ENSR CONSULTING & ENGINEERING

CORRECTED CEM MONITORING RESULTS

INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE:	AES Puerto Rico	PROJECT NO.:	00052-170-0002
SOURCE:	Unit # 1	FILE NAME:	u1r1.xls
CONDITION:	100% Load	DATE:	12/6/07
RUN NUMBER:	1	RUN TIME:	10:05 to 10:26
Fd: (dscf/MMBtu) =	9780		
		Moisture,%=	9.4

	O2 %		CO2 %		CO ppm		NOx ppm	
Calibration Span (High Level Cal Gas)	8.98		17.84		114.20		109.00	
Cyl. Gas Concentrations Zero/Span	0.00	8.98	0.00	9.00	0.00	50.20	0.00	54.00
Direct Calibration Zero Response		-0.01		0.00		-0.01		0.00
Direct Calibration Span Response		9.01		9.03		50.16		54.10
Initial System Zero Response		0.01		0.01		-0.01		0.02
Initial System Span Response		8.99		9.01		50.10		54.10
Final System Zero Response		0.01		0.00		0.00		0.04
Final System Span Response		9.05		9.02		50.12		54.12
Initial/Final System Bias, Zero (%)	0.22	0.22	0.06	0.00	0.00	0.01	0.02	0.04
Initial/Final System Bias, Span (%)	-0.22	0.45	-0.11	-0.06	-0.05	-0.04	0.00	0.02
System Drift, Zero/Span (%)	0.00	0.67	-0.06	0.06	0.01	0.02	0.02	0.02
Run Average	5.93		13.13		43.87		59.90	
Corrected Run Averages	5.90		13.11		43.95		59.78	
Emission Calculations:								
Concentration Corrected to 7% O2 =					40.73		55.40	
Emission Rate (lbs/MMBtu) =					0.043		0.097	
Concentration, wet basis,% =			11.88					

	SO2 ppm	
Calibration Span (High Level Cal Gas)	18.16	
Cyl. Gas Concentrations Zero/Span	0.00	10.42
Direct Calibration Zero Response		0.00
Direct Calibration Span Response		10.44
Initial System Zero Response		0.02
Initial System Span Response		10.40
Final System Zero Response		0.03
Final System Span Response		10.41
Initial/Final System Bias, Zero (%)	0.11	0.17
Initial/Final System Bias, Span (%)	-0.22	-0.17
System Drift, Zero/Span (%)	0.06	0.06
Run Average	6.44	
Corrected Run Averages	6.44	
Emission Calculations:		
Concentration Corrected to 7% O2 =	5.97	
Emission Rate (lbs/MMBtu) =	0.015	

COMMENTS:

ENSR CONSULTING & ENGINEERING
UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico **CONDITION:** 100% Load
SOURCE: Unit # 1 **RUN NUMBER:** 1

Date	Time	O2 %	CO2 %	CO ppm	NOX ppm	SO2 ppm
06-Dec-2007	10:05	5.95	13.10	43.83	59.48	6.79
06-Dec-2007	10:06	5.98	13.10	43.35	60.00	6.48
06-Dec-2007	10:07	5.99	13.10	43.67	59.80	6.73
06-Dec-2007	10:08	5.93	13.10	43.83	59.14	6.34
06-Dec-2007	10:09	5.95	13.10	43.55	59.98	6.42
06-Dec-2007	10:10	5.97	13.10	43.73	60.39	6.48
06-Dec-2007	10:11	5.94	13.11	43.74	59.83	5.96
06-Dec-2007	10:12	5.93	13.11	43.92	60.30	6.24
06-Dec-2007	10:13	5.99	13.11	44.01	60.16	6.45
06-Dec-2007	10:14	5.92	13.10	44.25	59.58	6.28
06-Dec-2007	10:15	5.96	13.11	43.80	59.65	6.06
06-Dec-2007	10:16	5.95	13.10	43.72	59.82	6.09
06-Dec-2007	10:17	5.97	13.11	43.70	59.41	6.46
06-Dec-2007	10:18	5.97	13.14	43.94	59.63	6.22
06-Dec-2007	10:19	5.98	13.14	43.96	60.88	5.87
06-Dec-2007	10:20	5.94	13.14	44.04	60.01	5.98
06-Dec-2007	10:21	5.94	13.13	44.03	60.49	5.96
06-Dec-2007	10:22	5.88	13.16	43.96	59.86	6.42
06-Dec-2007	10:23	5.86	13.18	43.93	59.60	6.48
06-Dec-2007	10:24	5.81	13.19	44.15	59.53	7.03
06-Dec-2007	10:25	5.86	13.20	44.04	59.71	7.61
06-Dec-2007	10:26	5.84	13.22	43.97	60.65	7.33
AVERAGES:		**5.93**	**13.13**	**43.87**	**59.90**	**6.44**

ENSR CONSULTING & ENGINEERING
CORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE:	AES Puerto Rico	PROJECT NO.:	00052-170-0002
SOURCE:	Unit # 1	FILE NAME:	u1r2.xls
CONDITION:	100% Load	DATE:	12/6/07
RUN NUMBER:	2	RUN TIME:	10:42 to 11:03
Fd: (dscf/MMBtu) =	9780		
		Moisture,%=	9.4

	O2 %		CO2 %		CO ppm		NOx ppm	
Calibration Span (High Level Cal Gas)	8.98		17.84		114.20		109.00	
Cyl. Gas Concentrations Zero/Span	0.00	8.98	0.00	9.00	0.00	50.20	0.00	54.00
Direct Calibration Zero Response		-0.01		0.00		-0.01		0.00
Direct Calibration Span Response		9.01		9.03		50.16		54.10
Initial System Zero Response		0.01		0.00		0.00		0.04
Initial System Span Response		9.05		9.02		50.12		54.12
Final System Zero Response		0.02		0.02		0.00		0.08
Final System Span Response		9.09		9.00		50.18		53.98
Initial/Final System Bias, Zero (%)	0.22	0.33	0.00	0.11	0.01	0.01	0.04	0.07
Initial/Final System Bias, Span (%)	0.45	0.89	-0.06	-0.17	-0.04	0.02	0.02	-0.11
System Drift, Zero/Span (%)	0.11	0.45	0.11	-0.11	0.00	0.05	0.04	-0.13
Run Average	5.95		13.15		46.25		60.22	
Corrected Run Averages	5.89		13.14		46.30		60.17	
Emission Calculations:								
Concentration Corrected to 7% O2 =					42.86		55.71	
Emission Rate (lbs/MMBtu) =					0.046		0.098	
Concentration, wet basis,% =			11.90					

	SO2 ppm	
Calibration Span (High Level Cal Gas)	18.16	
Cyl. Gas Concentrations Zero/Span	0.00	10.42
Direct Calibration Zero Response		0.00
Direct Calibration Span Response		10.44
Initial System Zero Response		0.03
Initial System Span Response		10.41
Final System Zero Response		0.02
Final System Span Response		10.42
Initial/Final System Bias, Zero (%)	0.17	0.11
Initial/Final System Bias, Span (%)	-0.17	-0.11
System Drift, Zero/Span (%)	-0.06	0.06
Run Average	6.33	
Corrected Run Averages	6.32	
Emission Calculations:		
Concentration Corrected to 7% O2 =	5.85	
Emission Rate (lbs/MMBtu) =	0.014	

COMMENTS:

ENSR CONSULTING & ENGINEERING
UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico **CONDITION:** 100% Load
SOURCE: Unit # 1 **RUN NUMBER:** 2

Date	Time	O2 %	CO2 %	CO ppm	NOX ppm	SO2 ppm
06-Dec-2007	10:42	5.97	13.08	46.09	61.01	6.27
06-Dec-2007	10:43	6.02	13.07	46.06	60.72	5.99
06-Dec-2007	10:44	5.96	13.07	46.20	60.61	5.98
06-Dec-2007	10:45	5.96	13.10	46.11	59.63	5.94
06-Dec-2007	10:46	5.97	13.14	46.17	59.63	5.88
06-Dec-2007	10:47	5.92	13.15	46.37	59.23	6.09
06-Dec-2007	10:48	5.89	13.15	46.08	60.07	6.21
06-Dec-2007	10:49	5.96	13.15	46.30	59.77	6.17
06-Dec-2007	10:50	5.93	13.15	46.14	58.82	6.10
06-Dec-2007	10:51	5.84	13.17	46.00	59.46	6.28
06-Dec-2007	10:52	5.89	13.18	45.96	59.73	6.79
06-Dec-2007	10:53	5.95	13.19	46.20	60.15	6.36
06-Dec-2007	10:54	5.92	13.16	46.18	60.19	6.76
06-Dec-2007	10:55	5.93	13.16	46.05	60.45	6.68
06-Dec-2007	10:56	5.98	13.16	46.24	60.66	6.34
06-Dec-2007	10:57	5.96	13.16	46.46	61.07	6.51
06-Dec-2007	10:58	6.01	13.17	46.31	60.61	6.55
06-Dec-2007	10:59	5.91	13.16	46.41	61.25	6.60
06-Dec-2007	11:00	5.99	13.16	46.57	60.55	6.36
06-Dec-2007	11:01	5.95	13.16	46.70	60.18	6.31
06-Dec-2007	11:02	5.95	13.16	46.45	60.77	6.58
06-Dec-2007	11:03	5.96	13.15	46.53	60.29	6.47
AVERAGES:		**5.95**	**13.15**	**46.25**	**60.22**	**6.33**

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CORRECTED CEM MONITORING RESULTS

INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE:	AES Puerto Rico	PROJECT NO.:	00052-170-0002
SOURCE:	Unit # 1	FILE NAME:	u1r3.xls
CONDITION:	100% Load	DATE:	12/6/07
RUN NUMBER:	3	RUN TIME:	11:19 to 11:40
Fd: (dscf/MMBtu) =	9780		
		Moisture,%=	9.8

	O2 %		CO2 %		CO ppm		NOx ppm	
Calibration Span (High Level Cal Gas)	8.98		17.84		114.20		109.00	
Cyl. Gas Concentrations Zero/Span	0.00	8.98	0.00	9.00	0.00	50.20	0.00	54.00
Direct Calibration Zero Response		-0.01		0.00		-0.01		0.00
Direct Calibration Span Response		9.01		9.03		50.16		54.10
Initial System Zero Response		0.02		0.02		0.00		0.08
Initial System Span Response		9.09		9.00		50.18		53.98
Final System Zero Response		0.01		0.03		-0.01		0.10
Final System Span Response		9.08		9.01		49.93		53.96
Initial/Final System Bias, Zero (%)	0.33	0.22	0.11	0.17	0.01	0.00	0.07	0.09
Initial/Final System Bias, Span (%)	0.89	0.78	-0.17	-0.11	0.02	-0.20	-0.11	-0.13
System Drift, Zero/Span (%)	-0.11	-0.11	0.06	0.06	-0.01	-0.22	0.02	-0.02
Run Average	5.88		13.15		48.31		60.21	
Corrected Run Averages	5.81		13.15		48.45		60.25	
Emission Calculations:								
Concentration Corrected to 7% O2 =					44.62		55.49	
Emission Rate (lbs/MMBtu) =					0.048		0.097	
Concentration, wet basis,% =			11.87					

	SO2 ppm	
Calibration Span (High Level Cal Gas)	18.16	
Cyl. Gas Concentrations Zero/Span	0.00	10.42
Direct Calibration Zero Response		0.00
Direct Calibration Span Response		10.44
Initial System Zero Response		0.02
Initial System Span Response		10.42
Final System Zero Response		0.00
Final System Span Response		10.41
Initial/Final System Bias, Zero (%)	0.11	0.00
Initial/Final System Bias, Span (%)	-0.11	-0.17
System Drift, Zero/Span (%)	-0.11	-0.06
Run Average	5.09	
Corrected Run Averages	5.09	
Emission Calculations:		
Concentration Corrected to 7% O2 =	4.69	
Emission Rate (lbs/MMBtu) =	0.011	

COMMENTS:

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UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico **CONDITION:** 100% Load
SOURCE: Unit # 1 **RUN NUMBER:** 3

Date	Time	O2 %	CO2 %	CO ppm	NOX ppm	SO2 ppm
06-Dec-2007	11:19	6.00	13.17	47.71	60.47	5.04
06-Dec-2007	11:20	5.87	13.18	47.59	59.86	5.02
06-Dec-2007	11:21	5.85	13.17	47.70	60.30	4.99
06-Dec-2007	11:22	5.93	13.19	47.96	59.92	4.97
06-Dec-2007	11:23	5.92	13.19	47.90	59.65	4.92
06-Dec-2007	11:24	5.91	13.18	48.09	60.06	4.98
06-Dec-2007	11:25	5.95	13.14	48.27	59.51	5.03
06-Dec-2007	11:26	5.95	13.15	48.34	58.85	5.06
06-Dec-2007	11:27	5.90	13.14	48.54	59.52	5.11
06-Dec-2007	11:28	5.93	13.15	48.33	58.79	5.14
06-Dec-2007	11:29	5.86	13.16	48.66	59.27	5.18
06-Dec-2007	11:30	5.85	13.16	48.68	58.87	5.20
06-Dec-2007	11:31	5.86	13.16	48.06	59.24	5.16
06-Dec-2007	11:32	5.98	13.16	48.11	60.02	5.13
06-Dec-2007	11:33	5.88	13.16	48.48	60.71	5.12
06-Dec-2007	11:34	5.97	13.14	48.53	61.10	5.08
06-Dec-2007	11:35	5.87	13.14	48.58	61.33	5.05
06-Dec-2007	11:36	5.76	13.13	48.53	61.59	5.02
06-Dec-2007	11:37	5.78	13.13	48.65	61.35	5.00
06-Dec-2007	11:38	5.71	13.13	48.77	61.56	4.96
06-Dec-2007	11:39	5.83	13.13	48.62	61.47	4.94
06-Dec-2007	11:40	5.82	13.13	48.76	61.28	5.89
AVERAGES:		**5.88**	**13.15**	**48.31**	**60.21**	**5.09**

ENSR CONSULTING & ENGINEERING
CORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE:	AES Puerto Rico	PROJECT NO.:	00052-170-0002
SOURCE:	Unit # 1	FILE NAME:	u1r4.xls
CONDITION:	100% Load	DATE:	12/6/07
RUN NUMBER:	4	RUN TIME:	11:56 to 12:17
Fd: (dscf/MMBtu) =	9780		
		Moisture,%=	9.8

	O2 %		CO2 %		CO ppm		NOx ppm	
Calibration Span (High Level Cal Gas)	8.98		17.84		114.20		109.00	
Cyl. Gas Concentrations Zero/Span	0.00	8.98	0.00	9.00	0.00	50.20	0.00	54.00
Direct Calibration Zero Response		-0.01		0.00		-0.01		0.00
Direct Calibration Span Response		9.01		9.03		50.16		54.10
Initial System Zero Response		0.01		0.03		-0.01		0.10
Initial System Span Response		9.08		9.01		49.93		53.96
Final System Zero Response		0.00		0.01		-0.02		0.12
Final System Span Response		9.08		9.01		50.04		53.97
Initial/Final System Bias, Zero (%)	0.22	0.11	0.17	0.06	0.00	-0.01	0.09	0.11
Initial/Final System Bias, Span (%)	0.78	0.78	-0.11	-0.11	-0.20	-0.11	-0.13	-0.12
System Drift, Zero/Span (%)	-0.11	0.00	-0.11	0.00	-0.01	0.10	0.02	0.01
Run Average	5.76		13.16		49.89		62.38	
Corrected Run Averages	5.69		13.15		50.10		62.44	
Emission Calculations:								
Concentration Corrected to 7% O2 =					45.80		57.08	
Emission Rate (lbs/MMBtu) =					0.049		0.100	
Concentration, wet basis,% =			11.87					

	SO2 ppm	
Calibration Span (High Level Cal Gas)	18.16	
Cyl. Gas Concentrations Zero/Span	0.00	10.42
Direct Calibration Zero Response		0.00
Direct Calibration Span Response		10.44
Initial System Zero Response		0.00
Initial System Span Response		10.41
Final System Zero Response		-0.01
Final System Span Response		10.45
Initial/Final System Bias, Zero (%)	0.00	-0.06
Initial/Final System Bias, Span (%)	-0.17	0.06
System Drift, Zero/Span (%)	-0.06	0.22
Run Average	4.61	
Corrected Run Averages	4.61	
Emission Calculations:		
Concentration Corrected to 7% O2 =	4.21	
Emission Rate (lbs/MMBtu) =	0.010	

COMMENTS:

ENSR CONSULTING & ENGINEERING
UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico
SOURCE: Unit # 1
CONDITION: 100% Load
RUN NUMBER: 4

Date	Time	O2 %	CO2 %	CO ppm	NOX ppm	SO2 ppm
06-Dec-2007	11:56	5.75	13.19	49.11	61.15	4.44
06-Dec-2007	11:57	5.78	13.15	49.23	62.14	4.39
06-Dec-2007	11:58	5.79	13.14	49.38	61.67	4.46
06-Dec-2007	11:59	5.76	13.10	49.67	62.25	4.58
06-Dec-2007	12:00	5.72	13.13	49.56	62.22	4.63
06-Dec-2007	12:01	5.73	13.14	49.74	62.40	4.65
06-Dec-2007	12:02	5.77	13.15	49.92	61.92	4.71
06-Dec-2007	12:03	5.68	13.20	50.00	60.96	4.68
06-Dec-2007	12:04	5.71	13.23	49.49	61.55	4.66
06-Dec-2007	12:05	5.79	13.20	49.53	62.51	4.72
06-Dec-2007	12:06	5.77	13.19	49.81	61.56	5.70
06-Dec-2007	12:07	5.80	13.19	49.79	62.00	4.68
06-Dec-2007	12:08	5.70	13.16	50.08	63.14	4.59
06-Dec-2007	12:09	5.82	13.16	49.85	63.14	4.62
06-Dec-2007	12:10	5.80	13.16	49.50	64.00	4.65
06-Dec-2007	12:11	5.79	13.16	49.71	63.82	4.56
06-Dec-2007	12:12	5.84	13.14	50.18	63.72	4.53
06-Dec-2007	12:13	5.77	13.13	50.39	63.16	4.51
06-Dec-2007	12:14	5.83	13.13	50.88	62.37	4.48
06-Dec-2007	12:15	5.72	13.16	50.74	62.09	4.36
06-Dec-2007	12:16	5.67	13.18	50.66	62.75	4.41
06-Dec-2007	12:17	5.78	13.18	50.27	61.89	4.35
AVERAGES:		**5.76**	**13.16**	**49.89**	**62.38**	**4.61**

ENSR CONSULTING & ENGINEERING

CORRECTED CEM MONITORING RESULTS

INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE:	AES Puerto Rico	PROJECT NO.:	00052-170-0002
SOURCE:	Unit # 1	FILE NAME:	u1r5.xls
CONDITION:	100% Load	DATE:	12/6/07
RUN NUMBER:	5	RUN TIME:	12:35 to 12:56
Fd: (dscf/MMBtu) =	9780		
		Moisture,%=	9.8

	O2 %		CO2 %		CO ppm		NOx ppm	
Calibration Span (High Level Cal Gas)	8.98		17.84		114.20		109.00	
Cyl. Gas Concentrations Zero/Span	0.00	8.98	0.00	9.00	0.00	50.20	0.00	54.00
Direct Calibration Zero Response		-0.01		0.00		-0.01		0.00
Direct Calibration Span Response		9.01		9.03		50.16		54.10
Initial System Zero Response		0.00		0.01		-0.02		0.12
Initial System Span Response		9.08		9.01		50.04		53.97
Final System Zero Response		0.00		0.01		-0.03		0.12
Final System Span Response		9.09		9.00		50.02		53.96
Initial/Final System Bias, Zero (%)	0.11	0.11	0.06	0.06	-0.01	-0.02	0.11	0.11
Initial/Final System Bias, Span (%)	0.78	0.89	-0.11	-0.17	-0.11	-0.12	-0.12	-0.13
System Drift, Zero/Span (%)	0.00	0.11	0.00	-0.06	-0.01	-0.02	0.00	-0.01
Run Average	5.85		13.12		52.02		61.67	
Corrected Run Averages	5.78		13.12		52.20		61.73	
Emission Calculations:								
Concentration Corrected to 7% O2 =					47.99		56.76	
Emission Rate (lbs/MMBtu) =					0.051		0.100	
Concentration, wet basis,% =			11.83					

	SO2 ppm	
Calibration Span (High Level Cal Gas)	18.16	
Cyl. Gas Concentrations Zero/Span	0.00	10.42
Direct Calibration Zero Response		0.00
Direct Calibration Span Response		10.44
Initial System Zero Response		-0.01
Initial System Span Response		10.45
Final System Zero Response		0.00
Final System Span Response		10.46
Initial/Final System Bias, Zero (%)	-0.06	0.00
Initial/Final System Bias, Span (%)	0.06	0.11
System Drift, Zero/Span (%)	0.06	0.06
Run Average	4.33	
Corrected Run Averages	4.32	
Emission Calculations:		
Concentration Corrected to 7% O2 =	3.97	
Emission Rate (lbs/MMBtu) =	0.010	

COMMENTS:

ENSR CONSULTING & ENGINEERING
UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico **CONDITION:** 100% Load
SOURCE: Unit # 1 **RUN NUMBER:** 5

Date	Time	O2 %	CO2 %	CO ppm	NOX ppm	SO2 ppm
06-Dec-2007	12:35	5.74	13.20	50.98	60.74	4.62
06-Dec-2007	12:36	5.76	13.21	50.84	61.47	4.58
06-Dec-2007	12:37	5.75	13.21	51.46	61.01	4.56
06-Dec-2007	12:38	5.76	13.20	51.28	60.22	4.52
06-Dec-2007	12:39	5.79	13.20	51.36	60.99	4.41
06-Dec-2007	12:40	5.84	13.20	51.38	61.55	4.58
06-Dec-2007	12:41	5.84	13.17	51.36	62.51	4.79
06-Dec-2007	12:42	5.82	13.16	51.25	63.61	4.68
06-Dec-2007	12:43	5.95	13.08	51.64	63.13	4.53
06-Dec-2007	12:44	5.84	13.06	51.81	62.85	4.49
06-Dec-2007	12:45	5.87	13.08	51.97	62.49	4.36
06-Dec-2007	12:46	5.94	13.08	51.87	62.79	4.33
06-Dec-2007	12:47	5.95	13.09	52.29	61.68	4.30
06-Dec-2007	12:48	5.84	13.09	52.31	61.66	4.29
06-Dec-2007	12:49	5.87	13.09	53.03	61.06	4.17
06-Dec-2007	12:50	5.94	13.08	53.00	62.06	4.12
06-Dec-2007	12:51	5.99	13.04	52.37	61.97	4.08
06-Dec-2007	12:52	5.90	13.05	52.82	62.49	4.02
06-Dec-2007	12:53	5.89	13.08	52.82	61.58	3.98
06-Dec-2007	12:54	5.85	13.10	53.07	60.34	4.11
06-Dec-2007	12:55	5.82	13.10	52.80	60.66	3.95
06-Dec-2007	12:56	5.76	13.11	52.82	59.93	3.88
AVERAGES:		**5.85**	**13.12**	**52.02**	**61.67**	**4.33**

ENSR CONSULTING & ENGINEERING
CORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE:	AES Puerto Rico	PROJECT NO.:	00052-170-0002
SOURCE:	Unit # 1	FILE NAME:	u1r6.xls
CONDITION:	100% Load	DATE:	12/6/07
RUN NUMBER:	6	RUN TIME:	13:15 to 13:36
Fd: (dscf/MMBtu) =	9780		
		Moisture,%=	9.8

	O2 %		CO2 %		CO ppm		NOx ppm	
Calibration Span (High Level Cal Gas)	8.98		17.84		114.20		109.00	
Cyl. Gas Concentrations Zero/Span	0.00	8.98	0.00	9.00	0.00	50.20	0.00	54.00
Direct Calibration Zero Response		-0.01		0.00		-0.01		0.00
Direct Calibration Span Response		9.01		9.03		50.16		54.10
Initial System Zero Response		0.00		0.01		-0.03		0.12
Initial System Span Response		9.09		9.00		50.02		53.96
Final System Zero Response		0.00		0.00		-0.02		0.12
Final System Span Response		9.08		9.02		50.00		54.01
Initial/Final System Bias, Zero (%)	0.11	0.11	0.06	0.00	-0.02	-0.01	0.11	0.11
Initial/Final System Bias, Span (%)	0.89	0.78	-0.17	-0.06	-0.12	-0.14	-0.13	-0.08
System Drift, Zero/Span (%)	0.00	-0.11	-0.06	0.11	0.01	-0.02	0.00	0.05
Run Average	5.84		13.10		54.18		61.13	
Corrected Run Averages	5.77		13.09		54.38		61.16	
Emission Calculations:								
Concentration Corrected to 7% O2 =					49.97		56.20	
Emission Rate (lbs/MMBtu) =					0.053		0.099	
Concentration, wet basis,% =			11.81					

	SO2 ppm	
Calibration Span (High Level Cal Gas)	18.16	
Cyl. Gas Concentrations Zero/Span	0.00	10.42
Direct Calibration Zero Response		0.00
Direct Calibration Span Response		10.38
Initial System Zero Response		0.00
Initial System Span Response		10.46
Final System Zero Response		0.01
Final System Span Response		10.41
Initial/Final System Bias, Zero (%)	0.00	0.06
Initial/Final System Bias, Span (%)	0.44	0.17
System Drift, Zero/Span (%)	0.06	-0.28
Run Average	4.09	
Corrected Run Averages	4.08	
Emission Calculations:		
Concentration Corrected to 7% O2 =	3.75	
Emission Rate (lbs/MMBtu) =	0.009	

COMMENTS:

ENSR CONSULTING & ENGINEERING
UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico **CONDITION:** 100% Load
SOURCE: Unit # 1 **RUN NUMBER:** 6

Date	Time	O2 %	CO2 %	CO ppm	NOX ppm	SO2 ppm
06-Dec-2007	13:15	5.81	13.12	53.43	60.13	3.94
06-Dec-2007	13:16	5.76	13.12	53.22	60.31	4.08
06-Dec-2007	13:17	5.76	13.12	53.93	60.71	4.13
06-Dec-2007	13:18	5.82	13.12	54.02	60.40	4.18
06-Dec-2007	13:19	5.78	13.12	53.98	60.97	4.14
06-Dec-2007	13:20	5.83	13.12	54.12	61.56	4.07
06-Dec-2007	13:21	5.78	13.12	54.25	60.77	4.09
06-Dec-2007	13:22	5.86	13.11	53.93	61.76	4.15
06-Dec-2007	13:23	5.78	13.12	53.84	61.41	4.14
06-Dec-2007	13:24	5.88	13.09	54.03	61.46	4.11
06-Dec-2007	13:25	5.82	13.09	53.98	60.79	4.06
06-Dec-2007	13:26	5.83	13.10	54.16	61.21	4.15
06-Dec-2007	13:27	5.81	13.09	53.71	61.73	4.13
06-Dec-2007	13:28	5.83	13.10	54.34	62.23	4.06
06-Dec-2007	13:29	5.94	13.09	54.48	61.88	4.08
06-Dec-2007	13:30	5.87	13.09	54.52	61.29	4.10
06-Dec-2007	13:31	5.88	13.08	54.73	61.47	4.15
06-Dec-2007	13:32	5.93	13.08	54.66	61.93	4.16
06-Dec-2007	13:33	5.94	13.05	54.90	61.94	4.12
06-Dec-2007	13:34	5.95	13.04	54.90	61.07	4.08
06-Dec-2007	13:35	5.77	13.08	54.47	60.17	4.02
06-Dec-2007	13:36	5.80	13.08	54.40	59.73	3.94
AVERAGES:		**5.84**	**13.10**	**54.18**	**61.13**	**4.09**

ENSR CONSULTING & ENGINEERING
CORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE:	**AES Puerto Rico**	**PROJECT NO.:**	**00052-170-0002**
SOURCE:	**Unit # 1**	**FILE NAME:**	**u1r7.xls**
CONDITION:	**100% Load**	**DATE:**	**12/6/07**
RUN NUMBER:	**7**	**RUN TIME:**	**13:49 to 14:10**
Fd: (dscf/MMBtu) =	**9780**		
		Moisture,%=	**9.8**

	O2 %		CO2 %		CO ppm		NOx ppm	
Calibration Span (High Level Cal Gas)	**8.98**		**17.84**		**114.20**		**109.00**	
Cyl. Gas Concentrations Zero/Span	0.00	8.98	0.00	9.00	0.00	50.20	0.00	54.00
Direct Calibration Zero Response		-0.01		0.00		-0.01		0.00
Direct Calibration Span Response		9.01		9.03		50.16		54.10
Initial System Zero Response		0.00		0.00		-0.02		0.12
Initial System Span Response		9.08		9.02		50.00		54.01
Final System Zero Response		0.00		0.00		-0.01		0.10
Final System Span Response		9.09		9.00		50.04		53.99
Initial/Final System Bias, Zero (%)	0.11	0.11	0.00	0.00	-0.01	0.00	0.11	0.09
Initial/Final System Bias, Span (%)	0.78	0.89	-0.06	-0.17	-0.14	-0.11	-0.08	-0.10
System Drift, Zero/Span (%)	0.00	0.11	0.00	-0.11	0.01	0.04	-0.02	-0.02
Run Average	5.93		13.04		54.49		60.56	
Corrected Run Averages	**5.86**		**13.03**		**54.68**		**60.57**	
Emission Calculations:								
Concentration Corrected to 7% O2 =					**50.54**		**55.99**	
Emission Rate (lbs/MMBtu) =					**0.054**		**0.098**	
Concentration, wet basis,% =			**11.75**					

	SO2 ppm	
Calibration Span (High Level Cal Gas)	**18.16**	
Cyl. Gas Concentrations Zero/Span	0.00	10.42
Direct Calibration Zero Response		0.00
Direct Calibration Span Response		10.38
Initial System Zero Response		0.01
Initial System Span Response		10.41
Final System Zero Response		0.00
Final System Span Response		10.45
Initial/Final System Bias, Zero (%)	0.06	0.00
Initial/Final System Bias, Span (%)	0.17	0.39
System Drift, Zero/Span (%)	-0.06	0.22
Run Average	5.12	
Corrected Run Averages	**5.11**	
Emission Calculations:		
Concentration Corrected to 7% O2 =	**4.73**	
Emission Rate (lbs/MMBtu) =	**0.012**	

COMMENTS:

ENSR CONSULTING & ENGINEERING
UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico **CONDITION:** 100% Load
SOURCE: Unit # 1 **RUN NUMBER:** 7

Date	Time	O2 %	CO2 %	CO ppm	NOX ppm	SO2 ppm
06-Dec-2007	13:49	6.01	13.04	54.49	63.66	2.54
06-Dec-2007	13:50	6.02	13.04	54.86	63.64	3.21
06-Dec-2007	13:51	6.01	13.03	54.78	63.07	3.38
06-Dec-2007	13:52	6.10	13.02	55.04	62.65	3.63
06-Dec-2007	13:53	6.07	13.00	54.58	61.36	3.93
06-Dec-2007	13:54	5.97	13.01	54.74	59.90	4.33
06-Dec-2007	13:55	5.97	13.00	54.29	60.85	4.46
06-Dec-2007	13:56	5.86	13.02	53.77	60.95	5.04
06-Dec-2007	13:57	5.94	13.03	53.79	61.86	5.38
06-Dec-2007	13:58	5.99	13.03	54.05	61.23	5.47
06-Dec-2007	13:59	6.00	13.04	54.14	61.27	5.48
06-Dec-2007	14:00	6.00	13.03	53.97	61.18	5.68
06-Dec-2007	14:01	5.97	13.03	54.69	60.59	5.77
06-Dec-2007	14:02	6.02	13.03	54.18	61.17	6.19
06-Dec-2007	14:03	5.98	13.03	54.61	60.12	6.04
06-Dec-2007	14:04	5.76	13.05	54.46	59.30	6.07
06-Dec-2007	14:05	5.82	13.04	54.66	58.78	6.12
06-Dec-2007	14:06	5.81	13.04	54.65	58.44	6.03
06-Dec-2007	14:07	5.84	13.08	54.60	58.01	5.95
06-Dec-2007	14:08	5.78	13.10	54.79	57.94	5.80
06-Dec-2007	14:09	5.76	13.10	54.85	57.94	5.99
06-Dec-2007	14:10	5.75	13.08	54.86	58.34	6.07
AVERAGES:		**5.93**	**13.04**	**54.49**	**60.56**	**5.12**

ENSR CONSULTING & ENGINEERING
CORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE:	AES Puerto Rico	PROJECT NO.:	00052-170-0002
SOURCE:	Unit # 1	FILE NAME:	u1r8.xls
CONDITION:	100% Load	DATE:	12/6/07
RUN NUMBER:	8	RUN TIME:	14:26 to 14:47
Fd: (dscf/MMBtu) =	9780		
		Moisture,%=	9.8

	O2 %		CO2 %		CO ppm		NOx ppm	
Calibration Span (High Level Cal Gas)	8.98		17.84		114.20		109.00	
Cyl. Gas Concentrations Zero/Span	0.00	8.98	0.00	9.00	0.00	50.20	0.00	54.00
Direct Calibration Zero Response		-0.01		0.00		-0.01		0.00
Direct Calibration Span Response		9.01		9.03		50.16		54.10
Initial System Zero Response		0.00		0.00		-0.01		0.10
Initial System Span Response		9.09		9.00		50.04		53.99
Final System Zero Response		0.00		0.00		-0.02		0.10
Final System Span Response		9.08		9.01		50.10		53.96
Initial/Final System Bias, Zero (%)	0.11	0.11	0.00	0.00	0.00	-0.01	0.09	0.09
Initial/Final System Bias, Span (%)	0.89	0.78	-0.17	-0.11	-0.11	-0.05	-0.10	-0.13
System Drift, Zero/Span (%)	0.00	-0.11	0.00	0.06	-0.01	0.05	0.00	-0.03
Run Average	5.84		13.08		55.68		59.35	
Corrected Run Averages	5.77		13.07		55.82		59.39	
Emission Calculations:								
Concentration Corrected to 7% O2 =					51.29		54.57	
Emission Rate (lbs/MMBtu) =					0.055		0.096	
Concentration, wet basis,% =			11.79					

	SO2 ppm	
Calibration Span (High Level Cal Gas)	18.16	
Cyl. Gas Concentrations Zero/Span	0.00	10.42
Direct Calibration Zero Response		0.00
Direct Calibration Span Response		10.38
Initial System Zero Response		0.00
Initial System Span Response		10.45
Final System Zero Response		0.00
Final System Span Response		10.42
Initial/Final System Bias, Zero (%)	0.00	0.00
Initial/Final System Bias, Span (%)	0.39	0.22
System Drift, Zero/Span (%)	0.00	-0.17
Run Average	4.30	
Corrected Run Averages	4.29	
Emission Calculations:		
Concentration Corrected to 7% O2 =	3.95	
Emission Rate (lbs/MMBtu) =	0.010	

COMMENTS:

ENSR CONSULTING & ENGINEERING
UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico **CONDITION:** 100% Load
SOURCE: Unit # 1 **RUN NUMBER:** 8

Date	Time	O2 %	CO2 %	CO ppm	NOX ppm	SO2 ppm
06-Dec-2007	14:26	5.82	13.04	55.65	59.87	3.09
06-Dec-2007	14:27	5.85	13.04	56.10	59.66	3.18
06-Dec-2007	14:28	5.81	13.07	56.25	59.71	3.29
06-Dec-2007	14:29	5.91	13.05	56.09	59.70	3.43
06-Dec-2007	14:30	5.97	13.05	55.64	60.64	3.52
06-Dec-2007	14:31	5.95	13.04	55.52	60.54	3.76
06-Dec-2007	14:32	5.91	13.04	55.64	60.75	3.87
06-Dec-2007	14:33	5.98	13.01	55.70	60.94	3.98
06-Dec-2007	14:34	5.96	12.98	56.22	60.72	4.10
06-Dec-2007	14:35	5.90	12.98	55.78	60.36	4.15
06-Dec-2007	14:36	5.91	12.99	55.89	59.65	4.18
06-Dec-2007	14:37	5.88	13.04	56.24	58.79	4.21
06-Dec-2007	14:38	5.80	13.07	56.02	58.88	4.34
06-Dec-2007	14:39	5.81	13.09	55.83	58.54	4.42
06-Dec-2007	14:40	5.76	13.12	55.68	58.23	4.58
06-Dec-2007	14:41	5.76	13.12	55.93	57.58	4.63
06-Dec-2007	14:42	5.74	13.12	55.82	57.35	4.90
06-Dec-2007	14:43	5.77	13.15	55.00	58.61	5.27
06-Dec-2007	14:44	5.80	13.15	55.45	57.50	5.43
06-Dec-2007	14:45	5.76	13.17	55.28	58.35	5.42
06-Dec-2007	14:46	5.76	13.17	54.80	59.46	5.33
06-Dec-2007	14:47	5.73	13.18	54.48	59.80	5.53
AVERAGES:		**5.84**	**13.08**	**55.68**	**59.35**	**4.30**

ENSR CONSULTING & ENGINEERING

CORRECTED CEM MONITORING RESULTS

INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE:	AES Puerto Rico	PROJECT NO.:	00052-170-0002
SOURCE:	Unit # 1	FILE NAME:	u1r9.xls
CONDITION:	100% Load	DATE:	12/6/07
RUN NUMBER:	9	RUN TIME:	15:03 to 15:24
Fd: (dscf/MMBtu) =	9780		
		Moisture,%=	9.7

	O2 %		CO2 %		CO ppm		NOx ppm	
Calibration Span (High Level Cal Gas)	8.98		17.84		114.20		109.00	
Cyl. Gas Concentrations Zero/Span	0.00	8.98	0.00	9.00	0.00	50.20	0.00	54.00
Direct Calibration Zero Response		-0.01		0.00		-0.01		0.00
Direct Calibration Span Response		9.01		9.03		50.16		54.10
Initial System Zero Response		0.00		0.00		-0.02		0.10
Initial System Span Response		9.08		9.01		50.10		53.96
Final System Zero Response		0.01		0.00		-0.03		0.12
Final System Span Response		9.08		9.00		50.08		53.98
Initial/Final System Bias, Zero (%)	0.11	0.22	0.00	0.00	-0.01	-0.02	0.09	0.11
Initial/Final System Bias, Span (%)	0.78	0.78	-0.11	-0.17	-0.05	-0.07	-0.13	-0.11
System Drift, Zero/Span (%)	0.11	0.00	0.00	-0.06	-0.01	-0.02	0.02	0.02
Run Average	5.79		13.16		53.52		60.37	
Corrected Run Averages	**5.72**		**13.15**		**53.64**		**60.42**	
Emission Calculations:								
Concentration Corrected to 7% O2 =					**49.13**		**55.34**	
Emission Rate (lbs/MMBtu) =					**0.052**		**0.097**	
Concentration, wet basis,% =			**11.88**					

	SO2 ppm	
Calibration Span (High Level Cal Gas)	**18.16**	
Cyl. Gas Concentrations Zero/Span	0.00	10.42
Direct Calibration Zero Response		0.00
Direct Calibration Span Response		10.38
Initial System Zero Response		0.00
Initial System Span Response		10.42
Final System Zero Response		0.01
Final System Span Response		10.43
Initial/Final System Bias, Zero (%)	0.00	0.06
Initial/Final System Bias, Span (%)	0.22	0.28
System Drift, Zero/Span (%)	0.06	0.06
Run Average	7.01	
Corrected Run Averages	**7.01**	
Emission Calculations:		
Concentration Corrected to 7% O2 =	**6.42**	
Emission Rate (lbs/MMBtu) =	**0.016**	

COMMENTS:

ENSR CONSULTING & ENGINEERING
UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico **CONDITION:** 100% Load
SOURCE: Unit # 1 **RUN NUMBER:** 9

Date	Time	O2 %	CO2 %	CO ppm	NOX ppm	SO2 ppm
06-Dec-2007	15:03	5.83	13.10	51.44	66.20	5.60
06-Dec-2007	15:04	5.85	13.10	51.01	66.36	5.76
06-Dec-2007	15:05	5.85	13.10	51.00	67.07	6.07
06-Dec-2007	15:06	5.81	13.08	51.27	66.07	6.13
06-Dec-2007	15:07	5.90	13.09	51.22	67.45	6.36
06-Dec-2007	15:08	5.86	13.09	51.42	66.73	6.80
06-Dec-2007	15:09	5.80	13.09	51.34	65.92	7.05
06-Dec-2007	15:10	5.82	13.11	51.61	65.07	6.88
06-Dec-2007	15:11	5.74	13.14	52.43	62.97	6.80
06-Dec-2007	15:12	5.82	13.16	53.80	59.53	7.09
06-Dec-2007	15:13	5.80	13.16	54.78	57.60	7.57
06-Dec-2007	15:14	5.75	13.16	54.74	58.10	7.30
06-Dec-2007	15:15	5.76	13.18	54.89	57.29	7.12
06-Dec-2007	15:16	5.80	13.19	54.69	57.02	7.00
06-Dec-2007	15:17	5.76	13.21	55.03	56.45	7.29
06-Dec-2007	15:18	5.74	13.20	55.11	56.31	6.98
06-Dec-2007	15:19	5.78	13.19	54.69	57.22	7.01
06-Dec-2007	15:20	5.78	13.20	55.15	55.45	7.59
06-Dec-2007	15:21	5.83	13.19	55.61	54.87	8.00
06-Dec-2007	15:22	5.72	13.20	55.71	54.44	8.15
06-Dec-2007	15:23	5.69	13.24	55.29	54.50	7.88
06-Dec-2007	15:24	5.73	13.25	55.24	55.52	7.82
AVERAGES:		**5.79**	**13.16**	**53.52**	**60.37**	**7.01**

ENSR CONSULTING & ENGINEERING
UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico
SOURCE: Unit # 1
CONDITION: 100% Load
RUN NUMBER: Strat Check

Date	Time	O2 %	
06-Dec-2007	09:03	5.97	Port A-1
06-Dec-2007	09:04	5.98	
06-Dec-2007	09:05	5.99	
06-Dec-2007	09:06	5.96	Port A-2
06-Dec-2007	09:07	5.95	
06-Dec-2007	09:08	5.97	
06-Dec-2007	09:09	5.94	Port A-3
06-Dec-2007	09:10	5.93	
06-Dec-2007	09:11	5.99	
06-Dec-2007	09:12	10.44	
06-Dec-2007	09:13	20.06	
06-Dec-2007	09:14	6.89	
06-Dec-2007	09:15	5.97	Port B-1
06-Dec-2007	09:16	5.97	
06-Dec-2007	09:17	5.98	
06-Dec-2007	09:18	5.94	Port B-2
06-Dec-2007	09:19	5.94	
06-Dec-2007	09:20	5.88	
06-Dec-2007	09:21	5.86	Port B-3
06-Dec-2007	09:22	5.81	
06-Dec-2007	09:23	5.86	
06-Dec-2007	09:24	11.56	
06-Dec-2007	09:25	20.60	
06-Dec-2007	09:26	7.11	
06-Dec-2007	09:27	5.95	Port C-1
06-Dec-2007	09:28	5.98	
06-Dec-2007	09:29	5.99	
06-Dec-2007	09:30	6.01	Port C-2
06-Dec-2007	09:31	5.98	
06-Dec-2007	09:32	5.97	
06-Dec-2007	09:33	5.96	Port C-3
06-Dec-2007	09:34	5.99	
06-Dec-2007	09:35	5.99	
06-Dec-2007	09:36	14.22	
06-Dec-2007	09:37	20.60	
06-Dec-2007	09:38	8.89	
06-Dec-2007	09:39	6.45	
06-Dec-2007	09:40	5.97	Port D-1
06-Dec-2007	09:41	5.98	
06-Dec-2007	09:42	5.97	
06-Dec-2007	09:43	5.94	Port D-2
06-Dec-2007	09:44	5.88	
06-Dec-2007	09:45	5.86	
06-Dec-2007	09:46	5.81	Port D-3
06-Dec-2007	09:47	5.86	
06-Dec-2007	09:48	5.84	

AVERAGES:

Client:	AES - Puerto Rico
Location:	Guamyama
Date:	12/6/07
Day:	Thursday

UNIT # 1
RaTa

Project No.:	00052-170-0002
Performed By:	Robert Sicard

Run #	Run Time
	Direct Cals

Type of Calibration

Direct: ⊗	**System:**
Initial: ⊗	**Final:**

Instrument	← Direct Cals →				← Start of Day →			
	1		2		3		4	
	Conc.	Response	Conc.	Response	Conc.	Response	Conc.	Response
O_2	0.00	-0.01	8.98	9.01	4.99	5.00		
CO_2	0.00	0.00	17.84	17.86	9.00	9.03		
CO	0.00	-0.01	114.20	114.26	50.20	50.16		
NOX	0.00	0.00	109.00	109.14	54.00	54.10		
SO2	0.00	0.00	18.16	18.18	10.42	10.44		

