Guarantee Testing Results from the Greenidge Multi-Pollutant Control Project

Topical Report of Work Performed
March 28, 2007 - May 4, 2007

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Submitted By

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DISCLAIMER

GUARANTEE TEST REPORT
MULTI-POLLUTANT CONTROL PROJECT
AES GREENIDGE UNIT 4
DRESDEN, NEW YORK

Oxides of Nitrogen, Ammonia, Sulfur Dioxide, Sulfur Trioxide, Mercury, Hydrogen Chloride, and Hydrogen Fluoride Measurements

March 28 – May 4, 2007

Source(s)	:	Unit 4 (Boiler 6)
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ACRONYMS AND ABBREVIATIONS

ACI	activated carbon injection
ASTM	American Society for Testing and Materials
$BaCl_2$	barium chloride
BPEI	Babcock Power Environmental Inc.
CAE	Clean Air Engineering
CEM	continuous emission monitor
Cl^-	chloride
cm^3	cubic centimeter
CO_2	carbon dioxide
CONSOL R&D	CONSOL Energy Inc., Research & Development
CTM	Conditional Test Method
CVAA	cold vapor atomic absorption spectroscopy
DOE	U.S. Department of Energy
dscf	dry standard cubic feet
dscm	dry standard cubic meter
EPA	U.S. Environmental Protection Agency
EPC	engineering, procurement, and construction
F^-	fluoride
ft^3	cubic feet
g	grams
gr	grains
h	hour
HCl	hydrogen chloride
HF	hydrogen fluoride
Hg	mercury
Hg^{part}	mercury in particulate form
Hg^{total}	total mercury in particulate, oxidized, and elemental forms
Hg^{++}	mercury in oxidized form
Hg^o	mercury in elemental form
HHV	higher heating value
HNO_3	nitric acid
H_2O_2	hydrogen peroxide
H_2SO_4	sulfuric acid
IC	ion chromatography
ICP-AES	inductively coupled plasma-atomic emission spectrometry
ICPMS	inductively coupled plasma mass spectrometry
ICV	independent calibration verification
IPA	isopropyl alcohol
KCl	potassium chloride
$KMnO_4$	potassium permanganate
L	liter
lb	pound
M	molar
m^2	square meter

ACRONYMS AND ABBREVIATIONS

MASS	Multipoint Automated Sampling System
mg	milligram
mL	milliliter
mmBtu	million British Thermal Units
MW	megawatt
N	normal
NH_3	ammonia
NIST	National Institute of Standards and Technology
NO_x	oxides of nitrogen
O_2	oxygen
pH	measurement of acidity or alkalinity of a solution
ppm	parts per million
ppmvd	parts per million by volume dry
QA/QC	quality assurance/quality control
R^2	coefficient of determination
SCR	selective catalytic reduction
SM	Standard Method
SNCR	selective non-catalytic reduction
SO_2	sulfur dioxide
SO_3	sulfur trioxide
SRM	Standard Reference Material
TBtu	trillion British Thermal Units
TSS	total suspended solids
U.S.	United States
μg	microgram

SUMMARY

CONSOL Energy Inc. Research & Development (CONSOL R&D) performed flue gas sampling at AES Greenidge to verify the performance of the multi-pollutant control system recently installed by Babcock Power Environmental Inc. (BPEI) on the 107-megawatt (MW) Unit 4 (Boiler 6). The multi-pollutant control system includes combustion modifications and a hybrid selective non-catalytic reduction (SNCR) / in-duct selective catalytic reduction (SCR) system to reduce NO_x emissions, followed by a Turbosorp® circulating fluidized bed dry scrubber system and baghouse to reduce emissions of SO_2, SO_3, HCl, HF, and particulate matter. Mercury removal is provided via the co-benefits afforded by the in-duct SCR, dry scrubber, and baghouse and by injection of activated carbon upstream of the scrubber, as required. Testing was conducted through ports located at the inlet and outlet of the SCR reactor to evaluate the performance of the hybrid NO_x control system, as well as through ports located at the air heater outlet and baghouse outlet or stack to determine pollutant removal efficiencies across the Turbosorp® scrubber and baghouse. Data from the unit's stack continuous emission monitor (CEM) were also used for determining attainment of the performance targets for NO_x emissions and SO_2 removal efficiency. The testing performed, by location, was:

<u>SCR Inlet / SCR Outlet / Stack CEM</u>:
Oxides of nitrogen

<u>SCR Outlet / Air Heater Inlet</u>:
Ammonia

<u>Air Heater Outlet / Baghouse Outlet / Stack CEM</u>:
Sulfur dioxide

<u>Air Heater Outlet / Stack</u>:
Acid gases (SO_3, HCl, and HF)
Mercury

Testing was initially conducted on March 28, 29, and 30, 2007. During this period, Clean Air Engineering (CAE) sampled for NO_x and SO_2, and CONSOL R&D sampled for all of the other parameters listed above. Three separate test runs were completed for each parameter while the boiler was operating at or near design load and firing an approximately 2.5%-sulfur eastern U.S. bituminous coal. Mercury removal was measured both with and without activated carbon injection (ACI). Results of these tests, which were performed in accordance with the methods specified in BPEI's Acceptance Test Procedure (Document 100276-100103100-01, dated March 22, 2007), are summarized in Table 1 below; the reported results represent the average of the three test runs (unless otherwise noted).

The results for ammonia slip, SO_3 removal, and HF removal obtained during the March tests were inconsistent with the performance targets and/or inconclusive. Hence, CONSOL R&D repeated the tests for these parameters (as well as for HCl, for which only two valid test runs were completed in March) on May 1, 2, and 4, 2007. The sampling and/or analytical methods for determining NH_3 and SO_3 were modified to improve the accuracy and representativeness of the measurements. Results of the May tests are summarized in Table 2. During these tests, the boiler fired an approximately 3.0%-sulfur eastern U.S. bituminous coal, and it was again operated at or near design load.

Table 1. Performance Guarantee Results (March Testing)

Performance Category	Performance Target	Measured Result
SCR Outlet NOx	≤ 0.10 lb/mmBtu	0.095 lb/mmBtu[a]
Ammonia Slip @ SCR Outlet	≤ 2 ppmvd @ 3% O_2	9.9 ppmvd @ 3% O_2
SO_2 Removal Efficiency	≥ 95% removal	96.0% removal[b]
Acid Gas Removal		
SO_3	≥ 95% removal	Invalid (64.4% removal)[c]
HCl	≥ 95% removal	94.8% removal[d]
HF	≥ 95% removal	Indeterminate[e]
Mercury Reduction (coal-to-stack)		
Without ACI	≥ 90% removal	>95.3% removal
With ACI	≥ 90% removal	>93.8% removal

[a]Measured by the unit's stack CEM. [b]Based on inlet SO_2 measured at the air heater outlet by CAE and outlet SO_2 measured by the unit's stack CEM. [c]Measurement considered to be invalid because of possible ammonia interference. [d]Average of two test runs. [e]HF concentrations were below the limit of detection at both the air heater outlet and stack, making it impossible to calculate a removal percentage.

Table 2. Performance Guarantee Results (May Testing)

Performance Category	Performance Target	Measured Result
Ammonia Slip @ Air Heater Inlet	≤ 2ppmvd @ 3% O_2	4.2 ppmvd @ 3% O_2[a]
Acid Gas Removal		
SO_3	≥ 95% removal	97.1% removal[b]
HCl	≥ 95% removal	97.2% removal[c]
HF	≥ 95% removal	Indeterminate[c,d]

[a]Average of four measurements at the air heater inlet. The average concentration measured simultaneously at the eastern side of the SCR outlet was 11.3 ppmvd @ 3% O_2. [b]Average of three measurements. [c]Average of two measurements. [d]HF concentrations were below the limit of detection at both the air heater outlet and stack, making it impossible to calculate a removal percentage.

BACKGROUND

CONSOL Energy Inc. Research & Development, AES Greenidge LLC, and Babcock Power Environmental Inc. (BPEI) were awarded a cooperative agreement from the U.S. Department of Energy (DOE) to install and test an integrated multi-pollutant control system on the 107-MW AES Greenidge Unit 4. The project seeks to be the first to demonstrate:

- Full-load NO_x emissions of ≤0.10 lb/mmBtu using a hybrid selective non-catalytic reduction / selective catalytic reduction (hybrid SNCR/SCR) system, in combination with low-NO_x combustion technology, on a unit firing coal and biomass
- SO_2 removal of ≥95% using a Turbosorp® circulating fluidized bed dry scrubber (including a new baghouse) on a unit firing greater than 2%-sulfur bituminous coal
- Mercury reduction of ≥90% via the co-benefits afforded by the in-duct SCR, Turbosorp® scrubber, and baghouse, and by the addition of activated carbon into the Turbosorp® system, as required
- Acid gas (SO_3, HCl, HF) removal of ≥95% in the Turbosorp® system

The goal of the project is to demonstrate substantial improvements in mercury, SO_3, and particulate matter control, and substantial reductions in the cost for NO_x and SO_2 control, compared to conventional technologies when applied to the large number of smaller coal-fired generating units in the United States.

CONSOL R&D performed guarantee testing to verify the ability of the multi-pollutant control system to meet the performance targets set forth in the Engineering, Procurement, and Construction (EPC) agreement between AES Greenidge and Babcock Power Environmental Inc. Described herein are the results of the guarantee measurements and the methods used.

FLUE GAS SAMPLING RESULTS

Six locations, the SCR inlet, SCR outlet, air heater inlet, air heater outlet, baghouse outlet, and stack, were sampled while AES Greenidge Unit 4 was operating at or near design load (~105 MW_{gross} or 97 MW_{net}) and firing an approximately 2.5-3.0%-sulfur eastern U.S. bituminous coal. To determine the performance of the SNCR/SCR system, NO_x sampling was performed at the SCR inlet and SCR outlet locations, and ammonia sampling was performed at the SCR outlet and air heater inlet locations. The performance of the Turbosorp® system (including the baghouse) was determined by sampling for SO_2, SO_3, HCl, HF, and mercury at the air heater outlet and stack or baghouse outlet locations. Data from the unit's stack CEM were also used for determining attainment of the performance targets for NO_x emissions and SO_2 removal efficiency. The sampling for ammonia at the SCR outlet and for mercury, HCl, and HF was performed at an isokinetic sampling rate, and the sampling for ammonia at the air heater inlet and for NO_x, SO_2, and SO_3 was performed at a constant sampling rate. The measured results at each location are described below. The sampling and analytical methods used to perform the measurements are described in the Experimental section later in this report. All times reported herein are local (i.e., Eastern Daylight) times.

Oxides of Nitrogen

Attainment of the performance target for NO_x was demonstrated by monitoring the NO_x emission rates measured by the plant's stack continuous emission monitor during three 72-minute periods on March 28. These NO_x emission rates are summarized in Table 3. The one-minute CEM data from the test period, which were provided by AES and averaged by CONSOL R&D to derive the values presented in Table 3, are included in Appendix E to this report.

Table 3. Summary of NO_x Emission Rates Measured by the Unit 4 Stack CEM

Test No.	Date & Time (MM/DD/YY: hhmm-hhmm)	NO_x Emissions @ Stack, lb/mmBtu[a]
Test #1	03/28/07: 0912-1023	0.096
Test #2	03/28/07: 1112-1223	0.095
Test #3	03/28/07: 1248-1359	0.095
	Average	0.095

[a]Calculated by CONSOL R&D as the arithmetic mean of 1-minute CEM data provided by AES.

To supplement the NO_x measurements made by the unit's CEM, Clean Air Engineering (CAE) simultaneously performed NO_x testing using their Multipoint Automated Sampling System (MASS) at the SCR inlet and outlet sampling grids. Each 72-minute test included three complete traverses of each grid; both grids were sampled at the same time. Table 4 summarizes the average NO_x concentrations measured at the SCR inlet and outlet, the average NO_x removal efficiency measured across the SCR catalyst, and the NO_x emission rate measured at the SCR outlet during each of the three NO_x testing periods on March 28. (NO_x concentrations were converted to a standard oxygen basis of 3% using O_2 concentrations measured by CAE at the SCR inlet and outlet grids using EPA Method 3A. NO_x emission rates at the SCR outlet were computed by CONSOL R&D using NO_x and CO_2 concentrations measured by CAE at the SCR outlet grid and assuming a CO_2-based fuel factor of F_c = 1800 scf/mmBtu, per EPA Method 19 guidelines for bituminous coal). A more detailed presentation of the results of NO_x sampling at the SCR inlet and outlet is provided in the CAE report that is included as Appendix A to this report.

The average NO_x concentration measured by CAE at the SCR outlet was about 25% less than the average NO_x concentration measured by the plant's stack CEM during the three NO_x measurement periods. The cause of this disparity is unknown. Possible causes include measurement error (although both the stack CEM and CAE NO_x analyzer were calibrated prior to the tests) or flow stratification at the SCR outlet. (The NO_x emission rate at the SCR outlet is calculated from the unweighted average of the NO_x concentrations measured at the 24 SCR outlet grid points. This method assumes that the volumetric flow rates at all of these points are equal. If this assumption is violated, then the NO_x emission rate measured at the SCR outlet could differ from that at the stack. Flow rate measurements were not available at the SCR outlet to confirm or refute this assumption). Because the unit's permit limit for NO_x and the controls for the hybrid SNCR/SCR system are both based on the NO_x emission rate measured by the stack CEM, this emission rate was used to determine attainment of the performance target for NO_x emissions.

Table 4. Summary of NO_x Measurements at the SCR Inlet and Outlet

Test No.	Date & Time (MM/DD/YY: hhmm-hhmm)	SCR NO_x Data @ 3% O_2			SCR Outlet NO_x Emissions, lb/mmBtu[b]
		SCR Inlet, ppmvd	SCR Outlet, ppmvd	Removal, %[a]	
Test #1	03/28/07: 0912-1023	92.6	52.7	43.1	0.073
Test #2	03/28/07: 1112-1223	86.3	52.7	38.9	0.072
Test #3	03/28/07: 1248-1359	84.6	50.1	40.8	0.069
Average		87.8	51.8	41.0	0.071

[a]Percent removal calculated by CONSOL R&D based on overall average inlet and outlet concentrations reported by CAE for each test. [b]Emission rate calculated by CONSOL R&D based on the average NO_x and CO_2 concentrations at the SCR outlet reported by CAE for each test, and assuming a CO_2-based fuel factor of F_c = 1800 scf/mmBtu.

Ammonia

Ammonia testing was conducted on March 28 and May 1, 2007. On March 28, ammonia sampling was performed at the SCR outlet through the northernmost of the two ports located on the eastern wall of the SCR outlet duct at the 498' level. On May 1, ammonia sampling was performed at the SCR outlet through both ports on the eastern wall of the SCR outlet duct (reported results are for composite samples drawn from both ports), and additional ammonia sampling was performed at the air heater inlet through a single port located on the south side of each of the eastern and western air heater inlet ducts (reported results are for composite samples drawn from both ports). Three approximately one-hour-long test runs were performed at the SCR outlet on March 28, and four approximately one-hour-long test runs were performed at the SCR outlet and air heater inlet (both locations sampled simultaneously) on May 1. The ammonia concentrations measured during these tests are reported in Table 5. (NH_3 concentrations were converted to a standard oxygen basis of 3% using O_2 concentrations measured by CONSOL R&D at the sampling train exhaust using a Teledyne Max V portable electrochemical O_2 analyzer).

Table 5. NH_3 Concentrations Measured at the SCR Outlet / Air Heater Inlet

Test No.	Date & Time (MM/DD/YY: hhmm-hhmm)	NH_3 Concentration, ppmvd @ 3% O_2	
		SCR Outlet	Air Heater Inlet
Test #1	03/28/07: 0914-1014	4.6	
Test #2	03/28/07: 1115-1215	11.4	
Test #3	03/28/07: 1300-1400	13.5	
	Average	9.9	
Test #1	05/01/07: 0903-1006	11.6	3.6
Test #2	05/01/07: 1121-1235	9.7	5.1
Test #3	05/01/07: 1335-1438	14.3	4.0
Test #4	05/01/07: 1530-1635	9.8	4.2
	Average	11.3	4.2

Sulfur Dioxide

Sulfur dioxide removal efficiency testing was conducted on March 29. Three approximately 60-minute-long tests were performed. During each test, SO_2 concentrations at the air heater outlet and baghouse outlet were measured continuously by CAE, and SO_2 concentrations at the stack were measured continuously by the plant's stack CEM.

Table 6 summarizes the average SO_2 concentrations measured during these tests by CAE at the air heater outlet and baghouse outlet. (SO_2 concentrations were converted to a standard oxygen basis of 3% using O_2 concentrations measured by CAE at the air heater outlet and baghouse outlet using EPA Method 3A). During the first two tests, at each location, flue gas was sampled from a single point located approximately in the center of the duct. During the third test, sampling was conducted using a three-point traverse through a single port at each location. A more detailed presentation of the SO_2 sampling results from the air heater outlet and baghouse outlet is provided in the CAE report that is included as Appendix A to this report.

Table 7 summarizes the average SO_2 emission rates measured by the unit's stack CEM during each test, as well as the average SO_2 removal efficiency across the Turbosorp® system (including the baghouse) calculated using the SO_2 measured at the air heater outlet by CAE and the SO_2 measured at the stack by the unit's CEM. (For purposes of this calculation, the SO_2 concentrations measured by CAE at the air heater outlet were converted to emission rates in units of lb/mmBtu based on the CO_2

concentrations measured by CAE at the air heater outlet using EPA Method 3A and assuming a CO_2-based fuel factor of F_c = 1800 scf/mmBtu, per EPA Method 19 guidelines for bituminous coal). The one-minute stack CEM data from the test period, which were provided by AES and averaged by CONSOL to derive the values presented in Table 7, are included in Appendix E to this report.

Table 6. Summary of SO_2 Measurements at the Air Heater Outlet and Baghouse Outlet

Test No.	Date & Time (MM/DD/YY: hhmm-hhmm)	SO_2 Concentration, ppmvd @ 3% O_2		Removal, %
		Air Heater Outlet	Baghouse Outlet	
Test #1	03/29/07: 0959-1100	1854.76	103.89	94.40
Test #2	03/29/07: 1216-1317	1829.81	90.83	95.04
Test #3	03/29/07: 1513-1613	1837.92	132.12	92.81
	Average	1840.83	108.95	94.08

Table 7. Summary of SO_2 Emission Rates Measured by the Unit 4 Stack CEM and SO_2 Removal Efficiencies from the Air Heater Outlet to the Stack

Test No.	Date & Time (MM/DD/YY: hhmm-hhmm)	SO_2 Emission Rate, lb/mmBtu		Removal, %
		Air Heater Outlet[a]	Stack CEM[b]	
Test #1	03/29/07: 0959-1100	3.650	0.137	96.2
Test #2	03/29/07: 1216-1317	3.598	0.128	96.4
Test #3	03/29/07: 1513-1613	3.583	0.173	95.2
	Average	3.610	0.146	96.0

[a]Calculated by CONSOL R&D based on the average SO_2 and CO_2 concentrations at the air heater outlet reported by CAE for each test, and assuming a CO_2-based fuel factor of F_c = 1800 scf/mmBtu.
[b]Calculated by CONSOL R&D as the arithmetic mean of 1-minute CEM data provided by AES.

The three-test average SO_2 removal efficiency of 96.0% calculated using the unit's stack CEM as the measure of SO_2 emissions downstream of the baghouse is slightly greater than the three-test average removal efficiency of 94.1% calculated using the CAE measurements at the baghouse outlet as the measure of SO_2 emissions. The cause of this discrepancy is unknown. However, because the unit's permit limit for

SO_2 and the controls for the Turbosorp® system are both based on the SO_2 emission rate measured by the stack CEM, this emission rate was used to determine attainment of the performance target for SO_2 emissions.

Sulfur Trioxide

Sulfur trioxide was sampled at the air heater outlet and stack to determine the removal efficiency across the Turbosorp® system (including the baghouse). Three test runs were performed on March 29 at the air heater outlet (40-minute tests) and stack (60-minute tests). However, for all of these tests, in which SO_3 concentrations were determined by controlled condensation with $BaCl_2$ titration, results were likely biased by NH_3 interfering with the titration endpoint, as discussed in EPA Method 8. The data presented in Table 5 show that ammonia was present downstream of the SCR reactor during the March testing period. Hence, the results from the March 29 SO_3 tests, which are shown in Table 8 below, are considered to be invalid. (SO_3 concentrations at the air heater outlet were converted to a standard oxygen basis of 3% using O_2 concentrations measured by CONSOL R&D at the sampling train exhaust using a Teledyne Max V portable electrochemical O_2 analyzer. SO_3 concentrations at the stack were converted to a standard oxygen basis of 3% using O_2 concentrations calculated from the average CO_2 concentration measured by the plant's stack CEM during each test run and the ultimate analysis of coal samples collected during the tests).

To obtain valid results for SO_3 removal across the Turbosorp® system, CONSOL R&D repeated the tests for SO_3 at the air heater outlet and stack on May 2 using a modified procedure. To avoid possible NH_3 interference, the controlled condensation samples were analyzed by ion chromatography (IC) rather than by $BaCl_2$ titration. The use of IC was also expected to improve the sensitivity of the method for determining the low-level SO_3 concentrations encountered at the stack. To further improve the sensitivity and representativeness of the measurements, the sampling durations were increased to 60 minutes at the air heater outlet and to 90 minutes at the stack, and traverses were performed at both locations (sampling in March was conducted at a single point at each location). The results of the three test runs completed on May 2 are summarized in Table 8. (SO_3 concentrations at the stack were converted to a standard oxygen basis of 3% using O_2 concentrations calculated from the average CO_2 concentration measured by the plant's stack CEM during each test run and the ultimate analysis of coal samples collected during the tests. O_2 concentrations measured by CONSOL at the air heater outlet were anomalously greater than O_2 concentrations at the stack. This likely resulted from air in-leakage at the meterbox exhaust rather than from a leak in the sampling train, as pre- and post-test leak checks indicated no sampling train leaks. Hence, for the oxygen basis conversions, the O_2 concentration at the air heater outlet was assumed to equal that at the stack).

Table 8. Gas Phase SO_3 Concentrations at the Air Heater Outlet and Stack

Test No.	Date & Time (MM/DD/YY: hhmm-hhmm)	Gas Phase SO_3 Concentration, ppmvd @ 3% O_2	
		Air Heater Outlet	Stack
Test #1	03/29/07: 1000-1103	6.1[a]	2.4[a]
Test #2	03/29/07: 1220-1330	7.4[a]	2.3[a]
Test #3	03/29/07: 1515-1617	6.2[a]	2.3[a]
	Average Concentration	Invalid	Invalid
	Average Removal	Invalid	
Test #1	05/02/07: 1044-1215	25.5	0.8
Test #2	05/02/07: 1312-1443	28.7	0.8
Test #3	05/02/07: 1517-1648	25.4	0.7
	Average Concentration	26.5	0.8
	Average Removal	97.1%	

[a]Result considered to be invalid because of possible NH_3 interference.

In addition to the SO_3 measurements performed at the air heater outlet and stack, three SO_3 tests including simultaneous sampling at the SCR inlet and SCR outlet were conducted on March 30 in an attempt to evaluate SO_2-to-SO_3 conversion across the SCR catalyst. These results are invalid because of certain ammonia interference, however, and therefore they are not included in this report.

Hydrogen Chloride and Hydrogen Fluoride

Hydrogen chloride and hydrogen fluoride were sampled at the air heater outlet and stack to determine the removal efficiency for these components across the Turbosorp® system (including the baghouse). Three approximately 60-minute-long tests including simultaneous sampling at these locations were completed on March 29. The samples from the first test, however, were contaminated by residual hydrochloric acid that had been used to rinse the probes during previous mercury testing. Hence, the HCl concentrations determined during the first test are invalid. Moreover, HF concentrations determined at both locations during each of the three tests on March 29 were less than the method detection limit, making it impossible to calculate a removal efficiency.

To confirm the results of the March 29 testing, additional HCl and HF measurements were performed on May 4. Two approximately 60-minute-long test runs including simultaneous sampling at the air heater outlet and stack were performed. (A third test was planned, but it could not be completed because of combustion problems that forced a drop in unit load). Again, HF concentrations were less than the method detection limit at both the air heater outlet and the stack during each test run, preventing the determination of a removal efficiency.

Table 9 summarizes the results of the HCl and HF tests performed on March 29 and May 4. (HCl and HF concentrations at the air heater outlet were converted to a standard oxygen basis of 3% using O_2 concentrations measured by CONSOL at the sampling train exhaust using a Teledyne Max V portable electrochemical O_2 analyzer. HCl and HF concentrations at the stack were converted to a standard oxygen basis of 3% using O_2 concentrations calculated from the average CO_2 concentration measured by the plant's stack CEM during each test run and the ultimate analysis of coal samples collected during the tests).

Table 9. HCl and HF Concentrations at the Air Heater Outlet and Stack

Test No.	Date & Time (MM/DD/YY: hhmm-hhmm)	HCl Concentration, ppmvd @ 3% O_2		HF Concentration, ppmvd @ 3% O_2	
		Air Heater Outlet	Stack	Air Heater Outlet	Stack
Test #1	03/29/07: 1000-1125	216.1[a]	73.8[a]	<0.34	<0.20
Test #2	03/29/07: 1220-1344	36.0	2.8	<0.34	<0.23
Test #3	03/29/07: 1515-1637	38.6	1.1	<0.35	<0.21
Average Concentration		37.3[b]	1.9[b]	<0.34	<0.21
Average Removal		94.8%[b]		Indeterminate	
Test #1	05/04/07: 0831-0940	40.4	1.3	<0.25	<0.16
Test #2	05/04/07: 1015-1130	39.9	1.0	<0.21	<0.16
Average Concentration		40.1	1.1	<0.23	<0.16
Average Removal		97.2%		Indeterminate	

[a]Invalid result - sample contaminated by residual HCl in sample train. [b]Average of tests 2 and 3 only.

Mercury

Mercury measurements were performed at the air heater outlet and stack locations. Three approximately two-hour-long test runs including simultaneous sampling at these locations were performed on March 28, when the activated carbon injection system was not in service. This testing protocol was repeated on March 30, except that activated carbon was injected downstream of the air heater outlet sampling location (upstream of the Turbosorp® scrubber inlet) on that day. The mercury concentrations measured at each location on March 28 and March 30 are summarized in Tables 10 and 11, respectively. (Hg concentrations at the air heater outlet were converted to a standard oxygen basis of 3% using O_2 concentrations measured by CONSOL at the sampling train exhaust using a Teledyne Max V portable electrochemical O_2 analyzer. Hg concentrations at the stack were converted to a standard oxygen basis of 3% using O_2 concentrations calculated from the average CO_2 concentration measured by the plant's stack CEM during each test run and the ultimate analysis of coal samples collected during the tests).

As shown in Tables 10 and 11, the average total Hg concentrations measured at the air heater outlet were 10.06 μg/dscf on March 28 and 9.38 μg/dscf on March 30 (both concentrations corrected to 3% O_2). On both days, Hg concentrations at the stack were less than the analytical limit of detection. Thus, Hg removal efficiencies across the Turbosorp® system (including the baghouse) were >95.1% on March 28, when no activated carbon was being injected into the system, and >93.7% on March 30, when activated carbon was being injected.

Table 10. Summary of Mercury Measurements at the Air Heater Outlet and Stack – Testing Without Activated Carbon Injection

Air Heater Outlet				
Test No.	**1**	**2**	**3**	**Average**
Date/Time (MM/DD/YY: hhmm-hhmm)	03/28/07: 0905-1132	03/28/07: 1245-1502	03/28/07: 1558-1817	
Particulate Hg [μg/dscm @ 3% O_2]	5.32	3.72	4.89	4.64
Oxidized Hg [μg/dscm @ 3% O_2]	3.72	6.12	4.79	4.88
Elemental Hg [μg/dscm @ 3% O_2]	0.63	0.40	0.60	0.54
Total Hg [μg/dscm @ 3% O_2]	9.67	10.23	10.28	10.06
Stack				
Test No.	**1**	**2**	**3**	**Average**
Date/Time (MM/DD/YY: hhmm-hhmm)	03/28/07: 0910-1133	03/28/07: 1243-1507	03/28/07: 1600-1814	
Particulate Hg [μg/dscm @ 3% O_2]	0.00	0.00	0.00	0.00
Oxidized Hg [μg/dscm @ 3% O_2]	< 0.21	< 0.23	< 0.27	< 0.24
Elemental Hg [μg/dscm @ 3% O_2]	< 0.25	< 0.25	< 0.26	< 0.25
Total Hg [μg/dscm @ 3% O_2]	< 0.46	< 0.49	< 0.54	< 0.50

Table 11. Summary of Mercury Measurements at the Air Heater Outlet and Stack – Testing With Activated Carbon Injection

Air Heater Outlet				
Test No.	**4**	**5**	**6**	**Average**
Date/Time (MM/DD/YY: hhmm-hhmm)	03/30/07: 0855-1110	03/30/07: 1243-1502	03/30/07: 1552-1805	
Particulate Hg [μg/dscm @ 3% O_2]	4.41	4.83	4.13	4.46
Oxidized Hg [μg/dscm @ 3% O_2]	4.77	4.36	4.11	4.41
Elemental Hg [μg/dscm @ 3% O_2]	< 0.41	< 0.43	0.70	0.52
Total Hg [μg/dscm @ 3% O_2]	9.59	9.63	8.93	9.38
Stack				
Test No.	**4**	**5**	**6**	**Average**
Date/Time (MM/DD/YY: hhmm-hhmm)	03/30/07: 0855-1110	03/30/07: 1243-1454	03/30/07: 1552-1803	
Particulate Hg [μg/dscm @ 3% O_2]	0.00	0.00	0.00	0.00
Oxidized Hg [μg/dscm @ 3% O_2]	< 0.30	< 0.30	< 0.32	< 0.30
Elemental Hg [μg/dscm @ 3% O_2]	< 0.29	< 0.29	< 0.28	< 0.28
Total Hg [μg/dscm @ 3% O_2]	< 0.59	< 0.59	< 0.60	< 0.59

The results presented in Tables 10 and 11 include a breakdown of Hg concentrations by Hg species (i.e., particulate, oxidized, and elemental), as determined according to the Ontario Hydro method. However, these speciation results should be interpreted cautiously. Whereas total Hg concentrations determined using the Ontario Hydro method are expected to be reliable, even in high-dust locations, Hg speciation results determined using that method can be biased in high-dust locations by adsorption of Hg onto the fly ash collected on the sample filter or by reaction of Hg with the fly ash. This can lead to artificially high particulate and/or oxidized mercury concentrations, and artificially low elemental and/or oxidized mercury concentrations. (The direction of the bias in the oxidized mercury results depends upon the extent to which mercury is adsorbed as opposed to oxidized by the fly ash). Hence, it is likely that the mercury speciation observed at the air heater outlet, which included ~47% particulate Hg on average, was biased high relative to actual flue gas composition as a result of this artifact. The air heater outlet is a high-dust location, containing 2.2-2.5 gr/dscf of particulate matter, and the high unburned carbon content of the fly ash sampled there (15-21%) would tend to promote adsorption of gas-phase Hg onto the ash.

Table 12 summarizes the mercury removal efficiency of the multi-pollutant control system based on the total amount of Hg fed to the system in the coal and the total amount measured at the stack using the Ontario Hydro method. The amount of Hg in the coal was determined by laboratory analysis of coal samples collected during each test. Mercury mass flow rates determined at the stack by the Ontario Hydro method were converted to a heat input basis using average stack O_2 concentrations and O_2-based fuel factors (F_d) derived from the analysis of coal samples collected during each test.

Table 12. Summary of Coal-to-Stack Mercury Removal

No Activated Carbon Injection	Test #1	Test #2	Test #3	Average
Hg in coal [lb/TBtu]	7.34	8.19	6.86	7.46
Hg in flue gas leaving stack [lb/TBtu]	< 0.32	< 0.34	< 0.38	< 0.35
Hg removal, fuel-to-stack [%]	> 95.6	> 95.9	> 94.5	> 95.3
With Activated Carbon Injection	**Test #4**	**Test #5**	**Test #6**	**Average**
Hg in coal [lb/TBtu]	6.92	6.45	6.38	6.58
Hg in flue gas leaving stack [lb/TBtu]	< 0.40	< 0.41	< 0.42	< 0.41
Hg removal, fuel-to-stack [%]	> 94.2	> 93.7	> 93.5	> 93.8

SOLID AND LIQUID PROCESS SAMPLE ANALYSIS RESULTS

During the flue gas sampling on March 28-30 and May 1-4, various solid and liquid process samples were collected by AES Greenidge personnel for analysis. For the March 28-30 testing, these samples included coal, Turbosorp® hopper ash (i.e., fly ash collected in the hopper at the inlet to the Turbosorp® absorber vessel), Turbosorp®/baghouse product ash (i.e., the mixture of fly ash and solid scrubber products leaving the baghouse), pebble lime, hydrated lime, urea (sampled prior to dilution), and activated carbon. For the May 1-4 testing, these samples included coal and fly ash collected at the air heater outlet. The samples were analyzed by CONSOL R&D (or by CTL Group under subcontract to CONSOL) to determine various chemical and physical parameters specified in BPEI's Acceptance Test Procedure (Document 100276-100103100-01, dated March 22, 2007). Results are summarized in Tables 13-20. (Particle size distribution results for hydrated lime and Turbosorp®/baghouse product ash samples are presented in the CTL Group report that is included as Appendix B to this report, and trace element results for coal samples collected during testing on March 28-30 are presented in the laboratory analysis sheets that are included in Appendix D to this report). The methods used to analyze the process samples are described in the Experimental section of this report.

Table 13. Coal Sample Analysis Results

Analytical Number	20071795	20071796	20071797	20071798	20071814	20071815	20071816	20071829	20071830	20071831
Test Identification	TEST 1	TEST 2	TEST 3	TEST 3	TEST 1	TEST 2	TEST 3	TEST 1[b]	TEST 2[c]	TEST 3[d]
Date & Time[a]	3/28/2007 09:00-10:00	3/28/2007 13:00-14:00	3/28/2007 16:15	3/28/2007 18:25	3/29/2007 9:30	3/29/2007 13:30	3/29/2007 16:30	3/30/2007 9:05-10:35	3/30/2007 12:45-14:00	3/28/2007 15:45-16:45
Total Moisture, %	6.62	6.28	6.54	6.71	4.20	4.60	4.61	6.66	4.97	4.87
As Determined Moisture, %	1.31	1.29	1.43	1.41	1.75	1.61	1.70	1.30	1.69	1.50
Volatile Matter, % dry	39.95	39.95	39.92	40.20	39.78	40.36	39.66	40.30	40.32	40.45
Ash, % dry	8.58	8.36	7.99	8.00	8.08	8.54	7.99	7.92	8.18	8.23
Carbon, % dry	76.14	75.66	75.86	76.58	76.59	76.62	76.23	76.02	76.41	76.35
Hydrogen, % dry	5.12	5.04	5.01	5.01	4.86	4.93	4.97	4.98	4.83	4.91
Nitrogen, % dry	1.41	1.45	1.44	1.46	1.41	1.50	1.46	1.48	1.40	1.42
Sulfur, % dry	2.68	2.69	2.57	2.68	2.79	2.50	2.66	2.61	2.65	2.65
Chlorine, % dry	0.069	0.075	0.074	0.071	0.072	0.073	0.076	0.075	0.075	0.070
Mercury, ppm dry	0.101	0.113	0.097	0.094	0.116	0.097	0.108	0.097	0.090	0.089
Fluorine, ppm dry	66.77	67.07	70.61	65.52	63.51	63.83	66.23	59.27	69.47	67.51
Selenium, ppm dry	1.26	1.15	1.25	1.12	1.10	1.04	1.12	1.01	1.02	0.99
HHV, Btu/lb dry	13768	13799	13916	13939	13893	13838	13982	14015	13956	13948
Major Ash Elements, % of ash										
SiO_2	44.98	42.69	44.62	42.22	42.34	41.41	43.52	41.81	42.67	42.38
Al_2O_3	20.75	20.16	22.46	21.80	20.94	20.78	21.48	20.75	20.97	20.88
TiO_2	0.92	0.88	0.99	0.92	0.90	0.86	0.91	0.87	0.90	0.89
Fe_2O_3	20.51	22.46	20.52	20.84	23.67	18.98	23.20	21.95	21.39	21.46
CaO	4.98	5.29	4.59	5.71	4.59	8.19	4.28	6.42	5.59	4.99
MgO	0.85	0.85	0.92	1.36	1.12	1.06	0.86	0.95	0.98	0.94
Na_2O	0.80	0.76	0.81	0.86	0.81	0.82	0.83	0.87	0.84	0.86
K_2O	1.46	1.39	1.57	1.57	1.58	1.51	1.61	1.53	1.46	1.71
P_2O_5	0.36	0.38	0.48	0.37	0.34	0.37	0.40	0.37	0.38	0.37
SO_3	4.81	4.97	3.78	5.31	4.29	5.83	3.83	5.14	4.92	4.82

[a]If a range of times is listed, result is for a composite of samples collected at the beginning and end of the range. [b]Mercury Test #4. [c]Mercury Test #5. [d]Mercury Test #6.

Table 13. Coal Sample Analysis Results (continued)

Analytical Number	20072513	20072514	20072515	20072516	20072517	20072518	20072519	20072520	20072521
Test Identification	TEST 1	TEST 2	TEST 3	TEST 4	TEST 1	TEST 2	TEST 3	TEST 1	TEST 2
Date & Time	5/1/2007	5/1/2007	5/1/2007	5/1/2007	5/2/2007	5/2/2007	5/2/2007	5/4/2007	5/4/2007
Total Moisture, %	6.04	6.14	5.87	5.85	5.51	5.66	5.58	5.94	5.97
As Determined Moisture, %	1.26	1.32	1.26	1.20	1.19	1.16	1.30	1.30	1.32
Volatile Matter, % dry	40.81	41.02	41.11	41.07	41.30	41.37	41.27	41.39	41.31
Ash, % dry	8.64	8.95	8.53	8.71	8.53	8.75	9.04	8.60	8.85
Carbon, % dry	75.37	75.59	75.69	75.61	75.19	75.14	75.94	74.24	75.13
Hydrogen, % dry	5.26	5.01	5.00	5.26	5.12	4.84	4.94	4.83	5.01
Nitrogen, % dry	1.38	1.38	1.38	1.37	1.39	1.35	1.37	1.35	1.39
Sulfur, % dry	3.05	3.14	3.11	3.08	3.20	3.38	3.26	3.32	3.25
Chlorine, % dry	0.080	0.068	0.076	0.088	0.064	0.088	0.094	0.066	0.096
Mercury, ppm dry									
Fluorine, ppm dry									
Selenium, ppm dry									
HHV, Btu/lb dry	13796	13765	13818	13784	13819	13741	13685	13732	13762
Major Ash Elements, % of ash									
SiO_2	42.89	43.12	42.72	43.03	43.40	42.03	43.00	43.14	43.06
Al_2O_3	21.86	21.81	21.69	21.76	22.08	21.33	21.67	22.03	21.81
TiO_2	0.90	0.90	0.89	0.90	0.91	0.86	0.87	0.90	0.87
Fe_2O_3	21.64	21.37	20.91	19.69	20.48	22.42	19.99	21.13	20.24
CaO	4.98	4.87	4.58	4.45	4.36	4.42	5.17	4.77	4.99
MgO	0.81	0.79	0.79	0.81	0.78	0.76	0.87	0.83	0.81
Na_2O	0.79	0.80	0.79	0.99	0.76	0.88	1.20	0.75	0.99
K_2O	1.46	1.41	1.38	1.42	1.40	1.38	1.46	1.40	1.43
P_2O_5	0.26	0.27	0.24	0.24	0.25	0.23	0.25	0.27	0.24
SO_3	4.88	4.93	3.74	4.43	4.16	4.56	4.66	3.88	4.66

Table 14. Air Heater Outlet Fly Ash Sample Analysis Results

Analytical Number	20072522	20072523	20072524	20072525	20072526	20072527	20072528	20072529	20072530
Test Identification	TEST 1	TEST 2	TEST 3	TEST 4	TEST 1	TEST 2	TEST 3	TEST 1	TEST 2
Date & Time	5/1/2007	5/1/2007	5/1/2007	5/1/2007	5/2/2007	5/2/2007	5/2/2007	5/4/2007	5/4/2007
As Determined Moisture, %	0.20	1.07	1.08	0.38	0.17	0.11	0.79	0.19	0.91
Ash, % dry	77.06	83.09	84.20	80.32	75.73	74.67	79.08	78.76	80.01
Carbon, % dry	23.79	16.26	15.09	20.83	24.71	26.20	21.10	19.63	17.71
Sulfur, % dry	0.44	0.54	0.53	0.52	0.51	0.50	0.52	0.50	0.65
Chlorine, % dry	<0.0005	0.0138	0.0065	0.0041	0.0025	0.0018	0.0137	0.0023	0.0060
Major Ash Elements, % dry									
SiO_2	34.53	39.20	39.63	38.90	35.99	34.71	37.21	37.65	38.72
Al_2O_3	16.86	19.74	20.07	19.38	18.33	17.06	17.91	17.52	18.73
TiO_2	0.72	0.89	0.90	0.87	0.82	0.75	0.80	0.81	0.89
Fe_2O_3	14.85	14.74	14.87	15.29	16.16	16.49	14.82	14.86	12.99
CaO	3.72	3.90	4.07	4.01	3.85	3.75	4.12	4.17	4.23
MgO	0.61	0.73	0.75	0.69	0.65	0.60	0.71	0.70	0.76
Na_2O	0.62	0.78	0.79	0.71	0.67	0.64	0.72	0.68	0.75
K_2O	1.09	1.35	1.38	1.26	1.20	1.08	1.31	1.21	1.32
P_2O_5	0.15	0.22	0.21	0.18	0.18	0.14	0.19	0.16	0.18
SO_3	1.11	1.34	1.30	1.29	1.27	1.24	1.30	1.24	1.60

Table 15. Turbosorp® Hopper Ash Sample Analysis Results

Analytical Number	20071805	20071806	20071807	20071835	20071836	20071837
Test Identification	TEST 1	TEST 2	TEST 3	TEST 1[a]	TEST 2[b]	TEST 3[c]
Date & Time	MARCH 28 11:30	MARCH 28 16:00	MARCH 28 20:00	MARCH 30 10:00	MARCH 30 13:45	MARCH 30 16:45
As Determined Moisture, %	0.10	0.09	0.12	0.06	0.08	0.35
Ash, % dry	81.48	82.45	79.20	74.83	82.78	81.88
Carbon, % dry	19.10	17.99	21.20	26.38	16.36	17.48
Chlorine, % dry	0.027	0.018	0.016	0.023	0.016	0.018
Mercury, ppm dry	0.134	0.123	0.141	0.139	0.105	0.107
Fluorine, ppm dry	58.16	59.55	57.27	53.13	53.34	53.39
Major Ash Elements, % dry						
SiO_2	25.86	25.48	26.31	26.34	26.73	26.05
Al_2O_3	11.66	10.36	11.96	12.01	12.18	11.73
TiO_2	0.46	0.46	0.47	0.45	0.48	0.46
Fe_2O_3	37.54	40.28	32.91	29.96	34.00	34.54
CaO	4.91	7.06	5.10	5.46	8.09	7.04
MgO	0.46	0.54	0.49	0.48	0.54	0.52
Na_2O	0.38	0.31	0.38	0.42	0.42	0.40
K_2O	0.69	0.54	0.70	0.71	0.71	0.68
P_2O_5	0.28	0.35	0.32	0.28	0.26	0.25
SO_3	1.50	2.10	1.52	1.47	2.38	2.46

[a]Mercury test #4. [b]Mercury test #5. [c]Mercury test #6.

Table 16. Turbosorp®/Baghouse Product Ash Sample Analysis Results

Analytical Number	20071799	20071800	20071801	20071802	20071803	20071804
Test Identification	TEST 1	TEST 1	TEST 2	TEST 2	TEST 3	TEST 3
Date & Time	MARCH 28 10:00	MARCH 28 11:00	MARCH 28 14:00	MARCH 28 15:50	MARCH 28 17:15	MARCH 28 19:20
As Determined Moisture, %	0.79	0.91	0.65	0.80	0.75	0.84
Ash, % dry	84.57	84.58	84.37	84.77	84.78	84.75
Carbon, % dry	8.05	8.18	8.13	7.67	7.61	7.47
Chlorine, % dry	0.276	0.296	0.291	0.268	0.278	0.296
Mercury, ppm dry	0.346	0.347	0.360	0.367	0.363	0.372
Fluorine, ppm dry	80.74	92.54	83.95	83.06	87.36	91.17
Major Ash Elements, % dry						
SiO_2	12.28	12.18	11.85	11.65	11.82	11.37
Al_2O_3	6.08	6.06	5.93	5.85	5.94	5.71
TiO_2	0.26	0.26	0.25	0.25	0.26	0.25
Fe_2O_3	4.55	4.55	4.40	4.29	4.35	4.23
CaO	37.53	37.78	38.14	38.06	37.77	37.47
MgO	0.64	0.65	0.64	0.64	0.63	0.63
Na_2O	0.32	0.32	0.30	0.31	0.30	0.30
K_2O	0.45	0.45	0.43	0.43	0.43	0.44
P_2O_5	0.14	0.12	0.12	0.13	0.11	0.11
SO_3	22.79	22.79	23.11	23.16	23.16	22.62

Table 16. Turbosorp®/Baghouse Product Ash Sample Analysis Results (continued)

Analytical Number	20071817	20071818	20071819	20071832	20071833	20071834
Test Identification	TEST 1	TEST 2	TEST 3	TEST 1[a]	TEST 2[b]	TEST 3[c]
Date & Time	MARCH 29 9:30	MARCH 29 13:30	MARCH 29 16:30	MARCH 30 11:15	MARCH 30 13:45	MARCH 30 16:45
As Determined Moisture, %	0.98	0.98	0.66	0.56	0.63	0.51
Ash, % dry	83.72	84.23	83.30	83.24	83.64	83.69
Carbon, % dry	8.23	8.07	7.96	8.34	8.16	8.12
Chlorine, % dry	0.270	0.249	0.261	0.213	0.270	0.280
Mercury, ppm dry	0.369	0.377	0.395	0.379	0.349	0.352
Fluorine, ppm dry	79.58	76.45	72.58	91.81	82.12	80.31
Major Ash Elements, % dry						
SiO_2	12.41	12.06	12.03	12.93	12.59	12.12
Al_2O_3	6.17	6.05	6.06	6.61	6.28	6.06
TiO_2	0.26	0.26	0.26	0.29	0.27	0.26
Fe_2O_3	4.62	4.49	4.33	4.52	4.73	4.57
CaO	38.84	38.45	38.18	37.10	38.21	38.77
MgO	0.66	0.65	0.63	0.65	0.66	0.66
Na_2O	0.32	0.31	0.31	0.33	0.33	0.33
K_2O	0.46	0.45	0.44	0.48	0.48	0.47
P_2O_5	0.11	0.13	0.14	0.13	0.13	0.12
SO_3	21.14	21.90	21.91	20.92	21.57	21.84

[a] Mercury test #4. [b] Mercury test #5. [c] Mercury test #6.

Table 17. Pebble Lime Sample Analysis Results

Analytical Number	20071811	20071812	20071813	20071826	20071827	20071828	20071841	20071842	20071843
Test Identification	TEST 1	TEST 2	TEST 3	TEST 1	TEST 2	TEST 3	TEST 1[a]	TEST 2[b]	TEST 3[c]
Date & Time	3/28/2007 10:00	3/28/2007 14:30	3/28/2007 17:15	3/29/2007 9:30	3/29/2007 13:30	3/29/2007 16:30	3/30/2007 10:00	3/30/2007 13:45	3/30/2007 16:45
As Determined Moisture, %	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ash, % dry	97.74	95.88	98.69	97.87	97.51	96.01	97.95	98.11	99.08
Carbon, % dry	0.37	1.36	0.14	0.31	0.30	0.38	0.62	0.48	0.31
Mercury, ppm dry	<0.005	<0.005	<0.005				0.005	0.004	0.004
Available Lime, % as CaO	89.38[d,g]			88.07[e,g]			92.57[f,g]		
Slaking Rate, temperature rise in 30 sec., °C	32.0[d,g]			30.0[e,g]			33.0[f,g]		
Slaking Rate, temperature rise in 3 min., °C	52.0[d,g]			50.5[e,g]			52.0[f,g]		
Slaking Residue, %	0.97[d,g]			3.79[e,g]			2.06[f,g]		
Major Ash Elements, % dry									
SiO_2	1.06	1.07	0.98	1.03	1.61	1.33	0.65	1.81	2.34
Al_2O_3	0.48	0.49	0.48	0.54	0.49	0.43	0.44	0.46	0.46
TiO_2	0.02	0.02	0.02	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Fe_2O_3	0.20	0.25	0.21	0.23	0.21	0.19	0.18	0.18	0.18
CaO	95.22	91.37	96.28	95.21	96.64	95.51	96.09	95.10	95.17
MgO	1.11	2.88	1.04	1.04	1.05	0.10	0.96	0.95	0.99
Na_2O	0.08	0.06	0.08	0.05	0.09	0.08	0.06	0.05	0.06
K_2O	0.07	0.06	0.06	<0.03	0.07	0.06	0.04	0.03	<0.03
P_2O_5	0.01	0.01	0.01	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
SO_3	0.16	0.18	0.17	0.14	0.15	0.17	0.09	0.10	0.12

[a]Mercury test #4. [b]Mercury test #5. [c]Mercury test #6. [d]Composite of samples 20071811, 20071812, and 20071813. [e]Composite of samples 20071826, 20071827, and 20071828. [f]Composite of samples 20071841, 20071842, and 20071843. [g]Analysis performed by CTL Group.

Table 18. Hydrated Lime Sample Analysis Results

Analytical Number	20071808	20071809	20071810	20071823	20071824	20071825	20071838	20071839	20071840
Test Identification	TEST 1	TEST 2	TEST 3	TEST 1	TEST 2	TEST 3	TEST 1[a]	TEST 2[b]	TEST 3[c]
Date & Time	3/28/2007 11:00	3/28/2007 14:30	3/28/2007 17:00	3/29/2007 9:30	3/29/2007 13:30	3/29/2007 16:30	3/30/2007 10:00	3/30/2007 13:45	3/30/2007 16:45
As Determined Moisture, %	0.27	0.29	0.35	0.09	<0.01	<0.01	<0.01	<0.01	0.06
Ash, % dry	76.43	76.39	76.39	75.73	75.52	75.92	75.74	76.00	76.32
Carbon, % dry	0.32	0.30	0.32	0.44	0.58	0.42	0.39	0.45	0.39
Mercury, ppm dry	0.005	<0.005	<0.005				0.006	0.005	0.004
Apparent Density - Loose, lb/ft^3	22.32[d,g]			22.83[e,g]			22.14[f,g]		
Apparent Density - Packed, lb/ft^3	39.58[d,g]			37.17[e,g]			36.78[f,g]		
BET Surface Area, m^2/g	15.73[d,g]			17.29[e,g]			17.62[f,g]		
Major Ash Elements, % dry									
SiO_2	0.83	0.73	0.71	1.31	1.31	1.31	1.31	1.34	1.25
Al_2O_3	0.40	0.40	0.41	0.38	0.38	0.37	0.36	0.36	0.35
TiO_2	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
Fe_2O_3	0.16	0.16	0.16	0.14	0.18	0.14	0.16	0.14	0.14
CaO	75.45	74.30	74.19	70.01	69.05	70.83	70.94	71.24	71.27
MgO	0.82	0.82	0.81	0.80	0.80	0.81	0.80	0.80	0.80
Na_2O	0.08	0.07	0.07	0.01	0.02	0.02	0.03	0.02	0.02
K_2O	0.05	0.05	0.05	0.04	0.04	0.04	0.06	0.05	0.04
P_2O_5	0.01	0.01	0.01	0.01	0.02	0.01	0.01	<0.01	<0.03
SO_3	0.13	0.12	0.17	0.20	0.21	0.18	0.20	0.22	0.17

[a]Mercury test #4. [b]Mercury test #5. [c]Mercury test #6. [d]Composite of samples 20071808, 20071809, and 20071810. [e]Composite of samples 20071823, 20071824, and 20071825. [f]Composite of samples 20071838, 20071839, and 20071840. [g]Analysis performed by CTL Group.

Table 19. Activated Carbon Sample Analysis Results

Analytical Number	20071845	20071844
Test Identification	NA	NA
Date & Time	3/29/07 15:30	3/30/07 12:00
As Determined Moisture %	1.21	1.17
Volatile Matter, % dry	4.63	4.50
Ash, % dry	8.24	8.33
Carbon, % dry	90.95	90.66
Hydrogen, % dry	<0.01	<0.01
Nitrogen, % dry	0.37	0.40
Sulfur, % dry	0.37	0.39
Mercury, ppm dry	0.005	0.004
Major Ash Elements, % dry		
SiO_2	2.11	1.02
Al_2O_3	4.10	3.53
TiO_2	0.35	0.33
Fe_2O_3	13.52	13.27
CaO	40.93	39.96
MgO	19.20	20.14
Na_2O	4.04	5.80
K_2O	0.31	0.50
P_2O_5	0.03	<0.01
SO_3	16.20	14.61

Table 20. Urea Sample Analysis Results

Analytical Number	Sample Identification	pH	Hg, μg/L	TSS, mg/L	Ammonia, mg/L as N	Phosphate, mg/L	Density, g/cm^3
20071971	AES Greenidge Urea Composite 3/28/07	9.56	<0.35	<6	595	45.20	1.14
20071972	AES Greenidge Urea Composite 3/30/07	9.40	<0.35	<6	635	79.20	1.13

EXPERIMENTAL

Sampling Locations

Figure 1 presents a schematic showing the locations where flue gas sampling was conducted at AES Greenidge. These sampling locations are described below.

SCR Inlet

NO_x tests were conducted at the SCR inlet. The eastern wall of the SCR inlet duct is outfitted with four, four-inch flange ports, each of which contains six permanent sampling tubes. The six tubes installed through each of the four ports terminate at different depths in the duct, creating a 24-point grid of sample points covering the cross section of the duct. Clean Air Engineering performed NO_x testing using an automated sampling system that sequentially extracted samples from the grid points. Each of the 24 grid points was sampled for three, one-minute intervals during each test. Figure 2 presents a photograph of the SCR inlet NO_x sampling location and the CAE sampling setup. A diagram showing the locations of the SCR inlet grid sampling points is provided in the CAE report that is included as Appendix A to this report.

SCR Outlet

NO_x and NH_3 tests were conducted at the SCR outlet. The NH_3 samples were extracted from ports located on the eastern wall of the SCR outlet duct at the 498' level. The March 28 ammonia samples were drawn through the northernmost of the two four-inch ports at this location; the port was traversed to a depth of approximately 10 feet using three sample points. Figure 3 presents a photograph showing ammonia sampling at the SCR outlet. Each ammonia test was 60 minutes in duration. The ammonia samples collected on May 1 were drawn through both the northern and southern ports on the eastern wall of the SCR outlet duct; each port was sampled for 30 minutes per test using a three-point traverse to a depth of approximately 10 feet. All ammonia samples at the SCR outlet were drawn at an isokinetic sampling rate.

The eastern wall of the SCR outlet duct is also outfitted with four, four-inch flange ports, each of which contains six permanent sampling tubes. The six tubes installed through each of the four ports terminate at different depths in the duct, creating a 24-point grid of sample points covering the cross section of the duct. Clean Air Engineering performed NO_x testing using an automated sampling system that sequentially extracted samples from the grid points. Each of the 24 grid points was sampled for three, one-minute intervals during each test. A diagram showing the locations of the SCR outlet grid sampling points is provided in the CAE report that is included as Appendix A to this report.

Air Heater Inlet

Ammonia sampling at the air heater inlet was conducted through two ports located immediately upstream of the unit's air heaters. One port was located at approximately the center (horizontal dimension) of the south wall of the eastern air heater inlet duct, and the other port was located at approximately the center of the south wall of the western air heater inlet duct. Samples were drawn at a constant rate from a single point in each duct. Each 60-minute test consisted of 30 minutes of sampling in the eastern duct and 30 minutes of sampling in the western duct. Figure 4 presents a photograph of the air heater inlet sampling location.

Air Heater Outlet

SO_2, SO_3, HCl, HF, and Hg tests were conducted at the air heater outlet. Figure 5 presents a photograph of this location. For HCl, HF, and Hg sampling, traverses were performed through three ports located in the flue gas ductwork between the air heater outlet and the Turbosorp® inlet, just upstream of the activated carbon injection point. Each port was sampled at three points during the testing in late March and at four points during the testing in early May (if applicable), resulting in nine- and twelve-point traverses, respectively. Test durations were 55-63 minutes for HCl and HF, and 126 minutes for mercury. All HCl, HF, and mercury sampling was performed isokinetically.

For the March 29 testing, SO_3 samples were drawn at a constant rate from a single point in one port located in the air heater outlet duct, just upstream of the activated carbon injection point. Each SO_3 test at the air heater outlet on March 29 was 40 minutes in duration. For the May 2 testing, SO_3 samples were drawn via a twelve-point traverse, as described above for HCl and HF. The SO_3 sampling was performed at a constant rate, rather than isokinetically, however. Each SO_3 test at the air heater outlet on May 2 was 60 minutes in duration.

Sulfur dioxide samples were drawn from a single port located immediately downstream of the three ports described above. For the first two tests on March 29, the sample was drawn from a single point in this port. For the third test on that day, a three-point traverse was performed through the same port. Each SO_2 test was 60 minutes in duration.

Baghouse Outlet

Sulfur dioxide samples were also drawn from a single port located in the vertically-oriented ductwork between the baghouse outlet and the booster fan inlet. This sampling location is shown in Figure 6. For the first two tests on March 29, the sample was drawn from a single point in this port. For the third test on that day, a three-point traverse was performed through the same port. Each SO_2 test was 60 minutes in duration.

Stack

SO_3, HCl, HF, and Hg tests were conducted at the stack, which is shown in Figure 7. (As discussed above, measurements made by the unit's stack CEM were also used in determining attainment of the performance targets for NO_x and SO_2). For HCl, HF, and Hg sampling, traverses were performed through four ports located at the 83-foot level platform. Each port was sampled at four points during each test, resulting in a sixteen-point traverse, as shown in Figure 8. Test durations were 64 minutes for HCl and HF, and 120 minutes for mercury. All HCl, HF, and mercury sampling was performed isokinetically.

For the March 29 testing, SO_3 samples were drawn at a constant rate from a single point in one of the four ports at the 83-foot level. Each SO_3 test at the stack on March 29 was 60 minutes in duration. For the May 2 testing, SO_3 samples were drawn via a sixteen-point traverse, as described above for the other parameters. The SO_3 sampling was performed at a constant rate, rather than isokinetically, however. Each SO_3 test at the stack on May 2 was 90 minutes in duration.

Flue Gas Measurements

Oxides of Nitrogen

NO_x measurements at the SCR inlet and SCR outlet were performed by Clean Air Engineering using U.S. EPA Method 7E, modified to incorporate the use of CAE's Multipoint Automated Sampling System (MASS). A complete description of the methodology is provided in the CAE report that is included as Appendix A to this report. NO_x measurements at the stack were made using the unit's stack CEM.

Ammonia

Flue gas ammonia concentrations were measured in accordance with the procedures specified in U.S. EPA Conditional Test Method (CTM) 027. Because of space constraints at the sampling locations, however, complete isokinetic traverses could not be completed (as discussed above, sampling was conducted using an incomplete traverse at an isokinetic sampling rate at the SCR outlet and at a constant sampling rate at the air heater inlet), and a heated Teflon sample line had to be used to connect the sampling probe to the impingers. Given the presence of SO_2 and SO_3 in the flue gas and the temperature of the heated line (ca. 250 °F), some of the collected ammonia was expected to condense out of the sample stream as ammonium bisulfate in the Teflon line, before reaching the impingers. Hence, the contents of line were collected by rinsing with deionized water, and this line rinse was analyzed to account for the ammonia collected there. The sampling procedure is described in more detail below.

Samples were collected by pulling flue gas through a temperature-controlled quartz-lined probe and an in-stack filter assembly. The probe temperature was maintained at ca. 250 °F. Upon exiting the probe, the flue gas passed through a heated Teflon sample line (maintained at ca. 250 °F) to the impinger train, where it flowed through a series of chilled impingers. The first two impingers were Greenburg-Smith design, each containing 100 mL of a 0.1 normal (N) sulfuric acid (H_2SO_4) solution. The third impinger, also containing 0.1 N H_2SO_4, was a Greensburg-Smith with the tip removed and was used to evaluate NH_3 breakthrough. The final impinger, a Greensburg-Smith without the tip, was filled with approximately 200 g of silica desiccant for moisture removal. After exiting the impingers, the gas sample passed through a dry test meter where its volume was measured. The O_2 concentration in the gas exiting the dry test meter was monitored using a Teledyne Max V portable electrochemical O_2 analyzer.

Prior to sampling, the system was leak checked under a vacuum of approximately 10" of Hg. The sample probe was placed at the proper location in the sample port; the sample port opening was sealed, and gas was sampled for 40-60 minutes. The following data were recorded: (1) starting gas volume, (2) interval gas volume, (3) final gas volume, (4) probe temperature, (5) heated line temperature, (6) meter differential pressure setting, (7) dry test meter temperature, (8) system vacuum, (9) exit gas O_2 concentration, (10) barometric pressure, and (11) sampling time. Copies of the field data sheets are provided in Appendix C. After sampling, the probe was removed from the duct, leak checked under a vacuum equal to or greater than the highest vacuum observed during testing, and the train components were disassembled for sample recovery. The sample train components were recovered in the following manner:

Sample Probe and In-Stack Filter Assembly - The quartz probe liner was rinsed with deionized water, and the rinse was collected in an approved sample container. The filter was collected, but not analyzed, and the filter assembly was cleaned with deionized water. (The filter assembly rinse was not recovered). The probe rinse was diluted to a known volume and kept refrigerated prior to analysis.

Heated line - The heated Teflon line was rinsed with deionized water, and the rinse was collected in an approved sample container. The rinse was then diluted to a known volume and kept refrigerated prior to analysis.

Impingers - The contents of the first three impingers and connecting glassware (including rinses of these sample train components with deionized water) were collected in approved sample containers. These samples were then diluted to known volumes and kept refrigerated prior to analysis.

Samples were analyzed for ammonium ion by ion chromatography per CTM 027. The concentration of ammonia in the flue gas was calculated based on the mass of ammonium ion collected (sum of masses determined in the probe, heated line, and impingers) and the volume of flue gas sampled during the test.

Sulfur Dioxide

SO_2 measurements at the air heater outlet and baghouse outlet were performed by Clean Air Engineering using U.S. EPA Method 6C. A complete description of the methodology is provided in the CAE report that is included as Appendix A to this report. SO_2 measurements at the stack were made using the unit's stack CEM.

Sulfur Trioxide

Flue gas SO_3 concentrations were determined using a controlled condensation method originally developed by the U.S. EPA and modified by CONSOL R&D. In this method, flue gas is pulled through a temperature-controlled quartz-lined probe that is fitted with a quartz wool plug to remove particulate matter. The probe temperature is maintained at ca. 550 °F to minimize SO_3 condensation and SO_2 oxidation. After the filter, the gas sample passes through a 140 °F, temperature-controlled condenser that is loosely packed with glass wool. Essentially all of the SO_3 is collected in the condenser. The sample gas exits the condenser and enters a series of miniature impingers. The first two impingers contain a 3% H_2O_2 solution, which captures the SO_2. The gas next passes through an empty impinger, and finally through a silica gel-filled impinger for moisture removal. The gas is then conveyed through a rotameter, a vacuum pump, and a dry test meter. The O_2 concentration in the gas exiting the dry test meter is monitored using a Teledyne Max V portable electrochemical O_2 analyzer.

Prior to sampling, the system is leak checked under a vacuum of 10" of Hg. The sample probe is then positioned at the proper location and gas is sampled for at least 30 minutes. The following data are recorded: (1) starting gas volume, (2) interval gas volume, (3) final gas volume, (4) probe temperature, (5) condenser temperature, (6) water bath temperature, (7) flue gas duct temperature, (8) dry test meter temperature, (9) flow meter setting, (10) system vacuum, (11) exit gas O_2 concentration, (12) barometric pressure, and (13) sampling time. Copies of the field data sheets are provided in Appendix C. After sampling, the probe is removed from the duct, leak checked under a vacuum of 10" of Hg, purged with ambient air for 10 minutes, and the train components are disassembled for sample recovery.

During the SO_3 tests on March 29, the sample train components were recovered using isopropyl alcohol (IPA) rinses and analyzed by $BaCl_2$ titration in the conventional way. The quartz plug was removed from the probe tip, placed in a glass bottle, and extracted with 20 mL of isopropyl alcohol . The solids were filtered and the filtrate was diluted to a known volume prior to analysis. The quartz probe liner was rinsed with IPA into a glass bottle and diluted to a known volume. The condenser interior was also rinsed (via three complete rinses) with IPA into a glass bottle and the rinses were diluted to a known volume prior to analysis. Each of these samples was analyzed by a $BaCl_2$ titration to a thorin endpoint as described in EPA Method 6. A blank IPA sample was titrated with the same $BaCl_2$ titrant for comparison. The quartz plug contains SO_3 that was absorbed onto the solid particles prior to collection in the sampling train. The gas phase SO_3 value is the sum of the probe and condenser rinses. In most cases, the majority of the gas phase SO_3 is found in the condenser rinse. The SO_3 values are reported in ppmvd at duct conditions and at 3% oxygen. For the testing at AES Greenidge, the contents of the miniature impingers were not analyzed, because SO_2 concentrations were measured using continuous emission monitors.

As discussed earlier in this report, it is possible that ammonia in the sampled flue gas interfered with the $BaCl_2$ titrations for some or all of the SO_3 samples collected on March 29, potentially biasing the results. Therefore, to avoid possible NH_3 interference, the SO_3 samples collected on May 2 were analyzed by ion chromatography rather than by $BaCl_2$ titration. IPA poses a problem for the IC analysis; hence, samples were recovered using deionized water instead of IPA.

Hydrogen Chloride and Hydrogen Fluoride

Flue gas acid gas measurements were obtained using a combined U.S. EPA Method 17/26A sampling train. In this method, gas is extracted isokinetically from the flue gas stream through an in-stack filter assembly, heated glass-lined probe, and heated sample line. Probe and line temperatures are maintained at ~250 °F.

The flue gas exits the sample line and passes through a series of chilled impingers. The first two impingers are Greenburg-Smith design, each containing 100 mL of a 0.1 normal sulfuric acid (H_2SO_4) solution that collects the hydrogen halide portion of the sample, which is solubilized in the acidic solution and forms chloride (Cl^-) and fluoride (F^-) ions. Because reductions in emissions of Cl_2 and F_2 were not targeted in the program at AES Greenidge, the Method 26A impinger train was altered to exclude the impingers specified for capturing those compounds. The next impinger is initially empty to catch any excess moisture. The gas exits the impinger train through a silica gel-filled impinger that removes uncondensed moisture from the sample gas.

The sampling train design results in the following collection sequence:

Sampling Train Component	Species Measured
Probe and Sample Line Rinse	HCl & HF
Impingers	HCl & HF

Sampling was performed isokinetically. Oxygen readings were monitored at the outlet of the sampling train using a Teledyne Model Max V portable electrochemical O_2 analyzer. Copies of the field data sheets are provided in Appendix C. The Cl^- and F^- concentrations of the impinger solutions were determined by ion chromatography as specified in EPA Method 26A. Copies of the laboratory analyses are provided in Appendix D.

Mercury

Flue gas mercury measurements were performed using the Ontario-Hydro Hg speciation method (ASTM D 6784-02). Gas was extracted isokinetically from the flue gas stream through an in-stack filter assembly, heated glass-lined probe, and heated sample line. Mercury collected in the filter is assumed to be particle-bound Hg (Hg^{part}). The flue gas exits the sample line and passes through a series of chilled impingers. The first three impingers are filled with 100 mL of a 1 M potassium chloride (KCl) solution. Mercury captured in these impingers and in the probe and sample line, which are rinsed with HNO_3 and HCl, is reported as oxidized Hg (Hg^{++}). The next impinger is filled with 100 mL of 5% nitric acid and 10% H_2O_2 solution to remove SO_2 from the flue gas and preserve the oxidizing strength of the subsequent permanganate impingers. The next two impingers are filled with 100 mL of an acidic potassium permanganate ($KMnO_4$) solution. Mercury captured in the nitric acid impinger and the potassium permanganate impingers is reported as elemental mercury (Hg^0). The next impinger is blank to catch any excess moisture. The gas exits the impinger train through a silica gel-filled impinger that removes uncondensed moisture from the sample gas.

Oxygen readings were monitored at the outlet of the sampling train using a Teledyne Max V portable electrochemical O_2 analyzer. Copies of the field data sheets are provided in Appendix C.

The Hg concentration of the individual impinger solutions and sampling component rinses was determined by cold vapor atomic absorption spectroscopy (CVAA) as specified in the Ontario-Hydro Method. Analyses were conducted using a Thermo

Unicam 969 CVAA. The concentration of Hg on the filter solids was determined according to the procedures described in ASTM D 6414 or ASTM D 6722.

Solid and Liquid Process Sample Analyses

Solid and liquid process samples were analyzed using the following methods:

ASTM D 2013 Preparing Coal Samples for Analysis. This standard practice covers the reduction and division of gross or divided samples up to and including the individual portions used for laboratory analysis.

ASTM D 5142 Proximate Analysis of the Analysis Sample of Coal and Coke by Instrumental Procedures. Moisture, volatile matter and ash are determined sequentially in a single instrumental procedure by establishing the loss in mass of the analysis specimen when heated under rigidly controlled conditions of temperature, time, atmosphere, and specimen mass.

ASTM D 5373 Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Laboratory Samples of Coal and Coke. Carbon, Hydrogen, and Nitrogen are determined concurrently in a single instrumental procedure. The conversion of the subject materials in each sample occurs during combustion of the sample at an elevated temperature in an atmosphere of purified oxygen.

ASTM D 4239 Sulfur in the Analysis Sample of Coal and Coke Using High-Temperature Combustion and Infrared Absorption. The test specimen is heated in a tube furnace in a stream of oxygen to oxidize the sulfur to sulfur dioxide. The gas stream containing the sulfur dioxide is passed through a cell where it is measured at a precise wavelength by an infrared absorption detector.

ASTM D 5865 Gross Calorific Value of Coal and Coke. A weighed sample of coal is burned under controlled conditions in an oxygen bomb calorimeter. The higher heating value is calculated from the temperature rise of the water in the calorimeter vessel and the effective heat capacity of the system. Corrections are made for the heat released by the ignition of the fuse and the thermochemical reactions forming nitric and sulfuric acids.

ASTM D 6721 Determination of Chlorine by Oxidative Hydrolysis Microcoulometry. A weighed sample is combusted with tungsten accelerator in a humidified oxygen gas flow, at 900 °C. Halogens are oxidized and converted to hydrogenated halides, which are flushed into a titration cell where they accumulate. Chlorine is converted to hydrochloric acid. Once the chloride is captured in the electrolyte of the titration cell, it can be quantitatively determined by microcoulometry.

ASTM D 6349 Determination of Major and Minor Elements in Coal, Coke, and Solid Residues from Combustion of Coal and Coke by Inductively Coupled Plasma-Atomic Emission Spectrometry. The sample to be analyzed is ashed under standard conditions and ignited to a constant weight. The ash is digested in a mixture of hydrofluoric, nitric, and hydrochloric acids. The solution is then analyzed by ICP-AES, in which characteristic line emission spectra are produced by a radio-frequency inductively coupled plasma. The intensity of these emissions is proportional to the concentration of analyte in the sample.

ASTM D 3302 Standard Test Method for Total Moisture in Coal. All of the moisture in and on a sample of coal is determined based on the loss of weight in a coal sample in an air atmosphere under rigidly controlled conditions of temperature, time, and air flow.

ASTM D 5987 Total Fluorine in Coal and Coke by Pyrohydrolytic Extraction and Ion Chromatography. A weighed sample is subjected to pyrohydrolytic combustion conditions. Fluorine is quantitatively released from the sample matrix and retained in the pyrohydrolysate that is gravimetrically processed. The total concentration in the sample is then determined by ion chromatography.

ASTM D 6722 Total Mercury in Coal and Coal Combustion Residues by Direct Combustion Analysis. The analysis sample is heated under oxidative conditions and chemically decomposed. Flowing oxygen carries the decomposition products to a gold amalgamator that selectively traps mercury. The amalgamator is rapidly heated, releasing mercury vapor that is carried through an atomic absorption sprectrophotometer. Mercury concentration is measured as a function of absorbance peak area.

ASTM D 5967 Digestion with ASTM D 6357 Analysis for the Determination of Se. A weighed sample is subjected to pyrohydrolytic combustion conditions. Selenium is quantitatively released from the sample matrix and subsequently analyzed by inductively coupled plasma mass spectrometry (ICPMS).

SM 4500-H B for the Determination of pH. The activity of hydrogen ions is determined by potentiometric measurement using a standard hydrogen electrode and a reference electrode.

SM 2540D for the Determination of Total Suspended Solids. A well mixed sample is filtered through a weighed standard glass-fiber filter and the residue retained on the filter is dried to a constant weight. The increase in the weight of the filter represents the total suspended solids.

SM 4500-NH3 E for the Determination of Ammonia. An ammonia selective electrode equipped with a hydrophobic gas permeable membrane separates the sample solution from an electrode internal solution of ammonium chloride. Ammonia diffuses through the membrane and potentiometric measurements are subsequently made by an ion selective electrode.

SM 3112B for the Determination of Mercury. The mercury in an aqueous sample is reduced to vaporous elemental mercury and is determined by cold vapor atomic absorption or by cold vapor atomic fluorescence.

SM 4110B for the Determination of Anions by Ion Chromatography. Phosphate in a portion of test solution is determined by ion chromatography with chemical suppression of eluent conductivity.

Density using the Paar Digital Density Meter DMA35. The sample is passed through a vibrating tube. The sample density is proportional to the period of vibration in the tube.

In addition to the methods listed above, which were used by CONSOL R&D to analyze solid and liquid process samples, CTL Group analyzed pebble lime, hydrated lime, and Turbosorp®/baghouse product ash samples by the following methods (see Appendix B for additional details):

<u>Pebble Lime</u>	
Available CaO	ASTM C 25, Section 28
Slaking Rate / Residue	ASTM C 110-05, Section 11
<u>Hydrated Lime</u>	
Density	ASTM C 110, Sections 19 and 20
Particle Size Distribution	Laser Diffraction (wet dispersion in isopropanol)
Surface Area	BET (N_2, single point)
<u>Product Ash</u>	
Particle Size Distribution	Laser Diffraction (wet dispersion in isopropanol)

QUALITY ASSURANCE AND QUALITY CONTROL

Test Equipment

The CONSOL field sampling team uses standard EPA-type sampling equipment. The majority of the equipment used in the manual sampling methods was obtained from Thermo-Andersen (formerly known as Andersen Instruments, Graseby-Nutech, and Nutech) and conforms to all applicable test codes. CONSOL used a Mettler electronic balance for pre- and post-test dust weights. This balance is checked daily with class "S" calibration weights.

All sampling trains were leak checked prior to each test and again at the end of each test. All sample trains, with the exception of CTM 027 sample trains, were purged with air for ten minutes and then disassembled and transported to the lab trailer for recovery.

A Teledyne Max V portable gas analyzer was used for determining flue gas composition at the sample train discharge. The meter operator uses the readings to assess the operation of the sampling train and the unit operation. Past experience has indicated the accuracy of the oxygen determination by this analyzer is equal to or better than that of a manual Orsat analyzer.

Oxides of Nitrogen Measurements

Quality assurance / quality control information for the NO_x measurements at the SCR inlet and outlet is provided in the Clean Air Engineering report that is included as Appendix A to this report.

Ammonia Measurements

Although not required by method, samples were run in duplicate by ion chromatography. The average result for each sample was reported. In all cases, the duplicate results had a relative percent difference of ≤10%. An independent quality control standard with a concentration of approximately the midpoint of the calibration curve range was run immediately after calibration and after every 10 samples. In all cases, recovery of the quality control standard was between 90% and 110%. One sample per batch was spiked at 2 mg/L NH_3 as N to assess any possible matrix issues; none were discovered. Blank samples of the deionized water and 0.1 N H_2SO_4 reagents used for sample recovery were also run to confirm that their ammonia content was less than the analytical limit of detection (0.1 mg/L NH_3 as N).

Sulfur Dioxide Measurements

Quality assurance / quality control information for the SO_2 measurements at the air heater outlet and baghouse outlet is provided in the Clean Air Engineering Report that is included as Appendix A to this report.

Sulfur Trioxide Measurements

For the IC analyses, immediately after calibration of the ion chromatograph, an independent calibration verification (ICV) sample was analyzed in duplicate. Recovery of the ICV sample met the 100±10% criterion, and the duplicate results had a relative percent difference of ≤5%. An independent, secondary QC standard was analyzed in duplicate after every 10^{th} sample. In all cases, recovery of the secondary QC standard was 100±10%, and replicate results agreed within 5%. All samples were run in duplicate. If duplicate results were within 5% of each other, then the average of the duplicates was reported. If results did not agree within 5%, the samples were run again in duplicate and the average of the four replicates was reported. A blank sample of the deionized water used for sample recovery was also included in the run to verify that background SO_4^{2-} concentrations were low.

Hydrogen Chloride and Hydrogen Fluoride Measurements

HCl and HF samples were analyzed per EPA Method 26A. Immediately after calibration of the ion chromatograph, an ICV sample was analyzed in duplicate. Recovery was 100±10% for both Cl^- and F^-, and the duplicate results had relative percent differences of ≤5% for both species. An independent, secondary QC sample was analyzed in duplicate after every 10 samples. In all cases, recovery of Cl^- and F^- in the secondary QC standard was 100±10%, and replicate results agreed within 5%. All samples were run in duplicate. If duplicate results agreed within 5%, then the average of the duplicates was reported. If results were not within 5% of one another, the samples were run again in duplicate and the average of the 4 replicates was reported, per Method 26A. Although not required by method, one sample per batch was spiked at 2 mg/L Cl^- and 2 mg/L F^- to assess any possible matrix issues; none were discovered. A blank sample of the 0.1 N H_2SO_4 impinger solution was also analyzed by ion chromatography. Any blank value in excess of the detection limit (0.2 mg/L for both Cl^- and F^-) was subtracted from the HCl or HF analysis results, as permitted by EPA Method 26A.

Mercury Measurements

Samples were prepared and analyzed as outlined in ASTM D 6784-02 (Ontario Hydro Method). Analysis was completed on a Thermo Unicam 969 CVAA, which has a detection limit of 0.14 µg/L. R^2 values for all instrument calibration curves were >0.999. An independent calibration verification sample, NIST SRM 1641D, prepared to an Hg concentration of 4.0 µg/L, was analyzed immediately after calibration. If recovery of Hg in the ICV was not within 100±10%, then the analyzer was re-calibrated before proceeding. The ICV was reanalyzed after every 10^{th} sample; if it did not satisfy the 100±10% criterion, then the run was stopped, the analyzer was recalibrated, and the affected samples were reanalyzed. All samples were run in duplicate with an acceptance criterion of 10% relative percent difference. (Four samples were slightly above 10% RPD). One in 10 samples was analyzed in triplicate with an acceptance criterion of 10% relative standard deviation. Matrix spikes were included at a 1-in-10 sample frequency with an acceptance criterion of 100±10% spike recovery. Although not required by ASTM D 6784-02, (3) digestion duplicates and (3) digestion spikes were included to assess the efficiency of the digestions.

Particulate-impregnated filters and blank filter thimbles were digested according to ASTM D 6414 and then analyzed in duplicate with an acceptance criterion of 10% relative percent difference. Matrix spikes were included at a 1-in-10 sample frequency, with an acceptance criterion of 100±10% spike recovery. NIST SRM 1633B was digested and analyzed with the batch of filters; recovery of Hg in the SRM was required to be 100±10%. Loose particulate from filter thimbles was analyzed according to ASTM D 6722. One out of every ten samples was analyzed in duplicate with an acceptance criterion of 10% relative percent difference. Again, a sample of NIST SRM 1633B was analyzed with the batch of samples; 100±10% recovery of Hg in the SRM was required.

Mercury Material Balance

Mercury material balances were performed to confirm the quality of the mercury measurements made on March 28 and 30. These material balances, which were performed independently for each test run, compare the total amount of mercury leaving the process during the test with the total amount of mercury entering the process during the test. The mercury material balance closure is the total mercury output from the process divided by the total mercury input, expressed as a percentage.

For AES Greenidge Unit 4, potential mercury input streams include the coal, urea, activated carbon (on March 30), process water, and hydrated lime. Potential mercury output streams include the bottom ash, Turbosorp® hopper ash, Turbosorp®/baghouse product ash, and stack flue gas.

For purposes of the Hg material balances, the amount of mercury entering or exiting the process via the urea, activated carbon, process water, bottom ash, and Turbosorp® hopper ash streams was assumed to be negligible. Based on mercury concentrations determined in the urea samples that were collected during each of the mercury tests performed on March 28 and 30 (all less than the analytical detection limit of 0.35 μg/L) and the average urea feed rate recorded by the plant during these test periods (47 gal/h, or 178 L/h), the urea contributed less than 0.01% of the total Hg input to the process. The activated carbon also contributed less than 0.01% of the total Hg input, based on the Hg concentration of 0.005 ppm determined in activated carbon samples collected during testing and on the design carbon injection rate of 89 lb/h. Process water samples were not collected during the tests on March 28 and 30. However, even if the Hg concentration in the process water equaled the EPA drinking water standard of 2 μg/L (likely a high estimate), the process water would have contributed less than 2% of the total Hg input to the process, assuming the design process water flow rate of 121 gal/h (combination of urea dilution water and water injected into the Turbosorp® system). Bottom ash samples also were not collected during the testing on March 28 and 30; hence, the exact Hg content of the bottom ash is not known. However, during baseline testing at AES Greenidge in November 2004, the bottom ash contained less than 0.1% of the total Hg output from the unit. Finally, the flow rate of ash leaving the Turbosorp® hopper is not known, but it is insignificant relative to the flow rate of Turbosorp®/baghouse product ash leaving the process. The concentration of Hg in the Turbosorp® hopper ash was also only about 35% as great as that in the Turbosorp®/baghouse product ash. Hence, it is reasonable to assume that the urea, activated carbon, process water, bottom ash, and Turbosorp® hopper ash were not significant sources or sinks of mercury.

Methods used to measure or estimate the amount of mercury fed to or removed from the system via the remaining process streams are summarized below.

<u>Mercury Input from Coal</u>

Coal feed rates during the tests were recorded and provided by the plant. Coal samples were collected at approximately the beginning and middle of each test; the samples from each test were composited and analyzed for mercury. The mercury input from coal was computed as the product of the coal feed rate and the mercury concentration in the coal.

<u>Mercury Input from Hydrated Lime</u>

The mass flow rate of hydrated lime being fed to the Turbosorp® absorber vessel was estimated for each test by performing a calcium balance around the Turbosorp® system. The mass flow rate of Ca entering the Turbosorp® system via the fly ash was estimated from the coal feed rate, coal ash content, and coal ash composition; per the assumptions made during baseline testing, which were based on historic plant data, we assumed that 90.5% of the coal ash is converted to fly ash. The mass flow rate of Ca exiting the Turbosorp® system via the product ash was estimated from the product ash mass flow rate (estimated as described below) and the Ca content of the product ash sample(s) collected during the test. The required mass flow rate of Ca in the hydrated lime stream was then calculated by subtracting the flow rate of Ca in the fly ash stream from the flow rate of Ca in the product ash stream, and the total mass flow rate of hydrated lime was computed by dividing this result by the weight percentage of Ca determined in the hydrated lime sample collected during the test. To compute the mercury input from hydrated lime, the mercury concentration determined in the hydrated lime sample was multiplied by the estimated hydrated lime mass flow rate.

Mercury Output via Product Ash

The mass flow rate of Turbosorp®/baghouse product ash being discharged from the process was estimated for each test by performing a sulfur balance around the Turbosorp® system. The mass flow rate of sulfur entering the Turbosorp® system was estimated from the coal feed rate and coal sulfur content measured during the test, and the mass flow rate of sulfur exiting the system via the stack flue gas was calculated using the average stack flue gas flow rate and SO_2 concentration measured during the test. (SO_2 concentrations were obtained from the plant's stack CEM, and flue gas flow rates were computed as the average of values measured by the stack CEM and by CONSOL as part of the Ontario Hydro method. Plant flow rate measurements were converted to a dry basis using flue gas moisture concentrations determined as part of the Ontario Hydro method). The required mass flow rate of sulfur in the product ash stream was then calculated by subtracting the flow rate of sulfur in the stack flue gas stream from the flow rate of sulfur entering the Turbosorp® system, and the total mass flow rate of product ash was computed by dividing this result by the weight percentage of sulfur determined in the product ash sample(s) collected during the test. To compute the mercury output via product ash, the mercury concentration determined in the product ash sample(s) was multiplied by the estimated product ash mass flow rate.

Mercury Output via Stack Flue Gas

The mercury output via the stack flue gas was measured using the Ontario Hydro method. For all tests, the concentration of mercury in the flue gas was less than the detection limit of the method; for purposes of the Hg material balances, the Hg concentration was assumed to be equal to the detection limit value.

Mercury material balance results for the tests conducted on March 28 and March 30 are summarized in Tables 21 and 22, respectively. For the tests performed on March 28, during which no activated carbon was being injected into the system, the material balance closures ranged from 93-109% for the individual tests, with a three-test average of 101%. For the tests performed on March 30, during which activated carbon was being injected into the system, the material balance closures ranged from 119-121% for the individual tests, with a three-test average of 120%. CONSOL's QA/QC criterion for material balance closure for a single test is 100±30%. The criterion for a three-test average is 100±20%. Hence, all of the tests on both days satisfied these criteria.

Table 21. Summary of Material Balance Closure for Hg Measurements Performed on March 28, 2007

CONSOL Test No.	1	2	3	Average
Hg Input from Coal (lb/h)	7.45E-03	8.30E-03	7.01E-03	7.59E-03
Hg Input from Hydrated Lime (lb/h)	4.98E-05	5.03E-05	4.85E-05	4.95E-05
Total Hg Input (lb/h)	7.50E-03	8.35E-03	7.05E-03	7.63E-03
Hg Output in Product Ash (lb/h)	7.18E-03	7.42E-03	7.29E-03	7.30E-03
Hg Output in Stack Gas (lb/h)	3.41E-04[a]	3.59E-04[a]	3.89E-04[a]	3.63E-04[a]
Total Hg Output (lb/h)	7.52E-03	7.77E-03	7.68E-03	7.66E-03
Hg Material Balance Closure (output / input) =	100%	93%	109%	101%

[a]Measured to be less than detection limit; for this calculation, assumed to equal detection limit.

Table 22. Summary of Material Balance Closure for Hg Measurements Performed on March 30, 2007

CONSOL Test No.	4	5	6	Average
Hg Input from Coal (lb/h)	7.23E-03	6.79E-03	6.64E-03	6.88E-03
Hg Input from Hydrated Lime (lb/h)	6.54E-05	5.73E-05	4.63E-05	5.61E-05
Total Hg Input (lb/h)	7.29E-03	6.84E-03	6.68E-03	6.94E-03
Hg Output in Product Ash (lb/h)	8.25E-03	7.74E-03	7.63E-03	7.88E-03
Hg Output in Stack Gas (lb/h)	4.08E-04[a]	4.19E-04[a]	4.31E-04[a]	4.19E-04[a]
Total Hg Output (lb/h)	8.66E-03	8.16E-03	8.06E-03	8.29E-03
Hg Material Balance Closure (output / input) =	119%	119%	121%	120%

[a]Measured to be less than detection limit; for this calculation, assumed to equal detection limit.

The March 30 tests, however, exhibited a consistent positive deviation from 100% closure and narrowly satisfied the criterion for a three-test average. For each of the tests conducted that day, the calculated amount of Hg exiting the system was about 20% greater than the calculated amount of Hg entering the system. This deviation from 100% closure could have arisen partially from the assumption that the concentration of Hg in the stack flue gas equaled the detection limit of the Ontario

Hydro method during the tests. If it is assumed that the Hg concentration in the stack gas was zero (rather than the detection limit value of ~0.6 $\mu g/m^3$), then the three-test average closure decreases to 114%. This is still insufficient to fully account for the positive deviation from 100% closure, however. Hence, it is likely that this deviation is attributable to an overestimation of the product ash mass flow rate, which could have resulted from errors in one or more of the measurements (i.e., coal sulfur content, coal feed rate, stack SO_2 concentration, stack flow rate, stack moisture, product ash sulfur content) used to estimate this flow rate. Material balances were performed for SiO_2 and Al_2O_3 using the same assumptions that were used for the Hg material balances. The three-test average closures on March 30 were 111% for SiO_2 and 117% for Al_2O_3, consistent with the results for Hg. (For comparison, the three-test average closures for the March 28 tests were 97% for SiO_2 and 100% for Al_2O_3). This supports the notion that the deviation from 100% closure resulted from a misestimation of the flow rate of one or more process streams, rather than from an error in the mercury concentration measurements.

The Hg material balance closure results presented in Tables 21 and 22 provide no information about the quality of the Hg concentrations measured at the air heater outlet using the Ontario Hydro method. Under the assumption that the amount of Hg exiting the system via the bottom ash is negligible, the mass flow rate of Hg at the air heater outlet should approximately equal the mass flow rate of Hg in the coal. Tables 23 and 24 compare these flow rates for the tests that were conducted on March 28 and March 30, respectively. For all of the tests conducted on both days, the mass flow rate of Hg measured at the air heater outlet agreed with the mass flow rate of Hg in the coal to within ±8%, lending support to the quality of the measurements.

Table 23. Comparison of Hg Mass Flow Rates in the Coal and at the Air Heater Outlet for Hg Measurements Performed on March 28, 2007

CONSOL Test No.	1	2	3
Hg Input from Coal (lb/h)	7.45E-03	8.30E-03	7.01E-03
Hg at Air Heater Outlet (lb/h)	7.07E-03	7.76E-03	7.54E-03
Percent Difference from Coal Hg	-5.1%	-6.5%	7.6%

Table 24. Comparison of Hg Mass Flow Rates in the Coal and at the Air Heater Outlet for Hg Measurements Performed on March 30, 2007

CONSOL Test No.	4	5	6
Hg Input from Coal (lb/h)	7.23E-03	6.79E-03	6.64E-03
Hg at Air Heater Outlet (lb/h)	6.92E-03	7.01E-03	6.48E-03
Percent Difference from Coal Hg	-4.3%	3.3%	-2.4%

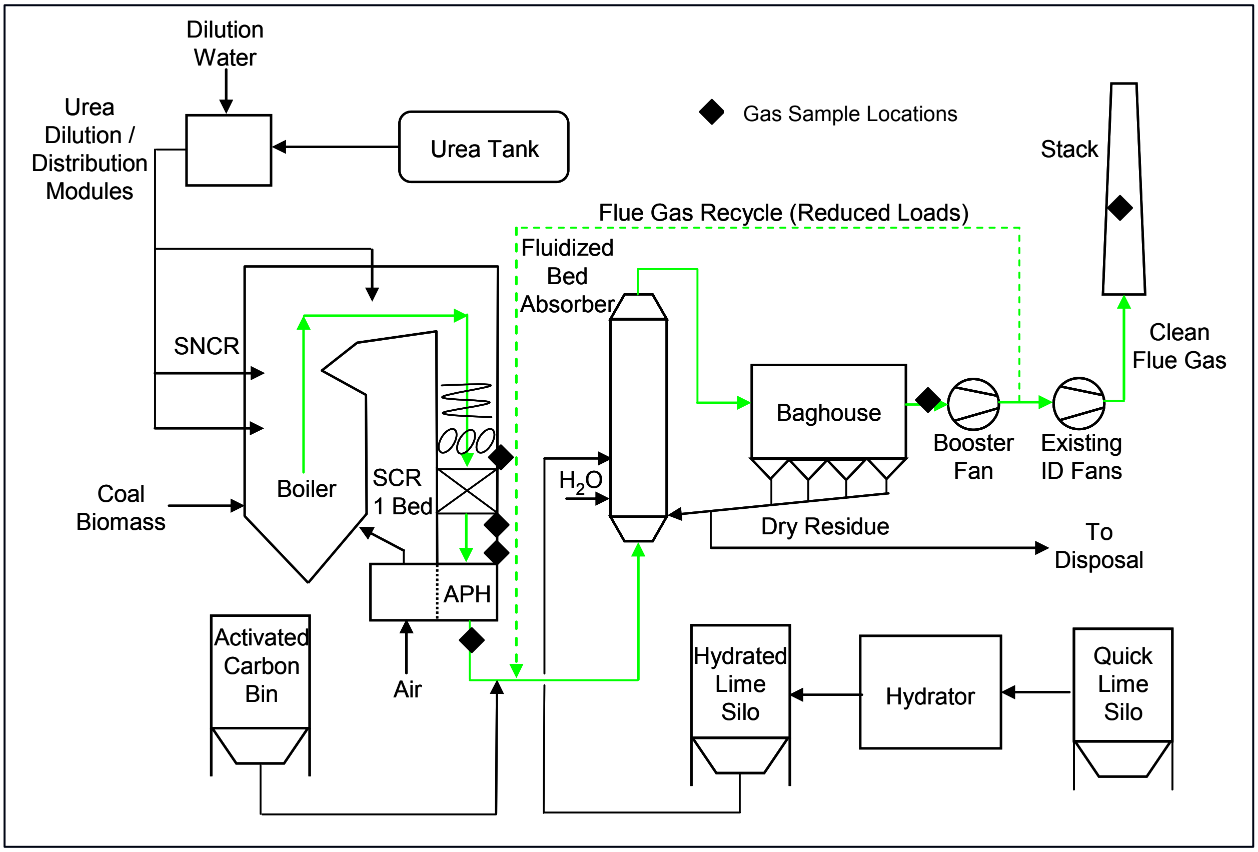


Figure 1. Sampling locations

Figure 2. SCR Inlet Sampling Location with Clean Air Engineering's NO_x Multi-Point Automated Sampling System

Figure 3. SCR Outlet Sampling Location

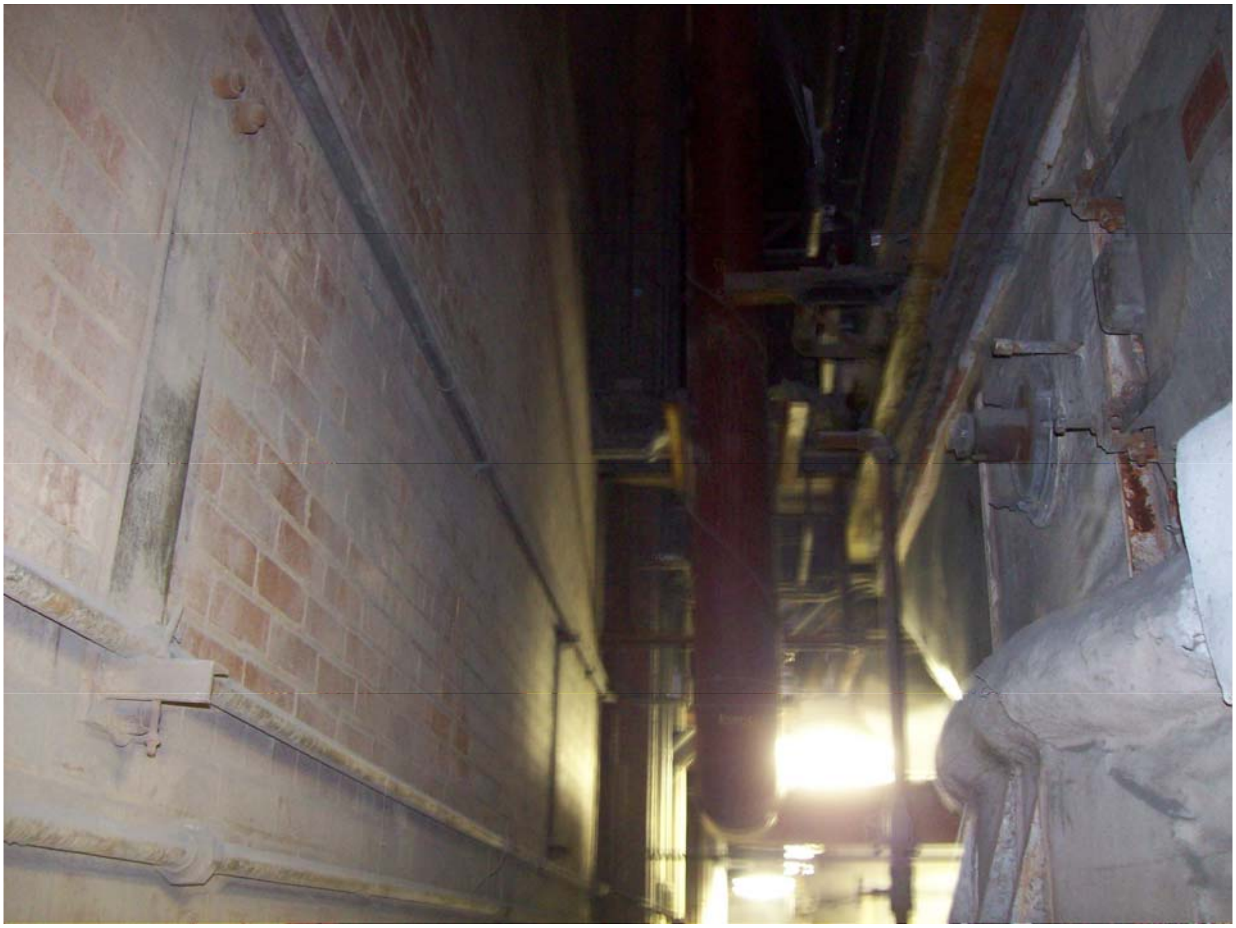
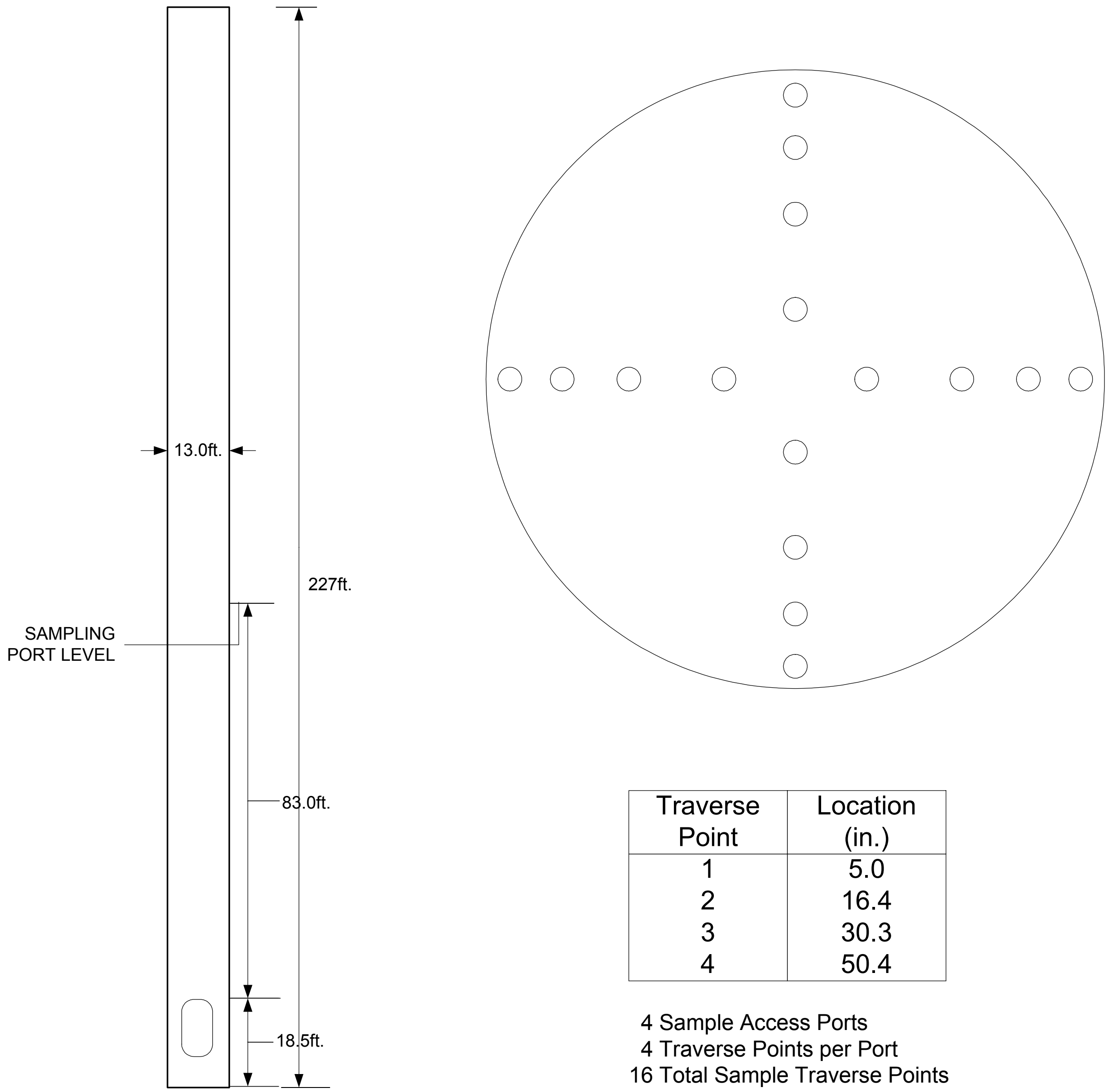


Figure 4. Air Heater Inlet Sampling Location

Figure 5. Air Heater Outlet Sampling Location

Figure 6. Baghouse Outlet Sampling Location

Figure 7. Stack Sampling Location



Traverse Point	Location (in.)
1	5.0
2	16.4
3	30.3
4	50.4

4 Sample Access Ports
4 Traverse Points per Port
16 Total Sample Traverse Points

Figure 8. Stack Sampling Dimensions and Traverse Points

APPENDIX A
Clean Air Engineering Report (NO_X & SO_2 Sampling)

CleanAir

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REPORT ON PERFORMANCE TESTING

Performed for:
CONSOL ENERGY INC.
UNIT 4 SCR OUTLET, SCR INLET, AIR HEATER OUTLET, AND BAGHOUSE OUTLET AT THE AES GREENIDGE STATION

Client Reference No: 4700140111
CleanAir Project No: 10192
Revision 0: May 18, 2007
Revision 1: July 9, 2007

To the best of our knowledge, the data presented in this report are accurate, complete, error free, legible and representative of the actual emissions during the test program.

Submitted by,

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Reviewed by,

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REVISION HISTORY

REPORT ON PERFORMANCE TESTING

Revision History

Revision No:	Date	Pages	Comments
0	05/18/07	All	Original version of document.
1	7/9/07	All	Comments revision

CONTENTS

PROJECT OVERVIEW

Consol Energy Inc. (Consol) contracted Clean Air Engineering (CleanAir) to perform guarantee testing at the AES Greenidge Station in Dresden, NY. The testing was conducted in order to demonstrate a cost effective emission control technology.

All testing was performed in accordance with regulations set forth by the United States Environmental Protection Agency (USEPA).

The test included the following constituents:

<u>SCR Inlet and Outlet</u>

- nitrogen oxides (NO_x)
- flue gas composition (O_2, CO_2)

<u>Air Heater Outlet and Baghouse Outlet</u>

- sulfur dioxide (SO_2)
- flue gas composition (O_2, CO_2)

The testing took place on Greenidge Unit 4 on March 28 and 29, 2007. Coordinating the field testing were:

J. Locke – Consol Energy Inc.
D. Connell – Consol Energy Inc.
S. Lehmann - Clean Air Engineering
J. McKeever – Clean Air Engineering

Table 1-1 outlines the schedule adhered to during the test program. Tables 1-2 and 1-3 summarize the results of the test program. A more detailed presentation of the test conditions and results of analysis are shown on tables 2-1 through 2-10 and Figures 2-1 through 2-9.

Table 1-1:
Unit 4 Schedule of Activities

Run Number	Location	Method	Analyte	Date	Start Time	End Time
1	Unit 4 SCR Inlet/Outlet	USEPA Method 3A, 7E	O_2, CO_2, NO_X	03/28/07	09:12	10:23
2	Unit 4 SCR Inlet/Outlet	USEPA Method 3A, 7E	O_2, CO_2, NO_X	03/28/07	11:12	12:23
3	Unit 4 SCR Inlet/Outlet	USEPA Method 3A, 7E	O_2, CO_2, NO_X	03/28/07	12:48	13:59
1	Unit 4 AH Outlet/ BH Outlet	USEPA Method 3A, 6C	O_2, CO_2, SO_2	03/29/07	09:59	11:00
2	Unit 4 AH Outlet/ BH Outlet	USEPA Method 3A, 6C	O_2, CO_2, SO_2	03/29/07	12:16	13:17
3	Unit 4 AH Outlet/ BH Outlet	USEPA Method 3A, 6C	O_2, CO_2, SO_2	03/29/07	15:13	16:13

PROJECT OVERVIEW

Table 1-2:
Summary of Nitrogen Oxides Test Results

Source / Constituent	Sampling Method	Average Emission
Unit 4 SCR Inlet		
NO_X (ppmdv @ 3% O_2)	EPA M7E	87.8
O_2 (%dv)	EPA M3A	4.7
CO_2 (%dv)	EPA M3A	14
Unit 4 SCR Outlet		
NO_X (ppmdv @ 3% O_2)	EPA M7E	51.8
O_2 (%dv)	EPA M3A	4.9
CO_2 (%dv)	EPA M3A	13.9
Unit 4 NO_X Reduction		
NO_X Reduction (% Efficiency)		41.0

Table 1-3:
Summary of Nitrogen Oxides Test Result in (lb/MMBtu)

Source / Constituent	Run 1	Run 2	Run 3	Average Emission
Unit 4 SCR Outlet				
NO_X (ppmdv @ 3% O_2)	52.7	52.7	50.1	51.8
Fd Factor (dscf/MMBtu)	9737	9618	9535	
NO_x (lb/MMBtu @ 3% O_2)	0.0711	0.0709	0.0674	0.0698

Note: Fd factor was determined by short prox/ultimate analysis (provided by Consol Energy Inc.)

PROJECT OVERVIEW

Table 1-4:
Summary of Sulfur Dioxide Test Results

Source Constituent	Sampling Method	Average Emission
Unit 4 Air Heater Outlet		
SO_2 (ppmdv @ 3% O_2)	EPA M6C	1840.8
O_2 (%dv)	EPA M3A	7.32
CO_2 (%dv)	EPA M3A	11.56
Unit 4 Baghouse Outlet		
SO_2 (ppmdv @ 3% O_2)	EPA M6C	108.9
O_2 (%dv)	EPA M3A	7.30
CO_2 (%dv)	EPA M3A	11.57
Unit 4 SO_2 Reduction		
SO_2 Reduction (% Efficiency)		94.1

DISCUSSION OF TEST PROGRAM

Testing on AES Greenidge Unit 4 consisted of several USEPA methods and conformed to Part 60 of the Code of Federal Regulations. The testing at all four locations was conducted using extractive methods. These tests were performed with the units running at full load.

The SO_2 testing was based on a modified Method 6C. USEPA Code of Federal Regulations part 60 was followed with the following exceptions. During the sampling a single test point was used during the first two runs, this point was chosen by selecting a point in the center of the duct. For the third SO_2 run a single port was traversed using 3 points across the duct.

To collect NO_x, CO_2, and O_2 emissions data, Clean Air used its Multipoint Automated Sampling Systems (MASS). Using the MASS, Clean Air was able to establish a sampling grid and develop a detailed NO_X, and O_2 profile for both the inlet and outlet ducts. This proprietary system allows a large number of sample points to be individually analyzed in a short amount of time giving a more complete view of the gas profile within the duct. Not only are overall concentrations in the duct discovered, but also spatial stratification or temporal variation.

This tool takes much of the wait out of boiler or SCR tuning and optimization by creating an efficient method of data collection. Decision making time is reduced and enhanced with expedient, accurate, and reliable data. The expanded data capacity allows for increased analytical ability and a better "big picture" of unit operation.

Description of the MASS®

The Clean Air Engineering's MASS® (Multi-Point Automated Sampling System) uses a series of automated 8-point sample modules with integrated programmable logic controllers (PLC's) to sequentially and rapidly cycle through a multi-point test grid. For this program, a 24-point permanent outlet grid was tested using an 8 module system. Using a bank of two (2) O_2/CO_2 monitors and (2) NO_X monitors, the 24-point traverse was completed in 24 minutes. This is a considerable time savings over the typical 2 hour manual traverse.

The MASS® has been programmed to automatically cycle through and analyze each point on the grid. The key is the dynamic switching which allows for a vented "pre-purge" prior the actual analysis allowing for zero wasted analyzer time. This modular and expandable system is capable of analyzing 128 individual sample points in 32 minutes or less. A diagram of the system can be seen in Figure 1-1 below. This shows a general arrangement process flow diagram for a "typical" 64-point MASS® system arrangement.

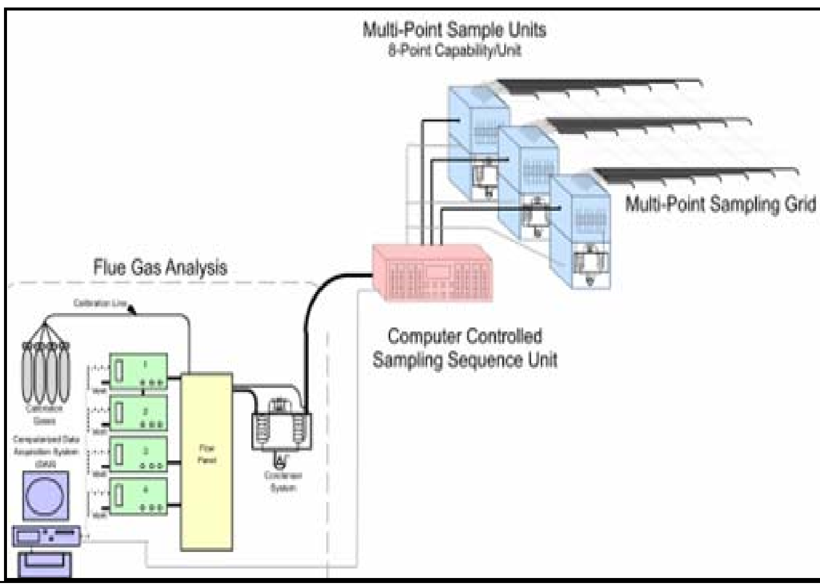


Figure 1-1: MASS® System

RESULTS

Table 2-1:
Run 1 SCR Inlet – MASS® NO_X, and O_2

Date: 3/28/2007
Start Time: 9:12
End Time: 10:23

Inlet - Nitrogen Oxides (ppmdv @ 3% O_2)

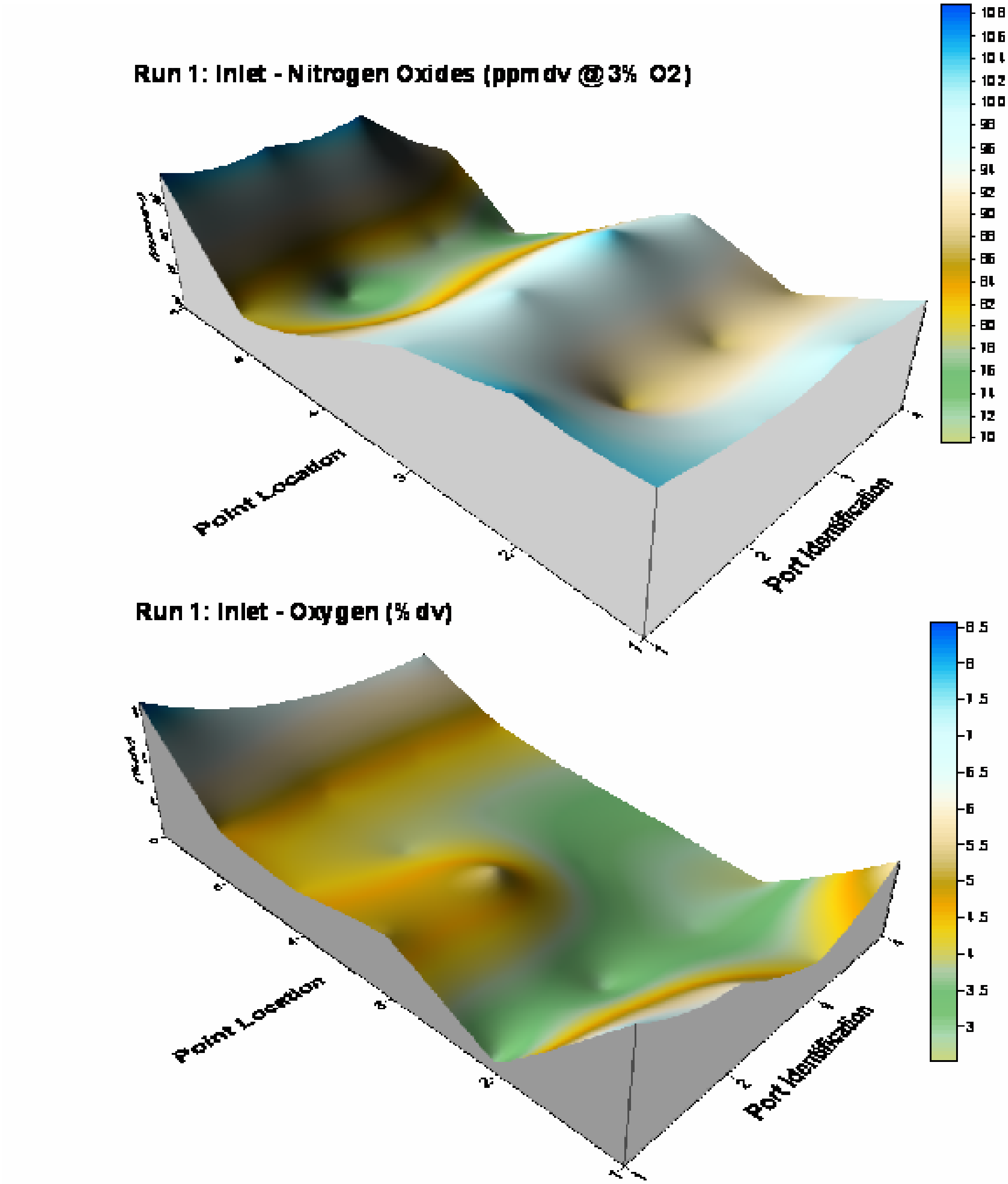
AVG	98.0	91.4	93.7	87.1	
6	108.9	107.0	107.7	87.7	102.8
5	80.4	72.8	77.5	69.5	75.1
4	89.0	82.4	84.7	82.2	84.6
3	100.5	100.5	104.2	97.8	100.8
2	105.5	85.9	86.9	87.4	91.5
1	103.8	99.7	101.4	98.2	100.8
	1	2	3	4	92.6

Inlet - Oxygen (%dv)

AVG	5.5	4.9	4.1	4.4	
6	8.6	6.8	6.3	6.6	7.1
5	4.8	4.5	4.5	4.5	4.6
4	4.4	3.9	3.7	3.7	3.9
3	5.0	5.3	3.3	3.2	4.2
2	2.9	3.0	2.9	2.5	2.8
1	7.5	6.0	4.0	5.7	5.8
	1	2	3	4	4.7

RESULTS

Figure 2-1:
Run 1 SCR Inlet – MASS® NO_X, and O_2



RESULTS

Table 2-2:
Run 1 SCR Outlet – MASS® NO_X, and O_2

Date: 3/28/2007
Start Time: 9:12
End Time: 10:23

Outlet - Nitrogen Oxides (ppmdv @ 3% O_2)

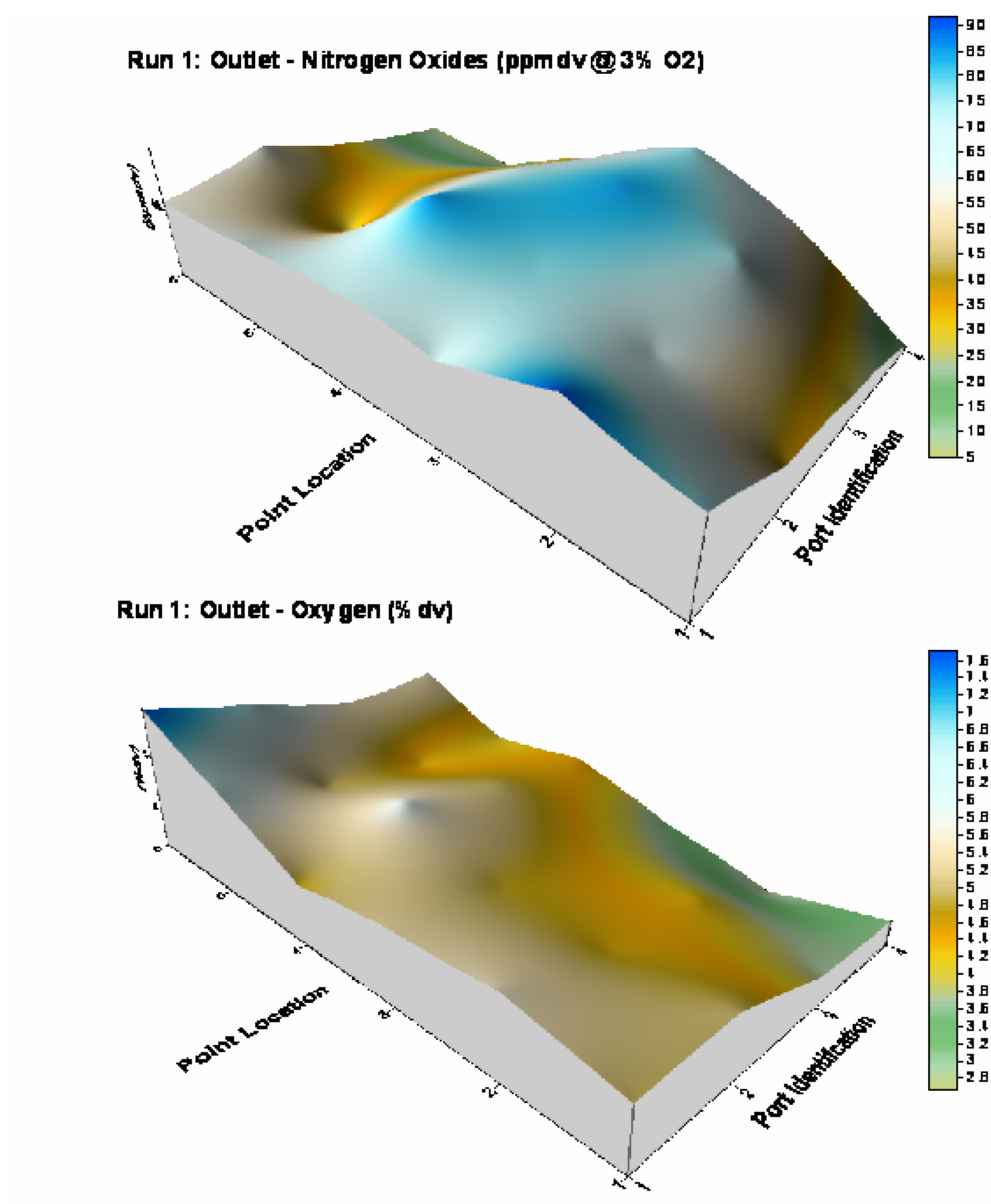
AVG	69.9	58.2	52.0	30.9	
6	55.9	59.0	28.1	6.2	37.3
5	61.7	27.3	32.8	4.8	31.7
4	68.8	85.8	67.2	39.4	65.3
3	65.2	77.2	85.0	75.3	75.7
2	91.8	62.3	73.4	51.8	69.8
1	75.9	37.4	25.4	7.8	36.6
	1	2	3	4	52.7

Outlet - Oxygen (%dv)

AVG	5.7	5.3	4.5	4.0	
6	7.7	6.7	5.5	5.6	6.4
5	6.3	4.9	4.3	4.0	4.9
4	4.7	5.9	4.9	4.5	5.0
3	5.3	4.7	4.4	3.5	4.5
2	5.6	4.6	4.3	2.7	4.3
1	4.9	5.0	3.7	3.5	4.3
	1	2	3	4	4.9

RESULTS

Figure 2-2:
Run 1 SCR Outlet – MASS® NO_X, and O_2



RESULTS

Table 2-3:
Run 1 MASS® – NO_X Removal Efficiency

Date:	3/28/2007
Start Time:	9:12
End Time:	10:23

Removal Efficiency (@ 3% O_2)

AVG	28.3%	36.1%	43.6%	65.6%	
6	48.7%	44.8%	73.9%	92.9%	65.1%
5	23.3%	62.5%	57.7%	93.1%	59.1%
4	22.8%	-4.1%	20.7%	52.0%	22.8%
3	35.1%	23.2%	18.4%	23.0%	24.9%
2	13.0%	27.5%	15.6%	40.8%	24.2%
1	26.8%	62.5%	75.0%	92.1%	64.1%
	1	**2**	**3**	**4**	43.4%

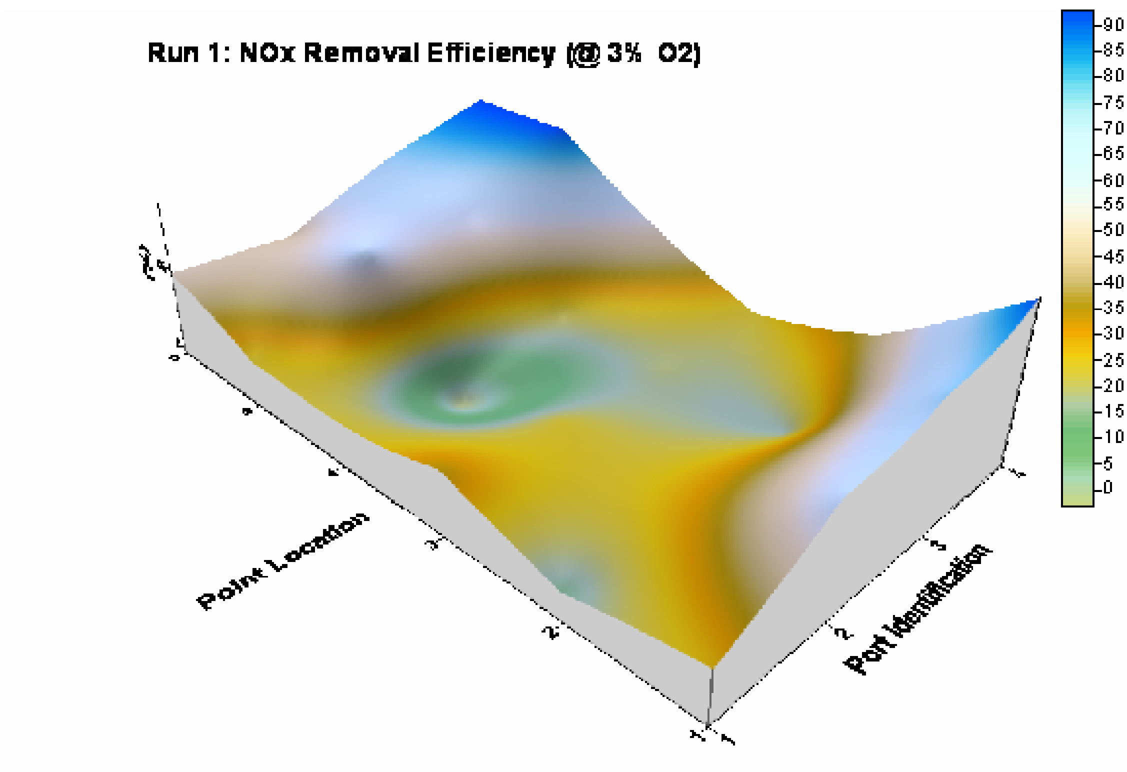


Figure 2-3:
Run 1 MASS® – NO_X Removal Efficiency

Table 2-4:
Run 2 SCR Inlet – MASS® NO_X, and O_2

Date: 3/28/2007
Start Time: 11:12
End Time: 12:23

Inlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	**93.4**	**84.7**	**86.7**	**80.3**	
6	102.6	96.6	98.2	77.2	**93.6**
5	73.5	63.0	69.9	61.7	**67.0**
4	86.3	77.6	80.4	77.5	**80.4**
3	96.1	95.6	99.5	94.5	**96.4**
2	99.6	80.1	78.6	78.3	**84.1**
1	102.3	95.4	93.6	92.8	**96.0**
	1	**2**	**3**	**4**	**86.3**

Inlet - Oxygen (%dv)

AVG	**5.5**	**4.9**	**4.1**	**4.4**	
6	8.6	6.8	6.3	6.4	**7.0**
5	4.6	4.3	4.4	4.3	**4.4**
4	4.3	3.8	3.6	3.5	**3.8**
3	5.0	5.4	3.3	3.1	**4.2**
2	3.1	3.2	3.0	2.7	**3.0**
1	7.6	6.1	4.2	6.3	**6.0**
	1	2	3	4	**4.7**

RESULTS

Figure 2-4:
Run 2 SCR Inlet – MASS® NO_X, and O_2

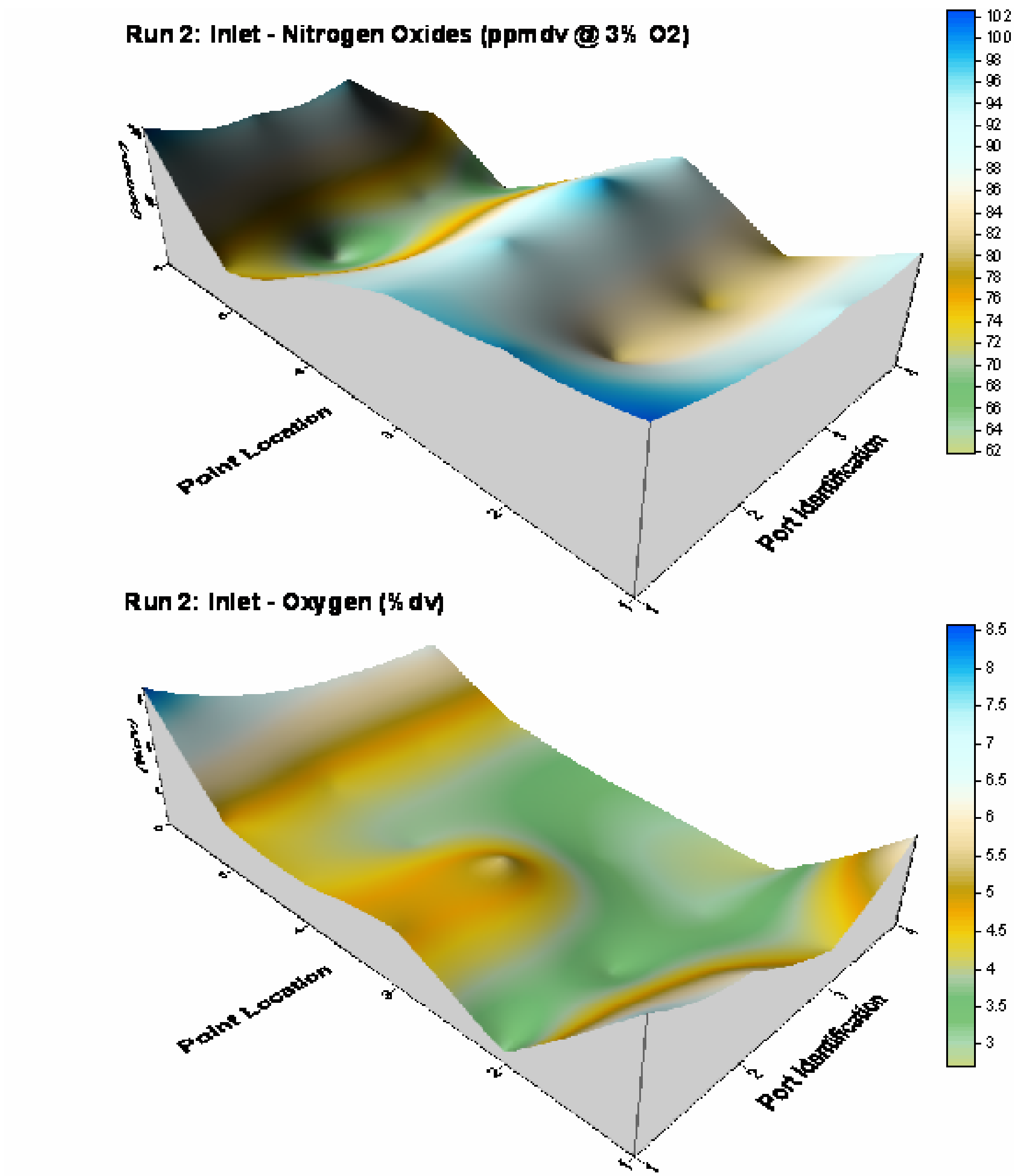


Table 2-5:
Run 2 SCR Outlet – MASS® NO_X, and O_2

Date:	3/28/2007
Start Time:	11:12
End Time:	12:23

Outlet - Nitrogen Oxides (ppmdv @ 3% O_2)

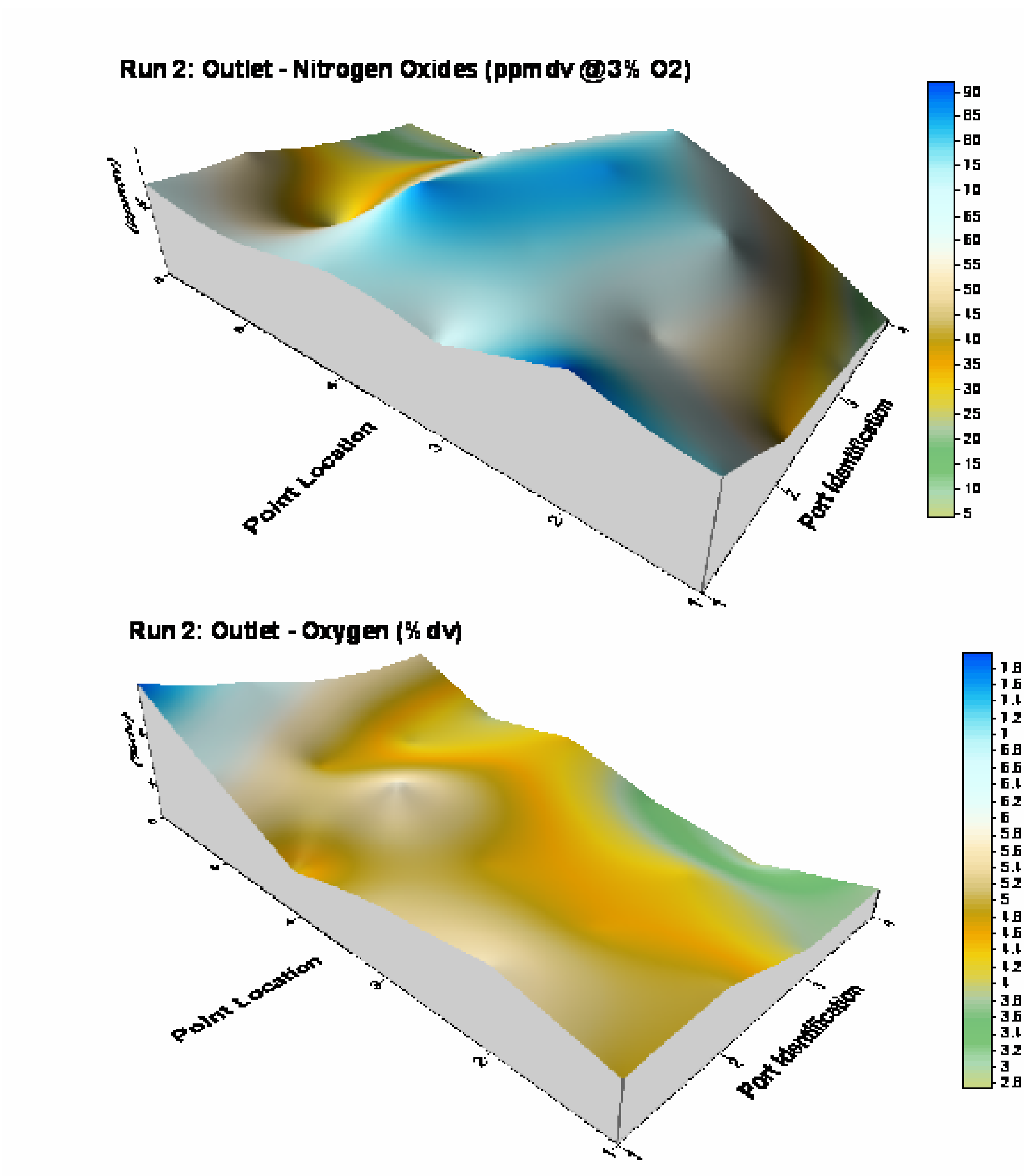
AVG	73.0	56.2	51.4	30.0	
6	67.3	52.8	24.9	5.1	37.5
5	60.4	24.7	31.7	4.2	30.3
4	74.0	87.3	69.9	42.5	68.4
3	66.5	78.9	86.2	76.5	77.0
2	92.1	58.5	72.6	45.1	67.1
1	78.0	35.3	23.2	6.8	35.8
	1	2	3	4	52.7

Outlet - Oxygen (%dv)

AVG	5.7	5.3	4.5	3.9	
6	8.0	6.7	5.7	5.4	6.5
5	6.1	4.8	4.2	3.9	4.7
4	4.4	5.8	4.8	4.4	4.8
3	5.2	4.8	4.3	3.3	4.4
2	5.7	4.6	4.3	2.7	4.3
1	4.8	5.0	3.8	3.8	4.3
	1	2	3	4	4.9

RESULTS

Figure 2-5:
Run 2 SCR Outlet – MASS® NO_X, and O_2



RESULTS

Table 2-6:
Run 2 MASS® - NO_X Removal Efficiency

Date: 3/28/2007
Start Time: 11:12
End Time: 12:23

Removal Efficiency (ppmdv @ 3% O_2)

AVG	21.4%	33.5%	39.8%	64.3%	
6	34.5%	45.3%	74.6%	93.4%	62.0%
5	17.8%	60.9%	54.7%	93.1%	56.6%
4	14.2%	-12.5%	13.1%	45.1%	15.0%
3	30.8%	17.5%	13.4%	19.0%	20.2%
2	7.5%	27.0%	7.6%	42.4%	21.1%
1	23.8%	63.0%	75.3%	92.7%	63.7%
	1	2	3	4	39.8%

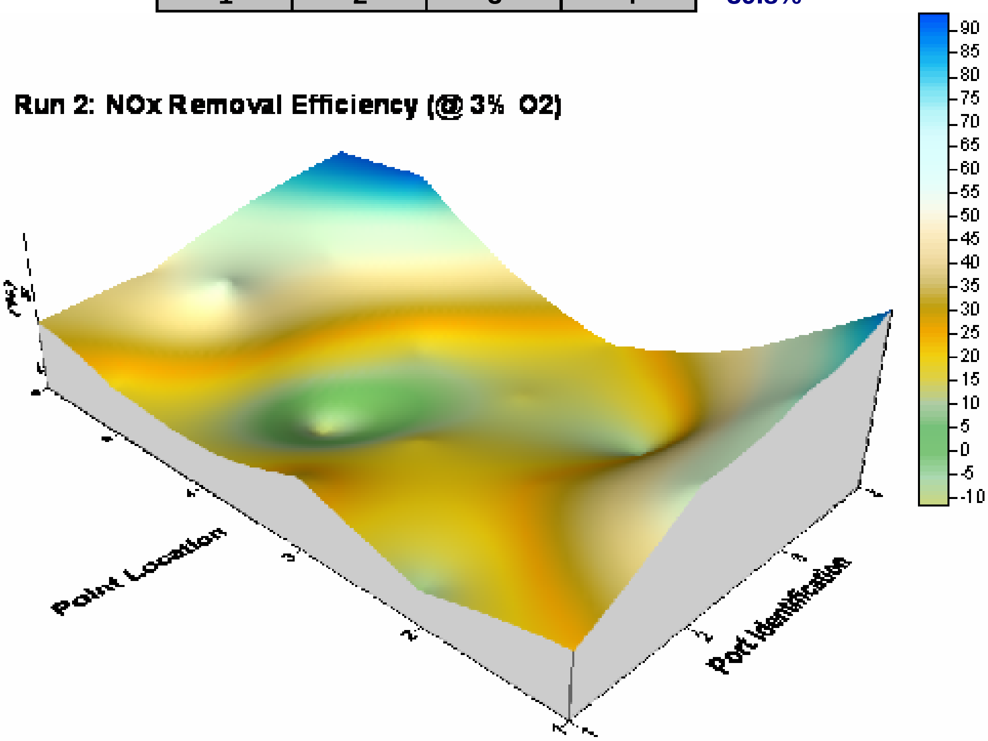


Figure 2-6:
Run 2: MASS® - NO_X Removal Efficiency

Table 2-7:
Run 3 SCR Inlet – MASS® NO_X, and O_2

Date: 3/28/2007
Start Time: 12:48
End Time: 13:59

Inlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	**91.1**	**83.7**	**85.0**	**78.5**	
6	100.5	97.8	96.0	74.8	**92.3**
5	68.8	59.5	66.6	58.8	**63.4**
4	81.5	74.1	78.7	75.4	**77.4**
3	94.1	96.1	98.3	94.4	**95.7**
2	101.6	77.9	76.4	76.5	**83.1**
1	100.1	96.5	93.8	91.1	**95.4**
	1	**2**	**3**	**4**	**84.6**

Inlet - Oxygen (%dv)

AVG	**5.6**	**4.9**	**4.1**	**4.3**	
6	8.6	6.9	6.3	6.3	**7.0**
5	4.5	4.2	4.3	4.1	**4.2**
4	4.3	3.6	3.5	3.4	**3.7**
3	5.0	5.2	3.3	3.1	**4.2**
2	3.2	3.3	3.2	2.8	**3.1**
1	7.8	6.2	4.3	6.1	**6.1**
	1	2	3	4	**4.7**

RESULTS

Figure 2-7:
Run 3 SCR Inlet – MASS® NO_X, and O_2

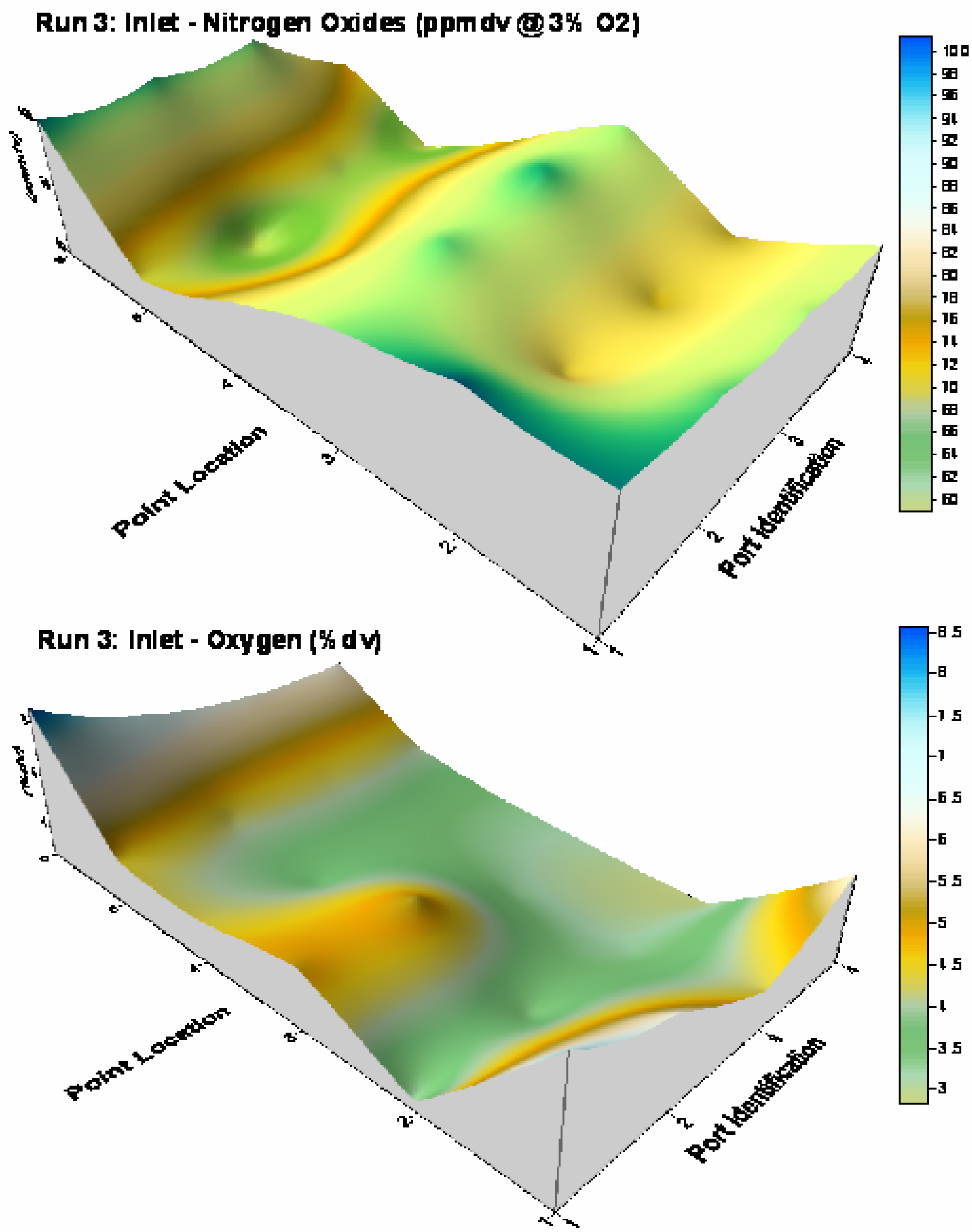


Table 2-8:
Run 3 SCR Outlet – MASS® NO_X, and O_2

Date: 3/28/2007
Start Time: 12:48
End Time: 13:59

Outlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	68.3	53.1	48.6	30.2	
6	68.5	48.2	24.6	4.8	36.5
5	60.3	34.8	42.3	3.7	35.3
4	70.3	80.4	69.1	42.0	65.5
3	60.8	71.3	79.6	78.5	72.6
2	78.7	51.5	57.1	45.7	58.3
1	71.3	32.5	18.9	6.4	32.3
	1	2	3	4	50.1

Outlet - Oxygen (%dv)

AVG	5.9	5.3	4.5	3.9	
6	7.9	6.6	5.4	5.3	6.3
5	5.8	5.0	4.4	3.7	4.7
4	4.9	5.7	4.7	4.3	4.9
3	5.4	5.0	4.6	3.4	4.6
2	5.4	4.3	3.9	2.8	4.1
1	5.6	5.3	4.2	3.9	4.8
	1	2	3	4	4.9

Figure 2-8:
Run 3 SCR Outlet – MASS® NO_X, and O_2

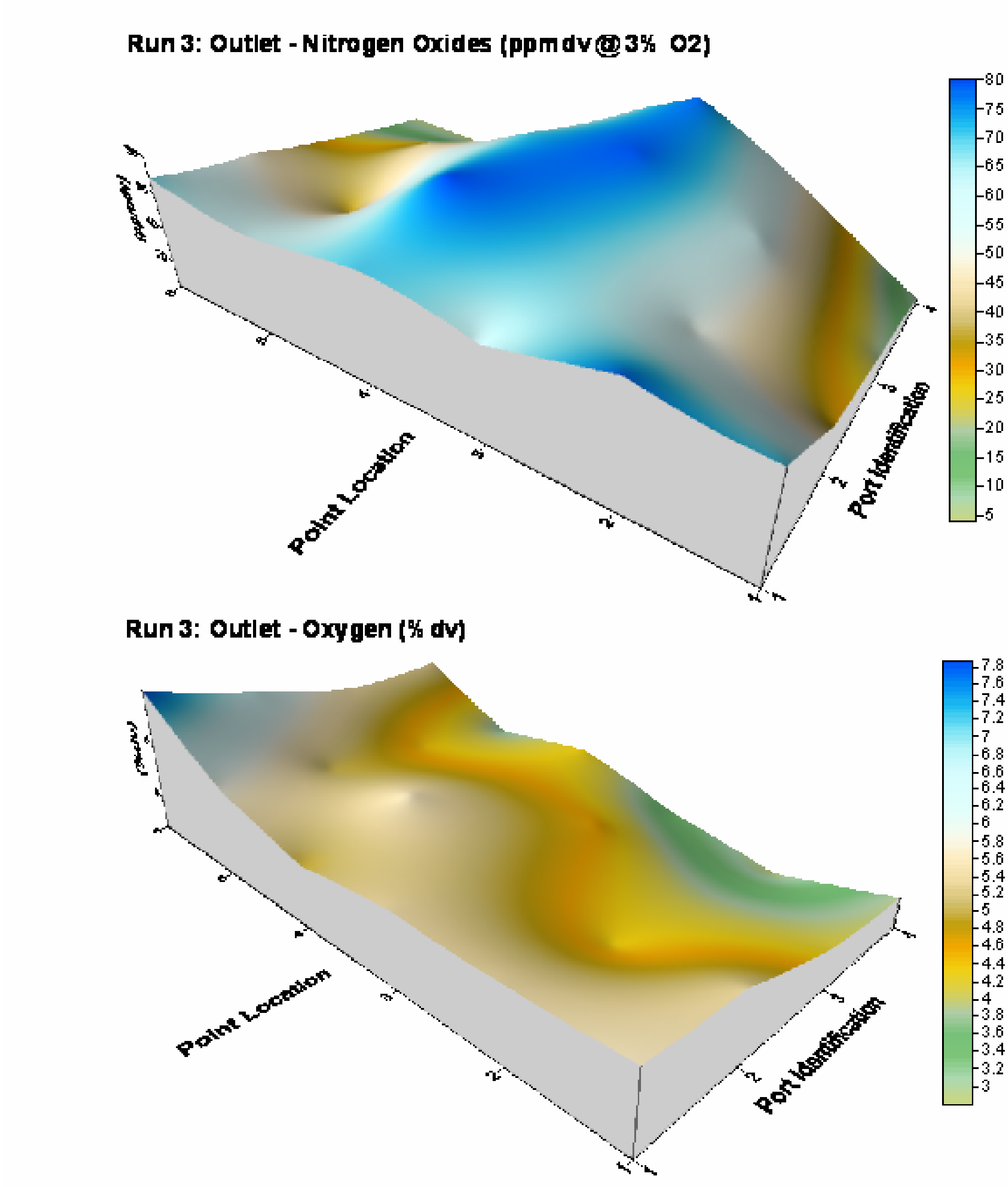


Table 2-9:
Run 3 MASS® – NO_X Removal Efficiency

Date: 3/28/2007
Start Time: 12:48
End Time: 13:59

	Removal Efficiency (ppmdv @ 3% O_2)				
AVG	24.1%	35.0%	41.2%	63.6%	
6	31.9%	50.8%	74.4%	93.6%	62.7%
5	12.4%	41.6%	36.4%	93.6%	46.0%
4	13.7%	-8.5%	12.2%	44.3%	15.4%
3	35.3%	25.8%	19.0%	16.8%	24.3%
2	22.5%	34.0%	25.2%	40.2%	30.5%
1	28.8%	66.3%	79.9%	92.9%	67.0%
	1	2	3	4	41.0%

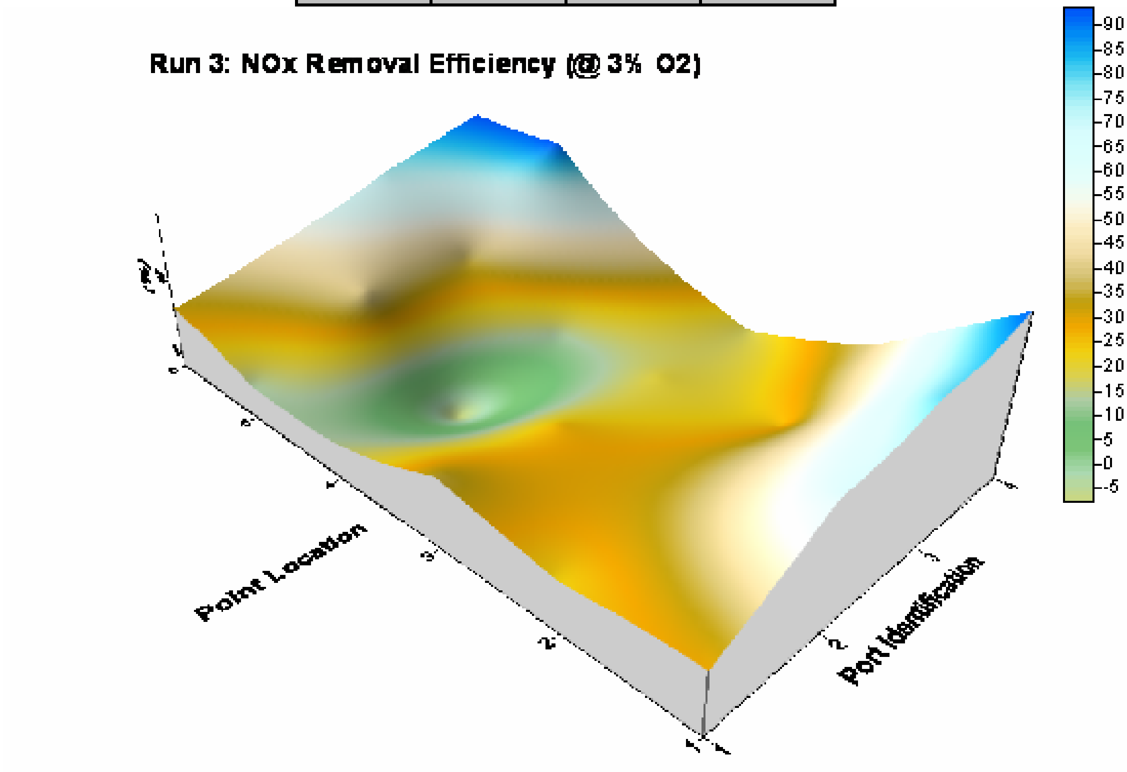


Figure 2-9:
Run 3 MASS® – Removal Effiency

RESULTS

**Table 2-10:
Sulfur Dioxide Reduction Efficiency Results**

Run	1	2	3	Average
Date (2007)	29-Mar	29-Mar	29-Mar	
Start Time	9:59	12:16	15:13	
Stop Time	11:00	13:17	16:13	
Air Heater Outlet				
SO_2 (ppmdv @ 3% O_2)	1854.76	1829.81	1837.92	1840.83
O_2 (%dv)	7.30	7.22	7.45	7.32
CO_2 (%dv)	11.54	11.61	11.52	11.56
Baghouse Outlet				
SO_2 (ppmdv @ 3% O_2)	103.89	90.83	132.12	108.95
O_2 (%dv)	7.21	7.16	7.51	7.30
CO_2 (%dv)	11.49	11.71	11.51	11.57
Reduction Efficiency				
SO_2 (%)	94.40	95.04	92.81	94.08

DESCRIPTION OF INSTALLATION

PROCESS DESCRIPTION

AES Greenidge Unit 4 is representative of 492 coal-fired electricity generating units in the United States with capacities of 50-300 MWe. AES Greenidge Unit 4 is a 104-MW coal-fired unit. The unit had an integrated multipollutant control system installed on it, which is going to reduce emissions in an economically viable way. This new technology utilizes a hybrid selective non-catalytic reduction / selective catalytic reduction system for NO_X reduction and a circulating fluidized-bed dry scrubber for SO_2 and Mercury Reduction.

