/02/07	12:19 PM	7.90	20.80	0.64	8.39	1.21	
05/02/07	12:20 PM	9.58	20.80	0.64	8.41	1.09	
05/02/07	12:21 PM	9.86	20.80	0.64	8.42	0.97	
05/02/07	12:22 PM	9.35	20.81	0.64	8.41	0.95	
05/02/07	12:23 PM	9.48	20.81	0.64	7.91	1.03	
05/02/07	12:24 PM	9.59	20.82	0.64	6.40	1.10	
05/02/07	12:25 PM	9.90	20.81	0.64	6.40	1.25	
05/02/07	12:26 PM	10.70	20.82	0.65	6.40	1.49	
05/02/07	12:27 PM	9.93	20.83	0.65	6.40	1.68	
05/02/07	12:28 PM	9.66	20.83	0.64	6.39	1.77	
05/02/07	12:29 PM	10.06	20.83	0.65	6.39	2.10	
05/02/07	12:30 PM	10.54	20.83	0.66	6.39	2.39	
05/02/07	12:31 PM	10.34	20.83	0.66	6.40	2.47	
05/02/07	12:32 PM	10.10	20.83	0.66	6.39	2.47	
05/02/07	12:33 PM	10.06	20.83	0.67	6.40	2.43	
05/02/07	12:34 PM	9.27	20.83	0.66	6.41	1.79	
05/02/07	12:35 PM	8.03	20.84	0.67	6.39	1.26	
05/02/07	12:36 PM	8.43	20.84	0.67	6.39	1.06	
05/02/07	12:37 PM	8.68	20.85	0.67	6.40	0.94	
05/02/07	12:38 PM	8.34	20.85	0.67	6.41	1.23	
05/02/07	12:39 PM	9.85	20.84	0.67	6.39	1.78	
05/02/07	12:40 PM	10.53	20.84	0.67	6.40	2.18	
05/02/07	12:41 PM	10.25	20.84	0.67	6.40	2.34	
05/02/07	12:42 PM	9.78	20.84	0.67	6.41	2.73	
05/02/07	12:43 PM	10.31	20.84	0.67	6.39	3.02	
05/02/07	12:44 PM	10.41	20.84	0.67	6.40	3.12	
05/02/07	12:45 PM	9.08	20.84	0.67	6.39	2.84	
05/02/07	12:46 PM	7.64	20.85	0.66	6.39	2.73	
05/02/07	12:47 PM	7.59	20.85	0.67	6.40	2.24	
05/02/07	12:48 PM	7.59	20.85	0.67	6.39	2.22	
05/02/07	12:49 PM	7.43	20.85	0.67	6.38	2.31	
05/02/07	12:50 PM	7.65	20.85	0.67	6.39	2.26	
05/02/07	12:51 PM	7.83	20.84	0.67	6.40	2.37	
05/02/07	12:52 PM	8.14	20.84	0.67	6.39	2.12	
05/02/07	12:53 PM	8.78	20.85	0.67	6.40	1.67	
05/02/07	12:54 PM	9.03	20.85	0.67	5.86	1.31	
05/02/07	12:55 PM	9.39	20.85	0.67	4.93	1.16	
05/02/07	12:56 PM	8.63	20.85	0.67	6.40	1.47	
05/02/07	12:57 PM	7.91	20.86	0.65	6.41	2.07	
05/02/07	12:58 PM	7.09	20.86	0.66	6.41	2.06	
05/02/07	12:59 PM	7.83	20.86	0.67	6.38	2.02	
05/02/07	1:00 PM	8.75	20.86	0.66	5.20	2.09	
05/02/07	1:01 PM	8.07	20.86	0.66	4.40	1.97	
05/02/07	1:02 PM	8.67	20.86	0.66	4.40	2.14	
05/02/07	1:03 PM	8.18	20.86	0.66	5.95	2.18	
05/02/07	1:04 PM	8.48	20.83	0.68	6.41	2.35	
05/02/07	1:05 PM	20.46	20.82	0.71	6.40	2.87	
05/02/07	1:06 PM	31.49	20.75	0.75	8.89	3.57	
05/02/07	1:07 PM	17.97	20.47	1.12	35.02	6.79	
05/02/07	1:08 PM	4.32	20.27	1.40	29.77	11.14	
05/02/07	1:09 PM	5.11	19.91	1.94	91.23	13.72	
05/02/07	1:10 PM	4.45	19.77	2.09	223.70	11.99	
05/02/07	1:11 PM	4.36	19.86	1.94	212.89	7.96	
05/02/07	1:12 PM	4.59	19.97	1.77	185.61	6.42	
05/02/07	1:13 PM	5.32	20.04	1.70	143.98	6.16	

P-Bar	29.85	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/02/07	1:14 PM	4.42	19.96	1.86	150.10	6.25	
05/02/07	1:15 PM	4.39	19.80	2.03	198.94	6.29	
05/02/07	1:16 PM	4.83	19.83	1.97	224.60	5.80	
05/02/07	1:17 PM	4.57	19.84	1.97	211.49	5.59	
05/02/07	1:18 PM	4.35	19.83	1.99	183.84	5.76	
05/02/07	1:19 PM	4.70	19.83	1.98	178.25	6.45	
05/02/07	1:20 PM	6.78	19.86	1.96	179.10	7.49	
05/02/07	1:21 PM	5.13	19.84	2.01	171.70	5.76	
05/02/07	1:22 PM	4.34	19.72	2.17	205.80	4.53	
05/02/07	1:23 PM	5.00	19.66	2.23	198.44	3.85	
05/02/07	1:24 PM	6.14	19.58	2.27	305.12	3.78	
05/02/07	1:25 PM	6.35	19.66	2.16	346.08	4.10	
05/02/07	1:26 PM	5.42	19.71	2.10	352.25	4.43	
05/02/07	1:27 PM	3.99	19.76	2.05	351.05	4.54	
05/02/07	1:28 PM	4.31	19.73	2.09	375.02	3.95	
05/02/07	1:29 PM	4.86	19.63	2.17	338.95	3.52	
05/02/07	1:30 PM	4.72	19.64	2.13	291.23	3.15	
05/02/07	1:31 PM	5.07	19.64	2.11	262.38	3.14	
05/02/07	1:32 PM	5.19	19.60	2.16	295.81	3.43	
05/02/07	1:33 PM	4.93	19.66	2.06	325.22	3.66	
05/02/07	1:34 PM	4.76	19.74	1.34	261.73	3.33	
05/02/07	1:35 PM	4.71	19.83	1.21	215.51	3.06	
05/02/07	1:36 PM	5.00	19.79	1.29	183.77	3.10	
05/02/07	1:37 PM	5.50	19.69	1.38	178.77	3.71	
05/02/07	1:38 PM	4.96	19.62	1.44	216.52	4.92	
05/02/07	1:39 PM	4.13	19.56	1.44	262.85	5.43	
05/02/07	1:40 PM	4.12	19.75	1.14	257.72	5.75	
05/02/07	1:41 PM	3.21	20.10	0.71	200.37	5.21	
05/02/07	1:42 PM	2.67	20.39	0.35	178.17	4.83	
05/02/07	1:43 PM	3.93	20.61	0.07	139.36	6.80	
05/02/07	1:44 PM	9.69	20.68	0.02	70.61	7.28	
05/02/07	1:45 PM	10.63	20.70	0.02	45.87	6.60	
05/02/07	1:46 PM	11.21	20.72	0.02	35.02	5.23	
05/02/07	1:47 PM	11.74	20.73	0.02	29.21	4.00	
05/02/07	1:48 PM	12.14	20.75	0.03	32.81	3.29	
05/02/07	1:49 PM	13.77	20.45	0.35	52.87	3.08	
05/02/07	1:50 PM	12.49	20.45	0.35	51.30	3.70	
05/02/07	1:51 PM	10.63	20.15	0.68	58.00	7.14	
05/02/07	1:52 PM	5.05	20.09	0.74	50.67	10.41	
05/02/07	1:53 PM	3.33	20.00	0.85	51.35	12.99	
05/02/07	1:54 PM	4.27	19.92	0.95	59.66	14.66	
05/02/07	1:55 PM	4.93	19.91	0.97	67.51	15.09	
05/02/07	1:56 PM	4.52	19.93	0.97	77.03	14.86	
05/02/07	1:57 PM	4.32	19.93	0.98	66.44	14.18	
05/02/07	1:58 PM	4.70	19.86	1.08	57.88	13.75	
05/02/07	1:59 PM	5.45	19.91	1.04	80.57	12.58	
05/02/07	2:00 PM	4.70	19.96	1.03	64.38	10.92	
05/02/07	2:01 PM	3.15	19.90	1.15	52.14	10.05	
05/02/07	2:02 PM	3.20	19.27	1.96	119.96	9.89	
05/02/07	2:03 PM	3.19	19.38	1.84	196.13	6.94	
05/02/07	2:04 PM	3.24	19.58	1.62	229.75	5.48	
05/02/07	2:05 PM	3.58	19.43	1.74	302.62	3.87	
05/02/07	2:06 PM	4.37	19.53	1.64	290.10	2.42	
05/02/07	2:07 PM	4.32	19.57	1.60	267.48	1.82	
05/02/07	2:08 PM	4.56	18.72	2.83	232.46	8.40	
05/02/07	2:09 PM	4.83	10.43	9.74	51.99	0.30	
05/02/07	2:10 PM	0.95	10.22	9.94	0.38	-0.29	
05/02/07	2:11 PM	0.28	10.00	9.23	0.39	1.88	Calibrate
05/02/07	2:12 PM	11.70	0.59	0.02	30.63	42.91	
05/02/07	2:13 PM	46.28	0.00	0.02	47.04	45.18	
05/02/07	2:14 PM	47.25	0.00	0.02	47.76	45.46	
05/02/07	2:15 PM	96.53	0.00	0.02	219.03	211.43	
05/02/07	2:16 PM	250.34	0.01	0.02	460.96	250.30	
05/02/07	2:17 PM	250.34	6.80	0.66	444.85	162.62	

P-Bar	29.85	BH NO_X	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/02/07	2:18 PM	177.55	19.71	1.45	260.45	15.63	
05/02/07	2:19 PM	5.92	19.76	1.36	206.76	12.59	
05/02/07	2:20 PM	4.90	19.68	1.37	180.11	12.05	
05/02/07	2:21 PM	6.02	19.78	1.15	159.77	13.18	
05/02/07	2:22 PM	5.64	20.18	0.60	138.08	12.26	On Line
05/02/07	2:23 PM	7.84	20.49	0.27	93.75	11.79	
05/02/07	2:24 PM	11.04	20.55	0.18	50.09	9.75	
05/02/07	2:25 PM	12.92	20.58	0.16	34.08	7.97	Start Run 2
05/02/07	2:26 PM	14.12	20.60	0.14	28.09	6.59	
05/02/07	2:27 PM	13.22	20.61	0.14	23.44	5.67	
05/02/07	2:28 PM	13.49	20.49	0.27	25.41	6.45	
05/02/07	2:29 PM	8.59	20.20	0.70	36.42	9.89	
05/02/07	2:30 PM	5.25	19.93	1.01	39.76	10.50	
05/02/07	2:31 PM	4.15	19.85	1.04	39.77	11.70	
05/02/07	2:32 PM	3.74	19.82	1.10	51.08	11.45	
05/02/07	2:33 PM	4.40	19.67	1.26	74.73	11.56	
05/02/07	2:34 PM	5.82	19.12	1.97	147.44	12.29	
05/02/07	2:35 PM	6.13	19.37	1.54	159.77	9.46	
05/02/07	2:36 PM	6.93	19.31	1.69	201.44	6.69	
05/02/07	2:37 PM	7.73	19.13	1.95	273.46	4.67	
05/02/07	2:38 PM	7.31	19.26	1.71	283.47	3.31	
05/02/07	2:39 PM	6.85	19.37	1.65	279.46	3.55	
05/02/07	2:40 PM	6.71	19.41	1.62	282.46	3.94	
05/02/07	2:41 PM	7.06	19.46	1.57	238.08	4.46	
05/02/07	2:42 PM	5.63	19.49	1.57	216.94	4.58	
05/02/07	2:43 PM	3.64	19.48	1.57	210.78	4.72	
05/02/07	2:44 PM	3.29	19.53	1.53	195.34	5.10	
05/02/07	2:45 PM	3.42	19.54	1.52	187.14	5.54	
05/02/07	2:46 PM	4.18	19.55	1.53	159.76	5.74	
05/02/07	2:47 PM	4.61	19.48	1.61	146.94	5.74	
05/02/07	2:48 PM	4.39	19.54	1.56	186.18	5.44	
05/02/07	2:49 PM	3.73	19.49	1.59	228.66	5.02	
05/02/07	2:50 PM	5.46	19.50	1.55	226.95	4.78	
05/02/07	2:51 PM	5.66	19.66	1.30	188.96	4.78	
05/02/07	2:52 PM	3.94	19.58	1.46	117.26	5.81	
05/02/07	2:53 PM	3.57	19.51	1.54	146.24	6.20	
05/02/07	2:54 PM	3.65	19.56	1.47	186.52	5.99	
05/02/07	2:55 PM	3.79	19.58	1.46	161.93	6.50	
05/02/07	2:56 PM	3.81	19.60	1.44	173.45	7.00	
05/02/07	2:57 PM	3.48	19.59	1.41	263.44	7.44	
05/02/07	2:58 PM	3.70	19.56	1.44	257.07	8.07	
05/02/07	2:59 PM	5.02	19.60	1.35	242.79	8.26	
05/02/07	3:00 PM	3.76	19.57	1.38	236.32	8.19	
05/02/07	3:01 PM	3.99	19.55	1.37	237.82	9.35	
05/02/07	3:02 PM	5.89	19.60	1.27	214.09	10.08	
05/02/07	3:03 PM	6.31	19.90	0.86	182.35	9.94	
05/02/07	3:04 PM	5.82	20.27	0.37	164.93	10.14	
05/02/07	3:05 PM	6.04	20.39	0.22	100.90	14.40	
05/02/07	3:06 PM	7.66	20.50	0.08	70.27	17.93	
05/02/07	3:07 PM	9.86	20.53	0.04	43.79	13.69	
05/02/07	3:08 PM	10.78	20.55	0.02	31.14	9.88	
05/02/07	3:09 PM	11.25	20.55	0.02	25.26	8.46	
05/02/07	3:10 PM	11.52	20.57	0.03	21.66	7.89	
05/02/07	3:11 PM	11.63	20.58	0.03	20.80	5.68	
05/02/07	3:12 PM	13.85	20.07	0.54	83.74	4.85	
05/02/07	3:13 PM	12.46	20.20	0.40	80.72	5.65	
05/02/07	3:14 PM	11.77	19.92	0.75	72.57	7.76	
05/02/07	3:15 PM	6.87	19.79	0.86	46.32	12.49	
05/02/07	3:16 PM	6.54	19.81	0.86	33.27	15.38	
05/02/07	3:17 PM	6.92	19.80	0.91	30.51	16.29	
05/02/07	3:18 PM	5.35	19.77	0.95	48.93	16.13	
05/02/07	3:19 PM	5.08	19.74	0.99	64.66	14.44	
05/02/07	3:20 PM	5.25	19.71	1.01	61.86	13.31	
05/02/07	3:21 PM	5.09	19.67	1.06	61.93	12.87	

P-Bar	29.85	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/02/07	3:22 PM	5.49	19.36	1.55	95.64	11.53	
05/02/07	3:23 PM	5.81	18.96	2.13	179.41	7.98	
05/02/07	3:24 PM	4.96	19.17	1.80	210.01	5.53	
05/02/07	3:25 PM	3.72	19.45	1.48	215.87	4.59	
05/02/07	3:26 PM	3.39	19.46	1.52	183.35	4.39	
05/02/07	3:27 PM	3.54	19.43	1.52	184.28	4.67	
05/02/07	3:28 PM	3.93	19.48	1.44	211.21	4.06	
05/02/07	3:29 PM	4.29	19.47	1.41	198.35	3.62	
05/02/07	3:30 PM	4.57	19.51	1.35	208.23	3.44	
05/02/07	3:31 PM	4.30	19.56	1.28	186.29	3.37	
05/02/07	3:32 PM	4.14	19.58	1.24	183.55	3.24	
05/02/07	3:33 PM	4.14	19.70	1.16	135.56	3.15	
05/02/07	3:34 PM	3.91	19.55	1.33	133.00	3.01	
05/02/07	3:35 PM	4.29	19.54	1.28	166.06	3.06	
05/02/07	3:36 PM	4.32	19.58	1.26	151.34	3.42	
05/02/07	3:37 PM	4.22	19.62	1.22	116.04	3.90	
05/02/07	3:38 PM	3.97	19.63	1.19	127.32	3.70	
05/02/07	3:39 PM	3.61	19.61	1.22	153.93	3.33	
05/02/07	3:40 PM	3.55	19.67	1.15	179.79	3.47	
05/02/07	3:41 PM	3.54	19.69	1.13	156.53	4.24	
05/02/07	3:42 PM	3.47	19.71	1.11	116.33	4.95	
05/02/07	3:43 PM	3.87	19.72	1.06	112.41	4.88	
05/02/07	3:44 PM	5.51	19.99	0.61	146.47	4.86	
05/02/07	3:45 PM	5.48	20.30	0.23	177.44	6.71	
05/02/07	3:46 PM	8.38	20.45	0.06	104.58	10.72	
05/02/07	3:47 PM	13.24	20.47	0.03	50.93	10.31	
05/02/07	3:48 PM	14.40	20.49	0.02	29.22	7.92	
05/02/07	3:49 PM	15.59	20.50	0.03	21.09	6.77	
05/02/07	3:50 PM	13.67	20.51	0.02	17.02	5.51	
05/02/07	3:51 PM	11.24	20.51	0.02	20.92	4.52	
05/02/07	3:52 PM	10.70	20.40	0.13	37.33	3.55	
05/02/07	3:53 PM	9.28	20.41	0.11	42.17	3.66	
05/02/07	3:54 PM	10.50	20.17	0.47	29.25	5.03	
05/02/07	3:55 PM	7.57	20.04	0.67	31.98	7.08	
05/02/07	3:56 PM	5.48	19.84	0.93	36.92	7.56	
05/02/07	3:57 PM	5.68	19.75	1.01	58.05	6.91	
05/02/07	3:58 PM	5.91	19.01	2.05	96.46	5.55	
05/02/07	3:59 PM	5.66	18.98	1.84	175.27	4.26	
05/02/07	4:00 PM	6.46	19.49	1.26	144.19	3.05	
05/02/07	4:01 PM	6.12	19.59	1.17	96.78	2.40	
05/02/07	4:02 PM	5.18	19.52	1.34	80.11	2.08	
05/02/07	4:03 PM	5.10	19.51	1.36	88.45	1.84	
05/02/07	4:04 PM	5.17	19.49	1.36	94.60	1.63	
05/02/07	4:05 PM	5.55	19.47	1.39	104.20	1.49	
05/02/07	4:06 PM	4.80	19.48	1.38	99.71	1.39	
05/02/07	4:07 PM	3.94	19.46	1.37	118.85	1.46	
05/02/07	4:08 PM	3.73	19.42	1.41	181.53	1.48	
05/02/07	4:09 PM	3.71	19.39	1.42	268.23	1.56	
05/02/07	4:10 PM	4.00	19.50	1.25	239.62	1.55	
05/02/07	4:11 PM	3.64	19.50	1.30	190.68	1.77	
05/02/07	4:12 PM	3.62	19.53	1.26	198.66	2.05	
05/02/07	4:13 PM	4.78	19.68	1.02	173.12	1.98	
05/02/07	4:14 PM	5.87	19.63	1.08	113.93	1.71	
05/02/07	4:15 PM	5.46	19.71	0.97	100.77	1.49	
05/02/07	4:16 PM	4.10	19.79	0.88	83.17	1.78	
05/02/07	4:17 PM	4.00	19.81	0.89	63.28	2.24	
05/02/07	4:18 PM	5.28	19.79	0.91	55.56	2.25	
05/02/07	4:19 PM	5.82	19.80	0.87	53.72	2.05	
05/02/07	4:20 PM	4.58	19.91	0.74	48.54	2.16	
05/02/07	4:21 PM	4.44	19.93	0.71	42.37	2.64	
05/02/07	4:22 PM	5.97	19.92	0.69	43.71	2.76	
05/02/07	4:23 PM	6.08	19.87	0.69	41.06	2.76	
05/02/07	4:24 PM	4.37	20.09	0.39	75.05	3.40	
05/02/07	4:25 PM	3.96	20.29	0.17	69.38	6.90	

P-Bar	29.85	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/02/07	4:26 PM	5.39	20.40	0.06	29.39	11.53	
05/02/07	4:27 PM	9.17	20.45	0.02	16.85	11.37	
05/02/07	4:28 PM	10.95	20.46	0.02	14.34	7.79	
05/02/07	4:29 PM	10.83	20.47	0.02	13.51	5.59	
05/02/07	4:30 PM	10.87	20.47	0.03	11.51	4.31	
05/02/07	4:31 PM	12.42	20.09	0.47	49.04	4.11	
05/02/07	4:32 PM	12.52	20.12	0.38	80.05	5.22	
05/02/07	4:33 PM	13.77	19.98	0.66	62.05	5.92	
05/02/07	4:34 PM	8.91	19.84	0.83	63.53	6.65	
05/02/07	4:35 PM	5.85	19.88	0.80	49.69	6.35	
05/02/07	4:36 PM	5.38	19.87	0.81	40.39	6.61	
05/02/07	4:37 PM	5.37	19.84	0.86	41.54	6.30	
05/02/07	4:38 PM	5.74	19.66	1.07	44.71	5.56	
05/02/07	4:39 PM	6.61	19.45	1.34	137.89	4.02	
05/02/07	4:40 PM	7.24	19.39	1.43	219.21	2.97	
05/02/07	4:41 PM	6.35	19.41	1.39	187.88	3.36	
05/02/07	4:42 PM	6.04	19.40	1.42	198.00	4.14	
05/02/07	4:43 PM	6.08	19.53	1.25	171.26	3.45	
05/02/07	4:44 PM	5.68	19.65	1.05	104.37	2.17	
05/02/07	4:45 PM	5.08	19.52	1.21	65.30	1.67	
05/02/07	4:46 PM	5.45	19.49	1.23	107.18	2.06	
05/02/07	4:47 PM	5.58	19.62	1.08	135.91	2.50	
05/02/07	4:48 PM	5.18	19.71	0.97	104.77	2.71	
05/02/07	4:49 PM	4.67	19.77	0.89	75.08	2.49	
05/02/07	4:50 PM	5.00	19.79	0.84	70.23	2.15	
05/02/07	4:51 PM	6.59	19.78	0.87	62.64	1.85	
05/02/07	4:52 PM	7.27	19.78	0.83	60.69	1.76	
05/02/07	4:53 PM	7.01	19.82	0.79	57.31	1.83	
05/02/07	4:54 PM	6.44	19.81	0.81	47.71	1.71	
05/02/07	4:55 PM	6.12	19.70	0.92	65.18	1.97	
05/02/07	4:56 PM	5.34	19.56	1.11	117.44	2.32	
05/02/07	4:57 PM	5.04	19.69	0.94	186.86	2.09	
05/02/07	4:58 PM	4.16	19.55	1.14	282.57	1.81	
05/02/07	4:59 PM	4.06	19.54	1.13	334.17	1.70	
05/02/07	5:00 PM	3.56	19.69	0.98	298.12	1.54	
05/02/07	5:01 PM	3.06	19.72	0.96	248.14	1.48	
05/02/07	5:02 PM	2.82	19.74	0.93	160.13	1.84	
05/02/07	5:03 PM	3.11	20.06	0.40	117.45	2.95	
05/02/07	5:04 PM	6.16	20.31	0.08	137.64	4.21	
05/02/07	5:05 PM	11.91	20.38	0.02	92.45	4.94	
05/02/07	5:06 PM	14.75	20.40	0.02	60.32	5.24	
05/02/07	5:07 PM	16.54	20.42	0.02	39.61	5.42	
05/02/07	5:08 PM	17.57	20.43	0.02	29.68	4.74	
05/02/07	5:09 PM	15.37	20.42	0.02	23.70	3.80	
05/02/07	5:10 PM	11.17	20.43	0.03	20.14	3.00	
05/02/07	5:11 PM	11.02	20.43	0.02	18.36	2.48	
05/02/07	5:12 PM	11.01	20.44	0.02	16.78	2.17	
05/02/07	5:13 PM	10.77	20.35	0.15	19.30	2.17	
05/02/07	5:14 PM	8.50	19.94	0.69	32.13	3.71	
05/02/07	5:15 PM	3.48	19.47	1.38	56.23	5.54	
05/02/07	5:16 PM	4.41	18.98	1.93	239.65	4.69	
05/02/07	5:17 PM	4.57	19.14	1.78	362.65	3.06	
05/02/07	5:18 PM	4.82	19.32	1.57	231.73	2.04	
05/02/07	5:19 PM	4.84	19.37	1.46	197.78	1.56	
05/02/07	5:20 PM	5.27	19.37	1.40	190.58	1.36	
05/02/07	5:21 PM	6.38	19.38	1.40	149.46	1.43	
05/02/07	5:22 PM	6.68	19.38	1.46	143.59	1.35	
05/02/07	5:23 PM	6.99	19.34	1.49	156.47	1.26	
05/02/07	5:24 PM	7.09	19.35	1.49	138.32	1.30	
05/02/07	5:25 PM	7.30	19.34	1.47	198.90	1.49	
05/02/07	5:26 PM	6.10	19.46	1.32	176.18	1.60	
05/02/07	5:27 PM	4.26	19.53	1.23	109.37	1.41	
05/02/07	5:28 PM	4.51	19.47	1.30	130.50	1.65	
05/02/07	5:29 PM	4.16	19.49	1.26	171.50	4.35	

P-Bar	29.85	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/02/07	5:30 PM	3.86	19.49	1.25	154.01	6.72	
05/02/07	5:31 PM	3.88	19.48	1.26	139.40	7.64	
05/02/07	5:32 PM	4.22	19.53	1.21	109.58	7.76	
05/02/07	5:33 PM	4.32	19.58	1.17	86.97	7.10	
05/02/07	5:34 PM	4.45	19.53	1.21	63.36	6.71	
05/02/07	5:35 PM	4.74	19.49	1.25	67.43	5.91	
05/02/07	5:36 PM	4.82	19.46	1.28	116.98	4.41	
05/02/07	5:37 PM	5.05	19.50	1.26	158.99	3.86	
05/02/07	5:38 PM	5.14	19.39	1.40	146.18	3.03	
05/02/07	5:39 PM	5.29	19.44	1.33	197.05	2.35	
05/02/07	5:40 PM	5.00	19.58	1.19	163.87	1.85	
05/02/07	5:41 PM	4.50	19.61	1.14	121.23	1.44	
05/02/07	5:42 PM	5.53	19.57	1.16	78.57	1.26	
05/02/07	5:43 PM	6.47	19.57	1.16	66.11	1.19	
05/02/07	5:44 PM	6.94	19.61	1.04	135.58	1.25	
05/02/07	5:45 PM	5.38	19.84	0.66	103.12	1.86	
05/02/07	5:46 PM	6.75	20.19	0.23	68.84	4.95	
05/02/07	5:47 PM	11.03	20.34	0.07	36.11	6.93	
05/02/07	5:48 PM	10.46	20.38	0.03	23.63	7.05	
05/02/07	5:49 PM	8.53	20.42	0.02	17.87	5.57	
05/02/07	5:50 PM	5.87	20.43	0.02	13.07	4.19	
05/02/07	5:51 PM	6.78	20.43	0.02	12.35	3.86	
05/02/07	5:52 PM	7.79	20.43	0.03	12.34	3.59	
05/02/07	5:53 PM	9.49	20.42	0.03	12.35	3.54	
05/02/07	5:54 PM	13.15	20.43	0.02	10.74	4.18	
05/02/07	5:55 PM	12.25	20.43	0.02	8.38	4.95	
05/02/07	5:56 PM	11.45	20.43	0.03	7.73	5.44	
05/02/07	5:57 PM	11.25	20.42	0.04	6.37	5.70	
05/02/07	5:58 PM	11.41	20.42	0.05	6.37	5.85	
05/02/07	5:59 PM	11.42	20.42	0.05	6.35	6.08	
05/02/07	6:00 PM	11.43	20.43	0.03	6.36	6.36	
05/02/07	6:01 PM	14.09	20.42	0.05	7.00	6.34	
05/02/07	6:02 PM	20.45	20.40	0.08	7.70	5.54	
05/02/07	6:03 PM	15.34	20.06	0.40	30.67	5.85	
05/02/07	6:04 PM	13.56	20.19	0.27	22.89	5.60	
05/02/07	6:05 PM	24.88	20.28	0.18	17.76	4.91	
05/02/07	6:06 PM	34.80	20.29	0.20	12.94	4.69	
05/02/07	6:07 PM	24.83	19.94	0.57	37.82	8.33	
05/02/07	6:08 PM	9.11	19.73	0.78	29.86	14.58	
05/02/07	6:09 PM	7.81	19.62	0.91	21.12	18.63	
05/02/07	6:10 PM	9.18	19.61	0.91	22.02	20.87	
05/02/07	6:11 PM	8.87	19.59	0.96	22.09	21.57	
05/02/07	6:12 PM	7.34	19.56	1.01	20.38	20.17	
05/02/07	6:13 PM	6.03	19.40	1.24	37.77	16.57	
05/02/07	6:14 PM	5.86	19.13	1.70	142.37	11.64	
05/02/07	6:15 PM	6.91	19.09	1.80	316.49	8.16	
05/02/07	6:16 PM	6.31	19.17	1.72	345.71	6.24	
05/02/07	6:17 PM	11.20	19.38	1.46	291.80	4.60	
05/02/07	6:18 PM	11.23	19.50	1.25	208.36	4.15	
05/02/07	6:19 PM	6.78	19.50	1.30	127.80	4.62	
05/02/07	6:20 PM	9.31	19.51	1.29	129.04	5.47	
05/02/07	6:21 PM	11.54	19.46	1.34	166.74	6.07	
05/02/07	6:22 PM	11.13	19.46	1.32	172.40	6.22	
05/02/07	6:23 PM	9.82	19.30	1.54	197.40	6.21	
05/02/07	6:24 PM	9.74	19.30	1.56	259.76	6.21	
05/02/07	6:25 PM	8.44	19.41	1.45	214.06	5.89	
05/02/07	6:26 PM	6.62	19.45	1.38	174.06	6.06	
05/02/07	6:27 PM	7.83	19.49	1.31	165.75	5.80	
05/02/07	6:28 PM	7.68	19.49	1.30	149.74	5.98	
05/02/07	6:29 PM	6.79	19.54	1.24	143.72	6.20	
05/02/07	6:30 PM	6.10	19.57	1.21	120.71	5.83	
05/02/07	6:31 PM	7.40	19.55	1.21	107.05	5.66	
05/02/07	6:32 PM	7.77	19.74	0.94	112.03	5.83	
05/02/07	6:33 PM	6.35	19.81	0.85	59.04	6.01	

P-Bar	29.85	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/02/07	6:34 PM	5.81	19.73	0.96	36.74	6.75	
05/02/07	6:35 PM	6.08	19.64	1.04	45.03	8.05	
05/02/07	6:36 PM	6.27	19.78	0.75	71.38	10.54	
05/02/07	6:37 PM	7.50	20.13	0.33	101.70	11.91	
05/02/07	6:38 PM	12.75	20.26	0.20	75.71	10.41	
05/02/07	6:39 PM	15.89	20.32	0.15	35.39	9.20	
05/02/07	6:40 PM	16.73	20.36	0.10	20.70	8.15	
05/02/07	6:41 PM	11.30	20.36	0.10	14.68	6.77	
05/02/07	6:42 PM	11.17	20.36	0.10	12.35	6.83	
05/02/07	6:43 PM	12.32	20.36	0.10	10.28	7.53	
05/02/07	6:44 PM	14.94	20.37	0.09	8.36	7.34	
05/02/07	6:45 PM	15.93	20.38	0.09	7.97	8.15	
05/02/07	6:46 PM	14.95	20.38	0.08	7.06	9.00	
05/02/07	6:47 PM	14.49	20.38	0.08	6.66	8.12	
05/02/07	6:48 PM	15.58	20.38	0.08	6.34	7.06	
05/02/07	6:49 PM	17.35	20.38	0.08	6.36	6.81	
05/02/07	6:50 PM	17.36	20.38	0.08	5.32	6.11	
05/02/07	6:51 PM	17.69	20.39	0.07	4.33	5.46	
05/02/07	6:52 PM	17.48	20.38	0.07	4.35	5.02	
05/02/07	6:53 PM	18.16	20.39	0.08	4.36	4.82	
05/02/07	6:54 PM	20.67	20.35	0.12	4.79	4.90	
05/02/07	6:55 PM	20.25	20.06	0.50	22.72	7.85	
05/02/07	6:56 PM	7.65	19.84	0.88	34.70	9.38	Stand by
05/02/07	6:57 PM	3.85	19.79	0.97	29.26	8.17	
05/02/07	6:58 PM	3.06	19.80	0.94	24.68	7.45	
05/02/07	6:59 PM	3.70	20.09	0.43	38.44	9.49	
05/02/07	7:00 PM	6.85	20.27	0.18	58.91	11.04	
05/02/07	7:01 PM	9.63	20.32	0.14	30.71	10.57	
05/02/07	7:02 PM	9.88	20.34	0.12	17.24	9.16	
05/02/07	7:03 PM	10.41	20.34	0.12	12.25	7.99	
05/02/07	7:04 PM	10.79	20.35	0.12	10.33	7.79	
05/02/07	7:05 PM	10.73	20.30	0.20	12.05	8.04	
05/02/07	7:06 PM	8.36	19.91	0.69	21.64	11.57	
05/02/07	7:07 PM	4.36	19.99	0.54	34.83	12.50	
05/02/07	7:08 PM	5.96	20.19	0.29	26.77	10.93	
05/02/07	7:09 PM	8.67	20.26	0.20	13.73	9.78	
05/02/07	7:10 PM	9.40	20.32	0.13	8.56	8.69	
05/02/07	7:11 PM	7.92	20.36	0.09	5.95	6.06	
05/02/07	7:12 PM	5.96	20.37	0.09	5.69	3.98	
05/02/07	7:13 PM	8.02	20.36	0.09	4.33	3.13	
05/02/07	7:14 PM	11.29	20.37	0.09	4.36	2.63	
05/02/07	7:15 PM	12.36	20.37	0.09	4.35	2.21	
05/02/07	7:16 PM	13.41	20.37	0.09	4.35	1.93	
05/02/07	7:17 PM	12.74	20.37	0.08	4.34	1.69	
05/02/07	7:18 PM	13.65	20.37	0.09	4.38	1.52	
05/02/07	7:19 PM	13.66	20.37	0.08	4.39	1.42	
05/02/07	7:20 PM	14.08	20.37	0.08	4.35	1.36	
05/02/07	7:21 PM	13.83	20.37	0.08	4.35	1.21	
05/02/07	7:22 PM	12.38	20.36	0.08	4.34	1.15	
05/02/07	7:23 PM	12.22	20.36	0.08	4.33	1.13	
05/02/07	7:24 PM	12.22	20.36	0.08	4.33	1.08	
05/02/07	7:25 PM	12.51	20.36	0.08	4.34	1.05	
05/02/07	7:26 PM	10.43	20.35	0.09	4.34	0.97	
05/02/07	7:27 PM	8.61	20.35	0.09	4.35	0.99	
05/02/07	7:28 PM	9.21	20.35	0.08	4.33	0.91	
05/02/07	7:29 PM	10.14	20.35	0.08	4.32	0.91	
05/02/07	7:30 PM	10.07	20.35	0.06	4.35	0.89	
05/02/07	7:31 PM	10.23	20.34	0.03	4.33	0.84	
05/02/07	7:32 PM	10.79	20.33	0.03	4.36	0.85	
05/02/07	7:33 PM	10.56	20.27	0.08	6.10	0.81	
05/02/07	7:34 PM	9.45	20.29	0.05	4.58	0.88	
05/02/07	7:35 PM	9.75	20.31	0.04	4.35	0.98	
05/02/07	7:36 PM	10.11	20.31	0.03	4.33	1.08	
05/02/07	7:37 PM	9.81	20.32	0.02	4.35	1.21	

P-Bar	29.85	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/02/07	7:38 PM	8.28	20.32	0.02	4.35	1.43	
05/02/07	7:39 PM	8.19	20.33	0.02	4.36	1.54	
05/02/07	7:40 PM	8.11	20.33	0.02	4.37	1.52	
05/02/07	7:41 PM	8.17	20.34	0.02	4.33	1.29	
05/02/07	7:42 PM	8.32	20.34	0.02	4.34	1.40	
05/02/07	7:43 PM	8.81	20.33	0.02	4.33	1.78	
05/02/07	7:44 PM	9.27	20.33	0.02	4.36	2.22	
05/02/07	7:45 PM	8.92	20.34	0.02	4.33	2.47	
05/02/07	7:46 PM	8.94	20.34	0.02	4.34	2.70	
05/02/07	7:47 PM	9.06	20.34	0.02	4.34	2.85	
05/02/07	7:48 PM	8.81	20.33	0.02	4.35	2.90	
05/02/07	7:49 PM	8.67	20.34	0.02	4.34	2.90	
05/02/07	7:50 PM	8.79	20.34	0.02	2.89	2.89	
05/02/07	7:51 PM	8.54	20.34	0.02	2.76	3.09	
05/02/07	7:52 PM	7.94	20.34	0.02	4.33	4.15	
05/02/07	7:53 PM	7.69	20.33	0.02	4.33	5.63	
05/02/07	7:54 PM	8.09	20.33	0.03	4.35	7.34	
05/02/07	7:55 PM	7.94	20.33	0.03	4.33	8.54	
05/02/07	7:56 PM	7.88	20.33	0.03	4.34	9.42	
05/02/07	7:57 PM	8.05	20.33	0.03	3.53	10.06	
05/02/07	7:58 PM	8.52	20.33	0.03	2.30	9.43	
05/02/07	7:59 PM	9.00	20.33	0.03	2.31	8.04	
05/02/07	8:00 PM	8.91	20.33	0.03	2.31	7.27	
05/02/07	8:01 PM	8.60	20.33	0.04	2.31	6.90	
05/02/07	8:02 PM	8.21	20.33	0.04	2.31	6.43	
05/02/07	8:03 PM	7.62	20.32	0.03	2.44	6.33	
05/02/07	8:04 PM	7.60	20.31	0.03	3.87	6.47	
05/02/07	8:05 PM	8.46	20.31	0.04	2.31	5.93	
05/02/07	8:06 PM	9.66	20.31	0.03	2.32	5.95	
05/02/07	8:07 PM	9.11	20.31	0.04	2.30	5.58	
05/02/07	8:08 PM	9.05	20.30	0.04	2.30	5.13	
05/02/07	8:09 PM	9.01	20.30	0.03	2.33	4.65	
05/02/07	8:10 PM	8.52	20.29	0.03	2.31	4.25	
05/02/07	8:11 PM	8.70	20.29	0.04	2.30	3.99	
05/02/07	8:12 PM	8.10	20.29	0.04	2.32	3.70	
05/02/07	8:13 PM	7.73	20.28	0.03	2.32	3.17	
05/02/07	8:14 PM	8.77	20.28	0.04	2.30	3.01	
05/02/07	8:15 PM	8.70	20.27	0.03	2.31	3.15	
05/02/07	8:16 PM	7.91	20.28	0.03	2.32	3.13	
05/02/07	8:17 PM	7.41	20.28	0.03	2.35	2.99	
05/02/07	8:18 PM	8.43	20.25	0.09	2.44	3.06	
05/02/07	8:19 PM	9.12	19.75	0.67	17.20	5.58	
05/02/07	8:20 PM	3.56	19.51	0.94	21.52	9.25	
05/02/07	8:21 PM	2.92	19.28	1.28	36.69	10.73	
05/02/07	8:22 PM	3.96	19.08	1.56	135.88	9.79	
05/02/07	8:23 PM	4.46	19.30	1.27	132.69	8.35	
05/02/07	8:24 PM	4.63	19.36	1.17	93.18	8.10	
05/02/07	8:25 PM	4.75	19.36	1.15	67.17	8.07	
05/02/07	8:26 PM	4.67	19.39	1.12	60.36	8.21	
05/02/07	8:27 PM	4.71	19.37	1.13	56.18	8.85	
05/02/07	8:28 PM	5.13	19.37	1.13	53.86	9.19	
05/02/07	8:29 PM	5.32	19.32	1.23	65.18	9.89	
05/02/07	8:30 PM	5.66	19.33	1.22	87.67	9.53	
05/02/07	8:31 PM	6.05	19.39	1.14	82.17	10.28	
05/02/07	8:32 PM	6.24	19.43	1.09	65.02	12.94	
05/02/07	8:33 PM	6.71	19.27	1.21	81.18	15.05	
05/02/07	8:34 PM	6.97	19.30	1.16	95.85	14.81	
05/02/07	8:35 PM	6.87	19.33	1.11	94.68	15.56	
05/02/07	8:36 PM	7.24	19.35	1.07	79.01	17.08	
05/02/07	8:37 PM	6.99	19.35	1.06	73.51	18.03	
05/02/07	8:38 PM	7.25	19.34	1.04	78.16	18.07	
05/02/07	8:39 PM	7.58	19.36	1.03	86.69	16.45	
05/02/07	8:40 PM	5.77	19.35	1.00	92.02	13.46	
05/02/07	8:41 PM	4.81	19.29	1.06	95.50	12.12	

P-Bar	29.85	BH NO_X	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/02/07	8:42 PM	4.36	19.24	1.09	105.01	11.56	
05/02/07	8:43 PM	4.00	19.22	1.09	109.35	9.79	
05/02/07	8:44 PM	3.87	19.32	0.97	103.19	8.73	
05/02/07	8:45 PM	3.93	19.46	0.90	79.22	7.46	
05/02/07	8:46 PM	4.62	19.46	0.91	50.00	7.06	
05/02/07	8:47 PM	4.91	19.48	0.89	40.49	7.40	
05/02/07	8:48 PM	5.00	19.51	0.86	39.82	7.65	
05/02/07	8:49 PM	4.41	19.45	0.92	37.58	7.39	
05/02/07	8:50 PM	3.38	19.50	0.85	38.76	7.03	
05/02/07	8:51 PM	2.85	19.60	0.66	34.69	7.42	
05/02/07	8:52 PM	2.45	19.85	0.28	63.34	9.10	
05/02/07	8:53 PM	3.38	20.01	0.05	71.46	14.81	
05/02/07	8:54 PM	9.07	20.06	0.02	52.89	13.73	
05/02/07	8:55 PM	9.90	20.07	0.02	36.62	11.22	
05/02/07	8:56 PM	9.77	20.08	0.02	28.25	9.53	
05/02/07	8:57 PM	9.73	20.10	0.02	23.76	7.67	
05/02/07	8:58 PM	10.43	20.10	0.02	19.79	6.38	
05/02/07	8:59 PM	10.45	20.10	0.03	19.04	4.93	
05/02/07	9:00 PM	13.25	20.07	0.08	20.81	3.86	
05/02/07	9:01 PM	17.71	19.93	0.21	74.47	3.57	
05/02/07	9:02 PM	12.30	20.01	0.12	63.07	3.90	
05/02/07	9:03 PM	15.45	20.09	0.04	19.31	3.54	Restart
05/02/07	9:04 PM	12.90	20.13	0.02	15.56	2.74	
05/02/07	9:05 PM	13.21	20.14	0.02	16.03	2.13	
05/02/07	9:06 PM	16.22	20.14	0.02	12.30	1.80	
05/02/07	9:07 PM	17.46	20.14	0.02	12.09	1.75	
05/02/07	9:08 PM	18.13	20.10	0.04	10.06	4.01	
05/02/07	9:09 PM	15.87	20.09	0.04	8.32	5.01	
05/02/07	9:10 PM	15.94	20.09	0.04	8.35	5.01	
05/02/07	9:11 PM	16.06	20.10	0.04	8.34	5.01	
05/02/07	9:12 PM	16.33	20.13	0.03	8.35	5.23	
05/02/07	9:13 PM	17.11	20.15	0.02	7.78	5.04	
05/02/07	9:14 PM	17.69	20.08	0.11	10.10	4.77	
05/02/07	9:15 PM	15.87	19.84	0.39	63.95	7.53	
05/02/07	9:16 PM	5.83	19.71	0.59	63.21	10.10	
05/02/07	9:17 PM	4.05	19.64	0.75	35.68	8.35	
05/02/07	9:18 PM	3.43	19.62	0.78	25.35	6.56	
05/02/07	9:19 PM	3.56	19.64	0.72	29.67	7.25	
05/02/07	9:20 PM	3.83	19.59	0.83	24.86	8.36	
05/02/07	9:21 PM	3.15	19.63	0.75	42.81	8.39	
05/02/07	9:22 PM	2.47	19.78	0.52	81.85	9.09	
05/02/07	9:23 PM	2.82	19.87	0.37	68.07	12.59	
05/02/07	9:24 PM	3.85	20.00	0.19	42.51	14.25	
05/02/07	9:25 PM	8.65	20.07	0.08	19.15	12.07	
05/02/07	9:26 PM	9.50	20.08	0.07	14.48	9.51	
05/02/07	9:27 PM	9.99	20.08	0.05	12.07	7.64	
05/02/07	9:28 PM	10.08	20.09	0.05	10.28	6.92	
05/02/07	9:29 PM	9.96	20.04	0.12	11.52	6.00	
05/02/07	9:30 PM	7.70	19.70	0.59	54.86	8.93	
05/02/07	9:31 PM	4.21	19.53	0.82	67.55	11.00	
05/02/07	9:32 PM	3.91	19.51	0.86	48.57	10.73	
05/02/07	9:33 PM	4.49	19.48	0.89	42.66	11.69	
05/02/07	9:34 PM	4.76	19.43	0.94	47.39	12.11	
05/02/07	9:35 PM	3.56	19.42	0.95	52.67	10.22	
05/02/07	9:36 PM	3.39	19.43	0.94	49.64	9.00	
05/02/07	9:37 PM	6.14	19.18	1.28	60.38	8.17	
05/02/07	9:38 PM	8.25	18.86	1.70	148.68	6.09	
05/02/07	9:39 PM	9.07	18.72	1.87	233.49	4.76	
05/02/07	9:40 PM	9.82	18.77	1.81	299.88	4.06	
05/02/07	9:41 PM	9.03	18.95	1.63	304.36	3.32	
05/02/07	9:42 PM	8.30	19.01	1.55	238.11	2.80	
05/02/07	9:43 PM	8.49	19.04	1.52	245.91	2.57	
05/02/07	9:44 PM	10.09	19.15	1.40	202.56	2.56	
05/02/07	9:45 PM	10.13	19.21	1.34	178.24	2.51	

P-Bar	29.85	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/02/07	9:46 PM	8.97	19.20	1.36	167.50	2.47	
05/02/07	9:47 PM	6.55	19.20	1.40	193.63	2.59	
05/02/07	9:48 PM	5.00	19.22	1.40	178.30	2.74	
05/02/07	9:49 PM	4.84	19.20	1.42	151.37	3.04	
05/02/07	9:50 PM	5.67	19.23	1.40	131.55	3.22	
05/02/07	9:51 PM	6.61	19.19	1.43	112.94	3.07	
05/02/07	9:52 PM	7.51	19.17	1.46	120.95	3.02	
05/02/07	9:53 PM	7.07	19.14	1.45	140.74	3.24	
05/02/07	9:54 PM	4.83	19.17	1.43	155.17	3.76	
05/02/07	9:55 PM	3.99	19.08	1.46	192.58	4.67	
05/02/07	9:56 PM	3.66	19.16	1.34	191.36	4.96	
05/02/07	9:57 PM	3.35	19.21	1.31	177.82	5.76	
05/02/07	9:58 PM	3.20	19.23	1.33	184.15	5.79	
05/02/07	9:59 PM	2.71	19.35	1.14	175.41	5.54	
05/02/07	10:00 PM	2.59	19.49	0.87	155.25	6.11	
05/02/07	10:01 PM	3.56	19.88	0.32	154.63	7.84	
05/02/07	10:02 PM	6.81	20.03	0.14	121.25	8.49	
05/02/07	10:03 PM	10.06	20.06	0.10	85.53	8.04	
05/02/07	10:04 PM	13.68	20.07	0.09	66.58	7.78	
05/02/07	10:05 PM	15.25	20.09	0.08	52.56	7.11	
05/02/07	10:06 PM	15.60	20.10	0.07	45.71	6.40	
05/02/07	10:07 PM	12.81	20.12	0.05	50.26	5.68	
05/02/07	10:08 PM	11.39	20.12	0.08	45.26	4.52	
05/02/07	10:09 PM	12.82	19.77	0.41	54.33	4.60	
05/02/07	10:10 PM	14.37	19.98	0.19	38.20	5.38	
05/02/07	10:11 PM	20.26	19.89	0.35	34.09	4.69	
05/02/07	10:12 PM	18.57	19.62	0.64	51.03	7.48	
05/02/07	10:13 PM	10.34	19.45	0.86	38.92	11.16	
05/02/07	10:14 PM	8.53	19.40	0.91	31.79	13.62	
05/02/07	10:15 PM	6.78	19.41	0.91	27.75	15.09	
05/02/07	10:16 PM	5.65	19.40	0.94	26.35	16.71	
05/02/07	10:17 PM	3.18	19.37	0.99	26.33	16.99	
05/02/07	10:18 PM	2.81	19.33	1.03	31.20	16.75	
05/02/07	10:19 PM	2.80	19.30	1.08	44.16	16.11	
05/02/07	10:20 PM	2.84	19.28	1.10	55.24	15.29	
05/02/07	10:21 PM	2.84	19.31	1.08	60.95	15.34	
05/02/07	10:22 PM	2.85	19.30	1.10	66.04	14.43	
05/02/07	10:23 PM	2.92	19.29	1.11	76.02	13.71	
05/02/07	10:24 PM	4.81	19.30	1.09	85.03	12.02	
05/02/07	10:25 PM	5.60	19.32	1.07	88.03	10.35	
05/02/07	10:26 PM	5.53	19.32	1.05	77.00	9.22	
05/02/07	10:27 PM	5.57	19.32	1.05	64.35	7.81	
05/02/07	10:28 PM	5.60	19.31	1.07	59.67	6.87	
05/02/07	10:29 PM	5.82	19.19	1.28	63.67	5.86	
05/02/07	10:30 PM	5.92	18.73	1.76	115.69	4.87	
05/02/07	10:31 PM	7.32	19.18	1.14	200.04	4.24	
05/02/07	10:32 PM	5.62	18.92	1.74	319.75	3.62	
05/02/07	10:33 PM	5.74	19.06	1.48	386.45	3.27	
05/02/07	10:34 PM	5.72	19.08	1.38	328.43	2.95	
05/02/07	10:35 PM	5.48	19.06	1.40	295.09	3.06	
05/02/07	10:36 PM	4.25	19.06	1.36	252.71	3.34	
05/02/07	10:37 PM	3.38	19.14	1.25	200.69	4.28	
05/02/07	10:38 PM	3.34	19.14	1.27	159.05	5.77	
05/02/07	10:39 PM	3.37	19.11	1.33	142.33	6.36	
05/02/07	10:40 PM	3.56	19.15	1.28	132.35	5.83	
05/02/07	10:41 PM	3.33	19.17	1.25	127.69	5.65	
05/02/07	10:42 PM	3.24	19.24	1.15	121.35	5.52	
05/02/07	10:43 PM	3.21	19.33	1.04	109.02	6.01	
05/02/07	10:44 PM	2.72	19.59	0.56	133.67	6.87	
05/02/07	10:45 PM	3.97	19.86	0.20	122.45	7.66	
05/02/07	10:46 PM	7.62	19.92	0.11	77.82	8.90	
05/02/07	10:47 PM	8.44	19.95	0.08	52.31	9.15	
05/02/07	10:48 PM	8.67	19.97	0.07	39.22	7.65	
05/02/07	10:49 PM	9.35	19.98	0.07	34.62	5.73	

P-Bar	29.85	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/02/07	10:50 PM	11.11	19.98	0.06	41.89	4.95	
05/02/07	10:51 PM	10.67	19.74	0.41	53.17	5.37	
05/02/07	10:52 PM	5.97	19.46	0.78	57.96	7.81	
05/02/07	10:53 PM	2.67	19.39	0.84	52.22	9.70	
05/02/07	10:54 PM	2.54	19.34	0.90	47.59	11.32	
05/02/07	10:55 PM	2.79	19.27	0.98	40.53	11.91	
05/02/07	10:56 PM	3.07	18.93	1.51	51.57	10.88	
05/02/07	10:57 PM	5.14	18.36	2.01	358.87	9.35	
05/02/07	10:58 PM	5.95	19.05	1.25	187.95	8.07	
05/02/07	10:59 PM	3.43	19.05	1.26	119.82	7.35	
05/02/07	11:00 PM	3.31	18.96	1.40	118.95	6.20	
05/02/07	11:01 PM	5.33	18.97	1.42	143.95	6.03	
05/02/07	11:02 PM	6.07	18.92	1.46	166.03	6.98	
05/02/07	11:03 PM	6.39	18.98	1.42	145.56	7.50	
05/02/07	11:04 PM	5.47	19.09	1.26	126.65	6.09	
05/02/07	11:05 PM	5.02	19.13	1.26	105.01	4.47	
05/02/07	11:06 PM	4.61	19.14	1.29	94.24	3.61	
05/02/07	11:07 PM	5.71	19.09	1.31	91.15	4.04	
05/02/07	11:08 PM	6.03	19.17	1.22	105.99	4.69	
05/02/07	11:09 PM	3.87	19.25	1.15	98.75	5.20	
05/02/07	11:10 PM	3.12	19.30	1.04	113.59	6.46	
05/02/07	11:11 PM	3.53	19.41	0.89	132.94	7.62	
05/02/07	11:12 PM	3.06	19.49	0.75	115.33	8.53	
05/02/07	11:13 PM	2.65	19.53	0.69	97.67	9.59	
05/02/07	11:14 PM	2.57	19.49	0.77	103.13	10.79	
05/02/07	11:15 PM	2.61	19.34	1.01	95.06	11.36	
05/02/07	11:16 PM	3.01	19.35	1.01	88.77	10.20	
05/02/07	11:17 PM	2.75	19.35	1.02	65.87	9.32	
05/02/07	11:18 PM	2.62	19.34	1.02	51.51	9.01	
05/02/07	11:19 PM	2.37	19.31	1.05	61.59	9.00	
05/02/07	11:20 PM	2.50	19.22	1.14	64.39	9.76	
05/02/07	11:21 PM	2.57	19.23	1.12	62.66	11.28	
05/02/07	11:22 PM	3.18	19.20	1.18	102.25	9.88	
05/02/07	11:23 PM	3.35	19.14	1.24	98.46	10.02	
05/02/07	11:24 PM	3.22	19.18	1.17	71.50	10.22	
05/02/07	11:25 PM	3.21	19.14	1.19	56.02	9.14	
05/02/07	11:26 PM	3.58	19.20	1.11	68.98	10.01	
05/02/07	11:27 PM	3.54	19.24	1.03	78.04	10.48	
05/02/07	11:28 PM	2.93	19.22	1.03	63.17	11.65	
05/02/07	11:29 PM	2.54	19.39	0.75	64.72	11.61	
05/02/07	11:30 PM	2.12	19.55	0.53	71.37	10.40	
05/02/07	11:31 PM	1.73	19.53	0.58	53.38	11.57	
05/02/07	11:32 PM	2.88	19.37	0.84	37.31	13.06	
05/02/07	11:33 PM	4.47	19.29	0.91	31.08	15.43	
05/02/07	11:34 PM	4.21	19.36	0.84	37.51	15.26	
05/02/07	11:35 PM	2.24	19.68	0.33	40.98	14.31	
05/02/07	11:36 PM	4.79	19.83	0.14	32.48	11.68	
05/02/07	11:37 PM	8.14	19.87	0.09	27.11	11.13	
05/02/07	11:38 PM	8.97	19.88	0.08	24.24	11.61	
05/02/07	11:39 PM	9.35	19.89	0.07	22.33	10.36	
05/02/07	11:40 PM	9.57	19.91	0.06	20.88	8.10	
05/02/07	11:41 PM	10.98	19.84	0.19	23.11	5.53	
05/02/07	11:42 PM	13.36	19.65	0.34	46.00	5.24	
05/02/07	11:43 PM	11.42	19.78	0.23	26.03	4.33	
05/02/07	11:44 PM	16.31	19.82	0.17	20.23	3.78	
05/02/07	11:45 PM	18.41	19.86	0.12	13.73	3.77	
05/02/07	11:46 PM	17.96	19.82	0.19	12.67	3.65	
05/02/07	11:47 PM	14.14	19.53	0.53	29.14	7.95	
05/02/07	11:48 PM	5.96	19.40	0.68	29.89	13.93	
05/02/07	11:49 PM	3.16	19.39	0.73	28.10	14.80	
05/02/07	11:50 PM	2.78	19.27	0.85	21.46	16.80	
05/02/07	11:51 PM	5.29	19.23	0.89	18.61	19.22	
05/02/07	11:52 PM	5.24	19.25	0.87	20.85	19.77	
05/02/07	11:53 PM	5.40	19.34	0.77	29.38	18.52	

P-Bar	29.85	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/02/07	11:54 PM	5.77	19.31	0.84	31.77	17.83	
05/02/07	11:55 PM	5.78	19.19	0.96	25.42	20.85	
05/02/07	11:56 PM	5.82	19.25	0.89	31.64	20.94	
05/02/07	11:57 PM	5.12	19.28	0.88	41.80	16.02	
05/02/07	11:58 PM	3.80	19.21	0.96	31.38	14.74	
05/02/07	11:59 PM	4.08	19.16	1.01	31.83	15.87	
05/03/07	12:00 AM	5.82	19.08	1.11	48.43	18.09	
05/03/07	12:01 AM	5.20	19.11	1.07	72.69	16.29	
05/03/07	12:02 AM	3.08	19.15	1.03	92.15	14.15	
05/03/07	12:03 AM	2.96	19.10	1.10	93.02	13.25	
05/03/07	12:04 AM	4.08	19.04	1.15	119.56	13.22	
05/03/07	12:05 AM	4.87	19.09	1.09	156.86	13.34	
05/03/07	12:06 AM	4.45	19.10	1.10	143.76	13.66	
05/03/07	12:07 AM	4.05	19.14	1.07	128.90	12.75	
05/03/07	12:08 AM	3.79	19.12	1.11	114.35	9.98	
05/03/07	12:09 AM	3.23	19.10	1.13	115.03	8.58	
05/03/07	12:10 AM	2.89	19.06	1.16	118.71	7.82	
05/03/07	12:11 AM	2.62	19.06	1.17	116.31	7.12	
05/03/07	12:12 AM	2.55	19.05	1.21	114.17	6.59	
05/03/07	12:13 AM	2.60	19.08	1.22	115.30	5.89	
05/03/07	12:14 AM	2.55	18.99	1.43	116.29	5.26	
05/03/07	12:15 AM	2.55	18.84	1.66	142.30	4.93	
05/03/07	12:16 AM	2.72	18.93	1.43	182.13	4.78	
05/03/07	12:17 AM	2.55	18.81	1.49	202.06	4.92	
05/03/07	12:18 AM	2.69	19.02	1.18	181.13	6.36	
05/03/07	12:19 AM	2.54	19.18	1.05	144.60	7.28	
05/03/07	12:20 AM	2.05	19.22	1.01	107.96	6.22	
05/03/07	12:21 AM	1.86	19.23	0.97	75.69	6.00	
05/03/07	12:22 AM	1.85	19.27	0.86	58.75	6.35	
05/03/07	12:23 AM	2.53	19.63	0.34	63.46	6.36	End Run 2
05/03/07	12:24 AM	4.90	19.76	0.18	45.29	5.48	
05/03/07	12:25 AM	8.72	19.79	0.15	34.79	7.01	
05/03/07	12:26 AM	11.91	19.81	0.13	29.32	7.40	
Averages		**7.22**	**19.66**	**0.87**	**99.50**	**6.88**	
05/03/07	12:27 AM	9.67	17.42	3.46	25.97	6.83	
05/03/07	12:28 AM	8.50	9.72	10.13	4.58	0.18	
05/03/07	12:29 AM	1.04	9.72	10.12	0.27	-0.09	
05/03/07	12:30 AM	0.28	9.73	10.13	0.29	-0.08	Calibrate
05/03/07	12:31 AM	0.34	7.74	7.47	1.76	9.45	
05/03/07	12:32 AM	18.82	-0.04	0.02	40.80	45.83	
05/03/07	12:33 AM	47.12	-0.08	0.02	48.44	45.81	
05/03/07	12:34 AM	47.11	-0.07	0.02	48.45	45.80	
05/03/07	12:35 AM	150.47	-0.07	0.02	188.46	121.21	
05/03/07	12:36 AM	245.34	-0.07	0.02	459.67	250.30	
05/03/07	12:37 AM	245.35	-0.07	0.02	459.67	250.30	
05/03/07	12:38 AM	18.97	-0.07	0.02	206.76	250.30	

CONTINUOUS EMISSIONS MONITORING
TEST RESULTS

Client: Nucor Steel, Hertford
Test Date: May-03-07
Start Time: 4:18 PM **Stop Time:** 12:18 AM
Emissions Unit: Baghouse
Project: Compliance

RUN 3

Calibration Data

	O_2 (%)	CO_2 (%)	NO_x (ppm)	CO (ppm)	SO_2 (ppm)
Initial Zero	0.00	0.02	0.25	0.26	0.03
Initial Span	10.09	9.96	47.14	462.57	46.53
Final Zero	-0.10	0.02	0.18	0.50	0.26
Final Span	9.94	10.44	47.61	458.71	46.26
Zero Drift	-0.10	0.00	-0.07	0.24	0.22
Span Drift	-0.15	0.48	0.47	-3.84	-0.26
Drift Limit	0.63	0.71	2.86	29.85	2.83
Span Gas Value	10.10	9.94	46.81	460.24	45.24
Full Scale Range	20.9	23.8	95.4	994.9	94.4
Method Drift Limit (%)	3%	3%	3%	3%	3%
Analyte Mol Weight	32	44	46	28	64

Stack Gas Parameters

Average Temperature (°F)	174.0	
Moisture Content (%)	2.68%	*flow rates by pitot tube*
Process Rate (tons/hr)	272.5	*traverse from EPA Method 5*
Flow rate (dscfm)	1145343	

Emission Data

	O_2 (%)	CO_2 (%)	NO_x (ppm)	CO (ppm)	SO_2 (ppm)
Dry average (uncorrected)	19.89	0.94	6.19	160.74	3.78
Dry average (drift corrected)	20.01	0.90	5.93	160.35	3.56
Emission Rate (lb/hr)			48.653	800.681	40.582
Emission Rate (lb/ton)			0.179	2.938	0.149

P-Bar	30.12	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/03/07	11:27 AM	0.28	12.15	8.93	1.90	1.37	
05/03/07	11:28 AM	0.27	9.49	10.80	0.33	0.16	
05/03/07	11:29 AM	0.30	10.09	9.96	0.31	0.04	
05/03/07	11:30 AM	0.32	10.06	9.95	0.30	0.04	
05/03/07	11:31 AM	0.68	3.10	1.89	19.93	33.91	Calibrate
05/03/07	11:32 AM	14.52	0.00	0.02	47.34	45.82	
05/03/07	11:33 AM	34.36	0.00	0.02	47.33	45.35	
05/03/07	11:34 AM	46.95	-0.01	0.02	47.34	45.40	
05/03/07	11:35 AM	47.43	-0.01	0.02	47.34	45.47	
05/03/07	11:36 AM	48.24	0.00	0.02	48.32	45.57	
05/03/07	11:37 AM	102.60	0.01	0.02	247.65	215.49	
05/03/07	11:38 AM	250.36	0.00	0.02	460.48	250.39	
05/03/07	11:39 AM	250.37	12.66	0.09	326.47	94.55	
05/03/07	11:40 AM	150.73	20.60	0.13	5.03	2.47	
05/03/07	11:41 AM	36.76	20.59	0.12	2.30	1.31	
05/03/07	11:42 AM	35.59	20.59	0.13	2.27	0.98	
05/03/07	11:43 AM	40.53	20.57	0.15	2.28	0.81	
05/03/07	11:44 AM	45.04	20.57	0.13	2.29	0.76	On Line
05/03/07	11:45 AM	41.68	20.57	0.13	2.27	0.64	
05/03/07	11:46 AM	40.39	20.57	0.13	2.31	0.64	
05/03/07	11:47 AM	39.91	20.57	0.13	2.29	0.65	
05/03/07	11:48 AM	40.00	20.57	0.13	2.28	0.56	
05/03/07	11:49 AM	39.81	20.56	0.13	2.28	0.57	
05/03/07	11:50 AM	38.42	20.56	0.13	2.28	0.57	
05/03/07	11:51 AM	37.06	20.56	0.13	2.28	0.56	
05/03/07	11:52 AM	40.04	20.57	0.13	2.29	0.58	
05/03/07	11:53 AM	41.90	20.57	0.13	2.30	0.57	
05/03/07	11:54 AM	38.75	20.49	0.16	3.05	0.54	
05/03/07	11:55 AM	20.72	20.38	0.20	11.21	0.54	
05/03/07	11:56 AM	5.58	20.36	0.22	16.28	0.64	
05/03/07	11:57 AM	3.79	20.36	0.25	15.18	0.74	
05/03/07	11:58 AM	3.79	20.39	0.22	16.05	0.96	
05/03/07	11:59 AM	4.42	20.20	0.52	17.15	1.21	
05/03/07	12:00 PM	3.73	19.97	0.82	27.03	2.10	
05/03/07	12:01 PM	3.90	20.13	0.54	32.50	3.71	
05/03/07	12:02 PM	7.21	20.38	0.26	16.59	3.95	
05/03/07	12:03 PM	19.00	20.43	0.20	8.12	3.24	
05/03/07	12:04 PM	32.91	20.45	0.16	6.29	2.92	
05/03/07	12:05 PM	37.33	20.47	0.13	5.19	2.74	
05/03/07	12:06 PM	31.04	20.50	0.10	4.76	2.41	
05/03/07	12:07 PM	13.98	20.39	0.21	11.09	2.03	
05/03/07	12:08 PM	9.34	20.40	0.18	20.39	2.05	
05/03/07	12:09 PM	7.59	20.44	0.13	25.57	1.95	
05/03/07	12:10 PM	7.72	20.46	0.12	26.26	1.76	
05/03/07	12:11 PM	8.24	20.46	0.11	22.32	1.58	
05/03/07	12:12 PM	8.38	20.46	0.10	21.18	1.50	
05/03/07	12:13 PM	8.51	20.47	0.10	18.83	1.40	
05/03/07	12:14 PM	8.49	20.46	0.10	18.28	1.29	
05/03/07	12:15 PM	9.19	20.45	0.09	18.28	1.22	
05/03/07	12:16 PM	9.35	20.45	0.09	19.30	1.14	
05/03/07	12:17 PM	9.11	20.45	0.08	17.93	1.08	
05/03/07	12:18 PM	8.87	20.44	0.08	18.30	1.06	
05/03/07	12:19 PM	8.86	20.44	0.08	19.43	0.98	
05/03/07	12:20 PM	9.18	20.44	0.07	19.83	0.93	
05/03/07	12:21 PM	9.18	20.43	0.07	18.29	0.94	
05/03/07	12:22 PM	8.79	20.44	0.07	19.76	0.87	
05/03/07	12:23 PM	8.79	20.43	0.07	21.09	0.85	
05/03/07	12:24 PM	8.85	20.42	0.07	20.48	0.87	
05/03/07	12:25 PM	8.75	20.42	0.07	20.33	0.85	
05/03/07	12:26 PM	8.55	20.39	0.08	20.77	0.78	
05/03/07	12:27 PM	7.32	20.16	0.26	21.50	0.84	
05/03/07	12:28 PM	5.06	20.16	0.26	20.16	1.11	
05/03/07	12:29 PM	7.80	20.27	0.17	14.52	1.61	
05/03/07	12:30 PM	13.48	20.33	0.14	10.26	1.83	
05/03/07	12:31 PM	18.20	20.34	0.16	8.29	1.90	
05/03/07	12:32 PM	27.27	20.36	0.14	6.41	2.00	

P-Bar	30.12	BH NO_X	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/03/07	12:33 PM	29.36	20.39	0.13	6.08	2.22	
05/03/07	12:34 PM	29.30	20.40	0.13	4.26	2.59	
05/03/07	12:35 PM	29.78	20.41	0.13	4.25	2.98	
05/03/07	12:36 PM	29.82	20.42	0.13	4.27	3.23	
05/03/07	12:37 PM	29.83	20.42	0.13	4.26	3.29	
05/03/07	12:38 PM	29.94	20.42	0.13	4.29	3.35	
05/03/07	12:39 PM	25.92	20.37	0.15	13.93	3.42	
05/03/07	12:40 PM	10.77	20.34	0.17	42.46	3.67	
05/03/07	12:41 PM	4.75	20.27	0.23	67.31	3.85	
05/03/07	12:42 PM	3.39	20.14	0.31	43.45	4.81	
05/03/07	12:43 PM	3.30	20.24	0.23	49.14	6.29	
05/03/07	12:44 PM	3.81	20.22	0.26	54.12	5.79	
05/03/07	12:45 PM	3.67	19.79	0.86	33.94	7.20	
05/03/07	12:46 PM	2.82	19.70	1.04	48.94	10.71	
05/03/07	12:47 PM	2.31	19.75	0.98	53.62	11.05	
05/03/07	12:48 PM	2.09	19.76	0.95	46.78	9.95	
05/03/07	12:49 PM	3.98	19.78	0.93	41.78	9.01	
05/03/07	12:50 PM	6.07	19.78	0.93	52.95	8.78	
05/03/07	12:51 PM	5.81	19.68	1.10	64.94	9.05	
05/03/07	12:52 PM	4.69	19.60	1.23	77.43	9.47	
05/03/07	12:53 PM	4.52	19.58	1.27	94.45	10.05	
05/03/07	12:54 PM	4.49	19.62	1.19	100.81	9.92	
05/03/07	12:55 PM	4.69	19.57	1.22	107.43	9.36	
05/03/07	12:56 PM	4.79	19.51	1.25	122.09	9.37	
05/03/07	12:57 PM	4.60	19.46	1.32	137.43	9.18	
05/03/07	12:58 PM	3.95	19.35	1.48	206.90	8.97	
05/03/07	12:59 PM	2.75	19.39	1.43	199.64	9.24	
05/03/07	1:00 PM	2.76	19.40	1.43	160.03	9.30	
05/03/07	1:01 PM	3.77	19.44	1.38	124.48	9.53	
05/03/07	1:02 PM	4.21	19.46	1.35	115.54	9.95	
05/03/07	1:03 PM	4.09	19.51	1.31	120.87	10.11	
05/03/07	1:04 PM	4.22	19.58	1.23	116.02	9.67	
05/03/07	1:05 PM	4.34	19.61	1.19	110.35	9.42	
05/03/07	1:06 PM	4.10	19.61	1.19	108.68	9.43	
05/03/07	1:07 PM	3.59	19.68	1.08	106.17	9.36	
05/03/07	1:08 PM	2.49	19.83	0.86	101.63	8.85	
05/03/07	1:09 PM	2.34	20.20	0.32	80.00	7.60	
05/03/07	1:10 PM	5.60	20.32	0.19	58.81	5.86	
05/03/07	1:11 PM	8.53	20.35	0.14	42.76	4.65	
05/03/07	1:12 PM	8.98	20.36	0.12	34.70	3.95	
05/03/07	1:13 PM	9.48	20.36	0.12	29.54	3.51	
05/03/07	1:14 PM	9.64	20.37	0.10	26.41	3.19	
05/03/07	1:15 PM	9.66	20.37	0.11	23.89	2.87	
05/03/07	1:16 PM	15.65	20.35	0.12	21.74	2.54	
05/03/07	1:17 PM	21.37	20.36	0.11	19.76	2.26	
05/03/07	1:18 PM	21.85	20.36	0.10	16.74	2.08	
05/03/07	1:19 PM	19.40	20.36	0.09	17.47	1.89	
05/03/07	1:20 PM	16.56	20.37	0.09	18.25	1.74	
05/03/07	1:21 PM	15.98	20.37	0.09	16.68	1.61	
05/03/07	1:22 PM	14.79	20.37	0.09	16.24	1.52	
05/03/07	1:23 PM	15.78	20.36	0.09	15.37	1.35	
05/03/07	1:24 PM	16.16	20.21	0.29	16.34	1.22	
05/03/07	1:25 PM	15.19	20.05	0.37	39.28	1.32	
05/03/07	1:26 PM	12.52	20.17	0.30	27.44	1.52	
05/03/07	1:27 PM	15.79	20.24	0.25	17.65	1.51	
05/03/07	1:28 PM	21.99	20.22	0.25	17.18	1.40	
05/03/07	1:29 PM	15.95	20.20	0.26	23.66	1.31	
05/03/07	1:30 PM	7.07	20.16	0.30	30.71	1.30	
05/03/07	1:31 PM	2.76	20.15	0.31	19.87	1.31	
05/03/07	1:32 PM	2.08	20.04	0.44	11.77	1.45	
05/03/07	1:33 PM	2.65	19.76	0.87	11.52	2.17	
05/03/07	1:34 PM	3.39	19.61	1.19	40.32	4.71	
05/03/07	1:35 PM	3.69	19.56	1.31	74.80	7.56	
05/03/07	1:36 PM	5.81	19.51	1.35	91.17	8.51	
05/03/07	1:37 PM	8.67	19.55	1.31	93.05	9.00	
05/03/07	1:38 PM	6.42	19.74	1.16	88.07	8.44	

P-Bar	30.12	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/03/07	1:39 PM	4.80	19.84	1.07	75.40	6.37	
05/03/07	1:40 PM	4.53	19.87	1.05	53.30	5.09	
05/03/07	1:41 PM	4.14	19.84	1.08	36.82	5.02	
05/03/07	1:42 PM	4.36	19.83	1.10	38.01	5.85	
05/03/07	1:43 PM	4.35	19.81	1.12	56.28	6.58	
05/03/07	1:44 PM	3.91	19.82	1.13	69.89	7.06	
05/03/07	1:45 PM	2.67	19.80	1.14	83.55	7.96	
05/03/07	1:46 PM	2.33	19.79	1.16	81.61	9.46	
05/03/07	1:47 PM	2.50	19.60	1.48	89.41	10.60	
05/03/07	1:48 PM	3.86	19.63	1.45	129.70	11.97	
05/03/07	1:49 PM	4.75	19.62	1.49	122.95	10.77	
05/03/07	1:50 PM	5.34	19.60	1.44	139.57	9.95	
05/03/07	1:51 PM	5.12	19.93	0.96	110.63	9.17	
05/03/07	1:52 PM	4.47	19.98	0.86	69.20	7.95	
05/03/07	1:53 PM	3.67	20.13	0.63	43.21	7.68	
05/03/07	1:54 PM	6.17	20.27	0.47	28.34	7.44	
05/03/07	1:55 PM	11.56	20.30	0.45	20.54	6.36	
05/03/07	1:56 PM	11.50	20.32	0.41	13.71	4.73	
05/03/07	1:57 PM	12.45	20.36	0.36	9.72	3.74	
05/03/07	1:58 PM	11.29	20.37	0.34	8.31	3.40	
05/03/07	1:59 PM	10.06	20.39	0.32	7.34	3.31	
05/03/07	2:00 PM	9.65	20.40	0.32	6.25	3.39	
05/03/07	2:01 PM	9.29	20.42	0.31	6.26	3.42	
05/03/07	2:02 PM	7.15	20.43	0.31	6.29	3.02	
05/03/07	2:03 PM	7.16	20.45	0.31	5.94	2.52	
05/03/07	2:04 PM	6.20	20.46	0.32	6.24	2.22	
05/03/07	2:05 PM	7.09	20.47	0.33	5.67	2.06	
05/03/07	2:06 PM	8.85	20.49	0.34	4.53	1.93	
05/03/07	2:07 PM	7.11	20.50	0.35	6.26	1.91	
05/03/07	2:08 PM	6.84	20.51	0.36	6.27	1.88	
05/03/07	2:09 PM	7.00	20.52	0.37	6.25	1.87	
05/03/07	2:10 PM	7.70	20.53	0.38	5.98	1.81	
05/03/07	2:11 PM	6.48	20.53	0.39	4.26	1.64	
05/03/07	2:12 PM	6.01	20.54	0.39	4.90	1.48	
05/03/07	2:13 PM	7.38	20.55	0.41	6.31	1.35	
05/03/07	2:14 PM	7.85	20.54	0.42	5.66	1.17	
05/03/07	2:15 PM	7.85	20.53	0.43	4.27	1.02	
05/03/07	2:16 PM	7.99	20.52	0.43	4.28	0.96	
05/03/07	2:17 PM	7.19	20.51	0.43	4.27	0.84	
05/03/07	2:18 PM	5.13	20.50	0.44	4.26	0.79	
05/03/07	2:19 PM	3.73	20.50	0.45	4.26	0.76	
05/03/07	2:20 PM	3.74	20.49	0.46	4.28	0.76	
05/03/07	2:21 PM	3.92	20.49	0.47	4.27	0.79	
05/03/07	2:22 PM	3.77	20.48	0.48	4.27	0.87	
05/03/07	2:23 PM	3.42	20.47	0.48	4.27	0.93	
05/03/07	2:24 PM	2.83	20.48	0.49	4.27	0.96	
05/03/07	2:25 PM	1.39	20.49	0.49	4.30	0.88	
05/03/07	2:26 PM	1.18	20.49	0.49	4.91	0.80	
05/03/07	2:27 PM	1.04	20.50	0.49	5.97	0.75	
05/03/07	2:28 PM	1.04	20.51	0.44	4.27	0.72	
05/03/07	2:29 PM	1.74	20.51	0.03	4.28	0.64	
05/03/07	2:30 PM	3.55	20.51	0.03	4.26	0.59	
05/03/07	2:31 PM	3.24	20.52	0.03	4.27	0.56	
05/03/07	2:32 PM	2.61	20.53	0.03	4.29	0.51	
05/03/07	2:33 PM	2.06	20.52	0.04	4.26	0.49	
05/03/07	2:34 PM	1.83	20.53	0.04	4.28	0.47	
05/03/07	2:35 PM	1.30	20.54	0.04	4.31	0.50	
05/03/07	2:36 PM	0.83	20.54	0.04	4.28	0.48	
05/03/07	2:37 PM	0.72	20.54	0.04	4.27	0.44	
05/03/07	2:38 PM	0.76	20.53	0.05	4.26	0.42	
05/03/07	2:39 PM	0.78	20.52	0.05	4.27	0.39	
05/03/07	2:40 PM	1.06	20.51	0.05	4.27	0.38	
05/03/07	2:41 PM	0.92	20.51	0.06	4.28	0.40	
05/03/07	2:42 PM	0.79	20.50	0.06	4.30	0.38	
05/03/07	2:43 PM	0.83	20.49	0.06	4.30	0.34	
05/03/07	2:44 PM	1.21	20.47	0.08	4.26	0.34	

P-Bar	30.12	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/03/07	2:45 PM	9.46	20.47	0.08	4.27	0.34	
05/03/07	2:46 PM	18.22	20.15	0.41	22.62	0.39	
05/03/07	2:47 PM	12.10	20.26	0.28	21.62	0.42	
05/03/07	2:48 PM	9.44	20.37	0.18	13.92	0.51	
05/03/07	2:49 PM	9.07	20.37	0.20	9.27	0.51	
05/03/07	2:50 PM	9.80	20.36	0.20	10.61	0.48	
05/03/07	2:51 PM	7.68	20.31	0.25	60.99	0.44	
05/03/07	2:52 PM	4.98	20.24	0.32	59.97	0.42	
05/03/07	2:53 PM	4.22	20.24	0.32	35.31	0.43	
05/03/07	2:54 PM	3.59	20.27	0.30	32.29	0.49	
05/03/07	2:55 PM	3.78	20.25	0.33	33.30	0.50	
05/03/07	2:56 PM	3.97	20.10	0.51	42.95	0.49	
05/03/07	2:57 PM	2.39	19.89	0.79	36.28	0.64	
05/03/07	2:58 PM	2.35	19.84	0.85	33.57	1.26	
05/03/07	2:59 PM	3.77	19.85	0.89	33.04	2.37	
05/03/07	3:00 PM	4.46	19.87	0.86	34.30	3.52	
05/03/07	3:01 PM	3.97	19.80	0.97	31.52	4.76	
05/03/07	3:02 PM	3.71	19.79	0.96	29.32	6.46	
05/03/07	3:03 PM	2.82	19.80	0.97	29.91	7.44	
05/03/07	3:04 PM	2.67	19.76	1.03	26.05	7.65	
05/03/07	3:05 PM	3.73	19.71	1.10	42.37	7.43	
05/03/07	3:06 PM	4.28	19.63	1.22	63.99	7.10	
05/03/07	3:07 PM	4.29	19.49	1.40	97.95	7.10	
05/03/07	3:08 PM	3.46	19.54	1.36	117.93	7.37	
05/03/07	3:09 PM	2.86	19.49	1.39	114.29	6.92	
05/03/07	3:10 PM	3.13	19.40	1.48	121.53	6.57	
05/03/07	3:11 PM	3.43	19.37	1.52	140.33	6.44	
05/03/07	3:12 PM	3.58	19.29	1.58	156.89	6.28	
05/03/07	3:13 PM	4.00	19.20	1.69	182.79	6.40	
05/03/07	3:14 PM	4.52	19.12	1.76	228.44	6.39	
05/03/07	3:15 PM	4.27	19.12	1.76	239.38	6.20	
05/03/07	3:16 PM	3.76	19.18	1.70	249.04	6.21	
05/03/07	3:17 PM	3.48	19.13	1.80	235.66	6.42	
05/03/07	3:18 PM	3.17	19.25	1.71	231.00	6.88	
05/03/07	3:19 PM	2.95	19.32	1.67	215.94	6.86	
05/03/07	3:20 PM	2.96	19.35	1.62	200.04	6.55	
05/03/07	3:21 PM	2.80	19.43	1.54	181.53	6.44	
05/03/07	3:22 PM	2.50	19.46	1.49	173.05	6.27	
05/03/07	3:23 PM	2.39	19.54	1.38	165.26	5.81	
05/03/07	3:24 PM	2.23	19.51	1.40	155.72	5.41	
05/03/07	3:25 PM	2.46	19.49	1.42	153.58	5.40	
05/03/07	3:26 PM	2.35	19.46	1.42	150.40	5.64	
05/03/07	3:27 PM	2.21	19.51	1.36	152.98	5.47	
05/03/07	3:28 PM	2.25	19.45	1.44	160.32	5.20	
05/03/07	3:29 PM	2.69	19.45	1.44	154.39	5.17	
05/03/07	3:30 PM	3.03	19.38	1.51	159.72	5.17	
05/03/07	3:31 PM	3.13	19.48	1.40	175.45	5.33	
05/03/07	3:32 PM	2.83	19.47	1.41	175.79	5.06	
05/03/07	3:33 PM	2.96	19.56	1.29	173.38	5.04	
05/03/07	3:34 PM	2.76	19.82	0.91	171.44	4.89	
05/03/07	3:35 PM	2.63	19.64	1.32	131.89	4.45	
05/03/07	3:36 PM	2.76	19.73	1.17	114.34	4.25	
05/03/07	3:37 PM	2.70	19.82	1.07	104.88	4.10	
05/03/07	3:38 PM	2.71	19.90	0.96	95.01	3.77	
05/03/07	3:39 PM	3.37	20.00	0.83	86.29	3.34	
05/03/07	3:40 PM	3.11	20.13	0.61	78.60	2.95	
05/03/07	3:41 PM	3.74	20.29	0.37	59.23	2.99	
05/03/07	3:42 PM	8.16	20.43	0.21	41.57	3.19	
05/03/07	3:43 PM	9.72	20.46	0.18	33.09	3.11	
05/03/07	3:44 PM	9.70	20.47	0.16	27.82	2.79	
05/03/07	3:45 PM	9.39	20.47	0.16	23.86	2.53	
05/03/07	3:46 PM	9.27	20.39	0.29	27.01	2.29	
05/03/07	3:47 PM	7.84	20.08	0.73	33.28	2.45	
05/03/07	3:48 PM	4.42	19.93	0.93	30.76	2.96	
05/03/07	3:49 PM	7.34	19.84	1.02	30.35	3.45	
05/03/07	3:50 PM	7.35	19.77	1.08	41.13	3.98	

P-Bar	30.12	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/03/07	3:51 PM	4.73	19.75	1.08	56.08	4.52	
05/03/07	3:52 PM	4.61	19.60	1.24	80.59	4.87	
05/03/07	3:53 PM	6.26	19.43	1.43	135.25	5.35	
05/03/07	3:54 PM	7.46	19.32	1.56	186.28	5.87	
05/03/07	3:55 PM	8.02	19.26	1.60	248.54	6.29	
05/03/07	3:56 PM	7.93	19.26	1.58	244.72	6.72	
05/03/07	3:57 PM	6.05	19.14	1.73	316.98	6.02	
05/03/07	3:58 PM	5.69	19.26	1.63	329.95	5.02	
05/03/07	3:59 PM	6.50	19.38	1.50	337.02	4.13	
05/03/07	4:00 PM	6.70	19.41	1.47	288.73	3.39	
05/03/07	4:01 PM	6.35	19.39	1.47	274.73	2.96	
05/03/07	4:02 PM	6.65	19.43	1.40	232.48	2.77	
05/03/07	4:03 PM	6.58	19.47	1.37	210.16	2.78	
05/03/07	4:04 PM	5.03	19.45	1.40	207.89	2.83	
05/03/07	4:05 PM	4.35	19.45	1.40	228.86	3.23	
05/03/07	4:06 PM	6.20	12.76	8.00	144.13	6.58	
05/03/07	4:07 PM	2.29	9.89	9.85	1.59	0.06	
05/03/07	4:08 PM	0.26	9.97	9.85	0.25	0.08	
05/03/07	4:09 PM	0.25	10.09	9.96	0.26	0.03	Calibrate
05/03/07	4:10 PM	6.51	3.00	1.76	20.48	33.59	
05/03/07	4:11 PM	45.75	0.01	0.02	48.28	46.53	
05/03/07	4:12 PM	47.14	0.00	0.02	56.02	90.66	
05/03/07	4:13 PM	164.33	-0.01	0.02	401.76	250.43	
05/03/07	4:14 PM	250.32	-0.01	0.02	462.57	250.43	
05/03/07	4:15 PM	250.31	14.92	0.96	321.08	66.04	
05/03/07	4:16 PM	66.57	19.84	1.14	121.62	7.60	
05/03/07	4:17 PM	2.53	19.78	1.21	111.74	6.33	
05/03/07	4:18 PM	2.77	19.75	1.25	139.63	6.10	
05/03/07	4:19 PM	3.12	19.65	1.41	145.25	6.11	
05/03/07	4:20 PM	3.74	19.70	1.31	157.77	6.04	
05/03/07	4:21 PM	4.04	19.77	1.14	146.76	5.91	Start Run 3
05/03/07	4:22 PM	4.26	19.82	0.99	144.82	5.81	
05/03/07	4:23 PM	4.99	19.95	0.83	140.14	5.59	
05/03/07	4:24 PM	4.50	20.07	0.66	119.36	4.78	
05/03/07	4:25 PM	3.66	20.08	0.68	95.54	4.10	
05/03/07	4:26 PM	3.27	20.35	0.28	98.02	3.77	
05/03/07	4:27 PM	5.34	20.48	0.12	66.68	3.78	
05/03/07	4:28 PM	7.30	20.51	0.07	41.30	3.67	
05/03/07	4:29 PM	7.97	20.54	0.05	28.22	3.56	
05/03/07	4:30 PM	7.73	20.55	0.04	24.84	3.19	
05/03/07	4:31 PM	10.02	20.57	0.03	26.96	2.81	
05/03/07	4:32 PM	10.81	20.57	0.03	24.30	2.33	
05/03/07	4:33 PM	13.57	20.32	0.27	38.04	2.03	
05/03/07	4:34 PM	12.18	20.44	0.15	31.15	2.04	
05/03/07	4:35 PM	18.93	20.46	0.15	24.63	1.91	
05/03/07	4:36 PM	26.26	20.45	0.12	20.94	1.77	
05/03/07	4:37 PM	20.85	20.36	0.17	29.46	1.67	
05/03/07	4:38 PM	7.19	20.34	0.17	27.78	1.72	
05/03/07	4:39 PM	5.38	20.32	0.16	26.11	1.82	
05/03/07	4:40 PM	5.46	20.21	0.30	26.28	1.93	
05/03/07	4:41 PM	5.13	19.98	0.62	26.95	3.20	
05/03/07	4:42 PM	4.97	19.84	0.89	48.77	5.19	
05/03/07	4:43 PM	4.51	19.78	0.98	104.13	5.75	
05/03/07	4:44 PM	3.64	19.78	0.98	141.47	5.53	
05/03/07	4:45 PM	3.97	19.76	1.00	172.14	5.05	
05/03/07	4:46 PM	4.97	19.74	1.01	214.13	4.69	
05/03/07	4:47 PM	5.39	19.75	0.96	213.29	4.60	
05/03/07	4:48 PM	5.22	19.74	0.93	186.96	4.68	
05/03/07	4:49 PM	6.08	19.71	0.99	192.64	4.82	
05/03/07	4:50 PM	6.73	19.72	0.96	190.30	4.77	
05/03/07	4:51 PM	6.80	19.79	0.91	198.48	4.58	
05/03/07	4:52 PM	6.59	19.86	0.75	179.99	4.36	
05/03/07	4:53 PM	6.10	19.78	0.80	161.99	4.40	
05/03/07	4:54 PM	6.23	19.66	0.99	171.81	4.53	
05/03/07	4:55 PM	6.37	19.58	1.08	208.63	4.58	
05/03/07	4:56 PM	6.61	19.60	1.17	239.16	4.56	

P-Bar	30.12	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/03/07	4:57 PM	5.64	19.56	1.21	293.94	4.44	
05/03/07	4:58 PM	5.09	19.45	1.31	322.17	4.67	
05/03/07	4:59 PM	5.51	19.51	1.16	348.43	5.33	
05/03/07	5:00 PM	6.42	19.87	0.70	351.76	5.17	
05/03/07	5:01 PM	5.11	19.80	0.92	317.68	4.17	
05/03/07	5:02 PM	3.42	19.64	1.05	291.37	3.52	
05/03/07	5:03 PM	3.06	19.48	1.38	296.22	3.86	
05/03/07	5:04 PM	3.05	19.61	1.15	285.01	4.32	
05/03/07	5:05 PM	2.80	19.90	0.63	262.25	4.35	
05/03/07	5:06 PM	2.24	20.22	0.16	246.97	3.98	
05/03/07	5:07 PM	2.71	20.34	0.03	196.30	3.44	
05/03/07	5:08 PM	5.18	20.38	0.02	123.81	2.87	
05/03/07	5:09 PM	6.46	20.41	0.02	89.21	2.53	
05/03/07	5:10 PM	7.38	20.42	0.02	63.42	2.47	
05/03/07	5:11 PM	7.73	20.45	0.02	63.94	2.47	
05/03/07	5:12 PM	7.87	20.21	0.41	71.44	2.55	
05/03/07	5:13 PM	4.92	19.83	0.93	81.96	3.55	
05/03/07	5:14 PM	5.86	19.78	0.97	128.88	4.81	
05/03/07	5:15 PM	7.62	19.77	1.00	154.24	5.06	
05/03/07	5:16 PM	7.90	19.72	1.06	159.11	5.07	
05/03/07	5:17 PM	7.73	19.67	1.11	165.58	5.41	
05/03/07	5:18 PM	8.22	19.66	1.13	163.99	5.99	
05/03/07	5:19 PM	7.66	19.58	1.26	175.33	5.94	
05/03/07	5:20 PM	7.31	19.38	1.55	212.57	5.82	
05/03/07	5:21 PM	5.32	19.29	1.68	266.95	5.54	
05/03/07	5:22 PM	4.95	19.34	1.62	290.95	4.97	
05/03/07	5:23 PM	5.92	19.35	1.62	286.95	4.32	
05/03/07	5:24 PM	6.96	19.33	1.65	282.30	3.78	
05/03/07	5:25 PM	7.22	19.28	1.65	276.02	3.49	
05/03/07	5:26 PM	7.77	19.32	1.63	275.53	3.50	
05/03/07	5:27 PM	8.18	19.38	1.60	278.59	3.55	
05/03/07	5:28 PM	7.13	19.42	1.54	264.27	3.70	
05/03/07	5:29 PM	5.39	19.46	1.48	240.85	3.79	
05/03/07	5:30 PM	5.03	19.49	1.46	236.75	3.49	
05/03/07	5:31 PM	4.27	19.54	1.37	233.60	3.11	
05/03/07	5:32 PM	4.26	19.56	1.39	222.28	2.95	
05/03/07	5:33 PM	5.76	19.57	1.39	215.41	2.83	
05/03/07	5:34 PM	6.60	19.59	1.35	181.80	2.80	
05/03/07	5:35 PM	5.81	19.62	1.31	196.26	2.87	
05/03/07	5:36 PM	4.50	19.62	1.30	211.76	2.93	
05/03/07	5:37 PM	5.25	19.60	1.30	209.31	3.00	
05/03/07	5:38 PM	5.24	19.63	1.22	215.94	3.04	
05/03/07	5:39 PM	4.96	19.66	1.15	212.59	2.94	
05/03/07	5:40 PM	4.18	19.65	1.13	204.15	3.10	
05/03/07	5:41 PM	4.65	19.67	1.13	173.81	4.19	
05/03/07	5:42 PM	4.58	19.61	1.24	192.28	5.72	
05/03/07	5:43 PM	4.87	19.65	1.24	220.97	6.43	
05/03/07	5:44 PM	5.39	19.59	1.31	245.70	6.39	
05/03/07	5:45 PM	2.85	19.57	1.33	259.18	6.46	
05/03/07	5:46 PM	2.55	19.68	1.18	260.83	6.40	
05/03/07	5:47 PM	2.39	19.81	0.92	259.73	5.93	
05/03/07	5:48 PM	1.86	20.09	0.51	233.53	5.08	
05/03/07	5:49 PM	1.35	20.19	0.36	172.60	4.27	
05/03/07	5:50 PM	1.30	20.26	0.29	135.18	4.01	
05/03/07	5:51 PM	2.46	20.45	0.09	118.38	4.03	
05/03/07	5:52 PM	6.97	20.50	0.03	80.50	3.87	
05/03/07	5:53 PM	7.60	20.50	0.02	60.31	3.52	
05/03/07	5:54 PM	7.86	20.51	0.02	46.91	3.34	
05/03/07	5:55 PM	8.47	20.52	0.02	53.45	3.24	
05/03/07	5:56 PM	10.71	20.30	0.31	54.84	2.88	
05/03/07	5:57 PM	12.07	20.30	0.28	48.52	3.05	
05/03/07	5:58 PM	19.73	20.37	0.22	38.94	3.14	
05/03/07	5:59 PM	33.09	20.44	0.13	43.44	3.05	
05/03/07	6:00 PM	38.48	20.48	0.09	45.72	2.97	
05/03/07	6:01 PM	39.76	20.51	0.07	41.18	2.80	
05/03/07	6:02 PM	42.97	20.52	0.05	34.85	2.66	

P-Bar	30.12	BH NO_X	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/03/07	6:03 PM	43.55	20.51	0.07	29.51	2.50	
05/03/07	6:04 PM	35.83	20.41	0.12	29.09	2.48	
05/03/07	6:05 PM	11.00	20.34	0.15	32.65	2.95	
05/03/07	6:06 PM	4.41	20.22	0.40	34.54	3.38	
05/03/07	6:07 PM	4.24	20.00	0.85	70.50	3.93	
05/03/07	6:08 PM	4.58	19.94	0.93	135.20	4.41	
05/03/07	6:09 PM	4.09	19.89	1.00	165.56	4.66	
05/03/07	6:10 PM	2.85	19.83	1.05	166.10	5.13	
05/03/07	6:11 PM	4.09	19.83	1.05	170.31	6.34	
05/03/07	6:12 PM	3.73	19.81	1.08	165.47	6.78	
05/03/07	6:13 PM	2.56	19.78	1.12	164.71	7.63	
05/03/07	6:14 PM	2.53	19.80	1.09	167.22	9.52	
05/03/07	6:15 PM	2.28	19.79	1.11	175.55	10.94	
05/03/07	6:16 PM	2.29	19.79	1.11	179.77	11.75	
05/03/07	6:17 PM	2.47	19.77	1.15	162.02	10.89	
05/03/07	6:18 PM	2.64	19.77	1.15	155.57	9.22	
05/03/07	6:19 PM	2.69	19.82	1.12	162.62	7.97	
05/03/07	6:20 PM	2.67	19.73	1.28	159.15	7.28	
05/03/07	6:21 PM	3.19	19.46	1.62	163.36	7.01	
05/03/07	6:22 PM	4.06	19.49	1.55	201.28	7.31	
05/03/07	6:23 PM	4.00	19.62	1.37	221.34	6.99	
05/03/07	6:24 PM	3.92	19.71	1.25	215.17	6.09	
05/03/07	6:25 PM	3.64	19.78	1.12	194.15	5.23	
05/03/07	6:26 PM	3.02	19.83	1.08	172.59	4.59	
05/03/07	6:27 PM	2.54	19.87	1.04	169.10	4.01	
05/03/07	6:28 PM	2.19	19.90	1.02	159.56	3.51	
05/03/07	6:29 PM	2.07	19.84	1.07	149.21	3.34	
05/03/07	6:30 PM	1.89	19.81	1.16	169.82	3.70	
05/03/07	6:31 PM	2.24	19.86	1.00	181.71	4.09	
05/03/07	6:32 PM	1.99	20.30	0.39	192.21	4.02	
05/03/07	6:33 PM	1.78	20.45	0.19	139.77	3.14	
05/03/07	6:34 PM	4.31	20.50	0.12	89.25	2.43	
05/03/07	6:35 PM	6.49	20.52	0.10	60.35	2.21	
05/03/07	6:36 PM	7.06	20.54	0.07	53.33	2.39	
05/03/07	6:37 PM	7.34	20.55	0.07	52.35	2.47	
05/03/07	6:38 PM	8.10	20.56	0.04	49.64	2.42	
05/03/07	6:39 PM	10.65	20.56	0.03	47.64	2.24	
05/03/07	6:40 PM	12.93	20.56	0.05	43.33	2.09	
05/03/07	6:41 PM	13.35	20.19	0.63	44.33	2.78	
05/03/07	6:42 PM	7.65	19.79	1.11	64.34	4.45	
05/03/07	6:43 PM	6.93	19.78	1.11	143.68	5.09	
05/03/07	6:44 PM	7.07	19.80	1.09	198.35	4.55	
05/03/07	6:45 PM	5.78	19.68	1.23	206.34	3.71	
05/03/07	6:46 PM	5.04	19.57	1.35	245.68	3.36	
05/03/07	6:47 PM	5.90	19.45	1.55	285.06	3.13	
05/03/07	6:48 PM	7.44	19.44	1.56	327.74	2.91	
05/03/07	6:49 PM	7.61	19.43	1.55	337.39	2.87	
05/03/07	6:50 PM	6.18	19.42	1.56	347.39	2.81	
05/03/07	6:51 PM	6.31	19.50	1.44	354.07	2.88	
05/03/07	6:52 PM	5.86	19.72	1.22	308.08	2.73	
05/03/07	6:53 PM	5.39	19.64	1.32	292.72	2.50	
05/03/07	6:54 PM	5.36	19.58	1.40	304.40	2.47	
05/03/07	6:55 PM	4.00	19.57	1.43	322.06	2.60	
05/03/07	6:56 PM	2.94	19.51	1.46	330.06	3.06	
05/03/07	6:57 PM	2.85	19.57	1.41	346.39	3.78	
05/03/07	6:58 PM	3.36	19.46	1.55	364.73	3.90	
05/03/07	6:59 PM	3.29	19.51	1.50	406.40	4.15	
05/03/07	7:00 PM	2.67	19.42	1.62	407.70	3.86	
05/03/07	7:01 PM	2.64	19.42	1.64	406.44	3.36	
05/03/07	7:02 PM	2.39	19.50	1.57	401.70	2.91	
05/03/07	7:03 PM	2.42	19.47	1.57	329.93	2.48	
05/03/07	7:04 PM	2.59	19.57	1.47	283.66	2.21	
05/03/07	7:05 PM	2.36	19.60	1.45	226.25	1.97	
05/03/07	7:06 PM	2.16	19.62	1.43	201.74	1.70	
05/03/07	7:07 PM	2.13	19.63	1.42	162.06	1.52	
05/03/07	7:08 PM	2.12	19.66	1.40	128.86	1.41	

P-Bar	30.12	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/03/07	7:09 PM	2.11	19.65	1.40	114.36	1.38	
05/03/07	7:10 PM	1.98	19.71	1.34	115.27	1.33	
05/03/07	7:11 PM	1.83	19.70	1.36	143.52	1.30	
05/03/07	7:12 PM	1.92	19.67	1.39	200.72	1.30	
05/03/07	7:13 PM	2.12	19.70	1.37	206.96	1.33	
05/03/07	7:14 PM	2.03	19.68	1.40	204.04	1.43	
05/03/07	7:15 PM	2.06	19.68	1.44	204.18	1.40	
05/03/07	7:16 PM	2.33	19.62	1.51	197.76	1.44	
05/03/07	7:17 PM	2.50	19.66	1.46	203.33	1.44	
05/03/07	7:18 PM	2.37	19.78	1.27	195.94	1.42	
05/03/07	7:19 PM	2.25	19.98	0.97	176.40	1.46	
05/03/07	7:20 PM	1.96	20.09	0.88	111.75	1.46	
05/03/07	7:21 PM	1.73	20.14	0.86	66.20	1.47	
05/03/07	7:22 PM	1.71	20.20	0.80	47.14	1.77	
05/03/07	7:23 PM	2.76	20.15	0.90	35.83	2.67	
05/03/07	7:24 PM	3.64	20.14	0.94	31.00	4.15	
05/03/07	7:25 PM	2.52	20.11	1.00	35.49	5.30	
05/03/07	7:26 PM	2.93	19.92	1.26	73.74	6.38	
05/03/07	7:27 PM	4.05	19.99	1.15	112.07	7.36	
05/03/07	7:28 PM	3.35	19.89	1.29	117.89	6.94	
05/03/07	7:29 PM	3.67	20.00	1.13	151.97	6.72	
05/03/07	7:30 PM	4.25	20.12	1.01	171.90	5.55	
05/03/07	7:31 PM	3.64	20.23	0.82	125.88	4.09	
05/03/07	7:32 PM	4.05	20.52	0.34	115.01	3.39	
05/03/07	7:33 PM	7.83	20.60	0.23	93.34	3.42	
05/03/07	7:34 PM	9.05	20.62	0.20	72.08	3.28	
05/03/07	7:35 PM	12.88	20.64	0.18	65.93	3.22	
05/03/07	7:36 PM	12.87	20.67	0.17	63.14	3.11	
05/03/07	7:37 PM	12.92	20.34	0.54	61.62	3.00	
05/03/07	7:38 PM	15.78	20.51	0.37	42.17	3.78	
05/03/07	7:39 PM	20.42	20.57	0.32	31.67	3.61	
05/03/07	7:40 PM	22.44	20.63	0.25	33.01	3.21	
05/03/07	7:41 PM	21.82	20.70	0.17	30.60	2.75	
05/03/07	7:42 PM	10.31	20.71	0.17	27.81	2.42	
05/03/07	7:43 PM	10.88	20.61	0.26	26.95	2.17	
05/03/07	7:44 PM	5.85	20.52	0.34	29.88	2.23	
05/03/07	7:45 PM	2.44	20.23	0.77	46.55	2.97	
05/03/07	7:46 PM	2.79	20.03	1.01	92.08	5.62	
05/03/07	7:47 PM	2.34	19.91	1.13	112.33	8.60	
05/03/07	7:48 PM	2.18	19.85	1.21	114.99	9.58	
05/03/07	7:49 PM	2.25	19.86	1.18	112.03	9.29	
05/03/07	7:50 PM	2.17	19.79	1.28	110.53	8.53	
05/03/07	7:51 PM	2.64	19.75	1.35	122.34	7.98	
05/03/07	7:52 PM	3.89	19.69	1.43	141.95	7.30	
05/03/07	7:53 PM	4.42	19.66	1.44	159.19	6.25	
05/03/07	7:54 PM	3.01	19.75	1.33	183.95	5.12	
05/03/07	7:55 PM	2.18	19.77	1.27	189.68	4.28	
05/03/07	7:56 PM	1.92	19.82	1.22	179.13	3.77	
05/03/07	7:57 PM	2.01	19.78	1.23	165.41	3.36	
05/03/07	7:58 PM	2.43	19.80	1.15	170.96	3.16	
05/03/07	7:59 PM	3.05	19.80	1.12	177.35	2.88	
05/03/07	8:00 PM	3.28	19.74	1.21	182.38	2.61	
05/03/07	8:01 PM	4.52	19.76	1.18	187.92	2.42	
05/03/07	8:02 PM	5.76	19.72	1.24	195.95	2.25	
05/03/07	8:03 PM	4.51	19.65	1.26	192.29	2.17	
05/03/07	8:04 PM	3.22	19.74	1.16	186.97	2.16	
05/03/07	8:05 PM	2.67	19.74	1.14	190.58	2.20	
05/03/07	8:06 PM	2.62	19.74	1.10	199.03	2.24	
05/03/07	8:07 PM	3.81	19.83	1.00	198.36	2.16	
05/03/07	8:08 PM	5.98	19.85	0.97	184.51	2.05	
05/03/07	8:09 PM	5.72	19.86	0.98	181.93	1.95	
05/03/07	8:10 PM	3.28	19.83	1.00	197.80	1.83	
05/03/07	8:11 PM	2.50	19.88	0.94	216.40	1.77	
05/03/07	8:12 PM	2.32	19.94	0.87	220.47	1.70	
05/03/07	8:13 PM	2.53	19.88	0.89	202.82	1.69	
05/03/07	8:14 PM	2.77	20.09	0.59	190.26	1.70	

P-Bar	30.12	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/03/07	8:15 PM	2.47	20.35	0.19	138.68	1.76	
05/03/07	8:16 PM	5.18	20.49	0.02	87.18	2.34	
05/03/07	8:17 PM	8.13	20.53	0.02	56.85	2.97	
05/03/07	8:18 PM	9.01	20.56	0.02	42.12	3.45	
05/03/07	8:19 PM	9.46	20.56	0.03	35.51	4.03	
05/03/07	8:20 PM	13.30	20.51	0.09	35.30	5.01	
05/03/07	8:21 PM	11.31	20.32	0.40	41.11	8.24	
05/03/07	8:22 PM	4.38	20.15	0.63	61.78	8.25	
05/03/07	8:23 PM	5.65	20.11	0.67	96.18	7.46	
05/03/07	8:24 PM	8.70	19.97	0.86	118.98	6.80	
05/03/07	8:25 PM	8.12	19.66	1.26	166.00	6.60	
05/03/07	8:26 PM	8.99	19.76	1.09	222.34	6.61	
05/03/07	8:27 PM	8.85	19.86	0.94	221.65	5.64	
05/03/07	8:28 PM	5.73	19.90	0.92	178.87	4.73	
05/03/07	8:29 PM	3.95	19.92	0.89	165.27	4.01	
05/03/07	8:30 PM	3.86	19.92	0.93	175.47	3.45	
05/03/07	8:31 PM	3.58	19.71	1.23	173.39	3.18	
05/03/07	8:32 PM	5.38	19.69	1.28	188.80	3.05	
05/03/07	8:33 PM	5.99	19.70	1.26	190.33	2.94	
05/03/07	8:34 PM	5.52	19.73	1.20	181.07	2.77	
05/03/07	8:35 PM	4.43	19.70	1.20	166.40	2.74	
05/03/07	8:36 PM	4.10	19.78	1.11	160.68	2.72	
05/03/07	8:37 PM	5.02	19.82	1.08	153.68	2.58	
05/03/07	8:38 PM	5.40	19.84	1.03	155.83	2.34	
05/03/07	8:39 PM	5.70	19.83	1.03	156.48	2.20	
05/03/07	8:40 PM	5.26	19.82	1.04	159.98	2.24	
05/03/07	8:41 PM	4.16	19.78	1.11	163.99	2.36	
05/03/07	8:42 PM	4.25	19.67	1.20	165.83	2.71	
05/03/07	8:43 PM	4.95	19.74	1.06	163.16	3.29	
05/03/07	8:44 PM	6.10	19.80	0.95	162.67	3.78	
05/03/07	8:45 PM	5.93	19.87	0.90	156.83	3.90	
05/03/07	8:46 PM	5.59	19.83	0.95	158.32	3.82	
05/03/07	8:47 PM	5.60	19.88	0.86	147.64	3.87	
05/03/07	8:48 PM	5.42	19.85	0.90	142.97	4.09	
05/03/07	8:49 PM	5.17	19.89	0.84	160.66	4.36	
05/03/07	8:50 PM	3.76	20.17	0.39	161.67	4.54	
05/03/07	8:51 PM	3.07	20.43	0.10	107.96	5.04	
05/03/07	8:52 PM	5.93	20.50	0.03	57.12	5.65	
05/03/07	8:53 PM	7.75	20.53	0.02	36.79	6.73	
05/03/07	8:54 PM	8.56	20.53	0.02	29.96	6.52	
05/03/07	8:55 PM	8.81	20.56	0.02	34.96	5.80	
05/03/07	8:56 PM	10.54	20.24	0.46	41.28	4.90	
05/03/07	8:57 PM	14.30	20.33	0.32	32.80	4.95	
05/03/07	8:58 PM	16.17	20.34	0.29	44.14	4.45	
05/03/07	8:59 PM	10.48	20.36	0.23	47.95	4.41	
05/03/07	9:00 PM	5.89	20.37	0.21	34.94	4.85	
05/03/07	9:01 PM	4.66	20.18	0.59	40.28	5.15	
05/03/07	9:02 PM	5.37	19.99	0.91	68.36	5.26	
05/03/07	9:03 PM	6.30	19.85	1.11	119.30	5.14	
05/03/07	9:04 PM	6.12	19.84	1.11	151.05	5.15	
05/03/07	9:05 PM	6.41	19.63	1.36	188.37	5.13	
05/03/07	9:06 PM	6.69	19.51	1.50	219.25	5.13	
05/03/07	9:07 PM	7.53	19.71	1.18	235.25	4.95	
05/03/07	9:08 PM	6.23	19.65	1.30	282.64	4.46	
05/03/07	9:09 PM	5.77	19.72	1.21	287.64	3.95	
05/03/07	9:10 PM	4.65	19.74	1.17	271.60	3.42	
05/03/07	9:11 PM	3.75	19.76	1.14	267.26	2.95	
05/03/07	9:12 PM	4.49	19.78	1.14	260.67	2.53	
05/03/07	9:13 PM	4.81	19.80	1.13	254.80	2.21	
05/03/07	9:14 PM	3.35	19.75	1.19	241.00	2.00	
05/03/07	9:15 PM	2.67	19.70	1.27	212.77	1.97	
05/03/07	9:16 PM	3.06	19.73	1.24	208.17	2.15	
05/03/07	9:17 PM	2.82	19.74	1.23	205.18	2.42	
05/03/07	9:18 PM	2.58	19.74	1.22	199.12	2.69	
05/03/07	9:19 PM	2.63	19.72	1.22	190.11	3.06	
05/03/07	9:20 PM	2.73	19.69	1.22	179.66	3.47	

P-Bar	30.12	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/03/07	9:21 PM	2.87	19.74	1.15	172.64	3.79	
05/03/07	9:22 PM	2.72	19.76	1.15	172.12	3.69	
05/03/07	9:23 PM	2.84	19.78	1.11	175.99	3.56	
05/03/07	9:24 PM	4.47	19.76	1.15	180.82	3.42	
05/03/07	9:25 PM	5.56	19.99	0.77	203.01	3.39	
05/03/07	9:26 PM	3.08	20.26	0.39	156.86	3.31	
05/03/07	9:27 PM	3.19	20.38	0.19	98.79	3.02	
05/03/07	9:28 PM	6.58	20.46	0.09	62.74	2.82	
05/03/07	9:29 PM	8.72	20.49	0.05	53.01	2.78	
05/03/07	9:30 PM	9.70	20.42	0.15	61.09	2.73	
05/03/07	9:31 PM	8.75	20.11	0.71	90.58	3.20	
05/03/07	9:32 PM	3.99	19.97	0.88	152.99	4.13	
05/03/07	9:33 PM	7.16	19.94	0.92	187.62	4.53	
05/03/07	9:34 PM	8.63	19.91	0.93	192.78	4.69	
05/03/07	9:35 PM	8.27	19.88	0.97	204.61	4.88	
05/03/07	9:36 PM	8.09	19.85	1.00	220.53	4.92	
05/03/07	9:37 PM	8.05	19.63	1.30	227.16	4.76	
05/03/07	9:38 PM	8.19	19.39	1.62	243.09	4.66	
05/03/07	9:39 PM	9.36	19.33	1.68	280.42	4.60	
05/03/07	9:40 PM	8.86	19.39	1.64	328.57	4.42	
05/03/07	9:41 PM	8.06	19.42	1.57	352.64	4.12	
05/03/07	9:42 PM	7.52	19.44	1.55	316.73	3.78	
05/03/07	9:43 PM	6.29	19.50	1.50	339.05	3.48	
05/03/07	9:44 PM	4.70	19.54	1.46	333.46	3.17	
05/03/07	9:45 PM	4.85	19.62	1.38	273.83	2.86	
05/03/07	9:46 PM	5.27	19.62	1.36	260.33	2.51	
05/03/07	9:47 PM	5.63	19.60	1.38	233.62	2.22	
05/03/07	9:48 PM	4.80	19.60	1.38	240.59	2.18	
05/03/07	9:49 PM	3.31	19.61	1.36	230.60	2.24	
05/03/07	9:50 PM	4.26	19.62	1.34	235.50	2.28	
05/03/07	9:51 PM	5.35	19.63	1.33	223.32	2.23	
05/03/07	9:52 PM	5.58	19.65	1.31	198.11	2.16	
05/03/07	9:53 PM	5.51	19.70	1.26	205.83	2.12	
05/03/07	9:54 PM	5.79	19.75	1.21	195.51	2.00	
05/03/07	9:55 PM	5.85	19.78	1.17	183.52	1.95	
05/03/07	9:56 PM	4.50	19.77	1.18	172.45	2.08	
05/03/07	9:57 PM	3.59	19.76	1.18	161.59	2.32	
05/03/07	9:58 PM	3.62	19.67	1.27	159.31	2.81	
05/03/07	9:59 PM	4.10	19.69	1.20	177.44	3.29	
05/03/07	10:00 PM	3.78	19.83	0.93	175.70	3.37	
05/03/07	10:01 PM	3.42	20.16	0.49	184.19	2.99	
05/03/07	10:02 PM	3.29	20.14	0.49	160.38	2.70	
05/03/07	10:03 PM	3.89	20.07	0.63	144.01	2.74	
05/03/07	10:04 PM	3.59	19.98	0.73	182.32	2.92	
05/03/07	10:05 PM	3.21	20.07	0.61	200.51	3.14	
05/03/07	10:06 PM	2.93	20.08	0.60	166.43	3.06	
05/03/07	10:07 PM	2.13	20.28	0.30	117.48	3.14	
05/03/07	10:08 PM	7.10	20.42	0.14	55.55	4.13	
05/03/07	10:09 PM	11.86	20.44	0.12	35.69	4.84	
05/03/07	10:10 PM	10.75	20.46	0.10	27.07	4.36	
05/03/07	10:11 PM	9.87	20.49	0.07	27.28	3.75	
05/03/07	10:12 PM	7.46	20.51	0.06	22.17	3.04	
05/03/07	10:13 PM	9.60	20.41	0.22	22.50	2.54	
05/03/07	10:14 PM	13.72	20.12	0.49	39.19	2.50	
05/03/07	10:15 PM	17.79	20.31	0.29	23.50	2.69	
05/03/07	10:16 PM	30.70	20.26	0.31	31.16	2.78	
05/03/07	10:17 PM	18.66	20.19	0.31	43.20	3.55	
05/03/07	10:18 PM	8.47	20.16	0.40	28.40	5.02	
05/03/07	10:19 PM	6.81	19.99	0.77	27.87	5.72	
05/03/07	10:20 PM	5.85	19.97	0.86	35.47	5.16	
05/03/07	10:21 PM	5.39	19.92	0.96	135.60	4.50	
05/03/07	10:22 PM	5.14	19.86	1.04	167.41	4.00	
05/03/07	10:23 PM	5.21	19.73	1.26	207.72	3.69	
05/03/07	10:24 PM	4.84	19.68	1.31	234.13	3.64	
05/03/07	10:25 PM	4.46	19.66	1.36	233.21	3.60	
05/03/07	10:26 PM	3.70	19.61	1.42	218.76	3.38	

P-Bar	30.12	BH NO_x	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/03/07	10:27 PM	3.66	19.56	1.48	208.07	3.15	
05/03/07	10:28 PM	4.62	19.60	1.43	213.40	3.04	
05/03/07	10:29 PM	5.21	19.56	1.48	197.04	2.84	
05/03/07	10:30 PM	4.77	19.53	1.48	205.90	2.75	
05/03/07	10:31 PM	3.84	19.57	1.38	204.30	2.77	
05/03/07	10:32 PM	3.96	19.60	1.34	216.94	2.86	
05/03/07	10:33 PM	4.69	19.61	1.33	225.74	2.80	
05/03/07	10:34 PM	5.54	19.67	1.25	205.65	2.76	
05/03/07	10:35 PM	4.90	19.70	1.24	197.05	2.71	
05/03/07	10:36 PM	4.33	19.62	1.32	196.33	2.76	
05/03/07	10:37 PM	3.49	19.63	1.29	187.80	3.23	
05/03/07	10:38 PM	3.16	19.73	1.17	194.32	3.56	
05/03/07	10:39 PM	2.91	19.78	1.14	197.32	3.41	
05/03/07	10:40 PM	2.76	19.72	1.09	188.99	3.70	
05/03/07	10:41 PM	2.51	19.86	0.91	158.65	4.42	
05/03/07	10:42 PM	2.03	20.08	0.59	133.30	4.77	
05/03/07	10:43 PM	4.61	20.26	0.32	99.29	4.57	
05/03/07	10:44 PM	8.78	20.35	0.19	59.63	4.26	
05/03/07	10:45 PM	9.93	20.39	0.14	46.28	4.44	
05/03/07	10:46 PM	9.54	20.41	0.13	42.94	4.37	
05/03/07	10:47 PM	15.06	20.35	0.29	48.96	4.14	
05/03/07	10:48 PM	12.06	20.03	0.77	71.28	4.47	
05/03/07	10:49 PM	3.62	19.95	0.86	130.28	4.89	
05/03/07	10:50 PM	4.23	19.88	0.96	181.34	4.50	
05/03/07	10:51 PM	6.36	19.81	1.04	214.32	4.10	
05/03/07	10:52 PM	7.25	19.80	1.04	260.65	3.89	
05/03/07	10:53 PM	9.90	19.75	1.10	265.68	3.67	
05/03/07	10:54 PM	9.23	19.49	1.47	273.33	3.57	
05/03/07	10:55 PM	11.72	19.19	1.87	323.02	3.47	
05/03/07	10:56 PM	12.51	19.14	1.96	316.03	3.53	
05/03/07	10:57 PM	10.69	19.25	1.81	363.70	3.46	
05/03/07	10:58 PM	9.18	19.43	1.51	354.70	3.05	
05/03/07	10:59 PM	8.84	19.33	1.64	333.36	2.68	
05/03/07	11:00 PM	7.82	19.43	1.52	320.69	2.53	
05/03/07	11:01 PM	5.88	19.53	1.43	301.64	2.43	
05/03/07	11:02 PM	5.85	19.52	1.41	267.44	2.35	
05/03/07	11:03 PM	7.21	19.58	1.36	278.64	2.15	
05/03/07	11:04 PM	7.28	19.56	1.40	279.29	2.06	
05/03/07	11:05 PM	7.44	19.53	1.41	248.05	1.91	
05/03/07	11:06 PM	5.53	19.68	1.22	252.14	1.88	
05/03/07	11:07 PM	2.84	19.80	1.12	211.17	1.80	
05/03/07	11:08 PM	4.45	19.69	1.20	179.61	1.64	
05/03/07	11:09 PM	7.00	19.68	1.19	197.52	1.54	
05/03/07	11:10 PM	7.23	19.71	1.17	180.13	1.60	
05/03/07	11:11 PM	6.81	19.75	1.13	156.99	1.65	
05/03/07	11:12 PM	6.28	19.73	1.13	136.90	1.73	
05/03/07	11:13 PM	6.17	19.73	1.13	144.19	1.96	
05/03/07	11:14 PM	4.88	19.73	1.11	138.22	2.27	
05/03/07	11:15 PM	4.73	19.80	1.04	150.99	2.68	
05/03/07	11:16 PM	2.68	19.79	1.06	157.27	2.92	
05/03/07	11:17 PM	2.09	19.76	1.08	182.81	3.20	
05/03/07	11:18 PM	2.29	19.76	1.08	199.57	3.60	
05/03/07	11:19 PM	2.31	19.77	1.06	192.61	3.66	
05/03/07	11:20 PM	2.06	19.88	0.88	188.64	3.59	
05/03/07	11:21 PM	1.85	19.96	0.74	231.60	3.56	
05/03/07	11:22 PM	1.72	19.97	0.69	225.08	3.68	
05/03/07	11:23 PM	1.84	20.22	0.35	177.85	3.79	
05/03/07	11:24 PM	8.20	20.35	0.19	112.24	4.11	
05/03/07	11:25 PM	12.63	20.37	0.16	67.88	4.51	
05/03/07	11:26 PM	10.29	20.28	0.27	78.36	4.95	
05/03/07	11:27 PM	7.88	20.38	0.17	61.28	4.62	
05/03/07	11:28 PM	12.73	20.42	0.14	50.56	3.99	
05/03/07	11:29 PM	15.19	20.39	0.20	40.10	3.26	
05/03/07	11:30 PM	15.22	20.06	0.59	64.83	3.04	
05/03/07	11:31 PM	13.56	20.29	0.29	40.30	3.38	
05/03/07	11:32 PM	18.23	20.34	0.25	26.88	3.06	

P-Bar	30.12	BH NO_X	BH O_2	BH CO_2	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
05/03/07	11:33 PM	25.12	20.35	0.24	27.76	2.87	
05/03/07	11:34 PM	23.88	19.91	0.86	50.49	3.50	
05/03/07	11:35 PM	10.26	19.75	1.06	97.96	5.95	
05/03/07	11:36 PM	6.69	19.73	1.14	95.70	7.84	
05/03/07	11:37 PM	6.01	19.74	1.20	89.29	8.69	
05/03/07	11:38 PM	5.81	19.70	1.27	91.36	8.49	
05/03/07	11:39 PM	5.43	19.71	1.23	105.71	8.06	
05/03/07	11:40 PM	5.78	19.72	1.24	121.30	7.41	
05/03/07	11:41 PM	5.33	19.63	1.39	138.76	6.62	
05/03/07	11:42 PM	5.65	19.11	2.06	168.06	6.30	
05/03/07	11:43 PM	6.21	19.48	1.32	233.80	6.12	
05/03/07	11:44 PM	5.53	19.52	1.44	218.39	5.23	
05/03/07	11:45 PM	4.57	19.32	1.68	216.92	4.66	
05/03/07	11:46 PM	3.19	19.35	1.64	222.12	4.62	
05/03/07	11:47 PM	4.47	19.41	1.58	204.97	4.38	
05/03/07	11:48 PM	4.39	19.39	1.60	198.79	3.94	
05/03/07	11:49 PM	3.85	19.48	1.47	197.44	3.57	
05/03/07	11:50 PM	3.25	19.53	1.45	169.18	3.34	
05/03/07	11:51 PM	4.35	19.56	1.41	141.10	3.28	
05/03/07	11:52 PM	3.99	19.53	1.40	136.89	3.25	
05/03/07	11:53 PM	2.60	19.54	1.39	139.47	3.41	
05/03/07	11:54 PM	3.93	19.59	1.36	141.75	4.04	
05/03/07	11:55 PM	3.08	19.61	1.38	132.64	4.01	
05/03/07	11:56 PM	2.08	19.56	1.43	134.07	3.69	
05/03/07	11:57 PM	2.21	19.55	1.43	126.63	3.49	
05/03/07	11:58 PM	2.27	19.54	1.41	113.00	3.24	
05/03/07	11:59 PM	2.17	19.55	1.40	111.69	3.00	
05/04/07	12:00 AM	2.08	19.59	1.39	128.89	2.87	
05/04/07	12:01 AM	2.05	19.55	1.45	127.66	2.82	
05/04/07	12:02 AM	1.96	19.53	1.49	123.85	2.80	
05/04/07	12:03 AM	1.95	19.50	1.54	123.49	2.76	
05/04/07	12:04 AM	2.05	19.51	1.50	127.59	2.68	
05/04/07	12:05 AM	2.20	19.55	1.41	136.93	2.53	
05/04/07	12:06 AM	2.02	19.80	0.99	131.60	2.36	
05/04/07	12:07 AM	1.57	19.90	0.91	123.06	2.13	
05/04/07	12:08 AM	1.63	19.96	0.80	124.89	1.95	
05/04/07	12:09 AM	1.61	19.90	0.97	146.17	1.79	
05/04/07	12:10 AM	1.46	19.77	1.15	182.86	1.77	
05/04/07	12:11 AM	1.84	19.75	1.16	184.99	1.74	
05/04/07	12:12 AM	1.82	19.74	1.15	184.48	1.82	
05/04/07	12:13 AM	1.71	19.87	0.87	179.54	2.06	
05/04/07	12:14 AM	1.53	20.24	0.33	167.02	2.42	
05/04/07	12:15 AM	2.00	20.33	0.21	125.66	2.29	End Run 3
05/04/07	12:16 AM	4.50	20.35	0.17	93.16	2.06	
05/04/07	12:17 AM	6.10	20.38	0.16	68.76	2.02	
05/04/07	12:18 AM	5.60	20.40	0.14	49.41	1.96	
Averages		**6.19**	**19.89**	**0.94**	**160.74**	**3.78**	
05/04/07	12:19 AM	7.36	20.40	0.13	33.86	1.95	
05/04/07	12:20 AM	8.74	12.34	9.12	15.87	4.04	
05/04/07	12:21 AM	2.44	9.94	10.44	0.50	0.26	Calibrate
05/04/07	12:22 AM	0.18	6.27	5.36	6.22	19.26	
05/04/07	12:23 AM	28.48	-0.09	0.02	45.90	45.64	
05/04/07	12:24 AM	47.33	-0.10	0.02	48.32	46.26	
05/04/07	12:25 AM	47.61	-0.09	0.02	52.97	85.55	Leak Check OK
05/04/07	12:26 AM	177.08	-0.09	0.02	381.38	250.43	
05/04/07	12:27 AM	250.25	-0.10	0.02	458.71	250.43	
05/04/07	12:28 AM	250.25	7.01	0.07	421.18	159.75	

APPENDIX F
PLANT PROCESS DATA

Annual Compliance Stack Test
Nucor Steel - Hertford County
May 1-3, 2007

Run	Test Duration	Tons Cast	TPH
1	8.13	2,234.20	275
2	8.17	2,067.83	253
3	8.00	2,180.25	273
Average	**8.10**	**2,161**	**267**

Annual Operating Hours	**7848**

APPENDIX G
QUALITY ASSURANCE AND CALIBRATION DATA

Desert Air Environmental Services, LLC
EPA Method 5
Pre-Test Orifice Method
English Meter Box Units, English K' Factor

Model #: Clean Air
Serial # 1501

Date: ----------> 4/26/07
Barometric Pressure: ----------> 30.00 (in. Hg)
Theoretical Critical Vacuum:---> 14.15 (in. Hg)

!!!!!!!!!
IMPORTANT For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTANT The Critical Orifice Coefficient, K', must be entered in English units. (ft)^3*(deg R)^0.5/((in.Hg)*(min)).
!!!!!!!!!

---------- DRY GAS METER READINGS ---------- -CRITICAL ORIFICE READ

dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Initial Temps. Inlet (deg F)	Initial Temps. Outlet (deg F)	Final Temps. Inlet (deg F)	Final Temps. Outlet (deg F)	Orifice Serial# (number)	K' Orifice Coefficient (see above)	Actual Vacuum (in Hg)	-- Ambient Temperature -- Initial (deg F)	Final (deg F)	Average (deg F)
0.30	5.00	110.100	111.605	1.505	75.0	72.0	76.0	73.0	40	0.2317	16.0	75.0	76.0	75.5
0.67	5.00	111.800	114.070	2.270	77.0	73.0	79.0	73.0	48	0.3477	16.0	76.0	78.0	77.0
1.10	5.00	114.400	117.350	2.950	80.0	74.0	82.0	74.0	55	0.4536	16.0	78.0	79.0	78.5
1.80	5.00	117.600	121.415	3.815	83.0	75.0	86.0	76.0	63	0.5794	16.0	80.0	81.0	80.5
3.20	5.00	122.200	127.355	5.155	87.0	76.0	89.0	77.0	73	0.7759	16.0	82.0	82.0	82.0

********** RESULTS **********

DRY GAS METER VOLUME CORRECTED Vm(std) (cu ft)	Vm(std) (liters)	ORIFICE VOLUME CORRECTED Vcr(std) (cu ft)	Vcr(std) (liters)	ORIFICE NOMINAL Vcr (cu ft)	-- DRY GAS METER -- CALIBRATION FACTOR Y Value (number)	Variation (number)	ORIFICE CALIBRATION FACTOR dH@ Value (in H2O)	Value (mm H2O)	Variation (in H2O)
1.493	42.3	1.502	42.5	1.520	1.006	0.007	1.859	47.23	0.048
2.247	63.6	2.251	63.7	2.284	1.002	0.002	1.847	46.93	0.036
2.912	82.5	2.932	83.0	2.984	1.007	0.008	1.784	45.31	-0.028
3.755	106.3	3.738	105.9	3.818	0.995	-0.004	1.791	45.48	-0.021
5.070	143.6	4.999	141.6	5.120	0.986	-0.013	1.777	45.13	-0.035
		Average Y ------->			0.9992		1.8116	46.02	<------- Average dH@

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: MR Date: 4-26-07

Desert Air Environmental Services, LLC
EPA Method 5
Pre-Test Orifice Method
English Meter Box Units, English K' Factor

Model #: Clean Air
Serial # 1001

Date: ----------> 4/26/07
Barometric Pressure: ----------> 30.00 (in. Hg)
Theoretical Critical Vacuum:---> 14.15 (in. Hg)

!!!!!!!!!
IMPORTANT For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTANT The Critical Orifice Coefficient, K', must be entered in English units. (ft)^3*(deg R)^0.5/((in.Hg)*(min)).
!!!!!!!!!

---------- DRY GAS METER READINGS ---------- -CRITICAL ORIFICE READ

dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Initial Temps. Inlet (deg F)	Initial Temps. Outlet (deg F)	Final Temps. Inlet (deg F)	Final Temps. Outlet (deg F)	Orifice Serial# (number)	K' Orifice Coefficient (see above)	Actual Vacuum (in Hg)	-- Ambient Temperature -- Initial (deg F)	Final (deg F)	Average (deg F)
0.32	5.00	178.000	179.535	1.535	76.0	75.0	77.0	75.0	40	0.2317	16.0	76.0	76.0	76.0
0.70	5.00	179.700	181.975	2.275	77.0	75.0	79.0	76.0	48	0.3477	16.0	77.0	77.0	77.0
1.15	5.00	182.300	185.285	2.985	80.0	76.0	81.0	76.0	55	0.4536	16.0	78.0	78.0	78.0
1.80	5.00	185.500	189.330	3.830	83.0	76.0	85.0	77.0	63	0.5794	16.0	79.0	79.0	79.0
3.30	5.00	189.600	194.740	5.140	86.0	77.0	88.0	78.0	73	0.7759	16.0	80.0	81.0	80.5

********** RESULTS **********

DRY GAS METER VOLUME CORRECTED Vm(std) (cu ft)	Vm(std) liters)	ORIFICE VOLUME CORRECTED Vcr(std) (cu ft)	Vcr(std) (liters)	ORIFICE NOMINAL Vcr (cu ft)	-- DRY GAS METER -- CALIBRATION FACTOR Y Value (number)	Variation (number)	ORIFICE CALIBRATION FACTOR dH@ Value (in H2O)	Value (mm H2O)	Variation (in H2O)	
1.517	43.0	1.501	42.5	1.520	0.989	-0.005	1.976	50.19	0.104	
2.247	63.6	2.251	63.7	2.284	1.002	0.007	1.921	48.80	0.049	
2.943	83.3	2.933	83.1	2.982	0.997	0.002	1.856	47.15	-0.016	
3.768	106.7	3.743	106.0	3.813	0.993	-0.001	1.782	45.27	-0.090	
5.057	143.2	5.006	141.8	5.113	0.990	-0.004	1.824	46.33	-0.048	
		Average Y ------->			0.9942		1.8719	47.55	<------- Average dH@	

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: MJR Date: 4-26-07

Desert Air Environmental Services, LLC
EPA Method 5
Pre-Test Orifice Method
English Meter Box Units, English K' Factor

Model #: Cherokee
Serial # 2645

Date: ----------> 4/26/07
Barometric Pressure: ----------> 30.00 (in. Hg)
Theoretical Critical Vacuum:---> 14.15 (in. Hg)

!!!!!!!!!
IMPORTANT For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTANT The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).
!!!!!!!!!

		DRY GAS METER READINGS							-CRITICAL ORIFICE READ			-- Ambient Temperature --		
dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Initial Temps. Inlet (deg F)	Initial Temps. Outlet (deg F)	Final Temps. Inlet (deg F)	Final Temps. Outlet (deg F)	Orifice Serial# (number)	K' Orifice Coefficient (see above)	Actual Vacuum (in Hg)	Initial (deg F)	Final (deg F)	Average (deg F)
0.30	5.00	592.800	594.320	1.520	78.0	80.0	78.0	80.0	40	0.2317	16.0	78.0	78.0	78.0
0.65	5.00	594.500	596.805	2.305	78.0	80.0	78.0	80.0	48	0.3477	16.0	78.0	78.0	78.0
1.10	5.00	597.400	600.360	2.960	79.0	81.0	79.0	82.0	55	0.4536	16.0	79.0	79.0	79.0
1.80	5.00	600.900	604.645	3.745	80.0	82.0	80.0	83.0	63	0.5794	16.0	80.0	80.0	80.0
3.20	5.00	606.800	611.800	5.000	81.0	83.0	81.0	83.0	73	0.7759	16.0	81.0	81.0	81.0

********** RESULTS **********

DRY GAS METER		--------- ORIFICE ---------			-- DRY GAS METER --		--------- ORIFICE ---------		
VOLUME CORRECTED Vm(std) (cu ft)	Vm(std) liters)	VOLUME CORRECTED Vcr(std) (cu ft)	Vcr(std) (liters)	NOMINAL Vcr (cu ft)	CALIBRATION FACTOR Y Value (number)	Variation (number)	CALIBRATION FACTOR dH@ Value (in H2O)	Value (mm H2O)	Variation (in H2O)
1.493	42.3	1.498	42.4	1.523	1.003	-0.004	1.842	46.79	0.063
2.267	64.2	2.249	63.7	2.286	0.992	-0.015	1.772	45.02	-0.006
2.907	82.3	2.931	83.0	2.985	1.008	0.001	1.761	44.72	-0.018
3.678	104.2	3.740	105.9	3.816	1.017	0.009	1.766	44.85	-0.013
4.920	139.3	5.004	141.7	5.115	1.017	0.010	1.752	44.51	-0.026
		Average Y ------->			1.0075		1.7787	45.18	<------- Average dH@

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: MTR Date: 4-26-07

Desert Air Environmental Services, LLC
EPA Meter Box Calibration
Post-Test Orifice Method
English Meter Box Units, English K' Factor

Model #:	Clean Air	Date: ---------->	May 4, 2007
Serial #:	1501	Barometric Pressure: ---------->	29.98 (in. Hg)
		Theoretical Critical Vacuum:--->	14.14 (in. Hg)

!!!!!!!!!

IMPORTANT: For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTANT: The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).
!!!!!!!!!

---------- DRY GAS METER READINGS ----------									-CRITICAL ORIFICE READINGS-					
		Volume	Volume	Volume	Initial Temps.		Final Temps.		Orifice	K' Orifice	Actual	-- Ambient Temperature --		
dH	Time	Initial	Final	Total	Inlet	Outlet	Inlet	Outlet	Serial#	Coefficient	Vacuum	Initial	Final	Average
(in H2O)	(min)	(cu ft)	(cu ft)	(cu ft)	(deg F)	(deg F)	(deg F)	(deg F)	(number)	(see above)	(in Hg)	(deg F)	(deg F)	(deg F)
1.10	5.00	134.200	137.205	3.005	76.0	74.0	76.0	74.0	55	0.4536	16.0	77.0	77.0	77.0
1.10	5.00	137.400	140.399	2.999	76.0	74.0	76.0	74.0	55	0.4536	16.0	77.0	77.0	77.0
1.10	5.00	140.600	143.601	3.001	76.0	74.0	76.0	74.0	55	0.4536	16.0	77.0	77.0	77.0
							76.00							

********** RESULTS **********

-- DRY GAS METER --		------ ORIFICE ------			- DRY GAS METER -		------ ORIFICE ------		
VOLUME CORRECTED		VOLUME CORRECTED		NOMINAL	CALIBRATION FACTOR Y		CALIBRATION FACTOR dH@		
Vm(std)	Vm(std)	Vcr(std)	Vcr(std)	Vcr	Value	Variation	Value	Value	Variation
(cu ft)	(liters)	(cu ft)	(liters)	(cu ft)	(number)	(number)	(in H2O)	(mm H2O)	(in H2O)
2.978	84.3	2.934	83.1	2.979	0.985	-0.001	1.780	45.21	0.000
2.973	84.2	2.934	83.1	2.979	0.987	0.001	1.780	45.21	0.000
2.974	84.2	2.934	83.1	2.979	0.986	0.000	1.780	45.21	0.000
		Average Y ----->			**0.9862**		**1.7801**	**45.21**	**<----- Average dH@**

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: MTR

Date: 5-4-07

Desert Air Environmental Services, LLC
EPA Meter Box Calibration
Post-Test Orifice Method
English Meter Box Units, English K' Factor

Model #:	Clean Air	Date: ——————>	May 4, 2007
Serial #:	1001	Barometric Pressure: ——>	29.98 (in. Hg)
		Theoretical Critical Vacuum:—>	14.14 (in. Hg)

!!!!!!!!!

IMPORTANT: For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.

IMPORTANT: The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).

!!!!!!!!!

——————— DRY GAS METER READINGS ——————— -CRITICAL ORIFICE READINGS-

dH	Time	Volume Initial	Volume Final	Volume Total	Initial Temps. Inlet	Initial Temps. Outlet	Final Temps. Inlet	Final Temps. Outlet	Orifice Serial#	K' Orifice Coefficient	Actual Vacuum	– Ambient Temperature – Initial	Final	Average
(in H2O)	(min)	(cu ft)	(cu ft)	(cu ft)	(deg F)	(deg F)	(deg F)	(deg F)	(number)	(see above)	(in Hg)	(deg F)	(deg F)	(deg F)
1.15	5.00	198.100	201.105	3.005	75.0	74.0	76.0	75.0	55	0.4536	16.0	77.0	77.0	77.0
1.15	5.00	201.400	204.378	2.978	76.0	74.0	76.0	74.0	55	0.4536	16.0	77.0	77.0	77.0
1.15	5.00	204.700	207.703	3.003	76.0	74.0	76.0	74.0	55	0.4536	16.0	77.0	78.0	77.5
							76.00							

********** RESULTS **********

— DRY GAS METER —		—— ORIFICE ——			– DRY GAS METER –		—— ORIFICE ——		
VOLUME CORRECTED		VOLUME CORRECTED		NOMINAL	CALIBRATION FACTOR Y		CALIBRATION FACTOR dH@		
Vm(std)	Vm(std)	Vcr(std)	Vcr(std)	Vcr	Value	Variation	Value	Value	Variation
(cu ft)	(liters)	(cu ft)	(liters)	(cu ft)	(number)	(number)	(in H2O)	(mm H2O)	(in H2O)
2.979	84.4	2.934	83.1	2.979	0.985	-0.003	1.859	47.22	-0.002
2.952	83.6	2.934	83.1	2.979	0.994	0.006	1.861	47.27	0.000
2.977	84.3	2.933	83.1	2.981	0.985	-0.003	1.863	47.31	0.002
		Average Y ——>			**0.9881**		**1.8610**	**47.27**	**<—— Average dH@**

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: _____ Date: 5-4-07

Desert Air Environmental Services, LLC

Desert Air Environmental Services, LLC
EPA Meter Box Calibration
Post-Test Orifice Method
English Meter Box Units, English K' Factor

Model #:	Cherokee	Date: ——————>	May 4, 2007
Serial #:	2645	Barometric Pressure: ———>	29.98 (in. Hg)
		Theoretical Critical Vacuum:--->	14.14 (in. Hg)

!!!!!!!!!

IMPORTANT: For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.

IMPORTANT: The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).

!!!!!!!!!

——— DRY GAS METER READINGS ———									-CRITICAL ORIFICE READINGS-					
		Volume	Volume	Volume	Initial Temps.		Final Temps.		Orifice	K' Orifice	Actual	– Ambient Temperature –		
dH	Time	Initial	Final	Total	Inlet	Outlet	Inlet	Outlet	Serial#	Coefficient	Vacuum	Initial	Final	Average
(in H2O)	(min)	(cu ft)	(cu ft)	(cu ft)	(deg F)	(deg F)	(deg F)	(deg F)	(number)	(see above)	(in Hg)	(deg F)	(deg F)	(deg F)
1.10	5.00	719.500	722.510	3.010	77.0	75.0	77.0	76.0	55	0.4536	16.0	77.0	77.0	77.0
1.10	5.00	722.700	725.697	2.997	77.0	75.0	77.0	76.0	55	0.4536	16.0	77.0	77.0	77.0
1.10	5.00	726.000	729.010	3.010	77.0	76.0	78.0	76.0	55	0.4536	16.0	77.0	77.0	77.0

********** RESULTS **********

— DRY GAS METER —		——— ORIFICE ———			– DRY GAS METER –		——— ORIFICE ———		
VOLUME CORRECTED		VOLUME CORRECTED		NOMINAL	CALIBRATION FACTOR Y		CALIBRATION FACTOR dH@		
Vm(std)	Vm(std)	Vcr(std)	Vcr(std)	Vcr	Value	Variation	Value	Value	Variation
(cu ft)	(liters)	(cu ft)	(liters)	(cu ft)	(number)	(number)	(in H2O)	(mm H2O)	(in H2O)
2.976	84.3	2.934	83.1	2.979	0.986	-0.002	1.775	45.09	0.001
2.964	83.9	2.934	83.1	2.979	0.990	0.003	1.775	45.09	0.001
2.974	84.2	2.934	83.1	2.979	0.987	-0.001	1.773	45.04	-0.001
		Average Y ——>			**0.9875**		**1.7745**	**45.07**	**<—— Average dH@**

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: MTK

Date: 5-4-07

Meter Box Full Test Calibration

Meter Box No: 28110-11001-1

Date of Calibration: 6/2/2006

Meter Box Y_d: 1.0060

Calibration conducted by: TW

Meter Box ΔH@: 1.8745

Signature

Barometric Pressure: 29.25

				Standard Meter Gas Volume (ft^3)			Meter Box Gas Volume (ft^3)			Std. Meter Temperature (°F)			Meter Box Temperature (°F)			Time (min.)	Calibration Results	
Q	ΔH	ΔP	Y_{ds}	Initial	Final	V_{ds} Net	Initial	Final	V_d Net	In	Out	T_{ds} Avg.	In	T_o Out	T_d Avg.	Θ	Y_d	ΔH@
0.953	3.00	-2.00	1.0000	0.000	10.000	10.000	463.300	473.333	10.033	74.5	74.5	74.50	92.0	82.0	87.00	10.13	1.0073	1.7697
0.949	3.00	-2.00	1.0000	0.000	10.000	10.000	473.333	483.405	10.072	74.5	74.5	74.50	93.0	83.0	88.00	10.17	1.0052	1.7804
0.366	0.50	-1.30	1.0000	0.000	5.000	5.000	483.703	488.736	5.033	74.5	74.5	74.50	86.0	83.0	84.50	13.17	1.0075	1.9905
0.366	0.50	-1.30	1.0000	0.000	5.000	5.000	488.736	493.780	5.044	74.5	74.5	74.50	86.0	83.0	84.50	13.19	1.0053	1.9965
0.657	1.50	-1.50	1.0000	0.000	10.000	10.000	495.601	505.705	10.104	74.5	74.5	74.50	91.0	84.0	87.50	14.70	1.0062	1.8565
0.657	1.50	-1.50	1.0000	0.000	10.000	10.000	505.705	515.850	10.145	74.5	74.5	74.50	93.0	85.0	89.00	14.70	1.0048	1.8531

Averages 1.00604 1.87445

Nomenclature

P_b	Barometric Pressure (in. Hg)
Q	Flow Rate (cfm)
ΔH	Orifice Pressure differential (in. H_2O)
ΔP	Inlet Pressure Differential (in. H_2O)
V_d	Gas Meter Volume - Dry (ft^3)
V_{ds}	Standard Meter Volume - Dry (ft^3)
T_d	Average Meter Box Temperature (°F)
T_o	Outlet Meter Box Temperature (°F)
T_{ds}	Average Standard Meter Temperature (°F)
Y_d	Meter Correction Factor (unitless)
Y_{ds}	Standard Meter Correction Factor (unitless)
ΔH@	Orifice Pressure Differential giving 0.75 cfm of air at 68°F and 29.92 in. Hg (in. H_2O)
Θ	Duration of Run (minutes)

Equations

$$Y_d = (Y_{ds})\left[\frac{V_{ds}}{V_d}\right]\left[\frac{T_d + 460}{T_{ds} + 460}\right]\left[\frac{P_b + \Delta P/13.6}{P_b + \Delta H/13.6}\right]$$

$$\Delta H @ = \frac{(0.0319)(\Delta H)}{P_b(T_o + 460)}\left[\frac{(T_{ds} + 460)\Theta}{(V_{ds})(Y_{ds})}\right]^2$$

$$Q = \frac{17.64(V_{ds})(P_b)}{(T_{ds} + 460)(\Theta)}$$

Vacuum Gauge		DGM Thermocouples		
Standard (in.Hg)	Gauge (in.Hg)	Standard (°F)	Inlet (°F)	Outlet (°F)
5.0	5.3			
10.0	9.8			
15.0	14.9			
20.0	20.2			
25.0	24.7			

CDS005C-Meter Full, May 2002
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CleanAir ENGINEERING

Pyrometer Calibration Test Report

Pyrometer No.:	28110-11001-1	Office:	Palatine, Il
Calibrated By:	TW	Client:	
Date:	6/2/2006	Job Number:	

Calibration Reference Settings for Fahrenheit Scale	Pyrometer Reading
50 °F	48 °F
100 °F	98 °F
150 °F	148 °F
200 °F	198 °F
250 °F	248 °F
300 °F	298 °F
350 °F	348 °F
400 °F	398 °F
450 °F	448 °F
500 °F	498 °F
550 °F	548 °F
600 °F	598 °F

Calibration Reference Information

Reference Used:	Omega CL23A	Serial No:	T-225950
Calibrated By:	Omega Engineering, Inc.	Exp. Date:	9/26/2006
Report No:	R 044791		

CleanAir
ENGINEERING

Meter Box Full Test Calibration

Meter Box No: 28-031501-3

Date of Calibration: 5/23/2006

Meter Box Y_d: 0.9915

Calibration conducted by: TW

Meter Box ΔH@: 1.8502

Signature

Barometric Pressure: 29.37

				Standard Meter Gas Volume (ft^3)			Meter Box Gas Volume (ft^3)			Std. Meter Temperature (°F)			Meter Box Temperature (°F)			Time (min.)	Calibration Results	
Q	ΔH	ΔP	Y_{ds}	Initial	Final	V_{ds} Net	Initial	Final	V_d Net	In	Out	T_{ds} Avg.	In	T_o Out	T_d Avg.	Θ	Y_d	ΔH@
0.956	3.00	-1.80	1.0000	0.000	10.000	10.000	109.805	119.899	10.094	77.5	77.5	77.50	86.0	78.0	82.00	10.08	0.9871	1.7779
0.954	3.00	-1.80	1.0000	0.000	10.000	10.000	119.899	130.016	10.117	77.5	77.5	77.50	89.0	80.0	84.50	10.10	0.9894	1.7783
0.373	0.50	-1.20	1.0000	0.000	5.000	5.000	130.401	135.446	5.045	78.0	78.0	78.00	84.0	81.0	82.50	12.91	0.9951	1.9370
0.373	0.50	-1.20	1.0000	0.000	5.000	5.000	135.446	140.484	5.038	78.0	78.0	78.00	83.0	81.0	82.00	12.92	0.9956	1.9400
0.664	1.50	-1.40	1.0000	0.000	10.000	10.000	140.701	150.832	10.131	78.0	78.0	78.00	88.0	81.0	84.50	14.51	0.9918	1.8352
0.664	1.50	-1.40	1.0000	0.000	10.000	10.000	150.832	160.987	10.155	78.5	78.5	78.50	89.0	82.0	85.50	14.50	0.9903	1.8327

Averages 0.99154 1.85019

Nomenclature

P_b	Barometric Pressure (in. Hg)
Q	Flow Rate (cfm)
ΔH	Orifice Pressure differential (in. H_2O)
ΔP	Inlet Pressure Differential (in. H_2O)
V_d	Gas Meter Volume - Dry (ft^3)
V_{ds}	Standard Meter Volume - Dry (ft^3)
T_d	Average Meter Box Temperature (°F)
T_o	Outlet Meter Box Temperature (°F)
T_{ds}	Average Standard Meter Temperature (°F)
Y_d	Meter Correction Factor (unitless)
Y_{ds}	Standard Meter Correction Factor (unitless)
ΔH@	Orifice Pressure Differential giving 0.75 cfm of air at 68°F and 29.92 in. Hg (in. H_2O)
Θ	Duration of Run (minutes)

Equations

$$Y_d = (Y_{ds})\left[\frac{V_{ds}}{V_d}\right]\left[\frac{T_d + 460}{T_{ds} + 460}\right]\left[\frac{P_b + \Delta P/13.6}{P_b + \Delta H/13.6}\right]$$

$$\Delta H @ = \frac{(0.0319)(\Delta H)}{P_b(T_o + 460)}\left[\frac{(T_{ds} + 460)\Theta}{(V_{ds})(Y_{ds})}\right]^2$$

$$Q = \frac{17.64(V_{ds})(P_b)}{(T_{ds} + 460)(\Theta)}$$

Vacuum Gauge		DGM Thermocouples		
Standard (in.Hg)	Gauge (in.Hg)	Standard (°F)	Inlet (°F)	Outlet (°F)
5.0	5.0			
10.0	9.4			
15.0	14.7			
20.0	20.0			
25.0	26.0			

CleanAir ENGINEERING

CDS005C-Meter Full, May 2002
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Pyrometer Calibration Test Report

Pyrometer No.:	28-031501-3	Office:	Palatine, Il
Calibrated By:	TW	Client:	
Date:	5/23/2006	Job Number:	

Calibration Reference Settings for Fahrenheit Scale	Pyrometer Reading
50 °F	48 °F
100 °F	98 °F
150 °F	148 °F
200 °F	198 °F
250 °F	248 °F
300 °F	298 °F
350 °F	348 °F
400 °F	398 °F
450 °F	448 °F
500 °F	498 °F
550 °F	548 °F
600 °F	598 °F

Calibration Reference Information

Reference Used:	Omega CL23A	Serial No:	T-225950
Calibrated By:	Omega Engineering, Inc.	Exp. Date:	9/26/2006
Report No:	R 044791		

CleanAir ENGINEERING

Isokinetic Conso... - QA/QC Test

Cherokee Meter ID #:	02645	Make:	Cherokee	Model #:	120	Technician:	Ron
Serial #:	2018	Vacuum Pump ID:	02950	Vacuum Pump Type:	Vane	Date:	5/9/07

Leak Test

Vacuum Pump/Meter

Front Half Leak Free (@>25 in. Hg)? Y Y/N

Back Half Leak Free (@>25 in. Hg)? Y Y/N

Pitot Tube/Manometer

Positive Tap Leak Free (@ 8 in H2 Y Y/N

Negative Tap Leak Free (@ 8 in H Y Y/N

Dry Gas Meter Gamma Check

DRY GAS METER VOLUME (Vm)/TEMPERATURE (Tm)								CALIBRATION DEVICE VOLUME (Vc)/TEMPERATURE (Tc)					
Delta H (in. H_2O)	Time (minutes)	Initial (ft^3)	Final (ft^3)	Total (ft^3)		Temperature (°F) Inlet	Outlet	Initial (ft^3)	Final (ft^3)	Total (ft^3)		Temperature (°F) Initial	Final
1.50	30.0	710.527	733.126	22.599	Initial	74	73	471.373	492.292	20.919	Outlet	73	73
					Final	79	75						

Baro. Pressure (Pbar) = 30.15 in. Hg

Meter Y	Deviation
0.931	-0.074

Reference Gamma = 1.0047 *From Reference Dry Gas Meter

Pretest Gamma = 0.976

Calculations:

Gamma = Vc/Vm x [(Tm avg + 460)/(Tc+460)] x [Pbar/{Pbar+(delta H/13.6)}]

Delta H = 0.0317 x delta H x [(Time/Vc)2 x {(Tc + 460)2/Pbar x (Tm + 460)}]

5% of Pre-test (Pass/Fail): Pass

Thermocouple Readout/DGM TC Check

Reference Temp (°F)	Stack (1)	Within 4°F?	Probe (2)	Within 4°F?	Filter (3)	Within 4°F?	Exit (4)	Within 4°F?	Aux (5)	Within 4°F?
100	99	Pass	100	Pass	101	Pass	100	Pass	100	Pass
200	199	Pass	200	Pass	202	Pass	200	Pass	199	Pass
300	300	Pass	300	Pass	301	Pass	300	Pass	299	Pass
400	399	Pass	401	Pass	399	Pass	399	Pass	398	Pass
500	499	Pass	501	Pass	499	Pass	499	Pass	499	Pass
600	599	Pass	601	Pass	599	Pass	599	Pass	599	Pass

Gas Meter TC's	
Inlet	Outlet
74	75
Ambient Temp	
74	
Within 10.8°F	Within 10.8°F?
Pass	Pass

Power Test

4-pin Amphenol Power Output:

Probe Heater Power Output? Y Y/N

Filter Heater Power Output? Y Y/N

Aux Power Output (to Filter Box)? Y Y/N

Probe Heater On/Off?* Y Y/N

Filter Heater On/Off?* Y Y/N

**Simulated that Relay Switches On/Off @ 250° F*

Other Power:

Pump Power Output (Plug on Met Y Y/N

Aux Power Output (Plug on Meter Y Y/N

Replacement Fuses Fitted? Y Y/N or NA

ANALYTICAL & PRECISION BALANCE CO., INC.