Instrument	O_2	CO_2	CO	NOX	SO2			
Scale	25	20	100	200	50			

Client:	AES - Puerto Rico
Location:	Guamyama
Date:	12/6/07
Day:	Thursday

UNIT # 1
Rata

Project No.:	00052-170-0002
Performed By:	Robert Sicard

Run #	Run Time
1	10:05 - 10:26

Type of Calibration

Direct:	**System:** ⊗
Initial: ⊗	**Final:** ⊗

	← Initial Run #1 →				← Final Run #1 →			
Instrument	**1**		**2**		**3**		**4**	
	Conc.	**Response**	**Conc.**	**Response**	**Conc.**	**Response**	**Conc.**	**Response**
O_2	0.00	0.01	8.98	8.99	0.00	0.01	8.98	9.05
CO_2	0.00	0.01	9.00	9.01	0.00	0.00	9.00	9.02
CO	0.00	-0.01	50.20	50.10	0.00	0.00	50.20	50.12
NOX	0.00	0.02	54.00	54.10	0.00	0.04	54.00	54.12
SO2	0.00	0.02	10.42	10.40	0.00	0.03	10.42	10.41

Instrument	O_2	CO_2	CO	NOX	SO2			
Scale	25	20	100	200	50			

Client:	AES - Puerto Rico
Location:	Guamyama
Date:	12/6/07
Day:	Thursday

UNIT # 1
Rata

Project No.:	00052-170-0002
Performed By:	Robert Sicard

Run #	Run Time
2	10:42 - 11:03
3	11:19 - 11:40

Type of Calibration

Direct:	**System:** ⊗
Initial: ⊗	**Final:** ⊗

Instrument	← Final Run #2 →				← Final Run #3 →			
	1		2		3		4	
	Conc.	Response	Conc.	Response	Conc.	Response	Conc.	Response
O_2	0.00	0.02	8.98	9.09	0.00	0.01	8.98	9.08
CO_2	0.00	0.02	9.00	9.00	0.00	0.03	9.00	9.01
CO	0.00	0.00	50.20	50.18	0.00	-0.01	50.20	49.93
				53.90				
NOX	0.00	0.08	54.00	~~53~~ 53.98	0.00	0.10	54.00	53.96
SO2	0.00	0.02	10.42	10.42	0.00	0.00	10.42	10.41

Instrument	O_2	CO_2	CO	NOX	SO2			
Scale	25	20	100	200	50			

Client:	AES - Puerto Rico
Location:	Guamyama
Date:	12/6/07
Day:	Thursday

UNIT # 1
Rata

Project No.:	00052-170-0002
Performed By:	Robert Sicard

Run #	Run Time
4	11:56 - 12:17
5	12:35 - 12:56

Type of Calibration

Direct:	**System:** ✓
Initial: ⊗	**Final:** ⊗

	← Final Run #4 →				← Final Run #5 →			
Instrument	1		2		3		4	
	Conc.	Response	Conc.	Response	Conc.	Response	Conc.	Response
O_2	0.00	0.00	8.98	9.08	0.00	0.00	8.98	9.09
CO_2	0.00	0.01	9.00	9.01	0.00	0.01	9.00	9.00
CO	0.00	-0.02	50.20	50.04	0.00	-0.03	50.20	50.02
NOX	0.00	0.12	54.00	53.97	0.00	0.12	54.00	53.96
SO2	0.00	-0.01	10.42	10.45	0.00	0.00	10.42	10.46

Instrument	O_2	CO_2	CO	NOX	SO2			
Scale	25	20	100	200	50			

Client:	AES - Puerto Rico
Location:	Guamyama
Date:	12/6/07
Day:	Thursday

UNIT # 1

Rota

Project No.:	00052-170-0002
Performed By:	Robert Sicard

Run #	Run Time
6	13:15 - 13:36
7	13:49 - 14:10

Type of Calibration

Direct:	**System:** ✓
Initial: ✓	**Final:** ✓

Instrument	← Final Run #6 →				← Final Run #7 →			
	1		2		3		4	
	Conc.	Response	Conc.	Response	Conc.	Response	Conc.	Response
O_2	0.00	0.00	8.98	9.08	0.00	0.00	8.98	9.09
CO_2	0.00	0.00	9.00	9.02	0.00	0.00	9.00	9.00
CO	0.00	-0.02	50.20	50.00	0.00	-0.01	50.20	50.04
NOX	0.00	0.12	54.00	54.01	0.00	0.10	54.00	53.99
SO2	0.00	0.01	10.42	10.41	0.00	0.00	10.42	10.45

Instrument	O_2	CO_2	CO	NOX	SO2			
Scale	25	20	100	200	50			

Client:	AES - Puerto Rico
Location:	Guamyama
Date:	12/06/07
Day:	Thursday

UNIT # 1

Project No.:	00052-170-0002
Performed By:	Robert Sicard

Run #	Run Time
8	14:26 - 14:47
9	15:03 - 15:24

Type of Calibration

Direct:	**System:** ✓
Initial: ✓	**Final:** ✓

	← Final Run #8 →				← Final Run #9 →			
Instrument	**1**		**2**		**3**		**4**	
	Conc.	**Response**	**Conc.**	**Response**	**Conc.**	**Response**	**Conc.**	**Response**
O_2	0.00	0.00	8.98	9.08	0.00	0.01	8.98	9.08
CO_2	0.00	0.00	9.00	9.01	0.00	0.00	9.00	9.00
CO	0.00	-0.02	50.20	50.10	0.00	-0.03	50.20	50.08
NOX	0.00	0.10	54.00	53.96	0.00	0.12	54.00	53.98
SO2	0.00	0.00	10.42	10.42	0.00	0.01	10.42	10.43

Instrument	O_2	CO_2	CO	NOX	SO2			
Scale	25	20	100	200	50			

Method 2 and 4 Sampling Parameters
AES Cogeneration Facility - Guayama, PR
Unit 1 - 100% Load

Run No.		1	2	3	
Date		06-Dec-07	06-Dec-07	06-Dec-07	
Start Time	**Units**	10:05	10:42	11:19	
Stop Time		10:26	11:03	11:40	AVGS
Nozzle Diameter	inches	0.500	0.500	0.500	0.500
Barometric Pressure	in. Hg	29.90	29.90	29.90	29.90
Net Sampling Time	min.	60.0	60.0	60.0	60.0
Volume Metered	dcf	47.814	47.814	48.175	47.934
Avg. DGM Temp.	°F	101.1	101.1	105.6	102.6
Avg Delta H	in H_2O	1.90	1.90	1.90	1.90
Avg Delta H	in. Hg	0.1397	0.1397	0.1397	0.1397
DGM Calibration Factor	--	0.975	0.975	0.975	0.975
Gas Sample Volume	**dscf**	**44.042**	**44.042**	**44.025**	**44.036**
Total Water Collected	mL	97.1	97.1	101.2	98.5
Volume of Water Vapor	scf	4.578	4.578	4.772	4.643
Moisture (measured)	% v/v	9.4	9.4	9.8	9.5
Moisture (@ saturation)	% v/v	100.4	100.4	100.5	100.5
Dry Mole Fraction, 100-%M	--	0.9058	0.9058	0.9022	0.9046
CO_2 at Stack	% dry	13.11	13.14	13.15	13.13
O_2 at Stack	% dry	5.90	5.89	5.80	5.86
$CO + N_2$	% dry	80.99	80.97	81.05	81.00
Dry Molecular Weight	lb/lb-mole	30.33	30.34	30.34	30.34
Wet Molecular Weight	lb/lb-mole	29.17	29.18	29.13	29.16
Excess Air at Stack	%	38.1	38.0	37.2	37.8
Stack Area (for 192-in ID)	sq. in.	28952.9	28952.9	28952.9	28952.9
Static Pressure	in H_2O	-1.50	-1.50	-1.85	-1.62
Stack Pressure	in. Hg	29.79	29.79	29.76	29.78
Avg. Stack Temp.	°F	280.3	280.2	279.8	280.1
Avg. Sqroot of Delta P	--	1.1819	1.1840	1.1731	1.1797
SDE Average	--	32.155	32.213	31.909	32.093
Pitot Coefficient	--	0.84	0.84	0.84	0.84
Stack Gas Velocity	afpm	4,700	4,708	4,670	4,693
Stack Flowrate	wet acfm	945,063	946,699	938,924	943,562
Stack Flowrate	**wet kscfm**	**671.2**	**672.4**	**666.6**	**670.0**
Stack Flowrate	dscfm	607,954	609,075	601,409	606,146
Meter Box No.	--	80582	80582	80582	--
Delta H @	in H_2O	1.816	1.816	1.816	--
Field QA Yqc	--	0.9688	0.9687	0.9653	0.9676
[Deviation] Pre-Y	%	0.64%	0.64%	0.99%	0.76%

J:\Air_Tox\Project Files\AES 2007 RATA\Field\Unit 1\[Run 10.xls]DATA

Method 2 and 4 Sampling Parameters
AES Cogeneration Facility - Guayama, PR
Unit 1 - 100% Load

PT	RUN 1 AVGS						RUN 2 AVGS						RUN 3 AVGS					
	Delta P	SQRT Delta P	DGM IN	DGM OUT	Delta H	STACK TEMP	Delta P	SQRT Delta P	DGM IN	DGM OUT	Delta H	STACK TEMP	Delta P	SQRT Delta P	DGM IN	DGM OUT	Delta H	STACK TEMP
a1	1.50	1.2247	97	97	1.90	282	1.30	1.1402	97	97	1.90	281	1.30	1.1402	105	103	1.90	279
a2	1.40	1.1832	100	96	1.90	281	1.30	1.1402	100	96	1.90	281	1.35	1.1619	107	102	1.90	279
a3	1.25	1.1180	101	96	1.90	281	1.30	1.1402	101	96	1.90	281	1.20	1.0954	108	101	1.90	280
b1	1.60	1.2649	103	97	1.90	280	1.45	1.2042	103	97	1.90	280	1.50	1.2247	109	101	1.90	279
b2	1.50	1.2247	104	97	1.90	280	1.50	1.2247	104	97	1.90	280	1.50	1.2247	109	101	1.90	280
b3	1.40	1.1832	105	97	1.90	280	1.50	1.2247	105	97	1.90	280	1.50	1.2247	110	102	1.90	280
c1	1.45	1.2042	106	98	1.90	280	1.50	1.2247	106	98	1.90	280	1.50	1.2247	110	102	1.90	280
c2	1.60	1.2649	106	98	1.90	280	1.60	1.2649	106	98	1.90	280	1.50	1.2247	110	103	1.90	281
c3	1.40	1.1832	107	98	1.90	280	1.45	1.2042	107	98	1.90	280	1.45	1.2042	110	102	1.90	281
d1	1.30	1.1402	108	99	1.90	280	1.40	1.1832	108	99	1.90	280	1.35	1.1619	110	102	1.90	279
d2	1.20	1.0954	108	100	1.90	279	1.35	1.1619	108	100	1.90	279	1.25	1.1180	111	102	1.90	280
d3	1.20	1.0954	109	100	1.90	280	1.20	1.0954	109	100	1.90	280	1.15	1.0724	111	103	1.90	280
AVG	1.40	1.1819	101.1		1.90	280	1.40	1.1840	101.1		1.90	280	1.38	1.1731	105.6		1.90	280

J:\Air_Tox\Project Files\AES 2007 RATA\Field\Unit 1\[Runs 1-3.xls]AVGS

Method 2 and 4 Sampling Parameters
AES Cogeneration Facility - Guayama, PR
Unit 1 - 100% Load

Run No.		4	5	6	
Date		06-Dec-07	06-Dec-07	06-Dec-07	
Start Time	**Units**	11:56	12:35	13:15	
Stop Time		12:17	12:56	13:36	AVGS
Nozzle Diameter	inches	0.500	0.500	0.500	0.500
Barometric Pressure	in. Hg	29.90	29.90	29.89	29.90
Net Sampling Time	min.	60.0	60.0	60.0	60.0
Volume Metered	dcf	48.175	48.160	48.160	48.165
Avg. DGM Temp.	°F	105.6	106.3	106.3	106.0
Avg Delta H	in H_2O	1.90	1.90	1.90	1.90
Avg Delta H	in. Hg	0.1397	0.1397	0.1397	0.1397
DGM Calibration Factor	--	0.975	0.975	0.975	0.975
Gas Sample Volume	**dscf**	**44.025**	**43.959**	**43.945**	**43.976**
Total Water Collected	mL	101.2	101.2	101.2	101.2
Volume of Water Vapor	scf	4.772	4.772	4.772	4.772
Moisture (measured)	% v/v	9.8	9.8	9.8	9.8
Moisture (@ saturation)	% v/v	100.5	100.5	100.6	100.5
Dry Mole Fraction, 100-%M	--	0.9022	0.9021	0.9021	0.9021
CO_2 at Stack	% dry	13.15	13.12	13.09	13.12
O_2 at Stack	% dry	5.69	5.85	5.77	5.77
$CO + N_2$	% dry	81.16	81.03	81.14	81.11
Dry Molecular Weight	lb/lb-mole	30.33	30.33	30.33	30.33
Wet Molecular Weight	lb/lb-mole	29.13	29.13	29.12	29.12
Excess Air at Stack	%	36.2	37.6	36.9	36.9
Stack Area (for 192-in ID)	sq. in.	28952.9	28952.9	28952.9	28952.9
Static Pressure	in H_2O	-1.90	-1.80	-1.95	-1.88
Stack Pressure	in. Hg	29.76	29.77	29.75	29.76
Avg. Stack Temp.	°F	280.6	281.5	281.0	281.0
Avg. Sqroot of Delta P	--	1.1759	1.1841	1.1762	1.1787
SDE Average	--	32.001	32.244	32.018	32.088
Pitot Coefficient	--	0.84	0.84	0.84	0.84
Stack Gas Velocity	afpm	4,684	4,719	4,688	4,697
Stack Flowrate	wet acfm	941,744	948,779	942,581	944,368
Stack Flowrate	**wet kscfm**	**667.8**	**672.2**	**667.7**	**669.2**
Stack Flowrate	dscfm	602,529	606,342	602,342	603,738
Meter Box No.	--	80582	80582	80582	--
Delta H @	in H_2O	1.816	1.816	1.816	--
Field QA Yqc	--	0.9654	0.9662	0.9665	0.9660
[Deviation] Pre-Y	%	0.99%	0.90%	0.87%	0.92%

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Method 2 and 4 Sampling Parameters
AES Cogeneration Facility - Guayama, PR
Unit 1 - 100% Load

PT	RUN 4 AVGS						RUN 5 AVGS						RUN 6 AVGS					
	Delta P	SQRT Delta P	DGM IN	DGM OUT	Delta H	STACK TEMP	Delta P	SQRT Delta P	DGM IN	DGM OUT	Delta H	STACK TEMP	Delta P	SQRT Delta P	DGM IN	DGM OUT	Delta H	STACK TEMP
a1	1.30	1.1402	105	103	1.90	281	1.40	1.1832	105	103	1.90	282	1.30	1.1402	105	103	1.90	281
a2	1.20	1.0954	107	102	1.90	281	1.35	1.1619	107	102	1.90	282	1.25	1.1180	107	102	1.90	281
a3	1.30	1.1402	108	101	1.90	281	1.17	1.0817	109	102	1.90	282	1.30	1.1402	109	102	1.90	281
b1	1.40	1.1832	109	101	1.90	280	1.50	1.2247	110	103	1.90	281	1.50	1.2247	110	103	1.90	281
b2	1.55	1.2450	109	101	1.90	281	1.50	1.2247	110	102	1.90	281	1.50	1.2247	110	102	1.90	281
b3	1.40	1.1832	110	102	1.90	281	1.48	1.2166	111	102	1.90	282	1.55	1.2450	111	102	1.90	281
c1	1.45	1.2042	110	102	1.90	280	1.40	1.1832	111	103	1.90	281	1.50	1.2247	111	103	1.90	281
c2	1.65	1.2845	110	103	1.90	280	1.55	1.2450	111	103	1.90	282	1.50	1.2247	111	103	1.90	281
c3	1.50	1.2247	110	102	1.90	281	1.50	1.2247	111	103	1.90	282	1.40	1.1832	111	103	1.90	281
d1	1.38	1.1747	110	102	1.90	280	1.40	1.1832	111	103	1.90	281	1.30	1.1402	111	103	1.90	281
d2	1.30	1.1402	111	102	1.90	280	1.30	1.1402	111	103	1.90	281	1.33	1.1533	111	103	1.90	281
d3	1.20	1.0954	111	103	1.90	281	1.30	1.1402	111	103	1.90	281	1.20	1.0954	111	103	1.90	281
AVG	1.39	1.1759	105.6		1.90	281	1.40	1.1841	106.3		1.90	282	1.39	1.1762	106.3		1.90	281

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Method 2 and 4 Sampling Parameters
AES Cogeneration Facility - Guayama, PR
Unit 1 - 100% Load

Run No.		7	8	9	
Date		06-Dec-07	06-Dec-07	06-Dec-07	
Start Time	**Units**	13:49	14:26	15:03	
Stop Time		14:10	14:47	15:24	AVGS
Nozzle Diameter	inches	0.500	0.500	0.500	0.500
Barometric Pressure	in. Hg	29.88	29.86	29.84	29.86
Net Sampling Time	min.	60.0	60.0	30.0	50.0
Volume Metered	dcf	47.974	47.974	23.679	39.876
Avg. DGM Temp.	°F	104.5	104.5	102.8	104.0
Avg Delta H	in H_2O	1.90	1.90	1.90	1.90
Avg Delta H	in. Hg	0.1397	0.1397	0.1397	0.1397
DGM Calibration Factor	--	0.975	0.975	0.975	0.975
Gas Sample Volume	**dscf**	**43.893**	**43.864**	**21.701**	**36.486**
Total Water Collected	mL	100.6	100.6	49.6	83.6
Volume of Water Vapor	scf	4.743	4.743	2.339	3.942
Moisture (measured)	% v/v	9.8	9.8	9.7	9.7
Moisture (@ saturation)	% v/v	100.6	100.7	100.7	100.7
Dry Mole Fraction, 100-%M	--	0.9025	0.9024	0.9027	0.9025
CO_2 at Stack	% dry	13.03	13.07	13.15	13.08
O_2 at Stack	% dry	5.86	5.77	5.72	5.78
$CO + N_2$	% dry	81.11	81.16	81.13	81.13
Dry Molecular Weight	lb/lb-mole	30.32	30.32	30.33	30.32
Wet Molecular Weight	lb/lb-mole	29.12	29.12	29.13	29.12
Excess Air at Stack	%	37.7	36.9	36.4	37.0
Stack Area (for 192-in ID)	sq. in.	28952.9	28952.9	28952.9	28952.9
Static Pressure	in H_2O	-1.80	-1.95	-1.80	-1.85
Stack Pressure	in. Hg	29.75	29.72	29.71	29.72
Avg. Stack Temp.	°F	279.8	279.7	279.6	279.7
Avg. Sqroot of Delta P	--	1.1791	1.1735	1.1747	1.1758
SDE Average	--	32.069	31.916	31.946	31.977
Pitot Coefficient	--	0.84	0.84	0.84	0.84
Stack Gas Velocity	afpm	4,695	4,675	4,679	4,683
Stack Flowrate	wet acfm	944,062	940,047	940,839	941,649
Stack Flowrate	**wet kscfm**	**669.9**	**666.5**	**666.9**	**667.8**
Stack Flowrate	dscfm	604,609	601,439	602,034	602,694
Meter Box No.	--	80582	80582	80582	--
Delta H @	in H_2O	1.816	1.816	1.816	--
Field QA Yqc	--	0.9690	0.9693	0.9806	0.9730
[Deviation] Pre-Y	%	0.61%	0.58%	0.57%	0.59%

J:\Air_Tox\Project Files\AES 2007 RATA\Field\Unit 1\[Runs 7-9.xls]DATA

Method 2 and 4 Sampling Parameters
AES Cogeneration Facility - Guayama, PR
Unit 1 - 100% Load

PT	RUN 7 AVGS						RUN 8 AVGS						RUN 9 AVGS					
	Delta P	SQRT Delta P	DGM IN	DGM OUT	Delta H	STACK TEMP	Delta P	SQRT Delta P	DGM IN	DGM OUT	Delta H	STACK TEMP	Delta P	SQRT Delta P	DGM IN	DGM OUT	Delta H	STACK TEMP
a1	1.40	1.1832	105	104	1.90	280	1.40	1.1832	105	104	1.90	280	1.40	1.1832	103	101	1.90	279
a2	1.35	1.1619	105	103	1.90	280	1.20	1.0954	105	103	1.90	280	1.40	1.1832	104	100	1.90	279
a3	1.25	1.1180	105	102	1.90	280	1.25	1.1180	105	102	1.90	280	1.20	1.0954	106	99	1.90	279
b1	1.40	1.1832	106	101	1.90	280	1.40	1.1832	106	101	1.90	280	1.40	1.1832	107	100	1.90	280
b2	1.55	1.2450	107	101	1.90	280	1.50	1.2247	107	101	1.90	280	1.60	1.2649	107	100	1.90	280
b3	1.45	1.2042	108	101	1.90	280	1.50	1.2247	108	101	1.90	280	1.40	1.1832	107	100	1.90	280
c1	1.50	1.2247	109	102	1.90	280	1.40	1.1832	109	102	1.90	279	1.40	1.1832			1.90	280
c2	1.50	1.2247	109	101	1.90	280	1.50	1.2247	109	101	1.90	279	1.70	1.3038			1.90	280
c3	1.40	1.1832	109	101	1.90	280	1.40	1.1832	109	101	1.90	279	1.30	1.1402			1.90	280
d1	1.30	1.1402	109	101	1.90	279	1.40	1.1832	109	101	1.90	280	1.30	1.1402			1.90	279
d2	1.30	1.1402	109	101	1.90	279	1.40	1.1832	109	101	1.90	279	1.30	1.1402			1.90	279
d3	1.30	1.1402	109	101	1.90	279	1.20	1.0954	109	101	1.90	280	1.20	1.0954			1.90	280
AVG	1.39	1.1791	104.5		1.90	280	1.38	1.1735	104.5		1.90	280	1.38	1.1747	102.8		1.90	280

J:\Air_Tox\Project Files\AES 2007 RATA\Field\Unit 1\[Runs 7-9.xls]AVGS

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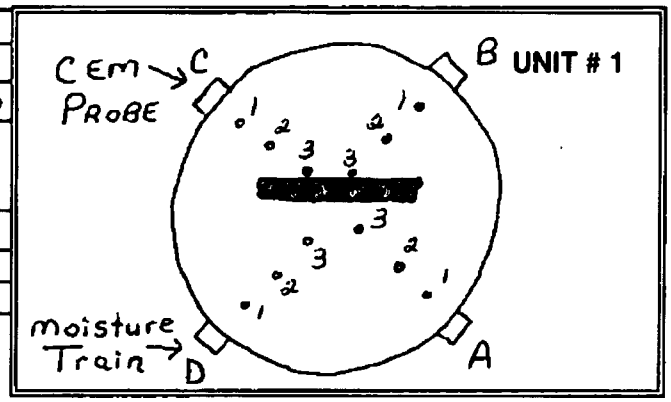
METHOD 2 GAS VELOCITY AND VOLUME DATA SHEET

Facility : AES Puerto Rico, L.P. Guayama, P.R. Port Length: 9" Monorail ? Platform Width N/A
Date : 12/ 6 / 2007 Port Diam.: 6" Y or (N) Railing Ht. : N/A
Operator(s) : F. Sanguedolce & R. Sicard

Stack Diameter (in.) : 192
Bar. Press. (in. Hg) : 29.90 / 29.90
Static Press. (in. H_2O) Run 1: -1.50 Run 2: -1.50
Cp : (0.84) or 0.99 (Circle one)
O_2 (%) Run 1: 5.90 Run 2: 5.89
CO_2 (%) Run 1: 13.11 Run 2: 13.14
Wet Bulb Temp. (°F) : N/A
Dry Bulb Temp. (°F) : N/A



SCHEMATIC OF STACK CROSS SECTION

M2-10'-A
Leak Check: Initial ✓-✓ : Final ✓-✓

RUN # 1: 10:05-10:26 RUN # 2: 10:42-11:03

Pt. #	Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP	Pt. #	Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP
D 3	87.7	1.50	282		C 3	87.7	1.30	281	
2	56.4	1.40	281		2	56.4	1.30	281	
1	24.6	1.25	281		1	24.6	1.30	281	
A 3	87.7	1.60	280		B 3	87.7	1.45	280	
2	56.4	1.50	280		2	56.4	1.50	280	
1	24.6	1.40	280		1	24.6	1.50	280	
B 3	87.7	1.45	280		A 3	87.7	1.50	280	
2	56.4	1.60	280		2	56.4	1.60	280	
1	24.6	1.40	280		1	24.6	1.45	280	
C 3	87.7	1.30	280		D 3	87.7	1.40	280	
2	56.4	1.20	279		2	56.4	1.35	279	
1	24.6	1.20	280		1	24.6	1.20	280	

QA/QC
12/11/07
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METHOD 2 GAS VELOCITY AND VOLUME DATA SHEET

Facility : AES Puerto Rico, L.P. Guayama, P.R. Port Length: 9" Monorail ? Platform Width N/A
Date : 12/ 6 / 2007 Port Diam.: 6" Y or (N) Railing Ht. : N/A
Operator(s) : F. Sanguedolce & R. Sicard

Stack Diameter (in.) : 192
Bar. Press. (in. Hg) : 29.90 / 29.90
Static Press. (in. H_2O) Run 3: -1.85 Run 4: -1.90
Cp : (0.84) or 0.99 (Circle one)
O_2 (%) Run 3: 5.80 Run 4: 5.69
CO_2 (%) Run 3: 13.15 Run 4: 13.15
Wet Bulb Temp. (°F) : N/A
Dry Bulb Temp. (°F) : N/A

UNIT # 1

SEE PAGE 1

SCHEMATIC OF STACK CROSS SECTION

m2-10'-A
L.C.-I: +- ✓✓ F: +- ✓✓

RUN # 3: 11:19 - 11:40

Pt. #	Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP
D 3	87.7	1.30	279	
2	56.4	1.35	279	
1	24.6	1.20	280	
A 3	87.7	1.50	279	
2	56.4	1.50	280	
1	24.6	1.50	280	
B 3	87.7	1.50	2.80	
2	56.4	1.50	281	
1	24.6	1.45	281	
C 3	87.7	1.35	279	
2	56.4	1.25	280	
1	24.6	1.15	280	

RUN # 4: 11:56 - 12:17

Pt. #	Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP
C 3	87.7	1.30	281	
2	56.4	1.20	281	
1	24.6	1.30	281	
B 3	87.7	1.40	280	
2	56.4	1.55	281	
1	24.6	1.40	281	
A 3	87.7	1.45	280	
2	56.4	1.65	280	
1	24.6	1.50	281	
D 3	87.7	1.38	280	
2	56.4	1.30	280	
1	24.6	1.20	281	

QA/QC
12/11/07
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METHOD 2 GAS VELOCITY AND VOLUME DATA SHEET

Facility : AES Puerto Rico, L.P. Guayama, P.R. Port Length: 9" Monorail ? Platform Width N/A
Date : 12/ 6 / 2007 Port Diam.: 6" Y or N Railing Ht. : N/A
Operator(s) : F. Sanguedolce & R. Sicard

Stack Diameter (in.) : 192
Bar. Press. (in. Hg) : 29.90 / 29.89
Static Press. (in. H_2O) Run 5: -1.80 Run 6: -1.95
Cp : (0.84) or 0.99 (Circle one)
O_2 (%) Run 5: 5.85 Run 6: 5.77
CO_2 (%) Run 5: 13.12 Run 6: 13.09
Wet Bulb Temp. (°F) : N/A
Dry Bulb Temp. (°F) : N/A

UNIT # 1

SEE PAGE 1

SCHEMATIC OF STACK CROSS SECTION

m2-10'-A
L.C. - I = +- ✓✓ F = +- ✓✓

RUN # 5: 12:35-12:56

Pt. #	Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP
D 3	87.7	1.40	282	
2	56.4	1.35	282	
1	24.6	1.17	282	
A 3	87.7	1.50	281	
2	56.4	1.50	281	
1	24.6	1.48	282	
B 3	87.7	1.40	281	
2	56.4	1.55	282	
1	24.6	1.50	282	
C 3	87.7	1.40	281	
2	56.4	1.30	281	
1	24.6	1.30	281	

RUN # 6: 13:15-13:36

Pt. #	Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP
C 3	87.7	1.30	281	
2	56.4	1.25	281	
1	24.6	1.30	281	
B 3	87.7	1.50	281	
2	56.4	1.50	281	
1	24.6	1.55	281	
A 3	87.7	1.50	281	
2	56.4	1.50	281	
1	24.6	1.40	281	
D 3	87.7	1.30	281	
2	56.4	1.33	281	
1	24.6	1.20	281	

QA/QC
12/11/07
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METHOD 2 GAS VELOCITY AND VOLUME DATA SHEET

Facility : AES Puerto Rico, L.P. Guayama, P.R. Port Length: 9" Monorail ? Platform Width N/A
Date : 12/ 6 / 2007 Port Diam.: 6" Y or N Railing Ht. : N/A
Operator(s) : F. Sanguedolce & R. Sicard
Stack Diameter (in.) : 192
Bar. Press. (in. Hg) : 29.88 / 29.86
Static Press. (in. H_2O) Run 7: -1.80 Run 8: -1.95
Cp : (0.84) or 0.99 (Circle one)
O_2 (%) Run :7 5.86 Run 8: 5.77
CO_2 (%) Run 7: 13.03 Run 8: 13.02
Wet Bulb Temp. (°F) : N/A
Dry Bulb Temp. (°F) : N/A

UNIT # 1

SEE PAGE 1

SCHEMATIC OF STACK CROSS SECTION

M2-10'-A
L.C. - I = +- ✓✓ F = +- ✓✓

RUN # 7: 13:49-14:10

Pt. #	Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP
D 3	87.7	1.40	280	
2	56.4	1.35	280	
1	24.6	1.25	280	
A 3	87.7	1.40	280	
2	56.4	1.55	280	
1	24.6	1.45	280	
B 3	87.7	1.50	280	
2	56.4	1.50	280	
1	24.6	1.40	280	
C 3	87.7	1.30	279	
2	56.4	1.30	279	
1	24.6	1.30	279	

RUN # 8: 14:26-14:47

Pt. #	Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP
C 3	87.7	1.40	280	
2	56.4	1.20	280	
1	24.6	1.25	280	
B 3	87.7	1.40	280	
2	56.4	1.50	280	
1	24.6	1.50	280	
A 3	87.7	1.40	279	
2	56.4	1.50	279	
1	24.6	1.40	279	
D 3	87.7	1.40	280	
2	56.4	1.40	279	
1	24.6	1.20	280	

QA/QC
12/11/07
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METHOD 2 GAS VELOCITY AND VOLUME DATA SHEET

Facility : AES Puerto Rico, L.P. Guayama, P.R. Port Length: 9" Monorail ? Platform Width N/A
Date : 12/ 6 / 2007 Port Diam.: 6" Y or N Railing Ht. : N/A
Operator(s) : F. Sanguedolce & R. Sicard

Stack Diameter (in.) : 192
Bar. Press. (in. Hg) : 29.84
Static Press. (in. H_2O) Run 9: -1.80 Run 10:
Cp : (0.84) or 0.99 (Circle one)
O_2 (%) Run 9: 5.72 Run 10:
CO_2 (%) Run 9: 13.15 Run 10:
Wet Bulb Temp. (°F) : N/A
Dry Bulb Temp. (°F) : N/A

UNIT # 1

SEE PAGE 1

SCHEMATIC OF STACK CROSS SECTION

m2-10'-A
L.C. - I = +- ✓✓ F = +- ✓✓

RUN # 9: 15:03 - 15:24

Pt. #	Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP
D 3	87.7	1.40	279	
2	56.4	1.40	279	
1	24.6	1.20	279	
A 3	87.7	1.40	280	
2	56.4	1.60	280	
1	24.6	1.40	280	
B 3	87.7	1.40	280	
2	56.4	1.70	280	
1	24.6	1.30	280	
C 3	87.7	1.30	279	
2	56.4	1.30	279	
1	24.6	1.20	280	

RUN # 10:

Pt. #	Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP
3	87.7			
2	56.4			
1	24.6			
3	87.7			
2	56.4			
1	24.6			
3	87.7			
2	56.4			
1	24.6			
3	87.7			
2	56.4			
1	24.6			

QA/QC
12/11/07
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EPA ISOKINETIC SAMPLING - FIELD DATA SHEET

Sampling Train	Method 4 Moisture
Run Number	1 and 2
Client	AES Puerto Rico, L.P.
Facility Location	Guayama, Puerto Rico
Source	Unit #1
Date	12/ 6 /2007
Operator	F. Sanguedolce
Stack Dia. - in.	192
Start Time	10:05
Stop Time	11:05

Barometric Pressure	29.90 in. Hg
Static Pressure (+/-)	N/A
Probe/Pitot Number	M4-6'-A
Pitot Coefficient	0.84
Filter Box No.	HB-21
Meter Box No.	805832
Orifice Coefficient (Y)	0.975
Delta H @	1.816
Nozzle Size/No.	0.500
XAD Thermocouple ID:	N/A
Imp Outlet TC ID:	LI-4

LEAK CHECKS in "Hg

INITIAL VAC.	15.0 in.	CFM	0.003	
MID VAC.	N/A in.	CFM	N/A	
FINAL VAC.	4.0 in.	CFM	0.001	
INIT. PITOT	+ ✓✓	FINAL PITOT	+ ✓✓	

FILTER DATA

NUMBER	TARE
Glass	N/A

IMPINGER VOL'S.		
INIT.	FINAL	RINSE
100	177	N/A
100	112	N/A
0	0	N/A
SILICA GEL		
222.8	230.9	

Orsat	
CO2	O2
13.13	5.90
13.13	5.90
13.13	5.90
13.13	5.90

Final Purge Rate N/A

Final PH N/A

SAMPLE POINT	CLOCK TIME	VELOCITY HEAD DeltaP, in wc	ORIFICE METER VOL. Deltal1, in wc	GAS METER VOLUME ft³	TEMPERATURE READINGS, °F STACK	PROBE	OVEN	ORGANIC MODULE	IMPINGER	GAS METER IN	GAS METER OUT	PUMP VACUUM in. Hg	COMMENTS
D	0	N/A	1.90	976.527	N/A	243	247	N/A	67	97	97	3.0	
	5	N/A		980.531	N/A	244	248	N/A	45	100	96	3.0	
	10	N/A		984.505	N/A	240	247	N/A	46	101	96	3.0	
	15	N/A		988.453	N/A	244	250	N/A	45	103	97	3.0	
	20	N/A		992.450	N/A	241	246	N/A	46	104	97	3.0	
	25	N/A		996.440	N/A	244	243	N/A	46	105	97	3.0	
	30	N/A		1000.375	N/A	243	244	N/A	47	106	98	3.5	
	35	N/A		1004.370	N/A	244	245	N/A	47	106	98	3.5	
	40	N/A		1008.350	N/A	244	244	N/A	48	107	98	3.5	
	45	N/A		1012.345	N/A	243	245	N/A	48	108	99	3.5	
	50	N/A		1016.350	N/A	246	246	N/A	48	108	100	3.5	
	55	N/A		1020.350	N/A	240	243	N/A	48	109	100	3.5	
STOP	60			1024.341									

Net Moisture Gain = 97.1 grams

% Moisture = 9.4

QA/QC
12/11/07
FJS

ENSR | AECOM

EPA ISOKINETIC SAMPLING - FIELD DATA SHEET

Sampling Train	Method 4 Moisture
Run Number	3 and 4
Client	AES Puerto Rico, L.P.
Facility Location	Guayama, Puerto Rico
Source	Unit #1
Date	12/6/2007
Operator	F. Sanguedolce
Stack Dia. - in.	192
Start Time	11:19
Stop Time	12:19

Barometric Pressure	29.90 in. Hg
Static Pressure (+/-)	N/A
Probe/Pitot Number	M4-6'-A
Pitot Coefficient	0.84
Filter Box No.	HB-21
Meter Box No.	80582
Orifice Coefficient (Y)	0.975
Delta H @	1.816
Nozzle Size/No.	0.500
XAD Thermocouple ID:	N/A
Imp Outlet TC ID:	LI-4

LEAK CHECKS in "Hg

INITIAL VAC.	15.0 in.	CFM	0.001	
MID VAC.	N/A in.	CFM	N/A	
FINAL VAC.	4.0 in.	CFM	0.000	

INIT. PITOT + ✓ - ✓ FINAL PITOT + ✓ - ✓

FILTER DATA

NUMBER	TARE
Glass	N/A

IMPINGER VOL'S. INIT.	FINAL	RINSE
100	178	N/A
100	114	N/A
0	91	N/A
	(FS)	

SILICA GEL	
299.6	247.8

Orsat CO2	O2
13.15	5.75
13.15	5.75
13.15	5.75
13.15	5.75

Final Purge Rate N/A

Final PH N/A

SAMPLE POINT	CLOCK TIME	VELOCITY HEAD DeltaP, in wc	ORIFICE METER VOL. DeltaH, in wc	GAS METER VOLUME (ft³)	TEMPERATURE READINGS, °F STACK	PROBE	OVEN	ORGANIC MODULE	IMPINGER	GAS METER IN	OUT	PUMP VACUUM in. Hg	COMMENTS
D	0	N/A	1.90	024.528	N/A	245	250	N/A	67	105	103	3.5	
	5	N/A		028.577	N/A	242	246	N/A	48	107	102	3.5	
	10	N/A		032.630	N/A	243	246	N/A	47	108	101	3.5	
	15	N/A		036.661	N/A	240	245	N/A	46	109	101	3.5	
	20	N/A		040.678	N/A	247	248	N/A	47	109	101	3.5	
	25	N/A		044.720	N/A	241	245	N/A	46	110	102	3.5	
	30	N/A		048.762	N/A	242	245	N/A	46	110	102	3.5	
	35	N/A		052.776	N/A	244	247	N/A	45	110	103	3.5	
	40	N/A		056.803	N/A	244	244	N/A	46	110	102	3.5	
	45	N/A		060.783	N/A	242	244	N/A	46	110	102	3.5	
	50	N/A		064.785	N/A	241	245	N/A	48	111	102	3.5	
	55	N/A		068.741	N/A	247	244	N/A	49	111	103	3.5	
STOP	60			072.703									

Net Moisture Gain = 101.2 grams

% Moisture = 9.8

QA/QC
12/11/07
FJS

ENSR | AECOM

EPA ISOKINETIC SAMPLING - FIELD DATA SHEET

Sampling Train	Method 4 Moisture
Run Number	5 and 6
Client	AES Puerto Rico, L.P.
Facility Location	Guayama, Puerto Rico
Source	Unit #1
Date	12/ 6 /2007
Operator	F. Sanguedolce
Stack Dia. - in.	192
Start Time	13:35
Stop Time	13:85

Barometric Pressure	29.90 in. Hg
Static Pressure (+/-)	N/A
Probe/Pitot Number	M4-6'-A
Pitot Coefficient	0.84
Filter Box No.	HB-21
Meter Box No.	80582
Orifice Coefficient (Y)	0.975
Delta H @	1.816
Nozzle Size/No.	0.500
XAD Thermocouple ID:	N/A
Imp Outlet TC ID:	LI-4

LEAK CHECKS in "Hg

INITIAL VAC.	15.0	in.	CFM	0.000	
MID VAC.	N/A	in.	CFM	N/A	
FINAL VAC.	4.0	in.	CFM	0.000	
INIT. PITOT	+ ✓ - ✓		FINAL PITOT	+ ✓ - ✓	

FILTER DATA

NUMBER	TARE
Glass	N/A

IMPINGER VOL'S.		
INIT.	FINAL	RINSE
100	180	N/A
100	112	N/A
0	1	N/A
SILICA GEL		
233.5	241.7	

Orsat	
CO2	O2
13.11	5.81
13.11	5.81
13.11	5.81
13.11	5.81

Final Purge Rate N/A

Final PH N/A

SAMPLE POINT	CLOCK TIME	VELOCITY HEAD DeltaP, in wc	ORIFICE METER VOL DeltaH, in wc	GAS METER VOLUME ft³	TEMPERATURE READINGS, °F STACK	PROBE	OVEN	ORGANIC MODULE	IMPINGER	GAS METER IN	GAS METER OUT	PUMP VACUUM in. Hg	COMMENTS
D	0	N/A	1.90	072.861	N/A	243	249	N/A	66	105	103	3.5	
	5	N/A		076.903	N/A	244	247	N/A	50	107	102	3.5	
	10	N/A		080.872	N/A	245	245	N/A	47	109	102	3.5	
	15	N/A		084.870	N/A	242	245	N/A	47	110	103	3.5	
	20	N/A		088.902	N/A	242	245	N/A	47	110	102	3.5	
	25	N/A		092.915	N/A	247	245	N/A	48	111	102	3.5	
	30	N/A		096.935	N/A	240	244	N/A	46	111	103	3.5	
	35	N/A		100.944	N/A	240	244	N/A	47	111	103	3.5	
	40	N/A		104.949	N/A	244	244	N/A	49	111	103	3.5	
	45	N/A		108.951	N/A	240	243	N/A	49	111	103	3.5	
	50	N/A		112.985	N/A	247	244	N/A	49	111	103	3.5	
	55	N/A		117.000	N/A	240	244	N/A	46	111	103	3.5	
STOP	60			121.021									

Net Moisture Gain = 101.2 grams

% Moisture = 9.8

QA/QC
12/11/07
FJS

ENSR | AECOM

EPA ISOKINETIC SAMPLING - FIELD DATA SHEET

Sampling Train	Method 4 Moisture
Run Number	7 and 8
Client	AES Puerto Rico, L.P.
Facility Location	Guayama, Puerto Rico
Source	Unit #1
Date	12/ 6 /2007
Operator	F. Sanguedolce
Stack Dia. - in.	192
Start Time	13:49
Stop Time	14:49

Barometric Pressure	29.88 in. Hg
Static Pressure (+/-)	N/A
Probe/Pitot Number	M4-6'-A
Pitot Coefficient	0.84
Filter Box No.	HB-21
Meter Box No.	80582
Orifice Coefficient (Y)	0.975
Delta H @	1.816
Nozzle Size/No.	0.500
XAD Thermocouple ID:	N/A
Imp Outlet TC ID:	LI- 4

LEAK CHECKS in "Hg

INITIAL VAC.	15.0	in.	CFM	0.002	
MID VAC.	N/A	in.	CFM	N/A	
FINAL VAC.	9.5	in.	CFM	0.000	

INIT. PITOT + ✓ - ✓ FINAL PITOT + ✓ - ✓

FILTER DATA

NUMBER	TARE
Glass	N/A

IMPINGER VOL'S. INIT.	FINAL	RINSE
100	180	N/A
100	112	N/A
0	1	N/A

SILICA GEL	
234.4	242.0

Orsat CO2	O2
13.03	5.82
13.03	5.82
13.03	5.82
13.03	5.82

Final Purge Rate N/A

Final PH N/A

SAMPLE POINT	CLOCK TIME	VELOCITY HEAD DeltaP, in wc	ORIFICE METER VOL. DeltaH, in wc	GAS METER VOLUME ft³	TEMPERATURE READINGS, °F STACK	PROBE	OVEN	ORGANIC MODULE	IMPINGER	GAS METER IN	GAS METER OUT	PUMP VACUUM in. Hg	COMMENTS
D	0	N/A	1.90	121.107	N/A	242	250	N/A	62	105	104	3.0	
	5	N/A		125.213	N/A	245	249	N/A	51	105	103	3.0	
	10	N/A		129.204	N/A	245	246	N/A	47	105	102	3.0	
	15	N/A		133.165	N/A	243	244	N/A	47	106	101	3.0	
	20	N/A		137.200	N/A	245	243	N/A	46	107	101	3.0	
	25	N/A		141.205	N/A	244	244	N/A	46	108	101	3.0	
	30	N/A		145.219	N/A	243	245	N/A	47	109	102	3.0	
	35	N/A		149.205	N/A	244	245	N/A	48	109	101	3.0	
	40	N/A		153.220	N/A	245	246	N/A	48	109	101	3.0	
	45	N/A		157.202	N/A	240	245	N/A	48	109	101	3.0	
	50	N/A		161.191	N/A	244	245	N/A	49	109	101	3.0	
	55	N/A		165.200	N/A	242	244	N/A	48	109	101	3.0	
STOP	60			~~168.~~ (FS) 169.081									

Net Moisture Gain = 100.6 grams

% Moisture = 9.8

QA/QC
12/11/07
FJS

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EPA ISOKINETIC SAMPLING - FIELD DATA SHEET