The testing was performed at the SCR inlet and outlet for NO_x and O_2/CO_2. Testing was also conducted at the Air Heater Outlet and Baghouse Outlet for SO_2 and O_2/CO_2.

DESCRIPTION OF SAMPLING LOCATION(S)

Sampling points for the MASS system were located on a grid at both the SCR Inlet and SCR Outlet location. The grid consisted of four ports with six points per port from which NO_x, O_2, and CO_2 were measured.

Sampling points for the SO_2 testing were selected at a central location in the duct of the Air Heater Outlet and Baghouse Outlet for the first two runs. The third SO_2 run consisted of a three point traverse of that same port.

Table 3-1 outlines the sampling point configurations. Figure 3-1 through 3-2 illustrates the sampling points and orientation of sampling ports for each of the sources tested in the program.

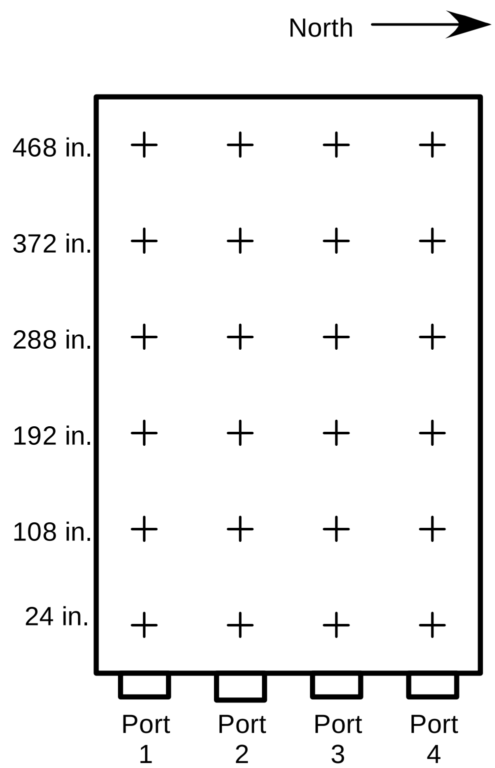
Table 3-1:
Sampling Points

Location	Constituent	Method	Run No.	Ports	Points per Port	Minutes per Point	Total Minutes	Figure
SCR Inlet	NO_X, O_2, CO_2	3A, 7E	1-3	4	6	1	72[1]	3-1
SCR Outlet	NO_X, O_2, CO_2	3A, 7E	1-3	4	6	1	72[1]	3-2
Air Heater Outlet	SO_2, O_2, CO_2	3A,6C	1-2	1	1	60	60	N/A
Air Heater Outlet	SO_2, O_2, CO_2	3A,6C	3	1	3	20	60	N/A
Baghouse Outlet	SO_2, O_2, CO_2	3A,6C	1-2	1	1	60	60	N/A
Baghouse Outlet	SO_2, O_2, CO_2	3A,6C	3	1	3	20	60	N/A

[1] Each cycle of the MASS took 24 minutes, 3 cycles were combined for each run.

DESCRIPTION OF INSTALLATION

DESCRIPTION OF SAMPLING LOCATION (CONTINUED)

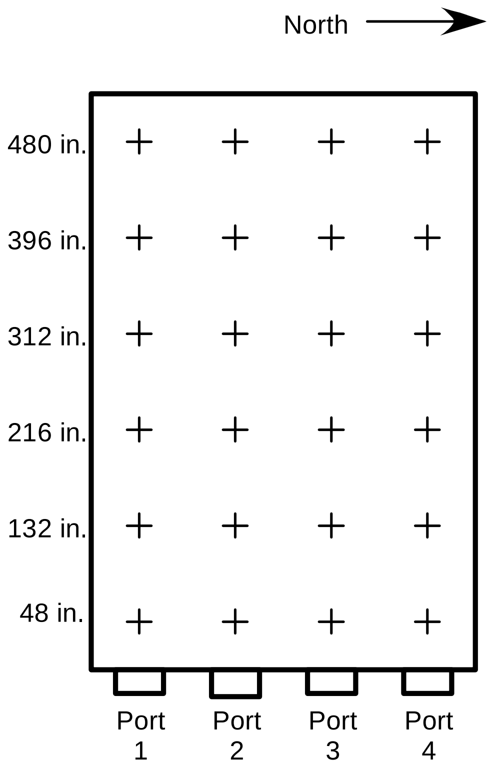


Sampling Point	Port to Point Distance (in.)
1	24
2	108
3	192
4	288
5	372
6	468

Figure 3-1: SCR Inlet - Sampling Point Determination (EPA Method 1)

DESCRIPTION OF INSTALLATION

DESCRIPTION OF SAMPLING LOCATION (CONTINUED)



Sampling Point	Port to Point Distance (in.)
1	48
2	132
3	216
4	312
5	396
6	480

Figure 3-2: SCR Outlet - Sampling Point Determination (EPA Method 1)

METHODOLOGY

Clean Air Engineering followed procedures as detailed in U.S. Environmental Protection Agency (EPA) Methods 3A, 6C, 7E, as well as Clean A Proprietary Method MASS®. The following table summarizes the methods and their respective sources.

Table 4-1:
Summary of Sampling Procedures

<u>Title 40 CFR Part 60 Appendix A</u>	
Method 3A	"Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources (Instrumental Analyzer Procedure)"
Method 6C	"Determination of Sulfur Dioxide Emissions from Stationary Sources (Instrumental Analyzer Procedure)"
Method 7E	"Determination of Nitrogen Oxides Emissions from Stationary Sources (Instrumental Analyzer Procedure)"
<u>CleanAir Proprietary Methods</u>	
MASS®	"Multipoint Automated Sampling System for Stationary Grid Gas Analysis"

These methods appear in detail in Title 40 of the Code of Federal Regulations (CFR) and on the World Wide Web at http://www.cleanair.com.

Diagrams of the sampling apparatus and major specifications of the sampling, recovery and analytical procedures are summarized for each method in Appendix A.

Clean Air Engineering followed specific quality assurance and quality control (QA/QC) procedures as outlined in the individual methods and in USEPA "Quality Assurance Handbook for Air Pollution Measurement Systems: Volume III Stationary Source-Specific Methods", EPA/600/R-94/038C. Additional QA/QC methods as prescribed in Clean Air's internal Quality Manual were also followed. Results of all QA/QC activities performed by Clean Air Engineering are summarized in Appendix D.

APPENDIX 5-1

TEST METHOD SPECIFICATIONS

A

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Specification Sheet for EPA Method 6C

Source Location Name(s)	Air Heater Outlet
Pollutant(s) to be Determined	Sulfur Dioxide (SO_2)
Other Parameters to be Determined from Train	O2 and CO2 (EPA Method 3A)

	Standard Method Specification	Actual Specification Used
Pollutant Sampling Information		
Duration of Run	N/A	60 minutes
No. of Sample Traverse Points	N/A	1
Sample Time per Point	N/A	60 minutes
Sampling Rate	Constant Rate	Constant Rate
Sampling Probe		
Nozzle Material	N/A	None
Nozzle Design	N/A	N/A
Probe Liner Material	Stainless Steel or Pyrex Glass	Stainless Steel
Effective Probe Length	Sufficient to Traverse Points	8 feet
Probe Temperature Set-Point	Prevent Condensation	248˚F±25˚F
Particulate Filter		
In-Stack Filter	Yes	Yes
In-Stack Filter Material	Non-reactive to gas	Fritted Stainless Steel
External Filter	Yes	Yes
External Filter Material	Borosilicate, Quartz Glass Wool or Fiber Mat	Borosilicate Glass Fiber Mat
External Filter Set-Point	Prevent Condensation	248˚F±25˚F
Sample Delivery System		
Heated Sample Line Material	Stainless Steel or Teflon	Teflon
Heated Sample Line Set-Point	Prevent Condensation	248˚F±25˚F
Heated Sample Line Connections	Probe Exit to Moisture Removal System	Probe to Moisture Removal System
Moisture Removal System	Refrigerator-type condenser or similar	Refrigerator-type condenser
Sample Pump Type	Leak-Free, minimal response time	Diaphragm
Sample Pump Material	Non-reactive to sample gases	Teflon
Sample Flow Control	Constant Rate	Constant Rate (±10%)
Non-Heated Sample Line Material	Stainless Steel or Teflon	Teflon
Non-Heated Sample Line Connections	Moisture Removal to Sample Gas Manifold	Moisture Removal to Sample Gas Manifold
Additional Filters	Optional	Yes
Additional Filter Type	N/A	Particulate Removal
Additional Filter Location	Optional	Entrance to Sample Manifold
Filter Material	Non-reactive to sample gases	Glass Fiber
Analyzer Description		
Oxygen (O_2)	EPA Method 3A (Paramagnetic)	EPA Method 3A (Paramagnetic)
Carbon Dioxide (CO_2)	EPA Method 3A (NDIR)	EPA Method 3A (NDIR)
Sulfur Dioxide (SO_2)	EPA Method 6C (UV, NDIR or Fluorescence)	EPA Method 6C (UV Absorption)
Nitrogen Oxides (NO_x)	N/A	
Carbon Monoxide (CO)	N/A	
Total Hydrocarbon (THC)	N/A	
Hydrogen Chloride (HCl)	N/A	
Ammonia (NH_3)	N/A	

Specification Sheet for EPA Method 6C

	Standard Method Specification	Actual Specification Used
Instrument Span Range		
Oxygen (O_2)	$\leq$ 1.33 x Expected Maximum	0-15%
Carbon Dioxide (CO_2)	$\leq$ 1.33 x Expected Maximum	0-15%
Sulfur Dioxide (SO_2)	$\leq$ 1.33 x Expected Maximum	0-5,000 ppm
Nitrogen Oxides (NO_x)	N/A	N/A
Carbon Monoxide (CO)	N/A	N/A
Total Hydrocarbon (THC)	N/A	N/A
Hydrogen Chloride (HCl)	N/A	N/A
Ammonia (NH_3)	N/A	N/A
Data Acquisition		
Data Recorder	Strip chart, Analog Computer or Digital Recorder	Analog Computer
Recorder Resolution	0.5 Percent of Span	0.1 Percent of Span
Data Storage	Manually or Automatic	Manually
Measurement Freq. <60 min. Sample Time	1-min. intervals or 30 measurements (less restrictive)	One reading per second
Recording Freq. <60 min. Sample Time	1-min. intervals or 30 measurements (less restrictive)	One Minute Average (60, 1 second readings)
Measurement Freq. >60 min. Sample Time	2-min. intervals or 96 measurements (less restrictive)	N/A
Recording Freq. >60 min. Sample Time	2-min. intervals or 96 measurements (less restrictive)	N/A
Calibration Gas Specifications		
Oxygen (O_2)	EPA Protocol 1	EPA Protocol 1
Carbon Dioxide (CO_2)	EPA Protocol 1	EPA Protocol 1
Sulfur Dioxide (SO_2)	EPA Protocol 1	EPA Protocol 1
Nitrogen Oxides (NO_x)	N/A	
Carbon Monoxide (CO)	N/A	
Total Hydrocarbon (THC)	N/A	
Hydrogen Chloride (HCl)	N/A	
Ammonia (NH_3)	N/A	

Specification Sheet for EPA Method 6C

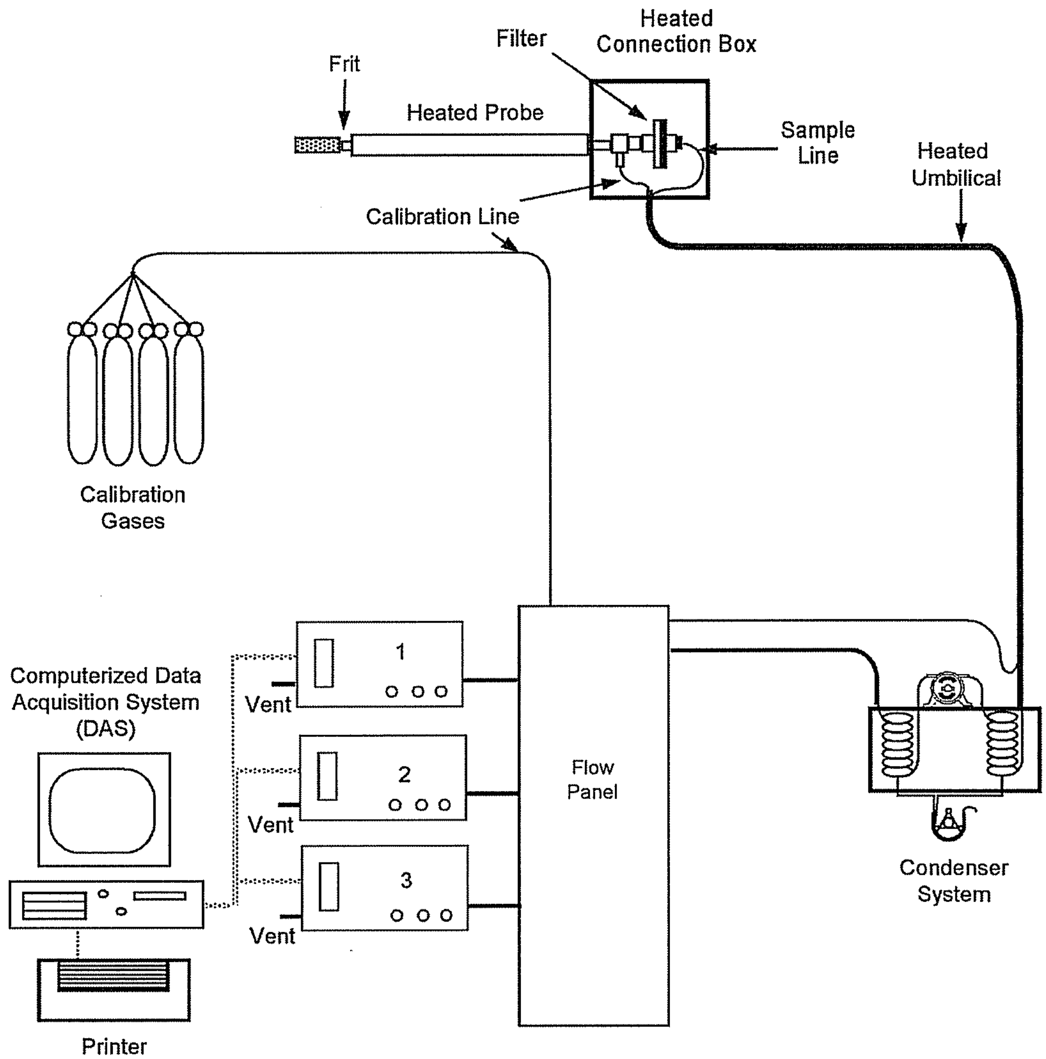
Source Location Name(s)	Baghouse Outlet
Pollutant(s) to be Determined	Sulfur Dioxide (SO_2)
Other Parameters to be Determined from Train	O2 and CO2 (EPA Method 3A)

	Standard Method Specification	Actual Specification Used
Pollutant Sampling Information		
Duration of Run	N/A	60 minutes
No. of Sample Traverse Points	N/A	1
Sample Time per Point	N/A	60 minutes
Sampling Rate	Constant Rate	Constant Rate
Sampling Probe		
Nozzle Material	N/A	None
Nozzle Design	N/A	N/A
Probe Liner Material	Stainless Steel or Pyrex Glass	Stainless Steel
Effective Probe Length	Sufficient to Traverse Points	8 feet
Probe Temperature Set-Point	Prevent Condensation	248°F±25°F
Particulate Filter		
In-Stack Filter	Yes	Yes
In-Stack Filter Material	Non-reactive to gas	Fritted Stainless Steel
External Filter	Yes	Yes
External Filter Material	Borosilicate, Quartz Glass Wool or Fiber Mat	Borosilicate Glass Fiber Mat
External Filter Set-Point	Prevent Condensation	248°F±25°F
Sample Delivery System		
Heated Sample Line Material	Stainless Steel or Teflon	Teflon
Heated Sample Line Set-Point	Prevent Condensation	248°F±25°F
Heated Sample Line Connections	Probe Exit to Moisture Removal System	Probe to Moisture Removal System
Moisture Removal System	Refrigerator-type condenser or similar	Refrigerator-type condenser
Sample Pump Type	Leak-Free, minimal response time	Diaphragm
Sample Pump Material	Non-reactive to sample gases	Teflon
Sample Flow Control	Constant Rate	Constant Rate (±10%)
Non-Heated Sample Line Material	Stainless Steel or Teflon	Teflon
Non-Heated Sample Line Connections	Moisture Removal to Sample Gas Manifold	Moisture Removal to Sample Gas Manifold
Additional Filters	Optional	Yes
Additional Filter Type	N/A	Particulate Removal
Additional Filter Location	Optional	Entrance to Sample Manifold
Filter Material	Non-reactive to sample gases	Glass Fiber
Analyzer Description		
Oxygen (O_2)	EPA Method 3A (Paramagnetic)	EPA Method 3A (Paramagnetic)
Carbon Dioxide (CO_2)	EPA Method 3A (NDIR)	EPA Method 3A (NDIR)
Sulfur Dioxide (SO_2)	EPA Method 6C (UV, NDIR or Fluorescence)	EPA Method 6C (UV Absorption)
Nitrogen Oxides (NO_x)	N/A	
Carbon Monoxide (CO)	N/A	
Total Hydrocarbon (THC)	N/A	
Hydrogen Chloride (HCl)	N/A	
Ammonia (NH_3)	N/A	

Specification Sheet for EPA Method 6C

	Standard Method Specification	Actual Specification Used
Instrument Span Range		
Oxygen (O_2)	$\leq$ 1.33 x Expected Maximum	0-15%
Carbon Dioxide (CO_2)	$\leq$ 1.33 x Expected Maximum	0-15%
Sulfur Dioxide (SO_2)	$\leq$ 1.33 x Expected Maximum	0-150 ppm
Nitrogen Oxides (NO_x)	N/A	N/A
Carbon Monoxide (CO)	N/A	N/A
Total Hydrocarbon (THC)	N/A	N/A
Hydrogen Chloride (HCl)	N/A	N/A
Ammonia (NH_3)	N/A	N/A
Calibration Gas Specifications		
Oxygen (O_2)	EPA Protocol 1	EPA Protocol 1
Carbon Dioxide (CO_2)	EPA Protocol 1	EPA Protocol 1
Sulfur Dioxide (SO_2)	EPA Protocol 1	EPA Protocol 1

EPA Methods 3A, 6C
Sampling Train Configuration
Air Heater Outlet & Baghouse Outlet



Number	Gas	Monitor	Range Used	Calibration Gas Concentrations
1 Air Heater Outlet	O_2	Servomex 1420B Paramanetic	0-15%	6.04%, 14.1%
2 Air Heater Outlet	CO_2	Servomex 1415 NDIR	0-15%	6.02, 13.98%
3 Air Heater Outlet	SO_2	Western Research 921 UV	0-5000 ppm	121.6 ppm, 2479 ppm
1 Baghouse Outlet	O_2	Servomex 1420B Paramanetic	0-15%	6.04%, 14.1%
2 Baghouse Outlet	CO_2	Servomex 1415 NDIR	0-15%	6.02, 13.98%
3 Baghouse Outlet	SO_2	Western Research 921 UV	0-150 ppm	49.35 ppm, 121.6 ppm

Specification Sheet for EPA Method 3A and 7E with MASS

Source Location Name(s)	SCR Inlet/Outlet Test Grid
Pollutant(s) to be Determined	Determination of Nitrogen Oxides (NO_x) Emissions
Other Parameters to be Determined from Train	O2 (EPA Method 3A)

	Standard Method Specification	Actual Specification Used
Pollutant Sampling Information		
Duration of Run	N/A	72 minutes
No. of Sample Traverse Points	N/A	24 (3 cycles per run)
Sample Time per Point	N/A	1 minute
Sampling Rate	Constant Rate	Constant Rate
Sampling Probe		
Nozzle Material	N/A	None
Nozzle Design	N/A	N/A
Probe Liner Material	Stainless Steel or Pyrex Glass	Test Grid
Effective Probe Length	Sufficient to Traverse Points	See Report Section 3 for point locations
Probe Temperature Set-Point	Prevent Condensation	Stack Temp
Particulate Filter		
In-Stack Filter	Yes	No
In-Stack Filter Material	Non-reactive to gas	N/A
External Filter	Yes	Yes
External Filter Material	Borosilicate, Quartz Glass Wool or Fiber Mat	Borosilicate Glass Fiber Mat
External Filter Set-Point	Prevent Condensation	Ambient
Sample Delivery System		
Heated Sample Line Material	Stainless Steel or Teflon	Teflon
Heated Sample Line Set-Point	Prevent Condensation	Ambient
Heated Sample Line Connections	Probe Exit to Moisture Removal System	N/A
Moisture Removal System	Refrigerator-type condenser or similar	Coil - Condenser Type
Sample Pump Type	Leak-Free, minimal response time	Piston
Sample Pump Material	Non-reactive to sample gases	Teflon
Sample Flow Control	Constant Rate	Constant Rate (±10%)
Non-Heated Sample Line Material	Stainless Steel or Teflon	Teflon
Non-Heated Sample Line Connections	Moisture Removal to Sample Gas Manifold	Probe to Sample Gas Manifold
Additional Filters	Optional	Yes
Additional Filter Type	N/A	Particulate Removal
Additional Filter Location	Optional	Entrance to Sample Manifold
Filter Material	Non-reactive to sample gases	Glass Fiber
Analyzer Description		
Oxygen (O_2)	N/A	EPA Method 3A (Paramagnetic)
Carbon Dioxide (CO_2)	N/A	N/A
Sulfur Dioxide (SO_2)	N/A	N/A
Nitrogen Oxides (NO_x)	EPA Method 7E (Chemiluminescent)	EPA Method 7E (Chemiluminescent)
Carbon Monoxide (CO)	N/A	N/A
Total Hydrocarbon (THC)	N/A	N/A
Hydrogen Chloride (HCl)	N/A	N/A
Ammonia (NH_3)	N/A	N/A

Specification Sheet for EPA Method 3A and 7E with MASS

	Standard Method Specification	Actual Specification Used
Instrument Span Range		
Oxygen (O_2)	$\leq$ 1.33 x Expected Maximum	0-15%
Carbon Dioxide (CO_2)	$\leq$ 1.33 x Expected Maximum	0-15%
Sulfur Dioxide (SO_2)		N/A
Nitrogen Oxides (NO_x)	$\leq$ 1.33 x Expected Maximum	0-250 ppm
Carbon Monoxide (CO)	$\leq$ 1.33 x Expected Maximum	N/A
Total Hydrocarbon (THC)	N/A	N/A
Hydrogen Chloride (HCl)	N/A	N/A
Ammonia (NH_3)	N/A	N/A
Data Acquisition		
Data Recorder	Strip chart, Analog Computer or Digital Recorder	Analog Computer
Recorder Resolution	0.5 Percent of Span	0.1 Percent of Span
Data Storage	Manually or Automatic	Automatic
Measurement Freq. <60 min. Sample Time	1-min. intervals or 30 measurements (less restrictive)	One reading per second
Recording Freq. <60 min. Sample Time	1-min. intervals or 30 measurements (less restrictive)	One Minute Average (60, 1 second readings)
Measurement Freq. >60 min. Sample Time	2-min. intervals or 96 measurements (less restrictive)	N/A
Recording Freq. >60 min. Sample Time	2-min. intervals or 96 measurements (less restrictive)	N/A
Calibration Gas Specifications		
Oxygen (O_2)	EPA Protocol 1	EPA Protocol 1
Carbon Dioxide (CO_2)	N/A	EPA Protocol 1
Sulfur Dioxide (SO_2)	N/A	
Nitrogen Oxides (NO_x)	EPA Protocol 1	EPA Protocol 1
Carbon Monoxide (CO)	N/A	
Total Hydrocarbon (THC)	N/A	
Hydrogen Chloride (HCl)	N/A	
Ammonia (NH_3)	N/A	

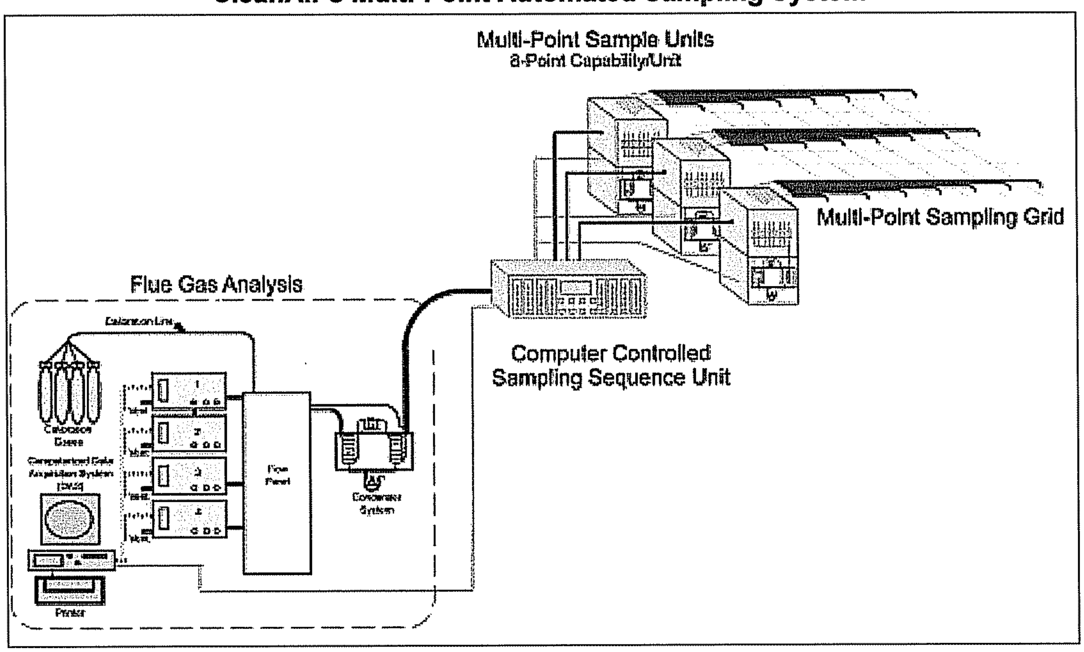
Multi-Point Automated Sampling System

The NOx and O_2 distributions at the SCR Inlet and Outlet were measured simultaneously using an extractive continuous emission monitoring (CEM) package contained in a mobile emission laboratory. The system is comprised of three basic subsystems, including; 1) a flue gas sample acquisition and conditioning system, 2) a calibration gas system, and 3) the electronic gas analyzers.

In order to assess local NOx reductions, CleanAir has developed a proprietary flue gas profiling system called the **Multi-Point Automated Sampling System (MASS)**. The MASS system allows duct emission profiles to be characterized in a matter of minutes, as opposed much longer sampling times for traditional duct emission traverses using "manual" traversing techniques.

Clean Air Engineering's MASS system uses a series of automated 8-point sample modules with integrated programmable logic controllers (PLC's) to sequentially and rapidly cycle through a multi-point sample grid. A diagram of the sampling system is provided in Figure 1.

Figure 1:
CleanAir's Multi-Point Automated Sampling System



Based on a 24 point grid system (Inlet and Outlet) for the reactor module, three (3) cycles were performed to obtain a test duration of 72 minutes. A total of three test runs were performed concurrently at both the SCR Inlet and Outlet test grid locations.

SAMPLE CALCULATIONS

B

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Consol Energy
CleanAir Project No. 10192
Dresden, New York
Stack, AH Outlet

CEM Field Sample Calculations for SO2 AH Outlet

Sample data taken from Run 1 and Channel 2

Note: The tables presenting the results are generated electronically from raw data. It may not be possible to exactly duplicate these results using a calculator. The reference method data, results and all calculations are carried to sixteen decimal places throughout. The final table is formatted to an appropriate number of significant figures.

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1. Average of a calibration series

$$C_{mce} = \frac{(C_1 + C_2 + C_3)}{3}$$

Where:

C_1,C_2,C_3	= concentrations of 3 consecutive gas samples that are representative of the calibration gas			
C_{mce}	= average concentration of a calibration series In this case the low cal series for channel 2	=	133.235	ppmdv

2a. Calibration Error Check for Hydrocarbons (5% of actual calibration gas value error allowed by Method 25A)

$$E_{HC} = abs\left|\frac{C_{mce} - C_{ma}}{C_{ma}}\right| \le l_{cal}$$

Where:

C_{mce}	= average concentration of a calibration series In this case the low cal series for channel 2	=	133.235	ppmdv
C_{ma}	= concentration of actual calibration gas value	=	121.600	ppmdv
l_{cal}	= limit for calibration error for hydrocarbons	=	5.0%	
E_{HC}	= calibration error check value	=	NA	

2b. Calibration Error Check for non-Hydrocarbons (2% of Instrument Span)

$$E = abs\left|\frac{C_{mce} - C_{ma}}{Span}\right| \le l_{cal}$$

Where:

C_{mce}	= average concentration of a calibration series In this case the low cal series for channel 2	=	133.235	ppmdv
C_{ma}	= concentration of actual calibration gas value	=	121.600	ppmdv
Span	= instrument span value	=	2479.000	
l_{cal}	= limit for calibration error for non-hydrocarbons	=	2.0%	
E	= calibration error check value	=	0.47%	**Pass**

3. System Bias as Percent of Span Value (5% is allowed)

$$E_{Bias} = abs\left|\frac{C_{mf} - C_{mce}}{Span}\right| \le l_{bias}$$

Where:

C_{mce}	= average concentration of a calibration series in this case the High cal series for channel 2	=	2482.035	ppmdv
C_{mf}	= calibration error response concentration for Cal01	=	2411.901	ppmdv
Span	= instrument span value	=	2479.000	ppmdv
l_{bias}	= limit for system bias error	=	5.0%	
E_{bias}	= calibration bias error check value	=	2.83%	**Pass**

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Consol Energy
CleanAir Project No. 10192
Dresden, New York
Stack, AH Outlet

4. System Drift as Percent of Span Value (3%)

$$E_{Drift} = abs\left|\frac{C_{mf} - C_{mi}}{Span}\right| \leq l_{drift}$$

Where:

C_{mf}	= calibration error response concentration for Cal01 (final)	=	2411.901	ppmdv
C_{mi}	= calibration error response concentration for Cal00 (initial)	=	2432.641	ppmdv
Span	= instrument span value	=	2479.000	ppmdv
l_{drift}	= limit for system drift error	=	3.0%	
E_{drift}	= calibration drift error check value	=	0.84%	**Pass**

5. Average Concentration for an entire Run

$$C = \frac{\sum_{i=1}^{N} C_i}{N}$$

Where:

			i=1	
C_i	= All concentration readings for the entirety of Run 1 for the monitor looking for SO2 on channel 2	=	1391.429	ppmdv
N	= total number of readings in Run 1	=	61	
C	= average SO2 concentration for Run 1	=	1384.546	ppmdv

6. Drift-Corrected Average Concentration for an entire Run

$$C_{DC} = \left(C - \frac{C_{oi} + C_{of}}{2}\right)\left(\frac{C_{ma}}{\frac{C_{mi} + C_{mf}}{2} - \frac{C_{oi} + C_{of}}{2}}\right)$$

C_{ma}	= concentration of actual calibration gas value	=	2479.000	ppmdv
C	= average SO2 concentration for Run 1	=	1384.546	ppmdv
C_{mf}	= calibration error response concentration for Cal01 (final)	=	2411.901	ppmdv
C_{mi}	= calibration error response concentration for Cal00 (initial)	=	2432.641	ppmdv
C_{of}	= calibration error response concentration for Cal01 (final) for zero gas	=	13.789	ppmdv
C_{oi}	= calibration error response concentration for Cal00 (initial) for zero gas	=	19.829	ppmdv
C_{DC}	= drift corrected average concentration for Run 1	=	1409.550	ppmdv

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CEM Emissions Sample Calculations
for SO2 AH Outlet

Sample data taken from Run 1
and Channel 2

Note: The tables presenting the results are generated electronically from raw data. It may not be possible to exactly duplicate these results using a calculator. The reference method data, results and all calculations are carried to sixteen decimal places throughout. The final table is formatted to an appropriate number of significant figures.

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1. SO2 concentration (ppmdv)

$$C(ppmdv) = k_1 \times C_{DC} \quad if \quad dry \quad gas$$

$$C(ppmdv) = \frac{k_1 \times C_{DC}}{\left(1 - \frac{B_W}{100}\right)} \quad if \quad wet \quad gas$$

Where:

C_{DC}	= drift corrected average concentration	=	1409.550	ppmdv
B_w	= actual water vapor in gas (% v/v)	=	0.000	% v/v
100	= conversion factor to change percentage to decimal	=	100	
k_1	= ppm/% to ppm conversion factor for diluent gases	=	1	
C (ppmdv)	= SO2 concentration (ppmdv)	=	1409.550	ppmdv

2. SO2 concentration (ppmwv)

$$C(ppmwv) = k_1 \times C_{DC} \quad if \quad wet \quad gas$$

$$C(ppmwv) = k_1 \times C_{DC} \times \left(1 - \frac{B_W}{100}\right) \quad if \quad dry \quad gas$$

Where:

C_{DC}	= drift corrected average concentration	=	1409.550	ppmdv
B_w	= actual water vapor in gas (% v/v)	=	0.000	% v/v
100	= conversion factor to change percentage to decimal	=	100	
k_1	= ppm/% to ppm conversion factor for diluent gases	=	1	
C (ppmwv)	= SO2 concentration (ppmwv)	=	1409.550	ppmwv

3. SO2 concentration (lb/dscf)

$$C(lb/dscf) = \frac{C(ppmdv) \times MW(gas)}{10^6\ ppm \times 385.3}$$

Where:

C (ppmdv)	= SO2 concentration (ppmdv)	=	1409.550	ppmdv
MW	= Molecular Weight of SO2 gas	=	64.0628	lb/lb-mole
10^6	= conversion factor from decimal to ppm	=	1.00E+06	
385.3	= molar volume	=	385.3	dscf/lb-mole
C (lb/dscf)	= SO2 concentration (lb/dscf)	=	2.344E-04	lb/dscf

4. SO2 concentration (lb/scf)

$$C(lb/scf) = C(lb/dscf) \times \frac{Q_{std}}{Q_s}$$

Where:

C (lb/dscf)	= SO2 concentration (lb/dscf)	=	2.344E-04	lb/dscf
Q_{std}	= volumetric flow rate at standard conditions, dry basis (dscfm)	=	0	dscf/min
Q_s	= volumetric flow rate (standard cubic feet/min)	=	0	scf/min
C (lb/scf)	= SO2 concentration (lb/scf)	=	N/A	lb/scf

5. SO2 concentration (lb/acf)

$$C(lb/acf) = C(lb/dscf) \times \frac{Q_{std}}{Q_a}$$

Where:

C (lb/dscf)	= SO2 concentration (lb/dscf)	=	2.344E-04	lb/dscf
Q_{std}	= volumetric flow rate at standard conditions, dry basis (dscfm)	=	0	dscf/min
Q_a	= volumetric flow rate (actual cubic feet/min)	=	0	acf/min
C (lb/acf)	= SO2 concentration (lb/acf)	=	N/A	lb/acf

6. SO2 concentration (%dv)

$$C(\%dv) = C(ppmdv) \times \frac{100}{10^6}$$

Where:

C (ppmdv)	= SO2 concentration (ppmdv)	=	1409.550	ppmdv
100	= conversion factor from decimal to percentage	=	1.00E+02	
10^6	= conversion factor from decimal to ppm	=	1.00E+06	
C (%dv)	= SO2 concentration (%dv)	=	0.1410%	%dv

7. SO2 concentration (mg/dscm)

$$C(mg/dscm) = C(lb/dscf) \times k_2 \times 35.31$$

Where:

C (lb/dscf)	= SO2 concentration (lb/dscf)	=	2.344E-04	lb/dscf
k_2	= conversion factor from lb to mg	=	453515	mg/lb
35.31	= conversion factor from dscf to dscm	=	35.31	ft^3/m^3
C (mg/dscm)	= SO2 concentration (mg/dscm)	=	3752.982	mg/dscm

8. SO2 concentration (mg/Nm3 dry)

$$C \quad (mg / Nm^3\ dry) \quad = C(lb / dscf) \times k_2 \times 35.31 \times \left(\frac{68 + 460}{32 + 460}\right)$$

Where:

C (lb/dscf)	= SO2 concentration (lb/dscf)	=	2.344E-04	lb/dscf
k_2	= conversion factor from lb to mg	=	453515	mg/lb
35.31	= conversion factor from dscf to dscm	=	35.31	ft^3/m^3
68	= standard temperature (°F)	=	68	°F
32	= normal temperature (°F)	=	32	°F
460	= °F to °R conversion constant	=	460	
C (mg/Nm3 dr	= SO2 concentration (mg/Nm3 dry)	=	4027.591	mg/Nm^3 dry

9. SO2 concentration corrected to 3% O2 (ppmdv example)

$$C(ppmdv@x\%02) \quad = C(ppmdv) \times \left(\frac{20.9 - x}{20.9 - O_2}\right)$$

Where:

C (ppmdv)	= SO2 concentration (ppmdv)	=	1409.550	ppmdv
x	= oxygen content of corrected gas (%)	=	3.00	%
O_2	= proportion of oxygen in the gas stream by volume (%)	=	7.201	%
20.9	= oxygen content of ambient air (%)	=	20.9	%
C (ppmdv - O2	= SO2 concentration corrected to 3% O2 (ppmdv example)	=	1841.848	ppmdv @ 3%O2

10. SO2 concentration corrected to 12% CO2 (ppmdv example)

$$C(ppmdv\ @\ y\%C0_2) \ = C(ppmdv) \times \left(\frac{y}{CO_2}\right)$$

Where:

C (ppmdv)	= SO2 concentration (ppmdv)	=	1409.550	ppmdv
y	= carbon dioxide content of corrected gas (%)	=	12.00	%
CO_2	= proportion of carbon dioxide in the gas stream by volume (%)	=	11.491	%
C (ppmdv -CO	= SO2 concentration corrected to 12% CO2 (ppmdv example)	=	1472.001	ppmdv @ 12%CO2

11. SO2 Removal Efficiency% (no data on this channel for example)

$$RE \quad = \frac{(C_i - C_o)}{C_i}$$

Where:

RC	= Removal Channel Number	=	N/A
UI	= Unit Index Number	=	
C_i	= Initial concentration	=	1.842E+03
C_o	= Final concentration	=	1.046E+02
RE	= Recovery Efficiency (%)	=	94.32%

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Consol Energy
CleanAir Project No. 10192
Dresden, New York
SCR Inlet , SCR Outlet

CEM Emissions Sample Calculations
for NOX 0

Sample data taken from Run 1
and Channel 2

Note: The tables presenting the results are generated electronically from raw data. It may not be possible to exactly duplicate these results using a calculator. The reference method data, results and all calculations are carried to sixteen decimal places throughout. The final table is formatted to an appropriate number of significant figures.

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1. NOX concentration corrected to 3% O2 (ppmdv example)

$$C(ppmdv@x\%02) \quad = C(ppmdv) \times \left(\frac{20.9 - x}{20.9 - O_2} \right)$$

Where:

C (ppmdv)	= NOX concentration (ppmdv)	=	46.900	ppmdv
x	= oxygen content of corrected gas (%)	=	3.00	%
O_2	= proportion of oxygen in the gas stream by volume (%)	=	4.900	%
20.9	= oxygen content of ambient air (%)	=	20.9	%
C (ppmdv - O2	= NOX concentration corrected to 3% O2 (ppmdv example)	=	52.500	ppmdv @ 3%O2

2. NOX concentration corrected to 12% CO2 (ppmdv example)

$$C(ppmdv @ y\%C0_2) \ = C(ppmdv) \times \left(\frac{y}{CO_2} \right)$$

Where:

C (ppmdv)	= NOX concentration (ppmdv)	=	46.900	ppmdv
y	= carbon dioxide content of corrected gas (%)	=	12.00	%
CO_2	= proportion of carbon dioxide in the gas stream by volume (%)	=	13.900	%
C (ppmdv -CO	= NOX concentration corrected to 12% CO2 (ppmdv example)	=	40.500	ppmdv @ 12%CO2

3. NOX Fd-based emission rate (lb/MMBtu)

$$E_{Fd} \quad = C(lb / dscf) \times F_d \times \left(\frac{20.9}{20.9 - O_2} \right)$$

Where:

C (lb/dscf)	= NOX concentration (lb/dscf)	=	5.600E-06	lb/dscf
F_d	= ratio of gas volume to heat content of fuel (dscf/MMBtu)	=	9737	dscf/MMBtu
O_2	= proportion of oxygen in the gas stream by volume (%)	=	4.900	%
20.9	= oxygen content of ambient air (%)	=	20.9	%
E_{Fd}	= NOX Fd-based emission rate (lb/MMBtu)	=	0.0711	lb/MMBtu

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Consol Energy
CleanAir Project No. 10192
Dresden, New York
SCR Inlet , SCR Outlet

CEM Field Sample Calculations
for NOX 0

Sample data taken from Run 1
and Channel 2

Note: The tables presenting the results are generated electronically from raw data. It may not be possible to exactly duplicate these results using a calculator. The reference method data, results and all calculations are carried to sixteen decimal places throughout. The final table is formatted to an appropriate number of significant figures.

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1. Average Concentration for an entire Run

$$C = \frac{\sum_{i=1}^{N} C_i}{N}$$

Where:			i=1	
C_i	= All concentration readings for the entirety of Run 1 for the monitor looking for NOX on channel 2	=	140.600	ppmdv
N	= total number of readings in Run 1	=	3	
C	= average NOX concentration for Run 1	=	46.900	ppmdv

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PARAMETERS

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TEST LOG

Client: Consol Energy Dresden, New York
CleanAir Project No. 10192

Run Number	Location	Method	Analyte	Date	Start Time	End Time	Notes
1	SCR Inlet	MASS: 3A, 7E	O_2/CO_2, NO_x	3/28/07	09:12	10:23	
2	SCR Inlet	MASS: 3A, 7E	O_2/CO_2, NO_x	3/28/07	11:12	12:23	
3	SCR Inlet	MASS: 3A, 7E	O_2/CO_2, NO_x	3/28/07	12:48	13:59	
1	SCR Outlet	MASS: 3A, 7E	O_2/CO_2, NO_x	3/28/07	09:12	10:23	
2	SCR Outlet	MASS: 3A, 7E	O_2/CO_2, NO_x	3/28/07	11:12	12:23	
3	SCR Outlet	MASS: 3A, 7E	O_2/CO_2, NO_x	3/28/07	12:48	13:59	

Notes:
None

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Clean Air Engineering Project #10192
Consol Energy
AES Dresden

Date:	3/28/2007	**Run # (Cycle #)**	**1 (Avg)**
Start Time:	9:12		
End Time:	10:23		

Inlet Point	Time Sampled	NOx ppmdv	PPM Dev from Avg.	O2 %dv	CO2 %dv	NOx @ 3% O2	PPM Dev from Avg.
1-1		77.6	-5.6	7.5	11.6	103.8	11.2
1-2		105.9	22.7	2.9	15.4	105.5	12.9
1-3		89.1	5.9	5.0	13.7	100.5	8.0
1-4		82.2	-1.0	4.4	14.3	89.0	-3.5
1-5		72.5	-10.7	4.8	13.9	80.4	-12.1
1-6		75.0	-8.2	8.6	10.7	108.9	16.3
2-1		83.3	0.1	6.0	12.9	99.7	7.1
2-2		86.2	3.0	3.0	15.5	85.9	-6.6
2-3		87.4	4.2	5.3	13.5	100.5	8.0
2-4		78.4	-4.8	3.9	14.7	82.4	-10.1
2-5		66.5	-16.7	4.5	14.1	72.8	-19.8
2-6		84.1	0.9	6.8	12.2	107.0	14.4
3-1		95.7	12.5	4.0	14.5	101.4	8.8
3-2		87.4	4.2	2.9	15.5	86.9	-5.6
3-3		102.4	19.2	3.3	15.1	104.2	11.7
3-4		81.5	-1.7	3.7	14.9	84.7	-7.9
3-5		70.9	-12.3	4.5	14.1	77.5	-15.1
3-6		87.7	4.5	6.3	12.6	107.7	15.1
4-1		83.4	0.2	5.7	13.1	98.2	5.6
4-2		89.7	6.5	2.5	15.8	87.4	-5.1
4-3		96.9	13.7	3.2	15.3	97.8	5.2
4-4		79.0	-4.2	3.7	14.8	82.2	-10.4
4-5		63.6	-19.6	4.5	14.2	69.5	-23.1
4-6		70.2	-13.0	6.6	12.4	87.7	-4.9
Inlet Averages		**83.2**		**4.7**	**13.9**	**92.6**	

Outlet Point	Time Sampled	NOx ppmdv	PPM Dev from Avg.	O2 %dv	CO2 %dv	NOx @ 3% O2	PPM Dev from Avg.	Removal Efficiency	Removal Eff W/ O2 correction
1-1		68.0	21.1	4.9	13.9	75.9	23.2	9.7	24.6
1-2		78.6	31.8	5.6	13.3	91.8	39.1	25.4	12.5
1-3		56.9	10.1	5.3	13.6	65.2	12.5	33.6	33.1
1-4		62.2	15.4	4.7	14.0	68.8	16.0	31.1	29.2
1-5		50.4	3.5	6.3	12.7	61.7	9.0	29.8	23.4
1-6		40.7	-6.2	7.7	10.3	55.9	3.1	66.8	70.0
2-1		33.3	-13.5	5.0	13.8	37.4	-15.3	60.0	62.4
2-2		56.7	9.8	4.6	14.1	62.3	9.6	31.9	25.1
2-3		69.7	22.8	4.7	14.0	77.2	24.5	18.2	21.3
2-4		71.9	25.0	5.9	13.0	85.8	33.1	5.6	-7.1
2-5		24.4	-22.4	4.9	13.9	27.3	-25.4	63.5	62.9
2-6		46.9	0.0	6.7	12.3	59.0	6.3	36.4	37.2
3-1		24.4	-22.5	3.7	14.9	25.4	-27.4	75.2	75.6
3-2		68.1	21.3	4.3	14.4	73.4	20.7	18.8	12.8
3-3		78.6	31.7	4.4	14.3	85.0	32.3	20.5	15.6
3-4		59.9	13.0	4.9	13.9	67.2	14.4	26.0	20.2
3-5		30.5	-16.4	4.3	14.4	32.8	-19.9	56.1	57.0
3-6		24.1	-22.7	5.5	13.4	28.1	-24.7	70.3	71.9
4-1		7.6	-39.3	3.5	15.1	7.8	-44.9	91.0	92.2
4-2		52.8	5.9	2.7	15.9	51.8	-0.9	38.5	38.1
4-3		73.3	26.5	3.5	15.2	75.3	22.6	24.0	22.6
4-4		36.1	-10.8	4.5	14.2	39.4	-13.3	53.6	50.9
4-5		4.5	-42.3	4.0	14.6	4.8	-47.9	92.7	92.9
4-6		5.3	-41.5	5.6	13.3	6.2	-46.5	91.7	92.2
Outlet Averages		**46.9**		**4.9**	**13.9**	**52.7**		**44.9**	**43.4**
		9737.0	**Fd**						
		0.0711	**lb/Mbtu**						

Clean Air Engineering Project #10192
Consol Energy
AES Dresden

Date:	3/28/2007	**Run # (Cycle #)**	**2 (Avg)**
Start Time:	11:12		
End Time:	12:23		

Inlet Point	Time Sampled	NOx ppmdv	PPM Dev from Avg.	O2 %dv	CO2 %dv	NOx @ 3% O2	PPM Dev from Avg.
1-1		76.3	-1.1	7.6	11.6	102.3	16.0
1-2		99.0	21.5	3.1	15.3	99.6	13.3
1-3		85.4	8.0	5.0	13.8	96.1	9.8
1-4		79.9	2.4	4.3	14.3	86.3	0.0
1-5		66.9	-10.5	4.6	14.1	73.5	-12.8
1-6		70.6	-6.8	8.6	10.7	102.6	16.4
2-1		79.1	1.7	6.1	12.8	95.4	9.1
2-2		79.2	1.8	3.2	15.3	80.1	-6.2
2-3		82.8	5.4	5.4	13.4	95.6	9.3
2-4		74.1	-3.3	3.8	14.7	77.6	-8.7
2-5		58.4	-19.1	4.3	14.3	63.0	-23.2
2-6		75.9	-1.5	6.8	12.2	96.6	10.3
3-1		87.5	10.0	4.2	14.4	93.6	7.3
3-2		78.4	1.0	3.0	15.4	78.6	-7.7
3-3		98.0	20.6	3.3	15.2	99.5	13.2
3-4		77.7	0.2	3.6	14.9	80.4	-5.8
3-5		64.4	-13.0	4.4	14.3	69.9	-16.4
3-6		79.8	2.4	6.3	12.6	98.2	11.9
4-1		75.7	-1.7	6.3	12.6	92.8	6.5
4-2		79.7	2.3	2.7	15.7	78.3	-8.0
4-3		94.2	16.7	3.1	15.4	94.5	8.2
4-4		75.5	-2.0	3.5	15.0	77.5	-8.8
4-5		57.3	-20.1	4.3	14.4	61.7	-24.5
4-6		62.5	-15.0	6.4	12.5	77.2	-9.0
Inlet Averages		**77.4**		**4.7**	**14.0**	**86.3**	

Outlet Point	Time Sampled	NOx ppmdv	PPM Dev from Avg.	O2 %dv	CO2 %dv	NOx @ 3% O2	PPM Dev from Avg.	Removal Efficiency	Removal Eff W/ O2 correction
1-1		69.9	23.1	4.8	13.9	78.0	25.3	9.7	24.6
1-2		78.4	31.5	5.7	13.3	92.1	39.4	25.4	12.5
1-3		58.2	11.3	5.2	13.6	66.5	13.8	33.6	33.1
1-4		68.4	21.6	4.4	14.4	74.0	21.4	31.1	29.2
1-5		49.8	3.0	6.1	12.8	60.4	7.7	29.8	23.4
1-6		48.5	1.7	8.0	11.1	67.3	14.6	66.8	70.0
2-1		31.4	-15.4	5.0	13.8	35.3	-17.4	60.0	62.4
2-2		53.1	6.3	4.6	14.1	58.5	5.8	31.9	25.1
2-3		71.1	24.3	4.8	14.0	78.9	26.2	18.2	21.3
2-4		73.4	26.6	5.8	13.1	87.3	34.6	5.6	-7.1
2-5		22.2	-24.6	4.8	14.0	24.7	-28.0	63.5	62.9
2-6		41.7	-5.1	6.7	12.2	52.8	0.1	36.4	37.2
3-1		22.1	-24.7	3.8	14.9	23.2	-29.5	75.2	75.6
3-2		67.2	20.4	4.3	14.4	72.6	19.9	18.8	12.8
3-3		79.7	32.9	4.3	14.4	86.2	33.5	20.5	15.6
3-4		63.1	16.3	4.8	14.0	69.9	17.2	26.0	20.2
3-5		29.6	-17.2	4.2	14.5	31.7	-21.0	56.1	57.0
3-6		21.2	-25.6	5.7	13.2	24.9	-27.7	70.3	71.9
4-1		6.5	-40.3	3.8	14.9	6.8	-45.9	91.0	92.2
4-2		45.7	-1.1	2.7	15.8	45.1	-7.6	38.5	38.1
4-3		75.0	28.2	3.3	15.3	76.5	23.8	24.0	22.6
4-4		39.1	-7.7	4.4	14.3	42.5	-10.2	53.6	50.9
4-5		4.0	-42.8	3.9	14.8	4.2	-48.4	92.7	92.9
4-6		4.4	-42.4	5.4	13.4	5.1	-47.6	91.7	92.2
Outlet Averages		**46.8**		**4.9**	**13.9**	**52.7**		**41.2**	**39.7**
		9737.0	**Fd**						
		0.0709	**lb/Mbtu**						

Clean Air Engineering Project #10192
Consol Energy
AES Dresden

Date:	3/28/2007		Run # (Cycle #)	3 (Avg)
Start Time:	12:48			
End Time:	13:59			

Inlet Point	Time Sampled	NOx ppmdv	PPM Dev from Avg.	O2 %dv	CO2 %dv	NOx @ 3% O2	PPM Dev from Avg.
1-1		73.3	-2.6	7.8	11.4	100.1	15.5
1-2		100.6	24.7	3.2	15.2	101.6	17.0
1-3		83.5	7.6	5.0	13.7	94.1	9.5
1-4		75.6	-0.3	4.3	14.3	81.5	-3.0
1-5		63.1	-12.8	4.5	14.2	68.8	-15.7
1-6		69.3	-6.6	8.6	10.7	100.5	16.0
2-1		79.3	3.4	6.2	12.7	96.5	11.9
2-2		76.5	0.6	3.3	15.2	77.9	-6.6
2-3		84.1	8.2	5.2	13.6	96.1	11.6
2-4		71.5	-4.4	3.6	14.9	74.1	-10.5
2-5		55.6	-20.3	4.2	14.5	59.5	-25.1
2-6		76.6	0.7	6.9	12.1	97.8	13.3
3-1		87.3	11.4	4.3	14.4	93.8	9.3
3-2		75.5	-0.4	3.2	15.3	76.4	-8.2
3-3		96.7	20.8	3.3	15.2	98.3	13.7
3-4		76.4	0.5	3.5	15.0	78.7	-5.9
3-5		61.9	-14.0	4.3	14.4	66.6	-18.0
3-6		78.6	2.7	6.3	12.7	96.0	11.5
4-1		75.5	-0.4	6.1	12.8	91.1	6.6
4-2		77.2	1.3	2.8	15.6	76.5	-8.1
4-3		94.1	18.2	3.1	15.4	94.4	9.9
4-4		73.8	-2.1	3.4	15.1	75.4	-9.2
4-5		55.3	-20.6	4.1	14.6	58.8	-25.7
4-6		60.9	-15.0	6.3	12.6	74.8	-9.8
Inlet Averages		75.9		4.7	14.0	84.6	

Outlet Point	Time Sampled	NOx ppmdv	PPM Dev from Avg.	O2 %dv	CO2 %dv	NOx @ 3% O2	PPM Dev from Avg.	Removal Efficiency	Removal Eff W/ O2 correction
1-1		61.3	17.0	5.6	13.2	71.3	21.2	9.7	24.6
1-2		67.6	23.2	5.4	13.5	78.7	28.7	25.4	12.5
1-3		52.3	8.0	5.4	13.5	60.8	10.8	33.6	33.1
1-4		62.9	18.6	4.9	13.9	70.3	20.3	31.1	29.2
1-5		50.8	6.4	5.8	13.1	60.3	10.3	29.8	23.4
1-6		49.8	5.5	7.9	11.2	68.5	18.4	66.8	70.0
2-1		28.2	-16.1	5.3	13.5	32.5	-17.6	60.0	62.4
2-2		47.4	3.0	4.3	14.4	51.5	1.4	31.9	25.1
2-3		63.5	19.1	5.0	13.8	71.3	21.2	18.2	21.3
2-4		68.4	24.1	5.7	13.2	80.4	30.3	5.6	-7.1
2-5		30.8	-13.6	5.0	13.8	34.8	-15.3	63.5	62.9
2-6		38.5	-5.8	6.6	12.4	48.2	-1.9	36.4	37.2
3-1		17.6	-26.7	4.2	14.5	18.9	-31.2	75.2	75.6
3-2		54.2	9.8	3.9	14.8	57.1	7.1	18.8	12.8
3-3		72.4	28.0	4.6	14.1	79.6	29.5	20.5	15.6
3-4		62.7	18.3	4.7	14.1	69.1	19.1	26.0	20.2
3-5		38.7	-5.6	4.4	14.3	42.3	-7.7	56.1	57.0
3-6		21.2	-23.2	5.4	13.4	24.6	-25.5	70.3	71.9
4-1		6.1	-38.2	3.9	14.8	6.4	-43.6	91.0	92.2
4-2		46.2	1.9	2.8	15.8	45.7	-4.3	38.5	38.1
4-3		77.0	32.6	3.4	15.3	78.5	28.5	24.0	22.6
4-4		38.9	-5.4	4.3	14.4	42.0	-8.0	53.6	50.9
4-5		3.6	-40.8	3.7	15.0	3.7	-46.3	92.7	92.9
4-6		4.1	-40.2	5.3	13.6	4.8	-45.3	91.7	92.2
Outlet Averages		44.4		4.9	13.9	50.1		42.6	41.0
		9737.0	Fd						
		0.0674	lb/Mbtu						

TEST LOG

Client: Consol Energy Dresden, New York
CleanAir Project No. 10192

Run Number	Location	Method	Analyte	Date	Start Time	End Time	Notes
1	AH Outlet	3A, 6C	O2 / CO2, SO2	3/29/07	09:59	11:00	
2	AH Outlet	3A, 6C	O2 / CO2, SO2	3/29/07	12:16	13:17	
3	AH Outlet	3A, 6C	O2 / CO2, SO2	3/29/07	15:13	16:13	
1	BH Outlet	3A, 6C	O2 / CO2, SO2	3/29/07	09:59	11:00	
2	BH Outlet	3A, 6C	O2 / CO2, SO2	3/29/07	12:16	13:17	
3	BH Outlet	3A, 6C	O2 / CO2, SO2	3/29/07	15:13	16:13	

Notes:
None

061407 143432

Prepared by Clean Air Engineering Proprietary Software
SS CEM Version 06-2004a

Consol Energy
CleanAir Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

Continuous Emissions Monitoring Parameters

Run Number	1
Date (2007)	Mar 29
Start Time	9:59
End Time	11:00
Elapsed Time (hh:mm)	01:01

Channel	2	4	5	7	8	9
Parameter	SO2	O2	CO2	SO2	O2	CO2
Location	AH Outlet	AH Outlet	AH Outlet	BH Outlet	BH Outlet	BH Outlet
Measurement Units	ppmdv	%dv	%dv	ppmdv	%dv	%dv
Measured Average (drift-corrected)	1409.55	7.30	11.54	79.50	7.20	11.49
Concentration (ppmdv)	1409.55			79.50		
Concentration (%dv)	0.141	7.297	11.538	0.008	7.201	11.491
Concentration @3%O2 (ppm)	1854.76			103.89		
Concentration @12%CO2 (ppm)	1466.04			83.03		
Concentration @3%O2 (lb/scf)	3.084E-04			1.727E-05		
Concentration @12%CO2 (lb/scf)	2.438E-04			1.380E-05		
Concentration @3%O2 (%v)	0.185			0.010		
Concentration @12%CO2 (%v)	0.147			0.008		
Concentration @3%O2 (mg/scm)	4938.36			276.60		
Concentration @12%CO2 (mg/scm)	3903.40			221.06		
Concentration @3%O2 (mg/Nm3)	5299.71			296.84		
Concentration @12%CO2 (mg/Nm3)	4189.01			237.24		
Removal Efficiency (%)				94.40%		

Consol Energy
Clean Air Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

Continuous Emissions Monitoring Parameters

Run Number	2
Date (2007)	Mar 29
Start Time	12:16
End Time	13:17
Elapsed Time (hh:mm)	01:01

Channel	2	4	5	7	8	9
Parameter	SO2	O2	CO2	SO2	O2	CO2
Location	AH Outlet	AH Outlet	AH Outlet	BH Outlet	BH Outlet	BH Outlet
Measurement Units	ppmdv	%dv	%dv	ppmdv	%dv	%dv
Measured Average (drift-corrected)	1398.11	7.22	11.61	69.70	7.16	11.71
Concentration (ppmdv)	1398.11			69.70		
Concentration (%dv)	0.140	7.223	11.610	0.007	7.164	11.711
Concentration @3%O2 (ppm)	1829.81			90.83		
Concentration @12%CO2 (ppm)	1445.01			71.42		
Concentration @3%O2 (lb/scf)	3.042E-04			1.510E-05		
Concentration @12%CO2 (lb/scf)	2.403E-04			1.187E-05		
Concentration @3%O2 (%v)	0.183			0.009		
Concentration @12%CO2 (%v)	0.145			0.007		
Concentration @3%O2 (mg/scm)	4871.95			241.83		
Concentration @12%CO2 (mg/scm)	3847.40			190.16		
Concentration @3%O2 (mg/Nm3)	5228.43			259.52		
Concentration @12%CO2 (mg/Nm3)	4128.92			204.07		
Removal Efficiency (%)				95.04%		

Prepared by Clean Air Engineering Proprietary Software
SS CEM Version 06-2004a

QA/QC JM
Date 6/14/07

Consol Energy
Clean Air Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

Continuous Emissions Monitoring Parameters

Run Number	3
Date (2007)	Mar 29
Start Time	15:13
End Time	16:13
Elapsed Time (hh:mm)	01:00

Channel	2	4	5	7	8	9
Parameter	SO2	O2	CO2	SO2	O2	CO2
Location	AH Outlet	AH Outlet	AH Outlet	BH Outlet	BH Outlet	BH Outlet
Measurement Units	ppmdv	%dv	%dv	ppmdv	%dv	%dv
Measured Average (drift-corrected)	1381.35	7.45	11.52	98.81	7.51	11.51
Concentration (ppmdv)	1381.35			98.81		
Concentration (%dv)	0.138	7.447	11.523	0.010	7.513	11.507
Concentration @3%O2 (ppm)	1837.92			132.12		
Concentration @12%CO2 (ppm)	1438.51			103.05		
Concentration @3%O2 (lb/scf)	3.056E-04			2.197E-05		
Concentration @12%CO2 (lb/scf)	2.392E-04			1.713E-05		
Concentration @3%O2 (%v)	0.184			0.013		
Concentration @12%CO2 (%v)	0.144			0.010		
Concentration @3%O2 (mg/scm)	4893.53			351.78		
Concentration @12%CO2 (mg/scm)	3830.09			274.37		
Concentration @3%O2 (mg/Nm3)	5251.59			377.52		
Concentration @12%CO2 (mg/Nm3)	4110.34			294.44		
Removal Efficiency (%)				92.81%		

Prepared by Clean Air Engineering Proprietary Software
SS CEM Version 06-2004a

QA/QC JM
Date 6/14/07

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QA/QC DATA

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Revision 1

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Search Subjects

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Pittsburgh , PA 15205-1409
Allegheny County
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State of New Jersey

Department of Environmental Protection

Certifies That

Clean Air Engineering Inc

Laboratory Certification ID #: IL004

having duly met the requirements of the

Regulations Governing The Certification Of
Laboratories And Environmental Measurements N.J.A.C. 7:18 et. seq.

is hereby approved as a

State Certified Environmental Laboratory

to perform the analyses as indicated on the Annual Certified Parameter List which must accompany this certificate to be valid

Expiration Date June 30, 2008

Joseph F. Aiello, Chief
Office of Quality Assurance

THIS CERTIFICATE IS TO BE CONSPICUOUSLY DISPLAYED AT THE LABORATORY WITH THE ANNUAL CERTIFIED PARAMETER LIST IN A LOCATION ON THE PREMISES VISIBLE TO THE PUBLIC

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New Jersey Department of Environmental Protection
Environmental Laboratory Certification Program
ANNUAL CERTIFIED PARAMETER LIST AND CURRENT STATUS
Effective as of 07/01/2007 until 06/30/2008

Laboratory Name: CLEAN AIR ENGINEERING INC **Laboratory Number:** IL004 **Activity ID:** SLC070001
500 WEST WOOD ST
PALATINE, IL 60067

Category: CAP01 -- Atmos. Inorg. Parameters, Non-Metals

Status	Code	Matrix	Technique Description	Approved Method	Parameter Description
Dropped	CAP01.00005	AE	Thermal Conductivity	[EPA 3C]	Carbon Dioxide
Dropped	CAP01.00015	AE	Spectrophotometric	[EPA 10A]	Carbon monoxide
Dropped	CAP01.00020	AE	Gas Chromatography / FPD	[EPA 15]	Carbon disulfide
Dropped	CAP01.00025	AE	Gas Chromatography / FPD	[EPA 15]	Carbon oxysulfide (Carbonyl sulfide)
Dropped	CAP01.00035	AE	Specific Ion Electrode	[EPA 13B]	Fluoride
Dropped	CAP01.00040	AE	Primary Aluminum Plants	[EPA 14A]	Fluoride
Certified	CAP01.00045	AE	Ion Chromatography	[EPA 26] [EPA 26A]	Hydrogen chloride, Halides and Halogens
Dropped	CAP01.00050	AE	Gas Chromatography / FPD	[EPA 15]	Hydrogen sulfide
Applied	CAP01.00055	AE	Emission Sampling Train	[EPA 0051, Rev 0, 12/96]	Impinger HCl/Cl2
Dropped	CAP01.00060	AE	Gravimetric	[EPA 24A]	Inks and coatings
Certified	CAP01.00065	AE	Emission Sampling Train	[EPA 0050, Rev 0, 12/96]	Isokinetic HCl/Cl2
Applied	CAP01.00068	AE	Thermal Conductivity	[EPA 3C]	Methane
Applied	CAP01.00070	AE	Thermal Conductivity	[EPA 3C]	Nitrogen
Applied	CAP01.00100	AE	Thermal Conductivity	[EPA 3C]	Oxygen
Certified	CAP01.00105	AE	Gravimetric	[EPA 5] [EPA 17]	Particulate Matter
Certified	CAP01.00110	AE	Gravimetric	[EPA 5A]	Particulate Matter
Certified	CAP01.00115	AE	Gravimetric	[EPA 5B]	Particulate Matter
Certified	CAP01.00120	AE	Gravimetric	[EPA 5E]	Particulate Matter
Certified	CAP01.00125	AE	Gravimetric	[EPA 5F]	Particulate Matter
Certified	CAP01.00145	AE	Gravimetric	[EPA 201A]	Particulate Matter
Certified	CAP01.00150	AE	Gravimetric	[EPA 202]	Particulate Matter
Dropped	CAP01.00180	AE	Standard Methods	[EPA 24]	Surface coatings
Dropped	CAP01.00185	AE	Barium-Thorin Titration	[EPA 15A]	Sulfur, Total Reduced
Dropped	CAP01.00190	AE	Barium-Thorin Titration	[EPA 16A]	Sulfur, Total Reduced
Dropped	CAP01.00195	AE	Gas Chromatography / FPD	[EPA 16B]	Sulfur, Total Reduced
Applied	CAP01.00200	AE	Barium-Thorin Titration	[EPA 6]	Sulfur Dioxide
Applied	CAP01.00210	AE	Barium-Thorin Titration	[EPA 8]	Sulfuric acid

Category: CAP03 -- Atmospheric Organic Parameters

Status	Code	Matrix	Technique Description	Approved Method	Parameter Description
Dropped	CAP03.00025	AE	GC/FID	[EPA 308]	Methyl alcohol (Methanol)

KEY: AE = Air and Emissions, BT = Biological Tissues, DW = Drinking Water, NPW = Non-Potable Water, SCM = Solid and Chemical Materials

New Jersey Department of Environmental Protection
Environmental Laboratory Certification Program

ANNUAL CERTIFIED PARAMETER LIST AND CURRENT STATUS

Effective as of 07/01/2007 until 06/30/2008

Laboratory Name: CLEAN AIR ENGINEERING INC **Laboratory Number:** IL004 **Activity ID:** SLC070001
500 WEST WOOD ST
PALATINE, IL 60067

Category: CAP03 -- Atmospheric Organic Parameters

Status	Code	Matrix	Technique Description	Approved Method	Parameter Description
Certified	CAP03.00040	AE	GC	[EPA 18]	Volatile organics

Joseph F. Aiello, Chief

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KEY: AE = Air and Emissions, BT = Biological Tissues, DW = Drinking Water, NPW = Non-Potable Water, SCM = Solid and Chemical Materials

New Jersey Department of Environmental Protection
Environmental Laboratory Certification Program

LABORATORY PERSONNEL LIST

Effective as of: 07/01/2007

Laboratory Name: CLEAN AIR ENGINEERING INC Laboratory Number: IL004 Activity ID: SLC070001
500 WEST WOOD ST
PALATINE, IL 60067

Position: Manager

Employee	Category/Instrument	Start Date	End Date	Documentation Status	Complete Date	Comments
DOUGLAS RHODES		7/1/2007		Complete/Qualified		
JAMES WRIGHT		4/27/2004	6/30/2007	Complete/Qualified		

Position: QA Officer

Employee	Category/Instrument	Start Date	End Date	Documentation Status	Complete Date	Comments
DOUGLAS RHODES		7/1/2007		Incomplete		
JAMES WRIGHT		4/27/2004	6/30/2007	Complete/Qualified		

Position: Supervisor/Tech Dir

Employee	Category/Instrument	Start Date	End Date	Documentation Status	Complete Date	Comments
DOUGLAS RHODES	SDW02, WPP02, CAP01 or CAP04	7/1/2007		Incomplete		
JAMES WRIGHT	SDW02, WPP02, CAP01 or CAP04	4/27/2004	6/30/2007	Complete/Qualified		
DOUGLAS RHODES	SDW04, WPP04, SHW04, 09, 10 or CAP02	7/1/2007		Incomplete		
JAMES WRIGHT	SDW04, WPP04, SHW04, 09, 10 or CAP02	4/27/2004	6/30/2007	Complete/Qualified		
DOUGLAS RHODES	SDW05, 06, WPP05-07, SHW05-12 or CAP03	7/1/2007		Incomplete		
JAMES WRIGHT	SDW05, 06, WPP05-07, SHW05-12 or CAP03	4/27/2004	6/30/2007	Complete/Qualified		

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DEPARTMENT OF ENVIRONMENTAL QUALITY

KATHLEEN BABINEAUX BLANCO
GOVERNOR

MIKE D. McDANIEL, Ph.D.
SECRETARY

CERTIFIED MAIL #7007 0710 0005 6108 1458
Return Receipt Requested

June 30, 2007

AI #85668 **LELAP Certificate #03099**

Mr. Robert Doran
Clean Air Engineering
321 Century Plaza #130
Houston, TX 77073

RE: Accreditation Certificate

Dear Mr. Doran:

In accordance with Louisiana Administrative Code, Title 33, Part I, Subpart 3, Laboratory Accreditation, the State of Louisiana formally recognizes that this laboratory has successfully completed the accreditation process and is technically competent to perform the environmental analyses listed on the scope of accreditation detailed in the attachment. Accreditation does not constitute an endorsement of the suitability of the listed methods for any specific purpose. Parameters or analytes that the laboratory has applied for accreditation not included in the scope of accreditation attachment are not accredited.

NELAP accreditation is granted **only** for those methods/analytes for which "NELAP" is indicated as the type of accreditation. "STATE" is indicated as the type of accreditation for those methods/analytes for which NELAP accreditation is not available. Accreditation is dependent on the laboratory's successful ongoing compliance with regulations as outlined in the Louisiana Administrative Code, Title 33, Part I, Subpart 3, Laboratory Accreditation.

The enclosed accreditation certificate is property of the State of Louisiana. Should a change in accreditation status occur, the Department may recall the original accreditation certificate and attachments. The recalled certificate and attachments should be returned

ENVIRONMENTAL **ASSESSMENT**
LABORATORY SERVICES DIVISION
: PO BOX 4314, BATON ROUGE, LA 70821-4314
P:225-219-9800 F:225-219-9898
WWW.DEQ.LOUISIANA.GOV

to: Office of Environmental Assessment, Louisiana Environmental Laboratory Accreditation Program, P.O. Box 4314, Baton Rouge, LA 70821-4314, Attention: Dr. David L. Boucher.

LAC 33:I.5313.A requires that the laboratory report must include all relevant information. Therefore, the certificate number shall be placed in the upper right corner of all laboratory reports. If the test report includes results of any test for which the laboratory is not accredited, the unaccredited results must be clearly identified as such.

Please be advised that it is your responsibility to examine the scope of accreditation attachment for accuracy and completeness. If you find that an analyte for which you expected to be accredited is not listed, please examine your records to ensure that:

1. You have met the requirements for successful participation in proficiency test studies as outlined in LAC 33:I.4711 and in the NELAC Standard 2.7.2.

2. In the case of accreditation by recognition, the requested analyte must be listed for the requested method and matrix on both the certificate issued by the Primary AA ***and*** on the Louisiana application form.

If you have any questions, please contact the Louisiana Environmental Laboratory Accreditation Program at (225) 219-9800.

Sincerely,

David Boucher

Dr. David L. Boucher, Acting Supervisor
Louisiana Environmental Laboratory Accreditation Program

db

Enclosure

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY

Is hereby granting a Louisiana Environmental Laboratory Accreditation to:

Clean Air Engineering
321 Century Plaza #130
Houston, TX 77073

Agency Interest No. 85668

According to the Louisiana Administrative Code, Title 33, Part I, Subpart 3, LABORATORY ACCREDITATION, the State of Louisiana formally recognizes that this laboratory is technically competent to perform the environmental analyses listed on the scope of accreditation detailed in the attachment.

The laboratory agrees to perform all analyses listed on this scope of accreditation according to the Part I, Subpart 3 requirements and acknowledges that continued accreditation is dependent on successful ongoing compliance with the applicable requirements of Part I. Please contact the Department of Environmental Quality, Louisiana Environmental Laboratory Accreditation Program (LELAP) to verify the laboratory's scope of accreditation and accreditation status. Accreditation by the State of Louisiana is not an endorsement or a guarantee of validity of the data generated by the laboratory, and does not constitute an endorsement of the suitability of the listed methods for any specific application.

To be accredited initially and maintain accreditation, the laboratory agrees to participate in two single-blind, single-concentration PT studies, where available, per year for each field of testing for which it seeks accreditation or maintains accreditation as required in LAC 33:I.4711.

Melvin C. Mitchell Sr., Accreditation Officer
Louisiana Environmental Laboratory Accreditation Program

Certificate Number: 03099
Expiration Date: June 30, 2008
Issued On: July 1, 2007

Louisiana Environmental Laboratory

LELAP

Accreditation Program

Laboratory Scope of Accreditation

Organization

03099 (281) 443-6400

Clean Air Engineering

321 Century Plaza #130

Houston , TX 77073

Louisiana Stack Testing Program Certification

Method Code	Method Ref	Analyte	Status	Date Effective	Type	AA
895	NCASI DI/MEOH 94.03	Methanol	Accredited	7/1/2003	STATE	LA
1217	Method 1 40 CFR 60 App. A	Traverse Points	Accredited	7/1/2003	STATE	LA
1218	Method 10 40 CFR 60 App. A	Carbon monoxide (CO)	Accredited	7/1/2003	STATE	LA
1232	Method 10A 40 CFR 60 App. A	Carbon monoxide (CO)	Accredited	7/1/2003	STATE	LA
1233	Method 10B 40 CFR 60 App. A	Carbon monoxide (CO)	Accredited	7/1/2003	STATE	LA
1248	Method 1A 40 CFR 60 App. A	Traverse Points	Accredited	7/1/2003	STATE	LA
1249	Method 2 40 CFR 60 App. A	Stack gas velocity volume flow rate	Accredited	7/1/2003	STATE	LA
1250	Method 20 40 CFR 60 App. A	Nitrogen Oxides (NOx)	Accredited	7/1/2003	STATE	LA
1250	Method 20 40 CFR 60 App. A	Oxygen	Accredited	7/1/2003	STATE	LA
1250	Method 20 40 CFR 60 App. A	Sulfur dioxide	Accredited	7/1/2003	STATE	LA
1251	Method 201A 40 CFR 51 App. M	Particulates <10 um	Accredited	7/1/2003	STATE	LA
1252	Method 202 40 CFR 51 App. M	Particulate Matter <2.5 um	Accredited	7/1/2003	STATE	LA
1262	Method 22 40 CFR 60 App. A	Visible emissions from coke oven batteries	Accredited	7/1/2003	STATE	LA
1271	Method 2A 40 CFR 60 App. A	Stack gas velocity volume flow rate in small stacks/ducts	Accredited	7/1/2003	STATE	LA
1272	Method 2B 40 CFR 60 App. A	Stack gas velocity volume flow rate	Accredited	7/1/2003	STATE	LA
1273	Method 2C 40 CFR 60 App. A	Stack gas velocity volume flow rate in small stacks/ducts	Accredited	7/1/2003	STATE	LA
1274	Method 2D 40 CFR 60 App. A	Stack gas velocity volume flow rate in small stacks/ducts	Accredited	7/1/2003	STATE	LA
1275	Method 2E 40 CFR 60 App. A	Stack gas velocity volume flow rate	Accredited	7/1/2003	STATE	LA
1276	Method 2F 40 CFR 60 App. A	Stack gas velocity volume flow rate	Accredited	7/1/2003	STATE	LA
1277	Method 2G 40 CFR 60 App. A	Stack gas velocity volume flow rate	Accredited	7/1/2003	STATE	LA
1278	Method 2H 40 CFR 60 App. A	Stack gas velocity volume flow rate	Accredited	7/1/2003	STATE	LA
1279	Method 3 40 CFR 60 App. A	Carbon dioxide oxygen dry molecular weight	Accredited	7/1/2003	STATE	LA
1296	Method 3A 40 CFR 60 App. A	Carbon dioxide	Accredited	7/1/2003	STATE	LA
1296	Method 3A 40 CFR 60 App. A	Oxygen	Accredited	7/1/2003	STATE	LA
1297	Method 3B 40 CFR 60 App. A	Emission Rate Correction Factors	Accredited	7/1/2003	STATE	LA
1298	Method 3C 40 CFR 60 App. A	Carbon dioxide	Accredited	7/1/2003	STATE	LA
1302	Method 4 40 CFR 60 App. A	Moisture content	Accredited	7/1/2003	STATE	LA

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LELAP
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Clean Air Engineering
321 Century Plaza #130
Houston , TX 77073

Louisiana Stack Testing Program Certification

Method Code	Method Ref	Analyte	Status	Date Effective	Type	AA
1303	Method 5 40 CFR 60 App. A	Particulates	Accredited	7/1/2003	STATE	LA
1304	Method 5A 40 CFR 60 App. A	Particulates from asphalt processing	Accredited	7/1/2003	STATE	LA
1305	Method 5B 40 CFR 60 App. A	Particulates	Accredited	7/1/2003	STATE	LA
1306	Method 5D 40 CFR 60 App. A	Particulates from fabric filters	Accredited	7/1/2003	STATE	LA
1307	Method 5E 40 CFR 60 App. A	Particulates from wool fiberglass insulation	Accredited	7/1/2003	STATE	LA
1308	Method 5F 40 CFR 60 App. A	Particulates	Accredited	7/1/2003	STATE	LA
1315	Method 6C 40 CFR 60 App. A	Sulfur dioxide	Accredited	7/1/2003	STATE	LA
1321	Method 7E 40 CFR 60 App. A	Nitrogen Oxides (NOx)	Accredited	7/1/2003	STATE	LA
1761	Method 101A 40 CFR 61 App. B (Sample Only)	Mercury	Accredited	7/1/2003	STATE	LA
1789	Method 11 40 CFR 60 App. A (Sample Only)	Hydrogen sulfide	Accredited	7/1/2003	STATE	LA
1793	Method 12 40 CFR 60 App. A (Sample Only)	Lead	Accredited	7/1/2003	STATE	LA
1797	Method 13B 40 CFR 60 App. A (Sample Only)	Fluoride	Accredited	7/1/2003	STATE	LA
1799	Method 14 40 CFR 60 App. A (Sample Only)	Fluoride	Accredited	7/1/2003	STATE	LA
1801	Method 15 40 CFR 60 App. A (Sample Only)	Carbon disulfide	Accredited	7/1/2003	STATE	LA
1801	Method 15 40 CFR 60 App. A (Sample Only)	Carbonyl sulfide	Accredited	7/1/2003	STATE	LA
1801	Method 15 40 CFR 60 App. A (Sample Only)	Hydrogen sulfide	Accredited	7/1/2003	STATE	LA
1803	Method 15A 40 CFR 60 App. A (Sample Only)	Total reduced sulfur	Accredited	7/1/2003	STATE	LA
1805	Method 16 40 CFR 60 App. A (Sample Only)	Dimethyl Disulfide	Accredited	7/1/2003	STATE	LA
1805	Method 16 40 CFR 60 App. A (Sample Only)	Dimethyl Sulfide	Accredited	7/1/2003	STATE	LA
1805	Method 16 40 CFR 60 App. A (Sample Only)	Hydrogen sulfide	Accredited	7/1/2003	STATE	LA
1805	Method 16 40 CFR 60 App. A (Sample Only)	Methyl Mercaptan	Accredited	7/1/2003	STATE	LA
1807	Method 16A 40 CFR 60 App. A (Sample Only)	Total reduced sulfur	Accredited	7/1/2003	STATE	LA
1809	Method 16B 40 CFR 60 App. A (Sample Only)	Total reduced sulfur	Accredited	7/1/2003	STATE	LA
1811	Method 17 40 CFR 60 App. A (Sample Only)	Particulates	Accredited	7/1/2003	STATE	LA
1813	Method 18 40 CFR 60 App. A (Sample Only)	Gaseous Organic Compound Emissions	Accredited	7/1/2003	STATE	LA
1815	Method 19 40 CFR 60 App. A (Sample Only)	Nitrogen Oxides (NOx)	Accredited	7/1/2003	STATE	LA
1815	Method 19 40 CFR 60 App. A (Sample Only)	Particulates SO2 NOx sulfur removal efficiency	Accredited	7/1/2003	STATE	LA

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Louisiana Stack Testing Program Certification

Method Code	Method Ref	Analyte	Status	Date Effective	Type	AA
1815	Method 19 40 CFR 60 App. A (Sample Only)	Sulfur dioxide	Accredited	7/1/2003	STATE	LA
1847	Method 23 40 CFR 60 App. A (Sample Only)	Dioxins/Furans	Accredited	7/1/2003	STATE	LA
1849	Method 25 40 CFR 60 App. A (Sample Only)	Gaseous Nonmethane Organic Emissions	Accredited	7/1/2003	STATE	LA
1851	Method 25A 40 CFR 60 App. A (Sample Only)	Gaseous Organic Emissions	Accredited	7/1/2003	STATE	LA
1857	Method 26 40 CFR 60 App. A (Sample Only)	Bromine (Br2)	Accredited	7/1/2003	STATE	LA
1857	Method 26 40 CFR 60 App. A (Sample Only)	Chlorine	Accredited	7/1/2003	STATE	LA
1857	Method 26 40 CFR 60 App. A (Sample Only)	Hydrochloric acid (Hydrogen chloride (gas only))	Accredited	7/1/2003	STATE	LA
1857	Method 26 40 CFR 60 App. A (Sample Only)	Hydrogen Bromide (HBr)	Accredited	7/1/2003	STATE	LA
1857	Method 26 40 CFR 60 App. A (Sample Only)	Hydrogen fluoride (Hydrofluoric acid)	Accredited	7/1/2003	STATE	LA
1859	Method 26A 40 CFR 60 App. A (Sample Only)	Bromine (Br2)	Accredited	7/1/2003	STATE	LA
1859	Method 26A 40 CFR 60 App. A (Sample Only)	Chlorine	Accredited	7/1/2003	STATE	LA
1859	Method 26A 40 CFR 60 App. A (Sample Only)	Hydrochloric acid (Hydrogen chloride (gas only))	Accredited	7/1/2003	STATE	LA
1859	Method 26A 40 CFR 60 App. A (Sample Only)	Hydrogen Bromide (HBr)	Accredited	7/1/2003	STATE	LA
1859	Method 26A 40 CFR 60 App. A (Sample Only)	Hydrogen fluoride (Hydrofluoric acid)	Accredited	7/1/2003	STATE	LA
1861	Method 29 40 CFR 60 App. A (Sample Only)	Antimony	Accredited	7/1/2003	STATE	LA
1861	Method 29 40 CFR 60 App. A (Sample Only)	Arsenic	Accredited	7/1/2003	STATE	LA
1861	Method 29 40 CFR 60 App. A (Sample Only)	Barium	Accredited	7/1/2003	STATE	LA
1861	Method 29 40 CFR 60 App. A (Sample Only)	Beryllium	Accredited	7/1/2003	STATE	LA
1861	Method 29 40 CFR 60 App. A (Sample Only)	Cadmium	Accredited	7/1/2003	STATE	LA
1861	Method 29 40 CFR 60 App. A (Sample Only)	Chromium	Accredited	7/1/2003	STATE	LA
1861	Method 29 40 CFR 60 App. A (Sample Only)	Cobalt	Accredited	7/1/2003	STATE	LA
1861	Method 29 40 CFR 60 App. A (Sample Only)	Copper	Accredited	7/1/2003	STATE	LA
1861	Method 29 40 CFR 60 App. A (Sample Only)	Lead	Accredited	7/1/2003	STATE	LA
1861	Method 29 40 CFR 60 App. A (Sample Only)	Manganese	Accredited	7/1/2003	STATE	LA
1861	Method 29 40 CFR 60 App. A (Sample Only)	Mercury	Accredited	7/1/2003	STATE	LA
1861	Method 29 40 CFR 60 App. A (Sample Only)	Nickel	Accredited	7/1/2003	STATE	LA
1861	Method 29 40 CFR 60 App. A (Sample Only)	Phosphorus total	Accredited	7/1/2003	STATE	LA

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Louisiana Stack Testing Program Certification

Method Code	Method Ref	Analyte	Status	Date Effective	Type	AA
1861	Method 29 40 CFR 60 App. A (Sample Only)	Selenium	Accredited	7/1/2003	STATE	LA
1861	Method 29 40 CFR 60 App. A (Sample Only)	Silver	Accredited	7/1/2003	STATE	LA
1861	Method 29 40 CFR 60 App. A (Sample Only)	Thallium	Accredited	7/1/2003	STATE	LA
1861	Method 29 40 CFR 60 App. A (Sample Only)	Zinc	Accredited	7/1/2003	STATE	LA
1885	Method 306 40 CFR 63 App. A (Sample Only)	Chromium	Accredited	7/1/2003	STATE	LA
1889	Method 308 40 CFR 63 App. A (Sample Only)	Methanol	Accredited	7/1/2003	STATE	LA
1911	Method 316 40 CFR 63 App. A (Sample Only)	Formaldehyde	Accredited	7/1/2003	STATE	LA
1945	Method 6 40 CFR 60 App. A (Sample Only)	Sulfur dioxide	Accredited	7/1/2003	STATE	LA
1953	Method 7 40 CFR 60 App. A (Sample Only)	Nitrogen Oxides (NOx)	Accredited	7/1/2003	STATE	LA
1955	Method 7A 40 CFR 60 App. A (Sample Only)	Nitrogen Oxides (NOx)	Accredited	7/1/2003	STATE	LA
1957	Method 7B 40 CFR 60 App. A (Sample Only)	Nitrogen Oxides (NOx)	Accredited	7/1/2003	STATE	LA
1959	Method 7C 40 CFR 60 App. A (Sample Only)	Nitrogen Oxides (NOx)	Accredited	7/1/2003	STATE	LA
1961	Method 7D 40 CFR 60 App. A (Sample Only)	Nitrogen Oxides (NOx)	Accredited	7/1/2003	STATE	LA
1965	Method 8 40 CFR 60 App. A (Sample Only)	Sulfuric Acid Mist	Accredited	7/1/2003	STATE	LA
1967	Method 9 40 CFR 60 App. A (Sample Only)	Opacity	Accredited	7/1/2003	STATE	LA
1977	SW-846 0010 (Sample Only)	Modified Method 5 Sample Train	Accredited	7/1/2003	STATE	LA
1979	SW-846 0011 (Sample Only)	Acetaldehyde	Accredited	7/1/2003	STATE	LA
1979	SW-846 0011 (Sample Only)	Acetophenone	Accredited	7/1/2003	STATE	LA
1979	SW-846 0011 (Sample Only)	Formaldehyde	Accredited	7/1/2003	STATE	LA
1979	SW-846 0011 (Sample Only)	Isophorone	Accredited	7/1/2003	STATE	LA
1979	SW-846 0011 (Sample Only)	Propionaldehyde	Accredited	7/1/2003	STATE	LA
1983	SW-846 0023A (Sample Only)	Dioxin & Furan Sampling System	Accredited	7/1/2003	STATE	LA
1985	SW-846 0030 (Sample Only)	Volatile Organic Sampling Train (VOST)	Accredited	7/1/2003	STATE	LA
1987	SW-846 0031 (Sample Only)	Sampling Method for VOCs (SMVOC)	Accredited	7/1/2003	STATE	LA
1991	SW-846 0050 (Sample Only)	Isokinetic HCl/Cl2 Sampling Train	Accredited	7/1/2003	STATE	LA
1994	SW-846 0051 (Analysis Only)	Midget Impinger HCl/Cl2 Sampling Train	Accredited	7/1/2003	STATE	LA
1995	SW-846 0060 (Sample Only)	Antimony	Accredited	7/1/2003	STATE	LA

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Laboratory Scope of Accreditation

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03099 (281) 443-6400
Clean Air Engineering
321 Century Plaza #130
Houston , TX 77073

Louisiana Stack Testing Program Certification

Method Code	Method Ref	Analyte	Status	Date Effective	Type	AA
1995	SW-846 0060 (Sample Only)	Arsenic	Accredited	7/1/2003	STATE	LA
1995	SW-846 0060 (Sample Only)	Barium	Accredited	7/1/2003	STATE	LA
1995	SW-846 0060 (Sample Only)	Beryllium	Accredited	7/1/2003	STATE	LA
1995	SW-846 0060 (Sample Only)	Cadmium	Accredited	7/1/2003	STATE	LA
1995	SW-846 0060 (Sample Only)	Cobalt	Accredited	7/1/2003	STATE	LA
1995	SW-846 0060 (Sample Only)	Copper	Accredited	7/1/2003	STATE	LA
1995	SW-846 0060 (Sample Only)	Lead	Accredited	7/1/2003	STATE	LA
1995	SW-846 0060 (Sample Only)	Manganese	Accredited	7/1/2003	STATE	LA
1995	SW-846 0060 (Sample Only)	Mercury	Accredited	7/1/2003	STATE	LA
1995	SW-846 0060 (Sample Only)	Nickel	Accredited	7/1/2003	STATE	LA
1995	SW-846 0060 (Sample Only)	Particulates	Accredited	7/1/2003	STATE	LA
1995	SW-846 0060 (Sample Only)	Phosphorus total	Accredited	7/1/2003	STATE	LA
1995	SW-846 0060 (Sample Only)	Selenium	Accredited	7/1/2003	STATE	LA
1995	SW-846 0060 (Sample Only)	Silver	Accredited	7/1/2003	STATE	LA
1995	SW-846 0060 (Sample Only)	Thallium	Accredited	7/1/2003	STATE	LA
1995	SW-846 0060 (Sample Only)	Total chromium	Accredited	7/1/2003	STATE	LA
1995	SW-846 0060 (Sample Only)	Zinc	Accredited	7/1/2003	STATE	LA
1997	SW-846 0061 (Sample Only)	Chromium VI	Accredited	7/1/2003	STATE	LA

Non-Potable Water Certification

Method Code	Method Ref	Analyte	Status	Date Effective	Type	AA
10053006	EPA 300.0	Chloride	Accredited	1/25/2006	STATE	LA
10053006	EPA 300.0	Fluoride	Accredited	1/25/2006	STATE	LA
10053006	EPA 300.0	Nitrite	Accredited	1/25/2006	STATE	LA
10053006	EPA 300.0	Sulfate	Accredited	1/25/2006	STATE	LA

Issue Date: July 1, 2007
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Clean Air Engineering Project #10192
Consol Energy
AES Dresden

Cal Range	**1**	**2**	
High NOx	233.8	91.4	ppm
Low NOx	91.4	47.4	ppm
High O2	14.1	14.1	%
Low O2	6.04	6.04	%
High CO2	13.98	13.98	
Low CO2	6.02	6.02	

Date:	3/28/2007
Start Time:	7:50
End Time:	8:15

Cal Range 1

HIGH

Instrument	**Response (1 min avg.)**	**Cal. Error (%)**
Nox In	233.6	0.09
O2 In	14.1	0.00
CO2 In	14	0.14

LOW

Instrument	**Response (1 min avg.)**	**Cal. Error (%)**
Nox In	92.3	0.38
O2 In	5.9	0.99
CO2 In	6.1	0.57

ZERO

Instrument	**Response (1 min avg.)**	**Cal. Error (%)**
Nox In	2	0.86
O2 In	-0.1	0.71
CO2 In	0	0.00

BIAS (uses low gas)

Instrument	**Response (1 min avg.)**	**Cal. Error (%)**
Nox In	90.5	1.80
O2 In	5.8	1.00
O2_2	14	0.00

DRIFT (end of day)

Instrument	**Response (1 min avg.)**	**Cal. Error (%)**
NOx 1	85.6	4.90
NOx 2		0.00
O2_1	5.8	0.00
O2_2	14	0.00

Date:	3/28/2007
Start Time:	7:50
End Time:	8:15

Cal Range 2

HIGH

Instrument	**Response (1 min avg.)**	**Cal. Error (%)**	
			also
Nox Out	91.92	0.57	
O2 Out	14.1	0.00	
CO2 Out	14	0.14	

LOW

Instrument	**Response (1 min avg.)**	**Cal. Error (%)**
Nox Out	47.56	0.18
O2 Out	6	0.28
CO2 Out	6.2	1.29

ZERO

Instrument	**Response (1 min avg.)**	**Cal. Error (%)**
Nox Out	0.9	0.98
O2 Out	0	0.00
CO2 Out	0	0.00

BIAS (uses low gas)

Instrument	**Response (1 min avg.)**	**Cal. Error (%)**
Nox Out	46.9	0.66
O2 Out	5.9	1.00
O2_2	14.1	1.00

DRIFT (end of day)

Instrument	**Response (1 min avg.)**	**Cal. Error (%)**
NOx 1	45.1	1.80
NOx 2		0.00
O2_1	6	1.00
O2_2	14.1	0.00

Consol Energy
CleanAir Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

Date:	**March 29, 2007**
Start Time	8:39
Stop Time	9:01

CALIBRATION ERROR

	Channel 2	Channel 4	Channel 5	Channel 7	Channel 8	Channel 9
	SO2	**O2**	**CO2**	**SO2**	**O2**	**CO2**
	AH Outlet	**AH Outlet**	**AH Outlet**	**BH Outlet**	**BH Outlet**	**BH Outlet**
	ppmdv	**%dv**	**%dv**	**ppmdv**	**%dv**	**%dv**
Instrument Information						
Manufacturer:	Wstrn Rsrch	Servomex	Servomex	Wstrn Rsrch	Servomex	
Model:	921NMP	1420B	1415B	921NMP	1420B	Servomex
Detection:	UV Photo.	Paramagn.	NDIR	UV Photo.	Paramagn.	1415B NDIR
Asset or Serial No:	204589	68-B	68-B	204168	201170	203504
Calibration Span Value (CS)	2479.000	14.100	13.980	121.600	14.100	13.980
System Response Time (seconds)	60	60	60	60	60	60
Manufacturer Certified Cylinder Value (C_V)						
Zero	0.000	0.000	0.000	0.000	0.000	0.000
Low	121.600	6.040	6.020	49.350	6.040	6.020
Mid						
High	2479.000	14.100	13.980	121.600	14.100	13.980
Actual gas to be used for bias checks	2479.000	6.040	13.980	49.350	6.040	13.980
Cylinder ID						
Zero						
Low	CC30072	SG9134098BAL	XC012963B	CC13960	SG9134098BAL	XC012963B
Mid						
High	ALM012777	XC012963B	SG9134098BAL	CC30072	XC012963B	SG9134098BAL
Analyzer Calibration Response (C_{Dir})						
Zero	3.452	-0.010	0.148	-0.056	0.002	0.003
Low	133.235	6.061	6.041	48.630	6.050	5.940
Mid			0.209			
High	2482.035	14.189	14.059	121.848	14.140	13.966
Analyzer Calibration Error (ACE) (Limit = 2%, Method 25A limit = 5% of gas value)						
Zero	0.1%	-0.1%	1.1%	0.0%	0.0%	0.0%
Low	0.5%	0.2%	0.1%	-0.6%	0.1%	-0.6%
Mid	N/A	N/A	N/A	N/A	N/A	N/A
High	0.1%	0.6%	0.6%	0.2%	0.3%	-0.1%
Calibration Error Status						
Zero	OK	OK	OK	OK	OK	OK
Low	OK	OK	OK	OK	OK	OK
Mid	N/A	N/A	N/A	N/A	N/A	N/A
High	OK	OK	OK	OK	OK	OK

061407 143432

08:39:43	4.542	14.178	6.048	0.928	14.141	-0.122
08:39:58	3.810	14.182	6.044	0.830	14.141	-0.122
08:40:13	3.858	14.185	6.044	0.801	14.141	-0.122
08:40:28	3.712	14.188	6.044	0.732	14.141	-0.122
08:40:43	3.761	14.188	6.044	0.156	14.139	0.685
08:40:58	3.858	14.191	6.046	0.020	14.140	3.858
08:41:13	4.103	14.192	6.041	-0.020	14.143	5.938
08:41:28	3.712	14.194	6.040	-0.049	14.140	5.940
08:41:43	3.810	14.192	6.041	-0.049	14.143	5.940
08:41:58	3.858	14.192	6.044	-0.049	14.142	5.940
08:42:13	3.858	14.193	6.040	-0.052	14.144	5.940

Prepared by Clean Air Engineering Proprietary Software
SS CEM Version 06-2004a

QA/QC JM
Date 6/14/07

Consol Energy
CleanAir Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

Date: **March 29, 2007**
Start Time 8:39
Stop Time 9:01

CALIBRATION ERROR

	Channel 2	Channel 4	Channel 5	Channel 7	Channel 8	Channel 9
	SO2	O2	CO2	SO2	O2	CO2
	AH Outlet	AH Outlet	AH Outlet	BH Outlet	BH Outlet	BH Outlet
	ppmdv	%dv	%dv	ppmdv	%dv	%dv
08:42:28	3.858	14.191	6.043	-0.078	14.145	5.940
08:42:43	3.321	13.657	5.869	-0.235	13.872	5.864
08:42:58	3.175	13.620	5.764	-0.156	13.912	5.862
08:43:13	11.673	9.785	9.526	0.088	8.958	10.066
08:43:28	7.570	6.261	13.762	0.059	6.163	13.902
08:43:43	4.396	6.071	14.059	-0.078	6.069	14.064
08:43:58	3.175	5.890	14.069	-0.219	5.930	14.033
08:44:13	1.807	5.874	14.047	-0.482	5.737	14.003
08:44:28	4.298	6.063	14.084	-0.153	6.064	14.077
08:44:43	4.249	6.061	14.086	-0.179	6.062	14.078
08:44:58	4.298	6.060	14.087	-0.225	6.062	14.080
08:45:13	4.396	6.062	14.088	-0.215	6.062	14.082
08:45:28	4.396	6.062	14.087	-0.212	6.061	14.083
08:45:43	81.954	5.765	13.924	-0.212	6.053	14.023
08:45:58	1661.587	0.866	2.886	-0.169	6.050	13.949
08:46:13	2388.718	0.017	0.307	-0.160	6.050	13.924
08:46:28	2469.011	-0.016	0.167	-0.098	6.050	13.904
08:46:43	2471.306	-0.019	0.152	-0.078	6.050	13.892
08:46:58	2473.407	-0.018	0.148	-0.049	6.050	13.887
08:47:13	2487.863	-0.021	0.143	-0.013	6.051	13.881
08:47:28	2492.161	-0.129	-3.269	0.124	6.008	13.703
08:47:43	2491.575	-2.002	-8.243	-0.238	5.808	13.832
08:47:58	2491.526	-0.099	-3.216	-0.006	5.975	13.804
08:48:13	2495.385	-0.040	-1.541	0.075	6.025	13.826
08:48:28	2494.066	-0.019	0.135	0.147	6.059	13.850
08:48:43	2487.277	-0.020	0.134	0.212	6.060	13.846
08:48:58	2483.956	-0.022	0.132	0.257	6.062	13.839
08:49:13	2482.637	-0.020	0.131	0.293	6.062	13.835
08:49:28	2484.688	-0.020	0.130	0.335	6.064	13.832
08:49:43	2484.542	-0.020	0.131	0.420	6.066	13.826
08:49:58	2485.079	-0.022	0.130	0.453	6.067	13.821
08:50:13	2485.568	-0.019	0.128	0.495	6.070	13.818
08:50:28	2479.512	-0.014	0.132	0.537	6.074	13.813
08:50:43	2481.026	-0.011	0.139	0.544	6.085	13.810
08:50:58	2481.661	-0.011	0.147	0.596	6.204	13.806
08:51:13	2480.977	-0.012	0.156	0.677	6.244	13.803
08:51:28	2481.026	-0.009	0.166	0.733	6.172	13.799
08:51:43	2478.730	-0.009	0.175	0.775	6.145	13.797
08:51:58	2478.388	-0.008	0.185	0.781	6.150	13.795
08:52:13	2478.535	-0.013	-1.486	0.853	6.167	13.736
08:52:28	2477.070	-0.003	0.206	0.872	6.662	13.790
08:52:43	2478.486	-0.006	0.216	0.964	6.598	13.785
08:52:58	2476.532	-0.003	0.227	0.990	6.572	13.782
08:53:13	2475.897	0.022	0.229	3.754	6.309	13.318
08:53:28	1136.264	0.106	0.208	94.382	0.766	1.783
08:53:43	181.294	-0.017	0.133	120.651	0.004	-0.098
08:53:58	134.554	-0.025	0.129	121.218	-0.006	-0.114
08:54:13	133.333	-0.034	0.128	121.696	-0.038	-0.121
08:54:28	133.089	-0.036	0.126	122.631	-0.054	-0.122
08:54:43	133.284	-0.024	0.130	122.348	-0.023	-0.121
08:54:58	133.138	-0.014	0.130	121.371	-0.001	-0.090
08:55:13	133.333	-0.015	0.134	121.100	0.002	-0.033
08:55:28	133.382	-0.002	0.138	121.035	0.005	0.007
08:55:43	200.977	1.428	1.554	120.984	0.013	0.035

Prepared by Clean Air Engineering Proprietary Software
SS CEM Version 06-2004a

QA/QC JM
Date 6/14/07

Consol Energy
CleanAir Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

Date: **March 29, 2007**
Start Time 8:39
Stop Time 9:01

CALIBRATION ERROR

	Channel 2 SO2	Channel 4 O2	Channel 5 CO2	Channel 7 SO2	Channel 8 O2	Channel 9 CO2
	AH Outlet ppmdv	AH Outlet %dv	AH Outlet %dv	BH Outlet ppmdv	BH Outlet %dv	BH Outlet %dv
08:59:51	1353.553	7.373	11.410	115.034	0.105	0.247
09:00:06	1353.553	7.376	11.389	61.164	0.017	-0.097
09:00:21	1353.651	7.379	11.363	49.091	-0.002	-0.130
09:00:36	1353.651	7.371	11.338	48.420	-0.006	-0.129
09:00:51	1353.553	7.376	11.313	48.378	-0.004	-0.130
09:01:06	1353.553	7.379	11.286	48.449	-0.001	-0.131
09:01:21	1353.602	7.381	11.264	48.449	0.003	-0.128

Prepared by Clean Air Engineering Proprietary Software
SS CEM Version 06-2004a

QA/QC JM
Date 6/14/07

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:	SG9134098BAL	Reference Number:	32-112503706-4
Cylinder Pressure:	2000.6 PSIG	Expiration Date:	9/19/2009
Certification Date:	9/19/2006	Laboratory:	MIC - Royal Oak - MI

Certified Concentrations

Component	Concentration	Accuracy	Analytical Principle	Procedure
OXYGEN	6.040 %	+/- 1%	Paramagnetic (Para)	G1
CARBON DIOXIDE	13.98 %	+/- 1%	Nondispersive Infrared (NDIR)	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: CREIGHTON

Do not use cylinder below 150 psig.

Approval Signature Cathy D Stewart

Reference Standard Information

Type	Balance Gas	Component	Cyl.Number	Concentration
NTRM 82745	NITROGEN	CARBON DIOXIDE	SG9183197BAL	15.862 %
NTRM 82658x	NITROGEN	OXYGEN	SG9160230BAL	7.015 %

Analytical Results

1st Component OXYGEN

1st Analysis Date: 09/19/2006

R 3.51	S 3.02	Z 0.00	Conc 6.040 %
S 3.02	Z 0.00	R 3.51	Conc 6.040 %
Z 0.00	R 3.51	S 3.02	Conc 6.040 %
			AVG: 6.040 %

2nd Component CARBON DIOXIDE

1st Analysis Date: 09/19/2006

R 7.93	S 6.99	Z 0.00	Conc 13.98 %
S 6.99	Z 0.00	R 7.93	Conc 13.98 %
Z 0.00	R 7.93	S 6.99	Conc 13.98 %
			AVG: 13.98 %

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:	XC012963B	Reference Number:	32-112503706-3
Cylinder Pressure:	2000.6 PSIG	Expiration Date:	9/19/2009
Certification Date:	9/19/2006	Laboratory:	MIC - Royal Oak - MI

Certified Concentrations

Component	Concentration	Accuracy	Analytical Principle	Procedure
CARBON DIOXIDE	6.020 %	+/- 1%	Nondispersive Infrared (NDIR)	G1
OXYGEN	14.10 %	+/- 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: CREIGHTON

Do not use cylinder below 150 psig.

Approval Signature Cathy Stewart

Reference Standard Information

Type	Balance Gas	Component	Cyl.Number	Concentration
NTRM 81674	NITROGEN	CARBON DIOXIDE	XC018562B	6.89 %
NTRM 82659X	NITROGEN	OXYGEN	XC024399B	22.60 %

Analytical Results

1st Component: CARBON DIOXIDE

1st Analysis Date: 09/19/2006

R 6.89	S 6.02	Z 0.00	Conc 6.020 %
S 6.02	Z 0.00	R 6.89	Conc 6.020 %
Z 0.00	R 6.89	S 6.02	Conc 6.020 %
			AVG: 6.020 %

2nd Component: OXYGEN

1st Analysis Date: 09/19/2006

R 4.52	S 2.82	Z 0.00	Conc 14.10 %
S 2.82	Z 0.00	R 4.52	Conc 14.10 %
Z 0.00	R 4.52	S 2.82	Conc 14.10 %
			AVG: 14.10 %

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:	CC13960	Reference Number:	32-112503706-6
Cylinder Pressure:	2000.6 PSIG	Expiration Date:	9/25/2008
Certification Date:	9/25/2006	Laboratory:	MIC - Royal Oak - MI

Certified Concentrations

Component	Concentration	Accuracy	Analytical Principle	Procedure
SULFUR DIOXIDE	49.35 PPM	+/- 1%	Nondispersive Ultraviolet (NDUV)	G1
CARBON MONOXIDE	123.83 PPM	+/- 1%	Nondispersive Infrared (NDIR)	G1
NITRIC OXIDE	126.49 PPM	+/- 1%	Chemiluminescence (Chemi)	G1
NITROGEN	Balance			
Total oxides of nitrogen	126.9 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: CREIGHTON

Do not use cylinder below 150 psig.

Approval Signature

Reference Standard Information

Type	Balance Gas	Component	Cyl.Number	Concentration
NTRM 82636	NITROGEN	CARBON MONOXIDE	XC014180B	246.2 PPM
NTRM 81661X	NITROGEN	SULFUR DIOXIDE	XC006260B	246.1 PPM
NTRM 81694	NITROGEN	SULFUR DIOXIDE	XC019282B	98.0 PPM
NTRM 81685	NITROGEN	NITRIC OXIDE	XC024156B	244.6 PPM

Analytical Results

1st Component SULFUR DIOXIDE

1st Analysis Date:		09/18/2006	
R 98.5	S 19.7	Z 0.0	Conc 49.2 PPM
S 19.7	Z 0.0	R 98.5	Conc 49.2 PPM
Z 0.0	R 98.5	S 19.7	Conc 49.2 PPM
			AVG: 49.2 PPM

2nd Analysis Date:		09/25/2006	
R 97.541	S 49.227	Z -0.123	Conc 49.57 PPM
S 49.267	Z -0.123	R 97.757	Conc 49.45 PPM
Z -0.119	R 97.669	S 49.273	Conc 49.50 PPM
			AVG: 49.50 PPM

2nd Component CARBON MONOXIDE

1st Analysis Date:		09/18/2006	
R 4.93	S 2.48	Z 0.0	Conc 123.8 PPM
S 2.48	Z 0.0	R 4.93	Conc 123.8 PPM
Z 0.0	R 4.93	S 2.48	Conc 123.8 PPM
			AVG: 123.8 PPM

2nd Analysis Date:		09/25/2006	
R 248.08	S 124.52	Z -0.032	Conc 123.59 PPM
S 124.76	Z -0.124	R 247.98	Conc 123.92 PPM
Z -0.204	R 247.63	S 124.71	Conc 124.09 PPM
			AVG: 123.86 PPM

3rd Component NITRIC OXIDE

1st Analysis Date:		09/18/2006	
R 4.89	S 2.52	Z 0.0	Conc 126.1 PPM
S 2.52	Z 0.0	R 4.89	Conc 126.1 PPM
Z 0.0	R 4.89	S 2.52	Conc 126.1 PPM
			AVG: 126.1 PPM

2nd Analysis Date:		09/25/2006	
R 249.12	S 129.58	Z 0.443	Conc 127.02 PPM
S 129.62	Z 0.381	R 249.89	Conc 126.70 PPM
Z 0.468	R 249.28	S 129.58	Conc 126.93 PPM
			AVG: 126.88 PPM

Airgas

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

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Customer:	CREIGHTON		
Part Number:	E02NI99E15A0914	Reference Number:	32-112534012-2
Cylinder Number:	CC30072	Cylinder Volume:	144 Cu.Ft.
Laboratory:	MIC - Royal Oak - MI	Cylinder Pressure:	2015 PSIG
Analysis Date:	Feb 19, 2007	Valve Outlet:	660

Expiration Date: Feb 19, 2009

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.
Do Not Use This Cylinder below 150 psig.i.e. 1 Mega Pascal

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainity
SULFUR DIOXIDE	120.000 PPM	121.6 PPM	G1	+/- 1% NIST Traceable
NITROGEN	Balance			

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Expiration Date
NTRM	98061120	XC006250B	246.1PPM SULFUR DIOXIDE/NITROGEN	Jun 01, 2007

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
E/N 50, 1000ppmFS SO2, Bovar 721-M	Nondispersive Ultraviolet (NDUV)	Jan 29, 2007

Triad Data Available Upon Request

Notes:

AFM

QA Approval

RATA CLASS

Scott Specialty Gases

Dual-Analyzed Calibration Standard

1290 COMBERMERE STREET,TROY,MI 48083 Phone: 248-589-2950 Fax: 248-589-2134

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory

SCOTT SPECIALTY GASES
1290 COMBERMERE STREET
TROY,MI 48083

P.O. No.: 54830-71-65000
Project No.: 05-41817-014

Customer

CLEAN AIR INSTRUMENT RENTAL
GARY ZAPEL
500 WEST WOOD STREET
PALATINE IL 60067

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: ALM012777 **Certification Date:** 04Apr2006 **Exp. Date:** 03Apr2009
Cylinder Pressure*:** 1884 PSIG

COMPONENT	CERTIFIED CONCENTRATION (Moles)		ANALYTICAL ACCURACY**	TRACEABILITY
SULFUR DIOXIDE *	2,479	PPM	+/- 1%	Direct NIST and NMi
NITROGEN		BALANCE		

*** Do not use when cylinder pressure is below 150 psig.
** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.
* This Protocol has been certified using corrected NIST SO2 standard values, per EPA guidance dated 7/24/96 and will not correlate with uncorrected Pilot

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 1664	19Apr2007	ALM043727	2402. PPM	SULFUR DIOXIDE

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
FTIR//0928621	16Mar2006	FTIR

ANALYZER READINGS

(Z=Zero Gas R=Reference Gas T=Test Gas r=Correlation Coefficient)

SULFUR DIOXIDE *

First Triad Analysis

Date: 28Mar2006	Response Unit:PPM	
Z1=0.47230	R1=2400.719	T1=2477.829
R2=2401.982	Z2=1.43331	T2=2477.837
Z3=1.48831	T3=2481.002	R3=2402.695
Avg. Concentration:	2479.	PPM

Second Triad Analysis

Date: 04Apr2006	Response Unit: PPM	
Z1=0.25354	R1=2400.160	T1=2476.662
R2=2401.880	Z2=1.29722	T2=2477.193
Z3=1.74568	T3=2480.275	R3=2402.152
Avg. Concentration:	2479.	PPM

Calibration Curve

Concentration=A+Bx+Cx2+Dx3+Ex4	
r=9.99984E-1	
Constants:	A=0.00000E+0
B=1.03923E+0	C=4.00000E-6
D=0.00000E+0	E=0.00000E+0

APPROVED BY: ______________________
JEFF CROTEAU

Airgas

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

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

Customer:	AIRGAS CREIGHTION		
Part Number:	E04NI99E15A70B4	Reference Number:	32-112534012-5
Cylinder Number:	CC96201	Cylinder Volume:	144 Cu.Ft.
Laboratory:	MIC - Royal Oak - MI	Cylinder Pressure:	2015 PSIG
Analysis Date:	Feb 19, 2007	Valve Outlet:	660

Expiration Date: Feb 19, 2009

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.
Do Not Use This Cylinder below 150 psig.i.e. 1 Mega Pascal

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
SULFUR DIOXIDE	95.000 PPM	96.396 PPM	G1	+/-1% NIST Traceable
CARBON MONOXIDE	225.000 PPM	230.92 PPM	G1	+/-1% NIST Traceable
NITRIC OXIDE	225.000 PPM	233.79 PPM	G1	+/-1% NIST Traceable
NITROGEN	Balance			
Total oxides of nitrogen		233.800 PPM		For Reference Only

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Expiration Date
NTRM	06060237	CC208194	257.0PPM NITRIC OXIDE/NITROGEN	Jan 01, 2010
NTRM	98060116	XC013406B	246.2PPM CARBON MONOXIDE/NITROGEN	Jul 05, 2010
NTRM	04060308	XC017404	98.0PPM SULFUR DIOXIDE/NITROGEN	Apr 02, 2008
SRM	46-E-18	FF20605	1487PPM NITRIC OXIDE/NITROGEN	May 01, 2010

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
E/N 54, 250ppmFS CO, Nicolet 6700	Fourier Transform Infrared (FTIR)	Feb 19, 2007
E/N 54, 250ppmFS NO, Nicolet 6700	Fourier Transform Infrared (FTIR)	Jan 26, 2007
E/N 54, 100ppmFS SO2, Nicolet 6700	Fourier Transform Infrared (FTIR)	Feb 06, 2007

Triad Data Available Upon Request

Notes:NOX: 233.8
ORDER# 108610

Rachelle Rudder

QA Approval

Airgas

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

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

Customer: CREIGHTON
Part Number: E02NI99E15A03D9
Cylinder Number: XC023749B
Laboratory: MIC - Royal Oak - MI
Analysis Date: Feb 05, 2007

Reference Number: 32-112531795-4
Cylinder Volume: 144 Cu.Ft.
Cylinder Pressure: 2015 PSIG
Valve Outlet: 660

Expiration Date: Feb 05, 2009

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.
Do Not Use This Cylinder below 150 psig.i.e. 1 Mega Pascal

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainity
NITRIC OXIDE	90.000 PPM	91.0 PPM	G1	+/- 1% NIST Traceable
NITROGEN	Balance			
Total oxides of nitrogen		91.400 PPM		For Reference Only

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Expiration Date
NTRM	06060407	CC208042	93.2PPM NITRIC OXIDE/NITROGEN	Jan 01, 2010

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
E/N 160, 100ppmFS NO, Beckman 951A	Chemiluminescence (Chemi)	Jan 19, 2007

Triad Data Available Upon Request

Notes:

AFM

QA Approval

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:	SG9165466BAL	Reference Number:	32-112441658-2
Cylinder Pressure:	2000.6 PSIG	Expiration Date:	12/5/2007
Certification Date:	12/5/2005	Laboratory:	MIC - Royal Oak - MI

Certified Concentrations

Component	Concentration	Accuracy	Analytical Principle	Procedure
NITRIC OXIDE	47.4 PPM	+/- 1%	Chemiluminescence (Chemi)	G1
NITROGEN	Balance			

Total oxides of nitrogen 47.8 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: CLEVELAND

Do not use cylinder below 150 psig.