CERTIFICATE OF CALIBRATION
ISO 17025 ACCREDITED

INTERNATIONAL ACCREDITATION SERVICE, INC.
Calibration Laboratory # CL-104

9830 S. 51st Street, Suite B-103 • Phoenix, Arizona 85044
(480) 598-0321 • FAX (480) 598-0768
E-mail: apbalance@juno.com
Website: analyticalandprecision.com

TEMP 72 F° R.H. 28 %

AZ RSR License #00 1050

AZ RSA License #014790

P.O. # check

Equipment # N/A

60g x 0.0001g
Capacity/Resolution

± 0.0005g
Tolerance Value

Comments:

Client # 1403				
Customer Name: Desert Air Environmental		Bldg. Main / Room	Date 11-21-06 / Recall Date 11-07	
Mfgr. AND	Model HR-60	Serial No. 123172774		
Calibration Instructions:	Internal Cal. ☐	External Cal. ☒	Standard Cal. Procedure ☒	Handbook 44 ☐
List Weights Used	0.500g	1g	30g	60g
As Found Indication	HELD	UNIT - CALIBRATED, TESTED		
Tolerance Error	AND	CERTIFIED		
As Left Indication	0.5000g	1.0000g	30.0000g	60.0000g
Corner Load	As Found	Weight Used	2 / 1	3 / 4
Corner Load	As Left	30g	2 0.0000g / 1 0.0000g	3 0.0000g / 4 N/A

NIST TRACEABILITY

Control No.	Expires
051227001	12-06

CORNER-LOAD	LINEARITY	REPRODUCIBILITY
☑	☑	☑

Customer

Technical Representative

☐ **OUT OF TOLERANCE (After Servicing) DO NOT USE THIS INSTRUMENT**
☐ OUT OF TOLERANCE (Does not meet customer's specifications.) This applies to "As Found Indication"
Significant out of tolerance may affect end product
As found indications will be recorded before servicing./ **As left** will be recorded after servicing.

Reported Uncertainty: N/A
Method used for determining uncertainties is either the Root Sum Square Statistical Method, Total Collective Added Uncertainty, or an Expanded Uncertainty with a *coverage factor K*=2. Provided level of confidence: 95%.
Uncertainty calculations available upon request.

Original: Customer
Copy: Vendor

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APEX INSTRUMENTS METHOD 5 (M5CO-SET) ORIFICE SET CALIBRATION

Orifice Series	40-73
Serial Number	LD
Meter Gamma	0.99490

Calibration Conditions			
Date Started	Date Ended	11-Apr-07	12-Apr-07
Calibration Technician		SH	

Factors/Conversions		
Std Temp	293	K
Std Press	760	mm Hg
K_f	0.386	K/mm Hg

[1]The Critical Orifice Coefficient, K', in English units. ($ft^{3*}R^{1/2}/in.Hg*min$).
[2]The Critical Orifice Coefficient, K', in Metric units. ($m^{3*}K^{1/2}/mmHg*min$).

Calibration Data														Results		
					Reference Meter						Critical Orifice					
Date	Orifice Number	Barometric Pressure	Theoretical Critical Vacuum[1]	Run Time Elapsed	DGM Orifice ΔH	Volume Initial	Volume Final	Volume Total	Outlet Temp Initial	Outlet Temp Final	Amb Temp Initial	Amb Temp Final	Actual Vacuum	Coefficient Metric Units	Coefficient English Units	% Variation from Avg
				(Θ)	(P_m)	(V_{mi})	(V_{mf})	(V_m)	(t_{mi})	(t_{mf})	($t_{amb(i)}$)	($t_{amb(f)}$)		K'	K'	(<0.5%)
		mm Hg	mm Hg	min	mm H_2O	m^3	m^3	m^3	°C	°C	°C	°C	mm Hg	see above[1]	see above[2]	%
11-Apr-07	LD-40	750.5	354.236	16	6.7	2300.6744	2300.81302	0.13862	25	24	23	23	584.2	1.923E-04	0.2314	-0.11
11-Apr-07	LD-40	750.4	354.1888	16	6.7	2300.81302	2300.95158	0.13856	24	24	23	24	584.2	1.927E-04	0.2319	0.10
11-Apr-07	LD-40	750.3	354.1416	15	6.7	2300.95158	2301.08138	0.1298	24	24	24	23	584.2	1.926E-04	0.2317	0.02
													Average	1.925E-04	0.2317	
11-Apr-07	LD-48	750	354	17	15.7	2301.08138	2301.30155	0.22017	24	24	24	24	561.34	2.887E-04	0.3474	-0.07
11-Apr-07	LD-48	749.9	353.9528	10	15.7	2301.30155	2301.43115	0.1296	24	24	24	24	567.69	2.889E-04	0.3477	0.00
11-Apr-07	LD-48	749.8	353.9056	12	15.7	2301.43115	2301.58677	0.15562	24	24	24	24	553.72	2.891E-04	0.3479	0.07
													Average	2.889E-04	0.3477	
11-Apr-07	LD-55	749.8	353.9056	10	28	2301.58677	2301.75545	0.16868	24	24	24	24	523.24	3.765E-04	0.4530	-0.13
11-Apr-07	LD-55	749.7	353.8584	10	28	2301.75545	2301.9245	0.16905	24	24	24	24	523.24	3.773E-04	0.4540	0.09
11-Apr-07	LD-55	749.5	353.764	10	28	2301.9245	2302.09345	0.16895	24	24	24	24	523.24	3.771E-04	0.4538	0.03
													Average	3.769E-04	0.4536	
12-Apr-07	LD-63	747.4	352.7728	10	45	2302.9014	2303.1165	0.2151	23	23	22	22	482.6	4.809E-04	0.5787	-0.13
12-Apr-07	LD-63	747.4	352.7728	10	45	2303.1165	2303.3319	0.2154	23	23	22	23	482.6	4.819E-04	0.5800	0.09
12-Apr-07	LD-63	747.7	352.9144	10	45	2303.3319	2303.547	0.2151	23	23	23	23	482.6	4.817E-04	0.5797	0.04
													Average	4.815E-04	0.5794	
12-Apr-07	LD-73	746.4	352.3008	10	83	2304.75475	2305.04373	0.28898	26	26	26	24	393.7	6.452E-04	0.7764	0.07
12-Apr-07	LD-73	746.4	352.3008	14	83	2305.04373	2305.44865	0.40492	26	27	24	25	393.7	6.441E-04	0.7751	-0.10
12-Apr-07	LD-73	746.4	352.3008	16	83	2305.44865	2305.9128	0.46415	27	28	25	26	393.7	6.450E-04	0.7762	0.03
													Average	6.447E-04	0.7759	

I certify that the above Orifice Set was calibrated in accordance with USEPA Methods, CFR 40 Part 60, Appendix A, Method 5, Item 7.2.2

Signature SHERMAN HOWELL Date 4-12-07

Desert Air Environmental Services, LLC

THERMOCOUPLE CALIBRATION FORM

Thermocouple ID # 10' A (29) TC Type: ☒K ☐T ☐S

Reference Thermometer ID # 3611

Calibration Date 2-5-07

	Reference Temperature (°F)	Reference Temperature (°R)	TC Temperature (°F)	TC Temperature (°R)	Difference (°R)	Percent Difference
Ice Bath (32 °F, 492 °R)	32	492	34	493.7	1.7	.35
Boiling Water (212 °F, 672 °R)	212	672	215	674.7	2.7	.40
Hot Oil (~360 °F, 820 °R)	340	799.7	345	804.7	5.0	.62
					Average	.46

Is percent difference ≤ 1.5 %, (yes (pass)) no (fail) °R = °F + 459.67

Comments:

Desert Air Environmental Services, LLC

TYPE S PITOT TUBE INSPECTION FORM

Date 2-5-07 Pitot Tube Number 10'A (#129)

Pitot Tube Level ? Yes Pitot Tube Damaged? No (explain)

Is the Pitot Tube part of an Assembly? Yes Is the Pitot Tube loose? No

a_1 =	0 ° (≤ 10 °)	a2 =	0 ° (≤ 10 °)
b_1 =	0 ° (≤ 5 °)	b2 =	0 ° (≤ 5 °)
P_a =	.95 cm (= P/2)	Pb =	.95 cm (= P/2)
P =	1.90 (Pa + Pb)	P/2 =	.95 cm
Y =	0 °	Θ =	0 °
Z =	0 cm (P sin Y) < 0.32 cm	W =	0 cm (P sin Θ) < 0.08 cm
D_t =	.69 cm	$P/2D_t$ =	1.378 (≥ 1.05 and ≤ 1.50)

Pitot Tube-Nozzle separation, X = Ok (> 1.90 cm for D_n = 1.30 cm)

s the Pitot Tube even with or above the Nozzle Entry Plane? Yes

Thermocouple Placement, W= Ok (> 5.08 cm, 2 in)

Pitot Tube Sample Probe Separation, Y= Ok (≤ 7.62 cm, 3 in)

Coefficient .84 Calibration Required ? No

Inspected by MTP

Comments

Desert Air Environmental Services, LLC

THERMOCOUPLE CALIBRATION FORM

Thermocouple ID # 10'B(5) TC Type: ☒K ☐T ☐S

Reference Thermometer ID # 3611

Calibration Date 2-5-07

	Reference Temperature (°F)	Reference Temperature (°R)	TC Temperature (°F)	TC Temperature (°R)	Difference (°R)	Percent Difference
Ice Bath (32 °F, 492 °R)	32	492	32	492	~~0~~	~~0~~
Boiling Water (212 °F, 672 °R)	212	672	214	673.7	1.7	.25
Hot Oil (~360 °F, 820 °R)	370	829.7	368	827.7	-2.0	-.24
					Average	.33

Is percent difference ≤ 1.5 %, (yes) (pass) no (fail) °R = °F + 459.67

Comments:

Desert Air Environmental Services, LLC

TYPE S PITOT TUBE INSPECTION FORM

Date 1-5-07 Pitot Tube Number 10' B (5)

Pitot Tube Level ? Yes Pitot Tube Damaged? No (explain)

Is the Pitot Tube part of an Assembly? Yes Is the Pitot Tube loose? No

a_1 = 0	° (≤ 10 °)	a2 = 0	° (≤ 10 °)
b_1 = 0	° (≤ 5 °)	b2 = 0	° (≤ 5 °)
P_a = .95	cm (= P/2)	Pb = .95	cm (= P/2)
P = 1.90	(Pa + Pb)	P/2 = .95	cm
Y = 0	°	Θ = 0	°
Z = 0	cm (P sin Y) < 0.32 cm	W = 0	cm (P sin Θ) < 0.08 cm
D_t = .64	cm	$P/2D_t$ = 1.48	(≥ 1.05 and ≤ 1.50)

Pitot Tube-Nozzle separation, X = ok (> 1.90 cm for D_n = 1.30 cm)

s the Pitot Tube even with or above the Nozzle Entry Plane? Yes

Thermocouple Placement, W= ok (> 5.08 cm, 2 in)

Pitot Tube Sample Probe Separation, Y= ok (≤ 7.62 cm, 3 in)

Coefficient .84 Calibration Required ? No

Inspected by MJK

Comments

Cherokee Instruments
QC Equipment Check

M5 Probe Maintenance, Calibration & Status Record

Liner Mat. (circle)	Asset ID Number	Length Gross	Length Usable	Order No. as Returned	Serviced By: Date	By, (Name)	Initial
SSt Pyx Qtz	2842	123" ft.	134 in.		10-606	Willie	WH

Pitobe Assembly

Physical Checks	Yes	No	Note
T/C (stack) Plug & Bracket Good	✓		
Quick Connects (2) Clean and OK	✓		
QC Fittings Smooth Ops.	✓		
Exterior Sheath Clean and Good	✓		
Old Point Marks Removed	✓		
Welds on Pitot and Gas Lines OK	✓		
Clamps Tight & Good	✓		
Pitot Tips Sharp, Aligned and OK	✓		
Calibration is Current & OK	✓		& see right
Sheath Cap Treads Smooth & OK	✓		
Union (5/8") Threads Smooth & OK	N/A		
O-Ring (5/8") Replaced & Snug	N/A		See Small Parts Kit.
Back Ferrell Reversed and OK	N/A		
Back Ferrell OK w/ Liner Type	N/A		
Union Capped (brass) Good	N/A		
Liner Securely Tight, Ball Capped	N/A		
Ball, 28/12, Smooth, w/ O-ring & OK	N/A		
Sample Line Clear, Cleaned & OK	N/A		see blank below
Leak Ck., <.005 @ 20 in. Hg.	✓		23in.Hg
Aux. Gas Line Clear, Cleaned & OK	✓		
Leak Ck., <.001 @ 20 in. Hg.	✓		23in Hg
Pitot (A) Lk. Ck., "dead" (+/-) at >10" w.g.	✓		11" H2O
Pitot (B) Lk. Ck., "dead" (+/-) at >10" w.g.	✓		11" H2O

Pitot Tube Geometric Assignment

Certify Baseline (isolated tube) Cp

Cp Assigned, Value: 0.840

Tube Diameter & Certification / Inspection

Inspect Geometry	Yes	No	Value/Note
Cp Basis is Below	✓		
Centered @ Tips?	✓		0.464
Level w/ Sheath?	✓		Pa =Pb< 0.063"
Tube Diameter, " (circ) 3/8 3/16			
Lateral Alignment, from "Side View"			
z ≤ 1/8" ?	✓		
Verticle Alignment, from "Side View"			
w ≤ 1/32" ?	✓		1/64
Transverse Axis, Faces Perpendicular			
α1 ±10° of 90° ?	✓		+0.1 °
α2 ±10° of 90° ?	✓		-0.2 °
Longtiudinal Axis, Faces Parallel			
ß1 ±5° of 0° ?	✓		+0.1 °
ß2 ±5° of 0° ?	✓		-0.1 °

Pitot Tube Distance to Other Sensors (circle)		Note
From Nozzle Opening, > 0.75"	yes / no	
Gas Line & Stack T/C, > 0.75"	yes / no	
"Z" Clear, Side to T/C, 2.0"	yes / no	
"W" Clear, Rear to T/C, 2.0"	yes / no	
"Y" Clear to Union, 3.0"	yes / no	

Component Checks

Heater Element	Yes	No	Note
T/C Line & Plug OK?	✓		
115V Line & Plug OK?	✓		
Continuity Good	✓		
Resistance OK ?	✓		24.8 ohms
Open to Ground?	✓		
Time to 250° F, from room temp.	69 °F mins.		7min 18 Sec
High Temp >300° F	300 ° F		16min 37Sec

Other Checks and Verify Status

Stack T/C Calibration

Level	Lo,~32°F	Mid,~212° F	Hi,>300° F	Note
Source	Salt/Ice	Boil Water	Oil Bath	
Ref.,° F	65.5°F	212 °F		
T/C, ° F	65.5°F	213 °F		
Diff., <1%	0	1 °F		

Analytical Liner Annual Rx Blanks

Type of Analysis		Value, mg	Note
Water Wash, 500 ml	≤ 1 mg.		
Acetone Rinse, 500 ml	≤ 1 mg.		
Liner OK for Service		yes / no	

Unit Good w/o Calibration/Service

		Note
Ready for Fleet Service	yes / no	
Returned to Stock Fleet	yes / no	
Storage Shelf # on Probe Rack		

Other Notes

144 Thomas Mill Rd.
Holly Springs, NC 27540

for assistance call
800-399-4236

Method 29 Compliance Audit Material
(Mercury Acidified Aqueous Solution)

-70502

REPORTING FORM: To be completed by laboratory

Request Number/Sample Number: M29-3287-02b/HG-0787 Date Issued: 05/01/07

Auditee:

Company: First Analytical Labs

Address: 1126 Burning Tree Dr, CHAPEL HILL NC 27517

Attention to: B. Wadlin Phone: 919 942 8607

Requestor:

Agency: North Carolina DAQ

Address: 943 Washington Square Mall, Washington, NC 27889

Attention to: Robert Bright Phone: 252-948-3829

Project Name: Undisclosed

Audit Results (Results in µg)

Compound	Result
Mercury	17.4

Method 29 Compliance Audit Material
(Multi-Metals Spiked Filter)

-70502

REPORTING FORM: To be completed by laboratory

Request Number/Sample Number: M29-3287-01/Fil-4557 Date Issued: 05/01/07

Auditee:

Company: First Analytical Labs

Address: 1126 Burning Tree Dr. CHAPEL HILL NC 27517

Attention of: B. Wadlin Phone: 919 942 8607

Requestor:

Agency: North Carolina DAQ

Address: 943 Washington Square Mall, Washington, NC 27889

Attention of: Robert Bright Phone: 252-948-3829

Project Name: Undisclosed

Audit Results (Results in µg)

Compound	Result	Blank Filter Result
Cadmium	4.51	<0.62
Lead	57.6	<0.9
Manganese	51.6	1.3
Nickel	42.1	<1.0

Method 29 Audit Material
(Multi-Metals Spiked Solution)

-70502

REPORTING FORM: To be completed by laboratory

Request Number/Sample Number: M29-3287-02a/AM-01276 Date Issued: 05/01/07

Auditee:

Company: First Analytical Labs

Address: 1126 Burning Tree Dr. CHAPEL HILL NC 27517

Attention of: B. Wadlin Phone: 919 942 8607

Requestor:

Agency: North Carolina DAQ

Address: 943 Washington Square Mall, Washington, NC 27889

Attention of: Robert Bright Phone: 252-948-3829

Project Name: Undisclosed

Audit Results (Results in µg/mL)

Analyte	Result
Lead	0.256
Manganese	0.9897
Nickel	0.144

-70502

CHAIN OF CUSTODY RECORD

Desert Air Environmental Services, LLC

DATE: 4-28-07

LAB NUMBER:

Page 1 of 1

CLIENT	PROJECT MANAGER
NUCOR	MARK REDDY
ADDRESS	TELEPHONE NUMBER (AREA CODE): 480-236-3197
CITY / STATE / ZIP CODE	SITE CONTACT
PROJECT NAME	TELEPHONE NUMBER (AREA CODE)
CONTRACT/PURCHASE ORDER/QUOTE NO.	

ANALYSES: ARSENIC, BERYLLIUM, CADMIUM, LEAD, MANGANESE, MERCURY, NICKEL

SAMPLE NO./IDENTIFICATION	DATE	TIME	LAB/SAMPLE NUMBER	SAMPLE TYPE: LIQ	AIR	SOLID	No. of Containers	ARSENIC	BERYLLIUM	CADMIUM	LEAD	MANGANESE	MERCURY	NICKEL	Sample Condition/ REMARKS
HNO3	4/28			X						X					
H2O	"			X						X					
5% HNO3 / H2O2	"			X						X					
KMNO4	"			X						X					
8M HCL	"			X						X					
FILTER	"					X				X					

DO THE SAMPLE(S) POSE ANY POTENTIAL HAZARD(S)? IF YES, PLEASE EXPLAIN: YES

SAMPLER(S) (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME
MTR		MTR		
RECEIVED BY (SIGNATURE) FAL	DATE 5/4/07	TIME 4:45 pm	RECEIVED BY (SIGNATURE)	DATE / TIME
RECEIVED FOR LABORATORY BY	DATE RECEIVED	TIME	ACCEPTED	DATE / TIME

METHOD OF SHIPMENT: HAND

SPECIAL INSTRUCTIONS:

REAGENT BLANK

MAY-04-07 12:05PM FROM- T-220 P.002/009 F-185

-70502

CHAIN OF CUSTODY RECORD

Desert Air Environmental Services, LLC

DATE: 4-29-07

LAB NUMBER:

Page 1 of 1

CLIENT: NUCOR

PROJECT MANAGER: MARK READY

ADDRESS:

TELEPHONE NUMBER (AREA CODE): 480-236-3197

CITY: STATE: ZIP CODE:

SITE CONTACT:

PROJECT NAME:

TELEPHONE NUMBER (AREA CODE):

CONTRACT/PURCHASE ORDER/QUOTE NO.

ANALYSES: ARSENIC, BERYLLIUM, CADMIUM, LEAD, MANGANESE, MERCURY, NICKEL

SAMPLE NO./IDENTIFICATION	DATE	TIME	LAB/SAMPLE NUMBER	SAMPLE TYPE: LIQ	AIR	SOLID	No. of Containers	Sample Condition/ REMARKS
1 FILTER	4/29						X	
3 PROBE RINSE	"						X	
4 IMP 1 & 2	"						X	
5A IMP 3	"						X	
5B IMP 4 & 5	"						X	
5C HCL RINSE	"						X	

DO THE SAMPLE(S) POSE ANY POTENTIAL HAZARD(S)? IF YES, PLEASE EXPLAIN: YES

SAMPLERS (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME
MTR		MTR		

RECEIVED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
M. Schug FAL	5/4/07	4:45 pm			

RECEIVED FOR LABORATORY BY	DATE RECEIVED	TIME	DATE ACCEPTED	TIME	DATE	TIME

METHOD OF SHIPMENT:

SPECIAL INSTRUCTIONS:

FIELD BLANK

MAY-04-07 12:05PM FROM-

T-220 P.003/009 F-185

-70502

CHAIN OF CUSTODY RECORD

Desert Air Environmental Services, LLC

DATE 5-1-07

LAB NUMBER

Page 1 of 1

CLIENT: NUCOR

PROJECT MANAGER: MARK READY

ADDRESS

TELEPHONE NUMBER (AREA CODE): 480-236-3197

CITY | STATE | ZIP CODE

SITE CONTACT

PROJECT NAME

TELEPHONE NUMBER (AREA CODE)

CONTRACT/PURCHASE ORDER/QUOTE NO.

ANALYSES

SAMPLE NO./IDENTIFICATION	DATE	TIME	LAB/SAMPLE NUMBER	SAMPLE TYPE: LIQ	AIR	SOLID	No. of Containers	ARSENIC	BERYLLIUM	CADMIUM	LEAD	MANGANESE	MERCURY	NICKEL	Sample Condition/ REMARKS
1 FILTER	5/1					X					X				
#3 PROBE	"			X							X				
#4 IMP 1&2	"			X							X				
#5A IMP 3	"			X							X				
5B IMP 4&5	"			X							X				
5C HCL RINSE	"			X							X				

DO THE SAMPLE(S) POSE ANY POTENTIAL HAZARD(S)? IF YES, PLEASE EXPLAIN: YES

SAMPLERS (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME
MTR		MTR		
RECEIVED BY (SIGNATURE)	DATE 5/4/07	TIME 4:45pm	RECEIVED BY (SIGNATURE)	DATE	TIME
RECEIVED FOR LABORATORY BY	RECEIVED DATE	TIME	ACCEPTED DATE	TIME
METHOD OF SHIPMENT				
SPECIAL INSTRUCTIONS				

RUN 1

MAY-04-07 12:05PM FROM- T-220 P.004/008 F-185

-70502

CHAIN OF CUSTODY RECORD

Desert Air Environmental Services, LLC

DATE

LAB NUMBER

Page 1 of 1

CLIENT: NUCOR

PROJECT MANAGER: MARK READY

ADDRESS

TELEPHONE NUMBER (AREA CODE): 480-236-3192

CITY | STATE | ZIP CODE

SITE CONTACT

PROJECT NAME

TELEPHONE NUMBER (AREA CODE)

CONTRACT/PURCHASE ORDER/QUOTE NO.

ANALYSES: ARSENIC, BERYLLIUM, CADMIUM, LEAD, MANGANESE, MERCURY, NICKEL

SAMPLE NO./IDENTIFICATION	DATE	TIME	LAB/SAMPLE NUMBER	SAMPLE TYPE: LIQ	AIR	SOLID	No. of Containers	Sample Condition/ REMARKS
1 FILTER						X		
3 PROBE				X				
4 IMP 1+2				X				
5A IMP 3				X				
5B Imp 4+5				X				
5C HCL RINSE				X				

DO THE SAMPLE(S) POSE ANY POTENTIAL HAZARD(S)? IF YES, PLEASE EXPLAIN: YES

SAMPLERS (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME
MPR		MPR		
RECEIVED BY (SIGNATURE) FAL	DATE 5/4/07	TIME 9:45 am	RECEIVED BY (SIGNATURE)	DATE / TIME
RECEIVED FOR LABORATORY BY	RECEIVED DATE	TIME	ACCEPTED DATE	TIME

RUN 2

METHOD OF SHIPMENT

SPECIAL INSTRUCTIONS

MAY-04-07 12:06PM FROM- T-220 P.005/009 F-185

-70502

CHAIN OF CUSTODY RECORD

Desert Air Environmental Services, LLC

DATE

LAB NUMBER

Page 1 of 1

CLIENT: NUCOR

PROJECT MANAGER: MARK READY

ADDRESS

TELEPHONE NUMBER (AREA CODE): 480-236-3192

CITY | STATE | ZIP CODE

SITE CONTACT

PROJECT NAME

TELEPHONE NUMBER (AREA CODE)

CONTRACT/PURCHASE ORDER/QUOTE NO

ANALYSES

SAMPLE NO./IDENTIFICATION	DATE	TIME	LAB/SAMPLE NUMBER	SAMPLE TYPE: LIQ	AIR	SOLID	No. of Containers	ARSENIC	BERYLLIUM	CADMIUM	LEAD	MANGANESE	MERCURY	NICKEL	Sample Condition/ REMARKS
1 FILTER						X				X					
3 PROBE				X						X					
4 IMP 1+2				X						X					
5A IMP 3				X						X					
5B IMP 4+5				X						X					
5C HCL RINSE				X						X					

DO THE SAMPLE(S) POSE ANY POTENTIAL HAZARD(S)? IF YES, PLEASE EXPLAIN: YES

SAMPLERS (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME
MTR		MTR		
RECEIVED BY (SIGNATURE) M. Bailey FAL	DATE 5/4/07	TIME 4:45 PM	RECEIVED BY (SIGNATURE)	DATE / TIME
RECEIVED FOR LABORATORY BY	RECEIVED: DATE	TIME	ACCEPTED: DATE	TIME

METHOD OF SHIPMENT

SPECIAL INSTRUCTIONS

RUN 3

MAY-04-07 12:08PM FROM T-220 P 006/008 F-185

-70502

CHAIN OF CUSTODY RECORD

Desert Air Environmental Services, LLC

DATE

LAB NUMBER

Page 1 of 1

CLIENT: NUCOR

PROJECT MANAGER: MARK READY

ADDRESS

TELEPHONE NUMBER (AREA CODE): 480-236-3197

CITY | STATE | ZIP CODE

SITE CONTACT

PROJECT NAME

TELEPHONE NUMBER (AREA CODE)

CONTRACT/PURCHASE ORDER/QUOTE NO.

ANALYSES

SAMPLE NO./IDENTIFICATION	DATE	TIME	LAB/SAMPLE NUMBER	SAMPLE TYPE: LIQ	AIR	SOLID	No. of Containers	ARSENIC	BERYLLIUM	CADMIUM	LEAD	MANGANESE	MERCURY	NICKEL	Sample Condition/ REMARKS
Sample line Blank #1	5/1			X							X				
Sample line Blank #2				X							X				
Sample line Blank #3				X							X				

DO THE SAMPLE(S) POSE ANY POTENTIAL HAZARD(S)? IF YES, PLEASE EXPLAIN: YES

SAMPLERS (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME
MRR		MRR		
RECEIVED BY (SIGNATURE): FAL	DATE: 5/4/07	TIME: 4:45 PM	RECEIVED BY (SIGNATURE)	DATE	TIME
RECEIVED FOR LABORATORY BY	RECEIVED	DATE	TIME	ACCEPTED	DATE	TIME

METHOD OF SHIPMENT

SPECIAL INSTRUCTIONS

(5% HNO3/H2O2)

MAY-04-07 12:06PM FROM T-220 P.007/008 F-195

-70502

CHAIN OF CUSTODY RECORD

Desert Air Environmental Services, LLC

DATE

LAB NUMBER

Page 1 of 1

CLIENT: MUCOR

PROJECT MANAGER: MARK READY

ADDRESS

TELEPHONE NUMBER (AREA CODE): 480-236-3192

CITY | STATE | ZIP CODE

SITE CONTACT

PROJECT NAME

TELEPHONE NUMBER (AREA CODE)

CONTRACT/PURCHASE ORDER/QUOTE NO.

ANALYSES

SAMPLE NO./IDENTIFICATION	DATE	TIME	LAB/SAMPLE NUMBER	SAMPLE TYPE: LIQ	AIR	SOLID	No. of Containers	Method 0061 Hexachrome							Sample Condition/ REMARKS
TRAIN BLANK	4/29			X			1	X							
REAGENT BLANK	4/29			X			1	X							

DO THE SAMPLE(S) POSE ANY POTENTIAL HAZARD(S)? IF YES, PLEASE EXPLAIN: YES

SAMPLERS (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME
MTP		MTP		
RECEIVED BY (SIGNATURE) M. Barry Fal	DATE 5/4/07	TIME 4:45 PM	RECEIVED BY (SIGNATURE)	DATE	TIME
RECEIVED FOR LABORATORY BY	RECEIVED DATE	TIME	ACCEPTED DATE	TIME
METHOD OF SHIPMENT				
SPECIAL INSTRUCTIONS				

MAY-04-07 12:07PM FROM- T-220 P.008/008 F-185

-70502

CHAIN OF CUSTODY RECORD

Desert Air Environmental Services, LLC

DATE

LAB NUMBER

Page 1 of 1

CLIENT: MUCOR

PROJECT MANAGER: MARK READY

ADDRESS

TELEPHONE NUMBER (AREA CODE): 480 - 236 - 3187

CITY | STATE | ZIP CODE

SITE CONTACT

PROJECT NAME

TELEPHONE NUMBER (AREA CODE)

CONTRACT/PURCHASE ORDER/QUOTE NO.

ANALYSES

SAMPLE NO./IDENTIFICATION	DATE	TIME	LAB/SAMPLE NUMBER	SAMPLE TYPE: LIQ	AIR	SOLID	No. of Containers	Method 0061 Hexachrome								Sample Condition/ REMARKS
RUN 1	5/1			X			1	X								
RUN 2				X			1	X								
RUN 3				X			1	X								

DO THE SAMPLE(S) POSE ANY POTENTIAL HAZARD(S)? IF YES, PLEASE EXPLAIN: YES

SAMPLERS (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME
MTR		MTR		
RECEIVED BY (SIGNATURE) FAL	DATE 5/4/07	TIME 4:45 pm	RECEIVED BY (SIGNATURE)	DATE / TIME
RECEIVED FOR LABORATORY BY	RECEIVED DATE	TIME	ACCEPTED	DATE / TIME

METHOD OF SHIPMENT

SPECIAL INSTRUCTIONS

MAY-04-07 12:07PM FROM- T-220 P.008/008 F-185

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Telephone: (323) 585-2154
Facsimile: (714) 542-6689

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER [redacted] AIR **P.O NUMBER**

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
CARBON DIOXIDE GMIS	vs.SRM#2745	CC 102004	19.73 %
OXYGEN GMIS	vs.SRM#2659	CC 95713	21.04 %

ANALYZER READINGS

R=REFERENCE STANDARD *Z=ZERO GAS* *C=GAS CANDIDATE*

1. **COMPONENT** CARBON DIOXIDE GMIS **ANALYZER MAKE-MODEL-S/N** Siemens Ultramat 5E S/N A12-730
ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 10/01/05
FIRST ANALYSIS DATE 10/03/05 **SECOND ANALYSIS DATE**

Z	0.00	R	19.74	C	18.88	CONC. 23.74	Z	R	C CONC.
R	19.74	Z	0.00	C	18.92	CONC. 23.78	R	Z	C CONC.
Z	0.00	C	18.96	R	19.74	CONC. 23.83	Z	C	R CONC.
U/M	%			MEAN TEST ASSAY		23.78	U/M %		MEAN TEST ASSAY

2. **COMPONENT** OXYGEN GMIS **ANALYZER MAKE-MODEL-S/N** Siemens Oxymat 5E S/N A12-839
ANALYTICAL PRINCIPLE Paramagnetic **LAST CALIBRATION DATE** 10/01/05
FIRST ANALYSIS DATE 10/03/05 **SECOND ANALYSIS DATE**

Z	0.00	R	20.92	C	20.92	CONC. 20.92	Z	R	C CONC.
R	21.04	Z	0.00	C	20.92	CONC. 20.92	R	Z	C CONC.
Z	0.00	C	20.92	R	21.04	CONC. 20.92	Z	C	R CONC.
U/M	%			MEAN TEST ASSAY		20.92	U/M %		MEAN TEST ASSAY

VALUES NOT VALID BELOW 150 PSIG.PROCEDURE G2@ 80%(CF=0.7953) SPLIT.
GAS DIVIDER STEC INC, TYPE SDC-710. ASSAY DATE AND RESULTS:10/03/05.

THIS CYLINDER NO. CC 86072
HAS BEEN CERTIFIED ACCORDING TO SECTION EPA-600/R97/121
OF TRACEABILITY PROTOCOL NO. REV 9/97
PROCEDURE G1
CERTIFIED ACCURACY ± 1 % NIST TRACEABLE
CYLINDER PRESSURE 2000 PSIG
CERTIFICATION DATE 10/03/05
EXPIRATION DATE 10/03/08 **TERM** 36 MONTHS

CERTIFIED CONCENTRATION

CARBON DIOXIDE (±2%)	23.78 %
OXYGEN	20.92 %
NITROGEN	BALANCE

ANALYZED BY ISMAEL RANGEL YANONG **CERTIFIED BY** HELENA TRAN

IPC
form ontained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of e analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information r any particular purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability of raxair Distribution, Inc., arising out of the use of the information contained herein exceed the fee established for providing such information.

Airgas

Certificate of Analysis: EPA Protocol Gas Mixture

Airgas Great Lakes, Inc.
2009 Bellaire Ave.
Royal Oak, MI 48067
Ph: (248) 399-9150
Fax: (248) 584-2540
http://www.airgas.com

ylinder Number:	CC75272	Reference Number:	32-112507962-2
Cylinder Pressure:	2000.6 PSIG	Expiration Date:	10/6/2009
Certification Date:	10/6/2006	Laboratory:	MIC - Royal Oak - MI

Certified Concentrations

Component	Concentration	Accuracy	Analytical Principle	Procedure
CARBON DIOXIDE	9.940 %	+/- 1%	Paramagnetic (Para)	G1
OXYGEN	10.10 %	+/- 1%	Paramagnetic (Para)	G1
NITROGEN	Balance			

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences.

Notes:AIRGAS - JACKSON
ORDER # 283580

Do not use cylinder below 150 psig.

Approval Signature

Reference Standard Information

Type	Balance Gas	Component	Cyl.Number	Concentration
NTRM 81674	NITROGEN	CARBON DIOXIDE	XC018562B	6.89 %
NTRM 82657	NITROGEN	OXYGEN	CC19833	1.964 %

Analytical Results

1st Component CARBON DIOXIDE

1st Analysis Date: 10/06/2006

R 6.92	S 4.97	Z 0.00	Conc 9.940 %
S 4.97	Z 0.00	R 6.92	Conc 9.940 %
Z 0.00	R 6.92	S 4.97	Conc 9.940 %
			AVG: 9.940 %

2nd Component OXYGEN

1st Analysis Date: 10/06/2006

R 4.52	S 2.02	Z 0.00	Conc 10.10 %
S 2.02	Z 0.00	R 4.52	Conc 10.10 %
Z 0.00	R 4.52	S 2.02	Conc 10.10 %
			AVG: 10.10 %

Airgas

Certificate of Analysis: EPA Protocol Gas Mixture

Airgas Great Lakes, Inc.
2009 Bellaire Ave.
Royal Oak, MI 48067
Ph: (248) 399-9150
Fax: (248) 584-2540
http://www.airgas.com

Cylinder Number: XC035965B
Cylinder Pressure: 2000.6 PSIG
Certification Date: 10/16/2006
Reference Number: 32-112507880-4
Expiration Date: 10/16/2008
Laboratory: MIC - Royal Oak - MI

Certified Concentrations

Component	Concentration	Accuracy	Analytical Principle	Procedure
SULFUR DIOXIDE	977.67 PPM	+/- 1%	Fourier Transform Infrared (FTIR)	G1
CARBON MONOXIDE	994.87 PPM	+/- 1%	Fourier Transform Infrared (FTIR)	G1
NITRIC OXIDE	995.52 PPM	+/- 1%	Fourier Transform Infrared (FTIR)	G1
NITROGEN	Balance			
Total oxides of nitrogen	1000.9 PPM			

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences.

Notes: JACKSON

Do not use cylinder below 150 psig.

Approval Signature

Reference Standard Information

Type	Balance Gas	Component	Cyl.Number	Concentration
NTRM 81687	NITROGEN	CARBON MONOXIDE	XC014020B	981 PPM
NTRM 81662	NITROGEN	SULFUR DIOXIDE	CC206057	983.2 PPM
NTRM 81687	NITROGEN	NITRIC OXIDE	XC018125B	987.2 PPM

Analytical Results

1st Component SULFUR DIOXIDE

1st Analysis Date: 10/09/2006

R 981.98	S 976.74	Z 2.225	Conc 977.93 PPM
S 977.26	Z 1.645	R 982.92	Conc 977.57 PPM
Z 1.652	R 982.57	S 977.75	Conc 978.34 PPM
			AVG: 977.94 PPM

2nd Analysis Date: 10/16/2006

R 984.06	S 978.6	Z 1.88	Conc 977.71 PPM
S 977.94	Z 1.98	R 983.15	Conc 978.01 PPM
Z 1.89	R 984.26	S 977.62	Conc 976.51 PPM
			AVG: 977.41 PPM

2nd Component CARBON MONOXIDE

1st Analysis Date: 10/09/2006

R 991.13	S 1006.6	Z 0.030	Conc 996.34 PPM
S 1005.9	Z 0.057	R 991.29	Conc 995.40 PPM
Z 0.014	R 991.83	S 1005.7	Conc 994.71 PPM
			AVG: 995.48 PPM

2nd Analysis Date: 10/16/2006

R 992.35	S 1009.7	Z 0.208	Conc 992.25 PPM
S 1002.4	Z 0.258	R 987.91	Conc 995.32 PPM
Z 0.047	R 989.71	S 1004.0	Conc 995.23 PPM
			AVG: 994.26 PPM

3rd Component NITRIC OXIDE

1st Analysis Date: 10/09/2006

R 994.33	S 1003.9	Z 0.402	Conc 996.67 PPM
S 1003.4	Z 0.443	R 995.92	Conc 994.66 PPM
Z 0.434	R 997.05	S 1002.9	Conc 993.07 PPM
			AVG: 994.80 PPM

2nd Analysis Date: 10/16/2006

R 989.54	S 1001.3	Z 0.386	Conc 998.97 PPM
S 1000.0	Z 0.424	R 992.96	Conc 994.26 PPM
Z 0.411	R 990.46	S 998.78	Conc 995.50 PPM
			AVG: 996.24 PPM

Airgas

Certificate of Analysis: EPA Protocol Gas Mixture

Airgas Great Lakes, Inc.
2009 Bellaire Ave.
Royal Oak, MI 48067
Ph: (248) 399-9150
Fax: (248) 584-2540
http://www.airgas.com

Cylinder Number: XC028062B Reference Number: 32-112507880-3
Cylinder Pressure: 2000.6 PSIG Expiration Date: 10/16/2008
Certification Date: 10/16/2006 Laboratory: MIC - Royal Oak - MI

Certified Concentrations

Component	Concentration	Accuracy	Analytical Principle	Procedure
SULFUR DIOXIDE	454.62 PPM	+/- 1%	Fourier Transform Infrared (FTIR)	G1
NITRIC OXIDE	459.68 PPM	+/- 1%	Fourier Transform Infrared (FTIR)	G1
CARBON MONOXIDE	460.24 PPM	+/- 1%	Fourier Transform Infrared (FTIR)	G1
NITROGEN	Balance			
Total oxides of nitrogen	461.2 PPM			

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences.

Notes: JACKSON

Do not use cylinder below 150 psig.

Approval Signature

Reference Standard Information

Type	Balance Gas	Component	Cyl.Number	Concentration
NTRM 81681	NITROGEN	CARBON MONOXIDE	XC014020B	981 PPM
NTRM 81680	NITROGEN	CARBON MONOXIDE	XC013407B	494.7 PPM
NTRM 81662	NITROGEN	SULFUR DIOXIDE	CC206057	983.2 PPM
NTRM 81686	NITROGEN	NITRIC OXIDE	XC023971B	487.6 PPM

Analytical Results

1st Component SULFUR DIOXIDE

1st Analysis Date: 10/09/2006

R 981.98	S 455.37	Z 2.225	Conc 454.74 PPM
S 455.27	Z 1.645	R 982.92	Conc 454.54 PPM
Z 1.652	R 982.57	S 455.37	Conc 454.76 PPM
			AVG: 454.68 PPM

2nd Analysis Date: 10/16/2006

R 984.06	S 455.90	Z 1.88	Conc 454.54 PPM
S 455.72	Z 1.98	R 983.15	Conc 454.70 PPM
Z 1.89	R 984.26	S 455.98	Conc 454.45 PPM
			AVG: 454.56 PPM

2nd Component NITRIC OXIDE

1st Analysis Date: 10/09/2006

R 493.01	S 465.16	Z 0.402	Conc 460.02 PPM
S 465.05	Z 0.343	R 492.79	Conc 460.14 PPM
Z 0.434	R 494.09	S 465.24	Conc 459.10 PPM
			AVG: 459.75 PPM

2nd Analysis Date: 10/16/2006

R 492.62	S 464.92	Z 0.386	Conc 460.16 PPM
S 464.75	Z 0.424	R 493.49	Conc 459.18 PPM
Z 0.411	R 492.72	S 464.35	Conc 459.50 PPM
			AVG: 459.61 PPM

3rd Component CARBON MONOXIDE

1st Analysis Date: 10/09/2006

R 502.29	S 468.05	Z 0.030	Conc 460.97 PPM
S 468.39	Z 0.057	R 503.53	Conc 460.17 PPM
Z 0.014	R 503.99	S 468.12	Conc 460.41 PPM
			AVG: 460.51 PPM

2nd Analysis Date: 10/16/2006

R 530.30	S 468.61	Z 0.208	Conc 460.58 PPM
S 467.58	Z 0.268	R 502.84	Conc 460.00 PPM
Z 0.047	R 503.23	S 467.25	Conc 459.34 PPM
			AVG: 459.97 PPM

Airgas

Certificate of Analysis: EPA Protocol Gas Mixture

Airgas Great Lakes, Inc.
2009 Bellaire Ave.
Royal Oak, MI 48067
Ph: (248) 399-9150
Fax: (248) 584-2540
http://www.airgas.com

Cylinder Number: CC46507 Reference Number: 32-112507962-5
Cylinder Pressure: 2000.6 PSIG Expiration Date: 10/13/2008
Certification Date: 10/13/2006 Laboratory: MIC - Royal Oak - MI

Certified Concentrations

Component	Concentration	Accuracy	Analytical Principle	Procedure
SULFUR DIOXIDE	94.418 PPM	+/- 1%	Fourier Transform Infrared (FTIR)	G1
CARBON MONOXIDE	95.305 PPM	+/- 1%	Fourier Transform Infrared (FTIR)	G1
NITRIC OXIDE	95.447 PPM	+/- 1%	Fourier Transform Infrared (FTIR)	G1
NITROGEN	Balance			

Total oxides of nitrogen 95.86 PPM

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences.

Notes: JACKSON

Do not use cylinder below 150 psig. Approval Signature Cathy Stewart

Reference Standard Information

Type	Balance Gas	Component	Cyl.Number	Concentration
NTRM 81684	NITROGEN	NITRIC OXIDE	CC208225	93.2 PPM
NTRM 81694	NITROGEN	SULFUR DIOXIDE	XC019282B	98.0 PPM
NTRM 81679	NITROGEN	CARBON MONOXIDE	CC93738	98.0 PPM

Analytical Results

1st Component SULFUR DIOXIDE

1st Analysis Date: 10/06/2006

R 98.429	S 94.927	Z 0.082	Conc 94.504 PPM
S 94.827	Z 0.086	R 98.533	Conc 94.311 PPM
Z 0.086	R 98.486	S 94.86	Conc 94.389 PPM
			AVG: 94.401 PPM

2nd Analysis Date: 10/13/2006

R 96.119	S 92.700	Z 0.083	Conc 94.433 PPM
S 92.750	Z 0.092	R 96.219	Conc 94.465 PPM
Z 0.085	R 96.279	S 92.747	Conc 94.404 PPM
			AVG: 94.434 PPM

2nd Component CARBON MONOXIDE

1st Analysis Date: 10/06/2006

R 100.03	S 97.403	Z 0.012	Conc 95.423 PPM
S 97.275	Z 0.008	R 100.05	Conc 95.285 PPM
Z 0.014	R 100.15	S 97.209	Conc 95.122 PPM
			AVG: 95.277 PPM

2nd Analysis Date: 10/13/2006

R 96.799	S 94.205	Z 0.017	Conc 95.375 PPM
S 94.194	Z 0.015	R 96.870	Conc 95.291 PPM
Z 0.017	R 96.838	S 94.197	Conc 95.329 PPM
			AVG: 95.332 PPM

3rd Component NITRIC OXIDE

1st Analysis Date: 10/06/2006

R 93.385	S 95.932	Z -0.044	Conc 95.741 PPM
S 95.789	Z -0.088	R 93.689	Conc 95.288 PPM
Z -0.037	R 93.497	S 95.806	Conc 95.501 PPM
			AVG: 95.510 PPM

2nd Analysis Date: 10/13/2006

R 91.961	S 94.060	Z -0.015	Conc 95.326 PPM
S 94.136	Z -0.006	R 91.945	Conc 95.422 PPM
Z -0.035	R 92.011	S 94.189	Conc 95.402 PPM
			AVG: 95.383 PPM

Certificate of Analysis: EPA Protocol Gas Mixture

Airgas Great Lakes, Inc.
2009 Bellaire Ave.
Royal Oak, MI 48067
Ph: (248) 399-9150
Fax: (248) 584-2540
http://www.airgas.com

Cylinder Number: CC4626 Reference Number: 32-112507962-4
Cylinder Pressure: 2000.6 PSIG Expiration Date: 10/13/2008
Certification Date 10/13/2006 Laboratory: MIC - Royal Oak - MI

Certified Concentrations

Component	Concentration	Accuracy	Analytical Principle	Procedure
SULFUR DIOXIDE	45.242 PPM	+/- 1%	Fourier Transform Infrared (FTIR)	G1
NITRIC OXIDE	46.813 PPM	+/- 1%	Fourier Transform Infrared (FTIR)	G1
CARBON MONOXIDE	47.521 PPM	+/- 1%	Fourier Transform Infrared (FTIR)	G1
NITROGEN	Balance			

Total oxides of nitrogen 47.06 PPM

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences.

Notes: JACKSON

Do not use cylinder below 150 psig. Approval Signature Cathy D. Stewart

Reference Standard Information

Type	Balance Gas	Component	Cyl.Number	Concentration
NTRM 81693	NITROGEN	SULFUR DIOXIDE	CC14129	44.4 PPM
NTRM 81678	NITROGEN	CARBON MONOXIDE	XC012235B	49.59 PPM
NTRM 81683	NITROGEN	NITRIC OXIDE	CC205968	49.38 PPM

Analytical Results

1st Component SULFUR DIOXIDE

1st Analysis Date: 10/06/2006

R 44.563	S 45.520	Z 0.082	Conc 45.355 PPM
S 45.480	Z 0.086	R 44.599	Conc 45.279 PPM
Z 0.086	R 44.573	S 45.504	Conc 45.329 PPM
			AVG: 45.321 PPM

2nd Analysis Date: 10/13/2006

R 43.580	S 44.336	Z 0.083	Conc 45.174 PPM
S 44.344	Z 0.092	R 43.614	Conc 45.146 PPM
Z 0.085	R 43.624	S 44.875	Conc 45.167 PPM
			AVG: 45.162 PPM

2nd Component NITRIC OXIDE

1st Analysis Date: 10/06/2006

R 49.912	S 47.303	Z -0.044	Conc 46.801 PPM
S 47.248	Z -0.088	R 49.966	Conc 46.699 PPM
Z -0.037	R 49.994	S 47.216	Conc 46.638 PPM
			AVG: 46.713 PPM

2nd Analysis Date: 10/13/2006

R 49.054	S 46.638	Z -0.015	Conc 46.947 PPM
S 46.686	Z -0.006	R 49.016	Conc 47.033 PPM
Z -0.035	R 49.209	S 46.591	Conc 46.757 PPM
			AVG: 46.912 PPM

3rd Component CARBON MONOXIDE

1st Analysis Date: 10/06/2006

R 50.523	S 48.424	Z 0.012	Conc 47.529 PPM
S 48.361	Z 0.018	R 50.542	Conc 47.450 PPM
Z 0.014	R 50.5[illegible]	S 48.379	Conc 47.506 PPM
			AVG: 47.495 PPM

2nd Analysis Date: 10/13/2006

R 49.225	S 47.[illegible]88	Z 0.017	Conc 47.539 PPM
S 47.173	Z 0.0[illegible]5	R 49.215	Conc 47.532 PPM
Z 0.017	R 49.[illegible]88	S 47.183	Conc 47.567 PPM
			AVG: 47.546 PPM

Airgas

Airgas Specialty Gases
12722 S. Wentworth Avenue
Chicago, IL 60628
1-773-785-3000
Fax: 1-773-785-1928
http://www.airgas.com

Certificate of Analysis: EPA Protocol Gas Mixture

Cylinder No :	CC192494		Reference Number	54-124075241-1A
Cylinder Pressure:	2000.3	PSIG	Expiration Date:	4/16/2007
Certification Date	10/16/2006		Laboratory:	ASG- Chicago

Certified Concentrations:

Component	Concentration		Accuracy	Analytical Principle	Procedure
Nitrogen Dioxide	52.58	PPM	+/- 1%	FTIR	G1
Nitrogen	Balance				
Oxygen Concentration	1003	PPM	For reference only: added for stability purposes		

Certification performed in accordance with "EPA Traceability Protocol (Sept 1997)" using the assay procedures listed.
Analytical Methodology does not require correction for analytical interferences.

Notes:

Do not use cylinder below 150 psig.

Approval Signature

Reference Standard Information:

Type	Balance Gas	Component	Cyl. Number	Concentration
GMIS		Nitrogen Dioxide	CC208027	300.6

Analytical Results:

Component: Nitrogen Dioxide

1st Analysis Date: 10/9/06

R	300.90	S	53.04	Z	0.00	Conc	52.96 PPM
S	53.03	Z	0.00	R	301.00	Conc	52.95 PPM
Z	0	R	301.20	S	52.99	Conc	52.91 PPM
						AVG:	52.94 PPM

2nd Analysis Date: 10/16/06

R	301.10	S	52.38	Z	0.00	Conc	52.30 PPM
S	52.31	Z	0.00	R	301.10	Conc	52.23 PPM
Z	0	R	300.90	S	52.20	Conc	52.12 PPM
						AVG:	52.22 PPM

APPENDIX H
BIAS AND LINEARITY DATA

CONTINUOUS EMISSIONS MONITORING
QUALITY ASSURANCE RESULTS

Client: Nucor Steel - Hertford
Test Date: 5/1-3/07
Emissions Unit: Baghouse
Project: Compliance

Leak Check Performed? yes **NOx Converter Checked?** Yes

LINEARITY CHECK SUMMARY

O_2 (%)	Cylinder Concentration	Internal Calibration Value	Analyzer Full Scale Range	Difference (%)	Difference (% FS)	3% Full Scale (%)	Pass/Fail
Zero	0.000	-0.010	25.000	-0.010	-0.04%	0.75	pass
Medium	10.10	10.100	25.000	0.000	0.00%	0.75	pass
High	20.92	20.770	25.000	-0.150	-0.60%	0.75	pass

NO_X (ppm)	Cylinder Concentration	Internal Calibration Value	Analyzer Full Scale Range	Difference (ppm)	Difference (% FS)	5% Full Scale (ppm)	Pass/Fail
Zero	0.000	-0.120	100.000	-0.120	-0.12%	3.00	pass
Medium	46.8	46.430	100.000	-0.383	-0.38%	3.00	pass
High	95.4	96.820	100.000	1.373	1.37%	3.00	pass

CO (ppm)	Cylinder Concentration	Internal Calibration Value	Analyzer Full Scale Range	Difference (ppm)	Difference (% FS)	5% Full Scale (ppm)	Pass/Fail
Zero	0.000	0.160	1000.000	0.160	0.02%	30.00	pass
Medium	460.2	460.510	1000.000	0.270	0.03%	30.00	pass
High	994.9	994.160	1000.000	-0.710	-0.07%	30.00	pass

SO_2 (ppm)	Cylinder Concentration	Internal Calibration Value	Analyzer Full Scale Range	Difference (ppm)	Difference (% FS)	5% Full Scale (ppm)	Pass/Fail
Zero	0.000	-0.060	100.000	-0.060	-0.06%	3.00	pass
Medium	45.2	45.870	100.000	0.628	0.63%	3.00	pass
High	94.4	95.810	100.000	1.392	1.39%	3.00	pass

CO2 (%)	Cylinder Concentration	Internal Calibration Value	Analyzer Full Scale Range	Difference (%)	Difference (% FS)	5% Full Scale (%)	Pass/Fail
Zero	0.000	0.020	25.000	0.020	0.08%	0.75	pass
Medium	9.94	9.950	25.000	0.010	0.04%	0.75	pass
High	23.78	23.880	25.000	0.100	0.40%	0.75	pass

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/29/07	10:26 AM	20.62	0.05	-0.10	0.16	-1.61	
04/29/07	10:27 AM	20.61	0.03	0.13	0.16	-0.15	
04/29/07	10:28 AM	11.42	9.88	0.28	0.17	-0.33	
04/29/07	10:29 AM	9.94	10.10	0.04	0.17	-0.86	
04/29/07	10:30 AM	10.10	9.95	-0.12	0.16	-0.51	
04/29/07	10:31 AM	13.76	14.33	-0.11	0.16	-0.78	Linearity
04/29/07	10:32 AM	20.76	23.85	-0.11	0.20	-0.07	
04/29/07	10:33 AM	20.77	23.88	-0.11	0.17	-0.06	
04/29/07	10:34 AM	9.44	8.94	0.76	19.19	25.25	
04/29/07	10:35 AM	-0.08	0.02	57.02	92.04	50.32	
04/29/07	10:36 AM	-0.09	0.02	95.54	96.48	50.53	
04/29/07	10:37 AM	-0.02	0.02	96.82	96.49	50.32	
04/29/07	10:38 AM	-0.01	0.02	97.26	96.48	90.72	
04/29/07	10:39 AM	-0.01	0.02	97.07	96.48	95.81	
04/29/07	10:40 AM	1.09	0.02	95.61	96.28	95.92	
04/29/07	10:41 AM	7.99	0.03	88.71	41.80	64.33	
04/29/07	10:42 AM	-0.04	0.02	49.39	46.24	46.26	
04/29/07	10:43 AM	-0.05	0.02	46.62	46.39	46.01	
04/29/07	10:44 AM	-0.05	0.02	46.43	46.37	45.87	
04/29/07	10:45 AM	7.77	0.03	46.20	39.78	76.51	
04/29/07	10:46 AM	0.39	0.02	172.05	727.64	250.31	
04/29/07	10:47 AM	0.00	0.02	250.03	992.17	250.31	
04/29/07	10:48 AM	0.00	0.02	250.03	992.49	250.31	
04/29/07	10:49 AM	0.00	0.02	250.02	994.47	250.31	
04/29/07	10:50 AM	-0.01	0.02	250.02	994.16	250.31	
04/29/07	10:51 AM	8.40	0.03	250.02	671.01	250.30	
04/29/07	10:52 AM	-0.01	0.02	250.02	414.86	250.30	
04/29/07	10:53 AM	-0.07	0.02	250.02	455.26	250.31	
04/29/07	10:54 AM	-0.07	0.02	250.02	459.85	250.30	
04/29/07	10:55 AM	-0.06	0.02	250.03	460.51	250.30	
04/29/07	10:56 AM	16.85	0.13	250.02	248.72	55.39	
04/29/07	10:57 AM	20.70	0.12	81.98	24.14	11.12	
04/29/07	10:58 AM	20.70	0.10	11.23	19.80	9.38	
04/29/07	10:59 AM	20.70	0.11	10.23	16.09	8.37	
04/29/07	11:00 AM	19.23	0.11	10.43	18.53	27.53	
04/29/07	11:01 AM	20.66	0.10	29.52	23.22	6.87	
04/29/07	11:02 AM	20.72	0.11	51.54	10.36	5.63	NO2 - NO Converter Check
04/29/07	11:03 AM	20.72	0.10	51.49	11.16	4.25	all else on line
04/29/07	11:04 AM	20.59	0.25	51.78	19.49	3.39	
04/29/07	11:05 AM	20.61	0.22	51.05	20.60	4.13	
04/29/07	11:06 AM	20.54	0.37	51.14	18.62	5.31	
04/29/07	11:07 AM	20.21	0.78	51.31	33.98	9.69	
04/29/07	11:08 AM	20.15	0.84	51.68	25.33	11.08	
04/29/07	11:09 AM	20.12	0.89	51.64	26.33	12.01	
04/29/07	11:10 AM	20.08	0.93	51.64	31.93	14.27	
04/29/07	11:11 AM	20.09	0.93	51.64	36.92	14.44	
04/29/07	11:12 AM	20.07	0.96	51.64	45.04	14.79	
04/29/07	11:13 AM	20.04	0.98	51.72	59.79	14.62	
04/29/07	11:14 AM	20.10	0.95	51.89	78.36	12.60	
04/29/07	11:15 AM	20.06	1.02	51.89	76.80	10.36	
04/29/07	11:16 AM	19.94	1.18	51.88	99.20	9.49	
04/29/07	11:17 AM	19.76	1.34	51.87	137.17	9.42	
04/29/07	11:18 AM	19.59	1.61	51.87	179.91	9.32	
04/29/07	11:19 AM	19.55	1.69	51.87	192.18	10.00	
04/29/07	11:20 AM	19.61	1.60	51.87	233.04	12.21	
04/29/07	11:21 AM	19.74	1.42	51.87	156.19	13.79	
04/29/07	11:22 AM	19.85	1.26	51.87	120.66	15.84	
04/29/07	11:23 AM	19.89	1.21	51.87	104.81	18.42	
04/29/07	11:24 AM	19.85	1.29	51.95	114.17	19.83	
04/29/07	11:25 AM	19.85	1.29	52.12	119.65	19.84	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/29/07	11:26 AM	19.83	1.30	52.12	117.32	21.28	
04/29/07	11:27 AM	19.88	1.23	52.12	118.78	16.75	
04/29/07	11:28 AM	19.93	1.24	52.12	110.32	10.53	
04/29/07	11:29 AM	19.95	1.19	52.12	100.66	8.36	
04/29/07	11:30 AM	20.03	1.04	52.12	92.77	9.61	
04/29/07	11:31 AM	20.04	1.03	52.12	88.05	11.88	
04/29/07	11:32 AM	20.09	0.98	43.56	89.30	15.29	
04/29/07	11:33 AM	19.98	1.13	22.16	86.26	18.73	
04/29/07	11:34 AM	8.99	0.35	9.87	111.98	33.05	
04/29/07	11:35 AM	0.16	0.02	46.59	47.06	44.20	
04/29/07	11:36 AM	0.01	0.02	46.93	46.42	44.79	
04/29/07	11:37 AM	0.00	0.02	46.28	46.43	45.04	Cal Check
04/29/07	11:38 AM	0.01	0.02	46.78	46.43	45.22	
04/29/07	11:39 AM	0.01	0.02	46.57	46.41	45.29	
04/29/07	11:40 AM	0.00	0.02	46.84	46.41	45.45	
04/29/07	11:41 AM	0.01	0.02	46.58	46.43	45.46	
04/29/07	11:42 AM	0.01	0.02	46.54	46.43	45.50	Response Time = 40 seconds
04/29/07	11:43 AM	0.02	0.02	46.53	46.44	45.55	
04/29/07	11:44 AM	0.02	0.02	54.40	46.43	45.56	
04/29/07	11:45 AM	0.03	0.02	46.27	46.43	45.60	
04/29/07	11:46 AM	0.04	0.02	46.82	46.42	45.62	
04/29/07	11:47 AM	0.05	0.02	46.07	46.44	45.65	
04/29/07	11:48 AM	0.06	0.02	46.30	46.44	45.67	
04/29/07	11:49 AM	0.07	0.02	46.22	46.43	45.67	
04/29/07	11:50 AM	0.07	0.02	46.69	46.43	45.69	
04/29/07	11:51 AM	0.08	0.02	46.69	46.43	45.69	
04/29/07	11:52 AM	10.81	0.66	45.91	49.26	32.69	
04/29/07	11:53 AM	20.29	1.07	22.38	60.96	14.08	
04/29/07	11:54 AM	20.22	1.14	4.73	57.02	13.19	
04/29/07	11:55 AM	20.04	1.34	3.96	81.44	13.10	
04/29/07	11:56 AM	19.79	1.64	4.49	159.12	12.04	
04/29/07	11:57 AM	19.66	1.84	5.34	193.85	9.70	
04/29/07	11:58 AM	19.68	1.89	1.51	234.39	8.28	
04/29/07	11:59 AM	19.75	1.83	5.50	278.28	7.31	
04/29/07	12:00 PM	19.79	1.73	32.62	249.06	7.08	
04/29/07	12:01 PM	19.77	1.76	38.66	200.08	8.02	
04/29/07	12:02 PM	19.85	1.64	33.45	183.11	9.51	
04/29/07	12:03 PM	19.94	1.56	32.52	175.77	11.50	
04/29/07	12:04 PM	20.01	1.48	38.24	148.97	12.96	
04/29/07	12:05 PM	20.09	1.42	47.67	114.84	14.08	
04/29/07	12:06 PM	20.10	1.43	42.40	91.43	14.73	
04/29/07	12:07 PM	20.11	1.42	39.08	88.09	16.04	
04/29/07	12:08 PM	20.22	1.29	39.19	79.75	15.86	
04/29/07	12:09 PM	20.14	1.38	39.34	68.77	14.16	
04/29/07	12:10 PM	20.22	1.26	39.79	84.09	12.67	
04/29/07	12:11 PM	20.09	1.42	40.13	95.76	12.93	
04/29/07	12:12 PM	20.06	1.45	36.24	116.40	12.64	
04/29/07	12:13 PM	20.11	1.41	32.73	93.75	12.70	
04/29/07	12:14 PM	20.09	1.44	32.88	90.09	13.07	
04/29/07	12:15 PM	8.50	28.47	10.52	105.59	-11.44	
04/29/07	12:16 PM	0.00	52.37	24.67	50.01	58.32	
04/29/07	12:17 PM	0.00	52.38	30.75	115.73	53.32	
04/29/07	12:18 PM	0.00	51.78	31.03	93.07	49.24	
04/29/07	12:19 PM	0.00	52.38	31.22	92.57	46.84	
04/29/07	12:20 PM	5.87	52.38	33.42	84.93	42.95	
04/29/07	12:21 PM	20.16	52.38	8.66	90.92	40.49	Stack Traverse
04/29/07	12:22 PM	20.21	52.38	8.74	95.92	38.13	
04/29/07	12:23 PM	20.25	52.39	8.88	97.26	35.18	2 min per point
04/29/07	12:24 PM	20.48	52.39	8.36	101.10	7.28	
04/29/07	12:25 PM	20.73	52.39	8.07	78.91	9.15	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/29/07	12:26 PM	20.87	48.54	8.00	56.95	11.58	Stratification is Process
04/29/07	12:27 PM	21.03	52.51	4.90	34.28	14.23	related not stack related
04/29/07	12:28 PM	21.07	52.39	8.69	20.45	-7.76	
04/29/07	12:29 PM	21.09	52.39	8.68	15.09	25.18	
04/29/07	12:30 PM	21.11	52.20	9.70	12.26	11.06	
04/29/07	12:31 PM	21.10	52.39	9.69	12.26	11.23	
04/29/07	12:32 PM	21.08	52.39	11.51	15.94	10.58	
04/29/07	12:33 PM	20.93	52.39	11.14	31.15	11.41	
04/29/07	12:34 PM	20.84	26.46	10.61	27.13	10.68	
04/29/07	12:35 PM	20.60	52.34	10.76	35.64	15.26	
04/29/07	12:36 PM	20.53	52.39	5.94	30.13	15.58	
04/29/07	12:37 PM	20.49	52.39	4.22	30.27	15.90	
04/29/07	12:38 PM	20.46	24.95	3.76	31.78	16.67	
04/29/07	12:39 PM	20.41	1.02	4.74	37.78	16.10	
04/29/07	12:40 PM	20.39	1.07	4.74	66.14	16.42	
04/29/07	12:41 PM	20.41	1.11	4.72	76.28	14.90	
04/29/07	12:42 PM	20.27	1.25	3.65	89.66	12.41	
04/29/07	12:43 PM	20.27	1.21	4.68	104.88	10.53	
04/29/07	12:44 PM	20.33	1.12	4.20	94.82	10.07	
04/29/07	12:45 PM	20.14	1.38	3.53	108.89	9.26	
04/29/07	12:46 PM	19.97	1.63	4.35	167.81	8.56	
04/29/07	12:47 PM	17.80	4.23	7.79	214.90	7.02	
04/29/07	12:48 PM	10.48	9.63	5.97	26.77	-0.11	
04/29/07	12:49 PM	10.45	9.79	0.67	0.21	-0.19	
04/29/07	12:50 PM	10.10	9.96	0.60	0.20	-0.19	Calibrate
04/29/07	12:51 PM	4.46	3.23	0.65	11.89	26.37	
04/29/07	12:52 PM	-0.03	0.02	23.53	45.66	46.06	
04/29/07	12:53 PM	0.01	0.03	46.92	46.43	46.02	
04/29/07	12:54 PM	0.01	0.02	46.59	46.43	45.19	
04/29/07	12:55 PM	0.01	0.02	46.20	46.43	45.20	
04/29/07	12:56 PM	0.01	0.03	46.43	46.42	45.24	
04/29/07	12:57 PM	0.02	0.03	46.25	46.41	45.27	
04/29/07	12:58 PM	0.03	0.03	46.22	46.41	45.23	
04/29/07	12:59 PM	9.63	0.67	40.70	50.02	30.13	
04/29/07	1:00 PM	20.00	1.25	15.19	74.78	9.41	
04/29/07	1:01 PM	20.02	1.21	4.10	95.59	9.57	
04/29/07	1:02 PM	20.24	0.83	2.20	160.86	11.02	
04/29/07	1:03 PM	20.59	0.37	1.82	139.41	12.92	
04/29/07	1:04 PM	20.70	0.24	6.89	60.36	14.37	
04/29/07	1:05 PM	20.73	0.20	10.04	34.57	14.70	
04/29/07	1:06 PM	20.76	0.19	0.55	29.08	14.54	
04/29/07	1:07 PM	20.77	0.18	0.40	24.10	14.64	
04/29/07	1:08 PM	10.84	0.12	7.38	24.72	30.04	
04/29/07	1:09 PM	0.06	0.08	4.48	45.76	44.33	
04/29/07	1:10 PM	0.06	0.08	2.11	46.38	44.64	
04/29/07	1:11 PM	1.04	0.17	1.72	46.37	43.85	
04/29/07	1:12 PM	19.53	1.12	1.41	43.23	17.48	
04/29/07	1:13 PM	20.04	1.23	1.78	44.55	14.95	
04/29/07	1:14 PM	19.86	1.46	-0.48	59.64	14.35	
04/29/07	1:15 PM	19.53	1.89	-2.62	135.23	13.10	
04/29/07	1:16 PM	19.52	1.94	11.22	199.77	11.43	
04/29/07	1:17 PM	19.72	1.70	-0.71	189.98	10.42	
04/29/07	1:18 PM	19.82	1.62	-2.14	146.98	9.61	
04/29/07	1:19 PM	19.84	1.63	8.52	88.82	8.81	
04/29/07	1:20 PM	19.87	1.60	-4.31	66.81	8.98	
04/29/07	1:21 PM	19.87	1.62	-0.04	81.75	9.65	
04/29/07	1:22 PM	19.86	1.65	-0.57	110.61	11.11	
04/29/07	1:23 PM	19.84	1.68	-0.14	113.99	12.41	
04/29/07	1:24 PM	19.87	1.64	5.49	98.75	12.06	
04/29/07	1:25 PM	19.89	1.65	4.57	83.20	10.60	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/29/07	1:26 PM	12.68	8.61	-0.93	50.94	3.47	
04/29/07	1:27 PM	10.29	9.99	4.63	0.56	-0.37	
04/29/07	1:28 PM	10.12	9.95	2.09	0.35	-0.29	
04/29/07	1:29 PM	6.91	5.63	1.05	4.09	15.44	
04/29/07	1:30 PM	0.00	0.02	0.48	42.91	43.95	
04/29/07	1:31 PM	0.01	0.02	-1.56	46.36	44.84	
04/29/07	1:32 PM	6.71	0.52	1.18	48.30	34.82	
04/29/07	1:33 PM	20.03	1.10	10.60	83.38	7.23	
04/29/07	1:34 PM	20.02	1.16	-0.58	63.11	4.20	
04/29/07	1:35 PM	20.05	1.13	-0.11	61.58	3.01	
04/29/07	1:36 PM	20.08	1.11	7.07	55.93	2.37	
04/29/07	1:37 PM	20.04	1.15	-1.13	59.64	2.02	
04/29/07	1:38 PM	20.05	1.14	3.07	74.77	1.84	On Line
04/29/07	1:39 PM	20.02	1.21	-2.76	82.84	1.70	
04/29/07	1:40 PM	20.01	1.22	-0.14	57.05	1.67	
04/29/07	1:41 PM	20.01	1.23	5.59	56.17	1.58	
04/29/07	1:42 PM	20.03	1.20	-2.31	70.97	2.26	
04/29/07	1:43 PM	20.08	1.11	5.89	73.31	4.87	
04/29/07	1:44 PM	20.27	0.79	-0.58	123.24	6.99	
04/29/07	1:45 PM	20.66	0.28	3.39	95.05	6.68	

COMPLIANCE TEST REPORT

NUCOR PLATE MILL
COFIELD, NORTH CAROLINA IN HERTFORD COUNTY

MELTSHOP BAGHOUSE EXHAUST SYSTEM – CD01
(CEM, PARTICULATE, METALS, HEXCHROME, VOC)

Date Tested: June 20-22, 2006
Date Reported: July 31, 2006

Prepared for:

Nucor Steel
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This certifies that the data collected and presented herein is true and accurate to the best of our knowledge. All attempts were made to collect and analyze the data within the applicable guidelines established by the United States Environmental Protection Agency.

Mark T. Ready
President / CEO
Field Team Leader

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1. INTRODUCTION

Source emission testing was conducted at Nucor Steel (Nucor), Cofield, North Carolina in fulfillment of permit conditions (permit #: 08680-T11) and to demonstrate compliance with applicable permit emission limits. The Melt Shop Baghouse was tested on June 20, 21 and 22, 2006 Table 1.1 presents the emission species tested during the testing program, along with applicable emission limits. Testing was conducted by Mr. Ken Nuessmeier, Ms. Charlayne Barger and Mr. Mark Ready of Desert Air. Mr. Ready served as team leader.

Table 1.1 Emission Units, Emission Species, and Emission Limits

Melt Shop Baghouse	PM/PM_{10} – EPA Method 5/202	0.0018 / 0.0052 gr/dscf	2D .0530 [40 CFR 51.166] PSD
(CD01: ES01, ES02, ES03)	SO_2 – EPA Method 6C	0.35 lbs/ton	2D .0530 [40 CFR 51.166] PSD
	NO_X – EPA Method 7E	0.36 lbs/ton	2D .0530 [40 CFR 51.166] PSD
	CO – EPA Method 10	2.3 lbs/ton	2D .0530 [40 CFR 51.166] PSD
	O_2/CO_2 – EPA Method 3A		
	Mltpl Metals – EPA Method 29		2D .1100
	arsenic	50.0 lbs/year	
	beryllium	280.0 lbs/year	
	cadmium	1122.0 lbs/year	
	lead	0.0016 lbs/ton	
	manganese	67.5 lbs/24 hours	
	mercury	7.7 lbs/24 hours	
	nickel	13.4 lbs/24 hours	
	Chromium[6] – Method 0061	40.0 lbs/year	2D .1100
	VOC – EPA Method 18	0.13 lbs/ton	2D .0530 [40 CFR 51.166] PSD
	Benzene – EPA Method 18	199,720 lbs/year	2D .1100
	Opacity – EPA Method 9	3% (CD01) 10% (ES16) 20% (ES02, ES03)	2D .0524 [40 CFR Part 60, Subpart Aaa]

1.1 FACILITY DESCRIPTION

Nucor Steel located in Cofield, North Carolina is a steel recycling facility that utilizes a 250 ton direct current (DC) electric arc furnace (EAF) to produce molten steel from steel scrap. The molten steel is refined to produce chemically specific grades of steel and then cast via a water cooled continuous slab caster. These slabs are then reheated in a natural gas direct fired reheat furnace and rolled into finished steel sheets of various dimentions. The EAF exhausts through a direct shell evacuation system and through a melt shop roof canopy that vents exhaust into a fabric filter baghouse. One ladle metallurgical station (LMS) also vents into the same fabric filter baghouse. The baghouse is a negative pressure design whereby emissions exhaust to the atmosphere via a single stack.

1.2 FACILITY AND TEST FIRM INFORMATION

Facility: Nucor Steel
1505 River Road
Cofield, North Carolina 27922

Contact: Terry Hairston
Environmental Manager
Ph: (252) 356-3707
Fax: (252) 356-3930

Test Firm: Desert Air Environmental Services, LLC
4939 West Ray Road, Suite 4-348
Chandler, Arizona 85226

Contact: Mr. Mark T. Ready
President and CEO
Ph: (480) 236-3197
Fax: (480) 775-7431

2. TEST CHRONOLOGY AND RESULTS SUMMARY

2.1 TEST CHRONOLOGY

Table 2.1 presents the chronology of tests that were conducted during the testing program.

Table 2.1 Source Testing Chronology

Date	Test Performed
6-20-06	Run 1 of EPA Methods 5/202, 29, 18, 1-4, 3A, 6C, 7E, 10 and OSW Method 0061
6-21-06	Run 2 of EPA Methods 5/202, 29, 18, 1-4, 3A, 6C, 7E, 10 and OSW Method 0061
6-22-06	Run 3 of EPA Methods 5/202, 29, 18, 1-4, 3A, 6C, 7E, 10 and OSW Method 0061

2.2 TEST RESULTS

Tables 2.2 through 2.6 present the results of al g the testing program. All Method 29 front half samples contained high level value was subtracted from the average of runs 1-3 and reported in table 2.3. lete continuous emissions monitoring data are presented in the appendices t

Table 2.2 Melt Shop Baghouse EPA M rticulate Results

	Run 1	Run 2	Run 3	Average
Date	6-20-06	6-21-06	6-22-06	
Time	115-1005	0020-924	0015-919	
Process Information				
Stack Temperature (F)	172.6	175.6	175.6	174.6
Moisture Content (%)	3.64	3.70	3.66	3.67
Volumetric Flow Rate (dscfm)	1285668	1271647	1210938	1256084
Process Rate (tph)	256.71	219.73	234.13	236.86
Filterable PM (EPA Method 5)				
gr/dscf	0.00020	0.00016	0.00020	0.00018
lb/hr	2.181	1.709	2.053	1.981
Emission Limit (gr/dscf)				**0.0018**
Inorganic Condensable PM_{10} (EPA Method 202)				
gr/dscf	0.00134	0.00150	0.00135	0.00140
lb/hr	14.818	16.324	14.050	15.064
Organic Condensable PM_{10} (EPA Method 202)				
gr/dscf	0.00008	0.00006	0.00012	0.00009
lb/hr	0.886	0.682	1.200	0.923
Total PM (EPA Method 5/202)				
gr/dscf	0.00162	0.00171	0.00166	0.00166
lb/hr	17.885	18.715	17.303	17.968
lb/ ton	0.070	0.085	0.074	0.076
Emission Limit (gr/dscf)				**0.0052**
Visual Emissions (EPA Method 9)				
Opacity (%)	0.00	0.00	0.00	0.00
Emission Limit (%)				**3**

Table 2.3 Melt Shop Baghouse EPA Method 29 - Multiple Metals Results

	Run 1	Run 2	Run 3	Average		
Date	6-20-06	6-21-06	6-22-06			
Time	103-1005	0023-918	0012-918			
Process Information						
Stack Temperature (F)	172.3	175.8	174.9	174.3		
Moisture Content (%)	3.86	3.60	4.20	3.89		
Volumetric Flow Rate (dscfm)	1247838	1283429	1244896	1244896		
Process Rate (tph)	256.71	219.73	234.13	236.86		
Metals (EPA Method 29)	lb/hr	lb/hr	lb/hr	Average lb/hr	Average *	**Limit**
Arsenic, As	0.00337	0.00331	0.00346	0.00338	26.53 lb/yr	**50 lb/yr**
Beryllium, Be	0.000135	0.000143	0.000146	0.00055	4.32 lb/yr	**280 lb/yr**
Cadmium, Cd	0.000960	0.000643	0.000611	0.00074	5.81 lb/yr	**1122 lb/yr**
Lead, Pb	0.0201	0.0167	0.0181	0.0183	0.00008 lb/ton	**0.0016 lb/ton**
Manganese, Mn	0.0399	0.0285	0.0333	0.03390	0.8136 lb/24hr	**67.5 lb/24hr**
Mercury, Hg	0.0351	0.0348	0.0197	0.02987	0.7169 lb/24hr	**7.7 lb/24hr**
Nickel, Ni	0.00156	0.00149	0.00149	0.00151	0.0362 lb/24hr	**13.4 lb/24hr**

* The approximate annual operating hours is 7848, Appendix F.

Table 2.4 Melt Shop Baghouse OSW Method 0061 - Chrome^{+6} Results

	Run 1	Run 2	Run 3	Average
Date	6-20-06	6-21-06	6-22-06	
Time	100-1008	0022-922	0010-915	
Process Information				
Stack Temperature (F)	171.1	177.6	175.6	174.8
Moisture Content (%)	4.03	3.92	4.16	4.04
Volumetric Flow Rate (dscfm)	1232918	1276565	1296231	1268571
Process Rate (tph)	256.71	219.73	234.13	236.86
Total Chrome^{+6} (OSW Method 0061)				
lb/hr	0.00103	0.00144	0.00139	0.00129
lb/year	8.08	11.30	10.91	10.10
Emission Limit (lb/year)				**40**

* The approximate annual operating hours is 7848, Appendix F.

Table 2.5 Melt Shop Baghouse EPA Method 18 - VOC Results

	Run 1	Run 2	Run 3	Average
Date	6-20-06	6-21-06	6-22-06	
Time	105-1005	0025-920	0015-920	
Process Information				
Volumetric Flow Rate (M5,dscfm)	1285668	1271647	1210938	1256084
Process Rate (tph)	256.71	219.73	234.13	236.86
Total VOC (EPA Method 18)				
lb/hr	0.460	1.164	0.562	0.729
lb/ ton	0.0018	0.0053	0.0024	0.0032
Emission Limit (lb/ton)				**0.13**
Benzene (EPA Method 18)				
lb/hr	0.0192	0.0252	0.1102	0.0515
lb/year	150.4	198.1	865.1	404.5
Emission Limit (lb/year)				**199720**

* The approximate annual operating hours is 7848, Appendix F.

Table 2.6 Melt Shop Baghouse EPA Methods 6C, 7E, and 10 - SO_2, NOx, and CO Results

	Run 1	Run 2	Run 3	Average
Date	6-20-06	6-21-06	6-22-06	
Time	116-958	0000940	0010-900	
Process Information				
Stack Temperature (F)	172.6	175.6	175.6	174.6
Moisture Content (%)	3.64	3.70	3.66	3.67
Volumetric Flow Rate (dscfm)	1285668	1271647	1210938	1256084
Process Rate (tph)	256.71	219.73	234.13	236.86
Oxides of Nitrogen (EPA Method 6C)				
ppm	4.59	4.83	4.64	4.69
lb/hr	42.299	44.024	40.234	42.186
lb/ ton	0.165	0.200	0.172	0.179
Emission Limit (lb/ton)				**0.36**
Sulfur Dioxide (EPA Method 7E)				
ppm	6.27	4.28	6.98	5.84
lb/hr	80.330	54.224	84.245	72.933
lb/ ton	0.313	0.247	0.360	0.307
Emission Limit (lb/ton)				**0.35**
Carbon Monoxide (EPA Method 10)				
ppm	91.28	96.47	90.46	92.74
lb/hr	511.640	534.833	477.575	508.016
lb/ ton	1.993	2.434	2.040	2.156
Emission Limit (lb/ton)				**2.3**

3. EMISSION UNIT INFORMATION

3.1 EMISSION UNIT DESCRIPTIONS

The Nucor facility employs a 250-ton Direct Current (DC) Electric Arc Furnace (EAF). The furnace is continually fed scrap steel via a Consteel conveyor system. After the roof is lifted and swung aside, scrap steel is also charged into the furnace from a scrap bucket attached to an overhead crane. Following the charge, the roof is rotated back into place over the shell. The scrap continues to be

melted by the electric arc for approximately 42 minutes until the molten steel reaches a predetermined temperature.

When melting is complete the furnace is tilted forward slightly, and slag is allowed to pour from the shell through the slag door into a waiting slag pot. The slag contains impurities that were lifted to the surface of the molten metal during the melting period. Once most of the slag is poured, the furnace is tilted back to an upright position to begin tapping the molten steel.
To tap the furnace, a ladle is moved into place under the shell, and a slide gate in the bottom of the shell is opened, allowing the molten steel to flow into the ladle. The shell is tipped slightly back to facilitate tapping. The slide gate is closed when much of the steel has been tapped into the ladle. A heel of molten steel and slag is left in the shell to help keep the shell hot and to allow for more efficient melting of the scrap upon the next charge. The ladle is then transported to the Ladle Metallurgical Facility (LMF) where it is further refined and the final chemical composition of the steel is adjusted. After the steel is adjusted to proper chemical composition, the ladle is transported to the continuous caster where the molten steel is cast into solid slabs.

In addition to the EAF and LMFs, other CO and NO_x emission sources within the melt shop include the ladle preheaters, the caster, and the caster cut-off torches. A process flow diagram is presented below.

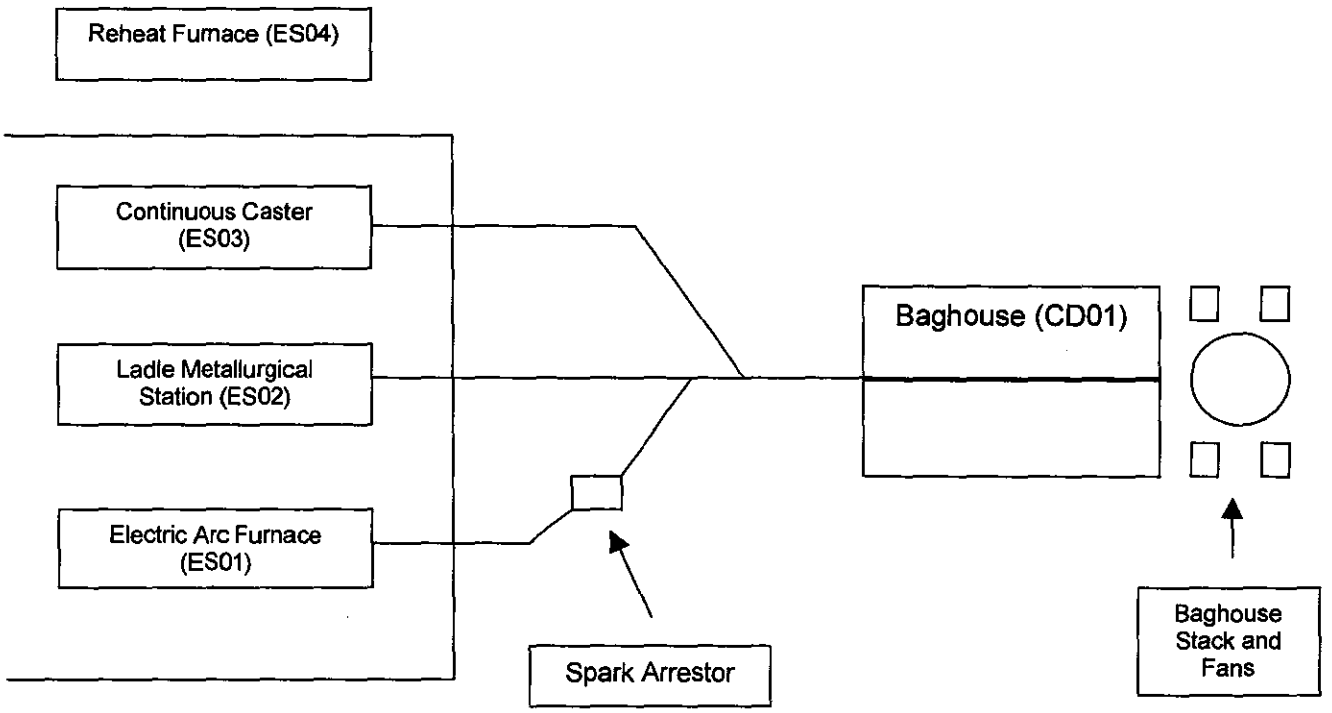


Figure 2.1 Process Flow Diagram

3.2 CONTROL SYSTEM DESCRIPTIONS

Emissions from the EAF are captured by a direct shell evacuation (DEC) system and through the melt shop roof canopy hoods. The DEC system collects the majority of EAF emissions through a duct attached to the furnace side wall often referred to as "the fourth hole". Furnace emissions not captured by the DEC are captured by a hood in the melt shop roof. DEC emissions are ducted to the spark arrestor that prevents hot gases and sparks from reaching the baghouse and burning the bags. LMF emissions are ducted to the melt shop canopy hoods. The melt shop canopy hood joins with the duct from a canopy hood over the continuous caster. Downstream of the spark arrestor and prior to the baghouse, the melt shop canopy duct joins the EAF duct. This is a negative pressure system. Four constant speed fans draw emissions from the melt shop through the baghouse. Three or four of these fans are in operation under normal conditions. During cold weather (dense air) or with certain scrap mixes one fan can be shut down and the system will operate properly with the three remaining fans. Total flow through the baghouse is approximately 1,500,000 acfm.

3.3 EMISSION AND CONTROL UNIT DESCRIPTIONS

Table 3.1 presents the applicable emission unit and control unit information.

Table 3.1 Emission Unit and Control Device Information

Process Unit(s)	Control Device	Emission Unit ID and/or Serial Number
Melt Shop Baghouse	Negative Pressure - Fabric filter baghouse	CDO1

3.4 PROCESS CONDITIONS

Plant process data detailing heats melted, heat numbers and tons per hour are presented in the Appendicies to this report.

3.5 EMISSION POINT INFORMATION

Figure 3.2 shows the sample port locations and appropriate stack dimensions. Traverse point locations were determined following EPA Method 1 prior to testing. Table 3.2 presents the traverse point locations for the PM, Metals and Hexchrome testing.

Table 3.2 Traverse Point Locations for the Melt Shop Baghouse

Isokinetic Tests	
Point Deep	Dist. from Stack Wall (in)
1	5.29
2	16.88
3	29.74
4	44.60
5	44.60
6	89.71

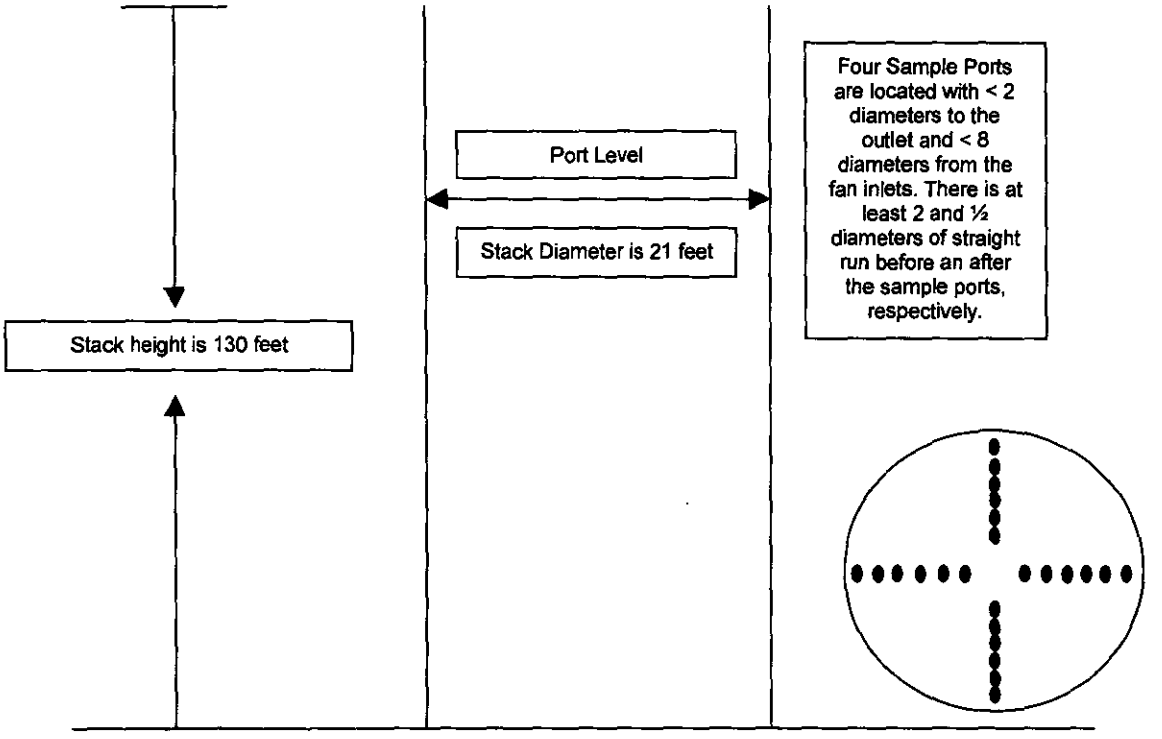


Figure 3.2 Sample port locations for the Melt Shop baghouse stack

4. TESTING METHODS AND PROCEDURES

4.1 TESTING METHODS

Table 4.1 specifies the test methods used for each emission unit and emission specie. Unless deviations are specified the Method Description Section or in Section 4.4 below, all tests conformed to the applicable methodologies specified in the appendices to 40 CFR Part 60 and the OSW 846. All tests consisted of three reference method test runs. Stack emissions were calculated as the average of the three test runs for comparison with applicable emission limits. All tests (PM, CEM, Metals, Chrome[6], VOCs, Benzene) were performed simultaneously. VOCs and Benzene were collected on adsorbent tubes as allowed by section 8.2.4 of EPA Method 18. Analysis of the tubes will follow EPA Method TO-15. An approximate sample rate of 0.3 liters per minute was established yielding 150 total liters sampled per run. Calibrated low flow sample systems were used for the spiked and unspiked trains.

Table 4.1 Test Methods

Target Pollutant	Proposed Test Method	Number of Test Runs	Test Run Duration in Hours	Number of Sampling Points	Comments
PM	EPA Method 5/202	3	8	24	
SO_2	EPA Method 6C	3	8	1	
NO_X	EPA Method 7E	3	8	1	
CO	EPA Method 10	3	8	1	
O_2/CO_2	EPA Method 3A	3	8	1	
Mltpl Metals	EPA Method 29	3	8	24	Audit sample (analysis only)
Chromium[6]	SW Method 0061	3	8	24	Audit sample (analysis only)
VOC	EPA Method 18/TO15	3	8	1	Triplicate spikes
Benzene	EPA Method 18/TO15	3	8	1	Triplicate spikes

4.2 SAMPLING EQUIPMENT DESCRIPTION

4.2.1 Gaseous Emission Sampling Equipment

Table 4.2 lists the gaseous analyzers used in the test program. Stack gas was extracted through a stainless steel in-stack probe, heated Teflon tubing and an on-stack condenser that cools and dries the gas sample. Conditioned sample gas continues through Teflon tubing to the gas manifold where it is distributed to the instrument analyzers. Excess stack gas is vented to the outside air. Zero and EPA Protocol 1 calibration gases were directed to the probe tip for bias checks (no dilution system). The gas manifold is constructed of Teflon tubing and stainless steel solenoids and fittings.

Table 4.2 Gaseous Emission Analyzers

Pollutant	USEPA Method	Make, Model #	Analytical Principle	Test Range	Protocol Gas Concentrations (approximate)
O_2	3A	Siemens 5E	Paramagnetic	0-25%	N_2, 12%, 21%
CO_2	3A	Siemens 22	NDIR	0-25%	N2, 12%, 24%
NO_X	7E	TECO 42CH	Chemiluminescense	0-100 ppm	N2, 45 ppm, 85 ppm
CO	10	TECO 48	NDIR	0-1000 ppm	N2, 250 ppm, 900 ppm
SO_2	6C	Ametek 921	spectophotometric	0-100 ppm	N2, 45 ppm, 85 ppm

4.2.2 Isokinetic Sampling Trains

PM, Metals and chrome^{+6} are all isokinetic tests. Eight-hour runs were performed and 24 total points sampled (6 points from each of four ports). An approximate sample rate of 0.725 cubic feet per minute was established yielding approximately 350 total cubic feet sampled per run. Data readings were taken twice at each sampling point due to stack velocity head variability. Prior to the start of run 1 cyclonic flow was found to be minimal. Preliminary measurements were made prior to conducting the isokinetic tests based on EPA Methods 1, 2, and 3 as described previously. Percent water was determined by a psychometric chart or from combustion analysis of the stack gases. These preliminary results were used to determine an appropriate nozzle size for isokinetic sampling.

Sampling trains for particulate, multiple metals and chrome^{+6} conform to the guidelines specified in EPA Methods 5/202, 29, and OSW 846 Method 0061 respectively. These sampling trains were all based on EPA Method 5. A diagram of EPA Method 5 is presented in Figure 4.1.

The structure of the EPA Method 29 train differs from EPA Method 5 train in that it used a different series of impingers as indicated in section 4.3.12 below.

The sampling train for chrome^{+6} had no filter component and utilized a teflon probe liner and impingers. The nozzle and an extra impinger were pyrex glass. The chrome^{+6} train utilized a recirculation line from the first impinger to the probe which was attached just behind the nozzle. The sample probe was not heated. A diagram of the chrome^{+6} train can be found in the OSW Method 0061.

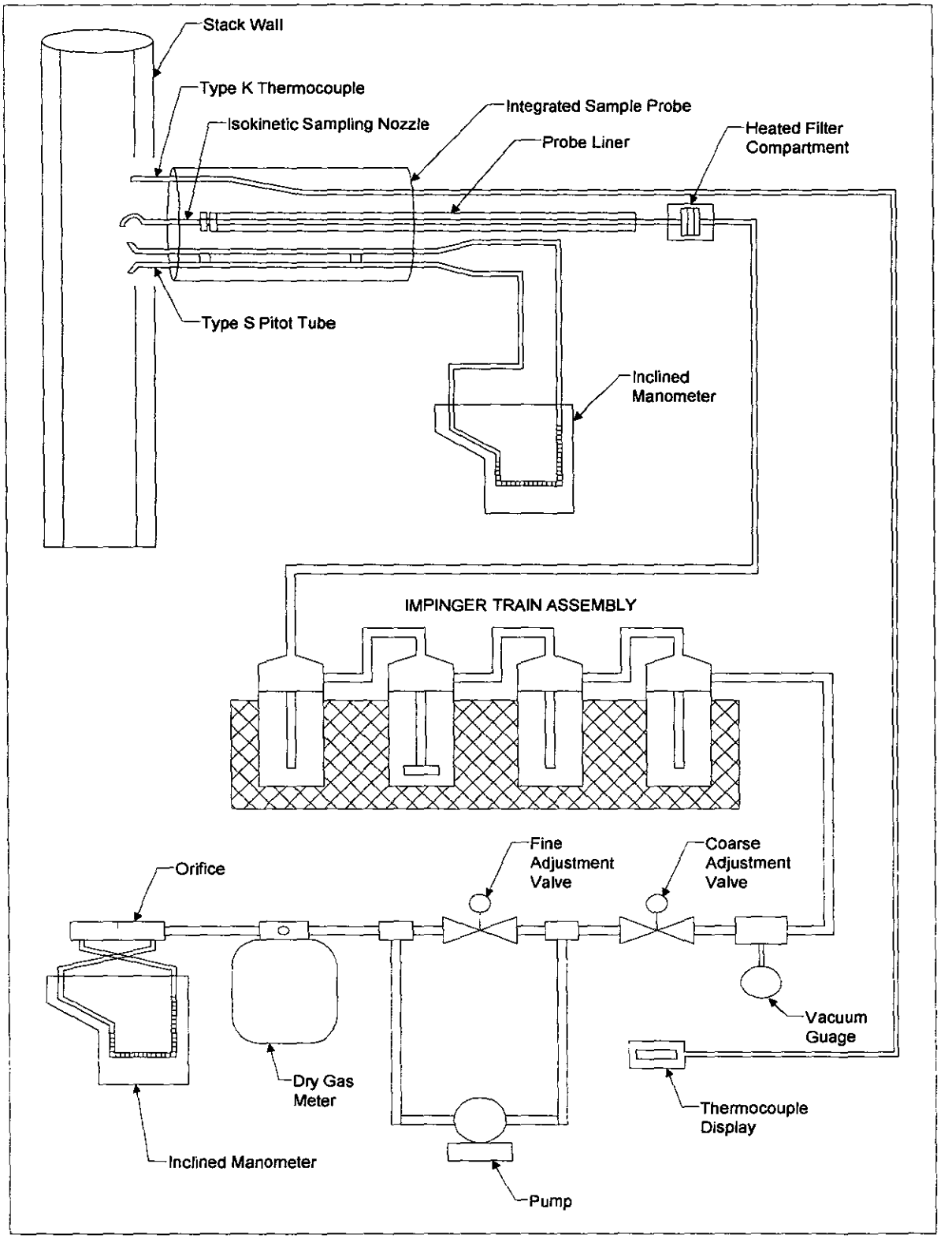


Figure 4.1 EPA Method 5 Sampling Train

4.3 METHOD DESCRIPTIONS

The following is a brief summary of each of the applicable test methodologies employed during the testing program. Complete method descriptions are presented in the appendices to 40 CFR Part 60 and OSW 846.

4.3.1 EPA Method 1: Sampling and Velocity Traverses for Stationary Sources

Prior to the source test, a site assessment was performed in order to locate sample points for obtaining the best representative measurements of pollution concentrations and volumetric flow rates. EPA Method 1 takes into account duct area, straight run and cyclonic or stratified flow patterns. Calculations were based on a 252" stack diameter.

4.3.2 EPA Method 2: Determination of Velocity and Volumetric Flow Rates

EPA Method 2 was used to determine stack gas velocity and volumetric flow rates. A calibrated type-S pitot tube was connected to an inclined manometer and leak checked. Stack gas temperature and manometer displacement (delta P) was then recorded at each traverse point and a duct static pressure was also measured and recorded. Stack gas velocity and volumetric flow rate were then calculated in accordance with EPA Method 2.

4.3.3 EPA Method 3A: Determination of CO_2, O_2, and Dry Molecular Weight by Instrumental Analyzer

A gas sample was continuously extracted from the stack through a stainless steel sample probe into a condenser to cool and dry the sample, through Teflon sample line, and continuous O_2 and CO_2 analyzers. Continuous O_2 and CO_2 measurements in percent are recorded on a strip chart recorder and/or a data acquisition system. The O_2 and CO_2 analyzers are calibrated prior to sampling using zero, mid-range, and high range EPA protocol gases. Following each test run, a sampling system bias check was performed by introducing zero and upscale (either mid-range or high range) EPA Protocol gas into the sampling system at the back end of the sample probe. Prior to and following each run, a zero and calibration check was performed by introducing zero and upscale (either mid or high range) EPA Protocol gas into the analyzer. Dry molecular weight of the stack gas was calculated using the measured O_2 and CO_2 concentrations.

4.3.4 EPA Method 4: Determination of Stack Gas Moisture Content

Stack gas moisture content was determined concurrently with each sample run. Impinger weights were determined prior to and following sampling. Stack gas moisture content was determined from the mass of the water collected and the sample gas volume.

4.3.5 EPA Method 5/202: Determination of Total Particulate Emissions

Stack gas samples were drawn isokinetically through a heated glass probe to a heated, tared glass fiber filter where filterable particulate matter was removed. The sample was then drawn through four chilled impingers for moisture collection. The total filterable particulate mass was determined gravimetrically after removal of uncombined water.

Condensable particulate matter (CPM) was collected in the impinger portion of the sampling train. The impinger contents were not purged after the run with nitrogen or air to remove sulfur dioxide gases (a pH test (> 4.5) confirmed the absence of SO_2). The impinger solution was then extracted with methylene chloride (triplicate 75 ml extractions in a seperatory funnel). The organic and aqueous fractions were then taken to dryness and the residues weighed. The total of both fractions represents the total CPM.

4.3.6 EPA Method 6C: Determination of Sulfur Dioxide Emissions

A gas sample was continuously extracted from the stack through a stainless steel sample probe, heated sample line, into a condenser to cool and dry the sample, through Teflon sample line, and into an UV photometric absorption SO_2 analyzer. Continuous SO_2 measurements were recorded on a strip chart recorder and/or data acquisition system. The SO_2 analyzer was calibrated prior to sampling using zero, mid-range, and high range EPA protocol gases. Following the test runs, a sampling system bias check was performed by introducing zero and upscale (either mid-range or high range) EPA Protocol gas into the sampling system at the back end of the sample probe. Prior to and following each run, a zero and calibration check was performed by introducing zero and upscale (either mid or high range) EPA Protocol gas into the analyzer.

4.3.7 EPA Method 7E: Determination of Nitrogen Oxides Emissions

A gas sample was continuously extracted from the stack through a stainless steel sample probe, into a condenser to cool and dry the sample, through a Teflon sample line, and into a chemiluminescent NO_x analyzer. Continuous NO_x measurements were recorded on a strip chart recorder and data acquisition system. The NO_x analyzer was calibrated prior to sampling using zero, mid-range, and high range EPA protocol gases. Following the test runs, a sampling system bias check was performed by introducing zero and upscale (either mid-range or high range) EPA Protocol gas into the sampling system at the back end of the sample probe. Prior to and following each run, a zero and calibration check was performed by introducing zero and upscale (either mid or high range) EPA Protocol gas into the analyzer.

4.3.8 EPA Method 9: Visual Determination Of Opacity

Visual emissions estimations were made to determine percent opacity by a certified observer following the procedures outlined in 40 CFR Part 60. Field information was recorded and includes: ambient conditions, stack location, facility information, plume description, and location of the observer relative to the plume. Observations were recorded to the nearest five percent opacity at 15 second intervals. Opacity results are included with the EPA Method 5 data.

4.3.9 EPA Method 10: Determination of Carbon Monoxide Emissions

A gas sample was continuously extracted from the stack through a stainless steel sample probe, into a condenser to cool and dry the sample, through Teflon sample line, and into a gas filter correlation CO analyzer. Continuous CO measurements were recorded on a strip chart recorder and/or data acquisition system. The CO analyzer was calibrated prior to sampling using zero, mid-range, and high range EPA protocol gases. Following the test runs, a sampling system bias check was performed by introducing zero and upscale (either mid-range or high range) EPA Protocol gas into the sampling system at the back end of the sample probe. Prior to and following each run, a zero and calibration

check was performed by introducing zero and upscale (either mid or high range) EPA Protocol gas into the analyzer.

4.3.10 EPA Method 18: Determination of Volatile Organic Compounds by GC/MS

This method employed the adsorbent tube sampling procedure. In this procedure a gas sample was continuously extracted from the stack through a stainless steel sample probe and through a Teflon® sample line into two SKC Tenax adsorbent tubes. The two tubes, in series, were maintained vertically during the test in order to prevent channeling. Flexible tubing was used to attatch the exhaust end of the rear tube to a Gilian Air Sampling pump. They were covered and maintained at a temperature less than 170 degrees F. A duplicate sample train was operated with a spiked adsorption tube in the first position in all three runs. At the beginning, end and periodically throughout each test run, the operator checked the sampling flow rate, and initial and final sampling time. The sample pumps were calibrated prior to and after each run with a Gilian Gilibrator Air Flow Calibration System. The Gilian Gilibrator is a primary standard bubble flow meter. Leak checks were performed by sealing the end of the sample probe until the flow rotameter registered zero flow. All leak checks indicated no leakage.

Tubes were spiked with 11 micrograms of Benzene, 10 micrograms of Toluene, 10 micrograms of Ethylbenzene and 28 micrograms of 3 Xylene compounds. Recovery of all spiked compounds was greater than 90%. Analysis of the VOC and Benzene samples were performed on a GC/MS by EPA Method TO15.

4.3.11 OSW Method 0061: Determination of Hexavalent Chromium (Cr^{+6})

Method 0061 was employed for the determination of Cr^{+6}. Stack gases were sampled isokinetically through a teflon probe and teflon impinger set. The first impinger contained 150 ml of 0.1 M KOH and employed a recirculating line from the front end of the probe between the nozzle and the probe. The second and third impingers contained 75 ml each of 0.1M KOH. A fourth teflon impinger was empty and was followed by a glass impinger with 400 grams of silica gel. All sample contact areas were either teflon (probe, impingers, recirculating line, union for recirculation, and peristaltic pump) or glass (nozzle).

Following sampling, any reagent remaining in the recirculatory line was drained back into the first impinger. The pH was checked and foune to be greater than 8.5. A nitrogen purge was conducted at 10 l/min for 30 minutes prior to recovery.

4.3.12 EPA Method 29: Determination of Multiple Metals

EPA Method 29 was employed to determine the mass rate of the following metals: arsenic (As), beryllium (Be), cadmium (Cd), lead (Pb), manganese (Mn), mercury (Hg), and nickel, (Ni). An all glass Method 5 style sampling train was employed. The train employed a Pallflex 2500QAT-UP quartz filter. Impingers one and two contained 100 ml of 5% HNO_3/10%H_2O_2, impinger three was empty, impingers four and five contained 100 ml of acidified potassium permanganate, and the sixth impinger contained 400 grams of silica gel.

The baghouse exhaust gas contained less than 2% moisture thus eliminating the need for the optional knockout impinger in the M29 train. Therefore, the first, third, fourth, fifth and sixth impingers were modified Greenburg-Smith and the second was Greenburg-Smith.

4.4 METHOD DEVIATIONS

With Prior approval, provisions in EPA Method 5 and 29 allow the tester to separate the filter box and the impinger box and use a teflon line (sample line) as a connector. In addition to the normal method recovery procedures this deviation requires that a line wash be added to insure complete recovery of pollutants. A line wash is where a measured volume of rinse (water and $MeCl_2$ for method 5 and 0.1 N HNO_3 for method 29) is introduced to the leading end of the sample line and, with the pump on, is drawn into the first impinger. This additional volume is subtracted for moisture calculations.

Prior to testing in 2005, Desert Air consulted Gregg O'Neal with the North Carolina DAQ and received permission to separate the filter box and the impinger box and use a teflon sample line as a connector. In order to insure complete recovery of pollutants Desert Air agreed to provide additional "Blanks" of the sample line. After each run, the sample lines used in the Method 5 and 29 trains were rinsed again by soaking the inside of each line with the appropriate liquid for no less than 5 minutes. These blanks were analyzed for organic and inorganic PM and trace metals, respectively. Analysis results can be found in the Appendicies to this report.

The final leak check of Method 0061 run 3 failed to meet the limit of 0.02 cfm. The actual leak rate was 0.06 cfm. The sample volume contributed by the leak (0.06cfm * 480min = 19.2cf) was subtracted from the total volume before calculations were made.

5. QUALITY ASSURANCE / QUALITY CONTROL

Quality assurance procedures were performed in accordance with those listed in the appropriate test method and *the Quality Assurance Handbook for Air Pollution Measurement Systems, Volume 3.* Complete equipment certification and calibration information is presented in the Appendicies to this report. The Metals and Chrome^{+6} samples were recovered on site and then hand delivered to First Analytical Labs in Chapel Hill, NC. The VOC sample tubes were packed in a cooler with blue ice and shipped by FED-X overnite to Atmospheric Analysis & Consulting, Inc. in Ventura, CA. Particulate samples were hand delivered to Desert Air Environmental Services, LLC in Chandler, AZ. The quality assurance procedures included, but were not limited to the following:

- Inspection of the type-S pitot tube prior to and following use to confirm proper design criteria specified in EPA Method 2.
- Calibration of the stack temperature sensor against an ASTM thermometer prior to sampling.

- Leak checks of the sampling system after each sample run including the sample train, manometers and pitot tube lines.
- Calibration of the meter box and dry gas meter on a quarterly basis at a minimum.
- Inspection of the calibrated nozzle prior to and after each sample run to ensure its integrity.
- Assurance that the probe and filter holder heaters operated properly.
- Inspection of all glassware to ensure cleanliness and lack of contaminants.
- Preparation and analysis of a full set of field blanks.
- Complete multipoint calibration of gaseous analyzers at least once per test program using EPA Protocol gases.
- Zero and upscale checks of the gaseous analyzers before and after each test run.

APPENDIX A
METHOD 5/202/9 DATA

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 4/11-13/05
Emissions Unit: Baghouse
Project: Compliance
EPA Method: 5/202

E.P.A. Method 5 Results

	Run 1	Run 2	Run 3
Test Date	6/20/2006	6/21/2006	6/22/2006
Start Time	1:15 AM	12:20 AM	12:15 AM
End Time	10:05 AM	9:24 AM	9:19 AM
Dry Gas Volume at standard conditions, Vm-Std	307.53	298.60	287.35
Stack Gas Volumetric Flow Rate, (dscfm)	1285668	1271647	1210938
Water Vapor by Volume (%)	0.0364	0.0370	0.0366
Net Volume of O_2 (%)	20.01	20.16	20.09
Net Volume of CO_2 (%)	0.96	0.88	1.04

FILTERABLE PARTICULATE LABORATORY RESULTS AND PROCESS DATA (Method 5)

	Run 1	Run 2	Run 3	**Averages**
Average Material Process Rate (ton/hr)	256.71	219.73	234.13	**236.86**
Mass of Probe & Nozzle Rinse Particulate (g)	0.00266	0.00158	0.00192	**0.00205**
Filter Net Mass Gain (g)	0.00128	0.00145	0.00176	**0.00150**
Total Net Mass Recovered (g)	0.00394	0.00303	0.00368	**0.00355**

FILTERABLE PARTICULATE CONCENTRATIONS AND EMISSION RATES (Method 5)

	Run 1	Run 2	Run 3	**Averages**
Total Filterable Particulate Concentration (gr/dscf)	0.00020	0.00016	0.00020	**0.00018**
Total Filterable Particulate Emission Rate (lb/hr)	2.181	1.709	2.053	**1.981**

CONDENSABLE PARTICULATE LABORATORY RESULTS (Method 202)

	Run 1	Run 2	Run 3	**Averages**
Mass of Inorganic Impinger Particulate (g)	0.02677	0.02895	0.02518	**0.02697**
Mass of Organic Impinger Particulate (g)	0.00160	0.00121	0.00215	**0.00165**
Total Net Mass Recovered (g)	0.02837	0.03016	0.02733	**0.02862**

CONDENSABLE PARTICULATE CONCENTRATIONS AND EMISSION RATES (Method 202)

	Run 1	Run 2	Run 3	**Averages**
Total Inorganic Particulate Concentration (gr/dscf)	0.00134	0.00150	0.00135	**0.00140**
Total Inorganic Particulate Emission Rate (lb/hr)	14.818	16.324	14.050	**15.064**
Total Organic Particulate Concentation (gr/dscf)	0.00008	0.00006	0.00012	**0.00009**
Total Organic Particulate Emission Rate (lb/hr)	0.886	0.682	1.200	**0.923**

TOTAL FILTERABLE PARTICULATE CONCENTRATIONS AND EMISSION RATES (Method 5/202)

	Run 1	Run 2	Run 3	**Averages**
Total Filterable and Condensable Particulate Net Mass (g)	0.03231	0.03319	0.03101	**0.03217**
Total Filterable and Condensable Particulate Concentration (gr/dscf)	0.00162	0.00171	0.00166	**0.00166**
Total Filterable and Condensable Particulate Emission Rate (lb/hr)	17.885	18.715	17.303	**17.968**
Total Filterable and Condensable Particulate Emission Rate (lb/process ton)	0.070	0.085	0.074	**0.076**

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 6/20-22/06
Emissions Unit: Baghouse
Project: Compliance
EPA Method: 5/202

RUN DATA

	Run 1	Run 2	Run 3	**Averages**
Test Date	6/20/2006	6/21/2006	6/22/2006	
Start Time	1:15 AM	12:20 AM	12:15 AM	
Stop Time	10:05 AM	9:24 AM	9:19 AM	
Area of Stack (ft^2)	346.36	346.36	346.36	
Nozzle Diameter (ft)	0.01467	0.01467	0.01500	
Area of Nozzle (ft^2)	0.000169	0.000169	0.000177	
Pitot Tube Calibration Coefficient	0.840	0.840	0.840	
Dry Gas Meter Calibration Factor	1.01090	1.01090	1.00320	
Barometric Pressure ("Hg)	30.01	29.99	29.98	
Sampling Time (min)	480.0	480.0	480.0	
Dry Gas Volume (dcf)	317.26	310.19	299.14	308.86
Dry Gas Meter Temperature (°F)	94.1	97.5	94.3	
Dry Gas Meter Temperature (°R)	554.1	557.5	554.3	
Orifice Pressure Diff (delta H) ("H_2O)	1.373	1.293	1.314	
Volume Corrected to Standard Conditions (dscf)	307.53	298.60	287.35	297.83
Isokinetic Variation (%)	102.22	100.35	96.95	

STACK GAS VELOCITY AND VOLUMETRIC FLOW RATE (Method 2)

	Run 1	Run 2	Run 3	**Averages**
Stack Temperature (°F)	172.6	175.6	175.6	174.6
Stack Temperature (°R)	632.6	635.6	635.6	634.6
Stack Static Pressure ("H_20)	-0.80	-0.85	-0.85	-0.83
Stack Gas Pressure ("Hg)	29.95	29.93	29.92	29.93
Avg Delta P	1.552	1.529	1.390	1.490
Avg of Sqrt of Delta P	1.2445	1.2353	1.1764	1.2187
Stack Gas Velocity (ft/s)	76.84	76.48	72.82	75.38
Stack Gas Volumetric Flow Rate (dscf/h)	77140094	76298799	72656256	75365050
Stack Gas Volumetric Flow Rate (dscfm)	1285668	1271647	1210938	1256084
Stack Gas Volumetric Flow Rate (acfm)	1596929	1589398	1513301	1566542
Stack Gas Volumetric Flow Rate (scfm)	1334302	1320566	1256961	1303943

STACK GAS MOLECULAR WEIGHT (Method 3)

	Run 1	Run 2	Run 3	**Averages**
Net Volume of CO2 (%)	0.96	0.88	1.04	0.96
Net Volume of O2 (%)	20.01	20.16	20.09	20.09
Net Volume of N2 and CO (%)	79.03	78.96	78.87	78.95
Molecular Weight, Dry (g/g-mole)	28.95	28.95	28.97	28.96
Molecular Weight, Wet (g/g-mole)	28.55	28.54	28.57	28.55

STACK GAS MOISTURE CONTENT (Method 4)

	Run 1	Run 2	Run 3	**Averages**
Total Mass of Water Collected (g)	246.70	243.60	231.60	240.63
Total Volume of Water Collected in Impingers and Silica (ml)	247.14	244.04	232.02	241.07
Volume of Water Corrected to Standard Conditions (scf)	11.633	11.487	10.921	11.347
Water Vapor, Bws	0.0364	0.0370	0.0366	0.0367
Moisture Factor, (1- Bws)	0.9636	0.9630	0.9634	0.9633

FIELD DATA SPREADSHEET

Client: Nucor Steel, Hertford **Test Date:** 6/20/2006 **Run:** 1
Start Time: 1:15 AM **Emissions Unit:** Baghouse **EPA Method:** 5/202
Stop Time: 10:05 AM **Project:** Compliance

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	OUT
INITIAL	0.00	544.90						
1	10.00	551.82	1.50	1.30	1.32	138	78	78
2	20.00	558.74	1.50	1.30	1.35	129	82	78
3	30.00	565.09	1.30	1.10	1.11	163	88	79
4	40.00	571.61	1.40	1.10	1.15	190	92	81
5	50.00	578.25	1.50	1.20	1.24	190	94	83
6	60.00	584.54	1.40	1.10	1.21	167	97	85
7	70.00	590.81	1.50	1.30	1.27	182	99	87
8	80.00	597.12	1.50	1.30	1.26	187	100	88
9	90.00	603.39	1.30	1.10	1.10	181	100	89
10	100.00	609.88	1.40	1.10	1.22	164	101	90
11	110.00	616.07	1.50	1.20	1.28	180	102	91
12	120.00	622.34	1.30	1.10	1.10	188	102	94
13	130.00	629.16	1.60	1.40	1.41	153	91	90
14	140.00	635.84	1.40	1.20	1.18	180	94	88
15	150.00	642.41	1.60	1.40	1.36	176	97	88
16	160.00	649.65	1.80	1.50	1.58	158	98	88
17	170.00	656.58	1.60	1.40	1.43	147	99	89
18	180.00	663.48	1.60	1.40	1.37	174	98	88
19	190.00	670.61	1.80	1.70	1.53	177	99	88
20	200.00	677.54	1.50	1.30	1.32	157	98	88
21	210.00	684.37	1.70	1.50	1.47	166	98	88
22	220.00	691.51	1.80	1.70	1.52	184	98	88
23	230.00	698.41	1.30	1.10	1.09	188	99	88
24	240.00	705.54	1.50	1.30	1.30	167	101	89
25	250.00	712.2	1.70	1.70	1.43	181	90	90
26	260.00	719.0	1.60	1.60	1.43	149	98	89
27	270.00	725.5	1.50	1.50	1.31	163	99	89
28	280.00	732.2	1.60	1.60	1.36	177	99	89
29	290.00	738.6	1.50	1.50	1.27	180	99	89
30	300.00	745.3	1.60	1.60	1.37	171	98	88
31	310.00	752.0	1.70	1.70	1.51	149	97	88
32	320.00	758.6	1.70	1.70	1.51	149	97	87
33	330.00	765.2	1.70	1.70	1.45	176	97	88
34	340.00	771.8	1.60	1.60	1.36	176	98	88
35	350.00	778.0	1.70	1.70	1.45	176	98	89
36	360.00	784.9	1.70	1.70	1.44	176	98	82
37	370.00	791.4	1.60	1.30	1.34	184	92	91
38	380.00	797.8	1.70	1.40	1.45	180	100	93
39	390.00	804.1	1.30	1.10	1.09	190	101	93
40	400.00	810.4	1.50	1.20	1.27	187	103	96
41	410.00	816.5	1.60	1.30	1.38	177	106	96
42	420.00	823.3	1.70	1.40	1.44	190	106	96
43	430.00	829.7	1.40	1.10	1.17	200	106	97
44	440.00	836.1	1.30	1.10	1.09	195	107	98
45	450.00	842.8	1.70	1.40	1.51	161	108	99
46	460.00	849.3	1.70	1.40	1.48	178	110	101
47	470.00	855.7	1.50	1.20	1.34	163	110	102
48	480.00	862.155	1.60	1.30	1.41	170	112	103
Max/Avg.	480.00	317.255	1.552	1.373	1.334	172.583	98.625	89.667

FIELD DATA SPREADSHEET

Client: Nucor Steel, Hertford **Test Date:** 6/21/2006 **Run:** 2
Start Time: 12:20 AM **Emissions Unit:** Baghouse **EPA Method:** 5/202
Stop Time: 9:24 AM **Project:** Compliance

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	862.530						
1	10.00	868.9	1.50	1.30	1.29	167	92	92
2	20.00	875.0	1.40	1.20	1.17	185	93	91
3	30.00	881.1	1.40	1.20	1.16	194	97	92
4	40.00	887.4	1.40	1.20	1.20	178	101	93
5	50.00	894.2	1.70	1.50	1.51	154	103	94
6	60.00	900.7	1.50	1.20	1.26	191	105	95
7	70.00	907.2	1.50	1.20	1.26	195	107	96
8	80.00	913.8	1.50	1.20	1.26	194	108	96
9	90.00	920.4	1.70	1.50	1.52	157	107	97
10	100.00	927.0	1.40	1.20	1.20	180	108	97
11	110.00	933.2	1.40	1.20	1.21	177	107	97
12	120.00	939.5	1.50	1.30	1.29	180	108	97
13	130.00	945.5	1.50	1.20	1.25	193	97	96
14	140.00	951.5	1.50	1.20	1.27	191	105	97
15	150.00	957.7	1.70	1.40	1.49	166	106	97
16	160.00	964.1	1.70	1.40	1.46	182	106	97
17	170.00	970.5	1.50	1.20	1.27	190	106	96
18	180.00	976.9	1.70	1.40	1.41	197	98	94
19	190.00	983.3	1.70	1.40	1.45	173	93	91
20	200.00	989.5	1.50	1.20	1.26	179	92	87
21	210.00	995.9	1.40	1.10	1.16	191	92	87
22	220.00	1002.0	1.40	1.10	1.15	194	96	86
23	230.00	1008.0	1.20	1.00	0.99	198	98	88
24	240.00	1014.1	1.70	1.40	1.47	169	99	89
25	250.00	1020.4	1.50	1.20	1.26	184	92	91
26	260.00	1026.8	1.40	1.20	1.22	166	100	92
27	270.00	1033.7	1.70	1.50	1.54	144	103	92
28	280.00	1040.6	1.70	1.50	1.57	132	105	93
29	290.00	1047.5	1.70	1.50	1.59	126	104	93
30	300.00	1054.4	1.60	1.40	1.50	125	104	93
31	310.00	1061.2	1.70	1.50	1.46	177	103	93
32	320.00	1067.9	1.50	1.20	1.29	178	104	93
33	330.00	1074.7	1.70	1.50	1.47	175	105	94
34	340.00	1081.6	1.60	1.40	1.44	145	103	93
35	350.00	1087.9	1.40	1.20	1.21	170	101	92
36	360.00	1094.2	1.50	1.20	1.26	190	100	91
37	370.00	1101.2	1.70	1.50	1.52	143	92	90
38	380.00	1107.6	1.50	1.27	1.25	191	98	90
39	390.00	1113.8	1.50	1.27	1.24	194	98	90
40	400.00	1120.1	1.40	1.17	1.15	199	99	90
41	410.00	1126.9	1.60	1.42	1.40	162	99	91
42	420.00	1133.8	1.60	1.42	1.40	165	102	94
43	430.00	1140.6	1.50	1.29	1.28	183	106	96
44	440.00	1147.5	1.50	1.27	1.27	192	108	99
45	450.00	1154.3	1.60	1.42	1.42	165	110	101
46	460.00	1161.1	1.70	1.51	1.52	161	112	102
47	470.00	1167.0	1.20	1.02	1.03	191	113	104
48	480.00	1172.720	1.20	1.00	0.98	198	112	67
Max/Avg.	480.00	310.190	1.529	1.293	1.317	175.646	102.021	93.042

FIELD DATA SPREADSHEET

Client: Nucor Steel, Hertford **Test Date:** 6/22/2006 **Run:** 3
Start Time: 12:15 AM **Emissions Unit:** Baghouse **EPA Method:** 5/202
Stop Time: 9:19 AM **Project:** Compliance

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	172.700						
1	10.00	178.85	1.50	1.30	1.56	151	82	82
2	20.00	184.93	1.30	1.10	1.30	172	83	82
3	30.00	191.39	1.60	1.40	1.58	184	89	82
4	40.00	197.89	1.50	1.30	1.50	180	94	84
5	50.00	204.38	1.50	1.30	1.53	171	98	86
6	60.00	210.83	1.70	1.60	1.83	142	100	88
7	70.00	216.91	1.40	1.20	1.44	173	101	89
8	80.00	222.97	1.40	1.20	1.42	178	100	90
9	90.00	229.03	1.30	1.10	1.29	195	100	90
10	100.00	235.09	1.40	1.20	1.42	180	100	90
11	110.00	241.59	1.40	1.30	1.48	154	101	91
12	120.00	247.82	1.50	1.20	1.52	180	101	90
13	130.00	253.91	1.40	1.30	1.47	155	92	90
14	140.00	260.25	1.40	1.30	1.48	154	98	90
15	150.00	266.03	1.20	1.00	1.21	180	99	89
16	160.00	271.83	1.30	1.10	1.28	198	98	89
17	170.00	277.84	1.40	1.20	1.38	198	99	89
18	180.00	283.53	1.40	1.30	1.47	156	99	89
19	190.00	289.98	1.40	1.60	1.47	159	100	90
20	200.00	296.79	1.70	1.50	1.78	160	100	90
21	210.00	303.09	1.50	1.30	1.52	180	101	90
22	220.00	309.19	1.40	1.20	1.44	170	100	90
23	230.00	315.09	0.96	0.96	0.97	183	99	89
24	240.00	320.85	1.10	1.00	1.11	180	99	89
25	250.00	326.94	1.40	1.60	1.38	192	90	88
26	260.00	333.45	1.40	1.60	1.39	193	96	89
27	270.00	340.32	1.50	1.70	1.58	155	99	89
28	280.00	347.42	1.60	1.70	1.73	140	100	90
29	290.00	354.10	1.50	1.30	1.53	177	101	90
30	300.00	360.36	1.50	1.30	1.52	181	102	90
31	310.00	366.49	1.10	1.20	1.10	191	101	90
32	320.00	372.67	1.40	1.60	1.43	175	101	90
33	330.00	378.88	1.40	1.60	1.46	161	99	90
34	340.00	384.90	1.30	1.50	1.31	180	98	89
35	350.00	390.64	1.10	1.30	1.10	190	98	89
36	360.00	396.21	1.00	1.20	0.99	195	99	89
37	370.00	403.09	1.40	1.60	1.42	176	94	90
38	380.00	409.30	1.50	1.20	1.49	193	99	90
39	390.00	415.16	1.40	1.20	1.38	196	98	90
40	400.00	421.24	1.40	1.20	1.43	173	98	89
41	410.00	427.54	1.50	1.30	1.54	172	100	90
42	420.00	434.00	1.50	1.30	1.49	196	102	91
43	430.00	440.23	1.40	1.20	1.39	200	104	93
44	440.00	446.31	1.40	1.60	1.47	162	105	95
45	450.00	453.13	1.70	1.50	1.81	155	107	96
46	460.00	459.52	1.50	1.30	1.57	166	107	97
47	470.00	465.88	1.20	1.00	1.22	189	107	98
48	480.00	471.840	0.94	1.10	0.95	189	108	98
Max/Avg.	480.00	299.140	1.390	1.314	1.420	175.625	98.875	89.750

Desert Air Environmental Services, LLC

Client:	NUCOR	Unit	Test Date	Time In	Time 1st	Time 2nd
Date:	6-26-06	BH	6/19-22/06	6-24-06	6-25-06	6-26-06

Unit / Run	Sample #	Initial Tare	Post 1	Post 2	Post 3	Average	Net
F 1	1	0.26322	0.26459	0.26441		0.26450	0.00128
P/N 1	2	1.97835	1.98098	1.98104		1.98101	0.00266
In Org. 1	3	1.99785	2.02453	2.02471		2.02462	0.02677
Org. 1	4	1.98016	1.98154	1.98198		1.98176	0.00160
F 2	5	0.26522	0.26683	0.26651		0.26667	0.00145
P/N 2	6	1.97787	1.97898	1.97991		1.97945	0.00158
In Org 2	7	1.97778	2.00731	2.00615		2.00673	0.02895
Org 2	8	1.98031	1.98154	1.98150		1.98152	0.00121
F 3	9	0.27116	0.27297	0.27286		0.27292	0.00176
P/N 3	10	1.98648	1.98835	1.98845		1.98840	0.00192
Inorg 3	11	1.99183	2.01702	2.01700		2.01701	0.02518
Org. 3	12	1.98350	1.98562	1.98568		1.98565	0.00215
F B	13	0.27160	0.27172	0.27188		0.27180	0.00020
P/N B	14	1.96956	1.97058	1.97039		1.97049	0.00093
Inorg B	15	1.98666	1.98989	1.98992		1.98991	0.00825
Org. B	16	1.96298	1.96390	1.96395		1.96393	0.00095
* Line B 1	17	1.97879	1.97897	1.97882		1.97890	0.00016
* Line B 2	18	1.97819	1.97880	1.97871		1.97876	0.00057
* Line B 3	19	1.97542	1.97595	1.97591		1.97593	0.00051
* LINE BLANKS INCLUDED H2O AND MeCl2 INTO SAME CONTAINER							

DESERT AIR ENVIRONMENTAL SERVICES, LLC

Recovery Data

Client: Nucor Steel
Emissions Unit: Baghouse
EPA Method: 5/202

Test Date: 6/20/2006
Project: Compliance

Impinger Contents	Run 1			Run 2			Run 3		
	Final	Initial	Net	Final	Initial	Net	Final	Initial	Net
H2O	924.1	634.2	289.9	878.7	592.5	286.2	902.8	632.4	270.4
H2O	635.8	612.2	23.60	642.3	626.4	15.9	628.2	610.3	17.9
KO	466.2	465.0	1.20	468.5	465.0	3.5	466.0	462.3	3.7
Silica	911.0	866.1	44.9	883.8	842.3	41.5	863.4	809.5	53.9
LINE WASH	MeCl2		-52.4			-55.8			-54.4
LINE WASH	H2O		-60.5			-47.7			-59.9
Filter #									
Tare Wt.									
Total Volume of H_2O, grams			246.70			243.6			231.6

Comments

% O_2	% O_2	% O_2
% CO_2	% CO_2	% CO_2

Impinger Contents	Run 4			Run 5			Run 6		
	Final	Initial	Net	Final	Initial	Net	Final	Initial	Net
Filter #									
Tare Wt.									
Total Volume of H_2O, grams									

Comments

% O_2	% O_2	% O_2
% CO_2	% CO_2	% CO_2

(5)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL				Meter Box: 1001						Stack Diameter (in): 21'			
Facility: Hertford NC				Meter Delta H @: 1.8277						Stack Static Pressure: .80			
Unit: Baghouse				Meter Calibration Factor (Y): 1.0109						Assumed Moisture: 3.5%			
Date: June 20th 2006				Probe #: 10' B						Start time: 0115 End Time: 0315			
Technicians: K.E.N Team Leader: M.TR				Probe Liner Material: Glass						Nozzle Diameter (in): .176			
Method / Run # M-5 1				Pitot Tube Cp: 0.84						Initial Leak Rate: 0.002@10" Hg			
Sheet 1 of 4				Ambient Temp.: 79		Pbarr: 30.01				Final Leak rate:			
Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)		
						544.900							
6	10	5	1.5	1.3	138	551.82	78	78	250	255			
	20	5	1.5	1.3	129	558.74	82	78	250	255			
5	30	5	1.3	1.1	163	565.09	88	79	251	252			
	40	5	1.4	1.1	190	571.61	92	81	250	252			
4	50	5	1.5	1.2	190	578.25	94	83	252	251			
	60	5	1.4	1.1	167	584.54	97	85	250	253			
3	70	5	1.5	1.3	182	590.61	99	87	252	253			
	80	5	1.5	1.3	187	597.12	100	88	251	252			
2	90	5	1.3	1.1	181	603.39	100	89	250	252			
	100	5	1.4	1.1	164	609.88	101	90	252	250			
	~~110~~												
1	110	5	1.5	1.2	180	616.07	102	91	252	253			
	120	5	1.3	1.1	188	622.383	102	94	250	255			
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)						

(5)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 1001	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8277	Stack Static Pressure: .80
Unit: Baghouse	Meter Calibration Factor (Y): 1.0109	Assumed Moisture: 3%
Date: June 20th 2006	Probe #: 10'B	Start time: 0327 End Time: 0527
Technicians: K.E.N Team Leader: M.T.R	Probe Liner Material: Glass	Nozzle Diameter (in): .176
Method / Run # M-5 1	Pitot Tube Cp: 0.84	Initial Leak Rate: Cont.
Sheet 2 of 4	Ambient Temp.: 89 Pbarr: 30.01	**Final Leak rate:** —

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						622.383					
6	10	5	1.6	1.4	153	629.16	91	90	250	250	60
6	20	5	1.4	1.2	180	635.84	94	88	252	253	50
5	30	5	1.6	1.4	176	642.41	97	88	251	255	51
5	40	5	1.8	1.5	158	649.65	98	88	252	254	50
4	50	5	1.6	1.4	147	656.58	99	89	252	255	48
4	60	5	1.6	1.4	174	663.48	98	88	250	253	51
3	70	5	1.8	1.7	177	670.61	99	88	252	255	52
3	80	5	1.5	1.3	157	677.54	98	88	250	253	55
2	90	5	1.7	1.5	166	684.37	98	88	252	255	58
2	100	5	1.8	1.7	184	691.51	98	88	250	252	59
1	110	5	1.3	1.1	188	698.41	99	88	250	252	59
1	120	5	1.5	1.3	167	705.538	101	89	252	255	57
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(5)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR	Meter Box: 1001	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8277	Stack Static Pressure: .80
Unit: Baghouse	Meter Calibration Factor (Y): 1.0109	Assumed Moisture: 3%
Date: June 20th 2006	Probe #: 10' B	Start time: 0545 End Time: 0745
Technicians: K.E.N & CBH Team Leader: M.T.R	Probe Liner Material: Glass	Nozzle Diameter (in): .176
Method / Run # M-5 1	Pitot Tube Cp: 0.84	Initial Leak Rate: cont.
Sheet 3 of 4	Ambient Temp.: 96 Pbarr: 30.01	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						705.538					
6	10	6	1.7	1.4	181	712.21	90	90	252	252	60
6	20	6	1.6	1.4	179	718.99	98	89	250	255	53
5	30	6	1.5	1.3	163	725.53	99	89	252	253	50
5	40	6	1.6	1.4	177	732.22	99	89	250	255	52
4	50	6	1.5	1.3	180	738.64	99	89	252	253	54
4	60	6	1.6	1.4	171	745.28	98	88	250	255	58
3	70	6	1.7	1.4	179	751.96	97	88	252	252	56
3	80	6	1.7	1.4	179	758.61	97	87	250	255	50
2	90	6	1.7	1.4	176	765.20	97	88	250	255	50
2	100	6	1.6	1.4	176	771.77	98	88	252	253	52
1	110	6	1.7	1.4	176	777.97	98	89	250	253	50
1	120	6	1.7	1.4	176	784.926	98	82	250	252	54
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(b)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 1001	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8277	Stack Static Pressure: .80
Unit: Baghouse	Meter Calibration Factor (Y): 1.0109	Assumed Moisture: 3%
Date: June 26th 2006	Probe #: 10'B	Start time: 08:05 End Time: 10:05
Technicians: K.E.N & CBH Team Leader: M.T.R	Probe Liner Material: ~~S~~ Glass	Nozzle Diameter (in): .176
Method / Run # M-5 - 1	Pitot Tube Cp: 0.84	Initial Leak Rate: Cont.
Sheet 4 of 4	Ambient Temp.: 83 Pbarr: 30.01	**Final Leak rate:** 0.008@12" Hg

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						784.926					
6	10	6	1.6	1.3	184	791.44	92	91	250	252	61
	20	6	1.7	1.4	180	797.79	100	93	251	252	56
5	30	5	1.3	1.1	190	804.06	101	93	252	254	54
	40	5	1.5	1.2	187	810.42	103	96	252	255	50
4	50	5	1.6	1.3	177	816.53	106	96	250	253	48
	60	6	1.7	1.4	190	823.31	106	96	250	253	49
3	70	5	1.4	1.1	200	829.72	106	97	252	255	49
	80	5	1.3	1.1	195	836.09	107	98	252	255	50
2	90	6	1.7	1.4	161	842.76	108	99	252	255	51
	100	6	1.7	1.4	178	849.34	110	101	252	254	53
1	110	6	1.5	1.2	168	855.67	110	102	251	253	55
	120	5	1.6	1.3	170	862.155	112	103	252	254	58
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(6)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 1001	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8277	Stack Static Pressure: .85
Unit: Baghouse	Meter Calibration Factor (Y): 1.0109	Assumed Moisture: 3'.
Date: June 21st 2006	Probe #: 10' B	Start time: 0020 End Time: 0220
Technicians: K.E.N & CBH Team Leader: M.T.R	Probe Liner Material: Glass	Nozzle Diameter (in): .176
Method / Run # M-5 #2	Pitot Tube Cp: 0.84	Initial Leak Rate: 0.002 @ 15" Hg
Sheet 1 of 4	Ambient Temp.: 90 Pbarr: 29.99	Final Leak rate: cont.