Sampling Train	Method 4 Moisture
Run Number	9 ~~and 10~~ (FS)
Client	AES Puerto Rico, L.P.
Facility Location	Guayama, Puerto Rico
Source	Unit #1
Date	12/ 6 /2007
Operator	F. Sanguedolce
Stack Dia. - in.	192
Start Time	15:03
Stop Time	15:33

Barometric Pressure	29.84 in. Hg
Static Pressure (+/-)	N/A
Probe/Pitot Number	m4-6'-A
Pitot Coefficient	0.84
Filter Box No.	HB- 21
Meter Box No.	80582
Orifice Coefficient (Y)	0.975
Delta H @	1.816
Nozzle Size/No.	0.500
XAD Thermocouple ID:	N/A
Imp Outlet TC ID:	LI- 4

LEAK CHECKS in "Hg

INITIAL VAC.	15.0	in.	CFM	0.001
MID VAC.	N/A	in.	CFM	N/A
FINAL VAC.	3.5	in.	CFM	0.000

INIT. PITOT + ✓✓ FINAL PITOT + ✓✓

FILTER DATA

NUMBER	TARE
Glass	N/A

IMPINGER VOL'S.		
INIT.	FINAL	RINSE
100	198	N/A
100	106	N/A
0	1	N/A
SILICA GEL		
234.0	238.6	

Orsat	
CO2	O2
13.15	5.72
13.15	5.72
13.15	5.72
13.15	5.72

Final Purge Rate N/A

Final PH N/A

SAMPLE POINT	CLOCK TIME	VELOCITY HEAD DeltaP, in wc	ORIFICE METER VOL. DeltaH, in wc	GAS METER VOLUME ft³	TEMPERATURE READINGS, °F STACK	PROBE	OVEN	ORGANIC MODULE	IMPINGER	GAS METER IN	GAS METER OUT	PUMP VACUUM in. Hg	COMMENTS
D	0	N/A	1.90	169.266	N/A	246	253	N/A	62	103	101	3.0	
	5	N/A		173.225	N/A	247	249	N/A	51	104	100	3.0	
	10	N/A		177.160	N/A	240	246	N/A	48	106	99	3.0	
	15	N/A		181.045	N/A	241	245	N/A	48	107	100	3.0	
	20	N/A		184.930	N/A	245	243	N/A	49	107	100	3.0	
	25	N/A		188.940	N/A	240	244	N/A	50	107	100	3.0	
STOP	30	N/A		192.945	N/A			N/A					
	35	N/A			N/A			N/A					
	40	N/A			N/A			N/A					
	45	N/A			N/A			N/A					
	50	N/A			N/A			N/A					
	55	N/A			N/A			N/A					
STOP	60			(FS)									

Net Moisture Gain = 49.6 grams

% Moisture = 9.7

QA/QC
12/11/07
FJS

ENSR
UNIT 2 FIELD DATA

ENSR CONSULTING & ENGINEERING
CORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE:	AES Puerto Rico	PROJECT NO.:	00052-170-0002
SOURCE:	Unit # 2	FILE NAME:	u2r1.xls
CONDITION:	100% Load	DATE:	12/5/07
RUN NUMBER:	1	RUN TIME:	12:18 to 12:39
Fd: (dscf/MMBtu) =	9780		
		Moisture,%=	9.9

	O2 %		CO2 %		CO ppm		NOx ppm	
Calibration Span (High Level Cal Gas)	8.98		17.84		114.20		109.00	
Cyl. Gas Concentrations Zero/Span	0.00	8.98	0.00	9.00	0.00	50.20	0.00	54.00
Direct Calibration Zero Response		0.01		0.01		0.02		0.04
Direct Calibration Span Response		9.01		9.02		49.90		53.98
Initial System Zero Response		0.02		0.02		0.04		0.06
Initial System Span Response		9.01		9.02		50.00		53.98
Final System Zero Response		0.00		0.01		0.04		0.10
Final System Span Response		8.98		9.00		49.98		53.96
Initial/Final System Bias, Zero (%)	0.11	-0.11	0.06	0.00	0.02	0.02	0.02	0.06
Initial/Final System Bias, Span (%)	0.00	-0.33	0.00	-0.11	0.09	0.07	0.00	-0.02
System Drift, Zero/Span (%)	-0.22	-0.33	-0.06	-0.11	0.00	-0.02	0.04	-0.02
Run Average	6.14		13.55		66.68		50.19	
Corrected Run Averages	6.13		13.54		66.97		50.21	
Emission Calculations:								
Concentration Corrected to 7% O2 =					63.01		47.24	
Emission Rate (lbs/MMBtu) =					0.067		0.083	
Concentration, wet basis,% =			12.20					

		SO2 ppm	
Calibration Span (High Level Cal Gas)		18.16	
Cyl. Gas Concentrations Zero/Span		0.00	10.42
Direct Calibration Zero Response			0.00
Direct Calibration Span Response			10.38
Initial System Zero Response			0.02
Initial System Span Response			10.40
Final System Zero Response			0.02
Final System Span Response			10.40
Initial/Final System Bias, Zero (%)		0.11	0.11
Initial/Final System Bias, Span (%)		0.11	0.11
System Drift, Zero/Span (%)		0.00	0.00
Run Average		3.46	
Corrected Run Averages		3.45	
Emission Calculations:			
Concentration Corrected to 7% O2 =		3.25	
Emission Rate (lbs/MMBtu) =		0.008	

COMMENTS:

ENSR CONSULTING & ENGINEERING
UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico
SOURCE: Unit # 2
CONDITION: 100% Load
RUN NUMBER: 1

Date	Time	O2 %	CO2 %	CO ppm	NOX ppm	SO2 ppm
05-Dec-2007	12:18	6.23	13.46	64.96	52.63	3.61
05-Dec-2007	12:19	6.17	13.44	66.14	52.14	3.54
05-Dec-2007	12:20	6.10	13.46	66.22	52.08	3.49
05-Dec-2007	12:21	6.18	13.50	66.05	50.56	3.44
05-Dec-2007	12:22	6.16	13.51	66.13	50.82	3.26
05-Dec-2007	12:23	6.11	13.49	66.74	50.40	3.33
05-Dec-2007	12:24	6.16	13.51	67.13	49.15	3.37
05-Dec-2007	12:25	6.22	13.54	67.30	49.98	3.40
05-Dec-2007	12:26	6.17	13.57	67.47	49.30	3.42
05-Dec-2007	12:27	6.08	13.61	67.23	47.86	3.45
05-Dec-2007	12:28	6.05	13.62	67.06	49.07	3.46
05-Dec-2007	12:29	6.17	13.58	66.82	49.93	3.41
05-Dec-2007	12:30	6.12	13.60	67.10	49.53	3.44
05-Dec-2007	12:31	6.11	13.60	66.32	50.05	3.47
05-Dec-2007	12:32	6.13	13.56	66.62	50.47	3.49
05-Dec-2007	12:33	6.13	13.58	66.62	49.87	3.45
05-Dec-2007	12:34	6.18	13.61	67.25	49.49	3.42
05-Dec-2007	12:35	6.10	13.59	67.28	49.23	3.48
05-Dec-2007	12:36	6.16	13.58	66.64	49.98	3.52
05-Dec-2007	12:37	6.06	13.57	66.90	50.21	3.54
05-Dec-2007	12:38	6.10	13.55	66.64	50.52	3.51
05-Dec-2007	12:39	6.09	13.53	66.40	50.93	3.55
AVERAGES:		6.14	13.55	66.68	50.19	3.46

ENSR CONSULTING & ENGINEERING
CORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE:	AES Puerto Rico	**PROJECT NO.:**	00052-170-0002
SOURCE:	Unit # 2	**FILE NAME:**	u2r2.xls
CONDITION:	100% Load	**DATE:**	12/5/07
RUN NUMBER:	2	**RUN TIME:**	12:55 to 13:16
Fd: (dscf/MMBtu) =	9780		
		Moisture,%=	9.9

	O2 %		CO2 %		CO ppm		NOx ppm	
Calibration Span (High Level Cal Gas)	8.98		17.84		114.20		109.00	
Cyl. Gas Concentrations Zero/Span	0.00	8.98	0.00	9.00	0.00	50.20	0.00	54.00
Direct Calibration Zero Response		0.01		0.01		0.02		0.04
Direct Calibration Span Response		9.01		9.02		49.90		53.98
Initial System Zero Response		0.00		0.01		0.04		0.10
Initial System Span Response		8.98		9.00		49.98		53.96
Final System Zero Response		0.00		0.02		0.02		0.12
Final System Span Response		9.08		9.01		50.14		53.97
Initial/Final System Bias, Zero (%)	-0.11	-0.11	0.00	0.06	0.02	0.00	0.06	0.07
Initial/Final System Bias, Span (%)	-0.33	0.78	-0.11	-0.06	0.07	0.21	-0.02	-0.01
System Drift, Zero/Span (%)	0.00	1.11	0.06	0.06	-0.02	0.14	0.02	0.01
Run Average	6.25		13.42		67.11		49.57	
Corrected Run Averages	6.22		13.42		67.31		49.59	
Emission Calculations:								
Concentration Corrected to 7% O2 =					63.71		46.94	
Emission Rate (lbs/MMBtu) =					0.068		0.082	
Concentration, wet basis,% =			12.09					

		SO2 ppm	
Calibration Span (High Level Cal Gas)		18.16	
Cyl. Gas Concentrations Zero/Span		0.00	10.42
Direct Calibration Zero Response			0.00
Direct Calibration Span Response			10.38
Initial System Zero Response			0.02
Initial System Span Response			10.40
Final System Zero Response			0.00
Final System Span Response			10.48
Initial/Final System Bias, Zero (%)		0.11	0.00
Initial/Final System Bias, Span (%)		0.11	0.55
System Drift, Zero/Span (%)		-0.11	0.44
Run Average		4.24	
Corrected Run Averages		4.23	
Emission Calculations:			
Concentration Corrected to 7% O2 =		4.00	
Emission Rate (lbs/MMBtu) =		0.010	

COMMENTS:

ENSR CONSULTING & ENGINEERING
UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico **CONDITION:** 100% Load
SOURCE: Unit # 2 **RUN NUMBER:** 2

Date	Time	O2 %	CO2 %	CO ppm	NOX ppm	SO2 ppm
05-Dec-2007	12:55	6.18	13.48	67.08	50.56	4.26
05-Dec-2007	12:56	6.26	13.46	66.90	49.61	4.21
05-Dec-2007	12:57	6.20	13.47	66.42	49.41	4.24
05-Dec-2007	12:58	6.31	13.47	66.24	50.13	4.26
05-Dec-2007	12:59	6.23	13.41	65.96	50.36	4.28
05-Dec-2007	13:00	6.35	13.36	66.78	51.09	4.25
05-Dec-2007	13:01	6.36	13.39	66.24	50.09	4.23
05-Dec-2007	13:02	6.31	13.36	66.42	50.21	4.18
05-Dec-2007	13:03	6.27	13.43	66.85	51.80	4.15
05-Dec-2007	13:04	6.30	13.43	67.13	51.05	4.13
05-Dec-2007	13:05	6.35	13.40	67.28	50.65	4.15
05-Dec-2007	13:06	6.34	13.36	66.86	50.32	4.17
05-Dec-2007	13:07	6.28	13.39	67.66	50.08	4.21
05-Dec-2007	13:08	6.33	13.43	67.40	48.98	4.20
05-Dec-2007	13:09	6.18	13.44	67.86	48.46	4.24
05-Dec-2007	13:10	6.22	13.44	67.57	47.76	4.27
05-Dec-2007	13:11	6.20	13.45	67.44	47.53	4.24
05-Dec-2007	13:12	6.19	13.43	67.82	47.20	4.28
05-Dec-2007	13:13	6.18	13.36	67.66	50.08	4.32
05-Dec-2007	13:14	6.15	13.42	67.40	48.98	4.30
05-Dec-2007	13:15	6.18	13.44	67.86	48.46	4.33
05-Dec-2007	13:16	6.12	13.44	67.57	47.76	4.30
AVERAGES:		**6.25**	**13.42**	**67.11**	**49.57**	**4.24**

ENSR CONSULTING & ENGINEERING
CORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE:	AES Puerto Rico	PROJECT NO.:	00052-170-0002
SOURCE:	Unit # 2	FILE NAME:	u2r3.xls
CONDITION:	100% Load	DATE:	12/5/07
RUN NUMBER:	3	RUN TIME:	13:37 to 13:58
Fd: (dscf/MMBtu) =	9780		
		Moisture,%=	9.6

	O2 %		CO2 %		CO ppm		NOx ppm	
Calibration Span (High Level Cal Gas)	8.98		17.84		114.20		109.00	
Cyl. Gas Concentrations Zero/Span	0.00	8.98	0.00	9.00	0.00	50.20	0.00	54.00
Direct Calibration Zero Response		0.01		0.01		0.02		0.04
Direct Calibration Span Response		9.01		9.02		49.90		53.98
Initial System Zero Response		0.00		0.02		0.02		0.12
Initial System Span Response		9.08		9.01		50.14		53.97
Final System Zero Response		-0.02		0.04		0.08		0.12
Final System Span Response		9.14		9.08		49.99		54.14
Initial/Final System Bias, Zero (%)	-0.11	-0.33	0.06	0.17	0.00	0.05	0.07	0.07
Initial/Final System Bias, Span (%)	0.78	1.45	-0.06	0.34	0.21	0.08	-0.01	0.15
System Drift, Zero/Span (%)	-0.22	0.67	0.11	0.39	0.05	-0.13	0.00	0.16
Run Average	6.20		13.45		64.92		48.57	
Corrected Run Averages	6.11		13.40		65.11		48.51	
Emission Calculations:								
Concentration Corrected to 7% O2 =					61.21		45.60	
Emission Rate (lbs/MMBtu) =					0.065		0.080	
Concentration, wet basis,% =			12.11					

		SO2 ppm	
Calibration Span (High Level Cal Gas)		18.16	
Cyl. Gas Concentrations Zero/Span		0.00	10.42
Direct Calibration Zero Response			0.00
Direct Calibration Span Response			10.38
Initial System Zero Response			0.00
Initial System Span Response			10.48
Final System Zero Response			0.02
Final System Span Response			10.54
Initial/Final System Bias, Zero (%)		0.00	0.11
Initial/Final System Bias, Span (%)		0.55	0.88
System Drift, Zero/Span (%)		0.11	0.33
Run Average		6.87	
Corrected Run Averages		6.81	
Emission Calculations:			
Concentration Corrected to 7% O2 =		6.40	
Emission Rate (lbs/MMBtu) =		0.016	

COMMENTS:

ENSR CONSULTING & ENGINEERING
UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico **CONDITION:** 100% Load
SOURCE: Unit # 2 **RUN NUMBER:** 3

Date	Time	O2 %	CO2 %	CO ppm	NOX ppm	SO2 ppm
05-Dec-2007	13:37	6.19	13.47	64.48	47.74	6.88
05-Dec-2007	13:38	6.17	13.48	64.09	47.86	6.85
05-Dec-2007	13:39	6.15	13.47	64.37	47.74	6.78
05-Dec-2007	13:40	6.20	13.46	64.35	47.48	6.80
05-Dec-2007	13:41	6.14	13.44	64.22	48.10	6.89
05-Dec-2007	13:42	6.19	13.41	63.68	48.51	7.04
05-Dec-2007	13:43	6.22	13.40	63.95	48.30	7.11
05-Dec-2007	13:44	6.20	13.41	64.80	46.99	7.14
05-Dec-2007	13:45	6.24	13.38	64.41	48.16	7.12
05-Dec-2007	13:46	6.25	13.39	65.15	48.31	7.08
05-Dec-2007	13:47	6.24	13.43	64.68	48.92	7.02
05-Dec-2007	13:48	6.29	13.44	65.09	48.99	7.00
05-Dec-2007	13:49	6.25	13.43	65.75	49.55	6.96
05-Dec-2007	13:50	6.19	13.42	65.82	49.54	6.94
05-Dec-2007	13:51	6.25	13.45	65.36	48.93	6.92
05-Dec-2007	13:52	6.16	13.46	64.91	48.46	6.77
05-Dec-2007	13:53	6.19	13.46	65.35	49.11	6.75
05-Dec-2007	13:54	6.14	13.48	65.92	49.62	6.68
05-Dec-2007	13:55	6.16	13.53	65.49	48.59	6.58
05-Dec-2007	13:56	6.17	13.54	65.24	48.57	6.56
05-Dec-2007	13:57	6.13	13.52	65.73	49.36	6.65
05-Dec-2007	13:58	6.19	13.48	65.47	49.75	6.62
AVERAGES:		**6.20**	**13.45**	**64.92**	**48.57**	**6.87**

ENSR CONSULTING & ENGINEERING

CORRECTED CEM MONITORING RESULTS

INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE:	AES Puerto Rico	**PROJECT NO.:**	00052-170-0002
SOURCE:	Unit # 2	**FILE NAME:**	u2r4.xls
CONDITION:	100% Load	**DATE:**	12/5/07
RUN NUMBER:	4	**RUN TIME:**	14:15 to 14:36
Fd: (dscf/MMBtu) =	9780		
		Moisture,%=	9.6

	O2 %		CO2 %		CO ppm		NOx ppm	
Calibration Span (High Level Cal Gas)	8.98		17.84		114.20		109.00	
Cyl. Gas Concentrations Zero/Span	0.00	8.98	0.00	9.00	0.00	50.20	0.00	54.00
Direct Calibration Zero Response		0.01		0.01		0.02		0.04
Direct Calibration Span Response		9.01		9.02		49.90		53.98
Initial System Zero Response		-0.02		0.04		0.08		0.12
Initial System Span Response		9.14		9.08		49.99		54.14
Final System Zero Response		0.02		0.03		-0.04		0.14
Final System Span Response		9.12		9.09		49.79		54.08
Initial/Final System Bias, Zero (%)	-0.33	0.11	0.17	0.11	0.05	-0.05	0.07	0.09
Initial/Final System Bias, Span (%)	1.45	1.22	0.34	0.39	0.08	-0.10	0.15	0.09
System Drift, Zero/Span (%)	0.45	-0.22	-0.06	0.06	-0.11	-0.18	0.02	-0.06
Run Average	6.11		13.89		65.97		49.92	
Corrected Run Averages	6.01		13.78		66.39		49.81	
Emission Calculations:								
Concentration Corrected to 7% O2 =					61.97		46.50	
Emission Rate (lbs/MMBtu) =					0.066		0.082	
Concentration, wet basis,% =			12.46					

	SO2 ppm	
Calibration Span (High Level Cal Gas)	18.16	
Cyl. Gas Concentrations Zero/Span	0.00	10.42
Direct Calibration Zero Response		0.00
Direct Calibration Span Response		10.38
Initial System Zero Response		0.02
Initial System Span Response		10.54
Final System Zero Response		0.02
Final System Span Response		10.31
Initial/Final System Bias, Zero (%)	0.11	0.11
Initial/Final System Bias, Span (%)	0.88	-0.39
System Drift, Zero/Span (%)	0.00	-1.27
Run Average	4.43	
Corrected Run Averages	4.42	
Emission Calculations:		
Concentration Corrected to 7% O2 =	4.12	
Emission Rate (lbs/MMBtu) =	0.010	

COMMENTS:

ENSR CONSULTING & ENGINEERING
UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico
SOURCE: Unit # 2
CONDITION: 100% Load
RUN NUMBER: 4

Date	Time	O2 %	CO2 %	CO ppm	NOX ppm	SO2 ppm
05-Dec-2007	14:15	6.16	13.87	66.30	49.30	4.18
05-Dec-2007	14:16	6.02	13.89	65.81	49.45	4.14
05-Dec-2007	14:17	6.09	13.88	65.82	50.02	4.41
05-Dec-2007	14:18	6.07	13.87	65.86	48.94	4.47
05-Dec-2007	14:19	6.11	13.87	65.70	49.72	4.36
05-Dec-2007	14:20	6.14	13.90	65.28	49.78	4.18
05-Dec-2007	14:21	6.13	13.90	65.66	49.97	4.17
05-Dec-2007	14:22	6.08	13.92	65.83	49.75	4.29
05-Dec-2007	14:23	6.10	13.89	66.00	49.76	4.23
05-Dec-2007	14:24	6.11	13.89	66.08	49.58	4.16
05-Dec-2007	14:25	6.19	13.87	66.24	49.90	4.40
05-Dec-2007	14:26	6.15	13.88	65.74	49.75	4.38
05-Dec-2007	14:27	6.11	13.89	66.30	50.32	4.57
05-Dec-2007	14:28	6.12	13.90	66.26	50.10	4.86
05-Dec-2007	14:29	6.07	13.93	66.45	49.83	4.80
05-Dec-2007	14:30	6.14	13.87	66.07	49.62	5.01
05-Dec-2007	14:31	6.16	13.88	65.87	50.43	4.94
05-Dec-2007	14:32	6.18	13.89	65.52	51.43	4.46
05-Dec-2007	14:33	6.10	13.90	65.88	50.35	4.52
05-Dec-2007	14:34	6.11	13.89	66.31	49.65	4.46
05-Dec-2007	14:35	6.06	13.92	66.31	50.20	4.35
05-Dec-2007	14:36	6.10	13.89	66.14	50.40	4.14
AVERAGES:		**6.11**	**13.89**	**65.97**	**49.92**	**4.43**

ENSR CONSULTING & ENGINEERING
CORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE:	AES Puerto Rico	PROJECT NO.:	00052-170-0002
SOURCE:	Unit # 2	FILE NAME:	u2r5.xls
CONDITION:	100% Load	DATE:	12/5/07
RUN NUMBER:	5	RUN TIME:	14:54 to 15:15
Fd: (dscf/MMBtu) =	9780		
		Moisture,%=	9.7

	O2 %		CO2 %		CO ppm		NOx ppm	
Calibration Span (High Level Cal Gas)	8.98		17.84		114.20		109.00	
Cyl. Gas Concentrations Zero/Span	0.00	8.98	0.00	9.00	0.00	50.20	0.00	54.00
Direct Calibration Zero Response		0.01		0.01		0.02		0.04
Direct Calibration Span Response		9.01		9.02		49.90		53.98
Initial System Zero Response		0.02		0.03		-0.04		0.14
Initial System Span Response		9.12		9.09		49.79		54.08
Final System Zero Response		0.02		0.01		-0.03		0.14
Final System Span Response		9.11		9.08		49.72		54.12
Initial/Final System Bias, Zero (%)	0.11	0.11	0.11	0.00	-0.05	-0.04	0.09	0.09
Initial/Final System Bias, Span (%)	1.22	1.11	0.39	0.34	-0.10	-0.16	0.09	0.13
System Drift, Zero/Span (%)	0.00	-0.11	-0.11	-0.06	0.01	-0.06	0.00	0.04
Run Average	6.22		13.89		66.92		51.33	
Corrected Run Averages	6.12		13.77		67.51		51.23	
Emission Calculations:								
Concentration Corrected to 7% O2 =					63.49		48.18	
Emission Rate (lbs/MMBtu) =					0.068		0.085	
Concentration, wet basis,% =			12.43					

	SO2 ppm	
Calibration Span (High Level Cal Gas)	18.16	
Cyl. Gas Concentrations Zero/Span	0.00	10.42
Direct Calibration Zero Response		0.00
Direct Calibration Span Response		10.38
Initial System Zero Response		0.02
Initial System Span Response		10.31
Final System Zero Response		0.00
Final System Span Response		10.28
Initial/Final System Bias, Zero (%)	0.11	0.00
Initial/Final System Bias, Span (%)	-0.39	-0.55
System Drift, Zero/Span (%)	-0.11	-0.17
Run Average	3.40	
Corrected Run Averages	3.43	
Emission Calculations:		
Concentration Corrected to 7% O2 =	3.23	
Emission Rate (lbs/MMBtu) =	0.008	

COMMENTS:

ENSR CONSULTING & ENGINEERING
UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico **CONDITION:** 100% Load
SOURCE: Unit # 2 **RUN NUMBER:** 5

Date	Time	O2 %	CO2 %	CO ppm	NOX ppm	SO2 ppm
05-Dec-2007	14:54	6.08	14.04	67.48	51.29	3.69
05-Dec-2007	14:55	6.13	14.03	67.94	51.56	3.63
05-Dec-2007	14:56	6.20	14.01	67.89	51.32	3.56
05-Dec-2007	14:57	6.11	13.99	67.64	51.08	3.49
05-Dec-2007	14:58	6.13	13.93	67.64	51.81	3.46
05-Dec-2007	14:59	6.18	13.96	67.30	51.58	3.49
05-Dec-2007	15:00	6.22	13.90	67.88	51.87	3.52
05-Dec-2007	15:01	6.15	13.93	67.57	51.72	3.51
05-Dec-2007	15:02	6.17	13.92	67.04	52.09	3.53
05-Dec-2007	15:03	6.15	13.96	67.68	52.28	3.45
05-Dec-2007	15:04	6.19	13.93	67.13	52.07	3.41
05-Dec-2007	15:05	6.38	13.75	65.89	50.85	3.38
05-Dec-2007	15:06	6.48	13.68	65.71	50.69	3.36
05-Dec-2007	15:07	6.42	13.73	64.90	50.30	3.27
05-Dec-2007	15:08	6.15	13.92	66.64	50.44	3.42
05-Dec-2007	15:09	6.14	13.93	67.42	51.97	3.37
05-Dec-2007	15:10	6.16	13.91	66.99	51.98	3.23
05-Dec-2007	15:11	6.20	13.88	67.34	52.06	3.19
05-Dec-2007	15:12	6.61	13.68	65.95	50.49	3.18
05-Dec-2007	15:13	6.37	13.78	65.38	49.64	3.25
05-Dec-2007	15:14	6.16	13.89	66.08	51.27	3.28
05-Dec-2007	15:15	6.16	13.93	66.65	50.95	3.20
AVERAGES:		**6.22**	**13.89**	**66.92**	**51.33**	**3.40**

ENSR CONSULTING & ENGINEERING
CORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE:	AES Puerto Rico	PROJECT NO.:	00052-170-0002
SOURCE:	Unit # 2	FILE NAME:	u2r6.xls
CONDITION:	100% Load	DATE:	12/5/07
RUN NUMBER:	6	RUN TIME:	15:32 to 15:53
Fd: (dscf/MMBtu) =	9780		
		Moisture,%=	9.7

	O2 %		CO2 %		CO ppm		NOx ppm	
Calibration Span (High Level Cal Gas)	8.98		17.84		114.20		109.00	
Cyl. Gas Concentrations Zero/Span	0.00	8.98	0.00	9.00	0.00	50.20	0.00	54.00
Direct Calibration Zero Response		0.01		0.01		0.02		0.04
Direct Calibration Span Response		9.01		9.02		49.90		53.98
Initial System Zero Response		0.02		0.01		-0.03		0.14
Initial System Span Response		9.11		9.08		49.72		54.12
Final System Zero Response		0.03		0.04		-0.06		0.15
Final System Span Response		9.13		9.10		49.82		54.12
Initial/Final System Bias, Zero (%)	0.11	0.22	0.00	0.17	-0.04	-0.07	0.09	0.10
Initial/Final System Bias, Span (%)	1.11	1.34	0.34	0.45	-0.16	-0.07	0.13	0.13
System Drift, Zero/Span (%)	0.11	0.22	0.17	0.11	-0.03	0.09	0.01	0.00
Run Average	6.17		13.91		63.89		50.09	
Corrected Run Averages	6.07		13.79		64.43		49.97	
Emission Calculations:								
Concentration Corrected to 7% O2 =					60.38		46.83	
Emission Rate (lbs/MMBtu) =					0.064		0.082	
Concentration, wet basis,% =			12.45					

	SO2 ppm	
Calibration Span (High Level Cal Gas)	18.16	
Cyl. Gas Concentrations Zero/Span	0.00	10.42
Direct Calibration Zero Response		0.00
Direct Calibration Span Response		10.38
Initial System Zero Response		0.00
Initial System Span Response		10.28
Final System Zero Response		0.03
Final System Span Response		10.44
Initial/Final System Bias, Zero (%)	0.00	0.17
Initial/Final System Bias, Span (%)	-0.55	0.33
System Drift, Zero/Span (%)	0.17	0.88
Run Average	6.27	
Corrected Run Averages	6.30	
Emission Calculations:		
Concentration Corrected to 7% O2 =	5.90	
Emission Rate (lbs/MMBtu) =	0.014	

COMMENTS:

ENSR CONSULTING & ENGINEERING
UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico **CONDITION:** 100% Load
SOURCE: Unit # 2 **RUN NUMBER:** 6

Date	Time	O2 %	CO2 %	CO ppm	NOX ppm	SO2 ppm
05-Dec-2007	15:32	6.21	13.92	64.62	50.62	5.80
05-Dec-2007	15:33	6.24	13.89	64.92	49.44	5.76
05-Dec-2007	15:34	6.26	13.89	65.01	49.58	5.89
05-Dec-2007	15:35	6.15	13.87	65.01	50.40	5.83
05-Dec-2007	15:36	6.14	13.88	64.69	50.33	5.65
05-Dec-2007	15:37	6.20	13.89	64.48	50.35	5.66
05-Dec-2007	15:38	6.20	13.90	64.20	50.88	5.79
05-Dec-2007	15:39	6.19	13.93	64.20	51.69	5.73
05-Dec-2007	15:40	6.15	13.87	63.82	49.92	6.06
05-Dec-2007	15:41	6.16	13.88	63.74	50.51	6.16
05-Dec-2007	15:42	6.22	13.89	63.51	50.30	6.43
05-Dec-2007	15:43	6.19	13.90	64.10	50.08	6.51
05-Dec-2007	15:44	6.18	13.89	63.75	50.14	6.33
05-Dec-2007	15:45	6.19	13.92	63.67	49.59	6.21
05-Dec-2007	15:46	6.14	13.89	63.68	50.05	6.55
05-Dec-2007	15:47	6.17	13.91	63.91	49.53	6.85
05-Dec-2007	15:48	6.09	13.93	63.26	49.78	6.70
05-Dec-2007	15:49	6.11	13.95	63.30	48.96	6.66
05-Dec-2007	15:50	6.11	13.95	63.05	49.34	6.75
05-Dec-2007	15:51	6.10	13.94	63.04	49.00	7.01
05-Dec-2007	15:52	6.10	13.94	63.17	49.79	6.80
05-Dec-2007	15:53	6.15	13.91	62.34	51.66	6.88
AVERAGES:		**6.17**	**13.91**	**63.89**	**50.09**	**6.27**

ENSR CONSULTING & ENGINEERING
CORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE:	AES Puerto Rico	PROJECT NO.:	00052-170-0002
SOURCE:	Unit # 2	FILE NAME:	u2r7.xls
CONDITION:	100% Load	DATE:	12/5/07
RUN NUMBER:	7	RUN TIME:	16:06 to 16:27
Fd: (dscf/MMBtu) =	9780		
		Moisture,%=	9.9

	O2 %		CO2 %		CO ppm		NOx ppm	
Calibration Span (High Level Cal Gas)	8.98		17.84		114.20		109.00	
Cyl. Gas Concentrations Zero/Span	0.00	8.98	0.00	9.00	0.00	50.20	0.00	54.00
Direct Calibration Zero Response		0.01		0.01		0.02		0.04
Direct Calibration Span Response		9.01		9.02		49.90		53.98
Initial System Zero Response		0.03		0.04		-0.06		0.15
Initial System Span Response		9.13		9.10		49.82		54.12
Final System Zero Response		0.04		0.05		-0.04		0.10
Final System Span Response		9.12		9.10		49.80		54.24
Initial/Final System Bias, Zero (%)	0.22	0.33	0.17	0.22	-0.07	-0.05	0.10	0.06
Initial/Final System Bias, Span (%)	1.34	1.22	0.45	0.45	-0.07	-0.09	0.13	0.24
System Drift, Zero/Span (%)	0.11	-0.11	0.06	0.00	0.02	-0.02	-0.05	0.11
Run Average	6.07		13.92		62.34		49.25	
Corrected Run Averages	5.96		13.79		62.82		49.08	
Emission Calculations:								
Concentration Corrected to 7% O2 =					58.45		45.66	
Emission Rate (lbs/MMBtu) =					0.062		0.080	
Concentration, wet basis,% =			12.43					

	SO2 ppm	
Calibration Span (High Level Cal Gas)	18.16	
Cyl. Gas Concentrations Zero/Span	0.00	10.42
Direct Calibration Zero Response		0.00
Direct Calibration Span Response		10.38
Initial System Zero Response		0.03
Initial System Span Response		10.44
Final System Zero Response		0.00
Final System Span Response		10.46
Initial/Final System Bias, Zero (%)	0.17	0.00
Initial/Final System Bias, Span (%)	0.33	0.44
System Drift, Zero/Span (%)	-0.17	0.11
Run Average	6.62	
Corrected Run Averages	6.60	
Emission Calculations:		
Concentration Corrected to 7% O2 =	6.14	
Emission Rate (lbs/MMBtu) =	0.015	

COMMENTS:

ENSR CONSULTING & ENGINEERING
UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico **CONDITION:** 100% Load
SOURCE: Unit # 2 **RUN NUMBER:** 7

Date	Time	O2 %	CO2 %	CO ppm	NOX ppm	SO2 ppm
05-Dec-2007	16:06	6.15	13.87	62.58	50.17	6.27
05-Dec-2007	16:07	6.13	13.90	62.45	49.81	6.36
05-Dec-2007	16:08	6.11	13.90	63.22	49.73	6.27
05-Dec-2007	16:09	6.13	13.92	63.07	50.04	6.28
05-Dec-2007	16:10	6.11	13.89	63.01	48.71	6.69
05-Dec-2007	16:11	6.06	13.89	62.12	49.33	6.51
05-Dec-2007	16:12	6.11	13.87	62.21	49.97	6.60
05-Dec-2007	16:13	6.08	13.88	62.18	50.36	6.41
05-Dec-2007	16:14	6.05	13.89	61.74	50.50	6.45
05-Dec-2007	16:15	6.11	13.90	61.15	49.96	6.46
05-Dec-2007	16:16	6.09	13.93	61.25	50.44	6.60
05-Dec-2007	16:17	6.12	13.92	61.37	50.43	6.89
05-Dec-2007	16:18	6.09	13.94	61.10	50.36	6.70
05-Dec-2007	16:19	6.12	13.90	61.34	50.62	6.84
05-Dec-2007	16:20	6.10	13.92	62.18	49.60	6.65
05-Dec-2007	16:21	6.09	13.93	63.21	48.59	6.71
05-Dec-2007	16:22	6.06	13.95	63.52	47.47	6.77
05-Dec-2007	16:23	6.04	13.96	63.14	47.40	6.81
05-Dec-2007	16:24	5.94	13.99	62.65	47.22	6.84
05-Dec-2007	16:25	6.00	13.98	62.57	47.51	6.75
05-Dec-2007	16:26	5.99	13.98	62.97	47.84	6.82
05-Dec-2007	16:27	5.96	13.99	62.34	47.46	6.88
AVERAGES:		**6.07**	**13.92**	**62.34**	**49.25**	**6.62**

ENSR CONSULTING & ENGINEERING
CORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE:	AES Puerto Rico	PROJECT NO.:	00052-170-0002
SOURCE:	Unit # 2	FILE NAME:	u2r8.xls
CONDITION:	100% Load	DATE:	12/5/07
RUN NUMBER:	8	RUN TIME:	16:42 to 17:03
Fd: (dscf/MMBtu) =	9780		
		Moisture,%=	9.9

	O2 %		CO2 %		CO ppm		NOx ppm	
Calibration Span (High Level Cal Gas)	8.98		17.84		114.20		109.00	
Cyl. Gas Concentrations Zero/Span	0.00	8.98	0.00	9.00	0.00	50.20	0.00	54.00
Direct Calibration Zero Response		0.01		0.01		0.02		0.04
Direct Calibration Span Response		9.01		9.02		49.90		53.98
Initial System Zero Response		0.04		0.05		-0.04		0.10
Initial System Span Response		9.12		9.10		49.80		54.24
Final System Zero Response		0.04		0.04		-0.02		0.10
Final System Span Response		9.08		9.08		49.70		54.26
Initial/Final System Bias, Zero (%)	0.33	0.33	0.22	0.17	-0.05	-0.04	0.06	0.06
Initial/Final System Bias, Span (%)	1.22	0.78	0.45	0.34	-0.09	-0.18	0.24	0.26
System Drift, Zero/Span (%)	0.00	-0.45	-0.06	-0.11	0.02	-0.09	0.00	0.02
Run Average	6.04		13.96		62.65		47.86	
Corrected Run Averages	5.95		13.85		63.21		47.63	
Emission Calculations:								
Concentration Corrected to 7% O2 =					58.76		44.27	
Emission Rate (lbs/MMBtu) =					0.063		0.078	
Concentration, wet basis,% =			12.48					

			SO2 ppm	
Calibration Span (High Level Cal Gas)			18.16	
Cyl. Gas Concentrations Zero/Span			0.00	10.42
Direct Calibration Zero Response				0.00
Direct Calibration Span Response				10.38
Initial System Zero Response				0.00
Initial System Span Response				10.46
Final System Zero Response				0.02
Final System Span Response				10.44
Initial/Final System Bias, Zero (%)			0.00	0.11
Initial/Final System Bias, Span (%)			0.44	0.33
System Drift, Zero/Span (%)			0.11	-0.11
Run Average			6.80	
Corrected Run Averages			6.78	
Emission Calculations:				
Concentration Corrected to 7% O2 =			6.30	
Emission Rate (lbs/MMBtu) =			0.015	

COMMENTS:

ENSR CONSULTING & ENGINEERING
UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico **CONDITION:** 100% Load
SOURCE: Unit # 2 **RUN NUMBER:** 8

Date	Time	O2 %	CO2 %	CO ppm	NOX ppm	SO2 ppm
05-Dec-2007	16:42	5.99	13.98	62.51	47.62	6.71
05-Dec-2007	16:43	6.05	13.92	62.77	47.29	6.89
05-Dec-2007	16:44	5.99	13.94	62.60	47.96	7.38
05-Dec-2007	16:45	6.05	13.90	62.64	47.56	6.83
05-Dec-2007	16:46	5.98	13.92	63.01	47.75	6.89
05-Dec-2007	16:47	6.02	13.93	62.46	48.39	6.83
05-Dec-2007	16:48	6.07	13.95	62.11	48.35	6.98
05-Dec-2007	16:49	6.06	13.96	62.00	48.61	6.78
05-Dec-2007	16:50	6.11	13.99	61.96	48.56	6.63
05-Dec-2007	16:51	6.04	13.98	62.37	48.64	6.88
05-Dec-2007	16:52	6.10	13.98	61.81	48.63	6.56
05-Dec-2007	16:53	6.06	13.99	62.49	47.87	6.73
05-Dec-2007	16:54	6.08	13.96	62.27	48.54	6.53
05-Dec-2007	16:55	6.05	13.95	62.63	48.42	6.46
05-Dec-2007	16:56	6.00	13.95	62.14	48.26	6.58
05-Dec-2007	16:57	6.07	13.92	62.12	47.66	6.68
05-Dec-2007	16:58	5.99	13.98	62.11	48.17	6.79
05-Dec-2007	16:59	5.97	13.99	62.42	48.17	6.84
05-Dec-2007	17:00	5.99	13.98	63.56	46.51	6.90
05-Dec-2007	17:01	5.94	14.03	64.50	46.14	6.94
05-Dec-2007	17:02	6.05	13.98	63.88	46.74	6.97
05-Dec-2007	17:03	6.11	13.94	63.84	47.13	6.89
AVERAGES:		**6.04**	**13.96**	**62.65**	**47.86**	**6.80**

ENSR CONSULTING & ENGINEERING
CORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE:	AES Puerto Rico	PROJECT NO.:	00052-170-0002
SOURCE:	Unit # 2	FILE NAME:	u2r9.xls
CONDITION:	100% Load	DATE:	12/5/07
RUN NUMBER:	9	RUN TIME:	17:17 to 17:38
Fd: (dscf/MMBtu) =	9780		
		Moisture,%=	9.9

	O2 %		CO2 %		CO ppm		NOx ppm	
Calibration Span (High Level Cal Gas)	8.98		17.84		114.20		109.00	
Cyl. Gas Concentrations Zero/Span	0.00	8.98	0.00	9.00	0.00	50.20	0.00	54.00
Direct Calibration Zero Response		0.01		0.01		0.02		0.04
Direct Calibration Span Response		9.01		9.02		49.90		53.98
Initial System Zero Response		0.04		0.04		-0.02		0.10
Initial System Span Response		9.08		9.08		49.70		54.26
Final System Zero Response		0.03		0.03		-0.03		0.08
Final System Span Response		9.10		9.09		49.74		54.24
Initial/Final System Bias, Zero (%)	0.33	0.22	0.17	0.11	-0.04	-0.04	0.06	0.04
Initial/Final System Bias, Span (%)	0.78	1.00	0.34	0.39	-0.18	-0.14	0.26	0.24
System Drift, Zero/Span (%)	-0.11	0.22	-0.06	0.06	-0.01	0.04	-0.02	-0.02
Run Average	6.05		13.95		65.03		47.06	
Corrected Run Averages	5.97		13.84		65.65		46.83	
Emission Calculations:								
Concentration Corrected to 7% O2 =					61.10		43.59	
Emission Rate (lbs/MMBtu) =					0.065		0.077	
Concentration, wet basis,% =			12.47					

	SO2 ppm	
Calibration Span (High Level Cal Gas)	18.16	
Cyl. Gas Concentrations Zero/Span	0.00	10.42
Direct Calibration Zero Response		0.00
Direct Calibration Span Response		10.38
Initial System Zero Response		0.02
Initial System Span Response		10.44
Final System Zero Response		0.01
Final System Span Response		10.42
Initial/Final System Bias, Zero (%)	0.11	0.06
Initial/Final System Bias, Span (%)	0.33	0.22
System Drift, Zero/Span (%)	-0.06	-0.11
Run Average	5.29	
Corrected Run Averages	5.28	
Emission Calculations:		
Concentration Corrected to 7% O2 =	4.91	
Emission Rate (lbs/MMBtu) =	0.012	

COMMENTS:

ENSR CONSULTING & ENGINEERING
UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico **CONDITION:** 100% Load
SOURCE: Unit # 2 **RUN NUMBER:** 9

Date	Time	O2 %	CO2 %	CO ppm	NOX ppm	SO2 ppm
05-Dec-2007	17:17	5.97	13.93	64.87	45.82	4.63
05-Dec-2007	17:18	5.94	13.92	64.83	45.49	5.07
05-Dec-2007	17:19	5.96	13.94	64.73	45.01	5.38
05-Dec-2007	17:20	5.89	13.90	64.90	45.36	5.82
05-Dec-2007	17:21	5.99	13.92	65.29	46.71	5.69
05-Dec-2007	17:22	6.02	13.93	64.88	46.94	5.63
05-Dec-2007	17:23	6.09	13.95	65.10	47.48	5.72
05-Dec-2007	17:24	6.11	13.96	64.39	48.70	5.69
05-Dec-2007	17:25	6.13	13.99	64.29	49.07	5.53
05-Dec-2007	17:26	6.09	13.98	64.85	48.80	5.10
05-Dec-2007	17:27	6.18	13.98	65.03	49.22	4.77
05-Dec-2007	17:28	6.13	13.99	65.01	48.72	4.66
05-Dec-2007	17:29	6.19	13.93	65.59	48.41	4.56
05-Dec-2007	17:30	6.13	13.94	65.90	46.81	4.69
05-Dec-2007	17:31	5.99	13.98	65.68	46.23	4.86
05-Dec-2007	17:32	6.00	13.99	65.46	45.79	5.11
05-Dec-2007	17:33	6.06	13.93	65.90	45.74	5.33
05-Dec-2007	17:34	5.97	13.99	65.64	45.30	5.52
05-Dec-2007	17:35	5.99	13.99	65.03	46.14	5.56
05-Dec-2007	17:36	6.09	13.94	64.78	47.31	5.85
05-Dec-2007	17:37	6.12	13.92	64.43	48.21	5.63
05-Dec-2007	17:38	6.10	13.95	63.98	48.06	5.59
AVERAGES:		**6.05**	**13.95**	**65.03**	**47.06**	**5.29**

ENSR CONSULTING & ENGINEERING
UNCORRECTED CEM MONITORING RESULTS
INSTRUMENTAL REFERENCE METHODS - 3A, 6C, 7E, 10 & 25A

CLIENT: / SITE: AES Puerto Rico
SOURCE: Unit # 2
CONDITION: 100% Load
RUN NUMBER: Strat Check