Approval Signature A. F. Muhammad

Reference Standard Information

Type	Balance Gas	Component	Cyl.Number	Concentration
GMIS 1684B	NITROGEN	NITRIC OXIDE	XN000401B	99.4 PPM

Analytical Results

1st Component **NITRIC OXIDE**

1st Analysis Date: 11/28/2005

R 4.97	S 2.37	Z 0.00	Conc 47.4 PPM
S 2.37	Z 0.00	R 4.97	Conc 47.4 PPM
Z 0.00	R 4.97	S 2.37	Conc 47.4 PPM
			AVG: 47.4 PPM

2nd Analysis Date: 12/05/2005

R 4.97	S 2.37	Z 0.0	Conc 47.4 PPM
S 2.37	Z 0.0	R 4.97	Conc 47.4 PPM
Z 0.0	R 4.97	S 2.37	Conc 47.4 PPM
			AVG: 47.4 PPM

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FIELD DATA PRINTOUTS

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Consol Energy
CleanAir Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

March 29, 2007
Start Time 9:06
Stop Time 9:43

CALIBRATION BIAS 00

		Channel 2 SO2	Channel 4 O2	Channel 5 CO2	Channel 7 SO2	Channel 8 O2	Channel 9 CO2
		AH Outlet ppmdv	AH Outlet %dv	AH Outlet %dv	BH Outlet ppmdv	BH Outlet %dv	BH Outlet %dv
System Response to Calibration Gasses (C_S)							
C_{of}	Zero gas	19.829	-0.021	0.178	1.423	0.013	0.280
C_{uf}	Upscale gas	2432.641	6.006	13.997	45.648	6.049	13.991
Analyzer Calibration Error Reponses (C_{Dir})							
C_{oce}	Zero gas	3.452	-0.010	0.148	-0.056	0.002	0.003
C_{mce}	Upscale gas	2482.035	6.061	14.059	48.630	6.050	13.966
Actual Upscale Gas Value (C_{MA})							
C_{ma}	Upscale gas	2479.000	6.040	13.980	49.350	6.040	13.980
Calibration Span Value (CS)							
		2479.000	14.100	13.980	121.600	14.100	13.980
System Bias as Percent of Calibration Span Value (SB) (5%)							
	Zero gas	0.7%	-0.1%	0.2%	1.2%	0.1%	2.0%
	Upscale gas	-2.0%	-0.4%	-0.4%	-2.5%	0.0%	0.2%
System Bias Status							
	Zero gas	OK	OK	OK	OK	OK	OK
	Upscale gas	OK	OK	OK	OK	OK	OK
Previous System Response to Calibration Gases (C_S)							
C_{oi}	Zero gas	N/A	N/A	N/A	N/A	N/A	N/A
C_{ui}	Upscale gas	N/A	N/A	N/A	N/A	N/A	N/A
Drift Assessment as Percent of Calibration Span Value (D) (3%)							
	Zero gas	N/A	N/A	N/A	N/A	N/A	N/A
	Upscale gas	N/A	N/A	N/A	N/A	N/A	N/A
Drift Assessment Status							
	Zero gas	N/A	N/A	N/A	N/A	N/A	N/A
	Upscale gas	N/A	N/A	N/A	N/A	N/A	N/A

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09:06:57	1330.012	8.243	11.180	48.840	0.013	0.234
09:07:12	725.568	10.421	8.557	48.840	0.017	0.260
09:07:27	224.664	6.309	13.388	48.840	0.015	0.281
09:07:42	102.662	6.020	13.939	48.840	0.016	0.299
09:07:57	64.176	6.004	13.982	48.840	0.018	0.311
09:08:12	46.154	6.008	13.999	48.840	0.023	0.325
09:08:27	35.751	6.006	14.010	48.840	0.022	0.336
09:08:42	29.206	6.004	13.998	48.850	0.019	0.344
09:08:57	24.762	6.007	14.012	48.879	0.026	0.351
09:09:12	21.929	6.010	14.019	48.889	0.029	0.359
09:09:27	19.927	5.999	14.023	48.856	0.031	0.366
09:09:42	17.631	6.001	14.029	48.889	0.032	0.369
09:09:57	96.899	5.129	12.948	48.886	0.032	0.369
09:10:12	1457.436	0.515	2.165	48.886	0.036	0.370
09:10:27	2197.069	-0.008	0.374	48.889	0.041	0.372
09:10:42	2336.752	-0.026	0.267	48.889	0.037	0.373
09:10:57	2381.538	-0.030	0.235	48.889	0.041	0.373
09:11:12	2401.612	-0.035	0.217	48.889	0.042	0.370
09:11:27	2412.210	-0.035	0.204	48.889	0.047	0.369

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QA/QC Jm
Date 6/14/07

Consol Energy
CleanAir Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

March 29, 2007
Start Time 9:06
Stop Time 9:43

CALIBRATION BIAS 00

	Channel 2 SO2 AH Outlet ppmdv	Channel 4 O2 AH Outlet %dv	Channel 5 CO2 AH Outlet %dv	Channel 7 SO2 BH Outlet ppmdv	Channel 8 O2 BH Outlet %dv	Channel 9 CO2 BH Outlet %dv
09:11:42	2422.418	-0.037	0.194	48.892	0.052	0.369
09:11:57	2425.299	-0.038	0.188	48.909	0.053	0.368
09:12:12	2426.667	-0.039	0.182	48.931	0.055	0.369
09:12:27	2430.183	-0.039	0.178	48.964	0.057	0.368
09:12:42	2441.074	-0.039	0.174	48.967	0.057	0.364
09:35:03	1403.468	7.234	11.643	93.428	7.268	11.705
09:35:18	1404.884	7.253	11.639	80.248	12.165	7.800
09:35:33	1402.637	7.192	11.683	48.104	6.954	12.344
09:35:48	1409.035	7.177	11.707	24.840	6.100	13.877
09:36:03	1402.637	7.308	11.600	14.291	6.062	13.973
09:36:18	1393.016	7.357	11.558	9.296	6.057	13.996
09:36:33	1394.432	7.270	11.607	6.535	6.055	14.004
09:36:48	1403.468	7.245	11.674	4.884	6.053	14.007
09:37:03	1393.065	7.264	11.617	3.897	6.053	14.014
09:37:18	1400.147	7.206	11.684	3.184	6.054	14.017
09:37:33	1406.300	7.145	11.718	2.716	6.053	14.020
09:37:48	1413.236	7.182	11.722	2.354	6.053	14.024
09:38:03	1403.175	7.332	11.573	2.067	6.050	14.027
09:38:18	1404.054	7.241	11.646	1.872	6.049	14.028
09:38:33	1405.910	7.264	11.634	1.693	6.048	14.029
09:38:48	1407.863	7.243	11.650	1.563	6.051	14.031
09:39:03	1402.979	7.396	11.516	1.455	6.049	14.038
09:39:18	1397.265	7.317	11.571	1.250	4.972	12.747
09:39:33	1395.458	7.282	11.589	3.487	0.539	2.009
09:39:48	1402.393	7.183	11.677	19.878	0.052	0.193
09:40:03	1411.478	7.133	11.717	30.974	0.028	0.043
09:40:18	1414.799	7.076	11.768	36.317	0.026	0.004
09:40:33	1408.547	7.246	11.646	39.108	0.022	-0.018
09:40:48	1401.319	7.211	11.664	40.759	0.019	-0.036
09:41:03	1396.532	7.323	11.579	41.833	0.019	-0.047
09:41:18	1389.109	7.330	11.570	42.335	0.018	-0.057
09:41:33	1388.913	7.277	11.612	43.054	0.015	-0.063
09:41:48	1396.777	7.208	11.647	43.858	0.016	-0.070
09:42:03	1403.272	7.314	11.606	44.444	0.014	-0.076
09:42:18	1396.581	7.299	11.593	44.848	0.014	-0.081
09:42:33	1404.347	7.309	11.590	45.180	0.014	-0.085
09:42:48	1401.612	7.227	11.654	45.372	0.013	-0.087
09:43:03	1402.247	7.272	11.615	45.509	0.014	-0.089
09:43:18	1408.645	7.170	11.695	45.623	0.014	-0.094
09:43:33	1404.738	7.297	11.615	45.812	0.013	-0.094
09:43:48	1397.021	7.294	11.615	54.268	2.266	2.149

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QA/QC JM
Date 6/14/07

Consol Energy
CleanAir Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

March 29, 2007
Start Time 9:59
Stop time 11:00

REFERENCE METHOD RUN 1

		Channel 2 SO2 AH Outlet ppmdv	Channel 4 O2 AH Outlet %dv	Channel 5 CO2 AH Outlet %dv	Channel 7 SO2 BH Outlet ppmdv	Channel 8 O2 BH Outlet %dv	Channel 9 CO2 BH Outlet %dv
Calibration Checks							
C_{oi}	Initial zero	19.829	-0.021	0.178	1.423	0.013	0.280
C_{ui}	Initial upscale	2432.641	6.006	13.997	45.648	6.049	13.991
C_{of}	Final zero	13.789	-0.017	0.154	2.554	0.009	-0.001
C_{uf}	Final upscale	2411.901	6.124	14.012	47.500	6.071	14.004
C_{ma}	Actual gas value	2479.000	6.040	13.980	49.350	6.040	13.980
Analyzer Averages (concentrations)							
C_{Avg}	Average conc.	1384.546	7.331	11.587	73.817	7.223	11.530
$\mathbf{C_{Gas}}$	**Bias adjusted**	**1409.550**	**7.297**	**11.538**	**79.504**	**7.201**	**11.491**

Clock Time (at end of sample period)

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Clock Time	Channel 2	Channel 4	Channel 5	Channel 7	Channel 8	Channel 9
10:00	1391.429	7.367	11.624	66.563	7.106	11.401
10:01	1377.215	7.422	11.564	66.471	7.108	11.471
10:02	1398.721	7.309	11.659	69.493	7.111	11.440
10:03	1402.620	7.263	11.683	73.522	7.228	11.406
10:04	1380.741	7.432	11.547	78.525	7.125	11.472
10:05	1379.182	7.422	11.557	76.575	7.134	11.437
10:06	1387.856	7.426	11.564	83.615	7.142	11.403
10:07	1390.873	7.353	11.613	80.667	7.244	11.475
10:08	1390.811	7.455	11.550	88.696	7.149	11.451
10:09	1383.920	7.439	11.551	75.716	7.154	11.434
10:10	1385.460	7.393	11.581	78.717	7.160	11.420
10:11	1375.788	7.424	11.555	79.718	7.165	11.404
10:12	1380.505	7.376	11.601	72.760	7.273	11.486
10:13	1379.351	7.379	11.595	58.791	7.177	11.470
10:14	1378.950	7.356	11.603	66.823	7.185	11.454
10:15	1389.145	7.320	11.644	66.820	7.240	11.439
10:16	1381.995	7.357	11.606	56.824	7.249	11.424
10:17	1392.550	7.323	11.635	75.852	7.371	11.407
10:18	1387.186	7.302	11.651	81.904	7.238	11.583
10:19	1380.305	7.443	11.532	84.917	7.229	11.560
10:20	1389.632	7.320	11.638	80.953	7.222	11.647
10:21	1384.920	7.361	11.604	77.992	7.224	11.530
10:22	1382.989	7.310	11.552	81.052	7.183	11.598
10:23	1384.261	7.390	11.580	78.070	7.227	11.591
10:24	1383.113	7.297	11.629	67.110	7.245	11.569
10:25	1387.360	7.266	11.471	80.202	7.249	11.513
10:26	1379.611	7.366	11.595	84.211	7.248	11.408
10:27	1393.407	7.192	11.624	67.269	7.247	11.441
10:28	1395.238	7.253	11.700	67.246	7.246	11.472
10:29	1380.147	7.422	11.554	67.251	7.247	11.476
10:30	1381.319	7.263	11.576	73.443	7.241	11.414
10:31	1382.308	7.227	11.429	56.036	7.288	11.443
10:32	1387.074	7.327	11.626	59.403	7.254	11.585

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QA/QC JM
Date 6/14/07

Consol Energy
CleanAir Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

March 29, 2007
Start Time 9:59
Stop time 11:00

REFERENCE METHOD RUN 1

	Channel 2 SO2 AH Outlet ppmdv	Channel 4 O2 AH Outlet %dv	Channel 5 CO2 AH Outlet %dv	Channel 7 SO2 BH Outlet ppmdv	Channel 8 O2 BH Outlet %dv	Channel 9 CO2 BH Outlet %dv
10:33	1388.787	7.305	11.643	58.366	7.246	11.465
10:34	1390.598	7.336	11.630	58.382	7.128	11.441
10:35	1387.900	7.212	11.503	62.291	7.241	11.430
10:36	1381.966	7.351	11.576	68.523	7.149	11.495
10:37	1377.717	7.428	11.547	73.514	7.294	11.540
10:38	1380.195	7.406	11.562	73.552	7.224	11.536
10:39	1388.010	7.269	11.667	69.655	7.201	11.571
10:40	1392.002	7.141	11.622	73.757	7.234	11.592
10:41	1381.795	7.407	11.567	75.923	7.273	11.630
10:42	1380.147	7.348	11.611	77.497	7.091	11.683
10:43	1390.794	7.259	11.692	82.058	7.180	11.644
10:44	1384.392	7.349	11.614	82.354	7.208	11.563
10:45	1380.916	7.346	11.613	78.069	7.215	11.671
10:46	1389.930	7.056	11.592	34.178	7.281	11.769
10:47	1371.441	7.327	11.462	81.915	7.252	11.555
10:48	1389.292	7.320	11.650	86.468	7.266	11.661
10:49	1390.708	7.302	11.653	89.452	7.284	11.655
10:50	1384.032	7.340	11.616	74.138	7.321	11.625
10:51	1375.141	7.384	11.571	96.678	7.267	11.593
10:52	1384.777	7.361	11.610	92.073	7.295	11.660
10:53	1372.308	7.459	11.530	84.916	7.273	11.590
10:54	1378.928	7.303	11.644	76.514	7.284	11.564
10:55	1386.602	7.297	11.639	64.884	7.256	11.673
10:56	1375.299	7.409	11.555	91.870	7.285	11.600
10:57	1387.881	7.303	11.644	77.200	7.269	11.620
10:58	1387.509	7.208	11.560	83.634	7.277	11.671
10:59	1381.758	6.949	11.179	58.589	7.186	11.550
11:00	1370.473	7.432	11.553	53.180	7.237	11.568

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QA/QC JM
Date 6/14/07

Consol Energy
CleanAir Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

March 29, 2007
Start Time 11:10
Stop Time 11:22

CALIBRATION BIAS 01

	Channel 2 SO2 AH Outlet ppmdv	Channel 4 O2 AH Outlet %dv	Channel 5 CO2 AH Outlet %dv	Channel 7 SO2 BH Outlet ppmdv	Channel 8 O2 BH Outlet %dv	Channel 9 CO2 BH Outlet %dv
System Response to Calibration Gasses (C_S)						
C_{of} Zero gas	13.789	-0.017	0.154	2.554	0.009	-0.001
C_{uf} Upscale gas	2411.901	6.124	14.012	47.500	6.071	14.004
Analyzer Calibration Error Reponses (C_{Dir})						
C_{oce} Zero gas	3.452	-0.010	0.148	-0.056	0.002	0.003
C_{mce} Upscale gas	2482.035	6.061	14.059	48.630	6.050	13.966
Actual Upscale Gas Value (C_{MA})						
C_{ma} Upscale gas	2479.000	6.040	13.980	49.350	6.040	13.980
Calibration Span Value (CS)						
	2479.000	14.100	13.980	121.600	14.100	13.980
System Bias as Percent of Calibration Span Value (SB) (5%)						
Zero gas	0.4%	-0.1%	0.0%	2.1%	0.0%	0.0%
Upscale gas	-2.8%	0.4%	-0.3%	-0.9%	0.2%	0.3%
System Bias Status						
Zero gas	OK	OK	OK	OK	OK	OK
Upscale gas	OK	OK	OK	OK	OK	OK
Previous System Response to Calibration Gases (C_S)						
C_{oi} Zero gas	19.829	-0.021	0.178	1.423	0.013	0.280
C_{ui} Upscale gas	2432.641	6.006	13.997	45.648	6.049	13.991
Drift Assessment as Percent of Calibration Span Value (D) (3%)						
Zero gas	-0.2%	0.0%	-0.2%	0.9%	0.0%	-2.0%
Upscale gas	-0.8%	0.8%	0.1%	1.5%	0.2%	0.1%
Drift Assessment Status						
Zero gas	OK	OK	OK	OK	OK	OK
Upscale gas	OK	OK	OK	OK	OK	OK

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11:10:53	1316.923	9.283	10.790	42.188	8.295	11.460
11:11:08	630.965	12.004	7.344	38.235	11.212	8.182
11:11:23	195.897	6.328	13.493	23.043	6.359	13.514
11:11:38	90.501	6.031	13.983	14.323	6.101	13.974
11:11:53	57.240	6.012	14.021	10.123	6.087	14.013
11:12:08	42.002	6.007	14.032	7.645	6.079	14.026
11:12:23	33.602	6.005	14.040	6.128	6.078	14.034
11:12:38	28.425	6.000	14.044	5.105	6.076	14.042
11:12:53	25.055	5.994	14.043	4.389	6.072	14.047
11:13:08	21.831	5.993	14.045	3.881	6.072	14.050
11:13:23	20.318	5.986	14.045	3.533	6.071	14.054
11:13:38	19.585	5.979	14.037	3.259	6.071	14.054
11:13:53	18.462	5.977	14.031	3.064	6.073	14.054
11:14:08	16.606	5.978	14.039	2.933	6.070	14.054
11:14:23	15.873	5.981	14.042	2.787	6.074	14.056
11:14:38	14.896	5.982	14.051	2.706	6.078	14.056
11:14:53	13.919	5.987	14.052	2.631	6.080	14.057
11:15:08	13.577	5.945	13.770	2.354	6.004	13.996
11:15:23	13.870	5.783	13.797	2.677	6.058	14.066

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QA/QC JM
Date 6/14/07

Consol Energy
CleanAir Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

March 29, 2007
Start Time 11:10
Stop Time 11:22

CALIBRATION BIAS 01

	Channel 2 SO2 AH Outlet ppmdv	Channel 4 O2 AH Outlet %dv	Channel 5 CO2 AH Outlet %dv	Channel 7 SO2 BH Outlet ppmdv	Channel 8 O2 BH Outlet %dv	Channel 9 CO2 BH Outlet %dv
11:15:38	75.995	5.453	13.180	2.497	6.698	13.258
11:15:53	1329.280	0.689	2.596	13.183	4.069	9.421
11:16:08	2145.446	0.001	0.409	23.010	0.232	0.854
11:16:23	2299.292	-0.024	0.282	33.472	0.030	0.107
11:16:38	2347.008	-0.029	0.247	38.128	0.016	0.024
11:16:53	2363.907	-0.031	0.227	40.573	0.015	-0.005
11:17:08	2375.385	-0.032	0.214	42.028	0.011	-0.023
11:17:23	2381.099	-0.036	0.202	43.116	0.017	-0.039
11:17:38	2384.664	-0.037	0.195	43.910	0.025	-0.051
11:17:53	2391.600	-0.037	0.191	44.523	0.030	-0.059
11:18:08	2395.653	-0.037	0.187	44.975	0.032	-0.065
11:18:23	2397.411	-0.037	0.181	45.395	0.028	-0.070
11:18:38	2403.419	-0.038	0.177	45.740	0.025	-0.075
11:18:53	2404.493	-0.039	0.174	46.027	0.019	-0.082
11:19:08	2403.419	-0.041	0.171	46.252	0.015	-0.083
11:19:23	2403.370	-0.037	0.168	46.411	0.017	-0.086
11:19:38	2402.930	-0.040	0.165	46.567	0.012	-0.091
11:19:53	2405.372	-0.041	0.165	46.694	0.010	-0.093
11:20:08	2404.542	-0.042	0.163	46.831	0.010	-0.095
11:20:23	2406.349	-0.041	0.160	46.912	0.010	-0.096
11:20:38	2406.984	-0.043	0.159	47.010	0.010	-0.098
11:20:53	2407.619	-0.041	0.159	47.134	0.022	-0.099
11:21:08	2410.598	-0.041	0.158	47.231	0.019	-0.104
11:21:23	2410.012	-0.042	0.156	47.297	0.015	-0.107
11:21:38	2408.449	-0.040	0.153	47.375	0.012	-0.106
11:21:53	2406.789	-0.038	0.154	47.375	0.012	-0.107
11:22:08	2401.612	-0.041	0.153	47.424	0.006	-0.108
11:22:23	2405.323	-0.042	0.154	47.476	0.008	-0.111
11:22:38	2428.767	-0.040	0.155	47.599	0.012	-0.112
11:22:53	2319.023	3.659	4.580	75.477	5.393	5.709

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SS CEM Version 06-2004a

QA/QC JM
Date 6/14/07

Consol Energy
CleanAir Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

March 29, 2007
Start Time 12:16
Stop time 13:17

REFERENCE METHOD RUN 2

		Channel 2 SO2 AH Outlet ppmdv	Channel 4 O2 AH Outlet %dv	Channel 5 CO2 AH Outlet %dv	Channel 7 SO2 BH Outlet ppmdv	Channel 8 O2 BH Outlet %dv	Channel 9 CO2 BH Outlet %dv
Calibration Checks							
C_{oi}	Initial zero	13.789	-0.017	0.154	2.554	0.009	-0.001
C_{ui}	Initial upscale	2411.901	6.124	14.012	47.500	6.071	14.004
C_{of}	Final zero	11.005	0.028	0.146	2.847	0.000	-0.002
C_{uf}	Final upscale	2389.955	5.990	13.997	47.711	6.036	13.987
C_{ma}	Actual gas value	2479.000	6.040	13.980	49.350	6.040	13.980
Analyzer Averages (concentrations)							
C_{Avg}	Average conc.	1359.480	7.242	11.656	66.122	7.180	11.724
C_{Gas}	**Bias adjusted**	**1398.106**	**7.223**	**11.610**	**69.699**	**7.164**	**11.711**

Clock Time (at end of sample period)

061407 143432

Clock Time	Channel 2 SO2	Channel 4 O2	Channel 5 CO2	Channel 7 SO2	Channel 8 O2	Channel 9 CO2
12:17	1364.664	7.254	11.675	55.117	7.121	11.779
12:18	1361.966	7.292	11.648	72.509	7.142	11.757
12:19	1373.822	7.220	11.697	64.044	7.084	11.808
12:20	1364.005	7.268	11.651	61.744	7.091	11.811
12:21	1353.663	7.337	11.591	62.497	7.201	11.710
12:22	1367.155	7.219	11.692	59.941	7.138	11.755
12:23	1369.695	7.204	11.705	53.649	7.088	11.803
12:24	1357.607	7.319	11.606	53.478	7.182	11.733
12:25	1358.327	7.297	11.625	49.334	7.193	11.702
12:26	1364.188	7.269	11.646	45.573	7.173	11.724
12:27	1370.610	7.188	11.707	57.184	7.093	11.797
12:28	1364.237	7.244	11.662	59.284	7.139	11.760
12:29	1361.685	7.256	11.642	56.007	7.167	11.730
12:30	1360.965	7.224	11.668	56.487	7.186	11.710
12:31	1397.778	7.096	11.795	45.052	7.103	11.796
12:32	1374.896	7.207	11.698	57.928	7.226	11.673
12:33	1376.606	7.176	11.717	66.098	7.229	11.666
12:34	1381.062	7.148	11.735	64.527	7.208	11.686
12:35	1367.644	7.266	11.639	51.045	7.184	11.715
12:36	1355.568	7.310	11.600	56.625	7.207	11.700
12:37	1340.012	7.397	11.519	71.093	7.270	11.644
12:38	1352.808	7.296	11.601	58.999	7.354	11.658
12:39	1363.761	7.184	11.693	67.587	7.210	11.692
12:40	1357.631	7.249	11.648	55.478	7.153	11.767
12:41	1354.908	7.256	11.641	70.853	7.201	11.719
12:42	1357.412	7.216	11.676	73.363	7.202	11.705
12:43	1358.095	7.262	11.645	70.869	7.173	11.745
12:44	1353.041	7.289	11.621	70.698	7.233	11.684
12:45	1363.199	7.218	11.669	75.281	7.205	11.704
12:46	1368.315	7.210	11.685	61.355	7.141	11.768
12:47	1364.860	7.212	11.682	67.165	7.166	11.750
12:48	1360.513	7.257	11.644	50.511	7.147	11.768
12:49	1361.539	7.206	11.682	63.435	7.189	11.729
12:50	1355.226	7.267	11.634	64.125	7.185	11.726

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QA/QC jm
Date 6/14/07

Consol Energy
CleanAir Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

March 29, 2007
Start Time 12:16
Stop time 13:17

REFERENCE METHOD RUN 2

	Channel 2 SO2 AH Outlet ppmdv	Channel 4 O2 AH Outlet %dv	Channel 5 CO2 AH Outlet %dv	Channel 7 SO2 BH Outlet ppmdv	Channel 8 O2 BH Outlet %dv	Channel 9 CO2 BH Outlet %dv
12:51	1355.739	7.297	11.613	67.337	7.188	11.725
12:52	1360.379	7.224	11.676	67.175	7.173	11.725
12:53	1361.673	7.194	11.694	62.870	7.131	11.778
12:54	1351.514	7.299	11.595	63.604	7.182	11.737
12:55	1351.966	7.235	11.645	79.328	7.168	11.751
12:56	1351.612	7.235	11.653	83.057	7.167	11.742
12:57	1357.436	7.180	11.704	68.204	7.150	11.750
12:58	1357.070	7.262	11.645	47.138	7.148	11.765
12:59	1348.010	7.309	11.592	69.689	7.242	11.674
13:00	1353.712	7.253	11.646	71.374	7.173	11.736
13:01	1357.741	7.215	11.680	64.848	7.150	11.760
13:02	1355.385	7.225	11.666	60.493	7.190	11.718
13:03	1350.550	7.295	11.620	67.607	7.178	11.737
13:04	1341.478	7.356	11.561	85.670	7.260	11.655
13:05	1351.148	7.243	11.654	79.551	7.204	11.696
13:06	1355.556	7.221	11.670	72.598	7.156	11.755
13:07	1353.443	7.210	11.667	71.383	7.190	11.721
13:08	1344.957	7.276	11.602	71.493	7.243	11.659
13:09	1342.003	7.331	11.565	72.107	7.229	11.683
13:10	1349.255	7.221	11.655	89.273	7.222	11.675
13:11	1350.391	7.253	11.639	73.191	7.170	11.708
13:12	1354.591	7.233	11.652	61.389	7.141	11.736
13:13	1338.999	7.318	11.583	84.348	7.266	11.611
13:14	1341.258	7.295	11.603	77.016	7.237	11.626
13:15	1351.990	7.225	11.652	85.978	7.198	11.657
13:16	1390.806	6.985	11.863	82.170	7.111	11.737
13:17	1392.161	7.067	11.806	85.589	7.104	11.764

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QA/QC JM
Date 6/14/07

Consol Energy
CleanAir Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

March 29, 2007
Start Time 13:18
Stop Time 13:34

CALIBRATION BIAS 02

	Channel 2 SO2 AH Outlet ppmdv	Channel 4 O2 AH Outlet %dv	Channel 5 CO2 AH Outlet %dv	Channel 7 SO2 BH Outlet ppmdv	Channel 8 O2 BH Outlet %dv	Channel 9 CO2 BH Outlet %dv
System Response to Calibration Gasses (C_S)						
C_{of} Zero gas	11.005	0.028	0.146	2.847	0.000	-0.002
C_{uf} Upscale gas	2389.955	5.990	13.997	47.711	6.036	13.987
Analyzer Calibration Error Reponses (C_{Dir})						
C_{oce} Zero gas	3.452	-0.010	0.148	-0.056	0.002	0.003
C_{mce} Upscale gas	2482.035	6.061	14.059	48.630	6.050	13.966
Actual Upscale Gas Value (C_{MA})						
C_{ma} Upscale gas	2479.000	6.040	13.980	49.350	6.040	13.980
Calibration Span Value (CS)						
	2479.000	14.100	13.980	121.600	14.100	13.980
System Bias as Percent of Calibration Span Value (SB) (5%)						
Zero gas	0.3%	0.3%	0.0%	2.4%	0.0%	0.0%
Upscale gas	-3.7%	-0.5%	-0.4%	-0.8%	-0.1%	0.2%
System Bias Status						
Zero gas	OK	OK	OK	OK	OK	OK
Upscale gas	OK	OK	OK	OK	OK	OK
Previous System Response to Calibration Gases (C_S)						
C_{oi} Zero gas	13.789	-0.017	0.154	2.554	0.009	-0.001
C_{ui} Upscale gas	2411.901	6.124	14.012	47.500	6.071	14.004
Drift Assessment as Percent of Calibration Span Value (D) (3%)						
Zero gas	-0.1%	0.3%	-0.1%	0.2%	-0.1%	0.0%
Upscale gas	-0.9%	-1.0%	-0.1%	0.2%	-0.2%	-0.1%
Drift Assessment Status						
Zero gas	OK	OK	OK	OK	OK	OK
Upscale gas	OK	OK	OK	OK	OK	OK

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13:18:30	1257.192	10.274	10.061	95.463	9.337	10.387
13:18:45	572.454	10.707	8.329	79.375	9.902	8.389
13:19:00	195.409	6.196	13.617	48.537	6.179	13.590
13:19:15	97.729	6.001	13.951	30.375	6.023	13.920
13:19:30	62.173	5.986	13.986	20.653	6.012	13.958
13:19:45	45.617	5.982	13.997	14.795	6.007	13.973
13:20:00	35.018	5.981	14.008	11.168	6.005	13.981
13:20:15	28.913	5.982	14.013	8.863	6.002	13.989
13:20:30	24.420	5.979	14.017	7.274	6.003	13.992
13:20:45	22.173	5.975	14.021	6.131	6.016	13.994
13:21:00	19.927	5.969	14.020	5.369	6.039	13.998
13:21:15	18.608	5.969	14.020	4.806	6.191	14.000
13:21:30	16.948	5.966	14.019	4.418	6.098	14.000
13:21:45	16.459	5.969	14.021	4.155	6.056	13.998
13:22:00	15.336	5.970	14.022	3.904	6.039	13.998
13:22:15	14.652	5.967	14.025	3.686	6.032	14.001
13:22:30	14.163	5.970	14.025	3.549	6.038	14.003
13:22:45	13.724	5.970	14.027	3.419	6.056	14.004
13:23:00	12.503	5.971	14.030	3.328	6.266	14.002

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Date 6/14/07

Consol Energy
CleanAir Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

March 29, 2007
Start Time 13:18
Stop Time 13:34

CALIBRATION BIAS 02

	Channel 2 SO2 AH Outlet ppmdv	Channel 4 O2 AH Outlet %dv	Channel 5 CO2 AH Outlet %dv	Channel 7 SO2 BH Outlet ppmdv	Channel 8 O2 BH Outlet %dv	Channel 9 CO2 BH Outlet %dv
13:23:15	12.308	5.976	14.030	3.223	6.416	14.003
13:23:30	11.917	5.976	14.035	3.159	6.020	14.005
13:23:45	11.966	5.974	14.034	3.110	6.009	14.005
13:24:00	11.184	5.975	14.033	3.051	6.006	14.007
13:24:15	10.842	5.976	14.039	2.986	6.005	14.008
13:24:30	10.989	5.979	14.041	2.930	6.003	14.009
13:24:45	271.941	3.319	9.172	2.624	2.437	7.480
13:25:00	1552.088	0.133	0.883	9.846	0.102	0.520
13:25:15	2093.578	-0.019	0.332	24.404	0.012	0.091
13:25:30	2228.767	-0.030	0.269	32.869	0.004	0.023
13:25:45	2300.269	-0.034	0.240	37.682	0.002	-0.006
13:26:00	2326.496	-0.037	0.224	40.668	0.000	-0.024
13:26:15	2342.076	-0.037	0.212	42.471	0.000	-0.041
13:26:30	2351.062	-0.036	0.201	43.604	0.000	-0.050
13:26:45	2354.969	-0.037	0.195	44.405	0.000	-0.058
13:27:00	2358.730	-0.041	0.190	45.017	-0.001	-0.064
13:27:15	2364.005	-0.039	0.185	45.438	0.000	-0.071
13:27:30	2370.891	-0.042	0.182	45.766	-0.002	-0.077
13:27:45	2366.593	-0.040	0.179	46.001	0.000	-0.081
13:28:00	2367.619	-0.041	0.176	46.304	0.000	-0.086
13:28:15	2370.208	-0.040	0.171	46.480	0.000	-0.089
13:28:30	2375.922	-0.039	0.169	46.606	0.000	-0.091
13:28:45	2371.477	-0.040	0.167	46.707	-0.001	-0.095
13:29:00	2371.477	-0.040	0.165	46.786	0.000	-0.098
13:29:15	2371.624	-0.042	0.164	46.902	0.000	-0.101
13:29:30	2377.729	-0.041	0.161	46.997	-0.001	-0.101
13:29:45	2377.143	-0.045	0.160	47.105	-0.001	-0.104
13:30:00	2373.968	-0.043	0.159	47.153	0.000	-0.106
13:30:15	2377.778	-0.043	0.158	47.179	-0.001	-0.107
13:30:30	2374.017	-0.044	0.156	47.179	-0.002	-0.107
13:30:45	2371.917	-0.047	0.154	47.225	-0.005	-0.107
13:31:00	2371.282	-0.043	0.153	47.310	-0.002	-0.111
13:31:15	2375.385	-0.045	0.153	47.401	-0.002	-0.112
13:31:30	2376.215	-0.043	0.151	47.424	0.000	-0.113
13:31:45	2374.896	-0.041	0.151	47.424	-0.001	-0.113
13:32:00	2374.750	-0.043	0.148	47.434	-0.003	-0.113
13:32:15	2375.824	-0.043	0.149	47.483	-0.004	-0.117
13:32:30	2374.554	-0.042	0.149	47.521	-0.004	-0.118
13:32:45	2376.215	-0.041	0.147	47.473	-0.005	-0.119
13:33:00	2379.390	-0.042	0.147	47.473	-0.008	-0.119
13:33:15	2382.076	-0.043	0.146	47.528	-0.005	-0.118
13:33:30	2377.778	-0.046	0.146	47.570	-0.008	-0.120
13:33:45	2376.215	-0.040	0.147	47.612	-0.004	-0.120
13:34:00	2379.438	-0.043	0.146	47.730	-0.008	-0.119
13:34:15	2414.212	-0.006	0.151	47.792	0.142	-0.106
13:34:30	2165.812	4.877	5.991	70.838	5.452	7.428

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QA/QC Jm
Date 6/14/07

Consol Energy
CleanAir Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

March 29, 2007
Start Time 15:13
Stop time 16:13

REFERENCE METHOD RUN 3

		Channel 2 SO2	Channel 4 O2	Channel 5 CO2	Channel 7 SO2	Channel 8 O2	Channel 9 CO2
		AH Outlet ppmdv	AH Outlet %dv	AH Outlet %dv	BH Outlet ppmdv	BH Outlet %dv	BH Outlet %dv
Calibration Checks							
C_{oi}	Initial zero	11.005	0.028	0.146	2.847	0.000	-0.002
C_{ui}	Initial upscale	2389.955	5.990	13.997	47.711	6.036	13.987
C_{of}	Final zero	12.177	-0.019	0.150	3.055	-0.006	-0.012
C_{uf}	Final upscale	2359.526	6.032	14.042	47.506	6.041	13.981
C_{ma}	Actual gas value	2479.000	6.040	13.980	49.350	6.040	13.980
Analyzer Averages (concentrations)							
C_{Avg}	Average conc.	1328.389	7.410	11.582	92.367	7.512	11.509
$\mathbf{C_{Gas}}$	**Bias adjusted**	**1381.352**	**7.447**	**11.523**	**98.811**	**7.513**	**11.507**

Clock Time (at end of sample period)

061407 143432

Clock Time	Channel 2 SO2	Channel 4 O2	Channel 5 CO2	Channel 7 SO2	Channel 8 O2	Channel 9 CO2
15:14	1341.746	7.394	11.607	85.943	7.699	11.548
15:15	1329.561	7.383	11.544	101.783	7.758	11.488
15:16	1335.543	7.301	11.619	99.989	7.729	11.492
15:17	1338.706	7.300	11.633	95.828	7.517	11.577
15:18	1336.288	7.289	11.643	86.194	7.215	11.569
15:19	1334.982	7.311	11.625	72.071	7.205	11.589
15:20	1325.031	7.409	11.543	71.788	7.280	11.523
15:21	1325.324	7.384	11.565	71.992	7.422	11.454
15:22	1344.359	7.265	11.681	70.107	7.435	11.555
15:23	1338.706	7.340	11.674	96.813	7.329	11.480
15:24	1352.051	7.387	12.114	92.204	7.230	11.513
15:25	1349.109	7.337	11.762	90.066	7.275	11.534
15:26	1347.265	7.324	11.888	98.562	7.323	11.490
15:27	1342.943	7.276	12.118	103.508	7.294	11.523
15:28	1336.142	7.344	11.747	107.680	7.346	11.471
15:29	1334.042	7.368	11.705	91.079	7.331	11.455
15:30	1338.376	7.598	11.671	100.676	7.881	11.553
15:31	1333.968	7.392	11.764	86.242	7.790	11.505
15:32	1322.283	7.379	11.629	84.263	7.785	11.494
15:33	1316.178	7.454	11.534	113.180	7.871	11.420
15:34	1325.702	7.401	11.566	105.572	7.756	11.513
15:35	1327.558	7.393	11.574	89.464	7.757	11.523
15:36	1325.714	7.418	11.555	83.420	7.763	11.517
15:37	1323.346	7.463	11.510	96.301	7.759	11.492
15:38	1327.631	7.390	11.556	97.468	7.750	11.502
15:39	1340.452	7.351	11.606	78.756	7.494	11.540
15:40	1340.086	7.386	11.575	78.554	7.480	11.490
15:41	1326.642	7.449	11.527	106.330	7.405	11.425
15:42	1339.084	7.341	11.612	103.406	7.336	11.447
15:43	1332.992	7.448	11.532	85.951	7.244	11.514
15:44	1328.230	7.441	11.529	93.355	7.194	11.584

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Date 6/14/07

Consol Energy
CleanAir Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

March 29, 2007
Start Time 15:13
Stop time 16:13

REFERENCE METHOD RUN 3

	Channel 2 SO2 AH Outlet ppmdv	Channel 4 O2 AH Outlet %dv	Channel 5 CO2 AH Outlet %dv	Channel 7 SO2 BH Outlet ppmdv	Channel 8 O2 BH Outlet %dv	Channel 9 CO2 BH Outlet %dv
15:45	1319.475	7.460	11.510	106.243	7.320	11.449
15:46	1325.837	7.424	11.534	84.945	7.268	11.501
15:47	1342.332	7.250	11.670	96.186	7.202	11.549
15:48	1344.286	7.280	11.654	79.721	7.203	11.561
15:49	1345.458	7.296	11.646	72.390	7.187	11.581
15:50	1341.062	7.362	11.586	83.234	7.634	11.515
15:51	1327.094	7.505	11.459	75.178	7.523	11.407
15:52	1333.040	7.424	11.527	95.417	7.672	11.421
15:53	1328.926	7.337	11.288	100.889	7.554	11.466
15:54	1326.178	7.466	11.496	106.206	7.422	11.501
15:55	1324.811	7.423	11.542	91.772	7.375	11.544
15:56	1326.655	7.435	11.535	89.937	7.388	11.572
15:57	1315.727	7.536	11.448	83.850	7.504	11.514
15:58	1322.247	7.448	11.514	99.317	7.650	11.514
15:59	1315.836	7.449	11.509	91.258	7.737	11.520
16:00	1318.742	7.474	11.501	94.484	7.752	11.540
16:01	1316.471	7.460	11.508	101.659	7.497	11.510
16:02	1328.266	7.392	11.570	89.159	7.546	11.572
16:03	1317.460	7.581	11.420	111.626	7.637	11.522
16:04	1296.349	7.670	11.318	87.416	7.526	11.484
16:05	1311.074	7.487	11.472	99.113	7.566	11.458
16:06	1314.701	7.467	11.491	85.098	7.762	11.477
16:07	1312.466	7.498	11.471	90.090	7.864	11.469
16:08	1318.352	7.431	11.469	97.488	7.524	11.479
16:09	1313.126	7.517	11.459	105.937	7.609	11.456
16:10	1312.527	7.439	11.524	105.612	7.600	11.513
16:11	1311.514	7.449	11.522	94.792	7.782	11.545
16:12	1315.482	7.434	11.537	96.286	7.418	11.537
16:13	1317.802	7.461	11.517	88.195	7.352	11.570

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Date 6/14/07

Consol Energy
CleanAir Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

March 29, 2007
Start Time 16:16
Stop Time 16:30

CALIBRATION BIAS 03

		Channel 2 SO2 AH Outlet ppmdv	Channel 4 O2 AH Outlet %dv	Channel 5 CO2 AH Outlet %dv	Channel 7 SO2 BH Outlet ppmdv	Channel 8 O2 BH Outlet %dv	Channel 9 CO2 BH Outlet %dv
System Response to Calibration Gasses (C_S)							
C_{of}	Zero gas	12.177	-0.019	0.150	3.055	-0.006	-0.012
C_{uf}	Upscale gas	2359.526	6.032	14.042	47.506	6.041	13.981
Analyzer Calibration Error Reponses (C_{Dir})							
C_{oce}	Zero gas	3.452	-0.010	0.148	-0.056	0.002	0.003
C_{mce}	Upscale gas	2482.035	6.061	14.059	48.630	6.050	13.966
Actual Upscale Gas Value (C_{MA})							
C_{ma}	Upscale gas	2479.000	6.040	13.980	49.350	6.040	13.980
Calibration Span Value (CS)							
		2479.000	14.100	13.980	121.600	14.100	13.980
System Bias as Percent of Calibration Span Value (SB) (5%)							
	Zero gas	0.4%	-0.1%	0.0%	2.6%	-0.1%	-0.1%
	Upscale gas	-4.9%	-0.2%	-0.1%	-0.9%	-0.1%	0.1%
System Bias Status							
	Zero gas	OK	OK	OK	OK	OK	OK
	Upscale gas	OK	OK	OK	OK	OK	OK
Previous System Response to Calibration Gases (C_S)							
C_{oi}	Zero gas	11.005	0.028	0.146	2.847	0.000	-0.002
C_{ui}	Upscale gas	2389.955	5.990	13.997	47.711	6.036	13.987
Drift Assessment as Percent of Calibration Span Value (D) (3%)							
	Zero gas	0.0%	-0.3%	0.0%	0.2%	0.0%	-0.1%
	Upscale gas	-1.2%	0.3%	0.3%	-0.2%	0.0%	0.0%
Drift Assessment Status							
	Zero gas	OK	OK	OK	OK	OK	OK
	Upscale gas	OK	OK	OK	OK	OK	OK

061407 143432

16:16:01	23.785	6.023	14.038	7.938	6.062	13.973
16:16:16	21.831	6.018	14.041	6.701	6.052	13.976
16:16:31	20.513	6.020	14.045	5.893	6.053	13.978
16:16:46	19.829	6.019	14.051	5.324	6.063	13.981
16:17:01	18.706	6.019	14.054	4.835	6.065	13.983
16:17:16	17.094	6.023	14.055	4.497	6.061	13.982
16:17:31	16.019	6.024	14.055	4.216	6.055	13.982
16:17:46	15.385	6.026	14.059	3.979	6.044	13.985
16:18:01	13.919	6.026	14.064	3.816	6.037	13.987
16:18:16	13.919	6.028	14.063	3.634	6.041	13.988
16:18:31	13.919	6.026	14.066	3.481	6.034	13.989
16:18:46	12.454	6.028	14.064	3.350	6.029	13.990
16:19:01	12.454	6.031	14.068	3.252	6.042	13.994
16:19:16	12.356	6.031	14.068	3.175	6.030	13.994
16:19:31	11.722	6.033	14.070	3.133	6.039	13.996
16:19:46	167.424	3.919	10.416	2.859	3.970	10.754
16:20:01	1375.971	0.208	1.119	4.005	0.238	1.068
16:20:16	2048.010	-0.009	0.350	14.659	0.011	0.145
16:20:31	2209.231	-0.022	0.275	25.680	0.000	0.044

Prepared by Clean Air Engineering Proprietary Software
SS CEM Version 06-2004a

QA/QC Jm
Date 6/14/07

Consol Energy
CleanAir Project No. 10192
Dresden, New York
BH Outlet, AH Outlet

March 29, 2007
Start Time 16:16
Stop Time 16:30

CALIBRATION BIAS 03

	Channel 2 SO2 AH Outlet ppmdv	Channel 4 O2 AH Outlet %dv	Channel 5 CO2 AH Outlet %dv	Channel 7 SO2 BH Outlet ppmdv	Channel 8 O2 BH Outlet %dv	Channel 9 CO2 BH Outlet %dv
16:20:46	2265.641	-0.025	0.247	32.847	-0.003	0.007
16:21:01	2288.596	-0.029	0.229	37.327	-0.003	-0.013
16:21:16	2304.762	-0.028	0.215	40.111	-0.005	-0.030
16:21:31	2310.965	-0.030	0.205	41.885	-0.011	-0.041
16:21:46	2321.123	-0.027	0.197	43.048	-0.010	-0.049
16:22:01	2323.370	-0.027	0.193	43.842	-0.011	-0.058
16:22:16	2326.838	-0.027	0.189	44.438	-0.010	-0.064
16:22:31	2330.842	-0.025	0.183	44.894	-0.011	-0.070
16:22:46	2334.603	-0.031	0.181	45.242	-0.014	-0.073
16:23:01	2335.141	-0.029	0.177	45.522	-0.013	-0.076
16:23:16	2336.166	-0.034	0.174	45.743	-0.014	-0.081
16:23:31	2332.943	-0.034	0.170	45.900	-0.016	-0.086
16:23:46	2334.017	-0.034	0.167	46.046	-0.015	-0.088
16:24:01	2340.513	-0.034	0.166	46.138	-0.013	-0.091
16:24:16	2340.317	-0.031	0.164	46.242	-0.013	-0.092
16:24:31	2355.507	-0.026	0.165	46.329	-0.012	-0.095
16:24:46	2349.109	-0.031	0.165	46.378	-0.014	-0.097
16:25:01	2343.394	-0.031	0.162	46.401	-0.014	-0.097
16:25:16	2346.862	-0.039	0.161	46.496	-0.014	-0.100
16:25:31	2342.125	-0.037	0.160	46.606	-0.013	-0.101
16:25:46	2340.610	-0.040	0.157	46.733	-0.015	-0.101
16:26:01	2342.320	-0.039	0.156	46.825	-0.016	-0.104
16:26:16	2341.783	-0.039	0.156	46.893	-0.017	-0.104
16:26:31	2343.590	-0.037	0.156	46.932	-0.015	-0.106
16:26:46	2343.785	-0.037	0.154	46.984	-0.016	-0.107
16:27:01	2344.078	-0.037	0.153	46.984	-0.014	-0.108
16:27:16	2343.834	-0.037	0.153	47.004	-0.016	-0.111
16:27:31	2344.957	-0.039	0.153	47.033	-0.015	-0.110
16:27:46	2347.644	-0.028	0.152	47.066	-0.012	-0.113
16:28:01	2346.667	-0.041	0.151	47.092	-0.014	-0.113
16:28:16	2335.824	-0.037	0.150	47.176	-0.013	-0.114
16:28:31	2339.048	-0.037	0.149	47.355	-0.012	-0.116
16:28:46	2347.399	-0.037	0.151	47.987	1.545	1.116
16:29:01	2354.041	-0.036	0.151	68.142	6.632	9.983
16:29:16	2358.974	-0.036	0.149	83.386	7.038	11.492
16:29:31	2358.265	-0.035	0.151	79.873	7.151	11.537
16:29:46	2357.093	-0.036	0.150	85.333	7.147	11.561
16:30:01	2357.018	-0.035	0.150	99.087	7.178	11.529
16:30:16	2347.839	-0.044	0.144	102.004	7.204	11.522
16:30:31	2339.292	-0.112	-0.110	90.273	7.072	11.514
16:30:46	2359.563	-6.703	-6.561	83.930	7.118	11.483
16:29:01	2360.041	-0.036	0.151	68.142	6.632	9.983
16:29:16	2358.974	-0.036	0.149	83.386	7.038	11.492
16:29:31	2357.265	-0.035	0.151	79.873	7.151	11.537
16:29:46	2356.093	-0.036	0.150	85.333	7.147	11.561
16:30:01	2355.018	-0.035	0.150	99.087	7.178	11.529
16:30:16	2347.839	-0.044	0.144	102.004	7.204	11.522
16:30:31	2339.292	-0.112	-0.110	90.273	7.072	11.514
16:30:46	2361.563	-6.703	-6.561	83.930	7.118	11.483

Prepared by Clean Air Engineering Proprietary Software
SS CEM Version 06-2004a

QA/QC JM
Date 6/14/07

Clean Air Engineering Project #10192
Consol Energy
AES Dresden

Date:	3/28/2007	Run # (Cycle #)	1 (1)
Start Time:	9:12		
End Time:	9:35		

Inlet Point	Time Sampled	NOx ppmdv	NOx Port Avg	PPM Dev from Avg.	O2 %dv	O2 Port Avg	CO2 %dv	CO2 Port Avg	NOx @ 3% O2	PPM Dev from Avg.
1-1	9:12	79.9		-5.6	7.5		11.6		106.3	11.2
1-2	9:16	108.9		23.4	3.0		15.4		108.7	13.6
1-3	9:20	91.3	86.0	5.8	5.0	5.5	13.7	13.3	102.7	7.6
1-4	9:24	83.2		-2.3	4.4		14.2		90.3	-4.8
1-5	9:28	75.1		-10.4	4.8		13.9		83.7	-11.5
1-6	9:32	77.8		-7.7	8.6		10.7		112.9	17.7
2-1	9:13	86.9		1.4	5.9		12.9		103.7	8.5
2-2	9:17	90.6		5.1	3.0		15.4		90.8	-4.4
2-3	9:21	90.3	83.8	4.8	5.3	4.9	13.5	13.8	103.7	8.6
2-4	9:25	80.7		-4.8	3.9		14.7		84.9	-10.3
2-5	9:29	69.6		-15.9	4.5		14.1		76.1	-19.1
2-6	9:33	84.6		-0.9	6.7		12.2		106.9	11.8
3-1	9:14	98.5		13.0	4.0		14.5		104.5	9.3
3-2	9:18	90.3		4.8	2.9		15.5		89.7	-5.4
3-3	9:22	104.9	89.9	19.4	3.3	4.1	15.2	14.4	106.4	11.3
3-4	9:26	83.3		-2.2	3.7		14.8		86.8	-8.3
3-5	9:30	73.3		-12.2	4.6		14.1		80.4	-14.7
3-6	9:34	88.9		3.4	6.4		12.5		109.4	14.2
4-1	9:15	85.8		0.3	5.7		13.1		100.8	5.7
4-2	9:19	92.1		6.6	2.5		15.8		89.8	-5.4
4-3	9:23	98.0	82.3	12.5	3.3	4.4	15.2	14.2	99.4	4.3
4-4	9:27	79.5		-6.0	3.8		14.7		83.4	-11.8
4-5	9:31	66.3		-19.2	4.6		14.1		72.6	-22.6
4-6	9:35	72.3		-13.2	6.5		12.4		89.8	-5.4
Inlet Averages		85.5			4.7		13.9		95.2	

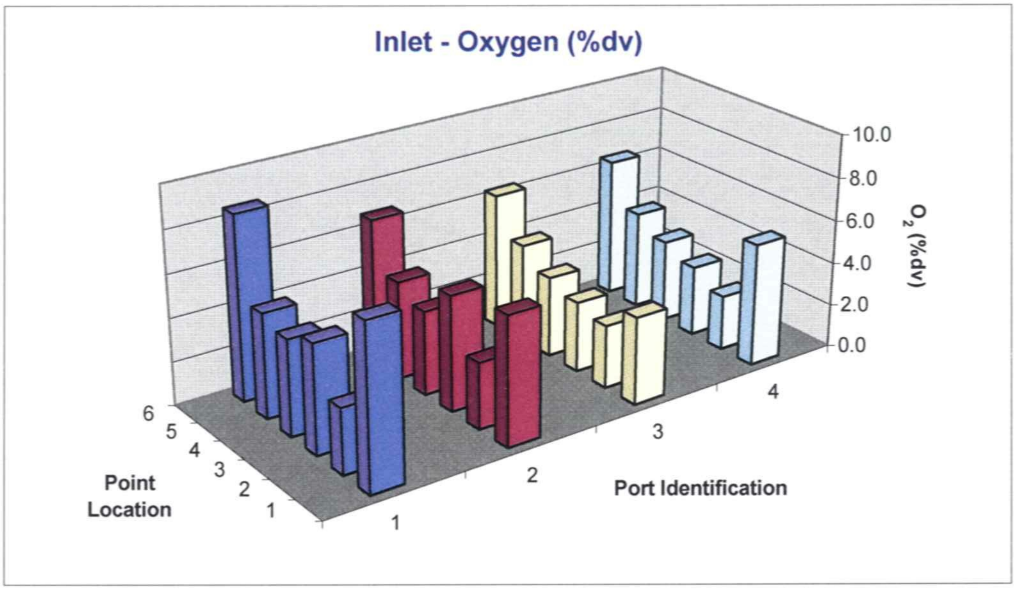
Outlet Point	Time Sampled	NOx ppmdv	NOx Port Avg	PPM Dev from Avg.	O2 %dv	O2 Port Avg	CO2 %dv	CO2 Port Avg	NOx @ 3% O2	PPM Dev from Avg.	Removal Efficiency	Removal Eff W/ O2 correction
1-1	9:12	68.8		21.5	4.8		14.0		76.3	22.9	13.9	28.3
1-2	9:16	78.7		31.4	5.6		13.3		92.3	38.9	27.7	15.1
1-3	9:20	56.5	61.5	9.2	5.3	5.8	13.5	13.1	64.9	11.5	38.1	36.8
1-4	9:24	64.7		17.4	4.7		14.0		71.5	18.2	22.2	20.8
1-5	9:28	50.8		3.5	6.4		12.6		62.8	9.4	32.4	25.0
1-6	9:32	49.4		2.1	8.0		11.1		68.8	15.4	36.5	39.1
2-1	9:13	33.3		-14.0	4.9		13.9		37.2	-16.2	61.7	64.1
2-2	9:17	56.8		9.5	4.8		14.0		63.0	9.6	37.3	30.6
2-3	9:21	70.8	50.5	23.5	4.7	5.3	14.1	13.5	78.3	24.9	21.6	24.5
2-4	9:25	72.9		25.6	5.9		13.0		86.9	33.6	9.7	-2.4
2-5	9:29	25.8		-21.5	4.9		13.9		28.8	-24.6	62.9	62.1
2-6	9:33	43.4		-3.9	6.6		12.4		54.4	1.1	48.7	49.1
3-1	9:14	25.1		-22.2	3.6		15.0		26.0	-27.4	74.5	75.2
3-2	9:18	66.1		18.8	4.4		14.3		71.7	18.3	26.8	20.1
3-3	9:22	76.8	47.3	29.5	4.4	4.5	14.3	14.2	83.1	29.7	26.8	22.0
3-4	9:26	61.1		13.8	4.9		13.9		68.5	15.1	26.7	21.1
3-5	9:30	31.3		-16.0	4.3		14.4		33.8	-19.6	57.3	58.0
3-6	9:34	23.4		-23.9	5.4		13.5		27.0	-26.4	73.7	75.3
4-1	9:15	7.7		-39.6	3.4		15.2		7.9	-45.5	91.0	92.2
4-2	9:19	53.4		6.1	2.7		15.9		52.4	-0.9	42.0	41.6
4-3	9:23	73.7	30.0	26.4	3.5	4.0	15.1	14.7	75.9	22.6	24.8	23.6
4-4	9:27	35.2		-12.1	4.6		14.2		38.7	-14.7	55.7	53.6
4-5	9:31	4.8		-42.5	4.1		14.5		5.1	-48.3	92.8	92.9
4-6	9:35	5.3		-42.0	5.5		13.4		6.1	-47.2	92.7	93.2
Outlet Averages		47.3			4.9		13.9		53.4		45.7	44.3

Run 1: Inlet - Set 1

Date: 3/28/2007
Start Time: 9:12
End Time: 9:35

Inlet - Oxygen (%dv)

AVG	5.5	4.9	4.1	4.4	
6	8.6	6.7	6.4	6.5	7.0
5	4.8	4.5	4.6	4.6	4.6
4	4.4	3.9	3.7	3.8	4.0
3	5.0	5.3	3.3	3.3	4.2
2	3.0	3.0	2.9	2.5	2.9
1	7.5	5.9	4.0	5.7	5.8
	1	2	3	4	4.7

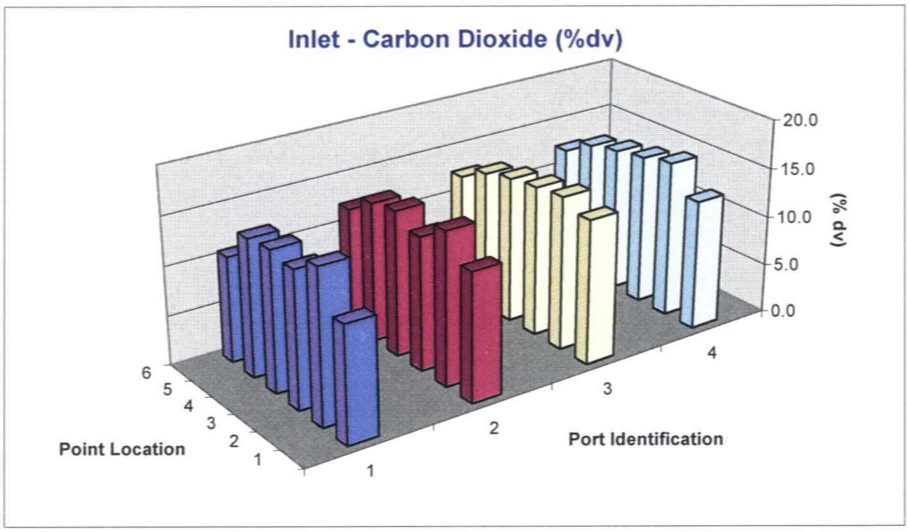


Run 1: Inlet - Set 1

Date: 3/28/2007
Start Time: 9:12
End Time: 9:35

Inlet - Carbon Dioxide (%dv)

AVG	13.3	13.8	14.4	14.2	
6	10.7	12.2	12.5	12.4	12.0
5	13.9	14.1	14.1	14.1	14.0
4	14.2	14.7	14.8	14.7	14.6
3	13.7	13.5	15.2	15.2	14.4
2	15.4	15.4	15.5	15.8	15.5
1	11.6	12.9	14.5	13.1	13.0
	1	2	3	4	13.9



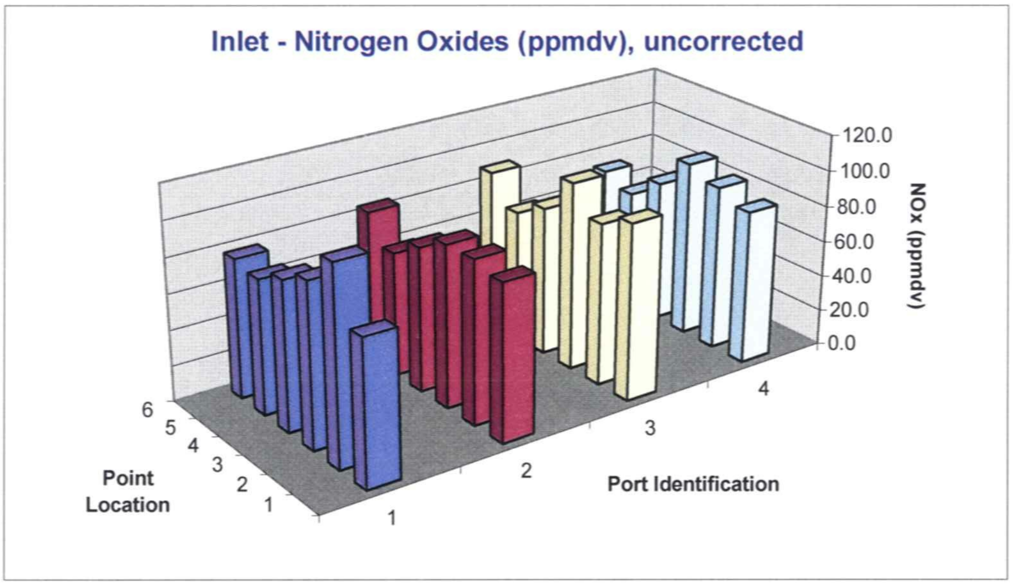
CleanAir ENGINEERING

Run 1: Inlet - Set 1

Date: 3/28/2007
Start Time: 9:12
End Time: 9:35

Inlet - Nitrogen Oxides (ppmdv), uncorrected

AVG	86.0	83.8	89.9	82.3	
6	77.8	84.6	88.9	72.3	80.9
5	75.1	69.6	73.3	66.3	71.1
4	83.2	80.7	83.3	79.5	81.7
3	91.3	90.3	104.9	98.0	96.1
2	108.9	90.6	90.3	92.1	95.5
1	79.9	86.9	98.5	85.8	87.8
	1	2	3	4	85.5

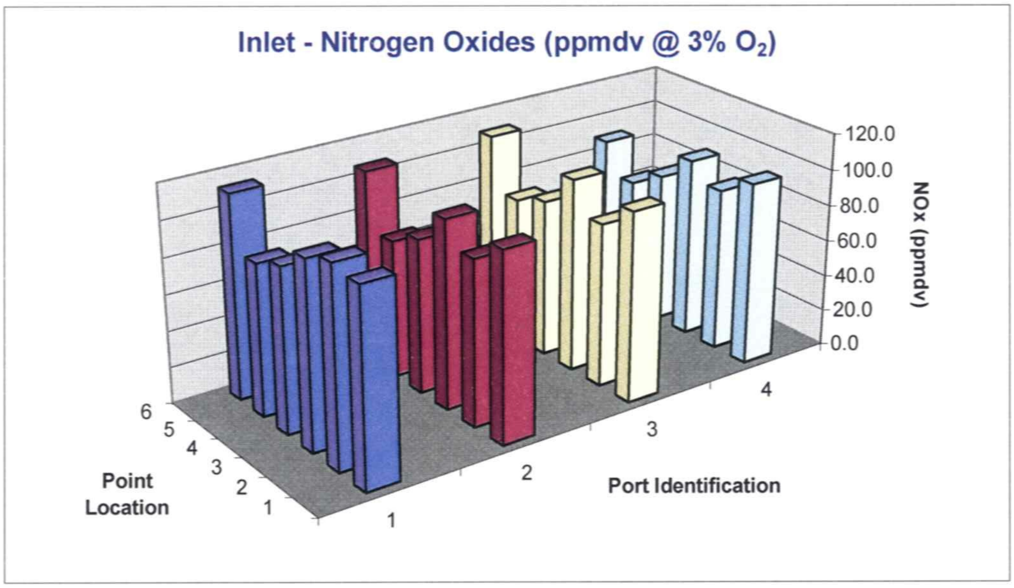


Run 1: Inlet - Set 1

Date: 3/28/2007
Start Time: 9:12
End Time: 9:35

Inlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	100.8	94.4	96.2	89.3	
6	112.9	106.9	109.4	89.8	104.7
5	83.7	76.1	80.4	72.6	78.2
4	90.3	84.9	86.8	83.4	86.3
3	102.7	103.7	106.4	99.4	103.1
2	108.7	90.8	89.7	89.8	94.8
1	106.3	103.7	104.5	100.8	103.8
	1	2	3	4	95.2

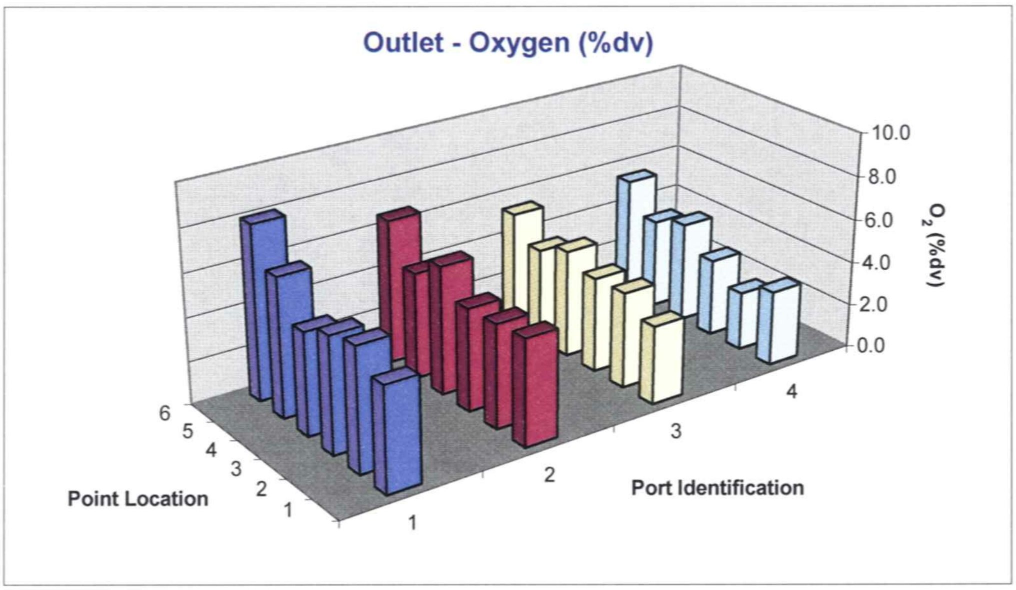


Run 1: Outlet - Set 1

Date: 3/28/2007
Start Time: 9:12
End Time: 9:35

Outlet - Oxygen (%dv)

AVG	5.8	5.3	4.5	4.0	
6	8.0	6.6	5.4	5.5	6.4
5	6.4	4.9	4.3	4.1	4.9
4	4.7	5.9	4.9	4.6	5.0
3	5.3	4.7	4.4	3.5	4.5
2	5.6	4.8	4.4	2.7	4.4
1	4.8	4.9	3.6	3.4	4.2
	1	2	3	4	4.9

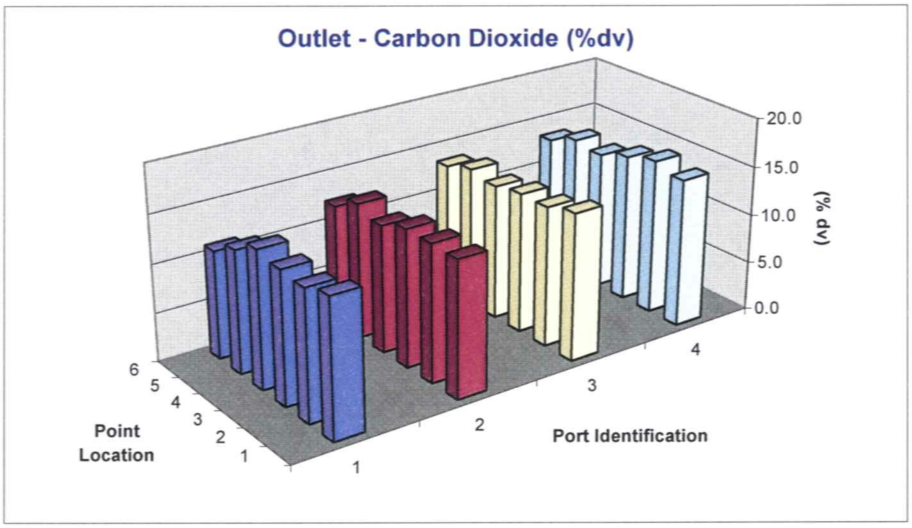


Run 1: Outlet - Set 1

Date: 3/28/2007
Start Time: 9:12
End Time: 9:35

Outlet - Carbon Dioxide (%dv)

AVG	13.1	13.5	14.2	14.7	
6	11.1	12.4	13.5	13.4	12.6
5	12.6	13.9	14.4	14.5	13.8
4	14.0	13.0	13.9	14.2	13.8
3	13.5	14.1	14.3	15.1	14.3
2	13.3	14.0	14.3	15.9	14.4
1	14.0	13.9	15.0	15.2	14.5
	1	**2**	**3**	**4**	13.9

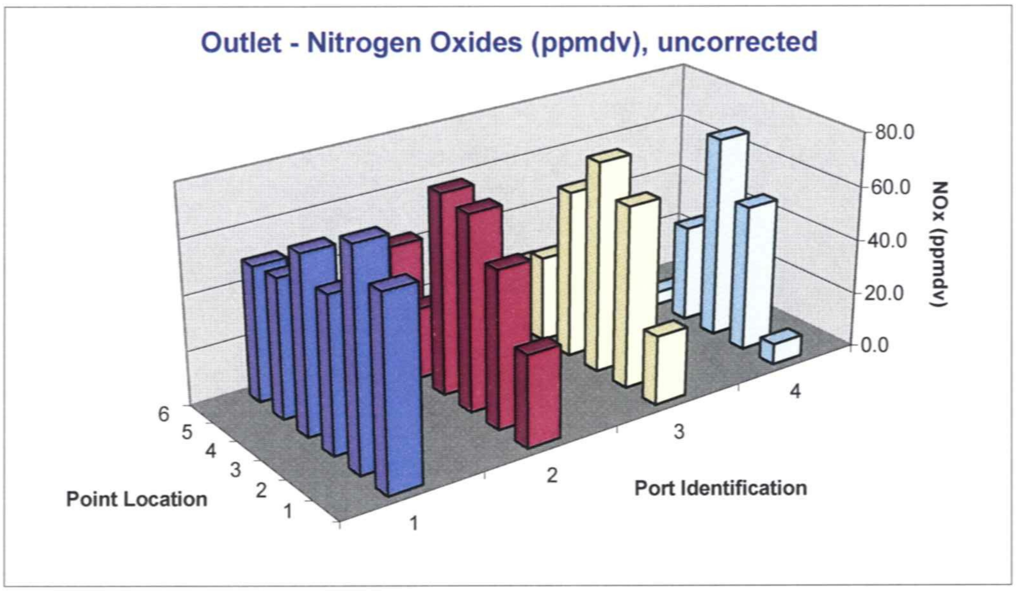


Run 1: Outlet - Set 1

Date: 3/28/2007
Start Time: 9:12
End Time: 9:35

Outlet - Nitrogen Oxides (ppmdv), uncorrected

AVG	61.5	50.5	47.3	30.0	
6	49.4	43.4	23.4	5.3	30.4
5	50.8	25.8	31.3	4.8	28.2
4	64.7	72.9	61.1	35.2	58.5
3	56.5	70.8	76.8	73.7	69.5
2	78.7	56.8	66.1	53.4	63.8
1	68.8	33.3	25.1	7.7	33.7
	1	2	3	4	47.3



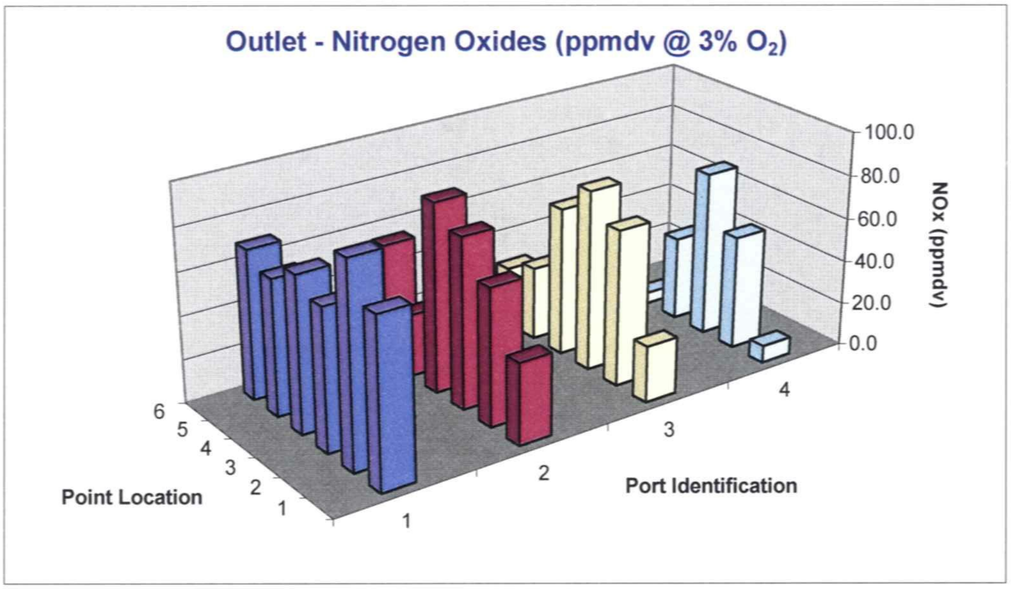
CleanAir ENGINEERING

Run 1: Outlet - Set 1

Date: 3/28/2007
Start Time: 9:12
End Time: 9:35

Outlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	72.7	58.1	51.7	31.0	
6	68.8	54.4	27.0	6.1	**39.1**
5	62.8	28.8	33.8	5.1	**32.6**
4	71.5	86.9	68.5	38.7	**66.4**
3	64.9	78.3	83.1	75.9	**75.5**
2	92.3	63.0	71.7	52.4	**69.8**
1	76.3	37.2	26.0	7.9	**36.8**
	1	**2**	**3**	**4**	**53.4**

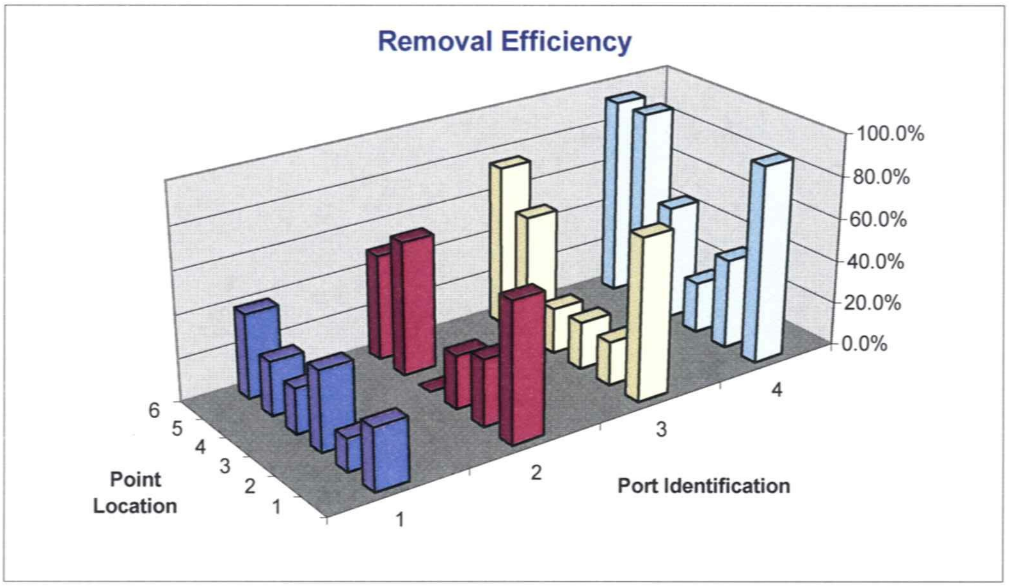


Run 1: Outlet - Set 1

Date: 3/28/2007
Start Time: 9:12
End Time: 9:35

Removal Efficiency (ppmdv @ 3% O_2)

AVG	**27.5%**	**38.0%**	**45.3%**	**66.2%**	
6	39.1%	49.1%	75.3%	93.2%	**64.2%**
5	25.0%	62.1%	58.0%	92.9%	**59.5%**
4	20.8%	-2.4%	21.1%	53.6%	**23.3%**
3	36.8%	24.5%	22.0%	23.6%	**26.7%**
2	15.1%	30.6%	20.1%	41.6%	**26.9%**
1	28.3%	64.1%	75.2%	92.2%	**64.9%**
	1	**2**	**3**	**4**	**44.3%**



CleanAir ENGINEERING

Clean Air Engineering Project #10192
Consol Energy
AES Dresden

Date:	3/28/2007	Run # (Cycle #)	1 (2)
Start Time:	9:36		
End Time:	9:59		

Inlet Point	Time Sampled	NOx ppmdv	NOx Port Avg	PPM Dev from Avg.	O2 %dv	O2 Port Avg	CO2 %dv	CO2 Port Avg	NOx @ 3% O2	PPM Dev from Avg.
1-1	9:36	77.9		-5.5	7.6		11.5		104.5	11.6
1-2	9:40	105.1		21.7	2.9		15.5		104.5	11.7
1-3	9:44	89.7	84.3	6.3	5.1	5.5	13.7	13.3	101.4	8.5
1-4	9:48	83.2		-0.2	4.4		14.3		90.0	-2.8
1-5	9:52	73.9		-9.5	4.8		14.0		81.9	-10.9
1-6	9:56	76.0		-7.4	8.7		10.6		111.1	18.3
2-1	9:37	83.1		-0.3	6.0		12.8		99.8	6.9
2-2	9:41	85.4		2.0	2.9		15.5		85.1	-7.8
2-3	9:45	88.0	80.8	4.6	5.3	4.9	13.5	13.8	100.8	8.0
2-4	9:49	79.0		-4.4	3.9		14.7		83.1	-9.8
2-5	9:53	66.7		-16.7	4.5		14.1		72.9	-19.9
2-6	9:57	82.3		-1.1	6.9		12.1		104.9	12.0
3-1	9:38	96.2		12.8	4.0		14.5		101.9	9.0
3-2	9:42	87.4		4.0	2.9		15.5		87.0	-5.8
3-3	9:46	102.8	87.5	19.4	3.3	4.1	15.1	14.5	104.6	11.8
3-4	9:50	81.3		-2.1	3.6		14.9		84.1	-8.7
3-5	9:54	70.9		-12.5	4.5		14.2		77.1	-15.7
3-6	9:58	86.4		3.0	6.3		12.6		105.6	12.7
4-1	9:39	83.1		-0.3	5.7		13.1		97.7	4.9
4-2	9:43	90.6		7.2	2.6		15.8		88.6	-4.2
4-3	9:47	97.4	81.2	14.0	3.2	4.4	15.2	14.2	98.4	5.6
4-4	9:51	79.3		-4.1	3.7		14.8		82.6	-10.3
4-5	9:55	65.5		-17.9	4.6		14.1		71.7	-21.1
4-6	9:59	71.2		-12.2	6.6		12.4		89.1	-3.7
Inlet Averages		**83.4**			**4.7**		**13.9**		**92.9**	

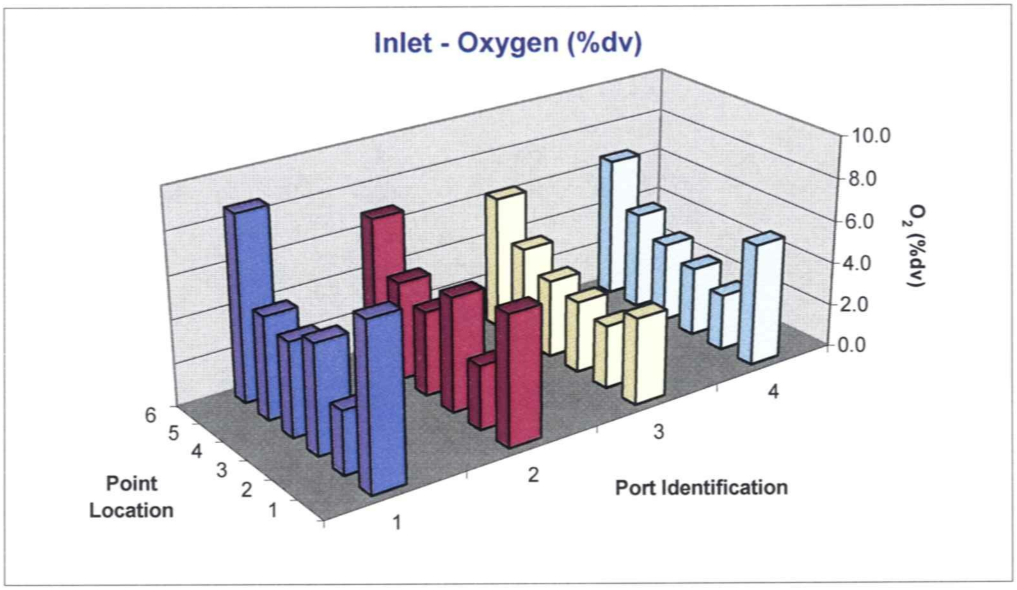
Outlet Point	Widt Dept	Time Sampled	NOx ppmdv	NOx Port Avg	PPM Dev from Avg.	O2 %dv	O2 Port Avg	CO2 %dv	CO2 Port Avg	NOx @ 3% O2	PPM Dev from Avg.	Removal Efficiency	Removal Eff W/ O2 correction
1-1		9:36	67.6		20.1	4.9		13.8		75.8	22.3	13.2	27.4
1-2		9:40	79.9		32.4	5.5		13.4		92.9	39.3	24.0	11.1
1-3		9:44	57.0	62.1	9.5	5.4	5.8	13.5	13.1	65.6	12.1	36.5	35.3
1-4		9:48	66.8		19.3	4.6		14.2		73.4	19.8	19.7	18.5
1-5		9:52	52.2		4.7	6.4		12.6		64.3	10.8	29.4	21.5
1-6		9:56	49.0		1.5	8.0		11.1		68.2	14.6	35.5	38.7
2-1		9:37	34.8		-12.7	5.0		13.8		39.1	-14.4	58.1	60.8
2-2		9:41	57.0		9.5	4.6		14.2		62.6	9.0	33.3	26.4
2-3		9:45	69.6	50.0	22.1	4.7	5.3	14.1	13.5	76.9	23.4	20.9	23.7
2-4		9:49	71.5		24.0	6.0		13.0		85.6	32.1	9.5	-3.0
2-5		9:53	24.4		-23.1	4.9		13.9		27.3	-26.2	63.4	62.5
2-6		9:57	42.9		-4.6	6.7		12.3		54.0	0.5	47.9	48.5
3-1		9:38	25.1		-22.4	3.7		14.8		26.2	-27.4	73.9	74.3
3-2		9:42	69.8		22.3	4.3		14.4		75.2	21.7	20.1	13.6
3-3		9:46	79.9	47.9	32.4	4.3	4.5	14.4	14.2	86.2	32.6	22.3	17.6
3-4		9:50	59.4		11.9	5.0		13.8		66.7	13.2	26.9	20.7
3-5		9:54	30.1		-17.4	4.3		14.4		32.4	-21.2	57.5	58.0
3-6		9:58	22.9		-24.6	5.6		13.3		26.8	-26.7	73.5	74.6
4-1		9:39	7.7		-39.8	3.6		15.0		8.0	-45.6	90.7	91.8
4-2		9:43	51.8		4.3	2.7		15.8		51.1	-2.5	42.8	42.4
4-3		9:47	73.8	29.9	26.3	3.6	4.0	15.1	14.7	76.1	22.6	24.2	22.7
4-4		9:51	36.7		-10.8	4.5		14.2		40.1	-13.4	53.7	51.4
4-5		9:55	4.5		-43.0	4.1		14.6		4.8	-48.8	93.1	93.3
4-6		9:59	5.1		-42.4	5.6		13.3		6.0	-47.6	92.8	93.3
Outlet Averages			**47.5**			**4.9**		**13.9**		**53.6**		**44.3**	**42.7**

Run 1: Inlet – Set 2

Date: 3/28/2007
Start Time: 9:36
End Time: 9:59

Inlet - Oxygen (%dv)

AVG	5.5	4.9	4.1	4.4	
6	8.7	6.9	6.3	6.6	7.1
5	4.8	4.5	4.5	4.6	4.6
4	4.4	3.9	3.6	3.7	3.9
3	5.1	5.3	3.3	3.2	4.2
2	2.9	2.9	2.9	2.6	2.8
1	7.6	6.0	4.0	5.7	5.8
	1	2	3	4	4.7



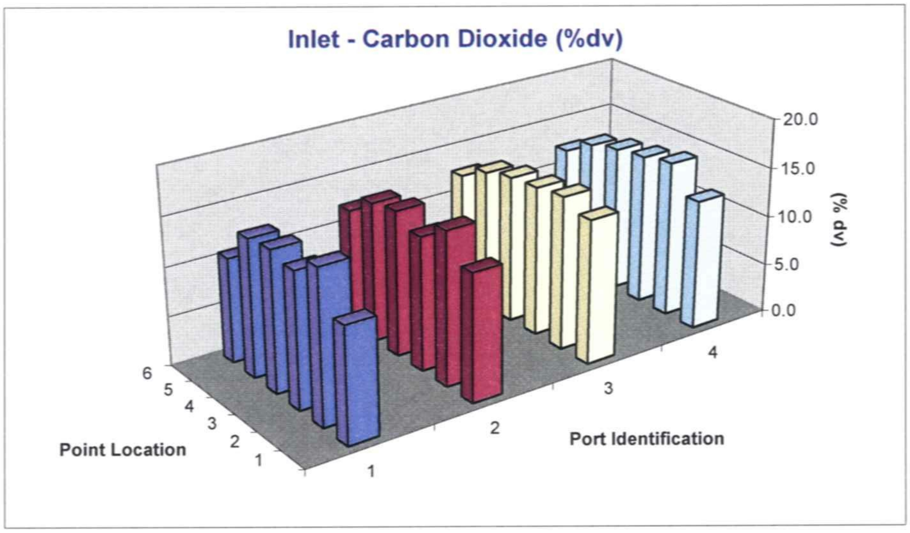
CleanAir ENGINEERING

Run 1: Inlet – Set 2

Date: 3/28/2007
Start Time: 9:36
End Time: 9:59

Inlet - Carbon Dioxide (%dv)

AVG	13.3	13.8	14.5	14.2	
6	10.6	12.1	12.6	12.4	11.9
5	14.0	14.1	14.2	14.1	14.1
4	14.3	14.7	14.9	14.8	14.7
3	13.7	13.5	15.1	15.2	14.4
2	15.5	15.5	15.5	15.8	15.5
1	11.5	12.8	14.5	13.1	13.0
	1	2	3	4	13.9



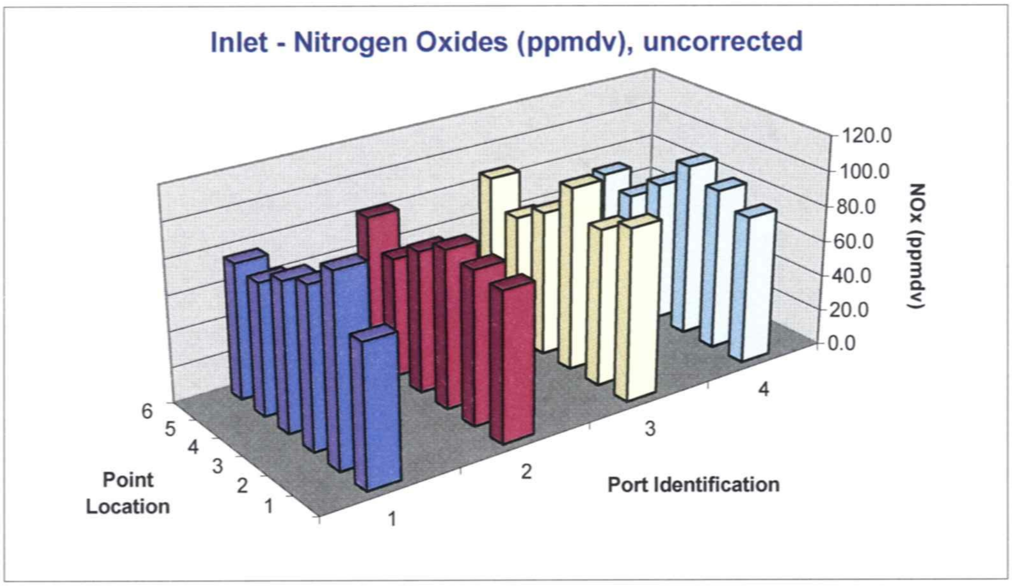
CleanAir ENGINEERING

Run 1: Inlet – Set 2

Date: 3/28/2007
Start Time: 9:36
End Time: 9:59

Inlet - Nitrogen Oxides (ppmdv), uncorrected

AVG	**84.3**	**80.8**	**87.5**	**81.2**	
6	76.0	82.3	86.4	71.2	**79.0**
5	73.9	66.7	70.9	65.5	**69.3**
4	83.2	79.0	81.3	79.3	**80.7**
3	89.7	88.0	102.8	97.4	**94.5**
2	105.1	85.4	87.4	90.6	**92.1**
1	77.9	83.1	96.2	83.1	**85.1**
	1	**2**	**3**	**4**	**83.4**

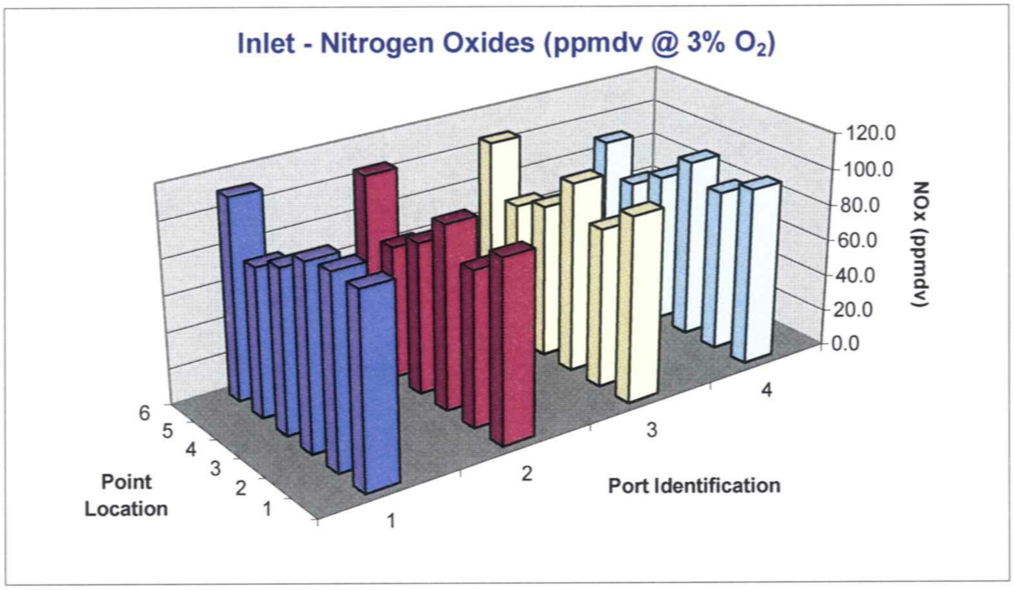


Run 1: Inlet – Set 2

Date: 3/28/2007
Start Time: 9:36
End Time: 9:59

Inlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	98.9	91.1	93.4	88.0	
6	111.1	104.9	105.6	89.1	102.7
5	81.9	72.9	77.1	71.7	75.9
4	90.0	83.1	84.1	82.6	85.0
3	101.4	100.8	104.6	98.4	101.3
2	104.5	85.1	87.0	88.6	91.3
1	104.5	99.8	101.9	97.7	101.0
	1	2	3	4	92.9



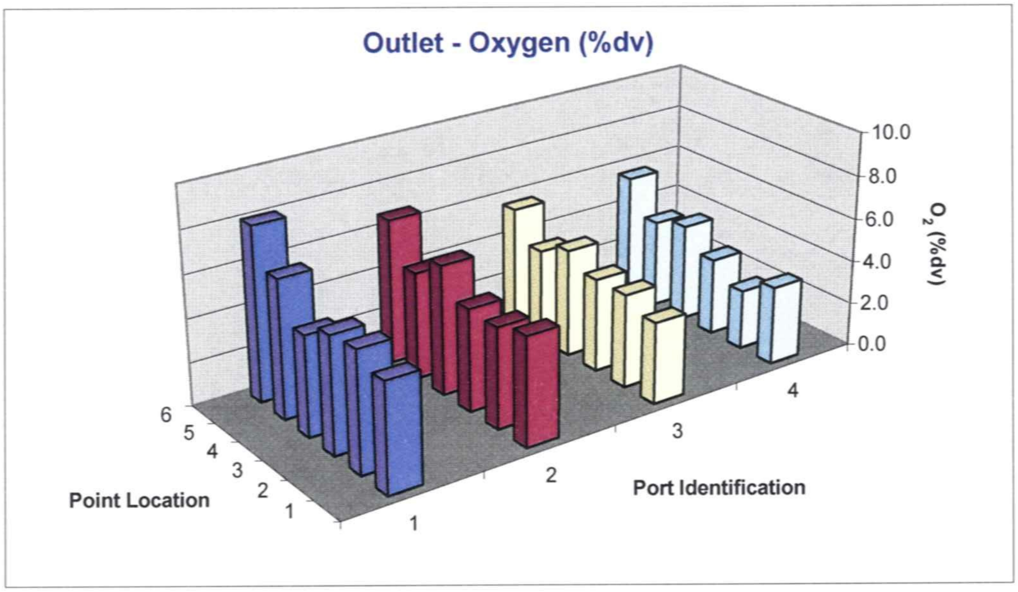
CleanAir ENGINEERING

Run 1: Outlet – Set 2

Date: 3/28/2007
Start Time: 9:36
End Time: 9:59

Outlet - Oxygen (%dv)

AVG	5.8	5.3	4.5	4.0	
6	8.0	6.7	5.6	5.6	6.5
5	6.4	4.9	4.3	4.1	4.9
4	4.6	6.0	5.0	4.5	5.0
3	5.4	4.7	4.3	3.6	4.5
2	5.5	4.6	4.3	2.7	4.3
1	4.9	5.0	3.7	3.6	4.3
	1	2	3	4	4.9



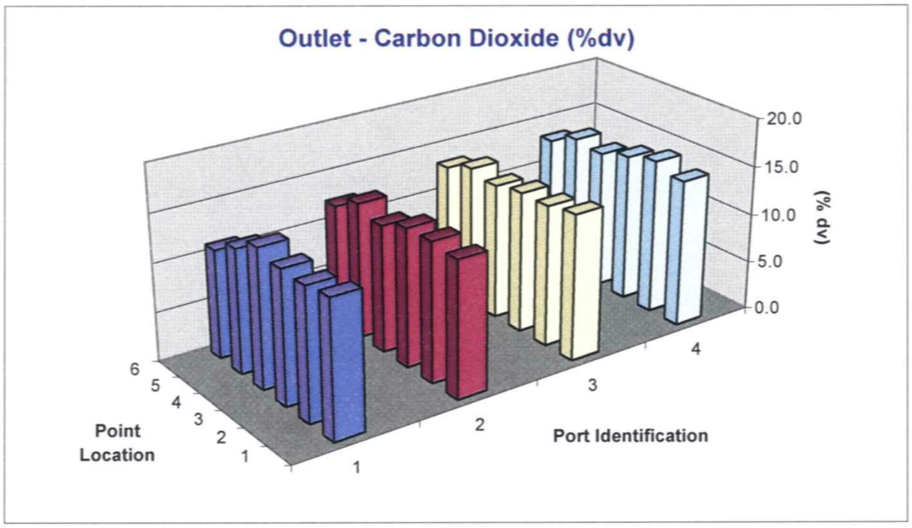
CleanAir
ENGINEERING

Run 1: Outlet – Set 2

Date: 3/28/2007
Start Time: 9:36
End Time: 9:59

Outlet - Carbon Dioxide (%dv)

AVG	13.1	13.5	14.2	14.7	
6	11.1	12.3	13.3	13.3	12.5
5	12.6	13.9	14.4	14.6	13.9
4	14.2	13.0	13.8	14.2	13.8
3	13.5	14.1	14.4	15.1	14.3
2	13.4	14.2	14.4	15.8	14.4
1	13.8	13.8	14.8	15.0	14.4
	1	2	3	4	13.9

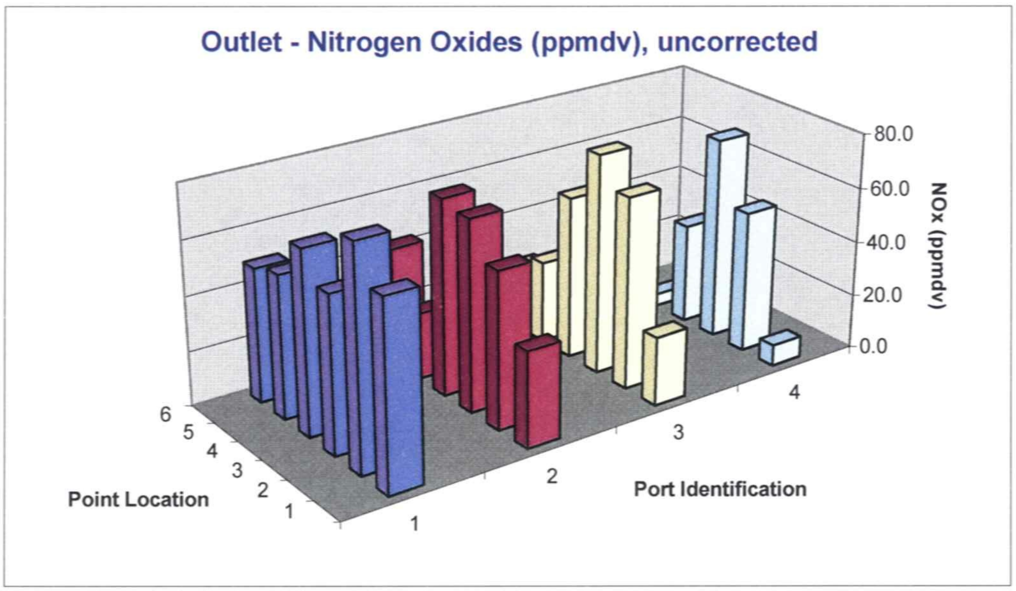


Run 1: Outlet – Set 2

Date: 3/28/2007
Start Time: 9:36
End Time: 9:59

Outlet - Nitrogen Oxides (ppmdv), uncorrected

AVG	62.1	50.0	47.9	29.9	
6	49.0	42.9	22.9	5.1	30.0
5	52.2	24.4	30.1	4.5	27.8
4	66.8	71.5	59.4	36.7	58.6
3	57.0	69.6	79.9	73.8	70.1
2	79.9	57.0	69.8	51.8	64.6
1	67.6	34.8	25.1	7.7	33.8
	1	2	3	4	47.5



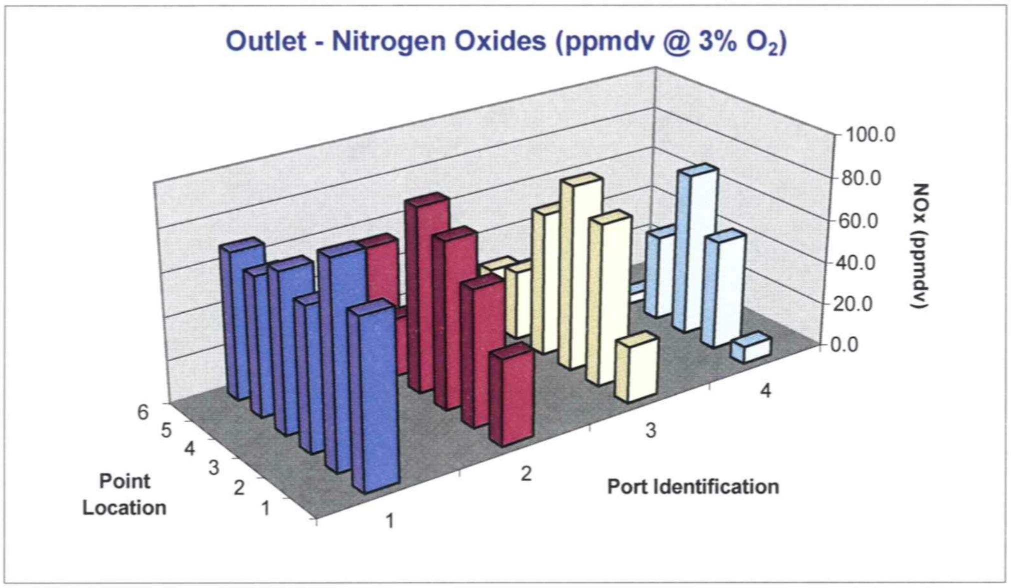
CleanAir ENGINEERING

Run 1: Outlet – Set 2

Date: 3/28/2007
Start Time: 9:36
End Time: 9:59

Outlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	73.4	57.6	52.2	31.0	
6	68.2	54.0	26.8	6.0	38.8
5	64.3	27.3	32.4	4.8	32.2
4	73.4	85.6	66.7	40.1	66.4
3	65.6	76.9	86.2	76.1	76.2
2	92.9	62.6	75.2	51.1	70.4
1	75.8	39.1	26.2	8.0	37.3
	1	2	3	4	53.6



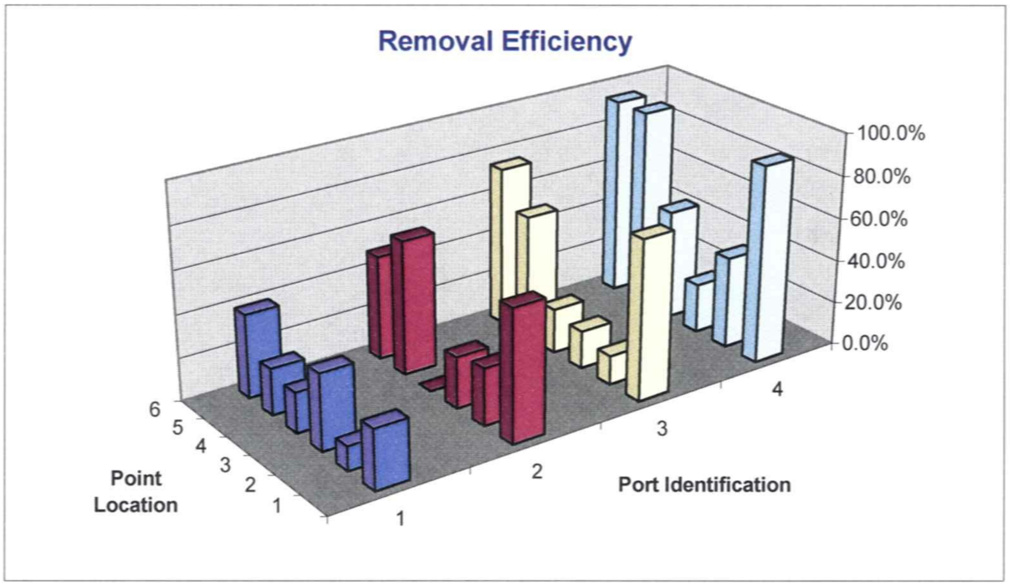
CleanAir ENGINEERING

Run 1: Outlet – Set 2

Date: 3/28/2007
Start Time: 9:36
End Time: 9:59

Removal Efficiency (ppmdv @ 3% O_2)

AVG	25.4%	36.5%	43.1%	65.8%	
6	38.7%	48.5%	74.6%	93.3%	63.8%
5	21.5%	62.5%	58.0%	93.3%	58.8%
4	18.5%	-3.0%	20.7%	51.4%	21.9%
3	35.3%	23.7%	17.6%	22.7%	24.8%
2	11.1%	26.4%	13.6%	42.4%	23.4%
1	27.4%	60.8%	74.3%	91.8%	63.6%
	1	2	3	4	42.7%



Clean Air Engineering Project #10192
Consol Energy
AES Dresden

Date: 3/28/2007
Start Time: 10:00
End Time: 10:23

Run # (Cycle #) 1 (3)

Inlet Point	Time Sampled	NOx ppmdv	NOx Port Avg	PPM Dev from Avg.	O2 %dv	O2 Port Avg	CO2 %dv	CO2 Port Avg	NOx @ 3% O2	PPM Dev from Avg.
1-1	10:00	74.9		-5.7	7.6		11.5		100.5	10.8
1-2	10:04	103.6		23.0	2.9		15.5		103.3	13.6
1-3	10:08	86.3	80.8	5.7	5.1	5.5	13.7	13.3	97.5	7.8
1-4	10:12	80.1		-0.5	4.4		14.3		86.7	-3.0
1-5	10:16	68.5		-12.1	4.7		14.0		75.7	-14.0
1-6	10:20	71.3		-9.3	8.5		10.8		102.6	12.9
2-1	10:01	79.8		-0.8	6.0		12.9		95.6	5.9
2-2	10:05	82.5		1.9	2.9		15.5		82.0	-7.7
2-3	10:09	84.0	78.4	3.4	5.4	4.9	13.4	13.8	97.0	7.3
2-4	10:13	75.5		-5.1	3.9		14.7		79.3	-10.4
2-5	10:17	63.3		-17.3	4.6		14.1		69.4	-20.3
2-6	10:21	85.4		4.8	6.9		12.1		109.3	19.6
3-1	10:02	92.3		11.7	4.0		14.5		97.9	8.2
3-2	10:06	84.4		3.8	2.9		15.5		84.1	-5.6
3-3	10:10	99.4	85.4	18.8	3.4	4.1	15.1	14.4	101.6	11.9
3-4	10:14	80.0		-0.6	3.7		14.9		83.1	-6.6
3-5	10:18	68.4		-12.2	4.6		14.1		74.9	-14.8
3-6	10:22	87.9		7.3	6.3		12.6		108.1	18.4
4-1	10:03	81.3		0.7	5.7		13.1		96.0	6.3
4-2	10:07	86.5		5.9	2.4		15.9		83.9	-5.8
4-3	10:11	95.4	77.9	14.8	3.0	4.3	15.4	14.3	95.6	5.9
4-4	10:15	78.2		-2.4	3.5		15.0		80.6	-9.1
4-5	10:19	59.0		-21.6	4.5		14.2		64.2	-25.5
4-6	10:23	67.2		-13.4	6.6		12.4		84.1	-5.6
Inlet Averages		80.6			4.7		14.0		89.7	

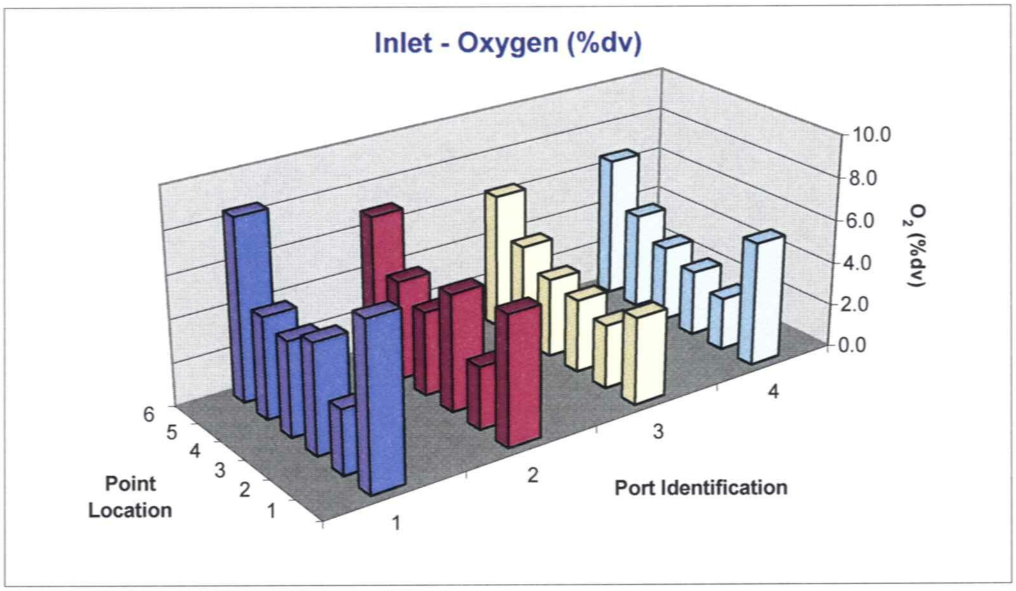
Outlet Point	Time Sampled	NOx ppmdv	NOx Port Avg	PPM Dev from Avg.	O2 %dv	O2 Port Avg	CO2 %dv	CO2 Port Avg	NOx @ 3% O2	PPM Dev from Avg.	Removal Efficiency	Removal Eff W/ O2 correction
1-1	10:00	67.6		21.8	4.9		13.8		75.8	24.5	9.7	24.6
1-2	10:04	77.3		31.5	5.6		13.3		90.4	39.1	25.4	12.5
1-3	10:08	57.3	54.9	11.5	5.2	5.6	13.6	12.7	65.2	13.9	33.6	33.1
1-4	10:12	55.2		9.4	4.8		13.9		61.4	10.1	31.1	29.2
1-5	10:16	48.1		2.3	6.1		12.9		58.0	6.7	29.8	23.4
1-6	10:20	23.7		-22.1	7.1		8.8		30.7	-20.5	66.8	70.0
2-1	10:01	31.9		-13.9	5.0		13.8		35.9	-15.3	60.0	62.4
2-2	10:05	56.2		10.4	4.5		14.3		61.4	10.1	31.9	25.1
2-3	10:09	68.7	50.9	22.9	4.8	5.3	14.0	13.6	76.4	25.1	18.2	21.3
2-4	10:13	71.3		25.5	5.9		13.1		85.0	33.7	5.6	-7.1
2-5	10:17	23.1		-22.7	4.9		14.0		25.8	-25.5	63.5	62.9
2-6	10:21	54.3		8.5	6.7		12.3		68.6	17.4	36.4	37.2
3-1	10:02	22.9		-22.9	3.8		14.9		23.9	-27.3	75.2	75.6
3-2	10:06	68.5		22.7	4.2		14.5		73.3	22.1	18.8	12.8
3-3	10:10	79.0	47.6	33.2	4.4	4.5	14.3	14.2	85.8	34.5	20.5	15.6
3-4	10:14	59.2		13.4	4.9		13.9		66.3	15.0	26.0	20.2
3-5	10:18	30.0		-15.8	4.2		14.4		32.2	-19.1	56.1	57.0
3-6	10:22	26.1		-19.7	5.5		13.4		30.3	-20.9	70.3	71.9
4-1	10:03	7.3		-38.5	3.5		15.1		7.5	-43.7	91.0	92.2
4-2	10:07	53.2		7.4	2.6		16.0		51.9	0.6	38.5	38.1
4-3	10:11	72.5	29.9	26.7	3.4	3.9	15.3	14.8	73.9	22.7	24.0	22.6
4-4	10:15	36.3		-9.5	4.5		14.3		39.6	-11.7	53.6	50.9
4-5	10:19	4.3		-41.5	3.9		14.8		4.5	-46.7	92.7	92.9
4-6	10:23	5.6		-40.2	5.6		13.3		6.6	-44.7	91.7	92.2
Outlet Averages		45.8			4.8		13.8		51.3		44.6	43.2

Run 1: Inlet – Set 3

Date: 3/28/2007
Start Time: 10:00
End Time: 10:23

Inlet - Oxygen (%dv)

AVG	5.5	4.9	4.1	4.3	
6	8.5	6.9	6.3	6.6	7.1
5	4.7	4.6	4.6	4.5	4.6
4	4.4	3.9	3.7	3.5	3.9
3	5.1	5.4	3.4	3.0	4.2
2	2.9	2.9	2.9	2.4	2.8
1	7.6	6.0	4.0	5.7	5.8
	1	2	3	4	4.7



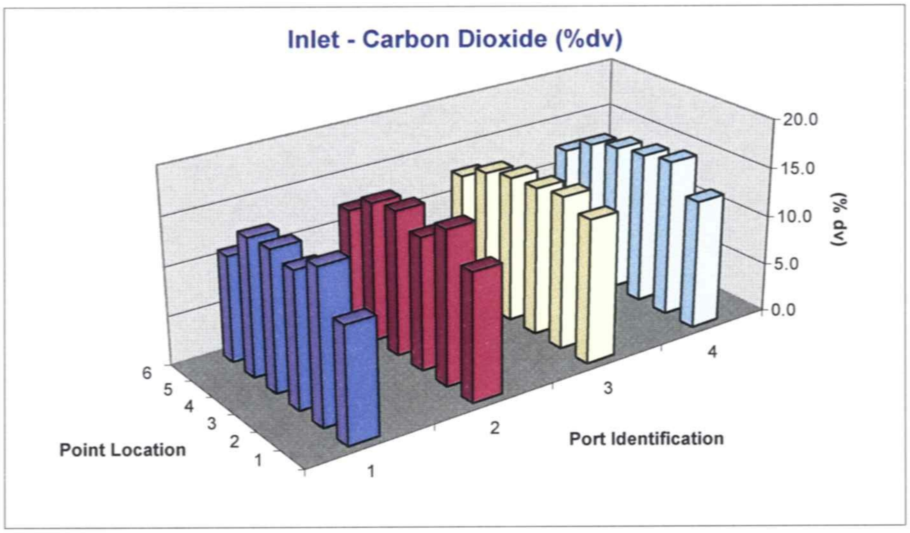
CleanAir ENGINEERING

Run 1: Inlet – Set 3

Date: 3/28/2007
Start Time: 10:00
End Time: 10:23

Inlet - Carbon Dioxide (%dv)

AVG	13.3	13.8	14.4	14.3	
6	10.8	12.1	12.6	12.4	12.0
5	14.0	14.1	14.1	14.2	14.1
4	14.3	14.7	14.9	15.0	14.7
3	13.7	13.4	15.1	15.4	14.4
2	15.5	15.5	15.5	15.9	15.6
1	11.5	12.9	14.5	13.1	13.0
	1	2	3	4	14.0

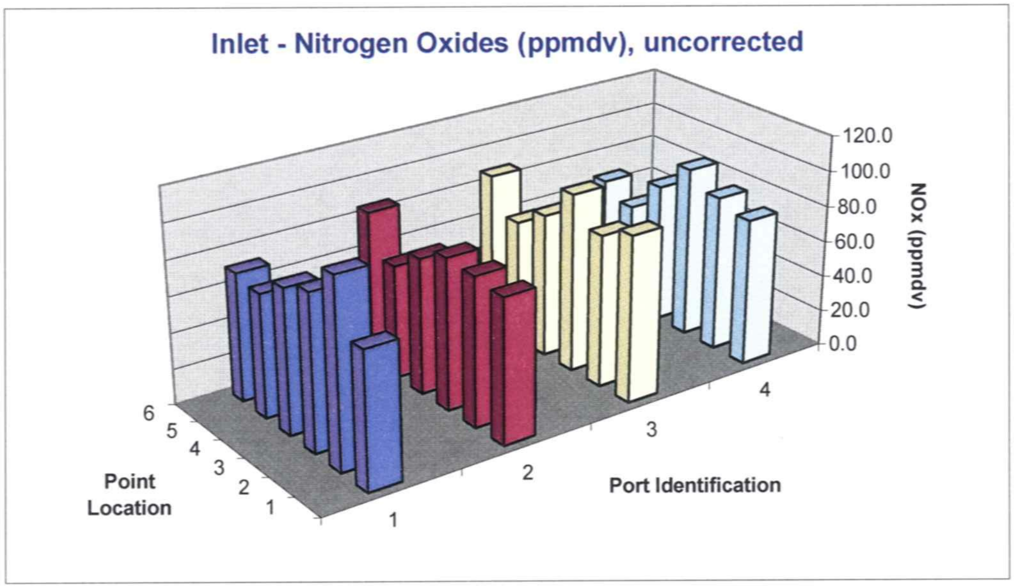


Run 1: Inlet – Set 3

Date: 3/28/2007
Start Time: 10:00
End Time: 10:23

Inlet - Nitrogen Oxides (ppmdv), uncorrected

AVG	**80.8**	**78.4**	**85.4**	**77.9**	
6	71.3	85.4	87.9	67.2	**78.0**
5	68.5	63.3	68.4	59.0	**64.8**
4	80.1	75.5	80.0	78.2	**78.5**
3	86.3	84.0	99.4	95.4	**91.3**
2	103.6	82.5	84.4	86.5	**89.3**
1	74.9	79.8	92.3	81.3	**82.1**
	1	**2**	**3**	**4**	**80.6**



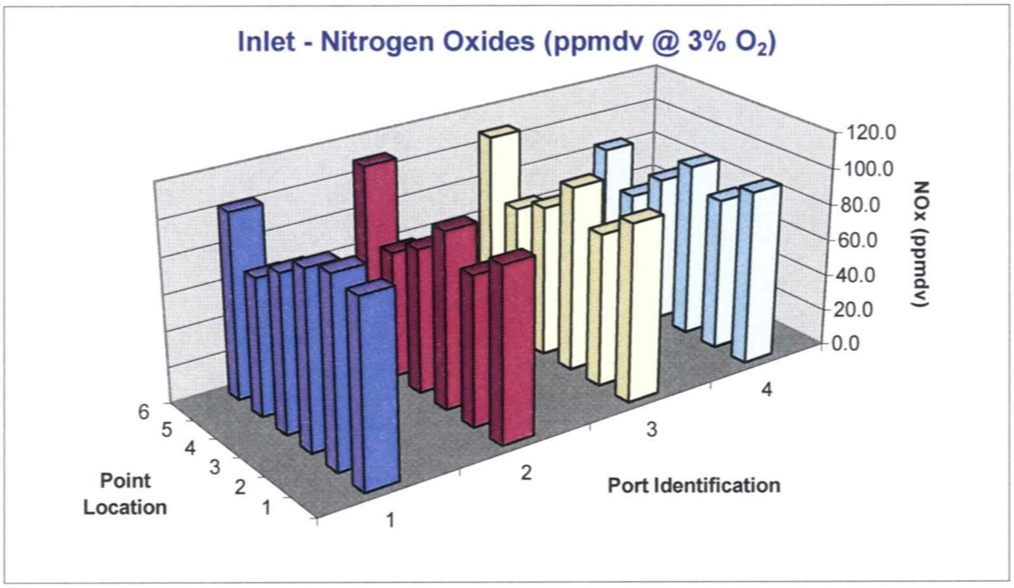
CleanAir ENGINEERING

Run 1: Inlet – Set 3

Date: 3/28/2007
Start Time: 10:00
End Time: 10:23

Inlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	94.4	88.8	91.6	84.1	
6	102.6	109.3	108.1	84.1	101.0
5	75.7	69.4	74.9	64.2	71.1
4	86.7	79.3	83.1	80.6	82.4
3	97.5	97.0	101.6	95.6	97.9
2	103.3	82.0	84.1	83.9	88.3
1	100.5	95.6	97.9	96.0	97.5
	1	2	3	4	89.7

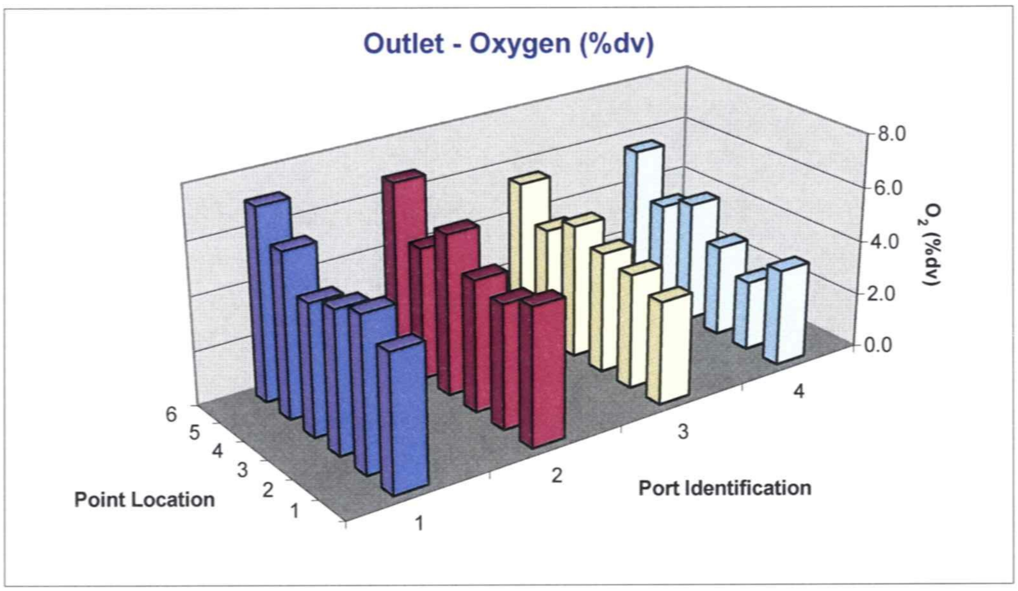


Run 1: Outlet – Set 3

Date: 3/28/2007
Start Time: 10:00
End Time: 10:23

Outlet - Oxygen (%dv)

AVG	5.6	5.3	4.5	3.9	
6	7.1	6.7	5.5	5.6	6.2
5	6.1	4.9	4.2	3.9	4.8
4	4.8	5.9	4.9	4.5	5.0
3	5.2	4.8	4.4	3.4	4.4
2	5.6	4.5	4.2	2.6	4.2
1	4.9	5.0	3.8	3.5	4.3
	1	2	3	4	4.8



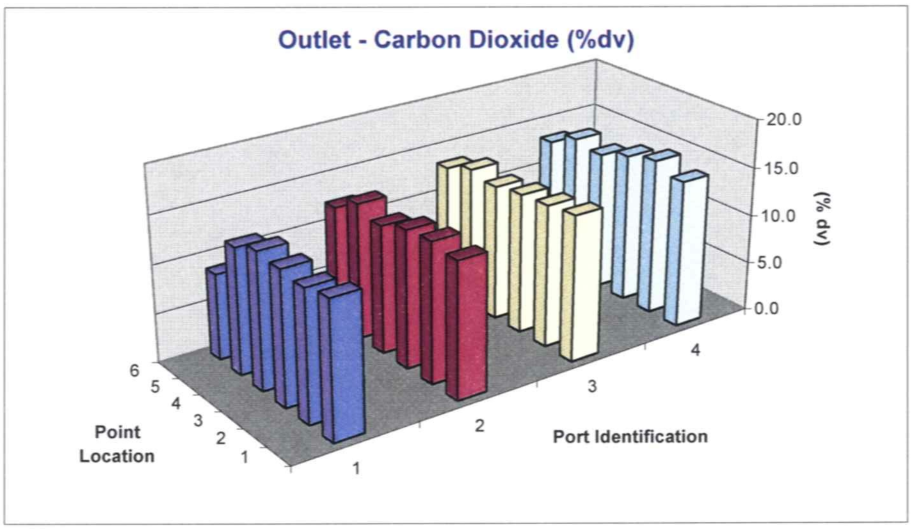
CleanAir ENGINEERING

Run 1: Outlet – Set 3

Date: 3/28/2007
Start Time: 10:00
End Time: 10:23

Outlet - Carbon Dioxide (%dv)

AVG	12.7	13.6	14.2	14.8	
6	8.8	12.3	13.4	13.3	11.9
5	12.9	14.0	14.4	14.8	14.0
4	13.9	13.1	13.9	14.3	13.8
3	13.6	14.0	14.3	15.3	14.3
2	13.3	14.3	14.5	16.0	14.5
1	13.8	13.8	14.9	15.1	14.4
	1	2	3	4	13.8

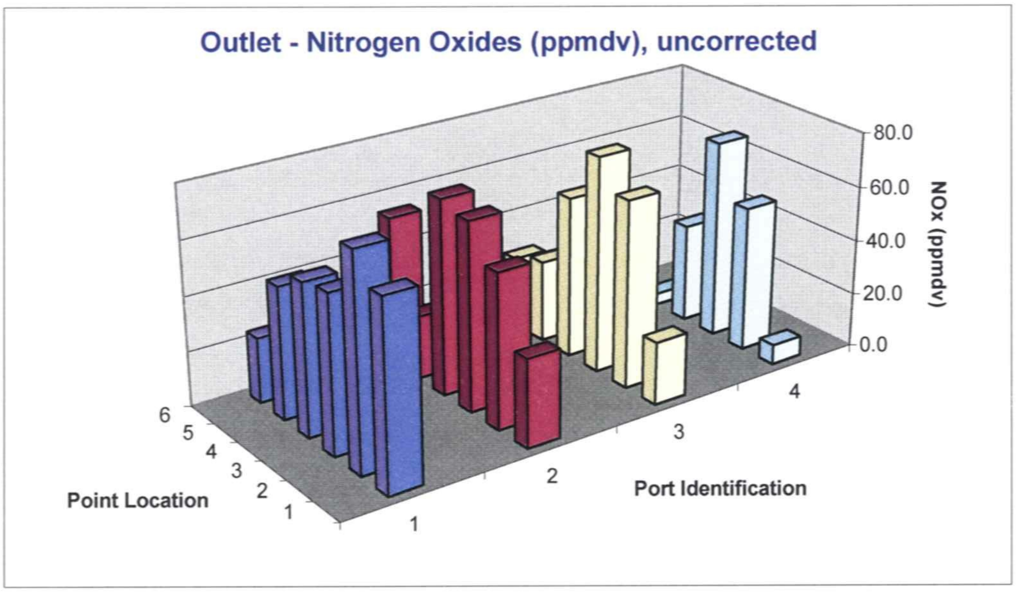


Run 1: Outlet – Set 3

Date: 3/28/2007
Start Time: 10:00
End Time: 10:23

Outlet - Nitrogen Oxides (ppmdv), uncorrected

AVG	**54.9**	**50.9**	**47.6**	**29.9**	
6	23.7	54.3	26.1	5.6	**27.4**
5	48.1	23.1	30.0	4.3	**26.4**
4	55.2	71.3	59.2	36.3	**55.5**
3	57.3	68.7	79.0	72.5	**69.4**
2	77.3	56.2	68.5	53.2	**63.8**
1	67.6	31.9	22.9	7.3	**32.4**
	1	**2**	**3**	**4**	**45.8**

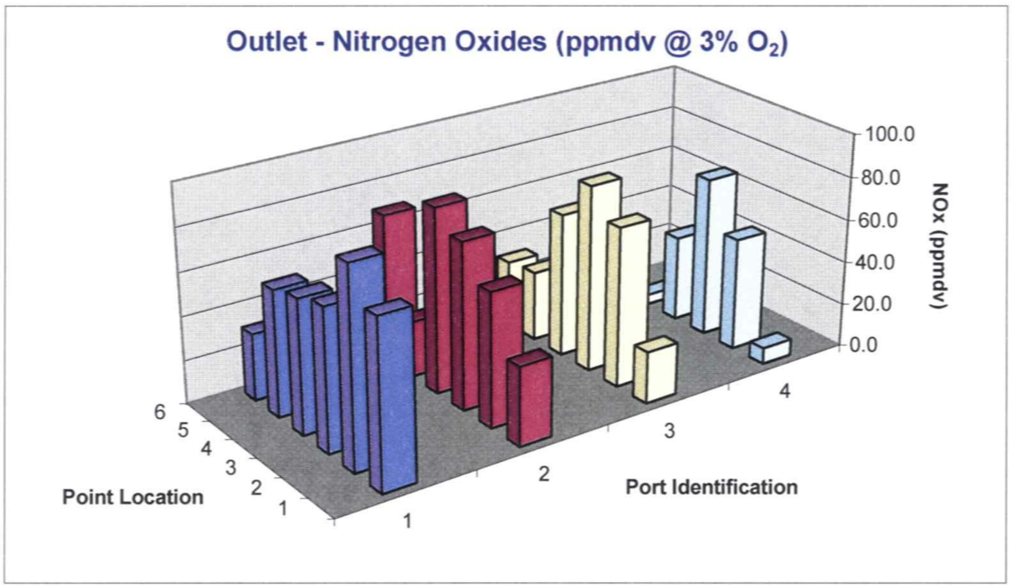


Run 1: Outlet – Set 3

Date: 3/28/2007
Start Time: 10:00
End Time: 10:23

Outlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	63.6	58.8	52.0	30.7	
6	30.7	68.6	30.3	6.6	34.1
5	58.0	25.8	32.2	4.5	30.1
4	61.4	85.0	66.3	39.6	63.0
3	65.2	76.4	85.8	73.9	75.3
2	90.4	61.4	73.3	51.9	69.2
1	75.8	35.9	23.9	7.5	35.8
	1	2	3	4	51.3

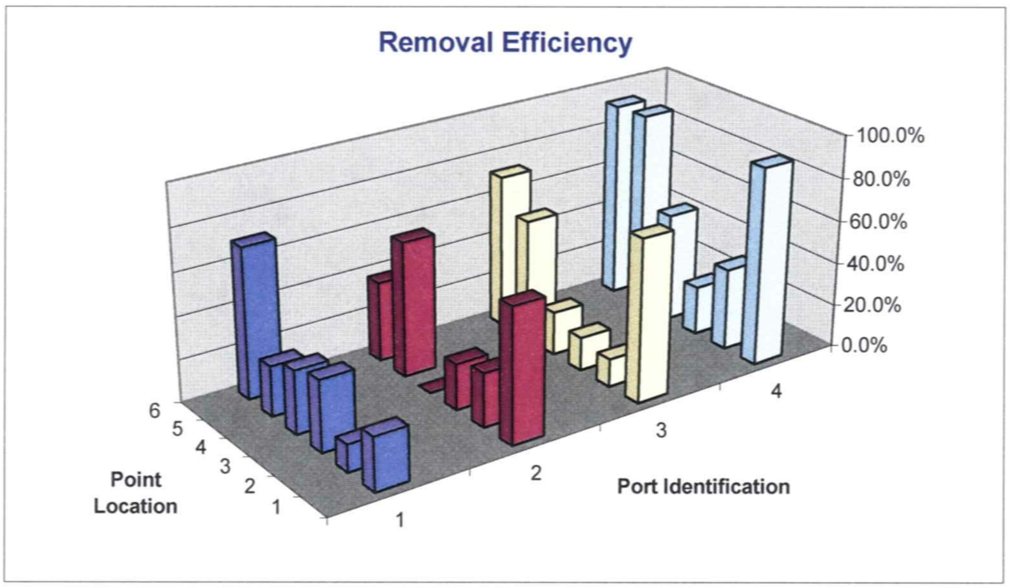


Run 1: Outlet – Set 3

Date: 3/28/2007
Start Time: 10:00
End Time: 10:23

Removal Efficiency (ppmdv @ 3% O_2)

AVG	32.1%	33.6%	42.2%	64.8%	
6	70.0%	37.2%	71.9%	92.2%	**67.8%**
5	23.4%	62.9%	57.0%	92.9%	**59.0%**
4	29.2%	-7.1%	20.2%	50.9%	**23.3%**
3	33.1%	21.3%	15.6%	22.6%	**23.1%**
2	12.5%	25.1%	12.8%	38.1%	**22.1%**
1	24.6%	62.4%	75.6%	92.2%	**63.7%**
	1	**2**	**3**	**4**	**43.2%**



CleanAir ENGINEERING

Clean Air Engineering Project #10192
Consol Energy
AES Dresden

Date: 3/28/2007 Run # (Cycle #) 2 (1)
Start Time: 11:12
End Time: 11:35

Inlet Point	Time Sampled	NOx ppmdv	NOx Port Avg	PPM Dev from Avg.	O2 %dv	O2 Port Avg	CO2 %dv	CO2 Port Avg	NOx @ 3% O2	PPM Dev from Avg.
1-1	11:12	78.6		-0.3	7.3		11.8		103.1	15.5
1-2	11:16	102.0		23.1	2.9		15.5		101.2	13.5
1-3	11:20	84.5	81.4	5.6	5.0	5.4	13.8	13.4	95.0	7.3
1-4	11:24	80.9		2.0	4.4		14.3		87.7	0.0
1-5	11:28	69.6		-9.3	4.6		14.1		76.4	-11.3
1-6	11:32	72.9		-6.0	8.6		10.7		106.3	18.6
2-1	11:13	82.3		3.4	5.9		12.9		98.4	10.7
2-2	11:17	79.9		1.0	3.1		15.3		80.3	-7.4
2-3	11:21	84.1	76.5	5.2	5.2	4.9	13.6	13.8	96.0	8.3
2-4	11:25	75.4		-3.5	3.9		14.7		79.3	-8.4
2-5	11:29	59.4		-19.5	4.3		14.4		64.0	-23.7
2-6	11:33	77.9		-1.0	6.8		12.2		99.0	11.4
3-1	11:14	87.4		8.5	4.0		14.5		92.7	5.0
3-2	11:18	79.0		0.1	2.8		15.6		78.3	-9.4
3-3	11:22	98.7	82.0	19.8	3.2	4.1	15.3	14.5	99.6	11.9
3-4	11:26	79.4		0.5	3.7		14.9		82.5	-5.1
3-5	11:30	66.3		-12.6	4.5		14.2		72.4	-15.3
3-6	11:34	81.0		2.1	6.3		12.6		99.4	11.8
4-1	11:15	77.8		-1.1	5.9		13.0		93.0	5.3
4-2	11:19	81.6		2.7	2.6		15.8		79.6	-8.1
4-3	11:23	95.0	75.9	16.1	3.1	4.4	15.4	14.3	95.4	7.7
4-4	11:27	76.9		-2.0	3.5		15.0		79.3	-8.4
4-5	11:31	60.1		-18.8	4.6		14.1		65.9	-21.8
4-6	11:35	63.7		-15.2	6.6		12.4		79.5	-8.2
Inlet Averages		78.9			4.7		14.0		87.7	

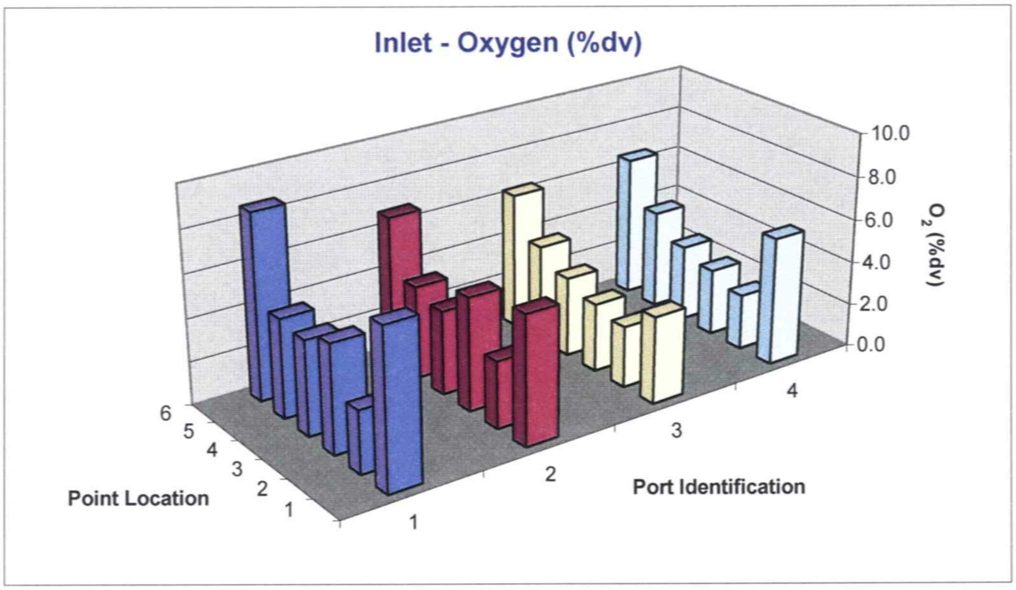
Outlet Point	Time Sampled	NOx ppmdv	NOx Port Avg	PPM Dev from Avg.	O2 %dv	O2 Port Avg	CO2 %dv	CO2 Port Avg	NOx @ 3% O2	PPM Dev from Avg.	Removal Efficiency	Removal Eff W/ O2 correction
1-1	11:12	71.2		25.2	4.6		14.2		78.1	26.7	9.4	24.3
1-2	11:16	76.7		30.7	5.4		13.5		88.7	37.3	24.8	12.3
1-3	11:20	58.1	61.4	12.1	5.3	5.6	13.6	13.3	66.6	15.2	31.2	29.9
1-4	11:24	65.9		19.9	4.5		14.2		72.1	20.6	18.5	17.8
1-5	11:28	47.1		1.1	5.8		13.2		55.6	4.2	32.3	27.1
1-6	11:32	49.1		3.1	7.9		11.2		67.5	16.0	32.6	36.5
2-1	11:13	33.3		-12.7	4.8		14.0		36.9	-14.5	59.5	62.5
2-2	11:17	51.4		5.4	4.5		14.3		56.0	4.6	35.7	30.2
2-3	11:21	69.4	48.3	23.4	4.7	5.2	14.1	13.6	76.5	25.1	17.5	20.3
2-4	11:25	72.6		26.6	5.9		13.1		86.5	35.0	3.7	-9.1
2-5	11:29	22.7		-23.3	4.7		14.1		25.1	-26.4	61.8	60.8
2-6	11:33	40.6		-5.4	6.7		12.3		51.1	-0.3	47.9	48.4
3-1	11:14	24.2		-21.8	3.6		15.0		25.0	-26.4	72.3	73.0
3-2	11:18	58.3		12.3	4.0		14.6		61.8	10.4	26.2	21.0
3-3	11:22	73.2	45.7	27.2	4.3	4.4	14.4	14.3	78.7	27.3	25.8	21.0
3-4	11:26	67.4		21.4	4.6		14.1		74.2	22.8	15.1	10.1
3-5	11:30	30.5		-15.5	4.1		14.5		32.5	-18.9	54.0	55.1
3-6	11:34	20.7		-25.3	5.6		13.3		24.2	-27.3	74.4	75.7
4-1	11:15	6.8		-39.2	3.6		15.0		7.0	-44.4	91.3	92.4
4-2	11:19	44.8		-1.2	2.5		16.0		43.7	-7.7	45.1	45.1
4-3	11:23	73.1	28.7	27.1	3.3	3.9	15.3	14.8	74.3	22.9	23.1	22.1
4-4	11:27	39.1		-6.9	4.5		14.3		42.6	-8.8	49.2	46.3
4-5	11:31	4.1		-41.9	4.1		14.6		4.4	-47.1	93.2	93.4
4-6	11:35	4.4		-41.6	5.6		13.3		5.1	-46.3	93.1	93.5
Outlet Averages		46.0			4.8		14.0		51.4		43.2	42.1

Run 2: Inlet – Set 1

Date: 3/28/2007
Start Time: 11:12
End Time: 11:35

Inlet - Oxygen (%dv)

AVG	5.4	4.9	4.1	4.4	
6	8.6	6.8	6.3	6.6	7.1
5	4.6	4.3	4.5	4.6	4.5
4	4.4	3.9	3.7	3.5	3.9
3	5.0	5.2	3.2	3.1	4.1
2	2.9	3.1	2.8	2.6	2.8
1	7.3	5.9	4.0	5.9	5.8
	1	2	3	4	4.7

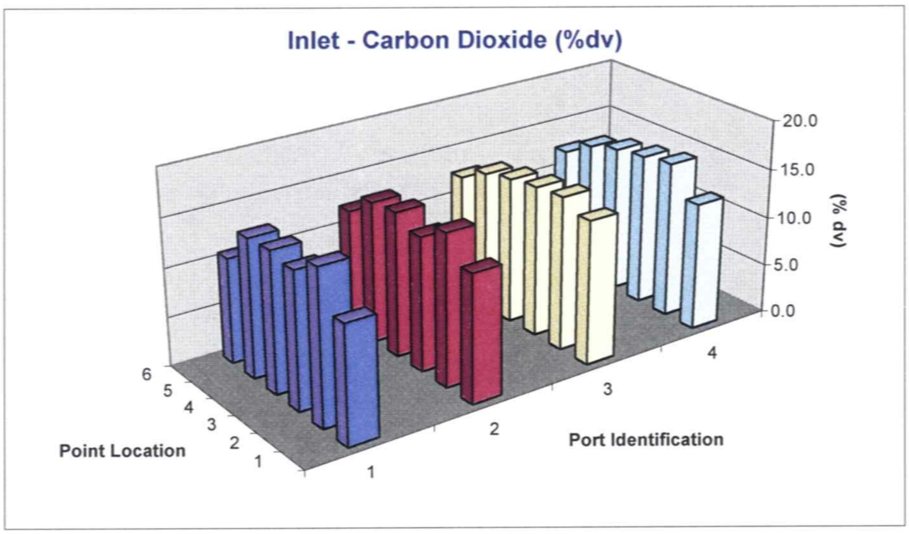


Run 2: Inlet – Set 1

Date: 3/28/2007
Start Time: 11:12
End Time: 11:35

Inlet - Carbon Dioxide (%dv)

AVG	13.4	13.8	14.5	14.3	
6	10.7	12.2	12.6	12.4	12.0
5	14.1	14.4	14.2	14.1	14.2
4	14.3	14.7	14.9	15.0	14.7
3	13.8	13.6	15.3	15.4	14.5
2	15.5	15.3	15.6	15.8	15.6
1	11.8	12.9	14.5	13.0	13.0
	1	2	3	4	14.0



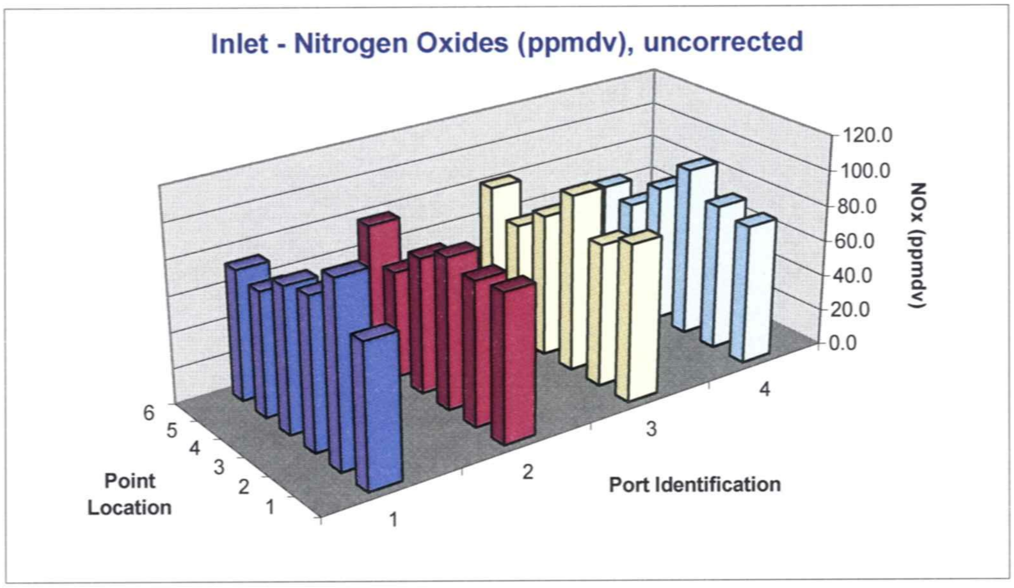
CleanAir ENGINEERING

Run 2: Inlet – Set 1

Date: 3/28/2007
Start Time: 11:12
End Time: 11:35

Inlet - Nitrogen Oxides (ppmdv), uncorrected

AVG	81.4	76.5	82.0	75.9	
6	72.9	77.9	81.0	63.7	73.9
5	69.6	59.4	66.3	60.1	63.9
4	80.9	75.4	79.4	76.9	78.2
3	84.5	84.1	98.7	95.0	90.6
2	102.0	79.9	79.0	81.6	85.6
1	78.6	82.3	87.4	77.8	81.5
	1	2	3	4	78.9