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						862.530					
6	10	3	1.5	1.3	167	868.86	92	92	255	255	65
6	20	3	1.4	1.2	185	875.01	93	91	255	255	55
5	30	3	1.4	1.2	194	881.11	97	92	254	253	53
5	40	3	1.4	1.2	178	887.38	101	93	254	254	50
4	50	4	1.7	1.5	154	894.24	103	94	255	255	50
4	60	4	1.5	1.2	191	900.72	105	95	254	253	52
3	70	4	1.5	1.2	195	907.18	107	96	254	254	~~54~~ 52
3	80	4	1.5	1.2	194	913.78	108	96	255	255	55
2	90	4	1.7	1.5	157	920.41	107	97	254	254	57
2	100	4	1.4	1.2	180	926.95	108	97	253	254	55
1	110	4	1.4	1.2	177	933.24	107	97	255	255	51
1	120	4	1.5	1.3	180	939.512	108	97	255	255	47
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(5)

DESERT AIR ENVIRONMENTAL SERVICES,LLC

Field Data

Client: NUCOR STEEL	Meter Box: 1001	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8277	Stack Static Pressure: -.85
Unit: Baghouse	Meter Calibration Factor (Y): 1.0109	Assumed Moisture: 3%
Date: June 21st 2006	Probe #: 10' B	Start time: 0244 End Time: 0444
Technicians: K.E.N & C.B.H Team Leader: M.T.R	Probe Liner Material: Glass	Nozzle Diameter (in): .176
Method / Run # M-5 #2	Pitot Tube Cp: 0.84	Initial Leak Rate: Cont
Sheet 2 of 4	Ambient Temp.: 88 Pbarr: 29.99	**Final Leak rate:** -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						939.512					
6	10	4	1.5	1.2	193	945.52	97	96	255	255	60
6	20	4	1.5	1.2	191	951.52	105	97	255	255	58
5	30	4	1.7	1.4	166	957.73	106	97	255	255	56
5	40	4	1.7	1.4	182	964.12	106	97	255	255	51
4	50	4	1.5	1.2	190	970.51	106	96	254	254	52
4	60	4	1.7	1.4	197	976.86	98	94	255	253	50
3	70	4	1.7	1.4	173	983.29	93	91	252	252	50
3	80	4	1.5	1.2	179	989.52	92	87	252	252	51
2	90	4	1.4	1.1	191	995.88	92	87	252	252	53
2	100	4	1.4	1.1	194	1002.04	96	86	252	251	52
1	110	4	1.2	1.0	198	1008.00	98	88	250	250	52
1	120	4	1.7	1.4	169	1014.100	99	89	250	252	55
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(5)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 1001	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8277	Stack Static Pressure: -.85
Unit: Baghouse	Meter Calibration Factor (Y): 1.0109	Assumed Moisture: 3%
Date: June 21st 2006	Probe #: 10' B	Start time: 05:05 End Time: 07:05
Technicians: K.E.N & CBH Team Leader: M.T.R	Probe Liner Material: Glass	Nozzle Diameter (in): .176
Method / Run # M-5 #2	Pitot Tube Cp: 0.84	Initial Leak Rate: -
Sheet 3 of 4	Ambient Temp.: 90 Pbarr: 29.99	**Final Leak rate:** -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						1014.100					
6	10	4	1.5	1.2	184	1020.38	92	91	250	250	60
6	20	4	1.4	1.2	166	1026.83	100	92	252	252	42
5	30	4	1.7	1.5	144	1033.73	103	92	255	255	43
5	40	4	1.7	1.5	132	1040.61	105	93	255	255	45
4	50	4	1.7	1.5	126	1047.52	104	93	255	255	47
4	60	4	1.6	1.4	125	1054.35	104	93	255	254	47
3	70	4	1.7	1.5	177	1061.22	103	93	255	254	48
3	80	4	1.5	1.2	178	1067.94	104	93	255	255	48
2	90	4	1.7	1.5	175	1074.73	105	93	255	255	49
2	100	4	1.6	1.4	145	1081.56	103	94	254	254	50
1	110	4	1.4	1.2	170	1087.94	101	93	254	254	51
1	120	4	1.5	1.2	190	1094.213	100	92	255	255	53
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(5)

DESERT AIR ENVIRONMENTAL SERVICES,LLC

Field Data

Client: NUCOR STEEL	Meter Box: 1001	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8277	Stack Static Pressure: -.85
Unit: Baghouse	Meter Calibration Factor (Y): 1.0109	Assumed Moisture: 3%
Date: June 21ST 2006	Probe #: 10' B	Start time: 07:24 End Time: 09:24
Technicians: K.E.N & CBH Team Leader: M.T.R	Probe Liner Material: Glass	Nozzle Diameter (in): .176
Method / Run # M-5 #2	Pitot Tube Cp: 0.84	Initial Leak Rate: - cont
Sheet 1 of 1	Ambient Temp.: Pbarr: 28.99	**Final Leak rate:** 0.000 @ 8" Hg

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						094.213					
6	10	4	1.7	~~1.5~~	143	~~107.55~~	92	91	250	250	60
6	20	4	1.5	1.2	191	107.55	98	90	250	250	50
5	30	4	1.5	1.2	194	113.81	98	90	250	250	50
5	40	4	1.4	1.1	199	120.06	99	90	250	250	51
4	50	4	1.6	1.4	162	126.92	99	90	250	250	51
4	60	4	1.6	1.4	165	133.79	102	91	250	250	50
3	70	4	1.5	1.2	183	140.63	106	94	250	250	52
3	80	4	1.5	1.2	192	147.49	108	96	250	250	53
2	90	4	1.6	1.4	165	154.28	110	99	250	250	54
2	100	4	1.7	1.5	161	161.11	112	101	250	250	48
	1										
1	110	4	1.2	1.0	191	167.03	113	102	250	250	52
1	120	4	1.2	1.0	198	172.720	112	104	250	250	53
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(5)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 1001	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8277	Stack Static Pressure: -.85
Unit: Baghouse	Meter Calibration Factor (Y): 1.0109	Assumed Moisture: 3%
Date: June 22nd 2006	Probe #: 10' B	Start time: 0015 End Time: 0215
Technicians: KEN ; CBH Team Leader: M.T.R	Probe Liner Material: Glass	Nozzle Diameter (in): .176
Method / Run # M-5 #3	Pitot Tube Cp: 0.84	Initial Leak Rate: 0.002 @ 10" Hg
Sheet 1 of 4	Ambient Temp.: 85 Pbarr: 29.98	**Final Leak rate:** -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						172.700					
6	10	4	1.5	1.3	151	178.85	82	82	250	250	60
6	20	4	1.3	1.1	172	184.93	83	82	250	250	53
5	30	4	1.6	1.3	184	191.39	89	82	250	250	51
5	40	4	1.5	1.2	180	197.89	94	84	250	250	52
4	50	4	1.5	1.3	171	204.37	98	86	250	250	53
4	60	4	1.7	1.5	142	210.83	100	88	250	250	54
3	70	4	1.4	1.2	173	216.91	101	89	250	250	56
3	80	4	1.4	1.2	178	222.47	100	90	250	250	58
2	90	4	1.3	1.1	195	229.03	100	90	250	250	55
2	100	4	1.4	1.2	180	235.09	100	90	250	250	54
1	110	4	1.4	1.3	154	241.59	101	91	250	250	56
1	120	4	1.5	1.2	180	247.820	101	90	250	250	57
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(5)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 1001			Stack Diameter (in): 21'	
Facility: Hertford NC	Meter Delta H @: 1.8277			Stack Static Pressure: -.85	
Unit: Baghouse	Meter Calibration Factor (Y): 1.0109			Assumed Moisture: 3%	
Date: June 22nd 2006	Probe #: 10' B			Start time: 02:39	End Time: 04:39
Technicians: KEN ; CBH Team Leader: M.T.R	Probe Liner Material: Glass			Nozzle Diameter (in): .176	
Method / Run # M-5 #3	Pitot Tube Cp: 0.84			Initial Leak Rate: - cont.	
Sheet 2 of 4	Ambient Temp.: 92	Pbarr: 29.98		Final Leak rate: cont -	

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						247.520					
6	10	4	1.4	1.3	155	253.91	92	90	250	250	60
6	20	4	1.4	1.3	154	260.25	98	90	250	250	47
5	30	4	1.2	1.0	180	266.02	99	89	250	250	51
5	40	4	1.3	1.1	198	271.82	98	89	250	250	53
4	50	4	1.4	1.2	198	277.64	99	89	250	250	56
4	60	4	1.4	1.3	156	283.53	99	89	250	250	57
3	70	4	1.6	1.4	159	289.97	100	90	250	250	60
3	80	5	1.7	1.5	167	296.79	100	90	250	250	63
2	90	5	1.5	1.3	180	303.08	101	90	250	250	63
2	100	4	1.4	1.2	170	309.19	100	90	250	250	62
1	110	4	1.1	.96	183	315.08	99	89	250	250	57
1	120	4	1.1	1.0	180	320.850	99	89	250	250	60
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(5)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 1001	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8277	Stack Static Pressure: -.85
Unit: Baghouse	Meter Calibration Factor (Y): 1.0109	Assumed Moisture: 3%
Date: June 22nd 2006	Probe #: 10' B	Start time: 0509 End Time: 0709
Technicians: KEN & CBH Team Leader: MCT.R	Probe Liner Material: Glass	Nozzle Diameter (in): .176
Method / Run # M-5 #3	Pitot Tube Cp: 0.84	Initial Leak Rate: -cont.
Sheet 3 of 4	Ambient Temp.: 90 Pbarr: 29.98	**Final Leak rate:** -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						320.850					
6	10	4	1.6	1.4	192	326.93	90	88	250	250	62
6	20	4	1.6	1.4	193	333.45	96	89	250	250	47
5	30	4	1.7	1.5	155	340.32	99	89	250	250	48
5	40	5	1.7	1.6	140	347.42	100	90	250	250	48
4	50	5	1.5	1.3	177	354.09	101	90	250	250	47
4	60	5	1.5	1.3	181	360.36	102	90	250	250	47
3	70	4	1.2	1.1	191	366.49	101	90	250	250	48
3	80	4	1.6	1.4	175	372.67	101	90	250	250	49
2	90	4	1.6	1.4	161	378.88	99	90	250	250	51
2	100	4	1.5	1.3	180	384.90	98	89	250	250	55
1	110	4	1.3	1.1	190	390.64	98	89	250	250	53
1	120	4	1.2	1.0	195	396.210	99	89	250	250	54
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(5)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 1001	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8277	Stack Static Pressure: -.85
Unit: Baghouse	Meter Calibration Factor (Y): 1.0109	Assumed Moisture: 3%
Date: June 22nd 2006	Probe #: 10' B	Start time: 0719 End Time: 09:19
Technicians: K.E.N & CBH Team Leader: M.T.R	Probe Liner Material: Glass	Nozzle Diameter (in): .176
Method / Run # M-5 - 3	Pitot Tube Cp: 0.84	Initial Leak Rate: - cont.
Sheet 4 of 4	Ambient Temp.: 94 Pbarr: 29.98	Final Leak rate: 0.005 @ 10" Hg

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						396.210					
6	10	5	1.6	1.4	176	403.09	99	90	250	250	62
6	20	5	1.5	1.2	193	409.03	99	90	250	250	50
5	30	4	1.4	1.2	196	415.16	98	90	250	250	52
5	40	4	1.4	1.2	178	421.24	98	89	250	250	52
4	50	4	1.5	1.3	172	427.53	100	90	250	250	53
4	60	5	1.5	1.3	196	433.99	102	91	250	250	54
3	70	5	1.4	1.2	200	440.23	104	93	250	250	57
3	80	5	1.4	1.6	162	446.31	105	95	250	250	59
2	90	5	1.7	1.5	155	453.13	107	96	250	250	57
2	100	5	1.5	1.3	166	459.52	107	97	250	250	58
1	110	5	1.2	1.0	189	465.88	107	98	250	250	60
1	120	5	1.1	.94	189	471.840	108	98	250	250	60
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

SAMPLE CALCULATIONS
APPENDIX #

UNIT _____

TEST RUN_____

P_{bar}	pg	T_s	pg	O_2	vd	pg
P_{static}	pg	C_p	pg	CO_2	vd	pg
Δp_{avg}	pg	A ft^2	pg	N_2	vd	pg
M_s	pg			H_2O	vd	pg

STACK GAS PRESSURE

Page

$$P_s = P_{bar} + \frac{P_{static}}{13.6} = ____ + \frac{____}{13.6} = ____$$

AVERAGE STACK VELOCITY

$$V_s = K_p\ C_p\ x\ \sqrt{\Delta P_{avg}}\ x\ \sqrt{\frac{T_s(avg)}{P_s M_s}}$$

Page

$$= 85.49\ x \qquad x\ \sqrt{}\ x\ \sqrt{\frac{(460 + \quad)}{(\quad x \quad)}}$$

$$= _____\ fps$$

SAMPLE CALCULATIONS
APPENDIX #

UNIT _____

TEST RUN_____

AVERAGE STACK Q_{std} DSCFM
Eq. 2-10

Page

$$= 60 \times (1 - Bws) \times V_s \times A \left(\frac{T_{std}}{T_s (^\circ R)} \right) \left(\frac{P_s}{P_{std}} \right)$$

$$= 60 \times (1 - ____) \times ____ \times ____ \times \left(\frac{\quad}{\quad} \right) \left(\frac{\quad}{\quad} \right)$$

$$= _____ DSCFM$$

WET MOLECULAR WEIGHT, M_s

Page

$$[\{(0.44 \times \% CO_2) + (0.32 \times \% O_2) + (0.28 \times \% N_2)\} \times (1 - Bws)] + 18 \times Bws$$

$$= [\{(0.44 \times ____) + (0.32 \times ____) + (0.28 \times ____)\} \times (1 - ____)]$$

$$+ 18 \times ____$$

$$= _____$$

SAMPLE CALCULATIONS
APPENDIX

UNIT _____

TEST RUN_____

gms H_2O	pg	Y	pg	T_m	pg
V_m	pg	ΔH "H_2O	pg		

VOLUME H_2O COLLECTED AS GAS @ STP, Vwc

Page

$$V_{wc} = gms\ H_2O \times 0.04646 = _____ \times 0.04646$$

$$= _____ SCF$$

SAMPLE GAS VOLUME

Page

$$V_{m(std)} = V_m Y \times \frac{Pbar + \frac{\Delta H}{13.6}}{P_{std}} \times \frac{T_{std}}{T_m} =$$

$$_____ \times _____ \times \frac{_____ + \frac{_____}{13.6}}{29.92} \times \frac{528}{460 + _____}$$

$$= _____ DSCF$$

MOISTURE CONTENT, % H_2O OR Bws AND MF

Page

$$= \frac{V_{wc}}{V_{m(std)} + V_{wc}} =$$

$$\frac{_____}{_____ + _____} = _____$$

and

$$MF = 1 - B_{ws} = 1 - _____ = _____$$

SAMPLE CALCULATIONS
APPENDIX #

UNIT _____

TEST RUN_____

mg P/N wash	pg	$V_{m(std)}$	pg
mg filter	pg	DSCFM	pg
mg H_2O(org)	pg		
mg H_2O(inorg)	pg		

PARTICULATE CONCENTRATION, gr/dscf

Page

$$(mg\ P/N + mg\ filter + mg\ condensable) \times 0.0154\ gr/mg \times \frac{1}{Vm_{std}}$$

$$(_____ + _____ + _____) \times 0.0154 \times \frac{1}{_____}$$

$$_____ = gr / DSCF$$

PARTICULATE EMISSIONS, lbs/hr

Page

$$\frac{gr}{DSCF} * 0.00858 * DSCFM$$

$$_____ * 0.00858 * _____$$

$$_____ = lbs/hr$$

SAMPLE CALCULATIONS
APPENDIX #

UNIT _____

TEST RUN_____

T_s		pg	P_{bar}	"Hg	pg	P_s	"Hg	pg
V_{lc}	mls	pg	ΔH	"H_2O	pg	θ	min	pg
V_m		pg	A_n	ft^2	pg	T_m	°R	pg
Y		pg	V_s		pg			

ISOKINETIC VARIATION, %I

Page

$$\frac{100 \, x \, T_s \left[(Vlc \, x \, 0.002669) + \frac{V_m Y}{Tm} \, x \left(Pb + \frac{\Delta H}{13.6} \right) \right]}{60 \; x \; A_n \; x \; V_s \; x \; P_s \; x \; \theta}$$

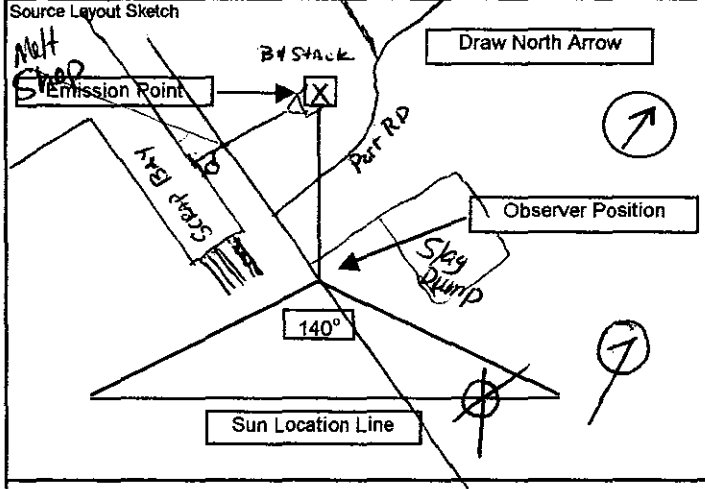
$$\frac{100 \; x \; ____ \left((____ \, x \, 0.002669) + \left(\frac{x}{____} \right) x \left(\frac{____}{13.6} + \frac{____}{} \right) \right)}{60 \; x \qquad x \qquad x \qquad x}$$

_____ % = *Isokinetic Variation*

Visible Emission Observation Form

Company: Nucor Steel Hertford	Observation Date: 6-22-06
Address: 1505 River RD.	Start Time: 0739
City: Cofield	State: NC Zip: 27922
Contact Name: Terry Hairston	Stop Time: 0840
Phone: 252 356 3707	Source ID Number
Process Equipment EAF	Operating Mode Running
Control Equipment Baghouse	Operating Mode Running
Describe Emission Point - Start: Baghouse Stack Exit	Describe Emission Point - End: Baghouse Stack Exit
Height Above Ground Level: Start 130' Stop 130'	Height Relative to Observer: Start 125' Stop 125'
Distance From Observer: Start 1200' Stop 1200'	Direction From Observer: Start NW Stop NW
Describe Emissions - Start: NONE	Describe Emissions - End: NONE
Emission Color: Start NONE Stop NONE	Plume Type: NONE; Continuous ◇; Fugitive ◇ Intermittent ◇
Water Droplets present: No ✓ Yes ◇	If Water Droplet plume: NA; Attached ◇ Detached ◇
Point in the Plume at Which Opacity was Determined: Start 1' From Stack Exit Stop 1' From Stack Exit	
Describe Background - Start: Sky Above Stack	Describe Background - End: Sky above Stack
Background Color: Start Light Blue gray Stop Very Lite gray Blue	Sky Conditions: Start Lite Fog Stop Very Lite Fog
Wind Speed: Start 3 Stop 0	Wind Direction (coming from): Start S Stop Calm
Ambient Temperature: Start 73 Stop 73	Wet Bulb Temp. RH % 93

Source Layout Sketch



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

Comments:

Average Opacity for Highest Period: 0 %

Number of Readings Above: 0 % were 0

Range of Opacity Readings: Minimum 0 Maximum 0

Observer's Name (Print): Jeffrey Lee

Observer's Signature: Jeffrey Lee Date: 6-22-06

Organization: Nucor Steel Hertford

Certified By: ETA Date: 5-3-06

Verified By: Date:

The Observer has Received a Copy of These Opacity Forms

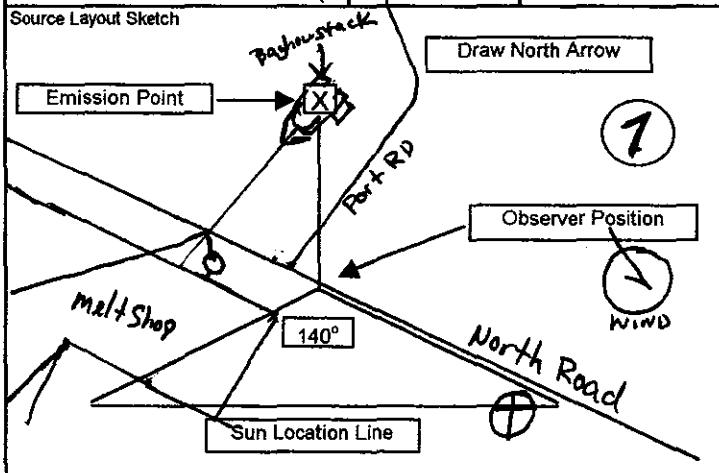
Initial: Title: Date:

Visible Emission Observation Form

Company: NUCOR STEEL Hertford County		Observation Date: 6-21-06	Start Time: 0712 / Stop Time: 0813
Address: 1505 River RD			
City: Cofield	State: NC Zip: 27922		
Contact Name: Terry Haurston			
Phone: 252 3563707	Source ID Number		
Process Equipment EAF	Operating Mode Running		
Control Equipment Baghouse	Operating Mode Running		
Describe Emission Point - Start: Baghouse Stack Exit	Describe Emission Point - End: Baghouse Stack Exit		
Height Above Ground Level: Start 130 Stop 130	Height Relative to Observer: Start 125' Stop 125'		
Distance From Observer: Start 1200' Stop 1200'	Direction From Observer: Start NW Stop NW		
Describe Emissions - Start: NONE	Describe Emissions - End: NONE		
Emission Color: Start NONE Stop NONE	Plume Type: Continuous ◇ NONE; Fugitive ◇ Intermittent ◇		
Water Droplets present: No ◆ Yes ◇	If Water Droplet plume: NONE; Attached ◇ Detached ◇		
Point in the Plume at Which Opacity was Determined: Start 1 FT Above stack Stop SAME			
Describe Background - Start: SKY	Describe Background - End: SKY		
Background Color: Start Lite gray Stop Blue	Sky Conditions: Start Mostly cloudy Stop Clear		
Wind Speed: Start 1 Stop 1	Wind Direction (coming from): Start NW Stop WSW		
Ambient Temperature: Start 72 Stop 74	Wet Bulb Temp.	RH % 88	

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

Source Layout Sketch



Comments:

Average Opacity for Highest Period: 0 %	Number of Readings Above: 0 % were 0
Range of Opacity Readings: Minimum 0	Maximum 0
Observer's Name (Print): Jeffrey Lee	
Observer's Signature: Jeffrey Lee	Date: 6-21-06
Organization: Nucor Steel Hertford	
Certified By: E.T.A.	Date: 5-3-06
Verified By:	Date:

The Observer has Received a Copy of These Opacity Forms

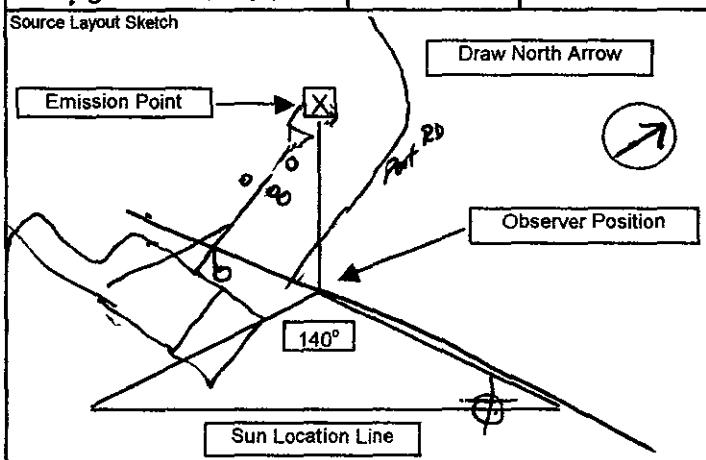
Initial: Title: Date:

Visible Emission Observation Form

Company: Nucor Steel - Hertford		Observation Date: 6-20-06	Start Time: 905 / Stop Time: 1005
Address: 1505 River Rd.			
City: Cofield	State: NC Zip: 27922		
Contact Name: Terry Hairston			
Phone: 252-356-3707	Source ID Number		
Process Equipment EAF	Operating Mode Online		
Control Equipment Baghouse	Operating Mode Online		
Describe Emission Point - Start: Baghouse Stack	Describe Emission Point - End: Baghouse Stack		
Height Above Ground Level: Start 130ft Stop 130ft	Height Relative to Observer: Start 130ft Stop 130ft		
Distance From Observer: Start 1200 ft Stop 1200ft	Direction From Observer: Start NW Stop NW		
Describe Emissions - Start: None	Describe Emissions - End		
Emission Color: Start None Stop	Plume Type: Continuous ◇ None; Fugitive ◇ Intermittent ◇		
Water Droplets present: No X Yes ◇	If Water Droplet plume: Attached ◇ Detached ◇		
Point in the Plume at Which Opacity was Determined: Start 1ft Above Stack Stop 1ft Above Stack			
Describe Background - Start: Sky	Describe Background - End: Sky		
Background Color: Start Blue Stop Blue	Sky Conditions: Start Clear Stop Clear		
Wind Speed: Start 4mph Stop 5mph	Wind Direction (coming from): Start WSW Stop WSW		
Ambient Temperature: Start 78° Stop 79°	Wet Bulb Temp.	RH % 76%	

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

Source Layout Sketch



Comments:

Average Opacity for Highest Period: 0 %

Number of Readings Above: 0 % were 0

Range of Opacity Readings: Minimum 0 % Maximum 0 %

Observer's Name (Print): Timothy S. Hodges

Observer's Signature: Timothy S Hodges Date: 6-20-06

Organization: Nucor Steel - Hertford

The Observer has Received a Copy of These Opacity Forms

Initial: Title: Date:

Certified By: ETA Date: 2-28-06

Verified By: Date:

APPENDIX B
METHOD 29 DATA

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 6/20-22/06
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA 29

E.P.A. Method 29 Results

	Run 1	Run 2	Run 3
Test Date	6/20/2006	6/21/2006	6/22/2006
Start Time	1:03 AM	12:23 AM	12:12 AM
End Time	10:05 AM	9:18 AM	9:18 AM
Dry Gas Volume at standard conditions, Vm-Std (dscf)	347.90	353.57	342.55
Dry Gas Volume at standard conditions, Vm-Std (dscm)	9.85	10.01	9.70
Stack Gas Volumetric Flow Rate, (dscfm)	1247838	1283429	1244896
Moisture (%)	3.86%	3.60%	4.20%
Net Volume of O_2 (%)	20.01	20.16	20.09
Net Volume of CO_2 (%)	0.96	0.88	1.04
Process Rate (tons/hr)	256.71	219.73	234.13

TRACE METALS LABORATORY RESULTS AND PROCESS DATA (Method 29)

	Sample Results			Total mass	Emissions: Run 1		
	Front		Back	(ug)	ug/dscf	ug/dscm	lb/hr
Arsenic *	6.30		0.80	7.10	2.04E-02	7.21E-01	3.37E-03
Beryllium	0.26	<	0.03	0.29	8.19E-04	2.89E-02	1.35E-04
Cadmium	1.96		0.07	2.03	5.82E-03	2.06E-01	9.60E-04
Lead	39.40		3.10	42.50	1.22E-01	4.31E+00	2.01E-02
Manganese	77.50		6.60	84.10	2.42E-01	8.54E+00	3.99E-02
Mercury	NA		74.10	74.10	2.13E-01	7.52E+00	3.51E-02
Nickel	2.10	<	1.20	3.30	9.49E-03	3.35E-01	1.56E-03

	Sample Results			Total mass	Emissions: Run 2		
	Front		Back	(ug)	ug/dscf	ug/dscm	lb/hr
Arsenic *	6.30	<	0.60	6.90	1.95E-02	6.89E-01	3.31E-03
Beryllium	0.27	<	0.03	0.30	8.43E-04	2.98E-02	1.43E-04
Cadmium	1.32		0.03	1.34	3.79E-03	1.34E-01	6.43E-04
Lead	34.00		0.80	34.80	9.84E-02	3.48E+00	1.67E-02
Manganese	57.20		2.30	59.50	1.68E-01	5.94E+00	2.85E-02
Mercury	NA		72.60	72.60	2.05E-01	7.25E+00	3.48E-02
Nickel	1.90	<	1.20	3.10	8.77E-03	3.10E-01	1.49E-03

	Sample Results			Total mass	Emissions: Run 3		
	Front		Back	(ug)	ug/dscf	ug/dscm	lb/hr
Arsenic *	6.30		0.90	7.20	2.10E-02	7.42E-01	3.46E-03
Beryllium	0.28	<	0.03	0.31	8.90E-04	3.14E-02	1.46E-04
Cadmium	1.23		0.04	1.27	3.72E-03	1.31E-01	6.11E-04
Lead	35.90		1.80	37.70	1.10E-01	3.89E+00	1.81E-02
Manganese	66.00		3.30	69.30	2.02E-01	7.14E+00	3.33E-02
Mercury	NA		41.00	41.00	1.20E-01	4.23E+00	1.97E-02
Nickel	1.90	<	1.20	3.10	9.05E-03	3.20E-01	1.49E-03

lb/hr= (ug/dscf * dscfm * 60) / 454000000

Average Arsenic runs 1-3 = 475.3 ug
Front 1/2 Field Blank = 469 ug
*Blank Corrected Front 1/2 = 6.3 ug

TEST DATA SUMMARY

Client: Nucor
Test Date: 6/20-22/06
Emissions Unit: Baghouse
Project: Compliance Metals
EPA Method: 29

RUN DATA

	Run 1	Run 2	Run 3	**Averages**
Test Date	6/20/2006	6/21/2006	6/22/2006	
Start Time	1:03 AM	12:23 AM	12:12 AM	
Stop Time	10:05 AM	9:18 AM	9:18 AM	
Area of Stack (ft^2)	346.36	346.36	346.36	
Nozzle Diameter (ft)	0.01583	0.01583	0.01583	
Area of Nozzle (ft^2)	0.000197	0.000197	0.000197	
Pitot Tube Calibration Coefficient	0.840	0.840	0.840	
Dry Gas Meter Calibration Factor	1.00530	1.00530	1.00530	
Barometric Pressure ("Hg)	30.01	29.99	29.98	
Sampling Time (min)	480.0	480.0	480.0	
Dry Gas Volume (dcf)	353.20	363.93	351.26	356.13
Dry Gas Meter Temperature (°F)	82.7	90.0	87.6	
Dry Gas Meter Temperature (°R)	542.7	550.0	547.6	
Orifice Pressure Diff (delta H) ("H_2O)	1.667	1.743	1.694	
Volume Corrected to Standard Conditions (dscf)	347.90	353.57	342.55	348.00
Isokinetic Variation (%)	102.24	101.02	100.90	

STACK GAS VELOCITY AND VOLUMETRIC FLOW RATE (Method 2)

	Run 1	Run 2	Run 3	**Averages**
Stack Temperature (°F)	172.3	175.8	174.9	174.3
Stack Temperature (°R)	632.3	635.8	634.9	634.3
Stack Static Pressure ("H_2O)	-0.80	-0.85	-0.85	-0.83
Stack Gas Pressure ("Hg)	29.95	29.93	29.92	29.93
Avg Delta P	1.467	1.556	1.475	1.499
Avg of Sqrt of Delta P	1.210	1.246	1.214	1.223
Stack Gas Velocity (ft/s)	74.71	77.13	75.20	75.68
Stack Gas Volumetric Flow Rate (dscf/h)	74870298	77005729	74693780	75523269
Stack Gas Volumetric Flow Rate (dscfm)	1247838	1283429	1244896	1258721
Stack Gas Volumetric Flow Rate (acfm)	1552618	1602887	1562796	1572767
Stack Gas Volumetric Flow Rate (scfm)	1297919	1331425	1299478	1309607

STACK GAS MOLECULAR WEIGHT (Method 3)

	Run 1	Run 2	Run 3	**Averages**
Net Volume of CO2 (%)	0.96	0.88	1.04	0.96
Net Volume of O2 (%)	20.01	20.16	20.09	20.09
Net Volume of N2 and CO (%)	79.03	78.96	78.87	78.95
Molecular Weight, Dry (g/g-mole)	28.95	28.95	28.97	28.96
Molecular Weight, Wet (g/g-mole)	28.53	28.55	28.51	28.53

STACK GAS MOISTURE CONTENT (Method 4)

	Run 1	Run 2	Run 3	**Averages**
Total Mass of Water Collected (g)	296.10	280.40	318.50	298.33
Total Volume of Water Collected in Impingers and Silica (ml)	296.63	280.91	319.07	298.87
Volume of Water Corrected to Standard Conditions (scf)	13.963	13.222	15.019	14.068
Water Vapor, Bws	0.0386	0.0360	0.0420	0.0389
Moisture Factor, (1- Bws)	0.9614	0.9640	0.9580	0.9611

FIELD DATA SPREADSHEET

Client: Nucor **Test Date:** 6/20/2006 **Run:** 1
Start Time: 1:03 AM **Emissions Unit:** Baghouse **EPA Method:** 29
Stop Time: 10:05 AM **Project:** Compliance Metals

POINT #	RUN TIME	DGM (ft³)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	510.610						
1	10.00	518.4	1.7	2.1	1.99	145	76	76
2	20.00	526.5	1.7	2.1	2.05	128	79	76
3	30.00	533.9	1.4	1.7	1.60	162	83	77
4	40.00	541.2	1.4	1.6	1.54	190	86	78
5	50.00	548.5	1.4	1.6	1.55	190	88	80
6	60.00	555.7	1.4	1.6	1.60	169	90	81
7	70.00	563.2	1.5	1.7	1.69	180	92	83
8	80.00	570.3	1.4	1.6	1.56	188	93	84
9	90.00	577.5	1.4	1.6	1.57	187	92	85
10	100.00	584.7	1.4	1.6	1.60	172	91	85
11	110.00	591.9	1.4	1.6	1.59	176	91	84
12	120.00	598.7	1.3	1.5	1.45	188	91	84
13	130.00	606.3	1.5	1.7	1.70	171	81	80
14	140.00	612.7	1.4	1.6	1.58	178	87	81
15	150.00	620.5	1.4	1.6	1.59	171	88	81
16	160.00	627.3	1.4	1.7	1.65	149	87	80
17	170.00	634.5	1.4	1.6	1.60	166	86	80
18	180.00	641.6	1.5	1.3	1.70	173	86	80
19	190.00	649.0	1.6	1.9	1.82	171	86	80
20	200.00	657.0	1.9	1.7	2.25	144	86	80
21	210.00	664.6	1.5	1.7	1.69	177	86	80
22	220.00	672.0	1.3	1.4	1.43	189	86	79
23	230.00	679.3	1.4	1.6	1.57	181	87	80
24	240.00	687.5	1.7	2.0	2.01	148	88	80
25	250.00	694.9	1.5	1.7	1.68	178	82	80
26	260.00	702.3	1.5	1.8	1.76	149	86	80
27	270.00	710.2	1.7	2.0	1.95	166	86	80
28	280.00	717.8	1.5	1.7	1.68	177	84	79
29	290.00	725.4	1.4	1.6	1.56	181	84	79
30	300.00	733.0	1.5	1.7	1.70	170	83	80
31	310.00	740.6	1.5	1.8	1.75	150	83	77
32	320.00	748.5	1.5	1.8	1.77	144	82	77
33	330.00	755.9	1.3	1.5	1.45	177	82	77
34	340.00	763.4	1.4	1.6	1.56	177	82	76
35	350.00	770.9	1.4	1.6	1.56	179	81	76
36	360.00	778.3	1.4	1.6	1.56	180	82	76
37	370.00	785.2	1.4	1.6	1.54	183	77	76
38	380.00	792.1	1.4	1.6	1.56	180	81	77
39	390.00	799.1	1.3	1.5	1.42	190	83	77
40	400.00	805.8	1.4	1.5	1.61	161	84	78
41	410.00	812.8	1.5	1.7	1.68	177	85	79
42	420.00	819.3	1.4	1.6	1.54	189	86	79
43	430.00	826.3	1.4	1.6	1.52	200	86	80
44	440.00	833.3	1.3	1.5	1.42	196	87	81
45	450.00	841.4	1.7	2.0	1.97	160	88	81
46	460.00	848.9	1.5	1.7	1.69	178	90	82
47	470.00	856.3	1.6	1.9	1.86	160	91	83
48	480.00	863.805	1.5	1.7	1.71	174	92	83
Max/Avg.	480.00	353.195	1.467	1.667	1.664	172.271	85.688	79.729

FIELD DATA SPREADSHEET

Client: Nucor **Test Date:** 6/21/2006 **Run:** 2
Start Time: 12:23 AM **Emissions Unit:** Baghouse **EPA Method:** 29
Stop Time: 9:18 AM **Project:** Compliance Metals

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	864.310						
1	10.00	871.2	1.40	1.59	1.59	178	86	87
2	20.00	878.2	1.40	1.57	1.56	192	88	87
3	30.00	885.2	1.30	1.45	1.45	194	91	87
4	40.00	892.5	1.40	1.62	1.62	170	93	87
5	50.00	899.7	1.50	1.74	1.72	175	94	88
6	60.00	907.1	1.50	1.68	1.68	193	94	88
7	70.00	914.4	1.50	1.67	1.67	196	95	88
8	80.00	921.9	1.50	1.70	1.70	184	95	88
9	90.00	929.4	1.60	1.85	1.85	170	94	87
10	100.00	937.4	1.60	1.82	1.82	183	94	87
11	110.00	945.2	1.60	1.84	1.84	175	95	87
12	120.00	953.1	1.50	1.60	1.70	185	95	87
13	130.00	960.1	1.40	1.57	1.56	192	88	87
14	140.00	967.2	1.40	1.57	1.57	191	92	87
15	150.00	974.8	1.50	1.76	1.77	161	95	88
16	160.00	982.3	1.50	1.70	1.70	184	94	88
17	170.00	989.7	1.50	1.68	1.67	193	92	86
18	180.00	997.1	1.50	1.66	1.66	197	91	85
19	190.00	1004.6	1.50	1.74	1.72	173	90	85
20	200.00	1012.3	1.60	1.82	1.81	180	90	84
21	210.00	1020.0	1.60	1.79	1.78	191	89	83
22	220.00	1027.4	1.50	1.68	1.67	189	88	82
23	230.00	1035.0	1.60	1.79	1.79	187	88	82
24	240.00	1043.0	1.70	1.98	1.96	167	89	82
25	250.00	1050.3	1.40	1.59	1.57	181	82	81
26	260.00	1058.3	1.70	2.04	2.00	151	86	81
27	270.00	1066.8	1.80	2.12	2.15	144	89	81
28	280.00	1076.1	2.20	2.60	2.68	133	89	82
29	290.00	1085.3	2.00	2.50	2.47	125	88	82
30	300.00	1093.9	1.80	2.20	2.22	124	87	82
31	310.00	1101.9	1.70	2.00	1.97	162	87	81
32	320.00	1109.7	1.60	1.82	1.81	178	90	82
33	330.00	1117.6	1.60	1.84	1.83	174	93	83
34	340.00	1125.8	1.70	2.07	1.94	173	89	83
35	350.00	1133.4	1.50	1.75	1.73	165	89	82
36	360.00	1140.8	1.50	1.68	1.67	188	88	81
37	370.00	1148.4	1.60	1.50	1.91	142	83	81
38	380.00	1155.6	1.40	1.50	1.54	195	86	82
39	390.00	1163.0	1.40	1.20	1.55	195	91	83
40	400.00	1169.7	1.50	1.60	1.79	152	96	87
41	410.00	1177.4	1.40	1.60	1.63	172	100	89
42	420.00	1185.0	1.40	1.20	1.59	190	103	92
43	430.00	1192.0	1.50	1.80	1.71	193	106	96
44	440.00	1199.5	1.60	1.40	1.93	157	107	98
45	450.00	1206.4	1.60	1.60	1.86	183	109	99
46	460.00	1213.4	1.50	1.60	1.72	193	110	101
47	470.00	1220.5	1.50	1.60	1.70	203	112	103
48	480.00	1228.238	1.70	2.00	2.05	166	113	105
Max/Avg.	480.00	363.928	1.556	1.743	1.789	175.813	93.188	86.750

FIELD DATA SPREADSHEET

Client: Nucor **Test Date:** 6/22/2006 **Run:** 3
Start Time: 12:12 AM **Emissions Unit:** Baghouse **EPA Method:** 29
Stop Time: 9:18 AM **Project:** Compliance Metals

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	229.000						
1	10.00	236.58	1.60	1.88	1.83	159	80	80
2	20.00	243.66	1.40	1.61	1.57	174	84	81
3	30.00	250.84	1.40	1.59	1.56	180	88	82
4	40.00	258.05	1.40	1.59	1.57	180	92	83
5	50.00	265.30	1.40	1.61	1.59	174	94	85
6	60.00	272.52	1.50	1.82	1.80	142	93	86
7	70.00	279.74	1.60	1.80	1.82	169	90	84
8	80.00	286.93	1.50	1.70	1.69	177	89	83
9	90.00	294.03	1.40	1.60	1.53	194	87	82
10	100.00	301.60	1.60	1.80	1.78	179	86	81
11	110.00	309.19	1.50	1.80	1.74	155	86	81
12	120.00	316.90	1.50	1.70	1.69	171	85	80
13	130.00	324.50	1.60	1.90	1.82	161	79	78
14	140.00	332.10	1.70	2.00	1.96	157	84	78
15	150.00	339.31	1.40	1.60	1.56	177	86	78
16	160.00	346.35	1.40	1.60	1.54	188	86	79
17	170.00	353.35	1.40	1.60	1.52	197	86	79
18	180.00	360.76	1.50	1.80	1.73	157	86	80
19	190.00	368.30	1.50	1.80	1.73	156	86	80
20	200.00	375.66	1.50	1.70	1.71	165	87	80
21	210.00	383.21	1.50	1.80	1.72	162	88	80
22	220.00	390.41	1.40	1.60	1.60	166	88	81
23	230.00	397.58	1.40	1.60	1.56	181	87	81
24	240.00	404.46	1.30	1.50	1.43	188	87	81
25	250.00	411.70	1.50	1.70	1.65	185	80	79
26	260.00	418.94	1.50	1.70	1.63	193	84	79
27	270.00	426.01	1.40	1.60	1.59	165	85	79
28	280.00	433.55	1.60	1.90	1.90	140	85	79
29	290.00	441.08	1.50	1.70	1.69	173	86	79
30	300.00	448.29	1.40	1.60	1.56	177	86	79
31	310.00	455.58	1.50	1.70	1.65	190	87	80
32	320.00	462.94	1.50	1.70	1.65	189	86	80
33	330.00	470.38	1.50	1.80	1.74	151	83	79
34	340.00	477.55	1.40	1.60	1.56	176	83	78
35	350.00	484.66	1.40	1.60	1.53	189	84	78
36	360.00	491.79	1.40	1.60	1.52	197	89	80
37	370.00	499.11	1.50	1.70	1.69	176	90	85
38	380.00	506.20	1.60	1.50	1.77	193	96	87
39	390.00	513.36	1.40	1.60	1.57	187	100	89
40	400.00	520.58	1.40	1.60	1.60	178	102	92
41	410.00	527.95	1.50	1.70	1.75	167	103	94
42	420.00	535.37	1.50	1.70	1.69	194	105	96
43	430.00	542.86	1.40	1.60	1.56	201	108	98
44	440.00	550.80	1.50	1.80	1.78	164	109	101
45	450.00	558.26	1.70	2.00	2.03	162	111	102
46	460.00	565.70	1.50	1.70	1.78	168	112	104
47	470.00	572.97	1.40	1.60	1.62	186	112	105
48	480.00	580.255	1.40	1.60	1.62	187	113	106
Max/Avg.	480.00	351.255	1.475	1.694	1.671	174.938	90.896	84.396

First Analytical Laboratories
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ANALYSIS REPORT

Project #: 60614
Client: Desert Air Environmental Services
Client Project ID: Nucor Steel

Report Date: 05-Jul-06
Date Received: 23-Jun-06

Total Micrograms in Sample

Sample	As µg	Be µg	Cd µg	Pb µg	Mn µg	Ni µg
Reagent Blank Front	510	0.27	0.04	10.4	21.5	1.2
Reagent Blank Back	< 0.8	< 0.03	< 0.03	< 0.8	1.8	< 1.5
Field Blank Front	469	0.28	0.04	10.5	23.2	1.4
Field Blank Back	< 0.8	< 0.03	< 0.03	< 0.8	< 0.8	< 1.6
Run 1 Front	455	0.26	1.96	39.4	77.5	2.1
Run 1 Back	0.8	< 0.03	0.07	3.1	6.6	< 1.2
Run 2 Front	475	0.27	1.32	34.0	57.2	1.9
Run 2 Back	< 0.6	< 0.03	0.03	0.8	2.3	< 1.2
Run 3 Front	496	0.28	1.23	35.9	66.0	1.9
Run 3 Back	0.9	< 0.03	0.04	1.8	3.3	< 1.2
Line Blank #1	< 0.5	< 0.02	< 0.02	< 0.5	< 0.5	< 1.0
Line Blank #2	< 0.5	< 0.02	< 0.02	< 0.5	< 0.5	< 1.0
Line Blank #3	< 0.5	< 0.02	< 0.02	< 0.5	< 0.5	< 1.0

QC SUMMARY

Spike, %Recovery	109%	84%	95%	91%	103%	100%
Spike, %Recovery	94%	99%	95%	111%	100%	100%

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ANALYSIS REPORT

Project #: 60614
Client: Desert Air Environmental Services
Client Project ID: Nucor Steel

Report Date: 07-Jul-06
Date Received: 23-Jun-06

Total Micrograms of Mercury in Analytical Fraction

Sample	Line	Frac1	Frac2B	Frac3A	Frac3B	Frac3C	Total
	µg	µg	µg	µg	µg	µg	µg
Reagent Blank		< 0.4	< 0.3	< 0.1	< 0.1	< 0.4	< 1.3
Field Blank		< 0.4	< 0.3	< 0.1	< 0.2	< 0.9	< 1.9
Run 1	< 0.1	0.5	11.0	< 0.1	49.9	12.7	74.1
Run 2	< 0.1	< 0.4	9.7	< 0.1	51.5	11.5	72.6
Run 3	< 0.1	< 0.4	6.5	< 0.1	27.9	6.7	41.0

QC SUMMARY

Back Spike, %Recov.	103%

ARSENIC

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 60614
Date: 28-Jun-06

MDL = 5.0 µg/L
Postdig'n spike conc. = 100.0 µg/L

Sample ID / Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml		Total µg
FRONT HALVES									
Reagent Blank	60614.RB-1	102.0	5100	100	50				510.00
Field Blank	60614.FB-1	93.8	4690	100	50				469.00
Run 1	60614.1-1	91.0	4550	100	50				455.00
Run 2	60614.2-1	94.9	4745	100	50				474.50
Run 3	60614.3-1	99.2	4960	100	50				496.00
BACK HALVES									
Reagent Blank	60614.RB-2A	-0.1	-0.1	100	1	75	50	<	0.75
Field Blank	60614.FB-2A	1.5	1.5	100	1	68	43	<	0.79
Run 1	60614.1-2A	6.2	6.2	100	1	542	442		0.76
Run 2	60614.2-2A	3.6	3.6	100	1	542	442	<	0.61
Run 3	60614.3-2A	7.4	7.4	100	1	540	440		0.91
FRONT SPIKE	60614.1-1S	200.0				% REC = 109.0%			
BACK SPIKE	60614.1-2AS	100.2				% REC = 94.0%			
SAMPLE LINE									
Blank #1	60614.1-L	0.3	0.3	100	1	68	68	<	0.50
Blank #2	60614.2-L	1.0	1.0	100	1	47	47	<	0.50
Blank #3	60614.3-L	0.8	0.8	100	1	34	34	<	0.50

ARSENIC

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 60614
Date: 28-Jun-06

Calibration Data

	True conc., µg/L	Abs.
Blank	0.0	0.000
Standard 1	10.0	0.026
Standard 2	50.0	0.172
Standard 3	100.0	0.340
Standard 4	200.0	0.619

Calibration Verifications

ICV = 100	98.0	CCV2 = 100	96.8
ICB = 0	-2.7	CCB2 = 0	4.1
CCV1 = 100	99.6	CCV3 = 100	96.3
CCB1 = 0	1.9	CCB3 = 0	2.3

B E R Y L L I U M

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 60614
Date: 28-Jun-06

MDL = 0.2 µg/L
Postdig'n spike conc. = 5.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml		Total µg
FRONT HALVES									
Reagent Blank	60614.RB-1	2.69	2.69	100	1				0.269
Field Blank	60614.FB-1	2.78	2.78	100	1				0.278
Run 1	60614.1-1	2.59	2.59	100	1				0.259
Run 2	60614.2-1	2.73	2.73	100	1				0.273
Run 3	60614.3-1	2.81	2.81	100	1				0.281
BACK HALVES									
Reagent Blank	60614.RB-2A	0.00	0.00	100	1	75	50	<	0.030
Field Blank	60614.FB-2A	-0.03	-0.03	100	1	68	43	<	0.032
Run 1	60614.1-2A	-0.03	-0.03	100	1	542	442	<	0.025
Run 2	60614.2-2A	0.03	0.03	100	1	542	442	<	0.025
Run 3	60614.3-2A	-0.01	-0.01	100	1	540	440	<	0.025
FRONT SPIKE	60614.1-1S	6.80				% REC =	84.2%		
BACK SPIKE	60614.1-2AS	4.97				% REC =	99.4%		
SAMPLE LINE									
Blank #1	60614.1-L	0.02	0.02	100	1	68	68	<	0.020
Blank #2	60614.2-L	0.03	0.03	100	1	47	47	<	0.020
Blank #3	60614.3-L	0.01	0.01	100	1	34	34	<	0.020

B E R Y L L I U M

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 60614
Date: 28-Jun-06

Calibration Data

	True conc., µg/L	Abs.
Blank	0.0	0.000
Standard 1	0.5	0.017
Standard 2	2.0	0.072
Standard 3	5.0	0.176
Standard 4	10.0	0.336

Calibration Verifications

ICV = 5	5.35	CCV2 = 5	4.84
ICB = 0	0.09	CCB2 = 0	0.01
CCV1 = 5	4.85	CCV3 = 5	4.96
CCB1 = 0	0.08	CCB3 = 0	0.03

CADMIUM

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 60614
Date: 29-Jun-06

MDL = 0.2 µg/L
Postdig'n spike conc. = 5.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml		Total µg
FRONT HALVES									
Reagent Blank	60614.RB-1	0.37	0.37	100	1				0.037
Field Blank	60614.FB-1	0.36	0.36	100	1				0.036
Run 1	60614.1-1	1.96	19.60	100	10				1.960
Run 2	60614.2-1	2.63	13.15	100	5				1.315
Run 3	60614.3-1	2.46	12.30	100	5				1.230
BACK HALVES									
Reagent Blank	60614.RB-2A	0.11	0.11	100	1	75	50	<	0.030
Field Blank	60614.FB-2A	0.03	0.03	100	1	68	43	<	0.032
Run 1	60614.1-2A	0.53	0.53	100	1	542	442		0.065
Run 2	60614.2-2A	0.21	0.21	100	1	542	442		0.026
Run 3	60614.3-2A	0.35	0.35	100	1	540	440		0.043
FRONT SPIKE	60614.1-1S	6.70				% REC =	94.8%		
BACK SPIKE	60614.1-2AS	5.30				% REC =	95.4%		
SAMPLE LINE									
Blank #1	60614.1-L	0.03	0.03	100	1	68	68	<	0.020
Blank #2	60614.2-L	0.04	0.04	100	1	47	47	<	0.020
Blank #3	60614.3-L	0.07	0.07	100	1	34	34	<	0.020

CADMIUM

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 60614
Date: 29-Jun-06

Calibration Data

	True conc., µg/L	Abs.
Blank	0.0	0.000
Standard 1	0.5	0.044
Standard 2	2.0	0.177
Standard 3	5.0	0.414
Standard 4	10.0	0.727

Calibration Verifications

ICV = 5	4.89	CCV2 = 5	5.04
ICB = 0	0.00	CCB2 = 0	0.01
CCV1 = 5	4.96	CCV3 = 5	5.04
CCB1 = 0	0.01	CCB3 = 0	0.03

LEAD

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 60614
Date: 28-Jun-06

MDL = 5.0 µg/L
Postdig'n spike conc. = 100.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml		Total µg
FRONT HALVES									
Reagent Blank	60614.RB-1	103.6	103.6	100	1				10.36
Field Blank	60614.FB-1	104.6	104.6	100	1				10.46
Run 1	60614.1-1	78.8	394.0	100	5				39.40
Run 2	60614.2-1	113.2	339.6	100	3				33.96
Run 3	60614.3-1	119.6	358.8	100	3				35.88
BACK HALVES									
Reagent Blank	60614.RB-2A	0.9	0.9	100	1	75	50	<	0.75
Field Blank	60614.FB-2A	1.9	1.9	100	1	68	43	<	0.79
Run 1	60614.1-2A	25.2	25.2	100	1	542	442		3.09
Run 2	60614.2-2A	6.6	6.6	100	1	542	442		0.81
Run 3	60614.3-2A	14.4	14.4	100	1	540	440		1.77
FRONT SPIKE	60614.1-1S	169.4				% REC =	90.6%		
BACK SPIKE	60614.1-2AS	135.7				% REC =	110.5%		
SAMPLE LINE									
Blank #1	60614.1-L	0.8	0.8	100	1	68	68	<	0.50
Blank #2	60614.2-L	3.2	3.2	100	1	47	47	<	0.50
Blank #3	60614.3-L	1.2	1.2	100	1	34	34	<	0.50

L E A D

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 60614
Date: 28-Jun-06

Calibration Data

	True conc., µg/L	Abs.
Blank	0.0	0.000
Standard 1	10.0	0.043
Standard 2	50.0	0.146
Standard 3	100.0	0.253
Standard 4	200.0	0.444

Calibration Verifications

ICV = 100	104.0	CCV2 = 100	106.5
ICB = 0	-0.2	CCB2 = 0	1.0
CCV1 = 100	97.5	CCV3 = 100	104.9
CCB1 = 0	2.5	CCB3 = 0	0.6

MANGANESE

ICP ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 60614
Date: 03-Jul-06

MDL = 5.0 µg/L
Postdig'n spike conc. = 1000.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml		Total µg
FRONT HALVES									
Reagent Blank	60614.RB-1	214.5	214.5	100	1				21.45
Field Blank	60614.FB-1	231.7	231.7	100	1				23.17
Run 1	60614.1-1	774.9	774.9	100	1				77.49
Run 2	60614.2-1	571.6	571.6	100	1				57.16
Run 3	60614.3-1	660.0	660.0	100	1				66.00
BACK HALVES									
Reagent Blank	60614.RB-2A	12.1	12.1	100	1	75	50		1.82
Field Blank	60614.FB-2A	1.2	1.2	100	1	68	43	<	0.79
Run 1	60614.1-2A	53.5	53.5	100	1	542	442		6.56
Run 2	60614.2-2A	19.1	19.1	100	1	542	442		2.34
Run 3	60614.3-2A	27.0	27.0	100	1	540	440		3.31
FRONT SPIKE	60614.1-1S	1803.2				% REC = 102.8%			
BACK SPIKE	60614.1-2AS	1051.0				% REC = 99.8%			
SAMPLE LINE									
Blank #1	60614.1-L	0.8	0.8	100	1	68	68	<	0.50
Blank #2	60614.2-L	4.9	4.9	100	1	47	47	<	0.50
Blank #3	60614.3-L	1.9	1.9	100	1	34	34	<	0.50

MANGANESE

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 60614
Date: 03-Jul-06

Calibration Data

	True conc., µg/L	Emission
Blank	0.0	33
Standard 1	20	114
Standard 2	2000	10577

Calibration Verifications

ICV = 1000	973.9	CCV2 = 1000	1044.2
ICB = 0	1.9	CCB2 = 0	2.3
CCV1 = 1000	972.2	CCV3 = 1000	967.9
CCB1 = 0	5.1	CCB3 = 0	2.3

NICKEL

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 60614
Date: 29-Jun-06

MDL = 10.0 µg/L
Postdig'n spike conc. = 100.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml	Total µg
FRONT HALVES								
Reagent Blank	60614.RB-1	11.8	11.8	100	1			1.18
Field Blank	60614.FB-1	13.6	13.6	100	1			1.36
Run 1	60614.1-1	21.2	21.2	100	1			2.12
Run 2	60614.2-1	18.5	18.5	100	1			1.85
Run 3	60614.3-1	18.8	18.8	100	1			1.88
BACK HALVES								
Reagent Blank	60614.RB-2A	-0.2	-0.2	100	1	75	50 <	1.50
Field Blank	60614.FB-2A	-2.1	-2.1	100	1	68	43 <	1.58
Run 1	60614.1-2A	4.3	4.3	100	1	542	442 <	1.23
Run 2	60614.2-2A	7.0	7.0	100	1	542	442 <	1.23
Run 3	60614.3-2A	1.4	1.4	100	1	540	440 <	1.23
FRONT SPIKE	60614.1-1S	120.7				% REC =	99.5%	
BACK SPIKE	60614.1-2AS	99.6				% REC =	99.6%	
SAMPLE LINE								
Blank #1	60614.1-L	2.1	2.1	100	1	68	68 <	1.00
Blank #2	60614.2-L	2.8	2.8	100	1	47	47 <	1.00
Blank #3	60614.3-L	-0.3	-0.3	100	1	34	34 <	1.00

NICKEL

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 60614
Date: 29-Jun-06

Calibration Data

	True conc., µg/L	Abs.
Blank	0.0	0.000
Standard 1	20.0	0.023
Standard 2	50.0	0.058
Standard 3	100.0	0.117
Standard 4	200.0	0.217

Calibration Verifications

ICV = 100	105.8	CCV2 = 100	98.2
ICB = 0	2.6	CCB2 = 0	1.5
CCV1 = 100	105.9	CCV3 = 100	96.7
CCB1 = 0	8.8	CCB3 = 0	2.0
		CCV4 = 100	96.2
		CCB4 = 0	0.1

MERCURY

CVAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 60614
Date: 28-Jun-06

MDL = 0.2 µg/L
Postdig'n spike conc. = 5.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Volume ml	Digst'd Vol. ml	Total µg
FRONT HALVES								
Reagent Blank	60614.RB-1	0.07	0.07	100	1	100	5 <	0.40
Field Blank	60614.FB-1	0.02	0.02	100	1	100	5 <	0.40
Run 1	60614.1-1	0.27	0.27	100	1	100	5	0.53
Run 2	60614.2-1	0.15	0.15	100	1	100	5 <	0.40
Run 3	60614.3-1	0.13	0.13	100	1	100	5 <	0.40
FRACTIONS 2B								
Reagent Blank	60614.RB-2B	0.02	0.02	100	1	75	5 <	0.30
Field Blank	60614.FB-2B	0.00	0.00	100	1	68	5 <	0.27
Run 1	60614.1-2B	1.02	1.02	100	1	542	5	11.00
Run 2	60614.2-2B	0.89	0.89	100	1	542	5	9.65
Run 3	60614.3-2B	0.60	0.60	100	1	540	5	6.48
BACK SPK	60614.1-2BS	6.15				%REC = 102.7%		
FRACTIONS 3A								
Reagent Blank	60614.RB-3A	0.06	0.06	100	1	20	10 <	0.04
Field Blank	60614.FB-3A	0.01	0.01	100	1	51	10 <	0.10
Run 1	60614.1-3A	0.08	0.08	100	1	44	10 <	0.09
Run 2	60614.2-3A	0.14	0.14	100	1	48	10 <	0.10
Run 3	60614.3-3A	0.18	0.18	100	1	45	10 <	0.09
FRACTIONS 3B								
Reagent Blank	60614.RB-3B	0.05	0.05	100	1	138	20 <	0.14
Field Blank	60614.FB-3B	0.08	0.08	100	1	145	20 <	0.15
Run 1	60614.1-3B	4.09	4.09	100	1	244	2	49.90
Run 2	60614.2-3B	4.66	4.66	100	1	221	2	51.49
Run 3	60614.3-3B	5.10	5.10	100	1	273	5	27.85

MERCURY

CVAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 60614
Date: 28-Jun-06

MDL = 0.2 µg/L
Postdig'n spike conc. = 5.0 µg/L

Sample ID / Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Volume ml	Digst'd Vol. ml	Total µg
FRACTIONS 3C								
Reagent Blank	60614.RB-3C	-0.03	-0.03	100	1	100	5 <	0.40
Field Blank	60614.FB-3C	-0.01	-0.01	100	1	227	5 <	0.91
Run 1	60614.1-3C	2.10	2.10	100	1	302	5	12.68
Run 2	60614.2-3C	2.98	2.98	100	1	193	5	11.48
Run 3	60614.3-3C	1.94	1.94	100	1	172	5	6.67
LINE RINSE								
Blank #1	60614.1-L	-0.01	-0.01	100	1	68	10 <	0.14
Blank #2	60614.2-L	-0.07	-0.07	100	1	47	10 <	0.09
Blank #3	60614.3-L	-0.03	-0.03	100	1	34	10 <	0.07

Calibration Data	True conc., µg/L	**Run1** Abs.	**Run2** Abs.
Blank	0.00	0.000	0.000
Standard 1	0.50	0.013	0.012
Standard 2	1.00	0.024	0.024
Standard 3	2.00	0.048	0.049
Standard 4	5.00	0.124	0.122
Standard 5	10.00	0.238	0.240

Calibration Verifications		
ICV = 5	5.30	4.84
ICB = 0	0.07	-0.03
CCV1 = 5	5.12	5.10
CCB1 = 0	0.08	-0.03
CCV2 = 5	4.97	
CCB2 = 0	0.02	
CCV3 = 5	5.05	
CCB3 = 0	-0.05	
CCV4 = 5	4.82	
CCB4 = 0	0.02	

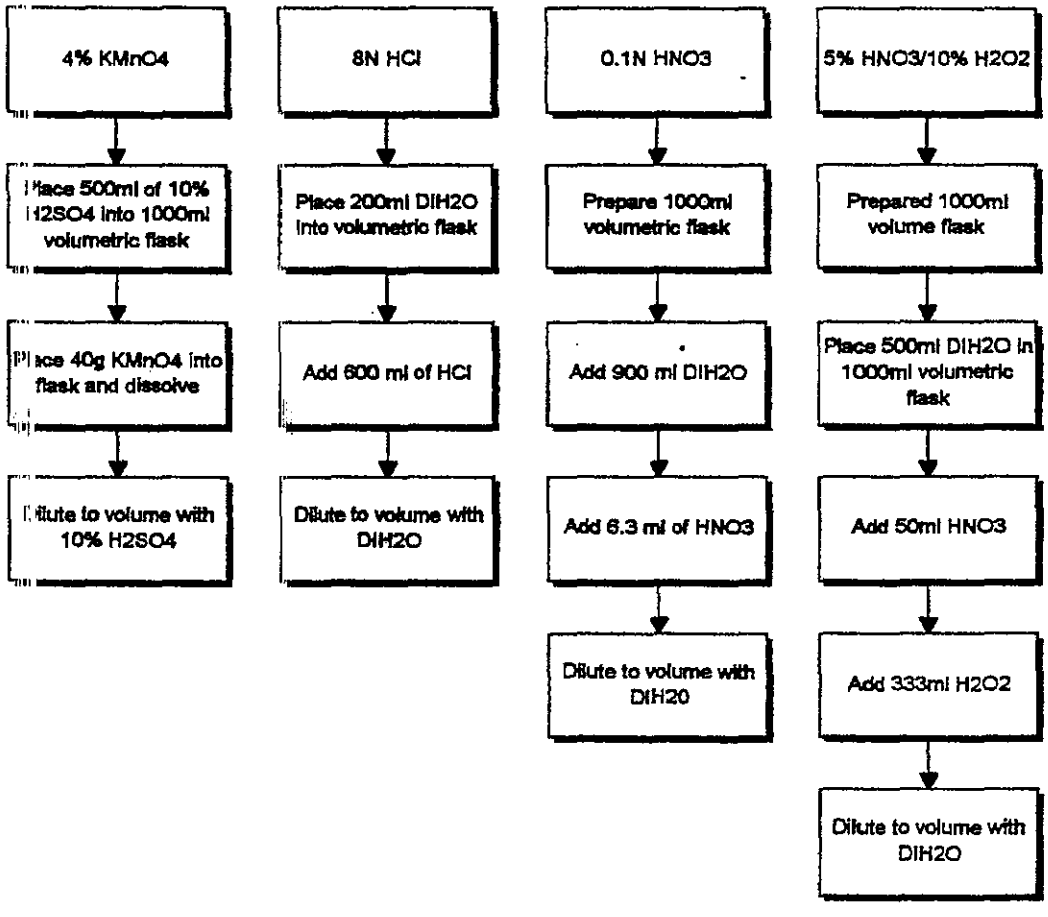


Figure 2-1. Method 29 Reagent Preparation

DESERT AIR ENVIRONMENTAL SERVICES, LLC

Recovery Data

Client: Nucor Steel
Emissions Unit: Baghouse
EPA Method: 29

Test Date: 6/20/2006
Project: Compliance

Impinger Contents	Run 1			Run 2			Run 3		
	Final	Initial	Net	Final	Initial	Net	Final	Initial	Net
HNO_3/H_2O_2	920.7	636.2	284.5	894.4	635.1	259.3	981.0	628.5	
HNO_3/H_2O_2	613.6	605.9	7.7	626.1	617.4	8.70	920.2	627.2	
KO	462.6	458.1	4.5	493.1	491.8	1.30	638.8	459.8	
$KMnO_4$	598.4	603.0	-4.6	634.0	623.5	10.5	465.6	608.7	
$KMnO_4$	624.2	629.0	-4.8	604.8	618.2	-13.4	607.6	640.0	
SilicA	972.3	922.2	50.1	991.7	935.6	56.1	644.4	934.7	
Init Wash			-41.3			-42.1			-40.2
Filter #								3898.9	
Tare Wt.							42	57.6	
Total Volume of H_2O, grams			296.1			280.4			318.5

(out of order)

Comments

% O_2	% O_2	% O_2
% CO_2	% CO_2	% CO_2

Impinger Contents	Run 4			Run 5			Run 6		
	Final	Initial	Net	Final	Initial	Net	Final	Initial	Net
Filter #									
Tare Wt.									
Total Volume of H_2O, grams									

Comments

% O_2	% O_2	% O_2
% CO_2	% CO_2	% CO_2

(29)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 1501	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8179	Stack Static Pressure: -.80
Unit: Baghouse	Meter Calibration Factor (Y): 1.0053	Assumed Moisture: 3%
Date: June 20th 2006	Probe #: 10' A	Start time: 0103 End Time: 03:03
Technicians: K.E.N; CBH Team Leader: M.T.R	Probe Liner Material: Glass	Nozzle Diameter (in): .190
Method / Run # M-29 #1	Pitot Tube Cp: 0.84	Initial Leak Rate: 0.002@10"Hg
Sheet 1 of 4	Ambient Temp.: 78 Pbarr: 30.01	**Final Leak rate:** -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (°F)	Dry Gas Meter Temp Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
						510.610					
6	10	11.	2.0	1.7	145	518.46	76	76	245	247	62
6	20	12	2.0	1.7	128	526.53	79	76	256	250	58
5	30	8	1.6	1.4	162	533.86	83	77	245	245	60
5	40	10	1.5	1.4	190	541.16	86	78	249	250	59
4	50	10	1.5	1.4	190	548.45	88	80	254	255	51
4	60	10	1.6	1.4	169	555.73	90	81	245	253	51
3	70	10	1.7	1.5	180	563.16	92	83	251	246	51
3	80	9	1.5	1.4	188	570.31	93	84	251	251	48
2	90	9	1.5	1.4	187	577.45	92	85	252	245	49
2	100	9	1.6	1.4	172	584.71	91	85	245	252	50
1	110	9	1.6	1.4	176	591.94	91	84	245	245	51
1	120	9	1.9	1.3	188	598.685	91	84	257	250	58
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

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DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 1501	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8179	Stack Static Pressure: -.80
Unit: Bagghouse	Meter Calibration Factor (Y): 1.0053	Assumed Moisture: 3%
Date: June 20th 2006	Probe #: 10' A	Start time: 03:30 End Time: 05:30
Technicians: K.E.N & CBH Team Leader: M.T.R	Probe Liner Material: Glass	Nozzle Diameter (in): .190
Method / Run # M-29 #1	Pitot Tube Cp: 0.84	Initial Leak Rate: Cont. -
Sheet 2 of 4	Ambient Temp.: 81 Pbarr: 30.01	**Final Leak rate:** -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						598.685					
6	10	8	1.7	1.5	171	606.28	81	80	250	252	60
6	20	9	1.5	1.4	176	612.74	87	81	245	249	52
5	30	9	1.6	1.4	171	620.50	89	81	245	254	54
5	40	9	1.6	1.4	149	627.29	87	80	260	250	53
	~~50~~										
4	50	9	1.6	1.4	166	634.53	86	80	245	250	54
4	60	9	1.5	1.3	173	641.60	86	80	245	253	56
	~~70~~										
3	70	11	1.8	1.6	171	649.03	86	80	245	247	57
3	80	10	1.9	1.7	144	656.99	86	80	245	249	59
2	90	10	1.7	1.5	177	664.61	86	80	245	250	60
2	100	10	1.4	1.3	189	672.02	86	79	245	250	58
1	110	10	1.5	1.4	181	679.32	87	80	245	248	56
1	120	12	2.0	1.7	148	687.475	88	80	245	248	49
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(29)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL				Meter Box: 1501					Stack Diameter (in): 21'		
Facility: Hertford NC				Meter Delta H @: 1.8179					Stack Static Pressure: -.80		
Unit: Baghouse				Meter Calibration Factor (Y): 1.0053					Assumed Moisture: 3%		
Date: June 20th 2006				Probe #: 10' A					Start time: 03:45 End Time: 07:45		
Technicians: K.E.N - C.B.W Team Leader: M.T.R				Probe Liner Material: Glass					Nozzle Diameter (in): .190		
Method / Run # M-29 #1				Pitot Tube Cp: 0.84					Initial Leak Rate: Cont.		
Sheet 3 of 4				Ambient Temp.: 82		Pbarr: 30.01			Final Leak rate: —		

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						687.475					
6	10	9	1.7	1.5	178	694.93	82	80	246	250	62
	20	10	1.7	1.5	149	702.27	81	80	245	254	54
5	30	11	1.9	1.7	166	710.19	86	80	245	252	58
	40	10	1.7	1.5	177	717.79	84	79	245	251	59
4	50	10	1.5	1.4	181	725.36	84	79	247	248	60
	60	10	1.7	1.5	170	732.98	83	78	248	250	60
3	70	10	1.7	1.5	150	740.62	83	77	246	250	50
	80	10	1.8	1.5	144	748.51	82	77	245	251	51
2	90	11	1.4	1.3	177	755.86	82	77	245	250	54
	100	11	1.5	1.4	177	763.41	82	76	245	248	57
1	110	11	1.5	1.4	149	770.93	81	76	245	250	58
	120	10	1.5	1.4	180	778.265	82	76	245	249	59
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 1501	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8179	Stack Static Pressure: -.80
Unit: Baghouse	Meter Calibration Factor (Y): 1.0053	Assumed Moisture: 3%
Date: June 20th 2006	Probe #: 10' A	Start time: 08:05 End Time: 10:05
Technicians: K.E.N & CBH Team Leader: L.C.T.R	Probe Liner Material: Glass	Nozzle Diameter (in): .190
Method / Run # M-29 #1	Pitot Tube Cp: 0.84	Initial Leak Rate: Conf-
Sheet 2 of 4	Ambient Temp.: 77 Pbarr: 30.01	**Final Leak rate:** 0.015 @ 14" Hg

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						778.265					
6	10	9	1.5	1.4	183	785.20	77	76	245	252	60
6	20	9	1.5	1.4	180	792.13	81	77	245	249	54
5	30	9	1.4	1.3	190	799.08	83	77	249	250	56
5	40	8	1.5	1.4	161	805.75	84	78	250	251	56
4	50	8	1.7	1.5	177	812.82	85	79	245	247	53
4	60	8	1.5	1.4	185	819.31	86	79	245	250	53
53	70	9	1.5	1.4	200	826.30	86	80	245	248	51
3	80	9	1.4	1.3	196	833.32	87	81	245	253	55
2	90	9	2.0	1.7	160	841.37	88	81	245	252	55
2	100	12	1.7	1.5	178	848.85	90	82	245	250	56
1	110	10	1.8	1.6	160	856.33	91	83	245	254	58
1	120	10	1.7	1.5	174	863.805	92	83	245	252	58
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 1501	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8179	Stack Static Pressure: -.85
Unit: Baghouse	Meter Calibration Factor (Y): 1.0053	Assumed Moisture: 3%
Date: June 21st 2006	Probe #: 10' A	Start time: 00:23 End Time: 02:23
Technicians: K.E.N & CBH Team Leader: M.T.R	Probe Liner Material: Glass	Nozzle Diameter (in): .190
Method / Run # M-29 #2	Pitot Tube Cp: 0.84	Initial Leak Rate: 0.002 @ 10"Hg
Sheet 1 of 4	Ambient Temp.: 88 Pbarr: 29.99	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						864.310					
6	10	6	1.5	1.4	178	871.22	86	87	250	250	57
6	20	6	1.5	1.4	194	878.21	88	87	250	249	46
5	30	6	1.4	1.3	194	885.18	91	87	250	252	51
5	40	6	1.6	1.4	170	892.45	93	87	250	249	51
4	50	6	1.7	1.5	175	899.71	94	88	250	245	54
4	60	6	1.6	1.5	193	907.05	94	88	250	241	47
3	70	6	1.6	1.5	196	914.36	95	88	250	248	49
3	80	7	1.7	1.5	184	921.88	95	88	250	248	51
2	90	7	1.8	1.6	170	929.38	94	87	250	245	46
2	100	7	1.8	1.6	183	937.42	94	87	250	248	45
1	110	7	1.8	1.6	175	945.22	95	87	250	252	45
1	120	7	1.6	1.5	185	953.055	95	87	250	260	45
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(29)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 1501	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8179	Stack Static Pressure: -.85
Unit: Baghouse	Meter Calibration Factor (Y): 1.0053	Assumed Moisture: 3%
Date: June 21st 2006	Probe #: 10' A	Start time: 02:40 End Time: 04:40
Technicians: K.E.N & CBH Team Leader: M.T.R	Probe Liner Material: Glass	Nozzle Diameter (in): .190
Method / Run # M.29 - #2	Pitot Tube Cp: 0.84	Initial Leak Rate: Cont -
Sheet 2 of 4	Ambient Temp.: 87 Pbarr: 29.99	**Final Leak rate:** -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						953.055					
6	10	6	1.5	1.4	192	960.07	88	87	250	250	59
6	20	6	1.5	1.4	191	967.20	92	87	250	251	42
5	30	6	1.7	1.5	161	974.80	95	88	250	245	46
5	40	7	1.7	1.5	184	982.33	94	88	250	249	47
4	50	7	1.6	1.5	193	989.72	92	86	250	249	48
4	60	7	1.6	1.5	197	997.15	91	85	250	251	47
3	70	7	1.7	1.5	173	1004.57	90	85	250	251	47
3	80	7	1.8	1.6	180	1012.27	90	84	250	251	47
2	90	7	1.7	1.6	191	1019.95	89	83	250	248	47
2	100	7	1.6	1.5	189	1027.36	88	82	250	251	49
1	110	7	1.7	1.6	187	1035.02	88	82	250	255	50
1	120	7	1.9	1.7	167	1043.030	89	82	250	242	50
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(29)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 1501	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8179	Stack Static Pressure: -.85
Unit: Bghouse	Meter Calibration Factor (Y): 1.0053	Assumed Moisture: 3%
Date: June 21ST 2006	Probe #: 10' A	Start time: 05:01 End Time: 07:01
Technicians: K.E.N & CBH Team Leader: M.T.R	Probe Liner Material: Glass	Nozzle Diameter (in): .190
Method / Run # M.29 #2	Pitot Tube Cp: 0.84	Initial Leak Rate: cont -
Sheet 3 of 4	Ambient Temp.: 81 Pbarr: 29.99	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						043.090					
6	10	6	1.5	1.4	181	050.26	82	81	250	241	60
6	20	8	2.0	1.7	151	058.34	86	81	250	245	51
5	30	8	2.1	1.8	144	066.80	89	81	250	247	51
5	40	9	2.6	2.2	133	076.07	89	82	250	245	51
4	50	10	2.5	2.0	125	085.32	88	82	250	257	52
4	60	10	2.2	1.8	124	093.85	87	82	250	246	53
3	70	8	2.0	1.7	162	101.93	87	81	250	251	53
3	80	8	1.8	1.6	178	109.72	90	82	250	249	55
2	90	7	1.8	1.6	174	117.58	93	83	250	252	56
2	100	8	2.0	1.7	143	125.83	89	83	250	253	56
1	110	7	1.7	1.5	165	133.39	89	82	250	247	56
1	120	7	1.6	1.5	188	140.845	88	81	250	247	57
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(29)

DESERT AIR ENVIRONMENTAL SERVICES,LLC

Field Data

Client: NUCOR STEEL		Meter Box: 1501		Stack Diameter (in): 21'	
Facility: Hertford NC		Meter Delta H @: 1.8179		Stack Static Pressure: -.85	
Unit: Baghouse		Meter Calibration Factor (Y): 1.0053		Assumed Moisture: 3%	
Date: June 21st 2006		Probe #: 10' A		Start time: 07:18	End Time: 09:18
Technicians: K.E.N & CBH Team Leader: M.T.R		Probe Liner Material: Glass		Nozzle Diameter (in): .190	
Method / Run # M-29 - #2		Pitot Tube Cp: 0.84		Initial Leak Rate: Cont.	
Sheet 4 of 4		Ambient Temp.: 82	Pbarr: 29.99	Final Leak rate: 75.000 @ 10" Hg	

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (°F)	Dry Gas Meter Temp Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
						140.845					
6	10	8	1.9	1.6	142	148.35	83	81	250	250	62
6	20	8	1.5	1.4	195	155.62	86	82	250	250	60
5	30	6	1.5	1.4	195	163.00	91	83	250	250	57
5	40	6	1.5	1.2	152	169.73	96	87	250	250	50
4	50	6	1.6	1.4	172	177.37	100	89	250	250	46
4	60	6	1.6	1.4	190	185.04	103	92	250	250	47
3	70	6	1.5	1.2	193	191.98	106	96	250	250	48
3	80	6	1.6	1.4	157	199.46	107	98	250	250	48
2	90	6	1.6	1.4	183	206.41	109	99	250	250	49
2	100	6	1.6	1.5	193	213.44	110	101	250	250	50
1	110	6	1.6	1.5	203	220.46	112	103	250	250	52
1	120	8	2.0	1.7	166	228.238	113	105	250	250	53
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(29)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 1501	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8179	Stack Static Pressure: -.85
Unit: Baghouse	Meter Calibration Factor (Y): 1.0053	Assumed Moisture: 3%
Date: June 22nd 2006	Probe #: 10' A	Start time: 0012 End Time: 0212
Technicians: K.E.N & CAH Team Leader: M.T.R	Probe Liner Material: Glass	Nozzle Diameter (in): .190
Method / Run # M.29 #3	Pitot Tube Cp: 0.84	Initial Leak Rate: Cont-
Sheet 1 of 4	Ambient Temp.: 82 Pbarr: 29.98	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						229.000					
6	10	10	1.8	1.6	159	236.57	80	80	250	251	60
6	20	10	1.6	1.4	174	243.66	84	81	250	251	49
5	30	9	1.5	1.4	180	250.89	88	82	250	250	48
5	40	9	1.5	1.4	180	258.05	92	83	250	250	49
4	50	9	1.6	1.4	174	265.29	94	85	250	250	49
4	60	9	1.8	1.5	142	272.52	93	86	250	250	52
3	70	9	1.8	1.6	169	279.74	90	84	250	250	53
3	80	9	1.7	1.5	177	286.92	89	83	250	250	57
2	90	9	1.6	1.4	194	294.03	87	82	250	250	51
2	100	9	1.8	1.6	179	301.60	86	81	250	250	53
1	110	10	1.8	1.5	155	309.19	86	81	250	250	57
1	120	10	1.7	1.5	171	316.895	85	80	250	250	55
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(29)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 1501	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8179	Stack Static Pressure: -.85
Unit: Baghouse	Meter Calibration Factor (Y): 1.0053	Assumed Moisture: 3%
Date: June 22nd 2006	Probe #: 10' A	Start time: 02:37 End Time: 04:37
Technicians: K.E.N & C.B.H Team Leader: M.T.R	Probe Liner Material: Glass	Nozzle Diameter (in): .190
Method / Run # M-29 #3	Pitot Tube Cp: 0.84	Initial Leak Rate: cont.
Sheet 2 of 4	Ambient Temp.: 78 Pbarr: 29.98	**Final Leak rate:** —

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (°F)	Dry Gas Meter Temp Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
						316.895					
6	10	10	1.6	1.9	161	324.50	79	78	250	251	60
6	20	10	1.7	2.0	157	332.10	84	78	250	246	48
5	230	10	1.4	1.6	177	339.31	86	78	250	250	52
5	~~30~~40	9	1.4	1.6	186	346.35	86	79	250	246	54
4	~~40~~ 50	9	1.4	1.6	197	353.35	86	79	250	248	55
4	~~50~~ 60	9	1.5	1.8	157	360.76	86	80	250	244	57
3	~~60~~ 70	10	1.5	1.8	156	368.29	86	80	250	249	59
3	~~60~~ 80	10	1.5	1.8	165	375.66	87	80	250	248	59
	~~70~~										
2	~~80~~ 90	10	1.5	1.8	162	383.20	88	80	250	248	60
2	~~90~~ 100	10	1.4	1.6	166	390.41	88	81	250	255	54
1	110	9	1.4	1.6	181	397.57	87	81	250	250	55
1	120	9	1.3	1.5	188	404.460	87	81	250	251	57
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(27)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 1501	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8179	Stack Static Pressure: -.85
Unit: Baghouse	Meter Calibration Factor (Y): 1.0053	Assumed Moisture: 3%
Date: June 22nd 2006	Probe #: 10' A	Start time: 05:07 End Time: 07:07
Technicians: K.E.N ; CBH Team Leader: M.T.R	Probe Liner Material: Glass	Nozzle Diameter (in): .190
Method / Run # M.29 #3	Pitot Tube Cp: 0.84	Initial Leak Rate: Cont -
Sheet 3 of 4	Ambient Temp.: 80 Pbarr: 29.98	Final Leak rate: —

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						404.460					
6	10	9	1.5	1.7	185	411.69	80	79	250	248	58
6	20	9	1.5	1.7	193	418.94	84	79	250	255	45
5	30	9	1.4	1.6	165	426.01	85	79	250	250	47
5	40	9	1.6	1.4	140	433.55	85	79	250	251	43
4	50	10	1.5	1.7	173	441.07	86	79	250	251	42
4	60	10	1.4	1.6	177	448.29	86	79	250	251	44
3	70	9	1.5	1.7	190	455.58	87	80	250	249	45
3	80	10	1.5	1.7	189	462.94	86	80	250	248	47
2	90	10	1.5	1.8	151	470.37	83	79	250	247	50
2	100	10	1.4	1.6	176	477.54	83	78	250	253	53
1	110	9	1.4	1.6	189	484.66	84	78	250	250	54
1	120	9	1.4	1.6	197	491.790	89	80	250	248	56
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(29)

DESERT AIR ENVIRONMENTAL SERVICES,LLC

Field Data

Client: NUCOR STEEL	Meter Box: 1501	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8179	Stack Static Pressure: -.85
Unit: Baghouse	Meter Calibration Factor (Y): 1.0053	Assumed Moisture: 3%
Date: June 22nd 2006	Probe #: 10' A	Start time: 07:18 End Time: 09:18
Technicians: K.E.N & CBH Team Leader: M.T.R	Probe Liner Material: Glass	Nozzle Diameter (in): .190
Method / Run # M-29 - #3	Pitot Tube Cp: 0.84	Initial Leak Rate: - Conf.
Sheet 1 of 1	Ambient Temp.: 89 Pbarr: 29.98	**Final Leak rate:** 0.005 @ 7" H_g

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						491.790					
6	10	10	1.5	1.4	176	499.11	90	85	250	252	60
6	20	10	1.6	1.5	193	506.20	96	87	250	252	45
5	30	9	1.6	1.4	187	513.35	100	89	250	251	46
5	40	9	1.6	1.4	178	520.50	102	92	250	250	48
4	50	9	1.7	1.5	167	527.94	103	94	250	251	51
4	60	10	1.7	1.5	194	535.37	105	96	250	250	53
3	70	10	1.6	1.4	201	542.86	108	98	250	250	55
3	80	10	1.8	1.5	164	550.80	109	101	250	250	48
2	90	11	2.0	1.7	162	558.26	111	102	250	250	43
2	100	11	1.7	1.5	168	565.70	112	104	250	250	43
1	110	10	1.6	1.4	186	572.96	112	105	250	249	45
1	120	9	1.6	1.4	187	580.255	113	106	250	250	46
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

APPENDIX C
METHOD 0061 DATA

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 6/20-22/06
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA 0061

OSW Method 0061 Results

	Run 1	Run 2	Run 3
Test Date	6/20/2006	6/21/2006	6/22/2006
Start Time	1:00 AM	12:22 AM	12:10 AM
End Time	10:08 AM	9:22 AM	9:15 AM
Dry Gas Volume at standard conditions, Vm-Std (dscf)	300.44	316.41	307.36
Dry Gas Volume at standard conditions, Vm-Std (dscm)	8.51	8.96	8.70
Stack Gas Volumetric Flow Rate, (dscfm)	1232918	1276565	1296231
Moisture (%)	4.03%	3.92%	4.16%
Net Volume of O_2 (%)	20.01	20.16	20.09
Net Volume of CO_2 (%)	0.96	0.88	1.04

TRACE METALS LABORATORY RESULTS AND PROCESS DATA (Method 29)

	Sample Results			Total mass	Emissions: Run 1		
	Front		Back	(ug)	ug/dscf	ug/dscm	lb/hr
Chromium^{+6}	NA	<	1.9	1.9	6.32E-03	2.23E-01	1.03E-03

	Sample Results			Total mass	Emissions: Run 2		
	Front		Back	(ug)	ug/dscf	ug/dscm	lb/hr
Chromium^{+6}	NA	<	2.7	2.7	8.53E-03	3.01E-01	1.44E-03

	Sample Results			Total mass	Emissions: Run 3		
	Front		Back	(ug)	ug/dscf	ug/dscm	lb/hr
Chromium^{+6}	NA	<	2.5	2.5	8.13E-03	2.87E-01	1.39E-03

lb/hr= (ug/dscf * dscfm * 60) / 454000000

TEST DATA SUMMARY

Client: Nucor
Test Date: 6/20-22/06
Emissions Unit: Baghouse
Project: Compliance Hexchrome
EPA Method: 0061

RUN DATA

	Run 1	Run 2	Run 3	**Averages**
Test Date	6/20/2006	6/21/2006	6/22/2006	
Start Time	1:00 AM	12:22 AM	12:10 AM	
Stop Time	10:08 AM	9:22 AM	9:15 AM	
Area of Stack (ft^2)	346.36	346.36	346.36	
Nozzle Diameter (ft)	0.01500	0.01500	0.01500	
Area of Nozzle (ft^2)	0.000177	0.000177	0.000177	
Pitot Tube Calibration Coefficient	0.840	0.840	0.840	
Dry Gas Meter Calibration Factor	0.96100	0.96100	0.96100	
Barometric Pressure ("Hg)	30.01	29.99	29.98	
Sampling Time (min)	480.0	480.0	480.0	
Dry Gas Volume (dcf)	323.11	340.23	326.65	330.00
Dry Gas Meter Temperature (°F)	89.1	88.8	82.2	
Dry Gas Meter Temperature (°R)	549.1	548.8	542.2	
Orifice Pressure Diff (delta H) ("H_2O)	1.346	1.405	1.421	
Volume Corrected to Standard Conditions (dscf)	300.44	316.41	307.36	308.07
Isokinetic Variation (%)	99.56	101.27	96.88	

STACK GAS VELOCITY AND VOLUMETRIC FLOW RATE (Method 2)

	Run 1	Run 2	Run 3	**Averages**
Stack Temperature (°F)	171.1	177.6	175.6	174.8
Stack Temperature (°R)	631.1	637.6	635.6	634.8
Stack Static Pressure ("H_2O)	-0.80	-0.85	-0.85	-0.83
Stack Gas Pressure ("Hg)	29.95	29.93	29.92	29.93
Avg Delta P	1.433	1.550	1.600	1.528
Avg of Sqrt of Delta P	1.196	1.244	1.264	1.235
Stack Gas Velocity (ft/s)	73.82	77.18	78.36	76.45
Stack Gas Volumetric Flow Rate (dscf/h)	73975068	76593875	77773871	76114271
Stack Gas Volumetric Flow Rate (dscfm)	1232918	1276565	1296231	1268571
Stack Gas Volumetric Flow Rate (acfm)	1534118	1604013	1628390	1588841
Stack Gas Volumetric Flow Rate (scfm)	1284740	1328617	1352511	1321956

STACK GAS MOLECULAR WEIGHT (Method 3)

	Run 1	Run 2	Run 3	**Averages**
Net Volume of CO2 (%)	0.96	0.88	1.04	0.96
Net Volume of O2 (%)	20.01	20.16	20.09	20.09
Net Volume of N2 and CO (%)	79.03	78.96	78.87	78.95
Molecular Weight, Dry (g/g-mole)	28.95	28.95	28.97	28.96
Molecular Weight, Wet (g/g-mole)	28.51	28.52	28.51	28.51

STACK GAS MOISTURE CONTENT (Method 4)

	Run 1	Run 2	Run 3	**Averages**
Total Mass of Water Collected (g)	267.80	273.60	283.00	274.80
Total Volume of Water Collected in Impingers and Silica (ml)	268.28	274.09	283.51	275.30
Volume of Water Corrected to Standard Conditions (scf)	12.628	12.902	13.345	12.958
Water Vapor, Bws	0.0403	0.0392	0.0416	0.0404
Moisture Factor, (1- Bws)	0.9597	0.9608	0.9584	0.9596

FIELD DATA SPREADSHEET

Client: Nucor **Test Date:** 6/20/2006 **Run:** 1
Start Time: 1:00 AM **Emissions Unit:** Baghouse **EPA Method:** 0061
Stop Time: 10:08 AM **Project:** Compliance Hexchrome

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	440.4						
1	10.00	448.2	1.7	1.6	1.63	150	83	83
2	20.00	455.5	1.7	1.7	1.70	132	89	86
3	30.00	462.4	1.7	1.7	1.70	130	91	85
4	40.00	469.5	1.5	1.4	1.41	168	91	85
5	50.00	476.1	1.4	1.3	1.28	187	93	86
6	60.00	482.3	1.2	1.1	1.10	189	93	89
7	70.00	489.5	1.5	1.6	1.44	161	95	91
8	80.00	496.3	1.4	1.3	1.30	182	95	89
9	90.00	503.0	1.4	1.3	1.28	194	97	90
10	100.00	510.0	1.5	1.4	1.39	183	95	90
11	110.00	517.0	1.4	1.3	1.34	164	97	90
12	120.00	523.7	1.4	1.3	1.30	181	98	90
13	130.00	530.6	1.5	1.4	1.39	178	86	87
14	140.00	537.2	1.4	1.3	1.30	179	92	88
15	150.00	543.8	1.4	1.3	1.31	176	94	88
16	160.00	550.9	1.5	1.4	1.45	153	92	88
17	170.00	557.7	1.4	1.3	1.35	156	91	88
18	180.00	564.3	1.3	1.2	1.21	173	90	86
19	190.00	571.0	1.4	1.3	1.30	175	89	86
20	200.00	577.5	1.5	1.4	1.44	156	89	86
21	210.00	584.1	1.4	1.3	1.32	166	87	85
22	220.00	590.7	1.4	1.3	1.30	176	92	86
23	230.00	597.0	1.4	1.3	1.28	187	92	86
24	240.00	604.2	1.5	1.4	1.45	155	93	86
25	250.00	610.7	1.3	1.2	1.22	172	89	87
26	260.00	618.0	1.6	1.5	1.56	147	92	88
27	270.00	625.2	1.5	1.6	1.44	161	96	86
28	280.00	632.0	1.4	1.3	1.30	178	90	87
29	290.00	638.5	1.3	1.2	1.20	182	91	87
30	300.00	645.2	1.6	1.5	1.52	160	89	86
31	310.00	651.7	1.4	1.3	1.36	147	87	85
32	320.00	658.1	1.4	1.3	1.34	153	87	85
33	330.00	664.5	1.3	1.3	1.21	175	86	86
34	340.00	670.9	1.2	1.3	1.11	175	88	84
35	350.00	677.1	1.3	1.2	1.18	189	88	85
36	360.00	683.4	1.5	1.4	1.41	167	88	85
37	370.00	689.9	1.4	1.3	1.28	184	86	86
38	380.00	696.6	1.4	1.3	1.28	184	89	86
39	390.00	703.0	1.4	1.3	1.28	187	91	87
40	400.00	709.7	1.4	1.3	1.34	158	92	88
41	410.00	716.4	1.5	1.4	1.40	178	93	89
42	420.00	723.0	1.4	1.3	1.28	190	92	90
43	430.00	729.4	1.3	1.2	1.17	201	91	89
44	440.00	735.9	1.3	1.3	1.18	194	92	89
45	450.00	742.7	1.6	1.4	1.51	167	92	89
46	460.00	749.5	1.5	1.3	1.39	180	93	90
47	470.00	756.5	1.6	1.4	1.54	158	92	89
48	480.00	763.5	1.3	1.5	1.21	177	93	90
Max/Avg.	480.00	323.110	1.433	1.346	1.347	171.146	91.063	87.229

FIELD DATA SPREADSHEET

Client: Nucor **Test Date:** 6/21/2006 **Run:** 2
Start Time: 12:22 AM **Emissions Unit:** Baghouse **EPA Method:** 0061
Stop Time: 9:22 AM **Project:** Compliance Hexchrome

POINT #	RUN TIME	DGM (ft³)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	763.625						
1	10.00	771.1	1.70	1.50	1.59	178	91	90
2	20.00	777.6	1.50	1.20	1.36	196	89	89
3	30.00	784.0	1.50	1.34	1.36	195	89	87
4	40.00	790.7	1.30	1.37	1.20	180	89	87
5	50.00	797.3	1.60	1.58	1.51	167	90	87
6	60.00	803.9	1.50	1.35	1.36	193	90	87
7	70.00	810.6	1.60	1.50	1.45	196	90	87
8	80.00	817.5	1.40	1.25	1.27	195	90	87
9	90.00	825.3	1.70	1.59	1.64	153	89	87
10	100.00	832.3	1.30	1.50	1.20	182	90	89
11	110.00	839.1	1.50	1.30	1.40	177	90	86
12	120.00	845.8	1.50	1.30	1.38	187	91	86
13	130.00	852.8	1.50	1.30	1.37	193	91	90
14	140.00	859.6	1.40	1.20	1.29	191	96	89
15	150.00	866.0	1.50	1.30	1.45	160	97	90
16	160.00	873.0	1.70	1.40	1.57	186	94	89
17	170.00	879.8	1.50	1.30	1.36	196	90	87
18	180.00	886.5	1.60	1.40	1.45	194	90	85
19	190.00	893.5	1.60	1.40	1.51	164	88	83
20	200.00	900.2	1.50	1.30	1.38	181	89	83
21	210.00	907.2	1.60	1.40	1.45	189	88	83
22	220.00	913.7	1.50	1.30	1.36	196	89	87
23	230.00	920.5	1.50	1.30	1.37	183	86	82
24	240.00	927.2	1.60	1.40	1.47	179	85	82
25	250.00	934.0	1.60	1.40	1.46	181	81	81
26	260.00	941.4	1.70	1.60	1.61	161	86	81
27	270.00	949.6	1.70	1.60	1.67	140	87	82
28	280.00	957.8	1.70	1.60	1.70	131	89	82
29	290.00	965.4	1.70	1.60	1.71	126	89	83
30	300.00	973.2	1.70	1.70	1.70	130	86	82
31	310.00	981.0	1.70	1.55	1.57	178	89	82
32	320.00	989.0	1.70	1.58	1.59	173	90	84
33	330.00	997.2	1.80	1.54	1.76	143	87	83
34	340.00	1004.4	1.50	1.39	1.40	170	84	81
35	350.00	1011.8	1.50	1.35	1.35	190	84	80
36	360.00	1019.2	1.50	1.35	1.35	191	84	80
37	370.00	1026.2	1.70	1.60	1.56	180	85	83
38	380.00	1033.4	1.60	1.44	1.46	190	90	85
39	390.00	1040.5	1.50	1.34	1.36	194	95	85
40	400.00	1047.5	1.40	1.24	1.26	199	94	86
41	410.00	1054.6	1.50	1.41	1.45	158	96	87
42	420.00	1061.6	1.50	1.39	1.43	169	97	88
43	430.00	1068.5	1.50	1.35	1.38	190	98	89
44	440.00	1075.5	1.50	1.35	1.38	193	101	91
45	450.00	1082.7	1.50	1.41	1.46	161	105	94
46	460.00	1090.0	1.60	1.49	1.54	170	106	97
47	470.00	1097.0	1.40	1.25	1.30	194	108	99
48	480.00	1103.495	1.30	1.15	1.20	202	107	99
Max/Avg.	480.00	339.870	1.550	1.405	1.446	177.604	91.229	86.313

FIELD DATA SPREADSHEET

Client: Nucor **Test Date:** 6/22/2006 **Run:** 3
Start Time: 12:10 AM **Emissions Unit:** Baghouse **EPA Method:** 0061
Stop Time: 9:15 AM **Project:** Compliance Hexchrome

				ORIFICE ΔH (in. H_2O)		T_{stack}	DGM TEMP (°F)	
POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ACTUAL	DESIRED	(°F)	IN	OUT
INITIAL	0.00	110.010						
1	10.00	118.08	1.80	1.70	1.68	163	78	78
2	20.00	126.02	1.80	1.70	1.70	160	84	82
3	30.00	133.73	1.60	1.70	1.47	178	87	82
4	40.00	141.09	1.60	1.70	1.47	181	90	82
5	50.00	148.62	1.50	1.30	1.40	175	94	84
6	60.00	155.69	1.60	1.50	1.56	148	93	86
7	70.00	162.84	1.50	1.30	1.42	166	90	85
8	80.00	169.64	1.50	1.30	1.38	178	86	83
9	90.00	176.49	1.40	1.20	1.25	195	84	82
10	100.00	183.70	1.60	1.50	1.45	188	86	83
11	110.00	190.91	1.60	1.50	1.46	181	84	82
12	120.00	198.12	1.70	1.50	1.58	170	83	79
13	130.00	205.49	1.70	1.50	1.56	173	77	77
14	140.00	212.76	1.70	1.50	1.60	158	81	77
15	150.00	220.03	1.50	1.30	1.37	177	84	77
16	160.00	227.31	1.60	1.40	1.43	190	82	77
17	170.00	234.54	1.60	1.30	1.41	198	81	76
18	180.00	241.77	1.70	1.50	1.59	160	81	76
19	190.00	248.80	1.60	1.30	1.51	153	80	75
20	200.00	255.83	1.70	1.60	1.57	168	81	74
21	210.00	263.19	1.70	1.50	1.58	163	81	73
22	220.00	270.45	1.50	1.30	1.39	166	80	74
23	230.00	277.71	1.50	1.30	1.35	182	79	72
24	240.00	284.98	1.60	1.30	1.42	190	79	73
25	250.00	292.29	1.70	1.50	1.53	182	75	75
26	260.00	299.08	1.50	1.30	1.34	192	80	75
27	270.00	306.13	1.60	1.40	1.47	173	80	75
28	280.00	313.45	1.70	1.60	1.63	145	79	74
29	290.00	320.62	1.60	1.40	1.48	169	81	76
30	300.00	327.79	1.60	1.40	1.46	178	82	76
31	310.00	334.91	1.40	1.20	1.25	193	82	75
32	320.00	342.07	1.60	1.40	1.44	185	82	75
33	330.00	349.23	1.70	1.50	1.60	158	83	76
34	340.00	356.37	1.60	1.40	1.46	174	78	75
35	350.00	363.53	1.60	1.40	1.45	183	80	76
36	360.00	370.64	1.40	1.20	1.26	189	83	76
37	370.00	377.37	1.50	1.30	1.39	175	85	83
38	380.00	384.56	1.60	1.40	1.45	191	89	82
39	390.00	391.86	1.70	1.50	1.54	192	89	82
40	400.00	398.99	1.60	1.40	1.47	180	88	82
41	410.00	406.29	1.70	1.50	1.63	155	91	82
42	420.00	413.34	1.60	1.40	1.46	189	93	83
43	430.00	420.03	1.50	1.30	1.35	199	96	85
44	440.00	427.34	1.70	1.50	1.60	173	96	86
45	450.00	434.62	1.70	1.50	1.62	162	96	85
46	460.00	441.84	1.60	1.40	1.54	158	97	87
47	470.00	448.82	1.50	1.30	1.39	186	97	90
48	480.00	455.859	1.50	1.30	1.38	189	98	88
Max/Avg.	480.00	345.849	1.600	1.421	1.475	175.646	85.104	79.333
		-19.2 cf						

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ANALYSIS REPORT

Project #: 60614
Client: Desert Air Environmental Services
Client Project ID: Nucor Steel

Report Date: 05-Jul-06
Date Received: 23-Jul-06

Hexavalent Chromium, Total µg

Sample	Cr^{+6} Total µg
Reagent Blank	1.1
Train Blank	0.8
Run 1	1.9
Run 2	2.7
Run 3	2.5
Spike, %Recovery	104%

HEXAVALENT CHROMIUM

IC ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air
Proj. #: 60614
Date: 03-Jul-06

MDL = 0.5 mg/L
Spike concentr'n = 15.0 mg/L

Sample ID Client	FAL	Test Sol'n µg/L	Sample Volume ml	Peak Height	Dil'n Factor	Total µg Cr^{+6}
Reagent Blank	60614.RB	2.76	400	1.05	1	1.10
Train Blank	60614.TB	2.00	400	0.76	1	0.80
Run 1	60614.1	4.36	446	1.66	1	1.94
Run 2	60614.2	5.20	521	1.98	1	2.71
Run 3	60614.3	4.72	531	1.79	1	2.51
Spike	60614.1S	19.99		7.59	% Rec. =	104.2%

Calibration	Peak Ht.	True conc.	Regr
Blank	0.0	0.0	0.0
Standard 1	1.9	5.0	1.9
Standard 2	3.8	10.0	3.8
Standard 3	7.3	20.0	7.6
Standard 4	11.5	30.0	11.4

Regression Statistics

R Square	0.99902	Intercept	0
Standard Error	0.143	X Variable	0.38
Observations	5		

DESERT AIR ENVIRONMENTAL SERVICES, LLC

Recovery Data

Client: Nucor Steel
Emissions Unit: Baghouse
EPA Method: 61

Test Date: 6/20/2006
Project: Compliance

Impinger Contents	Run 1			Run 2			Run 3		
	Final	Initial	Net	Final	Initial	Net	Final	Initial	Net
KOH	494.2	483.6	10.6	507.0	491.2	15.8	508.6	486.0	22.6
KOH	515.3	409.2	106.1	552.8	442.2	110.6	519.2	414.0	105.2
KOH	530.7	425.0	105.7	490.2	397.2	93.0	525.1	424.3	100.8
KO	339.8	334.7	5.1	339.0	335.0	4.0	337.6	331.8	5.8
SILICA	1025.1	984.8	40.3	1039.6	989.4	50.2	1053.1	1004.5	48.6
Filter #									
Tare Wt.									
Total Volume of H_2O, grams			267.8			273.6			283.0

Comments

% O_2	% O_2	% O_2
% CO_2	% CO_2	% CO_2

Impinger Contents	Run 4			Run 5			Run 6		
	Final	Initial	Net	Final	Initial	Net	Final	Initial	Net
Filter #									
Tare Wt.									
Total Volume of H_2O, grams									

Comments

% O_2	% O_2	% O_2
% CO_2	% CO_2	% CO_2

(6)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: Cherokee	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8499	Stack Static Pressure: -.80
Unit: Baghouse	Meter Calibration Factor (Y): 0.9610	Assumed Moisture: 3%
Date: June 20th 2006	Probe #: Cherokee	Start time: 01:00 End Time: 03:00
Technicians: KEIN & CBH Team Leader: M.T.R	Probe Liner Material: Teflon	Nozzle Diameter (in): .180
Method / Run # M.61 #1	Pitot Tube Cp: 0.84	Initial Leak Rate: 0.002 @ 20"Hg
Sheet 1 of 4	Ambient Temp.: 83 Pbarr: 29.98	**Final Leak rate:** —

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						440.400					
6	10	7	1.7	1.6	150	448.23	83	83	NA	NA	60
6	20	7	1.7	1.6	132	455.51	89	86			58
5	30	7	1.7	1.6	130	462.40	91	85			58
5	40	6	1.5	1.3	168	469.45	91	85			58
4	50	5	1.4	1.2	187	476.10	93	86			58
4	60	5	1.2	1.0	189	482.31	93	89			55
3	70	6	1.5	1.5	161	489.50	95	91			55
3	80	5	1.4	1.2	182	496.32	95	89			52
2	90	5	1.4	1.2	194	503.01	97	90			52
2	100	6	1.5	1.3	183	510.00	95	90			54
1	110	6	1.4	1.3	164	516.95	97	90			55
1	120	5	1.4	1.2	181	523.700	98	90	NA	NA	57
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(6)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: Cherokee	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8499	Stack Static Pressure: -.80
Unit: Baghouse	Meter Calibration Factor (Y): 0.9610	Assumed Moisture: 3%
Date: June 20th 2006	Probe #: Cherokee	Start time: 03:25 End Time: 05:25
Technicians: K.E.N & CBH Team Leader: M.T.R	Probe Liner Material: Teflon	Nozzle Diameter (in): .180
Method / Run # M-61 - #1	Pitot Tube Cp: 0.84	Initial Leak Rate: Cont -
Sheet 2 of 2	Ambient Temp.: 85 Pbarr: 29.98	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						523.700					
6	10	5	1.5	1.3	178	530.55	86	86	NA	NA	60
6	20	5	1.4	1.2	179	537.22	92	87	NA	NA	58
5	30	5	1.4	1.2	176	543.82	94	88			56
5	40	6	1.5	1.4	153	550.85	92	88			54
4	50	5	1.4	1.3	156	557.72	91	88			52
4	60	5	1.3	1.2	173	564.34	90	86			50
3	70	5	1.4	1.2	175	570.95	89	86			47
3	80	5	1.5	1.4	156	577.54	89	86			48
2	90	5	1.4	1.3	166	584.11	87	85			49
2	100	5	1.4	1.3	176	590.70	92	86			51
1	110	5	1.4	1.2	187	597.01	92	86	NA	NA	55
1	120	6	1.5	1.4	155	604.200	93	86	NA	NA	56
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(61)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: Cherokee	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8499	Stack Static Pressure: -.80
Unit: Baghouse	Meter Calibration Factor (Y): 0.9610	Assumed Moisture: 3%
Date: June 20th 2006	Probe #: Cherokee	Start time: 05:48 End Time: 07:48
Technicians: K.E.N & CBH Team Leader: M.T.R	Probe Liner Material: Teflon	Nozzle Diameter (in): .180
Method / Run # M.61 #1	Pitot Tube Cp: 0.84	Initial Leak Rate: Cont.
Sheet 3 of 4	Ambient Temp.: 92 Pbarr: 29.98	**Final Leak rate:** -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						604.200					
6	10	5	1.3	1.2	172	610.74	89	87	NA	NA	66
6	20	6	1.6	1.5	147	618.01	92	88	NA	NA	49
5	30	6	1.6	1.5	161	625.23	90	86			49
5	40	6	1.4	1.3	178	631.96	90	87			51
4	50	5	1.3	1.1	182	638.45	91	87			53
4	60	5	1.6	1.5	160	645.24	89	86			51
3	70	6	1.4	1.3	147	651.69	87	85			53
3	80	6	1.9	1.3	163	658.06	87	85			51
2	90	6	1.3	1.1	175	664.46	86	86			52
2	100	7	1.3	1.2	175	670.88	88	84			53
	1										
1	110	7	1.3	1.1	189	677.11	88	85	NA	NA	55
1	120	7	1.5	1.3	167	683.405	88	85	NA	NA	55
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(61)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: Cherokee	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8499	Stack Static Pressure: -.80
Unit: Baghouse	Meter Calibration Factor (Y): 0.9610	Assumed Moisture: 3%
Date: June 20th 2006	Probe #: Cherokee	Start time: 08:08 End Time: 10:08
Technicians: K.E.N & C.B.H Team Leader: M.T.R	Probe Liner Material: Teflon	Nozzle Diameter (in): .180
Method / Run # M6 1 #1	Pitot Tube Cp: 0.84	Initial Leak Rate: Cont
Sheet 4 of 4	Ambient Temp.: 91 Pbarr: 29.98	**Final Leak rate:** 0.005@11" Hg

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						683.405					
6	10	8	1.4	1.2	184	689.91	86	86	NA	NA	60
6	20	8	1.4	1.2	184	696.59	89	86	NA	NA	54
5	30	8	1.4	1.2	187	703.02	91	87			55
5	40	8	1.4	1.3	158	709.68	92	88			53
4	50	8	1.5	1.3	178	716.35	93	89			55
4	60	8	1.4	1.2	190	722.45	92	90			55
3	70	7	1.3	1.1	201	729.39	91	89			57
3	80	8	1.3	1.2	194	735.92	92	89			58
2	90	9	1.6	1.4	167	742.73	92	89			59
2	100	9	1.5	1.3	180	749.52	93	90			59
1	110	9	1.6	1.4	158	756.52	92	89	NA	NA	57
1	120	9	1.3	1.5	177	763.510	93	90	NA	NA	57
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(61)

DESERT AIR ENVIRONMENTAL SERVICES,LLC

Field Data

Client: NUCOR STEEL	Meter Box: Cherokee	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8499	Stack Static Pressure: -.85
Unit: Baghouse	Meter Calibration Factor (Y): 0.9610	Assumed Moisture: 3%
Date: June 21st 2006	Probe #: Cherokee	Start time: 00:22 End Time: 02:22
Technicians: K.G.N & CBH Team Leader: M.T.R	Probe Liner Material: Teflon	Nozzle Diameter (in): .180
Method / Run # M.61 #2	Pitot Tube Cp: 0.84	Initial Leak Rate: Cont -
Sheet 1 of 4	Ambient Temp.: 80 Pbarr: 29.99	Final Leak rate: —

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						763.625					
6	10	3	1.7	1.5	178	771.09	91	90	NA	NA	60
6	20	2	1.5	1.2	196	777.59	89	89	NA	NA	57
5	30	2	1.5	1.3	195	784.01	89	87			57
5	40	2	1.3	1.3	180	790.66	89	87			58
4	50	2	1.6	1.5	167	797.31	90	87			59
4	60	2	1.5	1.3	193	803.92	90	87			57
3	70	2	1.6	1.5	196	810.56	90	87			57
3	80	2	1.4	1.2	195	817.52	90	87			55
2	90	2	1.7	1.5	153	825.28	89	87			53
2	100	2	1.5	1.3	182	832.34	90	89			54
1	110	2	1.5	1.3	177	839.08	90	86	NA	NA	55
1	120	2	1.5	1.3	187	845.825	91	86	NA	NA	57
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(6)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: Cherokee	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8499	Stack Static Pressure: -.85
Unit: Baghouse	Meter Calibration Factor (Y): 0.9610	Assumed Moisture: 3%
Date: June 21st 2006	Probe #: Cherokee	Start time: 02:42 End Time: 04:42
Technicians: K.EN & CBH Team Leader: M.T.R	Probe Liner Material: Teflon	Nozzle Diameter (in): .180
Method / Run # M.6 #2	Pitot Tube Cp: 0.84	Initial Leak Rate: 0.002 @ 10"Hg
Sheet 2 of 4	Ambient Temp.: 80 Pbarr: 29.99	Final Leak rate: conf.

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						845.825					
6	10	2	1.5	1.3	193	852.83	91	90	NA	NA	60
6	20	2	1.4	1.2	191	859.60	96	87	NA	NA	58
5	30	2	1.5	1.3	160	866.01	97	90			55
5	40	2	1.7	1.4	186	872.95	94	89			52
4	50	2	1.5	1.3	196	879.76	90	87			54
4	60	2	1.6	1.4	194	886.50	90	85			52
3	70	2	1.6	1.4	164	893.48	88	83			52
3	80	2	1.5	1.3	181	900.20	87	83			54
2	90	2	1.6	1.4	189	907.18	88	83			55
2	100	2	1.5	1.3	196	913.68	89	87			56
1	110	2	1.5	1.3	183	920.49	86	82	NA	NA	57
1	120	2	1.6	1.4	179	927.175	85	82	NA	NA	59
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(60)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: Cherokee	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8499	Stack Static Pressure: -.85
Unit: Baghouse	Meter Calibration Factor (Y): 0.9610	Assumed Moisture: 3%
Date: June 21st 2006	Probe #: Cherokee	Start time: 0510 End Time: 07:10
Technicians: K.E.N JCBH Team Leader: M.T.R	Probe Liner Material: Teflon	Nozzle Diameter (in): .180
Method / Run # M.61 #2	Pitot Tube Cp: 0.84	Initial Leak Rate: cont -
Sheet 3 of 4	Ambient Temp.: 80 Pbarr: 29.99	**Final Leak rate:** —

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						927.175					
6	10	2	1.6	1.4	181	934.01	81	81	NA	NA	60
6	20	2	1.7	1.6	161	941.35	86	81	NA	NA	57
5	30	2	1.7	1.6	140	949.60	87	82			55
5	40	2	1.7	1.6	131	957.75	89	82			48
4	50	2	1.7	1.6	126	965.36	89	83			46
4	60	2	1.7	1.6	130	973.15	86	82			46
3	70	2	1.7	1.5	178	981.03	89	82			49
3	80	2	1.7	1.5	173	989.43	90	84			50
2	90	2	1.8	1.5	143	997.20	87	83			52
2	100	2	1.5	1.3	170	1004.43	84	81			52
1	110	2	1.5	1.3	190	1014.84	84	80	NA	NA	55
1	120	2	1.5	1.3	191	1019.210	84	80	NA	NA	56
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(61)

DESERT AIR ENVIRONMENTAL SERVICES,LLC

Field Data

Client: Nucor STEEL	Meter Box: Cherokee	Stack Diameter (in): 21"
Facility: Hertford NC	Meter Delta H @: 1.8499	Stack Static Pressure: -.85
Unit: Baghouse	Meter Calibration Factor (Y): 0.9610	Assumed Moisture: 3%
Date: June 21st 2006	Probe #: Cherokee	Start time: 07:22 End Time: 09:22
Technicians: K.E.N ; C.B.H Team Leader: M.T.R	Probe Liner Material: Teflon	Nozzle Diameter (in): .180
Method / Run # M-61 #2	Pitot Tube Cp: 0.84	Initial Leak Rate: Cont-
Sheet 4 of 4	Ambient Temp.: 80 Pbarr: 29.99	**Final Leak rate:** 0.005 @ 12" Hg

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						1019.210					
6	10	2	1.7	1.6	180	1026.24	85	83	NA	NA	61
6	20	2	1.6	1.4	190	1033.43	90	85	NA	NA	55
5	30	2	1.5	1.3	194	1040.47	95	85			55
5	40	2	1.4	1.2	199	1047.52	94	86			55
4	50	2	1.5	1.4	158	1054.59	96	87			56
4	60	2	1.5	1.3	169	1061.60	97	88			54
3	70	2	1.5	1.3	190	1068.52	98	89			58
3	80	2	1.5	1.3	193	1075.50	101	91			59
2	90	2	1.5	1.4	161	1082.70	105	94			57
2	100	2	1.6	1.4	170	1090.03	106	97			52
1	110	2	1.4	1.2	194	1097.00	108	99	NA	NA	51
1	120	2	1.3	1.1	202	1103.495	107	99	NA	NA	53
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(61)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: Cherokee	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.9499	Stack Static Pressure: -.85
Unit: Baghouse	Meter Calibration Factor (Y): 0.9610	Assumed Moisture: 3%
Date: June 22nd 2006	Probe #: Cherokee	Start time: 12:10 End Time: 02:10
Technicians: K.E.N & CBH Team Leader: M.T.R	Probe Liner Material: Teflon	Nozzle Diameter (in): .180
Method / Run # M.61 #3	Pitot Tube Cp: 0.84	Initial Leak Rate: 0.002@10"Hg
Sheet 1 of 4	Ambient Temp.: 84 Pbarr: 29.98	**Final Leak rate:** —

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (°F)	Dry Gas Meter Temp Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
						110.010					
6	10	4	1.8	1.7	163	118.08	78	78	NA	NA	58
6	20	4	1.8	1.7	160	126.02	84	82	NA	NA	55
5	30	4	1.6	1.7	178	133.73	87	82			50
5	40	4	1.6	1.7	181	141.09	90	82			56
4	50	4	1.5	1.3	175	148.62	94	84			53
4	60	4	1.6	1.5	148	155.69	93	86			55
3	70	4	1.5	1.3	166	162.84	90	85			52
3	80	4	1.5	1.3	178	169.64	86	83			54
2	90	4	1.4	1.2	195	176.49	84	82			56
2	100	4	1.6	1.5	188	183.70	86	83			55
1	110	4	1.6	1.5	181	190.91	84	82	NA	NA	56
1	120	4	1.7	1.5	170	198.115	83	879	NA	NA	54
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(6)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL				Meter Box: Cherokee					Stack Diameter (in): 21'		
Facility: Hertford NC				Meter Delta H @: 1.8499					Stack Static Pressure: -.85		
Unit: Baghouse				Meter Calibration Factor (Y): 0.9610					Assumed Moisture: 3%		
Date: June 22nd 2006				Probe #: Cherokee					Start time: 02:35 End Time: 04:35		
Technicians: K.E.N & C.B.H Team Leader: M.T.R				Probe Liner Material: Teflon					Nozzle Diameter (in): .180		
Method / Run # M.61 #3				Pitot Tube Cp: 0.84					Initial Leak Rate: Cont.		
Sheet 2 of 4				Ambient Temp.: 78		Pbarr: 29.98			Final Leak rate: —		

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (°F)	Dry Gas Meter Temp Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
						198.115					
6	10	4	1.7	1.5	173	205.49	77	77	NA	NA	59
6	20	4	1.7	1.5	158	212.76	81	77	NA	NA	56
5	30	4	1.5	1.3	177	220.03	84	77			51
5	40	4	1.6	1.4	190	227.31	82	77			50
4	50	4	1.6	1.3	198	234.54	81	76			53
4	60	4	1.7	1.5	160	241.77	81	76			56
3	70	4	1.6	1.3	153	248.80	80	75			58
3	80	4	1.7	1.6	168	255.83	81	74			59
2	90	4	1.6	1.3	163	263.19	81	73			60
2	100	4	1.7	1.6	166	270.45	80	74			56
	/										
1	110	4	1.5	1.3	182	277.71	79	72	NA	NA	55
1	120	4	1.6	1.3	190	284.975	79	73	NA	NA	52
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(6)

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: Cherokee	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8499	Stack Static Pressure: -.85
Unit: Baghouse	Meter Calibration Factor (Y): 0.9610	Assumed Moisture: 3%
Date: June 22nd 2006	Probe #: Cherokee	Start time: 05:05 End Time: 07:05
Technicians: K.C.W & CBH Team Leader: M.T.R	Probe Liner Material: Teflon	Nozzle Diameter (in): .180
Method / Run # M.61 - #3	Pitot Tube Cp: 0.84	Initial Leak Rate: Cont.
Sheet 3 of 4	Ambient Temp.: 75 Pbarr: 29.98	**Final Leak rate:** —

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (°F)	Dry Gas Meter Temp Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
						284.975					
6	10	4	1.7	1.5	182	292.29	75	75	NA	NA	58
6	20	4	1.5	1.3	192	299.08	80	75	NA	NA	50
5	30	4	1.6	1.4	173	306.13	80	75			50
5	40	4	1.7	1.6	145	313.45	79	74			52
4	50	4	1.6	1.4	169	320.62	81	76			54
4	60	4	1.6	1.4	178	327.79	82	76			57
3	70	4	1.4	1.2	193	334.91	82	75			56
3	80	4	1.6	1.4	185	342.07	82	75			53
2	90	4	1.7	1.5	158	349.23	83	76			55
2	100	4	1.6	1.4	174	356.37	78	75			57
1	110	4	1.6	1.4	183	363.53	80	76	NA	NA	59
1	120	4	1.4	1.2	189	370.639	83	76	NA	NA	60
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

(6)

DESERT AIR ENVIRONMENTAL SERVICES,LLC

Field Data

* 19.2 ~~[illegible]~~ cf Due to excessive leak rate

Client: NUCOR STEEL	Meter Box: Cherokee	Stack Diameter (in): 21'
Facility: Hertford NC	Meter Delta H @: 1.8499	Stack Static Pressure: -.85
Unit: Baghouse	Meter Calibration Factor (Y): 0.9610	Assumed Moisture: 3%
Date: June 22nd 2006	Probe #: Cherokee	Start time: 07:15 End Time: 09:15
Technicians: K.E.N & CBH Team Leader: M.T.P.	Probe Liner Material: Teflon	Nozzle Diameter (in): .185
Method / Run # M-61 #3	Pitot Tube Cp: 0.84	Initial Leak Rate: Cont- * = 13.833 cf
Sheet 1 of 1	Ambient Temp.: 89 Pbarr: 29.98	**Final Leak rate:** 0.06 @ 8" Hg * .04 x 480 [illegible]

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (*F)	Dry Gas Meter Temp Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						370.639					
6	10	4	1.5	1.3	175	377.37	85	83	NA	NA	58
6	20	4	1.6	1.4	191	384.56	89	82	NA	NA	50
5	30	4	1.7	1.5	192	391.86	89	82			48
5	40	4	1.6	1.4	180	398.99	88	82			46
4	50	4	1.7	1.5	155	406.29	91	82			47
4	60	4	1.6	1.4	189	413.34	93	83			48
3	70	4	1.5	1.3	199	420.03	96	85			50
3	80	4	1.7	1.5	173	427.34	96	86			50
2	90	4	1.7	1.5	162	434.62	96	85			50
2	100	4	1.6	1.4	158	441.85	97	87			52
1	110	4	1.5	1.3	186	448.82	97	90	NA	NA	56
1	120	4	1.5	1.3	189	455.859	98	88	NA	NA	59
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

APPENDIX D
METHOD 18 DATA

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 6/20/2006
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA TO-15

STACK RESULTS

	Run 1	
Test Date	6/20/2006	
Start Time	1:05 AM	
End Time	10:05 AM	
Dry Gas Volume at standard conditions, Vm-Std (scf)	4.77	
Dry Gas Volume at standard conditions, Vm-Std (scm)	0.14	
Stack Gas Volumetric Flow Rate, (dscfm)	1285668	(Method 5)
Process Rate (tons/hr)	256.71	

VOC RESULTS AND PROCESS DATA (EPA Method TO-15)

	Sample Results		Total mass	Emissions: Run 1		
	Tube 1	Tube 2	(ug)	ug/dscf	ug/dscm	lb/hr
Propylene	0.02	0.03	0.05	1.0482E-02	3.7017E-01	1.7810E-03
Chloromethane	0.57	0.53	1.10	2.3082E-01	8.1512E+00	3.9219E-02
Bromomethane	0.04	0.00	0.04	8.3857E-03	2.9614E-01	1.4248E-03
Acetone	0.00	0.38	0.38	8.0294E-02	2.8355E+00	1.3643E-02
Vinyl Acetate	0.03	0.06	0.10	1.9916E-02	7.0333E-01	3.3840E-03
2-Butanone (MEK)	0.00	0.08	0.08	1.6143E-02	5.7007E-01	2.7428E-03
Hexane	0.03	0.04	0.08	1.5933E-02	5.6266E-01	2.7072E-03
Benzene	0.15	0.39	0.54	1.1279E-01	3.9831E+00	1.9164E-02
Toluene	0.90	1.24	2.14	4.4885E-01	1.5851E+01	7.6265E-02
2-Hexanone	0.06	0.08	0.14	2.8512E-02	1.0069E+00	4.8445E-03
Chlorobenzene	0.15	0.25	0.40	8.3019E-02	2.9318E+00	1.4106E-02
Ethylbenzene	0.32	0.29	0.61	1.2746E-01	4.5013E+00	2.1658E-02
m- & p-Xylenes	0.56	0.49	1.05	2.2034E-01	7.7810E+00	3.7438E-02
Styrene	3.46	1.78	5.24	1.0985E+00	3.8794E+01	1.8665E-01
o-Xylene	0.17	0.12	0.30	6.2055E-02	2.1914E+00	1.0544E-02
4-Ethyltoluene	0.08	0.00	0.08	1.6143E-02	5.7007E-01	2.7428E-03
1,3,5-Trimethylbenzene	0.08	0.00	0.08	1.7610E-02	6.2189E-01	2.9922E-03
1,2,4-Trimethylbenzene	0.19	0.00	0.19	3.9413E-02	1.3918E+00	6.6967E-03
1,3-Dichlorobenzene	0.07	0.00	0.07	1.36E-02	4.81E-01	2.32E-03
1,2-Dichlorobenzene	0.21	0.00	0.21	4.36E-02	1.54E+00	7.41E-03
1,2,4-Trichlorobenzene	0.06	0.00	0.06	1.28E-02	4.52E-01	2.17E-03

lb/hr = (ug/dscf * dscfm * 60) / 454000000

Total VOC, lb/hr	**0.460**
Process Rate VOC, lb/ton	**0.0018**
Benzene, lb/hr	**0.0192**
Benzene, lb/yr	**150.4**

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 6/21/2006
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA TO-15

STACK RESULTS

	Run 2	
Test Date	6/21/2006	
Start Time	12:25 AM	
End Time	9:20 AM	
Dry Gas Volume at standard conditions, Vm-Std (scf)	4.44	
Dry Gas Volume at standard conditions, Vm-Std (scm)	0.13	
Stack Gas Volumetric Flow Rate, (dscfm)	1271647	(Method 5)
Process Rate (tons/hr)	219.73	

VOC RESULTS AND PROCESS DATA (EPA Method TO-15)

	Sample Results		Total mass	Emissions: Run 2		
	Tube 1	Tube 2	(ug)	ug/dscf	ug/dscm	lb/hr
Propylene	0.05	0.03	0.08	1.87E-02	6.60E-01	3.14E-03
Chloromethane	0.11	0.00	0.11	2.41E-02	8.51E-01	4.05E-03
Bromomethane	0.06	0.00	0.06	1.31E-02	4.61E-01	2.20E-03
Ethanol	1.42	1.32	2.74	6.18E-01	2.18E+01	1.04E-01
Acetone	1.46	1.29	2.75	6.19E-01	2.18E+01	1.04E-01
Isopropyl Alcohol	0.41	0.54	0.95	2.14E-01	7.57E+00	3.60E-02
Vinyl Acetate	0.00	0.06	0.06	1.31E-02	4.61E-01	2.20E-03
2-Butanone (MEK)	0.08	0.10	0.18	4.03E-02	1.42E+00	6.78E-03
Hexane	0.06	0.06	0.11	2.55E-02	8.99E-01	4.28E-03
Benzene	0.36	0.31	0.67	1.50E-01	5.31E+00	2.52E-02
2,2,4-Trimethylpentane	0.05	0.08	0.12	2.73E-02	9.62E-01	4.58E-03
Heptane	0.04	0.05	0.09	2.07E-02	7.32E-01	3.48E-03
4-Methyl-2-Pentanone (MiBK)	0.04	0.05	0.09	1.94E-02	6.84E-01	3.26E-03
Toluene	0.97	1.36	2.33	5.24E-01	1.85E+01	8.81E-02
2-Hexanone	0.09	0.15	0.24	5.34E-02	1.89E+00	8.97E-03
Chlorobenzene	0.27	0.37	0.64	1.44E-01	5.08E+00	2.42E-02
Ethylbenzene	0.53	0.61	1.14	2.57E-01	9.08E+00	4.32E-02
m- & p-Xylenes	0.84	0.92	1.76	3.97E-01	1.40E+01	6.67E-02
Styrene	6.88	7.00	13.88	3.13E+00	1.10E+02	5.25E-01
o-Xylene	0.26	0.26	0.52	1.16E-01	4.10E+00	1.95E-02
4-Ethyltoluene	0.16	0.08	0.24	5.50E-02	1.94E+00	9.24E-03
1,3,5-Trimethylbenzene	0.14	0.11	0.26	5.77E-02	2.04E+00	9.69E-03
1,2,4-Trimethylbenzene	0.39	0.24	0.63	1.42E-01	5.00E+00	2.38E-02
1,3-Dichlorobenzene	0.16	0.06	0.22	5.05E-02	1.78E+00	8.48E-03
1,4-Dichlorobenzene	0.07	0.00	0.07	1.60E-02	5.65E-01	2.69E-03
1,2-Dichlorobenzene	0.46	0.17	0.64	1.43E-01	5.05E+00	2.40E-02
1,2,4-Trichlorobenzene	0.18	0.00	0.18	4.03E-02	1.42E+00	6.78E-03

Total VOC, lb/hr	**1.164**
Process Rate VOC, lb/ton	**0.0053**
Benzene, lb/hr	**0.0252**
Benzene, lb/yr	**198.1**

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 6/22/2006
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA TO-15

STACK RESULTS

	Run 3	
Test Date	6/22/2006	
Start Time	12:15 AM	
End Time	9:20 AM	
Dry Gas Volume at standard conditions, Vm-Std (scf)	4.47	
Dry Gas Volume at standard conditions, Vm-Std (scm)	0.13	
Stack Gas Volumetric Flow Rate, (dscfm)	1210938	(Method 5)
Process Rate (tons/hr)	234.13	

VOC RESULTS AND PROCESS DATA (EPA Method TO-15)

	Sample Results		Total mass	Emissions: Run 3		
	Tube 1	Tube 2	(ug)	ug/dscf	ug/dscm	lb/hr
Propylene	0.04	0.04	0.08	1.79E-02	6.32E-01	2.86E-03
Chloromethane	0.37	0.25	0.62	1.38E-01	4.86E+00	2.20E-02
Bromomethane	0.06	0.05	0.10	2.28E-02	8.06E-01	3.65E-03
MTBE	0.06	0.04	0.09	2.08E-02	7.35E-01	3.33E-03
Vinyl Acetate	0.05	0.07	0.13	2.84E-02	1.00E+00	4.55E-03
2-Butanone (MEK)	0.09	0.10	0.18	4.05E-02	1.43E+00	6.48E-03
Hexane	0.05	0.07	0.12	2.60E-02	9.16E-01	4.15E-03
Benzene	1.52	1.56	3.08	6.89E-01	2.43E+01	1.10E-01
Heptane	0.06	0.04	0.10	2.17E-02	7.66E-01	3.47E-03
4-Methyl-2-Pentanone (MiBK)	0.09	0.04	0.14	3.02E-02	1.07E+00	4.83E-03
Toluene	2.66	1.87	4.53	1.01E+00	3.58E+01	1.62E-01
2-Hexanone	0.10	0.00	0.10	2.19E-02	7.74E-01	3.51E-03
Chlorobenzene	0.37	0.00	0.37	8.30E-02	2.93E+00	1.33E-02
Ethylbenzene	0.52	0.00	0.52	1.15E-01	4.07E+00	1.84E-02
m- & p-Xylenes	1.07	0.04	1.11	2.49E-01	8.79E+00	3.98E-02
Styrene	3.80	0.05	3.85	8.61E-01	3.04E+01	1.38E-01
o-Xylene	0.25	0.00	0.25	5.48E-02	1.94E+00	8.77E-03
4-Ethyltoluene	0.07	0.00	0.07	1.57E-02	5.53E-01	2.51E-03
1,3,5-Trimethylbenzene	0.06	0.00	0.06	1.36E-02	4.82E-01	2.18E-03
1,2,4-Trimethylbenzene	0.13	0.00	0.13	2.95E-02	1.04E+00	4.73E-03
1,4-Dichlorobenzene	0.10	0.00	0.10	2.15E-02	7.58E-01	3.44E-03

Total VOC, lb/hr	**0.562**
Process Rate VOC, lb/ton	**0.0024**
Benzene, lb/hr	**0.1102**
Benzene, lb/yr	**865.1**

Laboratory Analysis Report

CLIENT : Desert Air Environmental
PROJECT NO : 060319
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 06/26/06
DATE REPORTED : 07/21/06

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 1 Tube 1			Sample Reporting Limit (RLxDF's)	Run 1 Tube 2			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	060319-16051				060319-16052				
Date Sampled	6/20/2006				6/20/2006				
Date Analyzed	7/12/2006				7/12/2006				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Chlorodifluoromethane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
Propylene	0.021		1.0	0.014	0.029		1.0	0.014	0.014
Dichlorodifluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
Chloromethane	0.574		1.0	0.083	0.527		1.0	0.083	0.083
1,2-Dichloro-1,1,2,2-Tetrafluoroethane	ND	U	1.0	0.056	ND	U	1.0	0.056	0.056
Vinyl Chloride	ND	U	1.0	0.020	ND	U	1.0	0.020	0.020
1,3-Butadiene	ND	U	1.0	0.018	ND	U	1.0	0.018	0.018
Bromomethane	0.040		1.0	0.031	ND	U	1.0	0.031	0.031
Chloroethane	ND	U	1.0	0.021	ND	U	1.0	0.021	0.021
Dichlorofluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
Ethanol	ND	U	1.0	0.030	ND	U	1.0	0.030	0.030
Vinyl Bromide	ND	U	1.0	0.035	ND	U	1.0	0.035	0.035
Acetone	ND	U	1.0	0.380	0.383		1.0	0.380	0.380
Trichlorofluoromethane	ND	U	1.0	0.042	ND	U	1.0	0.042	0.042
Isopropyl Alcohol	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
Acrylonitrile	ND	U	1.0	0.017	ND	U	1.0	0.017	0.017
1,1-Dichloroethylene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Allyl Chloride (Chloroprene)	ND	U	1.0	0.025	ND	U	1.0	0.025	0.025
Carbon Disulfide	ND	U	1.0	0.025	ND	U	1.0	0.025	0.025
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
t-1,2-Dichloroethylene	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
MTBE	ND	U	1.0	0.029	ND	U	1.0	0.029	0.029
Vinyl Acetate	0.034		1.0	0.028	0.061		1.0	0.028	0.028
2-Butanone (MEK)	ND	U	1.0	0.047	0.077		1.0	0.047	0.047
cis-1,2- Dichloroethene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Hexane	0.033		1.0	0.028	0.043		1.0	0.028	0.028
Chloroform	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
Ethyl Acetate	ND	U	1.0	0.029	ND	U	1.0	0.029	0.029
Tetrahydrofuran	ND	U	1.0	0.024	ND	U	1.0	0.024	0.024
1,2-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1,1-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044

Laboratory Analysis Report

CLIENT : Desert Air Environmental
PROJECT NO : 060319
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 06/26/06
DATE REPORTED : 07/21/06

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 1 Tube 1			Sample Reporting Limit (RLxDF's)	Run 1 Tube 2			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	060319-16051				060319-16052				
Date Sampled	6/20/2006				6/20/2006				
Date Analyzed	7/12/2006				7/12/2006				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Benzene	0.150		1.0	0.026	0.388		1.0	0.026	0.026
Carbon Tetrachloride	ND	U	1.0	0.050	ND	U	1.0	0.050	0.050
Cyclohexane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
1,2-Dichloropropane	ND	U	1.0	0.037	ND	U	1.0	0.037	0.037
Bromodichloromethane	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
1,4-Dioxane	ND	U	1.0	0.029	ND	U	1.0	0.029	0.029
Trichloroethene	ND	U	1.0	0.043	ND	U	1.0	0.043	0.043
2,2,4-Trimethylpentane	ND	U	1.0	0.037	ND	U	1.0	0.037	0.037
Heptane	ND	U	1.0	0.033	ND	U	1.0	0.033	0.033
cis-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
4-Methyl-2-Pentanone (MiBK)	ND	U	1.0	0.033	ND	U	1.0	0.033	0.033
t-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
1,1,2-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044
Toluene	0.899		1.0	0.030	1.242		1.0	0.030	0.030
-Hexanone	0.059		1.0	0.033	0.077		1.0	0.033	0.033
Dibromochloromethane	ND	U	1.0	0.068	ND	U	1.0	0.068	0.068
1,2-Dibromoethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
Tetrachloroethylene	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
Chlorobenzene	0.147		1.0	0.037	0.249		1.0	0.037	0.037
Ethylbenzene	0.317		1.0	0.035	0.291		1.0	0.035	0.035
m- & p-Xylenes	0.558		1.0	0.069	0.493		1.0	0.069	0.069
Bromoform	ND	U	1.0	0.248	ND	U	1.0	0.248	0.248
Styrene	3.462	E	1.0	0.034	1.778	E	1.0	0.034	0.034
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.055	ND	U	1.0	0.055	0.055
o-Xylene	0.173		1.0	0.035	0.123		1.0	0.035	0.035
4-Ethyltoluene	0.077		1.0	0.039	ND	U	1.0	0.039	0.039
1,3,5-Trimethylbenzene	0.084		1.0	0.039	ND	U	1.0	0.039	0.039
1,2,4-Trimethylbenzene	0.188		1.0	0.039	ND	U	1.0	0.039	0.039
Benzyl Chloride	ND	U	1.0	0.207	ND	U	1.0	0.207	0.207
1,3-Dichlorobenzene	0.065		1.0	0.048	ND	U	1.0	0.048	0.048
1,4-Dichlorobenzene	ND	U	1.0	0.048	ND	U	1.0	0.048	0.048
1,2-Dichlorobenzene	0.208		1.0	0.048	ND	U	1.0	0.048	0.048
1,2,4-Trichlorobenzene	0.061		1.0	0.059	ND	U	1.0	0.059	0.059
Hexachlorobutadiene	ND	U	1.0	0.085	ND	U	1.0	0.085	0.085
BFB-Surrogate Std. % Recovery	113%				103%				70-130%

J- Analyte was detected. However the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Reporting Limit (RL).
E - Estimated value, result outside linear range of instrument.
U - Compound was analyzed for, but was not detected.

Sucha S. Parmar, PhD
Technical Director

Laboratory Analysis Report

CLIENT : Desert Air Environmental
PROJECT NO : 060319
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 06/26/06
DATE REPORTED : 07/21/06

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 2 Tube 1			Sample Reporting Limit (RLxDF's)	Run 2 Tube 2			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	060319-16053				060319-16054				
Date Sampled	6/22/2006				6/22/2006				
Date Analyzed	7/12/2006				7/12/2006				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Chlorodifluoromethane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
Propylene	0.049		1.0	0.014	0.034		1.0	0.014	0.014
Dichlorodifluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
Chloromethane	0.107		1.0	0.083	ND	U	1.0	0.083	0.083
1,2-Dichloro-1,1,2,2-Tetrafluoroethane	ND	U	1.0	0.056	ND	U	1.0	0.056	0.056
Vinyl Chloride	ND	U	1.0	0.020	ND	U	1.0	0.020	0.020
1,3-Butadiene	ND	U	1.0	0.018	ND	U	1.0	0.018	0.018
Bromomethane	0.058		1.0	0.031	ND	U	1.0	0.031	0.031
Chloroethane	ND	U	1.0	0.021	ND	U	1.0	0.021	0.021
Dichlorofluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
Ethanol	1.418	E	1.0	0.030	1.324	E	1.0	0.030	0.030
Vinyl Bromide	ND	U	1.0	0.035	ND	U	1.0	0.035	0.035
Acetone	1.460	E	1.0	0.380	1.287	E	1.0	0.380	0.380
Trichlorofluoromethane	ND	U	1.0	0.042	ND	U	1.0	0.042	0.042
Isopropyl Alcohol	0.410		1.0	0.039	0.542		1.0	0.039	0.039
Acrylonitrile	ND	U	1.0	0.017	ND	U	1.0	0.017	0.017
1,1-Dichloroethylene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Allyl Chloride (Chloroprene)	ND	U	1.0	0.025	ND	U	1.0	0.025	0.025
Carbon Disulfide	ND	U	1.0	0.025	ND	U	1.0	0.025	0.025
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
t-1,2-Dichloroethylene	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
MTBE	ND	U	1.0	0.029	ND	U	1.0	0.029	0.029
Vinyl Acetate	ND	U	1.0	0.028	0.058		1.0	0.028	0.028
2-Butanone (MEK)	0.083		1.0	0.047	0.096		1.0	0.047	0.047
cis-1,2- Dichloroethene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Hexane	0.055		1.0	0.028	0.058		1.0	0.028	0.028
Chloroform	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
Ethyl Acetate	ND	U	1.0	0.029	ND	U	1.0	0.029	0.029
Tetrahydrofuran	ND	U	1.0	0.024	ND	U	1.0	0.024	0.024
1,2-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1,1-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044

Laboratorv Analvsis Report

CLIENT : **Desert Air Environmental**
PROJECT NO : **060319**
MATRIX : **AIR**
UNITS : **ug/sample**

DATE RECEIVED : **06/26/06**
DATE REPORTED : **07/21/06**

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 2 Tube 1			Sample Reporting Limit (RLxDF's)	Run 2 Tube 2			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	060319-16053				060319-16054				
Date Sampled	6/22/2006				6/22/2006				
Date Analyzed	7/12/2006				7/12/2006				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Benzene	0.355		1.0	0.026	0.312		1.0	0.026	0.026
Carbon Tetrachloride	ND	U	1.0	0.050	ND	U	1.0	0.050	0.050
Cyclohexane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
1,2-Dichloropropane	ND	U	1.0	0.037	ND	U	1.0	0.037	0.037
Bromodichloromethane	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
1,4-Dioxane	ND	U	1.0	0.029	ND	U	1.0	0.029	0.029
Trichloroethene	ND	U	1.0	0.043	ND	U	1.0	0.043	0.043
2,2,4-Trimethylpentane	0.046		1.0	0.037	0.075		1.0	0.037	0.037
Heptane	0.041		1.0	0.033	0.051		1.0	0.033	0.033
cis-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
4-Methyl-2-Pentanone (MiBK)	0.039		1.0	0.033	0.047		1.0	0.033	0.033
t-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
1,1,2-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044
Toluene	0.971		1.0	0.030	1.356		1.0	0.030	0.030
Hexanone	0.088		1.0	0.033	0.149		1.0	0.033	0.033
Dibromochloromethane	ND	U	1.0	0.068	ND	U	1.0	0.068	0.068
1,2-Dibromoethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
Tetrachloroethylene	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
Chlorobenzene	0.272		1.0	0.037	0.367		1.0	0.037	0.037
Ethylbenzene	0.529		1.0	0.035	0.613		1.0	0.035	0.035
m- & p-Xylenes	0.841		1.0	0.069	0.922		1.0	0.069	0.069
Bromoform	ND	U	1.0	0.248	ND	U	1.0	0.248	0.248
Styrene	6.882	E	1.0	0.034	7.000	E	1.0	0.034	0.034
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.055	ND	U	1.0	0.055	0.055
o-Xylene	0.258		1.0	0.035	0.257		1.0	0.035	0.035
4-Ethyltoluene	0.163		1.0	0.039	0.081		1.0	0.039	0.039
1,3,5-Trimethylbenzene	0.144		1.0	0.039	0.112		1.0	0.039	0.039
1,2,4-Trimethylbenzene	0.393		1.0	0.039	0.236		1.0	0.039	0.039
Benzyl Chloride	ND	U	1.0	0.207	ND	U	1.0	0.207	0.207
1,3-Dichlorobenzene	0.160		1.0	0.048	0.064		1.0	0.048	0.048
1,4-Dichlorobenzene	0.071		1.0	0.048	ND	U	1.0	0.048	0.048
1,2-Dichlorobenzene	0.463		1.0	0.048	0.172		1.0	0.048	0.048
1,2,4-Trichlorobenzene	0.179		1.0	0.059	ND	U	1.0	0.059	0.059
Hexachlorobutadiene	ND	U	1.0	0.085	ND	U	1.0	0.085	0.085
BFB-Surrogate Std. % Recovery	110%				106%				70-130%

J- Analyte was detected. However the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Reporting Limit (RL).
E - Estimated value, result outside linear range of instrument.
U - Compound was analyzed for, but was not detected.

Sucha S. Parmar, PhD
Technical Director

Laboratory Analysis Report

CLIENT : Desert Air Environmental
PROJECT NO : 060319
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 06/26/06
DATE REPORTED : 07/21/06

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 3 Tube 1			Sample Reporting Limit (RLxDF's)	Run 3 Tube 2			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	060319-16055				060319-16056				
Date Sampled	6/22/2006				6/22/2006				
Date Analyzed	7/12/2006				7/12/2006				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Chlorodifluoromethane	ND	U	1.0	0.028	ND	U	2.0	0.057	0.028
Propylene	0.036		1.0	0.014	0.044		2.0	0.028	0.014
Dichlorodifluoromethane	ND	U	1.0	0.034	ND	U	2.0	0.067	0.034
Chloromethane	0.368		1.0	0.083	0.247		2.0	0.165	0.083
1,2-Dichloro-1,1,2,2-Tetrafluoroethane	ND	U	1.0	0.056	ND	U	2.0	0.112	0.056
Vinyl Chloride	ND	U	1.0	0.020	ND	U	2.0	0.041	0.020
1,3-Butadiene	ND	U	1.0	0.018	ND	U	2.0	0.035	0.018
Bromomethane	0.057		1.0	0.031	0.045	J	2.0	0.062	0.031
Chloroethane	ND	U	1.0	0.021	ND	U	2.0	0.042	0.021
Dichlorofluoromethane	ND	U	1.0	0.034	ND	U	2.0	0.067	0.034
Ethanol	ND	U	1.0	0.030	ND	U	2.0	0.060	0.030
Vinyl Bromide	ND	U	1.0	0.035	ND	U	2.0	0.070	0.035
Acetone	ND	U	1.0	0.380	ND	U	2.0	0.760	0.380
Trichlorofluoromethane	ND	U	1.0	0.042	ND	U	2.0	0.083	0.042
opropyl Alcohol	ND	U	1.0	0.039	ND	U	2.0	0.079	0.039
Acrylonitrile	ND	U	1.0	0.017	ND	U	2.0	0.035	0.017
1,1-Dichloroethylene	ND	U	1.0	0.031	ND	U	2.0	0.063	0.031
Allyl Chloride (Chloroprene)	ND	U	1.0	0.025	ND	U	2.0	0.050	0.025
Carbon Disulfide	ND	U	1.0	0.025	ND	U	2.0	0.050	0.025
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	U	1.0	0.061	ND	U	2.0	0.123	0.061
t-1,2-Dichloroethylene	ND	U	1.0	0.032	ND	U	2.0	0.063	0.032
1,1-Dichloroethane	ND	U	1.0	0.032	ND	U	2.0	0.064	0.032
MTBE	0.058		1.0	0.029	0.035	J	2.0	0.058	0.029
Vinyl Acetate	0.054		1.0	0.028	0.073		2.0	0.056	0.028
2-Butanone (MEK)	0.086		1.0	0.047	0.095		2.0	0.094	0.047
cis-1,2- Dichloroethene	ND	U	1.0	0.031	ND	U	2.0	0.063	0.031
Hexane	0.051		1.0	0.028	0.065		2.0	0.056	0.028
Chloroform	ND	U	1.0	0.039	ND	U	2.0	0.078	0.039
Ethyl Acetate	ND	U	1.0	0.029	ND	U	2.0	0.058	0.029
Tetrahydrofuran	ND	U	1.0	0.024	ND	U	2.0	0.047	0.024
1,2-Dichloroethane	ND	U	1.0	0.032	ND	U	2.0	0.064	0.032
1,1,1-Trichloroethane	ND	U	1.0	0.044	ND	U	2.0	0.087	0.044

Laboratory Analysis Report

CLIENT : Desert Air Environmental
PROJECT NO : 060319
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 06/26/06
DATE REPORTED : 07/21/06

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 3 Tube 1			Sample Reporting Limit (RLxDF's)	Run 3 Tube 2			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	060319-16055				060319-16056				
Date Sampled	6/22/2006				6/22/2006				
Date Analyzed	7/12/2006				7/12/2006				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Benzene	1.520	E	1.0	0.026	1.559		2.0	0.051	0.026
Carbon Tetrachloride	ND	U	1.0	0.050	ND	U	2.0	0.101	0.050
Cyclohexane	ND	U	1.0	0.028	ND	U	2.0	0.055	0.028
1,2-Dichloropropane	ND	U	1.0	0.037	ND	U	2.0	0.074	0.037
Bromodichloromethane	ND	U	1.0	0.054	ND	U	2.0	0.107	0.054
1,4-Dioxane	ND	U	1.0	0.029	ND	U	2.0	0.058	0.029
Trichloroethene	ND	U	1.0	0.043	ND	U	2.0	0.086	0.043
2,2,4-Trimethylpentane	ND	U	1.0	0.037	ND	U	2.0	0.075	0.037
Heptane	0.058		1.0	0.033	0.039	J	2.0	0.066	0.033
cis-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	2.0	0.071	0.036
4-Methyl-2-Pentanone (MiBK)	0.093		1.0	0.033	0.042	J	2.0	0.066	0.033
t-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	2.0	0.071	0.036
1,1,2-Trichloroethane	ND	U	1.0	0.044	ND	U	2.0	0.087	0.044
Toluene	2.663	E	1.0	0.030	1.865		2.0	0.060	0.030
-Hexanone	0.098		1.0	0.033	ND	U	2.0	0.066	0.033
Dibromochloromethane	ND	U	1.0	0.068	ND	U	2.0	0.136	0.068
1,2-Dibromoethane	ND	U	1.0	0.061	ND	U	2.0	0.121	0.061
Tetrachloroethylene	ND	U	1.0	0.054	ND	U	2.0	0.109	0.054
Chlorobenzene	0.371		1.0	0.037	ND	U	2.0	0.074	0.037
Ethylbenzene	0.515		1.0	0.035	ND	U	2.0	0.069	0.035
m- & p-Xylenes	1.073		1.0	0.069	0.039	J	2.0	0.139	0.069
Bromoform	ND	U	1.0	0.248	ND	U	2.0	0.496	0.248
Styrene	3.799	E	1.0	0.034	0.048	J	2.0	0.068	0.034
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.055	ND	U	2.0	0.110	0.055
o-Xylene	0.245		1.0	0.035	ND	U	2.0	0.069	0.035
4-Ethyltoluene	0.070		1.0	0.039	ND	U	2.0	0.079	0.039
1,3,5-Trimethylbenzene	0.061		1.0	0.039	ND	U	2.0	0.079	0.039
1,2,4-Trimethylbenzene	0.132		1.0	0.039	ND	U	2.0	0.079	0.039
Benzyl Chloride	ND	U	1.0	0.207	ND	U	2.0	0.414	0.207
1,3-Dichlorobenzene	ND	U	1.0	0.048	ND	U	2.0	0.096	0.048
1,4-Dichlorobenzene	0.096		1.0	0.048	ND	U	2.0	0.096	0.048
1,2-Dichlorobenzene	ND	U	1.0	0.048	ND	U	2.0	0.096	0.048
1,2,4-Trichlorobenzene	ND	U	1.0	0.059	ND	U	2.0	0.119	0.059
Hexachlorobutadiene	ND	U	1.0	0.085	ND	U	2.0	0.171	0.085
BFB-Surrogate Std. % Recovery	102%				99%				70-130%

J- Analyte was detected. However the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Reporting Limit (RL).
E - Estimated value, result outside linear range of instrument.
U - Compound was analyzed for, but was not detected.

Sucha S. Parmar, PhD
Technical Director

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 6/20/2006
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA TO-15

STACK RESULTS

	Run 1	
Test Date	6/20/2006	
Start Time	1:05 AM	
End Time	10:05 AM	
Dry Gas Volume at standard conditions, Vm-Std (scf)	4.37	
Dry Gas Volume at standard conditions, Vm-Std (scm)	0.12	
Stack Gas Volumetric Flow Rate, (dscfm)	1285668	(Method 5)

VOC RESULTS AND PROCESS DATA (EPA Method TO-15)

	Sample Results		Total mass	Emissions: Run 1		
	Tube 1	Tube 2	(ug)	ug/dscf	ug/dscm	lb/hr
Propylene	0.06	0.01	0.07	1.53E-02	5.41E-01	2.61E-03
Chloromethane	0.67	0.05	0.72	1.65E-01	5.82E+00	2.80E-02
Bromomethane	0.10	0.00	0.10	2.31E-02	8.16E-01	3.93E-03
Acetone	0.42	0.00	0.42	9.63E-02	3.40E+00	1.64E-02
MTBE	0.11	0.11	0.22	5.06E-02	1.79E+00	8.59E-03
Vinyl Acetate	0.02	0.04	0.06	1.28E-02	4.53E-01	2.18E-03
2-Butanone (MEK)	0.07	0.05	0.12	2.77E-02	9.78E-01	4.70E-03
Hexane	0.06	0.04	0.10	2.20E-02	7.76E-01	3.73E-03
Chloroform	0.13	0.10	0.23	5.17E-02	1.83E+00	8.79E-03
Benzene	4.42	2.35	6.77	1.55E+00	5.47E+01	2.63E-01
Toluene	5.61	0.92	6.53	1.49E+00	5.28E+01	2.54E-01
2-Hexanone	0.12	0.01	0.13	3.00E-02	1.06E+00	5.09E-03
Chlorobenzene	0.05	0.00	0.05	1.05E-02	3.72E-01	1.79E-03
Ethylbenzene	4.45	1.28	5.73	1.31E+00	4.63E+01	2.23E-01
m- & p-Xylenes	9.29	2.24	11.53	2.64E+00	9.32E+01	4.48E-01
Styrene	2.55	0.45	3.00	6.87E-01	2.43E+01	1.17E-01
o-Xylene	4.19	0.89	5.08	1.16E+00	4.11E+01	1.98E-01
1,2,4-Trimethylbenzene	0.14	0.00	0.14	3.25E-02	1.15E+00	5.52E-03
1,2-Dichlorobenzene	0.23	0.00	0.23	5.15E-02	1.82E+00	8.75E-03

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 6/21/2006
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA TO-15

STACK RESULTS

	Run 2	
Test Date	6/21/2006	
Start Time	12:25 AM	
End Time	9:20 AM	
Dry Gas Volume at standard conditions, Vm-Std (scf)	4.70	
Dry Gas Volume at standard conditions, Vm-Std (scm)	0.13	
Stack Gas Volumetric Flow Rate, (dscfm)	1271647	(Method 5)

VOC RESULTS AND PROCESS DATA (EPA Method TO-15)

	Sample Results		Total mass	Emissions: Run 2		
	Tube 1	Tube 2	(ug)	ug/dscf	ug/dscm	lb/hr
Propylene	0.11	0.00	0.11	2.34E-02	8.27E-01	3.93E-03
Chloromethane	0.00	0.11	0.11	2.34E-02	8.27E-01	3.93E-03
Bromomethane	0.05	0.01	0.06	1.36E-02	4.81E-01	2.29E-03
Ethanol	1.68	0.25	1.93	4.10E-01	1.45E+01	6.88E-02
Acetone	1.18	0.52	1.70	3.62E-01	1.28E+01	6.08E-02
Isopropyl Alcohol	0.56	0.01	0.57	1.21E-01	4.28E+00	2.03E-02
MTBE	0.07	0.13	0.20	4.23E-02	1.50E+00	7.12E-03
Vinyl Acetate	0.05	0.00	0.05	1.04E-02	3.68E-01	1.75E-03
2-Butanone (MEK)	0.12	0.11	0.23	4.91E-02	1.74E+00	8.26E-03
Hexane	0.10	0.03	0.14	2.87E-02	1.01E+00	4.83E-03
Chloroform	0.08	0.10	0.18	3.83E-02	1.35E+00	6.44E-03
Benzene	6.38	0.48	6.86	1.46E+00	5.15E+01	2.45E-01
2,2,4-Trimethylpentane	0.10	0.02	0.12	2.57E-02	9.09E-01	4.33E-03
Heptane	0.11	0.00	0.11	2.34E-02	8.27E-01	3.93E-03
4-Methyl-2-Pentanone (MiBK)	0.08	0.00	0.08	1.60E-02	5.64E-01	2.68E-03
Toluene	4.56	1.64	6.20	1.32E+00	4.66E+01	2.22E-01
2-Hexanone	0.25	0.00	0.25	5.36E-02	1.89E+00	9.01E-03
Chlorobenzene	0.05	0.07	0.11	2.40E-02	8.49E-01	4.04E-03
Ethylbenzene	4.28	1.37	5.65	1.20E+00	4.25E+01	2.02E-01
m- & p-Xylenes	10.24	1.34	11.58	2.46E+00	8.70E+01	4.14E-01
Styrene	2.46	1.87	4.33	9.21E-01	3.25E+01	1.55E-01
o-Xylene	4.15	0.22	4.37	9.29E-01	3.28E+01	1.56E-01
1,3,5-Trimethylbenzene	0.22	0.00	0.22	4.70E-02	1.66E+00	7.90E-03
1,2,4-Trimethylbenzene	0.00	0.05	0.05	1.11E-02	3.91E-01	1.86E-03
1,4-Dichlorobenzene	0.05	0.00	0.05	1.00E-02	3.53E-01	1.68E-03
1,2-Dichlorobenzene	0.28	0.06	0.34	7.32E-02	2.58E+00	1.23E-02

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 6/22/2006
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA TO-15

STACK RESULTS

	Run 3	
Test Date	6/22/2006	
Start Time	12:15 AM	
End Time	9:20 AM	
Dry Gas Volume at standard conditions, Vm-Std (scf)	4.74	
Dry Gas Volume at standard conditions, Vm-Std (scm)	0.13	
Stack Gas Volumetric Flow Rate, (dscfm)	1210938	(Method 5)

VOC RESULTS AND PROCESS DATA (EPA Method TO-15)

	Sample Results		Total mass	Emissions: Run 2		
	Tube 1	Tube 2	(ug)	ug/dscf	ug/dscm	lb/hr
Propylene	0.03	0.00	0.03	6.12E-03	2.16E-01	9.79E-04
Chloromethane	0.73	0.00	0.73	1.53E-01	5.41E+00	2.45E-02
Bromomethane	0.10	0.00	0.10	2.11E-02	7.45E-01	3.38E-03
MTBE	0.17	0.30	0.47	9.92E-02	3.50E+00	1.59E-02
Vinyl Acetate	0.04	0.00	0.04	8.02E-03	2.83E-01	1.28E-03
2-Butanone (MEK)	0.06	0.07	0.13	2.64E-02	9.31E-01	4.22E-03
Hexane	0.05	0.16	0.21	4.43E-02	1.56E+00	7.09E-03
Chloroform	0.15	0.12	0.27	5.61E-02	1.98E+00	8.98E-03
Benzene	6.51	0.44	6.95	1.47E+00	5.18E+01	2.35E-01
Heptane	0.07	0.00	0.07	1.54E-02	5.44E-01	2.46E-03
4-Methyl-2-Pentanone (MiBK)	0.08	0.01	0.10	2.00E-02	7.08E-01	3.21E-03
Toluene	5.46	0.81	6.27	1.32E+00	4.67E+01	2.12E-01
2-Hexanone	0.10	0.00	0.10	2.11E-02	7.45E-01	3.38E-03
Chlorobenzene	0.27	0.02	0.29	6.14E-02	2.17E+00	9.82E-03
Ethylbenzene	4.67	0.84	5.51	1.16E+00	4.11E+01	1.86E-01
m- & p-Xylenes	10.32	0.61	10.93	2.31E+00	8.14E+01	3.69E-01
Styrene	1.87	0.98	2.85	6.01E-01	2.12E+01	9.63E-02
o-Xylene	4.21	0.67	4.88	1.03E+00	3.64E+01	1.65E-01
1,4-Dichlorobenzene	0.03	0.00	0.03	6.12E-03	2.16E-01	9.79E-04

Laboratory Analysis Report

CLIENT : Desert Air Environmental
PROJECT NO : 060319
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 06/26/06
DATE REPORTED : 07/21/06

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 1 Tube 1 Spiked			Sample Reporting Limit (RLxDF's)	Run 1 Tube 2			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	060319-16045				060319-16046				
Date Sampled	6/20/2006				6/20/2006				
Date Analyzed	7/12/2006				7/12/2006				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Chlorodifluoromethane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
Propylene	0.057		1.0	0.014	0.010		1.0	0.014	0.014
Dichlorodifluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
Chloromethane	0.670		1.0	0.083	0.050		1.0	0.083	0.083
1,2-Dichloro-1,1,2,2-Tetrafluoroethane	ND	U	1.0	0.056	ND	U	1.0	0.056	0.056
Vinyl Chloride	ND	U	1.0	0.020	ND	U	1.0	0.020	0.020
1,3-Butadiene	ND	U	1.0	0.018	ND	U	1.0	0.018	0.018
Bromomethane	0.101		1.0	0.031	ND	U	1.0	0.031	0.031
Chloroethane	ND	U	1.0	0.021	ND	U	1.0	0.021	0.021
Dichlorofluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
Ethanol	ND	U	1.0	0.030	ND	U	1.0	0.030	0.030
Vinyl Bromide	ND	U	1.0	0.035	ND	U	1.0	0.035	0.035
Acetone	0.421		1.0	0.380	ND	U	1.0	0.380	0.380
Trichlorofluoromethane	ND	U	1.0	0.042	ND	U	1.0	0.042	0.042
Isopropyl Alcohol	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
Acrylonitrile	ND	U	1.0	0.017	ND	U	1.0	0.017	0.017
1,1-Dichloroethylene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Allyl Chloride (Chloroprene)	ND	U	1.0	0.025	ND	U	1.0	0.025	0.025
Carbon Disulfide	ND	U	1.0	0.025	ND	U	1.0	0.025	0.025
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
t-1,2-Dichloroethylene	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
MTBE	0.108		1.0	0.029	0.113		1.0	0.029	0.029
Vinyl Acetate	0.015		1.0	0.028	0.041		1.0	0.028	0.028
2-Butanone (MEK)	0.073		1.0	0.047	0.048		1.0	0.047	0.047
cis-1,2- Dichloroethene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Hexane	0.058		1.0	0.028	0.038		1.0	0.028	0.028
Chloroform	0.128		1.0	0.039	0.098		1.0	0.039	0.039
Ethyl Acetate	ND	U	1.0	0.029	ND	U	1.0	0.029	0.029
Tetrahydrofuran	ND	U	1.0	0.024	ND	U	1.0	0.024	0.024
1,2-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1,1-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044

Laboratorv Analvsis Report

CLIENT : **Desert Air Environmental**
PROJECT NO : **060319**
MATRIX : **AIR**
UNITS : **ug/sample**

DATE RECEIVED : **06/26/06**
DATE REPORTED : **07/21/06**

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 1 Tube 1 Spiked			Sample Reporting Limit (RLxDF's)	Run 1 Tube 2			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	060319-16045				060319-16046				
Date Sampled	6/20/2006				6/20/2006				
Date Analyzed	7/12/2006				7/12/2006				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Benzene	4.420		1.0	0.026	2.350		1.0	0.026	0.026
Carbon Tetrachloride	ND	U	1.0	0.050	ND	U	1.0	0.050	0.050
Cyclohexane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
1,2-Dichloropropane	ND	U	1.0	0.037	ND	U	1.0	0.037	0.037
Bromodichloromethane	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
1,4-Dioxane	ND	U	1.0	0.029	ND	U	1.0	0.029	0.029
Trichloroethene	ND	U	1.0	0.043	ND	U	1.0	0.043	0.043
2,2,4-Trimethylpentane	ND	U	1.0	0.037	ND	U	1.0	0.037	0.037
Heptane	ND	U	1.0	0.033	ND	U	1.0	0.033	0.033
cis-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
4-Methyl-2-Pentanone (MiBK)	ND	U	1.0	0.033	ND	U	1.0	0.033	0.033
t-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
1,2-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044
luene	5.610		1.0	0.030	0.920		1.0	0.030	0.030
-Hexanone	0.120		1.0	0.033	0.011		1.0	0.033	0.033
Dibromochloromethane	ND	U	1.0	0.068	ND	U	1.0	0.068	0.068
1,2-Dibromoethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
Tetrachloroethylene	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
Chlorobenzene	0.046		1.0	0.037	ND	U	1.0	0.037	0.037
Ethylbenzene	4.450		1.0	0.035	1.280		1.0	0.035	0.035
m- & p-Xylenes	9.290		1.0	0.069	2.240		1.0	0.069	0.069
Bromoform	ND	U	1.0	0.248	ND	U	1.0	0.248	0.248
Styrene	2.550		1.0	0.034	0.452		1.0	0.034	0.034
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.055	ND	U	1.0	0.055	0.055
o-Xylene	4.190		1.0	0.035	0.890		1.0	0.035	0.035
4-Ethyltoluene	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
1,3,5-Trimethylbenzene	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
1,2,4-Trimethylbenzene	0.142		1.0	0.039	ND	U	1.0	0.039	0.039
Benzyl Chloride	ND	U	1.0	0.207	ND	U	1.0	0.207	0.207
1,3-Dichlorobenzene	ND	U	1.0	0.048	ND	U	1.0	0.048	0.048
1,4-Dichlorobenzene	ND	U	1.0	0.048	ND	U	1.0	0.048	0.048
1,2-Dichlorobenzene	0.225		1.0	0.048	ND	U	1.0	0.048	0.048
1,2,4-Trichlorobenzene	ND	U	1.0	0.059	ND	U	1.0	0.059	0.059
Hexachlorobutadiene	ND	U	1.0	0.085	ND	U	1.0	0.085	0.085
BFB-Surrogate Std. % Recovery	96%				103%				70-130%

J- Analyte was detected. However the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Reporting Limit (RL).
E - Estimated value, result outside linear range of instrument.
U - Compound was analyzed for, but was not detected.
!! - Estimated

Sucha S. Parmar, PhD
Technical Director

Laboratory Analysis Report

CLIENT : Desert Air Environmental
PROJECT NO : 060319
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 06/26/06
DATE REPORTED : 07/21/06

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 2 Tube 1 Spiked			Sample Reporting Limit (RLxDF's)	Run 2 Tube 2			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	060319-16047				060319-16048				
Date Sampled	6/22/2006				6/22/2006				
Date Analyzed	7/12/2006				7/12/2006				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Chlorodifluoromethane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
Propylene	0.110		1.0	0.014	ND	U	1.0	0.014	0.014
Dichlorodifluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
Chloromethane	ND	U	1.0	0.083	0.110		1.0	0.083	0.083
1,2-Dichloro-1,1,2,2-Tetrafluoroethane	ND	U	1.0	0.056	ND	U	1.0	0.056	0.056
Vinyl Chloride	ND	U	1.0	0.020	ND	U	1.0	0.020	0.020
1,3-Butadiene	ND	U	1.0	0.018	ND	U	1.0	0.018	0.018
Bromomethane	0.054		1.0	0.031	0.010		1.0	0.031	0.031
Chloroethane	ND	U	1.0	0.021	ND	U	1.0	0.021	0.021
Dichlorofluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
Ethanol	1.680		1.0	0.030	0.245		1.0	0.030	0.030
Vinyl Bromide	ND	U	1.0	0.035	ND	U	1.0	0.035	0.035
Acetone	1.180		1.0	0.380	0.521		1.0	0.380	0.380
chlorofluoromethane	ND	U	1.0	0.042	ND	U	1.0	0.042	0.042
propyl Alcohol	0.557		1.0	0.039	0.012		1.0	0.039	0.039
Acrylonitrile	ND	U	1.0	0.017	ND	U	1.0	0.017	0.017
1,1-Dichloroethylene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Allyl Chloride (Chloroprene)	ND	U	1.0	0.025	ND	U	1.0	0.025	0.025
Carbon Disulfide	ND	U	1.0	0.025	ND	U	1.0	0.025	0.025
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
t-1,2-Dichloroethylene	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
MTBE	0.071		1.0	0.029	0.128		1.0	0.029	0.029
Vinyl Acetate	0.049		1.0	0.028	ND	U	1.0	0.028	0.028
2-Butanone (MEK)	0.121		1.0	0.047	0.110		1.0	0.047	0.047
cis-1,2- Dichloroethene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Hexane	0.102		1.0	0.028	0.033		1.0	0.028	0.028
Chloroform	0.080		1.0	0.039	0.100		1.0	0.039	0.039
Ethyl Acetate	ND	U	1.0	0.029	ND	U	1.0	0.029	0.029
Tetrahydrofuran	ND	U	1.0	0.024	ND	U	1.0	0.024	0.024
1,2-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1,1-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044

Laboratory Analysis Report

CLIENT : Desert Air Environmental
PROJECT NO : 060319
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 06/26/06
DATE REPORTED : 07/21/06

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 2 Tube 1 Spiked			Sample Reporting Limit (RLxDF's)	Run 2 Tube 2			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	060319-16047				060319-16048				
Date Sampled	6/22/2006				6/22/2006				
Date Analyzed	7/12/2006				7/12/2006				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Benzene	6.380		1.0	0.026	0.480		1.0	0.026	0.026
Carbon Tetrachloride	ND	U	1.0	0.050	ND	U	1.0	0.050	0.050
Cyclohexane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
1,2-Dichloropropane	ND	U	1.0	0.037	ND	U	1.0	0.037	0.037
Bromodichloromethane	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
1,4-Dioxane	ND	U	1.0	0.029	ND	U	1.0	0.029	0.029
Trichloroethene	ND	U	1.0	0.043	ND	U	1.0	0.043	0.043
2,2,4-Trimethylpentane	0.101		1.0	0.037	0.020		1.0	0.037	0.037
Heptane	0.110		1.0	0.033	ND	U	1.0	0.033	0.033
cis-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
4-Methyl-2-Pentanone (MiBK)	0.075		1.0	0.033	ND	U	1.0	0.033	0.033
t-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
1,2-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044
luene	4.560		1.0	0.030	1.640		1.0	0.030	0.030
-Hexanone	0.252		1.0	0.033	ND	U	1.0	0.033	0.033
Dibromochloromethane	ND	U	1.0	0.068	ND	U	1.0	0.068	0.068
1,2-Dibromoethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
Tetrachloroethylene	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
Chlorobenzene	0.047		1.0	0.037	0.066		1.0	0.037	0.037
Ethylbenzene	4.280		1.0	0.035	1.370		1.0	0.035	0.035
m- & p-Xylenes	10.240		1.0	0.069	1.340		1.0	0.069	0.069
Bromoform	ND	U	1.0	0.248	ND	U	1.0	0.248	0.248
Styrene	2.460		1.0	0.034	1.870		1.0	0.034	0.034
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.055	ND	U	1.0	0.055	0.055
o-Xylene	4.150		1.0	0.035	0.218		1.0	0.035	0.035
4-Ethyltoluene	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
1,3,5-Trimethylbenzene	0.221		1.0	0.039	ND	U	1.0	0.039	0.039
1,2,4-Trimethylbenzene	ND	U	1.0	0.039	0.052		1.0	0.039	0.039
Benzyl Chloride	ND	U	1.0	0.207	ND	U	1.0	0.207	0.207
1,3-Dichlorobenzene	ND	U	1.0	0.048	ND	U	1.0	0.048	0.048
1,4-Dichlorobenzene	0.047		1.0	0.048	ND	U	1.0	0.048	0.048
1,2-Dichlorobenzene	0.284		1.0	0.048	0.060		1.0	0.048	0.048
1,2,4-Trichlorobenzene	ND	U	1.0	0.059	ND	U	1.0	0.059	0.059
Hexachlorobutadiene	ND	U	1.0	0.085	ND	U	1.0	0.085	0.085
BFB-Surrogate Std. % Recovery	107%				110%				70-130%

J- Analyte was detected. However the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Reporting Limit (RL).
E - Estimated value, result outside linear range of instrument.
U - Compound was analyzed for, but was not detected.
!! - Estimated

Sucha S. Parmar, PhD
Technical Director

Laboratory Analysis Report

CLIENT : Desert Air Environmental
PROJECT NO : 060319
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 06/26/06
DATE REPORTED : 07/21/06

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 3 Tube 1 Spiked			Sample Reporting Limit (RLxDF's)	Run 3 Tube 2			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	060319-16049				060319-16050				
Date Sampled	6/22/2006				6/22/2006				
Date Analyzed	7/12/2006				7/12/2006				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Chlorodifluoromethane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
Propylene	0.029		1.0	0.014	ND	U	1.0	0.014	0.014
Dichlorodifluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
Chloromethane	0.726		1.0	0.083	ND	U	1.0	0.083	0.083
1,2-Dichloro-1,1,2,2-Tetrafluoroethane	ND	U	1.0	0.056	ND	U	1.0	0.056	0.056
Vinyl Chloride	ND	U	1.0	0.020	ND	U	1.0	0.020	0.020
1,3-Butadiene	ND	U	1.0	0.018	ND	U	1.0	0.018	0.018
Bromomethane	0.100		1.0	0.031	ND	U	1.0	0.031	0.031
Chloroethane	ND	U	1.0	0.021	ND	U	1.0	0.021	0.021
Dichlorofluoromethane	ND	U	1.0	0.034	ND	U	1.0	0.034	0.034
Ethanol	ND	U	1.0	0.030	ND	U	1.0	0.030	0.030
Vinyl Bromide	ND	U	1.0	0.035	ND	U	1.0	0.035	0.035
Acetone	ND	U	1.0	0.380	ND	U	1.0	0.380	0.380
ichlorofluoromethane	ND	U	1.0	0.042	ND	U	1.0	0.042	0.042
opropyl Alcohol	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
Acrylonitrile	ND	U	1.0	0.017	ND	U	1.0	0.017	0.017
1,1-Dichloroethylene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Allyl Chloride (Chloroprene)	ND	U	1.0	0.025	ND	U	1.0	0.025	0.025
Carbon Disulfide	ND	U	1.0	0.025	ND	U	1.0	0.025	0.025
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
t-1,2-Dichloroethylene	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
MTBE	0.173		1.0	0.029	0.297		1.0	0.029	0.029
Vinyl Acetate	0.038		1.0	0.028	ND	U	1.0	0.028	0.028
2-Butanone (MEK)	0.056		1.0	0.047	0.069		1.0	0.047	0.047
cis-1,2- Dichloroethene	ND	U	1.0	0.031	ND	U	1.0	0.031	0.031
Hexane	0.048		1.0	0.028	0.162		1.0	0.028	0.028
Chloroform	0.146		1.0	0.039	0.120		1.0	0.039	0.039
Ethyl Acetate	ND	U	1.0	0.029	ND	U	1.0	0.029	0.029
Tetrahydrofuran	ND	U	1.0	0.024	ND	U	1.0	0.024	0.024
1,2-Dichloroethane	ND	U	1.0	0.032	ND	U	1.0	0.032	0.032
1,1,1-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044

Laboratory Analysis Report

CLIENT : Desert Air Environmental
PROJECT NO : 060319
MATRIX : AIR
UNITS : ug/sample

DATE RECEIVED : 06/26/06
DATE REPORTED : 07/21/06

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 3 Tube 1 Spiked			Sample Reporting Limit (RLxDF's)	Run 3 Tube 2			Sample Reporting Limit (RLxDF's)	Method Reporting Limit
AAC ID	060319-16049				060319-16050				
Date Sampled	6/22/2006				6/22/2006				
Date Analyzed	7/12/2006				7/12/2006				
Can Dilution Factor	1.00				1.00				
	Result	Qualifier	Dil. Fac.		Result	Qualifier	Dil. Fac.		
Benzene	6.510		1.0	0.026	0.444		1.0	0.026	0.026
Carbon Tetrachloride	ND	U	1.0	0.050	ND	U	1.0	0.050	0.050
Cyclohexane	ND	U	1.0	0.028	ND	U	1.0	0.028	0.028
1,2-Dichloropropane	ND	U	1.0	0.037	ND	U	1.0	0.037	0.037
Bromodichloromethane	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
1,4-Dioxane	ND	U	1.0	0.029	ND	U	1.0	0.029	0.029
Trichloroethene	ND	U	1.0	0.043	ND	U	1.0	0.043	0.043
2,2,4-Trimethylpentane	ND	U	1.0	0.037	ND	U	1.0	0.037	0.037
Heptane	0.073		1.0	0.033	ND	U	1.0	0.033	0.033
cis-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
4-Methyl-2-Pentanone (MiBK)	0.084		1.0	0.033	0.011		1.0	0.033	0.033
t-1,3-Dichloropropene	ND	U	1.0	0.036	ND	U	1.0	0.036	0.036
1,2-Trichloroethane	ND	U	1.0	0.044	ND	U	1.0	0.044	0.044
luene	5.460		1.0	0.030	0.812		1.0	0.030	0.030
-Hexanone	0.100		1.0	0.033	ND	U	1.0	0.033	0.033
Dibromochloromethane	ND	U	1.0	0.068	ND	U	1.0	0.068	0.068
1,2-Dibromoethane	ND	U	1.0	0.061	ND	U	1.0	0.061	0.061
Tetrachloroethylene	ND	U	1.0	0.054	ND	U	1.0	0.054	0.054
Chlorobenzene	0.271		1.0	0.037	0.020		1.0	0.037	0.037
Ethylbenzene	4.670		1.0	0.035	0.840		1.0	0.035	0.035
m- & p-Xylenes	10.320		1.0	0.069	0.610		1.0	0.069	0.069
Bromoform	ND	U	1.0	0.248	ND	U	1.0	0.248	0.248
Styrene	1.870		1.0	0.034	0.981		1.0	0.034	0.034
1,1,2,2-Tetrachloroethane	ND	U	1.0	0.055	ND	U	1.0	0.055	0.055
o-Xylene	4.210		1.0	0.035	0.670		1.0	0.035	0.035
4-Ethyltoluene	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
1,3,5-Trimethylbenzene	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
1,2,4-Trimethylbenzene	ND	U	1.0	0.039	ND	U	1.0	0.039	0.039
Benzyl Chloride	ND	U	1.0	0.207	ND	U	1.0	0.207	0.207
1,3-Dichlorobenzene	ND	U	1.0	0.048	ND	U	1.0	0.048	0.048
1,4-Dichlorobenzene	0.029		1.0	0.048	ND	U	1.0	0.048	0.048
1,2-Dichlorobenzene	ND	U	1.0	0.048	ND	U	1.0	0.048	0.048
1,2,4-Trichlorobenzene	ND	U	1.0	0.059	ND	U	1.0	0.059	0.059
Hexachlorobutadiene	ND	U	1.0	0.085	ND	U	1.0	0.085	0.085
BFB-Surrogate Std. % Recovery	103%				98%				70-130%

J- Analyte was detected. However the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Reporting Limit (RL).
E - Estimated value, result outside linear range of instrument.
U - Compound was analyzed for, but was not detected.
!! - Estimated

Sucha S. Parmar, PhD
Technical Director

EPA Method 18 - Sample Rates for VOC

Date	Run #	Start Time	End Time	Start Time	End Time	Sample Train, cc/min **	Spiked Train, cc/min **	Average Sample Rate, cc/min	Total Minutes Sampled	Total Volume Sampled, vmstd cf	Average Sample Rate, l/min
6/20/2006	1	0105	1005	NA	NA	282.5 280.4		281.45	480	4.77	0.281
6/21/2006	2	0025	0920	NA	NA	264.9 259.4		262.15	480	4.44	0.262
6/22/2006	3	0015	0920	NA	NA	267.6 260.1		263.85	480	4.47	0.264
6/20/2006	1	0105	1005	NA	NA		254.3 260.9	257.6	480	4.37	0.258
6/21/2006	2	0025	0920	1310	2010		259.3 294.9	277.1	480	4.70	0.277
6/22/2006	3	0015	0920	NA	NA		286.9 271.8	279.35	480	4.74	0.279

Run 1

Start	Stop
115	315
327	527
545	745
805	1005

Run 2

Start	Stop
20	220
244	444
505	705
724	924

Run 3

Start	Stop
15	215
239	439
509	709
719	919

** Sample pump flow rates were calibrated with a Gilian Gillbrator Air Flow Calibration System at the beginning and end of each run. Flow rates were verified during the runs with a flow rotameter built into the sample pump.