Date	Time	O2 %	
06-Dec-2007	09:52	6.18	Port A-1
06-Dec-2007	09:53	6.22	
06-Dec-2007	09:54	6.23	
06-Dec-2007	09:55	6.15	Port A-2
06-Dec-2007	09:56	6.19	
06-Dec-2007	09:57	6.23	
06-Dec-2007	09:58	6.19	Port A-3
06-Dec-2007	09:59	6.18	
06-Dec-2007	10:00	6.20	
06-Dec-2007	10:01	11.45	
06-Dec-2007	10:02	20.04	
06-Dec-2007	10:03	6.78	
06-Dec-2007	10:04	6.14	Port B-1
06-Dec-2007	10:05	6.16	
06-Dec-2007	10:14	6.20	
06-Dec-2007	10:15	6.22	Port B-2
06-Dec-2007	10:16	6.24	
06-Dec-2007	10:17	6.23	
06-Dec-2007	10:18	6.20	Port B-3
06-Dec-2007	10:19	6.18	
06-Dec-2007	10:20	6.17	
06-Dec-2007	10:21	12.04	
06-Dec-2007	10:22	20.50	
06-Dec-2007	10:23	7.14	
06-Dec-2007	10:24	6.16	Port C-1
06-Dec-2007	10:25	6.19	
06-Dec-2007	10:26	6.22	
06-Dec-2007	10:27	6.21	Port C-2
06-Dec-2007	10:28	6.18	
06-Dec-2007	10:29	6.16	
06-Dec-2007	10:30	6.16	Port C-3
06-Dec-2007	10:31	6.17	
06-Dec-2007	10:32	6.19	
06-Dec-2007	10:33	11.45	
06-Dec-2007	10:34	20.05	
06-Dec-2007	10:35	12.78	
06-Dec-2007	10:36	6.79	
06-Dec-2007	1037	6.20	Port D-1
06-Dec-2007	10:38	6.22	
06-Dec-2007	1039	6.18	
06-Dec-2007	10:40	6.18	Port D-2
06-Dec-2007	10:41	6.16	
06-Dec-2007	10:42	6.19	
06-Dec-2007	10:43	6.23	Port D-3
06-Dec-2007	10:44	6.21	
06-Dec-2007	10:45	6.18	

AVERAGES:

Client:	AES - Puerto Rico
Location:	Guamyama
Date:	12/5/07
Day:	Wednesday

UNIT # 2

Rata

Project No.:	00052-170-0002
Performed By:	Robert Sicard

Run #	Run Time
09:55	Direct Cals

Type of Calibration

Direct: ⊗	**System:**
Initial: ⊗	**Final:**

	← Direct Cals →				← Start of Day →			
Instrument	**1**		**2**		**3**		**4**	
	Conc.	**Response**	**Conc.**	**Response**	**Conc.**	**Response**	**Conc.**	**Response**
O_2	0.00	0.01	8.976 ✓	9.01	4.99 ✓	5.01		
CO_2	0.00	0.01	17.84 ✓	17.82	9.00 ✓	9.02		
					50.2 RS			
CO	0.00	0.02	114.20 ✓	114.10	50.2	49.90		
						53.98		
NOX	0.00	0.04	109.00 ✓	109.20	54.00 ✓	~~49.94~~ 18		
SO2	0.00	0.00	18.16 ✓	18.20	10.42 ✓	10.38	27.80 ✓	27.70

Instrument	O_2	CO_2	CO	NOX	SO2			
Scale	25	20	100	200	50			

Client:	AES - Puerto Rico
Location:	Guamyama
Date:	12/5/07
Day:	Wednesday

UNIT # 2
Rata

Project No.:	00052-170-0002
Performed By:	Robert Sicard

Run #	Run Time
1	12:18 TO 12:39

Type of Calibration

Direct:	**System:** ⊗
Initial: ⊗	**Final:**

	RUN 1 ← Initial Cals →				RUN 1 ← Final Cals →			
Instrument	**1**		**2**		**3**		**4**	
	Conc.	**Response**	**Conc.**	**Response**	**Conc.**	**Response**	**Conc.**	**Response**
O_2	0.00	0.02	8.98	9.01	0.00	0.00	8.98	8.98
CO_2	0.00	0.02	9.00	9.02	0.00	0.01	9.00	9.00
CO	0.00	0.04	50.2	50.00	0.00	0.04	50.20	49.98
NOX	0.00	0.06	54.00	53.98	0.00	0.10	54.00	53.96
SO2	0.00	0.02	10.42	10.40	0.00	0.02	10.42	10.40

Instrument	O_2	CO_2	CO	NOX	SO2			
Scale	25	20	100	200	50			

Client:	AES - Puerto Rico
Location:	Guamyama
Date:	12/5/07
Day:	Wednesday

UNIT # 2
Rata

Project No.:	00052-170-0002
Performed By:	Robert Sicard

Run #	Run Time
2	12:55 TO 13:11
3	13:27 TO 13:38
	13 37 to 13:58

Type of Calibration

Direct:	**System:** ⊗
Initial: ⊗	**Final:** ⊗

Instrument	Final Run #2				Final Run #3			
	1		2		3		4	
	Conc.	Response	Conc.	Response	Conc.	Response	Conc.	Response
O_2	0.00	0.00	8.98	9.08	0.00	-0.02	8.98	9.14
CO_2	0.00	0.02	9.00	9.01	0.00	0.04	9.00	9.08
CO	0.00	0.02	50.20	50.14	0.00	0.08	50.20	49.99
NOX	0.00	0.12	54.00	53.97	0.00	0.12	54.00	54.14
SO2	0.00	0.00	10.42	10.48	0.00	0.02	10.42	10.54

Instrument	O_2	CO_2	CO	NOX	SO2			
Scale	25	20	100	200	50			

Client:	AES - Puerto Rico
Location:	Guamyama
Date:	12/5/07
Day:	Wensday

Project No.: 00052-170-0002

Performed By: Robert Sicard

UNIT # 2

Rata

Run #	Run Time
4	14:15 - 14:36
5	14:54 - 15:15

Type of Calibration

Direct:	**System:** (X)
Initial: (X)	**Final:** (X)

	← Final Run #4 →				← Final Run #5 →			
Instrument	**1**		**2**		**3**		**4**	
	Conc.	**Response**	**Conc.**	**Response**	**Conc.**	**Response**	**Conc.**	**Response**
O_2	0.00	0.02	8.98	9.12	0.00	0.02	8.98	9.11
CO_2	0.00	0.03	9.00	9.09	0.00	0.01	9.00	9.08
CO	0.00	-0.04	50.20	49.79	0.00	-0.03	50.20	49.72
NOX	0.00	0.14	54.00	54.08	0.00	0.14	54.00	54.12
SO2	0.00	0.02	10.42	10.31	0.00	0.00	10.42	10.28

Instrument	O_2	CO_2	CO	NOX	SO2			
Scale	25	20	100	200	50			

Client:	AES - Puerto Rico
Location:	Guamyama
Date:	12/5/07
Day:	Wednesday

UNIT # 2
Rata

Project No.:	00052-170-0002
Performed By:	Robert Sicard

Run #	Run Time
6	15:32 to 15:53
7	16:06 to 16:27

Type of Calibration

Direct:	**System:** ⊗
Initial: ⊗	**Final:** ⊗

	← Final Run #6 →				← Final Run #7 →			
Instrument	**1**		**2**		**3**		**4**	
	Conc.	**Response**	**Conc.**	**Response**	**Conc.**	**Response**	**Conc.**	**Response**
O_2	0.00	0.03	8.98	9.13	0.00	0.04	8.98	9.12
CO_2	0.00	0.04	9.00	9.10	0.00	0.05	9.00	9.10
CO	0.00	-0.06	50.20	49.82	0.00	-0.04	50.20	49.80
NOX	0.00	0.15	54.00	54.12	0.00	0.10	54.00	54.24
SO2	0.00	0.03	10.42	10.44	0.00	0.00	10.42	10.46

Instrument	O_2	CO_2	CO	NOX	SO2			
Scale	25	20	100	200	50			

Client:	AES - Puerto Rico
Location:	Guamyama
Date:	12/5/07
Day:	Wednesday

UNIT # 2

Project No.:	00052-170-0002
Performed By:	Robert Sicard

Run #	Run Time
8	16:42 To 17:03
9	17:17 - 17:38

Type of Calibration

Direct:	**System:** ☒
Initial: ☒	**Final:** ☒

	← Final Run #8 →				← Final Run #9 →			
Instrument	**1**		**2**		**3**		**4**	
	Conc.	**Response**	**Conc.**	**Response**	**Conc.**	**Response**	**Conc.**	**Response**
O_2	0.00	0.04	8.98	9.08	0.00	0.03	8.98	9.10
CO_2	0.00	0.04	9.00	9.08	0.00	0.03	9.00	9.09
CO	0.00	-0.02	50.20	49.70	0.00	-0.03	50.20	49.74
NOX	0.00	0.10	54.00	54.26	0.00	0.08	54.00	54.24
SO2	0.00	0.02	10.42	10.44	0.00	0.01	10.42	10.42

Instrument	O_2	CO_2	CO	NOX	SO2			
Scale	25	20	100	200	50			

Method 2 and 4 Sampling Parameters
AES Cogeneration Facility - Guayama, PR
Unit 2 - 100% Load

Run No.	Units	Run 1	Run 2	Run 3	AVGS
Date		05-Dec-07	05-Dec-07	05-Dec-07	
Start Time		12:18	12:55	13:37	
Stop Time		12:39	13:16	13:58	
Nozzle Diameter	inches	0.500	0.500	0.500	0.500
Barometric Pressure	in. Hg	29.80	29.80	29.78	29.79
Net Sampling Time	min.	60.0	60.0	60.0	60.0
Volume Metered	dcf	47.630	47.630	47.552	47.604
Avg. DGM Temp.	°F	100.9	100.9	101.7	101.2
Avg Delta H	in H_2O	1.90	1.90	1.90	1.90
Avg Delta H	in. Hg	0.1397	0.1397	0.1397	0.1397
DGM Calibration Factor	--	0.975	0.975	0.975	0.975
Gas Sample Volume	**dscf**	**43.743**	**43.743**	**43.584**	**43.690**
Total Water Collected	mL	102.1	102.1	98.3	100.8
Volume of Water Vapor	scf	4.814	4.814	4.635	4.754
Moisture (measured)	% v/v	9.9	9.9	9.6	9.8
Moisture (@ saturation)	% v/v	100.8	100.8	100.9	100.9
Dry Mole Fraction, 100-%M	--	0.9009	0.9009	0.9039	0.9019
CO_2 at Stack	% dry	13.54	13.42	13.40	13.45
O_2 at Stack	% dry	6.13	6.22	6.11	6.15
$CO + N_2$	% dry	80.33	80.36	80.49	80.39
Dry Molecular Weight	lb/lb-mole	30.41	30.40	30.39	30.40
Wet Molecular Weight	lb/lb-mole	29.18	29.17	29.20	29.18
Excess Air at Stack	%	40.7	41.5	40.4	40.8
Stack Area (for 192-in ID)	sq. in.	28952.9	28952.9	28952.9	28952.9
Static Pressure	in H_2O	-1.70	-1.70	-1.82	-1.74
Stack Pressure	in. Hg	29.68	29.68	29.65	29.67
Avg. Stack Temp.	°F	276.4	276.1	275.6	276.0
Avg. Sqroot of Delta P	--	1.1482	1.1486	1.1560	1.1509
SDE Average	--	31.158	31.164	31.353	31.225
Pitot Coefficient	--	0.84	0.84	0.84	0.84
Stack Gas Velocity	afpm	4,563	4,565	4,592	4,573
Stack Flowrate	wet acfm	917,368	917,770	923,297	919,478
Stack Flowrate	**wet kscfm**	**652.4**	**652.9**	**656.7**	**654.0**
Stack Flowrate	dscfm	587,678	588,202	593,554	589,811
Meter Box No.	--	80582	80582	80582	--
Delta H @	in H_2O	1.816	1.816	1.816	--
Field QA Yqc	--	0.9727	0.9730	0.9757	0.9738
[Deviation] Pre-Y	%	0.23%	0.21%	0.07%	0.17%

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Method 2 and 4 Sampling Parameters
AES Cogeneration Facility - Guayama, PR
Unit 2 - 100% Load

PT	RUN 1 AVGS						RUN 2 AVGS						RUN 3 AVGS					
	Delta P	SQRT Delta P	DGM IN	DGM OUT	Delta H	STACK TEMP	Delta P	SQRT Delta P	DGM IN	DGM OUT	Delta H	STACK TEMP	Delta P	SQRT Delta P	DGM IN	DGM OUT	Delta H	STACK TEMP
a1	1.20	1.0954	98	98	1.90	281	1.20	1.0954	98	98	1.90	276	1.30	1.1402	101	99	1.90	276
a2	1.30	1.1402	98	97	1.90	277	1.30	1.1402	98	97	1.90	276	1.30	1.1402	102	98	1.90	276
a3	1.45	1.2042	100	97	1.90	277	1.20	1.0954	100	97	1.90	276	1.40	1.1832	103	98	1.90	276
b1	1.40	1.1832	102	97	1.90	276	1.35	1.1619	102	97	1.90	276	1.40	1.1832	104	98	1.90	275
b2	1.50	1.2247	103	97	1.90	281	1.35	1.1619	103	97	1.90	276	1.50	1.2247	104	98	1.90	276
b3	1.50	1.2247	105	98	1.90	276	1.30	1.1402	105	98	1.90	276	1.40	1.1832	105	98	1.90	276
c1	1.30	1.1402	106	98	1.90	274	1.40	1.1832	106	98	1.90	275	1.40	1.1832	105	98	1.90	275
c2	1.30	1.1402	106	99	1.90	275	1.50	1.2247	106	99	1.90	275	1.30	1.1402	106	98	1.90	275
c3	1.10	1.0488	106	99	1.90	276	1.40	1.1832	106	99	1.90	276	1.25	1.1180	106	98	1.90	276
d1	1.25	1.1180	106	100	1.90	274	1.30	1.1402	106	100	1.90	275	1.30	1.1402	107	99	1.90	275
d2	1.25	1.1180	106	99	1.90	275	1.35	1.1619	106	99	1.90	280	1.30	1.1402	108	99	1.90	275
d3	1.30	1.1402	107	100	1.90	275	1.20	1.0954	107	100	1.90	276	1.20	1.0954	108	100	1.90	276
AVG	1.32	1.1482	100.9		1.90	276	1.32	1.1486	100.9		1.90	276	1.34	1.1560	101.7		1.90	276

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Method 2 and 4 Sampling Parameters
AES Cogeneration Facility - Guayama, PR
Unit 2 - 100% Load

Run No. Date Start Time Stop Time	Units	Run 4 05-Dec-07 14:15 14:36	Run 5 05-Dec-07 14:54 15:15	Run 6 05-Dec-07 15:32 15:53	AVGS
Nozzle Diameter	inches	0.500	0.500	0.500	0.500
Barometric Pressure	in. Hg	29.76	29.75	29.75	29.75
Net Sampling Time	min.	60.0	60.0	60.0	60.0
Volume Metered	dcf	47.552	48.141	48.141	47.945
Avg. DGM Temp.	°F	101.7	103.5	103.5	102.9
Avg Delta H	in H_2O	1.90	1.90	1.90	1.90
Avg Delta H	in. Hg	0.1397	0.1397	0.1397	0.1397
DGM Calibration Factor	--	0.975	0.975	0.975	0.975
Gas Sample Volume	**dscf**	**43.555**	**43.933**	**43.933**	**43.807**
Total Water Collected	mL	98.3	100.2	100.2	99.6
Volume of Water Vapor	scf	4.635	4.724	4.724	4.695
Moisture (measured)	% v/v	9.6	9.7	9.7	9.7
Moisture (@ saturation)	% v/v	101.0	101.0	101.0	101.0
Dry Mole Fraction, 100-%M	--	0.9038	0.9029	0.9029	0.9032
CO_2 at Stack	% dry	13.78	13.77	13.79	13.78
O_2 at Stack	% dry	6.01	6.12	6.07	6.07
$CO + N_2$	% dry	80.21	80.11	80.14	80.15
Dry Molecular Weight	lb/lb-mole	30.45	30.45	30.45	30.45
Wet Molecular Weight	lb/lb-mole	29.25	29.24	29.24	29.24
Excess Air at Stack	%	39.6	40.7	40.2	40.2
Stack Area (for 192-in ID)	sq. in.	28952.9	28952.9	28952.9	28952.9
Static Pressure	in H_2O	-1.70	-1.60	-1.90	-1.73
Stack Pressure	in. Hg	29.64	29.63	29.61	29.63
Avg. Stack Temp.	°F	275.8	276.5	275.3	275.9
Avg. Sqroot of Delta P	--	1.1453	1.1735	1.1501	1.1563
SDE Average	--	31.068	31.847	31.186	31.367
Pitot Coefficient	--	0.84	0.84	0.84	0.84
Stack Gas Velocity	afpm	4,547	4,662	4,567	4,592
Stack Flowrate	wet acfm	914,311	937,411	918,273	923,331
Stack Flowrate	**wet kscfm**	**649.8**	**665.6**	**652.6**	**656.0**
Stack Flowrate	dscfm	587,319	600,948	589,241	592,503
Meter Box No.	--	80582	80582	80582	--
Delta H @	in H_2O	1.816	1.816	1.816	--
Field QA Yqc	--	0.9751	0.9649	0.9649	0.9683
[Deviation] Pre-Y	%	0.01%	1.04%	1.04%	0.70%

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Method 2 and 4 Sampling Parameters
AES Cogeneration Facility - Guayama, PR
Unit 2 - 100% Load

PT	RUN 4 AVGS						RUN 5 AVGS						RUN 6 AVGS					
	Delta P	SQRT Delta P	DGM IN	DGM OUT	Delta H	STACK TEMP	Delta P	SQRT Delta P	DGM IN	DGM OUT	Delta H	STACK TEMP	Delta P	SQRT Delta P	DGM IN	DGM OUT	Delta H	STACK TEMP
a1	1.30	1.1402	101	99	1.90	276	1.20	1.0954	103	102	1.90	277	1.30	1.1402	103	102	1.90	274
a2	1.25	1.1180	102	98	1.90	276	1.45	1.2042	104	101	1.90	277	1.25	1.1180	104	101	1.90	274
a3	1.20	1.0954	103	98	1.90	276	1.60	1.2649	105	100	1.90	277	1.15	1.0724	105	100	1.90	275
b1	1.30	1.1402	104	98	1.90	276	1.45	1.2042	106	100	1.90	279	1.40	1.1832	106	100	1.90	275
b2	1.30	1.1402	104	98	1.90	276	1.50	1.2247	107	100	1.90	278	1.30	1.1402	107	100	1.90	275
b3	1.25	1.1180	105	98	1.90	276	1.40	1.1832	107	100	1.90	277	1.20	1.0954	107	100	1.90	275
c1	1.40	1.1832	105	98	1.90	275	1.35	1.1619	108	100	1.90	275	1.35	1.1619	108	100	1.90	277
c2	1.40	1.1832	106	98	1.90	276	1.35	1.1619	107	100	1.90	276	1.50	1.2247	107	100	1.90	278
c3	1.30	1.1402	106	98	1.90	276	1.30	1.1402	108	100	1.90	276	1.50	1.2247	108	100	1.90	275
d1	1.30	1.1402	107	99	1.90	275	1.40	1.1832	108	100	1.90	275	1.20	1.0954	108	100	1.90	275
d2	1.40	1.1832	108	99	1.90	276	1.25	1.1180	108	101	1.90	276	1.35	1.1619	108	101	1.90	275
d3	1.35	1.1619	108	100	1.90	276	1.30	1.1402	109	101	1.90	275	1.40	1.1832	109	101	1.90	275
AVG	1.31	1.1453	101.7		1.90	276	1.38	1.1735	103.5		1.90	277	1.33	1.1501	103.5		1.90	275

J:\Air_Tox\Project Files\AES 2007 RATA\Field\Unit 2\[Runs 4-6.xls]AVGS

Method 2 and 4 Sampling Parameters
AES Cogeneration Facility - Guayama, PR
Unit 2 - 100% Load

Run No. Date Start Time Stop Time	Units	Run 7 05-Dec-07 16:06 16:27	Run 8 05-Dec-07 16:42 17:03	Run 9 05-Dec-07 17:17 17:38	AVGS
Nozzle Diameter	inches	0.500	0.500	0.500	0.500
Barometric Pressure	in. Hg	29.75	29.77	29.78	29.77
Net Sampling Time	min.	60.0	60.0	60.0	60.0
Volume Metered	dcf	48.124	48.124	48.000	48.083
Avg. DGM Temp.	°F	105.1	105.1	104.8	105.0
Avg Delta H	in H_2O	1.90	1.90	1.90	1.90
Avg Delta H	in. Hg	0.1397	0.1397	0.1397	0.1397
DGM Calibration Factor	--	0.975	0.975	0.975	0.975
Gas Sample Volume	**dscf**	**43.794**	**43.823**	**43.748**	**43.788**
Total Water Collected	mL	102.6	102.6	101.5	102.2
Volume of Water Vapor	scf	4.838	4.838	4.786	4.820
Moisture (measured)	% v/v	9.9	9.9	9.9	9.9
Moisture (@ saturation)	% v/v	101.0	101.0	100.8	100.9
Dry Mole Fraction, 100-%M	--	0.9005	0.9006	0.9014	0.9008
CO_2 at Stack	% dry	13.79	13.85	13.84	13.83
O_2 at Stack	% dry	5.96	5.95	5.97	5.96
$CO + N_2$	% dry	80.25	80.20	80.19	80.21
Dry Molecular Weight	lb/lb-mole	30.44	30.45	30.45	30.45
Wet Molecular Weight	lb/lb-mole	29.21	29.22	29.23	29.22
Excess Air at Stack	%	39.1	39.1	39.3	39.2
Stack Area (for 192-in ID)	sq. in.	28952.9	28952.9	28952.9	28952.9
Static Pressure	in H_2O	-1.80	-1.80	-1.40	-1.67
Stack Pressure	in. Hg	29.62	29.64	29.68	29.64
Avg. Stack Temp.	°F	275.4	275.2	275.3	275.3
Avg. Sqroot of Delta P	--	1.1558	1.1342	1.1360	1.1420
SDE Average	--	31.344	30.753	30.802	30.967
Pitot Coefficient	--	0.84	0.84	0.84	0.84
Stack Gas Velocity	afpm	4,592	4,504	4,507	4,534
Stack Flowrate	wet acfm	923,357	905,494	906,189	911,680
Stack Flowrate	**wet kscfm**	**656.2**	**644.2**	**645.5**	**648.6**
Stack Flowrate	dscfm	590,956	580,151	581,823	584,310
Meter Box No.	--	80582	80582	80582	--
Delta H @	in H_2O	1.816	1.816	1.816	--
Field QA Yqc	--	0.9666	0.9662	0.9683	0.9670
[Deviation] Pre-Y	%	0.86%	0.91%	0.69%	0.82%

J:\Air_Tox\Project Files\AES 2007 RATA\Field\Unit 2\[Runs 7-9.xls]DATA

Method 2 and 4 Sampling Parameters
AES Cogeneration Facility - Guayama, PR
Unit 2 - 100% Load

PT	RUN 7 AVGS						RUN 8 AVGS						RUN 9 AVGS					
	Delta P	SQRT Delta P	DGM IN	DGM OUT	Delta H	STACK TEMP	Delta P	SQRT Delta P	DGM IN	DGM OUT	Delta H	STACK TEMP	Delta P	SQRT Delta P	DGM IN	DGM OUT	Delta H	STACK TEMP
a1	1.25	1.1180	105	103	1.90	275	1.30	1.1402	105	103	1.90	275	1.30	1.1402	106	104	1.90	276
a2	1.32	1.1489	106	101	1.90	275	1.30	1.1402	106	101	1.90	275	1.40	1.1832	106	103	1.90	275
a3	1.50	1.2247	107	101	1.90	275	1.20	1.0954	107	101	1.90	275	1.40	1.1832	107	102	1.90	276
b1	1.35	1.1619	108	101	1.90	276	1.25	1.1180	108	101	1.90	275	1.30	1.1402	107	101	1.90	275
b2	1.50	1.2247	108	102	1.90	277	1.30	1.1402	108	102	1.90	275	1.45	1.2042	108	102	1.90	276
b3	1.40	1.1832	109	102	1.90	275	1.20	1.0954	109	102	1.90	275	1.30	1.1402	107	101	1.90	275
c1	1.25	1.1180	109	102	1.90	275	1.40	1.1832	109	102	1.90	277	1.20	1.0954	108	101	1.90	275
c2	1.30	1.1402	109	102	1.90	275	1.45	1.2042	109	102	1.90	275	1.25	1.1180	108	102	1.90	275
c3	1.20	1.0954	109	102	1.90	275	1.25	1.1180	109	102	1.90	275	1.25	1.1180	109	102	1.90	275
d1	1.30	1.1402	109	102	1.90	275	1.30	1.1402	109	102	1.90	275	1.25	1.1180	108	102	1.90	275
d2	1.40	1.1832	110	103	1.90	276	1.20	1.0954	110	103	1.90	275	1.20	1.0954	109	102	1.90	275
d3	1.28	1.1314	110	103	1.90	276	1.30	1.1402	110	103	1.90	275	1.20	1.0954	109	102	1.90	275
AVG	1.34	1.1558	105.1		1.90	275	1.29	1.1342	105.1		1.90	275	1.29	1.1360	104.8		1.90	275

J:\Air_Tox\Project Files\AES 2007 RATA\Field\Unit 2\[Runs 7-9.xls]AVGS

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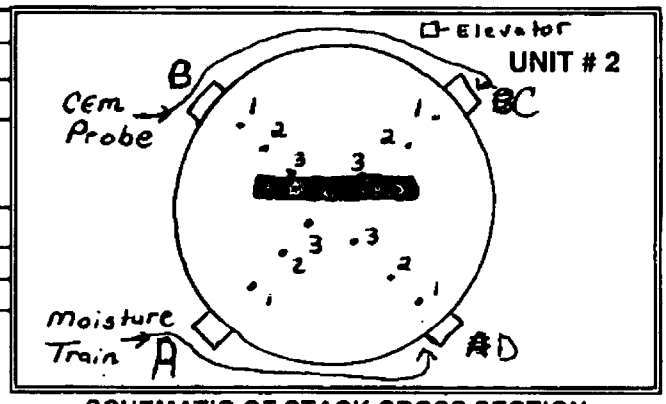
METHOD 2 GAS VELOCITY AND VOLUME DATA SHEET

Facility : AES Puerto Rico, L.P. Guayama, P.R. Port Length: 9" Monorail ? Platform Width N/A
Date : 12/5 /2007 Port Diam.: 6" Y or (N) Railing Ht. : N/A
Operator(s) : F. Sanguedolce & R. Sicard
Stack Diameter (in.) : 192
Bar. Press. (in. Hg) : 29.80 / 29.80
Static Press. (in. H_2O) Run 1: -1.7 Run 2: -1.7
Cp : (0.84) or 0.99 (Circle one)
O_2 (%) Run 1: 6.13 Run 2: 6.25
CO_2 (%) Run 1: 13.54 Run 2: 13.42
Wet Bulb Temp. (°F) : N/A
Dry Bulb Temp. (°F) : N/A



SCHEMATIC OF STACK CROSS SECTION

MQ-10'-A
Leak Check: Initial: +- ✓✓ Final: +- ✓✓

RUN # 1: 12:18 - 12:39 RUN # 2: 12:55 - 13:16

Pt. #	Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP	Pt. #	Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP
D 3	87.7	1.20	281		C 3	87.7	1.20	276	
2	56.4	1.30	277		2	56.4	1.30	276	
1	24.6	1.45	277		1	24.6	1.20	276	
A 3	87.7	1.40	276		B 3	87.7	1.35	276	
2	56.4	1.50	281		2	56.4	1.35	276	
1	24.6	1.50	276		1	24.6	1.30	276	
B 3	87.7	1.30	274		A 3	87.7	1.40	275	
2	56.4	1.30	275		2	56.4	1.50	275	
1	24.6	1.10	276		1	24.6	1.40	276	
C 3	87.7	1.25	274		D 3	87.7	1.30	275	
2	56.4	1.25	275		2	56.4	1.35	280	
1	24.6	1.30	275		1	24.6	1.20	276	

QA/QC
12/10/07
FS

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METHOD 2 GAS VELOCITY AND VOLUME DATA SHEET

Facility : AES Puerto Rico, L.P. Guayama, P.R. Port Length: 9" Monorail ? Platform Width N/A
Date : 12/5/2007 Port Diam.: 6" Y or (N) Railing Ht. : N/A
Operator(s) : F. Sanguedolce & R. Sicard
Stack Diameter (in.) : 192
Bar. Press. (in. Hg) : 29.78/29.76
Static Press. (in. H_2O) Run 3: -1.82 Run 4: -1.70
Cp : (0.84) or 0.99 (Circle one)
O_2 (%) Run 3: 6.11 Run 4: 6.01
CO_2 (%) Run 3: 13.40 Run 4: 13.46
Wet Bulb Temp. (°F) : N/A
Dry Bulb Temp. (°F) : N/A

UNIT # 2

SEE PAGE 4

SCHEMATIC OF STACK CROSS SECTION

mQ-10'-A
L.C. - I = ✓✓ F = ✓✓

RUN # 3: 13:37 - 13:58

Pt. #	Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP
D 3	87.7	1.30	276	
2	56.4	1.30	276	
1	24.6	1.40	276	
A 3	87.7	1.40	275	
2	56.4	1.50	276	
1	24.6	1.40	276	
B 3	87.7	1.40	275	
2	56.4	1.30	275	
1	24.6	1.25	276	
C 3	87.7	1.30	275	
2	56.4	1.30	275	
1	24.6	1.20	276	

RUN # 4: 14:15 - 14:36

Pt. #	Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP
C 3	87.7	1.30	276	
2	56.4	1.25	276	
1	24.6	1.20	276	
B 3	87.7	1.30	276	
2	56.4	1.30	276	
1	24.6	1.25	276	
A				
A 3	87.7	1.40	275	
2	56.4	1.40	276	
1	24.6	1.30	276	
D 3	87.7	1.30	275	
2	56.4	1.40	276	
1	24.6	1.35	276	

QA/QC
12/10/07
FJS

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METHOD 2 GAS VELOCITY AND VOLUME DATA SHEET

Facility : AES Puerto Rico, L.P. Guayama, P.R. Port Length: 9" Monorail ? Platform Width N/A
Date : 12/5 /2007 Port Diam.: 6" Y or (N) Railing Ht. : N/A
Operator(s) : F. Sanguedolce & R. Sicard
Stack Diameter (in.) : 192
Bar. Press. (in. Hg) : 29.75 / 29.75
Static Press. (in. H_2O) Run 5: -1.60 Run 6: -1.90
Cp : (0.84) or 0.99 (Circle one)
O_2 (%) Run 5: 6.15 Run 6: 6.07
CO_2 (%) Run 5: 13.35 Run 6: 13.38
Wet Bulb Temp. (°F) : N/A
Dry Bulb Temp. (°F) : N/A

UNIT # 2

SEE PAGE 1

SCHEMATIC OF STACK CROSS SECTION

ME-10'-A
L.C. - I: ✓✓ F: ✓✓

RUN # 5: 14:52 - 15:13 (F5)

RUN # 6: 15:32 - 15:53

Pt. #	Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP	Pt. #	Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP
D 3	87.7	1.20	277		C 3	87.7	1.30	274	
2	56.4	1.45	277		2	56.4	1.25	274	
1	24.6	1.60	277		1	24.6	1.15	275	
A 3	87.7	1.45	279		B 3	87.7	1.40	275	
2	56.4	1.50	278		2	56.4	1.30	275	
1	24.6	1.40	277		1	24.6	1.20	275	
B 3	87.7	1.35	275		A 3	87.7	1.35	277	
2	56.4	1.35	276		2	56.4	1.50	278	
1	24.6	1.30	276		1	24.6	1.50	275	
C 3	87.7	1.40	275		D 3	87.7	1.20	275	
2	56.4	1.35	276		2	56.4	1.35	275	
1	24.6	1.30	275		1	24.6	1.40	275	

QA/QC
12/10/07
FJS

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METHOD 2 GAS VELOCITY AND VOLUME DATA SHEET

Facility : AES Puerto Rico, L.P. Guayama, P.R. Port Length: 9" Monorail ? Platform Width N/A
Date : 12/ 5 / 2007 Port Diam.: 6" Y or (N) Railing Ht. : N/A
Operator(s) : F. Sanguedolce & R. Sicard

Stack Diameter (in.) : 192
Bar. Press. (in. Hg) : 29.75 / 29.77
Static Press. (in. H_2O) Run 7: -1.80 Run 8: -1.80
Cp : (0.84) or 0.99 (Circle one)
O_2 (%) Run 7: 5.96 Run 8: 5.95
CO_2 (%) Run 7: 13.43 Run 8: 13.54
Wet Bulb Temp. (°F) : N/A
Dry Bulb Temp. (°F) : N/A

UNIT # 2

SEE PAGE 1

SCHEMATIC OF STACK CROSS SECTION

ma-10'-A
L.C. - I: ✓✓ F: ✓✓

RUN # 7: 16:06-16:27

Pt. #	Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP
D 3	87.7	1.25	275	
2	56.4	1.32	275	
1	24.6	1.50	275	
A 3	87.7	1.35	276	
2	56.4	1.50	277	
1	24.6	1.40	275	
B 3	87.7	1.25	275	
2	56.4	1.30	275	
1	24.6	1.20	275	
C 3	87.7	1.30	275	
2	56.4	1.40	276	
1	24.6	1.28	276	

RUN # 8: 16:42-17:03

Pt. #	Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP
C 3	87.7	1.30	275	
2	56.4	1.30	275	
1	24.6	1.20	275	
B 3	87.7	1.25	275	
2	56.4	1.30	275	
1	24.6	1.20	275	
A 3	87.7	1.40	277	
2	56.4	1.45	275	
1	24.6	1.25	275	
D 3	87.7	1.30	275	
2	56.4	1.20	275	
1	24.6	1.30	275	

QA/QC
12/10/07
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METHOD 2 GAS VELOCITY AND VOLUME DATA SHEET

Facility : AES Puerto Rico, L.P. Guayama, P.R. Port Length: 9" Monorail ? Platform Width N/A
Date : 12/ 5 / 2007 Port Diam.: 6" Y or (N) Railing Ht. : N/A
Operator(s) : F. Sanguedolce & R. Sicard
Stack Diameter (in.) : 192
Bar. Press. (in. Hg) : 29.78 / 29.79
Static Press. (in. H_2O) Run 9: -1.40 Run 10: -1.30
Cp : (0.84) or 0.99 (Circle one)
O_2 (%) Run 9: 5.97 Run 10:
CO_2 (%) Run 9: 13.54 Run 10:
Wet Bulb Temp. (°F) : N/A
Dry Bulb Temp. (°F) : N/A

UNIT # 2

SEE PAGE 1

SCHEMATIC OF STACK CROSS SECTION

m2-10'-A
L.C. - I: ✓✓ F: ✓✓

RUN # 9: 17:17 - 17:38

Pt. #		Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP
D	3	87.7	1.30	276	
	2	56.4	1.40	275	
	1	24.6	1.40	276	
A	3	87.7	1.30	275	
	2	56.4	1.45	276	
	1	24.6	1.30	275	
B	3	87.7	1.20	275	
	2	56.4	1.25	275	
	1	24.6	1.25	275	
C	3	87.7	1.25	275	
	2	56.4	1.20	275	
	1	24.6	1.20	275	

RUN # 10: 18:06 - 18:16

Pt. #		Pos. (in.)	Vel. DP (in. H_2O)	Stack Temp. (°F)	Flow Angle that Yields a Null DP
C	3	87.7	1.35	274	
	2	56.4	1.40	274	
	1	24.6	1.35	274	
B	3	87.7	1.35	274	
	2	56.4	1.40	275	
	1	24.6	1.30	274	
A	3	87.7	1.50	277	
	2	56.4	1.50	277	
	1	24.6	1.45	274	
			(FS)		
D	3	87.7	~~1.70~~	275	1.40=ΔP
	2	56.4	1.35	275	
	1	24.6	1.50	276	

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QA/QC
12/10/07
FJS

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EPA ISOKINETIC SAMPLING - FIELD DATA SHEET

Sampling Train	Method 4 Moisture
Run Number	1 and 2
Client	AES Puerto Rico, L.P.
Facility Location	Guayama, Puerto Rico
Source	Unit #2
Date	12/ 5 /2007
Operator	F. Sanguedolce
Stack Dia. - in.	192
Start Time	12:18
Stop Time	13:18

Barometric Pressure	29.80 in. Hg
Static Pressure (+/-)	N/A
Probe/Pitot Number	114-6'-A
Pitot Coefficient	0.84
Filter Box No.	HB- 21
Meter Box No.	80582
Orifice Coefficient (Y)	0.975
Delta H @	1.816
Nozzle Size/No.	0.500
XAD Thermocouple ID:	N/A
Imp Outlet TC ID:	LI- 4

LEAK CHECKS in "Hg

INITIAL VAC.	15.0	in.	CFM	0.000
MID VAC.	N/A	in.	CFM	N/A
FINAL VAC.	4.0	in.	CFM	0.000

INIT. PITOT + ✓ - ✓ FINAL PITOT + ✓ - ✓

FILTER DATA

NUMBER	TARE
Glass	N/A

IMPINGER VOL'S. INIT.	FINAL	RINSE
100	178	N/A
100	116	N/A
0	0	N/A
SILICA GEL 230.7	238.8	

Orsat CO2	O2
13.48	6.19
13.48	6.19
13.48	6.19
13.48	6.19

Final Purge Rate N/A

Final PH N/A

SAMPLE POINT	CLOCK TIME	VELOCITY HEAD DeltaP, in we	ORIFICE METER VOL. DeltaH, in we	GAS METER VOLUME ft³	TEMPERATURE READINGS, °F STACK	PROBE	OVEN	ORGANIC MODULE	IMPINGER	GAS METER IN	OUT	PUMP VACUUM in. Hg	COMMENTS
D	0	N/A	1.90	735.791	N/A	243	249	N/A	67	98	98	3.0	
	5	N/A		739.750	N/A	245	247	N/A	47	98	97	3.0	
	10	N/A		743.710	N/A	248	247	N/A	47	100	97	3.0	
	15	N/A		747.615	N/A	244	248	N/A	49	102	97	3.0	
	20	N/A		751.600	N/A	250	247	N/A	50	103	97	3.0	
	25	N/A		755.574	N/A	242	247	N/A	48	105	98	3.0	
	30	N/A		759.550	N/A	241	247	N/A	50	106	98	3.0	
	35	N/A		763.600	N/A	244	247	N/A	50	106	99	3.5	
	40	N/A		767.523	N/A	241	247	N/A	50	106	99	3.5	
	45	N/A		771.500	N/A	243	247	N/A	51	106	100	3.5	
	50	N/A		775.510	N/A	243	248	N/A	53	106	99	3.5	
	55	N/A		779.450	N/A	245	248	N/A	54	107	100	3.5	
STOP	60			783.421									

Net Moisture Gain = 102.1 grams

% Moisture = 9.9

QA/QC 12/10/07 FS

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EPA ISOKINETIC SAMPLING - FIELD DATA SHEET

Sampling Train	Method 4 Moisture
Run Number	3 and 4
Client	AES Puerto Rico, L.P.
Facility Location	Guayama, Puerto Rico
Source	Unit #2
Date	12/ 5 /2007
Operator	F. Sanguedolce
Stack Dia. - in.	192
Start Time	13:37
Stop Time	14:37

Barometric Pressure	29.78 in. Hg
Static Pressure (+/-)	N/A
Probe/Pitot Number	M4-6'-A
Pitot Coefficient	0.84
Filter Box No.	HB-21
Meter Box No.	80582
Orifice Coefficient (Y)	0.975
Delta H @	1.816
Nozzle Size/No.	0.500
XAD Thermocouple ID:	N/A
Imp Outlet TC ID:	LI-4

LEAK CHECKS in "Hg

INITIAL VAC.	15.0	in.	CFM	0.001
MID VAC.	N/A	in.	CFM	N/A
FINAL VAC.	4.0	in.	CFM	0.000

INIT. PITOT + ✓ - ✓ FINAL PITOT + ✓ - ✓

FILTER DATA

NUMBER	TARE
Glass	N/A

IMPINGER VOL'S. INIT.	FINAL	RINSE
100	177	N/A
100	112	N/A
0	0	N/A
SILICA GEL		
227.0	236.3	

Orsat CO2	O2
13.43	6.06
13.43	6.06
13.43	6.06
13.43	6.06

Final Purge Rate N/A

Final PH N/A

SAMPLE POINT	CLOCK TIME	VELOCITY HEAD DeltaP, in wc	ORIFICE METER VOL. DeltaH, in wc	GAS METER VOLUME ft³	TEMPERATURE READINGS, °F STACK	PROBE	OVEN	ORGANIC MODULE	IMPINGER	GAS METER IN	GAS METER OUT	PUMP VACUUM in. Hg	COMMENTS
D	0	N/A	1.90	783.742	N/A	253	250	N/A	68	101	99	3.0	
	5	N/A		787.992	N/A	250	249	N/A	52	102	98	3.0	
	10	N/A		791.762	N/A	241	248	N/A	50	103	98	3.0	
	15	N/A		795.702	N/A	242	248	N/A	53	104	98	3.0	
	20	N/A		799.615	N/A	240	247	N/A	50	104	98	3.0	
	25	N/A		803.518	N/A	249	248	N/A	49	105	98	3.0	
	30	N/A		807.381	N/A	247	248	N/A	49	105	98	3.0	
	35	N/A		811.392	N/A	250	249	N/A	49	106	98	3.5	
	40	N/A		815.391	N/A	243	248	N/A	50	106	98	3.5	
	45	N/A		819.340	N/A	245	248	N/A	50	107	99	3.5	
	50	N/A		823.520	N/A	244	248	N/A	48	108	99	3.5	
	55	N/A		827.550	N/A	244	247	N/A	48	108	100	3.5	
STOP	60			831.294									

Net Moisture Gain = 98.3 grams

% Moisture = 9.6

QA/QC 12/10/07 FJS

ENSR | AECOM

EPA ISOKINETIC SAMPLING - FIELD DATA SHEET

Sampling Train	Method 4 Moisture
Run Number	5 and 6
Client	AES Puerto Rico, L.P.
Facility Location	Guayama, Puerto Rico
Source	Unit #2
Date	12/ 5 /2007
Operator	F. Sanguedolce
Stack Dia. - in.	192
Start Time	14:52
Stop Time	15:52

Barometric Pressure	29.75 in. Hg
Static Pressure (+/-)	N/A
Probe/Pitot Number	M4-6'-A
Pitot Coefficient	0.84
Filter Box No.	HB-21
Meter Box No.	80582
Orifice Coefficient (Y)	0.975
Delta H @	1.816
Nozzle Size/No.	0.500
XAD Thermocouple ID:	N/A
Imp Outlet TC ID:	4

LEAK CHECKS in "Hg

INITIAL VAC.	15.0	in.	CFM	0.001
MID VAC.	N/A	in.	CFM	N/A
FINAL VAC.	4.0	in.	CFM	0.000

INIT. PITOT + - ✓✓ FINAL PITOT + - ✓✓

FILTER DATA

NUMBER	TARE
Glass	N/A

IMPINGER VOL'S. INIT.	FINAL	RINSE
100	180	N/A
100	113	N/A
0	0	N/A

SILICA GEL	
229.2	236.4

Orsat CO2	O2
13.37	6.11
13.37	6.11
13.37	6.11
13.37	6.11

Final Purge Rate N/A

Final PH N/A

SAMPLE POINT	CLOCK TIME	VELOCITY HEAD DeltaP, in wc	ORIFICE METER VOL. DeltaH, in wc	GAS METER VOLUME ft^3	TEMPERATURE READINGS, °F STACK	PROBE	OVEN	ORGANIC MODULE	IMPINGER	GAS METER IN	GAS METER OUT	PUMP VACUUM in. Hg	COMMENTS
D	0	N/A	1.90	831.465	N/A	247	253	N/A	66	103	102	3.5	
	5	N/A		835.695	N/A	243	249	N/A	49	104	101	3.5	
	10	N/A		839.828	N/A	241	249	N/A	48	105	100	3.0	
	15	N/A		843.741	N/A	247	249	N/A	46	106	100	3.0	
	20	N/A		847.737	N/A	241	248	N/A	47	107	100	3.0	
	25	N/A		851.706	N/A	241	247	N/A	47	107	100	3.0	
	30	N/A		855.671	N/A	243	248	N/A	46	108	100	3.0	
	35	N/A		859.658	N/A	239	246	N/A	46	107	100	3.0	
	40	N/A		863.653	N/A	244	247	N/A	47	108	100	3.0	
	45	N/A		867.650	N/A	246	245	N/A	47	108	100	3.0	
	50	N/A		871.639	N/A	250	254	N/A	48	108	101	3.0	
	55	N/A		875.792	N/A	243	244	N/A	48	109	101	3.5	
STOP	60			879.606									