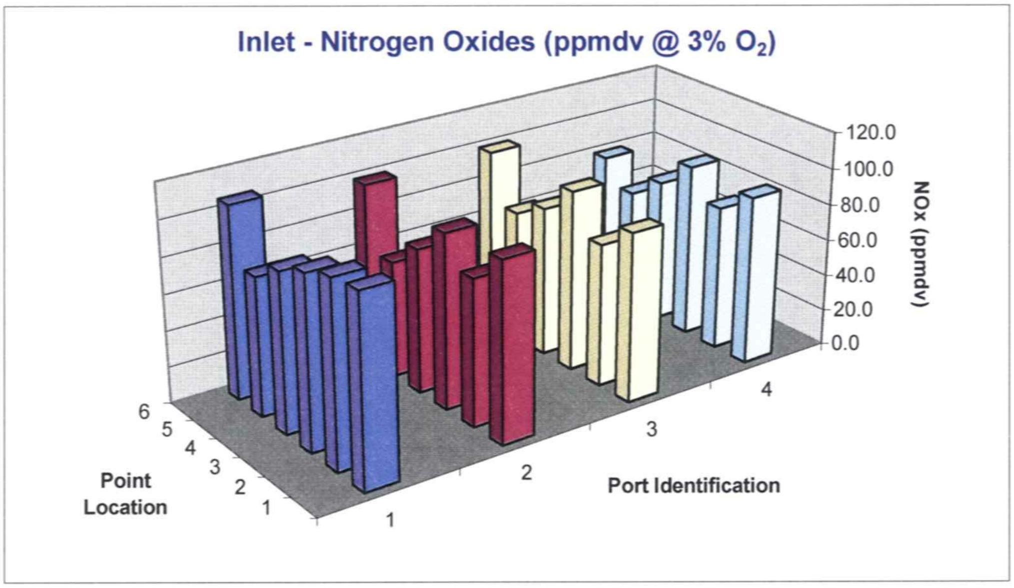


Run 2: Inlet – Set 1

Date: 3/28/2007
Start Time: 11:12
End Time: 11:35

Inlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	94.9	86.2	87.5	82.1	
6	106.3	99.0	99.4	79.5	96.1
5	76.4	64.0	72.4	65.9	69.7
4	87.7	79.3	82.5	79.3	82.2
3	95.0	96.0	99.6	95.4	96.5
2	101.2	80.3	78.3	79.6	84.8
1	103.1	98.4	92.7	93.0	96.8
	1	2	3	4	87.7

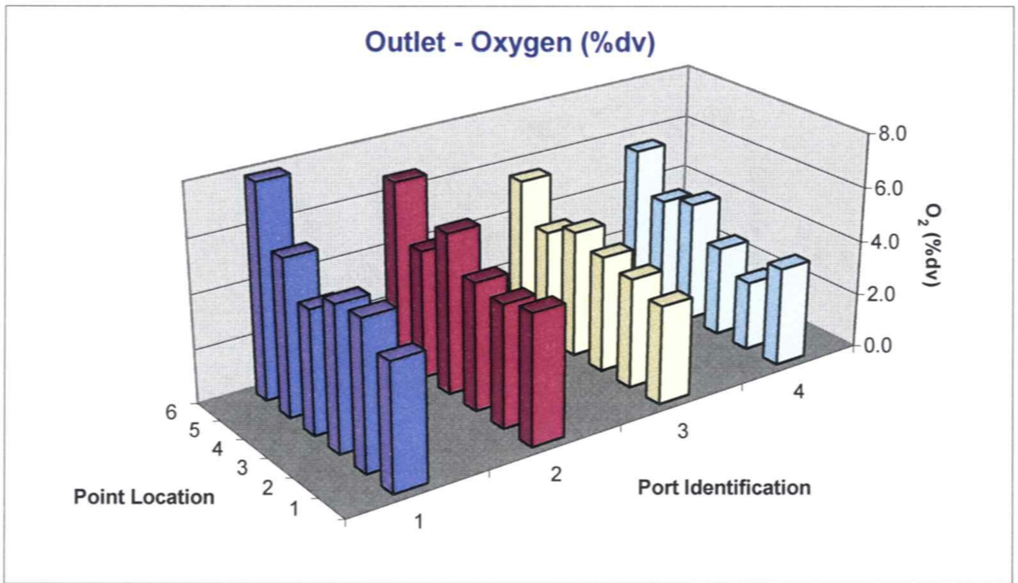


Run 2: Outlet – Set 1

Date: 3/28/2007
Start Time: 11:12
End Time: 11:35

Outlet - Oxygen (%dv)

AVG	5.6	5.2	4.4	3.9	
6	7.9	6.7	5.6	5.6	6.4
5	5.8	4.7	4.1	4.1	4.7
4	4.5	5.9	4.6	4.5	4.9
3	5.3	4.7	4.3	3.3	4.4
2	5.4	4.5	4.0	2.5	4.1
1	4.6	4.8	3.6	3.6	4.1
	1	2	3	4	4.8

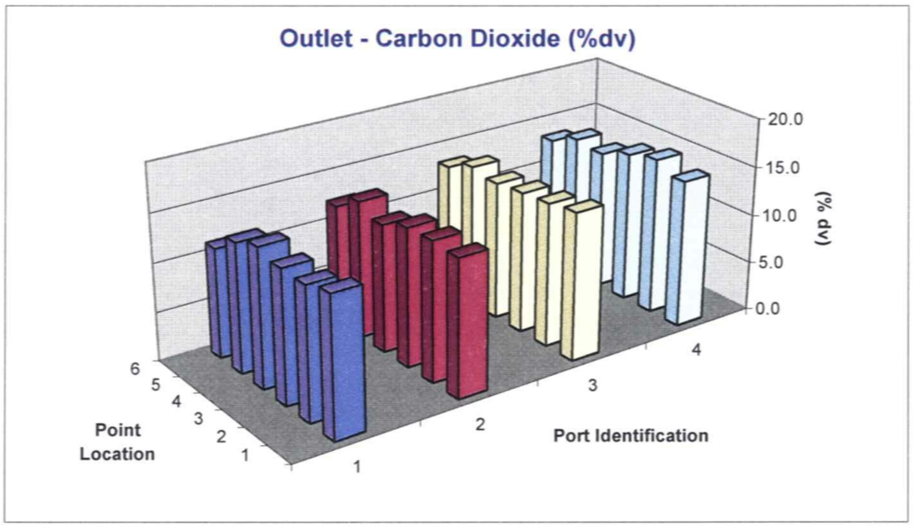


Run 2: Outlet – Set 1

Date: 3/28/2007
Start Time: 11:12
End Time: 11:35

Outlet - Carbon Dioxide (%dv)

AVG	13.3	13.6	14.3	14.8	
6	11.2	12.3	13.3	13.3	12.5
5	13.2	14.1	14.5	14.6	14.1
4	14.2	13.1	14.1	14.3	13.9
3	13.6	14.1	14.4	15.3	14.4
2	13.5	14.3	14.6	16.0	14.6
1	14.2	14.0	15.0	15.0	14.6
	1	2	3	4	14.0



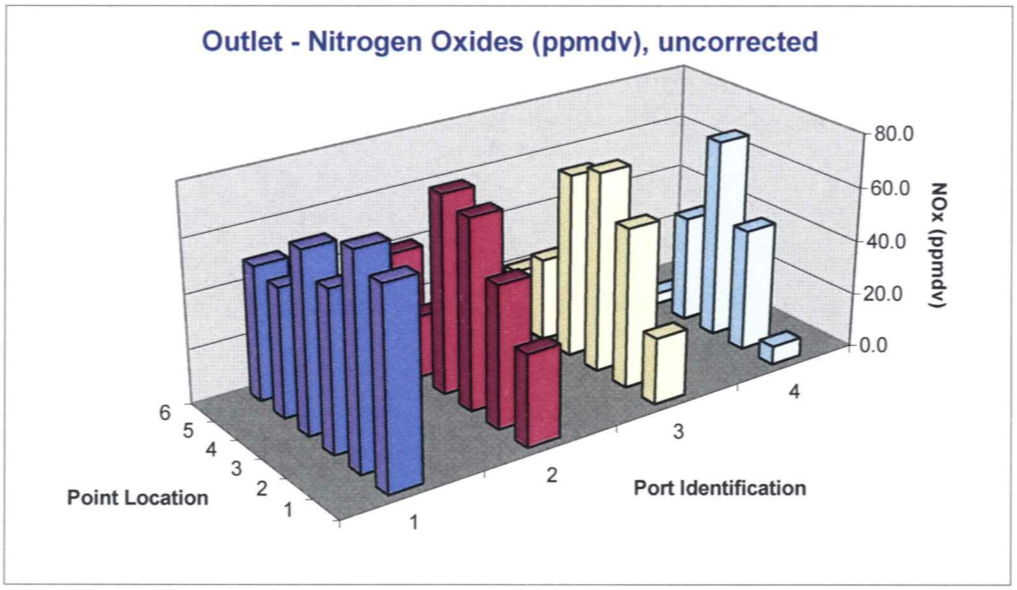
CleanAir ENGINEERING

Run 2: Outlet – Set 1

Date: 3/28/2007
Start Time: 11:12
End Time: 11:35

Outlet - Nitrogen Oxides (ppmdv), uncorrected

AVG	**61.4**	**48.3**	**45.7**	**28.7**	
6	49.1	40.6	20.7	4.4	**28.7**
5	47.1	22.7	30.5	4.1	**26.1**
4	65.9	72.6	67.4	39.1	**61.3**
3	58.1	69.4	73.2	73.1	**68.5**
2	76.7	51.4	58.3	44.8	**57.8**
1	71.2	33.3	24.2	6.8	**33.9**
	1	**2**	**3**	**4**	**46.0**

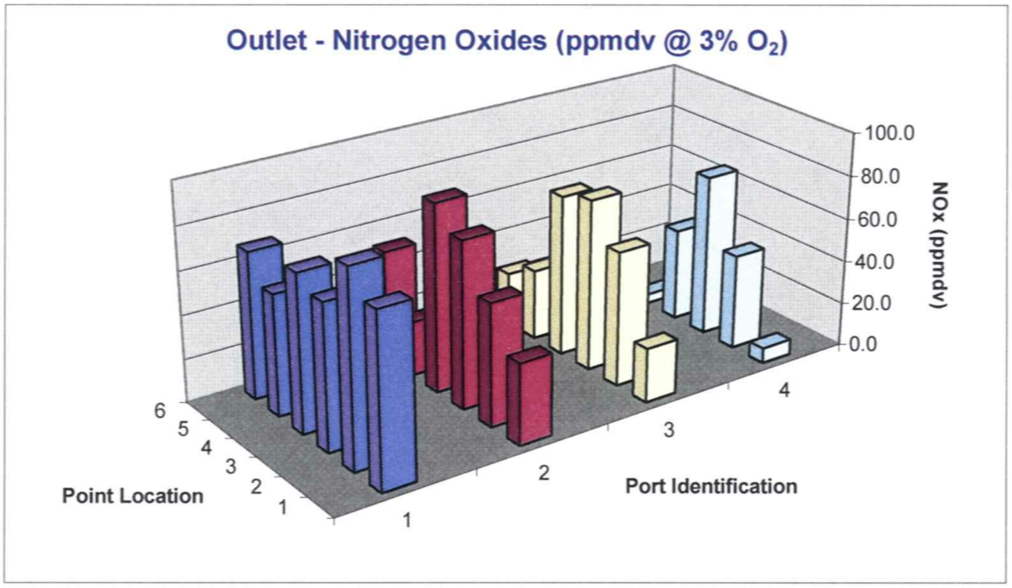


Run 2: Outlet – Set 1

Date: 3/28/2007
Start Time: 11:12
End Time: 11:35

Outlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	71.4	55.4	49.4	29.5	
6	67.5	51.1	24.2	5.1	37.0
5	55.6	25.1	32.5	4.4	29.4
4	72.1	86.5	74.2	42.6	68.8
3	66.6	76.5	78.7	74.3	74.0
2	88.7	56.0	61.8	43.7	62.5
1	78.1	36.9	25.0	7.0	36.8
	1	2	3	4	51.4

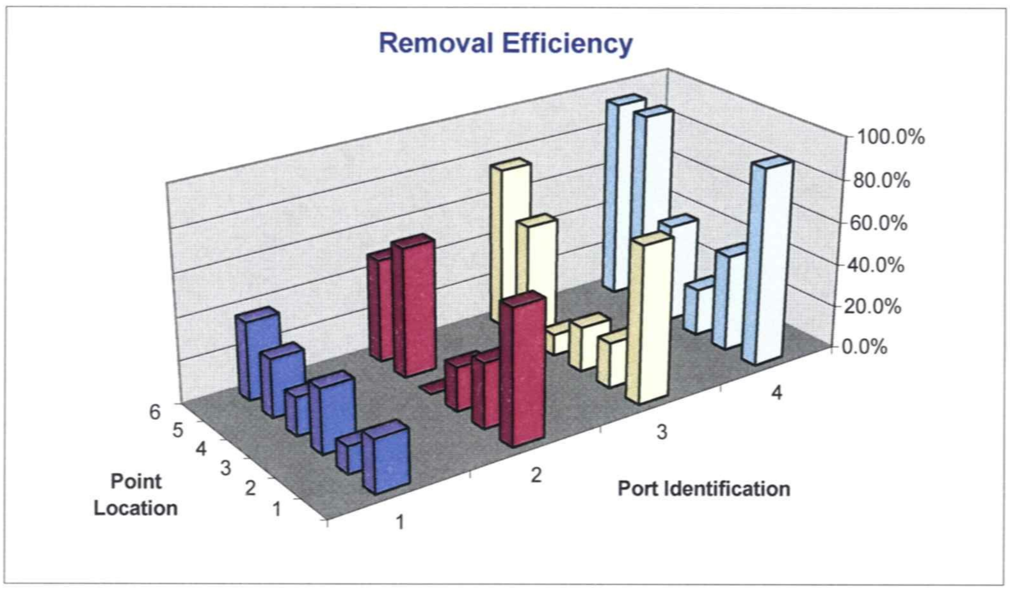


Run 2: Outlet – Set 1

Date: 3/28/2007
Start Time: 11:12
End Time: 11:35

Removal Efficiency (ppmdv @ 3% O_2)

AVG	24.7%	35.5%	42.7%	65.5%	
6	36.5%	48.4%	75.7%	93.5%	63.5%
5	27.1%	60.8%	55.1%	93.4%	59.1%
4	17.8%	-9.1%	10.1%	46.3%	16.3%
3	29.9%	20.3%	21.0%	22.1%	23.3%
2	12.3%	30.2%	21.0%	45.1%	27.2%
1	24.3%	62.5%	73.0%	92.4%	63.0%
	1	2	3	4	42.1%



Clean Air Engineering Project #10192
Consol Energy
AES Dresden

Date: 3/28/2007 Run # (Cycle #) 2 (2)
Start Time: 11:36
End Time: 11:59

Inlet Point	Time Sampled	NOx ppmdv	NOx Port Avg	PPM Dev from Avg.	O2 %dv	O2 Port Avg	CO2 %dv	CO2 Port Avg	NOx @ 3% O2	PPM Dev from Avg.
1-1	11:36	75.8		-1.0	7.7		11.5		102.4	16.8
1-2	11:40	96.4		19.6	3.1		15.3		97.2	11.6
1-3	11:44	86.3	78.9	9.5	5.0	5.6	13.8	13.3	97.0	11.4
1-4	11:48	79.0		2.2	4.3		14.3		85.1	-0.5
1-5	11:52	65.8		-11.0	4.7		14.1		72.5	-13.1
1-6	11:56	70.1		-6.7	8.6		10.6		102.3	16.8
2-1	11:37	77.8		1.0	6.1		12.8		94.2	8.6
2-2	11:41	79.9		3.1	3.2		15.3		80.8	-4.8
2-3	11:45	82.4	73.8	5.6	5.5	5.0	13.3	13.8	96.0	10.4
2-4	11:49	73.2		-3.6	3.8		14.8		76.4	-9.1
2-5	11:53	56.5		-20.3	4.4		14.3		61.2	-24.4
2-6	11:57	72.8		-4.0	6.8		12.2		92.4	6.8
3-1	11:38	88.1		11.3	4.2		14.4		94.5	8.9
3-2	11:42	78.8		2.0	3.1		15.4		79.2	-6.4
3-3	11:46	99.0	80.9	22.2	3.3	4.2	15.1	14.4	100.9	15.3
3-4	11:50	76.8		0.0	3.6		14.9		79.4	-6.2
3-5	11:54	63.3		-13.5	4.4		14.3		68.6	-17.0
3-6	11:58	79.4		2.6	6.4		12.5		98.2	12.6
4-1	11:39	75.0		-1.8	6.1		12.8		90.9	5.3
4-2	11:43	79.3		2.5	2.7		15.7		78.0	-7.6
4-3	11:47	93.5	73.5	16.7	3.0	4.3	15.5	14.3	93.4	7.9
4-4	11:51	74.8		-2.0	3.4		15.0		76.7	-8.9
4-5	11:55	56.2		-20.6	4.2		14.4		60.2	-25.4
4-6	11:59	62.3		-14.5	6.4		12.6		76.7	-8.9
Inlet Averages		**76.8**			**4.7**		**13.9**		**85.6**	

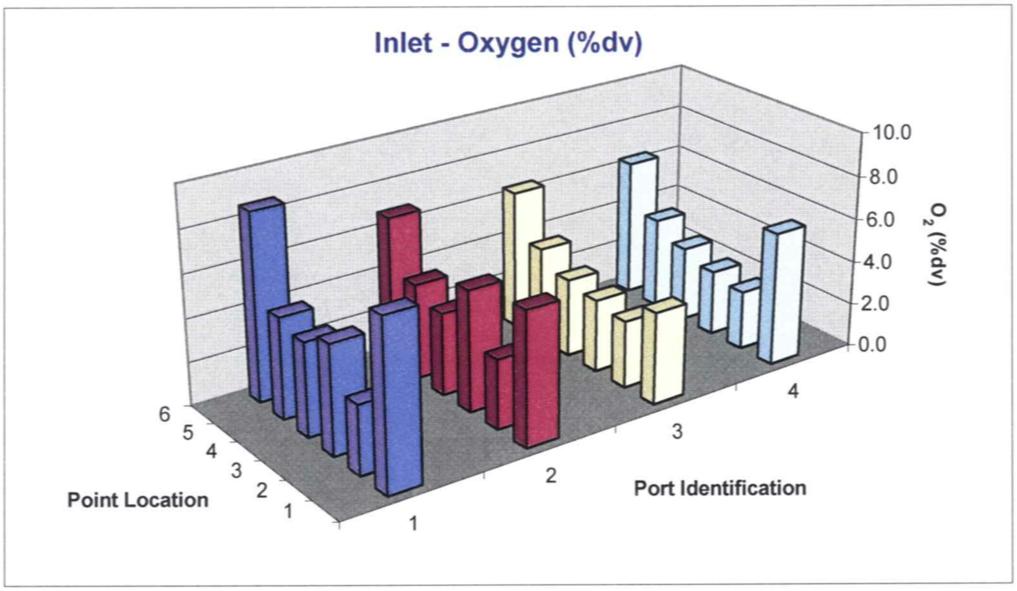
Outlet Point	Time Sampled	NOx ppmdv	NOx Port Avg	PPM Dev from Avg.	O2 %dv	O2 Port Avg	CO2 %dv	CO2 Port Avg	NOx @ 3% O2	PPM Dev from Avg.	Removal Efficiency	Removal Eff W/ O2 correction
1-1	11:36	69.9		22.6	4.9		13.9		78.2	24.8	7.8	23.7
1-2	11:40	78.3		31.0	5.7		13.2		92.0	38.7	18.8	5.3
1-3	11:44	58.5	62.8	11.2	5.1	5.7	13.7	13.2	66.4	13.1	32.2	31.5
1-4	11:48	71.3		24.0	4.0		14.7		75.4	22.1	9.7	11.4
1-5	11:52	51.0		3.7	6.4		12.6		63.0	9.7	22.5	13.1
1-6	11:56	47.5		0.2	8.2		10.9		66.9	13.6	32.2	34.6
2-1	11:37	30.5		-16.8	5.0		13.8		34.3	-19.0	60.8	63.5
2-2	11:41	54.7		7.4	4.7		14.1		60.5	7.2	31.5	25.1
2-3	11:45	71.9	48.9	24.6	4.9	5.3	14.0	13.5	80.2	26.9	12.7	16.4
2-4	11:49	73.7		26.4	5.8		13.1		87.5	34.2	-0.7	-14.4
2-5	11:53	21.7		-25.6	4.8		14.0		24.2	-29.1	61.6	60.5
2-6	11:57	41.1		-6.2	6.8		12.2		52.2	-1.1	43.5	43.5
3-1	11:38	21.8		-25.5	4.0		14.7		23.0	-30.3	75.3	75.6
3-2	11:42	70.8		23.5	4.4		14.3		76.9	23.6	10.2	2.8
3-3	11:46	82.3	47.9	35.0	4.5	4.6	14.3	14.2	89.6	36.3	16.9	11.3
3-4	11:50	63.3		16.0	4.7		14.0		70.0	16.7	17.6	11.9
3-5	11:54	28.9		-18.4	4.2		14.5		31.0	-22.3	54.3	54.8
3-6	11:58	20.1		-27.2	5.8		13.2		23.8	-29.5	74.7	75.8
4-1	11:39	6.5		-40.8	3.7		14.9		6.8	-46.5	91.3	92.5
4-2	11:43	48.0		0.7	2.8		15.9		47.4	-5.9	39.5	39.3
4-3	11:47	77.4	29.8	30.1	3.3	3.9	15.3	14.8	78.9	25.6	17.2	15.6
4-4	11:51	38.3		-9.0	4.4		14.3		41.6	-11.7	48.8	45.7
4-5	11:55	4.2		-43.1	3.9		14.8		4.4	-48.9	92.5	92.7
4-6	11:59	4.4		-42.9	5.4		13.4		5.1	-48.2	92.9	93.4
Outlet Averages		**47.3**			**4.9**		**13.9**		**53.3**		**40.2**	**38.6**

Run 2: Inlet – Set 2

Date: 3/28/2007
Start Time: 11:36
End Time: 11:59

Inlet - Oxygen (%dv)

AVG	5.6	5.0	4.2	4.3	
6	8.6	6.8	6.4	6.4	7.1
5	4.7	4.4	4.4	4.2	4.4
4	4.3	3.8	3.6	3.4	3.8
3	5.0	5.5	3.3	3.0	4.2
2	3.1	3.2	3.1	2.7	3.0
1	7.7	6.1	4.2	6.1	6.0
	1	2	3	4	4.7

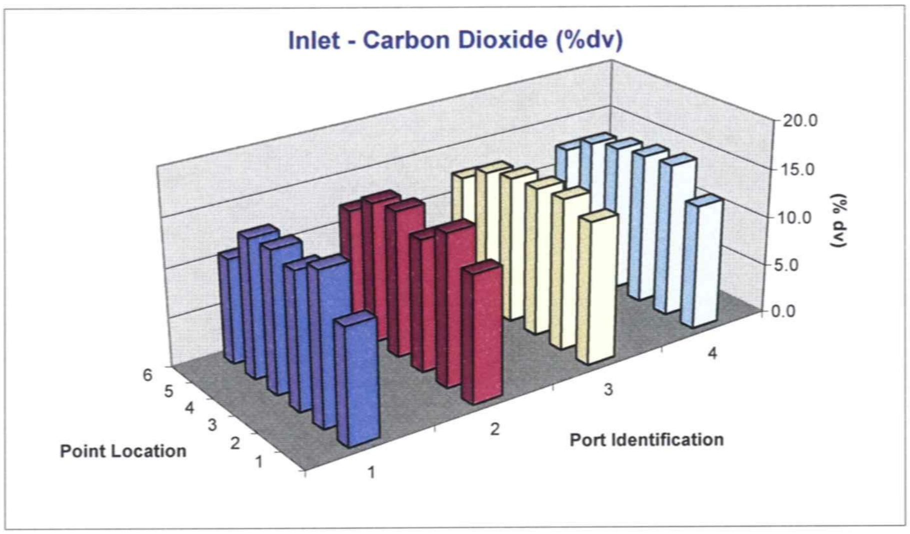


Run 2: Inlet – Set 2

Date: 3/28/2007
Start Time: 11:36
End Time: 11:59

Inlet - Carbon Dioxide (%dv)

AVG	13.3	13.8	14.4	14.3	
6	10.6	12.2	12.5	12.6	12.0
5	14.1	14.3	14.3	14.4	14.3
4	14.3	14.8	14.9	15.0	14.8
3	13.8	13.3	15.1	15.5	14.4
2	15.3	15.3	15.4	15.7	15.4
1	11.5	12.8	14.4	12.8	12.9
	1	2	3	4	13.9

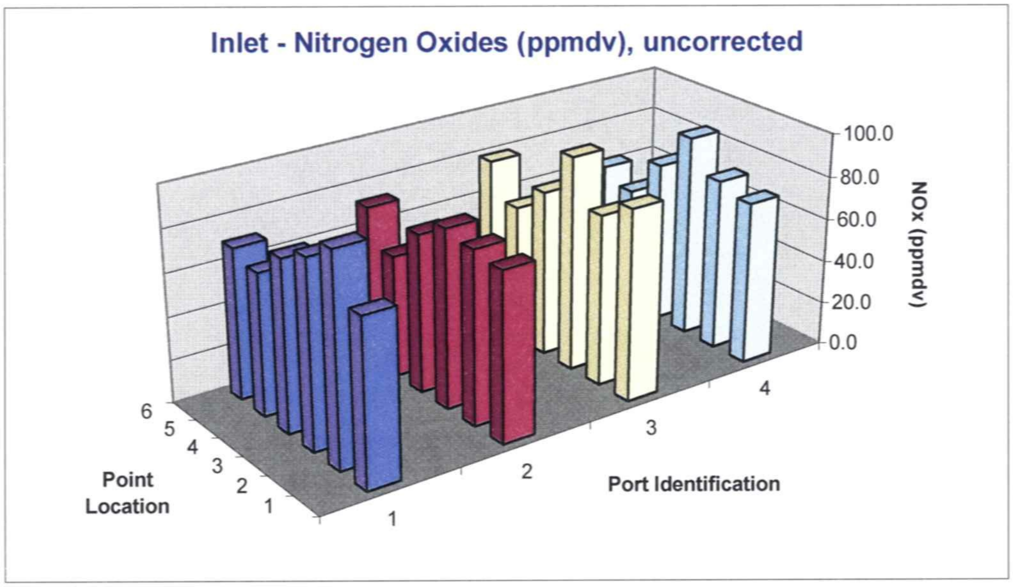


Run 2: Inlet – Set 2

Date: 3/28/2007
Start Time: 11:36
End Time: 11:59

Inlet - Nitrogen Oxides (ppmdv), uncorrected

AVG	78.9	73.8	80.9	73.5	
6	70.1	72.8	79.4	62.3	71.2
5	65.8	56.5	63.3	56.2	60.5
4	79.0	73.2	76.8	74.8	76.0
3	86.3	82.4	99.0	93.5	90.3
2	96.4	79.9	78.8	79.3	83.6
1	75.8	77.8	88.1	75.0	79.2
	1	2	3	4	76.8



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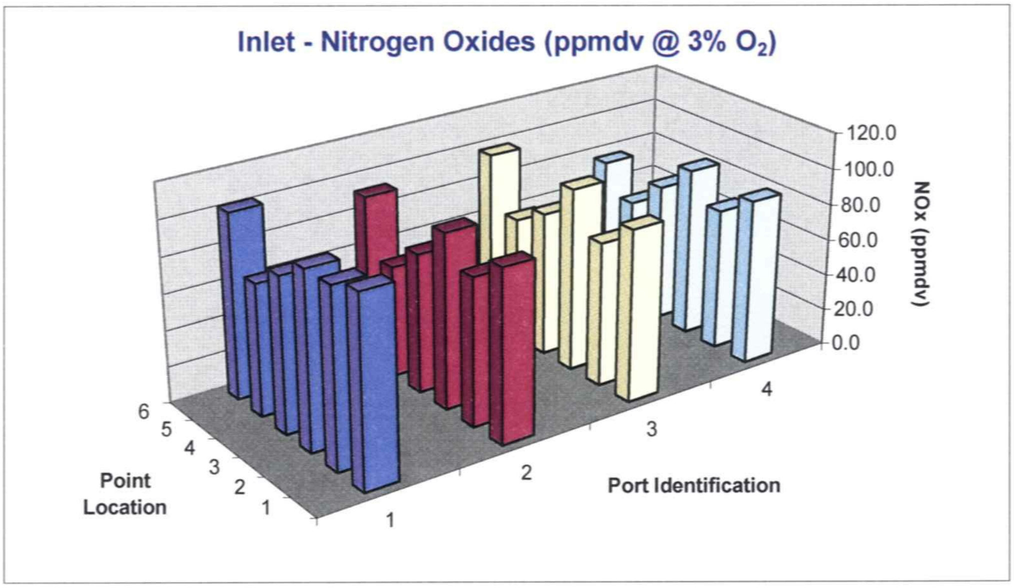
Run 2: Inlet – Set 2

Date: 3/28/2007
Start Time: 11:36
End Time: 11:59

Inlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	92.7	83.5	86.8	79.3	
6	102.3	92.4	98.2	76.7	92.4
5	72.5	61.2	68.6	60.2	65.6
4	85.1	76.4	79.4	76.7	79.4
3	97.0	96.0	100.9	93.4	96.8
2	97.2	80.8	79.2	78.0	83.8
1	102.4	94.2	94.5	90.9	95.5
	1	2	3	4	85.6



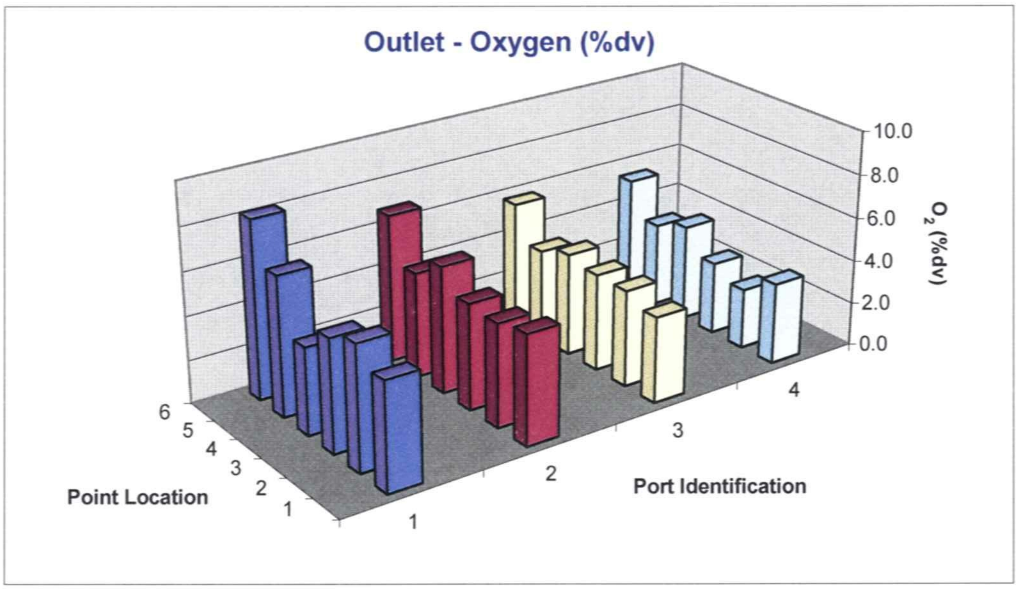
CleanAir ENGINEERING

Run 2: Outlet – Set 2

Date: 3/28/2007
Start Time: 11:36
End Time: 11:59

Outlet - Oxygen (%dv)

AVG	5.7	5.3	4.6	3.9	
6	8.2	6.8	5.8	5.4	6.5
5	6.4	4.8	4.2	3.9	4.8
4	4.0	5.8	4.7	4.4	4.7
3	5.1	4.9	4.5	3.3	4.4
2	5.7	4.7	4.4	2.8	4.4
1	4.9	5.0	4.0	3.7	4.4
	1	2	3	4	4.9



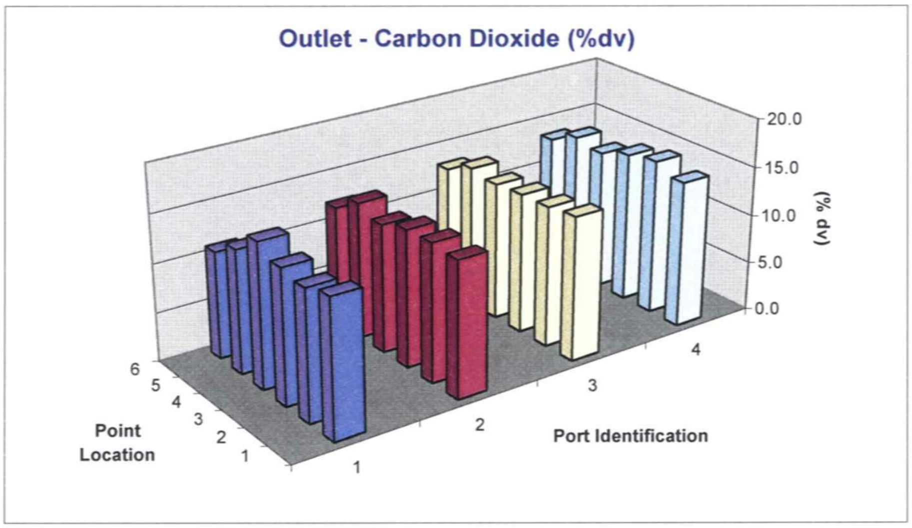
CleanAir
ENGINEERING

Run 2: Outlet – Set 2

Date: 3/28/2007
Start Time: 11:36
End Time: 11:59

Outlet - Carbon Dioxide (%dv)

AVG	13.2	13.5	14.2	14.8	
6	10.9	12.2	13.2	13.4	12.4
5	12.6	14.0	14.5	14.8	14.0
4	14.7	13.1	14.0	14.3	14.0
3	13.7	14.0	14.3	15.3	14.3
2	13.2	14.1	14.3	15.9	14.4
1	13.9	13.8	14.7	14.9	14.3
	1	2	3	4	13.9

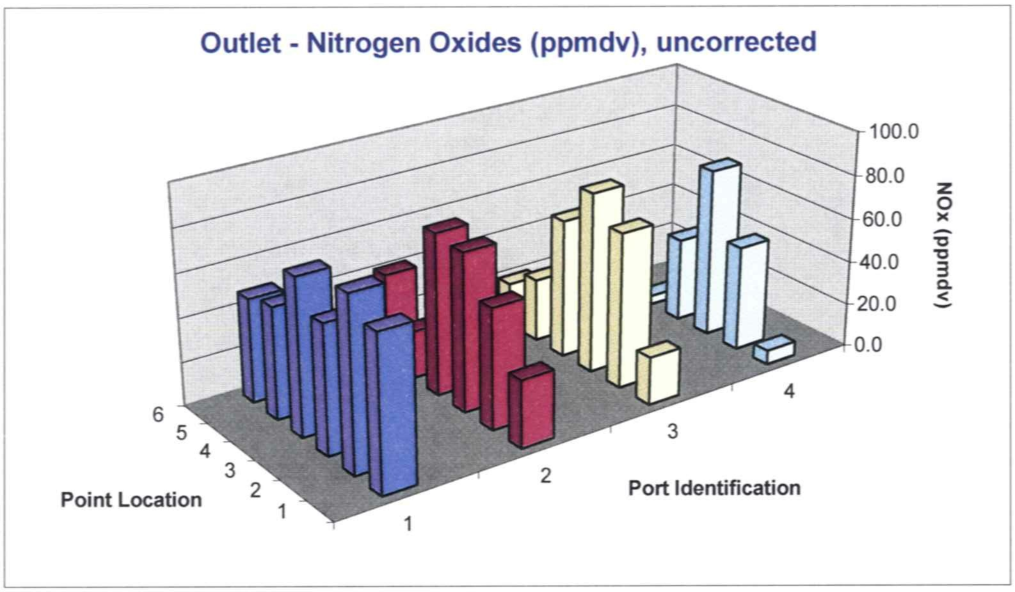


Run 2: Outlet – Set 2

Date: 3/28/2007
Start Time: 11:36
End Time: 11:59

Outlet - Nitrogen Oxides (ppmdv), uncorrected

AVG	62.8	48.9	47.9	29.8	
6	47.5	41.1	20.1	4.4	28.3
5	51.0	21.7	28.9	4.2	26.5
4	71.3	73.7	63.3	38.3	61.7
3	58.5	71.9	82.3	77.4	72.5
2	78.3	54.7	70.8	48.0	63.0
1	69.9	30.5	21.8	6.5	32.2
	1	2	3	4	47.3

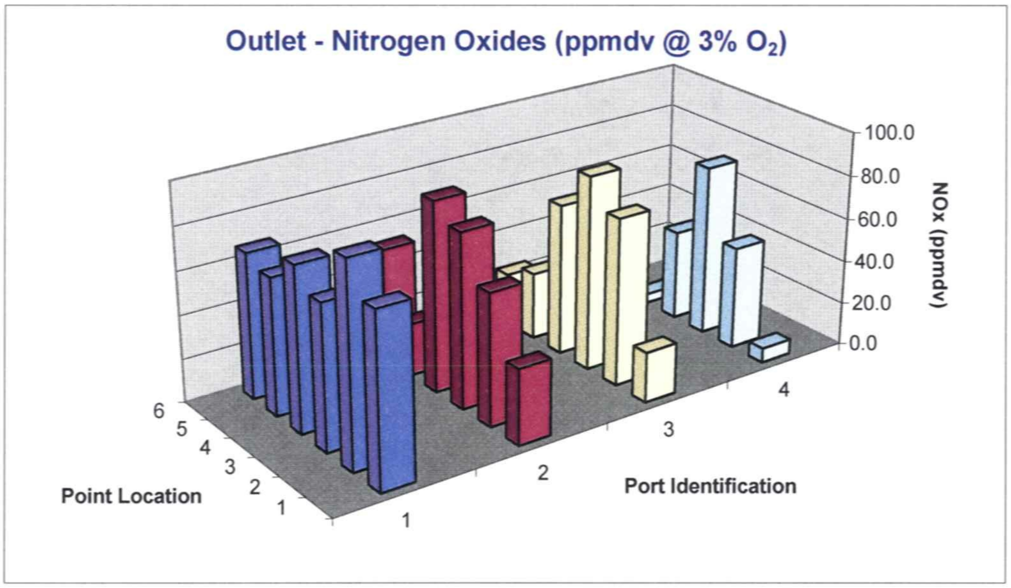


Run 2: Outlet – Set 2

Date: 3/28/2007
Start Time: 11:36
End Time: 11:59

Outlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	73.7	56.5	52.4	30.7	
6	66.9	52.2	23.8	5.1	37.0
5	63.0	24.2	31.0	4.4	30.6
4	75.4	87.5	70.0	41.6	68.6
3	66.4	80.2	89.6	78.9	78.8
2	92.0	60.5	76.9	47.4	69.2
1	78.2	34.3	23.0	6.8	35.6
	1	2	3	4	53.3



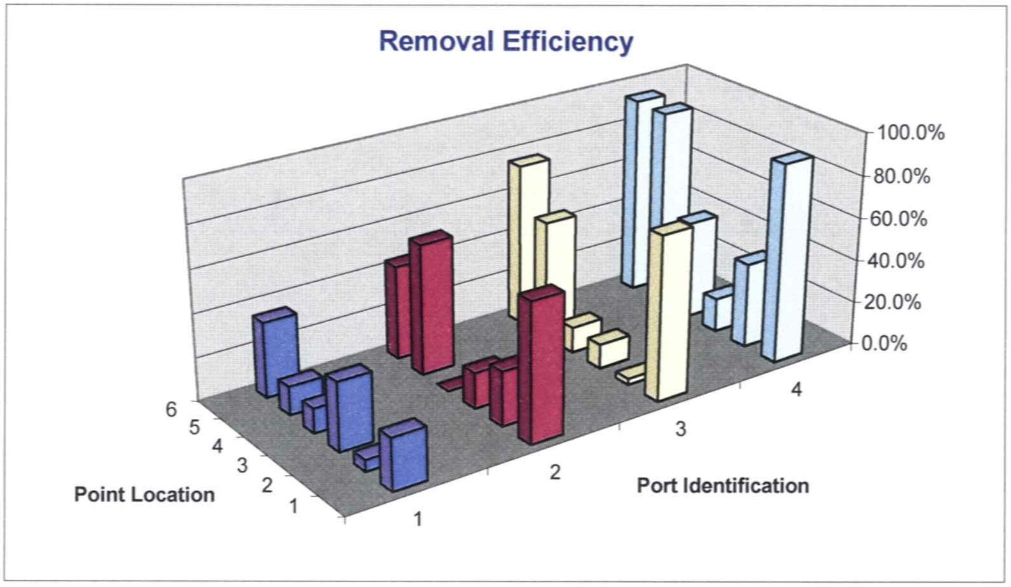
CleanAir ENGINEERING

Run 2: Outlet – Set 2

Date: 3/28/2007
Start Time: 11:36
End Time: 11:59

Removal Efficiency (ppmdv @ 3% O_2)

AVG	19.9%	32.4%	38.7%	63.2%	
6	34.6%	43.5%	75.8%	93.4%	61.8%
5	13.1%	60.5%	54.8%	92.7%	55.3%
4	11.4%	-14.4%	11.9%	45.7%	13.6%
3	31.5%	16.4%	11.3%	15.6%	18.7%
2	5.3%	25.1%	2.8%	39.3%	18.1%
1	23.7%	63.5%	75.6%	92.5%	63.8%
	1	2	3	4	38.6%



CleanAir ENGINEERING

Clean Air Engineering Project #10192
Consol Energy
AES Dresden

Date: 3/28/2007
Start Time: 12:00
End Time: 12:23

Run # (Cycle #) 2 (3)

Inlet Point	Time Sampled	NOx ppmdv	NOx Port Avg	PPM Dev from Avg.	O2 %dv	O2 Port Avg	CO2 %dv	CO2 Port Avg	NOx @ 3% O2	PPM Dev from Avg.
1-1	12:00	74.5		-2.1	7.7		11.4		101.3	15.7
1-2	12:04	98.5		21.9	3.3		15.1		100.4	14.8
1-3	12:08	85.5	78.8	8.9	5.0	5.6	13.8	13.3	96.4	10.8
1-4	12:12	79.7		3.1	4.3		14.3		86.1	0.5
1-5	12:16	65.4		-11.2	4.5		14.2		71.5	-14.1
1-6	12:20	68.9		-7.7	8.5		10.8		99.3	13.7
2-1	12:01	77.3		0.7	6.1		12.7		93.7	8.1
2-2	12:05	77.8		1.2	3.3		15.2		79.2	-6.4
2-3	12:09	81.9	74.5	5.3	5.4	5.0	13.4	13.8	94.7	9.1
2-4	12:13	73.8		-2.8	3.8		14.8		77.1	-8.5
2-5	12:17	59.2		-17.4	4.3		14.4		63.9	-21.7
2-6	12:21	77.1		0.5	6.9		12.2		98.3	12.7
3-1	12:02	86.9		10.3	4.3		14.4		93.6	8.0
3-2	12:06	77.4		0.8	3.2		15.2		78.4	-7.2
3-3	12:10	96.4	80.0	19.8	3.3	4.2	15.2	14.4	98.0	12.4
3-4	12:14	76.8		0.2	3.6		14.9		79.4	-6.2
3-5	12:18	63.6		-13.0	4.4		14.3		68.8	-16.8
3-6	12:22	79.0		2.4	6.3		12.6		96.9	11.3
4-1	12:03	74.4		-2.2	6.8		12.2		94.6	9.0
4-2	12:07	78.2		1.6	2.8		15.6		77.3	-8.3
4-3	12:11	94.0	73.1	17.4	3.1	4.4	15.4	14.2	94.6	9.0
4-4	12:15	74.7		-1.9	3.4		15.1		76.4	-9.2
4-5	12:19	55.6		-21.0	4.1		14.5		59.2	-26.4
4-6	12:23	61.4		-15.2	6.4		12.6		75.6	-10.0
Inlet Averages		76.6			4.8		13.9		85.6	

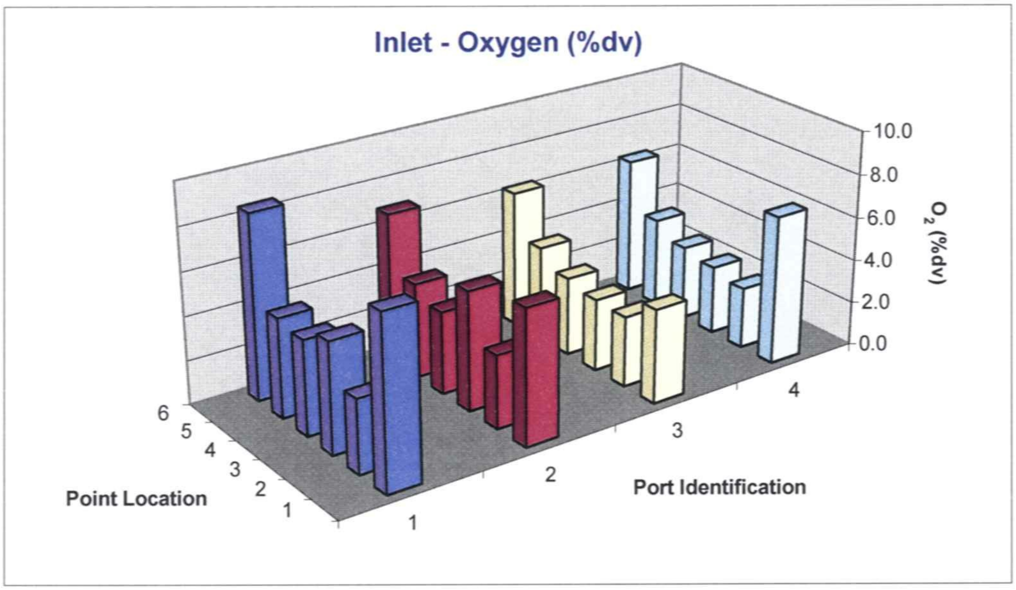
Outlet Point	Time Sampled	NOx ppmdv	NOx Port Avg	PPM Dev from Avg.	O2 %dv	O2 Port Avg	CO2 %dv	CO2 Port Avg	NOx @ 3% O2	PPM Dev from Avg.	Removal Efficiency	Removal Eff W/ O2 correction
1-1	12:00	68.7		21.5	5.1		13.8		77.6	24.3	7.8	23.4
1-2	12:04	80.1		32.9	5.9		13.1		95.5	42.2	18.7	4.9
1-3	12:08	57.9	62.5	10.7	5.3	5.8	13.6	13.1	66.4	13.1	32.3	31.1
1-4	12:12	68.1		20.9	4.6		14.2		74.6	21.3	14.6	13.4
1-5	12:16	51.3		4.1	6.2		12.7		62.6	9.3	21.6	12.4
1-6	12:20	49.0		1.8	7.9		11.2		67.4	14.1	28.9	32.1
2-1	12:01	30.5		-16.7	5.1		13.7		34.6	-18.7	60.5	63.1
2-2	12:05	53.3		6.1	4.7		14.1		58.9	5.6	31.5	25.6
2-3	12:09	72.1	49.3	24.9	4.7	5.3	14.0	13.5	79.8	26.5	12.0	15.7
2-4	12:13	74.0		26.8	5.8		13.1		87.9	34.6	-0.3	-14.0
2-5	12:17	22.3		-24.9	4.8		14.0		24.8	-28.5	62.3	61.2
2-6	12:21	43.5		-3.7	6.7		12.2		55.0	1.7	43.6	44.1
3-1	12:02	20.4		-26.8	3.8		14.8		21.4	-31.9	76.5	77.1
3-2	12:06	72.6		25.4	4.5		14.3		79.0	25.7	6.2	-0.9
3-3	12:10	83.6	47.9	36.4	4.3	4.6	14.4	14.2	90.2	36.9	13.3	7.9
3-4	12:14	58.6		11.4	4.9		13.9		65.6	12.3	23.7	17.4
3-5	12:18	29.5		-17.7	4.2		14.5		31.6	-21.7	53.6	54.1
3-6	12:22	22.9		-24.3	5.6		13.2		26.8	-26.5	71.0	72.3
4-1	12:03	6.2		-41.0	4.0		14.7		6.6	-46.7	91.7	93.1
4-2	12:07	44.4		-2.8	2.9		15.7		44.2	-9.1	43.2	42.8
4-3	12:11	74.6	28.9	27.4	3.4	4.0	15.3	14.7	76.3	23.0	20.6	19.4
4-4	12:15	39.9		-7.3	4.4		14.4		43.3	-10.0	46.6	43.4
4-5	12:19	3.8		-43.4	3.7		15.0		4.0	-49.3	93.2	93.3
4-6	12:23	4.4		-42.8	5.3		13.6		5.1	-48.2	92.8	93.3
Outlet Averages		47.2			4.9		13.9		53.3		40.2	38.6

Run 2: Inlet – Set 3

Date: 3/28/2007
Start Time: 12:00
End Time: 12:23

Inlet - Oxygen (%dv)

AVG	5.6	5.0	4.2	4.4	
6	8.5	6.9	6.3	6.4	7.0
5	4.5	4.3	4.4	4.1	4.3
4	4.3	3.8	3.6	3.4	3.8
3	5.0	5.4	3.3	3.1	4.2
2	3.3	3.3	3.2	2.8	3.2
1	7.7	6.1	4.3	6.8	6.2
	1	2	3	4	4.8



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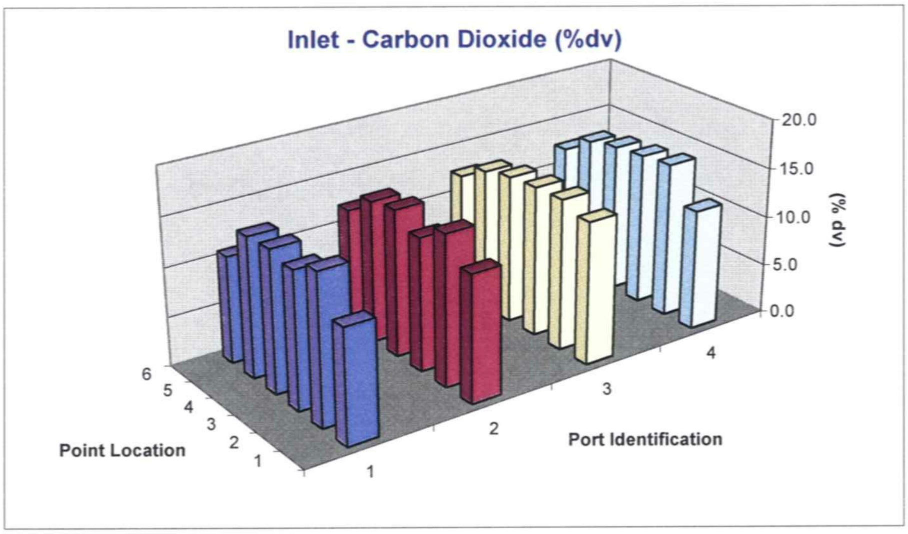
ENGINEERING

Run 2: Inlet – Set 3

Date: 3/28/2007
Start Time: 12:00
End Time: 12:23

Inlet - Carbon Dioxide (%dv)

AVG	13.3	13.8	14.4	14.2	
6	10.8	12.2	12.6	12.6	12.0
5	14.2	14.4	14.3	14.5	14.3
4	14.3	14.8	14.9	15.1	14.8
3	13.8	13.4	15.2	15.4	14.4
2	15.1	15.2	15.2	15.6	15.3
1	11.4	12.7	14.4	12.2	12.7
	1	2	3	4	13.9

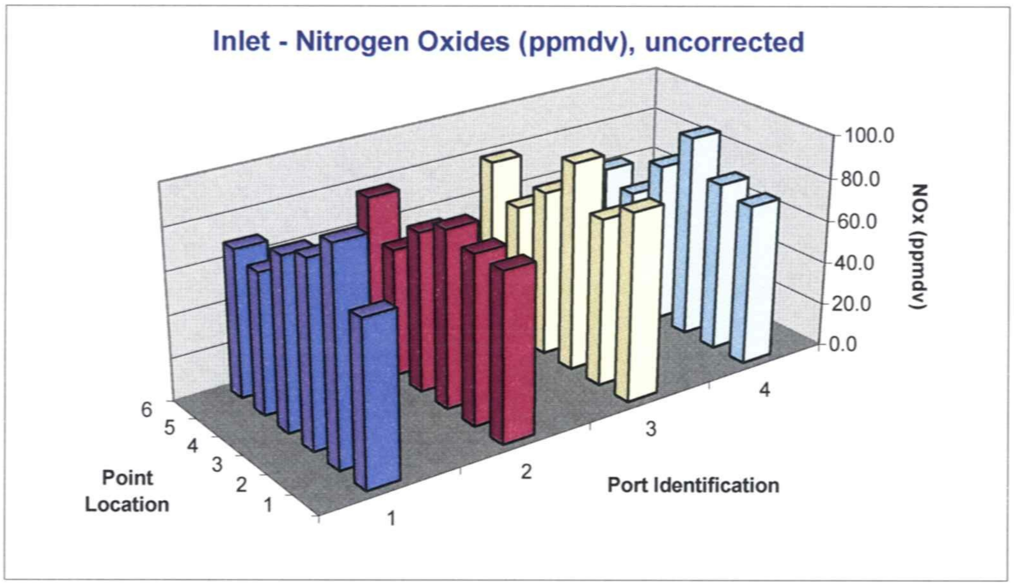


Run 2: Inlet – Set 3

Date: 3/28/2007
Start Time: 12:00
End Time: 12:23

Inlet - Nitrogen Oxides (ppmdv), uncorrected

AVG	78.8	74.5	80.0	73.1	
6	68.9	77.1	79.0	61.4	71.6
5	65.4	59.2	63.6	55.6	61.0
4	79.7	73.8	76.8	74.7	76.3
3	85.5	81.9	96.4	94.0	89.5
2	98.5	77.8	77.4	78.2	83.0
1	74.5	77.3	86.9	74.4	78.3
	1	2	3	4	76.6



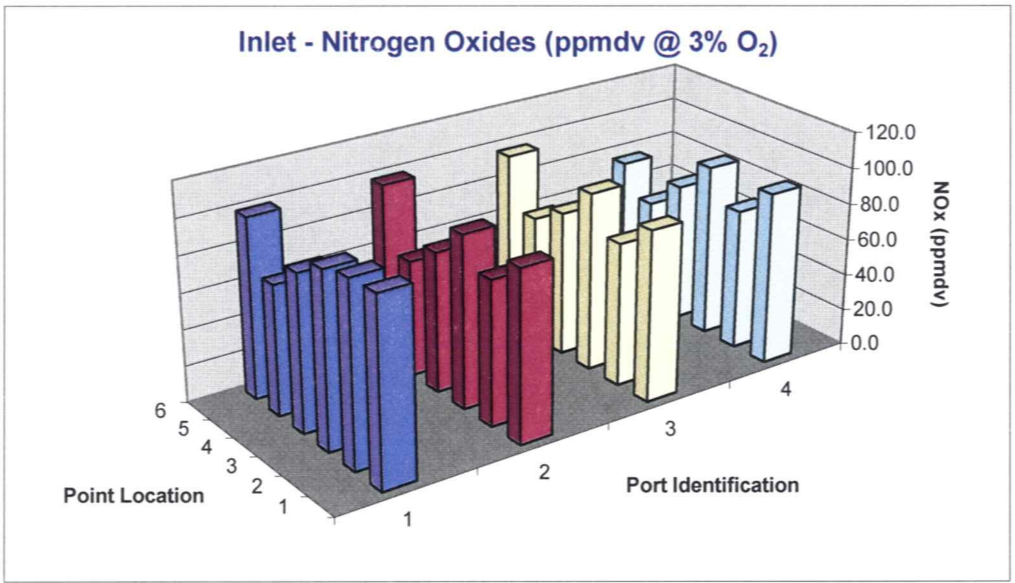
CleanAir ENGINEERING

Run 2: Inlet – Set 3

Date: 3/28/2007
Start Time: 12:00
End Time: 12:23

Inlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	92.5	84.5	85.8	79.6	
6	99.3	98.3	96.9	75.6	92.5
5	71.5	63.9	68.8	59.2	65.9
4	86.1	77.1	79.4	76.4	79.7
3	96.4	94.7	98.0	94.6	95.9
2	100.4	79.2	78.4	77.3	83.8
1	101.3	93.7	93.6	94.6	95.8
	1	2	3	4	85.6

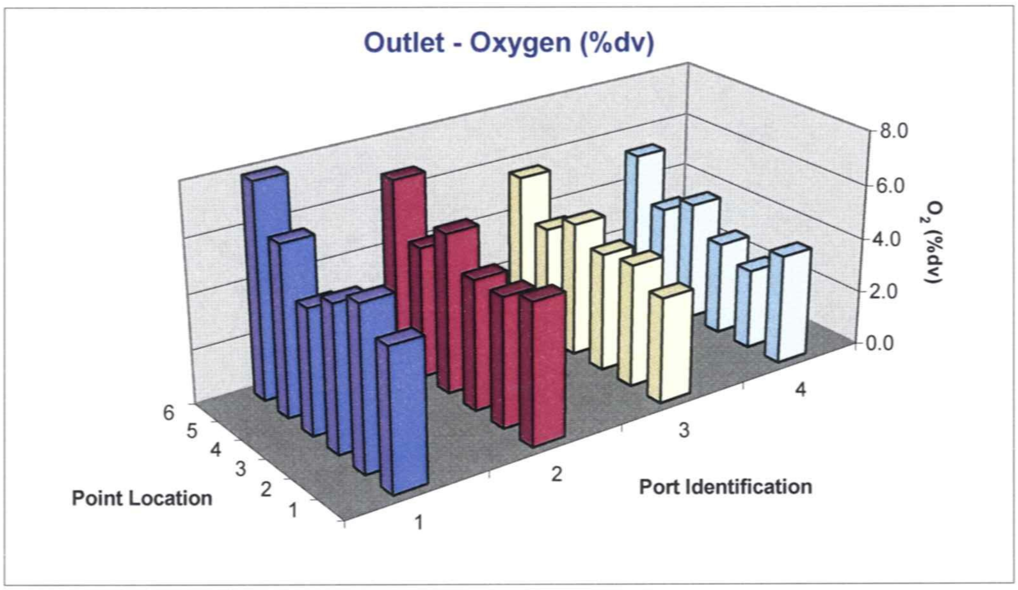


Run 2: Outlet – Set 3

Date: 3/28/2007
Start Time: 12:00
End Time: 12:23

Outlet - Oxygen (%dv)

AVG	5.8	5.3	4.6	4.0	
6	7.9	6.7	5.6	5.3	6.4
5	6.2	4.8	4.2	3.7	4.7
4	4.6	5.8	4.9	4.4	4.9
3	5.3	4.7	4.3	3.4	4.4
2	5.9	4.7	4.5	2.9	4.5
1	5.1	5.1	3.8	4.0	4.5
	1	2	3	4	4.9



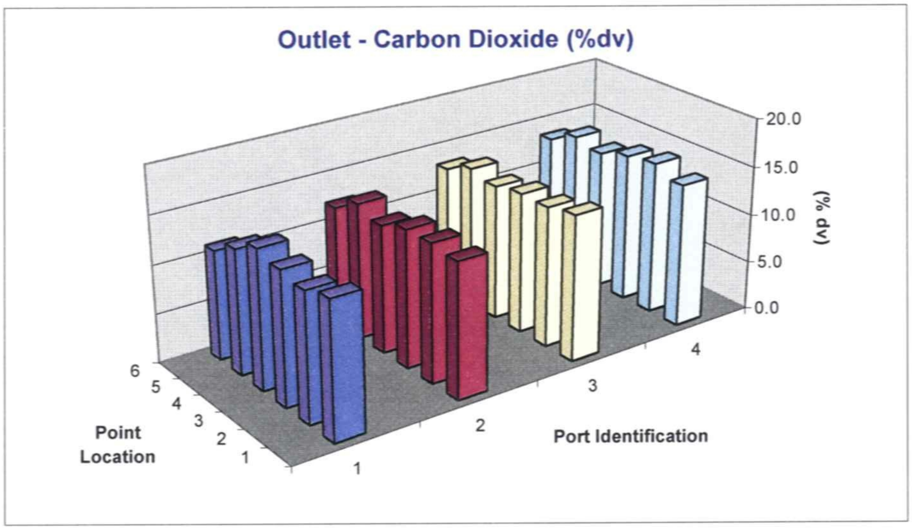
CleanAir ENGINEERING

Run 2: Outlet – Set 3

Date: 3/28/2007
Start Time: 12:00
End Time: 12:23

Outlet - Carbon Dioxide (%dv)

AVG	13.1	13.5	14.2	14.7	
6	11.2	12.2	13.2	13.6	12.6
5	12.7	14.0	14.5	15.0	14.0
4	14.2	13.1	13.9	14.4	13.9
3	13.6	14.0	14.4	15.3	14.3
2	13.1	14.1	14.3	15.7	14.3
1	13.8	13.7	14.8	14.7	14.3
	1	2	3	4	13.9

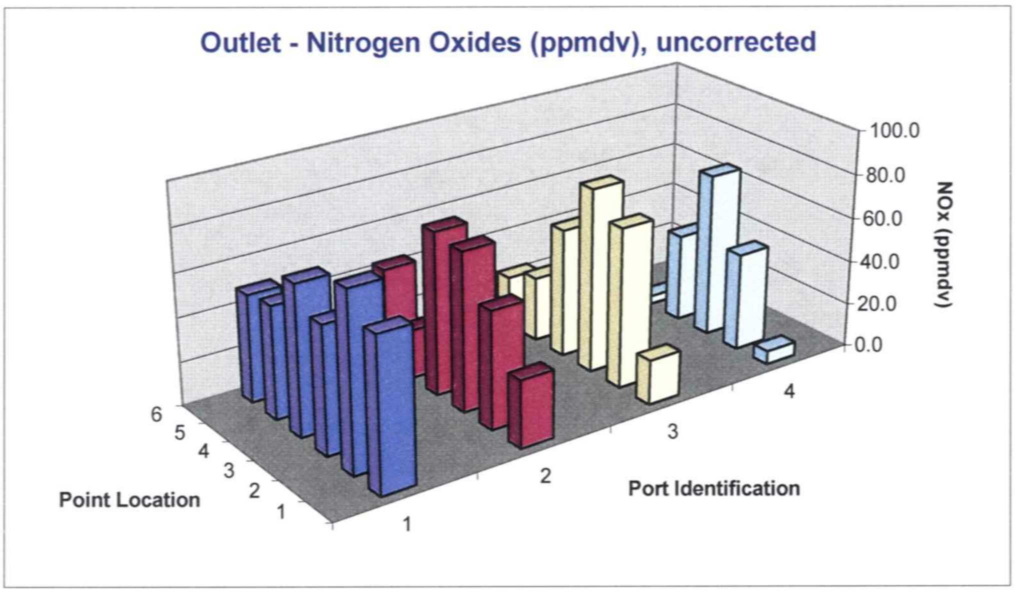


Run 2: Outlet – Set 3

Date: 3/28/2007
Start Time: 12:00
End Time: 12:23

Outlet - Nitrogen Oxides (ppmdv), uncorrected

AVG	62.5	49.3	47.9	28.9	
6	49.0	43.5	22.9	4.4	30.0
5	51.3	22.3	29.5	3.8	26.7
4	68.1	74.0	58.6	39.9	60.2
3	57.9	72.1	83.6	74.6	72.1
2	80.1	53.3	72.6	44.4	62.6
1	68.7	30.5	20.4	6.2	31.5
	1	2	3	4	47.2



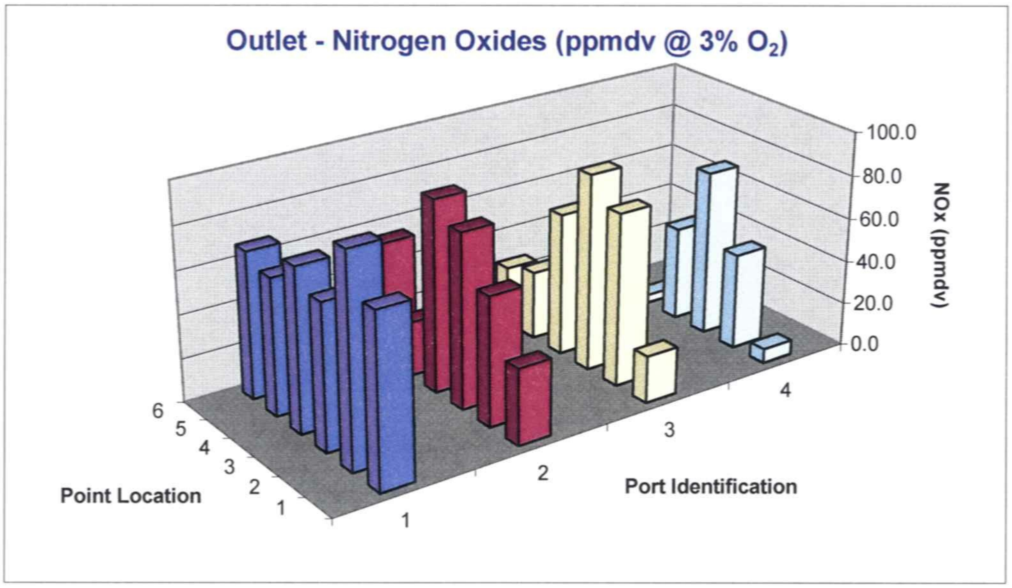
CleanAir ENGINEERING

Run 2: Outlet – Set 3

Date: 3/28/2007
Start Time: 12:00
End Time: 12:23

Outlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	74.0	56.8	52.4	29.9	
6	67.4	55.0	26.8	5.1	38.6
5	62.6	24.8	31.6	4.0	30.7
4	74.6	87.9	65.6	43.3	67.8
3	66.4	79.8	90.2	76.3	78.2
2	95.5	58.9	79.0	44.2	69.4
1	77.6	34.6	21.4	6.6	35.0
	1	2	3	4	53.3

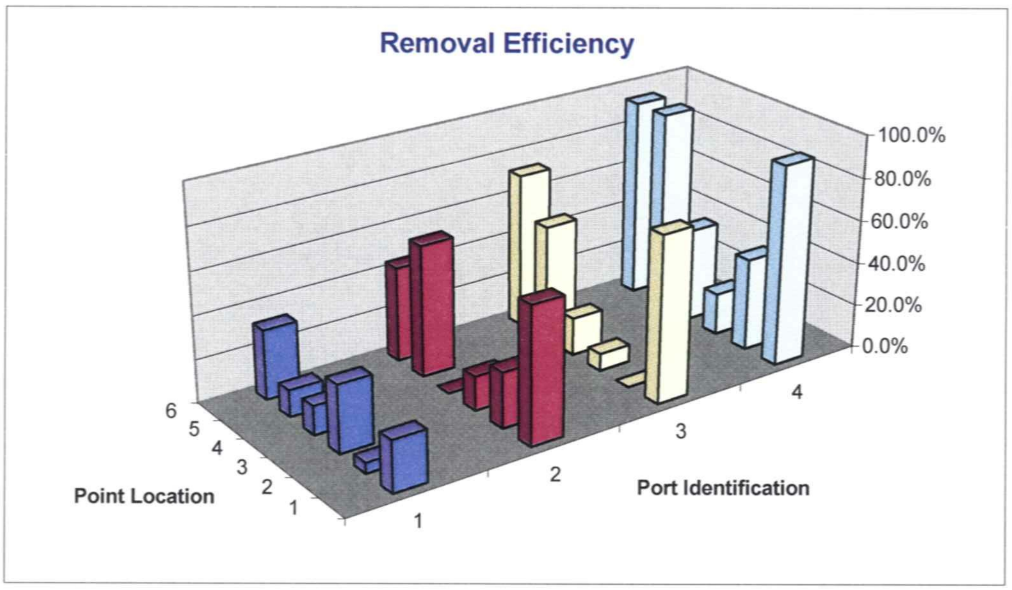


Run 2: Outlet – Set 3

Date: 3/28/2007
Start Time: 12:00
End Time: 12:23

Removal Efficiency (ppmdv @ 3% O_2)

AVG	19.5%	32.6%	38.0%	64.2%	
6	32.1%	44.1%	72.3%	93.3%	60.4%
5	12.4%	61.2%	54.1%	93.3%	55.3%
4	13.4%	-14.0%	17.4%	43.4%	15.0%
3	31.1%	15.7%	7.9%	19.4%	18.5%
2	4.9%	25.6%	-0.9%	42.8%	18.1%
1	23.4%	63.1%	77.1%	93.1%	64.2%
	1	**2**	**3**	**4**	38.6%



Clean Air Engineering Project #10192
Consol Energy
AES Dresden

Date: 3/28/2007
Start Time: 12:48
End Time: 13:11

Run # (Cycle #) 3 (1)

Inlet Point	Time Sampled	NOx ppmdv	NOx Port Avg	PPM Dev from Avg.	O2 %dv	O2 Port Avg	CO2 %dv	CO2 Port Avg	NOx @ 3% O2	PPM Dev from Avg.
1-1	12:48	69.2		-5.6	7.9		11.3		95.2	11.9
1-2	12:52	101.3		26.5	3.0		15.3		101.3	18.0
1-3	12:56	75.7	74.6	0.9	5.1	5.6	13.6	13.2	85.8	2.5
1-4	13:00	70.5		-4.3	4.4		14.2		76.4	-6.9
1-5	13:04	61.6		-13.2	4.5		14.2		67.2	-16.1
1-6	13:08	69.0		-5.8	8.5		10.8		99.9	16.6
2-1	12:49	78.1		3.3	6.2		12.7		95.4	12.1
2-2	12:53	75.4		0.6	3.3		15.2		76.6	-6.7
2-3	12:57	81.5	73.7	6.7	5.2	4.9	13.6	13.8	93.0	9.7
2-4	13:01	72.5		-2.3	3.6		14.9		75.0	-8.3
2-5	13:05	56.0		-18.8	4.2		14.4		60.1	-23.2
2-6	13:09	78.7		3.9	6.8		12.1		100.2	16.9
3-1	12:50	87.6		12.8	4.4		14.3		94.9	11.6
3-2	12:54	75.2		0.4	3.1		15.3		75.7	-7.6
3-3	12:58	94.6	78.9	19.8	3.2	4.1	15.2	14.5	95.8	12.5
3-4	13:02	75.5		0.7	3.5		15.0		77.7	-5.6
3-5	13:06	61.7		-13.1	4.2		14.4		66.3	-17.0
3-6	13:10	78.5		3.7	6.2		12.7		95.8	12.5
4-1	12:51	74.3		-0.5	6.1		12.8		89.9	6.6
4-2	12:55	75.9		1.1	2.8		15.6		75.1	-8.2
4-3	12:59	93.4	72.2	18.6	3.0	4.3	15.5	14.4	93.3	10.0
4-4	13:03	73.0		-1.8	3.4		15.1		74.5	-8.8
4-5	13:07	54.7		-20.1	3.9		14.7		57.7	-25.6
4-6	13:11	61.6		-13.2	6.5		12.5		76.4	-6.9
Inlet Averages		74.8			4.7		14.0		83.3	

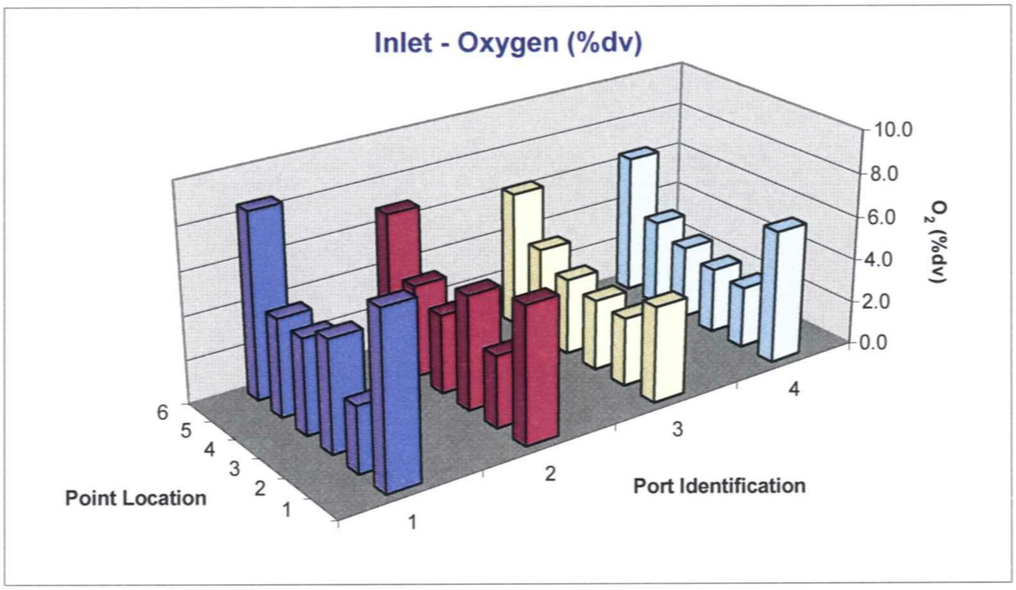
Outlet Point	Time Sampled	NOx ppmdv	NOx Port Avg	PPM Dev from Avg.	O2 %dv	O2 Port Avg	CO2 %dv	CO2 Port Avg	NOx @ 3% O2	PPM Dev from Avg.	Removal Efficiency	Removal Eff W/ O2 correction
1-1	12:48	43.7		-0.6	6.9		12.0		55.9	5.1	36.8	41.3
1-2	12:52	78.6		34.3	5.6		13.3		92.0	41.2	22.4	9.2
1-3	12:56	48.1	54.5	3.8	7.3	6.5	12.0	12.5	63.2	12.4	36.5	26.3
1-4	13:00	54.2		9.9	5.7		13.2		63.8	13.0	23.1	16.5
1-5	13:04	54.3		10.0	5.1		13.8		61.6	10.8	11.9	8.4
1-6	13:08	47.9		3.6	8.1		11.0		67.1	16.3	30.6	32.8
2-1	12:49	28.3		-16.0	5.3		13.6		32.4	-18.4	63.8	66.1
2-2	12:53	54.7		10.4	4.6		14.2		60.0	9.2	27.5	21.6
2-3	12:57	56.5	47.5	12.2	5.5	5.4	13.3	13.4	65.5	14.7	30.7	29.6
2-4	13:01	71.8		27.5	5.7		13.2		84.6	33.8	1.0	-12.7
2-5	13:05	33.1		-11.2	5.0		13.7		37.3	-13.5	40.9	37.9
2-6	13:09	40.4		-3.9	6.7		12.4		50.8	0.0	48.7	49.3
3-1	12:50	18.6		-25.7	4.1		14.6		19.8	-31.0	78.8	79.2
3-2	12:54	67.6		23.3	4.1		14.5		72.2	21.4	10.1	4.6
3-3	12:58	72.3	45.3	28.0	5.2	4.7	13.6	14.1	82.5	31.7	23.6	13.9
3-4	13:02	60.3		16.0	4.8		14.0		67.0	16.2	20.1	13.7
3-5	13:06	30.7		-13.6	4.2		14.5		32.9	-17.9	50.2	50.3
3-6	13:10	22.1		-22.2	5.9		13.1		26.3	-24.5	71.8	72.6
4-1	12:51	6.3		-38.0	3.9		14.8		6.6	-44.2	91.5	92.6
4-2	12:55	47.6		3.3	2.8		15.8		47.2	-3.6	37.3	37.2
4-3	12:59	78.3	29.9	34.0	3.3	3.9	15.4	14.8	79.5	28.7	16.2	14.8
4-4	13:03	39.1		-5.2	4.3		14.4		42.2	-8.6	46.4	43.4
4-5	13:07	3.8		-40.5	3.5		15.2		3.9	-46.9	93.1	93.2
4-6	13:11	4.3		-40.0	5.4		13.5		5.0	-45.8	93.0	93.5
Outlet Averages		44.3			5.1		13.7		50.8		41.9	39.0

Run 3: Inlet – Set 1

Date: 3/28/2007
Start Time: 12:48
End Time: 13:16

Inlet - Oxygen (%dv)

AVG	5.6	4.9	4.1	4.3	
6	8.5	6.8	6.2	6.5	7.0
5	4.5	4.2	4.2	3.9	4.2
4	4.4	3.6	3.5	3.4	3.7
3	5.1	5.2	3.2	3.0	4.1
2	3.0	3.3	3.1	2.8	3.1
1	7.9	6.2	4.4	6.1	6.2
	1	2	3	4	4.7



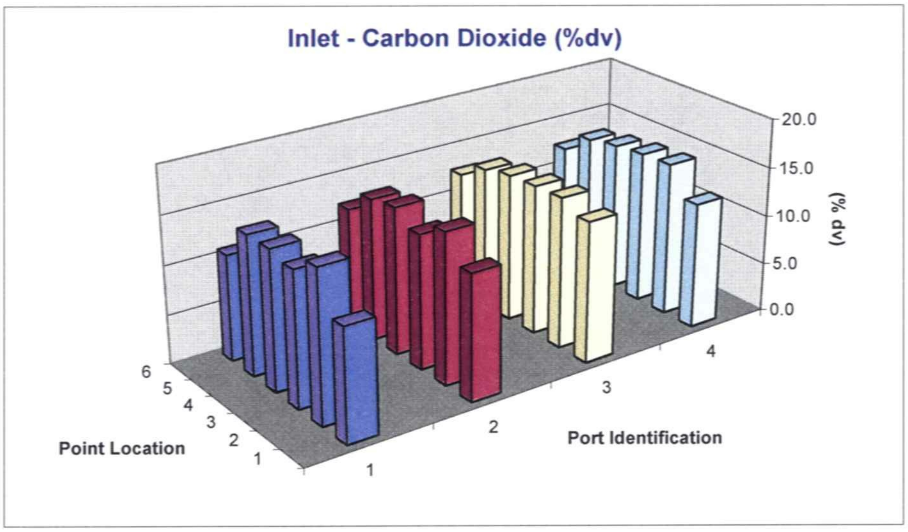
CleanAir ENGINEERING

Run 3: Inlet – Set 1

Date: 3/28/2007
Start Time: 12:48
End Time: 13:16

Inlet - Carbon Dioxide (%dv)

AVG	13.2	13.8	14.5	14.4	
6	10.8	12.1	12.7	12.5	12.0
5	14.2	14.4	14.4	14.7	14.4
4	14.2	14.9	15.0	15.1	14.8
3	13.6	13.6	15.2	15.5	14.5
2	15.3	15.2	15.3	15.6	15.4
1	11.3	12.7	14.3	12.8	12.8
	1	2	3	4	14.0

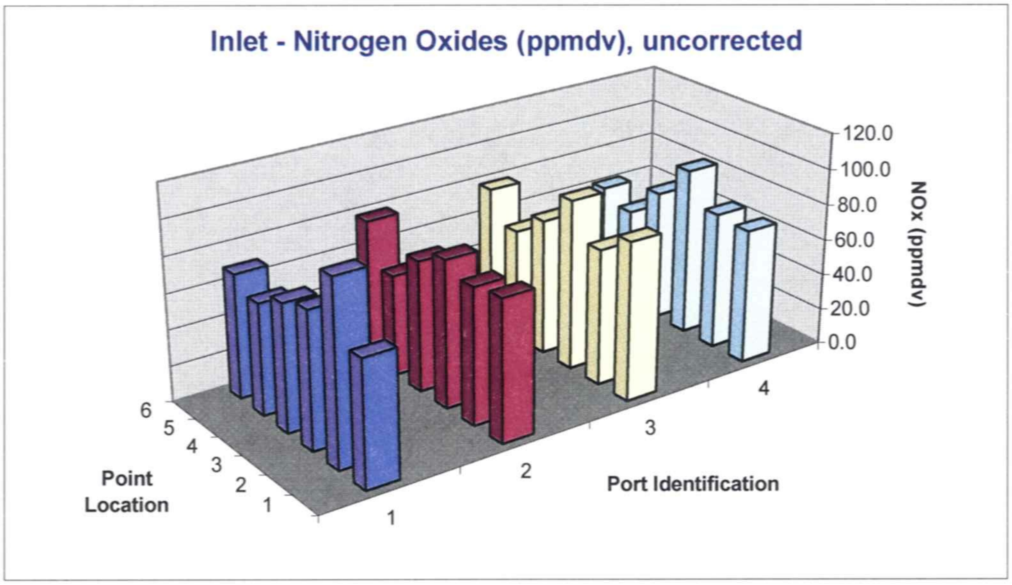


Run 3: Inlet – Set 1

Date: 3/28/2007
Start Time: 12:48
End Time: 13:16

Inlet - Nitrogen Oxides (ppmdv), uncorrected

AVG	74.6	73.7	78.9	72.2	
6	69.0	78.7	78.5	61.6	72.0
5	61.6	56.0	61.7	54.7	58.5
4	70.5	72.5	75.5	73.0	72.9
3	75.7	81.5	94.6	93.4	86.3
2	101.3	75.4	75.2	75.9	82.0
1	69.2	78.1	87.6	74.3	77.3
	1	2	3	4	74.8



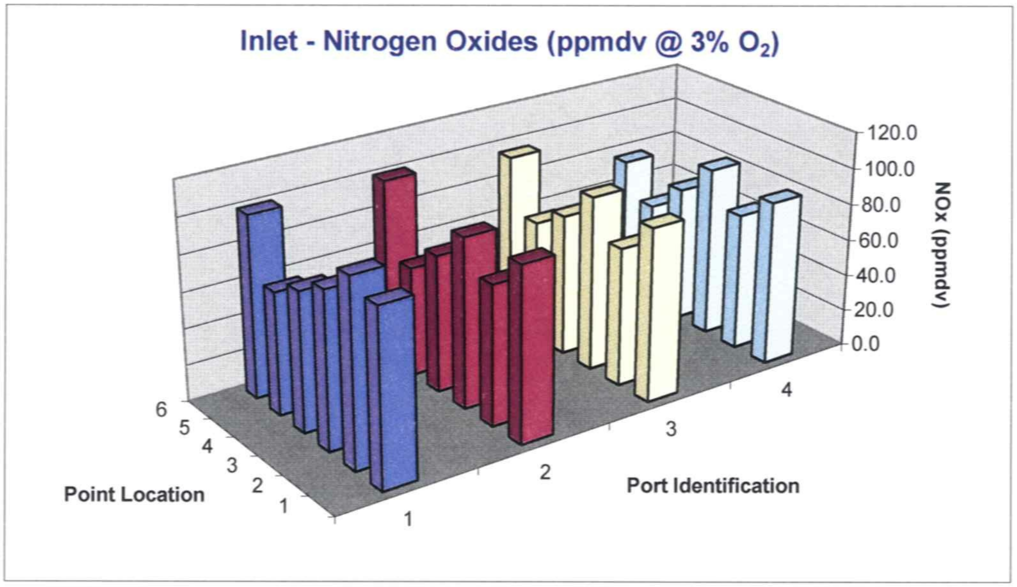
CleanAir ENGINEERING

Run 3: Inlet – Set 1

Date: 3/28/2007
Start Time: 12:48
End Time: 13:16

Inlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	87.6	83.4	84.4	77.8	
6	99.9	100.2	95.8	76.4	93.1
5	67.2	60.1	66.3	57.7	62.8
4	76.4	75.0	77.7	74.5	75.9
3	85.8	93.0	95.8	93.3	92.0
2	101.3	76.6	75.7	75.1	82.2
1	95.2	95.4	94.9	89.9	93.9
	1	2	3	4	83.3

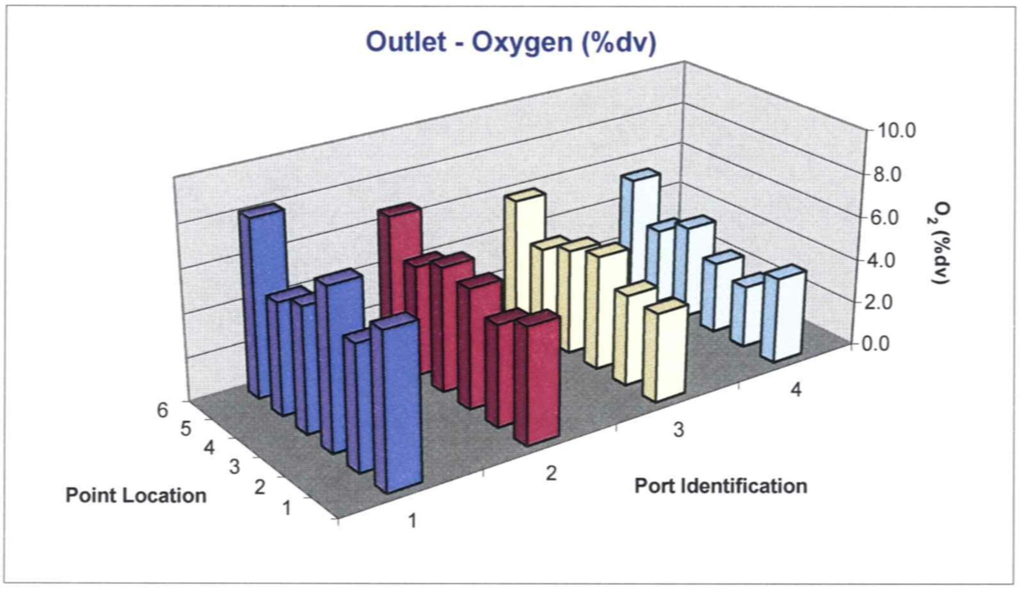


Run 3: Outlet – Set 1

Date: 3/28/2007
Start Time: 12:48
End Time: 13:16

Outlet - Oxygen (%dv)

AVG	6.5	5.4	4.7	3.9	
6	8.1	6.7	5.9	5.4	6.5
5	5.1	5.0	4.2	3.5	4.5
4	5.7	5.7	4.8	4.3	5.1
3	7.3	5.5	5.2	3.3	5.3
2	5.6	4.6	4.1	2.8	4.3
1	6.9	5.3	4.1	3.9	5.0
	1	**2**	**3**	**4**	5.1

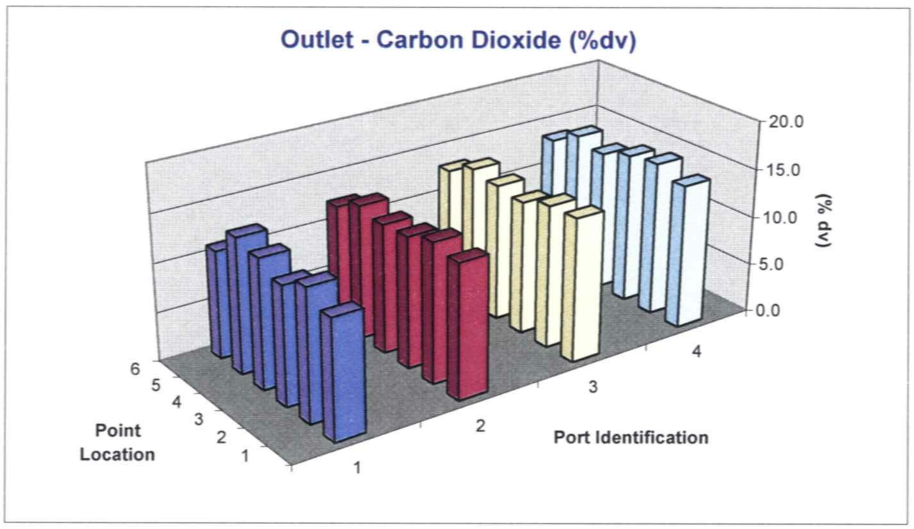


Run 3: Outlet – Set 1

Date: 3/28/2007
Start Time: 12:48
End Time: 13:16

Outlet - Carbon Dioxide (%dv)

AVG	12.5	13.4	14.1	14.8	
6	11.0	12.4	13.1	13.5	12.5
5	13.8	13.7	14.5	15.2	14.3
4	13.2	13.2	14.0	14.4	13.7
3	12.0	13.3	13.6	15.4	13.6
2	13.3	14.2	14.5	15.8	14.4
1	12.0	13.6	14.6	14.8	13.8
	1	2	3	4	13.7



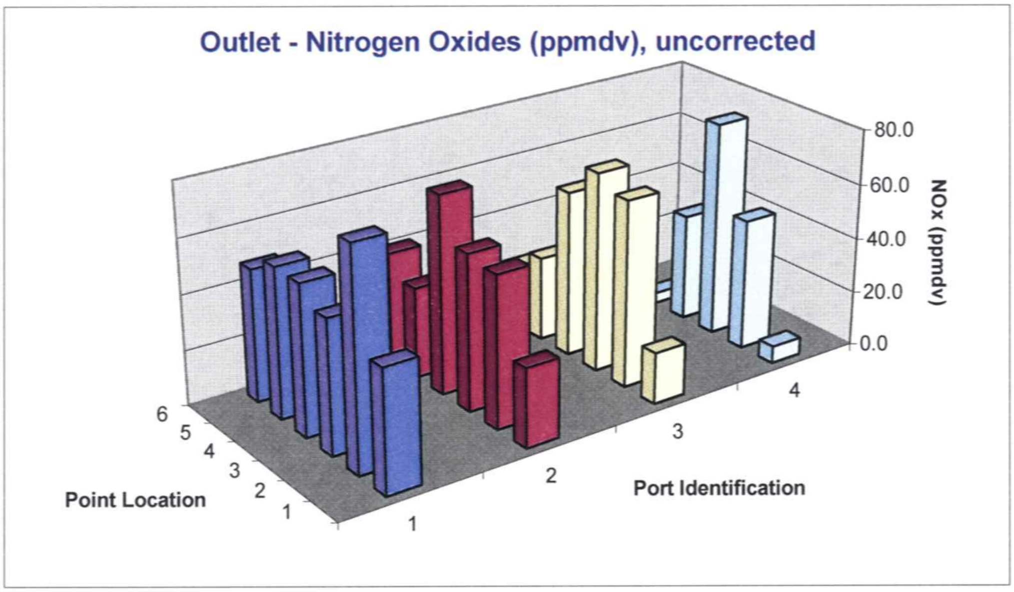
CleanAir ENGINEERING

Run 3: Outlet – Set 1

Date: 3/28/2007
Start Time: 12:48
End Time: 13:16

Outlet - Nitrogen Oxides (ppmdv), uncorrected

AVG	54.5	47.5	45.3	29.9	
6	47.9	40.4	22.1	4.3	28.7
5	54.3	33.1	30.7	3.8	30.5
4	54.2	71.8	60.3	39.1	56.4
3	48.1	56.5	72.3	78.3	63.8
2	78.6	54.7	67.6	47.6	62.1
1	43.7	28.3	18.6	6.3	24.2
	1	2	3	4	44.3

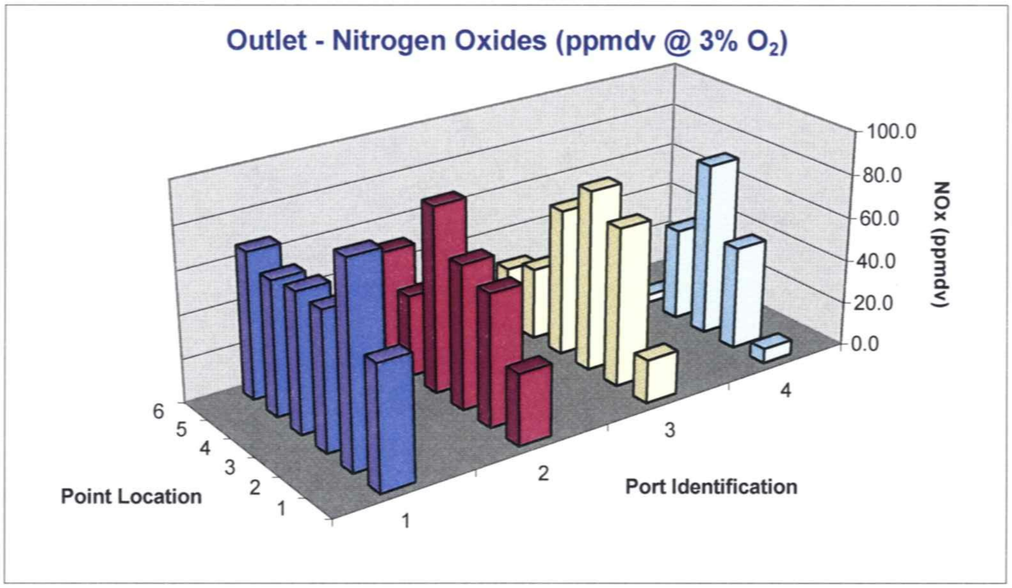


Run 3: Outlet – Set 1

Date: 3/28/2007
Start Time: 12:48
End Time: 13:16

Outlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	67.3	55.1	50.1	30.7	
6	67.1	50.8	26.3	5.0	37.3
5	61.6	37.3	32.9	3.9	33.9
4	63.8	84.6	67.0	42.2	64.4
3	63.2	65.5	82.5	79.5	72.7
2	92.0	60.0	72.2	47.2	67.8
1	55.9	32.4	19.8	6.6	28.7
	1	2	3	4	50.8

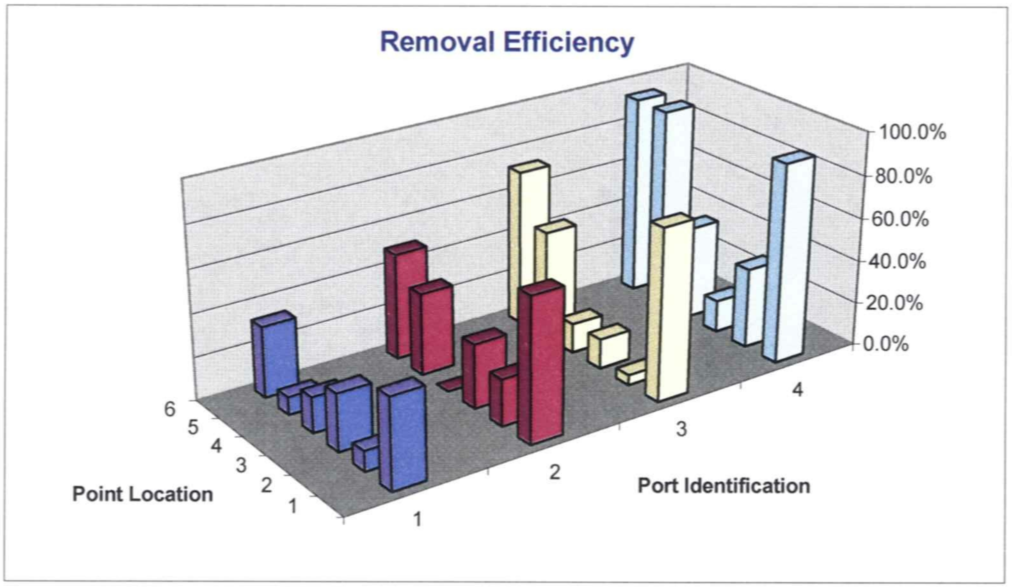


Run 3: Outlet – Set 1

Date: 3/28/2007
Start Time: 12:48
End Time: 13:16

Removal Efficiency (ppmdv @ 3% O_2)

AVG	22.4%	32.0%	39.0%	62.5%	
6	32.8%	49.3%	72.6%	93.5%	62.1%
5	8.4%	37.9%	50.3%	93.2%	47.5%
4	16.5%	-12.7%	13.7%	43.4%	15.2%
3	26.3%	29.6%	13.9%	14.8%	21.1%
2	9.2%	21.6%	4.6%	37.2%	18.2%
1	41.3%	66.1%	79.2%	92.6%	69.8%
	1	2	3	4	39.0%



Clean Air Engineering Project #10192
Consol Energy
AES Dresden

Date:	3/28/2007	Run # (Cycle #)	3 (2)
Start Time:	13:12		
End Time:	13:35		

Inlet Point	Time Sampled	NOx ppmdv	NOx Port Avg	PPM Dev from Avg.	O2 %dv	O2 Port Avg	CO2 %dv	CO2 Port Avg	NOx @ 3% O2	PPM Dev from Avg.
1-1	13:12	75.3		-1.3	7.8		11.4		102.7	17.3
1-2	13:16	99.3		22.7	3.3		15.2		100.8	15.3
1-3	13:20	88.2	79.4	11.6	5.0	5.5	13.8	13.3	99.0	13.6
1-4	13:24	79.9		3.3	4.2		14.4		85.7	0.3
1-5	13:28	62.9		-13.7	4.5		14.2		68.5	-16.9
1-6	13:32	70.6		-6.0	8.5		10.8		101.7	16.2
2-1	13:13	79.2		2.6	6.2		12.7		96.6	11.2
2-2	13:17	77.4		0.8	3.5		15.1		79.4	-6.0
2-3	13:21	86.4	74.3	9.8	5.2	4.9	13.6	13.8	98.6	13.2
2-4	13:25	70.1		-6.5	3.7		14.8		72.8	-12.6
2-5	13:29	54.0		-22.6	4.2		14.5		57.7	-27.7
2-6	13:33	78.7		2.1	6.9		12.1		100.8	15.3
3-1	13:14	86.5		9.9	4.2		14.5		92.4	7.0
3-2	13:18	76.3		-0.3	3.3		15.1		77.8	-7.7
3-3	13:22	98.5	79.7	21.9	3.3	4.2	15.2	14.4	100.0	14.6
3-4	13:26	76.7		0.1	3.5		15.0		79.0	-6.4
3-5	13:30	62.9		-13.7	4.3		14.3		68.0	-17.4
3-6	13:34	77.3		0.7	6.3		12.6		94.6	9.2
4-1	13:15	75.4		-1.2	6.1		12.8		91.4	5.9
4-2	13:19	77.1		0.5	2.9		15.6		76.7	-8.8
4-3	13:23	93.9	73.1	17.3	3.1	4.3	15.4	14.3	94.2	8.7
4-4	13:27	74.3		-2.3	3.4		15.1		76.1	-9.3
4-5	13:31	57.0		-19.6	4.2		14.5		60.9	-24.5
4-6	13:35	61.1		-15.5	6.3		12.7		74.7	-10.7
Inlet Averages		76.6			4.7		14.0		85.4	

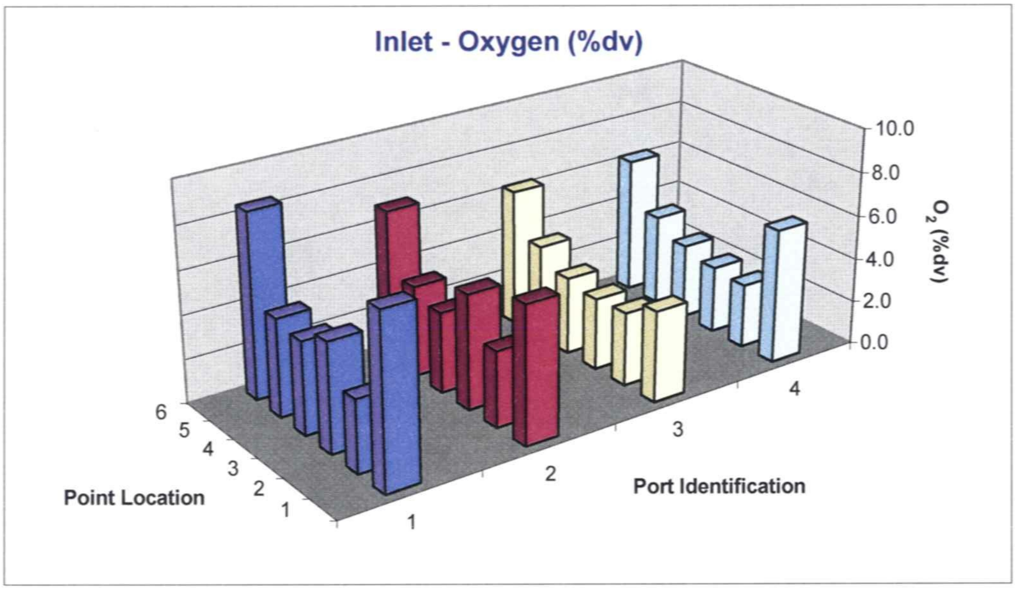
Outlet Point	Time Sampled	NOx ppmdv	NOx Port Avg	PPM Dev from Avg.	O2 %dv	O2 Port Avg	CO2 %dv	CO2 Port Avg	NOx @ 3% O2	PPM Dev from Avg.	Removal Efficiency	Removal Eff W/ O2 correction
1-1	13:12	70.9		24.7	5.0		13.8		80.0	27.8	5.8	22.2
1-2	13:16	82.0		35.8	5.8		13.2		97.2	45.0	17.4	3.5
1-3	13:20	56.4	63.0	10.2	5.2	5.8	13.6	13.1	64.5	12.3	36.1	34.9
1-4	13:24	68.3		22.1	4.5		14.3		74.5	22.3	14.5	13.2
1-5	13:28	48.8		2.6	6.3		12.7		59.7	7.5	22.4	12.9
1-6	13:32	51.7		5.5	7.8		11.3		70.9	18.7	26.8	30.3
2-1	13:13	30.1		-16.1	5.5		13.3		35.0	-17.2	62.0	63.8
2-2	13:17	51.2		5.0	4.9		13.9		57.1	4.9	33.9	28.1
2-3	13:21	64.7	48.1	18.5	4.8	5.4	14.0	13.4	71.7	19.5	25.1	27.3
2-4	13:25	63.8		17.6	5.5		13.4		74.2	22.0	9.0	-1.9
2-5	13:29	37.8		-8.4	5.2		13.6		43.1	-9.1	30.0	25.3
2-6	13:33	40.7		-5.5	6.7		12.3		51.4	-0.8	48.3	49.0
3-1	13:14	17.9		-28.3	4.5		14.2		19.5	-32.7	79.3	78.9
3-2	13:18	41.8		-4.4	4.1		14.5		44.6	-7.6	45.2	42.7
3-3	13:22	65.1	45.1	18.9	4.4	4.6	14.4	14.1	70.4	18.2	33.9	29.6
3-4	13:26	69.5		23.3	4.4		14.2		75.4	23.2	9.4	4.6
3-5	13:30	55.4		9.2	4.9		13.9		61.9	9.7	11.9	9.0
3-6	13:34	20.8		-25.4	5.3		13.5		23.9	-28.3	73.1	74.7
4-1	13:15	6.1		-40.1	3.9		14.8		6.4	-45.8	91.9	93.0
4-2	13:19	45.5		-0.7	2.8		15.9		44.9	-7.3	41.0	41.4
4-3	13:23	75.7	28.7	29.5	3.3	3.9	15.4	14.8	77.1	24.9	19.4	18.1
4-4	13:27	37.3		-8.9	4.4		14.4		40.4	-11.8	49.8	46.9
4-5	13:31	3.6		-42.6	3.8		14.9		3.8	-48.4	93.7	93.8
4-6	13:35	4.2		-42.0	5.3		13.6		4.8	-47.4	93.1	93.6
Outlet Averages		46.2			4.9		13.9		52.2		40.5	39.0

Run 3: Inlet – Set 2

Date: 3/28/2007
Start Time: 13:12
End Time: 13:35

Inlet - Oxygen (%dv)

AVG	5.5	4.9	4.2	4.3	
6	8.5	6.9	6.3	6.3	7.0
5	4.5	4.2	4.3	4.2	4.3
4	4.2	3.7	3.5	3.4	3.7
3	5.0	5.2	3.3	3.1	4.1
2	3.3	3.5	3.3	2.9	3.2
1	7.8	6.2	4.2	6.1	6.1
	1	2	3	4	4.7

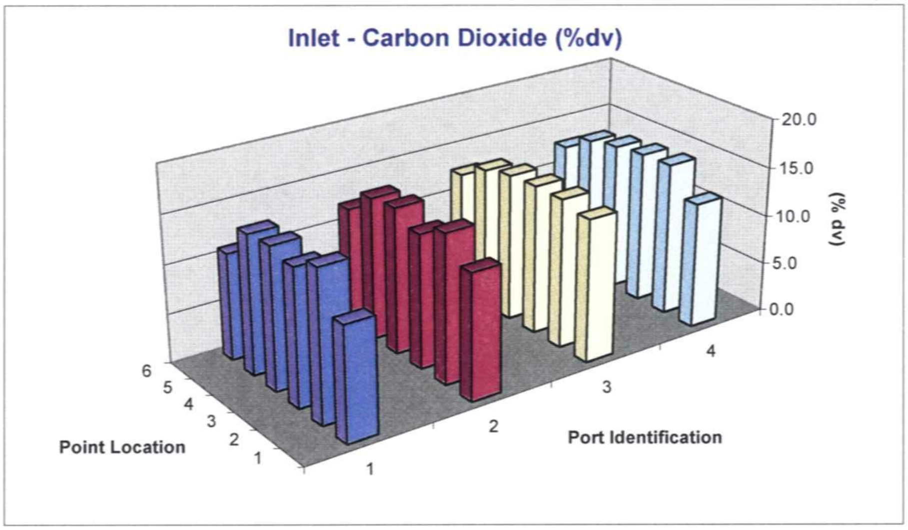


Run 3: Inlet – Set 2

Date: 3/28/2007
Start Time: 13:12
End Time: 13:35

Inlet - Carbon Dioxide (%dv)

AVG	13.3	13.8	14.4	14.3	
6	10.8	12.1	12.6	12.7	12.0
5	14.2	14.5	14.3	14.5	14.4
4	14.4	14.8	15.0	15.1	14.8
3	13.8	13.6	15.2	15.4	14.5
2	15.2	15.1	15.1	15.6	15.2
1	11.4	12.7	14.5	12.8	12.8
	1	**2**	**3**	**4**	14.0



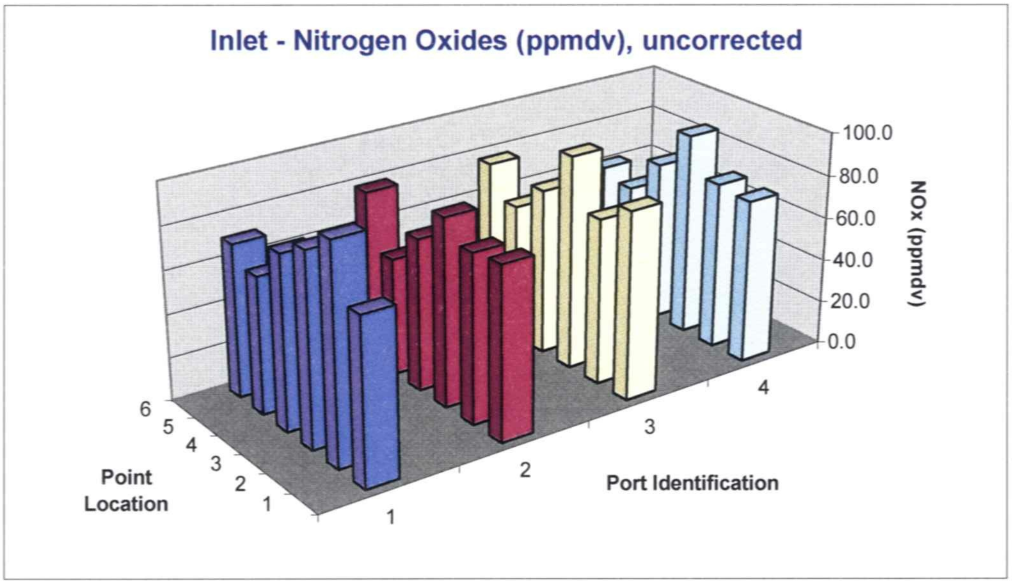
CleanAir ENGINEERING

Run 3: Inlet – Set 2

Date: 3/28/2007
Start Time: 13:12
End Time: 13:35

Inlet - Nitrogen Oxides (ppmdv), uncorrected

AVG	79.4	74.3	79.7	73.1	
6	70.6	78.7	77.3	61.1	71.9
5	62.9	54.0	62.9	57.0	59.2
4	79.9	70.1	76.7	74.3	75.3
3	88.2	86.4	98.5	93.9	91.8
2	99.3	77.4	76.3	77.1	82.5
1	75.3	79.2	86.5	75.4	79.1
	1	2	3	4	76.6

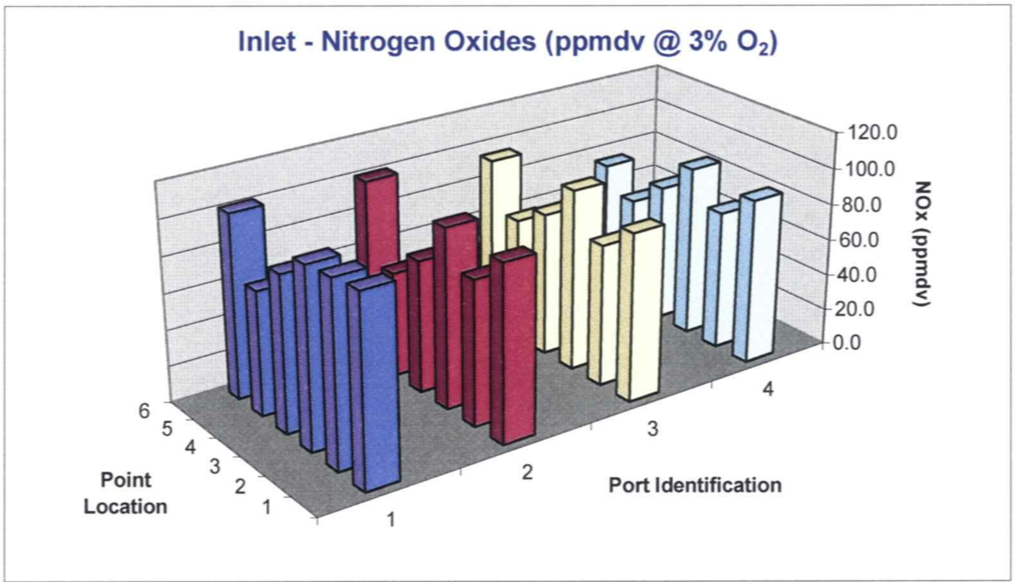


Run 3: Inlet – Set 2

Date: 3/28/2007
Start Time: 13:12
End Time: 13:35

Inlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	93.1	84.3	85.3	79.0	
6	101.7	100.8	94.6	74.7	92.9
5	68.5	57.7	68.0	60.9	63.8
4	85.7	72.8	79.0	76.1	78.4
3	99.0	98.6	100.0	94.2	98.0
2	100.8	79.4	77.8	76.7	83.7
1	102.7	96.6	92.4	91.4	95.8
	1	2	3	4	85.4

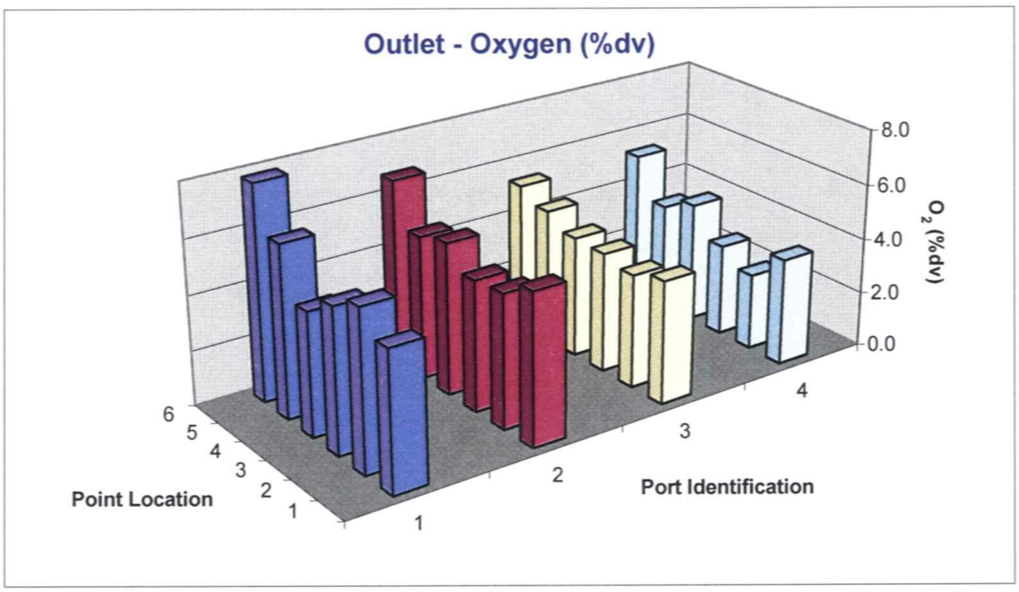


Run 3: Outlet – Set 2

Date: 3/28/2007
Start Time: 13:12
End Time: 13:35

Outlet - Oxygen (%dv)

AVG	5.8	5.4	4.6	3.9	
6	7.8	6.7	5.3	5.3	6.3
5	6.3	5.2	4.9	3.8	5.0
4	4.5	5.5	4.4	4.4	4.7
3	5.2	4.8	4.4	3.3	4.4
2	5.8	4.9	4.1	2.8	4.4
1	5.0	5.5	4.5	3.9	4.7
	1	2	3	4	4.9



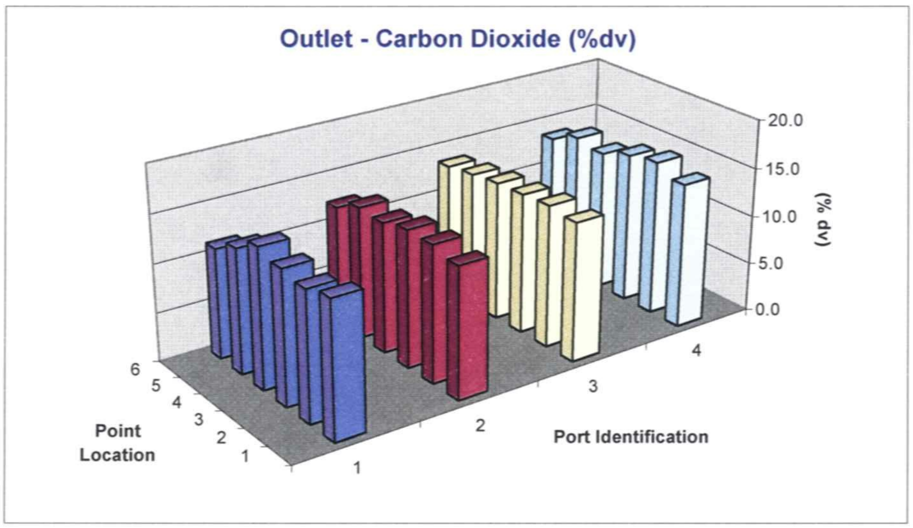
CleanAir ENGINEERING

Run 3: Outlet – Set 2

Date: 3/28/2007
Start Time: 13:12
End Time: 13:35

Outlet - Carbon Dioxide (%dv)

AVG	13.1	13.4	14.1	14.8	
6	11.3	12.3	13.5	13.6	12.7
5	12.7	13.6	13.9	14.9	13.8
4	14.3	13.4	14.2	14.4	14.1
3	13.6	14.0	14.4	15.4	14.3
2	13.2	13.9	14.5	15.9	14.4
1	13.8	13.3	14.2	14.8	14.0
	1	2	3	4	13.9

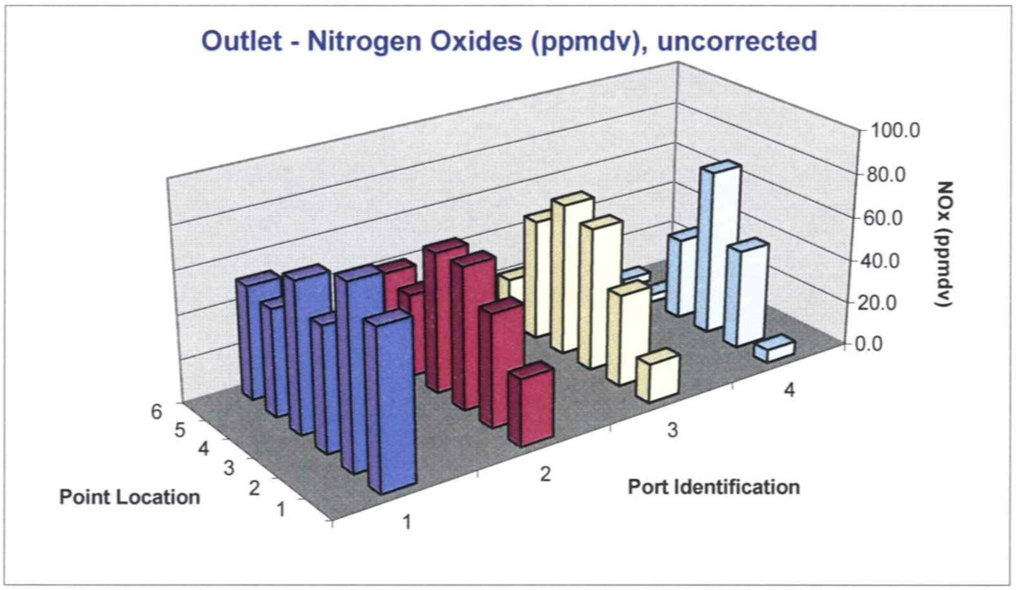


Run 3: Outlet – Set 2

Date: 3/28/2007
Start Time: 13:12
End Time: 13:35

Outlet - Nitrogen Oxides (ppmdv), uncorrected

AVG	63.0	48.1	45.1	28.7	
6	51.7	40.7	20.8	4.2	**29.4**
5	48.8	37.8	55.4	3.6	**36.4**
4	68.3	63.8	69.5	37.3	**59.7**
3	56.4	64.7	65.1	75.7	**65.5**
2	82.0	51.2	41.8	45.5	**55.1**
1	70.9	30.1	17.9	6.1	**31.3**
	1	**2**	**3**	**4**	**46.2**

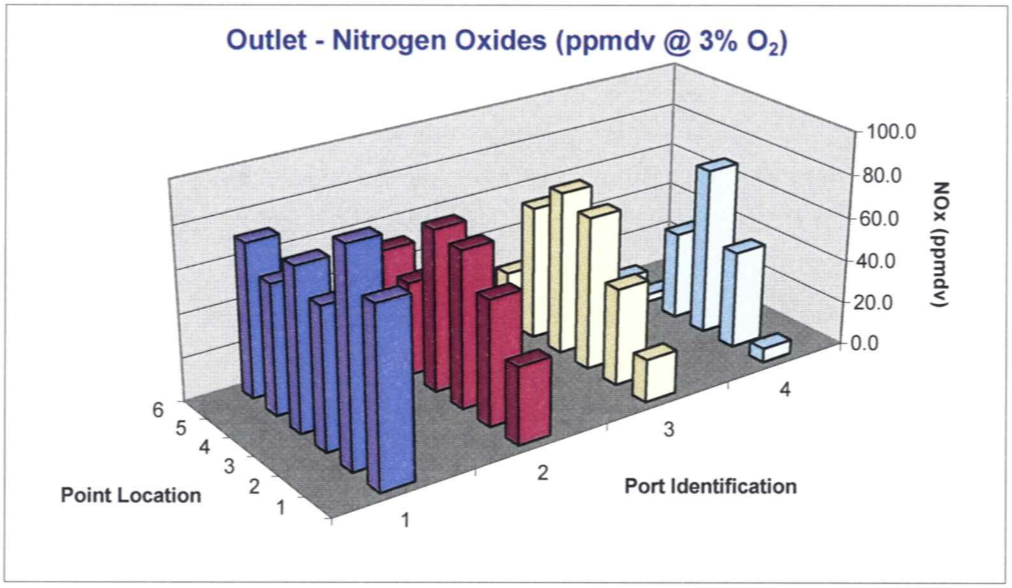


Run 3: Outlet – Set 2

Date: 3/28/2007
Start Time: 13:12
End Time: 13:35

Outlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	74.4	55.4	49.3	29.6	
6	70.9	51.4	23.9	4.8	37.8
5	59.7	43.1	61.9	3.8	42.1
4	74.5	74.2	75.4	40.4	66.1
3	64.5	71.7	70.4	77.1	70.9
2	97.2	57.1	44.6	44.9	60.9
1	80.0	35.0	19.5	6.4	35.2
	1	2	3	4	52.2

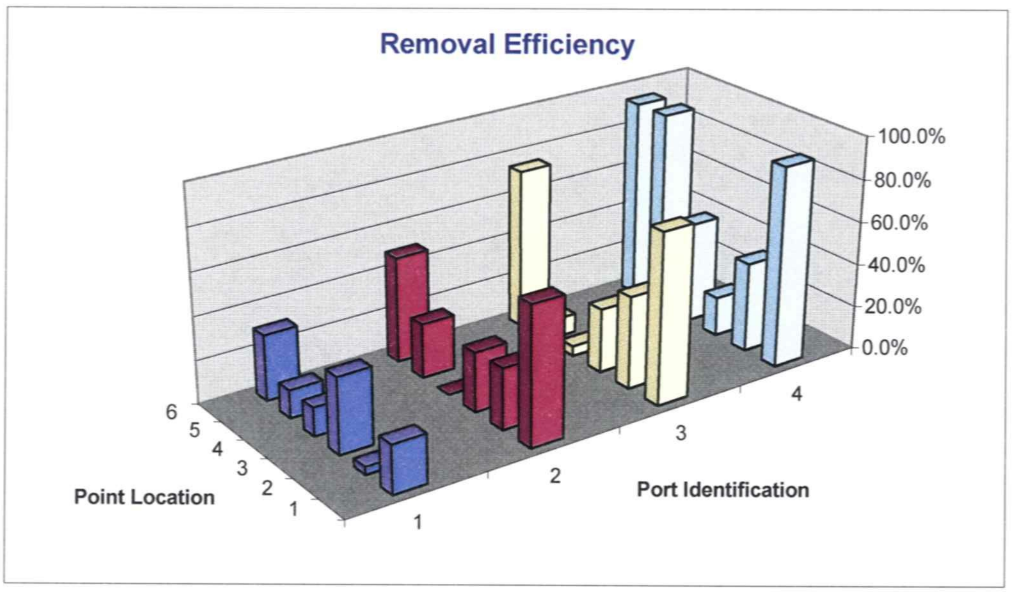


Run 3: Outlet – Set 2

Date: 3/28/2007
Start Time: 13:12
End Time: 13:35

Removal Efficiency (ppmdv @ 3% O_2)

AVG	19.5%	31.9%	39.9%	64.5%	
6	30.3%	49.0%	74.7%	93.6%	61.9%
5	12.9%	25.3%	9.0%	93.8%	35.2%
4	13.2%	-1.9%	4.6%	46.9%	15.7%
3	34.9%	27.3%	29.6%	18.1%	27.5%
2	3.5%	28.1%	42.7%	41.4%	28.9%
1	22.2%	63.8%	78.9%	93.0%	64.5%
	1	2	3	4	39.0%



Clean Air Engineering Project #10192
Consol Energy
AES Dresden

Date:	3/28/2007	Run # (Cycle #)	3 (3)
Start Time:	13:36		
End Time:	13:59		

Inlet Point	Time Sampled	NOx ppmdv	NOx Port Avg	PPM Dev from Avg.	O2 %dv	O2 Port Avg	CO2 %dv	CO2 Port Avg	NOx @ 3% O2	PPM Dev from Avg.
1-1	13:36	75.5		-0.8	7.7		11.5		102.3	17.4
1-2	13:40	101.1		24.8	3.3		15.2		102.6	17.7
1-3	13:44	86.5	78.8	10.2	5.0	5.6	13.8	13.3	97.4	12.4
1-4	13:48	76.3		0.0	4.3		14.3		82.5	-2.5
1-5	13:52	64.9		-11.4	4.5		14.2		70.7	-14.2
1-6	13:56	68.2		-8.1	8.7		10.6		100.0	15.0
2-1	13:37	80.5		4.2	6.1		12.8		97.4	12.4
2-2	13:41	76.7		0.4	3.3		15.2		77.9	-7.1
2-3	13:45	84.4	73.8	8.1	5.3	4.9	13.5	13.8	96.8	11.8
2-4	13:49	71.9		-4.4	3.6		14.9		74.4	-10.6
2-5	13:53	56.8		-19.5	4.2		14.5		60.7	-24.2
2-6	13:57	72.3		-4.0	6.9		12.1		92.5	7.6
3-1	13:38	87.7		11.4	4.2		14.4		94.1	9.2
3-2	13:42	74.9		-1.4	3.2		15.3		75.7	-9.3
3-3	13:46	97.1	79.6	20.8	3.3	4.1	15.1	14.5	98.9	14.0
3-4	13:50	76.9		0.6	3.6		15.0		79.3	-5.6
3-5	13:54	61.1		-15.2	4.2		14.4		65.5	-19.4
3-6	13:58	79.9		3.6	6.2		12.7		97.6	12.6
4-1	13:39	76.8		0.5	6.0		12.9		92.0	7.1
4-2	13:43	78.5		2.2	2.8		15.6		77.7	-7.2
4-3	13:47	94.9	73.1	18.6	3.2	4.3	15.3	14.4	95.8	10.9
4-4	13:51	74.2		-2.1	3.3		15.2		75.6	-9.4
4-5	13:55	54.3		-22.0	4.1		14.5		57.8	-27.1
4-6	13:59	59.9		-16.4	6.3		12.7		73.3	-11.6
Inlet Averages		76.3			4.7		14.0		84.9	

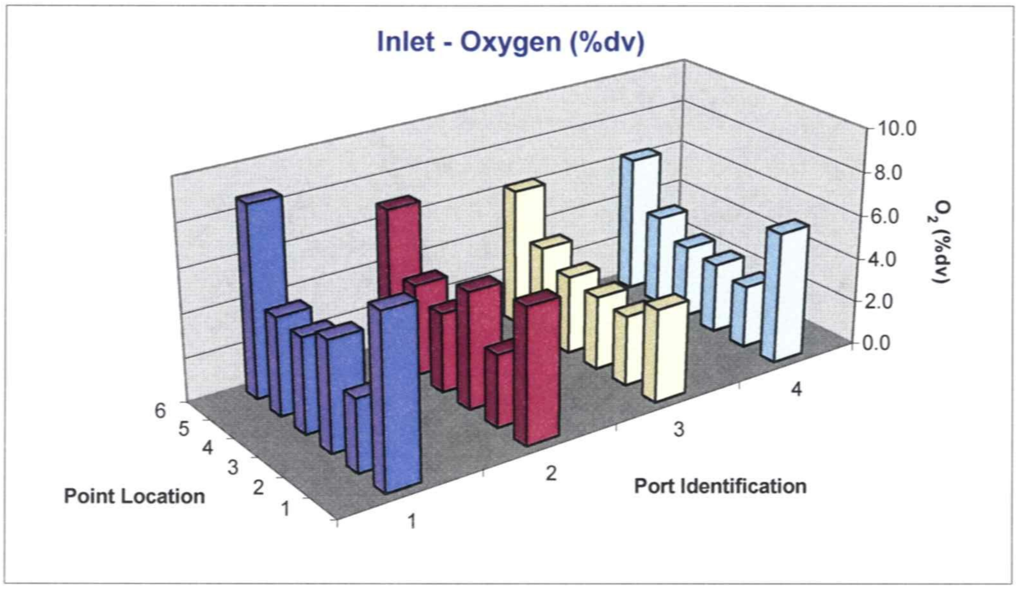
Outlet Point	Time Sampled	NOx ppmdv	NOx Port Avg	PPM Dev from Avg.	O2 %dv	O2 Port Avg	CO2 %dv	CO2 Port Avg	NOx @ 3% O2	PPM Dev from Avg.	Removal Efficiency	Removal Eff W/ O2 correction
1-1	13:36	69.4		26.8	5.0		13.9		78.0	30.8	8.1	23.8
1-2	13:40	42.1		-0.5	4.9		14.0		47.1	-0.1	58.4	54.1
1-3	13:44	52.5	54.9	9.9	3.7	5.3	15.0	13.6	54.8	7.6	39.3	43.8
1-4	13:48	66.3		23.7	4.6		14.2		72.8	25.6	13.1	11.8
1-5	13:52	49.3		6.7	6.1		12.9		59.7	12.5	24.0	15.6
1-6	13:56	49.9		7.3	7.6		11.4		67.4	20.2	26.8	32.6
2-1	13:37	26.3		-16.3	5.2		13.6		30.0	-17.1	67.3	69.1
2-2	13:41	36.2		-6.4	3.5		15.1		37.3	-9.9	52.8	52.1
2-3	13:45	69.3	42.9	26.7	4.7	5.1	14.1	13.8	76.7	29.5	17.9	20.7
2-4	13:49	69.7		27.1	5.8		13.2		82.4	35.2	3.1	-10.8
2-5	13:53	21.5		-21.1	4.8		14.0		23.8	-23.3	62.1	60.7
2-6	13:57	34.5		-8.1	6.3		12.7		42.3	-4.9	52.3	54.3
3-1	13:38	16.4		-26.2	4.1		14.6		17.4	-29.8	81.3	81.5
3-2	13:42	53.2		10.6	3.5		15.3		54.6	7.4	29.0	27.9
3-3	13:46	79.8	43.1	37.2	4.3	4.3	14.5	14.4	85.8	38.7	17.8	13.2
3-4	13:50	58.3		15.7	4.8		14.0		64.9	17.7	24.2	18.2
3-5	13:54	30.1		-12.5	4.2		14.5		32.2	-15.0	50.7	50.9
3-6	13:58	20.7		-21.9	5.2		13.7		23.5	-23.7	74.1	75.9
4-1	13:39	6.0		-36.6	3.8		14.9		6.3	-40.9	92.2	93.2
4-2	13:43	45.6		3.0	2.8		15.9		45.0	-2.1	41.9	42.0
4-3	13:47	77.0	29.4	34.4	3.5	3.9	15.2	14.8	79.0	31.8	18.9	17.5
4-4	13:51	40.4		-2.2	4.3		14.5		43.5	-3.7	45.6	42.5
4-5	13:55	3.4		-39.2	3.7		15.0		3.5	-43.7	93.7	93.9
4-6	13:59	3.9		-38.7	5.3		13.6		4.5	-42.7	93.5	93.9
Outlet Averages		42.6			4.6		14.1		47.2		45.3	44.9

Run 3: Inlet – Set 3

Date: 3/28/2007
Start Time: 13:36
End Time: 13:59

Inlet - Oxygen (%dv)

AVG	5.6	4.9	4.1	4.3	
6	8.7	6.9	6.2	6.3	7.0
5	4.5	4.2	4.2	4.1	4.2
4	4.3	3.6	3.6	3.3	3.7
3	5.0	5.3	3.3	3.2	4.2
2	3.3	3.3	3.2	2.8	3.1
1	7.7	6.1	4.2	6.0	6.0
	1	2	3	4	4.7

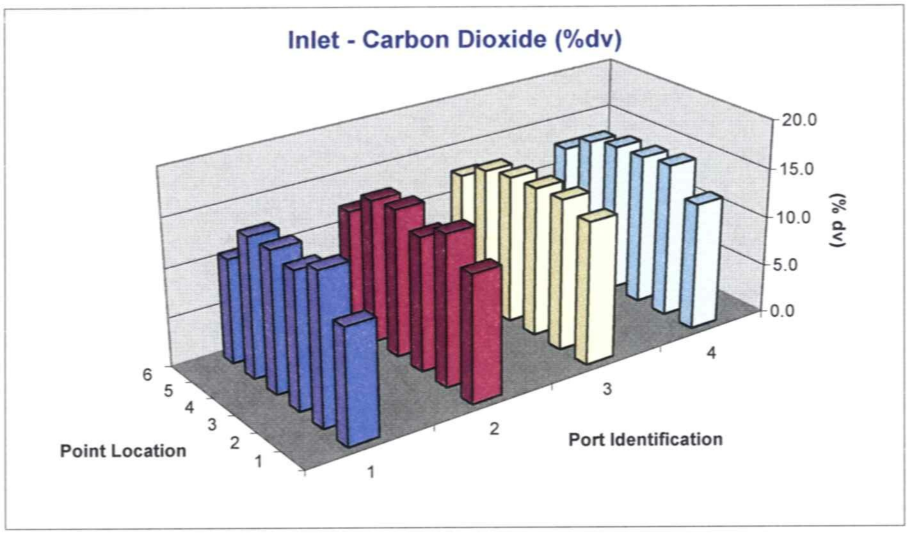


Run 3: Inlet – Set 3

Date: 3/28/2007
Start Time: 13:36
End Time: 13:59

Inlet - Carbon Dioxide (%dv)

AVG	13.3	13.8	14.5	14.4	
6	10.6	12.1	12.7	12.7	12.0
5	14.2	14.5	14.4	14.5	14.4
4	14.3	14.9	15.0	15.2	14.8
3	13.8	13.5	15.1	15.3	14.4
2	15.2	15.2	15.3	15.6	15.3
1	11.5	12.8	14.4	12.9	12.9
	1	2	3	4	14.0

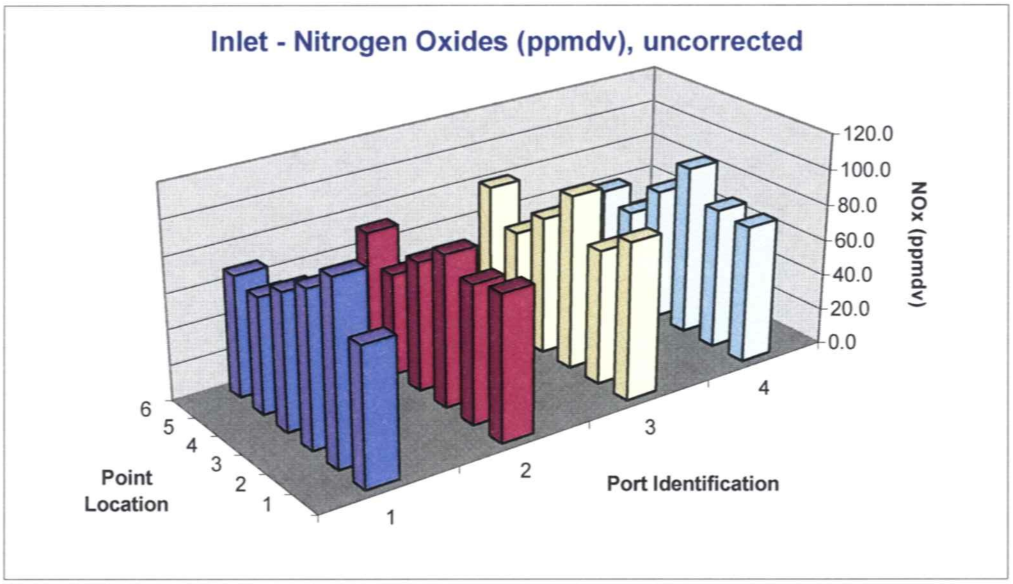


Run 3: Inlet – Set 3

Date: 3/28/2007
Start Time: 13:36
End Time: 13:59

Inlet - Nitrogen Oxides (ppmdv), uncorrected

AVG	78.8	73.8	79.6	73.1	
6	68.2	72.3	79.9	59.9	70.1
5	64.9	56.8	61.1	54.3	59.3
4	76.3	71.9	76.9	74.2	74.8
3	86.5	84.4	97.1	94.9	90.7
2	101.1	76.7	74.9	78.5	82.8
1	75.5	80.5	87.7	76.8	80.1
	1	2	3	4	76.3

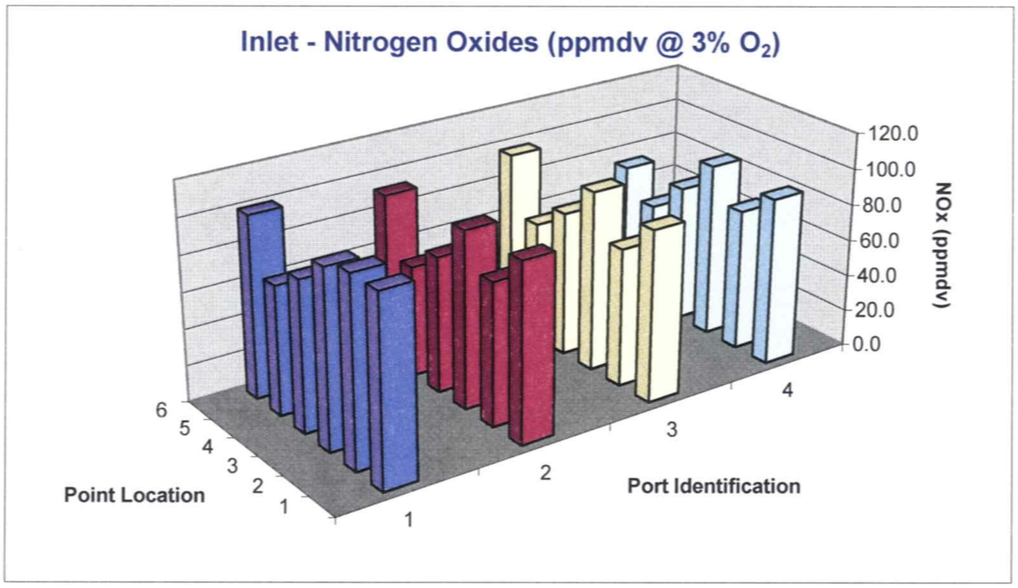


Run 3: Inlet – Set 3

Date: 3/28/2007
Start Time: 13:36
End Time: 13:59

Inlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	92.6	83.3	85.2	78.7	
6	100.0	92.5	97.6	73.3	90.8
5	70.7	60.7	65.5	57.8	63.7
4	82.5	74.4	79.3	75.6	77.9
3	97.4	96.8	98.9	95.8	97.2
2	102.6	77.9	75.7	77.7	83.5
1	102.3	97.4	94.1	92.0	96.4
	1	2	3	4	84.9

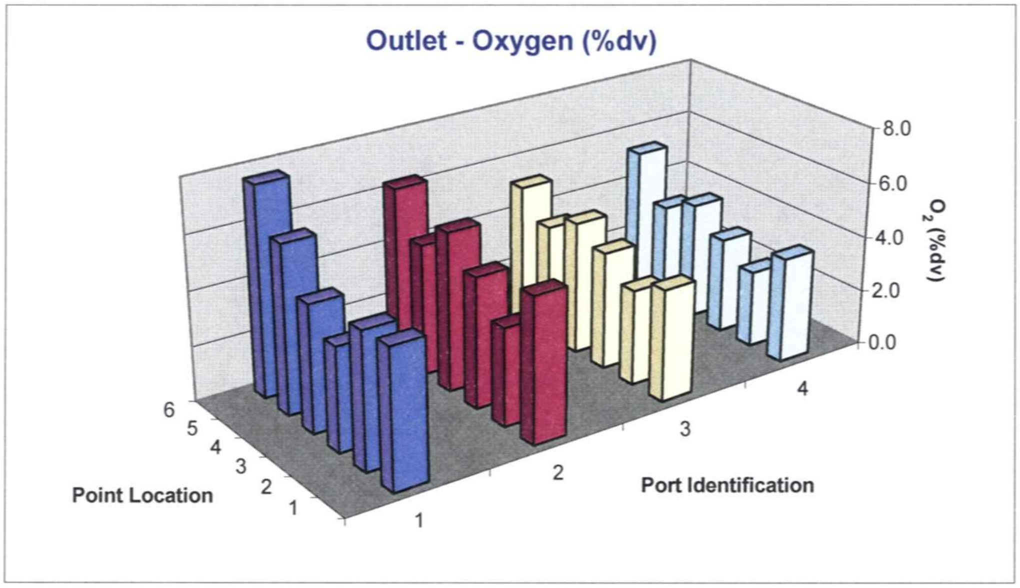


Run 3: Outlet – Set 3

Date: 3/28/2007
Start Time: 13:36
End Time: 13:59

Outlet - Oxygen (%dv)

AVG	5.3	5.1	4.3	3.9	
6	7.6	6.3	5.2	5.3	6.1
5	6.1	4.8	4.2	3.7	4.7
4	4.6	5.8	4.8	4.3	4.9
3	3.7	4.7	4.3	3.5	4.0
2	4.9	3.5	3.5	2.8	3.7
1	5.0	5.2	4.1	3.8	4.5
	1	2	3	4	4.6



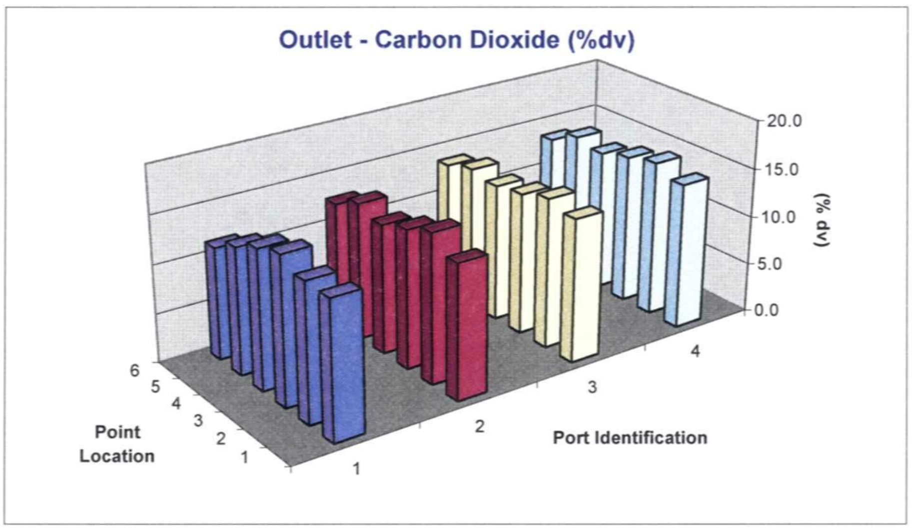
CleanAir ENGINEERING

Run 3: Outlet – Set 3

Date: 3/28/2007
Start Time: 13:36
End Time: 13:59

Outlet - Carbon Dioxide (%dv)

AVG	13.6	13.8	14.4	14.8	
6	11.4	12.7	13.7	13.6	12.8
5	12.9	14.0	14.5	15.0	14.1
4	14.2	13.2	14.0	14.5	14.0
3	15.0	14.1	14.5	15.2	14.7
2	14.0	15.1	15.3	15.9	15.1
1	13.9	13.6	14.6	14.9	14.2
	1	2	3	4	14.1



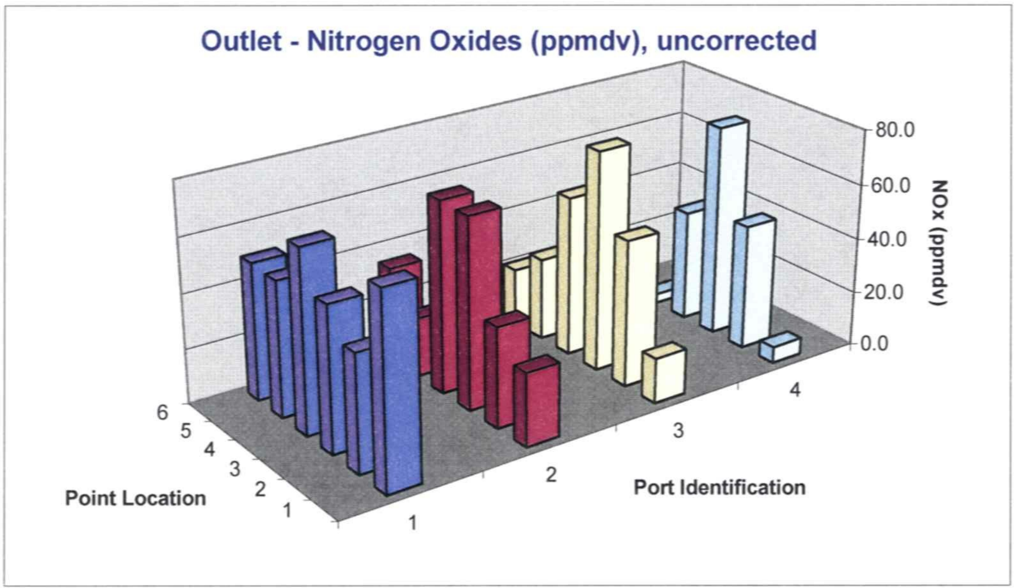
CleanAir
ENGINEERING

Run 3: Outlet – Set 3

Date: 3/28/2007
Start Time: 13:36
End Time: 13:59

Outlet - Nitrogen Oxides (ppmdv), uncorrected

AVG	54.9	42.9	43.1	29.4	
6	49.9	34.5	20.7	3.9	27.3
5	49.3	21.5	30.1	3.4	26.1
4	66.3	69.7	58.3	40.4	58.7
3	52.5	69.3	79.8	77.0	69.7
2	42.1	36.2	53.2	45.6	44.3
1	69.4	26.3	16.4	6.0	29.5
	1	2	3	4	42.6



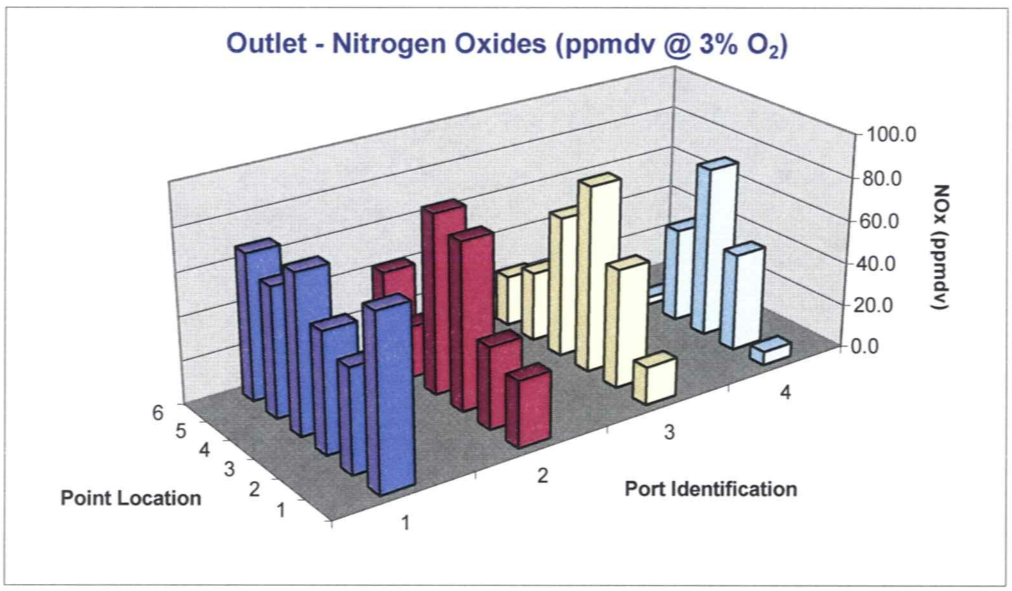
CleanAir ENGINEERING

Run 3: Outlet – Set 3

Date: 3/28/2007
Start Time: 13:36
End Time: 13:59

Outlet - Nitrogen Oxides (ppmdv @ 3% O_2)

AVG	63.3	48.8	46.4	30.3	
6	67.4	42.3	23.5	4.5	34.4
5	59.7	23.8	32.2	3.5	29.8
4	72.8	82.4	64.9	43.5	65.9
3	54.8	76.7	85.8	79.0	74.1
2	47.1	37.3	54.6	45.0	46.0
1	78.0	30.0	17.4	6.3	32.9
	1	2	3	4	47.2



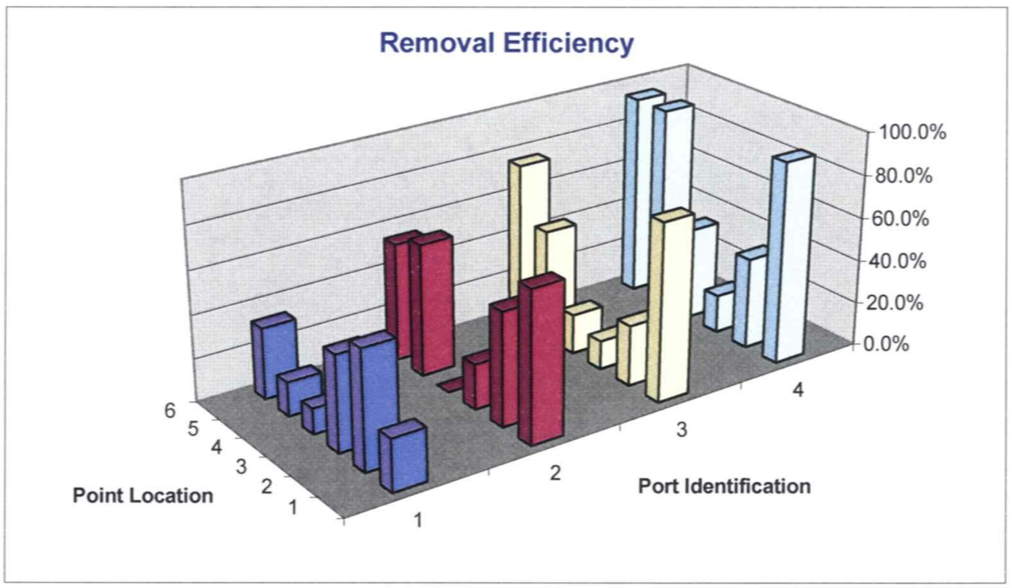
CleanAir ENGINEERING

Run 3: Outlet – Set 3

Date: 3/28/2007
Start Time: 13:36
End Time: 13:59

Removal Efficiency (ppmdv @ 3% O_2)

AVG	30.3%	41.0%	44.6%	63.8%	
6	32.6%	54.3%	75.9%	93.9%	64.2%
5	15.6%	60.7%	50.9%	93.9%	55.3%
4	11.8%	-10.8%	18.2%	42.5%	15.4%
3	43.8%	20.7%	13.2%	17.5%	23.8%
2	54.1%	52.1%	27.9%	42.0%	44.0%
1	23.8%	69.1%	81.5%	93.2%	66.9%
	1	2	3	4	44.9%



APPENDIX B
CTL Group Report (Process Sample Analyses)

CONSOL Energy Inc.