Laboratory Analysis Report

CLIENT : **Desert Air Environmental** **DATE RECEIVED : 6-23-06**
PROJECT NO : **060319** **DATE REPORTED : 7-24-06**
MATRIX : **Tenax sorbent Tube**
UNITS : **ug/sample**

Analyte	Lab Spike Average (ug)	Field Spike Average (ug)
Benzene	7.1	6.8
Toluene	6.6	6.1
Ethylbenzene	5.9	5.7
M&P-Xylene	11.5	10.8
O-Xylene	5.3	5.0

Provided by AAC

APPENDIX E
CEM DATA

CONTINUOUS EMISSIONS MONITORING
TEST RESULTS

Client: Nucor Steel, Hertford
Test Date: Jun-20-06
Start Time: 1:16 AM **Stop Time:** 9:58 AM
Emissions Unit: Baghouse
Project: Compliance

RUN 1

Calibration Data

	O_2 (%)	CO_2 (%)	NO_x (ppm)	CO (ppm)	SO_2 (ppm)
Initial Zero	0.02	0.02	0.03	0.28	-0.07
Initial Span	12.03	10.07	44.80	250.20	45.45
Final Zero	0.11	0.02	0.28	0.28	-0.19
Final Span	12.09	9.99	44.54	248.89	43.03
Zero Drift	0.09	0.00	0.26	0.00	-0.12
Span Drift	0.06	-0.08	-0.27	-1.31	-2.38
Drift Limit	1.25	1.25	5.00	50.00	5.00
Span Gas Value	12.08	10.02	45.90	249.00	44.80
Full Scale Range	25.0	25.0	100.0	1000.0	100.0
Method Drift Limit (%)	5%	5%	5%	5%	5%
Analyte Mol Weight	32	44	46	28	64

Stack Gas Parameters

Average Temperature (°F)	172.6	
Moisture Content (%)	3.64%	*flow rates by pitot tube traverse from EPA Method 5*
Process Rate (tons/hr)	256.7	
Flow rate (dscfm)	1285668	

Emission Data

	O_2 (%)	CO_2 (%)	NO_x (ppm)	CO (ppm)	SO_2 (ppm)
Dry average (uncorrected)	19.93	0.98	4.61	91.66	6.08
Dry average (drift corrected)	20.01	0.96	4.59	91.28	6.27
Emission Rate (lb/hr)			42.299	511.640	80.330
Emission Rate (lb/ton)			0.165	1.993	0.313

P-Bar	30.01	BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/20/06	12:52 AM	10.12	0.02	0.03	0.34	0.10	
06/20/06	12:53 AM	-0.08	0.02	0.43	0.30	-0.07	
06/20/06	12:54 AM	0.00	0.02	0.03	0.28	0.34	
06/20/06	12:55 AM	-0.01	0.02	9.73	33.39	36.01	
06/20/06	12:56 AM	-0.02	0.02	41.59	45.13	45.45	Initial Calibrations
06/20/06	12:57 AM	-0.04	0.02	44.44	44.84	27.34	
06/20/06	12:58 AM	-0.06	0.02	44.69	45.16	50.25	
06/20/06	12:59 AM	3.05	0.02	44.80	45.81	61.89	
06/20/06	1:00 AM	-0.06	0.02	65.46	84.78	85.80	
06/20/06	1:01 AM	-0.05	0.02	86.77	86.48	85.25	
06/20/06	1:02 AM	-0.05	0.02	87.01	86.31	88.75	
06/20/06	1:03 AM	3.69	0.02	87.41	81.40	92.38	
06/20/06	1:04 AM	-0.01	0.02	99.53	241.73	100.39	
06/20/06	1:05 AM	-0.03	0.02	100.04	249.59	100.39	
06/20/06	1:06 AM	-0.02	0.02	100.04	250.20	100.39	
06/20/06	1:07 AM	3.74	0.02	100.04	289.84	100.39	
06/20/06	1:08 AM	0.02	0.02	100.04	907.51	100.39	
06/20/06	1:09 AM	0.51	1.43	100.04	907.80	100.39	
06/20/06	1:10 AM	11.43	10.16	100.04	252.51	55.25	
06/20/06	1:11 AM	12.03	10.07	29.27	0.34	14.53	
06/20/06	1:12 AM	15.64	10.84	0.57	0.28	8.84	
06/20/06	1:13 AM	20.38	23.98	0.32	0.12	8.49	
06/20/06	1:14 AM	20.54	14.95	0.21	1.11	0.89	
06/20/06	1:15 AM	20.44	0.43	0.71	7.04	1.00	
06/20/06	1:16 AM	20.56	0.08	8.33	6.53	1.00	On Line
06/20/06	1:17 AM	20.58	0.07	8.17	5.52	1.23	
06/20/06	1:18 AM	20.57	0.09	8.53	10.12	1.43	
06/20/06	1:19 AM	20.58	0.08	11.49	11.65	1.67	
06/20/06	1:20 AM	20.05	0.75	14.31	98.21	2.00	
06/20/06	1:21 AM	20.04	0.66	17.37	75.32	5.11	
06/20/06	1:22 AM	19.90	1.03	15.05	43.07	7.21	
06/20/06	1:23 AM	19.53	1.40	9.52	88.79	11.54	
06/20/06	1:24 AM	19.50	1.41	6.89	77.92	15.43	
06/20/06	1:25 AM	19.42	1.58	5.17	64.95	16.32	
06/20/06	1:26 AM	19.47	1.59	4.76	62.45	16.60	
06/20/06	1:27 AM	19.53	1.56	4.24	74.20	15.08	
06/20/06	1:28 AM	19.59	1.51	4.32	74.20	13.81	
06/20/06	1:29 AM	19.53	1.63	4.62	41.43	12.90	
06/20/06	1:30 AM	19.41	1.86	4.64	112.24	12.33	
06/20/06	1:31 AM	19.27	1.99	4.22	130.04	12.20	
06/20/06	1:32 AM	19.29	1.97	4.56	151.60	11.24	
06/20/06	1:33 AM	19.38	1.79	5.04	159.16	9.93	
06/20/06	1:34 AM	19.58	1.53	4.64	159.60	8.47	
06/20/06	1:35 AM	19.58	1.55	4.05	141.90	6.68	
06/20/06	1:36 AM	19.67	1.46	4.19	145.11	5.30	
06/20/06	1:37 AM	19.71	1.42	5.09	126.77	4.61	
06/20/06	1:38 AM	19.63	1.51	5.63	139.60	4.46	
06/20/06	1:39 AM	19.58	1.57	5.91	156.10	5.81	
06/20/06	1:40 AM	19.66	1.48	5.39	161.74	7.43	
06/20/06	1:41 AM	19.59	1.66	4.90	157.86	8.78	
06/20/06	1:42 AM	19.39	1.98	4.05	180.76	11.00	
06/20/06	1:43 AM	19.55	1.74	4.39	176.10	12.34	
06/20/06	1:44 AM	19.60	1.70	4.67	156.61	12.92	
06/20/06	1:45 AM	19.55	1.76	4.52	182.21	12.77	
06/20/06	1:46 AM	19.74	1.43	4.35	163.88	12.41	
06/20/06	1:47 AM	19.86	1.32	3.92	133.67	11.75	

P-Bar	30.01	BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/20/06	1:48 AM	19.84	1.37	3.71	134.76	10.99	
06/20/06	1:49 AM	20.07	0.97	3.52	126.53	10.58	
06/20/06	1:50 AM	20.33	0.62	2.43	87.41	10.32	
06/20/06	1:51 AM	20.43	0.50	1.65	58.36	9.89	
06/20/06	1:52 AM	20.46	0.44	1.69	44.14	10.44	
06/20/06	1:53 AM	20.52	0.39	2.81	33.43	11.23	
06/20/06	1:54 AM	20.54	0.36	7.51	26.84	9.18	
06/20/06	1:55 AM	20.54	0.35	8.27	20.85	7.50	
06/20/06	1:56 AM	20.58	0.29	6.17	15.97	8.11	
06/20/06	1:57 AM	20.54	0.35	5.58	26.71	9.14	
06/20/06	1:58 AM	20.27	0.69	7.71	31.75	10.09	
06/20/06	1:59 AM	20.16	0.75	13.47	53.48	14.35	
06/20/06	2:00 AM	20.09	1.05	11.57	34.61	14.23	
06/20/06	2:01 AM	19.75	1.47	7.78	78.55	16.68	
06/20/06	2:02 AM	19.71	1.54	5.76	82.49	17.18	
06/20/06	2:03 AM	19.71	1.58	4.99	88.03	16.15	
06/20/06	2:04 AM	19.66	1.71	4.32	84.64	14.06	
06/20/06	2:05 AM	19.66	1.70	3.89	81.25	11.76	
06/20/06	2:06 AM	19.72	1.62	4.56	75.55	10.86	
06/20/06	2:07 AM	19.65	1.73	4.93	99.81	10.65	
06/20/06	2:08 AM	19.60	1.77	5.09	142.91	10.26	
06/20/06	2:09 AM	19.68	1.64	5.36	158.63	8.99	
06/20/06	2:10 AM	19.62	1.71	4.98	144.29	7.66	
06/20/06	2:11 AM	19.54	1.78	4.73	152.80	7.62	
06/20/06	2:12 AM	19.62	1.67	4.76	167.28	9.42	
06/20/06	2:13 AM	19.77	1.47	4.71	146.08	11.95	
06/20/06	2:14 AM	19.76	1.16	5.19	119.69	14.43	
06/20/06	2:15 AM	19.73	1.15	5.16	155.74	15.34	
06/20/06	2:16 AM	19.77	1.13	5.11	139.02	15.70	
06/20/06	2:17 AM	19.75	1.17	5.29	135.36	14.85	
06/20/06	2:18 AM	19.71	1.20	5.44	144.02	13.72	
06/20/06	2:19 AM	19.67	1.28	4.38	133.52	13.76	
06/20/06	2:20 AM	19.69	1.27	4.39	143.69	12.01	
06/20/06	2:21 AM	19.76	1.19	5.28	137.20	9.67	
06/20/06	2:22 AM	19.72	1.30	5.19	157.52	7.98	
06/20/06	2:23 AM	19.82	1.05	5.03	214.82	7.01	
06/20/06	2:24 AM	19.88	1.01	4.49	200.16	6.40	
06/20/06	2:25 AM	19.88	0.99	4.44	168.34	5.64	
06/20/06	2:26 AM	19.82	1.12	4.31	155.69	4.98	
06/20/06	2:27 AM	19.82	1.06	3.60	152.19	4.58	
06/20/06	2:28 AM	19.80	1.08	3.67	147.35	4.27	
06/20/06	2:29 AM	19.82	1.07	3.63	128.02	3.86	
06/20/06	2:30 AM	19.87	0.95	3.82	141.19	3.46	
06/20/06	2:31 AM	20.10	0.65	4.09	144.18	3.12	
06/20/06	2:32 AM	20.27	0.44	3.42	115.87	2.89	
06/20/06	2:33 AM	20.37	0.33	2.28	86.55	2.89	
06/20/06	2:34 AM	20.51	0.17	1.87	68.22	3.03	
06/20/06	2:35 AM	20.54	0.11	4.75	44.07	3.69	
06/20/06	2:36 AM	20.55	0.12	5.63	34.73	4.45	
06/20/06	2:37 AM	20.58	0.08	5.33	30.57	4.82	
06/20/06	2:38 AM	20.59	0.07	5.36	30.57	5.11	
06/20/06	2:39 AM	20.30	0.45	8.53	43.09	5.60	
06/20/06	2:40 AM	20.11	0.60	11.95	130.96	9.40	
06/20/06	2:41 AM	19.91	1.02	11.17	106.25	11.73	
06/20/06	2:42 AM	19.75	1.21	7.00	109.05	14.67	
06/20/06	2:43 AM	19.73	1.33	5.34	107.70	14.07	

P-Bar	30.01	BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/20/06	2:44 AM	19.65	1.46	4.64	122.09	12.11	
06/20/06	2:45 AM	19.68	1.40	4.43	133.97	10.86	
06/20/06	2:46 AM	19.65	1.43	4.39	176.34	10.63	
06/20/06	2:47 AM	19.68	1.36	3.39	164.44	12.22	
06/20/06	2:48 AM	19.65	1.44	3.34	142.82	14.43	
06/20/06	2:49 AM	19.56	1.57	3.29	188.99	15.95	
06/20/06	2:50 AM	19.58	1.53	3.39	217.71	14.60	
06/20/06	2:51 AM	19.54	1.58	3.62	196.98	10.93	
06/20/06	2:52 AM	19.55	1.57	3.42	223.54	8.65	
06/20/06	2:53 AM	19.62	1.47	3.35	205.55	9.57	
06/20/06	2:54 AM	19.68	1.40	3.33	162.61	11.91	
06/20/06	2:55 AM	19.69	1.39	3.52	142.16	13.59	
06/20/06	2:56 AM	19.61	1.49	3.94	149.40	14.31	
06/20/06	2:57 AM	19.61	1.48	4.30	134.29	15.43	
06/20/06	2:58 AM	19.66	1.41	4.48	135.24	16.71	
06/20/06	2:59 AM	19.67	1.37	4.05	146.57	17.45	
06/20/06	3:00 AM	19.71	1.36	3.45	146.39	16.10	
06/20/06	3:01 AM	19.70	1.39	2.97	150.39	13.96	
06/20/06	3:02 AM	19.61	1.53	2.92	180.49	10.88	
06/20/06	3:03 AM	19.59	1.55	2.83	194.61	8.13	
06/20/06	3:04 AM	19.60	1.53	3.00	167.75	6.56	
06/20/06	3:05 AM	19.58	1.54	3.39	171.49	5.77	
06/20/06	3:06 AM	19.61	1.50	4.14	170.96	5.65	
06/20/06	3:07 AM	19.60	1.50	3.92	163.72	5.20	
06/20/06	3:08 AM	19.60	1.52	3.53	171.75	4.37	
06/20/06	3:09 AM	19.74	1.22	3.52	153.36	3.78	
06/20/06	3:10 AM	20.10	0.76	3.21	101.62	3.52	
06/20/06	3:11 AM	20.17	0.68	2.63	63.94	3.43	
06/20/06	3:12 AM	20.25	0.53	2.52	46.82	3.18	
06/20/06	3:13 AM	20.32	0.42	3.33	39.36	2.82	
06/20/06	3:14 AM	20.40	0.32	5.67	44.42	2.45	
06/20/06	3:15 AM	20.48	0.22	2.95	42.08	2.46	
06/20/06	3:16 AM	20.51	0.15	3.97	20.87	3.15	
06/20/06	3:17 AM	20.51	0.15	5.60	17.14	3.80	
06/20/06	3:18 AM	20.54	0.13	6.09	14.88	4.04	
06/20/06	3:19 AM	20.58	0.08	6.18	13.55	4.23	
06/20/06	3:20 AM	20.58	0.09	8.67	13.78	4.64	
06/20/06	3:21 AM	20.50	0.24	13.10	17.14	4.81	
06/20/06	3:22 AM	20.27	0.64	14.33	23.14	5.42	
06/20/06	3:23 AM	19.92	1.14	9.31	43.93	7.93	
06/20/06	3:24 AM	19.95	1.09	4.88	74.04	8.88	
06/20/06	3:25 AM	19.90	1.15	4.43	74.42	7.47	
06/20/06	3:26 AM	19.91	1.12	4.97	81.52	5.96	
06/20/06	3:27 AM	19.92	1.08	4.97	88.31	4.85	
06/20/06	3:28 AM	19.92	1.05	4.97	108.34	4.17	
06/20/06	3:29 AM	19.85	1.14	5.13	107.68	3.96	
06/20/06	3:30 AM	19.68	1.35	5.87	116.31	4.54	
06/20/06	3:31 AM	19.58	1.48	6.28	129.27	5.79	
06/20/06	3:32 AM	19.64	1.39	6.16	137.95	6.39	
06/20/06	3:33 AM	19.72	1.27	5.40	137.90	5.19	
06/20/06	3:34 AM	19.74	1.25	5.27	114.53	3.95	
06/20/06	3:35 AM	19.77	1.20	6.23	105.52	3.11	
06/20/06	3:36 AM	19.80	1.14	6.48	104.77	2.70	
06/20/06	3:37 AM	19.79	1.12	6.23	110.17	2.75	
06/20/06	3:38 AM	19.84	1.05	6.33	101.50	3.10	
06/20/06	3:39 AM	19.85	1.04	5.48	83.35	3.34	

P-Bar	30.01	BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/20/06	3:40 AM	19.72	1.28	4.38	96.38	3.49	
06/20/06	3:41 AM	19.85	1.05	4.27	119.14	3.79	
06/20/06	3:42 AM	19.89	1.02	3.42	101.63	4.02	
06/20/06	3:43 AM	19.81	1.15	3.11	124.66	4.07	
06/20/06	3:44 AM	19.81	1.14	3.22	147.42	4.16	
06/20/06	3:45 AM	19.83	1.11	3.30	190.48	4.14	
06/20/06	3:46 AM	19.89	1.01	3.27	172.05	3.95	
06/20/06	3:47 AM	19.99	0.86	3.22	130.18	3.80	
06/20/06	3:48 AM	20.21	0.57	2.78	92.76	3.65	
06/20/06	3:49 AM	20.34	0.39	2.20	65.77	3.41	
06/20/06	3:50 AM	20.42	0.30	1.51	55.58	3.24	
06/20/06	3:51 AM	20.47	0.25	1.24	37.35	3.23	
06/20/06	3:52 AM	20.51	0.20	1.24	31.56	3.63	
06/20/06	3:53 AM	20.56	0.12	3.46	19.07	4.48	
06/20/06	3:54 AM	20.56	0.13	6.96	13.55	5.10	
06/20/06	3:55 AM	20.56	0.11	7.23	11.13	5.07	
06/20/06	3:56 AM	20.59	0.07	6.68	9.69	4.97	
06/20/06	3:57 AM	20.59	0.07	8.31	9.89	4.80	
06/20/06	3:58 AM	20.60	0.07	12.95	12.22	4.61	
06/20/06	3:59 AM	20.47	0.24	14.45	14.81	4.45	
06/20/06	4:00 AM	20.45	0.28	17.41	15.05	4.11	
06/20/06	4:01 AM	20.44	0.29	17.25	22.27	3.64	
06/20/06	4:02 AM	20.50	0.21	10.14	10.45	3.24	
06/20/06	4:03 AM	20.41	0.37	12.99	7.04	2.99	
06/20/06	4:04 AM	20.01	0.96	11.93	39.79	4.41	
06/20/06	4:05 AM	19.95	1.03	4.63	88.80	7.32	
06/20/06	4:06 AM	19.88	1.11	3.18	102.19	8.24	
06/20/06	4:07 AM	19.89	1.08	3.06	113.19	7.40	
06/20/06	4:08 AM	19.83	1.15	3.34	127.95	6.38	
06/20/06	4:09 AM	19.74	1.25	4.86	136.55	5.62	
06/20/06	4:10 AM	19.73	1.25	4.75	149.94	4.85	
06/20/06	4:11 AM	19.77	1.20	4.73	150.44	4.09	
06/20/06	4:12 AM	19.74	1.25	4.91	139.41	3.48	
06/20/06	4:13 AM	19.79	1.15	5.03	131.84	3.17	
06/20/06	4:14 AM	19.83	1.10	5.03	138.60	3.20	
06/20/06	4:15 AM	19.83	1.10	4.50	137.35	3.28	
06/20/06	4:16 AM	19.87	1.02	3.24	133.60	3.43	
06/20/06	4:17 AM	19.95	0.87	3.02	101.10	3.62	
06/20/06	4:18 AM	19.86	0.99	2.95	96.27	3.45	
06/20/06	4:19 AM	19.75	1.15	2.97	111.61	3.11	
06/20/06	4:20 AM	19.68	1.33	3.02	126.77	2.86	
06/20/06	4:21 AM	19.66	1.37	3.13	150.59	2.59	
06/20/06	4:22 AM	19.78	1.19	3.13	164.84	2.32	
06/20/06	4:23 AM	19.83	1.07	2.86	178.32	2.12	
06/20/06	4:24 AM	19.90	0.96	3.08	175.08	1.92	
06/20/06	4:25 AM	19.95	0.86	4.08	142.67	1.75	
06/20/06	4:26 AM	19.93	0.89	5.62	111.45	1.58	
06/20/06	4:27 AM	19.89	0.96	4.86	110.54	1.44	
06/20/06	4:28 AM	19.92	0.92	3.30	98.54	1.35	
06/20/06	4:29 AM	20.08	0.63	2.70	75.95	1.36	
06/20/06	4:30 AM	20.28	0.38	2.04	57.79	1.41	
06/20/06	4:31 AM	20.36	0.28	1.44	62.03	1.44	
06/20/06	4:32 AM	20.43	0.19	1.26	40.06	1.45	
06/20/06	4:33 AM	20.48	0.10	3.99	20.24	1.62	
06/20/06	4:34 AM	20.49	0.08	5.92	15.00	1.85	
06/20/06	4:35 AM	20.51	0.05	5.36	11.15	1.98	

P-Bar	30.01	BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/20/06	4:36 AM	20.53	0.02	4.92	9.22	2.14	
06/20/06	4:37 AM	20.51	0.03	6.29	9.69	2.35	
06/20/06	4:38 AM	20.52	0.02	10.45	8.95	2.38	
06/20/06	4:39 AM	20.38	0.22	14.16	18.08	2.19	
06/20/06	4:40 AM	20.27	0.46	17.19	19.35	2.08	
06/20/06	4:41 AM	19.82	1.09	16.35	42.00	2.47	
06/20/06	4:42 AM	19.73	1.22	7.19	58.51	3.56	
06/20/06	4:43 AM	19.71	1.21	4.69	72.24	4.00	
06/20/06	4:44 AM	19.66	1.25	3.70	60.10	4.04	
06/20/06	4:45 AM	19.63	1.23	2.77	64.87	4.31	
06/20/06	4:46 AM	19.57	1.32	4.18	66.53	4.62	
06/20/06	4:47 AM	19.58	1.31	7.70	66.57	4.56	
06/20/06	4:48 AM	19.52	1.42	5.21	63.60	4.33	
06/20/06	4:49 AM	19.45	1.49	4.29	66.23	4.20	
06/20/06	4:50 AM	19.41	1.52	3.68	82.10	3.75	
06/20/06	4:51 AM	19.39	1.52	3.78	103.50	3.31	
06/20/06	4:52 AM	19.38	1.53	4.85	114.35	3.03	
06/20/06	4:53 AM	19.32	1.57	5.40	107.76	2.96	
06/20/06	4:54 AM	19.36	1.52	5.81	106.80	3.37	
06/20/06	4:55 AM	19.35	1.55	5.86	103.03	3.96	
06/20/06	4:56 AM	19.40	1.50	6.11	110.60	4.24	
06/20/06	4:57 AM	19.49	1.41	5.78	112.36	4.18	
06/20/06	4:58 AM	19.54	1.35	3.90	123.87	4.20	
06/20/06	4:59 AM	19.54	1.34	3.73	125.79	4.26	
06/20/06	5:00 AM	19.49	1.42	3.92	138.56	3.97	
06/20/06	5:01 AM	19.49	1.39	3.98	139.90	3.47	
06/20/06	5:02 AM	19.53	1.37	4.25	147.97	3.03	
06/20/06	5:03 AM	19.51	1.40	4.59	140.83	2.67	
06/20/06	5:04 AM	19.41	1.51	4.82	143.64	2.41	
06/20/06	5:05 AM	19.48	1.39	4.69	172.07	2.20	
06/20/06	5:06 AM	19.52	1.32	5.81	184.04	2.12	
06/20/06	5:07 AM	19.58	1.24	6.00	179.58	2.20	
06/20/06	5:08 AM	19.71	1.03	4.85	169.33	2.26	
06/20/06	5:09 AM	19.92	0.74	3.63	124.24	2.18	
06/20/06	5:10 AM	20.10	0.48	2.91	83.65	2.11	
06/20/06	5:11 AM	20.26	0.28	2.38	68.98	2.11	
06/20/06	5:12 AM	20.32	0.20	1.85	60.15	2.05	
06/20/06	5:13 AM	20.48	0.05	1.95	38.49	1.95	
06/20/06	5:14 AM	20.49	0.07	6.17	17.31	1.91	
06/20/06	5:15 AM	20.50	0.07	7.35	12.90	2.02	
06/20/06	5:16 AM	20.52	0.04	7.28	10.36	2.12	
06/20/06	5:17 AM	20.53	0.03	6.34	9.38	2.18	
06/20/06	5:18 AM	20.53	0.04	7.79	12.10	2.16	
06/20/06	5:19 AM	20.41	0.19	11.72	13.80	2.11	
06/20/06	5:20 AM	20.12	0.66	14.13	23.20	2.16	
06/20/06	5:21 AM	19.73	1.07	8.34	50.74	3.58	
06/20/06	5:22 AM	19.70	1.14	4.48	69.33	5.82	
06/20/06	5:23 AM	19.70	1.18	3.22	64.54	6.31	
06/20/06	5:24 AM	19.65	1.26	3.28	59.77	5.96	
06/20/06	5:25 AM	19.68	1.21	4.18	58.41	5.35	
06/20/06	5:26 AM	19.68	1.24	4.48	72.97	4.73	
06/20/06	5:27 AM	19.56	1.40	4.82	103.33	4.11	
06/20/06	5:28 AM	19.58	1.38	5.01	110.32	3.62	
06/20/06	5:29 AM	19.58	1.38	5.44	103.83	3.21	
06/20/06	5:30 AM	19.59	1.35	5.84	106.81	2.89	
06/20/06	5:31 AM	19.55	1.39	5.02	106.01	2.66	

P-Bar	30.01	BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/20/06	5:32 AM	19.57	1.37	4.83	114.76	2.48	
06/20/06	5:33 AM	19.38	1.55	4.99	111.62	2.35	
06/20/06	5:34 AM	19.51	1.37	5.26	143.75	2.20	
06/20/06	5:35 AM	19.55	1.31	5.54	159.43	2.02	
06/20/06	5:36 AM	19.65	1.16	5.79	161.60	1.86	
06/20/06	5:37 AM	19.67	1.11	5.71	164.90	1.71	
06/20/06	5:38 AM	19.70	1.10	5.21	141.92	1.54	
06/20/06	5:39 AM	19.65	1.23	3.86	154.87	1.48	
06/20/06	5:40 AM	19.49	1.47	4.14	174.96	1.43	
06/20/06	5:41 AM	19.46	1.52	4.29	206.68	1.44	
06/20/06	5:42 AM	19.57	1.38	4.49	235.41	1.53	
06/20/06	5:43 AM	19.66	1.25	5.13	199.92	1.73	
06/20/06	5:44 AM	19.69	1.16	5.23	143.92	2.14	
06/20/06	5:45 AM	19.76	1.10	3.59	123.02	2.55	
06/20/06	5:46 AM	19.86	0.92	3.04	134.68	2.63	
06/20/06	5:47 AM	20.07	0.61	3.03	105.33	2.34	
06/20/06	5:48 AM	20.19	0.45	3.50	74.75	2.08	
06/20/06	5:49 AM	20.31	0.32	3.27	60.47	1.88	
06/20/06	5:50 AM	20.33	0.30	2.16	43.48	1.66	
06/20/06	5:51 AM	20.47	0.14	2.62	24.71	1.51	
06/20/06	5:52 AM	20.47	0.14	4.29	17.18	1.40	
06/20/06	5:53 AM	20.45	0.17	2.52	21.41	1.33	
06/20/06	5:54 AM	20.46	0.16	1.48	18.00	1.40	
06/20/06	5:55 AM	20.49	0.11	4.06	11.34	1.56	
06/20/06	5:56 AM	20.50	0.11	7.87	9.29	1.96	
06/20/06	5:57 AM	20.50	0.10	8.22	7.28	2.45	
06/20/06	5:58 AM	20.52	0.07	7.42	5.92	2.83	
06/20/06	5:59 AM	20.51	0.09	7.27	6.21	3.18	
06/20/06	6:00 AM	20.51	0.09	7.71	9.37	3.44	
06/20/06	6:01 AM	20.43	0.20	10.51	9.31	3.44	
06/20/06	6:02 AM	20.41	0.26	11.97	12.75	3.45	
06/20/06	6:03 AM	20.10	0.66	10.67	66.49	3.55	
06/20/06	6:04 AM	19.93	0.91	5.18	81.88	4.22	
06/20/06	6:05 AM	19.80	1.16	4.24	96.58	4.50	
06/20/06	6:06 AM	19.78	1.16	4.16	83.05	4.28	
06/20/06	6:07 AM	19.83	1.04	4.35	71.52	3.90	
06/20/06	6:08 AM	19.80	1.08	4.56	87.79	3.53	
06/20/06	6:09 AM	19.74	1.16	4.38	101.20	3.20	
06/20/06	6:10 AM	19.77	1.11	3.70	114.02	2.92	
06/20/06	6:11 AM	19.63	1.26	3.42	107.87	2.61	
06/20/06	6:12 AM	19.74	1.12	3.99	115.86	2.36	
06/20/06	6:13 AM	19.70	1.18	4.23	130.18	2.13	
06/20/06	6:14 AM	19.74	1.10	4.50	131.34	1.89	
06/20/06	6:15 AM	19.70	1.14	4.50	112.53	1.72	
06/20/06	6:16 AM	19.65	1.25	4.76	117.69	1.57	
06/20/06	6:17 AM	19.68	1.22	4.65	140.69	1.52	
06/20/06	6:18 AM	19.64	1.26	3.87	145.01	1.51	
06/20/06	6:19 AM	19.58	1.33	4.38	157.66	1.80	
06/20/06	6:20 AM	19.60	1.29	5.47	158.16	2.28	
06/20/06	6:21 AM	19.59	1.27	6.14	154.34	2.83	
06/20/06	6:22 AM	19.61	1.27	4.71	169.00	3.64	
06/20/06	6:23 AM	19.60	1.27	3.61	164.50	4.39	
06/20/06	6:24 AM	19.65	1.18	3.96	162.66	5.04	
06/20/06	6:25 AM	19.74	1.03	4.22	148.01	5.46	
06/20/06	6:26 AM	19.81	0.97	4.28	165.83	5.09	
06/20/06	6:27 AM	19.73	1.11	4.17	162.84	4.82	

P-Bar	30.01	BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/20/06	6:28 AM	19.52	1.37	3.79	155.50	4.88	
06/20/06	6:29 AM	19.51	1.39	2.89	157.01	5.44	
06/20/06	6:30 AM	19.59	1.28	2.55	169.84	6.24	
06/20/06	6:31 AM	19.62	1.20	2.53	167.94	6.93	
06/20/06	6:32 AM	19.68	1.15	2.38	161.34	7.83	
06/20/06	6:33 AM	19.72	1.06	2.10	147.61	8.58	
06/20/06	6:34 AM	19.73	1.01	1.84	141.18	8.90	
06/20/06	6:35 AM	20.01	0.56	1.69	120.38	9.04	
06/20/06	6:36 AM	20.32	0.21	1.51	98.67	7.84	
06/20/06	6:37 AM	20.41	0.09	2.49	79.67	5.79	
06/20/06	6:38 AM	20.47	0.03	2.94	54.16	4.35	
06/20/06	6:39 AM	20.48	0.03	3.48	38.93	3.50	
06/20/06	6:40 AM	20.48	0.02	4.87	33.49	3.10	
06/20/06	6:41 AM	20.48	0.02	5.59	30.57	2.93	
06/20/06	6:42 AM	20.48	0.03	7.52	32.47	3.10	
06/20/06	6:43 AM	20.37	0.11	7.20	40.77	3.61	
06/20/06	6:44 AM	20.35	0.14	2.33	45.84	4.03	
06/20/06	6:45 AM	20.45	0.06	1.29	39.57	4.18	
06/20/06	6:46 AM	20.46	0.04	4.00	32.33	4.18	
06/20/06	6:47 AM	20.47	0.03	5.19	29.00	4.15	
06/20/06	6:48 AM	20.48	0.02	6.85	24.35	4.19	
06/20/06	6:49 AM	20.48	0.04	10.10	23.81	4.10	
06/20/06	6:50 AM	20.37	0.24	11.20	25.26	4.23	
06/20/06	6:51 AM	20.21	0.53	13.08	22.31	4.60	
06/20/06	6:52 AM	20.17	0.56	11.53	24.94	5.05	
06/20/06	6:53 AM	20.38	0.23	5.99	20.49	5.06	
06/20/06	6:54 AM	20.45	0.12	4.53	14.97	4.41	
06/20/06	6:55 AM	20.48	0.08	5.48	10.19	3.75	
06/20/06	6:56 AM	20.15	0.62	5.90	17.22	3.39	
06/20/06	6:57 AM	19.79	1.08	3.13	36.17	4.48	
06/20/06	6:58 AM	19.70	1.18	2.62	47.93	7.28	
06/20/06	6:59 AM	19.72	1.19	3.07	52.82	8.14	
06/20/06	7:00 AM	19.72	1.19	2.71	58.38	8.68	
06/20/06	7:01 AM	19.77	1.09	2.11	60.08	10.71	
06/20/06	7:02 AM	19.77	1.07	1.94	64.27	12.99	
06/20/06	7:03 AM	19.75	1.08	1.98	79.74	15.09	
06/20/06	7:04 AM	19.69	1.19	2.12	96.77	16.06	
06/20/06	7:05 AM	19.56	1.37	2.20	106.13	15.81	
06/20/06	7:06 AM	19.58	1.37	2.32	138.78	14.84	
06/20/06	7:07 AM	19.59	1.36	2.27	168.91	13.65	
06/20/06	7:08 AM	19.60	1.34	2.15	147.52	12.58	
06/20/06	7:09 AM	19.67	1.25	1.94	130.08	11.76	
06/20/06	7:10 AM	19.71	1.19	1.90	129.05	10.16	
06/20/06	7:11 AM	19.68	1.21	1.93	136.12	8.55	
06/20/06	7:12 AM	19.71	1.16	2.03	153.28	8.22	
06/20/06	7:13 AM	19.72	1.16	2.09	171.91	8.34	
06/20/06	7:14 AM	19.71	1.21	2.19	210.76	8.47	
06/20/06	7:15 AM	19.76	1.14	2.16	226.25	8.52	
06/20/06	7:16 AM	19.78	1.11	2.23	200.59	8.43	
06/20/06	7:17 AM	19.83	1.06	2.48	184.23	8.26	
06/20/06	7:18 AM	19.88	1.00	2.54	175.19	7.92	
06/20/06	7:19 AM	19.92	0.97	2.53	165.33	7.63	
06/20/06	7:20 AM	19.92	0.99	2.45	142.28	7.45	
06/20/06	7:21 AM	19.89	0.98	2.61	149.14	7.37	
06/20/06	7:22 AM	20.05	0.71	2.63	133.26	6.94	
06/20/06	7:23 AM	20.15	0.54	2.15	111.18	5.94	

P-Bar	30.01	BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/20/06	7:24 AM	20.20	0.50	1.86	96.55	4.90	
06/20/06	7:25 AM	20.06	0.75	2.04	102.70	4.17	
06/20/06	7:26 AM	19.64	1.49	3.08	112.77	3.91	
06/20/06	7:27 AM	19.40	1.82	4.39	119.00	4.11	
06/20/06	7:28 AM	19.24	2.03	4.47	182.29	4.46	
06/20/06	7:29 AM	19.29	1.89	3.73	185.52	4.83	
06/20/06	7:30 AM	19.33	1.68	3.22	179.65	4.96	
06/20/06	7:31 AM	19.51	1.42	7.46	187.96	4.83	
06/20/06	7:32 AM	19.64	1.25	6.08	160.56	4.75	
06/20/06	7:33 AM	19.82	1.09	2.48	125.64	5.27	
06/20/06	7:34 AM	19.81	1.14	1.93	83.89	5.75	
06/20/06	7:35 AM	19.90	1.00	2.30	63.02	6.61	
06/20/06	7:36 AM	20.27	0.48	2.19	61.37	7.40	
06/20/06	7:37 AM	20.49	0.24	1.25	55.82	6.75	
06/20/06	7:38 AM	20.35	0.49	0.95	43.56	5.36	
06/20/06	7:39 AM	20.48	0.29	1.99	39.74	4.51	
06/20/06	7:40 AM	20.58	0.17	3.85	28.53	4.09	
06/20/06	7:41 AM	20.61	0.13	5.73	24.95	4.17	
06/20/06	7:42 AM	20.61	0.14	5.86	27.17	4.48	
06/20/06	7:43 AM	20.53	0.28	10.14	26.66	4.77	
06/20/06	7:44 AM	20.52	0.29	10.72	19.43	5.25	
06/20/06	7:45 AM	20.56	0.26	11.14	16.71	5.18	
06/20/06	7:46 AM	20.59	0.22	10.52	16.68	4.61	
06/20/06	7:47 AM	20.48	0.41	7.51	30.19	3.86	
06/20/06	7:48 AM	20.16	0.84	3.73	34.79	3.37	
06/20/06	7:49 AM	20.02	1.02	3.44	54.18	4.19	
06/20/06	7:50 AM	19.91	1.11	3.19	46.96	6.41	
06/20/06	7:51 AM	19.92	1.09	1.88	37.53	8.30	
06/20/06	7:52 AM	19.88	1.13	1.63	35.96	8.82	
06/20/06	7:53 AM	19.82	1.23	1.87	40.70	8.25	
06/20/06	7:54 AM	19.81	1.21	2.81	46.12	8.00	
06/20/06	7:55 AM	19.83	1.20	3.51	48.45	8.12	
06/20/06	7:56 AM	19.80	1.25	3.60	48.56	8.44	
06/20/06	7:57 AM	19.79	1.32	2.53	53.15	9.23	
06/20/06	7:58 AM	19.85	1.23	2.28	57.34	9.48	
06/20/06	7:59 AM	19.87	1.25	2.30	53.18	9.44	
06/20/06	8:00 AM	19.85	1.29	2.13	55.31	9.42	
06/20/06	8:01 AM	19.81	1.38	2.71	56.84	9.30	
06/20/06	8:02 AM	19.79	1.37	3.75	60.81	8.66	
06/20/06	8:03 AM	19.76	1.40	3.73	63.64	8.15	
06/20/06	8:04 AM	19.74	1.41	3.35	64.05	7.66	
06/20/06	8:05 AM	19.79	1.35	2.88	69.15	7.14	
06/20/06	8:06 AM	19.79	1.34	1.84	69.32	6.68	
06/20/06	8:07 AM	19.80	1.35	1.71	63.99	6.16	
06/20/06	8:08 AM	19.78	1.36	1.54	70.74	6.13	
06/20/06	8:09 AM	19.83	1.30	1.61	78.24	6.26	
06/20/06	8:10 AM	19.84	1.29	1.68	82.24	6.53	
06/20/06	8:11 AM	19.93	1.21	1.72	82.15	6.41	
06/20/06	8:12 AM	19.90	1.29	2.27	106.39	5.85	
06/20/06	8:13 AM	19.83	1.40	3.64	113.23	5.44	
06/20/06	8:14 AM	19.92	1.06	3.80	133.31	5.09	
06/20/06	8:15 AM	20.04	0.90	3.13	131.22	4.60	
06/20/06	8:16 AM	19.88	1.17	4.04	135.47	3.93	
06/20/06	8:17 AM	19.78	1.38	2.82	159.88	3.57	
06/20/06	8:18 AM	19.76	1.53	2.17	183.45	3.36	
06/20/06	8:19 AM	19.54	1.78	2.14	144.14	3.27	

P-Bar	30.01	BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/20/06	8:20 AM	19.56	1.68	3.02	136.00	3.55	
06/20/06	8:21 AM	19.61	1.55	2.75	112.98	4.00	
06/20/06	8:22 AM	19.72	1.45	2.26	147.11	4.78	
06/20/06	8:23 AM	19.74	1.45	2.22	168.23	5.94	
06/20/06	8:24 AM	19.89	1.24	1.98	169.10	6.81	
06/20/06	8:25 AM	20.01	1.10	1.60	158.77	7.87	
06/20/06	8:26 AM	20.06	1.04	1.75	161.92	8.14	
06/20/06	8:27 AM	19.97	1.26	1.03	150.79	8.24	
06/20/06	8:28 AM	19.83	1.49	2.43	153.57	8.80	
06/20/06	8:29 AM	19.89	1.37	2.67	146.29	7.23	
06/20/06	8:30 AM	20.01	1.16	3.75	140.63	6.58	
06/20/06	8:31 AM	20.03	1.07	4.94	127.95	6.11	
06/20/06	8:32 AM	20.07	1.03	2.97	112.40	6.38	
06/20/06	8:33 AM	20.10	0.99	1.86	84.67	6.97	
06/20/06	8:34 AM	20.38	0.59	1.79	61.58	7.44	
06/20/06	8:35 AM	20.65	0.23	1.24	53.28	6.64	
06/20/06	8:36 AM	20.71	0.16	1.76	44.90	4.91	
06/20/06	8:37 AM	20.73	0.14	3.81	36.44	3.60	
06/20/06	8:38 AM	20.77	0.10	4.72	32.80	2.86	
06/20/06	8:39 AM	20.75	0.11	5.98	34.31	2.46	
06/20/06	8:40 AM	20.61	0.34	10.21	34.94	2.42	
06/20/06	8:41 AM	20.57	0.37	12.23	29.98	2.76	
06/20/06	8:42 AM	20.63	0.29	14.27	27.48	3.02	
06/20/06	8:43 AM	20.62	0.29	10.23	47.00	2.99	
06/20/06	8:44 AM	20.46	0.54	4.33	35.87	2.83	
06/20/06	8:45 AM	20.08	0.93	3.76	42.03	4.09	
06/20/06	8:46 AM	19.96	1.05	4.30	39.09	8.73	
06/20/06	8:47 AM	19.90	1.16	4.39	38.13	12.28	
06/20/06	8:48 AM	19.91	1.15	3.68	39.50	12.11	
06/20/06	8:49 AM	19.92	1.16	3.15	39.97	10.39	
06/20/06	8:50 AM	19.90	1.18	3.27	42.67	9.54	
06/20/06	8:51 AM	19.88	1.23	2.48	46.58	11.10	
06/20/06	8:52 AM	19.85	1.32	2.27	57.00	13.44	
06/20/06	8:53 AM	19.83	1.36	2.35	64.52	14.42	
06/20/06	8:54 AM	19.79	1.42	2.25	62.89	15.37	
06/20/06	8:55 AM	19.72	1.53	2.25	61.45	16.58	
06/20/06	8:56 AM	19.74	1.52	2.38	69.06	17.03	
06/20/06	8:57 AM	19.81	1.42	2.33	66.40	16.90	
06/20/06	8:58 AM	19.79	1.49	2.35	69.10	16.10	
06/20/06	8:59 AM	19.69	1.62	2.50	139.82	15.88	
06/20/06	9:00 AM	19.68	1.60	2.48	232.20	15.53	
06/20/06	9:01 AM	19.65	1.62	2.07	45.17	14.93	
06/20/06	9:02 AM	19.66	1.59	1.77	93.60	14.39	
06/20/06	9:03 AM	19.56	1.72	1.63	99.74	13.57	
06/20/06	9:04 AM	19.57	1.69	1.95	98.20	11.92	
06/20/06	9:05 AM	19.69	1.60	3.17	86.14	10.65	
06/20/06	9:06 AM	19.64	1.68	3.97	78.65	9.68	
06/20/06	9:07 AM	19.65	1.67	3.43	91.53	8.70	
06/20/06	9:08 AM	19.72	1.55	3.78	81.83	6.84	
06/20/06	9:09 AM	19.74	1.56	3.13	74.83	5.89	
06/20/06	9:10 AM	19.76	1.52	2.00	89.79	5.96	
06/20/06	9:11 AM	19.76	1.53	1.88	100.14	5.09	
06/20/06	9:12 AM	19.60	1.72	1.73	120.12	4.21	
06/20/06	9:13 AM	19.71	1.56	1.57	106.65	3.56	
06/20/06	9:14 AM	19.93	1.36	1.82	111.32	3.00	
06/20/06	9:15 AM	20.05	1.24	1.80	87.76	2.56	

P-Bar	30.01	BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/20/06	9:16 AM	20.04	1.29	1.68	76.57	2.27	
06/20/06	9:17 AM	19.99	1.38	1.71	77.49	2.10	
06/20/06	9:18 AM	20.04	1.29	1.80	71.81	2.01	
06/20/06	9:19 AM	20.18	1.08	1.68	54.51	1.97	
06/20/06	9:20 AM	20.45	0.62	1.48	54.96	1.95	
06/20/06	9:21 AM	20.65	0.36	1.49	52.60	1.98	
06/20/06	9:22 AM	20.75	0.24	1.59	43.10	1.95	
06/20/06	9:23 AM	20.78	0.20	2.40	35.38	1.71	
06/20/06	9:24 AM	20.83	0.15	2.87	29.88	1.49	
06/20/06	9:25 AM	20.81	0.17	3.65	25.31	1.38	
06/20/06	9:26 AM	20.10	0.21	7.81	29.01	1.32	
06/20/06	9:27 AM	19.70	0.42	13.18	34.51	1.43	
06/20/06	9:28 AM	19.65	0.25	13.07	38.85	1.79	
06/20/06	9:29 AM	19.68	0.28	14.60	16.94	1.97	
06/20/06	9:30 AM	19.64	0.48	10.37	24.89	2.47	
06/20/06	9:31 AM	19.58	0.93	3.39	25.93	3.18	
06/20/06	9:32 AM	19.60	1.10	2.74	47.29	5.52	
06/20/06	9:33 AM	19.59	1.16	2.70	55.42	8.55	
06/20/06	9:34 AM	19.61	1.24	2.22	50.43	9.40	
06/20/06	9:35 AM	19.60	1.32	2.03	52.41	10.35	
06/20/06	9:36 AM	19.65	1.40	2.13	54.91	10.97	
06/20/06	9:37 AM	19.74	1.43	2.71	55.08	10.18	
06/20/06	9:38 AM	19.81	1.41	3.07	58.91	8.88	
06/20/06	9:39 AM	19.73	1.35	3.45	65.23	7.94	
06/20/06	9:40 AM	19.52	1.56	3.73	82.24	6.91	
06/20/06	9:41 AM	19.51	1.61	2.54	78.58	6.19	
06/20/06	9:42 AM	19.59	0.94	1.72	71.08	6.01	
06/20/06	9:43 AM	19.62	0.38	2.58	53.59	5.32	
06/20/06	9:44 AM	19.68	0.27	2.86	34.76	4.25	
06/20/06	9:45 AM	19.73	0.23	2.66	27.78	3.57	
06/20/06	9:46 AM	19.78	0.22	1.42	25.11	3.04	
06/20/06	9:47 AM	20.01	0.21	1.26	21.61	2.77	
06/20/06	9:48 AM	20.25	0.20	2.03	19.45	2.80	
06/20/06	9:49 AM	20.58	0.20	3.01	19.28	2.96	
06/20/06	9:50 AM	20.30	0.22	2.97	19.12	3.00	
06/20/06	9:51 AM	20.69	0.21	3.03	18.28	2.88	
06/20/06	9:52 AM	20.62	0.17	3.70	18.11	2.92	
06/20/06	9:53 AM	20.19	0.94	3.64	17.94	3.39	
06/20/06	9:54 AM	19.71	1.49	2.65	47.92	5.84	
06/20/06	9:55 AM	19.70	1.48	2.76	62.25	7.82	
06/20/06	9:56 AM	19.66	1.51	2.75	64.11	8.20	End Run 1
06/20/06	9:57 AM	19.68	1.47	2.33	64.39	7.86	
06/20/06	9:58 AM	19.69	1.47	2.23	66.21	7.63	
Averages		**19.93**	**0.98**	**4.61**	**91.66**	**6.08**	
06/20/06	9:59 AM	19.63	1.96	2.14	74.62	7.20	
06/20/06	10:00 AM	12.73	9.98	1.88	26.88	0.60	
06/20/06	10:01 AM	12.09	9.99	0.28	0.28	-0.19	
06/20/06	10:02 AM	7.29	4.99	1.25	6.02	11.72	Final Calibrations
06/20/06	10:03 AM	0.11	0.02	31.03	41.29	40.02	
06/20/06	10:04 AM	0.11	0.02	44.54	43.33	43.03	
06/20/06	10:05 AM	0.11	0.02	49.33	90.23	78.46	
06/20/06	10:06 AM	0.11	0.02	99.10	246.91	100.37	
06/20/06	10:07 AM	0.12	0.02	100.04	248.89	100.37	
06/20/06	10:08 AM	14.69	0.98	100.04	169.15	98.46	

CONTINUOUS EMISSIONS MONITORING
TEST RESULTS

Client: Nucor Steel, Hertford
Test Date: Jun-21-06
Start Time: 12:00 AM **Stop Time:** 9:40 AM
Emissions Unit: Baghouse
Project: Compliance

RUN 2

Calibration Data

	O_2 (%)	CO_2 (%)	NO_X (ppm)	CO (ppm)	SO_2 (ppm)
Initial Zero	0.03	0.02	0.03	0.26	-0.03
Initial Span	12.06	10.09	45.89	252.03	43.80
Final Zero	-0.09	0.02	0.29	0.27	0.24
Final Span	12.04	10.04	46.73	251.88	43.83
Zero Drift	-0.12	0.00	0.26	0.01	0.28
Span Drift	-0.02	-0.05	0.84	-0.15	0.03
Drift Limit	1.25	1.25	5.00	50.00	5.00
Span Gas Value	12.08	10.02	45.90	249.00	44.80
Full Scale Range	25.0	25.0	100.0	1000.0	100.0
Method Drift Limit (%)	5%	5%	5%	5%	5%
Analyte Mol Weight	32	44	46	28	64

Stack Gas Parameters

Average Temperature (°F)	175.6	
Moisture Content (%)	3.70%	*flow rates by pitot tube*
Process Rate (tons/hr)	219.7	*traverse from EPA Method 5*
Flow rate (dscfm)	1271647	

Emission Data

	O_2 (%)	CO_2 (%)	NO_X (ppm)	CO (ppm)	SO_2 (ppm)
Dry average (uncorrected)	20.13	0.90	5.02	97.78	4.28
Dry average (drift corrected)	20.16	0.88	4.83	96.47	4.28
Emission Rate (lb/hr)			44.024	534.833	54.224
Emission Rate (lb/ton)			0.200	2.434	0.247

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/20/06	10:33 PM	12.19	10.65	4.09	45.78	0.80	
06/20/06	10:34 PM	12.06	10.09	0.61	0.26	0.00	
06/20/06	10:35 PM	11.91	9.57	0.03	0.26	-0.03	
06/20/06	10:36 PM	0.95	0.35	6.29	27.40	29.00	
06/20/06	10:37 PM	0.21	0.33	40.12	43.29	41.73	
06/20/06	10:38 PM	0.21	0.33	45.89	43.31	43.80	
06/20/06	10:39 PM	0.22	0.33	49.83	69.50	70.72	
06/20/06	10:40 PM	0.44	0.30	99.63	243.89	100.40	
06/20/06	10:41 PM	0.23	0.02	100.04	251.53	100.40	
06/20/06	10:42 PM	0.03	0.02	100.04	252.03	100.40	
06/20/06	10:43 PM	1.23	0.10	100.04	251.33	100.40	
06/20/06	10:44 PM	19.84	0.75	95.23	166.52	38.54	
06/20/06	10:45 PM	20.32	0.74	12.32	159.56	8.64	
06/20/06	10:46 PM	20.40	0.61	3.10	169.53	6.18	
06/20/06	10:47 PM	20.51	0.47	2.27	130.98	5.36	
06/20/06	10:48 PM	20.69	0.29	2.56	66.78	5.12	
06/20/06	10:49 PM	20.75	0.22	3.85	39.03	4.87	
06/20/06	10:50 PM	20.77	0.21	5.40	28.87	4.60	
06/20/06	10:51 PM	20.78	0.21	7.04	24.04	4.62	
06/20/06	10:52 PM	20.79	0.20	7.79	21.67	4.38	
06/20/06	10:53 PM	20.82	0.17	6.57	19.55	4.26	
06/20/06	10:54 PM	20.83	0.17	7.21	18.25	4.06	
06/20/06	10:55 PM	20.78	0.26	8.54	20.38	3.59	
06/20/06	10:56 PM	20.38	0.61	12.65	66.55	3.51	
06/20/06	10:57 PM	20.25	0.92	12.08	86.80	4.31	
06/20/06	10:58 PM	19.93	1.25	7.74	67.44	7.52	
06/20/06	10:59 PM	19.91	1.28	4.56	57.95	10.46	
06/20/06	11:00 PM	19.84	1.37	4.21	56.55	11.33	
06/20/06	11:01 PM	19.84	1.38	4.54	59.94	11.22	
06/20/06	11:02 PM	19.80	1.45	4.31	69.19	10.18	
06/20/06	11:03 PM	19.80	1.47	4.58	65.34	8.91	
06/20/06	11:04 PM	19.84	1.44	4.68	72.84	7.75	
06/20/06	11:05 PM	19.88	1.42	4.38	103.19	6.88	
06/20/06	11:06 PM	19.84	1.49	4.22	119.85	6.39	
06/20/06	11:07 PM	19.86	1.48	4.08	120.10	5.36	
06/20/06	11:08 PM	19.39	2.12	3.98	258.87	4.17	
06/20/06	11:09 PM	19.19	2.33	4.13	493.26	3.43	
06/20/06	11:10 PM	19.53	1.86	4.41	244.97	3.06	
06/20/06	11:11 PM	19.64	1.76	5.01	246.22	2.78	
06/20/06	11:12 PM	19.72	1.66	4.51	203.24	2.48	
06/20/06	11:13 PM	19.73	1.62	3.57	162.09	2.22	
06/20/06	11:14 PM	19.86	1.50	3.51	148.43	2.14	
06/20/06	11:15 PM	19.80	1.60	3.45	137.28	2.12	
06/20/06	11:16 PM	19.78	1.57	3.62	135.76	2.04	
06/20/06	11:17 PM	19.70	1.65	3.62	129.51	2.03	
06/20/06	11:18 PM	19.80	1.59	3.47	148.01	2.03	
06/20/06	11:19 PM	19.83	1.56	3.42	175.67	2.01	
06/20/06	11:20 PM	19.85	1.59	3.30	161.59	1.92	
06/20/06	11:21 PM	19.77	1.62	3.27	166.50	1.80	
06/20/06	11:22 PM	19.72	1.70	3.53	171.83	1.62	
06/20/06	11:23 PM	19.74	1.66	4.02	190.24	1.45	
06/20/06	11:24 PM	19.85	1.54	5.04	180.17	1.33	
06/20/06	11:25 PM	20.01	1.30	4.76	160.50	1.19	
06/20/06	11:26 PM	20.15	1.05	3.86	123.69	1.12	
06/20/06	11:27 PM	20.35	0.79	4.81	105.67	1.10	
06/20/06	11:28 PM	20.52	0.62	3.14	89.97	1.10	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/20/06	11:29 PM	20.57	0.56	1.50	53.35	1.21	
06/20/06	11:30 PM	20.71	0.40	1.69	43.79	1.49	
06/20/06	11:31 PM	20.75	0.36	5.40	28.74	1.93	
06/20/06	11:32 PM	20.76	0.33	5.90	21.84	2.06	
06/20/06	11:33 PM	20.78	0.31	5.76	18.61	1.95	
06/20/06	11:34 PM	20.78	0.31	6.72	16.05	1.87	
06/20/06	11:35 PM	20.80	0.29	6.74	14.48	1.92	
06/20/06	11:36 PM	20.79	0.29	7.43	13.58	2.07	
06/20/06	11:37 PM	20.77	0.31	8.42	16.25	2.20	
06/20/06	11:38 PM	20.60	0.51	11.06	22.31	2.28	
06/20/06	11:39 PM	20.43	0.64	13.56	55.13	2.48	
06/20/06	11:40 PM	20.14	1.07	9.88	59.71	3.50	
06/20/06	11:41 PM	19.92	1.29	6.48	61.81	6.16	
06/20/06	11:42 PM	19.94	1.28	5.07	61.07	7.99	
06/20/06	11:43 PM	19.93	1.30	4.69	55.95	8.13	
06/20/06	11:44 PM	19.82	1.45	5.12	61.64	8.07	
06/20/06	11:45 PM	19.75	1.51	5.06	83.30	7.56	
06/20/06	11:46 PM	19.81	1.45	5.13	91.67	7.15	
06/20/06	11:47 PM	19.93	1.29	5.05	111.09	7.27	
06/20/06	11:48 PM	20.00	1.18	4.93	117.88	7.17	
06/20/06	11:49 PM	20.04	1.14	4.48	118.19	5.51	
06/20/06	11:50 PM	20.00	1.22	4.29	125.60	3.99	
06/20/06	11:51 PM	19.59	1.74	4.93	127.53	3.06	
06/20/06	11:52 PM	19.61	1.59	6.54	137.70	2.57	
06/20/06	11:53 PM	19.83	1.39	6.10	219.28	2.48	
06/20/06	11:54 PM	19.68	1.62	4.95	269.73	2.47	
06/20/06	11:55 PM	19.75	1.47	4.77	265.56	2.45	
06/20/06	11:56 PM	19.83	1.40	4.13	250.40	2.31	
06/20/06	11:57 PM	19.78	1.43	3.74	247.68	2.08	
06/20/06	11:58 PM	19.71	1.54	3.66	232.76	1.94	
06/20/06	11:59 PM	19.71	1.54	3.50	175.43	1.88	
06/21/06	12:00 AM	19.71	1.52	3.48	145.10	1.85	Start Run 2
06/21/06	12:01 AM	19.80	1.39	3.77	143.50	1.87	
06/21/06	12:02 AM	19.88	1.34	3.59	150.13	1.88	
06/21/06	12:03 AM	19.82	1.47	3.43	135.13	1.85	
06/21/06	12:04 AM	20.02	1.16	3.38	132.13	1.81	
06/21/06	12:05 AM	20.09	1.09	3.19	109.22	1.86	
06/21/06	12:06 AM	20.21	0.89	3.22	159.02	2.02	
06/21/06	12:07 AM	20.47	0.57	2.34	165.96	1.96	
06/21/06	12:08 AM	20.62	0.41	1.66	125.27	1.80	
06/21/06	12:09 AM	20.68	0.33	3.04	74.74	1.69	
06/21/06	12:10 AM	20.72	0.30	3.34	53.14	1.55	
06/21/06	12:11 AM	20.73	0.29	3.48	43.87	1.42	
06/21/06	12:12 AM	20.75	0.26	3.98	41.64	1.32	
06/21/06	12:13 AM	20.76	0.24	4.66	42.67	1.31	
06/21/06	12:14 AM	20.77	0.24	5.34	38.07	1.37	
06/21/06	12:15 AM	20.75	0.26	6.39	36.10	1.46	
06/21/06	12:16 AM	20.76	0.23	7.07	34.00	1.57	
06/21/06	12:17 AM	20.69	0.32	7.88	43.27	1.64	
06/21/06	12:18 AM	20.48	0.54	8.96	63.38	1.75	
06/21/06	12:19 AM	20.49	0.51	13.18	56.72	2.28	
06/21/06	12:20 AM	20.19	0.99	13.14	57.25	3.00	
06/21/06	12:21 AM	19.84	1.28	8.14	77.31	5.35	
06/21/06	12:22 AM	19.83	1.31	5.69	80.50	7.61	
06/21/06	12:23 AM	19.85	1.30	4.73	72.16	8.23	
06/21/06	12:24 AM	19.82	1.34	4.22	64.93	8.29	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/21/06	12:25 AM	19.85	1.30	4.35	66.71	8.22	
06/21/06	12:26 AM	19.83	1.37	4.34	72.71	7.76	
06/21/06	12:27 AM	19.79	1.48	3.58	89.14	6.16	
06/21/06	12:28 AM	19.82	1.44	3.54	131.31	4.69	
06/21/06	12:29 AM	19.82	1.41	4.04	151.20	3.63	
06/21/06	12:30 AM	19.89	1.27	4.83	148.48	2.99	
06/21/06	12:31 AM	19.65	1.62	5.53	134.34	2.57	
06/21/06	12:32 AM	19.27	2.00	5.91	190.09	2.28	
06/21/06	12:33 AM	19.59	1.66	5.84	179.20	2.18	
06/21/06	12:34 AM	19.76	1.51	6.01	217.08	2.05	
06/21/06	12:35 AM	19.72	1.56	5.73	177.06	1.85	
06/21/06	12:36 AM	19.70	1.56	4.50	151.44	1.69	
06/21/06	12:37 AM	19.70	1.57	3.87	145.00	1.54	
06/21/06	12:38 AM	19.71	1.55	3.61	130.78	1.45	
06/21/06	12:39 AM	19.77	1.43	3.55	132.71	1.50	
06/21/06	12:40 AM	19.84	1.33	3.69	134.75	1.51	
06/21/06	12:41 AM	19.78	1.42	3.78	135.93	1.45	
06/21/06	12:42 AM	19.80	1.42	3.86	152.74	1.38	
06/21/06	12:43 AM	19.84	1.39	3.90	162.60	1.35	
06/21/06	12:44 AM	19.84	1.39	3.66	161.78	1.30	
06/21/06	12:45 AM	19.81	1.42	3.58	144.57	1.22	
06/21/06	12:46 AM	19.81	1.38	3.86	125.18	1.14	
06/21/06	12:47 AM	19.83	1.31	3.94	120.20	1.08	
06/21/06	12:48 AM	19.97	1.15	4.08	159.40	1.08	
06/21/06	12:49 AM	20.31	0.71	3.52	196.44	1.20	
06/21/06	12:50 AM	20.56	0.43	2.64	146.20	1.41	
06/21/06	12:51 AM	20.68	0.30	3.90	87.35	1.57	
06/21/06	12:52 AM	20.71	0.28	5.69	44.68	1.59	
06/21/06	12:53 AM	20.74	0.24	6.02	29.05	1.48	
06/21/06	12:54 AM	20.74	0.25	6.42	23.81	1.43	
06/21/06	12:55 AM	20.76	0.23	6.16	21.91	1.52	
06/21/06	12:56 AM	20.78	0.21	6.66	21.09	1.73	
06/21/06	12:57 AM	20.78	0.22	7.62	19.59	1.80	
06/21/06	12:58 AM	20.77	0.23	8.40	18.76	1.78	
06/21/06	12:59 AM	20.51	0.49	10.30	29.07	1.71	
06/21/06	1:00 AM	20.46	0.53	14.20	42.56	2.02	
06/21/06	1:01 AM	20.14	1.03	14.48	96.04	3.41	
06/21/06	1:02 AM	19.91	1.28	7.94	76.54	5.65	
06/21/06	1:03 AM	19.87	1.33	5.09	73.21	6.44	
06/21/06	1:04 AM	19.89	1.32	4.56	79.53	6.17	
06/21/06	1:05 AM	19.86	1.37	4.39	82.04	5.29	
06/21/06	1:06 AM	19.88	1.37	4.58	107.03	4.37	
06/21/06	1:07 AM	19.88	1.38	4.48	125.34	3.60	
06/21/06	1:08 AM	19.80	1.53	3.76	142.34	2.89	
06/21/06	1:09 AM	19.44	1.90	4.14	324.93	2.35	
06/21/06	1:10 AM	19.62	1.67	4.98	206.32	1.96	
06/21/06	1:11 AM	19.66	1.65	6.06	174.50	1.72	
06/21/06	1:12 AM	19.73	1.59	5.52	160.50	1.53	
06/21/06	1:13 AM	19.73	1.56	5.47	161.33	1.55	
06/21/06	1:14 AM	19.71	1.63	4.39	143.01	1.71	
06/21/06	1:15 AM	19.68	1.65	4.22	143.01	2.07	
06/21/06	1:16 AM	19.72	1.58	4.39	155.00	2.15	
06/21/06	1:17 AM	19.78	1.49	4.28	135.84	1.94	
06/21/06	1:18 AM	19.84	1.43	4.43	143.01	1.86	
06/21/06	1:19 AM	19.82	1.43	4.75	167.16	1.78	
06/21/06	1:20 AM	19.82	1.43	4.83	193.64	1.69	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/21/06	1:21 AM	19.77	1.48	5.36	174.00	1.66	
06/21/06	1:22 AM	19.77	1.52	6.05	172.16	1.96	
06/21/06	1:23 AM	19.78	1.48	6.16	176.20	2.20	
06/21/06	1:24 AM	19.82	1.46	5.10	161.83	2.20	
06/21/06	1:25 AM	19.89	1.41	4.41	185.71	2.04	
06/21/06	1:26 AM	19.81	1.52	4.32	177.49	1.83	
06/21/06	1:27 AM	19.87	1.48	4.10	187.28	1.63	
06/21/06	1:28 AM	19.82	1.53	3.91	176.24	1.42	
06/21/06	1:29 AM	19.85	1.49	3.84	168.06	1.24	
06/21/06	1:30 AM	19.98	1.33	3.68	129.76	1.09	
06/21/06	1:31 AM	20.24	0.96	3.23	112.19	1.01	
06/21/06	1:32 AM	20.38	0.77	2.76	67.46	0.92	
06/21/06	1:33 AM	20.61	0.47	2.38	62.02	0.96	
06/21/06	1:34 AM	20.71	0.36	4.25	33.57	1.15	
06/21/06	1:35 AM	20.73	0.35	6.47	20.95	1.29	
06/21/06	1:36 AM	20.74	0.33	6.59	15.88	1.30	
06/21/06	1:37 AM	20.75	0.33	6.50	14.04	1.33	
06/21/06	1:38 AM	20.77	0.31	6.08	13.25	1.40	
06/21/06	1:39 AM	20.76	0.32	6.99	13.06	1.52	
06/21/06	1:40 AM	20.78	0.28	8.75	13.94	1.67	
06/21/06	1:41 AM	20.36	0.42	13.65	42.16	1.82	
06/21/06	1:42 AM	20.44	0.33	19.10	76.57	2.47	
06/21/06	1:43 AM	20.57	0.23	16.73	54.22	3.20	
06/21/06	1:44 AM	20.64	0.18	15.80	21.49	3.28	
06/21/06	1:45 AM	20.13	0.82	14.51	54.15	3.35	
06/21/06	1:46 AM	19.90	1.03	6.56	70.26	5.11	
06/21/06	1:47 AM	19.94	1.00	5.63	64.17	6.29	
06/21/06	1:48 AM	19.98	0.97	5.46	66.27	6.22	
06/21/06	1:49 AM	19.92	1.07	4.54	91.56	5.48	
06/21/06	1:50 AM	19.93	1.05	4.47	116.95	4.54	
06/21/06	1:51 AM	19.95	1.05	4.26	138.98	3.71	
06/21/06	1:52 AM	19.90	1.09	3.69	157.17	3.09	
06/21/06	1:53 AM	19.95	1.05	3.59	141.41	2.59	
06/21/06	1:54 AM	19.80	1.18	4.36	123.51	2.15	
06/21/06	1:55 AM	19.97	0.99	4.99	126.88	1.83	
06/21/06	1:56 AM	19.81	1.16	5.56	122.99	1.57	
06/21/06	1:57 AM	20.02	0.88	6.44	139.44	1.37	
06/21/06	1:58 AM	20.21	0.66	4.11	137.18	1.21	
06/21/06	1:59 AM	20.13	0.84	3.14	161.24	1.09	
06/21/06	2:00 AM	20.16	0.76	3.03	168.70	1.01	
06/21/06	2:01 AM	20.18	0.70	3.30	145.31	1.02	
06/21/06	2:02 AM	20.17	0.70	3.63	129.85	1.07	
06/21/06	2:03 AM	20.13	0.75	3.62	137.12	1.25	
06/21/06	2:04 AM	20.03	0.91	3.67	158.54	1.51	
06/21/06	2:05 AM	19.98	0.97	3.47	161.04	1.95	
06/21/06	2:06 AM	19.94	0.98	4.73	139.77	2.61	
06/21/06	2:07 AM	19.92	0.97	6.37	203.26	3.16	
06/21/06	2:08 AM	19.99	0.88	5.45	163.27	3.26	
06/21/06	2:09 AM	19.98	0.92	4.06	127.15	2.93	
06/21/06	2:10 AM	19.81	1.14	3.75	122.83	2.78	
06/21/06	2:11 AM	19.80	1.15	3.47	129.71	3.33	
06/21/06	2:12 AM	20.06	0.75	3.23	133.80	3.55	
06/21/06	2:13 AM	20.29	0.49	2.37	185.03	3.40	
06/21/06	2:14 AM	20.31	0.46	1.64	165.65	3.24	
06/21/06	2:15 AM	20.22	0.58	1.48	155.70	3.03	
06/21/06	2:16 AM	19.96	0.93	1.62	118.44	3.32	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/21/06	2:17 AM	20.09	0.67	2.03	144.91	4.77	
06/21/06	2:18 AM	20.55	0.15	1.91	116.04	5.32	
06/21/06	2:19 AM	20.66	0.04	2.78	66.72	4.86	
06/21/06	2:20 AM	20.68	0.02	5.40	42.36	4.43	
06/21/06	2:21 AM	20.70	0.02	6.86	32.33	4.89	
06/21/06	2:22 AM	20.72	0.02	6.28	28.19	5.94	
06/21/06	2:23 AM	20.74	0.02	6.89	26.47	5.98	
06/21/06	2:24 AM	20.72	0.02	7.76	23.26	5.23	
06/21/06	2:25 AM	20.69	0.06	8.59	28.15	4.60	
06/21/06	2:26 AM	20.27	0.47	11.33	61.61	4.22	
06/21/06	2:27 AM	20.23	0.57	12.76	77.12	5.00	
06/21/06	2:28 AM	19.83	0.98	7.76	71.10	7.95	
06/21/06	2:29 AM	19.77	1.02	6.01	70.68	12.97	
06/21/06	2:30 AM	19.74	1.07	5.01	68.20	14.60	
06/21/06	2:31 AM	19.75	1.06	4.29	79.77	14.32	
06/21/06	2:32 AM	19.72	1.13	4.17	78.13	13.59	
06/21/06	2:33 AM	19.61	1.28	3.83	78.71	12.61	
06/21/06	2:34 AM	19.55	1.37	3.87	81.40	11.33	
06/21/06	2:35 AM	19.59	1.34	4.03	87.96	9.34	
06/21/06	2:36 AM	19.61	1.33	3.54	107.53	7.13	
06/21/06	2:37 AM	19.58	1.38	3.26	128.05	5.46	
06/21/06	2:38 AM	19.65	1.34	3.60	139.54	4.29	
06/21/06	2:39 AM	19.73	1.22	4.26	151.07	3.49	
06/21/06	2:40 AM	19.75	1.18	4.74	165.54	3.32	
06/21/06	2:41 AM	19.75	1.19	3.47	175.63	3.48	
06/21/06	2:42 AM	19.64	1.29	2.64	141.97	3.73	
06/21/06	2:43 AM	19.58	1.39	2.55	127.98	4.24	
06/21/06	2:44 AM	19.66	1.29	2.47	132.88	5.10	
06/21/06	2:45 AM	19.77	1.16	2.37	147.41	5.76	
06/21/06	2:46 AM	19.69	1.24	2.46	137.47	6.17	
06/21/06	2:47 AM	19.82	1.06	2.63	159.77	6.69	
06/21/06	2:48 AM	19.82	1.07	3.02	146.98	7.37	
06/21/06	2:49 AM	19.84	1.03	4.24	127.25	7.89	
06/21/06	2:50 AM	19.84	1.09	4.64	132.92	7.90	
06/21/06	2:51 AM	19.73	1.29	4.91	130.88	7.24	
06/21/06	2:52 AM	19.78	1.18	5.09	137.35	7.00	
06/21/06	2:53 AM	19.89	0.99	3.58	133.07	6.36	
06/21/06	2:54 AM	20.01	0.87	3.06	119.39	5.01	
06/21/06	2:55 AM	20.04	0.81	2.78	121.52	4.14	
06/21/06	2:56 AM	20.39	0.35	2.58	103.33	3.84	
06/21/06	2:57 AM	20.63	0.09	2.23	57.47	4.07	
06/21/06	2:58 AM	20.70	0.02	3.19	29.48	4.01	
06/21/06	2:59 AM	20.75	0.02	4.09	19.33	3.71	
06/21/06	3:00 AM	20.77	0.02	5.19	15.67	3.79	
06/21/06	3:01 AM	20.79	0.02	6.14	14.59	4.29	
06/21/06	3:02 AM	20.77	0.03	7.04	15.42	4.72	
06/21/06	3:03 AM	20.76	0.03	7.77	11.84	4.85	
06/21/06	3:04 AM	20.35	0.42	9.55	53.65	4.84	
06/21/06	3:05 AM	20.40	0.37	12.18	77.13	5.64	
06/21/06	3:06 AM	19.89	0.98	9.98	83.21	6.94	
06/21/06	3:07 AM	19.78	1.06	7.18	83.96	10.54	
06/21/06	3:08 AM	19.80	1.07	5.27	82.04	10.53	
06/21/06	3:09 AM	19.80	1.10	4.25	64.72	9.73	
06/21/06	3:10 AM	19.75	1.16	3.89	59.89	9.28	
06/21/06	3:11 AM	19.75	1.17	4.26	73.30	7.99	
06/21/06	3:12 AM	19.73	1.22	4.19	100.21	6.33	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/21/06	3:13 AM	19.83	1.12	4.36	142.10	4.88	
06/21/06	3:14 AM	19.86	1.09	4.48	167.50	4.10	
06/21/06	3:15 AM	19.69	1.31	4.59	162.34	3.81	
06/21/06	3:16 AM	19.45	1.61	4.75	191.57	3.54	
06/21/06	3:17 AM	19.65	1.27	4.53	419.88	3.01	
06/21/06	3:18 AM	19.86	1.12	4.55	218.07	2.59	
06/21/06	3:19 AM	19.80	1.25	4.99	201.15	2.21	
06/21/06	3:20 AM	19.71	1.38	5.88	182.44	1.93	
06/21/06	3:21 AM	19.66	1.42	5.30	133.32	1.75	
06/21/06	3:22 AM	19.73	1.37	4.05	138.32	1.70	
06/21/06	3:23 AM	19.69	1.44	3.50	147.65	1.68	
06/21/06	3:24 AM	19.76	1.36	3.53	157.12	1.80	
06/21/06	3:25 AM	19.76	1.38	3.43	147.38	2.00	
06/21/06	3:26 AM	19.77	1.36	3.52	116.82	2.28	
06/21/06	3:27 AM	19.77	1.35	3.58	119.19	2.59	
06/21/06	3:28 AM	19.80	1.32	3.79	134.62	2.84	
06/21/06	3:29 AM	19.80	1.33	3.83	145.55	3.02	
06/21/06	3:30 AM	19.83	1.28	3.79	129.75	3.17	
06/21/06	3:31 AM	19.87	1.22	3.72	133.06	3.22	
06/21/06	3:32 AM	20.04	1.01	3.40	130.33	2.96	
06/21/06	3:33 AM	20.00	1.02	3.24	119.00	2.67	
06/21/06	3:34 AM	19.95	1.06	3.45	145.85	2.40	
06/21/06	3:35 AM	19.93	1.06	3.52	124.83	2.22	
06/21/06	3:36 AM	20.08	0.85	3.27	128.53	2.08	
06/21/06	3:37 AM	20.38	0.51	2.50	125.47	2.12	
06/21/06	3:38 AM	20.42	0.47	1.78	84.26	2.21	
06/21/06	3:39 AM	20.50	0.39	1.70	71.45	2.17	
06/21/06	3:40 AM	20.66	0.22	1.76	69.03	2.13	
06/21/06	3:41 AM	20.75	0.11	3.75	42.44	2.16	
06/21/06	3:42 AM	20.78	0.08	5.11	28.62	2.30	
06/21/06	3:43 AM	20.80	0.07	5.35	22.37	2.29	
06/21/06	3:44 AM	20.81	0.07	6.14	19.20	2.41	
06/21/06	3:45 AM	20.83	0.06	6.28	17.32	2.75	
06/21/06	3:46 AM	20.79	0.10	6.68	22.13	3.03	
06/21/06	3:47 AM	20.48	0.40	9.09	39.91	3.34	
06/21/06	3:48 AM	20.47	0.48	10.27	48.76	4.59	
06/21/06	3:49 AM	19.93	1.14	6.87	83.95	7.99	
06/21/06	3:50 AM	19.94	1.08	4.68	94.80	12.54	
06/21/06	3:51 AM	19.97	1.05	3.40	88.29	12.73	
06/21/06	3:52 AM	19.94	1.09	4.09	81.74	11.89	
06/21/06	3:53 AM	19.94	1.10	5.12	76.70	10.54	
06/21/06	3:54 AM	19.89	1.16	5.23	96.40	8.15	
06/21/06	3:55 AM	19.90	1.16	5.04	114.16	5.93	
06/21/06	3:56 AM	19.85	1.26	5.17	131.38	4.62	
06/21/06	3:57 AM	19.75	1.39	5.16	128.49	3.82	
06/21/06	3:58 AM	19.73	1.33	5.27	124.41	3.25	
06/21/06	3:59 AM	19.87	1.24	5.55	156.21	2.97	
06/21/06	4:00 AM	19.81	1.36	5.30	156.73	2.84	
06/21/06	4:01 AM	19.85	1.31	4.65	157.97	2.54	
06/21/06	4:02 AM	19.82	1.31	4.39	145.14	2.07	
06/21/06	4:03 AM	20.05	1.00	4.16	146.99	1.74	
06/21/06	4:04 AM	20.03	1.18	4.34	143.23	1.51	
06/21/06	4:05 AM	20.00	1.20	4.94	205.10	1.36	
06/21/06	4:06 AM	20.09	1.08	4.26	224.86	1.31	
06/21/06	4:07 AM	20.08	1.07	3.62	202.24	1.31	
06/21/06	4:08 AM	20.03	1.15	3.33	161.67	1.50	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/21/06	4:09 AM	19.93	1.27	3.21	136.71	1.86	
06/21/06	4:10 AM	19.86	1.36	3.11	114.35	2.21	
06/21/06	4:11 AM	19.76	1.48	3.04	105.10	2.44	
06/21/06	4:12 AM	19.68	1.54	3.25	106.47	2.66	
06/21/06	4:13 AM	19.70	1.54	3.45	117.92	2.73	
06/21/06	4:14 AM	19.73	1.56	3.21	116.75	2.72	
06/21/06	4:15 AM	19.75	1.53	2.80	104.79	2.66	
06/21/06	4:16 AM	19.89	1.39	2.59	107.10	2.61	
06/21/06	4:17 AM	19.96	1.29	2.40	114.83	2.54	
06/21/06	4:18 AM	19.83	1.41	2.68	107.12	2.80	
06/21/06	4:19 AM	20.01	1.07	3.38	93.79	3.46	
06/21/06	4:20 AM	20.30	0.73	3.00	81.73	4.13	
06/21/06	4:21 AM	20.48	0.50	2.77	78.17	3.96	
06/21/06	4:22 AM	20.73	0.22	2.69	68.40	3.19	
06/21/06	4:23 AM	20.80	0.14	3.98	50.51	2.56	
06/21/06	4:24 AM	20.83	0.12	4.76	38.19	2.10	
06/21/06	4:25 AM	20.84	0.10	5.07	33.06	1.79	
06/21/06	4:26 AM	20.85	0.09	6.06	29.49	1.73	
06/21/06	4:27 AM	20.85	0.10	6.99	30.96	1.85	
06/21/06	4:28 AM	20.65	0.33	10.15	45.98	2.01	
06/21/06	4:29 AM	20.52	0.43	13.02	116.61	2.69	
06/21/06	4:30 AM	20.33	0.69	12.13	102.09	4.15	
06/21/06	4:31 AM	20.11	0.91	6.67	106.37	7.37	
06/21/06	4:32 AM	19.98	1.07	3.26	83.82	10.04	
06/21/06	4:33 AM	19.95	1.13	2.56	64.23	11.84	
06/21/06	4:34 AM	19.97	1.12	2.35	61.48	12.61	
06/21/06	4:35 AM	19.78	1.36	2.59	63.87	11.37	
06/21/06	4:36 AM	19.52	1.70	3.46	48.53	10.03	
06/21/06	4:37 AM	19.47	1.86	4.43	58.73	7.84	
06/21/06	4:38 AM	19.60	1.71	4.39	73.80	5.74	
06/21/06	4:39 AM	19.66	1.61	4.51	76.71	4.63	
06/21/06	4:40 AM	19.72	1.54	4.26	80.74	4.23	
06/21/06	4:41 AM	19.75	1.36	4.19	93.96	4.31	
06/21/06	4:42 AM	19.71	1.32	4.23	89.54	4.95	
06/21/06	4:43 AM	19.66	1.42	4.55	77.36	5.96	
06/21/06	4:44 AM	19.70	1.40	4.84	77.12	6.04	
06/21/06	4:45 AM	19.69	1.38	4.01	80.59	4.60	
06/21/06	4:46 AM	19.75	1.33	3.63	81.75	3.44	
06/21/06	4:47 AM	19.74	1.37	3.77	91.86	2.67	
06/21/06	4:48 AM	19.76	1.35	4.77	80.36	2.18	
06/21/06	4:49 AM	19.74	1.35	3.69	72.02	1.88	
06/21/06	4:50 AM	19.87	1.17	2.92	79.72	1.67	
06/21/06	4:51 AM	19.91	1.14	2.45	97.44	1.59	
06/21/06	4:52 AM	19.93	1.11	2.38	95.63	1.60	
06/21/06	4:53 AM	19.96	1.08	2.20	97.86	1.80	
06/21/06	4:54 AM	19.92	1.11	2.03	106.55	2.14	
06/21/06	4:55 AM	20.17	0.83	1.90	103.04	2.59	
06/21/06	4:56 AM	20.21	0.78	1.65	100.21	2.90	
06/21/06	4:57 AM	20.35	0.52	1.76	105.87	2.60	
06/21/06	4:58 AM	20.25	0.70	1.82	105.20	2.12	
06/21/06	4:59 AM	20.19	0.80	2.79	126.36	1.78	
06/21/06	5:00 AM	20.18	0.81	3.46	139.19	1.54	
06/21/06	5:01 AM	20.23	0.73	3.41	127.02	1.47	
06/21/06	5:02 AM	20.25	0.73	3.57	103.87	1.84	
06/21/06	5:03 AM	20.27	0.70	3.76	87.05	2.71	
06/21/06	5:04 AM	20.24	0.68	3.73	71.22	4.25	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/21/06	5:05 AM	20.58	0.26	3.79	60.55	6.31	
06/21/06	5:06 AM	20.71	0.12	3.38	40.57	5.95	
06/21/06	5:07 AM	20.76	0.07	3.53	30.91	4.59	
06/21/06	5:08 AM	20.79	0.04	4.50	25.08	4.01	
06/21/06	5:09 AM	20.81	0.02	5.23	21.24	3.81	
06/21/06	5:10 AM	20.83	0.02	5.58	18.41	3.55	
06/21/06	5:11 AM	20.82	0.02	6.01	19.58	3.35	
06/21/06	5:12 AM	20.61	0.27	8.28	28.74	3.12	
06/21/06	5:13 AM	20.47	0.34	10.21	46.23	3.16	
06/21/06	5:14 AM	20.69	0.14	8.65	22.07	3.38	
06/21/06	5:15 AM	20.76	0.06	8.80	23.24	3.18	
06/21/06	5:16 AM	20.79	0.03	7.23	23.24	2.95	
06/21/06	5:17 AM	20.80	0.02	6.99	23.76	2.74	
06/21/06	5:18 AM	20.81	0.02	7.60	24.23	2.50	
06/21/06	5:19 AM	20.82	0.02	7.54	23.93	2.23	
06/21/06	5:20 AM	20.81	0.02	7.78	25.10	1.97	
06/21/06	5:21 AM	20.82	0.02	7.98	24.04	1.75	
06/21/06	5:22 AM	20.82	0.02	6.86	22.55	1.63	
06/21/06	5:23 AM	20.82	0.02	6.00	21.88	1.79	
06/21/06	5:24 AM	20.81	0.02	6.60	21.23	2.38	
06/21/06	5:25 AM	20.81	0.02	6.44	20.91	3.27	
06/21/06	5:26 AM	20.81	0.02	6.43	20.72	4.36	
06/21/06	5:27 AM	20.81	0.02	6.48	20.24	5.71	
06/21/06	5:28 AM	20.83	0.02	6.12	19.21	6.85	
06/21/06	5:29 AM	20.83	0.02	5.71	17.72	7.69	
06/21/06	5:30 AM	20.84	0.02	5.99	16.57	7.87	
06/21/06	5:31 AM	20.85	0.02	6.51	16.23	6.30	
06/21/06	5:32 AM	20.86	0.02	6.43	15.26	4.58	
06/21/06	5:33 AM	20.87	0.02	6.65	15.07	3.51	
06/21/06	5:34 AM	20.89	0.02	7.23	14.25	2.84	
06/21/06	5:35 AM	20.89	0.02	7.28	14.07	2.41	
06/21/06	5:36 AM	20.89	0.02	7.19	13.23	2.12	
06/21/06	5:37 AM	20.89	0.02	7.04	12.77	1.90	
06/21/06	5:38 AM	20.88	0.02	7.07	12.91	1.73	
06/21/06	5:39 AM	20.87	0.02	7.01	12.74	1.65	
06/21/06	5:40 AM	20.87	0.02	6.99	12.26	1.61	
06/21/06	5:41 AM	20.87	0.02	7.03	12.26	1.55	
06/21/06	5:42 AM	20.85	0.03	7.91	11.13	1.52	
06/21/06	5:43 AM	20.82	0.08	16.09	6.28	1.52	
06/21/06	5:44 AM	20.82	0.08	22.14	3.76	1.52	
06/21/06	5:45 AM	20.82	0.07	21.52	3.90	1.53	
06/21/06	5:46 AM	20.83	0.07	22.76	4.13	1.60	
06/21/06	5:47 AM	20.84	0.07	24.28	4.27	1.74	
06/21/06	5:48 AM	20.85	0.07	24.19	4.10	1.90	
06/21/06	5:49 AM	20.84	0.08	23.40	4.26	2.00	
06/21/06	5:50 AM	20.82	0.11	15.09	3.56	1.97	
06/21/06	5:51 AM	20.83	0.11	9.88	3.26	1.88	
06/21/06	5:52 AM	20.84	0.11	8.62	3.25	1.82	
06/21/06	5:53 AM	20.85	0.13	8.24	3.32	1.79	
06/21/06	5:54 AM	20.50	0.59	6.83	42.57	1.85	
06/21/06	5:55 AM	20.22	0.86	3.24	98.31	3.51	
06/21/06	5:56 AM	20.13	0.95	2.29	76.75	7.26	
06/21/06	5:57 AM	20.13	0.95	2.33	62.91	9.92	
06/21/06	5:58 AM	20.12	0.99	2.32	62.87	11.32	
06/21/06	5:59 AM	20.06	1.08	2.53	76.31	11.77	
06/21/06	6:00 AM	20.05	1.09	2.62	79.40	11.98	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/21/06	6:01 AM	19.96	1.29	2.68	110.99	10.48	
06/21/06	6:02 AM	19.55	1.77	3.47	117.94	8.46	
06/21/06	6:03 AM	19.39	1.95	3.84	173.75	7.17	
06/21/06	6:04 AM	19.80	1.45	3.25	199.11	6.05	
06/21/06	6:05 AM	19.99	1.19	2.73	172.80	4.85	
06/21/06	6:06 AM	20.04	1.12	2.79	163.67	3.90	
06/21/06	6:07 AM	19.81	1.57	2.63	152.41	3.26	
06/21/06	6:08 AM	19.80	1.56	2.84	167.92	2.83	
06/21/06	6:09 AM	19.81	1.49	3.05	147.83	2.57	
06/21/06	6:10 AM	19.92	1.38	2.94	163.16	2.37	
06/21/06	6:11 AM	19.96	1.34	2.59	149.63	2.21	
06/21/06	6:12 AM	19.97	1.34	2.39	166.35	2.10	
06/21/06	6:13 AM	19.97	1.33	2.33	153.30	1.96	
06/21/06	6:14 AM	19.92	1.36	2.65	148.35	1.87	
06/21/06	6:15 AM	19.86	1.40	2.98	161.86	1.79	
06/21/06	6:16 AM	19.89	1.36	3.09	169.99	1.75	
06/21/06	6:17 AM	19.93	1.31	3.02	163.42	1.70	
06/21/06	6:18 AM	19.93	1.27	2.78	141.03	1.64	
06/21/06	6:19 AM	20.02	1.14	2.50	125.26	1.63	
06/21/06	6:20 AM	20.22	0.92	2.30	131.24	1.62	
06/21/06	6:21 AM	20.18	0.92	2.04	106.36	1.59	
06/21/06	6:22 AM	20.22	0.79	1.99	132.62	1.62	
06/21/06	6:23 AM	20.29	0.68	1.90	135.47	1.93	
06/21/06	6:24 AM	20.57	0.38	1.72	106.43	2.59	
06/21/06	6:25 AM	20.70	0.23	1.67	66.10	2.73	
06/21/06	6:26 AM	20.76	0.16	2.95	41.88	2.36	
06/21/06	6:27 AM	20.79	0.15	4.45	31.86	2.09	
06/21/06	6:28 AM	20.82	0.13	5.26	25.41	1.97	
06/21/06	6:29 AM	20.84	0.12	5.89	21.54	2.03	
06/21/06	6:30 AM	20.86	0.12	6.57	18.78	2.08	
06/21/06	6:31 AM	20.86	0.12	7.07	16.72	1.98	
06/21/06	6:32 AM	20.86	0.12	7.31	15.02	1.88	
06/21/06	6:33 AM	20.87	0.12	7.60	14.02	1.77	
06/21/06	6:34 AM	20.87	0.12	7.80	13.25	1.68	
06/21/06	6:35 AM	20.87	0.11	8.00	12.86	1.60	
06/21/06	6:36 AM	20.86	0.11	8.09	12.49	1.47	
06/21/06	6:37 AM	20.72	0.28	9.79	18.98	1.40	
06/21/06	6:38 AM	20.47	0.48	13.26	51.47	1.37	
06/21/06	6:39 AM	20.34	0.68	10.87	56.42	1.69	
06/21/06	6:40 AM	20.02	0.97	5.53	71.31	3.56	
06/21/06	6:41 AM	19.88	1.09	3.95	47.40	8.07	
06/21/06	6:42 AM	19.86	1.14	3.76	48.49	11.32	
06/21/06	6:43 AM	19.83	1.19	3.44	47.66	12.61	
06/21/06	6:44 AM	19.80	1.23	3.23	49.79	12.95	
06/21/06	6:45 AM	19.79	1.24	3.37	55.01	12.93	
06/21/06	6:46 AM	19.77	1.32	3.59	59.27	12.41	
06/21/06	6:47 AM	19.60	1.58	3.82	59.18	11.85	
06/21/06	6:48 AM	19.44	1.82	3.65	68.31	10.18	
06/21/06	6:49 AM	19.34	1.85	3.03	91.69	7.61	
06/21/06	6:50 AM	19.46	1.72	2.97	85.04	6.00	
06/21/06	6:51 AM	19.56	1.65	3.26	79.29	5.07	
06/21/06	6:52 AM	19.62	1.57	4.02	97.03	4.26	
06/21/06	6:53 AM	19.70	1.52	4.20	87.95	4.11	
06/21/06	6:54 AM	19.81	1.44	3.96	90.12	4.50	
06/21/06	6:55 AM	19.84	1.40	3.85	81.54	5.26	
06/21/06	6:56 AM	19.85	1.36	3.36	66.04	5.79	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/21/06	6:57 AM	19.82	1.40	2.24	58.72	6.18	
06/21/06	6:58 AM	19.76	1.45	1.83	65.79	6.59	
06/21/06	6:59 AM	19.68	1.53	1.58	67.70	6.93	
06/21/06	7:00 AM	19.69	1.54	1.71	65.21	7.53	
06/21/06	7:01 AM	19.68	1.57	1.88	60.54	8.44	
06/21/06	7:02 AM	19.61	1.63	1.98	62.96	9.04	
06/21/06	7:03 AM	19.64	1.57	1.93	58.05	9.96	
06/21/06	7:04 AM	19.91	1.25	1.92	66.46	10.43	
06/21/06	7:05 AM	19.99	1.13	1.57	86.95	9.63	
06/21/06	7:06 AM	20.10	1.00	1.33	109.77	9.15	
06/21/06	7:07 AM	20.04	1.10	1.41	126.26	8.03	
06/21/06	7:08 AM	20.09	1.02	1.91	143.68	7.23	
06/21/06	7:09 AM	20.13	0.98	2.16	127.10	6.34	
06/21/06	7:10 AM	20.03	1.14	2.26	114.36	5.53	
06/21/06	7:11 AM	20.04	1.12	2.28	121.94	4.97	
06/21/06	7:12 AM	19.99	1.16	2.03	108.16	4.59	
06/21/06	7:13 AM	19.93	1.21	2.05	112.27	4.44	
06/21/06	7:14 AM	20.15	0.91	2.17	106.42	4.38	
06/21/06	7:15 AM	20.34	0.66	1.72	57.31	4.22	
06/21/06	7:16 AM	20.55	0.36	1.30	46.29	3.86	
06/21/06	7:17 AM	20.59	0.30	1.07	44.26	3.39	
06/21/06	7:18 AM	20.63	0.25	1.13	65.31	2.98	
06/21/06	7:19 AM	20.65	0.21	1.05	101.60	2.68	
06/21/06	7:20 AM	20.51	0.40	1.08	140.65	2.53	
06/21/06	7:21 AM	20.60	0.28	1.74	141.55	2.82	
06/21/06	7:22 AM	20.73	0.15	1.86	59.15	3.19	
06/21/06	7:23 AM	20.76	0.09	3.24	15.38	3.29	
06/21/06	7:24 AM	20.76	0.08	4.74	10.03	3.35	
06/21/06	7:25 AM	20.77	0.07	5.21	7.65	3.46	
06/21/06	7:26 AM	20.77	0.06	5.59	6.08	3.48	
06/21/06	7:27 AM	20.76	0.09	5.39	9.75	3.50	
06/21/06	7:28 AM	20.28	0.77	5.29	49.80	3.56	
06/21/06	7:29 AM	20.02	1.01	3.59	143.85	5.35	
06/21/06	7:30 AM	19.96	1.13	3.17	128.86	6.70	
06/21/06	7:31 AM	19.82	1.30	3.51	95.77	6.53	
06/21/06	7:32 AM	19.62	1.57	3.92	84.69	5.81	
06/21/06	7:33 AM	19.26	2.00	4.66	87.14	4.82	
06/21/06	7:34 AM	19.55	1.53	5.04	119.02	4.10	
06/21/06	7:35 AM	19.58	1.55	5.12	125.49	3.49	
06/21/06	7:36 AM	19.63	1.52	5.52	145.16	2.96	
06/21/06	7:37 AM	19.62	1.49	5.54	128.27	2.54	
06/21/06	7:38 AM	19.65	1.47	5.57	144.28	2.24	
06/21/06	7:39 AM	19.76	1.31	5.33	138.48	1.99	
06/21/06	7:40 AM	19.81	1.26	4.57	134.38	1.79	
06/21/06	7:41 AM	19.65	1.44	4.02	119.07	1.63	
06/21/06	7:42 AM	19.61	1.53	3.32	114.29	1.49	
06/21/06	7:43 AM	19.58	1.55	3.20	101.80	1.40	
06/21/06	7:44 AM	19.61	1.53	3.31	109.63	1.31	
06/21/06	7:45 AM	19.60	1.54	3.13	108.10	1.25	
06/21/06	7:46 AM	19.56	1.57	2.82	103.87	1.22	
06/21/06	7:47 AM	19.54	1.60	2.68	106.03	1.36	
06/21/06	7:48 AM	19.50	1.63	2.53	109.36	2.00	
06/21/06	7:49 AM	19.45	1.67	2.35	112.14	3.34	
06/21/06	7:50 AM	19.50	1.60	2.22	111.55	4.78	
06/21/06	7:51 AM	19.52	1.57	2.22	123.16	6.13	
06/21/06	7:52 AM	19.60	1.47	2.30	125.19	7.45	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/21/06	7:53 AM	19.61	1.46	2.55	124.64	8.17	
06/21/06	7:54 AM	19.56	1.52	2.72	119.54	8.37	
06/21/06	7:55 AM	19.58	1.53	2.68	121.84	8.59	
06/21/06	7:56 AM	19.64	1.50	2.29	128.36	8.73	
06/21/06	7:57 AM	19.65	1.52	2.19	124.91	8.81	
06/21/06	7:58 AM	19.64	1.51	2.35	129.87	8.92	
06/21/06	7:59 AM	19.72	1.35	2.57	142.11	7.64	
06/21/06	8:00 AM	20.03	0.93	2.64	134.45	7.16	
06/21/06	8:01 AM	20.28	0.65	2.26	112.23	7.18	
06/21/06	8:02 AM	20.43	0.49	1.77	89.20	6.80	
06/21/06	8:03 AM	20.55	0.34	1.42	76.67	6.11	
06/21/06	8:04 AM	20.61	0.26	1.10	63.67	5.32	
06/21/06	8:05 AM	20.67	0.19	0.96	59.05	4.57	
06/21/06	8:06 AM	20.73	0.10	2.41	31.90	4.51	
06/21/06	8:07 AM	20.72	0.10	6.96	17.61	5.24	
06/21/06	8:08 AM	20.74	0.10	8.36	13.05	5.33	
06/21/06	8:09 AM	20.77	0.06	8.59	11.26	4.69	
06/21/06	8:10 AM	20.77	0.05	7.23	11.27	4.29	
06/21/06	8:11 AM	20.75	0.08	10.98	12.32	4.26	
06/21/06	8:12 AM	20.43	0.41	14.97	42.43	4.53	
06/21/06	8:13 AM	20.49	0.34	14.63	43.97	5.72	
06/21/06	8:14 AM	20.57	0.28	22.35	33.08	6.40	
06/21/06	8:15 AM	20.53	0.26	10.91	57.32	6.28	
06/21/06	8:16 AM	20.43	0.44	3.38	47.43	6.33	
06/21/06	8:17 AM	20.15	0.86	2.35	101.00	8.43	
06/21/06	8:18 AM	20.12	0.96	2.19	142.41	9.01	
06/21/06	8:19 AM	20.03	1.05	3.70	152.81	7.07	
06/21/06	8:20 AM	19.99	1.11	5.15	133.15	5.45	
06/21/06	8:21 AM	20.07	0.97	5.12	124.18	4.37	
06/21/06	8:22 AM	20.03	1.06	4.95	111.26	3.59	
06/21/06	8:23 AM	19.97	1.12	5.48	129.22	3.09	
06/21/06	8:24 AM	19.94	1.12	5.49	155.25	2.81	
06/21/06	8:25 AM	19.94	1.11	5.56	149.36	2.57	
06/21/06	8:26 AM	19.71	1.33	5.71	105.64	2.34	
06/21/06	8:27 AM	19.85	1.14	5.49	142.96	2.18	
06/21/06	8:28 AM	19.83	1.17	4.88	248.25	2.06	
06/21/06	8:29 AM	19.67	1.47	4.34	244.71	1.98	
06/21/06	8:30 AM	19.65	1.46	4.53	236.08	1.88	
06/21/06	8:31 AM	19.67	1.43	5.24	290.21	1.81	
06/21/06	8:32 AM	19.82	1.19	4.46	297.48	1.78	
06/21/06	8:33 AM	20.01	1.00	3.16	272.15	1.78	
06/21/06	8:34 AM	19.86	1.21	2.79	294.29	1.76	
06/21/06	8:35 AM	19.77	1.37	2.54	269.27	1.87	
06/21/06	8:36 AM	19.76	1.40	2.93	200.03	2.21	
06/21/06	8:37 AM	19.80	1.35	4.44	183.93	2.69	
06/21/06	8:38 AM	19.82	1.31	5.14	179.43	3.14	
06/21/06	8:39 AM	19.82	1.32	5.21	159.86	3.66	
06/21/06	8:40 AM	19.82	1.28	4.81	155.00	4.07	
06/21/06	8:41 AM	19.84	1.27	3.93	132.97	3.96	
06/21/06	8:42 AM	19.84	1.22	4.43	108.67	4.20	
06/21/06	8:43 AM	20.23	0.70	2.98	91.43	4.61	
06/21/06	8:44 AM	20.45	0.40	1.89	75.53	4.75	
06/21/06	8:45 AM	20.59	0.25	1.51	54.45	4.95	
06/21/06	8:46 AM	20.69	0.14	1.64	49.73	5.68	
06/21/06	8:47 AM	20.69	0.12	4.52	40.74	7.15	
06/21/06	8:48 AM	20.73	0.09	3.45	61.56	8.52	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/21/06	8:49 AM	20.77	0.05	4.60	13.92	10.50	
06/21/06	8:50 AM	20.75	0.07	6.40	11.77	10.41	
06/21/06	8:51 AM	20.76	0.06	6.75	10.77	8.54	
06/21/06	8:52 AM	20.78	0.05	7.00	8.43	6.53	
06/21/06	8:53 AM	20.79	0.03	6.95	7.25	5.68	
06/21/06	8:54 AM	20.78	0.04	6.93	8.76	5.34	
06/21/06	8:55 AM	20.57	0.35	6.76	17.75	5.30	
06/21/06	8:56 AM	20.11	0.89	5.22	34.24	7.63	
06/21/06	8:57 AM	20.09	0.92	4.86	48.90	10.67	
06/21/06	8:58 AM	20.02	1.00	4.26	56.06	10.80	
06/21/06	8:59 AM	19.91	1.10	4.25	85.71	10.59	
06/21/06	9:00 AM	19.74	1.35	3.37	104.21	8.39	
06/21/06	9:01 AM	19.50	1.66	4.43	115.37	6.36	
06/21/06	9:02 AM	19.27	1.94	5.71	137.03	4.99	
06/21/06	9:03 AM	19.36	1.75	5.45	157.35	4.10	
06/21/06	9:04 AM	19.51	1.58	6.16	130.02	3.45	
06/21/06	9:05 AM	19.62	1.46	6.80	144.02	2.93	
06/21/06	9:06 AM	19.79	1.24	6.93	178.84	2.50	
06/21/06	9:07 AM	19.75	1.29	5.61	177.67	2.18	
06/21/06	9:08 AM	19.76	1.27	3.90	196.88	1.95	
06/21/06	9:09 AM	19.80	1.23	3.31	207.70	1.75	
06/21/06	9:10 AM	19.61	1.53	3.22	179.51	1.63	
06/21/06	9:11 AM	19.54	1.60	3.35	171.51	1.54	
06/21/06	9:12 AM	19.56	1.56	3.36	141.80	1.47	
06/21/06	9:13 AM	19.60	1.50	3.34	128.01	1.43	
06/21/06	9:14 AM	19.60	1.51	3.44	130.66	1.75	
06/21/06	9:15 AM	19.61	1.49	3.86	124.95	2.74	
06/21/06	9:16 AM	19.59	1.51	3.99	121.25	4.51	
06/21/06	9:17 AM	19.59	1.49	3.84	125.81	6.90	
06/21/06	9:18 AM	19.61	1.48	3.62	171.63	9.22	
06/21/06	9:19 AM	19.59	1.48	3.34	189.00	11.43	
06/21/06	9:20 AM	19.62	1.42	3.12	200.48	13.65	
06/21/06	9:21 AM	19.61	1.44	2.96	199.63	15.88	
06/21/06	9:22 AM	19.61	1.44	2.93	189.55	17.67	
06/21/06	9:23 AM	19.57	1.48	3.00	172.44	18.24	
06/21/06	9:24 AM	19.69	1.26	2.99	191.99	16.97	
06/21/06	9:25 AM	19.91	0.99	2.63	192.10	15.20	
06/21/06	9:26 AM	20.06	0.84	2.21	170.38	12.31	
06/21/06	9:27 AM	20.37	0.39	1.79	149.23	10.71	
06/21/06	9:28 AM	20.64	0.07	2.31	104.29	9.60	
06/21/06	9:29 AM	20.68	0.03	4.30	59.03	7.56	
06/21/06	9:30 AM	20.67	0.04	5.31	44.31	6.52	
06/21/06	9:31 AM	20.69	0.03	6.30	30.58	6.63	
06/21/06	9:32 AM	20.73	0.02	6.98	24.66	5.57	
06/21/06	9:33 AM	20.74	0.03	7.39	22.79	4.90	
06/21/06	9:34 AM	20.49	0.32	10.52	36.08	4.66	
06/21/06	9:35 AM	20.31	0.44	13.40	93.79	5.57	
06/21/06	9:36 AM	20.48	0.30	17.74	67.90	6.12	
06/21/06	9:37 AM	20.56	0.21	21.37	56.48	6.00	
06/21/06	9:38 AM	20.47	0.28	14.14	49.34	5.76	
06/21/06	9:39 AM	20.08	0.90	6.42	51.73	6.24	
06/21/06	9:40 AM	20.00	1.03	5.15	71.90	8.04	End Run 2
Averages		**20.13**	**0.90**	**5.02**	**97.78**	**4.28**	
06/21/06	9:41 AM	12.88	9.26	6.14	32.55	4.14	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/21/06	9:42 AM	12.04	10.04	2.52	0.27	0.24	
06/21/06	9:43 AM	8.56	6.15	0.29	2.73	5.66	
06/21/06	9:44 AM	-0.12	0.02	25.99	39.08	38.00	
06/21/06	9:45 AM	-0.11	0.02	46.07	43.31	43.83	
06/21/06	9:46 AM	-0.09	0.02	46.73	80.82	73.19	
06/21/06	9:47 AM	-0.07	0.02	94.46	248.14	100.39	
06/21/06	9:48 AM	-0.07	0.02	100.04	251.88	100.39	

CONTINUOUS EMISSIONS MONITORING
TEST RESULTS

Client: Nucor Steel, Hertford
Test Date: Jun-22-06
Start Time: 12:10 AM **Stop Time:** 9:00 AM
Emissions Unit: Baghouse
Project: Compliance

RUN 3

Calibration Data

	O_2 (%)	CO_2 (%)	NO_X (ppm)	CO (ppm)	SO_2 (ppm)
Initial Zero	-0.04	0.02	0.02	0.25	0.47
Initial Span	11.99	10.11	44.47	252.53	42.49
Final Zero	0.08	0.03	0.01	0.27	0.33
Final Span	12.20	10.13	46.49	250.65	44.04
Zero Drift	0.12	0.01	-0.01	0.02	-0.15
Span Drift	0.21	0.02	2.09	-1.86	1.65
Drift Limit	1.25	1.25	5.00	50.00	5.00
Span Gas Value	12.08	10.02	45.90	249.00	44.80
Full Scale Range	25.0	25.0	100.0	1000.0	100.0
Method Drift Limit (%)	5%	5%	5%	5%	5%
Analyte Mol Weight	32	44	46	28	64

Stack Gas Parameters

Average Temperature (°F)	175.6
Moisture Content (%)	3.66%
Process Rate (tons/hr)	234.1
Flow rate (dscfm)	1210938

flow rates by pitot tube traverse from EPA Method 5

Emission Data

	O_2 (%)	CO_2 (%)	NO_X (ppm)	CO (ppm)	SO_2 (ppm)
Dry average (uncorrected)	20.10	1.07	4.61	91.57	7.08
Dry average (drift corrected)	20.09	1.04	4.64	90.46	6.98
Emission Rate (lb/hr)			40.234	477.575	84.245
Emission Rate (lb/ton)			0.172	2.040	0.360

P-Bar	29.98	BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/22/06	11:54 PM	20.59	0.06	7.54	24.04	8.70	
06/22/06	11:55 PM	19.60	2.02	7.01	26.07	8.90	
06/22/06	11:56 PM	11.96	10.19	5.41	5.55	1.28	
06/22/06	11:57 PM	11.89	10.20	0.55	0.25	0.50	
06/22/06	11:58 PM	11.90	10.19	0.10	0.24	0.46	
06/22/06	11:59 PM	11.99	10.11	0.02	0.25	0.41	
06/22/06	12:00 AM	13.41	8.68	0.02	0.25	0.47	
06/22/06	12:01 AM	0.87	0.02	11.77	26.38	29.45	
06/22/06	12:02 AM	-0.08	0.02	44.47	43.29	42.49	
06/22/06	12:03 AM	-0.06	0.02	47.44	63.41	66.30	
06/22/06	12:04 AM	-0.04	0.02	95.34	241.30	100.40	
06/22/06	12:05 AM	-0.05	0.04	100.04	252.53	100.40	
06/22/06	12:06 AM	-0.06	0.04	98.68	85.24	38.65	
06/22/06	12:07 AM	9.84	0.25	23.35	13.17	10.74	
06/22/06	12:08 AM	20.87	0.48	13.17	12.26	8.02	
06/22/06	12:09 AM	20.74	0.48	5.49	30.88	8.50	
06/22/06	12:10 AM	20.77	0.46	5.21	39.37	9.48	Start Run 3
06/22/06	12:11 AM	20.79	0.45	5.55	49.85	7.75	
06/22/06	12:12 AM	20.84	0.41	6.40	35.75	6.72	
06/22/06	12:13 AM	20.84	0.40	8.04	53.75	5.95	
06/22/06	12:14 AM	20.86	0.38	7.43	25.66	5.27	
06/22/06	12:15 AM	20.87	0.37	7.46	22.75	4.68	
06/22/06	12:16 AM	20.89	0.35	7.64	18.58	4.27	
06/22/06	12:17 AM	20.88	0.36	7.82	16.92	4.07	
06/22/06	12:18 AM	20.70	0.58	6.82	26.07	4.04	
06/22/06	12:19 AM	20.40	1.03	2.68	49.56	4.97	
06/22/06	12:20 AM	20.21	1.23	2.54	129.68	7.47	
06/22/06	12:21 AM	19.95	1.55	3.42	197.82	10.25	
06/22/06	12:22 AM	19.57	2.04	4.16	176.32	12.89	
06/22/06	12:23 AM	19.75	1.83	4.79	183.82	12.60	
06/22/06	12:24 AM	19.95	1.57	5.38	144.67	11.09	
06/22/06	12:25 AM	20.13	1.38	5.64	92.20	9.93	
06/22/06	12:26 AM	20.13	1.38	5.14	68.71	9.71	
06/22/06	12:27 AM	20.11	1.38	4.45	74.55	11.15	
06/22/06	12:28 AM	19.94	1.64	3.35	69.70	14.04	
06/22/06	12:29 AM	19.94	1.69	3.49	72.55	16.47	
06/22/06	12:30 AM	19.93	1.69	3.92	67.03	17.49	
06/22/06	12:31 AM	19.96	1.63	3.07	57.89	18.58	
06/22/06	12:32 AM	19.99	1.60	2.93	57.21	20.00	
06/22/06	12:33 AM	19.92	1.68	2.91	63.72	21.69	
06/22/06	12:34 AM	19.93	1.64	2.70	92.54	22.82	
06/22/06	12:35 AM	19.96	1.55	3.33	112.70	21.73	
06/22/06	12:36 AM	20.04	1.46	3.65	98.70	21.87	
06/22/06	12:37 AM	20.02	1.48	2.56	95.68	21.08	
06/22/06	12:38 AM	20.01	1.50	2.46	103.70	20.85	
06/22/06	12:39 AM	20.04	1.46	2.71	94.68	19.55	
06/22/06	12:40 AM	20.05	1.44	3.68	91.06	18.52	
06/22/06	12:41 AM	20.08	1.40	3.75	95.44	17.04	
06/22/06	12:42 AM	20.08	1.41	4.04	96.12	16.44	
06/22/06	12:43 AM	20.08	1.41	4.07	99.61	15.55	
06/22/06	12:44 AM	20.13	1.36	3.61	90.94	14.82	
06/22/06	12:45 AM	20.14	1.34	2.58	88.08	15.57	
06/22/06	12:46 AM	20.17	1.31	2.35	77.58	16.55	
06/22/06	12:47 AM	20.18	1.32	2.27	68.93	16.98	
06/22/06	12:48 AM	20.13	1.38	2.36	73.76	17.08	
06/22/06	12:49 AM	20.17	1.33	2.44	79.29	17.15	

P-Bar	29.98	BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/22/06	12:50 AM	20.14	1.36	2.66	77.88	16.89	
06/22/06	12:51 AM	20.19	1.29	3.81	69.44	16.18	
06/22/06	12:52 AM	20.25	1.18	3.69	54.01	14.08	
06/22/06	12:53 AM	20.35	1.01	3.35	44.06	13.87	
06/22/06	12:54 AM	20.46	0.88	2.96	36.43	13.70	
06/22/06	12:55 AM	20.71	0.52	2.28	72.59	10.63	
06/22/06	12:56 AM	20.80	0.42	3.48	72.49	7.84	
06/22/06	12:57 AM	20.81	0.42	6.47	43.30	5.96	
06/22/06	12:58 AM	20.84	0.40	8.94	30.27	4.86	
06/22/06	12:59 AM	20.87	0.38	9.41	24.01	4.45	
06/22/06	1:00 AM	20.91	0.35	10.21	21.03	4.52	
06/22/06	1:01 AM	20.91	0.38	10.42	19.18	4.59	
06/22/06	1:02 AM	20.91	0.39	10.77	18.28	4.51	
06/22/06	1:03 AM	20.94	0.36	13.18	20.38	4.45	
06/22/06	1:04 AM	20.92	0.45	15.46	18.15	4.28	
06/22/06	1:05 AM	20.13	1.21	18.02	90.21	5.67	
06/22/06	1:06 AM	20.59	0.73	14.52	55.29	9.52	
06/22/06	1:07 AM	20.57	0.81	9.26	41.51	8.48	
06/22/06	1:08 AM	20.33	1.09	6.14	35.38	7.96	
06/22/06	1:09 AM	20.21	1.27	3.17	42.98	9.82	
06/22/06	1:10 AM	20.03	1.51	2.53	56.06	12.43	
06/22/06	1:11 AM	19.95	1.59	2.46	46.06	15.34	
06/22/06	1:12 AM	19.96	1.61	2.50	48.70	15.49	
06/22/06	1:13 AM	20.00	1.58	2.34	49.82	14.92	
06/22/06	1:14 AM	19.92	1.64	2.80	59.36	14.20	
06/22/06	1:15 AM	19.91	1.64	6.12	57.03	14.14	
06/22/06	1:16 AM	19.87	1.72	6.74	52.00	14.80	
06/22/06	1:17 AM	19.89	1.74	6.25	61.89	14.45	
06/22/06	1:18 AM	19.88	1.77	5.78	63.91	12.49	
06/22/06	1:19 AM	19.87	1.80	5.68	72.28	10.64	
06/22/06	1:20 AM	19.85	1.80	4.86	94.73	8.97	
06/22/06	1:21 AM	19.85	1.81	3.54	118.00	7.57	
06/22/06	1:22 AM	19.86	1.79	2.76	148.88	6.41	
06/22/06	1:23 AM	19.89	1.74	3.23	175.74	5.44	
06/22/06	1:24 AM	19.90	1.71	3.43	178.93	4.71	
06/22/06	1:25 AM	19.81	1.83	4.21	174.10	4.15	
06/22/06	1:26 AM	19.80	1.83	4.01	206.49	3.75	
06/22/06	1:27 AM	19.54	2.10	2.58	151.33	3.60	
06/22/06	1:28 AM	19.53	2.07	2.23	141.08	4.24	
06/22/06	1:29 AM	19.51	2.07	1.96	203.95	5.83	
06/22/06	1:30 AM	19.55	2.03	1.83	248.52	7.23	
06/22/06	1:31 AM	19.62	1.95	1.82	248.24	8.02	
06/22/06	1:32 AM	19.69	1.85	1.88	251.31	7.94	
06/22/06	1:33 AM	19.74	1.81	2.03	210.29	7.84	
06/22/06	1:34 AM	19.77	1.75	2.24	181.41	7.93	
06/22/06	1:35 AM	19.74	1.80	2.39	161.54	8.53	
06/22/06	1:36 AM	19.75	1.79	2.63	145.26	8.43	
06/22/06	1:37 AM	19.75	1.77	3.76	150.44	8.16	
06/22/06	1:38 AM	19.86	1.63	3.26	153.81	8.58	
06/22/06	1:39 AM	19.94	1.52	2.30	139.04	9.54	
06/22/06	1:40 AM	20.06	1.32	1.97	116.48	9.11	
06/22/06	1:41 AM	20.20	0.88	1.65	103.37	8.51	
06/22/06	1:42 AM	20.22	0.92	1.37	84.33	8.07	
06/22/06	1:43 AM	20.12	1.10	1.33	73.60	7.33	
06/22/06	1:44 AM	20.01	1.25	1.85	72.62	6.29	
06/22/06	1:45 AM	19.97	1.27	3.36	75.23	6.04	

P-Bar	29.98	BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/22/06	1:46 AM	19.94	1.31	2.94	82.06	6.63	
06/22/06	1:47 AM	19.86	1.42	2.53	83.70	6.94	
06/22/06	1:48 AM	19.85	1.37	2.75	100.10	7.29	
06/22/06	1:49 AM	20.29	0.62	2.98	103.84	7.59	
06/22/06	1:50 AM	20.69	0.15	1.83	92.53	6.94	
06/22/06	1:51 AM	20.78	0.07	3.03	62.52	5.39	
06/22/06	1:52 AM	20.81	0.04	5.72	38.90	4.17	
06/22/06	1:53 AM	20.84	0.03	7.11	31.04	3.44	
06/22/06	1:54 AM	20.83	0.04	7.82	28.77	2.93	
06/22/06	1:55 AM	20.65	0.30	8.05	31.97	2.61	
06/22/06	1:56 AM	20.24	0.81	4.59	38.96	2.46	
06/22/06	1:57 AM	20.14	0.86	3.58	67.65	2.90	
06/22/06	1:58 AM	20.12	0.89	5.46	92.20	4.09	
06/22/06	1:59 AM	20.06	0.96	5.84	120.96	5.28	
06/22/06	2:00 AM	20.04	0.98	6.17	113.33	6.41	
06/22/06	2:01 AM	20.01	1.03	5.17	115.83	7.62	
06/22/06	2:02 AM	19.83	1.25	4.91	113.13	8.81	
06/22/06	2:03 AM	19.83	1.29	5.16	97.47	10.14	
06/22/06	2:04 AM	19.80	1.35	4.99	93.40	10.88	
06/22/06	2:05 AM	19.80	1.35	4.88	92.03	11.62	
06/22/06	2:06 AM	19.78	1.41	5.01	84.66	12.52	
06/22/06	2:07 AM	19.74	1.47	3.54	90.27	12.51	
06/22/06	2:08 AM	19.77	1.44	3.06	91.04	12.07	
06/22/06	2:09 AM	19.77	1.47	3.90	85.40	11.85	
06/22/06	2:10 AM	19.82	1.41	4.57	76.18	12.44	
06/22/06	2:11 AM	19.84	1.37	4.56	82.71	12.83	
06/22/06	2:12 AM	19.87	1.31	3.40	87.70	12.55	
06/22/06	2:13 AM	19.88	1.30	3.14	95.86	11.97	
06/22/06	2:14 AM	19.92	1.26	4.40	123.77	10.73	
06/22/06	2:15 AM	19.97	1.21	4.53	133.77	9.95	
06/22/06	2:16 AM	20.01	1.17	4.68	127.02	9.77	
06/22/06	2:17 AM	20.00	1.20	4.58	120.86	9.22	
06/22/06	2:18 AM	19.95	1.25	4.97	136.10	9.30	
06/22/06	2:19 AM	19.95	1.22	4.53	148.68	10.31	
06/22/06	2:20 AM	20.05	1.12	3.62	139.35	12.50	
06/22/06	2:21 AM	20.04	1.10	3.07	159.51	16.15	
06/22/06	2:22 AM	20.04	1.09	3.23	167.09	18.25	
06/22/06	2:23 AM	20.09	1.04	3.36	160.84	17.99	
06/22/06	2:24 AM	20.09	1.08	2.78	153.02	16.29	
06/22/06	2:25 AM	19.87	1.36	2.79	160.93	15.66	
06/22/06	2:26 AM	19.86	1.40	2.99	149.34	14.89	
06/22/06	2:27 AM	19.84	1.43	3.04	158.76	13.29	
06/22/06	2:28 AM	19.94	1.24	3.21	176.00	11.54	
06/22/06	2:29 AM	20.19	0.91	2.84	152.93	10.01	
06/22/06	2:30 AM	20.28	0.80	2.15	113.86	8.80	
06/22/06	2:31 AM	20.46	0.55	1.57	91.45	8.36	
06/22/06	2:32 AM	20.41	0.66	1.33	79.62	7.45	
06/22/06	2:33 AM	20.38	0.72	1.43	66.38	6.32	
06/22/06	2:34 AM	20.34	0.78	1.82	64.81	5.36	
06/22/06	2:35 AM	20.32	0.77	2.48	67.17	4.69	
06/22/06	2:36 AM	20.61	0.35	2.89	71.18	4.29	
06/22/06	2:37 AM	20.75	0.18	3.75	49.16	3.93	
06/22/06	2:38 AM	20.81	0.10	6.65	27.81	3.50	
06/22/06	2:39 AM	20.84	0.07	9.48	19.42	3.13	
06/22/06	2:40 AM	20.84	0.07	10.09	16.22	2.92	
06/22/06	2:41 AM	20.84	0.07	9.12	16.52	2.90	

P-Bar	29.98	BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/22/06	2:42 AM	20.83	0.10	6.57	19.64	2.94	
06/22/06	2:43 AM	20.84	0.12	7.67	18.35	2.92	
06/22/06	2:44 AM	20.88	0.08	8.03	15.04	2.83	
06/22/06	2:45 AM	20.89	0.08	8.62	14.41	2.84	
06/22/06	2:46 AM	20.46	0.63	11.93	54.37	2.76	
06/22/06	2:47 AM	20.64	0.41	11.93	57.22	3.22	
06/22/06	2:48 AM	20.71	0.32	13.63	47.77	3.65	
06/22/06	2:49 AM	20.35	0.83	9.72	66.59	3.62	
06/22/06	2:50 AM	20.15	1.07	4.81	55.85	4.98	
06/22/06	2:51 AM	19.96	1.31	3.76	44.77	8.57	
06/22/06	2:52 AM	19.87	1.37	4.37	39.97	12.21	
06/22/06	2:53 AM	19.88	1.37	5.02	40.24	13.88	
06/22/06	2:54 AM	19.85	1.45	4.63	42.91	13.55	
06/22/06	2:55 AM	19.82	1.48	4.35	46.59	12.15	
06/22/06	2:56 AM	19.78	1.49	4.25	46.80	10.68	
06/22/06	2:57 AM	19.76	1.49	3.35	48.36	10.41	
06/22/06	2:58 AM	19.75	1.49	2.94	51.90	10.88	
06/22/06	2:59 AM	19.76	1.47	3.51	55.30	11.19	
06/22/06	3:00 AM	19.76	1.46	3.49	52.32	10.89	
06/22/06	3:01 AM	19.75	1.46	3.47	47.19	10.80	
06/22/06	3:02 AM	19.75	1.47	3.92	51.62	11.37	
06/22/06	3:03 AM	19.76	1.47	3.44	60.84	12.75	
06/22/06	3:04 AM	19.80	1.47	3.17	69.99	13.89	
06/22/06	3:05 AM	19.70	1.58	3.42	82.82	13.98	
06/22/06	3:06 AM	19.69	1.56	4.33	103.45	13.24	
06/22/06	3:07 AM	19.48	1.79	4.09	208.49	11.89	
06/22/06	3:08 AM	19.37	1.91	3.66	766.10	12.10	
06/22/06	3:09 AM	19.38	1.96	3.07	198.30	12.84	
06/22/06	3:10 AM	19.38	1.96	2.81	118.58	12.18	
06/22/06	3:11 AM	19.48	1.84	2.78	101.56	9.79	
06/22/06	3:12 AM	19.59	1.71	2.82	84.89	7.84	
06/22/06	3:13 AM	19.68	1.64	2.70	74.00	6.40	
06/22/06	3:14 AM	19.75	1.55	2.48	80.16	5.33	
06/22/06	3:15 AM	19.79	1.53	2.36	98.02	4.59	
06/22/06	3:16 AM	19.81	1.50	2.23	91.70	4.11	
06/22/06	3:17 AM	19.79	1.52	2.37	78.28	3.75	
06/22/06	3:18 AM	19.86	1.43	2.41	61.10	3.60	
06/22/06	3:19 AM	19.99	1.26	2.24	55.83	3.62	
06/22/06	3:20 AM	20.04	1.22	1.94	56.04	3.62	
06/22/06	3:21 AM	20.18	1.02	1.90	45.89	3.64	
06/22/06	3:22 AM	20.21	1.01	2.34	32.53	3.61	
06/22/06	3:23 AM	20.31	0.85	2.97	24.60	3.69	
06/22/06	3:24 AM	20.51	0.53	2.87	33.33	3.94	
06/22/06	3:25 AM	20.65	0.31	2.52	31.83	4.06	
06/22/06	3:26 AM	20.78	0.12	5.32	26.37	4.43	
06/22/06	3:27 AM	20.78	0.09	8.12	15.98	4.63	
06/22/06	3:28 AM	20.78	0.08	6.93	14.68	4.45	
06/22/06	3:29 AM	20.80	0.07	7.20	11.99	4.11	
06/22/06	3:30 AM	20.81	0.06	7.75	10.45	3.83	
06/22/06	3:31 AM	20.79	0.07	8.14	13.41	3.60	
06/22/06	3:32 AM	20.80	0.06	8.58	11.12	3.32	
06/22/06	3:33 AM	20.46	0.52	7.86	14.88	3.00	
06/22/06	3:34 AM	20.34	0.68	4.86	22.16	3.15	
06/22/06	3:35 AM	20.33	0.66	5.21	21.96	4.32	
06/22/06	3:36 AM	20.32	0.66	4.76	29.36	5.25	
06/22/06	3:37 AM	20.30	0.66	3.87	30.75	6.16	

P-Bar	29.98	BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/22/06	3:38 AM	20.26	0.67	3.81	28.79	7.25	
06/22/06	3:39 AM	20.04	0.96	3.88	29.26	8.58	
06/22/06	3:40 AM	19.91	1.11	4.05	35.56	11.30	
06/22/06	3:41 AM	19.87	1.14	4.32	38.99	14.06	
06/22/06	3:42 AM	20.00	0.90	3.30	41.93	18.10	
06/22/06	3:43 AM	20.13	0.74	2.24	39.69	19.45	
06/22/06	3:44 AM	20.15	0.72	2.46	38.60	17.41	
06/22/06	3:45 AM	20.17	0.69	3.19	34.13	13.26	
06/22/06	3:46 AM	20.21	0.67	2.79	28.98	10.97	
06/22/06	3:47 AM	20.22	0.66	1.67	24.78	10.11	
06/22/06	3:48 AM	20.21	0.67	1.52	24.42	10.71	
06/22/06	3:49 AM	20.19	0.69	1.53	24.98	11.54	
06/22/06	3:50 AM	20.15	0.73	1.68	31.16	11.17	
06/22/06	3:51 AM	20.23	0.67	1.90	33.54	11.30	
06/22/06	3:52 AM	20.24	0.66	1.66	29.98	11.29	
06/22/06	3:53 AM	20.30	0.61	1.45	29.20	12.43	
06/22/06	3:54 AM	20.33	0.61	1.56	29.24	13.29	
06/22/06	3:55 AM	20.29	0.68	1.97	29.98	13.36	
06/22/06	3:56 AM	20.25	0.74	2.30	39.86	13.58	
06/22/06	3:57 AM	20.17	0.85	2.49	51.78	15.28	
06/22/06	3:58 AM	19.94	1.20	3.04	76.17	17.06	
06/22/06	3:59 AM	19.03	2.19	4.90	741.71	19.29	
06/22/06	4:00 AM	19.34	1.86	7.72	999.65	20.75	
06/22/06	4:01 AM	20.00	1.05	9.02	551.48	17.96	
06/22/06	4:02 AM	20.28	0.70	5.50	309.91	14.75	
06/22/06	4:03 AM	20.30	0.65	4.29	341.12	12.32	
06/22/06	4:04 AM	20.39	0.53	4.53	313.82	9.75	
06/22/06	4:05 AM	20.35	0.68	3.79	261.79	7.72	
06/22/06	4:06 AM	20.21	0.86	3.09	201.78	6.75	
06/22/06	4:07 AM	20.14	0.94	3.39	185.14	6.73	
06/22/06	4:08 AM	20.08	0.96	3.53	168.65	6.69	
06/22/06	4:09 AM	20.06	1.06	3.52	155.16	7.01	
06/22/06	4:10 AM	19.88	1.36	4.67	143.68	7.88	
06/22/06	4:11 AM	19.86	1.41	5.08	156.99	8.74	
06/22/06	4:12 AM	19.72	1.53	4.86	146.66	8.75	
06/22/06	4:13 AM	19.67	1.57	3.93	149.33	9.03	
06/22/06	4:14 AM	19.70	1.52	4.01	140.84	9.48	
06/22/06	4:15 AM	19.70	1.53	4.08	132.51	9.72	
06/22/06	4:16 AM	19.72	1.50	4.03	141.84	9.87	
06/22/06	4:17 AM	19.63	1.57	3.41	142.83	9.58	
06/22/06	4:18 AM	19.69	1.53	3.00	141.18	8.19	
06/22/06	4:19 AM	19.69	1.51	2.88	134.34	7.14	
06/22/06	4:20 AM	19.67	1.51	2.56	110.02	6.39	
06/22/06	4:21 AM	19.69	1.48	2.52	108.86	5.97	
06/22/06	4:22 AM	19.71	1.50	2.56	102.19	5.59	
06/22/06	4:23 AM	19.71	1.47	2.60	107.35	5.18	
06/22/06	4:24 AM	19.70	1.49	2.48	129.50	4.92	
06/22/06	4:25 AM	19.68	1.51	2.42	128.84	4.84	
06/22/06	4:26 AM	19.63	1.52	2.49	114.85	4.84	
06/22/06	4:27 AM	19.71	1.43	2.52	107.36	5.25	
06/22/06	4:28 AM	19.92	1.12	2.26	107.69	5.83	
06/22/06	4:29 AM	20.11	0.88	1.75	77.53	6.24	
06/22/06	4:30 AM	20.17	0.82	1.54	67.46	5.88	
06/22/06	4:31 AM	20.20	0.77	1.52	62.84	5.24	
06/22/06	4:32 AM	20.08	0.97	1.56	71.44	4.89	
06/22/06	4:33 AM	20.48	0.38	1.72	80.65	4.79	

P-Bar	29.98	BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/22/06	4:34 AM	20.68	0.16	1.44	68.10	4.30	
06/22/06	4:35 AM	20.73	0.11	3.12	41.84	3.57	
06/22/06	4:36 AM	20.75	0.08	5.00	33.11	2.99	
06/22/06	4:37 AM	20.76	0.08	6.03	27.33	2.58	
06/22/06	4:38 AM	20.77	0.07	6.48	23.85	2.37	
06/22/06	4:39 AM	20.78	0.07	6.89	21.02	2.32	
06/22/06	4:40 AM	20.77	0.05	7.09	18.71	2.34	
06/22/06	4:41 AM	20.73	0.04	7.18	19.27	2.41	
06/22/06	4:42 AM	20.74	0.04	7.81	18.35	2.48	
06/22/06	4:43 AM	20.75	0.03	8.53	16.04	2.53	
06/22/06	4:44 AM	20.75	0.04	8.78	16.09	2.50	
06/22/06	4:45 AM	20.74	0.07	11.93	15.80	2.39	
06/22/06	4:46 AM	20.36	0.46	12.84	35.29	2.28	
06/22/06	4:47 AM	20.46	0.38	10.13	43.39	2.53	
06/22/06	4:48 AM	20.04	0.94	7.37	44.74	2.92	
06/22/06	4:49 AM	19.90	1.11	5.57	48.91	5.20	
06/22/06	4:50 AM	19.86	1.16	5.26	39.74	8.20	
06/22/06	4:51 AM	19.78	1.23	4.77	34.12	9.62	
06/22/06	4:52 AM	19.75	1.24	5.24	29.56	10.38	
06/22/06	4:53 AM	19.73	1.23	5.74	30.21	10.65	
06/22/06	4:54 AM	19.73	1.26	5.61	33.23	10.30	
06/22/06	4:55 AM	19.71	1.31	4.39	34.86	9.76	
06/22/06	4:56 AM	19.67	1.37	4.14	34.95	9.16	
06/22/06	4:57 AM	19.62	1.44	2.96	35.69	8.54	
06/22/06	4:58 AM	19.67	1.42	2.54	38.46	8.24	
06/22/06	4:59 AM	19.74	1.34	2.83	45.93	7.20	
06/22/06	5:00 AM	19.79	1.29	3.24	53.05	5.95	
06/22/06	5:01 AM	19.83	1.26	3.39	48.09	5.05	
06/22/06	5:02 AM	19.82	1.26	3.74	51.48	4.54	
06/22/06	5:03 AM	19.83	1.24	4.30	50.98	4.34	
06/22/06	5:04 AM	19.77	1.34	4.61	60.90	4.20	
06/22/06	5:05 AM	19.75	1.34	4.18	69.87	4.19	
06/22/06	5:06 AM	19.71	1.39	3.26	87.70	4.75	
06/22/06	5:07 AM	19.55	1.60	3.17	103.32	5.66	
06/22/06	5:08 AM	19.56	1.63	3.01	125.71	6.55	
06/22/06	5:09 AM	19.42	1.75	2.87	133.11	7.59	
06/22/06	5:10 AM	19.44	1.71	2.89	135.65	8.69	
06/22/06	5:11 AM	19.44	1.71	2.99	130.22	9.46	
06/22/06	5:12 AM	19.48	1.63	2.86	126.78	9.57	
06/22/06	5:13 AM	19.52	1.56	3.54	127.68	8.15	
06/22/06	5:14 AM	19.63	1.48	4.20	147.97	6.97	
06/22/06	5:15 AM	19.74	1.38	3.21	147.50	6.13	
06/22/06	5:16 AM	19.75	1.42	2.57	129.22	5.47	
06/22/06	5:17 AM	19.77	1.41	2.26	123.92	5.72	
06/22/06	5:18 AM	19.79	1.40	2.11	114.08	6.63	
06/22/06	5:19 AM	19.75	1.45	2.03	92.02	7.28	
06/22/06	5:20 AM	19.70	1.46	2.10	84.27	6.90	
06/22/06	5:21 AM	19.92	1.15	2.09	102.23	5.52	
06/22/06	5:22 AM	20.16	0.88	1.80	78.42	4.40	
06/22/06	5:23 AM	20.24	0.79	1.44	58.58	3.75	
06/22/06	5:24 AM	20.27	0.76	1.33	36.80	3.31	
06/22/06	5:25 AM	20.29	0.73	1.33	24.87	2.99	
06/22/06	5:26 AM	20.34	0.67	1.26	21.38	2.74	
06/22/06	5:27 AM	20.41	0.53	1.29	17.98	2.52	
06/22/06	5:28 AM	20.50	0.38	0.98	18.38	2.33	
06/22/06	5:29 AM	20.61	0.21	1.21	32.17	2.23	

P-Bar	29.98	BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/22/06	5:30 AM	20.64	0.15	4.55	34.28	2.26	
06/22/06	5:31 AM	20.64	0.12	7.83	36.83	2.33	
06/22/06	5:32 AM	20.61	0.18	7.16	41.14	2.30	
06/22/06	5:33 AM	20.69	0.07	4.92	27.09	2.31	
06/22/06	5:34 AM	20.70	0.05	5.94	11.71	2.49	
06/22/06	5:35 AM	20.72	0.04	5.58	10.62	2.56	
06/22/06	5:36 AM	20.75	0.02	6.24	9.27	2.46	
06/22/06	5:37 AM	20.75	0.03	6.60	8.54	2.34	
06/22/06	5:38 AM	20.58	0.30	7.08	13.42	2.22	
06/22/06	5:39 AM	20.03	1.06	5.31	53.80	2.17	
06/22/06	5:40 AM	19.56	1.61	3.55	83.08	2.79	
06/22/06	5:41 AM	19.42	1.69	6.11	112.44	3.86	
06/22/06	5:42 AM	19.65	1.39	9.83	114.11	4.33	
06/22/06	5:43 AM	19.98	1.01	9.29	76.18	4.12	
06/22/06	5:44 AM	20.02	1.00	7.47	59.42	3.57	
06/22/06	5:45 AM	19.83	1.26	6.18	73.62	3.14	
06/22/06	5:46 AM	19.73	1.36	6.26	101.17	2.90	
06/22/06	5:47 AM	19.75	1.33	7.12	122.86	2.71	
06/22/06	5:48 AM	19.67	1.40	5.67	120.66	2.52	
06/22/06	5:49 AM	19.71	1.35	5.48	131.65	2.38	
06/22/06	5:50 AM	19.78	1.26	5.60	131.29	2.27	
06/22/06	5:51 AM	19.78	1.24	5.14	123.24	2.17	
06/22/06	5:52 AM	19.85	1.20	4.08	117.50	2.13	
06/22/06	5:53 AM	19.90	1.19	3.22	114.93	2.18	
06/22/06	5:54 AM	19.87	1.21	4.11	114.34	2.18	
06/22/06	5:55 AM	19.88	1.22	5.10	116.30	2.08	
06/22/06	5:56 AM	19.87	1.23	5.51	114.80	1.97	
06/22/06	5:57 AM	19.86	1.24	6.19	116.83	1.88	
06/22/06	5:58 AM	19.88	1.23	6.49	113.57	1.82	
06/22/06	5:59 AM	19.77	1.38	6.06	114.77	1.79	
06/22/06	6:00 AM	19.69	1.50	5.65	105.05	1.76	
06/22/06	6:01 AM	19.58	1.67	4.76	101.47	1.77	
06/22/06	6:02 AM	19.61	1.67	4.10	107.67	2.09	
06/22/06	6:03 AM	19.69	1.62	4.35	103.82	2.91	
06/22/06	6:04 AM	19.70	1.57	4.30	104.97	4.01	
06/22/06	6:05 AM	19.84	1.44	3.90	106.81	4.92	
06/22/06	6:06 AM	19.83	1.42	3.75	107.30	4.46	
06/22/06	6:07 AM	19.92	1.33	3.34	108.47	3.69	
06/22/06	6:08 AM	19.96	1.31	3.06	98.79	3.54	
06/22/06	6:09 AM	20.00	1.25	3.06	95.29	3.85	
06/22/06	6:10 AM	20.01	1.26	3.10	89.88	3.81	
06/22/06	6:11 AM	20.03	1.23	3.11	86.80	3.90	
06/22/06	6:12 AM	20.10	1.14	3.37	80.56	4.26	
06/22/06	6:13 AM	20.14	1.12	3.18	83.64	4.19	
06/22/06	6:14 AM	20.19	1.09	2.92	161.76	4.00	
06/22/06	6:15 AM	20.26	1.00	2.83	155.03	3.66	
06/22/06	6:16 AM	20.55	0.56	2.55	155.94	3.34	
06/22/06	6:17 AM	20.74	0.31	1.63	165.03	3.12	
06/22/06	6:18 AM	20.85	0.18	2.56	120.21	3.04	
06/22/06	6:19 AM	20.85	0.17	8.89	68.82	3.10	
06/22/06	6:20 AM	20.87	0.16	11.05	46.16	2.94	
06/22/06	6:21 AM	20.91	0.11	10.65	36.17	2.65	
06/22/06	6:22 AM	20.92	0.11	8.97	34.17	2.41	
06/22/06	6:23 AM	20.60	0.50	11.61	50.33	2.23	
06/22/06	6:24 AM	20.67	0.39	11.82	57.08	2.30	
06/22/06	6:25 AM	20.81	0.25	9.77	42.51	2.52	

P-Bar	29.98	BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/22/06	6:26 AM	20.87	0.17	11.09	27.96	2.44	
06/22/06	6:27 AM	20.78	0.32	16.11	26.10	2.20	
06/22/06	6:28 AM	20.40	0.79	10.22	48.98	2.02	
06/22/06	6:29 AM	20.11	1.05	4.39	58.13	2.73	
06/22/06	6:30 AM	20.09	1.10	4.51	52.40	4.84	
06/22/06	6:31 AM	19.97	1.29	4.12	51.50	5.90	
06/22/06	6:32 AM	19.87	1.37	3.48	51.03	6.27	
06/22/06	6:33 AM	19.88	1.32	4.18	48.75	6.57	
06/22/06	6:34 AM	19.84	1.34	4.20	45.28	7.13	
06/22/06	6:35 AM	19.86	1.35	4.00	46.05	8.44	
06/22/06	6:36 AM	19.85	1.37	4.08	48.60	9.57	
06/22/06	6:37 AM	19.75	1.51	4.06	45.84	11.45	
06/22/06	6:38 AM	19.86	1.34	4.35	49.14	13.68	
06/22/06	6:39 AM	19.91	1.29	3.77	54.49	14.62	
06/22/06	6:40 AM	19.93	1.24	3.68	56.90	15.14	
06/22/06	6:41 AM	19.97	1.19	4.09	64.95	14.33	
06/22/06	6:42 AM	20.00	1.17	4.05	72.30	11.37	
06/22/06	6:43 AM	19.92	1.28	3.85	78.58	9.74	
06/22/06	6:44 AM	19.78	1.44	4.25	102.44	7.91	
06/22/06	6:45 AM	19.61	1.64	4.45	120.74	7.16	
06/22/06	6:46 AM	19.46	1.80	4.11	143.76	8.00	
06/22/06	6:47 AM	19.59	1.66	3.76	113.91	9.25	
06/22/06	6:48 AM	19.70	1.55	3.91	131.00	9.36	
06/22/06	6:49 AM	19.75	1.48	3.81	126.80	7.33	
06/22/06	6:50 AM	19.76	1.48	3.73	120.23	5.40	
06/22/06	6:51 AM	19.69	1.58	3.73	119.67	4.24	
06/22/06	6:52 AM	19.58	1.73	3.97	110.48	3.67	
06/22/06	6:53 AM	19.63	1.63	3.73	116.68	3.57	
06/22/06	6:54 AM	19.67	1.59	3.87	124.26	4.04	
06/22/06	6:55 AM	19.67	1.60	3.99	128.95	4.42	
06/22/06	6:56 AM	19.58	1.74	3.61	110.46	4.06	
06/22/06	6:57 AM	19.62	1.65	2.98	104.83	3.50	
06/22/06	6:58 AM	19.74	1.50	2.93	101.22	3.13	
06/22/06	6:59 AM	19.74	1.52	2.88	102.62	2.86	
06/22/06	7:00 AM	19.84	1.38	2.64	105.68	2.66	
06/22/06	7:01 AM	19.94	1.24	2.85	106.29	2.49	
06/22/06	7:02 AM	20.03	1.10	2.88	179.20	2.49	
06/22/06	7:03 AM	20.21	0.90	2.71	164.29	2.63	
06/22/06	7:04 AM	20.31	0.82	2.70	149.45	2.84	
06/22/06	7:05 AM	20.33	0.80	2.32	137.54	2.89	
06/22/06	7:06 AM	20.34	0.76	2.23	115.04	2.81	
06/22/06	7:07 AM	20.65	0.25	2.64	83.64	2.67	
06/22/06	7:08 AM	20.78	0.08	5.55	55.21	2.48	
06/22/06	7:09 AM	20.80	0.04	7.46	41.35	2.21	
06/22/06	7:10 AM	20.81	0.03	7.84	35.61	1.99	
06/22/06	7:11 AM	20.83	0.02	8.36	33.33	1.86	
06/22/06	7:12 AM	20.82	0.03	8.77	34.62	1.72	
06/22/06	7:13 AM	20.53	0.49	8.93	38.39	1.67	
06/22/06	7:14 AM	19.79	1.44	8.25	69.21	1.84	
06/22/06	7:15 AM	19.81	1.37	9.39	99.23	2.90	
06/22/06	7:16 AM	19.86	1.30	8.77	97.37	3.51	
06/22/06	7:17 AM	19.85	1.29	7.24	113.70	3.64	
06/22/06	7:18 AM	19.91	1.24	6.19	140.55	3.77	
06/22/06	7:19 AM	20.03	1.11	4.25	120.46	3.80	
06/22/06	7:20 AM	20.06	1.06	3.56	73.78	3.61	
06/22/06	7:21 AM	20.01	1.10	3.63	88.30	3.31	

P-Bar	29.98	BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/22/06	7:22 AM	19.86	1.33	3.80	138.98	3.06	
06/22/06	7:23 AM	19.62	1.60	3.51	131.25	3.03	
06/22/06	7:24 AM	19.57	1.64	3.34	116.06	2.99	
06/22/06	7:25 AM	19.51	1.79	4.30	107.67	2.83	
06/22/06	7:26 AM	19.49	1.77	4.50	99.56	2.58	
06/22/06	7:27 AM	19.56	1.69	3.48	102.94	2.35	
06/22/06	7:28 AM	19.68	1.59	3.01	110.43	2.16	
06/22/06	7:29 AM	19.73	1.54	3.23	106.96	2.04	
06/22/06	7:30 AM	19.70	1.58	4.20	113.16	2.00	
06/22/06	7:31 AM	19.68	1.60	4.78	103.37	2.03	
06/22/06	7:32 AM	19.67	1.61	5.04	113.66	2.20	
06/22/06	7:33 AM	19.67	1.63	5.22	136.85	2.45	
06/22/06	7:34 AM	19.73	1.52	4.98	146.21	2.65	
06/22/06	7:35 AM	20.00	1.12	3.80	149.55	2.78	
06/22/06	7:36 AM	20.12	0.99	3.10	96.75	3.14	
06/22/06	7:37 AM	19.92	1.29	3.38	121.35	3.59	
06/22/06	7:38 AM	19.69	1.56	3.14	206.04	4.14	
06/22/06	7:39 AM	19.63	1.62	3.10	179.85	4.82	
06/22/06	7:40 AM	19.57	1.66	3.03	135.42	5.41	
06/22/06	7:41 AM	19.80	1.31	3.33	156.82	6.31	
06/22/06	7:42 AM	20.05	1.06	3.62	136.47	6.76	
06/22/06	7:43 AM	20.10	1.01	2.80	114.38	6.04	
06/22/06	7:44 AM	20.16	0.96	2.77	79.67	4.74	
06/22/06	7:45 AM	20.22	0.87	3.05	67.58	3.74	
06/22/06	7:46 AM	20.13	1.07	2.90	65.61	3.12	
06/22/06	7:47 AM	20.10	1.08	2.49	90.13	2.71	
06/22/06	7:48 AM	20.12	1.03	2.87	75.89	2.42	
06/22/06	7:49 AM	20.25	0.82	3.13	58.03	2.21	
06/22/06	7:50 AM	20.56	0.38	2.66	59.58	2.07	
06/22/06	7:51 AM	20.65	0.25	2.26	59.50	1.92	
06/22/06	7:52 AM	20.80	0.09	5.27	37.46	1.86	
06/22/06	7:53 AM	20.80	0.09	7.07	24.86	1.78	
06/22/06	7:54 AM	20.81	0.08	8.39	19.98	1.69	
06/22/06	7:55 AM	20.83	0.07	8.77	17.43	1.60	
06/22/06	7:56 AM	20.78	0.17	8.30	19.18	1.53	
06/22/06	7:57 AM	20.20	0.98	7.29	43.46	1.46	
06/22/06	7:58 AM	20.01	1.20	4.28	73.04	1.57	
06/22/06	7:59 AM	19.96	1.27	4.95	94.20	1.86	
06/22/06	8:00 AM	19.96	1.25	6.10	113.53	2.00	
06/22/06	8:01 AM	19.97	1.22	6.42	105.20	1.99	
06/22/06	8:02 AM	19.92	1.28	6.39	96.87	1.92	
06/22/06	8:03 AM	19.67	1.59	7.11	101.03	1.85	
06/22/06	8:04 AM	19.52	1.77	6.71	100.54	1.80	
06/22/06	8:05 AM	19.63	1.59	5.91	135.35	1.76	
06/22/06	8:06 AM	19.73	1.53	5.51	190.33	1.81	
06/22/06	8:07 AM	19.47	1.89	5.51	138.02	1.94	
06/22/06	8:08 AM	19.57	1.71	4.56	125.68	2.10	
06/22/06	8:09 AM	19.66	1.64	4.79	161.50	2.08	
06/22/06	8:10 AM	19.65	1.68	5.94	152.51	1.94	
06/22/06	8:11 AM	19.62	1.69	5.96	130.85	1.85	
06/22/06	8:12 AM	19.70	1.60	5.93	123.02	1.88	
06/22/06	8:13 AM	19.76	1.55	4.63	116.36	2.04	
06/22/06	8:14 AM	19.77	1.57	3.92	111.04	2.51	
06/22/06	8:15 AM	19.79	1.54	3.88	108.05	3.71	
06/22/06	8:16 AM	19.73	1.65	3.69	107.87	5.31	
06/22/06	8:17 AM	19.71	1.65	3.83	94.03	7.14	

P-Bar	29.98	BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/22/06	8:18 AM	19.74	1.63	3.83	103.54	8.90	
06/22/06	8:19 AM	19.81	1.49	3.59	107.88	10.61	
06/22/06	8:20 AM	19.97	1.32	3.18	110.54	11.68	
06/22/06	8:21 AM	19.85	1.49	3.53	120.69	12.61	
06/22/06	8:22 AM	19.89	1.35	4.08	107.62	13.39	
06/22/06	8:23 AM	20.31	0.81	3.71	101.66	13.48	
06/22/06	8:24 AM	20.51	0.56	3.07	69.86	12.70	
06/22/06	8:25 AM	20.63	0.42	2.35	57.63	12.81	
06/22/06	8:26 AM	20.70	0.34	2.69	57.77	12.87	
06/22/06	8:27 AM	20.67	0.38	3.87	41.53	13.51	
06/22/06	8:28 AM	20.67	0.35	2.84	53.66	13.50	
06/22/06	8:29 AM	20.77	0.25	2.76	58.62	12.33	
06/22/06	8:30 AM	20.86	0.14	5.32	33.42	12.81	
06/22/06	8:31 AM	20.85	0.14	6.78	22.02	11.73	
06/22/06	8:32 AM	20.83	0.18	7.75	18.50	10.14	
06/22/06	8:33 AM	20.85	0.16	8.86	13.71	8.47	
06/22/06	8:34 AM	20.88	0.13	8.94	11.92	7.29	
06/22/06	8:35 AM	20.88	0.15	9.82	10.58	6.45	
06/22/06	8:36 AM	20.67	0.46	15.29	18.99	5.71	
06/22/06	8:37 AM	20.38	0.85	7.61	48.76	5.70	
06/22/06	8:38 AM	20.27	0.96	5.06	94.26	6.42	
06/22/06	8:39 AM	20.54	0.53	5.27	105.49	6.44	
06/22/06	8:40 AM	20.79	0.24	5.81	51.49	5.38	
06/22/06	8:41 AM	20.50	0.54	10.07	39.47	4.32	
06/22/06	8:42 AM	20.66	0.41	11.83	29.55	4.10	
06/22/06	8:43 AM	20.68	0.38	11.19	28.18	3.96	
06/22/06	8:44 AM	20.61	0.37	7.91	30.86	3.67	
06/22/06	8:45 AM	20.63	0.32	3.81	25.48	3.62	
06/22/06	8:46 AM	20.48	0.65	3.13	41.24	3.56	
06/22/06	8:47 AM	20.17	1.09	3.66	75.26	4.28	
06/22/06	8:48 AM	20.13	1.19	4.04	69.25	6.07	
06/22/06	8:49 AM	20.01	1.36	4.07	113.40	6.57	
06/22/06	8:50 AM	19.99	1.36	4.40	164.47	6.52	
06/22/06	8:51 AM	20.05	1.31	4.49	138.46	6.33	
06/22/06	8:52 AM	19.93	1.48	4.63	136.33	6.08	
06/22/06	8:53 AM	19.77	1.61	5.23	165.25	6.29	
06/22/06	8:54 AM	19.70	1.62	4.88	198.60	7.00	
06/22/06	8:55 AM	19.69	1.65	4.25	188.97	7.46	
06/22/06	8:56 AM	19.90	1.44	3.67	197.37	7.67	End Run 3
06/22/06	8:57 AM	20.03	1.31	3.06	214.80	8.01	
06/22/06	8:58 AM	20.05	1.29	2.65	270.73	8.46	
06/22/06	8:59 AM	19.98	1.38	2.83	252.48	9.09	
06/22/06	9:00 AM	20.03	1.31	3.78	201.83	9.99	
Averages		**20.10**	**1.07**	**4.61**	**91.57**	**7.08**	
06/22/06	9:01 AM	20.07	1.22	3.35	277.84	10.88	
06/22/06	9:02 AM	6.25	0.30	5.86	209.57	28.47	
06/22/06	9:03 AM	0.09	0.04	35.69	43.99	40.55	Final Calibration
06/22/06	9:04 AM	0.08	0.03	46.49	43.31	44.04	
06/22/06	9:05 AM	7.09	4.54	45.90	35.62	33.27	
06/22/06	9:06 AM	12.23	10.14	20.88	1.72	3.93	
06/22/06	9:07 AM	12.20	10.13	0.27	0.27	0.92	
06/22/06	9:08 AM	12.20	10.13	0.03	0.27	0.33	
06/22/06	9:09 AM	12.16	9.97	0.01	0.27	0.38	
06/22/06	9:10 AM	1.09	0.06	32.82	147.20	94.01	All calibration gas was

P-Bar	29.98	BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/22/06	9:11 AM	0.04	0.03	100.04	250.94	100.39	introduced at the probe
06/22/06	9:12 AM	0.05	0.03	100.04	250.65	100.39	tip.
06/22/06	9:13 AM	10.48	0.11	100.04	204.88	86.38	

APPENDIX F
PLANT PROCESS DATA

Annual Compliance Stack Test
Nucor Steel - Hertford County
June 20-22, 2006

Run	Test Duration	Tons Cast	TPH
1	9.03	2,318.11	257
2	9.05	1,988.57	220
3	9.08	2,125.90	234
Average	**9**	**2,144**	**237**

Annual Operating Hours	**7848**

APPENDIX G
QUALITY ASSURANCE AND CALIBRATION DATA

Desert Air Environmental Services, LLC
EPA Method 5 Box Calibration
Pre-Test Orifice Method
English Meter Box Units, English K' Factor

Model #:	Clean Air	Date: ----->	June 9, 2006
Serial #:	1501	Barometric Pressure: ----->	28.76 (in. Hg)
		Theoretical Critical Vacuum:-->	13.57 (in. Hg)

!!!!!!!!!
IMPORTANT: For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTANT: The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).
!!!!!!!!!