Net Moisture Gain = 100.2 grams

% Moisture = 9.7

QA/QC
12/10/07
FJS

ENSR | AECOM

EPA ISOKINETIC SAMPLING - FIELD DATA SHEET

Sampling Train	Method 4 Moisture
Run Number	7 and 8
Client	AES Puerto Rico, L.P.
Facility Location	Guayama, Puerto Rico
Source	Unit #2
Date	12/ 5 /2007
Operator	F. Sanguedolce
Stack Dia. - in.	192
Start Time	16:06
Stop Time	17:06

Barometric Pressure	29.75 in. Hg
Static Pressure (+/-)	N/A
Probe/Pitot Number	M4-6'-A
Pitot Coefficient	0.84
Filter Box No.	HB-21
Meter Box No.	80588
Orifice Coefficient (Y)	0.975
Delta H @	1.816
Nozzle Size/No.	0.500
XAD Thermocouple ID:	N/A
Imp Outlet TC ID:	LI-4

LEAK CHECKS in "Hg

INITIAL VAC.	15.0	in.	CFM	0.002
MID VAC.	N/A	in.	CFM	N/A
FINAL VAC.	3.5	in.	CFM	0.000

INIT. PITOT + ✓ ✓ FINAL PITOT + ✓ ✓

FILTER DATA

NUMBER	TARE
Glass	N/A

IMPINGER VOL'S.		
INIT.	FINAL	RINSE
100	182	N/A
100	112	N/A
0	0	N/A
SILICA GEL		
229.1	237.7	

Orsat	
CO2	O2
13.49	5.96
13.49	5.96
13.49	5.96
13.49	5.96

Final Purge Rate N/A

Final PH N/A

SAMPLE POINT	CLOCK TIME	VELOCITY HEAD DeltaP, in wc	ORIFICE METER VOL. DeltaH, in wc	GAS METER VOLUME ft³	TEMPERATURE READINGS, °F STACK	PROBE	OVEN	ORGANIC MODULE	IMPINGER	GAS METER IN	GAS METER OUT	PUMP VACUUM in. Hg	COMMENTS
D	0	N/A	1.90	879.982	N/A	243	250	N/A	62	105	103	2.5	
	5	N/A		884.201	N/A	243	247	N/A	47	106	101	2.5	
	10	N/A		888.145	N/A	242	248	N/A	46	107	101	2.5	
	15	N/A		892.100	N/A	241	247	N/A	47	108	101	2.5	
	20	N/A		896.113	N/A	247	247	N/A	46	108	102	3.0	
	25	N/A		900.050	N/A	243	246	N/A	45	109	102	3.0	
	30	N/A		904.039	N/A	245	247	N/A	44	109	102	3.0	
	35	N/A		908.070	N/A	241	246	N/A	44	109	102	3.0	
	40	N/A		911.975	N/A	240	247	N/A	44	109	102	3.0	
	45	N/A		916.050	N/A	247	246	N/A	44	109	102	3.0	
	50	N/A		920.075	N/A	244	246	N/A	44	110	103	3.0	
	55	N/A		924.105	N/A	244	247	N/A	44	110	103	3.0	
STOP	60		✓	928.106									

Net Moisture Gain = 102.6 grams

% Moisture = 9.9

QA/QC
12/10/07
FJS

ENSR | AECOM

EPA ISOKINETIC SAMPLING - FIELD DATA SHEET

Sampling Train	Method 4 Moisture
Run Number	9 and 10
Client	AES Puerto Rico, L.P.
Facility Location	Guayama, Puerto Rico
Source	Unit #2
Date	12/5/2007
Operator	F. Sanguedolce
Stack Dia. - in.	192
Start Time	17:17
Stop Time	18:17

Barometric Pressure	29.78 in. Hg
Static Pressure (+/-)	N/A
Probe/Pitot Number	M4-6'-A
Pitot Coefficient	0.84
Filter Box No.	HB-21
Meter Box No.	80582
Orifice Coefficient (Y)	0.975
Delta H @	1.816
Nozzle Size/No.	0.500
XAD Thermocouple ID:	N/A
Imp Outlet TC ID:	LI-4

LEAK CHECKS in "Hg

INITIAL VAC.	15.0 in.	CFM	0.001
MID VAC.	N/A in.	CFM	N/A
FINAL VAC.	3.5 in.	CFM	0.000

INIT. PITOT + ✓✓ FINAL PITOT + ✓✓

FILTER DATA

NUMBER	TARE
Glass	N/A

IMPINGER VOL'S. INIT.	FINAL	RINSE
100	180	N/A
100	113	N/A
0	1	N/A

SILICA GEL	
226.7	234.2

Orsat	
CO2	O2

Final Purge Rate N/A

Final PH N/A

SAMPLE POINT	CLOCK TIME	VELOCITY HEAD DeltaP, in we	ORIFICE METER VOL. DeltaH, in we	GAS METER VOLUME ft³	TEMPERATURE READINGS, °F STACK	PROBE	OVEN	ORGANIC MODULE	IMPINGER	GAS METER IN	GAS METER OUT	PUMP VACUUM in. Hg	COMMENTS
D	0	N/A	1.90	928.365	N/A	245	254	N/A	67	106	104	3.0	
	5	N/A		932.890	N/A	246	249	N/A	51	106	103	3.0	
	10	N/A		936.320	N/A	240	247	N/A	49	107	102	3.0	
	15	N/A		940.450	N/A	242	247	N/A	48	107	101	3.0	
	20	N/A		944.400	N/A	243	246	N/A	47	108	102	3.0	
	25	N/A		948.410	N/A	241	246	N/A	46	107	101	3.0	
	30	N/A		952.400	N/A	243	247	N/A	46	108	101	3.0	
	35	N/A		956.502	N/A	246	247	N/A	44	108	102	3.0	
	40	N/A		960.440	N/A	247	246	N/A	44	109	102	3.0	
	45	N/A		964.464	N/A	243	249	N/A	43	108	102	3.0	
	50	N/A		968.448	N/A	240	247	N/A	43	109	102	3.0	
	55	N/A		972.500	N/A	244	246	N/A	44	109	102	3.0	
STOP	60			976.365									

Net Moisture Gain = 101.5 grams

% Moisture = 9.9

QA/QC 12/10/07 FJS

APPENDIX B

Facility RA Data

AES Facility Data
CEMS and Opacity
Unit 1

Unit 1 - CEM AES Plant Data

RATA-1 Record#	DATE	TIME	NOX11	GEN12	SO213	CO214	FLO15	NOX_RT17	SO2_RT18	CO_RT19	CO_CORR11	NOXCORR	SO2CORR112	OXY114	SO2L115	NOXL116	COL117
1	12/6/2007	100000	57.5	254.3	7.32	12.19	624.63	0.093	0.017	0.041	40.5	52.5	6.8	5.66	7.38	57.8	44.3
2	12/6/2007	100100	58.4	254.3	7.53	12.18	628.31	0.094	0.017	0.041	40.6	53.8	6.9	5.72	7.61	58.7	44.4
3	12/6/2007	100200	57.9	254.4	8.26	12.17	628.31	0.094	0.018	0.041	40.8	53.2	7.7	5.74	8.33	58.1	44.5
4	12/6/2007	100300	57.4	254.4	8.05	12.18	628.35	0.093	0.018	0.041	40.8	52.7	7.4	5.71	8.09	57.4	44.6
5	12/6/2007	100400	57.3	254.3	8.34	12.19	628.96	0.092	0.018	0.041	40.8	52.5	7.7	5.7	8.36	57.5	44.5
6	12/6/2007	100500	57.2	254.4	7.02	12.18	628.4	0.092	0.016	0.041	41	52.4	6.5	5.7	7.09	57.5	44.8
7	12/6/2007	100600	57.2	254.4	6.09	12.15	628.14	0.092	0.014	0.041	41.2	52.5	5.7	5.73	6.17	57.4	45.1
8	12/6/2007	100700	58	254.4	6.75	12.17	627.09	0.093	0.015	0.041	40.8	53.3	6.1	5.73	6.78	58	44.6
9	12/6/2007	100800	57.5	254.5	6.72	12.17	628.18	0.093	0.015	0.042	41.2	52.9	6.2	5.74	6.78	57.8	44.9
10	12/6/2007	100900	57.1	254.5	6.22	12.17	629.1	0.093	0.014	0.041	41	52.7	5.8	5.74	6.28	57.4	44.9
11	12/6/2007	101000	57.9	254.3	7.05	12.16	628.53	0.094	0.016	0.041	41	53.4	6.4	5.72	7.12	58.2	44.6
12	12/6/2007	101100	58.4	254.4	6.72	12.14	628.04	0.094	0.015	0.041	40.8	53.7	6.3	5.74	6.77	58.5	44.6
13	12/6/2007	101200	57.8	254.2	6.36	12.17	625.2	0.093	0.014	0.041	41	53.3	5.8	5.72	6.41	58	44.8
14	12/6/2007	101300	58.2	254.4	6.73	12.15	622.32	0.094	0.015	0.042	41.4	53.3	6.2	5.71	6.77	58.3	45.2
15	12/6/2007	101400	58.1	254.3	6.93	12.16	624.63	0.094	0.016	0.042	41.7	53.6	6.4	5.75	6.98	58.4	45.4
16	12/6/2007	101500	57.5	254.3	6.25	12.18	624.77	0.093	0.014	0.042	41.6	52.6	5.8	5.71	6.28	57.7	45.5
17	12/6/2007	101600	57.8	254.4	6.54	12.19	625.16	0.093	0.015	0.042	41.3	52.9	6	5.7	6.62	57.9	45.1
18	12/6/2007	101700	57.8	254.4	6.49	12.15	625.07	0.093	0.015	0.041	41.2	53.1	6	5.71	6.59	58	45.1
19	12/6/2007	101800	57.2	254.4	7.03	12.21	626.52	0.093	0.016	0.041	41.1	52.6	6.5	5.71	7.07	57.4	44.8
20	12/6/2007	101900	57.5	254.3	6.42	12.22	626.6	0.092	0.015	0.041	41.1	52.5	6	5.62	6.48	57.8	45.1
21	12/6/2007	102000	58.7	254.4	6.35	12.19	627.26	0.094	0.014	0.041	41.2	53.8	5.9	5.67	6.44	59	45.2
22	12/6/2007	102100	57.8	254.3	6.58	12.23	620.48	0.093	0.015	0.042	41.6	53	6.2	5.7	6.64	58	45.4
23	12/6/2007	102200	58.1	254.4	6.77	12.24	619.65	0.094	0.015	0.042	41.4	53.3	6	5.65	6.82	58.4	45.4
24	12/6/2007	102300	57.9	254.4	7.4	12.24	622.97	0.093	0.015	0.041	41.3	52.8	6.8	5.6	7.45	58.1	45.3
25	12/6/2007	102400	57.2	254	7.34	12.26	625.73	0.092	0.015	0.041	41.2	52.5	6.7	5.63	7.39	57.5	45.1
26	12/6/2007	102500	57.1	253.8	7.9	12.27	627.04	0.092	0.017	0.042	41.2	52.1	7.1	5.59	7.92	57.4	45.4
27	12/6/2007	102600	57.4	254.1	8.63	12.3	626.78	0.092	0.019	0.041	41.3	52.4	8	5.59	8.74	57.7	45.5
28	12/6/2007	102700	58.7	254.1	7.62	12.3	624.63	0.093	0.017	0.041	40.9	53.3	7	5.52	7.71	59	45.3
29	12/6/2007	102800	59.4	254.1	8.1	12.26	624.77	0.095	0.018	0.041	41	54.1	7.4	5.62	8.15	59.7	45.2
30	12/6/2007	102900	59.5	254.3	8.19	12.23	625.16	0.095	0.019	0.041	41.1	54.4	7.6	5.62	8.29	59.7	45.2
31	12/6/2007	103000	59.7	254.4	8.92	12.22	625.07	0.097	0.02	0.041	41.4	54.7	8	5.68	8.96	59.9	45.3
32	12/6/2007	103100	60.1	254.2	8.24	12.2	626.52	0.097	0.019	0.042	41.6	55.1	7.6	5.68	8.29	60.2	45.6
33	12/6/2007	103200	59.6	254.3	8.36	12.19	626.6	0.096	0.019	0.041	41.2	54.8	7.8	5.7	8.44	59.8	45.2
34	12/6/2007	103300	60.2	254.3	7.93	12.22	627.26	0.097	0.018	0.041	41.3	54.9	7.2	5.68	7.96	60.2	45.2
35	12/6/2007	103400	60.1	254.3	7.15	12.24	627.61	0.097	0.018	0.041	41.1	54.9	6.5	5.64	7.22	60.2	45.2
36	12/6/2007	103500	60	254.2	7.87	12.22	630.98	0.097	0.018	0.041	41.2	54.7	7.2	5.63	7.96	60.4	45.2
37	12/6/2007	103600	60.4	254.3	7.99	12.15	630.1	0.098	0.018	0.042	41.6	55.8	7.4	5.74	8.08	60.9	45.5
38	12/6/2007	103700	60.9	254.3	7.19	12.18	629.58	0.098	0.016	0.042	41.8	56	6.6	5.68	7.25	61	45.8
39	12/6/2007	103800	60.1	254.3	7.78	12.19	630.89	0.097	0.017	0.042	42	55.4	7.1	5.7	7.85	60.5	45.9
40	12/6/2007	103900	59.7	254.4	7.49	12.21	630.02	0.097	0.017	0.042	42.3	55	6.9	5.69	7.54	60	46.3
41	12/6/2007	104000	59.1	254.3	6.87	12.18	624.81	0.095	0.015	0.043	42.9	54.2	6.4	5.73	6.9	59.3	47
42	12/6/2007	104100	59.1	254.5	7.03	12.17	628.22	0.096	0.016	0.043	42.7	54.4	6.4	5.69	7.04	59.4	46.8
43	12/6/2007	104200	59.3	254.4	6.88	12.12	627.78	0.097	0.016	0.043	43.2	54.6	6.5	5.74	6.98	59.5	47.2
44	12/6/2007	104300	58.5	254.2	6.49	12.14	624.5	0.095	0.015	0.044	43.6	54.1	6	5.74	6.54	58.9	47.6
45	12/6/2007	104400	58.4	254.4	6.31	12.15	626.95	0.094	0.014	0.043	43.3	53.9	5.8	5.73	6.39	58.7	47.3
46	12/6/2007	104500	58.5	254.3	6.24	12.15	627.35	0.094	0.014	0.044	43.9	53.8	5.9	5.73	6.3	58.7	48
47	12/6/2007	104600	57.5	254.4	6.42	12.19	623.02	0.093	0.014	0.044	43.6	53	5.9	5.71	6.49	57.8	47.5
48	12/6/2007	104700	57.6	254.4	6.45	12.19	622.93	0.093	0.015	0.044	43.4	52.8	5.9	5.68	6.49	57.8	47.6
49	12/6/2007	104800	57.1	254.3	6.38	12.19	623.58	0.092	0.015	0.044	43.6	52.5	5.9	5.69	6.44	57.4	47.7
50	12/6/2007	104900	57.9	254.4	7	12.2	624.29	0.093	0.015	0.043	43.3	53	6.4	5.67	7.06	58.2	47.5
51	12/6/2007	105000	57.6	254.3	6.55	12.19	623.54	0.093	0.015	0.044	43.7	52.8	6.1	5.68	6.61	57.7	47.8
52	12/6/2007	105100	56.6	254.4	6.92	12.24	623.85	0.091	0.015	0.044	43.4	52	6.4	5.65	7	56.9	47.6
53	12/6/2007	105200	57.2	254.5	7.19	12.23	623.94	0.092	0.016	0.043	43.1	52.3	6.5	5.64	7.26	57.6	47.3
54	12/6/2007	105300	57.9	254.4	7.49	12.23	624.99	0.093	0.017	0.043	43.2	53.1	6.9	5.61	7.54	58.2	47.5
55	12/6/2007	105400	58.3	254.5	6.83	12.2	625.29	0.094	0.016	0.043	43.1	53.3	6.3	5.62	6.91	58.6	47.4
56	12/6/2007	105500	58.1	254.3	7.16	12.2	625.46	0.093	0.016	0.043	43.3	53.2	6.6	5.66	7.25	58.3	47.5
57	12/6/2007	105600	58.3	254.4	6.92	12.22	624.59	0.094	0.015	0.044	43.5	53.4	6.4	5.65	7.01	58.6	47.7
58	12/6/2007	105700	58.8	254.3	6.53	12.21	624.37	0.094	0.015	0.044	43.7	53.7	6.1	5.66	6.59	59	47.9
59	12/6/2007	105800	58.9	254.4	6.96	12.19	624.15	0.095	0.015	0.044	43.7	54.1	6.4	5.69	7.02	59.1	47.7
60	12/6/2007	105900	58.8	254.5	6.99	12.18	624.29	0.095	0.016	0.044	43.6	53.9	6.4	5.68	7.03	58.9	47.7
61	12/6/2007	110000	59.1	254.4	6.92	12.18	624.81	0.095	0.016	0.044	43.5	54.2	6.4	5.68	6.94	59.3	47.7
62	12/6/2007	110100	58.7	254.5	6.95	12.2	629.18	0.094	0.015	0.044	43.7	53.9	6.3	5.68	7.01	58.9	47.8
63	12/6/2007	110200	58.4	254.3	6.8	12.21	628.88	0.094	0.015	0.044	44	53.5	6.3	5.7	6.9	58.5	48.2
64	12/6/2007	110300	58.8	254.4	6.99	12.19	628.44	0.095	0.016	0.044	43.7	53.9	6.4	5.68	7.02	59	47.8
65	12/6/2007	110400	58.1	254.4	6.67	12.24	631.11	0.093	0.015	0.044	43.9	53.3	6.2	5.65	6.71	58.4	48.2
66	12/6/2007	110500	58.2	254.4	6.5	12.22	630.19	0.093	0.015	0.044	43.9	53.2	6	5.62	6.59	58.4	48.2
67	12/6/2007	110600	58.1	254.3	7.04	12.22	629.05	0.094	0.016	0.044	44.1	53.3	6.4	5.67	7.11	58.3	48.3
68	12/6/2007	110700	58.8	254.4	6.49	12.23	627.48	0.094	0.015	0.045	44.4	53.7	6.1	5.66	6.59	59	48.5
69	12/6/2007	110800	59.1	254.3	6.03	12.22	625.47	0.095	0.014	0.044	44.2	54.1	5.6	5.68	6.09	59.5	48.5
70	12/6/2007	110900	59.6	254.4	5.73	12.19	623.23	0.095	0.013	0.045	44.4	54.4	5.3	5.67	5.8	59.7	48.8
71	12/6/2007	111000	58.7	254.4	6.15	12.17	622.18	0.094	0.014	0.045	44.8	54	5.6	5.73	6.21	58.8	49
72	12/6/2007	111100	59.1	254.4	5.74	12.18	622.27	0.095	0.013	0.045	44.7	54	5.4	5.69	5.81	59.2	48.7
73	12/6/2007	111200	58.1	254.4	5.97	12.19	622.45	0.093	0.014	0.045	44.8	53.7	5.5	5.69	6.06	58.5	49
74	12/6/2007	111300	57.7	254.4	6.41	12.19	624.63	0.093	0.014	0.045	44.5	52.6	5.9	5.64	6.51	57.8	48.9
75	12/6/2007	111400	58.2	254.4	5.74	12.23	625.6	0.093	0.013	0.045	44.4	53	5.4	5.64	5.79	58.3	48.7
76	12/6/2007	111500	58.1	254.3	5.48	12.2	624.9	0.094	0.012	0.044	44.3	53.3	5.1	5.64	5.58	58.5	48.5
77	12/6/2007	111600	58.2	254.3	5.91	12.2	625.51	0.093	0.013	0.045	44.5	53.1	5.4	5.65	5.97	58.4	48.8
78	12/6/2007	111700	57.8	254.3	5.68	12.2	625.42	0.093	0.013	0.045	44.5	52.9	5.3	5.64	5.77	58	48.8
79	12/6/2007	111800	58.3	254.4	5.66	12.18	625.38	0.094	0.013	0.045	44.7	53.6	5.2	5.68	5.77	58.6	48.8
80	12/6/2007	111900	58.4	254.5	6.81	12.18	624.42	0.095	0.015	0.045	45.1	53.6	6.3	5.7	6.89	58.7	49.3
81	12/6/2007	112000	58.7	254.4	5.47	12.19	624.2	0.094	0.012	0.045	44.7	53.5	5	5.65	5.53	58.9	49
82	12/6/2007	112100	57.8	254.4	5.84	12.18	624.02	0.094	0.013	0.045	45	53.3	5.3	5.7	5.87	58.3	49.2
83	12/6/2007	112200	58.3	254.4	5.99	12.19	624.68	0.094	0.014	0.045	45	53.5	5.5	5.67	6.03	58.6	49.4

Run # 1

NOX	SO2	CO2	NOXlb	SO2lb	COlb	COcorr	NOXcorr	SO2corr	O2%	CO
57.7	6.83	12.20	0.093	0.015	0.041	41.21	52.94	8.29	5.89	45.08

Flow
625.8

Run # 2

NOX	SO2	CO2	NOXlb	SO2lb	COlb	COcorr	NOXcorr	SO2corr	O2%	CO
58.18182	6.79	12.19	0.094	0.015	0.044	43.50	53.41	8.26	5.88	47.64

Flow
625.3

84	12/6/2007	112300	58.4	254.3	5.68	12.19	625.18	0.093	0.013	0.045	45	53.2	5.3	5.65	5.73	58.5	49.5
85	12/6/2007	112400	57.9	254.3	5.59	12.19	625.95	0.093	0.013	0.046	45.4	53.2	5.1	5.66	5.68	58.1	49.6
86	12/6/2007	112500	57.8	254.6	6.14	12.16	627.22	0.093	0.014	0.045	45.3	53.1	5.7	5.69	6.21	58.1	49.5
87	12/6/2007	112600	57.6	254.4	5.73	12.15	628.09	0.093	0.013	0.046	45.5	52.8	5.4	5.71	5.8	57.9	49.8
88	12/6/2007	112700	56.9	254.4	6.07	12.19	628.22	0.091	0.013	0.046	45.5	52.2	5.5	5.67	6.14	57.2	49.8
89	12/6/2007	112800	57.7	254.3	5.83	12.17	626.52	0.093	0.013	0.046	45.7	53	5.4	5.7	5.92	58	50.1
90	12/6/2007	112900	56.7	254.4	6.42	12.18	626.34	0.091	0.014	0.046	45.4	52	5.9	5.65	6.46	57.1	49.8
91	12/6/2007	113000	57.3	254.3	6.06	12.18	627.22	0.092	0.014	0.046	45.6	52.6	5.6	5.65	6.13	57.6	50.1
92	12/6/2007	113100	57.1	254.4	6.2	12.19	624.81	0.092	0.014	0.046	45.8	52.3	5.8	5.66	6.28	57.2	50.2
93	12/6/2007	113200	57.3	254.3	6.24	12.2	623.28	0.092	0.014	0.046	45.5	52.4	5.8	5.67	6.27	57.6	49.8
94	12/6/2007	113300	58.2	254.5	6.01	12.16	621.61	0.093	0.014	0.046	45.4	53.1	5.5	5.66	6.04	58.4	49.9
95	12/6/2007	113400	58.8	254.3	5.53	12.17	620.13	0.094	0.013	0.046	45.8	53.8	5.1	5.67	5.61	59.1	50.1
96	12/6/2007	113500	59.2	254.4	5.9	12.1	619.39	0.095	0.013	0.046	45.6	54.4	5.4	5.72	5.95	59.4	49.9
97	12/6/2007	113600	59.2	254.4	5.14	12.14	619.17	0.096	0.012	0.046	45.9	54.5	4.8	5.74	5.19	59.4	50.1
98	12/6/2007	113700	59.5	254.4	4.91	12.11	620.13	0.097	0.011	0.046	45.7	55.1	4.6	5.75	4.99	59.8	49.9
99	12/6/2007	113800	59.3	254.4	4.72	12.16	623.72	0.096	0.01	0.046	46	54.5	4.4	5.72	4.77	59.6	50.3
100	12/6/2007	113900	59.3	254.3	4.93	12.15	626.16	0.096	0.011	0.046	45.8	54.5	4.6	5.69	5.02	59.7	50.1
101	12/6/2007	114000	59.7	254.3	5.25	12.16	627.48	0.096	0.012	0.046	45.7	54.7	4.9	5.7	5.3	59.9	50
102	12/6/2007	114100	59.2	254.4	4.96	12.14	631.11	0.096	0.011	0.046	46.1	54.4	4.6	5.7	5.02	59.4	50.4
103	12/6/2007	114200	59.5	254.6	5.57	12.16	632.64	0.096	0.013	0.046	45.9	54.6	5.1	5.72	5.63	59.8	50.1
104	12/6/2007	114300	59.3	254.3	5.19	12.16	632.2	0.095	0.012	0.046	46.4	54.3	4.8	5.69	5.25	59.5	50.6
105	12/6/2007	114400	58.9	254.3	5.53	12.11	629.71	0.095	0.012	0.047	46.4	54.6	4.9	5.76	5.38	59.1	50.5
106	12/6/2007	114500	58.3	254.4	5.07	12.19	629.23	0.094	0.012	0.047	46.5	53.4	4.7	5.67	5.14	58.5	51
107	12/6/2007	114600	59.4	254.3	5.23	12.2	628.83	0.094	0.012	0.046	46.2	54.1	4.8	5.63	5.27	59.5	50.9
108	12/6/2007	114700	59.3	254.4	5.41	12.17	627.74	0.095	0.012	0.046	46.3	54.4	5	5.69	5.51	59.6	50.6
109	12/6/2007	114800	57.6	254.3	6.15	12.22	625.46	0.093	0.014	0.047	46.3	52.8	5.6	5.64	6.23	57.8	50.9
110	12/6/2007	114900	57.9	254.3	5.79	12.24	625.03	0.092	0.013	0.046	46.2	52.6	5.4	5.6	5.84	58	50.8
111	12/6/2007	115000	58.6	254.4	5.98	12.21	623.85	0.094	0.013	0.046	45.9	53.5	5.4	5.63	6.04	58.8	50.5
112	12/6/2007	115100	58	254.4	5.89	12.23	623.89	0.093	0.013	0.047	46.4	53.3	5.4	5.63	5.99	58.4	51
113	12/6/2007	115200	58	254.4	6.16	12.19	624.33	0.093	0.014	0.047	46.4	53.1	5.7	5.64	6.26	58.4	50.8
114	12/6/2007	115300	58.7	254.4	5.62	12.22	625.55	0.094	0.013	0.047	46.5	53.5	5.2	5.62	5.71	58.8	51
115	12/6/2007	115400	59.6	254.4	5.1	12.22	629.01	0.095	0.012	0.046	46.1	54.3	4.7	5.62	5.18	59.8	50.7
116	12/6/2007	115500	59.3	254.4	5.09	12.22	628.44	0.095	0.012	0.046	46	54.1	4.7	5.6	5.12	59.5	50.5
117	12/6/2007	115600	58.5	254.4	5.39	12.22	628.18	0.094	0.013	0.046	46.3	53.8	5.1	5.65	5.48	58.9	50.7
118	12/6/2007	115700	59.8	254.4	5.5	12.04	627.18	0.095	0.013	0.046	46	54.1	5	5.61	5.56	59.9	50.5
119	12/6/2007	115800	59.9	254.3	4.66	11.37	624.46	0.096	0.011	0.047	46.7	55.1	4.6	5.7	4.91	60.1	51.4
120	12/6/2007	115900	59.9	254.3	5.68	11.46	623.93	0.097	0.013	0.047	46.7	55.3	5.1	5.71	5.73	60.1	50.9
121	12/6/2007	120000	60.2	254.3	5.97	11.57	623.62	0.098	0.013	0.047	47	55.3	5.5	5.74	6.05	60.5	51.2
122	12/6/2007	120100	60.3	254.3	5.89	11.9	622.1	0.098	0.013	0.047	46.9	55.3	5.5	5.71	5.97	60.6	51.2
123	12/6/2007	120200	60.4	254.3	5.06	12.12	621.18	0.097	0.011	0.047	47.3	55.3	4.7	5.7	5.14	60.6	51.6
124	12/6/2007	120300	59.6	254.4	4.76	12.15	618.95	0.096	0.011	0.047	47	54.7	4.3	5.7	4.83	59.8	51.4
125	12/6/2007	120400	58.7	254.4	5.1	12.22	620.87	0.095	0.012	0.047	47.2	53.9	4.7	5.66	5.2	58.9	51.6
126	12/6/2007	120500	59.8	254.2	5.38	12.22	622.58	0.096	0.012	0.048	46.3	54.2	4.9	5.6	5.44	60.1	50.9
127	12/6/2007	120600	60.3	254.5	5.22	12.17	626.03	0.097	0.012	0.047	46.8	55.3	4.9	5.67	5.29	60.6	51.4
128	12/6/2007	120700	59.7	254.4	5.13	12.21	626.91	0.096	0.012	0.047	46.8	54.6	4.7	5.64	5.18	59.9	51.4
129	12/6/2007	120800	60.3	254.5	5.26	12.16	626.95	0.097	0.012	0.047	47.1	55.5	4.8	5.67	5.28	60.4	51.7
130	12/6/2007	120900	61.2	254.4	4.8	12.13	625.2	0.098	0.011	0.047	46.8	56.2	4.4	5.68	4.85	61.6	51.4
131	12/6/2007	121000	61.2	254.3	4.63	12.16	625.33	0.098	0.011	0.047	47	56.1	4.3	5.68	4.68	61.4	51.2
132	12/6/2007	121100	61.7	254.4	4.96	12.14	625.12	0.1	0.011	0.047	46.8	57.2	4.6	5.73	4.98	62.2	51
133	12/6/2007	121200	61.6	254.2	5.02	12.14	623.23	0.099	0.011	0.047	47	56.3	4.6	5.72	5.07	62	51.5
134	12/6/2007	121300	61.8	254.4	4.81	12.13	623.54	0.1	0.011	0.048	47.7	57	4.5	5.74	4.88	62	52
135	12/6/2007	121400	61	254.5	4.48	12.13	623.67	0.098	0.01	0.048	47.9	56.1	4.2	5.74	4.52	61.3	52.2
136	12/6/2007	121500	60.3	254.4	4.22	12.14	625.38	0.097	0.009	0.048	47.8	55.6	3.9	5.72	4.21	60.6	52.3
137	12/6/2007	121600	60.5	254.4	4.43	12.19	625.82	0.097	0.01	0.048	47.8	55.3	4.1	5.68	4.51	60.6	52.4
138	12/6/2007	121700	59.9	254.3	5.16	12.17	629.18	0.097	0.011	0.048	47.6	55.4	4.5	5.68	5.21	60.2	52.1
139	12/6/2007	121800	60.3	254.4	5.2	12.18	629.18	0.097	0.012	0.048	47.6	55.1	4.9	5.65	5.25	60.6	52.2
140	12/6/2007	121900	60.8	254.4	4.74	12.14	629.49	0.098	0.01	0.048	47.5	55.2	4.3	5.69	4.75	60.9	52
141	12/6/2007	122000	61.4	254.4	4.85	12.13	629.23	0.099	0.011	0.048	47.7	56.6	4.5	5.71	4.87	61.7	52.3
142	12/6/2007	122100	61	254.4	4.45	12.12	627.92	0.099	0.01	0.048	48	56.3	4.1	5.79	4.48	61.2	52.1
143	12/6/2007	122200	61.3	254.3	4.42	12.15	628.57	0.099	0.01	0.048	47.9	56.3	4.1	5.7	4.47	61.6	52.4
144	12/6/2007	122300	61.5	254.4	4.33	12.13	629.14	0.099	0.01	0.048	48	56.6	4	5.71	4.39	61.8	52.5
145	12/6/2007	122400	61.8	254.3	4.19	12.11	631.5	0.1	0.009	0.048	48.2	57.1	3.8	5.74	4.18	62	52.5
146	12/6/2007	122500	62	254.4	4.25	12.1	631.07	0.1	0.009	0.049	48.5	56.9	3.9	5.75	4.28	62.3	52.9
147	12/6/2007	122600	61.6	254.4	4.42	12.08	629.66	0.1	0.01	0.048	48.2	56.8	4.1	5.76	4.45	61.8	52.6
148	12/6/2007	122700	61.5	254.4	4.22	12.11	629.84	0.1	0.01	0.048	48.3	56.7	3.9	5.76	4.26	61.8	52.6
149	12/6/2007	122800	61.8	254.4	4.06	12.13	629.84	0.1	0.009	0.048	48	56.7	3.8	5.72	4.09	62.1	52.4
150	12/6/2007	122900	61.1	254.4	4.04	12.11	625.29	0.099	0.009	0.048	48	56.2	3.8	5.72	4.11	61.3	52.4
151	12/6/2007	123000	60.7	254.3	3.96	12.12	626.04	0.098	0.009	0.048	48.2	55.9	3.7	5.74	4.01	60.9	52.6
152	12/6/2007	123100	59.9	254.5	4.36	12.14	628.48	0.097	0.01	0.048	48.1	55.2	4.1	5.7	4.42	60.2	52.5
153	12/6/2007	123200	60.2	254.3	4.31	12.13	626.78	0.097	0.01	0.049	48.4	55.5	4	5.72	4.39	60.5	53
154	12/6/2007	123300	59.3	254.4	4.63	12.16	628.4	0.096	0.01	0.049	48.3	54.5	4.3	5.71	4.71	59.5	52.8
155	12/6/2007	123400	58.9	254.4	5.23	12.22	629.62	0.095	0.012	0.048	47.9	54.3	4.8	5.64	5.27	59.2	52.6
156	12/6/2007	123500	58.7	254.3	5.5	12.22	626.21	0.094	0.012	0.048	48	53.2	5	5.59	5.56	58.9	52.8
157	12/6/2007	123600	59.5	254.4	5.36	12.2	625.64	0.095	0.012	0.048	47.5	54.1	5	5.61	5.41	59.4	52.4
158	12/6/2007	123700	58.9	254.3	5.21	12.16	625.03	0.095	0.012	0.049	48.2	54.1	4.8	5.65	5.27	59.2	53
159	12/6/2007	123800	58.3	254.3	5.22	12.19	623.19	0.094	0.012	0.049	48.3	53.6	4.8	5.64	5.27	58.7	52.9
160	12/6/2007	123900	58.8	254.4	5.33	12.19	622.97	0.095	0.012	0.048	48.2	53.9	4.9	5.61	5.4	59.2	53
161	12/6/2007	124000	59.3	254.4	5.59	12.16	628.01	0.095	0.013	0.049	48.5	54.1	5.2	5.64	5.66	59.5	53.3
162	12/6/2007	124100	60.1	254.4	5.56	12.15	628.48	0.097	0.013	0.048	48.3	55.1	5.1	5.69	5.6	60.5	52.8
163	12/6/2007	124200	61.4	254.5	5.64	12.14	628.48	0.099	0.013	0.048	48.1	56.4	5.2	5.7	5.71	61.7	52.7
164	12/6/2007	124300	60.9	254.4	4.76	12.09	628.09	0.098	0.012	0.049	48.6	56	4.6	5.75	4.85	61.2	53.3
165	12/6/2007	124400	60.6	254.4	4.76	12.06	625.68	0.099	0.011	0.049	49.4	56.2	4.5	5.8	4.85	60.9	53.5
166	12/6/2007	124500	60.5	254.4	4.38	12.08	623.72	0.097	0.01	0.049	48.8	55.7	4.1	5.74	4.45	60.7	53.3
167	12/6/2007	124600	60.4	254.4	4.19	12.1	624.68	0.098	0.009	0.049	49.3	55.8	3.9	5.77	4.24	60.7	53.6
168	12/6/2007	124700	59.3	254.3	4.28	12.1	625.03	0.096	0.01	0.05	49.6	54.9	4.1	5.76	4.37	59.7	53.9
169	12/6/2007	124800	59.4	254.3	3.86	12.12	627.48	0.096	0.009	0.05	49.4	54.7	3.6	5.73	3.96	59.6	53.9

Run # 3

NOX	SO2	CO2	NOXlb	SO2lb	COlb	COcorr	NOXcorr	SO2corr	O2%	CO
58.23182	5.76	12.17	0.094	0.013	0.046	45.47	53.42	6.31	5.59	49.79

Flow
624.5

Run # 4

NOX	SO2	CO2	NOXlb	SO2lb	COlb	COcorr	NOXcorr	SO2corr	O2%	CO
60.3	5.08	12.06	0.097	0.012	0.047	47.01	55.35	4.68	5.69	51.46

Flow
624.5

170	12/6/2007	124900	58.9	254.4	3.93	12.08	625.33	0.095	0.009	0.05	49.7	53.9	3.6	5.75	3.96	58.8	54.3											
171	12/6/2007	125000	59.7	254.3	3.77	12.09	623.23	0.097	0.009	0.05	50	55.1	3.5	5.78	3.82	60.1	54.5											
172	12/6/2007	125100	59.6	254.2	3.95	12.07	621.92	0.097	0.009	0.05	49.9	55.2	3.7	5.79	4.03	59.8	54											
173	12/6/2007	125200	60	254.4	4.32	12.1	621.74	0.098	0.01	0.05	49.8	55.3	4	5.76	4.38	60.3	54.3											
174	12/6/2007	125300	59.4	254.4	3.92	12.11	619.87	0.096	0.009	0.05	49.8	54.6	3.7	5.75	3.98	59.5	54.4											
175	12/6/2007	125400	58.2	254.5	4.42	12.13	622.93	0.094	0.01	0.05	49.9	53.3	4.2	5.72	4.5	58.3	54.5					Run # 5						
176	12/6/2007	125500	58.2	254.3	4.43	12.11	624.42	0.094	0.01	0.05	49.8	53.5	4.1	5.72	4.48	58.8	54.4	NOX	SO2	CO2	NOXlb	SO2lb	COlb	COcorr	NOXcorr	SO2corr	O2%	CO
177	12/6/2007	125600	57.6	254.4	4.57	12.13	623.38	0.093	0.01	0.05	49.7	52.9	4.2	5.71	4.64	57.7	54.3	59.44091	4.68	12.13	0.096	0.011	0.049	49.06	54.82	4.35	5.71	53.80
178	12/6/2007	125700	58.4	254.2	5.22	12.13	623.98	0.094	0.012	0.05	49.8	53.7	4.8	5.7	5.29	58.7	54.6											
179	12/6/2007	125800	58	254.4	4.95	12.14	624.59	0.094	0.012	0.05	49.7	53.7	4.7	5.69	5.05	58.4	54.6	Flow										
180	12/6/2007	125900	57.8	254.4	4.72	12.13	626.43	0.094	0.011	0.05	50.1	53.2	4.4	5.72	4.78	58.1	54.7	624.8										
181	12/6/2007	130000	57.7	254.3	4.18	12.13	627.13	0.093	0.009	0.05	50	52.9	4	5.69	4.26	57.9	54.6											
182	12/6/2007	130100	57.8	254.3	4.55	12.13	627.48	0.093	0.01	0.05	49.7	53.1	4.2	5.68	4.6	58.3	54.3											
183	12/6/2007	130200	58	254.4	4.53	12.12	629.88	0.093	0.01	0.05	49.9	53.3	4.2	5.69	4.61	58.3	54.6											
184	12/6/2007	130300	57.3	254.4	4.64	12.14	630.27	0.093	0.011	0.05	50	53	4.3	5.69	4.72	57.6	54.8											
185	12/6/2007	130400	58.1	254.5	4.18	12.11	631.29	0.093	0.009	0.05	49.9	53.2	3.9	5.7	4.26	58.4	54.5											
186	12/6/2007	130500	58.2	254.2	3.95	12.12	630.93	0.094	0.009	0.05	50	53.5	3.6	5.69	3.99	58.5	54.8											
187	12/6/2007	130600	58.3	254.3	3.96	12.11	630.87	0.093	0.009	0.05	50	53.5	3.7	5.71	4	58.6	54.7											
188	12/6/2007	130700	57.2	254.4	4.42	12.15	630.54	0.092	0.01	0.05	50.4	52.4	4	5.71	4.44	57.4	55											
189	12/6/2007	130800	56.5	254.3	4.47	12.15	630.19	0.091	0.01	0.051	50.4	51.8	4.2	5.69	4.58	56.6	55.3											
190	12/6/2007	130900	57	254.3	4.71	12.13	630.67	0.091	0.011	0.051	50.5	51.9	4.4	5.71	4.77	57.2	55.1											
191	12/6/2007	131000	57.1	254.4	4.59	12.1	631.55	0.093	0.01	0.051	50.5	52.7	4.3	5.72	4.65	57.6	55.2											
192	12/6/2007	131100	57	254.5	3.95	12.1	631.9	0.092	0.009	0.051	50.5	52.7	3.8	5.71	4.02	57.2	55.3											
193	12/6/2007	131200	57.6	254.2	3.78	12.13	632.68	0.093	0.009	0.051	50.9	52.9	3.4	5.71	3.82	57.9	55.5											
194	12/6/2007	131300	58.1	254.6	4	12.1	628.92	0.094	0.009	0.051	50.8	53.4	3.7	5.75	4.06	58.1	55.3											
195	12/6/2007	131400	58.5	254.3	4.25	12.12	627.35	0.094	0.01	0.051	50.2	53.7	3.9	5.72	4.3	58.7	54.9											
196	12/6/2007	131500	57.7	254.4	4.68	12.14	626.12	0.093	0.01	0.05	49.9	53.4	4.3	5.7	4.75	58	54.7											
197	12/6/2007	131600	57.9	254.3	5.03	12.16	620.91	0.093	0.011	0.05	49.9	52.9	4.6	5.68	5.06	58.1	54.6											
198	12/6/2007	131700	58.3	254.4	4.78	12.14	621.05	0.093	0.01	0.05	50.4	53.1	4.5	5.72	4.81	58.6	55.2											
199	12/6/2007	131800	58	254.4	4.3	12.11	620.13	0.094	0.009	0.051	50.6	53.2	3.9	5.71	4.33	58.3	55.1											
200	12/6/2007	131900	58.4	254.4	4.75	12.12	619.58	0.094	0.011	0.051	50.4	53.2	4.4	5.7	4.82	58.5	55.2											
201	12/6/2007	132000	59.3	254.4	4.22	12.1	619.21	0.096	0.009	0.051	50.8	54.5	3.9	5.72	4.28	59.5	55.4											
202	12/6/2007	132100	58.3	254.5	4.12	12.12	619.12	0.094	0.009	0.051	50.8	53.6	3.8	5.71	4.18	58.6	55.6											
203	12/6/2007	132200	59.4	254.3	4.05	12.09	618.8	0.096	0.009	0.051	50.8	54.6	3.9	5.75	4.13	59.7	55.3											
204	12/6/2007	132300	59.2	254.4	4.01	12.08	623.63	0.096	0.009	0.051	50.6	54.5	3.6	5.74	4.11	59.5	55.3											
205	12/6/2007	132400	59.4	254.4	4.41	12.08	624.94	0.096	0.01	0.051	50.9	54.9	4.2	5.78	4.47	59.5	55.4											
206	12/6/2007	132500	58.8	254.4	4.1	12.09	625.25	0.095	0.009	0.051	50.8	54.1	3.7	5.76	4.11	59	55.4											
207	12/6/2007	132600	58.7	254.3	4.1	12.1	625.55	0.095	0.009	0.052	51.4	53.9	3.9	5.74	4.14	59	56											
208	12/6/2007	132700	58.9	254.3	4.14	12.11	627.17	0.095	0.009	0.051	50.6	54.4	3.9	5.74	4.16	59.3	55.1											
209	12/6/2007	132800	60	254.4	4.35	12.1	624.5	0.097	0.01	0.051	51.1	55.2	4.1	5.75	4.4	60.1	55.7											
210	12/6/2007	132900	59.4	254.3	3.88	12.06	624.51	0.096	0.008	0.052	51.5	55	3.4	5.78	3.78	59.8	55.9											
211	12/6/2007	133000	58.9	254.5	3.7	12.07	627.17	0.095	0.009	0.052	51.4	54.5	3.6	5.77	3.75	59.2	55.9											
212	12/6/2007	133100	58.9	254.4	3.37	12.06	629.49	0.096	0.008	0.052	51.6	54.5	3.1	5.8	3.37	59.3	55.9											
213	12/6/2007	133200	59.6	254.4	3.02	12.06	630.59	0.097	0.007	0.052	51.7	55	2.9	5.79	3.1	59.8	56.2											
214	12/6/2007	133300	59.3	254.5	3.35	12.04	631.37	0.097	0.007	0.052	51.9	55	3.1	5.83	3.38	59.6	56.3											
215	12/6/2007	133400	59	254.3	3.33	12.07	629.62	0.096	0.008	0.052	52	54.6	3.1	5.83	3.35	59.2	56.3					Run # 6						
216	12/6/2007	133500	58	254.4	3.88	12.08	629.93	0.094	0.009	0.052	51.5	53.5	3.6	5.77	3.94	58.2	56	NOX	SO2	CO2	NOXlb	SO2lb	COlb	COcorr	NOXcorr	SO2corr	O2%	CO
217	12/6/2007	133600	57.3	254.4	3.95	12.09	630.23	0.093	0.009	0.052	51.4	53	3.6	5.75	4	57.6	56	58.76	4.08	12.09	0.096	0.009	0.051	51.00	54.12	3.78	5.75	55.57
218	12/6/2007	133700	57.4	254.4	4.53	12.11	629.05	0.093	0.01	0.052	51.4	52.7	4.2	5.73	4.6	57.7	56.2											
219	12/6/2007	133800	58	254.4	4.04	12.11	628.96	0.094	0.009	0.052	51.5	53.2	3.9	5.74	4.09	58.3	56.3	Flow										
220	12/6/2007	133900	58.2	254.4	3.5	12.12	628.79	0.094	0.008	0.052	51.4	53.6	3.2	5.72	3.52	58.6	56.1	625.0										
221	12/6/2007	134000	58.5	254.3	3.2	12.1	627.22	0.095	0.007	0.052	51.4	53.8	3	5.74	3.28	58.8	56											
222	12/6/2007	134100	57.5	254.4	3.46	12.12	625.86	0.093	0.008	0.052	51.4	52.9	3.2	5.7	3.5	57.8	56.2											
223	12/6/2007	134200	56.8	254.3	3.66	12.14	626.08	0.092	0.008	0.052	51.6	52.2	3.4	5.74	3.72	57.1	56.5											
224	12/6/2007	134300	56.9	254.6	4.12	12.13	628.31	0.092	0.009	0.051	51.2	52.1	3.7	5.66	4.18	57.3	56.3											
225	12/6/2007	134400	59.8	254.3	4.06	12.11	629.93	0.097	0.009	0.052	51.4	55	3.8	5.72	4.1	60.2	56.1											
226	12/6/2007	134500	60.5	254.4	4.77	12.1	631.41	0.096	0.011	0.052	51.6	55.6	4.4	5.75	4.82	60.7	56.1											
227	12/6/2007	134600	60.1	254.3	3.74	12.08	631.37	0.096	0.008	0.052	51.5	55.6	3.5	5.79	3.81	60.3	56.1											
228	12/6/2007	134700	60.1	254.3	3.83	12.07	631.98	0.097	0.009	0.052	51.9	55.5	3.6	5.8	3.88	60.3	56.4											
229	12/6/2007	134800	59.7	254.4	3.56	12.1	631.59	0.097	0.008	0.052	52	55.2	3.4	5.8	3.66	60	56.4											
230	12/6/2007	134900	60.6	254.4	3.86	12.08	630.49	0.098	0.008	0.051	51.3	55.7	3.5	5.75	3.94	60.8	55.7											
231	12/6/2007	135000	60.5	254.3	4.84	12.05	626.82	0.099	0.011	0.052	51.6	55.8	4.5	5.85	4.9	60.7	56.2											
232	12/6/2007	135100	59.5	254.4	4.25	12.06	624.64	0.097	0.009	0.052	52.2	55.2	4	5.84	4.31	59.8	56.6											
233	12/6/2007	135200	59.4	254.3	4.06	12.04	624.99	0.097	0.009	0.053	52.3	55.1	3.8	5.84	4.09	59.6	56.8											
234	12/6/2007	135300	58	254.3	4.64	12.07	624.77	0.094	0.011	0.052	51.6	53.7	4.4	5.8	4.72	58.3	56											
235	12/6/2007	135400	56.6	254.6	4.72	12.12	624.5	0.092	0.01	0.052	51.7	52.3	4.3	5.76	4.76	56.9	56.2											
236	12/6/2007	135500	57.5	254.4	5.01	12.11	623.8	0.092	0.011	0.051	51.2	52.5	4.6	5.72	5.09	57.4	55.9											
237	12/6/2007	135600	57.4	254.3	5.52	12.15	627	0.093	0.012	0.051	50.8	52.4	5.1	5.71	5.59	57.5	55.5											
238	12/6/2007	135700	58.3	254.4	5.44	12.13	626.65	0.094	0.012	0.051	50.4	53.4	5	5.69	5.52	58.5	55.2											
239	12/6/2007	135800	57.4	254.4	5.6	12.11	625.68	0.093	0.013	0.051	50.7	53	5.1	5.73	5.66	57.8	55.4											
240	12/6/2007	135900	58.1	254.4	5.09	12.12	625.73	0.093	0.011	0.051	50.7	53.3	4.7	5.68	5.14	58.3	55.4											
241	12/6/2007	140000	57.6	254.4	5.55	12.14	626.21	0.093	0.013	0.051	50.6	53	5.2	5.72	5.63	57.8	55.3											
242	12/6/2007	140100	57.1	254.5	5.79	12.14	627.83	0.092	0.013	0.051	50.7	52.4	5.3	5.7	5.82	57.3	55.6											
243	12/6/2007	140200	57.5	254.4	6.1	12.15	627.52	0.093	0.014	0.051	50.9	52.7	5.6	5.69	6.15	57.7	55.5											
244	12/6/2007	140300	56.8	254.4	5.76	12.13	624.02	0.091	0.013	0.051	50.6	52	5.4	5.68	5.82	56.9	55.5											
245	12/6/2007	140400	55.7	254.4	5.68	12.17	625.6	0.09	0.013	0.051	50.6	51.1	5.2	5.65	5.73	56.1	55.4											
246	12/6/2007	140500	55.6	254.4	5.85	12.15	624.98	0.09	0.013	0.051	50.6	51.1	5.3	5.62	5.89	55.9	55.7											
247	12/6/2007	140600	55.1	254.4	6.12	12.14	623.72	0.089	0.014	0.051	51	50.7	5.7	5.69	6.2	55.3	56											
248	12/6/2007	140700	54.6	254.3	5.66	12.19	625.16	0.087	0.013	0.051	50.8	49.8	5.2	5.6	5.74	54.7	55.9											
249	12/6/2007	140800	54.7	254.4	5.57	12.19	625.2	0.088	0.013	0.051	51.1	49.9	5.1	5.62	5.61	54.9	56.1					Run # 7						
250	12/6/2007	140900	54.7	254.4	5.88	12.18	617.07	0.088	0.013	0.051	50.7	49.9	5.4	5.57	5.94	55	55.9	NOX	SO2	CO2	NOXlb	SO2lb	COlb	COcorr	NOXcorr	SO2corr	O2%	CO
251	12/6/2007	141000	54.9	254.4	5.8	12.15	616.54	0.088	0.013	0.051	50.9	50	5.2	5.63	5.85	55.1	55.7	57.18	5.31	12.13	0.092	0.012	0.051	51.06	52.50	4.89	5.71	55.80
252	12/6/2007	141100	55.7	254.4	5.81	12.16	615.93	0.09	0.013	0.051	50.9	50.9	5.5	5.63	5.88	56	56											
253	12/6/2007	141200	55.7	254.3	5.56	12.15	616.02	0.09	0.013	0.051	51.3	50.9	5.2	5.65	5.62	55.9	56.1	Flow										
254	12/6/2007	141300	55.7	254.4	5	12.14	617.11	0.09	0.011	0.051	51	51.1	4.8	5.65	5.05	55.9	55.9	625.0										
255	12/6/2007	141400	55.4	254.6	5.45	12.18	621.26	0.089	0.012	0.051	51.2	50.7	5	5.64	5.51	55.5	56.2											