Project No.: 403423

Performance Testing of Air Pollution Control System of Coal-Fired Power Plant

Date:
May 15 , 2007

Submitted by:
Ella Shkolnik

CTLGroup
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Skokie, Illinois 60077-1030
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Client:	**CONSOL Energy, Inc.**	CTL Project No:	**403423**
Project:	**Chemical Analysis**	CTL Project Mgr.:	**Ella Shkolnik**
		Analyst:	**Cecylia Wedzicha**
Contact:	**Daniel Connell**	Approved:	
Submitter:	**Daniel Connell**	Date Analyzed:	**May 1, 2007**
Date Received:	**April 23, 2007**	Date Reported:	**May 1, 2007**

REPORT of AVAILABLE LIME ANALYSIS

Sample Identification			Determined Results (wt. %)	
CTL ID	Client ID	Description	as CaO	as $Ca(OH)_2$
1839004	PEB032807	Pebble lime	89.38	118.07
1839005	PEB032907	Pebble lime	88.07	116.34
1839006	PEB033007	Pebble lime	92.57	122.29

Notes:
1. This analysis represents specifically the samples submitted as received.
2. The results were determined in accordance with ASTM C 25, Section 28.
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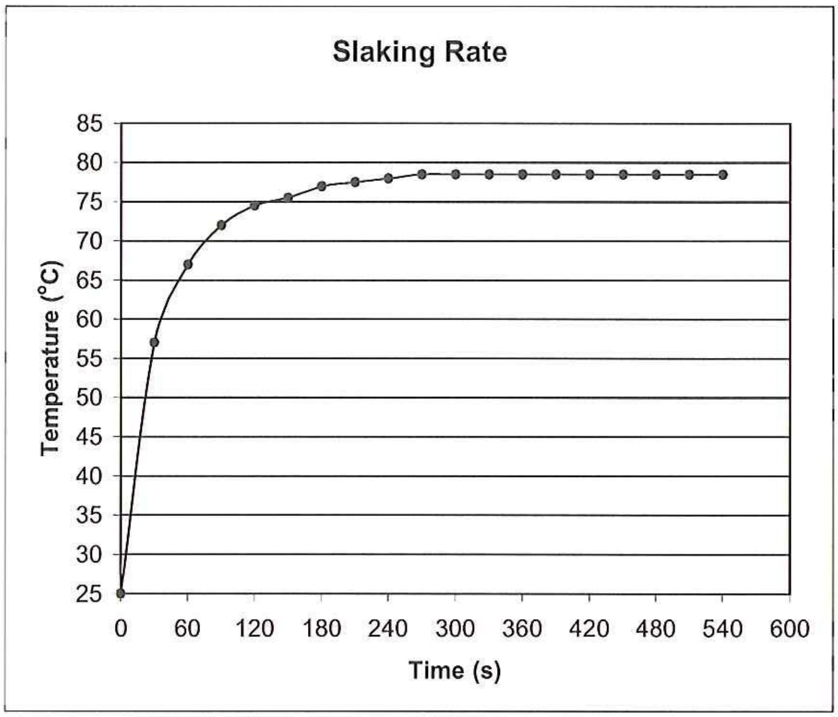
Client:	**CONSOL Energy, Inc.**	CTL Project No:	**403423**
Project:	**Chemical Analysis**	CTL Project Mgr.:	**Ella Shkolnik**
		Analyst:	**Cecylia Wedzicha**
Contact:	**Daniel Connell**	Approved:	
Submitter:	**Daniel Connell**	Date Analyzed:	**May 1, 2007**
Date Received:	**April 23, 2007**	Date Reported:	**May 2, 2007**

REPORT of SLAKING RATE ANALYSIS
(ASTM C 110)

Sample Identification
CTL ID: **1839004**
Client ID: **PEB032807**
Description: **Pebble lime**

Time (minute)	Time (second)	Temperature (°C)
0.0	0	25.0
0.5	30	57.0
1.0	60	67.0
1.5	90	72.0
2.0	120	74.5
2.5	150	75.5
3.0	180	77.0
3.5	210	77.5
4.0	240	78.0
4.5	270	78.5
5.0	300	78.5
5.5	330	78.5
6.0	360	78.5
6.5	390	78.5
7.0	420	78.5
7.5	450	78.5
8.0	480	78.5
8.5	510	78.5
9.0	540	78.5
9.5	570	
10.0	600	



Determined Results:

Total active slaking time (minute)	4.5
Final reaction temperature (°C)	78.5
Temperature rise in 30 seconds (°C)	32.0
Temperature rise in 3 minutes (°C)	52.0
Total temperature rise (°C)	53.5
Residue (wt. %)	0.97

Notes:
1. This analysis represents specifically the sample(s) submitted as received.
2. The results were determined in accordance with ASTM C 110-05, Sec.11.
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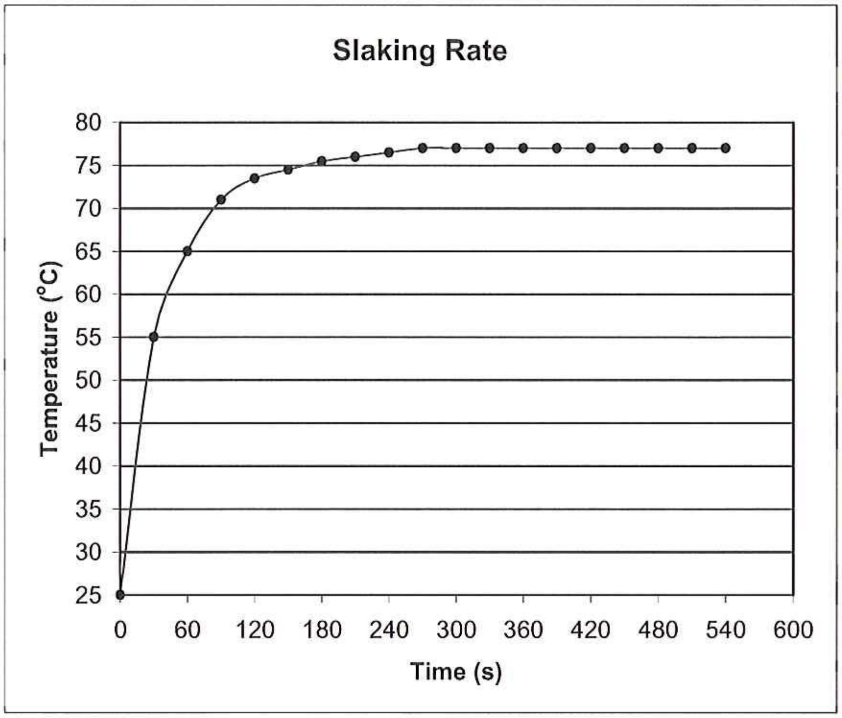
Client:	**CONSOL Energy, Inc.**	CTL Project No:	**403423**
Project:	**Chemical Analysis**	CTL Project Mgr.:	**Ella Shkolnik**
		Analyst:	**Cecylia Wedzicha**
Contact:	**Daniel Connell**	Approved:	
Submitter:	**Daniel Connell**	Date Analyzed:	**May 1, 2007**
Date Received:	**April 23, 2007**	Date Reported:	**May 2, 2007**

REPORT of SLAKING RATE ANALYSIS
(ASTM C 110)

Sample Identification

CTL ID: **1839005**
Client ID: **PEB032907**
Description: **Pebble lime**

Time (minute)	Time (second)	Temperature (°C)
0.0	0	25.0
0.5	30	55.0
1.0	60	65.0
1.5	90	71.0
2.0	120	73.5
2.5	150	74.5
3.0	180	75.5
3.5	210	76.0
4.0	240	76.5
4.5	270	77.0
5.0	300	77.0
5.5	330	77.0
6.0	360	77.0
6.5	390	77.0
7.0	420	77.0
7.5	450	77.0
8.0	480	77.0
8.5	510	77.0
9.0	540	77.0
9.5	570	
10.0	600	



Determined Results

Total active slaking time (minute)	4.5
Final reaction temperature (°C)	77.0
Temperature rise in 30 seconds (°C)	30.0
Temperature rise in 3 minutes (°C)	50.5
Total temperature rise (°C)	52.0
Residue (wt. %)	3.79

Notes:
1. This analysis represents specifically the sample(s) submitted as received.
2. The results were determined in accordance with ASTM C 110-05, Sec.11.
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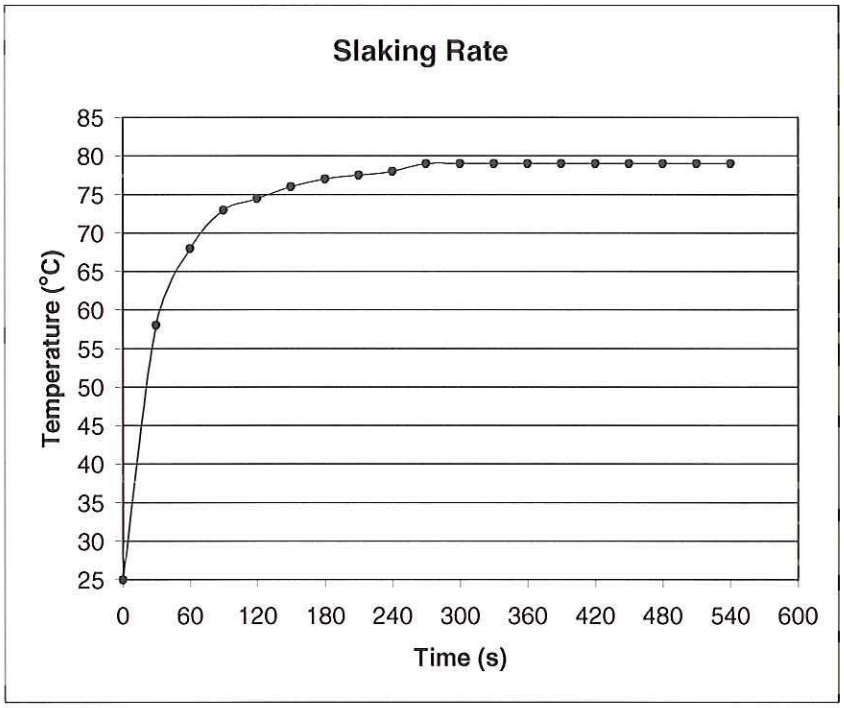
Client:	**CONSOL Energy, Inc.**	CTL Project No:	**403423**
Project:	**Chemical Analysis**	CTL Project Mgr.:	**Ella Shkolnik**
		Analyst:	**Cecylia Wedzicha**
Contact:	**Daniel Connell**	Approved:	
Submitter:	**Daniel Connell**	Date Analyzed:	**May 1, 2007**
Date Received:	**April 23, 2007**	Date Reported:	**May 2, 2007**

REPORT of SLAKING RATE ANALYSIS
(ASTM C 110)

Sample Identification

CTL ID: **1839006**
Client ID: **PEB033007**
Description: **Pebble lime**

Time (minute)	Time (second)	Temperature
0.0	0	25.0
0.5	30	58.0
1.0	60	68.0
1.5	90	73.0
2.0	120	74.5
2.5	150	76.0
3.0	180	77.0
3.5	210	77.5
4.0	240	78.0
4.5	270	79.0
5.0	300	79.0
5.5	330	79.0
6.0	360	79.0
6.5	390	79.0
7.0	420	79.0
7.5	450	79.0
8.0	480	79.0
8.5	510	79.0
9.0	540	79.0
9.5	570	
10.0	600	



Determined Results

Total active slaking time (minute)	4.5
Final reaction temperature (°C)	79.0
Temperature rise in 30 seconds (°C)	33.0
Temperature rise in 3 minutes (°C)	52.0
Total temperature rise (°C)	54.0
Residue (wt. %)	2.06

Notes:
1. This analysis represents specifically the samples submitted as received.
2. The results were determined in accordance with ASTM C110-05, Sec.11.
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Client:	**CONSOL Energy, Inc.**	CTL Project No.:	**403423**
Project:	**ASTM C 110 Density Analysis**	CTL Proj. Mgr.:	**Ella Shkolnik**
		Analyst:	**Charlotte Hernandez**
Contact:	**Daniel Connell**	Approved:	E. Shkolnik
Submitter:	**Daniel Connell**	Date Analyzed:	**April 30, 2007**
Date Received:	**April 23, 2007**	Date Reported:	**May 2, 2007**

REPORT of DENSITY ANALYSIS

Client's Sample ID:	HYD032807	HYD032907	HYD033007
CTL Sample ID:	1839001	1839002	1839003
Material:	Hydrated lime	Hydrated lime	Hydrated lime
Apparent Density note 2			
Loose (g/cm^3)	0.36	0.37	0.35
Loose (lb/ft^3)	22.32	22.83	22.14
Packed (g/cm^3)	0.63	0.60	0.59
Packed (lb/ft^3)	39.58	37.17	36.78

Notes:
1. This analysis represents specifically the samples submitted.
2. Loose and packed apparent densities were determined following ASTM C 110, Sections 19 and 20.
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Client:	**CONSOL Energy, Inc.**	CTL Project No.:	**403423**
Project:	**Fineness Analysis**	CTL Proj. Mgr.:	**Ella Shkolnik**
		Analyst:	**Ella Shkolnik**
Contact:	**Daniel Connell**	Approved:	
Submitter:	**Daniel Connell**	Date Analyzed:	**May 3, 2007**
Date Received:	**April 23, 2007**	Date Reported:	**May 4, 2007**

REPORT of PARTICLE SIZE DISTRIBUTION ANALYSIS by LASER DIFFRACTION

Client's Sample ID:	HYD032807	HYD032907	HYD033007
Material Type:	Hydrated lime	Hydrated lime	Hydrated lime
CTL Sample ID:	1839001	1839002	1839003
Size at 50% (μm)	**5.54**	**5.96**	**5.97**
Cumulative Volume under Stated Size [note 2]			
<45 μm	88.70	86.91	86.17
<30 μm	83.67	81.53	80.78
<10 μm	67.02	63.99	63.71
<7 μm	57.60	54.84	54.74
<3 μm	28.29	27.16	27.36
<1 μm	6.14	5.94	5.96

Notes:
1. This analysis represents specifically the samples submitted.
2. The provided results are volume based and expressed in terms of equivalent spheres.
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PARTICLE SIZE DISTRIBUTION (PSD) ANALYSIS REPORT

Sample Name: **#1839001-Sample "HYD032807" (Averaged Result)**

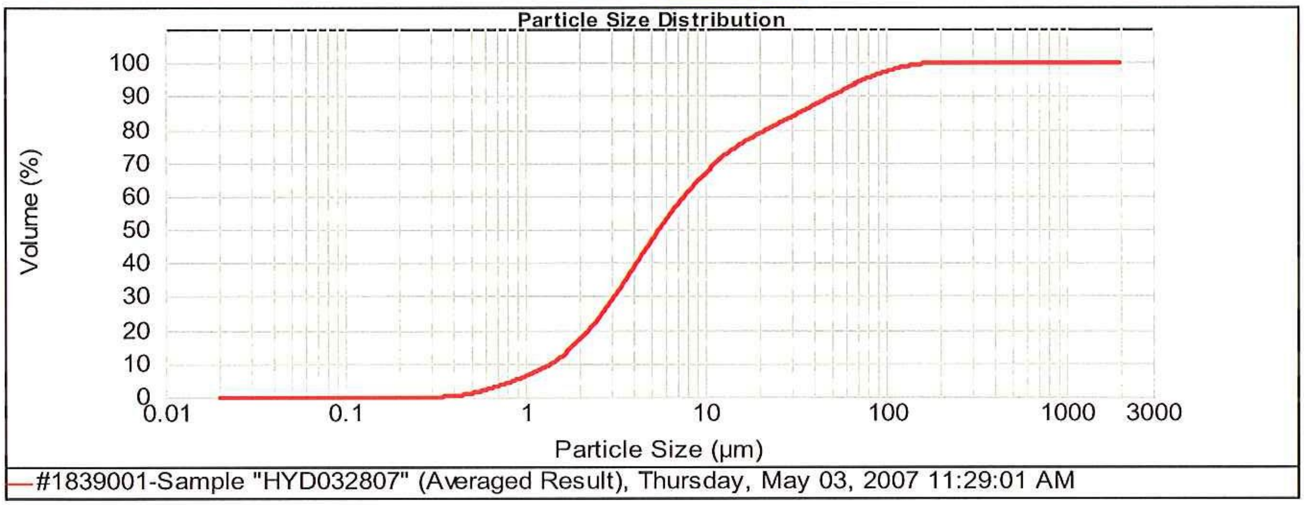
Measured by: Unknown

Measured: Thursday, May 03, 2007 11:29:01 AM **Analysed:** Thursday, May 03, 2007 11:29:02 AM

SOP Name: Hydrated Lime Wet IPA **Result Source:** Averaged

Particle Name:	Hydrated Lime		**Accessory Name:**	Hydro 2000MU (A)	**Obscuration:**	13.09 %
Particle RI:	1.560	**Absorption:** 0.1	**Analysis model:**	General purpose		
Dispersant Name:	Propan-2-ol		**Size range:**	0.020 to 2000.000 um		
Dispersant RI:	1.390		**Result Emulation:**	Off	**Weighted Residual:**	1.543 %

Concentration:	0.0071 %Vol	**Vol. Weighted Mean D[4,3]:**	16.727 um	**Specific Surface Area:**	1.83 m^2/g
Span :	8.777	**Uniformity:**	2.52	**Surface Weighted Mean D[3,2]:**	3.285 um
Result units:	Volume				
d(0.1):	1.395 um	**d(0.5):**	**5.535** um	d(0.9):	49.970 um



Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %
1.000	6.14	3.000	28.29	7.000	57.60	10.000	67.02	30.000	83.67	45.000	88.70

Operator notes: *Average of four measurements*

PARTICLE SIZE DISTRIBUTION (PSD) ANALYSIS REPORT

Sample Name: #1839002-Sample "HYD032907" (Averaged Result)

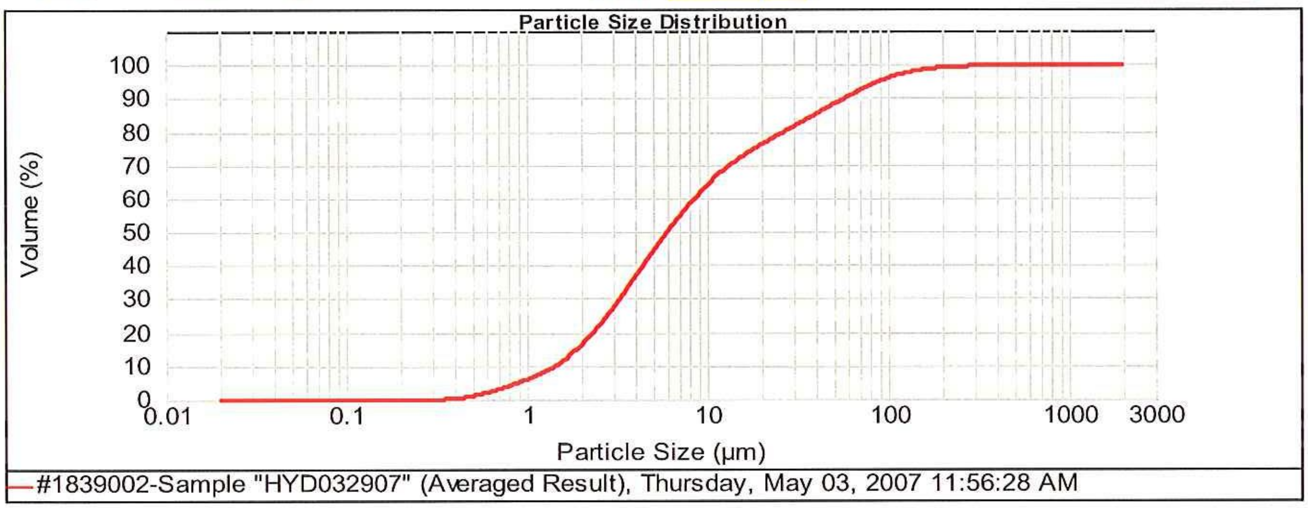
Measured by: Ella Shkolnik

Measured: Thursday, May 03, 2007 11:56:28 AM **Analysed:** Thursday, May 03, 2007 11:56:29 AM

SOP Name: Hydrated Lime Wet IPA **Result Source:** Averaged

Particle Name:	Hydrated Lime	**Accessory Name:**	Hydro 2000MU (A)	**Obscuration:**	12.25 %
Particle RI:	1.560 **Absorption:** 0.1	**Analysis model:**	General purpose		
Dispersant Name:	Propan-2-ol	**Size range:**	0.020 to 2000.000 um		
Dispersant RI:	1.390	**Result Emulation:**	Off	**Weighted Residual:**	1.422 %

Concentration:	0.0069 %Vol	**Vol. Weighted Mean D[4,3]:**	20.678 um	**Specific Surface Area:**	1.76 m^2/g
Span :	9.355	**Uniformity:**	2.98	**Surface Weighted Mean D[3,2]:**	3.408 um
Result units:	Volume				
d(0.1):	1.432 um	d(0.5):	5.960 um	d(0.9):	57.189 um



Size (μm)	Vol Under %
1.000	5.94
3.000	27.16
7.000	54.84
10.000	63.99
30.000	81.53
45.000	86.91

Operator notes: *Average of four measurements*

PARTICLE SIZE DISTRIBUTION (PSD) ANALYSIS REPORT

Sample Name: **#1839003-Sample "HYD033007" (Averaged Result)**

Measured by: Ella Shkolnik

Measured: Thursday, May 03, 2007 1:30:37 PM   **Analysed:** Thursday, May 03, 2007 1:30:38 PM

SOP Name: Hydrated Lime Wet IPA   **Result Source:** Averaged

---

Particle Name: Hydrated Lime   **Accessory Name:** Hydro 2000MU (A)   **Obscuration:** 12.16 %

Particle RI: 1.560 **Absorption:** 0.1   **Analysis model:** General purpose

Dispersant Name: Propan-2-ol   **Size range:** 0.020 to 2000.000 um

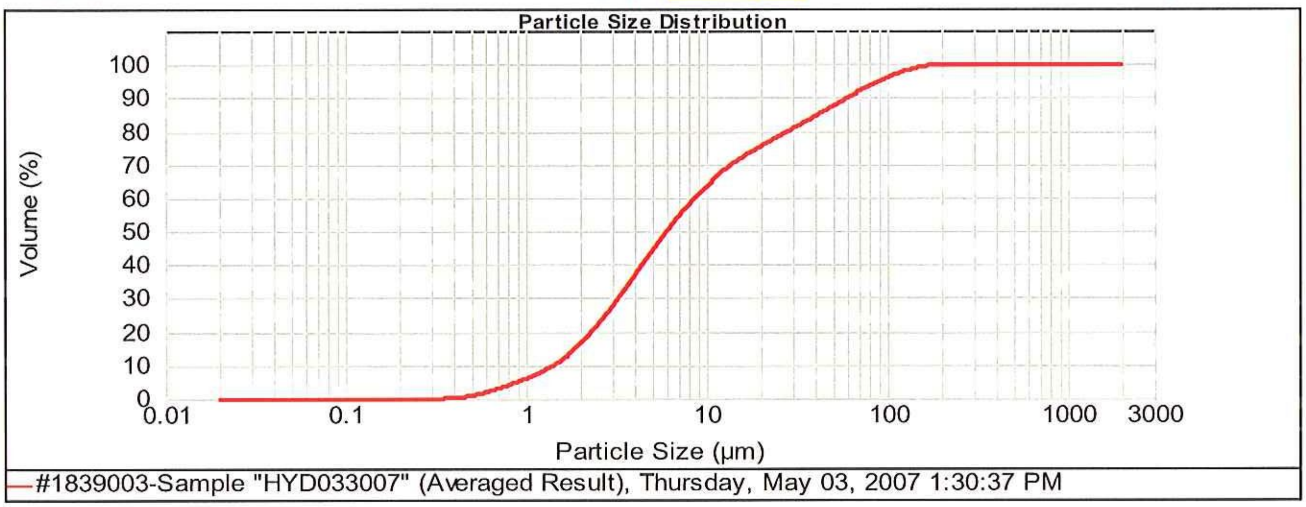
Dispersant RI: 1.390   **Result Emulation:** Off   **Weighted Residual:** 1.734 %

Concentration: 0.0068 %Vol   **Vol. Weighted Mean D[4,3]:** 19.408 um   **Specific Surface Area:** 1.76 m^2/g

Span : 9.824   **Uniformity:** 2.77   **Surface Weighted Mean D[3,2]:** 3.408 um

Result units: Volume

d(0.1): 1.416 um   d(0.5): 5.966 um   d(0.9): 60.031 um



Size (μm)	Vol Under %
1.000	5.96

Size (μm)	Vol Under %
3.000	27.36

Size (μm)	Vol Under %
7.000	54.74

Size (μm)	Vol Under %
10.000	63.71

Size (μm)	Vol Under %
30.000	80.78

Size (μm)	Vol Under %
45.000	86.17

Operator notes: *Average of four measurements*

PARTICLE SIZE DISTRIBUTION (PSD) ANALYSIS REPORT

Sample Name: #1839001-Sample "HYD032807" (Averaged Result)

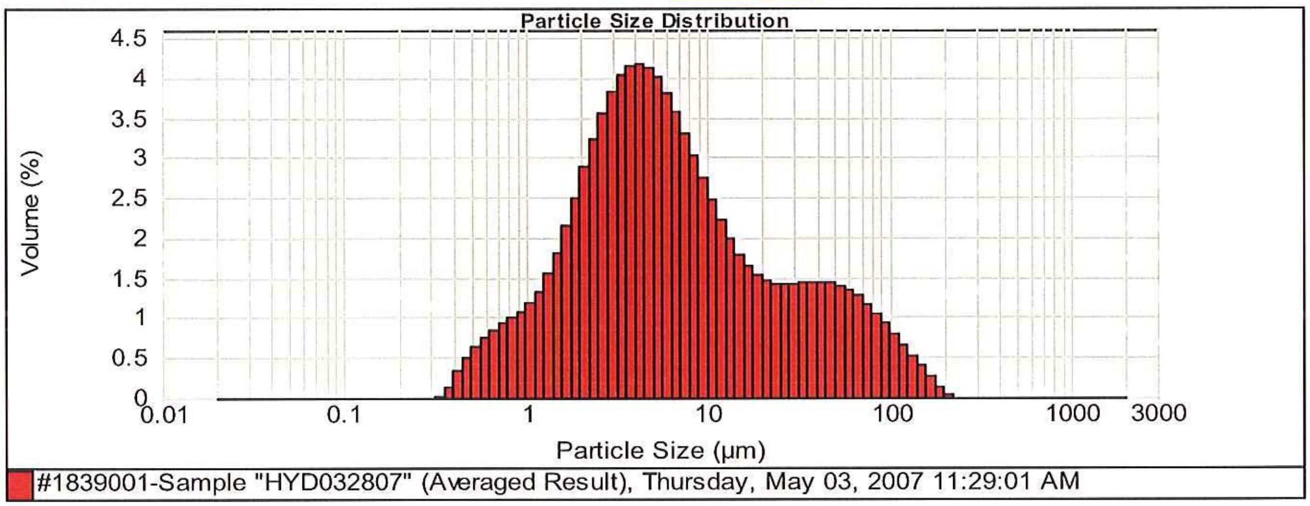
Measured by: Unknown

Measured: Thursday, May 03, 2007 11:29:01 AM **Analysed:** Thursday, May 03, 2007 11:29:02 AM

SOP Name: Hydrated Lime Wet IPA **Result Source:** Averaged

Particle Name:	Hydrated Lime	**Accessory Name:**	Hydro 2000MU (A)	**Obscuration:**	13.09 %
Particle RI:	1.560 **Absorption:** 0.1	**Analysis model:**	General purpose		
Dispersant Name:	Propan-2-ol	**Size range:**	0.020 to 2000.000 um		
Dispersant RI:	1.390	**Result Emulation:**	Off	**Weighted Residual:**	1.543 %

Concentration:	0.0071 %Vol	**Vol. Weighted Mean D[4,3]:**	16.727 um	**Specific Surface Area:**	1.83 m²/g
Span :	8.777	**Uniformity:**	2.52	**Surface Weighted Mean D[3,2]:**	3.285 um
Result units:	Volume				
d(0.1):	1.395 um	**d(0.5):**	**5.535** um	d(0.9):	49.970 um



Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %
0.020	0.00	0.142	0.00	1.002	6.16	7.096	58.01	50.238	90.07	355.656	100.00
0.022	0.00	0.159	0.00	1.125	7.34	7.962	61.31	56.368	91.46	399.052	100.00
0.025	0.00	0.178	0.00	1.262	8.68	8.934	64.33	63.246	92.80	447.744	100.00
0.028	0.00	0.200	0.00	1.416	10.22	10.024	67.07	70.963	94.07	502.377	100.00
0.032	0.00	0.224	0.00	1.589	12.03	11.247	69.53	79.621	95.24	563.677	100.00
0.036	0.00	0.252	0.00	1.783	14.17	12.619	71.74	89.337	96.29	632.456	100.00
0.040	0.00	0.283	0.00	2.000	16.66	14.159	73.72	100.237	97.21	709.627	100.00
0.045	0.00	0.317	0.00	2.244	19.54	15.887	75.50	112.468	98.00	796.214	100.00
0.050	0.00	0.356	0.00	2.518	22.77	17.825	77.14	126.191	98.65	893.367	100.00
0.056	0.00	0.399	0.13	2.825	26.33	20.000	78.66	141.589	99.17	1002.374	100.00
0.063	0.00	0.448	0.46	3.170	30.15	22.440	80.11	158.866	99.57	1124.683	100.00
0.071	0.00	0.502	0.94	3.557	34.18	25.179	81.53	178.250	99.82	1261.915	100.00
0.080	0.00	0.564	1.58	3.991	38.32	28.251	82.93	200.000	99.96	1415.892	100.00
0.089	0.00	0.632	2.33	4.477	42.50	31.698	84.34	224.404	100.00	1588.656	100.00
0.100	0.00	0.710	3.17	5.024	46.62	35.566	85.77	251.785	100.00	1782.502	100.00
0.112	0.00	0.796	4.10	5.637	50.62	39.905	87.20	282.508	100.00	2000.000	100.00
0.126	0.00	0.893	5.09	6.325	54.44	44.774	88.64	316.979	100.00		

Operator notes: *Average of four measurements*

PARTICLE SIZE DISTRIBUTION (PSD) ANALYSIS REPORT

Sample Name: #1839002-Sample "HYD032907" (Averaged Result)

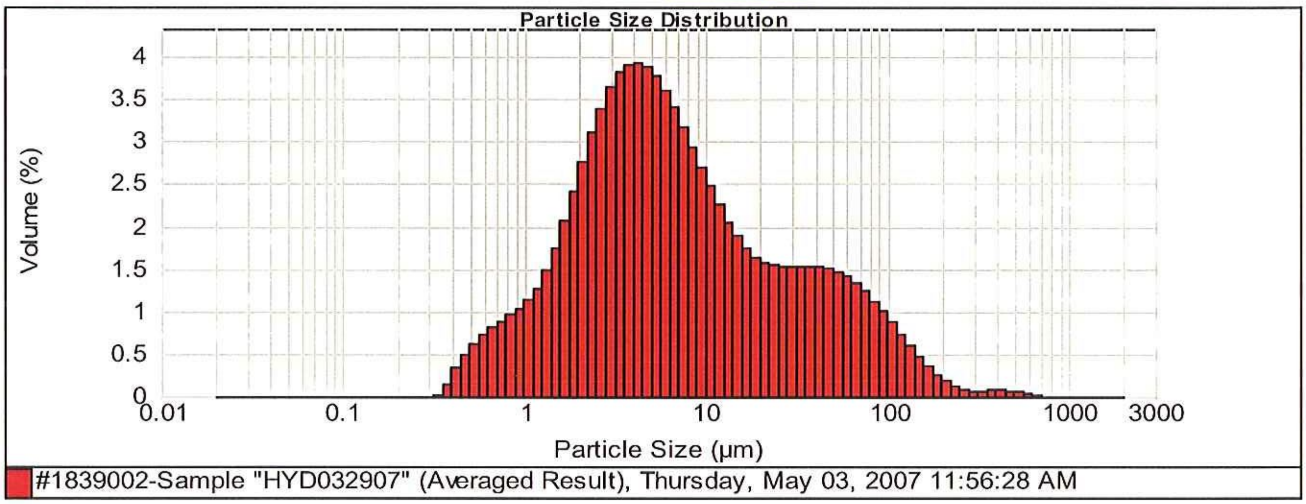
Measured by: Ella Shkolnik

Measured: Thursday, May 03, 2007 11:56:28 AM **Analysed:** Thursday, May 03, 2007 11:56:29 AM

SOP Name: Hydrated Lime Wet IPA **Result Source:** Averaged

Particle Name:	Hydrated Lime	**Accessory Name:**	Hydro 2000MU (A)	**Obscuration:**	12.25 %
Particle RI:	1.560 **Absorption:** 0.1	**Analysis model:**	General purpose		
Dispersant Name:	Propan-2-ol	**Size range:**	0.020 to 2000.000 um		
Dispersant RI:	1.390	**Result Emulation:**	Off	**Weighted Residual:**	1.422 %

Concentration:	0.0069 %Vol	**Vol. Weighted Mean D[4,3]:**	20.678 um	**Specific Surface Area:**	1.76 m^2/g
Span :	9.355	**Uniformity:**	2.98	**Surface Weighted Mean D[3,2]:**	3.408 um
Result units:	Volume				
d(0.1):	1.432 um	d(0.5):	5.960 um	d(0.9):	57.189 um



Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %
0.020	0.00	0.142	0.00	1.002	5.96	7.096	55.24	50.238	88.35	355.656	99.69
0.022	0.00	0.159	0.00	1.125	7.09	7.962	58.41	56.368	89.82	399.052	99.76
0.025	0.00	0.178	0.00	1.262	8.37	8.934	61.35	63.246	91.23	447.744	99.83
0.028	0.00	0.200	0.00	1.416	9.85	10.024	64.05	70.963	92.56	502.377	99.89
0.032	0.00	0.224	0.00	1.589	11.59	11.247	66.51	79.621	93.80	563.677	99.95
0.036	0.00	0.252	0.00	1.783	13.64	12.619	68.76	89.337	94.93	632.456	99.98
0.040	0.00	0.283	0.00	2.000	16.04	14.159	70.82	100.237	95.92	709.627	100.00
0.045	0.00	0.317	0.00	2.244	18.80	15.887	72.70	112.468	96.79	796.214	100.00
0.050	0.00	0.356	0.00	2.518	21.90	17.825	74.45	126.191	97.53	893.367	100.00
0.056	0.00	0.399	0.13	2.825	25.29	20.000	76.09	141.589	98.12	1002.374	100.00
0.063	0.00	0.448	0.46	3.170	28.93	22.440	77.67	158.866	98.59	1124.683	100.00
0.071	0.00	0.502	0.93	3.557	32.74	25.179	79.21	178.250	98.95	1261.915	100.00
0.080	0.00	0.564	1.55	3.991	36.65	28.251	80.73	200.000	99.20	1415.892	100.00
0.089	0.00	0.632	2.28	4.477	40.58	31.698	82.26	224.404	99.37	1588.656	100.00
0.100	0.00	0.710	3.09	5.024	44.46	35.566	83.78	251.785	99.49	1782.502	100.00
0.112	0.00	0.796	3.98	5.637	48.23	39.905	85.32	282.508	99.57	2000.000	100.00
0.126	0.00	0.893	4.93	6.325	51.84	44.774	86.84	316.979	99.63		

Operator notes: *Average of four measurements*

PARTICLE SIZE DISTRIBUTION (PSD) ANALYSIS REPORT

Sample Name: **#1839003-Sample "HYD033007" (Averaged Result)**

Measured by: Ella Shkolnik

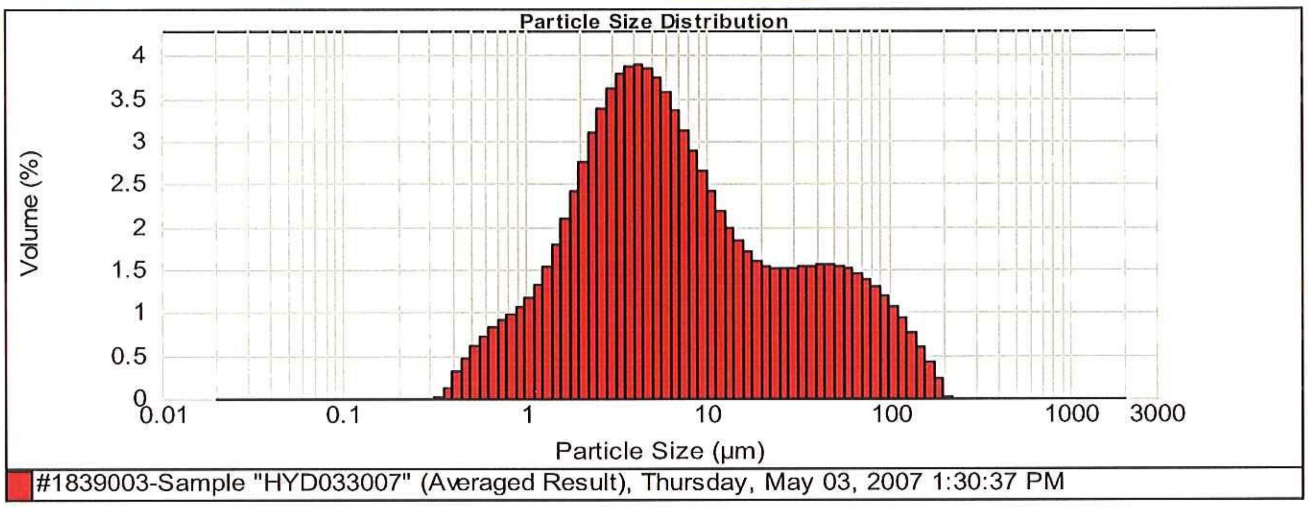
Measured: Thursday, May 03, 2007 1:30:37 PM **Analysed:** Thursday, May 03, 2007 1:30:38 PM

SOP Name: Hydrated Lime Wet IPA **Result Source:** Averaged

Particle Name:	Hydrated Lime	**Accessory Name:**	Hydro 2000MU (A)	**Obscuration:**	12.16 %
Particle RI:	1.560 **Absorption:** 0.1	**Analysis model:**	General purpose		
Dispersant Name:	Propan-2-ol	**Size range:**	0.020 to 2000.000 um		
Dispersant RI:	1.390	**Result Emulation:**	Off	**Weighted Residual:**	1.734 %

Concentration:	0.0068 %Vol	**Vol. Weighted Mean D[4,3]:**	**19.408** um	**Specific Surface Area:**	1.76 m²/g
Span :	9.824	**Uniformity:**	2.77	**Surface Weighted Mean D[3,2]:**	3.408 um
Result units:	Volume				

d(0.1): 1.416 um **d(0.5):** **5.966** um d(0.9): 60.031 um



Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %
0.020	0.00	0.142	0.00	1.002	5.98	7.096	55.13	50.238	87.64	355.656	100.00
0.022	0.00	0.159	0.00	1.125	7.15	7.962	58.25	56.368	89.17	399.052	100.00
0.025	0.00	0.178	0.00	1.262	8.47	8.934	61.13	63.246	90.67	447.744	100.00
0.028	0.00	0.200	0.00	1.416	10.00	10.024	63.76	70.963	92.12	502.377	100.00
0.032	0.00	0.224	0.00	1.589	11.78	11.247	66.16	79.621	93.51	563.677	100.00
0.036	0.00	0.252	0.00	1.783	13.86	12.619	68.34	89.337	94.80	632.456	100.00
0.040	0.00	0.283	0.00	2.000	16.28	14.159	70.33	100.237	95.99	709.627	100.00
0.045	0.00	0.317	0.00	2.244	19.04	15.887	72.16	112.468	97.06	796.214	100.00
0.050	0.00	0.356	0.00	2.518	22.13	17.825	73.85	126.191	97.99	893.367	100.00
0.056	0.00	0.399	0.12	2.825	25.50	20.000	75.45	141.589	98.76	1002.374	100.00
0.063	0.00	0.448	0.42	3.170	29.11	22.440	76.98	158.866	99.35	1124.683	100.00
0.071	0.00	0.502	0.89	3.557	32.88	25.179	78.49	178.250	99.76	1261.915	100.00
0.080	0.00	0.564	1.49	3.991	36.76	28.251	79.99	200.000	99.98	1415.892	100.00
0.089	0.00	0.632	2.22	4.477	40.65	31.698	81.50	224.404	100.00	1588.656	100.00
0.100	0.00	0.710	3.04	5.024	44.49	35.566	83.02	251.785	100.00	1782.502	100.00
0.112	0.00	0.796	3.94	5.637	48.22	39.905	84.55	282.508	100.00	2000.000	100.00
0.126	0.00	0.893	4.92	6.325	51.78	44.774	86.10	316.979	100.00		

Operator notes: *Average of four measurements*

Client:	**CONSOL Energy, Inc.**	CTL Project No.:	**403423**
Project:	**Fineness Analysis**	CTL Proj. Mgr.:	**Ella Shkolnik**
		Analyst:	**Ella Shkolnik**
Contact:	**Daniel Connell**	Approved:	
Submitter:	**Daniel Connell**	Date Analyzed:	**May 3, 2007**
Date Received:	**April 23, 2007**	Date Reported:	**May 4, 2007**

REPORT of PARTICLE SIZE DISTRIBUTION ANALYSIS by LASER DIFFRACTION

Client's Sample ID:	ASH032807	ASH032907	ASH033007
Material Type:	Fly ash	Fly ash	Fly ash
CTL Sample ID:	1839007	1839008	1839009
Size at 50% (μm)	**6.47**	**6.74**	**6.49**
Cumulative Volume under Stated Size [note 2]			
<45 μm	82.59	81.76	83.02
<30 μm	76.79	75.84	77.02
<10 μm	61.96	60.64	61.70
<7 μm	52.59	51.21	52.44
<3 μm	21.25	20.77	21.59
<1 μm	3.97	3.96	3.99

Notes:
1. This analysis represents specifically the samples submitted.
2. The provided results are volume based and expressed in terms of equivalent spheres.
3. This report may not be reproduced except in its entirety.

PARTICLE SIZE DISTRIBUTION (PSD) ANALYSIS REPORT

Sample Name: #1839007-Sample "ASH032807" (Averaged Result)

Measured by: Ella Shkolnik

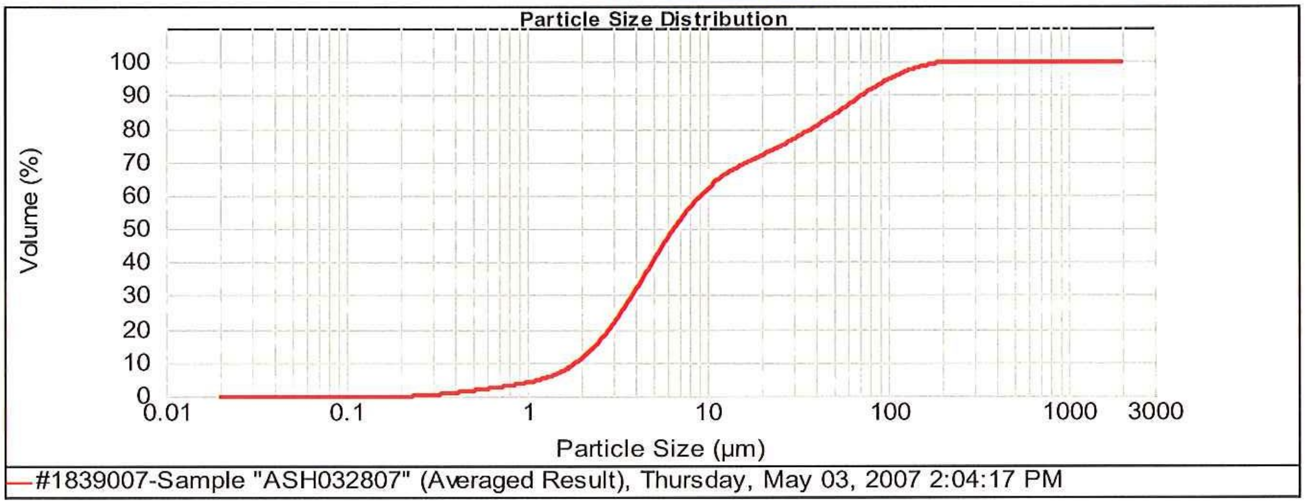
Measured: Thursday, May 03, 2007 2:04:17 PM
Analysed: Thursday, May 03, 2007 2:04:18 PM

SOP Name: Fly Ash Wet IPA
Result Source: Averaged

Particle Name:	Fly Ash General	**Accessory Name:**	Hydro 2000MU (A)	**Obscuration:**	12.24 %
Particle RI:	1.650 **Absorption:** 1	**Analysis model:**	General purpose		
Dispersant Name:	Propan-2-ol	**Size range:**	0.020 to 2000.000 um		
Dispersant RI:	1.390	**Result Emulation:**	Off	**Weighted Residual:**	1.323 %

Concentration:	0.0062 %Vol	**Vol. Weighted Mean D[4,3]:**	23.056 um	**Specific Surface Area:**	0.583 m^2/g
Span :	10.903	**Uniformity:**	3.04	**Surface Weighted Mean D[3,2]:**	3.823 um
Result units:	Volume				

d(0.1): 1.898 um **d(0.5): 6.473** um d(0.9): 72.476 um



Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %
1.000	3.97	3.000	21.25	7.000	52.59	10.000	61.96	30.000	76.79	45.000	82.59

Operator notes: *Average of four measurements*

PARTICLE SIZE DISTRIBUTION (PSD) ANALYSIS REPORT

Sample Name: #1839008-Sample "ASH032907" (Averaged Result)

Measured by: Ella Shkolnik

Measured: Thursday, May 03, 2007 2:27:40 PM

Analysed: Thursday, May 03, 2007 2:27:41 PM

SOP Name: Fly Ash Wet IPA

Result Source: Averaged

Particle Name: Fly Ash General
Accessory Name: Hydro 2000MU (A)
Obscuration: 12.87 %

Particle RI: 1.650 **Absorption:** 1
Analysis model: General purpose

Dispersant Name: Propan-2-ol
Size range: 0.020 to 2000.000 um

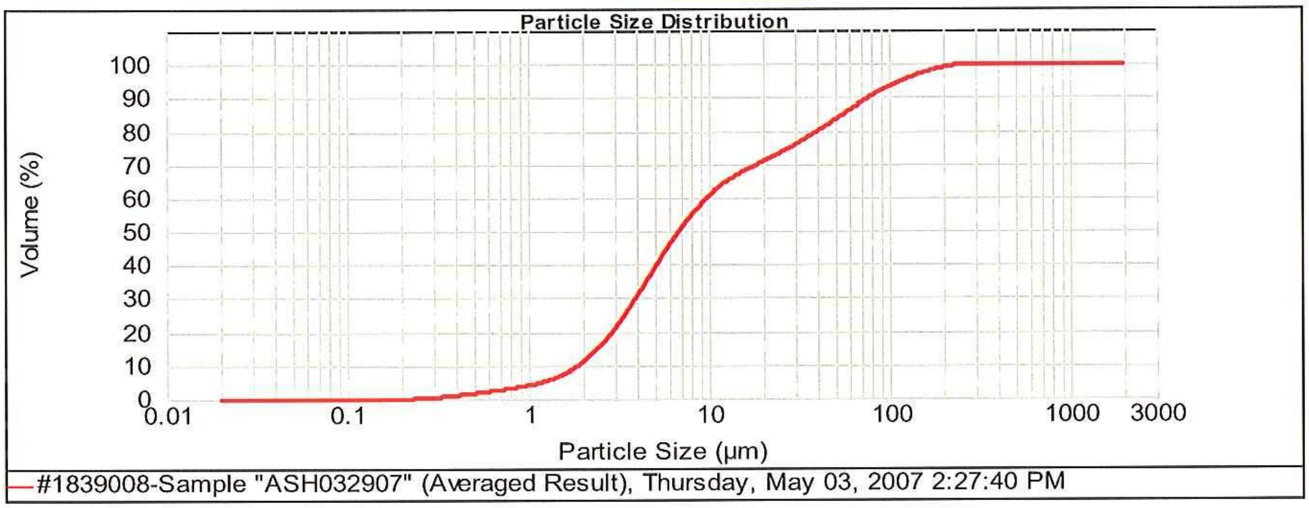
Dispersant RI: 1.390
Result Emulation: Off
Weighted Residual: 1.268 %

Concentration: 0.0067 %Vol
Vol. Weighted Mean D[4,3]: 25.409 um
Specific Surface Area: 0.573 m^2/g

Span : 11.191
Uniformity: 3.25
Surface Weighted Mean D[3,2]: 3.891 um

Result units: Volume

d(0.1): 1.906 um
d(0.5): 6.743 um
d(0.9): 77.364 um



Size (μm)	Vol Under %
1.000	3.96
3.000	20.77
7.000	51.21
10.000	60.64
30.000	75.84
45.000	81.76

Operator notes: *Average of four measurements*

PARTICLE SIZE DISTRIBUTION (PSD) ANALYSIS REPORT

Sample Name: #1839009-Sample "ASH033007" (Averaged Result)

Measured by: Ella Shkolnik

Measured: Thursday, May 03, 2007 2:45:30 PM **Analysed:** Thursday, May 03, 2007 2:45:31 PM

SOP Name: Fly Ash Wet IPA **Result Source:** Averaged

Particle Name: Fly Ash General **Accessory Name:** Hydro 2000MU (A) **Obscuration:** 12.85 %

Particle RI: 1.650 **Absorption:** 1 **Analysis model:** General purpose

Dispersant Name: Propan-2-ol **Size range:** 0.020 to 2000.000 um

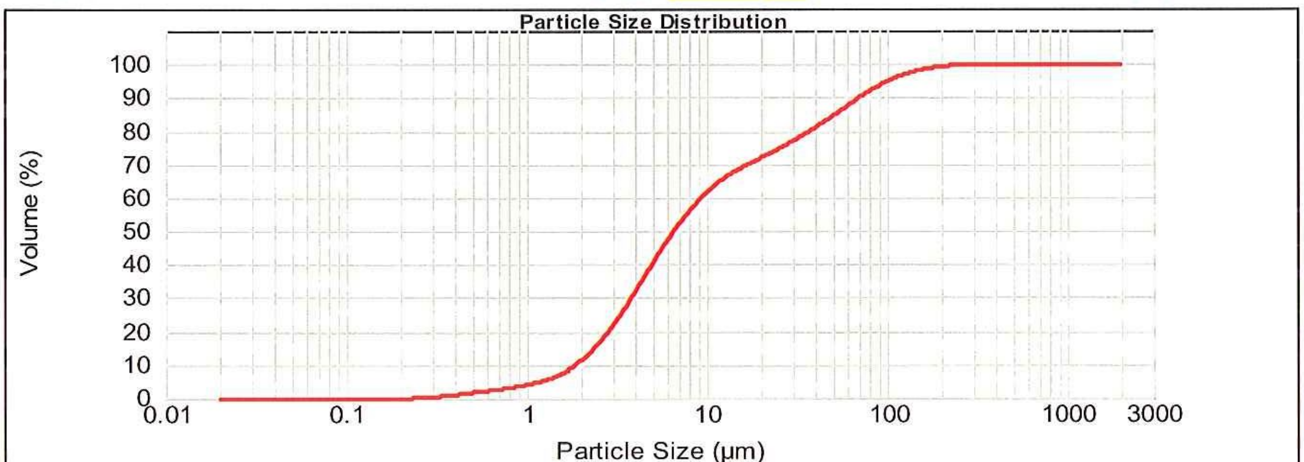
Dispersant RI: 1.390 **Result Emulation:** Off **Weighted Residual:** 0.540 %

Concentration: 0.0065 %Vol **Vol. Weighted Mean D[4,3]:** 23.198 um **Specific Surface Area:** 0.587 m^2/g

Span : 10.484 **Uniformity:** 3.06 **Surface Weighted Mean D[3,2]:** 3.801 um

Result units: Volume

d(0.1): 1.873 um **d(0.5): 6.493** um d(0.9): 69.943 um



Size (μm)	Vol Under %
1.000	3.99
3.000	21.59
7.000	52.44
10.000	61.70
30.000	77.02
45.000	83.02

Operator notes: *Average of four measurements*

PARTICLE SIZE DISTRIBUTION (PSD) ANALYSIS REPORT

Sample Name: #1839007-Sample "ASH032807" (Averaged Result)

Measured by: Ella Shkolnik

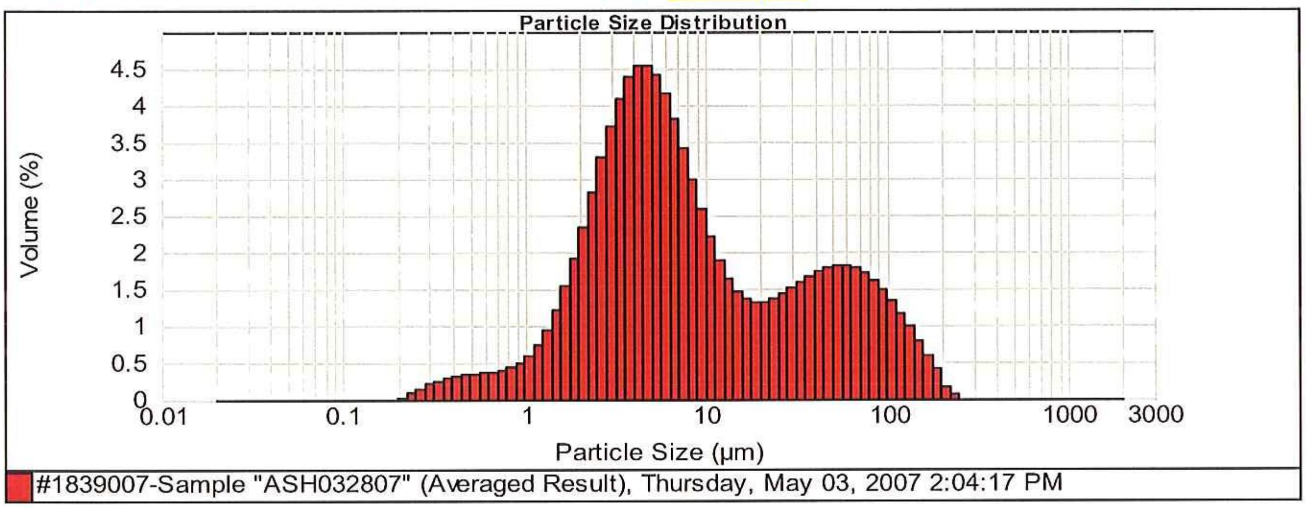
Measured: Thursday, May 03, 2007 2:04:17 PM   **Analysed:** Thursday, May 03, 2007 2:04:18 PM

SOP Name: Fly Ash Wet IPA   **Result Source:** Averaged

Particle Name:	Fly Ash General	**Accessory Name:**	Hydro 2000MU (A)	**Obscuration:**	12.24 %
Particle RI:	1.650 **Absorption:** 1	**Analysis model:**	General purpose		
Dispersant Name:	Propan-2-ol	**Size range:**	0.020 to 2000.000 um		
Dispersant RI:	1.390	**Result Emulation:**	Off	**Weighted Residual:**	1.323 %

Concentration:	0.0062 %Vol	**Vol. Weighted Mean D[4,3]:**	23.056 um	**Specific Surface Area:**	0.583 m²/g
Span :	10.903	**Uniformity:**	3.04	**Surface Weighted Mean D[3,2]:**	3.823 um
Result units:	Volume				

d(0.1): 1.898 um   **d(0.5): 6.473 um**   d(0.9): 72.476 um



Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %
0.020	0.00	0.142	0.00	1.002	3.98	7.096	53.02	50.238	84.29	355.656	100.00
0.022	0.00	0.159	0.00	1.125	4.58	7.962	56.44	56.368	86.10	399.052	100.00
0.025	0.00	0.178	0.00	1.262	5.33	8.934	59.43	63.246	87.91	447.744	100.00
0.028	0.00	0.200	0.00	1.416	6.27	10.024	62.01	70.963	89.68	502.377	100.00
0.032	0.00	0.224	0.00	1.589	7.48	11.247	64.21	79.621	91.39	563.677	100.00
0.036	0.00	0.252	0.09	1.783	9.01	12.619	66.10	89.337	93.00	632.456	100.00
0.040	0.00	0.283	0.23	2.000	10.92	14.159	67.75	100.237	94.49	709.627	100.00
0.045	0.00	0.317	0.44	2.244	13.27	15.887	69.22	112.468	95.83	796.214	100.00
0.050	0.00	0.356	0.69	2.518	16.08	17.825	70.58	126.191	97.00	893.367	100.00
0.056	0.00	0.399	0.97	2.825	19.36	20.000	71.89	141.589	97.99	1002.374	100.00
0.063	0.00	0.448	1.28	3.170	23.08	22.440	73.21	158.866	98.78	1124.683	100.00
0.071	0.00	0.502	1.61	3.557	27.17	25.179	74.58	178.250	99.38	1261.915	100.00
0.080	0.00	0.564	1.95	3.991	31.55	28.251	76.01	200.000	99.79	1415.892	100.00
0.089	0.00	0.632	2.30	4.477	36.08	31.698	77.52	224.404	99.95	1588.656	100.00
0.100	0.00	0.710	2.67	5.024	40.62	35.566	79.11	251.785	100.00	1782.502	100.00
0.112	0.00	0.796	3.06	5.637	45.03	39.905	80.78	282.508	100.00	2000.000	100.00
0.126	0.00	0.893	3.49	6.325	49.20	44.774	82.51	316.979	100.00		

Operator notes: *Average of four measurements*

PARTICLE SIZE DISTRIBUTION (PSD) ANALYSIS REPORT

Sample Name: #1839008-Sample "ASH032907" (Averaged Result)

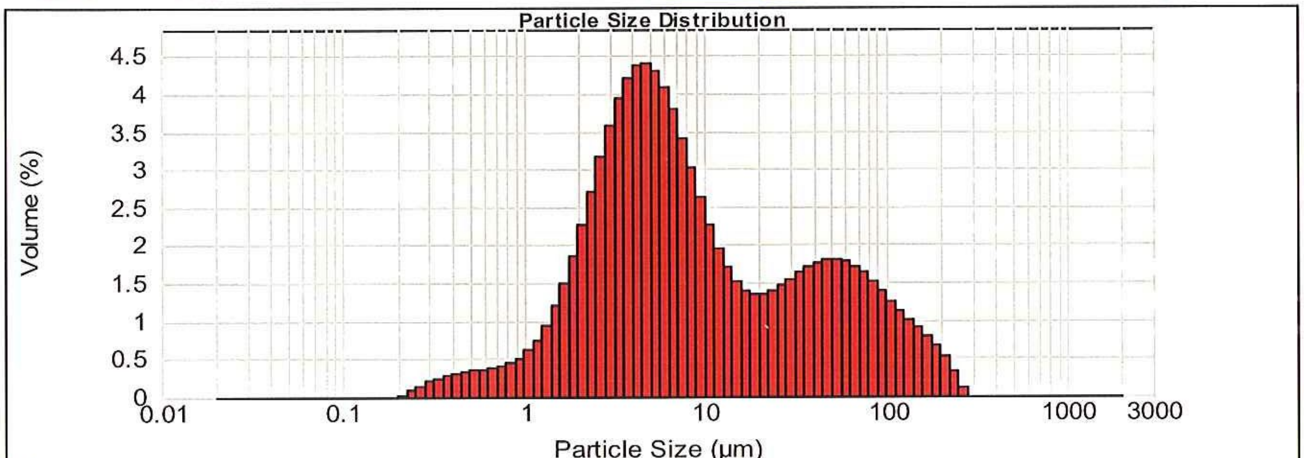
Measured by: Ella Shkolnik

Measured: Thursday, May 03, 2007 2:27:40 PM **Analysed:** Thursday, May 03, 2007 2:27:41 PM

SOP Name: Fly Ash Wet IPA **Result Source:** Averaged

Particle Name:	Fly Ash General	**Accessory Name:**	Hydro 2000MU (A)	**Obscuration:**	12.87 %
Particle RI:	1.650 **Absorption:** 1	**Analysis model:**	General purpose		
Dispersant Name:	Propan-2-ol	**Size range:**	0.020 to 2000.000 um		
Dispersant RI:	1.390	**Result Emulation:**	Off	**Weighted Residual:**	1.268 %

Concentration:	0.0067 %Vol	**Vol. Weighted Mean D[4,3]:**	25.409 um	**Specific Surface Area:**	0.573 m^2/g
Span :	11.191	**Uniformity:**	3.25	**Surface Weighted Mean D[3,2]:**	3.891 um
Result units:	Volume				
d(0.1):	1.906 um	**d(0.5):**	**6.743** um	d(0.9):	77.364 um



#1839008-Sample "ASH032907" (Averaged Result), Thursday, May 03, 2007 2:27:40 PM

Size (µm)	Vol Under %	Size (µm)	Vol Under %	Size (µm)	Vol Under %	Size (µm)	Vol Under %	Size (µm)	Vol Under %	Size (µm)	Vol Under %
0.020	0.00	0.142	0.00	1.002	3.98	7.096	51.64	50.238	83.48	355.656	100.00
0.022	0.00	0.159	0.00	1.125	4.58	7.962	55.05	56.368	85.28	399.052	100.00
0.025	0.00	0.178	0.00	1.262	5.33	8.934	58.07	63.246	87.06	447.744	100.00
0.028	0.00	0.200	0.00	1.416	6.27	10.024	60.69	70.963	88.77	502.377	100.00
0.032	0.00	0.224	0.00	1.589	7.46	11.247	62.95	79.621	90.40	563.677	100.00
0.036	0.00	0.252	0.09	1.783	8.96	12.619	64.90	89.337	91.91	632.456	100.00
0.040	0.00	0.283	0.23	2.000	10.83	14.159	66.60	100.237	93.29	709.627	100.00
0.045	0.00	0.317	0.43	2.244	13.10	15.887	68.11	112.468	94.54	796.214	100.00
0.050	0.00	0.356	0.67	2.518	15.81	17.825	69.51	126.191	95.67	893.367	100.00
0.056	0.00	0.399	0.95	2.825	18.96	20.000	70.86	141.589	96.68	1002.374	100.00
0.063	0.00	0.448	1.25	3.170	22.53	22.440	72.20	158.866	97.57	1124.683	100.00
0.071	0.00	0.502	1.58	3.557	26.47	25.179	73.59	178.250	98.36	1261.915	100.00
0.080	0.00	0.564	1.92	3.991	30.68	28.251	75.05	200.000	99.03	1415.892	100.00
0.089	0.00	0.632	2.27	4.477	35.05	31.698	76.59	224.404	99.55	1588.656	100.00
0.100	0.00	0.710	2.64	5.024	39.45	35.566	78.22	251.785	99.89	1782.502	100.00
0.112	0.00	0.796	3.03	5.637	43.76	39.905	79.92	282.508	100.00	2000.000	100.00
0.126	0.00	0.893	3.47	6.325	47.85	44.774	81.68	316.979	100.00		

Operator notes: *Average of four measurements*

PARTICLE SIZE DISTRIBUTION (PSD) ANALYSIS REPORT

Sample Name: #1839009-Sample "ASH033007" (Averaged Result)

Measured by: Ella Shkolnik

Measured: Thursday, May 03, 2007 2:45:30 PM **Analysed:** Thursday, May 03, 2007 2:45:31 PM

SOP Name: Fly Ash Wet IPA **Result Source:** Averaged

Particle Name: Fly Ash General **Accessory Name:** Hydro 2000MU (A) **Obscuration:** 12.85 %

Particle RI: 1.650 **Absorption:** 1 **Analysis model:** General purpose

Dispersant Name: Propan-2-ol **Size range:** 0.020 to 2000.000 um

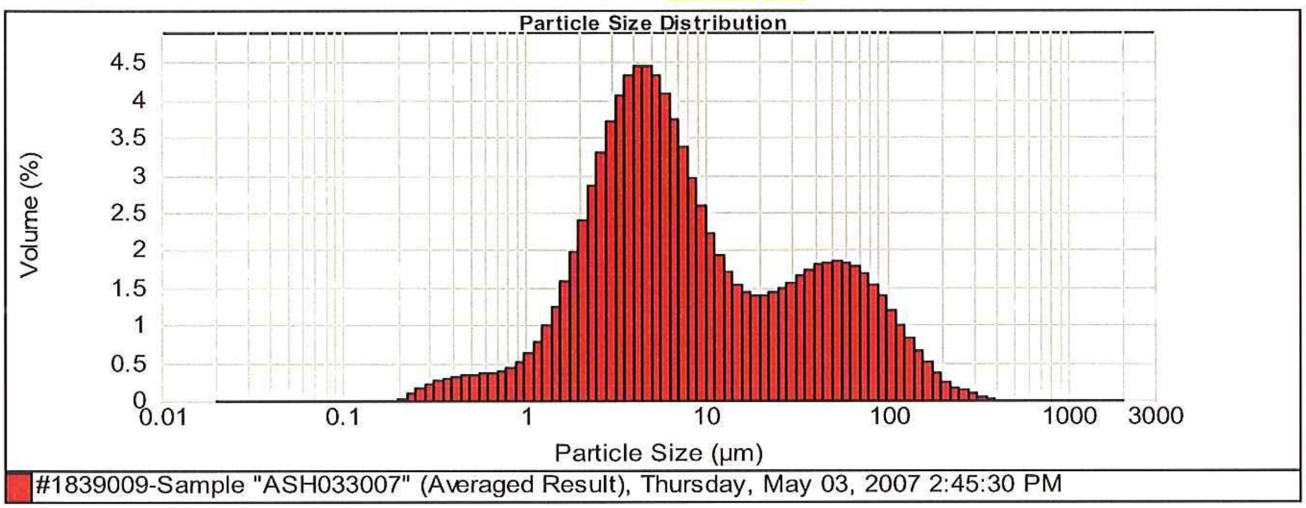
Dispersant RI: 1.390 **Result Emulation:** Off **Weighted Residual:** 0.540 %

Concentration: 0.0065 %Vol **Vol. Weighted Mean D[4,3]:** 23.198 um **Specific Surface Area:** 0.587 m^2/g

Span : 10.484 **Uniformity:** 3.06 **Surface Weighted Mean D[3,2]:** 3.801 um

Result units: Volume

d(0.1): 1.873 um **d(0.5): 6.493** um d(0.9): 69.943 um



Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %
0.020	0.00	0.142	0.00	1.002	4.00	7.096	52.86	50.238	84.77	355.656	100.00
0.022	0.00	0.159	0.00	1.125	4.62	7.962	56.22	56.368	86.62	399.052	100.00
0.025	0.00	0.178	0.00	1.262	5.39	8.934	59.18	63.246	88.45	447.744	100.00
0.028	0.00	0.200	0.00	1.416	6.38	10.024	61.75	70.963	90.22	502.377	100.00
0.032	0.00	0.224	0.00	1.589	7.63	11.247	63.97	79.621	91.89	563.677	100.00
0.036	0.00	0.252	0.09	1.783	9.21	12.619	65.90	89.337	93.43	632.456	100.00
0.040	0.00	0.283	0.24	2.000	11.17	14.159	67.59	100.237	94.80	709.627	100.00
0.045	0.00	0.317	0.45	2.244	13.56	15.887	69.12	112.468	96.00	796.214	100.00
0.050	0.00	0.356	0.70	2.518	16.40	17.825	70.54	126.191	97.01	893.367	100.00
0.056	0.00	0.399	0.98	2.825	19.70	20.000	71.92	141.589	97.82	1002.374	100.00
0.063	0.00	0.448	1.29	3.170	23.42	22.440	73.30	158.866	98.47	1124.683	100.00
0.071	0.00	0.502	1.62	3.557	27.48	25.179	74.72	178.250	98.97	1261.915	100.00
0.080	0.00	0.564	1.96	3.991	31.81	28.251	76.21	200.000	99.34	1415.892	100.00
0.089	0.00	0.632	2.31	4.477	36.26	31.698	77.77	224.404	99.58	1588.656	100.00
0.100	0.00	0.710	2.67	5.024	40.71	35.566	79.42	251.785	99.75	1782.502	100.00
0.112	0.00	0.796	3.06	5.637	45.04	39.905	81.15	282.508	99.88	2000.000	100.00
0.126	0.00	0.893	3.50	6.325	49.12	44.774	82.94	316.979	99.96		

Operator notes: *Average of four measurements*

CTL GROUP
Building Knowledge. Delivering Results.

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Client:	**CONSOL Energy, Inc.**	CTL Project No.:	**403423**
Project:	**BET Analysis**	CTL Proj. Mgr.:	**Ella Shkolnik**
	PO #4700142976	Analyst:	**note 2**
Contact:	**Daniel Connell**	Approved:	
Submitter:	**Daniel Connell**	Date Analyzed:	**May 9, 2007**
Date Received:	**April 23, 2007**	Date Reported:	**May 10, 2007**

REPORT of BET SURFACE AREA

Sample Identification			
CTL ID	**Client ID**	**Material**	**BET Surface Area (m^2/kg)** note 2
1839001	HYD032807	Hydrated Lime	15.73
1839002	HYD032907	Hydrated Lime	17.29
1839003	HYD033007	Hydrated Lime	17.62

Notes:

1. This analysis represents specifically the samples submitted.
2. Surface area analysis was performed by Particle Technology Laboratories (PTL); the original PTL report is enclosed.
3. This report may not be reproduced except in its entirety.

Main Office: 5400 Old Orchard Road Skokie, Illinois 60077-1030 Phone: 847-965-7500 Fax: 847-965-6541
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New England Office: 1 Washington Street, Suite 300A Dover New Hampshire 03820-3831 Phone: 603-516-1500 Fax: 603-516-1510

PTL
Particle Technology Labs, Ltd.

The Leader in Independent Particle Characterization Services

May 18, 2007

Ms. Ella Shkolnik
CTLGROUP
5400 Old Orchard Road
Skokie, IL 60077-1030

Subject: B.E.T. Surface Area Analysis of Three Hydrated Lime Samples

P.O. #: 39804B

PTL Project: 14234

Dear Ms. Shkolnik:

Enclosed are the results from the 1-point B.E.T. surface area analysis conducted on your three Hydrated Lime samples. The sample information is detailed in Table 1 below.

TABLE 1
SAMPLE DETAILS

SAMPLE TYPE	SAMPLE ID	DATE RECEIVED
Hydrated Lime	1839001	05/02/07
	1839002	
	1839003	

The surface area was determined on our Micromeritics® TriStar 3000 static pressure surface area analyzer according to PTL Test Method TS1234.01. Per this method, an aliquot portion of each sample was heat conditioned for 3 hours at 105°C, under vacuum, and then analyzed according to standard operating procedures for this instrumentation type.

The data has been summarized in Table 2. In addition, the original data pages have been included for your review.

We trust this information will be beneficial for your future use. If there are any questions concerning this data or the methods used to acquire the data, please do not hesitate to contact us here at Particle Technology Labs.

Submitted by,

Michelle Lacson
Fine Particle Analyst

Reviewed by,

William Kopesky
Laboratory Manager

DR:\14234.doc:Reports

TABLE 2

B.E.T. SURFACE AREA DATA SUMMARY

SAMPLE ID	SPECIFIC SURFACE AREA (m^2/g)
1839001	15.73
1839002	17.29
1839003	17.62

Sample: 14234A
Operator: ML
Submitter: UNIT # 231
File Location: Category: Mic. Samples Subcategory: Example

Started:	5/9/2007 1:17:01PM	Analysis Adsorptive:	N2
Completed:	5/9/2007 2:36:08PM	Analysis Bath Temp.:	77.300 K
Report Time:	5/9/2007 3:44:13PM	Sample Mass:	0.7716 g
Warm Free Space:	8.0416 cm³ Measured	Cold Free Space:	24.2140 cm³ Measured
Equilibration Interval:	20 s	Low Pressure Dose:	None
Sample Density:	1.000 g/cm³	Automatic Degas:	No
File Created By:	Michelle Lacson	File Creation Time:	5/9/2007 11:44:15AM
Analysis By:	Michelle Lacson	Coll. Software:	TriStar Confirm V7.02
Report By:	Michelle Lacson	Sample File Version:	6

Comments: CTL GROUP - Hydrated Lime - S55967 - CTL ID:1839001 - TS1234.01 - 58042

Summary Report

Surface Area

Single point surface area at P/Po = 0.306803201: 15.7282 m²/g

UK 5/10/07
ML
5/9/07

Particle Technology Labs

CTL Group

Sample: 14234B
Operator: ML
Submitter: UNIT # 231
File Location: Category: Mic. Samples Subcategory: Example

Started:	5/9/2007 1:17:01PM	Analysis Adsorptive:	N2
Completed:	5/9/2007 2:36:08PM	Analysis Bath Temp.:	77.300 K
Report Time:	5/9/2007 3:32:51PM	Sample Mass:	0.7034 g
Warm Free Space:	8.4716 cm^3 Measured	Cold Free Space:	25.2163 cm^3 Measured
Equilibration Interval:	20 s	Low Pressure Dose:	None
Sample Density:	1.000 g/cm^3	Automatic Degas:	No
File Created By:	Michelle Lacson	File Creation Time:	5/9/2007 11:49:55AM
Analysis By:	Michelle Lacson	Coll. Software:	TriStar Confirm V7.02
Report By:	Michelle Lacson	Sample File Version:	6

Comments: CTL GROUP - Hydrated Lime - TS1234.01 - S55968 - CTL ID: 1839002 - 58043

Summary Report

Surface Area

Single point surface area at P/Po = 0.306303993: 17.2884 m^2/g

wk 5/10/07
ML 5/9/07

Sample: 14234C
Operator: ML
Submitter: UNIT # 231
File Location: Category: Mic. Samples Subcategory: Example

Started:	5/9/2007 1:17:02PM	Analysis Adsorptive:	N2
Completed:	5/9/2007 2:36:09PM	Analysis Bath Temp.:	77.300 K
Report Time:	5/9/2007 3:33:59PM	Sample Mass:	0.5703 g
Warm Free Space:	7.8878 cm³ Measured	Cold Free Space:	23.6188 cm³ Measured
Equilibration Interval:	20 s	Low Pressure Dose:	None
Sample Density:	1.000 g/cm³	Automatic Degas:	No
File Created By:	Michelle Lacson	File Creation Time:	5/9/2007 11:51:37AM
Analysis By:	Michelle Lacson	Coll. Software:	TriStar Confirm V7.02
Report By:	Michelle Lacson	Sample File Version:	6

Comments: CTL GROUP - Hydrated Lime - TS1234.01 - S55969 - CTL ID: 1839003 - 58044

Summary Report

Surface Area

Single point surface area at P/Po = 0.308913595: 17.6179 m²/g

ML 5/9/07
ML 5/9/07

APPENDIX C
Field Data Sheets

Axial Flow Check

Location	SCR OUTLET	Duct Ht, "		Barometric	29.50
Date	3/27/07	Duct ID,"		Static	-7.9
Time		Duct Area	ft²	Dry Bulb	
Tube I.D.	S-53	% O_2	6.0%	Wet Bulb	
C-Factor	.807	% CO_2	14.0%	% H_2O	10%
Operator(s)	BG & RD	% N_2		W.M.Wt	

PORT/ POINT	DISTANCE [" From Wall]	TEMP [°F]	DELTA P [" H_2O]	VELOCITY [Ft/Sec]	Null Angle	
1'		636	0.271	Ø	≈ 0	-7.8
2'		651	0.265			
3'		658	0.308		≈ 0	-8.1
4'		636	0.224			
5'		626	0.192		≈ 0	-8.1
6'		638	0.218			
7'		638	0.225		≈ 0	-7.6
8'		625	0.229			
Average		638.5	.242			
Maximum						
Minimum						
SDEV						

M4 @ inlet
Y: 0.983
ΔH@: 1.790

DATA SUMMARY	
Velocity, [fps]	
acfm	
scfm	
dscfm	
Ex Air Free cfm	
Est. MM Btu/hr Heat Input	
Est. Firing Rate, lb/hr	

M5: Y: 0.991 ΔH@: 1.883
~~ET58-0.828~~
E11-A: 0.833
D_N: 0.313
KFACT: 4.38, ~~4.70~~

Axial Flow Check

Location	AH Out	Duct Ht, "		Barometric	29.50
Date	3/21/07	Duct ID,"		Static	-14.2
Time	1410-1440	Duct Area	ft^2	Dry Bulb	
Tube I.D.	S-19A	% O_2		Wet Bulb	
C-Factor		% CO_2		% H_2O	
Operator(s)		% N_2		W.M.Wt	

PORT/ POINT	DISTANCE [" From Wall]	TEMP [°F]	DELTA P [" H_2O]	VELOCITY [Ft/Sec]	Null Angle	
C-2		294	0.0414		~0	
C-6		304	1.183		~0	-13.68
C-10		305	1.126		~0	
B-2		295	0.1801		~0	
B-6		297	1.111		~0	-14.86
B-10		298	1.621		~0	
A-2		296	0.6981		~0	
A-6		306	1.168		~0	-14.23
A-10		302	1.362		~0	
Average		299.7	0.943			
Maximum						
Minimum						
SDEV						

Meter: N1:
Y: 0.970
ΔH@: 1.894
E3: 0.840
Dn: 0.184
K FACT: 0.744

DATA SUMMARY	
Velocity, [fps]	
acfm	
scfm	
dscfm	
Ex Air Free cfm	
Est. MM Btu/hr Heat Input	
Est. Firing Rate, lb/hr	

N-1

A

B

C

Axial Flow Check

Location	STK.	Duct Ht, "		Barometric	25.50
Date	3-27-07	Duct ID,"		Static	-0.630
Time	1520-1535	Duct Area	ft^2	Dry Bulb	
Tube I.D.	S-54	% O_2		Wet Bulb	
C-Factor		% CO_2		% H_2O	
Operator(s)	KC, BS	% N_2		W.M.Wt	

	PORT/ POINT	DISTANCE [" From Wall]	TEMP [°F]	DELTA P [" H_2O]	VELOCITY [Ft/Sec]	Null Angle	
	A-1		179	.639			
	2		179	.772			
~0	3		179	.869			-.588
	4		179	.655			
	B-1		179	.605			
	2		179	.907			
~0	3		179	.895			-.635
	4		179	.814			
	C-1		178	.479			
	2		179	.860			-.625
~0	3		179	.773			
	4		179	.875			
	D-1		179	.637			
	2		179	.662			
~0	3		179	.672			-.673
	4		179	.698			
	Average		178.9	0.737			
	Maximum						
	Minimum						
	SDEV						

SO3
N-3
Y = 1.046
ΔH = 1.859
KFACT: 2.94

DATA SUMMARY	
Velocity, [fps]	
acfm	
scfm	
dscfm	
Ex Air Free cfm	
Est. MM Btu/hr Heat Input	
Est. Firing Rate, lb/hr	

Hg & ACID GAS
N-2
Y = 0.967
ΔH = 1.895
PITOT TIP E-1
A: 0.835
D_N: 0.248

AES GREENIDGE UNIT 4 GUARANTEE TESTING

NH3 Summary

March 28, 2007

Location		SCRO	SCRO	SCRO
Date		03/28/07	03/28/07	03/28/07
Start Time		914	1115	1300
Stop Time		1014	1215	1400
Test Number		NH3-1	NH3-2	NH3-3
MEASURED TEST VARIABLES				
Y factor of Dry Gas Meter	-	0.991	0.991	0.991
Gas Volume	- ft^3	30.70	31.01	30.14
delta H of Dry Gas Meter	- " H_20	0.988	0.970	0.907
Meter Temperature	- °F	71.3	75.8	78.8
C Factor of Pitot Tube	-	0.833	0.833	0.833
Nozzle Diameter	- inches	0.313	0.313	0.313
Area of Nozzle	- ft^2	0.00053	0.00053	0.00053
Area of Stack	- ft^2			
H_2O Weight	- gm	51.0	55.7	56.4
Sample Time	- minutes	60	60	60
Barometric Pressure	- " Hg	29.83	29.85	29.85
Static Pressure	- " H_20	-7.20	-7.20	-7.30
% Oxygen (see note)	-	3.3	4.0	4.1
% CO2 (see note)	-	15.4	14.8	14.7
% N_2 + CO (calculated)	-	81.3	81.2	81.2
Stack Temp (Dry Bulb)	- °F	663	655	657
Stack Temp (Wet Bulb)	- °F			
"S" Sample (rms vel head)	- " H_20	0.232	0.230	0.215
Ammonia as NH4	- mg	2.91	6.95	7.88
CALCULATED TEST VARIABLES				
Sample Volume	- dscf	30.20	30.27	29.26
Absolute Stack Pressure	- " Hg	29.30	29.32	29.31
Absolute Stack Temperature	- °R	1123	1115	1117
H_2O - % by Volume	- vapor			
H_2O - % by Volume	- w/ droplets	7.4	8.0	8.3
Water Volume	- std ft^3	2.40	2.62	2.66
Dry Molecular Weight	- lb/lb-mole	30.59	30.52	30.51
Wet Molecular Weight	- lb/lb-mole	29.67	29.52	29.47
% Excess Air	-	18	23	24
Mole Fraction of Dry Gas	-	0.926	0.920	0.917
Mole Fraction of Wet Gas	-	0.074	0.080	0.083
STACK FLOW RATE				
Gas Velocity, Direct	- ft/sec	38.99	38.76	37.55
ACFM	-			
DSCFM	-			
DSCFM (rounded)	-			
Excess Air Free DSCFM	-			
AMMONIA				
NH3, ppmvd	-	4.53	10.80	12.68
NH3, ppmvd @ 3% O2	-	4.61	11.44	13.51
ISOKINETICS				
% Isokinetic	-	94.5	95.2	95.5

NOTE: The %O_2 was measured by CONSOL using a Teledyne Max 5 portable electrochemical O_2 analyzer, and the % CO_2 was calculated from the measured O_2 and coal composition.

AMMONIA SAMPLING FIELD DATA SHEET

Page _____ of _____

TEST ID	One	METER BOX	N-5	CAL. DATA: delta H	1.883	Comments:	Cod 51.0
PLANT	GREENIDGE	PITOT TUBE DESC	E-11A : 0.833	Y	0.991		
LOCATION	SCR OUTLET	PROBE LENGTH [ft]	8	C(p)	0.833		
DATE	3/28/07	NOZZLE ID [inch]	0.313	FILTER BOX SETTING	NA		
OPERATOR(S)	B. GREEN & R. DOUGLAS	%H_2O (Assumed)	10%	PROBE HTR SETTING			
AMBIENT TEMP [°F]		FILTER ID	901000	DUCT X-SECTION	circ ?	rect ?	other:
BAR. PRESS. [" Hg]	29.83	K FACTOR	~~4.38~~ 4.22	DUCT DIMENSIONS		DUCT AREA	

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	6 METER TEMP [oF] inlet	7 outlet	1 STACK TEMP [°F]	PROBE TEMP [°F]	~~FILTER BOX~~ LINE TEMP [°F]	4 LAST IMP TEMP [°F]	METER EXHAUST O_2 [% vol]	CO_2 [% vol]
	0914	0					580.516								
1-~~8"~~ 8'		10	-7.1	0.23	1.0	3	585.9	69	70	660	254	276	57	3.0	~~17.9~~ 17.1
1-8" 6'		20		0.23	0.97	4	591.0	71	71	661	260	281	52	2.9	~~18.0~~ 17.1
1-8" 5'		30	-7.2	0.20	.84	5	595.4	71	72	644	265	282	54	3.2	16.8
1-8" 5'		40		0.20	.84	7	600.7	72	72	645	257	282	58	3.3	16.7
1-8" 3'		50	-7.2	0.27	1.14	13	606.1	72	72	684	262	282	63 RTP	3.8	16.2
1-8" 3'		60		0.27	1.14	18	611.214	72	71	684	261	281	66	3.8	16.2
			-7.2												
AVERAGE			RMS	0.232	0.988		30.698		71.3	663.0				3.3	16.7

Sample Train Leak Checks: Pre Test 0.002 ft^3 @ 10 in. Hg; Post Test 0.004 ft^3 @ 20 in. Hg

8/29

Pitot Tube Leak Checks: PreTest ✓ @ 5 in. H_2O; Post Test ✓ @ 5 in. H_2O

CONSOL ENERGY.

AMMONIA SAMPLING FIELD DATA SHEET

Page _____ of _____

TEST ID	TWO	METER BOX	N-5	CAL. DATA: delta H	1.883	Comments:	First point - probe all the way in.
PLANT	GREENIDGE	PITOT TUBE DESC	E-11A: 0.833	Y	0.991		
LOCATION	SCR OUTLET	PROBE LENGTH [ft]	8	C(p)	0.833		
DATE	3/28/07	NOZZLE ID [inch]	0.313	FILTER BOX SETTING			
OPERATOR(S)	B. GREEN & R. DOUGLAS	$\%H_2O$ (Assumed)	10%	PROBE HTR SETTING			
AMBIENT TEMP [°F]		FILTER ID	901000K	DUCT X-SECTION	circ ?	rect ?	other:
BAR. PRESS. [" Hg]	29.83	K FACTOR	4.22	DUCT DIMENSIONS		DUCT AREA	

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	6 METER TEMP [oF] inlet	7 METER TEMP [oF] outlet	1 STACK TEMP [°F]	PROBE TEMP [°F]	FILTER BOX [°F]	4 LAST IMP TEMP [°F]	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	1115	0					615.188								
1-~~8"~~ 6		10	-7.2	0.22	0.93	2	620.4	73	76	640	254	251	58	3.8	16.3
1-~~8"~~ 6		20		0.22	0.93	3	625.5	75	76	641	257	254	50	3.0	17.0
1-~~8"~~ 4		30	-7.2	0.22	0.93	5	630.5	76	77	654	254	258	52	3.7	16.3
1-~~8"~~ 4	0.22	40		~~0.22~~ 0.25	0.93	6	636.1	77	78	656	263	259	53	3.7	16.3
1-~~8"~~ 2		50	-7.1	0.25	1.05	9	640.9	76	75	670	263	260	55	5.0	15.1
1-~~8"~~ 2		60		0.25	1.05	12	646.198	76	74	670	257	260	57	5.0	15.1
										655.2					
AVERAGE			-7.2	.230	0.970		31.010			75.8				4.0	16.0

Sample Train Leak Checks:	Pre Test 0.002 ft^3 @ 15 in. Hg	Post Test 0.003 ft^3 @ 15 in. Hg	Pitot Tube Leak Checks:	PreTest ✓ @ 5 in. H_2O	Post Test ✓ @ 5 in. H_2O

CONSOL ENERGY.

AMMONIA SAMPLING FIELD DATA SHEET

Page _____ of _____

TEST ID	Three	METER BOX	N-5	CAL. DATA: delta H	1.883	Comments:	
PLANT	GREENIDGE	PITOT TUBE DESC	E11A : .833	Y	.991		
LOCATION	SCR OUTLET	PROBE LENGTH [ft]	8	C(p)	~~.313~~ .833		
DATE	3/28/07	NOZZLE ID [inch]	.313	FILTER BOX SETTING			
OPERATOR(S)	B. GREEN & R. DOUGLAS	%H_2O (Assumed)	10	PROBE HTR SETTING			
AMBIENT TEMP [°F]		FILTER ID	901002	DUCT X-SECTION	circ ?	rect ?	other:
BAR. PRESS. [" Hg]	29.85	K FACTOR	4.22	DUCT DIMENSIONS		DUCT AREA	

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet	METER TEMP [oF] outlet	STACK TEMP [°F]	PROBE TEMP [°F]	FILTER BOX [°F]	LAST IMP TEMP [°F]	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	1300	0					648.871								
1-~~8"~~ 6'		10	~~.19~~	.19	.80	3	653.4	77	77	646	261	207	63	3.3	16.7
1-~~8"~~ 6'		20		.20	.84	4	658.3	78	77	648	255	225	47	3.4	16.6
1-~~8"~~ 4'		30	-7.2	.21	0.89	5	663.3	79	81	—	254	230	44	3.8	16.2
1-~~8"~~ 4'		40		.21	0.89	7	668.3	80	79	657	264	234	45	3.6	16.3
1-~~8"~~ 2'		50	-7.3	.24	1.01	10	673.7	80	78	666	262	235	45	5.1	15.0
1-~~8"~~ 2'	1400	60	-7.4	.24	1.01	13	679.011	80	80	668	262	235	45	5.2	15.0
AVERAGE			-7.3	0.215	0.907		30.14	78.3		657				4.1	16.0

Sample Train Leak Checks: Pre Test 0.004 ft^3 @ 15 in. Hg; Post Test 0.004 ft^3 @ 15 in. Hg

Pitot Tube Leak Checks: PreTest ✓ @ 5 in. H_2O; Post Test ✓ @ 5 in. H_2O

CONSOL ENERGY.

AES GREENIDGE UNIT 4 GUARANTEE TESTING

NH3 Summary

May 1, 2007

Location		SCRO	AHI	SCRO	AHI	SCRO	AHI	SCRO	AHI
Date		05/01/07	05/01/07	05/01/07	05/01/07	05/01/07	05/01/07	05/01/07	05/01/07
Start Time		903	904	1121	1121	1335	1335	1530	1530
Stop Time		1006	1006	1235	1225	1438	1438	1635	1635
Test Number		NH3-1	NH3-1	NH3-2	NH3-2	NH3-3	NH3-3	NH3-4	NH3-4
MEASURED TEST VARIABLES									
Y factor of Dry Gas Meter	-	0.991	0.970	0.991	0.970	0.991	0.970	0.991	0.970
Gas Volume	- ft^3	29.35	33.28	30.66	31.99	30.96	34.03	31.08	33.17
delta H of Dry Gas Meter	- " H_20	0.900	1.000	0.885	1.000	0.890	1.000	0.960	1.000
Meter Temperature	- ° F	85.1	73.5	94.5	80.7	95.8	81.1	95.6	79.0
C Factor of Pitot Tube	-	0.833		0.822		0.822		0.833	
Nozzle Diameter	- inches	0.313	0.311	0.313	0.311	0.313	0.311	0.313	0.311
Area of Nozzle	- ft^2	0.00053	0.00053	0.00053	0.00053	0.00053	0.00053	0.00053	0.00053
Area of Stack	- ft^2								
H_2O Weight	- gm	50.2	56.8	49.6	53.6	59.6	60.2	59.6	62.8
Sample Time	- minutes	60	60	60	60	60	60	60	60
Barometric Pressure	- " Hg	29.47	29.47	29.47	29.47	29.41	29.41	29.40	29.40
Static Pressure	- " H_20	-7.37		-7.36		-7.41		-7.49	
% Oxygen (see note)	-	7.2	5.8	7.9	6.5	7.6	5.9	7.3	5.8
% CO2 (see note)	-	11.9	13.1	11.3	12.6	11.6	13.1	11.8	13.1
% N_2 + CO (calculated)	-	80.9	81.1	80.8	80.9	80.8	81.0	80.9	81.1
Stack Temp (Dry Bulb)	- ° F	638.5		640.3		641.9		651.4	
Stack Temp (Wet Bulb)	- ° F								
"S" Sample (rms vel head)	- " H_20	0.195		0.197		0.199		0.213	
Ammonia as NH4	- mg	5.22	2.06	4.27	2.63	6.48	2.26	4.56	2.33
CALCULATED TEST VARIABLES									
Sample Volume	- dscf	27.80	31.53	28.54	29.91	28.70	31.73	28.82	31.04
Absolute Stack Pressure	- " Hg	28.93		28.93		28.87		28.85	
Absolute Stack Temperature	- ° R	1099		1100		1102		1111	
H_2O - % by Volume	- vapor								
H_2O - % by Volume	- w/ droplets	7.8	7.8	7.6	7.8	8.9	8.2	8.9	8.7
Water Volume	- std ft^3	2.36	2.68	2.34	2.52	2.81	2.84	2.81	2.96
Dry Molecular Weight	- lb/lb-mole	30.19	30.33	30.13	30.27	30.16	30.33	30.18	30.33
Wet Molecular Weight	- lb/lb-mole	29.23	29.36	29.21	29.31	29.08	29.32	29.10	29.25
% Excess Air	-	51	37	59	44	55	38	52	37
Mole Fraction of Dry Gas	-	0.922	0.922	0.924	0.922	0.911	0.918	0.911	0.913
Mole Fraction of Wet Gas	-	0.078	0.078	0.076	0.078	0.089	0.082	0.089	0.087
STACK FLOW RATE									
Gas Velocity, Direct	- ft/sec	35.84		35.59		35.92		37.82	
ACFM	-								
DSCFM	-								
DSCFM (rounded)	-								
Excess Air Free DSCFM	-								
AMMONIA									
NH3, ppmvd	-	8.84	3.07	7.04	4.14	10.63	3.35	7.45	3.53
NH3, ppmvd @ 3% O2	-	11.55	3.64	9.69	5.14	14.30	4.00	9.80	4.19
ISOKINETICS									
% Isokinetic	-	94.3		97.3		98.8		95.0	

NOTE: The $\%O_2$ was measured by CONSOL using a Teledyne Max 5 portable electrochemical O_2 analyzer, and the % CO_2 was calculated from the measured O_2 and coal composition.

AMMONIA SAMPLING FIELD DATA SHEET

TEST ID	NH3-1	METER BOX	N-5	CAL. DATA: delta H	1.883
PLANT	Greenidge	PITOT TUBE DESC	E-11 ~~NA~~	Y	0.991
LOCATION	SCR OUTLET ~~Cntr~~ West Duct	PROBE LENGTH [ft]	~~NA~~ 10	C(p)	~~NA~~ 0.853
DATE	5-1-07	NOZZLE ID [inch]	0.313 ~~NA~~ ~~0.331~~	FILTER BOX SETTING	NA
OPERATOR(S)	RYD BPS	%H_2O (Assumed)	8	PROBE HTR SETTING	250 ~~NA~~
AMBIENT TEMP [°F]	77°F	FILTER ID	~~NA~~	DUCT X-SECTION	circ ? / rect ? / other:
BAR. PRESS. [" Hg]	29.47	K FACTOR	4.42 ~~NA~~ ~~3.70~~	DUCT DIMENSIONS	DUCT AREA

Comments: ~~Constant Flow Rate~~

TRAVERSE POINT [port-probe]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_20]	PITOT HEAD [" H_20]	METER DIFF PRESSURE [" H_20]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet (6)	METER TEMP [oF] outlet (7)	STACK TEMP [°F] (1)	PROBE TEMP [°F] (2)	~~FILTER BOX~~ Imp [°F] (5 heated)	LAST IMP TEMP [°F] (4)	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	0903	0					703.70								
S ~~N~~-1		5	-7.442	.14 ~~NA~~	.62	2"	705.90	77	78	611	252	245	54		
S ~~N~~-1		10		.14	.62	2	708.02	78	80	612	244	249	51	9.1	11.3
S ~~N~~-2		15	-7.470	.13	.58	3	710.10	80	80	632	245	251	51		
S ~~N~~-2		20		.13	.58	3	712.16	81	81	632	248	253	51	6.8	13.4
S ~~N~~-3		25	-7.257	.26	1.15	5	714.83	84	83	643	251	255	52		
S ~~N~~-3		30		.26	1.15	5	717.54	87	84	639	253	~~2~~61	56	6.2	14.0
		~~35~~			move	+ L.C.									
		~~40~~		~~.25~~	~~1.20~~		718.34								
N ~~S~~-1		35 ~~45~~	-7.368	.25	1.20	6	720.88	88	81	654	247	260	59		
N ~~S~~-1		40 ~~50~~		.25	1.20	7	723.69	90	87	662	255	259	60	6.8	13.4
N ~~S~~-2		45 ~~55~~	-7.331	.18	.80	7	726.03	91	88	647	248	259	65		
N ~~S~~-2		50 ~~60~~		.18	.80	8	728.44	91	89	647	247	260	63	5.4	14.6
N ~~S~~-3		55	-7.341	.23	1.02	11	731.11	93	89	642	250	261	69		
N ~~S~~-3		60 ~~65~~		.23	1.02	12	733.85	93	89	641	247	261	69	9.1	15.0
		~~70~~													
		~~75~~													
		~~80~~													
		~~85~~													
		~~90~~													
		~~95~~													
		~~100~~													
		~~105~~													
		~~110~~													
		~~115~~													
		~~120~~		RMS											
AVERAGE			-7.37	0.195	0.90		29.36	85.1		638.5				7.2	13.6

Sample Train Leak Checks: Pre Test OK ft^3 @ 10 in. Hg; Post Test OK ft^3 @ 10 in. Hg

Pitot Tube Leak Checks: PreTest OK @ 7 in. H_2O; Post Test ______ @ ______ in. H_2O

CONSOL ENERGY

AMMONIA SAMPLING FIELD DATA SHEET

Page _____ of _____

TEST ID	#1	METER BOX	N-1	CAL. DATA: delta H	1.394	Comments:	Constant Flow Rate
PLANT	Greenidge	PITOT TUBE DESC	NA	Y	0.970		
LOCATION	~~SCR OUTLET PORT~~ Air Htr INLT	PROBE LENGTH [ft]	~~NA~~ 3	C(p)	NA		
DATE	5-1-07	NOZZLE ID [inch]	5/16 D ~~NA~~ 0.311	FILTER BOX SETTING	~~NA~~		
OPERATOR(S)	Tim, Keith	%H_2O (Assumed)	8	PROBE HTR SETTING	~~NA~~ 250		
AMBIENT TEMP [°F]	56	FILTER ID	~~NA~~ 1037	DUCT X-SECTION	circ ?	rect ?	other:
BAR. PRESS. [" Hg]	29.47	K FACTOR	~~NA~~	DUCT DIMENSIONS		DUCT AREA	

TRAVERSE POINT [port-probe]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet (6)	METER TEMP [oF] outlet (7)	~~STACK TEMP~~ [°F]	PROBE TEMP [°F] (2)	~~FILTER BOX~~ H. Line [°F] (3)	LAST IMP TEMP [°F] (4)	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	9:04	0					329.10								
1		5		NA	1.0	5	331.87	69	69	~~62~~ TR	250	233	62	6.5	13.6
1	West	10				5	334.58	69	70	~~62~~ TR	250	233	62	6.5	13.7
2		15				5.5	337.31	71	70	~~62~~ TR	250	233	62	6.3	13.9
2		20				6	349.04	73	70	~~62~~ TR	250	233	62	6.2	13.9
3		25				7	342.81	75	71		252	234	61	6.4	13.8
3		30				7	~~345.54~~ 345.05	76	71		249	235	61	6.4	13.8
4		~~35~~				7.5	~~349.17~~ [illegible]	77	72		250	239	59	5.5	14.7
4		40				8	351.90	78	73		250	242	59	5.3	14.8
5	East	35 ~~45~~	45			8	354.62	78	73		250	242	60	5.2	14.9
5		40 ~~50~~	50			9	357.34	79	73		250	242	59	5.1	15.0
6		45 ~~55~~	55			10	360.11	79	74		250	242	59	5.3	14.8
6	10:06	50 ~~60~~	60			10.5	362.87	80	74		250	242	59	5.2	14.9
		55													
1		60 ~~65~~													
1		70													
2		75													
2		80													
3		85													
3		90													
4		95													
4		100													
5		105													
5		110													
6		115													
6		120													
AVERAGE					1.0		33.78	73.5						5.8	14.3

Sample Train Leak Checks: Pre Test <0.01 ft^3 @ 7 in. Hg; Post Test <0.01 ft^3 @ 8 in. Hg

Pitot Tube Leak Checks: PreTest ______ @ ______ in. H_2O; Post Test ______ @ ______ in. H_2O

CONSOL ENERGY

AMMONIA SAMPLING FIELD DATA SHEET

TEST ID	NH3-2	METER BOX	N-5	CAL. DATA: delta H	1.883
PLANT	Greenidge	PITOT TUBE DESC	E-11 NA	Y	0.991
LOCATION	SCR OUTLET ~~GRID~~ E Duct	PROBE LENGTH [ft]	10 NA	C(p)	~~NA~~ 0.833
DATE	5-1-07	NOZZLE ID [inch]	.313 NA	FILTER BOX SETTING	NA
OPERATOR(S)	KPW BTS	%H_2O (Assumed)	8	PROBE HTR SETTING	NA 250
AMBIENT TEMP [°F]	50	FILTER ID	NA	DUCT X-SECTION	circ ? rect ? other:
BAR. PRESS. [" Hg]	29.47	K FACTOR	4.42 NA	DUCT DIMENSIONS	DUCT AREA

Comments: ~~Constant Flow Rate~~

TRAVERSE POINT [port-probe]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet (6)	METER TEMP [oF] outlet (7)	STACK TEMP [°F] (1)	PROBE TEMP [°F] (2)	FILTER BOX [°F] (5)	LAST IMP TEMP [°F] (4)	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
		0					747.814								
N1 1	1121	5	-7.384	.23 ~~NA~~	1.02	2	750.95	90	90	665	242	227	54		
N1 1		10		.23	1.02	3	753.54	96	91	668	255	226	48	7.2	13.0
N2 2		15	-7.318	.17	.75	3	755.95	96	92	649	250	232	48		
N2 2		20		.17	.75	3	758.33	97	92	649	249	235	49	6.1	14.2
N3 3		25	-7.351	.24	1.07	4	761.07	98	93	663	249	231	50		
N3 3		30		.24	1.07	4	763.83	99	93	661	246	231	50	6.6	13.6
4		~~35~~													
4		35 ~~40~~		~~.15~~	~~.66~~		767.75								
S1 5		40 45	-7.321	.15	.66	3	769.95	95	92	606	246	233	52		
S1 5		45 50		.15	.66	3	772.18	96	93	615	245	235	50		
S2 6		50 55	-7.311	.15	.66	4	774.45	97	93	632	251	237	49	9.8	10.2
S2 6		60		.15	.66	4	776.70	98	93	645	255	235	49		
S3 1		55	-7.451	~~.15~~ .26	1.15	5	779.42	98	93	645	256	233	49	9.7	10.6
S3 1		60 65		.26	1.15		782.39	99	93	645	248	233	49		
1'		70													
2		75													
2		80													
3		85													
3		90													
4		95													
4		100													
5		105													
5		110													
6		115													
6		120		RMS											
AVERAGE			-7.36	0.197	0.885		30.656	94.5		640.3				7.9	12.3

Sample Train Leak Checks: Pre Test ________ ft^3 @ ________ in. Hg; Post Test ________ ft^3 @ ________ in. Hg

Pitot Tube Leak Checks: PreTest ________ @ ________ in. H_2O; Post Test ________ @ ________ in. H_2O

CONSOL ENERGY

AMMONIA SAMPLING FIELD DATA SHEET

TEST ID	#2	METER BOX	N-1	CAL. DATA: delta H	1.894	Comments:	Constant Flow Rate
PLANT	Greenidge	PITOT TUBE DESC	NA	Y	0.970		
LOCATION	~~SCR OUTLET GRID~~ AIR HEATER INLET	PROBE LENGTH [ft]	~~NA~~ 3	C(p)	NA		
DATE	5-1-07	NOZZLE ID [inch]	5/16" ~~NA~~ 0.311	FILTER BOX SETTING	~~NA~~		
OPERATOR(S)	TIM, KEITH	$\%H_2O$ (Assumed)	8	PROBE HTR SETTING	~~NA~~ 250		
AMBIENT TEMP [°F]	~~TR 56~~ 78	FILTER ID	~~NA~~ 1038	DUCT X-SECTION	circ ?	rect ?	other:
BAR. PRESS. [" Hg]	29.47	K FACTOR	~~NA~~	DUCT DIMENSIONS		DUCT AREA	

TRAVERSE POINT [port-probe]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet (6)	METER TEMP [oF] outlet (7)	~~STACK TEMP~~ [°F]	PROBE TEMP [°F] (2)	~~FILTER BOX~~ H.E. [°F] (5)	LAST IMP TEMP [°F] (4)	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
		0					380.50								
1	11:21	5		NA	1.0	4	383.35	80	77	~~TR 57~~	250	245	57	6.6	13.7
1		10	WEST			4	386.07	81	77		250	247	54	6.5	13.7
2		15				4	388.82	82	77		250	248	54	6.6	13.6
2		20				5	391.58	83	78		249	248	55	6.6	13.6
3		25				5	394.34	83	78		249	249	55	6.5	13.7
3		30				5	~~397.06~~ 398.61	84	78		249	249	56	6.5	13.7
4		35				6	401.46	85	79		250	239	56	8.1	12.7
4		40	EAST			6.5	404.15	84	79		250	233	57	6.7	13.5
5		45				7	406.92	84	79		250	236	58	5.7	14.4
5		50				8	409.68	84	79		249	237	58	5.8	14.2
6		55				8	412.35	84	79		250	237	58	5.9	14.2
6	12:25	60				9	415.21	84	79		250	237	59	6.0	14.1
1		65													
1		70													
2		75													
2		80													
3		85													
3		90													
4		95													
4		100													
5		105													
5		110													
6		115													
6		120													
AVERAGE					1.0		31.99	80.7						6.5	13.8

Sample Train Leak Checks: Pre Test 0.01 ft^3 @ 7 in. Hg; Post Test 0.01 ft^3 @ 7 in. Hg

Pitot Tube Leak Checks: PreTest ____ @ ____ in. H_2O; Post Test ____ @ ____ in. H_2O

CONSOL ENERGY

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AMMONIA SAMPLING FIELD DATA SHEET

TEST ID	NH3-3	METER BOX	N-5	CAL. DATA: delta H	1.883
PLANT	Greenidge	PITOT TUBE DESC	E-11 NA	Y	0.991
LOCATION	SCR OUTLET ~~GRID~~ W. Path	PROBE LENGTH [ft]	10 NA	C(p)	~~NA~~ .833
DATE	5-1-07	NOZZLE ID [inch]	.313 NA	FILTER BOX SETTING	NA
OPERATOR(S)	RPD BPS	%H_2O (Assumed)	8	PROBE HTR SETTING	NA 250
AMBIENT TEMP [°F]	80	FILTER ID	NA	DUCT X-SECTION	circ ? / rect ? / other:
BAR. PRESS. [" Hg]	29.40	K FACTOR	4.42 NA	DUCT DIMENSIONS	DUCT AREA

Comments: ~~Constant Flow Rate~~

59.6

6 7 1 2 3 4

TRAVERSE POINT [port-probe]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet	METER TEMP [oF] outlet	STACK TEMP [°F]	PROBE TEMP [°F]	FILTER BOX [°F]	LAST IMP TEMP [°F]	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
		0					789.41								
N1 1		5		.22 ~~NA~~	.98	2	792.23	92	91	668	243	263	54		
N1 1		10	-7.391	.22	.98	3	794.90	96	92	671	251	265	44	7.7	12.5
N2 2		15		.18	.80	3	797.38	98	92	652	251	265	44		
N2 2		20	-7.379	.18	.80	3	799.81	99	93	651	249	266	44	6.3	13.8
N3 3		25		.25	1.10	5	802.65	99	93	663	255	264	44		
N3 3		30	-7.244	.25	1.10	6	805.50	100	94	662	254	265	45	5.9	14.3
4		35													
4		40		~~.15~~	~~.66~~		808.85								
S1 5		45		.15	.66	5	809.15	99	95	614	255	267	46		
S1 5		50	-7.358	.15	.66	5	810.39	99	94	618	246	267	45	9.9	10.4
S2 6		55		.26	1.15	8	814.23	99	94	630	255	266	45	7.6	12.6
S2 6		60	-7.628	.26	1.15	10	817.12	100	94	630	255	266	46	7.6	12.6
S3				.13	.58	8	819.35	100	94	652	257	266	47	7.7	12.5
S3 1		65	-7.463	.17	.75	10	821.72	99	94	652	255	266	47	7.8	12.5
1		70													
2		75													
2		80													
3		85													
3		90													
4		95													
4		100													
5		105													
5		110													
6		115		0.1629											
6		120		Rus											
AVERAGE			-7.41	0.196	0.89		30.96	95.8		641.9				7.6	12.7

Sample Train Leak Checks: Pre Test OK ft^3 @ ______ in. Hg; Post Test OK ft^3 @ ______ in. Hg

Pitot Tube Leak Checks: PreTest OK @ ______ in. H_2O; Post Test OK @ ______ in. H_2O

CONSOL ENERGY

AMMONIA SAMPLING FIELD DATA SHEET

TEST ID	#3	METER BOX	N-1	CAL. DATA: delta H	1.894
PLANT	Greenidge A.H.I.	PITOT TUBE DESC	NA	Y	0.970
LOCATION	~~SGR OUTLET GRID~~ 7	PROBE LENGTH [ft]	~~NA~~ 3	C(p)	NA
DATE	5-1-07	NOZZLE ID [inch]	5/16" ~~NA~~ 0.311	FILTER BOX SETTING	NA
OPERATOR(S)	TIM, KEITH	%H_2O (Assumed)		PROBE HTR SETTING	~~NA~~ 250
AMBIENT TEMP [°F]	78	FILTER ID	~~NA~~ 1099	DUCT X-SECTION	circ ? rect ? other:
BAR. PRESS. [" Hg]	29.47	K FACTOR	NA	DUCT DIMENSIONS	DUCT AREA

Comments: Constant Flow Rate

60.2

TRAVERSE POINT [port-probe]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet 6	METER TEMP [oF] outlet 7	~~STACK TEMP [°F]~~	2 PROBE TEMP [°F]	5 FILTER BOX [°F]	4 LAST IMP TEMP [°F]	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
		0					423.41								
1	13:35	5		NA	1.0	6	426.17	77	77		249	245	62	6.8	13.6
1		10	West			6	428.94	79	77		250	244	62	6.3	13.9
2		15				6	431.70	80	77		250	245	60	6.5	13.7
2		20				7	434.49	81	78		250	246	60	6.5	13.8
3		25				8	437.38	82	78		250	247	60	6.6	13.7
3		30				8	~~440.04~~ 443.52	83	78		250	247	61	6.6	13.6
4		35				7.5	446.38	85	79		250	254	61	TR ~~8~~5.6	14.2
4		40				8	449.05	86	80		250	239	61	5.0	15.1
5		45	East			9	451.83	86	80		249	236	61	5.2	14.9
5		50				10	454.64	87	81		249	234	61	5.2	15.0
6		55				11	457.33	87	81		249	233	61	5.1	15.0
6		60				12	460.10	87	81		249	233	61	5.0	15.0
1		65													
1		70													
2		75													
2		80													
3		85													
3		90													
4		95													
4		100													
5		105													
5		110													
6		115													
6		120													
AVERAGE					1.0		34.03	81.1						5.9	14.3

Sample Train Leak Checks: Pre Test <0.01 ft^3 @ 7 in. Hg; Post Test <0.01 ft^3 @ 7 in. Hg

Pitot Tube Leak Checks: PreTest ______ @ ______ in. H_2O; Post Test ______ @ ______ in. H_2O

CONSOL ENERGY

AMMONIA SAMPLING FIELD DATA SHEET

Page _____ of _____

TEST ID	NH3-4	METER BOX	N-5	CAL. DATA: delta H	1.883
PLANT	GREENIDGE	PITOT TUBE DESC	E-11	Y	0.991
LOCATION	SCR ~~OUTLET~~ In. Duct	PROBE LENGTH [ft]	~~8~~ 10	C(p)	.833
DATE	5-1-07	NOZZLE ID [inch]	.313	FILTER BOX SETTING	
OPERATOR(S)	~~[illegible] DOUGLAS~~ JBS + RPD	%H_2O (Assumed)	8	PROBE HTR SETTING	250
AMBIENT TEMP [°F]	80	FILTER ID		DUCT X-SECTION	circ ? / rect ? / other:
BAR. PRESS. [" Hg]	29.40	K FACTOR	4.42	DUCT DIMENSIONS	DUCT AREA

Comments:

59.6

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet (6)	METER TEMP [oF] outlet (7)	STACK TEMP [°F] (1)	PROBE TEMP [°F] (2)	FILTER BOX [°F] (5)	LAST IMP TEMP [°F] (4)	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
		0					828.00								
~~1-8"~~ N1		5 ~~30~~	-7.596	.23	1.02	2	830.88	93	91	672	254	237	55		
~~1-8"~~ N1		10 ~~20~~		.23	1.02	2	833.53	95	92	677	253	240	49	7.4	12.7
~~1-8"~~ N2		15 ~~30~~	-7.488	.19	.85	2	836.18	98	92	658	251	248	46		
~~1-8"~~ N2		20 ~~40~~		.19	.85	2	838.61	98	93	655	254	249	46	6.4	13.7
~~1-8"~~ N3		25 ~~50~~	-7.614	.25	1.10	5	841.40	99	93	668	249	243	46		
~~1-8"~~ N3		30 ~~60~~		.25	1.10	5	844.16	99	94	672	257	244	46	5.4	14.7
							845.65	~~98~~							
S1		35	-7.474	.15	~~1.3~~ .68	5	848.05	98	94	618	253	243	48		
S1		40		.15	.68	5	850.31	98	94	621	250	244	46	9.6	10.6
S2		45	-7.513	.28	1.25	9	853.23	99	94	635	257	245	45		
S2		50		.28	1.25	10	856.21	100	94	635	257	245	45	7.4	12.8
S3		55	-7.260	.19	.86	10	858.75	100	94	653	248	245	46		
S-3		60		.19	.86	12	861.29	99	94	653	255	245	46	7.4	12.8
AVERAGE			-7.49	0.213	0.96		31.80	95.6		651.4				7.3	12.9

Sample Train Leak Checks: Pre Test ________ ft^3 @ ________ in. Hg; Post Test ________ ft^3 @ ________ in. Hg

Pitot Tube Leak Checks: PreTest ________ @ ________ in. H_2O; Post Test ________ @ ________ in. H_2O

CONSOL ENERGY.

AMMONIA SAMPLING FIELD DATA SHEET

TEST ID: FA
PLANT: Greenidge
LOCATION: ~~SCR OUTLET GRID~~ A.H.I.
DATE: 5-1-07
OPERATOR(S): TIM, KEITH
AMBIENT TEMP [°F]: 70
BAR. PRESS. [" Hg]: 29.47

METER BOX: N-1
PITOT TUBE DESC: NA
PROBE LENGTH [ft]: ~~NA~~ 3
NOZZLE ID [inch]: 5/16 D ~~NA~~ 0.311
$\%H_2O$ (Assumed):
FILTER ID: ~~NA~~ 1040
K FACTOR: NA

CAL. DATA: delta H: 1.894
Y: 0.970
C(p): NA
FILTER BOX SETTING: NA
PROBE HTR SETTING: ~~NA~~ 250
DUCT X-SECTION: circ ? | rect ? | other:
DUCT DIMENSIONS: | DUCT AREA:

Comments: Constant Flow Rate

62.8

TRAVERSE POINT [port-probe]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet (6)	METER TEMP [oF] outlet (7)	~~STACK TEMP~~ [°F]	PROBE TEMP [°F] (2)	FILTER BOX [°F] (5)	LAST IMP TEMP [°F] (4)	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
		0					469.31								
1	15:30	5		NA	1.0	4	472.36	80	80		251	~~8~~247	62	6.8	13.4
1	WEST	10				4	475.13	81	80		249	249	57	6.5	13.7
2		15				4	477.79	82	80		249	251	58	6.7	13.5
2		20	WEST			4.5	480.30	83	80		250	251	60	6.5	13.8
3		25				4.5	482.76	84	80		250	252	61	6.6	13.6
3		30				5	485.77 *	85	80		250	252	61	6.3	13.9
4		35				5.5	490.92	86	81		249	251	61	5.4	14.9
4		40				6	493.67	86	81		249	252	62	5.0	15.1
5		45				7	496.42	86	81		250	252	62	4.7	15.4
5		50	EAST			8	499.31	87	81		250	252	62	4.9	15.1
6		55				8.5	502.12	87	82		250	252	62	4.8	15.2
6	16:35	60				9	504.88	87	82		250	252	62	5.1	15.0
1		65													
1		70													
2		75													
2		80													
3		85													
3		90													
4		95													
4		100													
5		105													
5		110													
6		115													
6		120													
AVERAGE					1.0		33.17	79.0						5.8	14.4

*488.11 - START TIME OF 2ND PORT

Sample Train Leak Checks: Pre Test ______ ft^3 @ ______ in. Hg
Post Test ______ ft^3 @ ______ in. Hg

Pitot Tube Leak Checks: PreTest ______ @ ______ in. H_2O
Post Test ______ @ ______ in. H_2O

CONSOL ENERGY

DATE	03/29/07	03/29/07	03/29/07	03/29/07	03/29/07	03/29/07
START TIME	1000	1003	1220	1240	1515	1517
END TIME	1040	1103	1300	1330	1555	1617
RUN	AHO-1	STK-1	AHO-2	STK-2	AHO-3	STK-3
Titration Information:						
FILTER PLUG:						
NORMALITY	0.0095	0.0095	0.0095	0.0095	0.0095	0.0095
VOLUME	100	100	100	100	100	100
ALIQUOT	10.0	10.0	10.0	10.0	10.0	10.0
TITRANT	0.20	0.10	0.20	0.10	0.15	0.10
PROBE:						
NORMALITY	0.0095	0.0095	0.0095	0.0095	0.0095	0.0095
VOLUME	100	100	100	100	100	100
ALIQUOT	10.0	10.0	10.0	10.0	10.0	10.0
TITRANT	0.15	0.10	0.20	0.10	0.20	0.10
CONDENSER:						
VOLUME	100	100	100	100	100	100
ALIQUOT	10.0	10.0	10.0	10.0	10.0	10.0
TITRANT	0.30	0.15	0.35	0.10	0.28	0.13

AES Greenidge Turbosorp SO_3 Sampling Results
Guarantee Testing - March 29, 2007

DATE	3/29/2007	3/29/2007	3/29/2007	3/29/2007	3/29/2007	3/29/2007
START TIME	1000	1003	1220	1240	1515	1517
END TIME	1040	1103	1300	1330	1555	1617
RUN	AHO-1	STK-1	AHO-2	STK-2	AHO-3	STK-3
MEASURED METER VARIABLES						
SAMPLE TIME [Minutes]	40	60	40	60	40	60
BAROMETRIC PRESSURE [" Hg]	30.06	30.06	30.03	30.03	29.97	29.97
SAMPLE VOLUME [ft^3]	3.77	5.94	3.82	4.81	4.02	5.82
METER TEMPERATURE [°F]	41.1	56.6	45.8	59.0	50.0	74.4
ORIFICE PRESSURE [" H_2O] (assumed)	0.20	0.20	0.20	0.20	0.20	0.20
Y FACTOR	0.983	1.046	0.983	1.046	0.983	1.046
DSCF SAMPLED	3.922	6.385	3.929	5.132	4.097	6.021
APPROX CONDENSER TEMP [°F]	142	151	141	149	141	155
DUCT STATIC PRESSURE, in H_2O	-13.60	-0.55	-13.50	-0.56	-13.10	-0.57
DUCT PRESSURE, " Hg	29.06	30.02	29.04	29.99	29.01	29.93
DUCT MOISTURE, % VOL	7.20	10.60	7.70	11.00	7.80	10.50
DUCT OXYGEN [%] (see note)	7.20	9.16	7.10	8.50	7.25	8.94
DUCT TEMP DURING TEST [°F]	304.0	186.3	307.3	185.6	306.3	187.5
SO_3						
SO_3 in FILTER PLUG						
lb/DSCF	4.27E-07	1.31E-07	4.26E-07	1.63E-07	3.07E-07	1.39E-07
PPMVD, As Sampled	2.1	0.6	2.1	0.8	1.5	0.7
PPMVD, @ 3% Oxygen	2.7	1.0	2.7	1.1	1.9	1.0
SO_3 in PROBE						
lb/DSCF	3.20E-07	1.31E-07	4.26E-07	1.63E-07	4.09E-07	1.39E-07
PPMVD, As Sampled	1.5	0.6	2.1	0.8	2.0	0.7
PPMVD, @ 3% Oxygen	2.0	1.0	2.7	1.1	2.6	1.0
SO_3 in CONDENSER						
lb/DSCF	6.41E-07	1.97E-07	7.46E-07	1.63E-07	5.62E-07	1.74E-07
PPMVD, As Sampled	3.1	1.0	3.6	0.8	2.7	0.8
PPMVD, @ 3% Oxygen	4.0	1.5	4.7	1.1	3.6	1.3
GAS PHASE SO_3 [lb/DSCF]	9.61E-07	3.28E-07	1.17E-06	3.27E-07	9.71E-07	3.13E-07
GAS PHASE SO_3 [As Sampled PPMVD]	4.6	1.6	5.7	1.6	4.7	1.5
GAS PHASE SO_3, PPMVD @ 3% O_2	**6.1**	**2.4**	**7.4**	**2.3**	**6.2**	**2.3**
TOTAL PHASE SO_3 [lb/DSCF]	1.39E-06	4.59E-07	1.60E-06	4.90E-07	1.28E-06	4.52E-07
TOTAL PHASE SO_3 [As Sampled PPMVD	6.7	2.2	7.7	2.4	6.2	2.2
TOTAL SO_3, PPMVD @ 3% O_2	8.8	3.4	10.0	3.4	8.1	3.3
% SO_3 in SOLIDS [filter plug/total]	30.8	28.6	26.7	33.3	24.0	30.8
DEW POINT DETERMINATION						
Partial Pressure H_2O, mmHg	53.14	80.83	56.79	83.79	57.47	79.82
Partial Pressure SO_3, mmHg	0.0050	0.0017	0.0057	0.0018	0.0046	0.0017
Calculated SO_3 Dew Point, °F	265	255	269	256	265	254

NOTE: The %O_2 at the air heater outlet was measured by CONSOL using a Teledyne Max 5 portable electrochemical O_2 analyzer, and the % O_2 at the stack was calculated from the %CO_2 measured by the plant's stack CEM and from the coal composition.

Run 1

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE	AMBIENT TEMP [—uo°F]		WATER BATH SETTING	140	Page ___ of ___	
LOCATION	AIR HEATER OUTLET	BAROMETRIC PRESSURE [" Hg]	30.06	PROBE HTR SETTING	550		
DUCT DIMENSIONS		$\%H_20$ (Assumed)	10	DUCT X-SECTION	circ ?	rect ?	other:
DUCT AREA		PROBE LENGTH [ft]	8	POSITION OF PORT A			
DATE	3/29/06	NOZZLE ID [inch]	XXXX				
TIME	Start- 1000 Stop- 1040	CALIBRATION FACTORS: delta H	XXXX				
SAMPLE BOX	N-4	Y	.983	DRY MOLECULAR WEIGHT (Assumed)			
METER BOX	NuTech # 4	C(p)		WET MOLECULAR WEIGHT (Assumed)			
PITOT TUBE DESC	NA	K	xxxx				
OPERATOR(S)	R. ODA & D. OLSEN						

1.2

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_20]	STACK TEMP [°F]	PITOT HEAD [" H_20]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [°F]
						810.673								
8'	0 - 10	-13.22	302	~~3LPM~~	3LPM	811.441	41	39	144	421	10	7.4%		
8'	10 - 20	-12.86	304		3LPM	812.583	41	39	145	464	13	6.9		
8'	~~20 - 30~~	Stop Change plug				812.703	~~43~~	~~31~~	~~139~~	~~442~~	~~14~~	~~7.3~~		
8'	20-30 ~~30 - 40~~	-13.39	305		3LPM	813.62	43	41	139	442	14	7.3		
8'	30-40 ~~40 - 50~~	-13.16	305		3LPM	814.442	44	41	140	479	18	7.1		
8'	50 - 60													
AVERAGE		-13.16	304			3.769	41.1		142			7.2		

REMARKS Pre-Leak Check: Good Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY.