---------- DRY GAS METER READINGS ----------									-CRITICAL ORIFICE READINGS-					
		Volume	Volume	Volume	Initial Temps.		Final Temps.		Orifice	K' Orifice	Actual	-- Ambient Temperature --		
dH	Time	Initial	Final	Total	Inlet	Outlet	Inlet	Outlet	Serial#	Coefficient	Vacuum	Initial	Final	Average
(in H2O)	(min)	(cu ft)	(cu ft)	(cu ft)	(deg F)	(deg F)	(deg F)	(deg F)	(number)	(see above)	(in Hg)	(deg F)	(deg F)	(deg F)
0.30	6.00	508.600	510.400	1.800	70.0	65.0	69.0	66.0	40	0.2325	15.0	67.0	67.0	67.0
0.65	5.00	506.000	508.250	2.250	71.0	65.0	70.0	65.0	48	0.3476	15.0	67.0	67.0	67.0
1.10	5.00	502.800	505.730	2.930	72.0	65.0	71.0	65.0	55	0.4533	15.0	67.0	67.0	67.0
1.75	5.00	498.600	502.370	3.770	72.0	64.0	72.0	64.0	63	0.5822	15.0	67.0	67.0	67.0
3.00	5.00	492.300	497.350	5.050	68.0	63.0	73.0	64.0	73	0.7854	15.0	67.0	67.0	67.0

********** RESULTS **********

— DRY GAS METER —		------- ORIFICE -------			– DRY GAS METER –		------ ORIFICE ------		
VOLUME CORRECTED		VOLUME CORRECTED		NOMINAL	CALIBRATION FACTOR Y		CALIBRATION FACTOR dH@		
Vm(std)	Vm(std)	Vcr(std)	Vcr(std)	Vcr	Value	Variation	Value	Value	Variation
(cu ft)	(liters)	(cu ft)	(liters)	(cu ft)	(number)	(number)	(in H2O)	(mm H2O)	(in H2O)
1.732	49.1	1.748	49.5	1.815	1.009	0.003	1.889	47.98	0.071
2.167	61.4	2.177	61.7	2.262	1.005	0.000	1.864	47.34	0.046
2.822	79.9	2.839	80.4	2.950	1.006	0.001	1.855	47.11	0.037
3.639	103.0	3.647	103.3	3.788	1.002	-0.003	1.792	45.52	-0.026
4.899	138.7	4.920	139.3	5.111	1.004	-0.001	1.690	42.92	-0.128
		Average Y ----->			**1.0053**		**1.8179**	**46.17**	**<---- Average dH@**

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: MTR

Desert Air Environmental Services, LLC

Date: 6-9-06

Desert Air Environmental Services, LLC
EPA Method 5 Calibration
Pre-Test Orifice Method
English Meter Box Units, English K' Factor

Model #:	Clean Air	Date: ---------->	June 12, 2006
Serial #:	1001	Barometric Pressure: ---------->	29.88 (in. Hg)
	1001 mK	Theoretical Critical Vacuum:-->	13.62 (in. Hg)

!!!!!!!!

IMPORTANT: For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.

IMPORTANT: The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).

!!!!!!!!

---------- DRY GAS METER READINGS ----------									-CRITICAL ORIFICE READINGS-					
		Volume	Volume	Volume	Initial Temps.		Final Temps.		Orifice	K' Orifice	Actual	-- Ambient Temperature --		
dH	Time	Initial	Final	Total	Inlet	Outlet	Inlet	Outlet	Serial#	Coefficient	Vacuum	Initial	Final	Average
(in H2O)	(min)	(cu ft)	(cu ft)	(cu ft)	(deg F)	(deg F)	(deg F)	(deg F)	(number)	(see above)	(in Hg)	(deg F)	(deg F)	(deg F)
0.28	5.00	526.020	527.501	1.481	62.0	59.0	63.0	60.0	40	0.2325	15.0	62.0	63.0	62.5
0.65	5.00	528.001	530.223	2.222	65.0	60.0	67.0	61.0	48	0.3476	15.0	63.0	64.0	63.5
1.10	5.00	530.410	533.318	2.908	68.0	61.0	71.0	62.0	55	0.4533	15.0	65.0	66.0	65.5
1.80	5.00	534.110	537.854	3.744	72.0	62.0	75.0	63.0	63	0.5822	15.0	66.0	67.0	66.5
3.20	5.00	538.610	543.667	5.057	76.0	64.0	79.0	65.0	73	0.7854	15.0	68.0	68.0	68.0

********** RESULTS **********

--- DRY GAS METER ---		------- ORIFICE -------			-- DRY GAS METER --		------ ORIFICE ------			
VOLUME CORRECTED		VOLUME CORRECTED		NOMINAL	CALIBRATION FACTOR Y		CALIBRATION FACTOR dH@			
Vm(std)	Vm(std)	Vcr(std)	Vcr(std)	Vcr	Value	Variation	Value	Value	Variation	
(cu ft)	(liters)	(cu ft)	(liters)	(cu ft)	(number)	(number)	(in H2O)	(mm H2O)	(in H2O)	
1.449	41.0	1.469	41.6	1.506	1.014	0.003	1.791	45.48	-0.037	
2.167	61.4	2.194	62.1	2.254	1.012	0.001	1.860	47.24	0.032	
2.827	80.1	2.855	80.9	2.945	1.010	-0.001	1.854	47.09	0.026	
3.629	102.8	3.664	103.8	3.787	1.010	-0.001	1.839	46.72	0.012	
4.891	138.5	4.936	139.8	5.115	1.009	-0.002	1.795	45.59	-0.033	
		Average Y ----->			**1.0109**		**1.8277**	**46.42**	**<----- Average dH@**	

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: MTR

Date: 6-12-06

Desert Air Environmental Services, LLC
EPA Meter Box Calibration
Pre-Test Orifice Method
English Meter Box Units, English K' Factor

Model #:	Cherokee Rental	Date: ---------->	June 18, 2006
Serial #:	2645	Barometric Pressure: ---------->	30.12 (in. Hg)
		Theoretical Critical Vacuum:--->	14.21 (in. Hg)

!!!!!!!!
IMPORTANT: For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTANT: The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).
!!!!!!!!

---------- DRY GAS METER READINGS ----------									-CRITICAL ORIFICE READINGS-					
		Volume	Volume	Volume	Initial Temps.		Final Temps.		Orifice	K' Orifice	Actual	-- Ambient Temperature --		
dH	Time	Initial	Final	Total	Inlet	Outlet	Inlet	Outlet	Serial#	Coefficient	Vacuum	Initial	Final	Average
(in H2O)	(min)	(cu ft)	(cu ft)	(cu ft)	(deg F)	(deg F)	(deg F)	(deg F)	(number)	(see above)	(in Hg)	(deg F)	(deg F)	(deg F)
0.31	5.00	420.700	422.300	1.600	88.0	87.0	89.0	88.0	40	0.2325	16.0	88.0	90.0	89.0
0.68	5.00	422.700	425.110	2.410	88.0	87.0	88.0	87.0	48	0.3476	16.0	88.0	89.0	88.5
1.20	5.00	425.400	428.528	3.128	88.0	87.0	87.0	88.0	55	0.4533	16.0	87.0	89.0	88.0
1.80	5.00	428.900	432.889	3.989	88.0	87.0	89.0	87.0	63	0.5822	16.0	87.0	89.0	88.0
3.40	5.00	433.200	438.560	5.360	89.0	88.0	91.0	90.0	73	0.7854	16.0	88.0	89.0	88.5

********** RESULTS **********

--- DRY GAS METER ---		-------- ORIFICE --------			-- DRY GAS METER --		-------- ORIFICE --------		
VOLUME CORRECTED		VOLUME CORRECTED		NOMINAL	CALIBRATION FACTOR Y		CALIBRATION FACTOR dH@		
Vm(std)	Vm(std)	Vcr(std)	Vcr(std)	Vcr	Value	Variation	Value	Value	Variation
(cu ft)	(liters)	(cu ft)	(liters)	(cu ft)	(number)	(number)	(in H2O)	(mm H2O)	(in H2O)
1.552	44.0	1.494	42.3	1.544	0.963	0.002	1.895	48.14	0.045
2.343	66.3	2.235	63.3	2.307	0.954	-0.007	1.860	47.24	0.010
3.044	86.2	2.916	82.6	3.008	0.958	-0.003	1.926	48.93	0.076
3.886	110.1	3.745	106.1	3.863	0.964	0.003	1.753	44.53	-0.097
5.226	148.0	5.050	143.0	5.214	0.966	0.006	1.815	46.10	-0.035
		Average Y ----->			**0.9610**		**1.8499**	**46.99**	**<----- Average dH@**

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: _____ Date: 6-18-06

Desert Air Environmental Services, LLC
EPA Meter Box Calibration
Post-Test Orifice Method
English Meter Box Units, English K' Factor

Model #:	Clean Air	Date: ---------->	June 29, 2006
Serial #:	1001	Barometric Pressure: ---------->	29.65 (in. Hg)
		Theoretical Critical Vacuum:--->	13.99 (in. Hg)

!!!!!!!!!
IMPORTANT: For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTANT: The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).
!!!!!!!!!

---------- DRY GAS METER READINGS ----------

-CRITICAL ORIFICE READINGS-

dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Initial Temps. Inlet (deg F)	Initial Temps. Outlet (deg F)	Final Temps. Inlet (deg F)	Final Temps. Outlet (deg F)	Orifice Serial# (number)	K' Orifice Coefficient (see above)	Actual Vacuum (in Hg)	-- Ambient Temperature -- Initial (deg F)	Final (deg F)	Average (deg F)
1.80	5.00	481.800	485.610	3.810	91.0	81.0	94.0	81.0	63	0.5806	15.0	86.0	87.0	86.5
1.80	5.00	485.800	489.652	3.852	86.0	77.0	89.0	79.0	63	0.5806	15.0	83.0	84.0	83.5
1.80	5.00	490.000	493.765	3.765	87.0	77.0	89.0	79.0	63	0.5806	15.0	83.0	85.0	84.0

********** RESULTS **********

--- DRY GAS METER ---

VOLUME CORRECTED Vm(std) (cu ft)	Vm(std) (liters)
3.661	103.7
3.729	105.6
3.643	103.2

-------- ORIFICE --------

VOLUME CORRECTED Vcr(std) (cu ft)	Vcr(std) (liters)	NOMINAL Vcr (cu ft)
3.682	104.3	3.847
3.692	104.6	3.837
3.690	104.5	3.838

-- DRY GAS METER --

CALIBRATION FACTOR Y Value (number)	Variation (number)
1.006	0.003
0.990	-0.013
1.013	0.010

-------- ORIFICE --------

CALIBRATION FACTOR dH@ Value (in H2O)	Value (mm H2O)	Variation (in H2O)
1.806	45.87	-0.001
1.806	45.87	-0.001
1.808	45.91	0.001

Average Y ------> **1.0030**

1.8064 **45.88** **<------ Average dH@**

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: _____

Date: 6-29-06

Desert Air Environmental Services, LLC
EPA Meter Box Calibration
Post-Test Orifice Method
English Meter Box Units, English K' Factor

Model #:	Clean Air	Date: ---------->	June 29, 2006
Serial #:	1501	Barometric Pressure: ---------->	29.65 (in. Hg)
		Theoretical Critical Vacuum:--->	13.99 (in. Hg)

!!!!!!!!!
IMPORTANT: For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTANT: The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).
!!!!!!!!!

---------- DRY GAS METER READINGS ----------

-CRITICAL ORIFICE READINGS-

dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Initial Temps. Inlet (deg F)	Initial Temps. Outlet (deg F)	Final Temps. Inlet (deg F)	Final Temps. Outlet (deg F)	Orifice Serial# (number)	K' Orifice Coefficient (see above)	Actual Vacuum (in Hg)	-- Ambient Temperature -- Initial (deg F)	Final (deg F)	Average (deg F)
1.80	5.00	590.000	593.778	3.778	86.0	77.0	89.0	79.0	63	0.5806	15.0	83.0	84.0	83.5
1.80	5.00	593.900	597.661	3.761	86.0	77.0	89.0	79.0	63	0.5806	15.0	83.0	84.0	83.5
1.80	5.00	597.900	601.622	3.722	87.0	77.0	89.0	79.0	63	0.5806	15.0	83.0	85.0	84.0

********** RESULTS **********

--- DRY GAS METER --- VOLUME CORRECTED Vm(std) (cu ft)	Vm(std) (liters)	-------- ORIFICE -------- VOLUME CORRECTED Vcr(std) (cu ft)	Vcr(std) (liters)	NOMINAL Vcr (cu ft)	-- DRY GAS METER -- CALIBRATION FACTOR Y Value (number)	Variation (number)	-------- ORIFICE -------- CALIBRATION FACTOR dH@ Value (in H2O)	Value (mm H2O)	Variation (in H2O)
3.657	103.6	3.692	104.6	3.837	1.010	-0.007	1.806	45.87	-0.001
3.641	103.1	3.692	104.6	3.837	1.014	-0.002	1.806	45.87	-0.001
3.601	102.0	3.690	104.5	3.838	1.025	0.009	1.808	45.91	0.001
		Average Y ----->			**1.0162**		**1.8065**	**45.88**	**<----- Average dH@**

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: MTR

Date: 6-29-06

Desert Air Environmental Services, LLC
EPA Meter Box Calibration
Post-Test Orifice Method
English Meter Box Units, English K' Factor

Model #:	Cherokee Rental	Date: ---------->	June 22, 2006
Serial #:	2645	Barometric Pressure: ---------->	29.97 (in. Hg)
		Theoretical Critical Vacuum:--->	14.14 (in. Hg)

!!!!!!!!
IMPORTANT: For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTANT: The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).
!!!!!!!!

---------- DRY GAS METER READINGS ---------- -CRITICAL ORIFICE READINGS-

dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Initial Temps. Inlet (deg F)	Initial Temps. Outlet (deg F)	Final Temps. Inlet (deg F)	Final Temps. Outlet (deg F)	Orifice Serial# (number)	K' Orifice Coefficient (see above)	Actual Vacuum (in Hg)	-- Ambient Temperature -- Initial (deg F)	Final (deg F)	Average (deg F)
1.20	5.00	457.000	460.112	3.112	74.0	63.0	74.0	63.0	55	0.4533	16.0	73.0	73.0	73.0
1.20	5.00	460.300	463.401	3.101	74.0	63.0	74.0	63.0	55	0.4533	16.0	73.0	73.0	73.0
1.20	5.00	463.500	466.583	3.083	75.0	63.0	75.0	63.0	55	0.4533	16.0	73.0	74.0	73.5

********** RESULTS **********

--- DRY GAS METER --- VOLUME CORRECTED Vm(std) (cu ft)	Vm(std) (liters)	-------- ORIFICE -------- VOLUME CORRECTED Vcr(std) (cu ft)	Vcr(std) (liters)	NOMINAL Vcr (cu ft)	-- DRY GAS METER -- CALIBRATION FACTOR Y Value (number)	Variation (number)	-------- ORIFICE -------- CALIBRATION FACTOR dH@ Value (in H2O)	Value (mm H2O)	Variation (in H2O)
3.122	88.4	2.942	83.3	2.966	0.942	-0.004	1.971	50.07	-0.001
3.111	88.1	2.942	83.3	2.966	0.946	-0.001	1.971	50.07	-0.001
3.090	87.5	2.941	83.3	2.968	0.952	0.005	1.973	50.12	0.001
		Average Y ------>			**0.9466**		**1.9718**	**50.08**	**<------ Average dH@**

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: MTL / KEM Date: 6-22-06

Meter Box Fu'' Test Calibration

Meter Box No: 28110-11001-1

Date of Calibration: 6/2/2006

Meter Box Y_d: 1.0060

Calibration conducted by: TW

Meter Box ΔH@: 1.8745

Signature

Barometric Pressure: 29.25

				Standard Meter Gas Volume (ft^3)			Meter Box Gas Volume (ft^3)			Std. Meter Temperature (°F)			Meter Box Temperature (°F)			Time (min.)	Calibration Results	
Q	ΔH	ΔP	Y_{ds}	Initial	Final	V_{ds} Net	Initial	Final	V_d Net	In	Out	T_{ds} Avg.	In	T_o Out	T_d Avg.	Θ	Y_d	ΔH@
0.953	3.00	-2.00	1.0000	0.000	10.000	10.000	463.300	473.333	10.033	74.5	74.5	74.50	92.0	82.0	87.00	10.13	1.0073	1.7697
0.949	3.00	-2.00	1.0000	0.000	10.000	10.000	473.333	483.405	10.072	74.5	74.5	74.50	93.0	83.0	88.00	10.17	1.0052	1.7804
0.366	0.50	-1.30	1.0000	0.000	5.000	5.000	483.703	488.736	5.033	74.5	74.5	74.50	86.0	83.0	84.50	13.17	1.0075	1.9905
0.366	0.50	-1.30	1.0000	0.000	5.000	5.000	488.736	493.780	5.044	74.5	74.5	74.50	86.0	83.0	84.50	13.19	1.0053	1.9965
0.657	1.50	-1.50	1.0000	0.000	10.000	10.000	495.601	505.705	10.104	74.5	74.5	74.50	91.0	84.0	87.50	14.70	1.0062	1.8565
0.657	1.50	-1.50	1.0000	0.000	10.000	10.000	505.705	515.850	10.145	74.5	74.5	74.50	93.0	85.0	89.00	14.70	1.0048	1.8531

Averages 1.00604 1.87445

Nomenclature

P_b	Barometric Pressure (in. Hg)
Q	Flow Rate (cfm)
ΔH	Orifice Pressure differential (in. H_2O)
ΔP	Inlet Pressure Differential (in. H_2O)
V_d	Gas Meter Volume - Dry (ft^3)
V_{ds}	Standard Meter Volume - Dry (ft^3)
T_d	Average Meter Box Temperature (°F)
T_o	Outlet Meter Box Temperature (°F)
T_{ds}	Average Standard Meter Temperature (°F)
Y_d	Meter Correction Factor (unitless)
Y_{ds}	Standard Meter Correction Factor (unitless)
ΔH@	Orifice Pressure Differential giving 0.75 cfm of air at 68°F and 29.92 in. Hg (in. H_2O)
Θ	Duration of Run (minutes)

Equations

$$Y_d = (Y_{ds})\left[\frac{V_{ds}}{V_d}\right]\left[\frac{T_d + 460}{T_{ds} + 460}\right]\left[\frac{P_b + \Delta P/13.6}{P_b + \Delta H/13.6}\right]$$

$$\Delta H @ = \frac{(0.0319)(\Delta H)}{P_b(T_o + 460)}\left[\frac{(T_{ds} + 460)\Theta}{(V_{ds})(Y_{ds})}\right]^2$$

$$Q = \frac{17.64(V_{ds})(P_b)}{(T_{ds} + 460)(\Theta)}$$

Vacuum Gauge / DGM Thermocouples

Standard (in.Hg)	Gauge (in.Hg)	Standard (°F)	Inlet (°F)	Outlet (°F)
5.0	5.3			
10.0	9.8			
15.0	14.9			
20.0	20.2			
25.0	24.7			

CDS005C-Meter Full, May 2002
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[redacted]

Pyrometer No.:	28110-11001-1	Office:	Palatine, Il
Calibrated By:	TW	Client:	
Date:	6/2/2006	Job Number:	

Calibration Reference Settings for Fahrenheit Scale	Pyrometer Reading
50 °F	48 °F
100 °F	98 °F
150 °F	148 °F
200 °F	198 °F
250 °F	248 °F
300 °F	298 °F
350 °F	348 °F
400 °F	398 °F
450 °F	448 °F
500 °F	498 °F
550 °F	548 °F
600 °F	598 °F

Calibration Reference Information

Reference Used:	Omega CL23A	Serial No:	T-225950
Calibrated By:	Omega Engineering, Inc.	Exp. Date:	9/26/2006
Report No:	R 044791		

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Meter Box Fu'' Test Calibration

Meter Box No: 28-031501-3

Date of Calibration: 5/23/2006

Meter Box Y_d: 0.9915

Calibration conducted by: TW

Meter Box ΔH@: 1.8502

Signature

Barometric Pressure: 29.37

				Standard Meter Gas Volume (ft^3)			Meter Box Gas Volume (ft^3)			Std. Meter Temperature (°F)			Meter Box Temperature (°F)			Time (min.)	Calibration Results	
Q	ΔH	ΔP	Y_{ds}	Initial	Final	V_{ds} Net	Initial	Final	V_d Net	In	Out	T_{ds} Avg.	In	T_o Out	T_d Avg.	Θ	Y_d	ΔH@
0.956	3.00	-1.80	1.0000	0.000	10.000	10.000	109.805	119.899	10.094	77.5	77.5	77.50	86.0	78.0	82.00	10.08	0.9871	1.7779
0.954	3.00	-1.80	1.0000	0.000	10.000	10.000	119.899	130.016	10.117	77.5	77.5	77.50	89.0	80.0	84.50	10.10	0.9894	1.7783
0.373	0.50	-1.20	1.0000	0.000	5.000	5.000	130.401	135.446	5.045	78.0	78.0	78.00	84.0	81.0	82.50	12.91	0.9951	1.9370
0.373	0.50	-1.20	1.0000	0.000	5.000	5.000	135.446	140.484	5.038	78.0	78.0	78.00	83.0	81.0	82.00	12.92	0.9956	1.9400
0.664	1.50	-1.40	1.0000	0.000	10.000	10.000	140.701	150.832	10.131	78.0	78.0	78.00	88.0	81.0	84.50	14.51	0.9918	1.8352
0.664	1.50	-1.40	1.0000	0.000	10.000	10.000	150.832	160.987	10.155	78.5	78.5	78.50	89.0	82.0	85.50	14.50	0.9903	1.8327

Averages 0.99154 | 1.85019

Nomenclature

P_b	Barometric Pressure (in. Hg)
Q	Flow Rate (cfm)
ΔH	Orifice Pressure differential (in. H_2O)
ΔP	Inlet Pressure Differential (in. H_2O)
V_d	Gas Meter Volume - Dry (ft^3)
V_{ds}	Standard Meter Volume - Dry (ft^3)
T_o	Average Meter Box Temperature (°F)
T_o	Outlet Meter Box Temperature (°F)
T_{ds}	Average Standard Meter Temperature (°F)
Y_d	Meter Correction Factor (unitless)
Y_{ds}	Standard Meter Correction Factor (unitless)
ΔH@	Orifice Pressure Differential giving 0.75 cfm of air at 68°F and 29.92 in. Hg (in. H_2O)
Θ	Duration of Run (minutes)

Equations

$$Y_d = (Y_{ds})\left[\frac{V_{ds}}{V_d}\right]\left[\frac{T_d + 460}{T_{ds} + 460}\right]\left[\frac{P_b + \Delta P/13.6}{P_b + \Delta H/13.6}\right]$$

$$\Delta H @ = \frac{(0.0319)(\Delta H)}{P_b(T_o + 460)}\left[\frac{(T_{ds} + 460)\Theta}{(V_{ds})(Y_{ds})}\right]^2$$

$$Q = \frac{17.64(V_{ds})(P_b)}{(T_{ds} + 460)(\Theta)}$$

Vacuum Gauge		DGM Thermocouples		
Standard (in Hg)	Gauge (in Hg)	Standard (°F)	Inlet (°F)	Outlet (°F)
5.0	5.0			
10.0	9.4			
15.0	14.7			
20.0	20.0			
25.0	26.0			

CDS005C-Meter Full, May 2002
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Pyrometer No.:	28-031501-3	Office:	Palatine, Il
Calibrated By:	TW	Client:	
Date:	5/23/2006	Job Number:	

Calibration Reference Settings for Fahrenheit Scale	Pyrometer Reading
50 °F	48 °F
100 °F	98 °F
150 °F	148 °F
200 °F	198 °F
250 °F	248 °F
300 °F	298 °F
350 °F	348 °F
400 °F	398 °F
450 °F	448 °F
500 °F	498 °F
550 °F	548 °F
600 °F	598 °F

Calibration Reference Information

Reference Used:	Omega CL23A	Serial No:	T-225950
Calibrated By:	Omega Engineering, Inc.	Exp. Date:	9/26/2006
Report No:	R 044791		

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Isokineti nsole - QA/QC Test

Cherokee Meter ID #:	02645	Make:	Cherokee	Model #:	120	Technician:	JAK
Serial #:		Vacuum Pump ID:	02646	Vacuum Pump Type:	Vane	Date:	4-5-06

Leak Test

Vacuum Pump/Meter

Front Half Leak Free (@>25 in. Hg)? Y Y/N

Back Half Leak Free (@>25 in. Hg)? Y Y/N

Pitot Tube/Manometer

Positive Tap Leak Free (@ 8 in H2O)? Y Y/N

Negative Tap Leak Free (@ 8 in H2O) Y Y/N

Dry Gas Meter Gamma Check

		DRY GAS METER VOLUME (Vm)/TEMPERATURE (Tm)						CALIBRATION DEVICE VOLUME (Vc)/TEMPERATURE (Tc)					
Delta H (in. H_2O)	Time (minutes)	Initial (ft³)	Final (ft³)	Total (ft³)		Temperature (°F) Inlet	Outlet	Initial (ft³)	Final (ft³)	Total (ft³)		Temperature (°F) Initial	Final
1.00	15.0	409.475	418.286	8.811	Initial	71	71	17.135	25.694	8.559	Outlet	70	70
					Final	72	70						

Baro. Pressure (Pbar) = 29.97 in. Hg

Meter Y	Deviation
0.965	-0.029

Reference Gamma = 0.9938 *From Reference Dry Gas Meter

Pretest Gamma = 0.989

Calculations:

Gamma = Vc/Vm x [(Tm avg + 460)/(Tc+460)] x [Pbar/{Pbar+(delta H/13.6)}]

Delta H = 0.0317 x delta H x [(Time/Vc)2 x {(Tc + 460)2/Pbar x (Tm + 460)}]

5% of Pre-test (Pass/Fail): Pass

Thermocouple Readout/DGM TC Check

Reference Temp (°F)	Stack (1)	Within 4 °F	Probe (2)	Within 4 °F	Filter (3)	Within 4 °F	Exit (4)	Within 4 °F	Aux (5)	Within 4 °F	Gas Meter TC's Inlet	Outlet
100	100	Pass	100	Pass	100	Pass	100	Pass	100	Pass	70	70
200	200	Pass	200	Pass	200	Pass	200	Pass	200	Pass	Ambient Temp	
300	300	Pass	300	Pass	300	Pass	300	Pass	300	Pass	70	
400	400	Pass	400	Pass	400	Pass	400	Pass	400	Pass	Within 10.8°F?	Within 10.8°F?
500	500	Pass	500	Pass	500	Pass	500	Pass	500	Pass	Pass	Pass
600	600	Pass	600	Pass	600	Pass	600	Pass	600	Pass		

Power Test

4-pin Amphenol Power Output:

Probe Heater Power Output? Y Y/N

Filter Heater Power Output? Y Y/N

Aux Power Output (to Filter Box)? Y Y/N

Probe Heater On/Off?* Y Y/N

Filter Heater On/Off?* Y Y/N

**Simulated that Relay Switches On/Off @ 250° F*

Other Power:

Pump Power Output (Plug on Meter)? Y Y/N

Aux Power Output (Plug on Meter)? Y Y/N

Replacement Fuses Fitted? Y Y/N or NA

ANALYTICAL & PRECISION BALANCE CO., INC.

CERTIFICATE OF CALIBRATION

ISO 17025 ACCREDITED

INTERNATIONAL ACCREDITATION SERVICE, INC.

Calibration Laboratory # CL-104

9830 S. 51st Street, Suite B-103 • Phoenix, Arizona 85044

(480) 598-0321 • FAX (480) 598-0768

E-mail: apbalance@juno.com

Website: analyticalandprecision.com

TEMP 70 F° R.H. 52%

AZ RSR License #00 6

AZ RSA License #014790

P.O. # ____

Equipment # N/A

180g x 0.0001g
Capacity/Resolution

±0.0005g
Tolerance Value

Comments:

Client # 1403				
Org. Desert Air Environmental Services		Bldg. Main Room Lab		Date 9-22-05 Recall Date 9-06
Mfgr. A&D	Model ER-182A		Serial No. 4703445	
Calibration Instructions:	Standard Cal. Procedure ☑		Handbook 44 ☐	
List Weights Used	500mg	1g	90g	180g
As Found Indication	— In Shop For Service —			
Tolerance Error				
As Left Indication	0.5000g	1.0000g	90.0000g	180.0000g
Corner Load	As Found	Weight Used	2 / 1	3 / 4
Corner Load	As Left	100g	2 0.0000g / 1 0.0000g	3 0.0000g / 4

CORNER-LOAD	LINEARITY	REPRODUCIBILITY
☑	☑	☑

NIST TRACEABILITY

Control No.	Expires
041227001	12-05

Customer

Technical Representative

☐ **OUT OF TOLERANCE (After Servicing) DO NOT USE THIS INSTRUMENT**

☐ OUT OF TOLERANCE (Does not meet customer's specifications.) This applies to "As Found Indication"

Significant out of tolerance may affect end product

As found indications will be recorded before servicing./ **As left** will be recorded after servicing.

Reported Uncertainty: N/A

Method used for determining uncertainties is either the Root Sum Square Statistical Method, Total Collective Added Uncertainty, or an Expanded Uncertainty with a *coverage factor K=2*. Provided level of confidence: 95%. Uncertainty calculations available upon request.

Original: Customer
Copy: Vendor

Form # 1987 Rev. 3-05

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APEX INSTRUMENTS METHOD 5 (M5CO-SET) ORIFICE SET CALIBRATION

Calibration Information	
Orifice Series	LD
Serial Number	40-73
Meter Gamma	1.00700

Calibration Conditions			
Date	Time	24-Mar-06	7:57
Barometric Pressure		752.6	mm Hg
Theoretical Critical Vacuum[1]		355.2	mm Hg
Calibration Technician		LP	

Factors/Conversions		
Std Temp	293	K
Std Press	760	mm Hg
K_1	0.386	K/mm Hg

[1]The Critical Orifice Coefficient, K', in English units, $(ft^{3*}{}^{\circ}R^{1/2})/(in.Hg*min)$.
[2]The Critical Orifice Coefficient, K', in Metric units, $(m^{3*}K^{1/2})/(mmHg*min)$.

Calibration Data													Results		
			Reference Meter						Critical Orifice						
Run #	Orifice Number	Run Time Elapsed	DGM Orifice ΔH	Volume Initial	Volume Final	Volume Total	Outlet Temp Initial	Outlet Temp Final	Amb Temp Initial	Amb Temp Final	Actual Vacuum		Coefficient Metric Units	Coefficient English Units	% Variation from Avg
		(Θ)	(P_m)	(V_{mi})	(V_{mf})	(V_m)	(t_{mi})	(t_{mf})	($t_{amb,i}$)	($t_{amb,f}$)			K'	K'	(<0.5%)
		min	mm H_2O	m^3	m^3	m^3	°C	°C	°C	°C	mm Hg		see above[1]	see above[2]	%
1	LD-40	10	6.60	1680.9314	1681.0158	0.0844	17	17	18	18	572		1.929E-04	0.2321	-0.15
2	LD-40	10	6.60	1681.0158	1681.1004	0.0846	17	18	18	19	572		1.932E-04	0.2325	0.00
3	LD-40	10	6.60	1681.1004	1681.1852	0.0848	18	18	19	19	572		1.934E-04	0.2328	0.15
												Average	1.932E-04	0.2325	
1	LD-48	10	15.60	1681.1852	1681.3120	0.1268	18	18	19	19	533		2.895E-04	0.3484	0.24
2	LD-48	10	15.60	1681.3120	1681.4383	0.1263	18	19	19	20	533		2.881E-04	0.3467	-0.24
3	LD-48	10	15.60	1681.4383	1681.5650	0.1267	19	19	20	20	533		2.888E-04	0.3475	-0.01
													2.888E-04	0.3476	
1	LD-55	10	28.00	1681.5650	1681.7300	0.1650	19	19	20	20	495		3.765E-04	0.4531	-0.04
2	LD-55	10	28.00	1681.7300	1681.8953	0.1653	19	20	20	21	495		3.769E-04	0.4536	0.06
3	LD-55	10	28.00	1681.8953	1682.0606	0.1653	20	20	21	21	495		3.766E-04	0.4532	-0.03
													3.767E-04	0.4533	
1	LD-63	10	46.00	1682.0606	1682.2729	0.2123	20	20	21	21	445		4.845E-04	0.5831	0.14
2	LD-63	10	46.00	1682.2729	1682.4852	0.2123	20	21	21	21	445		4.837E-04	0.5821	-0.03
3	LD-63	10	46.00	1682.4852	1682.6977	0.2125	21	21	21	21	445		4.833E-04	0.5816	-0.11
													4.838E-04	0.5822	
1	LD-73	10	84.00	1682.6977	1682.9832	0.2855	21	21	21	22	394		6.523E-04	0.7850	-0.06
2	LD-73	10	84.00	1682.9832	1683.2687	0.2855	21	21	22	22	394		6.528E-04	0.7856	0.03
3	LD-73	10	84.00	1683.2687	1683.5542	0.2855	21	21	22	22	394		6.528E-04	0.7856	0.03
												Average	6.527E-04	0.7854	

I certify that the above Orifice Set was calibrated in accordance with USEPA Methods, CFR 40 Part 60, Appendix A, Method 5, Item 7.2.2

Signature Perkins Date 3-24-06

Desert Air Environmental Services, LLC

THERMOCOUPLE CALIBRATION FORM

Thermocouple ID # 10'A (29) TC Type: ☒K ☐T ☐S

Reference Thermometer ID # 3611

Calibration Date 2-5-06

	Reference Temperature (°F)	Reference Temperature (°R)	TC Temperature (°F)	TC Temperature (°R)	Difference (°R)	Percent Difference
Ice Bath (32 °F, 492 °R)	32	492	34	493.7	1.70	.35
Boiling Water (212 °F, 672 °R)	212	672	216	675.67	3.67	.55
Hot Oil (~360 °F, 820 °R)	321	780.67	331	790.67	10.0	1.26
					Average	.72

Is percent difference ≤ 1.5 %, yes (pass) no (fail) °R = °F + 459.67

Comments:

Desert Air Environmental Services, LLC

TYPE S PITOT TUBE INSPECTION FORM

Date 2-5-06 Pitot Tube Number 10'A (M.29)

Pitot Tube Level ? Yes Pitot Tube Damaged? No (explain)

Is the Pitot Tube part of an Assembly? Yes Is the Pitot Tube loose? No

a_1 = 0 ° (≤ 10 °) a2 = 0 ° (≤ 10 °)

b_1 = 0 ° (≤ 5 °) b2 = 0 ° (≤ 5 °)

P_a = .95 cm (= P/2) Pb = .95 cm (= P/2)

P = 1.90 (Pa + Pb) P/2 = .95 cm

Y = 0 ° Θ = 0 °

Z = 0 cm (P sin Y) < 0.32 cm W = 0 cm (P sin Θ) < 0.08 cm

D_t = .64 cm $P/2D_t$ = 1.48 (≥ 1.05 and ≤ 1.50)

Pitot Tube-Nozzle separation, X = ok (> 1.90 cm for D_n = 1.30 cm)

Is the Pitot Tube even with or above the Nozzle Entry Plane? Yes

Thermocouple Placement, W= ok (> 5.08 cm, 2 in)

Pitot Tube Sample Probe Separation, Y= ok (≤ 7.62 cm, 3 in)

Coefficient .84 Calibration Required ? No

Inspected by MTR

Comments

Desert Air Environmental Services, LLC

THERMOCOUPLE CALIBRATION FORM

Thermocouple ID # 10' B (5) TC Type: ☒K ☐T ☐S

Reference Thermometer ID # 3611

Calibration Date 5-10-2006

	Reference Temperature (°F)	Reference Temperature (°R)	TC Temperature (°F)	TC Temperature (°R)	Difference (°R)	Percent Difference
Ice Bath (32 °F, 492 °R)	32	492	32	492	0	0
Boiling Water (212 °F, 672 °R)	212	672	213	672.67	.67	.10
Hot Oil (~360 °F, 820 °R)	375	834.67	375	834.67	0	0
					Average	.03

Is percent difference ≤ 1.5 %, yes (pass) no (fail) °R = °F + 459.67

Comments:

New M.5 Probe—

Sample Probe Calibration

Probe Type: B 10 FT M-5 PROBE **I.D. Number:** 09-09-05-3

Thermocouple Calibration

Reference Type _____ Reference I.D. No _____ Pyrometer I.D. No: _____ Degrees:

Point No.	Target Temp.	Reference Temp.	Indicated Temp.	Temp. Difference	% Difference*	Specification
1	Ice-32F					
2	Ambient-70F					%Difference Ś 1.5
3	Hot Oil-150F					
4	Boiling H™O-212					
5	Hot Oil-320F					

* Based on Absolute Temperature (Rankine)

Does assembly meet specifications?

Geometric Pitot Calibration

"S" Pitot

Measurement		Specification
α1(°)=2.000	α2(°)=2.000	Ś10°
β1(°)=1.000	β2(°)=2.000	Ś05°
γ(°)=1.000	θ(°)=0.000	
Pa(")=0.356	Pb(")=0.356	Pa + Pb = A
A(")=0.711	Dt(")=0.250	

Calculations

Z(")= A sin γ =	0.0124	Ś 0.125"
W(")= A sin θ =	0.00000	Ś 0.03125"

Standard Pitot

Measurement (inches)	Specification
Tube O.D. _____	(D)
Static Hole I.D. _____	- 0.1 x (D)
Length:	
Tip to Static _____	1.1 x (D)
Static to Bend _____	1.1 x (D)

Does assembly meet specifications? YES → **If "Yes", "S" pitot Cp=0.84; Std. Pitot=0.99. If "No", wind tunnel calibration is required.**

Wind Tunnel Calibration

Reference Pitot I.D. No: _____ Reference Pitot Cp: _____

Pitot Side 'A':

Trial No.	Reference ¯P	Probe ¯P	Probe Cp*	Deviation from Average Cp*
1				
2				
3				

Side 'A' Average Probe Cp= _____

Specification: Cp Deviations Ś 0.01

Pitot Side 'B':

Trial No.	Reference ¯P	Probe ¯P	Probe Cp*	Deviation from Average Cp*
1				
2				
3				

Side 'B' Average Probe Cp= _____

Specification: Cp Deviations Ś 0.01

Probe Cp= (Reference Cp)(Reference ¯P/ Probe ¯P); Cp Deviation= Trial Cp - Average Probe Cp

'A' Average Cp		'B' Average Cp		Difference
	—		=	

|Difference| Ś 0.01

Does assembly meet specifications? → **If "Yes", Cp= Average of Side 'A' and 'B' Cp values. If "No", Pitot must be replaced.**

All specifications set forth EPA-600/4-76-005, section 3.1

Probe Cp= 0.84 Calibrated by: M. R. Date: 5/5/2006

Clean Air Engineering

Cherokee Instruments
QC Equipment Check

M5 Probe Maintenance, Calibration & Status Record

Liner Mat. (circle)	Asset ID Number	Length Gross	Length Usable	Order No. as Returned	Serviced By: Date	By, (Name)	Initial
SSt Pyx Qtz	1115	11' ft.	121" in.		9-23-05	Willie	WCH

Pitobe Assembly

Physical Checks	Yes	No	Note
T/C (stack) Plug & Bracket Good	✓		
Quick Connects (2) Clean and OK	✓		
QC Fittings Smooth Ops.	✓		
Exterior Sheath Clean and Good	✓		
Old Point Marks Removed	✓		
Welds on Pitot and Gas Lines OK	✓		
Clamps Tight & Good	✓		
Pitot Tips Sharp, Aligned and OK	✓		
Calibration is Current & OK		✓	& see right
Sheath Cap Treads Smooth & OK	✓		
Union (5/8") Threads Smooth & OK	N/A		
O-Ring (5/8") Replaced & Snug	N/A		
Back Ferrell Reversed and OK	N/A		
Back Ferrell OK w/ Liner Type	N/A		
Union Capped (brass) Good	N/A		
Liner Securely Tight, Ball Capped	N/A		
Ball, 28/12, Smooth, w/ O-ring & OK	N/A		
Sample Line Clear, Cleaned & OK	N/A		see blank below
Leak Ck., <.005 @ 20 in. Hg.	✓		
Aux. Gas Line Clear, Cleaned & OK	✓		
Leak Ck., <.001 @ 20 in. Hg.	✓		
Pitot (A) Lk. Ck., "dead" (+/-) at >10" w.g.	✓		
Pitot (B) Lk. Ck., "dead" (+/-) at >10" w.g.	✓		

Pitot Tube Geometric Assignment

Certify Baseline (isolated tube) Cp

Cp Assigned, Value: 0.840

Tube Diameter & Certification / Inspection

Inspect Geometry	Yes	No	Value/Note
Cp Basis is Below	✓		
Centered @ Tips?	✓		
Level w/ Sheath?	✓		Pa =Pb< 0.063"
Tube Diameter, " (circ) (3/8) 3/16			
Lateral Alignment, from "Side View"			
z ≤ 1/8" ?	✓		1/16
Verticle Alignment, from "Side View"			
w ≤ 1/32" ?	✓		1/64
Transverse Axis, Faces Perpendicular			
α1 ±10° of 90° ?	✓		0°
α2 ±10° of 90° ?	✓		1°
Longtiudinal Axis, Faces Parallel			
ß1 ±5° of 0° ?	✓		0°
ß2 ±5° of 0° ?	✓		0°

Pitot Tube Distance to Other Sensors (circle)	Note
From Nozzle Opening, > 0.75"	yes / no
Gas Line & Stack T/C, > 0.75"	yes / no
"Z" Clear, Side to T/C, 2.0"	yes / no
"W" Clear, Rear to T/C, 2.0"	yes / no
"Y" Clear to Union, 3.0"	yes / no

Component Checks

Heater Element	Yes	No	Note
T/C Line & Plug OK?	✓		
115V Line & Plug OK?	✓		
Continuity Good	✓		
Resistance OK ?	✓		26.0 ohms
Open to Ground?	✓		
Time to 250° F, from room temp.	90° mins.		6min 55sec
High Temp >300° F	300 °F		16min 27sec

Other Checks and Verify Status

Stack T/C Calibration

Level Source	Lo,~32°F Self/Ice	Mid,~212° F Boil Water	Hi,>300° F Oil Bath
Ref.,° F	86°	212	
T/C, ° F	85°	211	
Diff., <1%	1%	1%	

Analytical Liner Annual Rx Blanks

Type of Analysis	Value, mg	Note
Water Wash, 500 ml ≤ 1 mg.		
Acetone Rinse, 500 ml ≤ 1 mg.		
Liner OK for Service	yes / no	

Unit Good w/o Calibration/Service

Ready for Fleet Service	yes / no
Returned to Stock Fleet	yes / no
Storage Shelf # on Probe Rack	
Other Notes	

144 Thomas Mill Rd.
Holly Springs, NC 27540

for assistance call
800-399-4236

AUDITS

ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 60614
Date: 03-Jul-06

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Amount	Units
Cadmium							
Audit Filter	Fil-4293	4.90	490.0	100	100	49.00	µg
Audit Filter	Blank	0.13	0.1	100	1	0.01	µg
Audit Solution	AM-01204	5.39	1078.0	150	200	0.1437	µg/mL
Lead							
Audit Filter	Fil-4293	118.9	594.5	100	5	59.45	µg
Audit Filter	Blank	1.7	1.7	100	1	0.17	µg
Audit Solution	AM-01204	119.2	1788.0	150	15	0.2384	µg/mL
Manganese							
Audit Filter	Fil-4293	405.2	405.2	100	1	40.52	µg
Audit Filter	Blank	10.9	10.9	100	1	1.09	µg
Audit Solution	AM-01204	718.0	718.0	150	1	0.0957	µg/mL
Nickel							
Audit Filter	Fil-4293	111.6	446.4	100	4	44.64	µg
Audit Filter	Blank	11.8	11.8	100	1	1.18	µg
Audit Solution	AM-01204	112.6	1126.0	150	10	0.1501	µg/mL
Mercury					Aliquot, ml		
Audit Solution	Hg0209	3.32	3.32	200	0.10	33.20	µg

-60614

CHAIN OF CUSTODY RECORD

Desert Air Environmental Services, LLC

DATE 6-22-06

LAB NUMBER

Page 1 of 1

CLIENT	PROJECT MANAGER
NUCOR STEEL	MARK READY
ADDRESS	TELEPHONE NUMBER (AREA CODE) 480-236-3197
CITY / STATE / ZIP CODE	SITE CONTACT
PROJECT NAME	TELEPHONE NUMBER (AREA CODE)
CONTRACT/PURCHASE ORDER/QUOTE NO.	

SAMPLE NO./IDENTIFICATION	DATE	TIME	LAB/SAMPLE NUMBER	SAMPLE TYPE LIQ	SAMPLE TYPE AIR	SAMPLE TYPE SOLID	No. of Containers	ANALYSES: Arsenic	Beryllium	Cadmium	Lead	Manganese	Mercury	Nickel	Sample Condition/ REMARKS
HNO_3	6/18			X											
H_2O	"			X											
5% HNO_3/H_2O_2	"			X											
$KMnO_4$	"			X											
8 N HCL	"			X											
FILTER	"					X									

DO THE SAMPLE(S) POSE ANY POTENTIAL HAZARD(S)? IF YES, PLEASE EXPLAIN Yes

SAMPLERS (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME
MTR		MTR	6-23-06	
RECEIVED BY (SIGNATURE) FAL	DATE 6/23/06	TIME 9:45 AM RECEIVED BY (SIGNATURE)	DATE	TIME
RECEIVED FOR LABORATORY BY	DATE	TIME	ACCEPTED	DATE / TIME
METHOD OF SHIPMENT Hand				
SPECIAL INSTRUCTIONS				

REAGENT BLANK

-60614

CHAIN OF CUSTODY RECORD

Desert Air Environmental Services, LLC

DATE 6-22-06

LAB NUMBER

Page 1 of 1

CLIENT: MUCOR STEEL

PROJECT MANAGER: MARK READY

ADDRESS

TELEPHONE NUMBER (AREA CODE): 480-236-3197

CITY | STATE | ZIP CODE

SITE CONTACT

PROJECT NAME

TELEPHONE NUMBER (AREA CODE)

CONTRACT/PURCHASE ORDER/QUOTE NO.

ANALYSES

SAMPLE NO./IDENTIFICATION	DATE	TIME	LAB/SAMPLE NUMBER	SAMPLE TYPE: LIQ	AIR	SOLID	No. of Containers	Arsenic	Beryllium	Cadmium	Lead	Manganese	Mercury	Nickel	Sample Condition/ REMARKS
1 FILTER										X					
3 PROBE RINSE										X					
4 IMP 1 & 2										X					
5A IMP 3										X					
5B IMP 4 & 5										X					
5C HCl RINSE										X					

DO THE SAMPLE(S) POSE ANY POTENTIAL HAZARD(S)? IF YES, PLEASE EXPLAIN: YES

SAMPLERS (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME
MTM		MTM	6-23-06	
RECEIVED BY (SIGNATURE) FAL	DATE 6/23/06	TIME 9:45	RECEIVED BY (SIGNATURE)	DATE / TIME
RECEIVED FOR LABORATORY BY	RECEIVED / DATE	TIME	ACCEPTED	DATE / TIME

METHOD OF SHIPMENT: Hand

SPECIAL INSTRUCTIONS

FIELD BLANK

-60614

CHAIN OF CUSTODY RECORD

Desert Air Environmental Services, LLC

DATE 6-22-06

LAB NUMBER

Page 1 of 1

CLIENT: NUCOR STEEL

PROJECT MANAGER: MARK READY

ADDRESS

TELEPHONE NUMBER (AREA CODE): 480-236-3197

CITY | STATE | ZIP CODE

SITE CONTACT

PROJECT NAME

TELEPHONE NUMBER (AREA CODE)

CONTRACT/PURCHASE ORDER/QUOTE NO.

ANALYSES: ARSENIC, BERYLLIUM, CHROMIUM, LEAD, Manganese, Mercury, Nickel

SAMPLE NO./IDENTIFICATION	DATE	TIME	LAB/SAMPLE NUMBER	SAMPLE TYPE: LIQ	AIR	SOLID	No. of Containers	Sample Condition/ REMARKS
#1 FILTER	6/20					X		
#3 PROBE	"			X				
#4 Imp 1-2	"			X				
#5A Imp 3	"			X				
#5B Imp 4-5	"			X				
#5C Imp HCl Rinse	"			X				

DO THE SAMPLE(S) POSE ANY POTENTIAL HAZARD(S)? IF YES, PLEASE EXPLAIN: Yes

SAMPLERS (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME
MTR		MTR	6-23-06	
RECEIVED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
M. Bailey FAL	6/23/06	9:45 Am			
RECEIVED FOR LABORATORY BY	DATE RECEIVED	TIME	ACCEPTED	DATE	TIME

METHOD OF SHIPMENT: Hand

SPECIAL INSTRUCTIONS

RUN 1

-60614

CHAIN OF CUSTODY RECORD

Desert Air Environmental Services, LLC

DATE 6-22-06

LAB NUMBER

Page 1 of 1

CLIENT: NUCOR STEEL

PROJECT MANAGER: MARK READY

ADDRESS

TELEPHONE NUMBER (AREA CODE): 480-236-3192

CITY | STATE | ZIP CODE

SITE CONTACT

PROJECT NAME

TELEPHONE NUMBER (AREA CODE)

CONTRACT/PURCHASE ORDER/QUOTE NO.

ANALYSES: Arsenic, Beryllium, Cadmium, Lead, Manganese, Mercury, TCRA Nickel

SAMPLE NO./IDENTIFICATION	DATE	TIME	LAB/SAMPLE NUMBER	SAMPLE TYPE: LIQ	AIR	SOLID	No. of Containers	ANALYSES	Sample Condition/ REMARKS
#1 FILTER	6/21					X		X	
#3 PROBE	"			X				X	
#4 Imp 1-2	"			X				X	
#5A Imp 3	"			X				X	
#5B Imp 4-5	"			X				X	
#6 HCl Rinse	"			X				X	

DO THE SAMPLE(S) POSE ANY POTENTIAL HAZARD(S)? IF YES, PLEASE EXPLAIN: YES

SAMPLERS (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME
MTR		MTR	6-23-06	
RECEIVED BY (SIGNATURE): M. Ebling FAL	DATE: 6/23/06	TIME: 9:43 AM	RECEIVED BY (SIGNATURE)	DATE / TIME
RECEIVED FOR LABORATORY BY	RECEIVED DATE	TIME	ACCEPTED	DATE / TIME

METHOD OF SHIPMENT: Hand

SPECIAL INSTRUCTIONS

RUN 2

-60614

CHAIN OF CUSTODY RECORD

Desert Air Environmental Services, LLC

DATE: 6-22-06

LAB NUMBER:

Page 1 of 2

CLIENT: NUCOR STEEL

PROJECT MANAGER: MARK REMDY

ADDRESS:

TELEPHONE NUMBER (AREA CODE): 480-236-3197

CITY: | STATE: | ZIP CODE:

SITE CONTACT:

PROJECT NAME:

TELEPHONE NUMBER (AREA CODE):

CONTRACT/PURCHASE ORDER/QUOTE NO.

ANALYSES: Arsenic, Beryllium, Cadmium, Lead, Manganese, Mercury, Nickel

SAMPLE NO./IDENTIFICATION	DATE	TIME	LAB/SAMPLE NUMBER	SAMPLE TYPE: LIQ	AIR	SOLID	No. of Containers	Sample Condition/ REMARKS
#1 FILTER	6/22					X		
#3 PROBE	"			X				
#4 IMP 1-2	"			X				
#5A IMP 3	"			X				
#5B IMP 4-5	"			X				
#5C HCl RINSE	"			X				

DO THE SAMPLE(S) POSE ANY POTENTIAL HAZARD(S)? IF YES, PLEASE EXPLAIN: Yes

SAMPLERS (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME
MTR		MTR	6-23-06	
RECEIVED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
M. Berry FAL	6/29/06	9:45 Am			
RECEIVED FOR LABORATORY BY	RECEIVED DATE	TIME	ACCEPTED	DATE	TIME

METHOD OF SHIPMENT: Hand

SPECIAL INSTRUCTIONS:

RUN 3

-60614

CHAIN OF CUSTODY RECORD

Desert Air Environmental Services, LLC

DATE: 6-22-06

LAB NUMBER:

Page 1 of 1

CLIENT: MVCOR STEGL

PROJECT MANAGER: MARK READY

ADDRESS:

TELEPHONE NUMBER (AREA CODE): 480-236-3197

CITY: | STATE: | ZIP CODE:

SITE CONTACT: TERRY Hairston

PROJECT NAME:

TELEPHONE NUMBER (AREA CODE):

CONTRACT/PURCHASE ORDER/QUOTE NO.

ANALYSES: ARSENIC, BERYLLIUM, CADMIUM, LEAD, MANGANESE, MERCURY, NICKEL

SAMPLE NO./IDENTIFICATION	DATE	TIME	LAB/SAMPLE NUMBER	SAMPLE TYPE: LIQ	AIR	SOLID	No. of Containers	Sample Condition/ REMARKS
Sample line Blank #1	6/20			X			X	
Sample line Blank #2	6/21			X			X	
Sample line Blank #3	6/22			X			X	

DO THE SAMPLE(S) POSE ANY POTENTIAL HAZARD(S)? IF YES, PLEASE EXPLAIN

SAMPLERS (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE	DATE	TIME
MTR	MTR		6-23-06	
RECEIVED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
FAL	6/23/06	9:45 Am			
RECEIVED FOR LABORATORY BY	RECEIVED	DATE	TIME	ACCEPTED	DATE	TIME

(5% HNO3 / H2O2)

METHOD OF SHIPMENT: Hand

SPECIAL INSTRUCTIONS:

-60614

CHAIN OF CUSTODY RECORD

Desert Air Environmental Services, LLC

DATE: 6-22-06

LAB NUMBER:

Page 1 of 1

CLIENT: NUCOR STEEL

PROJECT MANAGER: MARK REMY

ADDRESS:

TELEPHONE NUMBER (AREA CODE): 480-236-3192

CITY | STATE | ZIP CODE

SITE CONTACT:

PROJECT NAME:

TELEPHONE NUMBER (AREA CODE):

CONTRACT/PURCHASE ORDER/QUOTE NO.

ANALYSES

SAMPLE NO./IDENTIFICATION	DATE	TIME	LAB/SAMPLE NUMBER	SAMPLE TYPE: LIQ	AIR	SOLID	No. of Containers	Method 0061 +6 HEXAVALENT								Sample Condition/ REMARKS
TRAIN BLANK	6/19			X			1	X								
REAGENT BLANK	6/19			X			1	X								

DO THE SAMPLE(S) POSE ANY POTENTIAL HAZARD(S)? IF YES, PLEASE EXPLAIN: Yes

SAMPLERS (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE	DATE	TIME
MTR		MTR	6-23-06	
RECEIVED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
Ja. Barry FAL	6/23/06	9:45 AM			
RECEIVED FOR LABORATORY BY	RECEIVED DATE	TIME	ACCEPTED	DATE	TIME

METHOD OF SHIPMENT: Hand

SPECIAL INSTRUCTIONS:

-60614

CHAIN OF CUSTODY RECORD

Desert Air Environmental Services, LLC

DATE: 6-22-06

LAB NUMBER:

Page 1 of 1

CLIENT: NUCOR STEEL

PROJECT MANAGER: MARK READY

ADDRESS:

TELEPHONE NUMBER (AREA CODE): 480-236-3197

CITY | STATE | ZIP CODE

SITE CONTACT:

PROJECT NAME:

TELEPHONE NUMBER (AREA CODE):

CONTRACT/PURCHASE ORDER/QUOTE NO.

ANALYSES: Method 0061 Hexachrome #6

SAMPLE NO./IDENTIFICATION	DATE	TIME	LAB/SAMPLE NUMBER	SAMPLE TYPE: LIQ	AIR	SOLID	No. of Containers	Method 0061 Hexachrome #6	Sample Condition/ REMARKS
RUN 1	6/19			X				X	
RUN 2	6/20			X				X	
RUN 3	6/22			X				X	

DO THE SAMPLE(S) POSE ANY POTENTIAL HAZARD(S)? IF YES, PLEASE EXPLAIN: Yes

SAMPLERS (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME
MTR		MTR	6-23-06	
RECEIVED BY (SIGNATURE) FAL	DATE 6/23/06	TIME 9:45 Am	RECEIVED BY (SIGNATURE)	DATE / TIME
RECEIVED FOR LABORATORY BY	RECEIVED DATE	TIME	ACCEPTED DATE	TIME

METHOD OF SHIPMENT: Hand

SPECIAL INSTRUCTIONS:

mtready@cox.net

-60614

CHAIN OF CUSTODY RECORD

Desert Air Environmental Services, LLC

DATE: 6-22-06

LAB NUMBER:

Page 1 of 1

CLIENT: NUCOR STEEL

PROJECT MANAGER: MARK READY

ADDRESS:

TELEPHONE NUMBER (AREA CODE): 480-236-3197

CITY | STATE | ZIP CODE

SITE CONTACT

PROJECT NAME

TELEPHONE NUMBER (AREA CODE)

CONTRACT/PURCHASE ORDER/QUOTE NO.

ANALYSES

Follow instructions Enclosed

SAMPLE NO./IDENTIFICATION	DATE	TIME	LAB/SAMPLE NUMBER	SAMPLE TYPE: LIQ	AIR	SOLID	No. of Containers		Sample Condition/ REMARKS
M29 Filter Blank	6/19							X	
M29 Filter - FIL-4293	"							X	
M29 - 283302 A	"							X	
M29 - 283302 B	"							X	
ENVELOPE	"							X	

DO THE SAMPLE(S) POSE ANY POTENTIAL HAZARD(S)? IF YES, PLEASE EXPLAIN: NO

SAMPLERS (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME
MPR		MPR	6-23-06	
RECEIVED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
RECEIVED FOR LABORATORY BY	RECEIVED DATE	TIME	ACCEPTED	DATE	TIME

METHOD OF SHIPMENT: Hand

SPECIAL INSTRUCTIONS

AUDIT SAMPLES

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Telephone: (323) 585-2154
Facsimile: (714) 542-6689

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER DESERT AIR **P.O NUMBER**

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
CARBON DIOXIDE	1674b	HA 8215	9.99 %
OXYGEN GMIS	vs.SRM#2659	SA 4344	15.03 %

ANALYZER READINGS

R=REFERENCE STANDARD *Z=ZERO GAS* *C=GAS CANDIDATE*

1. **COMPONENT** CARBON DIOXIDE **ANALYZER MAKE-MODEL-S/N** Siemens Ultramat 5E S/N A12-730
ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 10/01/05
FIRST ANALYSIS DATE 10/01/05 **SECOND ANALYSIS DATE**

Z 0.00	R 9.99	C 10.02	CONC. 10.02	Z	R	C	CONC.
R 9.99	Z 0.00	C 10.02	CONC. 10.02	R	Z	C	CONC.
Z 0.00	C 10.02	R 9.99	CONC. 10.02	Z	C	R	CONC.
U/M %		MEAN TEST ASSAY 10.02		U/M %			MEAN TEST ASSAY

2. **COMPONENT** OXYGEN GMIS **ANALYZER MAKE-MODEL-S/N** Siemens Oxymat 5E S/N A12-839
ANALYTICAL PRINCIPLE Paramagnetic **LAST CALIBRATION DATE** 10/01/05
FIRST ANALYSIS DATE 10/01/05 **SECOND ANALYSIS DATE**

Z 0.00	R 15.03	C 12.08	CONC. 12.08	Z	R	C	CONC.
R 15.03	Z 0.00	C 12.08	CONC. 12.08	R	Z	C	CONC.
Z 0.00	C 12.08	R 15.03	CONC. 12.08	Z	C	R	CONC.
U/M %		MEAN TEST ASSAY 12.08		U/M %			MEAN TEST ASSAY

VALUES NOT VALID BELOW 150 PSIG.

THIS CYLINDER NO. CC 83704
HAS BEEN CERTIFIED ACCORDING TO SECTION EPA-600/R97/121
OF TRACEABILITY PROTOCOL NO. REV 9/97
PROCEDURE G1
CERTIFIED ACCURACY ± 1 **% NIST TRACEABLE**
CYLINDER PRESSURE 2000 **PSIG**
CERTIFICATION DATE 10/01/05
EXPIRATION DATE 10/01/08 **TERM** 36 MONTHS

CERTIFIED CONCENTRATION

CARBON DIOXIDE	10.02 %
OXYGEN	12.08 %
NITROGEN	BALANCE

ANALYZED BY ISMAEL RANGSIYAWONG **CERTIFIED BY** HELENA TRAN

IMPORTANT
Information contained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of the analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any particular purpose. This information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability of Praxair Distribution, Inc., arising out of the use of the information contained herein exceed the fee established for providing such information.

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Telephone: (323) 585-2154
Facsimile: (714) 542-6689

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER DESERT AIR **P.O NUMBER**

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
CARBON DIOXIDE GMIS	vs.SRM#2745	CC 102004	19.73 %
OXYGEN GMIS	vs.SRM#2659	CC 95713	21.04 %

ANALYZER READINGS

R=REFERENCE STANDARD *Z=ZERO GAS* *C=GAS CANDIDATE*

1. **COMPONENT** CARBON DIOXIDE GMIS **ANALYZER MAKE-MODEL-S/N** Siemens Ultramat 5E S/N A12-730
ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 10/01/05
FIRST ANALYSIS DATE 10/03/05 **SECOND ANALYSIS DATE**

Z 0.00	R 19.74	C 18.88	CONC. 23.74	Z	R	C	CONC.
R 19.74	Z 0.00	C 18.92	CONC. 23.78	R	Z	C	CONC.
Z 0.00	C 18.96	R 19.74	CONC. 23.83	Z	C	R	CONC.
U/M %		MEAN TEST ASSAY 23.78		U/M %			MEAN TEST ASSAY

2. **COMPONENT** OXYGEN GMIS **ANALYZER MAKE-MODEL-S/N** Siemens Oxymat 5E S/N A12-839
ANALYTICAL PRINCIPLE Paramagnetic **LAST CALIBRATION DATE** 10/01/05
FIRST ANALYSIS DATE 10/03/05 **SECOND ANALYSIS DATE**

Z 0.00	R 21.04	C 20.92	CONC. 20.92	Z	R	C	CONC.
R 21.04	Z 0.00	C 20.92	CONC. 20.92	R	Z	C	CONC.
Z 0.00	C 20.92	R 21.04	CONC. 20.92	Z	C	R	CONC.
U/M %		MEAN TEST ASSAY 20.92		U/M %			MEAN TEST ASSAY

VALUES NOT VALID BELOW 150 PSIG.PROCEDURE G2@ 80%(Cf=0.7953) SPLIT.
GAS DIVIDER STEC INC, TYPE SDC-710. ASSAY DATE AND RESULTS:10/03/05.

THIS CYLINDER NO. CC 86072
HAS BEEN CERTIFIED ACCORDING TO SECTION EPA 600/R97/121
OF TRACEABILITY PROTOCOL NO. REV 9/97
PROCEDURE G1
CERTIFIED ACCURACY ± 1 % NIST TRACEABLE
CYLINDER PRESSURE 2000 PSIG
CERTIFICATION DATE 10/03/05
EXPIRATION DATE 10/03/08 **TERM** 36 MONTHS

CERTIFIED CONCENTRATION

CARBON DIOXIDE(±2%)	23.78 %
OXYGEN	20.92 %
NITROGEN	BALANCE

ANALYZED BY ISMAEL RANGSIYAWONG ***CERTIFIED BY*** HELENA TRAN

IMPORTANT
Information contained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of the analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any particular purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability of Praxair Distribution, Inc., arising out of the use of the information contained herein exceed the fee established for providing such information.

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Telephone: (323) 585-2154
Facsimile: (714) 542-6689

CERTIFICATE OF ANALYSIS - EPA PROTOCOL GAS

CUSTOMER APPLIED ENVIRONMENTAL **PO NUMBER**

REFERENCE STANDARD

COMPONENT	TYPE	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
NITRIC OXIDE	GMIS	vs. SRM#2629a	CC 144870	24.81 ppm

ANALYZER READINGS

R = REFERENCE STANDARD *Z = ZERO GAS* *C = CANDIDATE GAS*

1. COMPONENT NITROGEN DIOXIDE (as NOx) **ANALYZER MAKE-MODEL-S/N** Thermo Envin. 42H S/N 42-44979-273

ANALYTICAL PRINCIPLE CHEMILUMINESCENCE **LAST CALIBRATION DATE** 7/2/2005

FIRST ANALYSIS DATE					7/8/2005			SECOND ANALYSIS DATE					
Z	0.00	R	26.31	C	22.80	CONC.	21.5	Z		R	C		CONC.
R	26.14	Z	0.00	C	22.44	CONC.	21.3	R		Z	C		CONC.
Z	0.00	C	22.77	R	26.18	CONC.	21.6	Z		C	R		CONC.
U/M	ppm				MEAN TEST ASSAY		21.5	U/M	ppm			MEAN TEST ASSAY	

VALUES NOT VALID BELOW 150 PSIG
NO VALUE FOR REFERENCE ONLY, NO=0.8 ppm
LAST CERTIFIED CONC. ON 10/25/04 WAS NO2= 21.3 ppm.

THIS CYLINDER NO. CC 108577
HAS BEEN CERTIFIED ACCORDING TO SECTION 2.2
OF TRACEABILITY PROTOCOL NO. EPA-600/R97/121
PROCEDURE G1
CERTIFIED ACCURACY ±1% NIST TRACEABLE
CYLINDER PRESSURE 1500 PSIG
CERTIFICATION DATE 07/08/2005
EXPIRATION 7/8/2007 TERM 24 MONTHS

CERTIFIED CONCENTRATION

COMPONENT	CONCENTRATION
NITROGEN DIOXIDE (as NOx)	21.4 ppm
NITROGEN	BALANCE

ANALYZED BY HENRY KOUNG

CERTIFIED BY JOSEPH CHARLES

MPOF
nform. ontained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of ne analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitablity of the use of the information or any particular purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liabilty of Praxair Distribution, Inc., arising out of the use of the information contained herein exceed the fee established for providing such information.

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CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER DESERT AIR ENVIRONMENTAL **P.O NUMBER** 470101-02

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
51.9 PPM NITRIC OXIDE GMIS VS	1685b	FF28120	245.3PPM
50.7 PPM SULFUR DIOXIDE GMIS VS	1694a	CAL-010658	97.6 PPM
71.3PPM CARBON MONOXIDE GMIS VS	1678c	XF001074B	48.76PPM

ANALYZER READINGS

R=REFERENCE STANDARD *Z=ZERO GAS* *C=GAS CANDIDATE*

1. COMPONENT 51.9 PPM NITRIC OXIDE GMIS VS ANALYZER MAKE-MODEL-S/N TECO MODEL 42C 42CHL-55533-304
   ANALYTICAL PRINCIPLE CHEMILUMINESCENCE LAST CALIBRATION DATE 03/31/05
   FIRST ANALYSIS DATE 04/04/05 SECOND ANALYSIS DATE 04/11/05

Z 0.0	R 52.0	C 45.8	CONC. 45.9	Z 0.0	R 52.2	C 45.9	CONC. 45.9
R 51.7	Z 0.0	C 45.8	CONC. 45.9	R 52.0	Z 0.0	C 45.6	CONC. 45.6
Z 0.0	C 45.8	R 51.5	CONC. 45.9	Z 0.0	C 45.9	R 51.5	CONC. 45.9
U/M PPM		MEAN TEST ASSAY 45.9		U/M PPM		MEAN TEST ASSAY 45.9	

2. COMPONENT 50.7 PPM SULFUR DIOXIDE GMIS ANALYZER MAKE-MODEL-S/N SIEMENS ULTRAMAT 5E S/N C7-228
   ANALYTICAL PRINCIPLE NON-DISPERSIVE INFRERED LAST CALIBRATION DATE 03/31/05
   FIRST ANALYSIS DATE 04/04/05 SECOND ANALYSIS DATE 04/11/05

Z 0.0	R 50.2	C 44.4	CONC. 45.0	Z 0.0	R 49.8	C 44.0	CONC. 44.6
R 50.0	Z 0.0	C 44.2	CONC. 44.8	R 50.2	Z 0.0	C 44.2	CONC. 44.8
Z 0.0	C 44.2	R 50.0	CONC. 44.8	Z 0.0	C 44.2	R 50.2	CONC. 44.8
U/M PPM		MEAN TEST ASSAY 44.8		U/M PPM		MEAN TEST ASSAY 44.7	

3. COMPONENT 71.3 PPM CARBON MONOXIDE GMIS ANALYZER MAKE-MODEL-S/N HORIBA VIA-510,S/N:577172041
   ANALYTICAL PRINCIPLE NON-DISPERSIVE INFRARED LAST CALIBRATION DATE 03/31/05
   FIRST ANALYSIS DATE 04/04/05 SECOND ANALYSIS DATE 04/11/05

Z 0.0	R 71.3	C 46.3	CONC. 46.3	Z 0.0	R 71.7	C 47.1	CONC. 47.0
R 71.3	Z 0.0	C 46.6	CONC. 46.6	R 70.6	Z 0.0	C 47.5	CONC. 47.4
Z 0.0	C 46.5	R 71.3	CONC. 46.5	Z 0.0	C 47.3	R 72.0	CONC. 47.2
U/M PPM		MEAN TEST ASSAY 46.5		U/M PPM		MEAN TEST ASSAY 47.2	

THIS CYLINDER NO. CC74998
HAS BEEN CERTIFIED ACCORDING TO SECTION 2.2
OF TRACEABILITY PROTOCOL NO. EPA-600/R97/121
PROCEDURE G1
CERTIFIED ACCURACY ± 1 % NIST TRACEABLE
CYLINDER PRESSURE 2000 PSIG
CERTIFICATION DATE 04/11/05
EXPIRATION DATE 04/11/07 TERM

CERTIFIED CONCENTRATION

NITRIC OXIDE	45.9PPM
SULFUR DIOXIDE	44.8PPM
CARBON MONOXIDE	46.7PPM
NITROGEN	BALANCE

VALUES NOT VALID BELOW 150 PSIG
UNCERTAINTIES:NO±0.7PPM,SO2±0.5PPM,CO±0.7PPM

ANALYZED BY JOE HORWATH

CERTIFIED BY 4-11-05

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CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER DESERT AIR **P.O NUMBER**

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
CARBON MONOXIDE GMIS	vs.SRM#1679	CC 137700	99.0 ppm
NITRIC OXIDE GMIS	vsSRM#1684b	CC 109108	100.5 ppm
SULFUR DIOXIDE GMIS	vs.SRM#1661	CC 171669	249 ppm

ANALYZER READINGS

R=REFERENCE STANDARD *Z=ZERO GAS* *C=GAS CANDIDATE*

1. **COMPONENT** CARBON MONOXIDE GMIS **ANALYZER MAKE,MODEL-S/N** HORIBA, VIA-510, S/N 576876015

ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 02/03/06

FIRST ANALYSIS DATE 01/31/06 **SECOND ANALYSIS DATE** 02/07/06

Z 0.0	R 99.0	C 84.9	CONC. 84.9	Z 0.0	R 99.0	C 84.8	CONC. 84.8
R 99.0	Z 0.0	C 84.9	CONC. 84.9	R 99.0	Z 0.0	C 84.9	CONC. 84.9
Z 0.0	C 84.9	R 99.0	CONC. 84.9	Z 0.0	C 84.8	R 99.0	CONC. 84.8

U/M ppm **MEAN TEST ASSAY** 84.9 **U/M** ppm **MEAN TEST ASSAY** 84.8

2. **COMPONENT** NITRIC OXIDE GMIS **ANALYZER MAKE,MODEL-S/N** Thermo Env. 42H S/N 42H-44979-273

ANALYTICAL PRINCIPLE CHEMILUMINESCENCE **LAST CALIBRATION DATE** 02/02/06

FIRST ANALYSIS DATE 01/31/06 **SECOND ANALYSIS DATE** 02/07/06

Z 0.0	R 94.4	C 82.1	CONC. 87.4	Z 0.0	R 94.3	C 81.9	CONC. 87.3
R 94.3	Z 0.0	C 82.2	CONC. 87.6	R 94.0	Z 0.0	C 81.5	CONC. 87.1
Z 0.0	C 82.2	R 94.2	CONC. 87.7	Z 0.0	C 81.6	R 94.0	CONC. 87.2

U/M ppm **MEAN TEST ASSAY** 87.6 **U/M** ppm **MEAN TEST ASSAY** 87.2

3. **COMPONENT** SULFUR DIOXIDE GMIS **ANALYZER MAKE,MODEL-S/N** SIEMENS ULTRAMAT 5E S/N C1-009

ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 02/03/06

FIRST ANALYSIS DATE 01/31/06 **SECOND ANALYSIS DATE** 02/07/06

Z 0.0	R 249.0	C 84.4	CONC. 84.4	Z 0.0	R 249.0	C 84.6	CONC. 84.6
R 249.2	Z 0.0	C 84.6	CONC. 84.5	R 249.2	Z 0.0	C 84.8	CONC. 84.7
Z 0.0	C 84.6	R 249.2	CONC. 84.5	Z 0.0	C 84.6	R 249.2	CONC. 84.5

U/M ppm **MEAN TEST ASSAY** 84.5 **U/M** ppm **MEAN TEST ASSAY** 84.6

THIS CYLINDER NO. SA 17923

HAS BEEN CERTIFIED ACCORDING TO SECTION EPA-600/R97/121

OF TRACEABILITY PROTOCOL NO. REV. 9/97

PROCEDURE G1

CERTIFIED ACCURACY ± 1 **% NIST TRACEABLE**

CYLINDER PRESSURE 2000 **PSIG**

CERTIFICATION DATE 02/07/06

EXPIRATION DATE 02/07/08 **TERM** 24 MONTHS

CERTIFIED CONCENTRATION

CARBON MONOXIDE	84.8 ppm
NITRIC OXIDE	87.4 ppm
SULFUR DIOXIDE	84.6 ppm
NITROGEN	BALANCE

VALUES NOT VALID BELOW 150 PSIG.

NOX=88.7 ppm VALUE FOR REFERENCE USE ONLY.

ANALYZED BY Henry Koung

CERTIFIED BY Jack Fu (117)

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CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER DESERT AIR **P.O NUMBER**

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
CARBON MONOXIDE GMIS	vs.SRM#2636	CC 134908	250.6 ppm
NITRIC OXIDE GMIS	SRM#1685b	SA 6025	258.1 ppm
SULFUR DIOXIDE GMIS	vs.SRM#1661	CC 171669	249 ppm

ANALYZER READINGS

R=REFERENCE STANDARD *Z=ZERO GAS* *C=GAS CANDIDATE*

1. COMPONENT CARBON MONOXIDE GMIS **ANALYZER MAKE-MODEL-S/N** HORIBA, VIA-510, S/N 576876015

ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 01/04/06

FIRST ANALYSIS DATE 01/06/06 **SECOND ANALYSIS DATE**

Z 0.0	R 250.7	C 249.2	CONC. 249		Z	R	C	CONC.	
R 250.8	Z 0.0	C 249.3	CONC. 249		R	Z	C	CONC.	
Z 0.0	C 249.3	R 250.8	CONC. 249		Z	C	R	CONC.	
U/M ppm		MEAN TEST ASSAY 249			U/M ppm		MEAN TEST ASSAY		

2. COMPONENT NITRIC OXIDE GMIS **ANALYZER MAKE-MODEL-S/N** THERMO ENV.42C S/N 0518112467

ANALYTICAL PRINCIPLE CHEMILUMINESENCE **LAST CALIBRATION DATE** 01/03/06

FIRST ANALYSIS DATE 01/06/06 **SECOND ANALYSIS DATE**

Z 0.0	R 245.8	C 228.8	CONC. 240		Z	R	C	CONC.	
245.3	Z 0.0	C 229.2	CONC. 241		R	Z	C	CONC.	
Z 0.0	C 228.2	R 245.0	CONC. 240		Z	C	R	CONC.	
U/M ppm		MEAN TEST ASSAY 240			U/M ppm		MEAN TEST ASSAY		

3. COMPONENT SULFUR DIOXIDE GMIS **ANALYZER MAKE-MODEL-S/N** SIEMENS ULTRAMAT 5E S/N C1-009

ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 01/03/06

FIRST ANALYSIS DATE 01/06/06 **SECOND ANALYSIS DATE**

Z 0.0	R 248.5	C 245.0	CONC. 245		Z	R	C	CONC.	
R 248.0	Z 0.0	C 245.0	CONC. 246		R	Z	C	CONC.	
Z 0.0	C 245.5	R 245.5	CONC. 246		Z	C	R	CONC.	
U/M ppm		MEAN TEST ASSAY 246			U/M ppm		MEAN TEST ASSAY		

THIS CYLINDER P.O. CC 154668

HAS BEEN CERTIFIED ACCORDING TO SECTION EPA-600/R97/121

OF TRACEABILITY PROTOCOL NO. REV.9/97

PROCEDURE G1

CERTIFIED ACCURACY ± 1 **% NIST TRACEABLE**

CYLINDER PRESSURE 1200 **PSIG**

CERTIFICATION DATE 01/06/06

EXPIRATION DATE 01/06/08 **TERM** 24 MONTHS

CERTIFIED CONCENTRATION

CARBON MONOXIDE	249 ppm
NITRIC OXIDE	240 ppm
SULFUR DIOXIDE	246 ppm
NITROGEN	BALANCE

VALUES NOT VALID BELOW 150PSIG.NOx=241ppm FOR REFERENCE

LAST CERTIFIED 01/05/04,CO=249ppm,NO=240ppm,SO2=246ppm.

ANALYZED BY Henry Koung

CERTIFIED BY Phu Nguyen

IMF NT

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CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER DESERT AIR ENV. **P.O NUMBER**

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
CARBON MONOXIDE GMIS	VS.SRM#1681	CC 160132	997 ppm
NITRIC OXIDE GMIS	VSSRM#2631a	SGAL 2013	2953 ppm
SULFUR DIOXIDE GMIS	SRM#1662a	CC 117224	1007 ppm

ANALYZER READINGS

R=REFERENCE STANDARD *Z=ZERO GAS* *C=GAS CANDIDATE*

1. **COMPONENT** CARBON MONOXIDE GMIS **ANALYZER MAKE-MODEL-S/N** HORIBA, VIA-510, S/N 576876015
   ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 07/01/05
   FIRST ANALYSIS DATE 07/08/05 **SECOND ANALYSIS DATE**

Z	0	R	997	C	906	CONC. 906	Z	R	C	CONC.
R	998	Z	0	C	907	CONC. 906	R	Z	C	CONC.
Z	0	C	907	R	998	CONC. 906	Z	C	R	CONC.

U/M ppm MEAN TEST ASSAY 906 U/M ppm MEAN TEST ASSAY

2. **COMPONENT** NITRIC OXIDE GMIS **ANALYZER MAKE-MODEL-S/N** HORIBA, VIA-510, 576876015
   ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 07/02/05
   FIRST ANALYSIS DATE 07/08/05 **SECOND ANALYSIS DATE**

Z	0	R	2953	C	908	CONC. 908	Z	R	C	CONC.
R	2956	Z	0	C	906	CONC. 905	R	Z	C	CONC.
Z	0	C	907	R	2954	CONC. 907	Z	C	R	CONC.

U/M ppm MEAN TEST ASSAY 907 U/M ppm MEAN TEST ASSAY

3. **COMPONENT** SULFUR DIOXIDE GMIS **ANALYZER MAKE-MODEL-S/N** Siemens Ultramat 5E S/N C1-009
   ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 07/02/05
   FIRST ANALYSIS DATE 07/08/05 **SECOND ANALYSIS DATE**

Z	0	R	1008	C	896	CONC. 895	Z	R	C	CONC.
R	1007	Z	0	C	898	CONC. 898	R	Z	C	CONC.
Z	0	C	898	R	1008	CONC. 897	Z	C	R	CONC.

U/M ppm MEAN TEST ASSAY 897 U/M ppm MEAN TEST ASSAY

THIS CYLINDER NO.	SA 14419	**CERTIFIED CONCENTRATION**	
HAS BEEN CERTIFIED ACCORDING TO SECTION	EPA-600/R97/121	CARBON MONOXIDE	906 ppm
OF TRACEABILITY PROTOCOL NO.	REV.9/97	NITRIC OXIDE	906 ppm
PROCEDURE	G1	SULFUR DIOXIDE	898 ppm
CERTIFIED ACCURACY	± 1 % NIST TRACEABLE	NITROGEN	BALANCE
CYLINDER PRESSURE	1600 PSIG		
CERTIFICATION DATE	07/08/05	VALUES NOT VALID BELOW 150 PSIG. NOX-909 ppm REFERENCE.	
EXPIRATION DATE	07/08/07 **TERM** 24 MONTHS	LAST CERTIFIED ON 4/8/03, CO-907ppm, NO-904ppm, SO2-899ppm	

ANALYZED BY HENRY KOUNG **CERTIFIED BY** JOSEPH CHARLES

IMPORTANT
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APPENDIX H
BIAS AND LINEARITY DATA

CONTINUOUS EMISSIONS MONITORING
QUALITY ASSURANCE RESULTS

Client: Nucor Steel - Hertford
Test Date: Jun-20-06
Emissions Unit: Baghouse
Project: Compliance

Leak Check Performed? yes **NOx Converter Checked?** Yes

LINEARITY CHECK SUMMARY

O_2 (%)	Cylinder Concentration	Internal Calibration Value	Analyzer Full Scale Range	Difference (%)	Difference (% FS)	5% Full Scale (%)	Pass/Fail
Zero	0.000	0.020	25.000	0.020	0.08%	1.25	pass
Medium	12.08	12.030	25.000	-0.050	-0.20%	1.25	pass
High	20.92	20.380	25.000	-0.540	-2.16%	1.25	pass

NO_X (ppm)	Cylinder Concentration	Internal Calibration Value	Analyzer Full Scale Range	Difference (ppm)	Difference (% FS)	5% Full Scale (ppm)	Pass/Fail
Zero	0.000	0.030	100.000	0.030	0.03%	5	pass
Medium	45.9	44.800	100.000	-1.100	-1.10%	5	pass
High	87.4	86.770	100.000	-0.630	-0.63%	5	pass

CO (ppm)	Cylinder Concentration	Internal Calibration Value	Analyzer Full Scale Range	Difference (ppm)	Difference (% FS)	5% Full Scale (ppm)	Pass/Fail
Zero	0.000	0.280	1000.000	0.280	0.03%	50	pass
Medium	249.0	250.200	1000.000	1.200	0.12%	50	pass
High	906.0	907.800	1000.000	1.800	0.18%	50	pass

SO_2 (ppm)	Cylinder Concentration	Internal Calibration Value	Analyzer Full Scale Range	Difference (ppm)	Difference (% FS)	5% Full Scale (ppm)	Pass/Fail
Zero	0.000	-0.070	100.000	-0.070	-0.07%	5	pass
Medium	44.8	45.450	100.000	0.650	0.65%	5	pass
High	84.6	85.250	100.000	0.650	0.65%	5	pass

CO2 (%)	Cylinder Concentration	Internal Calibration Value	Analyzer Full Scale Range	Difference (%)	Difference (% FS)	5% Full Scale (%)	Pass/Fail
Zero	0.000	0.020	25.000	0.020	0.08%	1.25	pass
Medium	10.02	10.070	25.000	0.050	0.20%	1.25	pass
High	23.78	23.980	25.000	0.200	0.80%	1.25	pass

P-Bar	30.01	BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
06/20/06	12:52 AM	10.12	0.02	0.03	0.34	0.10	
06/20/06	12:53 AM	-0.08	0.02	0.43	0.30	-0.07	
06/20/06	12:54 AM	0.00	0.02	0.03	0.28	0.34	
06/20/06	12:55 AM	-0.01	0.02	9.73	33.39	36.01	
06/20/06	12:56 AM	-0.02	0.02	41.59	45.13	45.45	
06/20/06	12:57 AM	-0.04	0.02	44.44	44.84	27.34	
06/20/06	12:58 AM	-0.06	0.02	44.69	45.16	50.25	
06/20/06	12:59 AM	3.05	0.02	44.80	45.81	61.89	
06/20/06	1:00 AM	-0.06	0.02	65.46	84.78	85.80	
06/20/06	1:01 AM	-0.05	0.02	86.77	86.48	85.25	Initial Calibrations
06/20/06	1:02 AM	-0.05	0.02	87.01	86.31	88.75	and Linearities
06/20/06	1:03 AM	3.69	0.02	87.41	81.40	92.38	
06/20/06	1:04 AM	-0.01	0.02	99.53	241.73	100.39	
06/20/06	1:05 AM	-0.03	0.02	100.04	249.59	100.39	
06/20/06	1:06 AM	-0.02	0.02	100.04	250.20	100.39	
06/20/06	1:07 AM	3.74	0.02	100.04	289.84	100.39	
06/20/06	1:08 AM	0.02	0.02	100.04	907.51	100.39	
06/20/06	1:09 AM	0.51	1.43	100.04	907.80	100.39	
06/20/06	1:10 AM	11.43	10.16	100.04	252.51	55.25	
06/20/06	1:11 AM	12.03	10.07	29.27	0.34	14.53	
06/20/06	1:12 AM	15.64	10.84	0.57	0.28	8.84	
06/20/06	1:13 AM	20.38	23.98	0.32	0.12	8.49	
06/20/06	1:14 AM	20.54	14.95	0.21	1.11	0.89	

P-Bar	30.06	O_2	CO_2	NO_X	CO	Emission Rate lb/MMbtu		
Date	Time	Conc	Conc	Conc	Conc	NOx	CO (DA)	Comments
06/18/06	3:47 PM	21.07	0.12	3.10	0.03	-0.3869	-0.0025	
06/18/06	3:48 PM	21.09	0.13	20.67	0.03	-2.3992	-0.0024	
06/18/06	3:49 PM	21.09	0.14	23.68	0.05	-2.6433	-0.0035	
06/18/06	3:50 PM	21.10	0.15	23.70	0.06	-2.6092	-0.0039	
06/18/06	3:51 PM	21.10	0.17	23.70	0.06	-2.5577	-0.0040	NO2 - NO Converter Check
06/18/06	3:52 PM	21.10	0.17	23.71	0.05	-2.5292	-0.0033	21.4 NO2
06/18/06	3:53 PM	21.11	0.17	23.74	0.04	-2.5077	-0.0022	
06/18/06	3:54 PM	21.11	0.18	23.81	0.03	-2.4735	-0.0022	
06/18/06	3:55 PM	21.11	0.19	23.71	0.03	-2.4512	-0.0022	
06/18/06	3:56 PM	21.12	0.19	23.63	0.07	-2.3600	-0.0041	
06/18/06	3:57 PM	21.12	0.20	23.54	0.04	-2.3307	-0.0021	
06/18/06	3:58 PM	21.13	0.21	23.53	0.03	-2.2620	-0.0020	
06/18/06	3:59 PM	21.13	0.20	23.56	0.03	-2.2103	-0.0020	
06/18/06	4:00 PM	21.14	0.21	23.65	0.03	-2.1683	-0.0019	
06/18/06	4:01 PM	21.15	0.22	23.66	0.05	-2.0914	-0.0027	
06/18/06	4:02 PM	21.15	0.22	23.75	0.03	-2.0276	-0.0018	
06/18/06	4:03 PM	21.17	0.22	23.75	0.05	-1.9369	-0.0025	
06/18/06	4:04 PM	21.17	0.23	23.81	0.03	-1.9018	-0.0017	
06/18/06	4:05 PM	21.18	0.23	23.85	0.03	-1.8316	-0.0016	
06/18/06	4:06 PM	21.19	0.24	23.85	0.05	-1.7627	-0.0023	
06/18/06	4:07 PM	21.20	0.24	23.93	0.13	-1.7286	-0.0059	
06/18/06	4:08 PM	21.20	0.25	23.95	0.05	-1.7368	-0.0023	
06/18/06	4:09 PM	21.20	0.25	23.95	0.03	-1.7301	-0.0015	
06/18/06	4:10 PM	21.20	0.26	24.01	0.03	-1.7147	-0.0015	
06/18/06	4:11 PM	21.21	0.26	24.05	0.05	-1.7128	-0.0022	
06/18/06	4:12 PM	21.21	0.26	24.05	0.04	-1.7122	-0.0015	
06/18/06	4:13 PM	21.21	0.26	24.05	0.05	-1.6850	-0.0022	
06/18/06	4:14 PM	21.21	0.27	24.08	0.04	-1.6764	-0.0015	
06/18/06	4:15 PM	21.22	0.27	24.05	0.05	-1.6535	-0.0022	
06/18/06	4:16 PM	21.22	0.26	24.05	0.03	-1.6283	-0.0014	
06/18/06	4:17 PM	21.23	0.27	24.15	0.05	-1.6049	-0.0021	
06/18/06	4:18 PM	21.23	0.27	24.15	0.04	-1.5923	-0.0014	
06/18/06	4:19 PM	21.23	0.27	24.15	0.03	-1.5766	-0.0014	
06/18/06	4:20 PM	21.24	0.27	16.46	0.06	-1.0584	-0.0023	
06/18/06	4:21 PM	21.24	0.27	1.09	0.08	-0.0690	-0.0029	
06/18/06	4:22 PM	21.25	0.27	0.26	0.03	-0.0160	-0.0013	
06/18/06	4:23 PM	21.25	0.27	0.14	0.03	-0.0087	-0.0013	
06/18/06	4:24 PM	21.25	0.28	0.14	0.03	-0.0087	-0.0013	

COMPLIANCE TEST REPORT

NUCOR PLATE MILL
COFIELD, NORTH CAROLINA IN HERTFORD COUNTY

MELTSHOP BAGHOUSE EXHAUST SYSTEM – CD01
(CEM, PARTICULATE, METALS, HEXCHROME, VOC)

Date Tested: April 11-13, 2005
Date Reported: May 20, 2005

Prepared for:

Nucor Steel
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Chandler, Arizona 85226

This certifies that the data collected and presented herein is true and accurate to the best of our knowledge. All attempts were made to collect and analyze the data within the applicable guidelines established by the United States Environmental Protection Agency.

Mark T. Ready
President / CEO
Field Team Leader

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1. INTRODUCTION

Source emission testing was conducted at Nucor Steel (Nucor), Cofield, North Carolina in fulfillment of permit conditions and to demonstrate compliance with applicable permit emission limits. The Melt Shop Baghouse was tested on April 11, 12 and 13, 2005 Table 1.1 presents the emission species tested during the testing program, along with applicable emission limits. Testing was conducted by Mr. Ken Nuessmeier, Mr Rik Dupont, Mr. Tim Naquin and Mr. Mark Ready of Desert Air. Mr. Ready served as team leader.

Table 1.1 Emission Units, Emission Species, and Emission Limits

Melt Shop Baghouse	PM/PM_{10} – EPA Method 5/202	0.0018 / 0.0052 gr/dscf	2D .0530 [40 CFR 51.166] PSD
(CD01: ES01, ES02, ES03)	SO_2 – EPA Method 6C	0.35 lbs/ton	2D .0530 [40 CFR 51.166] PSD
	NO_X – EPA Method 7E	0.36 lbs/ton	2D .0530 [40 CFR 51.166] PSD
	CO – EPA Method 10	2.3 lbs/ton	2D .0530 [40 CFR 51.166] PSD
	O_2/CO_2 – EPA Method 3A		
	Mltpl Metals – EPA Method 29		2D .1100
	arsenic	50.0 lbs/year	
	beryllium	280.0 lbs/year	
	cadmium	1122.0 lbs/year	
	lead	0.0016 lbs/ton	
	manganese	67.5 lbs/24 hours	
	mercury	7.7 lbs/24 hours	
	nickel	13.4 lbs/24 hours	
	$Chromium^6$ – Method 0061	40.0 lbs/year	2D .1100
	VOC – EPA Method 18	0.13 lbs/ton	2D .0530 [40 CFR 51.166] PSD
	Benzene – EPA Method 18	199,720 lbs/year	2D .1100
	Opacity – EPA Method 9	3% (CD01) 10% (ES16) 20% (ES02, ES03)	2D .0524 [40 CFR Part 60, Subpart Aaa]

1.1 FACILITY DESCRIPTION

Nucor Steel located in Cofield, North Carolina is a steel recycling facility that utilizes a 250 ton direct current (DC) electric arc furnace (EAF) to produce molten steel from steel scrap. The molten steel is refined to produce chemically specific grades of steel and then cast via a water cooled continuous slab caster. These slabs are then reheated in a natural gas direct fired reheat furnace and rolled into finished steel sheets of various dimentions. The EAF exhausts through a direct shell evacuation system and through a melt shop roof canopy that vents exhaust into a fabric filter baghouse. One ladle metallurgical station (LMS) also vents into the same fabric filter baghouse. The baghouse is a negative pressure design whereby emissions exhaust to the atmosphere via a single stack.

1.2 FACILITY AND TEST FIRM INFORMATION

Facility: Nucor Steel
1505 River Road
Cofield, North Carolina 27922

Contact: Terry Hairston
Environmental Manager
Ph: (252) 356-3707
Fax: (252) 356-3930

Test Firm: Desert Air Environmental Services, LLC
4939 West Ray Road, Suite 4-348
Chandler, Arizona 85226

Contact: Mr. Mark T. Ready
President and CEO
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2. TEST CHRONOLOGY AND RESULTS SUMMARY

2.1 TEST CHRONOLOGY

Table 2.1 presents the chronology of tests that were conducted during the testing program.

Table 2.1 Source Testing Chronology

Date	Test Performed
4-11-05	Run 1 of EPA Methods 5/202, 29, 18, 1-4, 3A, 6C, 7E, 10 and OSW Method 0061
4-12-05	Run 2 of EPA Methods 5/202, 29, 18, 1-4, 3A, 6C, 7E, 10 and OSW Method 0061
4-13-05	Run 3 of EPA Methods 5/202, 29, 18, 1-4, 3A, 6C, 7E, 10 and OSW Method 0061

2.2 TEST RESULTS

Tables 2.2 through 2.6 present the results of all tests conducted during the testing program. Support data and complete continuous emissions monitoring data are presented in the appendices to this report.

Table 2.2 Melt Shop Baghouse EPA Method 5/202/9 - Total Particulate Results

	Run 1	Run 2	Run 3	Average
Date	4-11-05	4-12-05	4-13-05	
Time	825-1740	850-2010	955-1855	
Process Information				
Stack Temperature (F)	183.4	145.0	167.0	165.1
Moisture Content (%)	2.00	1.48	1.60	1.69
Volumetric Flow Rate (dscfm)	1150290	1356984	1272677	1259984
Process Rate (tph)	239	252	292	261
Filterable PM (EPA Method 5)				
gr/dscf	0.00020	0.00015	0.00019	0.00018
lb/hr	1.948	1.769	2.078	1.932
Emission Limit (gr/dscf)				**0.0018**
Inorganic Condensable PM_{10} (EPA Method 202)				
gr/dscf	0.00115	0.00075	0.00098	0.00096
lb/hr	11.376	8.723	10.673	10.257
Organic Condensable PM_{10} (EPA Method 202)				
gr/dscf	0.00003	0.00003	0.00003	0.00003
lb/hr	0.342	0.357	0.314	0.338
Total PM (EPA Method 5/202)				
gr/dscf	0.00138	0.00093	0.00119	0.00117
lb/hr	13.666	10.849	13.065	12.527
lb/ ton	0.057	0.043	0.045	0.048
Emission Limit (gr/dscf)				**0.0052**
Visual Emissions (EPA Method 9)				
Opacity (%)	0.00	0.00	0.00	0.00
Emission Limit (%)				**3**

Table 2.3 Melt Shop Baghouse EPA Method 29 - Multiple Metals Results

	Run 1	Run 2	Run 3	Average		
Date	4-11-05	4-12-05	4-13-05			
Time	825-1740	850-2010	955-1855			
Process Information						
Stack Temperature (F)	179.5	154.3	164.8	166.2		
Moisture Content (%)	1.35	1.56	1.72	1.54		
Volumetric Flow Rate (dscfm)	1171520	1329348	1299199	1266689		
Process Rate (tph)	239	252	292	261		
Metals (EPA Method 29)	lb/hr	lb/hr	lb/hr	Average lb/hr	Average *	**Limit**
Arsenic, As	0.000536	0.000506	0.000615	0.00055	4.316 lb/yr	**50 lb/yr**
Beryllium, Be	0.0000313	0.0000295	0.0000359	0.0000322	0.253 lb/yr	**280 lb/yr**
Cadmium, Cd	0.00114	0.00109	0.00183	0.00135	10.595 lb/yr	**1122 lb/yr**
Lead, Pb	0.0339	0.0313	0.0447	0.0366	0.00014 lb/ton	**0.0016 lb/ton**
Manganese, Mn	0.0339	0.0320	0.0511	0.0390	0.936 lb/24hr	**67.5 lb/24hr**
Mercury, Hg	0.0670	0.0318	0.1390	0.0793	1.903 lb/24hr	**7.7 lb/24hr**
Nickel, Ni	0.00134	0.00131	0.00144	0.00136	0.0326 lb/24hr	**13.4 lb/24hr**

* The approximate annual operating hours is 7848, Appendix F.

Table 2.4 Melt Shop Baghouse OSW Method 0061 - Chrome^{+6} Results

	Run 1	Run 2	Run 3	Average
Date	4-11-05	4-12-05	4-13-05	
Time	825-1740	850-2010	955-1855	
Process Information				
Stack Temperature (F)	182.5	146.7	167.1	165.4
Moisture Content (%)	1.87	1.37	1.36	1.53
Volumetric Flow Rate (dscfm)	1200078	1312610	1314174	1275621
Process Rate (tph)	239	252	292	261
Total Chrome^{+6} (OSW Method 0061)				
lb/hr	0.000441	0.000532	0.000635	0.00054
lb/year	3.461	4.175	4.983	4.206
Emission Limit (lb/year)				**40**

Table 2.5 Melt Shop Baghouse EPA Method 18 - VOC Results

	Run 1	Run 2	Run 3	Average
Date	4-11-05	4-12-05	4-13-05	
Time	825-1740	850-2010	955-1855	
Process Information				
Volumetric Flow Rate (dscfm)	1173963	1332981	1295350	1267431
Process Rate (tph)	239	252	292	261
Total VOC (EPA Method 18)				
lb/hr	1.542	1.253	1.853	1.549
lb/ ton	0.0065	0.0050	0.0063	0.0060
Emission Limit (lb/ton)				**0.13**
Benzene (EPA Method 18)				
lb/hr	0.0873	0.1378	0.2174	0.1475
lb/year	685.3	1081.5	1705.8	1157.5
Emission Limit (lb/year)				**199720**

Table 2.6 Melt Shop Baghouse EPA Methods 6C, 7E, and 10 - SO_2, NOx, and CO Results

	Run 1	Run 2	Run 3	Average
Date	4-11-05	4-12-05	4-13-05	
Time	825-1740	850-2010	900-1855	
Process Information				
Stack Temperature (F)	183.4	145.0	167.0	165.1
Moisture Content (%)	2.00	1.48	1.60	1.69
Volumetric Flow Rate (dscfm)	1150290	1356984	1272677	1259984
Process Rate (tph)	239	252	292	261
Oxides of Nitrogen (EPA Method 6C)				
ppm	5.60	4.54	4.19	4.78
lb/hr	46.149	44.103	38.195	42.816
lb/ ton	0.193	0.175	0.131	0.166
Emission Limit (lb/ton)				**0.36**
Sulfur Dioxide (EPA Method 7E)				
ppm	8.80	5.79	4.73	6.44
lb/hr	100.836	78.262	60.015	79.704
lb/ ton	0.422	0.311	0.206	0.313
Emission Limit (lb/ton)				**0.35**
Carbon Monoxide (EPA Method 10)				
ppm	135.24	81.68	76.91	97.943
lb/hr	678.191	483.219	426.739	529.383
lb/ ton	2.838	1.918	1.416	2.057
Emission Limit (lb/ton)				**2.3**

3. EMISSION UNIT INFORMATION

3.1 EMISSION UNIT DESCRIPTIONS

The Nucor facility employs a 250-ton Direct Current (DC) Electric Arc Furnace (EAF). The furnace is continually fed scrap steel via a Consteel conveyor system. After the roof is lifted and swung aside, scrap steel is also charged into the furnace from a scrap bucket attached to an overhead crane. Following the charge, the roof is rotated back into place over the shell. The scrap continues to be

melted by the electric arc for approximately 42 minutes until the molten steel reaches a predetermined temperature.

When melting is complete the furnace is tilted forward slightly, and slag is allowed to pour from the shell through the slag door into a waiting slag pot. The slag contains impurities that were lifted to the surface of the molten metal during the melting period. Once most of the slag is poured, the furnace is tilted back to an upright position to begin tapping the molten steel.
To tap the furnace, a ladle is moved into place under the shell, and a slide gate in the bottom of the shell is opened, allowing the molten steel to flow into the ladle. The shell is tipped slightly back to facilitate tapping. The slide gate is closed when much of the steel has been tapped into the ladle. A heel of molten steel and slag is left in the shell to help keep the shell hot and to allow for more efficient melting of the scrap upon the next charge. The ladle is then transported to the Ladle Metallurgical Facility (LMF) where it is further refined and the final chemical composition of the steel is adjusted. After the steel is adjusted to proper chemical composition, the ladle is transported to the continuous caster where the molten steel is cast into solid slabs.

In addition to the EAF and LMFs, other CO and NO_x emission sources within the melt shop include the ladle preheaters, the caster, and the caster cut-off torches. A process flow diagram is presented below.

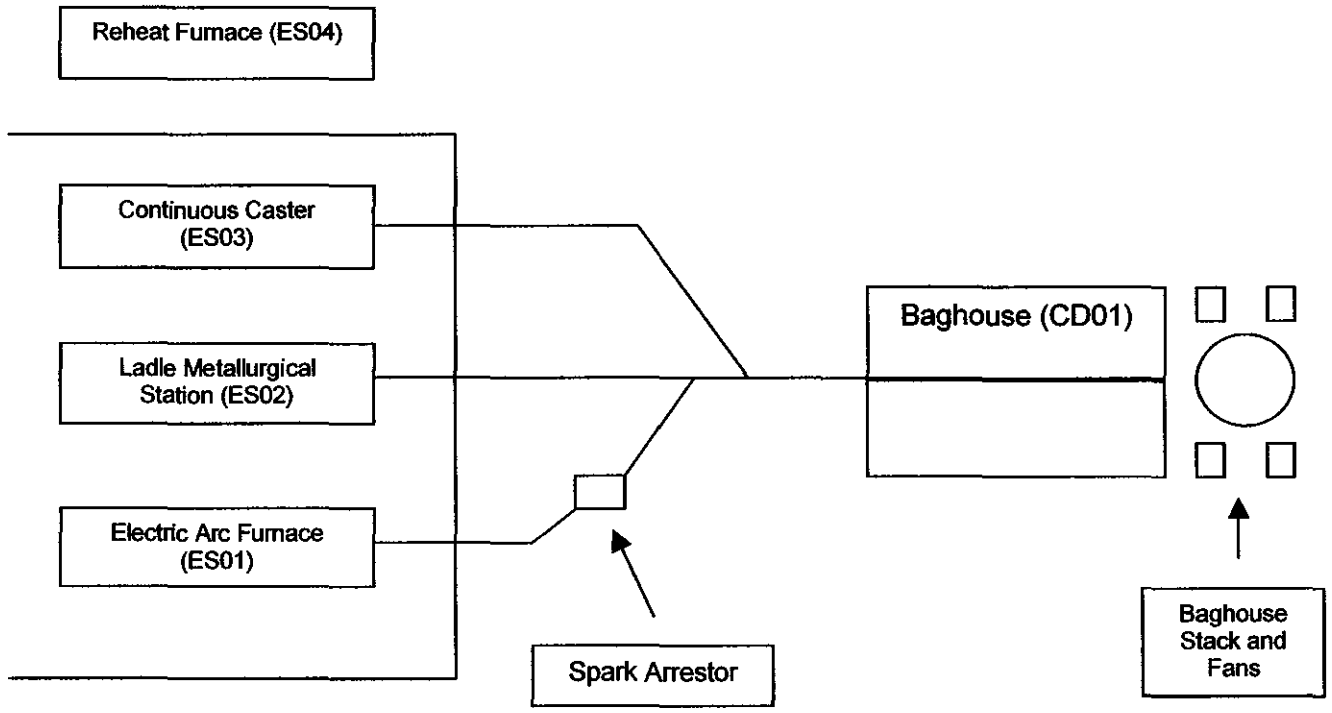


Figure 2.1 Process Flow Diagram

3.2 CONTROL SYSTEM DESCRIPTIONS

Emissions from the EAF are captured by a direct shell evacuation (DEC) system and through the melt shop roof canopy hoods. The DEC system collects the majority of EAF emissions through a duct attached to the furnace side wall often referred to as "the fourth hole". Furnace emissions not captured by the DEC are captured by a hood in the melt shop roof. DEC emissions are ducted to the spark arrestor that prevents hot gases and sparks from reaching the baghouse and burning the bags. LMF emissions are ducted to the melt shop canopy hoods. The melt shop canopy hood joins with the duct from a canopy hood over the continuous caster. Downstream of the spark arrestor and prior to the baghouse, the melt shop canopy duct joins the EAF duct. This is a negative pressure system. Four constant speed fans draw emissions from the melt shop through the baghouse. Three or four of these fans are in operation under normal conditions. During cold weather (dense air) or with certain scrap mixes one fan can be shut down and the system will operate properly with the three remaining fans. Total flow through the baghouse is approximately 1,500,000 acfm.

3.3 EMISSION AND CONTROL UNIT DESCRIPTIONS

Table 3.1 presents the applicable emission unit and control unit information.

Table 3.1 Emission Unit and Control Device Information

Process Unit(s)	Control Device	Emission Unit ID and/or Serial Number
Melt Shop Baghouse	Negative Pressure - Fabric filter baghouse	CDO1

3.4 PROCESS CONDITIONS

Plant process data detailing heats melted, heat numbers and tons per hour are presented in the Appendicies to this report.

3.5 EMISSION POINT INFORMATION

Figure 3.2 shows the sample port locations and appropriate stack dimensions. Traverse point locations were determined following EPA Method 1 prior to testing. Table 3.2 presents the traverse point locations for the PM, Metals and Hexchrome testing.

Table 3.2 Traverse Point Locations for the Melt Shop Baghouse	
Isokinetic Tests	
Point Deep	Dist. from Stack Wall (in)
1	5.29
2	16.88
3	29.74
4	44.60
5	44.60
6	89.71

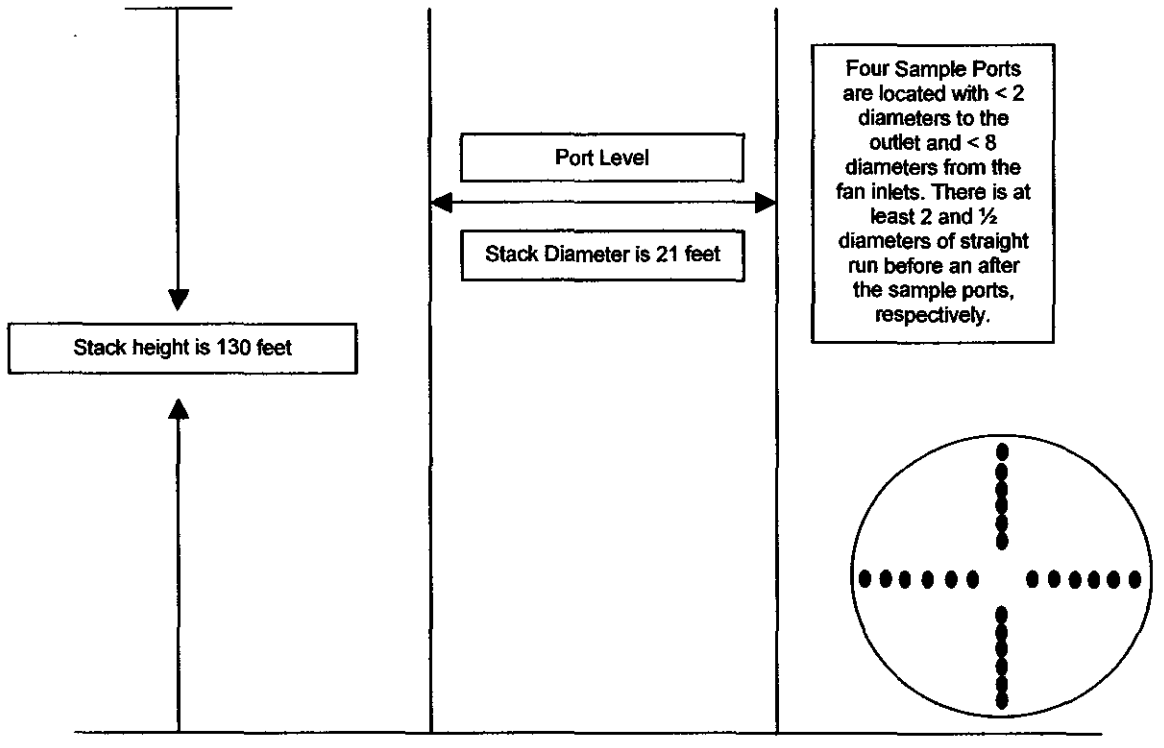


Figure 3.2 Sample port locations for the Melt Shop baghouse stack

4. TESTING METHODS AND PROCEDURES

4.1 TESTING METHODS

Table 4.1 specifies the test methods used for each emission unit and emission specie. Unless deviations are specified the Method Description Section or in Section 4.4 below, all tests conformed to the applicable methodologies specified in the appendices to 40 CFR Part 60 and the OSW 846. All tests consisted of three reference method test runs. Stack emissions were calculated as the average of the three test runs for comparison with applicable emission limits. All tests (PM, CEM, Metals, Chrome[6], VOCs, Benzene) were performed simultaneously. VOCs and Benzene were collected on adsorbent tubes as allowed by section 8.2.4 of EPA Method 18. Analysis of the tubes will follow EPA Method TO-15. An approximate sample rate of 0.3 liters per minute was established yielding 150 total liters sampled per run. Calibrated low flow sample systems were used for the spiked and unspiked trains.

Table 4.1 Test Methods

Target Pollutant	Proposed Test Method	Number of Test Runs	Test Run Duration in Hours	Number of Sampling Points	Comments
PM	EPA Method 5/202	3	8	24	
SO_2	EPA Method 6C	3	8	1	
NO_X	EPA Method 7E	3	8	1	
CO	EPA Method 10	3	8	1	
O_2/CO_2	EPA Method 3A	3	8	1	
Mltpl Metals	EPA Method 29	3	8	24	Audit sample (analysis only)
Chromium[6]	SW Method 0061	3	8	24	Audit sample (analysis only)
VOC	EPA Method 18/TO15	3	8	1	Triplicate spikes
Benzene	EPA Method 18/TO15	3	8	1	Triplicate spikes

4.2 SAMPLING EQUIPMENT DESCRIPTION

4.2.1 Gaseous Emission Sampling Equipment

Table 4.2 lists the gaseous analyzers used in the test program. Stack gas was extracted through a stainless steel in-stack probe, heated Teflon tubing and an on-stack condenser that cools and dries the gas sample. Conditioned sample gas continues through Teflon tubing to the gas manifold where it is distributed to the instrument analyzers. Excess stack gas is vented to the outside air. Zero and EPA Protocol 1 calibration gases were directed to the probe tip for bias checks (no dilution system). The gas manifold is constructed of Teflon tubing and stainless steel solenoids and fittings.

Table 4.2 Gaseous Emission Analyzers

Pollutant	USEPA Method	Make, Model #	Analytical Principle	Test Range	Protocol Gas Concentrations (approximate)
O_2	3A	Siemens 5E	Paramagnetic	0-25%	N_2, 12%, 21%
CO_2	3A	Siemens 22	NDIR	0-25%	N2, 12%, 24%
NO_X	7E	TECO 42CH	Chemiluminescense	0-100 ppm	N2, 45 ppm, 85 ppm
CO	10	TECO 48	NDIR	0-500 ppm	N2, 250 ppm, 450 ppm
SO_2	6C	Ametek 921	spectophotometric	0-100 ppm	N2, 45 ppm, 85 ppm

4.2.2 Isokinetic Sampling Trains

PM, Metals and chrome^{+6} are all isokinetic tests. Eight-hour runs were performed and 24 total points sampled (6 points from each of four ports). An approximate sample rate of 0.725 cubic feet per minute was established yielding approximately 350 total cubic feet sampled per run. Data readings were taken twice at each sampling point due to stack velocity head variability. Prior to the start of run 1 cyclonic flow was found to be minimal. Preliminary measurements were made prior to conducting the isokinetic tests based on EPA Methods 1, 2, and 3 as described previously. Percent water was determined by a psychometric chart or from combustion analysis of the stack gases. These preliminary results were used to determine an appropriate nozzle size for isokinetic sampling.

Sampling trains for particulate, multiple metals and chrome^{+6} conform to the guidelines specified in EPA Methods 5/202, 29, and OSW 846 Method 0061 respectively. These sampling trains were all based on EPA Method 5. A diagram of EPA Method 5 is presented in Figure 4.1.

The structure of the EPA Method 29 train differs from EPA Method 5 train in that it used a different series of impingers as indicated in section 4.3.12 below.

The sampling train for chrome^{+6} had no filter component and utilized a teflon probe liner and impingers. The nozzle and an extra impinger were pyrex glass. The chrome^{+6} train utilized a recirculation line from the first impinger to the probe which was attached just behind the nozzle. The sample probe was not heated. A diagram of the chrome^{+6} train can be found in the OSW Method 0061.

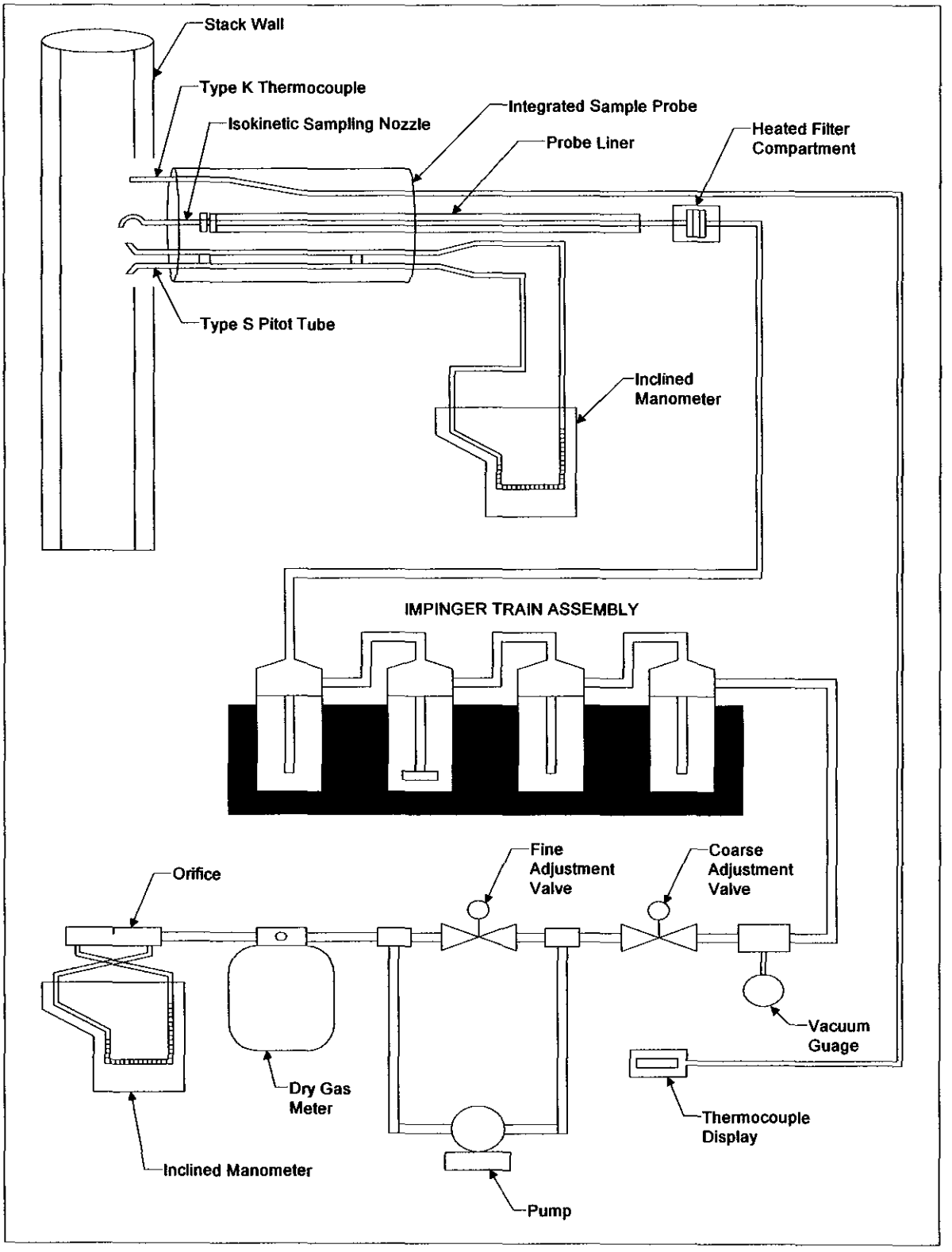


Figure 4.1 EPA Method 5 Sampling Train

4.3 METHOD DESCRIPTIONS

The following is a brief summary of each of the applicable test methodologies employed during the testing program. Complete method descriptions are presented in the appendices to 40 CFR Part 60 and OSW 846.

4.3.1 EPA Method 1: Sampling and Velocity Traverses for Stationary Sources

Prior to the source test, a site assessment was performed in order to locate sample points for obtaining the best representative measurements of pollution concentrations and volumetric flow rates. EPA Method 1 takes into account duct area, straight run and cyclonic or stratified flow patterns. Calculations were based on a 252" stack diameter.

4.3.2 EPA Method 2: Determination of Velocity and Volumetric Flow Rates

EPA Method 2 was used to determine stack gas velocity and volumetric flow rates. A calibrated type-S pitot tube was connected to an inclined manometer and leak checked. Stack gas temperature and manometer displacement (delta P) was then recorded at each traverse point and a duct static pressure was also measured and recorded. Stack gas velocity and volumetric flow rate were then calculated in accordance with EPA Method 2.

4.3.3 EPA Method 3A: Determination of CO_2, O_2, and Dry Molecular Weight by Instrumental Analyzer

A gas sample was continuously extracted from the stack through a stainless steel sample probe into a condenser to cool and dry the sample, through Teflon sample line, and continuous O_2 and CO_2 analyzers. Continuous O_2 and CO_2 measurements in percent are recorded on a strip chart recorder and/or a data acquisition system. The O_2 and CO_2 analyzers are calibrated prior to sampling using zero, mid-range, and high range EPA protocol gases. Following each test run, a sampling system bias check was performed by introducing zero and upscale (either mid-range or high range) EPA Protocol gas into the sampling system at the back end of the sample probe. Prior to and following each run, a zero and calibration check was performed by introducing zero and upscale (either mid or high range) EPA Protocol gas into the analyzer. Dry molecular weight of the stack gas was calculated using the measured O_2 and CO_2 concentrations.

4.3.4 EPA Method 4: Determination of Stack Gas Moisture Content

Stack gas moisture content was determined concurrently with each sample run. Impinger weights were determined prior to and following sampling. Stack gas moisture content was determined from the mass of the water collected and the sample gas volume.

4.3.5 EPA Method 5/202: Determination of Total Particulate Emissions

Stack gas samples were drawn isokinetically through a heated glass probe to a heated, tared glass fiber filter where filterable particulate matter was removed. The sample was then drawn through four chilled impingers for moisture collection. The total filterable particulate mass was determined gravimetrically after removal of uncombined water.

Condensable particulate matter (CPM) was collected in the impinger portion of the sampling train. The impinger contents were not purged after the run with nitrogen or air to remove sulfur dioxide gases (a pH test (> 4.5) confirmed the absence of SO_2). The impinger solution was then extracted with methylene chloride (triplicate 75 ml extractions in a seperatory funnel). The organic and aqueous fractions were then taken to dryness and the residues weighed. The total of both fractions represents the total CPM.

4.3.6 EPA Method 6C: Determination of Sulfur Dioxide Emissions

A gas sample was continuously extracted from the stack through a stainless steel sample probe, heated sample line, into a condenser to cool and dry the sample, through Teflon sample line, and into an UV photometric absorption SO_2 analyzer. Continuous SO_2 measurements were recorded on a strip chart recorder and/or data acquisition system. The SO_2 analyzer was calibrated prior to sampling using zero, mid-range, and high range EPA protocol gases. Following the test runs, a sampling system bias check was performed by introducing zero and upscale (either mid-range or high range) EPA Protocol gas into the sampling system at the back end of the sample probe. Prior to and following each run, a zero and calibration check was performed by introducing zero and upscale (either mid or high range) EPA Protocol gas into the analyzer.

4.3.7 EPA Method 7E: Determination of Nitrogen Oxides Emissions

A gas sample was continuously extracted from the stack through a stainless steel sample probe, into a condenser to cool and dry the sample, through a Teflon sample line, and into a chemiluminescent NO_x analyzer. Continuous NO_x measurements were recorded on a strip chart recorder and data acquisition system. The NO_x analyzer was calibrated prior to sampling using zero, mid-range, and high range EPA protocol gases. Following the test runs, a sampling system bias check was performed by introducing zero and upscale (either mid-range or high range) EPA Protocol gas into the sampling system at the back end of the sample probe. Prior to and following each run, a zero and calibration check was performed by introducing zero and upscale (either mid or high range) EPA Protocol gas into the analyzer.

4.3.8 EPA Method 9: Visual Determination Of Opacity

Visual emissions estimations were made to determine percent opacity by a certified observer following the procedures outlined in 40 CFR Part 60. Field information was recorded and includes: ambient conditions, stack location, facility information, plume description, and location of the observer relative to the plume. Observations were recorded to the nearest five percent opacity at 15 second intervals. Opacity results are included with the EPA Method 5 data.

4.3.9 EPA Method 10: Determination of Carbon Monoxide Emissions

A gas sample was continuously extracted from the stack through a stainless steel sample probe, into a condenser to cool and dry the sample, through Teflon sample line, and into a gas filter correlation CO analyzer. Continuous CO measurements were recorded on a strip chart recorder and/or data acquisition system. The CO analyzer was calibrated prior to sampling using zero, mid-range, and high range EPA protocol gases. Following the test runs, a sampling system bias check was performed by introducing zero and upscale (either mid-range or high range) EPA Protocol gas into the sampling system at the back end of the sample probe. Prior to and following each run, a zero and calibration

check was performed by introducing zero and upscale (either mid or high range) EPA Protocol gas into the analyzer.

4.3.10 EPA Method 18: Determination of Volatile Organic Compounds by GC/MS

This method employed the adsorbent tube sampling procedure. In this procedure a gas sample was continuously extracted from the stack through a stainless steel sample probe and through a Teflon® sample line into two SKC Tenax adsorbent tubes. The two tubes, in series, were maintained vertically during the test in order to prevent channeling. Flexible tubing was used to attatch the exhaust end of the rear tube to a Gilian Air Sampling pump. They were covered and maintained at a temperature less than 170 degrees F. A duplicate sample train was operated with a spiked adsorption tube in the first position in all three runs. At the beginning, end and periodically throughout each test run, the operator checked the sampling flow rate, and initial and final sampling time. The sample pumps were calibrated prior to and after each run with a Gilian Gilibrator Air Flow Calibration System. The Gilian Gilibrator is a primary standard bubble flow meter. Leak checks were performed by sealing the end of the sample probe until the flow rotameter registered zero flow. All leak checks indicated no leakage.

Tubes were spiked with 11 micrograms of Benzene, 10 micrograms of Toluene, 10 micrograms of Ethylbenzene and 28 micrograms of 3 Xylene compounds. Recovery of all spiked compounds was greater than 90%. Analysis of the VOC and Benzene samples were performed on a GC/MS by EPA Method TO15.

4.3.11 OSW Method 0061: Determination of Hexavalent Chromium (Cr^{+6})

Method 0061 was employed for the determination of Cr^{+6}. Stack gases were sampled isokinetically through a teflon probe and teflon impinger set. The first impinger contained 150 ml of 0.1 M KOH and employed a recirculating line from the front end of the probe between the nozzle and the probe. The second and third impingers contained 75 ml each of 0.1M KOH. A fourth teflon impinger was empty and was followed by a glass impinger with 400 grams of silica gel. All sample contact areas were either teflon (probe, impingers, recirculating line, union for recirculation, and peristaltic pump) or glass (nozzle).

Following sampling, any reagent remaining in the recirculatory line was drained back into the first impinger. The pH was checked and foune to be greater than 8.5. A nitrogen purge was conducted at 10 l/min for 30 minutes prior to recovery.

4.3.12 EPA Method 29: Determination of Multiple Metals

EPA Method 29 was employed to determine the mass rate of the following metals: arsenic (As), beryllium (Be), cadmium (Cd), lead (Pb), manganese (Mn), mercury (Hg), and nickel, (Ni). An all glass Method 5 style sampling train was employed. The train employed a Pallflex 2500QAT-UP quartz filter. Impingers one and two contained 100 ml of 5% HNO_3/10%H_2O_2, impinger three was empty, impingers four and five contained 100 ml of acidified potassium permanganate, and the sixth impinger contained 400 grams of silica gel.

The baghouse exhaust gas contained less than 2% moisture thus eliminating the need for the optional knockout impinger in the M29 train. Therefore, the first, third, fourth, fifth and sixth impingers were modified Greenburg-Smith and the second was Greenburg-Smith.

4.4 METHOD DEVIATIONS

With Prior approval, provisions in EPA Method 5 and 29 allow the tester to separate the filter box and the impinger box and use a teflon line (sample line) as a connector. In addition to the normal method recovery procedures this deviation requires that a line wash be added to insure complete recovery of pollutants. A line wash is where a measured volume of rinse (water and $MeCl_2$ for method 5 and 0.1 N HNO_3 for method 29) is introduced to the leading end of the sample line and, with the pump on, is drawn into the first impinger. This additional volume is subtracted for moisture calculations.

Prior to testing, Desert Air consulted Gregg O'Neal with the North Carolina DAQ and received permission to separate the filter box and the impinger box and use a teflon sample line as a connector. In order to insure complete recovery of pollutants Desert Air agreed to provide additional "Blanks" of the sample line. After each run, the sample lines used in the Method 5 and 29 trains were rinsed again by soaking the inside of each line with the appropriate liquid for no less than 5 minutes. These blanks were analyzed for organic and inorganic PM and trace metals, respectively. Analysis results can be found in the Appendicies to this report.

5. QUALITY ASSURANCE / QUALITY CONTROL

Quality assurance procedures were performed in accordance with those listed in the appropriate test method and *the Quality Assurance Handbook for Air Pollution Measurement Systems, Volume 3.* Complete equipment certification and calibration information is presented in the Appendicies to this report. The Metals and Chrome^{+6} samples were recovered on site and then hand delivered to First Analytical Labs in Chapel Hill, NC. The VOC sample tubes were packed in a cooler with blue ice and shipped by FED-X overnite to Atmospheric Analysis & Consulting, Inc. in Ventura, CA. Particulate samples were hand delivered to Desert Air Environmental Services, LLC in Chandler, AZ. The quality assurance procedures included, but were not limited to the following:

- Inspection of the type-S pitot tube prior to and following use to confirm proper design criteria specified in EPA Method 2.
- Calibration of the stack temperature sensor against an ASTM thermometer prior to sampling.
- Leak checks of the sampling system after each sample run including the sample train, manometers and pitot tube lines.
- Calibration of the meter box and dry gas meter on a quarterly basis at a minimum.
- Inspection of the calibrated nozzle prior to and after each sample run to ensure its integrity.
- Assurance that the probe and filter holder heaters operated properly.
- Inspection of all glassware to ensure cleanliness and lack of contaminants.

- Preparation and analysis of a full set of field blanks.
- Complete multipoint calibration of gaseous analyzers at least once per test program using EPA Protocol gases.
- Zero and upscale checks of the gaseous analyzers before and after each test run.