256	12/6/2007	141500	55.9	254.4	5.65	12.16	619.56	0.09	0.013	0.051	51.1	51	5.2	5.64	5.7	56.1	56.3
257	12/6/2007	141600	56	254.5	6.22	12.15	618.6	0.09	0.014	0.051	51	51.1	5.7	5.66	6.28	56.1	56
258	12/6/2007	141700	55.4	254.2	5.64	12.16	619.39	0.089	0.013	0.052	51.5	50.8	5.2	5.64	5.66	56.8	56.5
259	12/6/2007	141800	54.8	254.5	5.72	12.19	619.69	0.088	0.013	0.051	51.2	50.3	5.1	5.63	5.8	55.1	56
260	12/6/2007	141900	56.8	254.3	6.3	12.15	618.81	0.091	0.014	0.051	51	51.7	5.7	5.63	6.32	57.2	56.1
261	12/6/2007	142000	56.2	254.4	5.65	12.15	622.45	0.09	0.013	0.052	51.4	51.5	5.4	5.65	5.71	56.3	56.3
262	12/6/2007	142100	56.1	254.4	4.7	12.12	623.93	0.09	0.01	0.052	51.5	51.4	4.4	5.67	4.76	56.3	56.7
263	12/6/2007	142200	56.7	254.4	4.29	12.12	625.12	0.091	0.009	0.052	51.7	52.3	3.9	5.71	4.32	57	56.4
264	12/6/2007	142300	57.8	254.3	4.98	12.11	625.07	0.093	0.011	0.052	51.8	53	4.6	5.7	4.98	57.9	56.6
265	12/6/2007	142400	56.9	254.3	4.42	12.09	625.46	0.092	0.01	0.053	52.4	52.3	4.1	5.74	4.45	57	57.2
266	12/6/2007	142500	56.1	254.4	4.67	12.13	623.8	0.091	0.011	0.052	52.2	51.6	4.4	5.71	4.76	56.3	57
267	12/6/2007	142600	56.8	254.3	4.8	12.17	622.97	0.091	0.011	0.052	52	51.8	4.3	5.67	4.84	56.9	56.9
268	12/6/2007	142700	56.8	254.4	4.65	12.14	619.82	0.091	0.011	0.052	52.2	52	4.3	5.7	4.72	56.6	57
269	12/6/2007	142800	56.5	254.4	4.04	12.14	620.78	0.091	0.009	0.052	52.2	52.1	3.8	5.69	4.09	56.8	57.2
270	12/6/2007	142900	56.6	254.4	4.06	11.35	621.61	0.091	0.009	0.052	51.9	51.9	3.8	5.7	4.12	56.6	56.8
271	12/6/2007	143000	57.3	254.3	4.19	11.34	623.67	0.093	0.01	0.052	52.1	52.9	3.9	5.73	4.24	57.7	56.8
272	12/6/2007	143100	57	254.2	4.05	11.44	626.6	0.092	0.009	0.053	52.2	52.2	3.7	5.72	4.11	57.3	57
273	12/6/2007	143200	57.7	254.4	4.29	11.55	628.44	0.093	0.01	0.052	51.8	52.9	3.9	5.7	4.34	57.9	56.6
274	12/6/2007	143300	58	254.3	4.23	11.81	630.41	0.094	0.009	0.052	52.1	53.3	3.9	5.75	4.27	58.3	56.9
275	12/6/2007	143400	57.6	254.4	4.12	12	629.4	0.093	0.009	0.053	52.3	53.3	3.8	5.77	4.16	57.7	57.2
276	12/6/2007	143500	57.4	254.4	4.05	12.08	628.09	0.093	0.009	0.052	52.3	52.6	3.8	5.74	4.12	57.5	57
277	12/6/2007	143600	56.5	254.2	4.19	12.08	628.96	0.092	0.009	0.053	52.5	51.9	3.9	5.73	4.25	56.8	57.2
278	12/6/2007	143700	56.9	254.4	5	12.1	627.48	0.09	0.011	0.052	52.3	51.2	4.7	5.7	5.08	56	57.2
279	12/6/2007	143800	55.6	254.6	4.57	12.14	626.3	0.089	0.01	0.052	52.3	50.9	4.3	5.68	4.84	55.8	57.2
280	12/6/2007	143900	55.5	254.3	5.02	12.15	629.05	0.09	0.011	0.052	52.1	50.9	4.5	5.65	5.06	55.7	57.1
281	12/6/2007	144000	55	254.4	5.08	12.18	629.27	0.088	0.012	0.052	51.8	50.1	4.7	5.6	5.12	55.3	57.1
282	12/6/2007	144100	54.6	254.3	5.08	12.16	627.87	0.088	0.011	0.052	52	49.9	4.6	5.63	5.13	54.8	57.4
283	12/6/2007	144200	53.9	254.6	5.56	12.15	630.36	0.086	0.012	0.052	51.9	49.2	5	5.62	5.6	54	57
284	12/6/2007	144300	55	254.2	5.91	12.2	630.06	0.087	0.013	0.051	51.2	50	5.4	5.61	5.95	55.2	56.4
285	12/6/2007	144400	54.6	254.4	5.99	12.17	624.77	0.088	0.014	0.052	51.5	49.7	5.5	5.61	6.04	54.6	56.6
286	12/6/2007	144500	54.6	254.5	5.63	12.21	622.49	0.086	0.013	0.051	51	49.3	5.2	5.54	5.68	54.7	56.4
287	12/6/2007	144600	55.9	254.4	5.22	12.19	621.17	0.09	0.012	0.051	51.1	51	4.8	5.6	5.27	56.2	56.2
288	12/6/2007	144700	56.4	254.4	5.94	12.19	620.43	0.09	0.013	0.051	50.8	51.5	5.5	5.8	6.03	56.6	55.8
289	12/6/2007	144800	55.2	254.2	6.01	12.19	616.41	0.089	0.013	0.051	50.8	50.3	5.5	5.59	6.11	55.4	56
290	12/6/2007	144900	55.2	254.4	6.12	12.22	617.03	0.088	0.014	0.051	50.9	50	5.7	5.55	6.2	55.4	56.2
291	12/6/2007	145000	54.6	254.3	6.49	12.22	618.64	0.087	0.014	0.051	51	49.6	5.9	5.58	6.57	54.6	56.3
292	12/6/2007	145100	53.6	254.4	6.92	12.21	620.43	0.086	0.015	0.051	51	48.6	6.4	5.55	7.01	53.7	56.3
293	12/6/2007	145200	53.4	254.3	6.99	12.22	621.04	0.085	0.016	0.051	50.8	48.6	6.3	5.56	7.05	53.7	56.1
294	12/6/2007	145300	53.3	254.4	8.13	12.24	620.91	0.085	0.018	0.051	51.2	48.5	7.5	5.53	8.24	53.5	56.5
295	12/6/2007	145400	53.7	254.3	7.72	12.24	622.71	0.086	0.017	0.051	51	49	7	5.53	7.82	54.2	56.3
296	12/6/2007	145500	55.2	254.5	8.93	12.2	620.92	0.088	0.02	0.051	50.8	50	8.1	5.58	9.05	55.4	56
297	12/6/2007	145600	58.9	254.5	7.85	12.24	620.34	0.093	0.018	0.05	49.7	53.2	7.2	5.58	7.94	59.1	54.5
298	12/6/2007	145700	61	254.3	7.93	12.22	620.3	0.097	0.018	0.049	48.4	55.5	7.3	5.57	7.98	61	53.4
299	12/6/2007	145800	62.9	254.4	7.23	12.21	620.43	0.1	0.016	0.049	48.2	57.1	6.6	5.6	7.29	63.2	53
300	12/6/2007	145900	63.3	254.4	7.91	12.15	620.08	0.101	0.018	0.049	48.5	58.1	7.3	5.66	7.95	63.5	53.3
301	12/6/2007	150000	63.2	254.4	8.09	12.17	620.21	0.102	0.018	0.049	48.3	57.7	7.4	5.68	8.14	63.2	52.9
302	12/6/2007	150100	62.2	254.3	7.4	12.13	620.91	0.1	0.017	0.048	48.2	56.9	6.8	5.68	7.49	62.3	52.8
303	12/6/2007	150200	62.4	254.5	6.8	12.15	621.53	0.101	0.015	0.049	48.5	57.3	6.4	5.69	6.88	62.7	53.1
304	12/6/2007	150300	63.2	254.4	6.77	12.16	622.18	0.102	0.015	0.049	48.5	58	6.3	5.68	6.85	63.5	53.2
305	12/6/2007	150400	62.8	254.5	6.13	12.18	622.36	0.101	0.014	0.049	48.4	57.1	5.7	5.65	6.23	63.1	53
306	12/6/2007	150500	63.7	254.3	6.78	12.15	624.24	0.102	0.015	0.048	48.2	58.2	6.2	5.66	6.88	63.9	52.8
307	12/6/2007	150600	62.7	254.5	6.66	12.16	622.58	0.102	0.015	0.049	48.7	57.7	6.1	5.72	6.69	63	53.1
308	12/6/2007	150700	64	254.4	6.84	12.12	622.4	0.103	0.015	0.049	48.4	58.7	6.3	5.69	6.92	64.3	52.9
309	12/6/2007	150800	63.5	254.4	7.69	12.15	624.11	0.103	0.017	0.049	48.4	58.6	7.1	5.71	7.74	63.7	53
310	12/6/2007	150900	62.7	254.4	7.43	12.15	621.09	0.101	0.017	0.049	48.4	57.3	6.9	5.67	7.52	62.9	53
311	12/6/2007	151000	62.1	254.3	6.77	12.16	619.86	0.101	0.016	0.049	48.6	57.4	6.3	5.74	6.83	62.4	53.2
312	12/6/2007	151100	60.5	254.5	6.54	12.18	619.47	0.098	0.015	0.049	48.9	55.5	6.1	5.66	6.59	60.7	53.8
313	12/6/2007	151200	56.9	254.3	6.88	12.2	617.55	0.092	0.015	0.05	50.2	52.6	6.3	5.64	6.92	57.1	55.2
314	12/6/2007	151300	54.6	254.3	7.44	12.18	615.28	0.088	0.017	0.051	51.4	49.8	6.9	5.65	7.49	54.7	56.3
315	12/6/2007	151400	54.9	254.5	6.67	12.21	616.28	0.087	0.015	0.051	51.2	50	6.1	5.58	6.7	55	56.5
316	12/6/2007	151500	54.1	254.4	6.4	12.2	616.41	0.087	0.014	0.052	51.5	49.7	5.9	5.62	6.47	54.3	56.6
317	12/6/2007	151600	53.9	254.2	6.73	12.21	618.5	0.086	0.015	0.052	51.4	49.1	6.1	5.63	6.8	54.1	56.5
318	12/6/2007	151700	53.6	254.5	6.68	12.2	616.8	0.086	0.015	0.051	51.5	49.1	6.1	5.62	6.76	53.9	56.4
319	12/6/2007	151800	53.2	254.4	6.62	12.19	618.77	0.086	0.015	0.052	51.8	48.8	6.1	5.63	6.65	53.6	56.8
320	12/6/2007	151900	54	254.4	6.63	12.18	620.69	0.087	0.015	0.052	51.7	49.6	6.1	5.64	6.67	54.4	56.6
321	12/6/2007	152000	52.9	254.4	7.54	12.17	621.88	0.086	0.016	0.052	52	48.7	6.9	5.67	7.6	53.2	57
322	12/6/2007	152100	52.3	254.3	8.19	12.16	621.92	0.084	0.018	0.052	52.2	47.7	7.5	5.64	8.19	52.5	57.2
323	12/6/2007	152200	51.6	254.3	7.92	12.22	622.23	0.083	0.018	0.053	52.3	47.1	7.3	5.63	7.98	51.7	57.5
324	12/6/2007	152300	51.8	254.6	7.23	12.24	623.06	0.083	0.016	0.052	52	47.2	6.6	5.56	7.25	52	57.2
325	12/6/2007	152400	52.6	254.3	7.38	12.25	623.45	0.084	0.017	0.052	51.4	48	6.8	5.53	7.46	53	56.8
326	12/6/2007	152500	52.9	254.4	7.23	12.22	621.4	0.084	0.016	0.052	51.6	48.1	6.6	5.6	7.31	53	56.8
327	12/6/2007	152600	53.1	254.4	7.37	12.23	622.05	0.084	0.017	0.052	51.4	47.9	6.8	5.56	7.44	53.1	56.8
328	12/6/2007	152700	53.1	254.3	8.02	12.23	622.93	0.085	0.018	0.052	51.4	48.5	7.3	5.6	8.1	53.4	56.5
329	12/6/2007	152800	53.4	254.4	8.19	12.21	621.88	0.086	0.019	0.052	51.6	48.8	7.5	5.61	8.24	53.7	56.8
330	12/6/2007	152900	54	254.4	7.71	12.19	622.27	0.086	0.017	0.052	51.9	49.3	6.9	5.64	7.77	54.3	56.8
331	12/6/2007	153000	54.1	254.3	7.48	12.2	624.81	0.087	0.017	0.052	51.8	49.5	7.2	5.61	7.58	54.1	57.1
332	/ /																
333	/ /	AVE	58.192	254.369	5.663	12.142	620.479	0.094	0.013	0.048	47.81	53.382	5.227	5.684	5.722	58.43	52.332

Run # 8

NOX	SO2	CO2	NOXlb	SO2lb	COlb	COcorr	NOXcorr	SO2corr	O2%	CO
58.14	4.80	12.00	0.090	0.011	0.052	51.89	51.39	4.42	6.67	58.86

Flow
625.9

Run # 9

NOX	SO2	CO2	NOXlb	SO2lb	COlb	COcorr	NOXcorr	SO2corr	O2%	CO
57.35	7.00	12.18	0.092	0.016	0.061	60.31	62.54	6.44	5.65	55.20

Flow
620.4

Daily Calibration Summary
AES Puerto Rico
Unit #1 Page 1

Report Period
Day: 12/06/2007

	TIME	ZERO CAL MS	ZERO CAL ACT	ZERO CAL DRIFT	ZERO CAL %ERR	SPAN CAL MS	SPAN CAL ACT	SPAN CAL DRIFT	SPAN CAL %ERR
NOx Full Scale :			200.0						
12/06/2007	7:07	0.0	0.0	0.0	0.0 P	54.8	53.3	1.5	0.8 P
12/06/2007	8:07	-0.1	0.0	0.1	0.1 P	54.7	53.3	1.4	0.7 P
SO2 Full Scale :			50.0						
12/06/2007	7:07	0.1	0.0	0.1	0.2 P	11.5	10.8	0.7	1.4 P
12/06/2007	8:07	0.0	0.0	0.0	0.0 P	11.5	10.8	0.7	1.4 P
CO2									
12/06/2007	7:07	0.0	0.0	0.0	0.0 P	11.5	10.9	0.6	0.6 P
12/06/2007	8:07	0.0	0.0	0.0	0.0 P	11.4	10.9	0.5	0.5 P
CO Full Scale :			200.0						
12/06/2007	7:07	-2.5	0.0	2.5	1.3 P	106.1	110.0	3.9	2.0 P
12/06/2007	8:07	-2.1	0.0	2.1	1.1 P	109.5	110.0	0.5	0.3 P
OXY									
12/06/2007	7:07	-0.2	0.0	0.2	0.2 P	11.8	11.9	0.1	0.1 P
2/06/2007	8:07	-0.6	0.0	0.6	0.6 P	11.6	11.9	0.3	0.3 P
OPAC									
12/06/2007	7:40	-1.2	0.0	1.2	1.2 P	46.5	45.0	1.5	1.5 P
12/06/2007	14:47	0.0	0.0	0.0	0.0 P	0.0	45.0	45.0	45.0 F
12/06/2007	14:51	0.0	0.0	0.0	0.0 P	0.0	45.0	45.0	45.0 F
12/06/2007	14:56	-1.2	0.0	1.2	1.2 P	46.6	45.0	1.6	1.6 P
FLOW Full Scale :			1075.0						
12/06/2007	10:19	4.2	0.0	4.2	0.4 P	721.1	720.0	1.1	0.1 P

Today's Date: 12/07/2007
Time: 09:10:27

MS - Measured Value
P - Calibration Passed
W - Calibration Warning
%ERR - % Error

ACT - Actual Value
F - Calibration Failed
X - Failed 5 Day Limit

Opacity Calibration Error Test

Service Engineer:	Robert Sicard	Source Name:	AES Puerto Rico
Date:	12/7/2007	Unit Number:	1
Monitor Pathlength, L1:	16	Installation Location:	Guayama, PR.
Emission Outlet Pathlength, L2:	16	Model Number:	Sepctrum 41
Clearpath Distance:	19' 7 5/8"	Transceiver S/N:	0045-8008
System Output PLCF Corrected?	Yes	Reflector S/N:	0045-8008
Internal Span Cell Percent Opacity:	45	Control Unit S/N:	0045-8008
OPLR:	0.5	PLCF($^{L2}/_{L1}$):	1.00

	Attenuator Serial Number	Attenuator Value (OP1)	Path Length Corrected Opacity (OP2)
Low Range	SH-30	13.55%	13.55%
Mid Range	GP-01	27.65%	27.65%
High Range	RP-65	46.58%	46.58%

Run Number	Calibration Filter Value Path-Adjusted % Opacity	Instrument Reading Percent Opacity	Arithmetic Difference Percent Opacity		
			Low	Mid	High
1- Low	13.55%	13.20%	-0.35%		
2- Mid	27.65%	27.40%		-0.25%	
3- High	46.58%	46.20%			-0.38%
4- Low	13.55%	13.30%	-0.25%		
5- Mid	27.65%	27.50%		-0.15%	
6- High	46.58%	46.20%			-0.38%
7- Low	13.55%	13.30%	-0.25%		
8- Mid	27.65%	27.50%		-0.15%	
9- High	46.58%	46.20%			-0.38%
10- Low	13.55%	13.30%	-0.25%		
11- Mid	27.65%	27.50%		-0.15%	
12- High	46.58%	46.30%			-0.28%
13- Low	13.55%	13.20%	-0.35%		
14- Mid	27.65%	27.50%		-0.15%	
15- High	46.58%	46.70%			0.12%
		Arithmetic Mean:	-0.29%	-0.17%	-0.26%
		Confidence Coefficient:	0.07%	0.06%	0.27%
		Calibration Error:	0.36%	0.23%	0.53%

Formula's

$$OP_2 = 1 - (1 - OP_1)^{\frac{L_2}{L_1}}$$

OPACITY-1

Record#	DATE	TIME	OPACITY11	
1	12/07/2007	093000	4.600	
2	12/07/2007	093100	13.800	
3	12/07/2007	093200	0.400	
4	12/07/2007	093300	1.900	
5	12/07/2007	093400	2.000	
6	12/07/2007	093500	2.000	
7	12/07/2007	093600	1.600	
8	12/07/2007	093700	-0.800	
9	12/07/2007	093800	-1.000	
10	12/07/2007	093900	-1.000	
11	12/07/2007	094000	0.100	
12	12/07/2007	094100	-0.300	
13	12/07/2007	094200	-0.300	
14	12/07/2007	094300	-0.300	
15	12/07/2007	094400	5.300	
16	12/07/2007	094500	13.200	
17	12/07/2007	094600	13.200	LOW
18	12/07/2007	094700	20.600	
19	12/07/2007	094800	27.500	
20	12/07/2007	094900	27.400	MID
21	12/07/2007	095000	38.400	
22	12/07/2007	095100	46.200	

Unit 1 Opacity Audit Data

23	12/07/2007 095200	46.200	HIGH
24	12/07/2007 095300	35.000	
25	12/07/2007 095400	-0.300	
26	12/07/2007 095500	-0.300	
27	12/07/2007 095600	-0.300	
28	12/07/2007 095700	9.900	
29	12/07/2007 095800	13.300	
30	12/07/2007 095900	13.300	LOW
31	12/07/2007 100000	23.200	
32	12/07/2007 100100	27.500	
33	12/07/2007 100200	27.500	MID
34	12/07/2007 100300	38.200	
35	12/07/2007 100400	46.200	
36	12/07/2007 100500	46.200	HIGH
37	12/07/2007 100600	7.400	
38	12/07/2007 100700	-0.200	
39	12/07/2007 100800	-0.200	
40	12/07/2007 100900	5.100	
41	12/07/2007 101000	13.200	
42	12/07/2007 101100	13.300	LOW
43	12/07/2007 101200	22.100	
44	12/07/2007 101300	27.500	
45	12/07/2007 101400	27.500	MID
46	12/07/2007 101500	36.300	
47	12/07/2007 101600	46.200	
48	12/07/2007 101700	46.200	HIGH

Unit 1

Opacity Data

49	12/07/2007 101800	34.000	
50	12/07/2007 101900	-0.200	
51	12/07/2007 102000	-0.100	
52	12/07/2007 102100	-0.200	
53	12/07/2007 102200	8.900	
54	12/07/2007 102300	13.300	
55	12/07/2007 102400	13.300	Low
56	12/07/2007 102500	22.600	
57	12/07/2007 102600	27.500	
58	12/07/2007 102700	27.500	MID
59	12/07/2007 102800	37.800	
60	12/07/2007 102900	46.300	
61	12/07/2007 103000	46.300	HIGH
62	12/07/2007 103100	11.600	
63	12/07/2007 103200	-0.200	
64	12/07/2007 103300	-0.100	
65	12/07/2007 103400	6.300	
66	12/07/2007 103500	13.300	
67	12/07/2007 103600	13.200	Low
68	12/07/2007 103700	23.400	
69	12/07/2007 103800	27.500	
70	12/07/2007 103900	27.500	MID
71	12/07/2007 104000	40.400	
72	12/07/2007 104100	46.800	
73	12/07/2007 104200	46.700	HIGH
74	12/07/2007 104300	21.900	

Unit 1

Opacity Data

75	12/07/2007 104400	0.700
76	12/07/2007 104500	0.700
77	12/07/2007 104600	0.700
78	12/07/2007 104700	0.700
79	12/07/2007 104800	0.700
80	12/07/2007 104900	0.600
81	12/07/2007 105000	0.700
82	12/07/2007 105100	0.600
83	12/07/2007 105200	0.600
84	12/07/2007 105300	0.600
85	12/07/2007 105400	0.700
86	12/07/2007 105500	0.600
87	12/07/2007 105600	0.800
88	12/07/2007 105700	0.700
89	12/07/2007 105800	0.700
90	12/07/2007 105900	12.600
91	12/07/2007 110000	14.100
92	12/07/2007 110100	14.100
93	12/07/2007 110200	14.100
94	12/07/2007 110300	14.000
95	12/07/2007 110400	14.100
96	12/07/2007 110500	14.000
97	12/07/2007 110600	14.100
98	12/07/2007 110700	14.100
99	12/07/2007 110800	14.100
100	12/07/2007 110900	14.100

Unit 1
Opacity Data

13 min test

14.10 Average

101	12/07/2007 111000	14.100
102	12/07/2007 111100	14.000
103	12/07/2007 111200	14.100
104	12/07/2007 111300	14.100
105	12/07/2007 111400	21.700
106	12/07/2007 111500	28.100
107	12/07/2007 111600	28.200
108	12/07/2007 111700	28.200
109	12/07/2007 111800	28.000
110	12/07/2007 111900	28.200
111	12/07/2007 112000	28.200
112	12/07/2007 112100	28.100
113	12/07/2007 112200	28.100
114	12/07/2007 112300	28.100
115	12/07/2007 112400	28.200
116	12/07/2007 112500	28.200
117	12/07/2007 112600	28.200
118	12/07/2007 112700	28.200
119	12/07/2007 112800	28.100
120	12/07/2007 112900	29.800
121	12/07/2007 113000	46.800
122	12/07/2007 113100	46.800
123	12/07/2007 113200	46.800
124	12/07/2007 113300	46.700
125	12/07/2007 113400	46.800
126	12/07/2007 113500	46.900

13min test
AVG = 28.1%

13 min average
46.8%

Unit 1
Opacity Data

127	12/07/2007	113600	46.800
128	12/07/2007	113700	46.700
129	12/07/2007	113800	46.700
130	12/07/2007	113900	46.800
131	12/07/2007	114000	46.600
132	12/07/2007	114100	46.800
133	12/07/2007	114200	46.600
134	12/07/2007	114300	44.800
135	12/07/2007	114400	0.500
136	12/07/2007	114500	0.500
137	12/07/2007	114600	0.500
138	12/07/2007	114700	0.600
139	12/07/2007	114800	0.500
140	12/07/2007	114900	0.500
141	12/07/2007	115000	0.500
142	12/07/2007	115100	0.500
143	12/07/2007	115200	0.500
144	12/07/2007	115300	0.500
145	12/07/2007	115400	0.500
146	12/07/2007	115500	0.500
147	12/07/2007	115600	0.500
148	12/07/2007	115700	0.500
149	12/07/2007	115800	0.500
150	12/07/2007	115900	19.200
151	12/07/2007	120000	5.400
152	/ /		

Unit 1
Opacity Data

AES Facility Data
CEMS and Opacity
Unit 2

AES RATA - Unit 2 Plant Data

rata2

Record#	DATE	TIME	GEN21	NOX22	SO223	CO224	FLO25	NOX_RT26	SO2_RT27	CO_RT28	CO_CORR2	NOXCORR2	COL211	OXY212	SO2CORR214
1	12/5/2007	120000	239.6	48.2	3.07	12.31	577.917	0.079	0.007	0.061	60.3	45.1	64.8	5.97	3
2	12/5/2007	120100	239.5	47.1	3.32	12.55	575.249	0.077	0.008	0.061	60.3	43.9	65.1	5.9	3.2
3	12/5/2007	120200	239.6	48	3.28	12.58	573.762	0.079	0.008	0.061	60.6	44.7	65.2	5.96	3.1
4	12/5/2007	120300	239.7	47.9	3.38	12.63	578.486	0.078	0.008	0.061	60.9	44.6	65.6	5.95	3.2
5	12/5/2007	120400	239.5	47.5	3.36	12.72	579.623	0.077	0.008	0.061	60.9	44.3	65.4	5.96	3.2
6	12/5/2007	120500	239.5	47	3.61	12.8	580.673	0.077	0.008	0.061	61.1	43.6	65.8	5.95	3.4
7	12/5/2007	120600	239.8	46.9	3.3	12.81	582.554	0.077	0.008	0.061	61.2	43.9	65.8	5.98	3.2
8	12/5/2007	120700	239.6	46.3	3.51	12.83	583.56	0.075	0.008	0.061	60.8	43	65.5	5.91	3.3
9	12/5/2007	120800	240	46.6	3.57	12.86	583.91	0.076	0.008	0.061	60.9	43.1	65.6	5.91	3.4
10	12/5/2007	120900	239.6	47.3	3.66	12.88	580.324	0.077	0.009	0.061	60.6	43.8	65.2	5.93	3.7
11	12/5/2007	121000	239.5	47.9	3.69	12.82	580.105	0.078	0.009	0.061	60.8	44.4	65.4	5.94	3.5
12	12/5/2007	121100	239.7	48.2	3.72	12.84	582.292	0.079	0.009	0.06	60.2	44.9	64.8	5.95	3.5
13	12/5/2007	121200	239.7	48.2	3.81	12.81	585.835	0.079	0.009	0.061	60.6	44.7	65	5.97	3.6
14	12/5/2007	121300	239.5	48	3.68	12.81	581.986	0.078	0.009	0.06	60.1	44.9	64.5	6	3.6
15	12/5/2007	121400	239.9	48.5	3.59	8.51	582.948	0.079	0.008	0.06	60.5	45.1	64.9	5.99	3.4
16	12/5/2007	121500	239.6	49.7	3.57	10.96	583.735	0.082	0.008	0.062	61.2	46.6	65.2	6.05	3.4
17	12/5/2007	121600	239.5	48.8	3.61	11.76	581.635	0.08	0.009	0.06	60.5	45.5	64.8	5.98	3.4
18	12/5/2007	121700	239.5	50.4	3.41	12	579.711	0.083	0.008	0.061	60.7	47.1	64.8	6.06	3.3
19	12/5/2007	121800	239.7	50.8	3.19	12.19	582.86	0.083	0.007	0.061	60.7	47.5	64.6	6.06	3
20	12/5/2007	121900	239.5	50.6	3.12	12.26	583.779	0.084	0.007	0.061	60.5	47.7	64.4	6.11	3
21	12/5/2007	122000	239.7	49.8	3.02	12.4	584.916	0.083	0.007	0.062	61.6	47.5	65.4	6.15	2.9
22	12/5/2007	122100	239.7	50.1	2.97	12.52	583.691	0.083	0.007	0.062	61.5	47.1	65.3	6.13	2.8
23	12/5/2007	122200	239.7	48.8	2.79	12.62	583.342	0.08	0.007	0.061	61.4	45.8	65.4	6.08	2.7
24	12/5/2007	122300	239.4	48.9	2.55	12.65	585.091	0.08	0.006	0.061	61.2	45.8	65.3	6.04	2.5
25	12/5/2007	122400	240	48.2	2.76	12.71	582.598	0.08	0.007	0.062	62	45.3	66	6.1	2.7
26	12/5/2007	122500	239.4	47	2.77	12.72	581.679	0.078	0.007	0.062	62	44.1	66.1	6.05	2.6
27	12/5/2007	122600	239.6	47.8	2.87	12.71	581.067	0.079	0.007	0.062	62.2	44.8	66.4	6.06	2.8
28	12/5/2007	122700	239.6	47.5	3	12.72	580.761	0.078	0.007	0.063	62.2	44.6	66.3	6.06	2.8
29	12/5/2007	122800	239.6	45.9	3.16	12.8	580.586	0.075	0.007	0.062	62	42.9	66.3	6	3
30	12/5/2007	122900	239.7	47.3	3.08	12.83	579.361	0.077	0.007	0.062	61.5	43.7	66.2	5.95	3
31	12/5/2007	123000	239.5	48	3.14	12.78	581.854	0.078	0.007	0.062	61.5	44.6	66	5.96	2.9
32	12/5/2007	123100	239.6	47.5	3.27	10.05	586.01	0.078	0.008	0.062	61.8	44.5	66.2	6.02	3.1
33	12/5/2007	123200	239.8	48	3.19	10.38	582.554	0.078	0.008	0.061	61.4	44.7	65.9	5.97	3.1
34	12/5/2007	123300	239.7	48.4	3.21	11.34	581.635	0.08	0.008	0.062	61.4	45.4	65.9	6.02	3
35	12/5/2007	123400	239.7	47.6	3.42	11.86	582.861	0.078	0.008	0.062	61.6	44.5	66.1	5.97	3.2
36	12/5/2007	123500	239.6	47.4	3.65	12.32	577.567	0.077	0.008	0.062	61.7	44	66.3	5.97	3.4
37	12/5/2007	123600	239.8	46.9	4.1	12.47	575.993	0.077	0.009	0.062	61.8	44.1	66.2	6.02	3.8
38	12/5/2007	123700	239.8	48	3.82	12.57	576.693	0.078	0.009	0.061	61.3	44.6	65.7	6	3.7
39	12/5/2007	123800	239.4	48.4	3.7	12.6	577.63	0.079	0.009	0.062	61.8	45.1	66.2	6.01	3.5
40	12/5/2007	123900	239.6	48.5	3.63	12.64	578.311	0.08	0.008	0.062	61.8	45.3	66.1	6.01	3.4
41	12/5/2007	124000	239.8	48.7	3.62	12.66	581.154	0.08	0.008	0.062	62	45.7	66.3	6.06	3.5

Unit 2 - CEM
AES Plant Data

Run # 1

CO2%	NOXlb	SO2lb	COlb	COcorr	NOXcorr	O2%	SO2corr
12.28	0.079	0.008	0.062	61.59	46.16	6.03	3.04

Flow, kacfm
581.41

43	12/5/2007	124200	239.8	49.2	3.68	12.74	583.035	0.08	0.009	0.061	61.4	45.4	65.7	5.98	3.5
44	12/5/2007	124300	239.5	48.3	3.56	12.75	584.041	0.079	0.008	0.062	61.5	45.2	66	6.04	3.4
45	12/5/2007	124400	239.9	48.5	3.6	12.71	582.511	0.08	0.009	0.062	62.1	45.5	66.2	6.07	3.4
46	12/5/2007	124500	239.6	48.4	3.73	12.74	583.385	0.08	0.008	0.062	61.7	45.5	65.9	6.06	3.6
47	12/5/2007	124600	239.5	47.3	4.22	12.76	583.254	0.078	0.01	0.062	62.1	43.9	66.4	5.98	4
48	12/5/2007	124700	239.5	48.2	3.94	10.06	583.779	0.079	0.009	0.062	61.7	45.1	66.1	6.02	3.8
49	12/5/2007	124800	239.6	48.1	4.32	10.6	583.429	0.079	0.01	0.062	61.2	45	65.6	5.99	4
50	12/5/2007	124900	239.5	50	3.68	11.88	583.691	0.082	0.009	0.061	61.2	46.7	65.5	6.04	3.7
51	12/5/2007	125000	239.5	49.4	3.77	12.17	582.642	0.082	0.009	0.062	62.1	46.5	66.3	6.07	3.6
52	12/5/2007	125100	240	49.1	3.65	12.35	582.073	0.081	0.008	0.062	62.1	46.2	66.3	6.07	3.5
53	12/5/2007	125200	239.6	48.8	3.49	12.42	581.679	0.081	0.008	0.062	62	45.8	66.1	6.08	3.3
54	12/5/2007	125300	239.9	48.8	3.67	12.44	582.816	0.08	0.008	0.062	61.7	45.8	65.7	6.07	3.5
55	12/5/2007	125400	240	48	3.67	12.53	584.347	0.079	0.008	0.062	61.7	44.6	66.2	6	3.5
56	12/5/2007	125500	239.6	48.2	3.6	12.49	590.69	0.079	0.009	0.062	62	45.3	66.4	6.05	3.5
57	12/5/2007	125600	239.8	48.2	3.45	12.44	588.853	0.079	0.008	0.062	62.1	45.5	66.2	6.09	3.3
58	12/5/2007	125700	239.6	47.5	3.9	12.41	587.497	0.078	0.009	0.062	62.5	44.7	66.5	6.11	3.7
59	12/5/2007	125800	239.8	47.2	4.03	12.43	586.666	0.078	0.009	0.062	61.9	44.1	66.1	6.04	3.8
60	12/5/2007	125900	239.4	47.4	4.11	12.42	585.791	0.078	0.009	0.062	61.9	44.5	66	6.08	3.9
61	12/5/2007	130000	239.9	47.9	3.85	12.36	581.067	0.08	0.009	0.062	62.1	45.5	65.9	6.15	3.8
62	12/5/2007	130100	240	48.5	3.94	12.35	582.816	0.081	0.009	0.063	62.6	45.7	66.3	6.17	3.8
63	12/5/2007	130200	240.1	47.9	4.18	12.39	583.691	0.08	0.01	0.062	62	45	65.7	6.15	4
64	12/5/2007	130300	239.9	47.5	4.05	12.39	584.216	0.079	0.01	0.062	62.1	45.1	66	6.2	4
65	12/5/2007	130400	239.8	48.9	3.41	10.31	584.872	0.082	0.008	0.063	62.8	46.6	66.4	6.17	3.3
66	12/5/2007	130500	239.6	48.7	3.08	9.37	585.354	0.08	0.007	0.063	62.8	45.8	66.8	6.12	2.9
67	12/5/2007	130600	239.7	48	3.08	10.76	585.485	0.079	0.007	0.063	62.7	45.2	66.7	6.11	3
68	12/5/2007	130700	240	47.5	3.26	11.74	587.278	0.079	0.008	0.063	62.8	45.4	66.5	6.2	3.1
69	12/5/2007	130800	239.9	47.4	3.38	12.27	589.29	0.079	0.008	0.063	63.2	45	67	6.18	3.3
70	12/5/2007	130900	239.8	46.6	3.28	12.52	590.602	0.076	0.008	0.063	62.9	43.7	66.8	6.1	3.1
71	12/5/2007	131000	239.5	45.5	3.73	12.6	590.471	0.075	0.009	0.064	63.3	42.9	67.4	6.1	3.5
72	12/5/2007	131100	239.9	44.8	4.56	12.61	588.24	0.074	0.01	0.063	62.7	42.2	66.6	6.1	4.3
73	12/5/2007	131200	239.6	44.7	4.69	12.6	585.616	0.073	0.011	0.062	62.5	41.9	66.5	6.09	4.4
74	12/5/2007	131300	239.7	44.2	4.8	12.61	577.742	0.073	0.011	0.063	63	41.6	67	6.07	4.4
75	12/5/2007	131400	239.7	43.8	5.49	12.62	576.386	0.072	0.013	0.062	62.2	40.9	66.4	6.06	5.2
76	12/5/2007	131500	239.6	44.5	5.73	12.61	574.506	0.073	0.013	0.061	61.1	41.9	65.3	6.04	5.3
77	12/5/2007	131600	239.7	44.9	5.73	12.59	575.03	0.074	0.013	0.062	61.3	42.1	65.3	6.07	5.4
78	12/5/2007	131700	239.7	45.3	5.67	12.61	575.73	0.074	0.013	0.061	60.8	42.4	65.1	6.04	5.3
79	12/5/2007	131800	239.6	45	6.32	12.61	579.886	0.074	0.015	0.061	61.1	42.2	65.1	6.08	5.9
80	12/5/2007	131900	239.6	44.5	6.8	12.63	579.523	0.073	0.016	0.061	60.5	41.6	64.6	6.08	6.4
81	12/5/2007	132000	239.7	44.5	7.15	9.76	579.973	0.073	0.016	0.061	60.5	41.4	64.6	5.99	6.8
82	12/5/2007	132100	239.6	45.2	6.91	9.35	581.329	0.074	0.016	0.061	60.2	41.8	64.5	6.02	6.5
83	12/5/2007	132200	239.7	45.4	7.78	11.02	580.979	0.075	0.018	0.061	60.4	42.6	64.5	6.09	7.4
84	12/5/2007	132300	239.8	46.2	8.04	11.71	579.492	0.077	0.019	0.061	60.6	43.8	64.3	6.15	7.6
85	12/5/2007	132400	239.6	47.2	7.3	12.15	581.854	0.078	0.017	0.061	60.4	44.3	64.2	6.13	7
86	12/5/2007	132500	239.8	46.6	7.08	12.33	582.817	0.078	0.016	0.061	60.9	44.1	64.4	6.2[illegible]	6.8
87	12/5/2007	13[illegible]	240.1	46.8	6.81	12.34	583.954	0.078	0.016	0.061	60.5	44.1	64.2	6[illegible]	6.5