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03/20/07

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE	AMBIENT TEMP [—uo°F]	40	WATER BATH SETTING	140	Page ___ of ___	
LOCATION	STACK Test #1	BAROMETRIC PRESSURE [" Hg]	30.06	PROBE HTR SETTING	550		
DUCT DIMENSIONS		%$H_2$0 (Assumed)	10%	DUCT X-SECTION	circ ?	rect ?	other:
DUCT AREA		PROBE LENGTH [ft]	8	POSITION OF PORT A			
DATE	3-28-07	NOZZLE ID [inch]	XXXX				
TIME	Start- 1003 Stop- 1103	CALIBRATION FACTORS: delta H	XXXX				
SAMPLE BOX		Y		DRY MOLECULAR WEIGHT (Assumed)			
METER BOX	NuTech # N3	C(p)		10.6 WET MOLECULAR WEIGHT (Assumed)			
PITOT TUBE DESC		K	xxxx				
OPERATOR(S)	K. CERAR & B. SLIFER R. Douglas						

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" $H_2$0]	STACK TEMP [°F]	PITOT HEAD [" $H_2$0]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [°F]
	10:03					434.246								
8'	0 - 10	-.503	187		1l/min	435.22	55	54	143	529	9	9.6		
8'	10 - 20		186			436.21	57	54	154	551	11	9.5		
8'	20 - 30	-.571	186			437.29	58	55	157	560	11	~~10~~ 9.6		
8'	30 - 40		186			438.26	58	56	151	561	11	9.6		
8'	40 - 50		186			439.15	59	57	149	562	11	9.8		
8'	50 - 60	-.569	187			440.19	~~58~~ 59	57	153	561	11	9.6		
AVERAGE		-0.548	186.3			5.944	56.6		151.2			9.6		
REMARKS		Pre-Leak Check:							Post-Leak Check:					

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG–SO_3						
PROBE–SO_3						
CONDENSER–SO_3						
BLANK						
IMPINGER (H_2O_2)–SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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03/20/07

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	AIR HEATER OUTLET - Test #2
DUCT DIMENSIONS	
DUCT AREA	
DATE	
TIME	Start- 1220 Stop- 1300
SAMPLE BOX	
METER BOX	NuTech # 4
PITOT TUBE DESC	
OPERATOR(S)	R. ODA & D. OLSEN

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	30.03
$\%H_2O$ (Assumed)	
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	.993
C(p)	
K	xxxx

7.1

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? / rect ? / other:
POSITION OF PORT A	

Page ____ of ____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [°F]
						816.396								
8'	0 - 10	-13.10	307		3LPM	817.4	47	44	142	460	6	7.6		
8'	10 - 20		307		3Lpm	818.4	49	46	141	490	7			
8'	20 - 30		307		3LPM	819.3	49	46	140	485	7	7.2		
8'	30 - 40	-13.9	308		3LPM	820.211	50	47	139	478	13	6.5		
8'	40 - 50													
8'	50 - 60													
AVERAGE		-13.5	307.3			3.815 ~~2.904~~	48.8	45.8	140.5	478.3		7.1		

REMARKS Pre-Leak Check: Good Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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03/20/07

SO_3 FIELD SAMPLING DATA SHEET

Page _____ of _____

PLANT	GREENIDGE
LOCATION	STACK — Test #2
DUCT DIMENSIONS	
DUCT AREA	
DATE	3-29-07
TIME	Start- 1240 Stop- 1330
SAMPLE BOX	
METER BOX	NuTech # N-3
PITOT TUBE DESC	
OPERATOR(S)	K. CERAR & B. SLIFER R Douglas

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	30.03
%H_2O (Assumed)	10%
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	XXXX

11.0

WATER BATH SETTING	150		
PROBE HTR SETTING	550		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [°F]
	1240					440.700								
8'	0 - 10		184		1 rev/min	441.75	58	58	144	560	11	9.5		
8'	10 - 20		186			442.61	59	59	147	554	11	9.3		
8'	20 - 30		186			443.67	60	58	151	562	11	9.4		
8'	30 - 40		186			444.50	60	58	153	554	11	9.4		
8'	40 - 50		186			445.505	61	59	151	565	11	9.6		
8'	50 - 60													
AVERAGE			185.6			4.805	59.6	58.4	149.2	559.0		9.44		

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY.

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE	AMBIENT TEMP [---uo F]		WATER BATH SETTING	140	Page _____ of _____	
LOCATION	AIR HEATER OUTLET	BAROMETRIC PRESSURE [" Hg]	29.97	PROBE HTR SETTING	550		
DUCT DIMENSIONS		$\%H_2O$ (Assumed)	10	DUCT X-SECTION	circ ?	rect ?	other:
DUCT AREA		PROBE LENGTH [ft]	8	POSITION OF PORT A			
DATE	3/29/07	NOZZLE ID [inch]	XXXX				
TIME	Start- 1515 Stop-	CALIBRATION FACTORS: delta H	XXXX				
SAMPLE BOX		Y		DRY MOLECULAR WEIGHT (Assumed)			
METER BOX	NuTech # 4	C(p)		WET MOLECULAR WEIGHT (Assumed)			
PITOT TUBE DESC		K	xxxx	7.8			
OPERATOR(S)	R. ODA & D. OLSEN						

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] (Assumed=) inlet	METER TEMP outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [°F]
						822.175								
8'	0 - 10	-13.17	306		3LPM	823.06	51	47	142	381	6	7.5		
8'	10 - 20	-13.25	305		3LPM	824.08	51	49	139	428	7	6.7		
8'	20 - 30		307		3LPM	824.93	52	49	140	430	8	7.6		
8'	30 - 40	-12.89	307		3LPM	826.194	52	49	141	434	13	7.2		
8'	40 - 50													
8'	50 - 60													
AVERAGE	40	-13.10	306.3			4.019	50		140.5			7.25		

REMARKS Pre-Leak Check: Post-Leak Check: OK @ 10" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG–SO_3						
PROBE–SO_3						
CONDENSER–SO_3						
BLANK						
IMPINGER (H_2O_2)–SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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03/20/07

SO$_3$ FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE	AMBIENT TEMP [—uo°F]		WATER BATH SETTING	140
LOCATION	STACK	BAROMETRIC PRESSURE [" Hg]	29.97	PROBE HTR SETTING	550
DUCT DIMENSIONS		%H$_2$0 (Assumed)	10%	DUCT X-SECTION	circ ? / rect ? / other:
DUCT AREA		PROBE LENGTH [ft]	8	POSITION OF PORT A	
DATE		NOZZLE ID [inch]	XXXX		
TIME	Start- 1517 Stop-	CALIBRATION FACTORS: delta H	XXXX		
SAMPLE BOX		Y		DRY MOLECULAR WEIGHT (Assumed)	
METER BOX	NuTech # N-3	C(p)		WET MOLECULAR WEIGHT (Assumed)	
PITOT TUBE DESC		K	xxxx		
OPERATOR(S)	K. CERAR & B. SLIFER K. Douglas				

Page _____ of _____

10.5

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H$_2$0]	STACK TEMP [°F]	PITOT HEAD [" H$_2$0]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	O$_2$ METER [%]	CONTROL ROOM O$_2$ [%]	CONTROL ROOM DUCT TEMP [°F]
		3:17				446.304								
8'	0 - 10	-.519	186			447.25	71	72	158	552	9	9.3		
8'	10 - 20		187			448.~~33~~ 17	73	73	149	548	9	9.2		
8'	20 - 30	-.536	188			449.12	74	74	151	575	9	9.2		
8'	30 - 40		188			450.10	75	75	157	560	9	9.2		
8'	40 - 50		188			451.10	76	76	157	558	9	9.2		
8'	50 - 60	-.640	189			452.120	77	77	156	567	9	9.2		
AVERAGE	60	-.565	187.5			5.816	74.4		154.7			9.22		

REMARKS Pre-Leak Check: ✓ Post-Leak Check: ✓

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG–SO$_3$						
PROBE–SO$_3$						
CONDENSER–SO$_3$						
BLANK						
IMPINGER (H$_2$O$_2$)–SO$_2$						

Gas Vol, dscf

BaCl$_2$ NORMALITY

CONSOL ENERGY

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AES Greenidge Turbosorp SO_3 Sampling Results
Guarantee Testing - May 2, 2007

DATE	5/2/2007	5/2/2007	5/2/2007	5/2/2007	5/2/2007	5/2/2007
START TIME	1050	1044	1322	1312	1527	1517
END TIME	1202	1215	1426	1443	1635	1648
RUN	AHO-1	STK-1	AHO-2	STK-2	AHO-3	STK-3
MEASURED METER VARIABLES						
SAMPLE TIME [Minutes]	60	90	60	90	60	90
BAROMETRIC PRESSURE [" Hg]	29.41	29.41	29.47	29.47	29.47	29.47
SAMPLE VOLUME [ft^3]	5.53	9.70	5.73	9.04	5.89	9.39
METER TEMPERATURE [°F]	62.2	63.5	67.2	73.2	66.5	78.7
ORIFICE PRESSURE [" H_2O] (assumed)	0.20	0.20	0.20	0.20	0.20	0.20
Y FACTOR	0.991	0.970	0.991	0.970	0.991	0.970
DSCF SAMPLED	5.447	9.330	5.597	8.551	5.766	8.789
APPROX CONDENSER TEMP [°F]	143	140	144	141	146	140
WATER BATH TEMP [°F]	143	140	144	141	146	140
CC/MIN @ CONDENSER	2937	3335	3020	3061	3124	3144
DUCT STATIC PRESSURE, in H_2O						
DUCT PRESSURE, " Hg	29.41	29.41	29.47	29.47	29.47	29.47
DUCT MOISTURE, % VOL						
DUCT OXYGEN [%] (see note)	8.0	8.0	8.1	8.1	8.0	8.0
DUCT TEMP DURING TEST [°F]		172.1	299.5	172.0	306.0	172.0
SO_3						
SO_3 in FILTER PLUG						
Analytical Results: mg SO_4^{2-}	3.02	0.41	2.27	0.03	3.39	0.11
PPMVD SO_3, As Sampled	4.9	0.4	3.6	0.0	5.2	0.1
PPMVD SO_3, @ 3% Oxygen	6.8	0.5	5.0	0.0	7.2	0.2
SO_3 in PROBE						
Analytical Results: mg SO_4^{2-}	2.29	0.41	4.29	0.17	2.06	0.16
PPMVD SO_3, As Sampled	3.7	0.4	6.8	0.2	3.2	0.2
PPMVD SO_3, @ 3% Oxygen	5.2	0.5	9.5	0.2	4.4	0.2
SO_3 in CONDENSER						
Analytical Results: mg SO_4^{2-}	9.06	0.24	8.69	0.38	9.92	0.31
PPMVD SO_3, As Sampled	14.7	0.2	13.7	0.4	15.2	0.3
PPMVD SO_3, @ 3% Oxygen	20.4	0.3	19.2	0.5	21.1	0.4
GAS PHASE SO_3, PPMVD as Sampled	18.4	0.6	20.5	0.6	18.4	0.5
GAS PHASE SO_3, PPMVD @ 3% O_2	**25.5**	**0.8**	**28.7**	**0.8**	**25.4**	**0.7**
TOTAL PHASE SO_3, PPMVD as Sampled	23.3	1.0	24.1	0.6	23.6	0.6
TOTAL PHASE SO_3, PPMVD @ 3% O_2	**32.3**	**1.4**	**33.7**	**0.8**	**32.6**	**0.8**
% SO_3 in SOLIDS [filter plug/total]	21.0%	38.6%	14.9%	5.2%	22.1%	19.0%

NOTE: The % O_2 at the stack was calculated from the %CO_2 measured by the plant's stack CEM and from the coal composition. O_2 measurements at the air heater outlet were invalid; hence, the %O_2 at the air heater outlet was assumed to approximately equal the %O_2 at the stack.

Run One

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE	AMBIENT TEMP [°F]	48°F	WATER BATH SETTING	150	Page _____ of _____
LOCATION	AIR HEATER OUTLET	BAROMETRIC PRESSURE [" Hg]	29.41	PROBE HTR SETTING	550	
DUCT DIMENSIONS		$\%H_2O$ (Assumed)	8%	DUCT X-SECTION	circ ? / rect ? / other:	
DUCT AREA		PROBE LENGTH [ft]	10	POSITION OF PORT A		
DATE	5-2-07	NOZZLE ID [inch]	XXXX			
TIME	Start- 1050 Stop- 1202	CALIBRATION FACTORS: delta H	1.883			
SAMPLE BOX		Y	.991	DRY MOLECULAR WEIGHT (Assumed)		
METER BOX	NuTech # N-5	C(p)		WET MOLECULAR WEIGHT (Assumed)		
PITOT TUBE DESC	10ft SO_3	K	xxxx			
OPERATOR(S)	RPD BPS					

(Assumed=)

TRAVRSE POINT 24/72 [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
[illegible]						867.62									
A-1	0 - 10					868.26	60	63	140	550	NA	10			
A-2	10 - 20					869.05	60	63	145	552		13	12.7		
B-1	20 - 30					870.08	60	63	144	545		10	10.7		
B-2	30 - 40					871.10	61	63	144	551		10	10.3		
C-1	40 - 50					872.15	61	65	144	555		10	10.6		
C-2	50 - 60					873.15	62	65	143	543		11	10.5		
	A port is on the bottom														
AVERAGE						5.53	62.2		143.3				10.9		

REMARKS — Pre-Leak Check: Good Post-Leak Check: Good

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

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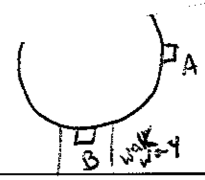

Run One

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	STACK
DUCT DIMENSIONS	
DUCT AREA	
DATE	5/2/07
TIME	Start- 1044 Stop- 1215
SAMPLE BOX	
METER BOX	NuTech # 1
PITOT TUBE DESC	
OPERATOR(S)	BWG & KRC

AMBIENT TEMP [°F]	60
BAROMETRIC PRESSURE [" Hg]	29.41
$\%H_2O$ (Assumed)	9
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.894
Y	0.970
C(p)	
K	xxxx

WATER BATH SETTING	140		
PROBE HTR SETTING	550		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

3 points per 2 ports. 15 minutes per point / 10 minute readings

.1cu. ft/min (Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft³]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	~~CONTROL ROOM~~ CO_2 [%]	~~DUCT TEMP~~ [—uo°F]
						512.849									
Port A - 1	0 - 10	NA	171		.1ft³/min	514.02	63	60	143	544	NA	5			
1 - 2	10 - 20	↓	172		〃	514.88	63	61	140	508		4	7.3		
2/~~3~~	20 - 30		172		〃	515.96	64	61	138	497		4	7.0		
3	30 - 40		172		〃	517.05	64	62	140	495		4	7.3		
3/B-1	40 - 50		172		〃	518.12	66	63	142	499		4	7.2		
B-1	50 - 60		172		〃	519.24	65	63	139	503		4	7.2		
2	60 - 70		172		〃	520.32	65	63	139	504		4	7.2		
2/B-3	70 - 80		173		〃	521.42	66	64	140	495		4	7.2		
B-3	80 - 90	↓	173		〃	522.550	66	64	139	495		4	7.3		
	~~90 - 96~~	↓													
AVERAGE			172.1			9.701	63.5		140.0				7.2		

REMARKS Pre-Leak Check: Good Post-Leak Check: Good

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft³/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG–SO_3						
PROBE–SO_3						
CONDENSER–SO_3						
BLANK						
IMPINGER (H_2O_2)–SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY.

port change at 45 minutes

Run 2

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	AIR HEATER OUTLET
DUCT DIMENSIONS	
DUCT AREA	
DATE	5-2-07
TIME	Start-1322 Stop-1426
SAMPLE BOX	
METER BOX	NuTech # N-5
PITOT TUBE DESC	8 ft probe SO_3
OPERATOR(S)	RJD BPS

AMBIENT TEMP [°F]	~~[illegible]~~ 55°F
BAROMETRIC PRESSURE [" Hg]	29.47
%H_20 (Assumed)	8%.0
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.883
Y	.991
C(p)	
K	xxxx

WATER BATH SETTING	140		
PROBE HTR SETTING	550		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)

WET MOLECULAR WEIGHT (Assumed)

Stack CO_2

(Assumed=)

TRAVRSE POINT 24/72 [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_20]	STACK TEMP [°F]	PITOT HEAD [" H_20]	ROTOMETER SETTING	METER READING [ft³]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM CO_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						874.330									
A1	0 - 10		301			875.48	65	67	144	549	NA	10	9.2		
A2	10 - 20		303			876.32	65	68	144	543		10	8.8	11.2	
B1	20 - 30		300			877.38	66	68	143	554		10	8.7	11.5	
B2	30 - 40		303			878.15	66	69	144	554		10	8.7	11.6	
C1	40 - 50		291			879.10	67	69	143	550		10	9.2	11.1	
C2	50 - 60		299			880.055	67	69	144	546		10	9.2	11.2	
	A-port is on the bottom														
AVERAGE			299.5			5.725	67.2		143.7				9.0	11.3	

REMARKS — Pre-Leak Check: Good — Post-Leak Check: Good

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft³/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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04/27/07

Run Two

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	STACK
DUCT DIMENSIONS	
DUCT AREA	
DATE	5/2/07
TIME	Start- 1312 Stop- 1443
SAMPLE BOX	
METER BOX	NuTech # 1
PITOT TUBE DESC	
OPERATOR(S)	BWG & KRC

AMBIENT TEMP [°F]	60
BAROMETRIC PRESSURE [" Hg]	29.47
%H_2O (Assumed)	9
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.894
Y	0.970
C(p)	NA
K	xxxx
(Assumed=)	

WATER BATH SETTING	140		
PROBE HTR SETTING	550		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page 1 of 1

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	~~CONTROL ROOM~~ CO_2 [%]	DUCT TEMP [—uo°F]
						526.300									
B-1	0 - 10	NA	172		.1 ft³/min	527.30	68	66	142	498	NA	4			
1/2	10 - 20	↓	171		"	528.34	69	67	140	492		4	7.5		
2	20 - 30		172		"	529.33	71	69	140	510		4	7.2	13.0	
3	30 - 40		172		"	530.36	73	71	141	532		4	7.0	13.2	
3/A-1	40 - 50		173		"	531.52	76	73	139	513		4	6.9	13.3	
A-1	50 - 60		172		"	532.36	78	75	143	501		4	7.0	13.2	
2	60 - 70		172		"	533.34	78	75	145	515		4	7.1	13.1	
2/3	70 - 80		172			534.33	78	76	138	523		4	7.2	13.0	
3	80 - 90	↓	172			535.337	78	76	139	525		4	7.2	13.0	
AVERAGE			172			9.037	73.2		140.8				7.1	13.1	

REMARKS Pre-Leak Check: Good Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft³/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG–SO_3						
PROBE–SO_3						
CONDENSER–SO_3						
BLANK						
IMPINGER (H_2O_2)–SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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Run 3

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE	AMBIENT TEMP [°F]	61	WATER BATH SETTING	140
LOCATION	AIR HEATER OUTLET Run-3	BAROMETRIC PRESSURE [" Hg]	29.47	PROBE HTR SETTING	550
DUCT DIMENSIONS		$\%H_20$ (Assumed)	8 8	DUCT X-SECTION	circ ? / rect ? / other:
DUCT AREA		PROBE LENGTH [ft]	8	POSITION OF PORT A	
DATE	5-2-07	NOZZLE ID [inch]	XXXX		
TIME	Start- 1527 Stop- 1635	CALIBRATION FACTORS: delta H	1.883		
SAMPLE BOX		Y	.991	DRY MOLECULAR WEIGHT (Assumed)	
METER BOX	NuTech # N-5	C(p)		WET MOLECULAR WEIGHT (Assumed)	
PITOT TUBE DESC	8 ft SO_3	K	xxxx		
OPERATOR(S)	RPD BPS				

Page _____ of _____

CO_2

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_20]	STACK TEMP [°F]	PITOT HEAD [" H_20]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [°F]
						881.550									
	0 - 10		301			882.71	65	66	154	554	NA	10	9.3	11.0	
	10 - 20		303			883.72	66	67	150	552		10	8.7	11.6	
	20 - 30		301			884.53	66	67	142	553		10	9.0	11.3	
	30 - 40		303			885.44	66	67	143	554		14	8.8	11.5	
	40 - 50		292			886.47	66	68	144	552		15	9.3	10.9	
	50 - 60		300			887.440	66	68	144	548		15	9.0	11.3	
AVERAGE			306			5.890		66.5	146.2				9.0	11.3	

REMARKS — Pre-Leak Check: Good — Post-Leak Check: Good

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

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Run 3

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	GREENIDGE
LOCATION	STACK
DUCT DIMENSIONS	
DUCT AREA	
DATE	5/2/07
TIME	Start- 1517 Stop- 1648
SAMPLE BOX	
METER BOX	NuTech # 1
PITOT TUBE DESC	
OPERATOR(S)	BWGERRC

AMBIENT TEMP [°F]	66
BAROMETRIC PRESSURE [" Hg]	29.47
%H_2O (Assumed)	9
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.894
Y	0.970
C(p)	
K	XXXX

WATER BATH SETTING	140		
PROBE HTR SETTING	550		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	~~CONTROL ROOM~~ CO_2 [%]	DUCT TEMP [—uo°F]
						536.721									
A-1	0 - 10		173		.1ft³/min	537.72	79	78	146	509	NA	5	7.5	12.7	
1/2	10 - 20		172		"	538.73	79	78	140	499		6	7.6	12.6	
2	20 - 30		172		"	539.75	78	78	139	492		6	7.5	12.7	
3/	30 - 40		172		"	540.84	79	78	137	497		6	7.4	12.8	
3/B-1	40 - 50		172		"	541.99	78	78	143	498		6	7.4	12.8	
~~1/B-2~~	50 - 60		172		"	543.04	79	79	141	497		6	7.4	12.8	
B-2	60 - 70		172		"	544.03	79	79	141	497		6	7.4	12.8	
2/3	70 - 80		172		"	545.05	79	79	139	496		6	7.4	12.8	
3	80 - 90		172		"	546.106	80	79	138	494		6	7.4	12.8	
AVERAGE			172			9.385		78.7	140.4				7.4	12.8	

REMARKS Pre-Leak Check: Good Post-Leak Check: Good

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG–SO_3						
PROBE–SO_3						
CONDENSER–SO_3						
BLANK						
IMPINGER (H_2O_2)–SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

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04/27/07

AES GREENIDGE UNIT 4 GUARANTEE TESTING

HCl & HF Emission Summary

March 29, 2007

Location		AHO	Stack	AHO	Stack	AHO	Stack
Date		03/29/07	03/29/07	03/29/07	03/29/07	03/29/07	03/29/07
Start Time		1000	1005	1220	1222	1515	1516
Stop Time		1115	1125	1335	1344	1630	1637
Test Number		PM-#1	PM-#1	PM-#2	PM-#2	PM-#3	PM-#3
MEASURED TEST VARIABLES							
Y factor of Dry Gas Meter	-	0.970	1.046	0.970	1.046	0.970	1.046
Gas Volume	- ft^3	27.13	41.62	27.23	42.63	26.80	43.06
delta H of Dry Gas Meter	- " H_20	0.637	1.510	0.617	1.549	0.632	1.563
Meter Temperature	- °F	45.2	45.3	53.0	55.9	52.8	56.2
C Factor of Pitot Tube	-	0.840	0.835	0.840	0.835	0.840	0.835
Nozzle Diameter	- inches	0.184	0.248	0.184	0.248	0.184	0.248
Area of Nozzle	- ft^2	0.00018	0.00034	0.00018	0.00034	0.00018	0.00034
Area of Stack	- ft^2	114.0	132.7	114.0	132.7	114.0	132.7
H_2O Weight	- gm	45.5	116.0	48.1	120.4	47.9	115.4
Sample Time	- minutes	63	64	63	64	63	64
Barometric Pressure	- " Hg	30.06	30.06	30.03	30.03	29.97	29.97
Static Pressure	- " H_20	-13.05	-0.54	-13.38	-0.53	-13.24	-0.55
% Oxygen (see note)	-	7.1	9.2	7.1	8.5	7.3	8.9
% CO2 (see note)	-	12.1	10.3	12.1	10.9	12.0	10.5
% N_2 + CO (calculated)	-	80.8	80.5	80.8	80.6	80.8	80.6
Stack Temp (Dry Bulb)	- °F	293.1	173.9	297.4	174.0	297.9	174.6
Stack Temp (Wet Bulb)	- °F						
"S" Sample (rms vel head)	- " H_20	0.792	0.569	0.764	0.582	0.786	0.587
Dust Weight	- gm	4.3945	0.0009	4.0666	0.0006	4.2243	0.0007
HCl mass	- mg	197.90	95.21	32.59	3.76	33.93	1.50
HF mass	- mg	<0.17	<0.14	<0.17	<0.17	<0.17	<0.15
CALCULATED TEST VARIABLES							
Sample Volume	- dscf	27.66	45.85	27.32	45.96	26.84	46.31
Sample Volume	- dscm	0.78	1.30	0.77	1.30	0.76	1.31
Absolute Stack Pressure	- " Hg	29.10	30.02	29.05	29.99	29.00	29.93
Absolute Stack Temperature	- °R	753	634	757	634	758	635
H_2O - % by Volume	- vapor						
H_2O - % by Volume	- w/ droplets	7.2	10.6	7.7	11.0	7.8	10.5
Water Volume	- std ft^3	2.14	5.46	2.27	5.67	2.26	5.44
Dry Molecular Weight	- lb/lb-mole	30.23	30.02	30.22	30.08	30.21	30.04
Wet Molecular Weight	- lb/lb-mole	29.35	28.74	29.29	28.75	29.26	28.78
% Excess Air	-	50	76	50	67	52	72
Mole Fraction of Dry Gas	-	0.928	0.894	0.923	0.890	0.922	0.895
Mole Fraction of Wet Gas	-	0.072	0.106	0.077	0.110	0.078	0.105
STACK FLOW RATE							
Gas Velocity, Direct	- ft/sec	60.01	46.16	59.23	46.69	60.17	46.95
ACFM	-	410498	367587	405123	371868	411584	373869
DSCFM	-	259793	274495	253174	276337	256339	278476
DSCFM (rounded)	-	259800	274500	253200	276300	256300	278500
Excess Air Free DSCFM	-	171538	153991	167168	163764	167295	159971
CALCULATED FIRING RATE							
Dry (F-Factor based)	- lb/min	1282	1151	1247	1221	1254	1199
Wet (F-Factor based)	- lb/min	1338	1202	1307	1280	1315	1257
Dry (F-Factor based)	- lb/hr	76936	69067	74801	73278	75264	71969
Wet (F-Factor based)	- lb/hr	80309	72094	78408	76811	78902	75448
Dry (F-Factor based)	- tons/hr	38.47	34.53	37.40	36.64	37.63	35.98
Wet (F-Factor based)	- tons/hr	40.15	36.05	39.20	38.41	39.45	37.72
HEAT INPUT							
MM Btu/hr (F-Factor based)	-	1068.9	959.5	1035.1	1014.0	1052.3	1006.3
ACID GASES							
HCl, ppmvd	-	166.58	48.35	27.78	1.91	29.43	0.75
HCl, ppmvd @ 3% O2	-	216.07	73.82	36.04	2.75	38.63	1.12
HCl, lb/hr	-	245.97	75.43	39.98	2.99	42.89	1.19
HF, ppmvd	-	<0.26	<0.13	<0.26	<0.16	<0.27	<0.14
HF, ppmvd @ 3% O2	-	<0.34	<0.20	<0.34	<0.23	<0.35	<0.21
HF, lb/hr	-	<0.21	<0.11	<0.21	<0.14	<0.21	<0.12
ISOKINETICS							
% Isokinetic	-	104.5	103.4	105.8	102.9	102.7	102.9

NOTE: The $\%O_2$ at the air heater outlet was measured by CONSOL using a Teledyne Max 5 portable electrochemical O_2 analyzer, and the % CO_2 at the air heater outlet was calculated from the measured O_2 and coal composition. The $\%CO_2$ at the stack was measured by the plant's stack CEM, and the $\%O_2$ at the stack was calculated from the measured CO_2 and coal composition. HCl concentrations measured at both the air heater outlet and stack during Test #1 are invalid because the sampling train was contaminated with HCl.

ACID GAS / METHOD 5 PARTICULATE SAMPLING FIELD DATA SHEET

TEST ID	1	METER BOX	N-1	CAL. DATA: delta H	
PLANT	GREENIDGE	PITOT TUBE DESC		Y	
LOCATION	AIR HEATER OUTLET	PROBE LENGTH [ft]	12	C(p)	
DATE	3/29/07	NOZZLE ID [inch]		FILTER BOX SETTING	
OPERATOR(S)		%H_2O (Assumed)		PROBE HTR SETTING	
AMBIENT TEMP [°F]		FILTER ID	1029	DUCT X-SECTION	circ ? / rect ? / other:
BAR. PRESS. [" Hg] 30.06	R. ODA & D. OLSEN	K FACTOR	0.744	DUCT DIMENSIONS	DUCT AREA

Comments: High negative vacuum
10 min purge
after test

(6) (7) (1) (2) (3) (5)

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet	METER TEMP [oF] outlet	STACK TEMP [°F]	PROBE TEMP [°F]	FILTER BOX [°F]	LAST IMP TEMP [°F]	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	1000	0					43.50								
1 - 2"		7	-13.22	0.1	~~0.9~~ 0.07	1.0	45.24	41	40	292	283	160	38	7.0	13.2
1 - 6"		14	-12.70	0.94	0.70	5.0	48.31	42	40	293	283	161	38	7.0	13.2
1 - 10"		21	-12.86	0.96	0.72	5.5	51.57	46	41	299	289	168	38	6.6	13.6
							52.10								
2 - 2"	7	28	-13.39	0.37	0.27	3.0	54.38	47	42	288	279	173	39	7.6	12.7
2 - 6"	14	35	-13.00	0.81	0.60	6.0	57.31	48	43	294	283	176	39	7.1	13.1
2 - 10"	21	42	-13.16	1.4	1.04	8.0	61.05	50	43	298	289	173	40	6.6	13.6
							61.50								
3 - 2"	7	49	-13.07	1.05	0.74	10.0	65.07	50	45	283	285	171	41	7.7	12.5
3 - 6"	14	56	-13.41	0.96	0.72	6.0	68.27	52	45	295	284	174	42	7.3	12.9
3 - 10"	1115 21	63	-12.62	1.1	0.43	7.0	71.69	53	46	294	289	176	43	7.0	13.1
			RMS												
AVERAGE			-13.05	0.792	0.631		27.13	45.2		293.1				7.1	13.1

Sample Train Leak Checks: Pre Test <0.01 ft^3 @ 10 in. Hg; Post Test <0.01 ft^3 @ 10 in. Hg

Pitot Tube Leak Checks: PreTest OK @ 8 in. H_2O; Post Test OK @ 6 in. H_2O

CONSOL ENERGY.

ACID GAS / METHOD 5 SAMPLING FIELD DATA SHEET

TEST ID	ONE
PLANT	Greenidge
LOCATION	STACK
DATE	3-29-07
OPERATOR(S)	K. CERAR & B. SLIFER
AMBIENT TEMP [°F]	~36°
BAR. PRESS. [" Hg]	30.06

METER BOX	N-2
PITOT TUBE DESC	E1
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	
$\%H_2O$ (Assumed)	10%
FILTER ID	79
K FACTOR	2.65

CAL. DATA: delta H	1.895		
Y	0.967		
C(p)			
FILTER BOX SETTING	NA		
PROBE HTR SETTING	250		
DUCT X-SECTION	circ ?	rect ?	other:
DUCT DIMENSIONS		DUCT AREA	

Comments: ______________________

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet	METER TEMP [oF] outlet	STACK TEMP [°F]	PROBE TEMP [°F]	~~FILTER BOX~~ [°F]	LAST IMP TEMP [°F]	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	1005	0					910.60								
1 - 5"		4		.44	1.16	4	912.94	37	36	173	242	184	36	—	—
1 - 16.38"		8		.44	1.16	4	915.20	39	36	173	243	188	37	9.6	10.7
1 - 30.25"		12	-.503	.50	1.32	4	917.57	41	37	174	251	199	37	9.5	10.8
1 - 50.38"		16		.50	1.32	4	919.90	43	38	174	242	199	39	9.5	10.8
					L.C.	OK→	920.00								
2 - 5"		20		.54	1.43	4	922.54	44	38	173	249	230	41	—	—
2 - 16.38"		24		.64	1.70	5	925.30	46	39	174	249	232	43	9.6	10.7
2 - 30.25"		28	-.571	.60	1.60	5	927.98	50	40	174	236	235	47	9.6	10.7
2 - 50.38"		32		.54	1.43	4.5	930.52	52	41	174	241	237	52	9.5	10.8
					L.C.	OK→	930.60								
3 - 5"		36		.64	1.70	5	933.37	51	42	174	240	243	51	—	—
3 - 16.38"		40		.70	1.85	5.5	936.27	54	43	174	248	244	56	9.4	10.9
3 - 30.25"		44	-.569	.70	1.85	5.5	939.16	55	43	175	238	242	57	9.6	10.7
3 - 50.38"		48		.60	1.60	5	941.88	56	44	175	245	243	64	9.7	10.6
					L.C.	OK→	942.00								
4 - 5"		52		.56	1.48	5	944.60	54	44	174	240	246	62	—	—
4 - 16.38"		56		.60	1.60	5	—	54	45	174	238	248	65	9.4	10.9
4 - 30.25"		60	-.523	.60	1.60	5	949.97	56	48	174	238	248	66	9.6	10.7
4 - 50.38"		64		.54	1.43	5	952.52	57	47	174	242	244	67	9.6	10.7
	1125														
AVERAGE			-0.542	0.569	1.51		41.62	45.3		173.9				9.6	10.8

Sample Train Leak Checks: Pre Test OK ft^3 @ 10 in. Hg; Post Test OK ft^3 @ 10 in. Hg

Pitot Tube Leak Checks: PreTest OK @ 6 in. H_2O; Post Test OK @ 6 in. H_2O

CONSOL ENERGY.

ACID GAS / METHOD 5 PARTICULATE SAMPLING FIELD DATA SHEET

Page _____ of _____

TEST ID	2	METER BOX	D-1	CAL. DATA: delta H		Comments:	High negative vacuum
PLANT	GREENIDGE	PITOT TUBE DESC		Y			
LOCATION	AIR HEATER OUTLET	PROBE LENGTH [ft]	12	C(p)			10 min purge
DATE	3/28/07	NOZZLE ID [inch]		FILTER BOX SETTING			12Hr Tap
OPERATOR(S)		%H_2O (Assumed)		PROBE HTR SETTING			
AMBIENT TEMP [°F]		FILTER ID	1030	DUCT X-SECTION	circ ?	rect ?	other:
BAR. PRESS. [" Hg]	R. ODA & D. OLSEN	K FACTOR	0.744	DUCT DIMENSIONS		DUCT AREA	

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP 5 [oF] inlet	METER TEMP 6 [oF] outlet	STACK TEMP [°F] 1	PROBE TEMP [°F] 2	FILTER BOX [°F] 3	LAST IMP TEMP 4 [°F]	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	12:20	0					78.40								
1 - 2" bottom		7	-13.10	0.10	0.07	1.0	79.96	48	48	294	282	125	40	7.6	12.3
1 - 6"		14	-13.68	0.74	0.55	2.5	83.79	49	48	300	283	137	40	7.0	13.2
1 - 10"		21	-13.43	1.0	0.74	4.0	86.06	52	48	303	284	150	40	6.4	13.4
							86.70								
2 - 2" mid		7 28	-13.34	0.4	0.29	1.5	88.79	53	49	289	294	148	40	7.1	13.3
2 - 6"		14 35	-13.90	0.88	0.66	3.0	91.83	53	49	298	290	152	41	7.0	13.2
2 - 10"		21 42	-13.87	1.4	~~00~~ 1.07	5.0	95.49	55	50	301	296	153	42	6.6	13.7
							95.97		~~50~~						
3 - 2" top		7 49	-12.97	.82	.62	3.0	99.00	53	50	298	285	144	41	7.5	12.8
3 - 6"		14 56	-13.05	.96	.72	4.0	102.18	56	51	300	289	~~14~~ 149	43	7.5	12.8
3 - 10"	1335	21 63	13.10	1.1	0.83	5.0	105.63	58	51	301	293	149	45	7.2	13.1
AVERAGE			-13.38	0.764 ~~0.83~~	0.617		27.23	53.0	49.3	297.4	288.4		41.3	7.14	13.1

Sample Train Leak Checks: Pre Test <0.01 ft³ @ 10 in. Hg; Post Test <0.01 ft³ @ 9 in. Hg

Pitot Tube Leak Checks: PreTest OK @ 9 in. H_2O; Post Test OK @ 8 in. H_2O

CONSOL ENERGY

ACID GAS / METHOD 5 SAMPLING FIELD DATA SHEET

TEST ID	TWO	METER BOX	N-2	CAL. DATA: delta H	1.895
PLANT	Greenidge	PITOT TUBE DESC	E1	Y	0.967
LOCATION	STACK	PROBE LENGTH [ft]	8	C(p)	
DATE	3-28-07	NOZZLE ID [inch]		FILTER BOX SETTING	NA
OPERATOR(S)	K. CERAR & B. SLIFER	$\%H_2O$ (Assumed)	10%	PROBE HTR SETTING	250
AMBIENT TEMP [°F]	~46	FILTER ID	80	DUCT X-SECTION	circ ? / rect ? / other:
BAR. PRESS. [" Hg]	30.03	K FACTOR	2.65	DUCT DIMENSIONS	DUCT AREA

Comments: ______________________

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet	METER TEMP [oF] outlet	STACK TEMP [°F]	PROBE TEMP [°F]	~~FILTER BOX~~ [°F]	LAST IMP TEMP [°F]	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	1222	0					958.50								
1 - 5"		4		.60	1.60	7	961.21	48	45	172	242	217	47	—	—
1 - 16.38"		8		.60	1.60	7	963.90	49	45	173	239	218	42	9.6	10.7
1 - 30.25"		12	-.504	.60	1.60	7	966.57	51	46	174	241	219	44	9.4	10.9
1 - 50.38"		16		.56	1.48	6.5	969.15	53	46	175	244	218	45	9.4	10.9
					L.C.	OK →	969.25								
2 - 5"		20		.64	1.70	7.5	972.01	53	47	172	248	215	44	—	—
2 - 16.38"		24		.70	1.85	8	974.88	55	47	174	239	215	44	9.5	10.8
2 - 30.25"		28		.70	1.85	8	977.76	57	48	174	242	216	49	9.3	11.0
2 - 50.38"		32		.64	1.70	8	980.55	59	48	175	244	214	50	9.3	11.0
					L.C.	OK →	980.65								
3 - 5"		36		.56	1.48	6.5	983.29	55	48	171	241	210	45	—	—
3 - 16.38"		40	-.554	.60	1.60	7	985.98	57	48	174	249	185	44	9.5	10.8
3 - 30.25"		44		.60	1.60	7	988.68	59	49	175	242	183	45	9.6	10.7
3 - 50.38"		48		.60	1.60	7	991.37	60	50	175	241	182	45	9.4	10.9
					L.C.	OK →	991.45								
4 - 5"		52		.44	1.16	—	993.78	59	50	175	242	165	43	—	—
4 - 16.38"		56		.50	1.32	6	—	59	51	175	244	160	41	9.5	10.8
4 - 30.25"		60	-.521	.50	1.32	6	998.65	60	51	175	240	160	41	9.4	10.9
4 - 50.38"		64		.50	1.32	6	001.13	61	51	175	238	160	41	9.4	10.9
	1344												44.4	9.44	10.86
AVERAGE			-0.526	0.582	1.549		42.63	55.9	48.1	174.0	242.3		↓	↓	↓

Sample Train Leak Checks:	Pre Test OK ft^3 @ 10 in. Hg	Post Test ______ ft^3 @ ______ in. Hg	Pitot Tube Leak Checks:	PreTest OK @ 6 in. H_2O / Post Test ______ @ ______ in. H_2O

CONSOL ENERGY

ACID GAS / METHOD 5 PARTICULATE SAMPLING FIELD DATA SHEET

Page _____ of _____

TEST ID	3	METER BOX	N-1	CAL. DATA: delta H	
PLANT	GREENIDGE	PITOT TUBE DESC		Y	
LOCATION	AIR HEATER OUTLET	PROBE LENGTH [ft]	12	C(p)	
DATE	3/29/07	NOZZLE ID [inch]		FILTER BOX SETTING	
OPERATOR(S)		$\%H_2O$ (Assumed)		PROBE HTR SETTING	
AMBIENT TEMP [°F]	29.97	FILTER ID	1031	DUCT X-SECTION	circ ? / rect ? / other:
BAR. PRESS. [" Hg]	R. ODA & D. OLSEN	K FACTOR	0.744	DUCT DIMENSIONS	DUCT AREA

Comments: High negative vacuum

10 min purge

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP 5 [oF] inlet	METER TEMP 6 [oF] outlet	STACK TEMP [°F] 1	PROBE TEMP [°F] 2	FILTER BOX [°F] 3	LAST IMP TEMP [°F] 4	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	15:15	0					109.80								
1 - 2"		7	13.16	0.10	0.07	2.0	111.41	50	49	292	285	137	44	7.7	12.3
1 - 6"		14	-13.17	0.95	0.64	4.0	114.37	51	50	300	284	146	43	7.2	13.1
1 - 10"		21	-13.25	1.1	0.83	6.0	117.80	52	50	302	285	152	43	6.9	13.3
		-		~~.43~~	~~.31~~		118.30								
2 - 2"		7 28	-12.89	.42	.31	3.0	120.52	53	50	293	292	148	44	7.5	12.9
2 - 6"		14 35	-13.51	.83	.62	5.5	123.53	55	51	299	291	152	45	7.1	13.1
2 - 10"		21 42	-13.71	1.4	1.03	8.0	127.29	56	51	300	295	154	46	6.7	13.6
							128.00					0			
3 - 2"		7 49	-12.85	0.78	0.58	6.0	131.10	57	52	291	293	150	47	7.7	12.5
3 - 6"		14 56	-12.94	0.94	0.70	7.0	134.31	58	53	302	294	150	48	7.4	12.8
3 - 10"	1630	21 63	-13.45	1.2	0.91	9.0	137.89	59	53	302	297	149	49	7.1	13.1
				RMS											
AVERAGE			-13.24	0.786	0.632		26.80	52.8		297.9				7.26	12.96

Sample Train Leak Checks: Pre Test <0.01 ft^3 @ 10 in. Hg; Post Test <0.01 ft^3 @ 10 in. Hg

Pitot Tube Leak Checks: PreTest OK @ 8 in. H_2O; Post Test OK @ 6 in. H_2O

CONSOL ENERGY

ACID GAS / METHOD 5 SAMPLING FIELD DATA SHEET

Page ____ of ____

TEST ID	THREE	METER BOX	N-2	CAL. DATA: delta H	1.895
PLANT	Greenidge	PITOT TUBE DESC	E1	Y	0.967
LOCATION	STACK	PROBE LENGTH [ft]	8	C(p)	
DATE	3-29-07	NOZZLE ID [inch]		FILTER BOX SETTING	NA
OPERATOR(S)	K. CERAR & B. SLIFER	%H_2O (Assumed)	10%	PROBE HTR SETTING	250
AMBIENT TEMP [°F]	~50	FILTER ID	81	DUCT X-SECTION	circ ? / rect ? / other:
BAR. PRESS. [" Hg]	29.97	K FACTOR	2.65	DUCT DIMENSIONS	DUCT AREA

Comments:

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet	METER TEMP [oF] outlet	STACK TEMP [°F]	PROBE TEMP [°F]	~~FILTER BOX~~ [°F]	LAST IMP TEMP [°F]	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	1516	0					010.90								
1 - 5"		4		0.44	1.16	3.5	013.26	50	49	172	238	200	37	—	—
1 - 16.38"		8		0.48	1.27	4	015.72	51	49	174	251	206	36	9.3	11.0
1 - 30.25"		12	-.519	.50	1.32	4	018.20	54	50	174	249	201	37	9.3	11.0
1 - 50.38"		16		.56	1.48	4.5	020.82	55	50	175	247	201	38	9.3	11.0
					L.C.	OK→	020.90								
2 - 5"		20		.56	1.48	4.5	023.54	58	51	172	244	204	40	—	—
2 - 16.38"		24		.60	1.60	5	026.27	59	51	176	237	205	41	9.2	11.1
2 - 30.25"		28	-.536	.60	1.60	5	029.00	61	52	176	236	201	44	9.1	11.2
2 - 50.38"		32		.64	1.70	5	031.80	62	53	175	251	204	46	9.1	11.2
					L.C.	OK→	032.00								
3 - 5"		36		.70	1.85	5	034.90	61	54	172	242	197	50	—	—
3 - 16.38"		40		.74	1.95	5.5	037.90	63	54	175	239	202	51	9.2	11.1
3 - 30.25"		44	-.640	.70	1.85	5.5	040.80	65	55	175	239	201	55	9.1	11.2
3 - 50.38"		48		.64	1.70	5	043.61	65	55	176	237	202	56	9.1	11.2
					L.C.	OK→	043.70								
4 - 5"		52		.56	1.48	5	046.35	61	55	176	237 ~~197~~	197	54	9.1	11.2
4 - 16.38"		56		.60	1.60	5	049.46	62	55	175	~~188~~	188	53	9.2	11.1
4 - 30.25"		60		.56	1.48	5	051.68	64	55	175	235 250	193	55	9.0	11.3
4 - 50.38"	1637	64	-.521	.56	1.48	5	054.33	64	55	175	252	190	57	9.0	11.3
				RMS											
AVERAGE			-.554	0.587	1.563		43.06	56.2		174.6				9.15	11.15

Sample Train Leak Checks:	Pre Test OK ft^3 @ 10 in. Hg	Post Test OK ft^3 @ 10 in. Hg	Pitot Tube Leak Checks:	PreTest OK @ 6 in. H_2O / Post Test OK @ 6 in. H_2O

CONSOL ENERGY

AES GREENIDGE UNIT 4 GUARANTEE TESTING

HF & HCl Emission Summary

May 4, 2007

Location		AHO	Stack	AHO	Stack
Date		05/04/07	05/04/07	05/04/07	05/04/07
Start Time		831	831	1015	1015
Stop Time		931	940	1119	1130
Test Number		AGI-#1	AGO-#1	AGI-#2	AGO-#2
MEASURED TEST VARIABLES					
Y factor of Dry Gas Meter	-	0.991	0.970	0.991	0.970
Gas Volume	- ft^3	36.61	45.96	42.76	44.87
delta H of Dry Gas Meter	- " H_20	1.920	1.770	1.960	1.673
Meter Temperature	- °F	55.8	55.4	68.0	63.7
C Factor of Pitot Tube	-	0.840	0.839	0.840	0.839
Nozzle Diameter	- inches	0.248	0.250	0.248	0.250
Area of Nozzle	- ft^2	0.00034	0.00034	0.00034	0.00034
Area of Stack	- ft^2	114.0	132.7	114.0	132.7
H_2O Weight	- gm	69.0	149.3	68.9	142.7
Sample Time	- minutes	55	64	60	64
Barometric Pressure	- " Hg	29.74	29.74	29.74	29.74
Static Pressure	- " H_20	-13.50	-0.46	-13.30	-0.40
% Oxygen (see note below)	-	7.9	8.1	7.3	8.0
% CO2 (see note below)	-	11.4	11.2	11.9	11.2
% N_2 + CO (calculated)	-	80.7	80.7	80.8	80.7
Stack Temp (Dry Bulb)	- °F	303.2	173.3	303.3	171.8
Stack Temp (Wet Bulb)	- °F				
"S" Sample (rms vel head)	- " H_20	0.709	0.544	0.737	0.521
Dust Weight	- gm				
HCl mass	- mg	46.70	1.79	55.22	1.36
HF mass	- mg	<0.16	<0.12	<0.16	<0.12
CALCULATED TEST VARIABLES					
Sample Volume	- dscf	37.08	45.58	42.30	43.78
Sample Volume	- dscm	1.05	1.29	1.20	1.24
Absolute Stack Pressure	- " Hg	28.75	29.71	28.76	29.71
Absolute Stack Temperature	- °R	763	633	763	632
H_2O - % by Volume	- vapor				
H_2O - % by Volume	- w/ droplets	8.1	13.4	7.1	13.3
Water Volume	- std ft^3	3.25	7.03	3.25	6.72
Dry Molecular Weight	- lb/lb-mole	30.14	30.12	30.19	30.12
Wet Molecular Weight	- lb/lb-mole	29.16	28.50	29.33	28.50
% Excess Air	-	59	61	52	61
Mole Fraction of Dry Gas	-	0.919	0.866	0.929	0.867
Mole Fraction of Wet Gas	-	0.081	0.134	0.071	0.133
STACK FLOW RATE					
Gas Velocity, Direct	- ft/sec	57.70	45.76	58.65	44.72
ACFM	-	394643	364388	401146	356127
DSCFM	-	241184	261313	247742	256203
DSCFM (rounded)	-	241200	261300	247700	256200
Excess Air Free DSCFM	-	150019	160183	161684	157557
CALCULATED FIRING RATE					
Dry (F-Factor based)	- lb/min	1122	1198	1222	1191
Wet (F-Factor based)	- lb/min	1193	1274	1300	1267
Dry (F-Factor based)	- lb/hr	67320	71881	73325	71453
Wet (F-Factor based)	- lb/hr	71571	76421	77980	75990
Dry (F-Factor based)	- tons/hr	33.66	35.94	36.66	35.73
Wet (F-Factor based)	- tons/hr	35.79	38.21	38.99	38.00
HEAT INPUT					
MM Btu/hr (F-Factor based)	-	924.4	987.1	1009.1	983.3
PM LOADING					
Grains/DSCF	-				
lb/hr	-				
lb/MM Btu	-				
ACID GASES					
HCl, ppmvd	-	29.33	0.91	30.40	0.72
HCl, ppmvd @ 3% O2	-	40.38	1.28	39.89	1.01
HCl, lb/hr	-	40.20	1.36	42.80	1.05
HF, ppmvd	-	<0.18	<0.11	<0.16	<0.12
HF, ppmvd @ 3% O2	-	<0.25	<0.16	<0.21	<0.16
HF, lb/hr	-	<0.14	<0.09	<0.12	<0.09
ISOKINETICS					
% Isokinetic	-	95.1	106.2	96.8	104.1

NOTE: The $\%O_2$ at the air heater outlet was measured by CONSOL using a Teledyne Max 5 portable electrochemical O_2 analyzer, and the % CO_2 at the air heater outlet was calculated from the measured O_2 and coal composition. The $\%CO_2$ at the stack was measured by the plant's stack CEM, and the $\%O_2$ at the stack was calculated from the measured CO_2 and coal composition.

EPA METHOD 5/26A PARTICULATE SAMPLING FIELD DATA SHEET

Page _____ of _____

TEST ID	Run One	METER BOX	N-5	CAL. DATA: delta H	1.883	Comments:	
PLANT	GREENIDGE	PITOT TUBE DESC	E-3	Y	0.991		
LOCATION	AIR HEATER OUTLET	PROBE LENGTH [ft]	12	C(p)	0.840		
DATE	5/4/07	NOZZLE ID [inch]	1/4"D 0.248	FILTER BOX SETTING	NA		
OPERATOR(S)	BPS + BWG	%H_2O (Assumed)	8	PROBE HTR SETTING	250		
AMBIENT TEMP [°F]	45	FILTER ID	1042	DUCT X-SECTION	circ ?	rect ?	other:
BAR. PRESS. [" Hg]	29.74	K FACTOR	2.52	DUCT DIMENSIONS		DUCT AREA	

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft³]	METER TEMP [oF] inlet	METER TEMP [oF] outlet	STACK TEMP [°F]	PROBE TEMP [°F]	LINE ~~FILTER BOX~~ [°F]	LAST IMP TEMP [°F]	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	0831	0					909.400								
A-18"	0836	5	-13.2	0.1	0.25	0	910.7	47	49	293	247	240	42		
A-54"	0841	10		0.57	1.4	4	913.6	47	49	307	246	246	40	8.1	12.1
A-90"	0846	15	-13.9	1.1	2.7	7	917.5	52	51	311	244	239	43	7.6	12.6
A-126"	0851	20		0.41	1.0	4	920.397	55	51	313	247	239	47	7.5	12.7
	0854														
B-18"	0859	25	-13.0	0.30	0.75	2	922.7	56	54	298	244	240	47		
B-54"	0904	30		0.70	1.8	5	926.3	58	55	302	247	240	47	8.1	12.1
B-90"	0909	35	-14.0	1.1	2.7	8	929.8	60	55	307	249	240	51	7.8	12.4
B-126"	0914	40		1.5	3.7	14	935.012	65	57	312	245	240	56	7.0	13.2
	0916			~~0.65~~	~~1.6~~	~~7~~									
C-18"	0921	45	-13.4	0.65	1.6	7	937.6	63	57	294	252	239	59		
C-54"	0926	50		1.1	2.7	13	941.9	65	58	296	255	240	60	8.7	11.6
C-90"	0931	55		0.98	2.5	14	946.014	66	58	302	255	239	57	8.2	12.1
C-126"		60													
				RWS											
AVERAGE		55	-13.5	0.707	1.92		36.614	55.8		303.2				7.9	12.4

Sample Train Leak Checks: Pre Test 0.001 ft³ @ 10 in. Hg; Post Test 0.002 ft³ @ 16 in. Hg

Pitot Tube Leak Checks: PreTest ✓ @ 7 in. H_2O; Post Test ✓ @ 7 in. H_2O

CONSOL ENERGY.

EPA METHOD 5/26A PARTICULATE SAMPLING FIELD DATA SHEET

TEST ID	#1	METER BOX	N-1	CAL. DATA: delta H	1.894
PLANT	GREENIDGE	PITOT TUBE DESC	E-~~8~~1	Y	0.970
LOCATION	STACK	PROBE LENGTH [ft]	8	C(p)	0.839
DATE	5-4-07	NOZZLE ID [inch]	1/4"E 0.250	FILTER BOX SETTING	NA
OPERATOR(S)	RPD, KRC	%H_2O (Assumed)	8	PROBE HTR SETTING	250
AMBIENT TEMP [°F]	41	FILTER ID	85	DUCT X-SECTION	circ ? / rect ? / other:
BAR. PRESS. [" Hg]	29.74	K FACTOR	3.26	DUCT DIMENSIONS	DUCT AREA

Comments: ____

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet (6)	METER TEMP [oF] outlet (7)	STACK TEMP [°F] (1)	PROBE TEMP [°F] (2)	~~FILTER BOX~~ H [°F] L (3)	LAST IMP TEMP [°F] (4)	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	0831	0					547.204								
A-5"	0835	4 ~~5~~		.38	1.40	6	549.75	51	48	174	239	209	~~229~~ 48		
A-16.4"	W	8 ~~10~~	-.45	.52 .52	1.70	8	552.53	51	49	176	237	206	51	7.5	12.7
A-30.3"		12 ~~15~~	-.50	.60	1.85	9	555.40	52	49	175	251	209	46	7.6	12.6
A-50.4"		16 ~~20~~		.62	2.05	9	558.43	54	49	176	240	208	48	7.5	12.7
				~~.68~~	~~2.40~~	~~11~~	559.37	~~55~~	~~51~~	~~175~~	~~215~~	~~231~~	~~49~~	~~7.7~~	~~12.5~~
B-5"		20		.68	2.90	11	562.20	55	51	175	215	231	49	7.7	12.5
B-16.4"	S	24 ~~25~~		.72	2.35	11	565.50	57	51	175	248	235	53	7.7	12.5
B-30.3"		28 ~~30~~		.72	2.35	12	568.81	58	51	175	251	234	56	7.8	12.4
B-50.4"		32 ~~35~~		.60	1.90	10	572.11	59	52	176	251	234	61	7.8	12.4
		~~40~~					573.10								
C-5"		36		.47	1.50	8	575.75	60	53	167	242	245	60	7.8	12.4
C-16.4"	E	40		.55	1.75	8	578.61	64	54	173	251	246	58	7.8	12.4
C-30.3"		44 ~~45~~	-.44	.60	1.90	9	581.60	62	54	175	242	246	58	7.9	12.3
C-50.4"		48 ~~50~~		.53	1.70	9	584.67	62	54	174	242	247	60	8.0	12.3
		~~55~~					585.50								
D-5"		52 ~~60~~		.39	1.25	6	588.22	61	55	160	243	240	55	8.0	12.2
D-16.4"		56		.44	1.40	7	590.80	62	56	172	241	239	52	7.8	12.4
D-30.3"	N	60		.47	1.50	7	593.46	63	56	174	244	236	52	8.0	12.7
D-50.4"		64		.49	1.55	8	596.225	64	57	175	240	236	52	7.9	12.3
	0940			RLS											
AVERAGE			-0.46	0.544	1.77		45.961	55.4		173.3				7.8	12.4

Sample Train Leak Checks: Pre Test <0.01 ft^3 @ 7 in. Hg; Post Test <0.01 ft^3 @ 7 in. Hg

Pitot Tube Leak Checks: PreTest <0.01 @ 5 in. H_2O; Post Test <0.01 @ 5 in. H_2O

CONSOL ENERGY

EPA METHOD 5/26A PARTICULATE SAMPLING FIELD DATA SHEET

TEST ID	Run Two	METER BOX	N-5	CAL. DATA: delta H	1.883
PLANT	GREENIDGE	PITOT TUBE DESC	E-3	Y	0.991
LOCATION	AIR HEATER OUTLET	PROBE LENGTH [ft]	12	C(p)	0.840
DATE	5/4/07	NOZZLE ID [inch]	1/4" D = .248	FILTER BOX SETTING	NA
OPERATOR(S)	BPS + BWG	$\%H_2O$ (Assumed)	8	PROBE HTR SETTING	250
AMBIENT TEMP [°F]	48	FILTER ID	1043	DUCT X-SECTION	circ ? / rect ? / other:
BAR. PRESS. [" Hg]	29.74	K FACTOR	2.52	DUCT DIMENSIONS / DUCT AREA	

Comments:

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet	METER TEMP [oF] outlet	STACK TEMP [°F]	PROBE TEMP [°F]	LINE ~~FILTER BOX~~ [°F]	LAST IMP TEMP [°F]	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	1015	0					955.014								
A-18"	1020	5		0.65	1.6	3	958.3	61	60	296	266	252	45		
A-54"	1025	10	-14.0	1.1	2.7	5	962.5	65	60	299	265	258	44	7.9	12.3
A-90"	1030	15		1.0	2.5	5	966.7	70	61	303	265	260	48		
A-126"	1035	20	-13.0	1.1	2.7	7	970.9	74	63	305	269	270	55	7.3	12.9
	1038														
B-18"	1043	25		0.35	0.90	3	973.7	72	65	300	273	268	58	7.8	12.5
B-54"	1048	30	-13.1	0.70	1.7	4	977.1	72	65	307	276	270	62	7.3	12.9
B-90"	1053	35	-13.4	1.1	2.7	7	981.2	75	66	307	271	270	65	6.9	13.3
B-126"	1058	40		1.3	3.2	10	985.8	77	66	313	276	271	~~7~~62	6.5	13.7
	1059														
C-18"	1104	45	-13.2	0.37	0.92	6	989.0	75	66	297	276	273	60	6.9	13.3
C-54"	1109	50		1.1	2.7	13	992.9	74	66	313	276	272	58	6.8	13.4
C-90"	1114	55	-13.1	0.65	1.6	10	996.2	74	66	311	275	272	56	7.2	13.0
C-126"	1119	60		0.10	0.25	3	997.770	73	66	289	273	272	58	7.9	12.3
				RMS											
AVERAGE			-13.3	0.737	1.96		42.756	68.0		303.3				7.3	13.0

Sample Train Leak Checks: Pre Test 0.004 ft^3 @ 18 in. Hg; Post Test 0.003 ft^3 @ 16 in. Hg

Pitot Tube Leak Checks: PreTest ✓ @ 7 in. H_2O; Post Test ✓ @ 7 in. H_2O

CONSOL ENERGY.

EPA METHOD 5/26A PARTICULATE SAMPLING FIELD DATA SHEET

Page ____ of ____

TEST ID	II2	METER BOX	N1	CAL. DATA: delta H	1.804	Comments:	
PLANT	GREENIDGE	PITOT TUBE DESC	E-1	Y	0.970		
LOCATION	STACK	PROBE LENGTH [ft]	8	C(p)	0.839		
DATE	5-4-07	NOZZLE ID [inch]	1/4E 0.250	FILTER BOX SETTING	NA		
OPERATOR(S)	RB KC	$\%H_2O$ (Assumed)	8	PROBE HTR SETTING	250		
AMBIENT TEMP [°F]	59	FILTER ID	86	DUCT X-SECTION	circ ?	rect ?	other:
BAR. PRESS. [" Hg]	29.74	K FACTOR	3.20	DUCT DIMENSIONS		DUCT AREA	

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet	METER TEMP [oF] outlet	STACK TEMP [°F]	PROBE TEMP [°F]	~~FILTER BOX~~ H2 [°F]	LAST IMP TEMP [°F]	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	1015	0					596.904								
A-5"		4 5	~~.42~~	~~1.35~~ .42	1.35	8	599.89	60	58	161	274	211	52	7.5	12.7
A-16.4"	N	8 10		.46	1.42	7	602.44	60	58	170	273	208	51	7.5	12.7
A-30.3"		12 15	-.38	.46	1.42	7	605.10	62	58	173	270	206	52	7.4	12.8
A-50.4"		16 20		.48	1.52	7	607.72	63	59	174	270	214	52	7.5	12.7
							608.25								
B-5"		20		.42	1.35	6	610.35	64	59	159	277	232	54	8.2	11.9
B-16.4"	W	25	-.41	.55	1.75	6	613.14	64	59	172	270	230	56	7.5	12.7
B-30.3"		30		.55	1.75	7	616.14	65	60	174	272	229	57	7.6	12.6
B-50.4"		35		.56	1.79	8	619.13	67	60	174	275	229	64	7.6	12.6
		40					619.90								
C-5"				.59	1.89	8	622.80 622.80	67	61	171	263	229	62	7.6	12.6
C-16.4"	S			.68	2.20	9	625.99	68	61	174	270	231	65	7.5	12.7
C-30.3"		45		.67	2.15	8	629.19	69	62	178	267	231	64	7.6	12.6
C-50.4"		50		.60	1.90	8	632.32	70	63	178	266	232	66	7.6	12.6
		55					633.68								
D-5"		60		.50	1.60	6	636.29	70	63	170	273	243	63	7.5	12.7
D-16.4"				.51	1.65	6	638.94	71	64	174	270	242	61	7.5	12.7
D-30.3"	E			.54	1.72	7	641.80	72	64	173	273	243	61	7.2	13.1
D-50.4"				.40	1.30	6	644.435	72	65	173	275	240	61	7.0	13.1
	1130														
AVERAGE			-0.40	RMS 0.521	1.673		44.871	63.7		171.3				7.5	12.7

Sample Train Leak Checks:	Pre Test	<0.01 ft³ @ 7 in. Hg	Post Test	____ ft³ @ ____ in. Hg	Pitot Tube Leak Checks:	PreTest	<0.01 @ 5 in. H_2O	Post Test ____ @ ____ in. H_2O

CONSOL ENERGY.

AES GREENIDGE UNIT 4 ONTARIO HYDRO SAMPLING TRAIN DATA

GUARANTEE TESTING - March 28, 2007 - NO CARBON INJECTION

Location			AHO	Stack	AHO	Stack	AHO	Stack
Date			3/28/07	3/28/07	3/28/07	3/28/07	3/28/07	3/28/07
Start Time			905	910	1245	1243	1558	1600
Stop Time			1132	1133	1502	1507	1817	1814
Test Number			1	1	2	2	3	3
Sample Type			OH-Hg	OH-Hg	OH-Hg	OH-Hg	OH-Hg	OH-Hg
Y factor of dry gas meter	-		0.970	1.046	0.970	1.046	0.970	1.046
Gas Volume	-	ft^3	50.95	82.93	52.21	82.90	51.67	80.15
Delta H of dry gas meter	-	" H_20	0.59	1.68	0.64	1.68	0.61	1.55
Meter Temperature	-	^oF	50.3	46.6	52.1	48.2	53.9	51.6
C Factor of pitot tube	-		0.840	0.835	0.840	0.835	0.840	0.835
Nozzle Diameter	-	inches	0.184	0.248	0.184	0.248	0.184	0.248
A n (area of nozzle)	-	ft^2	0.00018	0.00034	0.00018	0.00034	0.00018	0.00034
Area of Stack	-	ft^2	114.0	132.7	114.0	132.7	114.0	132.7
H_2O Weight	-	gm	65.7	230.5	69.0	197.5	76.7	218.5
Sample Time	-	minutes	126	120	126	120	126	120
Barometric Pressure	-	" Hg	29.83	29.83	29.85	29.85	29.85	29.85
Static Pressure	-	" H_20	-12.94	-0.56	-13.09	-0.60	-12.93	-0.58
% Oxygen (see note)	-		6.9	8.0	7.0	8.2	7.0	8.3
% CO2 (see note)	-		12.2	11.2	12.2	11.1	12.2	11.1
% N_2 + CO (calculated)	-		80.9	80.7	80.8	80.7	80.8	80.6
Stack Temp (Dry Bulb)	-	^oF	293	175	300	176	298	174
Stack Temp (Wet Bulb)	-	^oF						
"S" sample (rms vel head)	-	" H_20	0.719	0.568	0.792	0.578	0.751	0.565
Dust Wt.	-	gm	8.3021	0.0003	7.5722	0.0000	8.0255	0.0000
Sample Volume	-	DSCF	51.04	90.47	52.15	90.22	51.43	86.62
Sample Volume	-	dscm	1.445	2.562	1.477	2.555	1.457	2.453
ABS ST PRES	-	" Hg	28.88	29.79	28.89	29.81	28.90	29.81
ABS ST TEMP	-	^oR	753	635	760	636	758	634
H_2O - % by Vol	-	vapor	5.7	10.7	5.9	9.3	6.6	10.6
Water Volume	-	std ft^3	3.09	10.86	3.25	9.30	3.61	10.29
Dry Molecular Weight	-	lb/lb-mole	30.23	30.12	30.23	30.10	30.23	30.11
Wet Molecular Weight	-	lb/lb-mole	29.53	28.82	29.51	28.97	29.43	28.82
% EXCESS AIR	-		47.7	60.4	48.8	62.9	49.2	63.5
Dry Mole Frac.	-		0.943	0.893	0.941	0.907	0.934	0.894
Wet Mole Frac.	-		0.057	0.107	0.059	0.093	0.066	0.106
Gas Velocity, Direct	-	ft/sec	57.23	46.27	60.33	46.58	58.73	46.11
ACFM	-		391422	368457	412634	370971	401739	367220
DSCFM	-		249699	272388	260682	278034	252720	272147
DSCFM (rounded)			249700	272400	260700	278000	252700	272100
DSCMM			7071	7714	7383	7874	7157	7707
Excess Air Free DSCFM	-		167263	167788	173372	168642	167714	164457
CALCULATED FIRING RATE:								
Dry	-	lb/min	1248	1252	1306	1271	1264	1239
Wet	-	lb/min	1336	1340	1394	1356	1352	1326
Dry	-	lb/hr	74858	75093	78382	76243	75838	74365
Wet	-	lb/hr	80165	80417	83634	81352	81145	79569
CALCULATED FIRING RATE:								
Dry	-	tons/hr	37.4	37.5	39.2	38.1	37.9	37.2
Wet	-	tons/hr	40.1	40.2	41.8	40.7	40.6	39.8
HEAT INPUT:								
MM Btu/hr	-		1031	1034	1082	1052	1055	1035
PARTICULATE LOADING:								
Grains/DSCF	-		2.5100	0.0001	2.2402	0.0000	2.4078	0.0000
lb/hr	-		5374	0.12	5008	0.00	5217	0.00
lb/MM Btu	-		5.21	0.00	4.63	0.00	4.94	0.00
% ISOKINETIC	-		100.3	109.6	98.1	107.1	99.8	105.1

NOTE: The $\%O_2$ at the air heater outlet was measured by CONSOL using a Teledyne Max 5 portable electrochemical O_2 analyzer, and the % CO_2 at the air heater outlet was calculated from the measured O_2 and coal composition. The $\%CO_2$ at the stack was measured by the plant's stack CEM, and the $\%O_2$ at the stack was calculated from the measured CO_2 and coal composition.

Impinger Components Wts & Volumes	AHO - 1	Stack - 1	AHO - 2	Stack - 2	AHO - 3	Stack - 3
Filter Wt., g	8.3021	0.0003	7.5722	0.0000	8.0255	0.0000
ppm Hg (thimbles) or ug/filter (filters)	0.72	<0.01	0.56	<0.01	0.69	<0.01
total ug	6.01	<0.01	4.26	<0.01	5.52	<0.01
ug/dscm	4.16	<0.00	2.89	<0.00	3.79	<0.00
Probe Rinse volume, ml	150	80	117	136	118	110
Analytical Hg, ng/ml	1.15	<1.40	1.59	<1.40	<1.40	<1.40
ug/dscm	0.12	<0.04	0.13	<0.07	<0.11	<0.06
Line Rinse volume, ml	160	62	117	60	73	125
Analytical Hg, ng/ml	2.21	<1.40	6.78	<1.40	3.66	<1.40
ug/dscm	0.24	<0.03	0.54	<0.03	0.18	<0.07
KCl volume, ml	616	676	567	522	634	523
Analytical Hg, ng/ml	5.97	<0.28	10.65	<0.28	7.85	<0.28
ug/dscm	2.54	<0.07	4.09	<0.06	3.42	<0.06
Nitric/Peroxide volume, ml	125	181	178	173	181	175
Analytical Hg, ng/ml	<1.40	<1.40	<1.40	<1.40	<1.40	<1.40
ug/dscm	<0.12	<0.10	<0.17	<0.09	<0.17	<0.10
KMnO4 volume, ml	200	244	245	248	242	244
Analytical Hg, ng/ml	1.99	<0.28	<0.28	<0.28	1.16	<0.28
ug/dscm	0.28	<0.03	<0.05	<0.03	0.19	<0.03
KMnO4-Acid Rinse volume, ml	100	100	100	100	100	100
Analytical Hg, ng/ml	<1.40	<1.40	<1.40	<1.40	<1.40	<1.40
ug/dscm	<0.10	<0.05	<0.09	<0.05	<0.10	<0.06
Particulate Hg (ug/dscm)	4.16	<0.00	2.89	<0.00	3.79	<0.00
Oxidized Hg (ug/dscm)	2.91	<0.15	4.75	<0.16	3.71	<0.19
Elemental Hg (ug/dscm)	0.49	<0.18	<0.31	<0.18	0.46	<0.18
Total Hg (ug/dscm)	7.56	<0.33	7.95	<0.34	7.97	<0.38
Particulate Hg (ug/dscm @ 3% O2)	5.32	<0.00	3.72	<0.00	4.89	<0.00
Oxidized Hg (ug/dscm @ 3% O2)	3.72	<0.21	6.12	<0.23	4.79	<0.27
Elemental Hg (ug/dscm @ 3% O2)	0.63	<0.25	0.40	<0.25	0.60	<0.26
Total Hg (ug/dscm @ 3% O2)	9.67	<0.46	10.23	<0.49	10.28	<0.54
Removal (%)	> 95.2		> 95.3		> 94.7	

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ONTARIO HYDRO Hg SAMPLING FIELD DATA SHEET

Ports
35" #3
#2
#1 35"

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TEST ID	ONE	METER BOX	N-1	CAL. DATA: delta H	1.894	Comments:
PLANT	GREENIDGE	PITOT TUBE DESC	E-3A : 0.84	Y	0.970	10 min purge after test
LOCATION	AIR HEATER OUTLET	PROBE LENGTH [ft]	12	C(p)	0.840	
DATE	3/28/07	NOZZLE ID [inch]	0.184	FILTER BOX SETTING		
OPERATOR(S)	R. ODA & D. OLSEN	$\%H_2O$ (Assumed)	10%	PROBE HTR SETTING		
AMBIENT TEMP [°F]		FILTER ID	1026	DUCT X-SECTION	circ ? / rect ?	other:
BAR. PRESS. [" Hg]	29.83	K FACTOR	0.744	DUCT DIMENSIONS		DUCT AREA

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	⑥ METER TEMP [oF] inlet	⑦ METER TEMP [oF] outlet	① STACK TEMP [°F]	② PROBE TEMP [°F]	③ ~~FILTER~~ heated BOX [°F]	⑤ LAST IMP TEMP [°F]	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	0905	0					874.10								
1 - 2"	0912	7	-12.6	0.05	0.04	2.0	875.19	45	44	284	263	172	41		
1 - 2"		14	-12.95	0.05	0.04	2.0	876.33	46	45	289	275	172	40	6.7	13.5
1 - 6"		21	-12.62	0.75	0.56	2.5	879.16	47	45	294	284	177	39	6.7	13.5
1 - 6"		28	-12.55	0.75	0.56	2.5	882.98	49	46	294	284	180	38	6.6	13.7
1 - 10"		35	-13.01	1.1	0.83	4.0	885.18	50	46	296	278	184	39	6.4	13.8
1 - 10"		42		1.1	0.83	5.0	888.59	50	47	296	273	181	40	~~5.~~2	14.0
	1000						889.20								
2 - 2"	7	7 49	-12.68	0.30	0.22	2.0	891.38	51	48	285	250	180	40	7.1	13.1
2 - 2"		14 56	-13.0	0.30	0.22	2.0	893.26	51	48	291	260	182	40	7.1	13.1
2 - 6"		21 63	-12.24	0.78	0.58	4.0	896.16	52	49	293	279	178	41	6.9	13.3
2 - 6"		28 70	-13.0	0.78	0.58	4.5	899.03	54	49	293	284	178	40	6.8	13.4
2 - 10"		35 77	-13.49	1.3	0.96	6.0	902.59	55	50	295	281	177	41	6.2	14.0
2 - 10"		42 84	-12.48	1.3	0.96	7.0	906.26	56	50	295	284	180	41	6.2	14.0
	1050				0.61		907.10				269				
3 - 2"		7 91	-13.48	0.82	~~0.82~~	10.0	910.35	54	51	288	~~284~~	175	42	7.6	12.6
3 - 2"		14 98	-13.04	0.82	0.61	6.5	913.33	55	51	291	271	178	42	7.5	12.8
3 - 6"		21 105	-13.16	0.94	0.70	8.0	916.53	55	51	274 ⇐ 298	298	178	42	7.4	12.8
3 - 6"		28 112	-13.01	0.94	0.70	8.0	919.72	56	51	298	281	175	42	7.4	12.8
3 - 10"		35 119	-12.76	1.1	0.83	9.5	923.11	56	51	298	285	175	42	7.0	13.2
3 - 10"	1132	42 126	-13.52	1.1	0.83	10.5	926.50	56	51	298	259	174	43	7.0	13.2
AVERAGE			-12.94	0.719	0.592		50.95	50.3		293.2				6.9	13.3

Sample Train Leak Checks: Pre Test <0.01 ft^3 @ 10 in. Hg; Post Test <0.01 ft^3 @ 15 in. Hg

Pitot Tube Leak Checks: PreTest OK @ 9 in. H_2O; Post Test OK @ 9 in. H_2O

CONSOL ENERGY.

ONTARIO HYDRO Hg SAMPLING FIELD DATA SHEET

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TEST ID	One	METER BOX	N-2	CAL. DATA: delta H	1.859
PLANT	GREENIDGE	PITOT TUBE DESC	E-1A : 0.835	Y	1.046
LOCATION	STACK	PROBE LENGTH [ft]	10	C(p)	0.835
DATE	3-28-07	NOZZLE ID [inch]	0.248	~~FILTER~~ BOX SETTING	NA
OPERATOR(S)	K. CERAR & B. SLIFER	%H_2O (Assumed)	10%	PROBE HTR SETTING	250
AMBIENT TEMP [°F]	45	FILTER ID	76	DUCT X-SECTION	circ ? / rect ? / other:
BAR. PRESS. [" Hg]	29.83	K FACTOR	2.94	DUCT DIMENSIONS	DUCT AREA

Comments: Cond - 230.5

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	642.80 METER READING [ft^3]	6 METER TEMP [oF] inlet	7 outlet	1 STACK TEMP [°F]	2 PROBE TEMP [°F]	HL 5 ~~FILTER BOX~~ [°F]	4 LAST IMP TEMP [°F]	METER EXHAUST O_2 [% vol]	CO_2 [% vol]
	~~0905~~	0					~~640.70~~								
1 - 5"	0910	7.5		.58	1.70	5	648.00	43	40	173	203	210	38	—	—
1 - 16.38"		15		.62	1.85	5	653.31	44	40	175	206	211	38	9.2	11.0
1 - 30.25"		22.5	-.533	.58	1.70	5	658.67	48	42	175	201	211	41	9.2	11.0
1 - 50.38"		30		.58	1.70	5	663.90	48	42	176	202	210	43	—	—
					L.C.	OK →	664.10								
2 - 5"		37.5		.62	1.85	5	669.52	49	43	170	200	206	43	—	—
2 - 16.38"		45		.68	2.00	5.5	675.17	50	44	175	208	207	43	9.5	10.8
2 - 30.25"		52.5	-.582	.70	2.05	6	680.90	52	45	175	204	207	45	9.4	10.9
2 - 50.38"		60		.62	1.85	5.5	686.38	53	46	176	208	202	46	9.3	11.0
					L.C.	OK →	686.50								
3 - 5"		67.5		.54	1.58	4.5	691.56	52	47	177	209	216	43	—	—
3 - 16.38"		75		.58	1.70	5	696.78	53	47	174	202	218	43	9.4	10.9
3 - 30.25"		82.5	-.588	.58	1.70	5	701.98	54	48	175	206	219	42	9.5	10.8
3 - 50.38"		90		.54	1.58	5	707.05	55	48	178	200	220	43	9.4	10.9
					L.C.	OK →	707.20								
4 - 5"		97.5		.46	1.35	4	711.87	54	48	174	194	246	43	—	—
4 - 16.38"		105		.46	1.35	4	716.58	53	48	175	197	246	42	9.5	10.8
4 - 30.25"		112.5	-.545	.48	1.40	4	721.36	54	49	176	203	247	43	9.3	11.0
4 - 50.38"		120		.50	1.46	4.5	726.20	55	49	175	201	247	46	9.5	10.8
	1133			RMS											
AVERAGE			-0.562	0.568	1.676		82.93	46.6		174.9				9.4	10.9

Sample Train Leak Checks: Pre Test <0.01 ft^3 @ 6 in. Hg; Post Test <0.01 ft^3 @ 10 in. Hg

Pitot Tube Leak Checks: PreTest <0.01 @ 6 in. H_2O; Post Test <0.01 @ 6 in. H_2O

CONSOL ENERGY

ONTARIO HYDRO Hg SAMPLING FIELD DATA SHEET

Page _____ of _____

TEST ID	2	METER BOX	N-1	CAL. DATA: delta H	1.894	Comments:	
PLANT	GREENIDGE	PITOT TUBE DESC	E-3A	Y	0.970	10 min purge after test	
LOCATION	AIR HEATER OUTLET	PROBE LENGTH [ft]	12	C(p)	0.840		
DATE	3/28/07	NOZZLE ID [inch]	0.184	FILTER BOX SETTING			
OPERATOR(S)	R. ODA & D. OLSEN	%H_2O (Assumed)	10%	PROBE HTR SETTING			
AMBIENT TEMP [°F]		FILTER ID	1027	DUCT X-SECTION	circ ?	rect ?	other:
BAR. PRESS. [" Hg]	29.85	K FACTOR	0.744	DUCT DIMENSIONS		DUCT AREA	

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet (6)	METER TEMP [oF] outlet (7)	STACK TEMP [°F] (1)	PROBE TEMP [°F] (2)	~~FILTER~~ (3) Neat... BOX [°F]	LAST IMP TEMP [°F] (5)	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	1245	0					930.20							7.4	
1 - 2"		7	-12.58	0.10	0.07	1.0	931.51	49	48	295	246	132	042	~~8.1~~	12.5
1 - 2"		14	-13.10	0.10	0.07	1.0	932.75	50	49	298	261	141	42	7.0	13.2
1 - 6"		21	-13.24	1.1	0.83	4.0	935.71	51	49	301	273	149	41	6.7	13.6
1 - 6"		28	-13.08	1.1	0.83	4.0	939.10	52	49	301	281	154	40	6.6	13.6
1 - 10"		35	-13.39	1.1	0.83	5.0	942.49	54	49	303	286	160	40	6.3	13.8
1 - 10"		42	-13.59	1.1	.83	5.0	945.90	55	50	303	292	160	41	6.3	13.8
							946.20								
2 - 2"		7 49	-12.23	.38	.28	3.0	948.49	53	51	291	277	155	42	7.6	12.7
2 - 2"		14 56	-12.52	.38	.28	3.0	950.55	54	51	299	279	158	42	7.1	13.1
2 - 6"		21 63	-12.86	0.85	0.63	4.5	953.39	54	51	299	280	159	42	6.9	13.3
2 - 6"		28 70	-12.62	0.85	0.63	4.5	956.39	55	51	299	288	161	42	6.9	13.3
2 - 10"		35 77	-13.29	1.4	1.04	7.0	960.20	56	51	301	284	163	43	6.6	13.5
2 - 10"		42 84	-13.24	1.4	1.04	7.0	963.94	56	51	301	285	163	43	6.7	13.6
	1420						964.60								
3 - 2"		7 91	-13.93	0.72	0.53	6.0	967.58	54	51	287	272	155	43	7.6	12.6
3 - 2"		14 98	-12.73	0.72	0.53	6.0	970.32	55	51	298	277	158	43	7.5	12.7
3 - 6"		21 105	-13.78	0.95	0.70	7.5	973.36	55	52	305	287	159	44	7.4	12.8
3 - 6"		28 112	-13.18	0.95	0.70	8.0	976.52	56	52	305	287	160	44	7.4	12.8
3 - 10"		35 119	-13.28	1.1	0.83	10.0	979.92	52	51	304	290	167	44	7.0	13.2
3 - 10"	1502	42 126	-12.95	1.1	0.83	11.0	983.35	56	52	303	269	170	44	7.0	13.2
				0.792											
AVERAGE			-13.09	~~0.854~~	0.638		52.21	52.1		299.6				7.0	13.2

Sample Train Leak Checks:	Pre Test <0.01 ft^3 @ 10 in. Hg	Pitot Tube Leak Checks:	PreTest OK @ 7 in. H_2O
	Post Test <0.01 ft^3 @ 12 in. Hg		Post Test OK @ 6 in. H_2O

CONSOL ENERGY

ONTARIO HYDRO Hg SAMPLING FIELD DATA SHEET

Page _____ of _____

TEST ID	TWO	METER BOX	N-2	CAL. DATA: delta H	1.859	Comments:	
PLANT	GREENIDGE	PITOT TUBE DESC	E-1A=0.835	Y	1.046		
LOCATION	STACK	PROBE LENGTH [ft]	10	C(p)	0.835		
DATE	3-28-07	NOZZLE ID [inch]	0.248	FILTER BOX SETTING	NA		
OPERATOR(S)	K. CERAR & B. SLIFER	$\%H_2O$ (Assumed)	10%	PROBE HTR SETTING	250		
AMBIENT TEMP [°F]	44	FILTER ID	77	DUCT X-SECTION	circ ?	rect ?	other:
BAR. PRESS. [" Hg]	29.85	K FACTOR	2.54	DUCT DIMENSIONS		DUCT AREA	

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet (6)	METER TEMP [oF] outlet (7)	STACK TEMP [°F] (1)	PROBE TEMP [°F] (2)	HL (5) ~~FILTER BOX~~ [°F]	LAST IMP TEMP [°F] (4)	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	12:43	0					733.30								
1 - 5"		7.5		.45	1.32	4	737.71	45	44	178	237	170	39	—	—
1 - 16.38"		15		.48	1.40	4	742.41	47	44	178	238	176	40	9.0	—
1 - 30.25"		22.5		.48	1.40	4	747.17	49	45	177	250	178	40	—	—
1 - 50.38"		30	-.589	.54	1.58	5	752.22	50	45	177	245	168	42	9.1	11.2
					L.C.	OK →	752.30								
2 - 5"		37.5		.54	1.58	5	757.36	49	45	176	240	194	39	—	—
2 - 16.38"		45		.56	1.63	5	762.46	50	45	175	243	201	40	9.0	11.3
2 - 30.25"		52.5	-.650	.60	1.76	5	767.77	50	45	175	238	198	41	9.1	11.2
2 - 50.38"		60		.56	1.63	5	772.91	51	46	175	243	197	42	9.0	11.3
					L.C.	OK →	773.80								
3 - 5"		67.5		.64	1.88	5.5	779.31	49	45	176	243	229	41	—	—
3 - 16.38"		75		.72	2.10	6	785.07	51	47	177	251	230	41	9.2	11.1
3 - 30.25"		82.5	-.635	.72	2.10	6	790.87	52	47	177	246	232	42	9.2	11.1
3 - 50.38"		90		.64	1.88	6	796.40	53	47	176	247	231	43	9.2	11.1
					L.C.	OK →	796.60								
4 - 5"		97.5		.56	1.63	5	801.73	51	47	176	252	227	46	—	—
4 - 16.38"		105		.60	1.76	5	807.04	52	47	176	238	227	49	9.2	11.1
4 - 30.25"	K=2.75	112.5		.62	1.70	5	812.27	53	48	175	246	228	51	9.2	11.1
4 - 50.38"		120	-.543	.58	1.58	5	817.37	54	48	175	242	245	52	9.2	11.1
	1507			RMS											
AVERAGE			-0.604	0.578	1.683		82.90	48.2		176.2				9.1	11.2

Sample Train Leak Checks: Pre Test <0.01 ft^3 @ 8 in. Hg; Post Test <0.01 ft^3 @ 10 in. Hg

Pitot Tube Leak Checks: PreTest <0.01 @ 6 in. H_2O; Post Test <0.01 @ 6 in. H_2O

CONSOL ENERGY

ONTARIO HYDRO Hg SAMPLING FIELD DATA SHEET

TEST ID	3	METER BOX	N-1	CAL. DATA: delta H	1.894
PLANT	GREENIDGE	PITOT TUBE DESC	E-3A	Y	0.970
LOCATION	AIR HEATER OUTLET	PROBE LENGTH [ft]	12	C(p)	0.840
DATE	3/28/07	NOZZLE ID [inch]	0.184	FILTER BOX SETTING	
OPERATOR(S)	R. ODA & D. OLSEN	%H_2O (Assumed)		PROBE HTR SETTING	
AMBIENT TEMP [°F]		FILTER ID	1028	DUCT X-SECTION	circ ? / rect ? / other:
BAR. PRESS. [" Hg]	29.85	K FACTOR	0.744	DUCT DIMENSIONS	DUCT AREA

Comments: 10 min purge after test

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet (6)	METER TEMP [oF] outlet (7)	STACK TEMP [°F] (1)	PROBE TEMP [°F] (2)	~~FILTER~~ BOX heated line [°F] (3)	LAST IMP TEMP [°F] (5)	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	1558	0					989.10								
1 - 2"		7		0.10	0.07	1.0	990.56	51	50	296	278	135	45	7.6	12.5
1 - 2"		14	-12.71	0.10	0.07	1.0	991.67	51	50	296	285	141	44	7.2	13.0
1 - 6"		21	-13.38	0.85	0.64	3.5	994.61	52	51	299	285	148	44	6.8	13.4
1 - 6"		28	-12.65	0.85	0.64	4.0	997.63	54	51	299	284	155	42	6.8	13.4
1 - 10"		35	-12.60	1.1	0.83	5.0	1001.02	55	51	300	289	156	42	6.6	13.0
1 - 10"		42	-12.91	1.1	.83	5.0	1004.47	56	51	301	299	157	43	6.6	13.0
	1645			~~0.35~~	~~0.26~~		5.00								
2 - 2"		7 49	-12.90	0.35	0.26	3.0	7.08	55	51	285	281	153	44	7.4	12.7
2 - 2"		14 56	-12.55	0.35	0.26	3.0	9.11	55	52	297	284	154	45	7.1	13.1
2 - 6"		21 63	-12.96	0.78	0.58	5.0	11.94	55	52	297	289	155	45	6.9	13.3
2 - 6"		28 70	-13.20	0.78	0.58	5.0	14.90	57	52	297	294	156	44	6.9	13.3
2 - 10"		35 77	-13.27	1.3	0.96	7.0	—	58	52	299	289	157	45	6.5	13.7
2 - 10"		42 84	-13.10	1.3	0.96	8.0	22.21	58	53	299	276	159	46	6.5	13.7
	1135			~~0.75~~	~~0.56~~		22.40								
3 - 2"		7 91	-13.08	0.75	0.56	4.5	25.39	56	53	290	281	149	47	7.5	12.7
3 - 2"		14 98	-12.86	0.75	0.56	5	28.19	57	53	295	285	153	47	7.5	12.7
3 - 6"		21 105	-13.07	0.97	0.72	6.0	31.39	58	53	300	291	153	46	7.2	13.0
3 - 6"		28 112	-13.69	0.97	0.72	6.5	34.59	58	54	301	298	154	47	7.3	12.9
3 - 10"		35 119	-12.01	1.1	0.83	8.0	38.04	58	54	302	293	157	47	7.1	13.1
3 - 10"		42 126		1.1	0.83	10.0	41.49	59	54	302	272	161	47	7.0	13.2
				RMS											
AVERAGE		126	-12.93	0.751	0.606		51.67	53.9		292.5				7.03	13.09

Sample Train Leak Checks:	Pre Test <0.01 ft^3 @ 10 in. Hg	Pitot Tube Leak Checks:	PreTest OK @ 5 in. H_2O
	Post Test <0.01 ft^3 @ 13 in. Hg		Post Test OK @ 9 in. H_2O

CONSOL ENERGY

ONTARIO HYDRO Hg SAMPLING FIELD DATA SHEET

Page _____ of _____

TEST ID	THREE
PLANT	GREENIDGE
LOCATION	STACK
DATE	3-28-07
OPERATOR(S)	K. CERAR & B. SLIFER
AMBIENT TEMP [°F]	~48°
BAR. PRESS. [" Hg]	29.85

METER BOX	N-2
PITOT TUBE DESC	E-1A=0.835
PROBE LENGTH [ft]	10
NOZZLE ID [inch]	0.248
$\%H_2O$ (Assumed)	10%
FILTER ID	78
K FACTOR	~~2.54~~ 2.75

CAL. DATA: delta H	1.859
Y	1.046
C(p)	0.835
FILTER BOX SETTING	NA
PROBE HTR SETTING	250
DUCT X-SECTION	circ ? / rect ? / other:
DUCT DIMENSIONS	
DUCT AREA	

Comments:

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet (6)	METER TEMP [oF] outlet (7)	STACK TEMP [°F] (1)	PROBE TEMP [°F] (2)	HL (5) ~~FILTER BOX~~ [°F]	LAST IMP TEMP [°F] (4)	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	1600	0					823.60 ~~823.60~~								
1 - 5"		7.5		.54	1.48	6	828.54	49	47	172	246	262	50	—	—
1 - 16.38"		15		.60	1.63	6	833.67	51	47	174	242	251	47	9.1	11.2
1 - 30.25"		22.5	-.533	.60	1.63	6	838.78	54	48	174	240	253	50	9.0	11.3
1 - 50.38"		30		.56	1.52	6	843.78	54	48	174	249	253	51	9.0	11.3
					L.C.	OK→	843.90								
2 - 5"		37.5		.64	1.75	6.5	849.22	53	48	173	252	226	46	—	—
2 - 16.38"		45		.66	1.80	7	854.61	54	49	174	252	222	43	9.4	10.9
2 - 30.25"		52.5	-.627	.70	1.90	7	860.11	54	49	174	248	223	44	9.1	11.2
2 - 50.38"		60		.60	1.63	6.5	865.27	55	49	175	240	241	42	9.2	11.1
					L.C.	OK→	865.40								
3 - 5"		67.5		.54	1.48	6	870.31	54	49	174	244	216	39	—	—
3 - 16.38"		75		.60	1.63	6	875.46	55	50	175	248	215	38	9.1	11.2
3 - 30.25"		82.5	-.600	.60	1.63	6	880.62	56	50	175	243	210	39	9.2	11.1
3 - 50.38"		90		.54	1.48	6	885.57	56	50	175	237	209	39	9.2	11.1
					L.C.	OK→	885.70								
4 - 5"		97.5		.44	1.20	~~OK~~ 5	890.13	54	50	174	245	238	40	—	—
4 - 16.38"		105		.46	1.26	5	894.68	55	50	175	250	236	39	9.2	11.1
4 - 30.25"		112.5	-.547	.48	1.30	5	899.40	56	50	176	240	234	40	9.1	11.2
4 - 50.38"		120		.52	1.40	5.5	904.13	56	51	176	250	234	39	9.2	11.1
	1814														
AVERAGE			-.577	0.565	1.55		80.15	51.6		174.4				9.11	11.11

Sample Train Leak Checks: ~~Pre~~ Pre Test <0.01 ft³ @ 10 in. Hg; Post Test <0.01 ft³ @ 10 in. Hg

Pitot Tube Leak Checks: PreTest <0.01 @ 6 in. H_2O; Post Test <0.01 @ 6 in. H_2O

CONSOL ENERGY

Distribution: JEL, BWG
Project No.: 1621-85
Sample Date: 3-28-07

Location: AHO Task: 1 Test: HG-1 Operator: RO/DD

Sample ID	Bottle #	Description	Initial Vol mL	Rinse Vol mL	Gain mL	Final Vol mL	ppb Hg	Total ug of Hg
1	S	Filter/Solids	—	—	—	—		
2	1	Probe & Filter Rinse	0	150	—	150		
3	2	Sample Line Rinse	0	160	—	160		
4	3	KCl Impingers	300	150	~~166~~ 166	616		
5	4	HNO_3/H_2O_2 Impinger	100	75	-50	125		
6	5	$KMnO_4$ Impingers	200	50	-50	200		
7	6	$KMnO_4$ Acid Rinse	0	100	0	100		

Filter Gross wt: ________g
Filter Tare wt: ________g
Filter Net wt: ________g
Filter Net wt: ________g
Probe/Line Rinse wt: ________g
Total Particulate wt: ________g
Condensate Total: ________ml

Recovered By: [signature]
Date: 3/28/2007

Location: STK Task: 1 Test: HG-1 Operator: BS/KC

Sample ID	Bottle #	Description	Initial Vol mL	Rinse Vol mL	Gain mL	Final Vol mL	ppb Hg	Total ug of Hg
8	S	Filter/Solids	—	—	—	—		
9/10	1 /1A	Probe & Filter Rinse/Line	0/0	80/62	—	80/62		
11	2	KCl Impingers	300	150	216	676		
12	3	HNO_3/H_2O_2 Impinger	100	75	6	181		
13	4	$KMnO_4$ Impingers	200	~~2~~50	-6	244		
14	5	$KMnO_4$ Acid Rinse	0	100	0	100		

Filter Gross wt: ________g
Filter Tare wt: ________g
Filter Net wt: ________g
Filter Net wt: ________g
Probe/Line Rinse wt: ________g
Total Particulate wt: ________g
Condensate Total: ________ml

Recovered By: [signature]
Date: 3/28/2007

Recovered By: ________________
Date: ________________

Sample ID	Description	ppb Hg	Total ug of Hg
	3 in. Filter Blank		
	KCl Blank		
	HNO_3 / H2O2 Blank		
	$KMnO_4$ Blank		
	$KMnO_4$ Blank		
	HNO_3 / HCl Blank		

Distribution: JEL, BWG
Project No.: 1621-85
Sample Date: 3-28-2007

Location: AHO Task: 1. Test: HG-2 Operator: RJ/DD

Sample ID	Bottle #	Description	Initial Vol mL	Rinse Vol mL	Gain mL	Final Vol mL	ppb Hg	Total ug of Hg
15	S	Filter/Solids	–	–	–	–		
16	1	Probe & Filter Rinse	0	136	–	136		
17	2	Sample Line Rinse	0	60	–	60		
18	3	KCl Impingers	300	72	150	522		
19	4	HNO_3/H_2O_2 Impinger	100	-2	75	173		
20	5	$KMnO_4$ Impingers	200	-2	50	248		
21	6	$KMnO_4$ Acid Rinse	0	100	0	100		

Filter Gross wt: ______g Filter Net wt: ______g
Filter Tare wt: ______g Probe/Line Rinse wt: ______g Condensate Total: ______ml
Filter Net wt: ______g Total Particulate wt: ______g

Recovered By: [signature] Date: 3/28/2007

Location: STK Task: 1. Test: Hg-2 Operator: BS/KC

Sample ID	Bottle #	Description	Initial Vol mL	Rinse Vol mL	Gain mL	Final Vol mL	ppb Hg	Total ug of Hg
22	S	Filter/Solids	–					
23/24	1/1A	Probe & Filter Rinse/Line Rinse	0/0	118/73	–	118/73		
25	2	KCl Impingers	300	150	184	634		
26	3	HNO_3/H_2O_2 Impinger	100	75	6	181		
27	4	$KMnO_4$ Impingers	200	50	-8	242		
28	5	$KMnO_4$ Acid Rinse	0	100	0	100		

Filter Gross wt: ______g Filter Net wt: ______g
Filter Tare wt: ______g Probe/Line Rinse wt: ______g Condensate Total: ______ml
Filter Net wt: ______g Total Particulate wt: ______g

Recovered By: [signature] Date: 3/28/2007

Recovered By: ______ Date: ______

Sample ID	Description	ppb Hg	Total ug of Hg
	3 in. Filter Blank		
	KCl Blank		
	HNO_3 / H2O2 Blank		
	$KMnO_4$ Blank		
	$KMnO_4$ Blank		
	HNO_3 / HCl Blank		

Distribution: JEL, BWG
Project No.: 1621-85
Sample Date: 3-28-2007

Location: AHO Task: 1 Test: HG-3 Operator: RO / DO

Sample ID	Bottle #	Description	Initial Vol mL	Rinse Vol mL	Gain mL	Final Vol mL	ppb Hg	Total ug of Hg
29	S	Filter/Solids	—	—	—	—		
30	1	Probe & Filter Rinse	0	110	—	110		
31	2	Sample Line Rinse	0	125	—	125		
32	3	KCl Impingers	300	150	73	523		
33	4	HNO_3/H_2O_2 Impinger	100	75	0	175		
34	5	$KMnO_4$ Impingers	200	50	-6	244		
35	6	$KMnO_4$ Acid Rinse	0	100	0	100		

Filter Gross wt: ______ g Filter Net wt: ______ g
Filter Tare wt: ______ g Probe/Line Rinse wt: ______ g Condensate Total: ______ ml
Filter Net wt: ______ g Total Particulate wt: ______ g

Recovered By: [signature] Date: 3/29/2007

Location: STK Task: 1 Test: HG-3 Operator: BS / KC

Sample ID	Bottle #	Description	Initial Vol mL	Rinse Vol mL	Gain mL	Final Vol mL	ppb Hg	Total ug of Hg
36	S	Filter/Solids						
37/38	1/1A	Probe & Filter Rinse / Line Rinse	0 / 0	68 / 45	—	68 / 45		
~~38~~ 39	2	KCl Impingers	300	150	208	658		
~~39~~ 40	3	HNO_3/H_2O_2 Impinger	100	75	2	177		
41	4	$KMnO_4$ Impingers	200	50	-6	244		
42	5	$KMnO_4$ Acid Rinse	0	100	0	100		

Filter Gross wt: ______ g Filter Net wt: ______ g
Filter Tare wt: ______ g Probe/Line Rinse wt: ______ g Condensate Total: ______ ml
Filter Net wt: ______ g Total Particulate wt: ______ g

Recovered By: [signature] Date: 3/~~29~~ 29/2007

Recovered By: ______ Date: ______

Sample ID	Description	ppb Hg	Total ug of Hg
47	47 mm ~~3 in.~~ Filter Blank		
44	KCl Blank		
45	HNO_3 / H2O2 Blank		
43	$KMnO_4$ Blank		
48	Thimble ~~$KMnO_4$~~ Blank		
46	HNO_3 / HCl Blank		

AES GREENIDGE UNIT 4 ONTARIO HYDRO SAMPLING TRAIN DATA

GUARANTEE TESTING - March 30, 2007 - ACTIVATED CARBON INJECTION

Location			AHO	Stack	AHO	Stack	AHO	Stack
Date			3/30/07	3/30/07	3/30/07	3/30/07	3/30/07	3/30/07
Start Time			855	855	1243	1243	1552	1552
Stop Time			1110	1110	1502	1454	1805	1803
Test Number			4	4	5	5	6	6
Sample Type			OH-Hg	OH-Hg	OH-Hg	OH-Hg	OH-Hg	OH-Hg
Y factor of dry gas meter	-		0.970	1.046	0.970	1.046	0.970	1.046
Gas Volume	-	ft^3	50.26	78.34	52.46	81.05	51.54	80.07
Delta H of dry gas meter	-	" H_20	0.60	1.46	0.62	1.55	0.60	1.52
Meter Temperature	-	^oF	46.5	50.8	58.5	63.8	60.4	65.5
C Factor of pitot tube	-		0.840	0.835	0.840	0.835	0.840	0.835
Nozzle Diameter	-	inches	0.184	0.248	0.184	0.248	0.184	0.248
A n (area of nozzle)	-	ft^2	0.00018	0.00034	0.00018	0.00034	0.00018	0.00034
Area of Stack	-	ft^2	114.0	132.7	114.0	132.7	114.0	132.7
H_2O Weight	-	gm	82.9	226.7	90.3	232.1	97.2	230.1
Sample Time	-	minutes	126	120	126	120	126	120
Barometric Pressure	-	" Hg	29.80	29.80	29.77	29.77	29.71	29.71
Static Pressure	-	" H_20	-13.18	-0.49	-13.25	-0.53	-12.84	-0.55
% Oxygen (see note)	-		7.1	8.6	7.2	8.7	6.9	8.3
% CO2 (see note)	-		12.1	10.8	12.1	10.8	12.3	11.1
% N_2 + CO (calculated)	-		80.8	80.6	80.7	80.6	80.8	80.6
Stack Temp (Dry Bulb)	-	^oF	295	174	296	175	298	174
Stack Temp (Wet Bulb)	-	^oF						
"S" sample (rms vel head)	-	" H_20	0.742	0.562	0.774	0.597	0.750	0.581
Dust Wt.	-	gm	8.1636	0.0010	8.1806	0.0000	7.3852	0.0024
Sample Volume	-	DSCF	50.67	84.63	51.62	85.32	50.42	83.84
Sample Volume	-	dscm	1.435	2.397	1.462	2.416	1.428	2.374
ABS ST PRES	-	" Hg	28.83	29.76	28.80	29.73	28.77	29.67
ABS ST TEMP	-	^oR	755	634	756	635	758	634
H_2O - % by Vol	-	vapor	7.2	11.2	7.6	11.4	8.3	11.4
Water Volume	-	std ft^3	3.90	10.68	4.25	10.93	4.58	10.84
Dry Molecular Weight	-	lb/lb-mole	30.22	30.07	30.22	30.07	30.24	30.11
Wet Molecular Weight	-	lb/lb-mole	29.35	28.72	29.29	28.70	29.22	28.72
% EXCESS AIR	-		49.9	68.2	51.0	68.9	48.0	63.4
Dry Mole Frac.	-		0.928	0.888	0.924	0.886	0.917	0.886
Wet Mole Frac.	-		0.072	0.112	0.076	0.114	0.083	0.114
Gas Velocity, Direct	-	ft/sec	58.45	46.10	59.82	47.58	59.07	46.95
ACFM	-		399774	367163	409187	378900	404014	373882
DSCFM	-		249994	269932	254038	277555	247949	273251
DSCFM (rounded)			250000	269900	254000	277600	247900	273300
DSCMM			7080	7644	7194	7860	7022	7738
Excess Air Free DSCFM	-		165068	158498	166523	162325	165853	165284
CALCULATED FIRING RATE:								
Dry	-	lb/min	1242	1192	1250	1219	1243	1239
Wet	-	lb/min	1330	1278	1316	1282	1307	1302
Dry	-	lb/hr	74513	71547	75015	73124	74577	74321
Wet	-	lb/hr	79830	76652	78938	76949	78395	78126
CALCULATED FIRING RATE:								
Dry	-	tons/hr	37.3	35.8	37.5	36.6	37.3	37.2
Wet	-	tons/hr	39.9	38.3	39.5	38.5	39.2	39.1
HEAT INPUT:								
MM Btu/hr	-		1044	1003	1047	1021	1040	1037
PARTICULATE LOADING:								
Grains/DSCF	-		2.4858	0.0002	2.4454	0.0000	2.2600	0.0004
lb/hr	-		5329	0.42	5326	0.00	4804	1.04
lb/MM Btu	-		5.10	0.00	5.09	0.00	4.62	0.00
% ISOKINETIC	-		99.4	103.5	99.7	101.5	99.7	101.3

NOTE: The $\%O_2$ at the air heater outlet was measured by CONSOL using a Teledyne Max 5 portable electrochemical O_2 analyzer, and the % CO_2 at the air heater outlet was calculated from the measured O_2 and coal composition. The $\%CO_2$ at the stack was measured by the plant's stack CEM, and the $\%O_2$ at the stack was calculated from the measured CO_2 and coal composition.

Impinger Components Wts & Volumes	AHO - 4	Stack - 4	AHO - 5	Stack - 5	AHO - 6	Stack - 6
Filter Wt., g	8.1636	0.0010	8.1806	0.0000	7.3852	0.0024
ppm Hg (thimbles) or ug/filter (filters)	0.60	<0.01	0.66	<0.01	0.62	<0.01
total ug	4.88	<0.01	5.41	<0.01	4.60	<0.01
ug/dscm	3.40	<0.00	3.70	<0.00	3.22	<0.00
Probe Rinse volume, ml	128	140	157	138	81	117
Analytical Hg, ng/ml	<1.40	<1.40	<1.40	<1.40	<1.40	<1.40
ug/dscm	<0.12	<0.08	<0.15	<0.08	<0.08	<0.07
Line Rinse volume, ml	150	81	128	79	140	129
Analytical Hg, ng/ml	3.12	<1.40	<1.40	<1.40	<1.40	<1.40
ug/dscm	0.33	<0.05	<0.12	<0.05	<0.14	<0.08
KCl volume, ml	522	649	530	664	531	658
Analytical Hg, ng/ml	8.86	<0.28	8.45	<0.28	8.04	<0.28
ug/dscm	3.22	<0.08	3.06	<0.08	2.99	<0.08
Nitric/Peroxide volume, ml	176	184	175	175	175	181
Analytical Hg, ng/ml	<1.40	<1.40	<1.40	<1.40	<1.40	<1.40
ug/dscm	<0.17	<0.11	<0.17	<0.10	<0.17	<0.11
KMnO4 volume, ml	250	254	250	250	256	250
Analytical Hg, ng/ml	<0.28	<0.28	0.40	0.37	1.55	<0.28
ug/dscm	<0.05	<0.03	0.07	0.04	0.28	<0.03
KMnO4-Acid Rinse volume, ml	100	100	100	100	100	100
Analytical Hg, ng/ml	<1.40	<1.40	<1.40	<1.40	<1.40	<1.40
ug/dscm	<0.10	<0.06	<0.10	<0.06	<0.10	<0.06
Particulate Hg (ug/dscm)	3.40	<0.00	3.70	<0.00	3.22	<0.00
Oxidized Hg (ug/dscm)	3.67	<0.20	3.34	<0.20	3.21	<0.22
Elemental Hg (ug/dscm)	<0.32	<0.20	<0.33	<0.20	0.55	<0.20
Total Hg (ug/dscm)	7.39	<0.40	7.37	<0.40	6.98	<0.42
Particulate Hg (ug/dscm @ 3% O2)	4.41	<0.00	4.83	<0.00	4.13	<0.00
Oxidized Hg (ug/dscm @ 3% O2)	4.77	<0.30	4.36	<0.30	4.11	<0.32
Elemental Hg (ug/dscm @ 3% O2)	<0.41	<0.29	<0.43	<0.29	0.70	<0.28
Total Hg (ug/dscm @ 3% O2)	9.59	<0.59	9.63	<0.59	8.93	<0.60
Removal (%)	> 93.9		> 93.9		> 93.3	

ONTARIO HYDRO Hg SAMPLING FIELD DATA SHEET

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TEST ID	4
PLANT	GREENIDGE
LOCATION	AIR HEATER OUTLET
DATE	3/30/07
OPERATOR(S)	R. ODA & D. OLSEN
AMBIENT TEMP [°F]	
BAR. PRESS. [" Hg]	29.80

METER BOX	N-1
PITOT TUBE DESC	
PROBE LENGTH [ft]	12
NOZZLE ID [inch]	
%H_2O (Assumed)	
FILTER ID	1032
K FACTOR	0.744

CAL. DATA: delta H	1.894
Y	0.970
C(p)	
FILTER BOX SETTING	
PROBE HTR SETTING	
DUCT X-SECTION	circ ? / rect ? / other:
DUCT DIMENSIONS	DUCT AREA

Comments: Rinsed Probe & Sample line Before Testing
- 10 min purge after test

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft³]	METER TEMP [oF] inlet (6)	METER TEMP [oF] outlet (7)	STACK TEMP [°F] (1)	PROBE TEMP [°F] (2)	FILTER BOX [°F] (3)	LAST IMP TEMP [°F] (5)	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	0855	0					143.40								
1 - 2"		7	-13.26	0.1	0.07	1.0	144.21	38	36	293	285	136	36	7.4	12.7
1 - 2"		14	-12.34	0.1	0.07	1.0	145.35	39	37	293	289	139	36	7.3	12.9
1 - 6"		21	-12.75	.85	~~.85~~ .63	~~[illegible]~~ 3.5	148.07	40	37	297	292	147	37	6.8	13.4
1 - 6"		28	-13.50	.85	0.63	3.5	151.07	43	39	297	288	151	37	6.8	13.4
1 - 10"		35	-13.84	1.0	0.76	5.0	154.30	46	40	299	281	151	37	6.7	13.5
1 - 10"		42	-13.13	1.0	0.76	5.0	157.61	47	41	299	265	151	38	6.6	13.5
							157.90								
2 - 2"		7 49	-12.61	.30	.22	3.0	159.94	47	41	290	249	148	37	7.6	12.5
2 - 2"		14 56	-12.72	.30	.22	3.0	161.82	47	43	294	244	150	39	7.4	12.9
2 - 6"		21 63	-12.93	.80	.59 ~~[illegible]~~	4.5	164.66	48	44	295	269	151	39	6.9	13.3
2 - 6"	1010	28 70	-13.67	.80	.59	4.5	167.57	50	44	295	270	154	40	6.8	13.4
2 - 10"		35 77	-13.19	1.4	1.03	6.0	171.29	52	45	298	265	155	40	6.4	13.8
2 - 10"		42 84	-13.24	1.4	1.03	6.5	175.06	54	47	298	269	156	42	6.4	13.8
							175.30								
3 - 2"		7 91	-13.22	.72	.54	4.0	178.09	53	47	291	270	147	42	7.6	12.5
3 - 2"		14 98	-13.11	.72	.54	5.0	180.97	54	48	292	273	147	42	7.4	12.9
3 - 6"		21 105	-13.50	.98	.74	5.5	184.20	55	49	296	275	147	42	7.4	12.9
3 - 6"		28 112	-13.22	.98	.74	6.0	187.39	54	50	296	287	150	44	7.5	12.6
3 - 10"		35 119	-13.24	1.1	.83	7.0	190.80	57	51	297	286	151	44	7.2	13.0
3 - 10"	1110	42 126		1.1	.83	8.0	194.19	58	51	297	283	152	44	7.1	13.2
AVERAGE			-13.18	0.742	0.601		50.26	46.5		295.4				7.1	13.1

Sample Train Leak Checks: Pre Test <0.01 ft³ @ 10 in. Hg; Post Test <0.01 ft³ @ 10 in. Hg

Pitot Tube Leak Checks: PreTest OK @ 8 in. H_2O; Post Test OK @ 5 in. H_2O

CONSOL ENERGY

ONTARIO HYDRO Hg SAMPLING FIELD DATA SHEET

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TEST ID	FOUR	METER BOX	N-2	CAL. DATA: delta H	1.895
PLANT	GREENIDGE	PITOT TUBE DESC	E1	Y	0.967
LOCATION	STACK	PROBE LENGTH [ft]	10	C(p)	
DATE	3-30-07	NOZZLE ID [inch]		FILTER BOX SETTING	NA
OPERATOR(S)	K. CERAR & B. SLIFER	%H_2O (Assumed)	10%	PROBE HTR SETTING	250
AMBIENT TEMP [°F]	~30°	FILTER ID	82	DUCT X-SECTION	circ ? / rect ? / other:
BAR. PRESS. [" Hg]	29.80	K FACTOR	2.60	DUCT DIMENSIONS	DUCT AREA

Comments:

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet (6)	METER TEMP [oF] outlet (7)	(1) STACK TEMP [°F]	(2) PROBE TEMP [°F]	HL (5) ~~FILTER BOX~~ [°F]	(4) LAST IMP TEMP [°F]	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	0855	0					060.20								
1 - 5"		7.5		0.54	1.40	4	065.10	36	32	172	250	221	37	—	—
1 - 16.38"		15		.56	1.45	4	070.17	43	34	173	242	232	38	8.7	11.6
1 - 30.25"		22.5	-.496	.56	1.45	4	074.97	47	36	174	255	224	40	8.8	11.5
1 - 50.38"		30		.54	1.40	4	079.67	51	38	174	239	221	43	8.7	11.6
					L.C.	OK →	079.80		~~41~~						
2 - 5"		37.5		.66	1.73	5	085.07	53	41	174	239	239	41	—	—
2 - 16.38"		45		.66	1.73	5	090.37	57	43	174	245	242	44	9.3	11.0
2 - 30.25"		52.5	-.535	.66	1.73	5	095.66	59	45	176	249	244	46	9.2	11.1
2 - 50.38"		60		.60	1.55	4.5	100.73	60	46	176	244	245	48	9.3	11.0
					L.C.	OK →	100.80								
3 - 5"		67.5		.60	1.55	4.5	105.80	59	49	174	249	248	45	—	—
3 - 16.38"		75		.60	1.55	4.5	110.84	61	50	175	247	249	46	8.9	11.4
3 - 30.25"		82.5	-.504	.60	1.55	4.5	115.89	62	51	175	245	249	46	9.0	11.3
3 - 50.38"		90		.56	1.45	4	120.78	63	52	175	243	247	47	9.0	11.3
					L.C.	OK →	120.90								
4 - 5"		97.5		.42	1.08	3.5	125.17	60	53	174	238	254	46	—	—
4 - 16.38"		105		.46	1.19	4	129.62	61	53	174	244	254	46	9.0	11.3
4 - 30.25"		112.5	-.438	.50	1.30	4	134.24	62	53	175	245	254	46	9.0	11.3
4 - 50.38"		120		.50	1.30	4	138.86	62	53	175	248	260	47	8.9	11.4
	1110														
AVERAGE			-0.493	0.562	1.46		78.34	~~50.8~~ 50.8		174.4				9.0	11.3

Sample Train Leak Checks: Pre Test OK ft^3 @ 10 in. Hg; Post Test OK ft^3 @ 10 in. Hg

Pitot Tube Leak Checks: PreTest OK @ 6 in. H_2O; Post Test OK @ 6 in. H_2O

CONSOL ENERGY.

ONTARIO HYDRO Hg SAMPLING FIELD DATA SHEET

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TEST ID	5	METER BOX	N-1	CAL. DATA: delta H	1.894
PLANT	GREENIDGE	PITOT TUBE DESC		Y	0.970
LOCATION	AIR HEATER OUTLET	PROBE LENGTH [ft]	12	C(p)	
DATE	3/30/07	NOZZLE ID [inch]		FILTER BOX SETTING	
OPERATOR(S)	R. ODA & D. OLSEN	%H_2O (Assumed)		PROBE HTR SETTING	
AMBIENT TEMP [°F]		FILTER ID	1033	DUCT X-SECTION	circ ? / rect ? / other:
BAR. PRESS. [" Hg]	29.77	K FACTOR	0.744	DUCT DIMENSIONS	DUCT AREA

Comments: 10 min purge after test

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft³]	METER TEMP [oF] inlet (6)	METER TEMP [oF] outlet (7)	STACK TEMP [°F] (1)	PROBE TEMP [°F] (2)	FILTER BOX [°F] (3)	LAST IMP TEMP [°F] (5)	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	1243	0					199.50								
1 - 2"		7	-12.90	0.10	0.07	1.0	200.82	52	51	279	284	207	46	8.1	12.1
1 - 2"		14	-13.71	0.10	0.07	1.0	201.98	53	52	289	~~291~~ 290	204	44	8.1	12.1
1 - 6"		21	-13.07	0.88	0.66	3.5	204.91	54	53	299	298	206	44	7.4	12.8
1 - 6"		28	-12.69	0.88	.066	3.5	207.99	54	53	299	297 296	208	42	7.2	12.9
1 - 10"		35	-13.71	1.1	0.83	4.5	211.47	59	54	302	~~302~~ 296	209	43	6.9	13.3
1 - 10"		42	-13.42	1.1	0.83	5.0	214.95	60	54	300	298	207	44	6.6	13.5
	1329						215.20								
2 - 2"		7 49	-12.79	.40	.30	3.0	217.47	60	55	289	290	217	46	7.6	12.6
2 - 2"		14 56	-13.05	.40	.30	3.0	–	60	56	296	294	210	46	7.2	12.9
2 - 6"		21 63	-13.22	.80	.60	4.5	222.45	61	57	297	298	211	44	7.0	13.1
2 - 6"	1357	28 70		.80	.60	5.0	225.44	62	57	297	295	211	46	6.9	13.3
2 - 10"		35 77	-13.61	1.4	1.04	7.0	229.19	64	58	300	297	212	46	6.4	13.7
2 - 10"		42 84		1.4	1.04	8.0	232.99	64	58	302	297	212	47	6.7	13.5
	1420		[illegible]				233.40							7.6	
3 - 2"		7 91	-13.65	.80	.60	4.0	234.46	62	59	289	289	216	48	~~6.2~~	12.6
3 - 2"		14 98		.80	.60	5.0	239.38	64	60	296	297	214	47	7.6	12.6
3 - 6"		21 105	-12.94	.92	~~.69~~ .92	6.0 ~~6.5~~	242.54	65	60	299	295	211	49	7.3	12.9
3 - 6"		28 112		.92	.68	6.0	245.70	65	60	299	295	210	48	7.3	12.9
3 - 10"		35 119	-13.43	1.1	0.83	8.0	249.14	65	60	300	294	206	48	7.1	13.1
3 - 10"		42 126		1.1	0.83	9.5	252.62	65	60	300	294	203	48	7.0	13.2
AVERAGE			-13.25	0.774	0.623		52.46	58.5		~~33~~ 296.2				7.2	13.0

Sample Train Leak Checks: Pre Test <0.01 ft³ @ 10 in. Hg; Post Test <0.01 ft³ @ 10 in. Hg

Pitot Tube Leak Checks: PreTest OK @ 6 in. H_2O; Post Test OK @ 7 in. H_2O

CONSOL ENERGY

ONTARIO HYDRO Hg SAMPLING FIELD DATA SHEET

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TEST ID	FIVE	METER BOX	~2	CAL. DATA: delta H	1.895	Comments:
PLANT	GREENIDGE	PITOT TUBE DESC	E1	Y	0.967	
LOCATION	STACK	PROBE LENGTH [ft]	10	C(p)		
DATE	3-30-07	NOZZLE ID [inch]		FILTER BOX SETTING	~A	
OPERATOR(S)	K. CERAR & B. SLIFER	%H_2O (Assumed)	10%	PROBE HTR SETTING	250	
AMBIENT TEMP [°F]	45°	FILTER ID	83	DUCT X-SECTION	circ ?	rect ? other:
BAR. PRESS. [" Hg]	29.77	K FACTOR	2.60	DUCT DIMENSIONS		DUCT AREA

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_20]	PITOT HEAD [" H_20]	METER DIFF PRESSURE [" H_20]	METER VACUUM [" Hg]	METER READING [ft³]	METER TEMP [oF] inlet (6)	METER TEMP [oF] outlet (7)	STACK TEMP [°F] (1)	PROBE TEMP [°F] (2)	~~FILTER BOX~~ HL (5) [°F]	LAST IMP TEMP [°F] (4)	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	1243	0					145.00								
1 - 5"		7.5		.46	1.18	3.5	149.47	51	49	173	244	221	44	—	—
1 - 16.38"		15		.50	1.30	4	154.03	56	50	174	252	224	44	8.8	11.4
1 - 30.25"		22.5	-.451	.50	1.30	4	158.62	59	51	175	254	226	45	9.0	11.3
1 - 50.38"		30		.52	1.35	4	163.32	63	53	175	249	228	46	9.0	11.3
					L.C.	OK→	163.45								
2 - 5"		37.5		.58	1.50	4	168.43	64	54	174	252	232	45	—	—
2 - 16.38"		45		.70	1.80	5	173.86	67	56	175	248	231	46	8.8	11.5
2 - 30.25"		52.5	-.544	.60	1.56	4.5	178.97	70	58	175	253	231	44	8.8	11.5
2 - 50.38"		60		.58	1.50	4.5	183.95	71	60	175	241	231	44	8.8	11.5
					L.C.	OK→	184.05								
3 - 5"		67.5		.70	1.80	5	189.52	70	61	175	251	244	45	—	—
3 - 16.38"		75		.74	1.92	5	195.13	73	62	175	255	251	47	8.9	11.4
3 - 30.25"		82.5	-.528	.74	1.92	5	200.76	75	63	175	249	256	48	9.0	11.3
3 - 50.38"		90		.62	1.62	5	206.00	75	64	175	252	258	50	8.9	11.3
					L.C.	OK→	206.10								
4 - 5"		97.5		.58	1.50	4.5	211.13	73	65	175	241	246	52	—	—
4 - 16.38"		105		.60	1.56	4.5	216.24	75	66	175	252	247	52	8.9	11.3
4 - 30.25"		112.5	-.578	.60	1.56	4.5	221.35	76	66	176	243	247	52	8.9	11.3
4 - 50.38"		120		.58	1.50	4.5	226.38	77	68	176	247	248	54	8.9	11.3
	1454														
AVERAGE			-0.525	0.597	1.554		81.05	63.8		174.9				8.9	11.4

Sample Train Leak Checks: Pre Test OK ft³ @ 10 in. Hg; Post Test OK ft³ @ 10 in. Hg

Pitot Tube Leak Checks: PreTest OK @ 6 in. H_2O; Post Test OK @ 6 in. H_2O

CONSOL ENERGY

ONTARIO HYDRO Hg SAMPLING FIELD DATA SHEET

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TEST ID	6	METER BOX	N-1	CAL. DATA: delta H	1.894
PLANT	GREENIDGE	PITOT TUBE DESC		Y	0.970
LOCATION	AIR HEATER OUTLET	PROBE LENGTH [ft]	12	C(p)	
DATE		NOZZLE ID [inch]		FILTER BOX SETTING	
OPERATOR(S)	R. ODA & D. OLSEN	%H_2O (Assumed)		PROBE HTR SETTING	
AMBIENT TEMP [°F]		FILTER ID	1036	DUCT X-SECTION	circ ? rect ? other:
BAR. PRESS. [" Hg]	29.71	K FACTOR	0.744	DUCT DIMENSIONS	DUCT AREA

Comments: 10 min purge after test

97.2 H_2O

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet (6)	METER TEMP [oF] outlet (7)	STACK TEMP [°F] (1)	PROBE TEMP [°F] (2)	~~FILTER~~ BOX [°F] (3)	LAST IMP TEMP [°F] (5)	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	1552	0					255.80								
1-2"		7	-13.16	0.10	0.07	1.0	256.84	57	58	288	249	137	54	—	
1-2"		14	-12.93	0.10	0.07	1.0	257.90	58	58	300	274	142	52	7.2	13.0
1-6" low port		21	-12.74	0.88	0.66	3.5	260.88	59	58	304	284	147	48	6.6	13.6
1-6"		28		0.88	0.66	3.5	264.01	60	58	303	286	152	45	6.6	13.6
1-10"		35	-13.64	0.96	0.72	5.0	267.28	62	58	305	296	156	44	6.2	13.9
1-10"		42		0.96	0.72	5.5	270.57	63	58	305	297	159	46	6.2	13.9
	16:39						270.90								
2-2"	@	7 49	-12.23	0.37	0.27	3.0	273.04	62	58	296	289	158	46	7.4	12.7
2-2"		14 56		0.37	0.27	3.5	275.09	62	59	300	292	159	47	7.0	13.2
2-6" mid port		21 63	-12.66	0.80	0.60	4.5	278.06	62	59	300	297	159	46	6.8	13.4
2-6"		28 70		0.80	0.60	5.0	281.06	63	59	300	298	159	44	6.9	13.3
2-10"		35 77	-12.77	1.4	1.03	7.0	284.81	63	59	303	299	159	44	6.3	13.7
2-10"		42 84		1.4	1.03	7.5	288.60	64	59	303	296	160	44	6.4	13.8
	1725						289.00								
3-2"		7 91	-12.93	0.73	0.54	4.5	291.85	63	59	292	297	154	45	7.6	12.7
3-2"		14 98		0.73	0.54	5.0	294.73	63	59	295	297	155	45	7.4	12.7
3-6" high port		21 105	-12.73	~~0.80~~	~~0.60~~	6.0	297.92	64	59	299	297	155	44	7.3	12.9
3-6"		28 112		.95	.70	6.5	301.13	64	59	292	297	155	44	7.3	12.9
3-10"		35 119	-12.57	1.10	.83	9.0	304.59	64	59	292	296	157	45	7.1	13.2
3-10"	1805	42 126		1.10	0.83	9.0	308.07	64	60	293	297	158	45	7.0	13.2
				RMS											
AVERAGE		126	-12.84	.750	.602		51.54	60.4		298.3				6.92	13.28

Sample Train Leak Checks:	Pre Test <0.01 ft^3 @ 10 in. Hg	Post Test <0.010 ft^3 @ 10 in. Hg	Pitot Tube Leak Checks:	PreTest OK @ 5 in. H_2O; Post Test OK @ 7 in. H_2O

CONSOL ENERGY

ONTARIO HYDRO Hg SAMPLING FIELD DATA SHEET

Page _____ of _____

TEST ID	SIX	METER BOX	~2	CAL. DATA: delta H	1.895	Comments:	
PLANT	GREENIDGE	PITOT TUBE DESC	E1	Y	0.967		
LOCATION	STACK	PROBE LENGTH [ft]	10	C(p)			
DATE	3-30-07	NOZZLE ID [inch]		FILTER BOX SETTING	NA		
OPERATOR(S)	K. CERAR & B. SLIFER	%H_2O (Assumed)	10%	PROBE HTR SETTING	250		
AMBIENT TEMP [°F]	~60°	FILTER ID	84	DUCT X-SECTION	circ ?	rect ?	other:
BAR. PRESS. [" Hg]	29.71	K FACTOR	2.60	DUCT DIMENSIONS		DUCT AREA	

230.1 H_2O

TRAVERSE POINT [port-inch]	CLOCK TIME (24-hr)	SAMPLE TIME [minute]	STATIC PRES [" H_2O]	PITOT HEAD [" H_2O]	METER DIFF PRESSURE [" H_2O]	METER VACUUM [" Hg]	METER READING [ft^3]	METER TEMP [oF] inlet (6)	METER TEMP [oF] outlet (7)	(1) STACK TEMP [°F]	(2) PROBE TEMP [°F]	HL (5) ~~FILTER BOX~~ [°F]	(4) LAST IMP TEMP [°F]	METER EXHAUST O_2 [% vol]	METER EXHAUST CO_2 [% vol]
	1552	0					232.60								
1 - 5"		7.5		.62	1.62	5	237.76	63	63	172	245	208	49	—	—
1 - 16.38"		15		.62	1.62	5	242.90	67	62	174	250	212	46	9.5	10.8
1 - 30.25"		22.5	-.571	.60	1.58	5	248.01	68	62	176	249	212	51	9.4	10.9
1 - 50.38"		30		.58	1.50	5	252.98	70	62	175	238	215	54	9.3	11.0
					L.C.	OK →	253.10								
2 - 5"		37.5		.68	1.75	6	258.50	67	61	174	242	231	50	—	—
2 - 16.38"		45		.70	1.80	6	263.90	70	62	174	253	233	52	8.9	11.4
2 - 30.25"		52.5	-.638	.70	1.80	6	269.37	71	62	175	253	233	53	8.8	11.5
2 - 50.38"		60		.60	1.58	5.5	274.49	71	62	175	249	232	53	8.7	11.5
					L.C.	OK →	274.60								
3 - 5"		67.5		.60	1.58	5.5	279.73	68	62	175	236	232	50	—	—
3 - 16.38"		75		.60	1.58	5.5	284.86	69	61	175	249	230	49	9.0	11.3
3 - 30.25"		82.5	-.508	.60	1.58	5.5	290.00	69	61	175	251	232	48	8.9	11.4
3 - 50.38"		90		.58	1.50	5.5	295.00	71	62	175	237	233	48	8.9	11.4
					L.C.	OK →	295.10								
4 - 5"		97.5		.44	1.14	4	299.47	69	62	174	244	234	46	—	—
4 - 16.38"		105		.46	1.18	4.5	303.94	70	62	174	249	243	45	8.9	11.3
4 - 30.25"		112.5	-.470	.46	1.18	4.5	308.40	71	62	174	252	242	45	9.0	11.3
4 - 50.38"		120		.50	1.28	5	313.00	71	63	174	242	241	46	9.0	11.3
	1803			rms											
AVERAGE			-.547	0.581	1.517		80.07	65.5		174.4				9.03	11.26

Sample Train Leak Checks:	Pre Test	OK	ft^3 @ 10 in. Hg	Pitot Tube Leak Checks:	PreTest	OK	@ 6 in. H_2O
	Post Test	OK	ft^3 @ 10 in. Hg		Post Test	OK	@ 6 in. H_2O

CONSOL ENERGY

Distribution: JEL, BWG
Project No.: 1621-85
Sample Date: 3/30/07

Location: AHO Task: 1 Test: HG-4 Operator: RO/DO

Sample ID	Bottle #	Description	Initial Vol mL	Rinse Vol mL	Gain mL	Final Vol mL	ppb Hg	Total ug of Hg
89	S	Filter/Solids	-	-	-			
90	1	Probe & Filter Rinse	0	128				
91	2	Sample Line Rinse	0	150				
92	3	KCl Impingers	300	150	~~65~~ 72	522		
93	4	HNO_3/H_2O_2 Impinger	100	75	1	176		
94	5	$KMnO_4$ Impingers	200	50	0	250		
95	6	$KMnO_4$ Acid Rinse	0	100	0	100		

Filter Gross wt: ________g Filter Net wt: ________g
Filter Tare wt: ________g Probe/Line Rinse wt: ________g Condensate Total: ________ml
Filter Net wt: ________g Total Particulate wt: ________g

Recovered By: J. Locke Date: 3/30/07

Location: STK Task: 1 Test: HG-5 Operator: BS/KC

Sample ID	Bottle #	Description	Initial Vol mL	Rinse Vol mL	Gain mL	Final Vol mL	ppb Hg	Total ug of Hg
96	S	Filter/Solids						
97/98	1	Probe & Filter Rinse /line		140/81				
99	2	KCl Impingers	300	150	199	649		
100	3	HNO_3/H_2O_2 Impinger	100	75	9	184		
101	4	$KMnO_4$ Impingers	200	50	4	254		
102	5	$KMnO_4$ Acid Rinse	0	100	0	100		

Filter Gross wt: ________g Filter Net wt: ________g
Filter Tare wt: ________g Probe/Line Rinse wt: ________g Condensate Total: ________ml
Filter Net wt: ________g Total Particulate wt: ________g

Recovered By: J. Locke Date: 3/30/07

Recovered By: ________________ Date: ________________

Sample ID	Description	ppb Hg	Total ug of Hg
	3 in. Filter Blank		
	KCl Blank		
	HNO_3 / H2O2 Blank		
	$KMnO_4$ Blank		
	$KMnO_4$ Blank		
	HNO_3 / HCl Blank		

Distribution: JEL, BWG
Project No.: 1621-85
Sample Date: 3/30/07

Location: AHO Task: 1 Test: HG-5 Operator: RD/PO

Sample ID	Bottle #	Description	Initial Vol mL	Rinse Vol mL	Gain mL	Final Vol mL	ppb Hg	Total ug of Hg
103	S	Filter/Solids	–	–	–			
104	1	Probe & Filter Rinse		~~140~~	~~157~~	157		
105	2	Sample Line Rinse		~~128~~ 81		128		
106	3	KCl Impingers	300	150	80	530		
107	4	HNO_3/H_2O_2 Impinger	100	75	0	175		
108	5	$KMnO_4$ Impingers	200	50	0	250		
109	6	$KMnO_4$ Acid Rinse	0	100	0	100		

Filter Gross wt: ______g Filter Net wt: ______g
Filter Tare wt: ______g Probe/Line Rinse wt: ______g Condensate Total: ______ml
Filter Net wt: ______g Total Particulate wt: ______g

Recovered By: J. Locke Date: 3/30/07

Location: STK Task: 1 Test: HG-5 Operator: BS/KC

Sample ID	Bottle #	Description	Initial Vol mL	Rinse Vol mL	Gain mL	Final Vol mL	ppb Hg	Total ug of Hg
110	S	Filter/Solids						
111/112	1	Probe & Filter Rinse/Line		138/79		138/79		
113	2	KCl Impingers	300	150	214	664		
114	3	HNO_3/H_2O_2 Impinger	100	75	0	175		
115	4	$KMnO_4$ Impingers	200	50	0	250		
116	5	$KMnO_4$ Acid Rinse	0	100	0	100		

Filter Gross wt: ______g Filter Net wt: ______g
Filter Tare wt: ______g Probe/Line Rinse wt: ______g Condensate Total: ______ml
Filter Net wt: ______g Total Particulate wt: ______g

Recovered By: J. Locke Date: 3/30/07

Recovered By: ______________ Date: ______________

Sample ID	Description	ppb Hg	Total ug of Hg
	3 in. Filter Blank		
	KCl Blank		
	HNO_3 / H2O2 Blank		
	$KMnO_4$ Blank		
	$KMnO_4$ Blank		
	HNO_3 / HCl Blank		

Distribution: JEL, BWG
Project No.: 1621-85
Sample Date: 3/30/07

Location: AHO Task: 1 Test: HG-6 Operator: RO/DO

Sample ID	Bottle #	Description	Initial Vol mL	Rinse Vol mL	Gain mL	Final Vol mL	ppb Hg	Total ug of Hg
117	S	Filter/Solids						
118	1	Probe & Filter Rinse	-	81	-	81		
119	2	Sample Line Rinse	-	140	-	140		
120	3	KCl Impingers	300	150	81	531		
121	4	HNO_3/H_2O_2 Impinger	100	75	0	175		
122	5	$KMnO_4$ Impingers	200	50	6	256		
123	6	$KMnO_4$ Acid Rinse	0	100	0	100		

Filter Gross wt: ________g Filter Net wt: ________g
Filter Tare wt: ________g Probe/Line Rinse wt: ________g Condensate Total: ________ml
Filter Net wt: ________g Total Particulate wt: ________g

Recovered By: J. Locke Date: 3/30/07

Location: STK Task: 1 Test: HG-6 Operator: ________

Sample ID	Bottle #	Description	Initial Vol mL	Rinse Vol mL	Gain mL	Final Vol mL	ppb Hg	Total ug of Hg
124	S	Filter/Solids						
125/126	1	Probe & Filter Rinse		117/129		117/129		
127	2	KCl Impingers	300	150	208	658		
128	3	HNO_3/H_2O_2 Impinger	100	75	6	181		
129	4	$KMnO_4$ Impingers	200	50	0	250		
130	5	$KMnO_4$ Acid Rinse	0	100	0	100		

Filter Gross wt: ________g Filter Net wt: ________g
Filter Tare wt: ________g Probe/Line Rinse wt: ________g Condensate Total: ________ml
Filter Net wt: ________g Total Particulate wt: ________g

Recovered By: J. Locke Date: 3/~~30~~ 31/07

Recovered By: ________ Date: ________

Sample ID	Description	ppb Hg	Total ug of Hg
	3 in. Filter Blank		
132	KCl Blank		
133	HNO_3 / H2O2 Blank		
131	$KMnO_4$ Blank		
134	$KMnO_4$ Blank impingers		
135	HNO_3 / HCl Blank		

APPENDIX D
Laboratory Analyses

ANALNUM	DESCR	SAMPLE	NH3 as N	NH3 as NH4		NH3 as NH4
			mg/L	mg/L	volume (L)	mg
20071759	IMPINGER 1 NH3-1	IMP 1	9.04	11.64	0.250	2.91
20071760	IMPINGER 2 NH3-1	IMP 2	< 0.10	< 0.13	0.250	< 0.03
20071761	IMPINGER 3 NH3-1	IMP 3	< 0.10	< 0.13	0.250	< 0.03
20071762	PROBE & IMPINGER 1 NH3-2	IMP 1	21.15	27.24	0.255	6.95
20071763	IMPINGER 2 NH3-2	IMP 2	< 0.10	< 0.13	0.250	< 0.03
20071764	IMPINGER 3 NH3-2	IMP 3	< 0.10	< 0.13	0.250	< 0.03
20071765	PROBE & IMPINGER 1 NH3-3	IMP 1	22.51	28.99	0.272	7.88
20071766	IMPINGER 2 NH3-3	IMP 2	< 0.10	< 0.13	0.250	< 0.03
20071767	IMPINGER 3 NH3-3	IMP 3	< 0.10	< 0.13	0.250	< 0.03