APPENDIX A
METHOD 5/202 DATA

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 4/11-13/05
Emissions Unit: Baghouse
Project: Compliance
EPA Method: 5/202

E.P.A. Method 5 Results

	Run 1	Run 2	Run 3
Test Date	4/11/2005	4/12/2005	4/13/2005
Start Time	8:25 AM	8:50 AM	9:55 AM
End Time	5:40 PM	8:10 PM	6:55 PM
Dry Gas Volume at standard conditions, Vm-Std	320.00	382.91	311.35
Stack Gas Volumetric Flow Rate, (dscfm)	1149099	1356984	1272677
Water Vapor by Volume (%)	0.0200	0.0148	0.0160
Net Volume of O_2 (%)	20.13	20.16	19.97
Net Volume of CO_2 (%)	1.11	0.94	1.13

FILTERABLE PARTICULATE LABORATORY RESULTS AND PROCESS DATA (Method 5)

	Run 1	Run 2	Run 3	**Averages**
Average Material Process Rate (ton/hr)	239.00	252.00	292.00	**261.00**
Mass of Probe & Nozzle Rinse Particulate (g)	0.00153	0.00178	0.00181	**0.00171**
Filter Net Mass Gain (g)	0.00257	0.00199	0.00203	**0.00220**
Total Net Mass Recovered (g)	0.00410	0.00377	0.00384	**0.00390**

FILTERABLE PARTICULATE CONCENTRATIONS AND EMISSION RATES (Method 5)

	Run 1	Run 2	Run 3	**Averages**
Total Filterable Particulate Concentration (gr/dscf)	0.00020	0.00015	0.00019	**0.00018**
Total Filterable Particulate Emission Rate (lb/hr)	1.949	1.769	2.078	**1.932**

CONDENSABLE PARTICULATE LABORATORY RESULTS (Method 202)

	Run 1	Run 2	Run 3	**Averages**
Mass of Inorganic Impinger Particulate (g)	0.02395	0.01859	0.01972	**0.02075**
Mass of Organic Impinger Particulate (g)	0.00072	0.00076	0.00058	**0.00069**
Total Net Mass Recovered (g)	0.02467	0.01935	0.02030	**0.02144**

CONDENSABLE PARTICULATE CONCENTRATIONS AND EMISSION RATES (Method 202)

	Run 1	Run 2	Run 3	**Averages**
Total Inorganic Particulate Concentration (gr/dscf)	0.00115	0.00075	0.00098	**0.00096**
Total Inorganic Particulate Emission Rate (lb/hr)	11.387	8.723	10.673	**10.261**
Total Organic Particulate Concentation (gr/dscf)	0.00003	0.00003	0.00003	**0.00003**
Total Organic Particulate Emission Rate (lb/hr)	0.342	0.357	0.314	**0.338**

TOTAL FILTERABLE PARTICULATE CONCENTRATIONS AND EMISSION RATES (Method 5/202)

	Run 1	Run 2	Run 3	**Averages**
Total Filterable and Condensable Particulate Net Mass (g)	0.02877	0.02312	0.02414	**0.02534**
Total Filterable and Condensable Particulate Concentration (gr/dscf)	0.00138	0.00093	0.00119	**0.00117**
Total Filterable and Condensable Particulate Emission Rate (lb/hr)	13.666	10.849	13.065	**12.527**
Total Filterable and Condensable Particulate Emission Rate (lb/process ton)	0.057	0.043	0.045	**0.048**

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 4/11/2005
Emissions Unit: Baghouse
Project: Compliance
EPA Method: 5/202

RUN DATA

	Run 1	Run 2	Run 3	**Averages**
Test Date	4/11/2005	4/12/2005	4/13/2005	
Start Time	8:25 AM	8:50 AM	9:55 AM	
Stop Time	5:40 PM	8:10 PM	6:55 PM	
Area of Stack (ft^2)	346.36	346.36	346.36	
Nozzle Diameter (ft)	0.01633	0.01633	0.01500	
Area of Nozzle (ft^2)	0.000210	0.000210	0.000177	
Pitot Tube Calibration Coefficient	0.840	0.840	0.840	
Dry Gas Meter Calibration Factor	1.00320	1.00320	1.00320	
Barometric Pressure ("Hg)	29.94	30.00	29.74	
Sampling Time (min)	480.0	480.0	480.0	
Dry Gas Volume (dcf)	335.26	378.82	311.56	341.88
Dry Gas Meter Temperature (°F)	97.5	68.2	68.7	
Dry Gas Meter Temperature (°R)	557.5	528.2	528.7	
Orifice Pressure Diff (delta H) ("H_2O)	1.628	2.165	1.408	
Volume Corrected to Standard Conditions (dscf)	320.00	382.91	311.35	338.09
Isokinetic Variation (%)	95.96	97.24	99.95	

STACK GAS VELOCITY AND VOLUMETRIC FLOW RATE (Method 2)

	Run 1	Run 2	Run 3	**Averages**
Stack Temperature (°F)	183.4	145.0	167.0	165.1
Stack Temperature (°R)	643.4	605.0	627.0	625.1
Stack Static Pressure ("H_2O)	-0.80	-0.75	-0.80	-0.78
Stack Gas Pressure ("Hg)	29.88	29.94	29.68	29.84
Avg Delta P	1.236	1.600	1.473	1.436
Avg of Sqrt of Delta P	1.1091	1.2626	1.2117	1.1945
Stack Gas Velocity (ft/s)	68.84	75.88	74.49	73.07
Stack Gas Volumetric Flow Rate (dscf/h)	68945956	81419049	76360606	75575203
Stack Gas Volumetric Flow Rate (dscfm)	1149099	1356984	1272677	1259587
Stack Gas Volumetric Flow Rate (acfm)	1430672	1576999	1548096	1518589
Stack Gas Volumetric Flow Rate (scfm)	1172551	1377338	1293339	1281076

STACK GAS MOLECULAR WEIGHT (Method 3)

	Run 1	Run 2	Run 3	**Averages**
Net Volume of CO2 (%)	1.11	0.94	1.13	1.06
Net Volume of O2 (%)	20.13	20.16	19.97	20.09
Net Volume of N2 and CO (%)	78.76	78.90	78.90	78.85
Molecular Weight, Dry (g/g-mole)	28.98	28.96	28.98	28.97
Molecular Weight, Wet (g/g-mole)	28.76	28.79	28.80	28.79

STACK GAS MOISTURE CONTENT (Method 4)

	Run 1	Run 2	Run 3	**Averages**
Total Mass of Water Collected (g)	138.50	121.80	107.20	122.50
Total Volume of Water Collected in Impingers and Silica (ml)	138.75	122.02	107.39	122.72
Volume of Water Corrected to Standard Conditions (scf)	6.531	5.743	5.055	5.776
Water Vapor, Bws	0.0200	0.0148	0.0160	0.0169
Moisture Factor, (1- Bws)	0.9800	0.9852	0.9840	0.9831

FIELD DATA SPREADSHEET

Client: Nucor Steel, Hertford **Test Date:** 4/11/2005 **Run:** 1
Start Time: 8:25 AM **Emissions Unit:** Baghouse **EPA Method:** 5/202
Stop Time: 5:40 PM **Project:** Compliance

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	923.300						
1a	10.00	930.1	1.20	1.62	1.67	165	71	70
1b	20.00	936.5	1.10	1.42	1.45	200	70	72
2a	30.00	942.7	1.40	1.90	1.99	165	90	77
2b	40.00	950.1	1.30	1.70	1.82	183	97	81
3a	50.00	957.2	1.20	1.50	1.63	205	99	84
3b	60.00	964.0	1.20	1.50	1.63	205	101	86
4a	70.00	970.8	1.30	1.60	1.79	200	102	88
4b	80.00	977.6	1.20	1.50	1.65	205	104	90
5a	90.00	984.8	1.30	1.70	1.85	185	107	94
5b	100.00	992.9	1.30	1.80	1.94	156	109	96
6a	110.00	997.8	0.80	1.00	1.10	210	107	98
6b	120.00	1003.1	0.80	1.00	1.10	211	106	99
1a	130.00	1010.6	1.40	1.90	2.02	165	90	94
1b	140.00	1017.4	1.20	1.50	1.63	208	97	92
2a	150.00	1024.1	1.20	1.50	1.65	203	100	92
2b	160.00	1031.3	1.30	1.70	1.86	175	100	92
3a	170.00	1037.8	1.10	1.40	1.48	215	99	91
3b	180.00	1044.2	1.10	1.40	1.47	220	99	90
4a	190.00	1051.0	1.20	1.50	1.68	190	100	90
4b	200.00	1057.8	1.20	1.50	1.68	187	99	90
5a	210.00	1064.3	1.10	1.40	1.50	206	98	88
5b	220.00	1070.6	1.10	1.40	1.49	208	98	88
6a	230.00	1077.2	1.10	1.40	1.54	185	98	87
6b	240.00	1083.2	1.00	1.30	1.40	187	98	88
1a	250.00	1090.6	1.40	1.80	1.95	185	90	87
1b	260.00	1097.8	1.30	1.70	1.79	202	103	91
2a	270.00	1104.5	1.20	1.50	1.63	218	107	95
2b	280.00	1112.0	1.40	1.80	1.99	190	111	98
3a	290.00	1119.5	1.50	1.90	2.12	200	115	102
3b	300.00	1127.2	1.40	1.90	2.06	172	115	102
4a	310.00	1135.2	1.50	2.00	2.27	160	119	107
4b	320.00	1142.5	1.40	1.80	2.02	190	119	108
5a	330.00	1149.3	1.20	1.50	1.64	230	120	110
5b	340.00	1156.4	1.30	1.60	1.84	205	121	111
6a	350.00	1162.5	0.97	1.20	1.37	206	119	111
6b	360.00	1168.4	0.95	1.20	1.31	217	115	109
1a	370.00	1175.9	1.40	1.80	1.94	200	97	99
1b	380.00	1182.6	1.20	1.50	1.62	220	104	98
2a	390.00	1190.0	1.40	1.80	1.94	203	105	98
2b	400.00	1198.1	1.60	2.20	2.37	160	105	97
3a	410.00	1205.8	1.20	1.70	1.82	144	104	96
3b	420.00	1212.9	1.20	1.70	1.86	130	104	95
4a	430.00	1220.6	1.30	2.00	2.04	120	101	93
4b	440.00	1228.5	1.30	2.00	2.04	120	99	91
5a	450.00	1236.4	1.40	2.10	2.23	110	98	89
5b	460.00	1244.3	1.40	2.10	2.23	110	98	89
6a	470.00	1251.5	1.10	1.60	1.70	122	95	86
6b	480.00	1258.6	1.20	1.60	1.77	150	95	86
Max/Avg.	480.00	335.260	1.236	1.628	1.762	183.396	102.042	93.021

FIELD DATA SPREADSHEET

Client: Nucor Steel, Hertford **Test Date:** 4/11/2005 **Run:** 2
Start Time: 8:50 AM **Emissions Unit:** Baghouse **EPA Method:** 5/202
Stop Time: 8:10 PM **Project:** Compliance

POINT #	RUN TIME	DGM (ft³)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	259.000						
1a	10.00	267.1	1.50	2.20	2.30	100	60	62
1b	20.00	275.5	1.80	2.40	2.78	100	67	61
2a	30.00	284.0	1.80	2.40	2.83	95	73	62
2b	40.00	292.3	1.70	2.40	2.66	99	78	63
3a	50.00	300.4	1.70	2.20	2.45	150	80	65
3b	60.00	308.2	1.60	2.10	2.24	170	83	67
4a	70.00	316.4	1.70	2.30	2.39	170	85	69
4b	80.00	324.7	1.70	2.30	2.38	176	88	72
5a	90.00	332.9	1.70	2.20	2.54	140	90	74
5b	100.00	341.1	1.70	2.30	2.48	155	90	75
6a	110.00	348.8	1.40	1.80	1.98	176	91	76
6b	120.00	356.2	1.40	1.80	1.96	182	92	77
1a	130.00	364.2	1.60	2.10	2.23	150	55	55
1b	140.00	371.4	1.40	1.90	1.90	170	62	54
2a	150.00	378.6	1.40	1.80	1.85	187	62	54
2b	160.00	385.7	1.40	1.80	1.89	175	63	55
3a	170.00	393.0	1.50	1.90	2.06	165	65	55
3b	180.00	400.6	1.50	2.00	2.00	185	66	55
4a	190.00	408.4	1.60	2.10	2.21	164	67	55
4b	200.00	416.5	1.60	2.20	2.34	128	67	55
5a	210.00	424.3	1.50	2.10	2.19	130	67	55
5b	220.00	431.7	1.40	1.90	1.94	160	67	55
6a	230.00	438.4	1.10	1.50	1.52	163	66	55
6b	240.00	445.3	1.10	1.60	1.60	132	66	55
1a	250.00	452.8	1.60	2.00	2.09	186	52	52
1b	260.00	460.9	1.80	2.30	2.41	176	59	53
2a	270.00	469.2	1.90	2.50	2.74	135	64	54
2b	280.00	477.1	1.60	2.10	2.20	166	68	56
3a	290.00	484.5	1.50	1.90	2.03	182	72	58
3b	300.00	491.7	1.40	1.80	1.90	180	71	60
4a	310.00	498.9	1.70	2.20	2.45	141	71	60
4b	320.00	506.2	1.70	2.30	2.45	143	72	61
5a	330.00	513.3	1.70	2.20	2.35	170	73	62
5b	340.00	520.3	1.70	2.20	2.35	172	75	62
6a	350.00	527.8	1.40	1.90	1.97	162	77	64
6b	360.00	535.2	1.40	1.90	1.98	161	80	65
1a	370.00	543.8	1.90	2.50	2.78	134	68	65
1b	380.00	552.8	1.90	2.70	2.87	116	70	65
2a	390.00	561.4	1.70	2.40	2.57	123	82	66
2b	400.00	569.7	1.70	2.30	2.45	152	83	67
3a	410.00	577.5	1.50	2.00	2.12	167	85	68
3b	420.00	586.5	1.90	2.70	2.89	121	83	68
4a	430.00	595.4	1.90	2.60	2.97	107	84	69
4b	440.00	604.1	1.90	2.50	3.02	98	84	69
5a	450.00	612.6	1.60	2.40	2.57	91	84	68
5b	460.00	620.5	1.60	2.40	2.58	88	83	68
6a	470.00	629.1	1.50	2.40	2.43	85	82	67
6b	480.00	637.820	1.50	2.40	2.43	84	82	67
Max/Avg.	480.00	378.820	1.600	2.165	2.319	145.042	74.042	62.396

FIELD DATA SPREADSHEET

Client: Nucor Steel, Hertford **Test Date:** 4/13/2005 **Run:** 3
Start Time: 9:55 AM **Emissions Unit:** Baghouse **EPA Method:** 5/202
Stop Time: 6:55 PM **Project:** Compliance

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	640.600						
1a	10.00	647.33	1.70	1.60	1.66	160	57	55
1b	20.00	653.87	1.60	1.50	1.55	171	65	57
2a	30.00	660.00	1.40	1.30	1.33	186	71	58
2b	40.00	666.78	1.70	1.70	1.75	141	73	60
3a	50.00	673.70	1.40	1.40	1.36	177	77	62
3b	60.00	680.26	1.30	1.20	1.25	187	77	63
4a	70.00	687.02	1.50	1.40	1.48	171	78	64
4b	80.00	693.64	1.40	1.30	1.39	166	79	65
5a	90.00	699.93	1.50	1.40	1.43	193	77	65
5b	100.00	706.25	1.50	1.40	1.45	187	78	66
6a	110.00	712.83	1.50	1.50	1.55	145	80	67
6b	120.00	719.64	1.60	1.60	1.71	125	80	67
1a	130.00	726.57	1.70	1.60	1.64	180	68	65
1b	140.00	733.71	1.80	1.80	1.85	143	73	64
2a	150.00	740.84	1.60	1.50	1.56	176	75	64
2b	160.00	747.20	1.50	1.40	1.43	191	76	64
3a	170.00	753.67	1.60	1.50	1.52	194	76	65
3b	180.00	760.69	1.70	1.70	1.73	152	77	65
4a	190.00	767.47	1.70	1.60	1.71	160	77	65
4b	200.00	773.75	1.50	1.40	1.45	180	75	64
5a	210.00	780.26	1.60	1.50	1.57	174	75	64
5b	220.00	786.80	1.60	1.50	1.56	178	77	65
6a	230.00	793.74	1.70	1.70	1.76	141	77	65
6b	240.00	800.80	1.70	1.70	1.73	152	77	65
1a	250.00	807.72	1.40	1.30	1.36	171	65	63
1b	260.00	814.50	1.40	1.30	1.36	177	70	63
2a	270.00	820.82	1.40	1.30	1.36	180	77	64
2b	280.00	826.99	1.40	1.30	1.35	184	77	65
3a	290.00	833.90	1.50	1.40	1.44	190	77	65
3b	300.00	840.68	1.40	1.30	1.36	180	77	65
4a	310.00	848.07	1.70	1.70	1.73	150	76	65
4b	320.00	855.06	1.40	1.40	1.38	170	76	65
5a	330.00	860.93	1.40	1.30	1.34	191	75	65
5b	340.00	867.71	1.40	1.30	1.33	193	75	65
6a	350.00	873.84	1.20	1.10	1.22	150	75	65
6b	360.00	879.35	1.10	1.10	1.14	140	75	65
1a	370.00	885.82	1.50	1.40	1.44	175	62	60
1b	380.00	892.08	1.50	1.40	1.46	170	67	60
2a	390.00	898.14	1.30	1.30	1.35	134	71	60
2b	400.00	904.07	1.30	1.30	1.33	140	71	60
3a	410.00	909.59	1.20	1.10	1.13	193	72	61
3b	420.00	915.30	1.20	1.10	1.15	187	73	62
4a	430.00	920.88	1.20	1.10	1.15	185	74	63
4b	440.00	926.51	1.20	1.10	1.16	180	74	64
5a	450.00	933.18	1.40	1.40	1.51	116	75	64
5b	460.00	939.10	1.40	1.40	1.50	120	75	63
6a	470.00	945.64	1.50	1.50	1.51	155	74	63
6b	480.00	952.160	1.50	1.50	1.52	153	74	63
Max/Avg.	480.00	311.560	1.473	1.408	1.458	166.958	74.000	63.375

Desert Air Environmental Services, LLC

Client:	Nucor	Unit	Test Date	Time In	Time 1st	Time 2nd
Date:	4-26-05	BH	4/11-13/05	6 AM 4/26	6 AM 4/27	6 PM 4/27

Unit / Run	Sample #	Initial Tare	Post 1	Post 2	Post 3	Average	Net
LINE B H2O 1	1	1.90385	1.90396	1.90396	NA	1.90896	.00011
LINE B MnCl2 1	2	1.90614	1.90628	1.90629	NA	1.90629	.00015
P/N Run 1	3	1.91482	1.91625	1.91646	NA	1.91636	.00153
Imp In Run 1	4	1.90504	1.92899	1.92898	NA	1.92899	.02395
Imp Org. Run 1	5	1.90855	1.90935	1.90921	NA	1.90927	.00072
FILTER 1	144	.26341	.26597	.26599	NA	.26598	.00257
LINE B H2O 2	6	1.90428	1.90461	1.90461	NA	1.90461	.00033
LINE B MnCl2 2	7	1.90671	1.90682	1.90696	NA	1.90689	.00018
P/N Run 2	8	1.90536	1.90715	1.90713	NA	1.90714	.00178
Imp In Run 2	9	1.90392	1.92240	1.92261	NA	1.92251	.01859
Imp Org. Run 2	10	1.90514	1.90590	1.90590	NA	1.90590	.00076
FILTER 2	147	.27090	.27288	.27290	NA	.27289	.00199
LINE B H2O 3	12	1.90112	1.90128	1.90128	NA	1.90128	.00016
LINE B MnCl2 3	13	1.90489	1.90496	1.90499	NA	1.90498	.00009
P/N Run 3	14	1.90209	1.90390	1.90389	NA	1.90390	.00181
Imp In Run 3	15	1.89992	1.91944	1.91984	NA	1.91964	.01972
Imp Org. Run 3	16	1.90308	1.90366	1.90366	NA	1.90366	.00058
FILTER 3	148	.26487	.26690	.26690	NA	.26690	.00203
MnCl2 Blank	21	1.90796	1.90826	1.90826	NA	1.90826	.00030
H2O Blank	18	1.90228	1.90248	1.90249	NA	1.90249	.00021
FILTER Blank	93	.27324	.27336	.27336	NA	.27336	.00012
P/N BLANK	19	1.89891	1.89912	1.89942	NA	1.89927	.00036
Imp In Blank	20	1.89788	1.89829	1.89829	NA	1.89829	.00041
Imp Org. Blank	17	1.90596	1.90687	1.90689	NA	1.90688	.00092

DESERT AIR ENVIRONMENTAL SERVICES, LLC

Recovery Data

Client: NUCOR STEEL
Emissions Unit: BAGHOUSE
EPA Method: 5/202

Test Date: 4/11-13/05
Project: Compliance

Impinger Contents	Run 1			Run 2			Run 3		
	Final	Initial	Net	Final	Initial	Net	Final	Initial	Net
H2O	791.2	676.3	139.9	736.2	581.5	154.7	622.3	576.5	145.8
H2O	540.9	530.9	10.0	609.9	599.8	10.1	611.3	608.3	3.0
KO	470.1	464.6	5.5	467.2	467.5	-.30	468.1	464.3	3.8
SILICA	945.5	887.4	58.1	957.9	900.6	57.3	974.0	919.4	54.6
LW H2O			-50.0			-50.0			-50.0
LW MeCl2			-50.0			-50.0			-50.0
Filter #									
Tare Wt.									
Total Volume of H_2O, grams			113.5			121.8			107.2

Comments

% O_2	% O_2	% O_2
% CO_2	% CO_2	% CO_2

Impinger Contents	Run 4			Run 5			Run 6		
	Final	Initial	Net	Final	Initial	Net	Final	Initial	Net
Filter #									
Tare Wt.									
Total Volume of H_2O, grams									

Comments

% O_2	% O_2	% O_2
% CO_2	% CO_2	% CO_2

DESERT AIR ENVIRONM..TAL SERVICES,LLC
Field Data

Client: NUCOR	Meter Box: 1001		Stack Diameter (in): 21'
Facility: HERTFORD COUNTY	Meter Delta H @: 1.9310		Stack Static Pressure: -.80
Unit: BAGHOUSE	Meter Calibration Factor (Y): 1.0632		Assumed Moisture: 2%
Date: 4-11-05	Probe #: 10' GLASS		Start time: 825 End Time: 1025
Technicians: RWD Team Leader: MTR	Probe Liner Material: Glass		Nozzle Diameter (in): .196
Method / Run # 5/202 1	Pitot Tube Cp: .84		Initial Leak Rate: .001 @ 9" Hg
Sheet 1 of 4	Ambient Temp.: 75	Pbarr: 29.94	Final Leak rate: NA

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						923.30					
6	10	4	1.2	1.62	165	930.09	71	70	250	250	50
	20	4	1.1	1.42	200	936.45	70	72	250	250	50
5	30	4	1.4	1.9	165	942.73	90	77	250	250	59
	40	4	1.3 Recalc	1.7	183	990.05	97	81	250	250	57
4	50	4	1.2	1.5	205	957.20	99	84	250	250	57
	60	4	1.2	1.5	205	963.98	101	86	250	250	57
3	70	4	1.3	1.6	200	970.81	102	88	250	250	56
	80	4	1.2	1.5	205	977.52	104	90	250	250	55
2	90	4	1.3	1.7	185	984.81	107	94	248	249	57
	100	4	1.3	1.8	156	992.94	109	96	250	250	57
1	110	4	.80	1.0	210	997.76	107	98	250	250	56
	120	4	.80	1.0	211	003.14	106	99	250	250	56
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM. .TAL SERVICES,LLC
Field Data

Client: Nucor	Meter Box: 100		Stack Diameter (in): 21'
Facility: Hartford County	Meter Delta H @: 1.9310		Stack Static Pressure: -.80
Unit: BAGHOUSE	Meter Calibration Factor (Y): 1.0032		Assumed Moisture: 2%
Date: 4-11-05	Probe #: 10'		Start time: 1050 End Time: 1250
Technicians: RWD Team Leader: MTR	Probe Liner Material: Glass		Nozzle Diameter (in): .196
Method / Run # 5/1	Pitot Tube Cp: .84		Initial Leak Rate: NA
Sheet 2 of 4	Ambient Temp.: 75	Pbarr: 29.94	Final Leak rate: NA

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume (ft3)	Dry Gas Meter Temp (°F) Inlet	Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
						003.14					
6	10	4	1.4	1.9	165	010.63	90	94	240	241	56
	20	4	1.2	1.5	208	017.37	97	92	250	250	52
									-		
5	30	4	1.2	1.5	203	024.05	100	92	250	250	47
	40	4	1.3	1.7	175	031.26	100	92	250	250	48
4	50	4	1.1	1.4	215	037.77	99	91	250	250	50
	60	4	1.1	1.4	220	044.23	99	90	250	250	50
3	70	4	1.2	1.5	190	051.01	100	90	250	250	51
	80	4	1.2	1.5	187	057.82	99	90	250	250	51
2	90	4	1.1	1.4	206	064.26	98	88	250	250	52
	100	4	1.1	1.4	208	070.64	98	88	250	250	52
1	110	4	1.1	1.4	185	077.18	98	87	250	250	53
	120	4	1.0	1.3	187	083.225	98	88	250	250	53
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM...TAL SERVICES,LLC
Field Data

Client: Nucor	Meter Box: 100			Stack Diameter (in): 21'	
Facility: Hartford County	Meter Delta H @: 1.9310			Stack Static Pressure: -.80	
Unit: BAGHOUSE	Meter Calibration Factor (Y): 1.0032			Assumed Moisture: 2%	
Date: 4-11-05	Probe #: 10'			Start time: 116	End Time: 316
Technicians: RWD Team Leader: MTR	Probe Liner Material: Glass			Nozzle Diameter (in): .196	
Method / Run # 5/1	Pitot Tube Cp: .84			Initial Leak Rate: NA	
Sheet 3 of 4	Ambient Temp.: 75	Pbarr: 29.94		Final Leak rate: NA	

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						083.25					
6	10	4	1.4	1.8	185	090.59	90	87	250	249	62
	20	4	1.3	1.7	202	097.78	103	91	250	250	59
5	30	4	1.2	1.5	218	104.53	107	95	250	250	59
	40	4	1.4	1.8	190	111.97	111	98	250	250	59
		4	[illegible]	[illegible]	[illegible]						
4	50	4	1.5	1.9	200	119.52	115	102	250	250	60
	60	4	1.4	[illegible]1.9	172	126.24	115	102	250	250	60
3	70	4	1.5	2.0	160	135.19	119	107	250	250	60
	80	4	1.4	1.8	190	142.51	119	108	250	250	61
					[illegible]						
2	90	4	1.2	1.5	230	149.26	120	110	250	250	52
	100	4	1.3	1.6	205	156.36	121	111	250	250	52
1	110	4	.97	1.2	206	162.50	119	111	250	250	54
	120	4	.95	1.2	217	168.40	115	109	250	250	54
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES, LLC
Field Data

Client:	Nucor			Meter Box:	1001			Stack Diameter (in):	21'		
Facility:	Hartford County			Meter Delta H @:	1.9310			Stack Static Pressure:	-.80		
Unit:	BAGHOUSE			Meter Calibration Factor (Y):	1.0032			Assumed Moisture:	7%		
Date:	4-11-05			Probe #:	10'			Start time:	340	End Time:	540
Technicians:	RWD	Team Leader:	MTR	Probe Liner Material:	Glass			Nozzle Diameter (in):	.196		
Method / Run #	5/1			Pitot Tube Cp:	.84 ~~.96~~			Initial Leak Rate:	N/A		
Sheet	4 of 4			Ambient Temp.:	75	Pbarr:	29.94	Final Leak rate:	.0056 @ 11" Hg		

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						168.400					
6	10	4	1.4	1.8	200	175.90	97	99	250	244	60
	20	4	1.2	1.5	220	182.64	104	98	250	250	50
5	30	4	1.4	1.8	203	189.99	105	98	250	250	53
	40	4	1.6	2.2	160	198.13	105	97	250	250	53
		~~4~~	~~1.2~~	~~1.7~~	~~144~~						
4	50	4	1.2	1.7	144	205.77	104	96	250	250	54
	60	4	1.2	1.7	130	212.91	104	95	250	250	53
3	70	4	1.3	2.0	120	220.64	101	93	250	250	52
	80	4	1.3	2.0	120	228.50	99	91	250	250	51
2	90	4	1.4	2.1	110	236.42	98	89	250	250	50
	100	4	1.4	2.1	110	244.33	98	89	250	250	50
1	110	4	1.1	1.6	122	251.45	95	86	250	250	50
	120	4	1.2	1.6	150	258.56	95	86	250	250	50
	Total:	Max:	Avg:	Avg:	Avg:	Total: 335.24	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client:	NUCOR			Meter Box:	1001			Stack Diameter (in):	21'			
Facility:	HERTFORD			Meter Delta H @:	1.9310			Stack Static Pressure:	-.75			
Unit:	BAGHOUSE			Meter Calibration Factor (Y):	1.0032			Assumed Moisture:	2%			
Date:	4-12-05			Probe #:	10'			Start time:	850	End Time:	1050	
Technicians:	RWD	Team Leader:	MTR	Probe Liner Material:	Glass			Nozzle Diameter (in):	.196			
Method / Run #	5/202	RUN 2		Pitot Tube Cp:	.84			Initial Leak Rate:	.002 @ 10" Hg.			
Sheet	1 of 4			Ambient Temp.:	55	Pbarr:	30.00	Final Leak rate:	~~.002 @ 10" Hg~~			

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						259.00					
6	10	4	1.5	2.2	100	267.10	60	62	250	250	44
	20	4	1.8	2.4	100	275.49	67	61	250	250	41
			~~1.8~~	~~2.3~~	~~100~~						
5	30	4	1.8	2.4	95	283.97	73	62	250	250	41
	40	4	1.7	2.4	99	292.31	78	63	250	250	42
4	50	4	1.7	2.2	150	300.36	80	65	250	250	45
	60	4	1.6	2.1	170	308.19	83	67	250	250	47
3	70	4	1.7	2.3	170	316.41	85	69	250	250	48
	80	4	1.7	2.3	176	324.72	88	72	249	250	51
						332.90					
2	90	4	1.7	2.2	1110 ~~155~~	~~324.77~~	90	74	251	250	51
	100	4	1.7	2.3	155 ~~176~~	~~332.90~~	90	75	251	250	51
						341.13					
1	110	4	1.4	1.8	176	348.79	91	76	250	250	52
	120	4	1.4	1.8	182	~~346.79~~	92	77			53
						356.16					
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM..TAL SERVICES,LLC

Field Data

Client: NUCOR	Meter Box: 1001		Stack Diameter (in): 21'
Facility: HERTFORD	Meter Delta H @: 1.9310		Stack Static Pressure: -.75
Unit: BAGHOUSE	Meter Calibration Factor (Y): 1.0032		Assumed Moisture: 2%
Date: 4-12-05	Probe #: 10'		Start time: 110 End Time: 310
Technicians: RWD Team Leader: MTR	Probe Liner Material: L/A SS		Nozzle Diameter (in): .196
Method Run #: 5/202 RUN 2	Pitot Tube Cp: .84		Initial Leak Rate: -
Sheet 2 of 4	Ambient Temp: 55	Pbarr: 30.00	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						356.26					
6	10	4	1.6	2.1	150	364.16	55	55	250	250	46
	20	4	1.4	1.9	170	371.36	62	54	250	250	39
						55					
5	30	4	1.4	1.8	187	378.86	62	54	250	250	40
	40	4	1.4	1.8	175	385.74	63	55	250	250	43
4	50	4	1.5	1.9	165	393.03	65	55	250	250	43
	60	4	1.5	2.0	185	~~399~~ 400.62	66	55	249	250	44
							~~67~~	~~55~~	~~250~~	~~249~~	
3	70	4	1.6	2.1	164	408.43	67	55	250	249	45
	80	4	1.6	2.2	128	416.47	67	55	250	249	44
2	90	4	1.5	2.1	130	424.26	67	55	250	250	45
	100	4	1.4	1.9	160	431.74	67	55	250	250	44
			1.6	1.5							
1	110	4	[illegible]	[illegible]	163	438.42	66	55	250	251	44
	120	4	1.6	1.6	132	445.28	66	55	250	250	45
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM...TAL SERVICES,LLC

Field Data

Client: NUCOR	Meter Box: 1001			Stack Diameter (in): 21'	
Facility: HERTFORD	Meter Delta H @: 1.9310			Stack Static Pressure: -.75	
Unit: BAGHOUSE	Meter Calibration Factor (Y): 1.0032			Assumed Moisture: 2%	
Date: 4-12-05	Probe #: 10'			Start time: 355	End Time: 555
Technicians: RWD Team Leader: MTR	Probe Liner Material: Glass			Nozzle Diameter (in): .196	
Method / Run # 5/202 Run 2	Pitot Tube Cp: .84			Initial Leak Rate: -	
Sheet 3 of 4	Ambient Temp.: 55	Pbarr: 30.00		Final Leak rate: -	

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						445.28					
6	10	4	1.6	2.0	186	452.83	52	52	246	251	49
	20	4	1.8	2.3	176	460.85	59	53	250	248	43
5	30	4	1.9	2.5	135	469.24	64	54	251	250	46
	40	4	1.6	2.1	166	477.10	68	56	249	250	46
4	50	4	1.5	1.9	182	484.54	72	58	251	252	48
	60	4	1.4	1.8	180	491.71	71	60	250	249	47
3	70	4	1.7	2.2	141	498.93	71	60	251	249	47
	80	4	1.7	2.2	143	506.16	72	61	250	250	47
2	90	4	1.7	2.2	170	513.25	73	62	250	249	48
	100	4	1.7	2.2	172	520.34	75	62	250	250	48
1	110	4	1.4	1.9	162	527.18	77	64	250	250	49
	120	4	1.4	1.9	161	535.23	80	65	250	249	50
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM...TAL SERVICES,LLC
Field Data

Client: Nucor	Meter Box: 1001			Stack Diameter (in): 21'	
Facility: HERTFORD	Meter Delta H @: 1.9310			Stack Static Pressure: -.75	
Unit: BAGHOUSE	Meter Calibration Factor (Y): 1.0037			Assumed Moisture: 2%	
Date: 4-12-05	Probe #: 10'			Start time: 610	End Time: 810
Technicians: RWD Team Leader: MTR	Probe Liner Material: Glass			Nozzle Diameter (in): .196	
Method / Run # 5/202 Run 2	Pitot Tube Cp: .84			Initial Leak Rate: -	
Sheet 4 of 4	Ambient Temp.: 55	Pbarr: 30.00		Final Leak rate: 10CFM @ 10" Hg	

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						535.23					
6	10	4	1.8	2.5	134	543.81	68	65	240	250	53
	20	4	1.9	2.7	116	552.78	70	65	249	250	50
5	30	4	1.7	2.4	123	561.36	82	66	250	250	45
	40	4	1.7	2.3	152	569.67	83	67	250	249	45
4	50	4	1.5	2.0	167	577.45	85	68	250	249	46
	60	4	1.9	2.7	121	586.52	83	68	250	250	46
3	70	4	1.9	2.6	107	595.41	84	69	250	249	46
	80	4	1.9	2.5	98	604.13	84	69	250	250	45
2	90	4	1.6	2.4	91	612.57	84	68	250	250	45
	100	4	1.6	2.4	88	620.46	83	68	250	249	44
						629.14					
1	110	4	1.5	2.4	85	[illegible]	82	67	250	250	43
	120	4	1.5	2.4	84	637.82	82	67	250	250	43
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1001		Stack Diameter (in): 21 Ft
Facility: Hertford Co.	Meter Delta H @: 1.9310		Stack Static Pressure: -.8
Unit: Baghouse	Meter Calibration Factor (Y): 1.0032		Assumed Moisture: 2%
Date: 4-13-05	Probe #: 10 Ft		Start time: 955 End Time: 1155
Technicians: RWD Team Leader: MTR	Probe Liner Material: Glass		Nozzle Diameter (in): .18
Method / Run # 5/3	Pitot Tube Cp: .84		Initial Leak Rate: .005 @ 10" Hg.
Sheet 1 of 4	Ambient Temp:	Pbarr: 29.74	Final Leak rate: NA

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet (*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						640.60					
6	10	4	1.7	1.6	160	647.33	57	55	250	250	47
	20	4	1.6	1.5	171	653.87	65	57	250	250	47
5	30	4	1.4	1.3	186	660.00	71	58	250	250	41
	40	4	1.7	1.7	141	666.78	73	60	248	250	44
4	50	4	1.4	1.4	177	673.70	77	62	247	250	44
	60	4	1.3	1.2	187	680.26	77	63	250	250	46
3	70	4	1.5	1.4	171	687.02	78	64	250	250	50
	80	4	1.4	1.3	166	693.64	79	65	250	245	49
2	90	4	1.5	1.4	193	699.93	77	65	250	248	49
	100	4	1.5	1.4	187	706.25	78	66	250	247	50
1	110	4	1.5	1.5	145	712.53	80	67	250	251	51
	120	4	1.6	1.6	125	719.69	80	67	250	250	51
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1001			Stack Diameter (in): 21 FT	
Facility: Hertford Co.	Meter Delta H @ 1.9310			Stack Static Pressure: -.8	
Unit: Baghouse	Meter Calibration Factor (Y): 1.0032			Assumed Moisture: 2%	
Date: 4-13-05	Probe #: 10 FT			Start time: 215 End Time: 215	
Technicians: RWD Team Leader: MTR	Probe Liner Material: Glass			Nozzle Diameter (in): .18	
Method / Run # 5 / 3	Pitot Tube Cp: .84			Initial Leak Rate: NA	
Sheet 2 of 4	Ambient Temp.: 75	Pbarr: 29.74		Final Leak rate: NA	

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume (ft3)	Dry Gas Meter Temp (°F) Inlet	Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
						719.64					
6	10	4	1.7	1.6	180	726.57	68	65	250	250	55
	20	4	1.8	1.8	143	733.71	73	64	250	250	49
5	30	4	1.6	1.5	176	740.84	75	64	250	250	50
	40	4	1.5	1.4	191	747.20	76	64	250	250	52
4	50	4	1.6	1.5	194	753.67	76	65	250	250	53
	60	4	1.7	1.7	152	760.69	77	65	250	249	52
3	70	4	1.8	1.6	160	767.47	77	65	250	245	52
	80	4	1.5	1.4	180	773.75	75	64	250	249	53
2	90	4	1.6	1.5	174	780.26	75	64	250	250	53
	100	4	1.6	1.5	178	786.80	77	65	250	250	54
1	110	4	1.6	1.7	141	793.74	77	65	250	250	55
	120	4	1.7	1.7	152	800.80	77	65	250	250	55
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1001			Stack Diameter (in): 21 Ft	
Facility: Hertford Co	Meter Delta H @: 1.9310			Stack Static Pressure: -.8	
Unit: Baghouse	Meter Calibration Factor (Y): 1.0032			Assumed Moisture: 2%	
Date: 4-13-05	Probe #: 10 Ft			Start time: 235	End Time: 435
Technicians: RWP Team Leader: MTR	Probe Liner Material: Glass			Nozzle Diameter (in): .18	
Method / Run #: 5/3	Pitot Tube Cp: .84			Initial Leak Rate: —	
Sheet 3 of 4	Ambient Temp.:	Pbarr: 29.74		Final Leak rate: —	

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						800.80					
6	10	4	1.4	1.3	171	807.92	65	63	250	250	56
	20	4	1.4	1.3	177	814.50	70	63	250	250	55
5	30	4	1.4	1.3	180	820.82	77	64	250	250	55
	40	4	1.4	1.3	184	826.90	77	65	250	250	55
					with						
4	50	4	1.5	1.4	190	833.90	77	65	250	250	54
	60	4	1.4	1.3	180	840.68	77	65	250	250	54
3	70	4	1.7	1.7	150	848.07	76	65	250	250	55
	80	4	1.4	1.4	170	855.06	76	65	250	250	53
2	90	4	1.4	1.3	191	with 860.93	75	65	250	250	53
	100	4	1.4	1.3	193	867.71	75	65	250	250	53
1	110	4	1.2	1.1	150	873.84	75	65	250	250	53
	120	4	1.1	1.1	140	879.35	75	65	250	250	53
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1001			Stack Diameter (in): 21 FT	
Facility: Hertford Co.	Meter Delta H @: 1.9310			Stack Static Pressure: -.8	
Unit: Baghouse	Meter Calibration Factor (Y): 1.0032			Assumed Moisture: 2%	
Date: 4-13-05	Probe #: 10 FT			Start time: 1155 End Time: 1655	
Technicians: RWD Team Leader: MTR	Probe Liner Material: Glass			Nozzle Diameter (in): .18	
Method / Run # 5/3	Pitot Tube Cp: .84			Initial Leak Rate:	
Sheet 4 of 4	Ambient Temp.:	Pbarr: 29.74		Final Leak rate: .008@10" Hg	

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						879.35					
6	10	4	1.5	1.4	175	885.82	62	60	245	244	62
	20	4	1.5	1.4	170	892.08	67	60	250	250	
5	30	4	1.3	1.3	134	898.14	71	60	250	250	51
	40	4	1.3	1.3	140	904.07	71	60	250	250	51
4	50	4	1.2	1.1	193	909.59	72	61	250	250	52
	60	4	1.2	1.1	187	915.30	73	62	250	250	
3	70	4	1.2	1.1	185	920.38	74	63	250	250	53
	80	4	1.2	1.1	180	926.51	74	64	250	250	52
2	90	4	1.4	1.4	116	933.18	75	64	250	250	52
	100	4	1.4	1.4	120	939.10	75	63	250	250	53
1	110	4	1.5	1.5	195	945.64	74	63	250	250	54
	120	4	1.5	1.5	153	952.16	74	63	250	250	
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

SAMPLE CALCULATIONS
APPENDIX # A

UNIT BAGHOUSE METHOD 5/202.

TEST RUN 1

P_{bar}	29.94	pg	T_s	183.4 °F 643.4 °R	pg	O_2 vd	20.13	pg
P_{static}	-.80	pg	C_p	.84	pg	CO_2 vd	1.11	pg
Δp_{avg}	1.236	pg	A	346.36 ft²	pg	N_2 vd	78.76	pg
M_s	28.98	pg				H_2O vd	2.00	pg

STACK GAS PRESSURE

Page_____

$$P_s = P_{bar} + \frac{P_{static}}{13.6} = \frac{29.94}{} + \frac{-.80}{13.6} = \frac{29.88}{}$$

AVERAGE STACK VELOCITY

$$V_s = K_p \; C_p \times \sqrt{\Delta P_{avg}} \times \sqrt{\frac{T_s(avg)}{P_s \, M_s}}$$

Page_____

$$= 85.49 \times .84 \times \sqrt{1.236} \times \sqrt{\frac{(460 + 183.4)}{(29.88 \times 28.98)}}$$

$$= \underline{68.89} \; fps$$

SAMPLE CALCULATIONS
APPENDIX # A

UNIT BAGHOUSE - Method 5/202

TEST RUN 1

AVERAGE STACK Q_{std} DSCFM

Page_____

$$= 60 \times (1-Bws) \times V_s \times A \left(\frac{T_{std}}{T_s\ (°R)}\right)\left(\frac{P_s}{P_{std}}\right)$$

$$= 60 \times (1- \underline{.9800}) \times \underline{68.84} \times \underline{346.36} \times \left(\frac{528}{643.4}\right)\left(\frac{29.88}{29.92}\right)$$

$$= \underline{1,148990}\ DSCFM$$

WET MOLECULAR WEIGHT, M_s

Page_____

$$\left[\{ (0.44 \times \%\ CO_2) + (0.32 \times \%\ O_2) + (0.28 \times \%\ N_2) \} \times (1-Bws) \right] + 18 \times Bws$$

$$= [\{ (0.44 \times \underline{1.11}) + (0.32 \times \underline{20.13}) + (0.28 \times \underline{78.76}) \} \times (1- \underline{.02})]$$

$$+ 18 \times \underline{.02}$$

$$= \underline{28.76}$$

SAMPLE CALCULATIONS
APPENDIX # A

UNIT BAGHOUSE - Method 5/202

TEST RUN 1

gms H_2O 138.5	pg	Y 1.0032	pg	T_m 97.5	pg
V_m 335.26	pg	ΔH "H_2O 1.628	pg		

VOLUME H_2O COLLECTED AS GAS @ STP, Vwc

Page _____

$$V_{wc} = gms\ H_2O \times 0.04646 = \underline{138.5} \times 0.04646$$

$$= \underline{6.43471}\ SCF$$

SAMPLE GAS VOLUME

Page _____

$$V_{m\,(std)} = V_m\ Y \times \frac{Pbar + \frac{\Delta H}{13.6}}{P_{std}} \times \frac{T_{std}}{T_m} =$$

$$\underline{335.26} \times \underline{1.0032} \times \frac{\frac{29.94}{} + \frac{1.628}{13.6}}{29.92} \times \frac{528}{460 + \underline{97.5}}$$

$$= \underline{320.025}\ DSCF$$

MOISTURE CONTENT, % H_2O OR Bws AND MF

Page_____

$$= \frac{V_{wc}}{V_{m\,(std)} + V_{wc}} =$$

$$\frac{6.43}{320.02 + 6.43} = \underline{.0197}$$

and

$$MF = 1 - B_{ws} = 1 - \underline{.0197} = \underline{.9803}$$

SAMPLE CALCULATIONS
APPENDIX # A

UNIT BAGHOUSE - Method 5/202

TEST RUN_____

mg P/N wash	1.53	pg	$V_{m(std)}$	320.00	pg
mg filter	2.57	pg	DSCFM	1149099	pg
mg H_2O(org)	0.072	pg			
mg H_2O(inorg)	23.95	pg			

PARTICULATE CONCENTRATION, gr/dscf

Page_____

$$(\ mg\ P/N + mg\ filter + mg\ condensable\ ) \times 0.0154\ gr/mg \times \frac{1}{Vm_{std}}$$

$$(\frac{1.53}{} + \frac{2.57}{} + \frac{24.022}{}) \times 0.0154 \times \frac{1}{320.02}$$

$$\frac{.00135}{} = gr/DSCF$$

PARTICULATE EMISSIONS, lbs/hr

Page_____

$$\frac{gr}{DSCF} * 0.00858 * DSCFM$$

$$\frac{.00135}{} * 0.00858 * \frac{1149099}{}$$

$$\frac{13.34}{} = lbs/hr$$

SAMPLE CALCULATIONS
APPENDIX # A

UNIT BAGHOUSE Method 5/202

TEST RUN_____

T_s	183.4 °F 643.4 °R	pg	P_{bar} "Hg	29.94	pg	P_s "Hg	29.88	pg
V_{lc}	138.75 ~~mls~~ H_2O grams	pg	ΔH "H_2O	1.628	pg	θ min	480	pg
V_m	335.26	pg	A_n ft^2	.000210	pg	T_m °R	557.5	pg
Y	1.0032	pg	V_s	68.84	pg			

ISOKINETIC VARIATION, %I

Page_____

$$\frac{100 \times T_s \left[(Vlc \times 0.002669) + \frac{V_m Y}{Tm} \times \left(Pb + \frac{\Delta H}{13.6} \right) \right]}{60 \times A_n \times V_s \times P_s \times \theta}$$

$$\frac{100 \times 643.4 \left[(138.75 \times 0.002669) + \left(\frac{335.26 \times 1.0032}{557.5} \right) \times \left(\frac{29.94}{} + \frac{1.628}{13.6} \right) \right]}{60 \times .000210 \times 68.84 \times 29.88 \times 480}$$

95.71 % = *Isokinetic Variation*

Visible Emission Observation Form

Source Name: Baghouse Stack	Observation Date: 4-11-05
Address: Nucor Steel - Hertford	Start Time: 1530
1505 River Rd.	Stop Time: 1630
City: Cofield	State: NC. Zip: 27922
Phone: 252-356-3707	Source ID No.
Process Equipment: EAF	Operating Mode: Online
Control Equipment: Baghouse	Operating Mode: Online
Describe Emission Point: Start Baghouse Stack Stop Same	
Ht. above ground level/Ht. relative to observer: Start 130 ft Stop Same / Start 130 ft Stop Same	
Distance from Observer/Direction from Observer: Start 1200 ft Stop Same / Start NE Stop Same	
Describe Emissions: Start None Stop None	
Emission Color: Start None Stop None	Plume Continuous? ☐ Fugitive? ☐ Intermittent? ☐
Water Droplets Present? No ☑ Yes ☐	If Water Droplet Plume: Attached ☐ Detached ☐
Point in the Plume at Which Opacity was Determined: Start 6-8 in Above Stack Stop Same	
Describe Background: Start Sky Stop Same	
Background Color: Start Blue Stop Same	Sky Conditions: Start Clear Stop Same
Wind Speed: Start 5mph Stop Same	Wind Direction: Start NNW Stop Same
Ambient Temperature: Start 72° Stop Same	Db Wb RH Percent: 31%

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

Average Opacity for Period: 0 Highest: 0 Number of Readings above 5 %: were 0

Range of Opacity Readings: Minimum 0 Maximum 0

Observer's Name (Print): Timothy S. Hodges

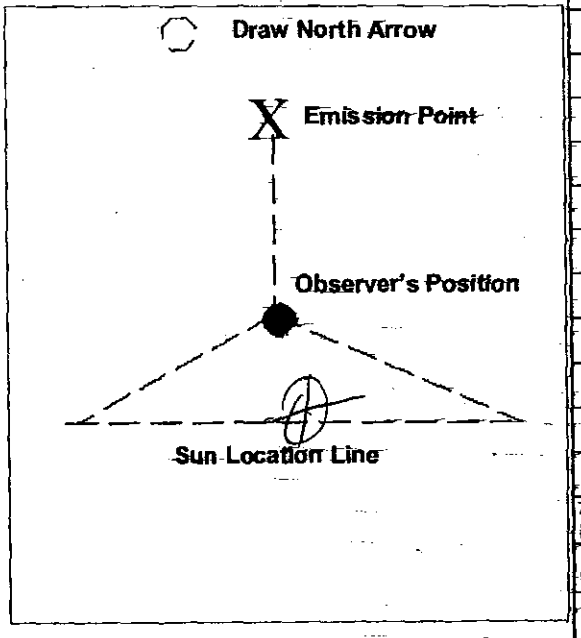
Observer's Signature: Timothy S. Hodges Date: 4-11-05

Organization: Nucor Steel - Hertford

Certified by: ETA Date: 3-1-05

Verified by: Date:

Source Layout Sketch



Comments:

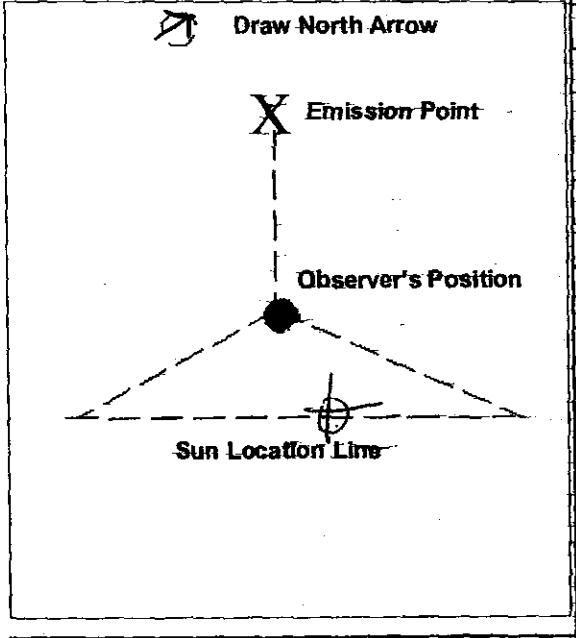
I have received a copy of these opacity observations.

Signature: Title: Date:

Visible Emission Observation Form

Source Name	Nucor Steel - Hertford
Address	1505 River Rd.
City	Cofield
State	NC
Zip	27818
Phone	252-356-3707
Source ID No.	
Process Equipment	EAF
Operating Mode	Online
Control Equipment	Baghouse
Operating Mode	Online
Describe Emission Point	Start Baghouse Stack Stop Same
Ht. above ground level/Ht. relative to observer	Start 130 ft Stop Same / Start 130 ft Stop Same
Distance from Observer/Direction from Observer	Start 1000 ft Stop Same / Start NW Stop Same
Describe Emissions	Start None Stop None
Emission Color	Start None Stop None
Plume Continuous? / Fugitive? / Intermittent?	
Water Droplets Present?	No [V] Yes [ ]
If Water Droplet Plume	Attached [ ] Detached [ ]
Point in the Plume at Which Opacity was Determined	Start 6-8 in Above Stack Stop Same
Describe Background	Start Sky Stop Same
Background Color	Start Blue/Gray Stop Same
Sky Conditions	Start Cloudy Stop Same
Wind Speed	Start 8 mph Stop Same
Wind Direction	Start NE Stop Same
Ambient Temperature	Start 50° Stop Same
Dry Wb	43
RH Percent	80%

Source Layout Sketch



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

Observation Date: 4-12-05 | Start Time: 0945 | Stop Time: 1045

Average Opacity for Period: 0 | Highest: 0 | Number of Readings above 3 %: were 0

Range of Opacity Readings: Minimum | Maximum

Observer's Name (Print): Timothy S. Hodges

Observer's Signature: Timothy S. Hodges | Date: 4-12-05

Organization: Nucor Steel - Hertford

Certified by: EPA | Date: 3-1-05

Verified by | Date

Comments

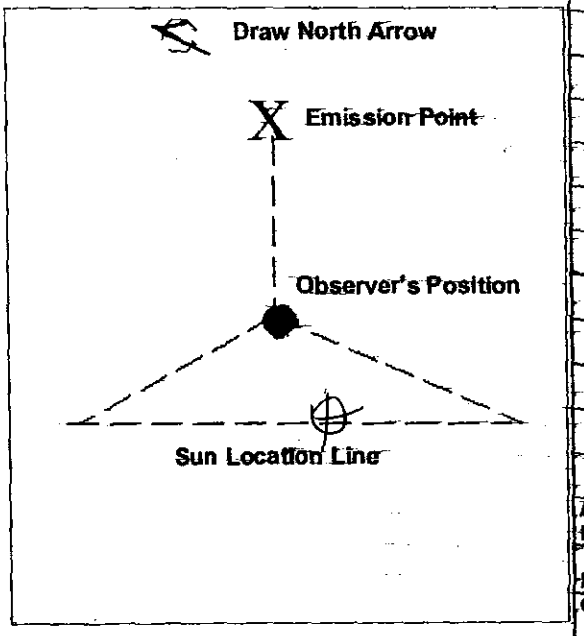
I have received a copy of these opacity observations.

Signature | Title | Date

Visible Emission Observation Form

Source Name	Nucor Steel - Hertford
Address	1505 River Rd.
City	Cofield
State	NC
Zip	27922
Phone	252-356-3707
Source ID No.	
Process Equipment	EAF
Operating Mode	Online
Control Equipment	Baghouse
Operating Mode	Online
Describe Emission Point Start	Baghouse Stack
Stop	
Ht. above ground level/Ht. relative to observer Start	130 ft
Stop	Same
/Start	130 ft
Stop	Same
Distance from Observer/Direction from Observer Start	1200 ft
Stop	Same
/Start	NE
Stop	Same
Describe Emissions Start	None
Stop	None
Emission Color Start	None
Stop	None
Plume Continuous?	
Fugitive?	
Intermittent?	
Water Droplets Present?	No ☑ Yes ☐
If Water Droplet Plume	Attached ☐ Detached ☐
Point in the Plume at Which Opacity was Determined Start	0 to 8 inches Above Stack
Stop	Same
Describe Background Start	Sky Above Stack
Stop	Same
Background Color Start	Gray
Stop	Same
Sky Conditions Start	Cloudy
Stop	Same
Wind Speed Start	11 mph
Stop	Same
Wind Direction Start	NE
Stop	Same
Ambient Temperature Start	47°
Stop	
Dry Wb	40°
RH Percent	84%

Source Layout Sketch



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

Observation Date: 4-13-05 | Start Time: 15:50 | Stop Time: 16:50

Average Opacity for Period: 0 | Highest: 0 | Number of Readings above 3 % were: 0

Range of Opacity Readings: Minimum | Maximum

Observer's Name (Print): Timothy S. Hodges

Observer's Signature: [signature] | Date: 4-13-05

Organization: Nucor Steel - Hertford

Certified by: ETA | Date: 3-1-05

Verified by: | Date:

Comments:

I have received a copy of these opacity observations.

Signature | Title | Date

APPENDIX B
METHOD 29 DATA

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 4/11/2005
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA 29

E.P.A. Method 29 Results

	Run 1	Run 2	Run 3
Test Date	4/11/2005	4/12/2005	4/13/2005
Start Time	8:25 AM	8:50 AM	9:55 AM
End Time	5:40 PM	8:10 PM	6:55 PM
Dry Gas Volume at standard conditions, Vm-Std (dscf)	346.61	416.62	334.84
Dry Gas Volume at standard conditions, Vm-Std (dscm)	9.81	11.80	9.48
Stack Gas Volumetric Flow Rate, (dscfm)	1171520	1329348	1299199
Moisture (%)	1.35%	1.56%	1.72%
Net Volume of O_2 (%)	20.13	20.16	19.97
Net Volume of CO_2 (%)	1.11	0.94	1.13
Process Rate (tons/hr)	239.00	252.00	292.00

TRACE METALS LABORATORY RESULTS AND PROCESS DATA (Method 29)

	Sample Results				Total mass	Emissions: Run 1		
		Front		Back	(ug)	ug/dscf	ug/dscm	lb/hr
Arsenic	<	0.50	<	0.70	1.20	3.46E-03	1.22E-01	5.36E-04
Beryllium	<	0.03	<	0.04	0.07	2.02E-04	7.13E-03	3.13E-05
Cadmium		2.39		0.16	2.55	7.36E-03	2.60E-01	1.14E-03
Lead		71.00		5.00	76.00	2.19E-01	7.74E+00	3.39E-02
Manganese		70.30		5.60	75.90	2.19E-01	7.73E+00	3.39E-02
Mercury		NA		150.00	150.00	4.33E-01	1.53E+01	6.70E-02
Nickel		1.70	<	1.30	3.00	8.66E-03	3.06E-01	1.34E-03

	Sample Results				Total mass	Emissions: Run 2		
		Front		Back	(ug)	ug/dscf	ug/dscm	lb/hr
Arsenic	<	0.50	<	0.70	1.20	2.88E-03	1.02E-01	5.06E-04
Beryllium	<	0.03	<	0.04	0.07	1.68E-04	5.93E-03	2.95E-05
Cadmium		2.51		0.07	2.58	6.19E-03	2.19E-01	1.09E-03
Lead		70.50		3.70	74.20	1.78E-01	6.29E+00	3.13E-02
Manganese		73.00		2.90	75.90	1.82E-01	6.43E+00	3.20E-02
Mercury		NA		75.30	75.30	1.81E-01	6.38E+00	3.18E-02
Nickel		1.80	<	1.30	3.10	7.44E-03	2.63E-01	1.31E-03

	Sample Results				Total mass	Emissions: Run 3		
		Front		Back	(ug)	ug/dscf	ug/dscm	lb/hr
Arsenic	<	0.50	<	0.70	1.20	3.58E-03	1.27E-01	6.15E-04
Beryllium	<	0.03	<	0.04	0.07	2.09E-04	7.38E-03	3.59E-05
Cadmium		2.59		0.98	3.57	1.07E-02	3.77E-01	1.83E-03
Lead		59.60		27.60	87.20	2.60E-01	9.20E+00	4.47E-02
Manganese		53.40		46.20	99.60	2.97E-01	1.05E+01	5.11E-02
Mercury		NA		271.40	271.40	8.11E-01	2.86E+01	1.39E-01
Nickel		1.10		1.70	2.80	8.36E-03	2.95E-01	1.44E-03

lb/hr= (ug/dscf * dscfm * 60) / 454000000

TEST DATA SUMMARY

Client: Nucor
Test Date: 4/11/2005
Emissions Unit: Baghouse
Project: Compliance Metals
EPA Method: 29

RUN DATA

	Run 1	Run 2	Run 3	Averages
Test Date	4/11/2005	4/12/2005	4/13/2005	
Start Time	8:25 AM	8:50 AM	9:55 AM	
Stop Time	5:40 PM	8:10 PM	6:55 PM	
Area of Stack (ft^2)	346.36	346.36	346.36	
Nozzle Diameter (ft)	0.01633	0.01633	0.01542	
Area of Nozzle (ft^2)	0.000210	0.000210	0.000187	
Pitot Tube Calibration Coefficient	0.840	0.840	0.840	
Dry Gas Meter Calibration Factor	0.99980	0.99980	0.99980	
Barometric Pressure ("Hg)	29.94	30.00	29.74	
Sampling Time (min)	480.0	480.0	480.0	
Dry Gas Volume (dcf)	357.60	409.40	327.58	364.86
Dry Gas Meter Temperature (°F)	87.3	63.0	55.2	
Dry Gas Meter Temperature (°R)	547.3	523.0	515.2	
Orifice Pressure Diff (delta H) ("H_2O)	1.700	2.235	1.494	
Volume Corrected to Standard Conditions (dscf)	346.61	416.62	334.84	366.02
Isokinetic Variation (%)	101.95	107.99	99.69	

STACK GAS VELOCITY AND VOLUMETRIC FLOW RATE (Method 2)

	Run 1	Run 2	Run 3	Averages
Stack Temperature (°F)	179.5	154.3	164.8	166.2
Stack Temperature (°R)	639.5	614.3	624.8	626.2
Stack Static Pressure ("H_20)	-0.80	-0.75	-0.80	-0.78
Stack Gas Pressure ("Hg)	29.88	29.94	29.68	29.84
Avg Delta P	1.260	1.556	1.531	1.449
Avg of Sqrt of Delta P	1.121	1.247	1.236	1.201
Stack Gas Velocity (ft/s)	69.30	75.54	75.88	73.57
Stack Gas Volumetric Flow Rate (dscf/h)	70291192	79760872	77951947	76001337
Stack Gas Volumetric Flow Rate (dscfm)	1171520	1329348	1299199	1266689
Stack Gas Volumetric Flow Rate (acfm)	1440148	1569772	1576938	1528952
Stack Gas Volumetric Flow Rate (scfm)	1187585	1350473	1321960	1286673

STACK GAS MOLECULAR WEIGHT (Method 3)

	Run 1	Run 2	Run 3	Averages
Net Volume of CO2 (%)	1.11	0.94	1.13	1.06
Net Volume of O2 (%)	20.13	20.16	19.97	20.09
Net Volume of N2 and CO (%)	78.76	78.90	78.90	78.85
Molecular Weight, Dry (g/g-mole)	28.98	28.96	28.98	28.97
Molecular Weight, Wet (g/g-mole)	28.83	28.79	28.79	28.80

STACK GAS MOISTURE CONTENT (Method 4)

	Run 1	Run 2	Run 3	Averages
Total Mass of Water Collected (g)	100.80	140.40	124.40	121.87
Total Volume of Water Collected in Impingers and Silica (ml)	100.98	140.65	124.62	122.09
Volume of Water Corrected to Standard Conditions (scf)	4.753	6.621	5.866	5.747
Water Vapor, Bws	0.0135	0.0156	0.0172	0.0155
Moisture Factor, (1- Bws)	0.9865	0.9844	0.9828	0.9845

FIELD DATA SPREADSHEET

Client: Nucor **Test Date:** 4/11/2005 **Run:** 1
Start Time: 8:25 AM **Emissions Unit:** Baghouse **EPA Method:** 29
Stop Time: 5:40 PM **Project:** Compliance Metals

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	763.225						
1a	10.00	771.1	1.3	1.8	1.68	170	56	56
1b	20.00	778.9	1.3	1.8	1.69	170	59	60
2a	30.00	785.9	1.3	1.8	1.71	170	64	62
2b	40.00	793.7	1.4	2.0	1.87	160	67	62
3a	50.00	801.5	1.4	1.9	1.76	182	68	66
3b	60.00	809.2	1.4	1.9	1.82	202	77	69
4a	70.00	817.3	1.4	1.9	1.81	198	81	73
4b	80.00	825.0	1.4	1.9	1.80	199	82	73
5a	90.00	832.8	1.4	1.8	1.82	198	84	77
5b	100.00	840.7	1.5	2.1	2.09	156	86	78
6a	110.00	848.9	1.3	1.8	1.75	176	87	79
6b	120.00	856.8	1.5	1.9	1.90	219	86	83
1a	130.00	865.3	1.4	2.0	1.97	156	89	90
1b	140.00	872.5	1.2	1.6	1.58	201	93	88
2a	150.00	879.8	1.3	1.7	1.69	210	93	88
2b	160.00	888.4	1.5	2.2	2.09	174	103	96
3a	170.00	895.4	1.1	1.5	1.53	180	107	98
3b	180.00	902.2	1.1	1.4	1.44	220	108	99
4a	190.00	909.7	1.3	1.8	1.78	192	109	101
4b	200.00	917.3	1.3	1.8	1.78	194	109	102
5a	210.00	924.9	1.3	1.7	1.75	204	109	103
5b	220.00	932.1	1.2	1.6	1.60	206	103	98
6a	230.00	939.2	1.2	1.6	1.59	207	103	99
6b	240.00	946.7	1.2	1.7	1.65	183	102	98
1a	250.00	954.0	1.2	1.6	1.62	190	97	96
1b	260.00	960.9	1.1	1.4	1.44	209	97	94
2a	270.00	967.6	1.1	1.4	1.44	210	97	92
2b	280.00	974.3	1.1	1.4	1.46	209	98	104
3a	290.00	981.9	1.3	1.7	1.72	204	99	92
3b	300.00	989.4	1.3	1.7	1.72	205	100	92
4a	310.00	997.0	1.4	1.9	1.91	182	97	89
4b	320.00	1004.4	1.4	1.0	1.96	164	95	88
5a	330.00	1011.4	1.0	1.4	1.30	210	96	88
5b	340.00	1017.6	1.0	1.3	1.29	214	96	88
6a	350.00	1024.8	1.0	1.3	1.30	214	97	89
6b	360.00	1030.3	0.9	1.2	1.30	140	90	91
1a	370.00	1037.4	1.2	1.6	1.52	212	76	78
1b	380.00	1044.5	1.2	1.6	1.51	220	81	80
2a	390.00	1051.7	1.2	1.6	1.58	191	86	81
2b	400.00	1059.1	1.2	1.7	1.65	162	85	80
3a	410.00	1066.5	1.2	1.7	1.72	138	86	80
3b	420.00	1074.5	1.2	1.7	1.75	130	88	81
4a	430.00	1081.8	1.3	1.9	1.93	119	86	81
4b	440.00	1089.7	1.3	1.9	1.95	113	88	82
5a	450.00	1097.2	1.2	1.7	1.81	113	89	82
5b	460.00	1104.5	1.2	1.7	1.80	113	88	82
6a	470.00	1112.6	1.4	2.0	2.09	115	86	80
6b	480.00	1120.825	1.4	2.0	2.11	110	86	81
Max/Avg.	480.00	357.600	1.260	1.700	1.709	179.458	89.771	84.771

FIELD DATA SPREADSHEET

Client: Nucor **Test Date:** 4/12/2005 **Run:** 2
Start Time: 8:50 AM **Emissions Unit:** Baghouse **EPA Method:** 29
Stop Time: 8:10 PM **Project:** Compliance Metals

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	129.084						
1a	10.00	137.6	1.40	2.20	2.06	94	56	62
1b	20.00	146.0	1.40	2.20	2.05	98	57	64
2a	30.00	154.2	1.40	2.10	1.90	143	58	68
2b	40.00	162.7	1.50	2.20	1.99	160	59	70
3a	50.00	171.2	1.50	2.20	1.98	166	62	74
3b	60.00	179.6	1.50	2.20	1.95	178	63	74
4a	70.00	188.4	1.60	2.30	2.20	144	64	74
4b	80.00	197.1	1.60	2.30	2.20	147	67	78
5a	90.00	205.9	1.50	2.30	1.98	173	68	79
5b	100.00	214.5	1.60	2.20	2.09	180	69	79
6a	110.00	222.9	1.50	2.10	1.98	176	70	81
6b	120.00	231.3	1.50	2.10	1.98	185	81	82
1a	130.00	242.8	1.60	2.30	2.16	145	61	61
1b	140.00	251.4	1.60	2.30	2.15	150	65	62
2a	150.00	259.7	1.50	2.10	1.91	185	66	62
2b	160.00	268.0	1.50	2.20	1.97	162	65	58
3a	170.00	276.5	1.60	2.20	2.06	174	65	57
3b	180.00	285.0	1.60	2.20	2.04	181	67	57
4a	190.00	293.7	1.60	2.30	2.14	154	68	58
4b	200.00	302.4	1.60	2.30	2.15	150	69	58
5a	210.00	311.4	1.70	2.50	2.31	141	64	56
5b	220.00	320.3	1.70	2.40	2.23	163	65	55
6a	230.00	329.0	1.60	2.30	2.10	162	66	55
6b	240.00	337.7	1.60	2.30	2.12	158	67	55
1a	250.00	345.8	1.50	2.10	1.88	181	54	53
1b	260.00	354.0	1.50	2.10	1.90	178	56	53
2a	270.00	362.1	1.50	2.10	1.87	185	57	51
2b	280.00	370.2	1.50	2.10	1.89	181	58	50
3a	290.00	378.0	1.40	1.90	1.79	173	60	51
3b	300.00	385.7	1.40	1.90	1.77	180	59	50
4a	310.00	394.3	1.60	2.30	2.16	140	60	52
4b	320.00	402.9	1.60	2.30	2.15	143	61	53
5a	330.00	410.9	1.40	2.00	1.81	167	61	54
5b	340.00	418.8	1.40	2.00	1.82	165	62	53
6a	350.00	426.8	1.40	2.00	1.80	171	62	54
6b	360.00	434.7	1.40	2.00	1.80	174	64	55
1a	370.00	443.9	1.70	2.50	2.29	138	54	54
1b	380.00	452.9	1.70	2.50	2.32	137	65	55
2a	390.00	461.4	1.50	2.20	2.07	134	69	56
2b	400.00	469.8	1.50	2.20	2.09	130	70	56
3a	410.00	477.9	1.40	2.00	1.92	143	72	61
3b	420.00	486.1	1.40	2.00	1.95	133	72	61
4a	430.00	495.1	1.70	2.30	2.38	130	73	61
4b	440.00	504.3	1.80	2.60	2.53	130	74	62
5a	450.00	513.7	1.80	2.60	2.52	131	74	62
5b	460.00	523.0	1.80	2.60	2.52	133	74	63
6a	470.00	532.2	1.80	2.60	2.54	128	74	63
6b	480.00	541.380	1.80	2.60	2.53	130	74	64
Max/Avg.	480.00	412.296	1.556	2.235	2.083	154.250	65.021	60.958

FIELD DATA SPREADSHEET

Client: Nucor **Test Date:** 4/13/2005 **Run:** 3
Start Time: 9:55 AM **Emissions Unit:** Baghouse **EPA Method:** 29
Stop Time: 6:55 PM **Project:** Compliance Metals

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O)		T_{stack}	DGM TEMP (°F)	
				ACTUAL	DESIRED	(°F)	IN	OUT
INITIAL	0.00	542.060						
1a	10.00	549.10	1.50	1.50	1.58	140	51	49
1b	20.00	555.90	1.50	1.50	1.57	145	54	49
2a	30.00	562.10	1.30	1.30	1.28	186	56	49
2b	40.00	568.70	1.40	1.40	1.49	138	57	50
3a	50.00	574.70	1.20	1.20	1.20	178	59	51
3b	60.00	580.80	1.20	1.20	1.21	170	59	51
4a	70.00	587.00	1.20	1.20	1.21	174	60	51
4b	80.00	593.10	1.20	1.20	1.24	161	62	51
5a	90.00	599.90	1.50	1.50	1.52	174	62	53
5b	100.00	606.80	1.50	1.50	1.49	185	62	53
6a	110.00	613.70	1.50	1.50	1.59	146	63	52
6b	120.00	620.80	1.50	1.60	1.65	123	63	52
1a	130.00	627.70	1.60	1.50	1.59	179	53	53
1b	140.00	634.50	1.60	1.50	1.59	181	51	57
2a	150.00	640.80	1.40	1.30	1.41	174	52	58
2b	160.00	647.10	1.40	1.30	1.39	181	52	58
3a	170.00	653.80	1.50	1.40	1.47	190	52	59
3b	180.00	660.50	1.50	1.50	1.58	148	53	59
4a	190.00	667.10	1.50	1.50	1.57	150	53	60
4b	200.00	674.20	1.50	1.50	1.58	148	53	60
5a	210.00	680.80	1.50	1.40	1.51	177	54	60
5b	220.00	687.40	1.50	1.40	1.50	181	54	61
6a	230.00	694.20	1.50	1.50	1.62	133	54	62
6b	240.00	701.00	1.50	1.50	1.60	141	55	61
1a	250.00	707.60	1.40	1.40	1.41	167	50	50
1b	260.00	713.90	1.40	1.30	1.36	191	50	53
2a	270.00	721.00	1.70	1.60	1.68	181	51	53
2b	280.00	728.00	1.70	1.70	1.73	164	51	55
3a	290.00	735.50	1.80	1.70	1.76	190	52	57
3b	300.00	742.90	1.80	1.70	1.76	193	53	58
4a	310.00	750.30	1.80	1.70	1.77	192	54	60
4b	320.00	757.20	1.60	1.50	1.61	175	54	61
5a	330.00	764.10	1.60	1.50	1.62	174	54	62
5b	340.00	771.00	1.60	1.50	1.63	171	55	63
6a	350.00	777.90	1.50	1.50	1.58	150	56	63
6b	360.00	784.80	1.50	1.50	1.58	152	57	63
1a	370.00	791.90	1.70	1.60	1.68	178	48	48
1b	380.00	799.00	1.70	1.60	1.68	180	52	49
2a	390.00	806.50	1.80	1.80	1.93	131	54	50
2b	400.00	814.00	1.80	1.80	1.90	143	56	50
3a	410.00	820.80	1.60	1.50	1.56	193	56	51
3b	420.00	827.60	1.60	1.50	1.57	191	57	52
4a	430.00	834.40	1.60	1.50	1.60	178	58	52
4b	440.00	841.20	1.60	1.50	1.61	174	59	52
5a	450.00	848.40	1.50	1.60	1.65	120	60	53
5b	460.00	855.50	1.50	1.60	1.64	125	61	54
6a	470.00	862.60	1.60	1.60	1.69	148	62	54
6b	480.00	869.64	1.60	1.60	1.69	147	62	55
Max/Avg.	480.00	327.580	1.531	1.494	1.565	164.813	55.542	54.938

First Analytical Laboratories
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ANALYSIS REPORT

Project #: 50411
Client: Desert Air Environmental Services
Client Project ID: NUCOR Steel

Report Date: 27-Apr-05
Date Received: 17-Apr-05

Total Micrograms in Sample

Sample	As μg	Be μg	Cd μg	Pb μg	Mn μg	Ni μg
Reagent Blank Front	< 0.5	< 0.03	0.04	< 0.5	0.9	< 1.0
Reagent Blank Back	< 0.7	< 0.04	0.04	< 0.7	< 0.7	< 1.3
Field Blank Front	< 0.5	< 0.03	< 0.02	< 0.5	1.0	< 1.0
Field Blank Back	< 0.7	< 0.05	0.06	< 0.8	< 0.8	< 1.5
Run - 1 Front	< 0.5	< 0.03	2.39	71.0	70.3	1.7
Run - 1 Back	< 0.7	< 0.04	0.16	5.0	5.6	< 1.3
Run - 2 Front	< 0.5	< 0.03	2.51	70.5	73.0	1.8
Run - 2 Back	< 0.7	< 0.04	0.07	3.7	2.9	< 1.3
Run - 3 Front	< 0.5	< 0.03	2.59	59.6	53.4	1.1
Run - 3 Back	< 0.7	< 0.04	0.07	1.6	2.9	< 1.4
Line Blank 1	< 0.5	< 0.03	0.02	< 0.5	< 0.5	< 1.0
Line Blank 2	< 0.5	< 0.03	< 0.02	< 0.5	< 0.5	< 1.0
Line Blank 3	< 0.5	< 0.03	< 0.02	< 0.5	< 0.5	< 1.0

QC SUMMARY

Spike, %Rec. Front	82%	99%	99%	107%	86%	105%
Spike, %Rec. Back	76%	99%	66%	105%	72%	108%

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ANALYSIS REPORT

Project #: 50411
Client: Desert Air Environmental Services
Client Project ID: NUCOR Steel

Report Date: 04-May-05
Date Received: 22-Apr-05

Total Micrograms in Sample

Element	Run - 3 Container #3 µg
Arsenic	< 0.5
Beryllium	< 0.02
Cadmium	0.91
Lead	26.0
Manganese	43.3
Nickel	1.7
Mercury	0.4

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ANALYSIS REPORT

Project #: 50411
Client: Desert Air Environmental Services
Client Project ID: NUCOR Steel

Report Date: 27-Apr-05
Date Received: 14-Apr-05

Total Micrograms of Mercury in Analytical Fraction

Sample	Frac1 µg	Frac2B µg	Frac3A µg	Frac3B µg	Frac3C µg	Total µg
Reagent Blank	< 0.4	< 0.8	< 0.2	< 0.1	< 0.9	< 2.4
Field Blank	< 0.4	< 1.2	< 0.2	< 0.3	< 0.9	< 3.0
Run - 1	< 0.4	108	0.3	12.7	29.1	150
Run - 2	< 0.4	20.4	1.3	33.0	20.6	75.3
Run - 3	< 0.4	111	< 0.2	137	23.1	271
Line Blank 1	< 0.1					
Line Blank 2	< 0.1					
Line Blank 3	< 0.1					

QC SUMMARY

Back Spike, %Recov.	99%

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ANALYSIS REPORT

Project #: 50411
Client: Desert Air Environmental
Client Project ID: NUCOR Steel

Report Date: 28-Apr-05
Date Received: 17-Apr-05

Total Micrograms in Sample

Sample	Cr(VI) Total µg
Reagent Blank	0.07
Field Blank	0.2
Run 1	1.0
Run 2	1.1
Run 3	1.3
Spike, %Recov.	96%

HEXAVALENT CHROMIUM

IC ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 50411
Date: 28-Apr-05

MDL = 0.2 µg/L
Spike conc. = 15.0 µg/L

Sample ID / Client	FAL	Test Sol'n µg/L	Sample Volume ml	Peak Height	Dil'n Factor		Total µg
Reagent Blank	50411.RB	0.64	110	0.3	1		0.07
Field Blank	50411.FB	0.54	376	0.3	1		0.20
Run 1	50411.1	1.62	643	0.8	1		1.04
Run 2	50411.2	1.92	592	1.0	1		1.13
Run 3	50411.3	2.12	592	1.1	1		1.25
Spike	50411.1S	15.01		7.8	%REC=	96.4%	

QUALITY CONTROL DATA

Calibration	Peak Ht.	True conc.	Regr
Blank	0	0	0.0
Standard 1	2.2	5	2.6
Standard 2	5.2	10	5.2
Standard 3	10.6	20	10.4
Standard 4	15.6	30	15.7

Regression Output:

Constant	0
Std Err of Y Est	0.2012
R Squared	0.999
No. of Observations	5
Degrees of Freedom	4
X Coefficient(s)	0.52
Std Err of Coef.	0.00533

ARSENIC

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 50411
Date: 27-Apr-05

MDL = 5.0 µg/L
Postdig'n spike conc. = 100.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml		Total µg
FRONT HALVES									
Reagent Blank	50411.RB-1	-6.7	-6.7	100	1			<	0.50
Field Blank	50411.FB-1	-1.1	-1.1	100	1			<	0.50
Run - 1	50411.1-1	-1.6	-1.6	100	1			<	0.50
Run - 2	50411.2-1	-2.3	-2.3	100	1			<	0.50
Run - 3	50411.3-1	-3.4	-3.4	100	1			<	0.50
BACK HALVES									
Reagent Blank	50411.RB-2A	-6.7	-6.7	100	1	204	154	<	0.66
Field Blank	50411.FB-2A	-4.3	-4.3	100	1	295	195	<	0.76
Run - 1	50411.1-2A	-3.8	-3.8	100	1	441	341	<	0.65
Run - 2	50411.2-2A	-3.0	-3.0	100	1	418	318	<	0.66
Run - 3	50411.3-2A	-4.0	-4.0	100	1	387	287	<	0.67
LINE BLANKS									
Line Blank 1	50411.LB1	-4.3	-4.3	100	1	48	48	<	0.50
Line Blank 2	50411.LB2	-3.5	-3.5	100	1	46	46	<	0.50
Line Blank 3	50411.LB3	-5.7	-5.7	100	1	46	46	<	0.50
FRONT SPIKE	50411.1-1S	82.4				% REC =	82.4%		
BACK SPIKE	50411.1-2AS	76.2				% REC =	76.2%		

Calibration Data

	True conc., µg/L	Abs.
Blank	0.0	0.000
Standard 1	10.0	0.030
Standard 2	50.0	0.125
Standard 3	100.0	0.283
Standard 4	200.0	0.539

Calibration Verifications

ICV = 100	103.5	CCV2 = 100	96.1
ICB = 0	-3.8	CCB2 = 0	-2.9
CCV1 = 100	100.4	CCV3 = 100	99.3
CCB1 = 0	-6.6	CCB3 = 0	-2.4

ARSENIC

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 50411
Date: 03-May-05

MDL = 5.0 µg/L
Postdig'n spike conc. = 100.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml	Total µg
CONTAINER 3								
Run - 3	50411.3-3	2.7	2.7	100	1			< 0.50

Calibration Data

	True conc., µg/L	Abs.
Blank	0.0	0.000
Standard 1	10.0	0.030
Standard 2	50.0	0.143
Standard 3	100.0	0.290
Standard 4	200.0	0.554

Calibration Verifications

ICV = 100	106.9
ICB = 0	3.8
CCV1 = 100	109.1
CCB1 = 0	3.1

BERYLLIUM
GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 50411
Date: 27-Apr-05

MDL = 0.3 µg/L
Postdig'n spike conc. = 2.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml		Total µg
FRONT HALVES									
Reagent Blank	50411.RB-1	0.03	0.03	100	1			<	0.03
Field Blank	50411.FB-1	0.19	0.19	100	1			<	0.03
Run - 1	50411.1-1	0.13	0.13	100	1			<	0.03
Run - 2	50411.2-1	0.08	0.08	100	1			<	0.03
Run - 3	50411.3-1	-0.01	-0.01	100	1			<	0.03
BACK HALVES									
Reagent Blank	50411.RB-2A	0.08	0.08	100	1	204	154	<	0.04
Field Blank	50411.FB-2A	0.00	0.00	100	1	295	195	<	0.05
Run - 1	50411.1-2A	-0.05	-0.05	100	1	441	341	<	0.04
Run - 2	50411.2-2A	0.29	0.29	100	1	418	318	<	0.04
Run - 3	50411.3-2A	0.00	0.00	100	1	387	287	<	0.04
LINE BLANKS									
Line Blank 1	50411.LB1	0.07	0.07	100	1	48	48	<	0.03
Line Blank 2	50411.LB2	0.07	0.07	100	1	46	46	<	0.03
Line Blank 3	50411.LB3	0.30	0.30	100	1	46	46	<	0.03
FRONT SPIKE	50411.3-1S	1.98				% REC =	99.0%		
BACK SPIKE	50411.1-2AS	1.98				% REC =	99.0%		

Calibration Data

	True conc., µg/L	Abs.
Blank	0.0	0.000
Standard 1	1.0	0.013
Standard 2	2.0	0.025
Standard 3	3.0	0.034
Standard 4	4.0	0.042

Calibration Verifications

ICV = 3	3.09	CCV2 = 3	3.48
ICB = 0	-0.16	CCB2 = 0	0.09
CCV1 = 3	3.38	CCV3 = 3	3.14
CCB1 = 0	-0.02	CCB3 = 0	0.05

BERYLLIUM

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 50411
Date: 03-May-05

MDL = 0.2 µg/L
Postdig'n spike conc. = 5.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml	Total µg
CONTAINER 3								
Run - 3	50411.3-3	0.02	0.02	100	1			< 0.020

Calibration Data

Analysis performed by Method of Standard Addition (MSA)

CADMIUM

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 50411
Date: 27-Apr-05

MDL = 0.2 µg/L
Postdig'n spike conc. = 5.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml		Total µg
FRONT HALVES									
Reagent Blank	50411.RB-1	0.43	0.43	100	1				0.04
Field Blank	50411.FB-1	0.01	0.01	100	1			<	0.02
Run - 1	50411.1-1	2.39	23.9	100	10				2.39
Run - 2	50411.2-1	2.51	25.1	100	10				2.51
Run - 3	50411.3-1	2.59	25.9	100	10				2.59
BACK HALVES									
Reagent Blank	50411.RB-2A	0.31	0.31	100	1	204	154		0.04
Field Blank	50411.FB-2A	0.40	0.40	100	1	295	195		0.06
Run - 1	50411.1-2A	1.27	1.27	100	1	441	341		0.16
Run - 2	50411.2-2A	0.55	0.55	100	1	418	318		0.07
Run - 3	50411.3-2A	0.54	0.54	100	1	387	287		0.07
LINE BLANKS									
Line Blank 1	50411.LB1	0.24	0.24	100	1	48	48		0.02
Line Blank 2	50411.LB2	0.01	0.01	100	1	46	46	<	0.02
Line Blank 3	50411.LB3	0.06	0.06	100	1	46	46	<	0.02
FRONT SPIKE	50411.1-1S	7.32				% REC =	98.6%		
BACK SPIKE	50411.1-2AS	4.59				% REC =	66.4%		

Calibration Data

	True conc., µg/L	Abs.
Blank	0.0	0.000
Standard 1	0.5	0.026
Standard 2	2.0	0.109
Standard 3	5.0	0.267
Standard 4	10.0	0.509

Calibration Verifications

ICV = 5	5.32	CCV2 = 5	5.50
ICB = 0	-0.08	CCB2 = 0	0.02
CCV1 = 5	5.28	CCV3 = 5	5.02
CCB1 = 0	0.05	CCB3 = 0	0.02

CADMIUM

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 50411
Date: 03-May-05

MDL = 5.0 µg/L
Postdig'n spike conc. = 100.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml	Total µg
CONTAINER 3								
Run - 3	50411.3-3	9.05	9.05	100	1			0.905

Calibration Data

	True conc., µg/L	Abs.
Blank	0.0	0.000
Standard 1	0.5	0.037
Standard 2	2.0	0.145
Standard 3	5.0	0.362
Standard 4	10.0	0.685

Calibration Verifications

ICV = 5	4.95
ICB = 0	-0.01
CCV1 = 5	5.21
CCB1 = 0	-0.01

LEAD

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 50411
Date: 27-Apr-05

MDL = 5.0 µg/L
Postdig'n spike conc. = 100.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml		Total µg
FRONT HALVES									
Reagent Blank	50411.RB-1	4.6	4.6	100	1			<	0.50
Field Blank	50411.FB-1	2.5	2.5	100	1			<	0.50
Run - 1	50411.1-1	71.0	710.0	100	10				71.00
Run - 2	50411.2-1	70.5	705.0	100	10				70.50
Run - 3	50411.3-1	59.6	596.0	100	10				59.60
BACK HALVES									
Reagent Blank	50411.RB-2A	3.9	3.9	100	1	204	154	<	0.66
Field Blank	50411.FB-2A	3.7	3.7	100	1	295	195	<	0.76
Run - 1	50411.1-2A	38.5	38.5	100	1	441	341		4.98
Run - 2	50411.2-2A	28.4	28.4	100	1	418	318		3.73
Run - 3	50411.3-2A	11.5	11.5	100	1	387	287		1.55
LINE BLANKS									
Line Blank 1	50411.LB1	2.0	2.0	100	1	48	48	<	0.50
Line Blank 2	50411.LB2	-0.1	-0.1	100	1	46	46	<	0.50
Line Blank 3	50411.LB3	3.5	3.5	100	1	46	46	<	0.50
FRONT SPIKE	50411.2-1S	177.9				% REC =	107.4%		
BACK SPIKE	50411.1-2AS	143.1				% REC =	104.6%		

Calibration Data

	True conc., µg/L	Abs.
Blank	0.0	0.000
Standard 1	10.0	0.028
Standard 2	50.0	0.124
Standard 3	100.0	0.243
Standard 4	200.0	0.438

Calibration Verifications

ICV = 100	101.6	CCV2 = 100	107.7
ICB = 0	1.5	CCB2 = 0	2.2
CCV1 = 100	110.8	CCV3 = 100	104.1
CCB1 = 0	3.4	CCB3 = 0	1.3

LEAD

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 50411
Date: 03-May-05

MDL = 5.0 µg/L
Postdig'n spike conc. = 100.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml	Total µg
CONTAINER 3								
Run - 3	50411.3-3	130.0	260.0	100	2			26.00

Calibration Data

	True conc., µg/L	Abs.
Blank	0.0	0.000
Standard 1	10.0	0.027
Standard 2	50.0	0.160
Standard 3	100.0	0.307
Standard 4	200.0	0.573

Calibration Verifications

ICV = 100	107.5
ICB = 0	-1.3
CCV1 = 100	107.2
CCB1 = 0	-2.2

MANGANESE

ICP ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 50411
Date: 27-Apr-05

MDL = 5.0 µg/L
Postdig'n spike conc. = 1000.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml		Total µg
FRONT HALVES									
Reagent Blank	50411.RB-1	9.1	9.1	100	1				0.91
Field Blank	50411.FB-1	10.4	10.4	100	1				1.04
Run - 1	50411.1-1	703.2	703.2	100	1				70.32
Run - 2	50411.2-1	730.3	730.3	100	1				73.03
Run - 3	50411.3-1	534.1	534.1	100	1				53.41
BACK HALVES									
Reagent Blank	50411.RB-2A	0.6	0.6	100	1	204	154	<	0.66
Field Blank	50411.FB-2A	4.8	4.8	100	1	295	195	<	0.76
Run - 1	50411.1-2A	43.1	43.1	100	1	441	341		5.57
Run - 2	50411.2-2A	21.8	21.8	100	1	418	318		2.87
Run - 3	50411.3-2A	21.4	21.4	100	1	387	287		2.89
LINE BLANKS									
Line Blank 1	50411.LB1	-0.2	-0.2	100	1	48	48	<	0.50
Line Blank 2	50411.LB2	-0.4	-0.4	100	1	46	46	<	0.50
Line Blank 3	50411.LB3	1.8	1.8	100	1	46	46	<	0.50
FRONT SPIKE	50411.1-1S	1558.1				% REC =	85.5%		
BACK SPIKE	50411.1-2AS	764.3				% REC =	72.1%		

Calibration Data

	True conc., µg/L	Emission
Blank	0.0	53
Standard 1	20	149
Standard 2	2000	13412

Calibration Verifications

ICV = 1000	1023.0	CCV2 = 1000	952.4
ICB = 0	-0.7	CCB2 = 0	-2.0
CCV1 = 1000	1075.0	CCV3 = 1000	1012.4
CCB1 = 0	-1.9	CCB3 = 0	-1.9

MANGANESE

ICP ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 50411
Date: 03-May-05

MDL = 5.0 µg/L
Postdig'n spike conc. = 100.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml	Total µg
CONTAINER 3								
Run - 3	50411.3-3	432.8	432.8	100	1			43.28

Calibration Data

	True conc., µg/L	Emission
Blank	0.0	51
Standard 1	20.0	164
Standard 2	2000.0	15354

Calibration Verifications

ICV = 1000	989.8
ICB = 0	1.2
CCV1 = 1000	1024.3
CCB1 = 0	-0.6

NICKEL

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 50411
Date: 27-Apr-05

MDL = 10.0 µg/L
Postdig'n spike conc. = 100.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml		Total µg
FRONT HALVES									
Reagent Blank	50411.RB-1	5.7	5.7	100	1			<	1.00
Field Blank	50411.FB-1	2.8	2.8	100	1			<	1.00
Run - 1	50411.1-1	17.1	17.1	100	1				1.71
Run - 2	50411.2-1	18.2	18.2	100	1				1.82
Run - 3	50411.3-1	11.2	11.2	100	1				1.12
BACK HALVES									
Reagent Blank	50411.RB-2A	1.3	1.3	100	1	204	154	<	1.32
Field Blank	50411.FB-2A	3.2	3.2	100	1	295	195	<	1.51
Run - 1	50411.1-2A	2.3	2.3	100	1	441	341	<	1.29
Run - 2	50411.2-2A	4.4	4.4	100	1	418	318	<	1.31
Run - 3	50411.3-2A	1.9	1.9	100	1	387	287	<	1.35
LINE BLANKS									
Line Blank 1	50411.LB1	-1.6	-1.6	100	1	48	48	<	1.00
Line Blank 2	50411.LB2	-0.4	-0.4	100	1	46	46	<	1.00
Line Blank 3	50411.LB3	1.2	1.2	100	1	46	46	<	1.00
FRONT SPIKE	50411.1-1S	121.7				% REC =	104.6%		
BACK SPIKE	50411.1-2AS	107.9				% REC =	107.9%		

Calibration Data

	True conc., µg/L	Abs.
Blank	0.0	0.000
Standard 1	20.0	0.056
Standard 2	50.0	0.137
Standard 3	100.0	0.256
Standard 4	200.0	0.455

Calibration Verifications

ICV = 100	105.9	CCV2 = 100	105.5
ICB = 0	0.5	CCB2 = 0	2.0
CCV1 = 100	110.1		
CCB1 = 0	-0.5		

NICKEL

GFAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 50411
Date: 03-May-05

MDL = 10.0 µg/L
Postdig'n spike conc. = 100.0 µg/L

Sample ID Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Total Volume ml	Volume Dig'd ml	Total µg
CONTAINER 3								
Run - 3	50411.3-3	16.7	16.7	100	1			1.67

Calibration Data

	True conc., µg/L	Abs.
Blank	0.0	0.000
Standard 1	20.0	0.051
Standard 2	50.0	0.131
Standard 3	100.0	0.236
Standard 4	200.0	0.426

Calibration Verifications

ICV = 100	102.8
ICB = 0	5.0
CCV1 = 100	97.1
CCB1 = 0	4.4

MERCURY

CVAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 50411
Date: 27-Apr-05

MDL = 0.2 µg/L
Postdig'n spike conc. = 5.0 µg/L

Sample ID / Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Volume ml	Digst'd Vol. ml		Total µg
FRONT HALVES									
Reagent Blank	50411.RB-1	0.13	0.13	100	1	100	5	<	0.40
Field Blank	50411.FB-1	0.04	0.04	100	1	100	5	<	0.40
Run - 1	50411.1-1	0.05	0.05	100	1	100	5	<	0.40
Run - 2	50411.2-1	0.10	0.10	100	1	100	5	<	0.40
Run - 3	50411.3-1	0.10	0.10	100	1	100	5	<	0.40
FRACTIONS 2B									
Reagent Blank	50411.RB-2B	0.06	0.06	100	1	204	5	<	0.82
Field Blank	50411.FB-2B	0.03	0.03	100	1	295	5	<	1.18
Run - 1	50411.1-2B	4.90	4.90	100	1	441	2		107.93
Run - 2	50411.2-2B	2.45	2.45	100	1	418	5		20.44
Run - 3	50411.3-2B	5.73	5.73	100	1	387	2		110.78
BACK SPK	50411.1-2BS	9.83				%REC =	98.6%		
FRACTIONS 3A									
Reagent Blank	50411.RB-3A	0.08	0.08	100	1	100	10	<	0.20
Field Blank	50411.FB-3A	0.02	0.02	100	1	95	10	<	0.19
Run - 1	50411.1-3A	0.32	0.32	100	1	102	10		0.33
Run - 2	50411.2-3A	1.30	1.30	100	1	96	10		1.25
Run - 3	50411.3-3A	0.05	0.05	100	1	99	10	<	0.20
FRACTIONS 3B									
Reagent Blank	50411.RB-3B	0.08	0.08	100	1	115	20	<	0.12
Field Blank	50411.FB-3B	0.14	0.14	100	1	330	20	<	0.33
Run - 1	50411.1-3B	6.12	6.12	100	1	414	20		12.66
Run - 2	50411.2-3B	4.14	4.14	100	1	398	5		32.95
Run - 3	50411.3-3B	3.22	3.22	100	1	427	1		137.49
FRACTIONS 3C									
Reagent Blank	50411.RB-3C	0.07	0.07	100	1	223	5	<	0.89
Field Blank	50411.FB-3C	0.07	0.07	100	1	224	5	<	0.90
Run - 1	50411.1-3C	5.24	5.24	100	1	278	5		29.11
Run - 2	50411.2-3C	4.27	4.27	100	1	242	5		20.64
Run - 3	50411.3-3C	4.75	4.75	100	1	243	5		23.09

MERCURY

CVAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 50411
Date: 27-Apr-05

MDL = 0.2 µg/L
Postdig'n spike conc. = 5.0 µg/L

Sample ID / Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Volume ml	Digst'd Vol. ml		Total µg
Line Blank									
Line Blank 1	50411.LB1	0.07	0.07	100	1	48	10	<	0.10
Line Blank 2	50411.LB2	0.00	0.00	100	1	46	10	<	0.09
Line Blank 3	50411.LB3	0.01	0.01	100	1	46	10	<	0.09

Calibration Data

	True conc., µg/L	Abs.
Blank	0.00	0.000
Standard 1	0.50	0.010
Standard 2	1.00	0.024
Standard 3	2.00	0.047
Standard 4	5.00	0.118
Standard 5	10.00	0.238

Calibration Verifications

ICV = 5	4.86	CCV3 = 5	5.20
ICB = 0	-0.05	CCB3 = 0	0.03
CCV1 = 5	4.89	CCV4 = 5	4.86
CCB1 = 0	-0.02	CCB4 = 0	0.05
CCV2 = 5	4.98		
CCB2 = 0	-0.02		

MERCURY

CVAA ANALYSIS RUN SUMMARY AND CALCULATION WORKSHEET

Client: Desert Air Environmental
Proj. #: 50411
Date: 03-May-05

MDL = 0.2 µg/L
Postdig'n spike conc. = 5.0 µg/L

Sample ID / Client	FAL	Test Sol'n µg/L	Dig'te Conc µg/L	FV ml	Dil'n Factor	Volume ml	Digst'd Vol. ml	Total µg
CONTAINER 3								
Run - 3	50411.3-3	0.40	0.40	100	1	100	10	0.40

Calibration Data

	True conc., µg/L	Abs.
Blank	0.00	0.000
Standard 1	0.50	0.011
Standard 2	1.00	0.023
Standard 3	2.00	0.047
Standard 4	5.00	0.115
Standard 5	10.00	0.232

Calibration Verifications

ICV = 5	5.09
ICB = 0	-0.03
CCV1 = 5	5.45
CCB1 = 0	-0.02

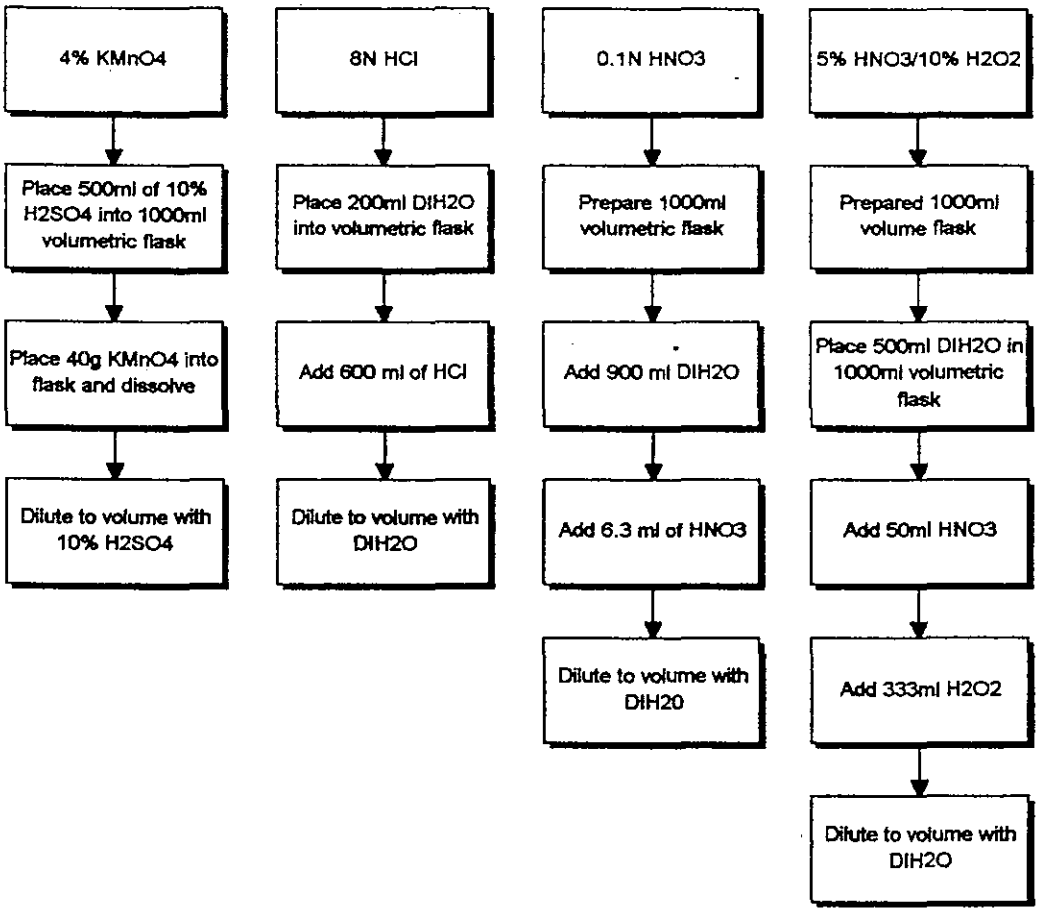


Figure 2-1. Method 29 Reagent Preparation

DESERT AIR ENVIRONMENTAL SERVICES, LLC

Recovery Data

Client: NUCOR STEEL
Emissions Unit: BAGHOUSE
EPA Method: 29

Test Date: 4/11-13/05
Project: Compliance

Impinger Contents	Run 1			Run 2			Run 3		
	Final	Initial	Net	Final	Initial	Net	Final	Initial	Net
HNO_3/H_2O_2	666.5	571.5	95.0	693.1	575.5	117.6	699.1	575.8	123.3
HNO_3/H_2O_2	615.2	609.0	6.2	600.0	592.8	7.2	589.1	583.7	5.4
KO	476.1	475.5	0.60	460.9	459.2	1.7	462.9	461.1	1.8
$KMnO_4$	577.1	575.6	1.50	615.1	613.2	1.9	571.1	570.9	.20
$KMnO_4$	617.2	616.1	1.10	571.4	570.9	.50	616.3	615.6	.70
SILICA	862.1	815.7	46.4	879.1	817.6	61.5	897.3	854.3	43.0
LINE WASH			-50.0			-50.0			-50.0
Filter #									
Tare Wt.									
Total Volume of H_2O, grams			100.8			140.4			124.4

Comments

Vol 357.6	Vol 412.29	
% O_2	% O_2	% O_2
% CO_2	% CO_2	% CO_2

Impinger Contents	Run 4			Run 5			Run 6		
	Final	Initial	Net	Final	Initial	Net	Final	Initial	Net
Filter #									
Tare Wt.									
Total Volume of H_2O, grams									

Comments

% O_2	% O_2	% O_2
% CO_2	% CO_2	% CO_2

357.6
412.29

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: Nucon Steel	Meter Box: 1501		Stack Diameter (in): 21 ft ±
Facility: Hartford County	Meter Delta H @: 1.835T		Stack Static Pressure: -0.80
Unit: Rayhouse	Meter Calibration Factor (Y): 0.9998		Assumed Moisture: 2%
Date: 11 April 2005	Probe #: CAE 12'		Start time: 0825 End Time: 1025
Technicians: TLN Team Leader: MTR	Probe Liner Material: S/wSS		Nozzle Diameter (in): 0.196
Method / Run # EPA 29 Run-1	Pitot Tube Cp: 0.84		Initial Leak Rate: 0.007 at 10 in Hg
Sheet 1 of 4	Ambient Temp.: 75	Pbarr: 29.94	Final Leak rate:

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						763.225					
6	10	6	1.3	1.8	170	771.1	56	56	230	249	60
	20	6	1.3	1.8	170	778.9	59	60	245	252	56
5	30	6	1.3	1.8	170	785.9	64	62	246	250	52
	40	6	1.4	2.0	160	793.7	67	62	250	250	53
4	50	6	1.4	1.9	182	801.5	68	66	248	251	54
	60	6	1.4	1.9	202	809.2	77	69	248	250	54
3	70	6	1.4	1.9	198	817.3	81	73	250	250	54
	80	6	1.4	1.9	199	825.0	82	73	249	251	55
2	90	6	1.4	1.8	198	832.8	84	77	248	250	55
	100	6	1.5	2.1	156	840.7	86	78	250	251	56
1	110	6	1.3	1.8	176	848.9	87	79	248	250	56
	120	6	1.5	1.9	219	856.8	86	83	246	250	56
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1501		Stack Diameter (in): 21 ft
Facility: Hertford	Meter Delta H @: 1.8357		Stack Static Pressure: -0.80
Unit: Baghouse	Meter Calibration Factor (Y): 0.9998		Assumed Moisture: 2 %
Date: 11 April 2005	Probe #: CAE 12'		Start time: 1050 End Time: 1250
Technicians: TLN Team Leader: MTR	Probe Liner Material: Glass		Nozzle Diameter (in): 0.196
Method / Run # EPA Method 29 R-1	Pitot Tube Cp: 0.84		Initial Leak Rate: —
Sheet 2 of 4	Ambient Temp.: 75	Pbarr: 29.94	Final Leak rate: —

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						856.Y					
6	10	6	1.4	2.0	156	865.2	89	90	247	250	58
	20	6	1.2	1.6	201	872.5	93	88	251	251	56
5	30	6	1.3	1.7	210	879.8	93	88	247	250	55
	40	6	1.5	2.2	174	888.4	103	96	246	251	55
4	50	6	1.1	1.5	180	895.4	107	98	247	252	53
	60	6	1.1	1.4	220	902.2	108	99	246	253	52
3	70	6	1.3	1.8	192	909.7	109	101	244	251	52
	80	6	1.3	1.8	194	917.3	109	102	248	250	52
2	90	6	1.3	1.7	204	924.9	109	103	245	249	53
	100	6	1.2	1.6	206	932.1	109	99	247	251	52
1	110	6	1.2	1.6	207	939.2	103	99	249	250	54
	120	6	1.2	1.7	193	946.7	102	98	250	250	54
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM...TAL SERVICES,LLC

Field Data

Client: Nucor Steel	Meter Box: 1501		Stack Diameter (in): 21'
Facility: Hartford	Meter Delta H @: 1.8357		Stack Static Pressure: -0.80
Unit: Bayhouse	Meter Calibration Factor (Y): 0.9998		Assumed Moisture: 2%
Date: 11 April 2005	Probe #: CAE 12		Start time: 1311 End Time: 1511
Technicians: TLN Team Leader: MTR	Probe Liner Material: Glass		Nozzle Diameter (in): 0.196
Method / Run # EPA 29 Run-1	Pitot Tube Cp: 0.84		Initial Leak Rate: -
Sheet 3 of 4	Ambient Temp.: 75	Pbarr: 29.94	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						946.1					
6	10	6	1.2	1.6	190	954.0	97	96	249	251	55
	20	6	1.1	1.4	209	960.9	97	94	247	250	54
5	30	6	1.1	1.4	~~209~~ 210	967.6	97	92	246	249	54
	40	6	1.1	1.4	209	974.3	98	104	248	251	54
4	50	6	1.3	1.7	204	981.9	99	92	249	250	55
	60	6	1.3	1.7	205	989.4	100	92	251	250	56
3	70	6	1.4	1.9	182	997.0	97	89	249	251	56
	80	6	1.4	2.0	166	1004.4	98	88	250	249	56
2	90	6	1.0	1.4	210	1011.4	96	88	249	248	57
	100	6	1.0	1.3	214	1017.6	96	88	247	251	56
1	110	6	1.0	1.3	214	1024.8	97	89	249	251	56
	120	6	0.9	1.3	140	1030.3	90	91	248	252	54
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONM[illegible]TAL SERVICES,LLC

Field Data

Client: Nucor Steel	Meter Box: 1501		Stack Diameter (in): 21'
Facility: Hartford County	Meter Delta H @: 1.8357		Stack Static Pressure: -0.80
Unit: Baghouse	Meter Calibration Factor (Y): 0.9998		Assumed Moisture: 2%
Date: 11 April 2005	Probe #: CAE 12'		Start time: 1540 End Time: 1740
Technicians: TLN Team Leader: MTR	Probe Liner Material: Glass		Nozzle Diameter (in): .196
Method / Run # ERA 29 Run-1	Pitot Tube Cp: 0.84		Initial Leak Rate: -
Sheet 4 of 4	Ambient Temp.: 75	Pbarr: 29.94	Final Leak rate: 0.012 @ 10 in Hg

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						1030.3					
6	10	6	1.2	1.6	212	1037.4	76	78	248	251	54
	20	6	1.2	1.6	220	1044.5	81	80	247	250	54
5	30	6	1.2	1.6	191	1051.7	86	81	249	251	57
	40	6	1.2	1.7	162	1059.1	85	80	250	252	57
4	50	6	1.2	1.7	138	1066.5	86	80	253	251	57
	60	6	1.2	1.7	130	1074.5	88	81	254	250	56
3	70	6	1.3	1.9	119	1081.8	86	81	254	251	56
	80	6	1.3	1.9	113	1089.7	88	82	253	249	56
2	90	6	1.2	1.7	113	1097.2	89	82	252	250	57
	100	6	1.2	1.7	113	1104.5	88	82	251	250	57
1	110	6	1.4	2.0	115	1112.6	86	80	250	249	57
	120	6	1.4	2.0	110	1130,825	86	81	251	250	57
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1501	Stack Diameter (in): 21'
Facility: Hertford	Meter Delta H @: ~~.9998~~ 1.8357	Stack Static Pressure: -.75
Unit: BAGHOUSE	Meter Calibration Factor (Y): .9998	Assumed Moisture: 2%
Date: 12 April 2005	Probe #: 12'	Start time: 0850 End Time: 1050
Technicians: TLN Team Leader: MJP	Probe Liner Material: GLASS	Nozzle Diameter (in): .196
Method / Run # Method 29 Run-1	Pitot Tube Cp: .84	Initial Leak Rate: 0.009 @ 10 in Hg
Sheet 1 of 4	Ambient Temp.: 55 Pbarr: 30.00	Final Leak rate:

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						129.034					
6	10	6	1.4	2.2	94	137.6	56	62	248	251	52
	20	6	1.4	2.2	98	146.0	~~53~~ 57	64	249	252	46
					~~143~~						
5	30	6	1.4	2.1	143	154.2	58	68	251	248	46
	40	6	1.5	2.2	160	162.7	59	70	250	249	46
4	50	6	1.5	2.2	166	171.2	62	74	251	248	43
	60	6	1.5	2.2	178	179.6	63	74	250	251	44
3	70	6	1.6	2.3	144	188.4	64	74	250	249	45
	80	6	1.6	2.3	147	197.1	67	78	251	248	46
2	90	6	1.5	2.3	173	205.9	68	79	250	247	47
	100	6	1.6	2.2	180	214.5	69	79	249	248	46
1	110	6	1.5	2.1	176	~~222.86~~	70	81	250	247	48
	120	6	1.5	2.1	185	~~230.~~	81	72	250	250	48
						231.27					
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1501		Stack Diameter (in): 21'
Facility: Hartford	Meter Delta H @: 1.8357		Stack Static Pressure: -.75
Unit: Baghouse	Meter Calibration Factor (Y): .9998		Assumed Moisture: 2%
Date: 12 April 2005	Probe #: 12'		Start time: 1310 End Time: 1510
Technicians: TJM Team Leader: MTR	Probe Liner Material: GLASS, 234.162		Nozzle Diameter (in): .196
Method / Run #: Method 29 Run - 2	Pitot Tube Cp: .84		Initial Leak Rate: —
Sheet 2 of 4	Ambient Temp.: 55	Pbarr: 30.00	Final Leak rate: —

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
6	10	6.0	1.6	2.3	142	242.8	61	61	248	251	52
	20	6.0	1.6	2.3	150	251.4	65	62	250	252	49
5	30	6.0	1.5	2.1	185	259.7	66	62	251	250	46
	40	6.0	1.5	2.2	162	268.0	65	58	249	252	47
4	50	6.0	1.6	2.2	174	276.5	65	57	246	251	43
	60	6	1.6	2.2	181	285.0	67	57	249	250	44
3	70	6	1.6	2.3	154	293.7	68	58	251	249	44
	80	6	1.6	2.3	150	302.4	69	58	250	249	44
2	90	6	1.7	2.5	141	311.4	67	56	251	249	42
	100	6	1.7	2.4	163	320.3	65	55	251	248	43
1	110	6	1.6	2.3	162	329.0	66	55	250	251	42
	120	6	1.6	2.3	158	337.7	67	52	251	250	44
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1501		Stack Diameter (in): 21'
Facility: Hartford	Meter Delta H @: 1.8357		Stack Static Pressure: -.75
Unit: Baghouse	Meter Calibration Factor (Y): .9998		Assumed Moisture: 2%
Date: 12 April 2005	Probe #: 12'		Start time: 1554 End Time: 1754
Technicians: TLN Team Leader: MTR	Probe Liner Material: Glass		Nozzle Diameter (in): .196
Method / Run #: EPA 29 Run-2	Pitot Tube Cp: .84		Initial Leak Rate: -
Sheet 3 of 4	Ambient Temp.: 55	Pbarr: 30.00	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume (ft3)	Dry Gas Meter Temp (°F) Inlet	Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
						337.7					
6	10	6	1.5	2.1	181	345.5	54	53	248	256	49
	20	6	1.5	2.1	178	354.0	56	53	250	252	44
					~~175~~						
5	30	6	~~1.6~~ 1.5	2.1	185	362.1	57	51	250	244	45
	40	6	1.5	2.1	191	370.2	58	50	251	246	44
4	50	6	1.4	1.9	193	378.0	60	51	249	249	42
	60	6	1.4	1.9	186	385.7	59	50	250	249	41
3	70	6	1.6	2.3	140	394.3	60	52	251	248	43
	80	6	1.6	2.3	143	402.9	61	53	249	245	45
2	90	6	1.4	2.0	167	410.2	61	54	251	248	45
	100	6	1.4	2.0	165	418.5	62	53	250	251	41
1	110	6	1.4	2.0	171	426.5	63	54	252	250	46
	120	6	1.4	2.0	174	434.93	64	55	250	252	44
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: ~~1551~~ 1501	Stack Diameter (in): 21'
Facility: Cofield NC	Meter Delta H @: ~~1.8541~~ 1,8357	Stack Static Pressure: -.75
Unit: BAGhouse	Meter Calibration Factor (Y): ~~.9845~~ .9998	Assumed Moisture: 2%
Date: April 12th 2005	Probe #: ~~#2~~ 12'	Start time: ~~cont~~ 1510 End Time: 2010
Technicians: ~~KEN~~ TLN Team Leader: MTR	Probe Liner Material: ~~Teflon~~ Glass	Nozzle Diameter (in): .196
Method / Run # #2 ~~Hex Chrome~~ Method 29	Pitot Tube Cp: ~~.84~~ .84 → 55°F	Initial Leak Rate: ~~0.005~~
Sheet 1 of 1	Ambient Temp. ~~Begin End~~ Pbarr: 30.00	Final Leak rate: 0.015 in Hg

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp (°F)	Sample Volume (ft3)	Dry Gas Meter Temp (°F) Inlet	Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
						433.73					
6	10	6	1.7	2.5	138	443.2	54	54	~~250~~	~~252~~	44
	20	6	1.7	2.5	137	452.9	65	55	~~NA~~	~~NA~~	45
5	30	6	1.5	2.2	137	461.7	69	56	~~NA~~	~~NA~~	45
	40	6	1.5	2.2	130	469.5	70	56	~~NA~~	~~NA~~	44
4	50	6	1.4	2.0	143	477.9	72	61	~~NA~~	~~NA~~	45
	60	6	1.4	2.0	133	486.1	72	61	~~NA~~	~~NA~~	46
					~~135~~						
3	70	~~7~~ 6	1.7	2.5	130	495.1	73	61	~~NA~~	~~NA~~	46
	80	7	1.8	2.6	130	504.2	74	62	~~NA~~	~~NA~~	45
2	90	8	1.8	2.6	131	513.7	74	62	~~NA~~	~~NA~~	45
	100	8	1.8	2.6	133	523.0	74	63	~~NA~~	~~NA~~	45
1	110	8	1.8	2.6	128	532.2	74	63	~~NA~~	~~NA~~	48
	120	8	1.8	2.6	130	541.38	74	64	~~NA~~	~~NA~~	50
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1501	Stack Diameter (in): 21.0 FEET
Facility: Hartford County	Meter Delta H @: 1.8357	Stack Static Pressure: -.80
Unit: BAGHOUSE	Meter Calibration Factor (Y): .9998	Assumed Moisture: 1.5%
Date: 14 Apr 12005	Probe #: CAE 12'	Start time: ~~0557~~ 0910 End Time: ~~1641~~ 1155
Technicians: TLN Team Leader: MTR	Probe Liner Material: GLASS	Nozzle Diameter (in): .185
Method / Run #: Method 29 Run - 3	Pitot Tube Cp: .84	Initial Leak Rate: 0.001 @ 10" Hg.
Sheet 1 of 4	Ambient Temp.: 55 Pbarr: 29.74	Final Leak rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume (ft3)	Dry Gas Meter Temp (°F) Inlet	Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
						542.06					
6	10	6	1.5	1.5	140	549.1	51	49	250	248	51
	20	6	1.5	1.5	145	555.9	54	49	252	242	46
5	30	6	1.3	1.3	186	562.1	56	49	249	252	44
	40	6	1.4	1.4	138	567.7	57	50	247	250	46
4	50	6	1.2	1.2	178	574.7	59	51	246	251	47
	60	6	1.2	1.2	180	580.8	59	51	249	249	46
3	70	6	1.2	1.2	174	587.6	60	51	250	249	45
	80	6	1.2	1.2	161	593.1	62	51	251	249	45
2	90	6	1.5	1.5	174	599.9	62	53	250	251	45
	100	6	1.5	1.5	185	606.8	62	53	247	250	46
1	110	6	1.5	1.5	146	613.7	63	52	245	251	46
	120	6	1.5	1.6	123	620.8	63	52	250	252	46
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: Nucor Steel	Meter Box: 1501		Stack Diameter (in): 21'
Facility: Hertford County	Meter Delta H @: 1.8357		Stack Static Pressure: -.80
Unit: Baghouse	Meter Calibration Factor (Y): .9998		Assumed Moisture: 1.5
Date: 14 April 2005	Probe #: CAE 12'		Start time: 1215 End Time: 215
Technicians: TLN Team Leader: MTR	Probe Liner Material: GLASS		Nozzle Diameter (in): .185
Method / Run #: Method 29 Run 3	Pitot Tube Cp: .84		Initial Leak Rate: —
Sheet 2 of 4	Ambient Temp.: 55	Pbar: 29.74	Final Leak rate: —

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp (*F)	Gas Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						620.1					
6	10	6	1.5	1.5	179	627.7	53	53	250	249	45
	20	6	1.6	1.5	181	634.5	51	57	251	250	43
5	30	6	1.4	1.3	174	640.5	52	58	246	246	44
	40	6	1.4	1.3	181	647.1	52	58	251	244	45
4	50	6	1.5	1.4	190	653.8	52	59	247	248	45
	60	6	1.5	1.5	148	660.5	53	59	249	250	45
						667.1					
3	70	6	1.5	1.5	150	~~742~~	53	60	249	252	45
	80	6	1.5	1.5	148	674.2	53	60	248	253	46
2	90	6	1.5	1.4	177	680.8	54	60	250	250	45
	100	6	1.5	1.4	181	687.4	54	61	248	252	45
1	110	6	1.5	1.5	133	694.2	54	62	247	250	45
	120	6	1.5	1.5	141	701.0	55	61	248	251	46
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES, LLC

Field Data

Client: Nucor Steel	Meter Box: 1501	Stack Diameter (in): 21'
Facility: Hertford County	Meter Delta H @: 1.8357	Stack Static Pressure: -.80
Unit: Baghouse	Meter Calibration Factor (Y): .9998	Assumed Moisture: 1.5%
Date: 14 April 2005	Probe #: CAC 12'	Start Time: 1435 End Time: 1635
Technicians: TLN Team Leader: MTR	Probe Liner Material: GLASS	Nozzle Diameter (in): .185
Method 5 Run #: Method 29 Run 3	Pitot Tube Cp: .840	Initial Leak Rate: -
Sheet 3 of	Ambient Temp.: 55 Pbarr: 29.74	Final Leak Rate: -

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume	Dry Gas Meter Temp (°F) Inlet	Outlet (°F)	Probe Temp (°F)	Filter Temp (°F)	Impinger Exit Temp (°F)
						702.6					
A	10	5	1.4	1.4	167	702.6	50	50	248	250	46
	20	5	1.4	1.3	191	713.9	50	53	250	250	45
B	30	5	1.7	1.6	181	721.0	51	53	254	249	45
	40	5	1.7	1.7	164	728.9	51	55	252	250	45
4	50	6	1.8	1.7	190	725.5	52	57	249	251	45
	60	6	1.8	1.7	193	742.9	53	58	249	252	45
3	70	6	1.8	1.6	192	750.3	54	60	250	252	46
	80	6	1.6	1.5	175	757.2	54	61	251	254	46
2	90	6	1.6	1.5	174	764.1	54	62	250	251	47
	100	6	1.6	1.5	171	771.0	55	63	250	250	47
1	110	6	1.5	1.5	150	777.9	56	63	249	250	47
	120	6	1.5	1.5	152	784.8	57	63	250	250	47
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg (In/Out)				

DESERT AIR ENVIRONMENTAL SERVICES, LLC

Field Data

Client: Nucor Steel			Meter Box: 1501					Stack Diameter (in): 72'			
Facility: Hertford County			Meter Delta H @: 1.8357					Stack Static Pressure: -.80			
Unit: Baghouse			Meter Calibration Factor (Y): .9998					Assumed Moisture: 1.5%			
Date: 14 April 2005			Probe #: CAC 12'					Start time: 1655 End Time: 1855			
Technicians: JLN Team Leader: MTR			Probe Liner Material: GLASS					Nozzle Diameter (in): .185			
Method / Run # EPA Method 29			Pitot Tube Cp: .840					Initial Leak Rate: -			
Sheet 4 of 4			Ambient Temp.: 55		Pbarr: 29.71			Final Leak rate: 0.004 @ 11 "Hg.			
Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						784.8					
6	10	5	1.7	1.6	178	791.9	48	48	249	251	46
	20	5	1.7	1.6	180	799.0	52	49	251	251	46
5	30	5	1.8	1.8	131	806.5	54	50	249	250	46
	40	5	1.8	1.8	193	814.0	56	50	251	249	46
4	50	5	1.6	1.5	193	820.8	56	51	252	250	46
	60	5	1.6	1.5	191	827.6	57	52	253	249	46
3	70	5	1.6	1.5	178	834.4	58	52	250	251	47
	80	5	1.6	1.5	174	841.2	59	52	249	252	47
2	90	5	1.5	1.6	120	848.4	60	53	251	249	48
	100	5	1.5	1.6	125	855.5	61	54	250	250	48
1	110	5	1.6	1.6	148	862.6	62	54	250	249	48
	120	5	1.6	1.6	147	869.64	62	55	252	249	49
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

APPENDIX C
METHOD 0061 DATA

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 4/11-13/2005
Emissions Unit: Baghouse
Project: Compliance
EPA Method: OSW 0061

OSW Method 0061 Results

	Run 1	Run 2	Run 3
Test Date	4/11/2005	4/12/2005	4/13/2005
Start Time	8:25 AM	8:50 AM	9:00 AM
End Time	5:40 PM	8:10 PM	6:55 PM
Dry Gas Volume at standard conditions, Vm-Std (dscf)	359.65	358.60	355.44
Dry Gas Volume at standard conditions, Vm-Std (dscm)	10.18	10.15	10.06
Stack Gas Volumetric Flow Rate, (dscfm)	1200078	1312610	1314174
Moisture (%)	1.87%	1.37%	1.36%
Net Volume of O_2 (%)	20.13	20.16	19.97
Net Volume of CO_2 (%)	1.11	0.94	1.13
Process Rate (tons/hr)	239.00	252.00	292.00

HEXCHROME LABORATORY RESULTS AND PROCESS DATA (Method 0061)

	Sample Results			Total mass	Emissions: Run 1		
	Front		Back	(ug)	ug/dscf	ug/dscm	lb/hr
Chromium^{+6}	NA	<	1.00	1.00	2.78E-03	9.82E-02	4.41E-04

	Sample Results			Total mass	Emissions: Run 2		
	Front		Back	(ug)	ug/dscf	ug/dscm	lb/hr
Chromium^{+6}	NA	<	1.10	1.10	3.07E-03	1.08E-01	5.32E-04

	Sample Results			Total mass	Emissions: Run 3		
	Front		Back	(ug)	ug/dscf	ug/dscm	lb/hr
Chromium^{+6}	NA	<	1.30	1.30	3.66E-03	1.29E-01	6.35E-04

lb/hr = (ug/dscf * dscfm * 60) / 454000000

TEST DATA SUMMARY

Client: Nucor
Test Date: 4/11-13/2005
Emissions Unit: Baghouse
Project: Compliance Hexchrome
EPA Method: 0061

RUN DATA

	Run 1	Run 2	Run 3	**Averages**
Test Date	4/11/2005	4/12/2005	4/13/2005	
Start Time	8:25 AM	8:50 AM	9:00 AM	
Stop Time	5:40 PM	8:10 PM	6:55 PM	
Area of Stack (ft^2)	346.36	346.36	346.36	
Nozzle Diameter (ft)	0.01667	0.01667	0.01583	
Area of Nozzle (ft^2)	0.000218	0.000218	0.000197	
Pitot Tube Calibration Coefficient	0.840	0.840	0.840	
Dry Gas Meter Calibration Factor	0.98450	0.98450	0.98450	
Barometric Pressure ("Hg)	29.94	30.00	29.74	
Sampling Time (min)	480.0	480.0	480.0	
Dry Gas Volume (dcf)	370.13	380.36	356.62	369.04
Dry Gas Meter Temperature (°F)	77.7	56.6	60.3	
Dry Gas Meter Temperature (°R)	537.7	516.6	520.3	
Orifice Pressure Diff (delta H) ("H_2O)	1.770	1.988	1.462	
Volume Corrected to Standard Conditions (dscf)	359.65	385.60	355.44	366.90
Isokinetic Variation (%)	99.18	97.22	99.18	

STACK GAS VELOCITY AND VOLUMETRIC FLOW RATE (Method 2)

	Run 1	Run 2	Run 3	**Averages**
Stack Temperature (°F)	182.5	146.7	167.1	165.4
Stack Temperature (°R)	642.5	606.7	627.1	625.4
Stack Static Pressure ("H_20)	-0.80	-0.75	-0.70	-0.75
Stack Gas Pressure ("Hg)	29.88	29.94	29.69	29.84
Avg Delta P	1.338	1.492	1.565	1.465
Avg of Sqrt of Delta P	1.155	1.221	1.249	1.208
Stack Gas Velocity (ft/s)	71.71	73.52	76.73	73.99
Stack Gas Volumetric Flow Rate (dscf/h)	72004687	78756626	78850463	76537259
Stack Gas Volumetric Flow Rate (dscfm)	1200078	1312610	1314174	1275621
Stack Gas Volumetric Flow Rate (acfm)	1490182	1527804	1594650	1537545
Stack Gas Volumetric Flow Rate (scfm)	1222988	1330797	1332341	1295375

STACK GAS MOLECULAR WEIGHT (Method 3)

	Run 1	Run 2	Run 3	**Averages**
Net Volume of CO2 (%)	1.11	0.94	1.13	1.06
Net Volume of O2 (%)	20.13	20.16	19.97	20.09
Net Volume of N2 and CO (%)	78.76	78.90	78.90	78.85
Molecular Weight, Dry (g/g-mole)	28.98	28.96	28.98	28.97
Molecular Weight, Wet (g/g-mole)	28.78	28.81	28.83	28.80

STACK GAS MOISTURE CONTENT (Method 4)

	Run 1	Run 2	Run 3	**Averages**
Total Mass of Water Collected (g)	145.60	113.30	104.20	121.03
Total Volume of Water Collected in Impingers and Silica (ml)	145.86	113.50	104.39	121.25
Volume of Water Corrected to Standard Conditions (scf)	6.866	5.343	4.914	5.707
Water Vapor, Bws	0.0187	0.0137	0.0136	0.0153
Moisture Factor, (1- Bws)	0.9813	0.9863	0.9864	0.9847

FIELD DATA SPREADSHEET

Client: Nucor **Test Date:** 4/11/2005 **Run:** 1
Start Time: 8:25 AM **Emissions Unit:** Baghouse **EPA Method:** 0061
Stop Time: 5:40 PM **Project:** Compliance Hexchrome

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	OUT
INITIAL	0.00	703.0						
1a	10.00	709.8	1.3	1.8	1.81	170	54	53
1b	20.00	717.1	1.1	1.5	1.53	170	57	54
2a	30.00	724.0	1.0	1.4	1.35	194	57	55
2b	40.00	731.7	1.3	1.8	1.80	175	58	56
3a	50.00	739.5	1.2	1.6	1.73	158	64	58
3b	60.00	747.3	1.3	1.8	1.75	205	66	62
4a	70.00	755.0	1.3	1.8	1.81	185	67	64
4b	80.00	762.9	1.4	2.1	2.04	156	67	64
5a	90.00	770.7	1.2	1.6	1.61	209	69	65
5b	100.00	777.5	1.0	1.3	1.33	215	68	66
6a	110.00	785.3	1.3	1.7	1.78	195	68	66
6b	120.00	793.2	1.3	1.7	1.89	158	69	66
1a	130.00	801.3	1.5	2.0	2.18	160	69	67
1b	140.00	809.2	1.3	1.7	1.78	200	71	68
2a	150.00	816.9	1.3	1.7	1.77	208	74	71
2b	160.00	824.8	1.4	1.9	1.98	184	77	73
3a	170.00	832.4	1.4	1.9	1.91	210	78	74
3b	180.00	840.1	1.4	1.9	1.88	220	78	75
4a	190.00	848.0	1.3	1.7	1.77	212	79	76
4b	200.00	856.9	1.5	2.0	2.17	176	80	78
5a	210.00	864.7	1.4	1.9	1.95	200	81	78
5b	220.00	872.6	1.3	1.7	1.81	205	83	80
6a	230.00	880.5	1.4	1.9	1.98	196	86	82
6b	240.00	888.3	1.3	1.7	1.86	192	88	84
1a	250.00	896.2	1.4	1.9	1.95	215	93	91
1b	260.00	904.1	1.4	1.9	1.97	212	97	94
2a	270.00	911.9	1.4	1.9	1.96	218	99	97
2b	280.00	920.5	1.5	2.0	2.15	206	101	98
3a	290.00	928.9	1.5	1.0	2.16	206	104	101
3b	300.00	936.9	1.5	2.0	2.25	178	103	101
4a	310.00	944.8	1.5	2.0	2.26	180	106	104
4b	320.00	953.7	1.5	2.0	2.35	155	106	103
5a	330.00	961.9	1.4	1.9	2.03	206	106	104
5b	340.00	969.9	1.4	1.8	1.97	222	106	100
6a	350.00	978.1	1.5	2.0	2.20	192	100	100
6b	360.00	985.5	1.4	1.8	1.96	221	100	100
1a	370.00	992.9	1.3	1.7	1.83	201	85	85
1b	380.00	1000.0	1.3	1.7	1.76	220	79	80
2a	390.00	1007.5	1.4	1.8	1.90	216	76	78
2b	400.00	1015.0	1.4	1.8	2.04	163	73	74
3a	410.00	1022.6	1.4	1.8	2.09	148	71	71
3b	420.00	1029.8	1.3	1.7	1.97	135	70	70
4a	430.00	1037.0	1.2	1.7	1.85	124	69	69
4b	440.00	1044.3	1.2	1.7	1.87	116	67	67
5a	450.00	1051.8	1.3	1.7	2.04	110	66	62
5b	460.00	1059.1	1.3	1.7	2.06	105	66	64
6a	470.00	1066.0	1.2	1.7	1.89	109	65	64
6b	480.00	1073.1	1.3	1.7	1.90	150	64	63
Max/Avg.	480.00	370.133	1.338	1.770	1.914	182.521	78.750	76.563

FIELD DATA SPREADSHEET

Client: Nucor **Test Date:** 4/12/2005 **Run:** 2
Start Time: 8:50 AM **Emissions Unit:** Baghouse **EPA Method:** 0061
Stop Time: 8:10 PM **Project:** Compliance Hexchrome

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	69.976						
1a	10.00	78.0	1.50	2.00	2.35	102	51	51
1b	20.00	85.6	1.50	2.00	2.34	102	51	50
2a	30.00	93.4	1.50	2.00	2.38	96	53	51
2b	40.00	101.0	1.50	2.00	2.39	94	54	51
3a	50.00	108.6	1.50	2.00	2.24	133	56	53
3b	60.00	116.2	1.50	2.00	2.16	156	58	54
4a	70.00	123.7	1.50	2.00	2.13	166	59	56
4b	80.00	131.1	1.50	2.00	2.11	173	60	57
5a	90.00	138.6	1.50	2.00	2.15	164	61	58
5b	100.00	146.0	1.50	2.00	2.28	129	61	58
6a	110.00	153.6	1.50	2.00	2.14	166	61	60
6b	120.00	161.1	1.50	2.00	2.09	183	61	60
1a	130.00	171.8	1.50	2.00	2.07	178	53	53
1b	140.00	179.2	1.30	1.70	1.80	176	54	53
2a	150.00	186.5	1.50	2.00	2.14	160	55	53
2b	160.00	193.8	1.50	2.00	2.06	183	54	53
3a	170.00	201.2	1.50	2.00	2.08	175	52	52
3b	180.00	208.5	1.50	2.00	2.24	128	51	51
4a	190.00	215.8	1.50	2.00	2.28	119	52	52
4b	200.00	223.1	1.50	2.00	2.15	155	53	52
5a	210.00	230.5	1.50	2.00	2.11	168	54	51
5b	220.00	237.8	1.50	2.00	2.21	140	54	52
6a	230.00	245.2	1.50	2.00	2.11	168	54	52
6b	240.00	252.6	1.30	1.70	1.81	177	56	53
1a	250.00	260.2	1.50	2.00	2.06	186	56	55
1b	260.00	267.9	1.50	2.00	2.11	172	58	56
2a	270.00	276.2	1.50	2.00	2.26	132	59	57
2b	280.00	284.6	1.50	2.00	2.13	168	60	57
3a	290.00	292.9	1.50	2.00	2.09	182	60	58
3b	300.00	301.2	1.50	2.00	2.10	178	62	58
4a	310.00	309.7	1.50	2.00	2.24	139	62	59
4b	320.00	318.0	1.50	2.00	2.16	162	63	59
5a	330.00	326.5	1.50	2.00	2.14	169	64	60
5b	340.00	334.8	1.50	2.00	2.14	169	64	61
6a	350.00	343.5	1.50	2.00	2.16	164	65	61
6b	360.00	351.7	1.50	2.00	2.11	179	65	62
1a	370.00	360.2	1.50	2.00	2.26	131	58	58
1b	380.00	368.6	1.50	2.00	2.30	119	56	56
2a	390.00	377.1	1.50	2.00	2.20	144	56	55
2b	400.00	385.6	1.50	2.00	2.18	148	56	53
3a	410.00	394.1	1.50	2.00	2.14	165	56	59
3b	420.00	402.5	1.50	2.00	2.22	140	57	54
4a	430.00	411.0	1.50	2.00	2.33	113	60	55
4b	440.00	419.5	1.50	2.00	2.39	100	61	56
5a	450.00	428.1	1.50	2.00	2.42	93	61	57
5b	460.00	436.6	1.50	2.00	2.44	89	61	58
6a	470.00	445.2	1.50	2.00	2.45	86	61	58
6b	480.00	453.718	1.50	2.00	2.31	121	61	58
Max/Avg.	480.00	383.742	1.492	1.988	2.190	146.667	57.708	55.542

FIELD DATA SPREADSHEET

Client: Nucor **Test Date:** 4/13/2005 **Run:** 3
Start Time: 9:00 AM **Emissions Unit:** Baghouse **EPA Method:** 0061
Stop Time: 6:55 PM **Project:** Compliance Hexchrome

POINT #	RUN TIME	DGM (ft^3)	ΔP (in H_2O)	ORIFICE ΔH (in. H_2O) ACTUAL	ORIFICE ΔH (in. H_2O) DESIRED	T_{stack} (°F)	DGM TEMP (°F) IN	DGM TEMP (°F) OUT
INITIAL	0.00	454.220						
1a	10.00	461.90	2.00	1.96	2.35	156	56	56
1b	20.00	469.51	1.70	1.73	1.96	166	57	55
2a	30.00	477.04	1.70	1.70	1.95	172	58	57
2b	40.00	484.33	1.50	1.40	1.69	186	60	58
3a	50.00	491.59	1.70	1.70	2.06	140	62	58
3b	60.00	498.83	1.50	1.40	1.72	177	63	60
4a	70.00	506.07	1.70	1.70	1.92	186	64	60
4b	80.00	513.34	1.80	1.70	2.08	172	64	60
5a	90.00	520.61	1.60	1.50	1.88	165	64	63
5b	100.00	527.94	1.60	1.50	1.79	193	64	61
6a	110.00	535.25	1.50	1.50	1.69	190	64	62
6b	120.00	542.61	1.70	1.70	2.06	146	65	62
1a	130.00	550.05	1.70	1.60	2.03	151	62	60
1b	140.00	557.43	1.70	1.60	2.04	148	63	60
2a	150.00	564.88	1.80	1.80	2.08	174	63	61
2b	160.00	572.33	1.60	1.60	1.80	191	63	60
3a	170.00	579.76	1.60	1.60	1.79	193	63	61
3b	180.00	587.54	2.00	1.90	2.36	160	63	60
4a	190.00	594.94	1.70	1.70	2.04	148	63	60
4b	200.00	602.50	1.60	1.60	1.84	175	63	60
5a	210.00	610.10	1.60	1.60	1.83	178	63	61
5b	220.00	617.71	1.50	1.40	1.71	184	64	62
6a	230.00	625.30	1.50	1.40	1.85	133	64	61
6b	240.00	633.00	1.60	1.60	1.87	167	64	62
1a	250.00	640.59	1.50	1.40	1.73	171	60	60
1b	260.00	648.07	1.40	1.20	1.57	191	62	59
2a	270.00	655.65	1.50	1.40	1.72	179	63	60
2b	280.00	663.20	1.40	1.30	1.65	161	64	61
3a	290.00	670.01	1.20	1.10	1.35	190	64	61
3b	300.00	677.03	1.20	1.10	1.35	190	62	60
4a	310.00	684.05	1.20	1.20	1.44	149	62	60
4b	320.00	690.85	1.20	1.20	1.40	167	62	59
5a	330.00	698.26	1.50	1.40	1.68	190	60	60
5b	340.00	705.68	1.50	1.40	1.68	191	60	60
6a	350.00	714.00	1.50	1.50	1.78	153	60	60
6b	360.00	722.03	1.50	1.50	1.86	126	60	58
1a	370.00	729.83	1.60	1.50	1.84	170	56	56
1b	380.00	737.07	1.40	1.30	1.59	176	58	55
2a	390.00	744.47	1.80	1.80	2.21	131	58	56
2b	400.00	751.86	1.50	1.00	1.70	179	59	56
3a	410.00	759.26	1.50	1.00	1.67	193	59	56
3b	420.00	766.67	1.40	1.30	1.56	190	59	57
4a	330.00	774.10	1.50	1.00	1.66	197	59	56
4b	340.00	781.47	1.70	1.70	2.04	146	59	57
5a	350.00	788.84	1.60	1.50	2.03	115	61	59
5b	230.00	796.21	1.50	1.00	1.93	105	61	58
6a	240.00	803.53	1.60	1.50	1.93	143	60	60
6b	250.00	810.844	1.50	1.00	1.74	165	59	57
Max/Avg.	420.00	356.624	1.565	1.462	1.823	167.063	61.375	59.188

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ANALYSIS REPORT

Project #: 50411
Client: Desert Air Environmental
Client Project ID: NUCOR Steel

Report Date: 28-Apr-05
Date Received: 17-Apr-05

Total Micrograms in Sample

Sample	Cr(VI) Total µg
Reagent Blank	0.07
Field Blank	0.2
Run 1	1.0
Run 2	1.1
Run 3	1.3
Spike, %Recov.	96%

DESERT AIR ENVIRONMENTAL SERVICES, LLC

Recovery Data

Client: NUCOR STEEL
Emissions Unit: BAGHOUSE
EPA Method: 0061 Hexchrome

Test Date: 4/11-13/05
Project: Compliance

Impinger Contents	Run 1			Run 2			Run 3		
	Final	Initial	Net	Final	Initial	Net	Final	Initial	Net
.5M KOH	610.3	574.7	35.6	486.6	575.0	-88.4	573.1	541.0	32.1
.5M KOH	533.7	504.6	29.1	518.5	468.3	50.2	487.7	462.1	25.6
.5M KOH	540.9	520.3	20.6	516.1	464.8	51.3	459.1	438.3	20.8
KO	577.4	552.3	25.1	481.0	489.1	91.9	419.5	399.1	20.4
Silica	1008.7	953.5	55.2	1059.4	1001.1	58.3	1078.3	1023.0	55.3
Sys. WASH			-50.0			-50.0			-50.0
Filter #									
Tare Wt.									
Total Volume of H_2O, grams			115.6			113.3			104.2

Comments

500 m/s 1 of 2	500 m/s 1 of 2	500 m/s 1 of 2
110 m/s 2 of 2	- m/s 2 of 2	- m/s 2 of 2
% O_2	% O_2	% O_2
% CO_2	% CO_2	% CO_2

Impinger Contents	Run 4			Run 5			Run 6		
	Final	Initial	Net	Final	Initial	Net	Final	Initial	Net
Filter #									
Tare Wt.									
Total Volume of H_2O, grams									

Comments

% O_2	% O_2	% O_2
% CO_2	% CO_2	% CO_2

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 2887	Stack Diameter (in): 21
Facility: Cofield NC	Meter Delta H @: 1.8511	Stack Static Pressure: -.80
Unit: Baghouse	Meter Calibration Factor (Y): .9845	Assumed Moisture: 2%
Date: April 11th 2005	Probe #: 12'	Start time: 0825 End Time: 1025
Technicians: K.E.N Team Leader: MTR	Probe Liner Material: Teflon	Nozzle Diameter (in): .200
Method / Run # 0061 Run 1	Pitot Tube Cp: 0.84	Initial Leak Rate: [redacted] .002 @ 10" Hg
Sheet 1 of 4	Ambient Temp.: 66 Pbarr: 29.94	Final Leak rate:

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						703.05					
6	10	2	1.3	1.8	170	709.84	54	53	NA	NA	46
	20	2	1.3	1.8	170	717.15	57	54	NA	NA	43
5	30	2	1.0	1.4	194	724.02	57	55	NA	NA	46
	40	2	1.3	1.8	175	731.73	58	56	NA	NA	51
4	50	2	1.2	1.6	158	739.53	64	58	NA	NA	54
	60	2	1.3	1.8	205	747.34	66	62	NA	NA	56
3	70	2	1.3	1.8	185	755.07	67	64	NA	NA	57
	80	2	1.4	2.1	156	762.91	67	64	NA	NA	59
2	90	2	1.2	1.6	209	770.75	69	65	NA	NA	62
	100	2	1.0	1.3	215	777.52	68	66	NA	NA	64
1	110	2	1.3	1.7	195	785.37	68	66	NA	NA	64
	120	2	1.3	1.7	158	793.26	69	66	NA	NA	65
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 2887	Stack Diameter (in): 21'
Facility: Cofield NC	Meter Delta H @: 1.8511	Stack Static Pressure: -.80
Unit: Baghouse	Meter Calibration Factor (Y): .9845	Assumed Moisture: 2%
Date: April 11th	Probe #: 12'	Start time: 0800 End Time:
Technicians: K.E.N Team Leader: MTR	Probe Liner Material: Teflon	Nozzle Diameter (in): .200
Method / Run # 1 Hex Chrom 0061	Pitot Tube Cp: .0.84	Initial Leak Rate: ~~0.00~~ cont.
Sheet 2 of 4	Ambient Temp.: ~~64~~ 69 Pbarr: 29.94	**Final Leak rate:**

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume (ft3)	Dry Gas Meter Temp (°F) inlet	Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
						~~801.3~~ 793.26					
6	10	2	1.5	20	160	801.36	69	67	NA	NA	60
	20	2	1.3	1.7	200	809.27	71	68	NA	NA	46
5	30	2	1.3	1.7	208	816.93	74	71	NA	NA	48
	40	2	1.4	1.9	184	824.87	77	73	NA	NA	51
4	50	2	1.4	1.9	210	832.48	78	74	NA	NA	56
	60	2	1.4	1.9	220	840.17	78	75	NA	NA	56
3	70	2	1.3	1.7	212	848.09	79	76	NA	NA	56
	80	2	1.5	2.0	176	856.92	80	78	NA	NA	57
2	90	2	1.4	1.9	200	864.73	81	78	NA	NA	59
	100	2	1.3	1.7	205	872.66	83	80	NA	NA	60
1	110	2	1.4	1.9	196	880.51	86	82	NA	NA	61
	120	2	1.3	1.7	192	888.35	88	84	NA	NA	62
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL				Meter Box: 2887						Stack Diameter (in): 21'			
Facility: Cofield NC				Meter Delta H @: 1.8511						Stack Static Pressure: -.80			
Unit: Baghouse				Meter Calibration Factor (Y): .9845						Assumed Moisture: 2%			
Date: April 11th 2005				Probe #: 12'						Start time: cont. End Time:			
Technicians: K.ED Team Leader: MTR				Probe Liner Material: Teflon						Nozzle Diameter (in): .200			
Method / Run # 1 HexChrom				Pitot Tube Cp: 0.84						Initial Leak Rate: ~~0.00~~ cont.			
Sheet 3 of 4				Ambient Temp.: 97		Pbarr: 29.94				Final Leak rate:			
Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F)	Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)	
						888.35							
6	10	2	1.4	1.9	215	896.27	93		91	NA	NA	48	
	20	2	1.4	1.9	212	904.17	97		94	NA	NA	50	
5	30	2	1.4	1.9	218	911.91	99		97	NA	NA	52	
	40	2	1.5	2.0	206	920.58	101		98	NA	NA	54	
4	50	2	1.5	2.0	206	928.94	104		101	NA	NA	55	
	60	2	1.5	2.0	178	936.97	103		101	NA	NA	55	
3	70	2	1.5	2.0	180	944.82	106		104	NA	NA	55	
	80	2	1.5	2.0	155	953.72	106		103	NA	NA	56	
2	90	2	1.4	1.9	206	961.95	106		104	NA	NA	54	
	100	2	1.4	1.8	222	969.92	106		100	NA	NA	52	
1	110	2	1.5	2.0	192	978.18	100		100	NA	NA	52	
	120	2	1.4	1.8	221	985.53	100		100	NA	NA	52	
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)						

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL NC	Meter Box: 2807	Stack Diameter (in): 21'
Facility: Cofield NC	Meter Delta H @: 1.85/1	Stack Static Pressure: -.80
Unit: Baghouse	Meter Calibration Factor (Y): .9845	Assumed Moisture: 2%
Date: April 11th 2005	Probe #: 12'	Start time: cont. 1540 End Time: 1740
Technicians: KEN Team Leader: MTR	Probe Liner Material: Teflon	Nozzle Diameter (in): .200
Method / Run # #1	Pitot Tube Cp: 0.84	Initial Leak Rate: 0.000 @ 5 cont. Final
Sheet 1 of 1	Ambient Temp.: 73 Pbarr:	Final Leak rate:

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F)	Inlet Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						985.53					
6	10	2	1.3	1.7	201	922.9	85	85	NA	NA	58
	20	2	1.3	1.7	220	1000.05	79	80	NA	NA	59
5	30	2	1.3	1.7	214	1007.52	78	76	NA	NA	44
	40	2	1.4	1.8	163	015.03	73	74	NA	NA	43
						07					
4	50	2	1.4	1.8	148	022.64	71	71	NA	NA	43
	60	2	1.3	1.7	135	029.83	70	70	NA	NA	42
3	70	2	1.2	1.7	124	037.85	69	69	NA	NA	42
	80	2	1.2	1.7	116	044.35	67	67	NA	NA	42
2	90	2	1.3	1.7	110	051.82	66	62	NA	NA	43
	100	2	1.3	1.7	105	059.16	66	64	NA	NA	43
1	110	2	1.2	1.7	109	066.08	65	64	NA	NA	43
	120	2	1.3	1.7	150	073.16	64	63	NA	NA	43
						370.11					
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL NC	Meter Box: 2887	Stack Diameter (in): 21'
Facility: Cofield NC	Meter Delta H @: 1.8511	Stack Static Pressure: -.75
Unit: Baghouse	Meter Calibration Factor (Y): .9845	Assumed Moisture: 2%
Date: Apr. 12th 2005	Probe #: 12'	Start time: 0850 End Time: Cont.
Technicians: K.E.N Team Leader: M.T.R	Probe Liner Material: Teflon	Nozzle Diameter (in): ~~.190~~ .200
Method / Run # 2 HexChrom 0061	Pitot Tube Cp: 0.84	Initial Leak Rate: ~~0.00~~ @ 10"
Sheet 1 of 4	Ambient Temp.: 50 Pbarr: 30.00	Final Leak rate:

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						069~~8~~.976					
6	10	5	1.5	2.0	102	077.954	51	51	NA	NA	48
	20	5	1.5	2.0	102	085.627	51	50	NA	NA	40
5	30	5	1.5	2.0	96	093.410	53	51	NA	NA	42
	40	5	1.5	2.0	94	100.976	54	51	NA	NA	44
4	50	5	1.5	2.0	133	108.595	56	53	NA	NA	48
	60	5	1.5	2.0	156	116.224	58	54	NA	NA	51
					~~165~~						
3	70	5	1.5	2.0	166	123.695	59	56	NA	NA	52
	80	5	1.5	2.0	173	131.137	60	57	NA	NA	52
2	90	5	1.5	2.0	164	138.610	61	58	NA	NA	53
	100	5	1.5	2.0	129	146.010	61	58	NA	NA	54
1	110	5	1.5	2.0	166	153.586	61	60	NA	NA	54
	120	5	1.5	2.0	183	161.082	61	60	NA	NA	56
						LEAK Check					
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL				Meter Box: 2884					Stack Diameter (in): 21'			
Facility: Cofield NC				Meter Delta H @: 1.8511					Stack-Static Pressure: -.75			
Unit:				Meter Calibration Factor (Y): .9845					Assumed Moisture: 2 %			
Date: April 12th 2005				Probe #: 12'					Start time: cont. ~~1300~~ End Time: Cont.			
Technicians: K.E.N Team Leader: MTR				Probe Liner Material: Teflon					Nozzle Diameter (in): .200			
Method / Run # #2 Hexadrom				Pitot Tube Cp: 0.84					Initial Leak Rate: ~~0.00~~ @ 10"			
Sheet 2 of 4				Ambient Temp.: 57		Pbarr: 30.00			Final Leak rate:			
Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume ~~161.082~~ 169.466 (ft3)	Dry Gas Meter Temp (*F)	Inlet Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)	
6	10	4	1.5	2.0	178	171.833	53	53	NA	NA	51	
	20	4	1.3	1.7	176	179.195	54	53	NA	NA	39	
5	30	4	1.5	20	160	186.512	55	53	NA	NA	44	
	40	4	1.5	2.0	183	193.838	54	53	NA	NA	45	
4	50	4	1.5	2.0	175	201.167	52	52	NA	NA	48	
	60	4	1.5	2.0	128	208.495	51	51	NA	NA	49	
3	70	4	1.5	2.0	119	215.834	52	52	NA	NA	50	
	80	4	1.5	2.0	155	223.142	53	52	NA	NA	51	
2	90	4	1.5	2.0	168	230.487	54	51	NA	NA	50	
	100	4	1.5	2.0	140	237.838	54	52	NA	NA	50	
1	110	4	1.5	2.0	168	245.190	54	52	NA	NA	49	
	120	4	1.3	1.7	177	252.595	56	53	NA	NA	49	
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)					

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 2887	Stack Diameter (in): 21"
Facility: Cofield NC	Meter Delta H @: 1.8571	Stack Static Pressure: -.75
Unit:	Meter Calibration Factor (Y): .9845	Assumed Moisture: 2%
Date: April 12th 2005	Probe #: 12'	Start time: Cont. 1555 End Time:
Technicians: K.E.N Team Leader: MTR	Probe Liner Material: Teflon	Nozzle Diameter (in): .200
Method / Run # 2 HexChrom	Pitot Tube Cp: 0.84	Initial Leak Rate: ~~0.00~~ @5"
Sheet 3 of 4	Ambient Temp.: 60 Pbarr: 30.00	Final Leak rate:

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F) Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						252.895					
6	10	4	1.5	2.0	186	260.213	56	55	NA	NA	48
	20	4	1.5	2.0	172	267.895	58	56	NA	NA	42
5	30	4	1.5	2.0	132	276.220	59	57	NA	NA	44
	40	4	1.5	2.0	168	284.553	60	57	NA	NA	45
4	50	4	1.5	2.0	182	292.864	60	58	NA	NA	46
	60	4	1.5	2.0	178	301.220	62	58	NA	NA	47
3	70	4	1.5	2.0	139	309.695	62	59	NA	NA	48
	80	4	1.5	2.0	162	317.980	63	59	NA	NA	49
2	90	4	1.5	2.0	169	326.463	64	60	NA	NA	50
	100	4	1.5	2.0	169	334.813	64	61	NA	NA	49
					46						
1	110	4	1.5	2.0	168	343.466	65	61	NA	NA	49
	120	4	1.5	2.0	179	351.662	65	62	NA	NA	50
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 2887	Stack Diameter (in): 21'
Facility: Cofield NC	Meter Delta H @: 1.8511	Stack Static Pressure: -.75
Unit: BAGHOUSE	Meter Calibration Factor (Y): .9845	Assumed Moisture: 2%
Date: April 12th 2005	Probe #: 12'	Start time: cont 1810 End Time: 2010
Technicians: K.E.N Team Leader: MTR	Probe Liner Material: Teflon	Nozzle Diameter (in): .200
Method / Run # 2 Hex Chrom	Pitot Tube Cp: 0.84	Initial Leak Rate: [redacted]
Sheet 4 of 4	Ambient Temp.: 56 Pbarr: 30.00	Final Leak rate: 0.000 @ 10"

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (*F)	Sample Volume (ft3)	Dry Gas Meter Temp (*F)	Inlet	Outlet(*F)	Probe Temp (*F)	Box Temp (*F)	Impinger Exit Temp (*F)
						351.662						
6	10	5	1.5	2.0	131	360.210	58		58	NA	NA	44
	20	5	1.5	2.0	119	368.638	56		56	NA	NA	44
5	30	5	1.5	2.0	144	377.125	56		55	NA	NA	54
	40	5	1.5	2.0	148	385.592	56		53	NA	NA	52
4	50	5	1.5	2.0	165	394.127	56		59	NA	NA	43
	60	5	1.5	2.0	140	402.495	57		54	NA	NA	43
3	70	5	1.5	2.0	113	410.980	60		55	NA	NA	44
	80	5	1.5	2.0	100	419.495	61		56	NA	NA	44
2	90	5	1.5	2.0	93	428.059	61		57	NA	NA	45
	100	5	1.5	2.0	89	436.610	61		58	NA	NA	45
1	110	5	1.5	2.0	86	445.216	61		58	NA	NA	44
	120	5	1.5	2.0	121	453.718	61		58	NA	NA	44
						383.74						
	Totals:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)					

DESERT AIR ENVIRONMENTAL SERVICES, LLC
Field Data

Client: Nucor Steel	Meter Box: 2887	Stack Diameter (in): 72"
Facility: Cofield NC	Meter Delta H @: 1.8511	Stack Static Pressure: -.70
Unit: Baghouse	Meter Calibration Factor (Y): .9845	Assumed Moisture: 2%
Date: April 13th 2005	Probe #: 12'	Start time: 0900 End Time: 1255
Technicians: KEN Team Leader: MTR	Probe Liner Material: Teflon	Nozzle Diameter (in): .190
Method / Run #: 3 HexChrom	Pitot Tube Cp: 0.84	Initial Leak Rate: 0.002
Sheet 1 of 4	Ambient Temp.: 58 Pbarr: 29.74	Final Leak rate:

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume (ft3)	Dry Gas Meter Temp Inlet (°F)	Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
						454.220					
6	10	8	2.0	1.96	156	461.895	56	56	NA	NA	44
	20	8	1.7	1.73	166	469.51	57	55	NA	NA	35
5	30	8	1.7	1.7	172	477.038	58	57	NA	NA	37
	40	8	1.5	1.4	186	484.326	60	58	NA	NA	39
4	50	8	1.7	1.7	170	491.588	62	58	NA	NA	42
	60	8	1.5	1.9	177	498.825	63	60	NA	NA	44
3	70	8	1.7	1.7	186	506.068	64	60	NA	NA	45
	80		1.8	1.7	172	513.337	64	60	NA	NA	45
2	90	8	1.6	1.5	165	520.610	64	63	NA	NA	47
	100	8	1.6	1.5	193	527.937	64	61	NA	NA	47
1	110	8	1.5	1.5	190	535.246	64	62	NA	NA	46
	120	8	1.7	1.7	146	542.609	65	62	NA	NA	47
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

DESERT AIR ENVIRONMENTAL SERVICES,LLC
Field Data

Client: NUCOR STEEL	Meter Box: 2887	Stack Diameter (in): 21'
Facility: Cofield NC	Meter Delta H @: 1.8511	Stack Static Pressure: -.70
Unit: Baghouse	Meter Calibration Factor (Y): .9845	Assumed Moisture: 2%
Date: April 13th 2005	Probe #: 12'	Start time: Cont. (0955) 1215 End Time:
Technicians: K.E.N Team Leader: MTR	Probe Liner Material: Teflon	Nozzle Diameter (in): .190
Method / Run # 3 Hex Chrom	Pitot Tube Cp: 0.84	Initial Leak Rate: Cont ~~0.00~~ @ 5"
Sheet 2 of 4	Ambient Temp.: 63 Pbarr: 29.74	Final Leak rate:

Traverse Point Number	Sampling Time (min)	Vacuum (in Hg)	Velocity Head (Delta P)	Orifice (Delta H) (in H2O)	Stack Temp. (°F)	Sample Volume (ft3)	Dry Gas Meter Temp (°F) Inlet	Outlet(°F)	Probe Temp (°F)	Box Temp (°F)	Impinger Exit Temp (°F)
						542.609					
6	10	7	1.7	1.6	151	550.048	62	60	NA	NA	46
	20	7	1.7	1.6	148	557.432	63	60	NA	NA	42
5	30	7	1.8	1.8	174	564.883	63	61	NA	NA	44
	40	7	1.6	1.6	191	572.330	63	60	NA	NA	43
4	50	7	1.6	1.6	193	579.761	63	61	NA	NA	46
	60	7	2.0	1.9	160	587.843	63	60	NA	NA	47
						½ K	587.543	MTR			
3	70	7	1.7	1.7	148	594.937	63	60	NA	NA	50
	80	7	1.6	1.6	175	602.500	63	60	NA	NA	47
2	90	7	1.6	1.6	178	610.095	63	61	NA	NA	45
	100	7	1.5	1.4	184	617.710	64	62	NA	NA	45
1	110	7	1.5	1.4	133	625.295	64	61	NA	NA	45
	120	7	1.6	1.6	167	632.995	64	62	NA	NA	46
	Total:	Max:	Avg:	Avg:	Avg:	Total:	Avg(in&out)				

APPENDIX D
METHOD 18 DATA

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 4/11/2005
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA TO-15

STACK RESULTS

	Run 1	
Test Date	4/11/2005	
Start Time	8:25 AM	
End Time	5:40 PM	
Sample Gas Volume, (cf)	5.64	
Dry Gas Volume at standard conditions, Vm-Std (dscf)	5.49	
Dry Gas Volume at standard conditions, Vm-Std (dscm)	0.16	
Stack Gas Volumetric Flow Rate, (dscfm)	1173963	(Average of Methods 5,29,0061)
Process Rate (tons/hr)	239.00	

VOC RESULTS AND PROCESS DATA (EPA Method TO-15)

	Sample Results		Total mass	Emissions: Run 1		
	Tube 1	Tube 2	(ug)	ug/dscf	ug/dscm	lb/hr
Propylene	0.10	0.04	0.14	2.5501E-02	9.0055E-01	3.9564E-03
Chloromethane	0.20	0.22	0.42	7.6503E-02	2.7017E+00	1.1869E-02
Methanol	0.98	0.00	0.98	1.7851E-01	6.3039E+00	2.7695E-02
Ethanol	0.11	0.00	0.11	2.0036E-02	7.0758E-01	3.1086E-03
Acetone	7.68	1.90	9.58	1.7450E+00	6.1623E+01	2.7073E-01
Isopropyl Alcohol	0.49	0.00	0.49	8.9253E-02	3.1519E+00	1.3848E-02
Methylene Chloride	1.56	0.15	1.71	3.1148E-01	1.1000E+01	4.8325E-02
Carbon Disulfide	0.07	0.00	0.07	1.2750E-02	4.5028E-01	1.9782E-03
Vinyl Acetate	0.08	0.11	0.19	3.4608E-02	1.2222E+00	5.3695E-03
Hexane	25.20	0.25	25.45	4.6357E+00	1.6371E+02	7.1923E-01
Benzene	2.36	0.73	3.09	5.6284E-01	1.9876E+01	8.7324E-02
Cyclohexane	0.43	0.00	0.43	7.8324E-02	2.7660E+00	1.2152E-02
Trichloroethene	0.22	0.00	0.22	4.0073E-02	1.4152E+00	6.2173E-03
2,2,4-Trimethylpentane	0.60	0.00	0.60	1.0929E-01	3.8595E+00	1.6956E-02
Heptane	1.19	0.00	1.19	2.1676E-01	7.6547E+00	3.3630E-02
Toluene	5.72	0.65	6.37	1.1603E+00	4.0975E+01	1.8002E-01
Chlorobenzene	0.09	0.11	0.20	3.6430E-02	1.2865E+00	5.6521E-03
Ethylbenzene	0.21	0.22	0.43	7.8324E-02	2.7660E+00	1.2152E-02
m- & p-Xylenes	0.50	0.35	0.85	1.5483E-01	5.4676E+00	2.4021E-02
Styrene	0.64	0.76	1.40	2.5501E-01	9.0055E+00	3.9564E-02
o-Xylene	0.17	0.11	0.28	5.1002E-02	1.8011E+00	7.9129E-03
1,3,5-Trimethylbenzene	0.11	0.00	0.11	2.0036E-02	7.0758E-01	3.1086E-03
1,2,4-Trimethylbenzene	0.24	0.00	0.24	4.3716E-02	1.5438E+00	6.7825E-03

lb/hr = (ug/dscf * dscfm * 60) / 454000000

Total VOC, lb/hr	**1.542**
Process Rate VOC, lb/ton	**0.0065**
Benzene, lb/hr	**0.0873**
Benzene, lb/yr	**685.3**

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 4/11/2005
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA TO-15

STACK RESULTS

	Run 2	
Test Date	4/12/2005	
Start Time	8:50 AM	
End Time	8:10 PM	
Sample Gas Volume, (cf)	5.56	
Dry Gas Volume at standard conditions, Vm-Std (dscf)	5.42	
Dry Gas Volume at standard conditions, Vm-Std (dscm)	0.15	
Stack Gas Volumetric Flow Rate, (dscfm)	1332981	(Average of Methods 5,29,0061)
Process Rate (tons/hr)	252.00	

VOC RESULTS AND PROCESS DATA (EPA Method TO-15)

	Sample Results		Total mass	Emissions: Run 2		
	Tube 1	Tube 2	(ug)	ug/dscf	ug/dscm	lb/hr
Propylene	0.17	0.00	0.17	3.14E-02	1.11E+00	5.53E-03
Chloromethane	0.28	0.06	0.34	6.27E-02	2.22E+00	1.11E-02
Methanol	1.10	0.68	1.78	3.28E-01	1.16E+01	5.79E-02
Ethanol	0.20	0.00	0.20	3.69E-02	1.30E+00	6.50E-03
Acetone	3.80	1.40	5.20	9.59E-01	3.39E+01	1.69E-01
Isopropyl Alcohol	0.16	0.00	0.16	2.95E-02	1.04E+00	5.20E-03
Methylene Chloride	2.11	0.65	2.76	5.09E-01	1.80E+01	8.97E-02
Carbon Disulfide	0.06	0.00	0.06	1.11E-02	3.91E-01	1.95E-03
Vinyl Acetate	0.00	0.09	0.09	1.66E-02	5.86E-01	2.93E-03
2-Butanone (MEK)	2.81	0.00	2.81	5.18E-01	1.83E+01	9.13E-02
Hexane	2.03	0.00	2.03	3.75E-01	1.32E+01	6.60E-02
Benzene	4.05	0.19	4.24	7.82E-01	2.76E+01	1.38E-01
Cyclohexane	0.10	0.00	0.10	1.85E-02	6.52E-01	3.25E-03
1,4-Dioxane	0.28	0.09	0.37	6.90E-02	2.44E+00	1.22E-02
2,2,4-Trimethylpentane	0.69	0.00	0.69	1.27E-01	4.50E+00	2.24E-02
Heptane	1.11	0.13	1.24	2.28E-01	8.05E+00	4.02E-02
4-Methyl-2-Pentanone (MiBK)	0.12	0.00	0.12	2.21E-02	7.82E-01	3.90E-03
Toluene	7.11	1.09	8.20	1.51E+00	5.34E+01	2.67E-01
2-Hexanone	0.19	0.00	0.19	3.51E-02	1.24E+00	6.18E-03
Chlorobenzene	0.40	0.18	0.58	1.07E-01	3.78E+00	1.89E-02
Ethylbenzene	0.83	0.25	1.08	1.99E-01	7.04E+00	3.51E-02
m- & p-Xylenes	1.65	0.00	1.65	3.04E-01	1.08E+01	5.36E-02
Styrene	2.95	0.38	3.33	6.14E-01	2.17E+01	1.08E-01
o-Xylene	0.43	0.15	0.58	1.07E-01	3.78E+00	1.89E-02
4-Ethyltoluene	0.16	0.00	0.16	2.95E-02	1.04E+00	5.20E-03
1,3,5-Trimethylbenzene	0.14	0.00	0.14	2.58E-02	9.12E-01	4.55E-03
1,2,4-Trimethylbenzene	0.28	0.00	0.28	5.17E-02	1.82E+00	9.10E-03

Total VOC, lb/hr	**1.253**
Process Rate VOC, lb/ton	**0.0050**
Benzene, lb/hr	**0.1378**
Benzene, lb/yr	**1081.5**

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 4/11/2005
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA TO-15

STACK RESULTS

	Run 3	
Test Date	4/13/2005	
Start Time	9:55 AM	
End Time	6:55 PM	
Sample Gas Volume, (cf)	5.53	
Dry Gas Volume at standard conditions, Vm-Std (dscf)	5.34	
Dry Gas Volume at standard conditions, Vm-Std (dscm)	0.15	
Stack Gas Volumetric Flow Rate, (dscfm)	1295350	(Average of Methods 5,29,0061)
Process Rate (tons/hr)	292.00	

VOC RESULTS AND PROCESS DATA (EPA Method TO-15)

	Sample Results		Total mass	Emissions: Run 3		
	Tube 1	Tube 2	(ug)	ug/dscf	ug/dscm	lb/hr
Chloromethane	0.37	0.17	0.54	1.01E-01	3.57E+00	1.73E-02
Methanol	0.86	0.75	1.61	3.01E-01	1.06E+01	5.16E-02
Ethanol	0.00	0.05	0.05	8.80E-03	3.11E-01	1.51E-03
Acetone	5.50	2.60	8.10	1.52E+00	5.36E+01	2.60E-01
Methylene Chloride	1.12	0.80	1.92	3.60E-01	1.27E+01	6.16E-02
2-Butanone (MEK)	10.31	2.65	12.96	2.43E+00	8.57E+01	4.15E-01
Hexane	0.00	1.11	1.11	2.08E-01	7.34E+00	3.56E-02
Benzene	5.68	1.10	6.78	1.27E+00	4.48E+01	2.17E-01
Cyclohexane	0.11	0.11	0.22	4.12E-02	1.45E+00	7.05E-03
Heptane	4.40	0.00	4.40	8.24E-01	2.91E+01	1.41E-01
Toluene	18.80	1.05	19.85	3.72E+00	1.31E+02	6.36E-01
m- & p-Xylenes	0.16	0.10	0.26	4.87E-02	1.72E+00	8.34E-03

Total VOC, lb/hr	**1.853**
Process Rate VOC, lb/ton	**0.0063**
Benzene, lb/hr	**0.2174**
Benzene, lb/yr	**1705.8**

Laboratory Analysis Report

CLIENT	**: Desert Air Environmental**	**DATE RECEIVED**	**: 4/15/05**
PROJECT NO	**: 050117**	**DATE REPORTED**	**: 4/26/05**
MATRIX	**: Tenex sorbent Tube / AIR**		
UNITS	**: ug/sample**		

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 1 Tube 1			Run 1 Tube 2			
AAC ID	050117-9459			050117-9460			
Date Sampled	4/11/2005		PQL	4/11/2005		PQL	MDL
Date Analyzed	4/20/2005			4/20/2005			
Chlorodifluoromethane	ND	U	0.071	ND	U	0.071	0.0035
Propylene	0.10		0.017	0.04		0.017	0.0009
Dichlorodifluoromethane	ND	U	0.049	ND	U	0.049	0.0025
Chloromethane	0.20		0.021	0.22		0.021	0.0010
1,2-Dichloro-1,1,2,2-Tetrafluoroethane	ND	U	0.070	ND	U	0.070	0.0035
Vinyl Chloride	ND	U	0.026	ND	U	0.026	0.0013
Methanol	0.98		0.524	ND	U	0.524	0.0262
1,3-Butadiene	ND	U	0.022	ND	U	0.022	0.0011
Bromomethane	ND	U	0.039	ND	U	0.039	0.0019
Chloroethane	ND	U	0.026	ND	U	0.026	0.0013
Dichlorofluoromethane	ND	U	0.042	ND	U	0.042	0.0021
Vinyl Bromide	ND	U	0.044	ND	U	0.044	0.0022
Ethanol	0.11		0.094	ND	U	0.094	0.0047
Acetone	7.68		0.048	1.90		0.048	0.0024
Trichlorofluoromethane	ND	U	0.052	ND	U	0.052	0.0026
Acrylonitrile	ND	U	0.022	ND	U	0.022	0.0011
1,1-Dichloroethylene	ND	U	0.039	ND	U	0.039	0.0020
Isopropyl Alcohol	0.49		0.049	ND	U	0.049	0.0025
Methylene Chloride	1.56		0.035	0.15		0.035	0.0017
Allyl Chloride (Chloroprene)	ND	U	0.031	ND	U	0.031	0.0016
Carbon Disulfide	0.07		0.031	ND	U	0.031	0.0016
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	U	0.077	ND	U	0.077	0.0038
t-1,2-Dichloroethylene	ND	U	0.040	ND	U	0.040	0.0020
1,1-Dichloroethane	ND	U	0.040	ND	U	0.040	0.0020
MTBE	ND	U	0.036	ND	U	0.036	0.0018
Vinyl Acetate	0.08		0.035	0.11		0.035	0.0018
2-Butanone (MEK)	ND	U	0.059	ND	U	0.059	0.0029
cis-1,2- Dichloroethene	ND	U	0.039	ND	U	0.039	0.0020
Hexane	25.2	E	0.035	0.25		0.035	0.0018
Chloroform	ND	U	0.049	ND	U	0.049	0.0024
Ethyl Acetate	ND	U	0.036	ND	U	0.036	0.0018
Tetrahydrofuran	ND	U	0.029	ND	U	0.029	0.0015
1,2-Dichloroethane	ND	U	0.080	ND	U	0.080	0.0040
1,1,1-Trichloroethane	ND	U	0.055	ND	U	0.055	0.0027
Benzene	2.36		0.032	0.73		0.032	0.0016

Laboratory Analysis Report

CLIENT : **Desert Air Environmental**
PROJECT NO : **050117**
MATRIX : **Tenex sorbent Tube / AIR**
UNITS : **ug/sample**

DATE RECEIVED : **4/15/05**
DATE REPORTED : **4/26/05**

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 1 Tube 1			Run 1 Tube 2			
AAC ID	050117-9459			050117-9460			
Date Sampled	4/11/2005		PQL	4/11/2005		PQL	MDL
Date Analyzed	4/20/2005			4/20/2005			
Carbon Tetrachloride	ND	U	0.063	ND	U	0.063	0.0031
Cyclohexane	0.43		0.034	ND	U	0.034	0.0017
1,2-Dichloropropane	ND	U	0.046	ND	U	0.046	0.0023
Bromodichloromethane	ND	U	0.067	ND	U	0.067	0.0034
1,4-Dioxane	ND	U	0.072	ND	U	0.072	0.0036
Trichloroethene	0.22		0.107	ND	U	0.107	0.0054
2,2,4-Trimethylpentane	0.60		0.047	ND	U	0.047	0.0023
Heptane	1.19		0.041	ND	U	0.041	0.0020
cis-1,3-Dichloropropene	ND	U	0.045	ND	U	0.045	0.0022
4-Methyl-2-Pentanone (MiBK)	ND	U	0.041	ND	U	0.041	0.0020
t-1,3-Dichloropropene	ND	U	0.045	ND	U	0.045	0.0022
1,1,2-Trichloroethane	ND	U	0.054	ND	U	0.054	0.0027
Toluene	5.72		0.038	0.65		0.038	0.0019
2-Hexanone	ND	U	0.082	ND	U	0.082	0.0041
Dibromochloromethane	ND	U	0.085	ND	U	0.085	0.0043
1,2-Dibromoethane	ND	U	0.076	ND	U	0.076	0.0038
Tetrachloroethylene	ND	U	0.068	ND	U	0.068	0.0034
Chlorobenzene	0.09		0.046	0.11		0.046	0.0023
Ethylbenzene	0.21		0.043	0.22		0.043	0.0022
m- & p-Xylenes	0.50		0.043	0.35		0.043	0.0022
Bromoform	ND	U	0.103	ND	U	0.103	0.0052
Styrene	0.64		0.043	0.76		0.043	0.0021
1,1,2,2-Tetrachloroethane	ND	U	0.069	ND	U	0.069	0.0034
o-Xylene	0.17		0.043	0.11		0.043	0.0022
4-Ethyltoluene	ND	U	0.049	ND	U	0.049	0.0025
1,3,5-Trimethylbenzene	0.11		0.049	ND	U	0.049	0.0025
1,2,4-Trimethylbenzene	0.24		0.049	ND	U	0.049	0.0025
Benzyl Chloride	ND	U	0.104	ND	U	0.104	0.0052
1,3-Dichlorobenzene	ND	U	0.060	ND	U	0.060	0.0030
1,4-Dichlorobenzene	ND	U	0.060	ND	U	0.060	0.0030
1,2-Dichlorobenzene	ND	U	0.060	ND	U	0.060	0.0030
1,2,4-Trichlorobenzene	ND	U	0.148	ND	U	0.148	0.0074
Hexachlorobutadiene	ND	U	0.213	ND	U	0.213	0.0107
BFB-Surrogate Std. % Recovery	98%			103%			48-151

J- Analyte was detected. However the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Pratical Quantitation Limit (PQL).
U - Compound was analyzed for, but was not detected.
E - Estimated value, result outside linear range of instrument.