Run # 2

CO2%	NOXlb	SO2lb	COlb	COcorr	NOXcorr	O2%	SO2corr
12.13	0.077	0.008	0.062	62.39	44.12	6.11	3.86

Flow, kscfm
584.84

88	12/5/2007	132700	239.8	46.5	6.88	12.27	586.578	0.078	0.016	0.061	61	44.4	64.3	6.26	6.5
89	12/5/2007	132800	240.2	47.3	6.69	12.33	586.316	0.079	0.016	0.061	61.3	44.7	64.4	6.25	6.4
90	12/5/2007	132900	240.4	46.8	6.69	12.39	585.091	0.078	0.016	0.061	60.6	44.4	64.1	6.2	6.5
91	12/5/2007	133000	240.4	46.8	6.25	12.41	585.835	0.079	0.015	0.061	60.8	45	64	6.29	6.1
92	12/5/2007	133100	240.1	47.2	5.79	12.38	586.097	0.079	0.014	0.061	60.7	45	63.9	6.27	5.5
93	12/5/2007	133200	239.7	46.9	5.59	12.38	580.717	0.078	0.013	0.061	61.1	44.5	64.1	6.3	5.4
94	12/5/2007	133300	239.6	46.3	5.47	12.46	578.924	0.078	0.013	0.061	61	44	64.1	6.25	5.3
95	12/5/2007	133400	239.9	46.2	5.75	12.46	577.917	0.077	0.013	0.06	60.1	44.1	64	6.22	5.3
96	12/5/2007	133500	239.7	46.1	6.53	12.47	578.824	0.076	0.015	0.061	60.5	43.6	63.7	6.2	6.2
97	12/5/2007	133600	239.6	44.7	6.73	12.5	580.455	0.074	0.016	0.061	60.9	42.1	64.6	6.17	6.5
98	12/5/2007	133700	239.5	44.1	7.19	12.56	582.948	0.073	0.017	0.061	60.6	41.6	64.4	6.11	6.8
99	12/5/2007	133800	239.6	44.8	7.25	12.58	586.753	0.075	0.017	0.061	60.5	42.2	64.2	6.12	6.9
100	12/5/2007	133900	239.7	45.1	7.79	10.21	587.759	0.074	0.018	0.06	59.5	42.4	63.6	6.04	7.2
101	12/5/2007	134000	239.5	45	8.15	9.45	589.028	0.074	0.019	0.06	59.7	42.4	63.6	6.12	7.7
102	12/5/2007	134100	239.5	44.7	8.85	11.06	588.94	0.073	0.02	0.06	59.5	42	63.5	6.05	8.4
103	12/5/2007	134200	239.7	45.4	8.33	11.7	588.897	0.075	0.019	0.06	59.7	42.6	63.5	6.11	7.9
104	12/5/2007	134300	239.2	46	7.68	11.97	583.166	0.076	0.018	0.06	59.7	43.3	63.4	6.13	7.3
105	12/5/2007	134400	240.2	45.6	7.97	12.16	578.442	0.075	0.019	0.06	59.8	43.1	63.4	6.16	7.5
106	12/5/2007	134500	239.5	44.5	8.42	12.24	577.524	0.074	0.019	0.061	60.4	42.1	64.2	6.14	7.9
107	12/5/2007	134600	239.5	45.4	8.17	12.2	577.174	0.076	0.019	0.06	60.2	42.9	63.8	6.19	7.8
108	12/5/2007	134700	239.8	45.7	7.75	12.23	578.136	0.075	0.018	0.062	61.2	43.2	64.4	6.22	7.4
109	12/5/2007	134800	239.7	46.2	7.14	12.33	581.242	0.076	0.017	0.061	60.2	43.4	64.1	6.15	6.8
110	12/5/2007	134900	239.7	46.1	6.63	12.37	583.735	0.077	0.016	0.061	61	43.9	64.5	6.2	6.3
111	12/5/2007	135000	239.6	46.6	6.12	12.35	582.642	0.078	0.015	0.062	61.6	44.7	65.1	6.25	5.9
112	12/5/2007	135100	239.5	46.7	5.74	12.36	581.811	0.078	0.013	0.062	61.6	44.2	65	6.21	5.4
113	12/5/2007	135200	239.6	46.2	5.67	12.43	580.367	0.076	0.014	0.061	61.2	43.5	64.5	6.18	5.6
114	12/5/2007	135300	239.6	45.7	6.07	12.44	581.242	0.076	0.014	0.061	60.9	43.2	64.5	6.2	5.8
115	12/5/2007	135400	239.5	46.5	5.48	12.42	580.498	0.077	0.013	0.061	61.1	43.9	64.7	6.17	5.2
116	12/5/2007	135500	239.5	47	4.66	12.44	579.23	0.078	0.011	0.062	61.5	44	65.3	6.15	4.5
117	12/5/2007	135600	239.6	45.9	4.79	12.3	580.017	0.076	0.011	0.061	61	42.9	64.9	6.08	4.5
118	12/5/2007	135700	239.8	45.8	4.58	9.19	580.28	0.076	0.011	0.061	60.8	43.2	64.8	6.12	4.4
119	12/5/2007	135800	239.6	46.6	5.21	12.02	583.385	0.077	0.012	0.061	61.2	43.8	65.2	6.11	4.9
120	12/5/2007	135900	239.9	47	4.68	12.8	585.003	0.078	0.011	0.061	61.4	44.3	65.1	6.12	4.6
121	12/5/2007	140000	239.7	46.2	4.9	13.27	586.753	0.076	0.012	0.062	61.6	43.5	65.2	6.19	4.6
122	12/5/2007	140100	239.4	46.5	4.64	13.59	583.473	0.078	0.011	0.062	61.5	43.8	65.3	6.15	4.4
123	12/5/2007	140200	239.6	46.7	4.53	13.68	582.729	0.076	0.011	0.061	60.8	43.5	65.1	6.04	4.2
124	12/5/2007	140300	239.8	47.7	3.97	13.67	582.423	0.078	0.009	0.061	61	44.6	65.1	6.08	3.8
125	12/5/2007	140400	239.6	47.2	4.4	13.68	582.948	0.077	0.01	0.061	61	43.9	65.2	6.06	4.1
126	12/5/2007	140500	239.5	47.6	4.59	13.62	583.868	0.079	0.01	0.061	60.8	45	64.7	6.13	4.3
127	12/5/2007	140600	239.6	48	4.68	13.66	584.96	0.078	0.011	0.061	60.9	44.9	64.8	6.09	4.4
128	12/5/2007	140700	239.7	47.7	4.29	13.69	583.342	0.079	0.01	0.061	61.5	44.8	65.3	6.11	4.1
129	12/5/2007	140800	239.6	46.9	4.25	13.73	582.948	0.079	0.01	0.062	61.6	44.4	65.3	6.14	4.1
130	12/5/2007	140900	239.1	48.1	4.02	13.74	582.292	0.08	0.01	0.061	61.1	45.3	64.9	6.12	3.9
131	12/5/2007	141000	241.1	48.7	3.85	13.76	582.073	0.081	0.009	0.061	61.1	45.8	64.9	6.18	3.7
132	12/5/2007	141100	239	47.3	3.93	13.8	577.874	0.079	0.009	0.062	61.5	44.7	65.1	6.12	3.7
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Run # 3

CO2%	NOXlb	SO2lb	COlb	COcorr	NOXcorr	O2%	SO2corr
11.86	0.076	0.018	0.061	80.59	43.11	6.15	6.48

Flow, kacfm
582.42

134	12/5/2007	141300	239.8	46.5	4.37	13.8	578.224	0.077	0.01	0.062	61.6	44	65.5	6.12	4.1
135	12/5/2007	141400	239.5	46.4	4.51	12.87	574.681	0.076	0.01	0.062	61.8	43.7	66	6.07	4.3
136	12/5/2007	141500	239.5	46.6	4.5	10.33	574.899	0.076	0.011	0.062	61.7	43.6	65.8	6.08	4.3
137	12/5/2007	141600	239.5	46.9	4.28	12.1	575.818	0.077	0.01	0.062	61.9	43.8	66.9	6.08	4.1
138	12/5/2007	141700	239.4	47.1	4.6	12.87	576.342	0.078	0.01	0.062	61.6	44.5	65.8	6.11	4.4
139	12/5/2007	141800	239.6	47.4	4.84	13.22	576.693	0.079	0.011	0.062	61.5	44.8	65.5	6.07	4.5
140	12/5/2007	141900	239.5	48.4	5.24	13.39	578.311	0.077	0.012	0.062	61.8	43.6	65.8	6.1	5
141	12/5/2007	142000	239.5	47.2	4.94	13.5	581.111	0.078	0.012	0.061	61.5	44	65.7	6.09	4.8
142	12/5/2007	142100	239.6	47.4	4.59	13.61	582.598	0.077	0.011	0.061	60.8	44.5	65	6.07	4.3
143	12/5/2007	142200	239.7	47.4	4.74	13.71	583.91	0.078	0.011	0.062	61.5	44.5	65.6	6.08	4.5
144	12/5/2007	142300	239.5	47.4	4.63	13.77	584.391	0.078	0.011	0.062	61.6	44.3	65.6	6.1	4.4
145	12/5/2007	142400	239.5	47.2	4.91	13.77	584.654	0.079	0.011	0.062	61.9	44.9	65.9	6.12	4.8
146	12/5/2007	142500	239.7	47.1	4.54	13.72	584.785	0.079	0.01	0.062	61.5	44.6	65.6	6.13	4.2
147	12/5/2007	142600	239.4	47.5	4.95	13.75	583.604	0.078	0.012	0.062	62	44.5	65.8	6.13	4.7
148	12/5/2007	142700	239.5	47.2	4.66	13.79	582.029	0.078	0.011	0.062	61.4	44.6	65.6	6.11	4.5
149	12/5/2007	142800	239.7	47.9	5.19	13.77	580.979	0.08	0.012	0.062	62	45.5	65.7	6.18	4.9
150	12/5/2007	142900	239.6	47.7	5.17	12.43	581.023	0.079	0.012	0.062	62.2	44.8	66.1	6.14	4.9
151	12/5/2007	143000	239.8	47.4	5.16	11.29	580.629	0.078	0.012	0.062	61.9	44.1	65.9	6.08	5
152	12/5/2007	143100	239.4	47.1	5.42	12.74	581.635	0.078	0.013	0.062	61.5	44.4	65.5	6.1	5.1
153	12/5/2007	143200	239.5	47.8	5.22	13.25	582.029	0.079	0.012	0.061	61.4	44.9	65.2	6.14	5
154	12/5/2007	143300	239.7	48.9	4.68	13.34	584.129	0.081	0.011	0.062	61.4	46	65.1	6.17	4.5
155	12/5/2007	143400	239.8	47.9	4.43	13.47	582.554	0.079	0.011	0.062	61.6	45.1	65.5	6.12	4.3
156	12/5/2007	143500	239.7	47.3	4.71	13.56	581.11	0.079	0.011	0.062	62	44.8	66	6.14	4.5
157	12/5/2007	143600	239.5	47.7	4.33	13.57	581.723	0.08	0.01	0.062	62	45	65.7	6.16	4.2
158	12/5/2007	143700	240	47.9	4.1	13.58	581.023	0.079	0.009	0.062	61.8	45	65.6	6.11	3.8
159	12/5/2007	143800	239.7	47.6	4.18	13.55	580.892	0.078	0.01	0.062	61.7	44.5	65.6	6.12	4
160	12/5/2007	143900	239.5	47.3	4.72	13.57	583.954	0.079	0.011	0.062	61.9	45	65.7	6.2	4.4
161	12/5/2007	144000	239.7	47.9	4.12	13.57	583.91	0.08	0.01	0.063	62.6	45.2	66.3	6.17	4
162	12/5/2007	144100	239.5	48.7	3.88	13.58	583.385	0.08	0.009	0.063	62.6	45.9	66.2	6.21	3.8
163	12/5/2007	144200	239.6	47.4	3.9	13.65	581.373	0.079	0.009	0.063	62.3	44.7	66.2	6.13	3.8
164	12/5/2007	144300	239.7	46.7	3.99	12.89	580.105	0.077	0.009	0.063	62.4	44.1	66.4	6.12	3.9
165	12/5/2007	144400	239.5	47.7	3.93	10.85	580.542	0.079	0.008	0.063	62.9	45.1	66.9	6.13	3.7
166	12/5/2007	144500	239.6	46.8	4.11	12.13	580.804	0.077	0.01	0.064	63.4	43.9	67.4	6.12	3.9
167	12/5/2007	144600	239.5	47.1	4.29	12.76	580.804	0.077	0.01	0.063	62.7	44.1	66.8	6.09	4.1
168	12/5/2007	144700	239.6	47	4.31	13.09	581.854	0.077	0.01	0.063	62.7	44.1	66.7	6.12	4
169	12/5/2007	144800	239.5	47.3	4.18	13.36	582.904	0.078	0.01	0.062	62.2	44.3	66.4	6.06	4
170	12/5/2007	144900	239.6	46.9	3.98	13.52	580.324	0.076	0.009	0.063	62.8	43.6	67	6.05	3.8
171	12/5/2007	145000	239.4	46.7	4.18	13.67	579.711	0.076	0.01	0.063	62.6	43.8	67.1	6.01	4
172	12/5/2007	145100	239.2	46.7	4.29	13.71	579.099	0.077	0.01	0.062	62.4	43.9	66.9	6.04	4.1
173	12/5/2007	145200	239.6	47	4.26	13.82	581.198	0.077	0.01	0.062	61.9	43.8	66.4	6	4
174	12/5/2007	145300	239.5	48.2	4.09	13.82	582.204	0.079	0.009	0.063	62.2	44.7	66.5	6.03	3.9
175	12/5/2007	145400	239.7	47.2	3.9	13.86	582.642	0.077	0.009	0.062	62.2	44.2	66.6	6	3.7
176	12/5/2007	145500	239.4	48.8	3.98	13.76	585.266	0.08	0.01	0.063	63.1	46	67.1	6.11	3.8
177	12/5/2007	145600	239.5	49	3.92	13.74	587.716	0.081	0.009	0.064	63.4	46.4	67.1	6.1[illegible]	3.7
178	12/5/2007	14	239.5	48.6	3.84	13.74	581.023	0.08	0.009	0.064	63.5	46	67.6	[illegible]	3.7

Run # 4

CO2%	NOXlb	SO2lb	COlb	COcorr	NOXcorr	O2%	SO2corr
13.13	0.078	0.011	0.062	61.67	44.68	6.11	4.59

Flow, kacfm
581.13

179	12/5/2007	145800	239.6	48.4	3.79	13.77	581.811	0.08	0.009	0.064	63.5	45.5	67.4	6.13	3.6
180	12/5/2007	145900	239.9	49.4	3.64	9.42	582.073	0.082	0.008	0.063	63.1	46.5	66.8	6.16	3.4
181	12/5/2007	150000	239.8	49.3	3.55	11.4	580.76	0.082	0.008	0.063	62.9	46.5	67	6.13	3.5
182	12/5/2007	150100	239.7	49.1	3.78	12.44	582.379	0.081	0.009	0.064	63.5	48	67.3	6.14	3.7
183	12/5/2007	150200	239.7	49.2	3.86	13.06	584.347	0.081	0.008	0.064	63.4	46.3	67.1	6.18	3.7
184	12/5/2007	150300	239.4	49.5	3.68	13.31	581.417	0.082	0.009	0.063	62.7	47	66.7	6.14	3.5
185	12/5/2007	150400	239.7	49.8	3.36	13.39	580.586	0.082	0.008	0.064	63.5	46.7	67.1	6.19	3.2
186	12/5/2007	150500	239.7	49.6	3.32	13.51	578.486	0.082	0.008	0.063	63	46.7	66.8	6.16	3.2
187	12/5/2007	150600	239.8	48.7	3.12	13.37	580.017	0.082	0.007	0.063	62.5	46.6	65.5	6.35	3.1
188	12/5/2007	150700	239.6	48.3	2.76	13.4	581.898	0.082	0.007	0.063	62.8	46.4	65.5	6.38	2.7
189	12/5/2007	150800	239.6	47.8	3.04	13.24	584.523	0.081	0.007	0.063	62.7	46.6	64.4	6.61	3
190	12/5/2007	150900	239.7	47.9	3.05	13.66	587.497	0.08	0.007	0.064	63.7	45.4	66.5	6.36	3
191	12/5/2007	151000	239.7	49.5	3.12	13.69	588.678	0.082	0.007	0.064	63.2	46.9	66.9	6.2	3
192	12/5/2007	151100	239.5	49.6	3.12	13.65	588.809	0.082	0.007	0.063	62.7	47.1	66.3	6.21	3
193	12/5/2007	151200	239.4	49.9	3.01	13.6	589.641	0.083	0.007	0.063	63.2	47.1	66.7	6.21	2.9
194	12/5/2007	151300	239.7	48	3.1	13.29	590.165	0.081	0.007	0.063	62.9	46.4	65.4	6.44	3
195	12/5/2007	151400	239.8	47.2	3.51	13.39	591.477	0.081	0.008	0.063	62.9	45.7	65	6.54	3.4
196	12/5/2007	151500	239.8	49	3.61	12.76	592.134	0.082	0.009	0.063	62.9	47.3	65.6	6.42	3.6
197	12/5/2007	151600	239.3	48.7	3.71	10.91	589.378	0.08	0.009	0.063	62.7	45.8	66.2	6.2	3.5
198	12/5/2007	151700	238.8	47.8	3.7	12.3	586.71	0.08	0.009	0.063	62.5	45.5	66.4	6.17	3.6
199	12/5/2007	151800	238.5	46.8	3.92	12.89	584.28	0.078	0.009	0.062	62.3	44.3	66.2	6.14	3.8
200	12/5/2007	151900	238.6	47.4	4.05	13.16	580.367	0.078	0.01	0.062	62.1	44.4	66	6.13	3.9
201	12/5/2007	152000	238.8	46.1	4.07	13.29	578.836	0.076	0.009	0.062	62	43.3	66.2	6.05	3.9
202	12/5/2007	152100	238.9	46.5	4.73	13.51	578.792	0.077	0.011	0.062	62	43.5	66.1	6.07	4.4
203	12/5/2007	152200	239.1	47.7	5.09	13.53	579.755	0.079	0.012	0.062	61.4	45	65.5	6.1	4.7
204	12/5/2007	152300	239.3	48.4	4.5	13.54	579.973	0.08	0.01	0.062	61.9	45.6	65.5	6.16	4.3
205	12/5/2007	152400	239.5	48.3	4.37	13.58	583.079	0.079	0.01	0.062	61.2	44.8	65.2	6.08	4.2
206	12/5/2007	152500	239.5	48.4	4.44	13.59	583.254	0.08	0.01	0.061	61.4	45.4	65.2	6.16	4.2
207	12/5/2007	152600	239.5	49.8	4.37	13.59	583.036	0.083	0.01	0.062	61.6	47.2	65	6.23	4.2
208	12/5/2007	152700	239.5	50.8	4.13	13.58	583.123	0.084	0.01	0.061	61.3	48.2	64.5	6.29	4
209	12/5/2007	152800	239.3	50	4.23	13.54	579.842	0.084	0.01	0.062	61.6	47.8	64.6	6.32	4.1
210	12/5/2007	152900	239	48.4	4.24	13.6	579.055	0.081	0.01	0.062	61.6	46	64.8	6.24	4.1
211	12/5/2007	153000	238.9	48.1	4.46	10.69	581.942	0.08	0.01	0.061	61.4	45.9	64.7	6.25	4.2
212	12/5/2007	153100	238.8	48	4.47	11.09	582.773	0.08	0.01	0.062	61.9	45.7	65.4	6.24	4.3
213	12/5/2007	153200	238.7	47	5.4	11.99	583.298	0.079	0.013	0.062	61.8	44.7	65.1	6.23	5.2
214	12/5/2007	153300	238.8	48.1	5.33	12.62	583.997	0.08	0.013	0.062	61.7	45.4	65.1	6.2	5.1
215	12/5/2007	153400	238.6	46.9	5.4	13.05	582.992	0.078	0.013	0.062	61.9	44.7	65.2	6.28	5.1
216	12/5/2007	153500	238.9	47	5.39	13.25	581.285	0.078	0.013	0.061	61.5	44.3	64.8	6.19	5.2
217	12/5/2007	153600	238.7	47.8	5.05	13.37	582.161	0.08	0.012	0.062	61.7	45.1	65.2	6.22	4.9
218	12/5/2007	153700	238.8	47.7	4.71	13.48	582.904	0.079	0.011	0.061	61.1	45	64.6	6.23	4.6
219	12/5/2007	153800	238.7	47.6	4.95	13.58	586.447	0.079	0.012	0.061	61.1	45.3	64.4	6.23	4.8
220	12/5/2007	153900	237.9	48.4	4.96	13.59	586.184	0.081	0.012	0.061	60.9	45.8	64.3	6.23	4.8
221	12/5/2007	154000	238.8	49.2	5.11	13.57	585.966	0.082	0.012	0.061	61.2	46.8	64.4	6.27	4.9
222	12/5/2007	154100	238.2	47.4	5.55	13.68	586.053	0.079	0.013	0.061	60.6	44.6	63.8	6.21	5.3
223	12/5/2007	154200	238.7	47.9	5.63	13.6	585.091	0.08	0.013	0.06	60.3	45.6	63.8	6.24	5.4
224	12/5/2007	154300	238.3	47.7	6.14	13.62	580.367	0.079	0.015	0.06	60.3	45	63.7	6.22	5.8

Run # 5

CO2%	NOXlb	SO2lb	COlb	COcorr	NOXcorr	O2%	SO2corr
13.15	0.081	0.008	0.063	63.06	46.33	6.24	3.34

Flow, kscfm
584.70

225	12/5/2007	154400	238.2	47.4	6.31	13.59	580.892	0.079	0.015	0.061	60.7	44.8	64.2	6.21	6.1
226	12/5/2007	154500	238.6	47.5	5.72	13.6	581.898	0.079	0.013	0.061	60.4	45.1	63.8	6.23	5.5
227	12/5/2007	154600	238.2	47.2	5.91	10.36	581.067	0.078	0.014	0.06	60	44.6	63.5	6.2	5.6
228	12/5/2007	154700	238.4	47.4	6.75	11.46	581.11	0.079	0.016	0.061	60.5	44.7	64	6.2	6.4
229	12/5/2007	154800	238.2	46.9	6.61	12.19	585.791	0.078	0.015	0.061	60.8	44.6	64.1	6.21	6.4
230	12/5/2007	154900	238.2	47.3	6.06	12.81	583.691	0.078	0.014	0.06	60.2	44.8	63.6	6.17	5.9
231	12/5/2007	155000	238.4	46.4	6.45	13.23	583.254	0.077	0.015	0.06	59.6	43.8	63.3	6.17	6.1
232	12/5/2007	155100	238.2	46.8	6.65	13.37	584.216	0.078	0.015	0.06	59.4	44.2	63.3	6.12	6.3
233	12/5/2007	155200	238.8	46.4	6.68	13.45	582.948	0.077	0.015	0.06	59.5	43.7	63.2	6.12	6.3
234	12/5/2007	155300	239.2	47.4	6.52	13.5	581.986	0.079	0.015	0.06	59.5	44.5	63.3	6.13	6.2
235	12/5/2007	155400	239.5	48.9	6.86	13.5	581.898	0.082	0.016	0.06	59.4	46.4	62.6	6.22	6.5
236	12/5/2007	155500	239.3	50.1	6.01	13.5	579.623	0.084	0.014	0.06	59.8	47.4	62.8	6.29	5.9
237	12/5/2007	155600	238.9	49.6	5.21	13.51	578.049	0.083	0.012	0.06	59.9	47.4	63	6.32	5
238	12/5/2007	155700	238.6	48.5	4.94	13.57	577.786	0.081	0.012	0.06	59.8	46.3	63	6.25	4.8
239	12/5/2007	155800	238.1	46.7	5.46	13.61	577.349	0.077	0.013	0.06	60.4	44.2	63.8	6.2	5.2
240	12/5/2007	155900	237.9	45.6	6.25	13.7	577.568	0.075	0.015	0.06	59.9	43	63.5	6.15	5.9
241	12/5/2007	160000	238.1	45	6.32	13.76	580.192	0.074	0.015	0.06	59.6	42.4	63.6	6.05	5.9
242	12/5/2007	160100	238.3	45	6.89	13.78	579.755	0.074	0.016	0.059	58.9	42.2	62.9	6.03	6.5
243	12/5/2007	160200	238.5	45.3	6.77	9.47	579.098	0.075	0.015	0.06	59.2	42.4	63.5	6.02	6.3
244	12/5/2007	160300	238.6	46.4	6.71	11.94	582.379	0.077	0.015	0.06	59.4	43.6	63.3	6.12	6.3
245	12/5/2007	160400	238.6	47.6	6.58	12.91	582.948	0.078	0.015	0.06	59.4	44.8	63	6.16	6.3
246	12/5/2007	160500	239	47.8	6.14	13.44	582.904	0.079	0.014	0.059	59.1	45.2	62.6	6.18	5.8
247	12/5/2007	160600	238.9	46.6	5.76	13.55	583.211	0.08	0.013	0.059	58.8	45.7	62.8	6.13	5.4
248	12/5/2007	160700	238.7	47.6	5.4	13.63	582.117	0.079	0.013	0.06	59.2	45.1	62.8	6.17	5.3
249	12/5/2007	160800	238.8	47.4	5.41	13.64	580.673	0.078	0.013	0.059	59.1	44.8	62.6	6.15	5.2
250	12/5/2007	160900	238.6	47	5.24	13.64	580.455	0.078	0.012	0.06	59.5	44.5	63.3	6.17	5
251	12/5/2007	161000	238.6	47.7	5.37	13.67	580.323	0.079	0.012	0.06	59.5	45	63.1	6.15	5.1
252	12/5/2007	161100	238.6	46.3	5.87	13.68	580.238	0.076	0.014	0.06	59.3	43.5	63.1	6.1	5.6
253	12/5/2007	161200	238.7	46.9	5.47	13.76	581.023	0.077	0.013	0.059	58.7	44	62.5	6.08	5.2
254	12/5/2007	161300	238.8	47.4	5.68	13.69	580.891	0.078	0.013	0.059	58.5	44.5	62.5	6.07	5.3
255	12/5/2007	161400	239	47.9	5.48	13.69	581.592	0.079	0.013	0.058	58.5	44.7	62.2	6.09	5.2
256	12/5/2007	161500	239.1	47.9	5.67	13.69	582.204	0.079	0.013	0.059	58.5	45	62.2	6.1	5.4
257	12/5/2007	161600	239.5	47.6	5.5	11.38	583.078	0.079	0.013	0.058	57.7	44.9	61.6	6.09	5.2
258	12/5/2007	161700	239.3	47.9	5.58	10.75	583.21	0.079	0.013	0.058	58.1	45.2	61.7	6.13	5.2
259	12/5/2007	161800	239.4	48.1	5.93	12.52	582.685	0.079	0.014	0.058	58	45.2	61.6	6.13	5.7
260	12/5/2007	161900	239.3	47.5	6.02	12.9	583.21	0.079	0.014	0.058	57.7	44.9	61.4	6.11	5.8
261	12/5/2007	162000	239.1	48.2	6.01	13.04	583.473	0.079	0.014	0.058	58.2	45.4	61.8	6.16	5.7
262	12/5/2007	162100	239	46.8	6.04	13.18	583.035	0.077	0.014	0.059	58.9	44.3	62.7	6.13	5.8
263	12/5/2007	162200	238.6	45.8	5.71	13.37	583.254	0.076	0.013	0.06	59.7	43	63.3	6.14	5.4
264	12/5/2007	162300	238.5	44.5	5.86	13.46	583.473	0.074	0.013	0.06	59.9	42	63.8	6.1	5.5
265	12/5/2007	162400	238.6	44.6	7.06	13.54	580.804	0.073	0.016	0.06	59.4	41.8	63.5	6.02	6.6
266	12/5/2007	162500	238.5	44.3	7.41	13.6	581.417	0.073	0.017	0.059	59	41.4	63.2	6.02	7
267	12/5/2007	162600	238.8	44.7	7.79	13.64	580.061	0.073	0.018	0.059	59	41.8	63.2	6.01	7.4
268	12/5/2007	162700	238.9	45.5	7.69	13.68	578.267	0.074	0.018	0.059	59	42	63.1	6.0	7.2
269	12/5/2007	16[illegible]	239.4	44.9	7.93	13.72	581.461	0.074	0.018	0.059	58.8	42.1	63	6.[illegible]	7.4

Run # 6

CO2%	NOXlb	SO2lb	COlb	COcorr	NOXcorr	O2%	SO2corr
13.04	0.079	0.014	0.061	60.67	44.87	6.20	5.54

Flow, kscfm
583.35

Run # 7

CO2%	NOXlb	SO2lb	COlb	COcorr	NOXcorr	O2%	SO2corr
13.26	0.077	0.014	0.059	58.83	44.03	6.10	5.69

Flow, kscfm
581.78

270	12/5/2007	162900	239.4	45.8	7.05	13.71	580.629	0.075	0.016	0.059	58.4	42.7	62.6	6	6.8
271	12/5/2007	163000	239.4	46.2	7.69	13.69	580.673	0.076	0.018	0.059	59	43.4	63	6.09	7.2
272	12/5/2007	163100	239.3	46.4	7.58	10.38	586.354	0.077	0.018	0.059	59.1	43.7	62.8	6.09	7.3
273	12/5/2007	163200	239.5	46.3	7.21	10.91	585.179	0.076	0.017	0.058	58.6	43.6	62.6	6.06	6.8
274	12/5/2007	163300	239.5	46	7.52	12.19	585.31	0.076	0.017	0.059	59.1	43.1	63	6.06	7.1
275	12/5/2007	163400	239.5	46.6	7.28	12.87	585.66	0.076	0.017	0.059	58.3	43.3	62.4	6.06	6.9
276	12/5/2007	163500	239.6	47.3	6.52	13.3	585.397	0.078	0.015	0.059	58.8	44.4	62.5	6.11	6.2
277	12/5/2007	163600	239.6	45.8	6.91	13.53	585.616	0.076	0.016	0.059	59	43.1	62.9	6.11	6.5
278	12/5/2007	163700	239.6	45.1	7.1	13.68	585.922	0.074	0.016	0.059	58.6	42.2	62.7	6.02	6.7
279	12/5/2007	163800	239.6	45.4	6.98	13.69	585.616	0.075	0.016	0.059	58.7	42.5	62.9	6.02	6.5
280	12/5/2007	163900	239.8	45.3	7.02	13.72	585.31	0.074	0.016	0.059	59	42.5	63.1	6.03	6.7
281	12/5/2007	164000	239.8	45.1	7.16	13.73	585.135	0.074	0.016	0.059	58.9	42.2	62.9	6.02	6.8
282	12/5/2007	164100	239.5	44.7	7.26	13.71	585.047	0.073	0.017	0.059	58.7	41.8	62.8	6.04	6.8
283	12/5/2007	164200	239.1	44.4	7.8	13.74	583.21	0.073	0.018	0.059	58.8	41.7	62.9	6.03	7.3
284	12/5/2007	164300	239.3	45.2	8.07	13.75	580.979	0.074	0.019	0.059	58.5	42.2	62.7	6	7.7
285	12/5/2007	164400	239.3	44.8	8.12	13.77	582.335	0.073	0.018	0.059	58.5	41.5	62.8	5.99	7.5
286	12/5/2007	164500	239.3	45.4	8.58	13.76	582.686	0.075	0.02	0.059	58.7	42.4	62.7	6.01	8.1
287	12/5/2007	164600	239.7	45	7.74	13.74	577.83	0.074	0.018	0.059	58.7	42.2	62.8	6.01	7.3
288	12/5/2007	164700	239.5	45.2	7.68	10.52	579.055	0.074	0.017	0.059	58.8	42.4	63	6.03	7.2
289	12/5/2007	164800	239.4	45.8	7.91	11.23	581.81	0.075	0.018	0.059	58.4	42.8	62.6	5.99	7.4
290	12/5/2007	164900	239.6	45.6	7.35	12.52	581.023	0.075	0.017	0.058	58.1	42.7	62.3	5.99	6.9
291	12/5/2007	165000	239.4	46.2	7.4	13.09	580.848	0.075	0.017	0.058	57.9	43	62.1	6.02	7
292	12/5/2007	165100	239.7	45.9	7.23	13.45	581.985	0.076	0.017	0.058	58.3	43.1	62.3	6.06	6.8
293	12/5/2007	165200	239.7	45.8	6.63	13.62	582.86	0.076	0.015	0.059	58.9	43.2	62.8	6.07	6.4
294	12/5/2007	165300	239.5	45.6	6.5	13.68	582.992	0.075	0.015	0.058	58.1	42.8	62.2	6.03	6.1
295	12/5/2007	165400	239.8	45.1	6.3	13.69	583.079	0.074	0.015	0.059	58.6	42.2	62.5	6.05	6
296	12/5/2007	165500	239.4	45.7	6.32	13.69	582.685	0.075	0.014	0.058	58.5	42.8	62.5	6.03	5.9
297	12/5/2007	165600	239.5	45.9	5.9	13.71	581.548	0.075	0.014	0.059	58.8	42.8	62.8	6.02	5.6
298	12/5/2007	165700	239.6	45.7	6.68	13.72	578.573	0.075	0.015	0.058	58.2	42.7	62.3	6	6.2
299	12/5/2007	165800	239.6	45.1	7.17	13.72	580.804	0.074	0.017	0.058	58.1	42.2	62.4	5.98	6.7
300	12/5/2007	165900	239.6	45.6	7.39	13.7	580.892	0.075	0.017	0.058	58.2	42.7	62.3	6.00	6.9
301	12/5/2007	170000	239.8	45.7	7.19	13.73	581.679	0.075	0.016	0.058	58.3	42.5	62.6	5.99	6.8
302	12/5/2007	170100	239.6	43.8	7.51	13.75	584.085	0.072	0.017	0.059	59.2	40.8	63.9	5.93	7
303	12/5/2007	170200	239.8	43.4	7.06	9.47	585.529	0.071	0.016	0.06	60.1	40.5	64.4	6	6.7
304	12/5/2007	170300	239.8	44.1	6.53	11.89	581.898	0.071	0.015	0.06	59.7	40.8	64.3	5.93	6.1
305	12/5/2007	170400	239.8	44.5	7.11	12.8	582.423	0.073	0.016	0.06	59.7	41.4	63.9	6.01	6.7
306	12/5/2007	170500	239.7	44.8	6.46	13.11	586.141	0.073	0.015	0.06	59.9	41.9	64.1	5.99	6.1
307	12/5/2007	170600	239.8	44.3	6.51	13.36	584.26	0.073	0.015	0.06	59.4	41.3	63.5	6.02	6.1
308	12/5/2007	170700	240.4	44.5	6.22	13.5	584.041	0.073	0.014	0.059	59.4	41.7	63.4	6.06	5.9
309	12/5/2007	170800	240.3	44.7	6.42	13.57	587.541	0.074	0.015	0.06	59.4	42.3	63.2	6.09	6.1
310	12/5/2007	170900	240.5	45.1	6.19	13.6	585.397	0.075	0.014	0.06	59.7	42.2	63.6	6.11	5.9
311	12/5/2007	171000	240.2	45.6	6.39	13.63	584.172	0.075	0.015	0.059	59.2	42.4	63.3	6.06	6.1
312	12/5/2007	171100	240.4	45.6	5.88	13.64	584.085	0.075	0.014	0.06	59.4	42.8	63.4	6.08	5.6
313	12/5/2007	171200	240	44.8	6.53	13.6	584.348	0.074	0.015	0.06	60	42.1	63.9	6.13	6.1
314	12/5/2007	171300	239.7	43.5	6.51	13.71	577.349	0.072	0.015	0.06	60.2	41	64.2	6.07	6.2
315	12/5/2007	171400	239.6	42.7	6.22	13.74	576.999	0.07	0.014	0.06	60	39.8	64.4	5.99	5.8

Run # 8

CO2%	NOXlb	SO2lb	COlb	COcorr	NOXcorr	O2%	SO2corr
13.09	0.074	0.017	0.059	58.61	42.27	6.01	6.80

Flow, kacfm
581.74

316	12/5/2007	171500	239.8	43.5	5.58	13.69	577.742	0.071	0.013	0.06	60	40.3	64.4	5.95	5.3
317	12/5/2007	171600	239.6	43	5.43	10.61	578.311	0.07	0.012	0.06	60.1	40	64.6	5.95	5.1
318	12/5/2007	171700	239.7	43.8	5.66	9.92	578.486	0.071	0.013	0.06	60.1	40.7	64.7	5.98	5.4
319	12/5/2007	171800	240	43	6.3	12.19	584.392	0.071	0.014	0.06	60.3	40	64.9	5.94	5.7
320	12/5/2007	171900	239.6	42.7	6.22	13.2	583.342	0.069	0.015	0.061	60.5	39.6	64.8	5.92	5.9
321	12/5/2007	172000	239.8	42.4	6.82	13.61	580.76	0.069	0.015	0.06	60	39.2	64.9	5.92	6.3
322	12/5/2007	172100	240	42.4	6.94	13.7	581.285	0.07	0.016	0.06	60.4	39.5	64.9	5.95	6.5
323	12/5/2007	172200	240.6	44	6.27	13.73	580.104	0.071	0.015	0.06	60.2	41	65	5.9	5.9
324	12/5/2007	172300	241	44.3	6.01	13.72	578.124	0.072	0.014	0.06	60.3	40.5	64.8	5.93	5.7
325	12/5/2007	172400	241.6	44.5	6.28	13.71	579.886	0.073	0.015	0.061	60.4	41.7	64.8	5.99	5.9
326	12/5/2007	172500	241.6	45.9	6.23	13.65	581.023	0.076	0.014	0.061	60.6	43.2	64.5	6.08	5.9
327	12/5/2007	172600	242.1	46.6	5.64	13.6	576.955	0.076	0.014	0.061	60.4	43.3	64.2	6.07	5.5
328	12/5/2007	172700	241.9	46.1	5.12	13.61	580.717	0.075	0.012	0.061	60.6	43.2	64.7	6.08	4.9
329	12/5/2007	172800	242.1	46.5	5.17	13.53	581.985	0.077	0.012	0.061	61.4	43.9	64.9	6.19	4.9
330	12/5/2007	172900	242	46.1	4.93	13.56	577.786	0.077	0.012	0.061	61.2	43.4	65	6.16	4.7
331	12/5/2007	173000	241.7	45.6	4.71	13.53	577.349	0.075	0.011	0.062	61.3	43.1	65.3	6.12	4.4
332	12/5/2007	173100	241.3	44	4.67	13.58	576.868	0.072	0.011	0.062	62	41.5	65.7	6.13	4.5
333	12/5/2007	173200	241	43.5	5.24	11.61	573.106	0.071	0.012	0.061	61.6	40.8	65.8	6.07	4.9
334	12/5/2007	173300	241.1	43.1	5.37	11.06	573.412	0.071	0.012	0.061	61	40.4	65.3	6.02	5
335	12/5/2007	173400	241.5	43.2	5.52	12.1	574.112	0.07	0.013	0.062	61.3	40.3	65.6	5.97	5.2
336	12/5/2007	173500	241.3	42.6	5.85	12.93	576.911	0.07	0.014	0.061	61	39.7	65.5	5.96	5.5
337	12/5/2007	173600	242	43.6	5.82	13.37	578.573	0.071	0.013	0.061	60.6	40.4	65	5.98	5.5
338	12/5/2007	173700	241.5	44.5	6.21	13.53	580.542	0.073	0.014	0.06	60.2	41.5	64.6	5.99	5.9
339	12/5/2007	173800	241.9	45.5	5.5	13.59	580.892	0.075	0.013	0.06	60.1	42.5	64.3	6.07	5.2
340	12/5/2007	173900	241.8	45.4	5.87	13.58	580.76	0.075	0.014	0.06	60.3	42.8	64	6.09	5.5
341	12/5/2007	174000	242	44.6	5.81	13.6	580.149	0.074	0.014	0.06	60	42.1	63.9	6.11	5.6
342	12/5/2007	174100	241.8	44.5	5.82	13.63	580.017	0.073	0.013	0.06	60	41.5	64	6.07	5.5
343	12/5/2007	174200	241.7	45.1	5.66	13.62	580.586	0.074	0.013	0.061	60.4	42	64.5	6.07	5.3
344	12/5/2007	174300	241.5	45.3	5.01	13.64	583.735	0.074	0.012	0.061	60.7	42.5	64.6	6.06	4.7
345	12/5/2007	174400	241.1	44.2	5.04	13.61	582.729	0.073	0.012	0.06	60.2	41.4	64.6	6.05	4.7
346	12/5/2007	174500	241.1	43.9	5.26	13.59	582.642	0.073	0.012	0.062	61.4	41.7	65.4	6.11	5
347	12/5/2007	174600	241	43.2	5.68	10.5	582.773	0.071	0.013	0.061	60.9	40.4	64.8	6.02	5.3
348	12/5/2007	174700	241.3	42.6	6.33	11.88	581.985	0.069	0.014	0.06	60.2	39.6	64.6	5.98	5.9
349	12/5/2007	174800	241.2	42.7	6.16	12.85	581.417	0.069	0.014	0.06	60.2	39.5	64.7	5.98	5.7
350	12/5/2007	174900	241.4	43.5	6.74	13.22	581.46	0.071	0.015	0.06	60.4	40.6	64.8	6	6.4
351	12/5/2007	175000	241.5	43.2	6.74	13.38	582.161	0.071	0.016	0.061	60.7	40.3	64.9	6.01	6.4
352	12/5/2007	175100	241.6	43.4	5.98	13.42	583.473	0.072	0.014	0.061	60.9	40.8	65.2	6.03	5.7
353	12/5/2007	175200	241.6	45	6.2	13.4	581.723	0.075	0.014	0.061	60.8	42.3	65.2	6.06	5.9
354	12/5/2007	175300	241.6	44.6	6.71	13.43	581.154	0.073	0.016	0.061	61.1	41.7	65.3	6.05	6.3
355	12/5/2007	175400	241.9	45.2	6.98	13.45	580.673	0.074	0.016	0.061	61	41.9	65.3	6.03	6.6
356	12/5/2007	175500	242.1	45.7	6.63	13.44	578.967	0.076	0.016	0.061	60.7	43	64.8	6.08	6.4
357	12/5/2007	175600	242.2	45.7	5.92	13.4	577.349	0.075	0.014	0.061	61.1	43.1	65	6.12	5.6
358	12/5/2007	175700	242.2	46	6.21	13.36	577.742	0.076	0.014	0.061	61.1	43.1	64.8	6.14	5.8
359	12/5/2007	175800	241.9	45.8	6.06	13.35	575.949	0.076	0.014	0.061	61	43.2	64.8	6.16	5.8
360	12/5/2007	17[illegible]	241.6	45.6	5.91	13.4	575.074	0.075	0.014	0.062	61.9	43.2	65.6	6.	5.6

Run # 9

CO2%	NOXlb	SO2lb	COlb	COcorr	NOXcorr	O2%	SO2corr
13.06	0.673	0.013	0.061	60.70	41.34	6.02	6.42

Flow, kscfm
578.85

361	12/5/2007	180000	241.8	45.5	5.85	13.4	576.824	0.076	0.014	0.062	61.4	43.2	65	6.16	5.6
362	12/5/2007	180100	243.1	44.2	6.18	13.48	576.518	0.073	0.014	0.062	61.3	41.5	65.4	6.1	5.9
363	12/5/2007	180200	244.6	40.9	7.83	11.95	575.949	0.068	0.017	0.062	61.6	38.4	66.2	5.96	7.3
364	12/5/2007	180300	245.1	39.1	10.11	11.12	577.786	0.064	0.023	0.06	59.3	35.9	64.6	5.76	9.3
365	12/5/2007	180400	245.2	40.3	10.2	12.21	577.961	0.065	0.023	0.059	58.8	37	64.1	5.72	9.4
366	12/5/2007	180500	245.6	40.8	12.39	12.88	578.049	0.065	0.027	0.059	58.7	37.1	63.9	5.75	11.2
367	12/5/2007	180600	245.8	42.6	11.35	13.43	578.573	0.068	0.026	0.058	57.9	38.9	63	5.75	10.6
368	12/5/2007	180700	246.2	44.6	8.75	13.57	578.967	0.072	0.02	0.059	58.5	40.9	63.5	5.86	8.2
369	12/5/2007	180800	246.4	46.1	7.67	13.58	582.336	0.074	0.018	0.058	58.2	42.4	62.6	5.81	7.2
370	12/5/2007	180900	246.3	46.8	7.28	13.51	582.948	0.076	0.017	0.059	58.7	43.5	63	6.02	6.9
371	12/5/2007	181000	246.6	44.5	7.2	13.08	582.773	0.075	0.017	0.058	58.7	42.9	60.7	6.49	7
372	/ /														
373	/ /	AVE	239.85	46.62	5.324	12.82	581.923	0.077	0.012	0.061	60.817	43.808	64.766	6.096	5.052