NUMBER	LOCATION	SAMPLE	TEST	NH3 as N	NH3 as N	NH3 as NH4	
				ug	mg	mg	
1	AHI	PROBE/LINE RINSE	NH3-1	922	0.92	1.19	
2	AHI	Impinger 1	NH3-1	619	0.62	0.80	
3	AHI	Impinger 2	NH3-1	53	0.05	0.07	
4	AHI	Impinger 3	NH3-1	< 25	< 0.03	< 0.03	
5	SCRO	PROBE/LINE RINSE	NH3-1	3592	3.59	4.63	dilution
6	SCRO	Impinger 1	NH3-1	431	0.43	0.56	
7	SCRO	Impinger 2	NH3-1	26	0.03	0.03	
8	SCRO	Impinger 3	NH3-1	< 25	< 0.03	< 0.03	
9	AHI	PROBE/LINE RINSE	NH3-2	1050	1.05	1.35	
10	AHI	Impinger 1	NH3-2	920	0.92	1.18	
11	AHI	Impinger 2	NH3-2	77	0.08	0.10	
12	AHI	Impinger 3	NH3-2	< 25	< 0.03	< 0.03	
13	SCRO	PROBE/LINE RINSE	NH3-2	3063	3.06	3.94	dilution
14	SCRO	Impinger 1	NH3-2	215	0.22	0.28	
15	SCRO	Impinger 2	NH3-2	41	0.04	0.05	
16	SCRO	Impinger 3	NH3-2	< 25	< 0.03	< 0.03	
17	AHI	PROBE/LINE RINSE	NH3-3	1099	1.10	1.42	
18	AHI	Impinger 1	NH3-3	578	0.58	0.74	
19	AHI	Impinger 2	NH3-3	80	0.08	0.10	
20	AHI	Impinger 3	NH3-3	< 25	< 0.03	< 0.03	
21	SCRO	PROBE/LINE RINSE	NH3-3	4195	4.20	5.40	dilution
22	SCRO	Impinger 1	NH3-3	767	0.77	0.99	
23	SCRO	Impinger 2	NH3-3	67	0.07	0.09	
24	SCRO	Impinger 3	NH3-3	< 25	< 0.03	< 0.03	
25	AHI	PROBE/LINE RINSE	NH3-4	1219	1.22	1.57	
26	AHI	Impinger 1	NH3-4	517	0.52	0.67	
27	AHI	Impinger 2	NH3-4	69	0.07	0.09	
28	AHI	Impinger 3	NH3-4	< 25	< 0.03	< 0.03	
29	SCRO	PROBE/LINE RINSE	NH3-4	3155	3.16	4.06	dilution
30	SCRO	Impinger 1	NH3-4	321	0.32	0.41	
31	SCRO	Impinger 2	NH3-4	70	0.07	0.09	
32	SCRO	Impinger 3	NH3-4	< 25	< 0.03	< 0.03	
33	Blank	0.1N H2SO4		< 25	< 0.03	< 0.03	
34	Blank	DI H2O		< 25	< 0.03	< 0.03	

SO3 by Controlled Condensation - IC Analysis Results
AES Greenidge Unit 4 - May 2, 2007

Sample ID	Sample Description	mg/L as SO_4^{2-}	L	mg as SO_4^{2-}
72427	plug	30.21	0.1	3.02
72428	probe	22.91	0.1	2.29
72429	condenser	90.56	0.1	9.06
72432	plug/probe	8.14	0.1	0.81
72433	condenser	2.41	0.1	0.24
72436	plug	22.73	0.1	2.27
72437	probe	42.94	0.1	4.29
72438	condenser	86.93	0.1	8.69
72441	plug	0.34	0.1	0.03
72442	probe	1.65	0.1	0.17
72443	condenser	3.77	0.1	0.38
72446	plug	33.91	0.1	3.39
72447	probe	20.59	0.1	2.06
72448	condenser	99.18	0.1	9.92
72451	plug	1.1	0.1	0.11
72452	probe	1.56	0.1	0.16
72453	condenser	3.1	0.1	0.31
72456	Condenser Blank	0.34	0.1	0.03
72457	H2O2 blank	0.17	0.1	0.02
72458	DI Blank	0.11	0.1	0.01

HCL

			S µg/ml of Cl-	V_s ml of sample	mw of HCl µg/µg-mole	mw of Cl^- µg/µg-mole	HCl mass µg	HCl mass mg	Comments
20071771	AHO ACID GAS AGI-1 PROBE & LINE RINSE RUN 1	49	137.40	270	36.46	35.45	38154.95	38.15	Comtaminated with SO2 sample rinse. Used average of 2 replicates
20071772	AHO ACID GAS AGI-1 IMPINGER SOLUTION	50	310.64	500	36.46	35.45	159745.20	159.75	Used average of 2 replicates
20071773	STACK ACID GAS AGO-1 PROBE RINSE	51	47.75	140	36.46	35.45	6875.46	6.88	Used average of 2 replicates
20071774	STACK ACID GAS AGO-1 IMPINGER SOLUTION	52	168.41	510	36.46	35.45	88336.15	88.34	Used average of 4 replicates
20071775	AHO ACID GAS AGI-2 PROBE RINSE	53	24.57	100	36.46	35.45	2527.00	2.53	Used average of 2 replicates
20071776	AHO ACID GAS AGI-2 IMPINGER SOLUTION	54	59.66	490	36.46	35.45	30066.28	30.07	Used average of 2 replicates
20071777	STACK ACID GAS AGO-2 PROBE RINSE	55	16.22	130	36.46	35.45	2168.68	2.17	Used average of 3 replicates
20071778	STACK ACID GAS AGO-2 IMPINGER SOLUTION	56	2.71	570	36.46	35.45	1588.71	1.59	Used average of 4 replicates
20071779	AHO ACID GAS AGI-3 PROBE RINSE	57	13.95	150	36.46	35.45	2152.12	2.15	Used average of 4 replicates
20071780	AHO ACID GAS AGI-3 IMPINGER SOLUTION	58	61.79	500	36.46	35.45	31775.22	31.78	Used average of 2 replicates
20071781	STACK ACID GAS AGO-3 PROBE RINSE	59	4.89	140	36.46	35.45	704.10	0.70	Used average of 2 replicates
20071782	STACK ACID GAS AGO-3 IMPINGER SOLUTION	60	1.41	550	36.46	35.45	797.59	0.80	Used average of 4 replicates
20071783	0.1 N H2SO4 BLANK SOLUTION	61	< 0.20	160	36.46	35.45	< 32.9	< 0.03	Used average of 2 replicates

HF			S µg/ml of F-	V_s ml of sample	mw of HF µg/µg-mole	mw of F µg/µg-mole	HF mass µg	HF mass mg	Comments
20071771	AHO ACID GAS AGI-1 PROBE & LINE RINSE RUN 1	49	< 0.20	270	20.01	18.99	< 56.90	< 0.06	comtaminated with SO2 sample rinse
20071772	AHO ACID GAS AGI-1 IMPINGER SOLUTION	50	< 0.20	500	20.01	18.99	< 105.37	< 0.11	
20071773	STACK ACID GAS AGO-1 PROBE RINSE	51	< 0.20	140	20.01	18.99	< 29.50	< 0.03	
20071774	STACK ACID GAS AGO-1 IMPINGER SOLUTION	52	< 0.20	510	20.01	18.99	< 107.48	< 0.11	
20071775	AHO ACID GAS AGI-2 PROBE RINSE	53	0.64	100	20.01	18.99	67.44	0.07	Used average of 4 replicates
20071776	AHO ACID GAS AGI-2 IMPINGER SOLUTION	54	< 0.20	490	20.01	18.99	< 103.26	< 0.10	
20071777	STACK ACID GAS AGO-2 PROBE RINSE	55	< 0.20	130	20.01	18.99	< 27.40	< 0.03	
20071778	STACK ACID GAS AGO-2 IMPINGER SOLUTION	56	0.23	570	20.01	18.99	138.14	0.14	Used average of 4 replicates
20071779	AHO ACID GAS AGI-3 PROBE RINSE	57	0.35	150	20.01	18.99	55.32	0.06	
20071780	AHO ACID GAS AGI-3 IMPINGER SOLUTION	58	< 0.20	500	20.01	18.99	< 105.37	< 0.11	
20071781	STACK ACID GAS AGO-3 PROBE RINSE	59	< 0.20	140	20.01	18.99	< 29.50	< 0.03	
20071782	STACK ACID GAS AGO-3 IMPINGER SOLUTION	60	< 0.20	550	20.01	18.99	< 115.91	< 0.12	
20071783	0.1 N H2SO4 BLANK SOLUTION	61	< 0.20	160	20.01	18.99	< 33.72	< 0.03	

HCL

			S	V_s	mw of HCl	mw of Cl^-	HCl mass	HCl mass
			µg/ml of Cl-	ml of sample	µg/µg-mole	µg/µg-mole	µg	mg
20072458	ACID GAS PROBE AHO TEST 1	66	1.84	115	36.46	35.45	217.63	0.22
20072459	ACID GAS IMPINGERS AHO TEST 1	67	84.48	535	36.46	35.45	46484.49	46.48
20072460	ACID GAS PROBE STK TEST 1	68	4.32	70	36.46	35.45	311.02	0.31
20072461	ACID GAS IMPINGERS STK TEST 1	69	2.64	545	36.46	35.45	1479.79	1.48
20072462	ACID GAS PROBE AHO TEST 2	70	1.21	125	36.46	35.45	155.56	0.16
20072463	ACID GAS IMPINGERS AHO TEST 2	71	113.9	470	36.46	35.45	55058.20	55.06
20072464	ACID GAS PROBE STK TEST 2	72	1.45	90	36.46	35.45	134.22	0.13
20072465	ACID GAS IMPINGER STK TEST 2	73	2.45	490	36.46	35.45	1234.70	1.23
20072466	ACID GAS 0.1N H2SO4 BLANK	74	< 0.20	105	36.46	35.45	< 21.60	< 0.02
20072467	ACID GAS DI H2O BLANK	75	< 0.20	280	36.46	35.45	< 57.60	< 0.06

HF

			S	V_s	mw of HF	mw of F^-	HF mass	HF mass
			µg/ml of F-	ml of sample	µg/µg-mole	µg/µg-mole	µg	mg
20072458	ACID GAS PROBE AHO TEST 1	66	0.40	115	20.01	18.99	48.47	0.05
20072459	ACID GAS IMPINGERS AHO TEST 1	67	< 0.20	535	20.01	18.99	< 112.7	< 0.11
20072460	ACID GAS PROBE STK TEST 1	68	< 0.20	70	20.01	18.99	< 14.75	< 0.01
20072461	ACID GAS IMPINGERS STK TEST 1	69	< 0.20	545	20.01	18.99	< 114.9	< 0.11
20072462	ACID GAS PROBE AHO TEST 2	70	0.43	125	20.01	18.99	56.63	0.06
20072463	ACID GAS IMPINGERS AHO TEST 2	71	< 0.20	470	20.01	18.99	< 99.05	< 0.10
20072464	ACID GAS PROBE STK TEST 2	72	< 0.20	90	20.01	18.99	< 19.00	< 0.02
20072465	ACID GAS IMPINGER STK TEST 2	73	< 0.20	490	20.01	18.99	< 103.3	< 0.10
20072466	ACID GAS 0.1N H2SO4 BLANK	74	< 0.20	105	20.01	18.99	< 22.13	< 0.02
20072467	ACID GAS DI H2O BLANK	75	< 0.20	280	20.01	18.99	< 59.01	< 0.06

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Greenidge

CONSOL Project: 1621-85
Date: 4/13/2007

Results - Impingers, Rinses, Blanks

Lab No.	Description	Comments	Sample	Hg (µg/L)
20071684	PROBE & FILTER RINSE	AHO-1-HG-1-RO/DO	2	1.15
20071685	SAMPLE LINE RINSE	AHO-1-HG-1-RO/DO	3	2.21
20071686	KCL IMPINGER	AHO-1-HG-1-RO/DO	4	5.59
			4a	0.38
20071687	HNO3/H2O2 IMPINGER	AHO-1-HG-1-RO/DO	5	< 1.40
20071688	KMNO4 IMPINGER	AHO-1-HG-1-RO/DO	6	1.99
20071689	KMNO4 ACID RINSE	AHO-1-HG-1-RO/DO	7	< 1.40
20071690	PROBE & FILTER RINSE/LINE	STK-1-HG-1-BS/KC	10	< 1.40
			9	< 1.40
20071691	KCL IMPINGER	STK-1-HG-1-BS/KC	11	< 0.28
20071692	HNO3/H2O2 IMPINGER	STK-1-HG-1-BS/KC	12	< 1.40
20071693	KMNO4 IMPINGER	STK-1-HG-1-BS/KC	13	< 0.28
20071694	KMNO4 ACID RINSE	STK-1-HG-1-BS/KC	14	< 1.40
20071695	PROBE & FILTER RINSE	AHO-1-HG-2-RO/DO	16	1.59
20071696	SAMPLE LINE RINSE	AHO-1-HG-2-RO/DO	17	6.78
20071697	KCL IMPINGER	AHO-1-HG-2-RO/DO	18	10.65
20071698	HNO3/H2O2 IMPINGER	AHO-1-HG-2-RO/DO	19	< 1.40
20071699	KMNO4 IMPINGER	AHO-1-HG-2-RO/DO	20	< 0.28
20071700	KMNO4 ACID RINSE	AHO-1-HG-2-RO/DO	21	< 1.40
20071701	PROBE & FILTER RINSE/LINE RINSE	STK-1-HG-2-BS/KC	24	< 1.40
			23	< 1.40
20071702	KCL IMPINGER	STK-1-HG-2-BS/KC	25	< 0.28
20071703	HNO3/H2O2 IMPINGER	STK-1-HG-2-BS/KC	26	< 1.40
20071704	KMNO4 IMPINGER	STK-1-HG-2-BS/KC	27	< 0.28
20071705	KMNO4 ACID RINSE	STK-1-HG-2-BS/KC	28	< 1.40
20071706	PROBE & FILTER RINSE	AHO-1-HG-3-RO/DO	30	< 1.40
20071707	SAMPLE LINE RINSE	AHO-1-HG-3-RO/DO	31	3.66
20071708	KCL IMPINGER	AHO-1-HG-3-RO/DO	32	7.85
20071709	HNO3/H2O2 IMPINGER	AHO-1-HG-3-RO/DO	33	< 1.40
20071710	KMNO4 IMPINGER	AHO-1-HG-3-RO/DO	34	1.16
20071711	KMNO4 ACID RINSE	AHO-1-HG-3-RO/DO	35	< 1.40
20071712	PROBE & FILTER RINSE/LINE RINSE	STK-1-HG-3-BS/KC	38	< 1.40
			37	< 1.40
20071713	KCL IMPINGER	STK-1-HG-3-BS/KC	39	< 0.28
20071714	HNO3/H2O2 IMPINGER	STK-1-HG-3-BS/KC	40	< 1.40
20071715	KMNO4 IMPINGER	STK-1-HG-3-BS/KC	41	< 0.28
20071716	KMNO4 ACID RINSE	STK-1-HG-3-BS/KC	42	< 1.40
20071717	KMNO4 BLANK		43	< 0.28
20071718	KCL BLANK		44	< 0.28
20071719	HNO3/H2O2 BLANK		45	< 1.40
20071720	HNO3/HCL BLANK		46	< 1.40
20071721	PROBE & FILTER RINSE	AHO-1-HG-4-RO/DO	90	< 1.40
20071722	SAMPLE LINE RINSE	AHO-1-HG-4-RO/DO	91	3.12
20071723	KCL IMPINGER	AHO-1-HG-4-RO/DO	92	8.86
20071724	HNO3/H2O2 IMPINGER	AHO-1-HG-4-RO/DO	93	< 1.40
20071725	KMNO4 IMPINGER	AHO-1-HG-4-RO/DO	94	< 0.28
20071726	KMNO4 ACID RINSE	AHO-1-HG-4-RO/DO	95	< 1.40

20071727	PROBE & FILTER RINSE/LINE	STK-1-HG-5-BS/KC	98	< 1.40
			97	< 1.40
20071728	KCL IMPINGER	STK-1-HG-5-BS/KC	99	< 0.28
20071729	HNO3/H2O2 IMPINGER	STK-1-HG-5-BS/KC	100	< 1.40
20071730	KMNO4 IMPINGER	STK-1-HG-5-BS/KC	101	< 0.28
20071731	KMNO4 ACID RINSE	STK-1-HG-5-BS/KC	102	< 1.40
20071732	PROBE & FILTER RINSE	AHO-1-HG-5-RO/DO	104	< 1.40
20071733	SAMPLE LINE RINSE	AHO-1-HG-5-RO/DO	105	< 1.40
20071734	KCL IMPINGER	AHO-1-HG-5-RO/DO	106	8.45
20071735	HNO3/H2O2 IMPINGER	AHO-1-HG-5-RO/DO	107	< 1.40
20071736	KMNO4 IMPINGER	AHO-1-HG-5-RO/DO	108	0.40
20071737	KMNO4 ACID RINSE	AHO-1-HG-5-RO/DO	109	< 1.40
20071738	PROBE & FILTER RINSE/LINE	STK-1-HG-5-BS/KC	112	< 1.40
			111	< 1.40
20071739	KCL IMPINGER	STK-1-HG-5-BS/KC	113	< 0.28
20071740	HNO3/H2O2 IMPINGER	STK-1-HG-5-BS/KC	114	< 1.40
20071741	KMNO4 IMPINGER	STK-1-HG-5-BS/KC	115	0.37
20071742	KMNO4 ACID RINSE	STK-1-HG-5-BS/KC	116	< 1.40
20071743	PROBE & FILTER RINSE	AHO-1-HG-6-RO/DO	118	< 1.40
20071744	SAMPLE LINE RINSE	AHO-1-HG-6-RO/DO	119	< 1.40
20071745	KCL IMPINGER	AHO-1-HG-6-RO/DO	120	8.04
20071746	HNO3/H2O2 IMPINGER	AHO-1-HG-6-RO/DO	121	< 1.40
20071747	KMNO4 IMPINGER	AHO-1-HG-6-RO/DO	122	1.55
20071748	KMNO4 ACID RINSE	AHO-1-HG-6-RO/DO	123	< 1.40
20071749	PROBE & FILTER RINSE	STK-1-HG-6	126	< 1.40
			125	< 1.40
20071750	KCL IMPINGER	STK-1-HG-6	127	< 0.28
20071751	HNO3/H2O2 IMPINGER	STK-1-HG-6	128	< 1.40
20071752	KMNO4 IMPINGER	STK-1-HG-6	129	< 0.28
20071753	KMNO4 ACID RINSE	STK-1-HG-6	130	< 1.40
20071754	KMNO4 BLANK		131	< 0.28
20071755	KCL BLANK		132	< 0.28
20071756	HNO3/H2O2 BLANK		133	< 1.40
20071757	KMNO4 BLANK IMPINGER		134	< 0.28
20071758	HNO3/HCL BLANK		135	< 1.40

Results - Filters/Blank Thimble

ANALNUM	DESCR	SAMPLE		Hg, ug/filter
20071671	FILTER/SOLIDS	8		< 0.007
20071673	FILTER/SOLIDS	22		< 0.007
20071675	FILTER/SOLIDS	36		< 0.007
20071677	FILTER/SOLIDS	96		< 0.007
20071679	FILTER/SOLIDS	110		< 0.007
20071681	FILTER/SOLIDS	124		< 0.007
20071682	47 MM FILTER BLANK	47		< 0.007
20071683	THIMBLE BLANK	48		< 0.007

Results - Loose Particulate in the Thimble

ANALNUM	DESCR	SAMPLE		Hg, ug/g or ppm
20071670	FILTER/SOLIDS	1		0.724
20071672	FILTER/SOLIDS	15		0.563
20071674	FILTER/SOLIDS	29		0.688
20071676	FILTER/SOLIDS	89		0.598
20071678	FILTER/SOLIDS	103		0.661
20071680	FILTER/SOLIDS	117		0.623

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QAQC

Mercury Duplicate Analyses RPD (Limit of 10%)...Impingers, Rinses, Blanks

Lab No.	Description		Sample	Hg (µg/L)	Hg (µg/L)	Hg average (µg/L)	RPD, %
20071684	PROBE & FILTER RINSE	AHO-1-HG-1-RO/DO	2	1.11	1.19	1.15	7.0%
20071685	SAMPLE LINE RINSE	AHO-1-HG-1-RO/DO	3	2.40	2.01	2.21	17.7%
20071686	KCL IMPINGER	AHO-1-HG-1-RO/DO	4	5.64	5.54	5.59	1.8%
			4a	0.42	0.34	0.38	21.1%
20071687	HNO3/H2O2 IMPINGER	AHO-1-HG-1-RO/DO	5	< 1.40	< 1.40	< 1.40	0.0%
20071688	KMNO4 IMPINGER	AHO-1-HG-1-RO/DO	6	1.97	2.00	1.99	1.5%
20071689	KMNO4 ACID RINSE	AHO-1-HG-1-RO/DO	7	< 1.40	< 1.40	< 1.40	0.0%
20071690	PROBE & FILTER RINSE/LINE	STK-1-HG-1-BS/KC	10	< 1.40	< 1.40	< 1.40	0.0%
			9	< 1.40	< 1.40	< 1.40	0.0%
20071691	KCL IMPINGER	STK-1-HG-1-BS/KC	11	< 0.28	< 0.28	< 0.28	0.0%
20071692	HNO3/H2O2 IMPINGER	STK-1-HG-1-BS/KC	12	< 1.40	< 1.40	< 1.40	0.0%
20071693	KMNO4 IMPINGER	STK-1-HG-1-BS/KC	13	< 0.28	< 0.28	< 0.28	0.0%
20071694	KMNO4 ACID RINSE	STK-1-HG-1-BS/KC	14	< 1.40	< 1.40	< 1.40	0.0%
20071695	PROBE & FILTER RINSE	AHO-1-HG-2-RO/DO	16	1.52	1.65	1.59	8.2%
20071696	SAMPLE LINE RINSE	AHO-1-HG-2-RO/DO	17	6.97	6.58	6.78	5.8%
20071697	KCL IMPINGER	AHO-1-HG-2-RO/DO	18	10.53	10.76	10.65	2.2%
20071698	HNO3/H2O2 IMPINGER	AHO-1-HG-2-RO/DO	19	< 1.40	< 1.40	< 1.40	0.0%
20071699	KMNO4 IMPINGER	AHO-1-HG-2-RO/DO	20	0.98	0.99	0.99	1.0%
20071700	KMNO4 ACID RINSE	AHO-1-HG-2-RO/DO	21	< 1.40	< 1.40	< 1.40	0.0%
20071701	PROBE & FILTER RINSE/LINE RINSE	STK-1-HG-2-BS/KC	24	< 1.40	< 1.40	< 1.40	0.0%
			23	< 1.40	< 1.40	< 1.40	0.0%
20071702	KCL IMPINGER	STK-1-HG-2-BS/KC	25	< 0.28	< 0.28	< 0.28	0.0%
20071703	HNO3/H2O2 IMPINGER	STK-1-HG-2-BS/KC	26	< 1.40	< 1.40	< 1.40	0.0%
20071704	KMNO4 IMPINGER	STK-1-HG-2-BS/KC	27	< 0.28	< 0.28	< 0.28	0.0%
20071705	KMNO4 ACID RINSE	STK-1-HG-2-BS/KC	28	< 1.40	< 1.40	< 1.40	0.0%
20071706	PROBE & FILTER RINSE	AHO-1-HG-3-RO/DO	30	< 1.40	< 1.40	< 1.40	0.0%
20071707	SAMPLE LINE RINSE	AHO-1-HG-3-RO/DO	31	3.74	3.57	3.66	4.7%
20071708	KCL IMPINGER	AHO-1-HG-3-RO/DO	32	7.60	8.10	7.85	6.4%
20071709	HNO3/H2O2 IMPINGER	AHO-1-HG-3-RO/DO	33	< 1.40	< 1.40	< 1.40	0.0%
20071710	KMNO4 IMPINGER	AHO-1-HG-3-RO/DO	34	1.16	1.15	1.16	0.9%
20071711	KMNO4 ACID RINSE	AHO-1-HG-3-RO/DO	35	< 1.40	< 1.40	< 1.40	0.0%
20071712	PROBE & FILTER RINSE/LINE RINSE	STK-1-HG-3-BS/KC	38	< 1.40	< 1.40	< 1.40	0.0%
			37	< 1.40	< 1.40	< 1.40	0.0%
20071713	KCL IMPINGER	STK-1-HG-3-BS/KC	39	< 0.28	< 0.28	< 0.28	0.0%
20071714	HNO3/H2O2 IMPINGER	STK-1-HG-3-BS/KC	40	< 1.40	< 1.40	< 1.40	0.0%
20071715	KMNO4 IMPINGER	STK-1-HG-3-BS/KC	41	< 0.28	< 0.28	< 0.28	0.0%
20071716	KMNO4 ACID RINSE	STK-1-HG-3-BS/KC	42	< 1.40	< 1.40	< 1.40	0.0%
20071717	KMNO4 BLANK		43	< 0.28	< 0.28	< 0.28	0.0%
20071718	KCL BLANK		44	< 0.28	< 0.28	< 0.28	0.0%
20071719	HNO3/H2O2 BLANK		45	< 1.40	< 1.40	< 1.40	0.0%
20071720	HNO3/HCL BLANK		46	< 1.40	< 1.40	< 1.40	0.0%
20071721	PROBE & FILTER RINSE	AHO-1-HG-4-RO/DO	90	< 1.40	< 1.40	< 1.40	0.0%
20071722	SAMPLE LINE RINSE	AHO-1-HG-4-RO/DO	91	3.22	3.01	3.12	6.7%

20071723	KCL IMPINGER	AHO-1-HG-4-RO/DO	92	8.72	8.99	8.86	3.0%
20071724	HNO3/H2O2 IMPINGER	AHO-1-HG-4-RO/DO	93	< 1.40	< 1.40	< 1.40	0.0%
20071725	KMNO4 IMPINGER	AHO-1-HG-4-RO/DO	94	< 0.28	< 0.28	< 0.28	0.0%
20071726	KMNO4 ACID RINSE	AHO-1-HG-4-RO/DO	95	< 1.40	< 1.40	< 1.40	0.0%
20071727	PROBE & FILTER RINSE/LINE	STK-1-HG-5-BS/KC	98	< 1.40	< 1.40	< 1.40	0.0%
			97	< 1.40	< 1.40	< 1.40	0.0%
20071728	KCL IMPINGER	STK-1-HG-5-BS/KC	99	< 0.28	< 0.28	< 0.28	0.0%
20071729	HNO3/H2O2 IMPINGER	STK-1-HG-5-BS/KC	100	< 1.40	< 1.40	< 1.40	0.0%
20071730	KMNO4 IMPINGER	STK-1-HG-5-BS/KC	101	< 0.28	< 0.28	< 0.28	0.0%
20071731	KMNO4 ACID RINSE	STK-1-HG-5-BS/KC	102	< 1.40	< 1.40	< 1.40	0.0%
20071732	PROBE & FILTER RINSE	AHO-1-HG-5-RO/DO	104	< 1.40	< 1.40	< 1.40	0.0%
20071733	SAMPLE LINE RINSE	AHO-1-HG-5-RO/DO	105	< 1.40	< 1.40	< 1.40	0.0%
20071734	KCL IMPINGER	AHO-1-HG-5-RO/DO	106	8.32	8.57	8.45	3.0%
20071735	HNO3/H2O2 IMPINGER	AHO-1-HG-5-RO/DO	107	< 1.40	< 1.40	< 1.40	0.0%
20071736	KMNO4 IMPINGER	AHO-1-HG-5-RO/DO	108	0.37	0.42	0.40	12.7%
20071737	KMNO4 ACID RINSE	AHO-1-HG-5-RO/DO	109	< 1.40	< 1.40	< 1.40	0.0%
20071738	PROBE & FILTER RINSE/LINE	STK-1-HG-5-BS/KC	112	< 1.40	< 1.40	< 1.40	0.0%
			111	< 1.40	< 1.40	< 1.40	0.0%
20071739	KCL IMPINGER	STK-1-HG-5-BS/KC	113	< 0.28	< 0.28	< 0.28	0.0%
20071740	HNO3/H2O2 IMPINGER	STK-1-HG-5-BS/KC	114	< 1.40	< 1.40	< 1.40	0.0%
20071741	KMNO4 IMPINGER	STK-1-HG-5-BS/KC	115	0.42	0.31	0.37	30.1%
20071742	KMNO4 ACID RINSE	STK-1-HG-5-BS/KC	116	< 1.40	< 1.40	< 1.40	0.0%
20071743	PROBE & FILTER RINSE	AHO-1-HG-6-RO/DO	118	< 1.40	< 1.40	< 1.40	0.0%
20071744	SAMPLE LINE RINSE	AHO-1-HG-6-RO/DO	119	< 1.40	< 1.40	< 1.40	0.0%
20071745	KCL IMPINGER	AHO-1-HG-6-RO/DO	120	7.96	8.12	8.04	2.0%
20071746	HNO3/H2O2 IMPINGER	AHO-1-HG-6-RO/DO	121	< 1.40	< 1.40	< 1.40	0.0%
20071747	KMNO4 IMPINGER	AHO-1-HG-6-RO/DO	122	1.54	1.55	1.55	0.6%
20071748	KMNO4 ACID RINSE	AHO-1-HG-6-RO/DO	123	< 1.40	< 1.40	< 1.40	0.0%
20071749	PROBE & FILTER RINSE	STK-1-HG-6	126	< 1.40	< 1.40	< 1.40	0.0%
			125	< 1.40	< 1.40	< 1.40	0.0%
20071750	KCL IMPINGER	STK-1-HG-6	127	< 0.28	< 0.28	< 0.28	0.0%
20071751	HNO3/H2O2 IMPINGER	STK-1-HG-6	128	< 1.40	< 1.40	< 1.40	0.0%
20071752	KMNO4 IMPINGER	STK-1-HG-6	129	< 0.28	< 0.28	< 0.28	0.0%
20071753	KMNO4 ACID RINSE	STK-1-HG-6	130	< 1.40	< 1.40	< 1.40	0.0%
20071754	KMNO4 BLANK		131	< 0.28	< 0.28	< 0.28	0.0%
20071755	KCL BLANK		132	< 0.28	< 0.28	< 0.28	0.0%
20071756	HNO3/H2O2 BLANK		133	< 1.40	< 1.40	< 1.40	0.0%
20071757	KMNO4 BLANK IMPINGER		134	< 0.28	< 0.28	< 0.28	0.0%
20071758	HNO3/HCL BLANK		135	< 1.40	< 1.40	< 1.40	0.0%

Mercury Duplicate Analyses RPD (Limit of 10%)..Filters/Blank Thimble

Lab No.	Description		Sample	Hg, ug/filter	Hg, ug/filter	Hg, average, ug/filter	RPD, %
20071671	FILTER/SOLIDS		8	< 0.007	< 0.007	< 0.007	0.0%
20071673	FILTER/SOLIDS		22	< 0.007	< 0.007	< 0.007	0.0%
20071675	FILTER/SOLIDS		36	< 0.007	< 0.007	< 0.007	0.0%
20071677	FILTER/SOLIDS		96	< 0.007	< 0.007	< 0.007	0.0%
20071679	FILTER/SOLIDS		110	< 0.007	< 0.007	< 0.007	0.0%
20071681	FILTER/SOLIDS		124	< 0.007	< 0.007	< 0.007	0.0%
20071682	47 MM FILTER BLANK		47	< 0.007	< 0.007	< 0.007	0.0%
20071683	THIMBLE BLANK		48	< 0.007	< 0.007	< 0.007	0.0%

Mercury Duplicate Analyses RPD (Limit of 10%)..Loose Particulate in Thimbles

ANALNUM	DESCR	SAMPLE	Hg, ug/g	Hg, ug/g	RPD, %	
20071674	FILTER/SOLIDS	29	0.679	0.696	2.5%	Only 1 of 6 samples duplicated

Mercury Triplicate Analyses RSD (Limit of 10%)...Impingers, Rinses, Blanks

Lab No.	Description		Sample	Hg (µg/L)	Hg (µg/L)	Hg (µg/L)	RSD, %
20071752	KMNO4 IMPINGER	STK-1-HG-6	129	< 0.28	< 0.28	< 0.28	0.0%
20071697	KCL IMPINGER	AHO-1-HG-2-RO/DO	18	10.53	10.76	10.71	1.1%
20071705	KMNO4 ACID RINSE	STK-1-HG-2-BS/KC	28	< 1.40	< 1.40	< 1.40	0.0%
20071748	KMNO4 ACID RINSE	AHO-1-HG-6-RO/DO	123	< 1.40	< 1.40	< 1.40	0.0%
20071690	PROBE & FILTER RINSE/LINE	STK-1-HG-1-BS/KC	10	< 1.40	< 1.40	< 1.40	0.0%
			37	< 1.40	< 1.40	< 1.40	0.0%
20071727	PROBE & FILTER RINSE/LINE	STK-1-HG-5-BS/KC	98	< 1.40	< 1.40	< 1.40	0.0%
20071704	KMNO4 IMPINGER	STK-1-HG-2-BS/KC	27	< 0.28	< 0.28	< 0.28	0.0%
20071730	KMNO4 IMPINGER	STK-1-HG-5-BS/KC	101	< 0.28	< 0.28	< 0.28	0.0%
20071723	KCL IMPINGER	AHO-1-HG-4-RO/DO	92	8.72	8.99	9.02	1.9%
20071703	HNO3/H2O2 IMPINGER	STK-1-HG-2-BS/KC	26	< 1.40	< 1.40	< 1.40	0.0%
20071751	HNO3/H2O2 IMPINGER	STK-1-HG-6	128	< 1.40	< 1.40	< 1.40	0.0%

Matrix (Standard Addition) Spikes (recovery of 90 - 110%)

The following samples were spiked with a standard solution of 2ppb.

Lab No.	Description		Sample	% Recovery
20071747	KMNO4 IMPINGER	AHO-1-HG-6-RO/DO	122	105.5
20071700	KMNO4 ACID RINSE	AHO-1-HG-2-RO/DO	21	96.5
20071753	KMNO4 ACID RINSE	STK-1-HG-6	130	95.5
			9	100
20071712	PROBE & FILTER RINSE/LINE RINSE	STK-1-HG-3-BS/KC	38	90.5
20071702	KCL IMPINGER	STK-1-HG-2-BS/KC	25	96
			97	93.5
20071749	PROBE & FILTER RINSE	STK-1-HG-6	126	98
20071713	KCL IMPINGER	STK-1-HG-3-BS/KC	39	95.5
20071698	HNO3/H2O2 IMPINGER	AHO-1-HG-2-RO/DO	19	101
20071746	HNO3/H2O2 IMPINGER	AHO-1-HG-6-RO/DO	121	106
20071699	KMNO4 IMPINGER	AHO-1-HG-2-RO/DO	20	103.5
20071736	KMNO4 IMPINGER	AHO-1-HG-5-RO/DO	108	101
20071673	FILTER/SOLIDS		22	103.5

the digestate of the filter was spiked prior to analysis with a standard solution of 2ppb.

NIST SRM 1633B Fly Ash...Digested/Analyzed with Filters and Analyzed with Loose Particulate (90 -110% of Certified Value)

NIST SRM has a cerrtified value of 141 ng/g.

Lab No.	Description	Sample	Results (ng/g)	% RECOVERY	
SRM	NA	1633B		97.9%	analyzed with digestates of filters/blank thimble
SRM	NA	1633B		94.4%	analyzed with loose particulate samples

Digestion Duplicates and Digestion Spikes...Impingers

Digestion 1 and 2 results represent an average of duplicate analyses.

Lab No.	Description	Sample	Comments	Digestion 1	Digestion 2	RPD, %
20071691	KCL IMPINGER	STK-1-HG-1-BS/KC	11	< 0.28	< 0.28	0.0
20071715	KMNO4 IMPINGER	STK-1-HG-3-BS/KC	41	< 0.28	< 0.28	0.0
20071740	HNO3/H2O2 IMPINGER	STK-1-HG-5-BS/KC	114	< 1.40	< 1.40	0.0

The following samples were spiked with a standard solution of 2 ppb before digestion.

Lab No.	Description		Sample	% Recovery
20071691	KCL IMPINGER	STK-1-HG-1-BS/KC	11	104.5
20071715	KMNO4 IMPINGER	STK-1-HG-3-BS/KC	41	102.5
20071740	HNO3/H2O2 IMPINGER	STK-1-HG-5-BS/KC	114	106.5

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Sample Description.: COAL MARCH 28 09:00-10:00
Sample No.: TEST 1
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071795
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	8.58
Volatile Matter	39.95
Fixed Carbon	51.47
BTU/lb	13768
MAF BTU/lb	15060

Ultimate (Dry)%	
Carbon	76.14
Hydrogen	5.12
Nitrogen	1.41
Chlorine	0.0694
Sulfur, Total	2.68
Ash	8.58
Oxygen (DIFF)	6.00

Major Ash Elem. (Ignited)	
SiO_2	44.98
Al_2O_3	20.75
TiO_2	0.92
Fe_2O_3	20.51
CaO	4.98
MgO	0.85
Na_2O	0.80
K_2O	1.46
P_2O_5	0.36
SO_3	4.81
Undetermined	-0.42

Total Moisture 6.62

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	2.68

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.101
F	66.77
As	6.17
Ba	66.7
Be	.801
Cd	.06
Co	2.93
Cr	12.90
Cu	7.06
Li	9.01
Mn	18.00
Mo	.87
Ni	8.60
Pb	3.60
Sb	.48
Se	1.26
Sn	.51
Th	1.64
Tl	.28
U	.57
V	21.10
Zn	10.00

Seive Analysis

SIZE	WT %

As Determined Moisture 1.305 %

These values have been reviewed and are approved for transmission. JMF

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Sample Description.: COAL MARCH 28 13:00-14:00
Sample No.: TEST 2
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071796
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	8.36
Volatile Matter	39.95
Fixed Carbon	51.69
BTU/lb	13799
MAF BTU/lb	15058

Ultimate (Dry)%	
Carbon	75.66
Hydrogen	5.04
Nitrogen	1.45
Chlorine	0.0753
Sulfur, Total	2.69
Ash	8.36
Oxygen (DIFF)	6.72

Major Ash Elem. (Ignited)	
SiO2	42.69
Al2O3	20.16
TiO2	0.88
Fe2O3	22.46
CaO	5.29
MgO	0.85
Na2O	0.76
K2O	1.39
P2O5	0.38
SO3	4.97
Undetermined	0.17

Total Moisture 6.28

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	2.69

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.113
F	67.07
As	7.48
Ba	64.70
Be	.77
Cd	.06
Co	2.97
Cr	13.20
Cu	5.91
Li	8.37
Mn	17.60
Mo	.96
Ni	9.99
Pb	3.60
Sb	.35
Se	1.15
Sn	.49
Th	1.54
Tl	.28
U	.53
V	44.90
Zn	9.50

Seive Analysis SIZE	WT %

As Determined Moisture 1.29 %

These values have been reviewed and are approved for transmission.

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Sample Description.: COAL MARCH 28 16:15
Sample No.: TEST 3
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071797
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	7.99
Volatile Matter	39.92
Fixed Carbon	52.09
BTU/lb	13916
MAF BTU/lb	15124

Ultimate (Dry)%	
Carbon	75.86
Hydrogen	5.01
Nitrogen	1.44
Chlorine	0.0745
Sulfur, Total	2.57
Ash	7.99
Oxygen (DIFF)	7.06

Major Ash Elem. (Ignited)	
SiO_2	44.62
Al_2O_3	22.46
TiO_2	0.99
Fe_2O_3	20.52
CaO	4.59
MgO	0.92
Na_2O	0.81
K_2O	1.57
P_2O_5	0.48
SO_3	3.78
Undetermined	-0.74

Total Moisture 6.54

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	2.57

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.097
F	70.61
As	6.22
Ba	70.00
Be	.81
Cd	.06
Co	2.87
Cr	13.20
Cu	5.73
Li	8.67
Mn	16.40
Mo	.96
Ni	8.42
Pb	3.70
Sb	.38
Se	1.25
Sn	.53
Th	1.59
Tl	.28
U	.60
V	21.30
Zn	8.86

Seive Analysis

SIZE	WT %

As Determined Moisture 1.43 %

These values have been reviewed and are approved for transmission. JMY

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Sample Description.: COAL MARCH 28 18:25
Sample No.: TEST 3
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071798
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	8.00
Volatile Matter	40.20
Fixed Carbon	51.80
BTU/lb	13939
MAF BTU/lb	15151

Ultimate (Dry)%	
Carbon	76.58
Hydrogen	5.01
Nitrogen	1.46
Chlorine	0.0714
Sulfur, Total	2.68
Ash	8.00
Oxygen (DIFF)	6.20

Major Ash Elem. (Ignited)	
SiO2	42.22
Al2O3	21.80
TiO2	0.92
Fe2O3	20.84
CaO	5.71
MgO	1.36
Na2O	0.86
K2O	1.57
P2O5	0.37
SO3	5.31
Undetermined	-0.96

Total Moisture 6.71

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	2.68

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.094
F	65.52
As	6.51
Ba	65.50
Be	.81
Cd	.05
Co	2.94
Cr	12.10
Cu	5.71
Li	8.55
Mn	18.40
Mo	.90
Ni	9.82
Pb	3.47
Sb	1.41
Se	1.12
Sn	.48
Th	1.53
Tl	.28
U	.55
V	21.30
Zn	9.20

Seive Analysis

SIZE	WT %

As Determined Moisture 1.41 %

These values have been reviewed and are approved for transmission. JMT

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Sample Description.: COAL MARCH 29 9:30
Sample No.: TEST 1
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071814
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	8.08
Volatile Matter	39.78
Fixed Carbon	52.14
BTU/lb	13893
MAF BTU/lb	15114

Ultimate (Dry)%	
Carbon	76.59
Hydrogen	4.86
Nitrogen	1.41
Chlorine	0.0721
Sulfur, Total	2.79
Ash	8.08
Oxygen (DIFF)	6.20

Major Ash Elem. (Ignited)	
SiO_2	42.34
Al_2O_3	20.94
TiO_2	0.90
Fe_2O_3	23.67
CaO	4.59
MgO	1.12
Na_2O	0.81
K_2O	1.58
P_2O_5	0.34
SO_3	4.29
Undetermined	-0.58

Total Moisture	4.20

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	2.79

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.116
F	63.51
As	6.38
Ba	63.60
Be	.80
Cd	.07
Co	2.93
Cr	13.10
Cu	5.62
Li	8.60
Mn	17.30
Mo	.89
Ni	8.64
Pb	3.56
Sb	.35
Se	1.10
Sn	.49
Th	1.53
Tl	.32
U	.55
V	21.00
Zn	9.43

Seive Analysis

SIZE	WT %

As Determined Moisture 1.75 %

These values have been reviewed and are approved for transmission. JMF

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Sample Description.: COAL MARCH 29 13:30
Sample No.: TEST 2
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: **20071815**
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	**Wt%**
Ash	8.54
Volatile Matter	40.36
Fixed Carbon	51.10
BTU/lb	13838
MAF BTU/lb	15130

Ultimate (Dry)%	
Carbon	76.62
Hydrogen	4.93
Nitrogen	1.50
Chlorine	0.0727
Sulfur, Total	2.50
Ash	8.54
Oxygen (DIFF)	5.84

Major Ash Elem. (Ignited)	
SiO_2	41.41
Al_2O_3	20.78
TiO_2	0.86
Fe_2O_3	18.98
CaO	8.19
MgO	1.06
Na_2O	0.82
K_2O	1.51
P_2O_5	0.37
SO_3	5.83
Undetermined	0.19

Total Moisture 4.60

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	2.50

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm	**(Dry)**
Hg	0.097
F	63.83
As	5.78
Ba	65.00
Be	.77
Cd	.06
Co	2.80
Cr	13.00
Cu	5.69
Li	8.50
Mn	17.90
Mo	.91
Ni	8.57
Pb	3.49
Sb	.33
Se	1.04
Sn	.48
Th	1.53
Tl	.29
U	.52
V	19.40
Zn	9.47

Seive Analysis

SIZE	WT %

As Determined Moisture 1.61 %

These values have been reviewed and are approved for transmission. JWT

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Sample Description.: COAL MARCH 29 16:30
Sample No.: TEST 3
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: **20071816**
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	7.99
Volatile Matter	39.66
Fixed Carbon	52.35
BTU/lb	13982
MAF BTU/lb	15196

Ultimate (Dry)%	
Carbon	76.23
Hydrogen	4.97
Nitrogen	1.46
Chlorine	0.0759
Sulfur, Total	2.66
Ash	7.99
Oxygen (DIFF)	6.61

Major Ash Elem. (Ignited)	
SiO_2	43.52
Al_2O_3	21.48
TiO_2	0.91
Fe_2O_3	23.20
CaO	4.28
MgO	0.86
Na_2O	0.83
K_2O	1.61
P_2O_5	0.40
SO_3	3.83
Undetermined	-0.92

Total Moisture 4.61

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	2.66

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.108
F	66.23
As	7.23
Ba	65.50
Be	.81
Cd	.05
Co	2.98
Cr	13.50
Cu	6.76
Li	8.86
Mn	17.70
Mo	.89
Ni	10.50
Pb	3.55
Sb	.70
Se	1.12
Sn	.50
Th	1.56
Tl	.33
U	.54
V	21.50
Zn	9.55

Seive Analysis

SIZE	WT %

As Determined Moisture 1.7 %

These values have been reviewed and are approved for transmission: JHK

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Sample Description.: COAL MARCH 30 9:05-13:35
Sample No.: TEST 1
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071829
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	7.92
Volatile Matter	40.30
Fixed Carbon	51.78
BTU/lb	14015
MAF BTU/lb	15220

Ultimate (Dry)%	
Carbon	76.02
Hydrogen	4.98
Nitrogen	1.48
Chlorine	0.0755
Sulfur, Total	2.61
Ash	7.92
Oxygen (DIFF)	6.91

Major Ash Elem. (Ignited)	
SiO_2	41.81
Al_2O_3	20.75
TiO_2	0.87
Fe_2O_3	21.95
CaO	6.42
MgO	0.95
Na_2O	0.87
K_2O	1.53
P_2O_5	0.37
SO_3	5.14
Undetermined	-0.66

Total Moisture 6.66

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	2.61

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.097
F	59.27
As	4.97
Ba	58.10
Be	.69
Cd	.04
Co	2.43
Cr	10.60
Cu	5.41
Li	7.76
Mn	16.00
Mo	.73
Ni	6.89
Pb	2.91
Sb	.27
Se	1.01
Sn	.42
Th	1.26
Tl	.22
U	.44
V	16.60
Zn	7.97

Seive Analysis

SIZE	WT %

As Determined Moisture 1.3 %

These values have been reviewed and are approved for transmission: JMT

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Sample Description.: COAL MARCH 30 12:45-14:00
Sample No.: TEST 2
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: **20071830**
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	8.18
Volatile Matter	40.32
Fixed Carbon	51.50
BTU/lb	13956
MAF BTU/lb	15199

Ultimate (Dry)%	
Carbon	76.41
Hydrogen	4.83
Nitrogen	1.40
Chlorine	0.0748
Sulfur, Total	2.65
Ash	8.18
Oxygen (DIFF)	6.46

Major Ash Elem. (Ignited)	
SiO2	42.67
Al2O3	20.97
TiO2	0.90
Fe2O3	21.39
CaO	5.59
MgO	0.98
Na2O	0.84
K2O	1.46
P2O5	0.38
SO3	4.92
Undetermined	-0.10

Total Moisture 4.97

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	2.65

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.090
F	69.47
As	3.76
Ba	40.10
Be	.51
Cd	.03
Co	1.65
Cr	7.31
Cu	3.39
Li	5.56
Mn	12.10
Mo	.50
Ni	4.90
Pb	2.15
Sb	.20
Se	1.02
Sn	.29
Th	.922
Tl	.17
U	.31
V	11.90
Zn	5.23

Seive Analysis SIZE	WT %

As Determined Moisture 1.69 %

These values have been reviewed and are approved for transmission. JMF

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Sample Description.:	COAL MARCH 30 15:45-16:45		
Sample No.:	TEST 3	**Analytical No.:**	**20071831**
Date Received:	04/03/2007	**Project No.:**	1621 -085 -000
Date Completed:	04/19/2007	**Submitted By:**	D. CONNELL

Proximate (Dry) Wt%

Ash	8.23
Volatile Matter	40.45
Fixed Carbon	51.32
BTU/lb	13948
MAF BTU/lb	15199

Ultimate (Dry)%

Carbon	76.35
Hydrogen	4.91
Nitrogen	1.42
Chlorine	0.0697
Sulfur, Total	2.65
Ash	8.23
Oxygen (DIFF)	6.37

Major Ash Elem. (Ignited)

SiO_2	42.38
Al_2O_3	20.88
TiO_2	0.89
Fe_2O_3	21.46
CaO	4.99
MgO	0.94
Na_2O	0.86
K_2O	1.71
P_2O_5	0.37
SO_3	4.82
Undetermined	0.70

Total Moisture 4.87

Sulfur Forms (Dry)

Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	2.65

Ash Fusion Reducing Temp (F)

Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing

Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)

Hg	0.089
F	67.51
As	3.55
Ba	39.60
Be	.49
Cd	.03
Co	1.67
Cr	7.77
Cu	3.66
Li	5.55
Mn	12.00
Mo	.47
Ni	5.69
Pb	2.02
Sb	.27
Se	.99
Sn	.29
Th	.916
Tl	.17
U	.31
V	12.30
Zn	5.51

Seive Analysis

SIZE	WT %

As Determined Moisture 1.495 %

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Sample Description.: GREENIDGE COAL 5/1/07
Sample No.: NH3-1
Date Received: 05/11/2007
Date Completed: 05/31/2007

Analytical No.: **20072513**
Project No.: 1621 -085 -000
Submitted By: J. LOCKE/D. CONNELL

Proximate (Dry)	Wt%
Ash	8.64
Volatile Matter	40.81
Fixed Carbon	50.55
BTU/lb	13796
MAF BTU/lb	15101

Ultimate (Dry)%	
Carbon	75.37
Hydrogen	5.26
Nitrogen	1.38
Chlorine	0.0795
Sulfur, Total	3.05
Ash	8.64
Oxygen (DIFF)	6.22

Major Ash Elem. (Ignited)	
SiO2	42.89
Al2O3	21.86
TiO2	0.90
Fe2O3	21.64
CaO	4.98
MgO	0.81
Na2O	0.79
K2O	1.46
P2O5	0.26
SO3	4.88
Undetermined	-0.47

Total Moisture 6.04

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	3.05

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 1.255 %

These values have been reviewed and are approved for transmission.

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Sample Description.: GREENIDGE COAL 5/1/07
Sample No.: NH3-2
Date Received: 05/11/2007
Date Completed: 05/31/2007

Analytical No.: 20072514
Project No.: 1621 -085 -000
Submitted By: J. LOCKE/D. CONNELL

Proximate (Dry)	Wt%
Ash	8.95
Volatile Matter	41.02
Fixed Carbon	50.03
BTU/lb	13765
MAF BTU/lb	15118

Ultimate (Dry)%	
Carbon	75.59
Hydrogen	5.01
Nitrogen	1.38
Chlorine	0.0681
Sulfur, Total	3.14
Ash	8.95
Oxygen (DIFF)	5.86

Major Ash Elem. (Ignited)	
SiO_2	43.12
Al_2O_3	21.81
TiO_2	0.90
Fe_2O_3	21.37
CaO	4.87
MgO	0.79
Na_2O	0.80
K_2O	1.41
P_2O_5	0.27
SO_3	4.93
Undetermined	-0.27

Total Moisture 6.14

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	3.14

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 1.32 %

These values have been reviewed and are approved for transmission.

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Sample Description.: **GREENIDGE COAL 5/1/07**
Sample No.: NH3-3
Date Received: 05/11/2007
Date Completed: 05/31/2007

Analytical No.: **20072515**
Project No.: 1621 -085 -000
Submitted By: J. LOCKE/D. CONNELL

Proximate (Dry)	Wt%
Ash	8.53
Volatile Matter	41.11
Fixed Carbon	50.36
BTU/lb	13818
MAF BTU/lb	15107

Ultimate (Dry)%	
Carbon	75.69
Hydrogen	5.00
Nitrogen	1.38
Chlorine	0.0755
Sulfur, Total	3.11
Ash	8.53
Oxygen (DIFF)	6.21

Major Ash Elem. (Ignited)	
SiO_2	42.72
Al_2O_3	21.69
TiO_2	0.89
Fe_2O_3	20.91
CaO	4.58
MgO	0.79
Na_2O	0.79
K_2O	1.38
P_2O_5	0.24
SO_3	3.74
Undetermined	2.27

Total Moisture 5.87

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	3.11

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 1.255 %

These values have been reviewed and are approved for transmission.

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Sample Description.: GREENIDGE COAL 5/1/07
Sample No.: NH3-4
Date Received: 05/11/2007
Date Completed: 05/31/2007

Analytical No.: 20072516
Project No.: 1621 -085 -000
Submitted By: J. LOCKE/D. CONNELL

Proximate (Dry)	Wt%
Ash	8.71
Volatile Matter	41.07
Fixed Carbon	50.22
BTU/lb	13784
MAF BTU/lb	15099

Ultimate (Dry)%	
Carbon	75.61
Hydrogen	5.26
Nitrogen	1.37
Chlorine	0.0882
Sulfur, Total	3.08
Ash	8.71
Oxygen (DIFF)	5.88

Major Ash Elem. (Ignited)	
SiO_2	43.03
Al_2O_3	21.76
TiO_2	0.90
Fe_2O_3	19.69
CaO	4.45
MgO	0.81
Na_2O	0.99
K_2O	1.42
P_2O_5	0.24
SO_3	4.43
Undetermined	2.28

Total Moisture 5.85

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	3.08

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 1.195 %

These values have been reviewed and are approved for transmission.

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Sample Description.: GREENIDGE COAL 5/2/07
Sample No.: SO3-1
Date Received: 05/11/2007
Date Completed: 05/31/2007

Analytical No.: 20072517
Project No.: 1621 -085 -000
Submitted By: J. LOCKE/D. CONNELL

Proximate (Dry)	Wt%
Ash	8.53
Volatile Matter	41.30
Fixed Carbon	50.17
BTU/lb	13819
MAF BTU/lb	15108

Ultimate (Dry)%	
Carbon	75.19
Hydrogen	5.12
Nitrogen	1.39
Chlorine	0.0636
Sulfur, Total	3.20
Ash	8.53
Oxygen (DIFF)	6.51

Major Ash Elem.	(Ignited)
SiO_2	43.40
Al_2O_3	22.08
TiO_2	0.91
Fe_2O_3	20.48
CaO	4.36
MgO	0.78
Na_2O	0.76
K_2O	1.40
P_2O_5	0.25
SO_3	4.16
Undetermined	1.42

Total Moisture 5.51

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	3.20

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm	(Dry)
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 1.185 %

These values have been reviewed and are approved for transmission.

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Sample Description.: GREENIDGE COAL 5/2/07
Sample No.: SO3-2
Date Received: 05/11/2007
Date Completed: 05/31/2007

Analytical No.: 20072518
Project No.: 1621 -085 -000
Submitted By: J. LOCKE/D. CONNELL

Proximate (Dry)	Wt%
Ash	8.75
Volatile Matter	41.37
Fixed Carbon	49.88
BTU/lb	13741
MAF BTU/lb	15059

Ultimate (Dry)%	
Carbon	75.14
Hydrogen	4.84
Nitrogen	1.35
Chlorine	0.0878
Sulfur, Total	3.38
Ash	8.75
Oxygen (DIFF)	6.45

Major Ash Elem. (Ignited)	
SiO2	42.03
Al2O3	21.33
TiO2	0.86
Fe2O3	22.42
CaO	4.42
MgO	0.76
Na2O	0.88
K2O	1.38
P2O5	0.23
SO3	4.56
Undetermined	1.13

Total Moisture 5.66

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	3.38

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 1.155 %

These values have been reviewed and are approved for transmission.

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Sample Description.: GREENIDGE COAL 5/2/07
Sample No.: SO3-3
Date Received: 05/11/2007
Date Completed: 05/31/2007

Analytical No.: 20072519
Project No.: 1621 -085 -000
Submitted By: J. LOCKE/D. CONNELL

Proximate (Dry)	Wt%
Ash	9.04
Volatile Matter	41.27
Fixed Carbon	49.69
BTU/lb	13685
MAF BTU/lb	15045

Ultimate (Dry)%	
Carbon	74.94
Hydrogen	4.94
Nitrogen	1.37
Chlorine	0.0942
Sulfur, Total	3.26
Ash	9.04
Oxygen (DIFF)	6.36

Major Ash Elem. (Ignited)	
SiO2	43.00
Al2O3	21.67
TiO2	0.87
Fe2O3	19.99
CaO	5.17
MgO	0.87
Na2O	1.20
K2O	1.46
P2O5	0.25
SO3	4.66
Undetermined	0.86

Total Moisture 5.58

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	3.26

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 1.3 %

These values have been reviewed and are approved for transmission.

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Sample Description.: **GREENIDGE COAL 5/4/07**
Sample No.: AG-1
Date Received: 05/11/2007
Date Completed: 05/31/2007

Analytical No.: **20072520**
Project No.: 1621 -085 -000
Submitted By: J. LOCKE/D. CONNELL

Proximate (Dry)	**Wt%**
Ash	8.60
Volatile Matter	41.39
Fixed Carbon	50.01
BTU/lb	13732
MAF BTU/lb	15024

Ultimate (Dry)%	
Carbon	76.24
Hydrogen	4.83
Nitrogen	1.35
Chlorine	0.0662
Sulfur, Total	3.32
Ash	8.60
Oxygen (DIFF)	5.59

Major Ash Elem. (Ignited)	
SiO_2	43.14
Al_2O_3	22.03
TiO_2	0.90
Fe_2O_3	21.13
CaO	4.77
MgO	0.83
Na_2O	0.75
K_2O	1.40
P_2O_5	0.27
SO_3	3.88
Undetermined	0.90

Total Moisture	5.94

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	3.32

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 1.295 %

These values have been reviewed and are approved for transmission.

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Sample Description.: GREENIDGE COAL 5/4/07
Sample No.: AG-2
Date Received: 05/11/2007
Date Completed: 05/31/2007

Analytical No.: 20072521
Project No.: 1621 -085 -000
Submitted By: J. LOCKE/D. CONNELL

Proximate (Dry)	Wt%
Ash	8.85
Volatile Matter	41.31
Fixed Carbon	49.84
BTU/lb	13762
MAF BTU/lb	15098

Ultimate (Dry)%	
Carbon	75.13
Hydrogen	5.01
Nitrogen	1.39
Chlorine	0.0957
Sulfur, Total	3.25
Ash	8.85
Oxygen (DIFF)	6.27

Major Ash Elem. (Ignited)	
SiO2	43.06
Al2O3	21.81
TiO2	0.87
Fe2O3	20.24
CaO	4.99
MgO	0.81
Na2O	0.99
K2O	1.43
P2O5	0.24
SO3	4.66
Undetermined	0.90

Total Moisture 5.97

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	3.25

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 1.315 %

These values have been reviewed and are approved for transmission.

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Sample Description.: AHO ASH 5/1/07
Sample No.: NH3-1
Date Received: 05/11/2007
Date Completed: 05/31/2007

Analytical No.: 20072522
Project No.: 1621 -085 -000
Submitted By: J. LOCKE/D. CONNELL

Proximate (Dry)	Wt%
Ash	77.06
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	23.79
Hydrogen	
Nitrogen	
Chlorine	<.0005
Sulfur, Total	0.44
Ash	77.06
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO_2	34.53
Al_2O_3	16.86
TiO_2	0.72
Fe_2O_3	14.85
CaO	3.72
MgO	0.61
Na_2O	0.62
K_2O	1.09
P_2O_5	0.15
SO_3	1.11
Undetermined	25.74

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	0.44

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.2 %

These values have been reviewed and are approved for transmission.

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Sample Description.: **AHO ASH 5/1/07**
Sample No.: NH3-2
Date Received: 05/11/2007
Date Completed: 05/31/2007

Analytical No.: **20072523**
Project No.: 1621 -085 -000
Submitted By: J. LOCKE/D. CONNELL

Proximate (Dry)	Wt%
Ash	83.09
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	16.26
Hydrogen	
Nitrogen	
Chlorine	0.0138
Sulfur, Total	0.54
Ash	83.09
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO2	39.20
Al2O3	19.74
TiO2	0.89
Fe2O3	14.74
CaO	3.90
MgO	0.73
Na2O	0.78
K2O	1.35
P2O5	0.22
SO3	1.34
Undetermined	17.11

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	0.54

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 1.07 %

These values have been reviewed and are approved for transmission.

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Sample Description.: **AHO ASH 5/1/07**
Sample No.: NH3-3
Date Received: 05/11/2007
Date Completed: 05/31/2007

Analytical No.: **20072524**
Project No.: 1621 -085 -000
Submitted By: J. LOCKE/D. CONNELL

Proximate (Dry)	Wt%
Ash	84.20
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	15.09
Hydrogen	
Nitrogen	
Chlorine	0.0065
Sulfur, Total	0.53
Ash	84.20
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO2	39.63
Al2O3	20.07
TiO2	0.90
Fe2O3	14.87
CaO	4.07
MgO	0.75
Na2O	0.79
K2O	1.38
P2O5	0.21
SO3	1.30
Undetermined	16.03

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	0.53

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 1.08 %

These values have been reviewed and are approved for transmission.

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Sample Description.: AHO ASH 5/1/07
Sample No.: NH3-4
Date Received: 05/11/2007
Date Completed: 05/31/2007

Analytical No.: 20072525
Project No.: 1621 -085 -000
Submitted By: J. LOCKE/D. CONNELL

Proximate (Dry)	Wt%
Ash	80.32
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	20.83
Hydrogen	
Nitrogen	
Chlorine	0.0041
Sulfur, Total	0.52
Ash	80.32
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO2	38.90
Al2O3	19.38
TiO2	0.87
Fe2O3	15.29
CaO	4.01
MgO	0.69
Na2O	0.71
K2O	1.26
P2O5	0.18
SO3	1.29
Undetermined	17.42

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	0.52

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.38 %

These values have been reviewed and are approved for transmission.

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Sample Description.: AHO ASH 5/2/07

Sample No.:	SO3-1	**Analytical No.:**	**20072526**
Date Received:	05/11/2007	**Project No.:**	1621 -085 -000
Date Completed:	05/31/2007	**Submitted By:**	J. LOCKE/D. CONNELL

Proximate (Dry)	**Wt%**
Ash	75.73
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	24.71
Hydrogen	
Nitrogen	
Chlorine	0.0025
Sulfur, Total	0.05
Ash	75.73
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO2	35.99
Al2O3	18.33
TiO2	0.82
Fe2O3	16.16
CaO	3.85
MgO	0.65
Na2O	0.67
K2O	1.20
P2O5	0.18
SO3	1.27
Undetermined	20.88

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	0.05

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.165 %

These values have been reviewed and are approved for transmission.

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Sample Description.: AHO ASH 5/2/07
Sample No.: SO3-2
Date Received: 05/11/2007
Date Completed: 05/31/2007

Analytical No.: 20072527
Project No.: 1621 -085 -000
Submitted By: J. LOCKE/D. CONNELL

Proximate (Dry)	Wt%
Ash	74.67
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	26.20
Hydrogen	
Nitrogen	
Chlorine	0.0018
Sulfur, Total	0.50
Ash	74.67
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO_2	34.71
Al_2O_3	17.06
TiO_2	0.75
Fe_2O_3	16.49
CaO	3.75
MgO	0.60
Na_2O	0.64
K_2O	1.08
P_2O_5	0.14
SO_3	1.24
Undetermined	23.54

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	0.50

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.11 %

These values have been reviewed and are approved for transmission.

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Sample Description.: AHO ASH 5/2/07
Sample No.: SO3-3
Date Received: 05/11/2007
Date Completed: 06/01/2007

Analytical No.: 20072528
Project No.: 1621 -085 -000
Submitted By: J. LOCKE/D. CONNELL

Proximate (Dry)	Wt%
Ash	79.08
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	21.10
Hydrogen	
Nitrogen	
Chlorine	0.0137
Sulfur, Total	0.52
Ash	79.08
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO2	37.21
Al2O3	17.91
TiO2	0.80
Fe2O3	14.82
CaO	4.12
MgO	0.71
Na2O	0.72
K2O	1.31
P2O5	0.19
SO3	1.30
Undetermined	20.91

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	0.52

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.79 %

These values have been reviewed and are approved for transmission. JWT

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Sample Description.:	**AHO ASH 5/4/07**	**Analytical No.:**	**20072529**
Sample No.:	AG-1	**Project No.:**	1621 -085 -000
Date Received:	05/11/2007	**Submitted By:**	J. LOCKE/D. CONNELL
Date Completed:	06/01/2007		

Proximate (Dry) Wt%

Ash	78.76
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%

Carbon	19.63
Hydrogen	
Nitrogen	
Chlorine	0.0023
Sulfur, Total	0.50
Ash	78.76
Oxygen (DIFF)	

Major Ash Elem. (Dry)

SiO_2	37.65
Al_2O_3	17.52
TiO_2	0.81
Fe_2O_3	14.86
CaO	4.17
MgO	0.70
Na_2O	0.68
K_2O	1.21
P_2O_5	0.16
SO_3	1.24
Undetermined	21.00

Total Moisture

Sulfur Forms (Dry)

Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	0.50

Ash Fusion Reducing Temp (F)

Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing

Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)

Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.19 %

These values have been reviewed and are approved for transmission. JMT

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Sample Description.: AHO ASH 5/4/07
Sample No.: AG-2
Date Received: 05/11/2007
Date Completed: 06/01/2007

Analytical No.: 20072530
Project No.: 1621 -085 -000
Submitted By: J. LOCKE/D. CONNELL

Proximate (Dry)	Wt%
Ash	80.01
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	17.71
Hydrogen	
Nitrogen	
Chlorine	0.0060
Sulfur, Total	0.65
Ash	80.01
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO_2	38.72
Al_2O_3	18.73
TiO_2	0.89
Fe_2O_3	12.99
CaO	4.23
MgO	0.76
Na_2O	0.75
K_2O	1.32
P_2O_5	0.18
SO_3	1.60
Undetermined	19.83

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	0.65

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.905 %

These values have been reviewed and are approved for transmission. JWF

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Sample Description.: TURBOSORB MARCH 28 11:30
Sample No.: TEST 1
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: **20071805**
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry) Wt%

Ash	81.48
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%

Carbon	19.10
Hydrogen	
Nitrogen	
Chlorine	0.0270
Sulfur, Total	
Ash	81.48
Oxygen (DIFF)	

Major Ash Elem. (Dry)

SiO_2	25.86
Al_2O_3	11.66
TiO_2	0.46
Fe_2O_3	37.54
CaO	4.91
MgO	0.46
Na_2O	0.38
K_2O	0.69
P_2O_5	0.28
SO_3	1.50
Undetermined	16.26

Total Moisture

Sulfur Forms (Dry)

Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)

Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing

Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)

Hg	0.134
F	58.16
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.1 %

These values have been reviewed and are approved for transmission. JMF

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Sample Description.: TURBOSORB MARCH 28 16:00
Sample No.: TEST 2
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071806
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry) Wt%

Ash	82.45
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%

Carbon	17.99
Hydrogen	
Nitrogen	
Chlorine	0.0180
Sulfur, Total	
Ash	82.45
Oxygen (DIFF)	

Major Ash Elem. (Dry)

SiO2	25.48
Al2O3	10.36
TiO2	0.46
Fe2O3	40.28
CaO	7.06
MgO	0.54
Na2O	0.31
K2O	0.54
P2O5	0.35
SO3	2.10
Undetermined	12.52

Total Moisture

Sulfur Forms (Dry)

Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)

Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing

Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)

Hg	0.123
F	59.55
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.09 %

These values have been reviewed and are approved for transmission.

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Sample Description.: TURBOSORB MARCH 28 20:00
Sample No.: TEST 3
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071807
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry) Wt%

Ash	79.20
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%

Carbon	21.20
Hydrogen	
Nitrogen	
Chlorine	0.0160
Sulfur, Total	
Ash	79.20
Oxygen (DIFF)	

Major Ash Elem. (Dry)

SiO_2	26.31
Al_2O_3	11.96
TiO_2	0.47
Fe_2O_3	32.91
CaO	5.10
MgO	0.49
Na_2O	0.38
K_2O	0.70
P_2O_5	0.32
SO_3	1.52
Undetermined	19.84

Total Moisture

Sulfur Forms (Dry)

Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)

Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing

Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)

Hg	0.141
F	57.27
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.12 %

These values have been reviewed and are approved for transmission.

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Sample Description.: TURBOSORB MARCH 30 10:00
Sample No.: TEST 1
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071835
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	74.83
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	26.38
Hydrogen	
Nitrogen	
Chlorine	0.0230
Sulfur, Total	
Ash	74.83
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO_2	26.34
Al_2O_3	12.01
TiO_2	0.45
Fe_2O_3	29.96
CaO	5.46
MgO	0.48
Na_2O	0.42
K_2O	0.71
P_2O_5	0.28
SO_3	1.47
Undetermined	22.42

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.139
F	53.13
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.06 %

These values have been reviewed and are approved for transmission.

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Sample Description.: TURBOSORB MARCH 30 13:45
Sample No.: TEST 2
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071836
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	82.78
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	16.36
Hydrogen	
Nitrogen	
Chlorine	0.0160
Sulfur, Total	
Ash	82.78
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO2	26.73
Al2O3	12.18
TiO2	0.48
Fe2O3	34.00
CaO	8.09
MgO	0.54
Na2O	0.42
K2O	0.71
P2O5	0.26
SO3	2.38
Undetermined	14.21

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.105
F	53.34
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.08 %

These values have been reviewed and are approved for transmission.

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Sample Description.: **TURBOSORB MARCH 30 16:45**

Sample No.:	TEST 3	**Analytical No.:**	**20071837**
Date Received:	04/03/2007	**Project No.:**	1621 -085 -000
Date Completed:	04/19/2007	**Submitted By:**	D. CONNELL

Proximate (Dry)	Wt%
Ash	81.88
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	17.48
Hydrogen	
Nitrogen	
Chlorine	0.0181
Sulfur, Total	
Ash	81.88
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO_2	26.05
Al_2O_3	11.73
TiO_2	0.46
Fe_2O_3	34.54
CaO	7.04
MgO	0.52
Na_2O	0.40
K_2O	0.68
P_2O_5	0.25
SO_3	2.46
Undetermined	15.87

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.107
F	53.39
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.35 %

These values have been reviewed and are approved for transmission

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Sample Description.: PRODUCT/FLY ASH MARCH 28 10:00
Sample No.: TEST 1
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071799
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	84.57
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	8.05
Hydrogen	
Nitrogen	
Chlorine	0.2762
Sulfur, Total	
Ash	84.57
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO_2	12.28
Al_2O_3	6.08
TiO_2	0.26
Fe_2O_3	4.55
CaO	37.53
MgO	0.64
Na_2O	0.32
K_2O	0.45
P_2O_5	0.14
SO_3	22.79
Undetermined	14.96

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.346
F	80.74
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.79 %

These values have been reviewed and are approved for transmission.

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Sample Description.: PRODUCT/FLY ASH MARCH 28 11:00
Sample No.: TEST 1
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071800
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	84.58
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	8.18
Hydrogen	
Nitrogen	
Chlorine	0.2957
Sulfur, Total	
Ash	84.58
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO2	12.18
Al2O3	6.06
TiO2	0.26
Fe2O3	4.55
CaO	37.78
MgO	0.65
Na2O	0.32
K2O	0.45
P2O5	0.12
SO3	22.79
Undetermined	14.84

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.347
F	92.54
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.91 %

These values have been reviewed and are approved for transmission. JMT

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Sample Description.: PRODUCT/FLY ASH MARCH 28 14:00

Sample No.: TEST 2

Date Received: 04/03/2007

Date Completed: 04/19/2007

Analytical No.: 20071801

Project No.: 1621 -085 -000

Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	84.37
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	8.13
Hydrogen	
Nitrogen	
Chlorine	0.2909
Sulfur, Total	
Ash	84.37
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO2	11.85
Al2O3	5.93
TiO2	0.25
Fe2O3	4.40
CaO	38.14
MgO	0.64
Na2O	0.30
K2O	0.43
P2O5	0.12
SO3	23.11
Undetermined	14.83

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.360
F	83.95
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.65 %

These values have been reviewed and are approved for transmission. JMF

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Sample Description.: **PRODUCT/FLY ASH MARCH 28 15:50**
Sample No.: TEST 2
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: **20071802**
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry) Wt%

Ash	84.77
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%

Carbon	7.67
Hydrogen	
Nitrogen	
Chlorine	0.2681
Sulfur, Total	
Ash	84.77
Oxygen (DIFF)	

Major Ash Elem. (Dry)

SiO_2	11.65
Al_2O_3	5.85
TiO_2	0.25
Fe_2O_3	4.29
CaO	38.06
MgO	0.64
Na_2O	0.31
K_2O	0.43
P_2O_5	0.13
SO_3	23.16
Undetermined	15.23

Total Moisture

Sulfur Forms (Dry)

Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)

Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing

Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)

Hg	0.367
F	83.06
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.8 %

These values have been reviewed and are approved for transmission: JWT

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Sample Description.: PRODUCT/FLY ASH MARCH 28 17:15
Sample No.: TEST 3
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071803
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	84.78
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	7.61
Hydrogen	
Nitrogen	
Chlorine	0.2781
Sulfur, Total	
Ash	84.78
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO2	11.82
Al2O3	5.94
TiO2	0.26
Fe2O3	4.35
CaO	37.77
MgO	0.63
Na2O	0.30
K2O	0.43
P2O5	0.11
SO3	23.16
Undetermined	15.23

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical	
Fluid	

Misc.

Analysis Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.363
F	87.36
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.75 %

These values have been reviewed and are approved for transmission. JMT

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Sample Description.: **PRODUCT/FLY ASH MARCH 28 19:20**
Sample No.: TEST 3
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: **20071804**
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	84.75
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	7.47
Hydrogen	
Nitrogen	
Chlorine	0.2965
Sulfur, Total	
Ash	84.75
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO2	11.37
Al2O3	5.71
TiO2	0.25
Fe2O3	4.23
CaO	37.47
MgO	0.63
Na2O	0.30
K2O	0.44
P2O5	0.11
SO3	22.62
Undetermined	16.87

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.372
F	91.17
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.84 %

These values have been reviewed and are approved for transmission. JmF

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Sample Description.: **PRODUCT/FLY ASH MARCH 29 9:30**

Sample No.:	TEST 1	**Analytical No.:**	**20071817**
Date Received:	04/03/2007	**Project No.:**	1621 -085 -000
Date Completed:	04/19/2007	**Submitted By:**	D. CONNELL

Proximate (Dry)	Wt%
Ash	83.72
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	8.23
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	83.72
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO2	12.41
Al2O3	6.17
TiO2	0.26
Fe2O3	4.62
CaO	38.84
MgO	0.66
Na2O	0.32
K2O	0.46
P2O5	0.11
SO3	21.14
Undetermined	15.01

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.369
F	79.58
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.98 %

These values have been reviewed and are approved for transmission. JM7

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Sample Description.: **PRODUCT/FLY ASH MARCH 29 13:30**
Sample No.: TEST 2
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: **20071818**
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	84.23
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	8.07
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	84.23
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO2	12.06
Al2O3	6.05
TiO2	0.26
Fe2O3	4.49
CaO	38.45
MgO	0.65
Na2O	0.31
K2O	0.45
P2O5	0.13
SO3	21.90
Undetermined	15.25

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.377
F	76.45
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.98 %

These values have been reviewed and are approved for transmission. JMT

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Sample Description.: PRODUCT/FLY ASH MARCH 29 16:30
Sample No.: TEST 3
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071819
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	83.30
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	7.96
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	83.30
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO2	12.03
Al2O3	6.06
TiO2	0.26
Fe2O3	4.33
CaO	38.18
MgO	0.63
Na2O	0.31
K2O	0.44
P2O5	0.14
SO3	21.91
Undetermined	15.71

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.395
F	72.58
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.66 %

These values have been reviewed and are approved for transmission.

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Sample Description.: PRODUCT/FLY ASH MARCH 30 11:15
Sample No.: TEST 1
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071832
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry) Wt%

Ash	83.24
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%

Carbon	8.34
Hydrogen	
Nitrogen	
Chlorine	0.2132
Sulfur, Total	
Ash	83.24
Oxygen (DIFF)	

Major Ash Elem. (Dry)

SiO_2	12.93
Al_2O_3	6.61
TiO_2	0.29
Fe_2O_3	4.52
CaO	37.10
MgO	0.65
Na_2O	0.33
K_2O	0.48
P_2O_5	0.13
SO_3	20.92
Undetermined	16.04

Total Moisture

Sulfur Forms (Dry)

Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)

Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing

Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)

Hg	0.379
F	91.81
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.56 %

These values have been reviewed and are approved for transmission.

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Sample Description.: PRODUCT/FLY ASH MARCH 30 13:45

Sample No.: TEST 2

Date Received: 04/03/2007

Date Completed: 04/19/2007

Analytical No.: 20071833

Project No.: 1621 -085 -000

Submitted By: D. CONNELL

Proximate (Dry) Wt%

Ash	83.64
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%

Carbon	8.16
Hydrogen	
Nitrogen	
Chlorine	0.2697
Sulfur, Total	
Ash	83.64
Oxygen (DIFF)	

Major Ash Elem. (Dry)

SiO_2	12.59
Al_2O_3	6.28
TiO_2	0.27
Fe_2O_3	4.73
CaO	38.21
MgO	0.66
Na_2O	0.33
K_2O	0.48
P_2O_5	0.13
SO_3	21.57
Undetermined	14.75

Total Moisture

Sulfur Forms (Dry)

Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)

Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing

Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)

Hg	0.349
F	82.12
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.63 %

These values have been reviewed and are approved for transmission. JMT

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Sample Description.: **PRODUCT/FLY ASH MARCH 30 16:45**

Sample No.:	TEST 3	**Analytical No.:**	**20071834**
Date Received:	04/03/2007	**Project No.:**	1621 -085 -000
Date Completed:	04/19/2007	**Submitted By:**	D. CONNELL

Proximate (Dry)	Wt%
Ash	83.69
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	8.12
Hydrogen	
Nitrogen	
Chlorine	0.2804
Sulfur, Total	
Ash	83.69
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO_2	12.12
Al_2O_3	6.06
TiO_2	0.26
Fe_2O_3	4.57
CaO	38.77
MgO	0.66
Na_2O	0.33
K_2O	0.47
P_2O_5	0.12
SO_3	21.84
Undetermined	14.80

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.352
F	80.31
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.51 %

These values have been reviewed and are approved for transmission. JMT

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Sample Description.: PEBBLE LIME MARCH 28 10:00
Sample No.: TEST 1
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071811
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	97.74
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	0.37
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	97.74
Oxygen (DIFF)	

Major Ash Elem. (AsDet)	
SiO2	1.06
Al2O3	0.48
TiO2	0.02
Fe2O3	0.20
CaO	95.22
MgO	1.11
Na2O	0.08
K2O	0.07
P2O5	0.01
SO3	0.16
Undetermined	1.59

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm	(Dry)
Hg	<0.005
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0 %

These values have been reviewed and are approved for transmission. JMF

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Sample Description.: PEBBLE LIME MARCH 28 14:30
Sample No.: TEST 2
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071812
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	95.88
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	1.36
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	95.88
Oxygen (DIFF)	

Major Ash Elem. (AsDet)	
SiO2	1.07
Al2O3	0.49
TiO2	0.02
Fe2O3	0.25
CaO	91.37
MgO	2.88
Na2O	0.06
K2O	0.06
P2O5	0.01
SO3	0.18
Undetermined	3.61

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	<0.005
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0 %

These values have been reviewed and are approved for transmission. JMF

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Sample Description.: PEBBLE LIME MARCH 28 17:15

Sample No.:	TEST 3	**Analytical No.:**	**20071813**
Date Received:	04/03/2007	**Project No.:**	1621 -085 -000
Date Completed:	04/19/2007	**Submitted By:**	D. CONNELL

Proximate (Dry) Wt%

Ash	98.69
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%

Carbon	0.14
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	98.69
Oxygen (DIFF)	

Major Ash Elem. (AsDet)

SiO2	0.98
Al2O3	0.48
TiO2	0.02
Fe2O3	0.21
CaO	96.28
MgO	1.04
Na2O	0.08
K2O	0.06
P2O5	0.01
SO3	0.17
Undetermined	0.67

Total Moisture

Sulfur Forms (Dry)

Pyritic Sulfur
Sulfate
Organic
Sulfur, Total

Ash Fusion Reducing Temp (F)

Initial
Softening
Hemispherical.
Fluid

Ash Fusion Oxidizing

Initial
Softening
Hemispherical.
Fluid

Misc.

Analysis Value

HGI/FSI

HGI
FSI

Trace Elements (ppm (Dry)

Hg	<0.005
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0 %

These values have been reviewed and are approved for transmission JWF

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Sample Description.: PEBBLE LIME MARCH 29 9:30
Sample No.: TEST 1
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071826
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	97.87
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	0.31
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	97.87
Oxygen (DIFF)	

Major Ash Elem. (AsDet)	
SiO2	1.03
Al2O3	0.54
TiO2	<0.03
Fe2O3	0.23
CaO	95.21
MgO	1.04
Na2O	0.05
K2O	<0.03
P2O5	<0.03
SO3	0.14
Undetermined	1.76

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0 %

These values have been reviewed and are approved for transmission. JMT

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Sample Description.: PEBBLE LIME MARCH 29 13:30
Sample No.: TEST 2
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071827
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	97.51
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	0.30
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	97.51
Oxygen (DIFF)	

Major Ash Elem. (AsDet)	
SiO2	1.61
Al2O3	0.49
TiO2	0.02
Fe2O3	0.21
CaO	96.64
MgO	1.05
Na2O	0.09
K2O	0.07
P2O5	<0.01
SO3	0.15
Undetermined	-0.33

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0 %

These values have been reviewed and are approved for transmission. JMT

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Sample Description.: PEBBLE LIME MARCH 29 16:30
Sample No.: TEST 3
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071828
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	96.01
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	0.38
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	96.01
Oxygen (DIFF)	

Major Ash Elem. (AsDet)	
SiO2	1.33
Al2O3	0.43
TiO2	0.02
Fe2O3	0.19
CaO	95.51
MgO	0.98
Na2O	0.08
K2O	0.06
P2O5	<0.01
SO3	0.17
Undetermined	1.23

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0 %

These values have been reviewed and are approved for transmission. JWT

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Sample Description.: PEBBLE LIME MARCH 30 10:00
Sample No.: TEST 1
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071841
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	97.95
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	0.62
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	97.95
Oxygen (DIFF)	

Major Ash Elem. (AsDet)	
SiO_2	0.65
Al_2O_3	0.44
TiO_2	<0.03
Fe_2O_3	0.18
CaO	96.09
MgO	0.96
Na_2O	0.06
K_2O	0.04
P_2O_5	<0.03
SO_3	0.09
Undetermined	1.49

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.005
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0 %

These values have been reviewed and are approved for transmission.

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Sample Description.: PEBBLE LIME MARCH 30 13:45
Sample No.: TEST 2
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071842
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry) Wt%

Ash	98.11
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%

Carbon	0.48
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	98.11
Oxygen (DIFF)	

Major Ash Elem. (AsDet)

SiO_2	1.81
Al_2O_3	0.46
TiO_2	<0.03
Fe_2O_3	0.18
CaO	95.10
MgO	0.95
Na_2O	0.05
K_2O	0.03
P_2O_5	<0.03
SO_3	0.10
Undetermined	1.32

Total Moisture

Sulfur Forms (Dry)

Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)

Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing

Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)

Hg	0.004
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0 %

These values have been reviewed and are approved for transmission.

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Sample Description.: PEBBLE LIME MARCH 30 16:45
Sample No.: TEST 3
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071843
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry) Wt%

Ash	99.08
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%

Carbon	0.31
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	99.08
Oxygen (DIFF)	

Major Ash Elem. (AsDet)

SiO2	2.34
Al2O3	0.46
TiO2	<0.03
Fe2O3	0.18
CaO	95.17
MgO	0.99
Na2O	0.06
K2O	<0.03
P2O5	<0.03
SO3	0.12
Undetermined	0.68

Total Moisture

Sulfur Forms (Dry)

Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)

Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing

Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)

Hg	0.004
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0 %

These values have been reviewed and are approved for transmission. JMF

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Sample Description.: HYDRATED LIME MARCH 28 11:00
Sample No.: TEST 1
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071808
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry) Wt%

Ash	76.43
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%

Carbon	0.32
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	76.43
Oxygen (DIFF)	

Major Ash Elem. (Dry)

SiO2	0.83
Al2O3	0.40
TiO2	0.02
Fe2O3	0.16
CaO	75.45
MgO	0.82
Na2O	0.08
K2O	0.05
P2O5	0.01
SO3	0.13
Undetermined	22.05

Total Moisture

Sulfur Forms (Dry)

Pyritic Sulfur
Sulfate
Organic
Sulfur, Total

Ash Fusion Reducing Temp (F)

Initial
Softening
Hemispherical.
Fluid

Ash Fusion Oxidizing

Initial
Softening
Hemispherical.
Fluid

Misc.

Analysis Value

HGI/FSI

HGI
FSI

Trace Elements (ppm (Dry)

Hg	0.005
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE WT %

As Determined Moisture 0.27 %

These values have been reviewed and are approved for transmission. [signature]

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Sample Description.: HYDRATED LIME MARCH 28 14:30
Sample No.: TEST 2
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071809
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	76.39
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	0.30
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	76.39
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO2	0.73
Al2O3	0.40
TiO2	0.02
Fe2O3	0.16
CaO	74.30
MgO	0.82
Na2O	0.07
K2O	0.05
P2O5	0.01
SO3	0.12
Undetermined	23.32

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI

HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	<0.005
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.29 %

These values have been reviewed and are approved for transmission: JMT

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Sample Description.: HYDRATED LIME MARCH 28 17:00
Sample No.: TEST 3
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071810
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	**Wt%**
Ash	76.39
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	0.32
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	76.39
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO2	0.71
Al2O3	0.41
TiO2	0.02
Fe2O3	0.16
CaO	74.19
MgO	0.81
Na2O	0.07
K2O	0.05
P2O5	0.01
SO3	0.17
Undetermined	23.40

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	<0.005
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.35 %

These values have been reviewed and are approved for transmission. JMF

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Sample Description.: HYDRATED LIME MARCH 29 9:30
Sample No.: TEST 1
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071823
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	75.73
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	0.44
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	75.73
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO2	1.31
Al2O3	0.38
TiO2	0.02
Fe2O3	0.14
CaO	70.01
MgO	0.80
Na2O	0.01
K2O	0.04
P2O5	0.01
SO3	0.20
Undetermined	27.08

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.09 %

These values have been reviewed and are approved for transmission: JmT

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Sample Description.: HYDRATED LIME MARCH 29 13:30
Sample No.: TEST 2
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071824
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	75.52
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	0.58
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	75.52
Oxygen (DIFF)	

Major Ash Elem.	(AsDet)
SiO_2	1.31
Al_2O_3	0.38
TiO_2	0.02
Fe_2O_3	0.18
CaO	69.05
MgO	0.80
Na_2O	0.02
K_2O	0.04
P_2O_5	0.02
SO_3	0.21
Undetermined	27.97

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0 %

These values have been reviewed and are approved for transmission. JWF

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Sample Description.: HYDRATED LIME MARCH 29 16:30
Sample No.: TEST 3
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071825
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	75.92
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	0.42
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	75.92
Oxygen (DIFF)	

Major Ash Elem. (AsDet)	
SiO2	1.31
Al2O3	0.37
TiO2	0.02
Fe2O3	0.14
CaO	70.83
MgO	0.81
Na2O	0.02
K2O	0.04
P2O5	0.01
SO3	0.18
Undetermined	26.27

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0 %

These values have been reviewed and are approved for transmission. JMT

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Sample Description.: **HYDRATED LIME MARCH 30 10:00**
Sample No.: TEST 1
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: **20071838**
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry) Wt%

Ash	75.74
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%

Carbon	0.39
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	75.74
Oxygen (DIFF)	

Major Ash Elem. (AsDet)

SiO_2	1.31
Al_2O_3	0.36
TiO_2	0.01
Fe_2O_3	0.16
CaO	70.94
MgO	0.80
Na_2O	0.03
K_2O	0.06
P_2O_5	0.01
SO_3	0.20
Undetermined	26.12

Total Moisture

Sulfur Forms (Dry)

Pyritic Sulfur
Sulfate
Organic
Sulfur, Total

Ash Fusion Reducing Temp (F)

Initial
Softening
Hemispherical.
Fluid

Ash Fusion Oxidizing

Initial
Softening
Hemispherical.
Fluid

Misc.

Analysis	Value

HGI/FSI

HGI
FSI

Trace Elements (ppm (Dry)

Hg	0.006
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0 %

These values have been reviewed and are approved for transmission

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Sample Description.: HYDRATED LIME MARCH 30 13:45
Sample No.: TEST 2
Date Received: 04/03/2007
Date Completed: 04/19/2007

Analytical No.: 20071839
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	76.00
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	0.45
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	76.00
Oxygen (DIFF)	

Major Ash Elem. (AsDet)	
SiO2	1.34
Al2O3	0.36
TiO2	0.01
Fe2O3	0.14
CaO	71.24
MgO	0.80
Na2O	0.02
K2O	0.05
P2O5	<0.01
SO3	0.22
Undetermined	25.82

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.005
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0 %

These values have been reviewed and are approved for transmission. JMF

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Sample Description.:	**HYDRATED LIME MARCH 30 16:45**		
Sample No.:	TEST 3	**Analytical No.:**	**20071840**
Date Received:	04/03/2007	**Project No.:**	1621 -085 -000
Date Completed:	04/19/2007	**Submitted By:**	D. CONNELL

Proximate (Dry)	Wt%
Ash	76.32
Volatile Matter	
Fixed Carbon	
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	0.39
Hydrogen	
Nitrogen	
Chlorine	
Sulfur, Total	
Ash	76.32
Oxygen (DIFF)	

Major Ash Elem. (Dry)	
SiO_2	1.25
Al_2O_3	0.35
TiO_2	0.01
Fe_2O_3	0.14
CaO	71.31
MgO	0.80
Na_2O	0.02
K_2O	0.04
P_2O_5	0.03
SO_3	0.17
Undetermined	25.88

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.004
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 0.06 %

These values have been reviewed and are approved for transmission. JWT

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Sample Description.: ACTIVATED CARBON 3/29/07
Sample No.: 15:30
Date Received: 04/04/2007
Date Completed: 04/20/2007

Analytical No.: **20071845**
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	8.24
Volatile Matter	4.63
Fixed Carbon	87.13
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	90.95
Hydrogen	
Nitrogen	0.37
Chlorine	
Sulfur, Total	0.37
Ash	8.24
Oxygen (DIFF)	

Major Ash Elem. (Ignited)	
SiO2	2.11
Al2O3	4.10
TiO2	0.35
Fe2O3	13.52
CaO	40.93
MgO	19.20
Na2O	4.04
K2O	0.31
P2O5	0.03
SO3	16.20
Undetermined	-0.79

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	0.37

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.005
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis SIZE	WT %

As Determined Moisture 1.21 %

These values have been reviewed and are approved for transmission. JWJ

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Sample Description.: ACTIVATED CARBON 3/30/07
Sample No.: 12:00
Date Received: 04/04/2007
Date Completed: 04/20/2007

Analytical No.: 20071844
Project No.: 1621 -085 -000
Submitted By: D. CONNELL

Proximate (Dry)	Wt%
Ash	8.33
Volatile Matter	4.50
Fixed Carbon	87.17
BTU/lb	
MAF BTU/lb	

Ultimate (Dry)%	
Carbon	90.66
Hydrogen	
Nitrogen	0.40
Chlorine	
Sulfur, Total	0.39
Ash	8.33
Oxygen (DIFF)	

Major Ash Elem. (Ignited)	
SiO_2	1.02
Al_2O_3	3.53
TiO_2	0.33
Fe_2O_3	13.27
CaO	39.96
MgO	20.14
Na_2O	5.80
K_2O	0.50
P_2O_5	
SO_3	14.61
Undetermined	0.84

Total Moisture

Sulfur Forms (Dry)	
Pyritic Sulfur	
Sulfate	
Organic	
Sulfur, Total	0.39

Ash Fusion Reducing Temp (F)	
Initial	
Softening	
Hemispherical.	
Fluid	

Ash Fusion Oxidizing	
Initial	
Softening	
Hemispherical.	
Fluid	

Misc.

Analysis	Value

HGI/FSI	
HGI	
FSI	

Trace Elements (ppm (Dry)	
Hg	0.004
F	
As	
Ba	
Be	
Cd	
Co	
Cr	
Cu	
Li	
Mn	
Mo	
Ni	
Pb	
Sb	
Se	
Sn	
Th	
Tl	
U	
V	
Zn	

Seive Analysis

SIZE	WT %

As Determined Moisture 1.17 %

These values have been reviewed and are approved for transmission. JMF

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AES GREENIDGE UREA COMP 3/28/2007

Sample No.: 3/28/2007
Date Received: 04/18/2007
Date Completed: 07/19/2007

Analytical No.: **20071971**
Project No.: 1621 -085 -000
Submitter: D. CONNELL

Water Result
(mg/L unless noted otherwise)

Parameter	Value	Value	Units	Avg Value
pH	9.56			
Acidity, $CaCO_3$				
Alkalinity, $CaCO_3$				
Hydroxide, $CaCO_3$				
Carbonate, $CaCO_3$				
Bicarbonate, $CaCO_3$				
Total Suspended Solids	<6			
Total Dissolved Solids				
Specific Conductivity				
Hardness				
Turbidity				
Osmotic Pressure				
Dissolved Oxygen				
Ammonia, N	595			
Total Elements				
Aluminum				
Calcium				
Iron				
Magnesium				
Manganese				
Potassium				
Phosphorous				
Silicon				
Sodium				
Chromium				
Anions:				
Sulfate				
Chloride				
Nitrate, N				
Nitrite, N				
Bromide				
Fluoride				
COD				

Quality Control Calculations

Ion Sum	0.00
Cation Sum	0.00
Anion Sum	0.00
Ion Balance	0.00
% Ion Imbalance	0.00

Analysis

Density	1.14
Orthophosp	45.20

These values have been reviewed and are approved for transmission. JWT

CONSOL ENERGY

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4000 Brownsville Rd.
South Park, PA 15129

AES GREENIDGE UREA COMP 3/30/2007

Sample No.: 3/30/2007
Date Received: 04/18/2007
Date Completed: 07/19/2007

Analytical No.: **20071972**
Project No.: 1621 -085 -000
Submitter: D. CONNELL

Water Result
(mg/L unless noted otherwise)

Parameter	Value	Value	Units	Avg Value
pH	9.40			
Acidity, $CaCO_3$				
Alkalinity, $CaCO_3$				
Hydroxide, $CaCO_3$				
Carbonate, $CaCO_3$				
Bicarbonate, $CaCO_3$				
Total Suspended Solids	<6			
Total Dissolved Solids				
Specific Conductivity				
Hardness				
Turbidity				
Osmotic Pressure				
Dissolved Oxygen				
Ammonia, N	635			
Total Elements				
Aluminum				
Calcium				
Iron				
Magnesium				
Manganese				
Potassium				
Phosphorous				
Silicon				
Sodium				
Chromium				
Anions:				
Sulfate				
Chloride				
Nitrate, N				
Nitrite, N				
Bromide				
Fluoride				

COD

Quality Control Calculations

Ion Sum	0.00
Cation Sum	0.00
Anion Sum	0.00
Ion Balance	0.00
% Ion Imbalance	0.00

Analysis

Density	1.13
Orthophosp	79.20

These values have been reviewed and are approved for transmission. JKT

APPENDIX E
Unit 4 Stack CEM Data

Daily Stack Calibration Report
Generated: 10/16/2007

Company: AES Greenidge
Plant: 590 Plant Road
City/St: Dresden, NY 14441
Source: STACK4

Period Start: 3/28/2007
Period End: 3/30/2007
Included Calibrations: **Daily (40CFR60)/(40CFR75)**

Range of Analyzers:					Span of Analyzers:				
SO2_HI_U4	SO2	0.0	2300.0	ppm	SO2_HI_U4	SO2	0.0	2300.0	ppm
NOx_HI_U4	NOx	0.0	500.0	ppm	NOx_HI_U4	NOx	0.0	500.0	ppm
CO2_U4	SO2	0.00	20.00	%	CO2_U4	SO2	0.00	20.00	%
STK_FLOWU4	Flow	0.0	683.0	kscfm	STK_FLOWU4	Flow	0.0	683.0	kscfm
NOx_U4	NOx	0.0	500.0	ppm	NOx_U4	NOx	0.0	500.0	ppm
SO2_U4	SO2	0.0	2300.0	ppm	SO2_U4	SO2	0.0	2300.0	ppm

					Target	Actual	Diff		Part60 Allowable					Part75 Allowable		
Date	Time	Channel		Type	Units	Units	Units	Error %	Units	%		0	Error %	Units	%	
03/29/2007	07:52	CO2_U4	SO2	ZERO	0.000	0.000	0.000	0.0	2.0	10.0	PASS	0	0.0	5.000	5.0	PASS
03/29/2007	07:52	CO2_U4	SO2	SPAN	17.140	17.040	-0.100	-0.5	2.0	10.0	PASS	0	-0.5	5.000	5.0	PASS
03/29/2007	07:14	CO2_U4	SO2	ZERO	0.000	0.000	0.000	0.0	2.0	10.0	PASS	0	0.0	5.000	5.0	PASS
03/29/2007	07:14	CO2_U4	SO2	SPAN	17.140	17.740	0.600	3.0	2.0	10.0	PASS	0	3.0	5.000	5.0	PASS
03/29/2007	06:05	CO2_U4	SO2	ZERO	0.000	0.000	0.000	0.0	2.0	10.0	PASS	0	0.0	5.000	5.0	PASS
03/29/2007	06:05	CO2_U4	SO2	SPAN	17.140	17.660	0.520	2.6	2.0	10.0	PASS	0	2.5	5.000	5.0	PASS
03/28/2007	06:05	CO2_U4	SO2	ZERO	0.000	0.000	0.000	0.0	2.0	10.0	PASS	0	0.0	5.000	5.0	PASS
03/28/2007	06:05	CO2_U4	SO2	SPAN	17.140	17.470	0.330	1.7	2.0	10.0	PASS	0	1.5	5.000	5.0	PASS
03/29/2007	07:52	NOx_HI_U4	NOx	ZERO	0.000	-0.100	-0.100	0.0	50.0	10.0	PASS	0	0.0	25.000	5.0	PASS
03/29/2007	07:52	NOx_HI_U4	NOx	SPAN	449.000	447.400	-1.600	-0.3	50.0	10.0	PASS	0	-0.3	25.000	5.0	PASS
03/29/2007	07:14	NOx_HI_U4	NOx	ZERO	0.000	-0.100	-0.100	0.0	50.0	10.0	PASS	0	0.0	25.000	5.0	PASS
03/29/2007	07:14	NOx_HI_U4	NOx	SPAN	449.000	476.200	27.200	5.4	50.0	10.0	**WARN**	1	5.4	25.000	5.0	**FAIL**
03/29/2007	06:05	NOx_HI_U4	NOx	ZERO	0.000	-0.100	-0.100	0.0	50.0	10.0	PASS	0	0.0	25.000	5.0	PASS
03/29/2007	06:05	NOx_HI_U4	NOx	SPAN	449.000	475.800	26.800	5.4	50.0	10.0	**WARN**	1	5.4	25.000	5.0	**FAIL**
03/28/2007	06:05	NOx_HI_U4	NOx	ZERO	0.000	-0.100	-0.100	0.0	50.0	10.0	PASS	0	0.0	25.000	5.0	PASS
03/28/2007	06:05	NOx_HI_U4	NOx	SPAN	449.000	466.400	17.400	3.5	50.0	10.0	PASS	0	3.5	25.000	5.0	PASS
03/29/2007	07:52	NOx_U4	NOx	ZERO	0.000	-0.100	-0.100	0.0	50.0	10.0	PASS	0	0.0	25.000	5.0	PASS
03/29/2007	07:52	NOx_U4	NOx	SPAN	449.000	447.400	-1.600	-0.3	50.0	10.0	PASS	0	-0.3	25.000	5.0	PASS
03/29/2007	07:14	NOx_U4	NOx	ZERO	0.000	-0.100	-0.100	0.0	50.0	10.0	PASS	0	0.0	25.000	5.0	PASS
03/29/2007	07:14	NOx_U4	NOx	SPAN	449.000	476.200	27.200	5.4	50.0	10.0	**WARN**	1	5.4	25.000	5.0	**FAIL**
03/29/2007	06:05	NOx_U4	NOx	ZERO	0.000	-0.100	-0.100	0.0	50.0	10.0	PASS	0	0.0	25.000	5.0	PASS
03/29/2007	06:05	NOx_U4	NOx	SPAN	449.000	475.800	26.800	5.4	50.0	10.0	**WARN**	1	5.4	25.000	5.0	**FAIL**
03/28/2007	06:05	NOx_U4	NOx	ZERO	0.000	-0.100	-0.100	0.0	50.0	10.0	PASS	0	0.0	25.000	5.0	PASS
03/28/2007	06:05	NOx_U4	NOx	SPAN	449.000	466.400	17.400	3.5	50.0	10.0	PASS	0	3.5	25.000	5.0	PASS
03/29/2007	07:52	SO2_HI_U4	SO2	ZERO	0.000	-4.200	-4.200	-0.2	230.0	10.0	PASS	0	-0.2	115.000	5.0	PASS
03/29/2007	07:52	SO2_HI_U4	SO2	SPAN	1994.000	1963.700	-30.300	-1.3	230.0	10.0	PASS	0	-1.3	115.000	5.0	PASS

Daily Stack Calibration Report
Generated: 10/16/2007

Company: AES Greenidge
Plant: 590 Plant Road
City/St: Dresden, NY 14441
Source: STACK4

Period Start: 3/28/2007
Period End: 3/30/2007
Included Calibrations: Daily (40CFR60)/(40CFR75)

Date	Time	Channel		Type	Target Units	Actual Units	Diff Units	Error %	Part60 Allowable Units	Part60 Allowable %		WD	Error %	Part75 Allowable Units	Part75 Allowable %	
03/29/2007	07:14	SO2_HI_U4	SO2	ZERO	0.000	-3.800	-3.800	-0.2	230.0	10.0	PASS	0	-0.2	115.000	5.0	PASS
03/29/2007	07:14	SO2_HI_U4	SO2	SPAN	1994.000	2066.400	72.400	3.1	230.0	10.0	PASS	0	3.1	115.000	5.0	PASS
03/29/2007	06:05	SO2_HI_U4	SO2	ZERO	0.000	-6.500	-6.500	-0.3	230.0	10.0	PASS	0	-0.3	115.000	5.0	PASS
03/29/2007	06:05	SO2_HI_U4	SO2	SPAN	1994.000	2110.100	116.100	5.0	230.0	10.0	PASS	0	5.0	115.000	5.0	PASS
03/28/2007	07:52	SO2_HI_U4	SO2	ZERO	0.000	-4.700	-4.700	-0.2	230.0	10.0	PASS	0	-0.2	115.000	5.0	PASS
03/28/2007	07:52	SO2_HI_U4	SO2	SPAN	1994.000	2014.400	20.400	0.9	230.0	10.0	PASS	0	0.9	115.000	5.0	PASS
03/28/2007	06:22	SO2_HI_U4	SO2	ZERO	0.000	-1.900	-1.900	-0.1	230.0	10.0	PASS	0	-0.1	115.000	5.0	PASS
03/28/2007	06:22	SO2_HI_U4	SO2	SPAN	1994.000	2046.400	52.400	2.3	230.0	10.0	PASS	0	2.3	115.000	5.0	PASS
03/28/2007	06:05	SO2_HI_U4	SO2	ZERO	0.000	0.900	0.900	0.0	230.0	10.0	PASS	0	0.0	115.000	5.0	PASS
03/28/2007	06:05	SO2_HI_U4	SO2	SPAN	1994.000	2344.500	350.500	15.2	230.0	10.0	*RDG*	OOC	15.2	115.000	5.0	*RDG*
03/29/2007	07:52	SO2_U4	SO2	ZERO	0.000	-4.200	-4.200	-0.2	230.0	10.0	PASS	0	-0.2	115.000	5.0	PASS
03/29/2007	07:52	SO2_U4	SO2	SPAN	1994.000	1963.700	-30.300	-1.3	230.0	10.0	PASS	0	-1.3	115.000	5.0	PASS
03/29/2007	07:14	SO2_U4	SO2	ZERO	0.000	-3.800	-3.800	-0.2	230.0	10.0	PASS	0	-0.2	115.000	5.0	PASS
03/29/2007	07:14	SO2_U4	SO2	SPAN	1994.000	2066.400	72.400	3.1	230.0	10.0	PASS	0	3.1	115.000	5.0	PASS
03/29/2007	06:05	SO2_U4	SO2	ZERO	0.000	-6.500	-6.500	-0.3	230.0	10.0	PASS	0	-0.3	115.000	5.0	PASS
03/29/2007	06:05	SO2_U4	SO2	SPAN	1994.000	2110.100	116.100	5.0	230.0	10.0	PASS	0	5.0	115.000	5.0	PASS
03/28/2007	07:52	SO2_U4	SO2	ZERO	0.000	-4.700	-4.700	-0.2	230.0	10.0	PASS	0	-0.2	115.000	5.0	PASS
03/28/2007	07:52	SO2_U4	SO2	SPAN	1994.000	2014.400	20.400	0.9	230.0	10.0	PASS	0	0.9	115.000	5.0	PASS
03/28/2007	06:22	SO2_U4	SO2	ZERO	0.000	-1.900	-1.900	-0.1	230.0	10.0	PASS	0	-0.1	115.000	5.0	PASS
03/28/2007	06:22	SO2_U4	SO2	SPAN	1994.000	2046.400	52.400	2.3	230.0	10.0	PASS	0	2.3	115.000	5.0	PASS
03/28/2007	06:05	SO2_U4	SO2	ZERO	0.000	0.900	0.900	0.0	230.0	10.0	PASS	0	0.0	115.000	5.0	PASS
03/28/2007	06:05	SO2_U4	SO2	SPAN	1994.000	2344.500	350.500	15.2	230.0	10.0	*RDG*	OOC	15.2	115.000	5.0	*RDG*
03/29/2007	06:07	STK_FLOWU4	Flow	ZERO	0.000	-0.900	-0.900	-0.1	82.0	12.0	PASS	0	-0.1	40.980	6.0	PASS
03/29/2007	06:07	STK_FLOWU4	Flow	SPAN	410.000	410.700	0.700	0.1	82.0	12.0	PASS	0	0.1	40.980	6.0	PASS
03/28/2007	06:07	STK_FLOWU4	Flow	ZERO	0.000	0.000	0.000	0.0	82.0	12.0	PASS	0	0.0	40.980	6.0	PASS
03/28/2007	06:07	STK_FLOWU4	Flow	SPAN	410.000	410.900	0.900	0.1	82.0	12.0	PASS	0	0.1	40.980	6.0	PASS

FAIL = Difference Error > Regulations Allow
WARN = Error < Daily Allowed but > 5 Consecutive Days Allowed
TARG = Invalid Target (not within regulatory specs)
RDG = Reading exceeds "Range of Analyzer"
WD = Number of Consecutive Days in Warning - ('?' Not Available) - ('OOC' No Passed Cal. since a Failed Daily or 5 Days in Warning)
Note: 40CFR75 pass/fail determination is performed after rounding the value of Error%, or Drift, to one decimal place

Daily Stack Calibration Report
Generated: 10/16/2007

Company: AES Greenidge
Plant: 590 Plant Road
City/St: Dresden, NY 14441
Source: STACK4

Period Start: 3/28/2007
Period End: 3/30/2007
Included Calibrations: **Daily (40CFR60)/(40CFR75)**

Part 60 Calibration (Absolute Average DIFF and Calibration % Error)

		----ZERO----		----SPAN----	
Channel		Diff Units	Error %	Diff Units	Error %
CO2_U4	SO2	0.0	0.0%	0.4	2.0%
NOx_HI_U4	NOx	0.1	0.0%	18.3	3.7%
NOx_U4	NOx	0.1	0.0%	18.3	3.7%
SO2_HI_U4	SO2	3.7	0.2%	107.0	4.6%
SO2_U4	SO2	3.7	0.2%	107.0	4.6%
STK_FLOWU4	Flow	0.4	0.1%	0.8	0.1%

Part 75 Calibration (Absolute Average DIFF and Calibration % Error)

		----ZERO----		----SPAN----	
Channel		Diff Units	Error %	Diff Units	Error %
CO2_U4	SO2	0.000	0.0%	0.387	1.9%
NOx_HI_U4	NOx	0.100	0.0%	18.250	3.7%
NOx_U4	NOx	0.100	0.0%	18.250	3.7%
SO2_HI_U4	SO2	3.667	0.2%	107.017	4.6%
SO2_U4	SO2	3.667	0.2%	107.017	4.6%
STK_FLOWU4	Flow	0.450	0.1%	0.800	0.1%

Performance Specification

		Part 60		Part 75	
Channel		PASS	FAIL	PASS	FAIL
CO2_U4	SO2	<=10.0%	>10.0%	<=2.5%	>2.5%
NOx_HI_U4	NOx	<=10.0%	>10.0%	<=2.5%	>2.5%
NOx_U4	NOx	<=10.0%	>10.0%	<=2.5%	>2.5%
SO2_HI_U4	SO2	<=10.0%	>10.0%	<=2.5%	>2.5%
SO2_U4	SO2	<=10.0%	>10.0%	<=2.5%	>2.5%
STK_FLOWU4	Flow	<=12.0%	>12.0%	<=3.0%	>3.0%

Perf: [Part75 Daily SO2] Zero = 5.0 %Range, Span = 5.0 %Range, [Part60 Daily SO2] Zero = 10.0 %Range, Span = 10.0 %Range

AltPerf: [Part75 Daily SO2] Zero = 5 %SO2 (Range<=50 %)/10 %SO2 (50 %<Range<=200 %), Span = 5 %SO2 (Range<=50 %)/10 %SO2 (50 %<Range<=200 %)

Perf: [Part75 Daily NOx] Zero = 5.0 %Range, Span = 5.0 %Range, [Part60 Daily NOx] Zero = 10.0 %Range, Span = 10.0 %Range

AltPerf: [Part75 Daily NOx] Zero = 5 ppm (Range<=50 ppm)/10 ppm (50 ppm<Range<=200 ppm), Span = 5 ppm (Range<=50 ppm)/10 ppm (50 ppm<Range<=200 ppm)

Perf: [Part75 Daily NOx] Zero = 5.0 %Range, Span = 5.0 %Range, [Part60 Daily NOx] Zero = 10.0 %Range, Span = 10.0 %Range

AltPerf: [Part75 Daily NOx] Zero = 5 ppm (Range<=50 ppm)/10 ppm (50 ppm<Range<=200 ppm), Span = 5 ppm (Range<=50 ppm)/10 ppm (50 ppm<Range<=200 ppm)

Perf: [Part75 Daily SO2] Zero = 5.0 %Range, Span = 5.0 %Range, [Part60 Daily SO2] Zero = 10.0 %Range, Span = 10.0 %Range

AltPerf: [Part75 Daily SO2] Zero = 5 ppm (Range<=50 ppm)/10 ppm (50 ppm<Range<=200 ppm), Span = 5 ppm (Range<=50 ppm)/10 ppm (50 ppm<Range<=200 ppm)

Perf: [Part75 Daily SO2] Zero = 5.0 %Range, Span = 5.0 %Range, [Part60 Daily SO2] Zero = 10.0 %Range, Span = 10.0 %Range

AltPerf: [Part75 Daily SO2] Zero = 5 ppm (Range<=50 ppm)/10 ppm (50 ppm<Range<=200 ppm), Span = 5 ppm (Range<=50 ppm)/10 ppm (50 ppm<Range<=200 ppm)

Perf: [Part75 Daily Flow] Zero = 6.0 %Range, Span = 6.0 %Range, [Part60 Daily Flow] Zero = 12.0 %Range, Span = 12.0 %Range

GE Energy NetDAHS©

Average Values Report
Generated: 9/27/2007 11:12

Company: AES Greenidge
Plant: 590 Plant Road
City/St: Dresden, NY 14441
Source: STACK4

Period Start: 3/28/2007 00:00
Period End: 3/30/2007 00:00
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/28/2007 00:00	N/A	N/A	60.32
03/28/2007 00:01	N/A	N/A	60.84
03/28/2007 00:02	N/A	N/A	61.57
03/28/2007 00:03	0.459	0.221	62.74
03/28/2007 00:04	0.452	0.337	63.45
03/28/2007 00:05	0.439	0.307	64.41
03/28/2007 00:06	0.428	0.265	65.29
03/28/2007 00:07	0.420	0.212	65.86
03/28/2007 00:08	0.439	0.129	66.82
03/28/2007 00:09	0.461	0.226	68.06
03/28/2007 00:10	0.466	0.368	68.73
03/28/2007 00:11	0.498	0.446	69.86
03/28/2007 00:12	0.548	0.539	71.16
03/28/2007 00:13	0.540	0.606	72.49
03/28/2007 00:14	0.467	0.674	74.15
03/28/2007 00:15	0.491	0.623	75.12
03/28/2007 00:16	0.525	0.478	76.01
03/28/2007 00:17	0.482	0.434	76.71
03/28/2007 00:18	0.418	0.378	77.33
03/28/2007 00:19	0.400	0.264	78.03
03/28/2007 00:20	0.429	0.378	78.95
03/28/2007 00:21	0.438	0.365	79.66
03/28/2007 00:22	0.423	0.388	80.38
03/28/2007 00:23	0.394	0.378	81.17
03/28/2007 00:24	0.384	0.422	81.80
03/28/2007 00:25	0.368	0.401	82.48
03/28/2007 00:26	0.306	0.332	82.99
03/28/2007 00:27	0.267	0.354	84.22
03/28/2007 00:28	0.246	0.263	84.67
03/28/2007 00:29	0.227	0.370	85.83
03/28/2007 00:30	0.226	0.376	86.27
03/28/2007 00:31	0.225	0.434	85.83
03/28/2007 00:32	0.213	0.317	85.07
03/28/2007 00:33	0.210	0.260	84.19
03/28/2007 00:34	0.207	0.229	83.31
03/28/2007 00:35	0.191	0.213	82.20
03/28/2007 00:36	0.186	0.146	81.39
03/28/2007 00:37	0.183	0.102	80.48
03/28/2007 00:38	0.183	0.118	79.56
03/28/2007 00:39	0.183	0.100	78.70
03/28/2007 00:40	0.186	0.071	77.80
03/28/2007 00:41	0.197	0.104	76.66
03/28/2007 00:42	0.205	0.058	75.70
03/28/2007 00:43	0.160	0.059	74.64
03/28/2007 00:44	0.213	0.060	73.82
03/28/2007 00:45	0.279	0.054	72.47
03/28/2007 00:46	0.312	0.107	71.45
03/28/2007 00:47	0.303	0.079	70.65
03/28/2007 00:48	0.315	0.039	69.51
03/28/2007 00:49	0.302	0.037	68.75
03/28/2007 00:50	0.279	0.042	67.79
03/28/2007 00:51	0.271	0.044	67.02
03/28/2007 00:52	0.235	0.045	66.08
03/28/2007 00:53	0.212	0.033	65.58
03/28/2007 00:54	0.281	0.066	64.39
03/28/2007 00:55	0.333	0.091	63.44
03/28/2007 00:56	0.341	0.062	62.71
03/28/2007 00:57	0.368	0.040	61.53
03/28/2007 00:58	N/A	N/A	60.87
03/28/2007 00:59	N/A	N/A	60.14
03/28/2007 01:00	N/A	N/A	59.01
03/28/2007 01:01	N/A	N/A	58.37
03/28/2007 01:02	N/A	N/A	57.49
03/28/2007 01:03	0.456	0.056	56.58
03/28/2007 01:04	0.462	0.046	55.47
03/28/2007 01:05	0.478	0.061	54.58
03/28/2007 01:06	0.511	0.025	53.52
03/28/2007 01:07	0.521	0.046	52.69
03/28/2007 01:08	0.536	0.135	52.43
03/28/2007 01:09	0.539	0.118	52.14
03/28/2007 01:10	0.525	0.052	50.43
03/28/2007 01:11	0.525	0.026	49.66
03/28/2007 01:12	0.545	0.046	49.44
03/28/2007 01:13	0.555	0.094	49.56
03/28/2007 01:14	0.562	0.059	49.45
03/28/2007 01:15	0.566	0.072	49.83
03/28/2007 01:16	0.575	0.160	50.79
03/28/2007 01:17	0.565	0.130	51.21
03/28/2007 01:18	0.552	0.109	50.67
03/28/2007 01:19	0.553	0.103	50.16
03/28/2007 01:20	0.555	0.133	50.05
03/28/2007 01:21	0.554	0.092	49.75
03/28/2007 01:22	0.558	0.052	50.47
03/28/2007 01:23	0.560	0.115	50.55
03/28/2007 01:24	0.555	0.216	50.40
03/28/2007 01:25	0.551	0.171	50.53
03/28/2007 01:26	0.548	0.116	50.71
03/28/2007 01:27	0.548	0.157	50.68
03/28/2007 01:28	0.551	0.071	50.25
03/28/2007 01:29	0.558	0.107	50.44

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/28/2007 01:30	0.561	0.212	50.53
03/28/2007 01:31	0.553	0.215	50.60
03/28/2007 01:32	0.549	0.144	50.96
03/28/2007 01:33	0.553	0.230	50.42
03/28/2007 01:34	0.550	0.279	50.26
03/28/2007 01:35	0.554	0.223	49.96
03/28/2007 01:36	0.560	0.221	49.98
03/28/2007 01:37	0.565	0.127	50.53
03/28/2007 01:38	0.565	0.165	49.87
03/28/2007 01:39	0.566	0.273	50.54
03/28/2007 01:40	0.552	0.233	50.42
03/28/2007 01:41	0.523	0.186	49.28
03/28/2007 01:42	0.527	0.265	48.36
03/28/2007 01:43	0.544	0.252	47.55
03/28/2007 01:44	0.557	0.170	48.31
03/28/2007 01:45	0.560	0.236	48.27
03/28/2007 01:46	0.556	0.228	48.95
03/28/2007 01:47	0.550	0.239	49.77
03/28/2007 01:48	0.537	0.249	50.19
03/28/2007 01:49	0.529	0.327	50.29
03/28/2007 01:50	0.522	0.322	49.91
03/28/2007 01:51	0.512	0.226	49.59
03/28/2007 01:52	0.509	0.146	49.68
03/28/2007 01:53	0.511	0.119	49.47
03/28/2007 01:54	0.517	0.110	49.54
03/28/2007 01:55	0.521	0.057	49.49
03/28/2007 01:56	0.526	0.043	49.78
03/28/2007 01:57	0.523	0.086	49.58
03/28/2007 01:58	N/A	N/A	49.87
03/28/2007 01:59	N/A	N/A	49.80
03/28/2007 02:00	N/A	N/A	49.61
03/28/2007 02:01	N/A	N/A	49.64
03/28/2007 02:02	N/A	N/A	49.86
03/28/2007 02:03	0.509	0.037	49.53
03/28/2007 02:04	0.511	0.023	49.38
03/28/2007 02:05	0.520	0.065	49.31
03/28/2007 02:06	0.518	0.044	49.62
03/28/2007 02:07	0.516	0.032	49.66
03/28/2007 02:08	0.515	0.049	50.43
03/28/2007 02:09	0.479	0.124	50.75
03/28/2007 02:10	0.465	0.159	50.30
03/28/2007 02:11	0.464	0.150	49.81
03/28/2007 02:12	0.467	0.249	49.63
03/28/2007 02:13	0.472	0.186	49.64
03/28/2007 02:14	0.467	0.135	49.76
03/28/2007 02:15	0.463	0.110	49.66
03/28/2007 02:16	0.463	0.067	49.43
03/28/2007 02:17	0.475	0.087	49.44
03/28/2007 02:18	0.500	0.080	49.60
03/28/2007 02:19	0.471	0.087	49.62
03/28/2007 02:20	0.476	0.114	50.05
03/28/2007 02:21	0.471	0.070	50.57
03/28/2007 02:22	0.473	0.130	50.66
03/28/2007 02:23	0.482	0.251	50.75
03/28/2007 02:24	0.514	0.204	51.67
03/28/2007 02:25	0.545	0.246	57.23
03/28/2007 02:26	0.476	0.310	60.36
03/28/2007 02:27	0.436	0.301	62.22
03/28/2007 02:28	0.371	0.253	62.52
03/28/2007 02:29	0.329	0.066	61.23
03/28/2007 02:30	0.318	0.087	59.81
03/28/2007 02:31	0.336	0.157	60.36
03/28/2007 02:32	0.326	0.175	60.36
03/28/2007 02:33	0.317	0.152	60.49
03/28/2007 02:34	0.313	0.068	60.36
03/28/2007 02:35	0.327	0.038	60.29
03/28/2007 02:36	0.343	0.045	61.50
03/28/2007 02:37	0.347	0.036	62.02
03/28/2007 02:38	0.361	0.042	64.13
03/28/2007 02:39	0.366	0.050	65.95
03/28/2007 02:40	0.361	0.062	66.63
03/28/2007 02:41	0.391	0.047	66.59
03/28/2007 02:42	0.406	0.075	67.01
03/28/2007 02:43	0.454	0.113	66.72
03/28/2007 02:44	0.512	0.218	67.56
03/28/2007 02:45	0.533	0.312	68.15
03/28/2007 02:46	0.555	0.332	71.09
03/28/2007 02:47	0.517	0.273	73.91
03/28/2007 02:48	0.400	0.260	75.52
03/28/2007 02:49	0.425	0.327	77.26
03/28/2007 02:50	0.429	0.254	78.40
03/28/2007 02:51	0.424	0.191	79.09
03/28/2007 02:52	0.375	0.229	79.01
03/28/2007 02:53	0.352	0.272	78.44
03/28/2007 02:54	0.343	0.309	78.50
03/28/2007 02:55	0.292	0.183	78.49
03/28/2007 02:56	0.248	0.216	78.70
03/28/2007 02:57	0.230	0.225	79.51
03/28/2007 02:58	N/A	N/A	80.15
03/28/2007 02:59	N/A	N/A	80.97
03/28/2007 03:00	N/A	N/A	81.75
03/28/2007 03:01	N/A	N/A	82.62
03/28/2007 03:02	N/A	N/A	83.43
03/28/2007 03:03	0.155	0.262	84.24
03/28/2007 03:04	0.151	0.305	85.01
03/28/2007 03:05	0.148	0.406	85.80
03/28/2007 03:06	0.144	0.488	86.89
03/28/2007 03:07	0.142	0.513	87.52
03/28/2007 03:08	0.141	0.513	88.90

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/28/2007 03:09	0.135	0.471	89.85
03/28/2007 03:10	0.126	0.535	90.97
03/28/2007 03:11	0.123	0.552	91.96
03/28/2007 03:12	0.119	0.561	92.60
03/28/2007 03:13	0.110	0.526	92.47
03/28/2007 03:14	0.110	0.580	93.58
03/28/2007 03:15	0.107	0.530	94.01
03/28/2007 03:16	0.101	0.492	95.02
03/28/2007 03:17	0.097	0.503	94.83
03/28/2007 03:18	0.096	0.559	95.91
03/28/2007 03:19	0.096	0.508	96.65
03/28/2007 03:20	0.095	0.526	97.30
03/28/2007 03:21	0.093	0.571	97.79
03/28/2007 03:22	0.091	0.558	97.89
03/28/2007 03:23	0.090	0.461	97.97
03/28/2007 03:24	0.088	0.495	98.16
03/28/2007 03:25	0.087	0.531	98.43
03/28/2007 03:26	0.087	0.416	98.31
03/28/2007 03:27	0.086	0.421	98.36
03/28/2007 03:28	0.086	0.417	98.32
03/28/2007 03:29	0.086	0.400	98.51
03/28/2007 03:30	0.086	0.425	98.67
03/28/2007 03:31	0.087	0.373	98.61
03/28/2007 03:32	0.088	0.354	98.87
03/28/2007 03:33	0.089	0.346	99.08
03/28/2007 03:34	0.089	0.306	98.93
03/28/2007 03:35	0.090	0.305	98.75
03/28/2007 03:36	0.090	0.224	99.28
03/28/2007 03:37	0.090	0.199	99.13
03/28/2007 03:38	0.090	0.239	98.82
03/28/2007 03:39	0.092	0.215	99.43
03/28/2007 03:40	0.091	0.280	99.79
03/28/2007 03:41	0.091	0.231	99.71
03/28/2007 03:42	0.090	0.249	99.71
03/28/2007 03:43	0.090	0.256	99.50
03/28/2007 03:44	0.091	0.219	99.30
03/28/2007 03:45	0.091	0.206	99.23
03/28/2007 03:46	0.090	0.268	99.06
03/28/2007 03:47	0.092	0.261	98.30
03/28/2007 03:48	0.095	0.155	98.40
03/28/2007 03:49	0.083	0.136	98.52
03/28/2007 03:50	0.092	0.124	98.59
03/28/2007 03:51	0.087	0.169	98.89
03/28/2007 03:52	0.084	0.133	99.05
03/28/2007 03:53	0.081	0.156	98.71
03/28/2007 03:54	0.081	0.138	98.72
03/28/2007 03:55	0.083	0.172	98.65
03/28/2007 03:56	0.085	0.195	98.65
03/28/2007 03:57	0.085	0.147	98.47
03/28/2007 03:58	N/A	N/A	97.85
03/28/2007 03:59	N/A	N/A	97.36
03/28/2007 04:00	N/A	N/A	97.54
03/28/2007 04:01	N/A	N/A	97.84
03/28/2007 04:02	N/A	N/A	98.28
03/28/2007 04:03	0.243	0.140	98.94
03/28/2007 04:04	0.245	0.148	99.02
03/28/2007 04:05	0.258	0.119	99.17
03/28/2007 04:06	0.260	0.189	98.98
03/28/2007 04:07	0.262	0.203	98.90
03/28/2007 04:08	0.267	0.191	98.97
03/28/2007 04:09	0.271	0.190	98.93
03/28/2007 04:10	0.272	0.159	98.91
03/28/2007 04:11	0.272	0.093	98.95
03/28/2007 04:12	0.274	0.120	98.93
03/28/2007 04:13	0.277	0.123	99.35
03/28/2007 04:14	0.280	0.188	99.65
03/28/2007 04:15	0.284	0.203	99.66
03/28/2007 04:16	0.284	0.145	99.66
03/28/2007 04:17	0.281	0.117	99.75
03/28/2007 04:18	0.281	0.154	99.99
03/28/2007 04:19	0.278	0.152	99.88
03/28/2007 04:20	0.277	0.147	99.74
03/28/2007 04:21	0.278	0.157	99.60
03/28/2007 04:22	0.277	0.091	99.41
03/28/2007 04:23	0.276	0.125	99.09
03/28/2007 04:24	0.277	0.137	99.20
03/28/2007 04:25	0.278	0.151	99.07
03/28/2007 04:26	0.279	0.187	99.00
03/28/2007 04:27	0.278	0.123	99.31
03/28/2007 04:28	0.273	0.182	99.24
03/28/2007 04:29	0.269	0.195	99.06
03/28/2007 04:30	0.264	0.195	99.37
03/28/2007 04:31	0.262	0.174	99.48
03/28/2007 04:32	0.262	0.228	99.45
03/28/2007 04:33	0.264	0.239	99.40
03/28/2007 04:34	0.265	0.243	99.37
03/28/2007 04:35	0.265	0.236	99.39
03/28/2007 04:36	0.262	0.240	99.75
03/28/2007 04:37	0.259	0.253	99.85
03/28/2007 04:38	0.260	0.217	99.84
03/28/2007 04:39	0.260	0.215	99.92
03/28/2007 04:40	0.263	0.235	100.00
03/28/2007 04:41	0.265	0.252	99.97
03/28/2007 04:42	0.263	0.248	99.82
03/28/2007 04:43	0.259	0.231	99.73
03/28/2007 04:44	0.256	0.252	99.59
03/28/2007 04:45	0.256	0.266	98.96
03/28/2007 04:46	0.256	0.280	98.84
03/28/2007 04:47	0.258	0.311	99.05

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/28/2007 04:48	0.258	0.359	99.33
03/28/2007 04:49	0.257	0.384	99.20
03/28/2007 04:50	0.256	0.408	99.24
03/28/2007 04:51	0.259	0.487	99.14
03/28/2007 04:52	0.260	0.426	99.05
03/28/2007 04:53	0.260	0.399	99.06
03/28/2007 04:54	0.259	0.422	99.09
03/28/2007 04:55	0.259	0.389	99.21
03/28/2007 04:56	0.259	0.420	99.04
03/28/2007 04:57	0.261	0.455	98.79
03/28/2007 04:58	N/A	N/A	99.05
03/28/2007 04:59	N/A	N/A	99.32
03/28/2007 05:00	N/A	N/A	99.60
03/28/2007 05:01	N/A	N/A	99.23
03/28/2007 05:02	N/A	N/A	99.02
03/28/2007 05:03	0.258	0.352	98.79
03/28/2007 05:04	0.259	0.475	99.15
03/28/2007 05:05	0.260	0.412	99.48
03/28/2007 05:06	0.259	0.430	99.32
03/28/2007 05:07	0.262	0.435	99.15
03/28/2007 05:08	0.265	0.487	99.31
03/28/2007 05:09	0.265	0.523	99.14
03/28/2007 05:10	0.266	0.486	99.32
03/28/2007 05:11	0.265	0.333	99.13
03/28/2007 05:12	0.263	0.430	99.37
03/28/2007 05:13	0.264	0.441	99.28
03/28/2007 05:14	0.265	0.391	99.20
03/28/2007 05:15	0.266	0.441	99.40
03/28/2007 05:16	0.267	0.498	99.60
03/28/2007 05:17	0.267	0.470	99.56
03/28/2007 05:18	0.265	0.430	99.22
03/28/2007 05:19	0.266	0.456	99.38
03/28/2007 05:20	0.268	0.421	99.40
03/28/2007 05:21	0.267	0.480	99.50
03/28/2007 05:22	0.268	0.518	99.41
03/28/2007 05:23	0.269	0.403	99.50
03/28/2007 05:24	0.271	0.457	99.14
03/28/2007 05:25	0.270	0.428	99.12
03/28/2007 05:26	0.269	0.422	99.07
03/28/2007 05:27	0.267	0.401	98.61
03/28/2007 05:28	0.266	0.464	98.65
03/28/2007 05:29	0.267	0.480	98.45
03/28/2007 05:30	0.271	0.333	98.60
03/28/2007 05:31	0.272	0.448	98.88
03/28/2007 05:32	0.273	0.564	98.50
03/28/2007 05:33	0.273	0.409	98.54
03/28/2007 05:34	0.273	0.375	98.51
03/28/2007 05:35	0.264	0.331	98.89
03/28/2007 05:36	0.247	0.355	98.79
03/28/2007 05:37	0.243	0.378	98.61
03/28/2007 05:38	0.240	0.429	98.36
03/28/2007 05:39	0.240	0.323	98.55
03/28/2007 05:40	0.236	0.302	98.34
03/28/2007 05:41	0.234	0.429	98.20
03/28/2007 05:42	0.236	0.352	98.31
03/28/2007 05:43	0.235	0.370	98.34
03/28/2007 05:44	0.233	0.334	98.50
03/28/2007 05:45	0.231	0.336	98.48
03/28/2007 05:46	0.232	0.404	98.64
03/28/2007 05:47	0.232	0.462	98.71
03/28/2007 05:48	0.233	0.414	98.43
03/28/2007 05:49	0.231	0.407	98.20
03/28/2007 05:50	0.228	0.368	98.10
03/28/2007 05:51	0.226	0.422	98.02
03/28/2007 05:52	0.227	0.401	98.32
03/28/2007 05:53	0.227	0.485	98.19
03/28/2007 05:54	0.228	0.389	98.00
03/28/2007 05:55	0.228	0.307	97.78
03/28/2007 05:56	0.228	0.371	97.60
03/28/2007 05:57	0.228	0.383	97.41
03/28/2007 05:58	N/A	N/A	96.98
03/28/2007 05:59	N/A	N/A	96.58
03/28/2007 06:00	N/A	N/A	96.55
03/28/2007 06:01	N/A	N/A	96.57
03/28/2007 06:02	N/A	N/A	96.56
03/28/2007 06:03	0.222	0.335	96.31
03/28/2007 06:04	0.223	0.352	95.99
03/28/2007 06:05	N/A	N/A	96.04
03/28/2007 06:06	N/A	N/A	96.32
03/28/2007 06:07	N/A	N/A	96.41
03/28/2007 06:08	N/A	N/A	96.28
03/28/2007 06:09	N/A	N/A	96.35
03/28/2007 06:10	N/A	N/A	96.32
03/28/2007 06:11	N/A	N/A	96.38
03/28/2007 06:12	N/A	N/A	96.16
03/28/2007 06:13	N/A	N/A	96.05
03/28/2007 06:14	N/A	N/A	96.14
03/28/2007 06:15	N/A	N/A	96.37
03/28/2007 06:16	N/A	N/A	96.42
03/28/2007 06:17	N/A	N/A	96.48
03/28/2007 06:18	0.224	N/A	96.41
03/28/2007 06:19	0.225	N/A	96.39
03/28/2007 06:20	0.225	N/A	96.38
03/28/2007 06:21	0.224	N/A	96.30
03/28/2007 06:22	N/A	N/A	96.51
03/28/2007 06:23	N/A	N/A	96.66
03/28/2007 06:24	N/A	N/A	96.64
03/28/2007 06:25	N/A	N/A	96.73
03/28/2007 06:26	N/A	N/A	96.57

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/28/2007 06:27	N/A	N/A	96.43
03/28/2007 06:28	N/A	N/A	96.39
03/28/2007 06:29	N/A	N/A	96.43
03/28/2007 06:30	N/A	N/A	96.37
03/28/2007 06:31	N/A	N/A	96.36
03/28/2007 06:32	N/A	N/A	96.56
03/28/2007 06:33	N/A	N/A	95.80
03/28/2007 06:34	N/A	N/A	95.57
03/28/2007 06:35	N/A	N/A	95.43
03/28/2007 06:36	0.243	0.627	96.56
03/28/2007 06:37	0.226	0.619	97.64
03/28/2007 06:38	0.225	0.589	97.79
03/28/2007 06:39	0.228	0.558	97.06
03/28/2007 06:40	0.230	0.574	96.70
03/28/2007 06:41	0.230	0.815	96.79
03/28/2007 06:42	0.229	0.623	97.19
03/28/2007 06:43	0.228	0.607	96.96
03/28/2007 06:44	0.228	0.664	96.98
03/28/2007 06:45	0.227	0.656	97.16
03/28/2007 06:46	0.228	0.598	97.07
03/28/2007 06:47	0.230	0.627	97.03
03/28/2007 06:48	0.230	0.658	96.62
03/28/2007 06:49	0.193	0.622	96.54
03/28/2007 06:50	0.199	0.514	96.20
03/28/2007 06:51	0.187	0.565	96.25
03/28/2007 06:52	0.160	0.593	96.35
03/28/2007 06:53	0.134	0.525	96.60
03/28/2007 06:54	0.119	0.508	96.22
03/28/2007 06:55	0.096	0.543	96.20
03/28/2007 06:56	0.080	0.659	96.24
03/28/2007 06:57	0.076	0.787	96.14
03/28/2007 06:58	N/A	N/A	95.92
03/28/2007 06:59	N/A	N/A	96.10
03/28/2007 07:00	N/A	N/A	95.97
03/28/2007 07:01	N/A	N/A	95.84
03/28/2007 07:02	N/A	N/A	95.79
03/28/2007 07:03	0.067	0.521	96.04
03/28/2007 07:04	0.068	0.519	96.05
03/28/2007 07:05	0.069	0.545	95.88
03/28/2007 07:06	0.071	0.672	95.97
03/28/2007 07:07	0.072	0.591	96.03
03/28/2007 07:08	0.074	0.512	96.02
03/28/2007 07:09	0.075	0.490	96.13
03/28/2007 07:10	0.078	0.531	96.12
03/28/2007 07:11	0.080	0.469	96.22
03/28/2007 07:12	0.082	0.457	96.33
03/28/2007 07:13	0.084	0.464	96.22
03/28/2007 07:14	0.087	0.469	96.26
03/28/2007 07:15	0.090	0.489	96.44
03/28/2007 07:16	0.091	0.457	96.60
03/28/2007 07:17	0.092	0.407	96.43
03/28/2007 07:18	0.093	0.313	96.07
03/28/2007 07:19	0.093	0.261	96.16
03/28/2007 07:20	0.094	0.319	95.92
03/28/2007 07:21	0.094	0.290	95.90
03/28/2007 07:22	0.094	0.302	96.07
03/28/2007 07:23	0.094	0.303	96.14
03/28/2007 07:24	0.095	0.322	96.27
03/28/2007 07:25	0.095	0.288	96.36
03/28/2007 07:26	0.096	0.277	96.36
03/28/2007 07:27	0.097	0.289	96.54
03/28/2007 07:28	0.097	0.327	96.46
03/28/2007 07:29	0.097	0.266	96.38
03/28/2007 07:30	0.097	0.275	96.62
03/28/2007 07:31	0.097	0.272	96.64
03/28/2007 07:32	0.097	0.219	96.63
03/28/2007 07:33	0.097	0.252	96.45
03/28/2007 07:34	0.097	0.303	96.41
03/28/2007 07:35	0.097	0.221	96.38
03/28/2007 07:36	0.097	0.223	96.55
03/28/2007 07:37	0.097	0.251	96.31
03/28/2007 07:38	0.097	0.204	96.38
03/28/2007 07:39	0.096	0.198	96.56
03/28/2007 07:40	0.095	0.154	96.72
03/28/2007 07:41	0.096	0.272	96.81
03/28/2007 07:42	0.097	0.249	96.61
03/28/2007 07:43	0.097	0.164	96.99
03/28/2007 07:44	0.096	0.209	96.54
03/28/2007 07:45	0.096	0.163	96.43
03/28/2007 07:46	0.097	0.193	96.82
03/28/2007 07:47	0.096	0.175	96.72
03/28/2007 07:48	0.096	0.186	96.65
03/28/2007 07:49	0.096	0.198	96.44
03/28/2007 07:50	0.095	0.147	96.57
03/28/2007 07:51	0.095	0.197	96.82
03/28/2007 07:52	N/A	N/A	96.86
03/28/2007 07:53	N/A	N/A	96.81
03/28/2007 07:54	N/A	N/A	96.71
03/28/2007 07:55	N/A	N/A	96.57
03/28/2007 07:56	N/A	N/A	96.81
03/28/2007 07:57	N/A	N/A	96.46
03/28/2007 07:58	N/A	N/A	96.63
03/28/2007 07:59	N/A	N/A	96.70
03/28/2007 08:00	N/A	N/A	96.36
03/28/2007 08:01	N/A	N/A	96.25
03/28/2007 08:02	N/A	N/A	96.47
03/28/2007 08:03	N/A	N/A	96.47
03/28/2007 08:04	N/A	N/A	96.52
03/28/2007 08:05	N/A	N/A	96.46