Dr. Sucha Parmar
Technical Director

Laboratory Analysis Report

CLIENT	**: Desert Air Environmental**	**DATE RECEIVED**	**: 4/15/05**
PROJECT NO	**: 050117**	**DATE REPORTED**	**: 4/26/05**
MATRIX	**: Tenex sorbent Tube / AIR**		
UNITS	**: ug/sample**		

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 2 Tube 1			Run 2 Tube 2			
AAC ID	050117-9461			050117-9462			
Date Sampled	4/12/2005		PQL	4/12/2005		PQL	MDL
Date Analyzed	4/20/2005			4/20/2005			
Chlorodifluoromethane	ND	U	0.071	ND	U	0.071	0.0035
Propylene	0.17		0.017	ND	U	0.017	0.0009
Dichlorodifluoromethane	ND	U	0.049	ND	U	0.049	0.0025
Chloromethane	0.28		0.021	0.06		0.021	0.0010
1,2-Dichloro-1,1,2,2-Tetrafluoroethane	ND	U	0.070	ND	U	0.070	0.0035
Vinyl Chloride	ND	U	0.026	ND	U	0.026	0.0013
Methanol	1.10		0.524	0.68		0.524	0.0262
1,3-Butadiene	ND	U	0.022	ND	U	0.022	0.0011
Bromomethane	ND	U	0.039	ND	U	0.039	0.0019
Chloroethane	ND	U	0.026	ND	U	0.026	0.0013
Dichlorofluoromethane	ND	U	0.042	ND	U	0.042	0.0021
Vinyl Bromide	ND	U	0.044	ND	U	0.044	0.0022
Ethanol	0.20		0.094	ND	U	0.094	0.0047
Acetone	3.8		0.048	1.4		0.048	0.0024
Trichlorofluoromethane	ND	U	0.052	ND	U	0.052	0.0026
Acrylonitrile	ND	U	0.022	ND	U	0.022	0.0011
1,1-Dichloroethylene	ND	U	0.039	ND	U	0.039	0.0020
Isopropyl Alcohol	0.16		0.049	ND	U	0.049	0.0025
Methylene Chloride	2.11		0.035	0.65		0.035	0.0017
Allyl Chloride (Chloroprene)	ND	U	0.031	ND	U	0.031	0.0016
Carbon Disulfide	0.06		0.031	ND	U	0.031	0.0016
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	U	0.077	ND	U	0.077	0.0038
t-1,2-Dichloroethylene	ND	U	0.040	ND	U	0.040	0.0020
1,1-Dichloroethane	ND	U	0.040	ND	U	0.040	0.0020
MTBE	ND	U	0.036	ND	U	0.036	0.0018
Vinyl Acetate	ND	U	0.035	0.09		0.035	0.0018
2-Butanone (MEK)	2.81		0.059	ND	U	0.059	0.0029
cis-1,2- Dichloroethene	ND	U	0.039	ND	U	0.039	0.0020
Hexane	2.03		0.035	ND	U	0.035	0.0018
Chloroform	ND	U	0.049	ND	U	0.049	0.0024
Ethyl Acetate	ND	U	0.036	ND	U	0.036	0.0018
Tetrahydrofuran	ND	U	0.029	ND	U	0.029	0.0015
1,2-Dichloroethane	ND	U	0.080	ND	U	0.080	0.0040
1,1,1-Trichloroethane	ND	U	0.055	ND	U	0.055	0.0027
Benzene	4.05		0.032	0.19		0.032	0.0016

Laboratory Analysis Report

CLIENT	**: Desert Air Environmental**	**DATE RECEIVED**	**: 4/15/05**
PROJECT NO	**: 050117**	**DATE REPORTED**	**: 4/26/05**
MATRIX	**: Tenex sorbent Tube / AIR**		
UNITS	**: ug/sample**		

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 2 Tube 1			Run 2 Tube 2			
AAC ID	050117-9461			050117-9462			
Date Sampled	4/12/2005		PQL	4/12/2005		PQL	MDL
Date Analyzed	4/20/2005			4/20/2005			
Carbon Tetrachloride	ND	U	0.063	ND	U	0.063	0.0031
Cyclohexane	0.10		0.034	ND	U	0.034	0.0017
1,2-Dichloropropane	ND	U	0.046	ND	U	0.046	0.0023
Bromodichloromethane	ND	U	0.067	ND	U	0.067	0.0034
1,4-Dioxane	0.28		0.072	0.094		0.072	0.0036
Trichloroethene	ND	U	0.107	ND	U	0.107	0.0054
2,2,4-Trimethylpentane	0.69		0.047	ND	U	0.047	0.0023
Heptane	1.11		0.041	0.126		0.041	0.0020
cis-1,3-Dichloropropene	ND	U	0.045	ND	U	0.045	0.0022
4-Methyl-2-Pentanone (MiBK)	0.12		0.041	ND	U	0.041	0.0020
t-1,3-Dichloropropene	ND	U	0.045	ND	U	0.045	0.0022
1,1,2-Trichloroethane	ND	U	0.054	ND	U	0.054	0.0027
Toluene	7.11		0.038	1.09		0.038	0.0019
2-Hexanone	0.19		0.082	ND	U	0.082	0.0041
Dibromochloromethane	ND	U	0.085	ND	U	0.085	0.0043
1,2-Dibromoethane	ND	U	0.076	ND	U	0.076	0.0038
Tetrachloroethylene	ND	U	0.068	ND	U	0.068	0.0034
Chlorobenzene	0.40		0.046	0.18		0.046	0.0023
Ethylbenzene	0.83		0.043	0.25		0.043	0.0022
m- & p-Xylenes	1.65		0.043	ND	U	0.043	0.0022
Bromoform	ND	U	0.103	ND	U	0.103	0.0052
Styrene	2.95		0.043	0.38		0.043	0.0021
1,1,2,2-Tetrachloroethane	ND	U	0.069	ND	U	0.069	0.0034
o-Xylene	0.43		0.043	0.15		0.043	0.0022
4-Ethyltoluene	0.16		0.049	ND	U	0.049	0.0025
1,3,5-Trimethylbenzene	0.14		0.049	ND	U	0.049	0.0025
1,2,4-Trimethylbenzene	0.28		0.049	ND	U	0.049	0.0025
Benzyl Chloride	ND	U	0.104	ND	U	0.104	0.0052
1,3-Dichlorobenzene	ND	U	0.060	ND	U	0.060	0.0030
1,4-Dichlorobenzene	ND	U	0.060	ND	U	0.060	0.0030
1,2-Dichlorobenzene	ND	U	0.060	ND	U	0.060	0.0030
1,2,4-Trichlorobenzene	ND	U	0.148	ND	U	0.148	0.0074
Hexachlorobutadiene	ND	U	0.213	ND	U	0.213	0.0107
BFB-Surrogate Std. % Recovery	100%			98%			48-151

J- Analyte was detected. However the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Pratical Quantitation Limit (PQL).

U - Compound was analyzed for, but was not detected.

E - Estimated value, result outside linear range of instrument.

Dr. Sucha Parmar
Technical Director

Laboratory Analysis Report

CLIENT	**: Desert Air Environmental**	**DATE RECEIVED**	**: 4/15/05**
PROJECT NO	**: 050117**	**DATE REPORTED**	**: 4/26/05**
MATRIX	**: Tenex sorbent Tube / AIR**		
UNITS	**: ug/sample**		

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 3 Tube 1			Run 3 Tube 2			
AAC ID	050117-9463			050117-9464			
Date Sampled	4/13/2005		PQL	4/13/2005		PQL	MDL
Date Analyzed	4/20/2005			4/20/2005			
Chlorodifluoromethane	ND	U	0.071	ND	U	0.071	0.0035
Propylene	ND	U	0.017	ND	U	0.017	0.0009
Dichlorodifluoromethane	ND	U	0.049	ND	U	0.049	0.0025
Chloromethane	0.37		0.021	0.17		0.021	0.0010
1,2-Dichloro-1,1,2,2-Tetrafluoroethane	ND	U	0.070	ND	U	0.070	0.0035
Vinyl Chloride	ND	U	0.026	ND	U	0.026	0.0013
Methanol	0.86		0.524	0.75		0.524	0.0262
1,3-Butadiene	ND	U	0.022	ND	U	0.022	0.0011
Bromomethane	ND	U	0.039	ND	U	0.039	0.0019
Chloroethane	ND	U	0.026	ND	U	0.026	0.0013
Dichlorofluoromethane	ND	U	0.042	ND	U	0.042	0.0021
Vinyl Bromide	ND	U	0.044	ND	U	0.044	0.0022
Ethanol	ND	U	0.094	0.047	J	0.094	0.0047
Acetone	5.5		0.048	2.6		0.048	0.0024
Trichlorofluoromethane	ND	U	0.052	ND	U	0.052	0.0026
Acrylonitrile	ND	U	0.022	ND	U	0.022	0.0011
1,1-Dichloroethylene	ND	U	0.039	ND	U	0.039	0.0020
Isopropyl Alcohol	ND	U	0.049	ND	U	0.049	0.0025
Methylene Chloride	1.12		0.035	0.80		0.035	0.0017
Allyl Chloride (Chloroprene)	ND	U	0.031	ND	U	0.031	0.0016
Carbon Disulfide	ND	U	0.031	ND	U	0.031	0.0016
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	U	0.077	ND	U	0.077	0.0038
t-1,2-Dichloroethylene	ND	U	0.040	ND	U	0.040	0.0020
1,1-Dichloroethane	ND	U	0.040	ND	U	0.040	0.0020
MTBE	ND	U	0.036	ND	U	0.036	0.0018
Vinyl Acetate	ND	U	0.035	ND	U	0.035	0.0018
2-Butanone (MEK)	10.31		0.059	2.65		0.059	0.0029
cis-1,2- Dichloroethene	ND	U	0.039	ND	U	0.039	0.0020
Hexane	ND	U	0.035	1.11		0.035	0.0018
Chloroform	ND	U	0.049	ND	U	0.049	0.0024
Ethyl Acetate	ND	U	0.036	ND	U	0.036	0.0018
Tetrahydrofuran	ND	U	0.029	ND	U	0.029	0.0015
1,2-Dichloroethane	ND	U	0.080	ND	U	0.080	0.0040
1,1,1-Trichloroethane	ND	U	0.055	ND	U	0.055	0.0027
Benzene	5.68		0.032	1.10		0.032	0.0016

Laboratorv Analvsis Report

CLIENT	**: Desert Air Environmental**	**DATE RECEIVED**	**: 4/15/05**
PROJECT NO	**: 050117**	**DATE REPORTED**	**: 4/26/05**
MATRIX	**: Tenex sorbent Tube / AIR**		
UNITS	**: ug/sample**		

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 3 Tube 1			Run 3 Tube 2			
AAC ID	050117-9463			050117-9464			
Date Sampled	4/13/2005		PQL	4/13/2005		PQL	MDL
Date Analyzed	4/20/2005			4/20/2005			
Carbon Tetrachloride	ND	U	0.063	ND	U	0.063	0.0031
Cyclohexane	0.11		0.034	0.11		0.034	0.0017
1,2-Dichloropropane	ND	U	0.046	ND	U	0.046	0.0023
Bromodichloromethane	ND	U	0.067	ND	U	0.067	0.0034
1,4-Dioxane	ND	U	0.072	ND	U	0.072	0.0036
Trichloroethene	ND	U	0.107	ND	U	0.107	0.0054
2,2,4-Trimethylpentane	ND	U	0.047	ND	U	0.047	0.0023
Heptane	4.40		0.041	ND	U	0.041	0.0020
cis-1,3-Dichloropropene	ND	U	0.045	ND	U	0.045	0.0022
4-Methyl-2-Pentanone (MiBK)	ND	U	0.041	ND	U	0.041	0.0020
t-1,3-Dichloropropene	ND	U	0.045	ND	U	0.045	0.0022
1,1,2-Trichloroethane	ND	U	0.054	ND	U	0.054	0.0027
Toluene	18.9	E	0.038	0.10		0.038	0.0019
2-Hexanone	ND	U	0.082	ND	U	0.082	0.0041
Dibromochloromethane	ND	U	0.085	ND	U	0.085	0.0043
1,2-Dibromoethane	ND	U	0.076	ND	U	0.076	0.0038
Tetrachloroethylene	ND	U	0.068	ND	U	0.068	0.0034
Chlorobenzene	ND	U	0.046	ND	U	0.046	0.0023
Ethylbenzene	ND	U	0.043	ND	U	0.043	0.0022
m- & p-Xylenes	0.16		0.043	0.10		0.043	0.0022
Bromoform	ND	U	0.103	ND	U	0.103	0.0052
Styrene	ND	U	0.043	ND	U	0.043	0.0021
1,1,2,2-Tetrachloroethane	ND	U	0.069	ND	U	0.069	0.0034
o-Xylene	ND	U	0.043	ND	U	0.043	0.0022
4-Ethyltoluene	ND	U	0.049	ND	U	0.049	0.0025
1,3,5-Trimethylbenzene	ND	U	0.049	ND	U	0.049	0.0025
1,2,4-Trimethylbenzene	ND	U	0.049	ND	U	0.049	0.0025
Benzyl Chloride	ND	U	0.104	ND	U	0.104	0.0052
1,3-Dichlorobenzene	ND	U	0.060	ND	U	0.060	0.0030
1,4-Dichlorobenzene	ND	U	0.060	ND	U	0.060	0.0030
1,2-Dichlorobenzene	ND	U	0.060	ND	U	0.060	0.0030
1,2,4-Trichlorobenzene	ND	U	0.148	ND	U	0.148	0.0074
Hexachlorobutadiene	ND	U	0.213	ND	U	0.213	0.0107
BFB-Surrogate Std, % Recovery	96%			95%			48-151

J- Analyte was detected. However the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Pratical Quantitation Limit (PQL).

U - Compound was analyzed for, but was not detected.

E - Estimated value, result outside linear range of instrument.

Dr. Sucha Parmar
Technical Director

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 4/11/2005
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA TO-15

STACK RESULTS

	Run 1	
Test Date	4/11/2005	
Start Time	8:25 AM	
End Time	5:40 PM	
Sample Gas Volume, (cf)	4.30	
Dry Gas Volume at standard conditions, Vm-Std (dscf)	4.18	
Dry Gas Volume at standard conditions, Vm-Std (dscm)	0.12	
Stack Gas Volumetric Flow Rate, (dscfm)	1173963	(Average of Methods 5,29,0061)

VOC RESULTS AND PROCESS DATA (EPA Method TO-15)

	Sample Results		Total mass	Emissions: Run 1		
	Tube 1	Tube 2	(ug)	ug/dscf	ug/dscm	lb/hr
Chloromethane	0.23	0.13	0.36	8.61E-02	3.04E+00	1.34E-02
Methanol	0.88	0.51	1.39	3.33E-01	1.17E+01	5.16E-02
Bromomethane	0.09	0.00	0.09	2.15E-02	7.60E-01	3.34E-03
Acetone	10.20	2.50	12.70	3.04E+00	1.07E+02	4.71E-01
Methylene Chloride	10.50	1.10	11.60	2.78E+00	9.80E+01	4.31E-01
Vinyl Acetate	0.00	0.07	0.07	1.67E-02	5.91E-01	2.60E-03
2-Butanone (MEK)	0.17	0.00	0.17	4.07E-02	1.44E+00	6.31E-03
Hexane	0.07	0.00	0.07	1.67E-02	5.91E-01	2.60E-03
Benzene	11.80	1.79	13.59	3.25E+00	1.15E+02	5.04E-01
Heptane	0.00	0.09	0.09	2.15E-02	7.60E-01	3.34E-03
Toluene	13.70	1.92	15.62	3.74E+00	1.32E+02	5.80E-01
Chlorobenzene	0.09	0.14	0.23	5.50E-02	1.94E+00	8.54E-03
Ethylbenzene	6.89	3.15	10.04	2.40E+00	8.48E+01	3.73E-01
m- & p-Xylenes	16.80	2.49	19.29	4.61E+00	1.63E+02	7.16E-01
Styrene	0.76	0.66	1.42	3.40E-01	1.20E+01	5.27E-02
o-Xylene	7.58	1.90	9.48	2.27E+00	8.01E+01	3.52E-01
1,2,4-Trimethylbenzene	0.11	0.00	0.11	2.63E-02	9.29E-01	4.08E-03

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 4/11/2005
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA TO-15

STACK RESULTS

	Run 2	
Test Date	4/12/2005	
Start Time	8:50 AM	
End Time	8:10 PM	
Sample Gas Volume, (cf)	4.24	
Dry Gas Volume at standard conditions, Vm-Std (dscf)	4.13	
Dry Gas Volume at standard conditions, Vm-Std (dscm)	0.12	
Stack Gas Volumetric Flow Rate, (dscfm)	1332981	(Average of Methods 5,29,0061)

VOC RESULTS AND PROCESS DATA (EPA Method TO-15)

	Sample Results		Total mass	Emissions: Run 2		
	Tube 1	Tube 2	(ug)	ug/dscf	ug/dscm	lb/hr
Propylene	0.00	0.03	0.03	7.26E-03	2.57E-01	1.28E-03
Chloromethane	0.00	0.05	0.05	1.21E-02	4.28E-01	2.13E-03
Methanol	0.93	0.66	1.59	3.85E-01	1.36E+01	6.78E-02
Acetone	15.30	1.20	16.50	4.00E+00	1.41E+02	7.04E-01
Methylene Chloride	0.92	0.31	1.23	2.98E-01	1.05E+01	5.25E-02
Carbon Disulfide	0.04	0.04	0.08	1.94E-02	6.84E-01	3.41E-03
Vinyl Acetate	0.00	0.09	0.09	2.18E-02	7.70E-01	3.84E-03
2-Butanone (MEK)	1.78	0.16	1.94	4.70E-01	1.66E+01	8.28E-02
Hexane	0.53	0.06	0.59	1.43E-01	5.04E+00	2.52E-02
Benzene	12.63	2.14	14.77	3.58E+00	1.26E+02	6.30E-01
Cyclohexane	0.07	0.00	0.07	1.69E-02	5.99E-01	2.99E-03
Heptane	0.51	0.08	0.59	1.43E-01	5.04E+00	2.52E-02
4-Methyl-2-Pentanone (MiBK)	0.00	0.06	0.06	1.35E-02	4.76E-01	2.38E-03
Toluene	15.60	2.33	17.93	4.34E+00	1.53E+02	7.65E-01
Chlorobenzene	0.00	0.16	0.16	3.87E-02	1.37E+00	6.82E-03
Ethylbenzene	9.05	1.60	10.65	2.58E+00	9.11E+01	4.54E-01
m- & p-Xylenes	18.80	1.18	19.98	4.84E+00	1.71E+02	8.52E-01
Styrene	1.08	0.11	1.19	2.88E-01	1.02E+01	5.08E-02
o-Xylene	8.87	0.24	9.11	2.21E+00	7.79E+01	3.89E-01
4-Ethyltoluene	0.00	0.06	0.06	1.45E-02	5.13E-01	2.56E-03
1,2,4-Trimethylbenzene	0.00	0.10	0.10	2.42E-02	8.55E-01	4.27E-03

TEST DATA SUMMARY

Client: Nucor Steel, Hertford
Test Date: 4/11/2005
Emissions Unit: Baghouse
Project: Compliance
EPA Method: EPA TO-15

STACK RESULTS

	Run 3	
Test Date	4/12/2005	
Start Time	9:55 AM	
End Time	6:55 PM	
Sample Gas Volume, (cf)	4.29	
Dry Gas Volume at standard conditions, Vm-Std (dscf)	4.14	
Dry Gas Volume at standard conditions, Vm-Std (dscm)	0.12	
Stack Gas Volumetric Flow Rate, (dscfm)	1332981	(Average of Methods 5,29,0061)

VOC RESULTS AND PROCESS DATA (EPA Method TO-15)

	Sample Results		Total mass	Emissions: Run 2		
	Tube 1	Tube 2	(ug)	ug/dscf	ug/dscm	lb/hr
Propylene	0.02	0.03	0.05	1.21E-02	4.27E-01	2.13E-03
Chloromethane	0.09	0.07	0.16	3.86E-02	1.36E+00	6.81E-03
Methanol	0.73	0.76	1.49	3.60E-01	1.27E+01	6.34E-02
Ethanol	0.05	0.05	0.11	2.54E-02	8.96E-01	4.47E-03
Acetone	4.54	0.57	5.11	1.23E+00	4.36E+01	2.17E-01
Methylene Chloride	0.20	0.17	0.37	8.94E-02	3.16E+00	1.57E-02
2-Butanone (MEK)	10.63	3.41	14.04	3.39E+00	1.20E+02	5.97E-01
Hexane	0.33	0.51	0.84	2.03E-01	7.17E+00	3.57E-02
Benzene	16.10	1.24	17.34	4.19E+00	1.48E+02	7.38E-01
Cyclohexane	0.06	0.07	0.13	3.14E-02	1.11E+00	5.53E-03
Heptane	6.19	0.45	6.64	1.60E+00	5.66E+01	2.83E-01
Toluene	22.60	6.61	29.21	7.06E+00	2.49E+02	1.24E+00
Chlorobenzene	0.11	0.00	0.11	2.66E-02	9.38E-01	4.68E-03
Ethylbenzene	9.41	0.25	9.66	2.33E+00	8.24E+01	4.11E-01
m- & p-Xylenes	17.10	1.50	18.60	4.49E+00	1.59E+02	7.91E-01
Styrene	0.91	0.11	1.02	2.46E-01	8.70E+00	4.34E-02
o-Xylene	8.10	0.50	8.60	2.08E+00	7.34E+01	3.66E-01
1,2,4-Trimethylbenzene	0.00	0.05	0.05	1.21E-02	4.27E-01	2.13E-03

Laboratory Analysis Report

CLIENT	**: Desert Air Environmental**	**DATE RECEIVED**	**: 4/15/05**
PROJECT NO	**: 050117**	**DATE REPORTED**	**: 4/26/05**
MATRIX	**: Tenex sorbent Tube / AIR**		
UNITS	**: ug/sample**		

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 1 Tube 1 SPK			Run 1 Tube 2			
AAC ID	050117-9465			050117-9466			
Date Sampled	4/11/2005		PQL	4/11/2005		PQL	MDL
Date Analyzed	4/20/2005			4/20/2005			
Chlorodifluoromethane	ND	U	0.071	ND	U	0.071	0.0035
Propylene	ND	U	0.017	ND	U	0.017	0.0009
Dichlorodifluoromethane	ND	U	0.049	ND	U	0.049	0.0025
Chloromethane	0.23		0.021	0.13		0.021	0.0010
1,2-Dichloro-1,1,2,2-Tetrafluoroethane	ND	U	0.070	ND	U	0.070	0.0035
Vinyl Chloride	ND	U	0.026	ND	U	0.026	0.0013
Methanol	0.88		0.524	0.51	J	0.524	0.0262
1,3-Butadiene	ND	U	0.022	ND	U	0.022	0.0011
Bromomethane	0.09		0.039	ND	U	0.039	0.0019
Chloroethane	ND	U	0.026	ND	U	0.026	0.0013
Dichlorofluoromethane	ND	U	0.042	ND	U	0.042	0.0021
Vinyl Bromide	ND	U	0.044	ND	U	0.044	0.0022
Ethanol	ND	U	0.094	ND	U	0.094	0.0047
Acetone	10.2	E	0.048	2.5		0.048	0.0024
Trichlorofluoromethane	ND	U	0.052	ND	U	0.052	0.0026
Acrylonitrile	ND	U	0.022	ND	U	0.022	0.0011
1,1-Dichloroethylene	ND	U	0.039	ND	U	0.039	0.0020
Isopropyl Alcohol	ND	U	0.049	ND	U	0.049	0.0025
Methylene Chloride	10.50		0.035	1.10		0.035	0.0017
Allyl Chloride (Chloroprene)	ND	U	0.031	ND	U	0.031	0.0016
Carbon Disulfide	ND	U	0.031	ND	U	0.031	0.0016
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	U	0.077	ND	U	0.077	0.0038
t-1,2-Dichloroethylene	ND	U	0.040	ND	U	0.040	0.0020
1,1-Dichloroethane	ND	U	0.040	ND	U	0.040	0.0020
MTBE	ND	U	0.036	ND	U	0.036	0.0018
Vinyl Acetate	ND	U	0.035	0.07		0.035	0.0018
2-Butanone (MEK)	0.17		0.059	ND	U	0.059	0.0029
cis-1,2- Dichloroethene	ND	U	0.039	ND	U	0.039	0.0020
Hexane	0.07		0.035	ND	U	0.035	0.0018
Chloroform	ND	U	0.049	ND	U	0.049	0.0024
Ethyl Acetate	ND	U	0.036	ND	U	0.036	0.0018
Tetrahydrofuran	ND	U	0.029	ND	U	0.029	0.0015
1,2-Dichloroethane	ND	U	0.080	ND	U	0.080	0.0040
1,1,1-Trichloroethane	ND	U	0.055	ND	U	0.055	0.0027
Benzene	11.80		0.032	1.79		0.032	0.0016

Laboratory Analysis Report

CLIENT	**: Desert Air Environmental**	**DATE RECEIVED**	**: 4/15/05**
PROJECT NO	**: 050117**	**DATE REPORTED**	**: 4/26/05**
MATRIX	**: Tenex sorbent Tube / AIR**		
UNITS	**: ug/sample**		

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 1 Tube 1 SPK			Run 1 Tube 2			
AAC ID	050117-9465			050117-9466			
Date Sampled	4/11/2005		PQL	4/11/2005		PQL	MDL
Date Analyzed	4/20/2005			4/20/2005			
Carbon Tetrachloride	ND	U	0.063	ND	U	0.063	0.0031
Cyclohexane	ND	U	0.034	ND	U	0.034	0.0017
1,2-Dichloropropane	ND	U	0.046	ND	U	0.046	0.0023
Bromodichloromethane	ND	U	0.067	ND	U	0.067	0.0034
1,4-Dioxane	ND	U	0.072	ND	U	0.072	0.0036
Trichloroethene	ND	U	0.107	ND	U	0.107	0.0054
2,2,4-Trimethylpentane	ND	U	0.047	ND	U	0.047	0.0023
Heptane	ND	U	0.041	0.09		0.041	0.0020
cis-1,3-Dichloropropene	ND	U	0.045	ND	U	0.045	0.0022
4-Methyl-2-Pentanone (MiBK)	ND	U	0.041	ND	U	0.041	0.0020
t-1,3-Dichloropropene	ND	U	0.045	ND	U	0.045	0.0022
1,1,2-Trichloroethane	ND	U	0.054	ND	U	0.054	0.0027
Toluene	13.7		0.038	1.92		0.038	0.0019
2-Hexanone	ND	U	0.082	ND	U	0.082	0.0041
Dibromochloromethane	ND	U	0.085	ND	U	0.085	0.0043
1,2-Dibromoethane	ND	U	0.076	ND	U	0.076	0.0038
Tetrachloroethylene	ND	U	0.068	ND	U	0.068	0.0034
Chlorobenzene	0.09		0.046	0.14		0.046	0.0023
Ethylbenzene	6.89		0.043	3.15		0.043	0.0022
m- & p-Xylenes	16.80		0.043	2.49		0.043	0.0022
Bromoform	ND	U	0.103	ND	U	0.103	0.0052
Styrene	0.76		0.043	0.66		0.043	0.0021
1,1,2,2-Tetrachloroethane	ND	U	0.069	ND	U	0.069	0.0034
o-Xylene	7.58		0.043	1.90		0.043	0.0022
4-Ethyltoluene	ND	U	0.049	ND	U	0.049	0.0025
1,3,5-Trimethylbenzene	ND	U	0.049	ND	U	0.049	0.0025
1,2,4-Trimethylbenzene	0.11		0.049	ND	U	0.049	0.0025
Benzyl Chloride	ND	U	0.104	ND	U	0.104	0.0052
1,3-Dichlorobenzene	ND	U	0.060	ND	U	0.060	0.0030
1,4-Dichlorobenzene	ND	U	0.060	ND	U	0.060	0.0030
1,2-Dichlorobenzene	ND	U	0.060	ND	U	0.060	0.0030
1,2,4-Trichlorobenzene	ND	U	0.148	ND	U	0.148	0.0074
Hexachlorobutadiene	ND	U	0.213	ND	U	0.213	0.0107
BFB-Surrogate Std. % Recovery	107%			96%			48-151

J- Analyte was detected. However the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Pratical Quantitation Limit (PQL).

U - Compound was analyzed for, but was not detected.

E - Estimated value, result outside linear range of instrument.

Laboratory Analysis Report

CLIENT	**: Desert Air Environmental**	**DATE RECEIVED**	**: 4/15/05**
PROJECT NO	**: 050117**	**DATE REPORTED**	**: 4/26/05**
MATRIX	**: Tenex sorbent Tube / AIR**		
UNITS	**: ug/sample**		

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 2 Tube 2 SPK			Run 2 Tube 2			
AAC ID	050117-9467			050117-9468			
Date Sampled	4/12/2005		PQL	4/12/2005		PQL	MDL
Date Analyzed	4/20/2005			4/20/2005			
Chlorodifluoromethane	ND	U	0.071	ND	U	0.071	0.0035
Propylene	ND	U	0.017	0.03		0.017	0.0009
Dichlorodifluoromethane	ND	U	0.049	ND	U	0.049	0.0025
Chloromethane	ND	U	0.021	0.05		0.021	0.0010
1,2-Dichloro-1,1,2,2-Tetrafluoroethane	ND	U	0.070	ND	U	0.070	0.0035
Vinyl Chloride	ND	U	0.026	ND	U	0.026	0.0013
Methanol	0.93		0.524	0.66		0.524	0.0262
1,3-Butadiene	ND	U	0.022	ND	U	0.022	0.0011
Bromomethane	ND	U	0.039	ND	U	0.039	0.0019
Chloroethane	ND	U	0.026	ND	U	0.026	0.0013
Dichlorofluoromethane	ND	U	0.042	ND	U	0.042	0.0021
Vinyl Bromide	ND	U	0.044	ND	U	0.044	0.0022
Ethanol	ND	U	0.094	ND	U	0.094	0.0047
Acetone	15.3	E	0.048	1.20		0.048	0.0024
Trichlorofluoromethane	ND	U	0.052	ND	U	0.052	0.0026
Acrylonitrile	ND	U	0.022	ND	U	0.022	0.0011
1,1-Dichloroethylene	ND	U	0.039	ND	U	0.039	0.0020
Isopropyl Alcohol	ND	U	0.049	ND	U	0.049	0.0025
Methylene Chloride	0.92		0.035	0.31		0.035	0.0017
Allyl Chloride (Chloroprene)	ND	U	0.031	ND	U	0.031	0.0016
Carbon Disulfide	0.04		0.031	0.04		0.031	0.0016
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	U	0.077	ND	U	0.077	0.0038
t-1,2-Dichloroethylene	ND	U	0.040	ND	U	0.040	0.0020
1,1-Dichloroethane	ND	U	0.040	ND	U	0.040	0.0020
MTBE	ND	U	0.036	ND	U	0.036	0.0018
Vinyl Acetate	ND	U	0.035	0.09		0.035	0.0018
2-Butanone (MEK)	1.78		0.059	0.16		0.059	0.0029
cis-1,2- Dichloroethene	ND	U	0.039	ND	U	0.039	0.0020
Hexane	0.53		0.035	0.06		0.035	0.0018
Chloroform	ND	U	0.049	ND	U	0.049	0.0024
Ethyl Acetate	ND	U	0.036	ND	U	0.036	0.0018
Tetrahydrofuran	ND	U	0.029	ND	U	0.029	0.0015
1,2-Dichloroethane	ND	U	0.080	ND	U	0.080	0.0040
1,1,1-Trichloroethane	ND	U	0.055	ND	U	0.055	0.0027
Benzene	12.63		0.032	2.14		0.032	0.0016

Laboratory Analysis Report

CLIENT	**: Desert Air Environmental**	**DATE RECEIVED**	**: 4/15/05**
PROJECT NO	**: 050117**	**DATE REPORTED**	**: 4/26/05**
MATRIX	**: Tenex sorbent Tube / AIR**		
UNITS	**: ug/sample**		

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 2 Tube 2 SPK			Run 2 Tube 2			
AAC ID	050117-9467			050117-9468			
Date Sampled	4/12/2005		PQL	4/12/2005		PQL	MDL
Date Analyzed	4/20/2005			4/20/2005			
Carbon Tetrachloride	ND	U	0.063	ND	U	0.063	0.0031
Cyclohexane	0.07		0.034	ND	U	0.034	0.0017
1,2-Dichloropropane	ND	U	0.046	ND	U	0.046	0.0023
Bromodichloromethane	ND	U	0.067	ND	U	0.067	0.0034
1,4-Dioxane	ND	U	0.072	ND	U	0.072	0.0036
Trichloroethene	ND	U	0.107	ND	U	0.107	0.0054
2,2,4-Trimethylpentane	ND	U	0.047	ND	U	0.047	0.0023
Heptane	0.51		0.041	0.08		0.041	0.0020
cis-1,3-Dichloropropene	ND	U	0.045	ND	U	0.045	0.0022
4-Methyl-2-Pentanone (MiBK)	ND	U	0.041	0.0557		0.041	0.0020
t-1,3-Dichloropropene	ND	U	0.045	ND	U	0.045	0.0022
1,1,2-Trichloroethane	ND	U	0.054	ND	U	0.054	0.0027
Toluene	15.60	E	0.038	2.33		0.038	0.0019
2-Hexanone	ND	U	0.082	ND	U	0.082	0.0041
Dibromochloromethane	ND	U	0.085	ND	U	0.085	0.0043
1,2-Dibromoethane	ND	U	0.076	ND	U	0.076	0.0038
Tetrachloroethylene	ND	U	0.068	ND	U	0.068	0.0034
Chlorobenzene	ND	U	0.046	0.16		0.046	0.0023
Ethylbenzene	9.05		0.043	1.60		0.043	0.0022
m- & p-Xylenes	1.12		0.043	1.18		0.043	0.0022
Bromoform	ND	U	0.103	ND	U	0.103	0.0052
Styrene	1.08		0.043	0.11		0.043	0.0021
1,1,2,2-Tetrachloroethane	ND	U	0.069	ND	U	0.069	0.0034
o-Xylene	8.87		0.043	0.24		0.043	0.0022
4-Ethyltoluene	ND	U	0.049	0.06		0.049	0.0025
1,3,5-Trimethylbenzene	ND	U	0.049	ND	U	0.049	0.0025
1,2,4-Trimethylbenzene	ND	U	0.049	0.10		0.049	0.0025
Benzyl Chloride	ND	U	0.104	ND	U	0.104	0.0052
1,3-Dichlorobenzene	ND	U	0.060	ND	U	0.060	0.0030
1,4-Dichlorobenzene	ND	U	0.060	ND	U	0.060	0.0030
1,2-Dichlorobenzene	ND	U	0.060	ND	U	0.060	0.0030
1,2,4-Trichlorobenzene	ND	U	0.148	ND	U	0.148	0.0074
Hexachlorobutadiene	ND	U	0.213	ND	U	0.213	0.0107
BFB-Surrogate Std. % Recovery	106%			104%			48-151

J- Analyte was detected. However the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Pratical Quantitation Limit (PQL).

U - Compound was analyzed for, but was not detected.

E - Estimated value, result outside linear range of instrument.

Laboratory Analysis Report

CLIENT : Desert Air Environmental
PROJECT NO : 050117
MATRIX : Tenex sorbent Tube / AIR
UNITS : ug/sample

DATE RECEIVED : 4/15/05
DATE REPORTED : 4/26/05

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 3 Tube 1 SPK			Run 3 Tube 2			
AAC ID	050117-9469			050117-9470			
Date Sampled	4/13/2005		PQL	4/13/2005		PQL	MDL
Date Analyzed	4/21/2005			4/21/2005			
Chlorodifluoromethane	ND	U	0.071	ND	U	0.071	0.0035
Propylene	0.02		0.017	0.03		0.017	0.0009
Dichlorodifluoromethane	ND	U	0.049	ND	U	0.049	0.0025
Chloromethane	0.09		0.021	0.07		0.021	0.0010
1,2-Dichloro-1,1,2,2-Tetrafluoroethane	ND	U	0.070	ND	U	0.070	0.0035
Vinyl Chloride	ND	U	0.026	ND	U	0.026	0.0013
Methanol	0.73		0.524	0.76		0.524	0.0262
1,3-Butadiene	ND	U	0.022	ND	U	0.022	0.0011
Bromomethane	ND	U	0.039	ND	U	0.039	0.0019
Chloroethane	ND	U	0.026	ND	U	0.026	0.0013
Dichlorofluoromethane	ND	U	0.042	ND	U	0.042	0.0021
Vinyl Bromide	ND	U	0.044	ND	U	0.044	0.0022
Ethanol	0.054	J	0.094	0.051	J	0.094	0.0047
Acetone	4.54		0.048	0.57		0.048	0.0024
Trichlorofluoromethane	ND	U	0.052	ND	U	0.052	0.0026
Acrylonitrile	ND	U	0.022	ND	U	0.022	0.0011
1,1-Dichloroethylene	ND	U	0.039	ND	U	0.039	0.0020
Isopropyl Alcohol	ND	U	0.049	ND	U	0.049	0.0025
Methylene Chloride	0.20		0.035	0.17		0.035	0.0017
Allyl Chloride (Chloroprene)	ND	U	0.031	ND	U	0.031	0.0016
Carbon Disulfide	ND	U	0.031	ND	U	0.031	0.0016
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	U	0.077	ND	U	0.077	0.0038
t-1,2-Dichloroethylene	ND	U	0.040	ND	U	0.040	0.0020
1,1-Dichloroethane	ND	U	0.040	ND	U	0.040	0.0020
MTBE	ND	U	0.036	ND	U	0.036	0.0018
Vinyl Acetate	ND	U	0.035	ND	U	0.035	0.0018
2-Butanone (MEK)	10.63		0.059	3.41		0.059	0.0029
cis-1,2- Dichloroethene	ND	U	0.039	ND	U	0.039	0.0020
Hexane	0.33		0.035	0.51		0.035	0.0018
Chloroform	ND	U	0.049	ND	U	0.049	0.0024
Ethyl Acetate	ND	U	0.036	ND	U	0.036	0.0018
Tetrahydrofuran	ND	U	0.029	ND	U	0.029	0.0015
1,2-Dichloroethane	ND	U	0.080	ND	U	0.080	0.0040
1,1,1-Trichloroethane	ND	U	0.055	ND	U	0.055	0.0027
Benzene	16.10	E	0.032	1.24		0.032	0.0016

Laboratory Analysis Report

CLIENT	**: Desert Air Environmental**	**DATE RECEIVED**	**: 4/15/05**
PROJECT NO	**: 050117**	**DATE REPORTED**	**: 4/26/05**
MATRIX	**: Tenex sorbent Tube / AIR**		
UNITS	**: ug/sample**		

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 3 Tube 1 SPK			Run 3 Tube 2			
AAC ID	050117-9469			050117-9470			
Date Sampled	4/13/2005		PQL	4/13/2005		PQL	MDL
Date Analyzed	4/21/2005			4/21/2005			
Carbon Tetrachloride	ND	U	0.063	ND	U	0.063	0.0031
Cyclohexane	0.06		0.034	0.07		0.034	0.0017
1,2-Dichloropropane	ND	U	0.046	ND	U	0.046	0.0023
Bromodichloromethane	ND	U	0.067	ND	U	0.067	0.0034
1,4-Dioxane	ND	U	0.072	ND	U	0.072	0.0036
Trichloroethene	ND	U	0.107	ND	U	0.107	0.0054
2,2,4-Trimethylpentane	ND	U	0.047	ND	U	0.047	0.0023
Heptane	6.19		0.041	0.45		0.041	0.0020
cis-1,3-Dichloropropene	ND	U	0.045	ND	U	0.045	0.0022
4-Methyl-2-Pentanone (MiBK)	ND	U	0.041	ND	U	0.041	0.0020
t-1,3-Dichloropropene	ND	U	0.045	ND	U	0.045	0.0022
1,1,2-Trichloroethane	ND	U	0.054	ND	U	0.054	0.0027
Toluene	28.6	E	0.038	39.61	E	0.038	0.0019
2-Hexanone	ND	U	0.082	ND	U	0.082	0.0041
Dibromochloromethane	ND	U	0.085	ND	U	0.085	0.0043
1,2-Dibromoethane	ND	U	0.076	ND	U	0.076	0.0038
Tetrachloroethylene	ND	U	0.068	ND	U	0.068	0.0034
Chlorobenzene	0.11		0.046	ND	U	0.046	0.0023
Ethylbenzene	9.41		0.043	0.25		0.043	0.0022
m- & p-Xylenes	17.10		0.043	1.5		0.043	0.0022
Bromoform	ND	U	0.103	ND	U	0.103	0.0052
Styrene	0.91		0.043	0.11		0.043	0.0021
1,1,2,2-Tetrachloroethane	ND	U	0.069	ND	U	0.069	0.0034
o-Xylene	8.1		0.043	0.5		0.043	0.0022
4-Ethyltoluene	ND	U	0.049	ND	U	0.049	0.0025
1,3,5-Trimethylbenzene	ND	U	0.049	ND	U	0.049	0.0025
1,2,4-Trimethylbenzene	ND	U	0.049	0.05		0.049	0.0025
Benzyl Chloride	ND	U	0.104	ND	U	0.104	0.0052
1,3-Dichlorobenzene	ND	U	0.060	ND	U	0.060	0.0030
1,4-Dichlorobenzene	ND	U	0.060	ND	U	0.060	0.0030
1,2-Dichlorobenzene	ND	U	0.060	ND	U	0.060	0.0030
1,2,4-Trichlorobenzene	ND	U	0.148	ND	U	0.148	0.0074
Hexachlorobutadiene	ND	U	0.213	ND	U	0.213	0.0107
BFB-Surrogate Std. % Recovery	100%			104%			48-151

J- Analyte was detected. However the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Pratical Quantitation Limit (PQL).

U - Compound was analyzed for, but was not detected.

E - Estimated value, result outside linear range of instrument.

EPA Method 18 - Sample Rates for VOC

Date	Run #	Start Time	End Time	Start Time	End Time	Sample Train, cc/min **	Spiked Train, cc/min **	Average Sample Rate, cc/min	Total Minutes Sampled	Total Volume Sampled, cf	Vmstd, cf	Average Sample Rate, l/min
4/11/2005	1	825	1740	NA	NA	334.2 330.9		332.55	480	5.64	5.49	0.333
4/12/2005	2	850	1100	1310	2010	326.6 328.9		327.75	480	5.56	5.42	0.328
4/13/2005	3	955	655	NA	NA	325.4 326.9		326.15	480	5.53	5.34	0.326
4/11/2005	1	825	1740	NA	NA		251.2 256.5	253.85	480	4.30	4.18	0.254
4/12/2005	2	850	1100	1310	2010		249.8 250.1	249.95	480	4.24	4.13	0.250
4/13/2005	3	955	655	NA	NA		251.9 254.2	253.05	480	4.29	4.14	0.253

Run 1

Start	Stop
825	1025
1050	1250
1316	1516
1540	1740

Run 2

Start	Stop
850	1050
1310	1510
1555	1755
1810	2010

Run 3

Start	Stop
955	1155
1215	1415
1435	1635
1655	1855

** Sample pump flow rates were calibrated with a Gilian Gilibrator Air Flow Calibration System at the beginning and end of each run. Flow rates were verified during the runs with a flow rotameter built into the sample pump.

Laboratory Analysis Report

CLIENT	**: Desert Air Environmental**	**DATE RECEIVED**	**: 4/15/05**
PROJECT NO	**: 050117**	**DATE REPORTED**	**: 4/26/05**
MATRIX	**: Tenax Sorbent Tube**		
UNITS	**: ug/sample**		

Analyte	Lab Spike Average (ug)	Field Spike Average (ug)
Benzene	11	10.5
Toluene	10	9.4
Ethylbenzene	10	9.6
Xylenes	28	27.1

Provided by AAC

APPENDIX E
CEM DATA

CONTINUOUS EMISSIONS MONITORING
TEST RESULTS

Client: Nucor Steel, Hertford
Test Date: Apr-11-05
Start Time: 8:25 AM **Stop Time:** 5:40 PM
Emissions Unit: Baghouse
Project: Compliance

RUN 1

Calibration Data

	O_2 (%)	CO_2 (%)	NO_x (ppm)	CO (ppm)	SO_2 (ppm)
Initial Zero	0.02	0.02	0.02	-0.01	0.00
Initial Span	12.44	12.77	46.10	250.34	44.50
Final Zero	-0.04	0.09	0.01	-0.04	0.63
Final Span	12.72	12.82	46.00	252.49	44.71
Zero Drift	-0.06	0.07	-0.01	-0.03	0.62
Span Drift	0.28	0.05	-0.10	2.09	0.21
Drift Limit	0.75	0.75	3.00	15.00	3.00
Span Gas Value	12.44	12.70	45.60	243.00	44.10
Full Scale Range	25.0	25.0	100.0	500.0	100.0
Method Drift Limit (%)	3%	3%	3%	3%	3%
Analyte Mol Weight	32	44	46	28	64

Stack Gas Parameters

Average Temperature (°F)	183.4	
Moisture Content (%)	2.00%	*flow rates by pitot tube*
Process Rate (tons/hr)	239.0	*traverse from EPA Method 5*
Flow rate (dscfm)	1150290	

Emission Data

	O_2 (%)	CO_2 (%)	NO_x (ppm)	CO (ppm)	SO_2 (ppm)
Dry average (uncorrected)	20.36	1.16	5.67	139.91	9.15
Dry average (drift corrected)	20.13	1.10	5.60	135.24	8.80
Emission Rate (lb/hr)			46.149	678.191	100.836
Emission Rate (lb/ton)			0.193	2.838	0.422

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/11/05	7:49 AM	-0.60	0.02	0.23	0.21	-0.40	
04/11/05	7:50 AM	0.02	0.02	0.02	0.05	-0.39	
04/11/05	7:51 AM	0.02	0.02	0.02	0.04	0.01	
04/11/05	7:52 AM	0.02	0.02	0.02	-0.01	0.00	
04/11/05	7:53 AM	0.02	0.02	9.01	10.56	17.06	
04/11/05	7:54 AM	0.03	0.03	46.10	45.99	44.50	
04/11/05	7:55 AM	6.87	8.86	16.65	19.35	12.01	
04/11/05	7:56 AM	12.32	12.81	0.12	1.26	0.36	
04/11/05	7:57 AM	12.44	12.77	0.13	0.01	0.15	
04/11/05	7:58 AM	12.92	5.55	1.89	10.54	23.59	
04/11/05	7:59 AM	20.60	0.14	4.81	212.86	4.40	
04/11/05	8:00 AM	20.61	0.14	5.97	250.34	4.24	
04/11/05	8:01 AM	20.61	0.15	5.53	175.82	4.49	
04/11/05	8:02 AM	20.62	0.16	5.11	13.36	4.62	
04/11/05	8:03 AM	20.62	0.16	5.38	9.96	4.20	
04/11/05	8:04 AM	20.59	0.18	5.88	9.81	3.58	On Line
04/11/05	8:05 AM	20.59	0.18	6.22	10.01	3.27	
04/11/05	8:06 AM	20.60	0.17	6.53	9.26	2.68	
04/11/05	8:07 AM	20.61	0.18	6.96	9.09	2.07	
04/11/05	8:08 AM	20.63	0.19	8.76	9.04	1.91	
04/11/05	8:09 AM	20.33	0.53	13.50	14.27	2.10	
04/11/05	8:10 AM	20.36	0.46	10.54	23.19	2.86	
04/11/05	8:11 AM	20.47	0.38	9.74	15.61	3.50	
04/11/05	8:12 AM	20.53	0.34	9.37	10.72	4.10	
04/11/05	8:13 AM	20.52	0.37	9.97	11.84	4.63	
04/11/05	8:14 AM	20.27	0.66	4.37	49.85	5.76	
04/11/05	8:15 AM	20.03	0.94	4.31	65.70	11.88	
04/11/05	8:16 AM	19.98	0.98	4.39	88.33	19.53	
04/11/05	8:17 AM	19.95	1.03	3.62	105.32	23.39	
04/11/05	8:18 AM	19.91	1.11	2.66	133.58	23.37	
04/11/05	8:19 AM	19.82	1.24	2.64	162.31	20.04	
04/11/05	8:20 AM	19.90	1.16	2.83	184.17	17.01	
04/11/05	8:21 AM	19.97	1.10	2.97	130.45	15.76	
04/11/05	8:22 AM	19.94	1.16	3.25	139.89	15.03	
04/11/05	8:23 AM	20.00	1.10	3.23	169.54	15.39	
04/11/05	8:24 AM	19.87	1.27	4.41	183.03	15.91	
04/11/05	8:25 AM	19.57	1.69	6.08	359.78	16.83	Start Run 1
04/11/05	8:26 AM	19.58	1.63	5.47	294.02	16.78	
04/11/05	8:27 AM	19.54	1.66	5.31	257.43	16.89	
04/11/05	8:28 AM	19.50	1.74	5.35	254.97	16.44	
04/11/05	8:29 AM	19.28	2.06	8.51	274.03	16.08	
04/11/05	8:30 AM	19.09	2.29	11.14	219.71	14.57	
04/11/05	8:31 AM	19.23	2.20	13.73	235.78	14.96	
04/11/05	8:32 AM	19.29	2.14	11.40	263.93	15.92	
04/11/05	8:33 AM	19.38	2.04	5.31	275.40	10.31	
04/11/05	8:34 AM	19.35	2.06	4.46	322.05	7.07	
04/11/05	8:35 AM	19.46	1.89	5.10	307.31	5.40	
04/11/05	8:36 AM	19.68	1.55	5.32	312.00	4.13	
04/11/05	8:37 AM	19.77	1.48	4.71	291.36	3.62	
04/11/05	8:38 AM	19.72	1.58	5.98	288.49	3.94	
04/11/05	8:39 AM	19.79	1.46	5.59	303.83	4.30	
04/11/05	8:40 AM	19.79	1.57	4.50	252.58	6.83	
04/11/05	8:41 AM	19.49	2.01	4.86	261.23	8.31	
04/11/05	8:42 AM	19.67	1.68	6.91	190.36	9.10	
04/11/05	8:43 AM	19.79	1.53	5.52	171.83	8.79	
04/11/05	8:44 AM	19.77	1.55	5.77	211.24	9.85	
04/11/05	8:45 AM	19.81	1.58	5.56	228.15	10.87	
04/11/05	8:46 AM	19.65	1.69	6.29	241.90	11.66	
04/11/05	8:47 AM	19.76	1.62	5.28	270.55	11.22	
04/11/05	8:48 AM	19.88	1.45	5.07	258.71	10.62	
04/11/05	8:49 AM	19.98	1.35	3.22	199.82	10.30	
04/11/05	8:50 AM	20.01	1.34	2.61	165.59	10.20	
04/11/05	8:51 AM	20.23	0.94	2.31	158.13	10.27	
04/11/05	8:52 AM	20.45	0.68	1.77	136.86	10.74	
04/11/05	8:53 AM	20.49	0.63	2.57	103.82	11.82	
04/11/05	8:54 AM	20.59	0.51	6.07	72.11	14.46	
04/11/05	8:55 AM	20.60	0.49	6.90	44.06	13.49	
04/11/05	8:56 AM	20.50	0.62	4.01	52.50	13.68	
04/11/05	8:57 AM	20.55	0.56	2.00	60.62	11.97	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/11/05	8:58 AM	20.56	0.53	2.68	47.04	11.26	
04/11/05	8:59 AM	20.59	0.48	4.88	27.43	12.07	
04/11/05	9:00 AM	20.55	0.53	6.82	22.20	17.29	
04/11/05	9:01 AM	20.21	1.07	4.24	35.28	19.38	
04/11/05	9:02 AM	19.90	1.47	4.32	60.48	18.70	
04/11/05	9:03 AM	19.84	1.52	4.81	130.05	16.93	
04/11/05	9:04 AM	19.80	1.60	4.72	161.64	16.08	
04/11/05	9:05 AM	19.67	1.75	4.92	177.02	15.18	
04/11/05	9:06 AM	19.71	1.72	4.51	166.12	10.11	
04/11/05	9:07 AM	19.64	1.83	4.22	161.13	9.29	
04/11/05	9:08 AM	19.69	1.77	4.20	172.12	10.99	
04/11/05	9:09 AM	19.56	1.95	4.40	187.72	12.37	
04/11/05	9:10 AM	19.67	1.85	4.47	199.51	13.68	
04/11/05	9:11 AM	19.52	1.97	3.85	227.74	15.19	
04/11/05	9:12 AM	19.65	1.85	4.29	236.76	14.00	
04/11/05	9:13 AM	19.56	2.00	4.68	269.83	9.79	
04/11/05	9:14 AM	19.43	2.12	5.20	241.60	8.66	
04/11/05	9:15 AM	19.53	1.99	5.52	224.26	8.24	
04/11/05	9:16 AM	19.58	1.94	5.56	221.05	7.83	
04/11/05	9:17 AM	19.59	1.92	5.52	208.34	8.12	
04/11/05	9:18 AM	19.65	1.84	5.19	224.03	7.97	
04/11/05	9:19 AM	19.60	1.94	5.39	211.30	6.70	
04/11/05	9:20 AM	19.60	1.95	5.26	192.97	6.56	
04/11/05	9:21 AM	19.62	1.93	5.53	169.04	6.98	
04/11/05	9:22 AM	19.73	1.67	5.55	149.61	8.49	
04/11/05	9:23 AM	19.85	1.48	5.04	183.88	9.57	
04/11/05	9:24 AM	19.91	1.40	4.57	198.40	10.05	
04/11/05	9:25 AM	19.93	1.38	5.55	203.89	8.38	
04/11/05	9:26 AM	19.93	1.36	5.97	171.38	6.96	
04/11/05	9:27 AM	19.95	1.29	5.78	166.14	6.96	
04/11/05	9:28 AM	20.04	1.22	5.32	151.04	6.76	
04/11/05	9:29 AM	19.96	1.23	5.83	146.22	6.92	
04/11/05	9:30 AM	20.16	0.99	5.81	127.60	7.52	
04/11/05	9:31 AM	20.05	1.21	5.22	96.11	7.33	
04/11/05	9:32 AM	19.86	1.49	5.57	116.44	5.86	
04/11/05	9:33 AM	19.57	1.85	7.37	174.30	4.92	
04/11/05	9:34 AM	19.41	2.05	5.95	179.64	4.70	
04/11/05	9:35 AM	20.13	0.99	4.97	179.22	4.57	
04/11/05	9:36 AM	20.27	0.89	3.41	165.47	4.39	
04/11/05	9:37 AM	20.37	0.74	2.49	100.37	4.12	
04/11/05	9:38 AM	20.45	0.59	1.61	81.27	5.07	
04/11/05	9:39 AM	20.52	0.50	2.74	71.27	6.55	
04/11/05	9:40 AM	20.57	0.41	8.12	44.84	7.67	
04/11/05	9:41 AM	20.59	0.38	6.17	30.21	6.78	
04/11/05	9:42 AM	20.60	0.35	7.79	24.76	6.34	
04/11/05	9:43 AM	20.43	0.62	7.93	30.23	7.27	
04/11/05	9:44 AM	19.95	1.31	4.14	53.17	10.78	
04/11/05	9:45 AM	19.71	1.60	4.64	86.78	11.90	
04/11/05	9:46 AM	19.67	1.64	4.21	121.91	11.26	
04/11/05	9:47 AM	19.63	1.72	3.86	132.19	10.43	
04/11/05	9:48 AM	19.75	1.53	5.09	126.08	9.11	
04/11/05	9:49 AM	20.17	0.93	4.63	118.52	7.31	
04/11/05	9:50 AM	20.47	0.55	6.37	86.11	5.97	
04/11/05	9:51 AM	20.63	0.38	14.55	46.63	5.69	
04/11/05	9:52 AM	20.69	0.32	8.44	26.48	5.68	
04/11/05	9:53 AM	20.69	0.32	8.01	18.99	6.71	
04/11/05	9:54 AM	20.68	0.32	11.05	15.55	9.23	
04/11/05	9:55 AM	20.67	0.31	13.41	13.55	12.07	
04/11/05	9:56 AM	20.32	0.85	14.71	18.68	15.88	
04/11/05	9:57 AM	19.82	1.50	6.43	78.17	19.73	
04/11/05	9:58 AM	19.56	1.89	5.02	152.06	20.64	
04/11/05	9:59 AM	19.28	2.34	5.73	127.18	15.63	
04/11/05	10:00 AM	19.32	2.28	5.93	112.98	10.12	
04/11/05	10:01 AM	19.29	2.24	5.56	98.92	8.46	
04/11/05	10:02 AM	19.34	2.15	3.52	95.49	8.54	
04/11/05	10:03 AM	19.43	2.05	3.56	120.35	8.41	
04/11/05	10:04 AM	19.46	2.02	3.89	126.86	8.44	
04/11/05	10:05 AM	19.50	2.01	3.52	127.99	8.69	
04/11/05	10:06 AM	19.51	2.02	4.69	129.33	9.00	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/11/05	10:07 AM	19.46	2.07	5.57	105.08	8.78	
04/11/05	10:08 AM	19.49	2.04	4.11	102.62	8.62	
04/11/05	10:09 AM	19.54	2.01	5.27	105.84	9.37	
04/11/05	10:10 AM	19.55	2.03	6.69	98.49	11.31	
04/11/05	10:11 AM	19.52	2.05	6.31	81.51	13.88	
04/11/05	10:12 AM	19.55	2.00	5.52	88.53	12.77	
04/11/05	10:13 AM	19.52	2.02	4.81	106.03	11.56	
04/11/05	10:14 AM	19.58	1.92	3.31	140.60	9.24	
04/11/05	10:15 AM	19.63	1.85	2.94	144.79	8.44	
04/11/05	10:16 AM	19.69	1.76	3.23	161.02	8.64	
04/11/05	10:17 AM	19.76	1.60	3.23	186.21	8.84	
04/11/05	10:18 AM	19.91	1.37	3.27	226.31	9.24	
04/11/05	10:19 AM	20.09	1.19	2.90	202.74	10.00	
04/11/05	10:20 AM	20.08	1.19	2.94	148.49	10.93	
04/11/05	10:21 AM	20.14	1.08	3.61	108.83	10.20	
04/11/05	10:22 AM	20.47	0.60	4.82	76.65	11.79	
04/11/05	10:23 AM	20.63	0.39	10.98	41.71	14.07	
04/11/05	10:24 AM	20.66	0.35	10.78	22.99	13.92	
04/11/05	10:25 AM	20.68	0.32	9.54	15.66	12.01	
04/11/05	10:26 AM	20.70	0.30	9.11	14.73	9.97	
04/11/05	10:27 AM	20.69	0.32	10.67	12.95	9.34	
04/11/05	10:28 AM	20.69	0.30	11.70	10.31	8.53	
04/11/05	10:29 AM	20.71	0.29	13.70	9.03	8.37	
04/11/05	10:30 AM	20.72	0.27	10.47	8.73	7.94	
04/11/05	10:31 AM	20.72	0.26	9.10	7.20	6.83	
04/11/05	10:32 AM	20.72	0.26	9.96	6.96	6.11	
04/11/05	10:33 AM	20.73	0.26	10.64	6.21	5.75	
04/11/05	10:34 AM	20.76	0.26	10.57	5.85	5.43	
04/11/05	10:35 AM	20.77	0.26	10.69	4.99	4.88	
04/11/05	10:36 AM	20.77	0.26	10.79	6.18	4.52	
04/11/05	10:37 AM	20.77	0.26	9.64	7.13	4.46	
04/11/05	10:38 AM	20.78	0.26	9.79	6.31	4.24	
04/11/05	10:39 AM	20.79	0.25	10.86	4.42	4.29	
04/11/05	10:40 AM	20.79	0.25	11.20	4.00	4.41	
04/11/05	10:41 AM	20.79	0.25	10.85	4.01	4.65	
04/11/05	10:42 AM	20.78	0.24	8.81	4.03	6.18	
04/11/05	10:43 AM	20.77	0.24	8.89	4.02	8.83	
04/11/05	10:44 AM	20.75	0.26	9.44	4.58	11.41	
04/11/05	10:45 AM	20.76	0.24	11.49	6.93	13.25	
04/11/05	10:46 AM	20.46	0.55	12.34	23.40	14.91	
04/11/05	10:47 AM	20.53	0.44	7.79	40.39	15.53	
04/11/05	10:48 AM	20.49	0.53	9.06	36.19	16.03	
04/11/05	10:49 AM	20.19	0.88	5.60	41.62	20.99	
04/11/05	10:50 AM	20.08	0.99	3.71	67.23	25.34	
04/11/05	10:51 AM	20.08	1.02	3.38	86.67	20.60	
04/11/05	10:52 AM	20.07	1.06	3.58	82.72	16.60	
04/11/05	10:53 AM	19.86	1.34	5.48	97.00	18.12	
04/11/05	10:54 AM	19.76	1.46	6.10	124.57	18.10	
04/11/05	10:55 AM	19.82	1.40	5.99	137.26	15.88	
04/11/05	10:56 AM	19.87	1.34	8.78	144.42	12.20	
04/11/05	10:57 AM	19.79	1.49	9.81	151.99	12.95	
04/11/05	10:58 AM	19.26	2.37	7.54	424.70	14.64	
04/11/05	10:59 AM	19.32	2.21	8.35	738.78	14.29	
04/11/05	11:00 AM	19.53	1.87	12.09	218.27	10.45	
04/11/05	11:01 AM	19.65	1.75	10.64	188.71	8.73	
04/11/05	11:02 AM	19.52	1.93	9.23	170.29	7.72	
04/11/05	11:03 AM	19.56	1.87	8.83	174.20	7.33	
04/11/05	11:04 AM	19.51	1.94	9.26	183.97	7.23	
04/11/05	11:05 AM	19.51	1.90	5.92	144.85	7.09	
04/11/05	11:06 AM	19.65	1.77	4.73	158.26	6.91	
04/11/05	11:07 AM	19.57	1.86	4.48	188.56	6.61	
04/11/05	11:08 AM	19.63	1.75	4.34	153.85	6.59	
04/11/05	11:09 AM	19.66	1.74	4.32	145.56	7.00	
04/11/05	11:10 AM	19.68	1.73	4.56	165.09	7.14	
04/11/05	11:11 AM	19.64	1.74	4.45	180.72	7.23	
04/11/05	11:12 AM	19.64	1.70	4.80	181.92	7.52	
04/11/05	11:13 AM	19.78	1.56	4.82	169.37	7.87	
04/11/05	11:14 AM	19.78	1.57	4.41	174.51	8.21	
04/11/05	11:15 AM	19.88	1.44	4.04	151.30	7.97	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/11/05	11:16 AM	20.10	1.11	3.17	158.06	7.84	
04/11/05	11:17 AM	20.21	0.96	2.34	127.37	8.05	
04/11/05	11:18 AM	20.30	0.83	2.28	84.39	8.11	
04/11/05	11:19 AM	20.40	0.64	2.27	63.97	8.26	
04/11/05	11:20 AM	20.59	0.37	4.02	63.38	9.98	
04/11/05	11:21 AM	20.67	0.27	7.31	42.84	10.03	
04/11/05	11:22 AM	20.69	0.24	7.27	29.83	9.38	
04/11/05	11:23 AM	20.70	0.23	7.46	25.51	8.15	
04/11/05	11:24 AM	20.45	0.65	7.32	35.67	11.73	
04/11/05	11:25 AM	20.08	1.15	4.79	50.18	11.10	
04/11/05	11:26 AM	19.95	1.27	6.48	118.53	8.25	
04/11/05	11:27 AM	19.74	1.56	6.67	157.88	6.22	
04/11/05	11:28 AM	19.46	2.03	8.33	202.74	4.73	
04/11/05	11:29 AM	19.41	2.08	10.92	166.23	4.10	
04/11/05	11:30 AM	19.50	1.92	10.03	118.86	4.11	
04/11/05	11:31 AM	19.62	1.75	7.16	128.38	3.93	
04/11/05	11:32 AM	19.55	1.86	6.11	143.05	3.70	
04/11/05	11:33 AM	19.55	1.93	6.05	132.71	3.71	
04/11/05	11:34 AM	19.60	1.88	5.63	131.05	3.85	
04/11/05	11:35 AM	19.57	1.91	4.38	148.39	3.86	
04/11/05	11:36 AM	19.60	1.85	4.57	183.22	3.22	
04/11/05	11:37 AM	19.55	1.93	5.82	179.06	2.70	
04/11/05	11:38 AM	19.57	1.88	6.20	193.38	2.37	
04/11/05	11:39 AM	19.59	1.86	6.15	180.73	2.24	
04/11/05	11:40 AM	19.62	1.85	5.56	197.25	2.18	
04/11/05	11:41 AM	19.58	1.90	5.27	233.10	2.10	
04/11/05	11:42 AM	19.70	1.71	5.14	199.56	2.07	
04/11/05	11:43 AM	19.78	1.65	3.86	216.74	2.19	
04/11/05	11:44 AM	19.83	1.59	3.67	255.26	2.57	
04/11/05	11:45 AM	19.94	1.41	3.70	263.02	2.95	
04/11/05	11:46 AM	19.99	1.41	3.64	231.61	3.16	
04/11/05	11:47 AM	19.92	1.52	4.04	215.72	3.25	
04/11/05	11:48 AM	20.03	1.32	4.00	188.06	3.56	
04/11/05	11:49 AM	20.20	1.05	3.70	158.79	4.04	
04/11/05	11:50 AM	20.36	0.84	3.58	134.92	4.37	
04/11/05	11:51 AM	20.57	0.54	4.71	92.47	4.81	
04/11/05	11:52 AM	20.69	0.40	7.54	57.52	5.37	
04/11/05	11:53 AM	20.73	0.36	9.71	36.83	6.38	
04/11/05	11:54 AM	20.74	0.35	9.02	29.15	7.33	
04/11/05	11:55 AM	20.75	0.35	10.00	32.87	7.30	
04/11/05	11:56 AM	20.42	0.71	12.18	30.80	6.71	
04/11/05	11:57 AM	20.49	0.62	11.75	34.20	7.48	
04/11/05	11:58 AM	20.56	0.56	14.95	23.85	7.08	
04/11/05	11:59 AM	20.64	0.48	15.27	20.03	6.32	
04/11/05	12:00 PM	20.70	0.42	16.26	18.97	6.02	
04/11/05	12:01 PM	20.71	0.43	16.85	15.63	6.07	
04/11/05	12:02 PM	20.11	1.23	13.52	28.00	15.37	
04/11/05	12:03 PM	19.83	1.53	5.29	69.43	19.40	
04/11/05	12:04 PM	19.78	1.63	5.12	102.44	17.03	
04/11/05	12:05 PM	19.77	1.68	4.25	120.88	12.72	
04/11/05	12:06 PM	19.79	1.66	3.90	130.27	9.91	
04/11/05	12:07 PM	19.76	1.73	5.04	150.12	7.81	
04/11/05	12:08 PM	19.75	1.78	6.04	211.48	5.65	
04/11/05	12:09 PM	19.73	1.75	5.42	276.60	4.26	
04/11/05	12:10 PM	19.74	1.70	4.21	266.28	3.48	
04/11/05	12:11 PM	19.79	1.65	3.94	226.25	3.73	
04/11/05	12:12 PM	19.79	1.65	4.14	201.33	4.97	
04/11/05	12:13 PM	19.79	1.63	3.77	216.98	6.27	
04/11/05	12:14 PM	19.83	1.62	3.94	231.47	7.76	
04/11/05	12:15 PM	19.82	1.72	3.92	253.09	7.72	
04/11/05	12:16 PM	19.81	1.74	4.44	263.66	6.10	
04/11/05	12:17 PM	19.84	1.68	4.86	259.99	4.78	
04/11/05	12:18 PM	19.89	1.58	5.02	215.91	4.39	
04/11/05	12:19 PM	19.86	1.61	5.34	206.22	5.40	
04/11/05	12:20 PM	19.86	1.61	7.56	199.94	4.73	
04/11/05	12:21 PM	19.85	1.64	12.38	210.27	3.62	
04/11/05	12:22 PM	19.82	1.67	4.85	215.21	3.29	
04/11/05	12:23 PM	19.99	1.42	3.10	229.92	3.46	
04/11/05	12:24 PM	19.94	1.49	2.70	250.18	3.71	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/11/05	12:25 PM	19.97	1.48	2.73	272.18	3.72	
04/11/05	12:26 PM	20.07	1.32	2.54	246.51	3.62	
04/11/05	12:27 PM	20.06	1.34	2.63	217.55	3.51	
04/11/05	12:28 PM	19.99	1.37	3.54	203.50	3.22	
04/11/05	12:29 PM	19.99	1.34	4.44	206.27	3.06	Mid Run Calibration
04/11/05	12:30 PM	10.83	0.63	3.09	163.03	5.17	
04/11/05	12:31 PM	0.52	0.16	0.24	13.89	0.51	
04/11/05	12:32 PM	0.17	0.16	0.02	-0.01	0.44	
04/11/05	12:33 PM	0.17	0.15	0.02	-0.01	0.41	
04/11/05	12:34 PM	0.17	0.15	12.47	8.22	17.71	
04/11/05	12:35 PM	0.18	0.15	46.01	21.87	44.45	
04/11/05	12:36 PM	0.18	0.16	71.99	61.59	79.63	
04/11/05	12:37 PM	0.17	0.15	242.17	224.38	100.39	
04/11/05	12:38 PM	0.17	0.15	242.10	244.00	100.39	
04/11/05	12:39 PM	0.17	0.15	242.07	247.84	100.39	
04/11/05	12:40 PM	0.17	1.40	241.86	248.32	100.39	
04/11/05	12:41 PM	12.27	12.80	106.86	101.99	16.40	
04/11/05	12:42 PM	12.75	12.85	0.26	0.54	1.77	
04/11/05	12:43 PM	13.76	12.00	0.02	0.02	1.24	
04/11/05	12:44 PM	20.47	2.08	2.15	41.41	7.74	
04/11/05	12:45 PM	20.20	1.62	7.01	232.29	9.58	
04/11/05	12:46 PM	20.18	1.63	5.87	288.46	10.53	
04/11/05	12:47 PM	20.13	1.73	6.24	315.52	11.76	
04/11/05	12:48 PM	20.07	1.81	7.13	324.83	11.99	
04/11/05	12:49 PM	20.03	1.91	6.67	340.93	9.88	
04/11/05	12:50 PM	20.02	1.92	5.81	345.47	6.62	
04/11/05	12:51 PM	20.14	1.82	5.21	363.86	5.03	
04/11/05	12:52 PM	20.07	1.86	5.95	369.73	4.68	
04/11/05	12:53 PM	20.10	1.80	6.30	396.92	4.07	
04/11/05	12:54 PM	20.23	1.66	6.07	436.52	3.46	
04/11/05	12:55 PM	20.13	1.81	6.74	399.39	3.30	
04/11/05	12:56 PM	20.17	1.75	6.67	374.46	3.35	
04/11/05	12:57 PM	20.23	1.65	6.32	388.24	3.66	
04/11/05	12:58 PM	20.27	1.65	6.27	366.55	3.60	
04/11/05	12:59 PM	20.34	1.54	6.38	354.68	3.55	
04/11/05	1:00 PM	20.46	1.37	6.78	296.74	3.36	
04/11/05	1:01 PM	20.44	1.38	6.83	246.45	4.18	
04/11/05	1:02 PM	20.44	1.36	5.75	254.09	4.89	
04/11/05	1:03 PM	20.48	1.31	4.16	274.15	5.62	
04/11/05	1:04 PM	20.42	1.41	3.73	230.38	6.04	
04/11/05	1:05 PM	20.35	1.44	4.47	255.54	6.18	
04/11/05	1:06 PM	20.48	1.30	3.62	262.18	6.37	
04/11/05	1:07 PM	20.52	1.25	3.20	229.10	6.87	
04/11/05	1:08 PM	20.60	1.15	2.78	182.23	7.67	
04/11/05	1:09 PM	20.86	0.77	1.93	156.87	8.36	
04/11/05	1:10 PM	21.05	0.52	1.61	143.33	9.63	
04/11/05	1:11 PM	21.19	0.37	8.59	81.57	12.49	
04/11/05	1:12 PM	21.21	0.35	9.72	45.33	10.76	
04/11/05	1:13 PM	21.22	0.32	9.21	33.74	8.21	
04/11/05	1:14 PM	21.14	0.40	9.28	40.82	7.38	
04/11/05	1:15 PM	20.74	0.96	4.85	65.55	10.20	
04/11/05	1:16 PM	20.45	1.28	4.34	76.22	12.21	
04/11/05	1:17 PM	20.39	1.32	3.47	111.14	14.11	
04/11/05	1:18 PM	20.31	1.42	3.39	142.70	13.85	
04/11/05	1:19 PM	20.25	1.48	3.63	158.46	12.89	
04/11/05	1:20 PM	20.14	1.60	3.89	163.79	10.12	
04/11/05	1:21 PM	20.08	1.64	4.18	155.12	6.78	
04/11/05	1:22 PM	20.28	1.46	4.76	163.94	8.14	
04/11/05	1:23 PM	20.58	1.05	4.01	140.62	12.59	
04/11/05	1:24 PM	20.93	0.60	3.04	120.55	15.22	
04/11/05	1:25 PM	20.60	1.09	3.41	111.06	16.94	
04/11/05	1:26 PM	20.29	1.48	4.13	143.65	15.36	
04/11/05	1:27 PM	20.24	1.57	6.19	203.64	10.46	
04/11/05	1:28 PM	20.27	1.53	6.83	262.91	7.73	
04/11/05	1:29 PM	20.28	1.51	7.51	277.10	7.29	
04/11/05	1:30 PM	20.30	1.55	7.43	260.83	7.94	
04/11/05	1:31 PM	20.25	1.57	5.23	252.82	8.06	
04/11/05	1:32 PM	20.33	1.44	4.40	251.82	9.38	
04/11/05	1:33 PM	20.35	1.39	4.26	244.83	11.21	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/11/05	1:34 PM	20.21	1.57	4.88	205.88	13.69	
04/11/05	1:35 PM	20.17	1.62	4.98	205.05	14.41	
04/11/05	1:36 PM	20.11	1.62	5.29	221.71	16.87	
04/11/05	1:37 PM	20.15	1.57	5.64	245.31	18.65	
04/11/05	1:38 PM	20.19	1.58	6.57	285.09	18.59	
04/11/05	1:39 PM	20.20	1.61	6.41	320.28	15.14	
04/11/05	1:40 PM	20.23	1.53	6.10	326.34	14.04	
04/11/05	1:41 PM	20.62	0.96	5.61	283.17	13.23	
04/11/05	1:42 PM	21.01	0.50	7.85	217.46	12.79	
04/11/05	1:43 PM	21.15	0.34	13.88	118.04	11.16	
04/11/05	1:44 PM	21.20	0.29	15.85	63.96	9.76	
04/11/05	1:45 PM	20.95	0.66	16.05	43.66	12.46	
04/11/05	1:46 PM	20.45	1.31	5.64	98.93	17.93	
04/11/05	1:47 PM	20.44	1.32	4.64	155.92	14.70	
04/11/05	1:48 PM	20.48	1.23	4.35	131.62	15.03	
04/11/05	1:49 PM	20.32	1.39	4.60	132.80	17.31	
04/11/05	1:50 PM	20.33	1.29	5.31	165.25	19.32	
04/11/05	1:51 PM	20.46	1.12	4.98	164.36	17.05	
04/11/05	1:52 PM	20.36	1.26	5.60	184.62	14.48	
04/11/05	1:53 PM	20.34	1.26	6.02	219.21	12.59	
04/11/05	1:54 PM	20.42	1.15	5.89	212.35	12.10	
04/11/05	1:55 PM	20.48	1.10	4.77	206.28	12.17	
04/11/05	1:56 PM	20.65	0.90	3.48	176.48	12.63	
04/11/05	1:57 PM	20.73	0.82	2.56	124.45	12.68	
04/11/05	1:58 PM	20.64	0.94	2.40	91.60	13.19	
04/11/05	1:59 PM	20.52	1.06	4.19	85.07	17.47	
04/11/05	2:00 PM	20.94	0.52	3.27	97.74	15.96	
04/11/05	2:01 PM	21.17	0.29	6.86	83.44	12.27	
04/11/05	2:02 PM	21.20	0.25	7.73	54.18	9.55	
04/11/05	2:03 PM	21.23	0.23	6.94	42.25	7.53	
04/11/05	2:04 PM	21.21	0.26	7.27	50.12	6.86	
04/11/05	2:05 PM	21.17	0.33	7.81	48.65	5.70	
04/11/05	2:06 PM	20.69	0.83	12.06	73.79	5.63	
04/11/05	2:07 PM	20.95	0.56	10.09	83.10	5.15	
04/11/05	2:08 PM	20.99	0.54	12.61	88.93	4.73	
04/11/05	2:09 PM	20.76	0.84	9.60	85.60	8.24	
04/11/05	2:10 PM	20.51	1.06	6.25	89.94	13.61	
04/11/05	2:11 PM	20.97	0.55	4.39	94.25	11.45	
04/11/05	2:12 PM	21.12	0.39	4.96	84.03	7.06	
04/11/05	2:13 PM	21.17	0.33	8.29	56.66	6.00	
04/11/05	2:14 PM	21.21	0.30	9.25	33.64	8.05	
04/11/05	2:15 PM	21.22	0.28	9.23	22.74	12.89	
04/11/05	2:16 PM	21.23	0.27	9.21	18.06	15.37	
04/11/05	2:17 PM	21.23	0.28	8.32	15.73	10.91	
04/11/05	2:18 PM	21.23	0.28	9.16	12.30	7.88	
04/11/05	2:19 PM	21.25	0.27	9.99	11.03	6.80	
04/11/05	2:20 PM	21.24	0.31	10.84	10.86	6.06	
04/11/05	2:21 PM	20.69	1.05	8.34	27.18	10.03	
04/11/05	2:22 PM	20.48	1.25	4.07	64.34	13.80	
04/11/05	2:23 PM	20.35	1.45	5.11	92.37	15.44	
04/11/05	2:24 PM	20.16	1.66	4.25	125.99	14.91	
04/11/05	2:25 PM	20.24	1.61	3.85	139.96	13.86	
04/11/05	2:26 PM	20.25	1.62	3.69	169.50	15.04	
04/11/05	2:27 PM	20.25	1.66	4.58	193.92	15.63	
04/11/05	2:28 PM	20.22	1.70	4.89	232.32	14.02	
04/11/05	2:29 PM	20.20	1.74	5.04	255.56	11.94	
04/11/05	2:30 PM	19.86	2.21	5.27	277.03	11.35	
04/11/05	2:31 PM	19.52	2.52	5.63	257.54	11.91	
04/11/05	2:32 PM	19.62	2.41	7.15	206.91	11.77	
04/11/05	2:33 PM	19.83	2.22	7.19	215.53	11.25	
04/11/05	2:34 PM	19.57	2.60	6.32	349.86	10.89	
04/11/05	2:35 PM	19.62	2.35	7.40	329.11	11.57	
04/11/05	2:36 PM	19.90	2.02	7.60	295.36	8.78	
04/11/05	2:37 PM	20.06	1.89	7.70	318.96	5.52	
04/11/05	2:38 PM	19.99	1.92	6.49	326.05	4.37	
04/11/05	2:39 PM	20.13	1.74	4.99	362.18	4.03	
04/11/05	2:40 PM	20.23	1.67	4.21	421.17	3.77	
04/11/05	2:41 PM	20.32	1.53	3.75	453.91	3.73	
04/11/05	2:42 PM	20.47	1.40	3.36	360.62	4.30	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/11/05	2:43 PM	20.49	1.39	3.31	231.58	5.26	
04/11/05	2:44 PM	20.72	1.07	3.28	253.78	5.55	
04/11/05	2:45 PM	21.02	0.67	3.18	238.76	5.45	
04/11/05	2:46 PM	21.18	0.46	4.75	157.09	5.20	
04/11/05	2:47 PM	21.23	0.40	6.72	100.01	5.44	
04/11/05	2:48 PM	21.23	0.39	7.27	79.57	6.77	
04/11/05	2:49 PM	20.99	0.74	5.22	101.14	10.59	
04/11/05	2:50 PM	20.46	1.43	3.46	111.11	13.85	
04/11/05	2:51 PM	20.24	1.62	4.00	162.49	12.60	
04/11/05	2:52 PM	20.28	1.59	4.65	179.07	10.28	
04/11/05	2:53 PM	20.25	1.66	4.16	170.48	9.54	
04/11/05	2:54 PM	20.21	1.69	5.32	181.13	8.89	
04/11/05	2:55 PM	20.25	1.65	5.40	183.14	8.39	
04/11/05	2:56 PM	20.27	1.63	5.17	207.31	8.24	
04/11/05	2:57 PM	20.19	1.82	5.28	203.41	7.49	
04/11/05	2:58 PM	19.88	2.40	5.25	210.96	5.29	
04/11/05	2:59 PM	20.00	2.22	4.82	160.32	3.58	
04/11/05	3:00 PM	20.03	2.09	5.37	143.63	3.24	
04/11/05	3:01 PM	20.02	2.05	5.59	171.13	3.14	
04/11/05	3:02 PM	20.07	1.99	5.31	210.89	3.10	
04/11/05	3:03 PM	20.09	1.97	5.05	243.80	3.60	
04/11/05	3:04 PM	20.06	2.02	4.80	251.20	4.69	
04/11/05	3:05 PM	20.04	2.01	3.90	244.23	6.57	
04/11/05	3:06 PM	20.11	1.93	4.06	262.61	5.82	
04/11/05	3:07 PM	20.16	1.91	4.08	294.02	3.74	
04/11/05	3:08 PM	20.20	1.88	4.79	296.73	2.91	
04/11/05	3:09 PM	20.26	1.82	5.27	270.03	2.56	
04/11/05	3:10 PM	20.29	1.83	4.66	245.79	2.38	
04/11/05	3:11 PM	20.31	1.83	4.01	217.82	2.35	
04/11/05	3:12 PM	20.29	1.82	3.77	221.86	2.62	
04/11/05	3:13 PM	20.28	1.76	3.70	219.95	3.49	
04/11/05	3:14 PM	20.44	1.57	3.43	213.98	4.98	
04/11/05	3:15 PM	20.65	1.26	2.80	216.27	6.89	
04/11/05	3:16 PM	20.92	0.88	1.99	162.81	9.81	
04/11/05	3:17 PM	21.12	0.63	2.88	133.36	12.43	
04/11/05	3:18 PM	21.26	0.46	7.24	106.64	14.46	
04/11/05	3:19 PM	21.30	0.41	9.97	58.34	13.09	
04/11/05	3:20 PM	21.31	0.38	9.05	39.22	9.81	
04/11/05	3:21 PM	21.33	0.37	8.67	28.95	7.61	
04/11/05	3:22 PM	21.31	0.39	8.44	26.31	7.00	
04/11/05	3:23 PM	21.30	0.41	9.00	26.16	6.98	
04/11/05	3:24 PM	21.31	0.39	9.33	27.63	6.89	
04/11/05	3:25 PM	21.30	0.39	10.14	24.58	6.04	
04/11/05	3:26 PM	20.99	0.72	11.09	28.09	5.49	
04/11/05	3:27 PM	21.05	0.63	12.67	30.61	6.06	
04/11/05	3:28 PM	21.11	0.54	17.27	15.08	5.54	
04/11/05	3:29 PM	21.18	0.48	17.57	11.57	3.64	
04/11/05	3:30 PM	21.23	0.43	19.73	9.92	4.83	
04/11/05	3:31 PM	21.27	0.38	20.09	7.20	8.29	
04/11/05	3:32 PM	21.14	0.60	19.83	5.69	12.22	
04/11/05	3:33 PM	20.43	1.41	9.10	19.71	21.15	
04/11/05	3:34 PM	20.26	1.61	4.31	40.52	15.93	
04/11/05	3:35 PM	20.25	1.64	4.96	72.54	12.05	
04/11/05	3:36 PM	20.30	1.62	5.91	81.87	11.31	
04/11/05	3:37 PM	20.30	1.64	6.18	83.86	10.85	
04/11/05	3:38 PM	20.30	1.64	5.16	93.51	8.96	
04/11/05	3:39 PM	20.28	1.69	4.52	106.72	8.41	
04/11/05	3:40 PM	20.04	2.05	5.91	125.23	8.68	
04/11/05	3:41 PM	19.86	2.29	6.12	155.57	10.07	
04/11/05	3:42 PM	19.98	2.10	6.06	169.40	11.53	
04/11/05	3:43 PM	20.04	2.00	5.89	167.54	14.02	
04/11/05	3:44 PM	20.05	1.93	5.00	181.23	17.42	
04/11/05	3:45 PM	20.06	1.89	3.98	211.25	18.25	
04/11/05	3:46 PM	20.13	1.84	4.40	241.25	18.09	
04/11/05	3:47 PM	20.11	1.86	3.67	290.72	15.41	
04/11/05	3:48 PM	20.11	1.84	3.00	388.85	12.21	
04/11/05	3:49 PM	20.12	1.80	3.98	446.21	10.73	
04/11/05	3:50 PM	20.11	1.83	4.13	499.48	10.35	
04/11/05	3:51 PM	20.04	1.86	3.73	508.45	7.83	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/11/05	3:52 PM	20.09	1.82	5.83	498.81	5.43	
04/11/05	3:53 PM	20.06	1.87	3.27	497.69	4.57	
04/11/05	3:54 PM	20.20	1.72	2.27	443.55	4.28	
04/11/05	3:55 PM	20.36	1.51	1.79	468.27	4.21	
04/11/05	3:56 PM	20.48	1.40	1.89	320.77	4.65	
04/11/05	3:57 PM	20.54	1.31	1.75	248.42	5.36	
04/11/05	3:58 PM	20.66	1.27	1.27	212.19	5.56	
04/11/05	3:59 PM	20.63	1.35	1.21	191.96	5.32	
04/11/05	4:00 PM	20.76	1.14	1.25	148.85	5.15	
04/11/05	4:01 PM	20.90	0.91	1.02	118.25	5.26	
04/11/05	4:02 PM	21.06	0.66	0.79	92.95	6.15	
04/11/05	4:03 PM	21.15	0.49	2.31	67.77	8.71	
04/11/05	4:04 PM	21.25	0.36	5.31	49.58	11.98	
04/11/05	4:05 PM	21.28	0.30	8.53	23.77	10.83	
04/11/05	4:06 PM	21.28	0.28	8.26	14.80	9.81	
04/11/05	4:07 PM	21.29	0.27	8.29	12.19	9.87	
04/11/05	4:08 PM	21.29	0.27	9.03	11.71	9.03	
04/11/05	4:09 PM	21.29	0.27	8.78	11.99	7.93	
04/11/05	4:10 PM	21.30	0.25	8.27	10.00	6.56	
04/11/05	4:11 PM	21.29	0.27	7.14	7.30	5.77	
04/11/05	4:12 PM	20.77	0.66	9.94	22.47	6.65	
04/11/05	4:13 PM	20.74	0.44	8.24	25.01	7.36	
04/11/05	4:14 PM	21.15	0.35	6.11	14.43	7.18	
04/11/05	4:15 PM	21.20	0.30	4.64	13.14	6.73	
04/11/05	4:16 PM	21.23	0.27	3.87	13.34	6.48	
04/11/05	4:17 PM	21.24	0.26	3.54	12.99	6.37	
04/11/05	4:18 PM	21.24	0.25	3.20	13.03	6.11	
04/11/05	4:19 PM	21.24	0.24	2.84	13.96	5.82	
04/11/05	4:20 PM	21.23	0.25	2.07	19.19	5.61	
04/11/05	4:21 PM	21.24	0.23	1.46	14.47	5.54	
04/11/05	4:22 PM	21.25	0.21	2.43	13.12	5.54	
04/11/05	4:23 PM	21.26	0.21	1.99	12.99	6.11	
04/11/05	4:24 PM	21.27	0.20	2.15	13.00	7.16	
04/11/05	4:25 PM	21.29	0.20	1.46	12.84	8.67	
04/11/05	4:26 PM	21.30	0.20	0.53	13.69	10.64	
04/11/05	4:27 PM	21.31	0.20	0.52	13.66	12.95	
04/11/05	4:28 PM	21.33	0.19	0.49	14.57	16.26	
04/11/05	4:29 PM	21.33	0.19	0.71	15.01	18.98	
04/11/05	4:30 PM	21.33	0.19	1.42	14.72	21.26	
04/11/05	4:31 PM	21.33	0.19	1.59	15.21	22.61	
04/11/05	4:32 PM	21.33	0.19	1.04	15.37	21.88	
04/11/05	4:33 PM	21.32	0.19	0.52	15.80	20.99	
04/11/05	4:34 PM	21.31	0.19	0.52	15.01	20.67	
04/11/05	4:35 PM	21.31	0.20	0.52	15.36	20.01	
04/11/05	4:36 PM	21.30	0.20	0.94	16.02	19.60	
04/11/05	4:37 PM	21.30	0.20	1.05	15.45	20.04	
04/11/05	4:38 PM	21.29	0.20	0.74	14.99	13.82	
04/11/05	4:39 PM	21.31	0.19	0.54	15.22	7.06	
04/11/05	4:40 PM	21.32	0.20	1.64	15.27	5.32	
04/11/05	4:41 PM	21.33	0.20	1.76	14.62	5.54	
04/11/05	4:42 PM	21.33	0.20	1.32	13.96	6.15	
04/11/05	4:43 PM	21.33	0.20	1.27	13.93	6.85	
04/11/05	4:44 PM	21.33	0.20	0.84	13.70	8.40	
04/11/05	4:45 PM	21.33	0.20	0.51	13.96	9.87	
04/11/05	4:46 PM	21.33	0.20	0.52	13.09	10.88	
04/11/05	4:47 PM	21.32	0.20	1.03	13.64	11.47	
04/11/05	4:48 PM	21.32	0.20	1.14	12.21	10.13	
04/11/05	4:49 PM	21.30	0.20	1.27	10.80	8.18	
04/11/05	4:50 PM	21.30	0.21	1.07	12.24	7.90	
04/11/05	4:51 PM	21.29	0.21	0.77	12.97	10.12	
04/11/05	4:52 PM	21.28	0.20	0.76	13.54	11.16	
04/11/05	4:53 PM	21.28	0.20	0.76	13.99	11.59	
04/11/05	4:54 PM	21.28	0.21	0.76	13.91	12.04	
04/11/05	4:55 PM	21.28	0.20	0.76	12.04	11.39	
04/11/05	4:56 PM	21.29	0.20	0.77	11.00	9.37	
04/11/05	4:57 PM	21.30	0.20	0.76	11.40	6.20	
04/11/05	4:58 PM	21.31	0.20	0.76	12.47	4.59	
04/11/05	4:59 PM	21.31	0.20	0.76	11.10	4.64	
04/11/05	5:00 PM	21.31	0.19	0.76	10.98	6.14	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/11/05	5:01 PM	21.31	0.19	0.77	10.10	7.27	
04/11/05	5:02 PM	21.31	0.20	0.77	10.88	7.79	
04/11/05	5:03 PM	21.31	0.20	0.77	10.99	8.16	
04/11/05	5:04 PM	21.30	0.20	0.76	10.98	8.55	
04/11/05	5:05 PM	21.29	0.20	1.12	10.41	8.99	
04/11/05	5:06 PM	21.29	0.20	1.22	9.09	9.14	
04/11/05	5:07 PM	21.28	0.20	1.27	9.06	8.22	
04/11/05	5:08 PM	21.28	0.20	1.06	9.97	7.77	
04/11/05	5:09 PM	21.28	0.20	0.52	9.80	7.04	
04/11/05	5:10 PM	21.26	0.21	1.36	12.80	5.98	
04/11/05	5:11 PM	21.26	0.23	5.84	10.59	5.02	
04/11/05	5:12 PM	21.26	0.26	17.86	9.62	4.28	
04/11/05	5:13 PM	21.27	0.26	23.03	6.50	4.12	
04/11/05	5:14 PM	21.28	0.26	21.63	5.38	4.04	
04/11/05	5:15 PM	21.27	0.26	21.17	4.96	3.92	
04/11/05	5:16 PM	21.25	0.29	21.26	5.49	4.20	
04/11/05	5:17 PM	21.09	0.44	10.09	24.77	4.97	
04/11/05	5:18 PM	20.97	0.59	2.38	27.12	7.35	
04/11/05	5:19 PM	20.70	0.95	1.97	51.20	11.32	
04/11/05	5:20 PM	21.02	0.55	1.57	71.14	9.85	
04/11/05	5:21 PM	20.69	1.05	1.46	87.05	12.15	
04/11/05	5:22 PM	20.35	1.38	2.02	97.97	21.75	
04/11/05	5:23 PM	20.32	1.43	2.05	112.28	25.32	
04/11/05	5:24 PM	20.38	1.38	2.27	103.42	25.49	
04/11/05	5:25 PM	20.44	1.30	2.27	117.00	20.72	
04/11/05	5:26 PM	20.46	1.26	2.39	81.58	15.95	
04/11/05	5:27 PM	20.48	1.25	2.76	69.74	13.11	
04/11/05	5:28 PM	20.47	1.30	2.88	101.66	10.30	
04/11/05	5:29 PM	20.44	1.36	3.18	103.83	8.36	
04/11/05	5:30 PM	20.36	1.49	3.14	107.17	7.14	
04/11/05	5:31 PM	20.15	1.71	3.51	149.84	6.16	
04/11/05	5:32 PM	19.98	2.01	3.60	194.77	5.81	
04/11/05	5:33 PM	20.07	1.88	3.31	171.13	5.46	
04/11/05	5:34 PM	20.05	1.83	2.68	126.35	5.07	
04/11/05	5:35 PM	19.81	2.06	3.18	156.35	4.83	
04/11/05	5:36 PM	19.93	1.90	3.26	179.35	4.74	
04/11/05	5:37 PM	20.01	1.84	3.43	208.54	4.34	
04/11/05	5:38 PM	20.01	1.80	4.35	198.54	3.97	
04/11/05	5:39 PM	20.06	1.68	4.59	190.52	3.76	
04/11/05	5:40 PM	20.14	1.65	3.64	203.10	3.44	End Run 1
	Averages	**20.36**	**1.16**	**5.67**	**139.91**	**9.15**	**Final Calibration**
04/11/05	5:41 PM	20.16	1.64	3.14	229.06	3.03	
04/11/05	5:42 PM	20.23	1.59	2.81	257.06	2.76	
04/11/05	5:43 PM	20.28	1.51	2.56	287.91	2.56	
04/11/05	5:44 PM	20.33	1.48	2.51	284.33	2.37	
04/11/05	5:45 PM	20.33	1.54	2.60	230.80	2.33	
04/11/05	5:46 PM	20.28	1.55	2.97	209.46	2.53	
04/11/05	5:47 PM	20.46	1.29	2.68	183.52	2.73	
04/11/05	5:48 PM	20.64	1.00	2.60	153.94	2.70	
04/11/05	5:49 PM	20.98	0.52	4.14	143.23	3.59	
04/11/05	5:50 PM	21.08	0.37	6.43	106.27	4.03	
04/11/05	5:51 PM	21.10	0.32	6.27	75.60	3.89	
04/11/05	5:52 PM	21.12	0.28	6.77	51.75	4.52	
04/11/05	5:53 PM	21.12	0.30	7.42	42.49	4.88	
04/11/05	5:54 PM	21.06	0.40	13.19	44.72	11.71	
04/11/05	5:55 PM	20.77	0.85	11.16	57.12	15.22	
04/11/05	5:56 PM	20.53	1.14	5.21	56.51	12.08	
04/11/05	5:57 PM	20.12	1.73	6.10	77.05	9.23	
04/11/05	5:58 PM	19.94	1.83	5.19	105.19	6.03	
04/11/05	5:59 PM	20.40	1.17	4.32	118.63	4.48	
04/11/05	6:00 PM	20.62	0.92	4.58	125.73	3.59	
04/11/05	6:01 PM	20.66	0.91	4.02	156.35	3.14	
04/11/05	6:02 PM	20.43	1.28	4.69	131.50	4.39	
04/11/05	6:03 PM	20.21	1.56	4.94	135.07	5.20	
04/11/05	6:04 PM	20.05	1.65	5.56	194.65	5.20	
04/11/05	6:05 PM	19.99	1.72	5.38	285.32	4.98	
04/11/05	6:06 PM	19.96	1.78	5.69	331.99	5.37	
04/11/05	6:07 PM	19.97	1.77	5.54	306.62	5.77	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/11/05	6:08 PM	19.94	1.82	4.63	258.46	4.32	
04/11/05	6:09 PM	19.97	1.80	4.99	251.28	3.38	
04/11/05	6:10 PM	19.99	1.80	5.76	258.26	2.91	
04/11/05	6:11 PM	19.96	1.81	4.86	255.39	2.66	
04/11/05	6:12 PM	20.07	1.62	3.54	251.25	2.56	
04/11/05	6:13 PM	20.16	1.51	3.18	246.87	2.49	
04/11/05	6:14 PM	20.15	1.54	3.80	247.16	2.91	
04/11/05	6:15 PM	7.44	0.64	3.89	189.01	2.42	
04/11/05	6:16 PM	-0.05	0.10	0.04	8.07	0.66	
04/11/05	6:17 PM	-0.05	0.09	0.01	-0.04	0.63	
04/11/05	6:18 PM	-0.04	0.10	2.66	1.86	9.30	
04/11/05	6:19 PM	-0.03	0.10	44.12	40.78	22.58	
04/11/05	6:20 PM	0.00	0.09	46.06	46.98	44.81	
04/11/05	6:21 PM	0.01	0.09	46.00	46.98	44.71	
04/11/05	6:22 PM	5.88	7.13	21.60	20.70	14.89	
04/11/05	6:23 PM	12.71	12.81	-0.01	2.23	1.05	
04/11/05	6:24 PM	12.72	12.82	0.01	-0.03	0.80	
04/11/05	6:25 PM	9.48	8.37	1.94	2.57	30.66	
04/11/05	6:26 PM	0.03	0.13	190.63	182.69	100.40	
04/11/05	6:27 PM	0.00	0.12	244.45	254.95	100.40	
04/11/05	6:28 PM	8.06	0.65	213.85	252.49	74.69	
04/11/05	6:29 PM	20.44	1.29	2.96	228.59	6.41	
04/11/05	6:30 PM	20.56	1.06	4.05	247.57	4.61	
04/11/05	6:31 PM	20.82	0.74	3.53	243.18	5.58	

CONTINUOUS EMISSIONS MONITORING
TEST RESULTS

Client: Nucor Steel, Hertford
Test Date: Apr-12-05
Start Time: 8:50 AM **Stop Time:** 8:10 PM
Emissions Unit: Baghouse
Project: Compliance

RUN 2

Calibration Data

	O_2 (%)	CO_2 (%)	NO_x (ppm)	CO (ppm)	SO_2 (ppm)
Initial Zero	0.07	-0.08	0.02	-0.03	0.08
Initial Span	12.53	12.67	46.13	249.69	44.89
Final Zero	0.19	0.22	0.01	-0.06	0.67
Final Span	12.64	12.87	46.25	247.19	44.78
Zero Drift	0.12	0.30	-0.01	-0.03	0.58
Span Drift	0.11	0.20	0.12	-2.43	-0.11
Drift Limit	0.75	0.75	3.00	15.00	3.00
Span Gas Value	12.44	12.70	45.60	243.00	44.10
Full Scale Range	25.0	25.0	100.0	500.0	100.0
Method Drift Limit (%)	3%	3%	3%	3%	3%
Analyte Mol Weight	32	44	46	28	64

Stack Gas Parameters

Average Temperature (°F)	145.0	
Moisture Content (%)	1.48%	*flow rates by pitot tube*
Process Rate (tons/hr)	252.0	*traverse from EPA Method 5*
Flow rate (dscfm)	1356984	

Emission Data

	O_2 (%)	CO_2 (%)	NO_x (ppm)	CO (ppm)	SO_2 (ppm)
Dry average (uncorrected)	20.32	1.00	4.61	83.48	6.21
Dry average (drift corrected)	20.17	0.93	4.54	81.68	5.79
Emission Rate (lb/hr)			44.103	483.219	78.262
Emission Rate (lb/ton)			0.175	1.918	0.311

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/12/05	6:35 AM	20.01	1.32	5.33	225.76	5.94	
04/12/05	6:36 AM	20.00	1.33	4.81	201.18	6.53	
04/12/05	6:37 AM	19.99	1.35	4.23	183.39	7.41	
04/12/05	6:38 AM	19.88	1.43	4.06	181.91	8.93	
04/12/05	6:39 AM	20.06	1.21	3.59	185.07	9.91	
04/12/05	6:40 AM	20.10	1.21	3.21	197.65	9.89	
04/12/05	6:41 AM	20.40	0.73	3.20	204.18	11.07	
04/12/05	6:42 AM	20.56	0.67	4.81	198.14	12.89	
04/12/05	6:43 AM	20.34	1.03	5.67	99.18	13.05	
04/12/05	6:44 AM	8.06	0.21	5.02	50.36	6.40	
04/12/05	6:45 AM	-0.25	-0.02	0.06	2.97	0.40	
04/12/05	6:46 AM	0.00	-0.03	0.02	-0.04	0.33	
04/12/05	6:47 AM	0.03	-0.16	0.02	-0.03	0.08	
04/12/05	6:48 AM	0.03	-0.19	0.02	-0.03	1.87	
04/12/05	6:49 AM	0.02	-0.17	15.77	14.04	31.85	
04/12/05	6:50 AM	0.03	-0.16	34.52	32.98	44.74	
04/12/05	6:51 AM	0.04	-0.15	46.11	45.98	44.75	
04/12/05	6:52 AM	0.05	-0.13	46.12	45.97	44.79	
04/12/05	6:53 AM	0.06	-0.13	46.21	45.98	44.79	
04/12/05	6:54 AM	0.06	-0.12	46.11	45.97	44.89	
04/12/05	6:55 AM	0.07	-0.08	46.13	45.98	44.89	
04/12/05	6:56 AM	5.28	6.42	23.87	27.41	14.50	
04/12/05	6:57 AM	12.53	12.67	1.25	2.63	0.43	
04/12/05	6:58 AM	7.38	6.20	8.03	8.94	48.81	
04/12/05	6:59 AM	0.09	0.02	234.52	207.65	100.41	
04/12/05	7:00 AM	0.09	0.01	247.17	243.69	100.41	
04/12/05	7:01 AM	0.10	0.03	247.23	249.65	100.41	
04/12/05	7:02 AM	0.11	0.04	247.08	249.69	100.41	
04/12/05	7:03 AM	15.13	0.75	168.91	191.94	42.58	
04/12/05	7:04 AM	20.17	1.22	5.47	53.34	14.62	
04/12/05	7:05 AM	20.07	1.34	6.35	82.93	13.45	
04/12/05	7:06 AM	20.03	1.38	7.07	114.59	11.51	
04/12/05	7:07 AM	20.05	1.39	7.06	149.61	9.69	
04/12/05	7:08 AM	20.03	1.41	6.50	185.10	8.42	On Line
04/12/05	7:09 AM	19.93	1.51	5.60	206.91	7.59	
04/12/05	7:10 AM	19.85	1.60	6.04	212.08	6.69	
04/12/05	7:11 AM	19.83	1.64	6.22	180.30	6.10	
04/12/05	7:12 AM	19.84	1.65	5.44	153.11	5.62	
04/12/05	7:13 AM	19.86	1.63	5.51	153.71	4.93	
04/12/05	7:14 AM	19.88	1.63	6.25	168.31	4.04	
04/12/05	7:15 AM	19.87	1.64	6.84	186.25	3.69	
04/12/05	7:16 AM	19.92	1.61	6.27	191.42	3.86	
04/12/05	7:17 AM	19.92	1.63	4.78	210.60	4.23	
04/12/05	7:18 AM	19.90	1.69	5.31	232.42	5.14	
04/12/05	7:19 AM	19.88	1.75	7.04	233.34	6.20	
04/12/05	7:20 AM	19.85	1.79	7.31	224.98	7.88	
04/12/05	7:21 AM	19.89	1.68	6.18	207.04	10.22	
04/12/05	7:22 AM	19.89	1.60	5.37	282.65	12.07	
04/12/05	7:23 AM	19.97	1.52	4.90	275.09	13.49	
04/12/05	7:24 AM	20.02	1.51	3.70	220.13	12.95	
04/12/05	7:25 AM	19.91	1.77	3.69	230.10	12.16	
04/12/05	7:26 AM	19.77	1.99	4.64	265.22	13.47	
04/12/05	7:27 AM	19.69	2.08	5.23	257.78	14.01	
04/12/05	7:28 AM	19.52	2.21	4.20	240.10	13.35	
04/12/05	7:29 AM	19.92	1.72	3.19	223.99	12.85	
04/12/05	7:30 AM	20.01	1.66	2.57	230.55	11.39	
04/12/05	7:31 AM	20.14	1.46	2.45	217.66	10.53	
04/12/05	7:32 AM	20.45	1.05	1.76	186.30	8.21	
04/12/05	7:33 AM	20.59	0.87	1.55	169.04	7.74	
04/12/05	7:34 AM	20.73	0.65	2.00	121.18	9.09	
04/12/05	7:35 AM	20.87	0.47	6.30	72.16	10.58	
04/12/05	7:36 AM	20.86	0.45	10.10	49.39	10.80	
04/12/05	7:37 AM	20.90	0.42	7.25	38.82	9.80	
04/12/05	7:38 AM	20.91	0.42	6.86	25.62	8.40	
04/12/05	7:39 AM	20.92	0.42	7.83	19.19	8.12	
04/12/05	7:40 AM	20.92	0.43	8.04	21.81	7.95	
04/12/05	7:41 AM	20.92	0.42	8.82	21.83	7.37	
04/12/05	7:42 AM	20.92	0.43	8.79	20.82	6.31	
04/12/05	7:43 AM	20.93	0.43	9.06	19.83	4.90	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/12/05	7:44 AM	20.93	0.42	9.27	18.46	3.79	
04/12/05	7:45 AM	20.93	0.42	10.20	18.00	3.24	
04/12/05	7:46 AM	20.94	0.42	9.61	17.97	2.98	
04/12/05	7:47 AM	20.94	0.42	9.61	16.61	2.66	
04/12/05	7:48 AM	20.94	0.42	9.14	14.28	2.40	
04/12/05	7:49 AM	20.94	0.43	9.70	13.14	2.17	
04/12/05	7:50 AM	20.93	0.44	12.66	14.97	2.03	
04/12/05	7:51 AM	20.93	0.44	14.59	17.20	2.08	
04/12/05	7:52 AM	20.93	0.44	11.88	18.50	2.17	
04/12/05	7:53 AM	20.92	0.46	11.27	14.82	2.10	
04/12/05	7:54 AM	20.92	0.45	11.51	13.47	2.01	
04/12/05	7:55 AM	20.92	0.46	13.41	13.48	1.94	
04/12/05	7:56 AM	20.67	0.87	21.34	19.34	2.02	
04/12/05	7:57 AM	20.28	1.37	4.21	29.51	5.17	
04/12/05	7:58 AM	20.11	1.57	3.46	58.98	8.45	
04/12/05	7:59 AM	20.03	1.63	4.20	86.68	9.54	
04/12/05	8:00 AM	19.93	1.70	4.12	117.18	8.99	
04/12/05	8:01 AM	19.92	1.70	3.91	120.22	7.80	
04/12/05	8:02 AM	19.88	1.76	3.20	125.15	7.27	
04/12/05	8:03 AM	19.85	1.82	3.56	131.22	7.77	
04/12/05	8:04 AM	19.79	1.89	3.56	135.18	8.97	
04/12/05	8:05 AM	19.80	1.87	2.99	138.54	10.74	
04/12/05	8:06 AM	19.79	1.91	2.76	141.01	12.27	
04/12/05	8:07 AM	19.75	1.98	3.52	133.45	10.58	
04/12/05	8:08 AM	19.72	2.05	3.56	137.59	8.29	
04/12/05	8:09 AM	19.68	2.10	4.16	116.17	6.89	
04/12/05	8:10 AM	19.70	2.08	5.08	104.02	6.48	
04/12/05	8:11 AM	19.75	2.03	5.05	119.89	6.61	
04/12/05	8:12 AM	19.76	2.01	5.11	140.30	6.50	
04/12/05	8:13 AM	19.80	1.88	4.00	144.89	6.39	
04/12/05	8:14 AM	20.03	1.59	2.78	212.44	5.66	
04/12/05	8:15 AM	20.13	1.43	3.04	210.32	5.45	
04/12/05	8:16 AM	20.21	1.35	3.15	182.00	5.16	
04/12/05	8:17 AM	20.12	1.51	3.26	196.98	4.81	
04/12/05	8:18 AM	20.18	1.42	3.40	249.22	5.07	
04/12/05	8:19 AM	20.52	0.92	3.35	185.90	5.80	
04/12/05	8:20 AM	20.64	0.77	2.99	111.26	7.09	
04/12/05	8:21 AM	20.66	0.75	3.18	69.34	9.86	
04/12/05	8:22 AM	20.81	0.52	9.70	40.10	11.89	
04/12/05	8:23 AM	20.81	0.50	8.37	27.05	11.08	
04/12/05	8:24 AM	20.82	0.48	7.25	22.54	9.68	
04/12/05	8:25 AM	20.85	0.43	6.52	14.65	8.05	
04/12/05	8:26 AM	20.86	0.40	6.97	9.90	6.95	
04/12/05	8:27 AM	20.87	0.39	7.02	8.24	6.46	
04/12/05	8:28 AM	20.88	0.38	7.06	7.45	6.05	
04/12/05	8:29 AM	20.89	0.38	7.22	6.23	5.70	
04/12/05	8:30 AM	20.87	0.41	6.94	5.45	5.42	
04/12/05	8:31 AM	20.88	0.40	6.68	5.10	5.37	
04/12/05	8:32 AM	20.89	0.39	7.42	3.95	5.03	
04/12/05	8:33 AM	20.91	0.37	7.52	3.96	4.30	
04/12/05	8:34 AM	20.90	0.38	7.63	3.98	3.63	
04/12/05	8:35 AM	20.89	0.38	8.26	3.96	3.05	
04/12/05	8:36 AM	20.90	0.37	8.35	3.95	2.69	
04/12/05	8:37 AM	20.91	0.36	6.56	4.17	2.43	
04/12/05	8:38 AM	20.92	0.35	5.81	4.95	2.14	
04/12/05	8:39 AM	20.92	0.35	5.18	4.99	1.90	
04/12/05	8:40 AM	20.93	0.35	4.64	5.81	1.74	
04/12/05	8:41 AM	20.94	0.34	5.81	6.00	1.61	
04/12/05	8:42 AM	20.94	0.34	6.35	6.01	1.52	
04/12/05	8:43 AM	20.93	0.34	6.27	5.97	1.50	
04/12/05	8:44 AM	20.92	0.35	6.68	6.50	1.45	
04/12/05	8:45 AM	20.92	0.34	7.02	6.99	1.40	
04/12/05	8:46 AM	20.92	0.34	7.10	6.94	1.28	
04/12/05	8:47 AM	20.92	0.35	7.43	6.99	1.16	
04/12/05	8:48 AM	20.92	0.35	6.85	7.83	1.11	
04/12/05	8:49 AM	20.88	0.39	6.93	20.50	1.12	
04/12/05	8:50 AM	20.90	0.37	7.02	16.05	1.24	Start Run 2
04/12/05	8:51 AM	20.92	0.34	6.64	8.52	1.38	
04/12/05	8:52 AM	20.93	0.32	5.93	7.94	1.50	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/12/05	8:53 AM	20.93	0.32	5.35	8.00	1.65	
04/12/05	8:54 AM	20.93	0.31	5.27	7.61	1.72	
04/12/05	8:55 AM	20.93	0.31	5.18	7.49	1.74	
04/12/05	8:56 AM	20.92	0.31	5.52	7.08	1.76	
04/12/05	8:57 AM	20.92	0.30	5.51	6.95	1.92	
04/12/05	8:58 AM	20.84	0.39	7.15	7.23	2.17	
04/12/05	8:59 AM	20.74	0.46	8.34	10.66	2.71	
04/12/05	9:00 AM	20.81	0.39	8.54	11.71	2.98	
04/12/05	9:01 AM	20.84	0.36	6.73	8.33	2.70	
04/12/05	9:02 AM	20.86	0.33	5.91	6.80	2.34	
04/12/05	9:03 AM	20.86	0.33	7.79	5.90	2.21	
04/12/05	9:04 AM	20.84	0.32	8.52	4.78	2.46	
04/12/05	9:05 AM	20.84	0.31	8.13	4.97	2.44	
04/12/05	9:06 AM	20.83	0.31	8.12	4.11	2.44	
04/12/05	9:07 AM	20.83	0.30	8.34	3.99	2.29	
04/12/05	9:08 AM	20.84	0.29	8.44	4.00	2.24	
04/12/05	9:09 AM	20.85	0.29	8.79	4.01	2.76	
04/12/05	9:10 AM	20.86	0.29	9.06	3.07	3.31	
04/12/05	9:11 AM	20.86	0.28	9.01	3.01	2.96	
04/12/05	9:12 AM	20.86	0.27	8.80	4.09	2.61	
04/12/05	9:13 AM	20.87	0.27	8.76	4.66	2.75	
04/12/05	9:14 AM	20.87	0.26	8.56	4.99	2.89	
04/12/05	9:15 AM	20.87	0.25	8.52	4.87	2.97	
04/12/05	9:16 AM	20.87	0.26	8.85	3.98	3.18	
04/12/05	9:17 AM	20.87	0.25	9.15	4.00	2.93	
04/12/05	9:18 AM	20.87	0.25	9.35	4.02	2.37	
04/12/05	9:19 AM	20.87	0.25	9.51	3.97	2.12	
04/12/05	9:20 AM	20.87	0.24	9.47	3.99	2.13	
04/12/05	9:21 AM	20.87	0.24	9.63	3.34	2.16	
04/12/05	9:22 AM	20.83	0.28	9.04	3.84	2.21	
04/12/05	9:23 AM	20.79	0.31	4.04	27.95	2.26	
04/12/05	9:24 AM	20.70	0.39	2.02	41.29	2.21	
04/12/05	9:25 AM	20.53	0.63	1.63	40.35	2.39	
04/12/05	9:26 AM	20.31	0.86	2.83	71.57	5.61	
04/12/05	9:27 AM	20.20	1.03	2.17	64.59	9.40	
04/12/05	9:28 AM	20.06	1.21	2.41	68.29	13.28	
04/12/05	9:29 AM	20.00	1.29	2.63	75.65	14.13	
04/12/05	9:30 AM	19.93	1.44	2.61	77.65	13.60	
04/12/05	9:31 AM	19.92	1.50	2.72	78.11	12.81	
04/12/05	9:32 AM	19.92	1.53	2.77	101.89	12.09	
04/12/05	9:33 AM	19.94	1.48	2.90	127.21	11.25	
04/12/05	9:34 AM	19.96	1.46	3.23	114.10	11.07	
04/12/05	9:35 AM	19.83	1.61	3.66	119.66	10.60	
04/12/05	9:36 AM	19.88	1.61	3.80	156.82	9.38	
04/12/05	9:37 AM	19.89	1.63	4.37	196.58	8.05	
04/12/05	9:38 AM	19.96	1.57	5.46	193.10	6.98	
04/12/05	9:39 AM	19.92	1.60	4.64	171.37	6.14	
04/12/05	9:40 AM	19.89	1.62	4.16	165.38	6.07	
04/12/05	9:41 AM	19.88	1.59	4.30	151.53	6.30	
04/12/05	9:42 AM	19.88	1.57	4.02	136.34	6.09	
04/12/05	9:43 AM	19.84	1.62	4.15	128.59	6.00	
04/12/05	9:44 AM	19.83	1.62	4.20	133.01	5.89	
04/12/05	9:45 AM	19.89	1.56	3.74	134.77	5.29	
04/12/05	9:46 AM	19.92	1.52	3.82	135.35	5.08	
04/12/05	9:47 AM	19.94	1.48	3.71	150.04	5.15	
04/12/05	9:48 AM	20.03	1.33	3.74	192.13	4.64	
04/12/05	9:49 AM	20.05	1.29	3.35	217.65	3.85	
04/12/05	9:50 AM	20.03	1.36	4.04	206.47	3.24	
04/12/05	9:51 AM	19.93	1.57	4.30	214.07	2.85	
04/12/05	9:52 AM	19.84	1.71	4.18	223.81	2.66	
04/12/05	9:53 AM	19.88	1.60	4.27	208.72	2.56	
04/12/05	9:54 AM	19.98	1.48	3.77	199.47	2.41	
04/12/05	9:55 AM	20.09	1.36	3.31	189.62	2.21	
04/12/05	9:56 AM	19.97	1.56	3.08	203.56	1.94	
04/12/05	9:57 AM	19.83	1.76	3.64	256.24	1.72	
04/12/05	9:58 AM	19.79	1.82	3.70	237.81	1.62	
04/12/05	9:59 AM	19.73	1.88	3.72	189.72	1.60	
04/12/05	10:00 AM	19.82	1.70	3.82	150.39	1.61	
04/12/05	10:01 AM	19.82	1.68	4.24	144.46	1.61	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/12/05	10:02 AM	19.89	1.62	4.13	159.61	1.62	
04/12/05	10:03 AM	19.90	1.68	4.01	161.11	1.70	
04/12/05	10:04 AM	19.90	1.69	4.02	144.54	1.81	
04/12/05	10:05 AM	19.92	1.62	4.13	133.36	1.87	
04/12/05	10:06 AM	20.15	1.37	3.08	111.58	1.98	
04/12/05	10:07 AM	20.16	1.36	2.83	109.50	1.94	
04/12/05	10:08 AM	20.25	1.18	3.08	105.77	1.74	
04/12/05	10:09 AM	20.38	0.98	2.87	62.07	1.59	
04/12/05	10:10 AM	20.47	0.85	2.21	45.48	1.45	
04/12/05	10:11 AM	20.52	0.76	2.02	43.68	1.36	
04/12/05	10:12 AM	20.58	0.67	1.80	43.90	1.38	
04/12/05	10:13 AM	20.66	0.54	1.57	53.97	1.55	
04/12/05	10:14 AM	20.69	0.48	1.49	51.51	2.07	
04/12/05	10:15 AM	20.75	0.39	3.03	50.06	3.12	
04/12/05	10:16 AM	20.79	0.33	3.45	36.92	4.18	
04/12/05	10:17 AM	20.83	0.29	8.06	23.96	5.94	
04/12/05	10:18 AM	20.84	0.27	7.83	18.90	5.56	
04/12/05	10:19 AM	20.87	0.24	7.11	16.52	4.62	
04/12/05	10:20 AM	20.88	0.24	7.68	15.47	3.76	
04/12/05	10:21 AM	20.68	0.58	14.67	20.37	3.51	
04/12/05	10:22 AM	20.27	1.11	5.42	26.77	6.47	
04/12/05	10:23 AM	20.06	1.40	5.33	45.43	7.89	
04/12/05	10:24 AM	19.85	1.71	6.19	107.20	6.12	
04/12/05	10:25 AM	19.85	1.76	7.61	149.87	4.66	
04/12/05	10:26 AM	19.89	1.70	9.06	161.03	3.66	
04/12/05	10:27 AM	19.92	1.61	8.27	172.12	2.96	
04/12/05	10:28 AM	19.89	1.62	7.77	193.22	2.56	
04/12/05	10:29 AM	19.87	1.63	8.18	203.57	2.30	
04/12/05	10:30 AM	19.84	1.66	6.72	189.36	2.05	
04/12/05	10:31 AM	19.82	1.70	6.12	179.61	1.81	
04/12/05	10:32 AM	19.83	1.71	5.89	187.31	1.61	
04/12/05	10:33 AM	19.85	1.67	5.62	189.90	1.45	
04/12/05	10:34 AM	19.90	1.64	6.49	189.94	1.50	
04/12/05	10:35 AM	19.84	1.72	5.31	164.77	2.37	
04/12/05	10:36 AM	19.78	1.80	4.77	141.74	4.60	
04/12/05	10:37 AM	19.77	1.79	5.72	133.32	6.89	
04/12/05	10:38 AM	19.81	1.70	5.29	129.49	8.54	
04/12/05	10:39 AM	19.81	1.72	4.68	138.80	9.67	
04/12/05	10:40 AM	19.77	1.75	4.29	131.71	10.54	
04/12/05	10:41 AM	19.96	1.46	4.35	123.04	11.54	
04/12/05	10:42 AM	19.98	1.44	3.29	153.16	11.61	
04/12/05	10:43 AM	19.98	1.42	2.60	230.11	11.52	
04/12/05	10:44 AM	19.90	1.59	2.79	242.87	11.47	
04/12/05	10:45 AM	19.85	1.67	3.87	201.41	9.69	
04/12/05	10:46 AM	19.80	1.65	4.87	165.82	5.69	
04/12/05	10:47 AM	19.99	1.40	5.20	156.40	5.20	
04/12/05	10:48 AM	19.98	1.45	4.39	164.57	6.43	
04/12/05	10:49 AM	20.03	1.44	2.86	159.54	6.32	
04/12/05	10:50 AM	20.13	1.30	2.96	128.17	6.17	
04/12/05	10:51 AM	20.30	1.12	2.81	117.20	5.78	
04/12/05	10:52 AM	20.44	0.90	2.77	110.54	4.80	
04/12/05	10:53 AM	20.63	0.61	2.62	99.24	4.16	
04/12/05	10:54 AM	20.74	0.46	2.38	84.78	4.61	
04/12/05	10:55 AM	20.81	0.35	6.10	65.80	6.63	
04/12/05	10:56 AM	20.86	0.29	8.18	43.34	9.08	
04/12/05	10:57 AM	20.86	0.29	8.59	33.59	8.99	
04/12/05	10:58 AM	20.81	0.38	15.43	39.97	6.27	
04/12/05	10:59 AM	20.38	1.01	8.80	45.33	7.48	
							Caster Down - Standby all Testing
04/12/05	11:00 AM	20.11	1.32	4.40	52.63	9.08	
04/12/05	11:01 AM	19.94	1.57	5.04	88.81	7.95	
04/12/05	11:02 AM	19.80	1.72	6.10	118.05	6.19	
04/12/05	11:03 AM	19.74	1.77	5.85	129.67	4.94	
04/12/05	11:04 AM	19.70	1.84	5.53	144.70	4.07	
04/12/05	11:05 AM	19.62	2.01	5.18	140.00	3.34	
04/12/05	11:06 AM	19.60	2.00	4.97	139.41	3.05	
04/12/05	11:07 AM	19.54	2.04	4.55	144.76	5.22	
04/12/05	11:08 AM	19.54	2.02	3.94	146.15	9.72	
04/12/05	11:09 AM	19.64	1.93	4.18	165.04	13.01	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/12/05	11:10 AM	19.63	1.99	4.71	196.00	12.54	
04/12/05	11:11 AM	19.63	1.98	4.21	185.78	7.74	
04/12/05	11:12 AM	19.66	1.92	4.45	174.64	5.31	
04/12/05	11:13 AM	19.69	1.85	5.22	178.37	5.72	
04/12/05	11:14 AM	19.75	1.78	6.19	165.41	7.35	
04/12/05	11:15 AM	19.72	1.84	4.01	194.09	8.68	
04/12/05	11:16 AM	19.87	1.57	3.13	200.03	9.72	
04/12/05	11:17 AM	19.97	1.46	3.35	187.44	10.44	
04/12/05	11:18 AM	19.94	1.48	3.27	172.16	10.32	
04/12/05	11:19 AM	19.99	1.42	2.93	168.12	9.73	
04/12/05	11:20 AM	19.93	1.55	2.86	183.06	9.33	
04/12/05	11:21 AM	19.94	1.58	3.08	194.99	9.51	
04/12/05	11:22 AM	19.95	1.55	3.01	200.38	10.14	
04/12/05	11:23 AM	19.93	1.59	2.93	205.46	10.54	
04/12/05	11:24 AM	19.83	1.68	2.75	211.20	10.55	
04/12/05	11:25 AM	19.93	1.61	2.60	252.10	10.66	
04/12/05	11:26 AM	20.07	1.42	2.24	319.21	10.39	
04/12/05	11:27 AM	20.19	1.35	1.81	224.88	10.23	
04/12/05	11:28 AM	20.19	1.38	1.75	191.23	10.10	
04/12/05	11:29 AM	20.30	1.15	1.96	160.97	9.77	
04/12/05	11:30 AM	20.50	0.89	1.52	139.51	9.05	
04/12/05	11:31 AM	20.63	0.70	1.85	121.93	8.32	
04/12/05	11:32 AM	20.74	0.53	1.87	99.19	8.91	
04/12/05	11:33 AM	20.81	0.42	4.82	82.74	12.03	
04/12/05	11:34 AM	20.79	0.48	3.97	69.85	12.96	
04/12/05	11:35 AM	20.87	0.38	4.87	52.43	12.28	
04/12/05	11:36 AM	20.97	0.28	7.17	22.68	11.72	
04/12/05	11:37 AM	20.97	0.28	8.47	11.54	10.97	
04/12/05	11:38 AM	20.99	0.28	7.79	10.98	10.29	
04/12/05	11:39 AM	21.01	0.29	7.21	11.04	9.64	
04/12/05	11:40 AM	21.00	0.30	7.43	10.98	9.22	
04/12/05	11:41 AM	20.99	0.30	8.37	12.95	9.26	
04/12/05	11:42 AM	20.98	0.33	7.27	12.32	8.83	
04/12/05	11:43 AM	20.96	0.35	7.46	12.32	7.90	
04/12/05	11:44 AM	20.97	0.34	8.02	10.49	7.10	
04/12/05	11:45 AM	20.95	0.36	12.89	10.33	6.88	
04/12/05	11:46 AM	20.86	0.45	17.22	13.34	6.17	
04/12/05	11:47 AM	20.72	0.62	6.80	120.03	5.43	
04/12/05	11:48 AM	20.79	0.52	3.61	163.55	4.66	
04/12/05	11:49 AM	20.86	0.40	5.04	80.00	4.84	
04/12/05	11:50 AM	20.89	0.35	6.99	20.66	4.67	
04/12/05	11:51 AM	20.91	0.33	6.86	17.49	3.77	
04/12/05	11:52 AM	20.92	0.34	6.64	27.84	4.12	
04/12/05	11:53 AM	20.93	0.34	10.96	23.16	4.51	
04/12/05	11:54 AM	20.96	0.30	6.21	21.48	5.03	
04/12/05	11:55 AM	20.97	0.30	4.89	18.53	5.20	
04/12/05	11:56 AM	20.96	0.29	5.26	11.33	4.23	
04/12/05	11:57 AM	20.88	0.37	5.45	11.32	3.59	
04/12/05	11:58 AM	20.89	0.36	6.90	14.66	3.77	
04/12/05	11:59 AM	20.91	0.34	7.26	10.00	5.01	
04/12/05	12:00 PM	20.93	0.31	6.87	4.30	6.10	
04/12/05	12:01 PM	20.93	0.29	5.49	3.85	7.59	
04/12/05	12:02 PM	20.93	0.29	5.27	2.97	9.26	
04/12/05	12:03 PM	20.93	0.27	5.19	2.98	10.43	
04/12/05	12:04 PM	20.92	0.26	5.10	2.96	11.25	
04/12/05	12:05 PM	20.92	0.25	5.02	2.99	11.60	
04/12/05	12:06 PM	20.91	0.25	5.06	2.97	10.97	
04/12/05	12:07 PM	20.91	0.24	5.11	2.98	9.75	
04/12/05	12:08 PM	20.92	0.22	5.10	2.99	10.07	
04/12/05	12:09 PM	20.94	0.22	5.15	3.01	10.23	
04/12/05	12:10 PM	20.94	0.21	5.48	2.32	10.10	
04/12/05	12:11 PM	20.94	0.21	5.52	2.01	9.17	
04/12/05	12:12 PM	20.95	0.21	5.19	2.98	7.84	
04/12/05	12:13 PM	20.94	0.18	3.66	5.68	6.94	
04/12/05	12:14 PM	20.94	0.18	1.45	9.04	6.62	
04/12/05	12:15 PM	20.94	0.17	1.27	10.04	6.48	
04/12/05	12:16 PM	20.94	0.17	0.78	9.98	7.69	
04/12/05	12:17 PM	20.94	0.16	0.60	10.51	9.16	
04/12/05	12:18 PM	20.93	0.15	1.27	9.98	9.54	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/12/05	12:19 PM	20.93	0.14	1.06	9.01	9.68	
04/12/05	12:20 PM	20.92	0.14	1.15	8.83	9.28	
04/12/05	12:21 PM	20.91	0.13	1.23	7.95	8.78	
04/12/05	12:22 PM	20.91	0.13	1.06	7.96	8.35	
04/12/05	12:23 PM	20.91	0.13	1.15	7.97	8.03	
04/12/05	12:24 PM	20.91	0.12	0.94	7.99	7.94	
04/12/05	12:25 PM	20.92	0.11	0.52	9.00	8.25	
04/12/05	12:26 PM	20.93	0.11	0.48	8.47	8.63	
04/12/05	12:27 PM	20.92	0.12	2.52	7.06	8.61	
04/12/05	12:28 PM	20.88	0.16	14.35	4.20	8.42	
04/12/05	12:29 PM	20.84	0.18	10.31	13.40	7.43	
04/12/05	12:30 PM	20.64	0.48	4.44	26.77	6.06	
04/12/05	12:31 PM	20.46	0.71	1.94	63.05	8.99	
04/12/05	12:32 PM	20.39	0.81	1.98	63.70	14.00	
04/12/05	12:33 PM	20.30	0.92	1.84	89.22	17.34	
04/12/05	12:34 PM	20.25	0.97	2.00	102.25	18.78	
04/12/05	12:35 PM	20.24	0.99	1.80	95.62	17.30	
04/12/05	12:36 PM	20.22	1.03	1.88	98.89	16.02	
04/12/05	12:37 PM	20.18	1.09	2.30	97.58	16.14	
04/12/05	12:38 PM	20.11	1.19	2.88	110.92	17.20	
04/12/05	12:39 PM	20.05	1.31	3.38	146.09	16.27	
04/12/05	12:40 PM	19.93	1.53	3.84	158.15	15.84	
04/12/05	12:41 PM	19.81	1.71	3.38	164.61	16.65	
04/12/05	12:42 PM	19.83	1.66	3.21	162.76	16.69	
04/12/05	12:43 PM	19.92	1.54	3.13	155.89	16.22	
04/12/05	12:44 PM	19.93	1.56	3.22	167.09	12.90	
04/12/05	12:45 PM	19.95	1.57	3.48	169.35	10.10	
04/12/05	12:46 PM	19.92	1.66	4.83	152.09	8.15	
04/12/05	12:47 PM	19.84	1.74	4.17	127.92	7.44	
04/12/05	12:48 PM	20.02	1.44	3.65	126.78	7.41	
04/12/05	12:49 PM	20.15	1.29	2.58	123.35	8.07	
04/12/05	12:50 PM	20.09	1.37	2.64	104.90	9.24	
04/12/05	12:51 PM	20.04	1.40	2.73	108.75	9.01	
04/12/05	12:52 PM	19.97	1.52	3.15	98.15	9.30	
04/12/05	12:53 PM	19.82	1.74	3.23	75.40	9.84	
04/12/05	12:54 PM	19.78	1.76	3.06	59.02	9.99	
04/12/05	12:55 PM	19.73	1.80	3.28	63.73	9.42	
04/12/05	12:56 PM	19.80	1.67	3.18	81.45	9.13	
04/12/05	12:57 PM	19.86	1.63	2.77	102.40	8.97	
04/12/05	12:58 PM	19.88	1.63	2.60	117.31	8.80	
04/12/05	12:59 PM	19.97	1.49	2.65	101.93	9.61	
04/12/05	1:00 PM	20.05	1.46	2.68	94.88	10.00	
04/12/05	1:01 PM	20.09	1.47	2.52	83.74	8.14	
04/12/05	1:02 PM	19.90	1.70	2.52	171.96	6.91	
04/12/05	1:03 PM	19.99	1.62	2.10	213.15	7.04	
04/12/05	1:04 PM	19.91	1.66	2.19	112.41	7.08	
04/12/05	1:05 PM	20.21	1.16	2.35	107.93	7.04	
04/12/05	1:06 PM	20.73	0.43	1.55	109.83	7.01	
04/12/05	1:07 PM	20.88	0.27	1.65	73.07	6.28	
04/12/05	1:08 PM	20.87	0.26	2.07	42.03	5.98	
04/12/05	1:09 PM	20.67	0.59	3.20	45.04	6.34	
04/12/05	1:10 PM	20.67	0.55	1.45	59.20	6.59	On Line
04/12/05	1:11 PM	20.78	0.38	1.02	62.55	6.85	
04/12/05	1:12 PM	20.86	0.27	5.10	39.04	7.83	
04/12/05	1:13 PM	20.87	0.25	6.86	26.29	8.19	
04/12/05	1:14 PM	20.90	0.23	7.09	22.90	8.44	
04/12/05	1:15 PM	20.74	0.52	14.72	25.17	8.50	
04/12/05	1:16 PM	20.15	1.34	5.20	36.60	12.45	
04/12/05	1:17 PM	19.97	1.64	3.43	69.55	13.49	
04/12/05	1:18 PM	19.89	1.76	3.83	82.12	11.29	
04/12/05	1:19 PM	19.81	1.82	4.96	106.53	9.33	
04/12/05	1:20 PM	19.80	1.82	4.92	145.12	7.27	
04/12/05	1:21 PM	19.75	1.89	4.91	134.08	5.71	
04/12/05	1:22 PM	19.75	1.87	4.53	141.01	4.95	
04/12/05	1:23 PM	19.76	1.86	2.73	172.72	5.15	
04/12/05	1:24 PM	19.67	1.90	3.64	172.85	5.49	
04/12/05	1:25 PM	19.63	1.91	4.05	168.04	5.10	
04/12/05	1:26 PM	19.75	1.71	3.90	183.76	4.68	
04/12/05	1:27 PM	19.77	1.71	4.21	159.57	4.69	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/12/05	1:28 PM	19.76	1.74	4.81	151.86	7.36	
04/12/05	1:29 PM	19.77	1.71	3.74	151.87	11.11	
04/12/05	1:30 PM	19.81	1.68	2.45	152.91	12.45	
04/12/05	1:31 PM	19.83	1.67	2.31	158.91	12.07	
04/12/05	1:32 PM	19.84	1.64	3.22	143.48	13.38	
04/12/05	1:33 PM	19.92	1.60	4.39	140.16	15.35	
04/12/05	1:34 PM	20.03	1.42	4.56	124.78	15.96	
04/12/05	1:35 PM	20.15	1.24	3.85	107.11	15.34	
04/12/05	1:36 PM	20.23	1.15	2.63	87.67	13.66	
04/12/05	1:37 PM	20.33	1.03	2.35	70.06	10.27	
04/12/05	1:38 PM	20.29	1.09	2.32	60.01	7.16	
04/12/05	1:39 PM	20.52	0.71	2.03	56.05	6.11	
04/12/05	1:40 PM	20.70	0.50	1.42	58.22	6.27	
04/12/05	1:41 PM	20.81	0.37	2.37	51.39	8.08	
04/12/05	1:42 PM	20.85	0.29	7.68	33.21	9.55	
04/12/05	1:43 PM	20.86	0.27	7.81	25.08	8.65	
04/12/05	1:44 PM	20.86	0.27	9.89	22.66	8.10	
04/12/05	1:45 PM	20.50	0.82	9.78	26.32	10.05	
04/12/05	1:46 PM	20.19	1.18	4.02	29.90	13.22	
04/12/05	1:47 PM	20.08	1.33	4.53	47.58	12.43	
04/12/05	1:48 PM	20.04	1.35	4.93	65.83	10.75	
04/12/05	1:49 PM	20.00	1.38	5.51	83.34	9.71	
04/12/05	1:50 PM	19.92	1.45	5.95	88.93	9.13	
04/12/05	1:51 PM	19.83	1.57	5.47	100.94	9.59	
04/12/05	1:52 PM	19.85	1.58	4.34	111.15	11.50	
04/12/05	1:53 PM	19.88	1.61	4.21	111.10	13.25	
04/12/05	1:54 PM	19.78	1.66	4.73	103.01	12.78	
04/12/05	1:55 PM	19.75	1.71	5.15	96.32	9.31	
04/12/05	1:56 PM	19.80	1.71	5.15	105.84	6.73	
04/12/05	1:57 PM	19.89	1.59	5.79	112.11	5.93	
04/12/05	1:58 PM	19.87	1.65	3.87	116.60	7.36	
04/12/05	1:59 PM	19.83	1.68	2.92	92.58	8.82	
04/12/05	2:00 PM	19.90	1.62	2.68	91.58	10.55	
04/12/05	2:01 PM	19.89	1.63	2.67	101.19	11.73	
04/12/05	2:02 PM	19.93	1.55	2.46	100.83	12.37	
04/12/05	2:03 PM	20.06	1.33	2.94	106.52	12.96	
04/12/05	2:04 PM	20.11	1.23	3.58	96.52	13.19	
04/12/05	2:05 PM	20.23	1.08	3.63	79.86	11.92	
04/12/05	2:06 PM	20.26	1.16	2.91	61.44	10.08	
04/12/05	2:07 PM	20.21	1.24	2.28	61.26	9.86	
04/12/05	2:08 PM	20.36	0.98	2.05	71.50	10.65	
04/12/05	2:09 PM	20.50	0.74	2.30	71.79	11.18	
04/12/05	2:10 PM	20.63	0.59	1.42	68.29	10.94	
04/12/05	2:11 PM	20.71	0.49	1.56	56.21	11.85	
04/12/05	2:12 PM	20.77	0.41	3.95	72.46	13.14	
04/12/05	2:13 PM	20.89	0.29	5.13	52.21	13.14	
04/12/05	2:14 PM	20.88	0.33	4.63	38.97	14.02	
04/12/05	2:15 PM	20.90	0.31	4.14	36.96	13.89	
04/12/05	2:16 PM	20.92	0.26	5.46	28.70	12.18	
04/12/05	2:17 PM	20.91	0.26	5.94	22.41	10.70	
04/12/05	2:18 PM	20.89	0.29	7.02	20.55	10.48	
04/12/05	2:19 PM	20.89	0.26	7.52	18.90	9.73	
04/12/05	2:20 PM	20.89	0.26	13.19	24.30	7.47	
04/12/05	2:21 PM	20.85	0.32	17.64	21.17	5.57	
04/12/05	2:22 PM	20.84	0.33	8.58	16.46	5.16	
04/12/05	2:23 PM	20.89	0.25	7.87	9.03	4.87	
04/12/05	2:24 PM	20.89	0.24	10.43	7.57	4.47	
04/12/05	2:25 PM	20.75	0.39	11.75	14.97	4.23	
04/12/05	2:26 PM	20.81	0.32	13.31	17.35	4.60	
04/12/05	2:27 PM	20.82	0.30	13.10	13.04	4.56	
04/12/05	2:28 PM	20.72	0.44	6.31	27.44	4.89	
04/12/05	2:29 PM	20.33	0.88	3.89	31.72	9.15	
04/12/05	2:30 PM	20.22	0.98	3.48	35.41	14.89	
04/12/05	2:31 PM	20.16	1.07	3.73	53.43	15.90	
04/12/05	2:32 PM	20.13	1.10	5.18	63.58	14.75	
04/12/05	2:33 PM	20.19	1.04	5.91	66.88	16.23	
04/12/05	2:34 PM	20.15	1.12	5.98	68.18	16.94	
04/12/05	2:35 PM	20.03	1.28	5.91	76.51	17.19	
04/12/05	2:36 PM	19.90	1.45	6.64	86.70	17.54	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/12/05	2:37 PM	19.98	1.31	6.67	102.27	15.75	
04/12/05	2:38 PM	20.05	1.25	5.27	129.55	15.11	
04/12/05	2:39 PM	20.02	1.26	4.21	126.93	14.74	
04/12/05	2:40 PM	20.02	1.28	4.02	126.27	14.88	
04/12/05	2:41 PM	20.05	1.25	4.02	122.25	14.73	
04/12/05	2:42 PM	19.98	1.35	4.24	116.44	14.18	
04/12/05	2:43 PM	19.91	1.42	4.24	105.02	13.55	
04/12/05	2:44 PM	19.91	1.45	4.56	104.03	12.92	
04/12/05	2:45 PM	19.98	1.37	4.12	97.71	11.92	
04/12/05	2:46 PM	20.03	1.31	3.37	101.09	9.80	
04/12/05	2:47 PM	20.10	1.24	3.16	96.91	8.42	
04/12/05	2:48 PM	20.10	1.22	3.23	91.92	7.07	
04/12/05	2:49 PM	20.19	1.04	2.79	93.38	5.86	
04/12/05	2:50 PM	20.29	0.94	2.87	80.42	4.70	
04/12/05	2:51 PM	20.35	0.88	7.07	66.71	3.74	
04/12/05	2:52 PM	20.41	0.79	3.58	72.31	3.11	
04/12/05	2:53 PM	20.40	0.77	2.51	72.37	2.99	
04/12/05	2:54 PM	20.55	0.55	1.89	69.23	3.24	
04/12/05	2:55 PM	20.70	0.36	1.60	67.06	3.70	
04/12/05	2:56 PM	20.80	0.23	2.60	48.50	4.64	
04/12/05	2:57 PM	20.82	0.20	4.13	33.09	4.06	
04/12/05	2:58 PM	20.84	0.18	4.94	27.44	4.06	
04/12/05	2:59 PM	20.69	0.40	5.99	32.52	4.99	
04/12/05	3:00 PM	20.22	0.97	4.57	45.00	8.37	
04/12/05	3:01 PM	20.05	1.19	6.23	70.24	11.59	
04/12/05	3:02 PM	20.03	1.26	5.76	90.84	11.26	
04/12/05	3:03 PM	20.04	1.25	5.31	85.41	11.05	
04/12/05	3:04 PM	20.01	1.31	4.89	84.77	10.38	
04/12/05	3:05 PM	19.95	1.35	5.46	84.84	9.40	
04/12/05	3:06 PM	19.98	1.29	5.52	88.67	9.24	
04/12/05	3:07 PM	19.97	1.30	5.40	95.07	9.17	
04/12/05	3:08 PM	19.97	1.25	3.61	102.75	6.84	
04/12/05	3:09 PM	19.98	1.24	3.35	114.49	5.00	
04/12/05	3:10 PM	20.00	1.24	3.53	113.75	4.17	
04/12/05	3:11 PM	19.93	1.31	3.61	106.31	4.08	
04/12/05	3:12 PM	19.93	1.31	4.10	93.34	4.92	
04/12/05	3:13 PM	19.90	1.39	2.79	95.17	5.86	
04/12/05	3:14 PM	19.85	1.48	3.43	96.17	7.07	
04/12/05	3:15 PM	19.83	1.51	4.90	92.94	8.06	
04/12/05	3:16 PM	19.87	1.44	5.11	77.31	8.05	
04/12/05	3:17 PM	19.81	1.51	4.67	71.39	7.19	
04/12/05	3:18 PM	19.76	1.58	4.62	72.35	6.04	
04/12/05	3:19 PM	19.79	1.51	4.93	76.98	5.71	
04/12/05	3:20 PM	19.86	1.38	5.02	82.62	5.26	
04/12/05	3:21 PM	20.06	1.05	4.46	99.87	4.56	
04/12/05	3:22 PM	20.12	0.97	7.31	85.81	3.82	Mid Run Calibration
04/12/05	3:23 PM	2.96	-0.04	6.28	44.37	4.76	
04/12/05	3:24 PM	0.23	-0.10	0.03	0.77	0.24	
04/12/05	3:25 PM	0.13	-0.02	0.02	-0.06	0.20	
04/12/05	3:26 PM	0.11	-0.02	8.92	7.52	17.30	
04/12/05	3:27 PM	0.10	-0.03	34.38	45.60	42.48	
04/12/05	3:28 PM	2.12	3.15	45.51	45.84	42.48	
04/12/05	3:29 PM	12.49	12.67	7.54	6.31	1.00	
04/12/05	3:30 PM	6.45	5.19	13.37	15.05	56.33	
04/12/05	3:31 PM	0.12	0.00	241.34	220.28	100.40	
04/12/05	3:32 PM	0.11	-0.01	246.99	244.21	100.40	
04/12/05	3:33 PM	14.10	0.25	150.44	207.06	44.37	
04/12/05	3:34 PM	20.83	0.21	4.87	70.26	5.32	On Line
04/12/05	3:35 PM	20.81	0.24	5.81	51.01	4.34	
04/12/05	3:36 PM	20.64	0.46	5.13	140.98	4.44	
04/12/05	3:37 PM	20.10	1.26	3.60	69.48	6.36	
04/12/05	3:38 PM	19.92	1.42	4.72	66.54	7.91	
04/12/05	3:39 PM	19.82	1.56	4.69	76.21	7.53	
04/12/05	3:40 PM	19.80	1.59	4.08	78.30	7.53	
04/12/05	3:41 PM	19.80	1.58	4.09	82.09	7.66	
04/12/05	3:42 PM	19.87	1.48	4.60	91.89	7.96	
04/12/05	3:43 PM	19.79	1.60	3.76	95.27	8.72	
04/12/05	3:44 PM	19.75	1.61	3.68	106.51	9.42	
04/12/05	3:45 PM	19.74	1.57	4.17	112.01	7.95	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/12/05	3:46 PM	19.81	1.50	3.86	107.50	6.51	
04/12/05	3:47 PM	19.81	1.52	3.11	113.67	6.58	
04/12/05	3:48 PM	19.80	1.54	2.97	113.85	7.34	
04/12/05	3:49 PM	19.86	1.51	3.47	119.48	9.06	
04/12/05	3:50 PM	19.86	1.53	2.91	118.84	10.63	
04/12/05	3:51 PM	19.88	1.53	2.97	116.83	12.30	
04/12/05	3:52 PM	19.76	1.67	3.02	91.85	14.03	
04/12/05	3:53 PM	19.80	1.58	2.73	88.00	15.37	
04/12/05	3:54 PM	20.04	1.21	2.52	88.65	15.35	
04/12/05	3:55 PM	20.12	1.11	2.52	91.36	14.36	
04/12/05	3:56 PM	20.14	1.11	2.52	78.00	14.51	
04/12/05	3:57 PM	20.11	1.24	2.36	73.68	13.79	
04/12/05	3:58 PM	19.92	1.52	2.43	59.33	11.39	
04/12/05	3:59 PM	19.98	1.38	2.35	52.46	9.07	
04/12/05	4:00 PM	20.09	1.21	2.96	82.83	6.36	
04/12/05	4:01 PM	20.10	1.23	3.59	102.33	4.63	
04/12/05	4:02 PM	20.14	1.18	3.91	107.18	3.62	
04/12/05	4:03 PM	20.18	1.13	2.66	115.84	3.18	
04/12/05	4:04 PM	20.21	1.08	2.36	100.85	3.07	
04/12/05	4:05 PM	20.19	1.06	2.14	85.84	2.95	
04/12/05	4:06 PM	20.58	0.52	2.64	85.21	2.73	
04/12/05	4:07 PM	20.68	0.40	3.59	107.51	2.46	
04/12/05	4:08 PM	20.81	0.26	3.49	93.65	2.11	
04/12/05	4:09 PM	20.83	0.26	4.60	45.40	1.98	
04/12/05	4:10 PM	20.71	0.39	2.35	70.60	2.87	
04/12/05	4:11 PM	20.78	0.31	1.02	76.93	3.61	
04/12/05	4:12 PM	20.86	0.22	3.85	48.51	4.05	
04/12/05	4:13 PM	20.85	0.22	6.73	24.55	5.01	
04/12/05	4:14 PM	20.87	0.18	7.35	20.29	5.73	
04/12/05	4:15 PM	20.84	0.26	11.35	19.38	6.54	
04/12/05	4:16 PM	20.33	0.94	7.02	27.57	9.23	
04/12/05	4:17 PM	20.06	1.23	5.43	50.83	11.71	
04/12/05	4:18 PM	19.95	1.42	5.60	74.75	9.69	
04/12/05	4:19 PM	19.91	1.54	4.27	90.87	8.37	
04/12/05	4:20 PM	19.87	1.58	5.06	103.06	7.60	
04/12/05	4:21 PM	19.81	1.64	5.27	117.67	7.29	
04/12/05	4:22 PM	19.72	1.74	5.52	130.62	6.64	
04/12/05	4:23 PM	19.76	1.63	5.35	130.84	5.56	
04/12/05	4:24 PM	19.82	1.53	4.60	119.24	4.47	
04/12/05	4:25 PM	19.84	1.52	4.31	100.27	3.64	
04/12/05	4:26 PM	19.72	1.63	5.39	103.92	3.11	
04/12/05	4:27 PM	19.72	1.62	5.89	106.27	3.04	
04/12/05	4:28 PM	19.74	1.63	5.27	109.05	4.20	
04/12/05	4:29 PM	19.64	1.75	5.98	112.12	6.70	
04/12/05	4:30 PM	19.72	1.66	6.06	111.66	9.54	
04/12/05	4:31 PM	19.72	1.69	5.24	108.13	10.54	
04/12/05	4:32 PM	19.77	1.62	3.47	102.31	10.49	
04/12/05	4:33 PM	19.83	1.54	3.18	84.99	10.15	
04/12/05	4:34 PM	19.99	1.27	2.80	80.22	10.00	
04/12/05	4:35 PM	19.99	1.23	2.52	76.84	10.15	
04/12/05	4:36 PM	20.15	1.07	2.56	82.92	10.32	
04/12/05	4:37 PM	20.13	1.20	2.48	83.80	9.42	
04/12/05	4:38 PM	20.01	1.38	2.52	55.52	7.15	
04/12/05	4:39 PM	19.94	1.45	2.77	57.92	6.84	
04/12/05	4:40 PM	19.92	1.49	2.77	60.32	7.59	
04/12/05	4:41 PM	19.85	1.57	2.77	59.02	8.83	
04/12/05	4:42 PM	19.70	1.69	3.07	80.33	10.03	
04/12/05	4:43 PM	19.64	1.69	3.18	369.75	11.76	
04/12/05	4:44 PM	19.75	1.52	3.28	557.51	13.26	
04/12/05	4:45 PM	20.07	1.13	2.84	183.83	11.70	
04/12/05	4:46 PM	20.17	1.06	2.67	255.57	10.63	
04/12/05	4:47 PM	20.19	1.08	3.64	312.54	10.49	
04/12/05	4:48 PM	20.29	0.96	2.91	95.72	10.20	
04/12/05	4:49 PM	20.52	0.61	1.64	69.22	9.30	
04/12/05	4:50 PM	20.77	0.31	2.53	66.97	8.43	
04/12/05	4:51 PM	20.83	0.23	4.90	49.99	7.55	
04/12/05	4:52 PM	20.87	0.18	5.55	39.69	8.03	
04/12/05	4:53 PM	20.88	0.16	5.18	33.61	8.68	
04/12/05	4:54 PM	20.87	0.18	5.33	34.73	8.28	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/12/05	4:55 PM	20.77	0.28	5.16	32.57	6.54	
04/12/05	4:56 PM	20.74	0.31	4.95	33.80	5.84	
04/12/05	4:57 PM	20.84	0.21	4.38	22.87	5.44	
04/12/05	4:58 PM	20.56	0.62	3.85	21.87	6.12	
04/12/05	4:59 PM	20.30	0.99	2.51	42.65	9.46	
04/12/05	5:00 PM	20.10	1.19	5.07	71.49	8.86	
04/12/05	5:01 PM	20.07	1.22	5.53	97.19	7.33	
04/12/05	5:02 PM	20.00	1.31	5.20	117.00	7.08	
04/12/05	5:03 PM	19.93	1.39	4.91	119.74	7.50	
04/12/05	5:04 PM	19.88	1.44	3.69	124.14	6.49	
04/12/05	5:05 PM	19.93	1.41	3.59	128.53	4.91	
04/12/05	5:06 PM	19.93	1.42	4.19	124.73	3.92	
04/12/05	5:07 PM	19.94	1.43	5.51	123.72	3.64	
04/12/05	5:08 PM	19.97	1.39	4.91	117.93	6.04	
04/12/05	5:09 PM	19.96	1.39	3.26	116.40	8.36	
04/12/05	5:10 PM	20.00	1.36	2.26	103.91	9.37	
04/12/05	5:11 PM	20.00	1.39	2.26	96.87	10.23	
04/12/05	5:12 PM	19.96	1.44	2.25	97.86	9.59	
04/12/05	5:13 PM	19.96	1.44	2.09	108.76	8.64	
04/12/05	5:14 PM	19.97	1.47	2.05	108.91	8.87	
04/12/05	5:15 PM	20.03	1.40	2.01	108.22	9.44	
04/12/05	5:16 PM	19.98	1.48	2.01	96.27	10.06	
04/12/05	5:17 PM	19.98	1.45	2.11	97.12	10.13	
04/12/05	5:18 PM	20.04	1.34	2.51	104.10	9.98	
04/12/05	5:19 PM	20.18	1.18	2.08	121.19	8.37	
04/12/05	5:20 PM	20.24	1.12	2.00	109.26	6.70	
04/12/05	5:21 PM	20.25	1.12	1.76	103.03	5.95	
04/12/05	5:22 PM	20.15	1.31	1.76	98.33	5.35	
04/12/05	5:23 PM	20.10	1.40	1.76	111.79	4.65	
04/12/05	5:24 PM	20.08	1.36	2.66	118.43	4.06	
04/12/05	5:25 PM	20.33	0.91	2.15	125.80	3.59	
04/12/05	5:26 PM	20.74	0.45	2.45	121.17	3.16	
04/12/05	5:27 PM	20.85	0.33	6.30	78.92	2.78	
04/12/05	5:28 PM	20.86	0.33	6.42	48.08	2.74	
04/12/05	5:29 PM	20.77	0.44	5.59	51.67	2.89	
04/12/05	5:30 PM	20.37	1.03	3.85	61.90	3.27	
04/12/05	5:31 PM	20.06	1.42	3.52	86.91	4.38	
04/12/05	5:32 PM	19.94	1.54	9.25	90.04	4.33	
04/12/05	5:33 PM	19.87	1.60	8.18	95.74	4.03	
04/12/05	5:34 PM	19.86	1.59	6.07	110.25	3.62	
04/12/05	5:35 PM	19.82	1.61	4.75	104.37	3.14	
04/12/05	5:36 PM	19.73	1.72	3.61	111.28	2.85	
04/12/05	5:37 PM	19.70	1.79	3.30	120.38	2.71	
04/12/05	5:38 PM	19.76	1.76	2.72	127.66	2.56	
04/12/05	5:39 PM	19.70	1.78	2.98	125.88	2.39	
04/12/05	5:40 PM	19.73	1.78	3.25	117.68	2.28	
04/12/05	5:41 PM	19.72	1.80	4.20	104.16	2.17	
04/12/05	5:42 PM	19.79	1.69	4.11	102.29	2.08	
04/12/05	5:43 PM	19.85	1.62	4.84	97.64	2.17	
04/12/05	5:44 PM	19.86	1.61	4.79	89.89	2.47	
04/12/05	5:45 PM	19.91	1.54	4.44	74.79	2.89	
04/12/05	5:46 PM	20.06	1.33	2.93	66.88	3.36	
04/12/05	5:47 PM	20.11	1.24	1.91	65.13	4.43	
04/12/05	5:48 PM	20.16	1.21	1.80	77.00	5.12	
04/12/05	5:49 PM	20.01	1.44	1.94	71.13	4.85	
04/12/05	5:50 PM	19.95	1.52	2.22	73.98	4.49	
04/12/05	5:51 PM	19.97	1.53	2.01	79.97	4.22	
04/12/05	5:52 PM	19.99	1.51	1.83	71.14	3.88	
04/12/05	5:53 PM	20.04	1.43	1.76	60.81	3.57	
04/12/05	5:54 PM	20.12	1.35	1.76	68.89	3.36	
04/12/05	5:55 PM	20.18	1.28	1.76	85.32	3.30	
04/12/05	5:56 PM	20.08	1.28	1.85	362.93	3.39	
04/12/05	5:57 PM	20.52	0.75	1.44	176.26	3.33	
04/12/05	5:58 PM	20.71	0.48	1.04	111.57	3.10	
04/12/05	5:59 PM	20.79	0.40	1.44	95.23	3.26	
04/12/05	6:00 PM	20.84	0.33	4.34	61.47	4.68	
04/12/05	6:01 PM	20.86	0.31	7.83	33.54	5.52	
04/12/05	6:02 PM	20.88	0.26	7.70	23.45	4.82	
04/12/05	6:03 PM	20.90	0.25	7.49	20.96	4.00	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/12/05	6:04 PM	20.89	0.25	7.33	22.71	3.47	
04/12/05	6:05 PM	20.87	0.26	9.58	20.96	2.94	
04/12/05	6:06 PM	20.74	0.41	10.83	18.21	2.71	
04/12/05	6:07 PM	20.66	0.45	10.22	26.71	3.13	
04/12/05	6:08 PM	20.77	0.36	11.06	17.05	3.65	
04/12/05	6:09 PM	20.83	0.31	10.43	11.19	3.83	
04/12/05	6:10 PM	20.76	0.44	13.06	9.79	3.75	
04/12/05	6:11 PM	20.31	1.01	5.45	28.63	6.99	
04/12/05	6:12 PM	20.18	1.15	4.05	46.26	10.38	
04/12/05	6:13 PM	20.22	1.10	3.99	47.96	11.14	
04/12/05	6:14 PM	20.29	1.02	3.34	53.37	9.56	
04/12/05	6:15 PM	20.59	0.59	2.91	59.27	7.80	
04/12/05	6:16 PM	20.78	0.38	2.64	49.37	5.39	
04/12/05	6:17 PM	20.84	0.31	4.10	40.20	4.93	
04/12/05	6:18 PM	20.87	0.28	4.26	24.46	6.28	
04/12/05	6:19 PM	20.88	0.27	5.27	15.30	7.80	
04/12/05	6:20 PM	20.90	0.26	6.54	11.98	7.78	
04/12/05	6:21 PM	20.90	0.25	7.58	9.97	7.68	
04/12/05	6:22 PM	20.91	0.25	8.10	8.52	7.88	
04/12/05	6:23 PM	20.93	0.24	6.74	6.65	7.08	
04/12/05	6:24 PM	20.93	0.24	4.56	4.97	6.96	
04/12/05	6:25 PM	20.92	0.24	4.01	4.96	6.40	
04/12/05	6:26 PM	20.92	0.24	3.97	4.93	6.18	
04/12/05	6:27 PM	20.93	0.25	4.01	4.97	6.00	
04/12/05	6:28 PM	20.93	0.24	4.08	4.95	5.18	
04/12/05	6:29 PM	20.94	0.24	4.33	4.93	4.25	
04/12/05	6:30 PM	20.94	0.24	4.68	4.94	3.66	
04/12/05	6:31 PM	20.56	0.82	4.51	32.86	3.79	
04/12/05	6:32 PM	20.36	1.04	2.60	66.87	7.25	
04/12/05	6:33 PM	20.26	1.13	2.61	92.48	9.08	
04/12/05	6:34 PM	20.13	1.32	2.07	136.94	9.17	
04/12/05	6:35 PM	20.05	1.37	2.21	151.75	8.55	
04/12/05	6:36 PM	20.40	0.86	2.26	135.58	7.33	
04/12/05	6:37 PM	20.57	0.77	1.82	112.10	5.38	
04/12/05	6:38 PM	20.03	1.47	2.50	113.58	4.80	
04/12/05	6:39 PM	19.87	1.70	2.76	115.40	6.28	
04/12/05	6:40 PM	19.91	1.65	2.57	130.26	6.61	
04/12/05	6:41 PM	19.98	1.59	2.51	133.09	6.02	
04/12/05	6:42 PM	19.97	1.60	2.49	101.53	5.57	
04/12/05	6:43 PM	19.99	1.60	2.26	110.41	4.96	
04/12/05	6:44 PM	19.94	1.69	2.49	100.76	4.29	
04/12/05	6:45 PM	19.90	1.72	2.54	91.05	4.15	
04/12/05	6:46 PM	19.84	1.77	2.76	118.46	4.50	
04/12/05	6:47 PM	19.88	1.70	2.69	158.74	5.10	
04/12/05	6:48 PM	19.90	1.70	2.27	176.11	5.22	
04/12/05	6:49 PM	19.82	1.81	2.26	191.58	4.60	
04/12/05	6:50 PM	19.85	1.79	2.02	201.18	4.04	
04/12/05	6:51 PM	19.90	1.77	2.28	186.46	3.71	
04/12/05	6:52 PM	20.18	1.15	2.35	599.17	4.31	
04/12/05	6:53 PM	20.71	0.54	1.33	974.51	4.25	
04/12/05	6:54 PM	20.79	0.53	1.55	321.39	3.14	
04/12/05	6:55 PM	20.31	1.23	1.80	124.26	2.51	
04/12/05	6:56 PM	20.49	0.96	1.40	103.44	2.76	
04/12/05	6:57 PM	20.67	0.70	1.23	131.16	3.06	
04/12/05	6:58 PM	20.76	0.53	1.26	104.83	3.26	
04/12/05	6:59 PM	20.83	0.46	1.46	81.68	3.72	
04/12/05	7:00 PM	20.90	0.36	3.96	51.91	4.38	
04/12/05	7:01 PM	20.91	0.33	5.67	21.57	4.45	
04/12/05	7:02 PM	20.95	0.29	3.57	15.12	3.69	
04/12/05	7:03 PM	20.94	0.28	4.55	11.24	2.81	
04/12/05	7:04 PM	20.94	0.30	9.00	8.69	2.26	
04/12/05	7:05 PM	20.95	0.29	10.97	9.39	2.01	
04/12/05	7:06 PM	20.72	0.51	14.28	12.27	1.85	
04/12/05	7:07 PM	20.82	0.39	10.23	13.78	1.92	
04/12/05	7:08 PM	20.91	0.32	7.36	11.98	1.99	
04/12/05	7:09 PM	20.93	0.30	6.24	11.85	1.86	
04/12/05	7:10 PM	20.95	0.27	6.20	10.68	1.70	
04/12/05	7:11 PM	20.96	0.26	6.09	9.98	1.56	
04/12/05	7:12 PM	20.96	0.26	6.70	9.95	1.47	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/12/05	7:13 PM	20.97	0.26	6.73	9.98	1.38	
04/12/05	7:14 PM	20.96	0.26	6.44	9.98	1.29	
04/12/05	7:15 PM	20.97	0.27	5.79	9.49	1.22	
04/12/05	7:16 PM	20.97	0.26	5.70	9.17	1.18	
04/12/05	7:17 PM	20.98	0.25	6.16	9.94	1.15	
04/12/05	7:18 PM	20.98	0.25	5.90	9.01	1.12	
04/12/05	7:19 PM	20.98	0.25	5.97	8.97	1.09	
04/12/05	7:20 PM	20.98	0.25	6.10	8.98	1.06	
04/12/05	7:21 PM	20.99	0.25	4.99	9.75	1.05	
04/12/05	7:22 PM	20.98	0.25	4.59	9.15	1.05	
04/12/05	7:23 PM	20.98	0.25	4.56	8.96	1.00	
04/12/05	7:24 PM	20.99	0.25	4.90	9.94	0.97	
04/12/05	7:25 PM	20.99	0.25	5.44	9.97	0.97	
04/12/05	7:26 PM	21.01	0.25	4.85	9.97	0.94	
04/12/05	7:27 PM	20.99	0.25	4.32	10.66	0.93	
04/12/05	7:28 PM	20.97	0.25	4.15	9.96	0.93	
04/12/05	7:29 PM	20.99	0.25	4.01	9.64	0.91	
04/12/05	7:30 PM	20.99	0.25	4.24	9.49	0.92	
04/12/05	7:31 PM	21.00	0.25	4.93	9.82	0.93	
04/12/05	7:32 PM	21.00	0.25	4.56	8.98	0.94	
04/12/05	7:33 PM	21.00	0.25	4.75	9.11	0.96	
04/12/05	7:34 PM	21.01	0.25	4.55	8.97	1.02	
04/12/05	7:35 PM	21.01	0.26	4.60	9.48	1.10	
04/12/05	7:36 PM	21.01	0.26	4.38	9.82	1.18	
04/12/05	7:37 PM	21.01	0.26	4.43	8.94	1.32	
04/12/05	7:38 PM	21.01	0.27	4.26	8.95	1.41	
04/12/05	7:39 PM	21.01	0.27	4.30	8.96	1.47	
04/12/05	7:40 PM	21.02	0.27	4.10	8.94	1.45	
04/12/05	7:41 PM	21.02	0.27	4.30	8.96	1.48	
04/12/05	7:42 PM	21.02	0.28	4.06	9.46	1.52	
04/12/05	7:43 PM	21.02	0.28	3.89	8.13	1.62	
04/12/05	7:44 PM	21.02	0.29	3.92	7.94	1.77	
04/12/05	7:45 PM	21.03	0.29	4.02	7.96	1.88	
04/12/05	7:46 PM	21.03	0.30	4.13	7.93	1.96	
04/12/05	7:47 PM	21.03	0.30	3.85	7.95	1.92	
04/12/05	7:48 PM	21.04	0.30	3.97	7.93	1.89	
04/12/05	7:49 PM	21.04	0.31	3.88	8.29	1.76	
04/12/05	7:50 PM	21.04	0.31	4.43	8.62	1.63	
04/12/05	7:51 PM	21.04	0.31	4.42	7.93	1.55	
04/12/05	7:52 PM	21.04	0.31	4.50	7.96	1.48	
04/12/05	7:53 PM	21.05	0.31	4.39	7.93	1.38	
04/12/05	7:54 PM	21.05	0.31	4.47	7.96	1.31	
04/12/05	7:55 PM	21.04	0.32	3.89	7.26	1.26	
04/12/05	7:56 PM	20.96	0.42	3.30	9.13	1.22	
04/12/05	7:57 PM	20.78	0.61	2.97	88.80	1.19	
04/12/05	7:58 PM	20.58	0.81	2.55	65.13	1.18	
04/12/05	7:59 PM	20.28	1.18	2.47	29.96	2.50	
04/12/05	8:00 PM	20.08	1.43	2.97	31.29	8.02	
04/12/05	8:01 PM	19.95	1.66	3.26	42.13	11.22	
04/12/05	8:02 PM	19.85	1.77	3.55	62.79	12.95	
04/12/05	8:03 PM	19.76	1.86	3.30	82.83	13.98	
04/12/05	8:04 PM	19.81	1.81	3.55	95.15	14.23	
04/12/05	8:05 PM	19.74	1.90	2.89	91.15	13.74	
04/12/05	8:06 PM	19.72	1.87	2.76	95.15	12.97	
04/12/05	8:07 PM	19.69	1.92	2.80	102.81	12.40	
04/12/05	8:08 PM	19.69	1.91	3.22	113.65	11.51	
04/12/05	8:09 PM	19.68	1.93	3.26	135.84	10.21	
04/12/05	8:10 PM	19.74	1.87	3.59	126.98	9.34	End Run 2
	Averages	**20.32**	**1.00**	**4.61**	**83.48**	**6.21**	
04/12/05	8:11 PM	19.71	1.90	4.76	125.15	8.31	
04/12/05	8:12 PM	19.70	1.96	5.01	133.75	7.93	
04/12/05	8:13 PM	19.63	2.04	4.55	136.90	7.75	
04/12/05	8:14 PM	19.69	2.00	4.14	143.22	7.27	
04/12/05	8:15 PM	19.78	1.95	3.60	199.10	6.23	
04/12/05	8:16 PM	19.79	1.99	3.89	193.01	5.54	
04/12/05	8:17 PM	19.72	1.98	3.93	284.37	5.14	
04/12/05	8:18 PM	20.15	1.37	3.37	772.74	5.21	
04/12/05	8:19 PM	20.14	1.44	2.89	216.62	4.69	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/12/05	8:20 PM	20.18	1.36	3.27	125.23	3.94	
04/12/05	8:21 PM	20.13	1.41	3.77	101.44	3.36	
04/12/05	8:22 PM	20.09	1.45	4.06	109.49	3.06	
04/12/05	8:23 PM	20.18	1.34	4.34	104.28	2.86	
04/12/05	8:24 PM	20.16	1.39	4.14	78.08	2.67	
04/12/05	8:25 PM	9.60	0.74	4.89	85.78	6.16	
04/12/05	8:26 PM	0.22	0.24	0.73	6.22	0.72	Final Calibration
04/12/05	8:27 PM	0.21	0.23	0.01	-0.04	0.63	
04/12/05	8:28 PM	0.19	0.23	0.01	-0.07	0.61	
04/12/05	8:29 PM	0.19	0.23	0.01	-0.02	0.60	
04/12/05	8:30 PM	0.19	0.22	0.01	-0.06	0.67	
04/12/05	8:31 PM	0.18	0.22	14.46	9.82	20.40	
04/12/05	8:32 PM	0.17	0.22	46.25	46.64	44.78	
04/12/05	8:33 PM	7.78	9.11	17.86	17.51	10.88	
04/12/05	8:34 PM	12.64	12.87	0.05	0.72	0.89	
04/12/05	8:35 PM	7.84	6.76	0.87	7.37	46.59	
04/12/05	8:36 PM	0.22	0.22	223.65	205.29	100.40	
04/12/05	8:37 PM	0.22	0.21	245.42	247.19	100.40	
04/12/05	8:38 PM	11.99	0.61	177.53	210.15	53.17	
04/12/05	8:39 PM	20.25	1.38	4.31	56.86	5.96	
04/12/05	8:40 PM	19.98	1.75	5.98	80.32	5.43	
04/12/05	8:41 PM	19.91	1.82	6.41	114.04	4.82	