Daily Calibration Summary
AES Puerto Rico
Unit #2 Page 1

Report Period
Day: 12/05/2007

	TIME	ZERO CAL MS	ZERO CAL ACT	ZERO CAL DRIFT	ZERO CAL %ERR	SPAN CAL MS	SPAN CAL ACT	SPAN CAL DRIFT	SPAN CAL %ERR
NOx Full Scale :			200.0						
12/05/2007	7:37	0.0	0.0	0.0	0.0 P	56.1	53.3	2.8	1.4 P
12/05/2007	9:38					55.9	53.3	2.6	1.3 P
SO2 Full Scale :			50.0						
12/05/2007	7:37	-0.1	0.0	0.1	0.2 P	12.1	10.8	1.3	2.6 P
12/05/2007	9:38					10.6	10.8	0.2	0.4 P
CO2									
12/05/2007	7:37	0.0	0.0	0.0	0.0 P	12.4	10.9	1.5	1.5 W
12/05/2007	9:38					10.9	10.9	0.0	0.0 P
CO Full Scale :			1000.0						
12/05/2007	7:37	-0.3	0.0	0.3	0.2 P	111.6	110.0	1.6	0.8 P
OXY									
12/05/2007	7:37	-0.3	0.0	0.3	0.3 P	11.8	11.9	0.1	0.1 P
OPAC									
12/05/2007	7:34	-1.1	0.0	1.1	1.1 P	44.9	45.0	0.1	0.1 P
FLOW Full Scale :			1075.0						
12/05/2007	10:42	-6.2	0.0	6.2	0.6 P	723.0	720.0	3.0	0.3 P

Today's Date: 12/05/2007
Time: 11:10:26

MS - Measured Value
P - Calibration Passed
W - Calibration Warning
%ERR - % Error

ACT - Actual Value
F - Calibration Failed
X - Failed 5 Day Limit

Opacity Calibration Error Test

Service Engineer:	Robert Sicard	Source Name:	AES Puerto Rico
Date:	12/6/2007	Unit Number:	2
Monitor Pathlength, L1:	16	Installation Location:	Guayama, PR.
Emission Outlet Pathlength, L2:	16	Model Number:	Sepctrum 41
Clearpath Distance:	19' 7 5/8"	Transceiver S/N:	0045-8003
System Output PLCF Corrected?	Yes	Reflector S/N:	0045-8003
Internal Span Cell Percent Opacity:	45	Control Unit S/N:	0045-8003
OPLR:	0.5	PLCF($^{L2}/_{L1}$):	1.00

	Attenuator Serial Number	Attenuator Value (OP1)	Path Length Corrected Opacity (OP2)
Low Range	SH-30	13.55%	13.55%
Mid Range	GP-01	27.65%	27.65%
High Range	RP-65	46.58%	46.58%

Run Number	Calibration Filter Value Path-Adjusted % Opacity	Instrument Reading Percent Opacity	Arithmetic Difference Percent Opacity		
			Low	Mid	High
1- Low	13.55%	13.30%	-0.25%		
2- Mid	27.65%	27.60%		-0.05%	
3- High	46.58%	46.30%			-0.28%
4- Low	13.55%	13.70%	0.15%		
5- Mid	27.65%	27.70%		0.05%	
6- High	46.58%	46.40%			-0.18%
7- Low	13.55%	13.70%	0.15%		
8- Mid	27.65%	27.70%		0.05%	
9- High	46.58%	46.40%			-0.18%
10- Low	13.55%	13.70%	0.15%		
11- Mid	27.65%	27.70%		0.05%	
12- High	46.58%	46.30%			-0.28%
13- Low	13.55%	13.80%	0.25%		
14- Mid	27.65%	27.60%		-0.05%	
15- High	46.58%	46.50%			-0.08%
		Arithmetic Mean:	0.09%	0.01%	-0.20%
		Confidence Coefficient:	0.24%	0.07%	0.10%
		Calibration Error:	0.33%	0.08%	0.30%

Formula's

$$OP_2 = 1 - (1 - OP_1)^{\frac{L_2}{L_1}}$$

OPACITY-2

Record#	DATE	TIME	OPACITY21	
1	12/06/2007	155000	11.300	
2	12/06/2007	155100	11.200	
3	12/06/2007	155200	15.200	
4	12/06/2007	155300	12.200	
5	12/06/2007	155400	11.500	
6	12/06/2007	155500	15.100	
7	12/06/2007	155600	17.500	
8	12/06/2007	155700	-0.500	
9	12/06/2007	155800	0.300	
10	12/06/2007	155900	-0.100	
11	12/06/2007	160000	-0.200	
12	12/06/2007	160100	-0.200	
13	12/06/2007	160200	0.000	
14	12/06/2007	160300	6.300	
15	12/06/2007	160400	13.600	
16	12/06/2007	160500	13.300	Low
17	12/06/2007	160600	27.000	
18	12/06/2007	160700	27.600	
19	12/06/2007	160800	27.600	MID
20	12/06/2007	160900	43.000	
21	12/06/2007	161000	46.300	
22	12/06/2007	161100	46.300	HIGH

Unit 2
Opacity Data

23	12/06/2007 161200	17.100	
24	12/06/2007 161300	-0.100	
25	12/06/2007 161400	-0.100	
26	12/06/2007 161500	13.000	
27	12/06/2007 161600	13.600	
28	12/06/2007 161700	13.700	Low
29	12/06/2007 161800	27.700	
30	12/06/2007 161900	27.600	
31	12/06/2007 162000	27.700	MID
32	12/06/2007 162100	41.300	
33	12/06/2007 162200	46.400	HIGH
34	12/06/2007 162300	39.200	
35	12/06/2007 162400	0.000	
36	12/06/2007 162500	0.000	
37	12/06/2007 162600	0.000	
38	12/06/2007 162700	11.500	
39	12/06/2007 162800	13.700	
40	12/06/2007 162900	13.700	Low
41	12/06/2007 163000	23.100	
42	12/06/2007 163100	27.700	
43	12/06/2007 163200	27.700	MID
44	12/06/2007 163300	38.700	
45	12/06/2007 163400	46.500	
46	12/06/2007 163500	46.400	HIGH
47	12/06/2007 163600	15.800	
48	12/06/2007 163700	0.000	

Unit 2
Opacity Data

49	12/06/2007 163800	1.700	
50	12/06/2007 163900	13.600	
51	12/06/2007 164000	13.700	Low
52	12/06/2007 164100	13.500	
53	12/06/2007 164200	27.200	
54	12/06/2007 164300	27.700	MID
55	12/06/2007 164400	27.500	
56	12/06/2007 164500	46.000	
57	12/06/2007 164600	46.300	
58	12/06/2007 164700	46.300	HIGH
59	12/06/2007 164800	7.800	
60	12/06/2007 164900	0.000	
61	12/06/2007 165000	0.000	
62	12/06/2007 165100	12.900	
63	12/06/2007 165200	13.900	
64	12/06/2007 165300	13.800	Low
65	12/06/2007 165400	26.300	
66	12/06/2007 165500	27.600	
67	12/06/2007 165600	27.600	MID
68	12/06/2007 165700	40.000	
69	12/06/2007 165800	46.500	
70	12/06/2007 165900	46.500	HIGH
71	12/06/2007 170000	22.700	
72	12/06/2007 170100	0.000	
73	12/06/2007 170200	0.000	
74	12/06/2007 170300	0.000	

Unit 2
Opacity Data

75	12/06/2007	170400	0.000
76	12/06/2007	170500	0.000
77	12/06/2007	170600	0.000
78	12/06/2007	170700	0.000
79	12/06/2007	170800	0.000
80	12/06/2007	170900	0.000
81	12/06/2007	171000	0.000
82	12/06/2007	171100	0.000
83	12/06/2007	171200	0.000
84	12/06/2007	171300	0.200
85	12/06/2007	171400	13.700
86	12/06/2007	171500	13.700
87	12/06/2007	171600	13.700
88	12/06/2007	171700	13.700
89	12/06/2007	171800	13.700
90	12/06/2007	171900	13.700
91	12/06/2007	172000	13.700
92	12/06/2007	172100	13.700
93	12/06/2007	172200	13.700
94	12/06/2007	172300	13.700
95	12/06/2007	172400	13.600
96	12/06/2007	172500	13.700
97	12/06/2007	172600	13.700
98	12/06/2007	172700	13.700
99	12/06/2007	172800	26.500
100	12/06/2007	172900	27.700

13min avg

13.7%

Low

MID

Unit 2

Opacity Data

101	12/06/2007	173000	27.800
102	12/06/2007	173100	27.700
103	12/06/2007	173200	27.700
104	12/06/2007	173300	27.700
105	12/06/2007	173400	27.700
106	12/06/2007	173500	27.700
107	12/06/2007	173600	27.700
108	12/06/2007	173700	27.700
109	12/06/2007	173800	27.800
110	12/06/2007	173900	27.700
111	12/06/2007	174000	27.700
112	12/06/2007	174100	43.900
113	12/06/2007	174200	46.400
114	12/06/2007	174300	46.500
115	12/06/2007	174400	46.500
116	12/06/2007	174500	46.400
117	12/06/2007	174600	46.400
118	12/06/2007	174700	46.500
119	12/06/2007	174800	46.500
120	12/06/2007	174900	46.500
121	12/06/2007	175000	46.400
122	12/06/2007	175100	46.400
123	12/06/2007	175200	46.500
124	12/06/2007	175300	46.400
125	12/06/2007	175400	46.500
126	12/06/2007	175500	46.500

27.7%

13-min average

46.5%

13-min average

Unit 2

Opacity Data

APPENDIX C

Gas Certificates of Analyses

Equipment Calibration Forms

NO_x Converter Efficiency Results

Opacity Filter Certification Form

PRAXAIR

Praxair Distribution, Inc.
145 Shimersville Road
Bethlehem, PA 18015

Tel: (610) 691-2474
Fax: (610) 758-9103

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER PRAXAIR SOUTHEAST

P.O NUMBER 914589-03

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
151.4 PPM CARBON MONOXIDE GMIS VS	82636	CC64020	249.4 PPM
22.95 % GMIS VS	2659a	CAL015449	20.72 %

ANALYZER READINGS

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

1. COMPONENT 151.4 PPM CARBON MONOXIDE GMIS VS ANALYZER MAKE-MODEL-S/N Siemens Ultramat 5E S/N B8-900

ANALYTICAL PRINCIPLE NON-DISPERSIVE INFRARED
FIRST ANALYSIS DATE 11/15/06
LAST CALIBRATION DATE 10/31/06
SECOND ANALYSIS DATE 11/22/06

Z 0	R 151.0	C 114.0	CONC. 114.3		Z 0	R 152.5	C 115.0	CONC. 114.2
R 151.0	Z 0	C 114.0	CONC. 114.3		R 152.5	Z 0	C 115.0	CONC. 114.2
Z 0	C 114.0	R 151.0	CONC. 114.3		Z 0	C 115.0	R 152.5	CONC. 114.2
U/M PPM		MEAN TEST ASSAY	114.3		U/M PPM		MEAN TEST ASSAY	114.2

2. COMPONENT 22.95 % GMIS VS ANALYZER MAKE-MODEL-S/N Siemens Oxymat 5E S/N F1-111

ANALYTICAL PRINCIPLE Paramagnetic
FIRST ANALYSIS DATE 11/15/06
LAST CALIBRATION DATE 10/31/06
SECOND ANALYSIS DATE

Z 0	R 23.58	C 11.88	CONC. 11.56	Z	R	C	CONC.
R 23.58	Z 0	C 11.86	CONC. 11.54	R	Z	C	CONC.
Z 0	C 11.86	R 23.58	CONC. 11.54	Z	C	R	CONC.
U/M %		MEAN TEST ASSAY	11.55	U/M %			MEAN TEST ASSAY

VALUES NOT VALID BELOW 150 PSIG
UNCERTAINTIES: CO±1.4PPM; O2±0.04%

THIS CYLINDER NO. SA6672
HAS BEEN CERTIFIED ACCORDING TO SECTION 2.2
OF TRACEABILITY PROTOCOL NO. EPA-600/R97/121
PROCEDURE G1
CERTIFIED ACCURACY ± 1 % NIST TRACEABLE
CYLINDER PRESSURE 2000 PSIG
CERTIFICATION DATE 11/22/06
EXPIRATION DATE 11/22/09 TERM

CERTIFIED CONCENTRATION

CARBON MONOXIDE	114.2PPM
OXYGEN	11.55%
NITROGEN	BALANCE

ANALYZED BY KRISTEN BECK

CERTIFIED BY 11-30-06

PRAXAIR

Praxair Distribution, Inc.
145 Shimersville Road
Bethlehem, PA 18015

Tel: (610) 691-2474
Fax: (610) 758-9103

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER PRAXAIR SOUTHEAST **P.O NUMBER** 3949331-02

REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
79.56 PPM NITRIC OXIDE GMIS VS	1683b	CAL015567	48.52 PPM
25.28 PPM SULFUR DIOXIDE GMIS VS	1693a	CAL015193	49.66 PPM
17.96 % CARBON DIOXIDE GMIS VS	2745	CAL016031	15.633%

ANALYZER READINGS

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

1. COMPONENT 79.56 PPM NITRIC OXIDE GMIS ANALYZER MAKE-MODEL-S/N TECO MODEL 42C 42CH-57352-312
   ANALYTICAL PRINCIPLE Chemiluminescence LAST CALIBRATION DATE 09/30/07
   FIRST ANALYSIS DATE 10/15/07 SECOND ANALYSIS DATE 10/22/07

Z 0	R 74.8	C 50.7	CONC. 53.93	Z 0	R 79.1	C 53.4	CONC. 54.21
R 74.9	Z 0	C 50.7	CONC. 53.93	R 78.5	Z 0	C 53.4	CONC. 54.21
Z 0	C 50.7	R 74.7	CONC. 53.93	Z 0	C 53.0	R 77.5	CONC. 53.81
U/M PPM		MEAN TEST ASSAY	53.93	U/M PPM		MEAN TEST ASSAY	54.08

2. COMPONENT 25.28 PPM SULFUR DIOXIDE GMIS ANALYZER MAKE-MODEL-S/N SIEMENS ULTRAMAT 6E S/N-J2-36
   ANALYTICAL PRINCIPLE NON-DISPERSIVE INFRARED LAST CALIBRATION DATE 09/30/07
   FIRST ANALYSIS DATE 10/15/07 SECOND ANALYSIS DATE 10/22/07

Z 0	R 24.96	C 10.20	CONC. 10.29	Z 0	R 25.13	C 10.32	CONC. 10.31
R 25.01	Z 0	C 10.20	CONC. 10.39	R 25.03	Z 0	C 10.37	CONC. 10.36
Z 0	C 10.56	R 25.20	CONC. 10.65	Z 0	C 10.26	R 25.73	CONC. 10.25
U/M PPM		MEAN TEST ASSAY	10.44	U/M PPM		MEAN TEST ASSAY	10.31

3. COMPONENT 17.96 % CARBON DIOXIDE GMIS ANALYZER MAKE-MODEL-S/N HORIBA VA 3011 SN: 43638558001
   ANALYTICAL PRINCIPLE NON-DISPERSIVE INFRARED LAST CALIBRATION DATE 09/30/07
   FIRST ANALYSIS DATE 10/15/07 SECOND ANALYSIS DATE

Z 0	R 18.58	C 11.13	CONC. 10.81	Z	R	C	CONC.
R 18.42	Z 0	C 11.11	CONC. 10.79	R	Z	C	CONC.
Z 0	C 11.09	R 18.46	CONC. 10.77	Z	C	R	CONC.
U/M %		MEAN TEST ASSAY	10.79	U/M %		MEAN TEST ASSAY	

THIS CYLINDER NO. SA9619
HAS BEEN CERTIFIED ACCORDING TO SECTION 2.2
OF TRACEABILITY PROTOCOL NO. EPA-600/R97/121
PROCEDURE G1
CERTIFIED ACCURACY ± 1% % NIST TRACEABLE
CYLINDER PRESSURE 2000 PSIG
CERTIFICATION DATE 10/22/07
EXPIRATION DATE 04/22/08 TERM

CERTIFIED CONCENTRATION

NITRIC OXIDE	54.0PPM
SULFUR DIOXIDE	10.42PPM
CARBON DIOXIDE	10.79%
NOx (FOR REFERENCE ONLY)	54.0PPM

VALUES NOT VALID BELOW 150PSIG; BALANCE:NITROGEN
UNCERTAINTIES: NO±0.6PPM; SO2±0.18PPM; CO2±0.10%

ANALYZED BY KRISTEN BECK

CERTIFIED BY MB 10-24-07

Linde Gas | Linde

Certificate of Analysis

EPA Protocol

Performed according to EPA-600/R-97/121, Procedure G1

Notice: This Cylinder is not to be used when pressure is under 150 psig.

Manufactured and certified at:

Linde Gas LLC
Maumee Specialty Gas Plant
6421 Monclova Road
MAUMEE OH 43537
419-893-7226

Produced for customer:

LINDE GAS PUERTO RICO INC
SAN JUAN PR
USA
800-981-7455

Material:	2179		**Blend Tolerance:**	5 % Relative
MISC 3 COMPONENT	EPA	A31	**Blend Type:**	EPA Protocol
Production #:	100117449		**Cyl. Pressure:**	2000 psig
Lot #:	02499D6130EA		**Balance Gas:**	Nitrogen
Cylinder #:	CC150546		**CGA:**	660
Expiration Date:	4/26/2008		**Volume:**	143 cf
Shelf Life:	24 months		**Analytical Accuracy:**	1.00 % Relative

CAS #	Certified Component	Requested Concentration	Concentration and Uncertainty	Date of Certification
10102-43-9	Nitric Oxide	110	109 +/- 1 ppm	04/26/2006
7446-09-5	Sulfur Dioxide	28	27.8 +/- 0.3 ppm	04/26/2006
7727-37-9	Nitrogen		Balance	04/26/2006

CAS #	Analyzed (For Ref. Use Only)	Concentration	Analysis Date
N/A	NOx	109 ppm	04/26/2006

CAS #	Reference Standard	Cylinder/Standard #	Concentration	Expire Date
7446-09-5	Sulfur Dioxide	CC157637 , GMIS	25.95 ppm	06/14/2007
10102-43-9	Nitric Oxide	CC221965 , GMIS	48.81 ppm	10/25/2007

Instrument	Serial #	Analytical Principle	Calibration Date
Thermo Nicolet AEM	AET0100218	FTIR	04/07/2006

All analyses are performed under controlled environmental conditions.This product is manufactured using equipment which has been calibrated with NIST traceable, or equivalent, standards, weights, or equipment.

Analytical report approved by Jennifer Carney

Jennifer Carney

HiQ Analysis Certificate

Airgas

Certificate of Analysis: EPA Protocol Gas Mixture

Airgas Specialty Gases
325 McCausland Court
Cheshire, CT 06410
Phone (203) 250-6827
Fax (203) 250-6842
www.airgas.com

Cylinder Number:	SG9126989BAL	Reference Number:	46-124029818-10
Cylinder Pressure:	1999.6 PSIG	Expiration Date:	2/17/2008
Certification Date:	2/17/2005	Laboratory:	ASG - Cheshire - CT

Certified Concentrations

Component	Concentration	Accuracy	Analytical Principle	Procedure
OXYGEN	14.47 %	+/- 1%	PARAMAG.	G1
CARBON DIOXIDE	17.84 % ←	+/- 1%	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:

Do not use cylinder below 150 psig.

Approval Signature

Reference Standard Information

Type	Balance Gas	Component	Cyl.Number	Concentration
NTRM 82745		CARBON DIOXIDE	SG9199010	19.37 %
NTRM 82658		OXYGEN	SG9168306	16.04 %

Analytical Results

1st Component — **OXYGEN**

1st Analysis Date: 02/17/2005

R 135.47	S 122.48	Z 1.34	Conc 14.47 %
S 122.19	Z 1.34	R 135.17	Conc 14.47 %
Z 1.34	R 135.33	S 122.46	Conc 14.48 %
			AVG: 14.47 %

2nd Component — **CARBON DIOXIDE**

1st Analysis Date: 02/17/2005

R 19.41	S 17.92	Z 0.11	Conc 17.87 %
S 17.91	Z 0.12	R 19.48	Conc 17.79 %
Z 0.12	R 19.50	S 17.98	Conc 17.85 %
			AVG: 17.84 %

Airgas

Airgas Specialty Gases
325 McCausland Court
Cheshire, CT 06410
Phone (800) 381-9510
Fax (203) 250-6842
www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI99E15AC278	Reference Number:	46-124104202-2
Cylinder Number:	SX37401	Cylinder Volume:	144 Cu.Ft.
Laboratory:	ASG - Cheshire - CT	Cylinder Pressure:	2015 PSIG
Analysis Date:	Aug 29, 2007	Valve Outlet:	660

Expiration Date: Feb 29, 2008

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	18.00 PPM	18.16 PPM	G1	+/- 1% NIST Traceable
NITROGEN	Balance			

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Expiration Date
NTRM	060610	CC207545	45.91PPM SULFUR DIOXIDE/NITROGEN	Sep 01, 2010

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet Nexus	FTIR	Aug 17, 2007

Triad Data Available Upon Request

Notes:

QA Approval

ASG#5001

Airgas.

Airgas Specialty Gases
325 McCausland Court
Cheshire, CT 06410
Phone (800) 381-9510
Fax (203) 250-8842
www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E03NI82E15A0220	Reference Number:	46-124096772-1
Cylinder Number:	SG9175027	Cylinder Volume:	127 Cu.Ft.
Laboratory:	ASG - Cheshire - CT	Cylinder Pressure:	1700 PSIG
Analysis Date:	May 21, 2007	Valve Outlet:	590

Expiration Date: May 21, 2010

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
CARBON DIOXIDE	9.000 %	9.003 %	G1	+/- 1% NIST Traceable
OXYGEN	9.000 %	8.976 %	G1	+/- 1% NIST Traceable
NITROGEN	Balance			

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Expiration Date
NTRM	970508	SG9166457	7.029% CARBON DIOXIDE/NITROGEN	May 01, 2010
NTRM	980511	SG9168283	9.507% OXYGEN/NITROGEN	Jan 01, 2010

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet Nexus	FTIR	May 16, 2007
Servomex OA244	Paramagnetic	May 16, 2007

Triad Data Available Upon Request

Notes:

QA Approval

ASG#5001

ENSR | AECOM

DRY GAS METER CALIBRATION

Meter Box No.: 80582

Check one:

Annual Calibration X Recalibration _____

Date:	12/27/2006	
Operator:	Jarrod Hendley	
Barometric Pressure:	29.55	(in Hg)
Theoretical Critical Vacuum:	13.94	(in Hg)

Pretest Leak Checks		
	Allowable	Actual
Positive	0	0.00
(at 5 - 7 in. H_2O)	in. H_2O per min.	
Negative	0	0.000
(at 3 in. Hg)	cfm	cfm

Manufacturer: Anderson NUTECH

Date Received/Placed in service: Pre 1990

Serial No.: 80582

DRY GAS METER DATA							CRITICAL ORIFICE DAT					
		Volume			Temp					Ambient Temperature		
ΔH	Time	Initial	Final	Total	Initial	Final	Critical Orifice	K' Orifice Calibration	Actual Vacuum	Initial	Final	Average
(in H_2O)	(min)	(ft^3)	(ft^3)	(ft^3)	°F	°F	Serial #	Coefficient	(in Hg)	°F	°F	°F
0.25	20	225.600	231.747	6.147	79	79	40	0.225	15	70	69	70
0.95	15	236.300	244.921	8.621	80	81	52	0.427	15	69	69	69
1.70	15	252.900	264.422	11.522	82	82	63	0.582	15	69	69	69
4.00	10	275.900	287.327	11.427	85	85	76	0.831	15	69	69	69

CORRECTED VOLUME	
Dry Gas Meter Vm (std ft^3)	Critical Orifice Vcr (std ft^3)
5.948	5.784
8.334	8.229
11.128	10.833
11.038	10.675

DRY GAS METER CALIBRATION FACTOR Y	
0.972	-0.003
0.987	0.01
0.973	0.00
0.967	-0.01

DRY GAS METER CALIBRATION FACTOR ΔH@	
1.681	-0.135
1.776	-0.041
1.834	0.017
1.974	0.16

Avg. Y 0.975

Avg. ΔH@ 1.816

Notes:

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

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

3) The minimum number of sample volume required per orifice is 5 cubic feet.

4) For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the a

5) For Orifice Calibration Factor ΔH@, the orifice differential pressure in inches of H_2O that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg acceptable tolerance of individual values from the average is ± 0.2.

Dry Gas Meter Thermocouple Calibration					
Ref. TC ID#	2131035	Inlet ID#:	80582-IN	Outlet ID#	80582-OUT
Ref. Source	Ref. °F	°F	Δ	°F	Δ
Amb. Air	70	71	-1	71	1
Hot Water	111	110	1	110	-1

Potentiometer Calibration		
Low	50 °F	51
Mid	450 °F	449
High	950 °F	950

Notes:

1) Hot Water to be in the range of 104 - 122 °F.

2) Tolerance allowed for all thermocouple individual readings : ± 5.4 °F

3) Tolerance allowed for all potentiometer individual readings : ± 2 °F

$$V_{m(std)} = 17.64\,(V_m)\frac{P_b + \frac{\Delta H}{13.6}}{T_m + 460}$$

$$V_{cr(std)} = K'\frac{P_b\theta}{\sqrt{T_{std} + 460}}$$

$$Y = \frac{V_{cr(std)}}{V_{m(std)}}$$

$$\Delta H_@ = \Delta H\left(\frac{.75\theta}{V_{cr(std)}}\right)^2$$

ENSR | AECOM

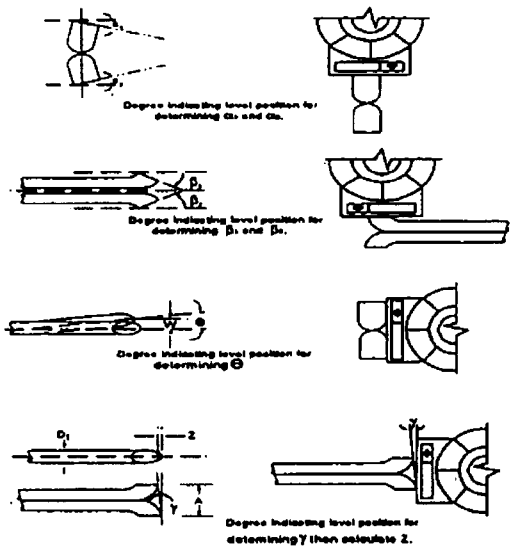
SAMPLE PROBE CALIBRATION DATA FORM

TYPE "S" PITOT TUBE ASSEMBLY AND NOZZLE

Thermocouple Calibration

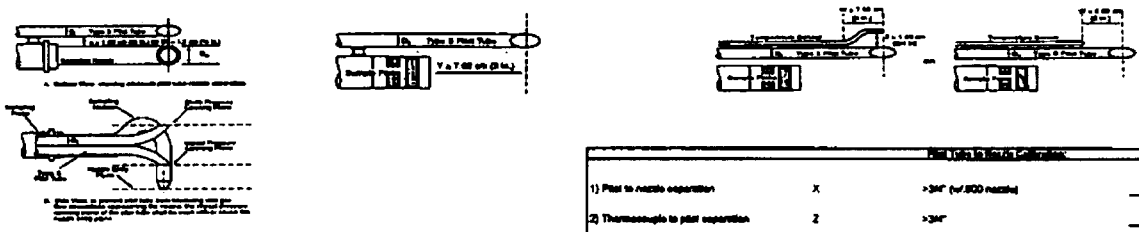
PROBE ID:	Reference Thermometer ID #:	ENSR RTD #2131035					Omega C1000, #06022200					Omega C1000, #06022200				
		Ice Bath					Boiling Water					Tube Furnace (200° - 500° F)				
M5-10'-A	Thermocouple ID#	Reference TC °F	Reference TC °R	TC Temp °F	TC Temp °R	Temp Difference ±1.5°F	Reference TC °F	Reference TC °R	TC Temp °F	TC Temp °R	Temp Difference ±1.5%	Reference TC °F	Reference TC °R	TC Temp °F	TC Temp °R	Temp Difference ±1.5%
Date: 1/9/2007	M5-10'-A	33	274	34	274	1	212	373	213	374	0.1	450	505	445	503	-0.6
		33	274	33	274	0	212	373	213	374	0.1	450	505	445	503	-0.6
Ambient Temperature (°F) 66		33	274	33	274	0	212	373	214	374	0.3	450	505	446	503	-0.5
Barometric Pressure (in Hg) 29.5	Average	33	274	33	274	0	212	373	213	374	0.2	450	505	445	503	-0.5

Type "S" Pitot Tube Calibration:



Level and Perpendicular	Yes
Obstruction	No
Damaged	No
α_1 ($-10° \le \alpha_1 \le +10°$)	0
α_2 ($-10° \le \alpha_2 \le +10°$)	0
β_1 ($-5° \le \beta_1 \le +5°$)	-2
β_2 ($-5° \le \beta_2 \le +5°$)	-3
γ	-3
Θ	0
$Z = A \tan \gamma$ ($\pm \le 0.125"$)	-0.050
$W = A \tan\Theta$ ($\pm \le 0.03125"$)	0.000
D_t ($3/16 \le D_t \le 3/8"$)	0.375
A	0.951
$A/2D_t$ ($1.05 \le P_A/D_t \le 1.5$)	1.27

Pitot Tube to Nozzle Calibration:



Pitot Tube to Nozzle Calibration			
1) Pitot to nozzle separation	X	>3/4" (w/.500 nozzle)	0.979
2) Thermocouple to pitot separation	Z	>3/4"	2.004
3) Pitot end to probe union distance	Y	>3.0"	3.277

Probe Information

Manufacturer: Apex

Date Received and placed in Service: pre-1995

Condition of Probe when placed in service: NEW USED RECONDITIONED (circle one)

QA/QC Check

Completeness _X_ Legibility _X_ Accuracy _X_ Specifications _X_ Reasonableness _X_

I certify that the Type S pitot tube/probe ID# M5-10'-A meets or exceeds all Specifications, criteria and/or applicable design features and is hereby assigned a pitot tube calibration factor C_p of 0.84

Certified by: James Ruckdeschel / 1-9-2007 — Personnel (Signature/Date)

Ryan Burns 1-9-2007 — Team Leader (Signature/Date)

All construction criteria for an isolated "S" type pitot are within given tolerances prescribed in Quality Assurance Handbook for Air Pollution Measurement Systems: Volume III, Stationary Source-Specific Methods. EPA/600/R-94/038a, September 1994

rev 08/P6

NOTES:

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Calibrator: Jarrod Hendley

Reference Thermometer: Fluke RTD 2131035

Filter Box Calibration

Hot Box #1

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:	20-Dec-06	
	Ambient	Hot
Reference Temperatures	69	249
Actual Temperatures	67	251
Temp Difference (tol. = +-2)	2	-2

Hot Box #2

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:		
	Ambient	Hot
Reference Temperatures		
Actual Temperatures		
Temp Difference (tol. = +-2)		

Hot Box #3

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:	20-Dec-06	
	Ambient	Hot
Reference Temperatures	70	248
Actual Temperatures	68	250
Temp Difference (tol. = +-2)	2	-2

Hot Box #4

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:	20-Dec-06	
	Ambient	Hot
Reference Temperatures	67	250
Actual Temperatures	66	252
Temp Difference (tol. = +-2)	1	-2

Hot Box #5

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:		
	Ambient	Hot
Reference Temperatures		
Actual Temperatures		
Temp Difference (tol. = +-2)		

Hot Box #6

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:	20-Dec-06	
	Ambient	Hot
Reference Temperatures	68	248
Actual Temperatures	70	250
Temp Difference (tol. = +-2)	-2	-2

Hot Box #7

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:		
	Ambient	Hot
Reference Temperatures		
Actual Temperatures		
Temp Difference (tol. = +-2)		

Hot Box #8

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:	20-Dec-06	
	Ambient	Hot
Reference Temperatures	68	250
Actual Temperatures	70	252
Temp Difference (tol. = +-2)	-2	-2

Hot Box #9

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:	21-Dec-06	
	Ambient	Hot
Reference Temperatures	69	250
Actual Temperatures	67	252
Temp Difference (tol. = +-2)	2	-2

Hot Box #10

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:		
	Ambient	Hot
Reference Temperatures		
Actual Temperatures		
Temp Difference (tol. = +-2)		

Hot Box #11

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:		
	Ambient	Hot
Reference Temperatures		
Actual Temperatures		
Temp Difference (tol. = +-2)		

Hot Box #12

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:	20-Dec-06	
	Ambient	Hot
Reference Temperatures	69	250
Actual Temperatures	69	252
Temp Difference (tol. = +-2)	0	-2

Hot Box #13

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:		
	Ambient	Hot
Reference Temperatures		
Actual Temperatures		
Temp Difference (tol. = +-2)		

Hot Box #14

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:	20-Dec-06	
	Ambient	Hot
Reference Temperatures	70	250
Actual Temperatures	70	251
Temp Difference (tol. = +-2)	0	-1

Hot Box #15

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:	20-Dec-06	
	Ambient	Hot
Reference Temperature	71	250
Actual Temperature	70	251
Temp Difference (tol. = +-2)	1	-1

Hot Box #16

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:	20-Dec-06	
	Ambient	Hot
Reference Temperatures	69	249
Actual Temperatures	68	251
Temp Difference (tol. = +-2)	1	-2

Hot Box #17

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:	20-Dec-06	
	Ambient	Hot
Reference Temperatures	70	250
Actual Temperatures	68	252
Temp Difference (tol. = +-2)	2	-2

Hot Box #18

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:	20-Dec-06	
	Ambient	Hot
Reference Temperatures	69	250
Actual Temperatures	68	252
Temp Difference (tol. = +-2)	1	-2

Hot Box #19

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:	20-Dec-06	
	Ambient	Hot
Reference Temperatures	69	248
Actual Temperatures	70	250
Temp Difference (tol. = +-2)	-1	-2

Hot Box #21

Manufacturer: Anderson NUTECH
Serial No.: N/A
Date received/placed in servic: Pre 1995

Calibration Date:	20-Dec-06	
	Ambient	Hot
Reference Temperatures	67	249
Actual Temperatures	68	251
Temp Difference (tol. = +-2)	-1	-2

ENSR | AECOM

Calibrator: Jarrod Hendley Reference Thermometer ID: DVM CCL050152417

Date: 12/22/2006

Last Impinger Thermocouple Calibration 2006

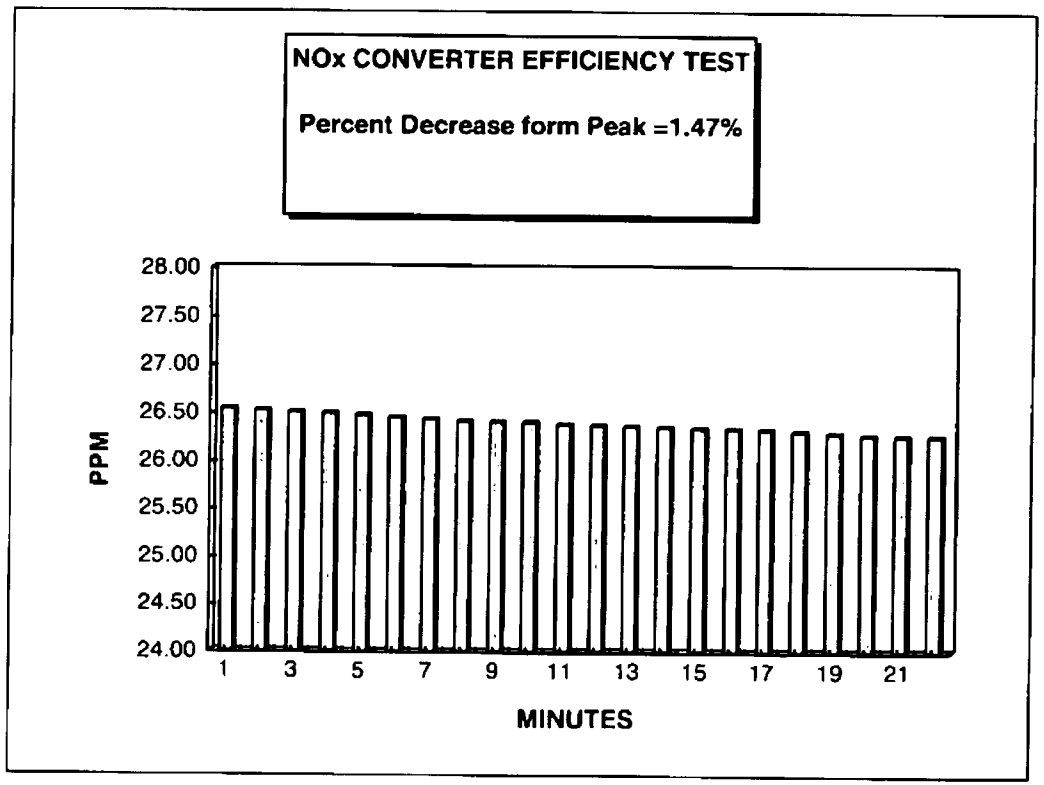
		Thermocouple	Reference	Difference (+/- 2°)			Thermocouple	Reference	Difference (+/- 2°)
LI-2	Hot	213	212	1	LI-21	Hot	213	212	1
	Cold	34	34	0		Cold	35	34	1
Manufacturer:		Anderson NUTECH			Manufacturer:		Anderson NUTECH		
Serial No.:					Serial No.:				
Date received/placed in service:		Pre 1990			Date received/placed in service:		Pre 1990		
LI-4	Hot			0	LI-22	Hot	213	211	2
	Cold			0		Cold	33	33	0
Manufacturer:		Anderson NUTECH			Manufacturer:				
Serial No.:					Serial No.:				
Date received/placed in service:		Pre 1990			Date received/placed in service:		Pre 1990		
LI-6	Hot			0	LI-23	Hot			0
	Cold			0		Cold			0
Manufacturer:		Anderson NUTECH			Manufacturer:		Anderson NUTECH		
Serial No.:					Serial No.:				
Date received/placed in service:		Pre 1990			Date received/placed in service:		Pre 1990		
LI-7	Hot	214	212	2	LI-24	Hot			0
	Cold	34	33	1		Cold			0
Manufacturer:		Anderson NUTECH			Manufacturer:		Anderson NUTECH		
Serial No.:					Serial No.:				
Date received/placed in service:		Pre 1990			Date received/placed in service:		Pre 1990		
LI-7 has no check valve used for impinger inlet									
LI-8	Hot	214	212	2	LI-25	Hot			0
	Cold	34	34	0		Cold			0
Manufacturer:		Anderson NUTECH			Manufacturer:		Anderson NUTECH		
Serial No.:					Serial No.:				
Date received/placed in service:		Pre 1990			Date received/placed in service:		Pre 1990		
LI-9	Hot			0	LI-26	Hot	212	211	1
	Cold			0		Cold	36	34	2
Manufacturer:		Anderson NUTECH			Manufacturer:		Anderson NUTECH		
Serial No.:					Serial No.:				
Date received/placed in service:		Pre 1990			Date received/placed in service:		Pre 1990		
LI-10	Hot	214	212	2	LI-27	Hot	211	211	0
	Cold	34	34	0		Cold	35	35	0
Manufacturer:					Manufacturer:		Anderson NUTECH		
Serial No.:					Serial No.:				
Date received/placed in service:		Pre 1990			Date received/placed in service:		Pre 1990		
LI-11	Hot			0	LI-28	Hot	214	212	2
	Cold			0		Cold	33	33	0
Manufacturer:		Anderson NUTECH			Manufacturer:		Anderson NUTECH		
Serial No.:					Serial No.:				
Date received/placed in service:		Pre 1990			Date received/placed in service:		Pre 1990		
LI-12	Hot			0	LI-29	Hot	213	211	2
	Cold			0		Cold	35	34	1
Manufacturer:		Anderson NUTECH			Manufacturer:		Anderson NUTECH		
Serial No.:					Serial No.:				
Date received/placed in service:		Pre 1990			Date received/placed in service:		Pre 1990		
LI-13	Hot			0	LI-5	Hot			0
	Cold			0		Cold			0
Manufacturer:		Anderson NUTECH			Manufacturer:		Anderson NUTECH		
Serial No.:					Serial No.:				
Date received/placed in service:		Pre 1990			Date received/placed in service:		Pre 1990		
LI-20	Hot	214	212	2	LI-14	Hot	214	212	2
	Cold	35	34	1		Cold	33	32	1
Manufacturer:		Anderson NUTECH			Manufacturer:		Anderson NUTECH		
Serial No.:					Serial No.:				
Date received/placed in service:		Pre 1990			Date received/placed in service:		Pre 1990		
LI-20 has no check valve used for impinger inlet									

ENSR CONSULTING & ENGINEERING
CEM MONITORING RESULTS
REFFERENCE METHOD 40 CFR 60 APP. A METHOD 7E PART 6.4

INSTRUMENT: TECO 42H
SERIAL #: 42H-41463-265
PERCENT DECREASE = 1.47

TEST: 30 minute CONV. EFFICIENCY Test
PEAK VALUE = 26.54
MINUMUM VALUE = 26.15

Date	Time	NOx ppm	Minutes
4-Dec-2007	18:04	26.54	1
4-Dec-2007	18;05	26.52	2
4-Dec-2007	18:06	26.50	3
4-Dec-2007	18:07	26.49	4
4-Dec-2007	18:08	26.47	5
4-Dec-2007	18:09	26.45	6
4-Dec-2007	18:10	26.43	7
4-Dec-2007	18:11	26.41	8
4-Dec-2007	18:12	26.40	9
4-Dec-2007	18:13	26.40	10
4-Dec-2007	18:14	26.38	11
4-Dec-2007	18:15	26.37	12
4-Dec-2007	18:16	26.36	13
4-Dec-2007	18:17	26.35	14
4-Dec-2007	18:18	26.34	15
4-Dec-2007	18:19	26.34	16
4-Dec-2007	18:21	26.33	17
4-Dec-2007	18:22	26.31	18
4-Dec-2007	18:23	26.29	19
4-Dec-2007	18:24	26.27	20
4-Dec-2007	18:25	26.26	21
4-Dec-2007	18:26	26.26	22
4-Dec-2007	18:27	26.24	23
4-Dec-2007	18:28	26.22	24
4-Dec-2007	18:29	26.21	25
4-Dec-2007	18:30	26.20	26
4-Dec-2007	18:31	26.19	27
4-Dec-2007	18:32	26.17	28
4-Dec-2007	18:34	26.17	29
4-Dec-2007	18:35	26.15	30



SPECTRUM SYSTEMS, INC.
NEUTRAL DENSITY FILTER CERTIFICATION

SET I.D.: AES - PUERTO RICO Spec. 41
FIRST CERT.: 05/31/02
LAST CERT. DATE: 10/27/05
CERT. DATE: 11/02/07

SERIAL NUMBER	ACCURACY	SPEC.41 CERTIFIED VALUE
SSA52	± .5%	13.55%
SSA53	± .5%	27.65%
SSA54	± .5%	46.58%

Single Pass Opacity @ .5 OPLR

[CERTIFICATION CHECK DATES]

05/31/02
10/13/03
10/18/04
10/27/05
10/23/06
11/02/07

[TEST EQUIPMENT]

DESCRIPTION	MANUFACTURER	MODEL #	SERIAL #
SPECTROPHOTOMETER HP8453	HEWLETT PACKARD	G1103A	74901261

The Calibration of the Spectrophotometer was verified using the following NIST standards: Test Reference Material 930e, Filter S/N# 10-2242, 20-2242 and 30-2242. Testing is in accordance with 40 CFR 60 PS-1, App. B.

NOTE: The Opacity of the filters named above have been weighed against the Spectral Response of the particular monitor/monitors named above. The Opacity of the filters could be different if used to challenge any other model of instrument.

Operator: Wayne Smith

Spectrum Systems, Inc., 3410 W. 9 Mile Road, Pensacola, FL 32526-7808
Specialists in Air Monitoring, Maintenance and Certification