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW	
03/28/2007 08:06	0.094	0.201	96.69	
03/28/2007 08:07	0.094	0.177	96.79	
03/28/2007 08:08	0.093	0.166	96.73	
03/28/2007 08:09	0.093	0.189	96.68	
03/28/2007 08:10	0.093	0.208	96.65	
03/28/2007 08:11	0.093	0.220	96.69	
03/28/2007 08:12	0.093	0.181	96.70	
03/28/2007 08:13	0.093	0.144	96.90	
03/28/2007 08:14	0.094	0.167	96.82	
03/28/2007 08:15	0.094	0.228	96.57	
03/28/2007 08:16	0.094	0.228	96.66	
03/28/2007 08:17	0.094	0.229	96.85	
03/28/2007 08:18	0.094	0.202	97.02	
03/28/2007 08:19	0.095	0.181	97.01	
03/28/2007 08:20	0.095	0.191	96.98	
03/28/2007 08:21	0.095	0.202	96.88	
03/28/2007 08:22	0.094	0.165	97.14	
03/28/2007 08:23	0.095	0.207	96.96	
03/28/2007 08:24	0.095	0.183	96.81	
03/28/2007 08:25	0.095	0.172	97.07	
03/28/2007 08:26	0.095	0.145	97.29	
03/28/2007 08:27	0.095	0.151	96.92	
03/28/2007 08:28	0.095	0.146	96.83	
03/28/2007 08:29	0.096	0.207	96.62	
03/28/2007 08:30	0.095	0.144	96.96	
03/28/2007 08:31	0.094	0.134	96.88	
03/28/2007 08:32	0.095	0.164	96.97	
03/28/2007 08:33	0.096	0.158	96.89	
03/28/2007 08:34	0.096	0.212	97.09	
03/28/2007 08:35	0.096	0.245	96.80	
03/28/2007 08:36	0.096	0.224	96.98	
03/28/2007 08:37	0.095	0.150	96.90	
03/28/2007 08:38	0.095	0.120	97.20	
03/28/2007 08:39	0.095	0.151	96.93	
03/28/2007 08:40	0.096	0.113	96.60	
03/28/2007 08:41	0.095	0.107	96.64	
03/28/2007 08:42	0.094	0.192	96.74	
03/28/2007 08:43	0.093	0.147	96.83	
03/28/2007 08:44	0.094	0.163	96.93	
03/28/2007 08:45	0.094	0.140	96.75	
03/28/2007 08:46	0.095	0.123	96.88	
03/28/2007 08:47	0.095	0.148	96.97	
03/28/2007 08:48	0.095	0.139	96.88	
03/28/2007 08:49	0.095	0.143	97.05	
03/28/2007 08:50	0.096	0.125	96.95	
03/28/2007 08:51	0.096	0.149	96.96	
03/28/2007 08:52	0.096	0.145	96.58	
03/28/2007 08:53	0.095	0.151	96.70	
03/28/2007 08:54	0.095	0.157	96.71	
03/28/2007 08:55	0.095	0.162	96.68	
03/28/2007 08:56	0.094	0.149	96.73	
03/28/2007 08:57	0.095	0.153	96.88	
03/28/2007 08:58	N/A	N/A	97.01	
03/28/2007 08:59	N/A	N/A	97.01	
03/28/2007 09:00	N/A	N/A	96.69	
03/28/2007 09:01	N/A	N/A	96.61	
03/28/2007 09:02	N/A	N/A	96.74	
03/28/2007 09:03	0.094	0.121	96.75	
03/28/2007 09:04	0.094	0.129	96.78	
03/28/2007 09:05	0.094	0.125	96.75	
03/28/2007 09:06	0.096	0.110	96.73	
03/28/2007 09:07	0.095	0.097	96.79	
03/28/2007 09:08	0.095	0.124	96.85	
03/28/2007 09:09	0.094	0.126	96.73	
03/28/2007 09:10	0.094	0.131	96.73	
03/28/2007 09:11	0.094	0.162	96.71	
03/28/2007 09:12	0.093	0.126	96.74	
03/28/2007 09:13	0.093	0.127	96.77	
03/28/2007 09:14	0.093	0.120	96.79	
03/28/2007 09:15	0.094	0.110	96.88	
03/28/2007 09:16	0.094	0.139	97.06	
03/28/2007 09:17	0.093	0.152	97.10	
03/28/2007 09:18	0.096	0.138	97.36	
03/28/2007 09:19	0.116	0.128	97.11	
03/28/2007 09:20	0.116	0.147	97.20	
03/28/2007 09:21	0.114	0.151	97.02	
03/28/2007 09:22	0.112	0.162	97.04	AVERAGE NOx - Test 1
03/28/2007 09:23	0.107	0.157	97.36	0.096
03/28/2007 09:24	0.096	0.111	97.08	
03/28/2007 09:25	0.095	0.127	96.87	
03/28/2007 09:26	0.094	0.104	96.76	
03/28/2007 09:27	0.092	0.103	97.23	
03/28/2007 09:28	0.089	0.115	97.17	
03/28/2007 09:29	0.088	0.125	97.11	
03/28/2007 09:30	0.087	0.085	97.33	
03/28/2007 09:31	0.086	0.048	97.41	
03/28/2007 09:32	0.087	0.041	97.69	
03/28/2007 09:33	0.087	0.053	97.43	
03/28/2007 09:34	0.087	0.080	97.11	
03/28/2007 09:35	0.087	0.060	97.21	
03/28/2007 09:36	0.087	0.083	96.97	
03/28/2007 09:37	0.087	0.069	96.75	
03/28/2007 09:38	0.087	0.065	96.65	
03/28/2007 09:39	0.089	0.069	96.80	
03/28/2007 09:40	0.090	0.097	96.80	
03/28/2007 09:41	0.092	0.066	96.90	
03/28/2007 09:42	0.092	0.101	97.18	
03/28/2007 09:43	0.094	0.087	97.06	
03/28/2007 09:44	0.094	0.065	97.18	

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/28/2007 09:45	0.095	0.062	97.13
03/28/2007 09:46	0.095	0.067	97.17
03/28/2007 09:47	0.096	0.087	97.58
03/28/2007 09:48	0.097	0.087	97.31
03/28/2007 09:49	0.096	0.076	97.24
03/28/2007 09:50	0.097	0.070	97.27
03/28/2007 09:51	0.097	0.047	97.27
03/28/2007 09:52	0.096	0.037	97.40
03/28/2007 09:53	0.096	0.059	97.57
03/28/2007 09:54	0.096	0.027	97.49
03/28/2007 09:55	0.096	0.068	97.09
03/28/2007 09:56	0.096	0.065	97.45
03/28/2007 09:57	0.096	0.080	97.54
03/28/2007 09:58	N/A	N/A	97.54
03/28/2007 09:59	N/A	N/A	97.36
03/28/2007 10:00	N/A	N/A	97.13
03/28/2007 10:01	N/A	N/A	97.33
03/28/2007 10:02	N/A	N/A	97.49
03/28/2007 10:03	0.095	0.106	97.61
03/28/2007 10:04	0.096	0.059	97.62
03/28/2007 10:05	0.095	0.064	97.85
03/28/2007 10:06	0.094	0.071	97.79
03/28/2007 10:07	0.094	0.122	97.66
03/28/2007 10:08	0.094	0.144	97.45
03/28/2007 10:09	0.094	0.098	97.55
03/28/2007 10:10	0.094	0.071	97.48
03/28/2007 10:11	0.093	0.070	97.54
03/28/2007 10:12	0.094	0.089	97.38
03/28/2007 10:13	0.094	0.122	97.14
03/28/2007 10:14	0.094	0.134	97.42
03/28/2007 10:15	0.094	0.095	97.55
03/28/2007 10:16	0.094	0.074	97.17
03/28/2007 10:17	0.094	0.114	97.10
03/28/2007 10:18	0.095	0.102	97.38
03/28/2007 10:19	0.095	0.112	97.49
03/28/2007 10:20	0.095	0.134	97.70
03/28/2007 10:21	0.096	0.143	97.51
03/28/2007 10:22	0.096	0.104	97.21
03/28/2007 10:23	0.096	0.146	97.26
03/28/2007 10:24	0.096	0.169	97.09
03/28/2007 10:25	0.096	0.149	97.58
03/28/2007 10:26	0.095	0.100	97.73
03/28/2007 10:27	0.095	0.125	97.63
03/28/2007 10:28	0.096	0.158	97.16
03/28/2007 10:29	0.096	0.135	96.99
03/28/2007 10:30	0.095	0.118	96.90
03/28/2007 10:31	0.094	0.104	96.86
03/28/2007 10:32	0.094	0.085	96.80
03/28/2007 10:33	0.094	0.083	97.12
03/28/2007 10:34	0.095	0.132	97.30
03/28/2007 10:35	0.095	0.145	97.22
03/28/2007 10:36	0.096	0.151	96.88
03/28/2007 10:37	0.095	0.105	97.05
03/28/2007 10:38	0.095	0.119	97.22
03/28/2007 10:39	0.095	0.151	97.47
03/28/2007 10:40	0.096	0.197	97.36
03/28/2007 10:41	0.097	0.166	97.81
03/28/2007 10:42	0.097	0.202	97.87
03/28/2007 10:43	0.098	0.261	97.41
03/28/2007 10:44	0.098	0.202	98.00
03/28/2007 10:45	0.097	0.201	97.67
03/28/2007 10:46	0.096	0.181	97.55
03/28/2007 10:47	0.096	0.225	97.67
03/28/2007 10:48	0.096	0.224	97.62
03/28/2007 10:49	0.095	0.207	97.65
03/28/2007 10:50	0.095	0.185	97.49
03/28/2007 10:51	0.094	0.150	96.98
03/28/2007 10:52	0.093	0.153	96.74
03/28/2007 10:53	0.094	0.148	97.03
03/28/2007 10:54	0.094	0.151	97.02
03/28/2007 10:55	0.094	0.168	96.85
03/28/2007 10:56	0.094	0.123	96.70
03/28/2007 10:57	0.094	0.181	96.72
03/28/2007 10:58	N/A	N/A	96.66
03/28/2007 10:59	N/A	N/A	96.68
03/28/2007 11:00	N/A	N/A	96.81
03/28/2007 11:01	N/A	N/A	96.73
03/28/2007 11:02	N/A	N/A	96.75
03/28/2007 11:03	0.096	0.137	96.74
03/28/2007 11:04	0.096	0.198	96.74
03/28/2007 11:05	0.096	0.155	96.93
03/28/2007 11:06	0.095	0.184	97.22
03/28/2007 11:07	0.095	0.229	97.18
03/28/2007 11:08	0.095	0.182	97.23
03/28/2007 11:09	0.096	0.215	97.52
03/28/2007 11:10	0.096	0.212	97.40
03/28/2007 11:11	0.096	0.229	97.18
03/28/2007 11:12	0.095	0.224	97.53
03/28/2007 11:13	0.095	0.208	97.23
03/28/2007 11:14	0.095	0.212	97.26
03/28/2007 11:15	0.095	0.218	97.60
03/28/2007 11:16	0.095	0.218	97.71
03/28/2007 11:17	0.095	0.194	97.67
03/28/2007 11:18	0.095	0.193	97.81
03/28/2007 11:19	0.096	0.169	97.67
03/28/2007 11:20	0.096	0.172	97.84
03/28/2007 11:21	0.096	0.158	97.82
03/28/2007 11:22	0.095	0.198	97.60
03/28/2007 11:23	0.095	0.201	97.63

AVERAGE NOx - Test 2
0.095

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW	
03/28/2007 11:24	0.094	0.166	97.38	
03/28/2007 11:25	0.094	0.142	97.54	
03/28/2007 11:26	0.094	0.167	97.25	
03/28/2007 11:27	0.094	0.262	97.04	
03/28/2007 11:28	0.093	0.185	96.92	
03/28/2007 11:29	0.093	0.179	97.12	
03/28/2007 11:30	0.093	0.221	97.23	
03/28/2007 11:31	0.093	0.263	97.30	
03/28/2007 11:32	0.093	0.243	97.31	
03/28/2007 11:33	0.094	0.224	96.89	
03/28/2007 11:34	0.094	0.153	96.77	
03/28/2007 11:35	0.095	0.135	97.16	
03/28/2007 11:36	0.095	0.145	97.06	
03/28/2007 11:37	0.095	0.200	97.18	
03/28/2007 11:38	0.096	0.245	96.98	
03/28/2007 11:39	0.096	0.209	96.92	
03/28/2007 11:40	0.096	0.222	97.08	
03/28/2007 11:41	0.095	0.177	97.27	
03/28/2007 11:42	0.096	0.148	97.39	
03/28/2007 11:43	0.096	0.171	97.20	
03/28/2007 11:44	0.096	0.165	97.20	
03/28/2007 11:45	0.096	0.213	97.28	
03/28/2007 11:46	0.096	0.166	97.14	
03/28/2007 11:47	0.096	0.157	96.99	
03/28/2007 11:48	0.097	0.171	96.91	
03/28/2007 11:49	0.097	0.186	97.22	
03/28/2007 11:50	0.097	0.163	97.35	
03/28/2007 11:51	0.097	0.136	97.29	
03/28/2007 11:52	0.097	0.155	97.15	
03/28/2007 11:53	0.097	0.221	97.12	
03/28/2007 11:54	0.097	0.178	97.24	
03/28/2007 11:55	0.096	0.115	97.43	
03/28/2007 11:56	0.095	0.108	97.59	
03/28/2007 11:57	0.095	0.175	97.34	
03/28/2007 11:58	N/A	N/A	97.22	
03/28/2007 11:59	N/A	N/A	97.39	
03/28/2007 12:00	N/A	N/A	97.26	
03/28/2007 12:01	N/A	N/A	97.40	
03/28/2007 12:02	N/A	N/A	97.31	
03/28/2007 12:03	0.095	0.114	97.58	
03/28/2007 12:04	0.095	0.149	97.84	
03/28/2007 12:05	0.096	0.194	97.68	
03/28/2007 12:06	0.097	0.141	97.73	
03/28/2007 12:07	0.097	0.175	98.01	
03/28/2007 12:08	0.096	0.196	97.76	
03/28/2007 12:09	0.097	0.171	97.30	
03/28/2007 12:10	0.097	0.160	96.67	
03/28/2007 12:11	0.096	0.131	96.99	
03/28/2007 12:12	0.094	0.071	97.41	
03/28/2007 12:13	0.093	0.104	97.26	
03/28/2007 12:14	0.094	0.139	97.16	
03/28/2007 12:15	0.095	0.137	96.75	
03/28/2007 12:16	0.094	0.150	96.70	
03/28/2007 12:17	0.094	0.152	96.69	
03/28/2007 12:18	0.093	0.133	97.16	
03/28/2007 12:19	0.092	0.090	96.98	
03/28/2007 12:20	0.093	0.106	97.06	
03/28/2007 12:21	0.094	0.115	96.96	
03/28/2007 12:22	0.094	0.091	97.07	
03/28/2007 12:23	0.093	0.086	97.03	
03/28/2007 12:24	0.093	0.121	97.09	
03/28/2007 12:25	0.094	0.091	96.84	
03/28/2007 12:26	0.094	0.085	97.24	
03/28/2007 12:27	0.094	0.095	97.39	
03/28/2007 12:28	0.095	0.136	97.25	
03/28/2007 12:29	0.095	0.135	97.18	
03/28/2007 12:30	0.096	0.110	97.21	
03/28/2007 12:31	0.096	0.117	97.26	
03/28/2007 12:32	0.095	0.125	97.41	
03/28/2007 12:33	0.095	0.141	97.41	
03/28/2007 12:34	0.095	0.150	97.57	
03/28/2007 12:35	0.096	0.134	97.53	
03/28/2007 12:36	0.097	0.144	97.38	
03/28/2007 12:37	0.097	0.121	97.36	
03/28/2007 12:38	0.097	0.148	97.44	
03/28/2007 12:39	0.096	0.111	97.26	
03/28/2007 12:40	0.095	0.098	97.37	
03/28/2007 12:41	0.095	0.102	97.37	
03/28/2007 12:42	0.095	0.119	97.27	
03/28/2007 12:43	0.096	0.082	97.50	
03/28/2007 12:44	0.096	0.103	97.45	
03/28/2007 12:45	0.095	0.122	97.26	
03/28/2007 12:46	0.095	0.102	97.38	
03/28/2007 12:47	0.094	0.081	97.07	
03/28/2007 12:48	0.095	0.079	97.19	
03/28/2007 12:49	0.095	0.087	97.47	
03/28/2007 12:50	0.095	0.107	97.29	
03/28/2007 12:51	0.095	0.124	97.39	
03/28/2007 12:52	0.096	0.118	97.49	
03/28/2007 12:53	0.096	0.127	97.50	
03/28/2007 12:54	0.096	0.150	97.47	
03/28/2007 12:55	0.095	0.121	97.34	
03/28/2007 12:56	0.095	0.136	97.72	
03/28/2007 12:57	0.094	0.126	97.67	
03/28/2007 12:58	0.094	0.147	97.61	AVERAGE NOx - Test 3
03/28/2007 12:59	N/A	N/A	97.47	0.095
03/28/2007 13:00	N/A	N/A	97.81	
03/28/2007 13:01	N/A	N/A	97.72	
03/28/2007 13:02	N/A	N/A	97.48	

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/28/2007 13:03	0.097	0.149	97.13
03/28/2007 13:04	0.095	0.147	97.29
03/28/2007 13:05	0.095	0.162	97.29
03/28/2007 13:06	0.095	0.181	97.54
03/28/2007 13:07	0.095	0.173	97.65
03/28/2007 13:08	0.095	0.170	97.89
03/28/2007 13:09	0.095	0.136	97.76
03/28/2007 13:10	0.096	0.137	97.75
03/28/2007 13:11	0.095	0.141	97.92
03/28/2007 13:12	0.096	0.138	97.72
03/28/2007 13:13	0.096	0.130	97.48
03/28/2007 13:14	0.095	0.102	97.55
03/28/2007 13:15	0.095	0.105	97.82
03/28/2007 13:16	0.095	0.107	97.65
03/28/2007 13:17	0.095	0.091	97.90
03/28/2007 13:18	0.095	0.154	97.77
03/28/2007 13:19	0.095	0.124	97.86
03/28/2007 13:20	0.095	0.126	97.89
03/28/2007 13:21	0.096	0.125	97.86
03/28/2007 13:22	0.096	0.145	97.87
03/28/2007 13:23	0.096	0.140	97.90
03/28/2007 13:24	0.096	0.168	97.69
03/28/2007 13:25	0.095	0.173	97.81
03/28/2007 13:26	0.094	0.124	97.86
03/28/2007 13:27	0.094	0.133	97.86
03/28/2007 13:28	0.095	0.187	97.77
03/28/2007 13:29	0.094	0.197	97.63
03/28/2007 13:30	0.095	0.176	97.39
03/28/2007 13:31	0.094	0.200	97.44
03/28/2007 13:32	0.093	0.185	97.90
03/28/2007 13:33	0.093	0.171	97.78
03/28/2007 13:34	0.093	0.178	97.65
03/28/2007 13:35	0.092	0.170	97.98
03/28/2007 13:36	0.092	0.179	97.83
03/28/2007 13:37	0.092	0.188	97.52
03/28/2007 13:38	0.092	0.174	97.71
03/28/2007 13:39	0.092	0.210	97.76
03/28/2007 13:40	0.093	0.164	97.92
03/28/2007 13:41	0.093	0.183	97.99
03/28/2007 13:42	0.094	0.172	97.75
03/28/2007 13:43	0.093	0.114	97.67
03/28/2007 13:44	0.094	0.093	97.77
03/28/2007 13:45	0.094	0.142	97.76
03/28/2007 13:46	0.095	0.155	97.77
03/28/2007 13:47	0.096	0.160	97.70
03/28/2007 13:48	0.095	0.122	98.03
03/28/2007 13:49	0.095	0.135	98.08
03/28/2007 13:50	0.096	0.141	98.21
03/28/2007 13:51	0.096	0.165	98.16
03/28/2007 13:52	0.096	0.223	98.23
03/28/2007 13:53	0.097	0.209	98.33
03/28/2007 13:54	0.097	0.181	98.25
03/28/2007 13:55	0.096	0.167	98.15
03/28/2007 13:56	0.096	0.152	97.98
03/28/2007 13:57	0.096	0.163	98.01
03/28/2007 13:58	N/A	N/A	98.27
03/28/2007 13:59	N/A	N/A	98.05
03/28/2007 14:00	N/A	N/A	97.50
03/28/2007 14:01	N/A	N/A	97.75
03/28/2007 14:02	N/A	N/A	97.75
03/28/2007 14:03	0.109	0.138	97.99
03/28/2007 14:04	0.109	0.175	98.22
03/28/2007 14:05	0.109	0.190	98.66
03/28/2007 14:06	0.106	0.154	99.17
03/28/2007 14:07	0.101	0.168	99.18
03/28/2007 14:08	0.096	0.110	99.02
03/28/2007 14:09	0.094	0.126	98.47
03/28/2007 14:10	0.093	0.123	98.25
03/28/2007 14:11	0.092	0.208	98.52
03/28/2007 14:12	0.092	0.184	98.16
03/28/2007 14:13	0.091	0.180	97.67
03/28/2007 14:14	0.090	0.123	97.88
03/28/2007 14:15	0.089	0.161	97.95
03/28/2007 14:16	0.090	0.173	98.17
03/28/2007 14:17	0.091	0.214	98.27
03/28/2007 14:18	0.092	0.182	98.15
03/28/2007 14:19	0.092	0.198	98.13
03/28/2007 14:20	0.093	0.184	98.14
03/28/2007 14:21	0.094	0.216	97.90
03/28/2007 14:22	0.095	0.166	97.72
03/28/2007 14:23	0.095	0.189	97.80
03/28/2007 14:24	0.094	0.202	98.25
03/28/2007 14:25	0.094	0.180	98.40
03/28/2007 14:26	0.095	0.146	98.13
03/28/2007 14:27	0.095	0.146	97.64
03/28/2007 14:28	0.094	0.105	97.31
03/28/2007 14:29	0.091	0.116	97.48
03/28/2007 14:30	0.089	0.083	97.93
03/28/2007 14:31	0.090	0.056	98.55
03/28/2007 14:32	0.092	0.083	98.61
03/28/2007 14:33	0.092	0.135	98.68
03/28/2007 14:34	0.094	0.117	98.59
03/28/2007 14:35	0.094	0.156	98.31
03/28/2007 14:36	0.093	0.145	98.39
03/28/2007 14:37	0.090	0.143	98.35
03/28/2007 14:38	0.094	0.127	98.77
03/28/2007 14:39	0.088	0.091	99.15
03/28/2007 14:40	0.084	0.084	99.15
03/28/2007 14:41	0.084	0.083	99.61

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/28/2007 14:42	0.085	0.108	99.67
03/28/2007 14:43	0.084	0.139	99.07
03/28/2007 14:44	0.081	0.129	98.67
03/28/2007 14:45	0.080	0.151	98.13
03/28/2007 14:46	0.080	0.110	98.27
03/28/2007 14:47	0.081	0.142	98.35
03/28/2007 14:48	0.080	0.124	98.60
03/28/2007 14:49	0.079	0.085	98.42
03/28/2007 14:50	0.079	0.098	98.27
03/28/2007 14:51	0.079	0.105	97.94
03/28/2007 14:52	0.080	0.153	97.64
03/28/2007 14:53	0.081	0.149	97.33
03/28/2007 14:54	0.081	0.135	96.96
03/28/2007 14:55	0.083	0.151	96.98
03/28/2007 14:56	0.084	0.146	96.84
03/28/2007 14:57	0.085	0.149	96.62
03/28/2007 14:58	0.087	0.162	96.93
03/28/2007 14:59	N/A	N/A	96.74
03/28/2007 15:00	N/A	N/A	96.71
03/28/2007 15:01	N/A	N/A	96.73
03/28/2007 15:02	N/A	N/A	96.64
03/28/2007 15:03	0.096	0.134	96.82
03/28/2007 15:04	0.097	0.153	96.90
03/28/2007 15:05	0.098	0.178	96.73
03/28/2007 15:06	0.100	0.184	96.70
03/28/2007 15:07	0.101	0.199	96.72
03/28/2007 15:08	0.102	0.180	96.79
03/28/2007 15:09	0.102	0.174	96.76
03/28/2007 15:10	0.102	0.190	96.49
03/28/2007 15:11	0.103	0.174	96.73
03/28/2007 15:12	0.102	0.206	96.65
03/28/2007 15:13	0.102	0.165	96.62
03/28/2007 15:14	0.101	0.187	96.45
03/28/2007 15:15	0.101	0.172	96.67
03/28/2007 15:16	0.101	0.161	96.53
03/28/2007 15:17	0.100	0.131	96.53
03/28/2007 15:18	0.100	0.096	96.62
03/28/2007 15:19	0.098	0.146	96.78
03/28/2007 15:20	0.098	0.193	96.58
03/28/2007 15:21	0.098	0.197	96.62
03/28/2007 15:22	0.097	0.181	96.66
03/28/2007 15:23	0.096	0.192	96.57
03/28/2007 15:24	0.096	0.169	96.67
03/28/2007 15:25	0.096	0.172	96.47
03/28/2007 15:26	0.096	0.152	96.43
03/28/2007 15:27	0.095	0.133	96.54
03/28/2007 15:28	0.095	0.155	96.64
03/28/2007 15:29	0.095	0.176	96.50
03/28/2007 15:30	0.094	0.195	96.49
03/28/2007 15:31	0.094	0.143	96.41
03/28/2007 15:32	0.094	0.147	96.32
03/28/2007 15:33	0.096	0.171	95.96
03/28/2007 15:34	0.100	0.176	96.70
03/28/2007 15:35	0.101	0.135	97.14
03/28/2007 15:36	0.098	0.191	97.12
03/28/2007 15:37	0.096	0.137	96.89
03/28/2007 15:38	0.096	0.139	96.51
03/28/2007 15:39	0.096	0.139	96.55
03/28/2007 15:40	0.095	0.157	96.56
03/28/2007 15:41	0.094	0.232	96.68
03/28/2007 15:42	0.094	0.245	96.61
03/28/2007 15:43	0.093	0.197	96.79
03/28/2007 15:44	0.093	0.131	96.45
03/28/2007 15:45	0.093	0.153	96.58
03/28/2007 15:46	0.094	0.182	96.64
03/28/2007 15:47	0.095	0.171	96.62
03/28/2007 15:48	0.095	0.141	96.62
03/28/2007 15:49	0.095	0.188	96.93
03/28/2007 15:50	0.095	0.210	96.67
03/28/2007 15:51	0.095	0.259	96.78
03/28/2007 15:52	0.096	0.173	96.84
03/28/2007 15:53	0.096	0.228	96.69
03/28/2007 15:54	0.096	0.193	97.04
03/28/2007 15:55	0.096	0.201	96.98
03/28/2007 15:56	0.096	0.165	97.18
03/28/2007 15:57	0.096	0.164	97.39
03/28/2007 15:58	0.096	0.105	97.37
03/28/2007 15:59	N/A	N/A	97.46
03/28/2007 16:00	N/A	N/A	97.41
03/28/2007 16:01	N/A	N/A	97.11
03/28/2007 16:02	N/A	N/A	97.10
03/28/2007 16:03	0.096	0.133	96.97
03/28/2007 16:04	0.096	0.174	97.07
03/28/2007 16:05	0.096	0.201	97.26
03/28/2007 16:06	0.096	0.211	96.71
03/28/2007 16:07	0.096	0.222	96.84
03/28/2007 16:08	0.095	0.180	96.86
03/28/2007 16:09	0.095	0.202	96.80
03/28/2007 16:10	0.094	0.213	97.06
03/28/2007 16:11	0.095	0.254	97.10
03/28/2007 16:12	0.096	0.242	96.40
03/28/2007 16:13	0.107	0.271	96.88
03/28/2007 16:14	0.104	0.314	97.65
03/28/2007 16:15	0.095	0.236	98.02
03/28/2007 16:16	0.093	0.260	97.64
03/28/2007 16:17	0.093	0.189	97.58
03/28/2007 16:18	0.092	0.155	97.39
03/28/2007 16:19	0.092	0.203	97.35
03/28/2007 16:20	0.091	0.188	97.47

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/28/2007 16:21	0.091	0.241	97.27
03/28/2007 16:22	0.090	0.230	97.47
03/28/2007 16:23	0.090	0.165	97.32
03/28/2007 16:24	0.090	0.160	97.00
03/28/2007 16:25	0.090	0.197	97.18
03/28/2007 16:26	0.091	0.189	97.31
03/28/2007 16:27	0.091	0.212	97.26
03/28/2007 16:28	0.092	0.133	97.36
03/28/2007 16:29	0.092	0.135	96.89
03/28/2007 16:30	0.093	0.129	96.70
03/28/2007 16:31	0.093	0.129	96.65
03/28/2007 16:32	0.093	0.128	96.67
03/28/2007 16:33	0.093	0.124	96.80
03/28/2007 16:34	0.094	0.141	96.77
03/28/2007 16:35	0.095	0.125	96.89
03/28/2007 16:36	0.095	0.167	96.97
03/28/2007 16:37	0.095	0.192	96.97
03/28/2007 16:38	0.095	0.217	96.97
03/28/2007 16:39	0.096	0.185	97.18
03/28/2007 16:40	0.096	0.180	97.16
03/28/2007 16:41	0.096	0.241	97.38
03/28/2007 16:42	0.097	0.212	97.50
03/28/2007 16:43	0.097	0.182	97.35
03/28/2007 16:44	0.097	0.232	97.24
03/28/2007 16:45	0.097	0.250	97.13
03/28/2007 16:46	0.096	0.244	96.98
03/28/2007 16:47	0.096	0.174	97.01
03/28/2007 16:48	0.097	0.222	97.20
03/28/2007 16:49	0.096	0.270	97.47
03/28/2007 16:50	0.096	0.272	97.45
03/28/2007 16:51	0.096	0.310	97.50
03/28/2007 16:52	0.096	0.342	97.33
03/28/2007 16:53	0.095	0.340	97.45
03/28/2007 16:54	0.095	0.400	97.34
03/28/2007 16:55	0.095	0.351	97.36
03/28/2007 16:56	0.094	0.339	97.30
03/28/2007 16:57	0.094	0.309	97.46
03/28/2007 16:58	0.094	0.310	97.67
03/28/2007 16:59	N/A	N/A	97.37
03/28/2007 17:00	N/A	N/A	97.46
03/28/2007 17:01	N/A	N/A	97.46
03/28/2007 17:02	N/A	N/A	97.46
03/28/2007 17:03	0.095	0.291	97.75
03/28/2007 17:04	0.095	0.344	97.55
03/28/2007 17:05	0.095	0.355	97.69
03/28/2007 17:06	0.095	0.266	97.41
03/28/2007 17:07	0.095	0.241	97.53
03/28/2007 17:08	0.095	0.267	97.57
03/28/2007 17:09	0.095	0.251	97.52
03/28/2007 17:10	0.096	0.186	97.55
03/28/2007 17:11	0.096	0.232	97.69
03/28/2007 17:12	0.096	0.209	97.70
03/28/2007 17:13	0.096	0.191	97.86
03/28/2007 17:14	0.097	0.221	97.72
03/28/2007 17:15	0.097	0.259	97.73
03/28/2007 17:16	0.097	0.198	98.00
03/28/2007 17:17	0.096	0.249	97.67
03/28/2007 17:18	0.097	0.218	97.83
03/28/2007 17:19	0.097	0.163	97.84
03/28/2007 17:20	0.097	0.205	97.63
03/28/2007 17:21	0.098	0.159	97.56
03/28/2007 17:22	0.097	0.162	97.31
03/28/2007 17:23	0.096	0.118	97.30
03/28/2007 17:24	0.096	0.147	97.00
03/28/2007 17:25	0.095	0.127	97.12
03/28/2007 17:26	0.096	0.116	97.06
03/28/2007 17:27	0.096	0.120	96.95
03/28/2007 17:28	0.097	0.102	97.06
03/28/2007 17:29	0.097	0.099	96.96
03/28/2007 17:30	0.097	0.101	96.98
03/28/2007 17:31	0.096	0.127	96.99
03/28/2007 17:32	0.097	0.127	96.84
03/28/2007 17:33	0.097	0.119	96.93
03/28/2007 17:34	0.095	0.121	96.83
03/28/2007 17:35	0.095	0.107	96.76
03/28/2007 17:36	0.096	0.126	97.32
03/28/2007 17:37	0.096	0.105	97.81
03/28/2007 17:38	0.096	0.117	97.80
03/28/2007 17:39	0.097	0.151	98.30
03/28/2007 17:40	0.101	0.146	98.08
03/28/2007 17:41	0.103	0.146	98.15
03/28/2007 17:42	0.101	0.145	97.82
03/28/2007 17:43	0.099	0.173	97.68
03/28/2007 17:44	0.097	0.172	97.71
03/28/2007 17:45	0.096	0.150	97.65
03/28/2007 17:46	0.095	0.196	97.65
03/28/2007 17:47	0.095	0.163	97.64
03/28/2007 17:48	0.094	0.166	97.64
03/28/2007 17:49	0.093	0.160	97.55
03/28/2007 17:50	0.092	0.157	97.62
03/28/2007 17:51	0.092	0.160	97.68
03/28/2007 17:52	0.093	0.129	97.70
03/28/2007 17:53	0.093	0.149	97.54
03/28/2007 17:54	0.093	0.174	97.42
03/28/2007 17:55	0.093	0.124	97.41
03/28/2007 17:56	0.093	0.096	97.54
03/28/2007 17:57	0.093	0.146	97.53
03/28/2007 17:58	0.095	0.159	97.23
03/28/2007 17:59	N/A	N/A	96.98

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/28/2007 18:00	N/A	N/A	97.00
03/28/2007 18:01	N/A	N/A	97.06
03/28/2007 18:02	N/A	N/A	97.29
03/28/2007 18:03	0.111	0.099	97.64
03/28/2007 18:04	0.111	0.124	97.46
03/28/2007 18:05	0.125	0.159	98.01
03/28/2007 18:06	0.127	0.158	98.55
03/28/2007 18:07	0.129	0.206	98.60
03/28/2007 18:08	0.120	0.174	98.45
03/28/2007 18:09	0.109	0.161	98.16
03/28/2007 18:10	0.108	0.085	97.84
03/28/2007 18:11	0.103	0.094	97.52
03/28/2007 18:12	0.100	0.085	97.53
03/28/2007 18:13	0.098	0.126	97.61
03/28/2007 18:14	0.097	0.161	97.63
03/28/2007 18:15	0.098	0.109	97.50
03/28/2007 18:16	0.098	0.086	97.30
03/28/2007 18:17	0.098	0.063	97.24
03/28/2007 18:18	0.097	0.070	97.23
03/28/2007 18:19	0.097	0.071	97.26
03/28/2007 18:20	0.100	0.106	97.18
03/28/2007 18:21	0.102	0.106	97.19
03/28/2007 18:22	0.103	0.069	97.26
03/28/2007 18:23	0.102	0.061	97.17
03/28/2007 18:24	0.103	0.051	97.37
03/28/2007 18:25	0.103	0.074	97.23
03/28/2007 18:26	0.104	0.080	97.16
03/28/2007 18:27	0.105	0.129	97.27
03/28/2007 18:28	0.107	0.151	97.51
03/28/2007 18:29	0.109	0.146	97.68
03/28/2007 18:30	0.109	0.098	97.67
03/28/2007 18:31	0.108	0.114	97.60
03/28/2007 18:32	0.106	0.109	97.65
03/28/2007 18:33	0.102	0.089	97.68
03/28/2007 18:34	0.099	0.079	97.77
03/28/2007 18:35	0.098	0.101	97.60
03/28/2007 18:36	0.097	0.098	97.47
03/28/2007 18:37	0.096	0.102	97.33
03/28/2007 18:38	0.094	0.121	97.36
03/28/2007 18:39	0.094	0.123	97.43
03/28/2007 18:40	0.095	0.138	97.28
03/28/2007 18:41	0.096	0.159	97.26
03/28/2007 18:42	0.097	0.147	97.31
03/28/2007 18:43	0.097	0.089	97.22
03/28/2007 18:44	0.098	0.091	97.33
03/28/2007 18:45	0.099	0.095	97.31
03/28/2007 18:46	0.099	0.114	97.34
03/28/2007 18:47	0.099	0.156	97.41
03/28/2007 18:48	0.099	0.122	97.44
03/28/2007 18:49	0.100	0.122	97.30
03/28/2007 18:50	0.101	0.118	97.36
03/28/2007 18:51	0.100	0.104	97.54
03/28/2007 18:52	0.098	0.112	97.73
03/28/2007 18:53	0.098	0.117	97.51
03/28/2007 18:54	0.098	0.090	97.49
03/28/2007 18:55	0.099	0.102	97.59
03/28/2007 18:56	0.100	0.132	97.63
03/28/2007 18:57	0.101	0.112	97.77
03/28/2007 18:58	0.101	0.185	97.81
03/28/2007 18:59	N/A	N/A	97.70
03/28/2007 19:00	N/A	N/A	97.67
03/28/2007 19:01	N/A	N/A	97.75
03/28/2007 19:02	N/A	N/A	97.89
03/28/2007 19:03	0.100	0.145	97.95
03/28/2007 19:04	0.101	0.115	97.94
03/28/2007 19:05	0.101	0.160	97.71
03/28/2007 19:06	0.101	0.139	97.58
03/28/2007 19:07	0.101	0.104	97.62
03/28/2007 19:08	0.101	0.149	97.52
03/28/2007 19:09	0.101	0.117	97.55
03/28/2007 19:10	0.101	0.118	97.33
03/28/2007 19:11	0.102	0.104	97.26
03/28/2007 19:12	0.103	0.090	97.29
03/28/2007 19:13	0.103	0.051	97.28
03/28/2007 19:14	0.102	0.077	97.40
03/28/2007 19:15	0.102	0.141	97.33
03/28/2007 19:16	0.101	0.104	97.34
03/28/2007 19:17	0.101	0.112	97.59
03/28/2007 19:18	0.101	0.070	97.63
03/28/2007 19:19	0.102	0.075	97.38
03/28/2007 19:20	0.102	0.101	97.55
03/28/2007 19:21	0.102	0.109	97.52
03/28/2007 19:22	0.102	0.141	97.48
03/28/2007 19:23	0.102	0.140	97.48
03/28/2007 19:24	0.101	0.129	97.50
03/28/2007 19:25	0.101	0.152	97.58
03/28/2007 19:26	0.100	0.103	97.77
03/28/2007 19:27	0.101	0.105	97.73
03/28/2007 19:28	0.100	0.126	97.48
03/28/2007 19:29	0.100	0.127	97.48
03/28/2007 19:30	0.101	0.146	97.61
03/28/2007 19:31	0.102	0.189	97.75
03/28/2007 19:32	0.103	0.129	97.64
03/28/2007 19:33	0.103	0.161	97.50
03/28/2007 19:34	0.102	0.193	97.59
03/28/2007 19:35	0.101	0.149	97.80
03/28/2007 19:36	0.101	0.135	97.69
03/28/2007 19:37	0.102	0.162	97.64
03/28/2007 19:38	0.102	0.156	97.49

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/28/2007 19:39	0.102	0.141	97.39
03/28/2007 19:40	0.102	0.174	97.53
03/28/2007 19:41	0.101	0.126	97.19
03/28/2007 19:42	0.102	0.169	96.35
03/28/2007 19:43	0.103	0.107	95.50
03/28/2007 19:44	0.104	0.096	94.25
03/28/2007 19:45	0.101	0.047	93.34
03/28/2007 19:46	0.097	0.009	93.48
03/28/2007 19:47	0.093	0.011	94.17
03/28/2007 19:48	0.092	0.034	94.74
03/28/2007 19:49	0.094	0.051	95.73
03/28/2007 19:50	0.096	0.104	96.60
03/28/2007 19:51	0.112	0.160	96.59
03/28/2007 19:52	0.120	0.148	96.34
03/28/2007 19:53	0.107	0.153	95.20
03/28/2007 19:54	0.104	0.066	93.84
03/28/2007 19:55	0.094	0.043	92.87
03/28/2007 19:56	0.093	0.045	93.13
03/28/2007 19:57	0.094	0.045	93.69
03/28/2007 19:58	0.095	0.047	94.67
03/28/2007 19:59	N/A	N/A	95.89
03/28/2007 20:00	N/A	N/A	96.60
03/28/2007 20:01	N/A	N/A	96.88
03/28/2007 20:02	N/A	N/A	97.57
03/28/2007 20:03	0.112	0.198	97.90
03/28/2007 20:04	0.111	0.211	98.00
03/28/2007 20:05	0.111	0.259	98.02
03/28/2007 20:06	0.110	0.267	97.60
03/28/2007 20:07	0.108	0.236	97.56
03/28/2007 20:08	0.106	0.221	97.50
03/28/2007 20:09	0.106	0.215	97.52
03/28/2007 20:10	0.105	0.219	97.59
03/28/2007 20:11	0.105	0.206	97.48
03/28/2007 20:12	0.105	0.173	97.56
03/28/2007 20:13	0.106	0.180	97.64
03/28/2007 20:14	0.106	0.169	97.74
03/28/2007 20:15	0.106	0.165	97.67
03/28/2007 20:16	0.105	0.224	97.66
03/28/2007 20:17	0.104	0.169	97.39
03/28/2007 20:18	0.103	0.147	97.47
03/28/2007 20:19	0.103	0.142	97.58
03/28/2007 20:20	0.104	0.180	97.52
03/28/2007 20:21	0.105	0.192	97.59
03/28/2007 20:22	0.105	0.183	97.61
03/28/2007 20:23	0.105	0.150	97.72
03/28/2007 20:24	0.105	0.136	97.64
03/28/2007 20:25	0.104	0.133	97.46
03/28/2007 20:26	0.104	0.157	97.51
03/28/2007 20:27	0.103	0.175	97.62
03/28/2007 20:28	0.103	0.184	97.64
03/28/2007 20:29	0.105	0.172	97.64
03/28/2007 20:30	0.105	0.141	97.64
03/28/2007 20:31	0.105	0.122	97.20
03/28/2007 20:32	0.104	0.144	96.55
03/28/2007 20:33	0.102	0.097	95.43
03/28/2007 20:34	0.098	0.060	94.54
03/28/2007 20:35	0.087	0.073	93.37
03/28/2007 20:36	0.081	0.066	93.64
03/28/2007 20:37	0.081	0.020	94.11
03/28/2007 20:38	0.083	0.019	94.95
03/28/2007 20:39	0.093	0.098	95.67
03/28/2007 20:40	0.106	0.172	96.49
03/28/2007 20:41	0.115	0.184	96.56
03/28/2007 20:42	0.116	0.230	96.52
03/28/2007 20:43	0.116	0.208	95.57
03/28/2007 20:44	0.118	0.142	94.44
03/28/2007 20:45	0.106	0.101	93.30
03/28/2007 20:46	0.100	0.040	93.31
03/28/2007 20:47	0.097	0.043	94.00
03/28/2007 20:48	0.093	0.122	94.73
03/28/2007 20:49	0.102	0.206	95.82
03/28/2007 20:50	0.113	0.267	96.73
03/28/2007 20:51	0.115	0.245	97.20
03/28/2007 20:52	0.117	0.241	97.99
03/28/2007 20:53	0.119	0.324	98.93
03/28/2007 20:54	0.120	0.311	99.31
03/28/2007 20:55	0.131	0.300	99.66
03/28/2007 20:56	0.118	0.320	100.09
03/28/2007 20:57	0.116	0.380	100.01
03/28/2007 20:58	0.117	0.310	99.66
03/28/2007 20:59	N/A	N/A	99.78
03/28/2007 21:00	N/A	N/A	99.86
03/28/2007 21:01	N/A	N/A	99.75
03/28/2007 21:02	N/A	N/A	99.75
03/28/2007 21:03	0.112	0.301	99.71
03/28/2007 21:04	0.112	0.295	99.73
03/28/2007 21:05	0.114	0.289	99.44
03/28/2007 21:06	0.118	0.241	99.73
03/28/2007 21:07	0.101	0.196	99.23
03/28/2007 21:08	0.109	0.128	99.04
03/28/2007 21:09	0.107	0.120	99.07
03/28/2007 21:10	0.096	0.169	98.87
03/28/2007 21:11	0.084	0.157	98.66
03/28/2007 21:12	0.083	0.095	98.54
03/28/2007 21:13	0.082	0.118	98.99
03/28/2007 21:14	0.082	0.185	99.22
03/28/2007 21:15	0.084	0.158	99.20
03/28/2007 21:16	0.086	0.184	98.90
03/28/2007 21:17	0.087	0.129	98.95

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/28/2007 21:18	0.088	0.062	99.26
03/28/2007 21:19	0.088	0.054	99.37
03/28/2007 21:20	0.086	0.058	99.27
03/28/2007 21:21	0.086	0.093	98.94
03/28/2007 21:22	0.084	0.105	98.50
03/28/2007 21:23	0.080	0.067	98.11
03/28/2007 21:24	0.076	0.070	98.02
03/28/2007 21:25	0.074	0.061	97.92
03/28/2007 21:26	0.071	0.030	97.99
03/28/2007 21:27	0.072	0.014	98.08
03/28/2007 21:28	0.075	0.019	98.47
03/28/2007 21:29	0.083	0.079	98.84
03/28/2007 21:30	0.091	0.084	99.25
03/28/2007 21:31	0.093	0.117	98.99
03/28/2007 21:32	0.094	0.135	98.95
03/28/2007 21:33	0.096	0.119	99.21
03/28/2007 21:34	0.097	0.088	99.49
03/28/2007 21:35	0.100	0.075	99.82
03/28/2007 21:36	0.103	0.115	99.77
03/28/2007 21:37	0.105	0.111	99.70
03/28/2007 21:38	0.104	0.099	99.78
03/28/2007 21:39	0.105	0.174	100.02
03/28/2007 21:40	0.107	0.187	100.44
03/28/2007 21:41	0.109	0.163	100.04
03/28/2007 21:42	0.110	0.141	100.06
03/28/2007 21:43	0.109	0.137	99.92
03/28/2007 21:44	0.107	0.162	99.88
03/28/2007 21:45	0.104	0.121	99.86
03/28/2007 21:46	0.101	0.139	99.60
03/28/2007 21:47	0.099	0.181	99.68
03/28/2007 21:48	0.099	0.157	99.84
03/28/2007 21:49	0.099	0.137	99.93
03/28/2007 21:50	0.098	0.108	99.77
03/28/2007 21:51	0.097	0.131	99.22
03/28/2007 21:52	0.096	0.134	98.41
03/28/2007 21:53	0.094	0.097	97.71
03/28/2007 21:54	0.092	0.054	96.63
03/28/2007 21:55	0.086	0.065	96.09
03/28/2007 21:56	0.073	0.045	95.85
03/28/2007 21:57	0.069	0.004	96.18
03/28/2007 21:58	0.068	-0.001	96.90
03/28/2007 21:59	N/A	N/A	97.96
03/28/2007 22:00	N/A	N/A	98.89
03/28/2007 22:01	N/A	N/A	99.25
03/28/2007 22:02	N/A	N/A	99.46
03/28/2007 22:03	0.101	0.127	99.74
03/28/2007 22:04	0.102	0.119	99.94
03/28/2007 22:05	0.103	0.144	99.79
03/28/2007 22:06	0.105	0.135	99.69
03/28/2007 22:07	0.107	0.143	99.53
03/28/2007 22:08	0.109	0.124	99.39
03/28/2007 22:09	0.110	0.146	99.36
03/28/2007 22:10	0.111	0.149	99.84
03/28/2007 22:11	0.110	0.170	99.95
03/28/2007 22:12	0.111	0.218	99.79
03/28/2007 22:13	0.111	0.129	99.73
03/28/2007 22:14	0.111	0.159	99.90
03/28/2007 22:15	0.110	0.165	99.89
03/28/2007 22:16	0.109	0.192	99.65
03/28/2007 22:17	0.107	0.148	99.55
03/28/2007 22:18	0.104	0.201	99.65
03/28/2007 22:19	0.102	0.191	99.70
03/28/2007 22:20	0.099	0.142	99.57
03/28/2007 22:21	0.096	0.142	99.62
03/28/2007 22:22	0.094	0.178	99.69
03/28/2007 22:23	0.093	0.184	99.34
03/28/2007 22:24	0.091	0.202	99.75
03/28/2007 22:25	0.089	0.243	99.57
03/28/2007 22:26	0.087	0.244	99.56
03/28/2007 22:27	0.087	0.214	99.53
03/28/2007 22:28	0.096	0.211	99.67
03/28/2007 22:29	0.093	0.139	99.68
03/28/2007 22:30	0.090	0.189	99.61
03/28/2007 22:31	0.087	0.181	99.48
03/28/2007 22:32	0.087	0.158	99.36
03/28/2007 22:33	0.086	0.179	99.07
03/28/2007 22:34	0.085	0.179	99.20
03/28/2007 22:35	0.083	0.187	99.25
03/28/2007 22:36	0.083	0.257	99.47
03/28/2007 22:37	0.085	0.283	99.58
03/28/2007 22:38	0.087	0.276	99.71
03/28/2007 22:39	0.089	0.322	99.78
03/28/2007 22:40	0.091	0.364	99.77
03/28/2007 22:41	0.092	0.273	98.94
03/28/2007 22:42	0.093	0.217	98.23
03/28/2007 22:43	0.093	0.173	97.52
03/28/2007 22:44	0.091	0.190	96.59
03/28/2007 22:45	0.080	0.161	95.65
03/28/2007 22:46	0.072	0.127	95.87
03/28/2007 22:47	0.070	0.188	96.23
03/28/2007 22:48	0.069	0.199	96.85
03/28/2007 22:49	0.080	0.290	98.05
03/28/2007 22:50	0.083	0.332	99.11
03/28/2007 22:51	0.099	0.380	98.85
03/28/2007 22:52	0.102	0.361	98.47
03/28/2007 22:53	0.103	0.329	97.57
03/28/2007 22:54	0.106	0.251	96.70
03/28/2007 22:55	0.097	0.224	95.90
03/28/2007 22:56	0.088	0.150	95.62

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/28/2007 22:57	0.083	0.128	96.09
03/28/2007 22:58	0.081	0.095	96.79
03/28/2007 22:59	N/A	N/A	97.97
03/28/2007 23:00	N/A	N/A	99.01
03/28/2007 23:01	N/A	N/A	99.40
03/28/2007 23:02	N/A	N/A	99.82
03/28/2007 23:03	0.112	0.356	100.14
03/28/2007 23:04	0.113	0.333	100.26
03/28/2007 23:05	0.116	0.312	100.06
03/28/2007 23:06	0.117	0.296	99.91
03/28/2007 23:07	0.117	0.347	99.90
03/28/2007 23:08	0.117	0.308	99.99
03/28/2007 23:09	0.117	0.330	100.06
03/28/2007 23:10	0.116	0.367	99.82
03/28/2007 23:11	0.113	0.307	99.70
03/28/2007 23:12	0.109	0.304	99.92
03/28/2007 23:13	0.106	0.253	99.68
03/28/2007 23:14	0.105	0.286	99.74
03/28/2007 23:15	0.104	0.302	99.73
03/28/2007 23:16	0.101	0.305	99.70
03/28/2007 23:17	0.098	0.255	99.67
03/28/2007 23:18	0.096	0.322	99.56
03/28/2007 23:19	0.095	0.186	99.68
03/28/2007 23:20	0.093	0.275	99.56
03/28/2007 23:21	0.092	0.224	99.68
03/28/2007 23:22	0.090	0.233	99.62
03/28/2007 23:23	0.089	0.277	99.38
03/28/2007 23:24	0.087	0.277	99.38
03/28/2007 23:25	0.086	0.242	99.49
03/28/2007 23:26	0.083	0.227	99.65
03/28/2007 23:27	0.082	0.293	99.46
03/28/2007 23:28	0.083	0.235	99.43
03/28/2007 23:29	0.083	0.241	99.28
03/28/2007 23:30	0.082	0.249	99.14
03/28/2007 23:31	0.081	0.215	99.05
03/28/2007 23:32	0.081	0.192	98.87
03/28/2007 23:33	0.080	0.197	98.79
03/28/2007 23:34	0.080	0.230	98.70
03/28/2007 23:35	0.080	0.254	98.87
03/28/2007 23:36	0.080	0.231	99.04
03/28/2007 23:37	0.081	0.181	99.08
03/28/2007 23:38	0.083	0.243	99.19
03/28/2007 23:39	0.085	0.257	99.27
03/28/2007 23:40	0.088	0.233	99.34
03/28/2007 23:41	0.090	0.249	99.43
03/28/2007 23:42	0.092	0.258	99.48
03/28/2007 23:43	0.093	0.215	99.46
03/28/2007 23:44	0.094	0.264	99.53
03/28/2007 23:45	0.096	0.263	99.45
03/28/2007 23:46	0.096	0.227	99.63
03/28/2007 23:47	0.096	0.243	99.68
03/28/2007 23:48	0.097	0.269	99.66
03/28/2007 23:49	0.098	0.312	99.56
03/28/2007 23:50	0.097	0.249	99.37
03/28/2007 23:51	0.097	0.197	99.56
03/28/2007 23:52	0.097	0.253	99.46
03/28/2007 23:53	0.097	0.253	99.66
03/28/2007 23:54	0.098	0.205	99.57
03/28/2007 23:55	0.098	0.227	99.59
03/28/2007 23:56	0.097	0.279	99.64
03/28/2007 23:57	0.096	0.197	99.71
03/28/2007 23:58	0.097	0.196	99.82
03/28/2007 23:59	N/A	N/A	99.90
Daily Average*	**0.155**	**0.199**	**93.06**
Maximum*	**0.575**	**0.815**	**100.44**
	03/28/2007	03/28/2007	03/28/2007
	1:16	6:41	21:40
Minimum*	**0.067**	**-0.001**	**47.55**
	03/28/2007	03/28/2007	03/28/2007
	7:03	21:58	1:43

* Does not include Invalid Averaging Periods ("N/A")

Average Values Report
Generated: 9/27/2007 11:12

Company: AES Greenidge
Plant: 590 Plant Road
City/St: Dresden, NY 14441
Source: STACK4

Period Start: 3/28/2007 00:00
Period End: 3/30/2007 00:00
Validation Type: 1/1 min
Averaging Period: 1 min
Type: Block Avg

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/29/2007 00:00	N/A	N/A	99.93
03/29/2007 00:01	N/A	N/A	99.82
03/29/2007 00:02	N/A	N/A	99.79
03/29/2007 00:03	0.097	0.266	99.57
03/29/2007 00:04	0.097	0.256	99.58
03/29/2007 00:05	0.096	0.258	99.49
03/29/2007 00:06	0.096	0.252	99.39
03/29/2007 00:07	0.096	0.177	99.53
03/29/2007 00:08	0.095	0.192	99.47
03/29/2007 00:09	0.094	0.200	99.45
03/29/2007 00:10	0.094	0.243	99.51
03/29/2007 00:11	0.094	0.197	99.57
03/29/2007 00:12	0.093	0.190	99.74
03/29/2007 00:13	0.093	0.225	99.88
03/29/2007 00:14	0.093	0.298	99.78
03/29/2007 00:15	0.094	0.252	99.57
03/29/2007 00:16	0.095	0.243	99.80
03/29/2007 00:17	0.096	0.228	99.74
03/29/2007 00:18	0.096	0.268	99.80
03/29/2007 00:19	0.097	0.228	99.77
03/29/2007 00:20	0.097	0.227	99.71
03/29/2007 00:21	0.097	0.296	99.82
03/29/2007 00:22	0.097	0.226	99.84
03/29/2007 00:23	0.098	0.215	99.82
03/29/2007 00:24	0.098	0.200	99.73
03/29/2007 00:25	0.098	0.206	99.65
03/29/2007 00:26	0.097	0.213	99.67
03/29/2007 00:27	0.097	0.252	99.72
03/29/2007 00:28	0.097	0.239	99.92
03/29/2007 00:29	0.097	0.270	99.78
03/29/2007 00:30	0.098	0.231	99.69
03/29/2007 00:31	0.098	0.215	99.85
03/29/2007 00:32	0.098	0.235	99.94
03/29/2007 00:33	0.099	0.249	99.71
03/29/2007 00:34	0.100	0.224	99.65
03/29/2007 00:35	0.099	0.255	99.44
03/29/2007 00:36	0.097	0.221	99.43
03/29/2007 00:37	0.095	0.222	99.58
03/29/2007 00:38	0.095	0.217	99.77
03/29/2007 00:39	0.095	0.242	99.33
03/29/2007 00:40	0.095	0.199	99.39
03/29/2007 00:41	0.094	0.202	99.39
03/29/2007 00:42	0.093	0.203	99.47
03/29/2007 00:43	0.093	0.238	99.55
03/29/2007 00:44	0.093	0.238	99.60
03/29/2007 00:45	0.095	0.201	99.57
03/29/2007 00:46	0.094	0.184	99.42
03/29/2007 00:47	0.094	0.149	99.58
03/29/2007 00:48	0.095	0.219	99.60
03/29/2007 00:49	0.095	0.158	99.79
03/29/2007 00:50	0.095	0.155	99.72
03/29/2007 00:51	0.097	0.150	99.96
03/29/2007 00:52	0.097	0.202	99.83
03/29/2007 00:53	0.097	0.204	99.84
03/29/2007 00:54	0.098	0.149	99.93
03/29/2007 00:55	0.097	0.145	99.87
03/29/2007 00:56	0.096	0.158	99.80
03/29/2007 00:57	0.095	0.198	99.84
03/29/2007 00:58	0.095	0.223	99.76
03/29/2007 00:59	N/A	N/A	99.60
03/29/2007 01:00	N/A	N/A	99.92
03/29/2007 01:01	N/A	N/A	100.04
03/29/2007 01:02	N/A	N/A	99.48
03/29/2007 01:03	0.088	0.149	98.88
03/29/2007 01:04	0.086	0.152	99.26
03/29/2007 01:05	0.084	0.138	99.23
03/29/2007 01:06	0.083	0.122	99.22
03/29/2007 01:07	0.083	0.121	98.89
03/29/2007 01:08	0.083	0.113	98.87
03/29/2007 01:09	0.080	0.078	98.84
03/29/2007 01:10	0.078	0.046	98.83
03/29/2007 01:11	0.079	0.077	99.23
03/29/2007 01:12	0.081	0.070	99.38
03/29/2007 01:13	0.082	0.052	99.34
03/29/2007 01:14	0.084	0.049	99.14
03/29/2007 01:15	0.086	0.066	99.01
03/29/2007 01:16	0.087	0.077	99.61
03/29/2007 01:17	0.090	0.077	99.87
03/29/2007 01:18	0.092	0.066	99.76
03/29/2007 01:19	0.094	0.116	99.93
03/29/2007 01:20	0.097	0.084	100.00
03/29/2007 01:21	0.098	0.106	99.98
03/29/2007 01:22	0.095	0.075	99.69
03/29/2007 01:23	0.094	0.052	99.68
03/29/2007 01:24	0.092	0.070	99.42
03/29/2007 01:25	0.091	0.074	99.10
03/29/2007 01:26	0.089	0.085	98.92
03/29/2007 01:27	0.087	0.104	98.88
03/29/2007 01:28	0.087	0.098	99.31
03/29/2007 01:29	0.088	0.073	99.48

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/29/2007 01:30	0.090	0.058	99.47
03/29/2007 01:31	0.091	0.084	99.50
03/29/2007 01:32	0.094	0.100	99.47
03/29/2007 01:33	0.096	0.091	99.42
03/29/2007 01:34	0.097	0.083	99.64
03/29/2007 01:35	0.099	0.097	99.71
03/29/2007 01:36	0.100	0.105	99.79
03/29/2007 01:37	0.101	0.095	99.60
03/29/2007 01:38	0.101	0.149	99.66
03/29/2007 01:39	0.101	0.144	99.88
03/29/2007 01:40	0.101	0.121	99.80
03/29/2007 01:41	0.101	0.147	99.30
03/29/2007 01:42	0.101	0.148	98.52
03/29/2007 01:43	0.099	0.128	97.73
03/29/2007 01:44	0.095	0.101	96.75
03/29/2007 01:45	0.082	0.064	95.50
03/29/2007 01:46	0.078	0.013	94.44
03/29/2007 01:47	0.073	0.001	93.29
03/29/2007 01:48	0.068	0.005	92.46
03/29/2007 01:49	0.066	0.022	91.53
03/29/2007 01:50	0.065	0.025	90.64
03/29/2007 01:51	0.065	0.031	89.69
03/29/2007 01:52	0.066	0.033	88.82
03/29/2007 01:53	0.067	0.070	87.53
03/29/2007 01:54	0.069	0.062	86.61
03/29/2007 01:55	0.071	0.025	85.49
03/29/2007 01:56	0.075	0.016	83.97
03/29/2007 01:57	0.079	0.014	83.17
03/29/2007 01:58	0.081	0.001	82.34
03/29/2007 01:59	N/A	N/A	81.35
03/29/2007 02:00	N/A	N/A	80.26
03/29/2007 02:01	N/A	N/A	79.46
03/29/2007 02:02	N/A	N/A	78.55
03/29/2007 02:03	0.100	0.027	77.72
03/29/2007 02:04	0.103	0.050	76.74
03/29/2007 02:05	0.106	0.038	75.79
03/29/2007 02:06	0.107	0.016	74.71
03/29/2007 02:07	0.105	0.068	73.90
03/29/2007 02:08	0.088	0.083	72.95
03/29/2007 02:09	0.117	0.031	72.18
03/29/2007 02:10	0.135	0.119	71.10
03/29/2007 02:11	0.144	0.126	70.06
03/29/2007 02:12	0.149	0.045	69.25
03/29/2007 02:13	0.156	0.032	68.45
03/29/2007 02:14	0.167	0.016	67.57
03/29/2007 02:15	0.170	0.023	66.49
03/29/2007 02:16	0.166	0.043	65.75
03/29/2007 02:17	0.150	0.012	64.73
03/29/2007 02:18	0.164	0.005	63.92
03/29/2007 02:19	0.201	0.024	62.87
03/29/2007 02:20	0.212	0.009	61.83
03/29/2007 02:21	0.219	0.021	61.16
03/29/2007 02:22	0.227	0.043	60.26
03/29/2007 02:23	0.222	0.018	59.33
03/29/2007 02:24	0.236	0.006	58.34
03/29/2007 02:25	0.254	0.015	57.50
03/29/2007 02:26	0.268	0.112	57.99
03/29/2007 02:27	0.268	0.090	58.91
03/29/2007 02:28	0.242	0.064	60.01
03/29/2007 02:29	0.218	0.015	60.49
03/29/2007 02:30	0.227	0.074	60.57
03/29/2007 02:31	0.234	0.127	61.24
03/29/2007 02:32	0.230	0.115	62.16
03/29/2007 02:33	0.213	0.089	63.49
03/29/2007 02:34	0.202	0.085	64.51
03/29/2007 02:35	0.196	0.027	65.58
03/29/2007 02:36	0.197	0.073	66.32
03/29/2007 02:37	0.216	0.154	67.39
03/29/2007 02:38	0.167	0.116	68.58
03/29/2007 02:39	0.148	0.128	69.50
03/29/2007 02:40	0.191	0.120	70.61
03/29/2007 02:41	0.199	0.135	71.85
03/29/2007 02:42	0.185	0.088	72.74
03/29/2007 02:43	0.197	0.190	73.62
03/29/2007 02:44	0.199	0.291	74.57
03/29/2007 02:45	0.196	0.325	75.67
03/29/2007 02:46	0.191	0.305	76.47
03/29/2007 02:47	0.183	0.291	77.21
03/29/2007 02:48	0.161	0.418	78.63
03/29/2007 02:49	0.131	0.440	79.34
03/29/2007 02:50	0.116	0.363	80.78
03/29/2007 02:51	0.101	0.393	82.05
03/29/2007 02:52	0.097	0.379	82.94
03/29/2007 02:53	0.093	0.372	83.59
03/29/2007 02:54	0.087	0.458	84.32
03/29/2007 02:55	0.083	0.502	85.32
03/29/2007 02:56	0.081	0.578	86.28
03/29/2007 02:57	0.082	0.577	86.95
03/29/2007 02:58	0.094	0.545	87.66
03/29/2007 02:59	N/A	N/A	88.71
03/29/2007 03:00	N/A	N/A	89.69
03/29/2007 03:01	N/A	N/A	90.68
03/29/2007 03:02	N/A	N/A	91.31
03/29/2007 03:03	0.095	0.543	92.42
03/29/2007 03:04	0.080	0.584	93.12
03/29/2007 03:05	0.092	0.539	94.20
03/29/2007 03:06	0.086	0.616	94.95
03/29/2007 03:07	0.078	0.562	95.81
03/29/2007 03:08	0.075	0.577	96.37

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/29/2007 03:09	0.073	0.549	97.39
03/29/2007 03:10	0.074	0.681	98.40
03/29/2007 03:11	0.081	0.733	98.75
03/29/2007 03:12	0.095	0.684	99.30
03/29/2007 03:13	0.109	0.678	99.29
03/29/2007 03:14	0.114	0.579	99.22
03/29/2007 03:15	0.100	0.583	98.66
03/29/2007 03:16	0.104	0.514	98.22
03/29/2007 03:17	0.089	0.515	97.58
03/29/2007 03:18	0.078	0.437	96.64
03/29/2007 03:19	0.076	0.355	96.14
03/29/2007 03:20	0.062	0.299	95.74
03/29/2007 03:21	0.057	0.347	95.61
03/29/2007 03:22	0.058	0.357	95.78
03/29/2007 03:23	0.059	0.328	96.32
03/29/2007 03:24	0.061	0.318	96.59
03/29/2007 03:25	0.064	0.288	96.82
03/29/2007 03:26	0.066	0.246	97.10
03/29/2007 03:27	0.069	0.312	97.40
03/29/2007 03:28	0.073	0.314	97.32
03/29/2007 03:29	0.076	0.294	96.95
03/29/2007 03:30	0.078	0.319	97.12
03/29/2007 03:31	0.081	0.309	97.45
03/29/2007 03:32	0.084	0.277	97.56
03/29/2007 03:33	0.086	0.268	97.47
03/29/2007 03:34	0.087	0.269	97.36
03/29/2007 03:35	0.086	0.225	97.24
03/29/2007 03:36	0.086	0.265	97.54
03/29/2007 03:37	0.087	0.259	97.41
03/29/2007 03:38	0.089	0.204	97.91
03/29/2007 03:39	0.090	0.181	97.86
03/29/2007 03:40	0.091	0.191	97.83
03/29/2007 03:41	0.091	0.237	97.92
03/29/2007 03:42	0.092	0.238	97.85
03/29/2007 03:43	0.092	0.226	98.14
03/29/2007 03:44	0.092	0.160	97.84
03/29/2007 03:45	0.093	0.159	97.73
03/29/2007 03:46	0.103	0.189	97.82
03/29/2007 03:47	0.111	0.251	97.96
03/29/2007 03:48	0.114	0.239	97.75
03/29/2007 03:49	0.174	0.186	98.19
03/29/2007 03:50	0.193	0.149	98.19
03/29/2007 03:51	0.197	0.227	99.03
03/29/2007 03:52	0.200	0.267	99.23
03/29/2007 03:53	0.206	0.212	99.09
03/29/2007 03:54	0.215	0.224	98.76
03/29/2007 03:55	0.221	0.206	98.85
03/29/2007 03:56	0.223	0.225	98.92
03/29/2007 03:57	0.224	0.192	98.74
03/29/2007 03:58	0.224	0.214	98.62
03/29/2007 03:59	N/A	N/A	98.59
03/29/2007 04:00	N/A	N/A	98.76
03/29/2007 04:01	N/A	N/A	98.85
03/29/2007 04:02	N/A	N/A	98.57
03/29/2007 04:03	0.233	0.161	98.31
03/29/2007 04:04	0.232	0.216	98.48
03/29/2007 04:05	0.231	0.224	98.68
03/29/2007 04:06	0.232	0.195	98.39
03/29/2007 04:07	0.233	0.192	98.53
03/29/2007 04:08	0.235	0.180	98.63
03/29/2007 04:09	0.235	0.222	98.52
03/29/2007 04:10	0.233	0.289	98.54
03/29/2007 04:11	0.234	0.236	98.50
03/29/2007 04:12	0.235	0.263	98.78
03/29/2007 04:13	0.235	0.197	98.80
03/29/2007 04:14	0.237	0.199	98.68
03/29/2007 04:15	0.239	0.215	98.40
03/29/2007 04:16	0.240	0.233	98.61
03/29/2007 04:17	0.240	0.220	98.56
03/29/2007 04:18	0.240	0.224	98.58
03/29/2007 04:19	0.237	0.229	98.82
03/29/2007 04:20	0.238	0.191	98.64
03/29/2007 04:21	0.239	0.172	98.37
03/29/2007 04:22	0.240	0.167	98.35
03/29/2007 04:23	0.239	0.270	98.71
03/29/2007 04:24	0.239	0.239	98.92
03/29/2007 04:25	0.240	0.279	98.91
03/29/2007 04:26	0.241	0.218	98.76
03/29/2007 04:27	0.242	0.245	98.63
03/29/2007 04:28	0.244	0.243	98.15
03/29/2007 04:29	0.241	0.204	98.25
03/29/2007 04:30	0.240	0.213	98.57
03/29/2007 04:31	0.239	0.250	98.56
03/29/2007 04:32	0.241	0.175	98.48
03/29/2007 04:33	0.242	0.192	98.29
03/29/2007 04:34	0.242	0.245	98.24
03/29/2007 04:35	0.240	0.278	98.45
03/29/2007 04:36	0.239	0.248	98.60
03/29/2007 04:37	0.240	0.326	98.99
03/29/2007 04:38	0.239	0.323	99.04
03/29/2007 04:39	0.238	0.260	97.81
03/29/2007 04:40	0.237	0.265	96.44
03/29/2007 04:41	0.238	0.132	96.38
03/29/2007 04:42	0.241	0.104	96.44
03/29/2007 04:43	0.248	0.161	96.63
03/29/2007 04:44	0.255	0.185	97.28
03/29/2007 04:45	0.242	0.190	97.11
03/29/2007 04:46	0.240	0.177	96.58
03/29/2007 04:47	0.239	0.192	96.42

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/29/2007 04:48	0.235	0.251	96.35
03/29/2007 04:49	0.234	0.220	96.11
03/29/2007 04:50	0.235	0.262	96.16
03/29/2007 04:51	0.234	0.258	96.09
03/29/2007 04:52	0.233	0.212	95.95
03/29/2007 04:53	0.233	0.220	96.26
03/29/2007 04:54	0.233	0.193	96.47
03/29/2007 04:55	0.234	0.232	96.24
03/29/2007 04:56	0.235	0.251	96.08
03/29/2007 04:57	0.236	0.216	96.02
03/29/2007 04:58	0.236	0.199	96.22
03/29/2007 04:59	N/A	N/A	96.32
03/29/2007 05:00	N/A	N/A	96.37
03/29/2007 05:01	N/A	N/A	96.32
03/29/2007 05:02	N/A	N/A	96.37
03/29/2007 05:03	0.235	0.234	96.35
03/29/2007 05:04	0.234	0.268	96.31
03/29/2007 05:05	0.236	0.266	96.42
03/29/2007 05:06	0.238	0.241	96.43
03/29/2007 05:07	0.239	0.263	96.33
03/29/2007 05:08	0.240	0.287	96.40
03/29/2007 05:09	0.237	0.356	96.97
03/29/2007 05:10	0.237	0.352	96.68
03/29/2007 05:11	0.236	0.360	96.53
03/29/2007 05:12	0.235	0.305	96.69
03/29/2007 05:13	0.234	0.352	96.62
03/29/2007 05:14	0.234	0.322	96.89
03/29/2007 05:15	0.233	0.353	96.77
03/29/2007 05:16	0.235	0.248	97.10
03/29/2007 05:17	0.235	0.294	97.25
03/29/2007 05:18	0.235	0.256	97.17
03/29/2007 05:19	0.233	0.244	97.32
03/29/2007 05:20	0.233	0.288	97.20
03/29/2007 05:21	0.234	0.221	97.04
03/29/2007 05:22	0.234	0.242	97.08
03/29/2007 05:23	0.232	0.260	97.13
03/29/2007 05:24	0.231	0.230	97.32
03/29/2007 05:25	0.232	0.224	97.35
03/29/2007 05:26	0.232	0.219	97.27
03/29/2007 05:27	0.233	0.230	97.10
03/29/2007 05:28	0.235	0.201	97.30
03/29/2007 05:29	0.235	0.251	97.13
03/29/2007 05:30	0.234	0.270	97.73
03/29/2007 05:31	0.231	0.254	97.68
03/29/2007 05:32	0.236	0.198	97.42
03/29/2007 05:33	0.237	0.177	97.53
03/29/2007 05:34	0.236	0.211	97.26
03/29/2007 05:35	0.235	0.188	97.56
03/29/2007 05:36	0.233	0.189	97.45
03/29/2007 05:37	0.232	0.219	97.55
03/29/2007 05:38	0.232	0.266	97.52
03/29/2007 05:39	0.233	0.262	97.27
03/29/2007 05:40	0.235	0.300	97.30
03/29/2007 05:41	0.236	0.297	96.77
03/29/2007 05:42	0.203	0.277	96.46
03/29/2007 05:43	0.192	0.209	96.32
03/29/2007 05:44	0.198	0.243	96.04
03/29/2007 05:45	0.169	0.238	96.15
03/29/2007 05:46	0.142	0.197	96.17
03/29/2007 05:47	0.121	0.239	95.83
03/29/2007 05:48	0.104	0.260	95.97
03/29/2007 05:49	0.084	0.254	96.14
03/29/2007 05:50	0.076	0.231	96.18
03/29/2007 05:51	0.068	0.189	96.26
03/29/2007 05:52	0.068	0.228	96.09
03/29/2007 05:53	0.067	0.213	95.84
03/29/2007 05:54	0.065	0.201	95.63
03/29/2007 05:55	0.065	0.215	95.79
03/29/2007 05:56	0.066	0.143	95.58
03/29/2007 05:57	0.067	0.152	95.84
03/29/2007 05:58	0.068	0.193	95.93
03/29/2007 05:59	N/A	N/A	95.98
03/29/2007 06:00	N/A	N/A	96.08
03/29/2007 06:01	N/A	N/A	96.02
03/29/2007 06:02	N/A	N/A	95.80
03/29/2007 06:03	0.080	0.174	95.84
03/29/2007 06:04	0.083	0.181	95.78
03/29/2007 06:05	N/A	N/A	95.74
03/29/2007 06:06	N/A	N/A	95.48
03/29/2007 06:07	N/A	N/A	95.58
03/29/2007 06:08	N/A	N/A	95.66
03/29/2007 06:09	N/A	N/A	95.73
03/29/2007 06:10	N/A	N/A	95.62
03/29/2007 06:11	N/A	N/A	95.55
03/29/2007 06:12	N/A	N/A	95.60
03/29/2007 06:13	N/A	N/A	95.65
03/29/2007 06:14	N/A	N/A	95.68
03/29/2007 06:15	N/A	N/A	95.82
03/29/2007 06:16	N/A	N/A	95.79
03/29/2007 06:17	N/A	N/A	96.04
03/29/2007 06:18	N/A	N/A	95.91
03/29/2007 06:19	N/A	N/A	96.07
03/29/2007 06:20	N/A	N/A	95.84
03/29/2007 06:21	N/A	N/A	95.87
03/29/2007 06:22	N/A	N/A	95.63
03/29/2007 06:23	N/A	N/A	95.81
03/29/2007 06:24	N/A	N/A	95.90
03/29/2007 06:25	N/A	N/A	95.86
03/29/2007 06:26	N/A	N/A	95.57

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/29/2007 06:27	N/A	N/A	95.85
03/29/2007 06:28	N/A	N/A	95.72
03/29/2007 06:29	N/A	N/A	95.77
03/29/2007 06:30	N/A	N/A	95.49
03/29/2007 06:31	N/A	N/A	95.08
03/29/2007 06:32	N/A	N/A	95.00
03/29/2007 06:33	N/A	N/A	95.04
03/29/2007 06:34	N/A	N/A	95.18
03/29/2007 06:35	N/A	N/A	95.43
03/29/2007 06:36	N/A	N/A	95.50
03/29/2007 06:37	N/A	N/A	95.51
03/29/2007 06:38	N/A	N/A	95.07
03/29/2007 06:39	N/A	N/A	95.21
03/29/2007 06:40	N/A	N/A	95.09
03/29/2007 06:41	N/A	N/A	95.15
03/29/2007 06:42	N/A	N/A	95.39
03/29/2007 06:43	N/A	N/A	95.39
03/29/2007 06:44	N/A	N/A	95.46
03/29/2007 06:45	N/A	N/A	95.64
03/29/2007 06:46	N/A	N/A	95.33
03/29/2007 06:47	N/A	N/A	95.24
03/29/2007 06:48	N/A	N/A	95.33
03/29/2007 06:49	N/A	N/A	95.45
03/29/2007 06:50	N/A	N/A	95.30
03/29/2007 06:51	N/A	N/A	95.05
03/29/2007 06:52	N/A	N/A	95.29
03/29/2007 06:53	N/A	N/A	95.41
03/29/2007 06:54	N/A	N/A	95.52
03/29/2007 06:55	N/A	N/A	95.52
03/29/2007 06:56	N/A	N/A	95.44
03/29/2007 06:57	N/A	N/A	95.32
03/29/2007 06:58	N/A	N/A	95.52
03/29/2007 06:59	N/A	N/A	95.37
03/29/2007 07:00	N/A	N/A	95.31
03/29/2007 07:01	N/A	N/A	95.31
03/29/2007 07:02	N/A	N/A	95.55
03/29/2007 07:03	N/A	N/A	95.30
03/29/2007 07:04	N/A	N/A	95.09
03/29/2007 07:05	N/A	N/A	95.31
03/29/2007 07:06	N/A	N/A	95.37
03/29/2007 07:07	N/A	N/A	95.60
03/29/2007 07:08	N/A	N/A	95.65
03/29/2007 07:09	N/A	N/A	95.52
03/29/2007 07:10	N/A	N/A	95.41
03/29/2007 07:11	N/A	N/A	95.61
03/29/2007 07:12	N/A	N/A	95.72
03/29/2007 07:13	N/A	N/A	96.15
03/29/2007 07:14	N/A	N/A	95.70
03/29/2007 07:15	N/A	N/A	96.02
03/29/2007 07:16	N/A	N/A	95.90
03/29/2007 07:17	N/A	N/A	96.06
03/29/2007 07:18	N/A	N/A	96.04
03/29/2007 07:19	N/A	N/A	96.11
03/29/2007 07:20	N/A	N/A	96.25
03/29/2007 07:21	N/A	N/A	96.02
03/29/2007 07:22	N/A	N/A	96.04
03/29/2007 07:23	N/A	N/A	95.81
03/29/2007 07:24	N/A	N/A	96.13
03/29/2007 07:25	N/A	N/A	96.20
03/29/2007 07:26	N/A	N/A	96.40
03/29/2007 07:27	N/A	N/A	96.67
03/29/2007 07:28	N/A	0.188	96.61
03/29/2007 07:29	N/A	0.196	96.52
03/29/2007 07:30	N/A	0.171	95.86
03/29/2007 07:31	N/A	0.141	95.57
03/29/2007 07:32	N/A	0.115	95.37
03/29/2007 07:33	N/A	0.127	95.63
03/29/2007 07:34	N/A	0.135	96.13
03/29/2007 07:35	N/A	0.162	96.29
03/29/2007 07:36	N/A	N/A	96.28
03/29/2007 07:37	N/A	N/A	96.23
03/29/2007 07:38	N/A	N/A	96.12
03/29/2007 07:39	N/A	N/A	95.94
03/29/2007 07:40	N/A	N/A	95.79
03/29/2007 07:41	N/A	N/A	95.82
03/29/2007 07:42	N/A	N/A	95.79
03/29/2007 07:43	N/A	N/A	95.97
03/29/2007 07:44	N/A	N/A	96.02
03/29/2007 07:45	N/A	N/A	95.88
03/29/2007 07:46	N/A	N/A	95.88
03/29/2007 07:47	N/A	N/A	95.88
03/29/2007 07:48	N/A	N/A	96.00
03/29/2007 07:49	N/A	0.143	96.01
03/29/2007 07:50	N/A	0.145	95.99
03/29/2007 07:51	N/A	0.176	96.21
03/29/2007 07:52	N/A	N/A	96.18
03/29/2007 07:53	N/A	N/A	96.13
03/29/2007 07:54	N/A	N/A	96.21
03/29/2007 07:55	N/A	N/A	96.17
03/29/2007 07:56	N/A	N/A	96.29
03/29/2007 07:57	N/A	N/A	96.07
03/29/2007 07:58	N/A	N/A	96.23
03/29/2007 07:59	N/A	N/A	96.11
03/29/2007 08:00	N/A	N/A	96.23
03/29/2007 08:01	N/A	N/A	96.53
03/29/2007 08:02	N/A	N/A	96.34
03/29/2007 08:03	N/A	N/A	96.40
03/29/2007 08:04	N/A	N/A	96.24
03/29/2007 08:05	N/A	N/A	96.15

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/29/2007 08:06	0.103	0.254	96.27
03/29/2007 08:07	0.102	0.233	96.31
03/29/2007 08:08	0.101	0.237	96.30
03/29/2007 08:09	0.102	0.209	96.36
03/29/2007 08:10	0.102	0.184	96.56
03/29/2007 08:11	0.102	0.210	96.49
03/29/2007 08:12	0.102	0.207	96.62
03/29/2007 08:13	0.101	0.185	96.58
03/29/2007 08:14	0.100	0.182	96.60
03/29/2007 08:15	0.099	0.131	96.60
03/29/2007 08:16	0.098	0.182	96.76
03/29/2007 08:17	0.097	0.172	96.79
03/29/2007 08:18	0.097	0.175	96.84
03/29/2007 08:19	0.095	0.167	96.87
03/29/2007 08:20	0.095	0.150	97.04
03/29/2007 08:21	0.095	0.141	96.80
03/29/2007 08:22	0.095	0.128	96.61
03/29/2007 08:23	0.095	0.149	96.25
03/29/2007 08:24	0.094	0.206	96.35
03/29/2007 08:25	0.094	0.162	96.78
03/29/2007 08:26	0.093	0.189	96.47
03/29/2007 08:27	0.093	0.255	96.43
03/29/2007 08:28	0.094	0.228	96.37
03/29/2007 08:29	0.094	0.141	96.43
03/29/2007 08:30	0.094	0.205	96.56
03/29/2007 08:31	0.095	0.164	96.34
03/29/2007 08:32	0.094	0.207	96.38
03/29/2007 08:33	0.094	0.164	96.25
03/29/2007 08:34	0.094	0.177	96.38
03/29/2007 08:35	0.094	0.197	96.41
03/29/2007 08:36	0.094	0.183	96.50
03/29/2007 08:37	0.094	0.149	96.46
03/29/2007 08:38	0.095	0.191	96.41
03/29/2007 08:39	0.095	0.199	96.59
03/29/2007 08:40	0.095	0.161	96.74
03/29/2007 08:41	0.094	0.155	96.88
03/29/2007 08:42	0.095	0.246	96.62
03/29/2007 08:43	0.095	0.171	96.51
03/29/2007 08:44	0.095	0.175	96.47
03/29/2007 08:45	0.095	0.205	96.61
03/29/2007 08:46	0.095	0.199	96.47
03/29/2007 08:47	0.095	0.211	96.60
03/29/2007 08:48	0.095	0.181	96.85
03/29/2007 08:49	0.094	0.162	96.49
03/29/2007 08:50	0.094	0.168	96.50
03/29/2007 08:51	0.095	0.169	96.49
03/29/2007 08:52	0.094	0.149	96.66
03/29/2007 08:53	0.094	0.170	96.50
03/29/2007 08:54	0.094	0.138	96.40
03/29/2007 08:55	0.095	0.129	96.59
03/29/2007 08:56	0.095	0.149	96.68
03/29/2007 08:57	0.095	0.159	96.63
03/29/2007 08:58	0.095	0.174	96.49
03/29/2007 08:59	N/A	N/A	96.76
03/29/2007 09:00	N/A	N/A	96.94
03/29/2007 09:01	N/A	N/A	96.51
03/29/2007 09:02	N/A	N/A	96.58
03/29/2007 09:03	0.094	0.122	96.92
03/29/2007 09:04	0.094	0.152	96.82
03/29/2007 09:05	0.095	0.162	96.41
03/29/2007 09:06	0.095	0.115	96.33
03/29/2007 09:07	0.095	0.128	96.38
03/29/2007 09:08	0.096	0.157	96.27
03/29/2007 09:09	0.096	0.163	96.33
03/29/2007 09:10	0.095	0.153	96.38
03/29/2007 09:11	0.095	0.158	96.29
03/29/2007 09:12	0.094	0.110	96.38
03/29/2007 09:13	0.094	0.120	96.46
03/29/2007 09:14	0.094	0.117	96.53
03/29/2007 09:15	0.095	0.102	96.68
03/29/2007 09:16	0.094	0.101	96.55
03/29/2007 09:17	0.095	0.083	96.55
03/29/2007 09:18	0.095	0.080	96.32
03/29/2007 09:19	0.095	0.084	96.26
03/29/2007 09:20	0.094	0.122	96.32
03/29/2007 09:21	0.094	0.104	96.42
03/29/2007 09:22	0.094	0.093	96.41
03/29/2007 09:23	0.094	0.129	96.50
03/29/2007 09:24	0.093	0.123	96.69
03/29/2007 09:25	0.093	0.114	96.95
03/29/2007 09:26	0.094	0.130	97.05
03/29/2007 09:27	0.094	0.159	97.02
03/29/2007 09:28	0.094	0.121	97.09
03/29/2007 09:29	0.094	0.100	96.83
03/29/2007 09:30	0.095	0.115	96.91
03/29/2007 09:31	0.096	0.128	96.99
03/29/2007 09:32	0.096	0.158	96.99
03/29/2007 09:33	0.096	0.150	96.74
03/29/2007 09:34	0.095	0.113	96.79
03/29/2007 09:35	0.095	0.137	96.85
03/29/2007 09:36	0.096	0.116	96.70
03/29/2007 09:37	0.095	0.125	96.51
03/29/2007 09:38	0.095	0.140	96.51
03/29/2007 09:39	0.095	0.161	96.41
03/29/2007 09:40	0.094	0.111	96.55
03/29/2007 09:41	0.093	0.110	96.48
03/29/2007 09:42	0.094	0.156	96.83
03/29/2007 09:43	0.094	0.203	97.07
03/29/2007 09:44	0.094	0.146	96.85

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW	
03/29/2007 09:45	0.095	0.155	96.91	
03/29/2007 09:46	0.095	0.152	96.93	
03/29/2007 09:47	0.095	0.165	96.97	
03/29/2007 09:48	0.094	0.177	97.06	
03/29/2007 09:49	0.094	0.197	97.05	
03/29/2007 09:50	0.094	0.159	96.79	
03/29/2007 09:51	0.095	0.151	96.88	
03/29/2007 09:52	0.095	0.174	96.89	
03/29/2007 09:53	0.094	0.195	96.84	
03/29/2007 09:54	0.095	0.174	96.56	
03/29/2007 09:55	0.096	0.123	96.78	
03/29/2007 09:56	0.094	0.162	96.61	
03/29/2007 09:57	0.094	0.182	96.58	
03/29/2007 09:58	0.094	0.134	96.77	
03/29/2007 09:59	N/A	N/A	96.90	AVERAGE SO2 - Test 1
03/29/2007 10:00	N/A	N/A	96.80	0.137
03/29/2007 10:01	N/A	N/A	96.71	
03/29/2007 10:02	N/A	N/A	96.46	
03/29/2007 10:03	0.094	0.119	96.72	
03/29/2007 10:04	0.094	0.127	96.54	
03/29/2007 10:05	0.094	0.106	96.33	
03/29/2007 10:06	0.094	0.085	96.29	
03/29/2007 10:07	0.095	0.058	96.33	
03/29/2007 10:08	0.094	0.061	96.43	
03/29/2007 10:09	0.094	0.084	96.44	
03/29/2007 10:10	0.095	0.064	96.60	
03/29/2007 10:11	0.095	0.102	96.81	
03/29/2007 10:12	0.095	0.102	96.72	
03/29/2007 10:13	0.095	0.059	96.71	
03/29/2007 10:14	0.095	0.096	96.92	
03/29/2007 10:15	0.095	0.082	97.01	
03/29/2007 10:16	0.094	0.096	97.16	
03/29/2007 10:17	0.093	0.139	96.78	
03/29/2007 10:18	0.093	0.108	97.23	
03/29/2007 10:19	0.093	0.097	97.22	
03/29/2007 10:20	0.094	0.094	97.39	
03/29/2007 10:21	0.094	0.108	97.04	
03/29/2007 10:22	0.094	0.102	97.25	
03/29/2007 10:23	0.094	0.122	97.45	
03/29/2007 10:24	0.094	0.086	97.21	
03/29/2007 10:25	0.094	0.099	97.30	
03/29/2007 10:26	0.095	0.101	97.44	
03/29/2007 10:27	0.095	0.100	97.48	
03/29/2007 10:28	0.095	0.086	97.31	
03/29/2007 10:29	0.095	0.076	97.44	
03/29/2007 10:30	0.095	0.062	97.42	
03/29/2007 10:31	0.095	0.083	97.54	
03/29/2007 10:32	0.095	0.111	97.19	
03/29/2007 10:33	0.095	0.074	97.07	
03/29/2007 10:34	0.094	0.088	96.90	
03/29/2007 10:35	0.093	0.113	96.93	
03/29/2007 10:36	0.093	0.100	97.14	
03/29/2007 10:37	0.093	0.112	97.14	
03/29/2007 10:38	0.092	0.078	96.94	
03/29/2007 10:39	0.093	0.089	96.96	
03/29/2007 10:40	0.094	0.118	97.09	
03/29/2007 10:41	0.094	0.087	97.05	
03/29/2007 10:42	0.093	0.096	97.29	
03/29/2007 10:43	0.093	0.093	97.12	
03/29/2007 10:44	0.094	0.118	97.14	
03/29/2007 10:45	0.095	0.071	97.00	
03/29/2007 10:46	0.095	0.076	97.45	
03/29/2007 10:47	0.095	0.115	97.73	
03/29/2007 10:48	0.096	0.146	97.69	
03/29/2007 10:49	0.096	0.143	97.68	
03/29/2007 10:50	0.095	0.160	97.68	
03/29/2007 10:51	0.095	0.119	97.88	
03/29/2007 10:52	0.094	0.150	97.77	
03/29/2007 10:53	0.094	0.175	97.32	
03/29/2007 10:54	0.095	0.140	97.36	
03/29/2007 10:55	0.095	0.115	97.42	
03/29/2007 10:56	0.094	0.129	97.66	
03/29/2007 10:57	0.093	0.082	97.60	
03/29/2007 10:58	0.092	0.100	97.40	
03/29/2007 10:59	N/A	N/A	97.33	
03/29/2007 11:00	N/A	N/A	97.24	
03/29/2007 11:01	N/A	N/A	97.28	
03/29/2007 11:02	N/A	N/A	97.17	
03/29/2007 11:03	0.092	0.095	97.05	
03/29/2007 11:04	0.092	0.106	97.02	
03/29/2007 11:05	0.092	0.097	97.32	
03/29/2007 11:06	0.092	0.139	97.52	
03/29/2007 11:07	0.093	0.108	97.58	
03/29/2007 11:08	0.094	0.113	97.39	
03/29/2007 11:09	0.094	0.114	97.57	
03/29/2007 11:10	0.094	0.082	97.77	
03/29/2007 11:11	0.095	0.107	97.82	
03/29/2007 11:12	0.095	0.130	97.84	
03/29/2007 11:13	0.095	0.145	97.82	
03/29/2007 11:14	0.094	0.130	98.01	
03/29/2007 11:15	0.094	0.139	98.29	
03/29/2007 11:16	0.094	0.101	98.18	
03/29/2007 11:17	0.095	0.093	98.13	
03/29/2007 11:18	0.094	0.138	98.24	
03/29/2007 11:19	0.094	0.121	98.42	
03/29/2007 11:20	0.093	0.109	98.29	
03/29/2007 11:21	0.093	0.122	97.83	
03/29/2007 11:22	0.094	0.110	98.23	
03/29/2007 11:23	0.093	0.098	98.24	

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW	
03/29/2007 11:24	0.093	0.107	98.13	
03/29/2007 11:25	0.094	0.082	97.85	
03/29/2007 11:26	0.094	0.077	97.98	
03/29/2007 11:27	0.094	0.119	98.13	
03/29/2007 11:28	0.094	0.117	98.10	
03/29/2007 11:29	0.096	0.104	98.01	
03/29/2007 11:30	0.096	0.104	97.69	
03/29/2007 11:31	0.098	0.077	97.42	
03/29/2007 11:32	0.102	0.110	97.41	
03/29/2007 11:33	0.105	0.131	97.47	
03/29/2007 11:34	0.104	0.124	97.96	
03/29/2007 11:35	0.104	0.091	99.31	
03/29/2007 11:36	0.101	0.105	99.89	
03/29/2007 11:37	0.098	0.140	99.56	
03/29/2007 11:38	0.096	0.107	99.01	
03/29/2007 11:39	0.094	0.126	98.89	
03/29/2007 11:40	0.092	0.097	98.63	
03/29/2007 11:41	N/A	N/A	N/A	
03/29/2007 11:42	0.090	0.140	98.43	
03/29/2007 11:43	0.090	0.132	98.39	
03/29/2007 11:44	0.090	0.131	98.34	
03/29/2007 11:45	0.090	0.146	97.99	
03/29/2007 11:46	0.090	0.110	98.25	
03/29/2007 11:47	0.091	0.128	98.37	
03/29/2007 11:48	0.091	0.093	98.19	
03/29/2007 11:49	0.091	0.120	98.27	
03/29/2007 11:50	0.092	0.120	98.22	
03/29/2007 11:51	0.093	0.129	98.35	
03/29/2007 11:52	0.094	0.131	98.63	
03/29/2007 11:53	0.093	0.119	98.47	
03/29/2007 11:54	0.093	0.123	98.23	
03/29/2007 11:55	0.093	0.158	98.34	
03/29/2007 11:56	0.093	0.166	98.52	
03/29/2007 11:57	0.093	0.144	98.48	
03/29/2007 11:58	0.094	0.114	98.34	
03/29/2007 11:59	N/A	N/A	98.19	
03/29/2007 12:00	N/A	N/A	98.25	
03/29/2007 12:01	N/A	N/A	98.15	
03/29/2007 12:02	N/A	N/A	98.18	
03/29/2007 12:03	N/A	N/A	98.13	
03/29/2007 12:04	0.094	0.178	98.01	
03/29/2007 12:05	0.094	0.160	97.78	
03/29/2007 12:06	0.094	0.144	97.94	
03/29/2007 12:07	0.095	0.139	97.93	
03/29/2007 12:08	0.096	0.143	97.87	
03/29/2007 12:09	0.096	0.144	98.08	
03/29/2007 12:10	0.096	0.183	98.11	
03/29/2007 12:11	0.096	0.143	98.32	
03/29/2007 12:12	0.096	0.113	98.24	
03/29/2007 12:13	0.096	0.176	97.79	
03/29/2007 12:14	0.096	0.156	97.83	
03/29/2007 12:15	0.096	0.182	97.83	
03/29/2007 12:16	0.097	0.210	97.33	AVERAGE SO2 - Test 2
03/29/2007 12:17	0.099	0.174	97.22	0.128
03/29/2007 12:18	0.101	0.185	97.97	
03/29/2007 12:19	0.100	0.211	98.89	
03/29/2007 12:20	0.097	0.191	98.92	
03/29/2007 12:21	0.095	0.223	98.83	
03/29/2007 12:22	0.095	0.205	98.61	
03/29/2007 12:23	0.094	0.182	98.75	
03/29/2007 12:24	0.094	0.200	98.49	
03/29/2007 12:25	0.095	0.170	97.97	
03/29/2007 12:26	0.095	0.186	97.90	
03/29/2007 12:27	0.094	0.223	98.02	
03/29/2007 12:28	0.092	0.218	98.26	
03/29/2007 12:29	0.092	0.219	98.39	
03/29/2007 12:30	0.093	0.175	98.24	
03/29/2007 12:31	0.093	0.189	98.29	
03/29/2007 12:32	0.093	0.218	98.12	
03/29/2007 12:33	0.094	0.243	98.20	
03/29/2007 12:34	0.095	0.261	98.10	
03/29/2007 12:35	0.094	0.246	98.16	
03/29/2007 12:36	0.095	0.241	98.39	
03/29/2007 12:37	0.095	0.188	98.35	
03/29/2007 12:38	0.095	0.190	98.15	
03/29/2007 12:39	0.096	0.232	98.14	
03/29/2007 12:40	0.096	0.194	98.23	
03/29/2007 12:41	0.095	0.235	98.27	
03/29/2007 12:42	0.095	0.189	98.28	
03/29/2007 12:43	0.095	0.190	98.36	
03/29/2007 12:44	0.095	0.201	98.47	
03/29/2007 12:45	0.095	0.209	98.43	
03/29/2007 12:46	0.095	0.240	97.97	
03/29/2007 12:47	0.095	0.204	98.28	
03/29/2007 12:48	0.095	0.236	98.38	
03/29/2007 12:49	0.095	0.202	98.47	
03/29/2007 12:50	0.095	0.237	98.38	
03/29/2007 12:51	0.095	0.267	97.73	
03/29/2007 12:52	0.096	0.242	97.52	
03/29/2007 12:53	0.097	0.232	97.90	
03/29/2007 12:54	0.097	0.143	98.66	
03/29/2007 12:55	0.095	0.110	98.90	
03/29/2007 12:56	0.093	0.180	99.11	
03/29/2007 12:57	0.094	0.202	98.87	
03/29/2007 12:58	0.094	0.162	98.61	
03/29/2007 12:59	N/A	N/A	98.54	
03/29/2007 13:00	N/A	N/A	98.19	
03/29/2007 13:01	N/A	N/A	98.41	
03/29/2007 13:02	N/A	N/A	98.37	

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/29/2007 13:03	0.093	0.219	98.42
03/29/2007 13:04	0.093	0.167	98.35
03/29/2007 13:05	0.094	0.222	98.56
03/29/2007 13:06	0.094	0.135	98.55
03/29/2007 13:07	0.095	0.133	98.47
03/29/2007 13:08	0.095	0.162	98.33
03/29/2007 13:09	0.095	0.200	98.22
03/29/2007 13:10	0.096	0.201	98.20
03/29/2007 13:11	0.095	0.206	98.41
03/29/2007 13:12	0.095	0.187	97.73
03/29/2007 13:13	0.097	0.171	97.64
03/29/2007 13:14	0.098	0.177	97.44
03/29/2007 13:15	0.100	0.180	98.15
03/29/2007 13:16	0.100	0.200	99.16
03/29/2007 13:17	0.098	0.219	99.31
03/29/2007 13:18	0.096	0.175	99.22
03/29/2007 13:19	0.095	0.223	98.91
03/29/2007 13:20	0.094	0.221	98.74
03/29/2007 13:21	0.093	0.195	98.60
03/29/2007 13:22	0.091	0.188	98.69
03/29/2007 13:23	0.090	0.225	98.48
03/29/2007 13:24	0.090	0.171	98.70
03/29/2007 13:25	0.090	0.181	98.89
03/29/2007 13:26	0.090	0.154	98.39
03/29/2007 13:27	0.089	0.127	98.14
03/29/2007 13:28	0.088	0.173	98.08
03/29/2007 13:29	0.090	0.195	97.81
03/29/2007 13:30	0.091	0.146	97.79
03/29/2007 13:31	0.091	0.175	97.75
03/29/2007 13:32	0.092	0.161	97.71
03/29/2007 13:33	0.092	0.166	97.69
03/29/2007 13:34	0.094	0.157	97.82
03/29/2007 13:35	0.094	0.114	97.70
03/29/2007 13:36	0.094	0.160	97.45
03/29/2007 13:37	0.094	0.126	97.53
03/29/2007 13:38	0.094	0.096	97.41
03/29/2007 13:39	0.095	0.120	97.09
03/29/2007 13:40	0.096	0.118	97.45
03/29/2007 13:41	0.095	0.094	97.64
03/29/2007 13:42	0.097	0.137	97.50
03/29/2007 13:43	0.098	0.104	97.33
03/29/2007 13:44	0.097	0.097	97.62
03/29/2007 13:45	0.097	0.078	97.48
03/29/2007 13:46	0.096	0.095	97.63
03/29/2007 13:47	0.096	0.099	97.95
03/29/2007 13:48	0.096	0.112	97.90
03/29/2007 13:49	0.096	0.117	97.52
03/29/2007 13:50	0.097	0.135	97.65
03/29/2007 13:51	0.092	0.079	97.83
03/29/2007 13:52	0.085	0.050	98.17
03/29/2007 13:53	0.096	0.069	99.02
03/29/2007 13:54	0.093	0.100	99.01
03/29/2007 13:55	0.090	0.142	98.66
03/29/2007 13:56	0.088	0.148	98.23
03/29/2007 13:57	0.087	0.137	98.37
03/29/2007 13:58	0.085	0.180	98.38
03/29/2007 13:59	N/A	N/A	98.22
03/29/2007 14:00	N/A	N/A	98.05
03/29/2007 14:01	N/A	N/A	98.00
03/29/2007 14:02	N/A	N/A	97.91
03/29/2007 14:03	0.087	0.139	97.73
03/29/2007 14:04	0.088	0.196	97.74
03/29/2007 14:05	0.090	0.162	97.45
03/29/2007 14:06	0.090	0.142	97.23
03/29/2007 14:07	0.091	0.120	97.15
03/29/2007 14:08	0.092	0.147	96.85
03/29/2007 14:09	0.093	0.193	97.20
03/29/2007 14:10	0.093	0.184	97.18
03/29/2007 14:11	0.094	0.204	97.11
03/29/2007 14:12	0.095	0.155	97.17
03/29/2007 14:13	0.096	0.144	97.19
03/29/2007 14:14	0.097	0.191	97.30
03/29/2007 14:15	0.097	0.198	97.26
03/29/2007 14:16	0.098	0.193	97.45
03/29/2007 14:17	0.098	0.171	97.16
03/29/2007 14:18	0.099	0.124	97.16
03/29/2007 14:19	0.098	0.133	97.02
03/29/2007 14:20	0.099	0.123	96.54
03/29/2007 14:21	0.101	0.130	96.08
03/29/2007 14:22	0.103	0.157	96.25
03/29/2007 14:23	0.104	0.186	96.42
03/29/2007 14:24	0.104	0.159	96.48
03/29/2007 14:25	0.104	0.180	96.53
03/29/2007 14:26	0.105	0.204	96.71
03/29/2007 14:27	0.105	0.199	96.91
03/29/2007 14:28	0.106	0.181	97.03
03/29/2007 14:29	0.105	0.190	98.23
03/29/2007 14:30	0.101	0.161	98.32
03/29/2007 14:31	0.099	0.150	98.32
03/29/2007 14:32	0.097	0.224	97.87
03/29/2007 14:33	0.096	0.195	97.79
03/29/2007 14:34	0.093	0.183	97.72
03/29/2007 14:35	0.092	0.145	97.66
03/29/2007 14:36	0.090	0.181	97.36
03/29/2007 14:37	0.090	0.192	96.78
03/29/2007 14:38	0.091	0.151	96.10
03/29/2007 14:39	0.094	0.135	96.26
03/29/2007 14:40	0.096	0.182	96.41
03/29/2007 14:41	0.097	0.223	96.57

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW	
03/29/2007 14:42	0.098	0.154	97.29	
03/29/2007 14:43	0.097	0.172	98.11	
03/29/2007 14:44	0.095	0.204	98.01	
03/29/2007 14:45	0.094	0.168	97.70	
03/29/2007 14:46	0.095	0.187	96.79	
03/29/2007 14:47	0.097	0.143	96.80	
03/29/2007 14:48	0.098	0.128	96.97	
03/29/2007 14:49	0.100	0.154	97.35	
03/29/2007 14:50	0.102	0.136	97.44	
03/29/2007 14:51	0.105	0.176	97.22	
03/29/2007 14:52	0.106	0.189	97.47	
03/29/2007 14:53	0.104	0.212	98.08	
03/29/2007 14:54	0.095	0.167	98.32	
03/29/2007 14:55	0.094	0.160	98.66	
03/29/2007 14:56	0.093	0.156	98.71	
03/29/2007 14:57	0.091	0.190	98.38	
03/29/2007 14:58	0.090	0.183	98.12	
03/29/2007 14:59	N/A	N/A	97.90	
03/29/2007 15:00	N/A	N/A	97.81	
03/29/2007 15:01	N/A	N/A	97.87	
03/29/2007 15:02	N/A	N/A	97.83	
03/29/2007 15:03	0.089	0.159	97.59	
03/29/2007 15:04	0.090	0.172	97.24	
03/29/2007 15:05	0.090	0.152	97.14	
03/29/2007 15:06	0.091	0.169	97.16	
03/29/2007 15:07	0.092	0.184	97.44	
03/29/2007 15:08	0.093	0.183	97.47	
03/29/2007 15:09	0.093	0.217	97.46	
03/29/2007 15:10	0.093	0.184	97.54	
03/29/2007 15:11	0.094	0.172	97.70	
03/29/2007 15:12	0.094	0.174	97.72	AVERAGE SO2 - Test 3
03/29/2007 15:13	0.095	0.217	97.69	0.173
03/29/2007 15:14	0.096	0.243	97.61	
03/29/2007 15:15	0.096	0.246	97.76	
03/29/2007 15:16	0.096	0.232	97.96	
03/29/2007 15:17	0.096	0.223	98.12	
03/29/2007 15:18	0.097	0.245	97.89	
03/29/2007 15:19	0.097	0.256	97.70	
03/29/2007 15:20	0.096	0.232	98.10	
03/29/2007 15:21	0.097	0.228	97.90	
03/29/2007 15:22	0.098	0.281	97.66	
03/29/2007 15:23	0.098	0.185	97.45	
03/29/2007 15:24	0.097	0.210	97.57	
03/29/2007 15:25	0.096	0.141	97.96	
03/29/2007 15:26	0.095	0.177	98.01	
03/29/2007 15:27	0.096	0.178	97.83	
03/29/2007 15:28	0.097	0.176	97.74	
03/29/2007 15:29	0.097	0.150	98.10	
03/29/2007 15:30	0.095	0.170	98.12	
03/29/2007 15:31	0.095	0.143	98.05	
03/29/2007 15:32	0.094	0.132	97.74	
03/29/2007 15:33	0.094	0.167	97.78	
03/29/2007 15:34	0.093	0.138	97.52	
03/29/2007 15:35	0.093	0.126	97.55	
03/29/2007 15:36	0.094	0.163	97.77	
03/29/2007 15:37	0.093	0.151	97.69	
03/29/2007 15:38	0.094	0.142	98.01	
03/29/2007 15:39	0.094	0.141	97.58	
03/29/2007 15:40	0.095	0.147	97.64	
03/29/2007 15:41	0.095	0.099	97.41	
03/29/2007 15:42	0.094	0.091	97.58	
03/29/2007 15:43	0.094	0.098	97.65	
03/29/2007 15:44	0.094	0.109	97.53	
03/29/2007 15:45	0.095	0.130	97.30	
03/29/2007 15:46	0.095	0.118	97.11	
03/29/2007 15:47	0.095	0.128	97.12	
03/29/2007 15:48	0.096	0.116	97.11	
03/29/2007 15:49	0.096	0.118	97.07	
03/29/2007 15:50	0.096	0.104	97.20	
03/29/2007 15:51	0.095	0.099	97.08	
03/29/2007 15:52	0.096	0.101	97.20	
03/29/2007 15:53	0.096	0.127	97.05	
03/29/2007 15:54	0.096	0.122	97.13	
03/29/2007 15:55	0.096	0.098	97.21	
03/29/2007 15:56	0.096	0.091	97.20	
03/29/2007 15:57	0.097	0.124	96.84	
03/29/2007 15:58	0.097	0.133	96.80	
03/29/2007 15:59	N/A	N/A	96.98	
03/29/2007 16:00	N/A	N/A	97.03	
03/29/2007 16:01	N/A	N/A	96.77	
03/29/2007 16:02	N/A	N/A	95.12	
03/29/2007 16:03	0.098	0.051	94.37	
03/29/2007 16:04	0.100	0.033	95.16	
03/29/2007 16:05	0.102	0.068	96.49	
03/29/2007 16:06	0.105	0.069	96.63	
03/29/2007 16:07	0.104	0.051	96.17	
03/29/2007 16:08	0.103	0.047	95.16	
03/29/2007 16:09	0.102	0.052	95.50	
03/29/2007 16:10	0.102	0.078	95.68	
03/29/2007 16:11	0.101	0.068	95.94	
03/29/2007 16:12	0.101	0.103	95.53	
03/29/2007 16:13	0.100	0.100	95.34	
03/29/2007 16:14	0.098	0.091	95.51	
03/29/2007 16:15	0.098	0.075	95.37	
03/29/2007 16:16	0.096	0.061	95.40	
03/29/2007 16:17	0.094	0.075	95.35	
03/29/2007 16:18	0.093	0.098	95.33	
03/29/2007 16:19	0.092	0.088	95.54	
03/29/2007 16:20	0.093	0.055	95.29	

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/29/2007 16:21	0.094	0.063	95.18
03/29/2007 16:22	0.095	0.029	94.78
03/29/2007 16:23	0.096	0.010	94.85
03/29/2007 16:24	0.098	0.022	95.49
03/29/2007 16:25	0.100	0.040	95.85
03/29/2007 16:26	0.100	0.036	95.72
03/29/2007 16:27	0.100	0.025	95.84
03/29/2007 16:28	0.099	0.019	95.75
03/29/2007 16:29	0.098	0.020	95.97
03/29/2007 16:30	0.097	0.077	97.09
03/29/2007 16:31	0.097	0.053	97.43
03/29/2007 16:32	0.097	0.043	96.92
03/29/2007 16:33	0.096	0.052	96.72
03/29/2007 16:34	0.096	0.095	97.04
03/29/2007 16:35	0.096	0.072	97.28
03/29/2007 16:36	0.096	0.053	97.26
03/29/2007 16:37	0.096	0.088	97.56
03/29/2007 16:38	0.095	0.081	97.73
03/29/2007 16:39	0.095	0.086	97.91
03/29/2007 16:40	0.096	0.079	97.53
03/29/2007 16:41	0.096	0.103	97.51
03/29/2007 16:42	0.096	0.098	97.49
03/29/2007 16:43	0.096	0.101	97.75
03/29/2007 16:44	0.094	0.082	97.70
03/29/2007 16:45	0.094	0.081	97.32
03/29/2007 16:46	0.094	0.058	97.45
03/29/2007 16:47	0.093	0.078	97.45
03/29/2007 16:48	0.094	0.059	97.21
03/29/2007 16:49	0.094	0.058	97.37
03/29/2007 16:50	0.094	0.050	97.74
03/29/2007 16:51	0.095	0.042	97.81
03/29/2007 16:52	0.096	0.034	97.52
03/29/2007 16:53	0.097	0.021	97.46
03/29/2007 16:54	0.097	0.058	97.19
03/29/2007 16:55	0.098	0.051	97.40
03/29/2007 16:56	0.097	0.042	97.52
03/29/2007 16:57	0.096	0.065	97.18
03/29/2007 16:58	0.096	0.120	97.30
03/29/2007 16:59	N/A	N/A	96.07
03/29/2007 17:00	N/A	N/A	94.48
03/29/2007 17:01	N/A	N/A	93.94
03/29/2007 17:02	N/A	N/A	92.40
03/29/2007 17:03	0.082	0.007	91.76
03/29/2007 17:04	0.080	0.008	90.97
03/29/2007 17:05	0.078	-0.007	89.79
03/29/2007 17:06	0.076	-0.017	88.78
03/29/2007 17:07	0.077	-0.019	87.90
03/29/2007 17:08	0.080	0.002	86.50
03/29/2007 17:09	0.084	0.013	85.32
03/29/2007 17:10	0.091	-0.010	84.59
03/29/2007 17:11	0.096	0.062	84.06
03/29/2007 17:12	0.101	1.228	83.73
03/29/2007 17:13	0.106	1.755	83.79
03/29/2007 17:14	0.107	1.955	84.22
03/29/2007 17:15	0.108	2.068	84.34
03/29/2007 17:16	0.111	2.173	84.68
03/29/2007 17:17	0.115	2.315	85.22
03/29/2007 17:18	0.118	2.402	84.92
03/29/2007 17:19	0.121	2.423	84.49
03/29/2007 17:20	0.126	2.477	84.26
03/29/2007 17:21	0.126	2.532	84.24
03/29/2007 17:22	0.121	2.592	84.73
03/29/2007 17:23	0.117	2.571	84.53
03/29/2007 17:24	0.111	2.592	84.51
03/29/2007 17:25	0.109	2.615	84.53
03/29/2007 17:26	0.103	2.652	84.93
03/29/2007 17:27	0.101	2.679	84.68
03/29/2007 17:28	0.113	2.651	84.45
03/29/2007 17:29	0.120	2.669	84.70
03/29/2007 17:30	0.121	2.682	84.85
03/29/2007 17:31	0.125	2.703	85.33
03/29/2007 17:32	0.129	2.703	85.85
03/29/2007 17:33	0.123	2.719	85.56
03/29/2007 17:34	0.129	2.710	85.46
03/29/2007 17:35	0.147	2.704	85.64
03/29/2007 17:36	0.142	2.735	85.43
03/29/2007 17:37	0.127	2.766	85.67
03/29/2007 17:38	0.127	2.748	85.33
03/29/2007 17:39	0.130	2.716	85.17
03/29/2007 17:40	0.135	2.737	85.19
03/29/2007 17:41	0.136	2.739	84.96
03/29/2007 17:42	0.135	2.753	84.99
03/29/2007 17:43	0.134	2.783	84.93
03/29/2007 17:44	0.136	2.764	84.93
03/29/2007 17:45	0.141	2.770	84.93
03/29/2007 17:46	0.141	2.773	85.07
03/29/2007 17:47	0.138	2.792	84.91
03/29/2007 17:48	0.137	2.793	85.05
03/29/2007 17:49	0.139	2.793	84.97
03/29/2007 17:50	0.143	2.789	85.13
03/29/2007 17:51	0.144	2.791	85.06
03/29/2007 17:52	0.145	2.786	85.00
03/29/2007 17:53	0.147	2.797	85.12
03/29/2007 17:54	0.156	2.765	85.26
03/29/2007 17:55	0.171	2.793	85.38
03/29/2007 17:56	0.161	2.804	85.05
03/29/2007 17:57	0.157	2.804	85.23
03/29/2007 17:58	0.154	2.804	85.05
03/29/2007 17:59	N/A	N/A	85.08

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/29/2007 18:00	N/A	N/A	84.79
03/29/2007 18:01	N/A	N/A	84.88
03/29/2007 18:02	N/A	N/A	84.75
03/29/2007 18:03	0.145	2.811	84.74
03/29/2007 18:04	0.133	2.804	85.04
03/29/2007 18:05	0.123	2.805	85.05
03/29/2007 18:06	0.126	2.752	85.16
03/29/2007 18:07	0.129	2.603	84.69
03/29/2007 18:08	0.131	2.576	84.76
03/29/2007 18:09	0.134	2.458	85.02
03/29/2007 18:10	0.136	2.669	85.20
03/29/2007 18:11	0.141	2.790	85.27
03/29/2007 18:12	0.142	2.816	85.21
03/29/2007 18:13	0.141	2.806	85.25
03/29/2007 18:14	0.140	2.825	85.26
03/29/2007 18:15	0.142	2.822	85.14
03/29/2007 18:16	0.145	2.814	84.89
03/29/2007 18:17	0.148	2.796	85.12
03/29/2007 18:18	0.150	2.842	85.18
03/29/2007 18:19	0.152	2.836	84.87
03/29/2007 18:20	0.154	2.842	84.91
03/29/2007 18:21	0.156	2.851	85.24
03/29/2007 18:22	0.156	2.852	85.28
03/29/2007 18:23	0.157	2.829	85.35
03/29/2007 18:24	0.161	2.836	85.15
03/29/2007 18:25	0.163	2.863	85.26
03/29/2007 18:26	0.161	2.858	85.27
03/29/2007 18:27	0.161	2.833	85.33
03/29/2007 18:28	0.163	2.843	85.26
03/29/2007 18:29	0.164	2.843	85.34
03/29/2007 18:30	0.162	2.854	85.18
03/29/2007 18:31	0.162	2.848	85.00
03/29/2007 18:32	0.162	2.839	85.20
03/29/2007 18:33	0.163	2.812	85.14
03/29/2007 18:34	0.162	2.732	85.34
03/29/2007 18:35	0.155	2.625	85.21
03/29/2007 18:36	0.152	2.551	85.00
03/29/2007 18:37	0.164	2.355	84.72
03/29/2007 18:38	0.164	2.102	85.10
03/29/2007 18:39	0.161	1.735	85.09
03/29/2007 18:40	0.161	1.543	84.94
03/29/2007 18:41	0.161	1.477	84.92
03/29/2007 18:42	0.161	1.394	84.63
03/29/2007 18:43	0.167	1.398	84.70
03/29/2007 18:44	0.168	1.323	84.86
03/29/2007 18:45	0.161	1.277	85.25
03/29/2007 18:46	0.156	1.169	85.29
03/29/2007 18:47	0.156	1.094	85.21
03/29/2007 18:48	0.159	1.113	84.79
03/29/2007 18:49	0.159	1.252	85.13
03/29/2007 18:50	0.159	1.102	85.28
03/29/2007 18:51	0.159	0.971	85.31
03/29/2007 18:52	0.158	0.922	85.16
03/29/2007 18:53	0.159	1.013	85.17
03/29/2007 18:54	0.160	0.982	85.23
03/29/2007 18:55	0.163	0.839	85.11
03/29/2007 18:56	0.166	0.768	84.91
03/29/2007 18:57	0.168	0.817	84.91
03/29/2007 18:58	0.170	0.853	84.91
03/29/2007 18:59	N/A	N/A	84.97
03/29/2007 19:00	N/A	N/A	85.40
03/29/2007 19:01	N/A	N/A	85.14
03/29/2007 19:02	N/A	N/A	85.32
03/29/2007 19:03	0.168	0.605	85.28
03/29/2007 19:04	0.164	0.528	85.20
03/29/2007 19:05	0.163	0.564	85.00
03/29/2007 19:06	0.164	0.489	85.63
03/29/2007 19:07	0.163	0.622	86.39
03/29/2007 19:08	0.161	0.497	87.33
03/29/2007 19:09	0.170	0.568	88.08
03/29/2007 19:10	0.193	0.598	88.89
03/29/2007 19:11	0.205	0.621	88.79
03/29/2007 19:12	0.218	0.614	89.38
03/29/2007 19:13	0.220	0.524	89.70
03/29/2007 19:14	0.216	0.487	89.92
03/29/2007 19:15	0.193	0.371	89.58
03/29/2007 19:16	0.175	0.328	90.17
03/29/2007 19:17	0.171	0.297	90.51
03/29/2007 19:18	0.166	0.273	91.39
03/29/2007 19:19	0.175	0.300	92.44
03/29/2007 19:20	0.187	0.338	93.52
03/29/2007 19:21	0.188	0.391	94.57
03/29/2007 19:22	0.188	0.394	95.40
03/29/2007 19:23	0.192	0.335	96.18
03/29/2007 19:24	0.174	0.277	97.20
03/29/2007 19:25	0.156	0.255	97.74
03/29/2007 19:26	0.173	0.263	98.61
03/29/2007 19:27	0.163	0.278	99.24
03/29/2007 19:28	0.157	0.275	99.26
03/29/2007 19:29	0.154	0.280	99.74
03/29/2007 19:30	0.152	0.253	99.75
03/29/2007 19:31	0.150	0.252	99.73
03/29/2007 19:32	0.137	0.241	99.75
03/29/2007 19:33	0.134	0.173	99.47
03/29/2007 19:34	0.132	0.174	99.10
03/29/2007 19:35	0.142	0.145	99.19
03/29/2007 19:36	0.138	0.119	99.67
03/29/2007 19:37	0.134	0.105	99.56
03/29/2007 19:38	0.140	0.079	99.50

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/29/2007 19:39	0.116	0.063	99.24
03/29/2007 19:40	0.111	0.035	98.96
03/29/2007 19:41	0.110	0.017	98.71
03/29/2007 19:42	0.106	0.007	98.52
03/29/2007 19:43	0.105	0.017	98.33
03/29/2007 19:44	0.104	0.004	98.31
03/29/2007 19:45	0.103	-0.002	98.40
03/29/2007 19:46	0.100	0.004	98.55
03/29/2007 19:47	0.091	-0.002	98.64
03/29/2007 19:48	0.087	-0.002	98.75
03/29/2007 19:49	0.088	-0.006	98.87
03/29/2007 19:50	0.090	0.009	99.06
03/29/2007 19:51	0.091	0.012	98.88
03/29/2007 19:52	0.089	-0.003	98.89
03/29/2007 19:53	0.089	-0.013	98.96
03/29/2007 19:54	0.088	-0.015	99.14
03/29/2007 19:55	0.089	-0.018	99.07
03/29/2007 19:56	0.089	-0.014	99.35
03/29/2007 19:57	0.090	-0.009	99.47
03/29/2007 19:58	0.092	-0.012	99.38
03/29/2007 19:59	N/A	N/A	99.15
03/29/2007 20:00	N/A	N/A	99.37
03/29/2007 20:01	N/A	N/A	99.69
03/29/2007 20:02	N/A	N/A	100.24
03/29/2007 20:03	0.099	-0.003	99.72
03/29/2007 20:04	0.100	-0.011	99.59
03/29/2007 20:05	0.100	-0.009	99.71
03/29/2007 20:06	0.098	-0.018	99.56
03/29/2007 20:07	0.099	-0.022	99.57
03/29/2007 20:08	0.100	-0.022	99.56
03/29/2007 20:09	0.101	-0.018	99.74
03/29/2007 20:10	0.100	-0.016	99.78
03/29/2007 20:11	0.100	-0.017	99.08
03/29/2007 20:12	0.100	-0.010	98.46
03/29/2007 20:13	0.098	-0.011	97.49
03/29/2007 20:14	0.093	-0.020	96.68
03/29/2007 20:15	0.084	-0.024	95.64
03/29/2007 20:16	0.072	-0.025	95.53
03/29/2007 20:17	0.070	-0.026	95.95
03/29/2007 20:18	0.068	-0.027	96.43
03/29/2007 20:19	0.068	-0.026	97.68
03/29/2007 20:20	0.082	-0.021	99.07
03/29/2007 20:21	0.086	-0.015	99.45
03/29/2007 20:22	0.091	-0.004	99.51
03/29/2007 20:23	0.106	0.002	99.78
03/29/2007 20:24	0.108	0.010	99.90
03/29/2007 20:25	0.110	0.004	99.72
03/29/2007 20:26	0.114	-0.003	99.70
03/29/2007 20:27	0.115	-0.010	99.97
03/29/2007 20:28	0.114	-0.004	100.11
03/29/2007 20:29	0.112	-0.004	99.72
03/29/2007 20:30	0.113	0.019	99.66
03/29/2007 20:31	0.112	0.031	99.81
03/29/2007 20:32	0.109	0.023	99.60
03/29/2007 20:33	0.105	0.010	99.49
03/29/2007 20:34	0.103	0.013	99.32
03/29/2007 20:35	0.102	0.051	99.48
03/29/2007 20:36	0.100	0.055	99.41
03/29/2007 20:37	0.098	0.040	99.55
03/29/2007 20:38	0.097	0.047	99.53
03/29/2007 20:39	0.098	0.040	99.29
03/29/2007 20:40	0.096	0.052	99.34
03/29/2007 20:41	0.094	0.040	99.48
03/29/2007 20:42	0.093	0.045	99.71
03/29/2007 20:43	0.093	0.032	99.60
03/29/2007 20:44	0.093	0.025	99.69
03/29/2007 20:45	0.094	0.015	99.63
03/29/2007 20:46	0.095	0.043	99.52
03/29/2007 20:47	0.095	0.060	99.66
03/29/2007 20:48	0.096	0.052	99.51
03/29/2007 20:49	0.098	0.054	99.52
03/29/2007 20:50	0.098	0.070	99.50
03/29/2007 20:51	0.097	0.075	99.08
03/29/2007 20:52	0.096	0.041	98.22
03/29/2007 20:53	0.094	0.041	97.42
03/29/2007 20:54	0.092	0.031	96.57
03/29/2007 20:55	0.083	0.013	95.38
03/29/2007 20:56	0.073	0.010	95.54
03/29/2007 20:57	0.070	0.009	95.95
03/29/2007 20:58	0.069	0.010	96.66
03/29/2007 20:59	N/A	N/A	97.58
03/29/2007 21:00	N/A	N/A	98.83
03/29/2007 21:01	N/A	N/A	99.17
03/29/2007 21:02	N/A	N/A	99.77
03/29/2007 21:03	0.102	0.220	99.84
03/29/2007 21:04	0.106	0.263	100.08
03/29/2007 21:05	0.112	0.265	99.86
03/29/2007 21:06	0.118	0.217	99.83
03/29/2007 21:07	0.121	0.234	99.76
03/29/2007 21:08	0.124	0.205	99.81
03/29/2007 21:09	0.123	0.189	99.74
03/29/2007 21:10	0.122	0.231	99.82
03/29/2007 21:11	0.119	0.213	99.90
03/29/2007 21:12	0.115	0.221	99.88
03/29/2007 21:13	0.113	0.272	99.63
03/29/2007 21:14	0.111	0.230	99.62
03/29/2007 21:15	0.109	0.268	99.55
03/29/2007 21:16	0.106	0.221	99.68
03/29/2007 21:17	0.106	0.221	99.41

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/29/2007 21:18	0.108	0.192	99.39
03/29/2007 21:19	0.107	0.170	99.59
03/29/2007 21:20	0.093	0.234	99.56
03/29/2007 21:21	0.092	0.207	99.75
03/29/2007 21:22	0.093	0.194	99.85
03/29/2007 21:23	0.092	0.210	99.55
03/29/2007 21:24	0.093	0.235	99.37
03/29/2007 21:25	0.093	0.187	99.48
03/29/2007 21:26	0.093	0.188	99.41
03/29/2007 21:27	0.094	0.239	99.47
03/29/2007 21:28	0.094	0.290	99.61
03/29/2007 21:29	0.094	0.222	99.46
03/29/2007 21:30	0.094	0.156	99.27
03/29/2007 21:31	0.095	0.205	99.45
03/29/2007 21:32	0.097	0.242	99.48
03/29/2007 21:33	0.098	0.179	99.55
03/29/2007 21:34	0.099	0.232	99.65
03/29/2007 21:35	0.099	0.177	100.03
03/29/2007 21:36	0.100	0.245	99.82
03/29/2007 21:37	0.102	0.222	99.36
03/29/2007 21:38	0.102	0.217	99.46
03/29/2007 21:39	0.101	0.190	99.63
03/29/2007 21:40	0.100	0.191	99.79
03/29/2007 21:41	0.101	0.271	99.69
03/29/2007 21:42	0.104	0.246	99.58
03/29/2007 21:43	0.103	0.306	99.60
03/29/2007 21:44	0.104	0.307	99.79
03/29/2007 21:45	0.104	0.267	99.93
03/29/2007 21:46	0.105	0.244	99.96
03/29/2007 21:47	0.106	0.208	99.88
03/29/2007 21:48	0.107	0.240	99.81
03/29/2007 21:49	0.109	0.209	99.68
03/29/2007 21:50	0.109	0.215	99.77
03/29/2007 21:51	0.107	0.209	99.92
03/29/2007 21:52	0.106	0.265	99.69
03/29/2007 21:53	0.106	0.243	99.45
03/29/2007 21:54	0.106	0.214	99.52
03/29/2007 21:55	0.106	0.230	99.81
03/29/2007 21:56	0.105	0.201	99.61
03/29/2007 21:57	0.106	0.210	99.58
03/29/2007 21:58	0.105	0.196	99.62
03/29/2007 21:59	N/A	N/A	99.70
03/29/2007 22:00	N/A	N/A	99.44
03/29/2007 22:01	N/A	N/A	98.95
03/29/2007 22:02	N/A	N/A	98.43
03/29/2007 22:03	0.103	0.201	97.49
03/29/2007 22:04	0.099	0.161	96.33
03/29/2007 22:05	0.088	0.149	95.61
03/29/2007 22:06	0.082	0.100	95.59
03/29/2007 22:07	0.068	0.063	95.78
03/29/2007 22:08	0.066	0.115	96.22
03/29/2007 22:09	0.067	0.146	97.13
03/29/2007 22:10	0.074	0.204	97.97
03/29/2007 22:11	0.085	0.279	98.75
03/29/2007 22:12	0.089	0.315	98.71
03/29/2007 22:13	0.094	0.283	99.01
03/29/2007 22:14	0.098	0.302	99.17
03/29/2007 22:15	0.100	0.280	99.07
03/29/2007 22:16	0.102	0.246	99.26
03/29/2007 22:17	0.106	0.250	98.87
03/29/2007 22:18	0.108	0.270	99.04
03/29/2007 22:19	0.107	0.218	99.76
03/29/2007 22:20	0.105	0.245	99.41
03/29/2007 22:21	0.104	0.251	99.53
03/29/2007 22:22	0.104	0.312	99.36
03/29/2007 22:23	0.105	0.273	98.97
03/29/2007 22:24	0.105	0.274	99.24
03/29/2007 22:25	0.105	0.352	99.42
03/29/2007 22:26	0.105	0.328	99.45
03/29/2007 22:27	0.105	0.346	99.75
03/29/2007 22:28	0.105	0.322	99.89
03/29/2007 22:29	0.103	0.349	99.91
03/29/2007 22:30	0.102	0.319	99.80
03/29/2007 22:31	0.101	0.337	99.77
03/29/2007 22:32	0.102	0.306	99.92
03/29/2007 22:33	0.102	0.316	99.59
03/29/2007 22:34	0.101	0.309	99.71
03/29/2007 22:35	0.102	0.359	99.99
03/29/2007 22:36	0.102	0.226	100.17
03/29/2007 22:37	0.101	0.268	100.03
03/29/2007 22:38	0.100	0.238	99.80
03/29/2007 22:39	0.098	0.227	99.51
03/29/2007 22:40	0.095	0.229	99.48
03/29/2007 22:41	0.095	0.261	99.56
03/29/2007 22:42	0.095	0.229	99.49
03/29/2007 22:43	0.097	0.257	99.50
03/29/2007 22:44	0.099	0.188	99.37
03/29/2007 22:45	0.098	0.191	99.45
03/29/2007 22:46	0.098	0.211	98.96
03/29/2007 22:47	0.098	0.160	98.35
03/29/2007 22:48	0.098	0.182	97.69
03/29/2007 22:49	0.095	0.133	96.78
03/29/2007 22:50	0.091	0.073	95.58
03/29/2007 22:51	0.084	0.046	94.11
03/29/2007 22:52	0.071	0.034	93.04
03/29/2007 22:53	0.067	0.048	91.93
03/29/2007 22:54	0.062	0.033	91.11
03/29/2007 22:55	0.056	-0.002	90.51
03/29/2007 22:56	0.054	-0.002	90.42

Period Start:	Average NOxLBMM_U4 lb/mmB	Average SO2LBMM_U4 lb/mmB	Average U4_NET_MW MW
03/29/2007 22:57	0.054	0.007	90.97
03/29/2007 22:58	0.055	0.012	92.04
03/29/2007 22:59	N/A	N/A	93.07
03/29/2007 23:00	N/A	N/A	93.93
03/29/2007 23:01	N/A	N/A	94.78
03/29/2007 23:02	N/A	N/A	95.54
03/29/2007 23:03	0.103	0.171	96.67
03/29/2007 23:04	0.118	0.288	97.93
03/29/2007 23:05	0.121	0.287	98.74
03/29/2007 23:06	0.139	0.368	99.25
03/29/2007 23:07	0.143	0.366	99.73
03/29/2007 23:08	0.145	0.434	100.48
03/29/2007 23:09	0.150	0.396	100.91
03/29/2007 23:10	0.143	0.408	100.81
03/29/2007 23:11	0.130	0.327	100.45
03/29/2007 23:12	0.117	0.283	100.38
03/29/2007 23:13	0.107	0.292	100.17
03/29/2007 23:14	0.105	0.310	100.42
03/29/2007 23:15	0.100	0.343	100.09
03/29/2007 23:16	0.096	0.302	99.59
03/29/2007 23:17	0.093	0.280	99.00
03/29/2007 23:18	0.087	0.202	98.08
03/29/2007 23:19	0.082	0.162	97.04
03/29/2007 23:20	0.069	0.106	95.58
03/29/2007 23:21	0.062	0.052	94.30
03/29/2007 23:22	0.059	0.041	93.13
03/29/2007 23:23	0.056	0.052	92.16
03/29/2007 23:24	0.055	0.049	91.42
03/29/2007 23:25	0.056	0.046	90.61
03/29/2007 23:26	0.057	0.019	89.51
03/29/2007 23:27	0.058	0.048	88.59
03/29/2007 23:28	0.060	0.068	87.31
03/29/2007 23:29	0.062	0.034	86.57
03/29/2007 23:30	0.064	0.005	85.37
03/29/2007 23:31	0.068	0.012	84.30
03/29/2007 23:32	0.072	0.036	83.13
03/29/2007 23:33	0.075	0.006	82.33
03/29/2007 23:34	0.078	0.033	81.29
03/29/2007 23:35	0.083	0.076	80.52
03/29/2007 23:36	0.086	0.052	79.63
03/29/2007 23:37	0.088	0.025	78.69
03/29/2007 23:38	0.089	0.004	77.63
03/29/2007 23:39	0.091	-0.013	76.61
03/29/2007 23:40	0.092	0.064	75.49
03/29/2007 23:41	0.077	0.036	74.87
03/29/2007 23:42	0.106	-0.002	74.08
03/29/2007 23:43	0.125	-0.006	73.74
03/29/2007 23:44	0.136	0.015	74.22
03/29/2007 23:45	0.145	0.047	74.08
03/29/2007 23:46	0.146	0.060	74.92
03/29/2007 23:47	0.148	0.049	75.57
03/29/2007 23:48	0.154	0.056	76.62
03/29/2007 23:49	0.154	0.154	77.62
03/29/2007 23:50	0.153	0.196	78.76
03/29/2007 23:51	0.152	0.182	80.03
03/29/2007 23:52	0.153	0.152	81.42
03/29/2007 23:53	0.150	0.134	82.17
03/29/2007 23:54	0.128	0.276	83.31
03/29/2007 23:55	0.117	0.303	84.37
03/29/2007 23:56	0.103	0.252	85.24
03/29/2007 23:57	0.099	0.335	86.55
03/29/2007 23:58	0.098	0.472	87.07
03/29/2007 23:59	N/A	N/A	87.72
03/30/2007 00:00	N/A	N/A	88.62
Daily Average*	**0.116**	**0.351**	**94.87**
Maximum*	**0.268**	**2.863**	**100.91**
	03/29/2007 2:27	03/29/2007 18:25	03/29/2007 23:09
Minimum*	**0.054**	**-0.027**	**57.50**
	03/29/2007 22:57	03/29/2007 20:18	03/29/2007 2:25
Final Average*	**0.136**	**0.274**	**93.96**
Maximum*	**0.575**	**2.863**	**100.91**
	03/28/2007 1:16	03/29/2007 18:25	03/29/2007 23:09
Minimum*	**0.054**	**-0.027**	**47.55**
	03/29/2007 22:57	03/29/2007 20:18	03/28/2007 1:43

* Does not include Invalid Averaging Periods ("N/A")