CONTINUOUS EMISSIONS MONITORING
TEST RESULTS

Client: Nucor Steel, Hertford
Test Date: Apr-13-05
Start Time: 9:00 AM **Stop Time:** 6:55 PM
Emissions Unit: Baghouse
Project: Compliance

RUN 3

Calibration Data

	O_2 (%)	CO_2 (%)	NO_x (ppm)	CO (ppm)	SO_2 (ppm)
Initial Zero	0.05	-0.27	0.02	-0.03	0.00
Initial Span	12.44	12.75	46.26	250.30	44.32
Final Zero	0.36	-0.30	0.16	-0.15	0.30
Final Span	12.62	12.79	46.42	240.18	44.51
Zero Drift	0.31	-0.03	0.14	-0.12	0.30
Span Drift	0.18	0.04	0.16	-9.82	0.19
Drift Limit	0.75	0.75	3.00	15.00	3.00
Span Gas Value	12.44	12.70	45.60	243.00	44.10
Full Scale Range	25.0	25.0	100.0	500.0	100.0
Method Drift Limit (%)	3%	3%	3%	3%	3%
Analyte Mol Weight	32	44	46	28	64

Stack Gas Parameters

Average Temperature (°F)	167.0	
Moisture Content (%)	1.60%	*flow rates by pitot tube traverse from EPA Method 5*
Process Rate (tons/hr)	292.0	
Flow rate (dscfm)	1272677	

Emission Data

	O_2 (%)	CO_2 (%)	NO_x (ppm)	CO (ppm)	SO_2 (ppm)
Dry average (uncorrected)	20.00	0.91	4.34	77.56	4.90
Dry average (drift corrected)	19.98	1.16	4.19	76.91	4.73
Emission Rate (lb/hr)			38.195	426.739	60.015
Emission Rate (lb/ton)			0.131	1.461	0.206

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/13/05	8:58 AM	20.45	0.02	0.02	0.93	4.74	
04/13/05	8:59 AM	20.45	-0.01	0.02	0.95	4.70	
04/13/05	9:00 AM	20.43	-0.02	0.02	0.94	4.71	Start Run 3
04/13/05	9:01 AM	20.05	-0.02	0.02	0.94	3.66	
04/13/05	9:02 AM	19.98	-0.02	0.02	0.94	3.66	
04/13/05	9:03 AM	7.96	-0.02	0.02	0.94	5.41	Initial Calibration
04/13/05	9:04 AM	0.41	-0.02	0.02	5.93	0.87	
04/13/05	9:05 AM	0.41	-0.02	0.02	-0.05	0.81	
04/13/05	9:06 AM	0.46	-0.02	0.02	-0.02	0.78	
04/13/05	9:07 AM	0.01	-0.26	0.02	-0.03	0.12	
04/13/05	9:08 AM	0.13	-0.24	0.02	-0.03	0.02	
04/13/05	9:09 AM	0.06	-0.27	0.02	-0.03	0.00	
04/13/05	9:10 AM	0.05	-0.27	5.22	3.94	12.87	
04/13/05	9:11 AM	0.03	-0.26	46.19	41.22	44.27	
04/13/05	9:12 AM	0.04	-0.23	46.26	46.99	44.32	
04/13/05	9:13 AM	6.53	6.97	11.33	19.42	12.84	
04/13/05	9:14 AM	12.84	12.51	0.03	1.67	0.38	
04/13/05	9:15 AM	12.44	12.75	0.02	-0.02	0.22	
04/13/05	9:16 AM	5.26	4.41	28.82	23.18	62.82	
04/13/05	9:17 AM	-0.04	-0.12	243.67	235.60	100.40	
04/13/05	9:18 AM	-0.04	-0.10	244.56	252.21	100.40	
04/13/05	9:19 AM	-0.10	-0.07	244.62	251.86	100.40	
04/13/05	9:20 AM	0.10	-0.06	244.69	250.30	100.40	
04/13/05	9:21 AM	11.02	0.09	206.56	212.42	70.72	
04/13/05	9:22 AM	20.39	0.10	1.50	46.44	7.54	
04/13/05	9:23 AM	20.45	0.00	5.04	35.92	6.39	
04/13/05	9:24 AM	10.62	-0.23	6.39	25.98	4.53	
04/13/05	9:25 AM	0.05	-0.47	0.06	2.56	0.35	
04/13/05	9:26 AM	0.04	-0.14	0.01	-0.06	0.25	
04/13/05	9:27 AM	6.08	7.72	0.02	-0.05	0.46	
04/13/05	9:28 AM	12.41	12.78	0.01	-0.06	0.28	
04/13/05	9:29 AM	18.33	2.37	2.26	29.83	5.71	
04/13/05	9:30 AM	19.82	1.34	6.47	92.20	6.53	On Line Run 3
04/13/05	9:31 AM	19.83	1.36	6.87	89.50	5.72	
04/13/05	9:32 AM	19.79	1.47	5.07	77.57	4.65	
04/13/05	9:33 AM	19.72	1.54	4.40	64.16	3.83	
04/13/05	9:34 AM	19.76	1.45	3.94	57.83	3.33	
04/13/05	9:35 AM	19.72	1.43	3.82	52.16	3.03	
04/13/05	9:36 AM	19.69	1.44	4.08	59.59	2.84	
04/13/05	9:37 AM	19.70	1.42	4.27	73.73	2.70	
04/13/05	9:38 AM	19.64	1.48	4.20	77.98	2.56	
04/13/05	9:39 AM	19.63	1.49	3.93	80.96	2.48	
04/13/05	9:40 AM	19.54	1.72	3.79	78.63	2.43	
04/13/05	9:41 AM	19.72	1.43	3.77	84.54	2.39	
04/13/05	9:42 AM	19.80	1.35	3.88	89.11	2.23	
04/13/05	9:43 AM	19.77	1.39	3.72	75.78	2.05	
04/13/05	9:44 AM	19.65	1.56	3.68	77.06	1.95	
04/13/05	9:45 AM	19.72	1.34	4.50	70.14	1.90	
04/13/05	9:46 AM	19.89	1.18	4.39	66.89	1.82	
04/13/05	9:47 AM	19.94	1.06	4.45	53.70	1.80	
04/13/05	9:48 AM	20.02	1.03	3.67	55.12	1.74	
04/13/05	9:49 AM	19.92	1.21	3.37	48.53	1.61	
04/13/05	9:50 AM	20.21	0.77	2.54	50.08	1.56	
04/13/05	9:51 AM	20.11	0.98	2.04	52.12	1.61	
04/13/05	9:52 AM	20.29	0.64	1.97	60.69	1.97	
04/13/05	9:53 AM	20.58	0.22	2.01	75.07	2.52	
04/13/05	9:54 AM	20.64	0.13	2.63	71.32	2.89	
04/13/05	9:55 AM	20.70	0.05	3.50	50.39	3.18	
04/13/05	9:56 AM	20.72	0.03	5.50	36.07	3.36	
04/13/05	9:57 AM	20.71	0.04	6.04	30.13	3.36	
04/13/05	9:58 AM	20.43	0.45	5.83	35.98	4.00	
04/13/05	9:59 AM	20.10	0.86	3.27	38.01	8.62	
04/13/05	10:00 AM	20.07	0.83	3.67	79.83	11.23	
04/13/05	10:01 AM	19.99	0.93	4.75	87.01	11.64	
04/13/05	10:02 AM	19.92	1.01	6.09	93.83	11.14	
04/13/05	10:03 AM	19.92	1.03	5.75	105.49	7.95	
04/13/05	10:04 AM	19.88	1.09	5.32	93.93	5.64	
04/13/05	10:05 AM	19.84	1.14	5.63	77.42	4.56	
04/13/05	10:06 AM	19.84	1.17	6.11	78.50	3.88	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/13/05	10:07 AM	19.63	1.36	5.55	69.08	3.55	
04/13/05	10:08 AM	19.55	1.43	4.80	64.40	3.46	
04/13/05	10:09 AM	19.68	1.23	4.39	60.92	3.37	
04/13/05	10:10 AM	19.76	1.10	4.27	69.49	3.09	
04/13/05	10:11 AM	19.91	0.96	4.52	94.43	2.70	
04/13/05	10:12 AM	19.92	0.96	4.76	106.92	2.36	
04/13/05	10:13 AM	19.95	0.87	4.44	105.49	2.12	
04/13/05	10:14 AM	19.94	0.92	3.42	106.51	2.09	
04/13/05	10:15 AM	19.81	1.10	3.97	88.53	2.25	
04/13/05	10:16 AM	19.79	1.11	5.21	72.95	2.61	
04/13/05	10:17 AM	19.67	1.22	5.54	61.59	2.82	
04/13/05	10:18 AM	19.75	1.12	5.51	72.40	2.90	
04/13/05	10:19 AM	19.49	1.44	5.45	153.63	2.96	
04/13/05	10:20 AM	19.44	1.45	6.17	133.61	3.51	
04/13/05	10:21 AM	19.46	1.39	4.90	125.69	4.58	
04/13/05	10:22 AM	19.64	1.22	3.83	128.60	5.60	
04/13/05	10:23 AM	19.56	1.30	3.78	119.93	6.21	
04/13/05	10:24 AM	19.67	1.23	3.12	118.68	5.17	
04/13/05	10:25 AM	19.70	1.18	2.78	109.50	3.76	
04/13/05	10:26 AM	19.93	0.89	2.29	117.51	3.04	
04/13/05	10:27 AM	20.02	0.78	2.02	119.45	2.67	
04/13/05	10:28 AM	20.21	0.56	1.66	98.81	2.62	
04/13/05	10:29 AM	20.36	0.30	1.66	82.29	2.70	
04/13/05	10:30 AM	20.56	0.05	2.16	103.34	2.69	
04/13/05	10:31 AM	20.66	-0.15	3.40	66.66	2.54	
04/13/05	10:32 AM	20.69	-0.25	4.57	45.08	2.48	
04/13/05	10:33 AM	20.68	-0.26	5.77	35.57	2.61	
04/13/05	10:34 AM	20.62	-0.06	7.16	37.32	2.62	
04/13/05	10:35 AM	20.09	0.75	5.86	43.50	2.94	
04/13/05	10:36 AM	19.83	0.98	6.60	63.90	4.54	
04/13/05	10:37 AM	19.73	1.08	6.52	77.13	5.15	
04/13/05	10:38 AM	19.63	1.22	7.84	80.41	5.13	
04/13/05	10:39 AM	19.67	1.11	5.04	88.53	4.96	
04/13/05	10:40 AM	19.72	1.08	4.88	94.66	4.67	
04/13/05	10:41 AM	19.63	1.19	5.42	78.48	4.79	
04/13/05	10:42 AM	19.52	1.33	5.57	79.17	5.40	
04/13/05	10:43 AM	19.48	1.37	4.87	96.87	5.40	
04/13/05	10:44 AM	19.52	1.34	3.82	102.41	4.37	
04/13/05	10:45 AM	19.54	1.33	3.60	98.04	3.52	
04/13/05	10:46 AM	19.54	1.32	4.82	89.74	2.94	
04/13/05	10:47 AM	19.49	1.41	4.95	80.27	2.70	
04/13/05	10:48 AM	19.38	1.52	4.59	84.14	2.80	
04/13/05	10:49 AM	19.46	1.38	4.60	94.58	3.35	
04/13/05	10:50 AM	19.52	1.25	4.28	95.19	4.04	
04/13/05	10:51 AM	19.54	1.27	2.82	92.16	4.71	
04/13/05	10:52 AM	19.45	1.33	4.15	91.53	5.89	
04/13/05	10:53 AM	19.56	1.19	4.76	96.22	6.82	
04/13/05	10:54 AM	19.63	1.17	4.56	94.03	7.26	
04/13/05	10:55 AM	19.64	1.19	4.10	84.37	7.02	
04/13/05	10:56 AM	19.63	1.22	3.21	75.90	6.54	
04/13/05	10:57 AM	19.68	1.12	2.32	72.66	6.19	
04/13/05	10:58 AM	19.77	0.97	2.47	68.96	6.00	
04/13/05	10:59 AM	19.82	0.90	2.76	57.99	5.65	
04/13/05	11:00 AM	19.92	0.83	2.89	57.69	4.66	
04/13/05	11:01 AM	19.83	1.00	2.81	53.59	3.62	
04/13/05	11:02 AM	19.79	0.99	2.81	41.90	2.93	
04/13/05	11:03 AM	20.03	0.68	2.60	60.38	2.66	
04/13/05	11:04 AM	20.14	0.55	2.19	59.27	2.66	
04/13/05	11:05 AM	20.29	0.32	2.60	52.96	2.65	
04/13/05	11:06 AM	20.56	-0.01	1.89	66.09	2.95	
04/13/05	11:07 AM	20.65	-0.25	2.27	60.99	3.14	
04/13/05	11:08 AM	20.68	-0.37	3.48	39.81	3.43	
04/13/05	11:09 AM	20.70	-0.42	4.48	31.89	4.21	
04/13/05	11:10 AM	20.61	-0.17	4.94	37.53	4.08	
04/13/05	11:11 AM	20.49	0.15	3.06	98.15	3.30	
04/13/05	11:12 AM	19.91	0.89	4.06	51.53	3.55	
04/13/05	11:13 AM	19.75	1.10	5.35	65.15	4.37	
04/13/05	11:14 AM	19.70	1.20	4.47	90.33	4.01	
04/13/05	11:15 AM	19.64	1.24	5.10	93.64	3.56	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/13/05	11:16 AM	19.61	1.26	5.51	89.20	3.22	
04/13/05	11:17 AM	19.50	1.33	6.35	90.17	2.99	
04/13/05	11:18 AM	19.58	1.29	5.35	87.24	2.90	
04/13/05	11:19 AM	19.51	1.41	4.93	85.41	2.79	
04/13/05	11:20 AM	19.49	1.44	4.14	91.13	2.74	
04/13/05	11:21 AM	19.42	1.50	3.48	93.41	2.52	
04/13/05	11:22 AM	19.45	1.46	4.10	96.76	2.34	
04/13/05	11:23 AM	19.46	1.45	4.68	95.99	2.25	
04/13/05	11:24 AM	19.50	1.40	4.35	95.32	2.20	
04/13/05	11:25 AM	19.61	1.24	4.34	94.28	2.38	
04/13/05	11:26 AM	19.67	1.16	3.72	91.82	2.64	
04/13/05	11:27 AM	19.73	1.09	3.85	87.33	2.65	
04/13/05	11:28 AM	19.62	1.32	2.97	83.24	2.88	
04/13/05	11:29 AM	19.56	1.39	2.93	88.31	2.63	
04/13/05	11:30 AM	19.58	1.38	2.56	86.98	2.25	
04/13/05	11:31 AM	19.55	1.35	2.48	72.50	1.96	
04/13/05	11:32 AM	19.63	1.27	2.56	63.82	1.85	
04/13/05	11:33 AM	19.80	1.10	2.32	61.59	2.15	
04/13/05	11:34 AM	20.01	0.82	2.68	67.46	3.01	
04/13/05	11:35 AM	19.97	0.89	2.61	80.13	3.40	
04/13/05	11:36 AM	20.03	0.82	3.23	79.05	3.04	
04/13/05	11:37 AM	19.93	1.02	3.27	68.16	2.83	
04/13/05	11:38 AM	19.81	1.01	3.61	159.65	3.13	
04/13/05	11:39 AM	20.17	0.60	3.68	116.53	3.64	
04/13/05	11:40 AM	20.33	0.44	3.09	79.79	3.73	
04/13/05	11:41 AM	20.40	0.33	3.27	63.06	3.52	
04/13/05	11:42 AM	20.49	0.22	2.55	54.71	3.57	
04/13/05	11:43 AM	20.63	0.03	4.71	55.50	4.34	
04/13/05	11:44 AM	20.67	-0.10	9.31	48.34	5.44	
04/13/05	11:45 AM	20.69	-0.15	6.61	40.62	5.49	
04/13/05	11:46 AM	20.69	-0.14	5.49	34.70	5.25	
04/13/05	11:47 AM	20.72	-0.23	5.85	29.45	4.82	
04/13/05	11:48 AM	20.73	-0.24	7.00	27.02	4.51	
04/13/05	11:49 AM	20.71	-0.12	12.44	31.24	4.38	
04/13/05	11:50 AM	20.54	0.13	10.09	32.81	4.13	
04/13/05	11:51 AM	20.54	0.11	4.17	33.14	3.90	
04/13/05	11:52 AM	20.68	-0.01	4.06	28.40	3.64	
04/13/05	11:53 AM	20.70	-0.10	8.38	16.27	3.52	
04/13/05	11:54 AM	20.69	-0.08	10.77	13.82	3.56	
04/13/05	11:55 AM	20.61	0.05	9.38	18.23	3.80	
04/13/05	11:56 AM	20.66	0.02	12.15	15.58	4.16	
04/13/05	11:57 AM	20.70	-0.04	11.96	10.74	4.21	
04/13/05	11:58 AM	20.53	0.25	10.48	11.36	4.30	
04/13/05	11:59 AM	20.00	0.86	5.49	29.75	8.65	
04/13/05	12:00 PM	19.94	0.94	4.28	51.45	10.89	
04/13/05	12:01 PM	19.98	0.92	4.28	53.17	9.94	
04/13/05	12:02 PM	19.97	0.93	4.21	69.51	8.52	
04/13/05	12:03 PM	19.95	0.97	3.50	94.18	6.71	
04/13/05	12:04 PM	19.79	1.06	3.67	99.51	5.60	
04/13/05	12:05 PM	19.68	1.20	4.32	100.85	5.14	
04/13/05	12:06 PM	19.60	1.33	3.96	107.85	4.82	
04/13/05	12:07 PM	19.57	1.36	3.63	108.18	4.49	
04/13/05	12:08 PM	19.59	1.37	3.27	100.04	4.14	
04/13/05	12:09 PM	19.64	1.32	3.05	93.19	3.81	
04/13/05	12:10 PM	19.75	1.14	3.02	88.01	3.55	
04/13/05	12:11 PM	19.76	1.14	3.02	80.51	3.47	
04/13/05	12:12 PM	19.74	1.16	3.02	68.67	3.76	
04/13/05	12:13 PM	19.68	1.32	3.20	69.66	4.35	
04/13/05	12:14 PM	19.43	1.58	2.99	87.34	5.08	
04/13/05	12:15 PM	19.64	1.27	2.77	87.34	5.13	
04/13/05	12:16 PM	19.75	1.17	3.24	75.01	4.69	
04/13/05	12:17 PM	19.74	1.16	3.73	70.81	3.82	
04/13/05	12:18 PM	19.86	1.02	2.79	74.01	3.66	
04/13/05	12:19 PM	20.02	0.85	2.35	81.86	4.44	
04/13/05	12:20 PM	19.95	0.95	3.72	85.02	5.26	
04/13/05	12:21 PM	20.13	0.69	3.01	84.89	6.07	
04/13/05	12:22 PM	20.20	0.63	2.29	69.36	6.68	
04/13/05	12:23 PM	20.44	0.27	2.32	65.47	7.77	
04/13/05	12:24 PM	20.62	0.03	2.55	71.69	6.67	

P-Bar		BH O_2	BH CO_2	BH NO_X	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/13/05	12:25 PM	20.60	0.04	3.58	66.87	6.70	
04/13/05	12:26 PM	20.67	-0.08	3.26	63.31	7.24	
04/13/05	12:27 PM	20.68	-0.10	4.68	47.37	5.96	
04/13/05	12:28 PM	20.52	0.25	5.64	51.14	5.17	
04/13/05	12:29 PM	20.14	0.71	3.92	42.47	6.71	
04/13/05	12:30 PM	19.84	1.03	8.12	67.97	7.34	
04/13/05	12:31 PM	19.73	1.20	8.52	78.63	6.37	
04/13/05	12:32 PM	19.66	1.33	6.78	78.21	5.35	
04/13/05	12:33 PM	19.60	1.37	6.38	88.02	4.53	
04/13/05	12:34 PM	19.59	1.38	5.63	116.96	4.02	
04/13/05	12:35 PM	19.47	1.48	5.62	123.59	3.77	
04/13/05	12:36 PM	19.52	1.40	5.41	107.82	3.82	
04/13/05	12:37 PM	19.57	1.35	4.62	93.84	3.63	
04/13/05	12:38 PM	19.51	1.39	4.21	89.10	3.30	
04/13/05	12:39 PM	19.52	1.41	4.29	93.78	3.01	
04/13/05	12:40 PM	19.46	1.49	5.34	93.24	2.87	
04/13/05	12:41 PM	19.38	1.53	4.43	97.66	3.63	
04/13/05	12:42 PM	19.39	1.53	3.95	103.11	5.03	
04/13/05	12:43 PM	19.40	1.54	4.09	101.53	5.60	
04/13/05	12:44 PM	19.46	1.47	4.61	95.59	5.97	
04/13/05	12:45 PM	19.56	1.41	4.60	94.25	7.43	
04/13/05	12:46 PM	19.54	1.45	4.14	88.29	10.63	
04/13/05	12:47 PM	19.57	1.41	4.17	90.15	13.45	
04/13/05	12:48 PM	19.63	1.24	3.21	90.77	13.25	
04/13/05	12:49 PM	19.72	1.12	3.24	75.40	10.57	
04/13/05	12:50 PM	19.72	1.13	3.55	59.66	8.57	
04/13/05	12:51 PM	19.71	1.21	3.27	56.11	6.69	
04/13/05	12:52 PM	19.60	1.42	3.20	55.38	5.23	
04/13/05	12:53 PM	19.63	1.35	3.59	61.29	4.59	
04/13/05	12:54 PM	19.51	1.47	3.66	60.08	4.73	
04/13/05	12:55 PM	19.54	1.39	3.56	62.19	5.39	
04/13/05	12:56 PM	19.68	1.27	3.16	100.11	5.99	
04/13/05	12:57 PM	19.86	1.04	2.72	99.02	6.29	
04/13/05	12:58 PM	19.92	1.03	3.14	109.75	5.72	
04/13/05	12:59 PM	19.84	1.09	3.27	104.03	5.29	
04/13/05	1:00 PM	20.15	0.60	3.20	109.00	4.89	
04/13/05	1:01 PM	20.46	0.20	2.87	144.30	5.21	
04/13/05	1:02 PM	20.57	0.09	3.37	121.32	4.67	
04/13/05	1:03 PM	20.34	0.44	4.31	101.18	5.50	
04/13/05	1:04 PM	20.27	0.53	3.35	73.06	7.24	
04/13/05	1:05 PM	20.50	0.22	2.79	51.45	6.86	
04/13/05	1:06 PM	20.66	-0.03	4.31	53.92	8.00	
04/13/05	1:07 PM	20.72	-0.17	8.78	44.71	9.81	
04/13/05	1:08 PM	20.70	-0.16	6.87	40.03	9.01	
04/13/05	1:09 PM	20.72	-0.18	5.85	35.88	8.17	
04/13/05	1:10 PM	20.73	-0.21	6.43	34.10	7.92	
04/13/05	1:11 PM	20.74	-0.24	6.37	33.47	7.44	
04/13/05	1:12 PM	20.74	-0.25	6.64	33.34	6.96	
04/13/05	1:13 PM	20.53	0.25	8.20	37.29	6.61	
04/13/05	1:14 PM	19.79	1.13	3.89	31.50	8.95	
04/13/05	1:15 PM	19.62	1.34	3.87	67.97	8.93	
04/13/05	1:16 PM	19.68	1.29	3.37	103.25	7.37	
04/13/05	1:17 PM	19.63	1.27	3.46	105.18	6.34	
04/13/05	1:18 PM	19.66	1.21	4.65	112.41	5.94	
04/13/05	1:19 PM	19.63	1.26	5.33	102.98	5.63	
04/13/05	1:20 PM	19.61	1.23	4.95	103.38	5.56	
04/13/05	1:21 PM	19.65	1.22	4.66	108.45	5.16	
04/13/05	1:22 PM	19.70	1.14	4.74	107.47	5.04	
04/13/05	1:23 PM	19.79	1.07	4.63	106.87	5.21	
04/13/05	1:24 PM	19.72	1.18	3.64	95.59	5.09	
04/13/05	1:25 PM	19.64	1.30	3.97	87.36	4.76	
04/13/05	1:26 PM	19.65	1.30	4.60	90.60	4.02	
04/13/05	1:27 PM	19.68	1.27	4.99	95.67	3.34	
04/13/05	1:28 PM	19.68	1.26	4.95	99.40	3.10	
04/13/05	1:29 PM	19.67	1.27	4.87	107.55	3.47	
04/13/05	1:30 PM	19.63	1.27	5.29	106.33	4.44	
04/13/05	1:31 PM	19.73	1.19	5.45	99.20	5.38	
04/13/05	1:32 PM	19.74	1.19	5.34	86.51	6.39	
04/13/05	1:33 PM	19.71	1.26	3.98	68.61	7.03	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/13/05	1:34 PM	19.81	1.12	2.99	60.30	7.55	
04/13/05	1:35 PM	19.85	1.00	2.78	67.64	8.24	
04/13/05	1:36 PM	19.98	0.87	2.41	54.71	8.66	
04/13/05	1:37 PM	19.96	0.93	2.29	48.94	8.79	
04/13/05	1:38 PM	19.71	1.21	3.05	59.81	9.22	
04/13/05	1:39 PM	19.71	1.21	3.59	47.20	9.58	
04/13/05	1:40 PM	19.69	1.24	4.05	57.28	10.17	
04/13/05	1:41 PM	19.66	1.25	3.82	77.63	11.01	
04/13/05	1:42 PM	19.64	1.15	4.04	110.53	11.37	
04/13/05	1:43 PM	19.69	1.05	3.97	132.59	11.05	
04/13/05	1:44 PM	19.73	0.97	4.43	114.40	8.82	
04/13/05	1:45 PM	20.05	0.64	3.55	102.15	6.65	
04/13/05	1:46 PM	20.32	0.33	3.91	78.57	5.46	
04/13/05	1:47 PM	20.22	0.52	4.07	67.89	4.69	
04/13/05	1:48 PM	20.39	0.22	2.69	50.29	4.48	
04/13/05	1:49 PM	20.59	-0.10	2.81	64.95	4.58	
04/13/05	1:50 PM	20.64	-0.25	3.59	53.12	4.92	
04/13/05	1:51 PM	20.66	-0.34	5.65	41.01	5.38	
04/13/05	1:52 PM	20.68	-0.40	6.14	35.95	6.09	
04/13/05	1:53 PM	20.69	-0.43	6.22	34.09	6.27	
04/13/05	1:54 PM	20.67	-0.40	8.13	40.13	6.21	
04/13/05	1:55 PM	20.52	-0.06	8.34	36.29	6.01	
04/13/05	1:56 PM	20.43	0.08	9.31	40.59	6.43	
04/13/05	1:57 PM	20.41	0.19	13.77	27.72	5.81	
04/13/05	1:58 PM	20.01	0.64	8.28	40.49	8.71	
04/13/05	1:59 PM	19.86	0.79	6.37	38.71	12.92	
04/13/05	2:00 PM	19.85	0.82	5.76	45.89	13.32	
04/13/05	2:01 PM	19.85	0.86	5.08	62.48	12.38	
04/13/05	2:02 PM	19.71	1.02	5.25	67.26	11.12	
04/13/05	2:03 PM	19.71	1.01	5.06	61.89	9.89	
04/13/05	2:04 PM	19.74	1.00	5.26	66.41	8.98	
04/13/05	2:05 PM	19.74	1.02	5.28	74.65	8.43	
04/13/05	2:06 PM	19.68	1.08	4.01	79.75	7.63	
04/13/05	2:07 PM	19.68	1.12	3.87	89.66	5.90	
04/13/05	2:08 PM	19.45	1.46	5.26	81.50	4.87	
04/13/05	2:09 PM	19.56	1.29	5.57	92.85	4.52	
04/13/05	2:10 PM	19.79	1.06	4.63	101.99	3.92	
04/13/05	2:11 PM	19.65	1.22	3.82	84.66	3.48	
04/13/05	2:12 PM	19.52	1.47	3.73	75.66	3.70	
04/13/05	2:13 PM	19.58	1.27	3.44	83.58	4.60	
04/13/05	2:14 PM	19.64	1.24	3.22	92.84	5.69	
04/13/05	2:15 PM	19.75	1.06	3.15	87.74	6.74	
04/13/05	2:16 PM	19.91	0.89	3.01	85.99	7.06	
04/13/05	2:17 PM	19.83	0.90	3.22	67.26	7.65	
04/13/05	2:18 PM	19.94	0.85	3.23	59.33	8.32	
04/13/05	2:19 PM	19.89	0.99	2.93	56.38	8.40	
04/13/05	2:20 PM	19.97	0.78	3.08	53.94	8.65	
04/13/05	2:21 PM	20.19	0.53	2.23	61.77	8.18	
04/13/05	2:22 PM	20.34	0.33	1.87	54.67	6.80	
04/13/05	2:23 PM	20.38	0.27	1.77	45.73	5.73	
04/13/05	2:24 PM	20.56	0.04	1.53	42.24	5.98	
04/13/05	2:25 PM	20.60	0.01	1.31	44.73	6.77	
04/13/05	2:26 PM	20.67	-0.24	1.99	39.62	6.95	
04/13/05	2:27 PM	20.70	-0.36	3.62	29.89	6.48	
04/13/05	2:28 PM	20.70	-0.40	7.00	24.40	5.51	
04/13/05	2:29 PM	20.66	-0.19	11.49	24.42	5.26	
04/13/05	2:30 PM	20.14	0.70	8.46	30.26	10.03	
04/13/05	2:31 PM	19.75	1.13	7.22	43.07	11.89	
04/13/05	2:32 PM	19.65	1.34	6.65	79.82	9.58	
04/13/05	2:33 PM	19.59	1.47	5.49	97.16	8.31	
04/13/05	2:34 PM	19.63	1.37	4.28	177.62	7.81	
04/13/05	2:35 PM	19.64	1.38	5.25	90.69	6.61	
04/13/05	2:36 PM	19.54	1.51	8.45	62.02	5.40	
04/13/05	2:37 PM	19.56	1.45	4.46	57.65	5.17	
04/13/05	2:38 PM	19.52	1.44	3.65	64.46	5.17	
04/13/05	2:39 PM	19.50	1.44	3.51	93.37	5.37	
04/13/05	2:40 PM	19.46	1.50	3.80	105.66	5.18	
04/13/05	2:41 PM	19.43	1.57	3.56	107.86	4.34	
04/13/05	2:42 PM	19.39	1.59	3.96	108.43	3.63	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/13/05	2:43 PM	19.33	1.64	4.71	118.06	3.15	
04/13/05	2:44 PM	19.39	1.55	5.27	253.06	2.95	
04/13/05	2:45 PM	19.47	1.52	4.44	134.95	2.86	
04/13/05	2:46 PM	19.50	1.47	3.61	96.29	2.59	
04/13/05	2:47 PM	19.60	1.31	3.43	91.93	2.41	
04/13/05	2:48 PM	19.81	1.09	3.31	88.76	2.28	
04/13/05	2:49 PM	19.86	1.03	4.31	77.74	2.11	
04/13/05	2:50 PM	19.89	1.04	4.51	58.85	1.99	
04/13/05	2:51 PM	19.93	1.02	4.64	49.87	1.90	
04/13/05	2:52 PM	19.80	1.22	4.26	51.05	1.98	
04/13/05	2:53 PM	19.80	1.20	3.10	37.29	2.32	
04/13/05	2:54 PM	20.08	0.79	2.64	61.47	2.92	
04/13/05	2:55 PM	19.89	1.13	2.93	63.71	3.15	
04/13/05	2:56 PM	19.90	1.04	3.10	66.66	3.83	
04/13/05	2:57 PM	20.14	0.67	2.31	82.88	5.08	
04/13/05	2:58 PM	20.39	0.38	1.89	68.58	5.55	
04/13/05	2:59 PM	20.64	0.09	2.48	65.42	5.65	
04/13/05	3:00 PM	20.68	0.04	4.52	53.14	6.50	
04/13/05	3:01 PM	20.67	0.03	5.39	67.22	7.49	
04/13/05	3:02 PM	20.73	-0.04	5.72	48.23	7.49	
04/13/05	3:03 PM	20.67	0.09	7.47	47.60	7.92	
04/13/05	3:04 PM	12.17	0.24	4.39	48.13	7.08	Mid Run Calibration
04/13/05	3:05 PM	0.16	-0.52	0.10	13.49	0.64	
04/13/05	3:06 PM	0.28	-0.41	0.02	0.02	0.49	
04/13/05	3:07 PM	0.17	-0.20	0.01	-0.03	0.54	
04/13/05	3:08 PM	0.16	-0.17	13.05	11.17	20.31	
04/13/05	3:09 PM	0.16	-0.17	46.01	45.52	44.87	
04/13/05	3:10 PM	5.27	6.35	40.78	21.45	15.17	
04/13/05	3:11 PM	12.54	12.81	-0.06	2.84	0.83	
04/13/05	3:12 PM	4.90	3.59	60.49	34.78	69.39	
04/13/05	3:13 PM	0.18	-0.15	239.79	248.09	100.40	
04/13/05	3:14 PM	0.18	-0.16	240.39	260.06	100.40	
04/13/05	3:15 PM	10.35	0.89	221.06	240.63	59.04	
04/13/05	3:16 PM	19.59	1.61	6.26	108.04	4.32	
04/13/05	3:17 PM	19.58	1.67	4.91	96.03	3.07	
04/13/05	3:18 PM	19.66	1.57	4.33	88.45	2.63	
04/13/05	3:19 PM	19.63	1.58	4.77	88.77	2.47	
04/13/05	3:20 PM	19.62	1.60	4.67	84.87	2.50	
04/13/05	3:21 PM	19.54	1.70	3.79	86.18	2.88	
04/13/05	3:22 PM	19.68	1.47	3.31	90.21	3.83	
04/13/05	3:23 PM	19.83	1.25	3.29	80.45	4.69	
04/13/05	3:24 PM	19.81	1.24	3.07	69.99	5.11	
04/13/05	3:25 PM	19.77	1.40	3.72	59.35	5.20	
04/13/05	3:26 PM	19.75	1.44	3.02	69.36	4.66	
04/13/05	3:27 PM	19.72	1.48	3.22	79.12	3.93	
04/13/05	3:28 PM	19.81	1.39	3.19	85.03	3.51	
04/13/05	3:29 PM	19.90	1.23	3.05	83.47	3.33	
04/13/05	3:30 PM	20.27	0.71	2.37	117.30	3.33	
04/13/05	3:31 PM	20.63	0.26	2.42	155.76	3.31	
04/13/05	3:32 PM	20.74	0.16	3.54	100.43	3.00	
04/13/05	3:33 PM	20.78	0.12	4.12	66.31	3.07	
04/13/05	3:34 PM	20.77	0.12	5.37	52.04	3.35	
04/13/05	3:35 PM	20.72	0.16	5.57	53.97	3.52	
04/13/05	3:36 PM	20.62	0.28	7.84	44.54	3.33	
04/13/05	3:37 PM	20.64	0.25	8.46	41.30	3.71	
04/13/05	3:38 PM	20.67	0.22	10.52	30.75	3.92	
04/13/05	3:39 PM	20.70	0.20	6.89	26.70	3.61	
04/13/05	3:40 PM	20.24	0.82	4.36	49.50	3.44	
04/13/05	3:41 PM	19.94	1.13	10.50	72.21	5.20	
04/13/05	3:42 PM	19.70	1.45	9.64	68.95	5.97	
04/13/05	3:43 PM	19.64	1.50	7.54	65.74	5.92	
04/13/05	3:44 PM	19.68	1.48	5.48	74.38	4.88	
04/13/05	3:45 PM	19.52	1.62	4.01	82.10	4.10	
04/13/05	3:46 PM	19.50	1.64	3.37	77.40	3.76	
04/13/05	3:47 PM	19.55	1.62	3.24	81.95	3.40	
04/13/05	3:48 PM	19.56	1.63	3.92	90.32	2.94	
04/13/05	3:49 PM	19.58	1.61	4.40	92.74	2.58	
04/13/05	3:50 PM	19.56	1.60	4.37	99.87	2.33	
04/13/05	3:51 PM	19.55	1.56	4.28	106.96	2.23	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/13/05	3:52 PM	19.49	1.63	3.90	103.15	2.24	
04/13/05	3:53 PM	19.53	1.58	2.73	106.67	2.21	
04/13/05	3:54 PM	19.54	1.52	2.94	109.93	2.61	
04/13/05	3:55 PM	19.55	1.54	3.80	107.09	3.21	
04/13/05	3:56 PM	19.53	1.55	3.82	95.04	3.40	
04/13/05	3:57 PM	19.58	1.48	4.03	101.06	4.17	
04/13/05	3:58 PM	19.70	1.32	4.40	113.38	5.11	
04/13/05	3:59 PM	19.74	1.32	4.10	110.25	5.39	
04/13/05	4:00 PM	19.74	1.33	3.97	104.96	5.37	
04/13/05	4:01 PM	19.71	1.30	4.72	101.47	6.00	
04/13/05	4:02 PM	19.72	1.27	4.37	101.55	6.58	
04/13/05	4:03 PM	19.86	1.08	3.70	93.32	6.83	
04/13/05	4:04 PM	19.98	0.97	2.67	82.58	7.28	
04/13/05	4:05 PM	19.92	1.04	2.65	72.48	7.63	
04/13/05	4:06 PM	19.98	0.97	2.66	72.16	7.51	
04/13/05	4:07 PM	20.04	0.92	2.36	82.67	6.96	
04/13/05	4:08 PM	20.18	0.72	2.46	72.98	6.25	
04/13/05	4:09 PM	20.37	0.49	2.49	61.64	5.90	
04/13/05	4:10 PM	20.48	0.39	2.30	53.65	5.33	
04/13/05	4:11 PM	20.43	0.43	2.35	46.66	4.95	
04/13/05	4:12 PM	20.48	0.37	2.48	41.13	4.74	
04/13/05	4:13 PM	20.45	0.37	3.20	51.85	4.19	
04/13/05	4:14 PM	20.51	0.32	4.85	58.64	3.66	
04/13/05	4:15 PM	20.50	0.33	2.01	48.63	3.66	
04/13/05	4:16 PM	20.66	0.09	3.62	53.98	5.69	
04/13/05	4:17 PM	20.70	0.04	5.43	43.17	6.81	
04/13/05	4:18 PM	20.73	0.00	5.09	35.47	7.01	
04/13/05	4:19 PM	20.74	-0.02	5.94	29.81	6.48	
04/13/05	4:20 PM	20.72	0.00	6.64	27.65	6.18	
04/13/05	4:21 PM	20.70	0.04	7.57	47.48	6.08	
04/13/05	4:22 PM	20.69	0.04	10.16	30.65	5.11	
04/13/05	4:23 PM	20.63	0.11	5.22	32.33	3.89	
04/13/05	4:24 PM	20.66	0.06	3.14	49.31	3.19	
04/13/05	4:25 PM	20.71	0.01	2.76	35.98	2.62	
04/13/05	4:26 PM	20.73	-0.05	6.11	15.65	2.25	
04/13/05	4:27 PM	20.74	-0.08	8.36	11.16	1.99	
04/13/05	4:28 PM	20.74	-0.12	9.94	9.99	1.82	
04/13/05	4:29 PM	20.74	-0.13	10.27	9.10	1.69	
04/13/05	4:30 PM	20.75	-0.15	10.66	8.98	1.58	
04/13/05	4:31 PM	20.74	-0.11	10.90	8.80	1.50	
04/13/05	4:32 PM	20.29	0.57	7.11	22.85	1.61	
04/13/05	4:33 PM	20.03	0.82	3.26	76.69	4.72	
04/13/05	4:34 PM	19.93	0.95	4.26	112.21	8.24	
04/13/05	4:35 PM	19.79	1.12	4.63	110.93	8.43	
04/13/05	4:36 PM	19.79	1.14	4.71	111.56	6.45	
04/13/05	4:37 PM	19.75	1.15	5.19	98.32	5.31	
04/13/05	4:38 PM	19.74	1.16	5.47	104.51	5.05	
04/13/05	4:39 PM	19.70	1.17	4.52	110.28	5.36	
04/13/05	4:40 PM	19.72	1.17	4.20	108.79	5.59	
04/13/05	4:41 PM	19.85	1.02	4.22	108.65	6.09	
04/13/05	4:42 PM	19.80	1.15	3.54	105.95	6.93	
04/13/05	4:43 PM	19.54	1.42	2.66	100.15	7.06	
04/13/05	4:44 PM	19.51	1.42	2.51	113.97	7.89	
04/13/05	4:45 PM	19.61	1.32	2.51	108.23	8.34	
04/13/05	4:46 PM	19.56	1.34	2.51	97.60	8.74	
04/13/05	4:47 PM	19.57	1.32	2.33	75.23	9.29	
04/13/05	4:48 PM	19.61	1.25	2.29	64.14	9.48	
04/13/05	4:49 PM	19.60	1.28	2.31	62.47	9.46	
04/13/05	4:50 PM	19.59	1.32	2.51	68.55	9.65	
04/13/05	4:51 PM	19.49	1.40	2.66	67.69	10.05	
04/13/05	4:52 PM	19.77	1.02	3.20	66.54	10.01	
04/13/05	4:53 PM	19.85	1.00	4.12	66.23	8.90	
04/13/05	4:54 PM	19.86	0.99	4.06	80.33	8.18	
04/13/05	4:55 PM	19.83	1.04	4.72	71.06	8.09	
04/13/05	4:56 PM	19.81	1.10	5.24	80.02	7.32	
04/13/05	4:57 PM	19.80	1.13	4.95	84.86	5.66	
04/13/05	4:58 PM	19.74	1.16	3.64	87.86	5.00	
04/13/05	4:59 PM	19.66	1.19	4.09	62.37	4.76	
04/13/05	5:00 PM	19.77	0.99	3.74	62.34	4.87	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/13/05	5:01 PM	19.99	0.85	3.24	95.12	4.72	
04/13/05	5:02 PM	19.96	0.88	3.51	100.06	4.18	
04/13/05	5:03 PM	19.96	0.88	3.55	102.82	4.30	
04/13/05	5:04 PM	19.98	0.89	3.15	92.15	4.45	
04/13/05	5:05 PM	20.13	0.61	3.40	132.08	4.17	
04/13/05	5:06 PM	20.30	0.44	2.89	214.91	3.94	
04/13/05	5:07 PM	20.52	0.17	2.75	281.00	3.73	
04/13/05	5:08 PM	20.65	0.04	1.86	102.83	3.02	
04/13/05	5:09 PM	20.70	-0.01	3.29	64.82	2.65	
04/13/05	5:10 PM	20.72	-0.06	4.12	51.74	2.72	
04/13/05	5:11 PM	20.73	-0.07	4.59	49.52	2.93	
04/13/05	5:12 PM	20.73	-0.05	5.40	50.50	2.95	
04/13/05	5:13 PM	20.73	-0.08	7.96	48.34	2.85	
04/13/05	5:14 PM	20.66	0.09	7.69	54.43	2.66	
04/13/05	5:15 PM	20.34	0.58	3.84	67.50	3.64	
04/13/05	5:16 PM	19.88	1.08	6.23	71.27	6.62	
04/13/05	5:17 PM	19.74	1.22	7.77	91.58	6.31	
04/13/05	5:18 PM	19.61	1.22	7.77	91.58	6.31	
04/13/05	5:19 PM	19.54	1.52	6.64	86.12	5.17	
04/13/05	5:20 PM	19.49	1.54	5.45	81.87	5.10	
04/13/05	5:21 PM	19.61	1.40	4.34	85.82	4.69	
04/13/05	5:22 PM	19.57	1.48	4.25	95.96	4.08	
04/13/05	5:23 PM	19.54	1.52	4.87	96.22	3.66	
04/13/05	5:24 PM	19.51	1.56	4.69	99.56	3.37	
04/13/05	5:25 PM	19.49	1.61	4.76	106.45	3.08	
04/13/05	5:26 PM	19.40	1.72	4.84	113.81	2.89	
04/13/05	5:27 PM	19.32	1.78	4.00	127.14	2.88	
04/13/05	5:28 PM	19.39	1.72	3.15	121.68	3.03	
04/13/05	5:29 PM	19.45	1.68	2.80	121.29	3.20	
04/13/05	5:30 PM	19.43	1.69	4.02	128.42	3.59	
04/13/05	5:31 PM	19.44	1.69	4.56	140.56	4.29	
04/13/05	5:32 PM	19.36	1.78	4.47	131.45	4.49	
04/13/05	5:33 PM	19.47	1.71	4.47	142.26	4.59	
04/13/05	5:34 PM	19.45	1.74	4.37	128.97	4.65	
04/13/05	5:35 PM	19.35	1.87	4.94	129.95	5.03	
04/13/05	5:36 PM	19.47	1.64	4.95	143.95	5.61	
04/13/05	5:37 PM	19.59	1.59	3.78	112.83	5.42	
04/13/05	5:38 PM	19.57	1.58	3.26	109.35	5.47	
04/13/05	5:39 PM	19.66	1.49	3.22	117.97	6.15	
04/13/05	5:40 PM	19.66	1.50	3.53	152.78	6.56	
04/13/05	5:41 PM	19.67	1.52	3.69	202.48	5.83	
04/13/05	5:42 PM	19.78	1.36	3.35	245.95	5.61	
04/13/05	5:43 PM	19.95	1.18	4.59	289.54	6.10	
04/13/05	5:44 PM	19.96	1.26	4.02	279.64	6.60	
04/13/05	5:45 PM	19.73	1.55	3.70	261.56	6.73	
04/13/05	5:46 PM	19.64	1.69	3.33	177.96	7.05	
04/13/05	5:47 PM	19.62	1.69	3.25	185.83	7.69	
04/13/05	5:48 PM	19.58	1.78	2.99	178.15	8.18	
04/13/05	5:49 PM	19.57	1.78	2.81	156.35	7.93	
04/13/05	5:50 PM	19.66	1.69	2.48	142.80	6.62	
04/13/05	5:51 PM	19.78	1.59	2.89	145.40	6.82	
04/13/05	5:52 PM	19.78	1.52	2.93	236.62	7.72	
04/13/05	5:53 PM	20.40	0.69	1.64	488.13	8.58	
04/13/05	5:54 PM	20.73	0.34	1.05	126.47	6.65	
04/13/05	5:55 PM	20.79	0.28	1.58	55.14	4.78	
04/13/05	5:56 PM	20.81	0.26	2.27	32.38	4.18	
04/13/05	5:57 PM	20.82	0.24	3.73	26.37	4.52	
04/13/05	5:58 PM	20.83	0.23	5.34	23.09	4.70	
04/13/05	5:59 PM	20.42	0.63	9.41	40.70	4.32	
04/13/05	6:00 PM	20.50	0.48	13.08	90.52	4.79	
04/13/05	6:01 PM	20.71	0.32	9.49	45.97	4.01	
04/13/05	6:02 PM	20.77	0.27	8.09	32.77	3.11	
04/13/05	6:03 PM	20.80	0.26	6.31	31.90	2.51	
04/13/05	6:04 PM	20.82	0.24	3.42	29.61	2.11	
04/13/05	6:05 PM	20.84	0.23	2.62	27.18	1.85	
04/13/05	6:06 PM	20.84	0.23	2.52	25.22	1.63	
04/13/05	6:07 PM	20.83	0.25	2.29	27.46	1.51	
04/13/05	6:08 PM	20.83	0.25	1.52	26.81	1.40	
04/13/05	6:09 PM	20.85	0.23	1.83	26.56	1.33	

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	Comments
04/13/05	6:10 PM	20.86	0.23	2.07	25.97	1.25	
04/13/05	6:11 PM	20.87	0.23	1.44	25.97	1.21	
04/13/05	6:12 PM	20.87	0.23	1.07	26.22	1.14	
04/13/05	6:13 PM	20.87	0.23	0.77	26.98	1.12	
04/13/05	6:14 PM	20.87	0.24	0.76	26.22	1.08	
04/13/05	6:15 PM	20.87	0.23	0.77	25.89	1.05	
04/13/05	6:16 PM	20.87	0.23	0.77	24.80	1.02	
04/13/05	6:17 PM	20.88	0.23	0.77	24.55	1.03	
04/13/05	6:18 PM	20.87	0.23	0.77	24.46	1.02	
04/13/05	6:19 PM	20.87	0.23	0.77	22.48	1.01	
04/13/05	6:20 PM	20.87	0.23	0.77	23.88	0.99	
04/13/05	6:21 PM	20.85	0.25	2.73	18.56	0.96	
04/13/05	6:22 PM	20.83	0.26	7.94	10.50	0.96	
04/13/05	6:23 PM	20.83	0.26	10.26	8.55	0.95	
04/13/05	6:24 PM	20.83	0.26	10.29	6.03	0.93	
04/13/05	6:25 PM	20.83	0.26	9.71	5.95	0.95	
04/13/05	6:26 PM	20.69	0.44	6.92	31.38	0.96	
04/13/05	6:27 PM	20.49	0.68	3.46	60.73	1.09	
04/13/05	6:28 PM	20.19	0.96	4.38	109.49	2.90	
04/13/05	6:29 PM	20.13	0.98	4.31	74.07	6.67	
04/13/05	6:30 PM	20.13	1.01	2.68	55.48	8.04	
04/13/05	6:31 PM	20.05	1.12	2.01	41.83	9.42	
04/13/05	6:32 PM	19.98	1.17	2.18	31.64	10.83	
04/13/05	6:33 PM	19.67	1.61	2.39	52.34	12.76	
04/13/05	6:34 PM	19.53	1.65	2.76	59.28	13.49	
04/13/05	6:35 PM	19.57	1.57	4.22	90.28	12.16	
04/13/05	6:36 PM	19.65	1.43	3.13	92.25	10.25	
04/13/05	6:37 PM	19.54	1.52	2.29	92.19	10.21	
04/13/05	6:38 PM	19.64	1.42	2.25	103.75	10.71	
04/13/05	6:39 PM	19.78	1.45	2.54	109.39	9.09	
04/13/05	6:40 PM	19.81	1.44	3.46	101.03	7.43	
04/13/05	6:41 PM	19.83	1.44	2.96	100.00	6.08	
04/13/05	6:42 PM	19.88	1.44	3.15	89.21	4.73	
04/13/05	6:43 PM	19.93	1.43	3.21	74.32	3.38	
04/13/05	6:44 PM	19.98	1.43	3.28	35.69	2.03	
04/13/05	6:45 PM	20.03	1.42	3.35	21.25	0.68	
04/13/05	6:46 PM	20.07	1.42	3.42	68.57	0.68	
04/13/05	6:47 PM	20.12	1.41	3.48	69.54	0.69	
04/13/05	6:48 PM	20.17	1.41	3.55	75.58	0.71	
04/13/05	6:49 PM	20.22	1.40	3.62	95.25	0.71	
04/13/05	6:50 PM	20.27	1.40	3.68	95.62	0.72	
04/13/05	6:51 PM	20.32	1.39	3.75	85.32	0.71	
04/13/05	6:52 PM	20.36	1.39	3.82	82.00	0.70	
04/13/05	6:53 PM	20.41	1.38	3.88	34.00	0.68	
04/13/05	6:54 PM	20.46	1.38	3.95	35.69	0.68	
04/13/05	6:55 PM	20.51	1.37	4.02	36.24	0.70	Final Calibration Run 3
	Averages	**20.00**	**0.91**	**4.34**	**77.56**	**4.90**	
04/13/05	6:56 PM	9.18	1.37	4.42	35.68	0.70	
04/13/05	6:57 PM	0.39	-0.22	0.38	7.13	0.42	
04/13/05	6:58 PM	0.37	-0.26	0.16	-0.15	0.30	
04/13/05	6:59 PM	0.35	-0.28	5.70	3.29	11.70	All Calibrations Bias Style
04/13/05	7:00 PM	0.36	-0.30	46.42	41.63	42.26	
04/13/05	7:01 PM	0.36	-0.32	46.40	46.85	44.51	
04/13/05	7:02 PM	5.31	6.19	21.87	41.10	25.50	
04/13/05	7:03 PM	12.61	12.78	2.03	2.54	0.70	
04/13/05	7:04 PM	12.62	12.79	-0.01	-0.20	0.41	
04/13/05	7:05 PM	3.66	2.02	60.23	53.21	79.01	
04/13/05	7:06 PM	0.36	-0.31	238.37	235.28	100.40	
04/13/05	7:07 PM	0.35	-0.32	238.74	240.18	100.40	
04/13/05	7:08 PM	10.74	-0.14	184.63	201.90	64.88	
04/13/05	7:09 PM	13.91	-0.13	4.33	13.36	4.45	
04/13/05	7:10 PM	0.21	-0.28	20.55	19.64	15.01	
04/13/05	7:11 PM	0.19	-0.26	22.51	23.82	19.80	
04/13/05	7:12 PM	5.45	-0.24	22.51	21.61	21.36	Final Leak Check 0.00 @ 25"
04/13/05	7:13 PM	20.72	-0.09	17.80	4.68	22.29	
04/13/05	7:14 PM	16.63	-0.02	8.29	4.32	13.04	

APPENDIX F
PLANT PROCESS DATA

Annual Compliance Stack Test
Nucor Steel - Hertford County
April 11-13, 2005

Run	Test Duration	Tons Cast	TPH
1	9.25	2,208.17	239
2	9	2,265.99	252
3	9	2,627.36	292
Average	**9**	**2,367**	**261**

Annual Operating Hours	**7848**

#	Prod. date	Weight	Quality	Prod. date	Weight	Quality	Prod. date	Weight	Quality
		Run 1			Run 2			Run 3	
1	4/11/2005 8:25	14.6	PRIME	4/12/2005 8:54	34.06	PRIME	4/13/2005 10:00	29.71	PRIME
2	4/11/2005 8:29	21.02	PRIME	4/12/2005 9:05	39.82	PRIME	4/13/2005 10:05	29.73	PRIME
3	4/11/2005 8:34	21.03	PRIME	4/12/2005 9:15	38.53	PRIME	4/13/2005 10:11	29.89	PRIME
4	4/11/2005 8:39	21.04	PRIME	4/12/2005 9:20	19.34	PRIME	4/13/2005 10:17	29.08	PRIME
5	4/11/2005 8:45	21.03	PRIME	4/12/2005 9:29	32.33	PRIME	4/13/2005 10:27	53.44	PRIME
6	4/11/2005 8:48	15.79	PRIME	4/12/2005 9:39	32.18	PRIME	4/13/2005 10:37	52.81	PRIME
7	4/11/2005 8:52	15.78	PRIME	4/12/2005 9:46	27.06	PRIME	4/13/2005 10:47	52.18	PRIME
8	4/11/2005 9:02	41.69	PRIME	4/12/2005 9:51	18.5	PRIME	4/13/2005 10:55	43.62	PRIME
9	4/11/2005 9:13	41.72	PRIME	4/12/2005 9:55	14.58	PRIME	4/13/2005 11:03	41.03	PRIME
10	4/11/2005 9:24	41.75	PRIME	4/12/2005 10:01	20.11	PRIME	4/13/2005 11:08	26.35	PRIME
11	4/11/2005 9:34	41.73	PRIME	4/12/2005 10:07	20.13	PRIME	4/13/2005 11:12	19.89	PRIME
12	4/11/2005 9:45	41.88	PRIME	4/12/2005 10:11	13.47	PRIME	4/13/2005 11:17	19.93	PRIME
13	4/11/2005 9:56	41.73	PRIME	4/12/2005 10:15	13	PRIME	4/13/2005 11:21	19.97	PRIME
14	4/11/2005 10:07	41.87	PRIME	4/12/2005 10:19	12.77	PRIME	4/13/2005 11:25	28.27	PRIME
15	4/11/2005 10:17	38.55	PRIME	4/12/2005 10:31	41.39	PRIME	4/13/2005 11:31	26.43	PRIME
16	4/11/2005 10:23	23.56	PRIME	4/12/2005 10:42	40.22	PRIME	4/13/2005 11:35	26.37	PRIME
17	4/11/2005 10:27	14.65	PRIME	4/12/2005 13:50	29.8	PRIME	4/13/2005 11:41	26.3	PRIME
18	4/11/2005 10:30	14.65	PRIME	4/12/2005 13:55	29.63	PRIME	4/13/2005 11:45	22.02	PRIME
19	4/11/2005 10:34	14.63	PRIME	4/12/2005 13:59	18.51	PRIME	4/13/2005 11:49	17.88	PRIME
20	4/11/2005 10:38	14.68	PRIME	4/12/2005 14:09	29.79	PRIME	4/13/2005 11:54	19.94	PRIME
21	4/11/2005 10:42	17.67	PRIME	4/12/2005 14:10	29.79	PRIME	4/13/2005 11:58	19.89	PRIME
22	4/11/2005 10:46	15.51	PRIME	4/12/2005 14:17	29.65	PRIME	4/13/2005 12:02	19.02	PRIME
23	4/11/2005 10:52	22.29	PRIME	4/12/2005 14:23	29.21	PRIME	4/13/2005 12:06	17.15	PRIME
24	4/11/2005 10:57	18.59	PRIME	4/12/2005 14:29	29.37	PRIME	4/13/2005 12:10	26.47	PRIME
25	4/11/2005 11:01	16.52	PRIME	4/12/2005 14:35	29.39	PRIME	4/13/2005 12:15	26.41	PRIME
26	4/11/2005 11:04	15.48	PRIME	4/12/2005 14:41	29.39	PRIME	4/13/2005 12:19	24.77	PRIME
27	4/11/2005 11:08	15.52	PRIME	4/12/2005 14:47	29.38	PRIME	4/13/2005 12:23	19.93	PRIME
28	4/11/2005 11:14	22.92	PRIME	4/12/2005 14:53	29.4	PRIME	4/13/2005 12:27	17.84	PRIME
29	4/11/2005 11:19	21.12	PRIME	4/12/2005 15:00	38.66	PRIME	4/13/2005 12:32	36.2	PRIME
30	4/11/2005 11:24	21.12	PRIME	4/12/2005 15:06	25.89	PRIME	4/13/2005 12:39	36.25	PRIME
31	4/11/2005 11:29	21.09	PRIME	4/12/2005 15:11	25.95	PRIME	4/13/2005 12:49	53.45	PRIME
32	4/11/2005 11:34	21.17	PRIME	4/12/2005 15:16	25.92	PRIME	4/13/2005 12:59	50.87	PRIME
33	4/11/2005 11:38	14.44	PRIME	4/12/2005 15:22	25.89	PRIME	4/13/2005 13:08	45.69	PRIME
34	4/11/2005 11:43	21.13	PRIME	4/12/2005 15:27	25.9	PRIME	4/13/2005 13:14	30.22	PRIME
35	4/11/2005 11:48	22.9	PRIME	4/12/2005 15:32	25.9	PRIME	4/13/2005 13:19	26.32	PRIME
36	4/11/2005 11:52	14.45	PRIME	4/12/2005 15:38	27.51	PRIME	4/13/2005 13:24	26.33	PRIME
37	4/11/2005 11:57	23.69	PRIME	4/12/2005 15:43	27.52	PRIME	4/13/2005 13:29	26.33	PRIME
38	4/11/2005 12:03	22.38	PRIME	4/12/2005 15:50	30.49	PRIME	4/13/2005 13:34	26.31	PRIME
39	4/11/2005 12:08	21.08	PRIME	4/12/2005 15:56	30.5	PRIME	4/13/2005 13:38	19.78	PRIME
40	4/11/2005 12:13	21.11	PRIME	4/12/2005 16:02	30.51	PRIME	4/13/2005 13:43	19.81	PRIME
41	4/11/2005 12:17	21.05	PRIME	4/12/2005 16:08	30.49	PRIME	4/13/2005 13:52	53.43	PRIME
42	4/11/2005 12:22	21.06	PRIME	4/12/2005 16:15	30.56	PRIME	4/13/2005 13:58	30.66	PRIME
43	4/11/2005 12:27	21.03	PRIME	4/12/2005 16:20	27.41	PRIME	4/13/2005 14:03	26.29	PRIME
44	4/11/2005 12:32	21.09	PRIME	4/12/2005 16:26	27.41	PRIME	4/13/2005 14:11	43.64	PRIME
45	4/11/2005 12:37	21.08	PRIME	4/12/2005 16:31	27.39	PRIME	4/13/2005 14:16	21.98	PRIME
46	4/11/2005 12:42	21.11	PRIME	4/12/2005 16:37	27.44	PRIME	4/13/2005 14:20	22.01	PRIME
47	4/11/2005 12:47	21.08	PRIME	4/12/2005 16:43	27.43	PRIME	4/13/2005 14:25	24.38	PRIME
48	4/11/2005 12:51	21.08	PRIME	4/12/2005 16:48	27.42	PRIME	4/13/2005 14:33	43.72	PRIME
49	4/11/2005 12:56	21.08	PRIME	4/12/2005 16:54	30.09	PRIME	4/13/2005 14:45	61.14	PRIME
50	4/11/2005 13:01	21.1	PRIME	4/12/2005 17:01	30.08	PRIME	4/13/2005 14:50	26.52	PRIME
51	4/11/2005 13:06	21.07	PRIME	4/12/2005 17:06	30.12	PRIME	4/13/2005 14:55	26.53	PRIME
52	4/11/2005 13:17	45.28	PRIME	4/12/2005 17:13	30.2	PRIME	4/13/2005 14:59	16.95	PRIME
53	4/11/2005 13:27	41.91	PRIME	4/12/2005 17:19	30.19	PRIME	4/13/2005 15:09	57.53	PRIME
54	4/11/2005 13:37	41.53	PRIME	4/12/2005 17:25	30.17	PRIME	4/13/2005 15:13	22.98	PRIME
55	4/11/2005 13:43	22.57	PRIME	4/12/2005 17:30	26.66	PRIME	4/13/2005 15:20	32.74	PRIME
56	4/11/2005 13:47	14.68	PRIME	4/12/2005 17:36	26.64	PRIME	4/13/2005 15:24	21.02	PRIME
57	4/11/2005 13:50	14.32	PRIME	4/12/2005 17:41	26.71	PRIME	4/13/2005 15:29	27.44	PRIME
58	4/11/2005 13:56	23.27	PRIME	4/12/2005 17:47	26.21	PRIME	4/13/2005 15:34	27.41	PRIME
59	4/11/2005 14:00	12.44	PRIME	4/12/2005 17:51	17.43	PRIME	4/13/2005 15:44	47.29	PRIME

60	4/11/2005 14:11	41.22	PRIME	4/12/2005 17:55	17.44	PRIME	4/13/2005 15:49	20.57	PRIME
61	4/11/2005 14:14	12.24	PRIME	4/12/2005 17:58	17.4	PRIME	4/13/2005 15:59	43.63	PRIME
62	4/11/2005 14:17	13.03	PRIME	4/12/2005 18:03	17.42	PRIME	4/13/2005 16:09	47.32	PRIME
63	4/11/2005 14:21	14.46	PRIME	4/12/2005 18:07	28.46	PRIME	4/13/2005 16:17	40.12	PRIME
64	4/11/2005 14:24	12.49	PRIME	4/12/2005 18:12	28.48	PRIME	4/13/2005 16:22	23.57	PRIME
65	4/11/2005 14:33	34.4	PRIME	4/12/2005 18:19	24.88	PRIME	4/13/2005 16:27	21.28	PRIME
66	4/11/2005 14:42	33.9	PRIME	4/12/2005 18:23	24.94	PRIME	4/13/2005 16:31	16.27	PRIME
67	4/11/2005 14:48	20.42	PRIME	4/12/2005 18:28	26.84	PRIME	4/13/2005 16:34	16.22	PRIME
68	4/11/2005 14:53	20.97	PRIME	4/12/2005 18:34	26.85	PRIME	4/13/2005 16:39	23.16	PRIME
69	4/11/2005 14:58	18.68	PRIME	4/12/2005 18:38	18	PRIME	4/13/2005 16:43	16.9	PRIME
70	4/11/2005 15:02	14.03	PRIME	4/12/2005 18:42	17.99	PRIME	4/13/2005 16:48	25.07	PRIME
71	4/11/2005 15:06	14.03	PRIME	4/12/2005 18:47	28.01	PRIME	4/13/2005 16:53	21.79	PRIME
72	4/11/2005 15:11	21.2	PRIME	4/12/2005 18:53	28.01	PRIME	4/13/2005 16:58	21.4	PRIME
73	4/11/2005 15:15	13.61	PRIME	4/12/2005 18:58	27.96	PRIME	4/13/2005 17:03	21.28	PRIME
74	4/11/2005 15:19	13.62	PRIME	4/12/2005 19:02	21.16	PRIME	4/13/2005 17:08	21.23	PRIME
75	4/11/2005 15:23	16.93	PRIME	4/12/2005 19:15	54.84	PRIME	4/13/2005 17:13	21.24	PRIME
76	4/11/2005 15:32	29.91	PRIME	4/12/2005 19:27	54.94	PRIME	4/13/2005 17:18	21.23	PRIME
77	4/11/2005 15:40	28.87	PRIME	4/12/2005 19:39	54.87	PRIME	4/13/2005 17:24	24.73	PRIME
78	4/11/2005 15:51	33.65	PRIME	4/12/2005 19:44	19.38	PRIME	4/13/2005 17:30	24.71	PRIME
79	4/11/2005 16:00	31.73	PRIME	4/12/2005 19:48	19.33	PRIME	4/13/2005 17:36	24.71	PRIME
80	4/11/2005 16:10	34.94	PRIME	4/12/2005 19:53	19.32	PRIME	4/13/2005 17:41	21.74	PRIME
81	4/11/2005 16:20	34.91	PRIME	4/12/2005 19:57	19.32	PRIME	4/13/2005 17:45	15.55	PRIME
82	4/11/2005 16:29	34.92	PRIME	4/12/2005 20:02	19.34	PRIME	4/13/2005 17:56	47.41	PRIME
83	4/11/2005 16:34	14.71	PRIME	4/12/2005 20:06	19.32	PRIME	4/13/2005 18:07	45.77	PRIME
84	4/11/2005 16:37	13.12	PRIME	**Total slabs**	**2,265.99**	**tons**	4/13/2005 18:12	21.3	PRIME
85	4/11/2005 16:41	12.7	PRIME	Test Duration	9	hours	4/13/2005 18:17	21.33	PRIME
86	4/11/2005 16:44	12.62	PRIME	**Production Rate**	**251.78**	**tph**	4/13/2005 18:22	21.31	PRIME
87	4/11/2005 16:48	12.63	PRIME				4/13/2005 18:28	21.39	PRIME
88	4/11/2005 16:52	12.63	PRIME				4/13/2005 18:33	21.35	PRIME
89	4/11/2005 16:55	12.62	PRIME				4/13/2005 18:39	21.31	PRIME
90	4/11/2005 16:59	12.62	PRIME				4/13/2005 18:43	16.16	PRIME
91	4/11/2005 17:02	12.62	PRIME				4/13/2005 18:47	16.11	PRIME
92	4/11/2005 17:06	12.62	PRIME				4/13/2005 18:53	22.66	PRIME
93	4/11/2005 17:11	18.48	PRIME				**Total slabs**	**2,627.36**	**tons**
94	4/11/2005 17:16	18.47	PRIME				Test Duration	9	hours
95	4/11/2005 17:21	16.82	PRIME				**Production Rate**	**291.93**	**tph**
96	4/11/2005 17:25	16.66	PRIME						
97	4/11/2005 17:26	16.66	PRIME						
98	4/11/2005 17:30	16.66	PRIME						
99	4/11/2005 17:33	16.66	PRIME						
100	4/11/2005 17:35	16.66	PRIME						
101	4/11/2005 17:39	16.66	PRIME						
	Total slabs	**2,208.17**	**tons**						
	Test Duration	9.25	hours						
	Production Rate	**238.72**	**tph**						

APPENDIX G
QUALITY ASSURANCE AND CALIBRATION DATA

Desert Air Environmental Services, LLC
EPA Meter Box Calibration
Pre-Test Orifice Method
English Meter Box Units, English K' Factor

Meter #: Clean Air
Serial #: 1001

Date: ~~March 29, 2005~~ 3/28/05 mtk
Barometric Pressure: ——> 28.23 (in. Hg)
Theoretical Critical Vacuum:—> 13.32 (in. Hg)

!!!!!!!!
IMPORTANT: For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTANT: The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).
!!!!!!!!

—— DRY GAS METER READINGS ——									-CRITICAL ORIFICE READINGS-					
		Volume	Volume	Volume	Initial Temps.		Final Temps.		Orifice	K' Orifice	Actual	– Ambient Temperature –		
dH	Time	Initial	Final	Total	Inlet	Outlet	Inlet	Outlet	Serial#	Coefficient	Vacuum	Initial	Final	Average
(in H2O)	(min)	(cu ft)	(cu ft)	(cu ft)	(deg F)	(deg F)	(deg F)	(deg F)	(number)	(see above)	(in Hg)	(deg F)	(deg F)	(deg F)
0.31	5.00	403.810	405.318	1.508	69.0	69.0	71.0	69.0	40	0.2315	15.0	70.0	72.0	71.0
0.67	5.00	405.366	407.619	2.253	71.0	70.0	73.0	70.0	48	0.3469	15.0	73.0	73.0	73.0
1.10	5.00	407.672	410.600	2.928	72.0	70.0	77.0	71.0	55	0.4534	15.0	74.0	74.0	74.0
1.80	5.00	410.866	414.633	3.767	74.0	72.0	80.0	72.0	63	0.5806	15.0	75.0	76.0	75.5
3.20	5.00	414.760	419.838	5.078	80.0	72.0	84.0	74.0	73	0.7802	15.0	76.0	77.0	76.5

********** RESULTS **********

— DRY GAS METER —		—— ORIFICE ——			– DRY GAS METER –		—— ORIFICE ——		
VOLUME CORRECTED		VOLUME CORRECTED		NOMINAL	CALIBRATION FACTOR Y		CALIBRATION FACTOR dH@		
Vm(std)	Vm(std)	Vcr(std)	Vcr(std)	Vcr	Value	Variation	Value	Value	Variation
(cu ft)	(liters)	(cu ft)	(liters)	(cu ft)	(number)	(number)	(in H2O)	(mm H2O)	(in H2O)
1.419	40.2	1.418	40.2	1.512	0.999	-0.004	2.042	51.86	0.111
2.117	59.9	2.121	60.1	2.270	1.002	-0.001	1.969	50.01	0.038
2.746	77.8	2.769	78.4	2.970	1.009	0.005	1.894	48.11	-0.037
3.526	99.9	3.541	100.3	3.808	1.004	0.001	1.890	48.00	-0.041
4.744	134.3	4.754	134.6	5.122	1.002	-0.001	1.861	47.26	-0.070
		Average Y ——>			1.0032		1.9310	49.05	<—— Average dH@

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: MTR

Date: 3-28-05

Desert Air Environmental Services, LLC
EPA Meter Box Calibration
Pre-Test Orifice Method
English Meter Box Units, English K' Factor

Model #:	Clean Air	Date: ---------->	March 15, 2005
Serial #:	1501	Barometric Pressure: ---------->	28.44 (in. Hg)
		Theoretical Critical Vacuum:--->	13.42 (in. Hg)

!!!!!!!!
IMPORTANT: For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTANT: The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).
!!!!!!!!

---------- DRY GAS METER READINGS ----------									-CRITICAL ORIFICE READINC					
		Volume	Volume	Volume	Initial Temps.		Final Temps.		Orifice	K' Orifice	Actual	-- Ambient Temperature --		
dH	Time	Initial	Final	Total	Inlet	Outlet	Inlet	Outlet	Serial#	Coefficient	Vacuum	Initial	Final	Average
(in H2O)	(min)	(cu ft)	(cu ft)	(cu ft)	(deg F)	(deg F)	(deg F)	(deg F)	(number)	(see above)	(in Hg)	(deg F)	(deg F)	(deg F)
0.30	5.00	836.700	838.200	1.500	64.0	62.0	63.0	62.0	40	0.2315	14.5	62.0	62.0	62.0
0.64	5.00	838.400	840.645	2.245	63.0	62.0	64.0	62.0	48	0.3469	14.5	62.0	63.0	62.5
1.10	5.00	840.800	843.725	2.925	65.0	62.0	68.0	62.0	55	0.4534	14.5	63.0	64.0	63.5
1.70	5.00	844.100	847.865	3.765	69.0	62.0	72.0	63.0	63	0.5806	14.5	64.0	65.0	64.5
3.00	5.00	848.100	853.195	5.095	74.0	63.0	76.0	64.0	73	0.7802	14.5	65.0	66.0	65.5

********** RESULTS **********

-- DRY GAS METER --		------ ORIFICE ------			-- DRY GAS METER --		------ ORIFICE ------		
VOLUME CORRECTED		VOLUME CORRECTED		NOMINAL	CALIBRATION FACTOR Y		CALIBRATION FACTOR dH@		
Vm(std) (cu ft)	Vm(std) (liters)	Vcr(std) (cu ft)	Vcr(std) (liters)	Vcr (cu ft)	Value (number)	Variation (number)	Value (in H2O)	Value (mm H2O)	Variation (in H2O)
1.441	40.8	1.441	40.8	1.499	1.000	0.000	1.954	49.63	0.118
2.158	61.1	2.158	61.1	2.248	1.000	0.000	1.858	47.19	0.022
2.807	79.5	2.818	79.8	2.940	1.004	0.004	1.873	47.57	0.037
3.603	102.0	3.605	102.1	3.769	1.000	0.001	1.767	44.88	-0.069
4.867	137.8	4.840	137.1	5.069	0.994	-0.005	1.727	43.86	-0.109
		Average Y ------>			**0.9998**		**1.8357**	**46.63**	**<------ Average dH@**

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: MTR Date: 3-15-05

CHEROKEE INSTRU..NTS INC
Isokinetic Console
Meter Box Pre-Calibration

Cherokee #:
Model #:
Serial #:

Date: 10-21-04
Barometric Pressure:

Delta H (in. H_2O)	Time (minutes)	DRY GAS METER VOLUME Initial (ft^3)	Final (ft^3)	Total (ft^3)		Temperature (°F) Inlet	Outlet	CALIBRATION DEVICE VOLUME Initial (ft^3)	Final (ft^3)	Total (ft^3)	Temperature (°F) Initial	Final
				[illegible]0	Initial	70	70	162.335			68	68
					Final	70	70					
				[illegible]4	Initial	70	71	168.188				68
					Final	70	71					
				[illegible]2	Initial	71	73	173.767			[illegible]	68
					Final	71	73					
				582	Initial	74	80	182.857			68	68
					Final	74	80					
				[illegible]3	Initial	86	81	196.195			[illegible]let	
					Final	75	81					

	Meter Y	Deviation*
	0.9884	0.0039
	0.9828	-0.0017
	0.9811	-0.0034
	[illegible]953	0.0008

[illegible]ma = 0.9845

Average Del[illegible]

1,851/

Desert Air Environmental Services, LLC
EPA Meter Box Calibration
Post-Test Orifice Method
English Meter Box Units, English K' Factor

Model #:	Clean Air	Date: ---------->	April 18, 2005
Serial #:	1001	Barometric Pressure: ---------->	28.44 (in. Hg)
		Theoretical Critical Vacuum:--->	13.42 (in. Hg)

!!!!!!!!!
IMPORTANT: For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTANT: The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).
!!!!!!!!!

---------- DRY GAS METER READINGS ----------

-CRITICAL ORIFICE READINGS-

dH	Time	Volume Initial	Volume Final	Volume Total	Initial Temps. Inlet	Initial Temps. Outlet	Final Temps. Inlet	Final Temps. Outlet	Orifice Serial#	K' Orifice Coefficient	Actual Vacuum	-- Ambient Temperature -- Initial	Final	Average
(in H2O)	(min)	(cu ft)	(cu ft)	(cu ft)	(deg F)	(deg F)	(deg F)	(deg F)	(number)	(see above)	(in Hg)	(deg F)	(deg F)	(deg F)
1.70	5.00	977.024	980.632	3.608	74.0	71.0	74.0	72.0	63	0.5806	15.0	72.0	72.0	72.0
1.70	5.00	980.786	984.436	3.650	76.0	71.0	79.0	72.0	63	0.5806	15.0	73.0	73.0	73.0
1.70	5.00	984.800	988.518	3.718	79.0	72.0	79.0	72.0	63	0.5806	15.0	73.0	74.0	73.5

********** RESULTS **********

--- DRY GAS METER --- VOLUME CORRECTED Vm(std) (cu ft)	Vm(std) (liters)	------- ORIFICE ------- VOLUME CORRECTED Vcr(std) (cu ft)	Vcr(std) (liters)	NOMINAL Vcr (cu ft)	-- DRY GAS METER -- CALIBRATION FACTOR Y Value (number)	Variation (number)	------- ORIFICE ------- CALIBRATION FACTOR dH@ Value (in H2O)	Value (mm H2O)	Variation (in H2O)
3.413	96.6	3.579	101.4	3.796	1.049	0.012	1.762	44.75	-0.002
3.441	97.4	3.576	101.3	3.799	1.039	0.003	1.765	44.83	0.001
3.499	99.1	3.574	101.2	3.801	1.022	-0.015	1.765	44.83	0.001
		Average Y ---->			**1.0366**		**1.7640**	**44.81**	**<---- Average dH@**

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: _____ Date: 4-18-05

Desert Air Environmental Services, LLC
EPA Meter Box Calibration
Post-Test Orifice Method
English Meter Box Units, English K' Factor

Model #:	Clean Air	Date: ---------->	April 18, 2005
Serial #:	1501	Barometric Pressure: ---------->	28.44 (in. Hg)
		Theoretical Critical Vacuum:--->	13.42 (in. Hg)

!!!!!!!!
IMPORTANT: For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTANT: The Critical Orifice Coefficient, K', must be entered in English units, (ft)^3*(deg R)^0.5/((in.Hg)*(min)).
!!!!!!!!

---------- DRY GAS METER READINGS ----------									-CRITICAL ORIFICE READINGS-					
		Volume	Volume	Volume	Initial Temps.		Final Temps.		Orifice	K' Orifice	Actual	-- Ambient Temperature --		
dH	Time	Initial	Final	Total	Inlet	Outlet	Inlet	Outlet	Serial#	Coefficient	Vacuum	Initial	Final	Average
(in H2O)	(min)	(cu ft)	(cu ft)	(cu ft)	(deg F)	(deg F)	(deg F)	(deg F)	(number)	(see above)	(in Hg)	(deg F)	(deg F)	(deg F)
1.70	5.00	889.600	893.465	3.865	72.0	70.0	71.0	68.0	63	0.5806	15.0	69.0	68.0	68.5
1.70	5.00	893.465	897.216	3.751	71.0	68.0	74.0	69.0	63	0.5806	15.0	69.0	70.0	69.5
1.70	5.00	897.216	901.010	3.794	74.0	69.0	77.0	69.0	63	0.5806	15.0	70.0	71.0	70.5

********** RESULTS **********

— DRY GAS METER —		------- ORIFICE -------			-- DRY GAS METER --		-------- ORIFICE --------			
VOLUME CORRECTED		VOLUME CORRECTED		NOMINAL	CALIBRATION FACTOR Y		CALIBRATION FACTOR dH@			
Vm(std)	Vm(std)	Vcr(std)	Vcr(std)	Vcr	Value	Variation	Value	Value	Variation	
(cu ft)	(liters)	(cu ft)	(liters)	(cu ft)	(number)	(number)	(in H2O)	(mm H2O)	(in H2O)	
3.673	104.0	3.591	101.7	3.783	0.978	-0.016	1.759	44.67	-0.004	
3.563	100.9	3.588	101.6	3.787	1.007	0.013	1.763	44.79	0.001	
3.592	101.7	3.585	101.5	3.790	0.998	0.004	1.765	44.83	0.003	
		Average Y ---->			**0.9943**		**1.7624**	**44.76**	**<---- Average dH@**	

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +-0.02.

For Orifice Calibration Factor dH@, the orifice differential pressure in inches of H20 that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +-0.2.

SIGNED: _____ Date: 4-18-05

CHEROKEE INSTRUMENTS INC
Isokinetic Console
Meter Box Post-Calibration

Cherokee #: 2887
Model #: ??
Serial #: 2034.00

Date: 4-15-05
Barometric Pressure: 30.09 in. Hg

Vacuum: 0

		DRY GAS METER VOLUME						CALIBRATION DEVICE VOLUME				
Delta H ($in. H_2O$)	Time (minutes)	Initial (ft^3)	Final (ft^3)	Total (ft^3)		Temperature (°F) Inlet	Outlet	Initial (ft^3)	Final (ft^3)	Total (ft^3)	Temperature (°F) Initial	Final
1.00	10.0	819.304	824.807	5.503	Initial	67	64	468.236	473.693	5.457	65	65
					Final	68	64					
1.00	10.0	819.304	824.807	5.503	Initial	67	64	468.236	473.693	5.457	65	65
					Final	68	64					
1.00	10.0	819.304	824.807	5.503	Initial	67	64	468.236	473.693	5.457	65	65
					Final	68	64					

Calibration Gamma = 0.9938

Meter Y	Deviation
0.9845	0.0000
0.9845	0.0000
0.9845	0.0000

Average Gamma = 0.9845

Pretest Gamma = 0.9829

5% of Pre-test (Y/N): Y

DGM Temp | Cal Temp
525.75 | 525.00
525.75 | 525.00
525.75 | 525.00

CERTIFIED CLEAN

Cherokee Asset No.
Line : 239/
Controller: 2207

This heated line has been tested to ____ F.
(MAX)
Temperatures Controller Set Point. 325 °F.
Actual Line Temperature. 320 °F.

This heated line has been cleaned using a cleaning solution. It has a VOC/THC background level of less than (3.0 PPM) (as Methane).

COMPLETED

Actual THC background:

Sample Line: 0.02 **PPM. Cal. Line:** 0.01 **PPM.**

Technician: Willie
DATE: 4/6/05

All lines Capped or Plugged.**

ANALYTICAL PRECISION BALANCE CO., INC.

CERTIFICATE OF CALIBRATION
ISO 17025 ACCREDITED

INTERNATIONAL ACCREDITATION SERVICE, INC.
Calibration Laboratory # CL-104

9930 S. 51st Street, Suite B 103 • Phoenix, Arizona 85044
(480) 598-0321 • FAX (480) 598-0768
E-mail: apbalance@juno.com
Website: analyticalandprecision.com

TEMP 76 F° R.H. 48 %
AZ RSR License #00 1060
AZ RSA License #014790
P.O. # UNKNOWN
Equipment # N/A

180g X 0.0001g
Capacity/Resolution

0.0005
Tolerance Value

Comments:

Client # 1403				
Org. DESERT AIR ENVIRONMENTAL		Bldg.	Date 7-8-2004	
		Room	Recall Date 7-05	
Mfgr. A+D ENGINEERING		Model ER 182A	Serial No. 4703445	
Calibration Instructions:	Standard Cal. Procedure ☑		Handbook 44 ☐	
List Weights Used	0.500g	1g	90g	180g
As Found Indication	0.500g	1.000g	90.0048g	E
Tolerance Error	0	0	+0.0048	E
As Left Indication	0.5000g	1.0000g	90.0001g	180.0002g
Corner Load	As Found	Weight Used	2 0.0004g	3 0.0000g
			1 0.0000g	4 N/A
Corner Load	As Left	100g	2 -0.0004g	3 0.0000g
			1 0.0000g	4 N/A

CORNER-LOAD ☑ LINEARITY ☑ REPRODUCIBILITY ☑

NIST TRACEABILITY
Control No. 021223001 Expires 12-04

Customer

Technical Representative

Original: Customer
Copy: Vendor

☐ **OUT OF TOLERANCE (After Servicing) DO NOT USE THIS INSTRUMENT**
☐ OUT OF TOLERANCE (Does not meet customer's specifications.) This applies to "As Found Indication"
Significant out of tolerance may affect end product
As found indications will be recorded before servicing./ **As left** will be recorded after servicing.
Method used for determining uncertainties is either the Root Sum Square Statistical Method, Total Collective Added Uncertainty, or an Expanded Uncertainty with a coverage factor K=2. Provided level of confidence: 95%.
Uncertainty calculations available upon request.

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APEX INSTRUMENTS METHOD 5 (M5CO-SET) ORIFICE SET CALIBRATION

Calibration Information	
Orifice Series	40-73
Serial Number	LD
Meter Gamma	1.00060

Calibration Conditions			
Date	Time	10-Mar-05	9:05
Barometric Pressure		747.9	mm Hg
Theoretical Critical Vacuum[1]		352.6	mm Hg
Calibration Technician		LP	

Factors/Conversions		
Std Temp	293	K
Std Press	760	mm Hg
K_1	0.386	K/mm Hg

[1]The Critical Orifice Coefficient, K', in English units, $(ft^{3*o}R^{1/2})/(in.Hg*min)$.
[2]The Critical Orifice Coefficient, K', in Metric units, $(m^{3*o}K^{1/2})/(mmHg*min)$.

Calibration Data													Results	
			Reference Meter								Critical Orifice			
Run #	Orifice Number	Run Time Elapsed	DGM Orifice ΔH	Volume Initial	Volume Final	Volume Total	Outlet Temp Initial	Outlet Temp Final	Amb Temp Initial	Amb Temp Final	Actual Vacuum	Coefficient Metric Units	Coefficient English Units	% Variation from Avg
		(Θ)	(P_m)	(V_{mi})	(V_{mf})	(V_m)	(t_{mi})	(t_{mf})	($t_{amb(i)}$)	($t_{amb(f)}$)		K'	K'	(<0.5%)
		min	mm H_2O	m^3	m^3	m^3	°C	°C	°C	°C	mm Hg	see above[1]	see above[2]	%
1	LD 40	10	7.20	1135.6440	1135.7294	0.0854	22	23	24	24	584	1.923E-04	0.2314	-0.07
2	LD 40	10	7.20	1135.7294	1135.8150	0.0856	23	23	24	25	584	1.926E-04	0.2317	0.08
3	LD 40	10	7.20	1135.8150	1135.9006	0.0856	23	24	25	25	584	1.924E-04	0.2315	-0.01
											Average	1.924E-04	0.2315	
1	LD 48	10	16.60	1135.9006	1136.0289	0.1283	24	24	25	25	533	2.881E-04	0.3468	-0.05
2	LD 48	10	16.60	1136.0289	1136.1572	0.1283	24	25	25	26	533	2.879E-04	0.3465	-0.13
3	LD 48	10	16.60	1136.1572	1136.2860	0.1288	25	25	26	26	533	2.888E-04	0.3475	0.18
											Average	2.883E-04	0.3469	
1	LD 55	10	28.00	1136.8103	1136.9785	0.1682	26	26	26	27	495	3.766E-04	0.4532	-0.05
2	LD 55	11	28.00	1136.9785	1137.1639	0.1854	26	27	27	27	495	3.770E-04	0.4537	0.07
3	LD 55	10	28.00	1137.1639	1137.3323	0.1684	26	27	27	27	495	3.767E-04	0.4534	-0.02
											Average	3.768E-04	0.4534	
1	LD 63	10	46.00	1137.3323	1137.5479	0.2156	27	27	27	27	445	4.824E-04	0.5805	-0.02
2	LD 63	10	46.00	1137.5479	1137.7635	0.2156	27	27	27	27	445	4.824E-04	0.5805	-0.02
3	LD 63	10	46.00	1137.7635	1137.9792	0.2157	27	27	27	27	445	4.826E-04	0.5808	0.03
											Average	4.824E-04	0.5806	
1	LD 73	10	82.00	1137.9792	1138.2690	0.2898	27	28	27	27	394	6.496E-04	0.7817	0.19
2	LD 73	10	82.00	1138.2690	1138.5588	0.2898	28	28	27	26	394	6.479E-04	0.7798	-0.06
3	LD 73	10	82.00	1138.5588	1138.8486	0.2898	28	28	26	26	394	6.474E-04	0.7791	-0.14
											Average	6.483E-04	0.7802	

I certify that the above Orifice Set was calibrated in accordance with USEPA Methods, CFR 40 Part 60, Appendix A, Method 5, Item 7.2.2

Signature LPerkins Date 3-10-05

Meter Box Full Test Calibration

Meter Box No: 28-031501-1

Date of Calibration: 3/11/05

Meter Box Y_d: 0.9890

Calibration conducted by: M.V.

Meter Box ΔH@: 1.7913

Barometric Pressure: 29.06

Signature

				Standard Meter Gas Volume (ft^3)			Meter Box Gas Volume (ft^3)			Std. Meter Temperature (°F)			Meter Box Temperature (°F)			Time (min.)	Calibration Results	
Q	ΔH	ΔP	Y_{ds}	Initial	Final	V_{ds} Net	Initial	Final	V_d Net	In	Out	T_{ds} Avg.	In	T_o Out	T_d Avg.	Θ	Y_d	ΔH@
0.968	3.00	-1.90	1.0000	0.000	10.000	10.000	733.341	743.627	10.286	65.5	65.5	65.50	88.0	75.0	81.50	10.08	0.9895	1.7271
0.967	3.00	-1.90	1.0000	0.000	10.000	10.000	743.627	753.935	10.308	65.5	65.5	65.50	88.0	75.0	81.50	10.09	0.9874	1.7306
0.378	0.50	-1.20	1.0000	0.000	5.000	5.000	756.711	761.859	5.148	65.5	65.5	65.50	79.0	76.0	77.50	12.89	0.9892	1.8794
0.378	0.50	-1.20	1.0000	0.000	5.000	5.000	761.859	767.015	5.156	65.5	65.5	65.50	79.0	76.0	77.50	12.92	0.9876	1.8881
0.676	1.50	-1.40	1.0000	0.000	12.000	12.000	772.074	784.458	12.384	65.5	65.5	65.50	86.0	77.0	81.50	17.31	0.9912	1.7619
0.676	1.50	-1.40	1.0000	0.000	10.000	10.000	784.458	794.806	10.348	65.5	65.5	65.50	87.0	77.0	82.00	14.42	0.9894	1.7607

Averages 0.98904 1.79131

Nomenclature

P_b	Barometric Pressure (in. Hg)
Q	Flow Rate (cfm)
ΔH	Orifice Pressure differential (in. H_2O)
ΔP	Inlet Pressure Differential (in. H_2O)
V_d	Gas Meter Volume - Dry (ft^3)
V_{ds}	Standard Meter Volume - Dry (ft^3)
T_d	Average Meter Box Temperature (°F)
T_o	Outlet Meter Box Temperature (°F)
T_{ds}	Average Standard Meter Temperature (°F)
Y_d	Meter Correction Factor (unitless)
Y_{ds}	Standard Meter Correction Factor (unitless)
ΔH@	Orifice Pressure Differential giving 0.75 cfm of air at 68°F and 29.92 in. Hg (in. H_2O)
Θ	Duration of Run (minutes)

Equations

$$Y_d = (Y_{ds})\left[\frac{V_{ds}}{V_d}\right]\left[\frac{T_d + 460}{T_{ds} + 460}\right]\left[\frac{P_b + \Delta P/13.6}{P_b + \Delta H/13.6}\right]$$

$$\Delta H @ = \frac{(0.0319)(\Delta H)}{P_b(T_o + 460)}\left[\frac{(T_{ds} + 460)\Theta}{(V_{ds})(Y_{ds})}\right]^2$$

$$Q = \frac{17.64(V_{ds})(P_b)}{(T_{ds} + 460)(\Theta)}$$

Vacuum Gauge		DGM Thermocouples		
Standard (in.Hg)	Gauge (in.Hg)	Standard (°F)	Inlet (°F)	Outlet (°F)
5.0	4.5			
10.0	9.5			
15.0	14.7			
20.0	20.0			
25.0	25.3			

CleanAir ENGINEERING

CDS005C-Meter Full, May 2002
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Pyrometer Calibration Test Report

Pyrometer No.:	28-031501-1	Office:	Palatine, Il
Calibrated By:	M.V.	Client:	
Date:	3/11/05	Job Number:	

Calibration Reference Settings for Fahrenheit Scale	Pyrometer Reading
50 °F	49 °F
100 °F	99 °F
150 °F	148 °F
200 °F	198 °F
250 °F	248 °F
300 °F	298 °F
350 °F	349 °F
400 °F	398 °F
450 °F	449 °F
500 °F	498 °F
550 °F	548 °F
600 °F	598 °F

Calibration Reference Information

Reference Used:	Omega CL23A	Serial No:	T-225950
Calibrated By:	Omega Engineering, Inc.	Exp. Date:	9/15/05
Report No:	R 044791		

CleanAir
ENGINEERING

Meter Box Full Test Calibration

Meter Box No: 28110-11001-1

Date of Calibration: 3/21/05

Meter Box Y_d: 1.0121

Calibration conducted by: M.V.

Meter Box ΔH@: 1.8573

Signature

Barometric Pressure: 29.35

				Standard Meter Gas Volume (ft^3)			Meter Box Gas Volume (ft^3)			Std. Meter Temperature (°F)			Meter Box Temperature (°F)			Time (min.)	Calibration Results	
Q	ΔH	- ΔP	Y_{ds}	Initial	Final	V_{ds} Net	Initial	Final	V_d Net	In	Out	T_{ds} Avg.	In	T_o Out	T_o Avg.	Θ	Y_d	ΔH@
0.955	3.00	-1.80	1.0000	0.000	10.000	10.000	313.826	324.036	10.210	62.0	62.0	62.00	95.0	80.0	87.50	10.39	1.0150	1.7762
0.958	3.00	-1.80	1.0000	0.000	10.000	10.000	324.036	334.251	10.215	62.0	62.0	62.00	94.0	80.0	87.00	10.35	1.0136	1.7625
0.369	0.50	-1.10	1.0000	0.000	5.000	5.000	341.861	346.966	5.105	62.0	62.0	62.00	81.0	78.0	79.50	13.44	1.0062	1.9887
0.370	0.50	-1.10	1.0000	0.000	5.000	5.000	346.966	352.059	5.093	62.0	62.0	62.00	81.0	78.0	79.50	13.42	1.0106	1.9828
0.669	1.50	-1.40	1.0000	0.000	10.000	10.000	360.661	370.839	10.178	62.0	62.0	62.00	87.0	77.0	82.00	14.83	1.0128	1.8194
0.670	1.50	-1.40	1.0000	0.000	10.000	10.000	370.839	381.018	10.179	62.0	62.0	62.00	87.0	77.0	82.00	14.81	1.0127	1.8145

Averages 1.01214 1.85734

Nomenclature

P_b	Barometric Pressure (in. Hg)
Q	Flow Rate (cfm)
ΔH	Orifice Pressure differential (in. H_2O)
ΔP	Inlet Pressure Differential (in. H_2O)
V_d	Gas Meter Volume - Dry (ft^3)
V_{ds}	Standard Meter Volume - Dry (ft^3)
T_d	Average Meter Box Temperature (°F)
T_o	Outlet Meter Box Temperature (°F)
T_{ds}	Average Standard Meter Temperature (°F)
Y_d	Meter Correction Factor (unitless)
Y_{ds}	Standard Meter Correction Factor (unitless)
ΔH@	Orifice Pressure Differential giving 0.75 cfm of air at 68°F and 29.92 in. Hg (in. H_2O)
Θ	Duration of Run (minutes)

Equations

$$Y_d = (Y_{ds})\left[\frac{V_{ds}}{V_d}\right]\left[\frac{T_d + 460}{T_{ds} + 460}\right]\left[\frac{P_b + \Delta P/13.6}{P_b + \Delta H/13.6}\right]$$

$$\Delta H @ = \frac{(0.0319)(\Delta H)}{P_b(T_o + 460)}\left[\frac{(T_{ds} + 460)\Theta}{(V_{ds})(Y_{ds})}\right]^2$$

$$Q = \frac{17.64(V_{ds})(P_b)}{(T_{ds} + 460)(\Theta)}$$

Vacuum Gauge		DGM Thermocouples		
Standard (in.Hg)	Gauge (in.Hg)	Standard (°F)	Inlet (°F)	Outlet (°F)
5.3	5.0			
10.0	10.0			
15.2	15.0			
20.4	20.0			
25.7	25.0			

CleanAir ENGINEERING

CD8005C-Meter Full, May 2002
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Pyrometer Calibration Test Report

Pyrometer No.:	28110-11001-1	Office:	Palatine, Il
Calibrated By:	M.V.	Client:	
Date:	3/21/05	Job Number:	

Calibration Reference Settings for Fahrenheit Scale	Pyrometer Reading
50 °F	49 °F
100 °F	99 °F
150 °F	149 °F
200 °F	199 °F
250 °F	249 °F
300 °F	299 °F
350 °F	349 °F
400 °F	399 °F
450 °F	449 °F
500 °F	499 °F
550 °F	549 °F
600 °F	599 °F

Calibration Reference Information

Reference Used:	Omega CL23A	Serial No:	T-225950
Calibrated By:	Omega Engineering, Inc.	Exp. Date:	9/15/05
Report No:	R 044791		

CleanAir ENGINEERING

Desert Air Environmental Services, LLC

TYPE S PITOT TUBE INSPECTION FORM

Date 5-22-04 Pitot Tube Number 10' METHOD 5

Pitot Tube Level ? Yes Pitot Tube Damaged? No (explain)

Is the Pitot Tube part of an Assembly? Yes Is the Pitot Tube loose? No

a_1 =	0 ° (≤ 10 °)	a2 =	0 ° (≤ 10 °)
b_1 =	0 ° (≤ 5 °)	b2 =	0 ° (≤ 5 °)
P_a =	.95 cm (= P/2)	Pb =	.95 cm (= P/2)
P =	1.90 (Pa + Pb)	P/2 =	.95 cm
Y =	0 °	Θ =	0 °
Z =	0 cm (P sin Y) < 0.32 cm	W =	0 cm (P sin Θ) < 0.08 cm
D_t =	0.64 cm	$P/2D_t$ =	1.48 (≥ 1.05 and ≤ 1.50)

Pitot Tube-Nozzle separation, X = ok (> 1.90 cm for D_n = 1.30 cm)

Is the Pitot Tube even with or above the Nozzle Entry Plane? Yes

Thermocouple Placement, W= ok (> 5.08 cm, 2 in)

Pitot Tube Sample Probe Separation, Y= ok (≤ 7.62 cm, 3 in)

Coefficient .84 Calibration Required ? No

Inspected by MTR

Comments

Desert Air Environmental Services, LLC

THERMOCOUPLE CALIBRATION FORM

Thermocouple ID # 10' METHOD 5 TC Type: ☑K ☐T ☐S

Reference Thermometer ID # 3611

Calibration Date 5-22-04

	Reference Temperature (°F)	Reference Temperature (°R)	TC Temperature (°F)	TC Temperature (°R)	Difference (°R)	Percent Difference
Ice Bath (32 °F, 492 °R)	32	492	32	492	0	0
Boiling Water (212 °F, 672 °R)	212	672	215	674.67	2.67	.39
Hot Oil (~360 °F, 820 °R)	375	834.67	375	834.67	0	0
					Average	.13

Is percent difference ≤ 1.5 %, yes (pass) no (fail) °R = °F + 459.67

Comments:

Desert Air Environmental Services, LLC

TYPE S PITOT TUBE INSPECTION FORM

Date 5-22-04 Pitot Tube Number OLD A LONG

Pitot Tube Level ? YES Pitot Tube Damaged? NO (explain)

Is the Pitot Tube part of an Assembly? YES Is the Pitot Tube loose? No

a_1 = 0 ° (≤ 10 °) a2 = 1 ° (≤ 10 °)

b_1 = 1 ° (≤ 5 °) b2 = 1 ° (≤ 5 °)

P_a = 1.475 cm (= P/2) Pb = 1.45 cm (= P/2)

P = 3.23 (Pa + Pb) P/2 = 1.615 cm

Y = 1 ° Θ = .5 °

Z = 0.0523 cm (P sin Y) < 0.32 cm W = 0.0261 cm (P sin Θ) < 0.08 cm

D_t = 1.168 cm $P/2D_t$ = 1.382 (≥ 1.05 and ≤ 1.50)

Pitot Tube-Nozzle separation, X = ok (> 1.90 cm for D_n = 1.30 cm)

Is the Pitot Tube even with or above the Nozzle Entry Plane? Yes

Thermocouple Placement, W= ok (> 5.08 cm, 2 in)

Pitot Tube Sample Probe Separation, Y= ok (≤ 7.62 cm, 3 in)

Coefficient .84 Calibration Required ? NO

Inspected by MTR

Comments Method 2-3 Probe ; TC

Desert Air Environmental Services, LLC

THERMOCOUPLE CALIBRATION FORM

Thermocouple ID # A OLD LONG TC Type: ☑K ☐T ☐S

Reference Thermometer ID # 3611

Calibration Date 5-22-04

	Reference Temperature (°F)	Reference Temperature (°R)	TC Temperature (°F)	TC Temperature (°R)	Difference (°R)	Percent Difference
Ice Bath (32 °F, 492 °R)	32	492	34	493.67	1.67	.34
Boiling Water (212 °F, 672 °R)	212	672	215	674.67	2.67	.39
Hot Oil (~360 °F, 820 °R)	375	834.67	379	838.67	4.0	.48
					Average	.40

Is percent difference ≤ 1.5 %, yes (pass) no (fail) °R = °F + 459.67

Comments:

°R = °F + 459.67

Method 2-3 Probe & TC

Cherokee Instruments
QC Equipment Check

M5 Probe Maintenance, Calibration & Status Record

Liner Mat. (circle) SSt Pyx Qtz	Asset ID Number	Length Gross	Length Usable	Order No. as Returned	Serviced By: Date	By, (Name)	Initial
	1110	12' ft.	12 1/2" in.		2/13/09	MARK	MJC

Pitobe Assembly

Physical Checks	Yes	No	Note
T/C (stack) Plug & Bracket Good			
Quick Connects (2) Clean and OK			
QC Fittings Smooth Ops.			
Exterior Sheath Clean and Good			
Old Point Marks Removed			
Welds on Pitot and Gas Lines OK			
Clamps Tight & Good			
Pitot Tips Sharp, Aligned and OK			
Calibration is Current & OK			& see right
Sheath Cap Treads Smooth & OK			
Union (5/8") Threads Smooth & OK			
O-Ring (5/8") Replaced & Snug			
Back Ferrell Reversed and OK			
Back Ferrell OK w/ Liner Type			
Union Capped (brass) Good			
Liner Securely Tight, Ball Capped			
Ball, 28/12, Smooth, w/ O-ring & OK			
Sample Line Clear, Cleaned & OK			see blank below
Leak Ck., <.005 @ 20 in. Hg.			
Aux. Gas Line Clear, Cleaned & OK			
Leak Ck., <.001 @ 20 in. Hg.			
Pitot (A) Lk. Ck., "dead" (+/-) at >10" w.g.			
Pitot (B) Lk. Ck., "dead" (+/-) at >10" w.g.			

Pitot Tube Geometric Assignment

Certify Baseline (isolated tube) Cp

Cp Assigned, Value **0.840**

Tube Diameter & Certification / Inspection

Inspect Geometry	Yes	No	Value/Note
Cp Basis is Below			
Centered @ Tips?			
Level w/ Sheath?			Pa =Pb< 0.063"
Tube Diameter, " (circ) 3/8 3/16			
Lateral Alignment, from "Side View"			
z ≤ 1/8" ?			1/16
Verticle Alignment, from "Side View"			
w ≤ 1/32" ?			1/64
Transverse Axis, Faces Perpendicular			
α1 ±10° of 90° ?			ok
α2 ±10° of 90° ?			ok
Longtiudinal Axis, Faces Parallel			
&1 ±5° of 0° ?			ok
&2 ±5° of 0° ?			ok

Pitot Tube Distance to Other Sensors (circle)		Note
From Nozzle Opening, > 0.75"	yes / no	
Gas Line & Stack T/C, > 0.75"	yes / no	
"Z" Clear, Side to T/C, 2.0"	yes / no	
"W" Clear, Rear to T/C, 2.0"	yes / no	
"Y" Clear to Union, 3.0"	yes / no	

Component Checks

Heater Element	Yes	No	Note
T/C Line & Plug OK?			
115V Line & Plug OK?			
Continuity Good			
Resistance OK ?			ohms
Open to Ground?			
Time to 250° F, from room temp.	11		mins.
High Temp >300° F	300		° F

Other Checks and Verify Status

Stack T/C Calibration

Level	Lo,~32°F	Mid,~212° F	Hi,>300° F
Source	Salt/Ice	Boil Water	Oil Bath AMB
Ref., ° F		211	77
T/C, ° F		211	78
Diff., <1%			

Analytical Liner Annual Rx Blanks

Type of Analysis		Value, mg	Note
Water Wash, 500 ml	≤ 1 mg.	1	
Acetone Rinse, 500 ml	≤ 1 mg.	300	
Liner OK for Service		yes / no	

Unit Good w/o Calibration/Service

Ready for Fleet Service	yes / no	
Returned to Stock Fleet	yes / no	
Storage Shelf # on Probe Rack		

Other Notes

144 Thomas Mill Rd.
Holly Springs, NC 27540

for assistance call
800-399-4236

PRAXAIR

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CERTIFICATE OF ANALYSIS - EPA PROTOCOL GAS

CUSTOMER DESERT AIR ENV **PO NUMBER**

REFERENCE STANDARD

COMPONENT	TYPE	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
NITRIC OXIDE	GMIS	vs. SRM#2629	CC 144870	24.81 ppm

ANALYZER READINGS

R = REFERENCE STANDARD *Z = ZERO GAS* *C = CANDIDATE GAS*

1. **COMPONENT** NITROGEN DIOXIDE (as NOx) **ANALYZER MAKE-MODEL-S/N** Thermo Envin. 42H S/N 42-44979-273

ANALYTICAL PRINCIPLE CHEMILUMINESCENCE **LAST CALIBRATION DATE** 10/2/04

FIRST ANALYSIS DATE 10/18/04								SECOND ANALYSIS DATE 10/25/04							
Z	0.00	R	24.48	C	21.39	CONC.	21.7	Z	0.00	R	24.30	C	21.55	CONC.	22.0
R	24.40	Z	0.00	C	21.38	CONC.	21.7	R	24.20	Z	0.00	C	21.50	CONC.	22.0
Z	0.00	C	21.42	R	24.41	CONC.	21.8	Z	0.00	C	21.48	R	24.19	CONC.	22.0
U/M	PPM				MEAN TEST ASSAY		21.7	U/M	PPM				MEAN TEST ASSAY		22.0

VALUES NOT VALID BELOW 150 PSIG
NO VALUE FOR REFERENCE ONLY, NO=0.88 ppm

THIS CYLINDER NO. CC 108577
HAS BEEN CERTIFIED ACCORDING TO SECTION 2.2
OF TRACEABILITY PROTOCOL NO. EPA-600/R97/121
PROCEDURE G1
CERTIFIED ACCURACY ±1% NIST TRACEABLE
CYLINDER PRESSURE 2000 PSIG
CERTIFICATION DATE 10/25/04
EXPIRATION 4/25/05 TERM 6 MONTHS

CERTIFIED CONCENTRATION

COMPONENT	CONCENTRATION
NITROGEN DIOXIDE (as NOx)	21.8 ppm
NITROGEN	BALANCE

ANALYZED BY PHIL KIM

CERTIFIED BY JOSEPH CHARLES

IMPORTANT
Information contained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of the analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any particular purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability of Praxair Distribution, Inc., arising out of the use of the information contained herein exceed the fee established for providing such information.

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CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER DESERT AIR ENV **P.O NUMBER**

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
CARBON DIOXIDE GMIS	NIST SRM#2745	8747556	17.99 %
OXYGEN GMIS	NIST SRM#2659	T 326764	15.14 %

ANALYZER READINGS

R=REFERENCE STANDARD *Z=ZERO GAS* *C=GAS CANDIDATE*

1. COMPONENT CARBON DIOXIDE GMIS **ANALYZER MAKE-MODEL-S/N** Siemens Ultramat 5E S/N A12-730

ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 09/11/04

FIRST ANALYSIS DATE 09/23/04 **SECOND ANALYSIS DATE**

Z 0	R 18.00	C 12.70	CONC. 12.70	Z	R	C	CONC.
R 18.00	Z 0	C 12.70	CONC. 12.70	R	Z	C	CONC.
Z 0	C 12.70	R 18.00	CONC. 12.70	Z	C	R	CONC.

U/M % **MEAN TEST ASSAY** 12.70 U/M % **MEAN TEST ASSAY**

2. COMPONENT OXYGEN GMIS **ANALYZER MAKE-MODEL-S/N** Siemens Oxymat 5E S/N A12-839

ANALYTICAL PRINCIPLE Paramagnetic **LAST CALIBRATION DATE** 09/11/04

FIRST ANALYSIS DATE 09/23/04 **SECOND ANALYSIS DATE**

Z 0	R 15.14	C 12.44	CONC. 12.44	Z	R	C	CONC.
R 15.14	Z 0	C 12.44	CONC. 12.44	R	Z	C	CONC.
Z 0	C 12.44	R 15.14	CONC. 12.44	Z	C	R	CONC.

U/M % **MEAN TEST ASSAY** 12.44 U/M % **MEAN TEST ASSAY**

Values not valid below 150 psig

THIS CYLINDER NO. SA 4410
HAS BEEN CERTIFIED ACCORDING TO SECTION EPA-600/R97/121
OF TRACEABILITY PROTOCOL NO. Rev. 9/97
PROCEDURE G1
CERTIFIED ACCURACY ± 1 % NIST TRACEABLE
CYLINDER PRESSURE 2000 PSIG
CERTIFICATION DATE 09/23/04
EXPIRATION DATE 09/23/07 **TERM** 36 MONTHS

CERTIFIED CONCENTRATION

CARBON DIOXIDE	12.70 %
OXYGEN	12.44 %
NITROGEN	BALANCE

ANALYZED BY HELENA TRAN

CERTIFIED BY VICTOR DOTAN

IMPORTANT
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CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER DESERT AIR ENV. **P.O NUMBER**

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
CARBON DIOXIDE GMIS	vs. SRM# 274	8747556	17.99 %
OXYGEN #98070203	82659	SA 20007	20.92 %

ANALYZER READINGS

R=REFERENCE STANDARD *Z=ZERO GAS* *C=GAS CANDIDATE*

1. COMPONENT CARBON DIOXIDE GMIS **ANALYZER MAKE-MODEL-S/N** Siemens Ultramat 5E S/N A12-730

ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 03/05/03

FIRST ANALYSIS DATE 03/27/03 **SECOND ANALYSIS DATE**

Z 0	R 18.00	C 17.24	CONC. 17.23	Z	R	C	CONC.
R 17.98	Z 0	C 17.24	CONC. 17.25	R	Z	C	CONC.
Z 0	C 17.24	R 17.98	CONC. 17.25	Z	C	R	CONC.
U/M %	MEAN TEST ASSAY 17.24			U/M %	MEAN TEST ASSAY		

2. COMPONENT OXYGEN #98070203 **ANALYZER MAKE-MODEL-S/N** Siemens Oxymat 5E S/N A12-839

ANALYTICAL PRINCIPLE Paramagnetic **LAST CALIBRATION DATE** 03/05/03

FIRST ANALYSIS DATE 03/27/03 **SECOND ANALYSIS DATE**

Z 0	R 20.92	C 21.08	CONC. 21.08	Z	R	C	CONC.
R 20.92	Z 0	C 21.08	CONC. 21.08	R	Z	C	CONC.
Z 0	C 21.08	R 20.92	CONC. 21.08	Z	C	R	CONC.
U/M %	MEAN TEST ASSAY 21.08			U/M %	MEAN TEST ASSAY		

Values not valid below 150 psig. O2 CONC. WAS CORRECTED FOR CO2 INTERFERENCE. G2 PROCEDURE FOR CO2 @70%. GAS DIVIDER-STEC INC SGD-710C CF=0.6935

THIS CYLINDER NO. CC 163553
HAS BEEN CERTIFIED ACCORDING TO SECTION EPA-600/R97/121
OF TRACEABILITY PROTOCOL NO. Rev. 9/97
PROCEDURE G1
CERTIFIED ACCURACY ± 1 % NIST TRACEABLE
CYLINDER PRESSURE 2000 PSIG
CERTIFICATION DATE 03/27/03
EXPIRATION DATE 03/27/06 **TERM** 36 MONTHS

CERTIFIED CONCENTRATION

CARBON DIOXIDE (G2, ±2%)	24.86 %
OXYGEN (±1%)	21.08 %
NITROGEN	BALANCE

ANALYZED BY THANHTRUC N NGUYEN **CERTIFIED BY** PHU TIEN NGUYEN

IMPORTANT
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CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER DESERT AIR ENV. **P.O NUMBER**

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
CARBON MONOXIDE GMIS	vs.SRM#1678	CC 81679	50.2 ppm
NITRIC OXIDE GMIS	vsSRM#1683b	CC 137710	48.0 ppm
SULFUR DIOXIDE GMIS	vs.SRM#1693	CC 102177	50.2 ppm

ANALYZER READINGS

R=REFERENCE STANDARD *Z=ZERO GAS* *C=GAS CANDIDATE*

1. **COMPONENT** CARBON MONOXIDE GMIS **ANALYZER MAKE-MODEL-S/N** HORIBA, VIA-510, S/N 576876015

ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 01/02/04

FIRST ANALYSIS DATE 01/14/04 **SECOND ANALYSIS DATE** 01/23/04

Z	0.0	R	48.4	C	44.0	CONC. 45.6	Z	0.0	R	48.0	C 43.5	CONC. 45.5
R	48.4	Z	0.0	C	44.0	CONC. 45.6	R	48.0	Z	0.0	C 43.6	CONC. 45.6
Z	0.0	C	44.0	R	48.4	CONC. 45.6	Z	0.0	C	43.6	R 48.0	CONC. 45.6

U/M ppm MEAN TEST ASSAY 45.6 U/M ppm MEAN TEST ASSAY 45.6

2. **COMPONENT** NITRIC OXIDE GMIS **ANALYZER MAKE-MODEL-S/N** Thermo Env. 42H S/N 42H-44979-273

ANALYTICAL PRINCIPLE CHEMILUMINESCENCE **LAST CALIBRATION DATE** 01/02/04

FIRST ANALYSIS DATE 01/14/04 **SECOND ANALYSIS DATE** 01/23/04

Z	0.0	R	49.6	C	46.5	CONC. 45.4	Z	0.0	R	47.4	C 45.4	CONC. 46.0
R	49.5	Z	0.0	C	46.5	CONC. 45.5	R	46.9	Z	0.0	C 44.9	CONC. 46.0
Z	0.0	C	46.5	R	49.6	CONC. 45.4	Z	0.0	C	45.2	R 47.6	CONC. 45.6

U/M ppm MEAN TEST ASSAY 45.4 U/M ppm MEAN TEST ASSAY 45.9

3. **COMPONENT** SULFUR DIOXIDE GMIS **ANALYZER MAKE-MODEL-S/N** ROSEMOUNT, 890129300000, 1000150

ANALYTICAL PRINCIPLE ULTRAVIOLET ABSORPTION **LAST CALIBRATION DATE** 01/02/04

FIRST ANALYSIS DATE 01/14/04 **SECOND ANALYSIS DATE** 01/23/04

Z	0.00	R	335.85	C	295.66	CONC. 44.2	Z	0.00	R	334.17	C 292.66	CONC. 44.0
R	335.77	Z	0.00	C	296.50	CONC. 44.3	R	334.23	Z	0.00	C 293.59	CONC. 44.1
Z	0.00	C	294.92	R	334.91	CONC. 44.2	Z	0.00	C	292.42	R 334.25	CONC. 43.9

U/M mV MEAN TEST ASSAY 44.2 U/M mV MEAN TEST ASSAY 44.0

THIS CYLINDER NO. CC 120194
HAS BEEN CERTIFIED ACCORDING TO SECTION EPA-600/R97/121
OF TRACEABILITY PROTOCOL NO. Rev. 9/97
PROCEDURE G1
CERTIFIED ACCURACY ± 1 % NIST TRACEABLE
CYLINDER PRESSURE 2000 PSIG
CERTIFICATION DATE 01/26/04
EXPIRATION DATE 01/26/06 **TERM** 24 MONTHS

CERTIFIED CONCENTRATION

CARBON MONOXIDE	45.6 ppm
NITRIC OXIDE	45.6 ppm
SULFUR DIOXIDE	44.1 ppm
NITROGEN	BALANCE

Values not valid below 150 psig.
NOx values =46.2 ppm; for reference only.

ANALYZED BY JOSEPH CHARLES **CERTIFIED BY** JACK FU

IMPORTANT
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CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER DESERT AIR ENV. **P.O NUMBER**

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
NITRIC OXIDE GMIS	NIST SRM#1684	SA 20834	99.0 ppm
SULFUR DIOXIDE GMIS	NIST SRM#1694	SA 10326	98.9 ppm
CARBON MONOXIDE GMIS	NIST SRM#1679	SA 15471	98.4 ppm

ANALYZER READINGS

R=REFERENCE STANDARD *Z=ZERO GAS* *C=GAS CANDIDATE*

1. **COMPONENT** NITRIC OXIDE GMIS **ANALYZER MAKE-MODEL-S/N** HORIBA, VIA-510, 57042305
   ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 02/02/04
   FIRST ANALYSIS DATE 01/30/04 **SECOND ANALYSIS DATE** 02/06/04

Z 0.0	R 98.8	C 86.3	CONC. 86.1		Z 0	R 99.0	C 85.0	CONC. 85.0		
R 99.0	Z 0.0	C 86.2	CONC. 85.9		R 99.2	Z 0	C 85.1	CONC. 84.9		
Z 0.0	C 86.1	R 99.1	CONC. 85.7		Z 0	C 85.0	R 99.1	CONC. 84.9		
U/M ppm		MEAN TEST ASSAY 85.9			U/M ppm			MEAN TEST ASSAY 84.9		

2. **COMPONENT** SULFUR DIOXIDE GMIS **ANALYZER MAKE-MODEL-S/N** Siemens Ultramat 5E S/N C1-009
   ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 02/01/04
   FIRST ANALYSIS DATE 01/30/04 **SECOND ANALYSIS DATE** 02/06/04

Z 0.0	R 99.0	C 84.0	CONC. 83.9		Z 0	R 99.0	C 85.0	CONC. 84.9		
R 99.0	Z 0.0	C 84.0	CONC. 83.9		R 100.0	Z 0	C 85.5	CONC. 84.6		
Z 0.0	C 84.0	R 99.0	CONC. 83.9		Z 0	C 85.0	R 99.5	CONC. 84.5		
U/M ppm		MEAN TEST ASSAY 83.9			U/M ppm			MEAN TEST ASSAY 84.7		

3. **COMPONENT** CARBON MONOXIDE GMIS **ANALYZER MAKE-MODEL-S/N** HORIBA, VIA-510, S/N 576876015
   ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 02/01/04
   FIRST ANALYSIS DATE 01/30/04 **SECOND ANALYSIS DATE** 02/06/04

Z 0.0	R 93.8	C 81.2	CONC. 85.2		Z 0	R 98.4	C 85.5	CONC. 85.5		
R 94.3	Z 0.0	C 81.7	CONC. 85.3		R 98.3	Z 0	C 85.6	CONC. 85.7		
Z 0.0	C 79.0	R 91.6	CONC. 84.9		Z 0	C 85.3	R 98.3	CONC. 85.4		
U/M ppm		MEAN TEST ASSAY 85.1			U/M ppm			MEAN TEST ASSAY 85.5		

THIS CYLINDER NO. CC 179339
HAS BEEN CERTIFIED ACCORDING TO SECTION EPA-600/R97/121
OF TRACEABILITY PROTOCOL NO. Rev. 9/97
PROCEDURE G1
CERTIFIED ACCURACY ± 1 % NIST TRACEABLE
CYLINDER PRESSURE 2000 PSIG
CERTIFICATION DATE 02/06/04
EXPIRATION DATE 02/06/06 **TERM** 24 MONTHS

CERTIFIED CONCENTRATION

NITRIC OXIDE	85.4 ppm
SULFUR DIOXIDE	84.3 ppm
CARBON MONOXIDE	85.3 ppm
NITROGEN	BALANCE

NOx values for reference only. NOx=85.4ppm
All values not valid below 150 psig

ANALYZED BY JOSEPH CHARLES **CERTIFIED BY** MICHAEL TSANG

IMPORTANT
Information contained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of the analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any particular purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability of Praxair Distribution, Inc., arising out of the use of the information contained herein exceed the fee established for providing such information.

PRAXAIR

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Telephone: (323) 585-2154
Facsimile: (714) 542-6689

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER DESERT AIR ENV **P.O NUMBER**

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
CARBON MONOXIDE	vs.SRM#2636	CC 86363	247 ppm
NITRIC OXIDE	vsSRM#1685b	CC 137773	244.2 ppm
SULFUR DIOXIDE	vs.SRM#1661	CC 110360	250.7 ppm

ANALYZER READINGS

R=REFERENCE STANDARD *Z=ZERO GAS* *C=GAS CANDIDATE*

1. COMPONENT CARBON MONOXIDE **ANALYZER MAKE-MODEL-S/N** Siemens Ultramat 5E S/N A12-729

ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 01/01/04

FIRST ANALYSIS DATE 12/23/03 **SECOND ANALYSIS DATE** 01/05/04

Z 0	R 247	C 248	CONC. 248	Z 0	R 247	C 250	CONC. 250
R 247	Z 0	C 248	CONC. 248	R 247	Z 0	C 250	CONC. 250
Z 0	C 248	R 247	CONC. 248	Z 0	C 250	R 247	CONC. 250
U/M ppm		MEAN TEST ASSAY 248		U/M ppm		MEAN TEST ASSAY 250	

2. COMPONENT NITRIC OXIDE **ANALYZER MAKE-MODEL-S/N** HORIBA, VIA-510, 57042305

ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 01/01/04

FIRST ANALYSIS DATE 12/23/03 **SECOND ANALYSIS DATE** 01/05/04

Z 0	R 243.7	C 239.2	CONC. 240	Z 0	R 244.2	C 239.4	CONC. 240
R 243.5	Z 0	C 239.4	CONC. 240	R 244.5	Z 0	C 239.9	CONC. 240
Z 0	C 239.6	R 243.8	CONC. 240	Z 0	C 239.9	R 244.5	CONC. 240
U/M ppm		MEAN TEST ASSAY 240		U/M ppm		MEAN TEST ASSAY 240	

3. COMPONENT SULFUR DIOXIDE **ANALYZER MAKE-MODEL-S/N** Siemens Ultramat 5E S/N C1-009

ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 01/01/04

FIRST ANALYSIS DATE 12/23/03 **SECOND ANALYSIS DATE** 01/05/04

Z 0	R 251.0	C 248.0	CONC. 248	Z 0	R 251.0	C 245.0	CONC. 245
R 251.0	Z 0	C 248.5	CONC. 248	R 251.0	Z 0	C 245.0	CONC. 245
Z 0	C 248.0	R 251.0	CONC. 248	Z 0	C 245.0	R 251.0	CONC. 245
U/M ppm		MEAN TEST ASSAY 248		U/M ppm		MEAN TEST ASSAY 245	

THIS CYLINDER NO CC 154668
HAS BEEN CERTIFIED ACCORDING TO SECTION EPA-600/R97/121
OF TRACEABILITY PROTOCOL NO. Rev. 9/97
PROCEDURE G1
CERTIFIED ACCURACY ± 1 % NIST TRACEABLE
CYLINDER PRESSURE 2000 PSIG
CERTIFICATION DATE 01/05/04
EXPIRATION DATE 01/05/06 **TERM** 24 MONTHS

CERTIFIED CONCENTRATION

CARBON MONOXIDE	249 ppm
NITRIC OXIDE	240 ppm
SULFUR DIOXIDE	246 ppm
NITROGEN	BALANCE

Values not valid below 150 psig.
NOx value 240 ppm; for reference only.

ANALYZED BY JOSEPH CHARLES **CERTIFIED BY** MICHAEL TSANG

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CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER DESERT AIR ENV.-RECERT **P.O NUMBER** .

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
CARBON MONOXIDE GMIS	vs.SRM#1680	SGAL 2761	447 ppm
NITRIC OXIDE NTRM	NTRM#81686	SA 18920	496 ppm
SULFUR DIOXIDE GMIS	vs.SRM#1661	SA 17321	496 ppm

ANALYZER READINGS

R=REFERENCE STANDARD *Z=ZERO GAS* *C=GAS CANDIDATE*

1. **COMPONENT** CARBON MONOXIDE GMIS **ANALYZER MAKE-MODEL-S/N** HORIBA, VIA-510, S/N 576876015
   ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 01/02/04
   FIRST ANALYSIS DATE 01/26/04 **SECOND ANALYSIS DATE**

Z	0	R	438	C	437	CONC. 446	Z	R	C	CONC.
R	438	Z	0	C	437	CONC. 446	R	Z	C	CONC.
Z	0	C	437	R	438	CONC. 446	Z	C	R	CONC.

   U/M ppm **MEAN TEST ASSAY** 446 **U/M** ppm **MEAN TEST ASSAY**

2. **COMPONENT** NITRIC OXIDE NTRM **ANALYZER MAKE-MODEL-S/N** HORIBA, VIA-510, 57042305
   ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 01/02/04
   FIRST ANALYSIS DATE 01/26/04 **SECOND ANALYSIS DATE**

Z	0	R	498	C	449	CONC. 447	Z	R	C	CONC.
R	500	Z	0	C	449	CONC. 445	R	Z	C	CONC.
Z	0	C	449	R	496	CONC. 449	Z	C	R	CONC.

   U/M ppm **MEAN TEST ASSAY** 447 **U/M** ppm **MEAN TEST ASSAY**

3. **COMPONENT** SULFUR DIOXIDE GMIS **ANALYZER MAKE-MODEL-S/N** Siemens Ultramat 5E S/N C1-009
   ANALYTICAL PRINCIPLE NDIR **LAST CALIBRATION DATE** 01/02/04
   FIRST ANALYSIS DATE 01/26/04 **SECOND ANALYSIS DATE**

Z	0	R	496	C	449	CONC. 449	Z	R	C	CONC.
R	495	Z	0	C	449	CONC. 450	R	Z	C	CONC.
Z	0	C	449	R	496	CONC. 449	Z	C	R	CONC.

   U/M ppm **MEAN TEST ASSAY** 449 **U/M** ppm **MEAN TEST ASSAY**

THIS CYLINDER NO. CC 16090
HAS BEEN CERTIFIED ACCORDING TO SECTION EPA-600/R97/121
OF TRACEABILITY PROTOCOL NO. Rev. 9/97
PROCEDURE G1
CERTIFIED ACCURACY ± 1 **% NIST TRACEABLE**
CYLINDER PRESSURE 1500 **PSIG**
CERTIFICATION DATE 01/26/04
EXPIRATION DATE 01/26/06 **TERM** 24 MONTHS

CERTIFIED CONCENTRATION

CARBON MONOXIDE	447 ppm
NITRIC OXIDE	447 ppm
SULFUR DIOXIDE	449 ppm
NITROGEN	BALANCE

LAST ASSAY WERE:448ppm CO, 448ppm NO AND 450ppm SO2.
ON 10/10/01. NOx values =450 ppm; for reference only.

ANALYZED BY JOSEPH CHARLES **CERTIFIED BY** CHRIS VU

IMPORTANT
Information contained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of the analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any particular purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability of Praxair Distribution, Inc., arising out of the use of the information contained herein exceed the fee established for providing such information.

APPENDIX H
BIAS AND LINEARITY DATA

CONTINUOUS EMISSIONS MONITORING
QUALITY ASSURANCE RESULTS

Client: Nucor Steel - Hertford
Test Date: Apr-10-05
Emissions Unit: Baghouse
Project: Compliance

Leak Check Performed? yes **NOx Converter Checked?** Yes

LINEARITY CHECK SUMMARY

O_2 (%)	Cylinder Concentration	Internal Calibration Value	Analyzer Full Scale Range	Difference (%)	Difference (% FS)	5% Full Scale (%)	Pass/Fail
Zero	0.000	0.010	25.000	0.010	0.04%	1.25	pass
Medium	12.44	12.540	25.000	0.100	0.40%	1.25	pass
High	21.08	21.140	25.000	0.060	0.24%	1.25	pass

NO_x (ppm)	Cylinder Concentration	Internal Calibration Value	Analyzer Full Scale Range	Difference (ppm)	Difference (% FS)	5% Full Scale (ppm)	Pass/Fail
Zero	0.000	0.010	100.000	0.010	0.01%	5	pass
Medium	45.6	45.750	100.000	0.150	0.15%	5	pass
High	85.4	86.360	100.000	0.960	0.96%	5	pass

CO (ppm)	Cylinder Concentration	Internal Calibration Value	Analyzer Full Scale Range	Difference (ppm)	Difference (% FS)	5% Full Scale (ppm)	Pass/Fail
Zero	0.000	-0.030	500.000	-0.030	-0.01%	25	pass
Medium	249.0	250.070	500.000	1.070	0.21%	25	pass
High	447.0	434.100	500.000	-12.900	-2.58%	25	pass

SO_2 (ppm)	Cylinder Concentration	Internal Calibration Value	Analyzer Full Scale Range	Difference (ppm)	Difference (% FS)	5% Full Scale (ppm)	Pass/Fail
Zero	0.000	-0.040	100.000	-0.040	-0.04%	5	pass
Medium	44.1	45.920	100.000	1.820	1.82%	5	pass
High	84.3	86.040	100.000	1.740	1.74%	5	pass

CO2 (%)	Cylinder Concentration	Internal Calibration Value	Analyzer Full Scale Range	Difference (%)	Difference (% FS)	5% Full Scale (%)	Pass/Fail
Zero	0.000	-0.260	25.000	-0.260	-1.04%	1.25	pass
Medium	12.70	12.710	25.000	0.010	0.04%	1.25	pass
High	25.53	26.210	25.000	0.680	2.72%	1.25	pass

P-Bar		BH O_2	BH CO_2	BH NO_x	BH CO	BH SO_2	Flow BH	BH NO_x	BH CO	BH SO_2	
Date	Time	Conc	Conc	Conc	Conc	Conc	DSCFM	lb/hr	lb/hr	lb/hr	Comments
04/10/05	6:18 PM	19.76	1.83	0.01	244.78	0.72	1152000	0.11	1229.36	8.29	
04/10/05	6:19 PM	19.75	1.81	0.01	279.23	0.70	1152000	0.10	1402.38	8.08	
04/10/05	6:20 PM	19.80	1.77	0.02	280.25	0.70	1152000	0.12	1407.47	8.09	Bias / Linearity
04/10/05	6:21 PM	19.83	1.79	0.01	281.20	0.22	1152000	0.09	1412.28	2.52	
04/10/05	6:22 PM	19.80	1.89	0.01	288.20	-0.04	1152000	0.10	1447.43	-0.41	
04/10/05	6:23 PM	19.75	1.99	8.79	288.01	17.17	1152000	72.56	1446.45	197.05	
04/10/05	6:24 PM	19.73	2.00	23.89	296.61	22.73	1152000	197.15	1489.64	260.97	
04/10/05	6:25 PM	19.73	1.97	24.01	257.61	22.37	1152000	198.07	1293.81	256.83	
04/10/05	6:26 PM	19.72	1.90	24.01	249.78	22.44	1152000	198.06	1254.44	257.55	
04/10/05	6:27 PM	19.77	1.86	24.23	286.80	28.23	1152000	199.91	1440.36	324.04	
04/10/05	6:28 PM	19.81	1.83	42.59	283.23	45.69	1152000	351.41	1422.48	524.51	
04/10/05	6:29 PM	19.87	1.74	45.75	298.97	45.92	1152000	377.46	1501.48	527.19	
04/10/05	6:30 PM	19.94	1.67	47.10	279.03	64.12	1152000	388.59	1401.36	736.04	
04/10/05	6:31 PM	19.97	1.60	85.67	208.41	85.66	1152000	706.89	1046.70	983.29	
04/10/05	6:32 PM	20.16	1.31	86.36	85.82	86.04	1152000	712.57	431.02	987.65	
04/10/05	6:33 PM	20.48	0.89	79.82	84.31	60.22	1152000	658.55	423.43	691.32	
04/10/05	6:34 PM	20.68	0.65	9.02	85.22	8.25	1152000	74.45	428.02	94.68	
04/10/05	6:35 PM	20.74	0.59	8.78	85.83	9.24	1152000	72.45	431.08	106.10	
04/10/05	6:36 PM	20.76	0.56	8.11	195.81	8.65	1152000	66.90	983.43	99.34	
04/10/05	6:37 PM	20.73	0.59	8.02	250.07	7.50	1152000	66.18	1255.91	86.06	
04/10/05	6:38 PM	20.60	0.78	6.59	250.07	10.42	1152000	54.41	1255.92	119.63	
04/10/05	6:39 PM	20.25	1.32	4.19	325.13	16.48	1152000	34.56	1632.88	189.21	
04/10/05	6:40 PM	20.01	1.56	6.32	432.99	14.47	1152000	52.12	2174.57	166.13	
04/10/05	6:41 PM	20.02	1.54	5.81	434.10	10.48	1152000	47.95	2180.14	120.35	
04/10/05	6:42 PM	18.91	1.42	6.14	354.59	9.52	1152000	50.69	1780.87	109.24	
04/10/05	6:43 PM	1.25	0.42	5.43	81.39	8.42	1152000	44.81	408.75	96.71	
04/10/05	6:44 PM	0.62	0.13	5.13	0.76	6.86	1152000	42.36	3.80	78.77	
04/10/05	6:45 PM	0.01	-0.36	4.69	-0.03	5.62	1152000	38.69	-0.13	64.50	
04/10/05	6:46 PM	0.07	-0.36	8.48	-0.03	4.31	1152000	69.95	-0.16	49.45	
04/10/05	6:47 PM	0.14	-0.30	10.17	25.32	3.55	1152000	83.90	127.17	40.74	
04/10/05	6:48 PM	0.08	-0.26	11.95	61.56	4.65	1152000	98.62	309.15	53.37	
04/10/05	6:49 PM	6.45	7.12	7.71	67.07	7.77	1152000	63.64	336.83	89.19	
04/10/05	6:50 PM	12.54	12.74	6.64	102.25	9.47	1152000	54.83	513.50	108.71	
04/10/05	6:51 PM	12.61	12.71	6.07	135.36	9.59	1152000	50.07	679.81	110.08	
04/10/05	6:52 PM	20.57	21.65	4.56	152.86	9.09	1152000	37.60	767.71	104.40	
04/10/05	6:53 PM	21.14	25.52	3.55	173.11	9.56	1152000	29.31	869.39	109.74	
04/10/05	6:54 PM	21.14	25.53	3.51	174.68	10.04	1152000	28.98	877.31	115.24	
04/10/05	6:55 PM	20.10	1.33	3.61	199.88	11.23	1152000	29.77	1003.84	128.90	
04/10/05	6:56 PM	19.99	1.30	3.64	251.41	10.57	1152000	30.07	1262.65	121.29	
04/10/05	6:57 PM	19.83	1.50	14.85	303.26	9.91	1152000	122.53	1523.03	113.73	
04/10/05	6:58 PM	19.77	1.62	21.54	340.07	7.62	1152000	177.72	1707.90	87.52	NO2 - NO Converter Check
04/10/05	6:59 PM	19.87	1.51	21.54	309.61	6.03	1152000	177.72	1554.93	69.26	
04/10/05	7:00 PM	19.98	1.33	21.55	233.24	5.79	1152000	177.81	1171.37	66.47	
04/10/05	7:01 PM	19.95	1.36	21.54	216.81	5.93	1152000	177.72	1088.88	68.11	
04/10/05	7:02 PM	20.03	1.29	21.54	229.21	5.98	1152000	177.72	1151.17	68.66	
04/10/05	7:03 PM	19.99	1.35	21.53	255.80	5.84	1152000	177.64	1284.67	67.09	
04/10/05	7:04 PM	19.96	1.33	21.53	271.31	5.78	1152000	177.64	1362.58	66.35	
04/10/05	7:05 PM	20.07	1.18	21.53	267.55	5.04	1152000	177.64	1343.70	57.84	
04/10/05	7:06 PM	20.11	1.09	21.53	237.77	4.69	1152000	177.64	1194.16	53.81	
04/10/05	7:07 PM	20.10	1.08	21.53	237.40	3.83	1152000	177.64	1192.27	43.97	
04/10/05	7:08 PM	20.23	0.94	21.53	208.21	3.84	1152000	177.64	1045.67	44.02	
04/10/05	7:09 PM	20.31	0.84	21.53	183.36	4.19	1152000	177.64	920.89	48.14	
04/10/05	7:10 PM	20.23	0.93	21.52	172.53	4.32	1152000	177.56	866.49	49.62	
04/10/05	7:11 PM	20.24	0.91	21.52	174.02	4.80	1152000	177.56	873.99	55.12	
04/10/05	7:12 PM	20.25	0.91	21.52	160.87	5.42	1152000	177.56	807.92	62.20	
04/10/05	7:13 PM	20.31	0.82	21.52	160.02	6.31	1152000	177.56	803.68	72.41	
04/10/05	7:14 PM	20.28	0.89	21.52	162.70	7.55	1152000	177.56	817.14	86.68	
04/10/05	7:15 PM	20.15	1.02	21.52	174.71	7.77	1152000	177.56	877.42	89.23	
04/10/05	7:16 PM	20.46	0.58	21.52	198.88	7.46	1152000	177.56	998.74	85.64	
04/10/05	7:17 PM	20.49	0.53	21.52	150.02	8.57	1152000	177.56	753.43	98.35	
04/10/05	7:18 PM	20.72	0.24	21.52	113.33	9.04	1152000	177.56	569.20	103.76	
04/10/05	7:19 PM	20.81	0.11	21.52	74.48	8.37	1152000	177.56	374.04	96.10	
04/10/05	7:20 PM	20.83	0.08	21.51	47.16	7.80	1152000	177.48	236.85	89.48	
04/10/05	7:21 PM	20.84	0.08	21.51	35.82	7.59	1152000	177.48	179.88	87.16	
04/10/05	7:22 PM	20.80	0.12	21.51	32.51	7.93	1152000	177.48	163.26	91.05	
04/10/05	7:23 PM	20.58	0.47	21.51	51.98	9.73	1152000	177.48	261.05	111.70	
04/10/05	7:24 PM	20.01	1.13	21.51	66.98	13.90	1152000	177.48	336.37	159.53	
04/10/05	7:25 PM	20.06	0.90	21.51	104.32	12.46	1152000	177.48	523.93	143.05	
04/10/05	7:26 PM	20.83	0.18	21.51	40.49	4.79	1152000	177.48	203.36	54.99	
04/10/05	7:27 PM	19.92	1.25	21.51	87.67	7.98	1152000	177.48	440.32	91.57	
04/10/05	7:28 PM	19.86	1.31	21.51	180.38	8.97	1152000	177.48	905.91	102.92	
04/10/05	7:29 PM	19.79	1.33	19.87	190.86	8.74	1152000	163.94	958.53	100.30	
04/10/05	7:30 PM	19.80	1.32	10.21	193.01	8.38	1152000	84.24	969.35	96.19	